State of Florida

Department of Transportation

Transportation Systems Management & Operations

DISTRICT FOUR

APPENDIX 3
95 EXPRESS LANES AND I-75 EXPRESS LANES PROJECT PLANS

Transportation Systems Management and Operations (TSM&O) Device Maintenance Contract, District Four

Financial Project Number(s): 406795-7-72-01 and various

Proposal/Contract Number: E4X61

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-4-52-01

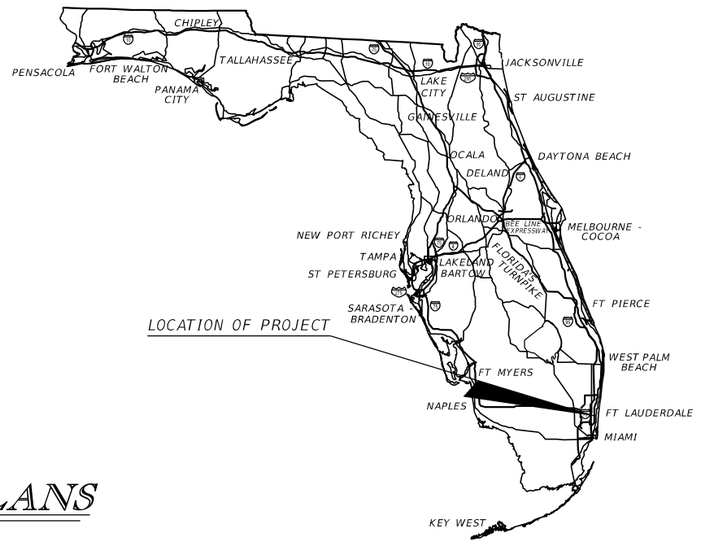
FINANCIAL PROJECT ID 428009-1-52-01

BROWARD COUNTY (86070)

(FEDERAL FUNDS)

STATE ROAD NO. 9

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



INDEX OF ITS PLANS

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IT-377 TO IT-465	ITS DEVICE CROSS SECTIONS
IT-466 TO IT-467	CANAL CROSSINGS

GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY 2015 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website:
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, 2015 Standard Specifications for Road and Bridge Construction at the following website:
http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

JARED KNIGHT, P.E.
P.E. LICENSE NUMBER 74758
VANASSE HANGEN BRUSTLIN, INC.
225 EAST ROBINSON STREET, SUITE 300
ORLANDO, FL 32801
CONTRACT NO. 000819
VENDOR NO. VF-042-931-679-001
CERTIFICATE OF AUTHORIZATION 3932

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q32	15	IT-156

RELEASED FOR CONSTRUCTION Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

JARED N. KNIGHT LICENSE No 74758 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Jared N Knight

Digitally signed by Jared N Knight
DN: c=US, o=VHB, ou=VHB, cn=Jared N Knight, 0.9.2342.19200300.100.1.1=A01017C000001517E407F7B00004F8A
Date: 2018.03.12 10:13:45 -04'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

VANASSE HANGEN & BRUSTLIN, INC.
225 E ROBINSON ST., SUITE 300
ORLANDO, FLORIDA 32801
CERTIFICATE OF AUTHORIZATION NO. 3932
JARED N. KNIGHT, P.E. NO. 74758

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

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IT-377 TO IT-465	ITS DEVICE CROSS SECTIONS
IT-466 TO IT-467	CANAL CROSSINGS

Digitally signed by Javier Manso
Reason: Corridor Design Consultant (HDR) - This serves as confirmation that the comments have been satisfactorily resolved
Date: 2018.03.20 16:04:45-04'00'

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction
2018.03.21 08:26:50-04'00'

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4G32

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SIGNATURE SHEET

SHEET NO. IT-157

dbrazeal 1/10/2018 11:12:31 AM \\vhb\proj\Orlando\62442.00 I-95 Express 3A-1\cad\te\E4032\its\KEYSIT01.DGN

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-175**		IT-176		IT-177		IT-178*		IT-179*		IT-180*		IT-181*		IT-182*		IT-183*		IT-184*		IT-185*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1435		110		540		1360		1810		1370		440		725		855		100		390		9135			
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	56						543		660		1125		160		200		748		215		280		3987			
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF			1470		540				340		30						100						2480			
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF									570														570			
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	441		520		570		2866		4440		1200				1350		2249		250		630		14516			
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																										
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF									900														900			
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF							100		100														200			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	4		4						28		8				16		24		4		8		96			
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	1								1		2				3		1				1		9			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	1		1						4		2				2		3				1		14			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA																										
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA			1						1								1		1				4			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF			1920				880		1240		1865		600						250		240		6995			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	3		4		5		4		14		16				5		9		6		1		67			
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	2		2		4		3		2		3				2		2		1		1		22			
635-2-13	PULL & SPLICE BOX, 60"X30" RECTANGULAR	EA	1								2								1						4			
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA			3						9		2						1						15			
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS															1								1			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS							1		1														2			
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	1491		640		720		1773		1300		140				920		1203		100		835		9122			
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF	1250																						1250			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																	1						1			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																	1						1			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA																										
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA																	1						1			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA															1								1			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA							1																1			
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA									1														1			
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA											1								1				2			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA									1														1			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA	1						1		1		3				2								8			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																	2				2		4			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																										
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																										
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA											1												1			
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA							1				2								2				5			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS							2				4								4				10			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA									2		4								3				9			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS							4		8		10						4		8				34			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA									2				2		5		2				2		13			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA									2				2		5		2				2		13			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA			1				1																2			
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA			2				2																4			
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA			1				1																2			
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA							1		1												1		3			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-158A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
BY: (FDOT) VS Date: 3/21/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-175		IT-176		IT-177		IT-178*		IT-179*		IT-180*		IT-181*		IT-182*		IT-183*		IT-184*		IT-185*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA																										
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA	1		1				1		1		3						2				1		10			
682-1-400	ITS CCTV CAMERA, RELOCATE	EA			1																				1			
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA																										
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA			2																				2			
684-7	MANAGED ETHERNET HUB SWITCH	EA																										
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA																										
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS															1		1						2			
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS																										
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS									4		1						1						6			
700-2-60	MULTI-POST SIGN, REMOVE	AS																										
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA							1				2								2				5			
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA			2				2																4			
700-7-600	EMBEDDED DMS, REMOVE	EA									3						3								6			
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA					1				1														2			
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-8-600	FRONT ACCESS DMS, REMOVE	EA							1				1						1						3			
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-9-500	WALK-IN DMS, RELOCATE	EA																					1		1			
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS									4		1				1		2						8			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE: 630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE: 630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-158B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-186*		IT-187*		IT-188*		IT-189		IT-190		IT-191		IT-192		IT-193		IT-194*		IT-195*		IT-196*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	610		1639		1210				290		355		195		2850		2235		2605		1510		13499			
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	400		390		520				310		790		320		40		560		1659		480		5469			
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF			60														15		13				88			
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF			160														1350						1510			
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1520		380		1620				900		1650		690		430		435		500		655		8780			
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF													635		1820		1860		2519		2040		8874			
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF			159		1770								1525		5550		5520		6568		4080		25172			
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF															8400		8400				8400		25200			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	16		4		98				8		12		386		16		16		46		12		614			
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	2		1		3				1		2		5		4		4		7		3		32			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	3		1		10				1		2		34		4		3		7		3		68			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA					1																		1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA	1																						1			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF	420		1750		80				290						380		1155		300		800		5175			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	10		7		9				3		7		3		9		14		27		10		99			
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	4		1		2				2		4		1		2		3		4		3		26			
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA					3								1		4		3		5		3		19			
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA			4														1		1				6			
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS											1								1				2			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																										
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	834		390		1480				890		1655		825		3360		3325		3870		1470		18099			
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF															2800		2800				1400		7000			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																										
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA													1										1			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA																										
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA											1								1				2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA	1				2				1												1		5			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA			2																				2			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA					1												2				2		5			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA			2						1				2		1				1				7			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA			1																1				2			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																			1				1			
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA															1				1				2			
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA							1				1								1				3			
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA	1				1												1		1		1		5			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS	2				2												2		2		2		10			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA	2				3												2		2		3		12			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	4				4												4		8		8		28			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA	1																						1			
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA	1																						1			
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA			1																				1			
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA			1																				1			
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																										
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA													1										1			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-159A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
BY: (FDOT) VS Date: 3/21/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																						TOTAL THIS SHEET		GRAND TOTAL	
			IT-186**		IT-187*		IT-188*		IT-189		IT-190		IT-191		IT-192		IT-193		IT-194*		IT-195*		IT-196*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA																										
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA			3		2								2		2		2		5		3		19			
682-1-400	ITS CCTV CAMERA, RELOCATE	EA																										
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA																										
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA																			3				3			
684-7	MANAGED ETHERNET HUB SWITCH	EA																										
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA																										
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS																										
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS			2																				2			
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS																	1		3				4			
700-2-60	MULTI-POST SIGN, REMOVE	AS																										
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA																	1		1				2			
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA											1				2				1				4			
700-7-600	EMBEDDED DMS, REMOVE	EA																										
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA											2						2				1		5			
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA	1		1																				2			
700-8-600	FRONT ACCESS DMS, REMOVE	EA																										
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-9-500	WALK-IN DMS, RELOCATE	EA															1								1			
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS			2														1		3				6			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13,
660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO.
IT-159B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																						TOTAL THIS SHEET		GRAND TOTAL	
			IT-197*		IT-198		IT-199		IT-200*		IT-201*		IT-202*		IT-203		IT-204		IT-205		IT-206		IT-207					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1380		1100		2010		1987		2625		1815		1325		530		870		880		710		15232			
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	1287		1050		975		715		1130		575				490		340		200		115		6877			
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF																										
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																										
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1650		1650		920		870		1645		1740				1870								10345			
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF	2747		1660		2665		1820		1165														10057			
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF	3964		3320		5110		3640		4920		2710		925				970		530				26089			
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF	9055		8400		882		9800		6025		1400		825		440								36827			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	28		8		40		16		164		24		50		24								354			
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	4		1		3		2		6		4		1		1								22			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	4		1		4		3		6		4		4		2								28			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA									1														1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																										
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF					200		850		1585		955												3590			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	5		3		9		12		31		16		1		9		6		5		3		100			
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	3		2		5		4		7		4				4								29			
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA	3		1		1		2		7		6		1		1		1		1				24			
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																										
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS									1														1			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																										
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	2482		2150		2675		2259		3380		2800				880								16626			
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF	1400		1400		560				1150		1400												5910			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA															1								1			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																										
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA															1								1			
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA									1						1								2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA											1												1			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA	1				1				1														3			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA									1		1												2			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA	1				1										1								3			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA					1		1		1		1				1								5			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA	1		1						1														3			
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA	2		1				2		1		1												7			
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																										
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA							1		1		1												3			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS							2		2		2												6			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA							2		2		2												6			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS							4		12		4						2		4				26			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA	4		2		2		2		2		4												16			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA	4		2		2		3		2		4												17			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																										
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																										
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																										
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA																										

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-160A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-197*		IT-198		IT-199		IT-200*		IT-201*		IT-202*		IT-203		IT-204		IT-205		IT-206		IT-207					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA																										
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA	1		1				2		6		4				2								16			
682-1-400	ITS CCTV CAMERA, RELOCATE	EA																										
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA																										
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA					2																		2			
684-7	MANAGED ETHERNET HUB SWITCH	EA																										
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA																										
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS															1		2		2				5			
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS																										
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS									3												1		4			
700-2-60	MULTI-POST SIGN, REMOVE	AS																										
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA							1		1		1												3			
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA															4								4			
700-7-600	EMBEDDED DMS, REMOVE	EA																										
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA																										
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-8-600	FRONT ACCESS DMS, REMOVE	EA																										
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA							1				1												2			
700-9-500	WALK-IN DMS, RELOCATE	EA																										
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS									3								2		2		1		8			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE: 630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE: 630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-160B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																						TOTAL THIS SHEET		GRAND TOTAL	
			IT-208*		IT-209		IT-210		IT-211		IT-212		IT-213*		IT-214*		IT-215*		IT-216		IT-217*		IT-218*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF																										
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF																										
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF																										
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																										
632-7-1	SIGNAL CABLE- NEW, F&I	PI															2		5		1		4		12			
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF																										
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																										
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF																										
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF																										
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA																										
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA																										
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA																										
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA	31		8		4		6		9		3		1		4		5		2		4		77			
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA																										
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																										
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF																										
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA																										
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA																										
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA																										
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																										
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS																										
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																										
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF																										
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																										
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	31		8		4		6		11		3		1		4		5		1		4		78			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																										
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA	31		8		4		6		11		3		1		4		5		1		4		78			
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA					2		6		11						2		5						26			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA																										
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA																										
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA																										
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA																										
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																										
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																										
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																										
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																										
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA																										
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS																										
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA																										
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS																										
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA															2		5		1		4		12			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA																										
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																										
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																										
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA															2		5		1		4		12			
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA					2								1										3			
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA	31		8		2																		41			
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA					2																		2			
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA							6		11		3		2		6		5		3		4		40			
676-2-600	ITS CABINET, REMOVE	EA																										

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-161A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
BY: (FDOT) VS Date: 3/21/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-208*		IT-209		IT-210		IT-211		IT-212		IT-213*		IT-214*		IT-215*		IT-216		IT-217*		IT-218*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA																										
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA																										
682-1-400	ITS CCTV CAMERA, RELOCATE	EA																										
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA	31		8		4		6		9		3		1		4		5		2		4		77			
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA																										
684-7	MANAGED ETHERNET HUB SWITCH	EA																										
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA	31		8		4		6		11		3		2		6		5		3		4		83			
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS																										
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS																										
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS																										
700-2-60	MULTI-POST SIGN, REMOVE	AS																										
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA																										
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA																										
700-7-600	EMBEDDED DMS, REMOVE	EA																										
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA																										
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-8-600	FRONT ACCESS DMS, REMOVE	EA																										
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-9-500	WALK-IN DMS, RELOCATE	EA																										
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS																										

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13,
660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO.
IT-161B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT), VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																						TOTAL THIS SHEET		GRAND TOTAL	
			IT-219		IT-220		IT-221		IT-222																			
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF																									37866	
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF																									16333	
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF																									2568	
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																									2080	
632-7-1	SIGNAL CABLE- NEW, F&I	PI																									12	
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF																									33641	
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																									18931	
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF																									52161	
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF																									62227	
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA																									1064	
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA																									63	
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA																									110	
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																									77	
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA							4																4		6	
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																									5	
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF																									15760	
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA			4		4		4																12		278	
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA																									77	
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA																									47	
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																									21	
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS																									4	
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																									2	
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF																									43847	
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																									14160	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA			5		5		5																15		95	
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA			1		1		1																3		3	
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																									2	
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA			2		2		2																6		85	
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA			4		4		4																12		43	
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA																									7	
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																									1	
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																									1	
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA																									7	
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA																									8	
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA																									18	
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																									11	
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																									4	
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																									9	
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																									4	
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA																									13	
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS																									26	
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA																									27	
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS																									88	
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA																									55	
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA																									44	
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																									3	
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																									5	
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																									1	
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																									1	
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																									12	
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																									5	
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																									41	
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																									2	
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																									40	
676-2-600	ITS CABINET, REMOVE	EA																									4	

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-162A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT)_VS_____ Date: 3/21/2018_____
FPID 433108-4-52-01 CONTRACT E4Q32

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																						TOTAL THIS SHEET		GRAND TOTAL	
			IT-219		IT-220		IT-221		IT-222																			
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA							1																1		1	
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA																									45	
682-1-400	ITS CCTV CAMERA, RELOCATE	EA																									1	
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA																									77	
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA																									7	
684-7	MANAGED ETHERNET HUB SWITCH	EA							1																1		1	
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA																									83	
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS																									7	
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS																									2	
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS																									14	
700-2-60	MULTI-POST SIGN, REMOVE	AS																										
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA																									10	
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA																									12	
700-7-600	EMBEDDED DMS, REMOVE	EA																									6	
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA																									7	
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																									2	
700-8-600	FRONT ACCESS DMS, REMOVE	EA																									3	
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																									2	
700-9-500	WALK-IN DMS, RELOCATE	EA																									2	
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS																									22	

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13,
660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO.
IT-162B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

	DEVICE	STATION	LOCAL HUB	NO. OF CCTV'S	DIRECTED TOWARDS	PLAN SHEET
1	CCTV 95-25.28 NB	1927+00	LHUB 95-25.28 NB	1	T-DMS 95-25.58 NB	IT-175
2	CCTV 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	S-DMS 95-25.98 NB	IT-176
3	CCTV 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	MAINLINE	IT-176
4	CCTV 95-26.06 NB	1968+90	LHUB 95-26.09 NB	1	T-DMS 95-26.13 NB	IT-178
5	CCTV 95-26.30 NB	1980+90	LHUB 95-26.30 NB	1	S-DMS 95-26.44 NB	IT-179
6	CCTV 95-26.38 SB	1984+40	RSC 95-26.38 SB	1	RAMP A	IT-179
7	CCTV 95-26.44 EB/WB	1988+31	LHUB 95-26.30 NB	1	DAVIE BLVD	IT-179
8	CCTV 95-26.59 NB	1996+10	RSC 95-26.59 NB	1	RAMP	IT-180
9	CCTV 95-26.63 SB	1998+70	LHUB 95-26.63 SB	1	MAINLINE	IT-180
10	CCTV 95-26.71 NB	2002+80	RSC 95-26.71 NB	1	SUPPLEMENTAL	IT-180
11	CCTV 95-26.83 SB	2009+05	LHUB 95-26.83 SB	1	RAMP E	IT-181
12	CCTV 95-27.30 NB	2034+60	LHUB 95-27.30 NB	1	MAINLINE	IT-182
13	CCTV 95-27.36 SB	2036+83	LHUB 95-27.36 SB	1	MAINLINE	IT-183
14	CCTV 95-27.41 SB	2039+50	LHUB 95-27.36 SB	1	SUPPLEMENTAL	IT-183
15	CCTV P&R-1		LHUB P&R-1	1	T-DMS P&R-1	IT-183
16	CCTV 95-27.50 NB	2044+50	LHUB 95-27.50 NB	1	RAMP G	IT-183
17	CCTV 95-27.53 SB	2046+00	LHUB 95-27.53 SB	1	MAINLINE	IT-183
18	CCTV 95-27.65 NB	2052+26	LHUB 95-27.65 NB	1	MAINLINE	IT-184
19	CCTV 95-28.10 NB	2076+00	LHUB 95-28.10 NB	1	MAINLINE	IT-185
20	CCTV 95-28.30 SB	2086+85	LHUB 95-28.30 SB	1	MAINLINE	IT-186
21	CCTV 95-28.47 SB	2095+60	LHUB 95-28.47 SB	1	RAMP I	IT-187
22	CCTV 95-28.63 NB	2104+20	LHUB 95-28.63 NB	1	MAINLINE	IT-187
23	CCTV 95-28.63 NB	2104+15	LHUB 95-28.63 NB	1	RAMP K-1	IT-187
24	CCTV 95-28.69 NB	2107+00	RSC 95-28.69 NB	1	TOLL PLAZA	IT-188
25	CCTV 95-28.69 NB	2107+00	RSC 95-28.69 NB	1	FUTURE T-DMS	IT-188
26	CCTV 95-29.11 SB	2129+25	LHUB 95-29.11 SB	1	MAINLINE	IT-189
27	CCTV 95-29.58 SB	2154+40	LHUB 95-29.58 SB	1	T-DMS 95-29.50 SB	IT-191
28	CCTV 95-29.58 SB	2154+40	LHUB 95-29.58 SB	1	S-DMS 95-29.33 SB	IT-191
29	CCTV 95-29.58 NB	2154+40	LHUB 95-29.58 NB	1	MAINLINE	IT-191
30	CCTV 95-29.83 SB	2167+60	LHUB 95-29.83 SB	1	S-DMS 95-29.68 SB	IT-192
31	CCTV 95-29.83 NB	2167+40	LHUB 95-29.83 NB	1	EX. DMS 95-29.99 NB	IT-192
32	CCTV 95-30.08 SB	2180+70	LHUB 95-30.05 SB	1	MAINLINE	IT-193
33	CCTV 95-30.08 NB	2180+70	LHUB 95-30.08 NB	1	T-DMS 95-30.16 NB	IT-193
34	CCTV 95-30.33 SB	2194+00	LHUB 95-30.33 SB	1	T-DMS 95-30.14 SB	IT-194
35	CCTV 95-30.33 NB	2193+70	LHUB 95-30.33 NB	1	S-DMS 95-30.45 NB	IT-194
36	CCTV 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	RAMP M	IT-195
37	CCTV 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	S-DMS 95-30.30 SB	IT-195
38	CCTV 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	MAINLINE	IT-195
39	CCTV 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	T-DMS 95-30.75 NB	IT-195
40	CCTV 95-30.78 SB	2217+45	RSC 95-30.78 SB	1	RAMP P-2	IT-195
41	CCTV 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	S-DMS 95-30.90 NB	IT-196
42	CCTV 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	RAMP O-2	IT-196
43	CCTV 95-30.87 NB	2223+00	LHUB 95.30.86 NB	1	RAMP O-1	IT-196
44	CCTV 95-31.08 SB	2234+00	LHUB 95-31.08 SB	1	MAINLINE	IT-197
45	CCTV 95-31.54 NB	2258+00	LHUB 95-31.54 NB	1	MAINLINE	IT-198
46	CCTV 95-31.76 SB	2269+50	LHUB 95-31.76 SB	1	FUTURE T-DMS	IT-199
47	CCTV 95-31.95 SB	2280+50	LHUB 95-31.95 SB	1	MAINLINE	IT-200
48	CCTV 95-32.08 SB	2286+00	RSC 95-32.08 SB	1	RAMP U	IT-200
49	CCTV 95-32.14 SB	2289+20	LHUB 95-32.14 SB	1	EL-DMS 95-32.06 SB	IT-201
50	CCTV 95-32.17 NB	2291+00	LHUB 95-32.17 NB	1	TOLL PLAZA	IT-201
51	CCTV 95-32.27 SB	2296+30	LHUB 95-32.27 SB	1	MHUB 95-32.26	IT-201
52	CCTV 95-32.27 SB	2296+30	LHUB 95-32.27 SB	1	RAMP Q	IT-201
53	CCTV 95-32.35 NB	2300+75	LHUB 95-32.35 NB	1	TOLL PLAZA SUPPLEMENT	IT-201
54	CCTV 95-32.35 NB	2300+75	LHUB 95-32.35 NB	1	RAMP U	IT-201
55	CCTV 95-32.39 SB	2302+40	LHUB 95-32.39 SB	1	RAMP T	IT-202
56	CCTV 95-32.39 NB	2302+80	LHUB 95-32.39 NB	1	MAINLINE	IT-202
57	CCTV 95-32.39 NB	2302+80	LHUB 95-32.39 NB	1	RAMP S	IT-202
58	CCTV 95-32.64 SB	2315+90	LHUB 95-32.64 SB	1	FUTURE T-DMS	IT-202
59	CCTV P&R-3	130+25	LHUB P&R-3	1	T-DMS P&R-3	IT-204
60	CCTV P&R-4	132+20	LHUB P&R-4	1	T-DMS P&R-4	IT-204

	DEVICE	STATION	LOCAL HUB	NO. OF WAP'S	PLAN SHEET
1	WAP 95-25.23 NB	1924+80	LHUB 95-25.23 NB	1	IT-175
2	WAP 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	IT-176
3	WAP 95-26.44 EB/WB	1988+31	LHUB 95-26.41 NB	2	IT-179
4	WAP P&R-1		LHUB P&R-1	1	IT-183
5	WAP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	3	IT-183
6	WAP 95-28.30 SB	2086+85	LHUB 95-28.30 SB	2	IT-186
7	WAP 95-30.70 NB	2213+55	LHUB 95-30.70 NB	2	IT-195
8	WAP 95-31.76 SB	2269+50	LHUB 95-31.76	1	IT-199
9	WAP 95-32.32 SB	2298+95	LHUB 95-32.35 NB	2	IT-201

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	T-DMS 95-25.58 NB	1943+30	LHUB 95-25.63 NB	IT-176
2	S-DMS 95-25.98 NB	1963+80	LHUB 95-25.93 NB	IT-177
3	T-DMS 95-26.13 NB	1972+44	LHUB 95-26.09 NB	IT-178
4	S-DMS 95-26.44 NB	1988+30	LHUB 95-26.41 NB	IT-179
5	DMS 95-26.55 SB	1994+18	LHUB 95-26.55 SB	IT-180
6	DMS 95-27.41 NB	2039+80	LHUB 95-27.41 NB	IT-183
7	DMS 95-28.10 SB	2076+10	LHUB 95-28.16 SB	IT-185
8	EL-DMS 95-28.33 NB	2088+00	LHUB 95-28.29 NB	IT-186
9	EL-DMS 95-28.53 SB	2098+90	LHUB 95-28.56 SB	IT-187
10	S-DMS 95-29.33 SB	2141+24	LHUB 95-29.27 SB	IT-190
11	T-DMS 95-29.50 SB	2149+90	LHUB 95-29.51 SB	IT-191
12	S-DMS 95-29.68 SB	2159+60	LHUB 95-29.63 NB	IT-191
13	S-DMS 95-29.68 NB	2159+71	LHUB 95-29.71 SB	IT-191
14	DMS 95-29.99 SB	2175+60	LHUB 95-29.99 SB	IT-192
15	DMS 95-29.99 NB	2176+10	LHUB 95-29.95 NB	IT-192
16	T-DMS 95-30.14 SB	2183+95	LHUB 95-30.20 SB	IT-193
17	T-DMS 95-30.16 NB	2184+80	LHUB 95-30.12 NB	IT-193
18	S-DMS 95-30.3 SB	2192+00	LHUB 95-30.33 SB	IT-194
19	S-DMS 95-30.45 NB	2200+00	LHUB 95-30.41 NB	IT-194
20	T-DMS 95-30.75 NB	2215+80	LHUB 95-30.70 NB	IT-195
21	S-DMS 95-30.9 NB	2224+00	LHUB 95-30.86 NB	IT-196
22	EL-DMS 95-32.06 SB	2285+00	LHUB 95-32.09 SB	IT-200
23	DMS 95-32.58 NB	2313+00	LHUB 95-32.55 NB	IT-202
24	T-DMS P&R-3	130+25	LHUB P&R-3	IT-204
25	T-DMS P&R-4	132+20	LHUB P&R-4	IT-204

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	GEN 95-27.43 NB	2040+92	GEN 95-27.43 NB	IT-183
2	GEN 95-29.58 NB	2154+40	GEN 95-29.58 NB	IT-191
3	GEN 95-32.26 SB	2295+50	GEN 95-32.26 SB	IT-201

RELEASED FOR CONSTRUCTION BY: (FDOT)_VS_____ Date: 3/21/2018_____
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FPID 433108-4-52-01 CONTRACT E4Q32

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SUMMARY OF DEVICES

SHEET NO. IT-163

	DEVICE	STATION	LOCAL HUB	NO. OF MVDS'S	PLAN SHEET
1	MVDS 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	IT-176
2	MVDS 95-25.58 SB	1943+30	LHUB 95-25.63 NB	1	IT-176
3	MVDS 95-26.13 NB	1972+44	LHUB 95-26.09 NB	1	IT-178
4	MVDS 95-26.13 SB	1972+44	LHUB 95-26.09 NB	1	IT-178
5	MVDS 95-26.30 NB	1980+90	LHUB 95-26.30 NB	1	IT-179
6	MVDS 95-26.47 NB	1990+15	LHUB 95-26.47 NB	2	IT-180
7	MVDS 95-26.86 SB	2010+60	LHUB 95-26.86 SB	2	IT-181
8	MVDS 95-26.86 NB	2010+60	LHUB 95-26.86 NB	2	IT-181
9	MVDS 95-27.10 SB	2023+50	LHUB 95-27.10 SB	2	IT-182
10	MVDS 95-27.13 NB	2024+90	LHUB 95-27.13 NB	1	IT-182
11	MVDS 95-27.20 NB	2028+70	LHUB 95-27.20 SB	4	IT-182
12	MVDS 95-27.30 SB	2033+70	LHUB 95-27.30 SB	2	IT-182
13	MVDS 95-27.30 NB	2034+60	LHUB 95-27.30 NB	1	IT-182
14	MVDS 95-27.50 NB	2044+50	LHUB 95-27.50 NB	1	IT-183
15	MVDS 95-27.53 SB	2046+00	LHUB 95-27.53 SB	1	IT-183
16	MVDS 95-27.65 NB	2052+26	LHUB 95-27.65 NB	2	IT-184
17	MVDS 95-27.95 SB	2068+00	LHUB 95-27.95 SB	1	IT-185
18	MVDS 95-27.95 NB	2067+65	LHUB 95-27.98 NB	1	IT-185
19	MVDS 95-28.10 SB	2076+00	LHUB 95-28.10 SB	1	IT-185
20	MVDS 95-28.10 NB	2076+00	LHUB 95-28.10 NB	1	IT-185
21	MVDS 95-28.30 SB	2086+85	LHUB 95-28.30 SB	1	IT-186
22	MVDS 95-28.31 NB	2087+19	LHUB 95-28.31 NB	1	IT-186
23	MVDS 95-28.56 SB	2100+20	LHUB 95-28.56 SB	1	IT-187
24	MVDS 95-28.56 NB	2100+20	LHUB 95-28.56 NB	1	IT-187
25	MVDS 95-28.82 NB	2114+00	LHUB 95-28.82 NB	1	IT-188
26	MVDS 95-28.85 SB	2115+60	LHUB 95-28.85 SB	1	IT-188
27	MVDS 95-29.11 SB	2129+25	LHUB 95-29.11 SB	1	IT-189
28	MVDS 95-29.10 NB	2128+80	LHUB 95-29.10 NB	1	IT-189
29	MVDS 95-29.33 SB	2141+00	LHUB 95-29.27 SB	1	IT-190
30	MVDS 95-29.33 NB	2141+20	LHUB 95-29.33 NB	1	IT-190
31	MVDS 95-29.58 NB	2154+40	LHUB 95-29.58 NB	1	IT-191
32	MVDS 95-29.58 SB	2154+40	LHUB 95-29.58 SB	1	IT-191
33	MVDS 95-29.83 SB	2167+60	LHUB 95-29.83 SB	1	IT-192
34	MVDS 95-29.83 NB	2167+40	LHUB 95-29.83 NB	1	IT-192
35	MVDS 95-30.08 SB	2180+70	LHUB 95-30.05 SB	1	IT-193
36	MVDS 95-30.08 NB	2180+70	LHUB 95-30.08 NB	1	IT-193
37	MVDS 95-30.33 SB	2194+00	LHUB 95-30.33 SB	1	IT-194
38	MVDS 95-30.33 NB	2193+70	LHUB 95-30.33 NB	1	IT-194
39	MVDS 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	IT-195

	DEVICE	STATION	LOCAL HUB	NO. OF MVDS'S	PLAN SHEET
40	MVDS 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	IT-195
41	MVDS 95-30.83 SB	2220+15	LHUB 95-30.83 SB	1	IT-196
42	MVDS 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	IT-196
43	MVDS 95-31.08 SB	2234+00	LHUB 95-31.08 SB	1	IT-197
44	MVDS 95-31.08 NB	2233+40	LHUB 95-31.08 NB	1	IT-197
45	MVDS 95-31.28 SB	2243+75	LHUB 95-31.28 SB	1	IT-197
46	MVDS 95-31.28 NB	2243+95	LHUB 95-31.28 NB	1	IT-197
47	MVDS 95-31.54 SB	2257+70	LHUB 95-31.54 SB	1	IT-198
48	MVDS 95-31.54 NB	2258+00	LHUB 95-31.54 NB	1	IT-198
49	MVDS 95-31.76 SB	2269+50	LHUB 95-31.76 SB	1	IT-199
50	MVDS 95-31.76 NB	2269+20	LHUB 95-31.76 NB	1	IT-199
51	MVDS 95-31.95 SB	2280+50	LHUB 95-31.95 SB	1	IT-200
52	MVDS 95-31.95 NB	2279+50	LHUB 95-31.81 NB	2	IT-200
53	MVDS 95-32.14 SB	2289+20	LHUB 95-32.14 SB	1	IT-201
54	MVDS 95-32.17 NB	2291+00	LHUB 95-32.17 NB	1	IT-201
55	MVDS 95-32.39 SB	2302+40	LHUB 95-32.39 SB	1	IT-202
56	MVDS 95-32.39 NB	2302+80	LHUB 95-32.39 NB	1	IT-202
57	MVDS 95-32.64 SB	2315+90	LHUB 95-32.64 SB	1	IT-202
58	MVDS 95-32.64 NB	2315+85	LHUB 95-32.64 NB	1	IT-202

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	VOIP 95-26.30 NB	1980+90	LHUB 95-26.30 NB	IT-179
2	VOIP 95-25.58 NB	1943+30	LHUB 95-25.63 NB	IT-176
3	VOIP 95-26.55 SB	1994+18	LHUB 95-26.55 SB	IT-180
4	VOIP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	IT-183
5	VOIP 95-28.30 SB	2086+85	LHUB 95-28.30 SB	IT-186
6	VOIP 95-29.11 SB	2129+25	LHUB 95-29.11 SB	IT-189
7	VOIP 95-29.58 SB	2154+40	LHUB 95-29.58 SB	IT-191
8	VOIP 95-30.70 NB	2213+55	LHUB 95-30.70 NB	IT-195
9	VOIP 95-31.76 SB	2269+50	LHUB 95-31.76 SB	IT-199

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SUMMARY OF DEVICES

SHEET NO. IT-164

RELEASED FOR CONSTRUCTION
BY: (FDOT)_VS_____ Date: 3/21/2018_____
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL:

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OF THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS. NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.

2. IN ORDER TO MINIMIZE IMPACT TO LANDSCAPING MATERIAL, EXERCISE CAUTION THROUGH LANDSCAPING LIMITS DURING ALL PHASES OF CONSTRUCTION ACTIVITY.

3. PULLING INSTRUCTIONS FOR POWER CONDUCTORS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURES REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURES REQUIREMENTS.

4. ALL ELECTRICAL EQUIPMENT SHALL BE WEATHER RESISTANT.

5. AVOID AND/OR PROTECT ALL TREES AND ROOTS BY HAND DIGGING AS NECESSARY.

6. AT LOCATIONS NEAR REINFORCED EARTH WALLS AND EXISTING BARRIER WALLS, THE CONTRACTOR IS TO ASSURE THAT THE WALL IS NOT UNDERMINED DURING FOUNDATION EXCAVATION AND INSTALLATION. METHODS USED TO SHORE UP WALLS SHALL BE APPROVED BY THE ENGINEER.

7. PLAN DIMENSIONS OF POLES AND STRUCTURES ARE TO THE CENTER OF POLES/UPRIGHTS, CABINETS AND PULL BOXES ARE DIMENSIONED TO THE CENTER. THE LOCATION OF ALL PROPOSED EQUIPMENT TO BE INSTALLED SHALL BE CONSIDERED TO BE APPROXIMATE. ADJUSTMENTS MAY BECOME NECESSARY, VARIATIONS FROM THE PROPOSED LOCATIONS MUST BE VERIFIED WITH THE ENGINEER.

8. THE CONTRACTOR SHALL PLACE EARTH AROUND THE TOP OF THE FOUNDATION AND FEATHER EARTH TO MATCH EXISTING GRADE AND/OR SLOPE. LANDSCAPING SHALL BE RESTORED (AT A MINIMUM) TO EXISTING CONDITIONS.

9. ANY MATERIAL TO BE STOCK PILED FOR PERIODS GREATER THAN 24 HRS SHALL BE PROTECTED BY APPROPRIATE EROSION CONTROL DEVICES (IF REQUIRED).

10. THE COST OF FIBER OPTIC PULL BOX AND SPLICE VAULT REMOVAL SHALL BE INCLUDED IN CLEARING AND GRUBBING.

CONDUIT:

1. MINIMUM REQUIRED CONDUIT BURY DEPTHS SHALL BE MAINTAINED WHERE CONFLICTS OCCUR WITH DRAINAGE OR OTHER UTILITIES PER THESE PLANS.

2. ALL CONDUIT TRENCHES SHALL BE BACK FILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF THE WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE. DO NOT OPEN ANY AREA THAT CANNOT BE BACK FILLED IN THE SAME DAY/NIGHT OPERATIONS.

3. THE CONDUITS TO BE INSTALLED ARE TO BE PLACED SO AS TO TOTALLY AVOID ANY CONFLICTS WITH EXISTING UTILITIES ALONG THE ROUTE. THE CONTRACTOR SHALL ADJUST CONDUIT VERTICALLY OR HORIZONTALLY TO AVOID CONFLICTS WITH UNDERGROUND UTILITIES. THE CONTRACTOR SHALL USE HAND EXCAVATION METHODS WHEN EXCAVATING NEAR EXISTING UTILITIES.

4. CONTRACTOR SHALL FIELD LOCATE ALL ABOVE GROUND AND UNDERGROUND CONFLICTS IN ADVANCE OF THE PLACEMENT OF ANY CONDUIT OR OTHER FACILITIES. CONTRACTOR SHALL FIELD MARK THE PROPOSED ALIGNMENT FOR REVIEW AND CONCURRENCE BY THE CEI PRIOR TO TRENCHING AND/OR PLACEMENT. NO PULL BOXES OR SPLICE VAULTS SHALL BE LOCATED IN DRAINAGE SWALES, DITCHES, OR PAVED SHOULDERS.

5. BRACKETS AND SPACERS REQUIRED TO OFFSET RIGID METAL CONDUIT FROM THE MOUNTING SHALL BE OF SIMILAR MATERIALS TO PREVENT CATHODIC REACTION.

6. ALL NEW CONDUIT SHALL BE PLACED AT A MINIMUM DEPTH OF 36".

PULL BOXES:

1. POWER AND COMPOSITE CABLES MUST BE IN SEPARATE PULL BOXES.

2. UNLESS SPECIFIED OTHERWISE IN THE PLANS, ALL PULL BOX COVERS TO BE FURNISHED AND INSTALLED SHALL BE NON-METALLIC.

3. THE CONTRACTOR SHALL USE THE CORE DRILL METHOD WHEN ACCESSING EXISTING SPLICE VAULTS WITH NEW CONDUIT.

4. ALL SPLICE/PULL BOX COVER LABELING:
   -ALL FDOT FIBER SPLICE BOX AND PULL BOX SHALL INCLUDE THE LABEL "FDOT DISTRICT 4 FIBER OPTIC CABLE" PERMANENTLEY CAST INTO THE TOP OF THE SURFACE.
   -ALL ELECTRICAL FOR ITS PULL BOX SHALL INCLUDE THE LABEL "FDOT DISTRICT 4 ITS"

5. ALL FIBER OPTIC CABLE SHALL HAVE THE FOLLOWING LABELING:
   -144SM FDOT BACKBONE: "FDOT"
   -144SM BROWARD AMS: "BC-ATMS"
   -72SM BROWARD ETS: "BC-ETS"

6. ELECTRICAL PULL BOXES CARRYING SERVICE WIRE OF 2 AWG OR SMALLER SHALL BE SPACED AT A MAXIMUM OF 900 FEET. ELECTRICAL PULL BOXES CARRING SERVICE WIRE LARGER THAN 2 AWG SHALL BE SPACED A MAXIMUM OF 500 FEET.

7. FIBER SPLICE BOXES SHALL BE SPACED AT A MAXIMUM OF 1,320 FEET.

ITS:

1. CONTRACTOR SHALL INSTALL A CONCRETE SERVICE PAD AT EACH CABINET LOCATION.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING AND PROPOSED ROADWAY LIGHTING PRIOR TO INSTALLATION OF CONDUIT, PULL BOXES, AND POLE FOUNDATIONS.

3. ANY DAMAGE CAUSED BY CONTRACTOR TO ANY FDOT DISTRICT 4 ITS INFRASTRUCTURE SHALL BE IMMEDIATELY NOTIFIED TO FDOT DISTRICT 4 TMC AT 954-847-2777.

4. CONTRACTOR SHALL FIELD VERIFY ALL CONNECTIONS PRIOR TO DISCONNECTION SPLICES. THE ENGINEER OF RECORD AND FDOT DISTRICT 4 TMC SHALL BE MADE AWARE OF ANY SPLICE VARIATIONS FROM THE ITS PLANS. THE CONTRACTOR SHALL CONFIRM WITH FDOT DISTRICT 4 ITS OFFICE FOR FINAL FIBER OPTIC SPLICING PRIOR TO PERFORMING ANY SPLICING IN THE FIELD. CONTRACTOR SHALL NOTIFY BROWARD COUNTY PRIOR TO INSTALLATION OF FIBER AND SPLICING THAT THEY IS UTILIZED BY MAINTAINING AGENCY.

5. THE CONTRACTOR SHALL NOTIFY THE FDOT DISTRICT 4 TMC (954-847-2777), 72 HOURS IN ADVANCE OF TAKING ANY EXISTING ITS EQUIPMENT OUT OF SERVICE.

6. SEE ROADWAY PLANS FOR EROSION CONTROL PLANS.

7. AT RAMP METER LOCATIONS WHERE LOOP CABLE DISTANCES EXCEED 1000 FEET. CONTRACTOR SHALL INCREASE CONDUCTORS TO #12 AWG.

8. DMS WIRE SIZES SHOWN IN PLANS ARE BASED ON A MAXIMUM OF 350' IN LENGTH. CONTRACTOR SHALL CONTACT ENGINEER OF RECORD TO CONFIRM DMS WIRE SIZES WHERE FIELD INSTALLATION OF THE DMS WIRES EXCEED 350'.

9. HDPE CONDUIT COLOR CODE:
   BACKBONE RUN
   -ORANGE (FDOT 144SM FOC)
   -ORANGE W/ WHITE STRIPE (AMS/BCTED 144SM & ETS 72SM)
   -RED (SERVICE WIRE)
   -BLACK (SPARE)
   -BLACK W/WHITE STRIPE (SPARE)
   -BLACK W/ GREEN STRIPE (SPARE)

   DROP RUN
   -ORANGE (24SM FOC)
   -BLACK (SPARE)
   -RED (SERVICE WIRE)

   MISC. CONDUIT
   -WHITE (COMPOSITE CABLING)

   RAMP SIGNAL CABLE
   -WHITE W/RED STRIPE (DETECTOR & SIGNAL CABLING)

   BROWARD COUNTY SIGNAL
   -GREY (SIGNAL CABLING)

   TONE WIRE
   -GREY (TONE WIRE)

10. CONTRACTOR SHALL ENSURE THAT ALL TEMPORARY INFRASTRUCTURE IS REMOVED FROM PROJECT UPON FINAL PROJECT ACCEPTANCE.

UTILITIES:

1. THE UTILITIES SHOWN ON THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT THE EXTENT OF UTILITIES ON THIS PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY UNDERGROUND UTILITIES VERTICALLY AND HORIZONTALLY (VVH) FOR ALL CONDUIT AND DEVICE INSTALLATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DONE TO STRUCTURES, BRIDGE, SHOULDERS, GUARDRAIL, FENCING AND ROADWAY SURFACES CAUSED BY CONSTRUCTION ACTIVITIES.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ANY UTILITY OWNER(S) THAT MAY NOT BE A "SUNSHINE" MEMBER. AT A MINIMUM OF 10 FULL BUSINESS DAYS PRIOR TO BORING UNDER WATER/CANAL. THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA AND THE APPROPRIATE UTILITY OWNERS AND REQUEST UTILITY LOCATIONS. A CONTRACTOR'S REPRESENTATIVE SHALL BE PRESENT WHEN THE UTILITY COMPANIES LOCATE THEIR FACILITIES. THE LOCATION OF EXISTING UTILITIES HALL BE DETERMINED BY THE CONTRACTOR AND THE UTILITY REPRESENTATIVE WHEN NECESSARY DURING CONSTRUCTION. FDOT IS NOT A MEMBER OF THE SUNSHINE STATE ONE CALL SYSTEM. THEREFORE, THE CONTRACTOR WILL BE REQUIRED TO LOCATE ALL FDOT FACILITIES PRIOR TO DIGGING.

3. EXISTING DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED IN PLACE AND REMAIN UNLESS OTHERWISE NOTED.

PAY ITEM NOTES:

1. 633-3-15. SHALL INCLUDE ALL NECESSARY FIBER JUMPERS. SEE SPLICE DIAGRAMS FOR FURTHER DETAILS.

2. 633-3-51. INCLUDES RE-ENTRY TO EXISTING SPLICE ENCLOSURE.

3. 676-2-142, 676-2-143 & 676-2-122. INCLUDES FURNISH AND INSTALL OF POWER DISTRIBUTION UNIT (PDU).

4. 684-6-40. SHALL INCLUDE RELOCATION OF VOICE OVER IP (VOIP) AND WIRELESS ACCESS POINTS (WAP) UNITS.

5. 700-2-50. SHALL INCLUDE RELOCATION OF ALL ABOVE GROUND EQUIPMENT AND DEVICES ALONG WITH SIGN PANEL, AND SHALL INCLUDE RELOCATION OF HARB AND HART ASSEMBLIES.

NOTE TO REVIEWER:

1. CONTACT CLOSURES ARE CONSIDERED AS PART OF COMPLETE ASSEMBLY OF CABINET EITHER 334 OR P440 WHERE CALLED FOR IN THE PLANS.

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BY: (FDOT)_VS_____ Date: 3/21/2018_____
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FPID 433108-4-52-01 CONTRACT E4Q32
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

GENERAL NOTES

SHEET NO. IT-165

ABBREVIATIONS:

CCTV=CLOSED CIRCUIT TELEVISION
DCCTV=DEDICATED CLOSED CIRCUIT TELEVISION
DIST=DISTRIBUTION
DMS=DYNAMIC MESSAGE SIGN
EOTL=EDGE OF TRAVEL LANE
EXIST.=EXISTING
EX. =EXISTING
E/W=EQUIPPED WITH
FO=FIBER OPTIC
FOC=FIBER OPTIC CABLE
FOE=FIBER OPTIC & ELECTRICAL CABLE
FOGR=FACE OF GUARDRAIL
FSB=FIBER SPLICE BOX
HDPE=HIGH DENSITY POLYETHYLENE CONDUIT
HART=HIGHWAY ADVISORY RADIO TRANSMITTER
HARB=HIGHWAY ADVISORY RADIO BEACON
LHUB=LOCAL HUB
MOC=MAINTENANCE OF COMMUNICATIONS
MVDS=MICROWAVE VEHICLE DETECTION SYSTEM
VOIP=VOICE OVER INTERNET PROTOCOL
WAP=WIRELESS ACCESS POINT
RGS=RIGID GALVANIZED STEEL
RSC=RAMP SIGNAL CABINET
SM=SINGLE MODE
TTS=TRAVEL TIME SYSTEM
VDS=VEHICLE DETECTION SYSTEM
PDU=POWER DISTRIBUTION UNIT
UPS=UNINTERRUPTED POWER SERVICE
FSB=FIBER SPLICE BOX
RSC=RAMP SIGNAL CABINET

LEGEND:

- EXISTING FIBER BACKBONE CONDUIT
- EXISTING FIBER DROP CONDUIT
- PROPOSED UNDERGROUND TRENCH W/ FIBER CONDUIT
- PROPOSED DIRECTIONAL BORE W/ FIBER CONDUIT
- PROPOSED BRIDGE MOUNTED CONDUIT W/ FIBER CONDUIT
- PROPOSED UNDERGROUND TRENCH W/ ELECTRIC CONDUIT
- PROPOSED DIRECTIONAL BORE W/ ELECTRIC CONDUIT
- PROPOSED FIBER PULL BOX
- EXISTING FIBER PULL BOX
- PROPOSED ELECTRIC PULL BOX
- PROPOSED FIBER SPLICE BOX
- EXISTING FIBER SPLICE BOX
- EXISTING ELECTRICAL PULL BOX
- EXIST. CCTV POLE W/ LOWERING DEVICE
- EXIST. CABINET
- PROPOSED POLE MOUNTED VDS SYSTEM
- EXIST. POLE MOUNTED VDS SYSTEM
- PROPOSED POLE MOUNTED CCTV
- EXIST. POLE MOUNTED CCTV
- EXIST. POLE MOUNTED VOIP
- EXIST. POLE MOUNTED WAP
- PROPOSED POLE MOUNTED WAP
- PROPOSED DEDICATED CCTV SYSTEM
- EXIST. DEDICATED CCTV SYSTEM
- PROPOSED VIDEO DETECTION SYSTEM
- PROPOSED CABINET (BASE)
- EXIST. CABINET (BASE)
- PROPOSED POLE MOUNTED CABINET
- EXIST. POLE MOUNTED CABINET
- PROPOSED DISCONNECT AND TRANSFORMER ON CONCRETE PEDESTAL
- RAMP METER SIGNALS
- EXISTING DMS TRUSS
- PROPOSED DMS SIGN
- PORTABLE CHANGEABLE MESSAGE SIGN
- EXIST. POWER SERVICE

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

GENERAL NOTES

SHEET NO.
IT-166

	DEVICE	STATION	LOCAL HUB	PLAN SHEET	ABOVE GROUND HEIGHT (FT)	POLE LENGTH (FT)	EMBEDMENT LENGTH (FT)	NOTES
1	WAP 95-25.23 NB	1924+80	LHUB 95-25.23 NB	IT-175	-	-	-	EXIST.
2	CCTV 95-25.28 NB	1927+00	LHUB 95-25.28 NB	IT-175	50	69	19	CCTV POLE
3	CCTV 95-26.06 NB	1968+90	LHUB 95-26.09 NB	IT-178	50	69	19	CCTV POLE
4	CCTV, MVDS, VOIP 95-26.30 NB	1980+90	LHUB 95-26.30 NB	IT-179	-	-	-	EXIST.
5	CCTV 95-26.38 SB	1984+40	RSC 95-26.38 SB	IT-179	30	43	13	CCTV POLE*
6	MVDS (2) 95-26.47 NB	1990+15	LHUB 95-26.47 NB	IT-179	45	69	24	TYPE IV
7	CCTV 95-26.59 NB	1996+10	RSC 95-26.59 NB	IT-180	50	69	19	CCTV POLE
8	CCTV 95-26.63 SB	1998+70	LHUB 95-26.63 SB	IT-180	50	69	19	CCTV POLE
9	CCTV 95-26.71 NB	2002+80	RSC 95-26.71	IT-180	50	69	19	CCTV POLE
10	CCTV 95-26.83 SB	2009+05	LHUB 95-26.83 SB	IT-181	-	-	-	EXIST.
11	MVDS (2) 95-26.86 NB	2010+60	LHUB 95-26.86 NB	IT-181	41	60	19	TYPE IV
12	MVDS (2) 95-26.86 SB	2010+60	LHUB 95-26.86 SB	IT-181	38	54	16	TYPE IV
13	MVDS (2) 95-27.10 SB	2023+50	LHUB 95-27.10 SB	IT-182	50	69	19	CCTV POLE
14	MVDS 95-27.13 NB	2024+90	LHUB 95-27.13 NB	IT-182	28	44	16	TYPE IV
15	MVDS (2) 95-27.30 SB	2033+70	LHUB 95-27.30 SB	IT-182	50	69	19	CCTV POLE
16	CCTV, MVDS 95-27.30 NB	2034+60	LHUB 95-27.30 NB	IT-182	-	-	-	EXIST.
17	VOIP, WAP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	IT-183	-	-	-	EXIST.
18	CCTV, MVDS 95-27.50 NB	2044+50	LHUB 95-27.50 NB	IT-183	50	75	25	CCTV POLE
19	CCTV, MVDS 95-27.53 SB	2046+00	LHUB 95-27.53 SB	IT-183	55	75	20	CCTV POLE
20	CCTV, MVDS (2) 95-27.65 MD	2052+26	LHUB 95-27.65 NB	IT-185	-	-	-	EXIST.
21	MVDS 95-27.95 SB	2068+00	LHUB 95-27.95 SB	IT-185	50	69	19	CCTV POLE
22	MVDS 95-27.95 NB	2067+65	LHUB 95-27.98 NB	IT-185	26	46	20	TYPE IV
23	MVDS 95-28.10 SB	2076+00	LHUB 95-28.10 SB	IT-185	55	75	20	CCTV POLE
24	CCTV, MVDS 95-28.10 NB	2076+00	LHUB 95-28.10 NB	IT-185	50	75	25	CCTV POLE
25	CCTV, MVDS, VOIP, WAP (2) 95-28.30 SB	2086+85	LHUB 95-28.30 SB	IT-186	67	86	19	CCTV POLE
26	MVDS 95-28.31 NB	2087+19	LHUB 95-28.31 NB	IT-186	32	50	18	TYPE IV
27	CCTV 95-28.47 SB	2095+60	LHUB 95-28.47 SB	IT-187	55	75	20	CCTV POLE
28	MVDS 95-28.56 NB	2100+20	LHUB 95-28.56 NB	IT-187	39	56	17	TYPE IV
29	MVDS 95-28.56 SB	2100+20	LHUB 95-28.56 SB	IT-187	30	46	16	TYPE IV
30	CCTV 95-28.63 NB	2104+20	LHUB 95-28.63 NB	IT-187	49	69	20	CCTV POLE
31	CCTV 95-28.63 NB	2104+15	LHUB 95-28.63 NB	IT-187	50	69	19	CCTV POLE
32	CCTV (2) 95-28.69 NB	2107+00	RSC 95-28.69 NB	IT-188	44	63	19	CCTV POLE
33	MVDS 95-28.82 NB	2114+00	LHUB 95-28.82 NB	IT-188	28	44	16	TYPE IV
34	MVDS 95-28.85 SB	2115+60	LHUB 95-28.85 SB	IT-188	35	52	17	TYPE IV
35	CCTV, MVDS, VOIP 95-29.11 SB	2129+25	LHUB 95-29.11 SB	IT-189	60	80	20	CCTV POLE
36	MVDS 95-29.10 NB	2128+80	LHUB 95-29.10 NB	IT-189	50	69	19	CCTV POLE
37	MVDS 95-29.33 SB	2141+00	LHUB 95-29.27 SB	IT-190	35	52	17	TYPE IV

* NOTE: CONTRACTOR SHALL PROVIDE SIGNED AND SEALED STRUCTURAL DRAWINGS FOR CUSTOM CCTV POLES.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POLE DATA SHEET

SHEET NO.
IT-167

RELEASED FOR CONSTRUCTION
BY: (FDOT)_VS_____ Date: 3/21/2018_____
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FPID 433108-4-52-01 CONTRACT E4Q32

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	DEVICE	STATION	LOCAL HUB	PLAN SHEET	ABOVE GROUND HEIGHT (FT)	POLE LENGTH (FT)	EMBEDMENT LENGTH (FT)	NOTES
38	MVDS 95-29.33 NB	2141+20	LHUB 95-29.33 NB	IT-190	50	69	19	CCTV POLE
39	CCTV, MVDS 95-29.58 NB	2154+40	LHUB 95-29.58 NB	IT-191	65	86	21	CCTV POLE
40	CCTV (2), MVDS, VOIP 95-29.58 SB	2154+40	LHUB 95-29.58 SB	IT-191	60	80	20	CCTV POLE
41	CCTV, MVDS 95-29.83 SB	2167+60	LHUB 95-29.83 SB	IT-192	49	69	20	CCTV POLE
42	CCTV, MVDS 95-29.83 NB	2167+40	LHUB 95-29.83 NB	IT-192	50	69	19	CCTV POLE
43	CCTV, MVDS 95-30.08 SB	2180+70	LHUB 95-30.05 SB	IT-193	67	86	19	CCTV POLE
44	CCTV, MVDS 95-30.08 NB	2180+70	LHUB 95-30.08 NB	IT-193	50	69	19	CCTV POLE
45	CCTV, MVDS 95-30.33 SB	2194+00	LHUB 95-30.33 SB	IT-194	44	63	19	CCTV POLE
46	CCTV, MVDS 95-30.33 NB	2193+70	LHUB 95-30.33 NB	IT-194	44	63	19	CCTV POLE
47	CCTV (2), MVDS 95-30.57 SB	2206+50	LHUB 95-30.57 SB	IT-195	65	86	21	CCTV POLE
48	CCTV (2), MVDS 95-30.61 NB	2208+50	LHUB 95-30.61 NB	IT-195	60	75	15	CCTV POLE
49	WAP (2), VOIP 95-30.7 NB	2213+55	LHUB 95-30.7 NB	IT-195	60	80	20	CCTV POLE
50	CCTV 95-30.78 SB	2217+45	RSC 95-30.78 SB	IT-195	50	69	19	CCTV POLE
51	MVDS 95-30.83 SB	2220+15	LHUB 95-30.83 SB	IT-196	40.5	60	19.5	TYPE IV
52	CCTV (2), MVDS 95-30.83 NB	2220+20	LHUB 95-30.83 NB	IT-196	44	63	19	CCTV POLE
53	CCTV 95-30.87 NB	2223+00	LHUB 95-30.86 NB	IT-196	44	63	19	CCTV POLE
54	CCTV, MVDS 95-31.08 SB	2234+00	LHUB 95-31.08 SB	IT-197	65	86	21	CCTV POLE
55	MVDS 95-31.08 NB	2233+40	LHUB 95-31.08 NB	IT-197	60	80	20	CCTV POLE
56	MVDS 95-31.28 SB	2243+75	LHUB 95-31.28 SB	IT-197	50	69	19	CCTV POLE
57	MVDS 95-31.28 NB	2243+95	LHUB 95-31.28 NB	IT-197	65	86	21	CCTV POLE
58	MVDS 95-31.54 SB	2257+70	LHUB 95-31.54 SB	IT-198	60	80	20	CCTV POLE
59	CCTV, MVDS 95-31.54 NB	2258+00	LHUB 95-31.54 NB	IT-198	66	86	20	CCTV POLE
60	CCTV, MVDS, VOIP, WAP 95-31.76 SB	2269+50	LHUB 95-31.76 SB	IT-199	50	69	19	CCTV POLE
61	MVDS 95-31.76 NB	2269+20	LHUB 95-31.76 NB	IT-199	54	75	21	CCTV POLE
62	CCTV, MVDS 95-31.95 SB	2280+50	LHUB 95-31.95 SB	IT-200	60	86	26	CCTV POLE
63	MVDS (2) 95-31.95 NB	2279+50	LHUB 95-31.81 SB	IT-200	65	86	21	CCTV POLE
64	CCTV 95-32.08 SB	2286+00	RSC 95-32.08 SB	IT-200	50	75	25	CCTV POLE
65	CCTV, MVDS 95-32.14 SB	2289+20	LHUB 95-32.14 SB	IT-201	60	75	15	CCTV POLE
66	CCTV, MVDS 95-32.17 NB	2291+00	LHUB 95-32.17 NB	IT-201	55	80	25	CCTV POLE
67	CCTV (2) 95-32.27 SB	2296+30	LHUB 95-32.27 SB	IT-201	25	38	13	CCTV POLE*
68	WAP 95-32.32 NB	2298+95	LHUB 95-32.35 NB	IT-201	-	-	-	EXIST.
69	CCTV (2) 95-32.35 NB	2300+75	LHUB 95-32.35 NB	IT-201	68	86	18	CCTV POLE
70	CCTV, MVDS 95-32.39 SB	2302+40	LHUB 95-32.39 SB	IT-202	55	75	20	CCTV POLE
71	CCTV (2), MVDS 95-32.39 NB	2302+80	LHUB 95-32.39 NB	IT-202	63	86	23	CCTV POLE
72	CCTV, MVDS 95-32.64 SB	2315+90	LHUB 95-32.64 SB	IT-202	45	63	18	CCTV POLE
73	MVDS 95-32.64 NB	2315+85	LHUB 95-32.64 NB	IT-202	40	58	18	TYPE IV
74	CCTV P&R-3	130+25	LHUB P&R-3	IT-204	50	69	19	CCTV POLE
75	CCTV P&R-4	132+20	LHUB P&R-4	IT-204	50	75	25	CCTV POLE

* NOTE: CONTRACTOR SHALL PROVIDE SIGNED AND SEALED STRUCTURAL DRAWINGS FOR CUSTOM CCTV POLES.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POLE DATA SHEET

SHEET NO.
IT-168

N

N.T.S

PORT EVERGLADES EXPY.

NB SR-9 (I-95)

PORT EVERGLADES EXPY.

MARINA MILE BLVD.

MARINA MILE BLVD.

IT-175

IT-176

IT-177

SB SR-9 (I-95)

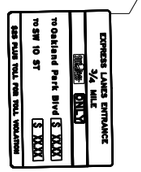
MATCHLINE STA. 1955+00.00

-INSTALL
DCCTV 95-25.28 NB
LHUB 95-25.28 NB
STA. 1927+00

-UTILIZE
EX. WAP 95-25.23

-INSTALL
LHUB 95-25.63 NB
STA. 1945+80

-REMOVE
STRUCTURE AND ATTACHMENTS
SHALL BE INCLUDED IN SIGNING PLANS
EX. LHUB 95-25.70 NB
-RELOCATE TO 95-25.58 NB
EX. MVDS 95-25.70 NB
EX. CCTV 95-25.70 NB
EX. VOIP 95-25.70 NB
EX. WAP 95-25.70 NB



-INSTALL
CCTV 95-25.58 NB
T-DMS 95-25.58 NB
EX. MVDS 95-25.58 NB
EX. MVDS 95-25.58 SB
-RELOCATE
EX. CCTV 95-25.58 NB
EX. WAP 95-25.58 NB
EX. VOIP 95-25.58 NB
STA. 1943+30

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS LAYOUT SHEET

SHEET NO.
IT-169

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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N.T.S

MATCHLINE STA. 1955+00.00

MATCHLINE STA. 2028+00.00

DAVIE BLVD.

DAVIE BLVD.

IT-177

IT-178

IT-179

IT-180

IT-181

IT-182

SB SR-9 (I-95)

SB SR-9 (I-95)

NB SR-9 (I-95)

NB SR-9 (I-95)

-INSTALL
LHUB 95-25.93 NB
STA. 1961+50

-INSTALL
S-DMS 95-25.98 NB
STA. 1963+80

-INSTALL
DCCTV 95-26.06 NB
STA. 1968+90

-INSTALL
LHUB 95-26.09 NB
STA. 1970+00

STRUCTURE AND ATTACHMENTS
SHALL BE INCLUDED IN SIGNING PLANS
-REMOVE
EX. T-DMS 95-26.13 NB
-RELOCATE
EX. MVDS 95-26.13 NB

-INSTALL
EX. MVDS 95-26.13 SB
EX. MVDS 95-26.13 NB
T-DMS 95-26.13 NB
STA. 1972+44

-REMOVE
EX. S-DMS 95-26.27 SB
STA. 1979+00

-REMOVE
EX. LHUB 95-26.27 NB

-INSTALL
S-DMS 95-26.44 NB
STA. 1988+30

-UTILIZE PHASE I
MVDS 95-26.30 NB
-UTILIZE
EX. LHUB 95-26.30 NB
EX. VOIP 95-26.30 NB
EX. DCCTV 95-26.30 NB
STA. 1980+90

-INSTALL
DCCTV 95-26.38 SB
RSC 95-26.38 SB
STA. 1984+40

-INSTALL
LHUB 95-26.41 NB
STA. 1986+45

-UTILIZE
EX. CCTV 95-26.44 EB/WB
EX. WAP 95-26.44 EB/WB (x2)

-REMOVE
EX. S-DMS 95-26.68 SB
STA. 2001+25

-REMOVE
EX. DCCTV 95-26.64 SB
EX. CCTV 95-26.64 SB
EX. MVDS 95-26.64 SB
STA. 1999+22

-INSTALL
LHUB 95-26.63 SB
CCTV 95-26.63 SB
STA. 1998+70

-UTILIZE
EX. LHUB 95-26.55 SB
STA. 1994+18

-UTILIZE
EX. DMS 95-26.55 SB
EX. VOIP 95-26.55 SB

-REMOVE
EX. LHUB 95-26.49 SB

-REMOVE
EX. T-DMS 95-26.46

-INSTALL
LHUB 95-26.47 NB
MVDS 95-26.47 NB (2x)
STA. 1990+15

-INSTALL
DCCTV 95-26.59 NB
RSC 95-26.59 NB
STA. 1996+10

-INSTALL
RSC 95-26.71 NB
DCCTV 95-26.71 NB
STA. 2002+80

-REMOVE
EX. MVDS 95-26.72 NB
STA. 2003+15

-UTILIZE PHASE I
LHUB 95-26.86 SB
MVDS 95-26.86 SB (1x)
CONCRETE STRAIN POLE
-INSTALL
MVDS 95-26.86 SB (1x)
STA. 2010+60

-UTILIZE
EX. LHUB 95-26.83 SB
EX. DCCTV 95-26.83 SB
STA. 2009+05

-UTILIZE PHASE I
LHUB 95-26.86 NB
MVDS 95-26.86 NB (1x)
CONCRETE STRAIN POLE
-INSTALL
MVDS 95-26.86 NB (1x)
STA. 2010+60

-INSTALL
LHUB 95-27.10 SB
MVDS 95-27.10 SB (2x)
STA. 2023+50

-INSTALL
LHUB 95-27.13 NB
MVDS 95-27.13 NB
STA. 2024+90

REVISIONS			
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS LAYOUT SHEET

SHEET NO.
IT-170

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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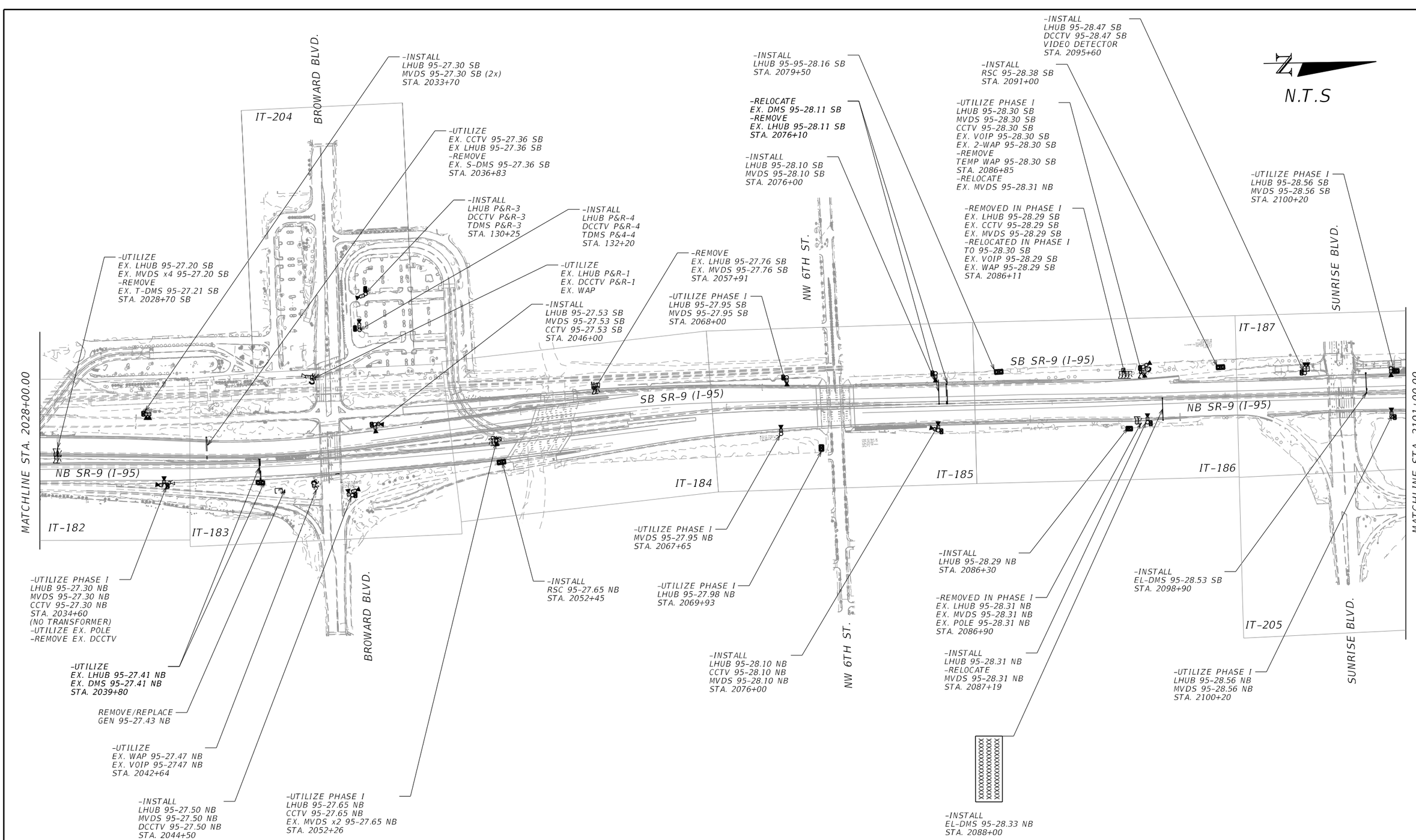

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Orlando, FL 32801 (407)839-4006
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS LAYOUT SHEET

SHEET NO. IT-171

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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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N.T.S

-INSTALL
LHUB 95-29.51 SB
STA. 2150+70

-REMOVE
EX. CCTV 95-29.51 SB
EX. MVDS 95-29.51 SB
EX. VOIP 95-29.51 SB

-INSTALL
MVDS 95-29.33 SB
STA. 2141+00

-UTILIZE PHASE I
LHUB 95-29.11 SB
MVDS 95-29.11 SB
CCTV 95-29.11 SB
EX. VOIP 95-29.11 SB
STA. 2129+25

-INSTALL
LHUB 95-28.85 SB
MVDS 95-28.85 SB
STA. 2115+60

-REMOVE
EX. CCTV 95-29.03 SB
EX. MVDS 95-29.03 SB
EX. HARB 95-29.03 SB
-RELOCATE TO 95-29.11 SB
EX. VOIP 95-29.03 SB
STA. 2125+35

-INSTALL
S-DMS 95-29.33 SB
STA. 2141+24

-INSTALL
LHUB 95-29.27 SB
STA. 2138+00

-REMOVE
EX. MVDS 95-28.62 SB
STA. 2103+30

IT-187

IT-188

IT-189

SB SR-9 (I-95)

NB SR-9 (I-95)

NW 19TH ST.

-UTILIZE PHASE I
LHUB 95-29.58 SB
MVDS 95-29.58 SB
DCCTV 95-29.58 SB
DCCTV 95-29.58 SB
EX. VOIP 95-29.58 SB
STA. 2154+40

-INSTALL
S-DMS 95-29.68 SB
STA. 2159+60

-INSTALL
LHUB 95-29.63 SB
STA. 2157+00

IT-191

-INSTALL
LHUB 95-28.82 NB
MVDS 95-28.82 NB
STA. 2114+00

-INSTALL
RSC 95-28.69 NB
DCCTV 95-28.69 NB (2X)
STA. 2107+00

-UTILIZE PHASE I
LHUB 95-29.10 NB
MVDS 95-29.10 NB
STA. 2128+80

IT-190

-INSTALL
LHUB 95-29.33 NB
MVDS 95-29.33 NB
STA. 2141+20

-INSTALL
LHUB 95-29.83 SB
MVDS 95-29.83 SB
DCCTV 95-29.83 SB
STA. 2167+60

IT-192

SB SR-9 (I-95)

NB SR-9 (I-95)

MATCHLINE STA. 2101+00.00

IT-205

-INSTALL
LHUB 95-28.63 NB
CCTV 95-28.63 NB
STA. 2104+10

-REMOVE
EX. MVDS 95-28.62 NB
STA. 2103+30

-INSTALL
DCCTV 95-28.63
STA. 2104+15
(POLE MOUNTED)

-INSTALL
T-DMS 95-29.50 SB
STA. 2149+90

-UTILIZE PHASE I
LHUB 95-29.58 NB
GEN 95-29.58
MVDS 95-29.58 NB
CCTV 95-29.58 NB
STA. 2154+40

-INSTALL
S-DMS 95-29.68 NB
STA. 2159+71

-INSTALL
LHUB 95-29.71 NB
STA. 2161+00

-INSTALL
LHUB 95-29.83 NB
MVDS 95-29.83 NB
DCCTV 95-29.83 NB
STA. 2167+40

-INSTALL
LHUB 95-29.95 NB
STA. 2174+00

MATCHLINE STA. 2175+00.00

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Certificate of Authorization # 3932
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS LAYOUT SHEET

SHEET NO.
IT-172

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Date: 3/21/2018 BY: (FDOT) VS
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-INSTALL
LHUB 95-29.99 SB
STA. 2175+80

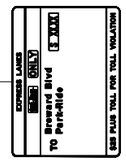
-UTILIZE
EX. DMS 95-29.99 SB
STA. 2175+60

-INSTALL
LHUB 95-30.05 SB
STA. 2179+00

-INSTALL
MVDS 95-30.08 SB
CCTV 95-30.08 SB
STA. 2180+70

IT-192

-INSTALL
T-DMS 95-30.14 SB
STA. 2183+95



-INSTALL
LHUB 95-30.20 SB
STA. 2187+00

-REMOVE
EX. LHUB 95-30.55 SB
EX. CCTV 95-30.55 SB
EX. MVDS 95-30.55 SB
-RELOCATE TO 30.70 NB
EX. VOIP 95-30.55 SB
EX. WAP 95-30.55 SB
STA. 2208+65

LHUB 95-30.57 SB
MVDS 95-30.57 SB
DCCTV x2 95-30.57 SB
STA. 2206+50

-INSTALL
S-DMS 95-30.3 SB
STA. 2192+00



-INSTALL
RSC 95-30.33 SB
LHUB 95-30.33 SB
MVDS 95-30.33 SB
DCCTV 95-30.33 SB
STA. 2194+00

-INSTALL
LHUB 95-30.41 NB
STA. 2198+00

OAKLAND
PARK BLVD.

-REMOVE
EX. LHUB 95-31.10 SB
EX. MVDS 95-31.10 SB

-INSTALL
LHUB 95-31.08 SB
MVDS 95-31.08 SB
CCTV 95-31.08 SB
STA. 2234+00

-INSTALL
RSC 95-30.78 SB
DCCTV 95-30.78 SB
STA. 2217+45

-INSTALL
LHUB 95-30.83 SB
MVDS 95-30.83 SB
STA. 2220+15

-INSTALL
LHUB 95-31.28 SB
MVDS 95-31.28 SB
STA. 2243+75

NW 38TH ST.

IT-196
IT-197
IT-198

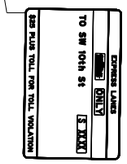
SB SR-9 (I-95)

NB SR-9 (I-95)

MATCHLINE STA. 2175+00.00

IT-193
IT-194
IT-195
IT-206

-INSTALL
LHUB 95-30.33 NB
MVDS 95-30.33 NB
DCCTV 95-30.33 NB
STA. 2193+70



-INSTALL
T-DMS 95-30.16 NB
STA. 2184+80

-INSTALL
LHUB 95-30.12 NB
STA. 2182+70

-INSTALL
LHUB 95-30.08 NB
MVDS 95-30.08 NB
DCCTV 95-30.08 NB
STA. 2180+70

-RELOCATE
EX. DMS 95-29.99 NB
STA. 2176+10

-REMOVE
EX. LHUB 95-29.99 NB
EX. GEN 95-29.99 NB
STA. 2175+83

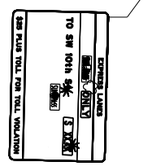


-INSTALL
S-DMS 95-30.45 NB
STA. 2200+00

-INSTALL
LHUB 95-30.61 NB
MVDS 95-30.61 NB
CCTV 95-30.61 NB
DCCTV 95-30.61 NB
STA. 2208+50

-INSTALL
LHUB 95-30.70 NB
STA. 2213+55
-UTILIZE
EX. WAP x2 95-30.70 NB
EX. VOIP 95-30.70 NB

OAKLAND
PARK BLVD.

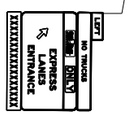


-INSTALL
T-DMS 95-30.75 NB
STA. 2215+80

-INSTALL
LHUB 95-30.83 NB
MVDS 95-30.83 NB
DCCTV x2 95-30.83 NB
STA. 2220+20

-INSTALL
LHUB 95-30.86 NB
STA. 2222+10

-INSTALL
DCCTV 95-30.87 NB
STA. 2223+00



-INSTALL
S-DMS 95-30.9 NB
STA. 2224+00

-INSTALL
RSC 95-30.91 NB
STA. 2224+15

-INSTALL
LHUB 95-31.08 NB
MVDS 95-31.08 NB
STA. 2233+40

-INSTALL
LHUB 95-31.28 NB
MVDS 95-31.28 NB
STA. 2243+95

NW 38TH ST.

MATCHLINE STA. 2248+00.00

N.T.S

REVISIONS			
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Transportation, Land Development,
Environmental Services
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Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS LAYOUT SHEET

SHEET NO.
IT-173

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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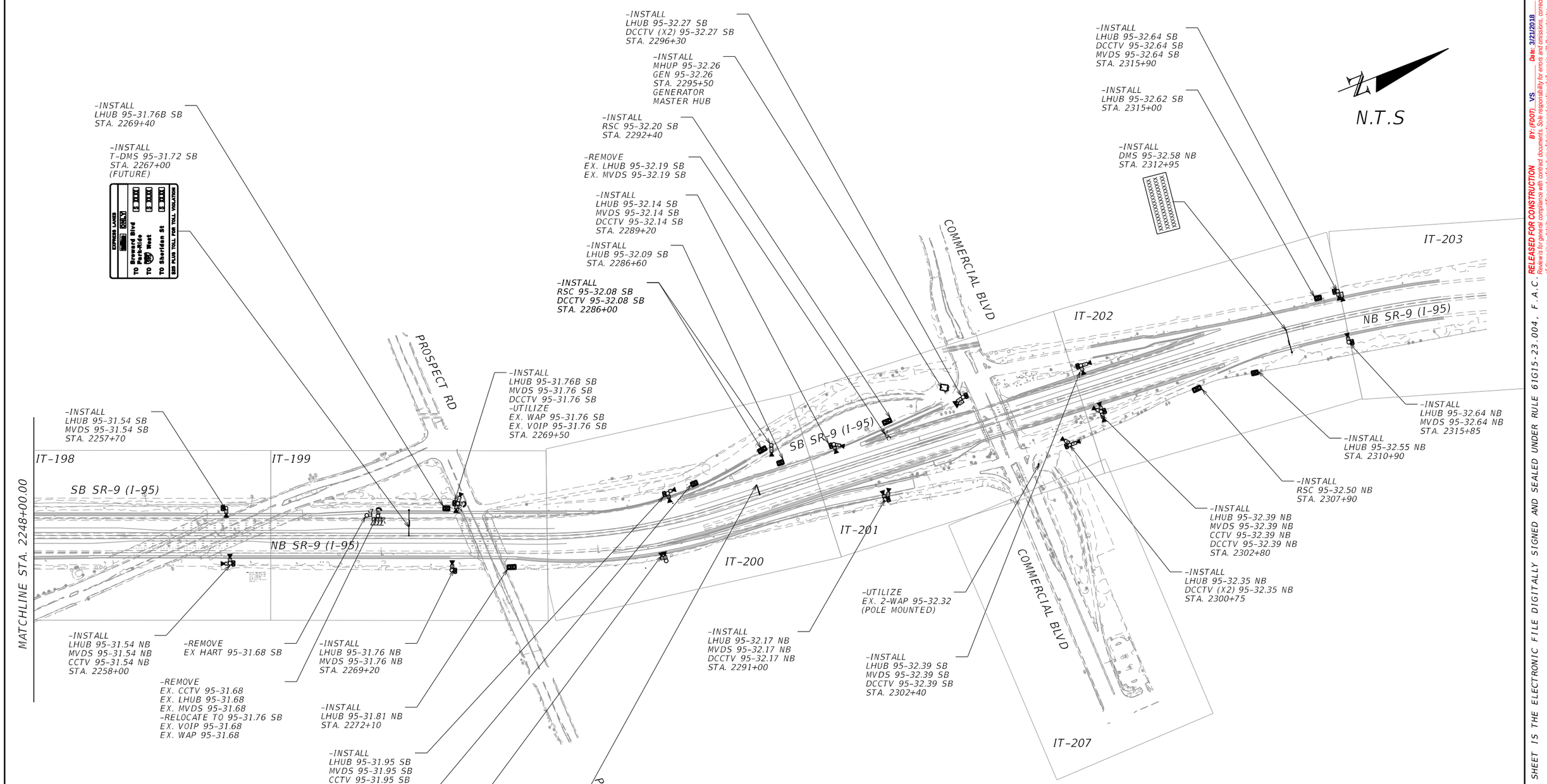

REVISIONS			
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Transportation, Land Development,
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Orlando, FL 32801 (407)839-4006
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ITS LAYOUT SHEET

SHEET NO.
IT-174

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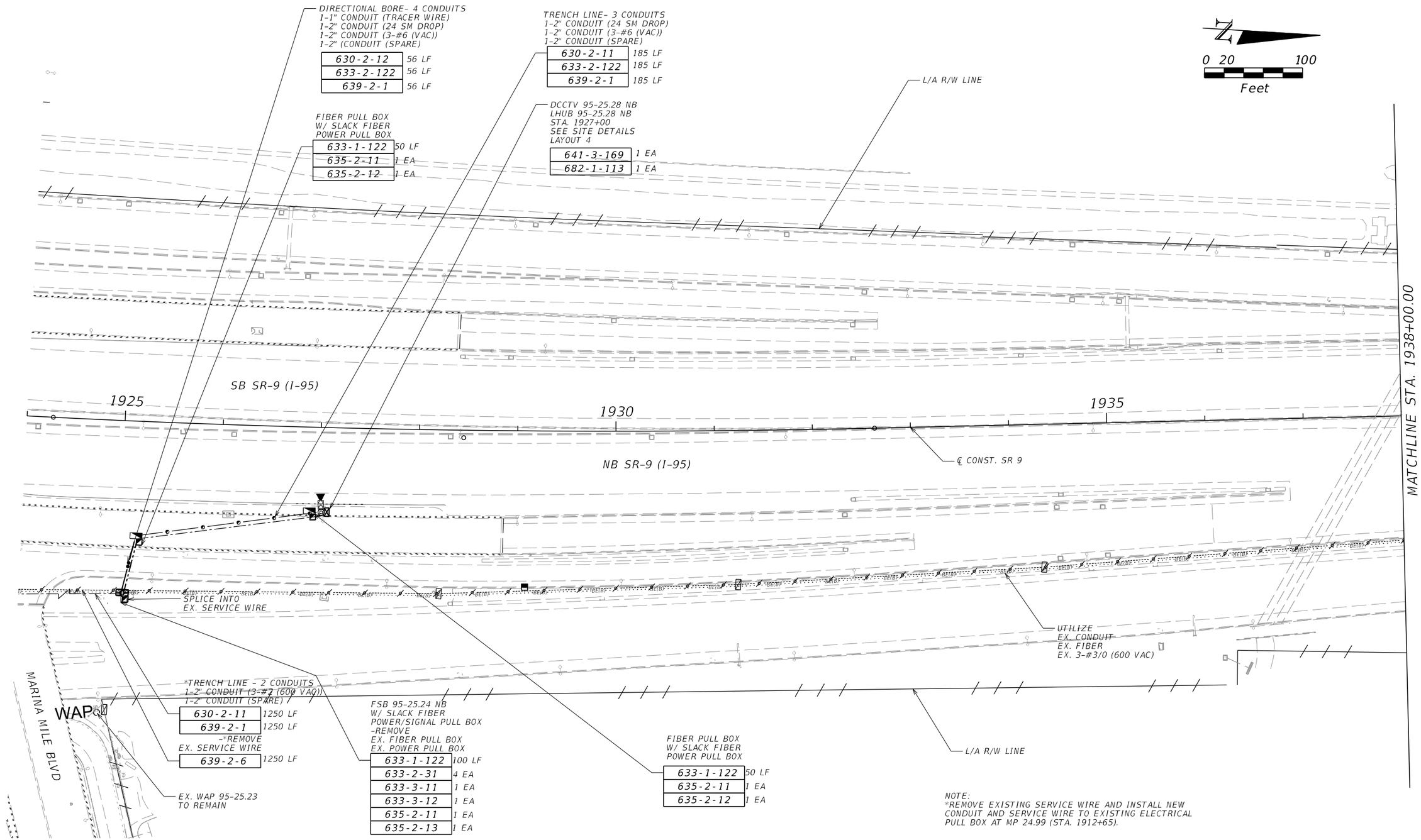

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-175

RELEASED FOR CONSTRUCTION
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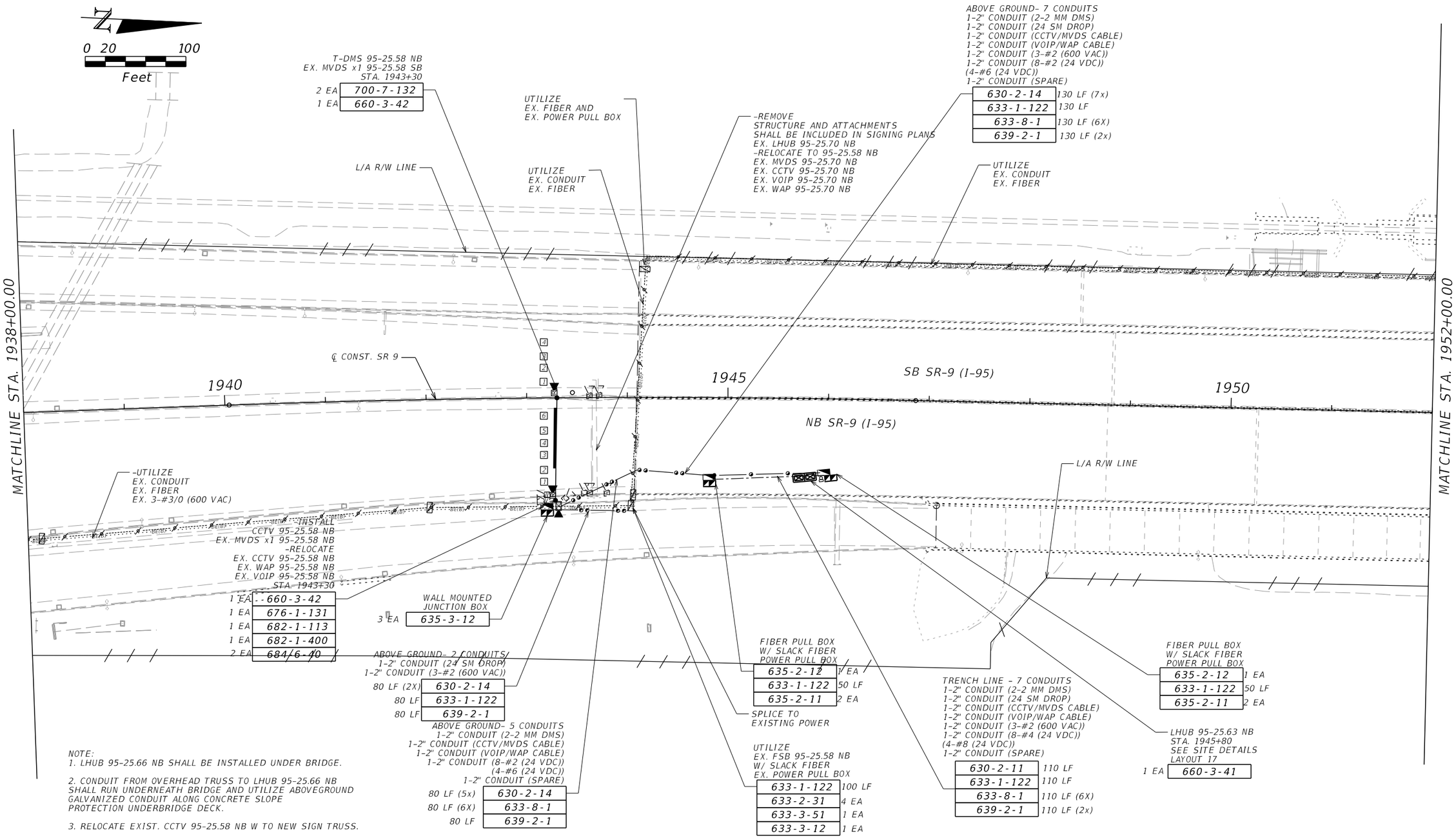

NOTE:
1. LHUB 95-25.66 NB SHALL BE INSTALLED UNDER BRIDGE.

2. CONDUIT FROM OVERHEAD TRUSS TO LHUB 95-25.66 NB SHALL RUN UNDERNEATH BRIDGE AND UTILIZE ABOVEGROUND GALVANIZED CONDUIT ALONG CONCRETE SLOPE PROTECTION UNDERBRIDGE DECK.

3. RELOCATE EXIST. CCTV 95-25.58 NB W TO NEW SIGN TRUSS.

REVISIONS			
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ITS PLAN SHEET

SHEET NO.
IT-176

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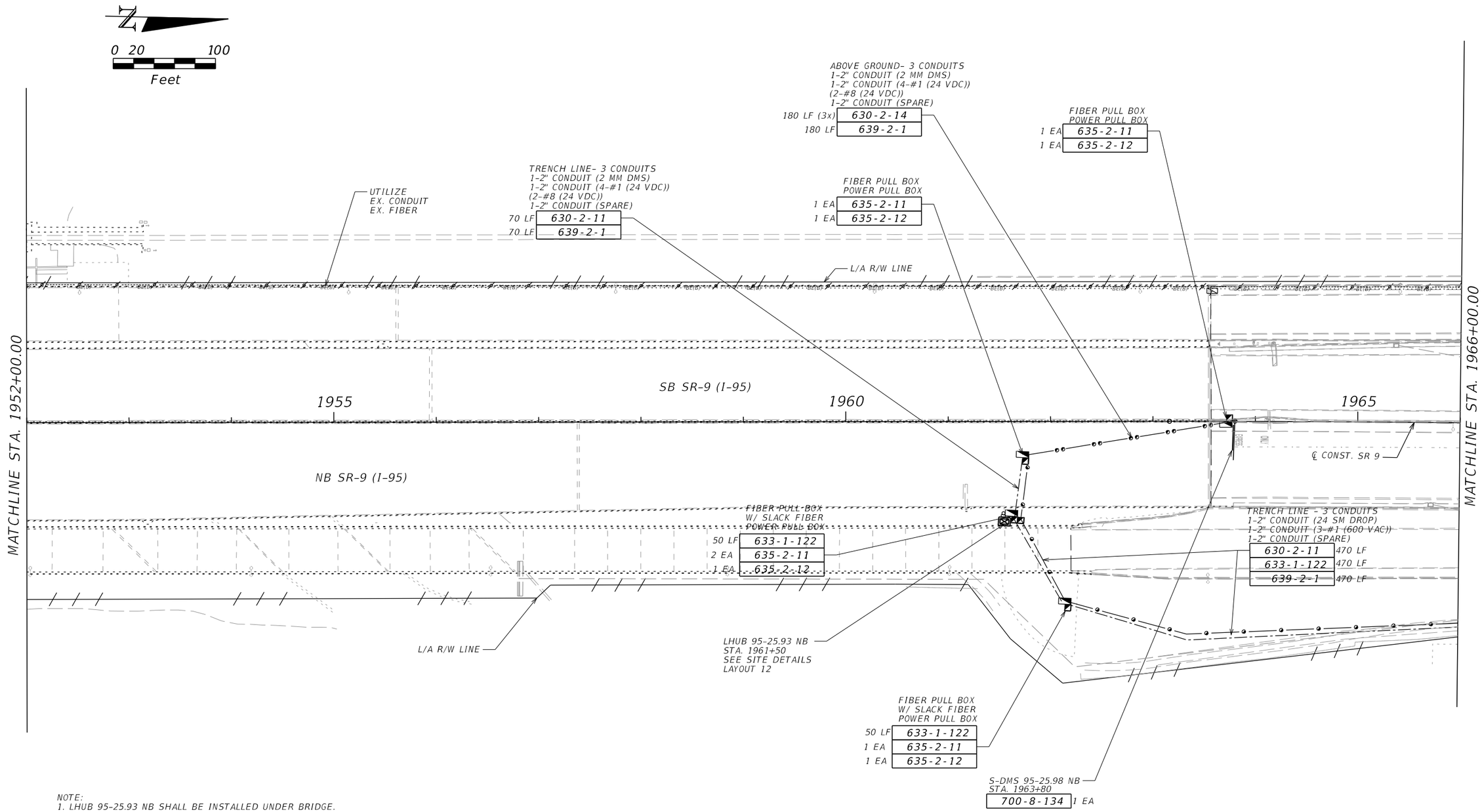

NOTE:
1. LHUB 95-25.93 NB SHALL BE INSTALLED UNDER BRIDGE.

2. CONDUIT FROM OVERHEAD TRUSS TO LHUB 95-25.93 NB SHALL RUN UNDERNEATH BRIDGE AND UTILIZE ABOVEGROUND GALVANIZED CONDUIT ALONG CONCRETE SLOPE PROTECTION UNDERBRIDGE DECK.

REVISIONS			
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ITS PLAN SHEET

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IT-177

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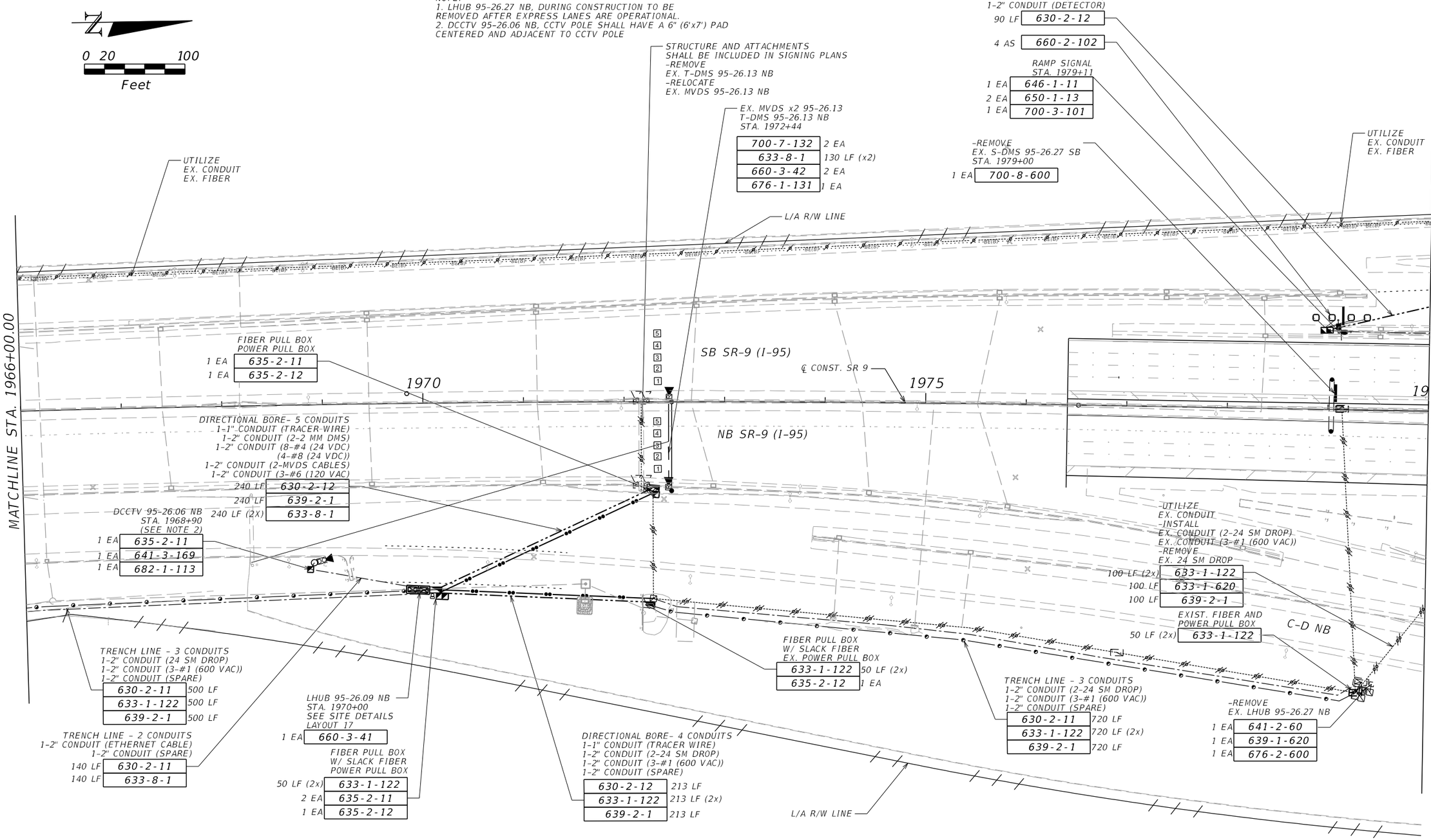

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ITS PLAN SHEET

SHEET NO.
IT-178

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0 20 100
Feet

TRENCH LINE – 4 CONDUITS
1–2" CONDUIT (144 SM FIBER)
1–2" CONDUIT (SIGNAL)
1–2" CONDUIT (DETECTOR)
1–2" CONDUIT (SPARE)

350 LF	633-1-124
350 LF	630-2-11

L/A R/W LINE

UTILIZE
EX. CONDUIT
EX. FIBER

DIRECTIONAL BORE – 2 CONDUITS
1–2" CONDUIT (SIGNAL)
1–2" CONDUIT (DETECTOR)

160 LF	630-2-12

50 LF	633-1-124
2 EA	635-2-11
1 EA	635-2-12

TRENCH LINE – 6 CONDUITS
1–2" CONDUIT (144 SM)
1–2" CONDUIT (24 SM)
1–2" CONDUIT (3–#6 (600 VAC))
1–2" CONDUIT (DETECTOR)
1–2" CONDUIT (SIGNAL)
1–2" CONDUIT (SPARE)

300 LF	630-2-11
300 LF	633-1-122
300 LF	633-1-124
300 LF	639-2-1

DCCTV 95–26.38 SB
RSC 95–26.38 SB
STA. 1984+40
SEE SITE LAYOUT 22

1 EA	641-3-163
2 EA	660-1-111
1 EA	682-1-113

S–DMS 95–26.44 NB
STA. 1988+30

1 EA	700-8-134

BRIDGE MOUNTED– 3 CONDUITS
1–2" CONDUIT (2 MM DMS)
1–2" CONDUIT (4–#2 (24 VDC))
(2–#10 (24 VDC))
1–2" CONDUIT (SPARE)

130 LF (3x)	630-2-15
160 LF	639-2-1
30 LF (3x)	630-2-14
2 EA	635-3-12

FSB 95–26.43
W/ SLACK FIBER
SIGNAL/DETECTOR
PULL BOX

2 EA	635-2-11
1 EA	635-2-13
100 LF	633-1-122
100 LF	633-1-124

DETECTOR/SIGNAL
PULL BOX
ABOVE GROUND CONDUIT

30 LF (2x)	630-2-14
2 EA	635-2-11
2 EA	635-3-12
1 EA	700-1-32
1 EA	700-12-11

RAMP METER SIGN

635-3-12	1 EA
700-1-32	1 EA
700-12-11	1 EA

–UTILIZE PHASE I
24 SM DROP
144 SM ITS
144 SM
–UTILIZE
EX. CONDUIT

–REMOVE
EX. LHUB 95–26.49 SB

1 EA	641-2-70
1 EA	639-1-620
1 EA	676-2-600

TRENCH LINE – 3 CONDUITS
1–2" CONDUIT (24 SM)
1–2" CONDUIT (SPARE)
1–2" CONDUIT (3–#6 (600 VAC))

290 LF	630-2-11
290 LF	633-1-122
290 LF	639-2-1

FSB 95–26.54 SB

100 LF (2x)	633-1-122
12 EA	633-2-31
1 EA	633-3-51
2 EA	633-3-12
1 EA	635-2-13

–UTILIZE
EX. FIBER PULL BOX
EX. POWER PULL BOX

50 LF (2x)	633-1-122

–INSTALL
EX. CONDUIT (24 SM DROP)
EX. CONDUIT (3–#6 (600 VAC))

300 LF	633-1-122
300 LF	639-2-1

C–D SB

4 AS	660-2-102

RAMP A

ABOVE GROUND CONDUIT
1–2" CONDUIT (SIGNAL)

130 LF	630-2-14

–REMOVE
EX. T–DMS 95–26.46

700-7-600	3 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

635-2-11	3 EA
635-2-12	1 EA
633-1-122	50 LF
633-1-124	50 LF

–UTILIZE PHASE I
24 SM DROP
144 SM ITS
144 SM

–UTILIZE PHASE I
2–24 SM DROP
3–#2 (600 VAC)
–INSTALL
EX. CONDUIT (2–24 SM DROP)

90 LF (2x)	633-1-122

SB SR–9 (I–95)

1985

1990

MATCHLINE STA. 1980+00.00

MATCHLINE STA. 1994+00.00

DAVIE BLVD.

NB SR–9 (I–95)

DIRECTIONAL BORE– 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

300 LF	630-2-12
300 LF	633-8-1

635-2-11 1 EA

–UTILIZE PHASE I
–24 SM DROP (TO 95–26.30 NB)
3–#6 (600 VAC)
–INSTALL
EX. CONDUIT (3–24 SM DROP)

180 LF (3x)	633-1-122

SIGNAL PULL BOX
ABOVE GROUND CONDUIT

630-2-14	30 LF
635-2-11	1 EA
635-3-12	1 EA

LHUB 95–26.47 NB
MVDS 95–26.47 NB (2x)
STA. 1990+15
SEE SITE DETAILS
LAYOUT 1

641-3-169	1 EA
660-3-11	2 EA
660-3-12	2 EA

TRENCH LINE – 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

630-2-11	390 LF
633-8-1	390 LF

RAMP B

–UTILIZE PHASE I
MVDS 95–26.30 NB
–UTILIZE
EX. LHUB 95–26.30 NB
EX. VOIP 95–26.30 NB
EX. DCCTV 95–26.30 NB
STA. 1980+90
SEE SITE DETAILS
LAYOUT 4

–UTILIZE PHASE I
24 SM DROP (TO 95–26.30 NB)
–INSTALL
EX. CONDUIT (2–24 SM DROP))

590 LF (2x)	633-1-122

UTILIZE
EX. CONDUIT
EX 3–#1/0 (600 VAC)

LHUB 95–26.41 NB
STA. 1986+45
SEE SITE DETAILS
LAYOUT 12

–UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (3x)	633-1-122

–UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (2x)	633-1-122

C–D NB

UTILIZE
EX. CONDUIT
EX 3–#6
EX. FIBER (FOR WAP)
EX. COMPOSITE

TRENCH LINE– 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

350 LF	630-2-11
350 LF	633-8-1

–UTILIZE PHASE I
24 SM DROP (TO 95–26.30 NB)
3–#6 (600 VAC)
–INSTALL
EX. CONDUIT (3–24 SM DROP)
EX. CONDUIT (2 MM DMS)
EX. CONDUIT (4–#2 (24 VDC))
(2–#10 (24 VDC))

150 LF (3x)	633-1-122
150 LF	639-2-1

EX. CCTV 95–26.44 EB/WB
EX. WAP 95–26.44 EB/WB (x2)

1 EA	635-2-11

–UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (2x)	633-1-122

L/A R/W LINE

SPLICE INTO
EX. SERVICE WIRE

BRIDGE MOUNT – 1 CONDUITS
1–2" CONDUIT (SIGNAL)

180 LF	630-2-15

1 EA	635-2-11

TRENCH LINE – 1 CONDUITS
1–2" CONDUIT (DETECTOR)

130 LF	630-2-11

DETECTOR PULL BOX
ABOVE GROUND CONDUIT

630-2-14	30 LF
635-2-11	1 EA
635-3-12	1 EA

–UTILIZE PHASE I
144 SM ITS
144 SM
3–#2 (600 VAC)
–INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

660-2-102	4 AS

–UTILIZE PHASE I
FSB 95–26.47 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-122	100 LF (4x)
633-2-31	16 EA
633-3-11	1 EA
633-3-12	2 EA

C–D NB

DIRECTIONAL BORE– 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

630-2-12	200 LF
633-8-1	200 LF

RAMP METER SIGN

635-3-12	1 EA (2x)
700-1-32	1 EA (2x)
700-12-11	1 EA (2x)

–UTILIZE
EX. CONDUIT
–INSTALL
EX. CONDUIT (2–24 SM DROP)
EX. CONDUIT (3–#1 (600 VAC))
–REMOVE
EX. 24 SM DROP (TO 95–26.27 NB)

633-1-122	100 LF (2x)
633-1-620	100 LF
639-2-1	100 LF

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BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT–179

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (24 SM DROP)

440 LF	633-1-122

EX. DMS 95-26.55 SB
EX. VOIP 95-26.55 SB
EXIST. TO REMAIN

EX. LHUB 95-26.55 SB
STA. 1994+18
EXIST. TO REMAIN

L/A R/W LINE

C-D SB

LHUB 95-26.63 SB
CCTV 95-26.63 SB
STA. 1998+70
SEE SITE DETAILS
LAYOUT 4

1 EA	641-3-169
1 EA	682-1-113

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (1x)	633-1-122
1 EA	635-2-11
1 EA	635-2-12

-REMOVE
EX. DCCTV 95-26.64 SB
EX. CCTV 95-26.64 SB
EX. MVDS 95-26.64 SB
STA. 1999+22

641-3-800	1 EA

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)

630-2-11	190 LF

DIRECTIONAL BORE - 3 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

630-2-12	80 LF

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)

TRENCHLINE - 3 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)

700 LF	630-2-11
700 LF	633-8-1

2 AS	660-2-102

RAMP METER SIGN

1 EA	700-1-32
1 EA	700-12-11
2 EA	635-2-11
2 EA	635-3-12
30 LF	630-2-14

EX. CONDUIT-ABANDON
EX. FIBER-REMOVE
EX. 3-#6-REMOVE

RAMP D

DETECTOR/SIGNAL
PULL BOX

2 EA	635-2-11

EX. CONDUIT-ABANDON
EX. FIBER-REMOVE
EX. POWER SERVICE-REMOVE

EX. S-DMS 95-26.68 SB
STA. 2001+25
REMOVE

700-8-600	1 EA

DETECTOR/SIGNAL
PULL BOX

635-2-11	2 EA

-UTILIZE
EX. 3-#2/0
EX. CONDUIT
-REMOVE (PHASE I)
EX. FIBER

-UTILIZE EX. PULL BOX
EXTEND CONDUIT

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

1995

RAMP SIGNAL
STA. 1999+50

1 EA	646-1-11
2 EA	650-1-13
1 EA	700-3-101
4 AS	660-2-102
2 EA	635-2-11

SB SR-9 (I-95)

2000

RAMP E

-UTILIZE
EX. CONDUIT (MVDS CABLE)
-INSTALL 2 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)

630-2-12	230 LF
633-8-1	230 LF

℄ CONST. SR 9

2005

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)

DIRECTIONAL BORE- 6 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

100 LF	630-2-12
100 LF	633-1-122
100 LF	639-2-1

RAMP SIGNAL
STA. 1998+00

1 EA	646-1-11
2 EA	650-1-13
1 EA	700-3-101
4 AS	660-2-102

UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)

-UTILIZE PHASE I
FSB 95-26.64 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

NB SR-9 (I-95)

-REMOVE
EX. MVDS 95-26.72 NB
STA. 2003+15

641-2-80	1 EA

EXTEND CONDUIT

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
DETECTOR PULL BOX
SIGNAL PULL BOX

633-1-122	50 LF
635-2-11	1 EA (3x)
635-2-12	1 EA

RAMP C

MATCHLINE STA. 1994+00.00

MATCHLINE STA. 2008+00.00

1 EA	635-2-11

TRENCH LINE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)

630-2-11	220 LF
633-8-1	220 LF

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)

90 LF	630-2-12
90 LF	633-8-1

DCCTV 95-26.59 NB
RSC 95-26.59 NB
STA. 1996+10
SEE SITE DETAILS
LAYOUT 22

641-3-169	1 EA
660-1-111	2 EA
682-1-113	1 EA

C-D NB

-UTILIZE PHASE I
FSB 95-26.59 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

FIBER PULL BOX
W/SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA (3x)
635-2-12	1 EA

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

RAMP B

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)
-INSTALL
1-2" CONDUIT (24 SM DROP)

220 LF	630-2-11
220 LF	633-1-122

RSC 95-26.71 NB
DCCTV 95-26.71 NB
INCLUDES CONTACT
CLOSURE TO ETHERNET SWITCH
STA. 2002+80
SEE SITE DETAILS
LAYOUT 22

1 EA	641-3-169
2 EA	660-1-111
1 EA	682-1-113

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (24 SM)
1-2" CONDUIT (3-#6 (600 VAC))

40 LF	630-2-11
40 LF	633-1-122
40 LF	639-2-1

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF

C-D NB

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#1 (600 VAC)
-INSTALL 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)

340 LF	630-2-12
340 LF	633-8-1

L/A R/W LINE

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)

630-2-12	285 LF
633-8-1	285 LF

0 20 100
Feet

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-180

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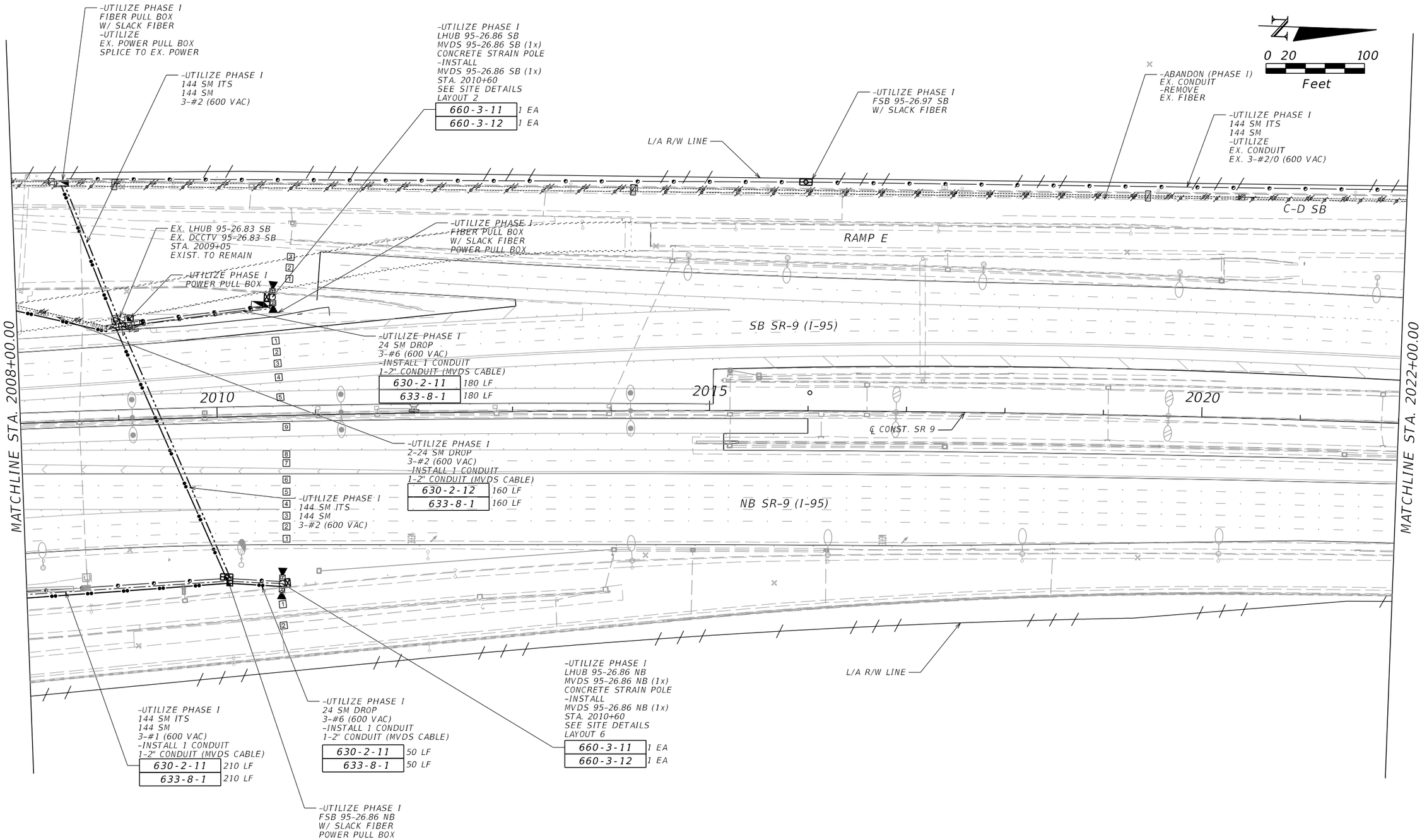

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Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-181

RELEASED FOR CONSTRUCTION
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0 20 100
Feet

MATCHLINE STA. 2022+00.00

MATCHLINE STA. 2036+00.00

SB SR-9 (I-95)

NB SR-9 (I-95)

℄ CONST. SR 9

2025 2030 2035

-UTILIZE PHASE I
FSB 95-27.10 SB
W/ SLACK FIBER
-INSTALL
POWER PULL BOX

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (3-#6 (600 VAC)
1-2" CONDUIT (SPARE)

630-2-12	100 LF
639-2-1	100 LF

LHUB 95-27.10 SB
MVDS 95-27.10 SB (2x)
STA. 2023+50
SEE SITE DETAILS
LAYOUT 3

641-3-169	1 EA
660-3-11	2 EA
660-3-12	2 EA

-UTILIZE PHASE I
144 SM ITS
144 SM
-UTILIZE
EX. CONDUIT
EX. 3-#2/0 (600 VAC)

-UTILIZE
EX. POWER PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM
-UTILIZE
EX. CONDUIT
EX. 3-#2/0 (600 VAC)

-UTILIZE
EX. FIBER PULL BOX
W/ SLACK
EX. POWER PULL BOX

633-1-122	50 LF

-INSTALL
EX. CONDUIT (24 SM DROP)
-UTILIZE PHASE I
24 SM DROP
3-#2 (600 VAC)

633-1-122	170 LF

-UTILIZE
EX. CONDUIT (24 SM DROP)
EX. CONDUIT (3-#6 (600 VAC))

633-1-122	130 LF
639-2-1	130 LF

-UTILIZE PHASE I
FSB 95-27.22 SB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-2-31	8 EA
633-3-11	1 EA

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2/0 (600 VAC)

L/A R/W LINE

-UTILIZE
EX. FIBER PULL BOX
W/ SLACK
EX. POWER PULL BOX

633-1-122	50 LF

-UTILIZE
EX. LHUB 95-27.20 SB
EX. MVDS x4 95-27.20 SB
-REMOVE
EX. T-DMS 95-27.21 SB
STA. 2028+70 SB

700-7-600	3 EA

LHUB 95-27.13 NB
MVDS 95-27.13 NB
STA. 2024+90
SEE SITE DETAILS
LAYOUT 2

641-2-14	1 EA
660-3-11	1 EA
660-3-12	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-11	400 LF
633-1-122	400 LF
639-2-1	400 LF

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

L/A R/W LINE

-UTILZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
-INSTALL
SIGNAL PULL BOX

635-2-11	1 EA

LHUB 95-27.30 SB
MVDS 95-27.30 SB (2x)
W/ CONTACT CLOSURE
STA. 2033+70
SEE SITE DETAILS
LAYOUT 3

641-3-169	1 EA
660-3-11	2 EA
660-3-12	2 EA

L/A R/W LINE

-UTILIZE EXIST.
FIBER SPLICE BOX
SLACK FIBER

633-1-122	100 LF (2x)

EX. CONDUIT- ABANDON
EX. SERVICE WIRE- REMOVE

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#4/0 (600 VAC)
-INSTALL
DIRECTIONAL BORE- 1 CONDUITS
1-1" CONDUIT (SIGNAL)

630-2-12	100 LF

RAMP METER SIGN

700-1-12	1 EA
700-12-11	1 EA
630-2-11	35 LF
635-2-11	1 EA

-UTILIZE PHASE I
FSB 95-27.30 SB
W/ SLACK FIBER
POWER PULL BOX
-INSTALL
SIGNAL PULL BOX

633-1-122	100 LF
635-2-11	1 EA
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#4/0 (600 VAC)

-ABANDON (PHASE I)
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

-UTILIZE PHASE I
LHUB 95-27.30 NB
MVDS 95-27.30 NB
CCTV 95-27.30 NB
STA. 2034+60
SEE SITE DETAILS
LAYOUT 4
(NO TRANSFORMER)
-UTILIZE EX. POLE
-REMOVE EX. DCCTV

SERVICE POLE

639-1-122	1 AS

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
24 SM DROP
3-#6 (120 VAC)

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (3-#4/0 (480 VAC))

630-2-11	290 LF
639-2-1	290 LF

NOTE:
1. T-DMS 95-27.21 SB & LHUB 95-27.20 SB. DURING CONSTRUCTION TO BE REMOVED AFTER EXPRESS LANES ARE OPERATIONAL.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-182

MATCHLINE STA. 134+31.45 (SHEET IT-204)

MATCHLINE STA. 2036+00.00

MATCHLINE STA. 2050+00.00

0 20 100 Feet

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX
50 LF (3x) 633-1-122
1 EA 635-2-11
1 EA 635-2-12

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (3-24 SM DROP)
1-2" CONDUIT (3-#6 (VAC))
1-2" CONDUIT (SPARE)
333 LF 630-2-12
333 LF (3x) 633-1-122
333 LF 639-2-1

-TO REMAIN
EX. LHUB P&R-1
EX. DCCTV P&R-1
EX. WAP

-UTILIZE
EX. CONDUIT
EX. 4-#6 (120/240 VAC)
-INSTALL
EX. CONDUIT (24 SM DROP)
1 633-1-122
80 LF

-UTILIZE PHASE I
144 SM & 72 SM

-REPLACE
EX. FSB 95-27.46
635-2-13 1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
630-2-11 210 LF
633-1-122 210 LF
639-2-1 210 LF

L/A R/W LINE

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX
633-1-122 50 LF
635-2-11 1 EA
635-2-12 1 EA

LHUB 95-27.53 SB
MVDS 95-27.53 SB
CCTV 95-27.53 SB
STA. 2046+00
SEE SITE DETAILS
LAYOUT 4
641-3-175 1 EA
660-3-11 1 EA
660-3-12 1 EA
682-1-113 1 EA

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
630-2-12 260 LF
633-1-122 260 LF
639-2-1 260 LF

BROWARD BLVD

RAMP E

-UTILIZE
EX. CCTV 95-27.36 SB
EX LHUB 95-27.36 SB
-REMOVE
EX. S-DMS 95-27.36 SB
STA. 2036+83
700-8-600 1 EA

-UTILIZE PHASE I
FSB 95-27.46 SB
W/ SLACK FIBER
POWER PULL BOX
100 LF (4x) 633-1-122
20 EA 633-2-31
1 EA 633-3-51
2 EA 633-3-12

-UTILIZE PHASE I
144 SM ITS
144 SM
24 SM
3-#4/0 (600 VAC)

-UTILIZE
EX. CCTV 95-27.41 SB

SB SR-9 (I-95)

℄ CONST. SR 9

2040

2045

RAMP H

LHUB 95-27.50 NB
MVDS 95-27.50 NB
DCCTV 95-27.50 NB
STA. 2044+50
SEE SITE DETAILS
LAYOUT 3
641-3-175 1 EA
660-3-11 1 EA
660-3-12 1 EA
682-1-113 1 EA

EX. LHUB 95-27.41 NB
EX. DMS 95-27.41 NB
STA. 2039+80
TO REMAIN
NO TRANSFOMER

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#4/0 (600 VAC)
3-#2 (600 VAC)

-UTILIZE
EX. FIBER SPLICE BOX
SLACK FIBER
EX. POWER SPLICE BOX

-UTILIZE PHASE I
FSB 95-27.50 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX
633-1-122 100 LF
633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

-UTILIZE
EX. COMPOSITE CABLE
-REMOVE (PHASE I).
EX. FIBER
EX. SERVICE WIRE

NB SR-9 (I-95)

-UTILIZE PHASE I
24 SM DROP
3-#6 (120 VAC)

-UTILIZE
EX. CONDUIT
EX. POWER
EX. FIBER DROP TO 95-27.47 NB

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
630-2-11 80 LF

EX. 3-WAP 95-27.47 NB
EX. VOIP 95-2747 NB
STA. 2042+64
EXIST. TO REMAIN

RAMP F

-UTILIZE PHASE I
EX. 4-#6 (120/240 VAC)
2-24 SM DROP
RS-485
3-#6 (120 VAC)
-INSTALL
ETHERNET CABLE
100 LF 633-8-1

-REMOVE/REPLACE
EX. GEN 95-27.43 NB
GEN 95-27.43 NB
1 EA 639-5-60

-UTILIZE PHASE I
POWER PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#4/0 (600 VAC)

RAMP METER SIGN
635-3-12 1 EA
700-1-32 1 EA
700-12-11 1 EA

660-2-102 4 AS

L/A R/W LINE

SIGNAL/DETECTOR PULL BOX
630-2-14 50 LF (2x)
635-2-11 1 EA (2x)

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2/0 (600 VAC)
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

UTILIZE PHASE I
3-#4/0 (480 VAC)

-UTILIZE PHASE I
2-24 SM DROP
3-#4/0 (600 VAC)
3-#4/0 (600 VAC)
3-#2 (600 VAC)

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (3-#4/0 (480 VAC))
350 LF 630-2-11
350 LF 639-2-1

POWER SERVICE
1 EA 639-3-11
1 EA 641-2-12

-UTILIZE PHASE I
FSB 95-27.46 NB
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE IA
POWER PULL BOX

DIRECTIONAL BORE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
630-2-12 125 LF

L/A R/W LINE

DIRECTIONAL BORE- 1 CONDUITS
1-2" CONDUIT (3-#4/0 (480 VAC))
30 LF 630-2-12
30 LF 639-2-1

-UTILIZE
EX. POWER
PULL BOX

SIGNAL/DETECTOR PULL BOX
1 EA (5x) 635-2-11

RAMP METER SIGN
700-1-12 1 EA
700-12-11 1 EA

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (SIGNAL)
630-2-11 105 LF

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
630-2-11 110 LF

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-183

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32
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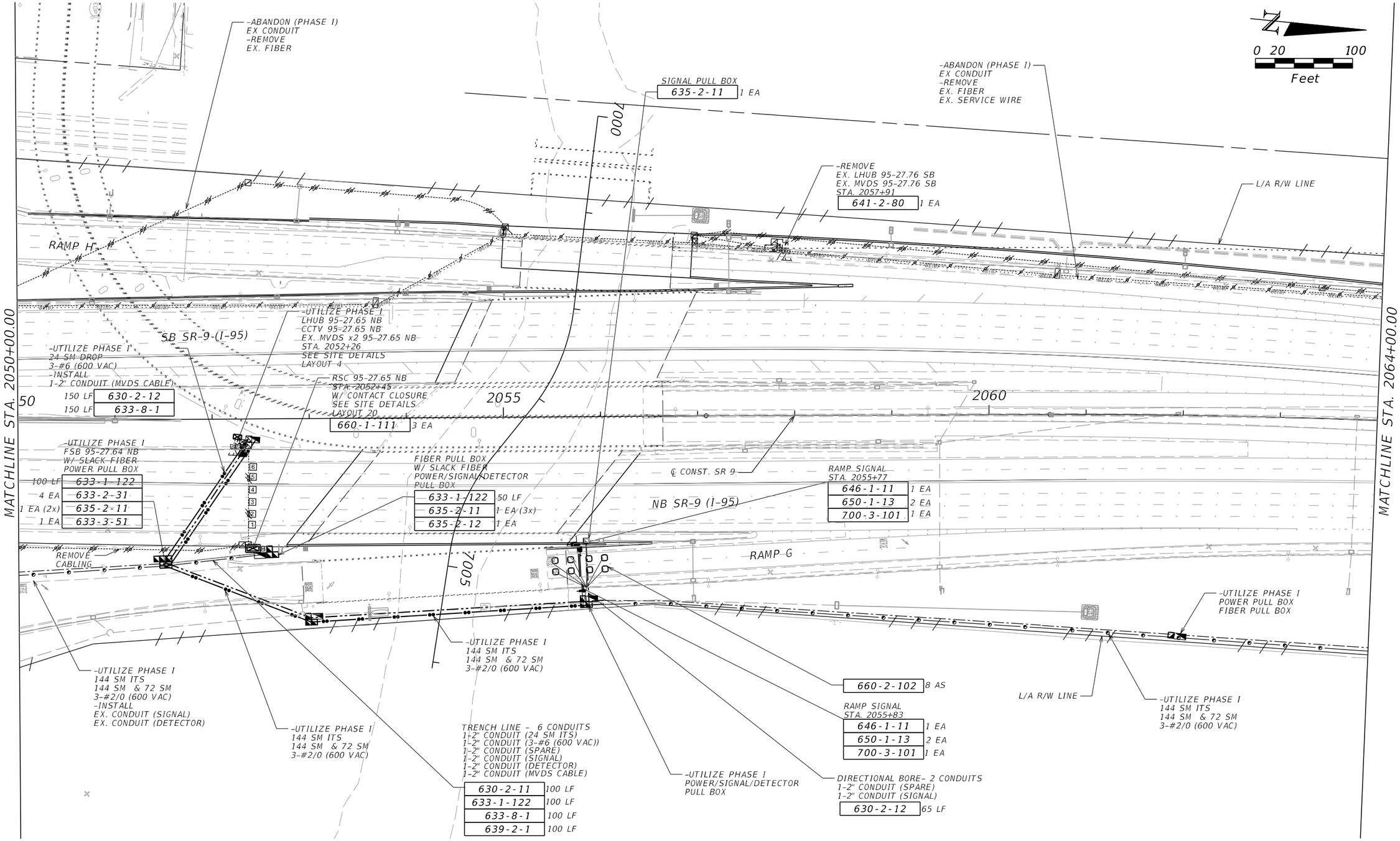

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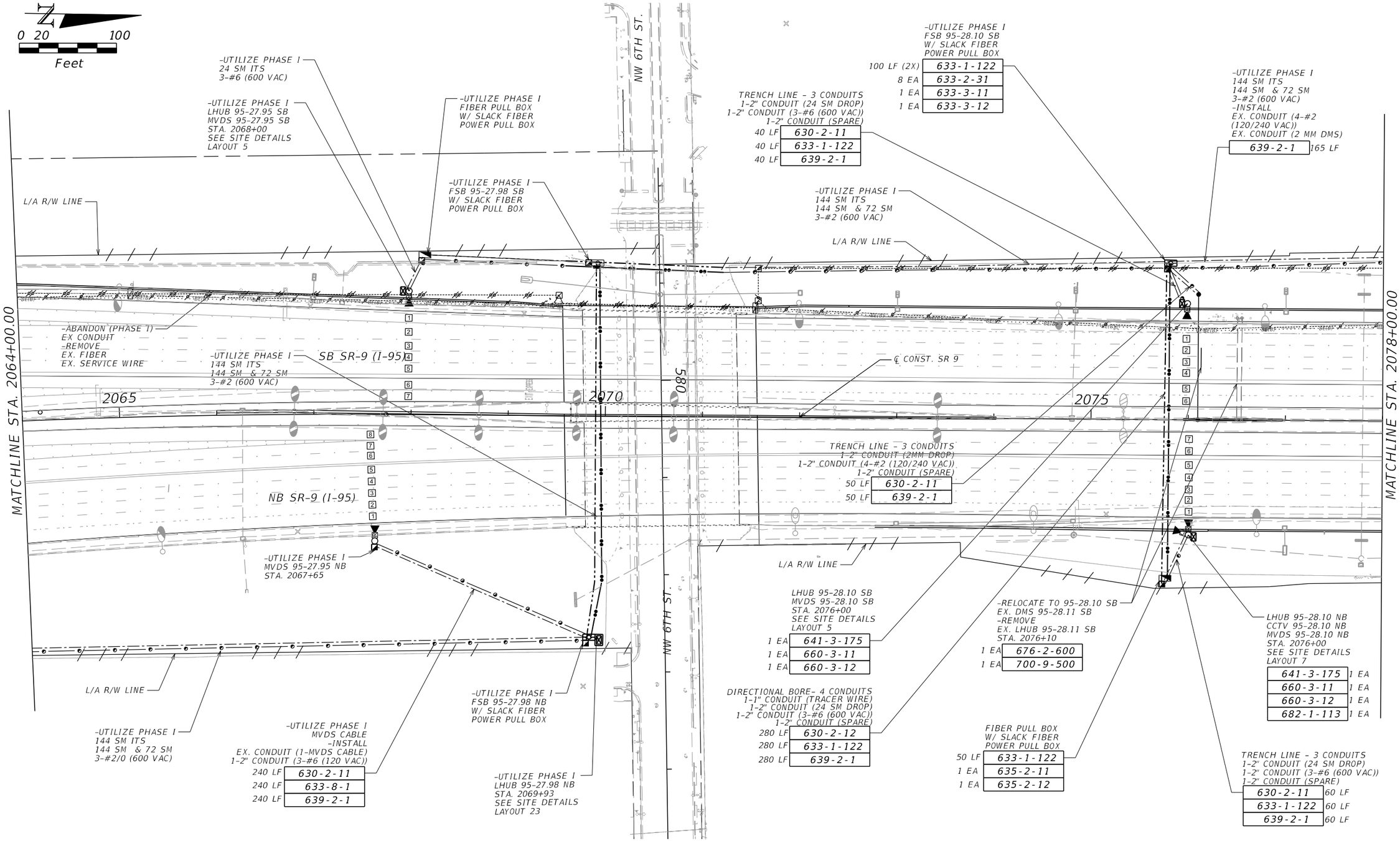
ITS PLAN SHEET

SHEET NO. IT-184



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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
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ITS PLAN SHEET

SHEET NO. IT-185

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0 20 100
Feet

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (4-#2 (120/240 VAC))
EX. CONDUIT (2 MM DMS)

639-2-1	144 LF

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

-UTILIZE PHASE I
FSB 95-28.16 SB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

-REMOVED IN PHASE I
EX. LHUB 95-28.29 SB
EX. CCTV 95-28.29 SB
EX. MVDS 95-28.29 SB
-RELOCATED IN PHASE I
TO 95-28.30 SB
EX. VOIP 95-28.30 SB
EX. WAP 95-28.30 SB
STA. 2086+11

-UTILIZE PHASE I
FSB 95-28.29 SB
W/ SLACK FIBER
POWER PULL BOX

100 LF (2X) 633-1-122	
8 EA 633-2-31	
1 EA 633-3-12	
1 EA 633-3-51	

-UTILIZE PHASE I
LHUB 95-28.30 SB
MVDS 95-28.30 SB
CCTV 95-28.30 SB
EX. VOIP 95-28.30 SB
EX. 2-WAP 95-28.30 SB
-REMOVE
TEMP WAP 95-28.30 SB
STA. 2086+85
-RELOCATE TO 95-28.31 NB
EX. MVDS 95-28.30 SB
SEE SITE DETAILS
LAYOUT 5

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SPARE)

160 LF	630-2-11
160 LF	633-1-122
160 LF	633-8-1
160 LF	639-2-1

-UTILIZE PHASE I
FSB 95-28.35 SB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

100 LF	633-1-122
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)

260 LF	630-2-11
260 LF	633-8-1

RSC 95-28.38 SB
STA. 2091+00
INCLUDES CONTACT
CLOSURE TO ETHERNET SWITCH
SEE SITE DETAILS
LAYOUT 20

50 LF	633-1-122
3 EA	635-2-11
1 EA	635-2-12
2 EA	660-1-111

L/A R/W LINE

RAMP I

LHUB 95-95-28.16 SB
STA. 2079+50
SEE SITE DETAILS
LAYOUT 9

SB SR-9 (I-95)

-ABANDON (PHASE I)
EX CONDUIT
-REMOVE
EX FIBER
EX. SERVICE WIRE

DIRECTIONAL BORE - 2 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
60 LF 630-2-12

660-2-102 4 AS

MATCHLINE STA. 2078+00

2080

℄ CONST. SR 9

2085

2090

MATCHLINE STA. 2092+00

NB SR-9 (I-95)

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

EL-DMS 95-28.33 NB
STA. 2088+00
1 EA 700-8-137

RAMP SIGNAL
STA. 2090+60

1 EA	646-1-11
2 EA	650-1-13
1 EA	700-3-101
2 EA	635-2-11

L/A R/W LINE

-UTILIZE PHASE 1
24 SM DROP
3-#6 (600 VAC)

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (2-24 SM DROP)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SPARE)

340 LF	630-2-12
340 LF (2X)	633-1-122
340 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (2X)	633-1-122
2 EA	635-2-11
1 EA	635-2-12

LHUB 95-28.29 NB
STA. 2086+30
SEE SITE DETAILS
LAYOUT 10

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (4-#1/0 (120/240 VAC))
1-2" CONDUIT (SPARE)

80 LF	630-2-11
80 LF	633-1-122
80 LF	639-2-1

-INSTALL
LHUB 95-28.31 NB
-RELOCATE
MVDS 95-28.31 NB
STA. 2087+19
SEE SITE DETAILS
LAYOUT 6

641-2-14	1 EA
660-3-41	1 EA
660-3-42	1 EA

REMOVED IN PHASE I
EX. LHUB 95-28.31 NB
EX. MVDS 95-28.31 NB
EX. POLE 95-28.31 NB
STA. 2086+90

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	2 EA
635-2-12	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

635-2-11	1 EA
635-2-12	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#1/0 (120/240 VAC))
1-2" CONDUIT (SPARE)

630-2-11	110 LF
639-2-1	110 LF

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Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-186

0 20 100
Feet

MATCHLINE STA. 2092+00.00

MATCHLINE STA. 2106+00.00

SUNRISE BLVD.

RAMP I

RAMP L

RAMP J

RAMP K-2

SB SR-9 (I-95)

NB SR-9 (I-95)

℄ CONST. SR-9

2095

2100

2105

L/A R/W LINE

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER/SIGNAL/
DETECTOR PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)

350 LF	630-2-11
350 LF	633-8-1

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (SIGNAL)

40 LF	630-2-11

SIGNAL PULL BOX

30 LF	630-2-14
1 EA	635-2-11
1 EA	635-3-12

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)

630-2-12	90 LF
633-8-1	90 LF

RAMP METER SIGN

635-3-12	1 EA
700-1-13	1 EA
700-12-11	1 EA

RAMP METER SIGN

635-3-12	1 EA
700-1-13	1 EA
700-12-11	1 EA

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#6 (600 VAC)
-INSTALL
1-2" CONDUIT (MVDS CABLE)

630-2-12	300 LF
633-8-1	300 LF

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#6 (600 VAC)
-INSTALL
EX. CONDUIT (2 MM DMS)
EX. CONDUIT (4-#2/0 (120/240 VAC))
1-2" CONDUIT (MVDS CABLE)

630-2-11	160 LF
633-8-1	160 LF
639-2-1	160 LF

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#1 (600 VAC)

-UTILIZE PHASE I
LHUB 95-28.56 SB
MVDS 95-28.56 SB
STA. 2100+20
SEE SITE DETAILS
LAYOUT 16

REMOVE
CABLING

LHUB 95-28.47 SB
DCCTV 95-28.47 SB
VIDEO DETECTOR
STA. 2095+60
INCLUDES CONTACT
CLOSURE TO
ETHERNET SWITCH
SEE SITE DETAILS
LAYOUT 3

641-3-175	1 EA
682-1-113	1 EA
660-4-11	1 EA
660-4-12	1 EA

-ABANDON (PHASE I)
EX CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

BRIDGE MOUNTED- 1 CONDUITS
1=2" CONDUIT (SIGNAL)

630-2-15	160 LF

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

UTILIZE PHASE I
FSB 95-28.56 SB
W/ SLACK FIBER
POWER PULL BOX

-REMOVE
EX. MVDS 95-28.62 SB
STA. 2103+30

1 EA	641-2-80

EL-DMS 95-28.53 SB
STA. 2098+90

700-8-137	1 EA

-UTILIZE PHASE I
24 SM DROP
3-#6 (600 VAC)

-REMOVE
EX. MVDS 95-28.62 NB
STA. 2103+30

1 EA	641-2-80

TRENCH LINE - 4 CONDUITS
1-2" CONDUIT (24 SM ITS)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SPARE)

630-2-11	230 LF
633-1-122	230 LF
633-8-1	230 LF
639-2-1	230 LF

LHUB 95-28.63 NB
CCTV 95-28.63 NB
STA. 2104+20
SEE SITE DETAILS
LAYOUT 4

641-3-169	1 EA
682-1-113	1 EA

-UTILIZE PHASE I
LHUB 95-28.56 NB
MVDS 95-28.56 NB
STA. 2100+20
SEE SITE DETAILS
LAYOUT 2

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

DIRECTIONAL BORE - 2 CONDUITS
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SPARE)

380 LF	630-2-11
380 LF	633-8-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-122
1 EA	635-2-11
1 EA	635-2-12

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (COMPOSITE)

240 LF	630-2-11
240 LF	633-8-1

TRENCH LINE - 4 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SPARE)

159 LF	630-2-11
159 LF	633-1-124

1 EA	635-2-11

ELECTRICAL
PULL BOX

2 EA	635-2-11

DCCTV 95-28.63 NB
STA. 2104+15
(POLE MOUNTED)

641-3-169	1 EA
682-1-113	1 EA
635-2-11	1 EA

-UTILZE PHASE I
FSB 95-28.47 SB
W/ SLACK FIBER
POWER/ DETECTOR
PULL BOX

100 LF	633-1-122
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (SIGNAL)

80 LF	630-2-11

SIGNAL PULL BOX

30 LF	630-2-14
1 EA	635-2-11
1 EA	635-3-12

L/A R/W LINE

MATCHLINE STA. 113+00.00 (SHEET IT-205)

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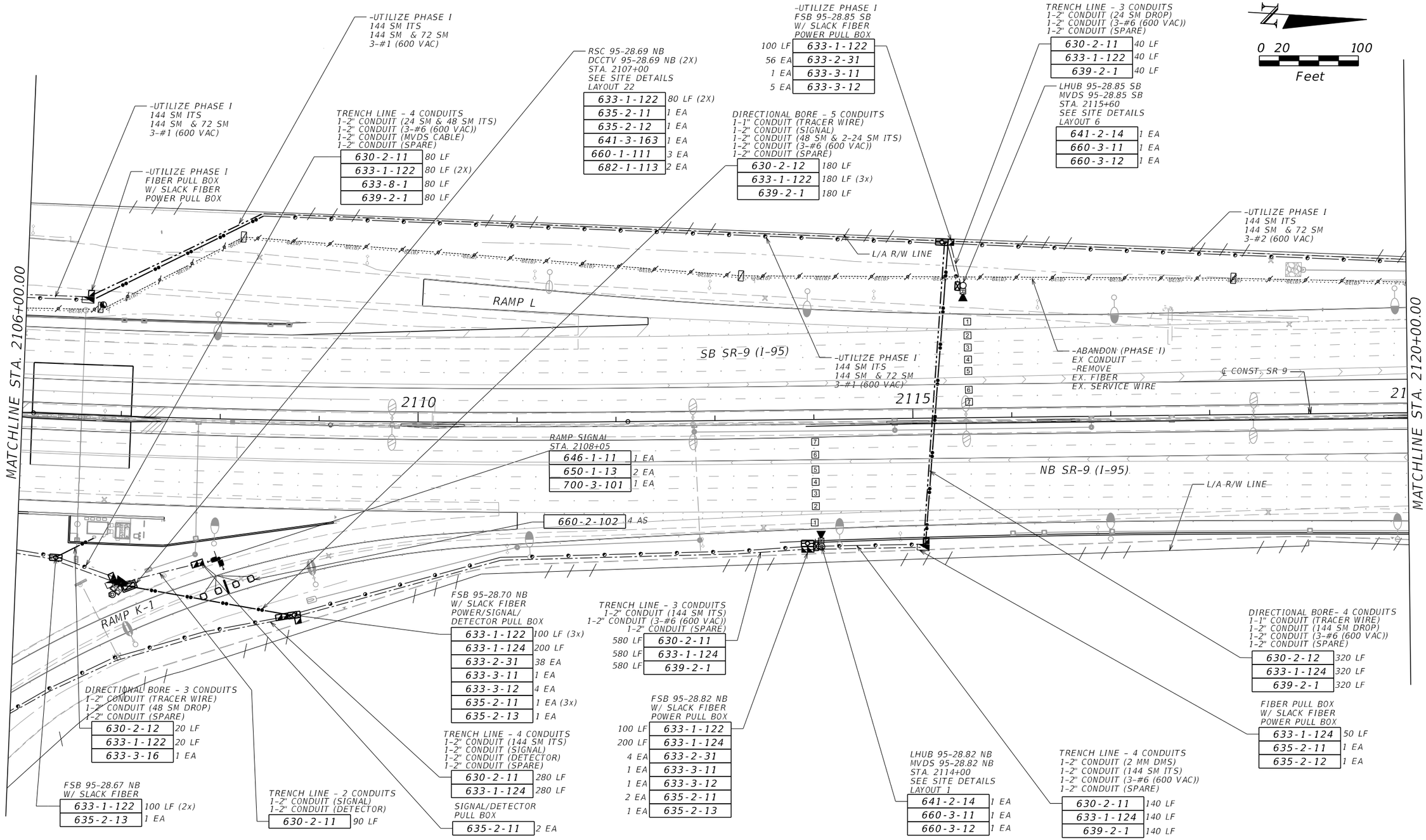
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-187



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ITS PLAN SHEET

SHEET NO. IT-188

RELEASED FOR CONSTRUCTION
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0 20 100

Feet

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

-UTILIZE PHASE 1
FIBER PULL BOX
W/ SLACK FIBER
POWER/PULL BOX

-REMOVE
EX. CCTV 95-29.03 SB
EX. MVDS 95-29.03 SB
EX. HARB 95-29.03 SB
-RELOCATE TO 95-29.11 SB
EX. VOIP 95-29.03 SB
STA. 2125+35
641-3-800 1 EA

-UTILIZE PHASE 1
FSB 95-29.11 SB
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
LHUB 95-29.11 SB
MVDS 95-29.11 SB
CCTV 95-29.11 SB
EX. VOIP 95-29.11 SB
STA. 2129+25
SEE SITE DETAILS
LAYOUT 3

-UTILIZE PHASE 1
FIBER PULL BOX
W/ SLACK FIBER
POWER/PULL BOX

L/A R/W LINE

-ABANDON (PHASE I)
EX CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

SB SR-9 (I-95)

2125

2130

MATCHLINE STA. 2120+00.00

MATCHLINE STA. 2134+00.00

℄ CONST. SR 9

NB SR-9 (I-95)

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

L/A R/W LINE

-UTILIZE PHASE I
LHUB 95-29.10 NB
MVDS 95-29.10 NB
STA. 2128+80
SEE SITE DETAILS
LAYOUT 3

-UTILIZE PHASE I
FSB 95-29.10 NB
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-189

RELEASED FOR CONSTRUCTION
BY: (FDOT)_VS_____ Date: 3/21/2018_____
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (COMPOSITE CABLE)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (4-#1 (24 VDC))
(2-#8 (24 VDC))
1-2" CONDUIT (SPARE)

290 LF	630-2-11
290 LF	633-1-122
290 LF (2x)	639-2-1
290 LF	633-8-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-122
2 EA	635-2-11
1 EA	635-2-12

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-122
1 EA	635-2-11
1 EA	635-2-12

-ABANDON (PHASE I)
EX CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

0 20 100
Feet

L/A R/W LINE

LHUB 95-29.27 SB
STA. 2138+00
SEE SITE DETAILS
LAYOUT 15

SB SR-9 (I-95)

S-DMS 95-29.33 SB
STA. 2141+24
700-8-134 1 EA

2140

2135

2145

℄ CONST. SR 9

MVDS 95-29.33 SB
STA. 2141+00

1 EA	641-2-14
1 EA	660-3-11
1 EA	660-3-12

NB SR-9 (I-95)

-UTILIZE PHASE I
POWER PULL BOX

MATCHLINE STA. 2134+00.00

MATCHLINE STA. 2148+00.00

L/A R/W LINE

LHUB 95-29.33 NB
MVDS 95-29.33 NB
STA. 2141+20
SEE SITE DETAILS
LAYOUT 3

641-3-169	1 EA
660-3-11	1 EA
660-3-12	1 EA

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	310 LF
633-1-122	310 LF
639-2-1	310 LF

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

-UTILIZE PHASE I
FSB 95-29.33 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF (2x)	633-1-122
8 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-190

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (12-#6 (24 VDC))
(6-#10 (24 VDC))
1-2" CONDUIT (SPARE)

85 LF	630-2-11
85 LF	633-1-122
85 LF (2x)	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	2 EA
635-2-12	1 EA

NW 19TH STREET

-UTILIZE PHASE I
LHUB 95-29.58 SB
MVDS 95-29.58 SB
DCCTV 95-29.58 SB
DCCTV 95-29.58 SB
EX. VOIP 95-29.58 SB
STA. 2154+40
SEE SITE DETAILS
LAYOUT 7
(NO TRANSFORMER)

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (4-#1 (24 VDC))
(2-#8 (24 VDC))
1-2" CONDUIT (SPARE)

270 LF	630-2-11
270 LF	633-1-122
270 LF (2x)	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

100 LF	633-1-122
3 EA	635-2-11
2 EA	635-2-12

NOTE:
1. LHUB 95-29.51 SB SPARE 2MM FIBER AND POWER FOR TWO ADDITIONAL FUTURE T-DMS SHALL BE INSTALLED IN CONDUIT.

0 20 100
Feet

LHUB 95-29.51 SB
STA. 2150+70
SEE SITE DETAIL
LAYOUT 12

-UTILIZE PHASE IA
FSB 95-29.56 SB
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
3-#1/0 (600 VAC)
144 SM ITS
144 SM & 72 SM ITS

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-122
1 EA	635-2-11
1 EA	635-2-12

T-DMS 95-29.50 SB
STA. 2149+90

1 EA	700-7-132

-UTILIZE PHASE I
24 SM DROP
3-#6 (120/240 VAC)

LHUB 95-29.63 SB
STA. 2157+00
SEE SITE DETAILS
LAYOUT 12

-ABANDON (PHASE I)
EX CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

L/A R/W LINE

L/A R/W LINE

SB SR-9 (I-95)

-REMOVE
EX. CCTV 95-29.51 SB
EX. MVDS 95-29.51 SB
EX. VOIP 95-29.51 SB

641-3-800	1 EA

145

2150

2155

2160

℄ CONST. SR 9

S-DMS 95-29.68 SB
STA. 2159+60

700-8-134	1 EA

MATCHLINE STA. 2148+00.00

MATCHLINE STA. 2162+00.00

-UTILIZE PHASE I
LHUB 95-29.58 NB
GEN 95-29.58
MVDS 95-29.58 NB
CCTV 95-29.58 NB
STA. 2154+40
(NO TRANSFORMER)
SEE SITE DETAILS
GENERATOR SITE

-UTILIZE PHASE I
24 SM DROP
3-#6 (120/240 VAC)
-INSTALL
1-2" CONDUIT (ETHERNET CABLE)

630-2-11	60 LF
633-8-1	60 LF

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

290 LF	630-2-12
290 LF	633-1-122
290 LF	639-2-1

NB SR-9 (I-95)

S-DMS 95-29.68 NB
STA. 2159+71

700-8-134	1 EA

LHUB 95-29.71 NB
STA. 2161+00
SEE SITE DETAILS
LAYOUT 11

L/A R/W LINE

L/A R/W LINE

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

-UTILIZE PHASE I
3-#1/0 (600 VAC)
144 SM ITS
144 SM & 72 SM

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#1/0 (600 VAC)

-UTILIZE PHASE I
FSB 95-29.58 NB
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-122

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#2 (24 VAC))
(2-#10 (24 VAC))
1-2" CONDUIT (SPARE)

630-2-12	50 LF
639-2-1	50 LF

-UTILIZE PHASE I
FSB 95-29.49 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF	633-1-122
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	300 LF
633-1-122	300 LF
639-2-1	300 LF

POWER SERVICE POLE
SERVICE DISCONNECT
METER

1 AS	639-1-122
1 EA	641-2-12

-UTILIZE PHASE I
FSB 95-29.58 NB
W/ SLACK FIBER
POWER PULL BOX

-UTILZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#1/0 (600 VAC)
-INSTALL
EX. CONDUIT (24 SM DROP)
EX. CONDUIT (2 MM DMS)
EX. CONDUIT (4-#2 (24 VDC))
(2-#10 (24 VDC))

155 LF	633-1-122
155 LF	639-2-1

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#2 (24 VAC))
(2-#10 (24 VAC))
1-2" CONDUIT (SPARE)

630-2-12	50 LF
639-2-1	50 LF

-UTILIZE PHASE I
FSB 95-29.71 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF (2x)	633-1-122
8 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

DIRECTIONAL BORE- 1 CONDUIT
1-2" CONDUIT (3-#4/0 (480 VAC))

150 LF	630-2-12
150 LF	639-2-1

POWER SERVICE POINT
NEW 480V TX

1 EA	635-2-11

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DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-191

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0 20 100
Feet

-ABANDON (PHASE I)
EX CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

635-2-12	1 EA
633-1-122	50 LF
635-2-11	1 EA

LHUB 95-29.83 SB
MVDS 95-29.83 SB
DCCTV 95-29.83 SB
STA. 2167+60
SEE SITE DETAILS
LAYOUT 4

641-3-169	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (144 SM DROP)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-11	75 LF
633-1-124	75 LF
639-2-1	75 LF

EXIST. FIBER AND
POWER PULL BOX

EX. DMS 95-29.99 SB
STA. 2175+60
TO REMAIN

-UTILIZE PHASE I
CONDUIT
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (144 SM DROP)

633-1-124	285 LF

FSB 95-29.99 SB
W/ SLACK FIBER
POWER PULL BOX

633-1-124	50 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	2 EA
635-2-13	1 EA

DIRECTIONAL BORE - 5 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (144 SM DROP)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	30 LF
633-1-124	30 LF
639-2-1	30 LF

LHUB 95-29.99 SB
STA. 2175+80
SEE SITE DETAILS
LAYOUT 9
(4-#6 (120/240 VAC))

639-2-1	50 LF

L/A R/W LINE

-RELOCATE
EX. DMS 95-29.99 NB
STA. 2175+60

SB SR-9 (I-95)

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	290 LF
633-1-122	290 LF
639-2-1	290 LF

-REMOVE
EX. LHUB 95-29.99 NB
EX. GEN 95-29.99 NB
STA. 2175+83

639-5-60	1 EA
676-2-600	1 EA

2165 2170 2175

MATCHLINE STA. 2162+00.00

℄ CONST. SR-9

NB SR-9 (I-95)

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
633-1-123	50 LF
633-1-124	50 LF (2x)

-UTILIZE PHASE I
3-#2 (600 VAC)
144 SM ITS
144 SM & 72 SM ITS

LHUB 95-29.95 NB
STA. 2174+00
SEE SITE DETAILS
LAYOUT 9

MATCHLINE STA. 2176+00.00

-UTILIZE PHASE I
3-#1/0 (600 VAC)
144 SM ITS
144 SM & 72 SM ITS

-UTILIZE PHASE I
FSB 95-29.83 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF (2x)
633-2-31	8 EA
633-3-11	1 EA
633-3-12	1 EA

-UTILIZE PHASE I
FSB 95-29.95 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-1-123	100 LF
633-1-124	100 LF (3x)
633-2-31	374 EA
633-3-11	3 EA
633-3-12	32 EA

-BUTT SPLICE MOC PHASE I
TO PROPOSED 144 SM ITS
144 SM & 72 SM ITS

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#6 (120/240 VAC))
1-2" CONDUIT (SPARE)

630-2-11	50 LF
639-2-1	50 LF

L/A R/W LINE

LHUB 95-29.83 NB
MVDS 95-29.83 NB
DCCTV 95-29.83 NB
STA. 2167+40
SEE SITE DETAILS
LAYOUT 3

641-3-169	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA

-UTILIZE PHASE I
CONDUIT
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (2 MM DMS)
EX. CONDUIT (4-#6 (120/240 VAC)
EX. CONDUIT (144 SM DROP)
EX. CONDUIT (144 SM & 72 SM)

633-1-123	130 LF
633-1-124	130 LF (2x)
639-2-1	130 LF (2x)

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (144 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	70 LF
633-1-123	70 LF
633-1-124	70 LF (2x)
639-2-1	70 LF

REVISIONS			
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-192

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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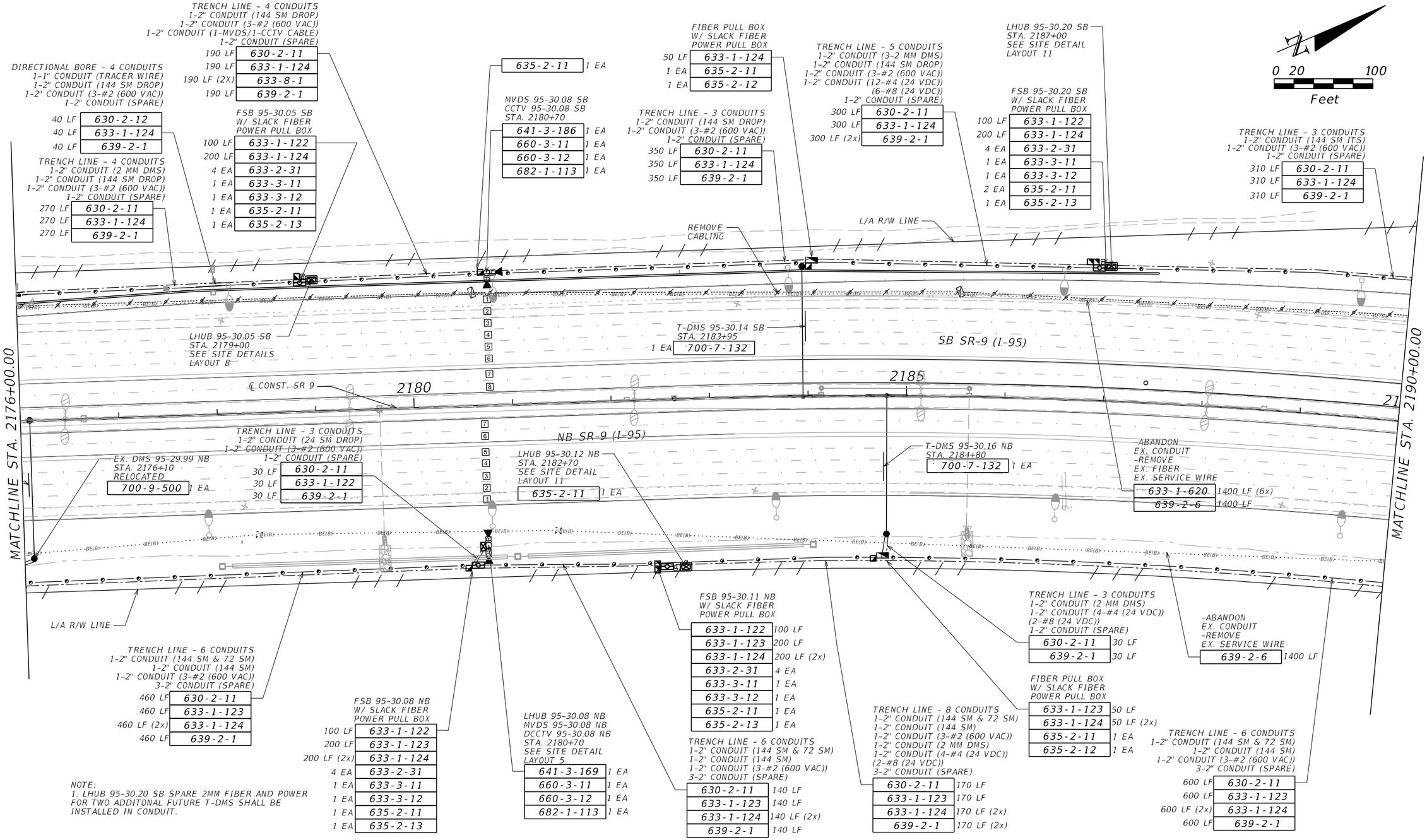

NOTE:
1. LHUB 95-30.20 SB SPARE 2MM FIBER AND POWER FOR TWO ADDITONAL FUTURE T-DMS SHALL BE INSTALLED IN CONDUIT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-193

RELEASED FOR CONSTRUCTION
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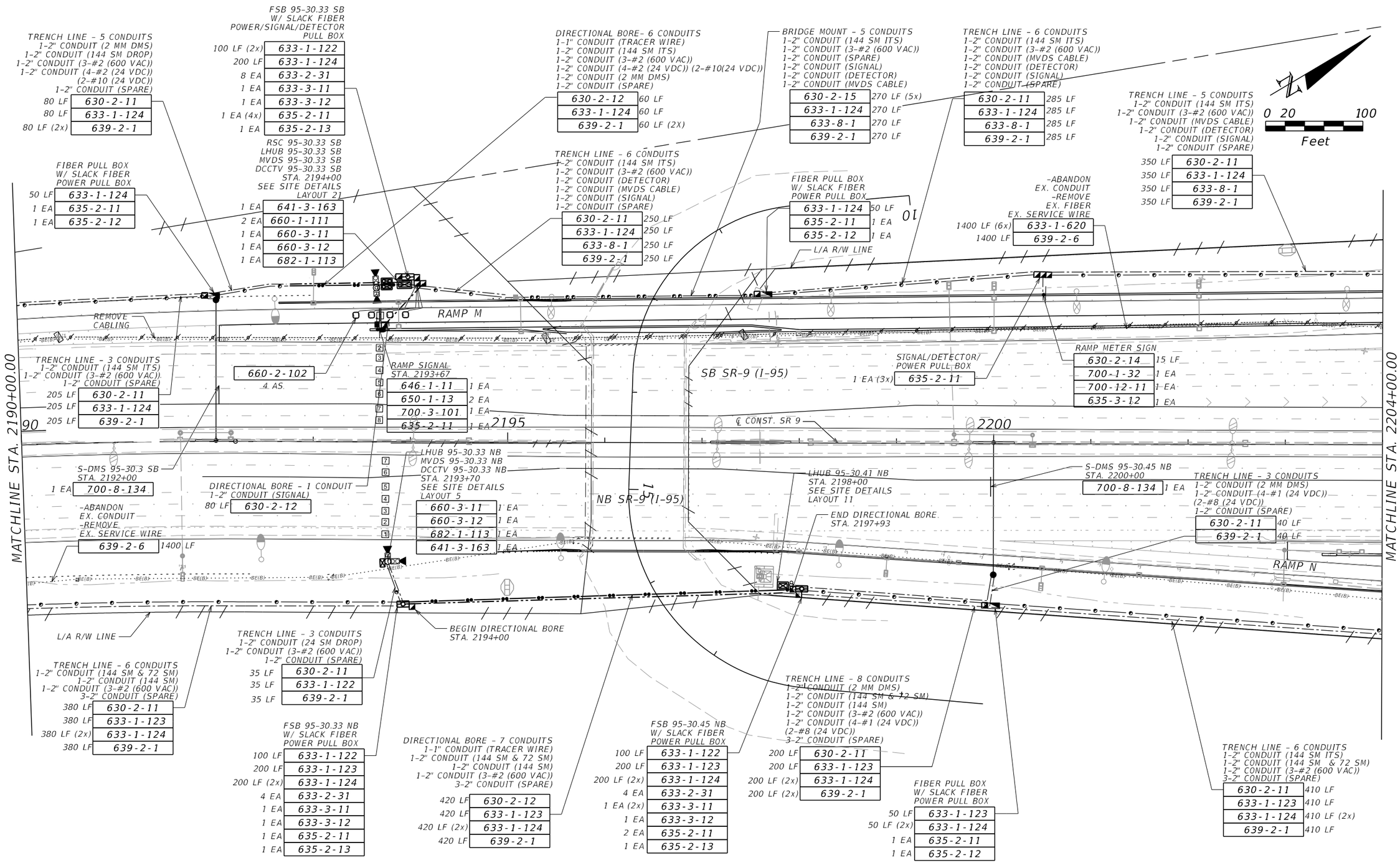

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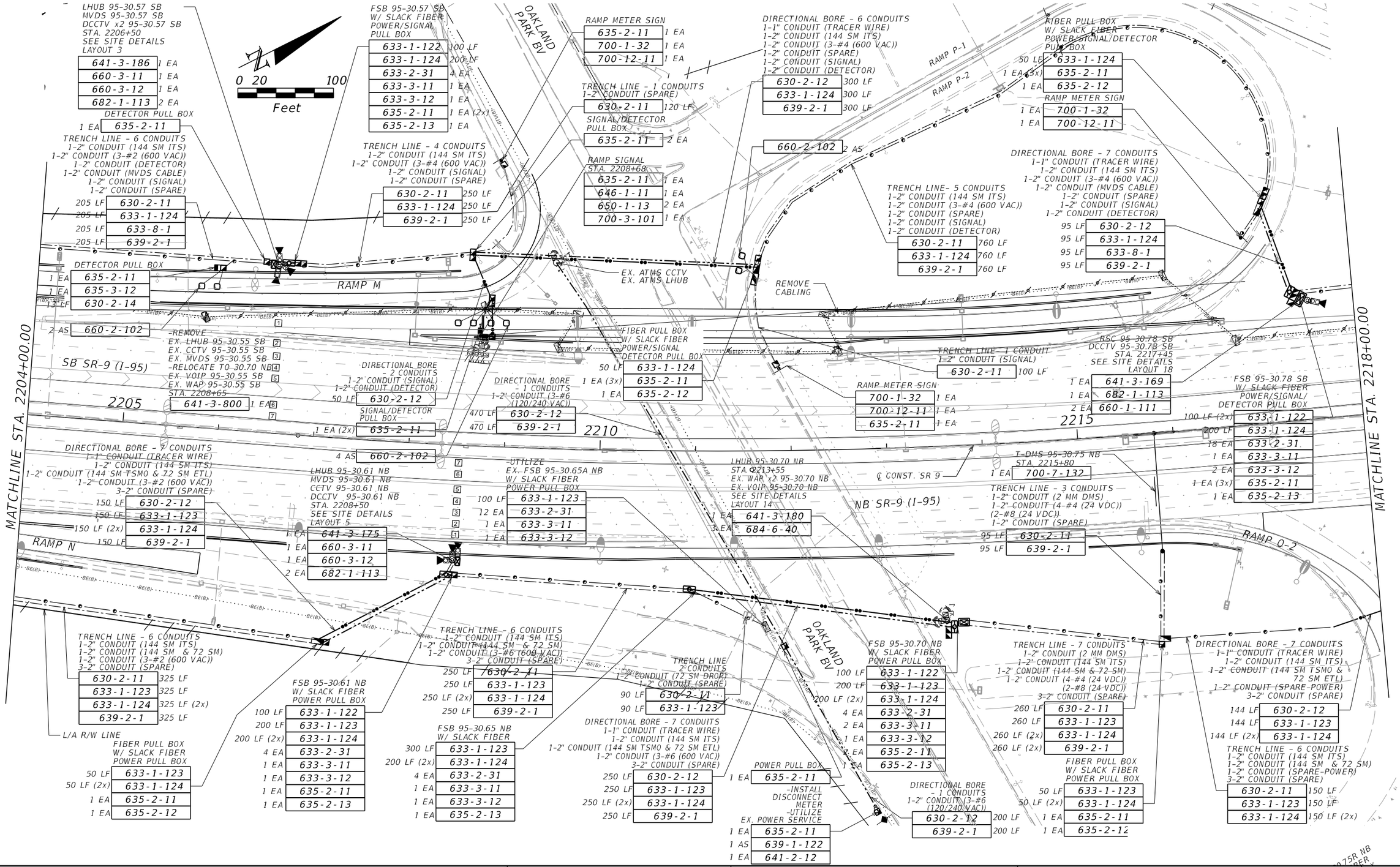
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-194



REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-195

RELEASED FOR CONSTRUCTION
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TRENCH LINE – 4 CONDUITS
1–2" CONDUIT (24 SM DROP)
1–2" CONDUIT (3–#4 (600 VAC))
1–2" CONDUIT (MVDS CABLE)
1–2" CONDUIT (SPARE)

630-2-11	220 LF
633-1-122	220 LF
633-8-1	220 LF
639-2-1	220 LF

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

FSB 95–30.86 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	2 EA
635-2-13	1 EA

DIRECTIONAL BORE – 10 CONDUITS
1–1" CONDUIT (TRACER WIRE)
1–2" CONDUIT (2 MM DMS)
1–2" CONDUIT (144 SM ITS)
1–2" CONDUIT (144 SM & 72 SM)
1–2" CONDUIT (3–#6 (600 VAC))
1–2" CONDUIT (4–#2 (24 VDC))(2–#10 (24 VDC))
1–2" CONDUIT (MVDS CABLE)
3–2" CONDUIT (SPARE)

630-2-12	205 LF
633-1-123	205 LF
633-1-124	205 LF (2x)
639-2-1	205 LF (2x)
633-8-1	205 LF

RAMP SIGNAL
STA. 2224+00

646-1-11	1 EA
650-1-13	2 EA
700-3-101	1 EA

TRENCH LINE – 8 CONDUITS
1–1" CONDUIT (TRACER WIRE)
1–2" CONDUIT (144 SM ITS)
1–2" CONDUIT (144 SM & 72 SM)
1–2" CONDUIT (3–#6 (600 VAC))
1–2" CONDUIT (MVDS CABLE)
3–2" CONDUIT (SPARE)

630-2-11	35 LF
633-1-123	35 LF
633-1-124	35 LF
639-2-1	35 LF
633-8-1	35 LF

FIBER PULL BOX
W/ SLACK FIBER
POWER/SIGNAL
PULL BOX

633-1-122	50 LF
635-2-11	1 EA (2x)
635-2-12	1 EA

–ABANDON
EX. CONDUIT
–REMOVE
EX. FIBER
EX. SERVICE WIRE

633-1-620	1400 LF (6x)
639-2-6	1400 LF

DIRECTIONAL BORE– 9 CONDUITS
1–1" CONDUIT (TRACER WIRE)
1–2" CONDUIT (144 SM ITS)
1–2" CONDUIT (144 SM & 72 SM)
1–2" CONDUIT (3–#6 (600 VAC))
1–2" CONDUIT (MVDS CABLE)
1–2" CONDUIT (SIGNAL)
3–2" CONDUIT (SPARE)

630-2-12	85 LF
633-1-123	85 LF
633-1-124	85 LF (2x)
639-2-1	85 LF
633-8-1	85 LF

S–DMS 95–30.9 NB
STA. 2224+00

700-8-134	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-123	50 LF
633-1-124	50 LF (2x)
635-2-11	1 EA
635-2-12	1 EA

TRENCH LINE – 2 CONDUITS
1–2" CONDUIT (COMPOSITE)
1–2" CONDUIT (SPARE)

630-2-11	65 LF
633-8-1	65 LF

L/A R/W LINE

LHUB 95–30.83 SB
MVDS 95–30.83 SB
STA. 2220+15
SEE SITE DETAILS
LAYOUT 2

641-2-14	1 EA
660-3-11	1 EA
660-3-12	1 EA

LHUB 95–30.86 NB
STA. 2222+10
SEE SITE DETAILS
LAYOUT 11

REMOVE
CABLING

RAMP P-1

MATCHLINE STA. 2218+00.00

MATCHLINE STA. 2232+00.00

SB SR–9 (I–95)

NB SR–9 (I–95)

2220

2225

2230

℄ CONST. SR 9

TRENCH LINE – 6 CONDUITS
1–2" CONDUIT (144 SM ITS)
1–2" CONDUIT (144 SM & 72 SM)
1–2" CONDUIT (SPARE–POWER)
3–2" CONDUIT (SPARE)

630-2-11	190 LF
633-1-123	190 LF
633-1-124	190 LF (2x)

LHUB 95–30.83 NB
MVDS 95–30.83 NB
DCCTV x2 95–30.83 NB
STA. 2220+20
SEE SITE DETAILS
LAYOUT 5

641-3-163	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	2 EA

660-2-102 8 AS

FSB 95–30.83 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF	633-1-122
200 LF	633-1-123
200 LF (2x)	633-1-124
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-11
1 EA	635-2-13

DIRECTIONAL BORE – 8 CONDUITS
1–1" CONDUIT (TRACER WIRE)
1–2" CONDUIT (144 SM ITS)
1–2" CONDUIT (144 SM & 72 SM)
1–2" CONDUIT (3–#6 (600 VAC))
1–2" CONDUIT (MVDS CABLE)
3–2" CONDUIT (SPARE)

630-2-12	190 LF
633-1-123	190 LF
633-1-124	190 LF (2x)
633-8-1	190 LF

RAMP O-1

MATCHLINE
(SHEET IT-206)

DCCTV 95–30.87 NB
STA. 2223+00

641-3-163	1 EA
682-1-113	1 EA

RSC 95–30.91 NB
STA. 2224+15
SEE SITE DETAILS
LAYOUT 19

660-1-111	3 EA

TRENCH LINE– 3 CONDUITS
1–2" CONDUIT (SIGNAL)
1–2" CONDUIT (DETECTION)
1–2" CONDUIT (144 SM FIBER)

630-2-11	280 LF

FSB 95–30.91 NB
W/ SLACK FIBER
POWER/SIGNAL/
DETECTOR PULL BOX

633-1-122	100 LF
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA (3x)
635-2-13	1 EA

TRENCH LINE – 6 CONDUITS
1–2" CONDUIT (144 SM ITS)
1–2" CONDUIT (144 SM & 72 SM)
1–2" CONDUIT (3–#6 (600 VAC))
3–2" CONDUIT (SPARE)

630-2-11	720 LF
633-1-123	720 LF
633-1-124	720 LF (2x)
639-2-1	720 LF

0 20 100
Feet

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BY: (FDOT)_VS_____ Date: 3/21/2018_____
FPID 433108-4-52-01 CONTRACT E4Q32

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

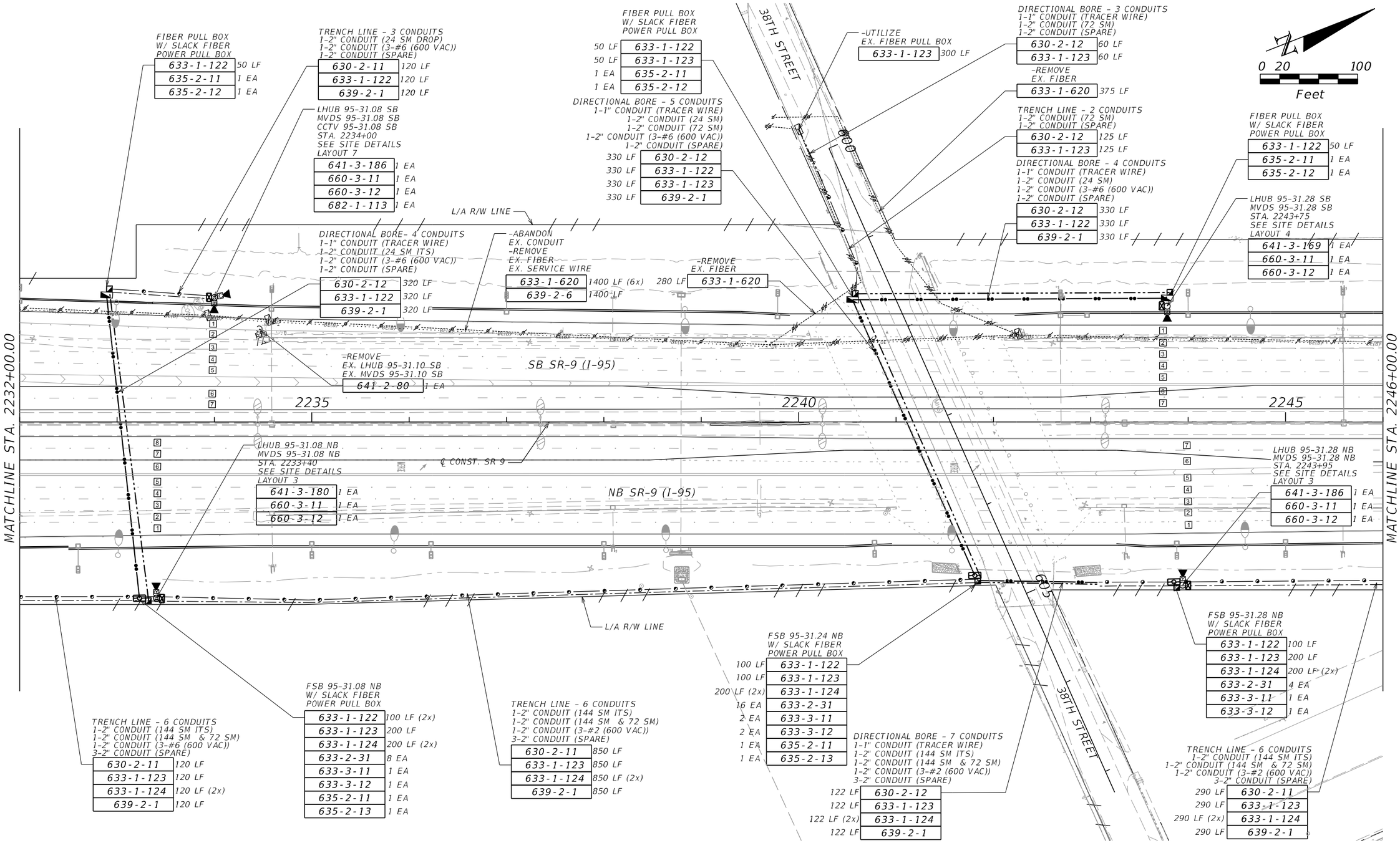
Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-196



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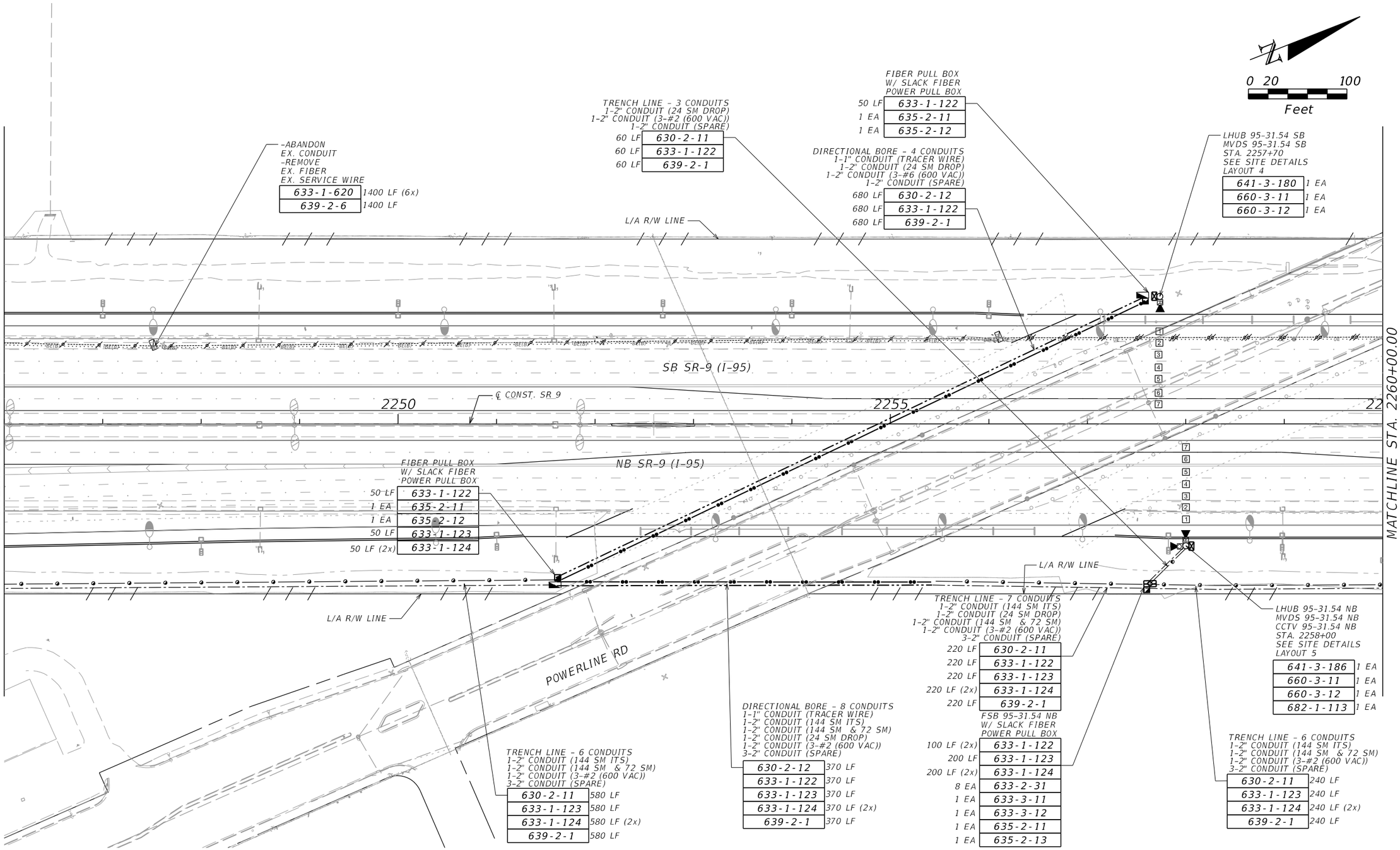
ITS PLAN SHEET

SHEET NO.
IT-197



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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
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ITS PLAN SHEET

SHEET NO. IT-198

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NOTE:
SERVICE WIRE AND FIBER OPTIC CABLE SHALL BE INSTALLED, BUT NOT CONNECTED FOR LHUB 95-31.76B SB.

0 20 100
Feet

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

633-1-620	560 LF (6x)
639-2-6	560 LF

LHUB 95-31.76B SB
STA. 2269+40
SEE SITE DETAIL
LAYOUT 12

635-2-11	1 EA
635-2-11	1 EA
635-2-12	1 EA
633-1-122	50 LF

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (12-#4 (24 VDC))
(6-#8 (24 VDC))
1-2" CONDUIT (SPARE)

630-2-11	300 LF
639-2-1	300 LF

FIBER PULL BOX
W/ SLACK FIBER
SIGNAL PULL BOX

635-2-11	1 EA
635-2-12	1 EA

FSB 95-31.76 SB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF (3x)
633-1-123	100 LF
633-1-124	100 LF (2x)
633-2-31	8 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA
635-2-13	1 EA

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-12	200 LF
633-1-123	200 LF
633-1-124	200 LF (2x)
639-2-1	200 LF

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-11	30 LF
639-2-1	30 LF
633-1-122	30 LF

LHUB 95-31.76 SB
MVDS 95-31.76 SB
DCCTV 95-31.76 SB
EX. WAP 95-31.76 SB
EX. VOIP 95-31.76 SB
STA. 2269+50
SEE SITE DETAILS
LAYOUT 3

641-3-169	1 EA
660-3-11	1 EA
660-3-12	1 EA
684-6-40	2 EA

TRENCH LINE- 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	280 LF
633-1-123	280 LF
633-1-124	280 LF (2x)
639-2-1	280 LF

DIRECTIONAL BORE- 3 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SPARE)

630-2-12	110 LF
633-1-123	110 LF

EX. FSB 31.77 SB
PROSPECT ROAD

633-1-122	100 LF
633-2-31	24 EA
633-3-11	1 EA
633-3-12	2 EA

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER

633-1-620	240 LF (7x)

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-123	50 LF
633-1-124	50 LF (2x)
635-2-11	1 EA
635-2-12	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

-ABANDON
EX. CONDUIT
-REMOVE
EX. 12 SM/36 SM/36 SM
EX. 96 SM/48 SM
EX. 144 SM ITS

633-1-620	630 LF (6x)

-REMOVE
EX. CCTV 95-31.68
EX. LHUB 95-31.68
EX. MVDS 95-31.68
-RELOCATE TO 95-31.76 SB
EX. VOIP 95-31.68
EX. WAP 95-31.68

641-2-80	1 EA

LHUB 95-31.76 NB
MVDS 95-31.76 NB
STA. 2269+20
SEE SITE DETAILS
LAYOUT 4

633-1-122	50 LF
641-3-175	1 EA
660-3-11	1 EA
660-3-12	1 EA
635-2-11	1 EA
635-2-12	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	140 LF
633-1-122	140 LF
639-2-1	140 LF

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-12	340 LF
633-1-123	340 LF
633-1-124	340 LF (2x)
639-2-1	340 LF

FSB 95-31.77 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF (2x)
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	8 EA
633-3-11	1 EA
633-3-12	1 EA

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (COMPOSITE CABLE)

630-2-11	200 LF
633-8-1	200 LF

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	390 LF
633-1-123	390 LF
633-1-124	390 LF (2x)
639-2-1	390 LF

POWER PULL BOX

635-2-11	1 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	670 LF
633-1-123	670 LF
633-1-124	670 LF (2x)
639-2-1	670 LF

LHUB 95-31.81 NB
STA. 2272+10
SEE SITE DETAILS
LAYOUT 8

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	325 LF
633-1-123	325 LF
633-1-124	325 LF (2x)
639-2-1	325 LF

POWERLINE RD
L/A R/W LINE
EX. HART 95-31.68
REMOVE
SB SR-9 (I-95)
NB SR-9 (I-95)
T-DMS 95-31.72 SB
STA. 2267+00
(FUTURE)
℄ CONST. SR 9
PROSPECT RD
MATCHLINE STA. 2260+00.00
MATCHLINE STA. 2274+00.00
2265
2270

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Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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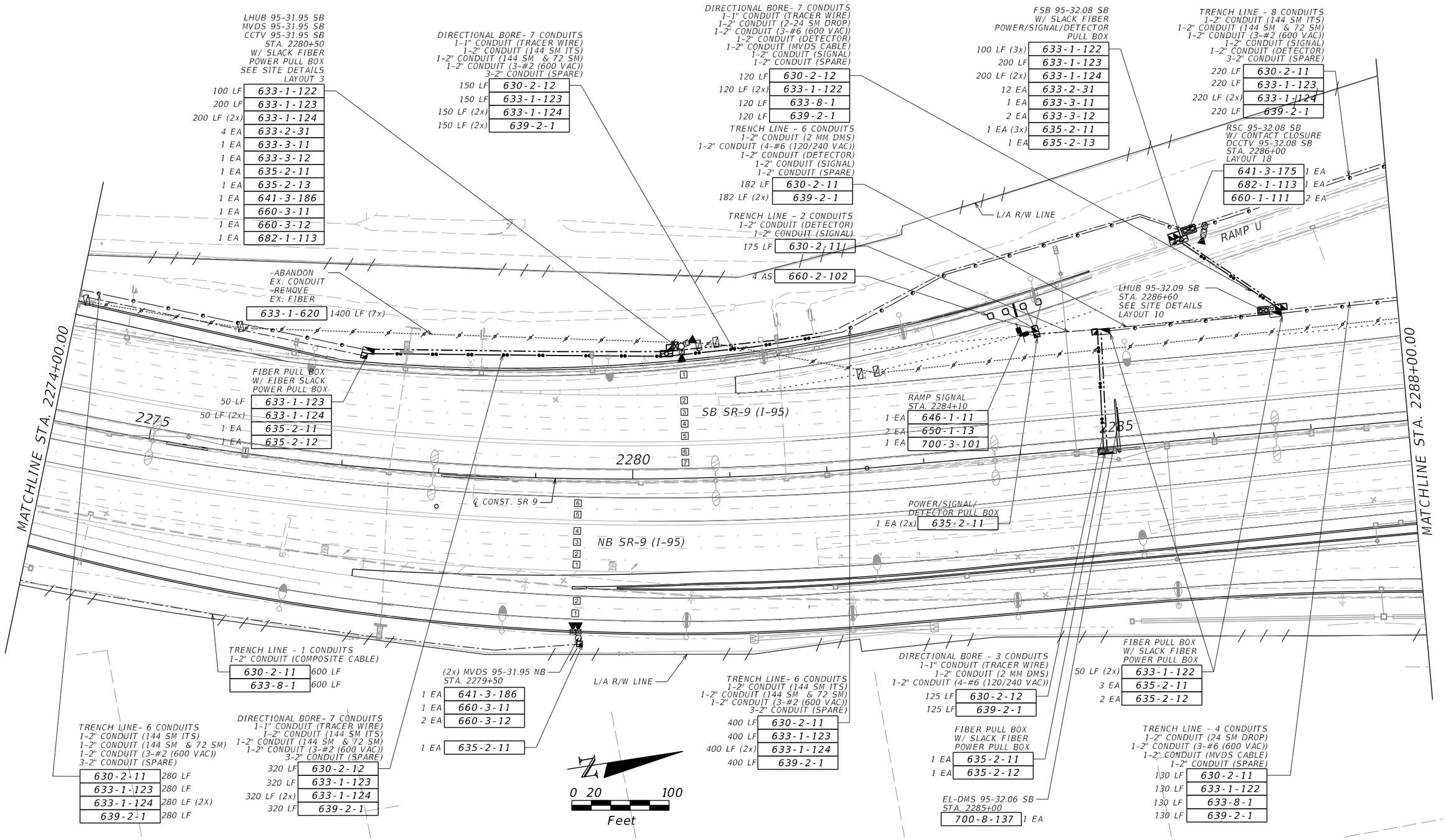
ITS PLAN SHEET

SHEET NO.
IT-199



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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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ITS PLAN SHEET

SHEET NO. IT-200

RELEASED FOR CONSTRUCTION
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TRENCH LINE - 8 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
3-2" CONDUIT (SPARE)

600 LF	630-2-11
600 LF	633-1-123
600 LF (2x)	633-1-124
600 LF	639-2-1

TRENCH LINE - 9 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
3-2" CONDUIT (SPARE)

420 LF	630-2-11
420 LF	633-1-124
420 LF	639-2-1

POWER PULL BOX
635-2-11 1 EA

FIBER PULL BOX W/ SLACK FIBER POWER/SIGNAL/DETECTOR PULL BOX

50 LF	633-1-123
50 LF (2x)	633-1-124
1 EA (3x)	635-2-11
1 EA	635-2-12
2 AS	660-2-102

DIRECTIONAL BORE - 10 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUTURE BROWARD FIBER)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SIGNAL)
3-2" CONDUIT (SPARE)

105 LF	630-2-12
105 LF	633-1-124
105 LF	639-2-1

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SIGNAL)
3-2" CONDUIT (SPARE)

180 LF	630-2-11
180 LF	633-1-123
180 LF (2x)	633-1-124
180 LF	639-2-1

POWER SERVICE TRANSFORMER

1 EA	635-2-11
1 AS	639-1-122
1 EA	641-2-12

RAMP METER SIGN

635-2-11	1 EA
700-1-32	1 EA
700-12-11	1 EA

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)
630-2-11 100 LF

L/A R/W LINE

FSB 95-32.26A SB W/ SLACK FIBER POWER/SIGNAL/ DETECTOR PULL BOX

633-1-123	200 LF
633-1-124	200 LF
635-2-13	1 EA

FSB 95-32.26B SB W/ SLACK FIBER POWER/SIGNAL PULL BOX

633-1-124	200 LF
635-2-11	1 EA (3x)
635-2-13	1 EA

-UTILIZE EX. 24 SM ATMS EX. 96 SM RR PROJECT
-REMOVE EX. 144 SM ITS EX. SERVICE WIRE

633-1-620	700 LF
639-2-6	700 LF

TRENCH LINE - 10 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)
3-2" CONDUIT (SPARE)

630-2-11	185 LF
633-1-124	185 LF
633-8-1	185 LF
639-2-1	185 LF

TRENCH LINE - 4 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-11	120 LF
633-1-122	120 LF
633-8-1	120 LF
639-2-1	120 LF

LHUB 95-32.14 SB
MVDS 95-32.14 SB
DCCTV 95-32.14 SB
STA. 2289+20
SEE SITE DETAILS
LAYOUT 4

641-3-175	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA

RSC 95-32.20 SB
STA. 2292+40
SEE SITE DETAILS
LAYOUT 20

50 LF	633-1-122
1 EA (3x)	635-2-11
1 EA	635-2-12
2 EA	660-1-111

RAMP SIGNAL
STA. 2992+07

646-1-11	1 EA
650-1-13	2 EA
700-3-101	1 EA

MHUB 95-32.26
(MHUB TO BE DESIGNED BY OTHERS)
GEN 95-32.26
STA. 2295+50
GENERATOR MASTER HUB
(3-#2 (600 VAC))
639-2-1 30 LF

FSB 95-32.27 SB W/ SLACK FIBER POWER/SIGNAL/ DETECTOR PULL BOX

633-1-122	100 LF
633-1-124	200 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA (3x)
635-2-13	1 EA

TRENCHLINE - 3 CONDUITS
1-2" CONDUIT (FUT. FIBER)
1-2" (144 SM & 72 SM ITS)
1-2" (SPARE)

35 LF	630-2-11
35 LF	633-1-123
35 LF	633-1-124

LHUB 95-32.27 SB
DCCTV 2x 95-32.27 SB
STA. 2296+30
SEE SITE DETAILS
LAYOUT 3

641-3-163	1 EA
682-1-113	2 EA

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX

50 LF	633-1-122
1 EA	635-2-11
1 EA	635-2-12

-ABANDON EX. CONDUIT -REMOVE EX. FIBER

633-1-620	375 LF (7x)

-ABANDON EX. CONDUIT -REMOVE EX. FIBER EX. SERVICE WIRE

633-1-620	450 LF (6x)
639-2-6	450 LF

EX. MHUB 95-32.26 SB
EX. FSB 95-32.26C SB

633-1-123	50 LF
633-1-124	50 LF
633-2-31	132 EA
633-3-11	1 EA

6 AS 660-2-102

FSB 95-32.22 NB W/ SLACK FIBER

633-1-122	100 LF
633-1-124	200 LF
633-2-31	16 EA
633-3-11	1 EA
633-3-12	2 EA
635-2-13	1 EA

FIBER PULL BOX W/ SLACK FIBER POWER/SIGNAL/DETECTOR PULL BOX

50 LF	633-1-123
50 LF	633-1-124
1 EA (3x)	635-2-11
1 EA	635-2-12

FSB 95-32.32 NB W/ SLACK FIBER SIGNAL PULL BOX POWER PULL BOX

100 LF	633-1-122
200 LF	633-1-124
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA (2x)	635-2-11
1 EA	635-2-13

4 AS 660-2-102

LHUB 95-32.35 NB
DCCTV x2 95-32.35 NB
STA. 2300+75
SEE SITE DETAILS
LAYOUT 4
INCLUDE CONTACT CLOSURE TO ETHERNET SWITCH

641-3-186	1 EA
682-1-113	2 EA

DIRECTIONAL BORE- 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SPARE)

65 LF	630-2-12
65 LF	633-1-122
65 LF	633-8-1
65 LF	639-2-1

EX. LHUB 95-32.19 SB
EX. MVDS 95-32.19 SB
REMOVE

1 EA	641-2-80

DIRECTIONAL BORE- 9 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
3-2" CONDUIT (SPARE)

630-2-12	280 LF
633-1-124	280 LF
633-8-1	280 LF
639-2-1	280 LF

TRENCH. LINE - 2 CONDUITS
1-2" CONDUIT (48 SM ITS)
1-2" CONDUIT (SPARE)

630-2-11	50 LF
633-1-122	50 LF

TOLL PLAZA
633-3-16 1 EA

TRENCH LINE - 8 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
3-2" CONDUIT (SPARE)

630-2-11	400 LF
633-1-124	400 LF
633-8-1	400 LF
639-2-1	400 LF

DIRECTIONAL BORE- 5 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

100 LF	630-2-12
100 LF	633-1-122
100 LF	639-2-1

DIRECTIONAL BORE- 9 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
3-2" CONDUIT (SPARE)

220 LF	630-2-12
220 LF	633-1-124
220 LF	633-8-1
220 LF	639-2-1

FIBER PULL BOX W/ SLACK FIBER POWER/SIGNAL PULL BOX

50 LF	633-1-122
1 EA (2x)	635-2-11
1 EA	635-2-12

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (2-SIGNAL)
70 LF 630-2-11

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

230 LF	630-2-12
230 LF	633-1-122
230 LF	639-2-1

FSB 95-32.21 NB W/ SLACK FIBER POWER PULL BOX

100 LF	633-1-122
200 LF	633-1-124
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-11
1 EA	635-2-13

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

130 LF	630-2-12
130 LF	633-1-122
130 LF	639-2-1

FSB 95-32.20 SB W/ SLACK FIBER POWER/SIGNAL/ DETECTOR PULL BOX

100 LF	633-1-122
200 LF	633-1-124
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA (3x)	635-2-11
1 EA	635-2-13

LHUB 95-32.17 NB
MVDS 95-32.17 NB
DCCTV 95-32.17 NB
STA. 2291+00
SEE SITE DETAILS
LAYOUT 4

1 EA	641-3-180
1 EA	660-3-11
1 EA	660-3-12
1 EA	682-1-113
50 LF	633-1-122
1 EA	635-2-11
1 EA	635-2-12

RAMP METER SIGN

635-2-11	2 EA
700-1-32	2 EA
700-12-11	2 EA

TRENCH LINE - 9 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
3-2" CONDUIT (SPARE)

630-2-11	115 LF
633-1-124	115 LF
633-8-1	115 LF
639-2-1	115 LF

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (ETHERNET CABLE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

630-2-11	200 LF
633-1-122	200 LF
633-8-1	200 LF
639-2-1	200 LF

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (SIGNAL)
630-2-11 150 LF

EX. 2-WAP 95-32.32 (POLE MOUNTED) TO REMAIN

RAMP Q
RAMP R
NB SR-9 (I-95)
SB SR-9 (I-95)
2290 ℄ CONST. SR 9
2295
2300
COMMERCIAL BLVD
L/A R/W LINE

MATCHLINE STA. 2288+00.00
MATCHLINE STA. 2302+00.00
MATCHLINE STA. 24+00.00 (SHEET IT-207)

0 20 100 Feet

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

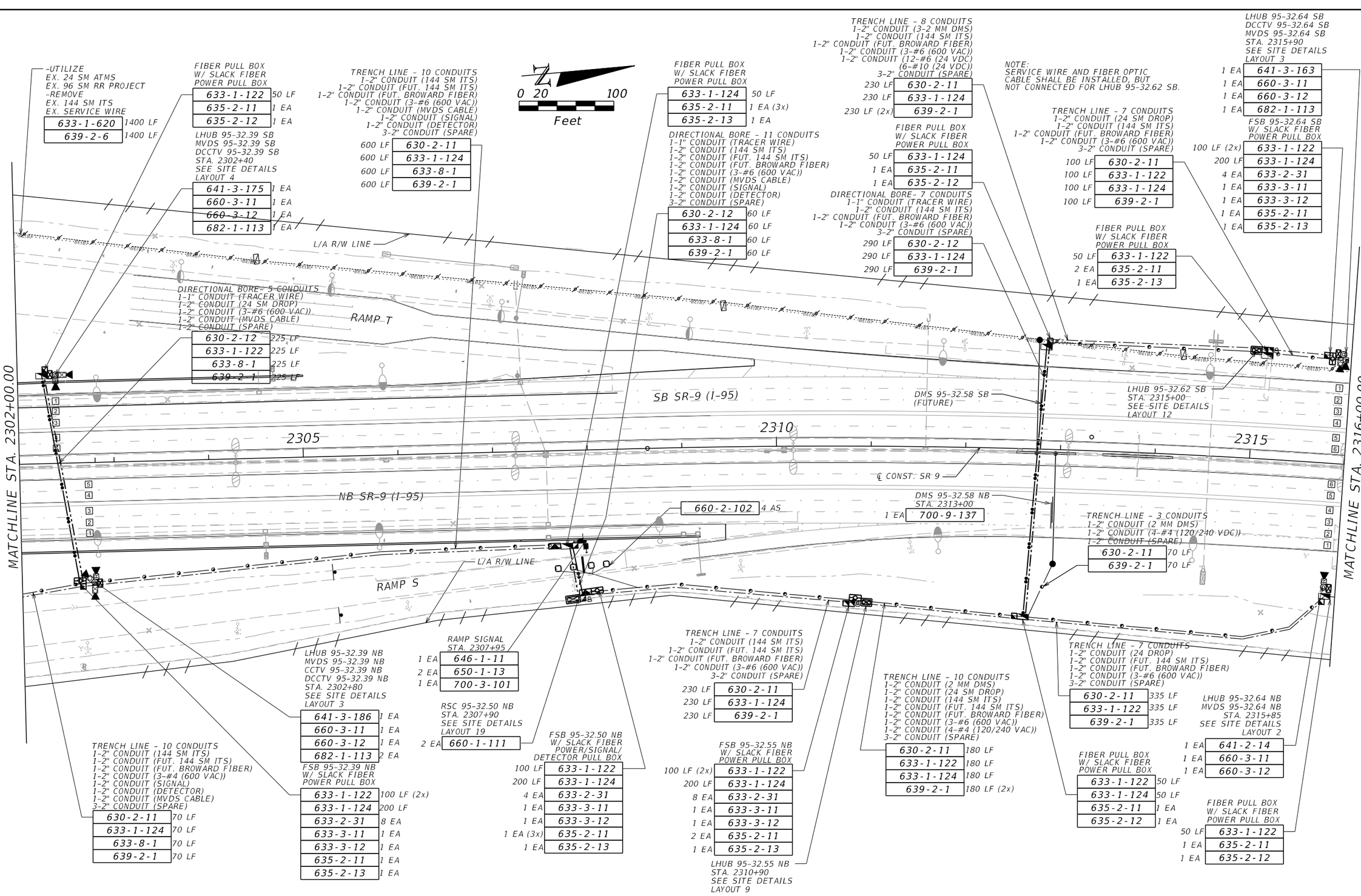
Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-201



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Environmental Services
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-202

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0 20 100
Feet

-UTILIZE
EX. 24 SM ATMS
EX. 96 SM RR PROJECT
-REMOVE
EX. 144 SM ITS

633-1-620	825 LF

EX. FSB 95-32.8 SB

633-1-124	100 LF
633-2-31	50 EA
633-3-11	1 EA
633-3-12	4 EA

EX. LHUB 95-32.80 SB
EX. CCTV 95-32.80 SB
EX. MVDS x2 95-32.80 SB
STA. 2324+50
TO REMAIN

L/A R/W LINE

SB SR-9 (I-95)

2320

2325

23

℄ CONST. SR 9

NB SR-9 (I-95)

MATCHLINE STA. 2316+00.00

L/A R/W LINE

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
3-2" CONDUIT (SPARE)

630-2-11	825 LF
633-1-124	825 LF

FSB 95-32.74 NB
POWER PULL BOX

635-2-11	1 EA
635-2-13	1 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (FUT. ELEC.)
3-2" CONDUIT (SPARE)

630-2-11	500 LF

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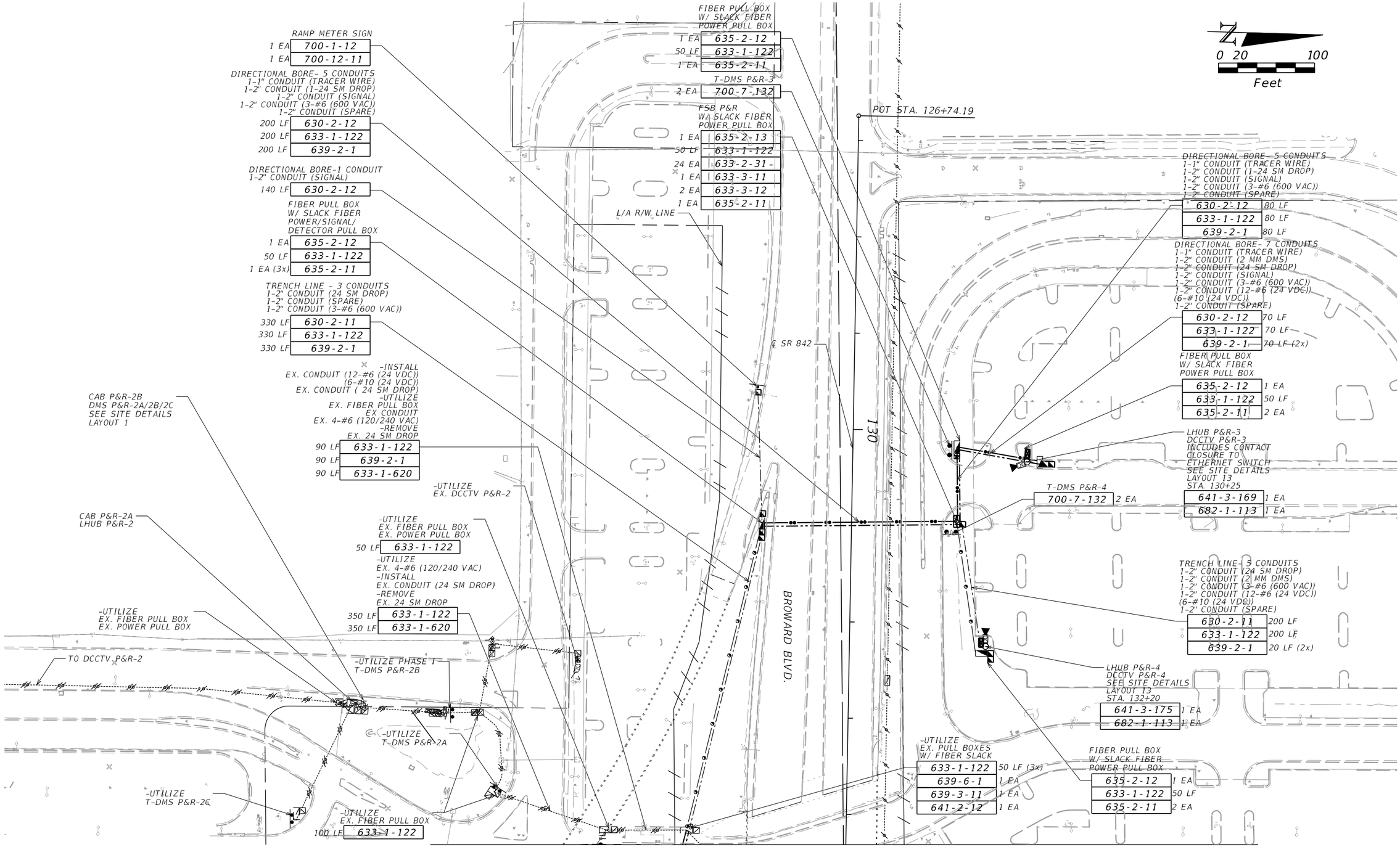
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-203



MATCHLINE STA. 134+31.45 (SHEET IT-183)

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PE # 74758

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-204

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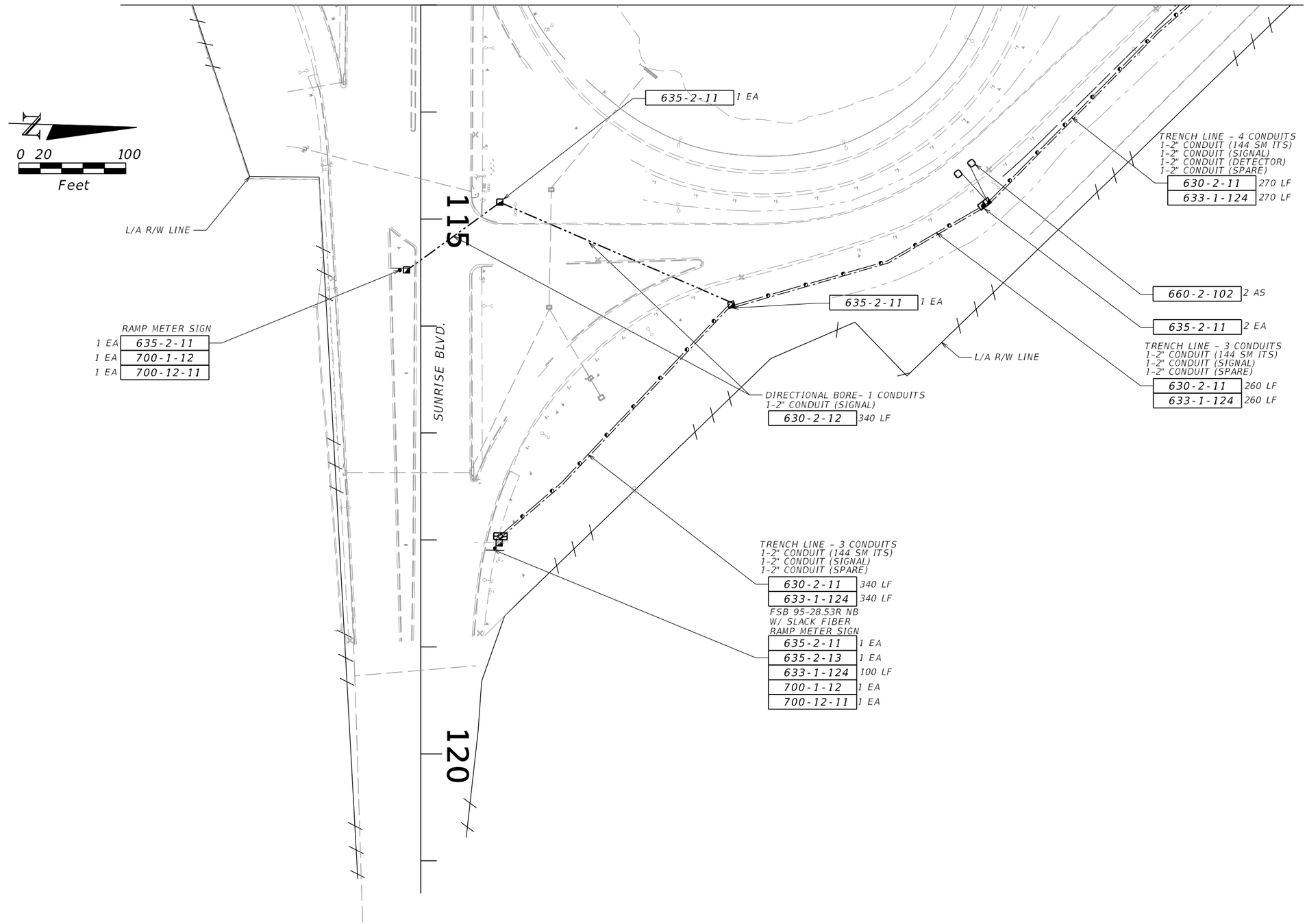
MATCHLINE STA. 113+00.00 (SHEET IT-187)



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Orlando, FL 32801 (407)839-4006
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PE # 74758

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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ITS PLAN SHEET

SHEET NO. IT-205

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FPID 433108-4-52-01 CONTRACT E4Q32

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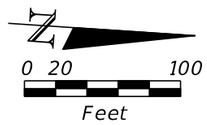

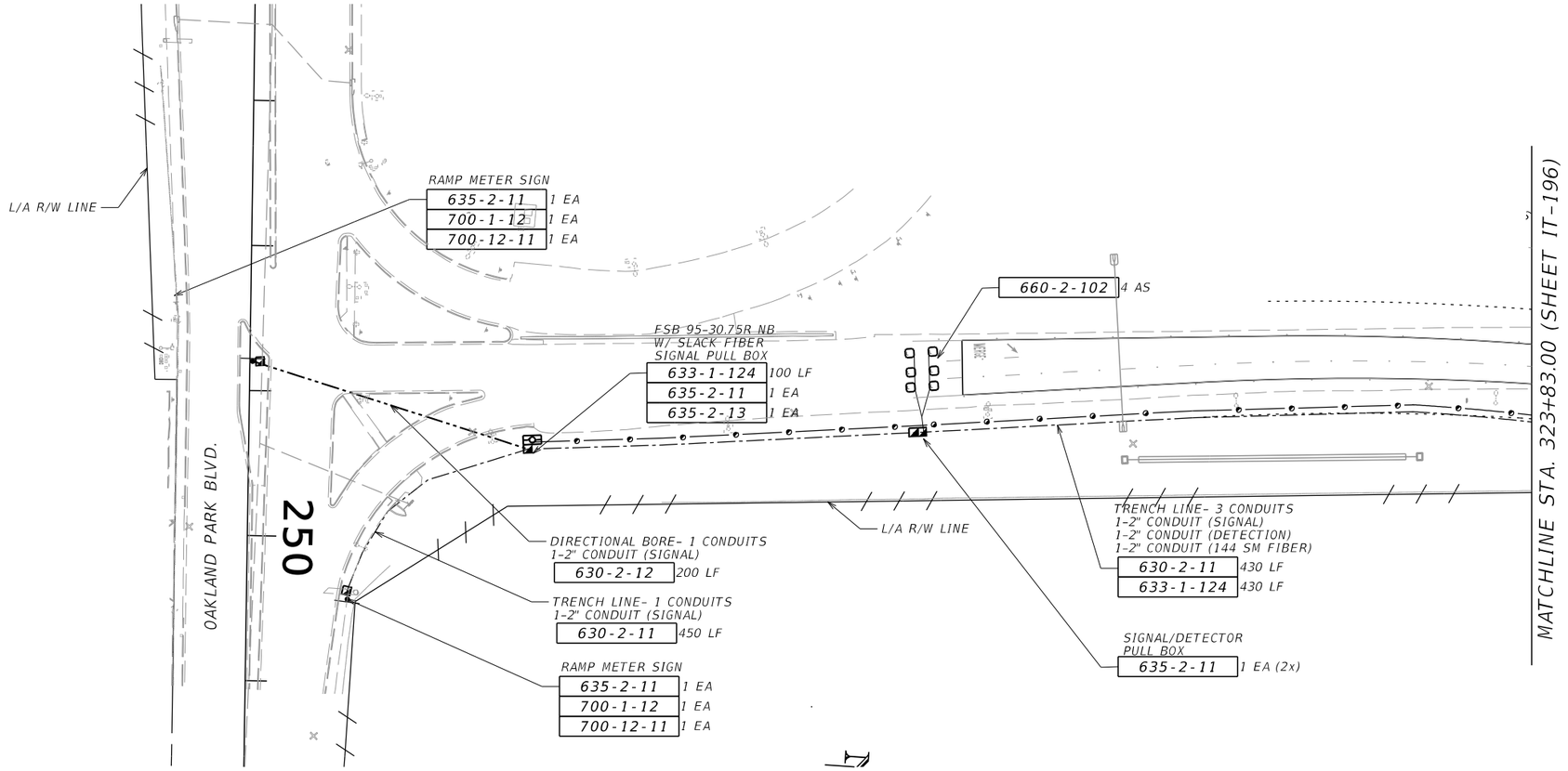

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-206

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FPID 433108-4-52-01 CONTRACT E4Q32

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MATCHLINE STA. 24+00.00
(SHEET IT-201)

TRENCH LINE- 1 CONDUITS
1-2" CONDUIT (SIGNAL)
630-2-11 195 LF

TRENCH LINE- 1 CONDUITS
1-2" CONDUIT (SIGNAL)
630-2-11 515 LF

L/A R/W LINE

DIRECTIONAL BORE- 1 CONDUITS
1-2" CONDUIT (SIGNAL)
630-2-12 115 LF

RAMP METER SIGN
635-2-11 1 EA
700-1-32 1 EA
700-12-11 1 EA

25 30 35

COMMERCIAL BLVD.

SIGNAL PULL BOX
635-2-11 1 EA

L/A R/W LINE

SIGNAL PULL BOX
635-2-11 1 EA

N

0 20 100
Feet

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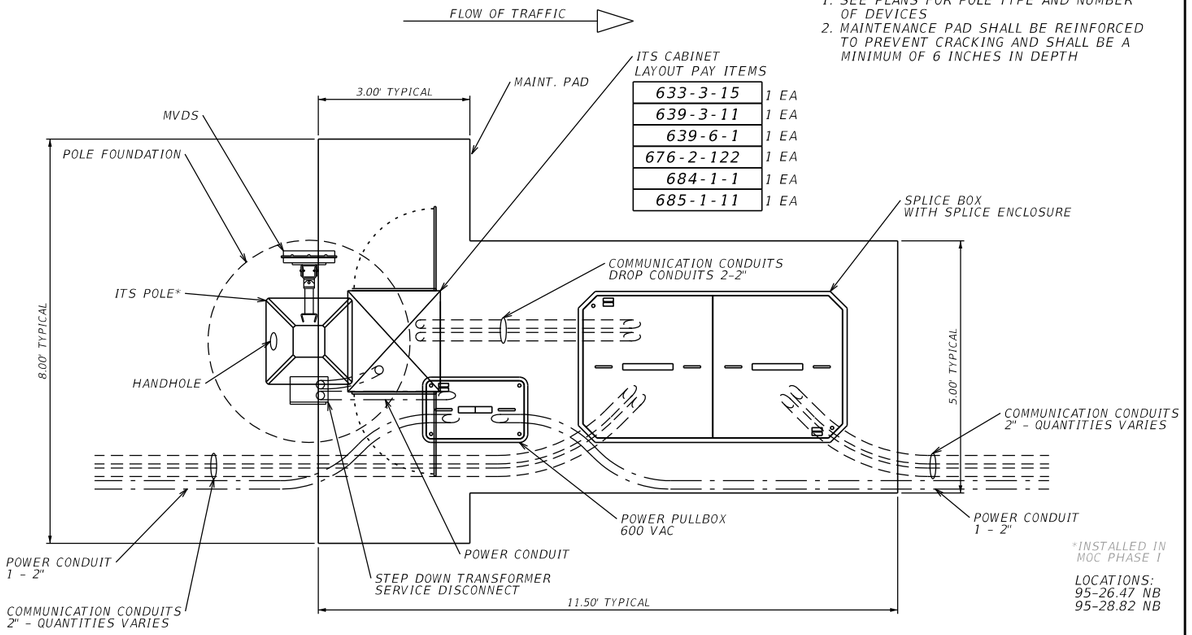
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-207

LAYOUT 1



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

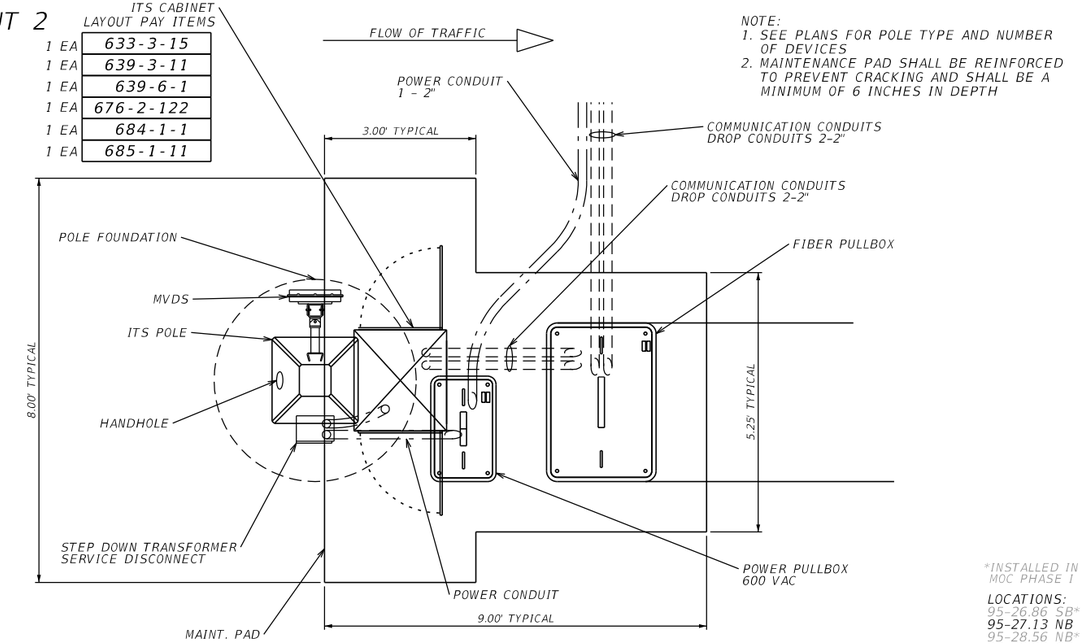
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.47 NB
95-28.82 NB

TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 2



ITS CABINET LAYOUT PAY ITEMS

1 EA	633-3-15
1 EA	639-3-11
1 EA	639-6-1
1 EA	676-2-122
1 EA	684-1-1
1 EA	685-1-11

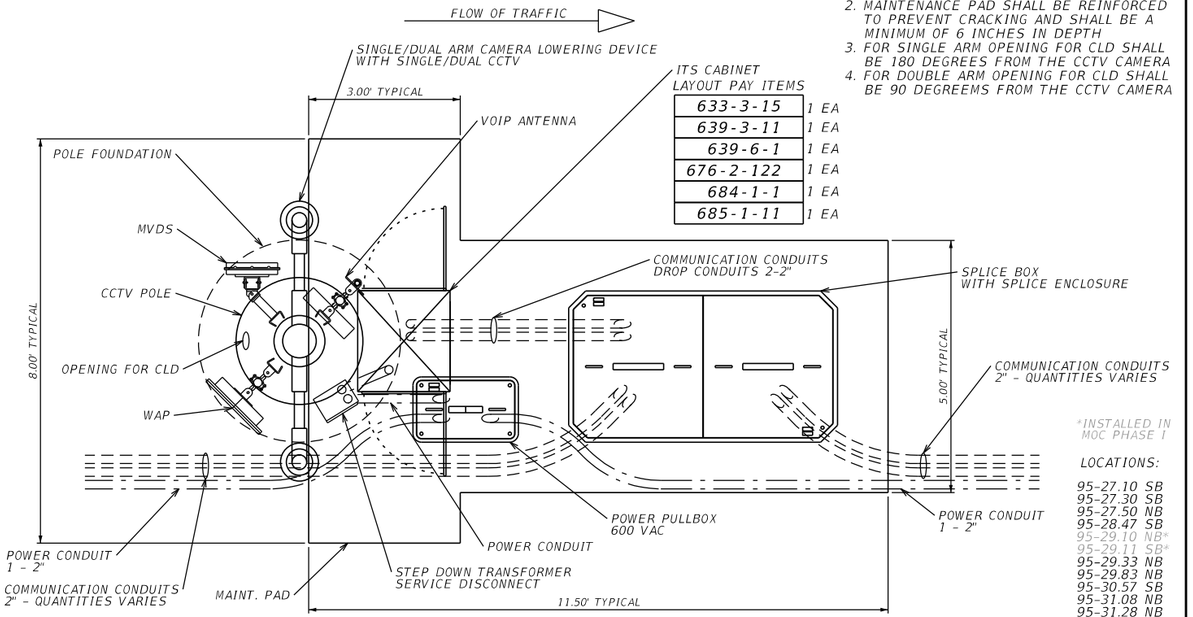
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 SB*
95-27.13 NB
95-28.56 NB*
95-30.83 SB
95-32.64 NB

TYPICAL MVDS SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LAYOUT 3



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

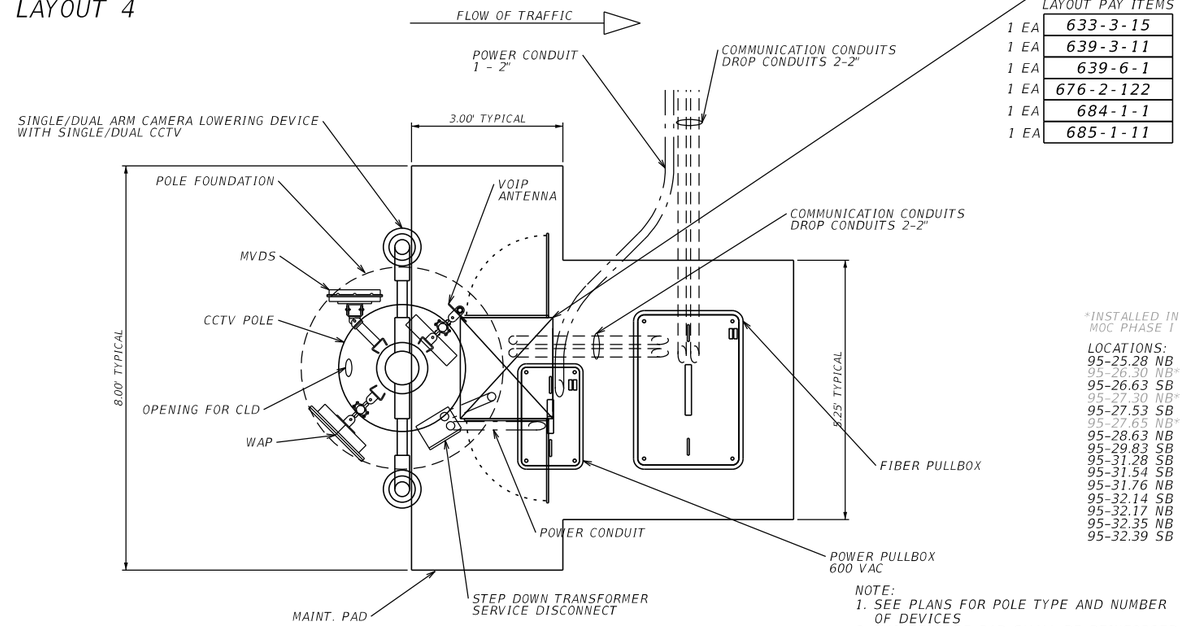
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-27.10 SB
95-27.30 SB
95-27.50 NB
95-28.47 SB
95-29.10 NB*
95-29.11 SB*
95-29.33 NB
95-29.83 NB
95-30.57 SB
95-31.08 NB
95-31.28 NB
95-31.76 SB
95-31.95 SB
95-32.27 SB
95-32.39 NB
95-32.64 SB

TYPICAL CCTV SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 4



ITS CABINET LAYOUT PAY ITEMS

1 EA	633-3-15
1 EA	639-3-11
1 EA	639-6-1
1 EA	676-2-122
1 EA	684-1-1
1 EA	685-1-11

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-25.28 NB
95-25.30 NB*
95-26.63 SB
95-27.30 NB*
95-27.53 SB
95-27.65 NB*
95-28.63 NB
95-29.83 SB
95-31.28 SB
95-31.54 SB
95-31.76 NB
95-32.14 SB
95-32.17 NB
95-32.35 NB
95-32.39 SB

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

TYPICAL CCTV SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-208

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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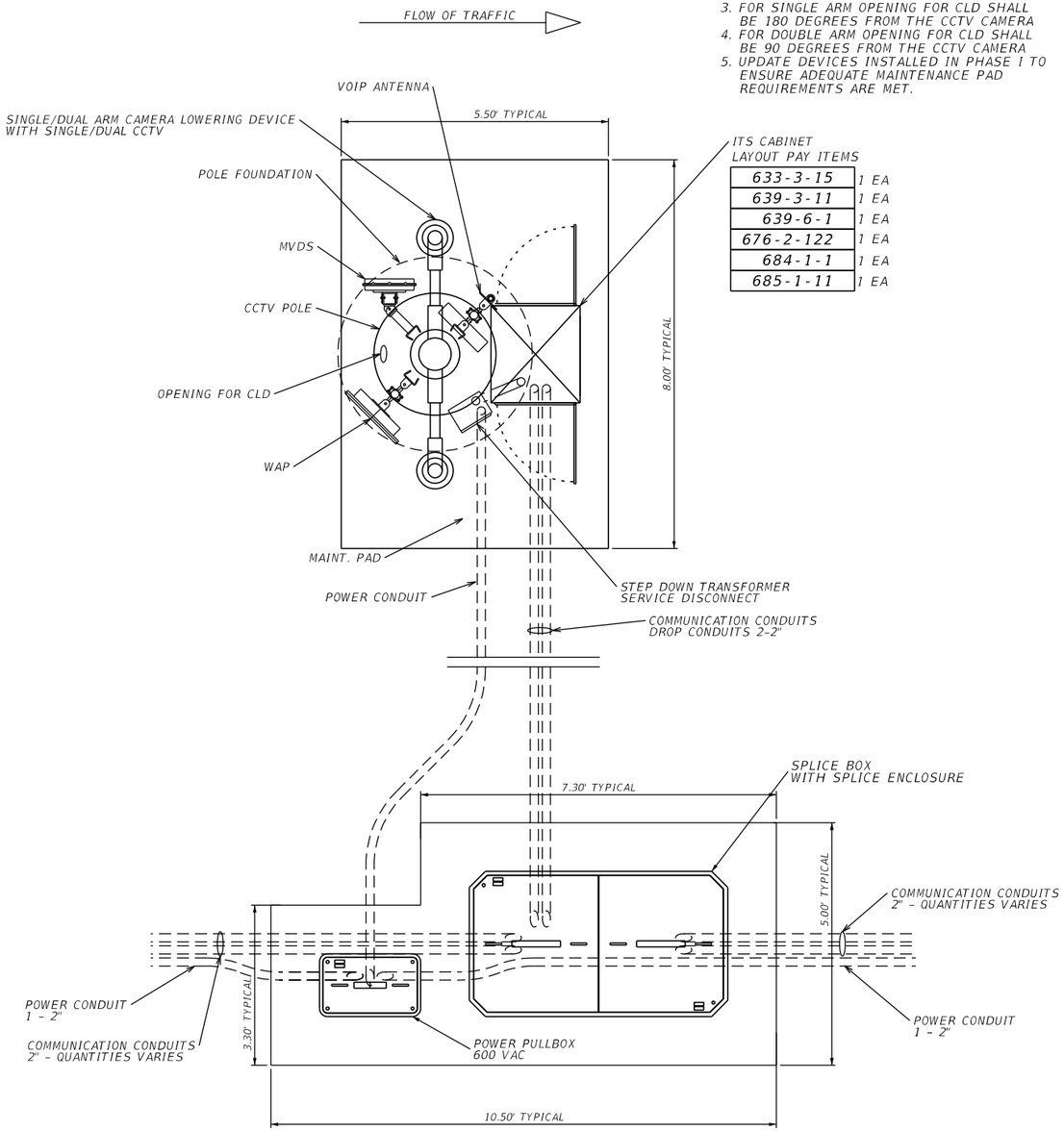
LAYOUT 5

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREES FROM THE CCTV CAMERA
5. UPDATE DEVICES INSTALLED IN PHASE I TO ENSURE ADEQUATE MAINTENANCE PAD REQUIREMENTS ARE MET.



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

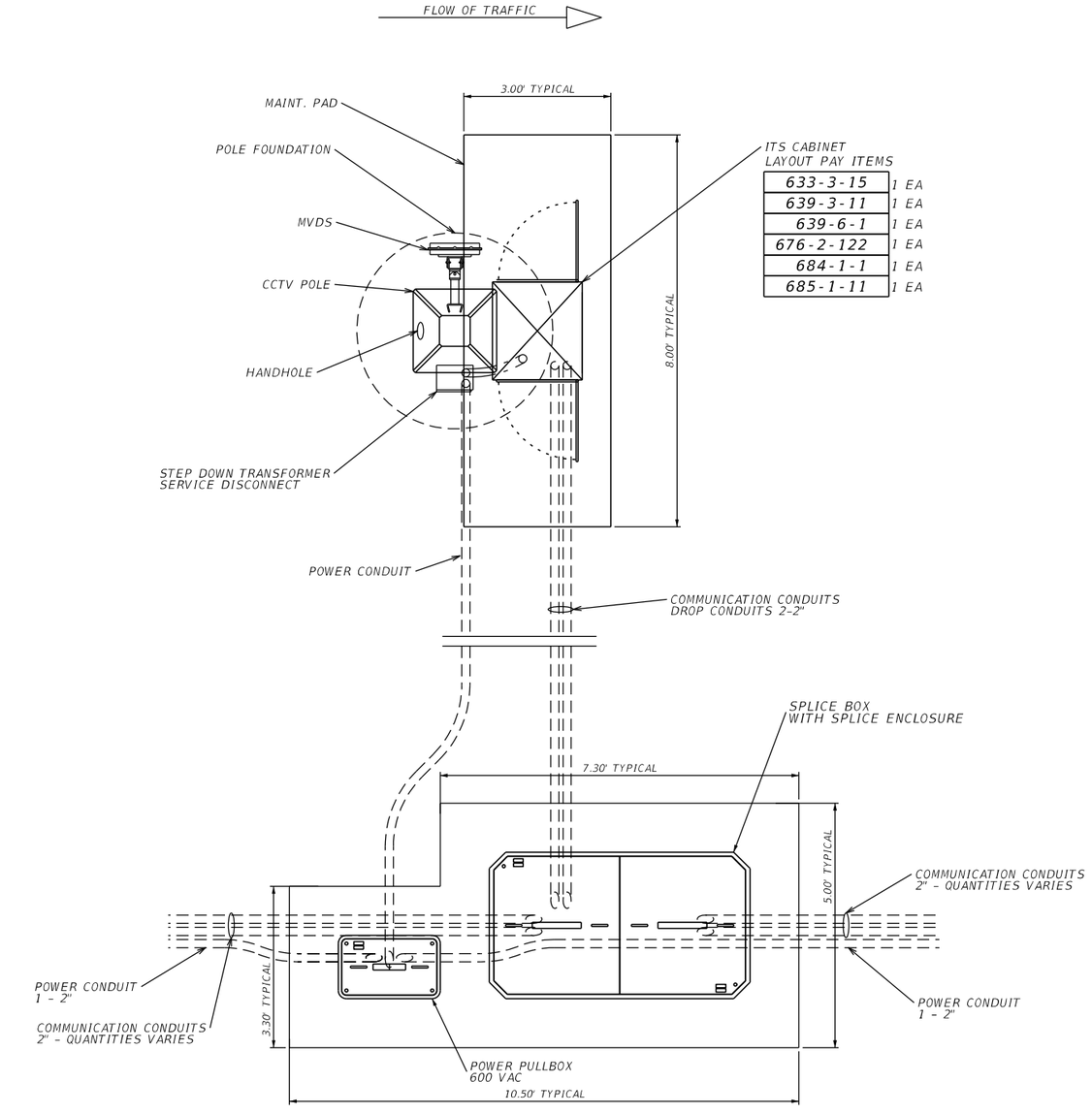
*INSTALLED IN MOC PHASE I

LOCATIONS:
95-27.95 SB*
95-28.10 SB
95-28.30 SB*
95-30.08 NB
95-30.33 NB
95-30.61 NB
95-30.83 NB
95-31.54 NB

TYPICAL CCTV SITE LAYOUT - OFFSET FROM BACKBONE

LAYOUT 6

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 NB*
95-28.31 NB
95-28.85 SB

TYPICAL MVDS SITE LAYOUT - OFFSET FROM BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-209

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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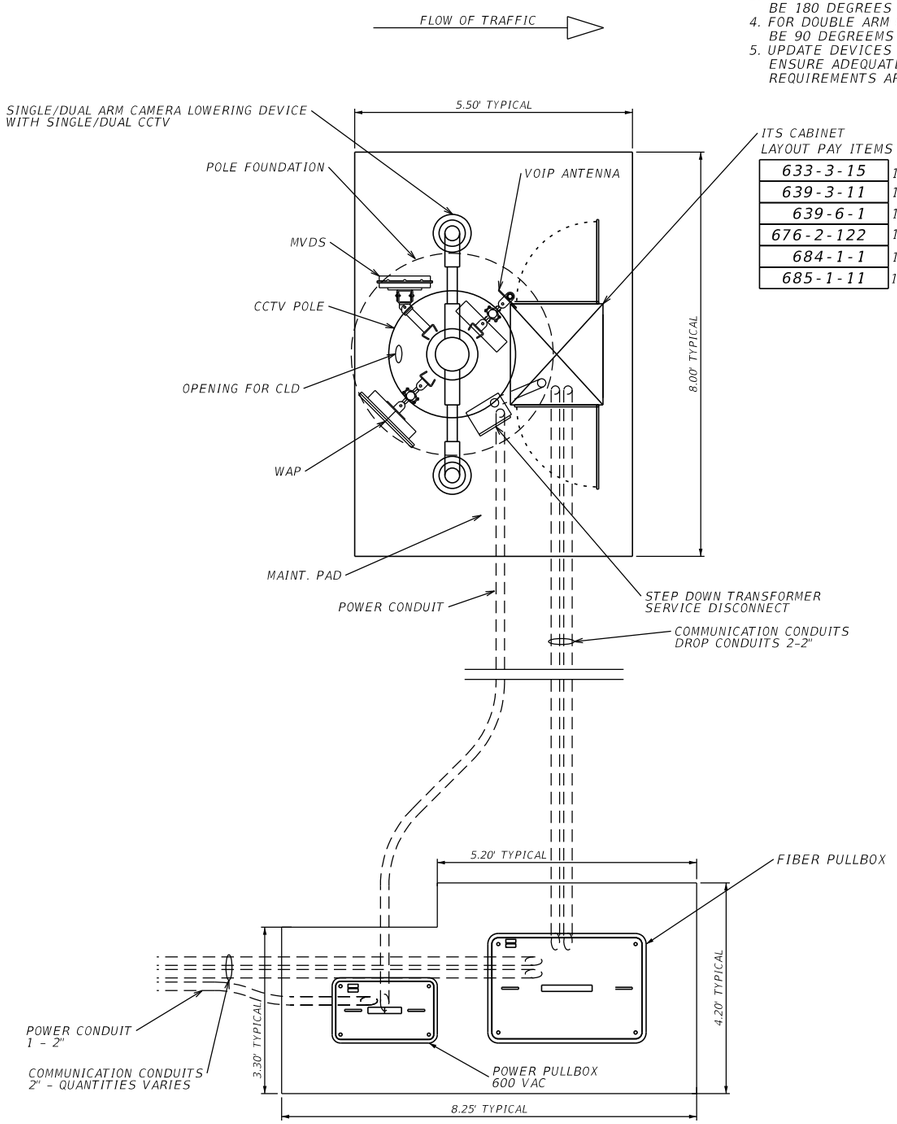
LAYOUT 7

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA
5. UPDATE DEVICES INSTALLED IN PHASE I TO ENSURE ADEQUATE MAINTENANCE PAD REQUIREMENTS ARE MET.



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

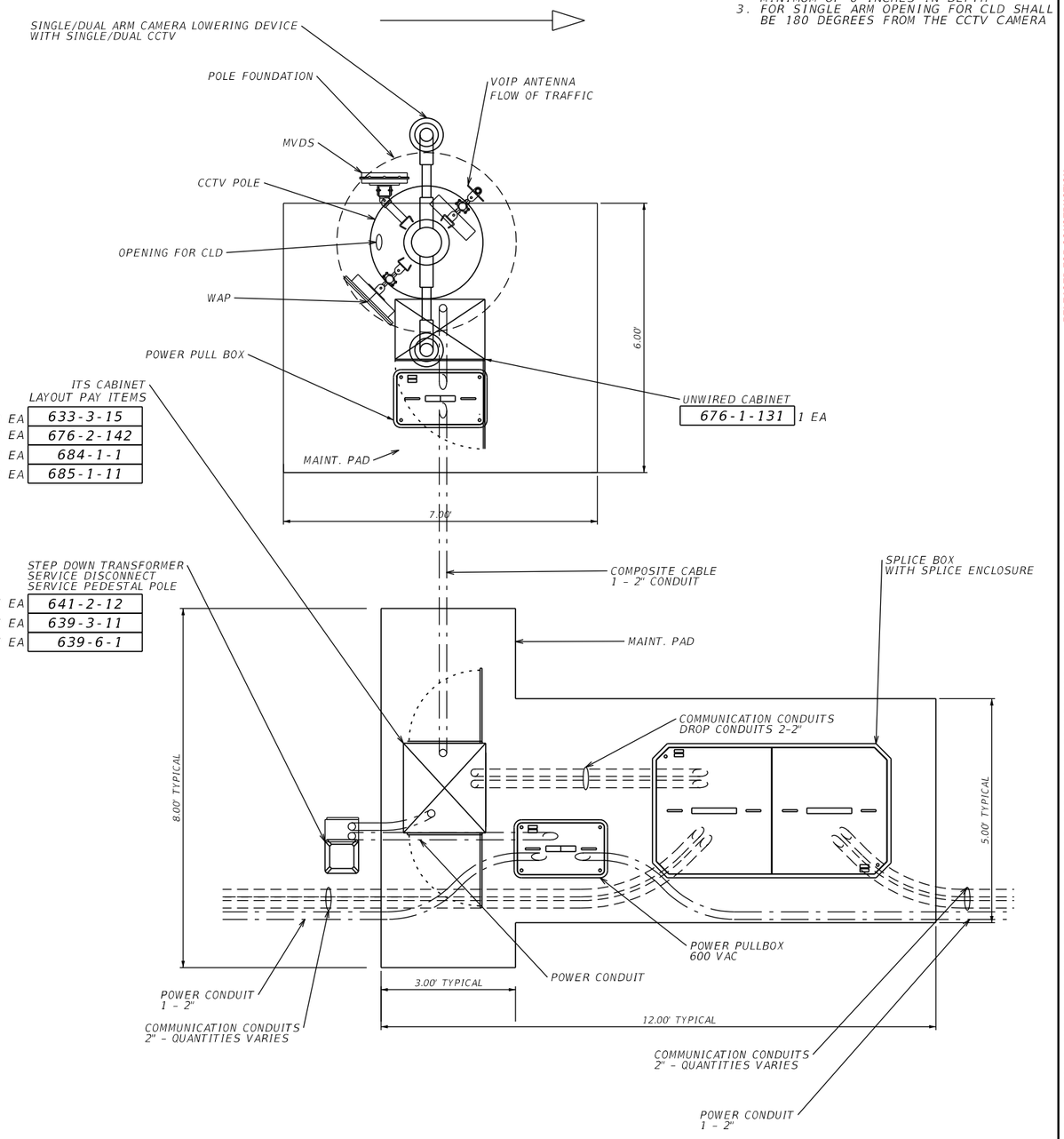
*INSTALLED IN MOC PHASE I

LOCATIONS:
95-28.10 NB
95-29.58 SB*
95-31.08 SB

TYPICAL CCTV SITE LAYOUT - OPPOSITE FROM BACKBONE

LAYOUT 8

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
676-2-142	1 EA
684-1-1	1 EA
685-1-11	1 EA

UNWIRED CABINET: 676-1-131 — 1 EA

STEP DOWN TRANSFORMER SERVICE DISCONNECT SERVICE PEDESTAL POLE

641-2-12	1 EA
639-3-11	1 EA
639-6-1	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-30.05 SB
95-31.81 NB

TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-210

RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 CONTRACT E4Q32

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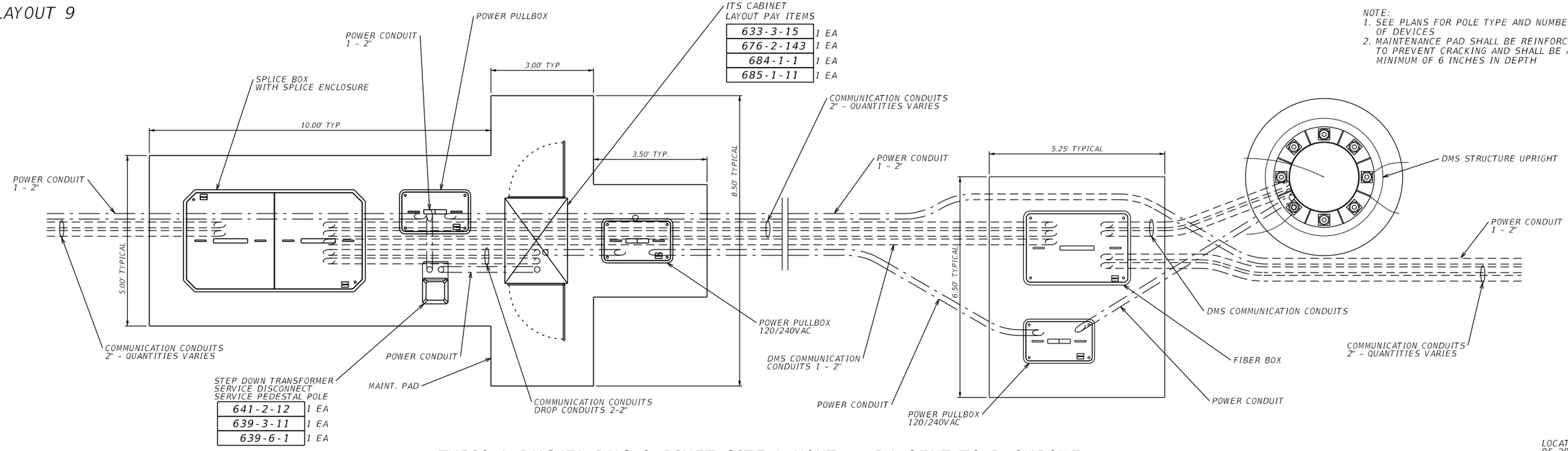
LAYOUT 9

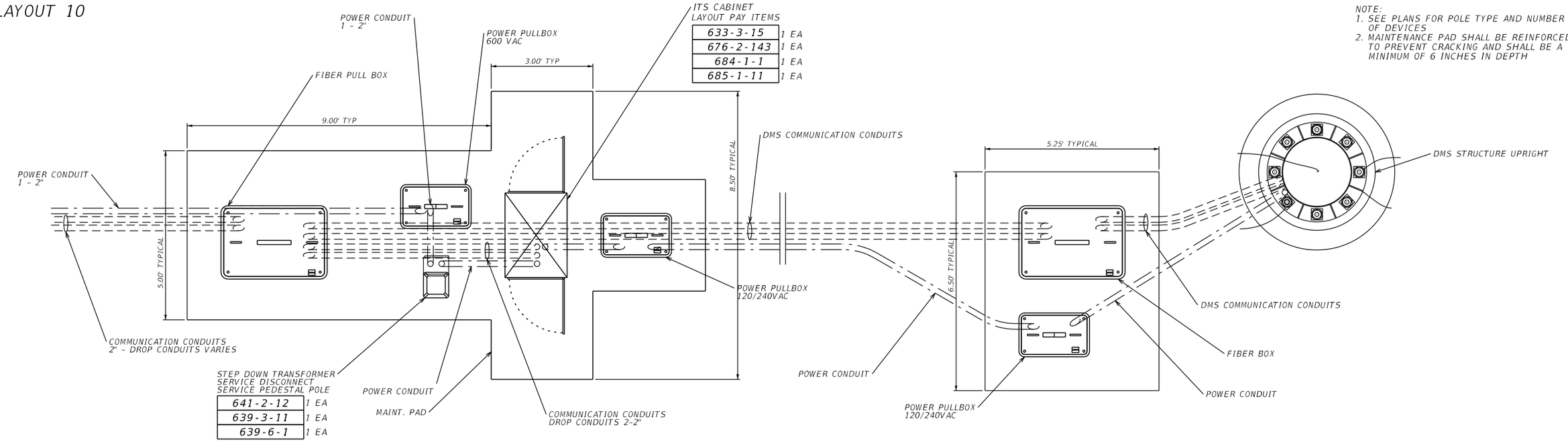


NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

TYPICAL DMS/EL DMS CABINET SITE LAYOUT - ADJACENT TO BACKBONE

LOCATIONS:
95-28.16 SB
95-29.95 NB
95-29.99 SB
95-32.55 NB

LAYOUT 10



NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

TYPICAL DMS/EL DMS CABINET SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LOCATIONS:
95-28.29 NB
95-32.09 SB

REVISIONS			
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Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-211

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Date: 3/21/2018
BY: (FDOT) VS
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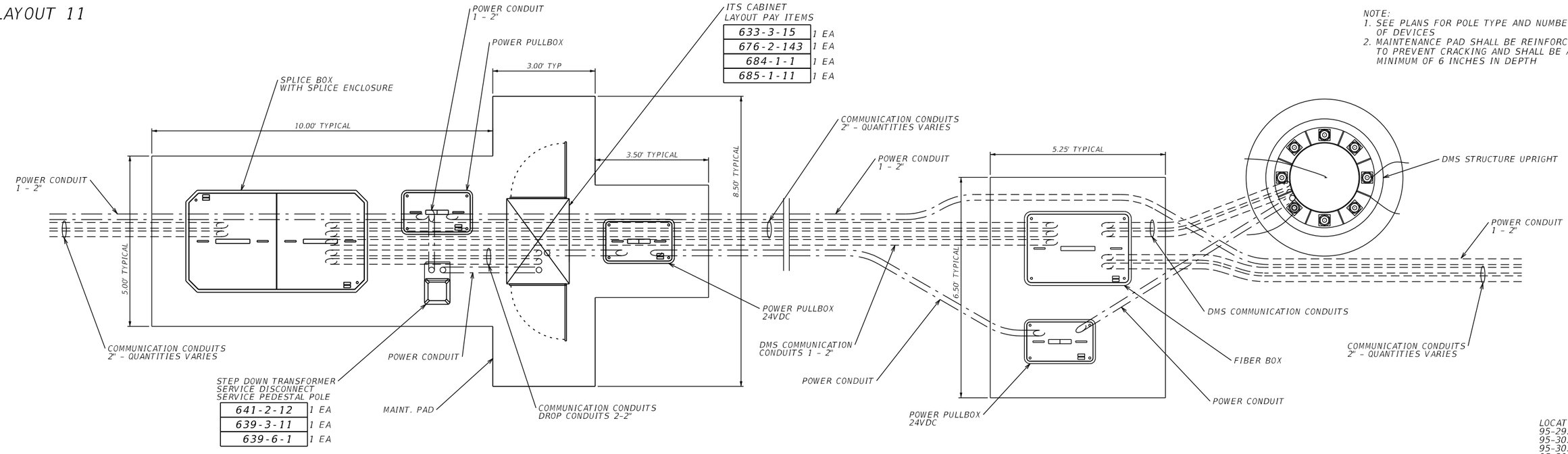
FPID 433108-4-52-01 CONTRACT E4Q32

LAYOUT 11

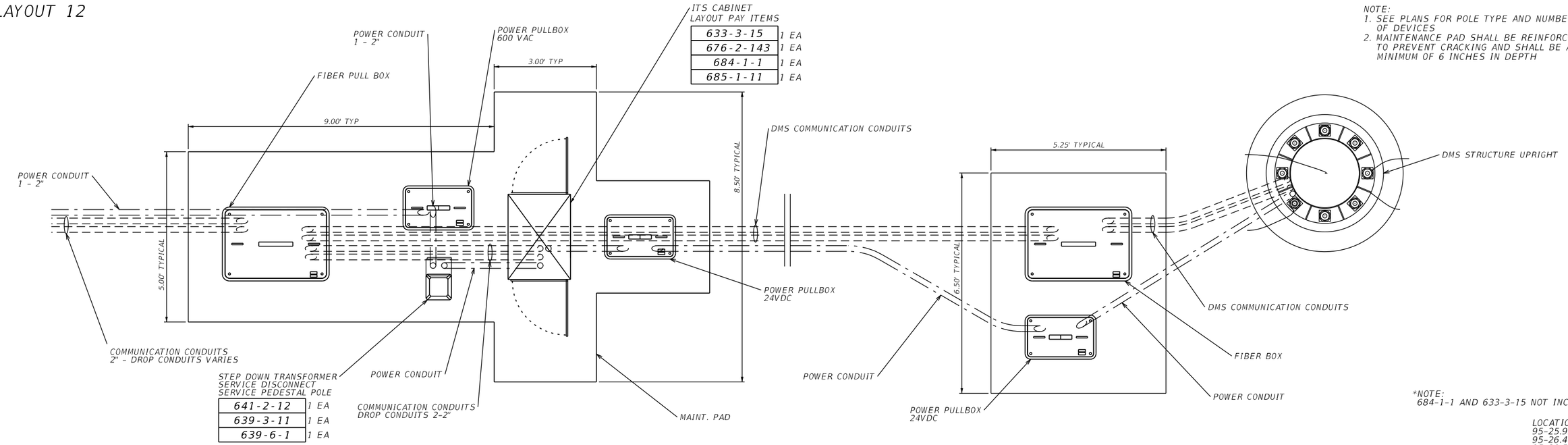


NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

LOCATIONS:
95-29.71 NB
95-30.12 NB
95-30.20 SB
95-30.41 NB
95-30.86 NB

TYPICAL S-DMS/T-DMS CABINET SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 12



NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*NOTE:
684-1-1 AND 633-3-15 NOT INCLUDED.

LOCATIONS:
95-25.93 NB
95-26.41 NB
95-29.51 SB
95-29.63 SB
*95-31.76B SB
*95-32.62 SB

TYPICAL S-DMS/T-DMS CABINET SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

REVISIONS			
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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-212

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BY: (FDOT)_____ VS _____ Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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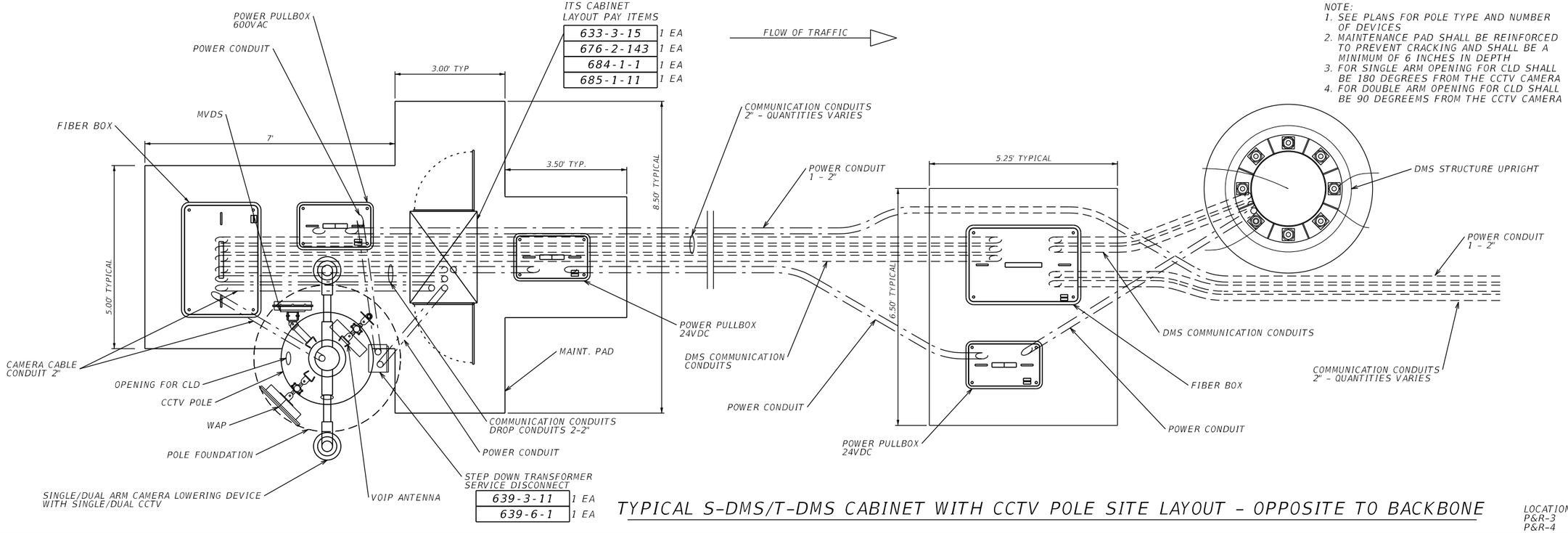
LAYOUT 13

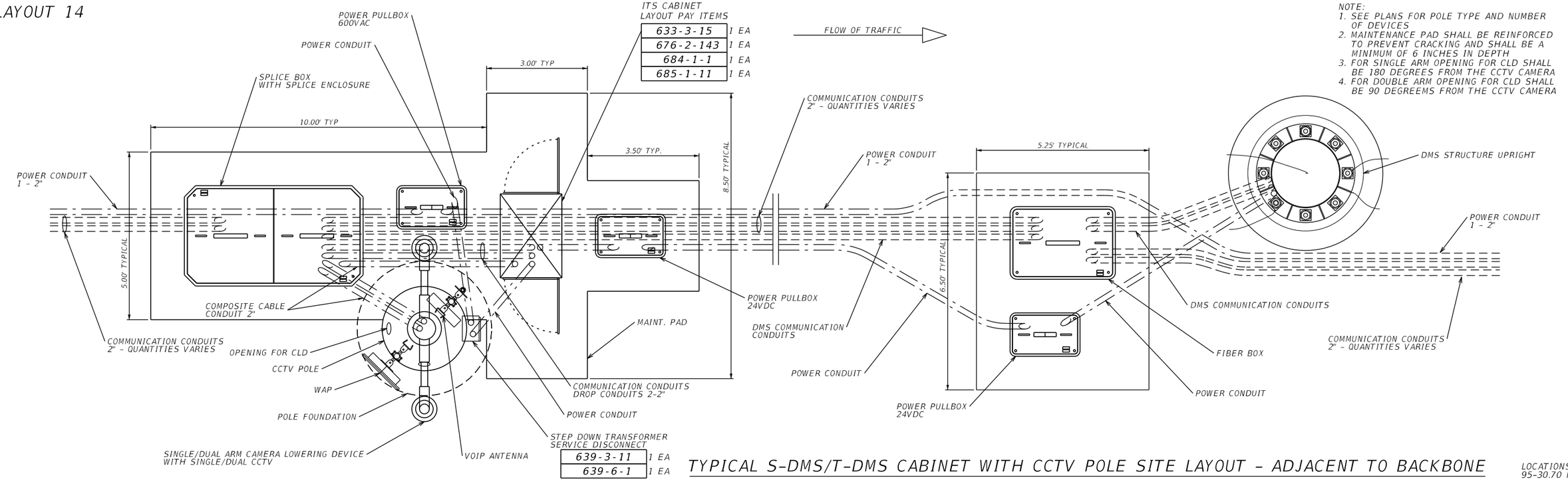


NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

TYPICAL S-DMS/T-DMS CABINET WITH CCTV POLE SITE LAYOUT - OPPOSITE TO BACKBONE

LOCATIONS:
P&R-3
P&R-4

LAYOUT 14



NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

TYPICAL S-DMS/T-DMS CABINET WITH CCTV POLE SITE LAYOUT - ADJACENT TO BACKBONE

LOCATIONS:
95-30.70 NB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO. IT-213

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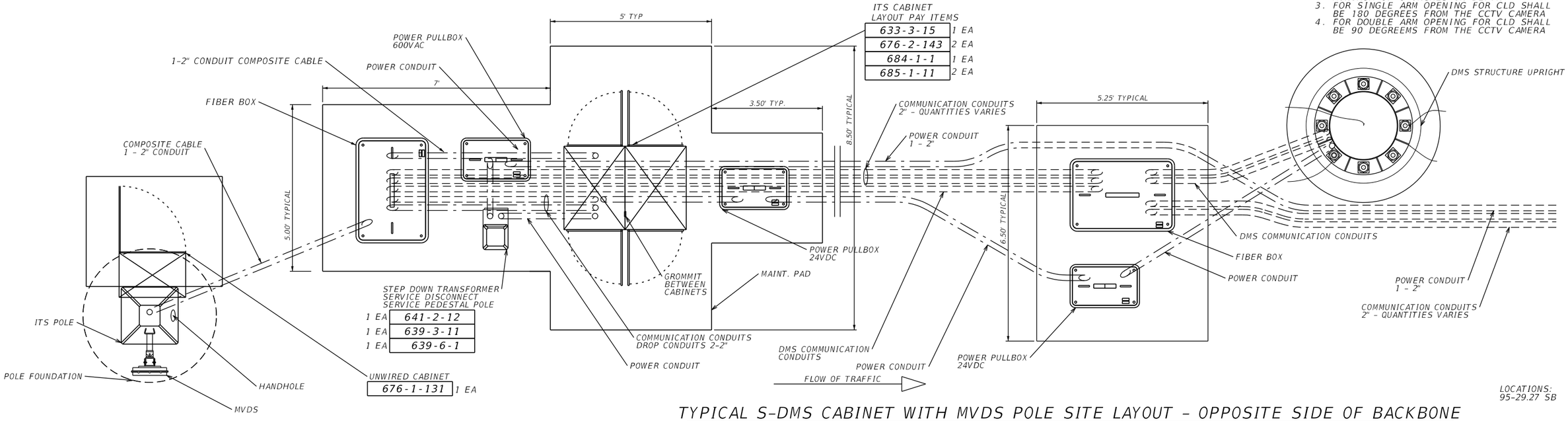
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

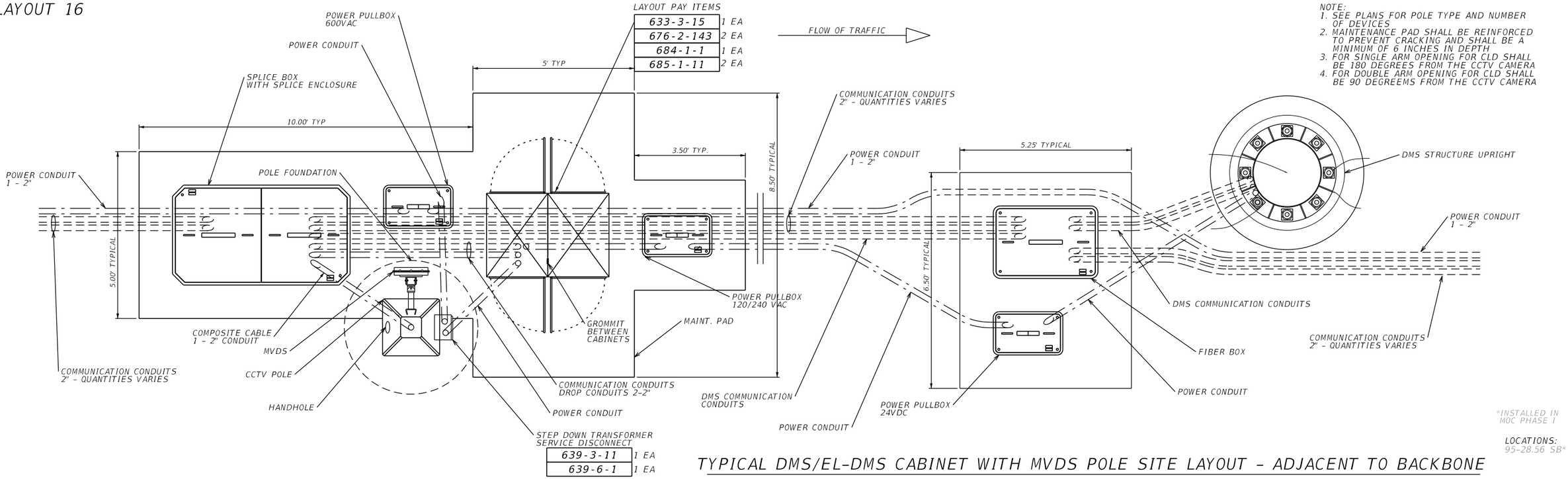
LAYOUT 15



LOCATIONS:
95-29.27 SB

TYPICAL S-DMS CABINET WITH MVDS POLE SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LAYOUT 16



*INSTALLED IN MOC PHASE I

LOCATIONS:
95-28.56 SB*

TYPICAL DMS/EL-DMS CABINET WITH MVDS POLE SITE LAYOUT - ADJACENT TO BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-214

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Date: 3/21/2018
BY: (FDOT) VS
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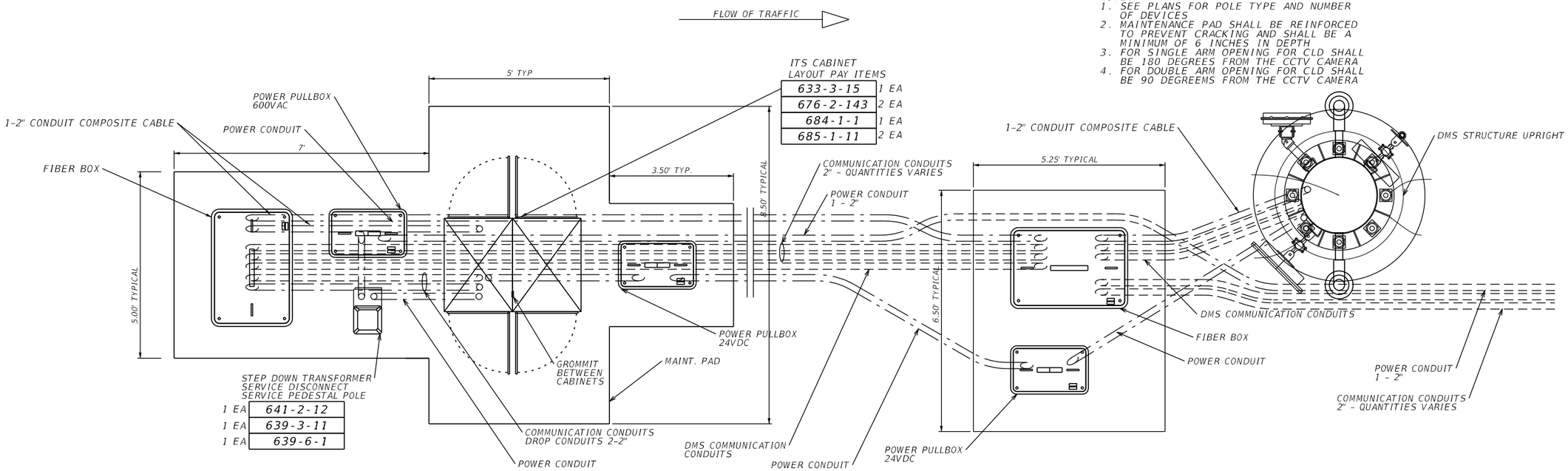
FPID 433108-4-52-01 CONTRACT E4Q32

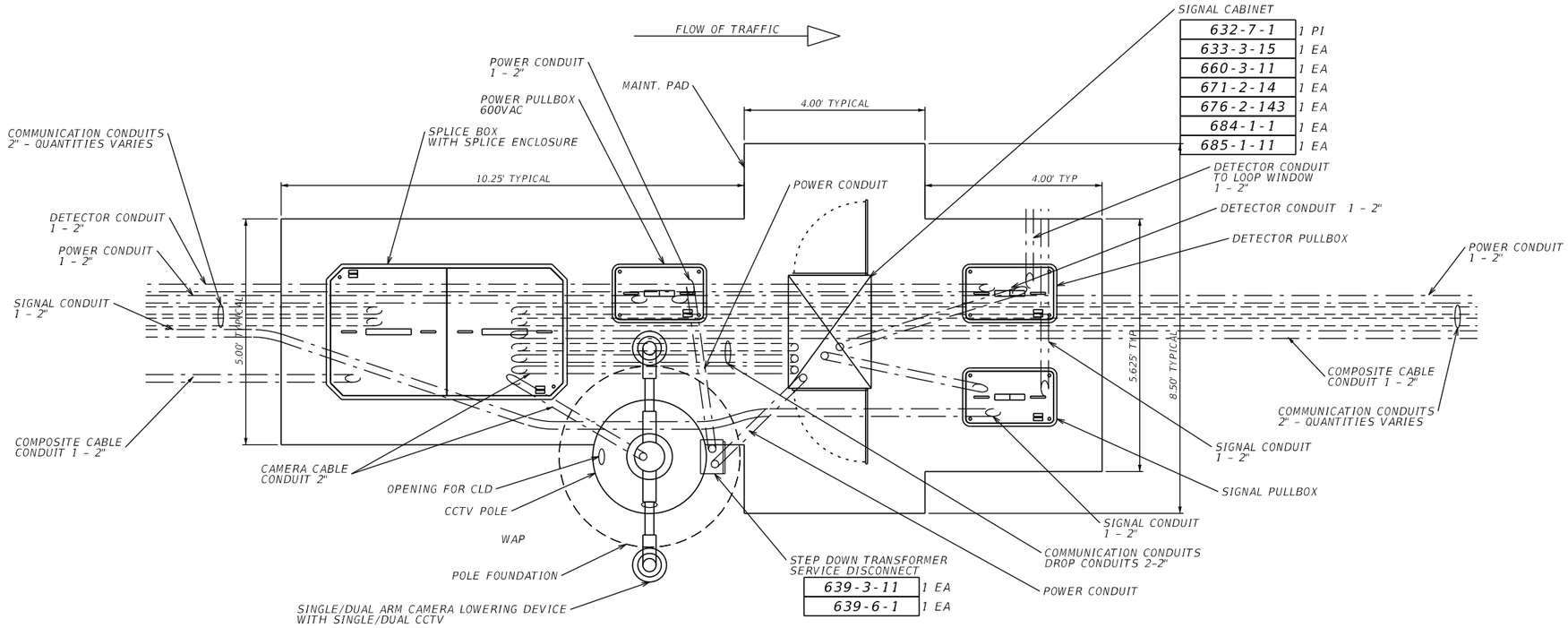
LAYOUT 17



LOCATIONS:
95-25.63 NB
95-26.09 NB

TYPICAL S-DMS/T-DMS CABINET WITH MVDS SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LAYOUT 18



LOCATIONS:
95-30.78 SB
95-32.08 SB

RAMP SIGNAL CABINET W/ CCTV SITE LAYOUT - ADJACENT TO BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-215

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BY: (FDOT) VS
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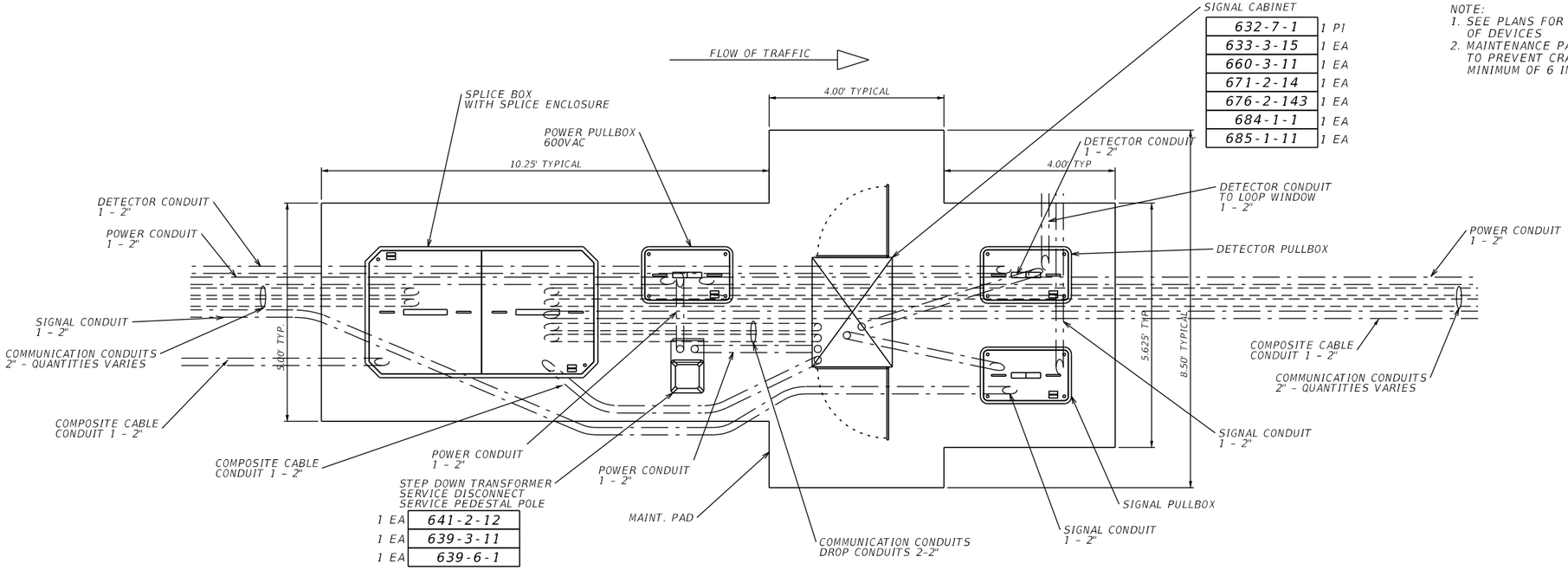
FPID 433108-4-52-01 CONTRACT E4Q32

LAYOUT 19



1 EA	641-2-12
1 EA	639-3-11
1 EA	639-6-1

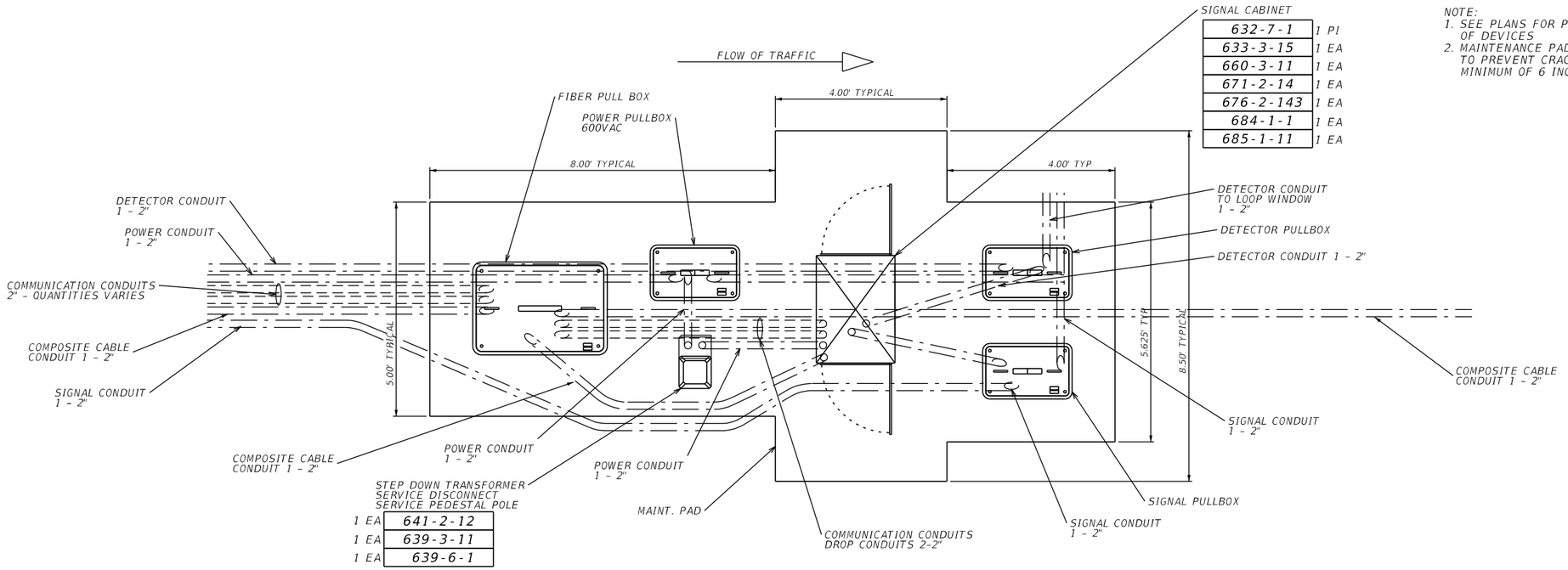
SIGNAL CABINET	
632-7-1	1 PI
633-3-15	1 EA
660-3-11	1 EA
671-2-14	1 EA
676-2-143	1 EA
684-1-1	1 EA
685-1-11	1 EA

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

LOCATIONS:
95-30.91 NB
95-32.50 NB

RAMP SIGNAL CABINET SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 20



1 EA	641-2-12
1 EA	639-3-11
1 EA	639-6-1

SIGNAL CABINET	
632-7-1	1 PI
633-3-15	1 EA
660-3-11	1 EA
671-2-14	1 EA
676-2-143	1 EA
684-1-1	1 EA
685-1-11	1 EA

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

LOCATIONS:
95-27.65 NB
95-28.38 SB
95-32.20 SB

RAMP SIGNAL CABINET SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-216

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FPID 433108-4-52-01 CONTRACT E4Q32

LAYOUT 21

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

LAYOUT PAY ITEMS

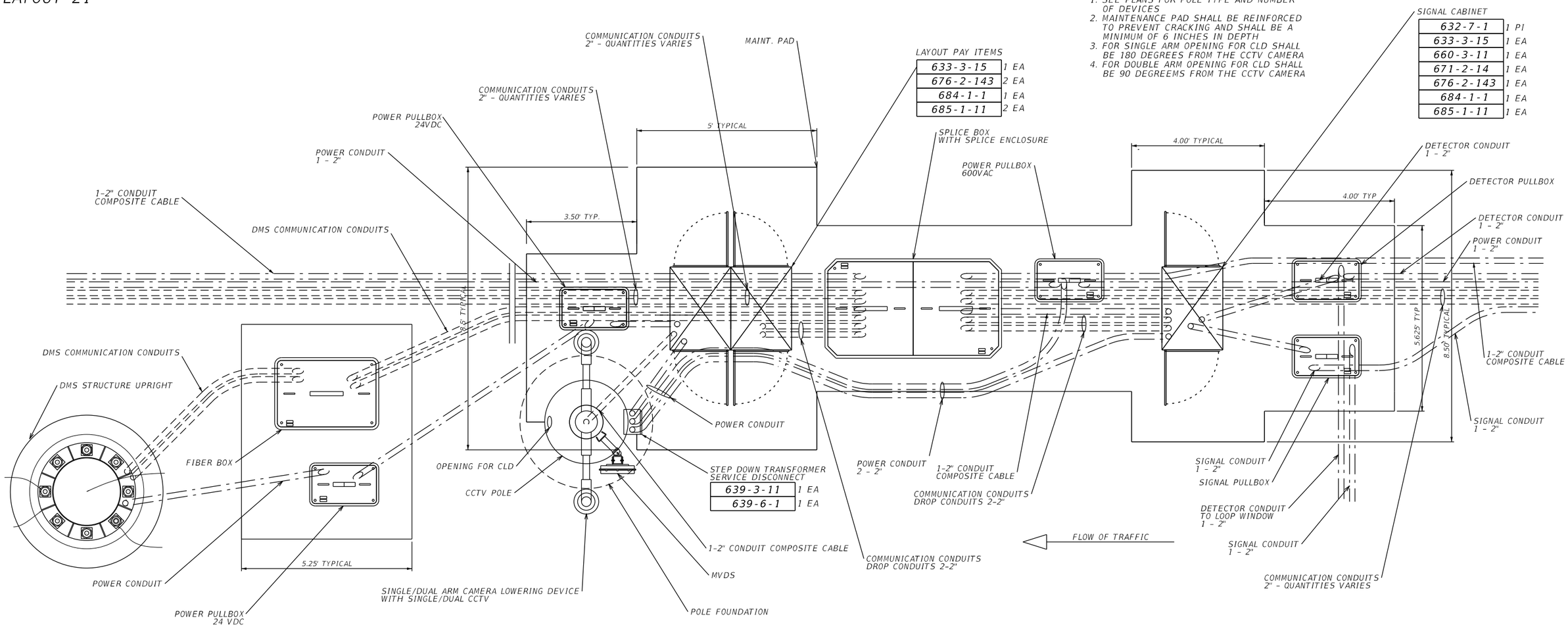
633-3-15	1 EA
676-2-143	2 EA
684-1-1	1 EA
685-1-11	2 EA

SIGNAL CABINET

632-7-1	1 PI
633-3-15	1 EA
660-3-11	1 EA
671-2-14	1 EA
676-2-143	1 EA
684-1-1	1 EA
685-1-11	1 EA

STEP DOWN TRANSFORMER SERVICE DISCONNECT

639-3-11	1 EA
639-6-1	1 EA



RAMP SIGNAL CABINET AND S-DMS SITE WITH POLE MOUNTED CABINET LAYOUT

LOCATIONS:
95-30.33 SB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-217

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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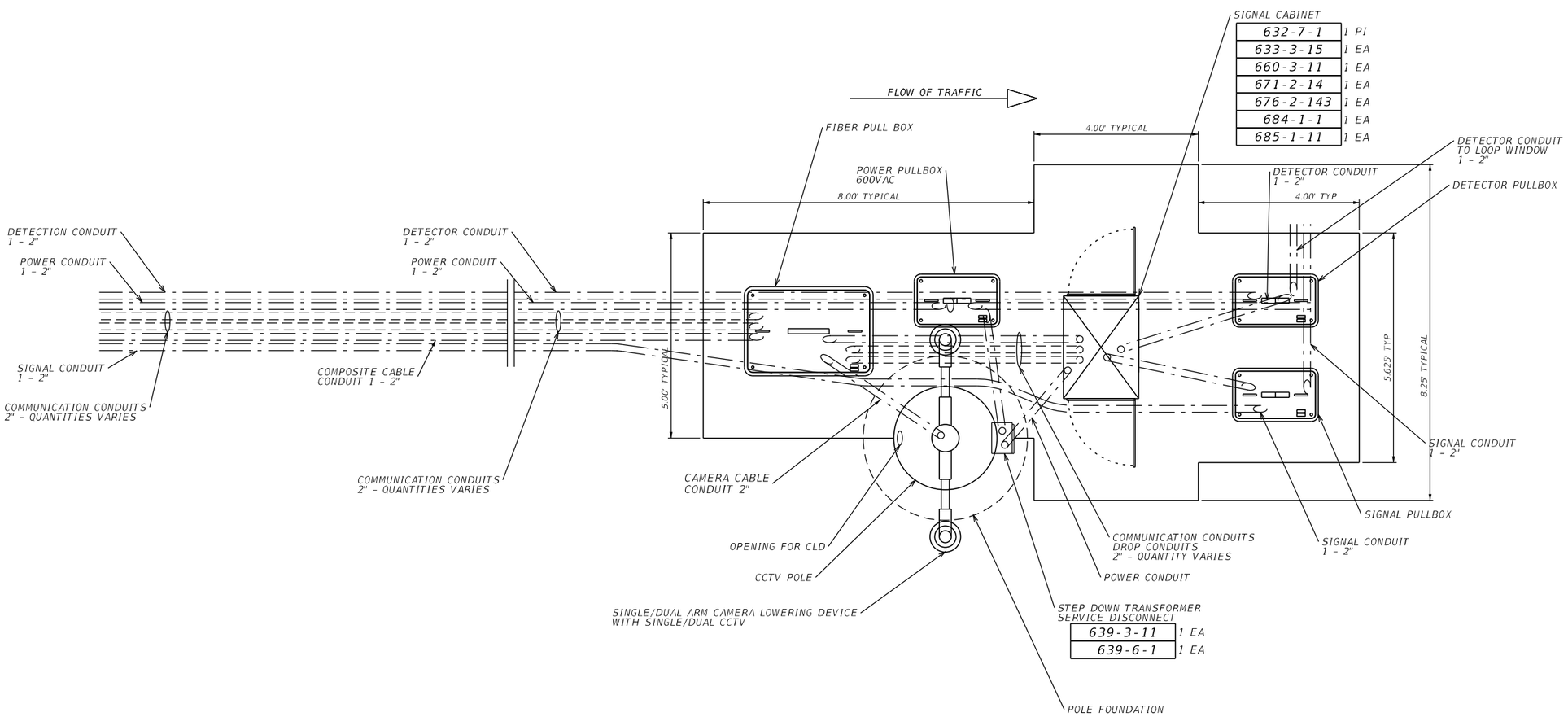
LAYOUT 22

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA



TYPICAL RAMP SIGNAL CABINET WITH CCTV POLE SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LOCATIONS:
95-26.38 SB
95-26.59 NB
95-26.71 NB
95-28.69 NB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

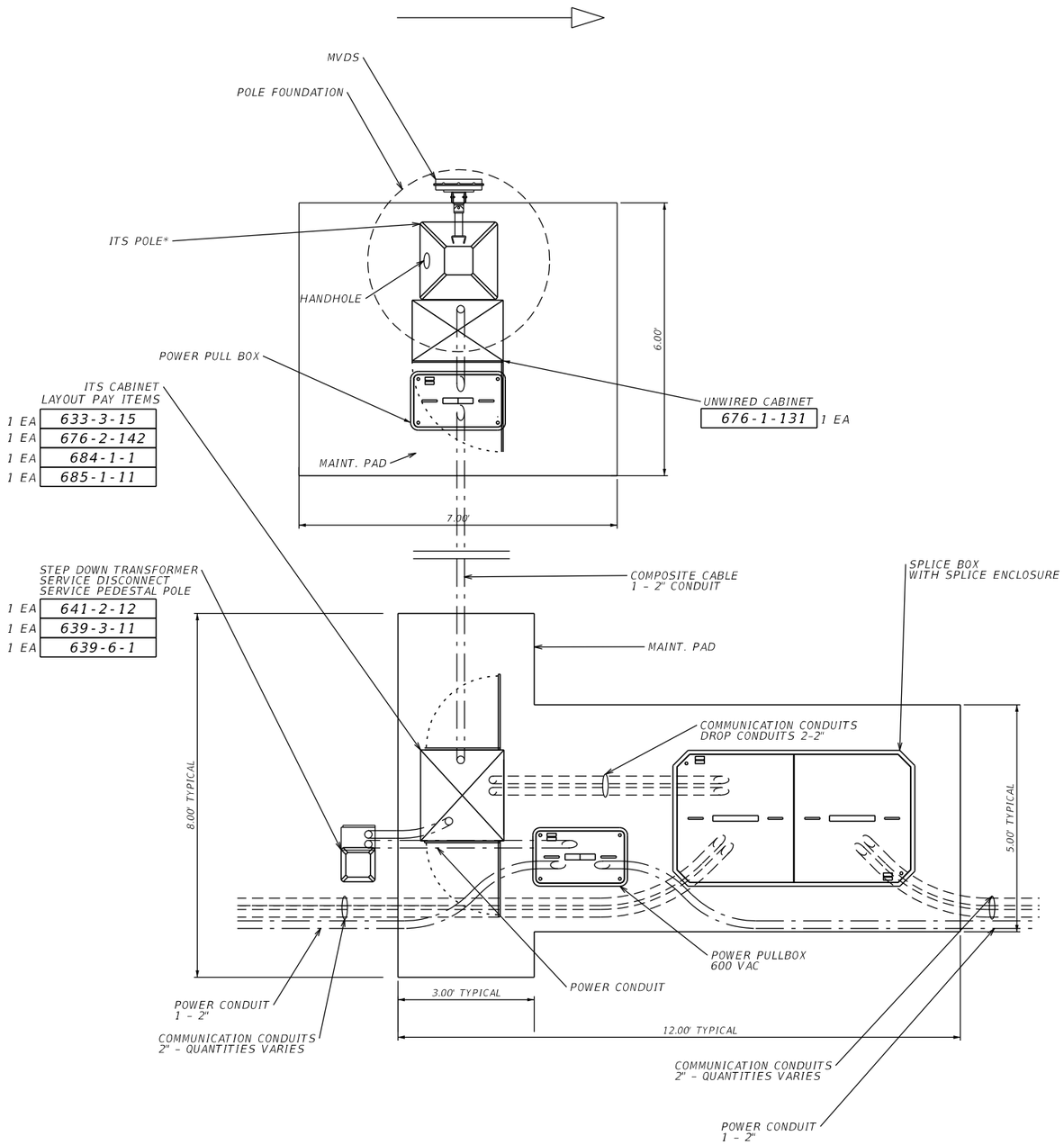
SITE LAYOUT DETAILS

SHEET NO.
IT-218

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

LAYOUT 23

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA



*INSTALLED IN MOC PHASE I

LOCATIONS:
95-27.95 NB*

TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-219

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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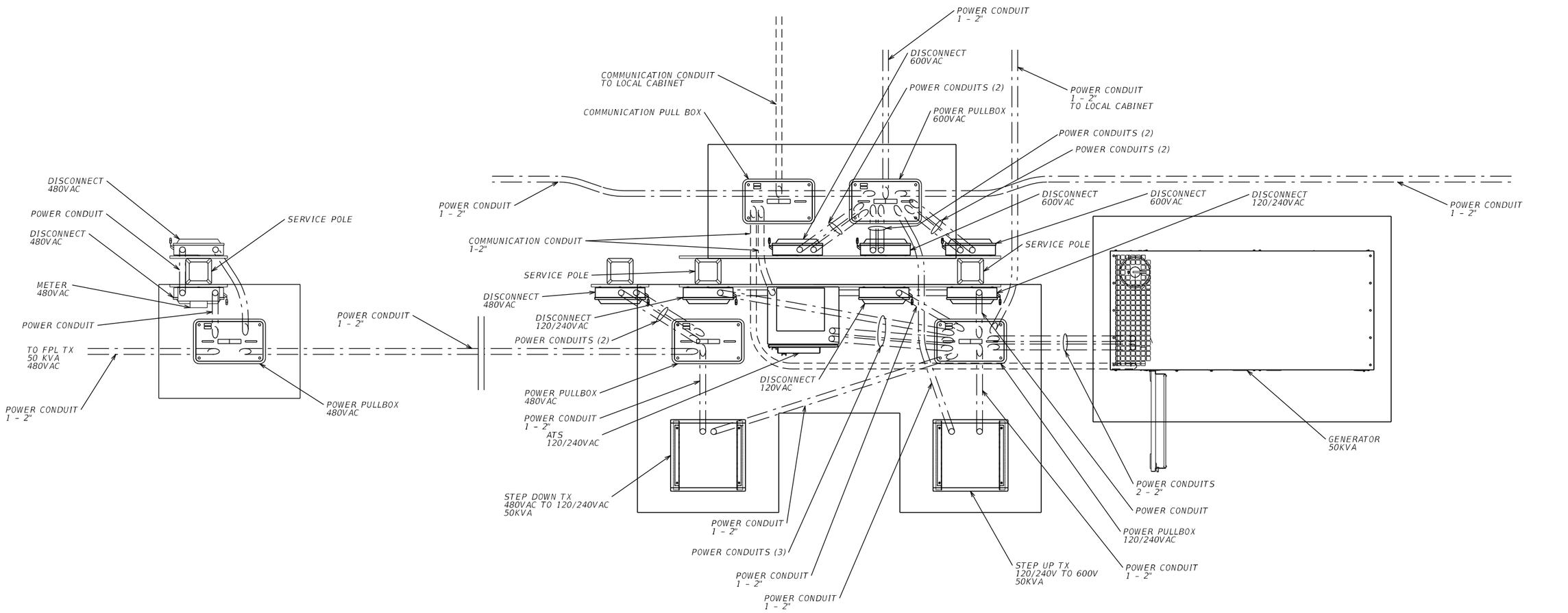
GENERATOR	
635-2-11	4 EA
639-3-11	5 EA
639-5-2	1 EA
639-6-1	2 EA
641-2-12	4 EA



GENERATOR 95-27.43 NB SITE LAYOUT

REVISIONS			
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225 E. Robinson St., Suite 300
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PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

GENERATOR DETAILS

SHEET NO. IT-220

RELEASED FOR CONSTRUCTION
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BY: (FDOT)_VS_____ Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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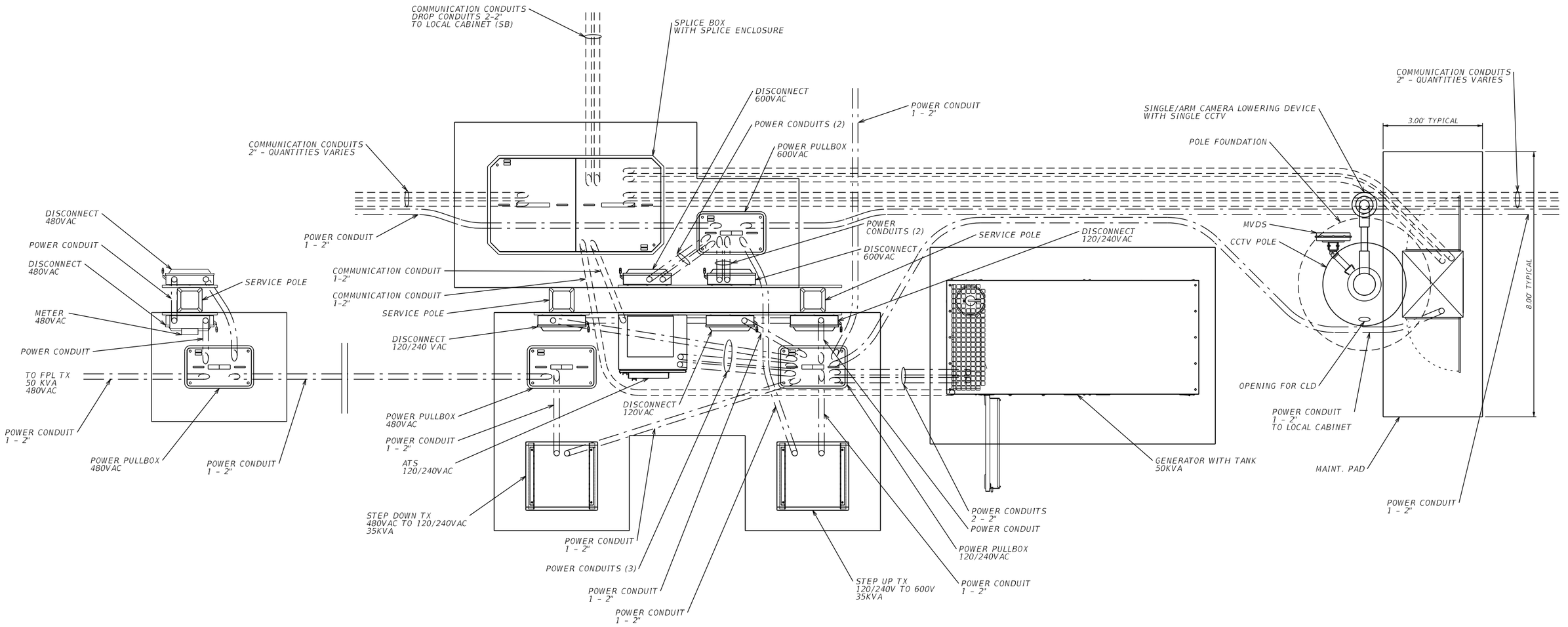
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA

GENERATOR	
635-2-11	4 EA
639-3-11	5 EA
639-5-2	1 EA
639-6-1	2 EA
641-2-12	4 EA



GENERATOR 95-29.58 NB SITE LAYOUT

REVISIONS			
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

GENERATOR DETAILS

SHEET NO.
IT-221

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32
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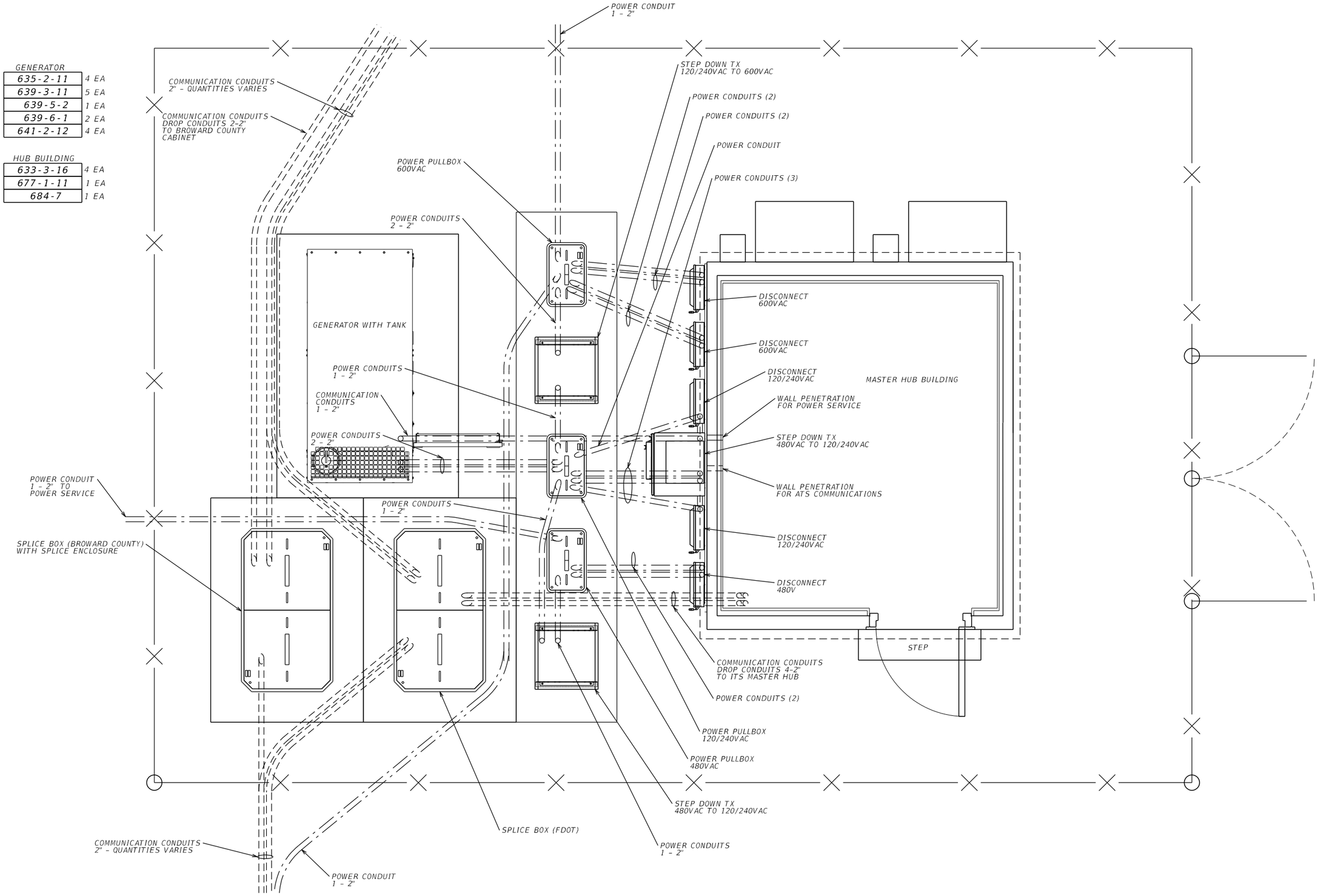
GENERATOR	
635-2-11	4 EA
639-3-11	5 EA
639-5-2	1 EA
639-6-1	2 EA
641-2-12	4 EA

HUB BUILDING	
633-3-16	4 EA
677-1-11	1 EA
684-7	1 EA



REVISIONS			
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PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

GENERATOR DETAILS

SHEET NO. IT-222

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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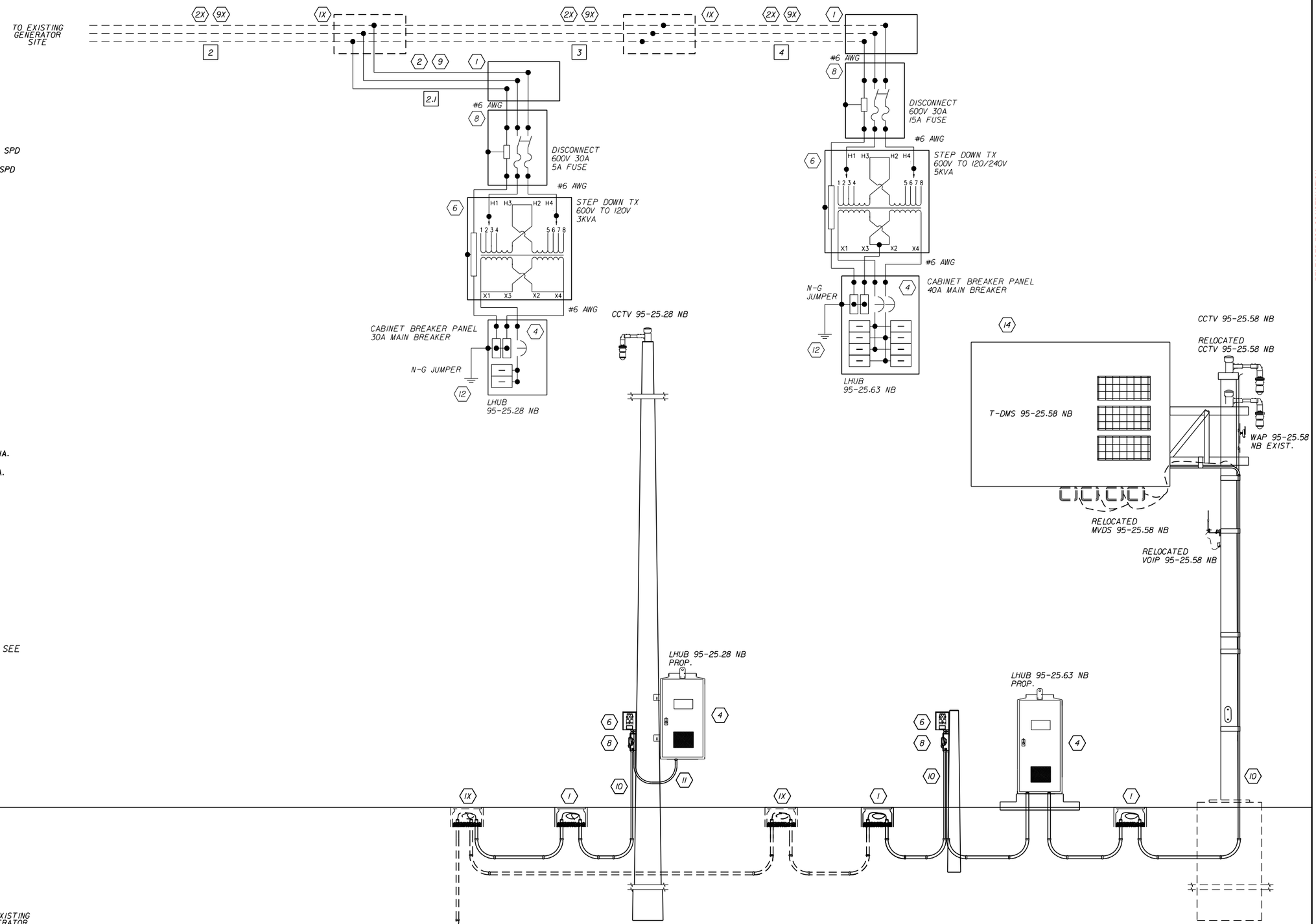
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA.
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 6.2

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-223

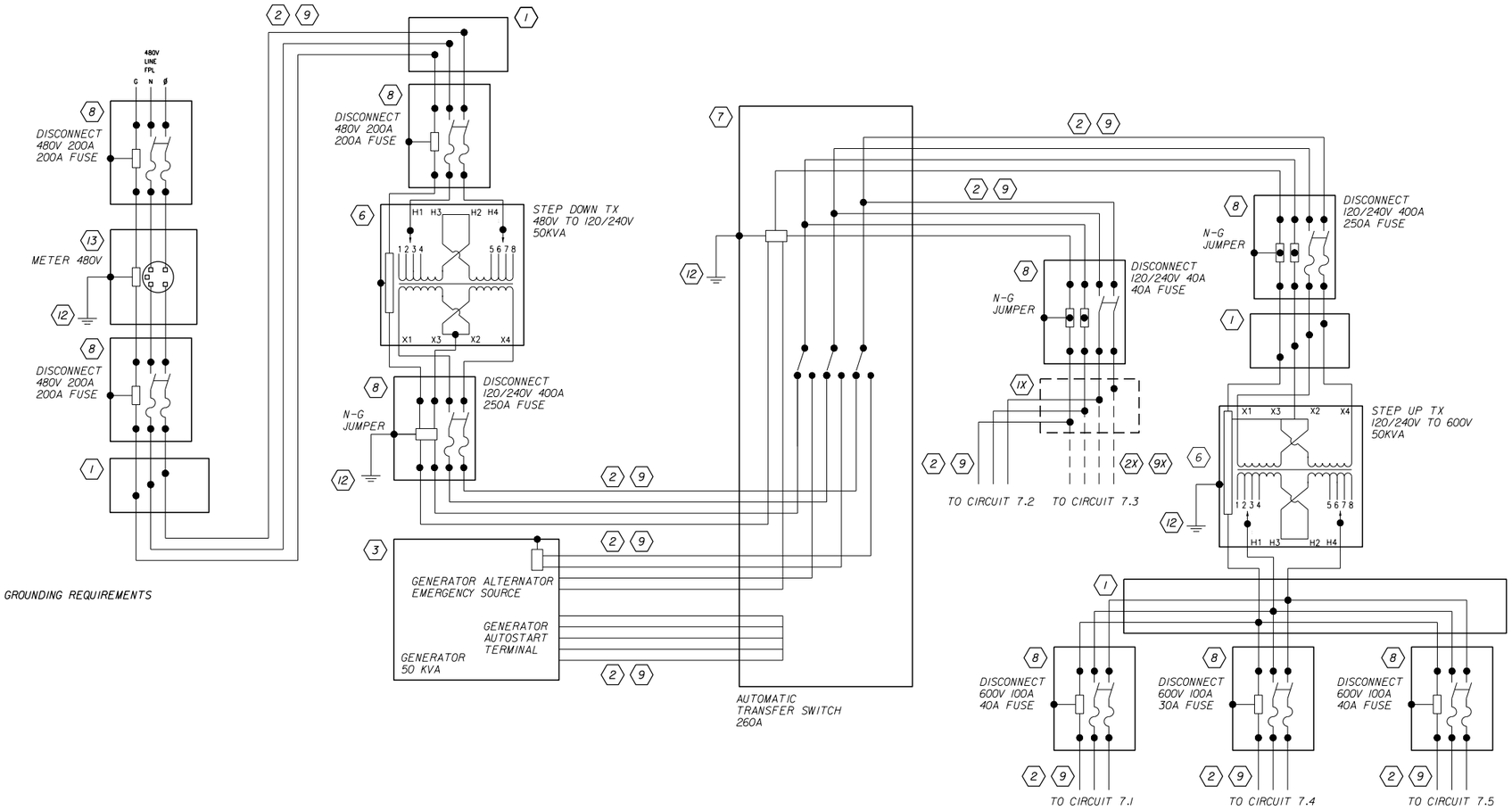
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

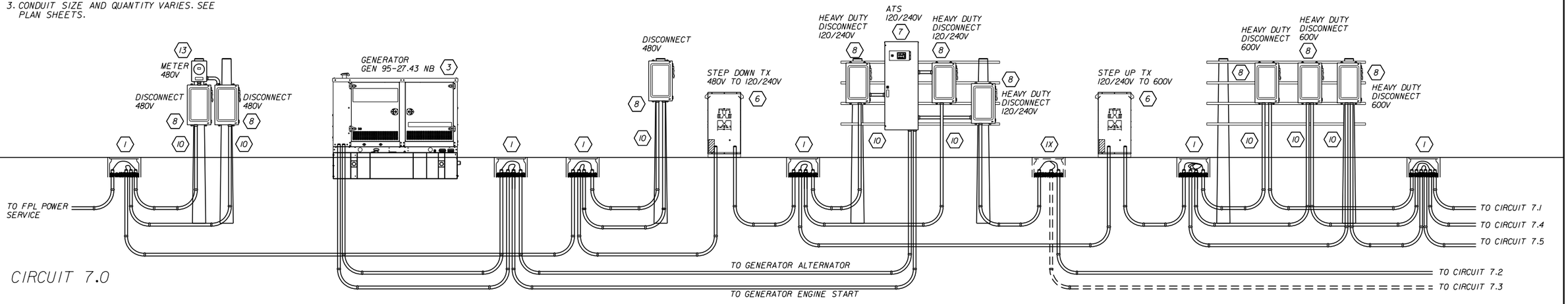
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. SEE SPECIFICATIONS FOR GROUNDING REQUIREMENTS
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.





CIRCUIT 7.0

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-224

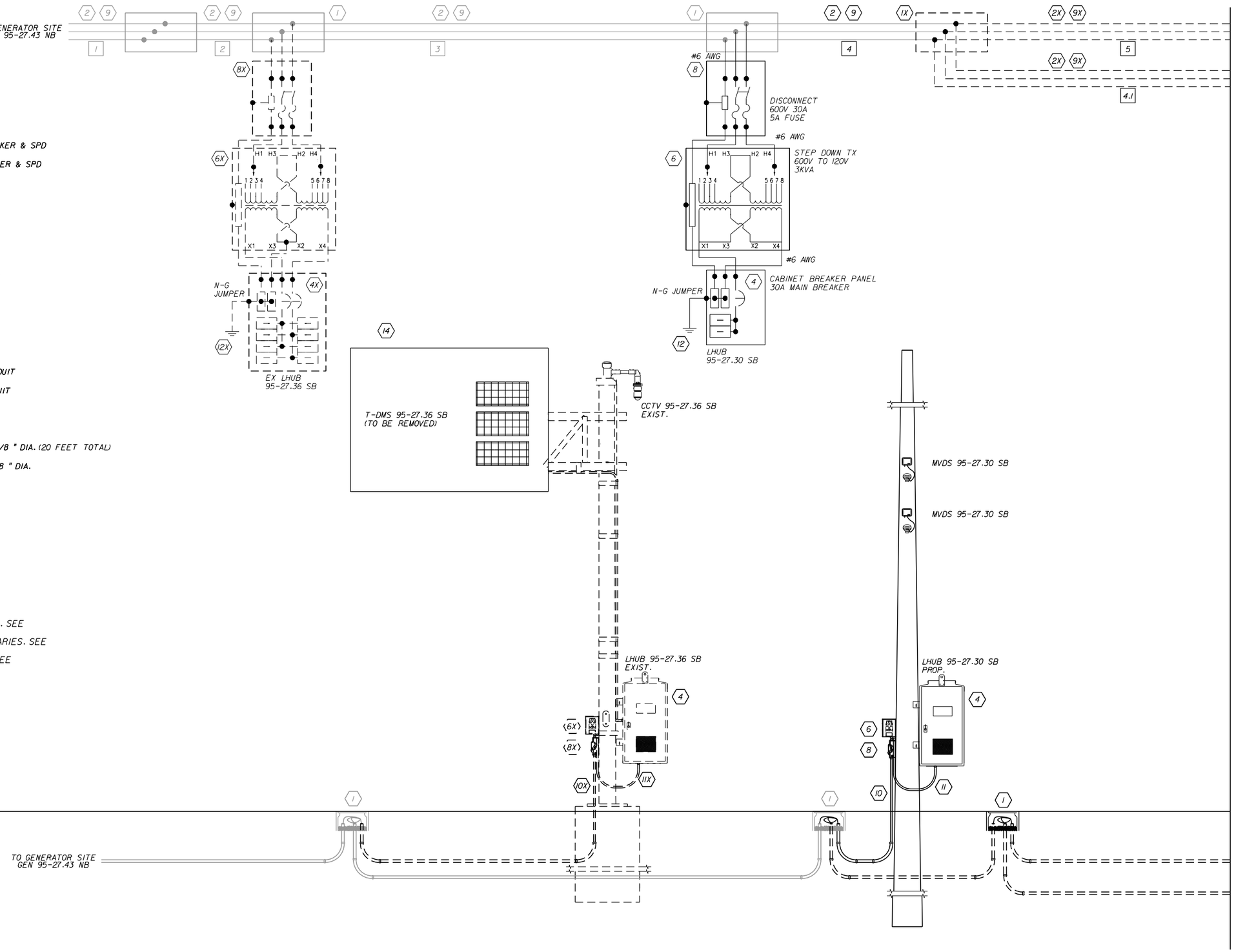
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT)_VS_____ Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 7.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-225

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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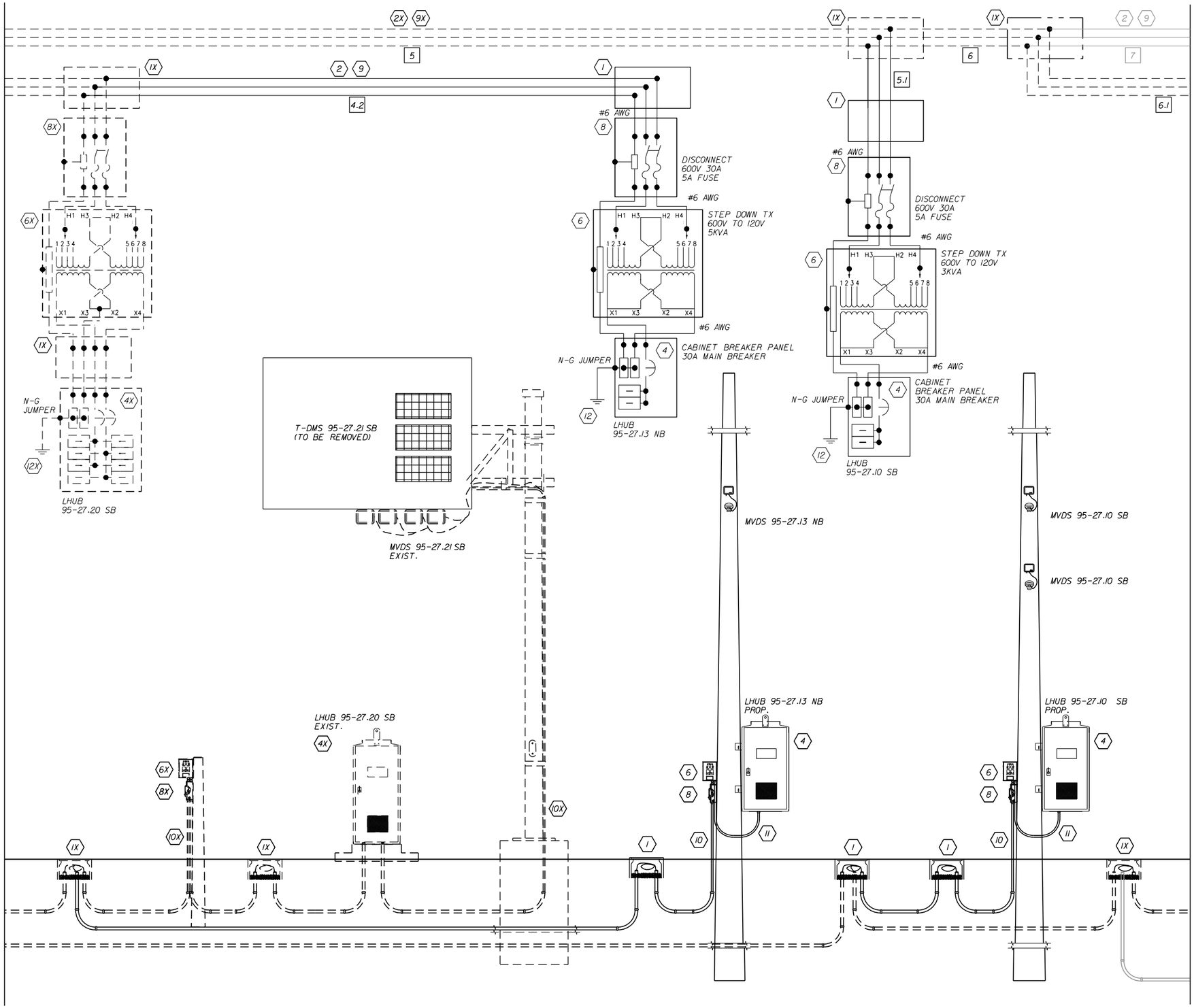
KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 7.1

MATCH LINE SHEET IT-225



MATCH LINE SHEET IT-227

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-226

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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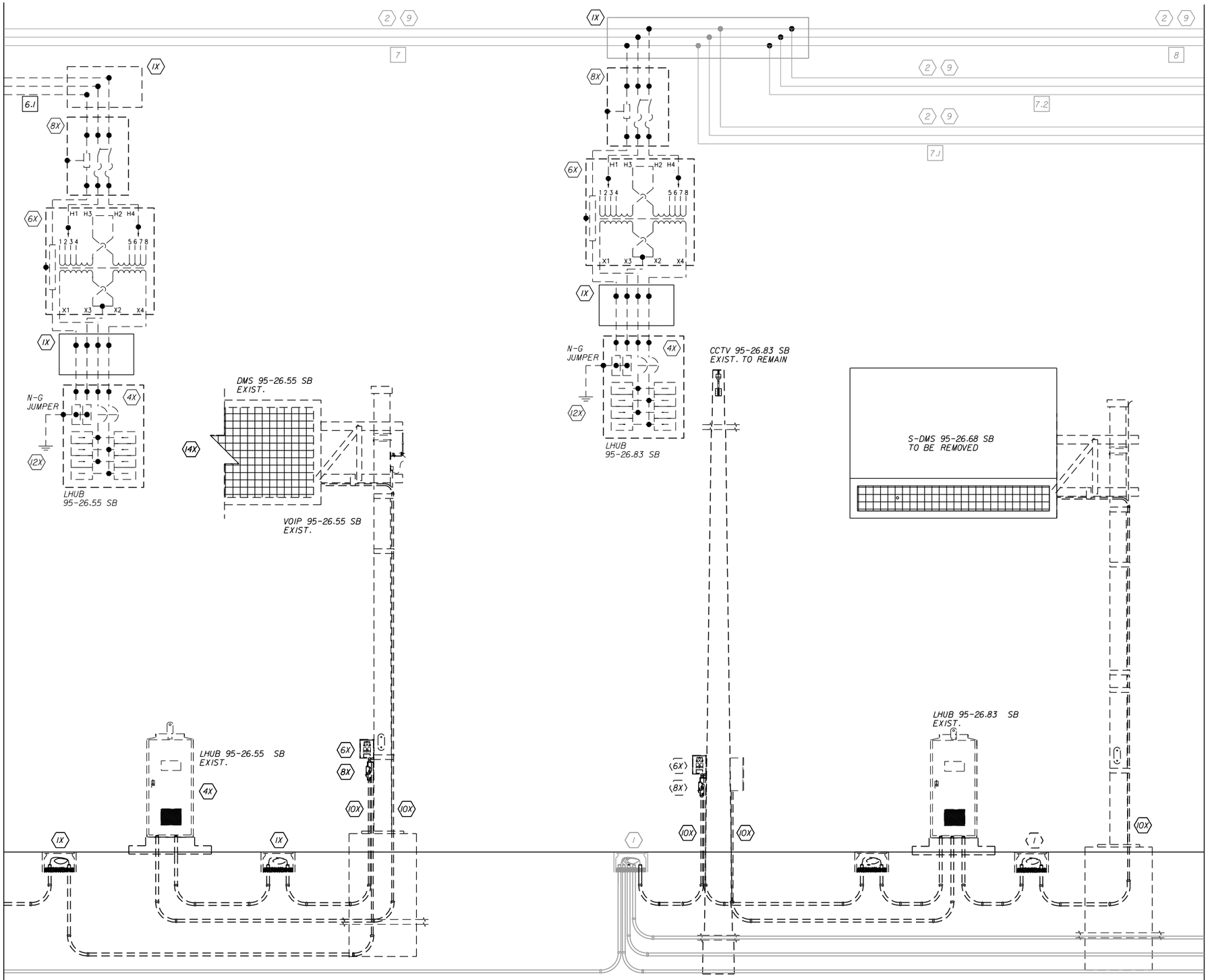
FPID 433108-4-52-01 CONTRACT E4Q32

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 7.1



REVISIONS			
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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POWER SERVICE DETAILS

SHEET NO. IT-227

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-227

#6 AWG
DISCONNECT 600V 30A 5A FUSE
STEP DOWN TX 600V TO 120V 3KVA
CABINET BREAKER PANEL 30A MAIN BREAKER
N-G JUMPER
LHUB 95-26.86 SB
MVDS 95-26.86 SB (2)
#2 AWG
LHUB 95-26.63 SB
CCTV 95-26.63 SB
LHUB 95-26.49 SB
T-DMS 95-26.46 SB TO BE REMOVED
LHUB 95-26.86 SB PROP.
LHUB 95-26.63 SB PROP.
LHUB 95-26.49 SB EXIST.

MATCH LINE SHEET IT-229

CIRCUIT 7.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-228

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

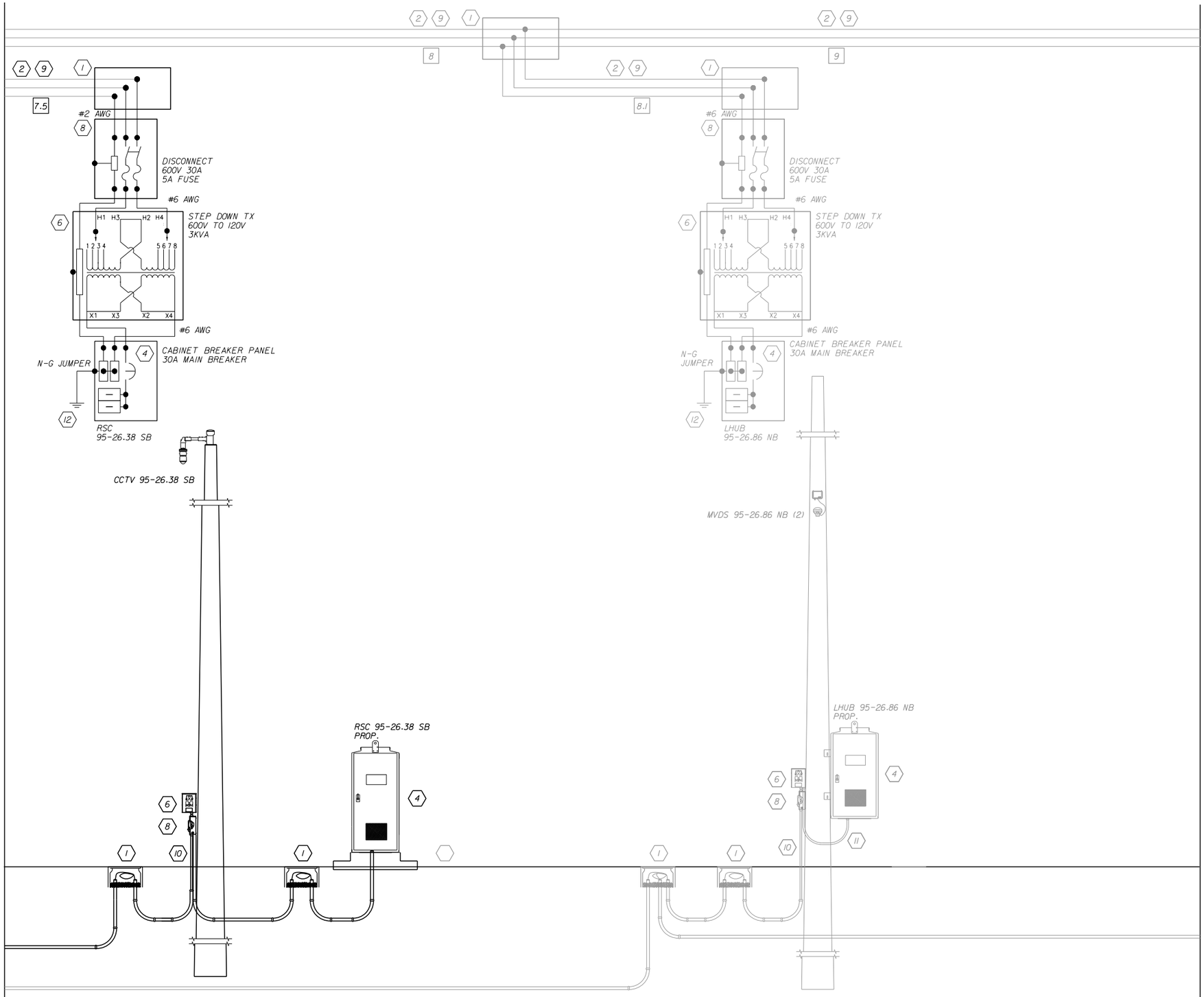
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 7.1

MATCH LINE SHEET IT-228



MATCH LINE SHEET IT-230

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-229

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

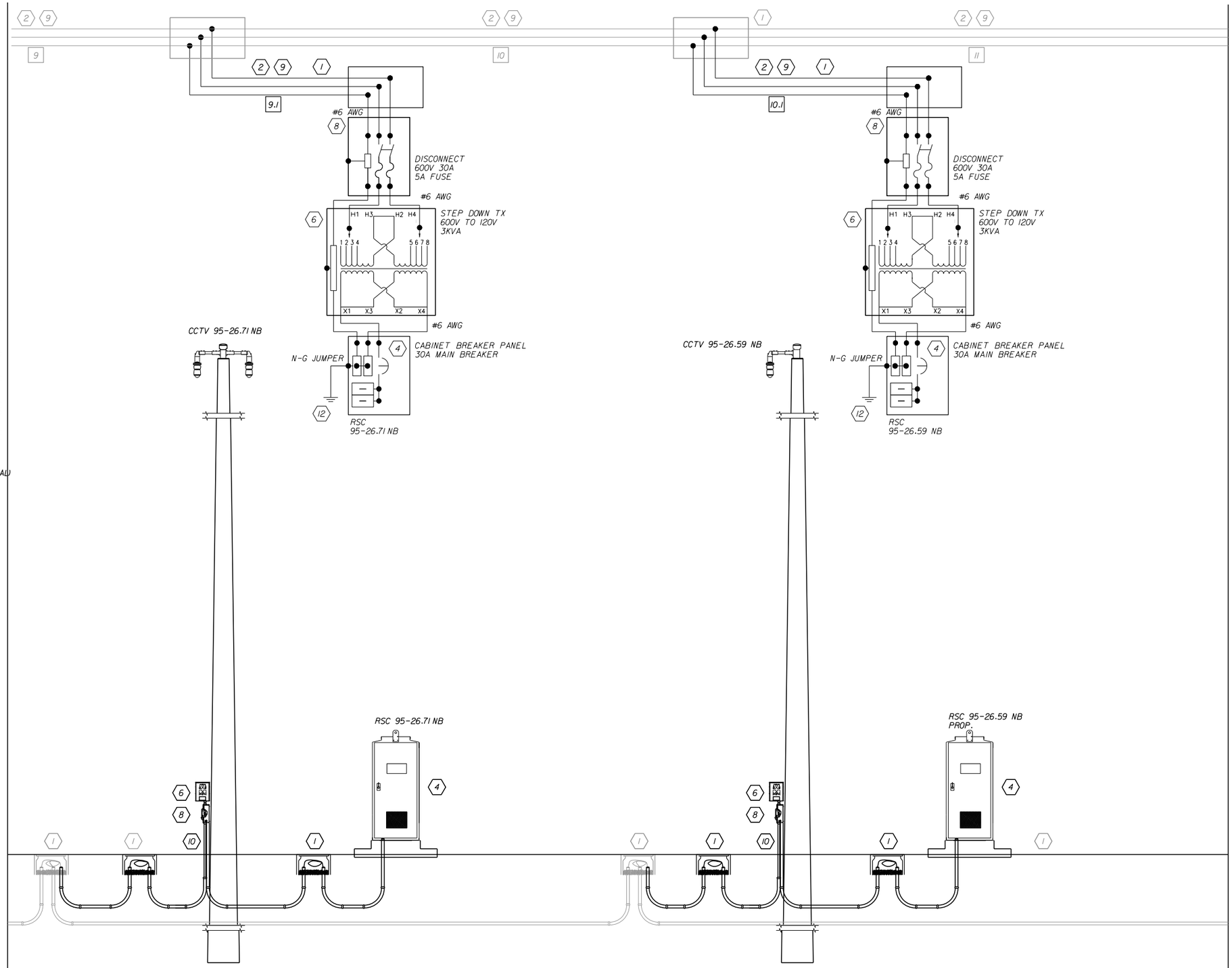
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-229



MATCH LINE SHEET IT-231

CIRCUIT 7.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-230

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

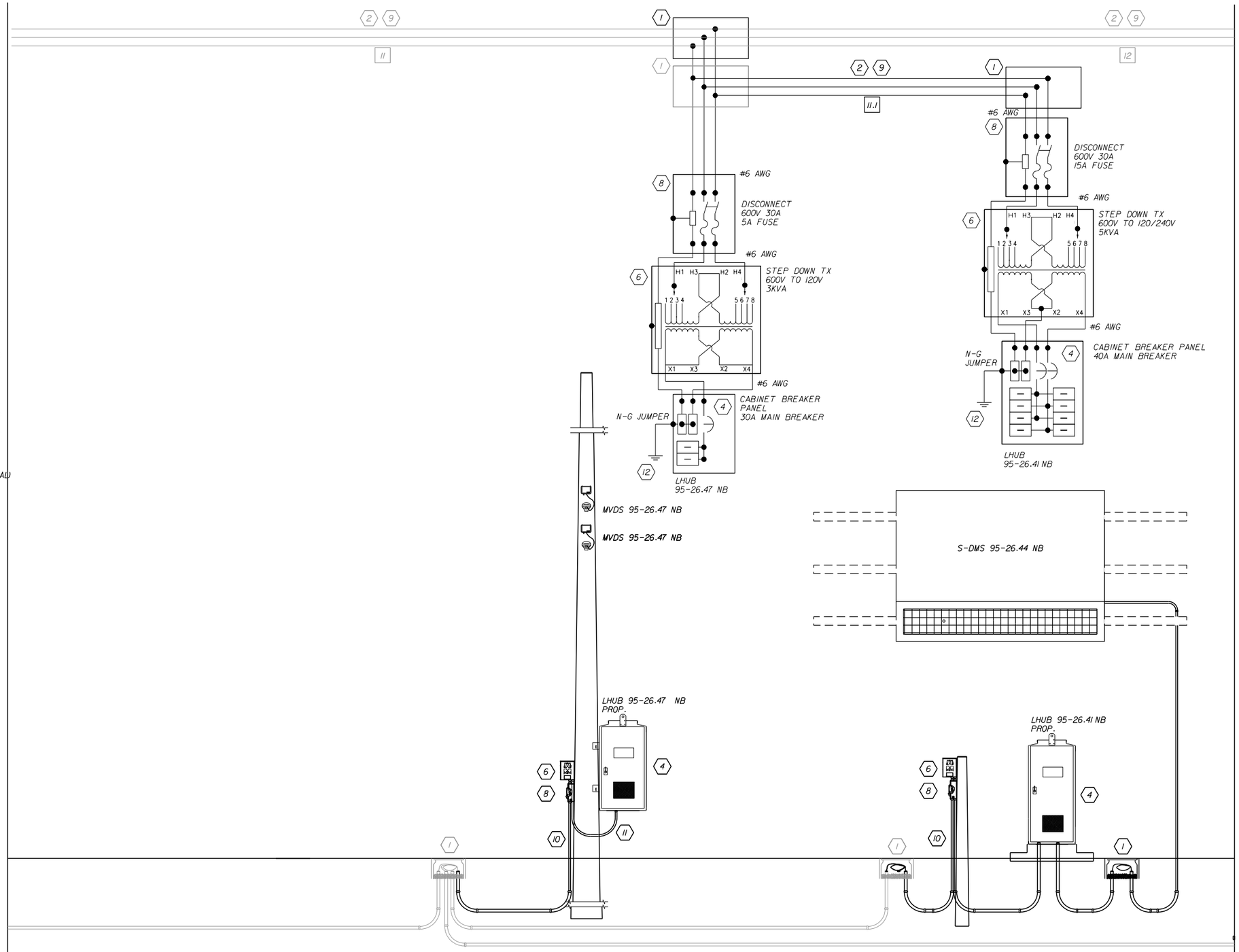
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA.(20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-230



MATCH LINE SHEET IT-232

CIRCUIT 7.1

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RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-231

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
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- (5X) EXISTING NEMA ENCLOSURE
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- (6X) EXISTING TRANSFORMER
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- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
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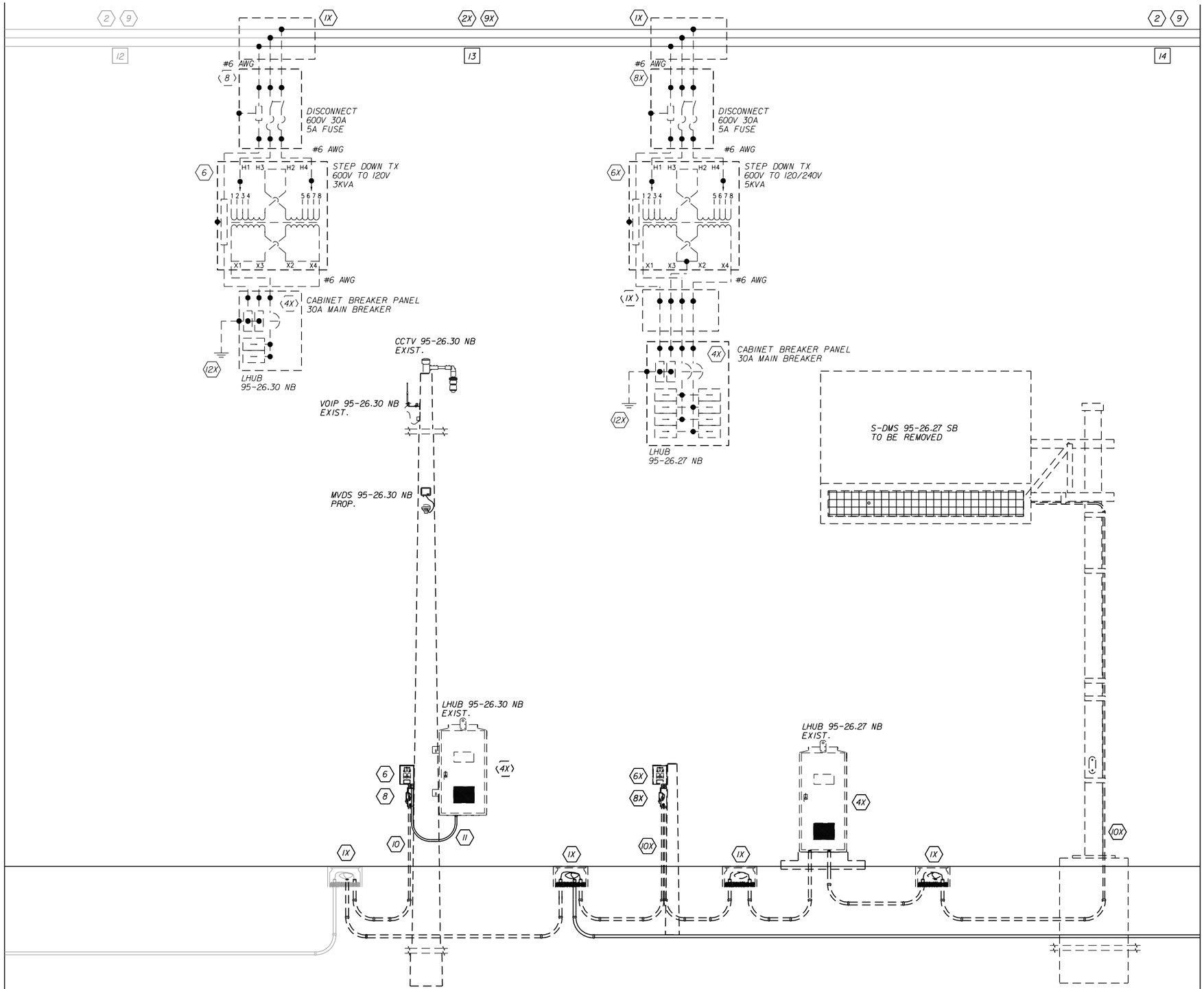
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-231



MATCH LINE SHEET IT-233

CIRCUIT 7.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-232

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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
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- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
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- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
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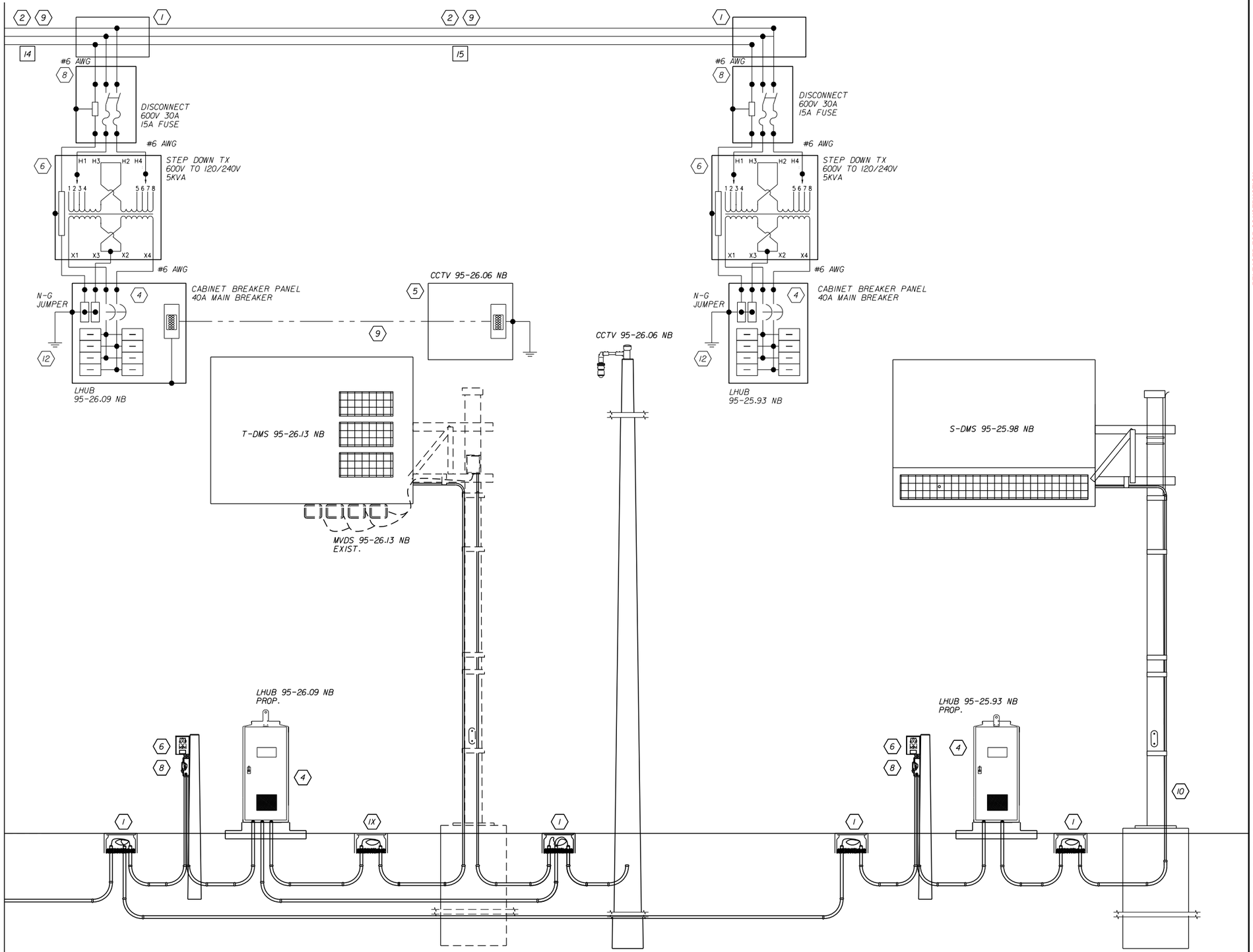
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-232



CIRCUIT 7.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-233

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
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- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
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- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
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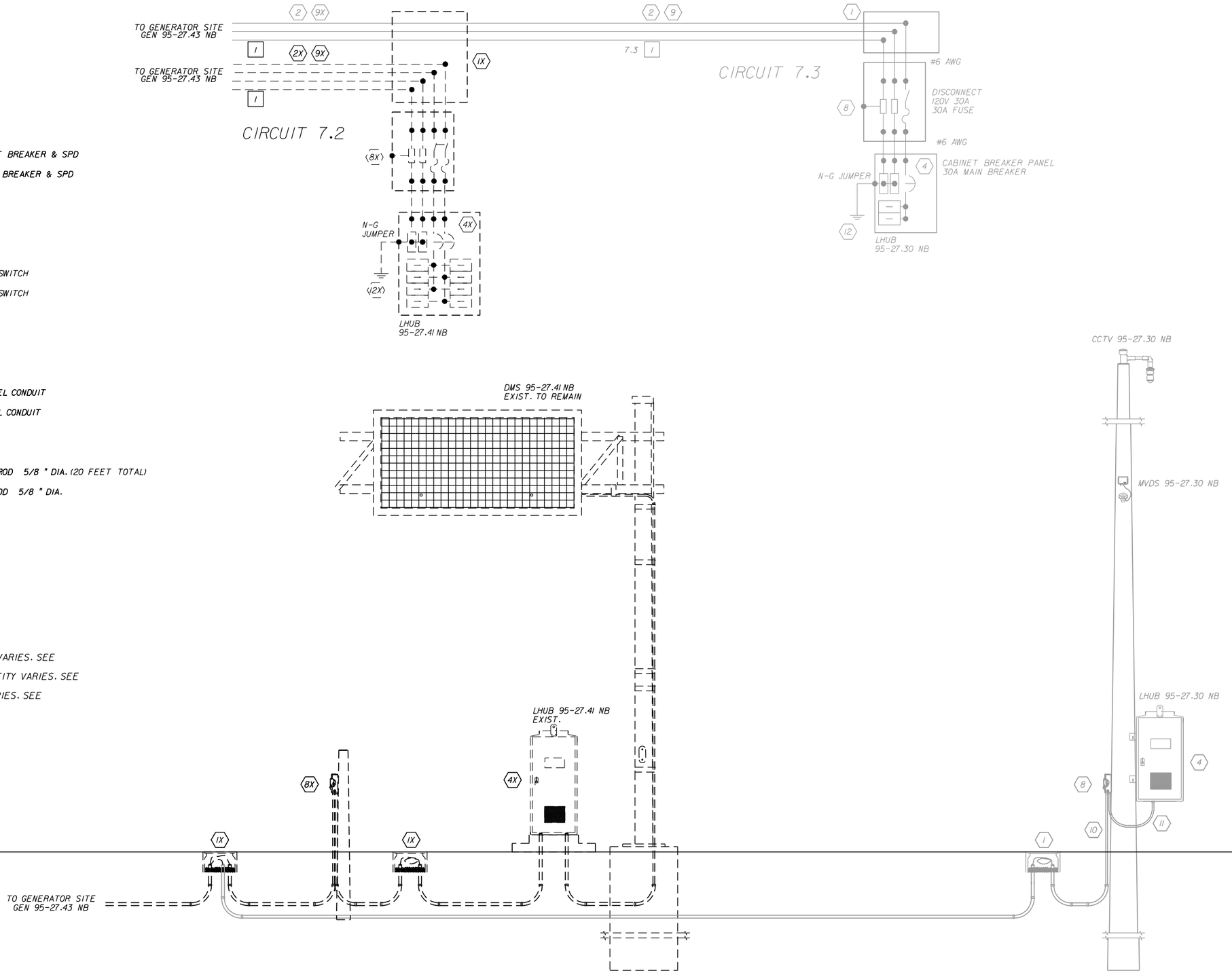
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 7.2
CIRCUIT 7.3

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO.
IT-234

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
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- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
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- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
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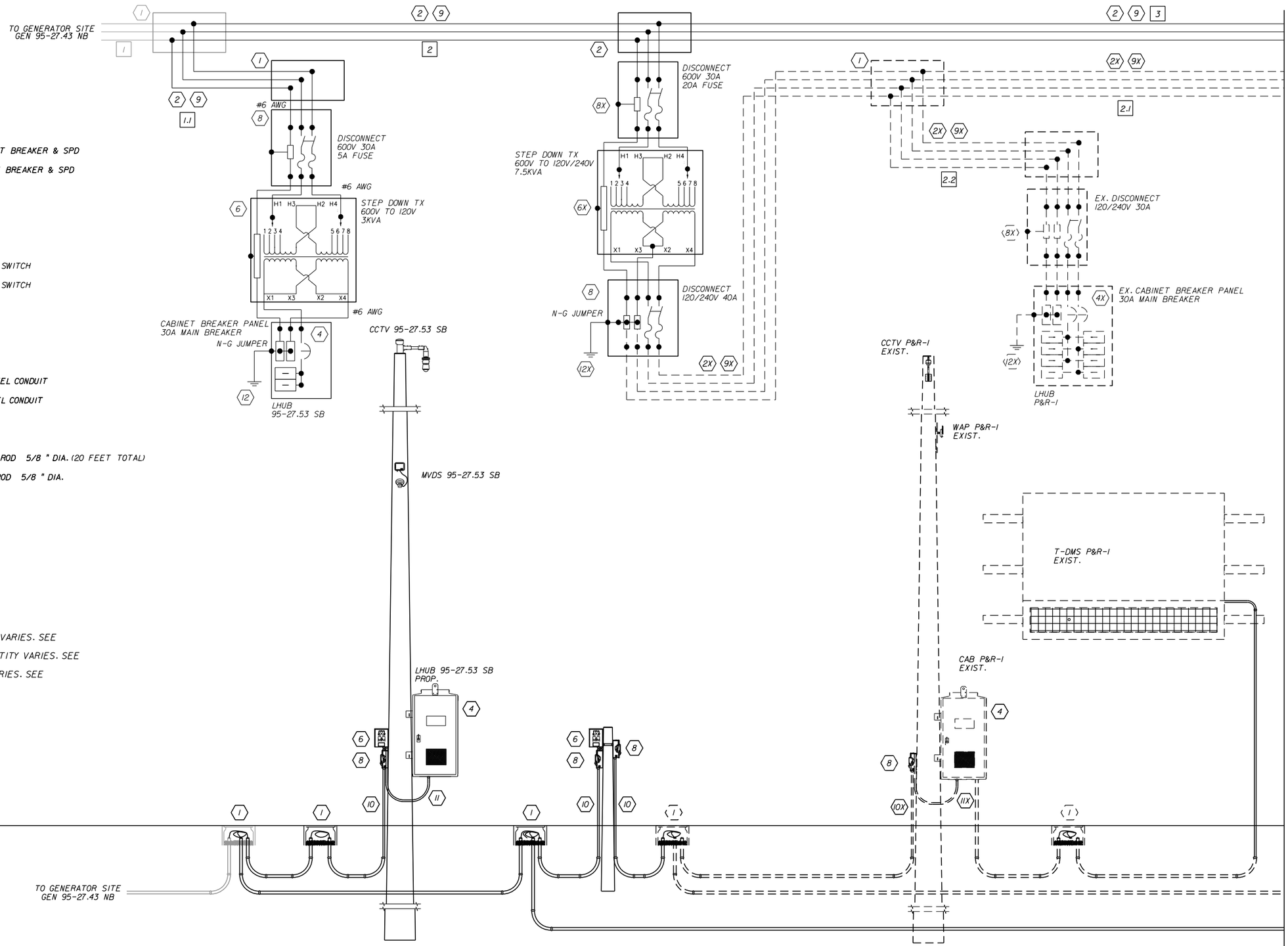


CIRCUIT 7.4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-235

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT)_VS_____ Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

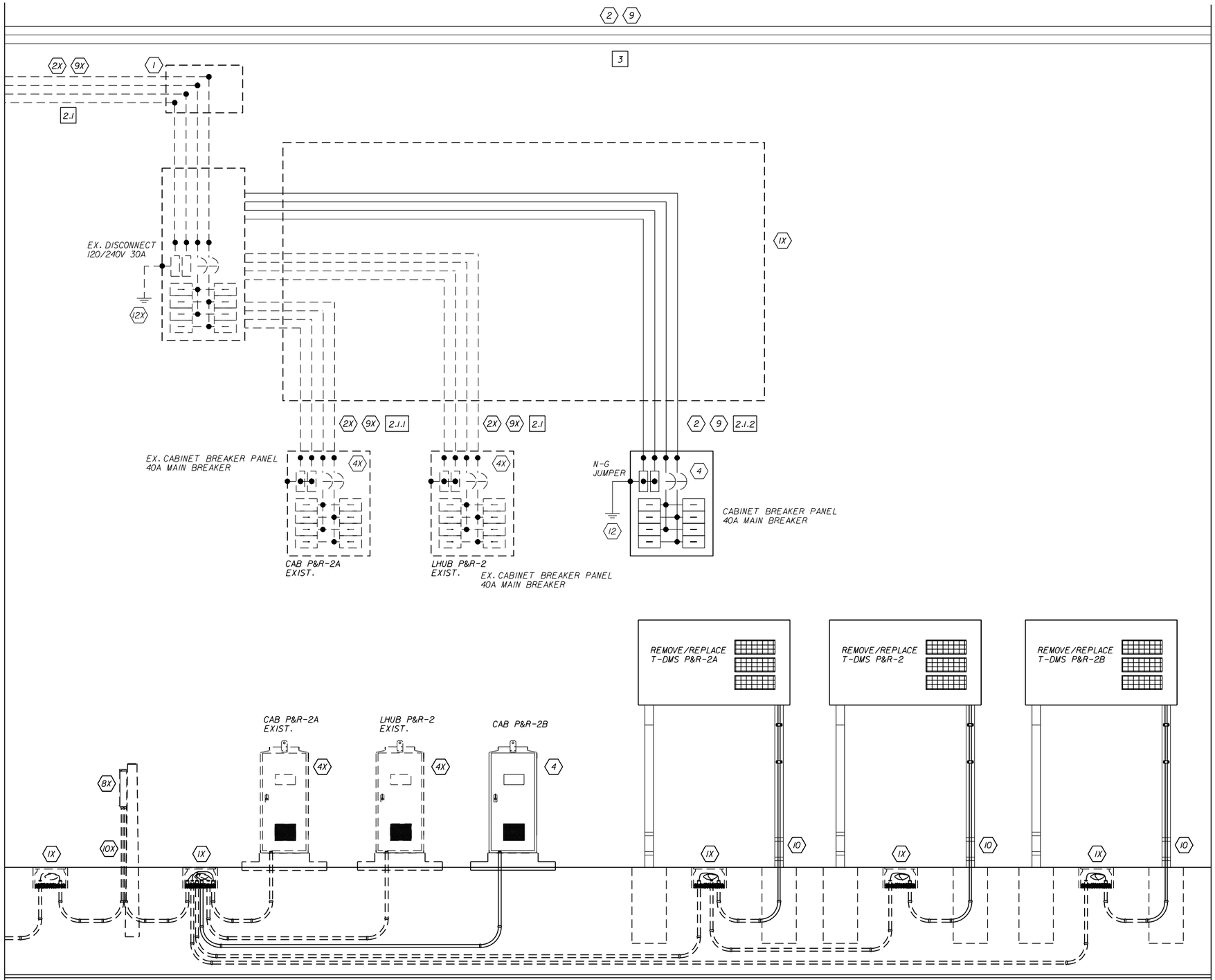
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-235



MATCH LINE SHEET IT-237

CIRCUIT 7.4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-236

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

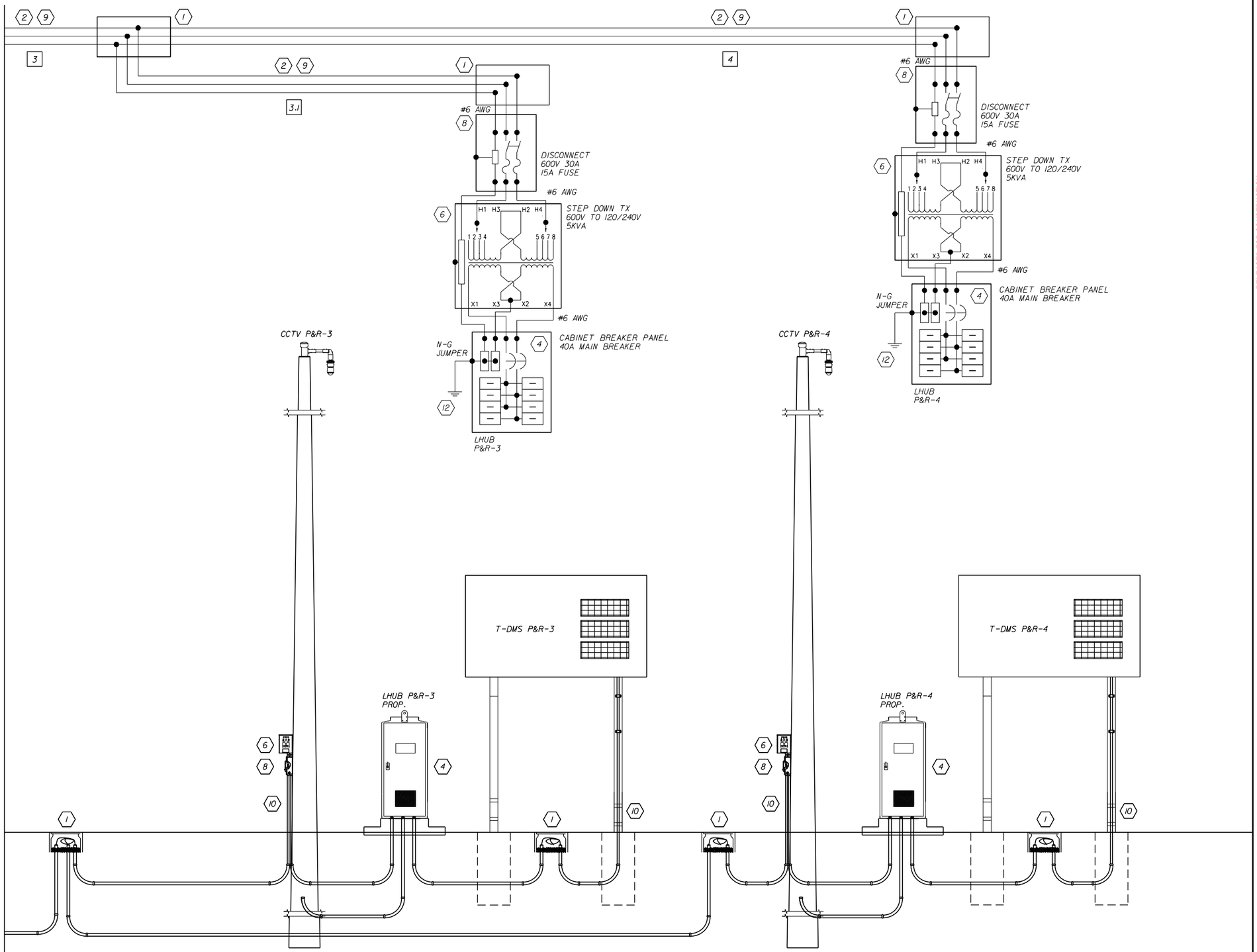
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-236



CIRCUIT 7.4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-237

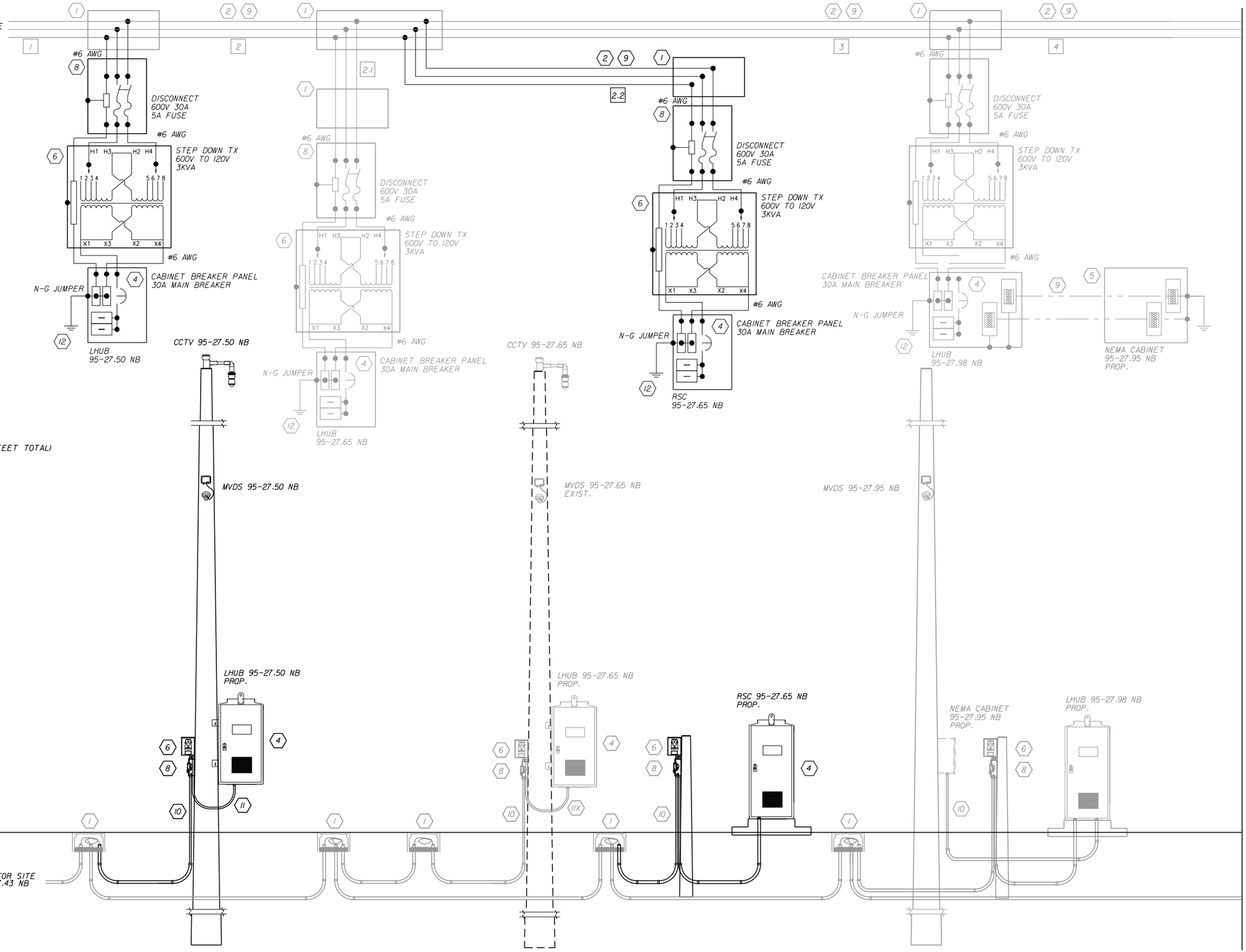
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 7.5

MATCH LINE SHEET IT-239

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Date: 3/21/2018 BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-238

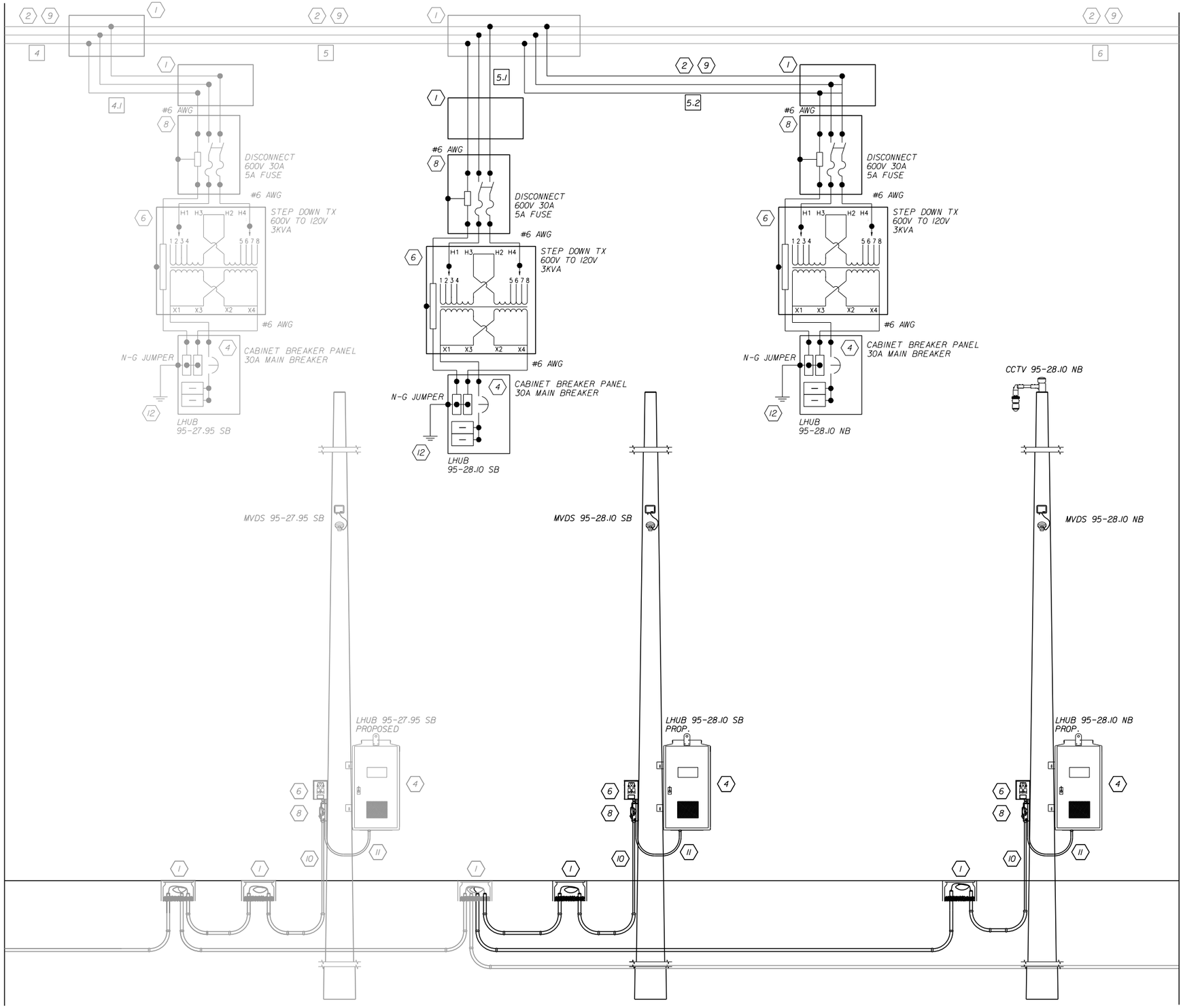
KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 7.5

MATCH LINE SHEET IT-238



MATCH LINE SHEET IT-240

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-239

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT)_VS_____ Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

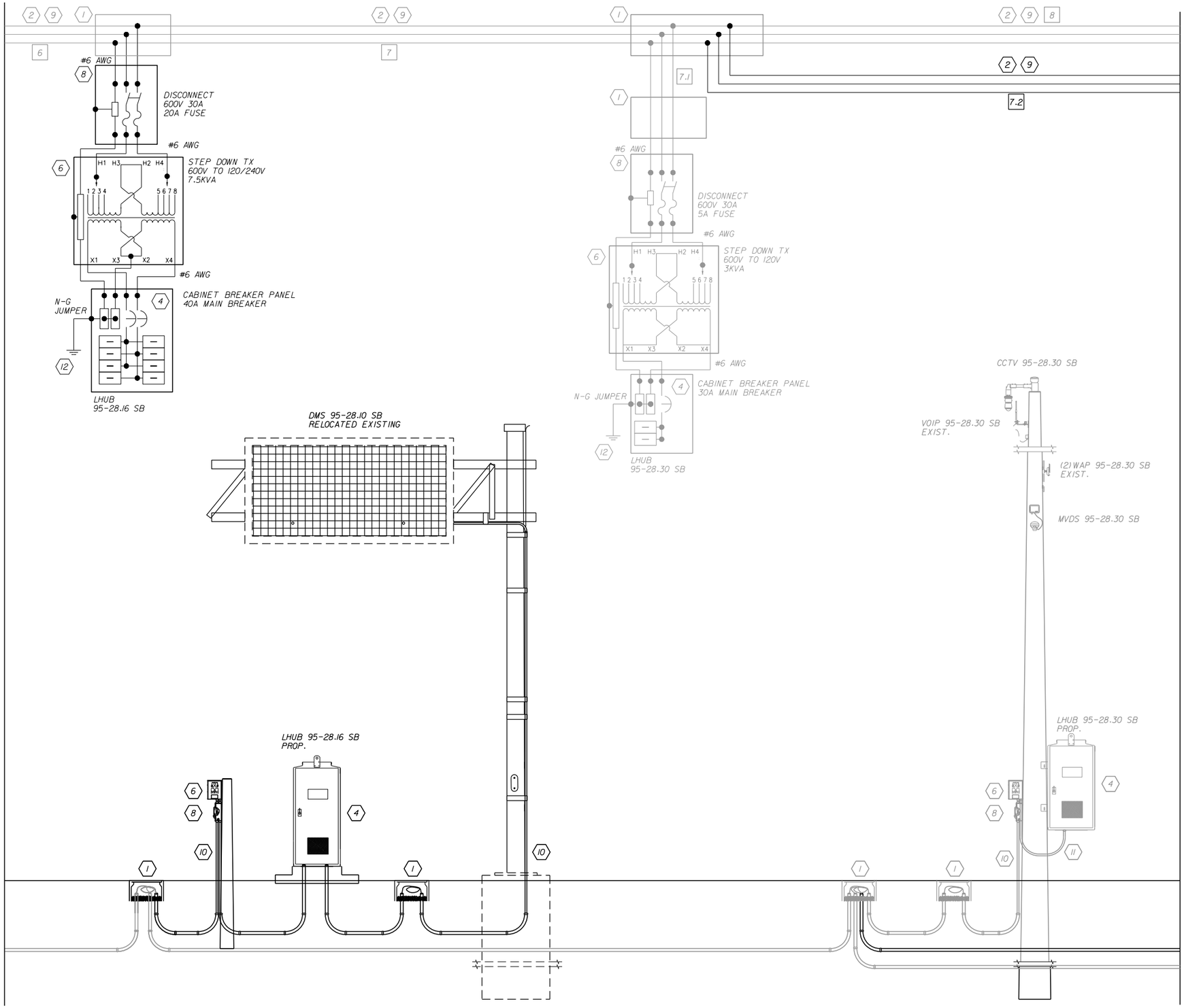
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 7.5

MATCH LINE SHEET IT-239



MATCH LINE SHEET IT-241

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-240

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

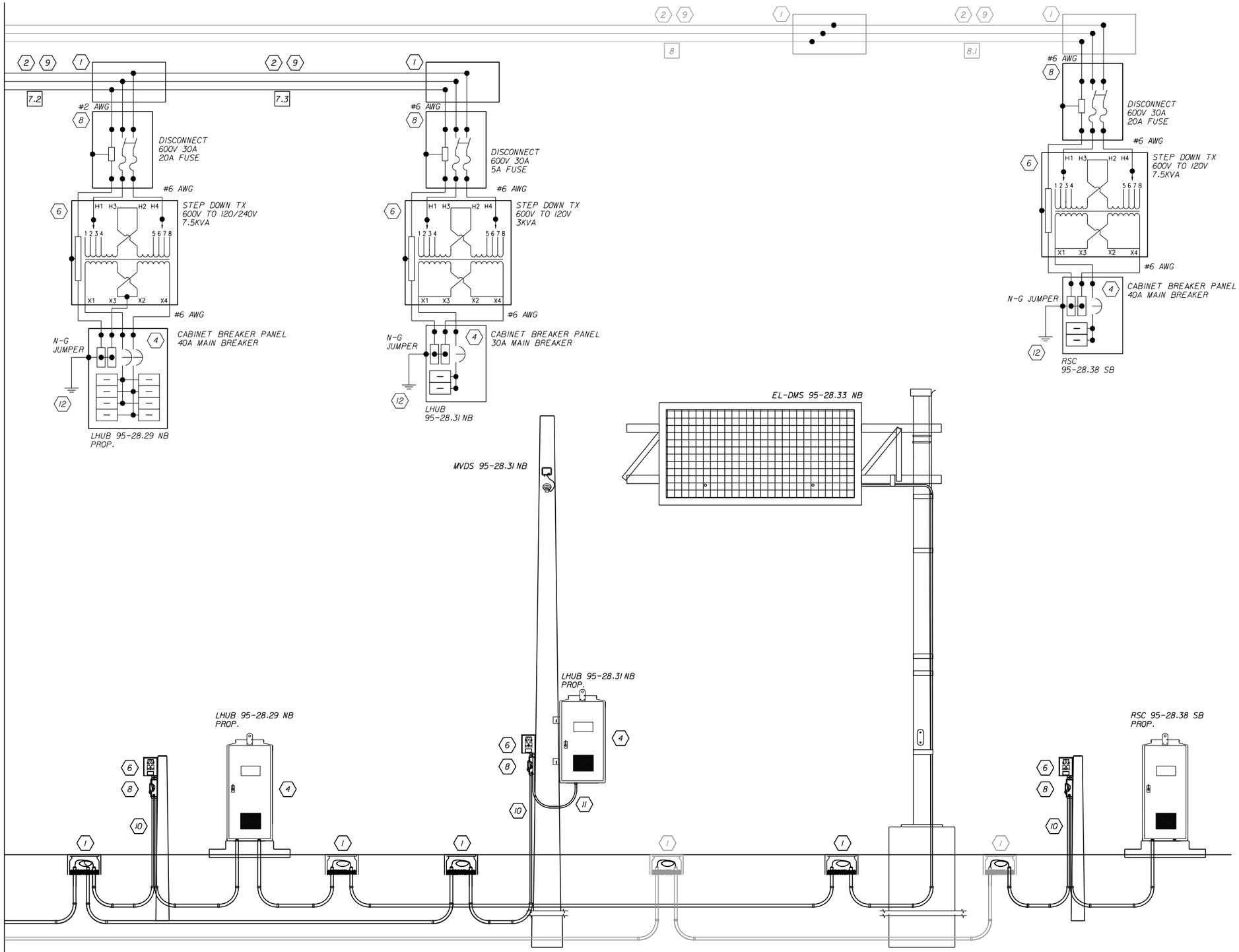
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-240



CIRCUIT 7.5

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-241

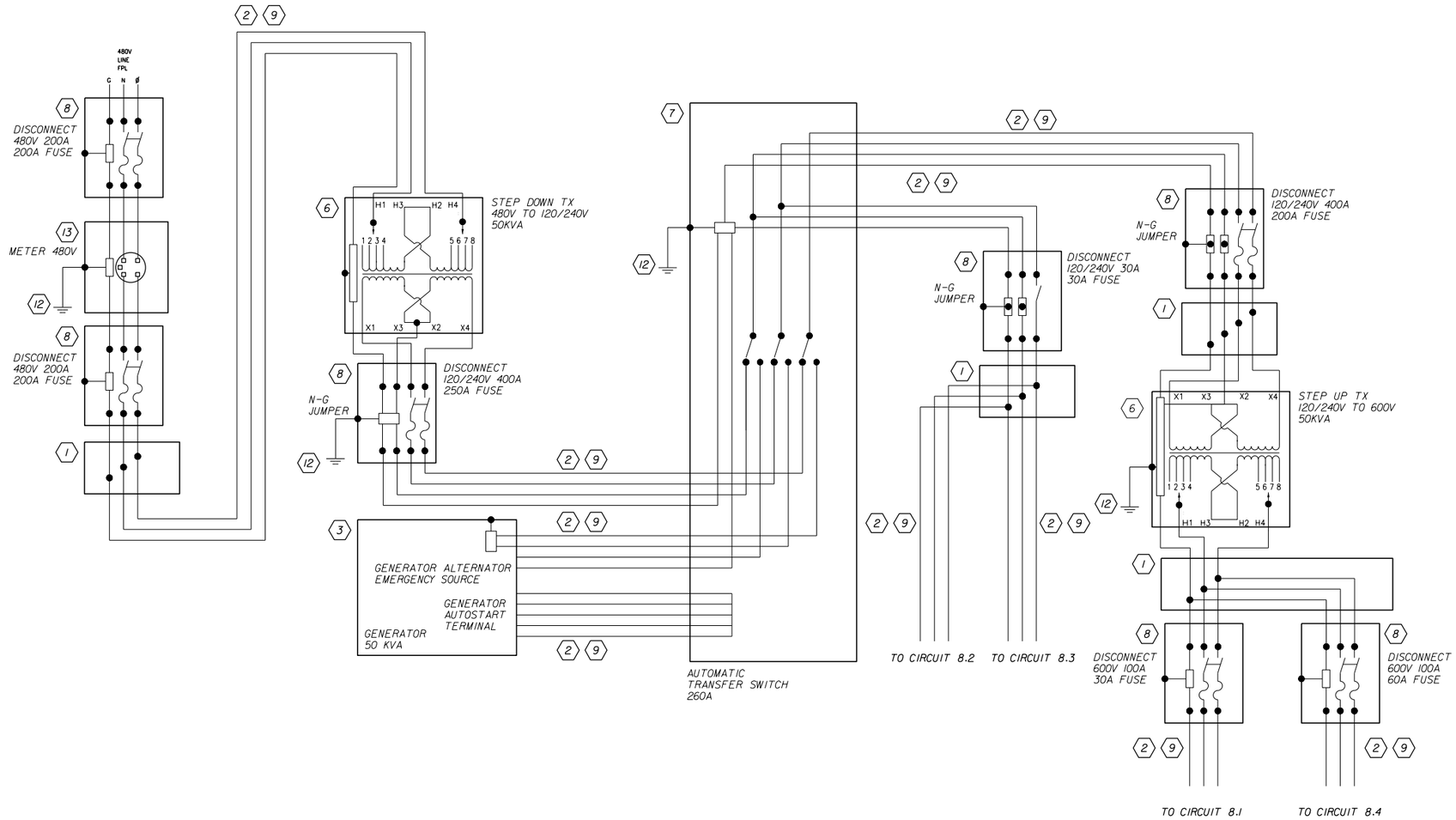
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

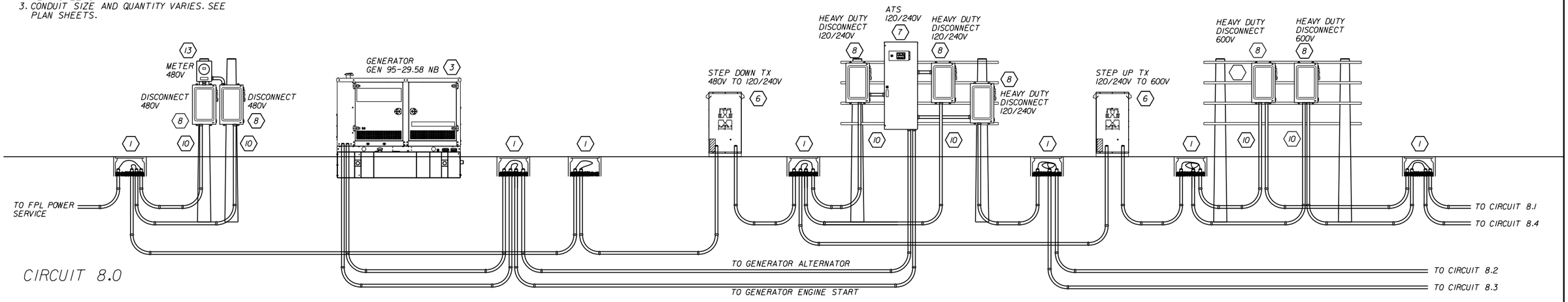
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.





CIRCUIT 8.0

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO.
IT-242

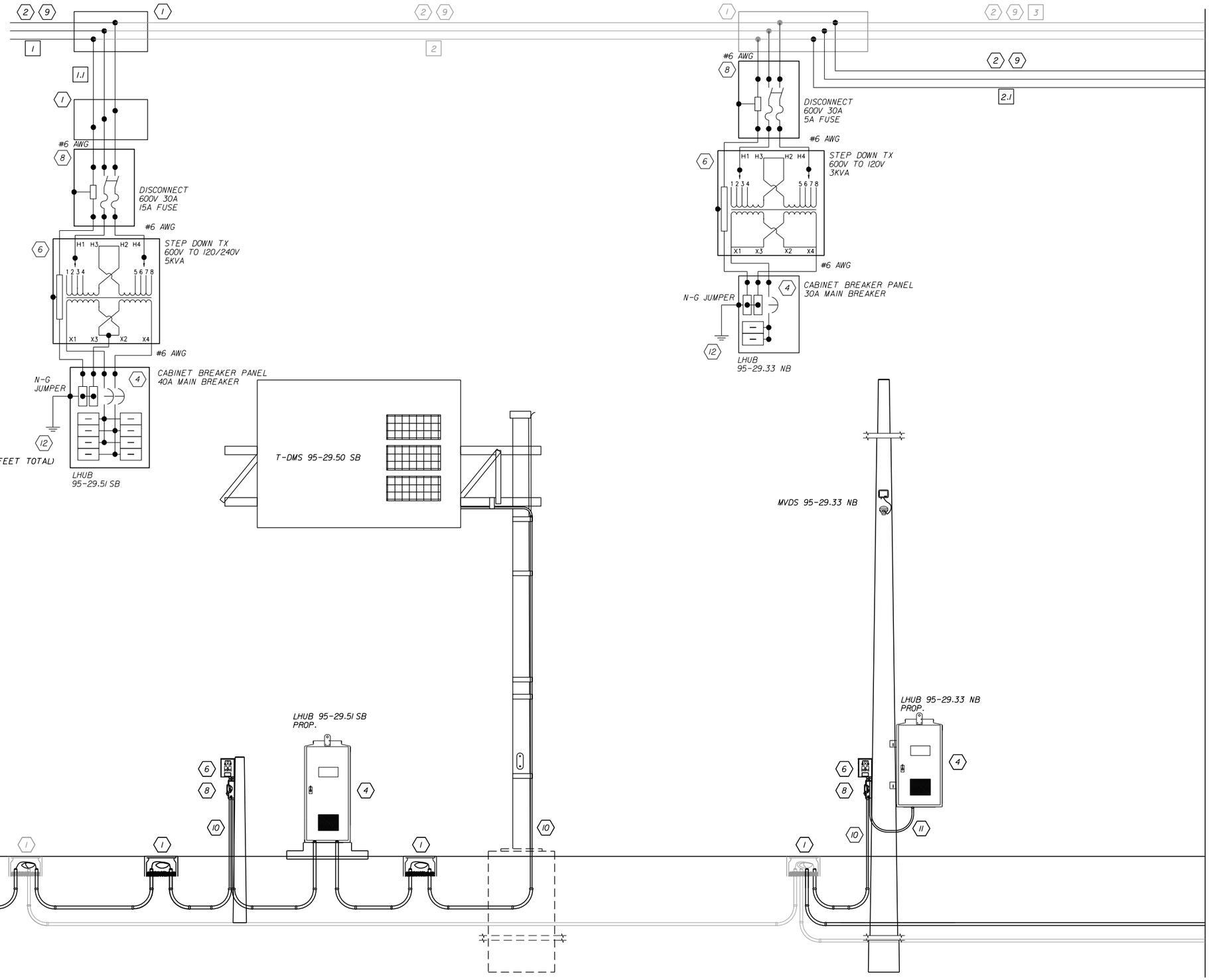
RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 8.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-243

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

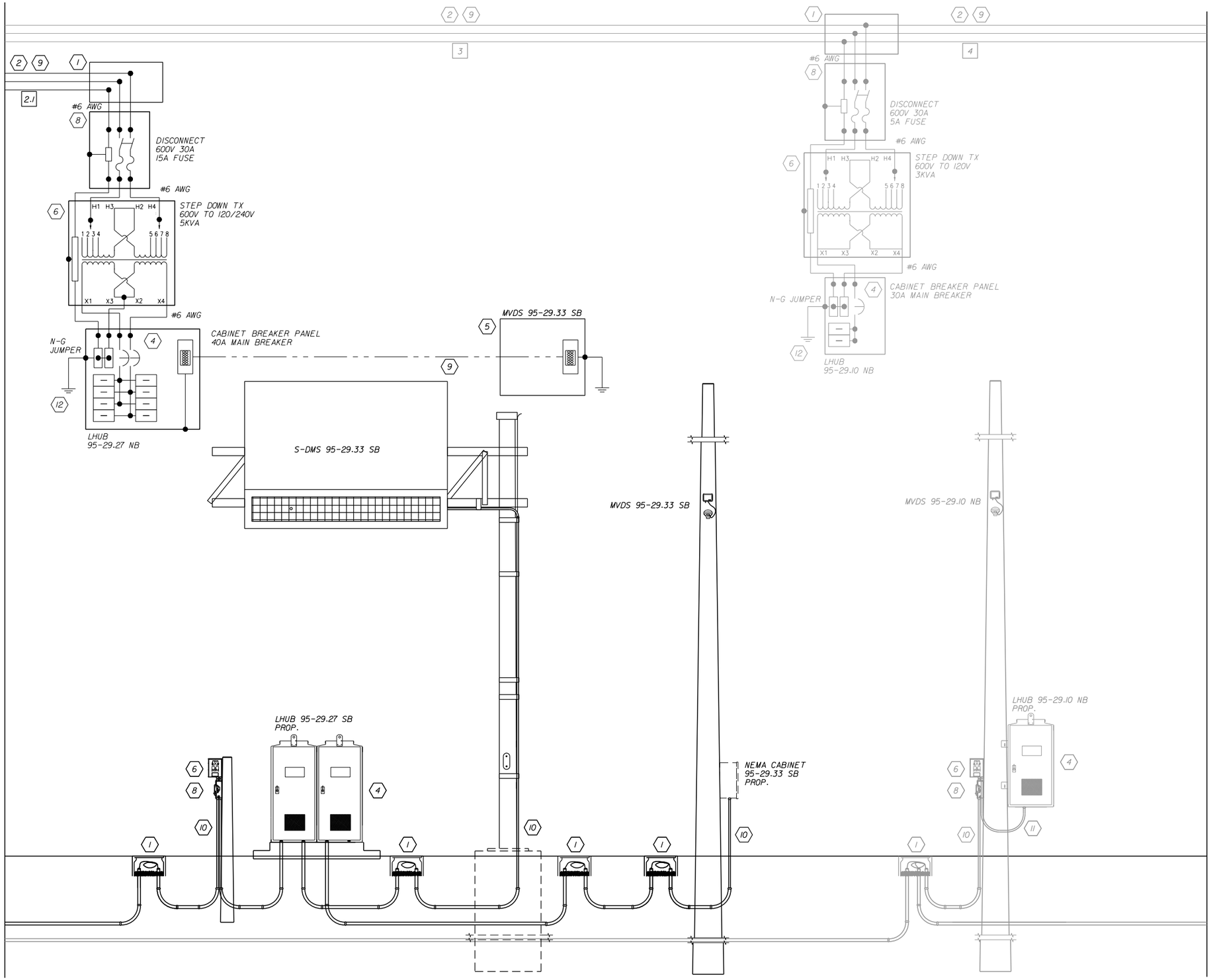
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 8.1

MATCH LINE SHEET IT-243



MATCH LINE SHEET IT-245

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO.
IT-244

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

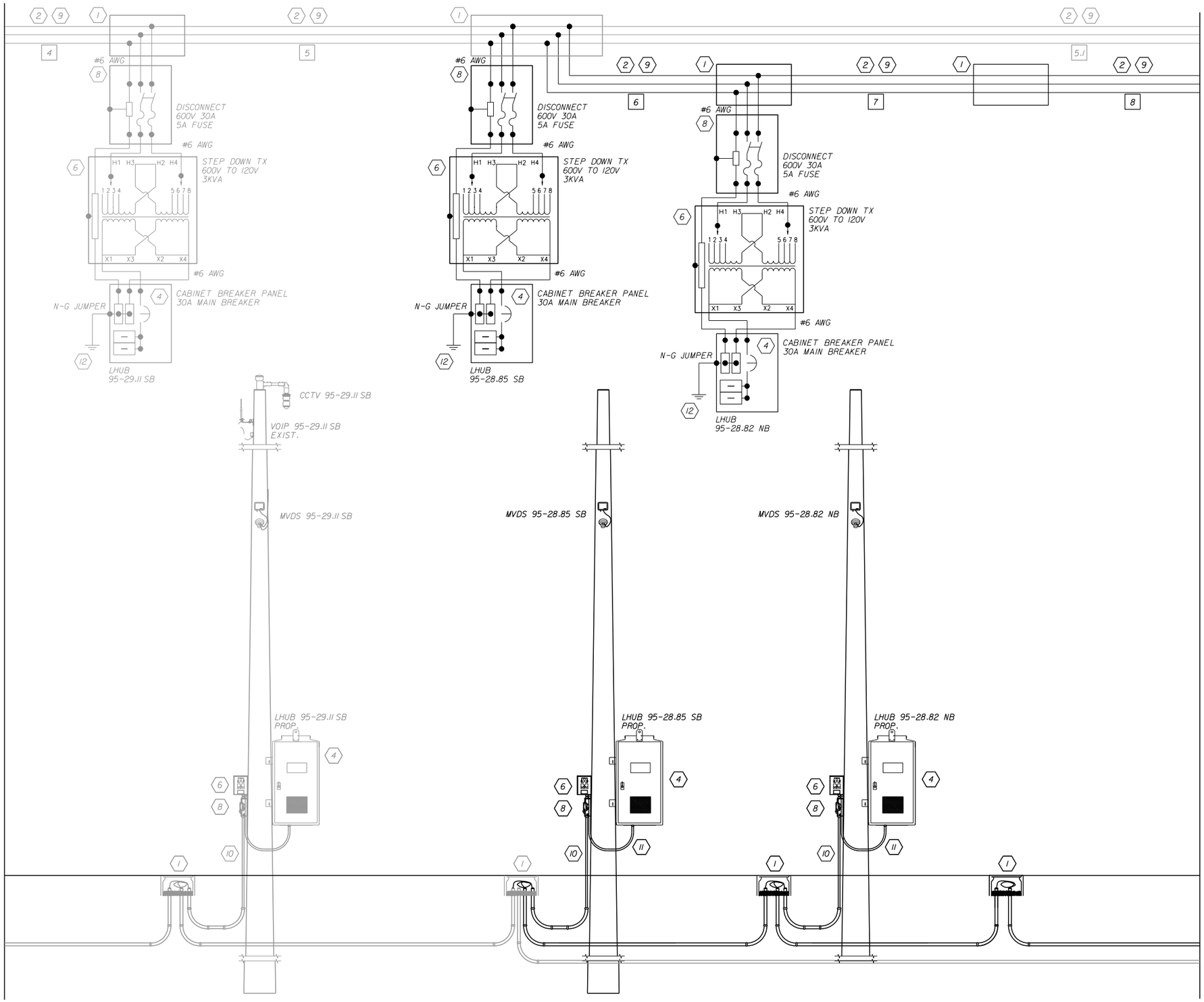
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-244



MATCH LINE SHEET IT-246

CIRCUIT 8.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-245

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

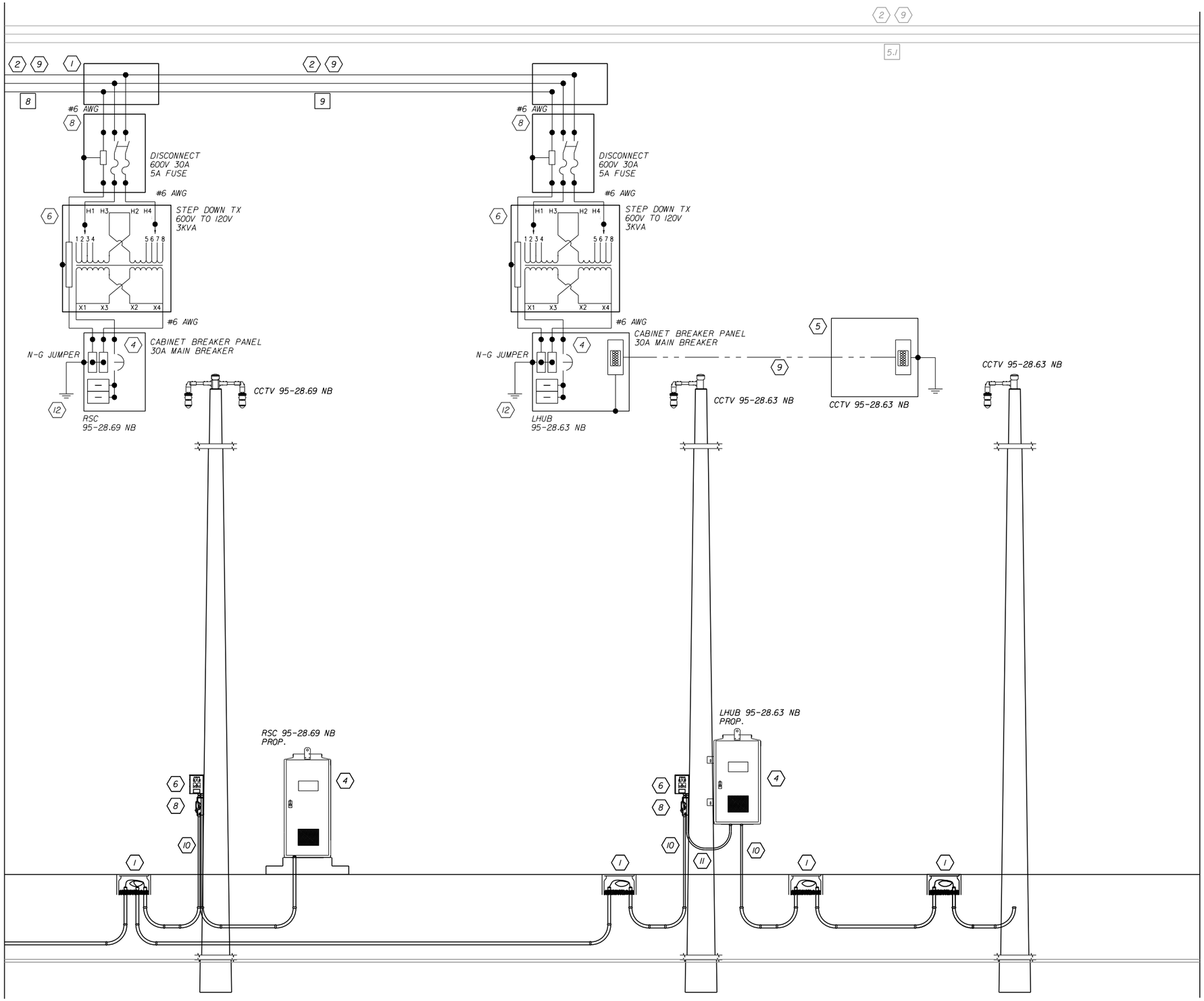
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA.
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 8.1

MATCH LINE SHEET IT-245



MATCH LINE SHEET IT-247

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-246

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

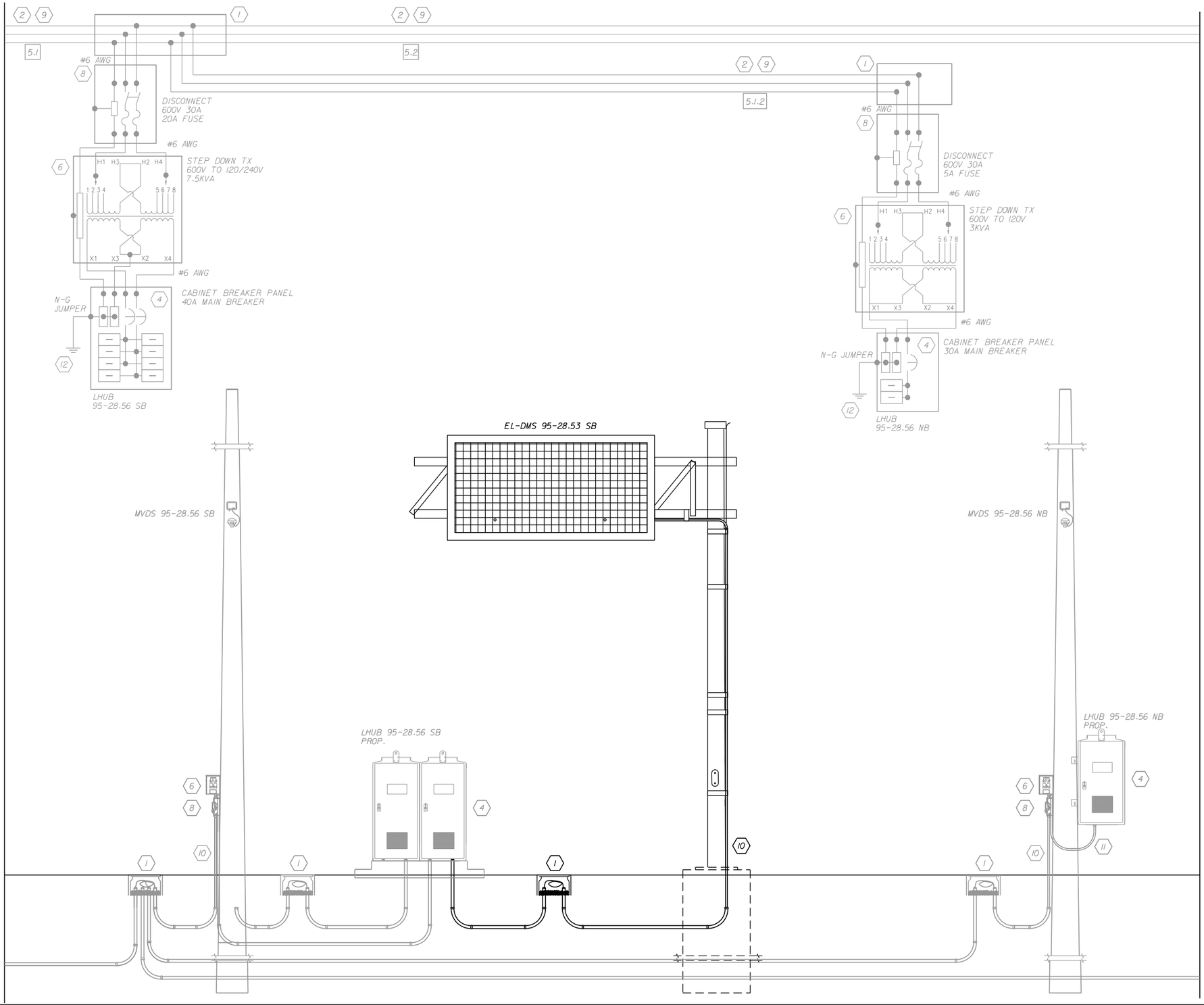
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 8.1

MATCH LINE SHEET IT-246



MATCH LINE SHEET IT-248

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32
BY: (FDOT) VS Date: 3/21/2018

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

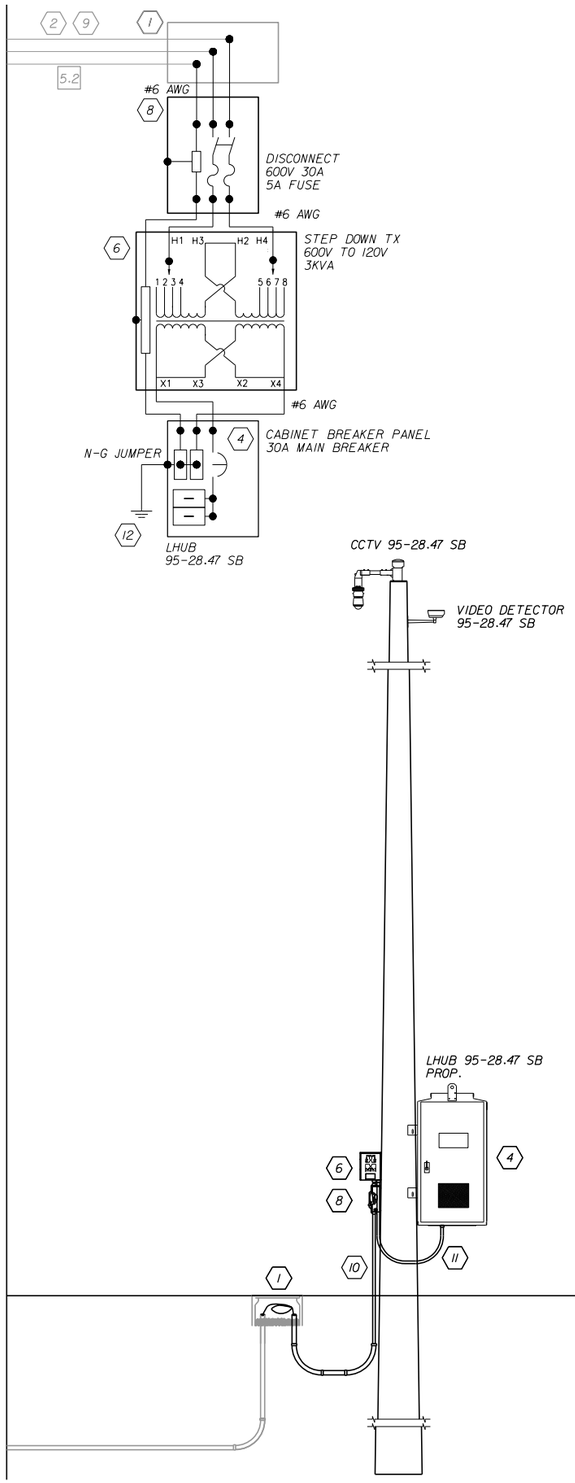
SHEET NO.
IT-247

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-247



CIRCUIT 8.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-248

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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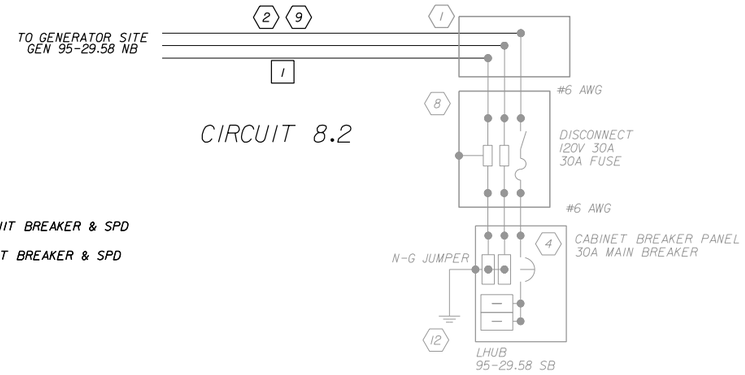
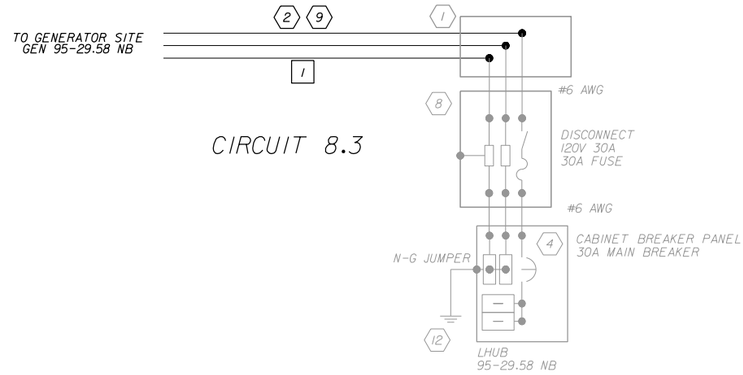
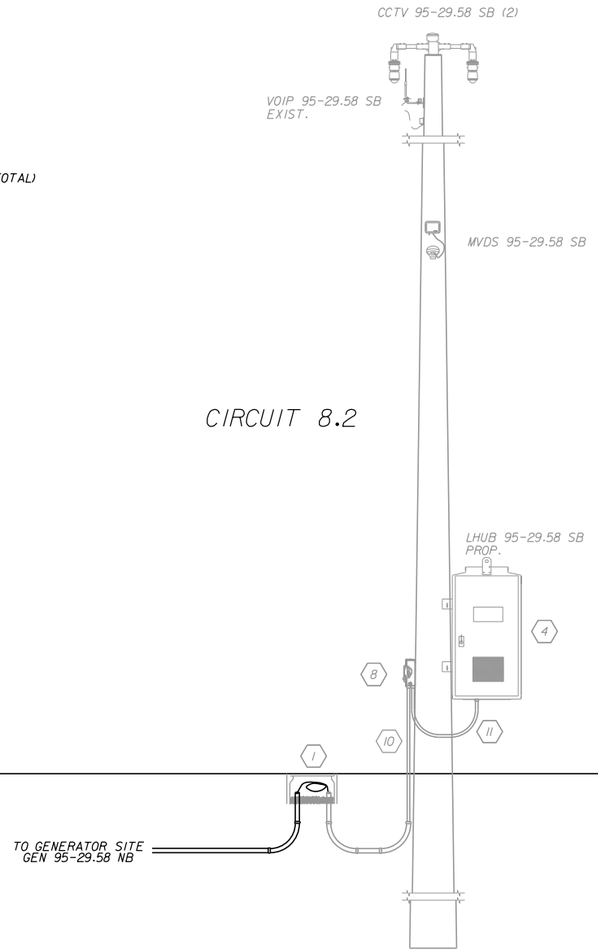
KEYED NOTES:

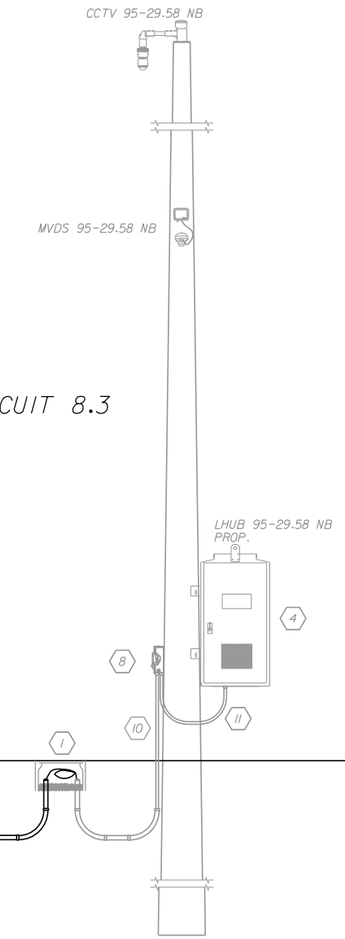
- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.









CIRCUIT 8.2
CIRCUIT 8.3

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO.
IT-249

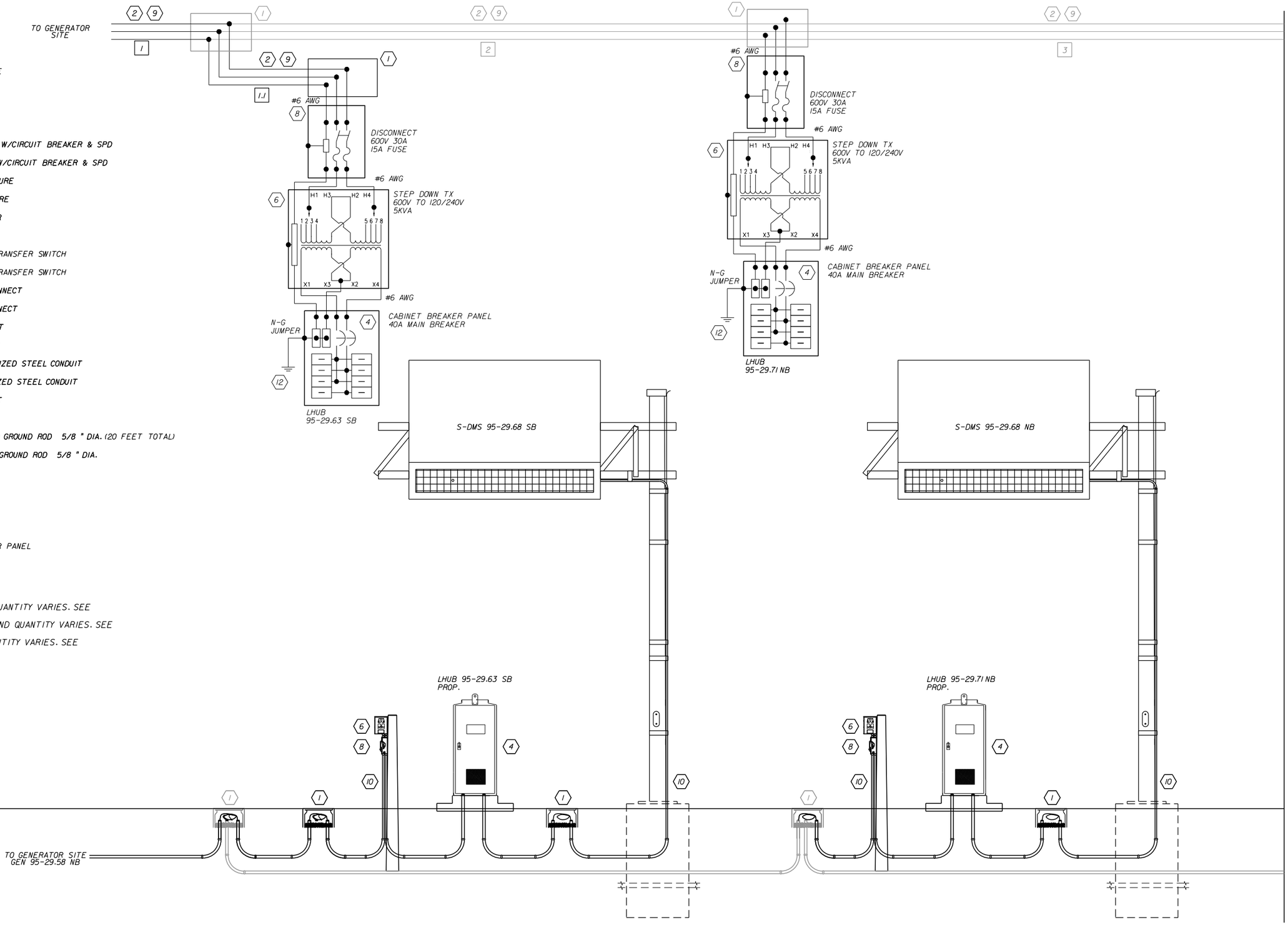
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 8.4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-250

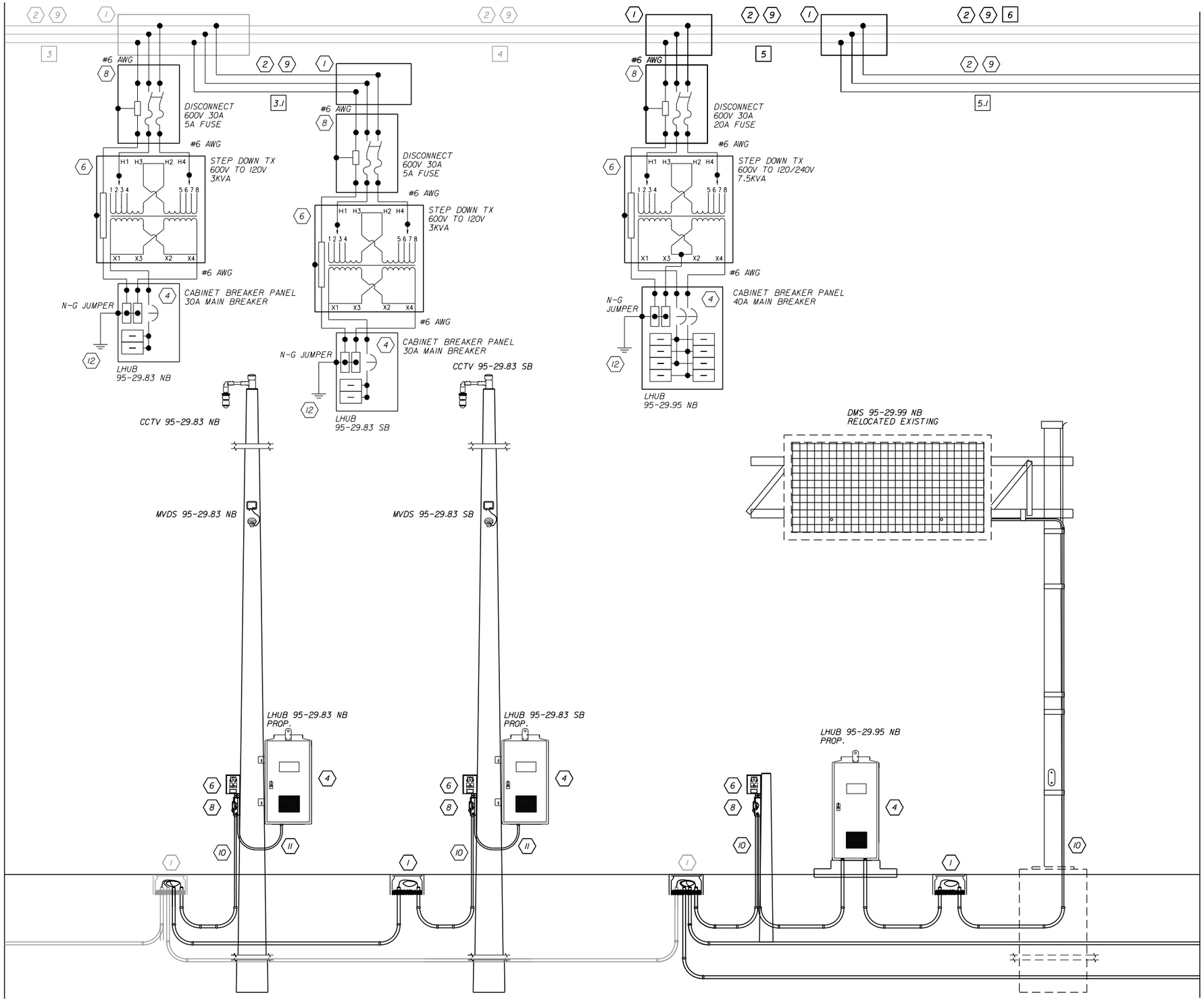
RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-250



MATCH LINE SHEET IT-252

CIRCUIT 8.4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-251

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

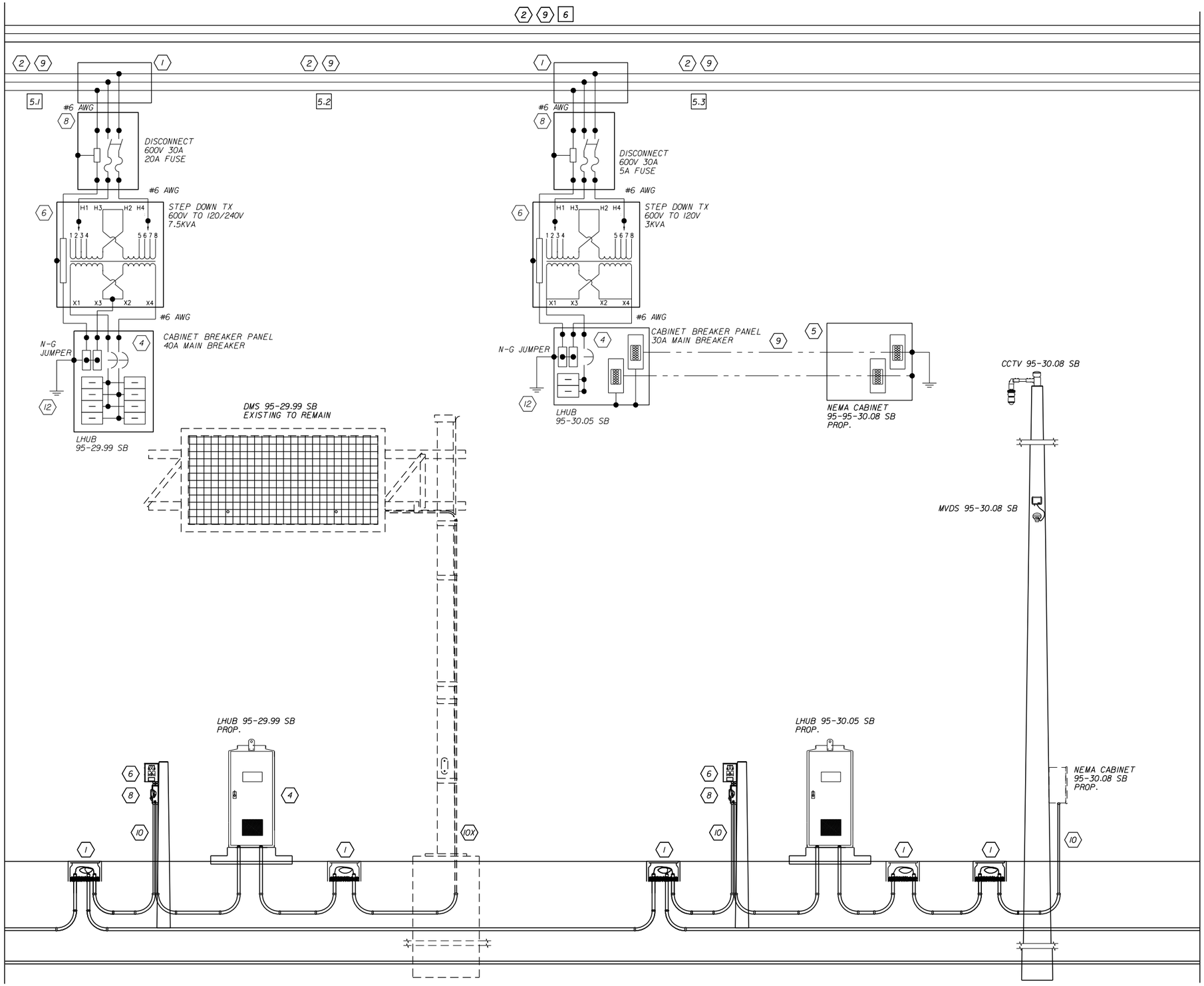
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 8.4



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-252

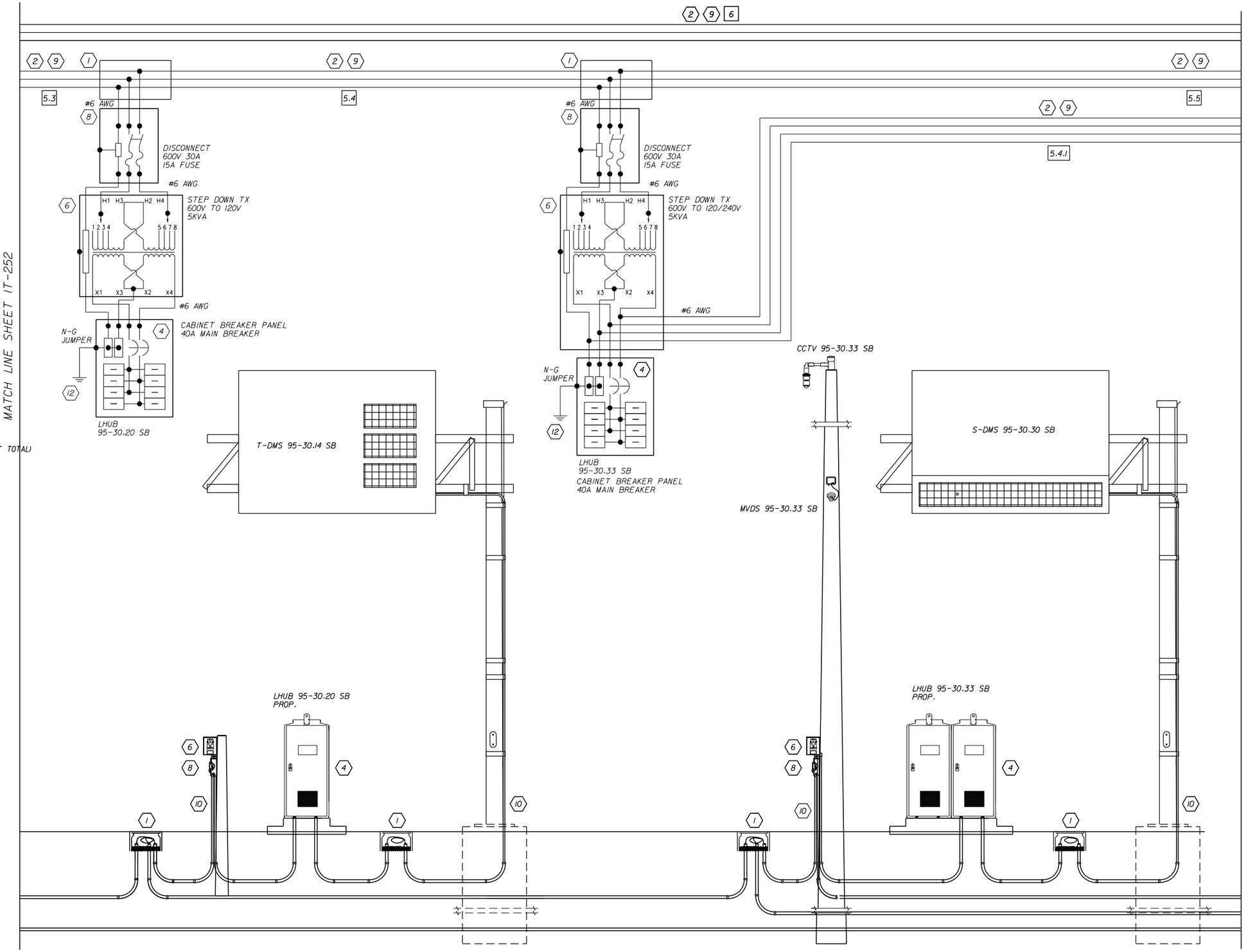
RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-252



MATCH LINE SHEET IT-254

CIRCUIT 8.4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-253

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

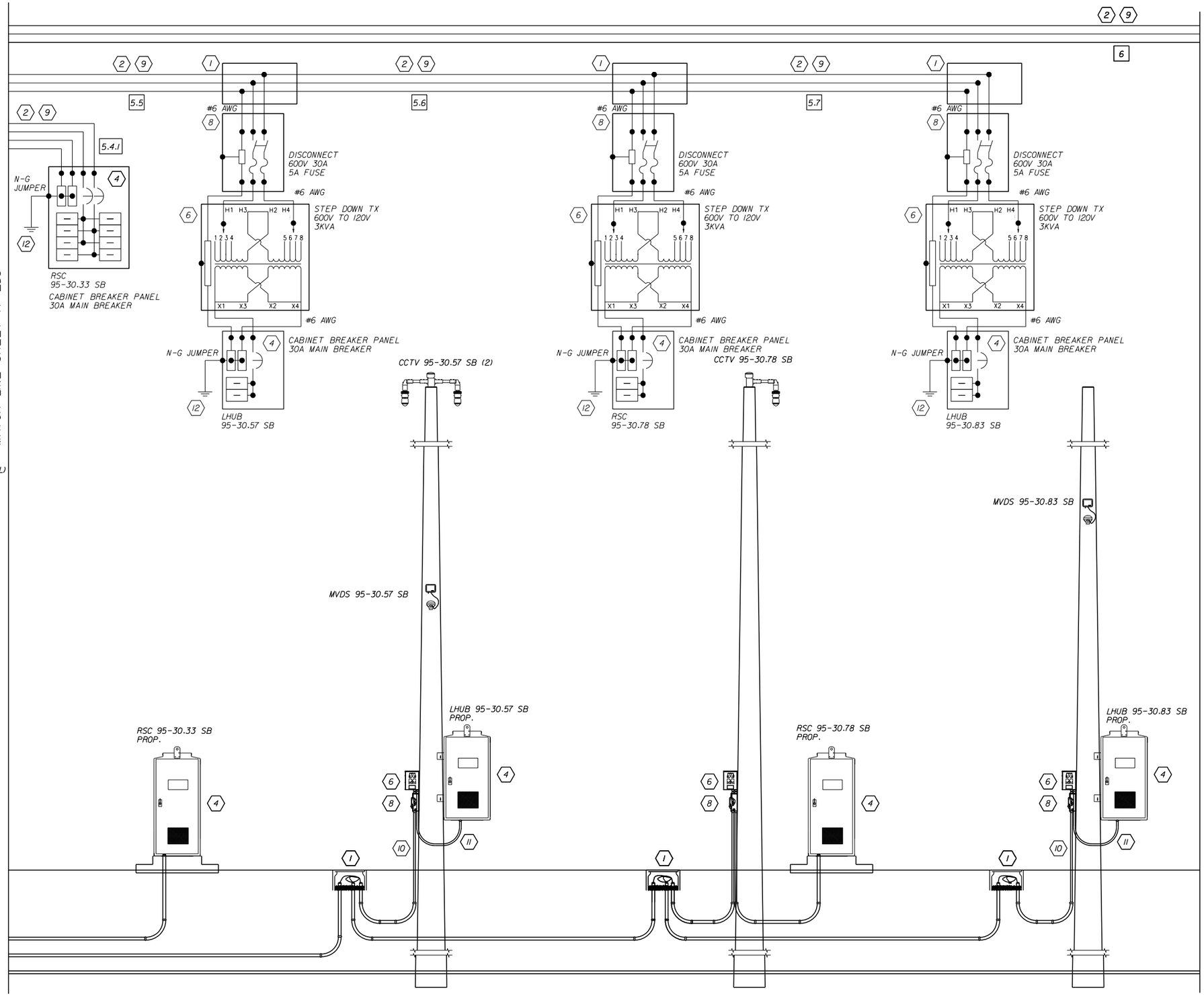
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 8.4



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-254

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

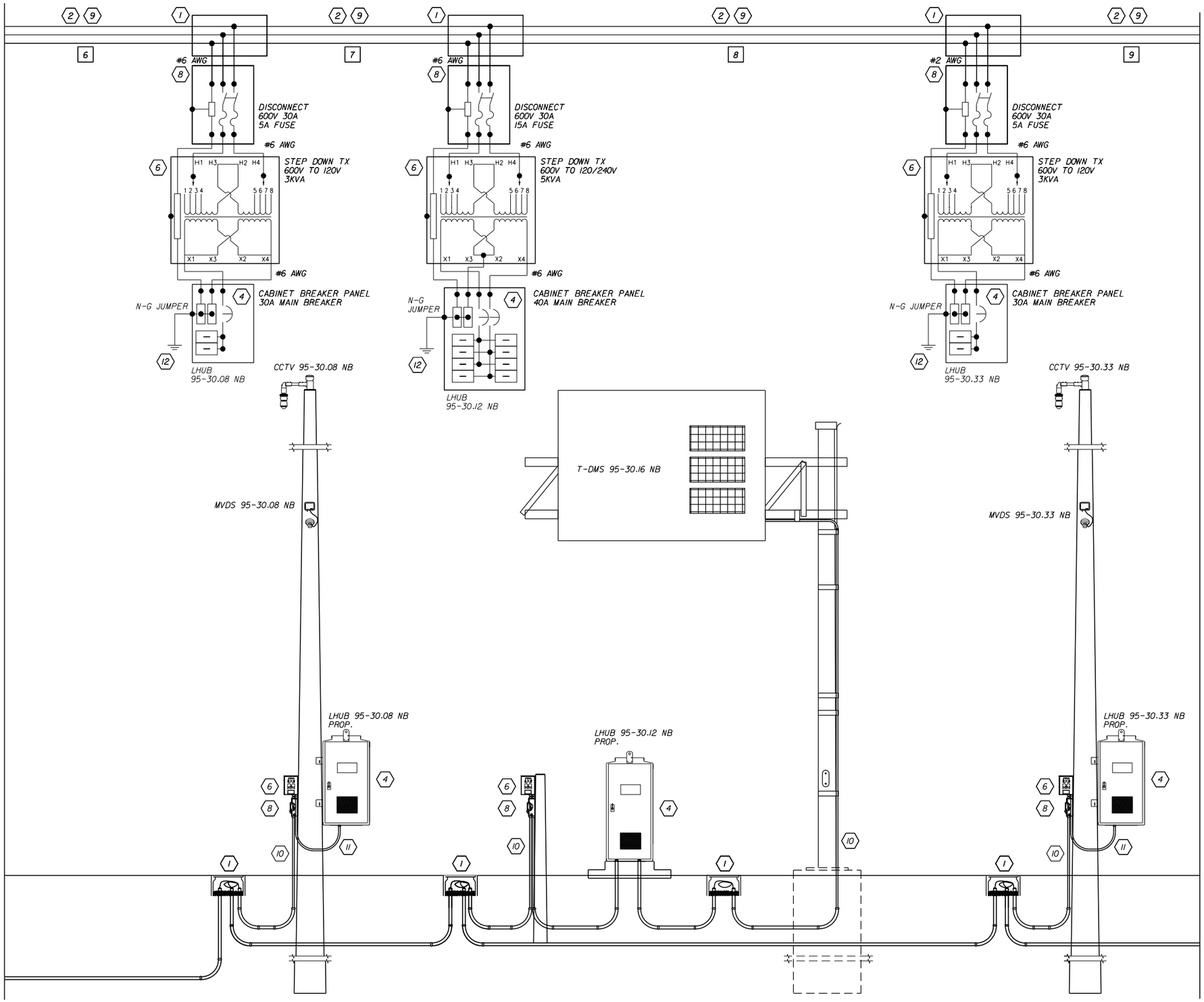
KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 8.4

MATCH LINE SHEET IT-254



MATCH LINE SHEET IT-256

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RELEASED FOR CONSTRUCTION
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BY: (FDOT)_VS_____ Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO.
IT-255

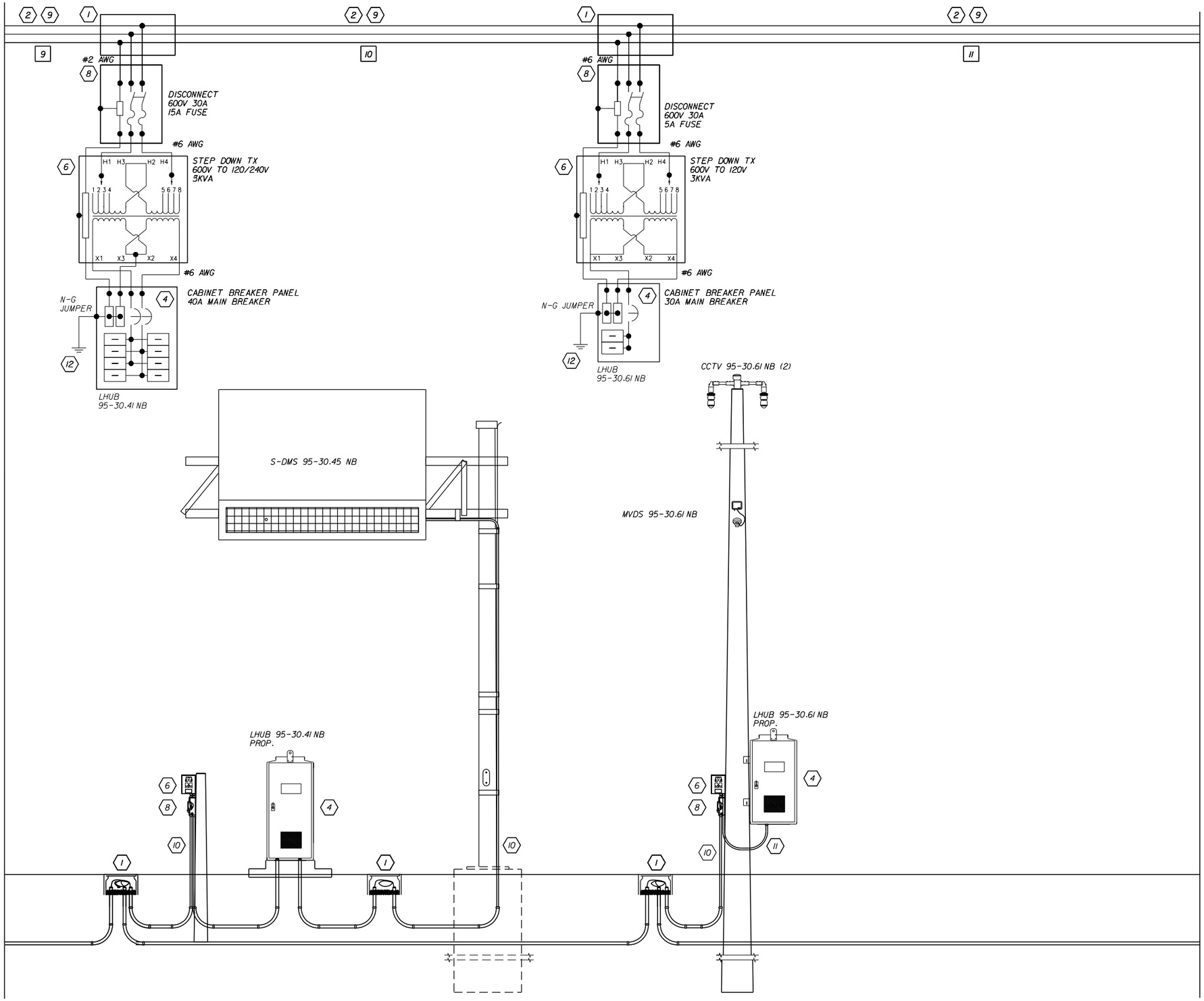
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 8.4

MATCH LINE SHEET IT-255



MATCH LINE SHEET IT-257

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-256

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

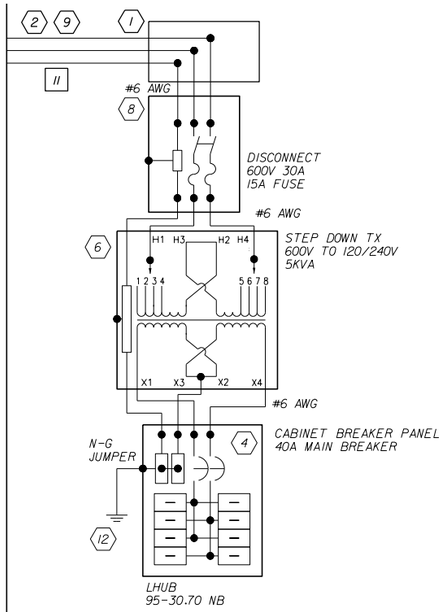
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

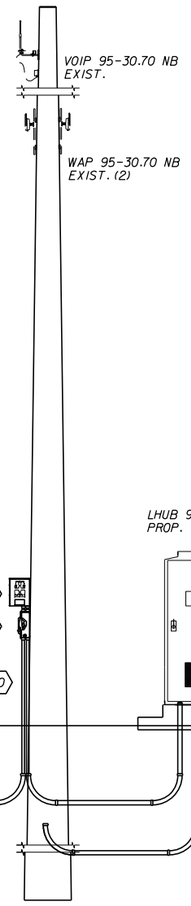
KEYED NOTES:

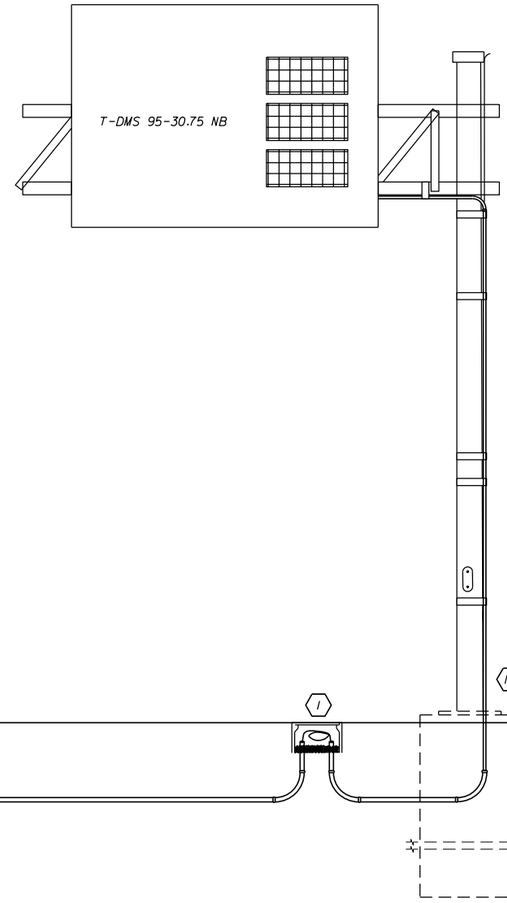
- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-256







CIRCUIT 8.4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-257

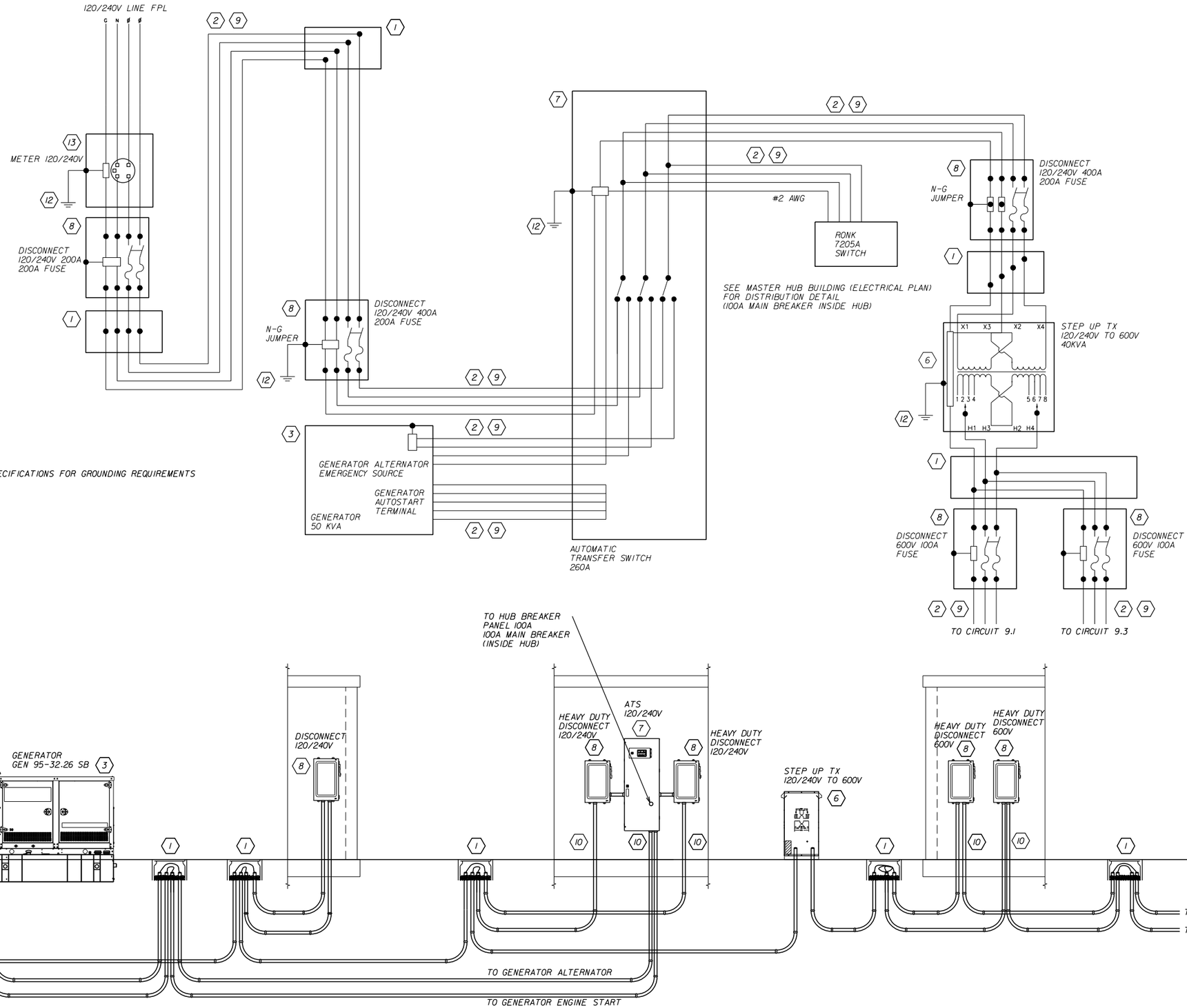
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FOOT TOTAL) SEE SPECIFICATIONS FOR GROUNDING REQUIREMENTS
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 9.0

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-258

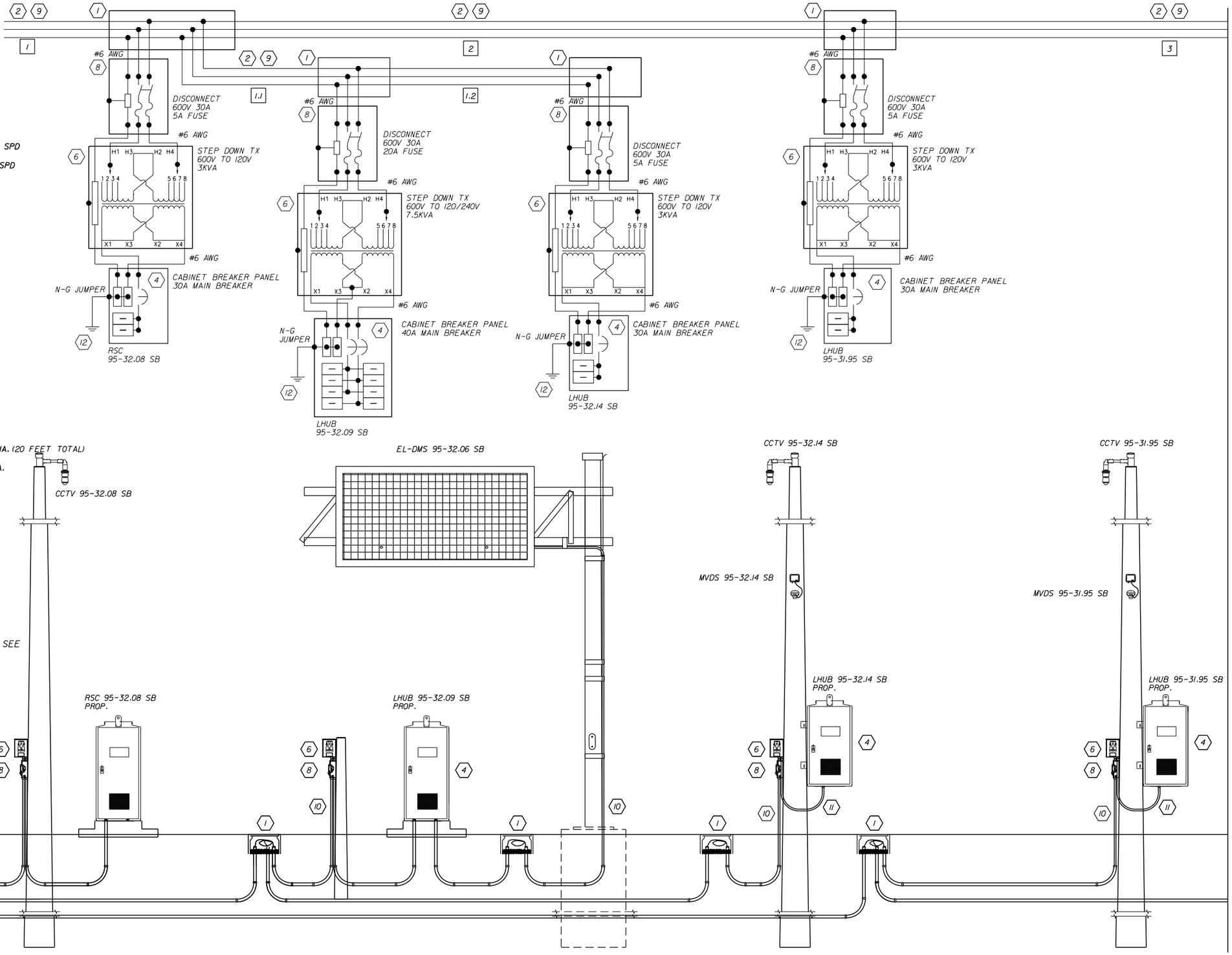
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-259

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

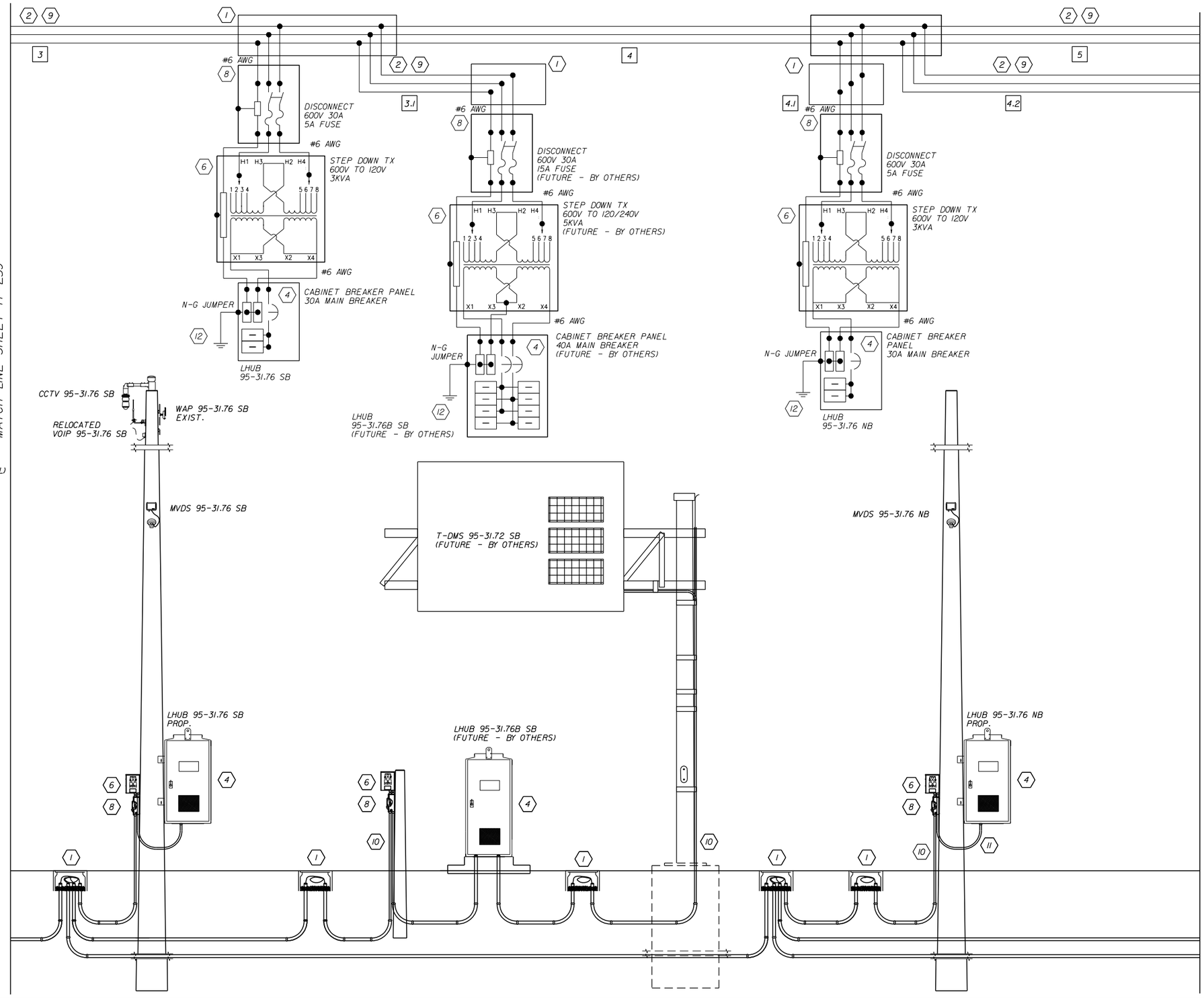
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 9.1

MATCH LINE SHEET IT-259



MATCH LINE SHEET IT-261

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RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 CONTRACT E4Q32
BY: (FDOT) VS Date: 3/21/2018

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-260

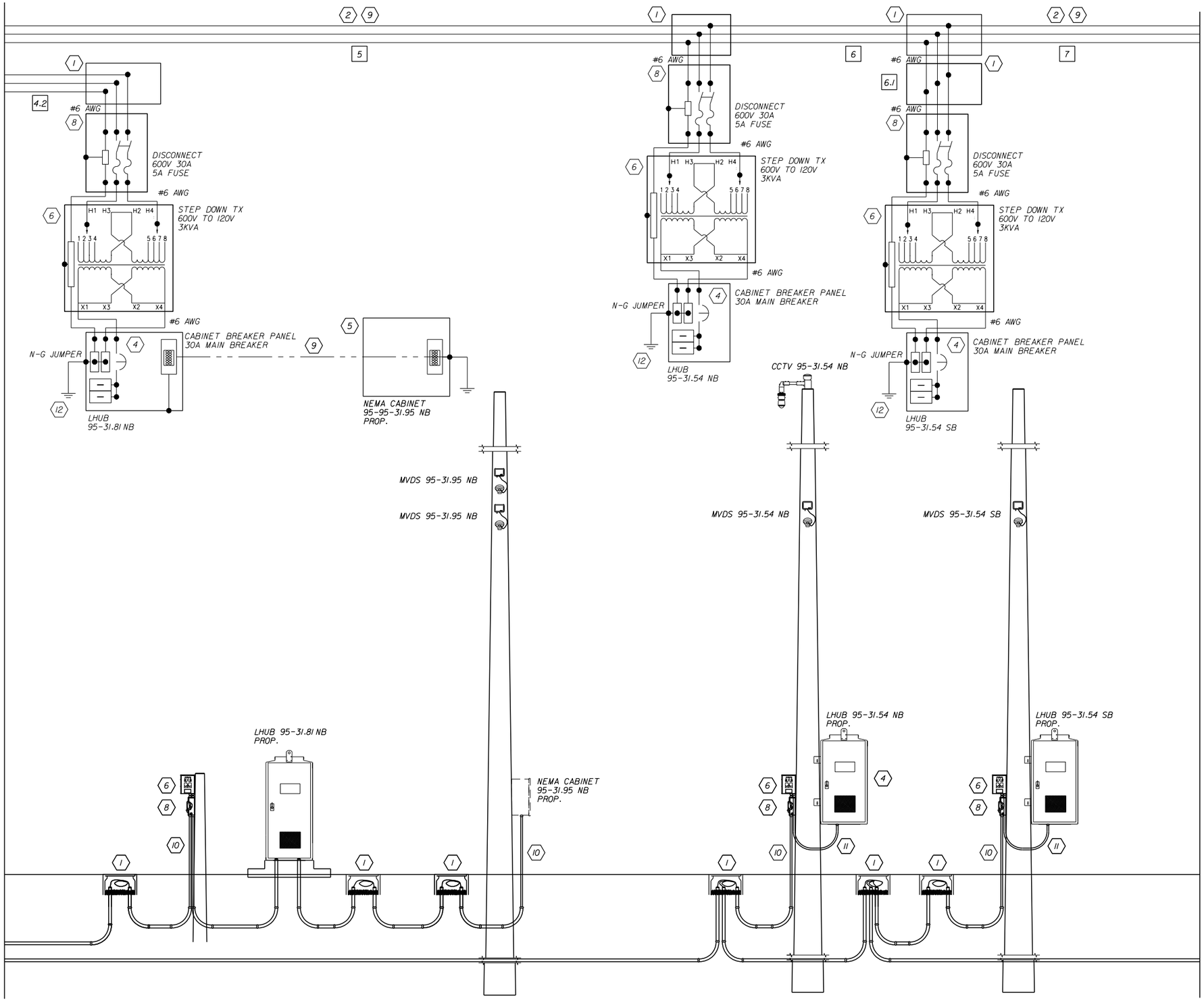
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 9.1

MATCH LINE SHEET IT-260



MATCH LINE SHEET IT-262

REVISIONS			
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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-261

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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
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- (6X) EXISTING TRANSFORMER
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- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
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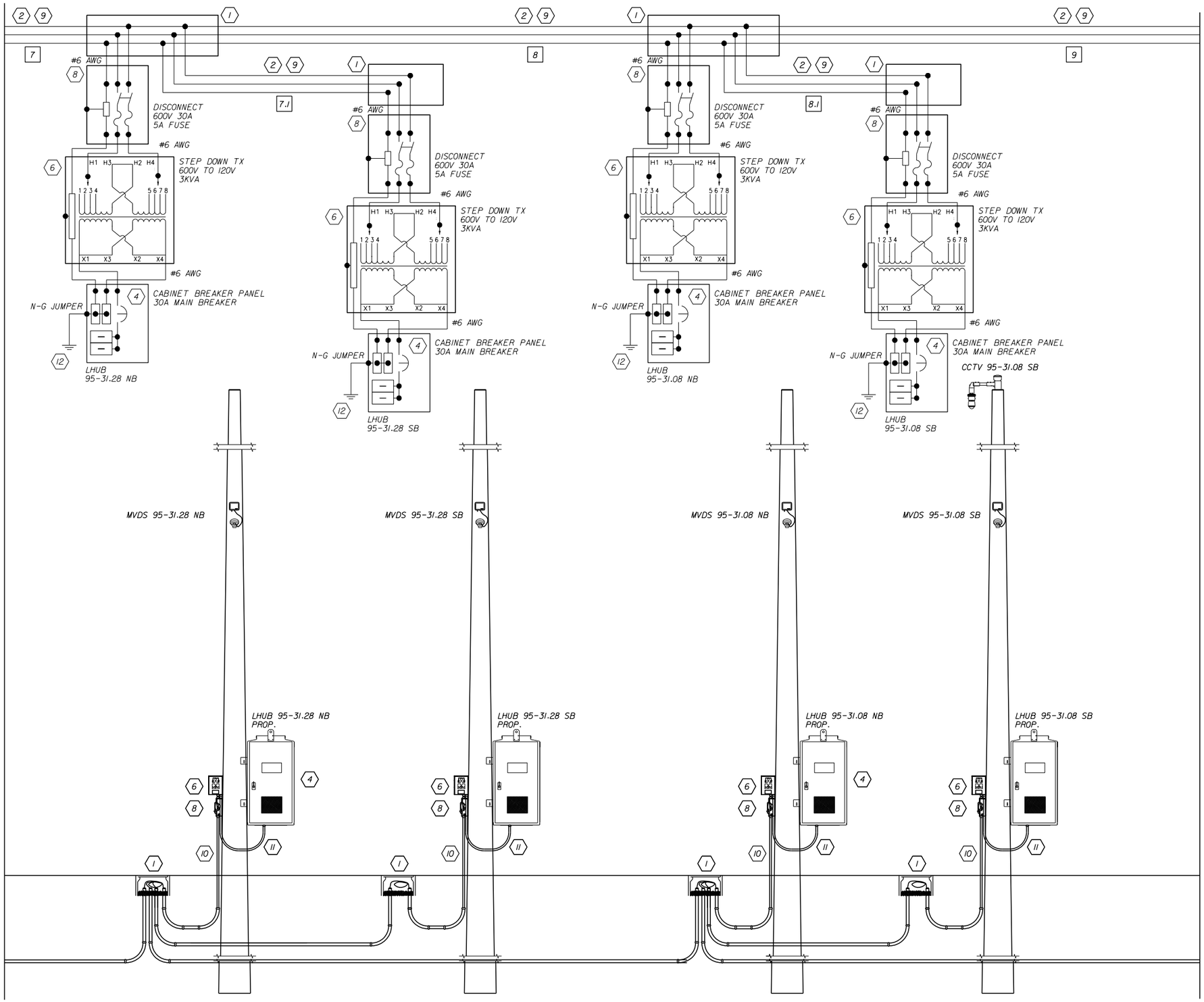
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-261



MATCH LINE SHEET IT-263

CIRCUIT 9.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-262

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FPID 433108-4-52-01 CONTRACT E4Q32
BY: (FDOT) VS Date: 3/21/2018

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
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6X. EXISTING TRANSFORMER
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7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
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10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
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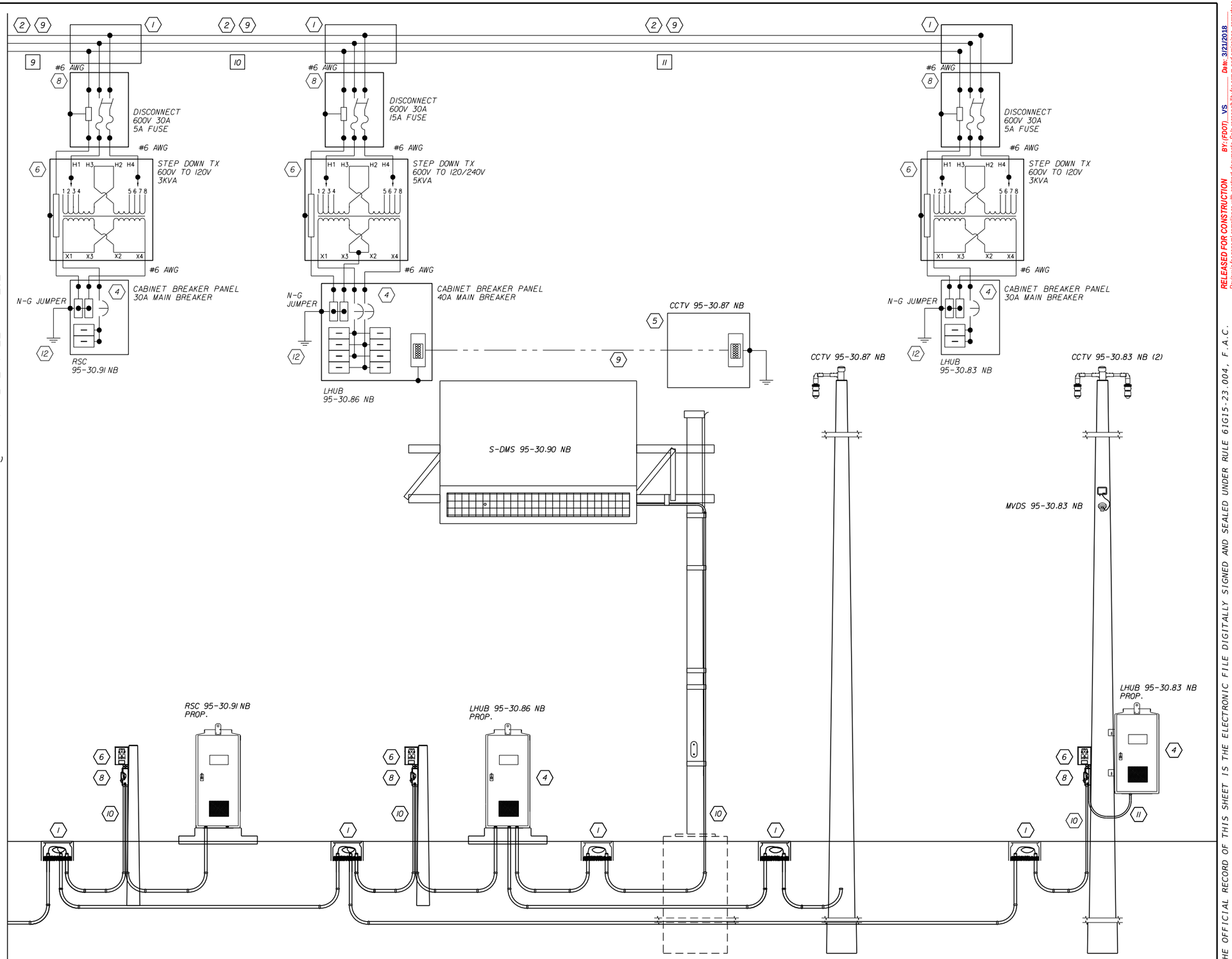
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-262



CIRCUIT 9.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-263

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FPID 433108-4-52-01 CONTRACT E4Q32

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KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
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- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
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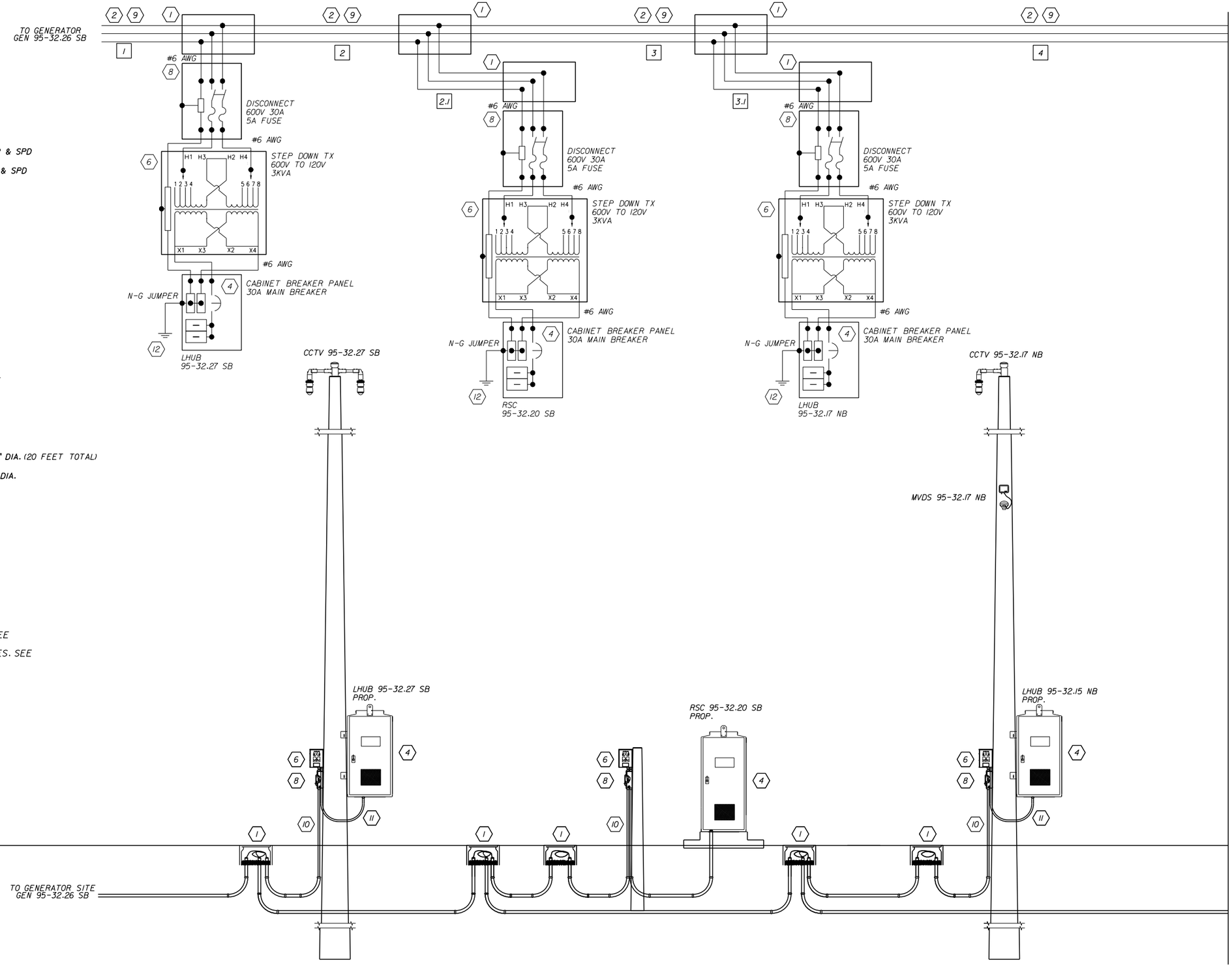
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 9.3

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-264

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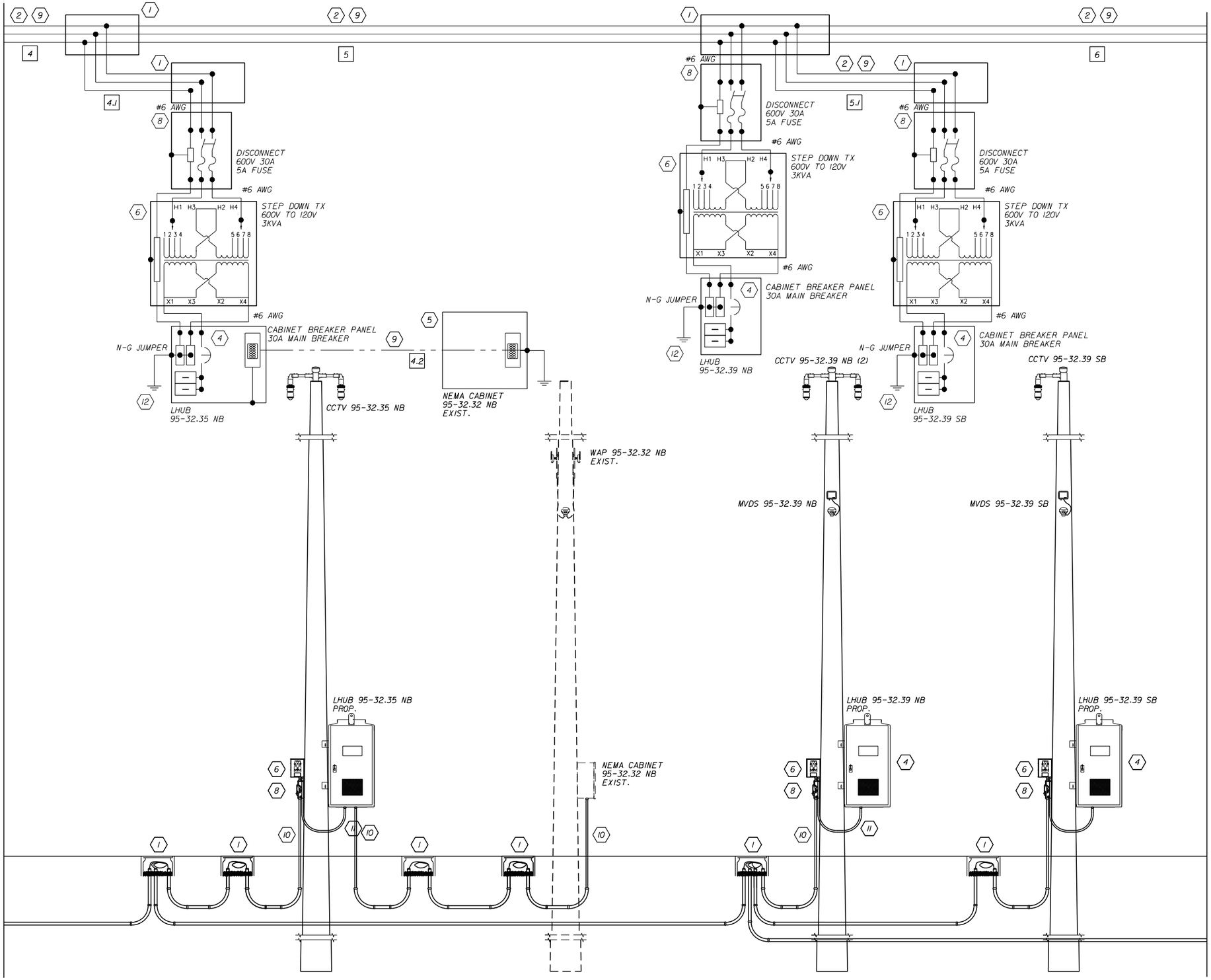
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 9.3



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-265

RELEASED FOR CONSTRUCTION
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BY: (FDOT)_VS_____ Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
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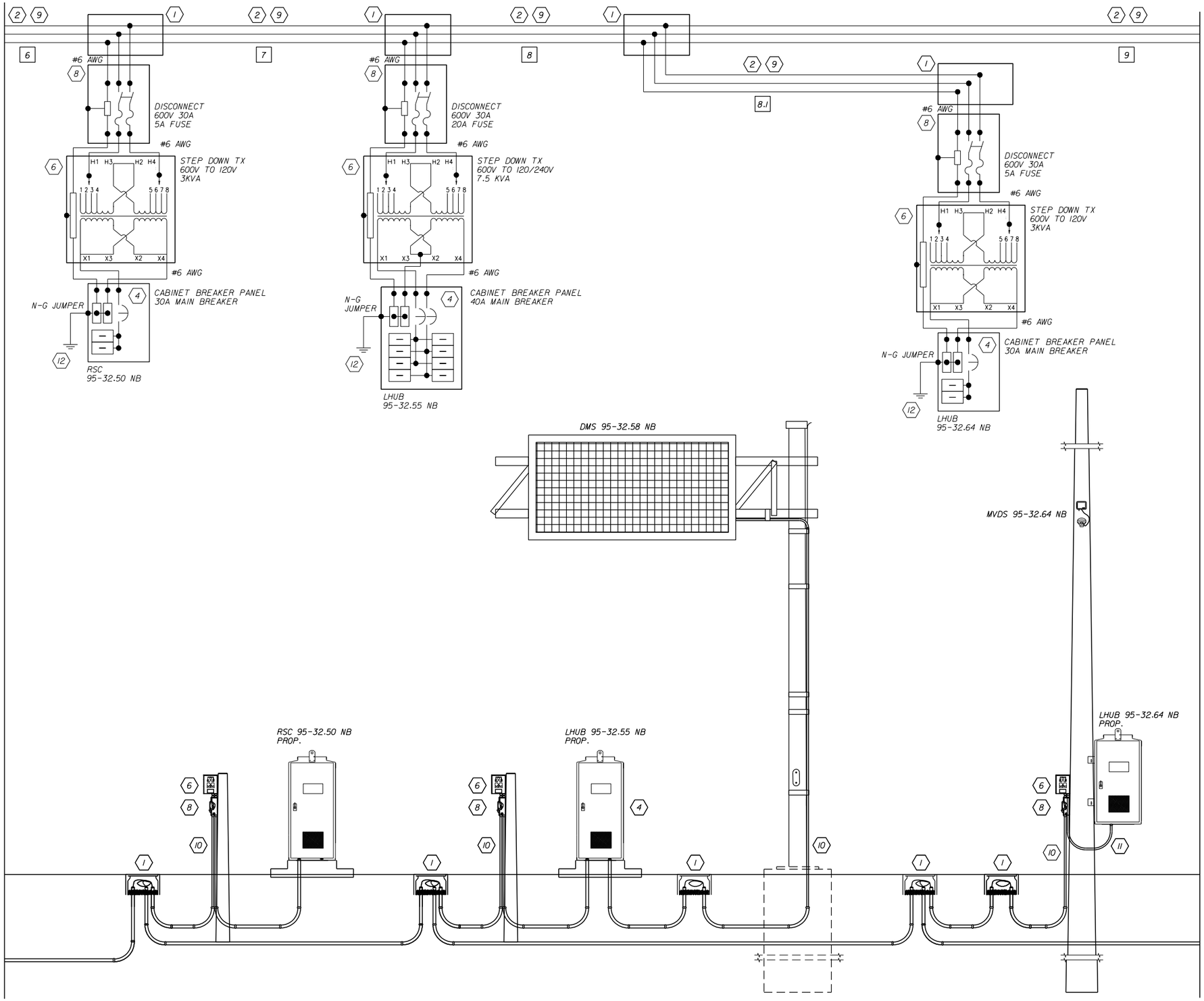
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-265



MATCH LINE SHEET IT-267

CIRCUIT 9.3

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-266

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
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- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
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- (8X) EXISTING FUSED DISCONNECT
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- (9X) EXISTING HDPE CONDUIT
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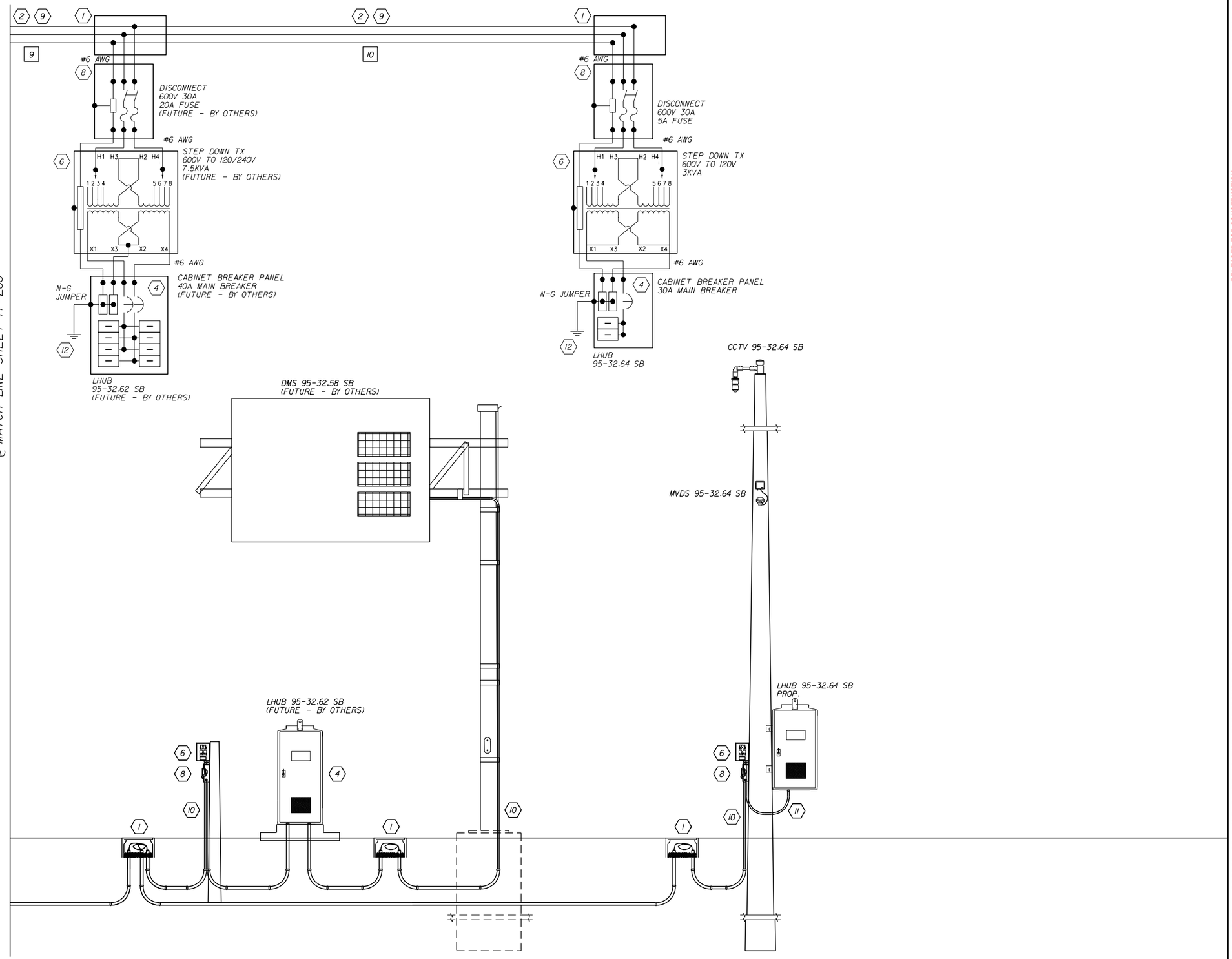
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-266



CIRCUIT 9.3

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-267

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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GENERAL NOTES:

1. SEE PLAN SHEET FOR PULLBOX LOCATIONS
2. MAXIMUM LENGTH OF WIRE BETWEEN THE LHUB CABINET AND THE FARTHEST LED PANEL IS 350 FEET.
3. NUMBER OF LED PANELS VARY BY SITE SEE PLAN SHEETS
4. SEE PLAN SHEETS FOR AC POWER WIRE GAUGE.
5. ALL SIGNAL CABLES (IDTAG ⑧) ARE 22 AWG TWISTED SHIELDED PAIR, COPPER, STRANDED, 300V, 105C, UL LISTED. DAKTRONICS PART W-2200, BELDEN PART 3077F, OR EQUIVALENT.
6. ALL SIGNAL CABLES (IDTAG ⑨) ARE 22 AWG TWISTED SHIELDED PAIR, COPPER, STRANDED, 300V, 105C, UL LISTED. DAKTRONICS PART W-1234, ALPHA WIRE PART M4473, OR EQUIVALENT.
7. ALL SIGNAL CABLES (IDTAG ②) ARE 62.5 / 125, MULTI-MODE, WITH ST CONNECTORS. DAKTRONICS PART W-1456, OPTICAL CABLE CORPORATION PART# DX006DWLS9KR, OR EQUIVALENT.
8. MAXIMUM LENGTH OF WIRE BETWEEN VCB ENCLOSURE AND FARTHEST LED PANEL IS 40 FEET.
9. 1/2" CONDUIT HUB IS PROVIDED ON EACH LED PANEL.

POWER AND SIGNAL INTERCONNECT

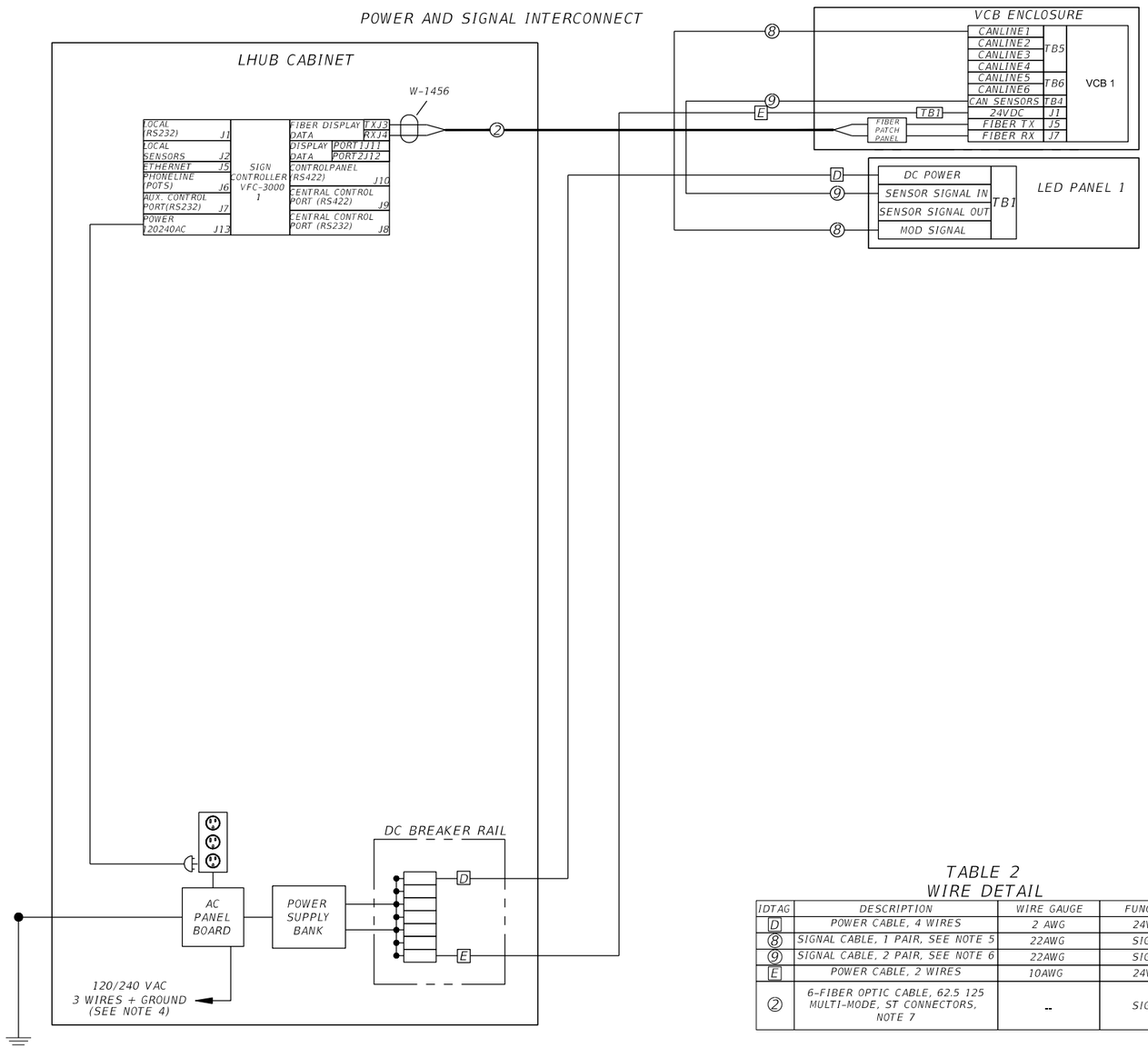
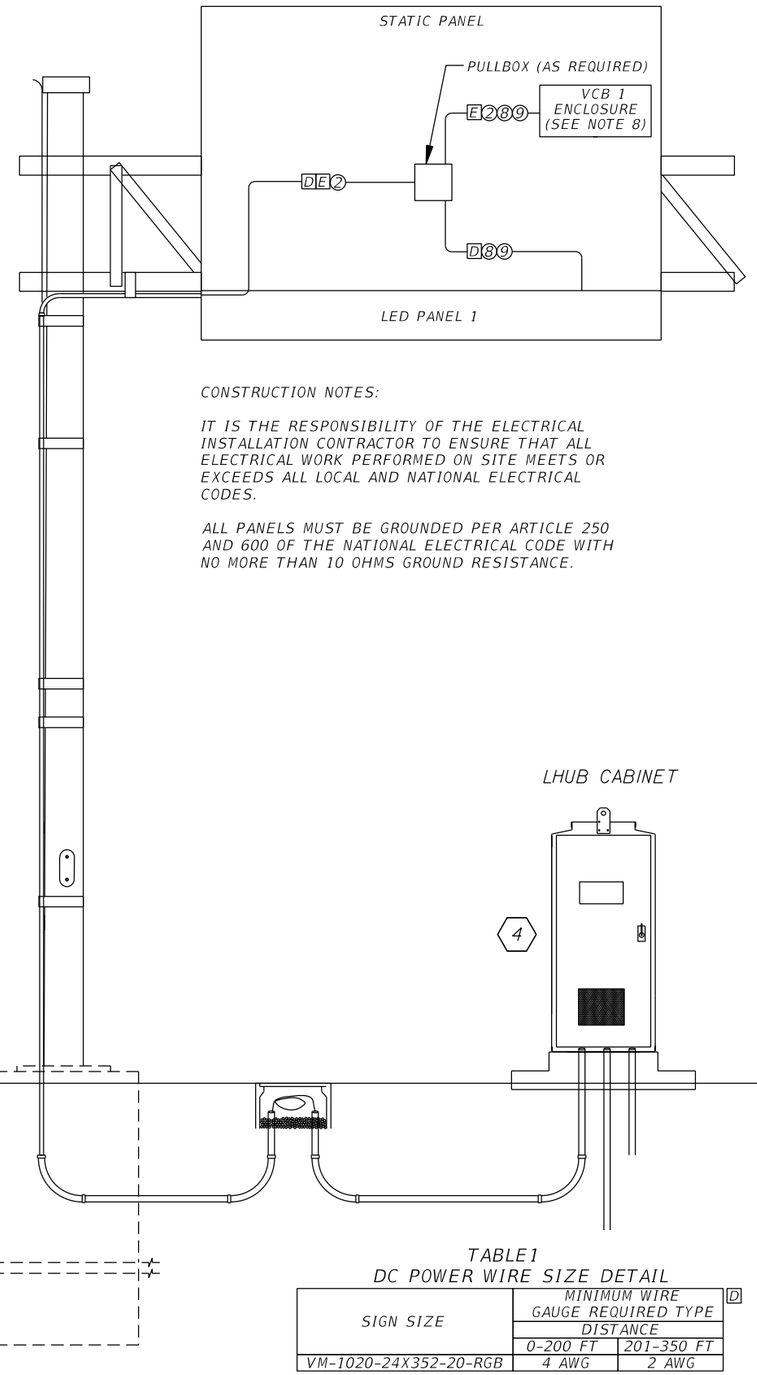


TABLE 2
WIRE DETAIL

IDTAG	DESCRIPTION	WIRE GAUGE	FUNCTION
D	POWER CABLE, 4 WIRES	2 AWG	24VDC
⑧	SIGNAL CABLE, 1 PAIR, SEE NOTE 5	22AWG	SIGNAL
⑨	SIGNAL CABLE, 2 PAIR, SEE NOTE 6	22AWG	SIGNAL
E	POWER CABLE, 2 WIRES	10AWG	24VDC
②	6-FIBER OPTIC CABLE, 62.5 125 MULTI-MODE, ST CONNECTORS, NOTE 7	--	SIGNAL



CONSTRUCTION NOTES:

IT IS THE RESPONSIBILITY OF THE ELECTRICAL INSTALLATION CONTRACTOR TO ENSURE THAT ALL ELECTRICAL WORK PERFORMED ON SITE MEETS OR EXCEEDS ALL LOCAL AND NATIONAL ELECTRICAL CODES.

ALL PANELS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE WITH NO MORE THAN 10 OHMS GROUND RESISTANCE.

TABLE1
DC POWER WIRE SIZE DETAIL

SIGN SIZE	MINIMUM WIRE GAUGE REQUIRED TYPE D	
	DISTANCE	
	0-200 FT	201-350 FT
VM-1020-24X352-20-RGB	4 AWG	2 AWG

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

STATUS DMS RISER DIAGRAM

SHEET NO. IT-268

GENERAL NOTES:

1. SEE PLAN SHEET FOR PULLBOX LOCATIONS
2. MAXIMUM LENGTH OF WIRE BETWEEN THE LHUB CABINET AND THE FARTHEST LED PANEL IS 350 FEET.
3. NUMBER OF LED PANELS VARY BY SITE SEE PLAN SHEETS
4. SEE PLAN SHEETS FOR AC POWER WIRE GAUGE.
5. ALL SIGNAL CABLES (IDTAG ⑧) ARE 22 AWG TWISTED SHIELDED PAIR, COPPER, STRANDED, 300V, 105C, UL LISTED. DAKTRONICS PART W-2200, BELDEN PART 3077F, OR EQUIVALENT.
6. ALL SIGNAL CABLES (IDTAG ⑨) ARE 22 AWG TWISTED SHIELDED PAIR, COPPER, STRANDED, 300V, 105C, UL LISTED. DAKTRONICS PART W-1234, ALPHA WIRE PART M4473, OR EQUIVALENT.
7. ALL SIGNAL CABLES (IDTAG ②) ARE 62.5 / 125, MULTI-MODE, WITH ST CONNECTORS. DAKTRONICS PART W-1456, OPTICAL CABLE CORPORATION PART# DX006DWLS9KR, OR EQUIVALENT.
8. MAXIMUM LENGTH OF WIRE BETWEEN VCB ENCLOSURE AND FARTHEST LED PANEL IS 40 FEET.
9. 1/2" CONDUIT HUB IS PROVIDED ON EACH LED PANEL.

POWER AND SIGNAL INTERCONNECT

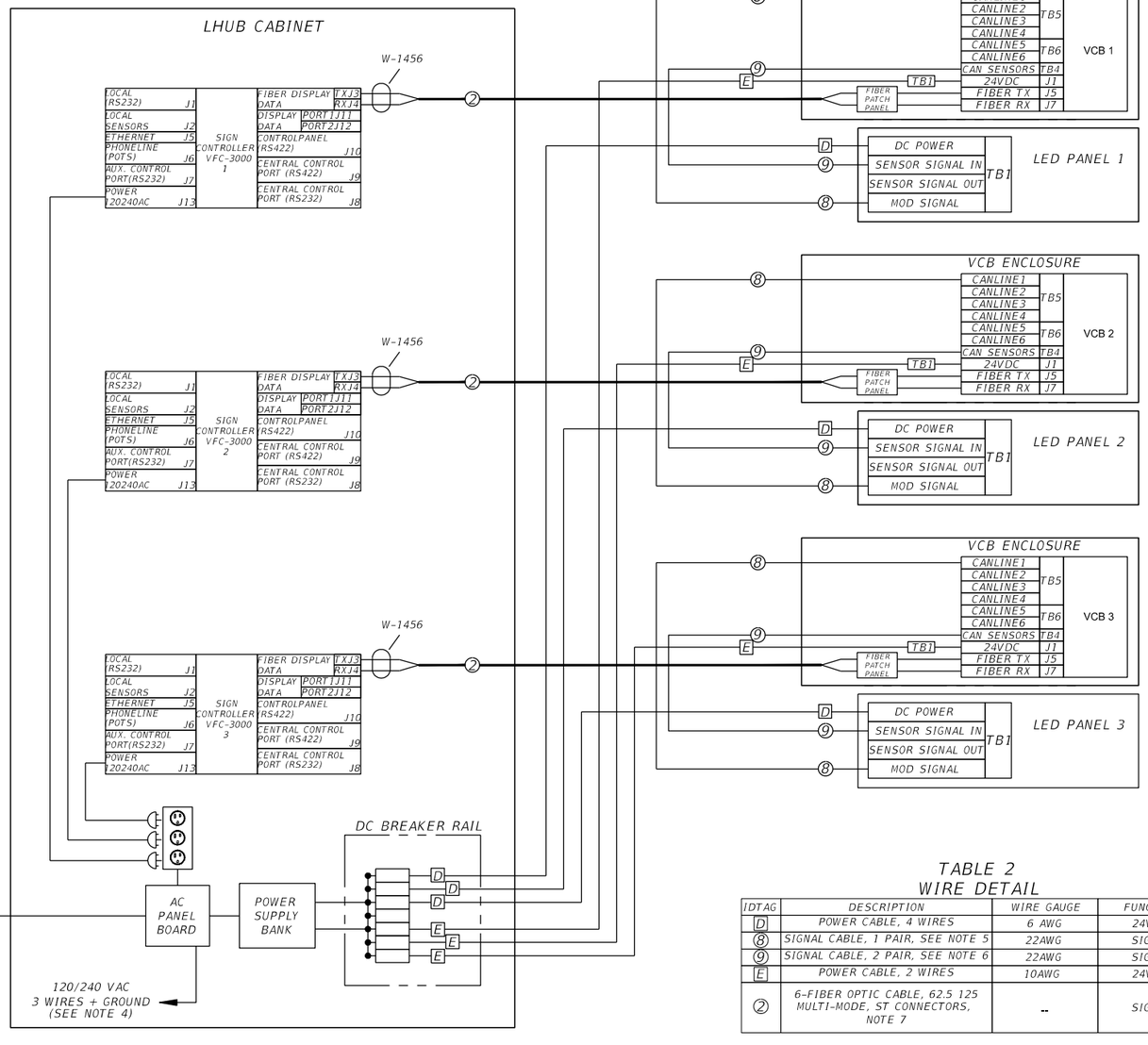
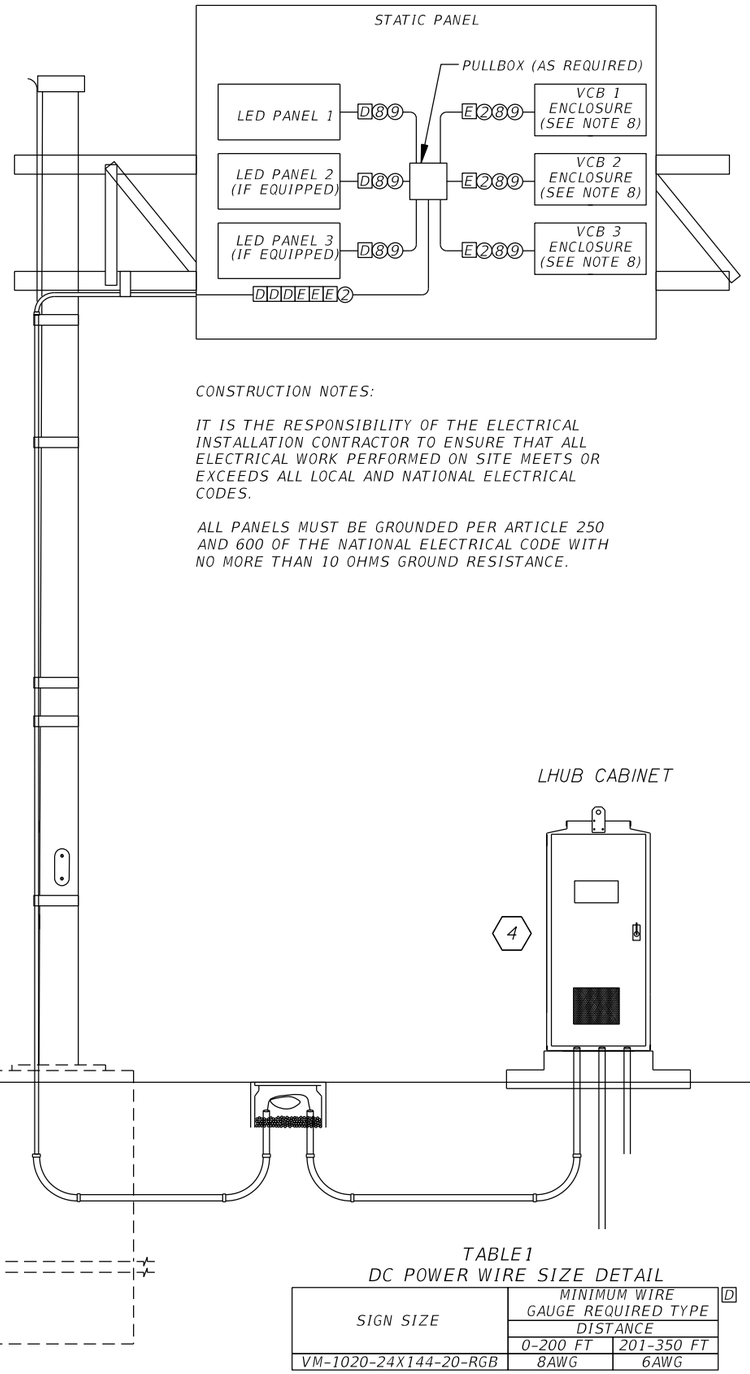


TABLE 2
WIRE DETAIL

IDTAG	DESCRIPTION	WIRE GAUGE	FUNCTION
D	POWER CABLE, 4 WIRES	6 AWG	24VDC
⑧	SIGNAL CABLE, 1 PAIR, SEE NOTE 5	22AWG	SIGNAL
⑨	SIGNAL CABLE, 2 PAIR, SEE NOTE 6	22AWG	SIGNAL
E	POWER CABLE, 2 WIRES	10AWG	24VDC
②	6-FIBER OPTIC CABLE, 62.5 125 MULTI-MODE, ST CONNECTORS, NOTE 7	--	SIGNAL



CONSTRUCTION NOTES:

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ALL PANELS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE WITH NO MORE THAN 10 OHMS GROUND RESISTANCE.

TABLE1
DC POWER WIRE SIZE DETAIL

SIGN SIZE	MINIMUM WIRE GAUGE REQUIRED TYPE D — DISTANCE	
	0-200 FT	201-350 FT
VM-1020-24X144-20-RGB	8AWG	6AWG

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

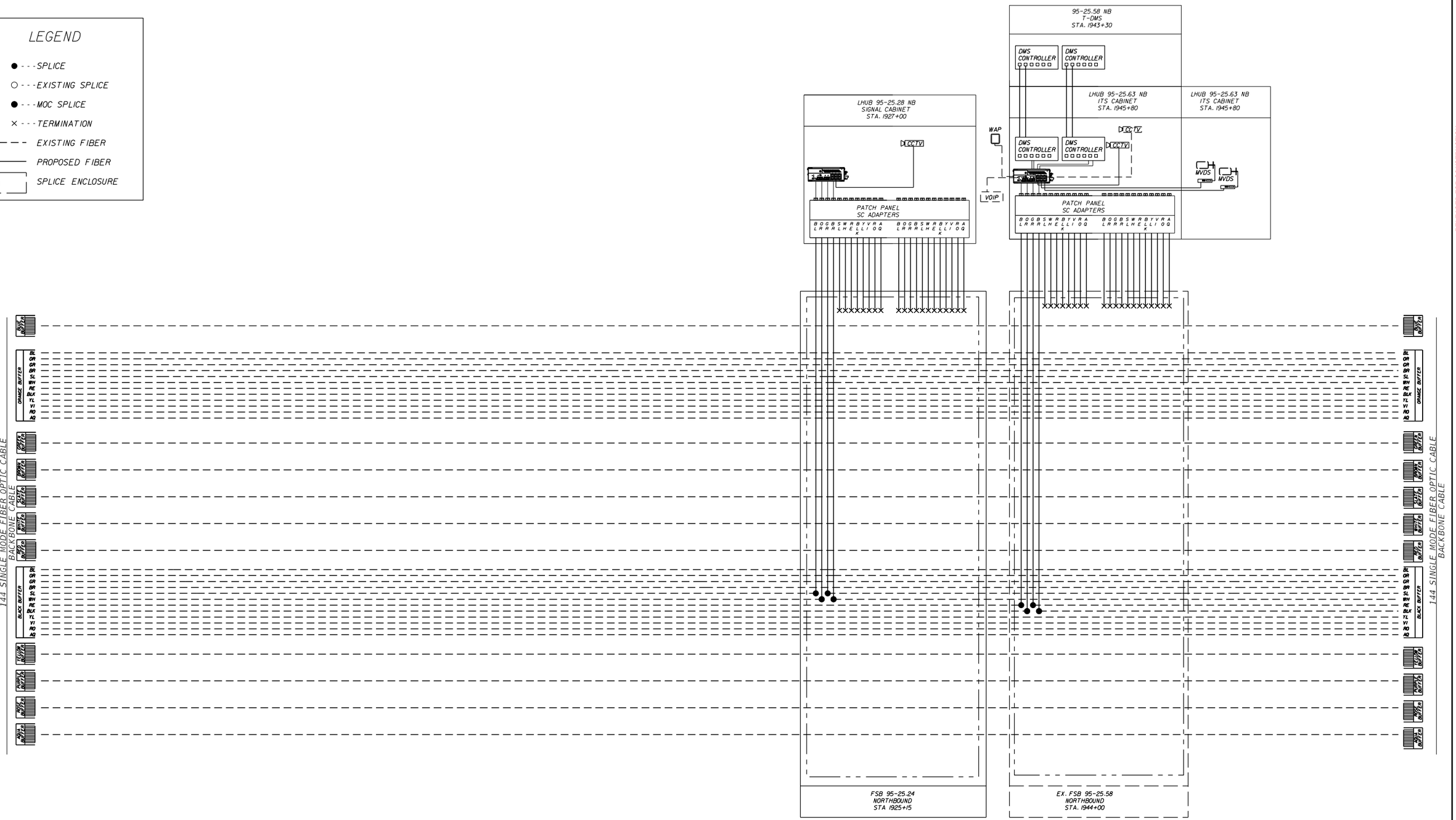
TOLL RATE DMS RISER DIAGRAM

SHEET NO. IT-269

SOUTH SR 9/I-95 NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-270

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32
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SOUTH SR 9/I-95 NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- EXISTING FIBER
- PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

RSC 95-26.38 SB
SIGNAL CABINET
STA. 1984+40

PATCH PANEL
SC ADAPTERS
B O G B S W R B Y V R A B O G B S W R B Y V R A
L R A R L H E L L I O Q L R A R L H E L L I O Q
K K

CCTV

EXISTING LHUB 95-26.30 NB
ITS CABINET
STA. 1980+90

CCTV MVDS VOIP

CONVERTER SWITCH

PATCH PANEL
SC ADAPTERS
B O G B S W R B Y V R A B O G B S W R B Y V R A
L R A R L H E L L I O Q L R A R L H E L L I O Q
K K

95-26.55 SB
DMS
STA. 1994+05

DMS SIGN
COMM
B O G B S W R B Y V R A
L R A R L H E L L I O Q
K

EXISTING LHUB 95-26.55 SB
ITS CABINET
STA. 1994+18

B O G B S W R B Y V R A
L R A R L H E L L I O Q
K

DMS CONTROLLER

VOIP

PATCH PANEL
SC ADAPTERS
B O G B S W R B Y V R A B O G B S W R B Y V R A
L R A R L H E L L I O Q L R A R L H E L L I O Q
K K

CONVERTER SWITCH

WAP WAP

CCTV

EXISTING WAP 95-26.44 EB/WB
EXISTING CCTV 95-26.44 EB/WB

EXISTING LHUB 95-26.83 SB
ITS CABINET
STA. 2009+05

CCTV

PATCH PANEL
SC ADAPTERS
B O G B S W R B Y V R A B O G B S W R B Y V R A
L R A R L H E L L I O Q L R A R L H E L L I O Q
K K

LHUB 95-26.63 SB
ITS CABINET
STA. 1998+70

CCTV

PATCH PANEL
SC ADAPTERS
B O G B S W R B Y V R A B O G B S W R B Y V R A
L R A R L H E L L I O Q L R A R L H E L L I O Q
K K

LHUB 95-26.86 SB
ITS CABINET
STA. 2010+60

MVDS MVDS

PATCH PANEL
SC ADAPTERS
B O G B S W R B Y V R A B O G B S W R B Y V R A
L R A R L H E L L I O Q L R A R L H E L L I O Q
K K

BUFF BUFFER
ORANGE BUFFER
GREEN BUFFER
BLUE BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
PURPLE BUFFER
PINK BUFFER
AQUA BUFFER

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

144 SINGLE MODE FIBER OPTIC CABLE
EXIST. BACKBONE CABLE TO FSB 95-26.47 NB

FSB 95-26.54
SOUTHBOUND
STA. 1993+80

REVISIONS			
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Transportation, Land Development,
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Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-271

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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←SOUTH SR 9/I-95 NORTH→

95-25.98 NB
S-DMS
STA. 1963+80

DMS SIGN COMM

B O G B S W R B Y V R A
L R R R L H E L L I O Q
K

LHUB 95-25.93 NB
ITS CABINET
STA. 1961+50

DMS CONTROLLER

PATCH PANEL
SC ADAPTERS

95-26.13 NB
T-DMS
STA. 1972+44

DMS CONTROLLER
DMS CONTROLLER

LHUB 95-26.09 NB
ITS CABINET
STA. 1970+00

DMS CONTROLLER
DMS CONTROLLER
CCTV
MVDS
MVDS

LHUB 95-26.09 NB
ITS CABINET
STA. 1970+00

95-26.44 NB
S-DMS
STA. 1988+30

DMS SIGN COMM

LHUB 95-26.41 NB
ITS CABINET
STA. 1986+45

DMS CONTROLLER

LHUB 95-26.47 NB
ITS CABINET
STA. 1990+15

MVDS
MVDS

RSC 95-26.59 NB
SIGNAL CABINET
STA. 1996+10

CCTV

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE TO FSB 95-26.55 SB (SHEET IT-2)

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

FSB 95-26.47
NORTHBOUND
STA 1990+05

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

FSB 95-26.59
NORTHBOUND
STA 1996+10

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-272

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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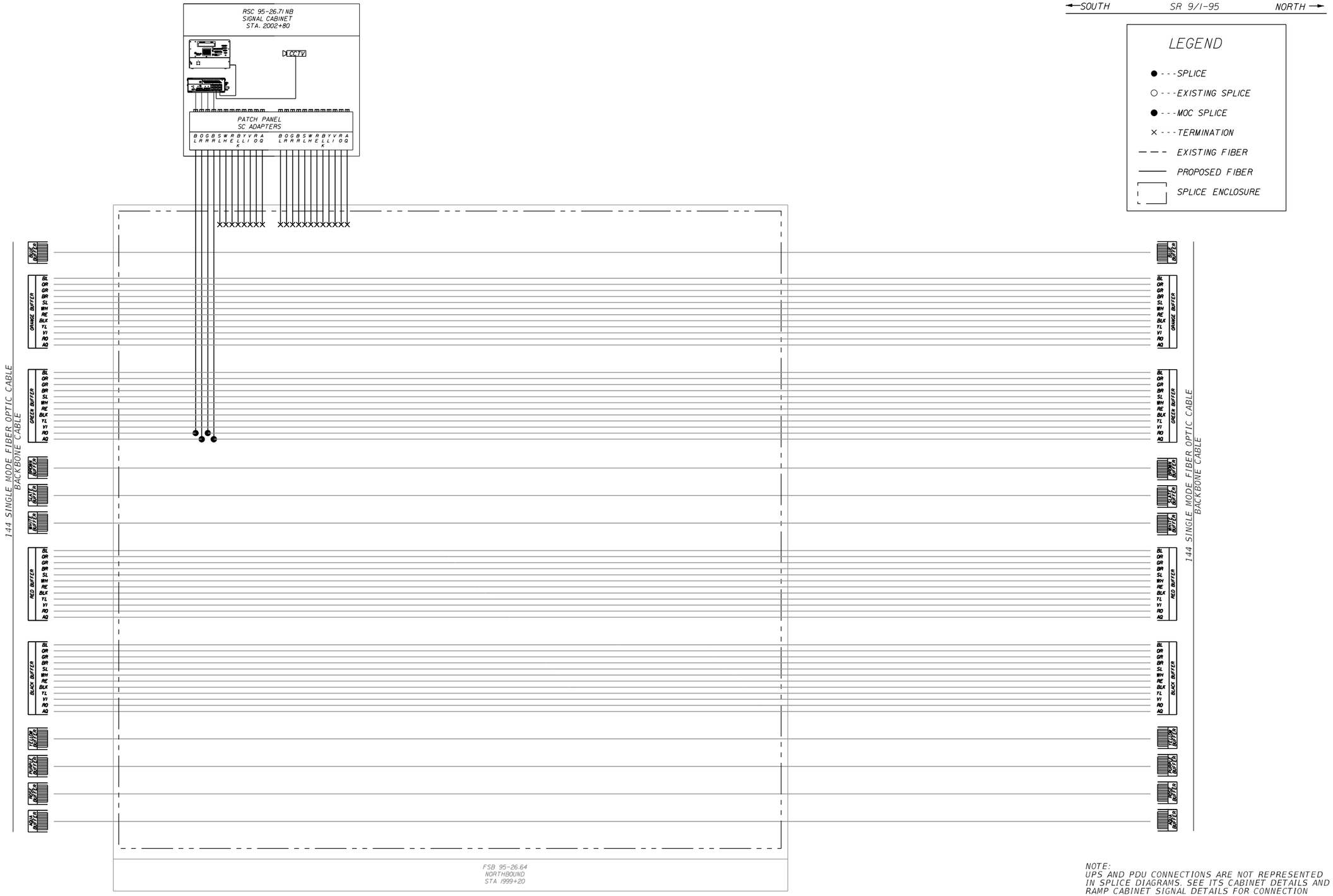

SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO. IT-273

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SOUTH — SR 9/I-95 — NORTH



LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-274

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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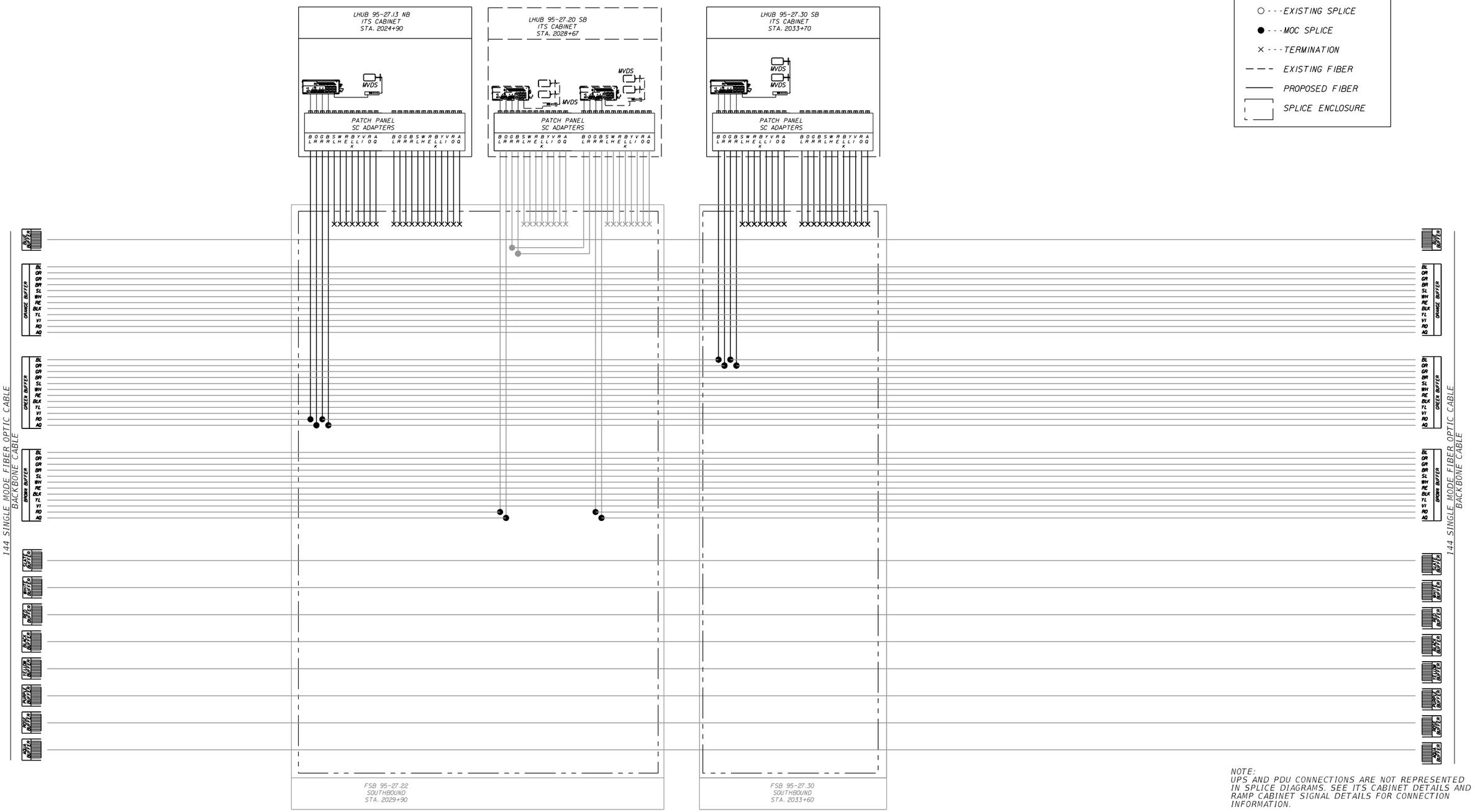
SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO. IT-275

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NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

LHUB 95-27.53 SB
ITS CABINET
STA. 2046+00

P&R-1
T-DMS

LHUB P&R-1
ITS CABINET

P&R-2A
T-DMS

LHUB P&R-2
ITS CABINET

P&R-2B
T-DMS

CAB P&R-2A
ITS CABINET

P&R-2C
T-DMS

CAB P&R-2B
ITS CABINET

LHUB 95-27.36 SB
ITS CABINET
STA. 2036+83

DMS CONTROLLER

CCTV

MVDS

WAP

PATCH PANEL
SC ADAPTERS

CCTV 27.41 SB

SOUTH — SR 9/I-95 — NORTH

24 SINGLE MODE FIBER OPTIC CABLE
DROP CABLE TO FSB P&R EB (SHEET IT-278)

BLUE BUFFER
BL OR GR BR SL WH RE BLK YL VI AQ

ORANGE BUFFER
BL OR GR BR SL WH RE BLK YL VI AQ

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

FSB 95-27.46
SOUTHBOUND
STA 2042+37

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-276

SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

95-27.41 NB
DMS
STA. 2039+80

DMS SIGN
COMM

B O G B S W R B Y V R A
L R A R L M E L L I O Q
K

LHUB 95-27.41 NB
ITS CABINET
STA. 2039+80

PATCH PANEL
SC ADAPTERS

CONVERTER
SWITCH

CONVERTER
SWITCH

LHUB 95-27.30 NB
ITS CABINET
STA. 2034+60

CCTV

MVDS

PATCH PANEL
SC ADAPTERS

PATCH PANEL
SC ADAPTERS

ATS MOD BUS

WAP 95-27.47 NB
VOIP 95-27.47 NB
ITS CABINET
STA. 2042+64

VOIP

WAP

WAP

CONVERTER
SWITCH

CONVERTER
SWITCH

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
PURPLE BUFFER
ROSE BUFFER
AQUA BUFFER

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

FSB 95-27.46
NORTHBOUND
STA. 2042+30

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

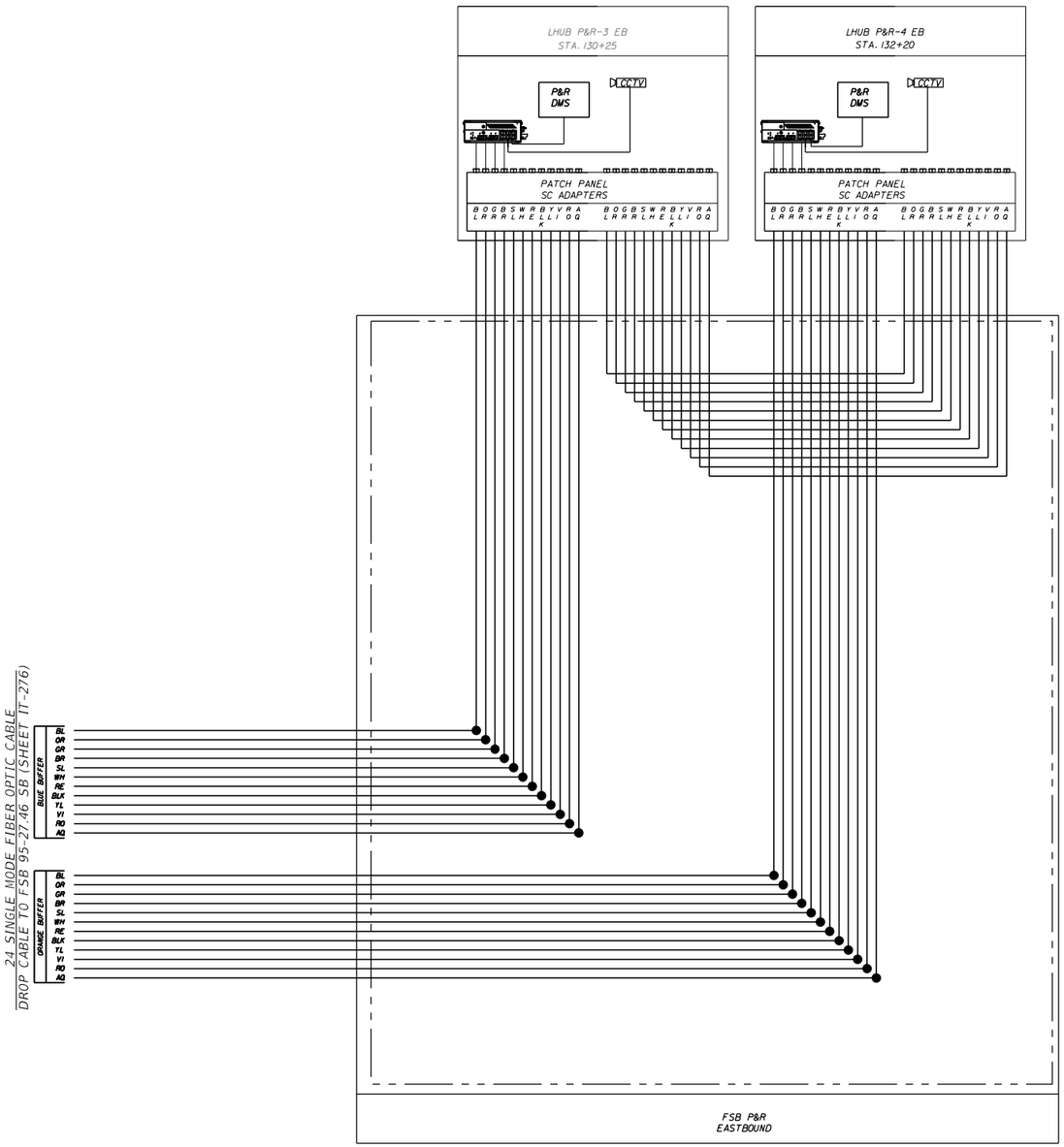
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-277

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO. IT-278

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

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Environmental Services
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Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-279

RELEASED FOR CONSTRUCTION
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SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

95-28.10 SB
DMS
STA. 2076+10

DMS SIGN COMM
B O G B S W R B Y V R A
L R R R L H E L L I O Q
K

LHUB 95-28.16 SB
ITS CABINET
STA. 2079+50

B O G B S W R B Y V R A
L R R R L H E L L I O Q
K

DMS CONTROLLER

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A L R R R L H E L L I O Q K B O G B S W R B Y V R A L R R R L H E L L I O Q K

FSB 95-28.16
SOUTHBOUND
STA. 2079+50

LHUB 95-28.30 SB
ITS CABINET
STA. 2086+85

CCTV
MVDS
VOIP
WAP

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A L R R R L H E L L I O Q K B O G B S W R B Y V R A L R R R L H E L L I O Q K

FSB 95-28.29
SOUTHBOUND
STA. 2086+70

95-28.33 NB
EL-DMS
STA. 2088+00

DMS SIGN COMM
B O G B S W R B Y V R A
L R R R L H E L L I O Q
K

LHUB 95-28.29 NB
ITS CABINET
STA. 2086+30

B O G B S W R B Y V R A
L R R R L H E L L I O Q
K

DMS CONTROLLER

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A L R R R L H E L L I O Q K B O G B S W R B Y V R A L R R R L H E L L I O Q K

LHUB 95-28.31 NB
ITS CABINET
STA. 2087+19

MVDS

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A L R R R L H E L L I O Q K B O G B S W R B Y V R A L R R R L H E L L I O Q K

RSC 95-28.38 SB
SIGNAL CABINET
STA. 2091+00

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A L R R R L H E L L I O Q K B O G B S W R B Y V R A L R R R L H E L L I O Q K

FSB 95-28.35
SOUTHBOUND
STA 2089+50

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

BUFFER TUBE
ORANGE BUFFER
GREEN BUFFER
BL SR OR BR SL W R BLK YL V RO AQ

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-280

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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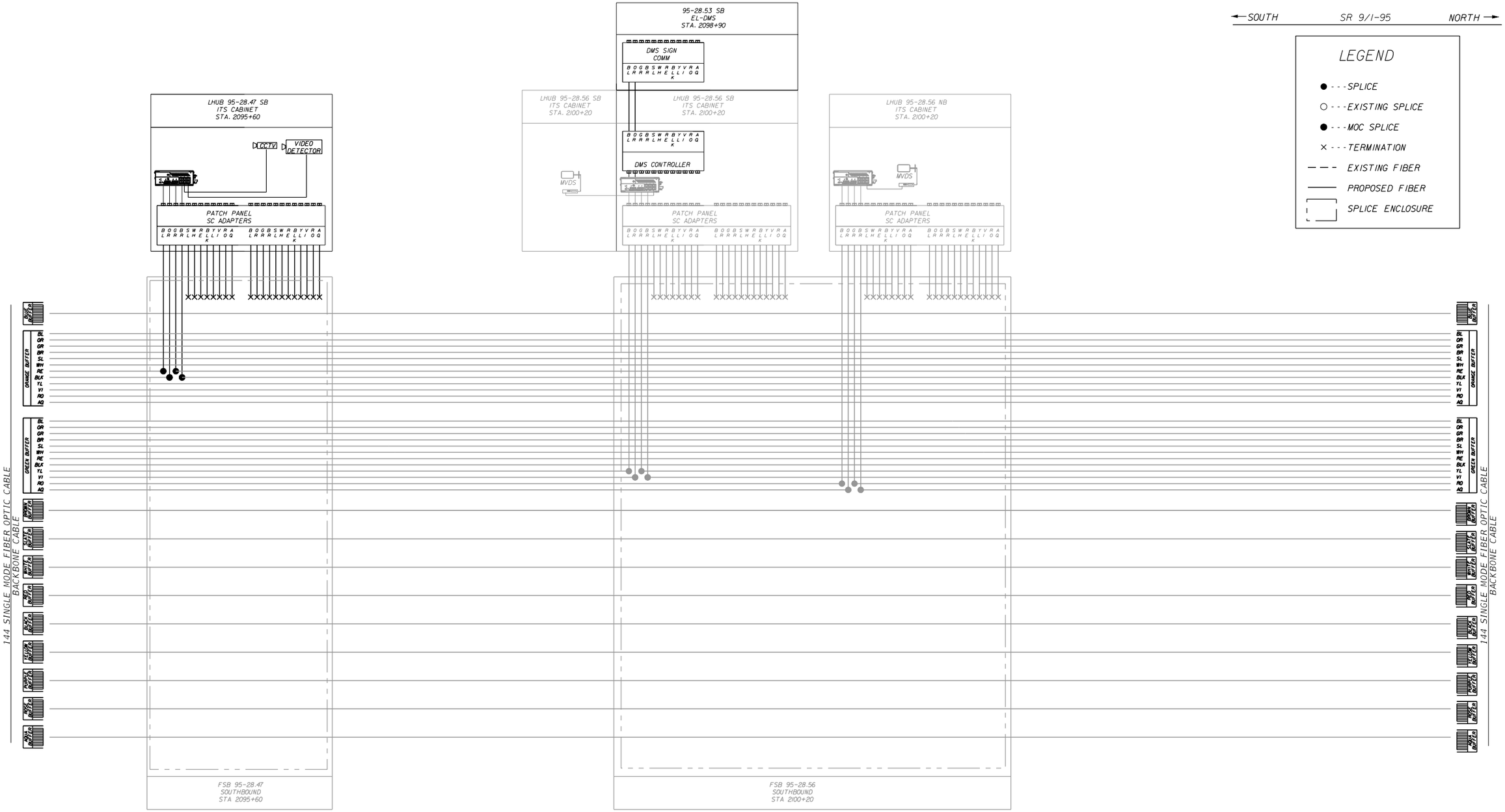
SOUTH — SR 9/I-95 — NORTH



LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-281

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32
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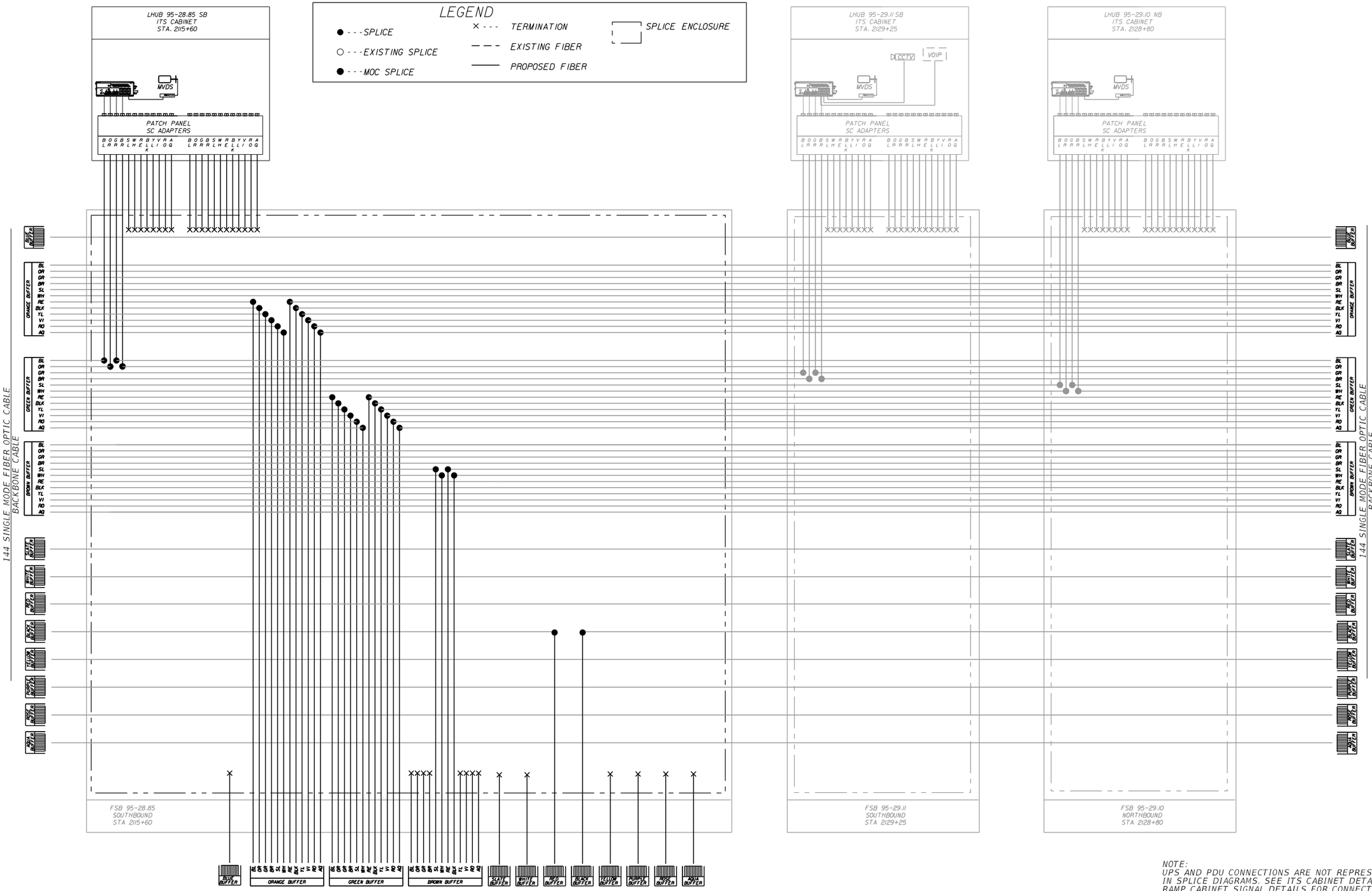
SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



NOTE:
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO. IT-282

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RELEASED FOR CONSTRUCTION
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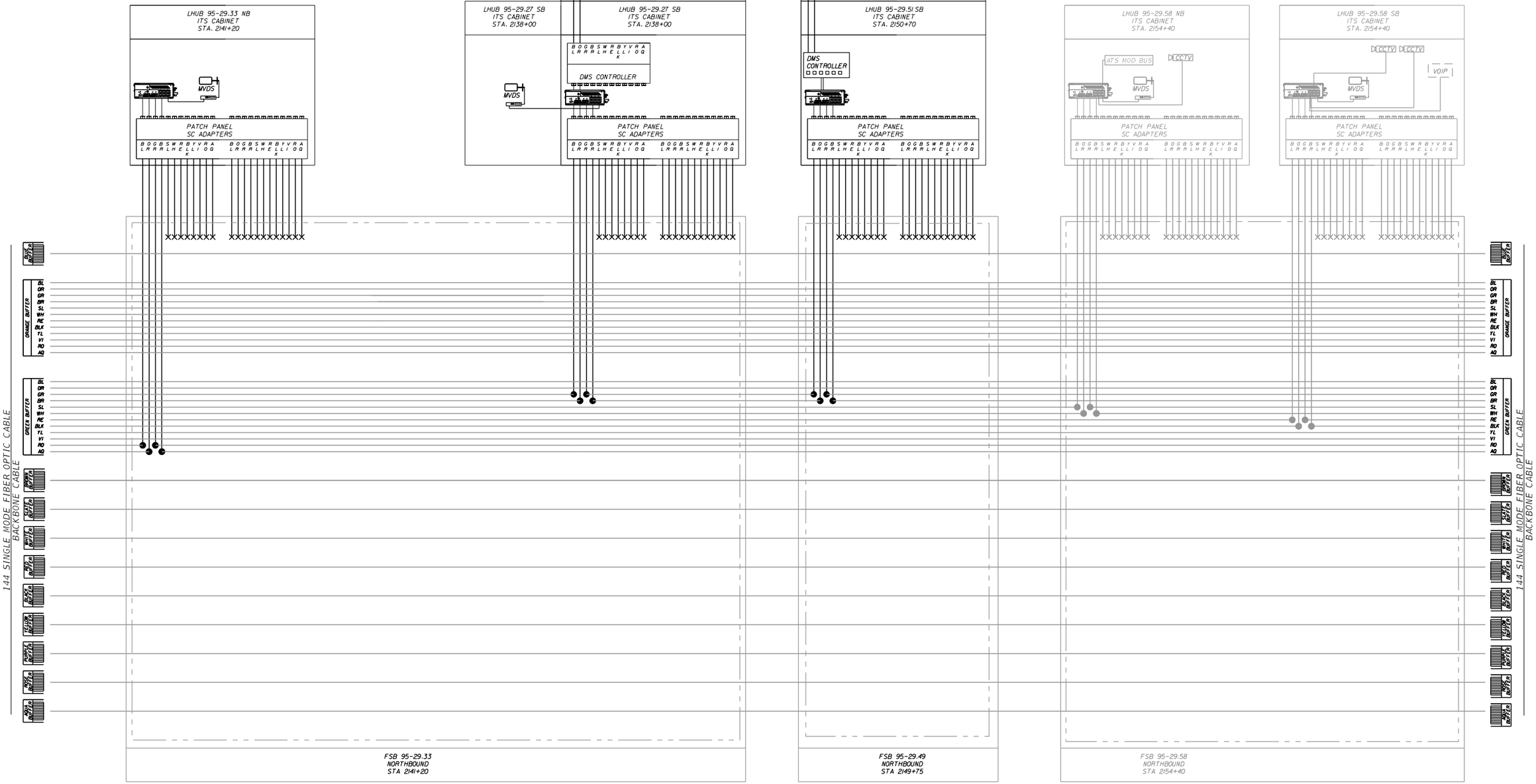
FPID 433108-4-52-01 CONTRACT E4Q32

SOUTH ← SR 9/I-95 → NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- ▭ SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-283

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FPID 433108-4-52-01 CONTRACT E4Q32

←SOUTH SR 9/1-95 NORTH→

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

95-29.68 NB
S-DMS
STA. 2159+71

DMS SIGN COMM
B O G B S W R B Y V R A
L R R A R L H E L L I O Q
K

LHUB 95-29.71 NB
ITS CABINET
STA. 2161+00

DMS CONTROLLER

PATCH PANEL
SC ADAPTERS

95-29.68 SB
S-DMS
STA. 2159+60

LHUB 95-29.63 SB
ITS CABINET
STA. 2157+00

LHUB 95-29.83 NB
ITS CABINET
STA. 2167+40

CCTV
MVDS

LHUB 95-29.83 SB
ITS CABINET
STA. 2167+60

95-29.99 NB
DMS
STA. 2175+60

LHUB 95-29.95 NB
ITS CABINET
STA. 2174+00

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
PURPLE BUFFER
ROSE BUFFER
AQUA BUFFER

FSB 95-29.71
NORTHBOUND
STA 2161+00

FSB 95-29.83
NORTHBOUND
STA 2167+48

FSB 95-29.95
NORTHBOUND
STA 2174+00

144 SINGLE MODE FIBER OPTIC CABLE
BRANCH CABLE TO FSB 95-30.05 SB (SHEET IT-297)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization • 3932
Jared Knight, P.E.
PE • 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-284

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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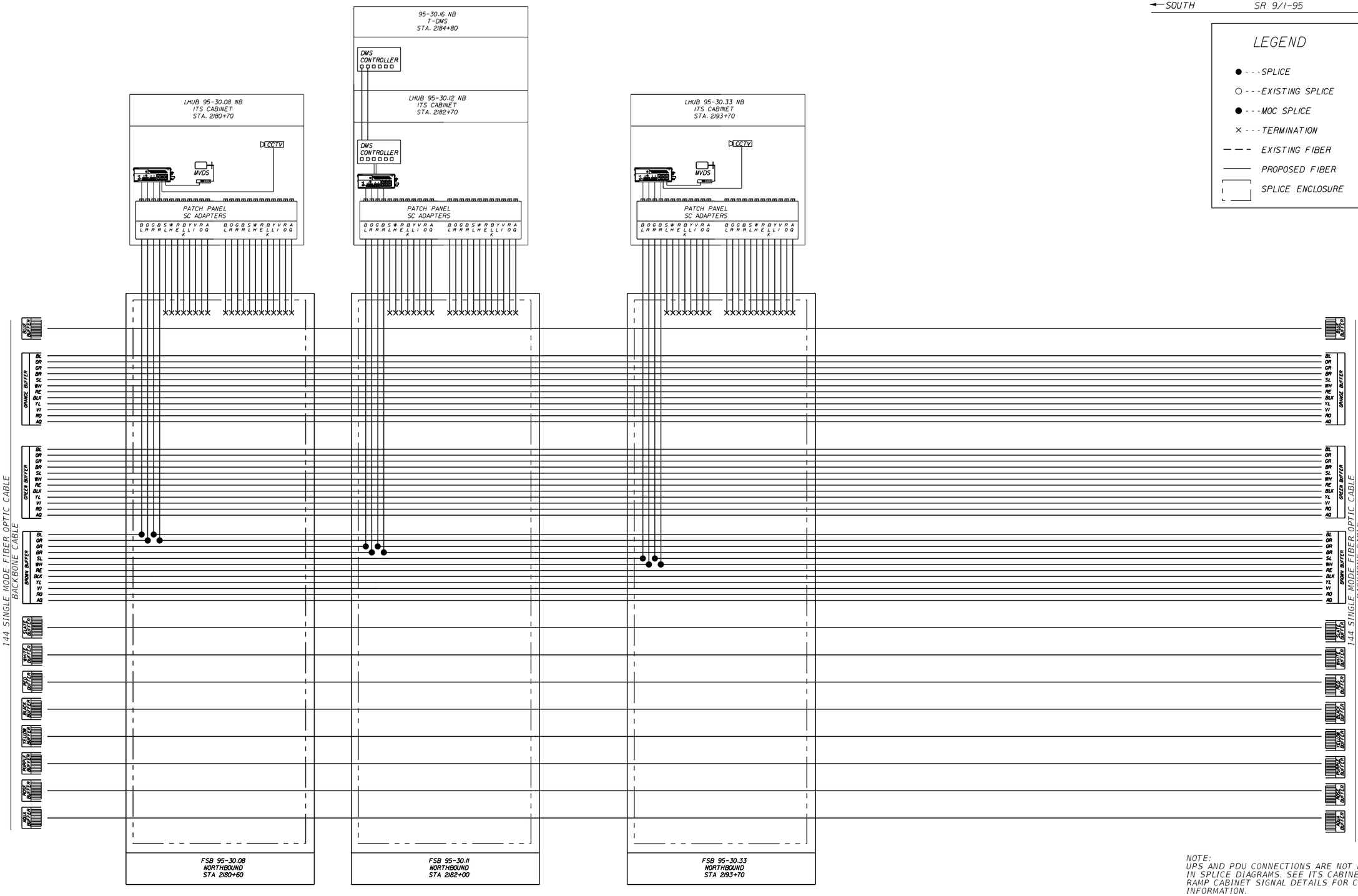
SOUTH — SR 9/I-95 — NORTH



LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO. IT-285

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FPID 433108-4-52-01 CONTRACT E4Q32

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← SOUTH SR 9/1-95 NORTH →

95-30.45 NB
S-DMS
STA. 2200+00

DMS SIGN COMM

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

LHUB 95-30.41 NB
ITS CABINET
STA. 2198+00

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

DMS CONTROLLER

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

95-30.75 NB
T-DMS
STA. 2215+80

DMS CONTROLLER

LHUB 95-30.70 NB
ITS CABINET
STA. 2213+55

DMS CONTROLLER

WAP

VOIP

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

LHUB 95-30.61 NB
ITS CABINET
STA. 2208+50

CCTV

CCTV

MVDS

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

LHUB 95-30.83 NB
ITS CABINET
STA. 2220+20

CCTV

CCTV

MVDS

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

95-30.90 NB
S-DMS
STA. 2224+00

DMS SIGN COMM

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

LHUB 95-30.86 NB
ITS CABINET
STA. 2222+10

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

DMS CONTROLLER

CCTV

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

B O G B S W R B Y V R A
L A R R L H E L L I O Q
K

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
PURPLE BUFFER
ROSE BUFFER
AQUA BUFFER

FSB 95-30.45
NORTHBOUND
STA 2198+00

FSB 95-30.61
NORTHBOUND
STA 2208+50

FSB 95-30.70
NORTHBOUND
STA 2213+55

FSB 95-30.83
NORTHBOUND
STA 2220+20

FSB 95-30.86
NORTHBOUND
STA 2222+10

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-286

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

← SOUTH — SR 9/I-95 — NORTH →

RSC 95-30.9I NB
SIGNAL CABINET
STA. 2224+15

LHUB 95-31.08 NB
ITS CABINET
STA. 2233+40

LHUB 95-31.08 SB
ITS CABINET
STA. 2234+00

LHUB 95-31.28 SB
ITS CABINET
STA. 2243+75

LHUB 95-31.28 NB
ITS CABINET
STA. 2243+95

MVDS
CCTV
PATCH PANEL
SC ADAPTERS
BOGBSWRBYVRA
LRRRLHELLIOQ
K

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
PURPLE BUFFER
ROSE BUFFER
AQUA BUFFER

FSB 95-30.9I
NORTHBOUND
STA 2224+15

FSB 95-31.08
NORTHBOUND
STA 2233+40

FSB 95-31.24
NORTHBOUND
STA 2241+50

144 SINGLE MODE FIBER OPTIC CABLE
BRANCH CABLE TO FSB 95-30.75R NB (SHEET IT-299)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO. IT-287

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

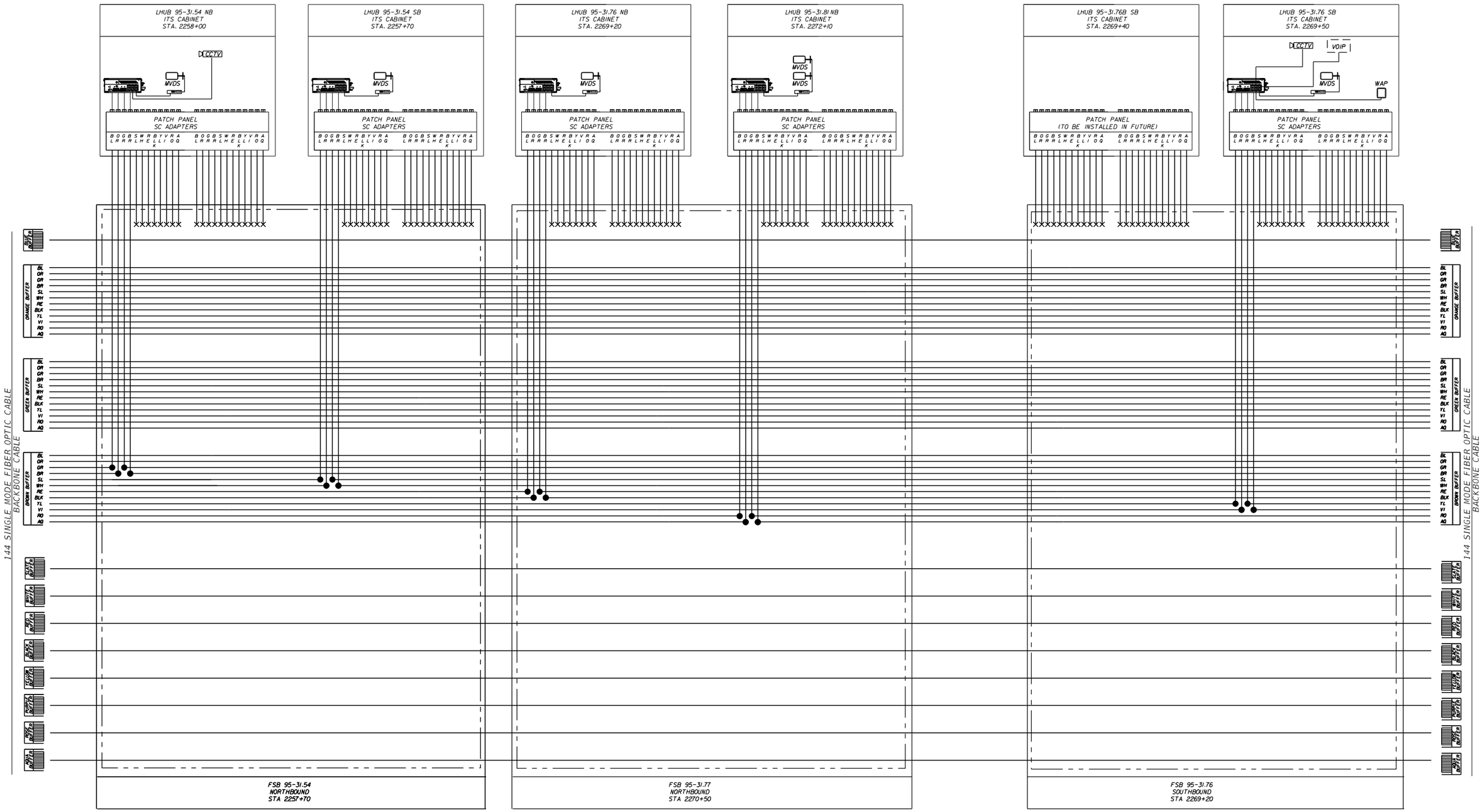
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

←SOUTH SR 9/I-95 NORTH →

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- ▭ SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-288

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SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- ▭ SPLICE ENCLOSURE

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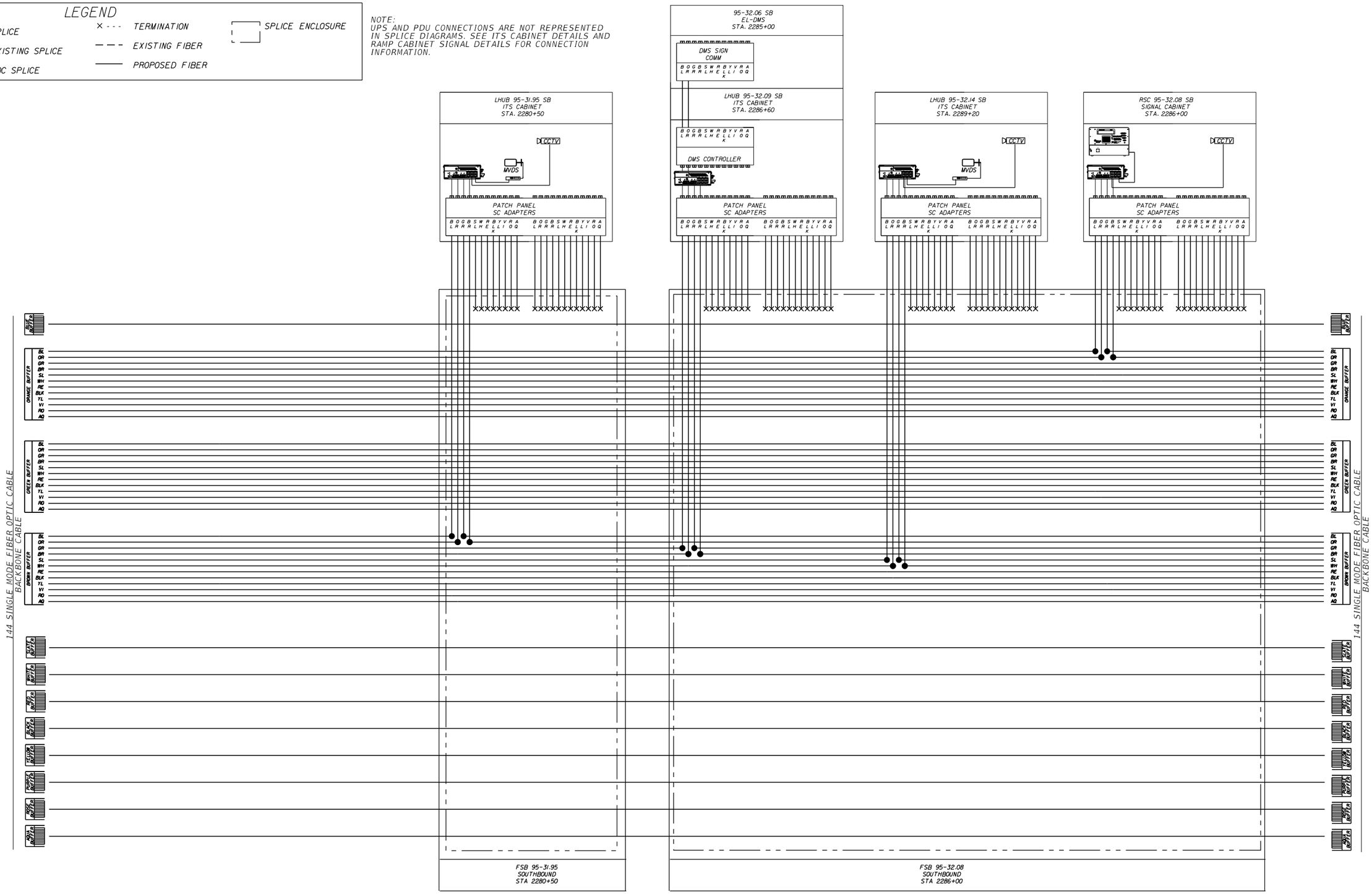

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SPLICING DIAGRAM

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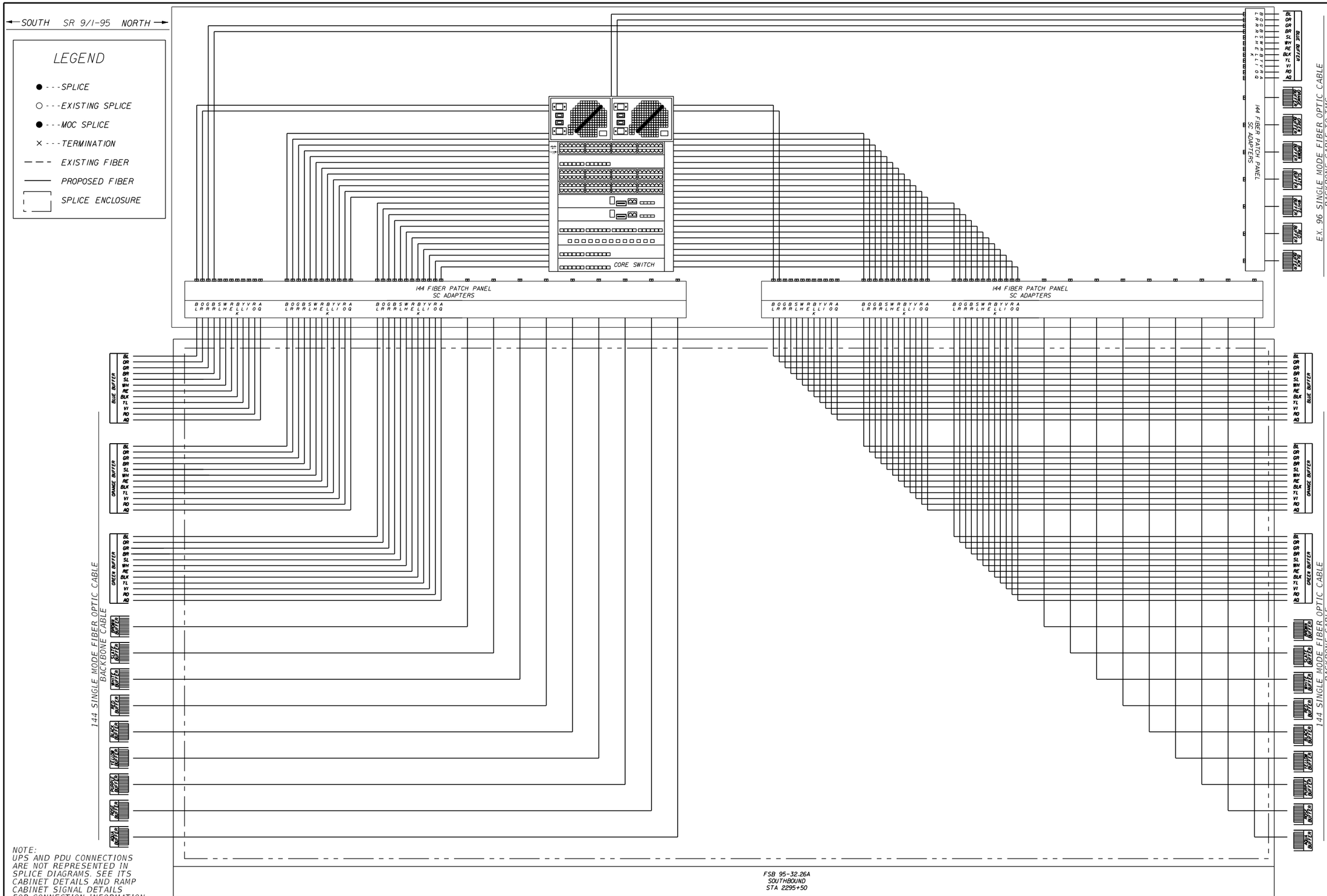
SOUTH SR 9/I-95 NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



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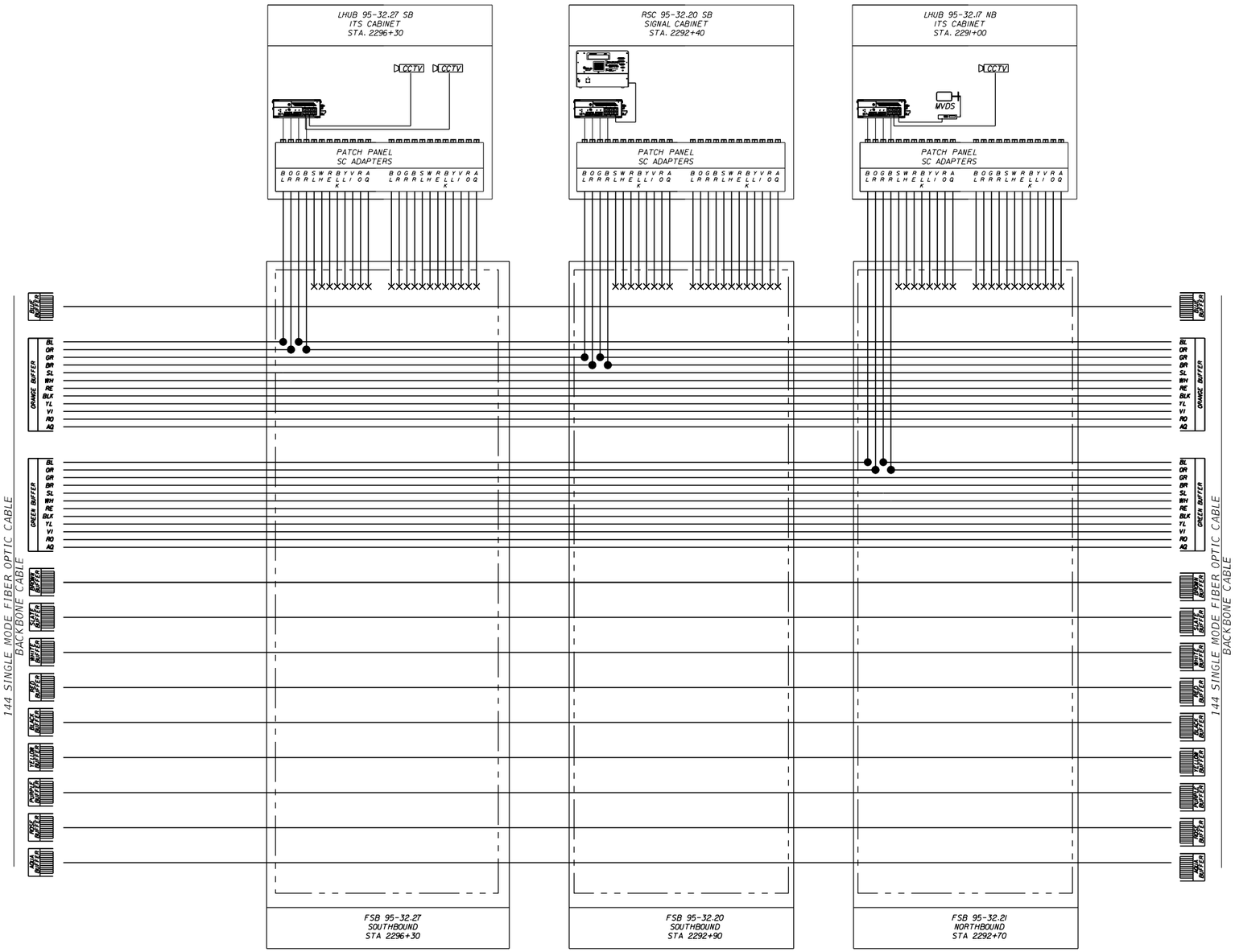
SOUTH — SR 9/I-95 — NORTH



LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
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9	BROWARD	433108-4-52-01

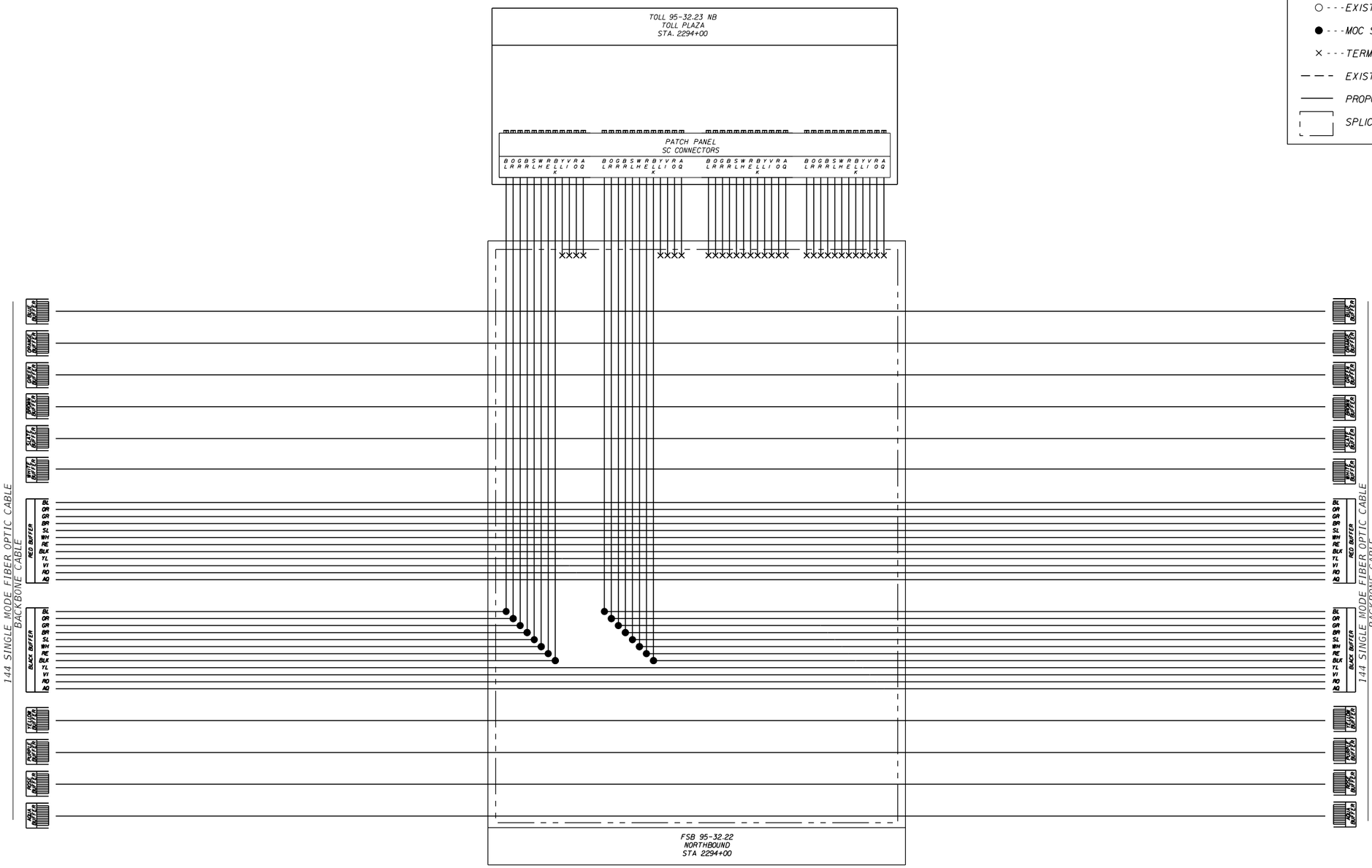
SPLICING DIAGRAM

SHEET NO. IT-291

SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



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9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

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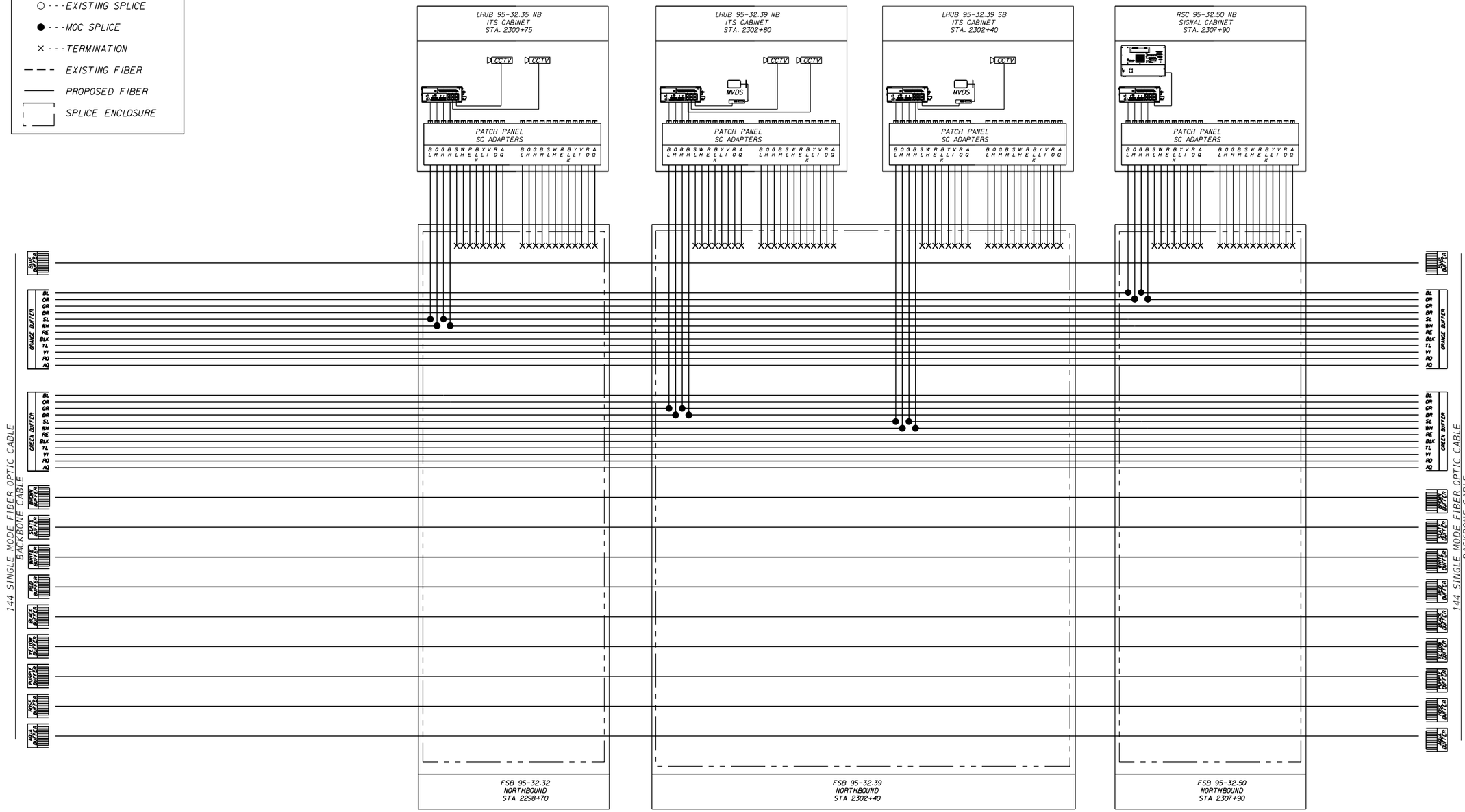
SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



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SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

95-32.58 NB
DMS
STA. 2313+00

DMS SIGN COMM
B O G B S W R B Y V R A
L A R A R L M E L L I O Q
K

LHUB 95-32.55 NB
ITS CABINET
STA. 2310+90

B O G B S W R B Y V R A
L A R A R L M E L L I O Q
K

DMS CONTROLLER

PATCH PANEL
SC ADAPTERS
B O G B S W R B Y V R A L A R A R L M E L L I O Q K B O G B S W R B Y V R A L A R A R L M E L L I O Q K

LHUB 95-32.64 NB
ITS CABINET
STA. 2315+85

MVDS

PATCH PANEL
SC ADAPTERS
B O G B S W R B Y V R A L A R A R L M E L L I O Q K B O G B S W R B Y V R A L A R A R L M E L L I O Q K

LHUB 95-32.62 SB
ITS CABINET
STA. 2315+00

PATCH PANEL
(TO BE INSTALLED IN FUTURE)
B O G B S W R B Y V R A L A R A R L M E L L I O Q K B O G B S W R B Y V R A L A R A R L M E L L I O Q K

LHUB 95-32.64 SB
ITS CABINET
STA. 2315+90

CCTV
MVDS

PATCH PANEL
SC ADAPTERS
B O G B S W R B Y V R A L A R A R L M E L L I O Q K B O G B S W R B Y V R A L A R A R L M E L L I O Q K

EX. LHUB 95-32.80 SB
ITS CABINET
STA. 2324+50

CCTV
MVDS

PATCH PANEL
SC ADAPTERS
B O G B S W R B Y V R A L A R A R L M E L L I O Q K B O G B S W R B Y V R A L A R A R L M E L L I O Q K

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

BUS BUFFER
ORANGE BUFFER
GREEN BUFFER
BLUE BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

48 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

FSB 95-32.55
NORTHBOUND
STA 2310+90

FSB 95-32.64
SOUTHBOUND
STA 2315+90

FSB 95-32.80
SOUTHBOUND
STA 2324+00

NOTE:
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-294

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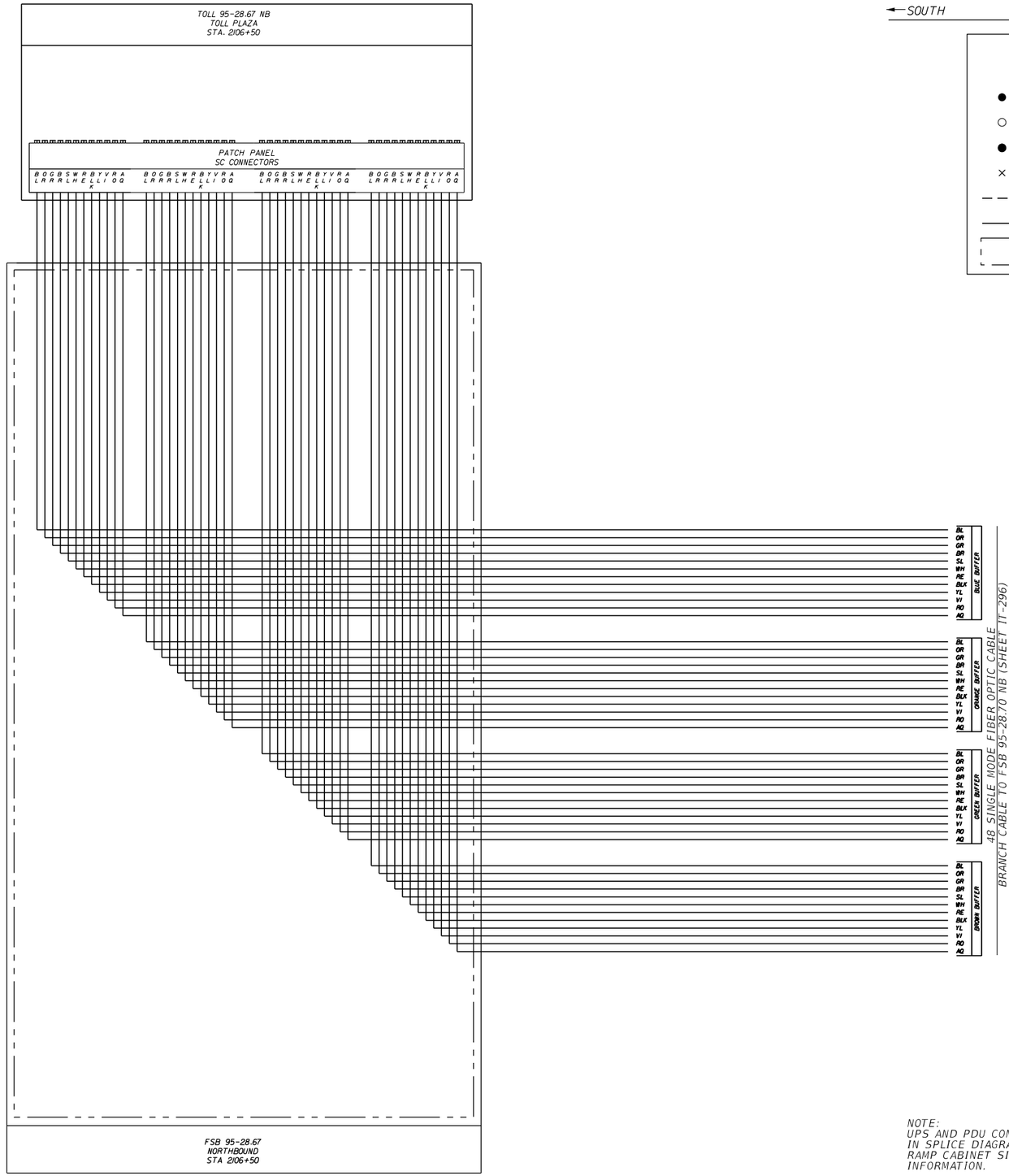

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-295

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SOUTH — SR 9/I-95 — NORTH

LHUB 95-28.63 NB
ITS CABINET
STA. 2104+20

RSC 95-28.69 NB
SIGNAL CABINET
STA. 2107+00

LHUB 95-28.82 NB
ITS CABINET
STA. 2114+00

CCTV CCTV

CCTV CCTV

MVDS

PATCH PANEL
SC ADAPTERS

B O G B S W R B Y V R A B O G B S W R B Y V R A
L R R R L H E L L I O Q L R R R L H E L L I O Q
K K

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

144 SINGLE MODE FIBER OPTIC CABLE
BRANCH CABLE

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

144 SINGLE MODE FIBER OPTIC CABLE
BRANCH CABLE TO FSB 95-28.85 SB (SHEET IT-282)

FSB 95-28.53R
NORTHBOUND
STA 2098+50

FSB 95-28.70
NORTHBOUND
STA 2107+80

FSB 95-28.82
NORTHBOUND
STA 2114+10

BL OR GR BR SL WH RE BLK YL VI RO AQ
BLUE BUFFER

BL OR GR BR SL WH RE BLK YL VI RO AQ
ORANGE BUFFER

GREEN BUFFER

BROWN BUFFER

48 SINGLE MODE FIBER OPTIC CABLE
BRANCH CABLE TO FSB 95-28.67 NB (SHEET IT-295)

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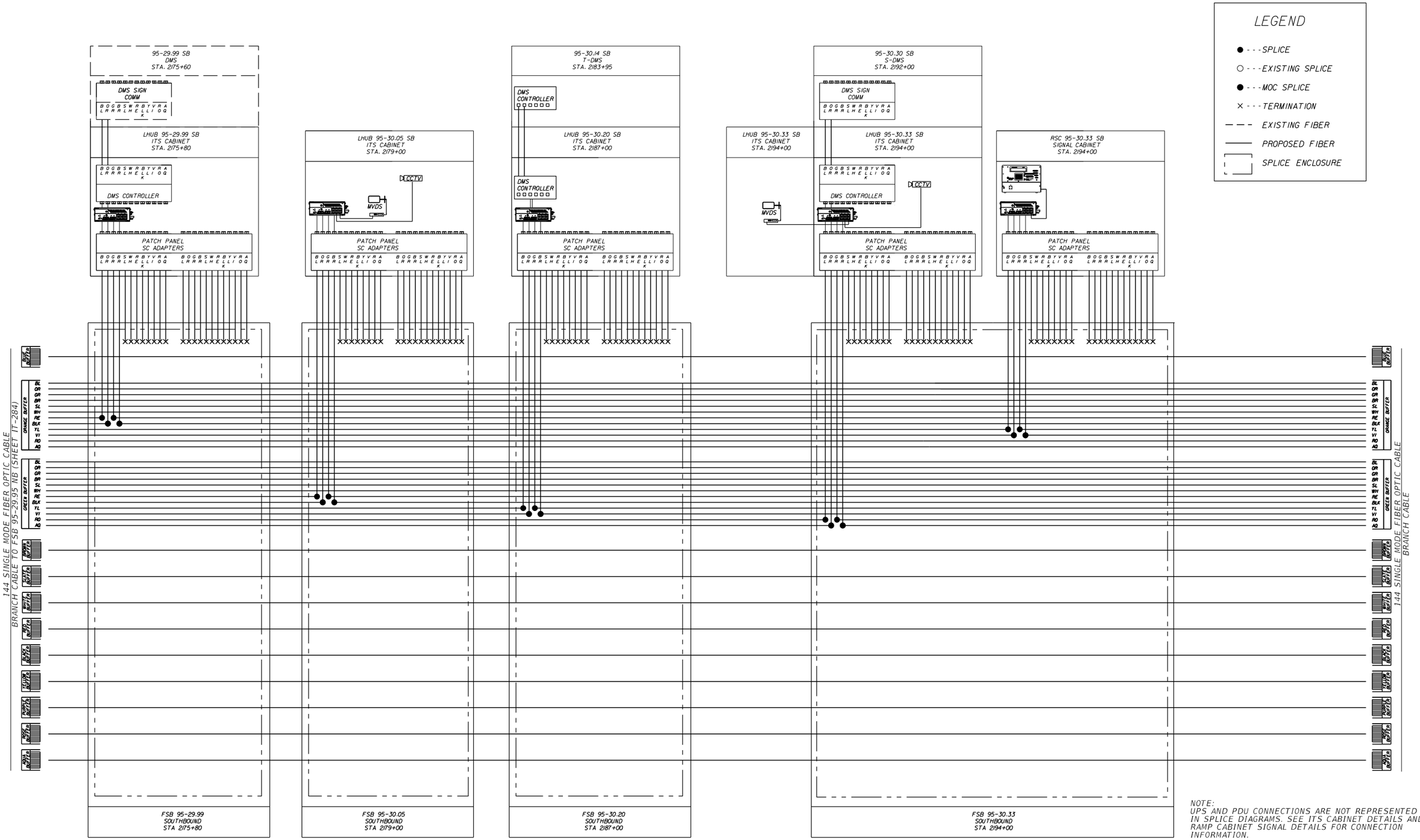
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO. IT-296

←SOUTH SR 9/I-95 NORTH→



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SPLICING DIAGRAM

SHEET NO.
IT-297

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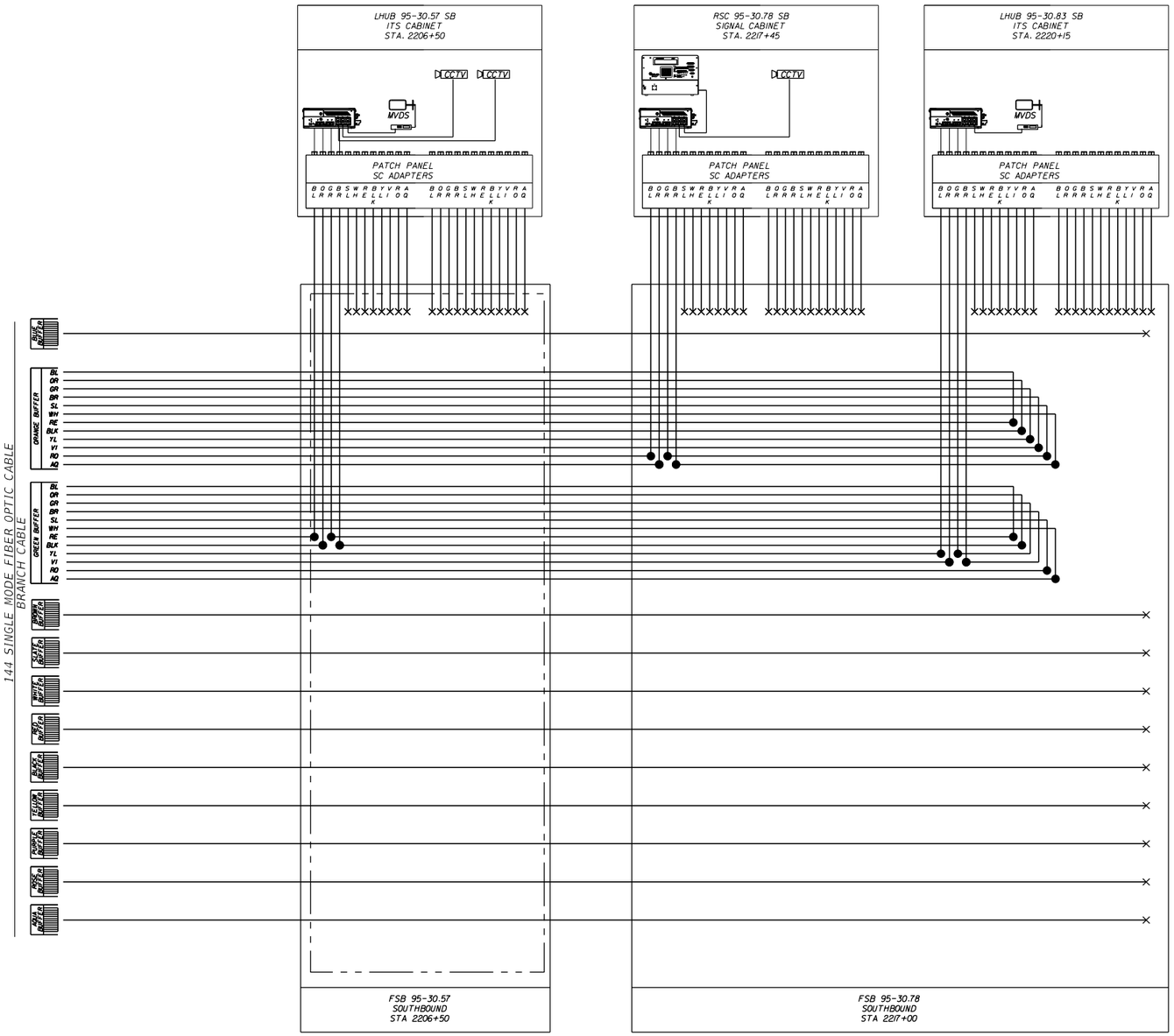

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

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9	BROWARD	433108-4-52-01

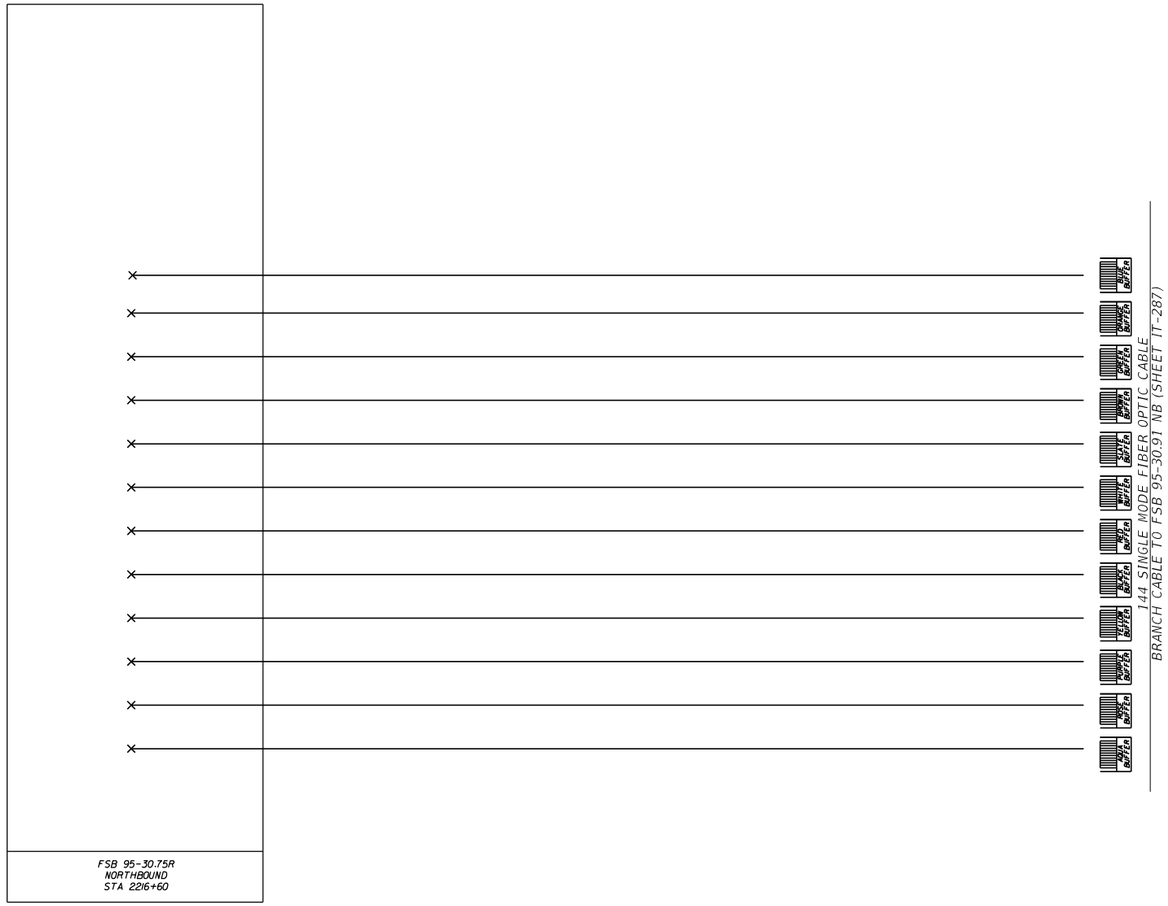
SPLICING DIAGRAM

SHEET NO. IT-298

← SOUTH — SR 9/I-95 — NORTH →

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



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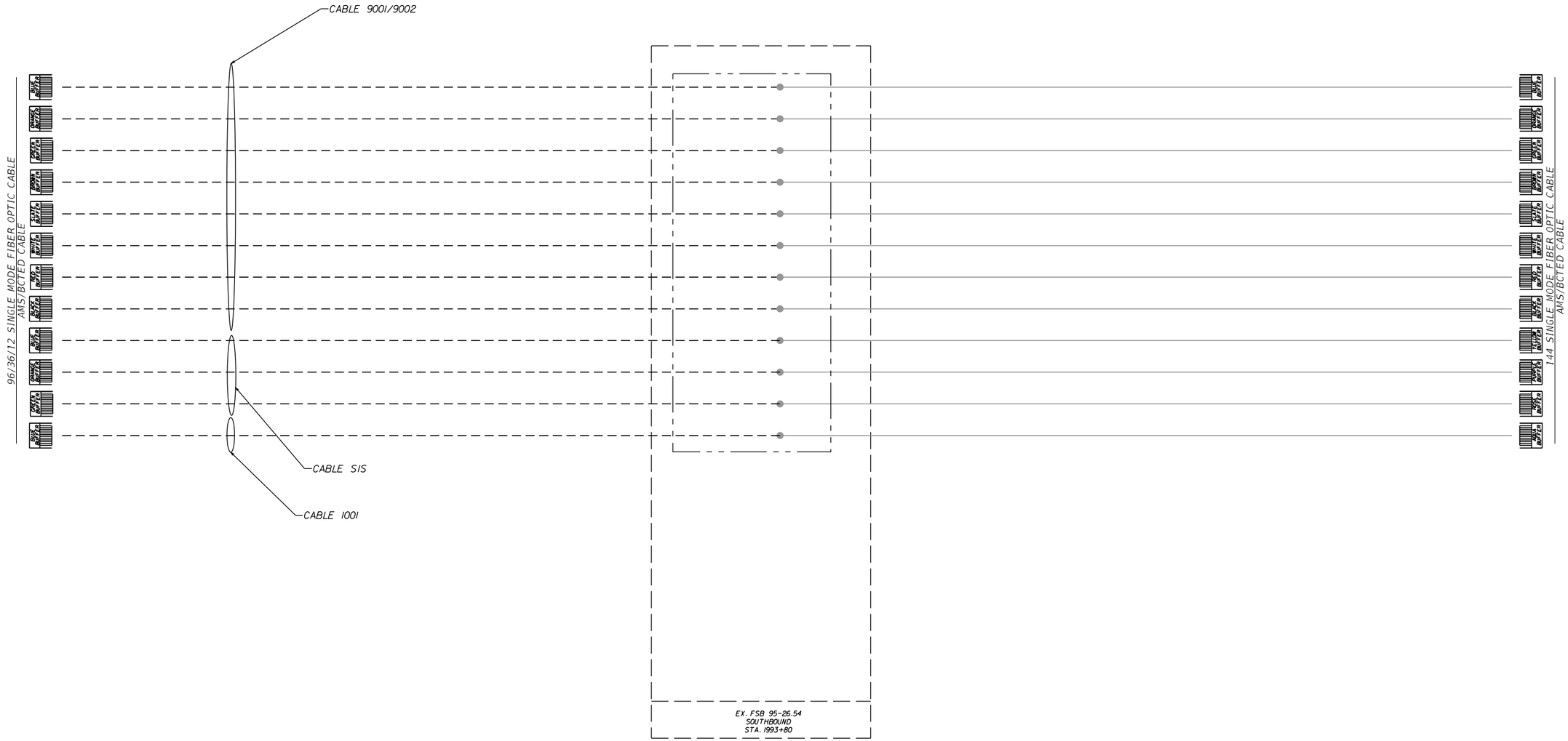
SPLICING DIAGRAM

SHEET NO. IT-299

SOUTH ← SR 9/I-95 → NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BROWARD
SPLICING DIAGRAM

SHEET NO. IT-300

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

36 SINGLE MODE FIBER OPTIC CABLE
OIT 36

96 SINGLE MODE FIBER OPTIC CABLE
9002/9003 CABLE

12 SINGLE MODE FIBER OPTIC CABLE
1111 CABLE

144 SINGLE MODE FIBER OPTIC CABLE
AMS/BCTED CABLE

144 SINGLE MODE FIBER OPTIC CABLE
AMS/BCTED CABLE

72 SINGLE MODE FIBER OPTIC CABLE
ETS CABLE

FSB 95-27.46A
SOUTHBOUND
STA 2043+00

12 SINGLE MODE FIBER OPTIC CABLE
4003 CABLE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BROWARD
SPLICING DIAGRAM

SHEET NO. IT-301

BY: (FDOT) VS Date: 3/21/2018
RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 CONTRACT E4Q32
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SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Environmental Services
225 E. Robinson St., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BROWARD
SPLICING DIAGRAM

SHEET NO.
IT-302

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

PROPOSED BLUE BUFFER FEEDER CABLE

SINGLE MODE FIBER OPTIC CABLE
4035 CABLE

BLUE/ORANGE BUFFER

EX. FSB 95-30.65A
NORTHBOUND
STA. 221I+50

144 SINGLE MODE FIBER OPTIC CABLE
AMS/BCTED CABLE

72 SINGLE MODE FIBER OPTIC CABLE
ETS CABLE

FSB 95-30.65
NORTHBOUND
STA. 2210+90

REVISIONS			
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Environmental Services
225 E. Robinson St., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BROWARD
SPLICING DIAGRAM

SHEET NO.
IT-303

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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SOUTH ← SR 9/I-95 → NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

72 SINGLE MODE FIBER
OPTIC CABLE OIT-B CABLE

BLUE BUFFER: BL OR GR BR SL WH BL OR GR BR SL WH

ORANGE BUFFER | GREEN BUFFER | BROWN BUFFER | SLATE BUFFER | WHITE BUFFER

144 SINGLE MODE FIBER OPTIC CABLE
AMS/BCTED CABLE

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

72 SINGLE MODE FIBER OPTIC CABLE
ETS CABLE

BLUE BUFFER: BL OR GR BR SL WH BL OR GR BR SL WH

ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER

FSB 95-31.24
NORTHBOUND
STA 2241+80

REVISIONS			
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225 E. Robinson St., Suite 300
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BROWARD
SPLICING DIAGRAM

SHEET NO.
IT-304

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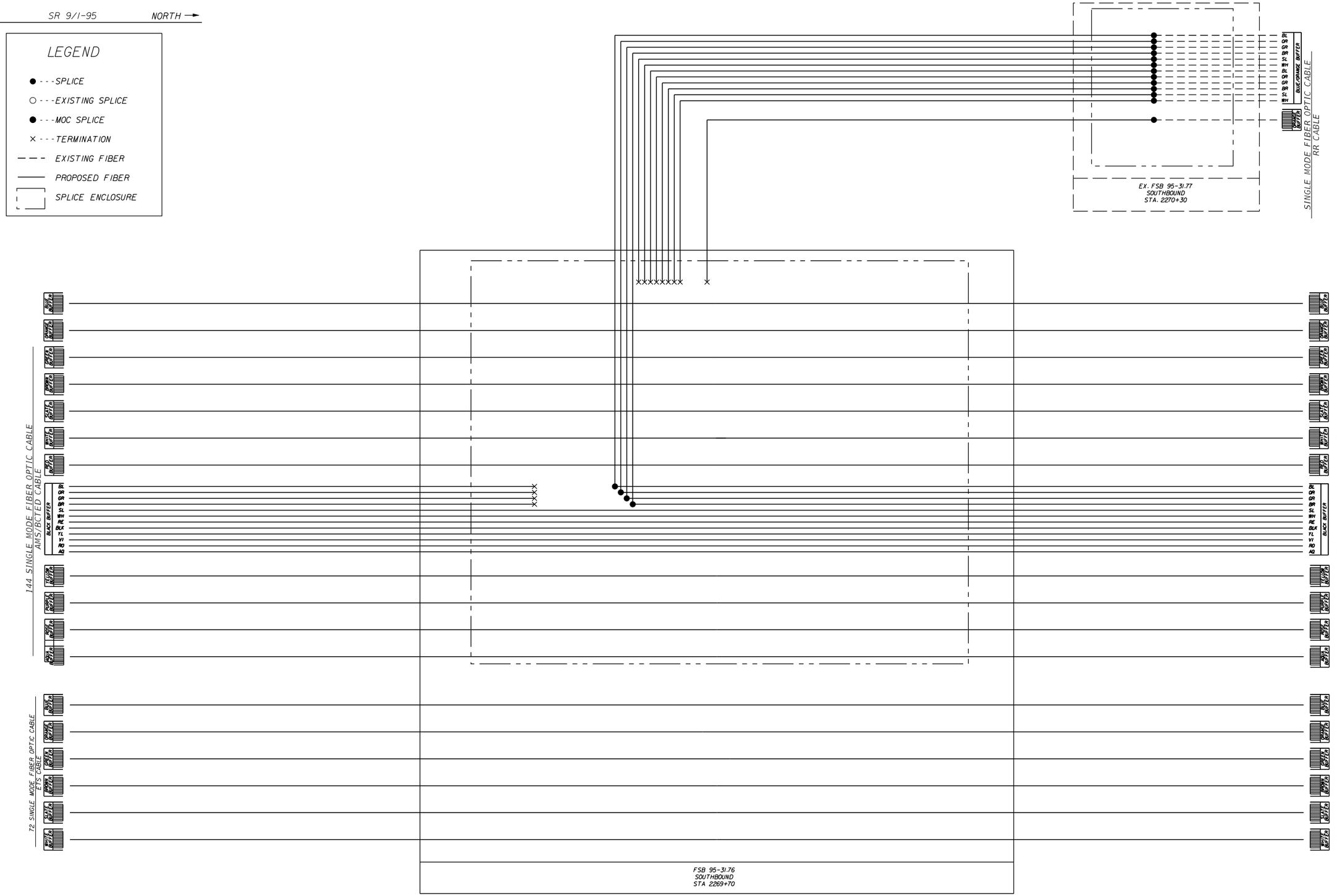
FPID 433108-4-52-01 CONTRACT E4Q32

SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



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Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BROWARD
SPLICING DIAGRAM

SHEET NO. IT-305

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SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

36 SINGLE MODE FIBER OPTIC CABLE OIT-B CABLE TO BROWARD CABINET

BLUE BUFFER, ORANGE BUFFER, GREEN BUFFER

96 SINGLE MODE FIBER OPTIC CABLE 9001/9002/1001/1027 CABLE TO BROWARD CABINET

BLUE BUFFER, ORANGE BUFFER, GREEN BUFFER, BROWN BUFFER, SLATE BUFFER, WHITE BUFFER, RED BUFFER, BLACK BUFFER

CABLE 9001/9002
CABLE 1027
CABLE 1001

96 SINGLE MODE FIBER OPTIC CABLE FDOT/ BROWARD SHARED

BLUE BUFFER, ORANGE BUFFER, GREEN BUFFER, BROWN BUFFER, SLATE BUFFER, WHITE BUFFER, RED BUFFER, BLACK BUFFER

FIBER PATCH PANEL SC ADAPTERS

EX. MHUB 95-32.26 SB ITS CABINET STA. 2295+28

144 SINGLE MODE FIBER OPTIC CABLE AMS/BCTED CABLE

BLUE BUFFER, ORANGE BUFFER, GREEN BUFFER, BROWN BUFFER, SLATE BUFFER, WHITE BUFFER, RED BUFFER, BLACK BUFFER, YELLOW BUFFER, AQUA BUFFER, PINK BUFFER, GRAY BUFFER

FIBER PATCH PANEL SC ADAPTERS

96 SINGLE MODE FIBER OPTIC CABLE CT FUT ATMS

BLUE BUFFER, ORANGE BUFFER, GREEN BUFFER, BROWN BUFFER, SLATE BUFFER, WHITE BUFFER, RED BUFFER, BLACK BUFFER

FIBER PATCH PANEL SC ADAPTERS

72 SINGLE MODE FIBER OPTIC CABLE ETS CABLE

BLUE BUFFER, ORANGE BUFFER, GREEN BUFFER, BROWN BUFFER, SLATE BUFFER, WHITE BUFFER

FSB 95-32.26C SOUTHBOUND STA 2295+28

24 SINGLE MODE FIBER OPTIC CABLE CT RR PROJECT

BLUE BUFFER, ORANGE BUFFER

FIBER PATCH PANEL SC ADAPTERS

FIBER PATCH PANEL SC ADAPTERS

NOTE: BROWARD COUNTY FIBER SHALL BE PULLED THROUGH EXISTING FIBER PULL BOX 32.26C SB.

12 SINGLE MODE FIBER OPTIC CABLE 1027 CABLE

BLUE BUFFER

6 SINGLE MODE FIBER OPTIC CABLE LOCAL CABLE

BLUE BUFFER

REVISIONS			
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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BROWARD SPLICING DIAGRAM

SHEET NO. IT-306

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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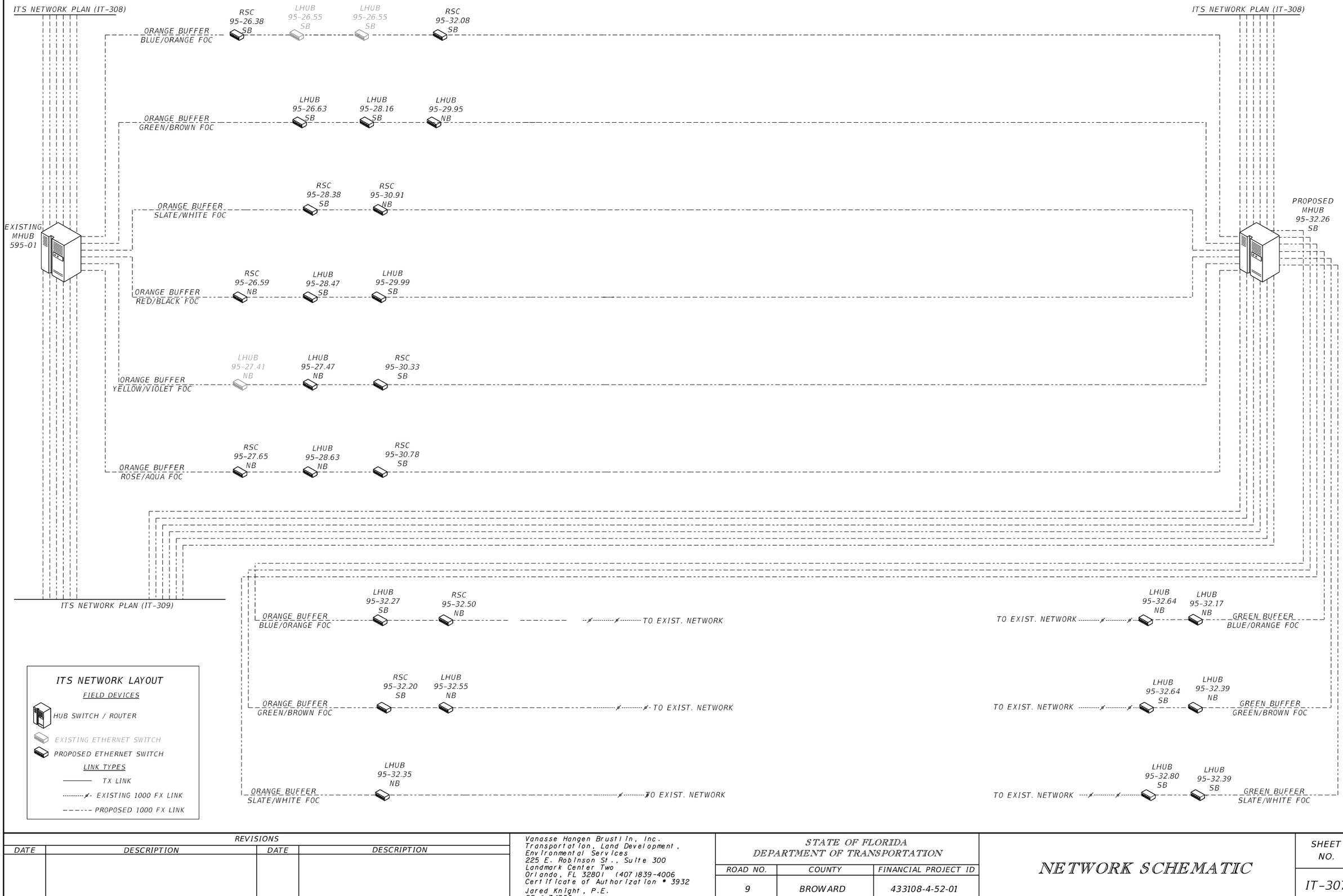

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Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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Orlando, FL 32801 (407)839-4006
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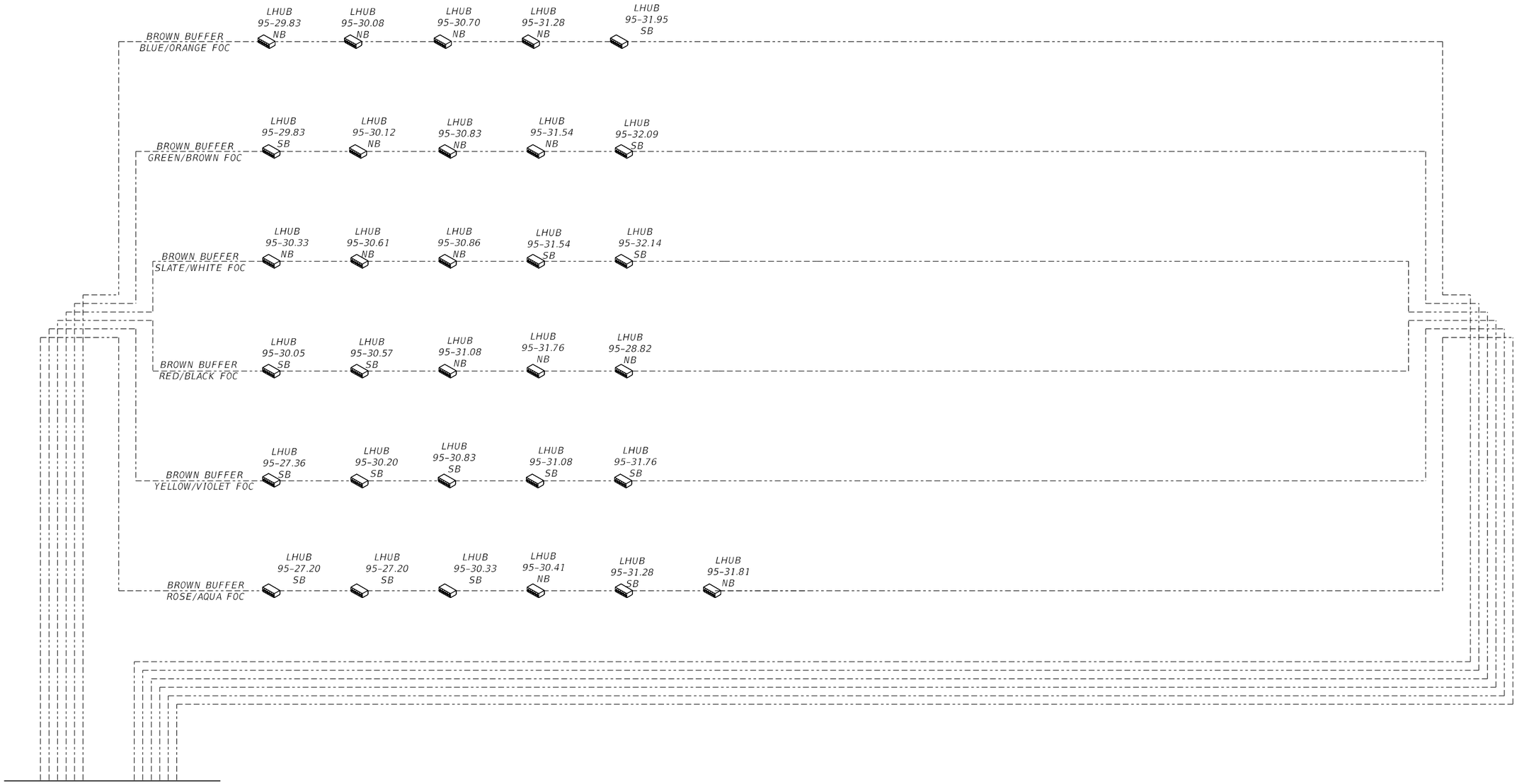
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

NETWORK SCHEMATIC

SHEET NO.
IT-307



ITS NETWORK LAYOUT

FIELD DEVICES

HUB SWITCH / ROUTER

EXISTING ETHERNET SWITCH

PROPOSED ETHERNET SWITCH

LINK TYPES

TX LINK

EXISTING 1000 FX LINK

PROPOSED 1000 FX LINK

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

NETWORK SCHEMATIC

SHEET NO.

IT-308

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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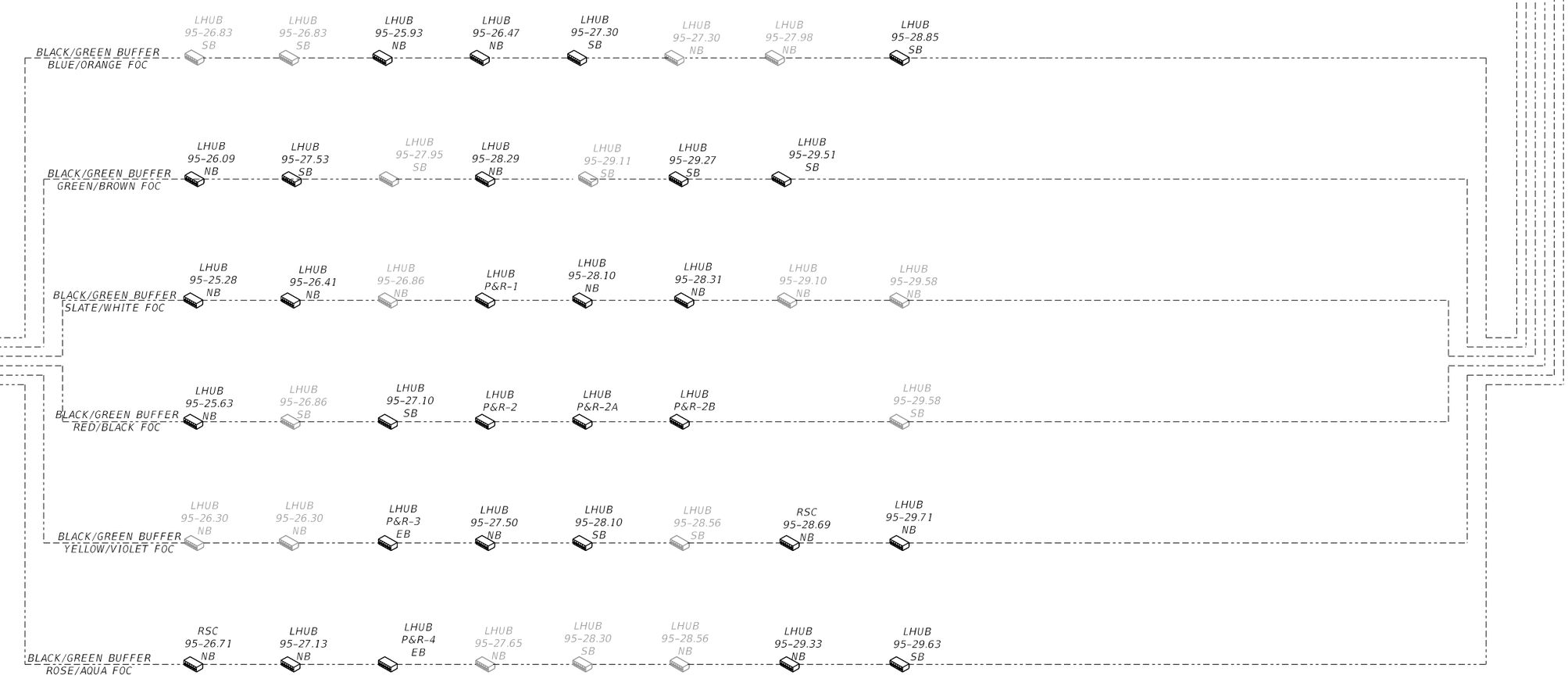
FPID 433108-4-52-01 CONTRACT E4Q32

ITS NETWORK PLAN (IT-307)



ITS NETWORK LAYOUT

FIELD DEVICES

HUB SWITCH / ROUTER

MOC INSTALLED ETHERNET SWITCH

PROPOSED ETHERNET SWITCH

LINK TYPES

TX LINK

EXISTING 1000 FX LINK

PROPOSED 1000 FX LINK

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

NETWORK SCHEMATIC

SHEET NO.

IT-309

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NOTES:

1. TRAFFIC CONTROL FOR LONGITUDINAL INSTALLATION SHALL BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD INDEX SERIES 600.

2. A MINIMUM OF 2'- 0" SHALL BE MAINTAINED FROM EXISTING LANDSCAPE FEATURES.

3. CONSTRUCTION CORRIDOR SHALL BE RESTORED TO ORIGINAL OR IMPROVED CONDITION.

4. JOINT COUPLINGS WILL BE USED AS NECESSARY.

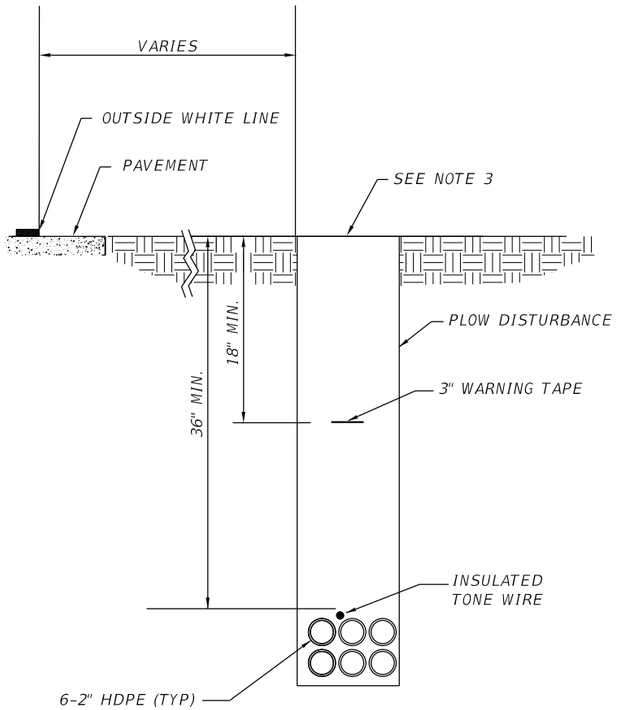
5. CONDUIT PATH WILL BE ROUTED TO AVOID ANY OBSTRUCTIONS SHOULD OBSTRUCTIONS BE ENCOUNTERED, THE FOLLOWING HIERARCHY WILL BE ADHERED TO:

   A. ROUTE CONDUIT AROUND OBSTRUCTION USING SWEEPING BENDS.

   B. IF A CANNOT BE ACCOMPLISHED, CONDUIT ROUTING WILL BE MADE UNDER THE OBSTRUCTION.

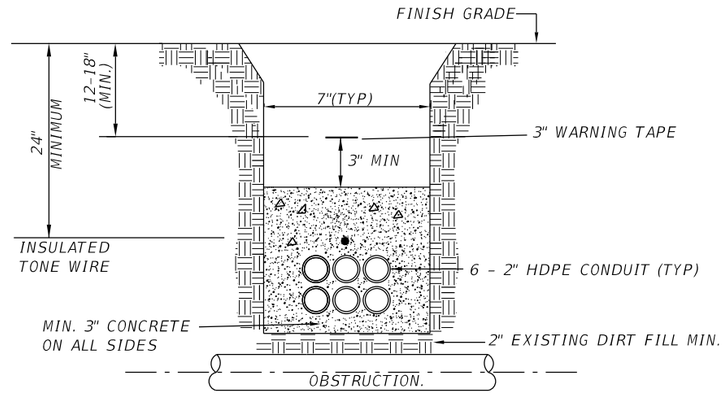
   C. IF A OR B CANNOT BE ACCOMPLISHED, THEN CONDUIT CAN BE INSTALLED PER "TYPICAL CROSSING WHERE OBSTRUCTION IS 35" TO 44" IN DEPTH" DETAIL. OWNERS APPROVAL MUST BE OBTAINED.

6. ALL CONCRETE SHALL BE FDOT APPROVED CLASS 1.



STANDARD CROSS SECTION OF PLOWED CONDUIT

N.T.S.



TYPICAL CROSSING WHERE OBSTRUCTION IS 35" TO 44" IN DEPTH.

N.T.S.

REVISIONS			
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Orlando, FL 32801 (407)839-4006
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TRENCHING AND PLOWING DETAILS

SHEET NO. IT-310

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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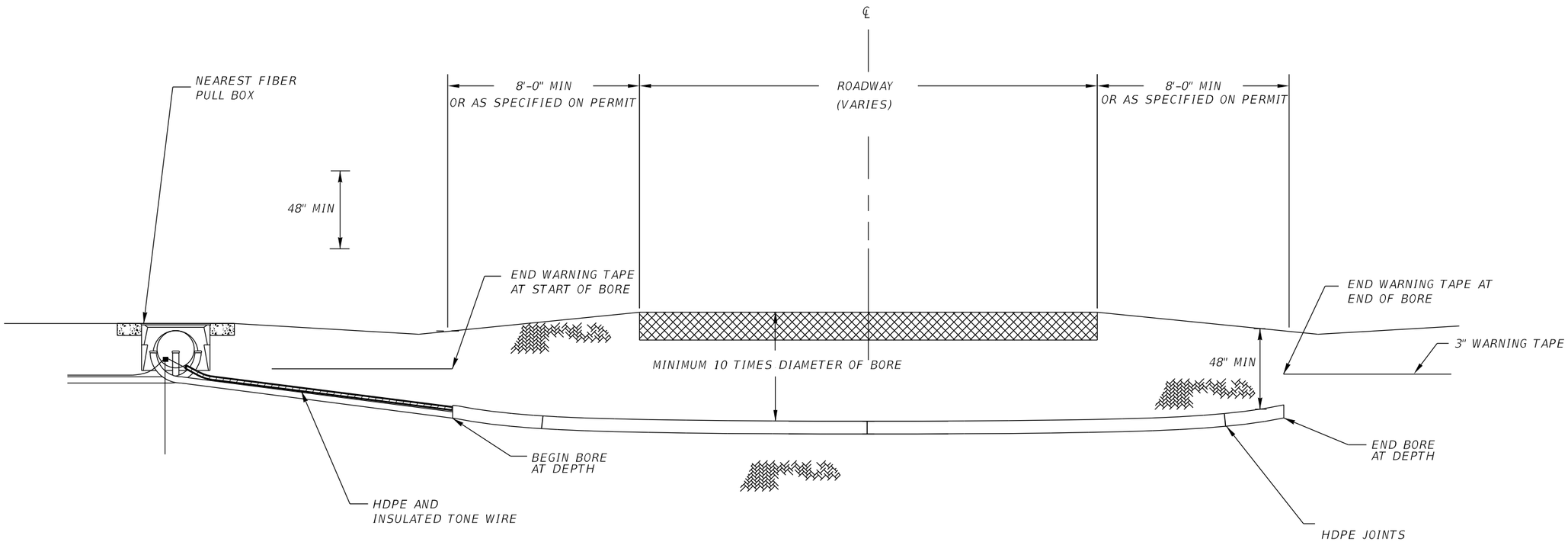

TYPICAL DIRECTIONAL BORE
N.T.S.

NOTES:

1. UTILITY IN THE PATH OF THE BORE SHALL BE LOCATED AND THE DEPTH OF THE BORE CROSSING SHALL BE DELINEATED TO CROSS UNDER OR OVER UTILITY WITH 12" MINIMUM SEPARATION.

2. FIBER PULL BOX OR SPLICE BOX SHALL BE REQUIRED NEAR ONE END OF DIRECTIONAL BORE. TONE WIRE SHALL BE PULLED IN 1" CONDUIT FOR DIRECTIONAL BORE. ONCE PULLED THROUGH, THE TONE WIRE SHALL BE SPLICED IN NEAREST FIBER PULL BOX.

REVISIONS			
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9	BROWARD	433108-4-52-01

DIRECTIONAL BORE DETAIL

SHEET NO.
IT-311

RELEASED FOR CONSTRUCTION
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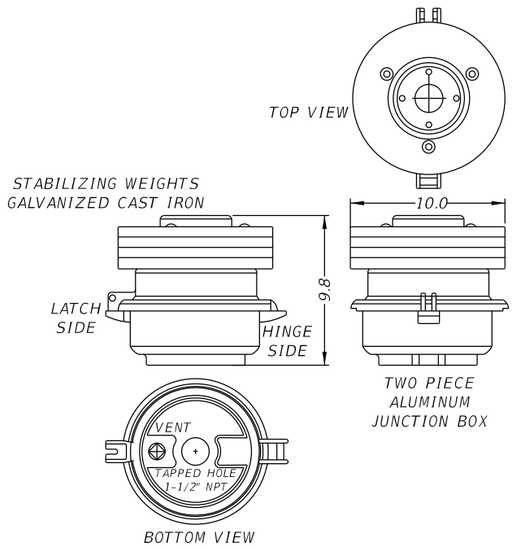
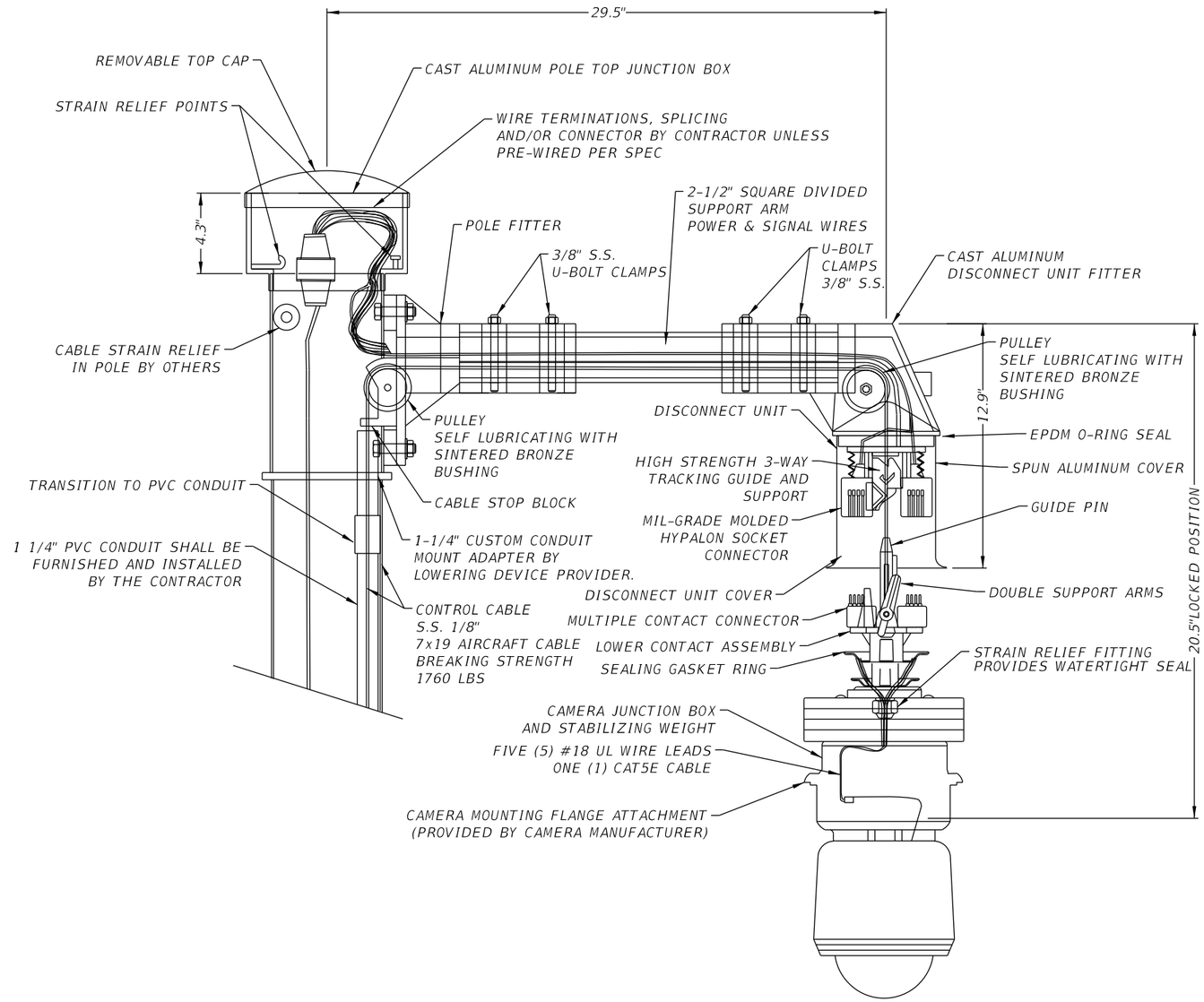


CAMERA JUNCTION BOX



NOTES:

1. INTERNAL CAMERA SUPPLY CABLES RUN THROUGH THE INSIDE OF THE POLE SHALL BE INSTALLED THROUGH EYE HOOKS TO PREVENT INTERFERENCE WITH LOWERING MECHANISM CABLE, UNLESS OTHERWISE NOTED.
2. CAMERA LOWERING DEVICE DETAILS ARE REPRESENTATIVE AND DO NOT REFLECT ACTUAL ENGINEERING DESIGN.
3. LOWERING ARM SHALL BE MOUNTED PERPENDICULAR TO THE ROADWAY OR AS SHOWN IN THE PLANS. THE CCTV POLE SHALL BE POSITIONED SO THAT THE DOME ENCLOSURE CAN BE SAFELY LOWERED ON THE OPPOSITE SIDE OF THE HAND CRANK.

REVISIONS			
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9	BROWARD	433108-4-52-01

CCTV CAMERA LOWERING DEVICE

SHEET NO. IT-312

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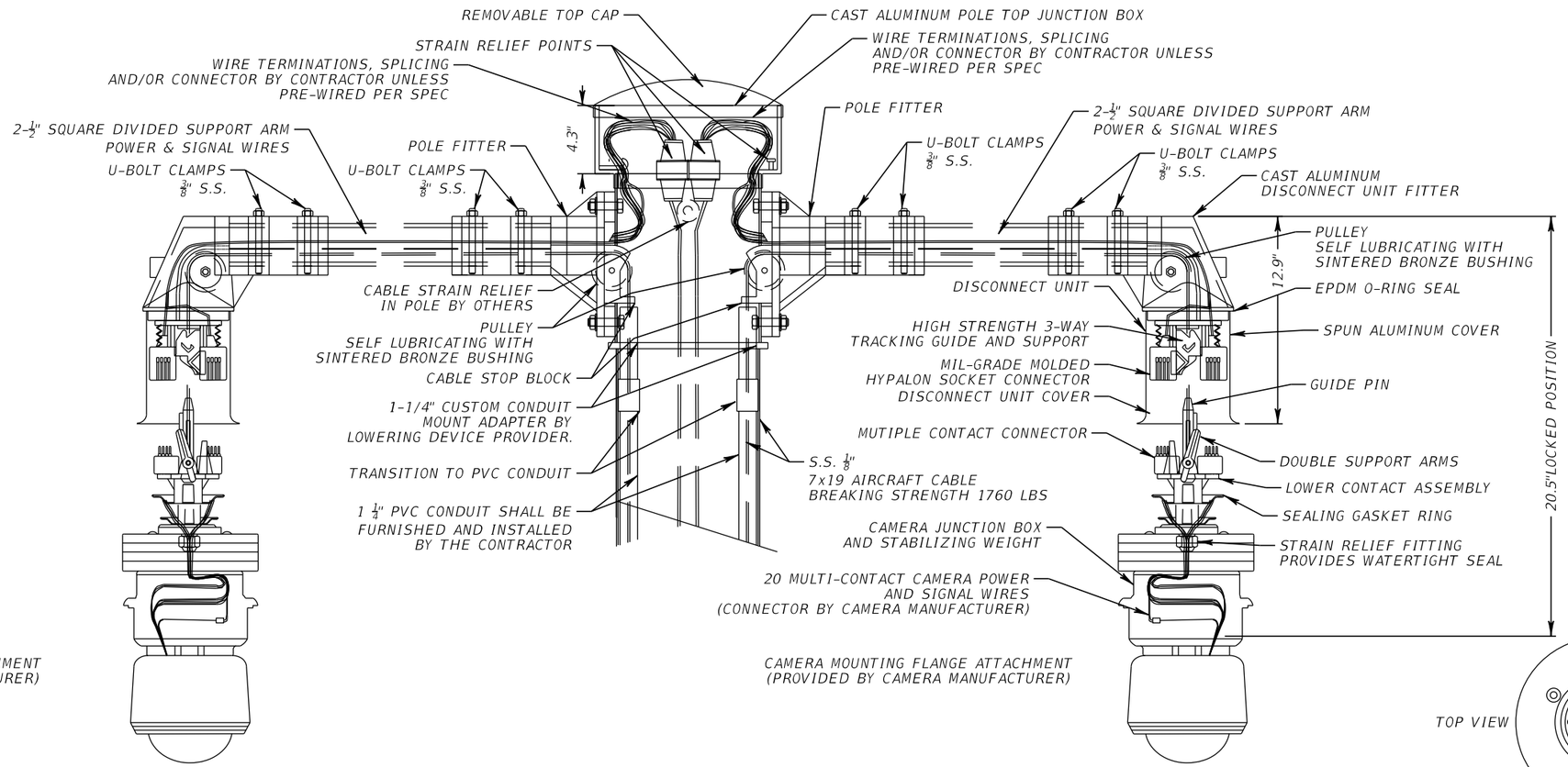
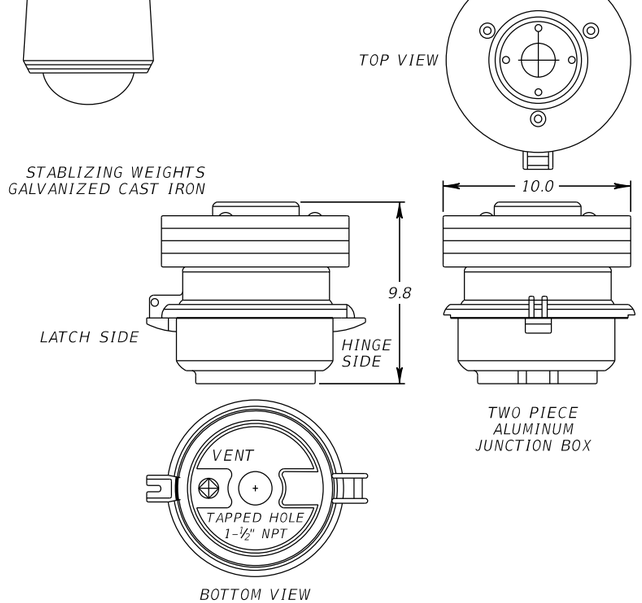
CAMERA LOWERING SYSTEM





CAMERA JUNCTION BOX

NOTES:

1. INTERNAL CAMERA SUPPLY CABLES RUN THROUGH THE INSIDE OF THE POLE SHALL BE INSTALLED THROUGH EYE HOOKS TO PREVENT INTERFERENCE WITH LOWERING MECHANISM CABLE, UNLESS OTHERWISE NOTED.
2. CAMERA LOWERING DEVICE DETAILS ARE REPRESENTATIVE AND DO NOT REFLECT ACTUAL ENGINEERING DESIGN.
3. LOWERING ARM SHALL BE MOUNTED PERPENDICULAR TO THE ROADWAY OR AS SHOWN IN THE PLANS OR AS DIRECTED BY THE DEPARTMENT. THE CCTV POLE SHALL BE POSITIONED SO THAT THE DOME ENCLOSURE CAN BE SAFELY LOWERED ON THE OPPOSITE SIDE OF THE HAND CRANK.
4. CAMERA LOWERING SYSTEM, TO INCLUDE POLE TOP J-BOX, MOUNTING HARDWARE, LOWERING CABLE, MOLDED HYPALON CONTACT BLOCK, CAMERA J-BOX, HOUSING, CUSTOM 100 FT.
5. CAMERA LOWERING DEVICE TO BE SHIPPED READY FOR POLE ATTACHMENT TO INCLUDE 50 FT. OF COMPOSITE POWER AND SIGNAL CABLE PRE WIRED TO LOWERING DEVICE AT THE FACTORY.
6. THIS ENSURES THE PRODUCT IS ASSEMBLED CORRECTLY AND MORE IMPORTANTLY ALL NECESSARY PERSONS ARE TRAINED IN THE PROPER SAFE OPERATION OF THE SYSTEM. PRIOR TO ERECTING THE FIRST POLE THE CONTRACTOR MUST CONTACT THE LOWERING DEVICE SUPPLIER AND SCHEDULE FOR A FACTORY REPRESENTATIVE TO BE ON SITE.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

DUAL CCTV DETAIL

SHEET NO. IT-313

RELEASED FOR CONSTRUCTION BY: (FDOT)_VS_____ Date: 3/21/2018_____
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FPID 433108-4-52-01 CONTRACT E4Q32

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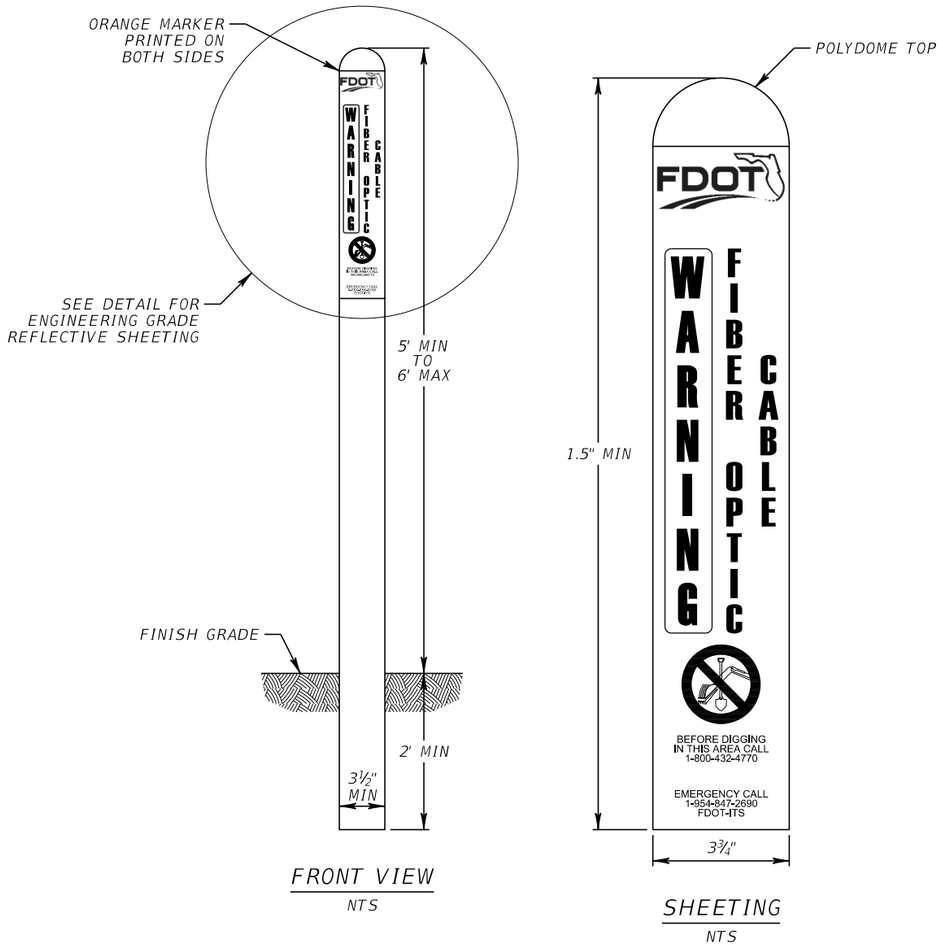
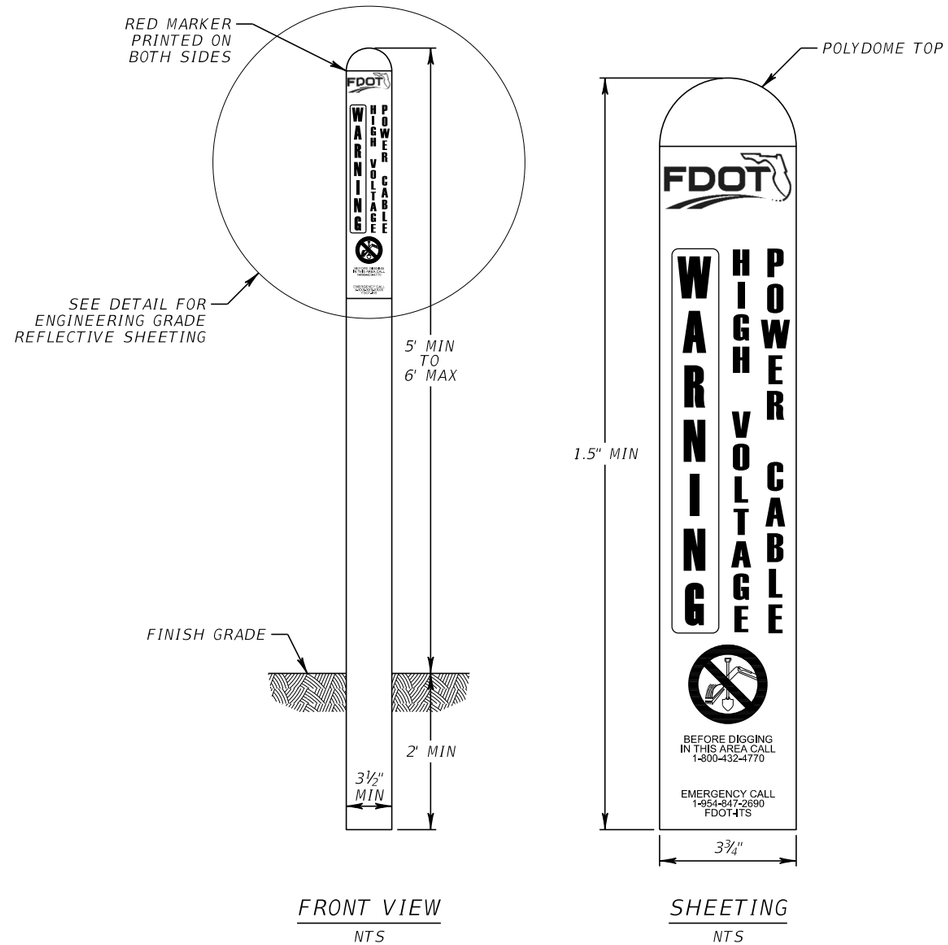
FIBER OPTIC CABLE ROUTE MARKER



FRONT VIEW
NTS

SHEETING
NTS

ELECTRICAL CABLE ROUTE MARKER



FRONT VIEW
NTS

SHEETING
NTS

NOTES:

1. * IF IN INSTANCES WHERE FIBER AND POWER CONDUITS ARE RUNNING IN LINE (ON TOP OF EACH OTHER), THE MARKERS SHALL ALTERNATE BETWEEN FIBER AND POWER.
2. A POLYDOME TOP SHALL BE INSTALLED ON EACH MARKER. (ORANGE FOR FIBER AND RED FOR POWER)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ROUTE MARKER DETAIL

SHEET NO.
IT-314

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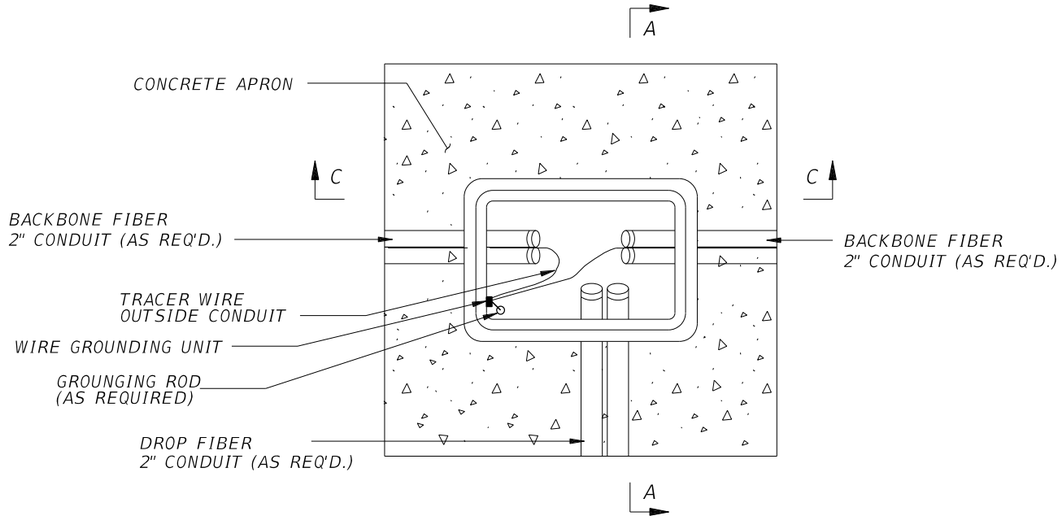
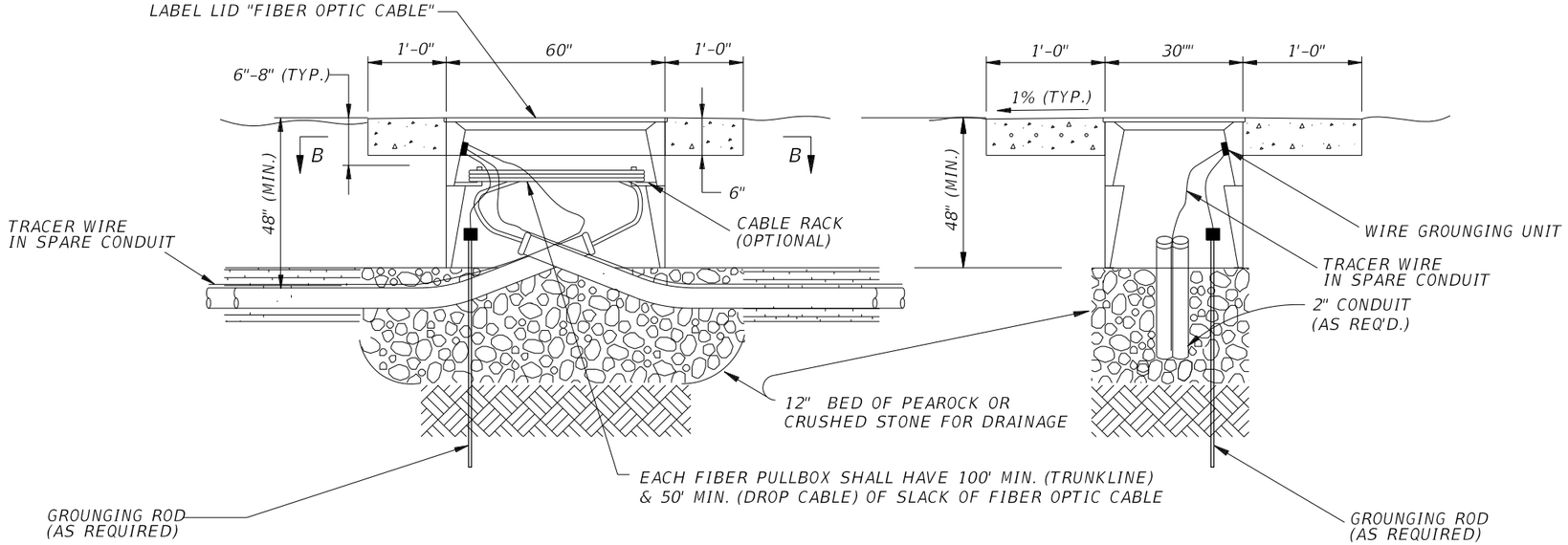
FPID 433108-4-52-01 CONTRACT E4Q32



SECTION B-B

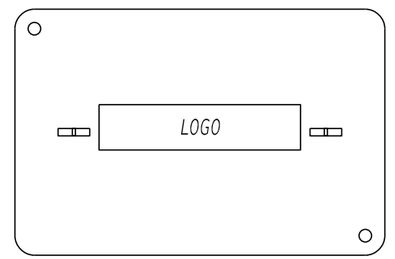
NOTES:

1. REFER TO FLORIDA DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2015 SECTION 635 FOR PULL BOX REQUIREMENTS.
2. FIBER OPTIC PULL BOXES SHALL NOT CONTAIN ELECTRICAL CONDUIT OR CONDUCTOR. ELECTRICAL CONDUIT AND CONDUCTORS SHALL BE INSTALLED IN SEPARATE PULL BOXES.
3. CONDUIT C/L SHALL BE ALIGNED TO TOP EDGE OF PULL BOX TO FACILITATE CABLE PULLING.
4. ALL PULL BOXES SHALL HAVE MINIMUM 1'- 0" WIDE x 6" DEEP CONCRETE APRONS SLOPED AWAY FROM PULL BOX. THE COST OF APRON IS TO BE INCLUDED IN THE COST OF EACH PULL BOX.
5. WIRE GROUNDING UNITS (WGU) FOR TRACER WIRE REQUIRED IN SPLICE BOXES.
6. FIBER OPTIC SPLICE BOX SHALL NOT BE INSTALLED IN ROADWAYS OR DRIVEWAYS.
7. FIBER OPTIC SPLICE BOX LENGTH (LONG SIDE) SHALL BE PARALLEL TO THE CONDUIT RUN. WHEN THE CONDUIT RUN IS PERPENDICULAR AT THE JUNCTION POINT, THE SPLICE BOX SHALL BE PARALLEL TO THE ROADWAY.
8. SPARE FIBER OPTIC CABLE IS TO BE WOUND NEATLY AND CAREFULLY, AS NOT TO EXCEED THE MINIMUM ALLOWABLE BENDING RADIUS OF THE FIBER OPTIC CABLE.
9. 5/8" COPPER BONDED GROUND RODS SHALL BE USED (AS REQUIRED).
10. GROUNDING WIRES SHALL BE EXOTHERMICALLY WELDED TO GROUND RODS (AS REQUIRED).
11. NOTE THAT THE DIMENSIONS SHOWN ARE THE TYPICAL DIMENSIONS AND MANY VARY SLIGHTLY DEPENDING ON THE MANUFACTURER.
12. SEE PULL BOXES GENERAL NOTES FOR SPLICE BOX COVERS LABELING.



SECTION C-C

SECTION A-A



SPLICE BOX COVER

REVISIONS			
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225 E. Robinson St., Suite 300
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

FIBER OPTIC SPLICE BOX DETAIL

SHEET NO. IT-315

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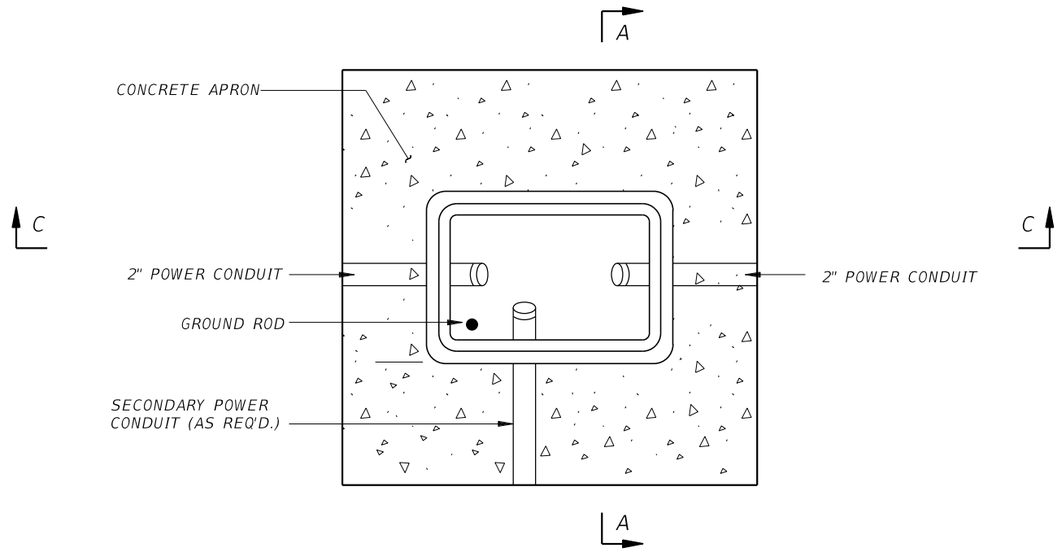
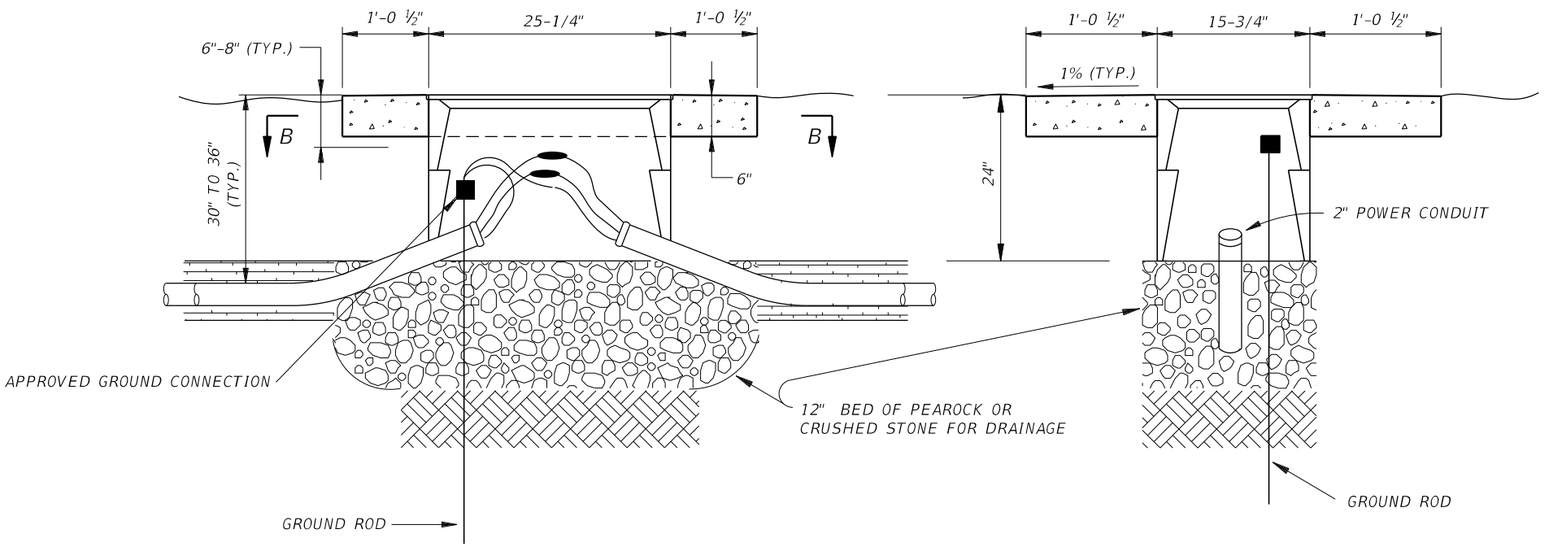
FPID 433108-4-52-01 CONTRACT E4Q32



SECTION B-B

NOTES:

1. REFER TO FLORIDA DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2015 SECTION 635 FOR PULL BOX REQUIREMENTS.
2. ELECTRICAL CABLES SHALL BE INSTALLED IN A SEPARATE CONDUIT/PULL BOX SYSTEM FROM THE FIBER OPTIC CONDUIT/PULL BOX SYSTEM. ELECTRICAL AND FIBER OPTIC CONDUITS MAY BE CO-LOCATED WITHIN THE SAME TRENCH AS SHOWN ON THE PLANS.
3. ALL FIBER OPTIC, SIGNAL, & ELECTRIC PULL BOXES SHALL HAVE MINIMUM 1'-0" WIDE x 6" DEEP CONC APRONS SLOPED AWAY FROM PULL BOX. THE COST OF APRON IS TO BE INCLUDED IN THE COST OF EACH PULL BOX.
4. ALL SPLICES SHALL BE MADE IN PULLBOX PROPERLY TAPED AND WEATHERPROOFED.
5. PULL BOXES SHALL BE PER FLORIDA STANDARD INDEX 17700. PULL BOXES SHALL BE LISTED IN THE FDOT APPROVED PRODUCTS LIST (APL).
6. PULL BOXES SHALL NOT BE INSTALLED IN ROADWAYS, DRIVEWAYS, PEDESTRIAN RAMPS, OR FLARES UNLESS DIRECTED BY THE ENGINEER.
7. NOTE THAT DIMENSIONS SHOWN ARE THE TYPICAL DIMENSIONS AND MAY VARY DEPENDING ON MANUFACTURER.



SECTION C-C

SECTION A-A

REVISIONS			
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Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-4-52-01

ELECTRICAL PULL BOX DETAIL

SHEET NO.
IT-316

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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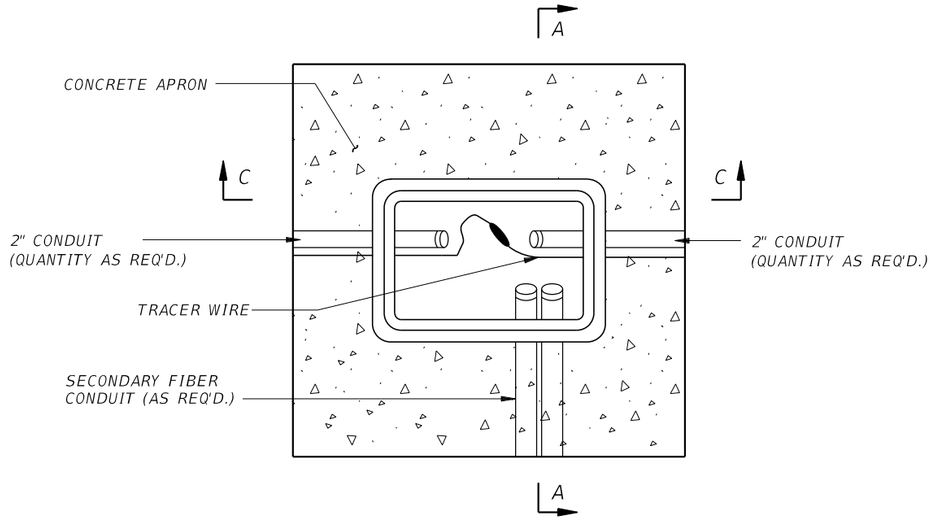
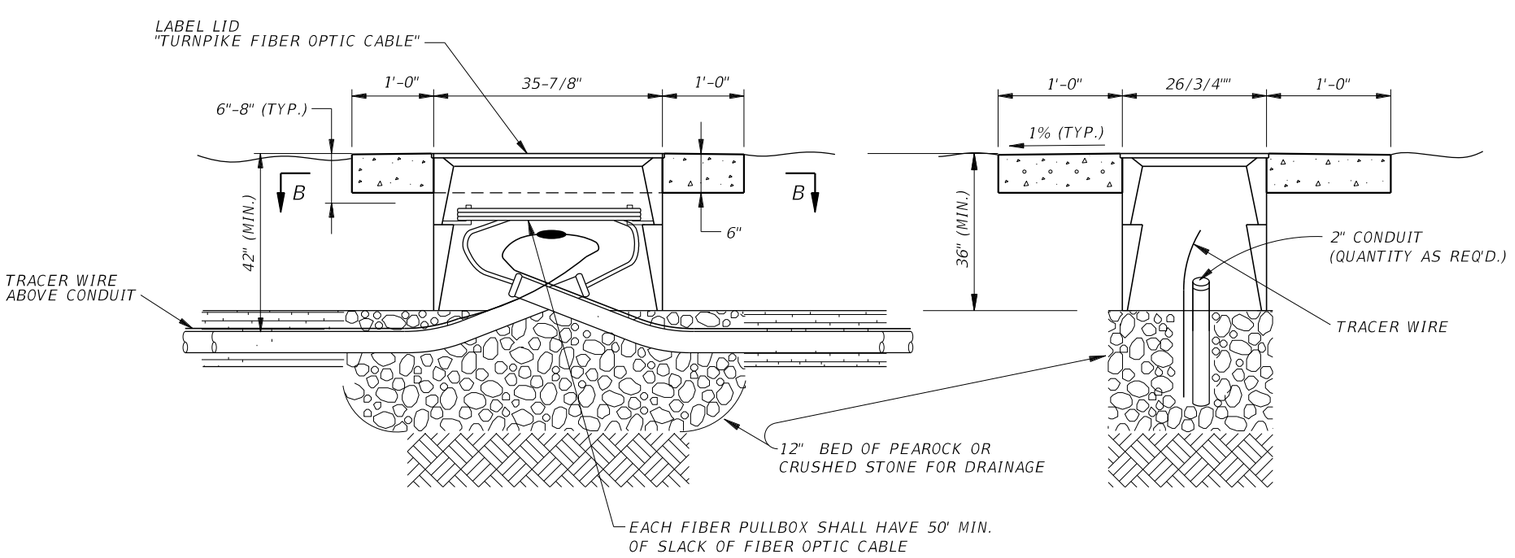


SECTION B-B



SECTION C-C

SECTION A-A

NOTES:

1. REFER TO FLORIDA DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2015 SECTION 635 FOR PULL BOX REQUIREMENTS.
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3. CONDUIT C/L SHALL BE ALIGNED TO TOP EDGE OF PULL BOX TO FACILITATE CABLE PULLING.
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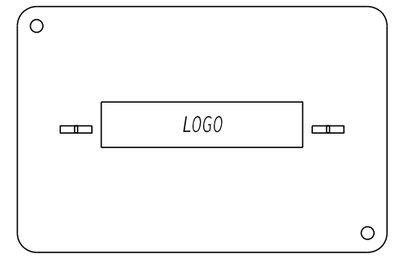
6. SPARE FIBER OPTIC CABLE IS TO BE WOUND NEATLY AND CAREFULLY, AS NOT TO EXCEED THE MINIMUM ALLOWABLE BENDING RADIUS OF THE FIBER OPTIC CABLE.
7. 5/8" COPPER BONDED GROUND RODS SHALL BE USED (AS REQUIRED).
8. GROUNDING WIRES SHALL BE EXOTHERMICALLY WELDED TO GROUND RODS (AS REQUIRED).
9. NOTE THAT THE DIMENSIONS SHOWN ARE THE TYPICAL DIMENSIONS AND MANY VARY SLIGHTLY DEPENDING ON THE MANUFACTURER.
10. SEE PULL BOXES GENERAL NOTES FOR SPLICE BOX COVERS LABELING.



FIBER BOX COVER

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32
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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-4-52-01

FIBER PULL BOX DETAIL

SHEET NO. IT-317

MFES PORT G16
MAINT. LAPTOP

MFES PORT G15
VOIP

MFES PORT G14
MVDS 2

MFES PORT G13
MVDS 1

MFES PORT G1
FIBER LINK

MFES PORT G2
FIBER LINK

MFES PORT G7
PDU

Console

Network

Monitor

G8 G7 G6 G5 G4 G3 G2 G1

G16 G15 G14 G13 G7 G5 G3 G1
G12 G11 G10 G9 G8 G6 G4 G2

ITS EXPRESS

MFES PORT G11
VANGUARD FIELD CONTROLLER 3

MFES PORT G10
VANGUARD FIELD CONTROLLER 2

MFES PORT G9
VANGUARD FIELD CONTROLLER 1

MFES PORT G12
CONTACT CLOSURE OVER IP DEVICE
OR
ATS MOD BUS

KOHLER Decision-Maker MPAC 1200

MFES PORT G6
MVDS 2

MFES PORT G5
MVDS 2

MFES PORT G3
CCTV 1

MFES PORT G4
CCTV 2

UPS

MFES PORT G8
CABINET UPS

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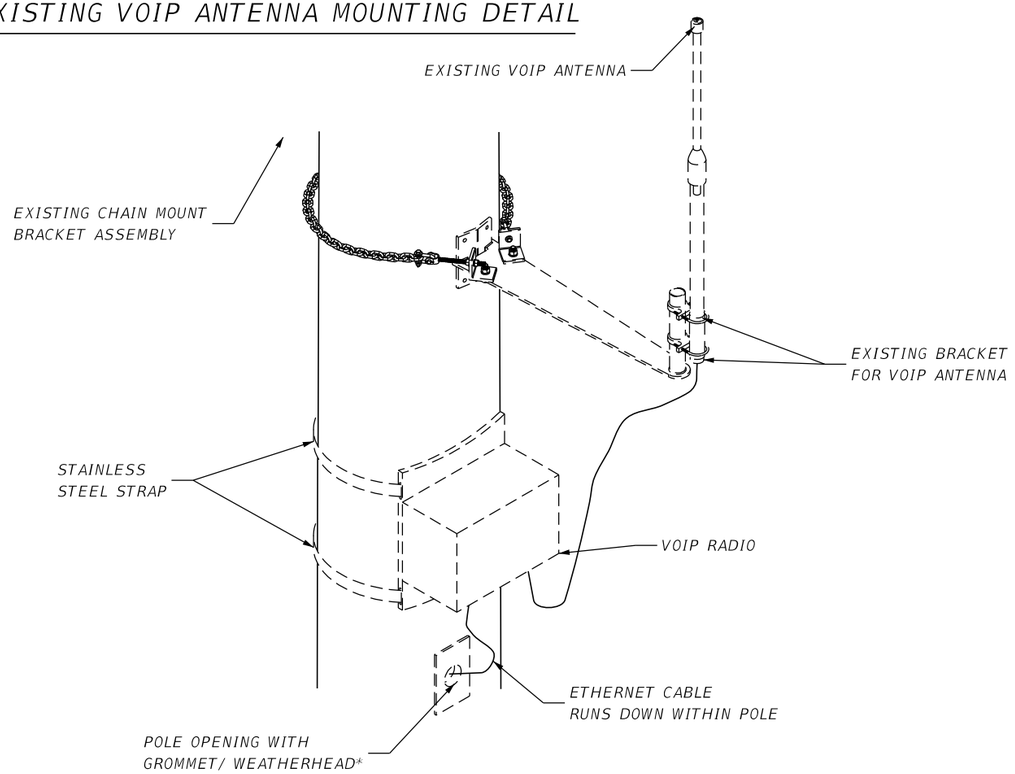
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

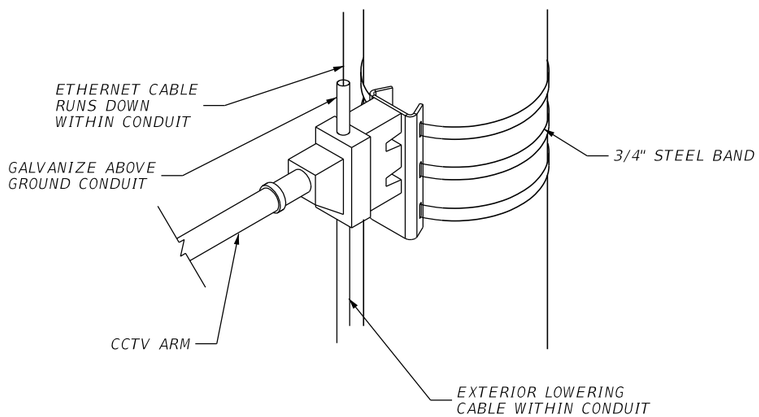
MFES PORT ALLOCATION

SHEET NO.
IT-318

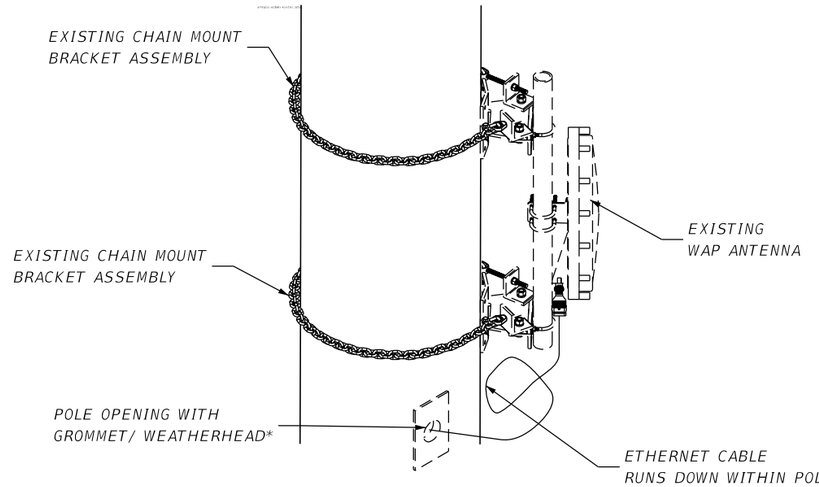
EXISTING VOIP ANTENNA MOUNTING DETAIL



CCTV MOUNTING TO TRUSS DETAIL

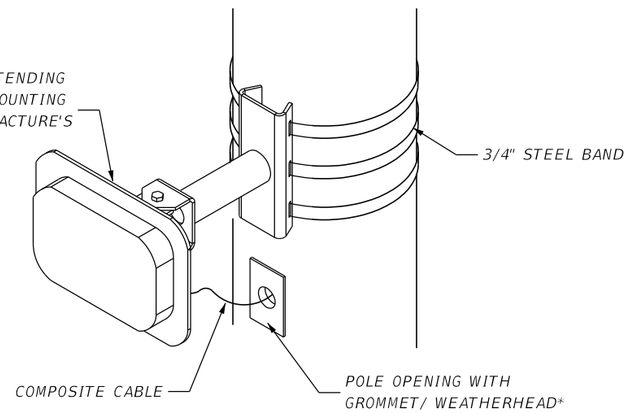


EXISTING WAP ANTENNA MOUNTING DETAIL



MVDS MOUNTING DETAIL

MVDS ON 2-AXIS BRACKET EXTENDING PARALLEL TO THE ROADWAY. MOUNTING HEIGHT SHALL BE PER MANUFACTURE'S SPECIFICATIONS.



*NOTE: DEVICES MOUNTED TO SIGN STRUCTURES SHALL RUN COMPOSITE CABLE THROUGH EXERIOR RISER.

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MOUNTING DETAILS

SHEET NO. IT-319

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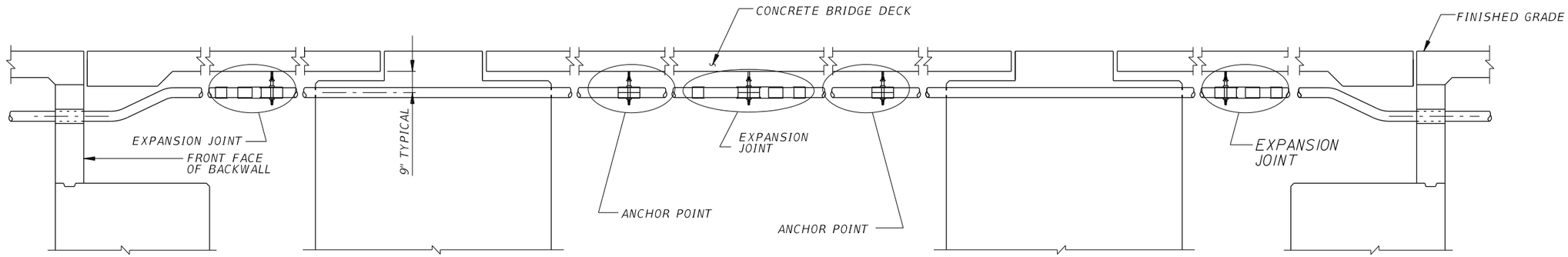
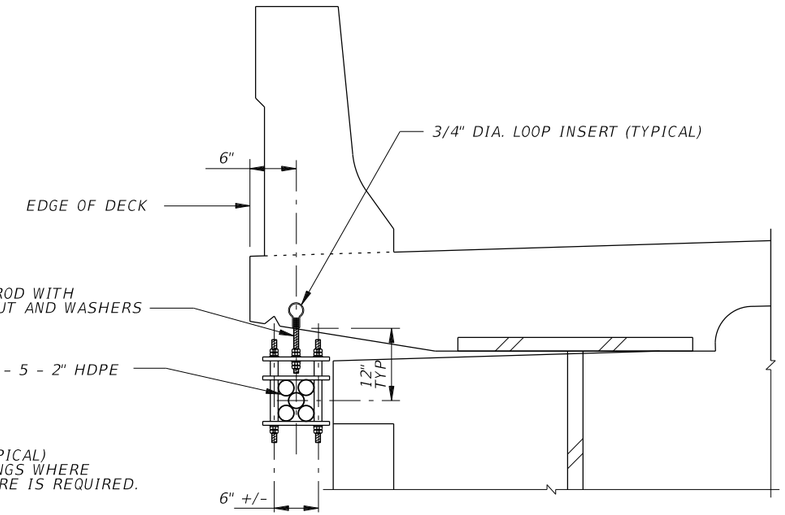
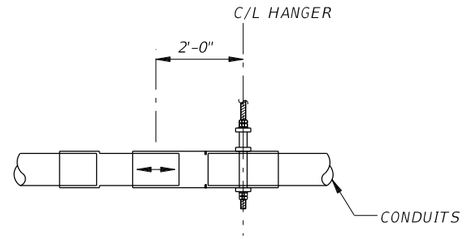


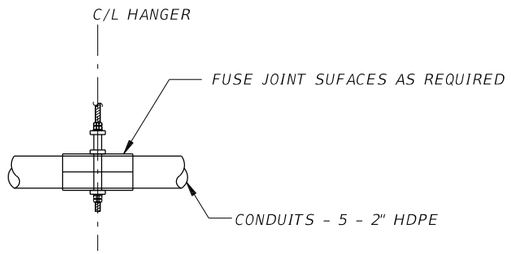
SCHEMATIC CONDUIT ELEVATION



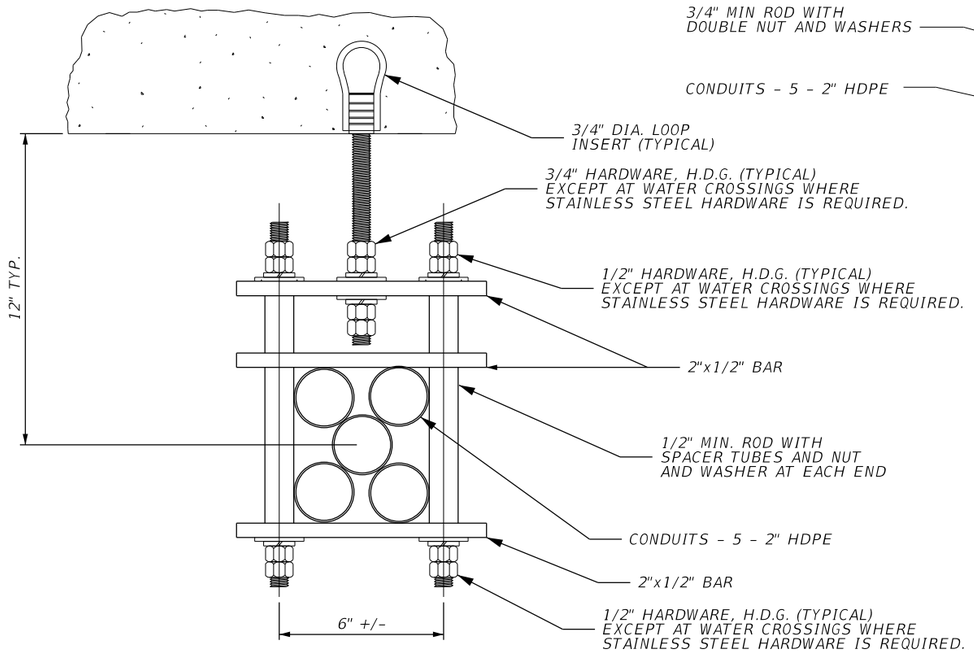
CONDUIT HANGER MOUNTING DETAIL



EXPANSION JOINT DETAIL



ANCHOR POINT DETAIL



HANGER DETAIL

NOTES:

1. EXPANSION JOINT PLACEMENT SHALL BE PER FDOT INDEX 21210.
2. LATERAL MOVEMENT IS FIXED AT MID SPAN BETWEEN EXPANSION JOINT BY USE OF HANGER BRACE.
3. ALL FIBERGLASS CONDUIT HANGERS WILL BE SPACED NO MORE THAN 10' ON CENTER.

REVISIONS			
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BRIDGE MOUNT DETAILS

SHEET NO. IT-320

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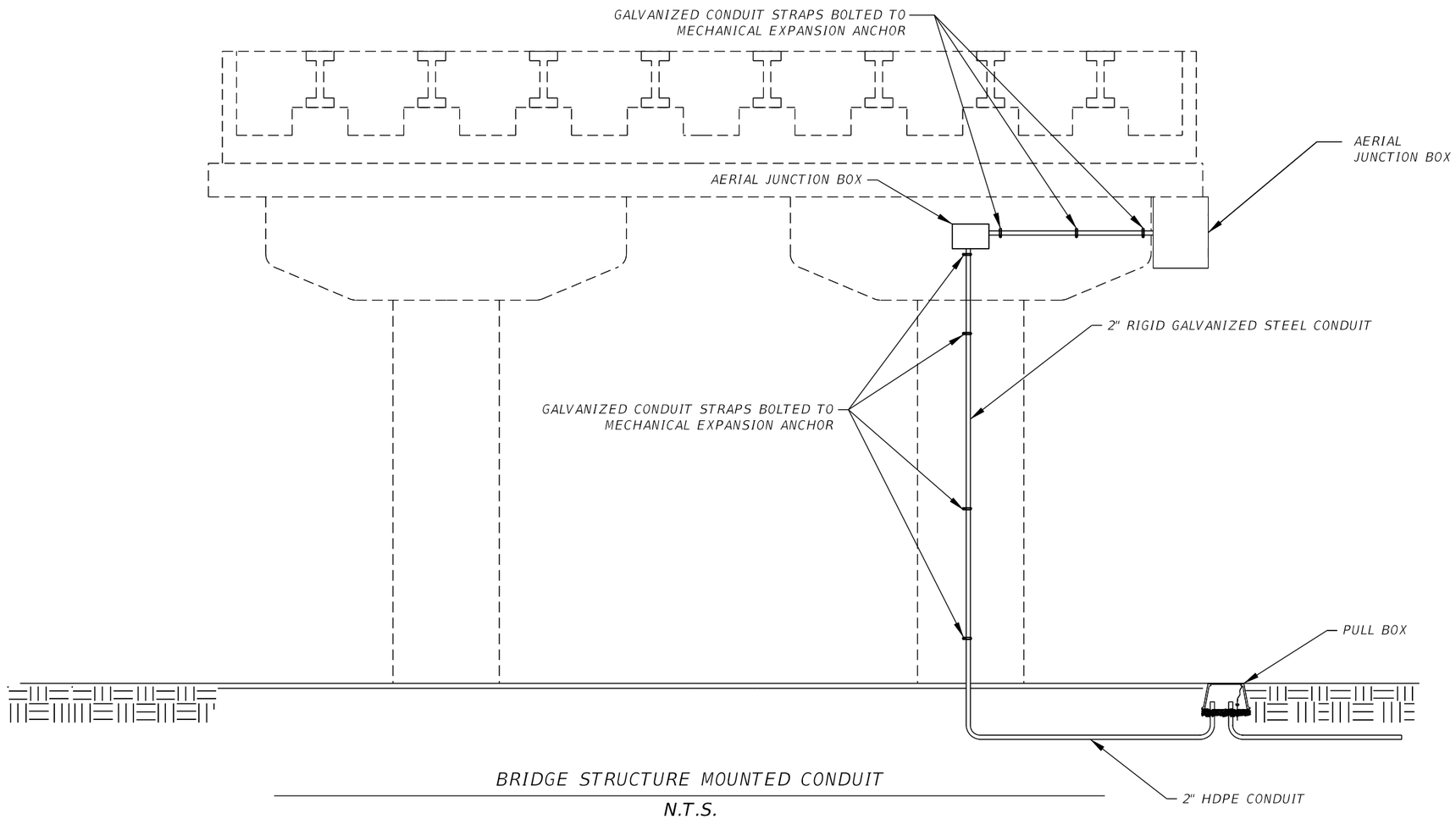

BRIDGE STRUCTURE MOUNTED CONDUIT

N.T.S.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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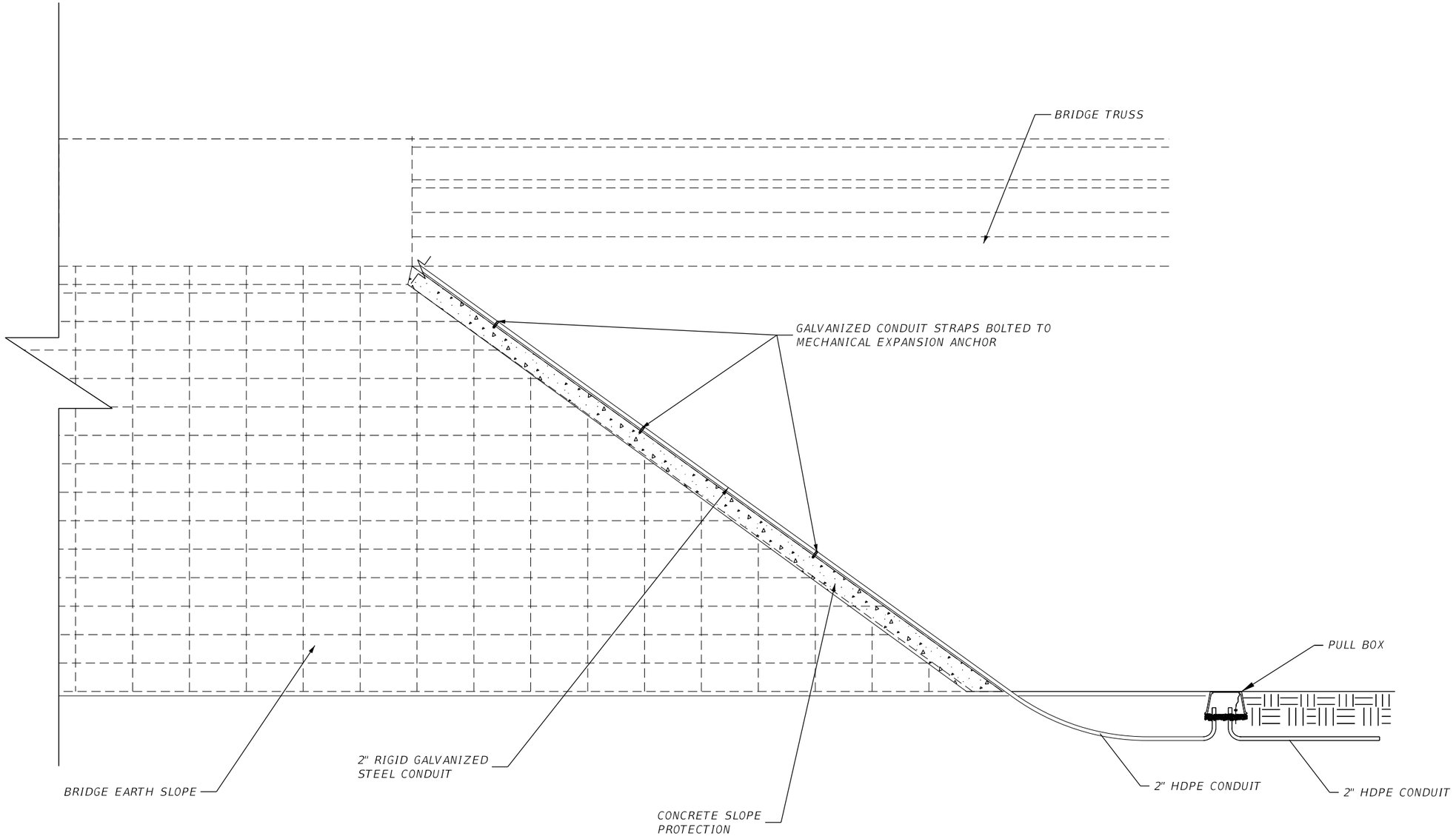
BRIDGE STRUCTURE MOUNT DETAILS

SHEET NO.
IT-321

RELEASED FOR CONSTRUCTION
BY: (FDOT)_VS_____ Date: 3/21/2018_____
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



CONCRETE SLOPE MOUNTED CONDUIT

N.T.S.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

CONCRETE SLOPE UNDERBRIDGE DETAIL

SHEET NO.
IT-322

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

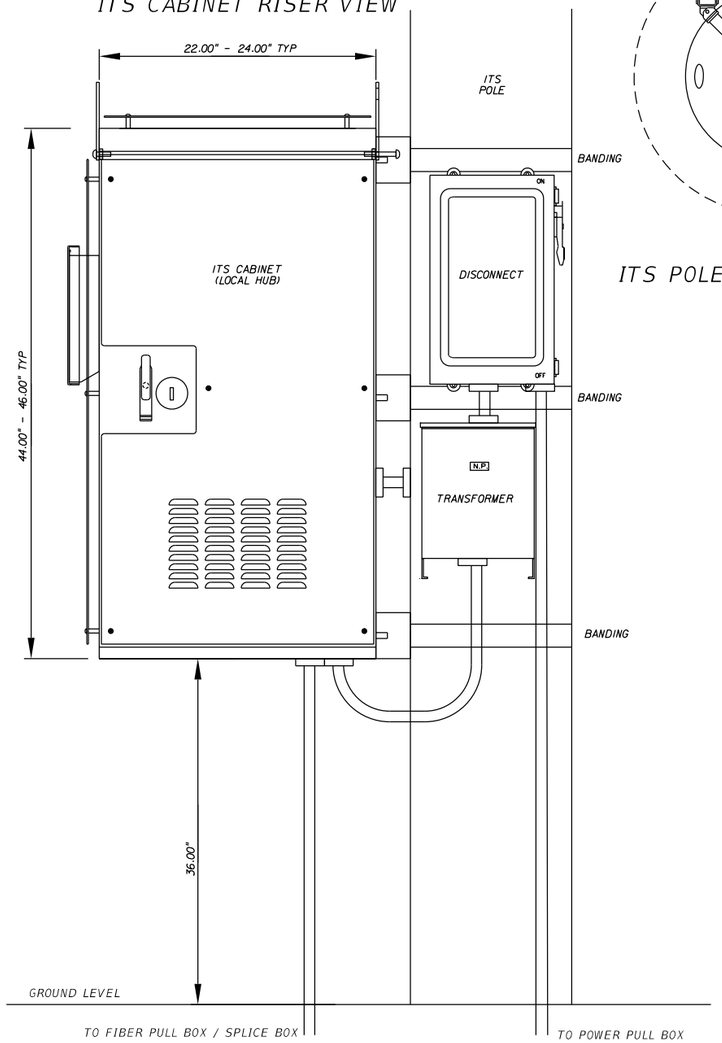
ITS CABINET DETAIL FOR SITES:

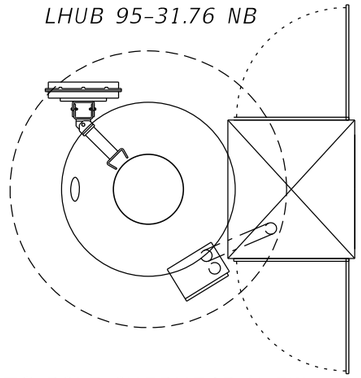
LHUB 95-27.95 SB
*LHUB 95-27.98 NB
LHUB 95-28.10 SB
LHUB 95-29.10 NB
LHUB 95-29.33 NB
LHUB 95-31.08 NB
LHUB 95-31.28 SB
LHUB 95-31.28 NB
LHUB 95-31.54 SB
LHUB 95-31.76 NB

LHUB 95-27.13 NB
LHUB 95-28.31 NB
LHUB 95-28.56 NB
LHUB 95-28.82 NB
LHUB 95-28.85 SB
LHUB 95-30.83 SB
LHUB 95-32.64 NB

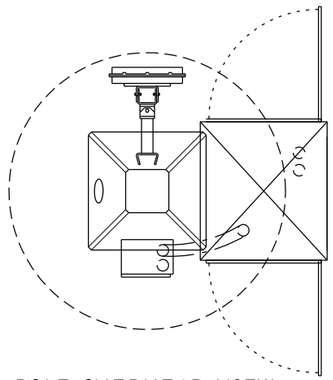
* GROUND MOUNTED CABINET

ITS CABINET RISER VIEW



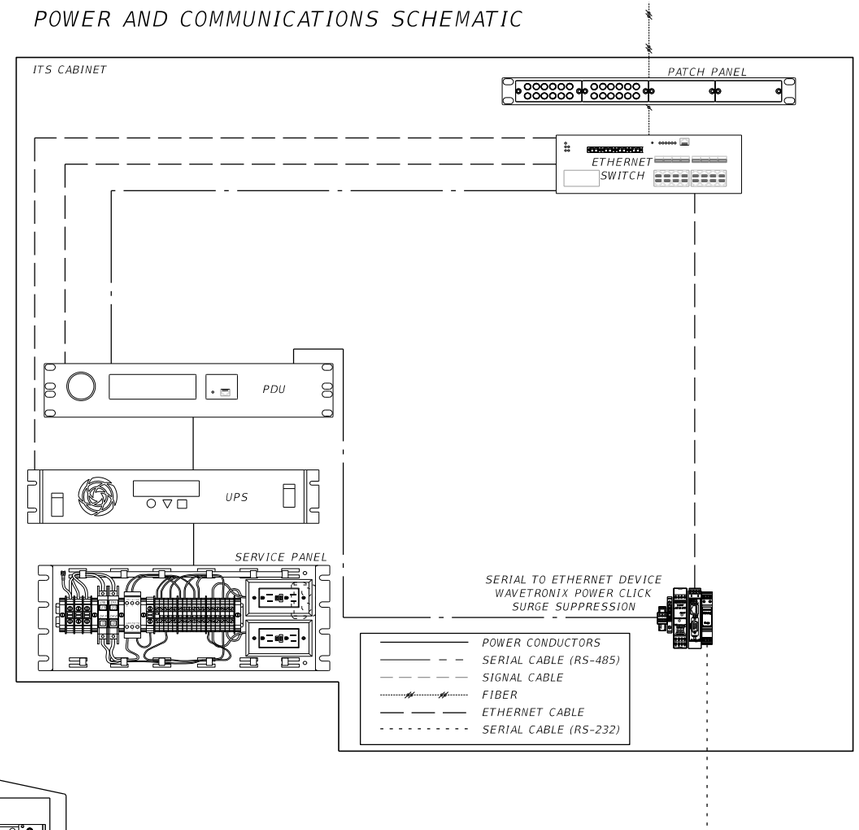


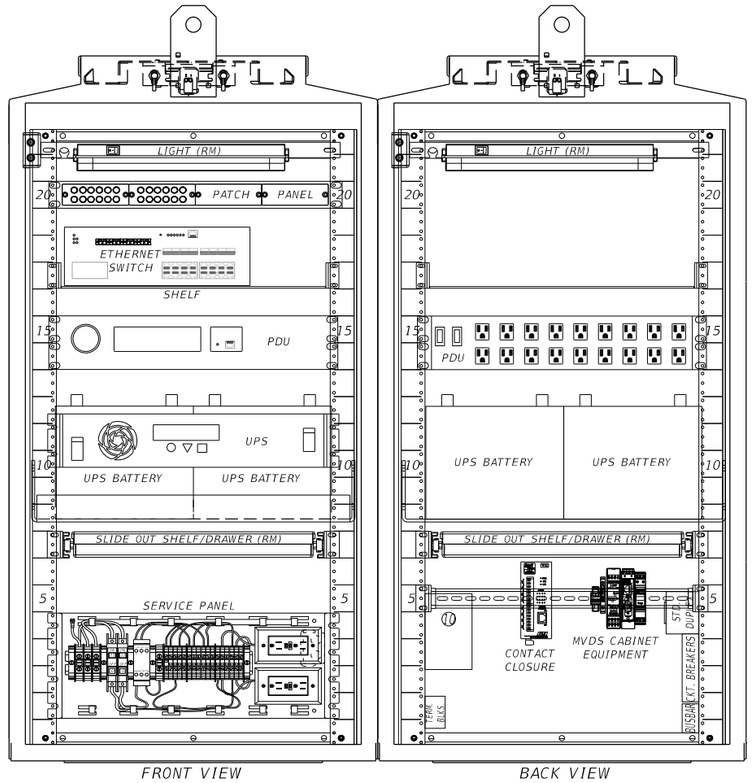
ITS POLE OVERHEAD VIEW



ITS POLE OVERHEAD VIEW

POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. GROUND MOUNTED CABINET SHALL UTILIZE RS-485 FROM MVDS. CABINETS SHALL INCLUDE ADDITIONAL 120 VAC SURGE PROTECTION DEVICE FOR POWER SERVICE WIRE FROM MVDS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 MVDS)

SHEET NO. IT-323

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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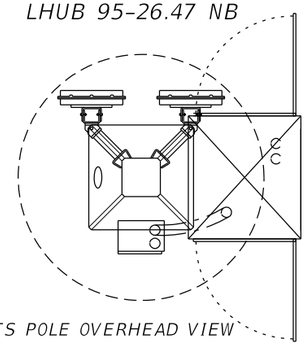
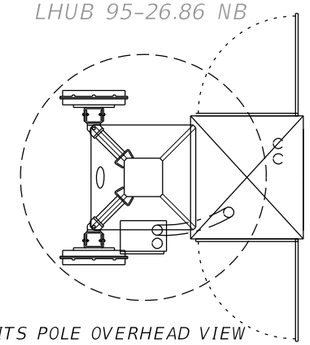
ITS CABINET DETAIL FOR SITES:

LHUB 95-26.47 NB



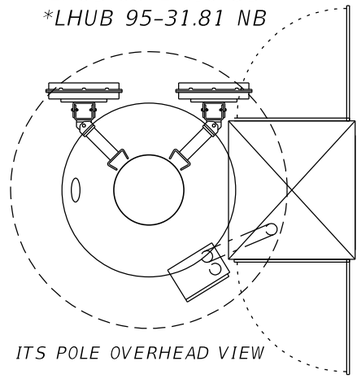
ITS POLE OVERHEAD VIEW

LHUB 95-26.86 SB
LHUB 95-26.86 NB



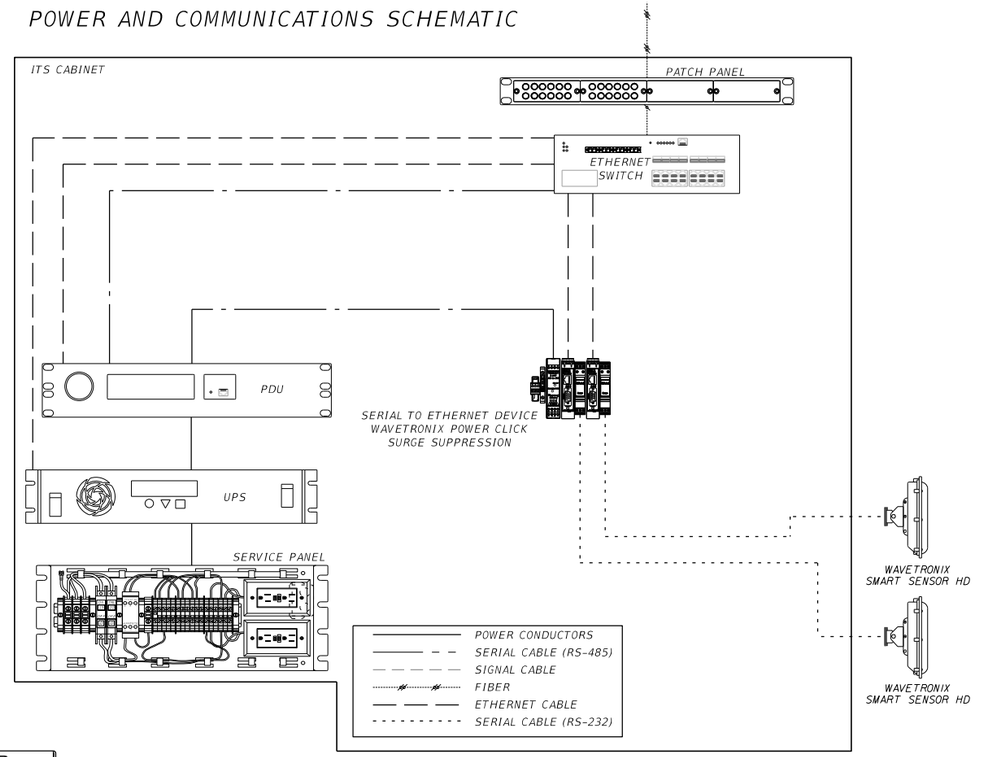
ITS POLE OVERHEAD VIEW

LHUB 95-27.10 SB
*LHUB 95-31.81 NB

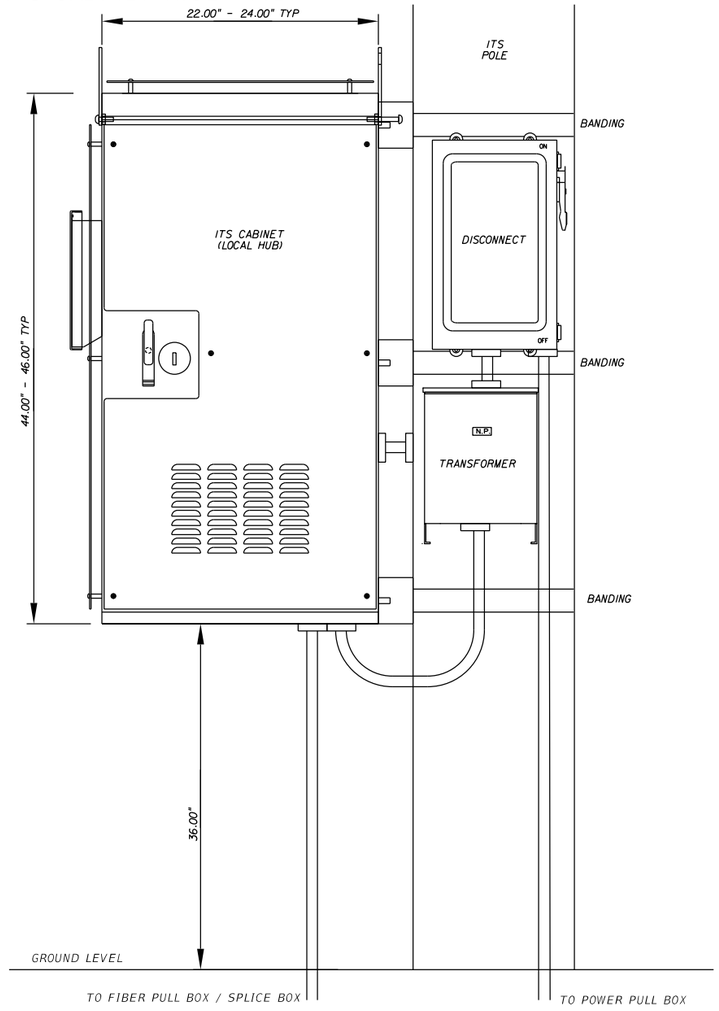


ITS POLE OVERHEAD VIEW

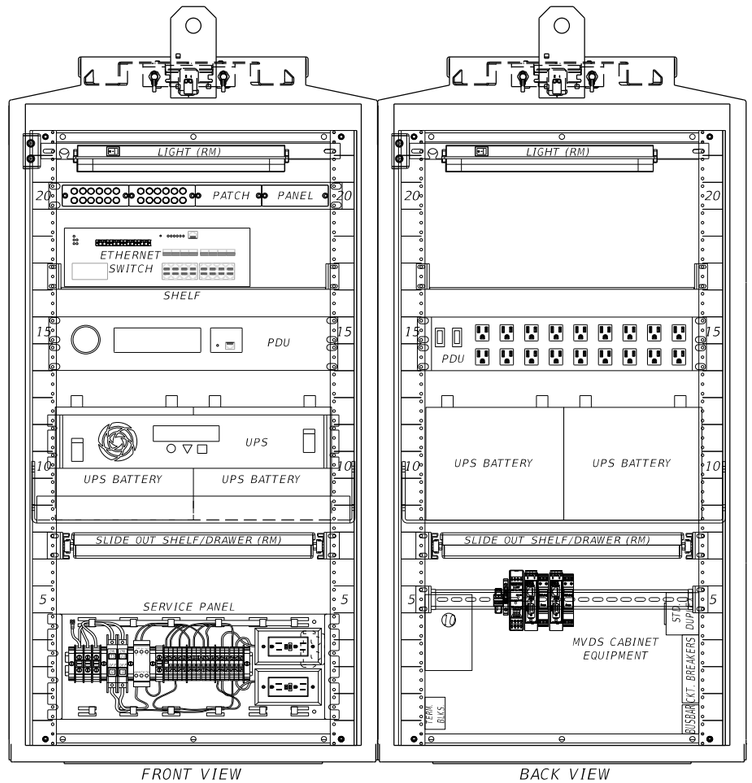
POWER AND COMMUNICATIONS SCHEMATIC



ITS CABINET RISER VIEW



* GROUND MOUNTED CABINET



ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. GROUND MOUNTED CABINET SHALL UTILIZE RS-485 FROM MVDS. CABINETS SHALL INCLUDE ADDITIONAL 120 VAC SURGE PROTECTION DEVICE FOR POWER SERVICE WIRE FROM MVDS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (2 MVDS)

SHEET NO. IT-324

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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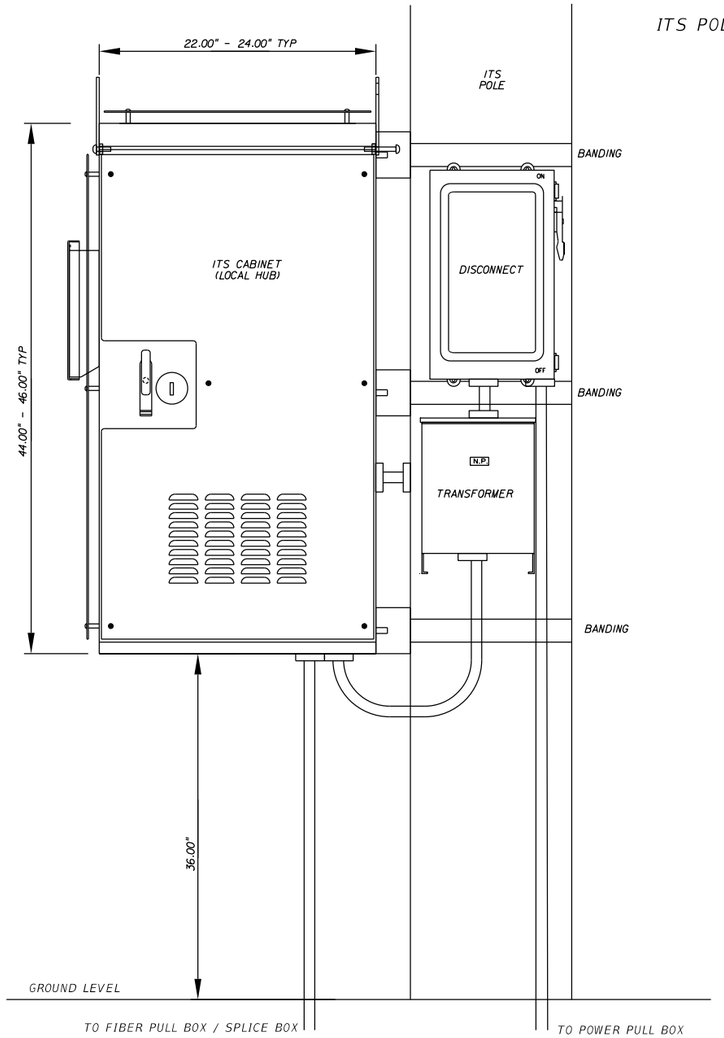
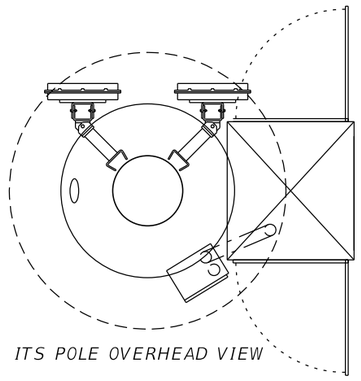
ITS CABINET DETAIL FOR SITES: LHUB 95-27.30 SB

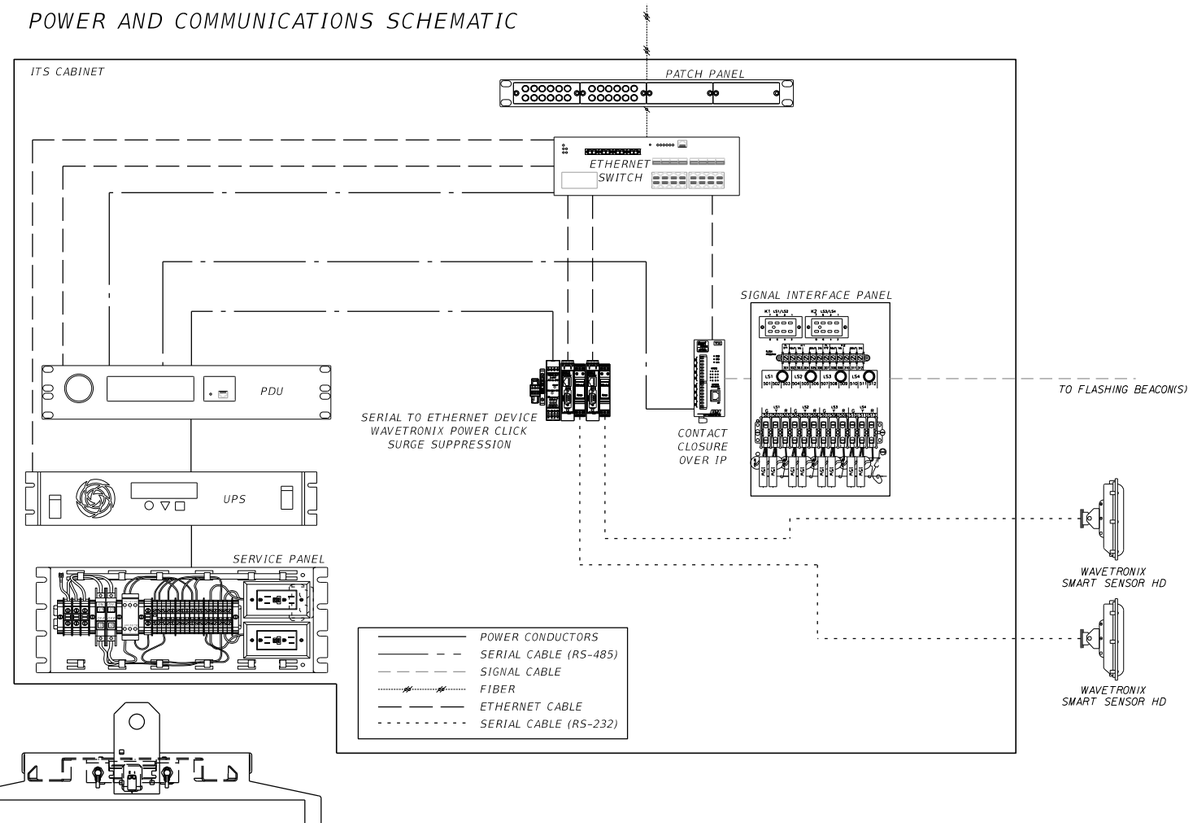
ITS CABINET RISER VIEW

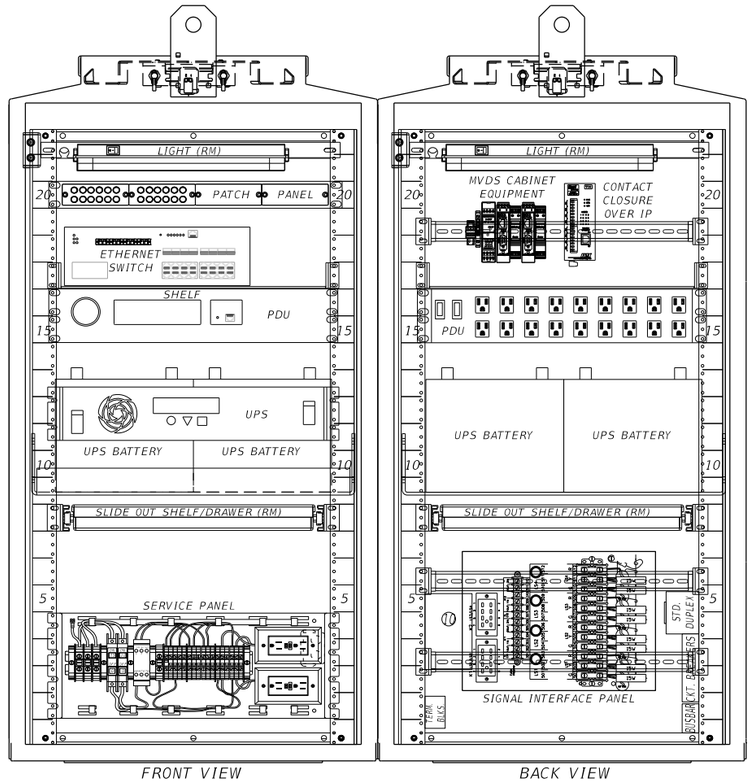




ITS POLE OVERHEAD VIEW

POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (2 MVDS & BEACON)

SHEET NO. IT-325

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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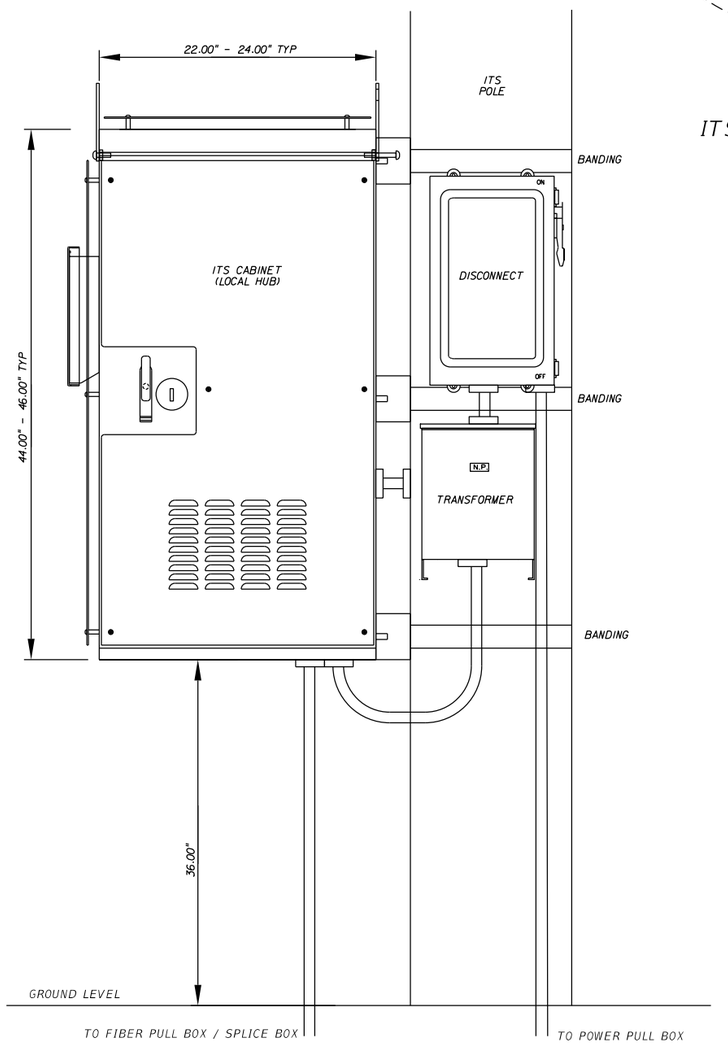
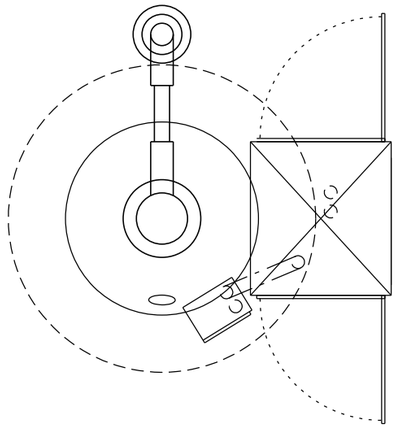
ITS CABINET DETAIL FOR SITES:
LHUB 95-25.28 NB
LHUB 95-26.63 SB

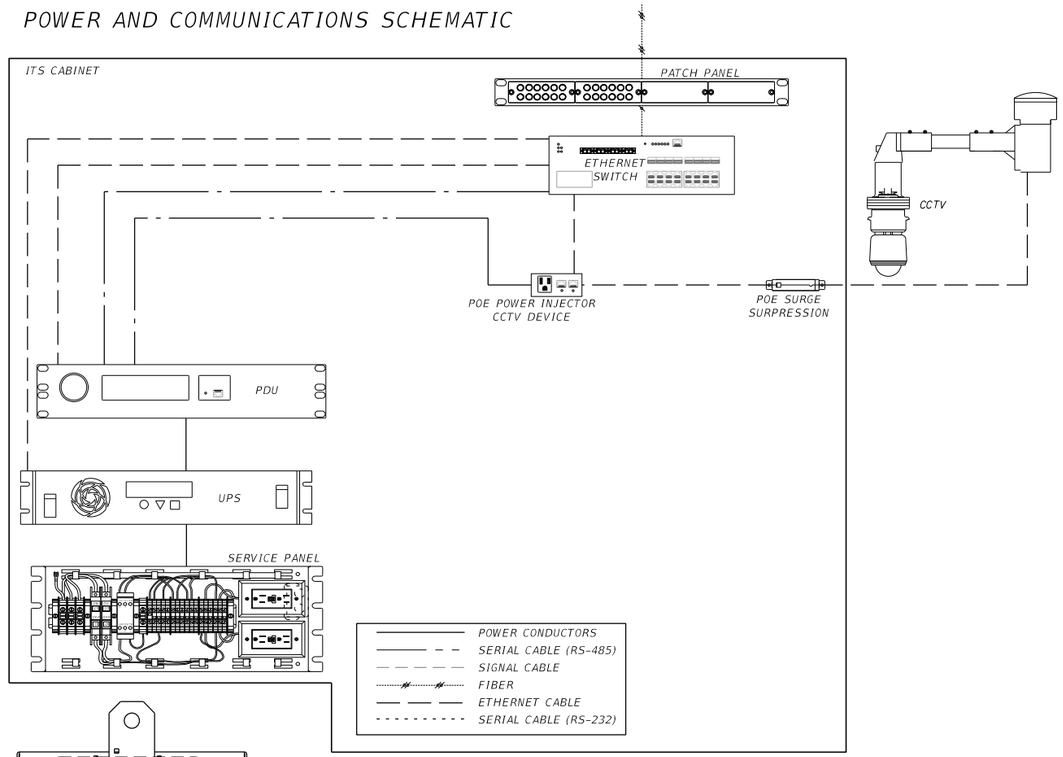
ITS CABINET RISER VIEW

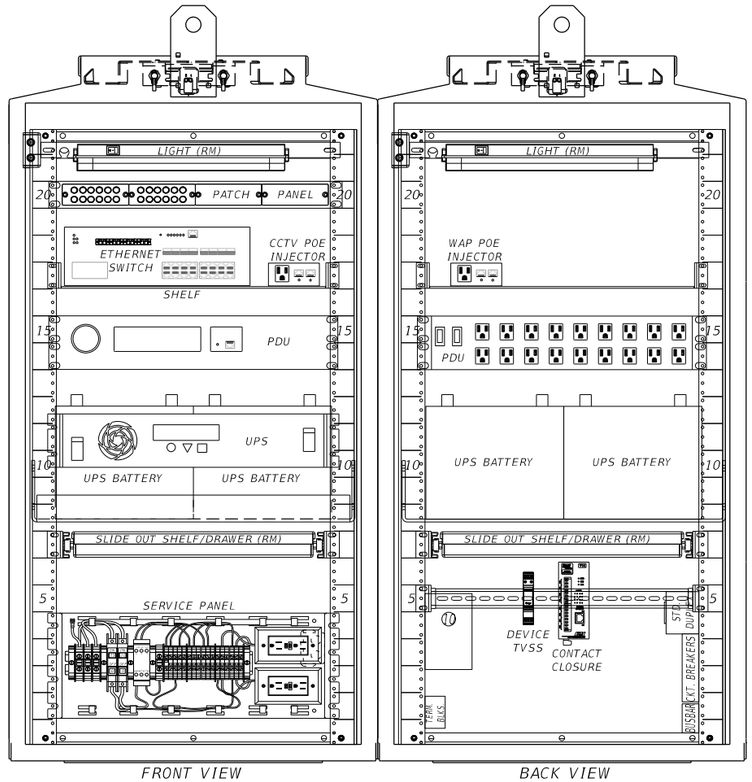




ITS POLE OVERHEAD VIEW

POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
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5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 CCTV)

SHEET NO.
IT-326

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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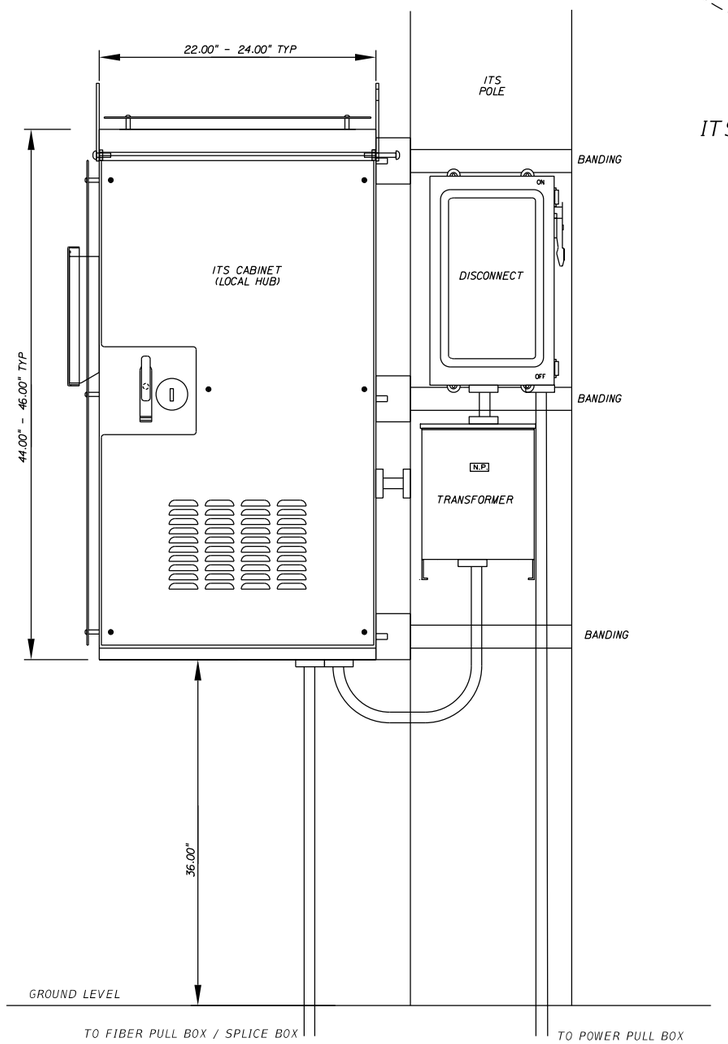
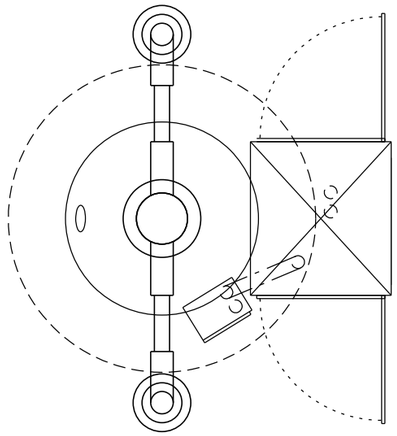
ITS CABINET DETAIL FOR SITES: LHUB 95-32.35 NB*

* CONTACT CLOSURE OVER IP TO BE INSTALLED AT CABINET

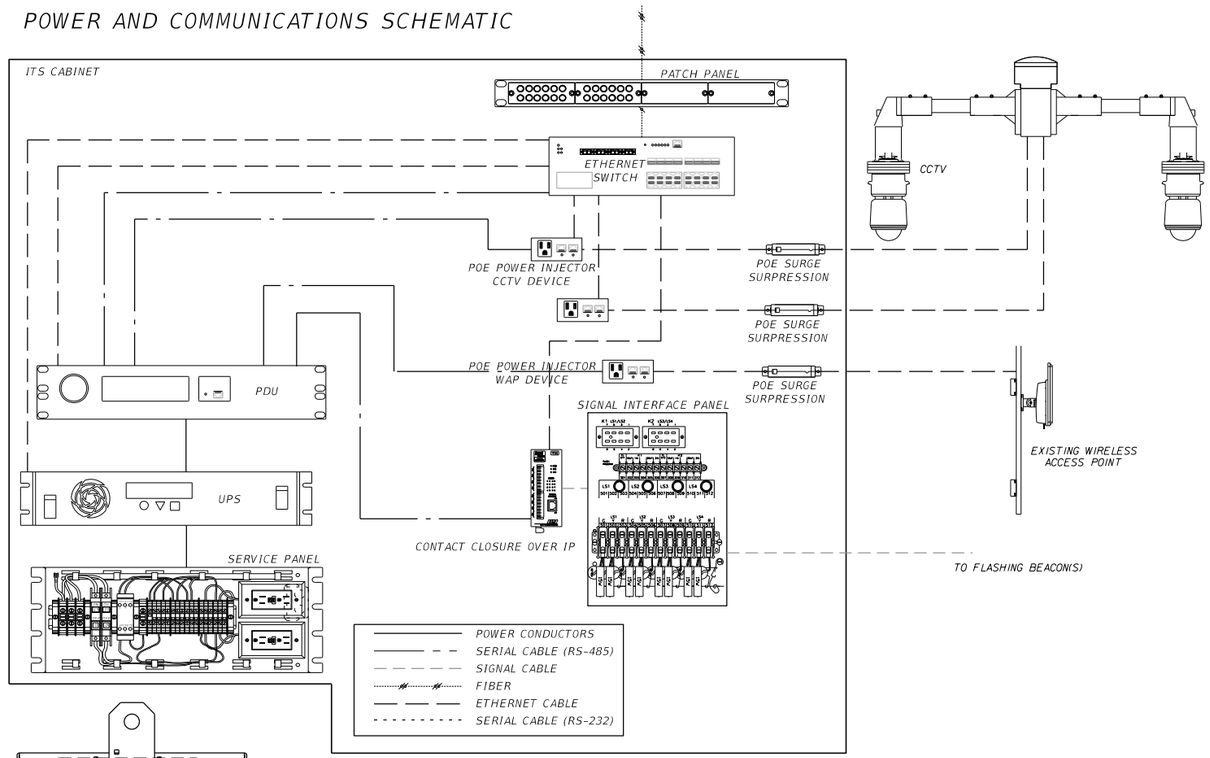
ITS CABINET RISER VIEW

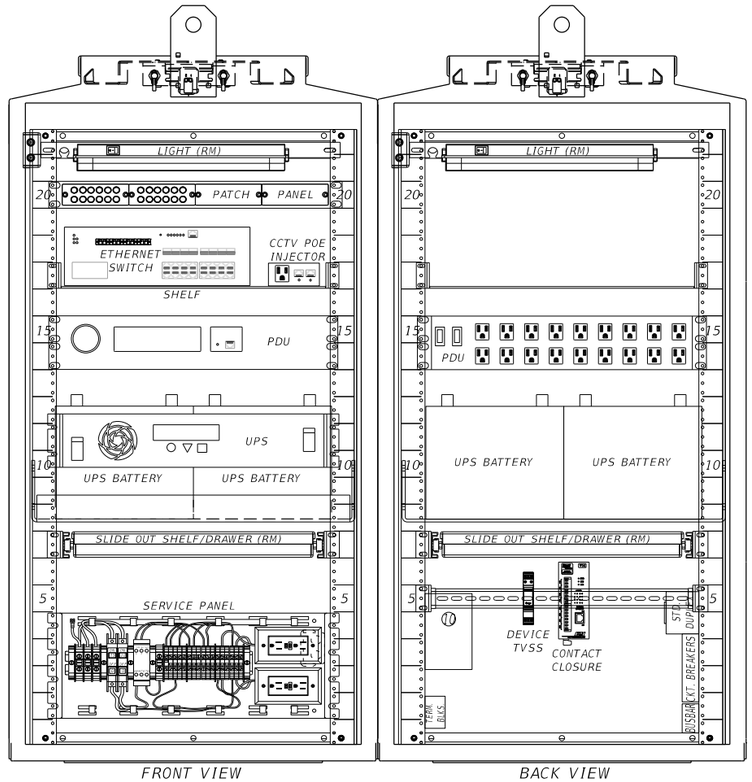




ITS POLE OVERHEAD VIEW

POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (2 CCTV)

SHEET NO. IT-327

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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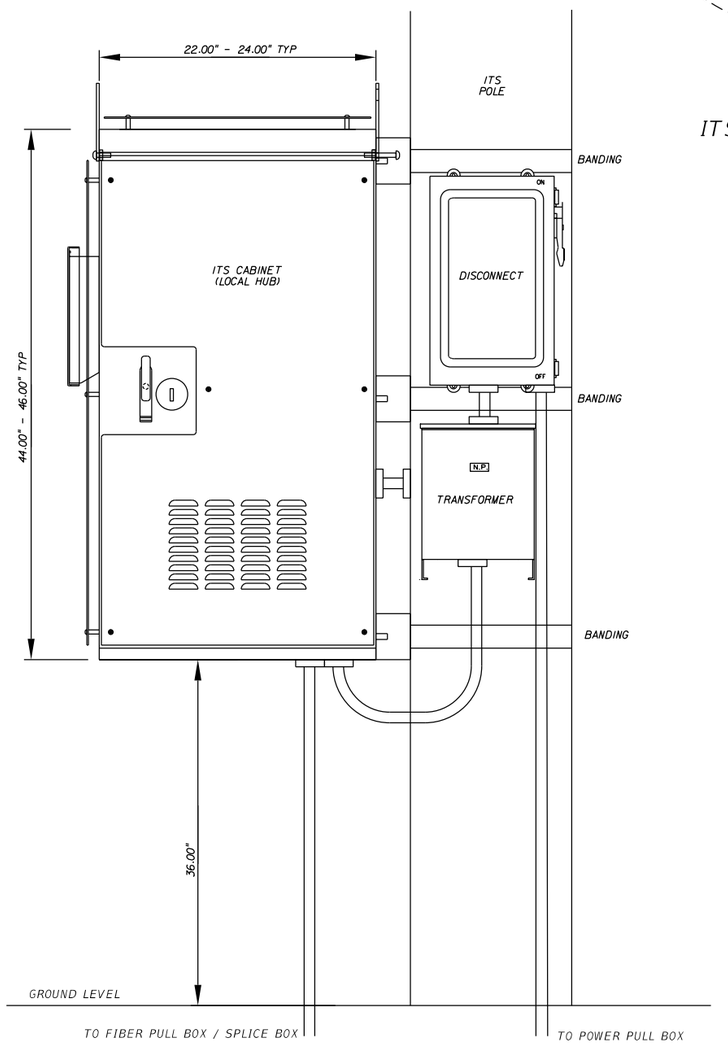
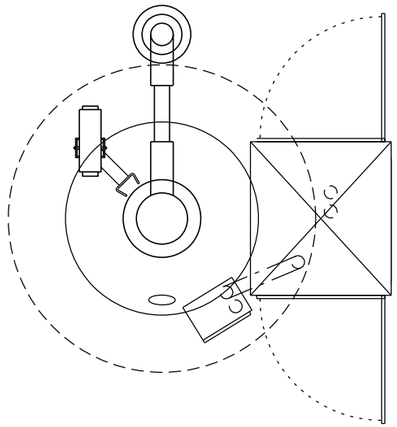
ITS CABINET DETAIL FOR SITES: LHUB 95-28.47 SB

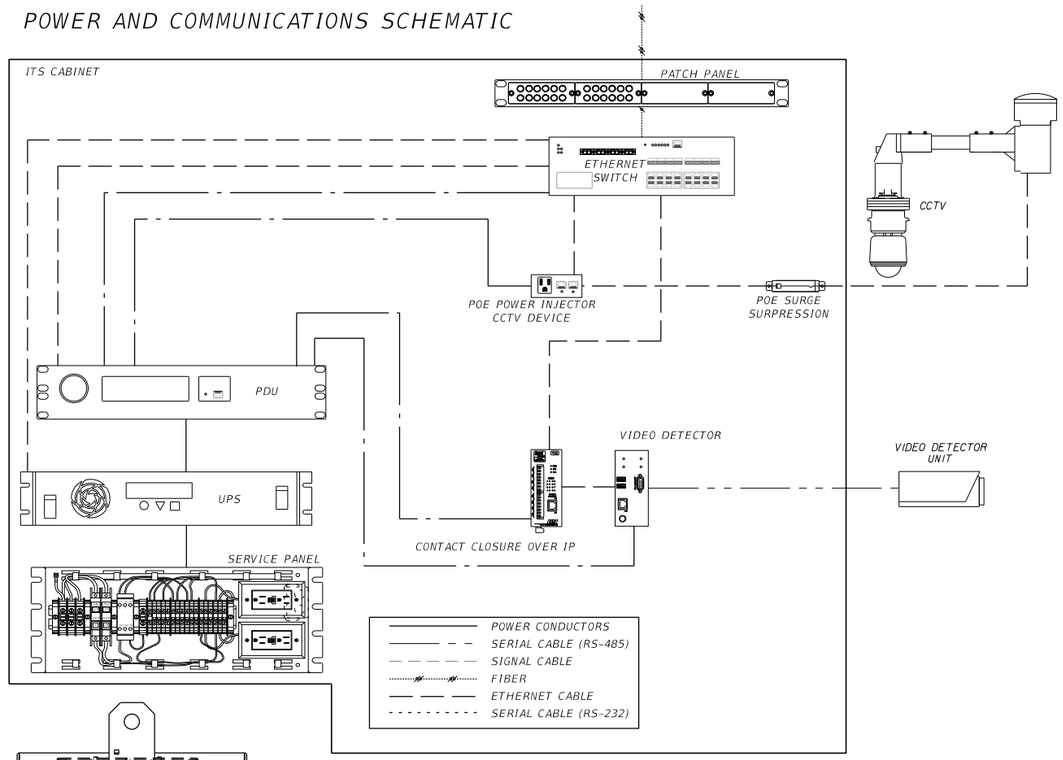
ITS CABINET RISER VIEW

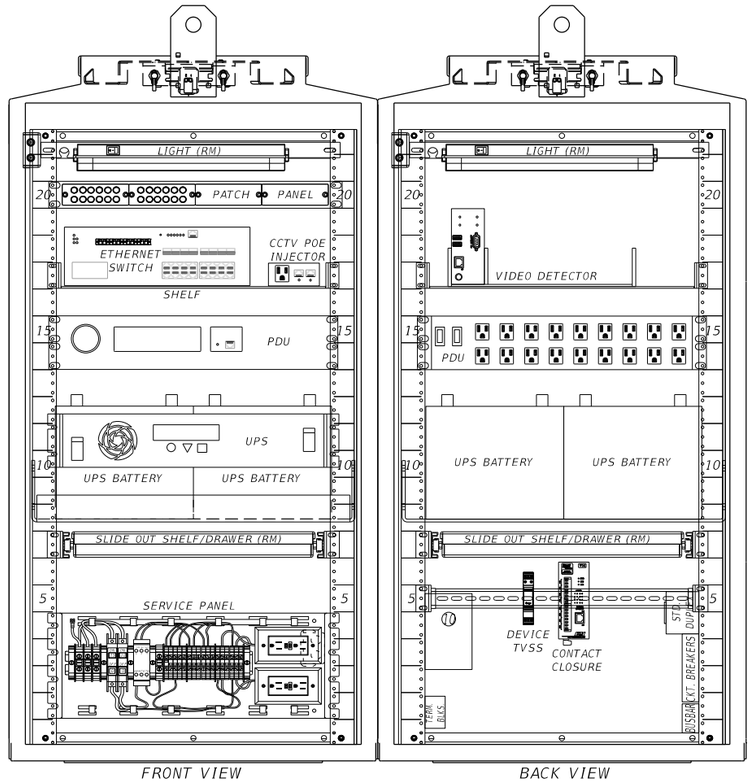




ITS POLE OVERHEAD VIEW

POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 CCTV & 1 VIDEO DETECTOR)

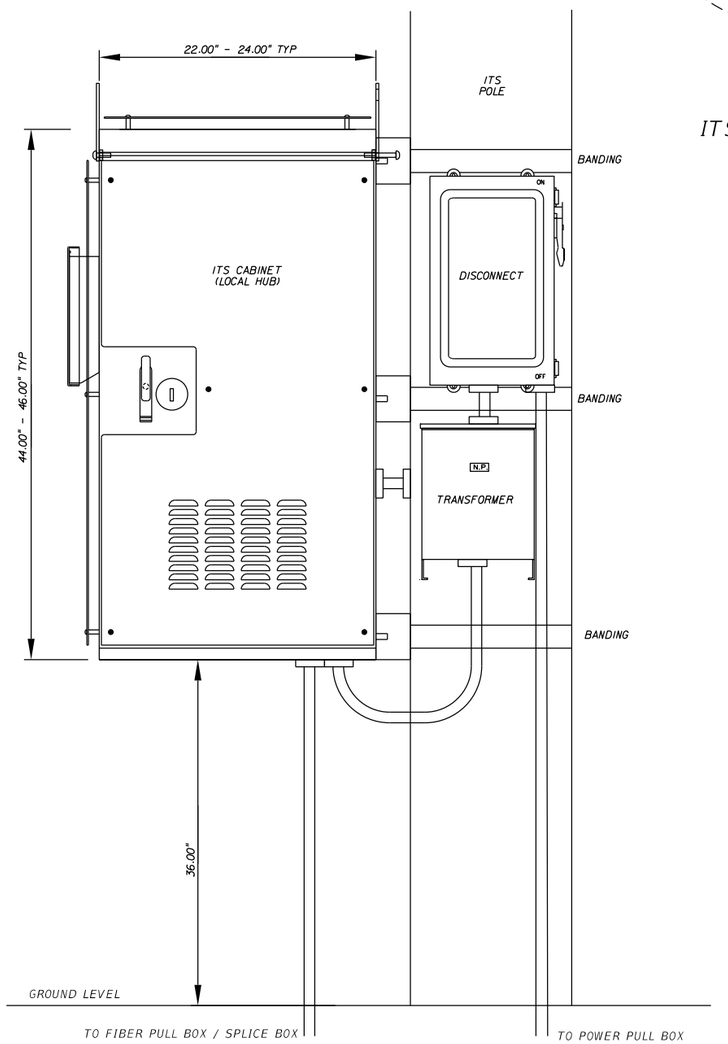
SHEET NO.
IT-328

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

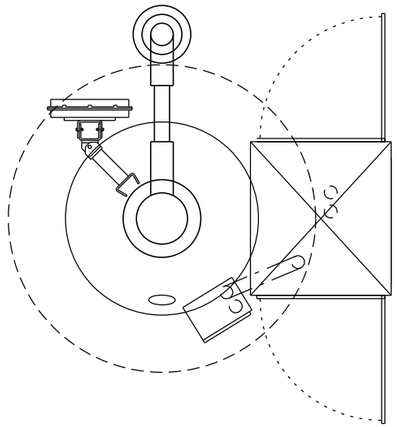
ITS CABINET DETAIL FOR SITES:

LHUB 95-27.30 NB	LHUB 95-30.08 NB
LHUB 95-27.50 NB	LHUB 95-30.33 NB
LHUB 95-27.53 SB	LHUB 95-31.08 SB
LHUB 95-28.10 NB	LHUB 95-31.54 NB
LHUB 95-29.83 SB	LHUB 95-31.95 SB
LHUB 95-29.83 NB	LHUB 95-32.17 NB
*LHUB 95-30.05 SB	LHUB 95-32.14 SB
	LHUB 95-32.39 SB
	LHUB 95-32.64 SB

ITS CABINET RISER VIEW

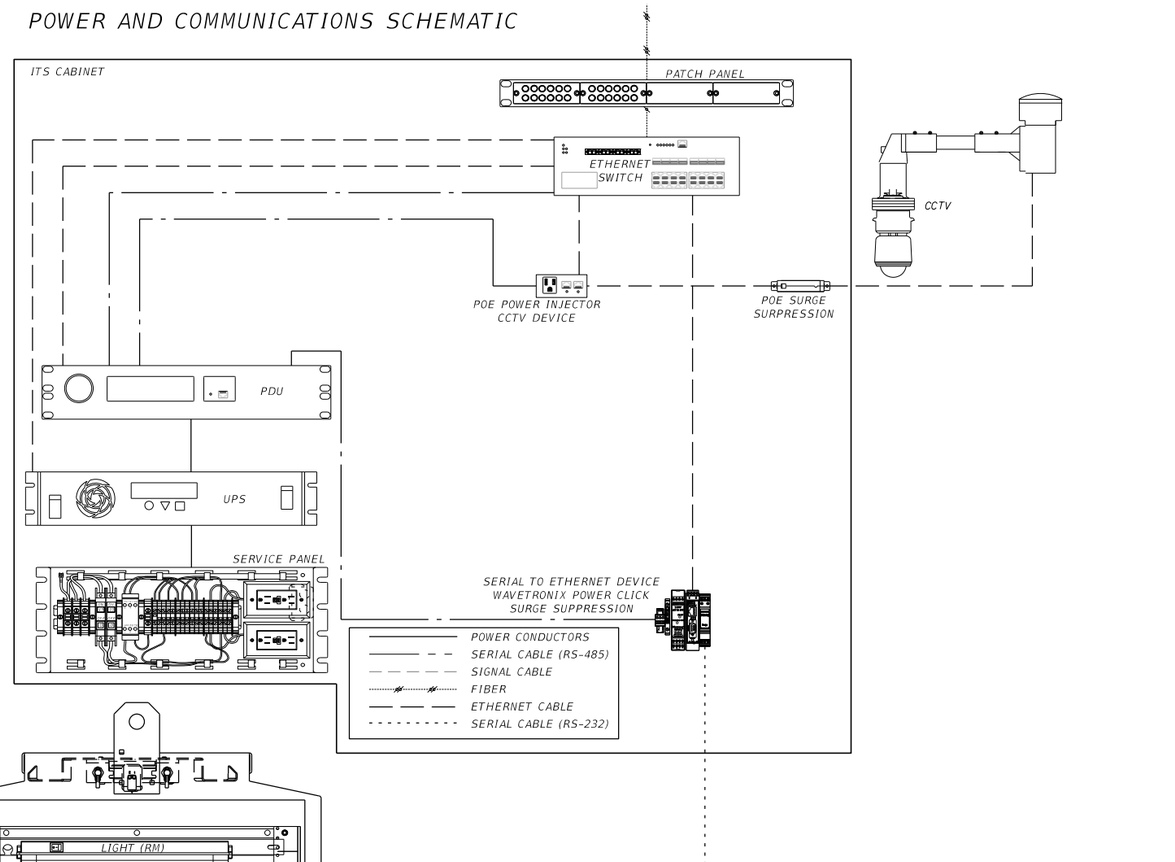


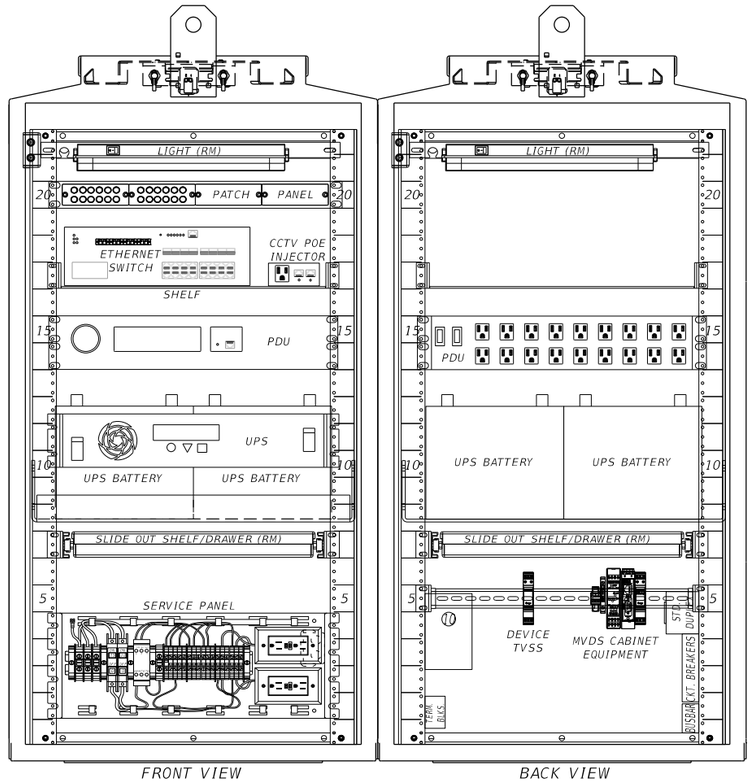
*GROUND MOUNTED CABINET



ITS POLE OVERHEAD VIEW

POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. GROUND MOUNTED CABINET SHALL UTILIZE RS-485 FROM MVDS. CABINETS SHALL INCLUDE ADDITIONAL 120 VAC SURGE PROTECTION DEVICE FOR POWER SERVICE WIRE FROM MVDS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 CCTV & 1 MVDS)

SHEET NO. IT-329

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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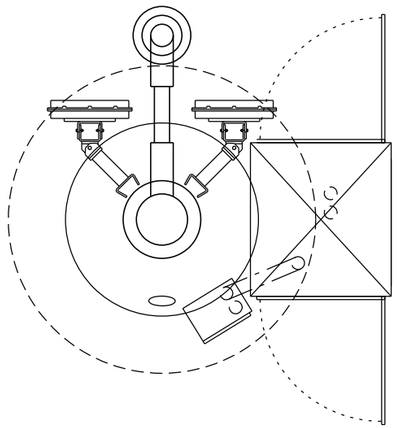
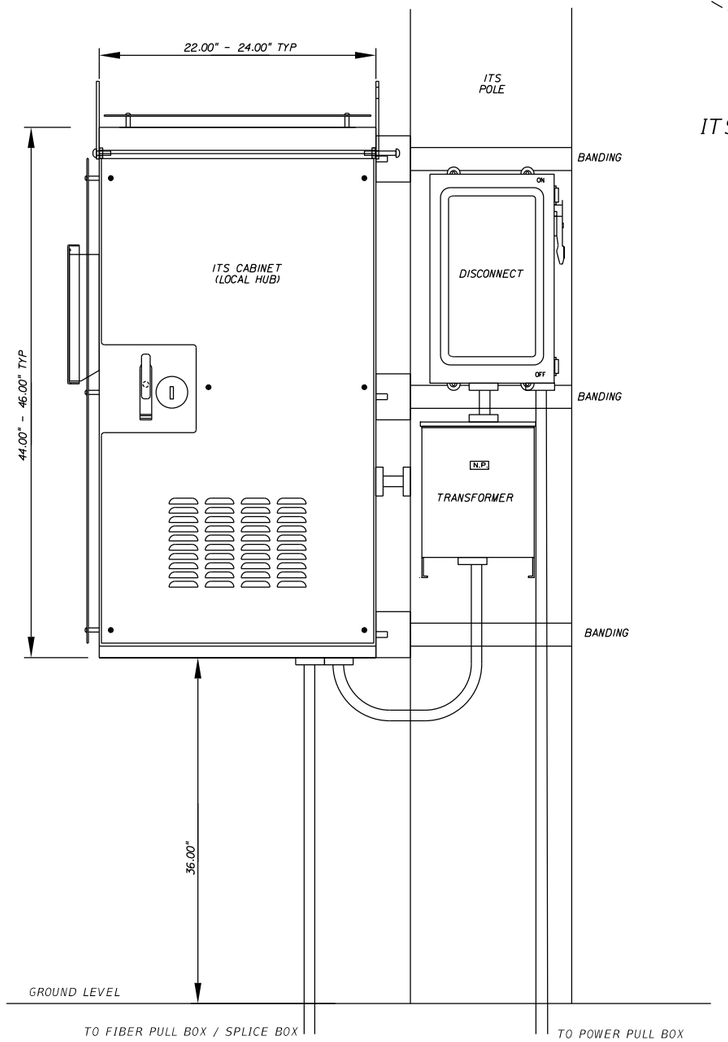
ITS CABINET DETAIL FOR SITES:

LHUB 95-27.65 NB

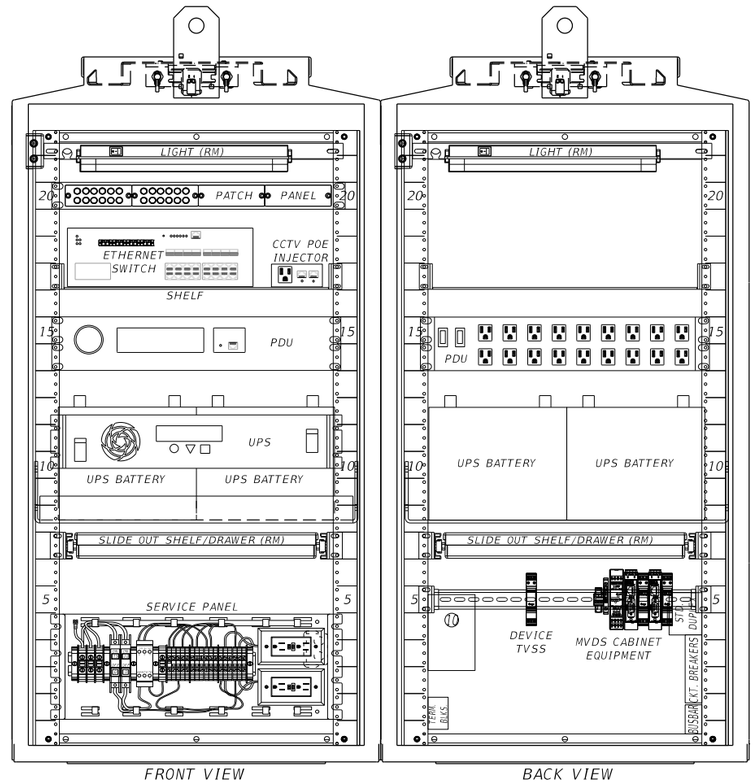
*GROUND MOUNTED CABINET



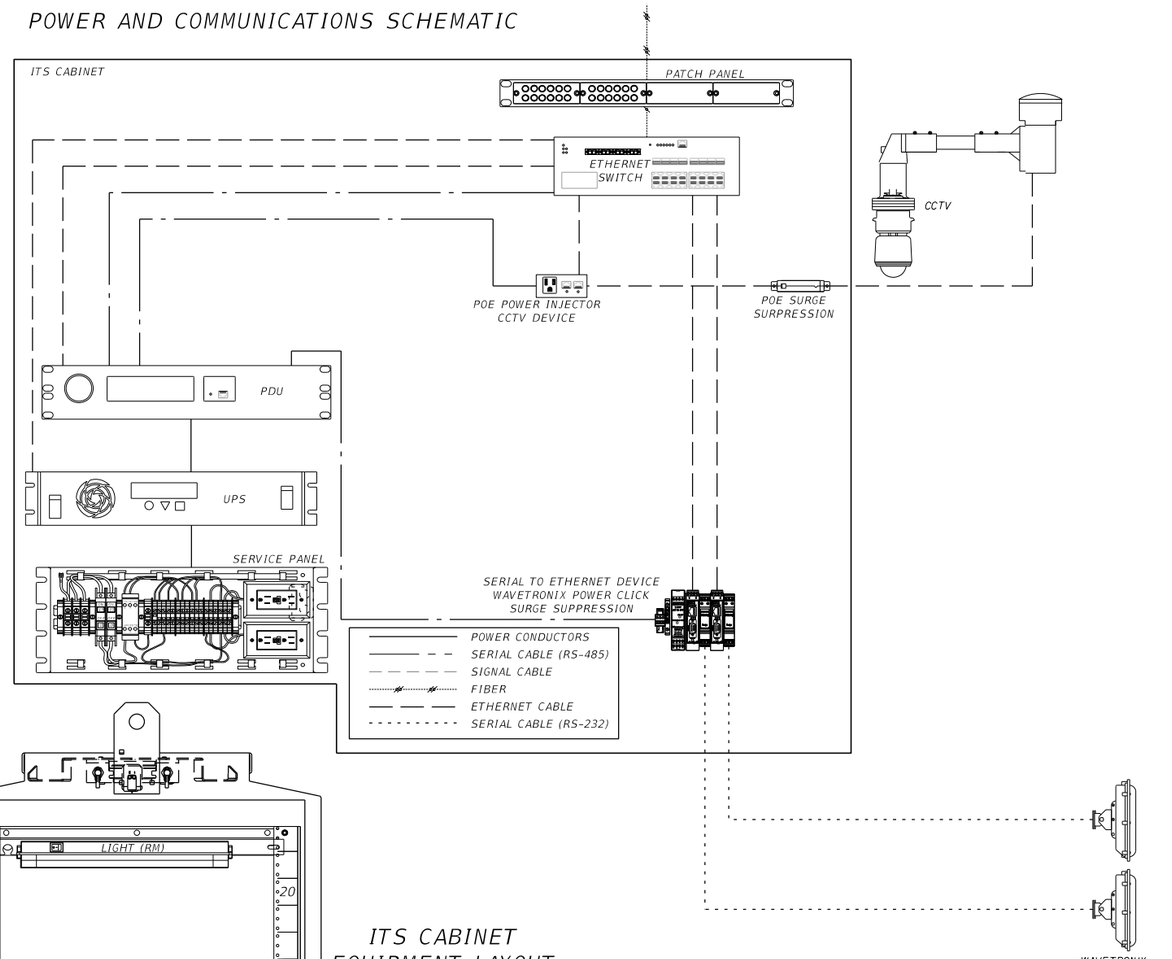
ITS CABINET RISER VIEW



ITS POLE OVERHEAD VIEW



POWER AND COMMUNICATIONS SCHEMATIC



ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. CONTRACTOR SHALL CONNECT NUMBER OF MVDS AS NECESSARY TO COVER ALL LANES AS SHOWN IN PLANS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 CCTV & 2 MVDS)

SHEET NO. IT-330

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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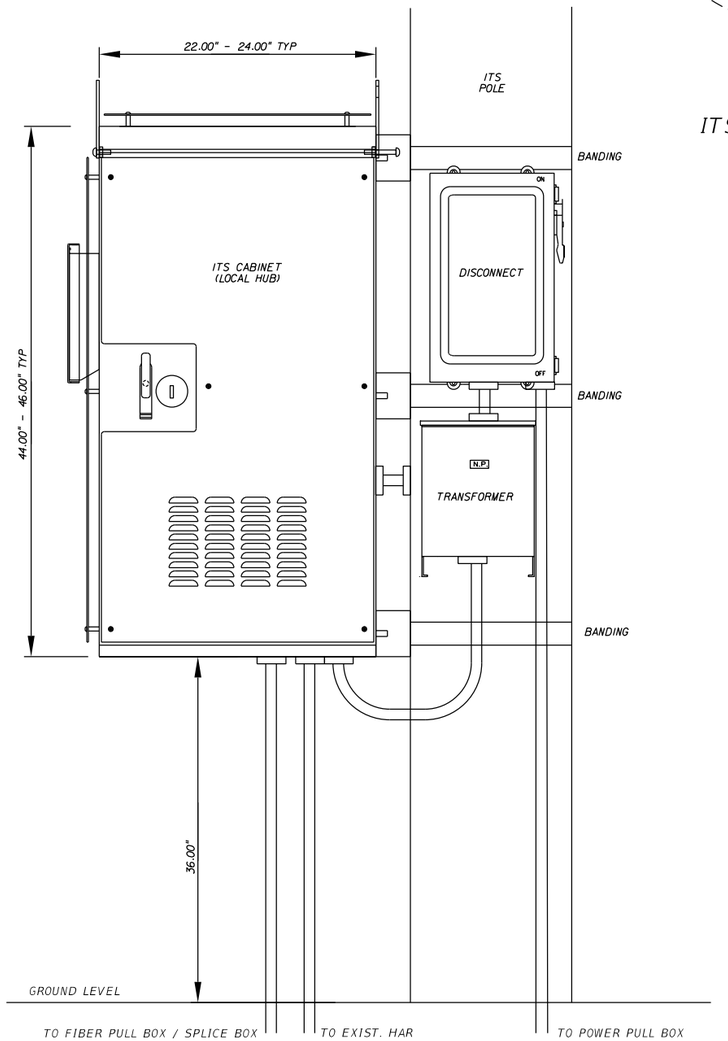
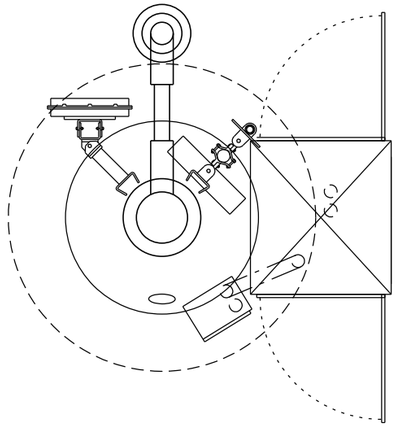
ITS CABINET DETAIL FOR SITES:

LHUB 95-29.11 SB

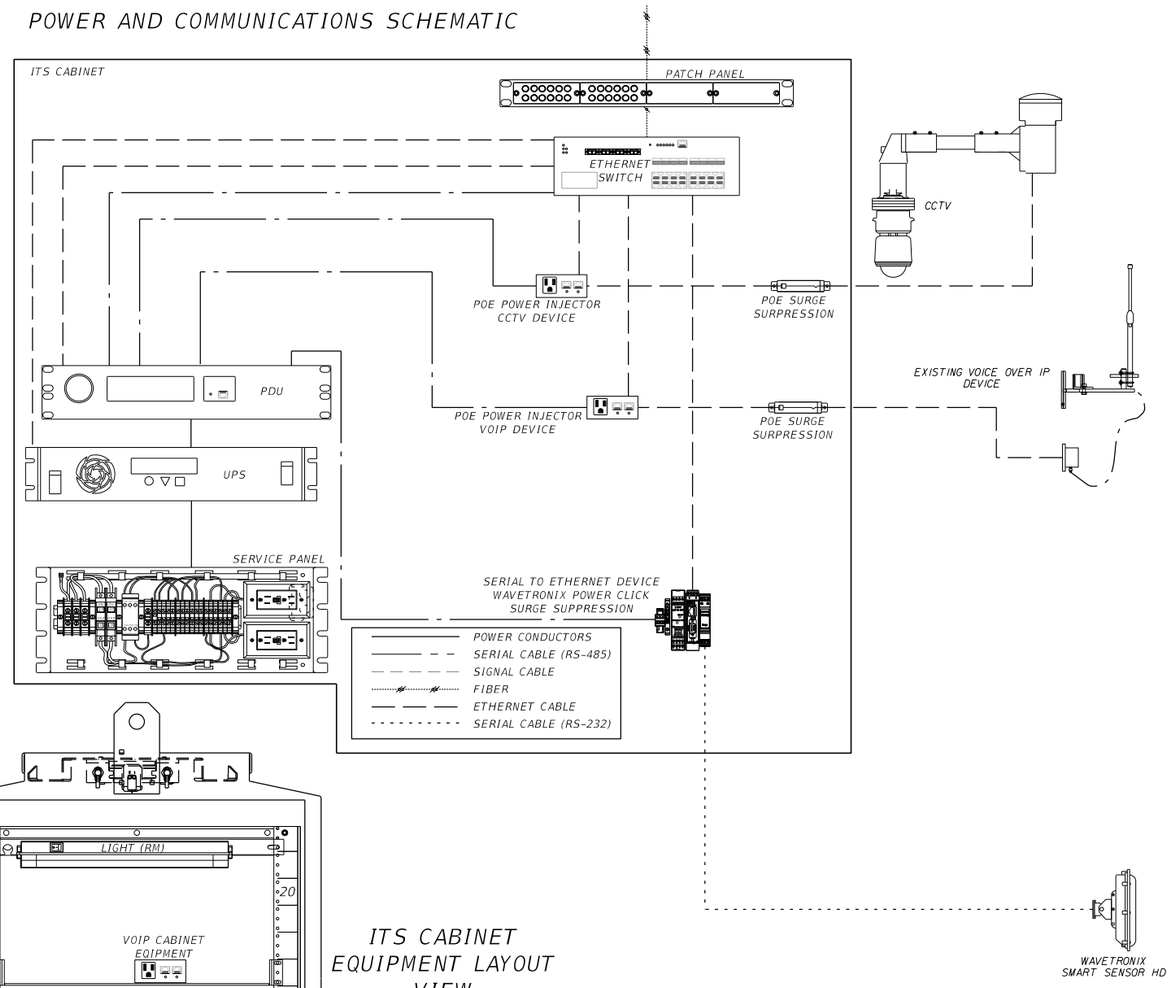
ITS CABINET RISER VIEW

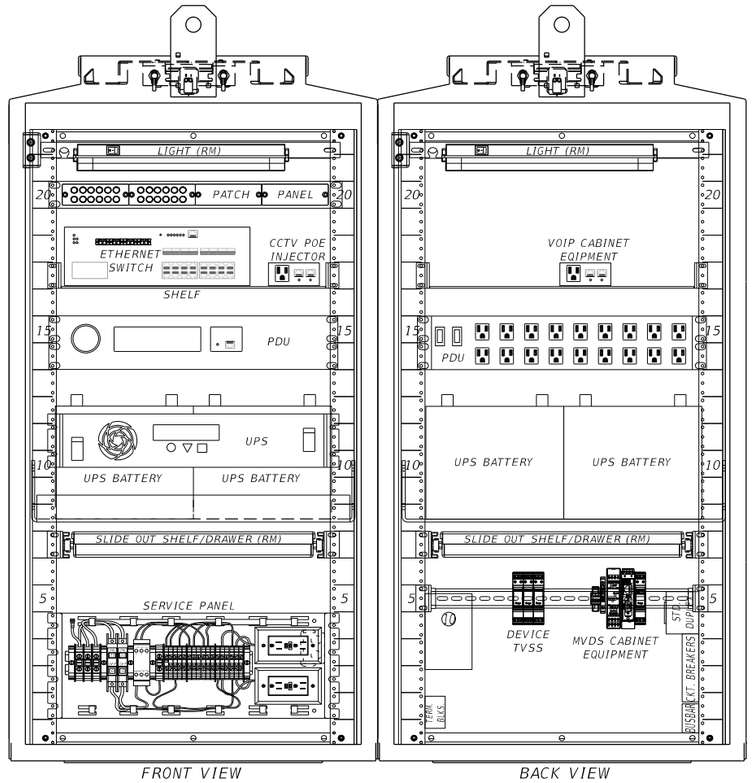


ITS POLE OVERHEAD VIEW



POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL
(1 CCTV, 1 MVDS, & 1 VOIP)

SHEET NO.
IT-331

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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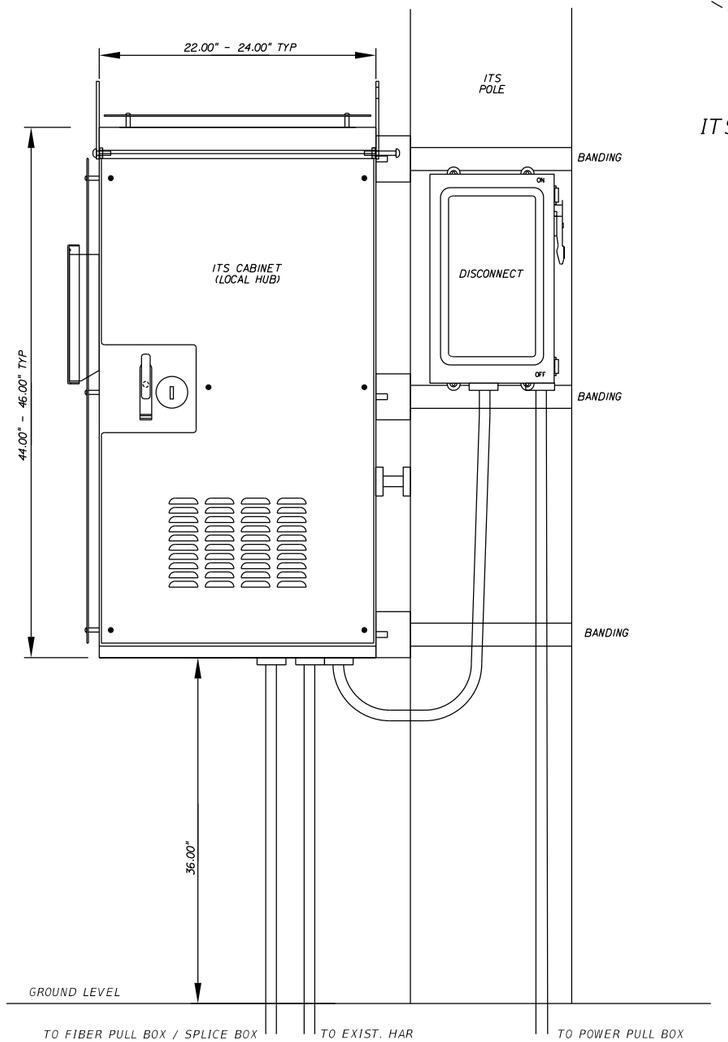
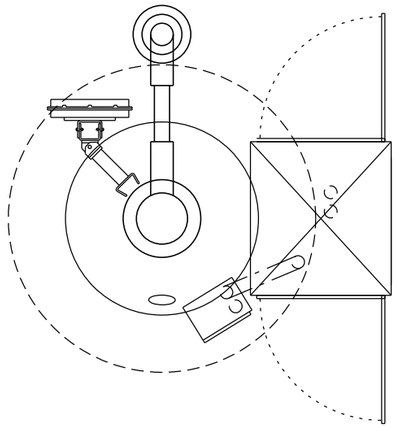
ITS CABINET DETAIL FOR SITES:

LHUB 95-29.58 NB

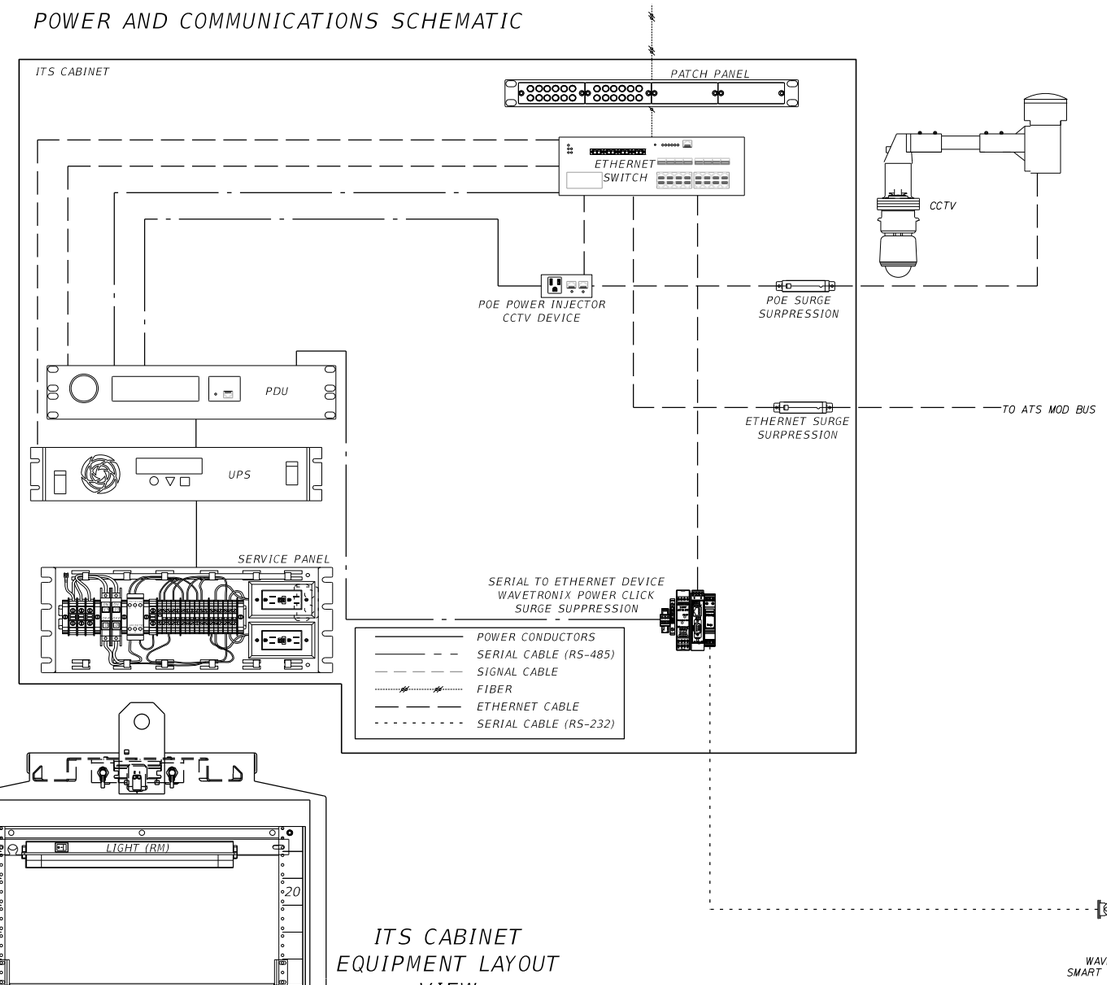
ITS CABINET RISER VIEW



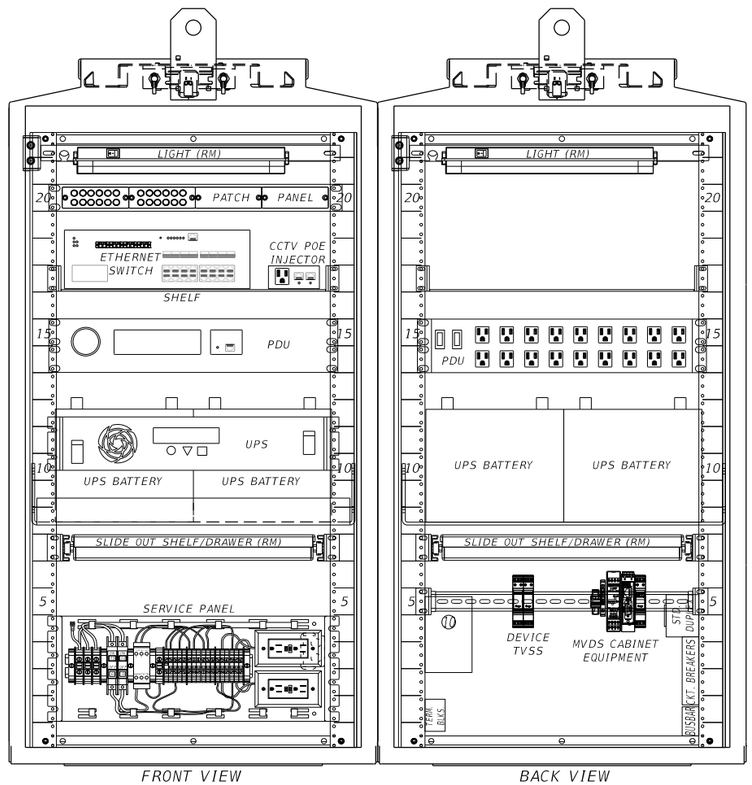
ITS POLE OVERHEAD VIEW



POWER AND COMMUNICATIONS SCHEMATIC



ITS CABINET EQUIPMENT LAYOUT VIEW



NOTES:

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2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
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5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 CCTV, 1 MVDS, & ATS MODBUS)

SHEET NO. IT-332

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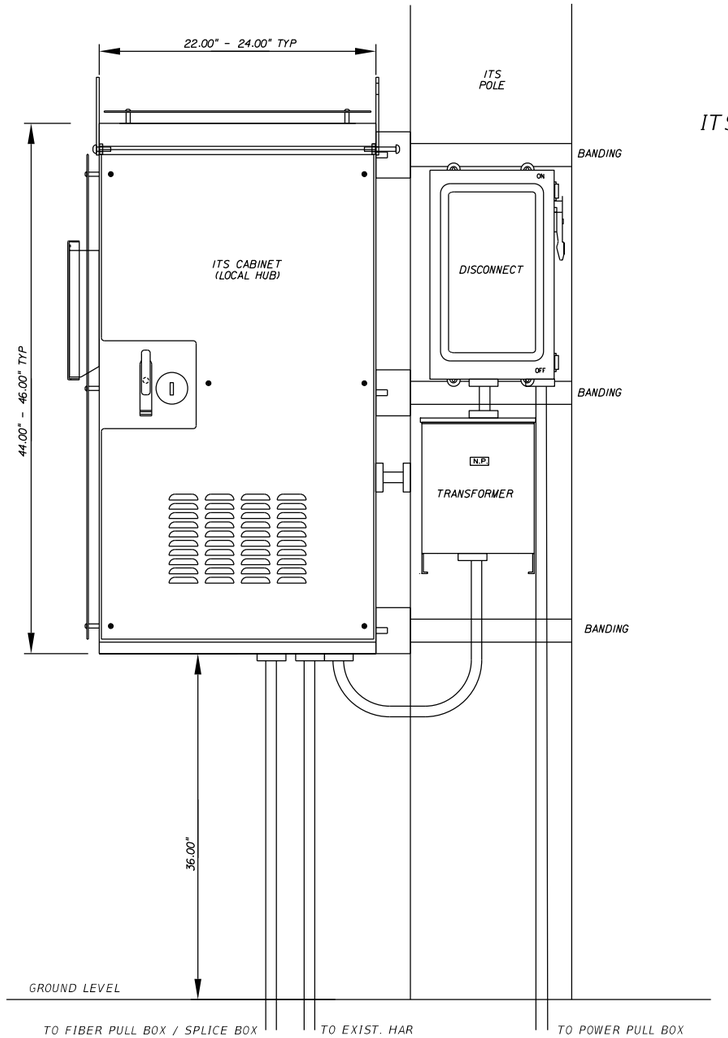
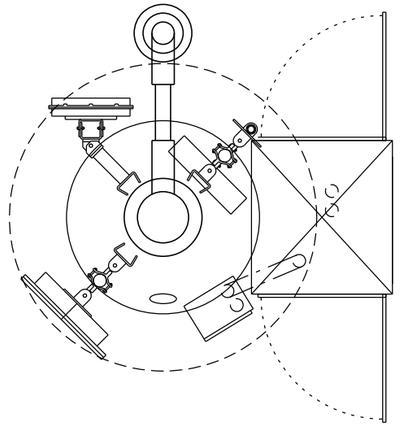
ITS CABINET DETAIL FOR SITES: LHUB 95-31.76 SB

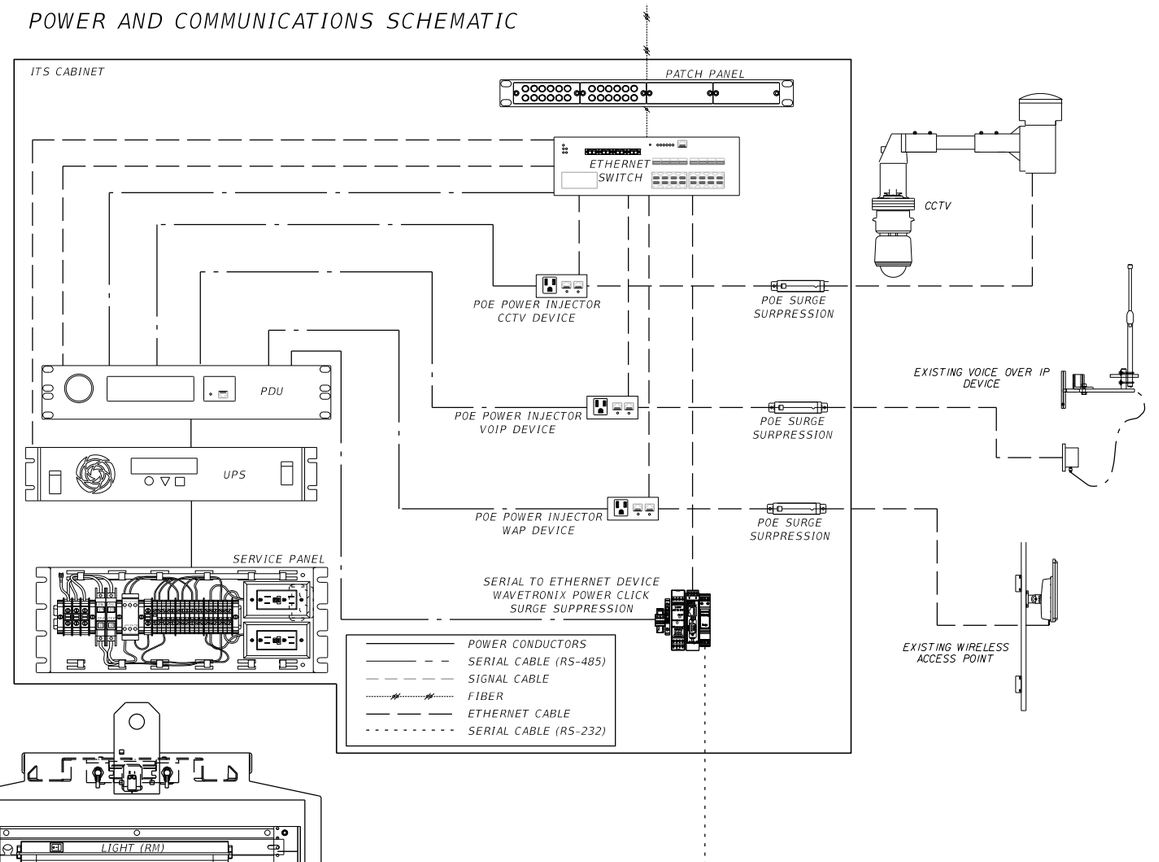
ITS CABINET RISER VIEW

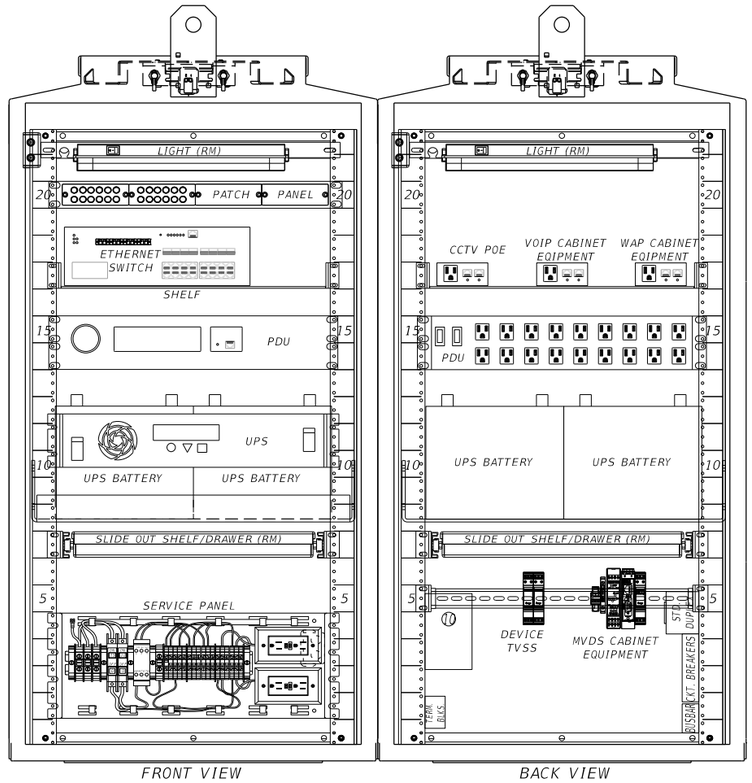


ITS POLE OVERHEAD VIEW



POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
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6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
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REVISIONS			
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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

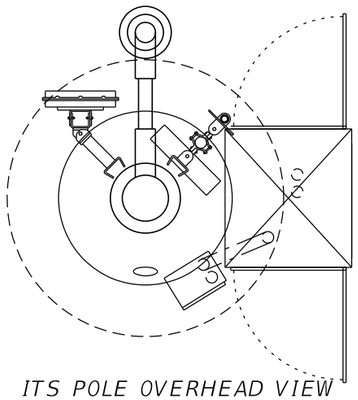
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 CCTV, 1 MVDS, 1 VOIP,& 1 WAP)

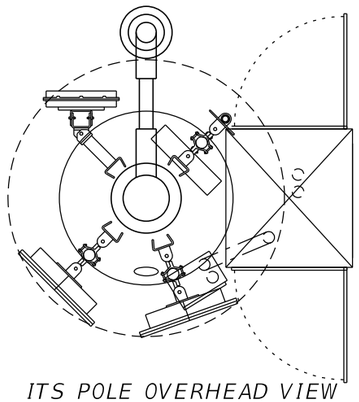
SHEET NO. IT-333

ITS CABINET DETAIL FOR SITES: EXIST. LHUB 95-26.30 NB



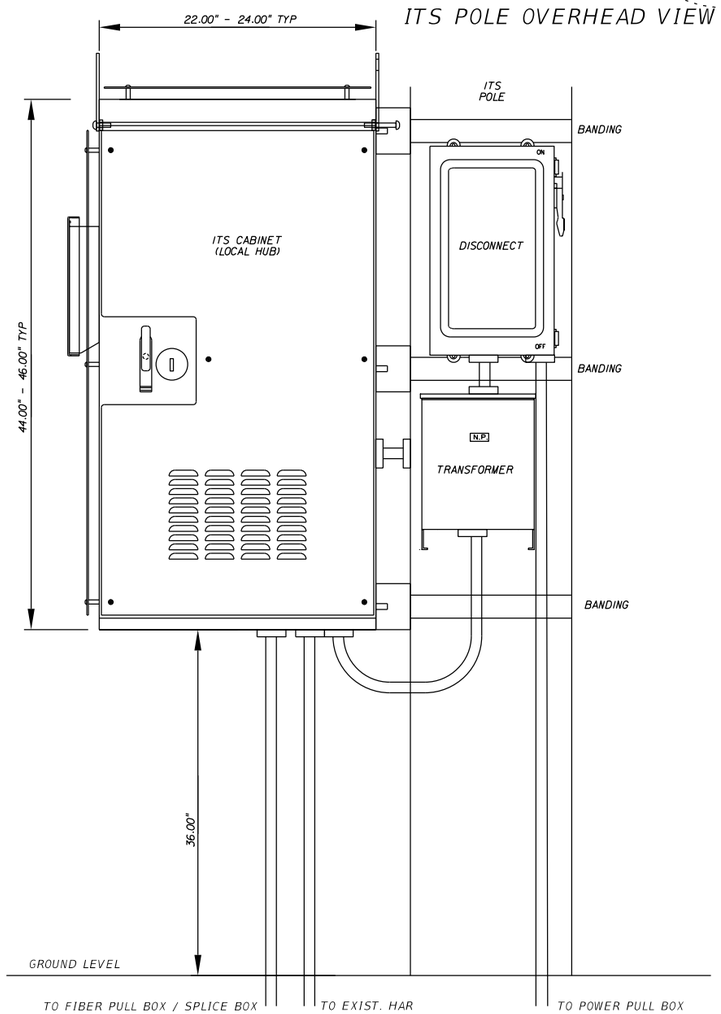
ITS POLE OVERHEAD VIEW

ITS CABINET DETAIL FOR SITES: LHUB 95-28.30 SB

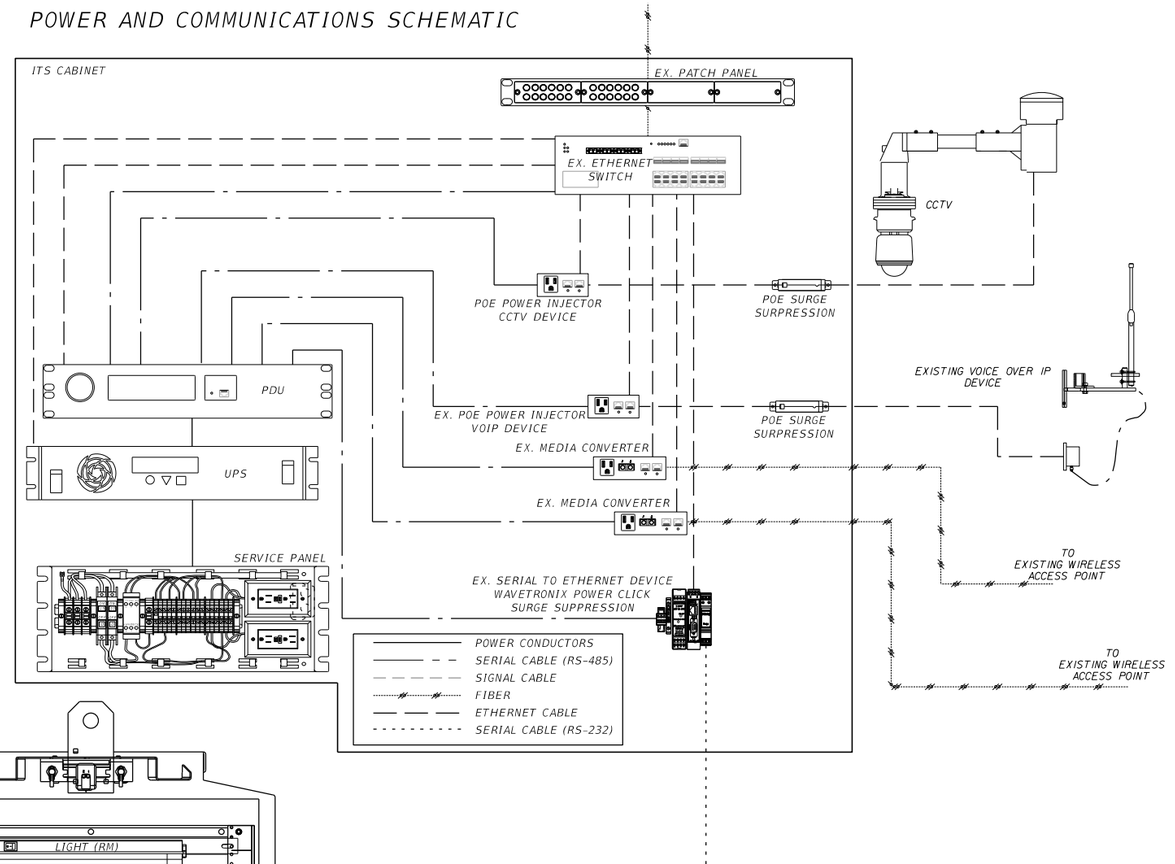


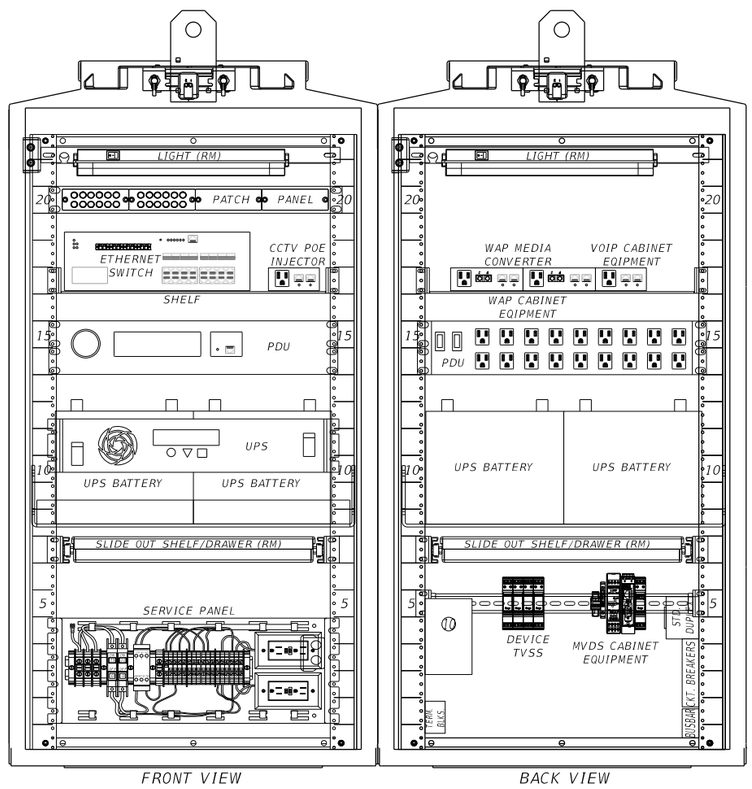
ITS POLE OVERHEAD VIEW

ITS CABINET RISER VIEW



POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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225 E. Robinson St., Suite 300
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

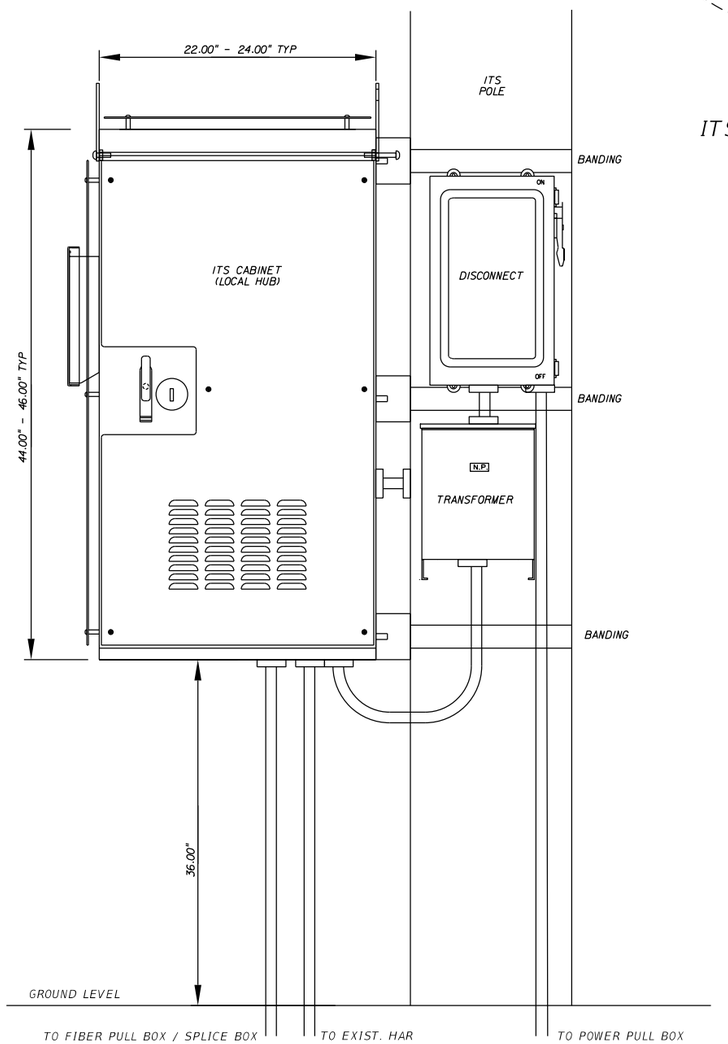
ITS CABINET DETAIL
(1 CCTV, 1 MVDS, 2 WAP & 1 VOIP)

SHEET NO.
IT-334

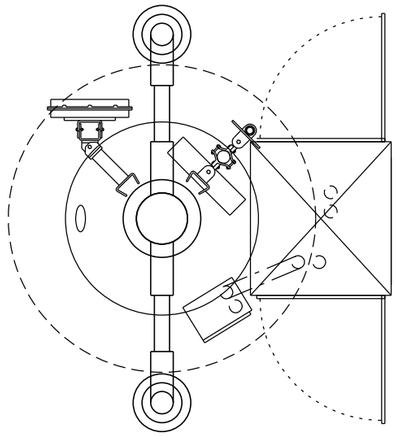
ITS CABINET DETAIL FOR SITES:

LHUB 95-29.58 SB

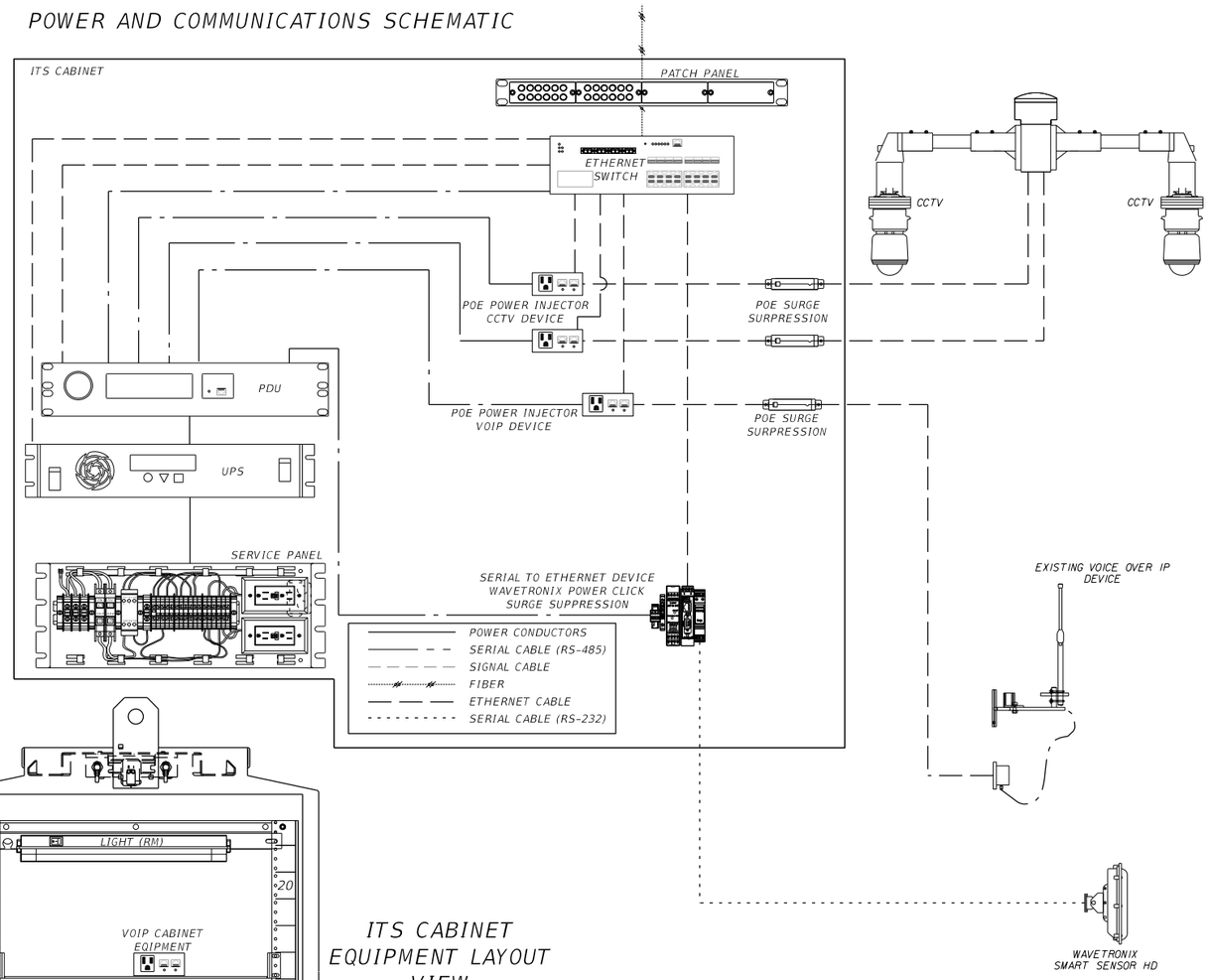
ITS CABINET RISER VIEW

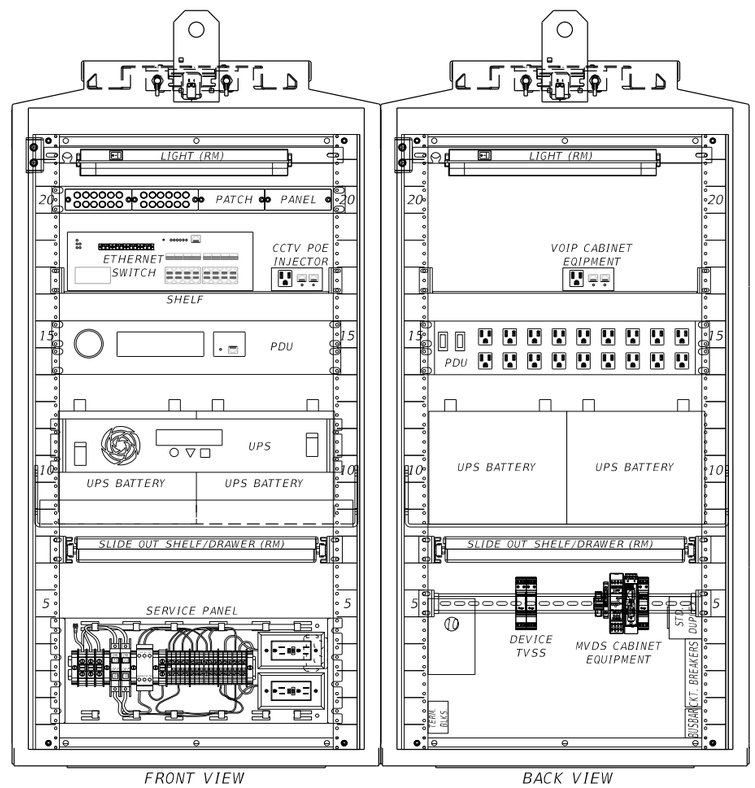


ITS POLE OVERHEAD VIEW



POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (2 CCTV, 1 MVDS, 1 VOIP)

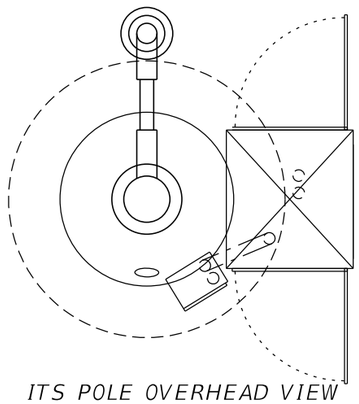
SHEET NO.

IT-335

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

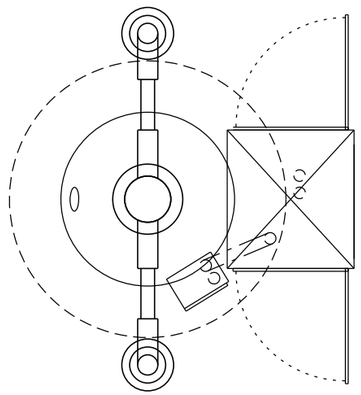
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS CABINET DETAIL FOR SITES: LHUB 95-28.63 NB



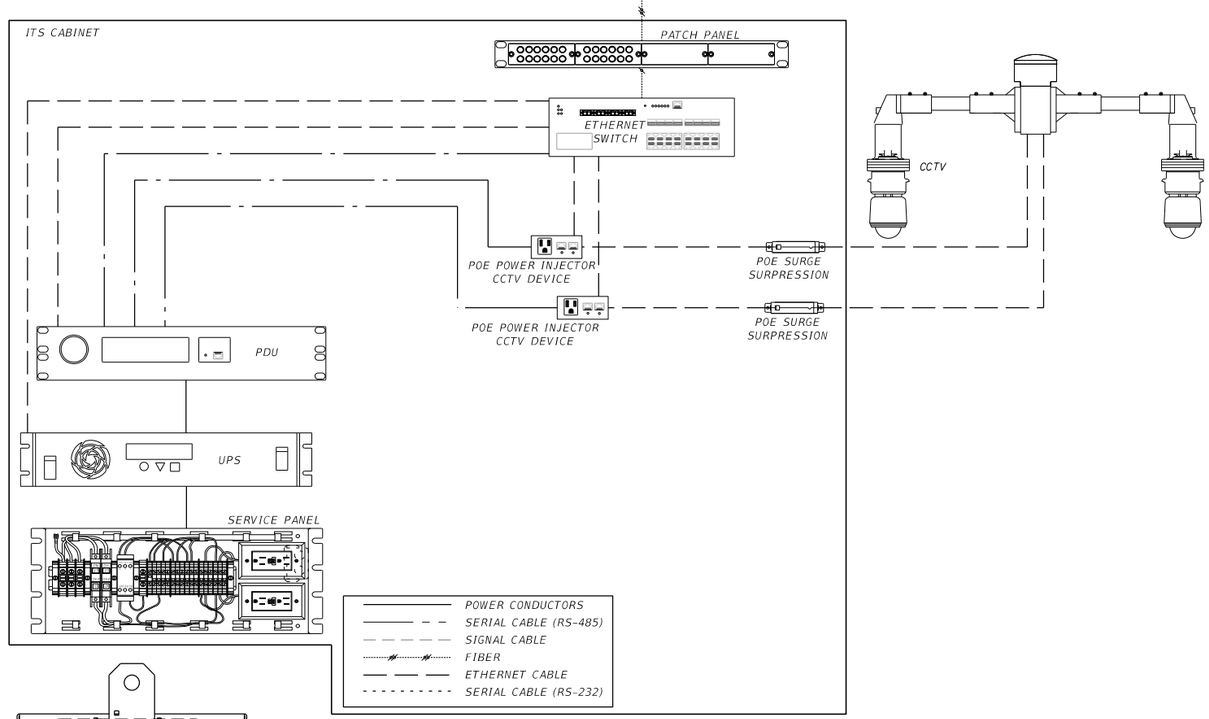
ITS POLE OVERHEAD VIEW

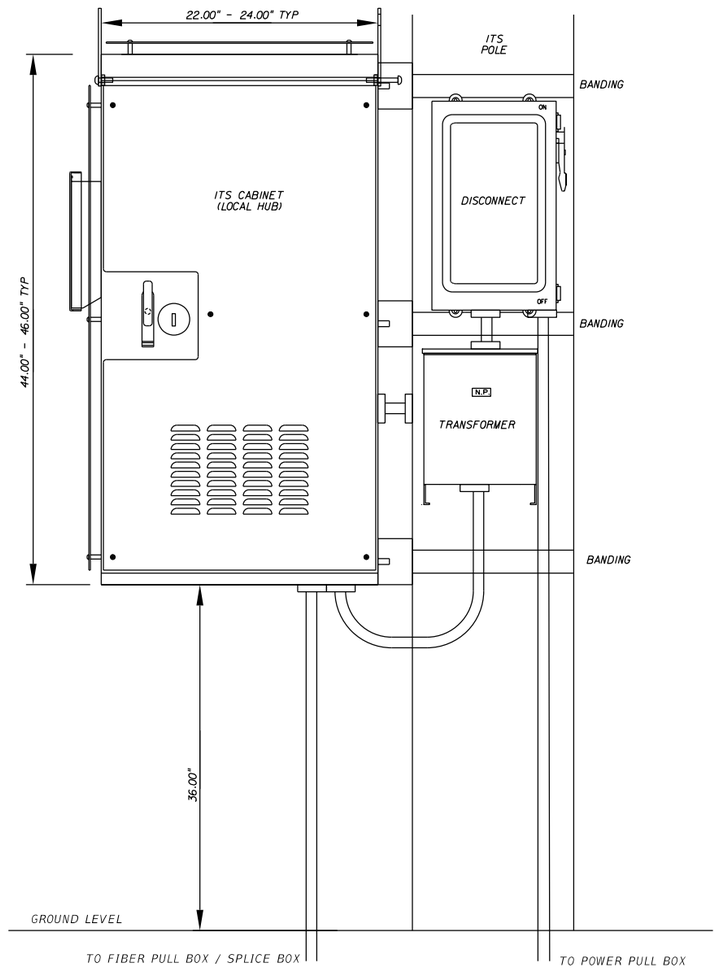
ITS CABINET DETAIL FOR SITES: LHUB 95-32.27 SB



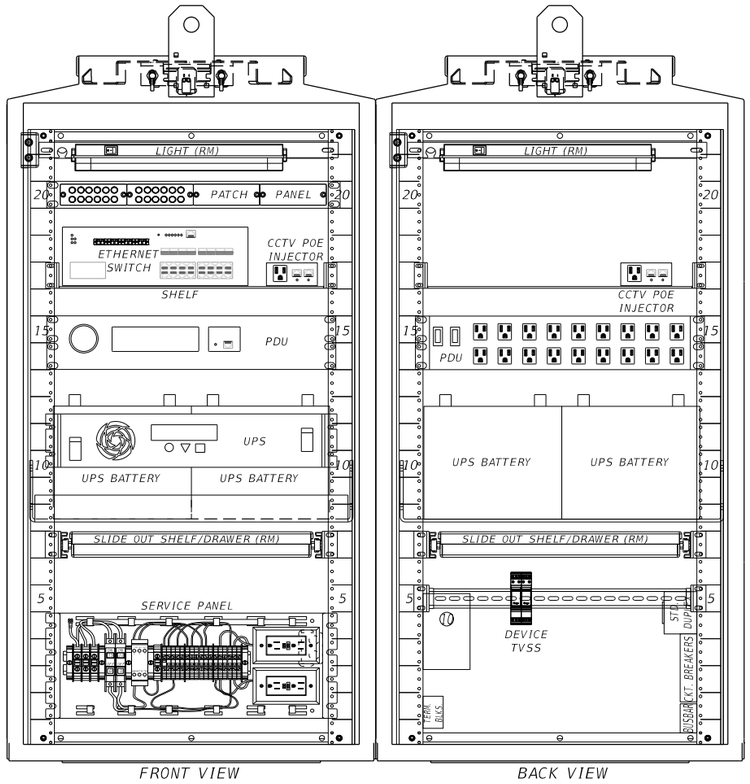
ITS POLE OVERHEAD VIEW

POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET RISER VIEW



FRONT VIEW BACK VIEW

ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (2 CCTV)

SHEET NO. IT-336

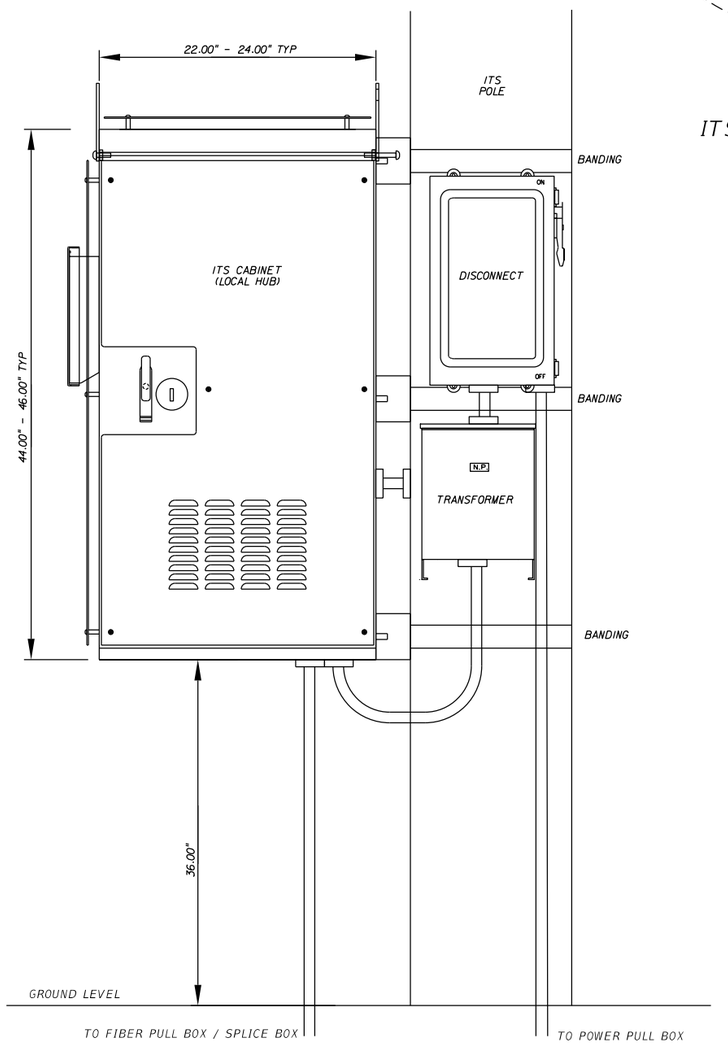
RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

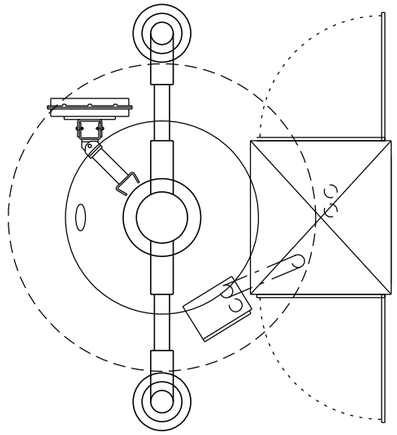
ITS CABINET DETAIL FOR SITES:

LHUB 95-30.57 SB
LHUB 95-30.61 NB
LHUB 95-30.83 NB
LHUB 95-32.39 NB

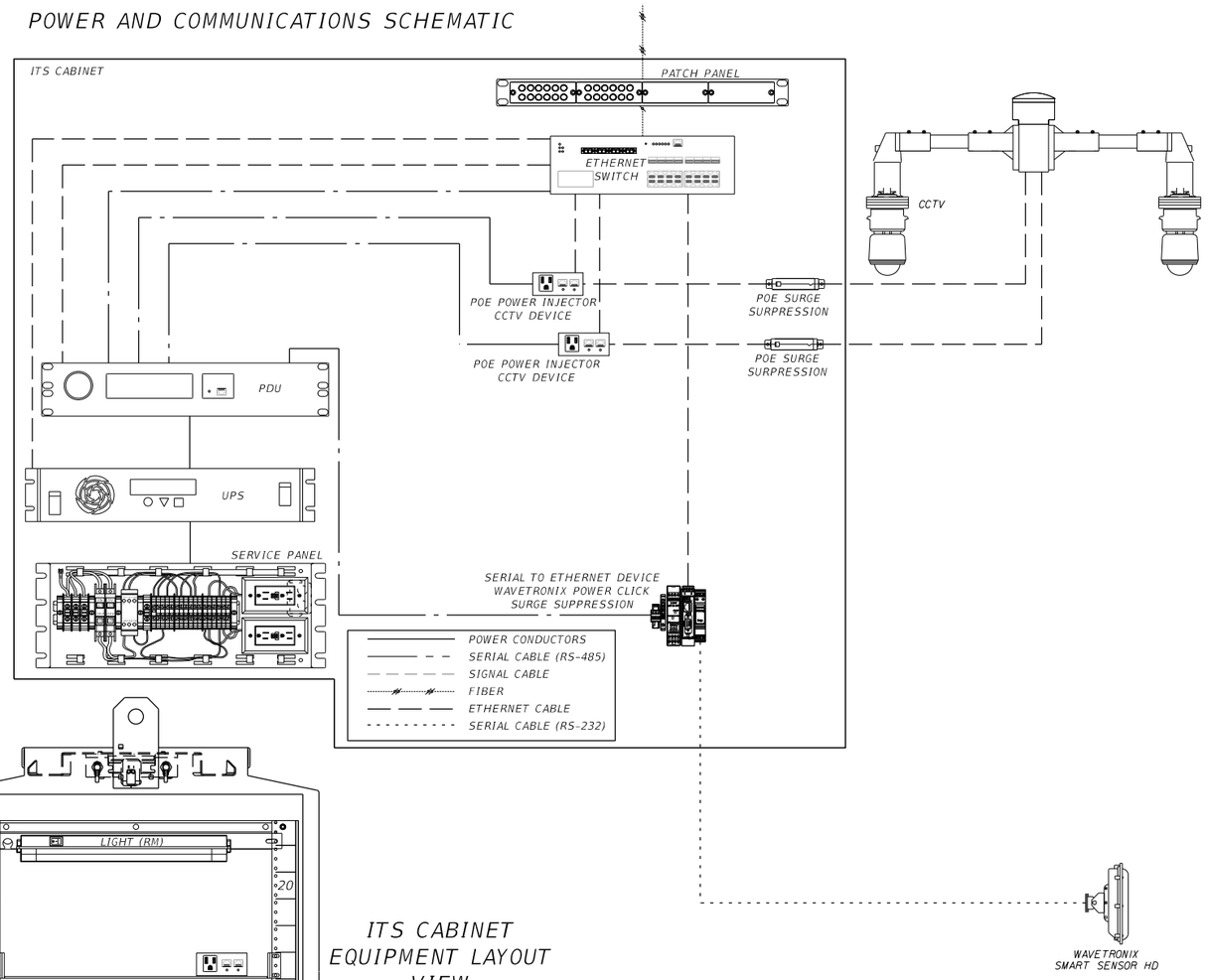
ITS CABINET RISER VIEW

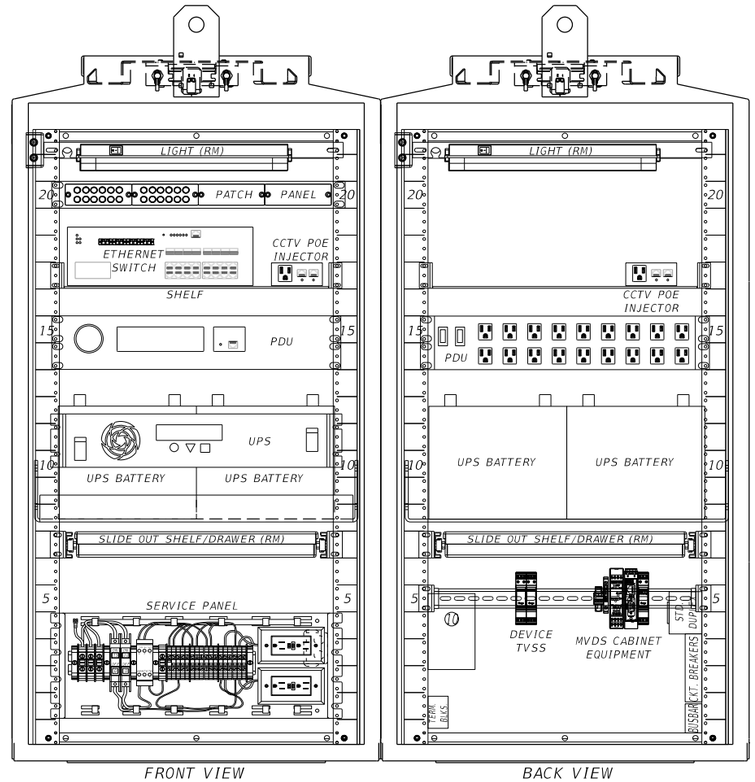


ITS POLE OVERHEAD VIEW



POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

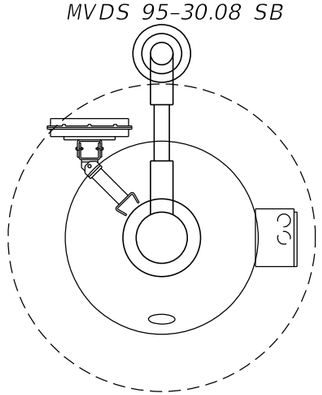
ITS CABINET DETAIL (2 CCTV & 1 MVDS)

SHEET NO.
IT-337

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

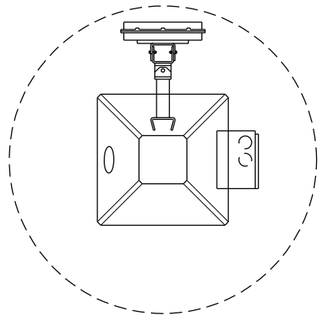
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NEMA ENCLOSURE DETAIL FOR SITES:
MVDS 95-30.08 SB

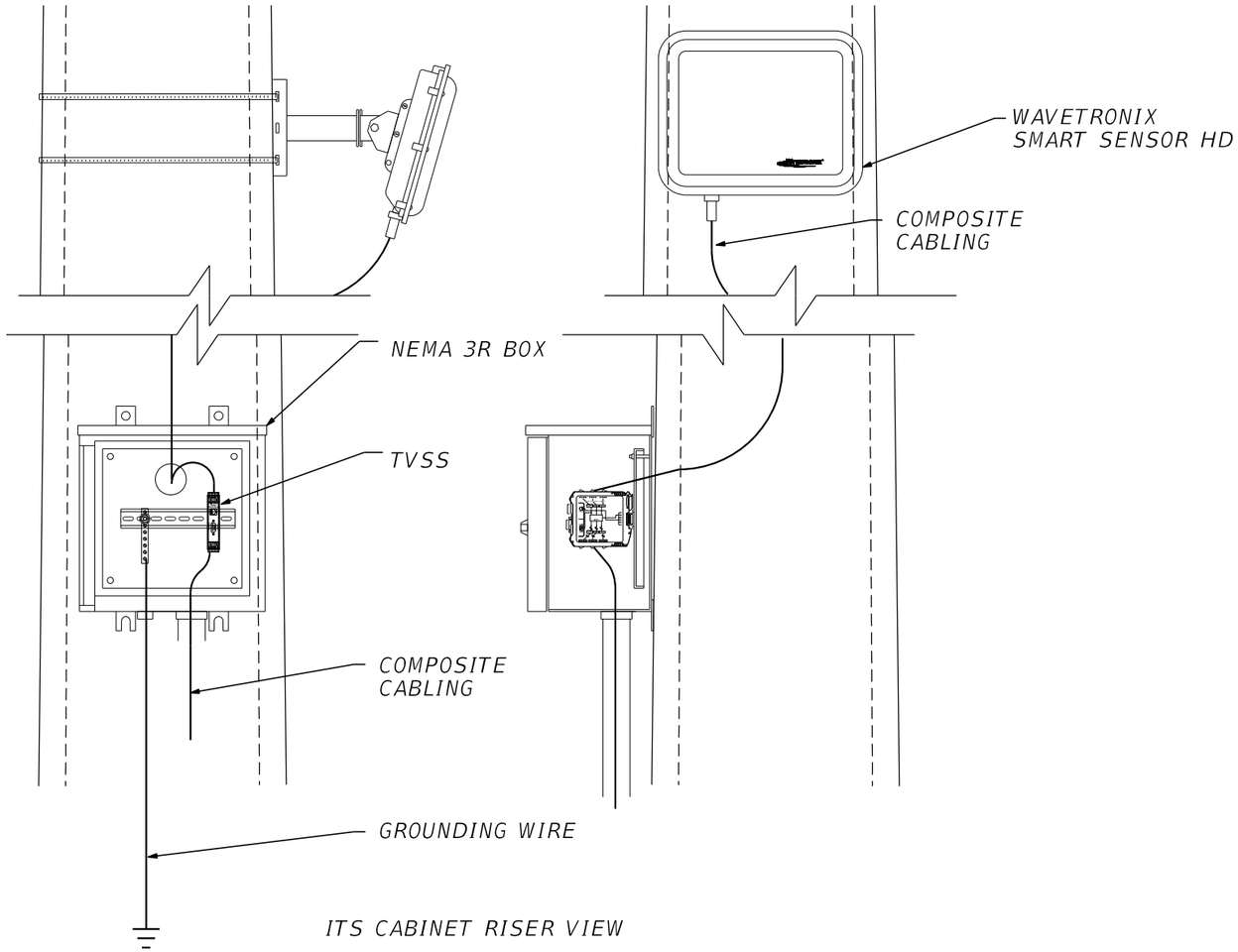


ITS POLE OVERHEAD VIEW

NEMA ENCLOSURE DETAIL FOR SITES:
MVDS 95-27.95 NB
MVDS 95-29.33 SB

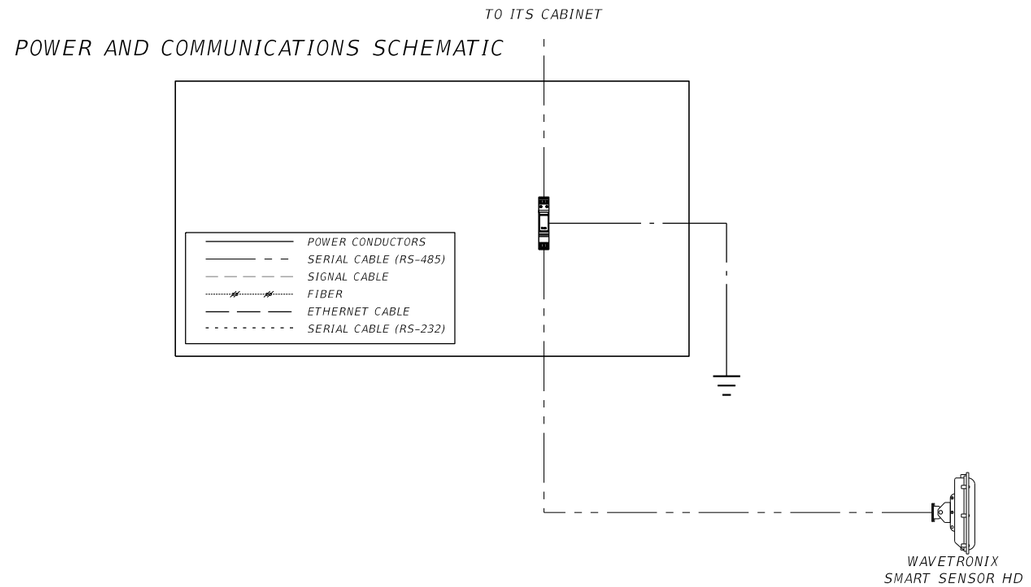


ITS POLE OVERHEAD VIEW



ITS CABINET RISER VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR DIN RAIL MOUNTED EQUIPMENT.
2. CABINETS SHALL BE NEMA 3R
3. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
4. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
5. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

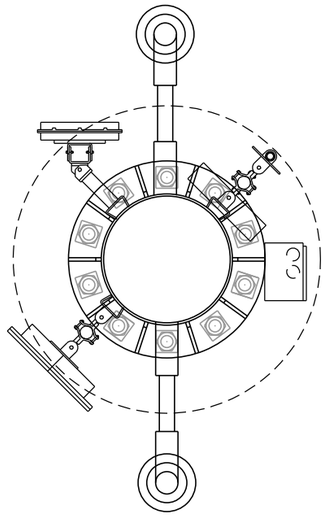
ITS CABINET DETAIL (MVDS AUX. CABINET)

SHEET NO.
IT-338

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

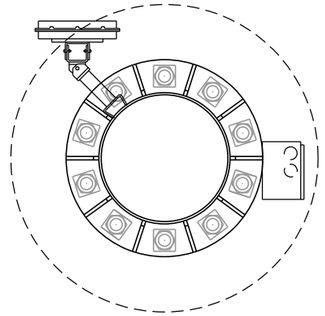
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32
BY: (FDOT) VS Date: 3/21/2018

NEMA ENCLOSURE DETAIL FOR SITES:
MVDS 95-25.58 NB



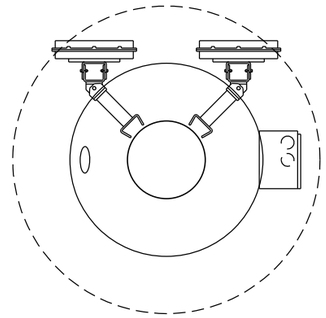
ITS POLE OVERHEAD VIEW

NEMA ENCLOSURE DETAIL FOR SITES:
MVDS 95-26.13 NB

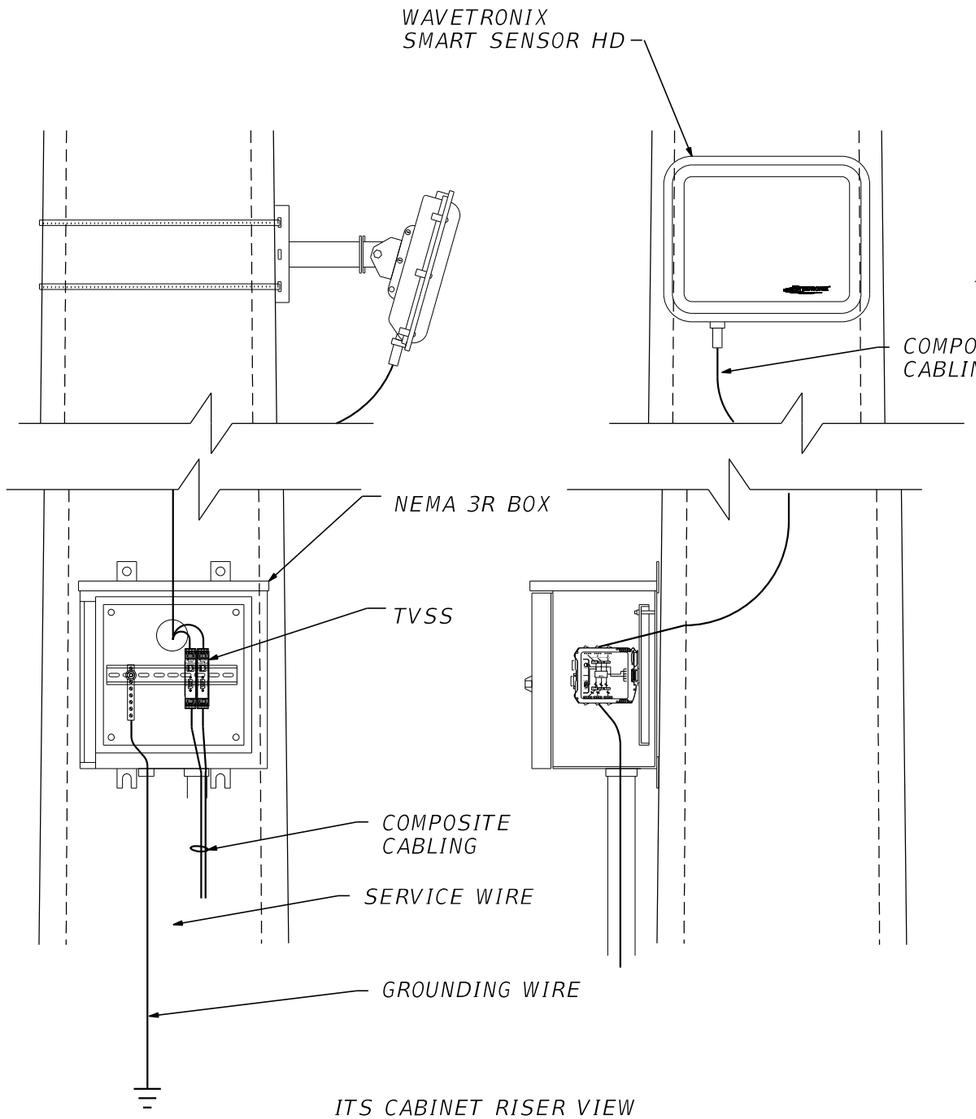


ITS POLE OVERHEAD VIEW

NEMA ENCLOSURE DETAIL FOR SITES:
MVDS 95-31.95 NB

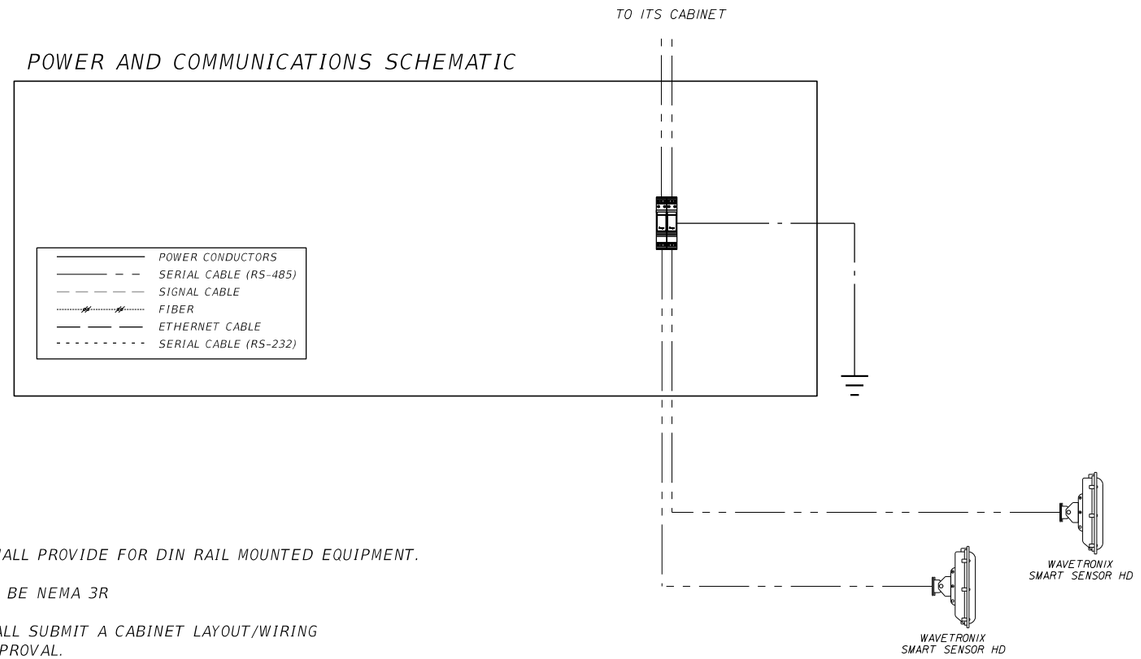


ITS POLE OVERHEAD VIEW



ITS CABINET RISER VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR DIN RAIL MOUNTED EQUIPMENT.
2. CABINETS SHALL BE NEMA 3R
3. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
4. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
5. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (MVDS AUX. CABINET)

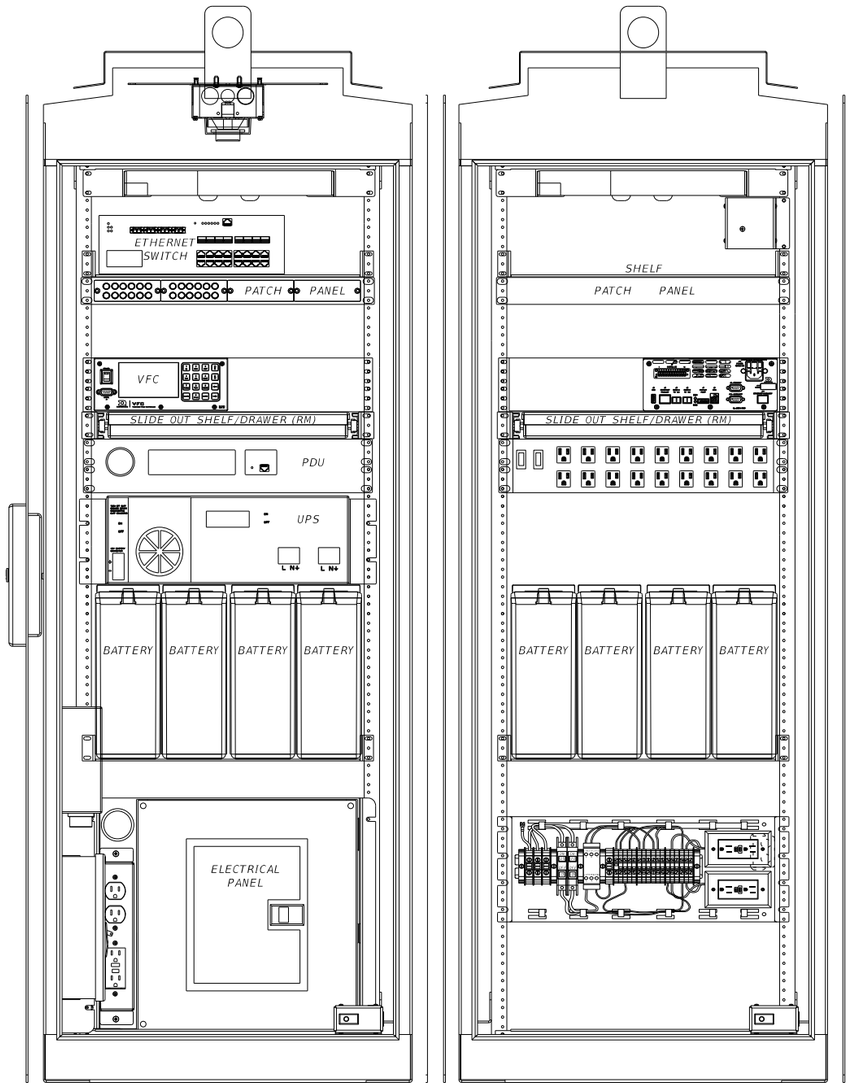
SHEET NO.
IT-339

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

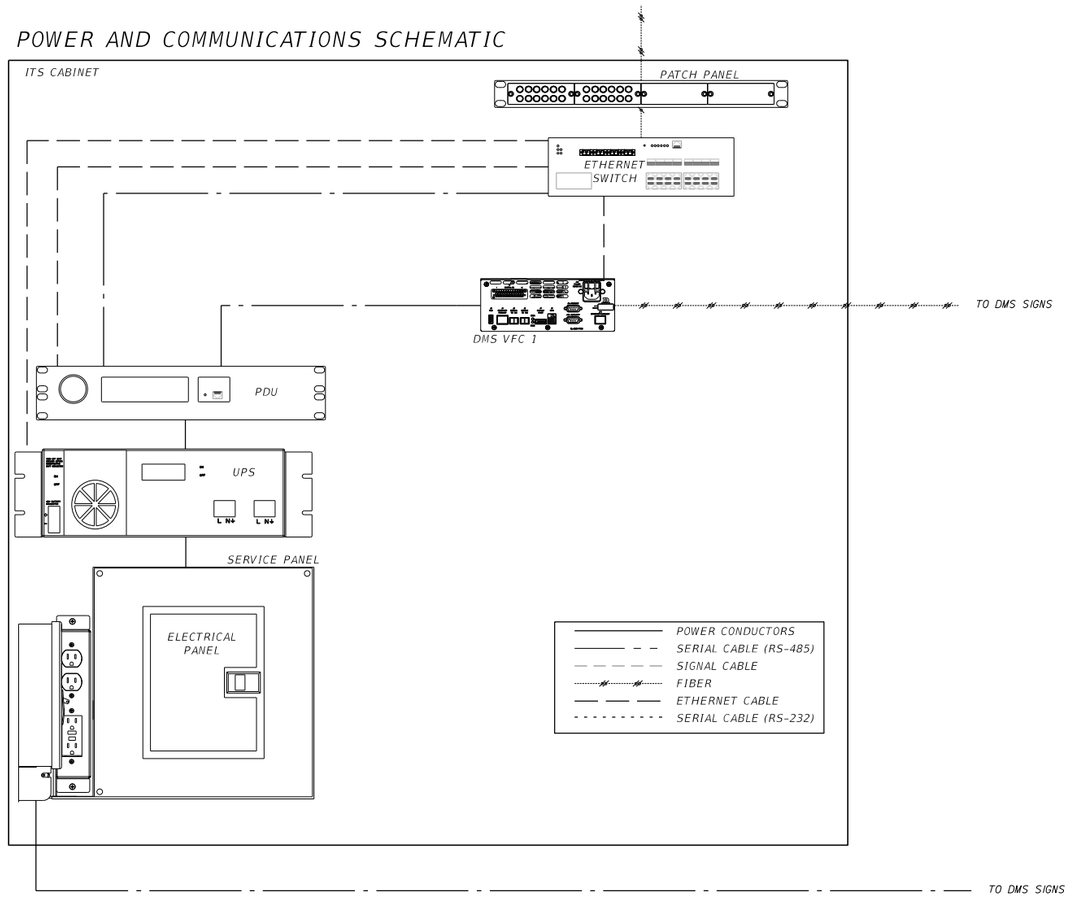
ITS EL DMS / DMS CABINET DETAIL FOR SITES:

LHUB 95-28.16 SB
LHUB 95-28.29 NB
LHUB 95-29.95 NB
LHUB 95-29.99 SB
LHUB 95-32.09 SB
LHUB 95-32.55 NB



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (DMS / EL DMS)

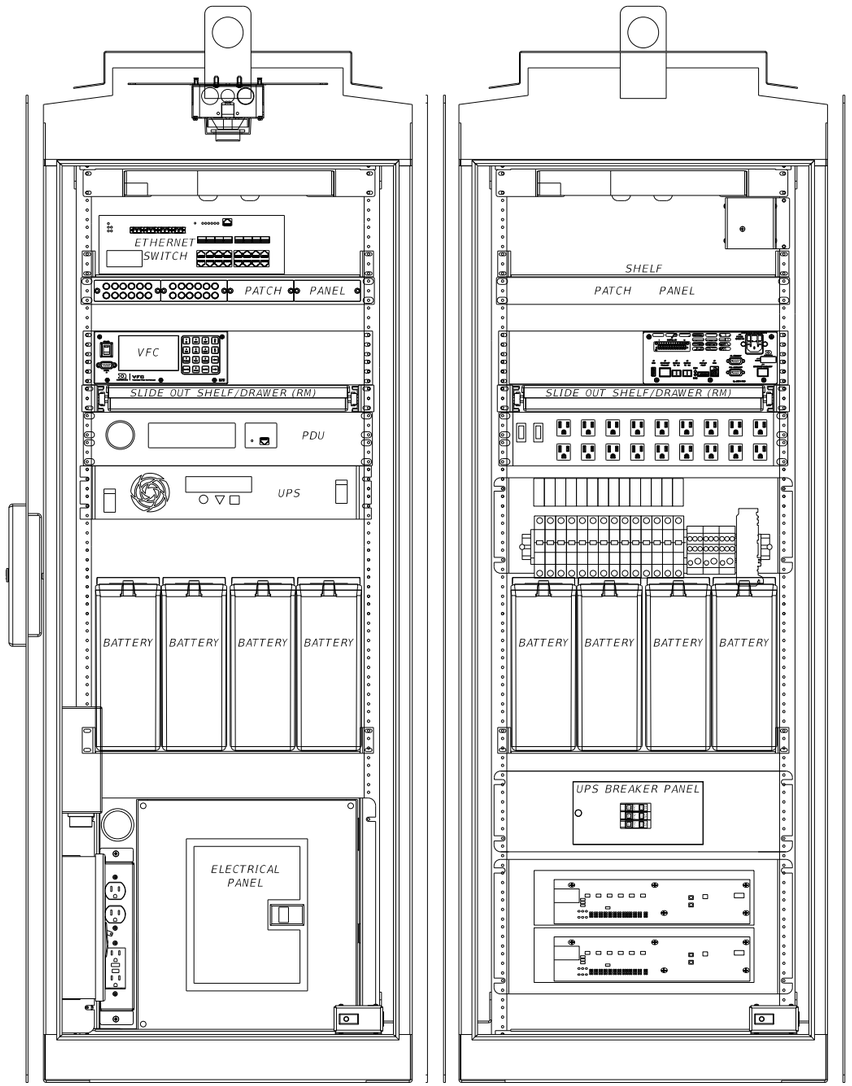
SHEET NO. IT-340

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

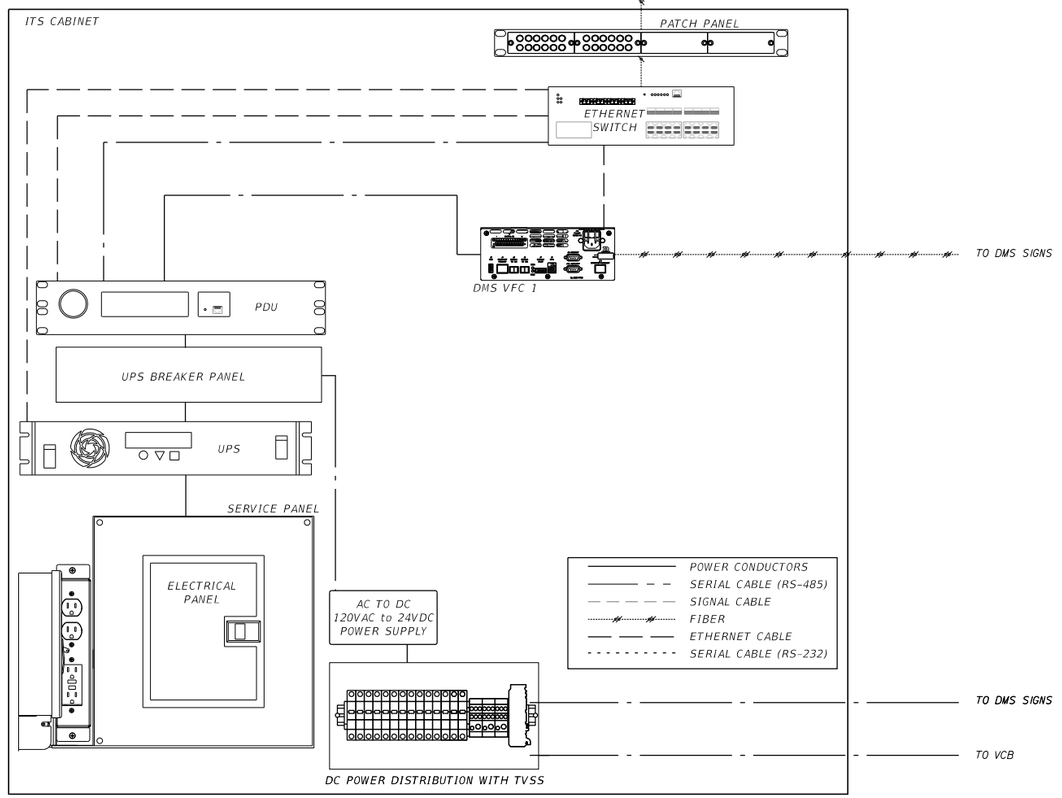
ITS S-DMS CABINET DETAIL FOR SITES:

LHUB 95-25.93 NB
LHUB 95-26.41 NB
LHUB 95-29.63 SB
LHUB 95-29.71 NB
LHUB 95-30.41 NB
LHUB 95-30.86 NB



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (S-DMS)

SHEET NO. IT-341

jknight 3/9/2018 3:37:26 PM \\vhb\proj\Orlando\62442.00 I-95 Express 3A-1\cad\te\E4Q32\its\SGDTIT11.dgn

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS EL DMS / DMS CABINET DETAIL FOR SITES:

LHUB 95-28.56 SB

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
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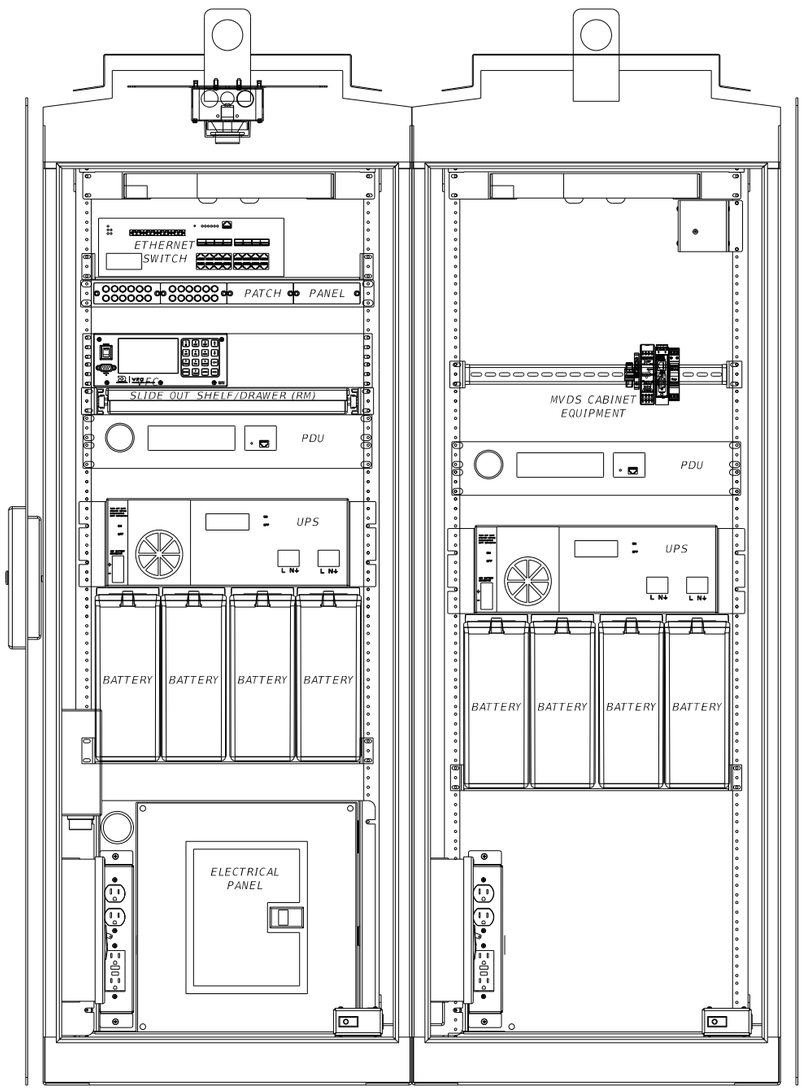
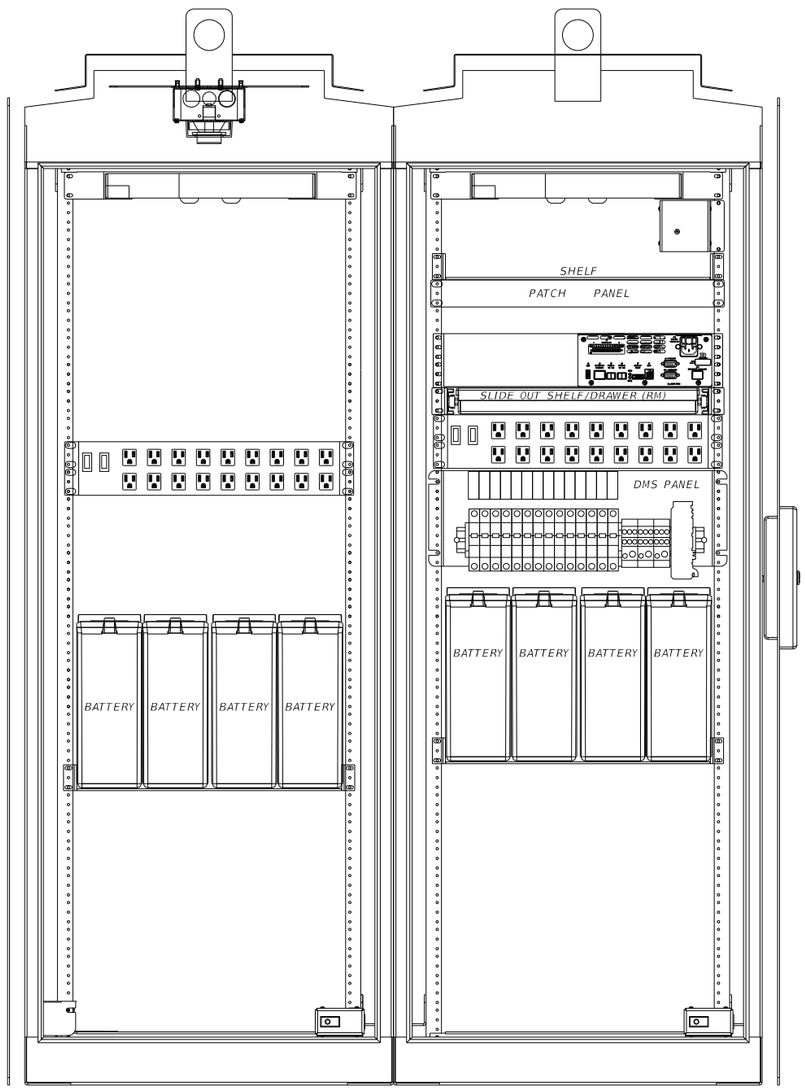
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.



FRONT VIEW

FRONT VIEW



BACK VIEW

BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC

ITS POLE OVERHEAD VIEW

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (DMS / EL DMS & 1 MVDS)

SHEET NO. IT-342

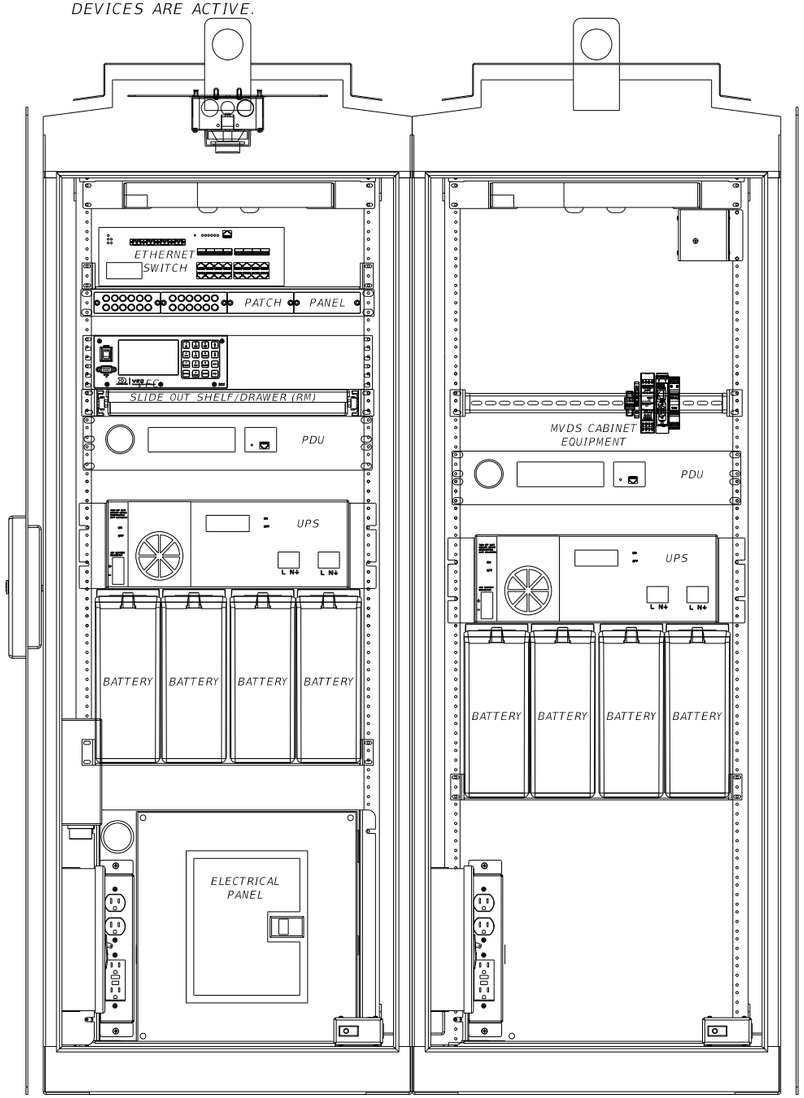
RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS S-DMS CABINET DETAIL FOR SITES: LHUB 95-29.27 SB

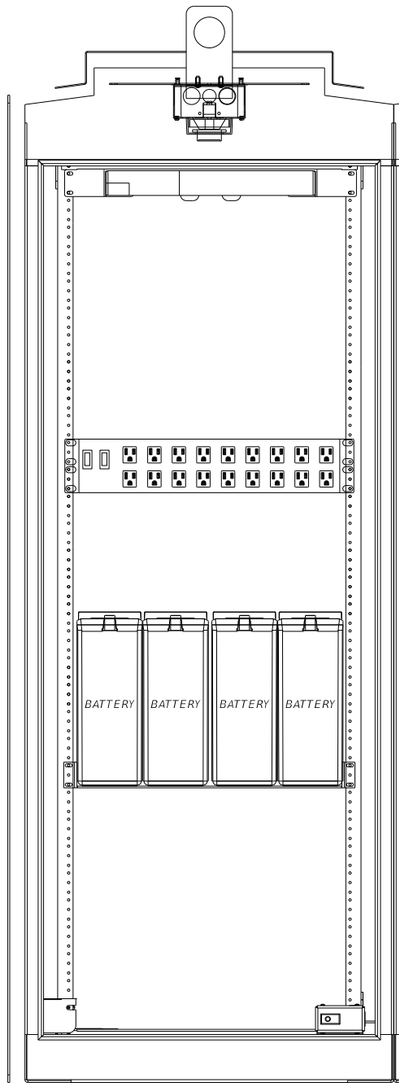
NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

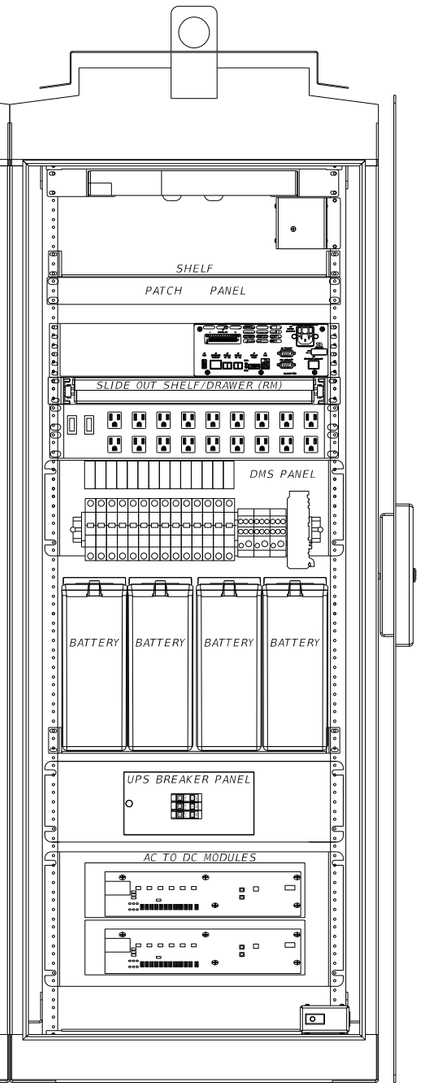


FRONT VIEW

FRONT VIEW



BACK VIEW



BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (S-DMS & 1 MVDS)

SHEET NO. IT-343

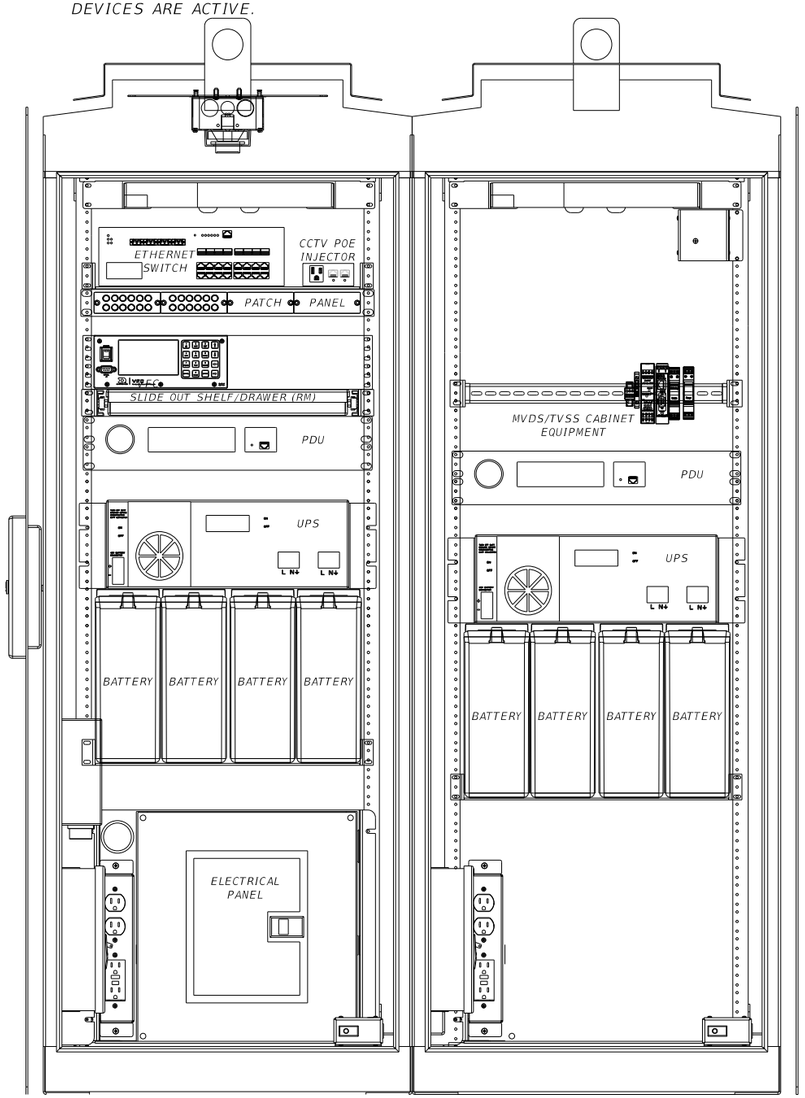
RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS S-DMS CABINET DETAIL FOR SITES: LHUB 95-30.33 SB

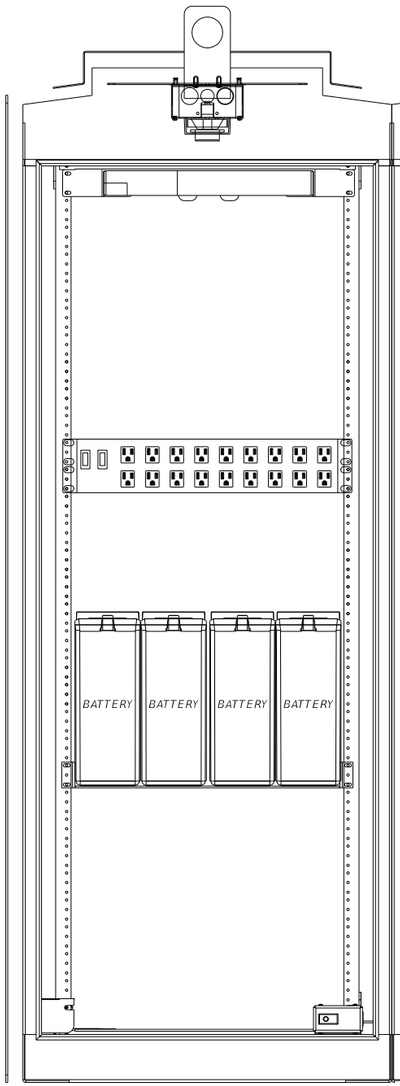
NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

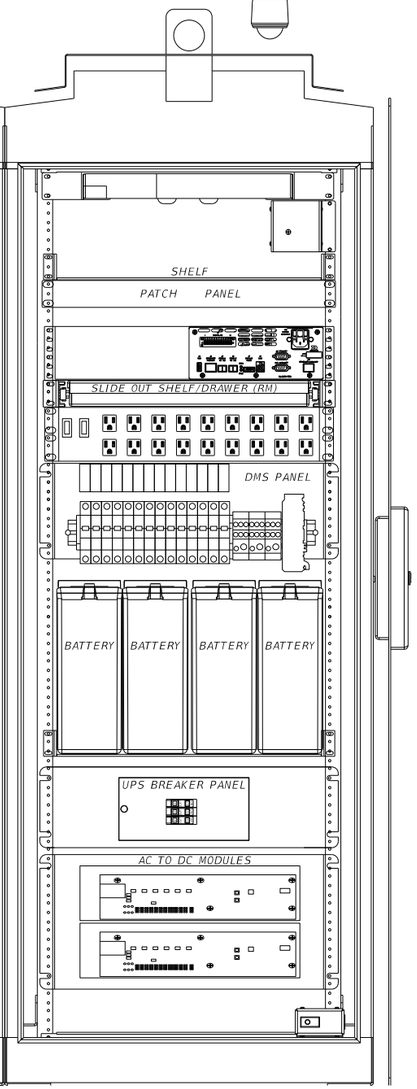


FRONT VIEW

FRONT VIEW



BACK VIEW



BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (S-DMS WITH 1 CCTV & 1 MVDS)

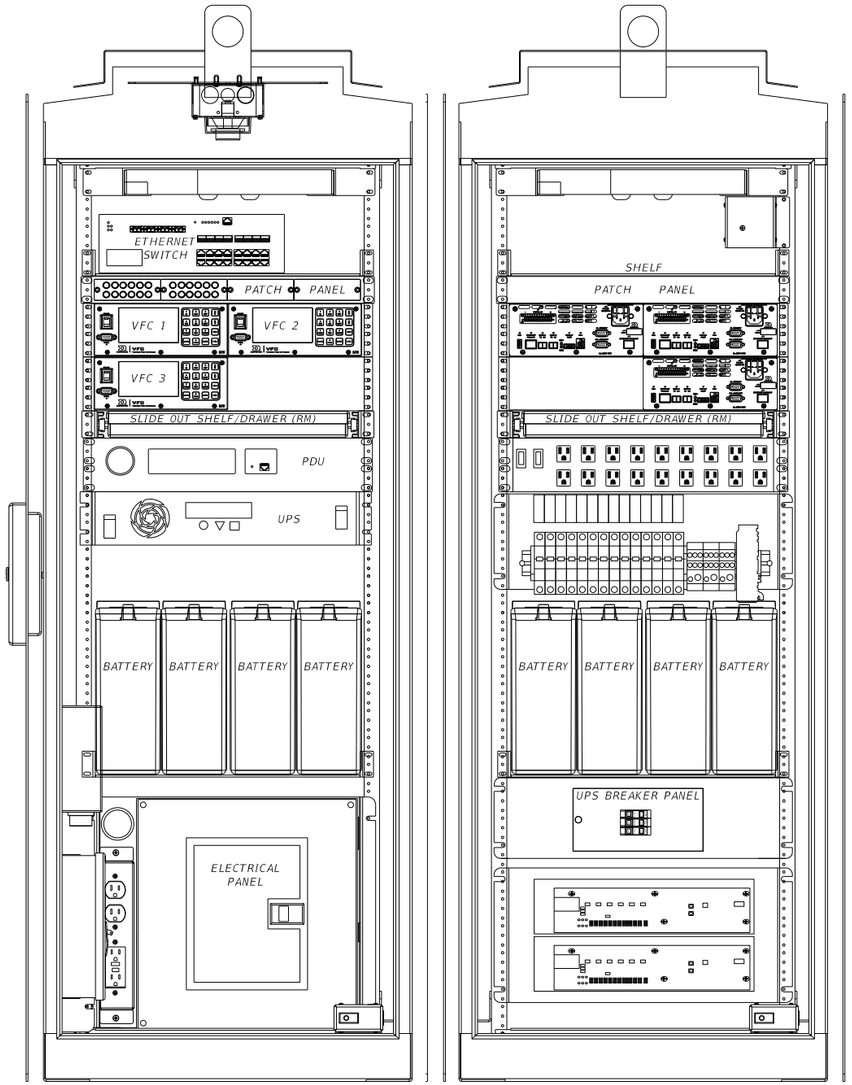
SHEET NO. IT-344

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

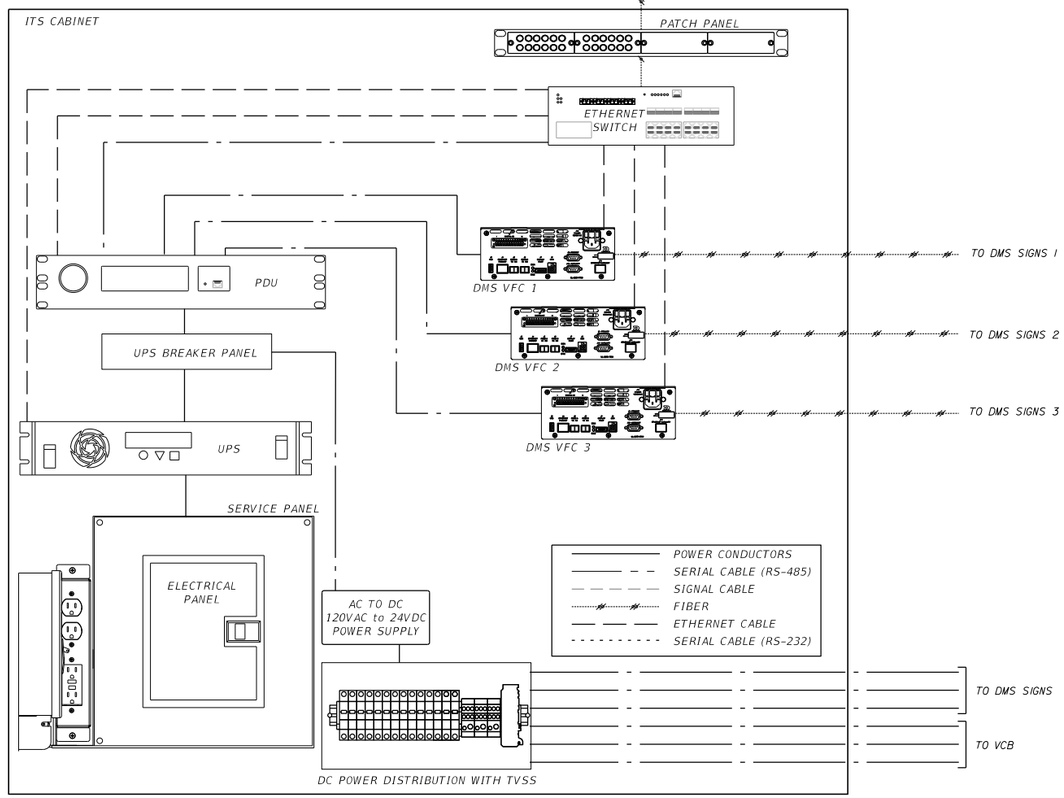
ITS T-DMS CABINET DETAIL FOR SITES:

LHUB 95-29.51 SB
LHUB 95-30.12 NB
LHUB 95-30.20 SB



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. NUMBER OF VFC, VCB, AND LED PANELS WILL VARY. SEE PLAN SHEETS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (T-DMS)

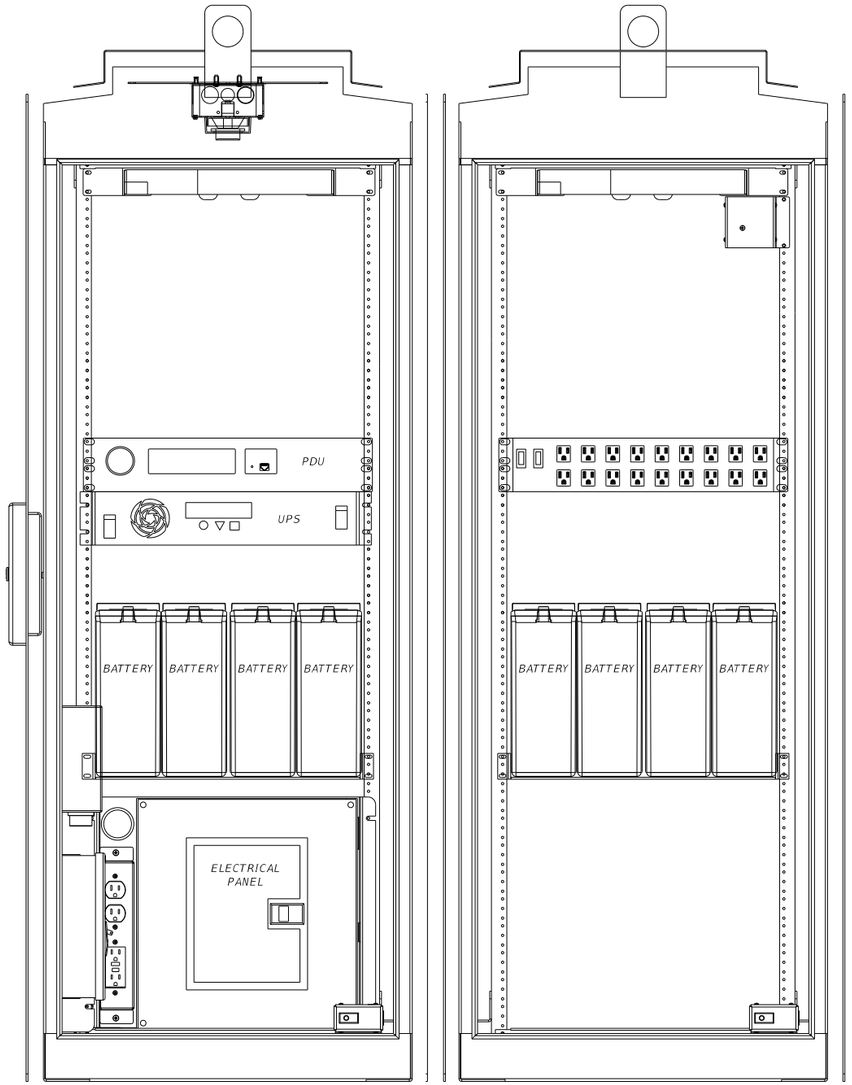
SHEET NO. IT-345

jknight 3/9/2018 3:36:52 PM \\vhb\proj\Orlando\62442.00 I-95 Express 3A-1\cad\te\E4Q32\its\SGDTIT11.dgn

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

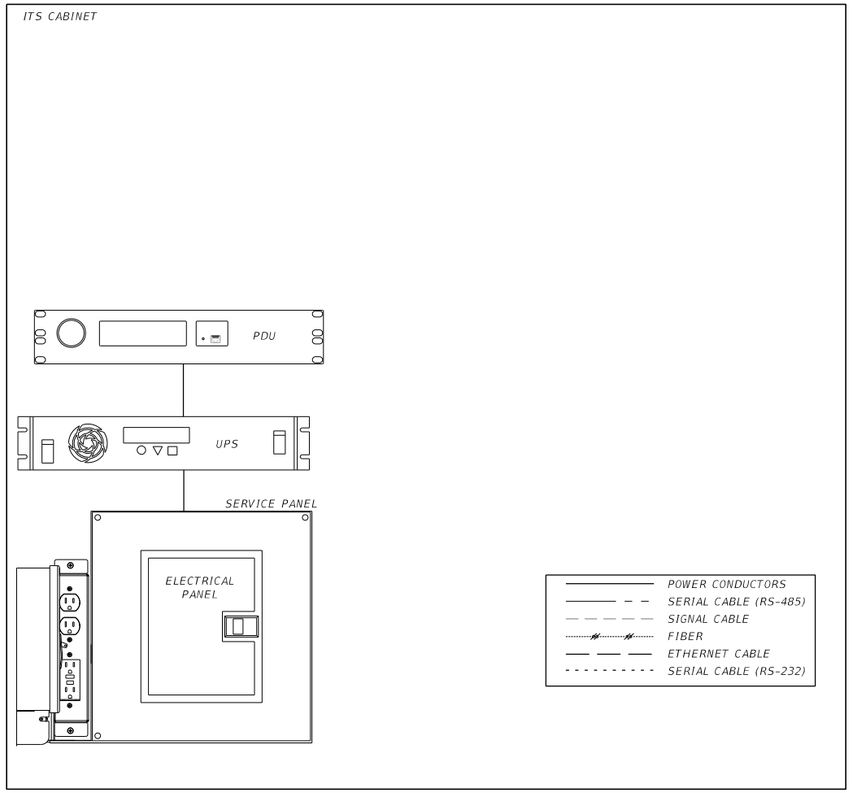
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS T-DMS CABINET DETAIL FOR SITES:
LHUB 95-31.76B SB
LHUB 95-32.62 SB



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. ITS CABINET SHALL BE INSTALLED FOR FUTURE T-DMS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

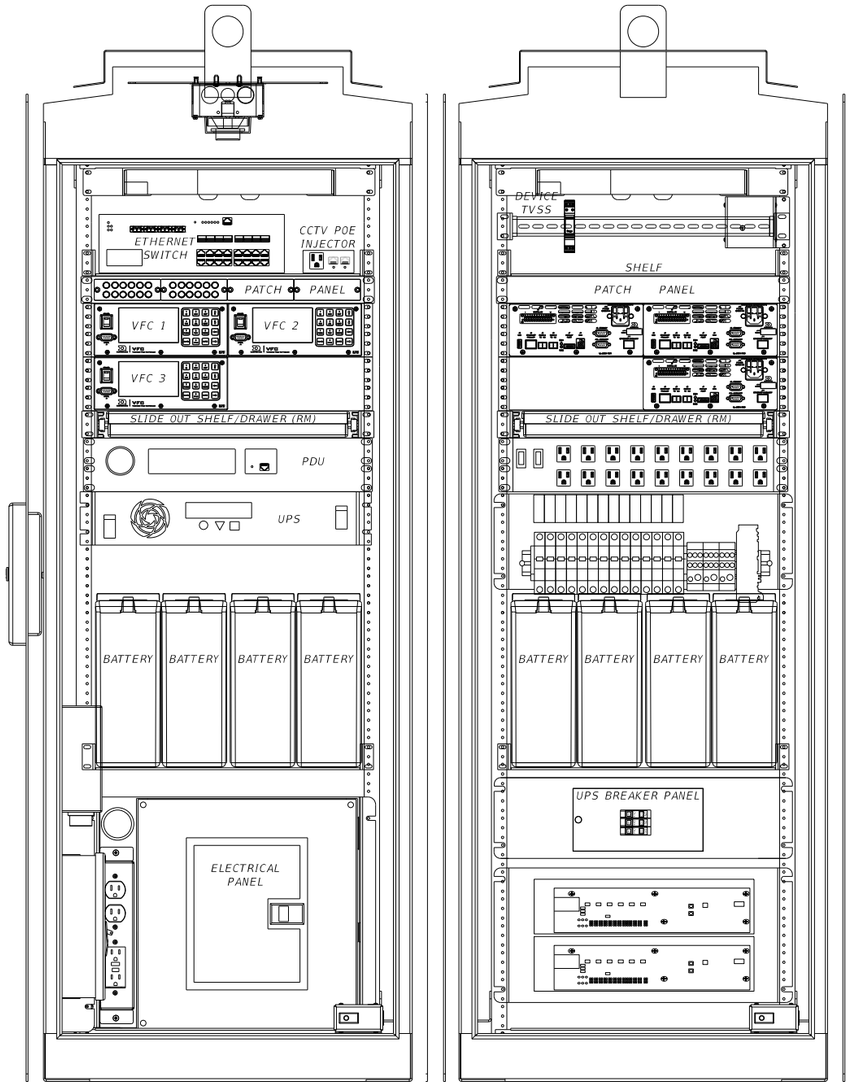
ITS CABINET DETAIL (T-DMS FUTURE)

SHEET NO.
IT-346

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

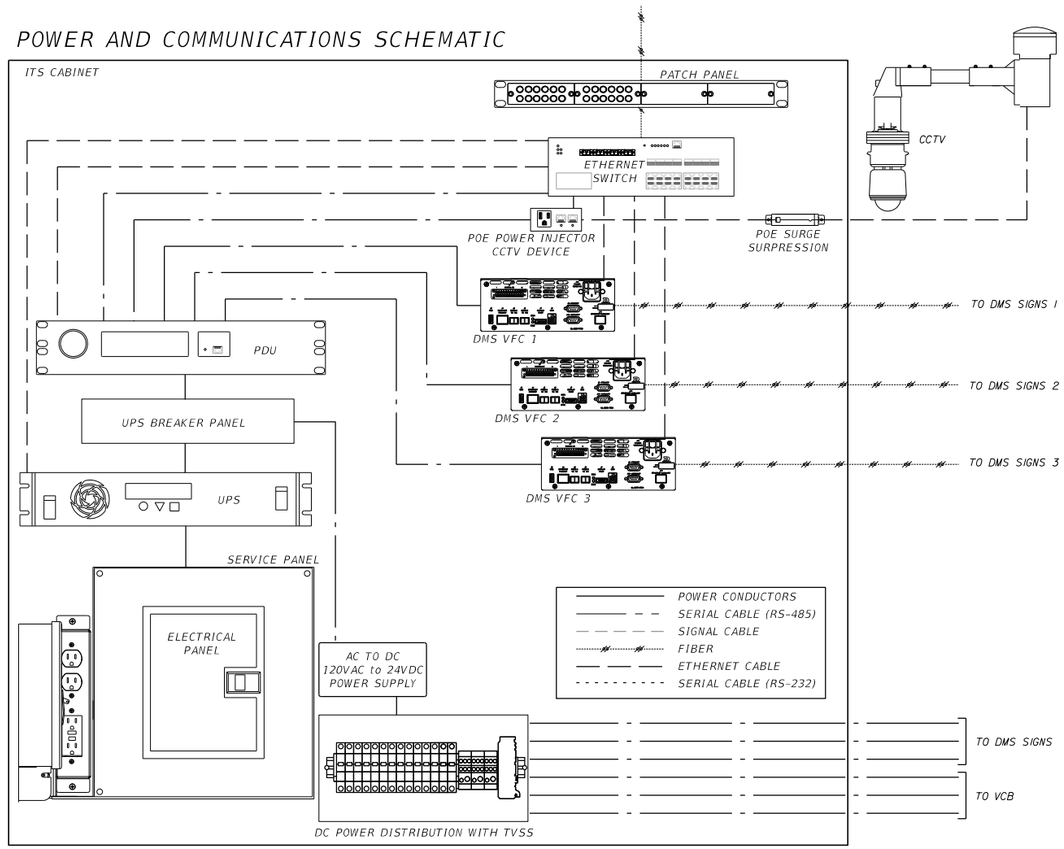
ITS T-DMS CABINET DETAIL FOR SITES: LHUB P&R-4



FRONT VIEW

BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
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4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. NUMBER OF VFC, VCB, AND LED PANELS WILL VARY. SEE PLAN SHEETS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (T-DMS WITH 1 CCTV)

SHEET NO. IT-347

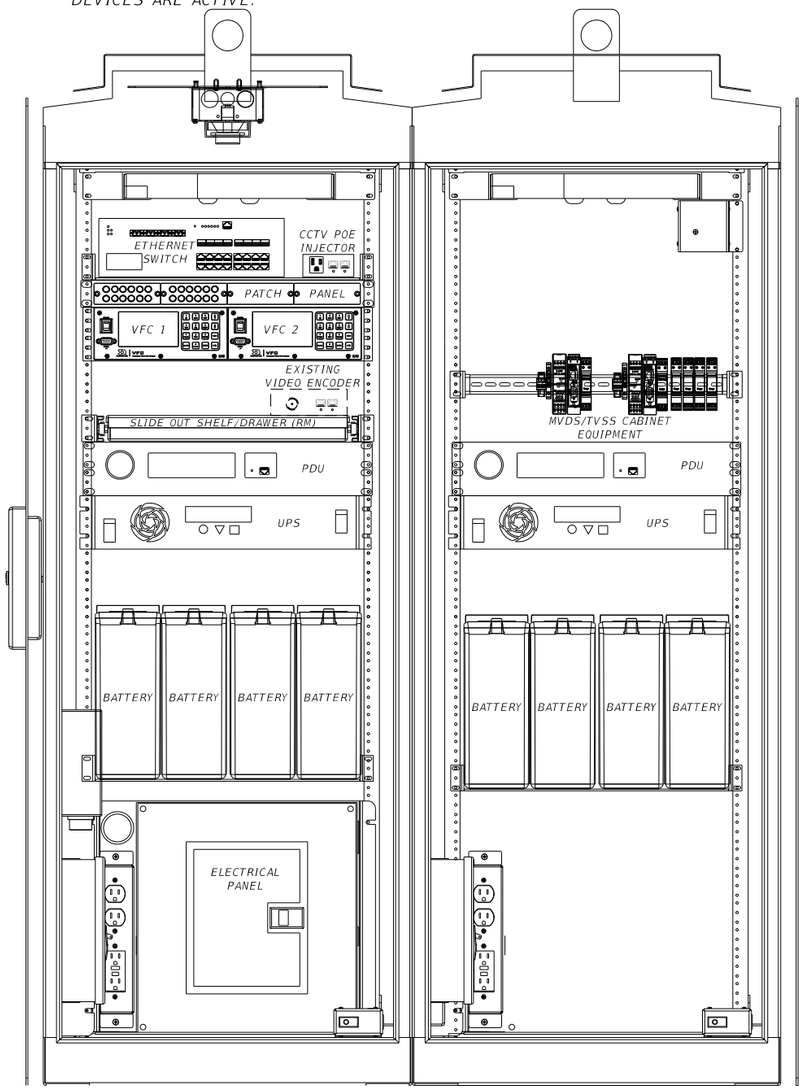
RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS S-DMS CABINET DETAIL FOR SITES: LHUB 95-25.63 NB

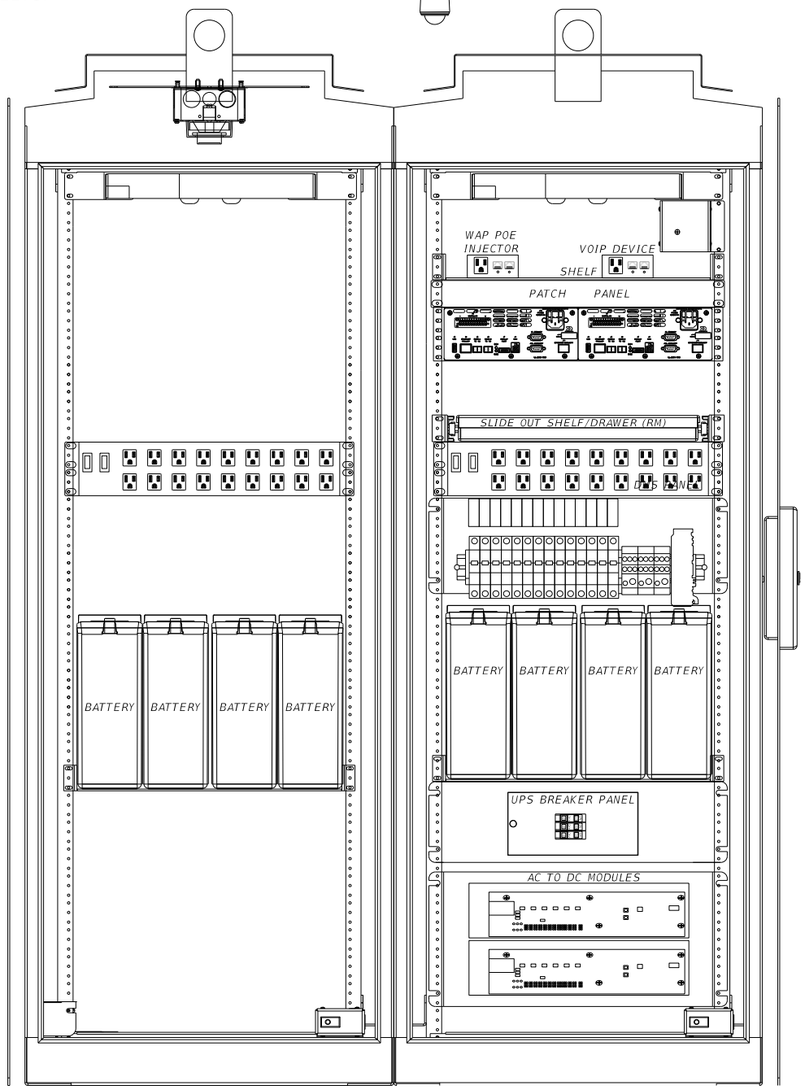
NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. NUMBER OF VFC, VCB, AND LED PANELS WILL VARY. SEE PLAN SHEETS.



FRONT VIEW

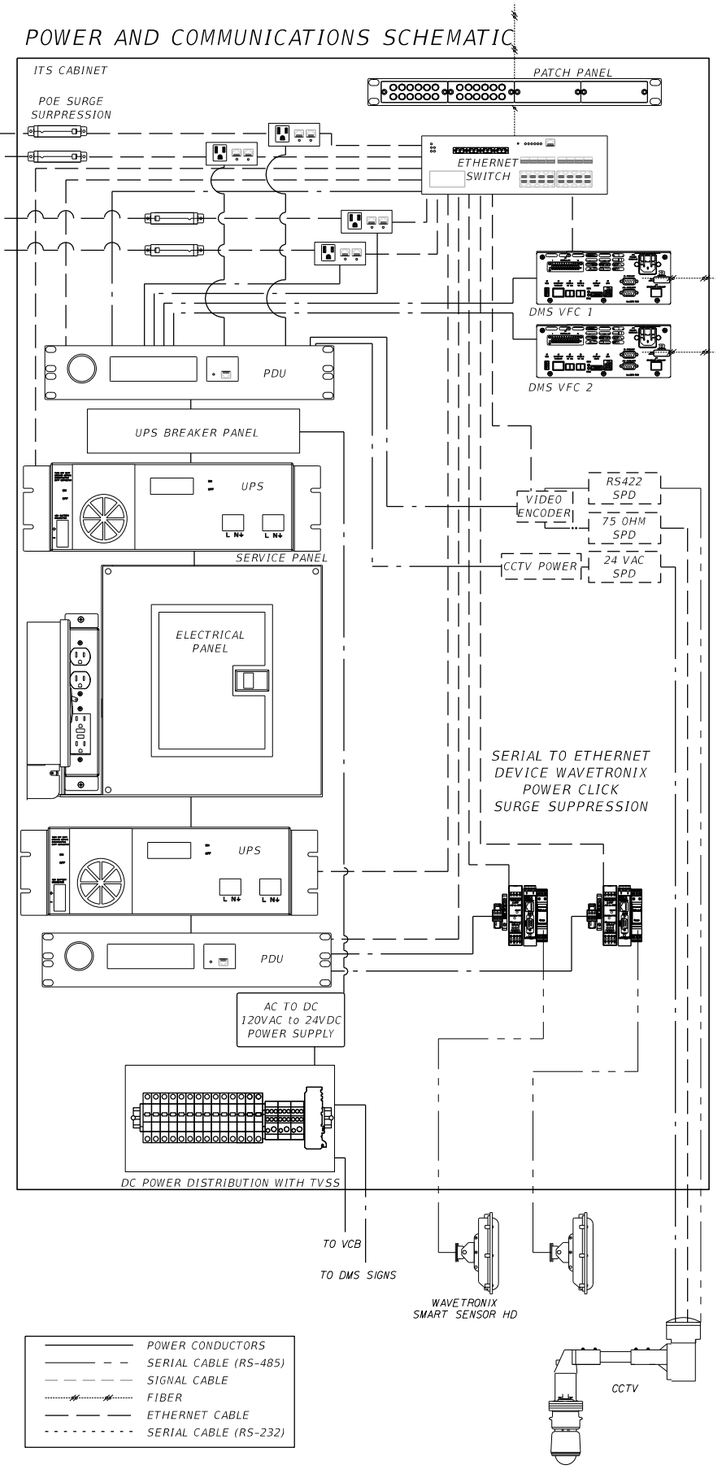
FRONT VIEW



BACK VIEW

BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (T-DMS WITH 2 CCTV & 2 MVDS)

SHEET NO. IT-348

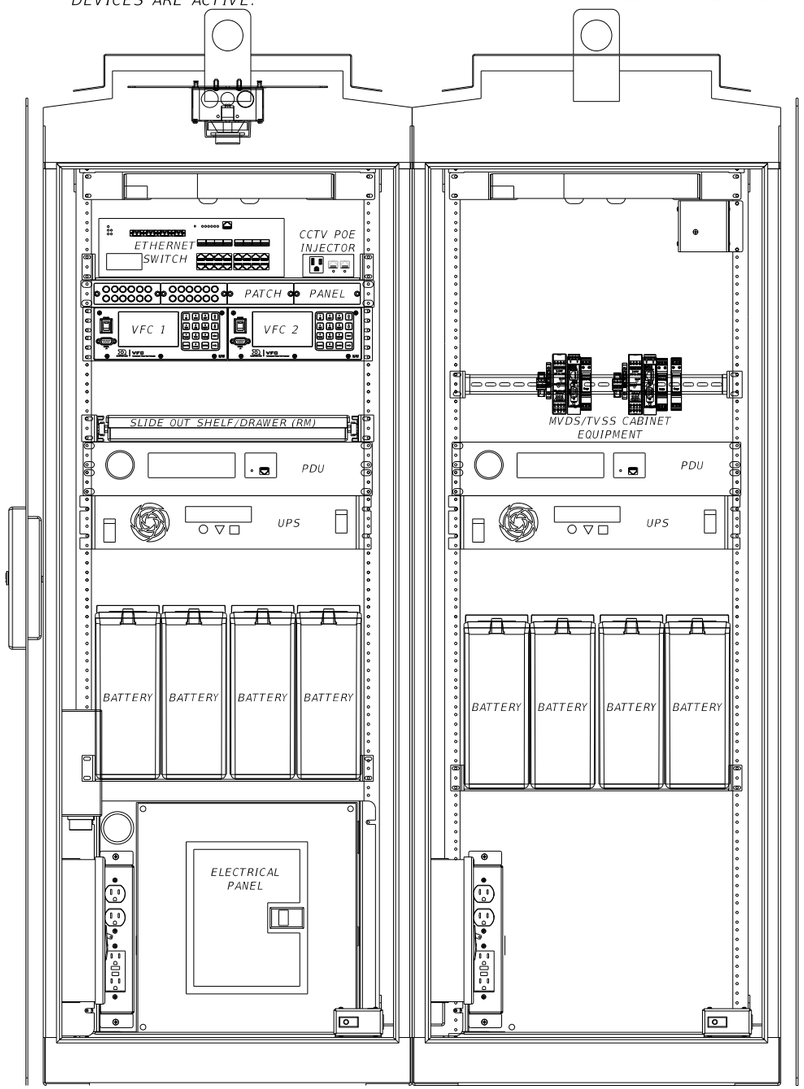
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

ITS S-DMS CABINET DETAIL FOR SITES: LHUB 95-26.09 NB

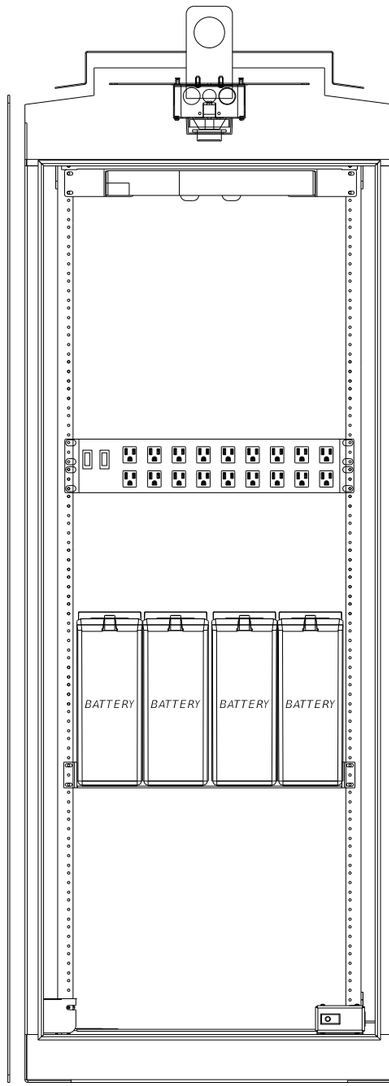
NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. NUMBER OF VFC, VCB, AND LED PANELS WILL VARY. SEE PLAN SHEETS.

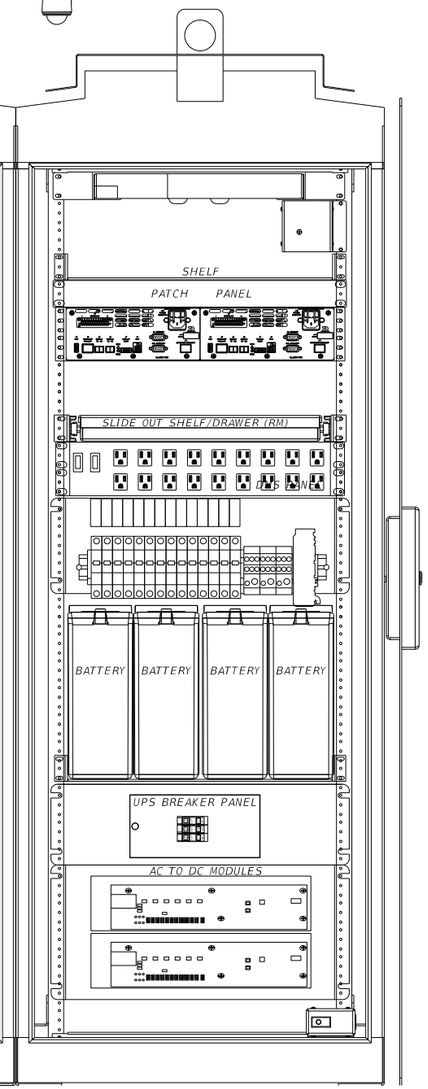


FRONT VIEW

FRONT VIEW

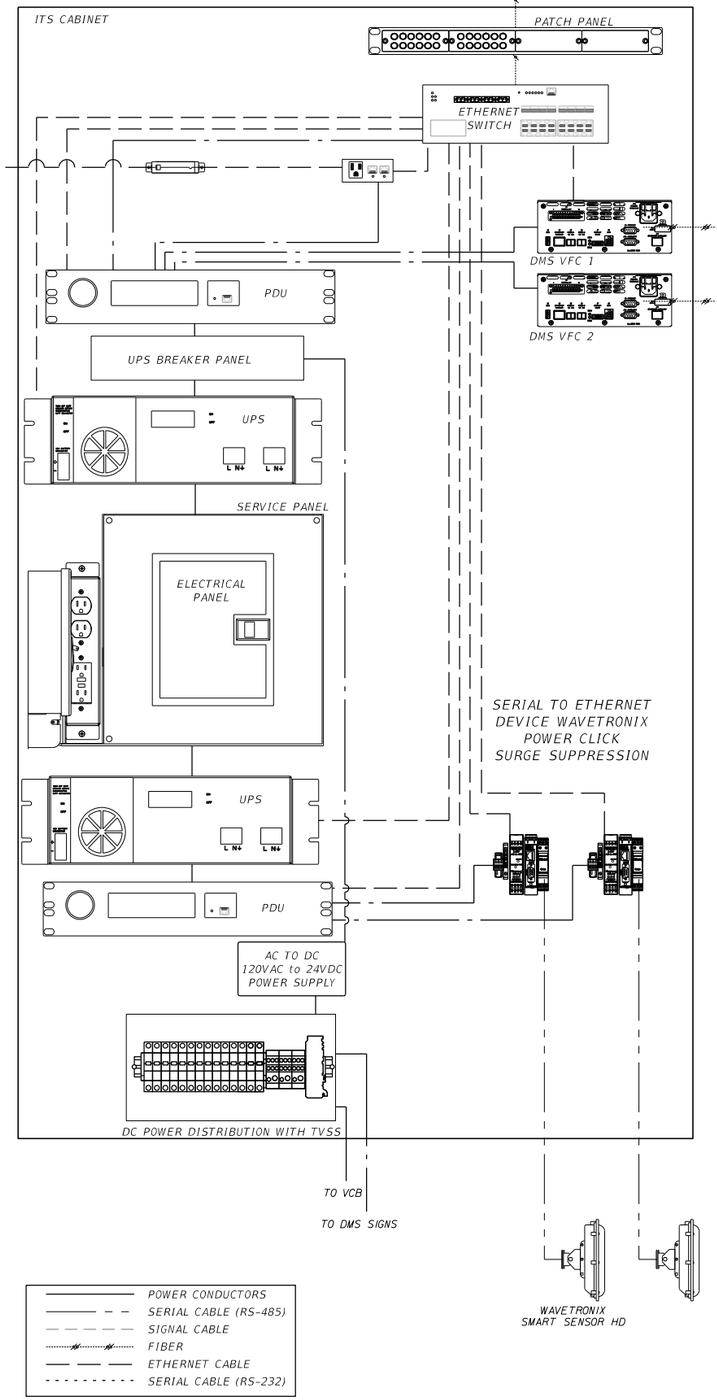


BACK VIEW



BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

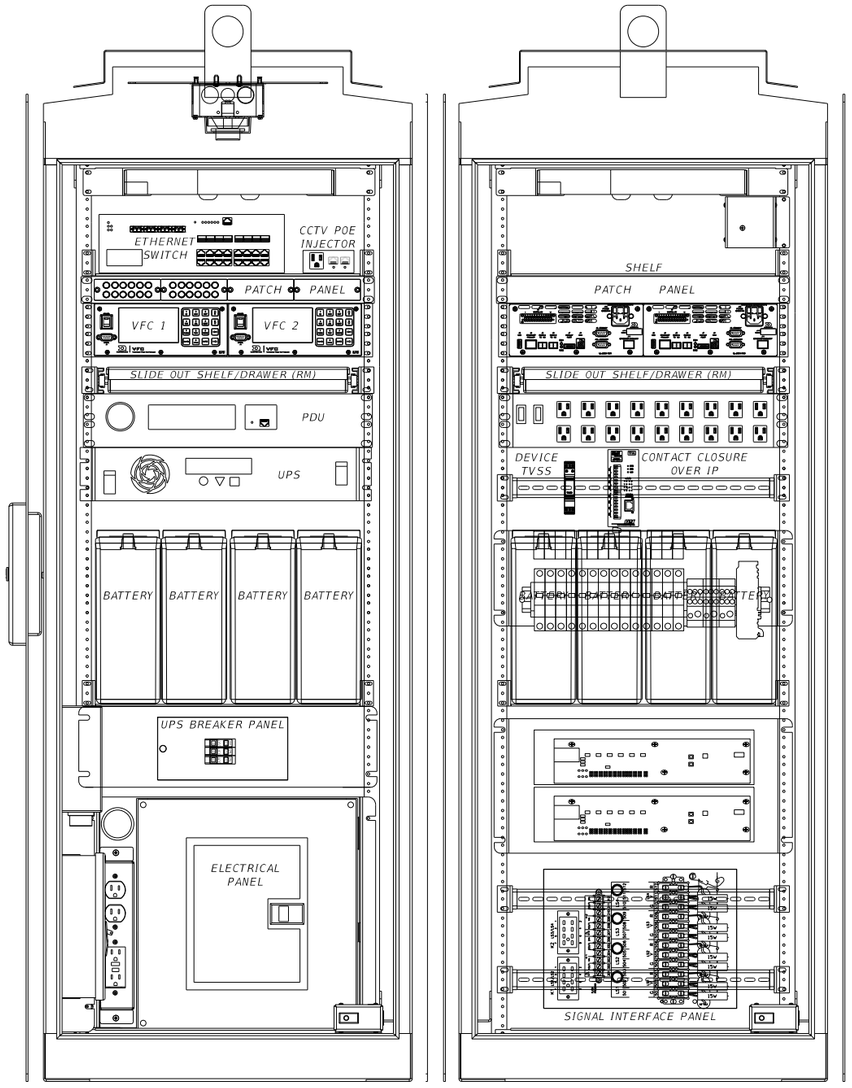
ITS CABINET DETAIL (T-DMS WITH 1 CCTV & 2 MVDS)

SHEET NO. IT-349

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

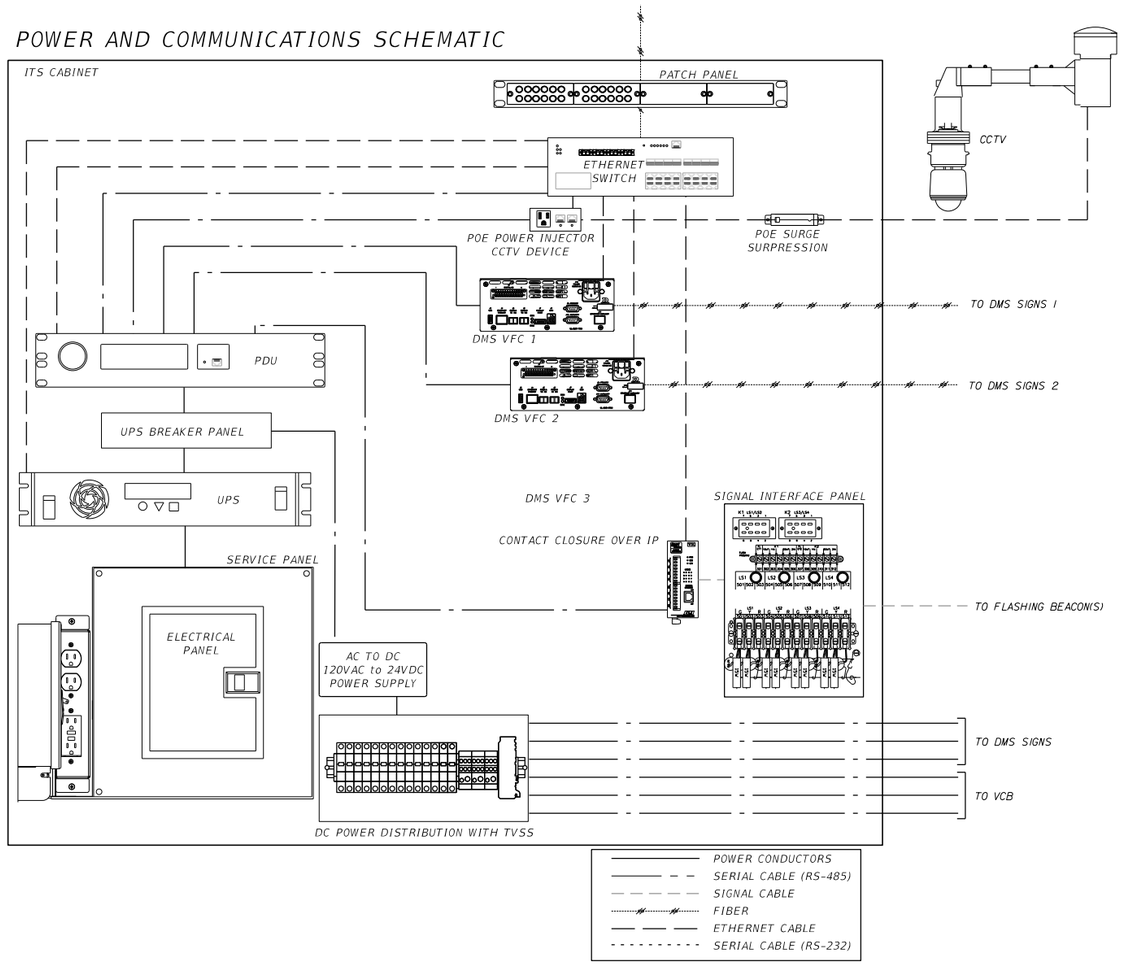
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

ITS T-DMS CABINET DETAIL FOR SITES: LHUB P&R-3



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. NUMBER OF VFC, VCB, AND LED PANELS WILL VARY. SEE PLAN SHEETS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

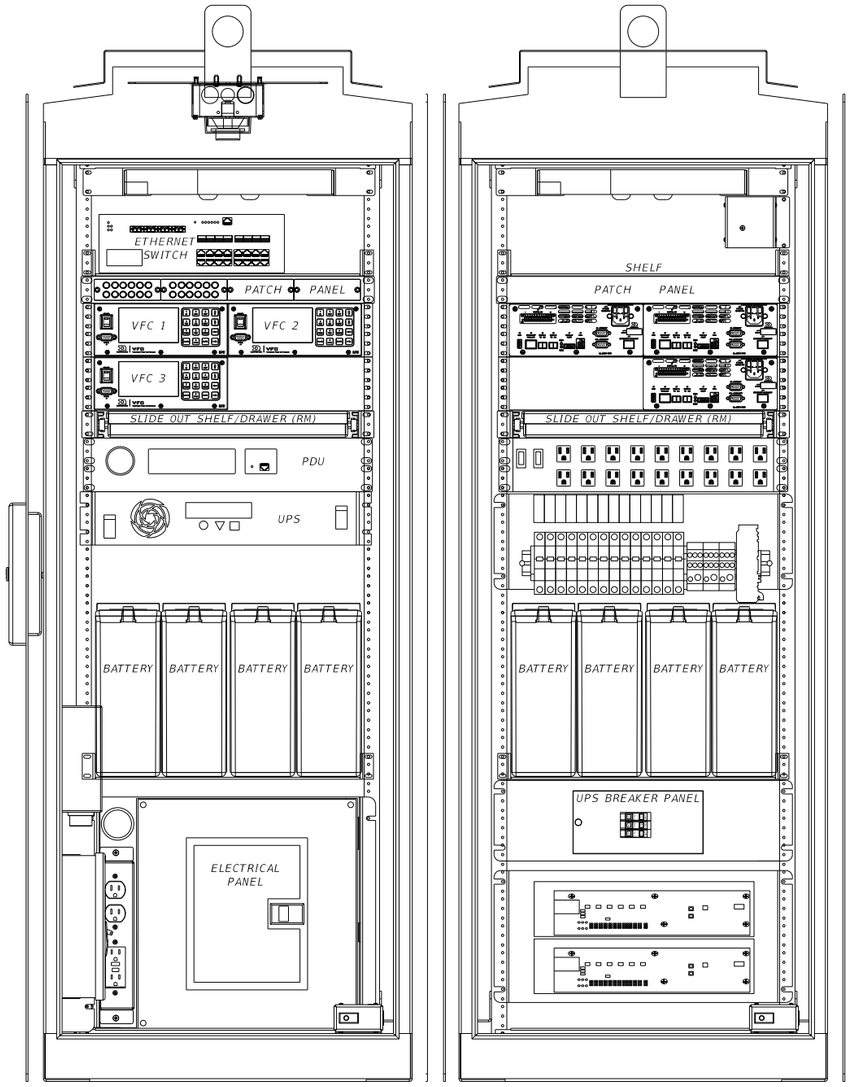
ITS CABINET DETAIL (T-DMS, 1 CCTV & BEACON)

SHEET NO. IT-350

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

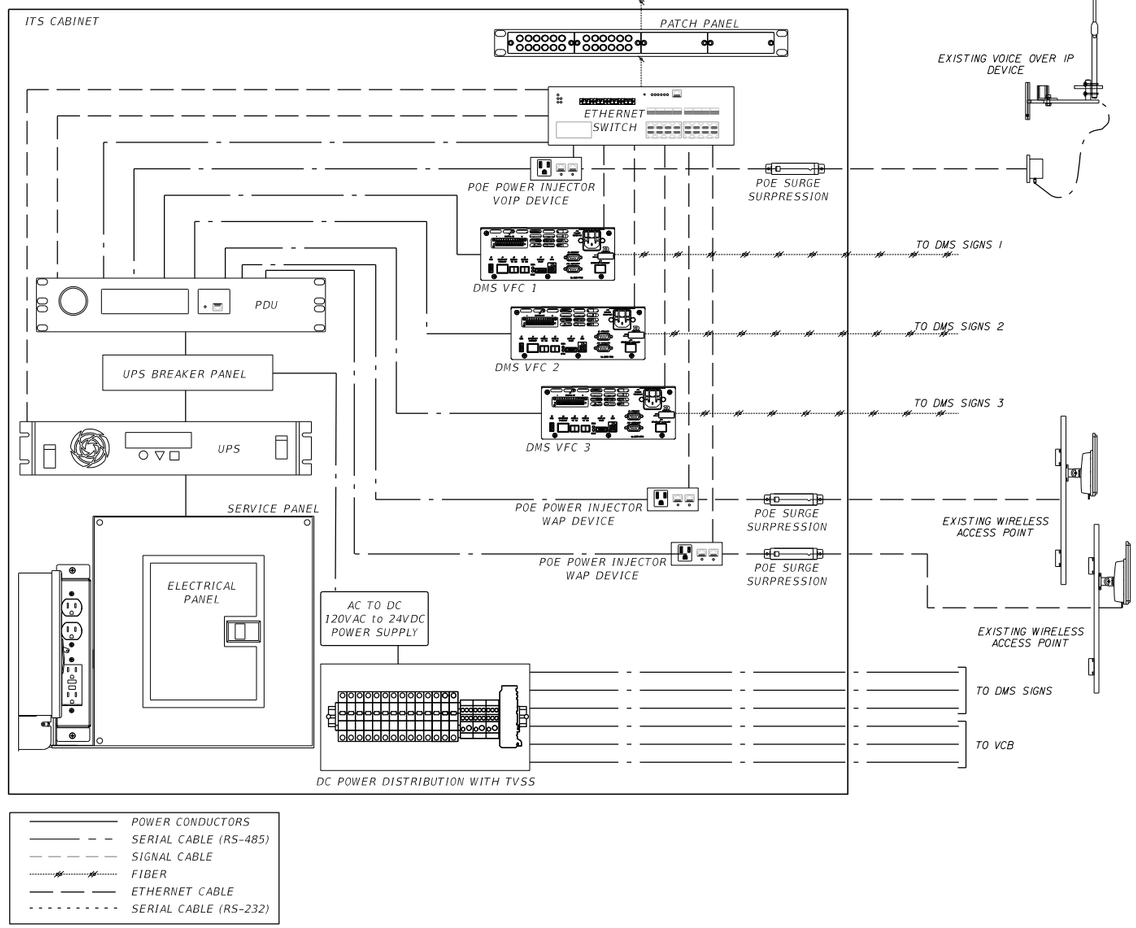
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS T-DMS CABINET DETAIL FOR SITES:
LHUB 95-30.70 NB



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (T-DMS WITH 1 VOIP & 2 WAPS)

SHEET NO. IT-351

jknight 3/9/2018 3:36:55 PM \\vhb\proj\Orlando\62442.00 I-95 Express 3A-1\cad\te\E4Q32\its\SGDTIT11.dgn

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS T-DMS CABINET DETAIL FOR SITES: EXISTING LHUB P&R-2

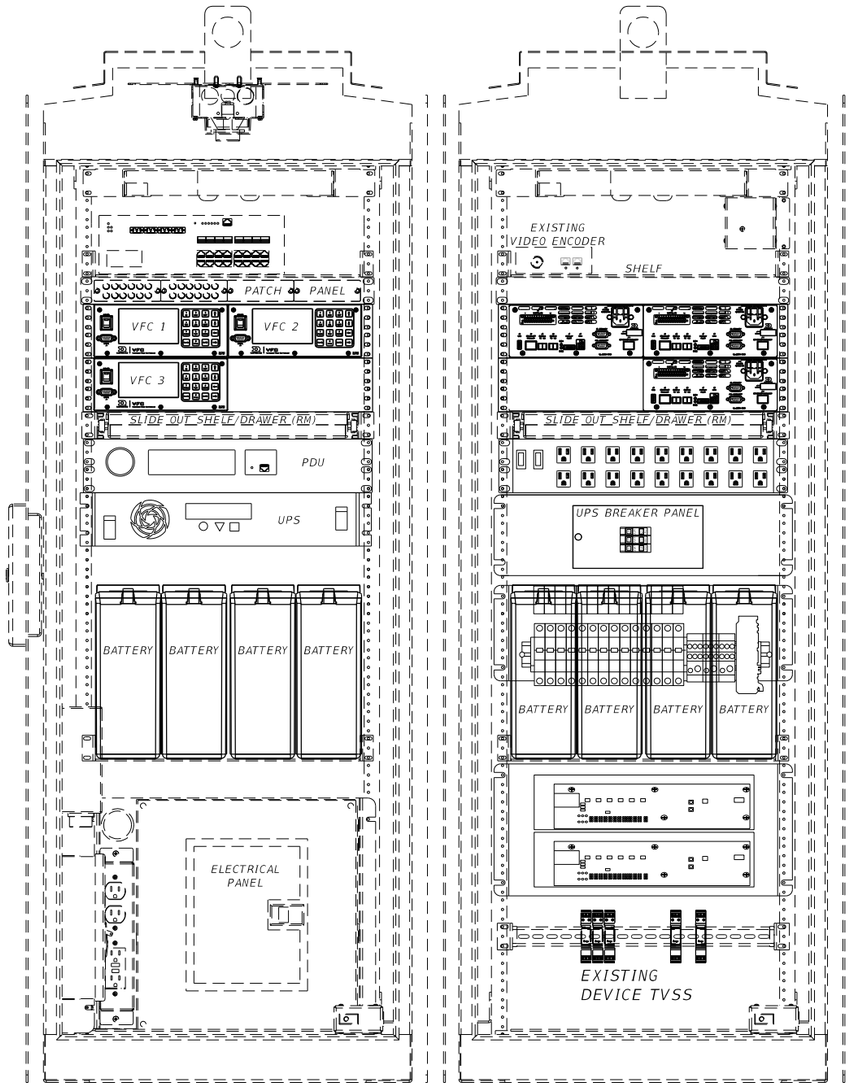
RELOCATE 1 MFES TO LHUB P&R-2A

REMOVE EXISTING DMS CONTROLLERS AND AUX CONTROL PANEL
INSTALL 3 NEW DMS CONTROLLERS

REMOVE EXISTING PDU
INSTALL NEW PDU

REMOVE EXISTING UPS
INSTALL NEW UPS

PROPOSED BATTERIES



FRONT VIEW

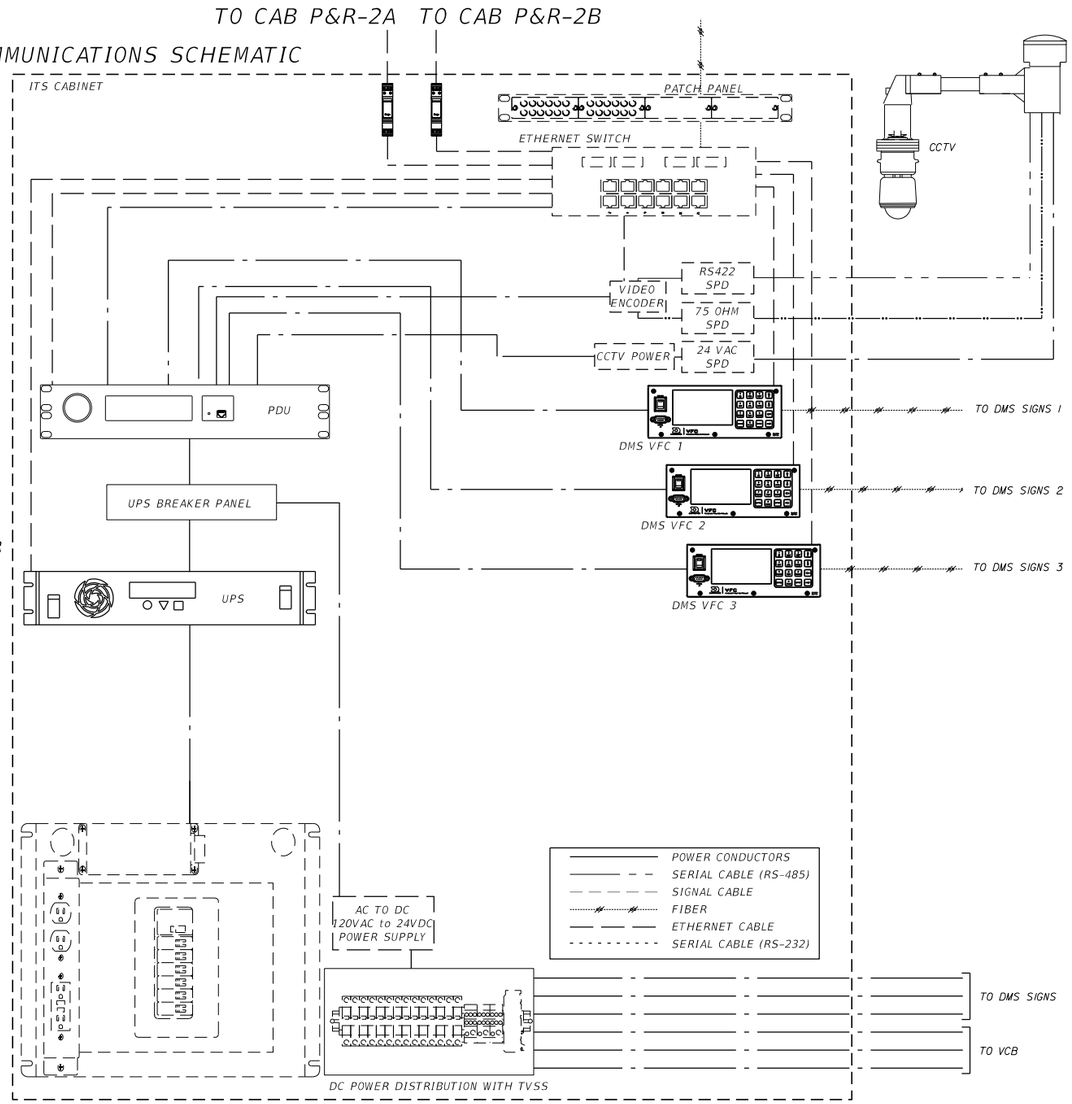
BACK VIEW

RELOCATE 1 CCTV ENCODER TO LHUB P&R-2A & 2B

REMOVE AND INSTALL POWER AND CONTROL DISTRIBUTION RAIL

RELOCATE 1 SET OF CCTV TVSS EQUIPMENT TO LHUB P&R-2A & 2B

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. EXISTING CABINET EQUIPMENT MAY NEED TO BE FIELD ADJUSTED TO ENSURE SPACE FOR PROPOSED EQUIPMENT.
3. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
4. EQUIPMENT PLACEMENT ARE TYPICAL.

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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PE # 74758

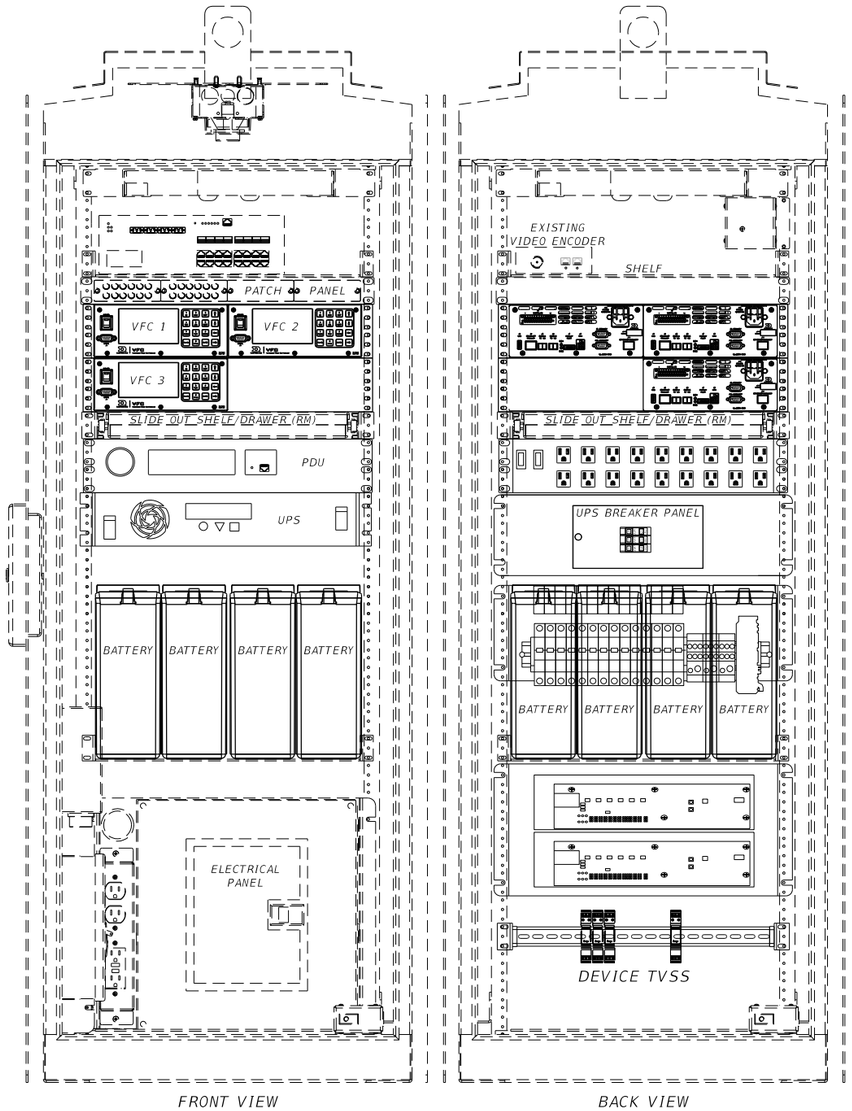
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

EXISTING ITS CABINET (DETAIL - T-DMS)

SHEET NO. IT-352

ITS T-DMS CABINET DETAIL FOR SITES: EXISTING CAB P&R-2A



FRONT VIEW

BACK VIEW

RELOCATED MFES FROM LHUB P&R-2

REMOVE EXISTING DMS CONTROLLERS AND AUX CONTROL PANEL INSTALL 3 NEW DMS CONTROLLERS

REMOVE EXISTING PDU INSTALL NEW PDU

REMOVE EXISTING UPS INSTALL NEW UPS

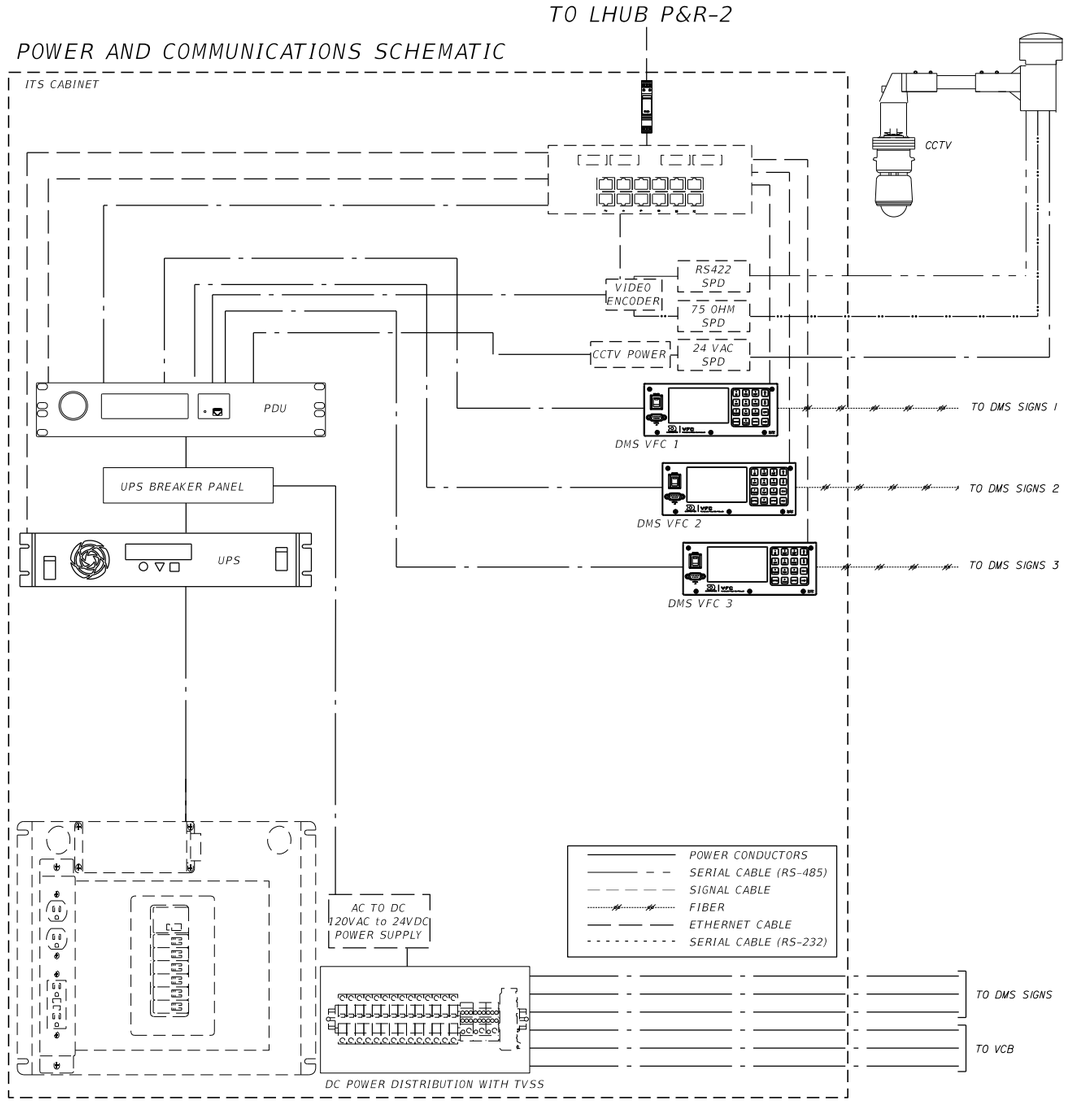
PROPOSED BATTERIES

RELOCATE 1 CCTV ENCODER FROM LHUB P&R-2

REMOVE AND INSTALL POWER AND CONTROL DISTRIBUTION RAIL

RELOCATE SET OF CCTV TVSS EQUIPMENT FROM LHUB P&R-2

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. EXISTING CABINET EQUIPMENT MAY NEED TO BE FIELD ADJUSTED TO ENSURE SPACE FOR PROPOSED EQUIPMENT.
3. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
4. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

EXISTING ITS CABINET (DETAIL - T-DMS)

SHEET NO. IT-353

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

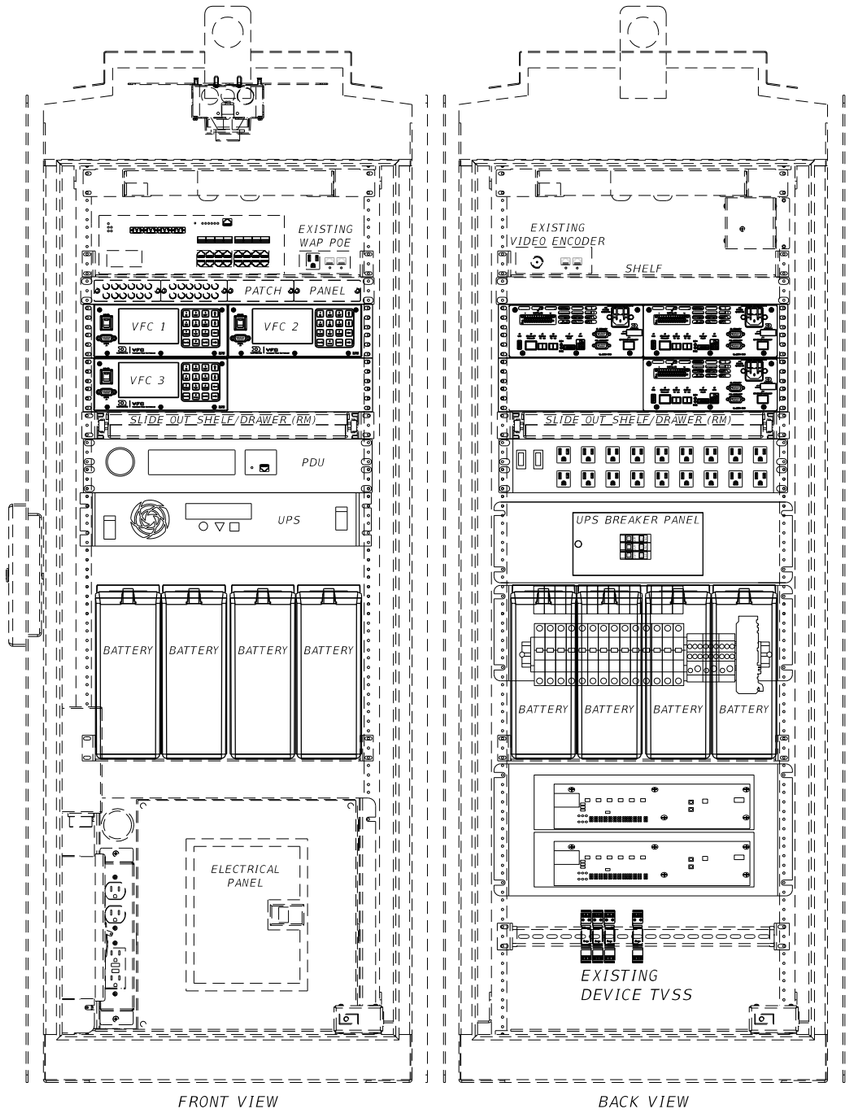
ITS T-DMS CABINET DETAIL FOR SITES: EXISTING LHUB P&R-1

REMOVE EXISTING DMS CONTROLLERS AND AUX CONTROL PANEL
INSTALL 3 NEW DMS CONTROLLERS

REMOVE EXISTING PDU
INSTALL NEW PDU

REMOVE EXISTING UPS
INSTALL NEW UPS

PROPOSED BATTERIES

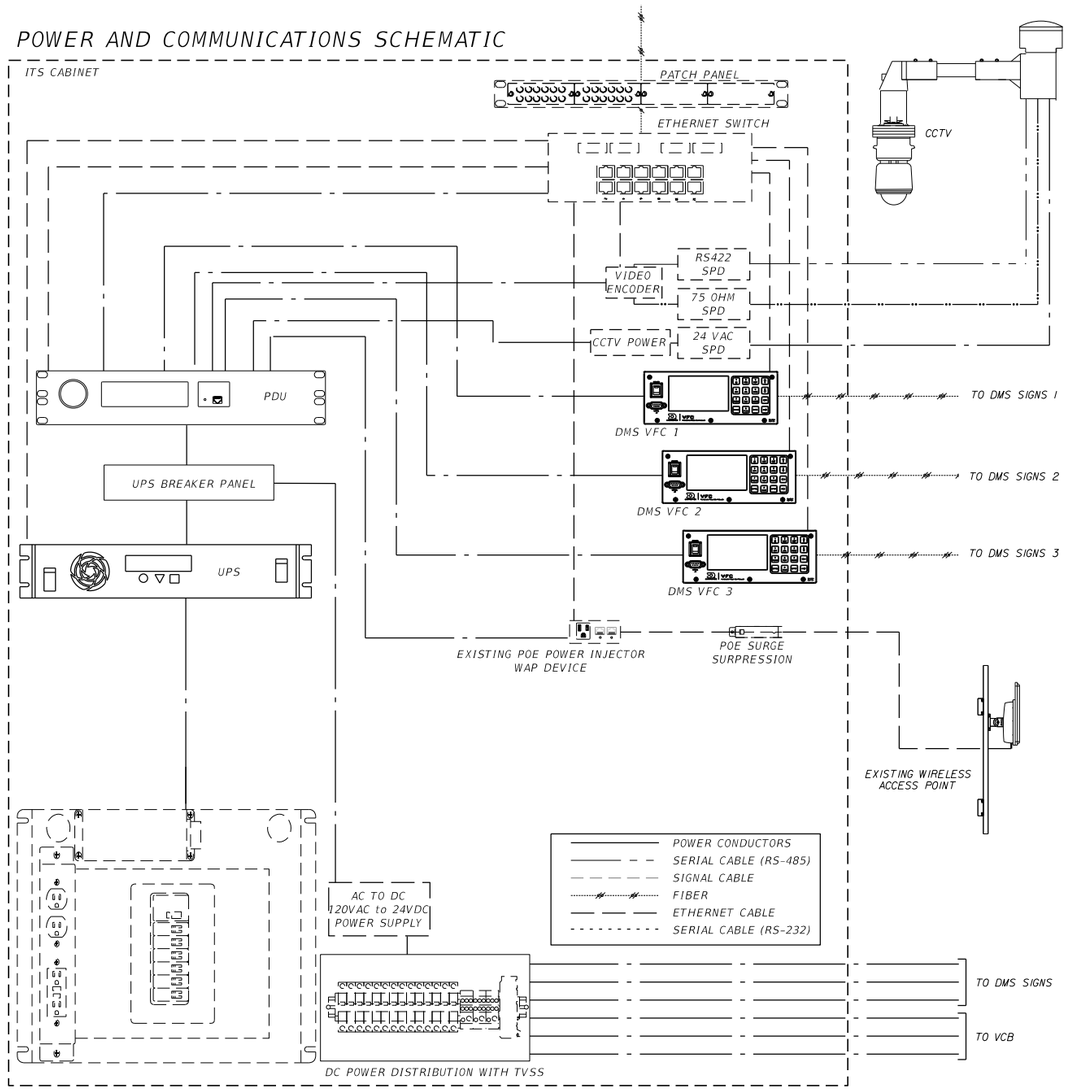


FRONT VIEW

BACK VIEW

REMOVE AND INSTALL POWER AND CONTROL DISTRIBUTION RAIL

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

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2. EXISTING CABINET EQUIPMENT MAY NEED TO BE FIELD ADJUSTED TO ENSURE SPACE FOR PROPOSED EQUIPMENT.
3. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
4. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

EXISTING ITS CABINET (DETAIL - T-DMS)

SHEET NO. IT-354

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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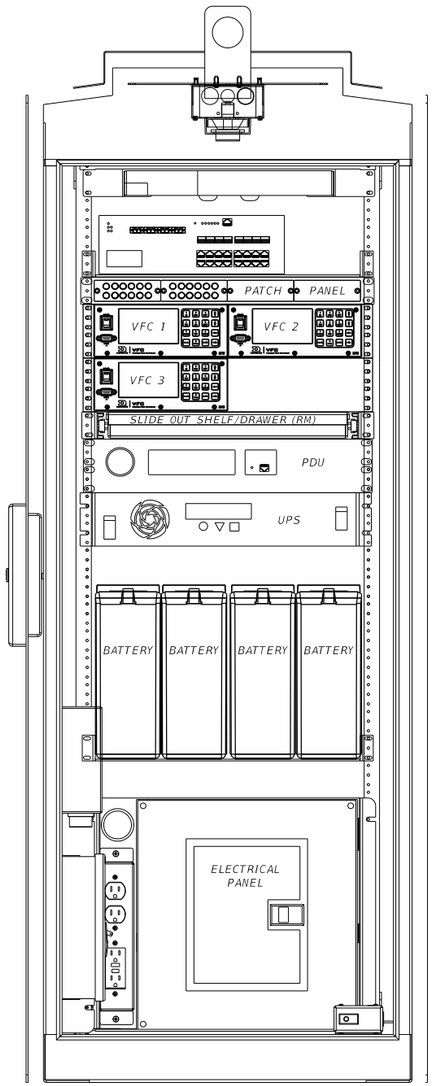
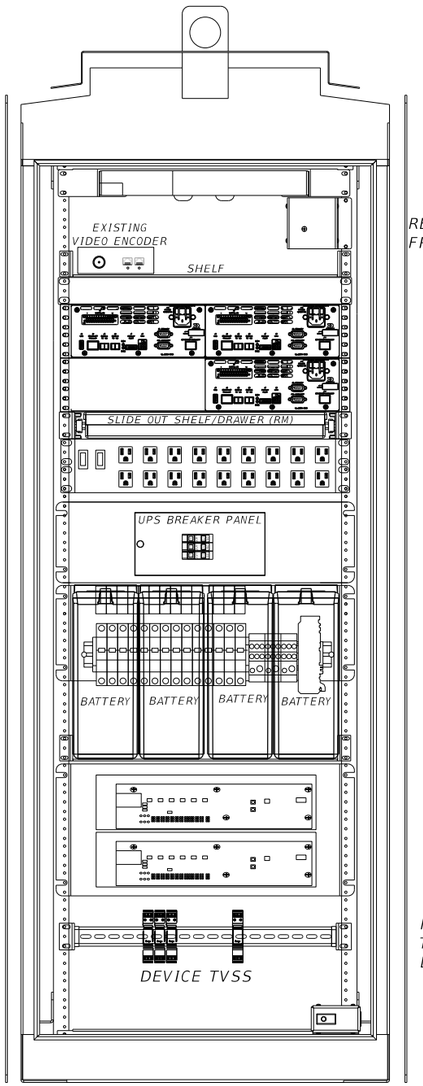
ITS T-DMS CABINET DETAIL FOR SITES: CAB P&R-2B



FRONT VIEW

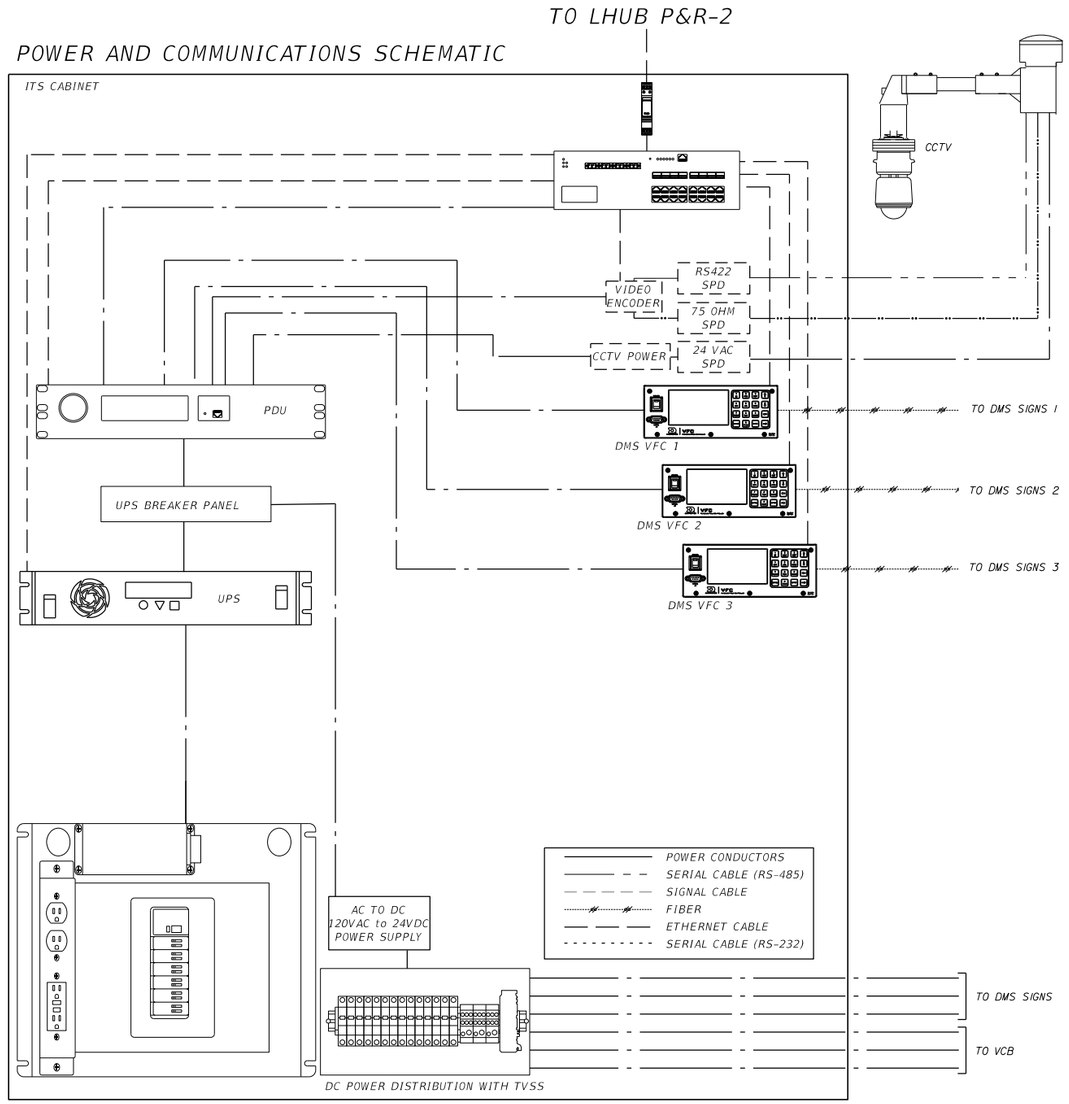


BACK VIEW

RELOCATE 1 CCTV ENCODER FROM LHUB P&R-2

RELOCATE SET OF CCTV TVSS EQUIPMENT FROM LHUB P&R-2

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

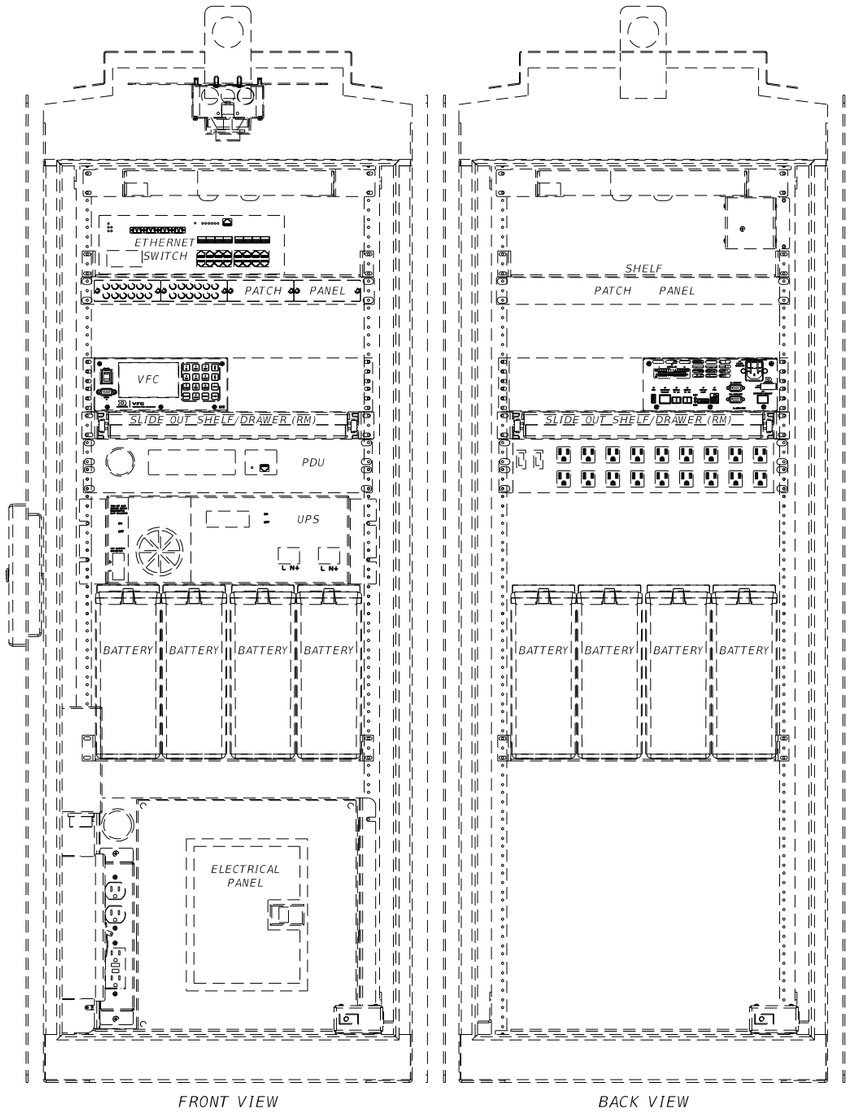
ITS CABINET DETAIL (T-DMS W/ EXISTING CCTV)

SHEET NO. IT-355

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

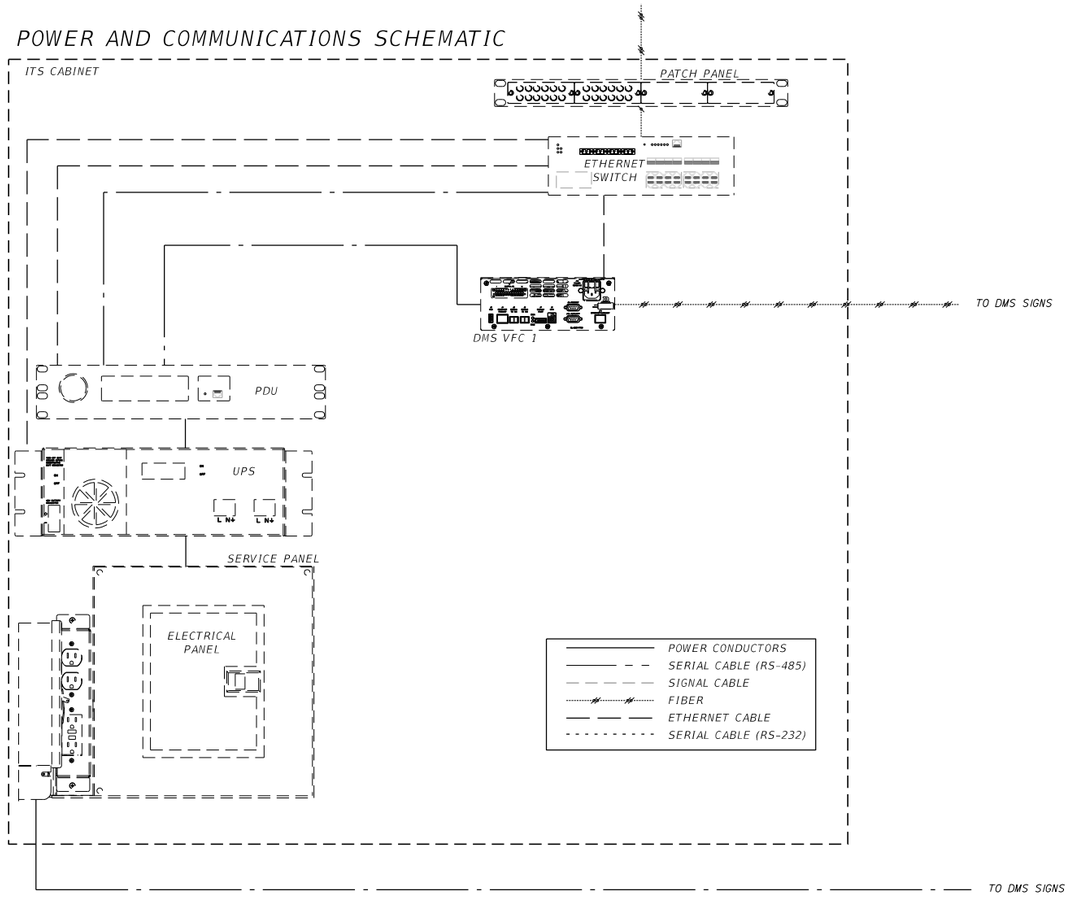
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS DMS CABINET DETAIL FOR SITES:
EXISTING LHUB 95-26.55 SB



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (DMS / EL DMS)

SHEET NO. IT-356

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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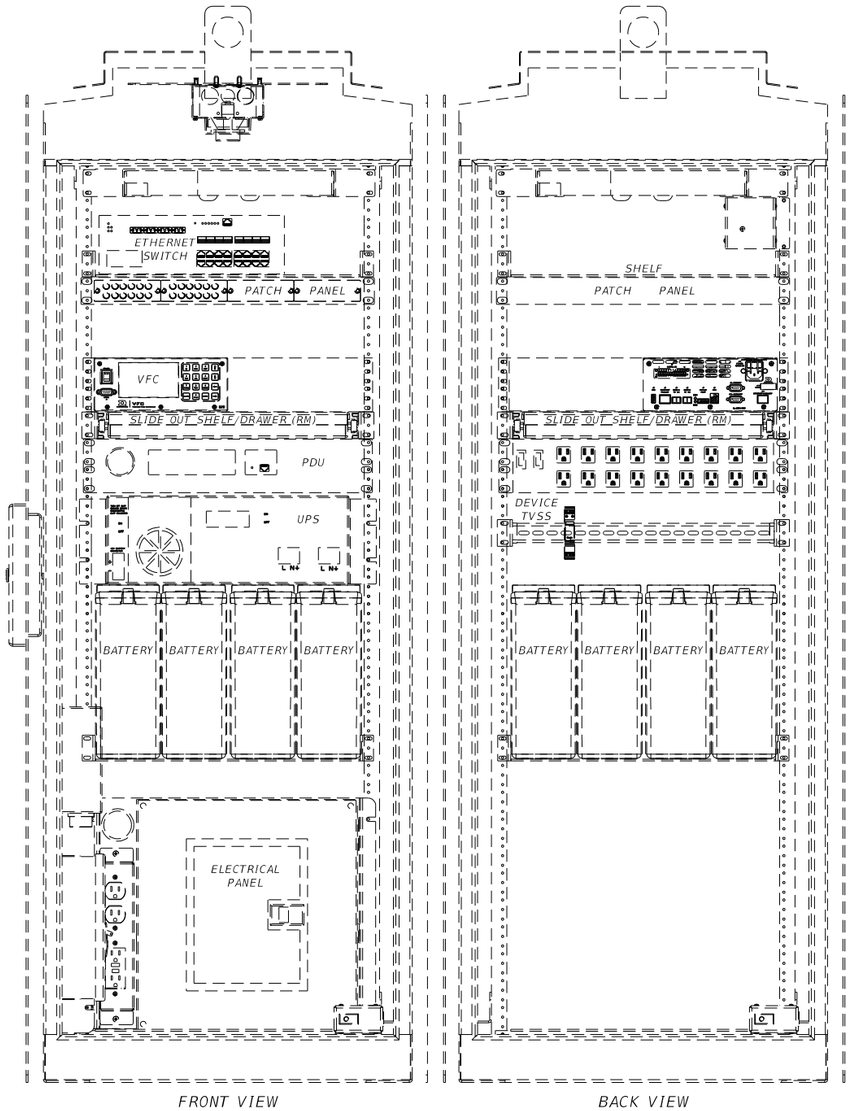
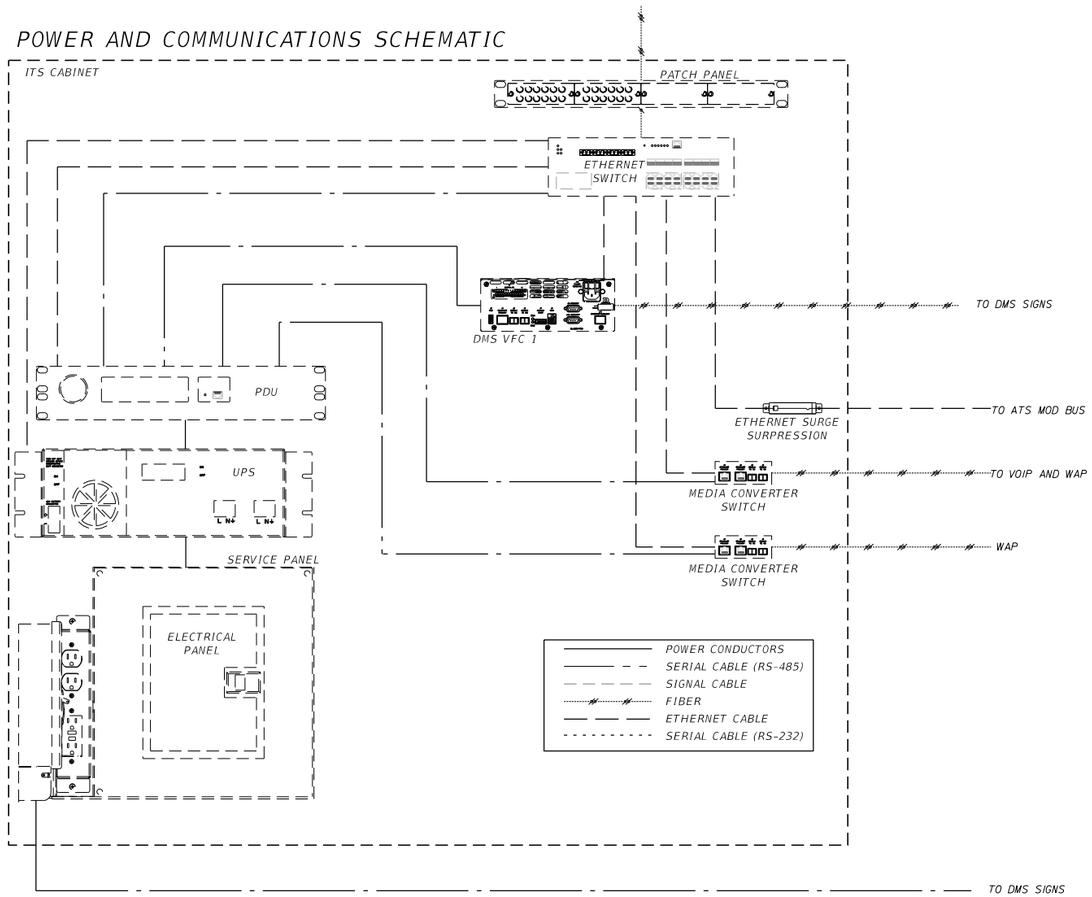
ITS DMS CABINET DETAIL FOR SITES:
EXISTING LHUB 95-27.41 NB



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (DMS WITH ATS MODBUS)

SHEET NO. IT-357

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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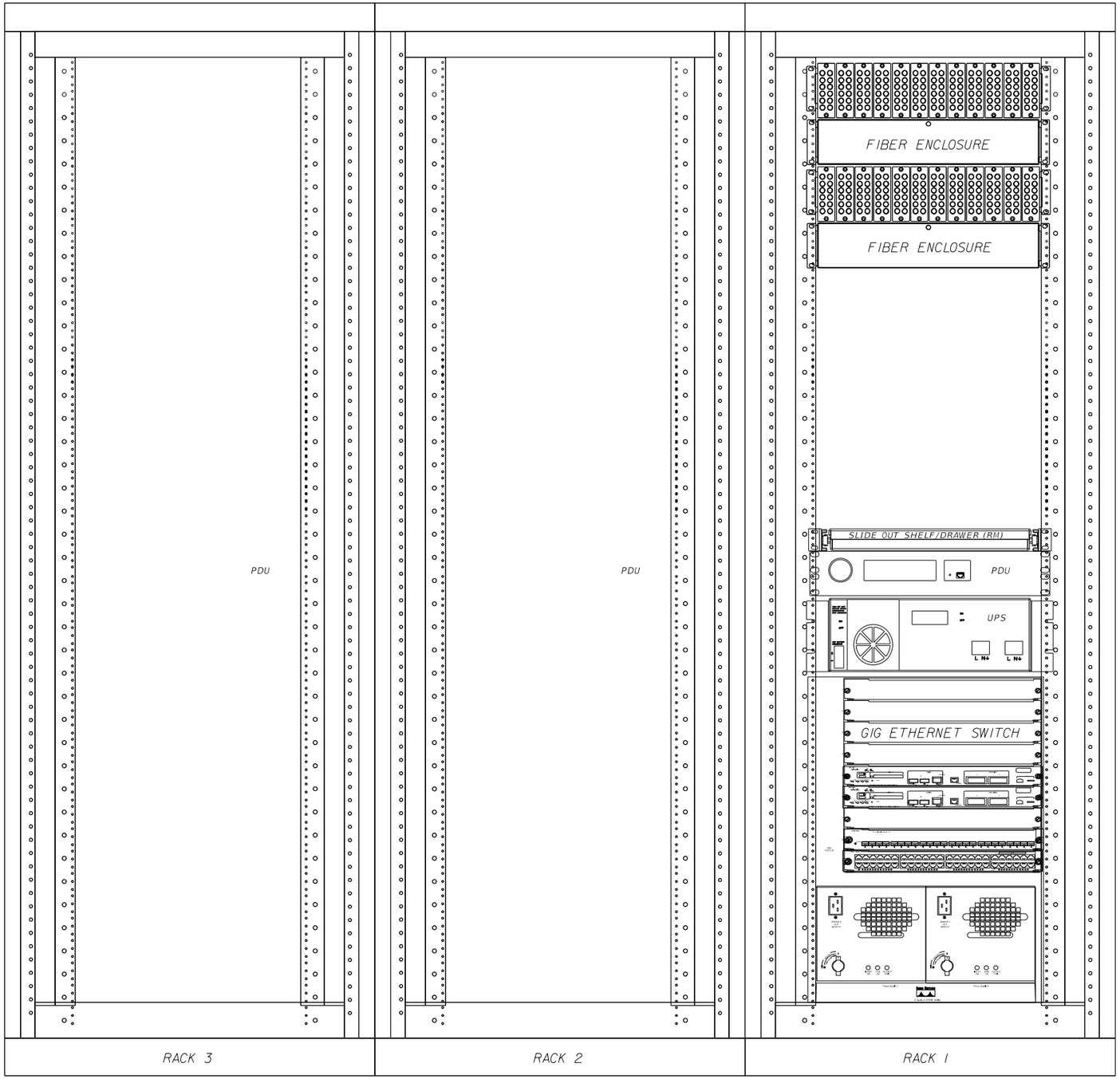
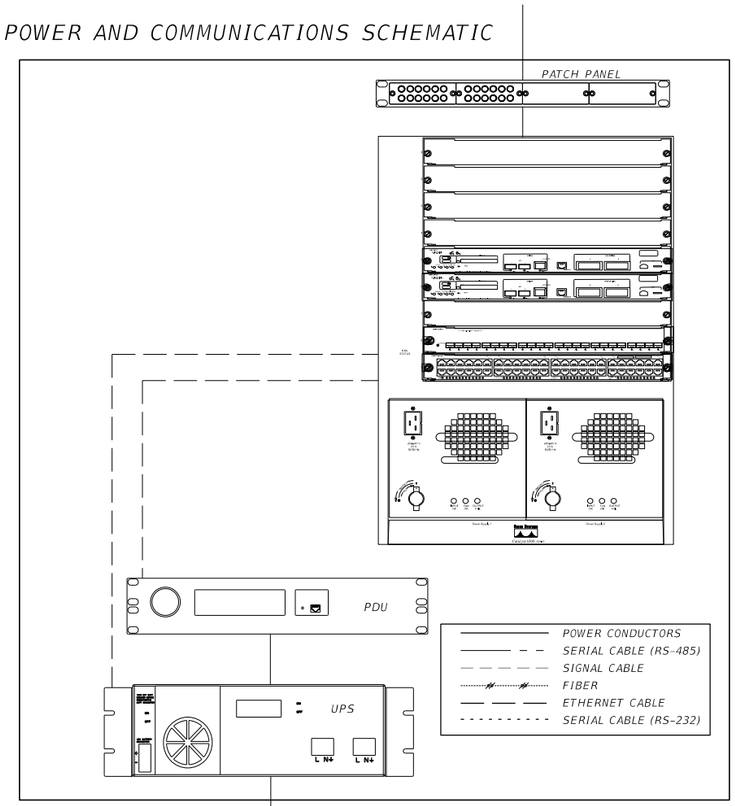
FPID 433108-4-52-01 CONTRACT E4Q32
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

HUB SHELTER EQUIPMENT RACKS



POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CONTRACTOR SHALL SUBMIT A RACK LAYOUT FOR APPROVAL.
3. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Environmental Services
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (HUB SHELTER)

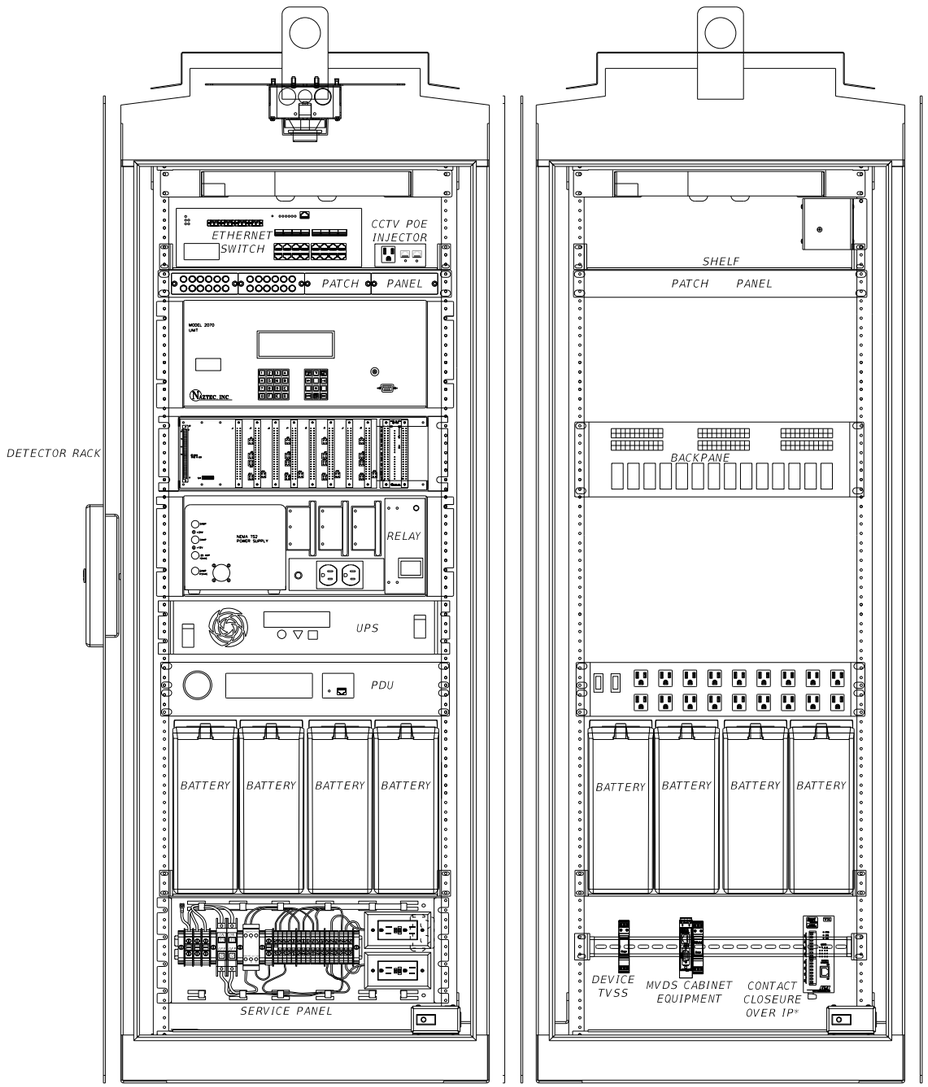
SHEET NO. IT-358

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

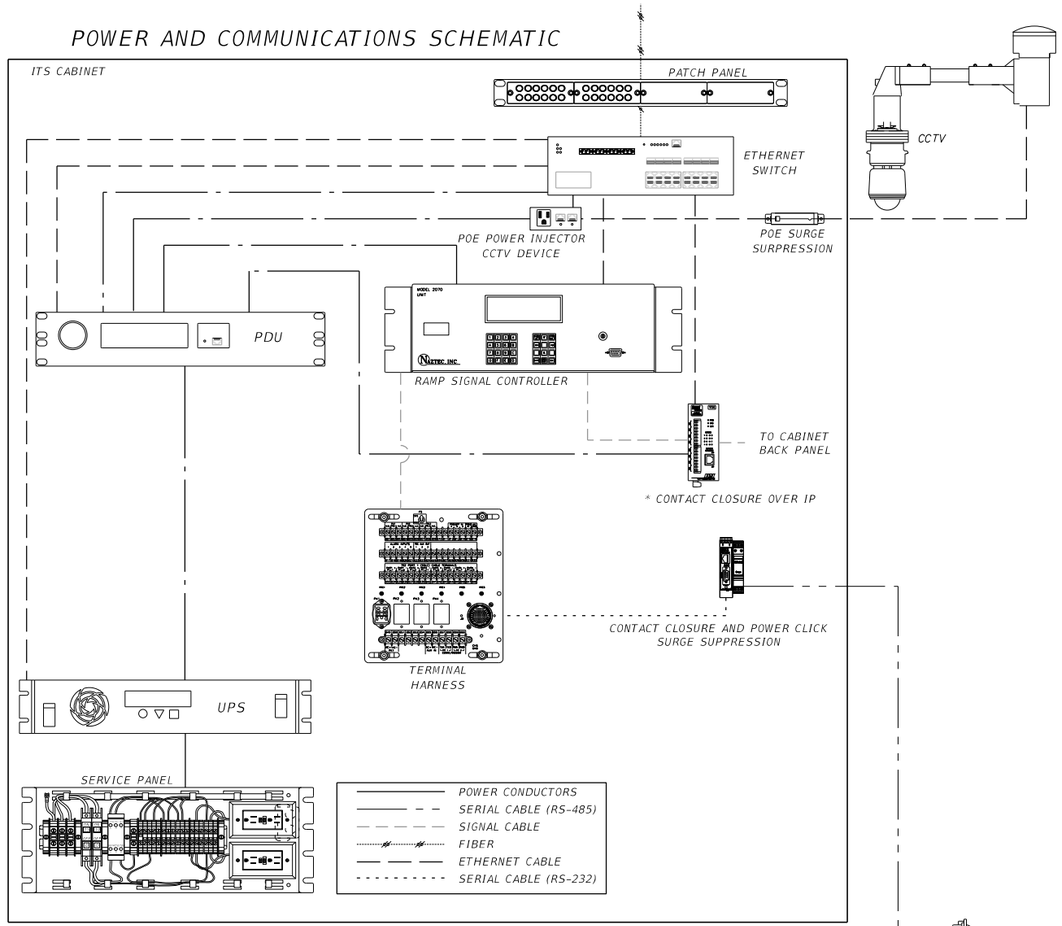
RAMP SIGNAL CABINET DETAIL FOR SITES:

RSC 95-26.38 SB
RSC 95-26.59 NB
RSC 95-26.71 NB
RSC 95-30.78 SB
RSC 95-32.08 SB*



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE OT SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL BE GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

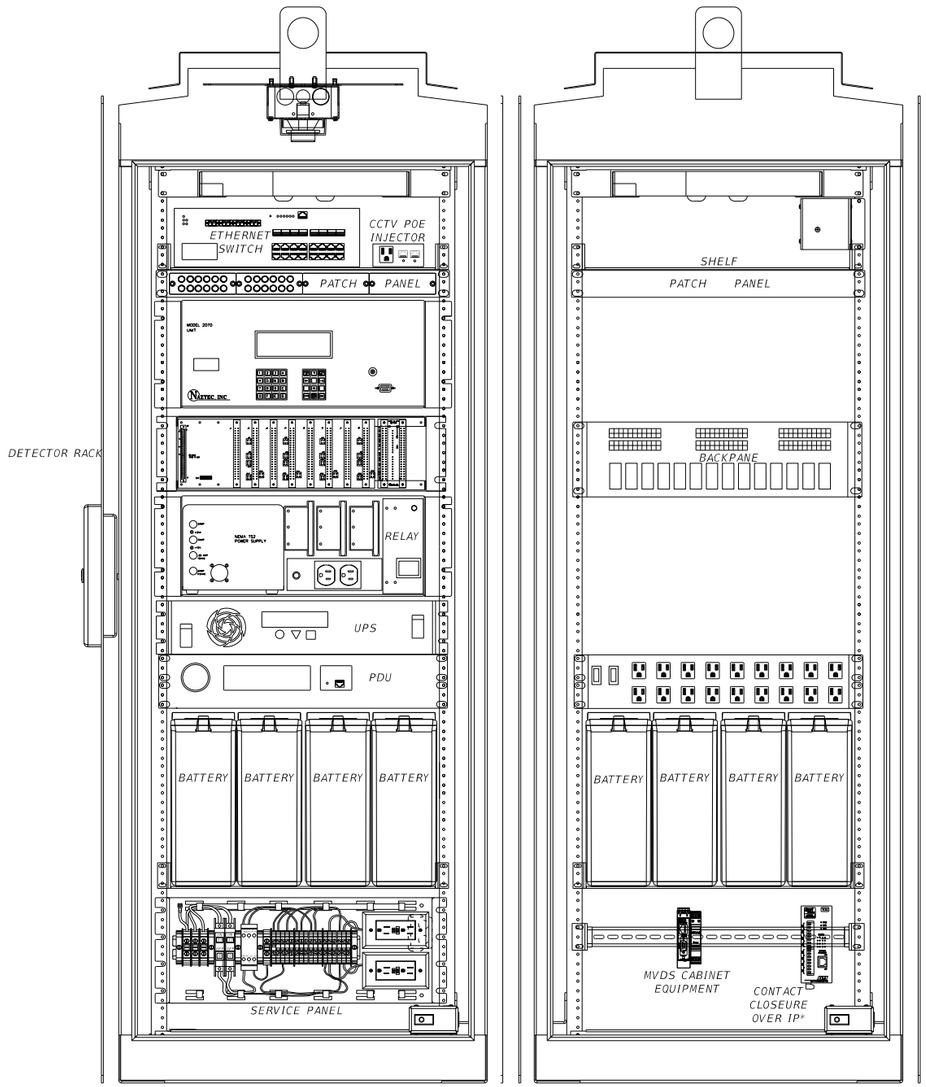
RAMP SIGNAL CABINET DETAIL (WITH 1 CCTV)

SHEET NO. IT-359

RAMP SIGNAL CABINET DETAIL FOR SITES:

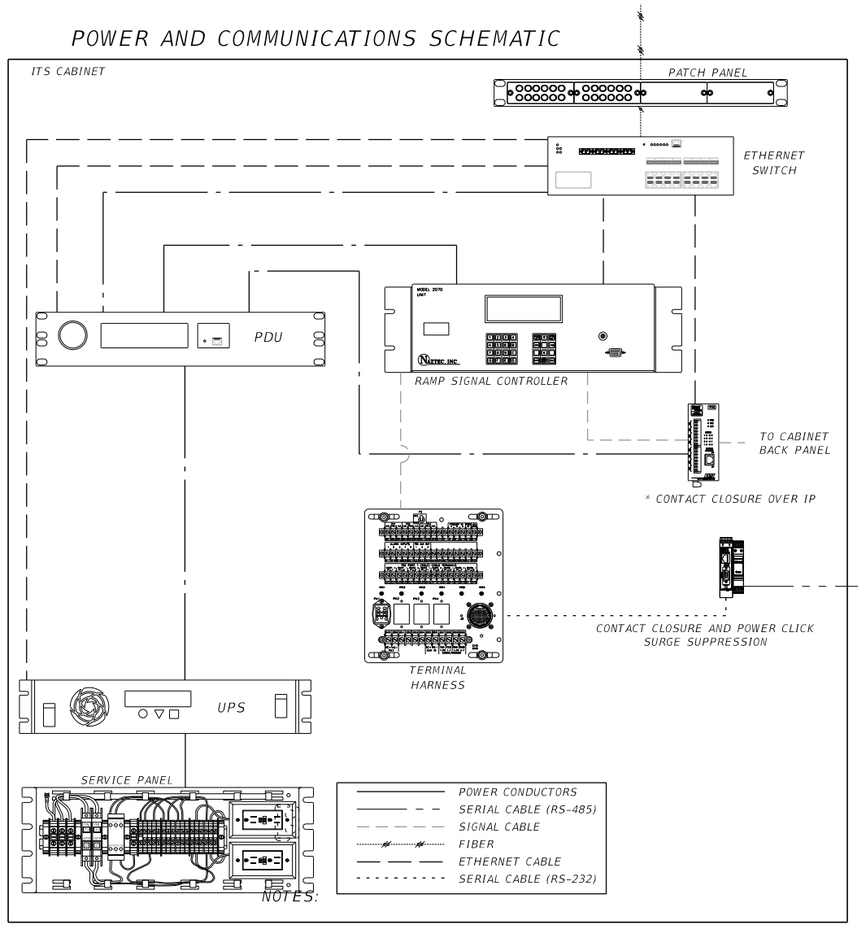
RSC 95-27.65 NB*
RSC 95-28.38 SB*
RSC 95-30.33 SB
RSC 95-30.91 NB
RSC 95-32.20 SB
RSC 95-32.50 NB

* CONTACT CLOSURE OVER IP TO BE INSTALLED AT CABINET



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

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2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE OT SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL BE GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

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FPID 433108-4-52-01 CONTRACT E4Q32
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

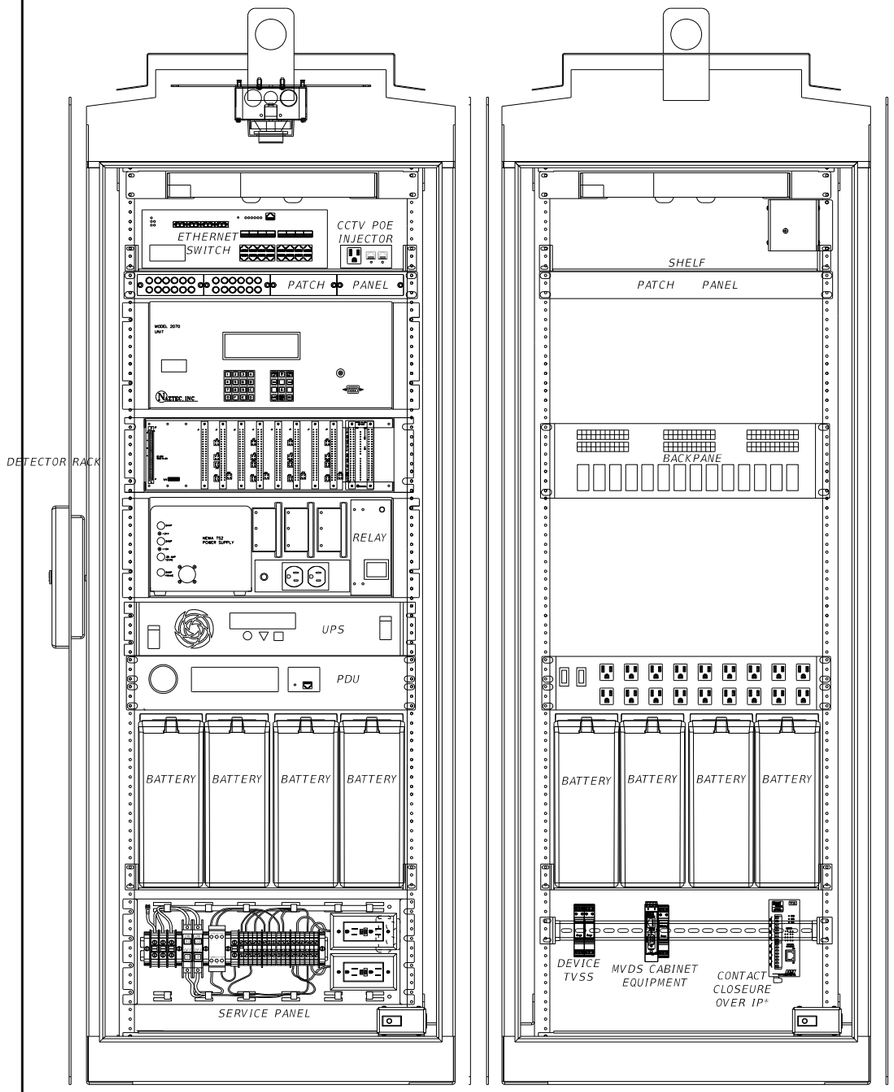
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

RAMP SIGNAL CABINET (DETAILS)

SHEET NO. IT-360

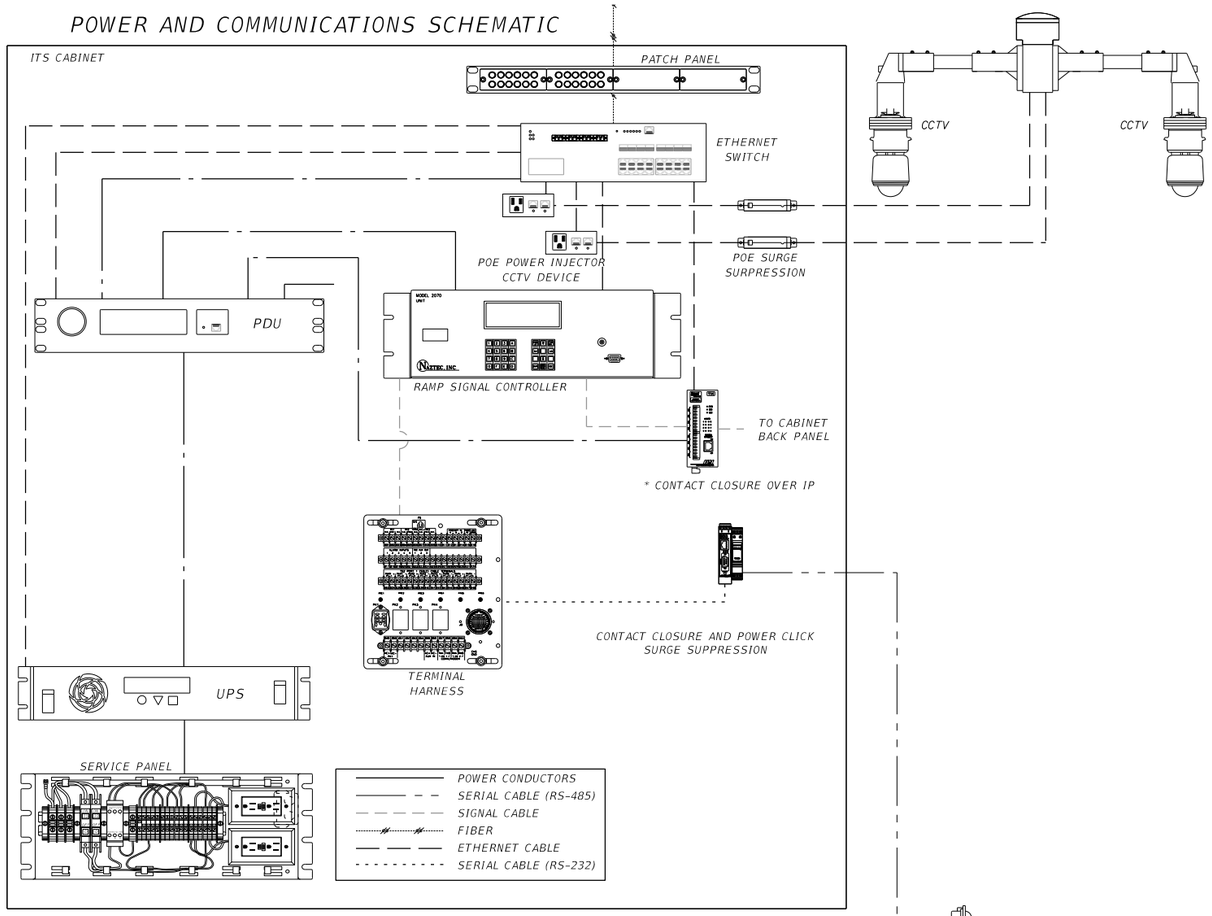
RAMP SIGNAL CABINET DETAIL FOR SITES:
RSC 95-28.69 NB

* CONTACT CLOSURE OVER IP TO BE INSTALLED AT CABINET



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE OT SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL BE GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

RAMP SIGNAL CABINET DETAIL (WITH 2 CCTV)

SHEET NO. IT-361

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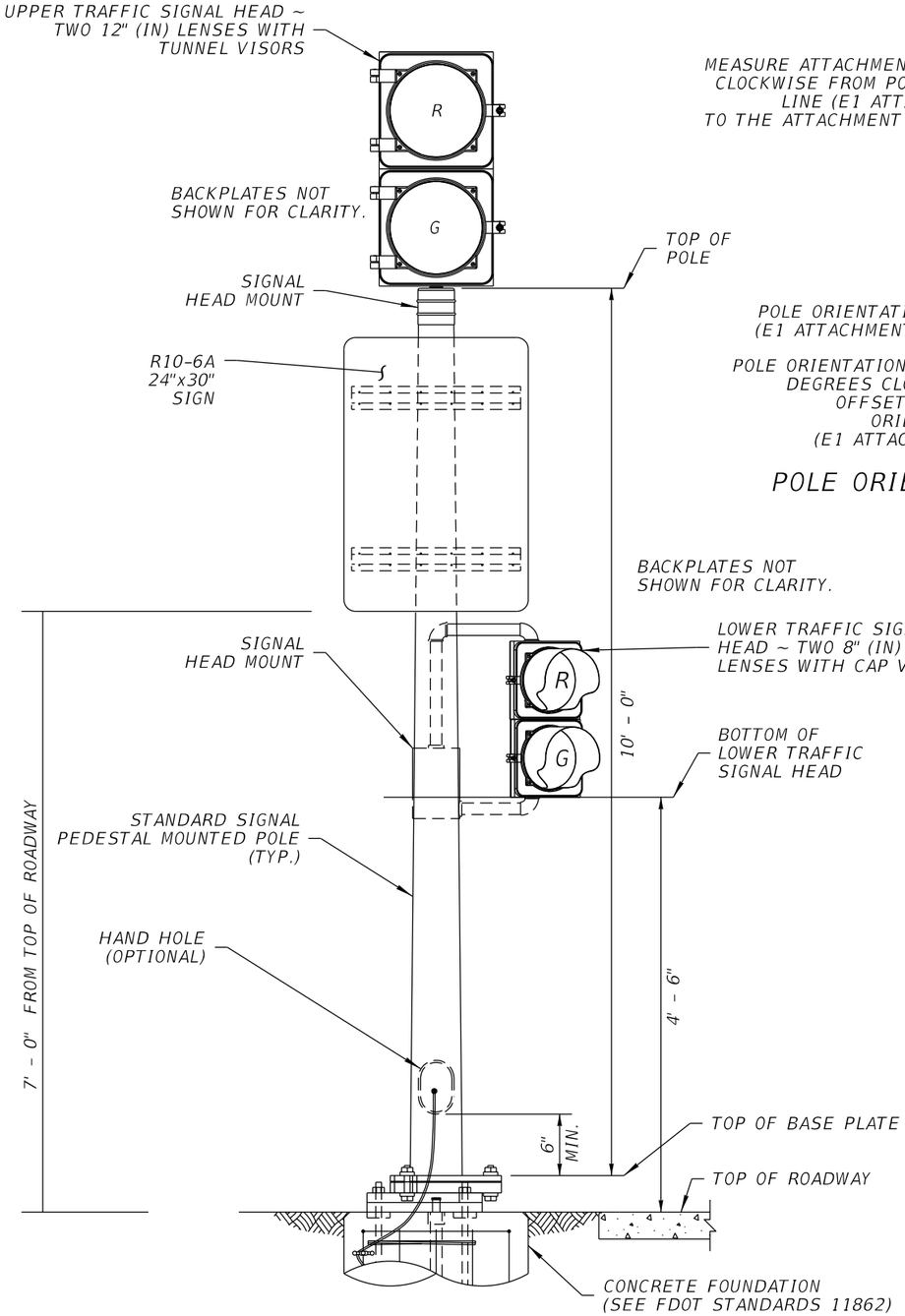
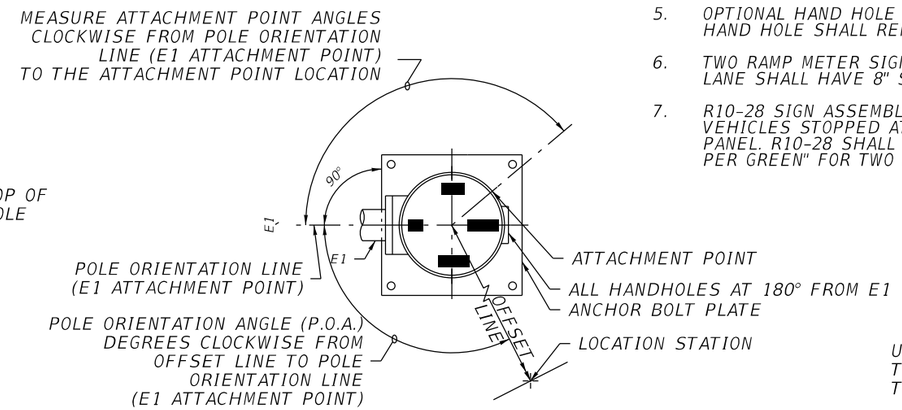
FPID 433108-4-52-01 CONTRACT E4Q32

NOTES:

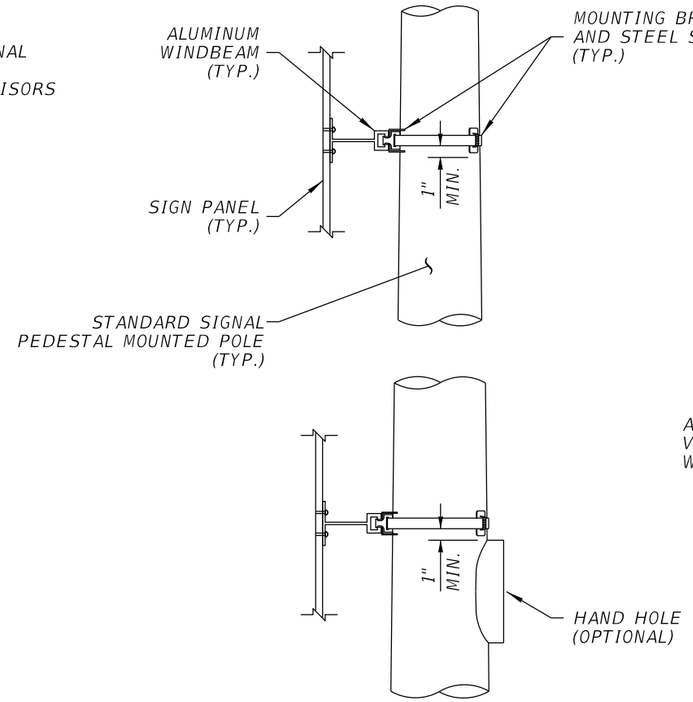
1. RAMP METER SIGNAL POLES AND SIGNALS ARE TO COMPLY TO FDOT STANDARDS AND CLEARZONE CRITERIA.
2. A BACKPLATE SHALL BE INSTALLED ON THE UPPER TRAFFIC SIGNAL HEAD. INSTALL A BACKPLATE ON THE LOWER TRAFFIC SIGNAL HEAD ONLY WHEN REQUIRED.
3. FOR SIGN INSTALLATION DETAIL SEE FDOT DESIGN STANDARDS 11860.
4. SIGNAL POLE SHALL USE SLIP BASE IF INSTALLED CLOSER THAN 5 FT FROM FACE OF GUARDRAIL.
5. OPTIONAL HAND HOLE SHALL FACE THE OPPOSITE DIRECTION FROM THE UPPER TRAFFIC SIGNAL HEAD. HAND HOLE SHALL REMAIN ACCESSIBLE AFTER POLE AND SIGN INSTALLATION IS COMPLETE.
6. TWO RAMP METER SIGNALS SHALL BE INSTALLED ON TWO LANE RAMPS. SIGNALS ADJACENT TO RIGHT LANE SHALL HAVE 8" SIGNAL FACING RIGHT TURN LANE.
7. R10-28 SIGN ASSEMBLY SHALL BE INSTALLED ADJACENT TO RAMP METER SIGNALS SUCH THAT VEHICLES STOPPED AT RAMP STOP BAR SHALL BE ABLE TO VIEW BOTH SIGNAL AND R10-28 SIGN PANEL. R10-28 SHALL DISPLAY "ONE VEHICLE PER GREEN" FOR ONE LANE RAMPS AND "TWO VEHICLES PER GREEN" FOR TWO LANE RAMPS. R10-28 SIGN ASSEMBLY SHALL BE INSTALLED PER FDOT INDEX 17302.



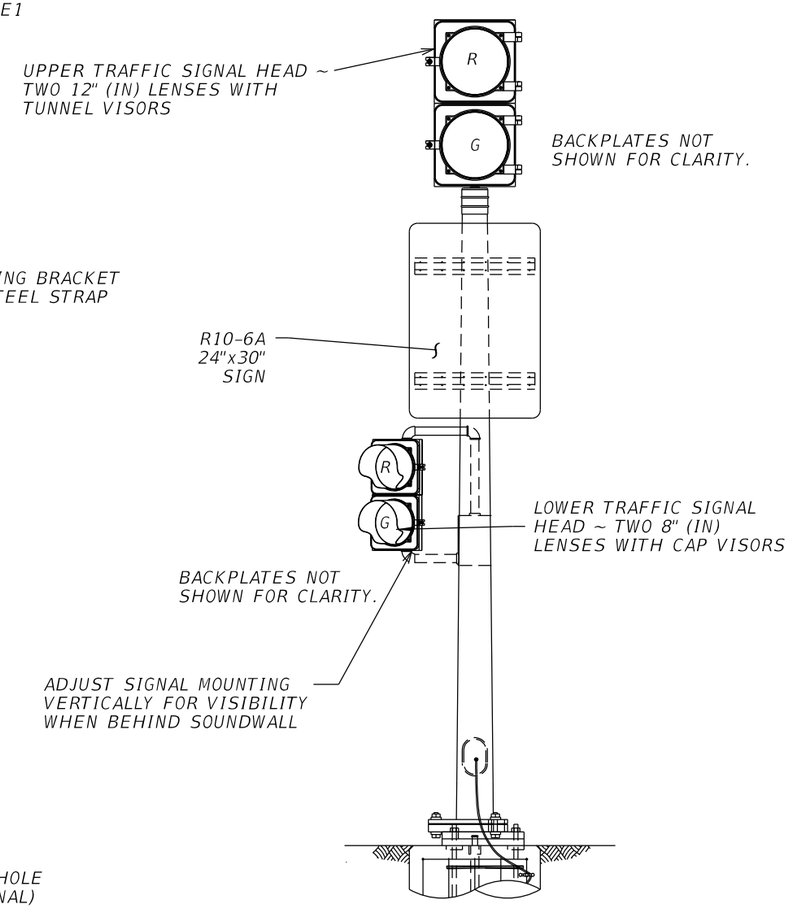
RAMP METER SIGNAL STANDARD INSTALLATION



POLE ORIENTATION AND ATTACHMENT POINT DETAIL



SIGN PLACEMENT DETAIL



RAMP METER SIGNAL INSTALLATION
2 LANE RAMP-SIGNAL ADJACENT TO RIGHT LANE

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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9	BROWARD	433108-4-52-01

RAMP SIGNAL POLE DETAILS (1 OF 2)

SHEET NO. IT-362

RELEASED FOR CONSTRUCTION
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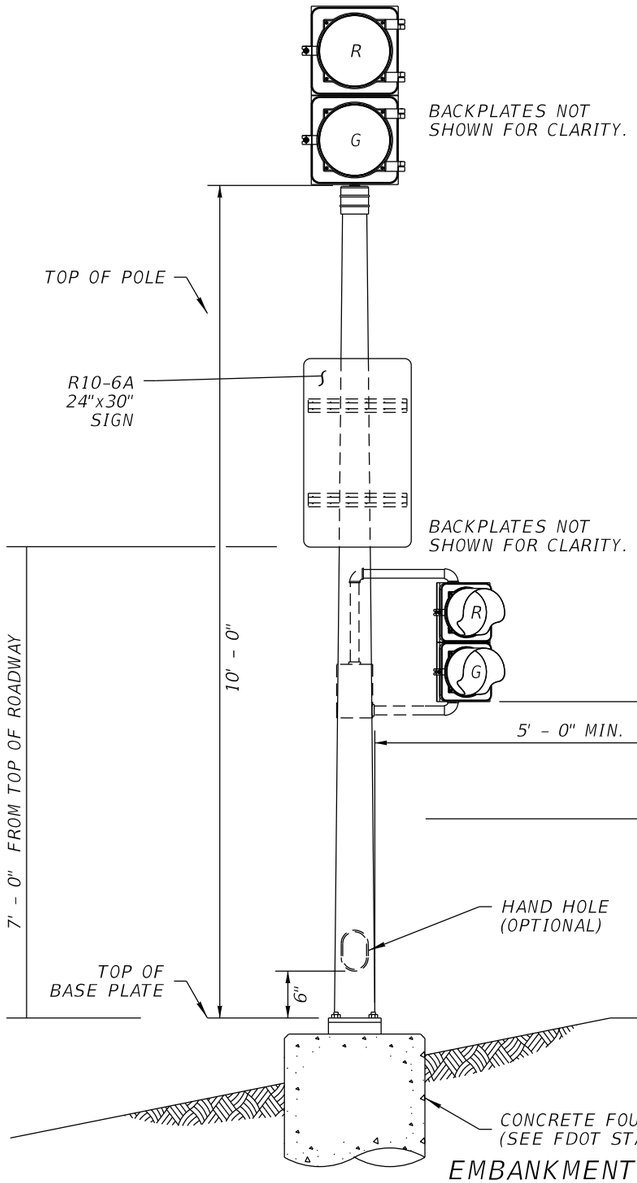
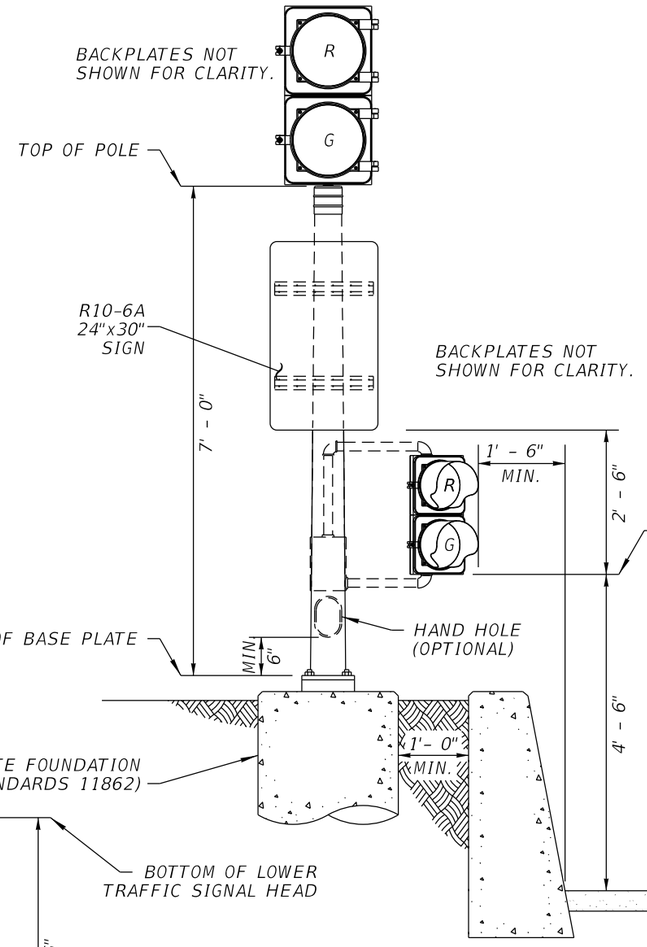
1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL MEDIAN BARRIER MOUNTED REMP METER SIGNAL BASE PLATES AND ANCHORAGES, SIGNED AND SEALED BY A REQISTERED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA, FOR REVIEW PRIOR TO CONSTUCTION OF ALL MEDIAN BARRIER MOUNTED RAMP METER SIGNALS.

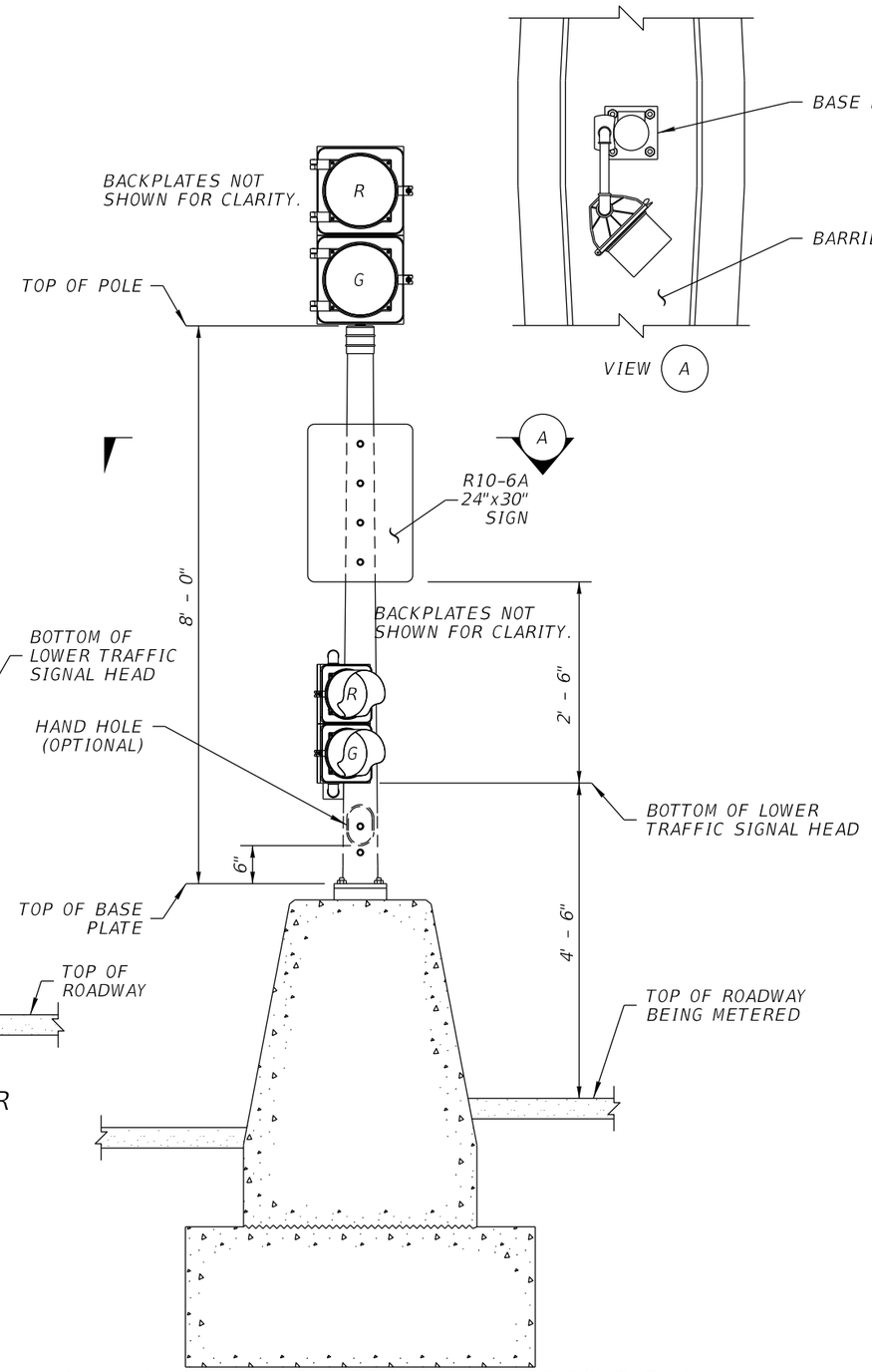
2. MEDIAN BARRIER WALL MOUNTED SIGNAL: EDGE OF SIGNAL SHALL BE OFF SET A MINIMUM OF 2' FROM EDGE OF TRAVEL WAY.



EMBANKMENT SECTION BEHIND GUARDRAIL
(GROUND-MOUNTED)



CUT SECTION BEHIND BARRIER
(GROUND-MOUNTED)



MEDIAN BARRIER MOUNTED RAMP METER SIGNAL
(N.T.S.)

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Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

RAMP SIGNAL POLE DETAILS (2 OF 2)

SHEET NO. IT-363

RELEASED FOR CONSTRUCTION Date: 3/21/2018
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GROUND MOUNTED FLASHING BEACON SIGN

1. *ALUMINUM: Aluminum materials shall meet the requirements of Aluminum Association Alloy 6061-T6 (ASTM B209, B221, B308 or B429), except as noted.*

2. *Sign panel (W3-8), wind beam and columns shall be installed in accordance with Index 11860 and Section 700 of the Specifications.*

3. *Height and offset to sign column shall be in accordance with Index 17302.*

4. *When aluminum column (posts) are installed with a frangible pedestal pole bases, engage all threads on the pedestal pole base and pipe unless the pipe is fully seated into base.*

5. *Aluminum poles and transformer bases shall meets the requirements of Section 646 of the Specifications.*

6. *A concrete slab shall be installed around all flashing beacon assemblies installed on slopes 6:1 or greater. Minimum dimension of slab shall be 4'-0" by 5'-0".*

7. *A concrete slab shall be installed around all pull boxes. Minimum dimension of slab shall be 4'-0" by 4'-0". In urban areas where space is limited slab dimensions may be adjusted as shown in the plans.*

8. *Provide single pole non-fused watertight breakaway electrical connectors in the frangible pedestal pole base.*

9. *Holes drilled in sign column for wire entry shall use a bushing or rubber grommet to protect conductors.*

10. *Flashing beacons shall be installed with backplates*

BRIDGE MOUNTED FLASHING BEACON SIGN

1. Materials:

A. Steel Plate: ASTM A36 or ASTM A709 Grade 36
B. Steel Pipe (Support Post): ASTM A501 Schedule 40
C. Aluminum Pipe: ASTM B210 Alloy 6061-T6
D. Galvanized U-Bolts, Nuts and Plate Washer
- *a. U-Bolts: ASTM A449*
- *b. Hex Nuts: ASTM A 536 Lock Nuts*
- *c. Plate Washer: ASTM A 36 or ASTM A709 Grade 36 or 50*

E. Galvanized Anchor bolts, Nuts and Washers:
- *a. Anchor Rod: ASTM F1554 Grade 55 fully threaded (for Adhesive Anchors)*
- *b. Anchor Bolts: ASTM F1554 Grade 55 Grade A Hex*
- *c. Nuts: ASTM A563 Heavy Hex Locking*
- *d. Washers: ASTM F436*

F. Adhesive Anchor Bonding Material: Specification Section 931 Type HV Adhesive.
G. Weld Material: E70XX
H. Snap-In Post Cap: UV and weather-resistant glass-filled polyester cap

2. Coating:

A. U-Bolts, Threaded Rods, Nuts and Washers: ASTM F2329
B. Other Steel: ASTM A123

3. Fabrication:

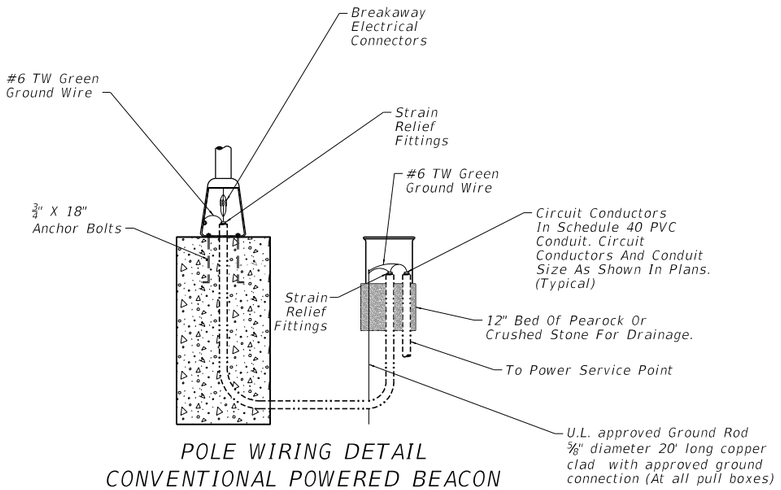
A. Weld: Specification Section 460-6.4
B. Hot dip galvanize after fabrication

4. Construction:

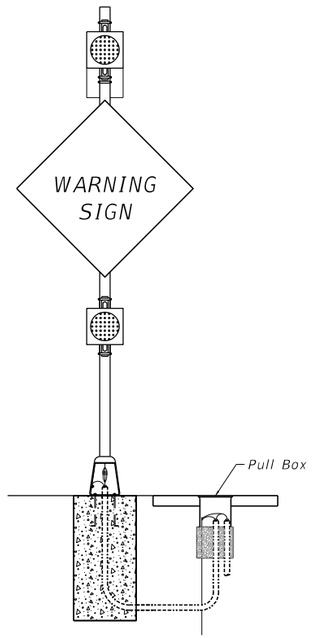
A. Locate Sign Support a minimum of 5 feet from an open joint or transition (sign stationing may be adjusted to accommodate this requirement.
B. Base plate must be flush with back of Traffic Railing
C. Anchors in Traffic Railings:
- *a. Install Adhesive Anchors in accordance with Specification section 416 except perform field test on one anchor per sign support location.*
- *b. Use templates and tie anchors as necessary to maintain correct placement of C-I-P Embedded Anchors*
- *c. Do not drill into existing conduit*

5. Payment:

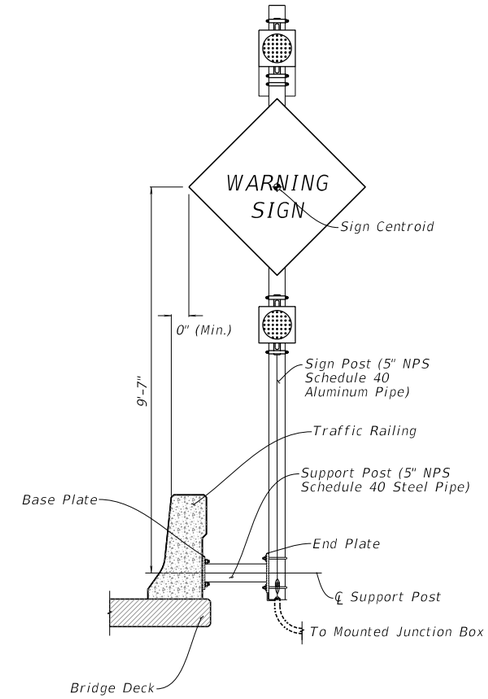
Include the cost of all materials and labor in the cost of the single post sign assembly.



POLE WIRING DETAIL
CONVENTIONAL POWERED BEACON



GROUND MOUNTED BEACON ASSEMBLY



BRIDGE MOUNTED BEACON ASSEMBLY

REVISIONS			
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Transportation, Land Development, Environmental Services
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

FLASHING BEACON SIGN DETAIL

SHEET NO.
IT-364

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BY: (FDOT)_VS_____ Date: 3/21/2018_____
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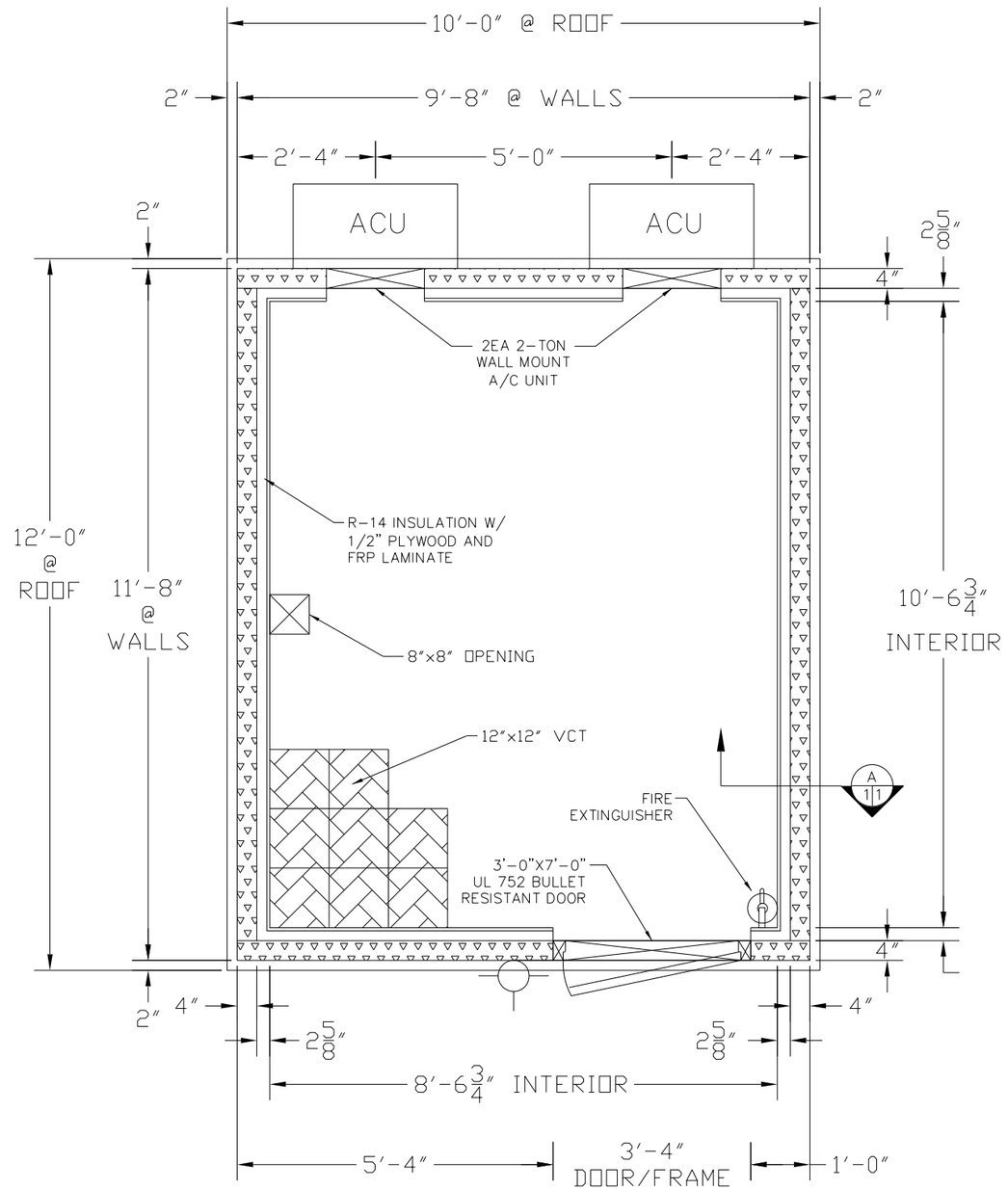


ROOF COMPONENTS AND CLADDING LOAD

Pr = ZONE 1 = +23.0/−60.3 PSF
ZONE 2 = +23.0/−87.6 PSF
ZONE 3 = +23.0/−115.3 PSF

WALL COMPONENTS AND CLADDING LOAD

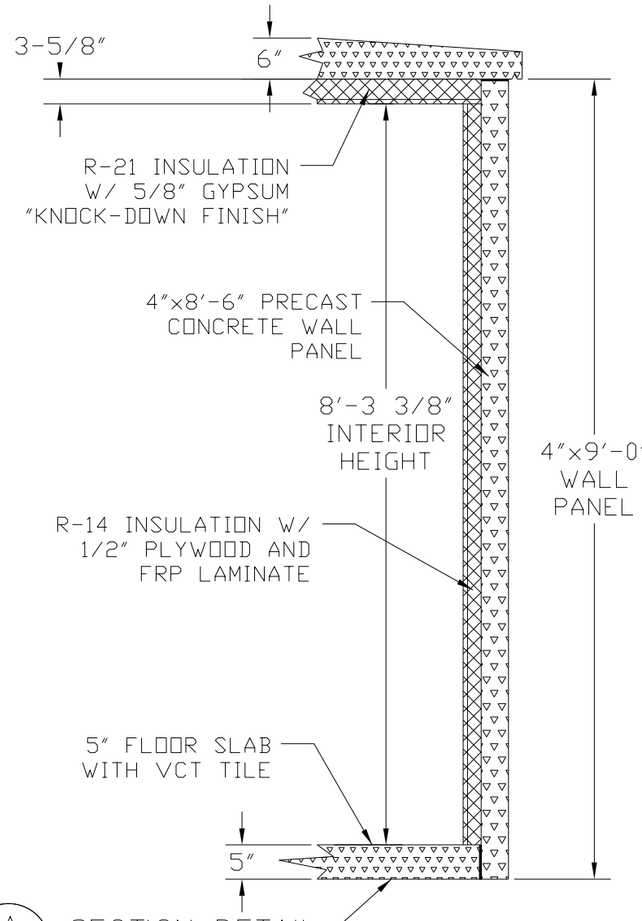
Pw= ZONE 4 = +55.0/−59.8 PSF
ZONE 5 = +55.0/−71.6 PSF

THIS BUILDING IS NOT DESIGN FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15'−0" IN HEIGHT.

FP 1 PLAN VIEW

INDICATES 4" PRECAST WALLS

INSULATION AND GYPSUM



A 1|1 SECTION DETAIL SHELTER ROOM

IF APPLICABLE, FOUNDATION GROUTING AND VAPOR BARRIER BY TCD

LISTING AGENCY APPROVAL

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA

CONST. TYPE	II-B	
OCCUPANCY	S-2	
FLOOR LL	200	PSF
WIND VELOCITY	170/132	MPH
FIRE RATING OF EXT. WALLS	0	HRS
ALLOWABLE NO. OF STORIES	1	
MANUFACTURER	CMS	
PLAN NUMBER	B 1898	
APPROVAL DATE		
HIGH VELOCITY HURRICANE ZONE	YES	

E.M.C.

A. DESIGN CRITERIA
1. FLORIDA BUILDING CODE 5TH EDITION (2014)
   A. ENCLOSURE CLASSIFICATION: ENCLOSED
   B. WIND RISK CATEGORY II
   C. WIND EXPOSURE: C
   D. OCCUPANCY CLASSIFICATION: S-2
   E. CONSTRUCTION TYPE: II-B
2. ACI-318-11 / 318R-11
3. DESIGN SOIL PRESSURE: 2000 PSF BY OTHERS
4. FLOOD LOAD: NOT DESIGN FOR FLOOD HAZARD AREA

B. ALL LOADING CRITERIA PER FBC SECTION 1603.1
1. ROOF LIVE LOAD - 100 PSF
2. FLOOR LIVE LOAD - 200 PSF
3. FLOOR DEAD LOAD - 63 PSF
4. WIND LOAD 170 ULTIMATE - 132 NOMINAL

C. DESIGN SPECIFICATION ON MATERIAL
1. CONCRETE - 5000 PSI, LIGHT WEIGHT CONCRETE, 28 DAYS
2. REINF. STEEL - ASTM A615, GRADE 60
   MINIMUM LAP - 46" BAR DIAMETERS
3. MINIMUM COVER - EXTERIOR - 1 1/2" INTERIOR - 3/4"
4. WELDED WIRE FABRIC - ASTM A185,
   MIN. LAP 8". ALTERNATE JOINTS IN PANEL
   W/ DOUBLE MESH
5. ERECTION/LIFTING INSERTS/DEVICES SHALL
   BE INSTALLED PER MFR'S RECOMMENDATIONS
6. ALL ERECTION/LIFTING DEVICES SHALL BE
   2-TON CAPACITY (MEADOW/BURKE)

D. OTHER
1. REFER TO OWNER'S PROJECT REQUIREMENTS FOR SPECIFICATIONS ON BUILDING COMPONENTS (WINDOWS, DOORS, EQUIPMENT BASES, LOUVERS); HVAC EQUIPMENT (A/C, EXHAUST FANS): PLUMBING FIXTURES (PIPES, DRAINS); ELECTRICAL EQUIPMENT (POWER PANELS, CONDUITS, SWITCHES, LIGHTING FIXTURES), ETC. NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPLY CONCRETE MODULAR SYSTEMS, INC. WITH THE EXACT SIZE AND LOCATION OF ALL OPENINGS REQUIRED IN THE FLOOR, WALL AND ROOF PANELS. THE ITEMS LISTED ABOVE ARE NOT TO BE CONSTRUED AS AN ALL INCLUSIVE LIST.
2. SEE NOTE ON SHEET 3 FOR FOUNDATION REQUIREMENTS TO BE PROVIDED BY OTHERS.
3. PLAN REVIEW AND INSPECTION REQUIRED BY CHAPTER 633 F.S. SHALL BE DONE ON SITE BY LOCAL FIRE SAFETY INSPECTOR.
4. IN ACCORDANCE WITH THE DBPR, THESE BUILDING PLANS DO NOT CONTAIN FOUNDATION SUPPORT AND TIE DOWN SYSTEM DETAILS AND SPECIFICATIONS. THE ARCHITECT/ENGINEER OF THE BUILDING PLANS SHOULD BE CONTACTED TO OBTAIN APPROPRIATE FOUNDATION PLANS. THE ARCHITECT/ENGINEER OF BUILDING PLANS SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR THE FOUNDATION DESIGN AND THE CONSEQUENTIAL PERFORMANCE OF THE SUPERSTRUCTURE COMPONENTS AND SYSTEMS RELATING THEREOF.
5. WINDOWS AND DOORS SHALL BE CERTIFIED FOR COMPLIANCE WITH WIND DESIGN PRESSURES FOR COMPONENTS AND CLADDING.
6. RAISED SEAL SET OF PLANS ARE IN FILE IN 3RD PARTY AGENCY'S OFFICE AS DIRECTED BY DBPR.
7. ALL MATERIALS COMPRISING THE BUILDING ENVELOPE SHALL HAVE FLORIDA PRODUCT APPROVAL IN ACCORDANCE WITH 553.842(5) OR FAC CHAPTER 61-G20-3.

Note:
All details and information on this sheet are provided for informational purposes only. The contractor will provide final design, details, and shop drawings, signed and sealed by a licensed professional engineer in the State of Florida. The contractor will submit the design and details to the engineer for review. Review and approval will be for the limited purpose of checking for conformance with standard design and construction specifications and the information in VHB's documents.

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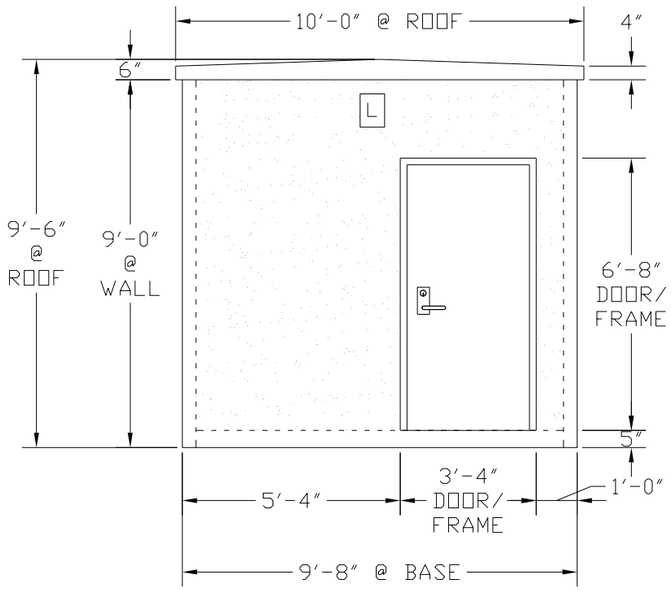
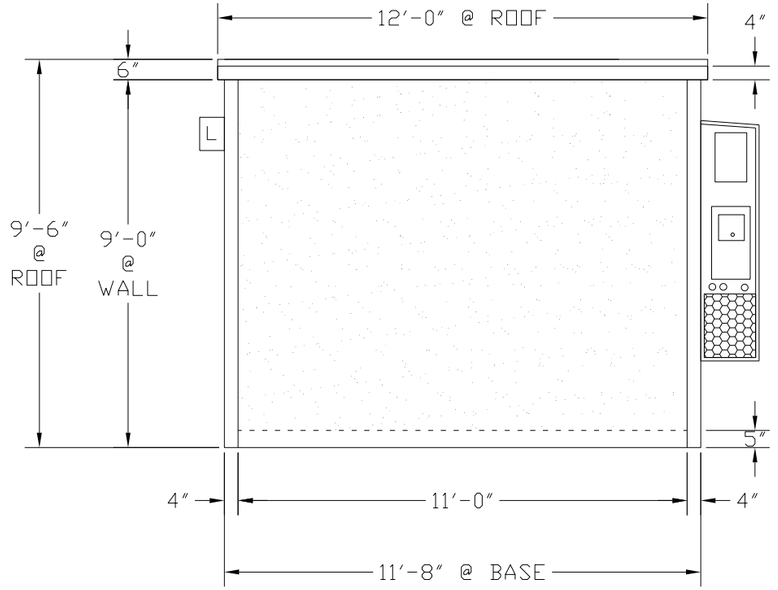
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

MASTER HUB BUILDING (FLOOR PLAN)

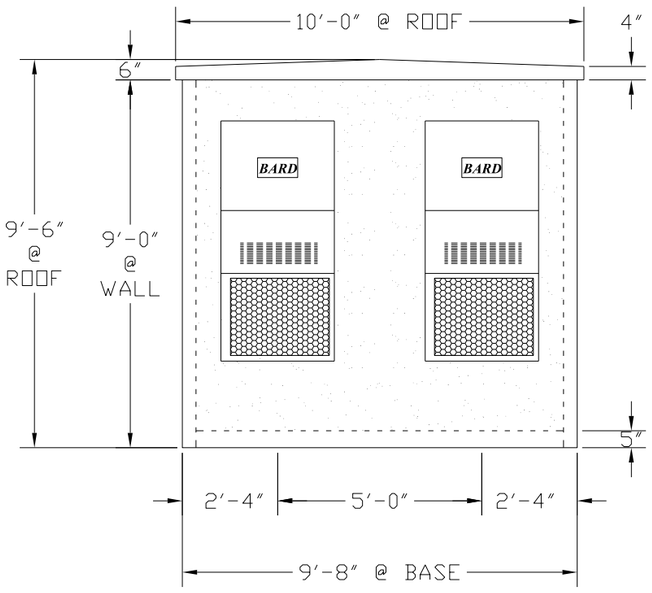
SHEET NO. IT-365



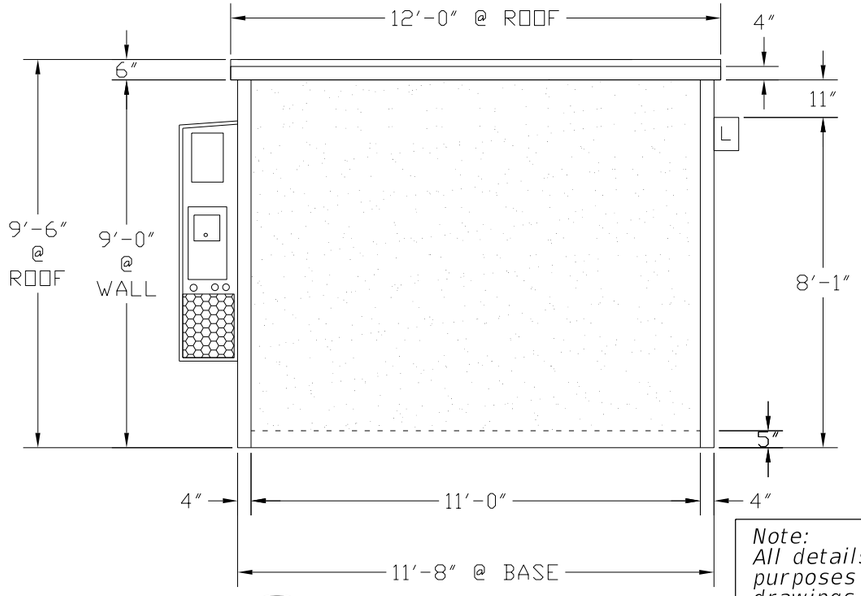
FW 1|2 FRONT ELEVATION



RW 1|2 RIGHT ELEVATION



BW 1|2 BACK ELEVATION



LW 1|2 LEFT ELEVATION

DOOR AND HARDWARE SCHEDULE

DOOR: 1EA 3'-0"X6'-6"X1-3/4" DEANSTEEL LEVEL III BULLET RESISTANT DOOR RHR
FRAME: 1EA 3'-4"X6'-8"X3-3/4" SINGLE RABBET RHR
HINGES: DEANSTEEL CONTINOUS STEEL HINGE
LOCK: CORBIN RUSSWIN #ML2024 MORTISE LOCKSET
DOOR SWEEP: PEMKO #A-57 VINLY DOOR SWEEP
DRIP CAP: PEMKO #346C ALUMINUM OVERHEAD RAIN DRIP CAP
CLOSER: LCN #4014 PAX SNB ADA ALUMINUM CLOSER
SPD #DC-M2395AA7 DOOR CHECK

EXTERIOR FINISH SCHEDULE:

EXTERIOR WALLS:
"EXPOSED AGGREGATE FINISH" 5000 PSI CONCRETE FINISH
PPG EXTERIOR ACRYLIC LATEX MASONRY PAINT
COLOR: EARTH TONE

ROOF: SHALL HAVE A $\frac{1}{8}$" PER FOOT MINIMUM PITCH FOR DRAINAGE

DOORS AND FRAMES:
FRAMES: BAKED ENAMEL COLOR EARTH TONE
DOORS: BAKED ENAMEL EARTH TONE

INTERIOR FINISH SCHEDULE:

WALLS: PROVIDE VAPOR SHIELD TO PREVENT MOISTURE PENETRATION, MINIMUM INSULATING FACTOR OF R14 W/ 1/2" PLYWOOD AND FRP LAMINATE
CEILING: PROVIDE VAPOR SHIELD TO PREVENT MOISTURE PENETRATION, MINIMUM INSULATING FACTOR OF R21 W/ 5/8" GYPSUM BOARD "KNOCK-DOWN FINISH"
FLOOR: INSULATE WITH POLYSTYRENE FOAM HAVING MINIMUM INSULATING FACTOR OF R11 fLOOR COVERING: INDUSTRIAL-GRADE VINYL FLOORING FASTENED WATERPROOF GLUE
WALL/FLOOR INTERSECTIONS: SHALL HAVE A 4 INCH VINYL BASEBOARD FASTENED WITH WATERPROOF GLUE

MECHANICAL SCHEDULE:

2EA BARD 2-TON WALL MOUNT A/C WA241-A05-XPXXXJ W/ "J" PACKAGE, GRILLS

SCALE VERIFICATION
0' 6" 1' 6" 2' 6" 3' 6" 4'
EQUALS 4 FEET

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BY: (FDOT)_VS_____ Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

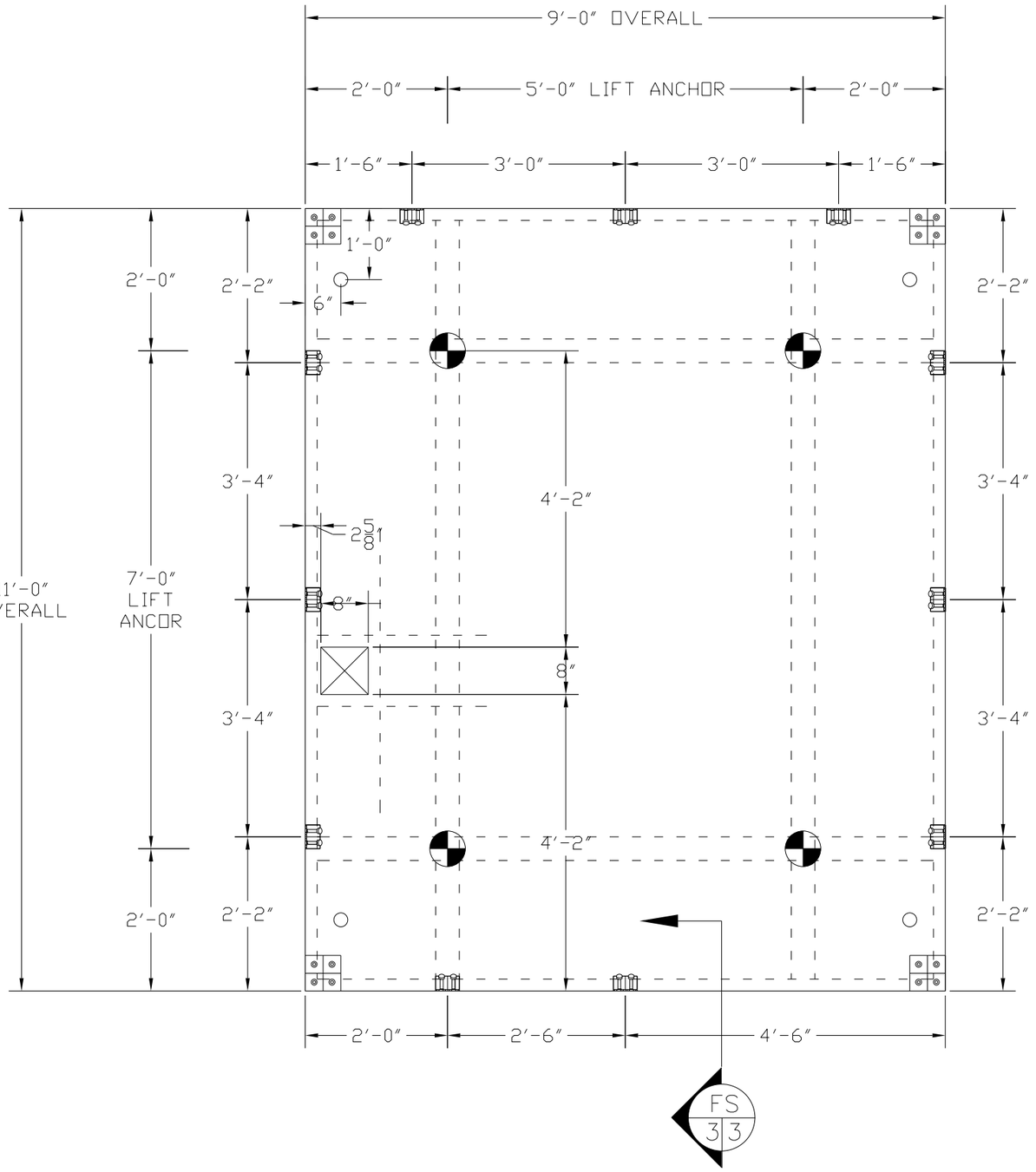
Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

MASTER HUB BUILDING (FLOOR FRAMING)

SHEET NO. IT-366



FS 1 3 FABRICATION 5" THICK FLOOR SLAB

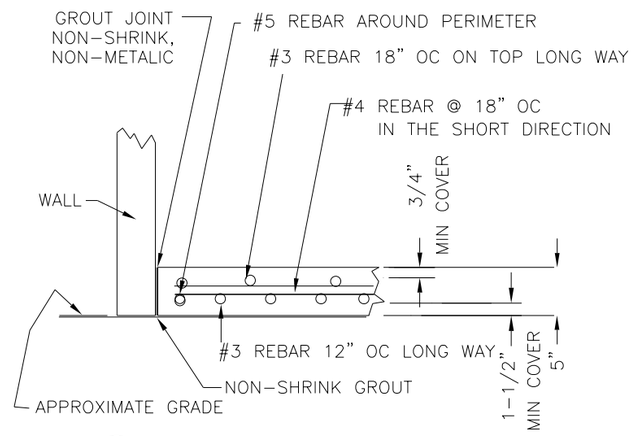
REINFORCEMENT:
- #3 REBAR @ 18" O.C. @ TOP OF SLAB LONG WAY
- #4 REBAR @ 18" O.C. SHORT WAY
- #3 REBAR @ 12" O.C. @ BOTTOM OF SLAB
- (1) #5 REBAR AROUND PERIMETER OF SLAB
- (1) #5 REBAR E.S. LIFTING INSERTS E.W. UNDER TOP STEEL
- EXTRA #5 REBAR AROUND OPENINGS AS SHOWN

SEE DETAILS "F" ON SHEET #9 FOR FLOOR TO WALL CONNECTION

DENOTES LIFTING INSERT SEE DETAIL "B" ON SHEET #9

P-1 A-1 DENOTES LOCATION OF WELD PLATES SEE DETAIL "F" ON SHEET #9

○ DENOTES LOCATION OF 3/8" ANCHOR BOLT. MIN 5" EMBED WITH WASHER AND BOLT OR ALT. DRILL & EPOXY #5 BAR MIN 5" EMBED. COVERED WITH PATCH, TYP.



FS 3 3 PARTIAL SECTION SCALE = NONE

SCALE VERIFICATION
0' 6" 1' 6" 2'
EQUALS 2 FEET

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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MASTER HUB BUILDING (FLOOR FRAMING)

SHEET NO. IT-367

RELEASED FOR CONSTRUCTION
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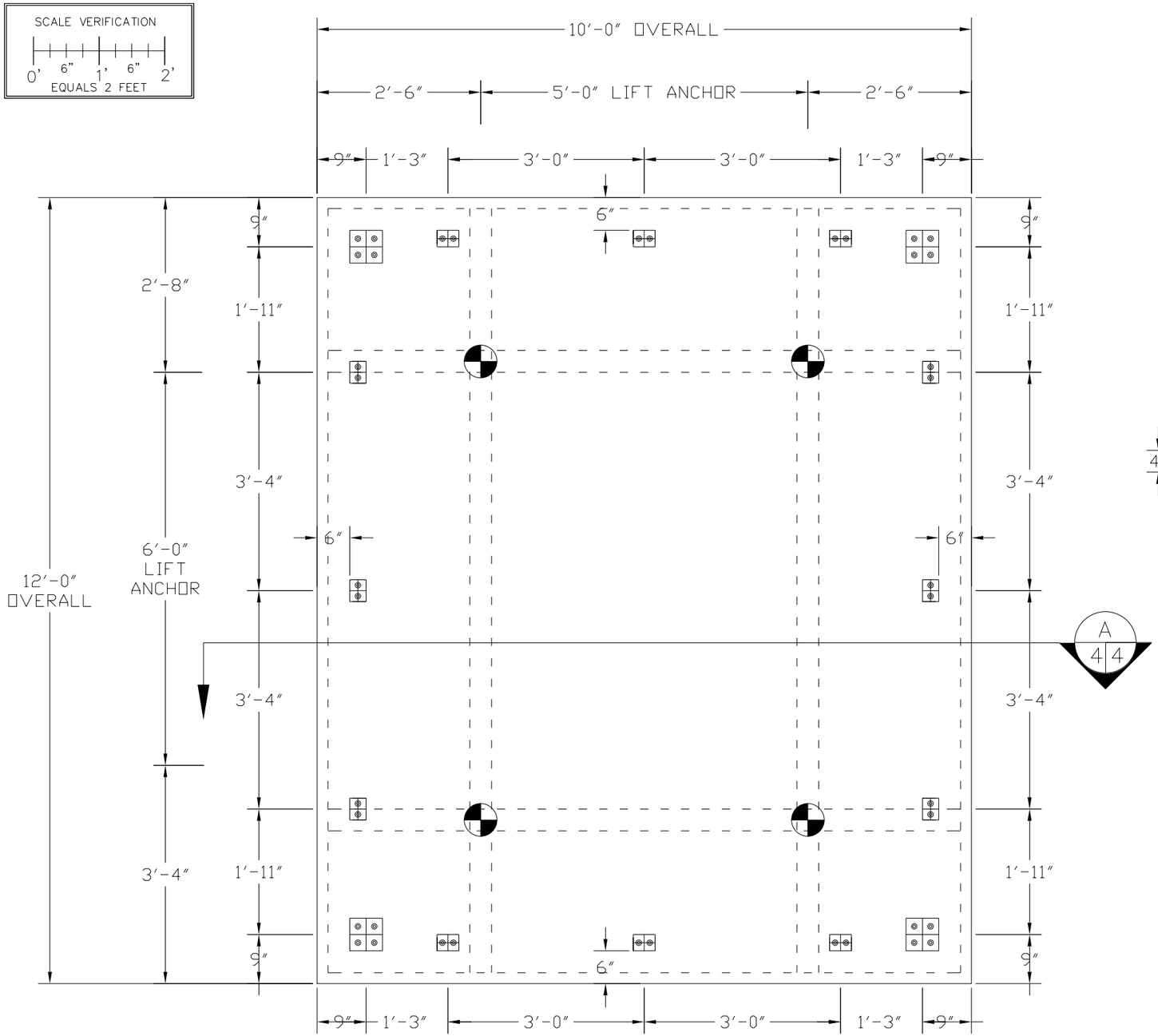
FPID 433108-4-52-01 CONTRACT E4Q32



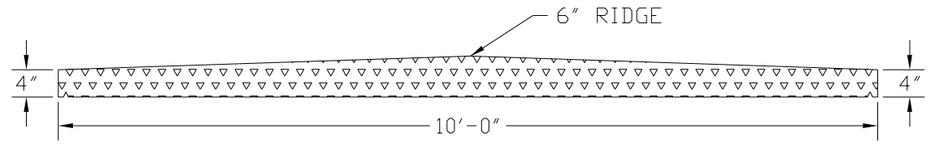
RS 1 4 FABRICATION 4" TO 6" THICK ROOF SLAB

REINFORCEMENT:
(1) #4 AROUND EACH EDGE OF PANEL
(1) #4 REBAR EACH SIDE OF LIFTING INSERT EACH WAY AS SHOWN
(1) LAYER OF 4X4 W2.9 / W2.9 WWM CENTERED
#4 REBAR AT 10" O.C., IN THE SLOPE DIRECTION
BOTTOM STEEL 3/4" COVER
EXTRA #5 AROUND OPENINGS AS SHOWN

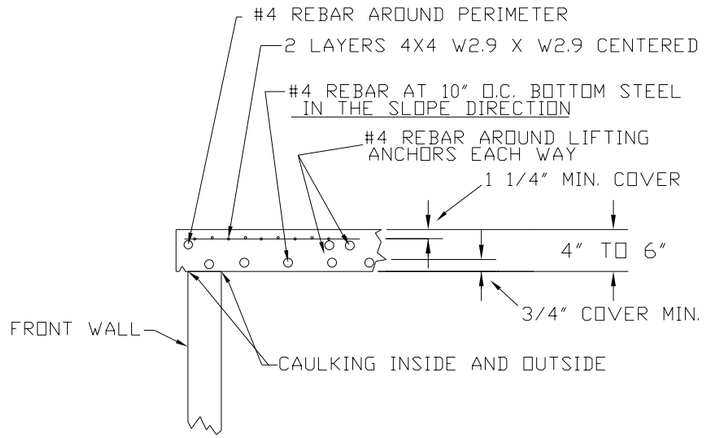
NOTE:
SEE DETAILS "D" ON SHEET #9 FOR ROOF TO WALL CONNECTION

DENOTES LIFTING INSERT SEE DETAIL "B" ON SHEET #9

P-1 P-2 DENOTES LOCATION OF WELD PLATES SEE DETAIL "D" ON SHEET #9



A 4 4 PARTIAL SECTION



B 4 4 PARTIAL SECTION
SCALE = NONE

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

MASTER HUB BUILDING (ROOF FRAMING)

SHEET NO. IT-368

RELEASED FOR CONSTRUCTION
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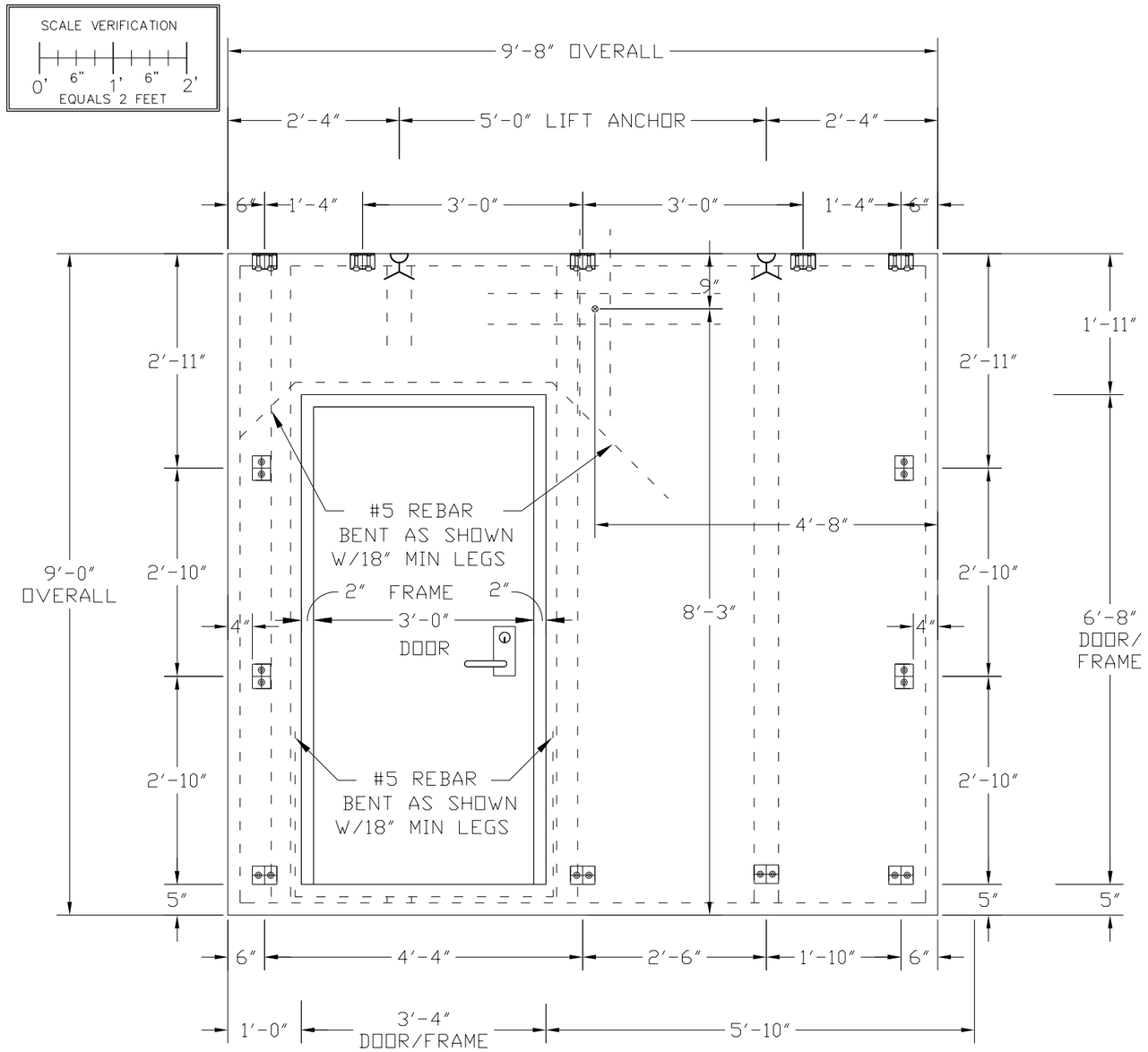
BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32



FW 1|5 FABRICATION 4" THICK FRONT WALL

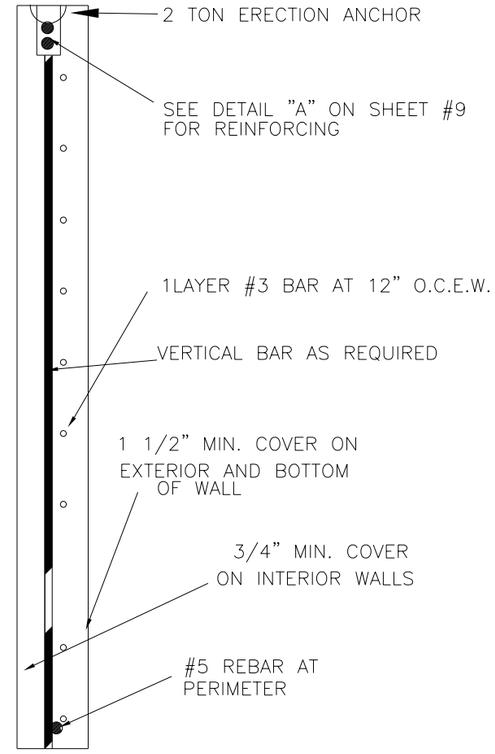
TYPICAL PANEL REINFORCEMENT
(1) LAYER #3 BARS 12 O.C. EACH WAY
(1) #5 BARS @ PERIMETER AS SHOWN
(2) #5 BARS @ LIFTING INSERTS AS SHOWN
EXTRA #5 BARS @ OPENINGS AS SHOWN

NOTE:
SEE DETAILS "D" ON SHEET #9 FOR ROOF TO WALL CONNECTION
SEE DETAILS "E" ON SHEET #9 FOR WALL TO WALL CONNECTION
SEE DETAILS "F" ON SHEET #9 FOR FLOOR TO WALL CONNECTION

DENOTES EDGE ANCHOR SEE DETAIL "A" ON SHEET #9

P-2 A-1 DENOTES LOCATION OF WELD PLATES FOR CONNECTING SEE DETAILS "D,E,F" ON SHEET #9

DENOTES 1 1/4" SCHEDULE 80 STEEL SLEEVE WITH #5 HAIR PIN FOR BUILDING PICK POINTS SEE DETAIL "C" SHEET #9



FW 5|5 PARTIAL SECTION
SCALE = NONE

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

MASTER HUB BUILDING (FRONT WALL DETAIL)

SHEET NO. IT-369

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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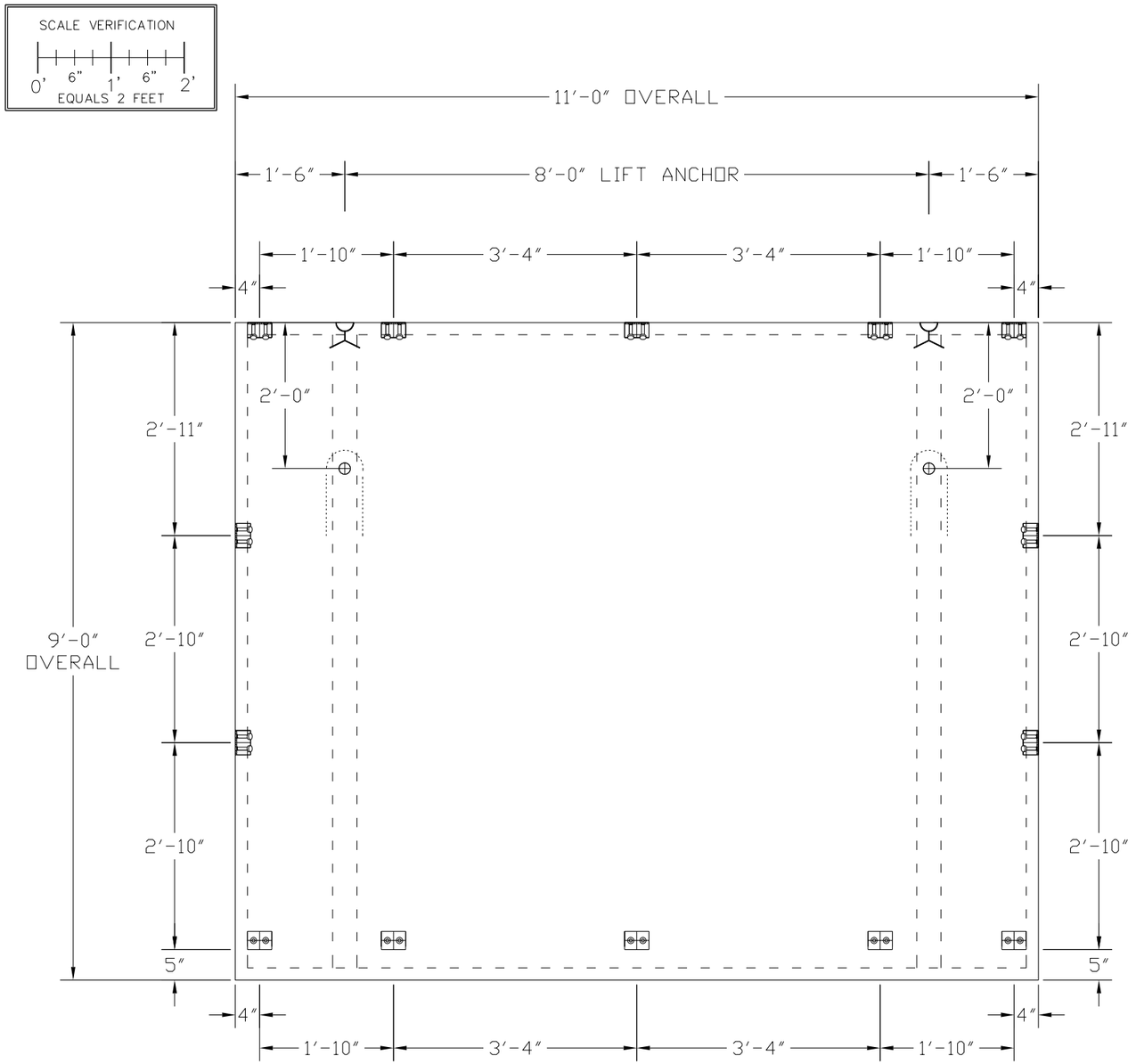


LW 1|6 FABRICATION 4" THICK LEFT WALL

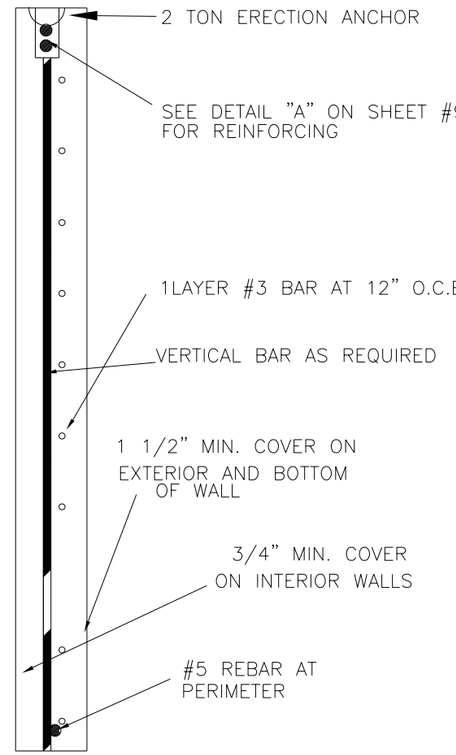
TYPICAL PANEL REINFORCEMENT
(1) LAYER #3 BARS 12 O.C. EACH WAY
(1) #5 BARS @ PERIMETER AS SHOWN
(2) #5 BARS @ LIFTING INSERTS AS SHOWN
EXTRA #5 BARS @ OPENINGS AS SHOWN

NOTE:
SEE DETAILS "D" ON SHEET #9 FOR ROOF TO WALL CONNECTION
SEE DETAILS "E" ON SHEET #9 FOR WALL TO WALL CONNECTION
SEE DETAILS "F" ON SHEET #9 FOR FLOOR TO WALL CONNECTION

DENOTES EDGE ANCHOR SEE DETAIL "A" ON SHEET #9

P-2 A-1 DENOTES LOCATION OF WELD PLATES FOR CONNECTING SEE DETAILS "D,E,F" ON SHEET #9

DENOTES 1 1/4" SCHEDULE 80 STEEL SLEEVE WITH #5 HAIR PIN FOR BUILDING PICK POINTS SEE DETAIL "C" SHEET #9



LW 6|6 PARTIAL SECTION
SCALE = NONE

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
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9	BROWARD	433108-4-52-01

MASTER HUB BUILDING (LEFT WALL DETAIL)

SHEET NO. IT-370

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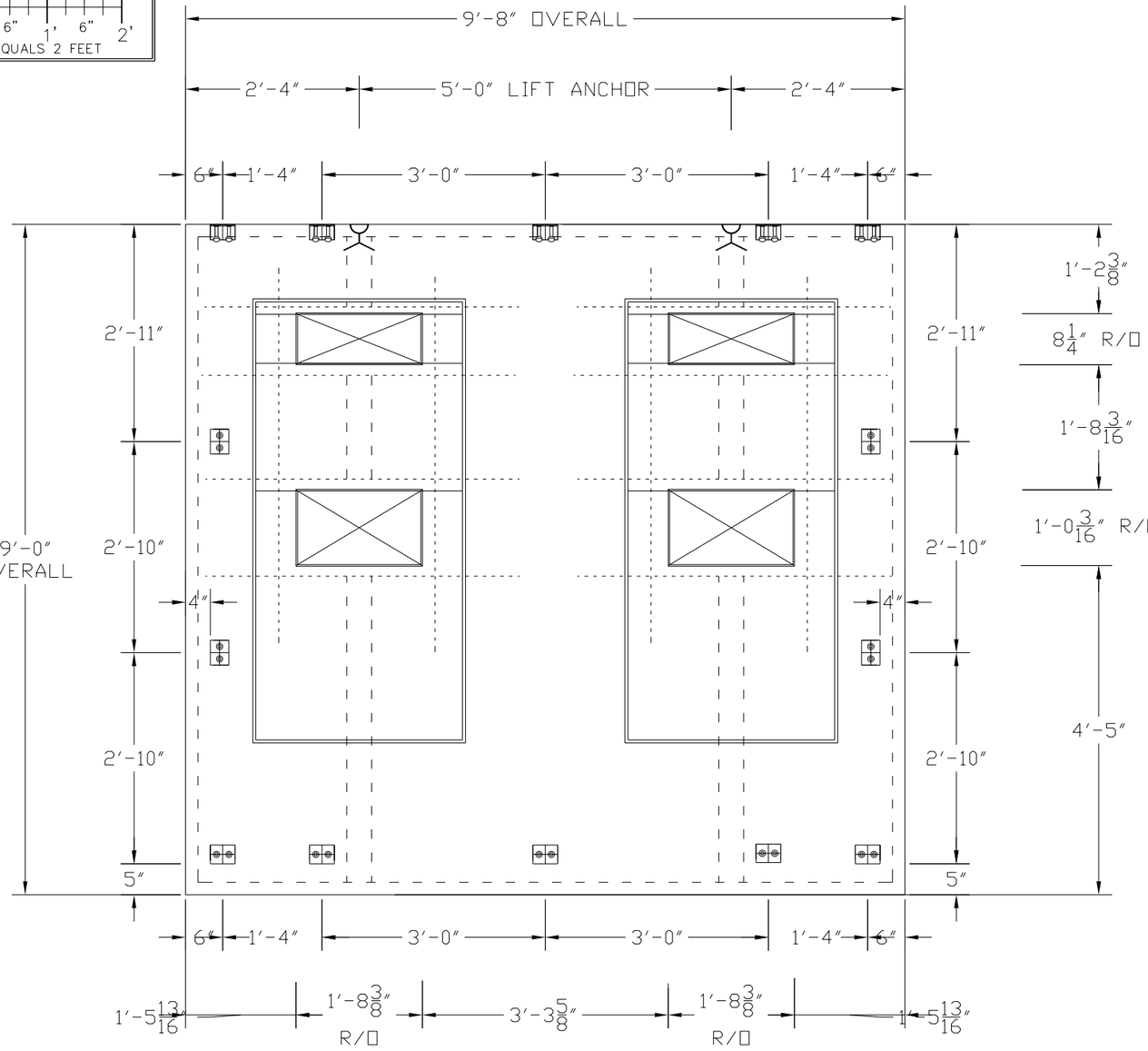
SCALE VERIFICATION

0' 6" 1' 6" 2'

EQUALS 2 FEET



BW 1|7 FABRICATION 4" THICK BACK WALL

TYPICAL PANEL REINFORCEMENT

(1) LAYER #3 BARS 12 O.C. EACH WAY
(1) #5 BARS @ PERIMETER AS SHOWN
(2) #5 BARS @ LIFTING INSERTS AS SHOWN
EXTRA #5 BARS @ OPENINGS AS SHOWN

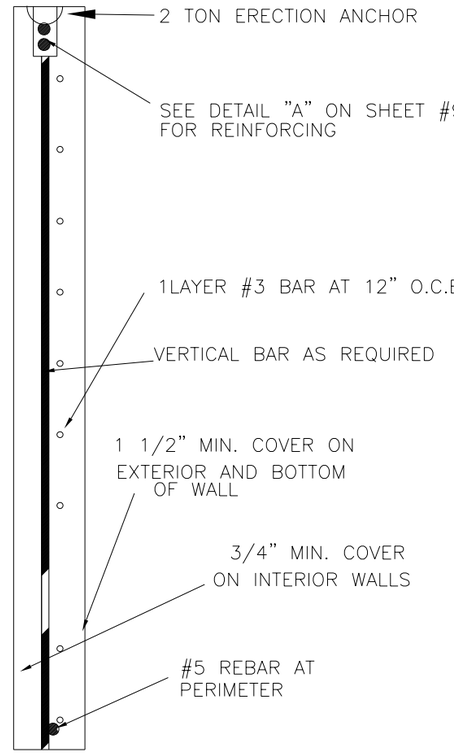
NOTE:

SEE DETAILS "D" ON SHEET #9 FOR ROOF TO WALL CONNECTION
SEE DETAILS "E" ON SHEET #9 FOR WALL TO WALL CONNECTION
SEE DETAILS "F" ON SHEET #9 FOR FLOOR TO WALL CONNECTION

DENOTES EDGE ANCHOR SEE DETAIL "A" ON SHEET #9

P-2 A-1 DENOTES LOCATION OF WELD PLATES FOR CONNECTING SEE DETAILS "D,E,F" ON SHEET #9

DENOTES 1 1/4" SCHEDULE 80 STEEL SLEEVE WITH #5 HAIR PIN FOR BUILDING PICK POINTS SEE DETAIL "C" SHEET #9



BW 7|7 PARTIAL SECTION
SCALE = NONE

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

MASTER HUB BUILDING (BACK WALL DETAIL)

SHEET NO. IT-371

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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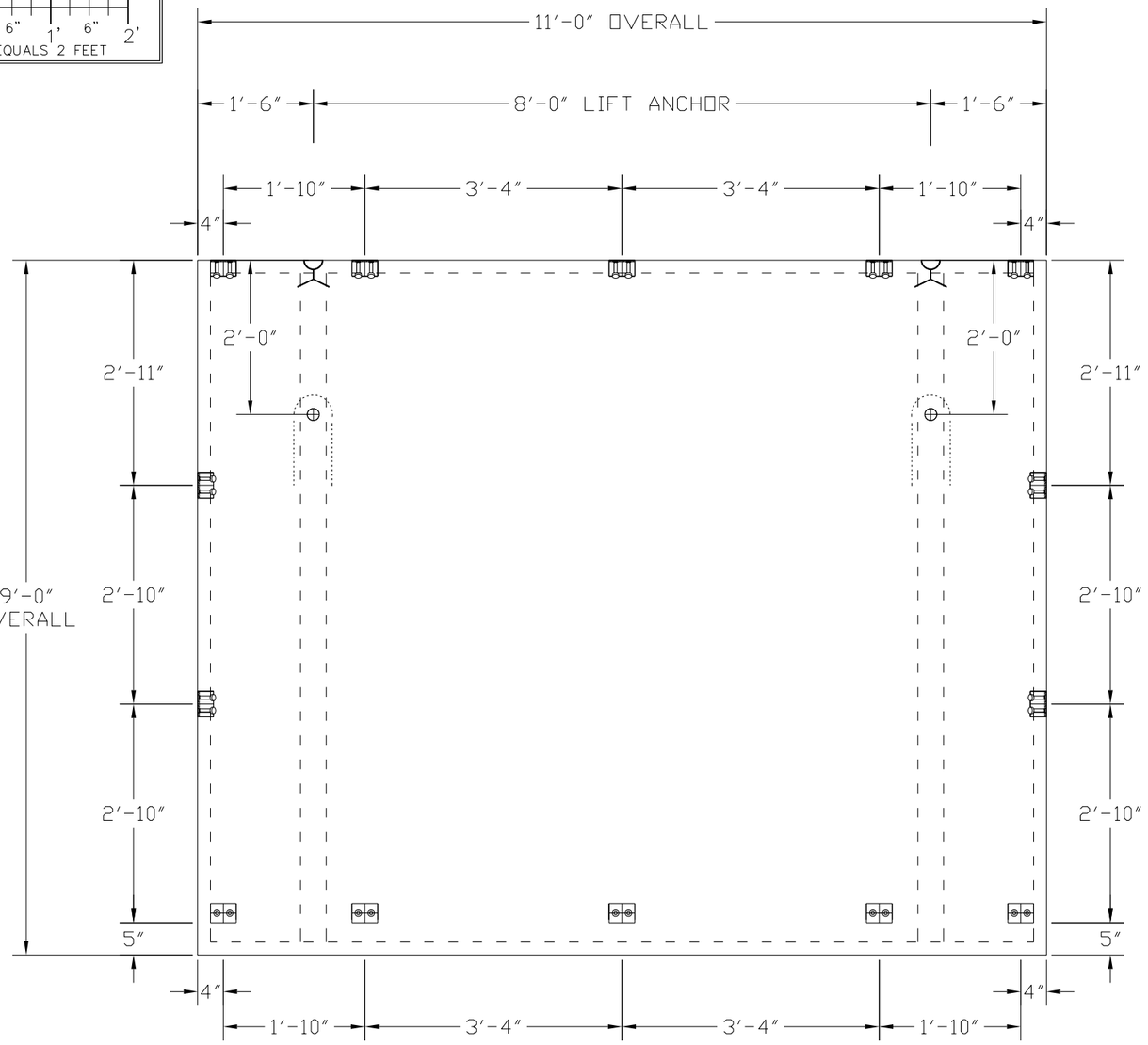
SCALE VERIFICATION

0' 6" 1' 6" 2'

EQUALS 2 FEET



RW 1|8 FABRICATION 4" THICK RIGHT WALL

TYPICAL PANEL REINFORCEMENT

(1) LAYER #3 BARS 12 O.C. EACH WAY
(1) #5 BARS @ PERIMETER AS SHOWN
(2) #5 BARS @ LIFTING INSERTS AS SHOWN
EXTRA #5 BARS @ OPENINGS AS SHOWN

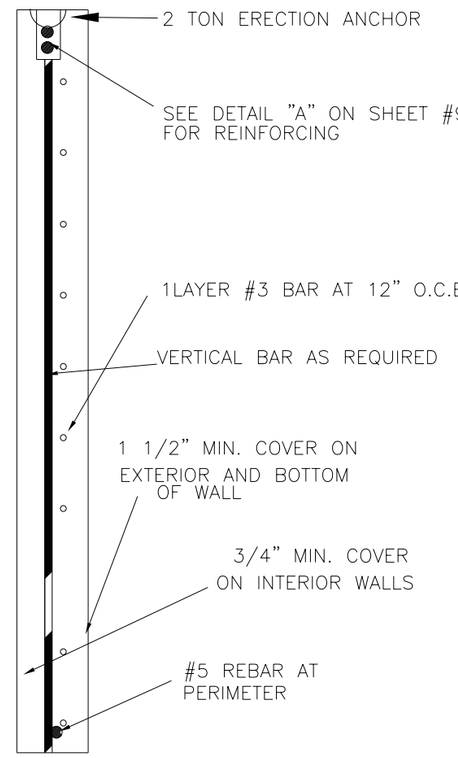
NOTE:

SEE DETAILS "D" ON SHEET #9 FOR ROOF TO WALL CONNECTION
SEE DETAILS "E" ON SHEET #9 FOR WALL TO WALL CONNECTION
SEE DETAILS "F" ON SHEET #9 FOR FLOOR TO WALL CONNECTION

DENOTES EDGE ANCHOR SEE DETAIL "A" ON SHEET #9

P-2 A-1 DENOTES LOCATION OF WELD PLATES FOR CONNECTING SEE DETAILS "D,E,F" ON SHEET #9

DENOTES 1 1/4" SCHEDULE 80 STEEL SLEEVE WITH #5 HAIR PIN FOR BUILDING PICK POINTS SEE DETAIL "C" SHEET #9



RW 8|8 PARTIAL SECTION
SCALE = NONE

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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9	BROWARD	433108-4-52-01

MASTER HUB BUILDING (RIGHT WALL DETAIL)

SHEET NO. IT-372

RELEASED FOR CONSTRUCTION Date: 3/21/2018
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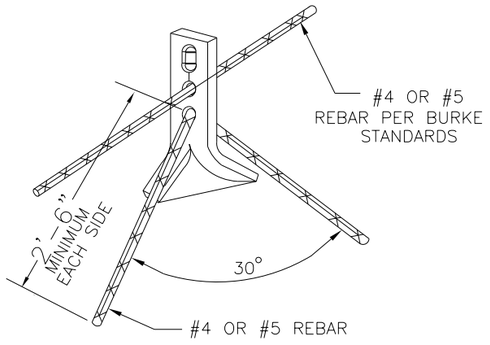
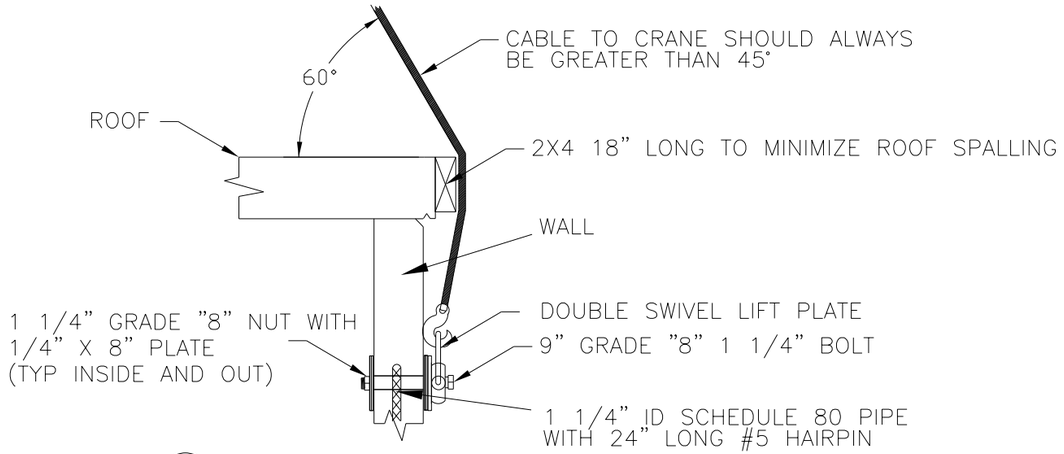
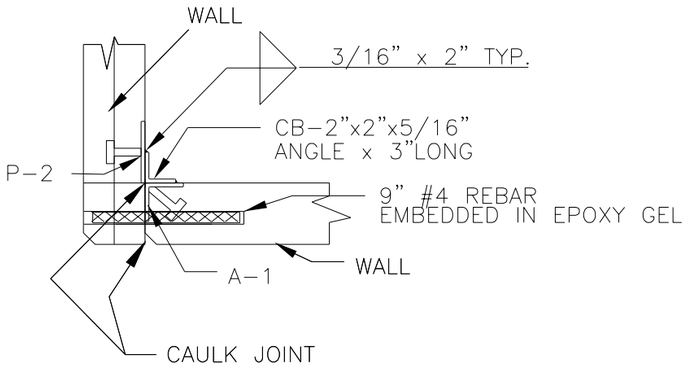


A TYPICAL REINFORCING FOR 2-TON BURKE TYPE EDGE ANCHOR

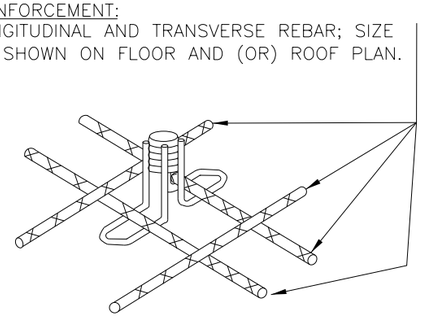


C BUILDING PICK POINTS
APPROX BUILDING WEIGHT 23,000 LBS



E SECTION-WALL/WALL

REINFORCEMENT:
LONGITUDINAL AND TRANSVERSE REBAR; SIZE AS SHOWN ON FLOOR AND (OR) ROOF PLAN.



TYPICAL LIFTING INSERT
B FOR "FACE LIFT" APPLICATION

NOTE: CONTRACTOR RESERVES THE RIGHT TO SUBSTITUTE APPROVE EQUAL BASED ON PRICE AND AVAILIBILITY

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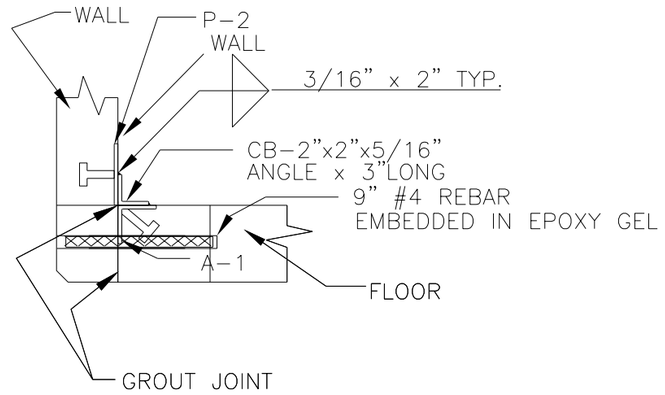
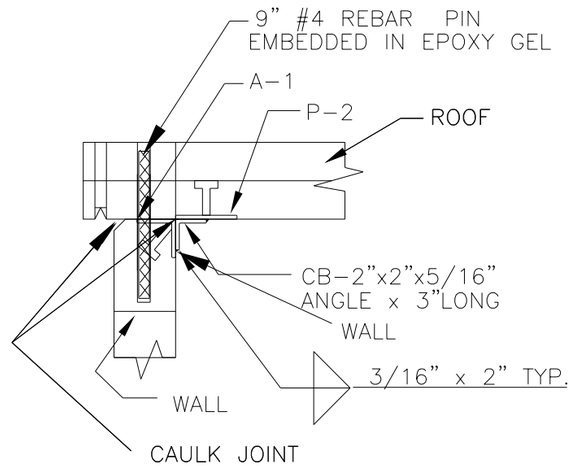


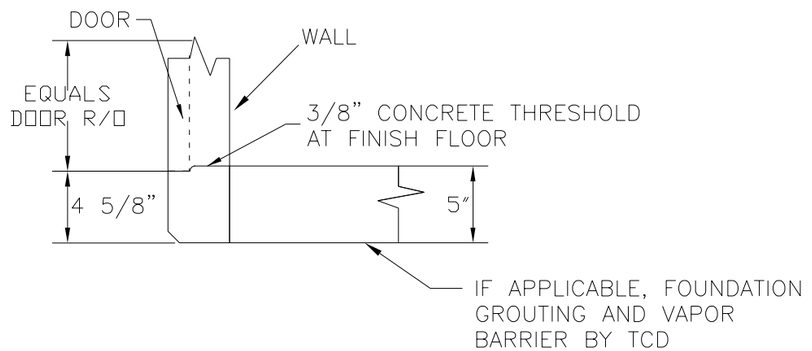
F SECTION-FLOOR/WALL

CONNECTION MATERIAL

QUAN.	MARK#	SIZE OF MATERIAL	STUD REQUIRED/MANU.
8	P-1	6"x 6"X 3/8" A-36 PLATE	(4) 1/2" DIA x 3" LG.
27	P-2	4"x 3"X 1/4" A-36 PLATE	(2) 1/2" DIA x 3" LG.
28	A-1	2-1/2"x 2-1/2"x 1/4" x 4"	(2) 1/2" DIA x 3" LG.
16	CB	2"x 2"x 5/16" x 2" A-36	NONE
8		#79528 ERECTION ANCHOR	MEADOW-BURKE
8		CX-28 2-TON LIFT ANCHOR	MEADOW-BURKE
3		NON SHRINK GROUT	EUCLID
30		SONOLASTIC NP-1	SONNEBORN



D SECTION-ROOF/WALL



G SECTION-THRESHOLD/FLOOR

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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MASTER HUB BUILDING (CONNECTION DETAIL)

SHEET NO. IT-373

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RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL ELECTRICAL NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH 2011 NATIONAL ELECTRICAL CODE AND SHALL ALSO COMPLY WITH WITH APPLICABLE RULES AND REGULATIONS OF LOCAL AND STATE LAWS AND ORDINANCES.
2. CIRCUITS 600V OR LESS SHALL USE COPPER CONDUCTORS ONLY: #10 AWG AND SMALLER SHALL BE SOLID, AND #8 AWG THRU #2 SHALL BE STRANDED WITH TYPE THHN/THWN 75°C INSULATION
3. ROUTE CONDUITS TO SUIT EQUIPMENT AND BUILDING STRUCTURE. CONDUITS TO BE UL LISTED PVC AND LIQUID TIGHT FLEXIBLE CONDUIT MAY BE USED BETWEEN JUNCTION BOXES TO CONNECT MODULES TOGETHER. SURFACE MOUNT AND SUPPORT WITH STAINLESS STEEL HARDWARE AND PER NEC.
4. SEAL CONDUIT PENETRATIONS THRU WALLS WITH GROUT OR CAULK. USE A METHOD OF SEALING THAT IS UL APPROVED.
5. ALL INTERIOR ELECTRICAL SYSTEM SHALL BE COMPLETELY AND EFFECTIVELY GROUNDED AS REQUIRED BY THE NATIONAL ELECTRICAL CODE. ALL METALLIC RACEWAYS SHALL BE MECHANICALLY AND ELECTRICALLY SECURE AT ALL BOXES, CABINETS, FITTINGS AND EQUIPMENT. AWG #2 SOLID BARE COPPER APPROXIMATELY ONE FOOT ABOVE THE FLOOR AND ONE FOOT BELOW THE CEILING, MOUNTED ON STANDOFFS ON EACH WALL ENCIRCLING THE THE ROOM IN CONTINUOUS LOOP.
6. COLOR CODE ALL CONDUCTORS AS REQUIRED BY THE NEC.
7. ALL RACEWAYS WITH #10 OR #12 AWG PHASE CONDUCTORS SHALL BE PROVIDED WITH A PARITY SIZED GREEN EQUIPMENT GROUND CONDUCTOR. GROUND CONDUCTOR SHALL BE INSTALLED IN ENTIRE RACEWAY SYSTEM AND SHALL BE CONNECTED TO GROUND BUS IN PANELBOARD.
8. INSTALL TWO, L5-30 TWIST-LOCK WALL RECEPTACLE.
9. INSTALL ONE, VANDEL RESISITANT - 35 WATT, HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED OUTSIDE NEAR ENTRANCE DOOR. IT SHALL BE FURNISHED WITH A PHOTOCELL AND INTERIOR LIGHT SWITCH.
10. ALARM OPTIONS SHALL BE WIRED AND LABELED TO A TYPE 66 BLOCK AND INCLUDE:
    - DRY MAGNETIC DOOR ALARM
    - DRY CONTACT AIR CONDITIONER FAILURE ALARM
    - DRY CONTACT FIRE ALARM
    - DRY CONTACT HIGH AND LOW TEMPERATURE ALARM WITH THRESHOLDS ADJUSTABLE BETWEEN 50° AND 90°
    - POWER FAIL ALARM WIRE FROM A DEDICATED CIRCUIT BREAKER
    - MAIN FUSE ALARM WIRED FROM THE MAIN FUSED DISCONNECT
11. INSTALL A TWO-HEADED EMERGENCY LIGHT WITH RECHARGEABLE BATTERIES, A CHARGER PILOT, AND TEST LIGHT, WIRED UNSWITCHED TO THE INTERIOR LIGHTING CIRCUIT.

EQUIPMENT LIST

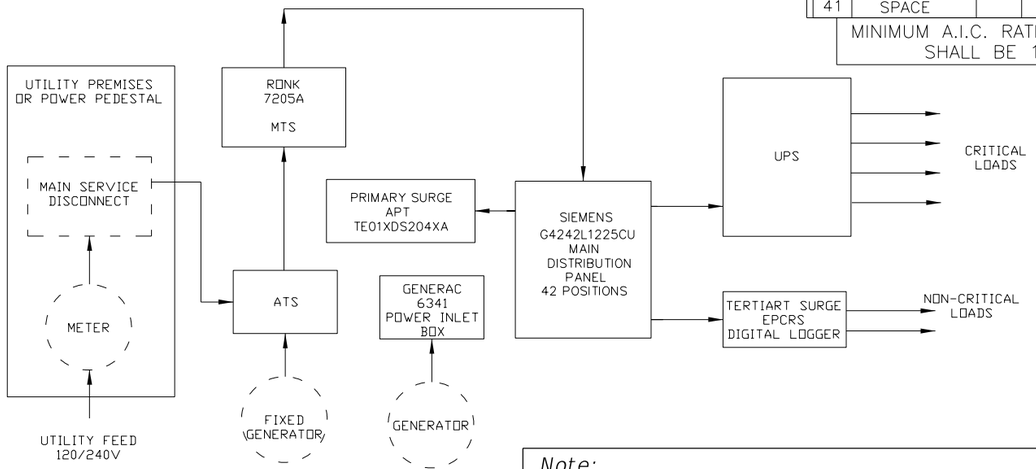
ID	QTY	MANUF.	PART NO.	DESCRIPTION	ID	QTY	MANUF.	PART NO.	DESCRIPTION
1	1	APT	TE01XDS204XA	PRIMARY SURGE - TEXDS SERIES TYPE 1 SPD	13	2	LITHONIA	SB-2-32-MVOLT-GEB10IS	INTERIOR LIGHT
2	3	PASS & SEYMOUR	CR20-W	20 AMP QUAD RECEPTACLE	14	1	SURELITE	CC2	EMERGENCY LIGHT
3	1	DIGITAL-LOGGER	ETHERNET POWER CONTROLLER 5	RPM	15	3	STARTECH	RK4236BK	ENCLOSED RACK
4	1	RONK	7205A	MANUAL TRANSFER SWITCH	16	1	STARTECH	4UDRAWER 4U	DOCUMENT DRAWER
5	1	GENERAC	6341	50 AMP GENERATOR RECEPTACLE	17	1	KIDDE	1235E	SMOKE ALARM
6	1	SIEMENS	G4242L1225	225 AMP 42 POSITION LOAD CENTER	18	1	KIDDE	SM120X	RELAY MODULE
7	1	SIEMENS	MBK150A	150 AMP MAIN BREAKER KIT	19	1	KIDDE	PRO10TCM	10 LBS. FIRE EXTINGUISHER
8	4	PASS & SEYMOUR	CR20-W	20 AMP DUPLEX RECEPTACLE	20	1	DIRECTED	8600	MAGNETIC MICRO DOOR SWITCH
9	2	PASS & SEYMOUR	CS20AC1-W	20 AMP LIGHT SWITCH	21	2	BARD	WA241-A05-XPXXXJ	2 TON AC WITH J PACKAGE
10	2	PASS & SEYMOUR	2095-W	20 AMP GFCI DUPLEX RECEPTACLE	22	1	BARD	MC4001	HVAC CONTROLLER
11	1	PASS & SEYMOUR	L530-R	30 AMP TWISTLOCK RECEPTACLE	23	1	CENTRAL STEEL		CABLE TRAY WITH NEEDED ACCESSORIES
12	1	RAB	WP1SN35W/PC	EXTERIOR COMPACT WALLPACK LIGHT	24	1			48"X48" GRAY PLYWOOD BOARD

AC PANEL SCHEDULE

150 AMP 120/240VAC 42 SPACE 1ø MAIN BREAKER

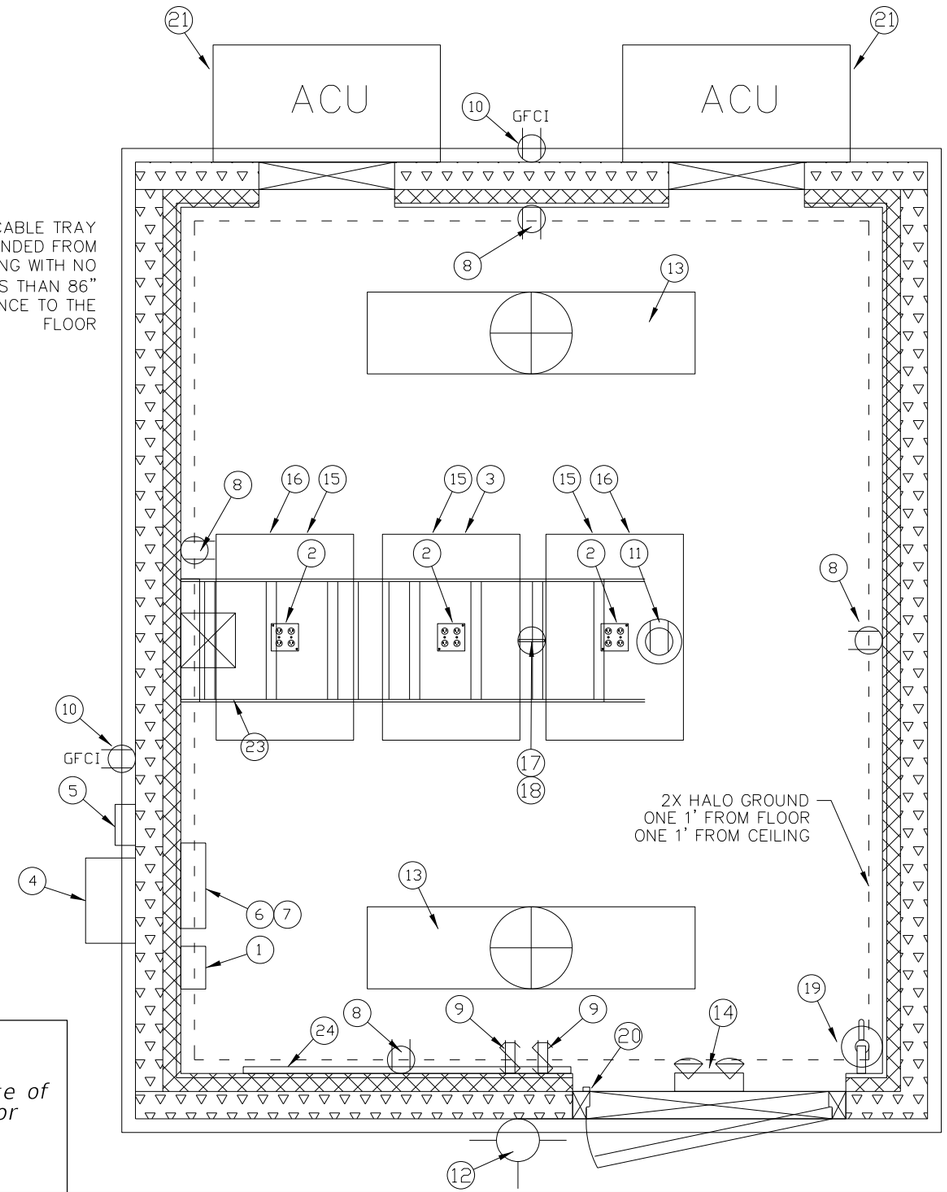
CKT #	DESCRIPTION	WIRE SIZE	AMP	AMP	WIRE SIZE	DESCRIPTION	CKT #
1	INT LIGHTS	12	20	20	12	EXT LIGHT	2
3	INT RECEPT	12	20	20	12	INT RECEPT	4
5	INT RECEPT	12	20	20	12	INT RECEPT	6
7	EXT RECEPT	12	20	30	12	EXT RECEPT	8
9	TWISTLOCK/UPS	12	30	20	12	MTS	10
11	A/C UNIT	10	30	20	12	SMOKE DETEC.	12
13				20	12	QUAD RECEPT	14
15	A/C UNIT	10	30	20	12	QUAD RECEPT	16
17				20	12	QUAD RECEPT	18
19	SPACE					SPACE	20
21	SPACE					SPACE	22
23	SPACE					SPACE	24
25	SPACE					SPACE	26
27	SPACE					SPACE	28
29	SPACE					SPACE	30
31	SPACE					SPACE	32
33	SPACE					SPACE	34
35	SPACE					SPACE	36
37	SPACE					SPACE	38
39	SPACE					SPACE	40
41	SPACE					SPACE	42

MINIMUM A.I.C. RATING OF CIRCUIT BREAKERS SHALL BE 10,000 @ 240V



AC POWER SPD SCHEMATIC

3X 12" CABLE TRAY SUSPENDED FROM CEILING WITH NO LESS THAN 86" CLEARANCE TO THE FLOOR



Note:
All details and information on this sheet are provided for informational purposes only. The contractor will provide final design, details, and shop drawings, signed and sealed by a licensed professional engineer in the State of Florida. The contractor will submit the design and details to the engineer for review. Review and approval will be for the limited purpose of checking for conformance with standard design and construction specifications and the information in VHB's documents.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

MASTER HUB BUILDING (ELECTRICAL PLAN)

SHEET NO. IT-374

RELEASED FOR CONSTRUCTION
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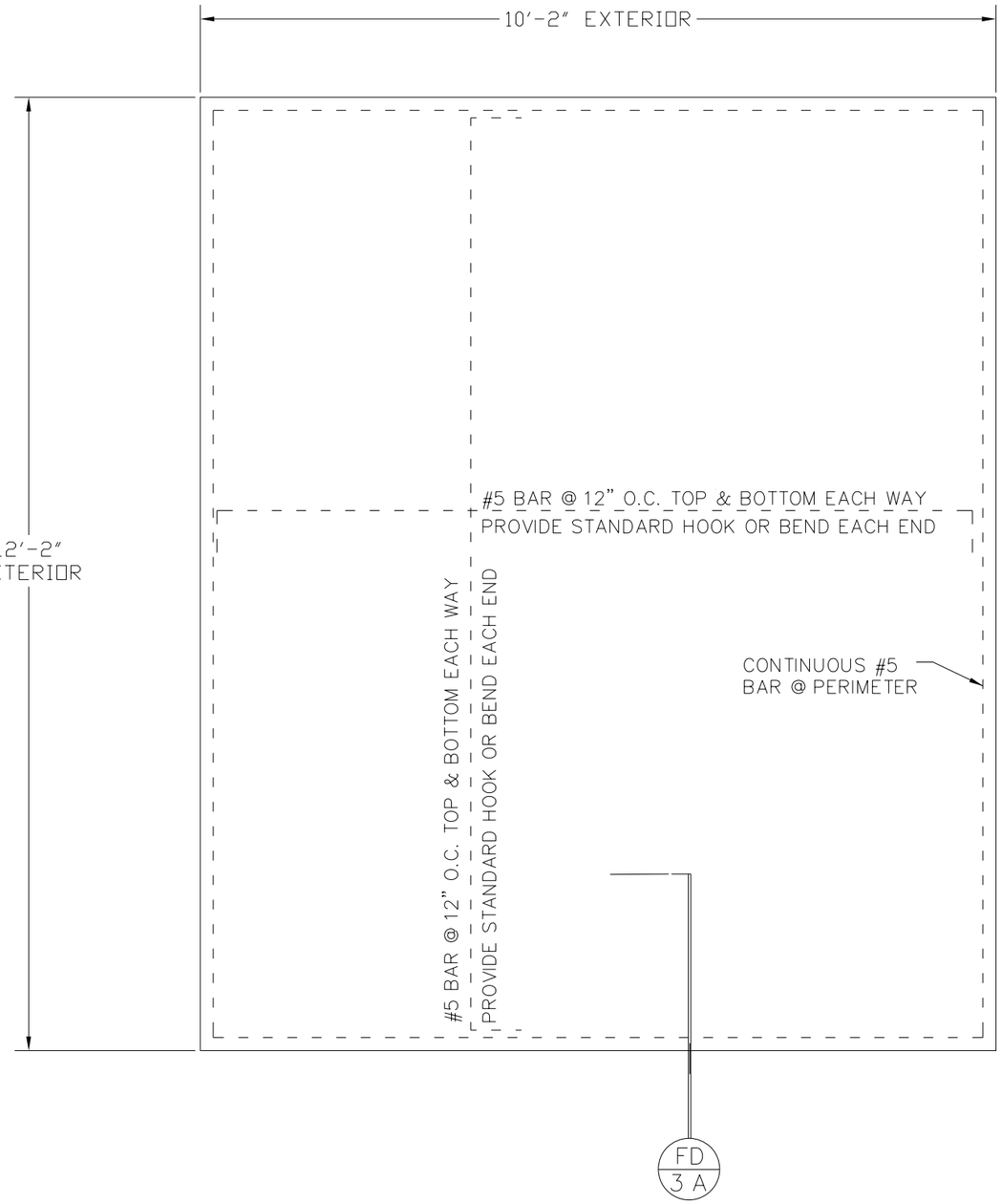
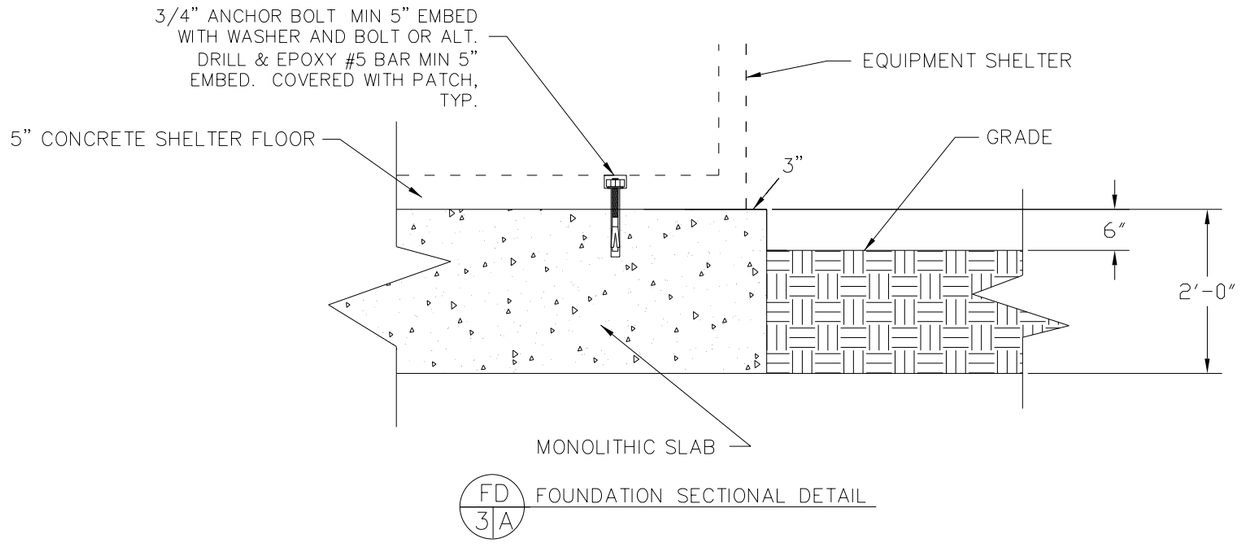
BY: (FDOT)_____ VS_____ Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32





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NOTES:

(A) DESIGN CRITERIA

1. APPLICABLE CODE:
   FLORIDA BUILDING CODE 5TH EDITION (2014)
2. ACI 318-11 / 318R-11
3. DESIGN SOIL PRESSURE: 2000 PSF (TO BE VERIFIED)

(B) DESIGN SPECIFICATION ON MATERIAL

1. CONCRETE- 3000PSI AT 28 DAYS
2. REINF STEEL- ASTM A615 GRADE 60
   MINIMUM LAP - 30"

(C) FOUDATION CRITERIA

1. IN ACCORDANCE WITH SECTION 455 OF THE SPECIFICATIONS.

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MASTER HUB BUILDING (FOUNDATION)

SHEET NO. IT-375

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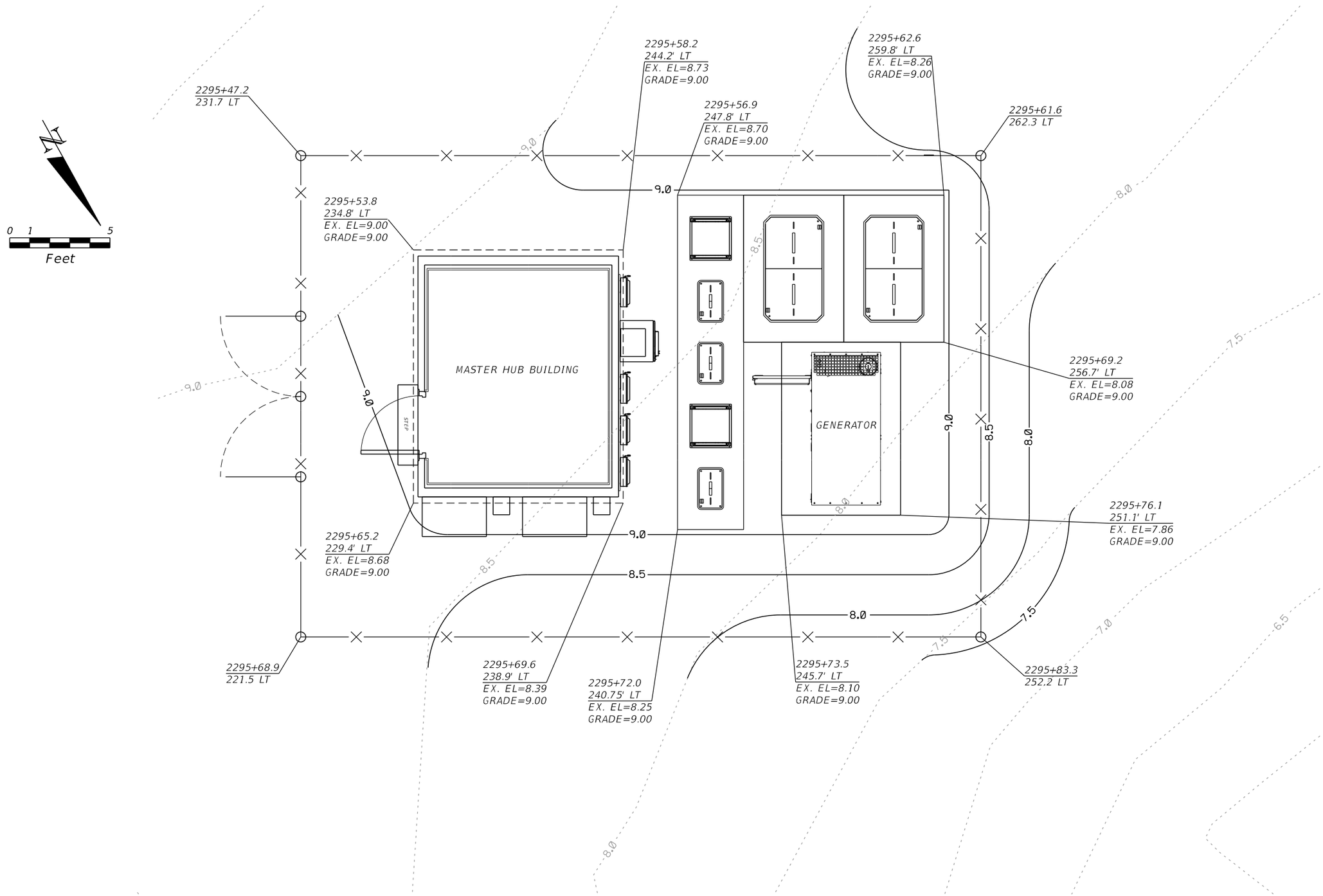

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MASTER HUB BUILDING GRADING PLAN

SHEET NO.
IT-376

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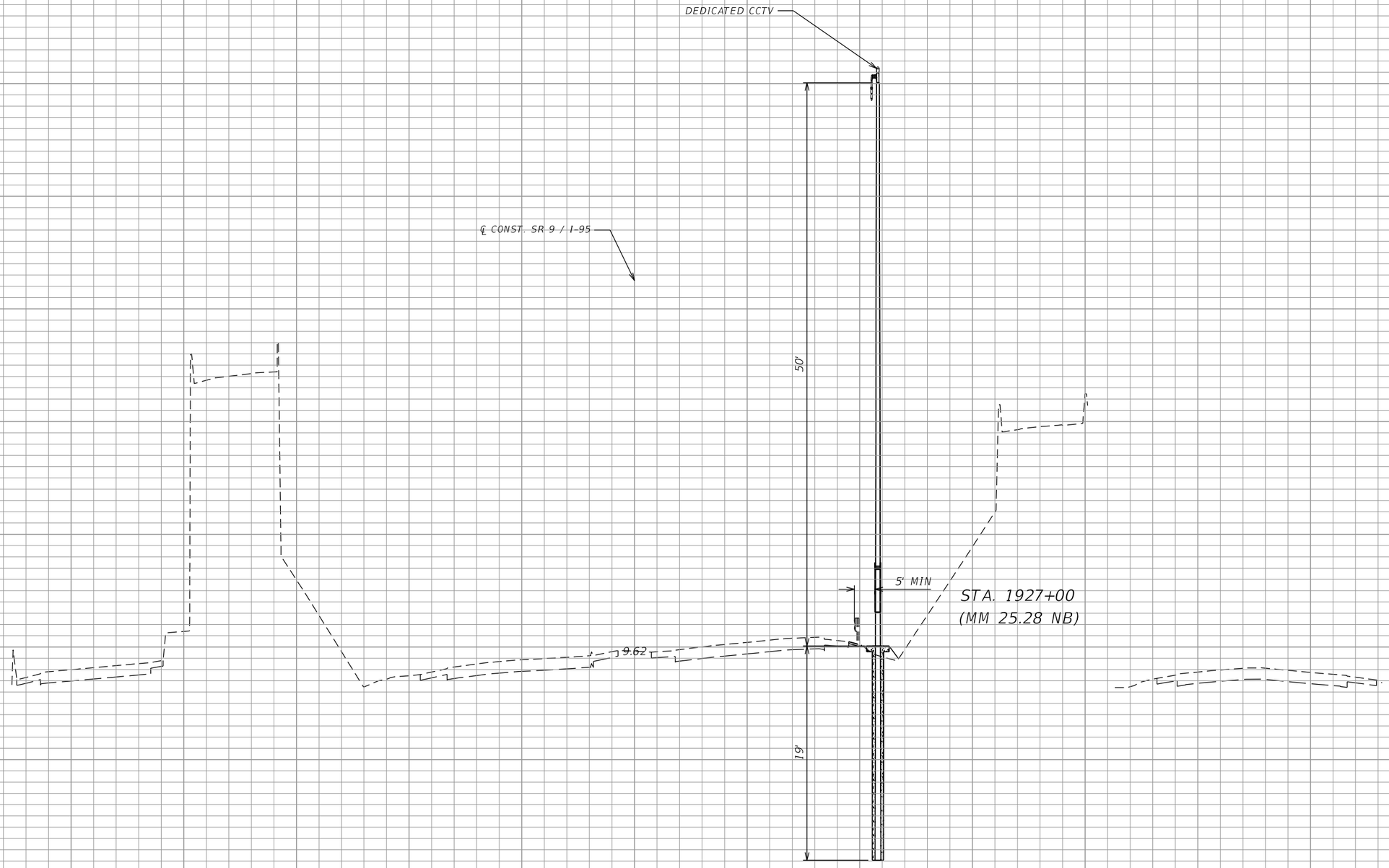

SCALE

1" = 40' Horizontal
1" = 10' Vertical

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
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9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-377

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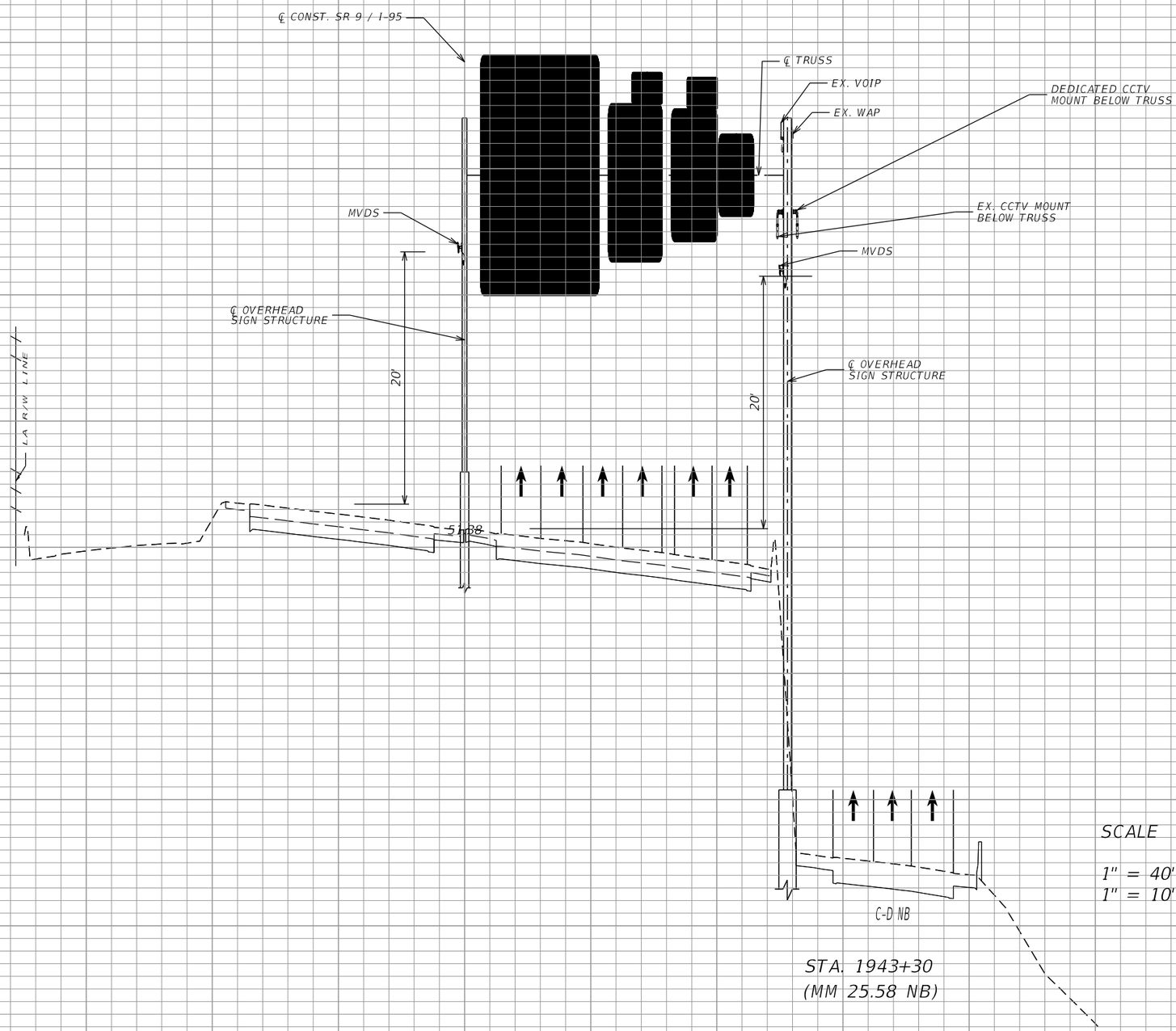

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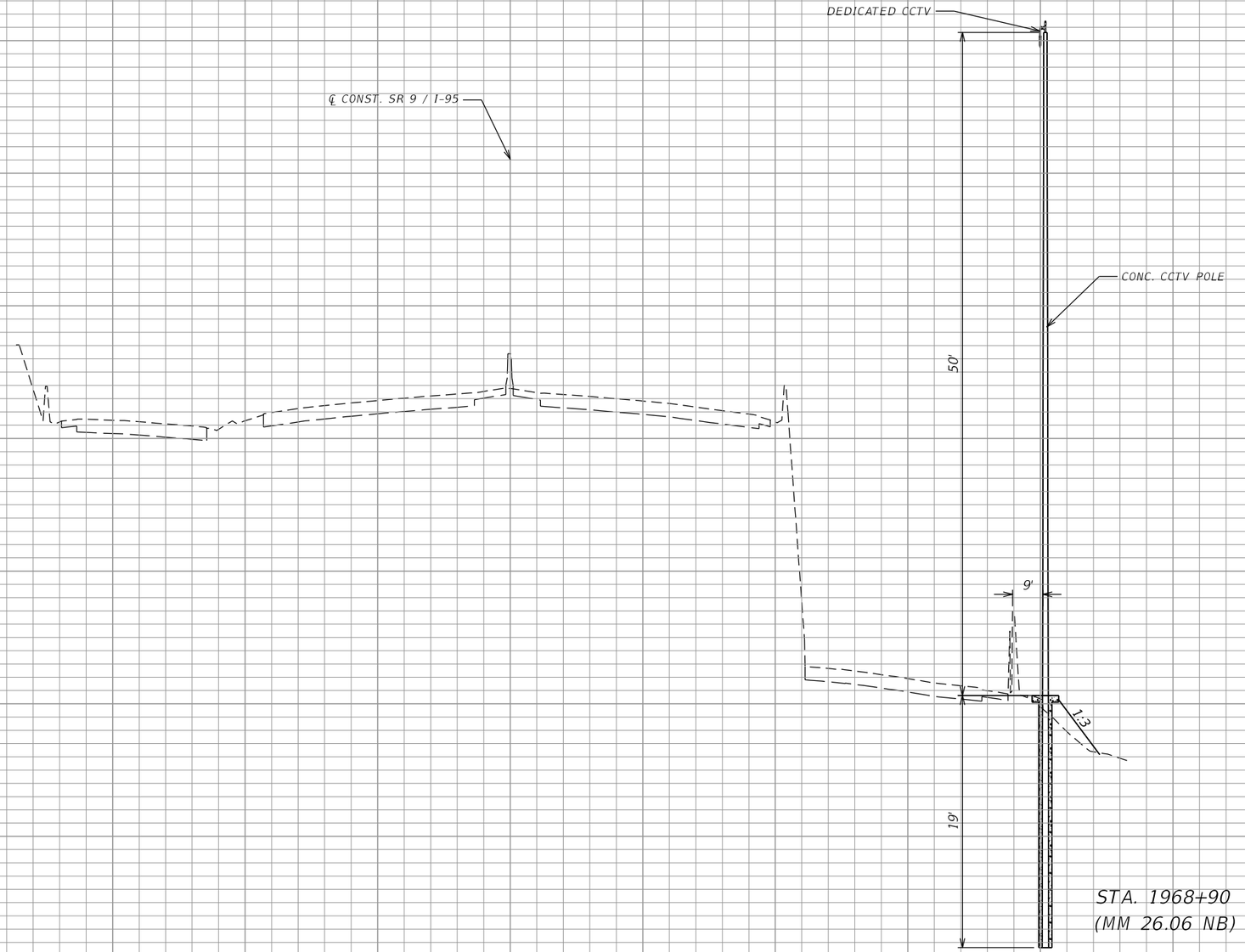

STA. 1968+90
(MM 26.06 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

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IT-379

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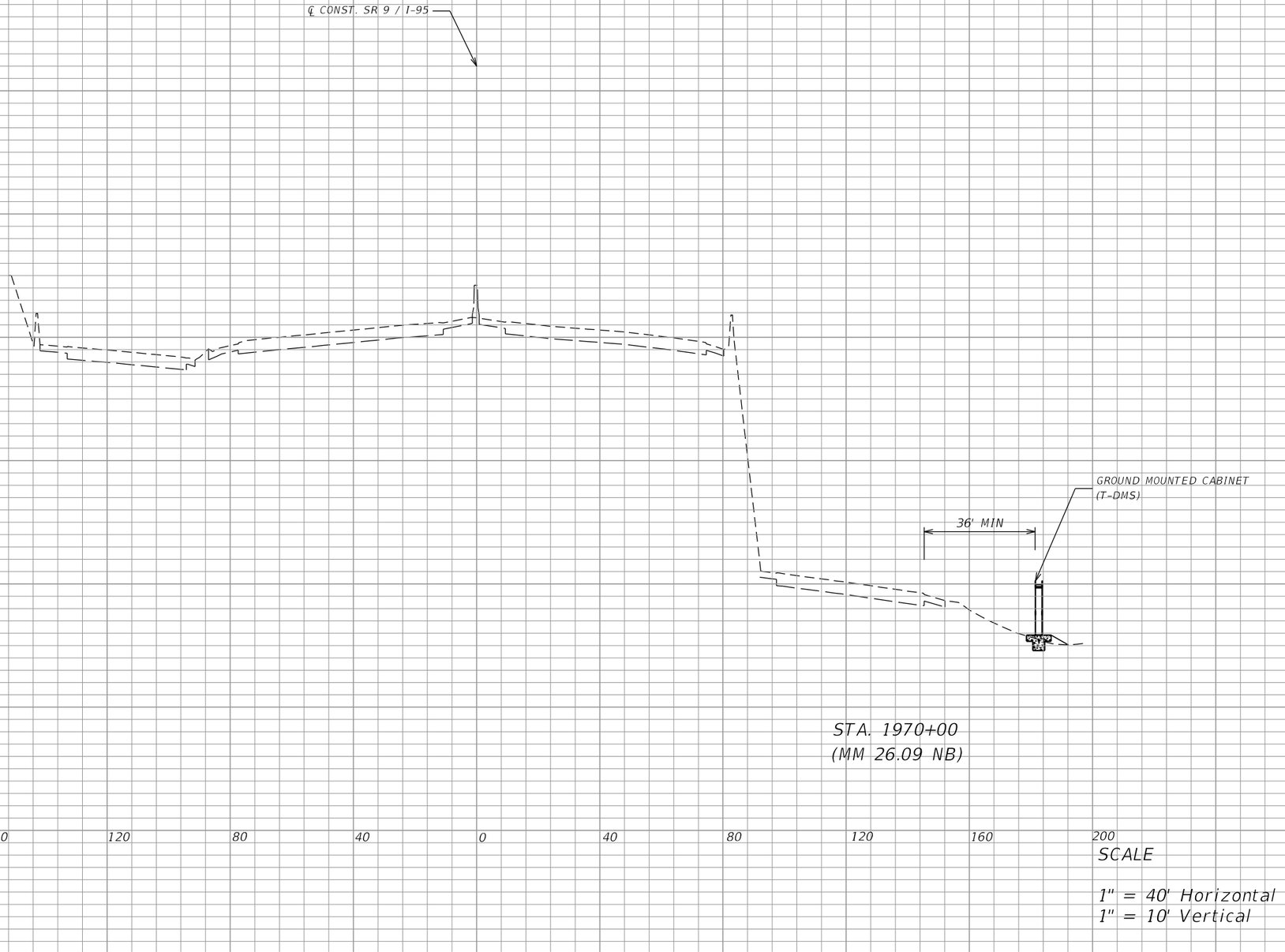

STA. 1970+00
(MM 26.09 NB)

SCALE

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ITS DEVICE CROSS SECTION

SHEET NO.
IT-380

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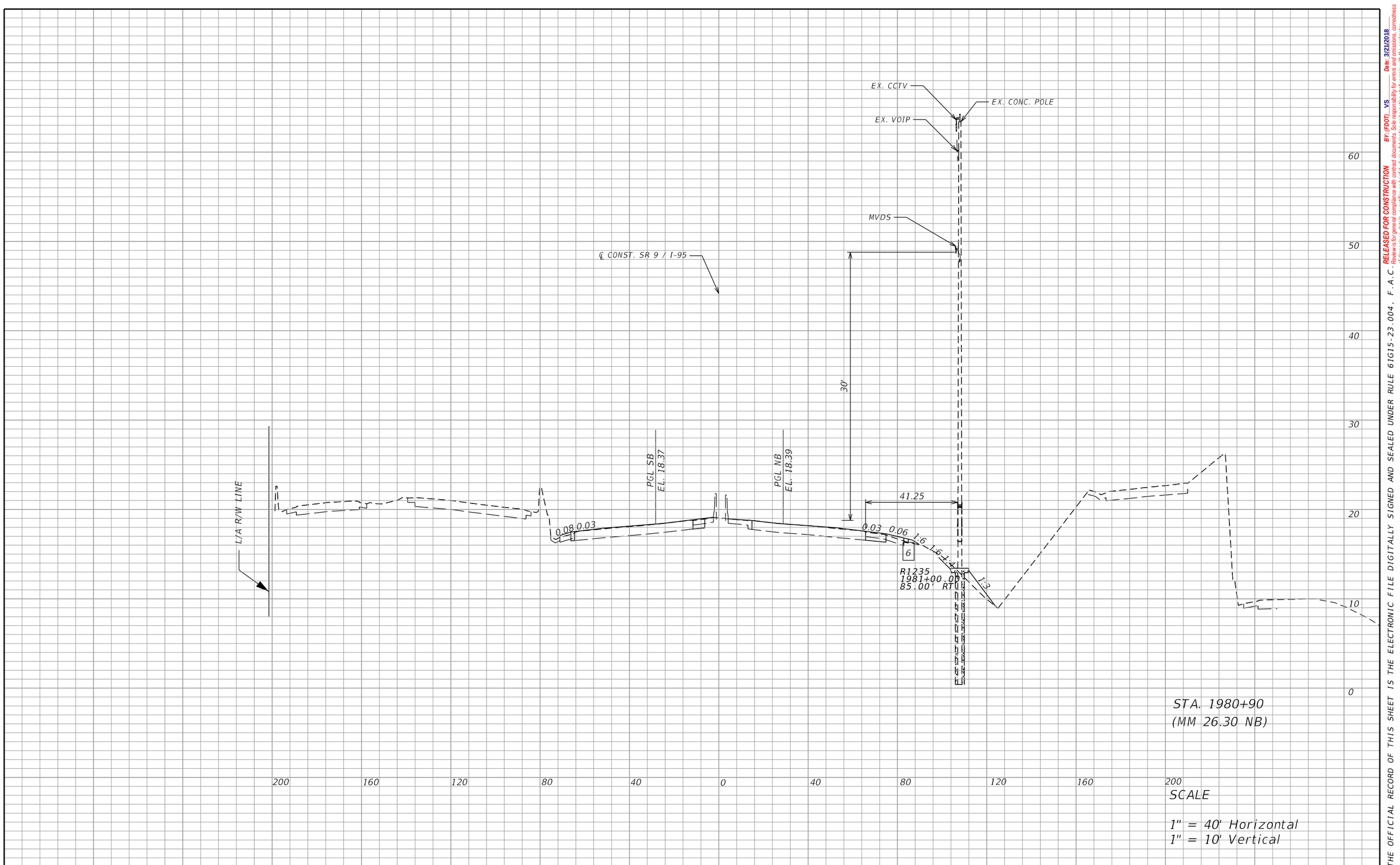

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ITS DEVICE CROSS SECTION

SHEET NO.
IT-381

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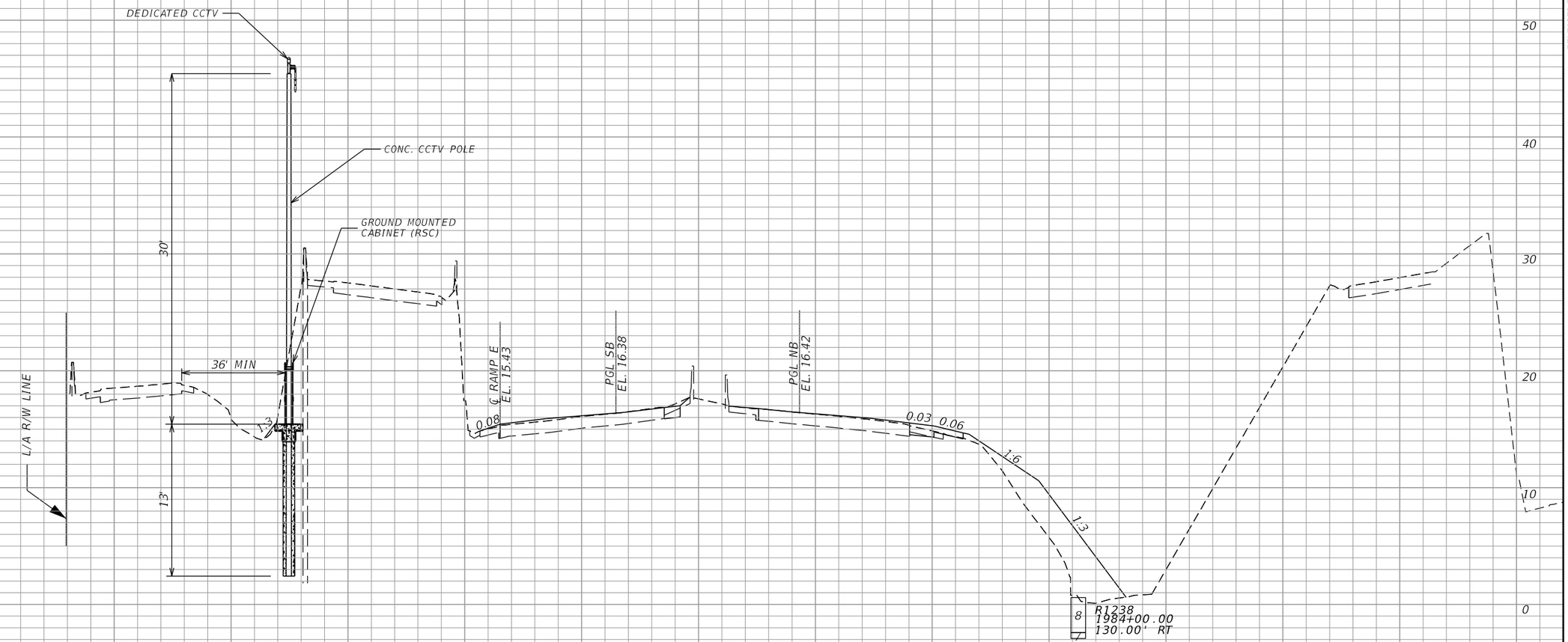

STA. 1984+40
(MM 26.38 SB)

SCALE

1" = 40' Horizontal
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ITS DEVICE CROSS SECTION

SHEET NO.
IT-382

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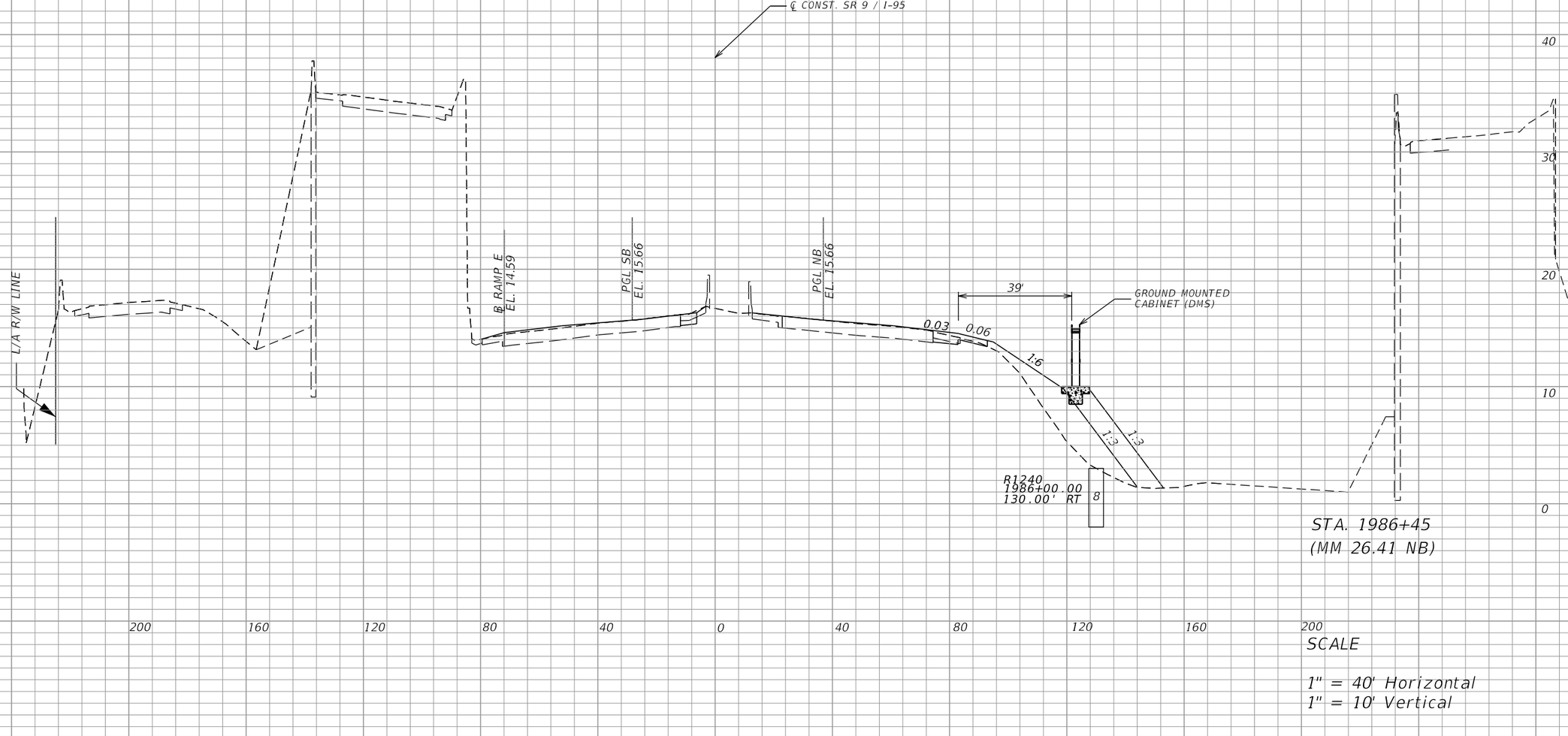

STA. 1986+45
(MM 26.41 NB)

SCALE

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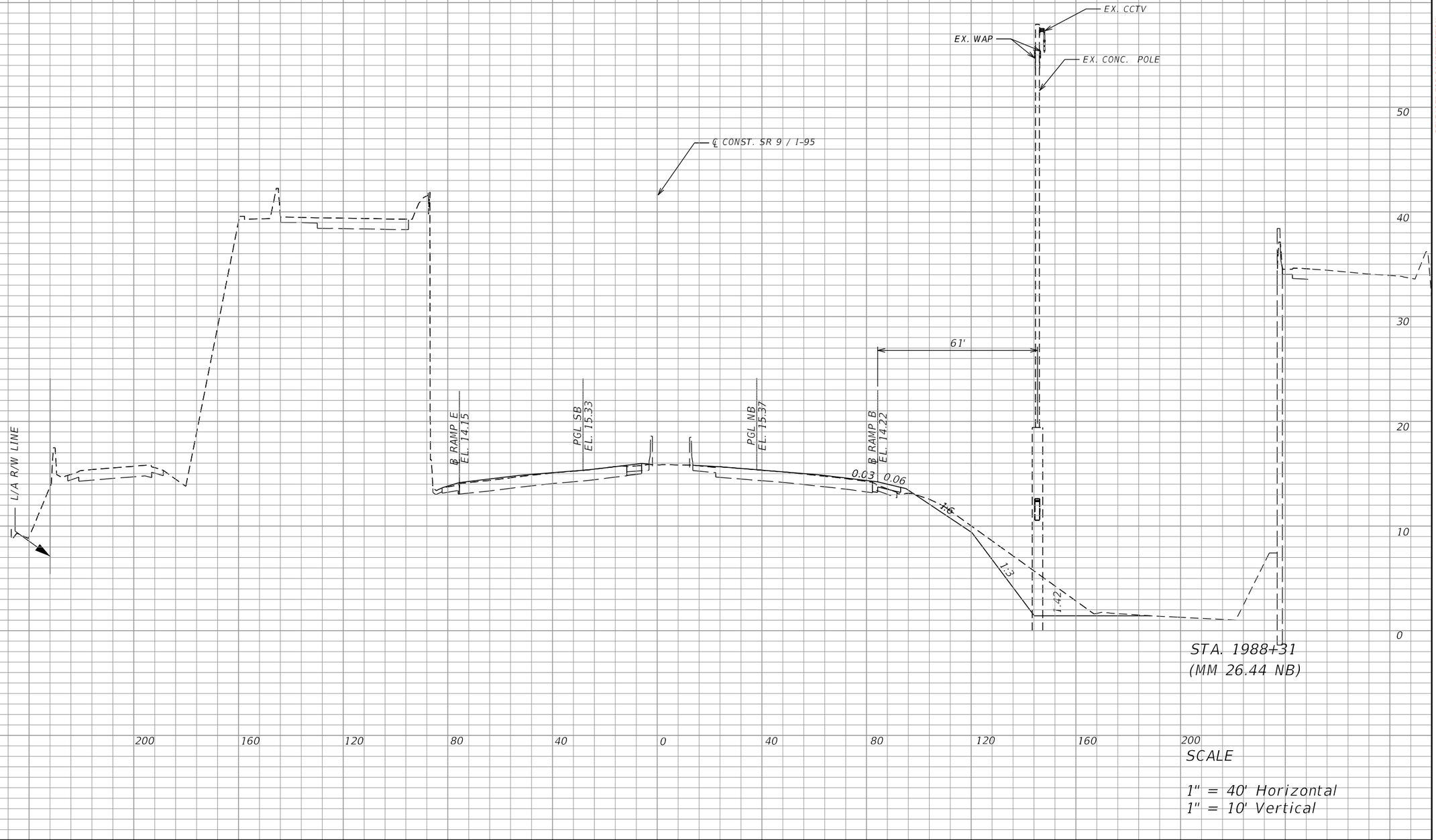

STA. 1988+31
(MM 26.44 NB)

SCALE

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-384

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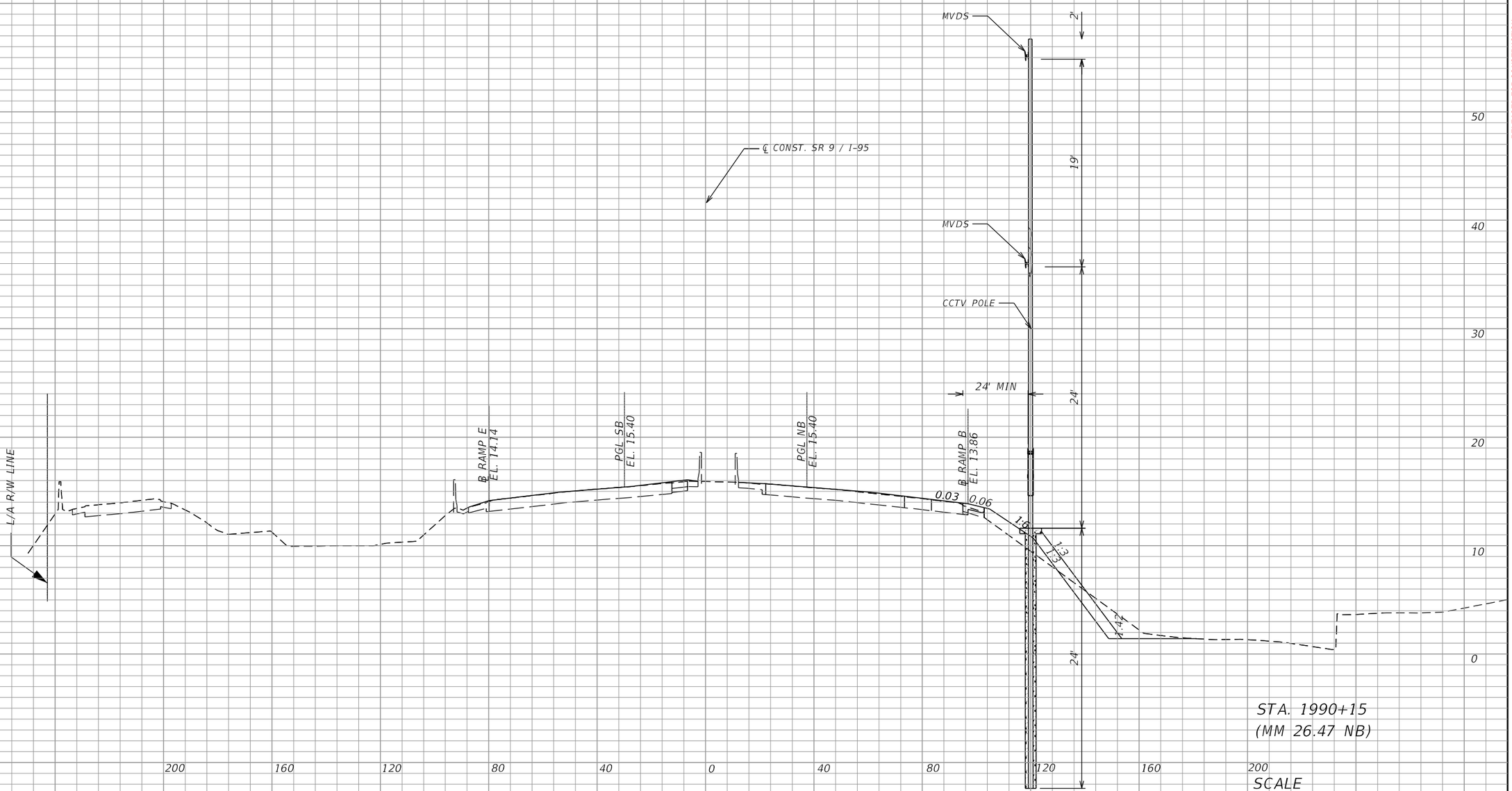

STA. 1990+15
(MM 26.47 NB)

SCALE

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ITS DEVICE CROSS SECTION

SHEET NO.
IT-385

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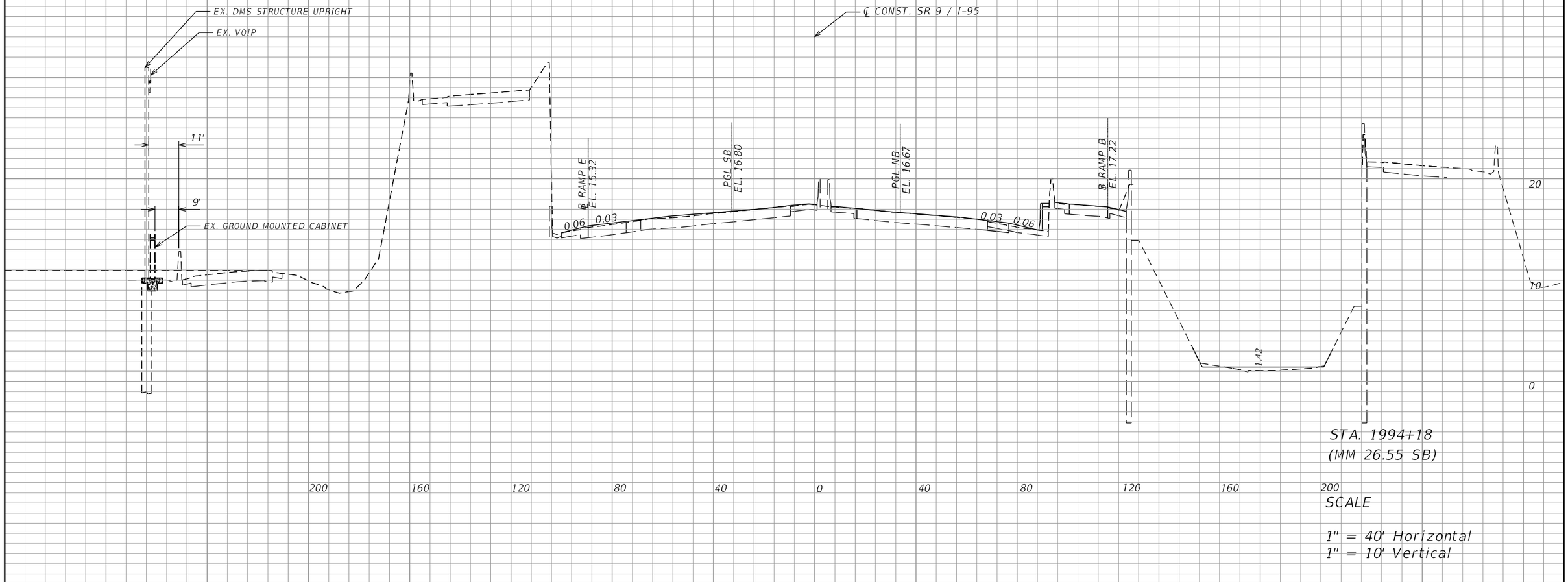
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



STA. 1994+18
(MM 26.55 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-386

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
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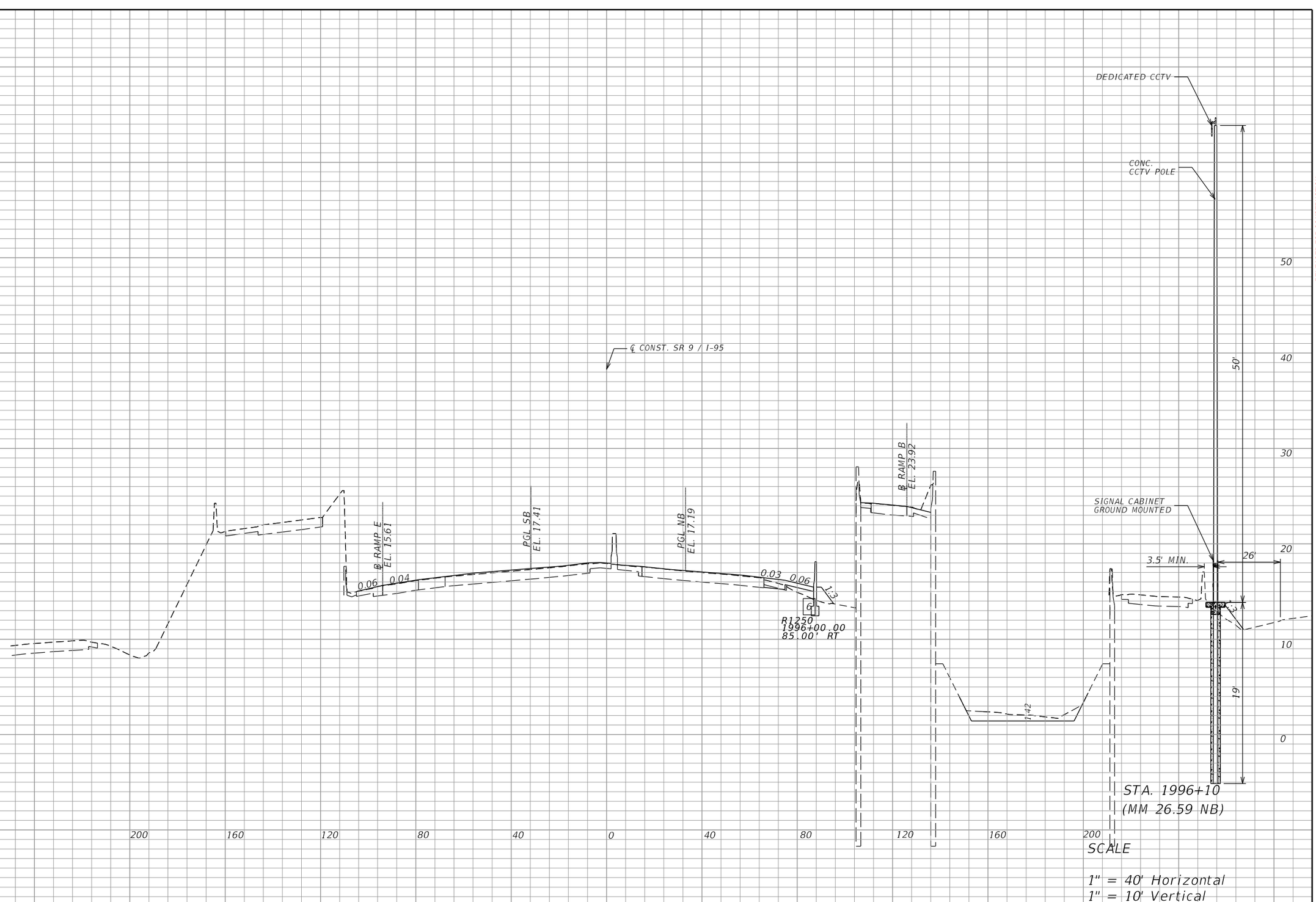
FPID 433108-4-52-01 CONTRACT E4Q32



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-387

RELEASED FOR CONSTRUCTION
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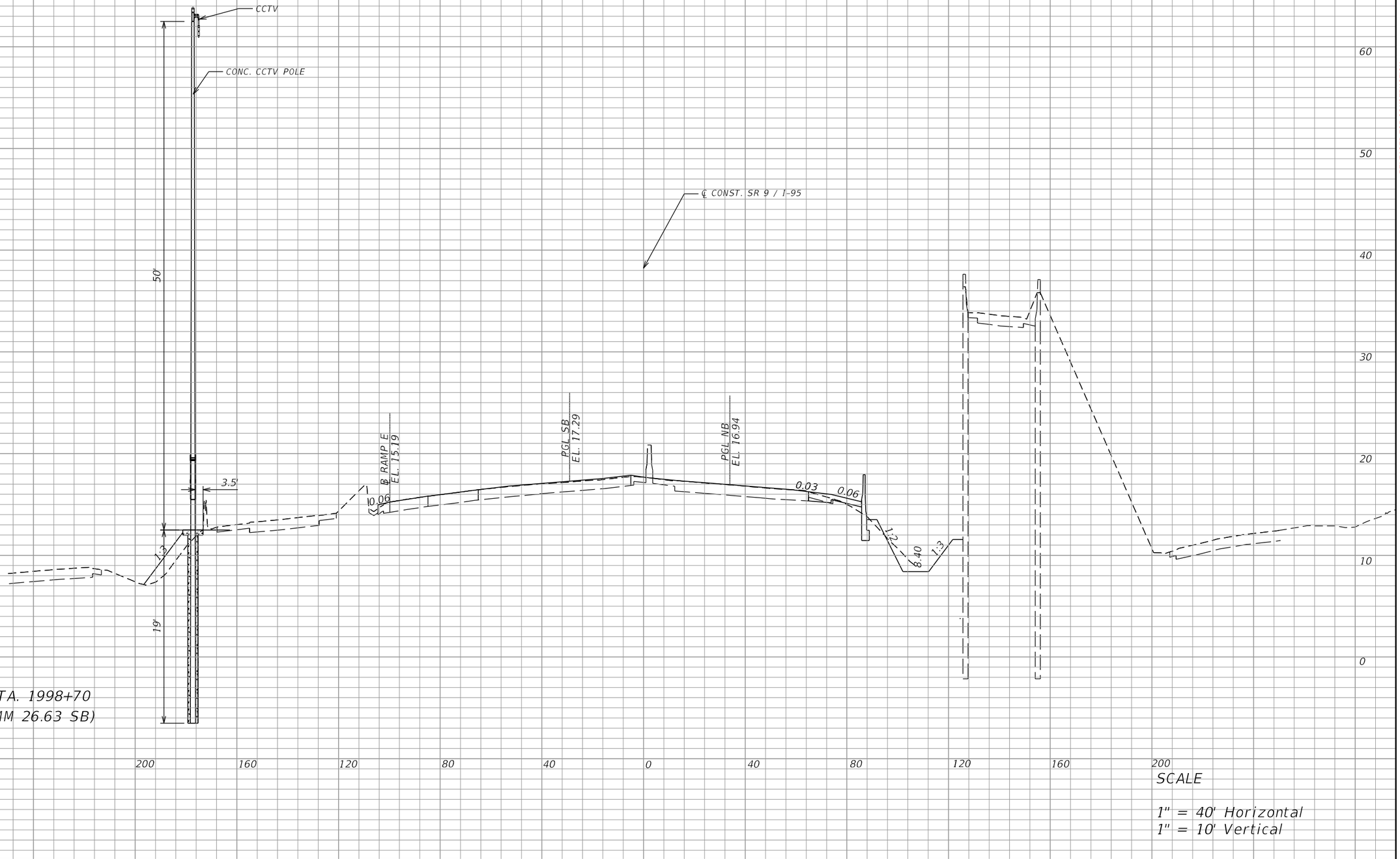

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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Environmental Services
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-388

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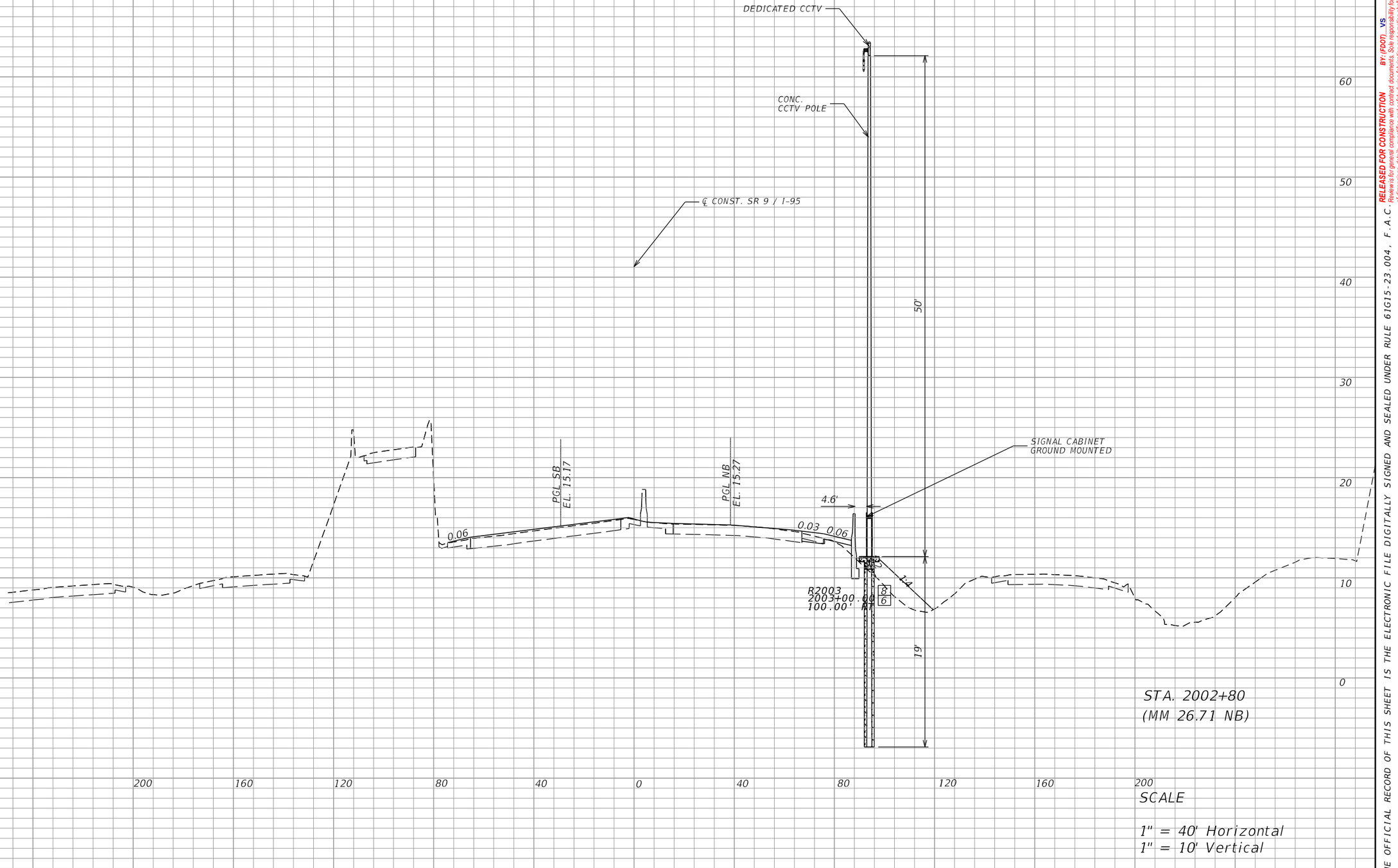
FPID 433108-4-52-01 CONTRACT E4Q32



STA. 2002+80
(MM 26.71 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-389

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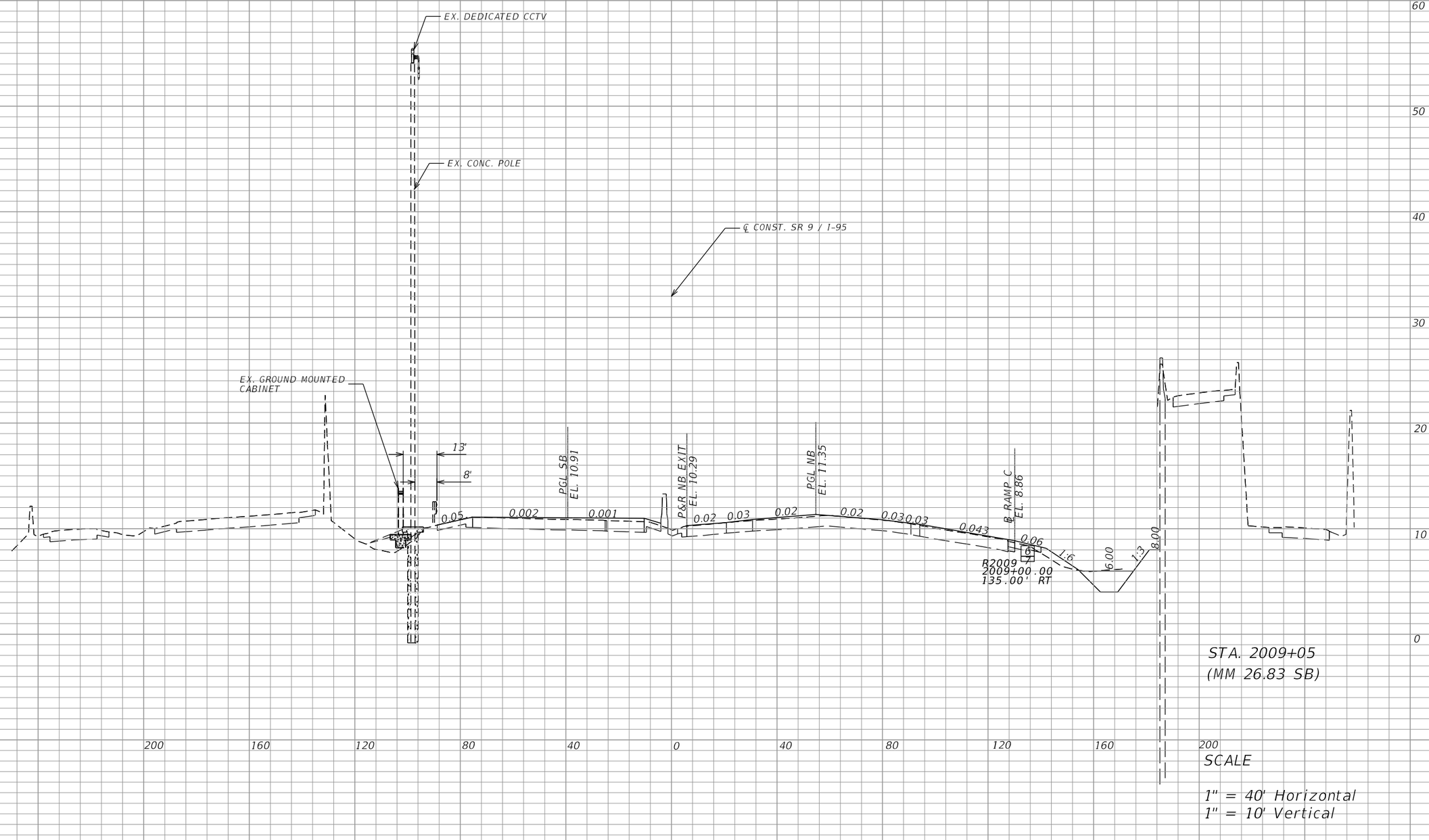
FPID 433108-4-52-01 CONTRACT E4Q32



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225 E. Robinson St., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-390

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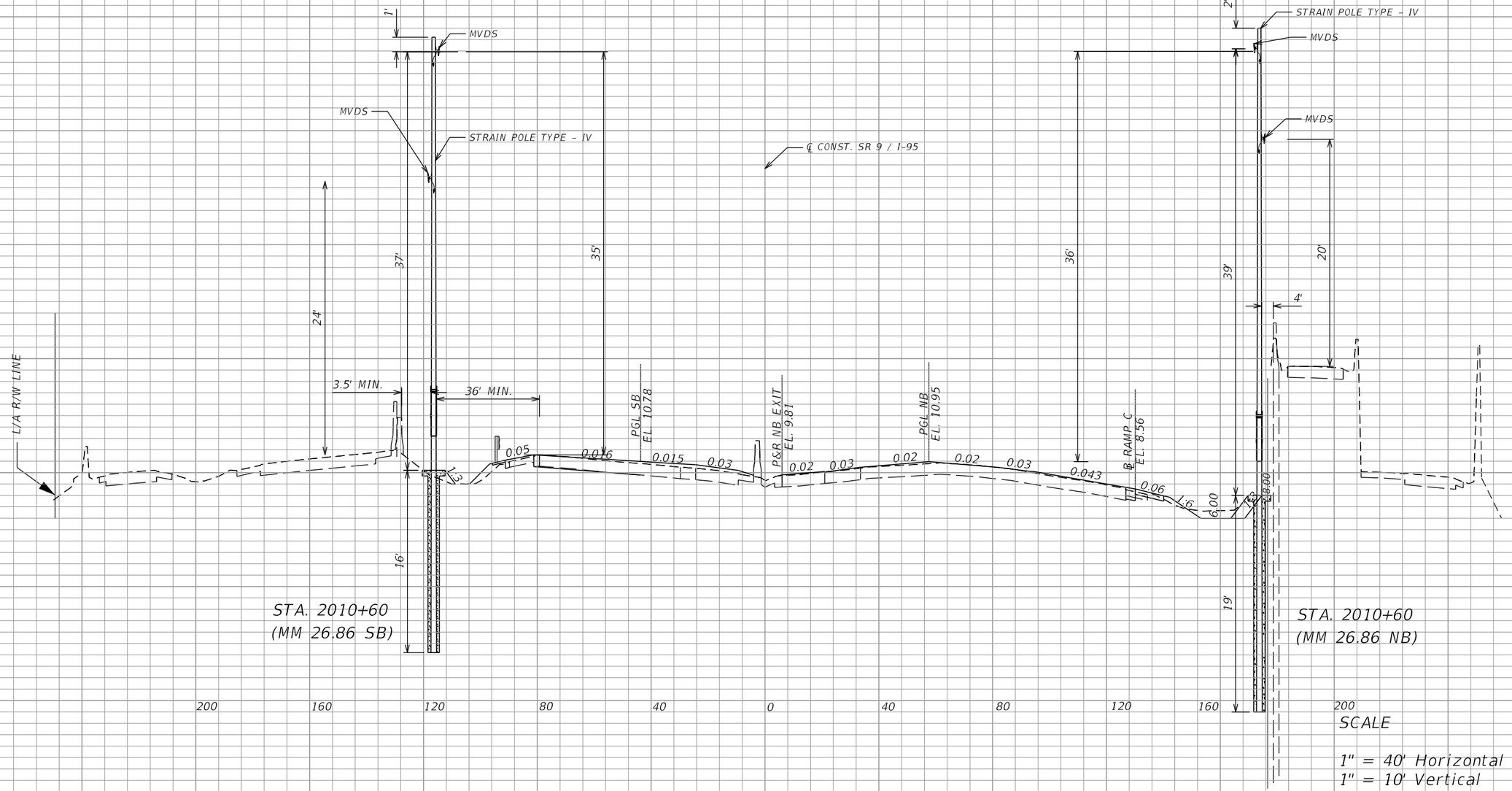
SEALED UNDER RULE 61G15-23.004, F.A.C.



SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-391

RELEASED FOR CONSTRUCTION
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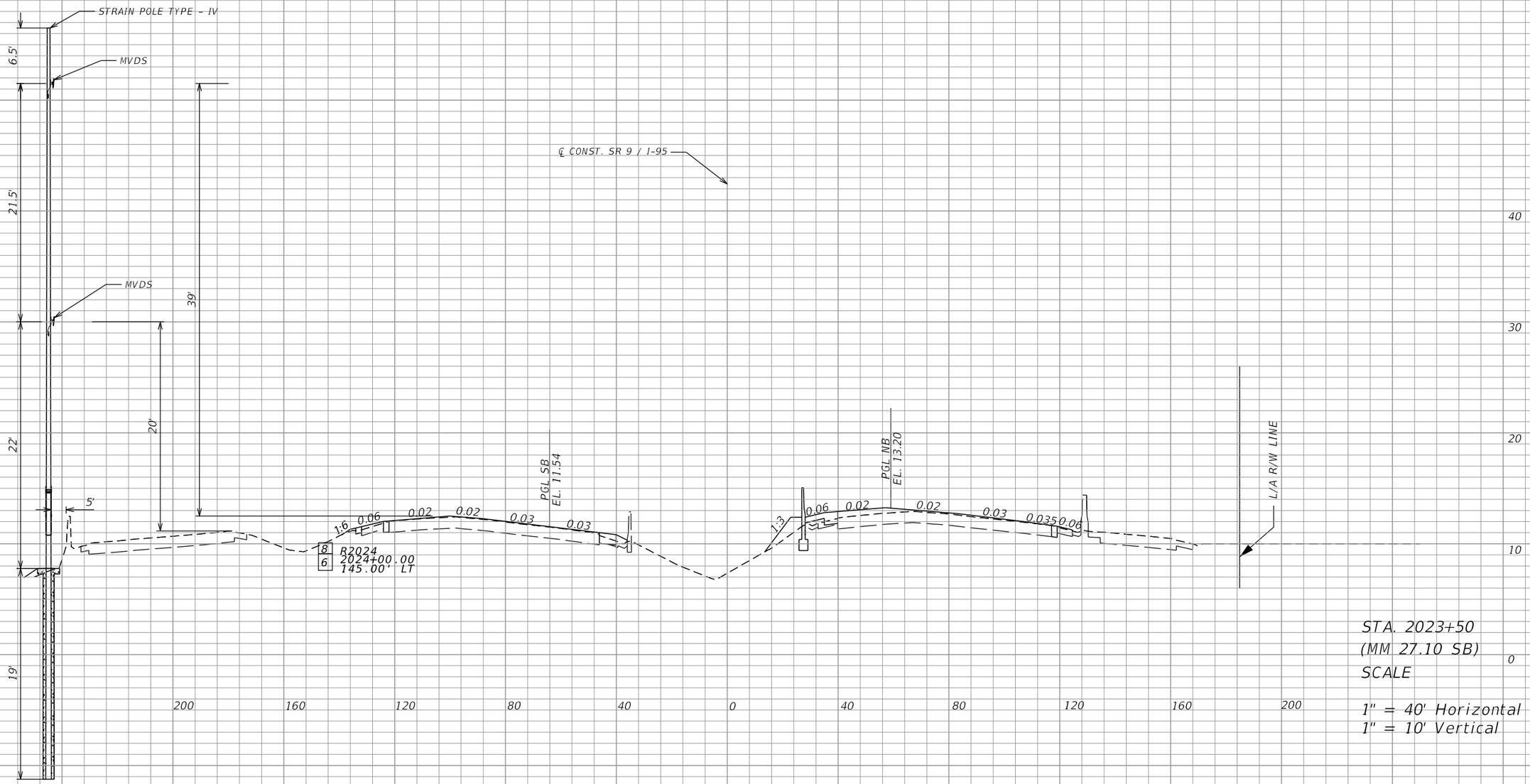

STA. 2023+50
(MM 27.10 SB)
SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-392

RELEASED FOR CONSTRUCTION
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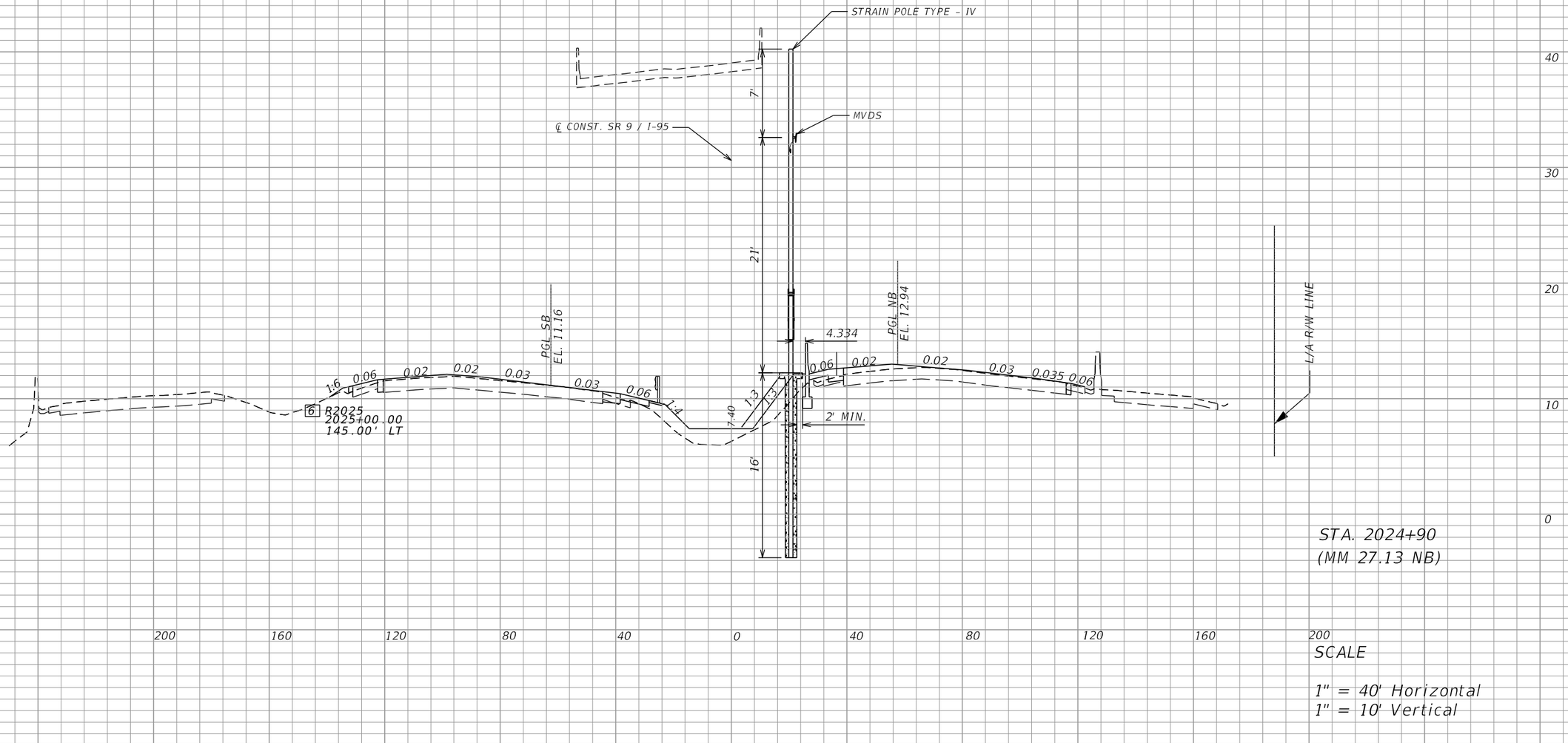

STA. 2024+90
(MM 27.13 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-393

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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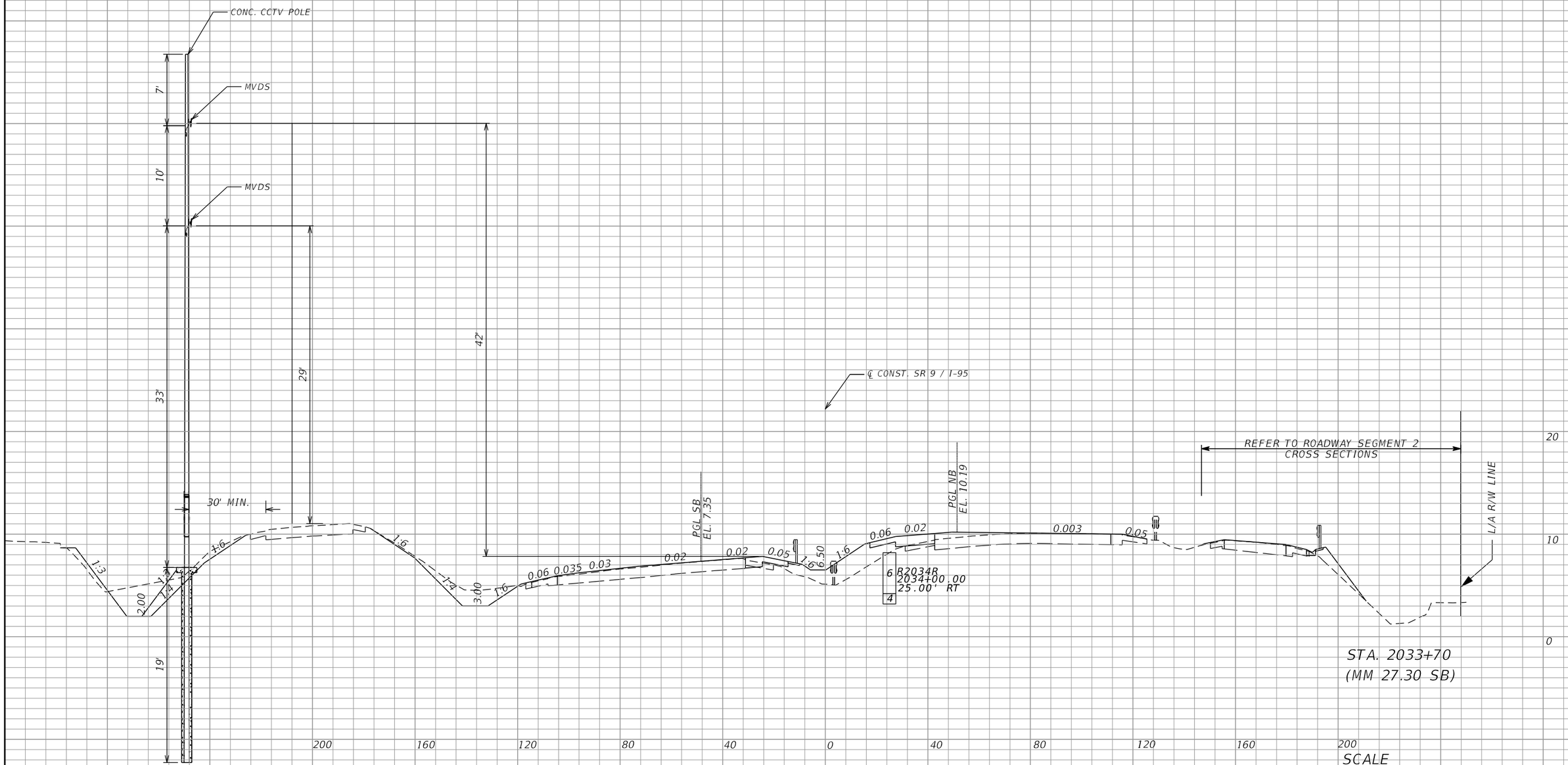

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Environmental Services
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-394

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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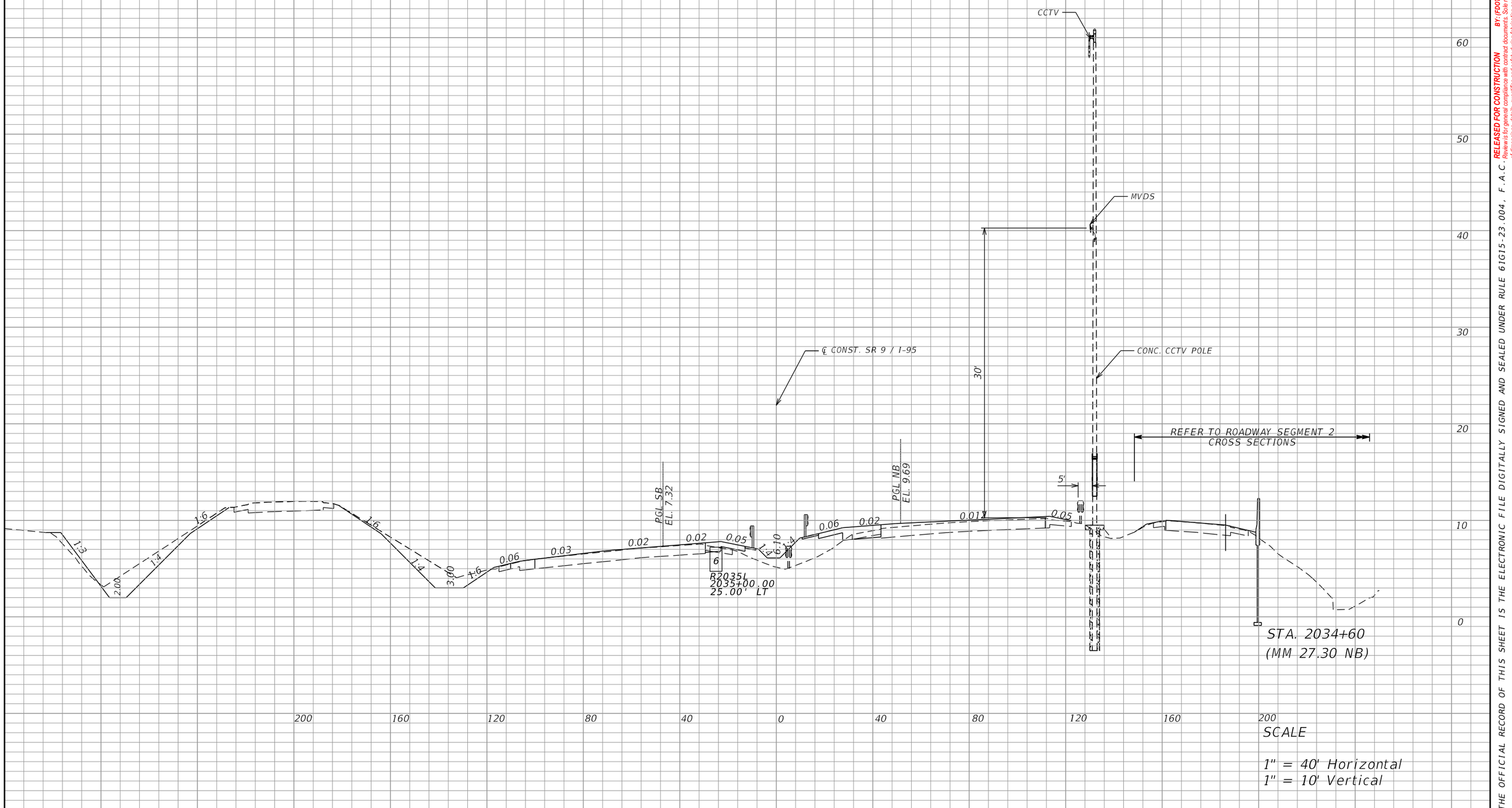

REVISIONS			
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Environmental Services
225 E. Robinson St., Suite 300
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-395

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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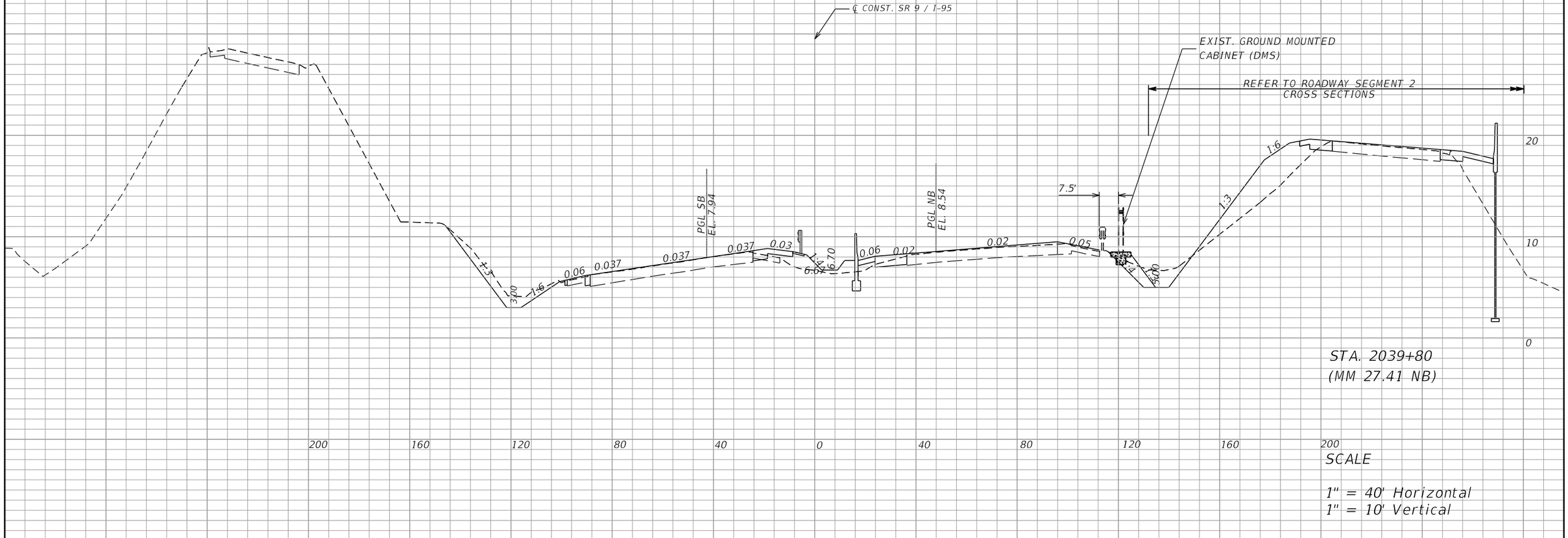

STA. 2039+80
(MM 27.41 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-396

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FPID 433108-4-52-01 CONTRACT E4Q32



STA. 2042+64
(MM 27.47 NB)

SCALE

1" = 40' Horizontal
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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-397

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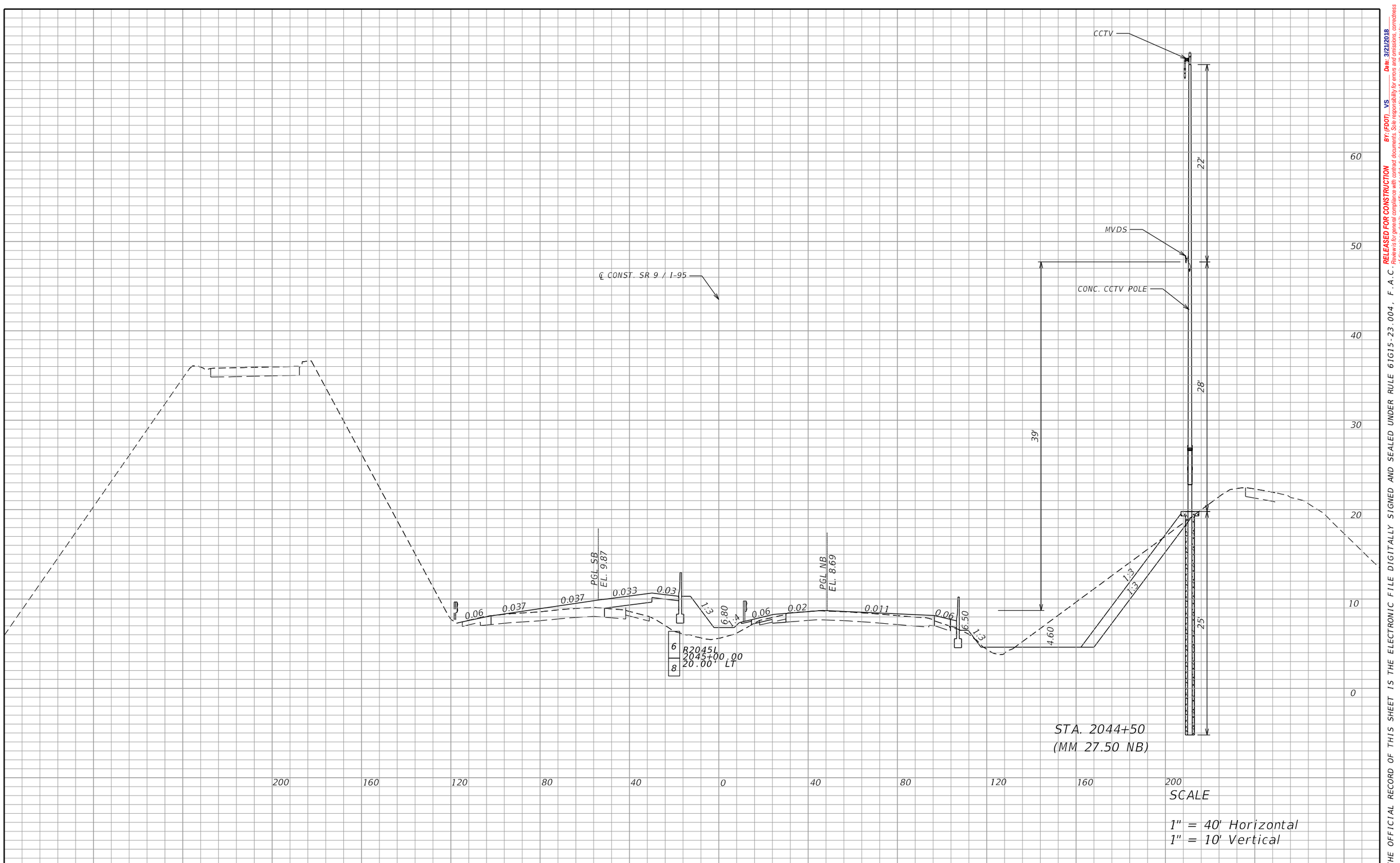

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-398

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32
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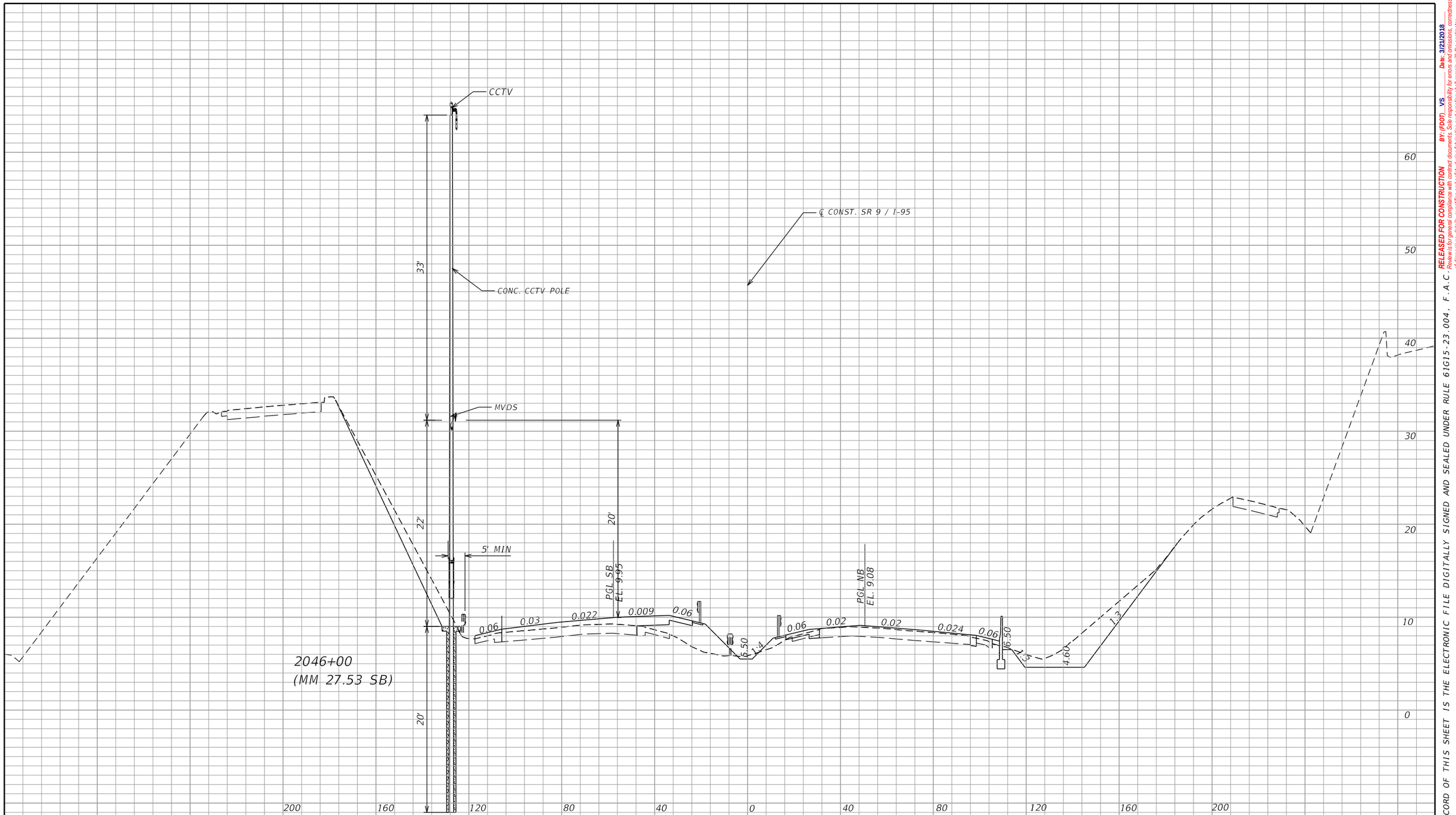

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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225 E. Robinson St., Suite 300
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-399

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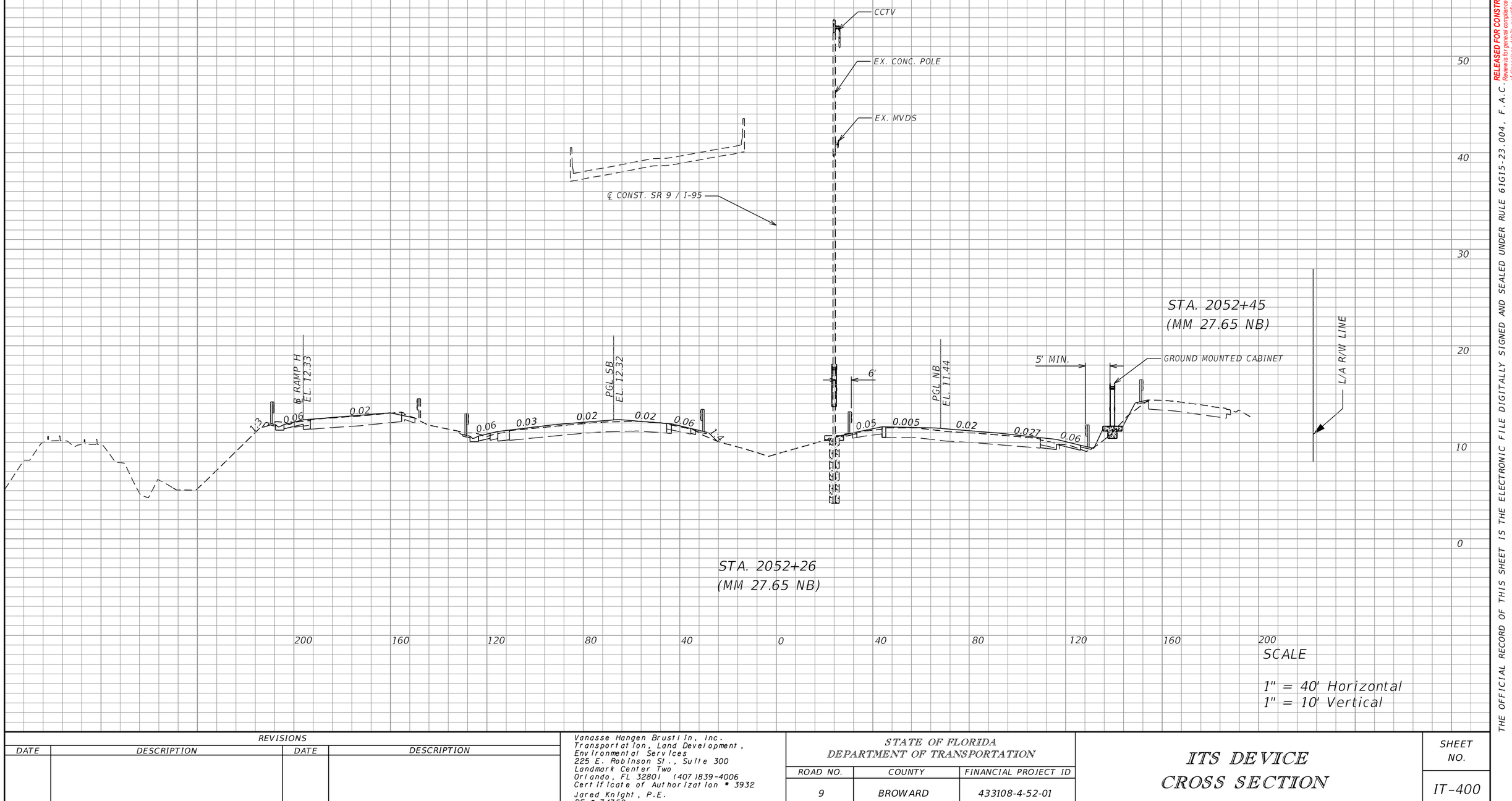

SCALE

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1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-400

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BY: (FDOT) VS Date: 3/21/2018
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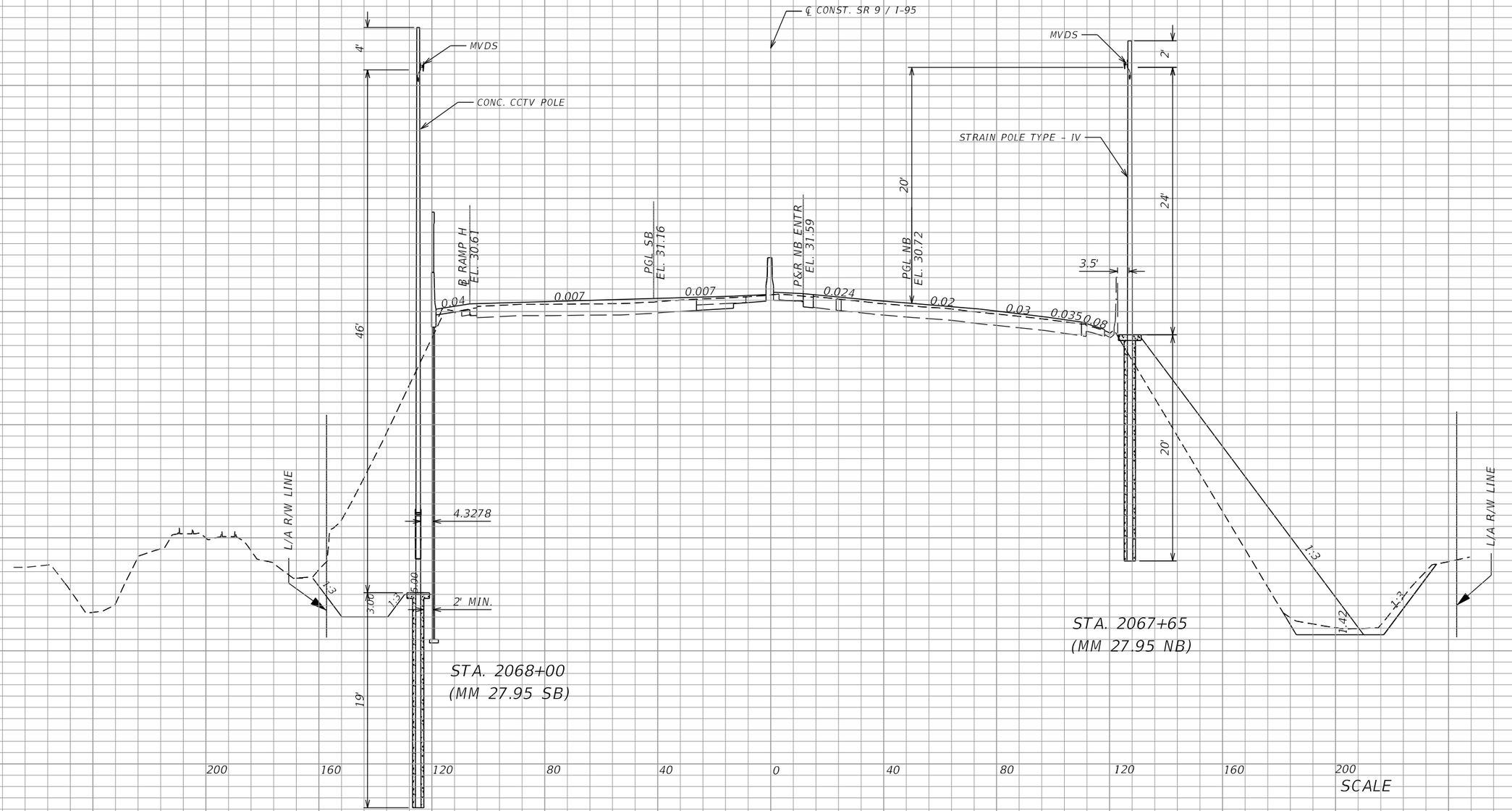

SCALE

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1" = 10' Vertical

REVISIONS			
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-401

RELEASED FOR CONSTRUCTION
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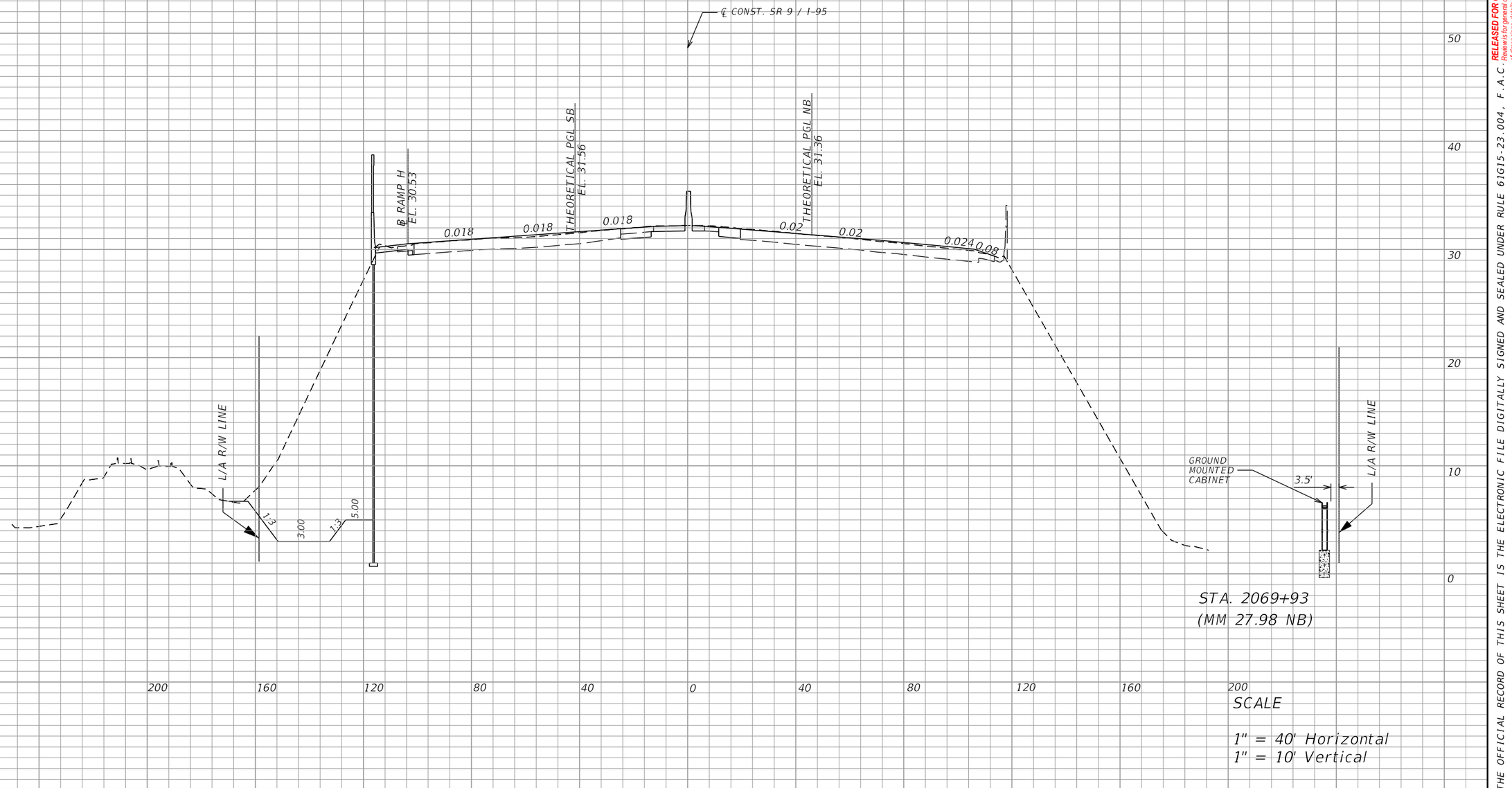

STA. 2069+93
(MM 27.98 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-402

RELEASED FOR CONSTRUCTION Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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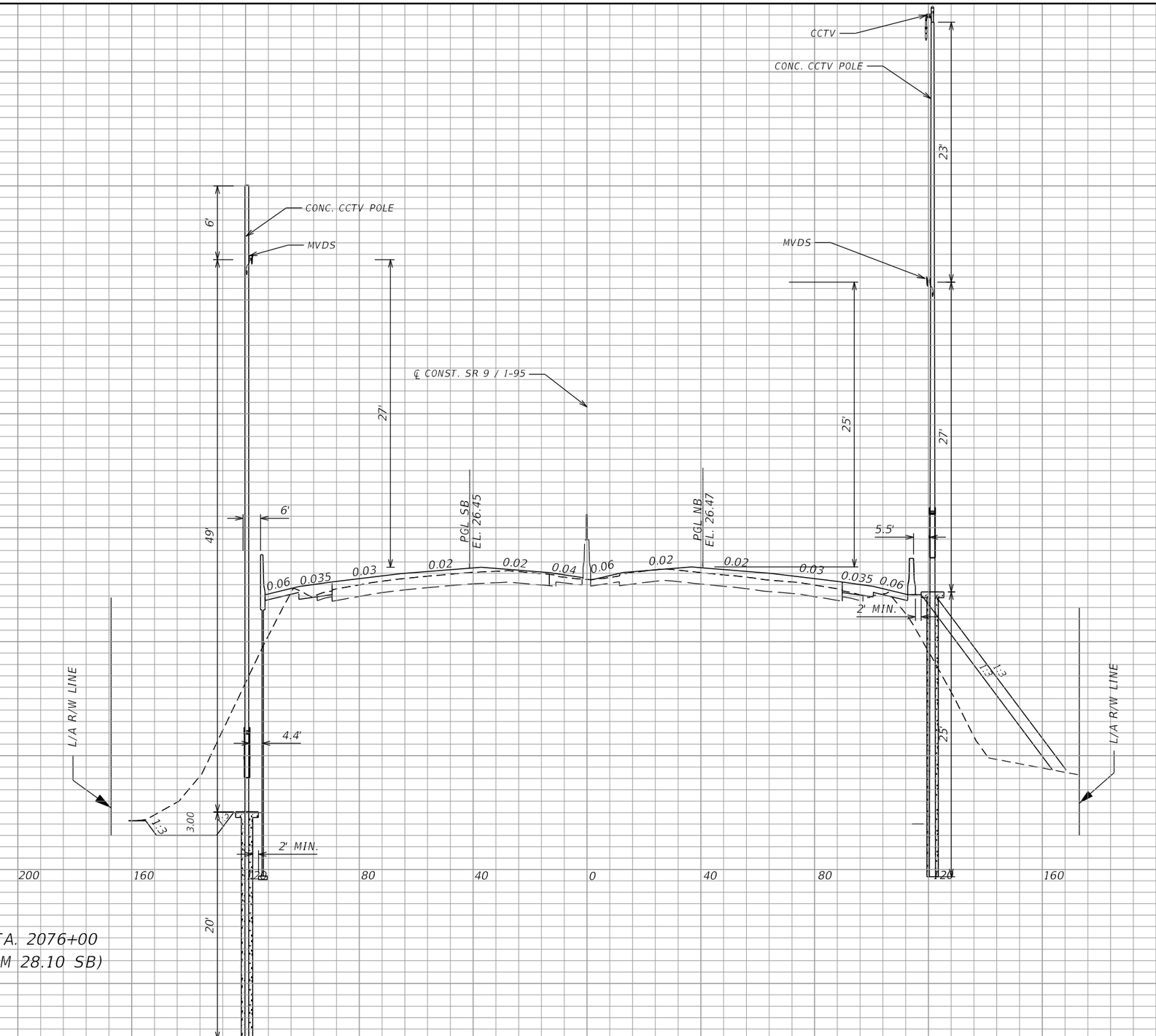

STA. 2076+00
(MM 28.10 SB)

STA. 2076+00
(MM 28.10 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-403

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RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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STA. 2079+50
(MM 28.16 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-404

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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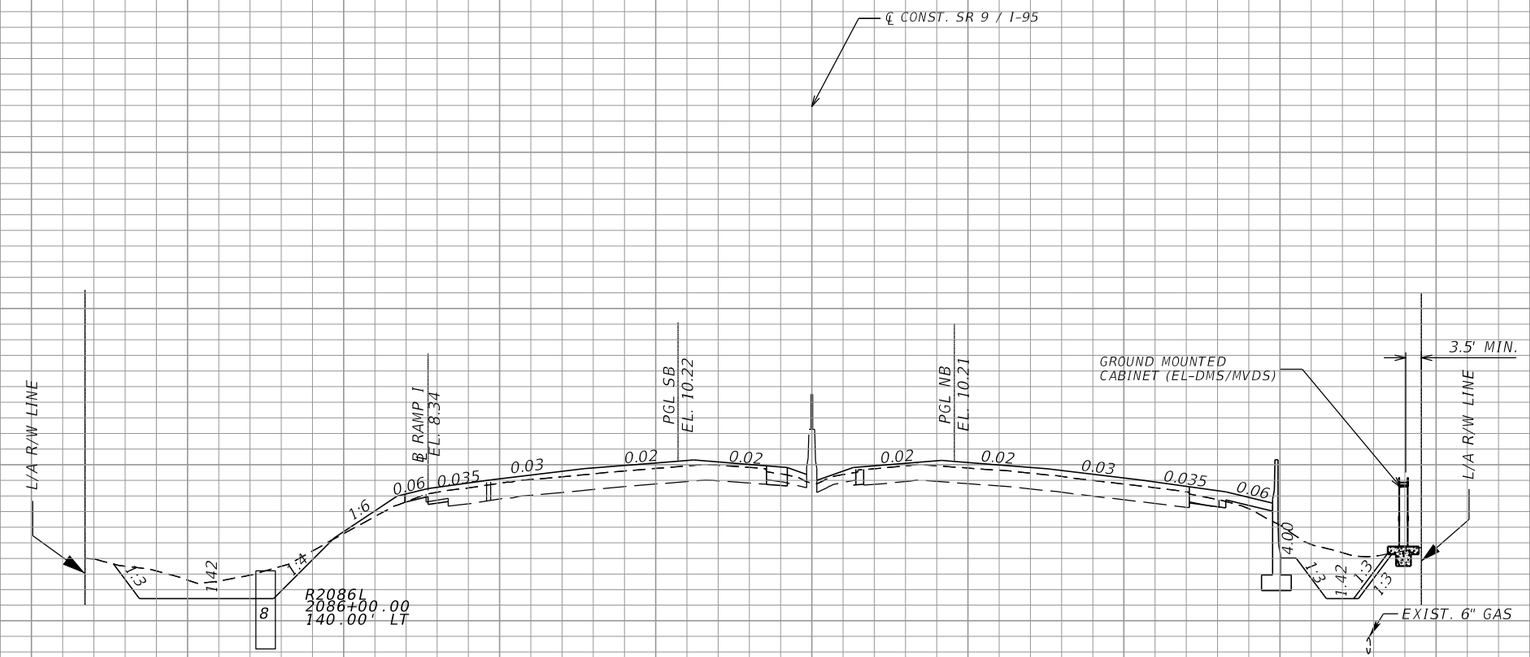

STA. 2086+30
(MM 28.29 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
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Landmark Center Two
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-405

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Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-406

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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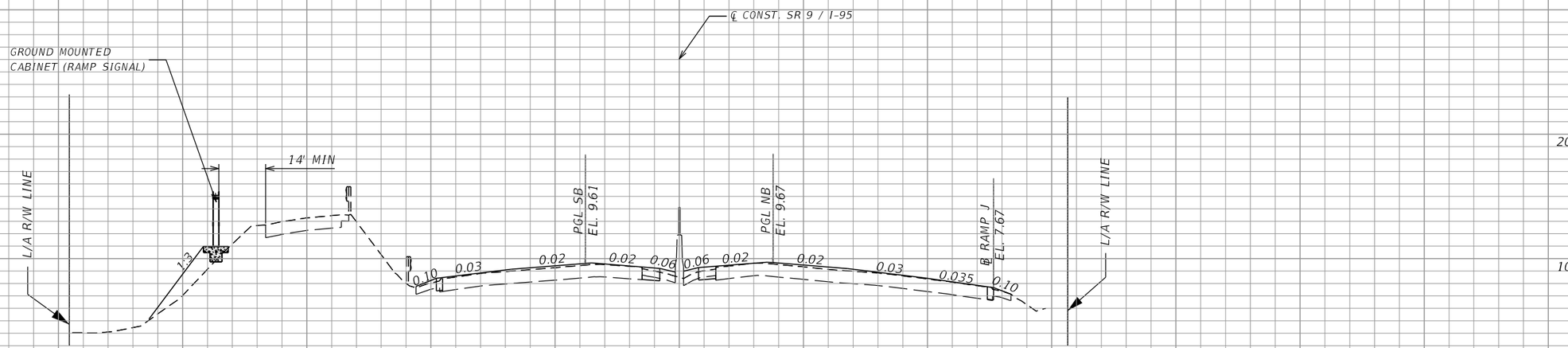

STA. 2091+00
(MM 28.38 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-407

RELEASED FOR CONSTRUCTION
Date: 3/21/2018 BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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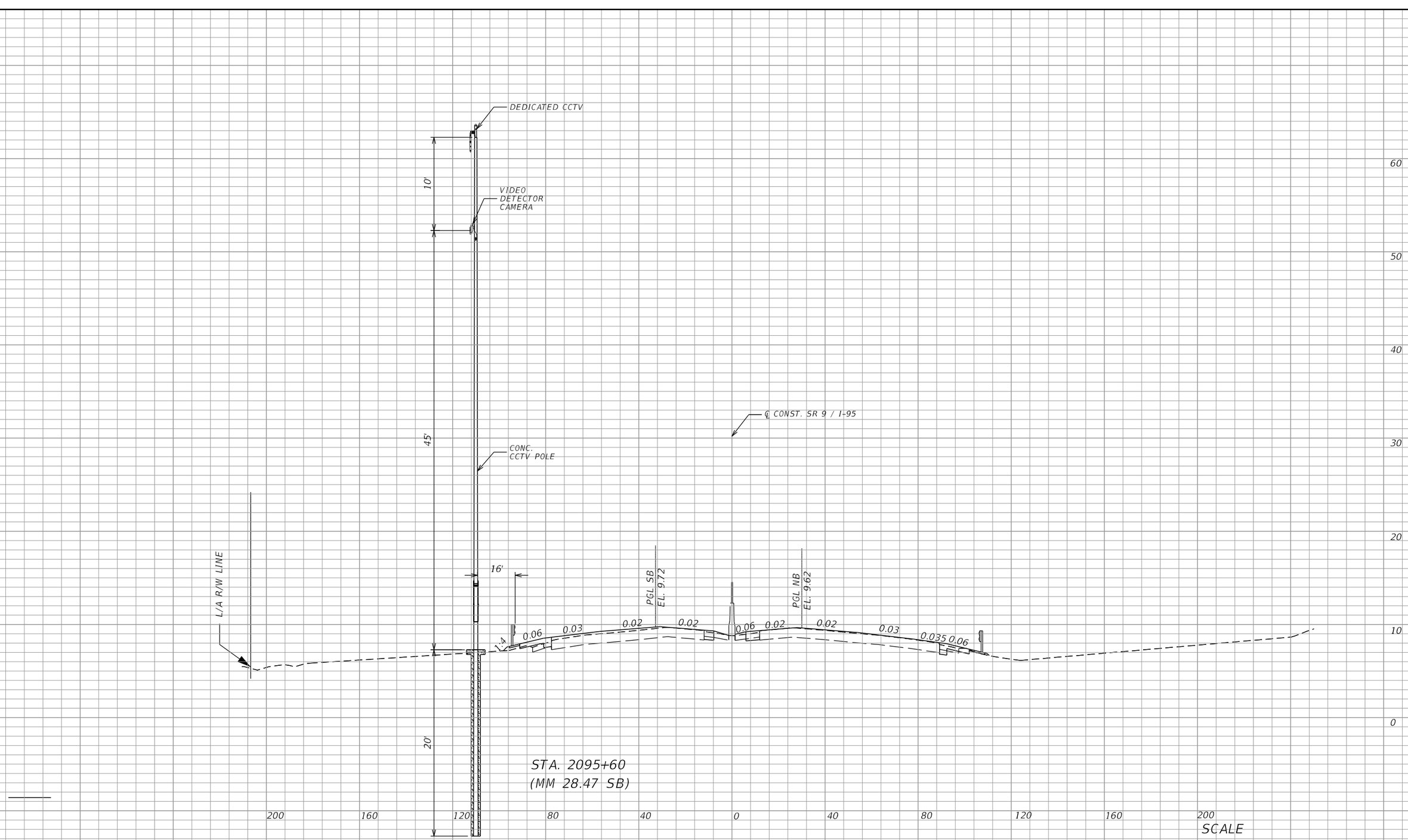

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-408

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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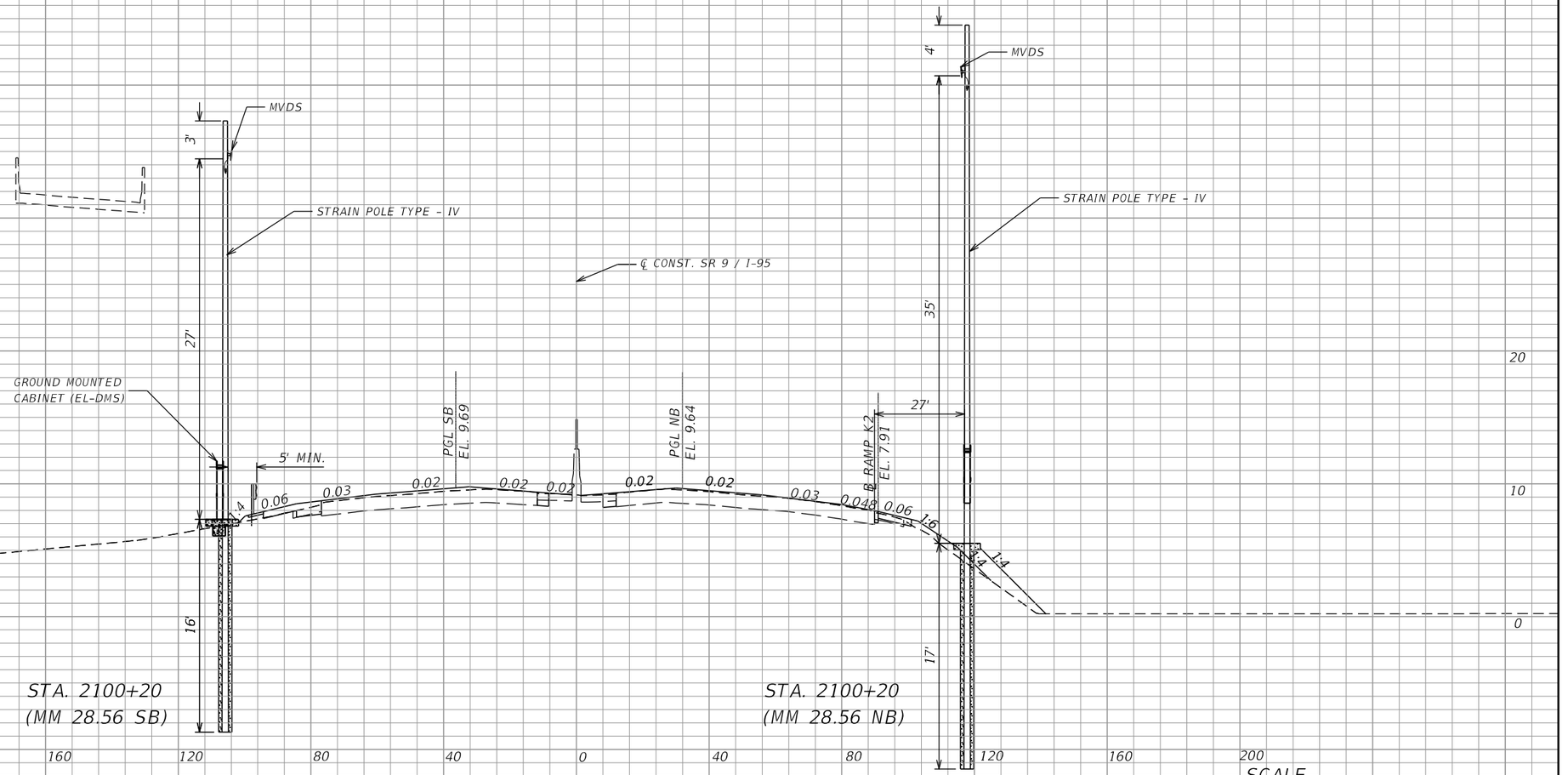
FPID 433108-4-52-01 CONTRACT E4Q32



SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-409

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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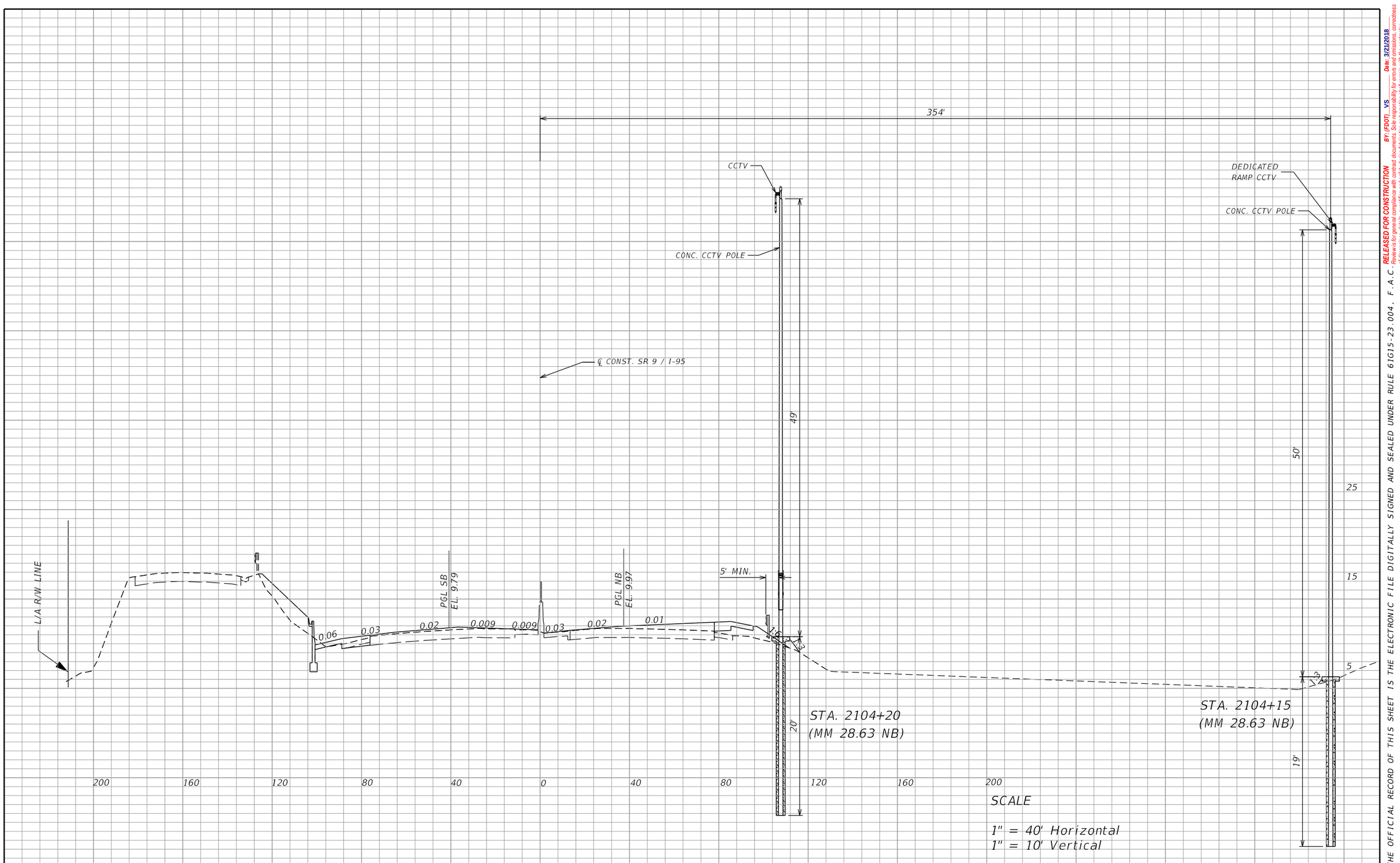

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-410

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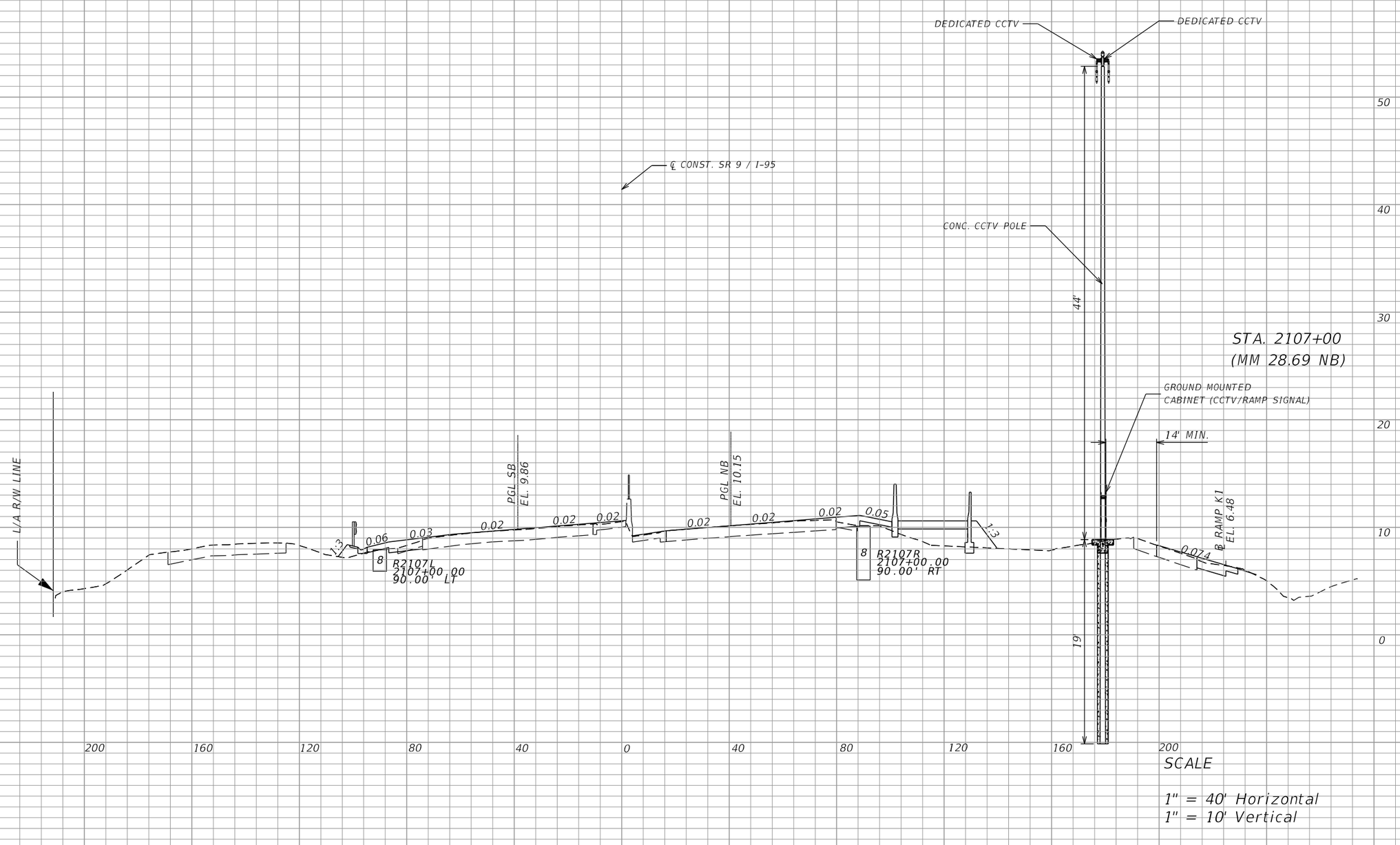

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-411

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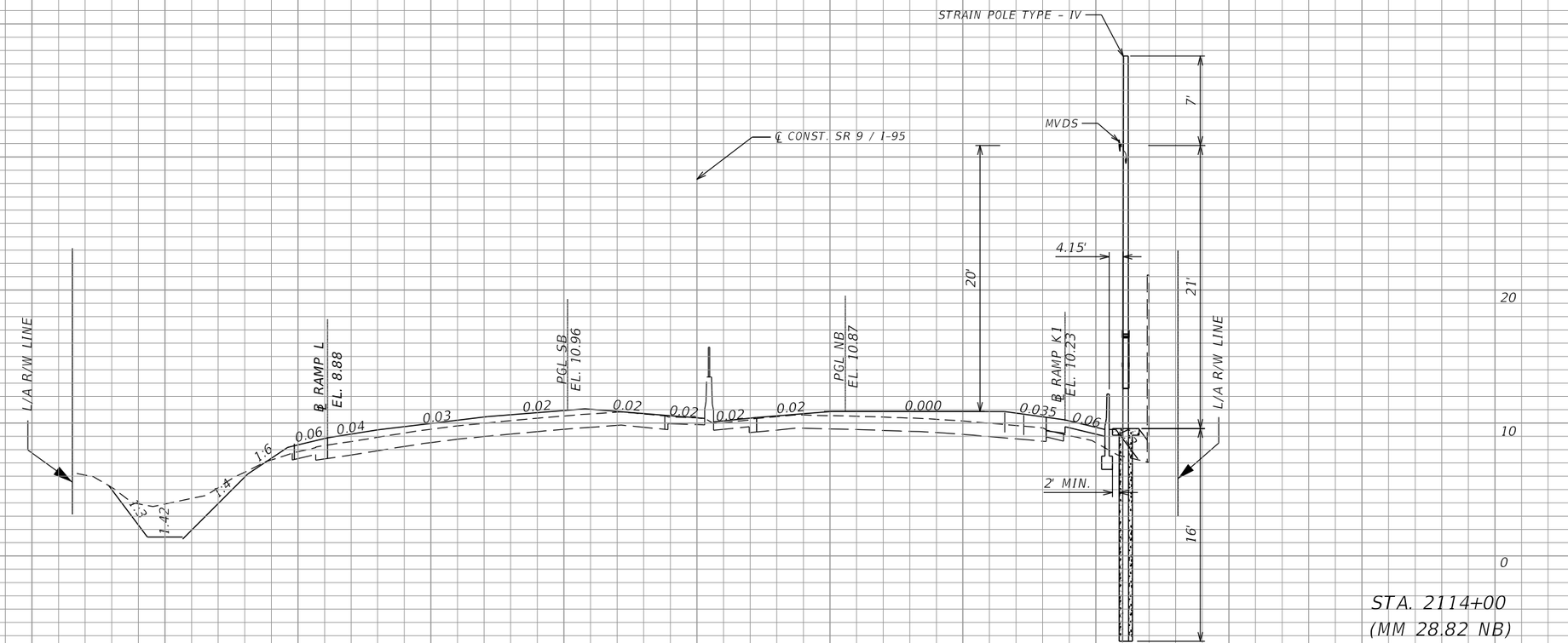

STA. 2114+00
(MM 28.82 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-412

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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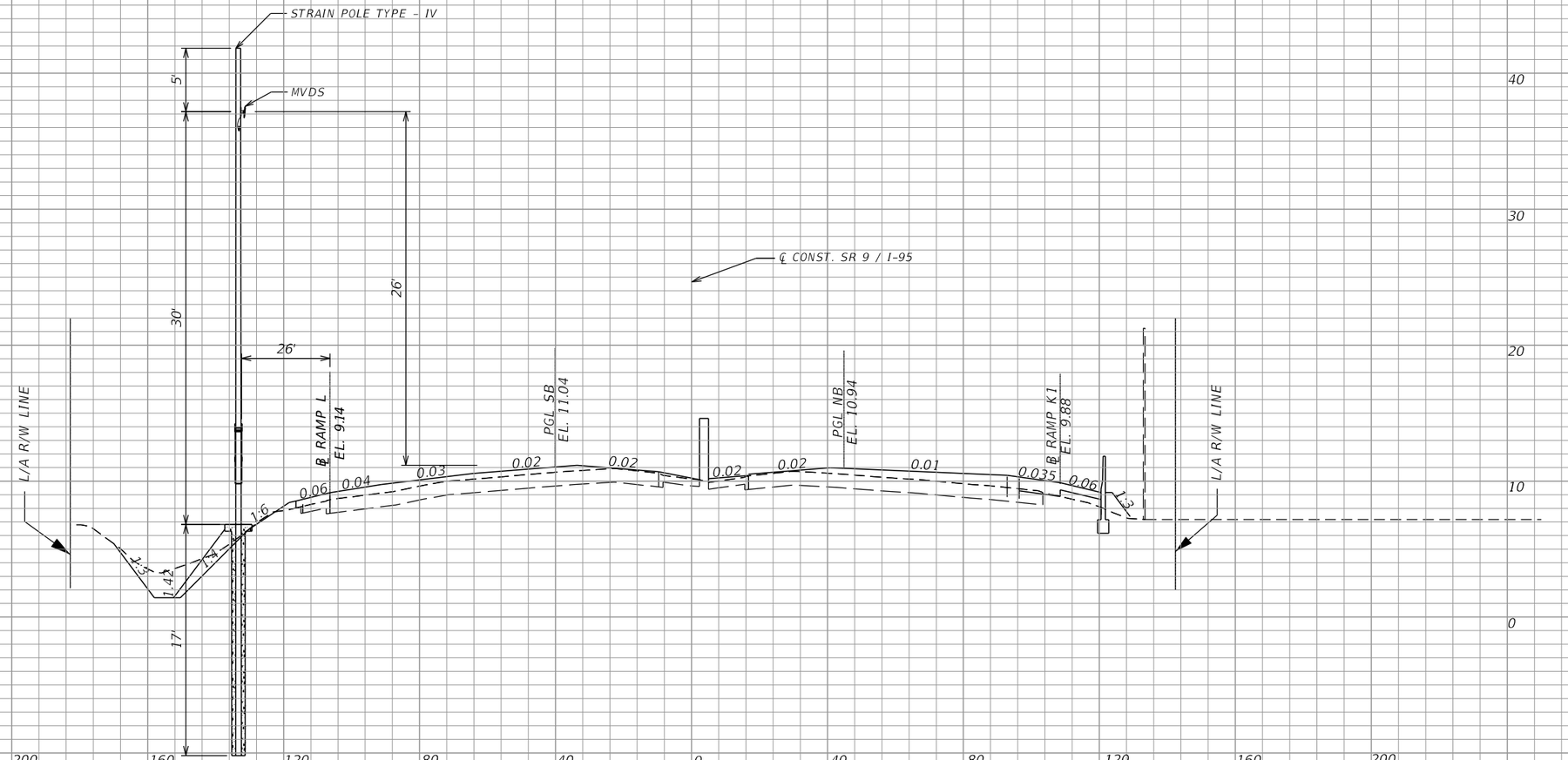
FPID 433108-4-52-01 CONTRACT E4Q32



STA. 2115+60
(MM 28.85 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Environmental Services
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-413

RELEASED FOR CONSTRUCTION
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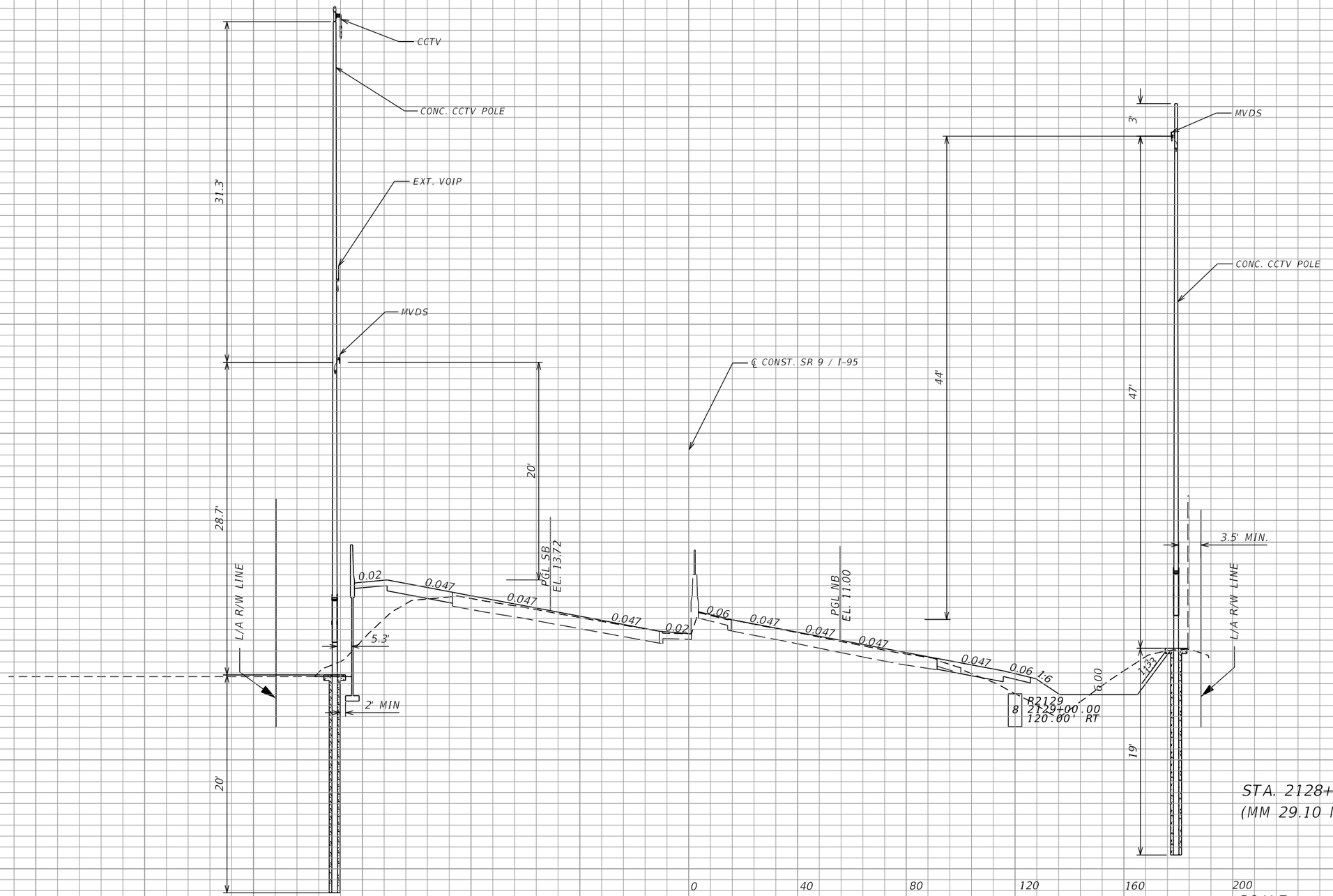

STA. 2129+25
(MM 29.11 SB)

STA. 2128+80
(MM 29.10 NB)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-414

RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 CONTRACT E4Q32

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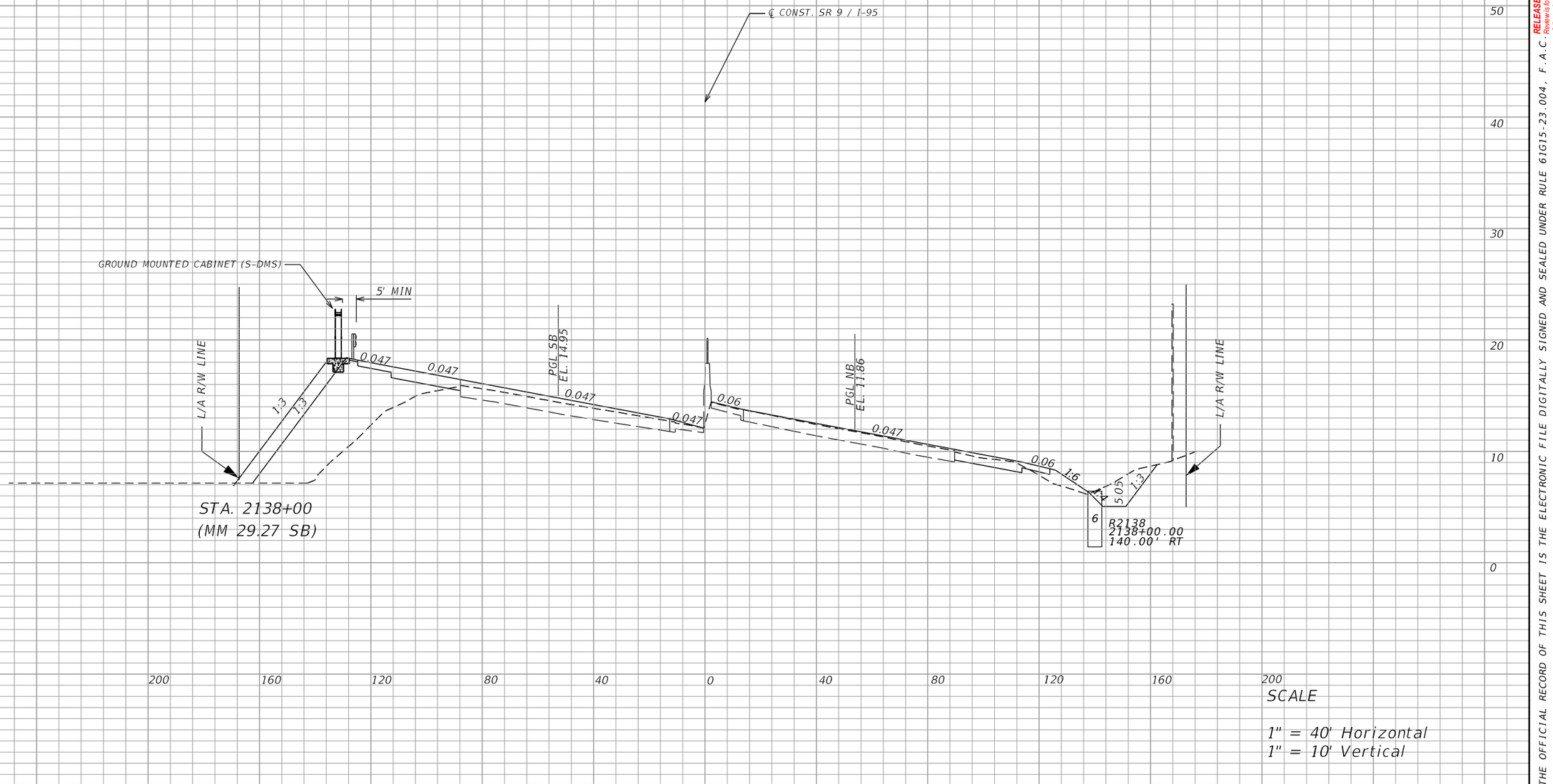

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-415

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
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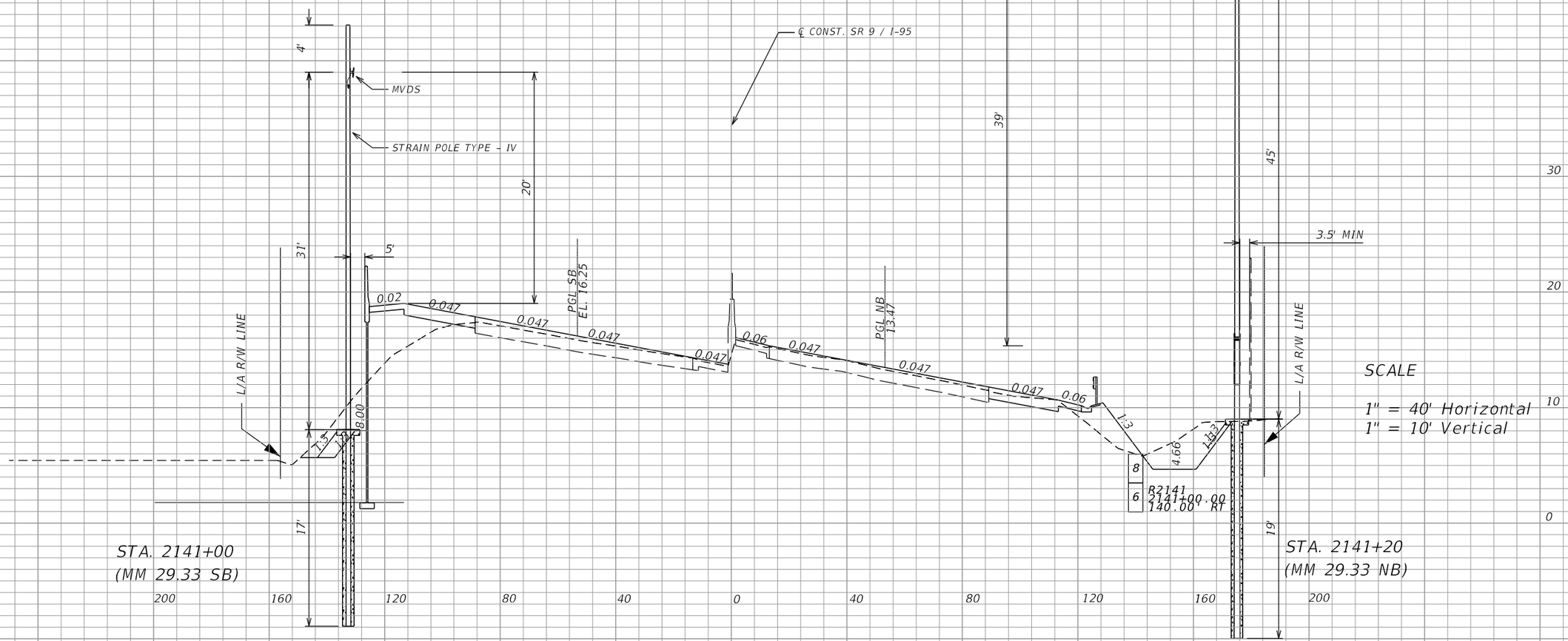

30

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-416

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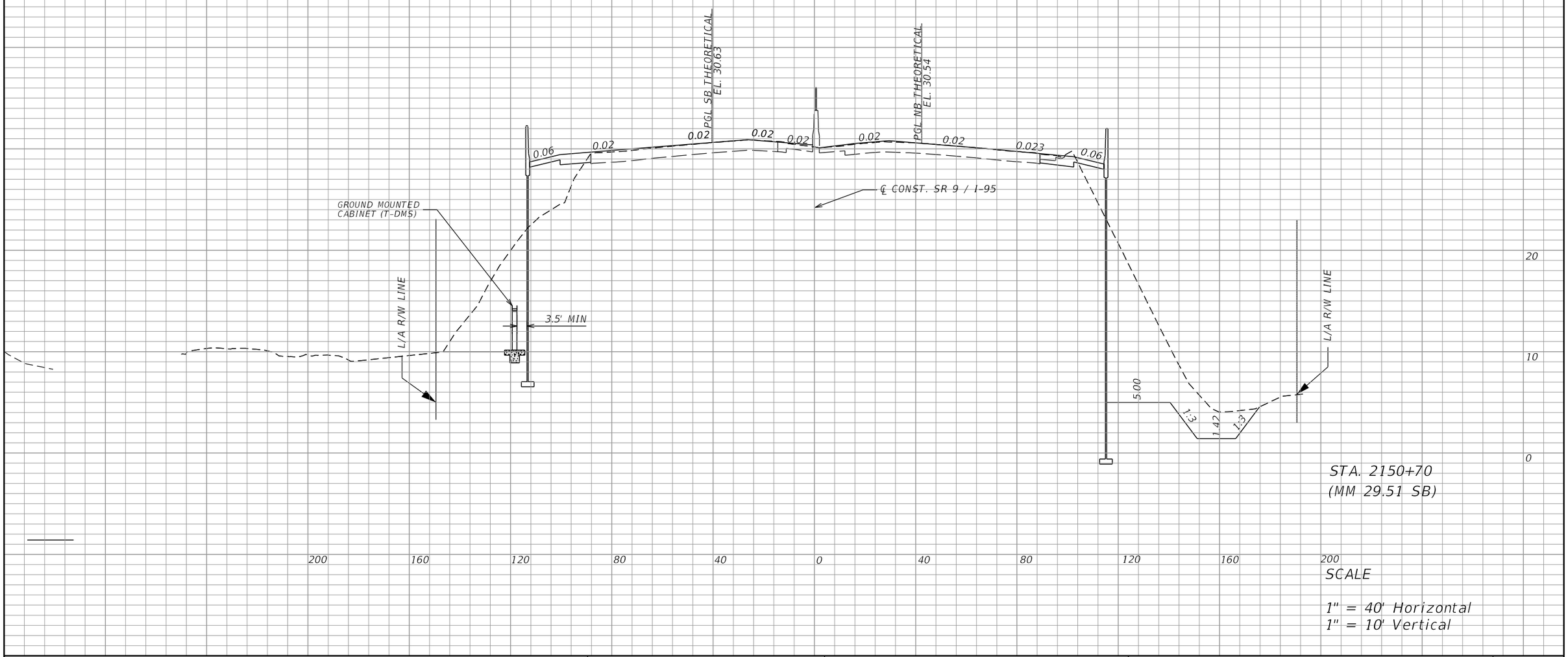

STA. 2150+70
(MM 29.51 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-417

RELEASED FOR CONSTRUCTION
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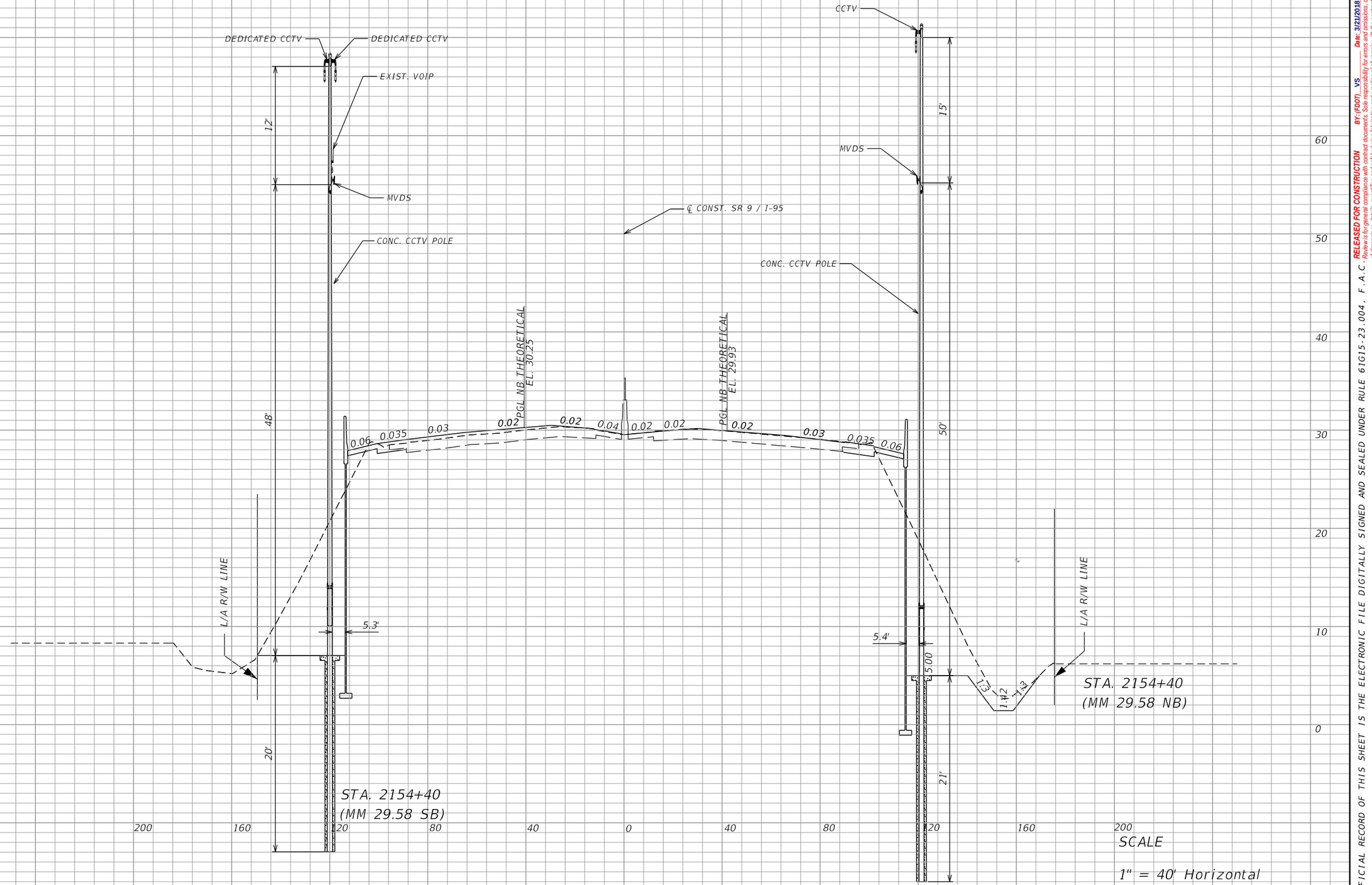

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-418

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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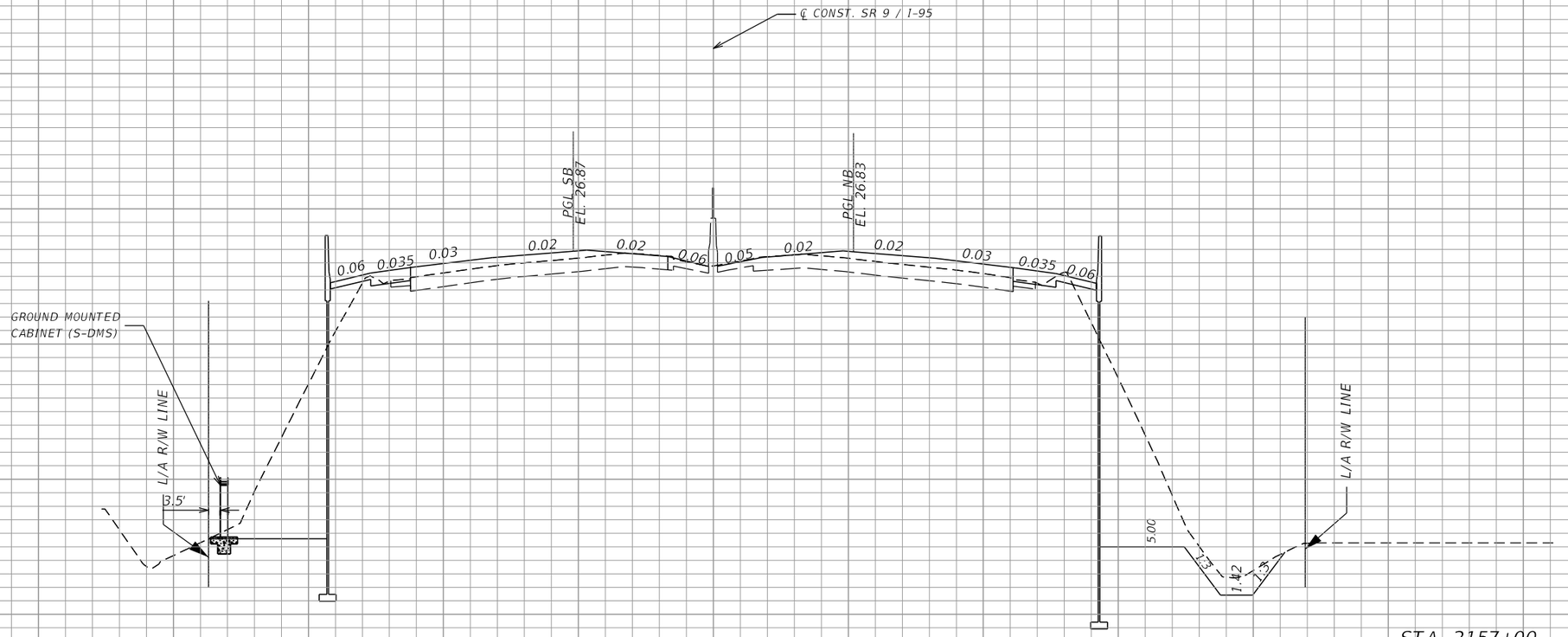

STA. 2157+00
(MM 29.63 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-419

RELEASED FOR CONSTRUCTION
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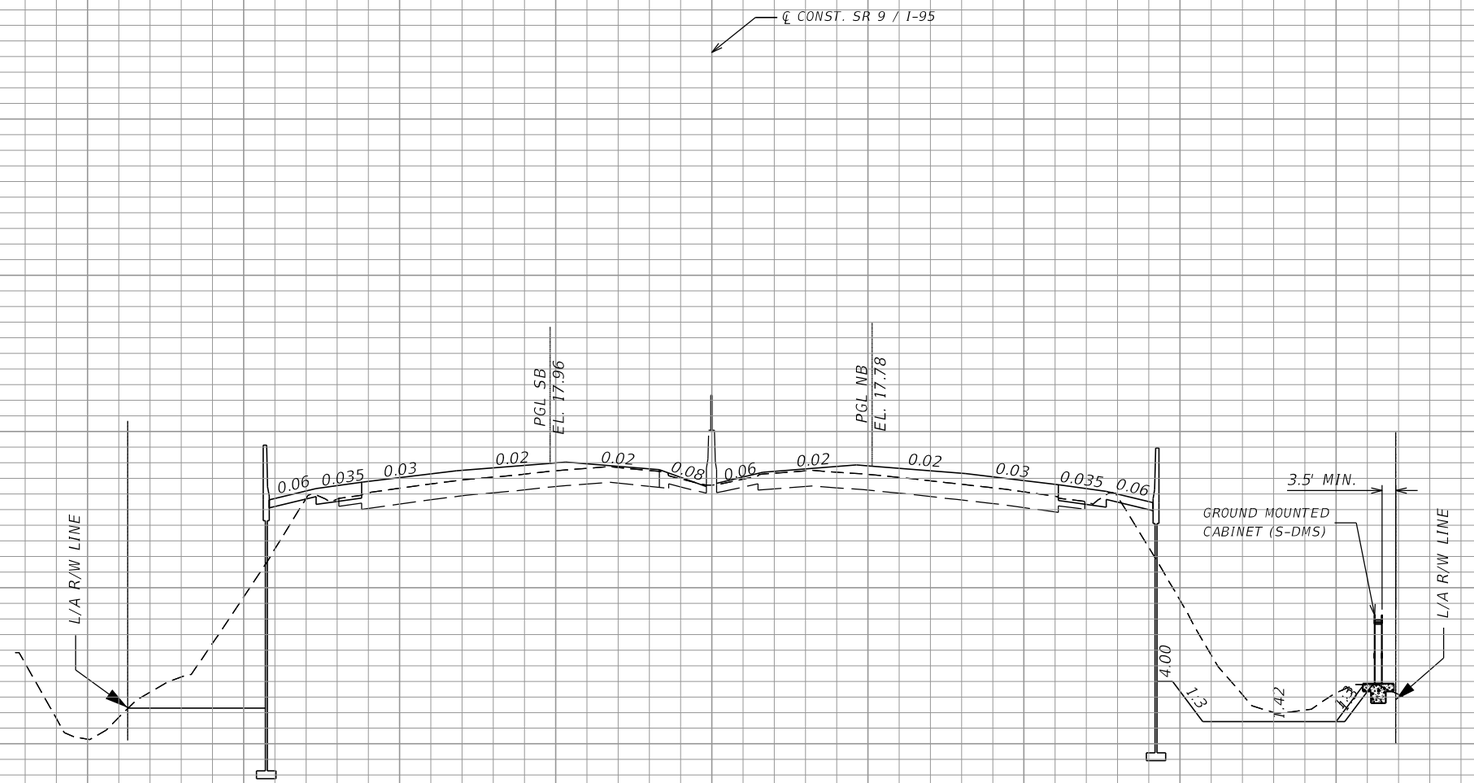

STA. 2161+00
(MM 29.71 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-420

RELEASED FOR CONSTRUCTION
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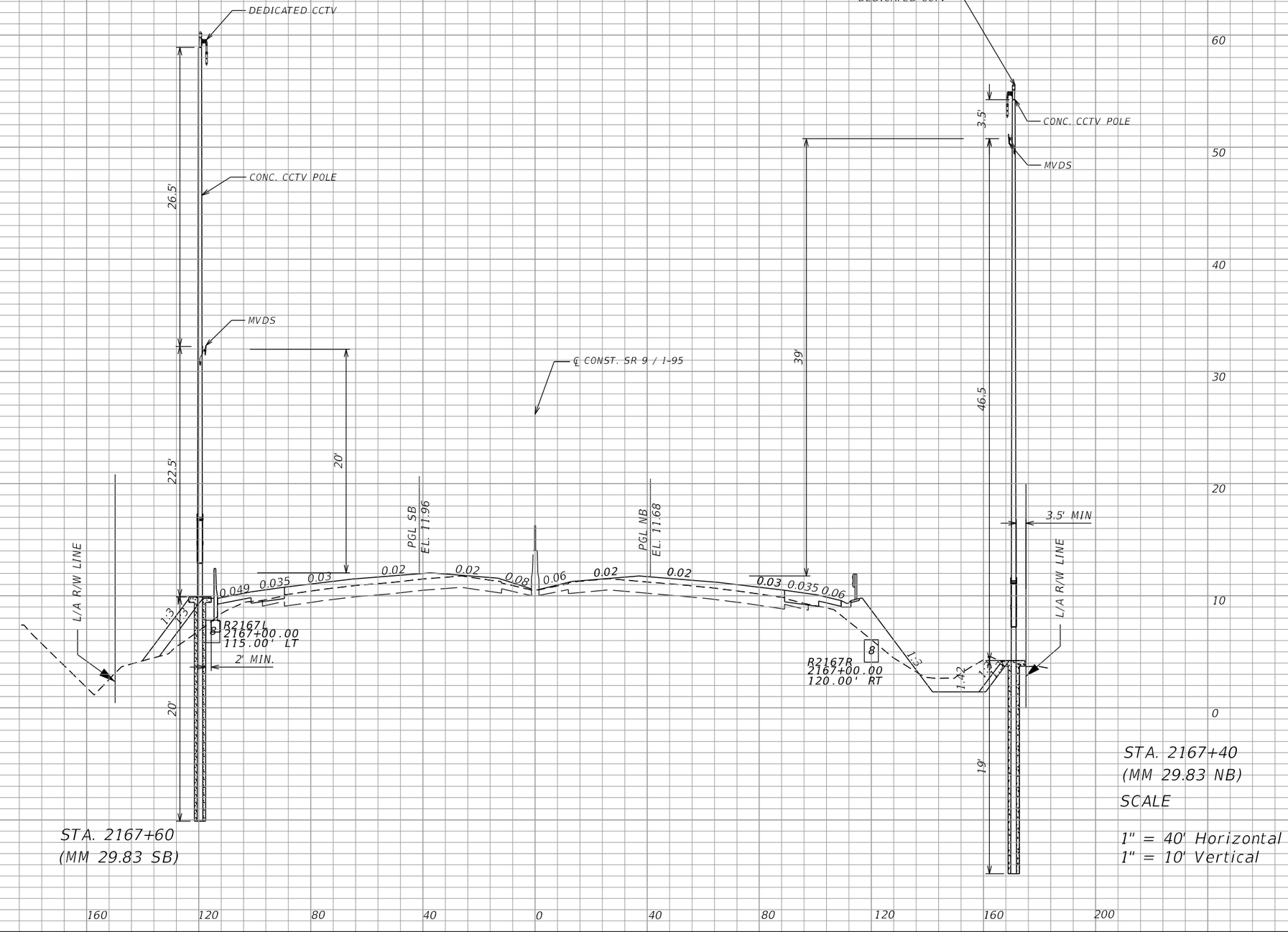

STA. 2167+60
(MM 29.83 SB)

STA. 2167+40
(MM 29.83 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-421

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BY: (FDOT) VS Date: 3/21/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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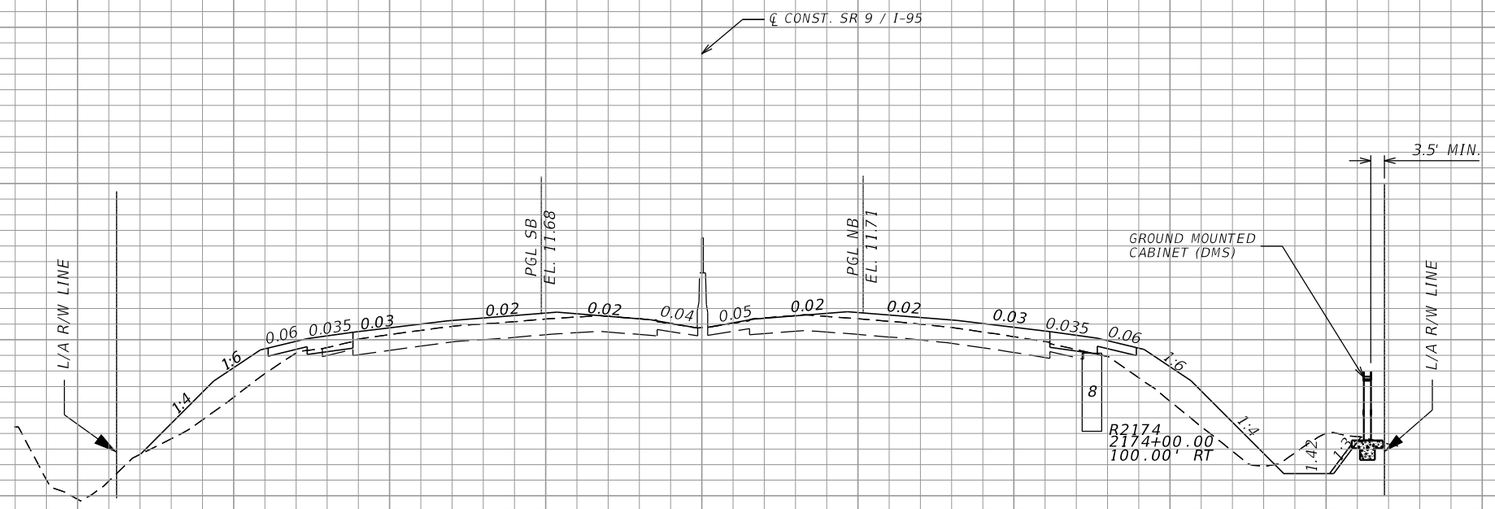

STA. 2174+00
(MM 29.95 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-422

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Date: 3/21/2018
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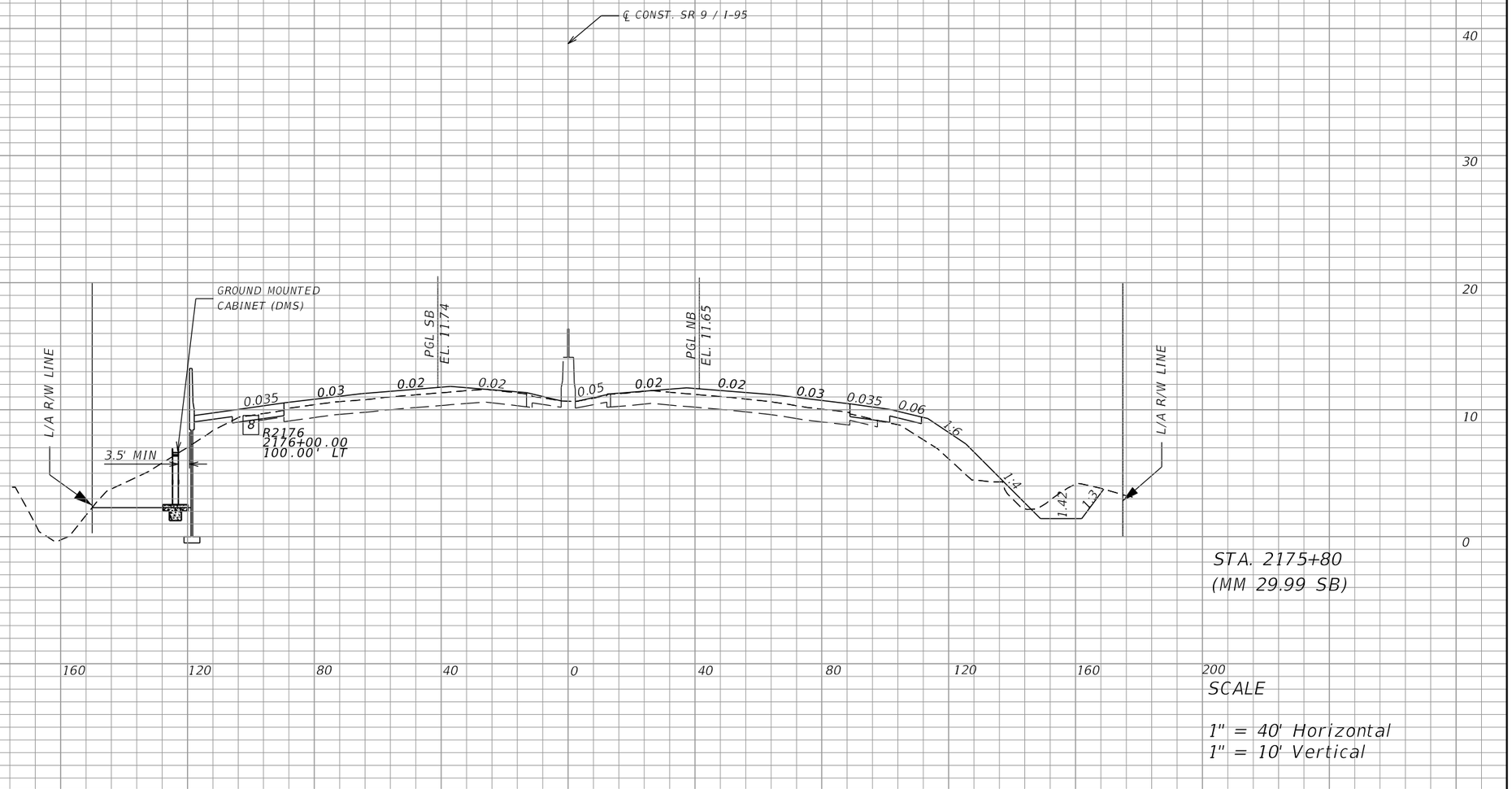
FPID 433108-4-52-01 CONTRACT E4Q32



STA. 2175+80
(MM 29.99 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-423

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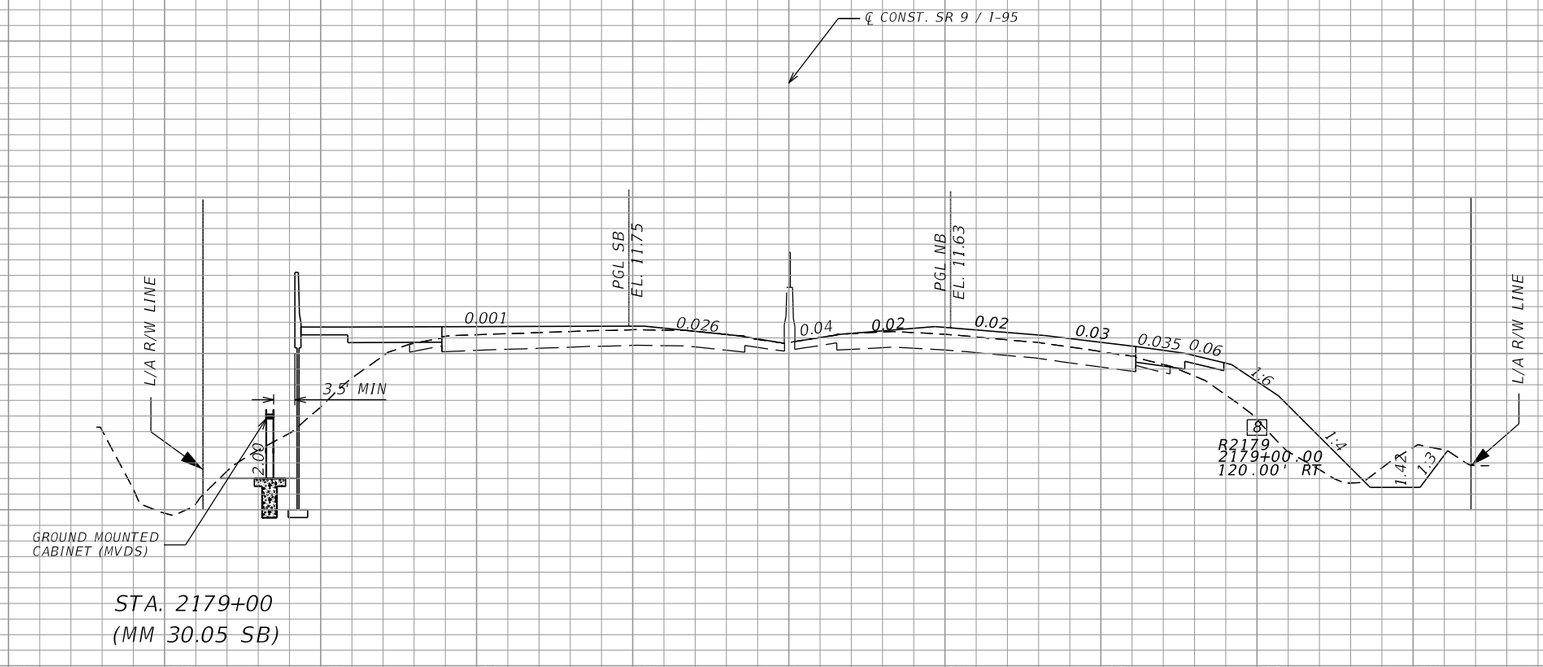

STA. 2179+00
(MM 30.05 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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Jared Knight, P.E.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-424

RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 CONTRACT E4Q32
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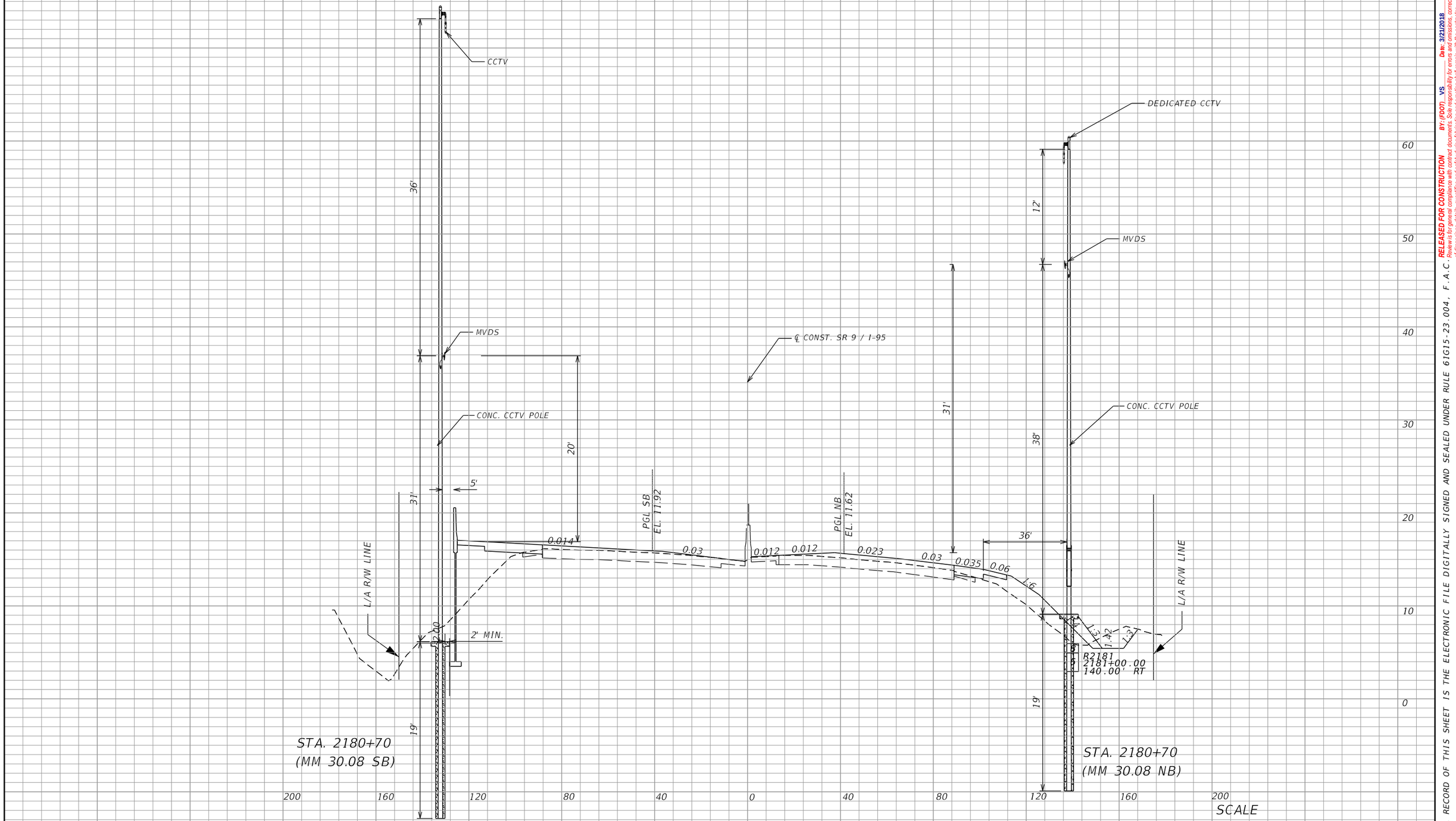

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-425

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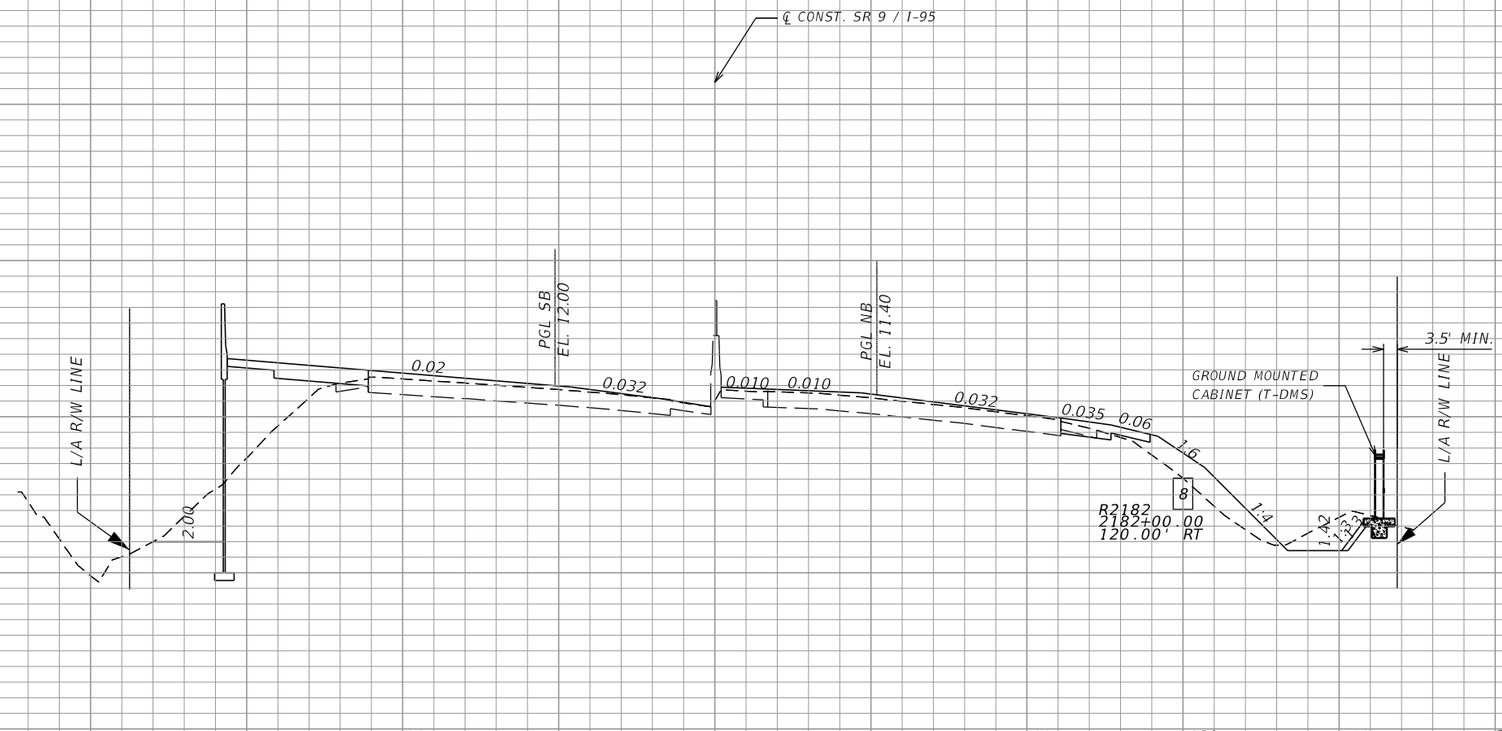

STA. 2182+70
(MM 30.12 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-426

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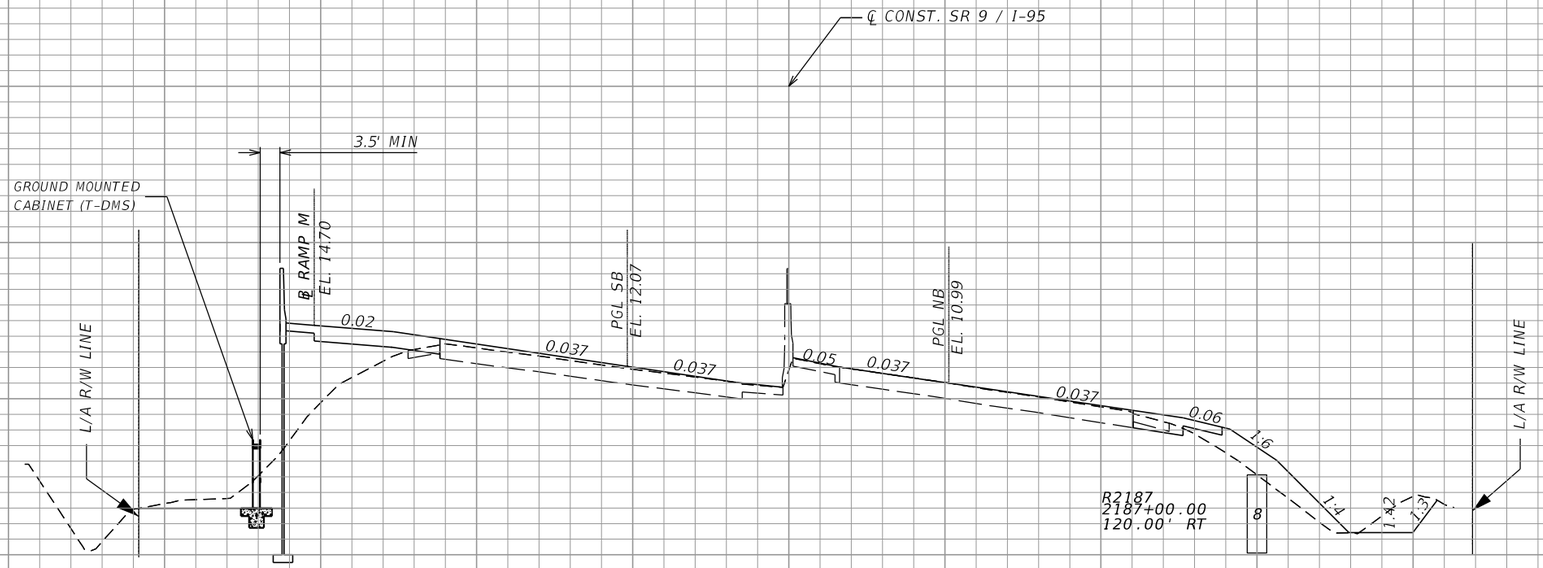

STA. 2187+00
(MM 30.20 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-427

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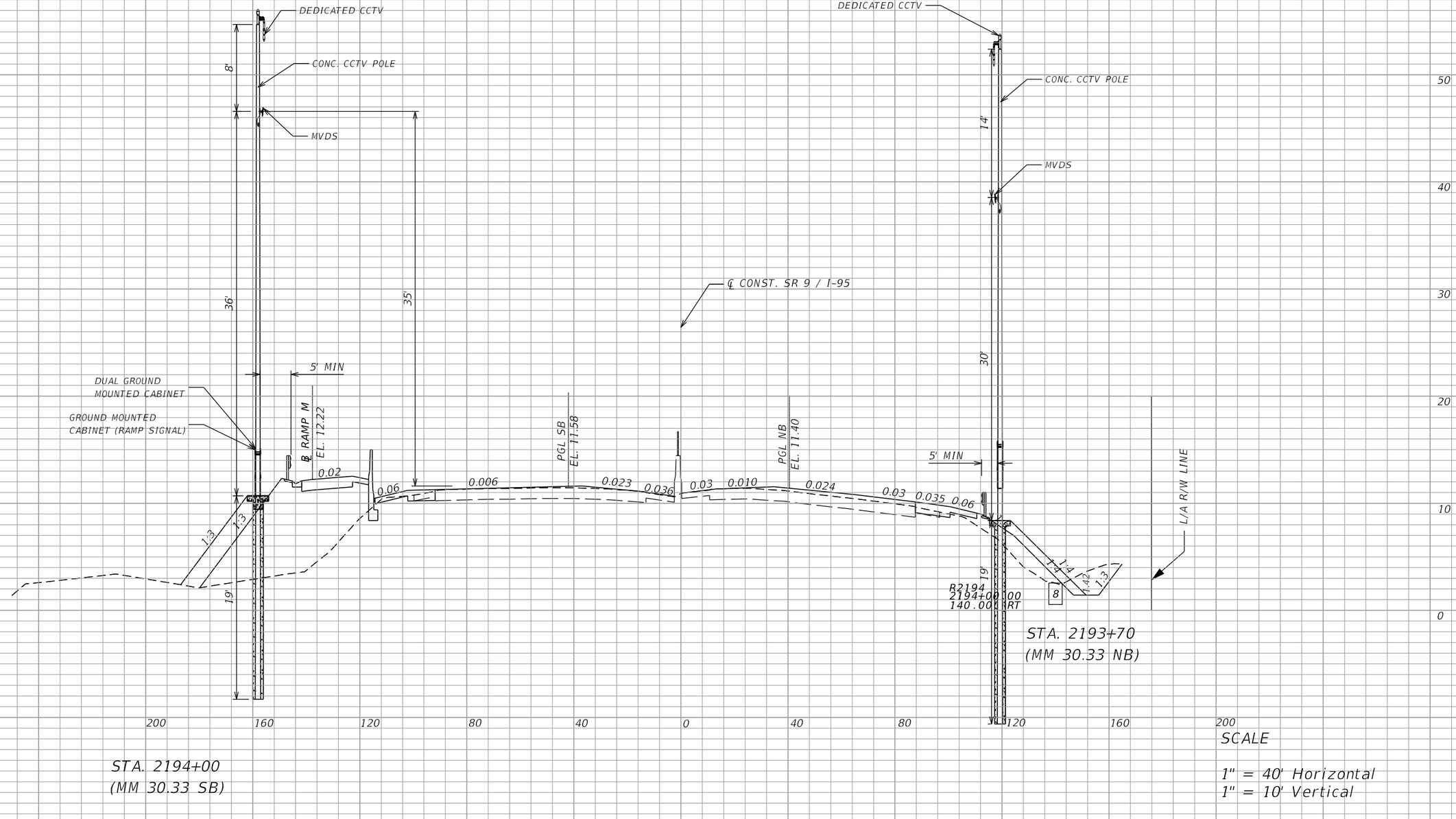
FPID 433108-4-52-01 CONTRACT E4Q32



SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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225 E. Robinson St., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-428

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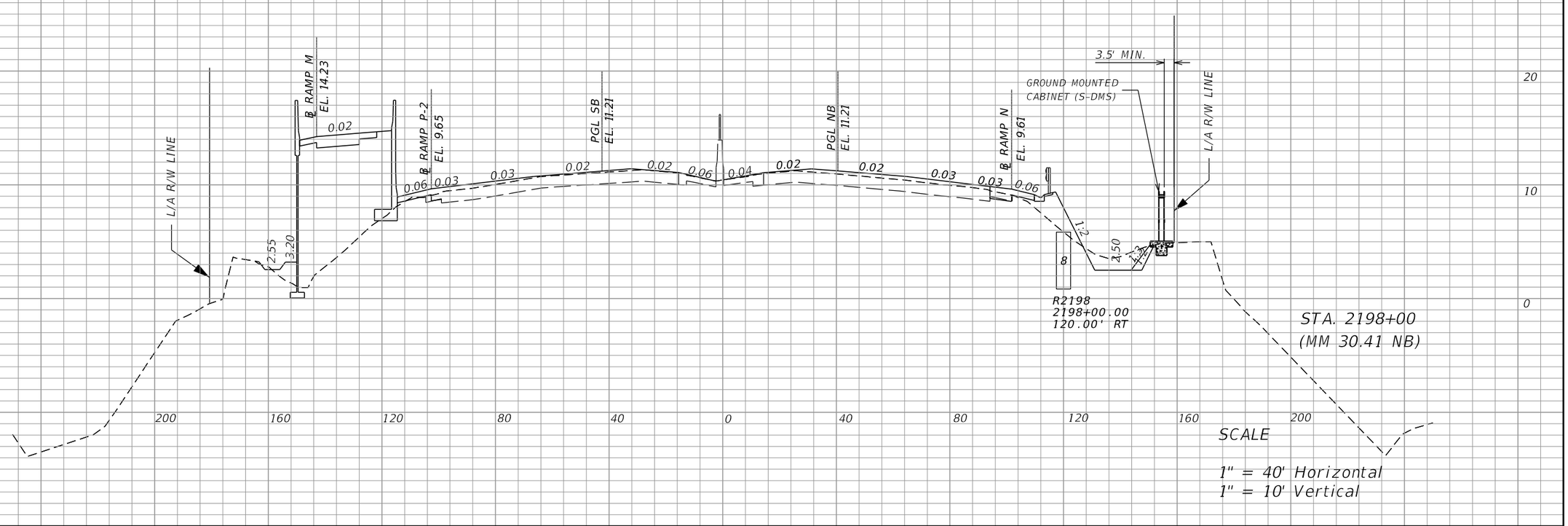

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-429

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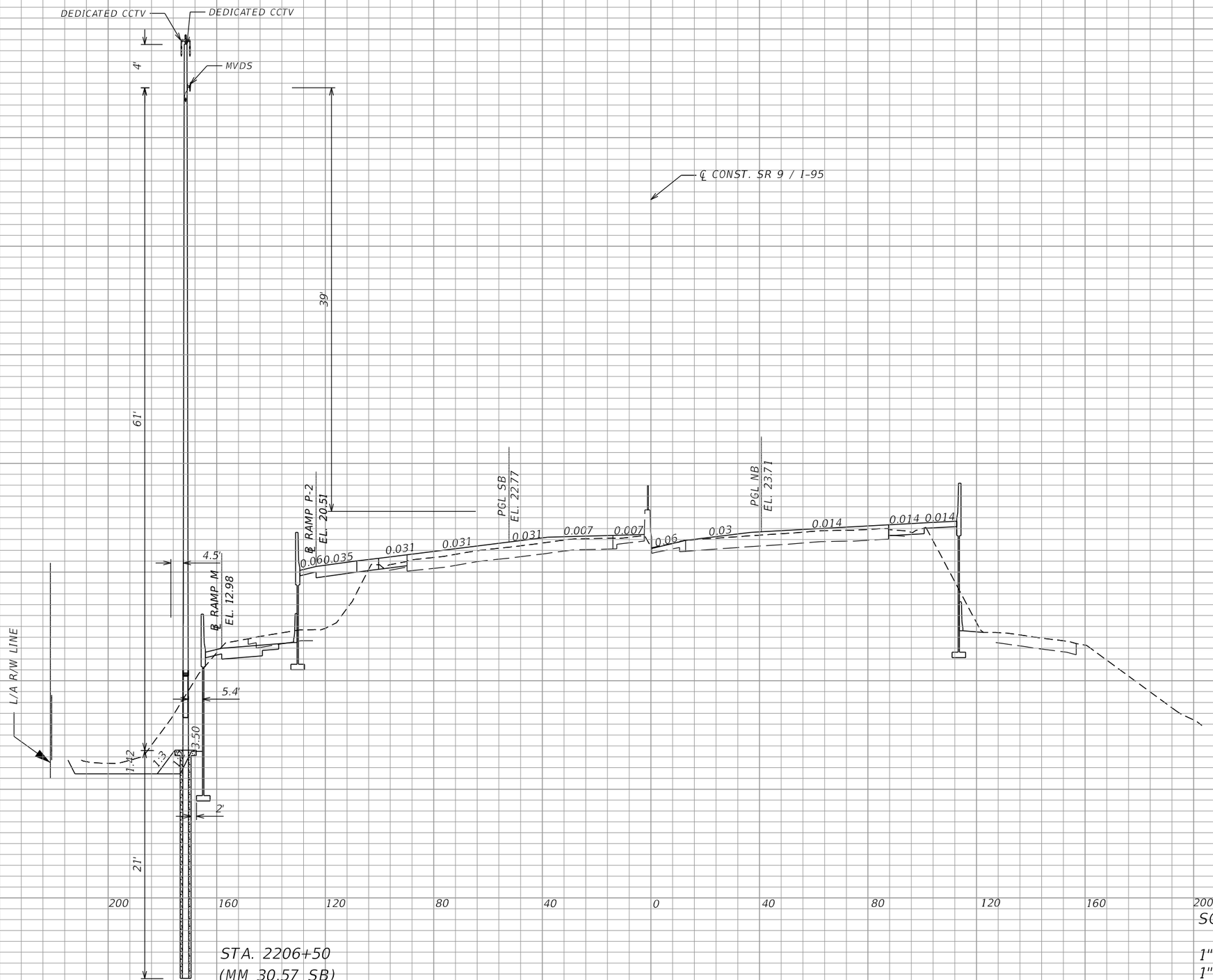

STA. 2206+50
(MM 30.57 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-430

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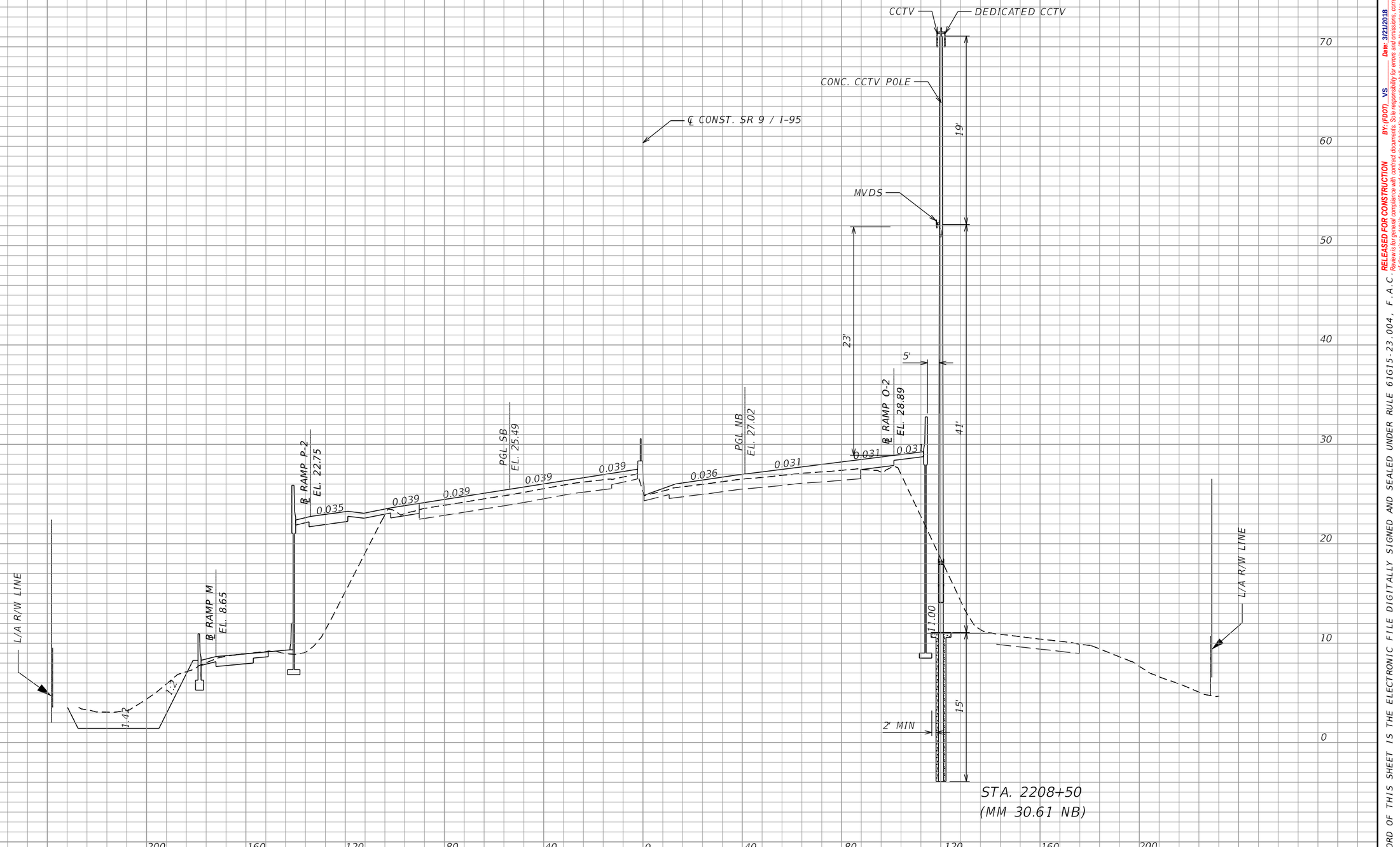

STA. 2208+50
(MM 30.61 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-431

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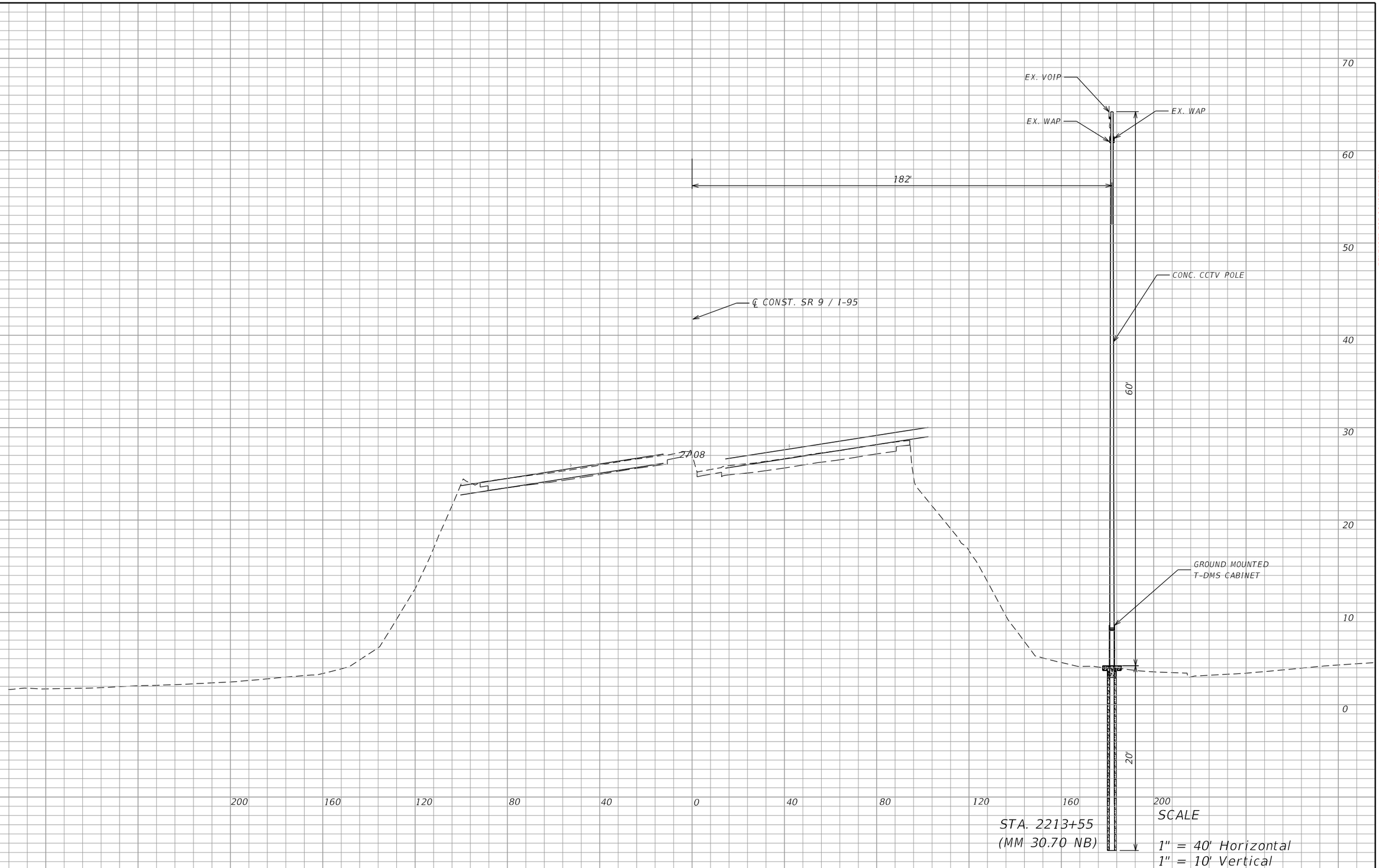
FPID 433108-4-52-01 CONTRACT E4Q32



STA. 2213+55
(MM 30.70 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-432

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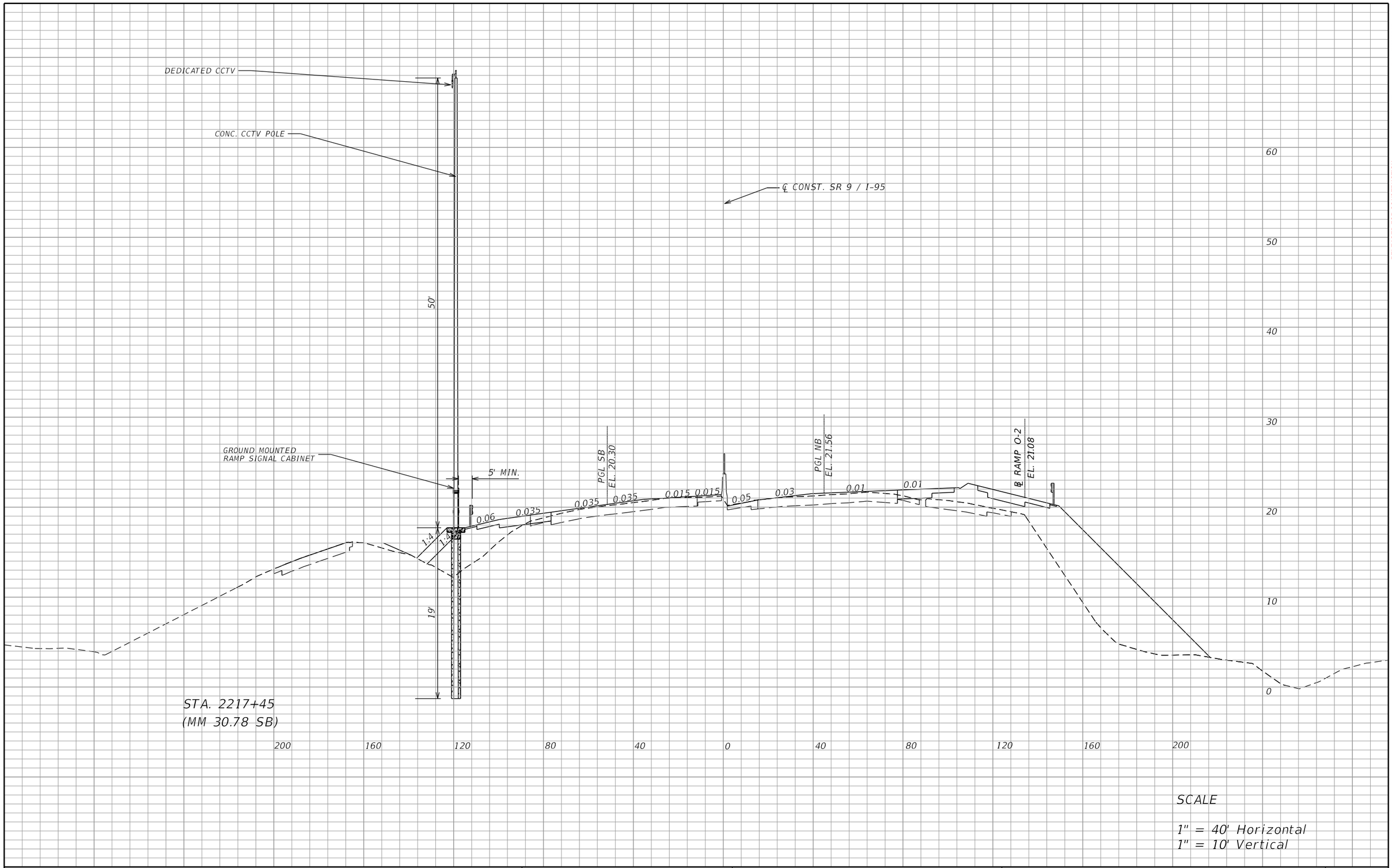

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-433

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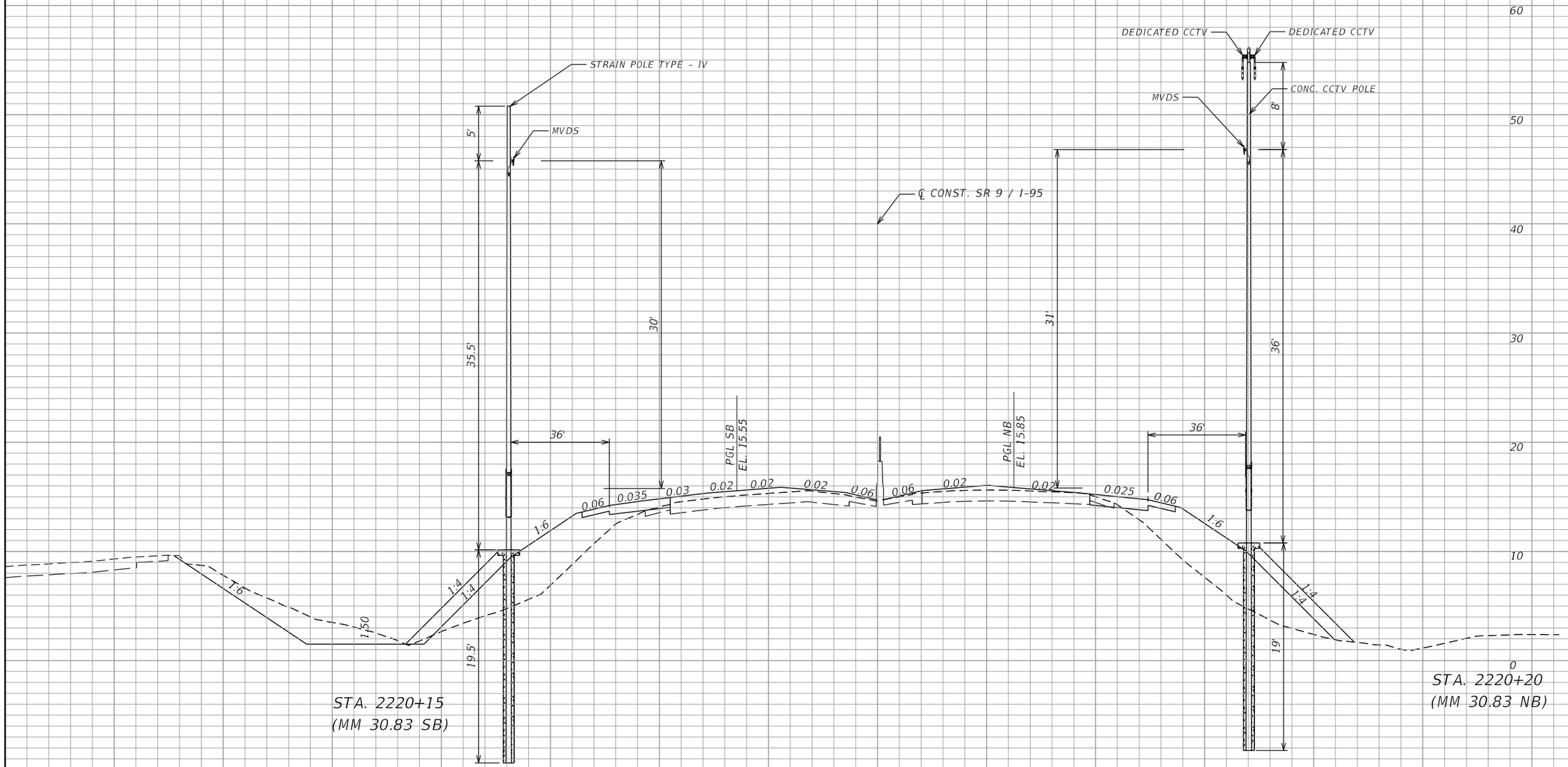

SCALE

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1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-434

RELEASED FOR CONSTRUCTION
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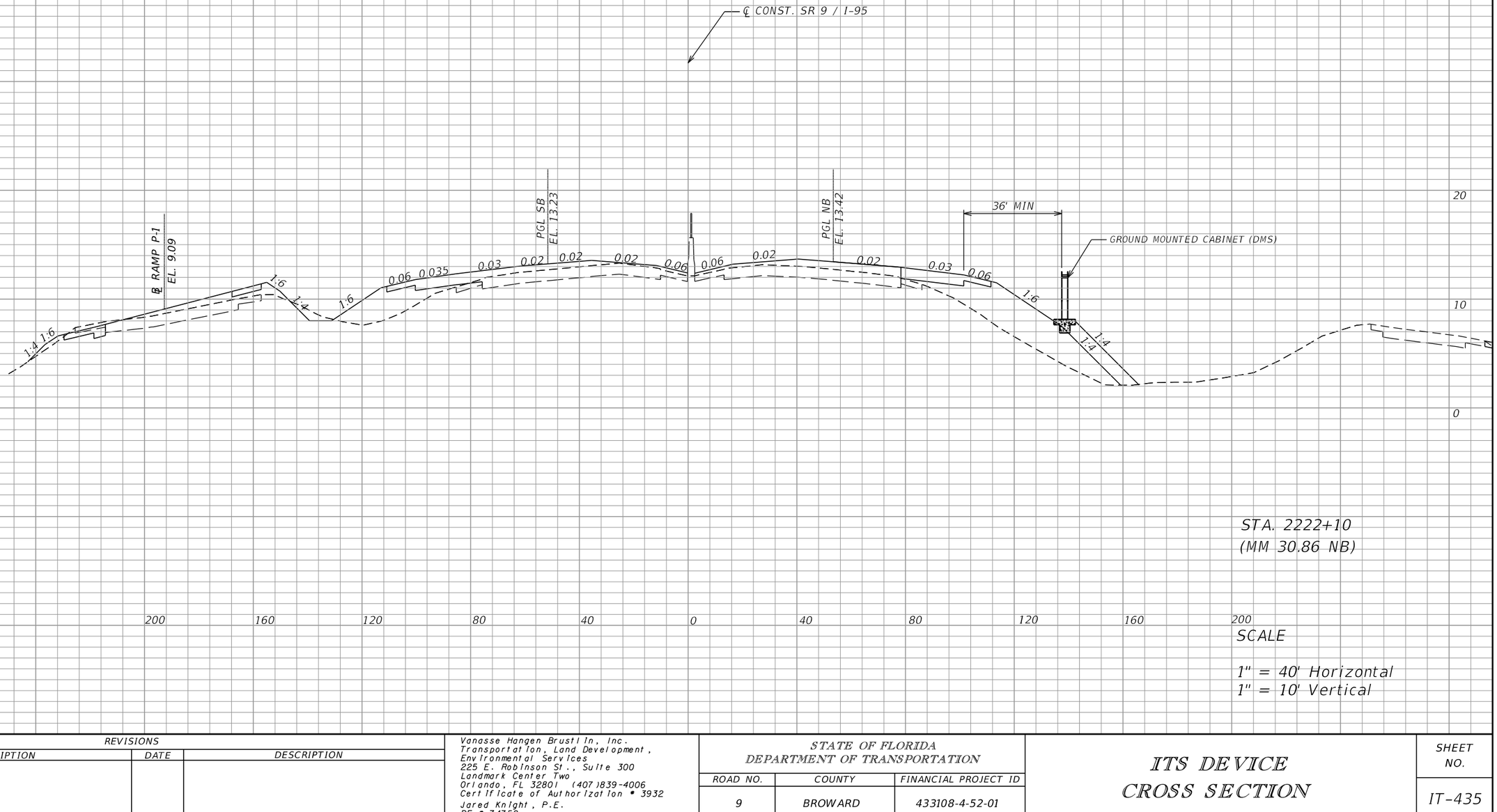

STA. 2222+10
(MM 30.86 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-435

RELEASED FOR CONSTRUCTION
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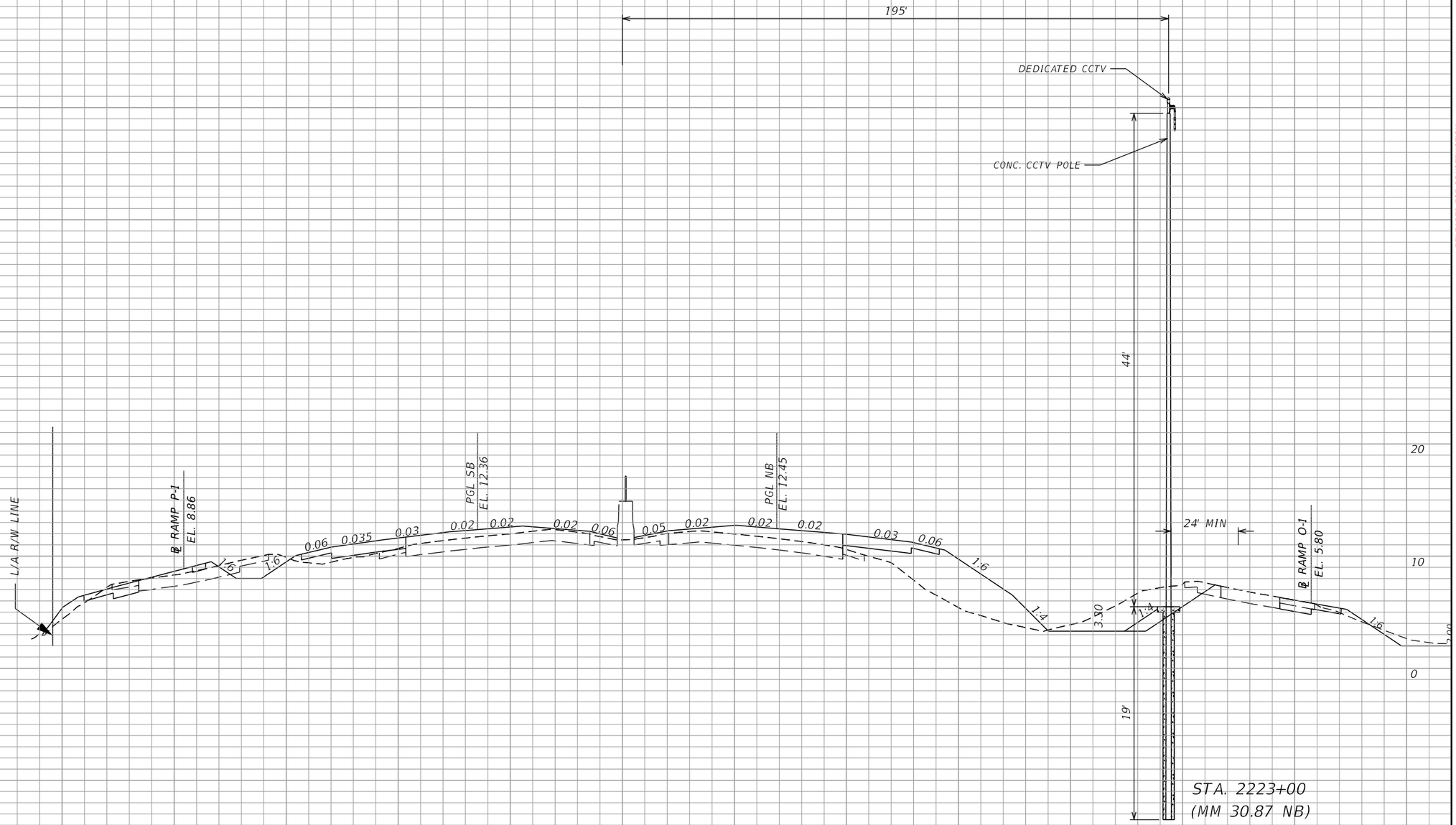

REVISIONS			
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-436

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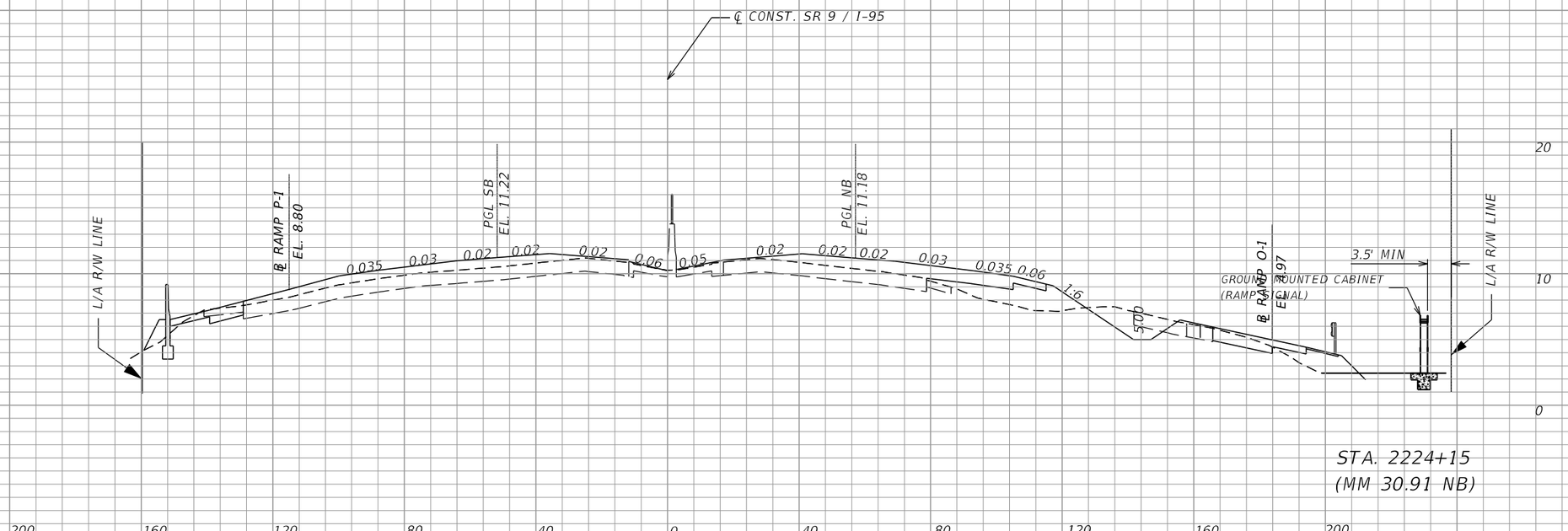

STA. 2224+15
(MM 30.91 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-437

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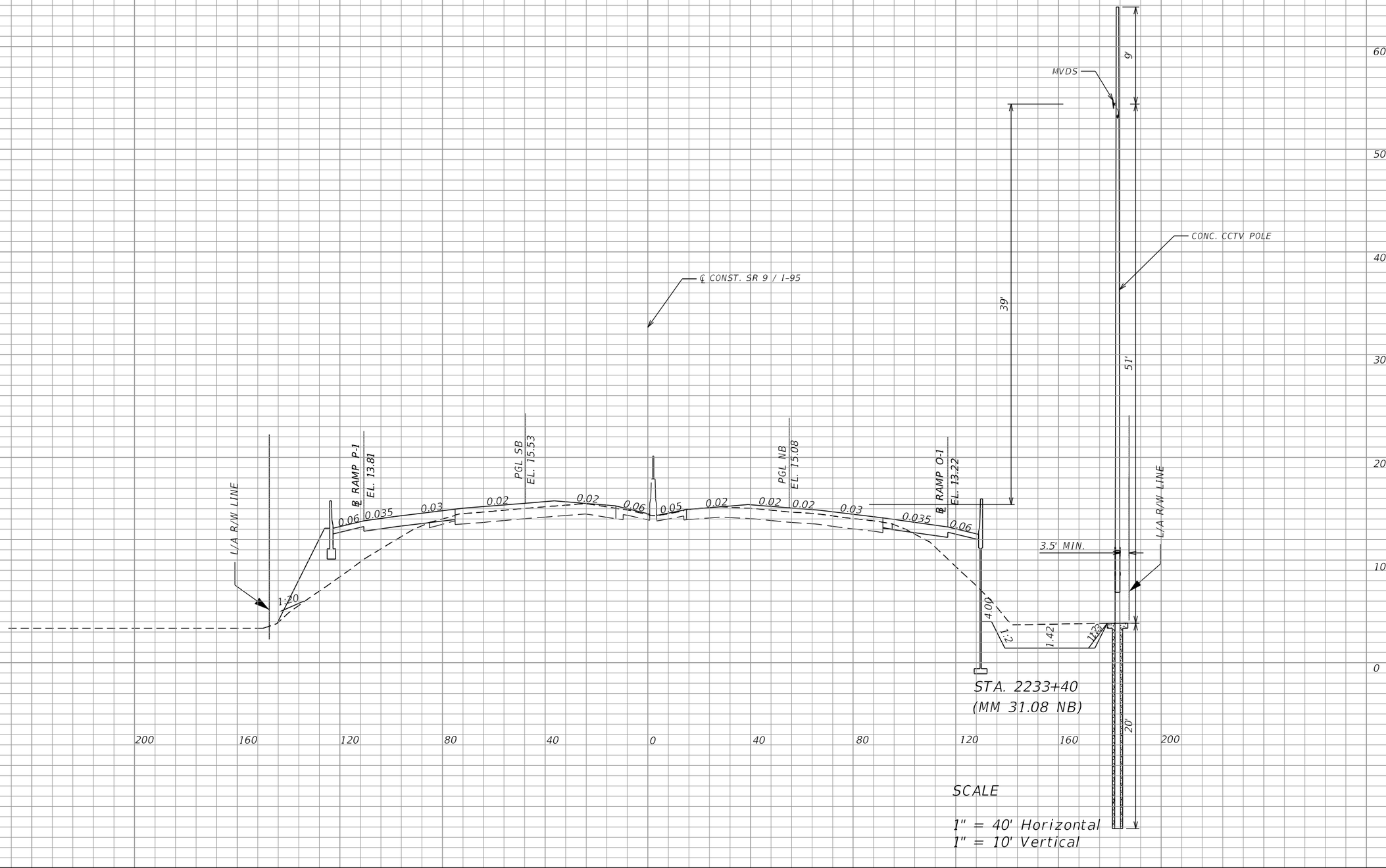

SCALE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-438

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FPID 433108-4-52-01 CONTRACT E4Q32

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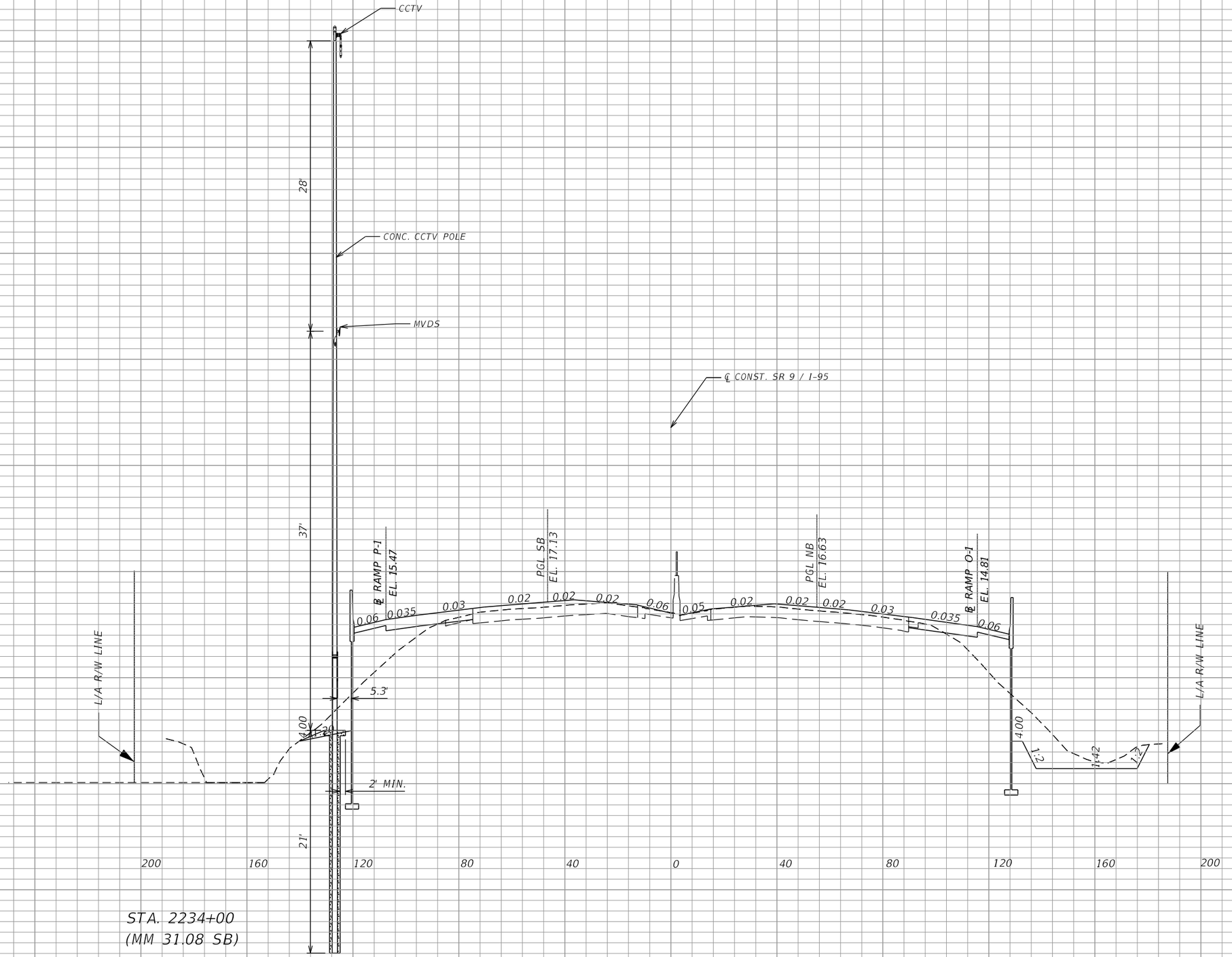

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-439

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RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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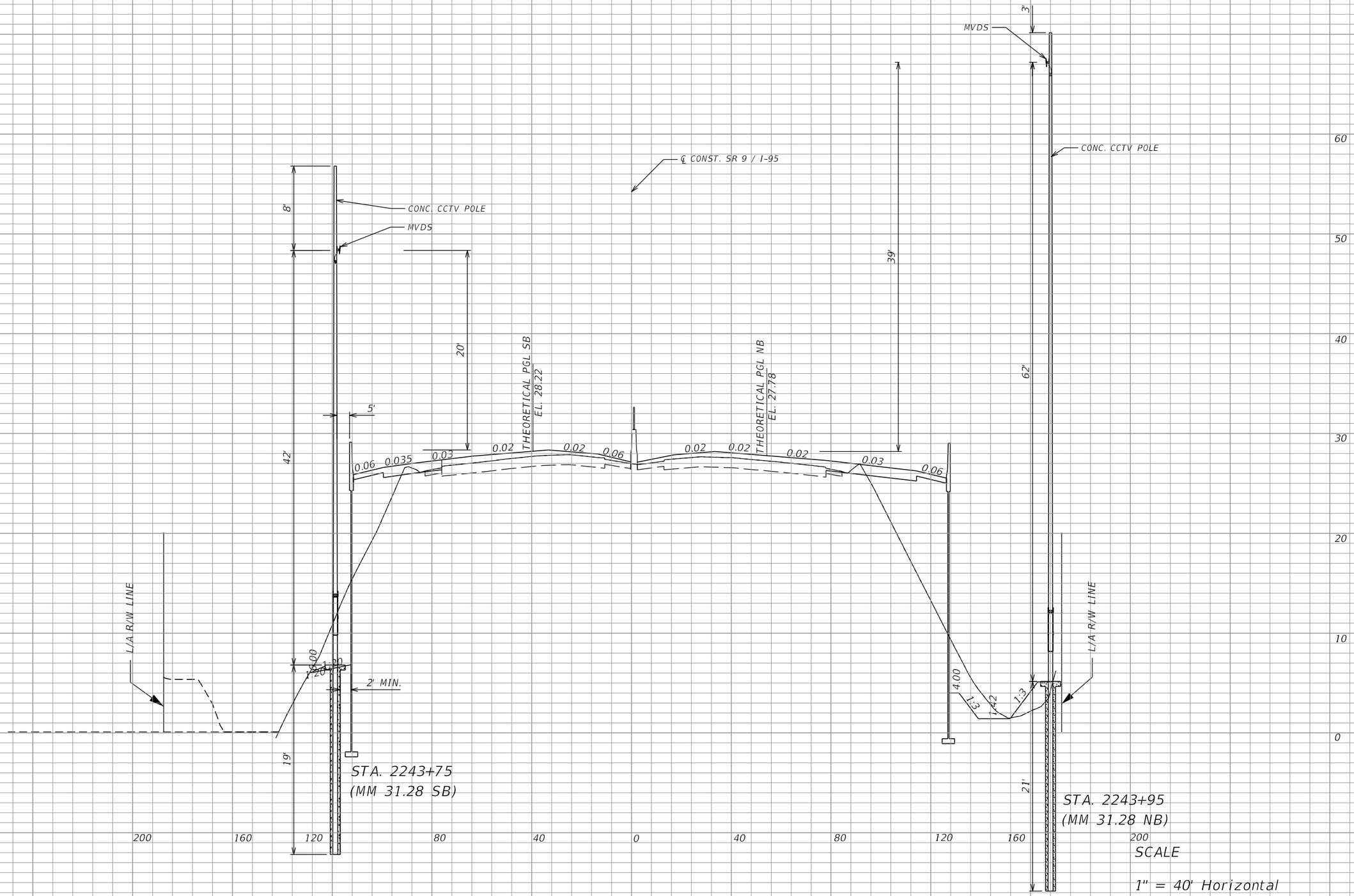
FPID 433108-4-52-01 CONTRACT E4Q32



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Environmental Services
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-440

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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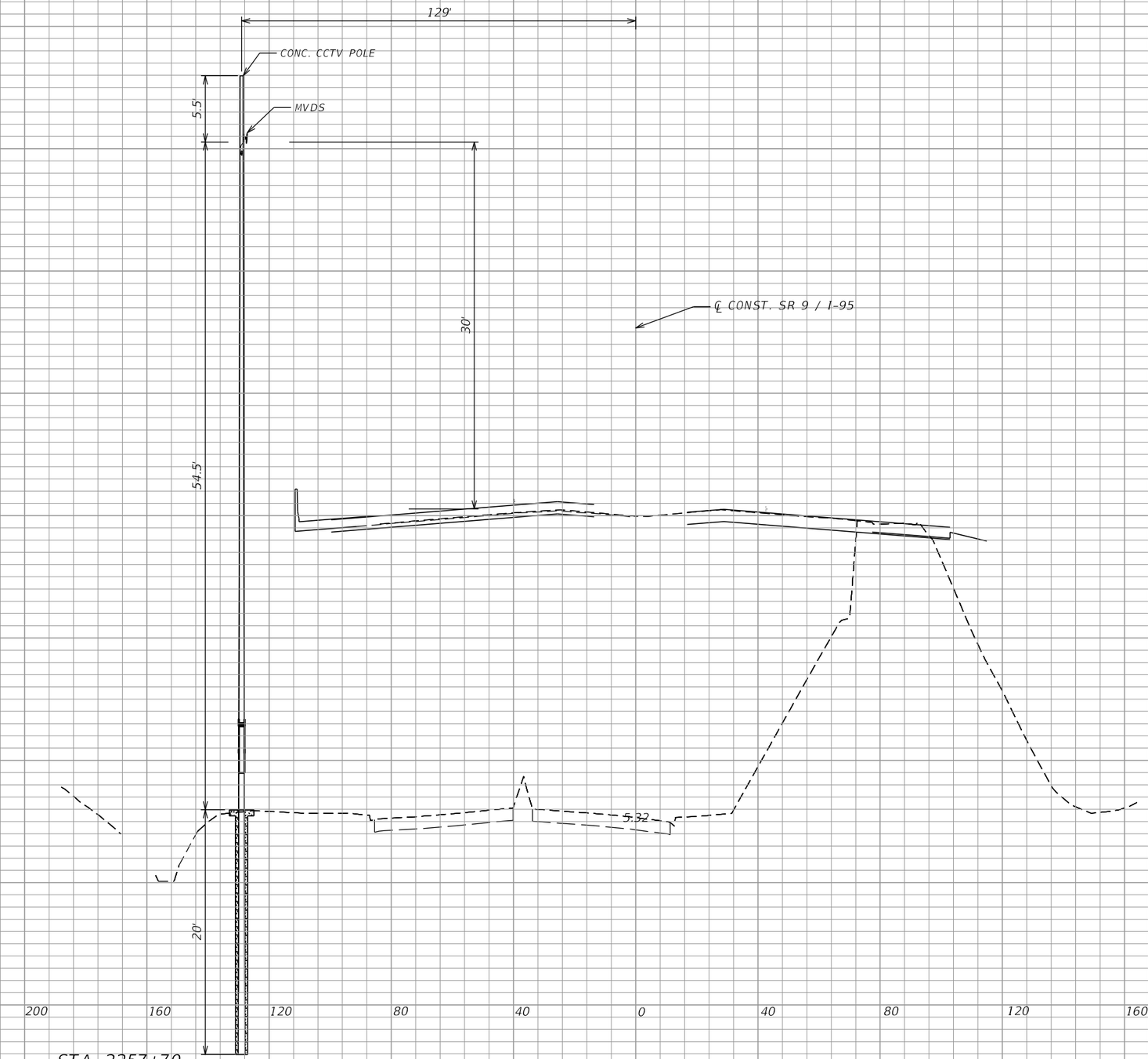

STA. 2257+70
(MM 31.54 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-441

RELEASED FOR CONSTRUCTION
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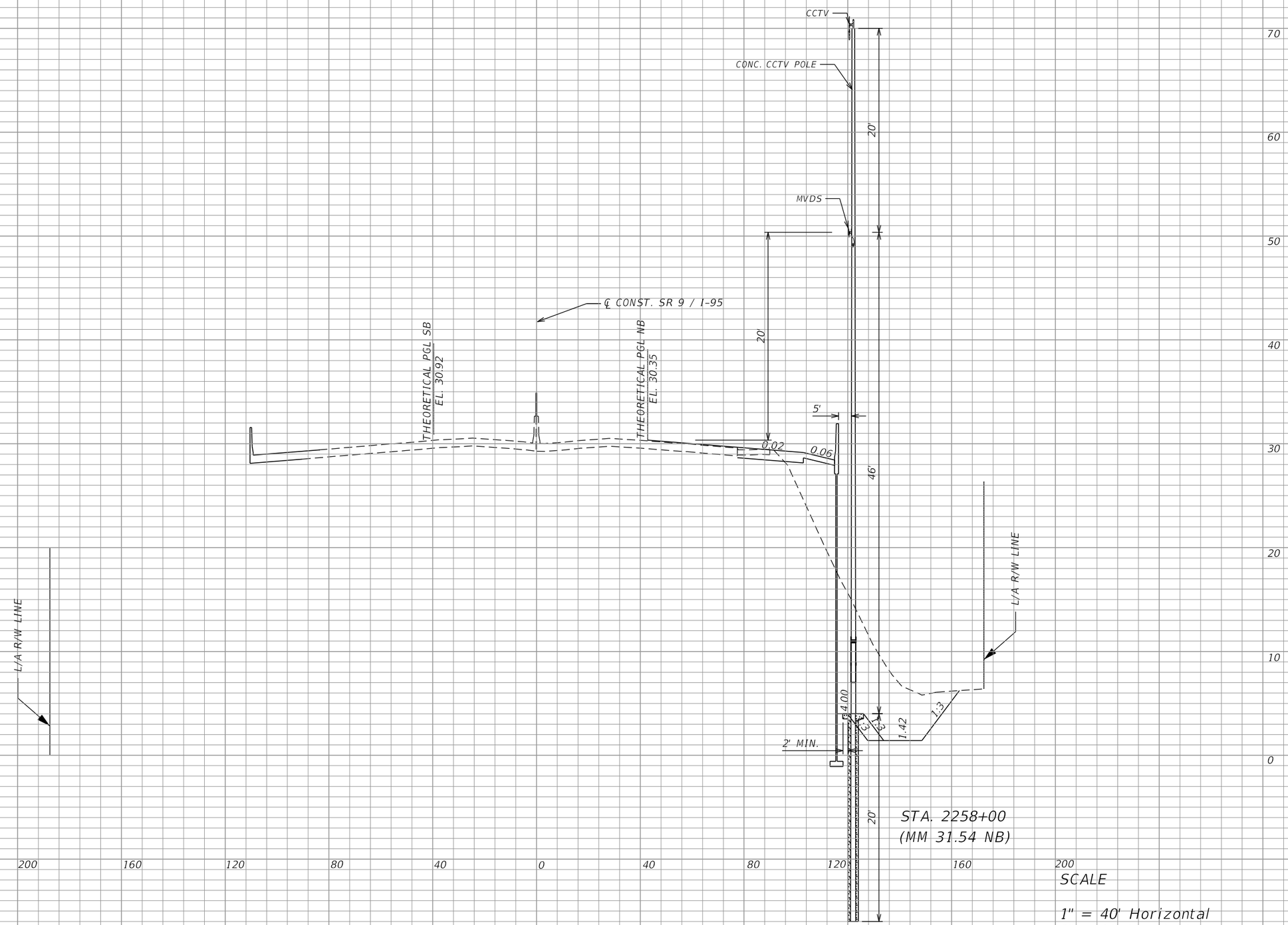

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-442

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
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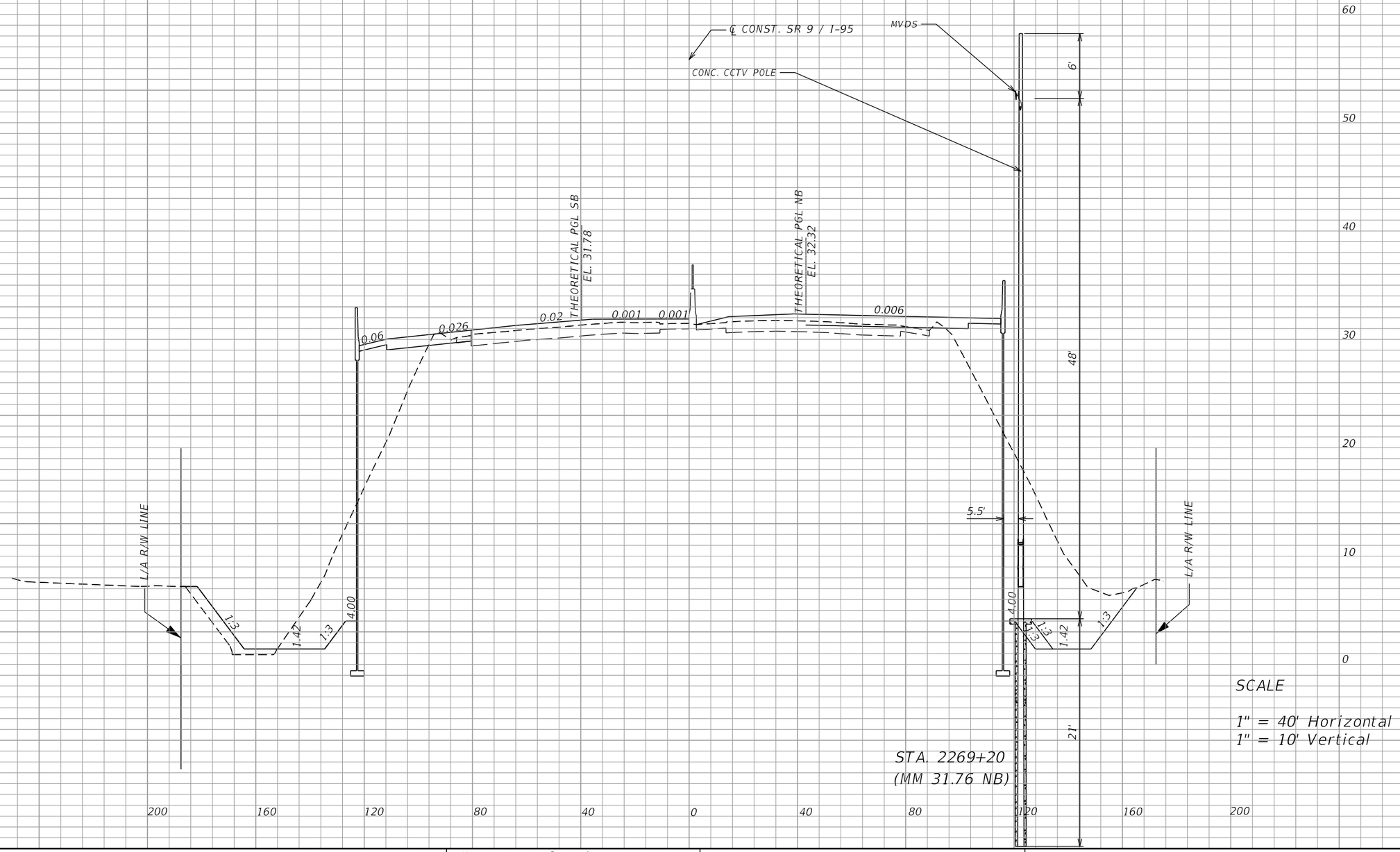

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-443

RELEASED FOR CONSTRUCTION
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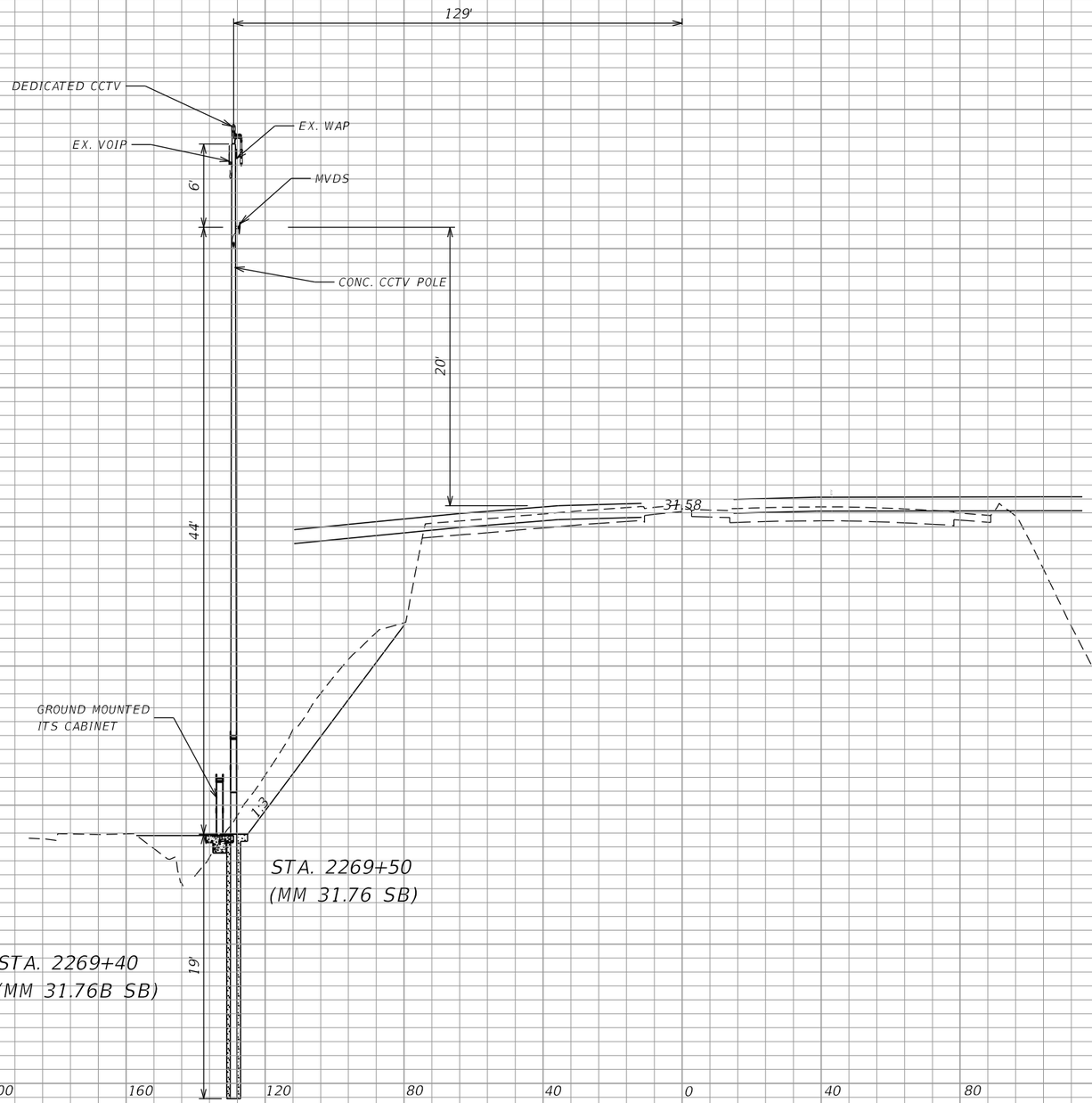

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-444

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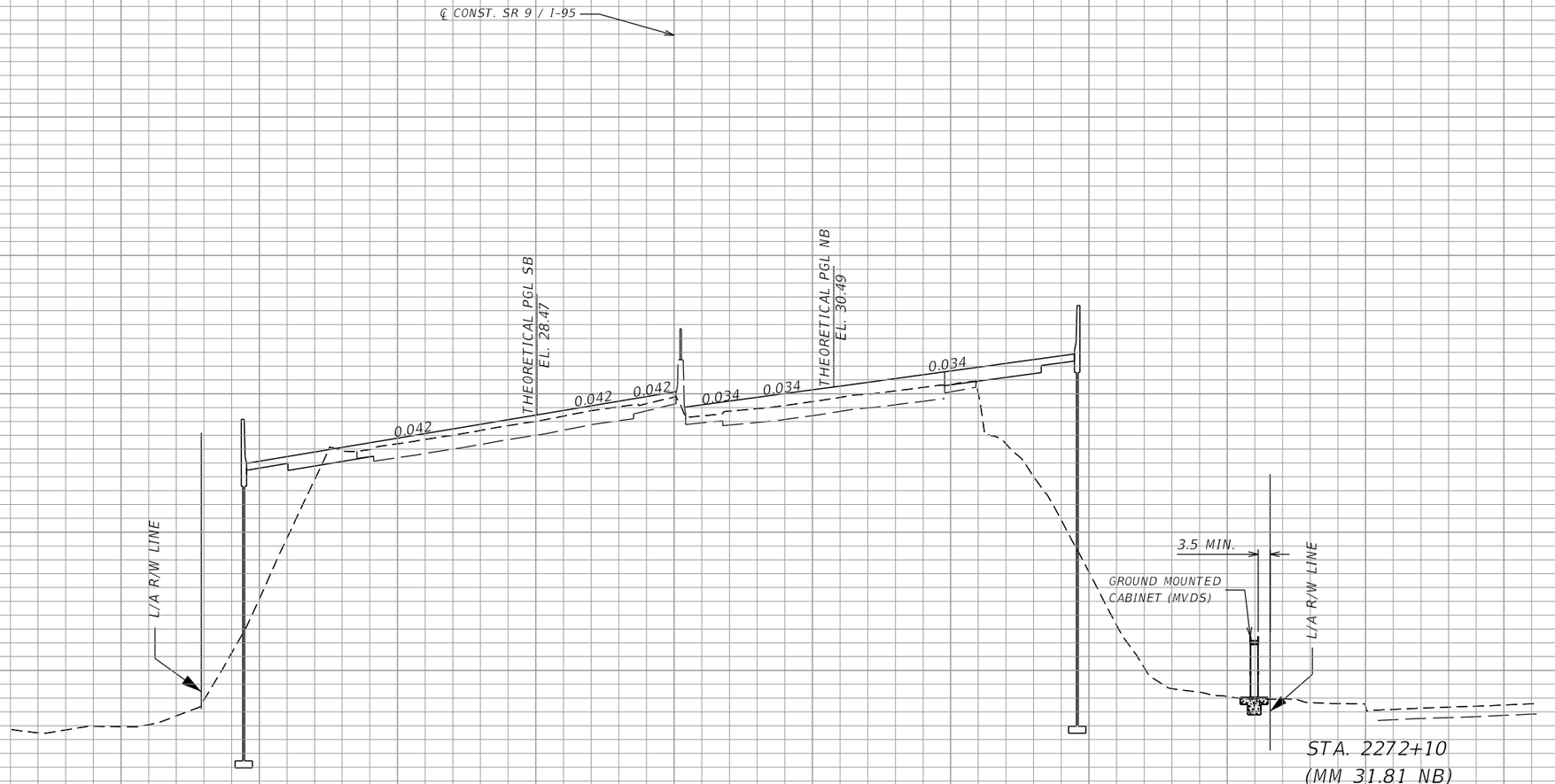

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

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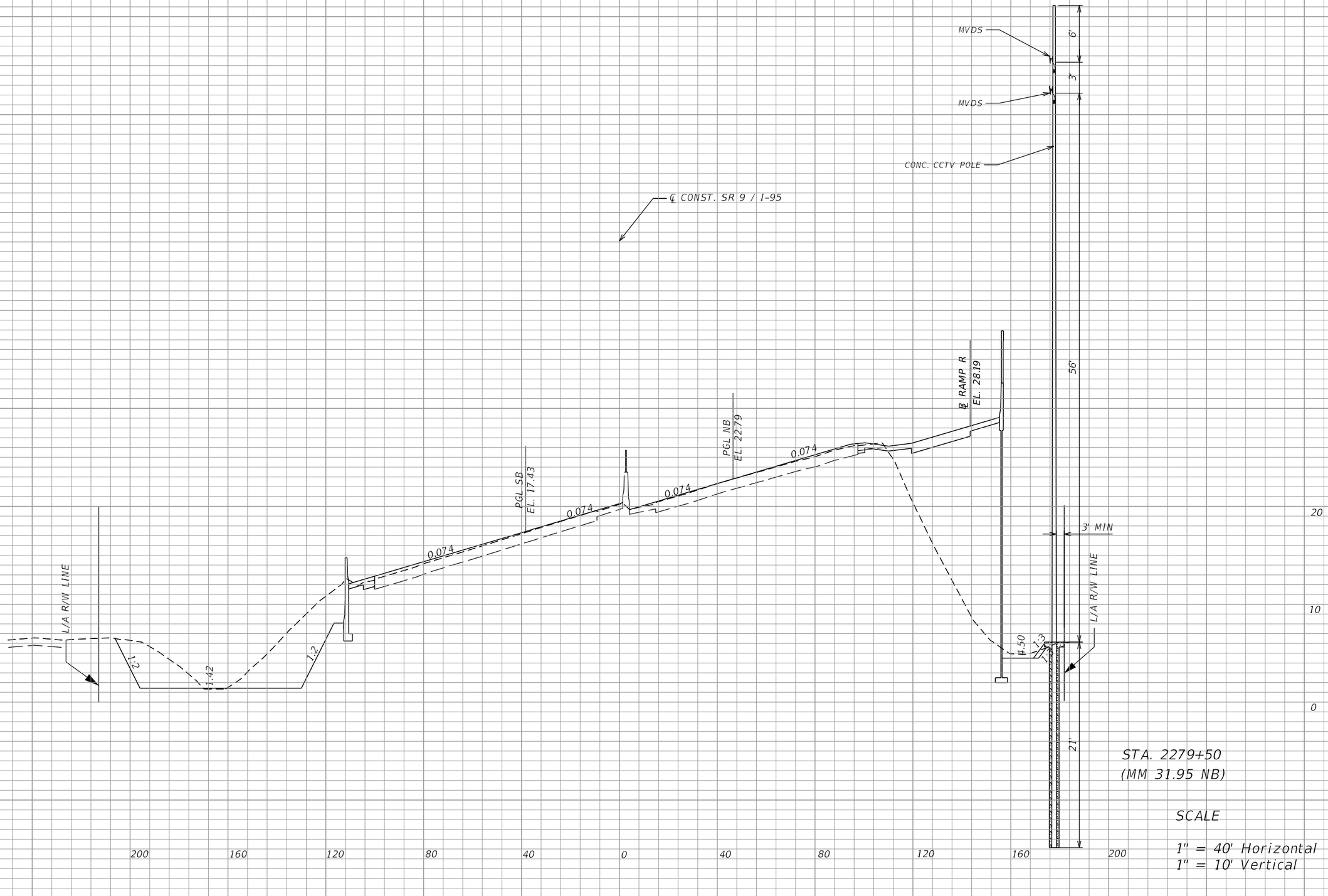

STA. 2279+50
(MM 31.95 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-446

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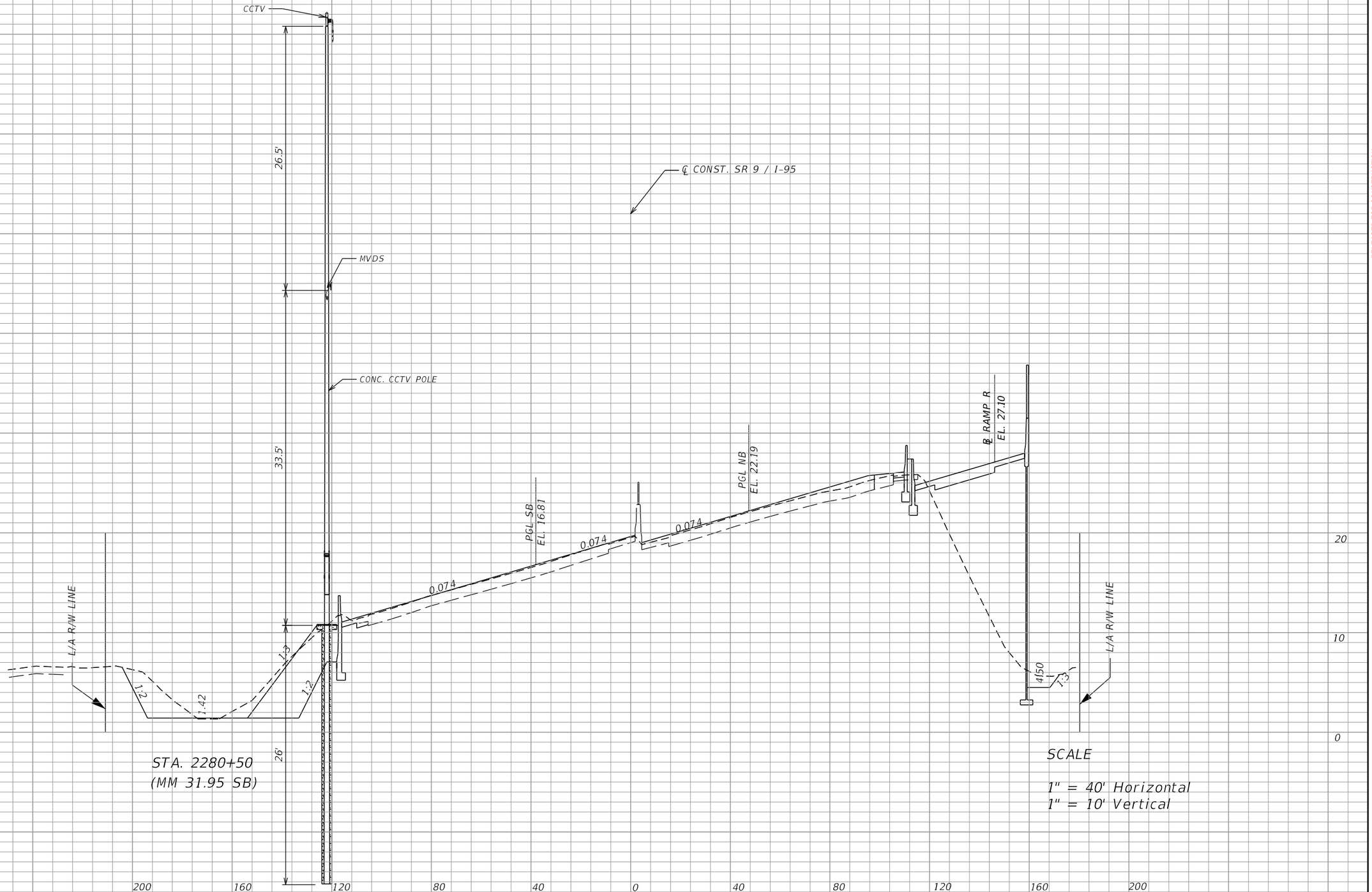

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-447

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Date: 3/21/2018
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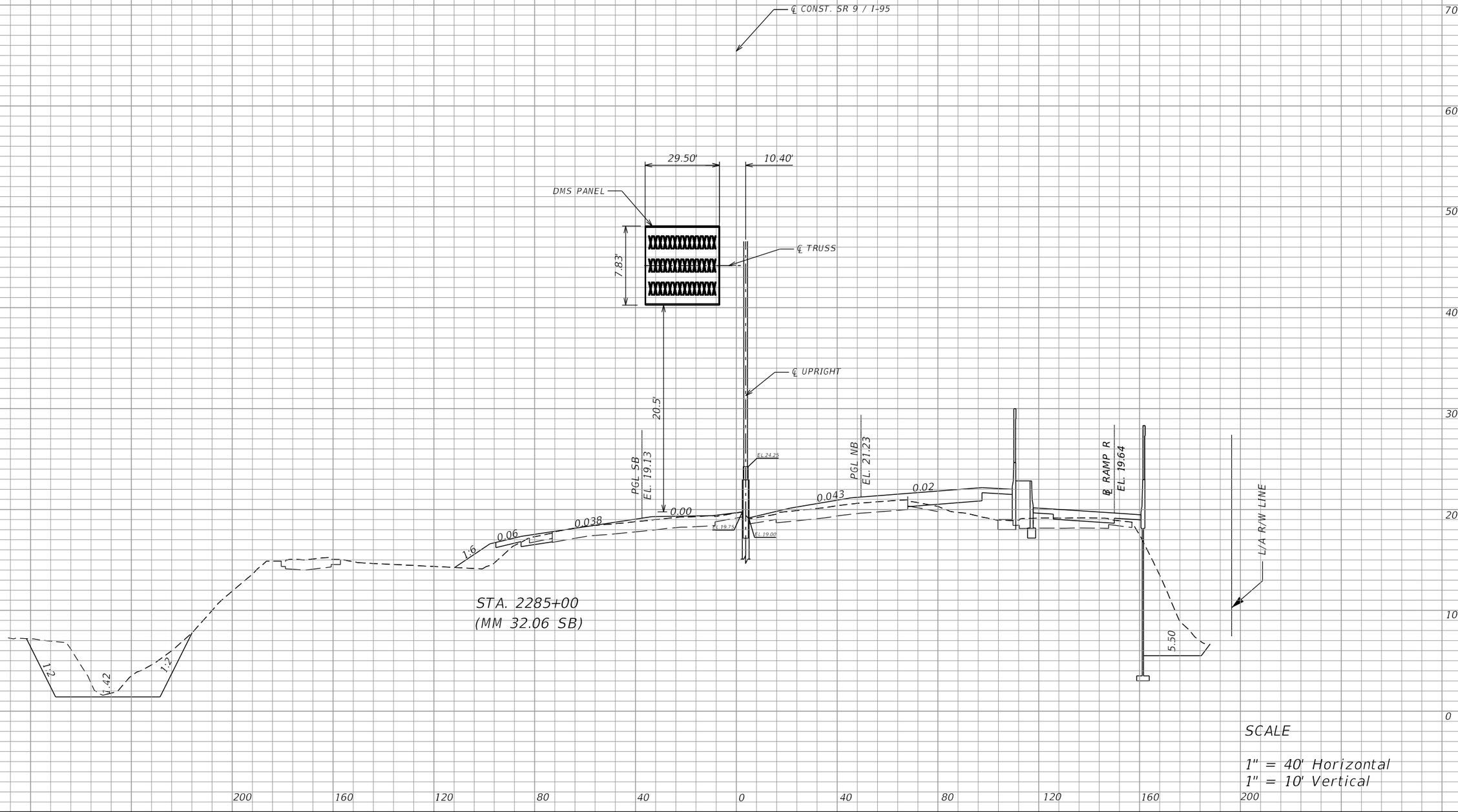

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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DEPARTMENT OF TRANSPORTATION

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9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-448

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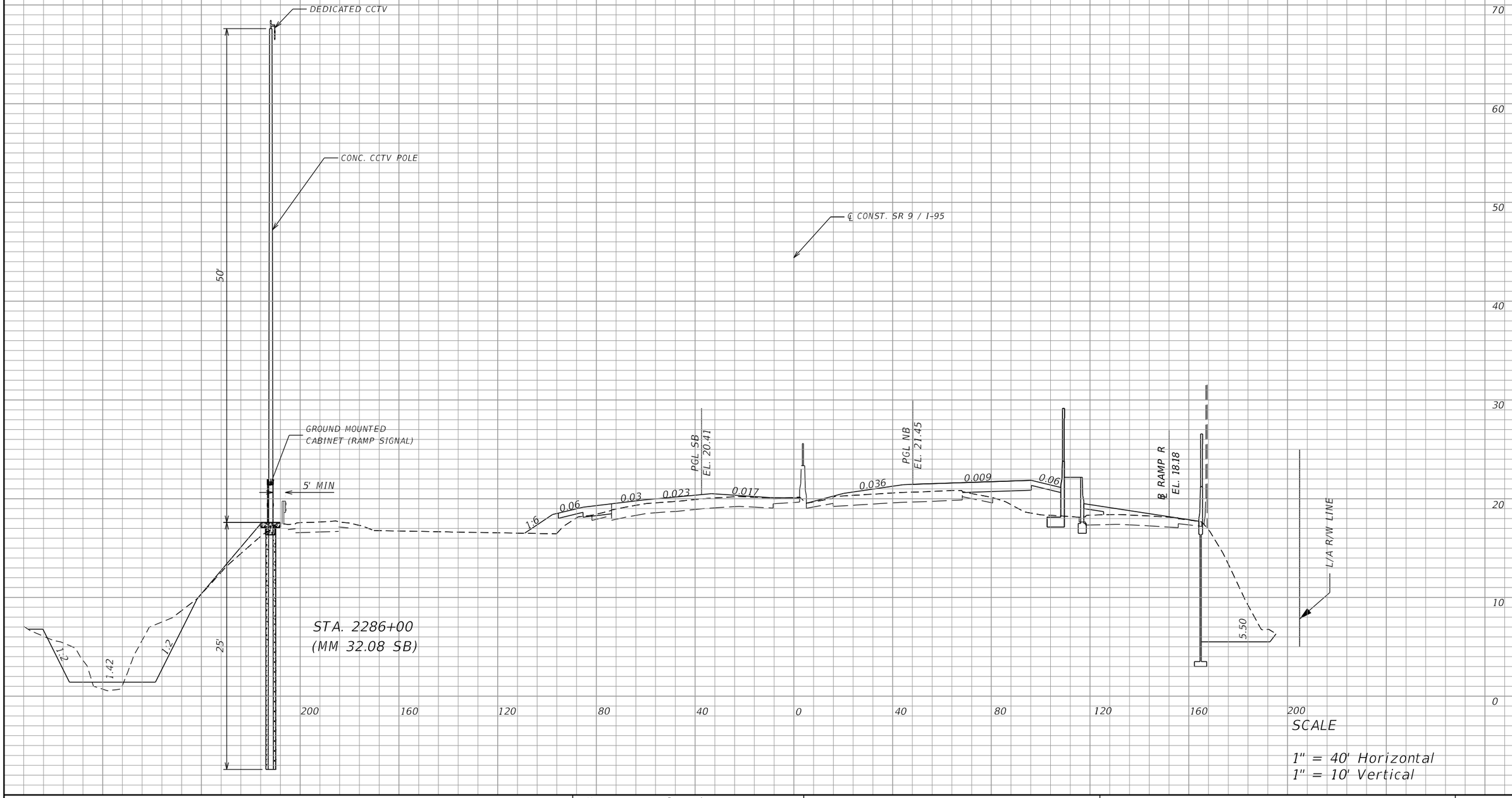

REVISIONS			
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Environmental Services
225 E. Robinson St., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-449

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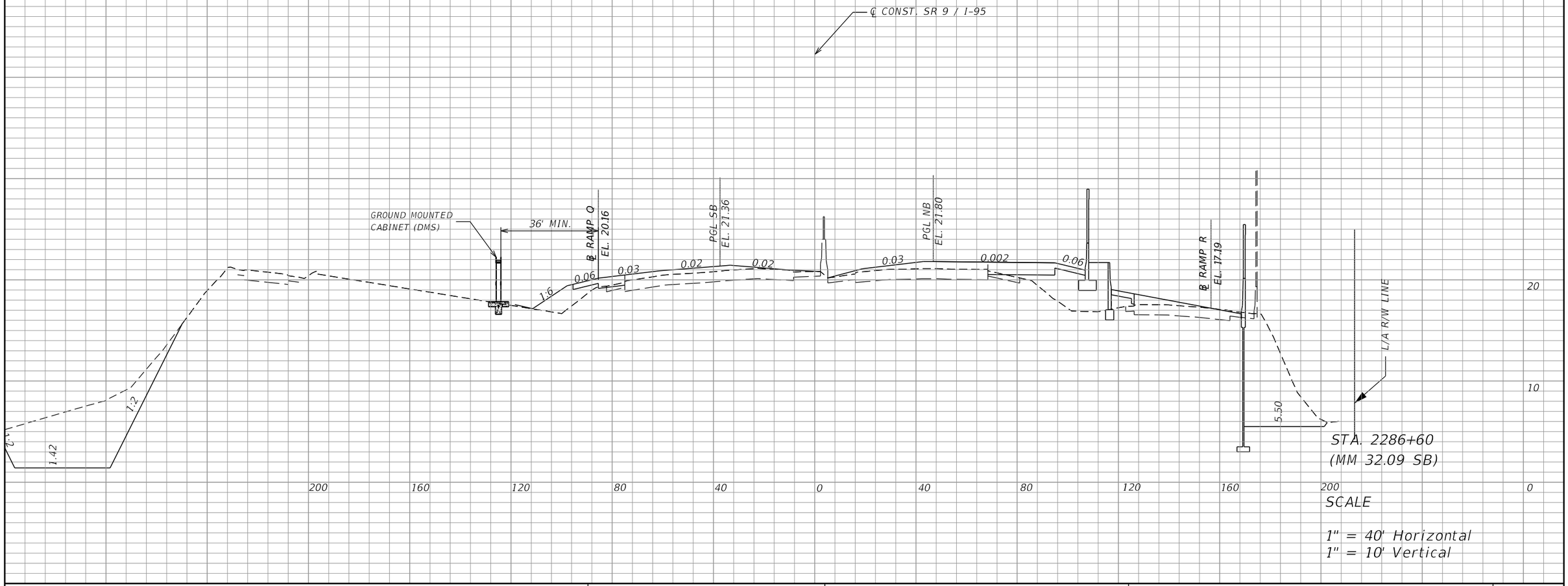

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-450

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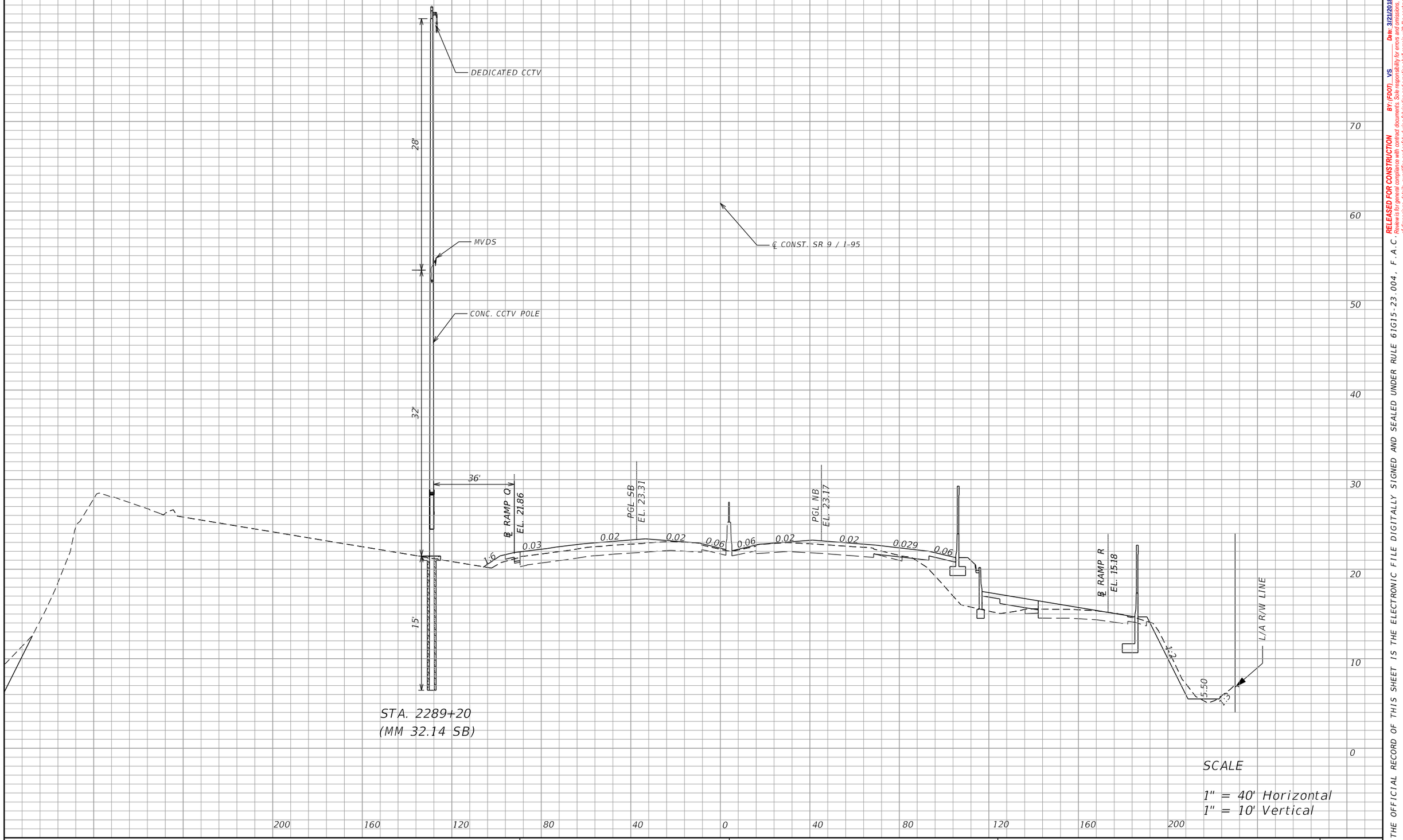

STA. 2289+20
(MM 32.14 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-451

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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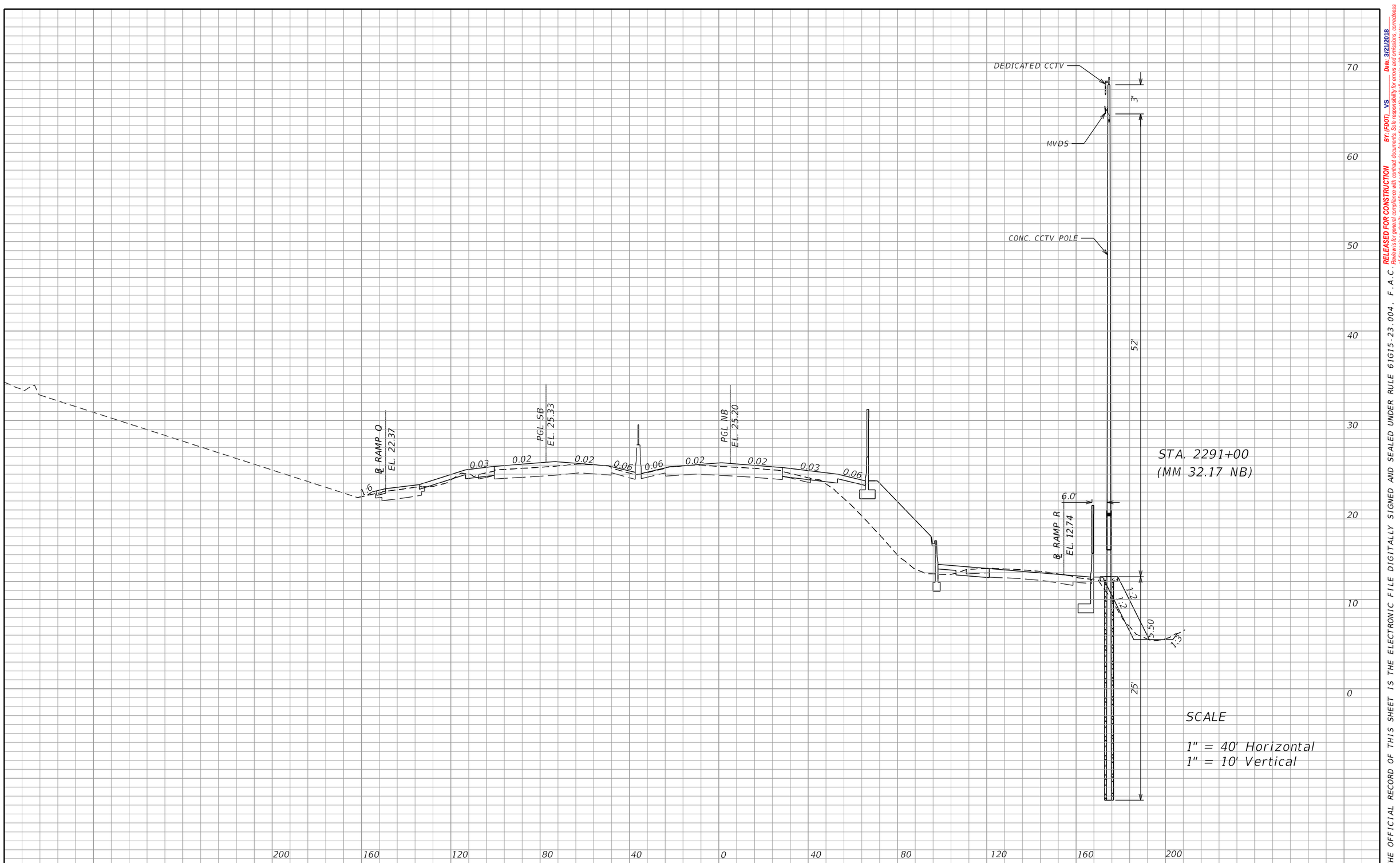

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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225 E. Robinson St., Suite 300
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-452

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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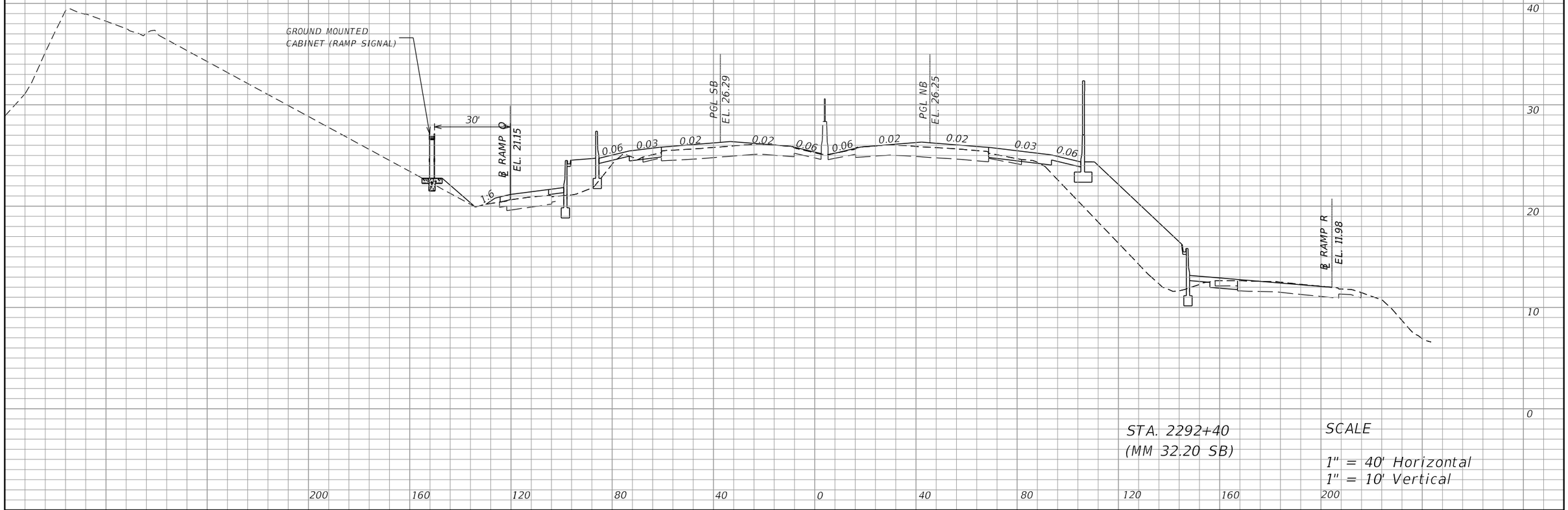

STA. 2292+40
(MM 32.20 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-453

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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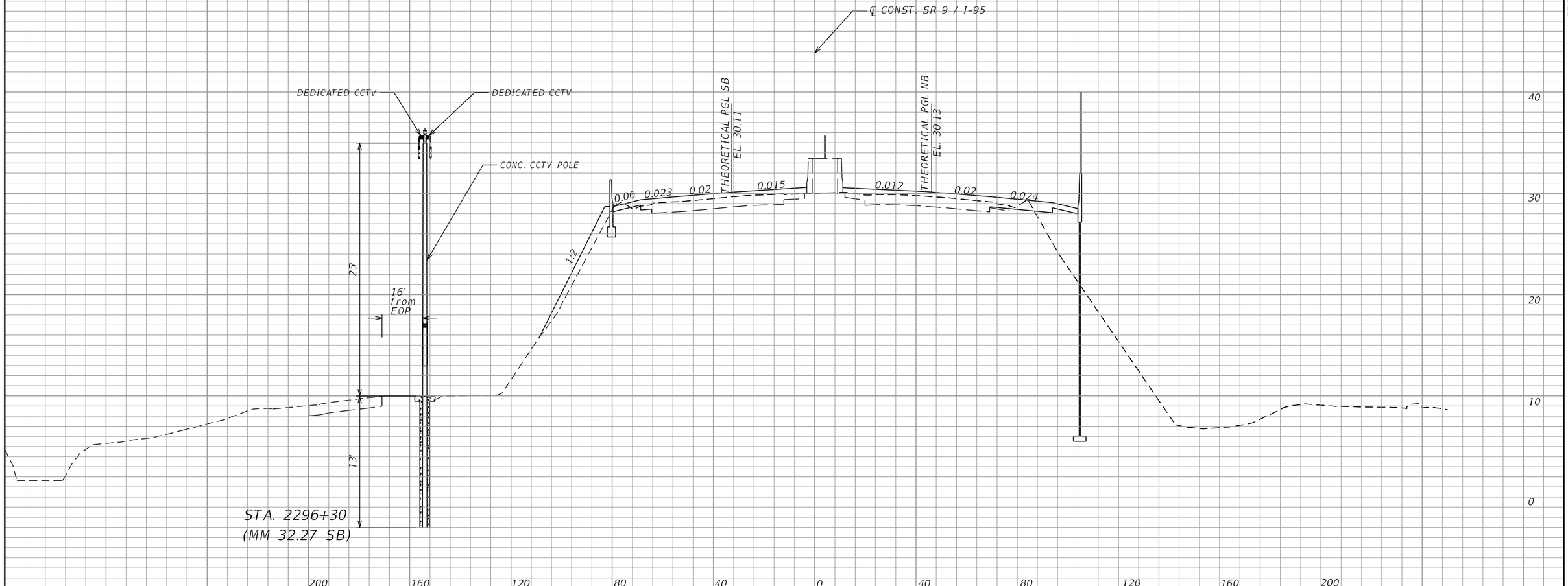

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-454

RELEASED FOR CONSTRUCTION
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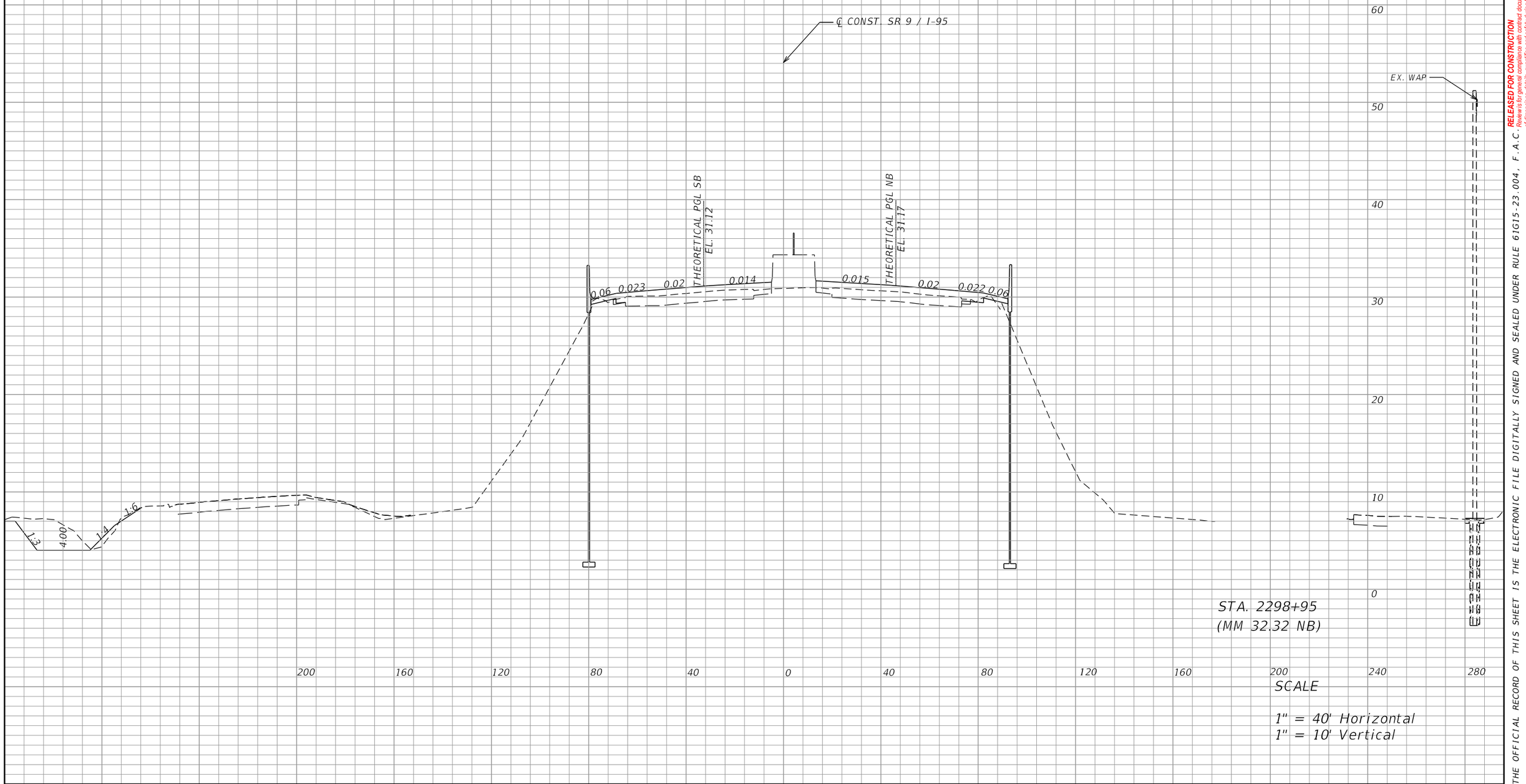

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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ITS DEVICE CROSS SECTION

SHEET NO. IT-455

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-456

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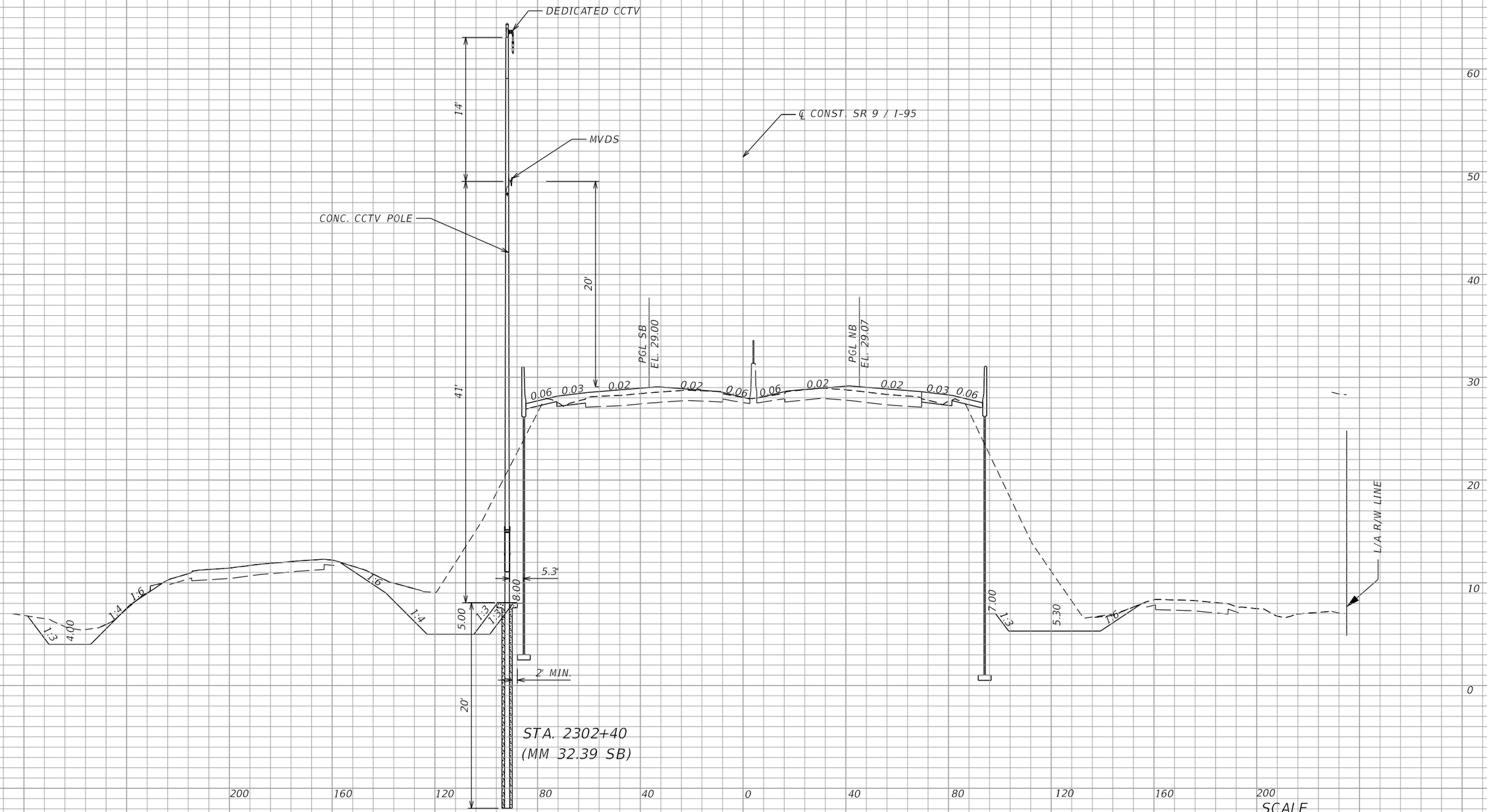


SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

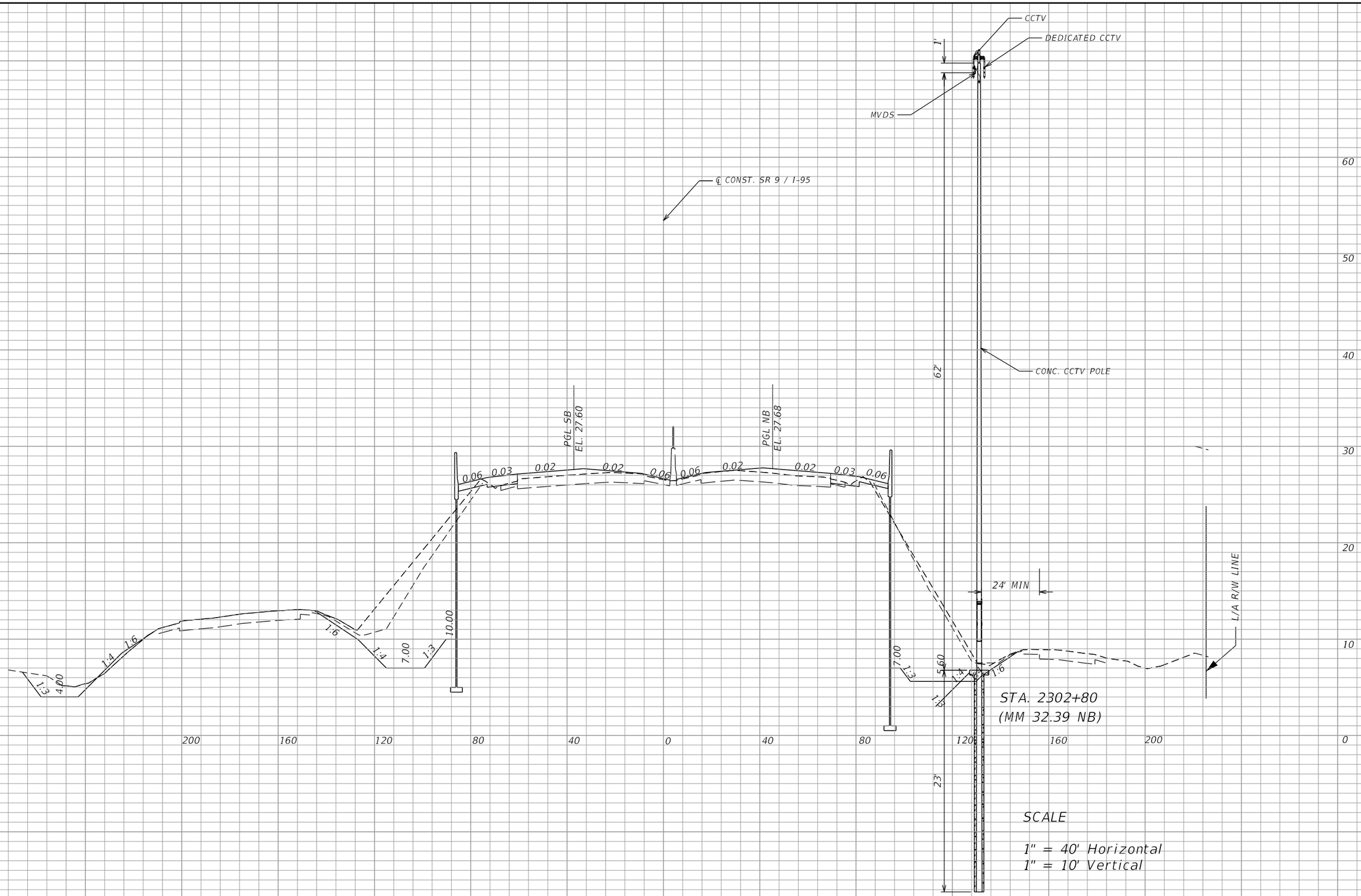
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-457

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-458

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Date: 3/21/2018
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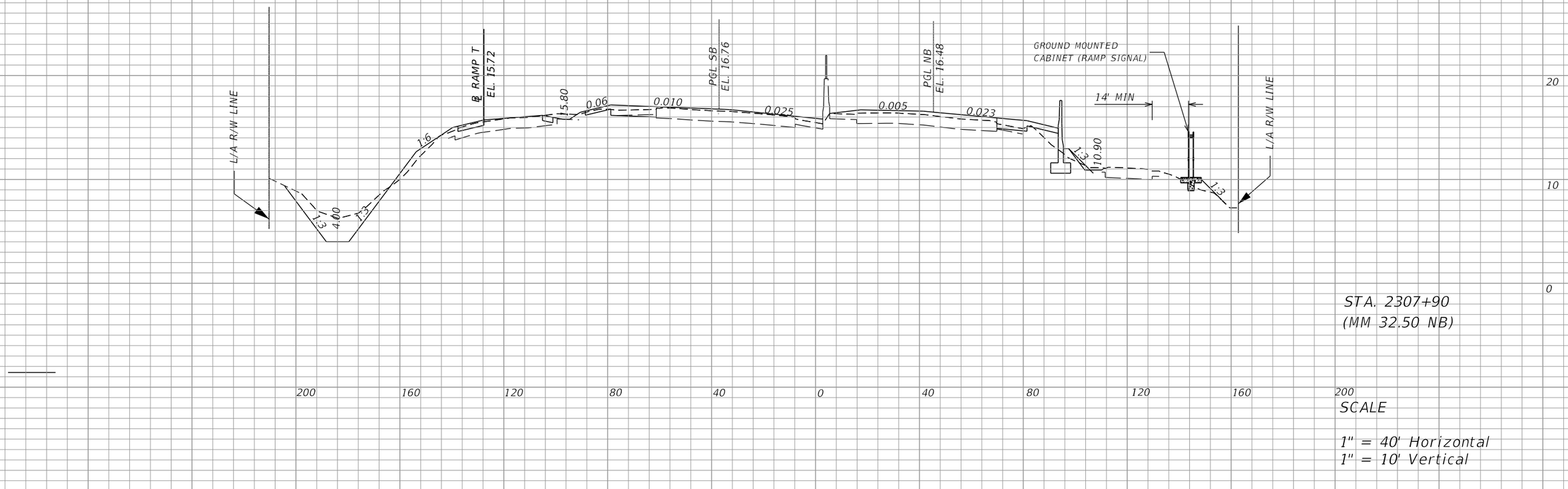
FPID 433108-4-52-01 CONTRACT E4Q32



STA. 2307+90
(MM 32.50 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-459

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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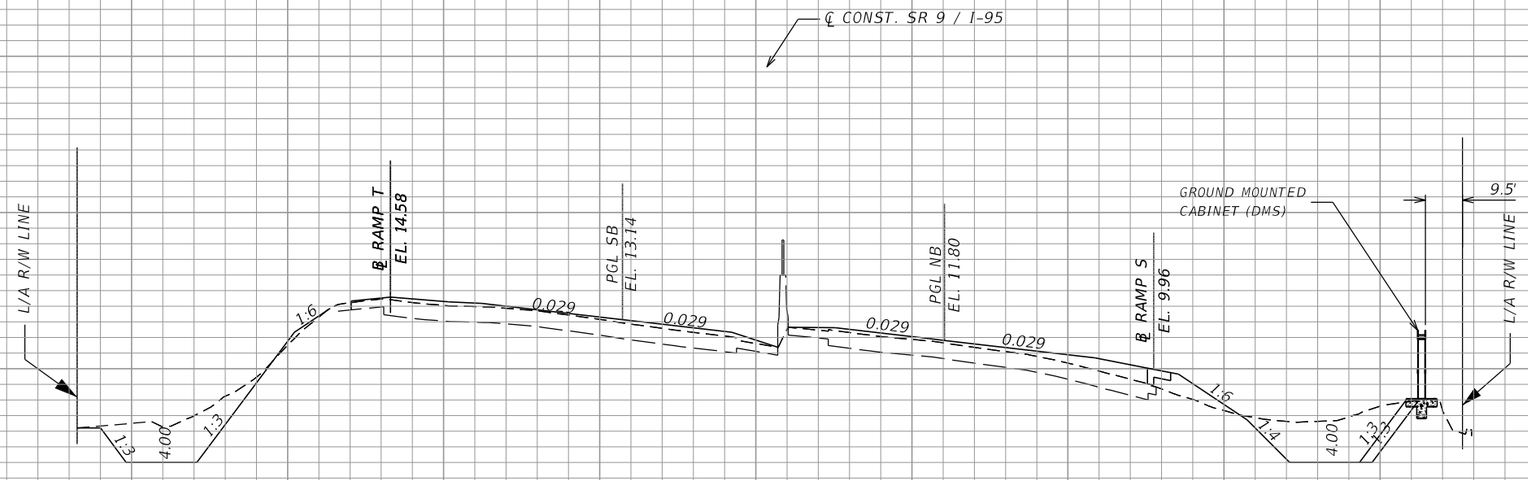

STA. 2310+90
(MM 32.55 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-460

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RELEASED FOR CONSTRUCTION
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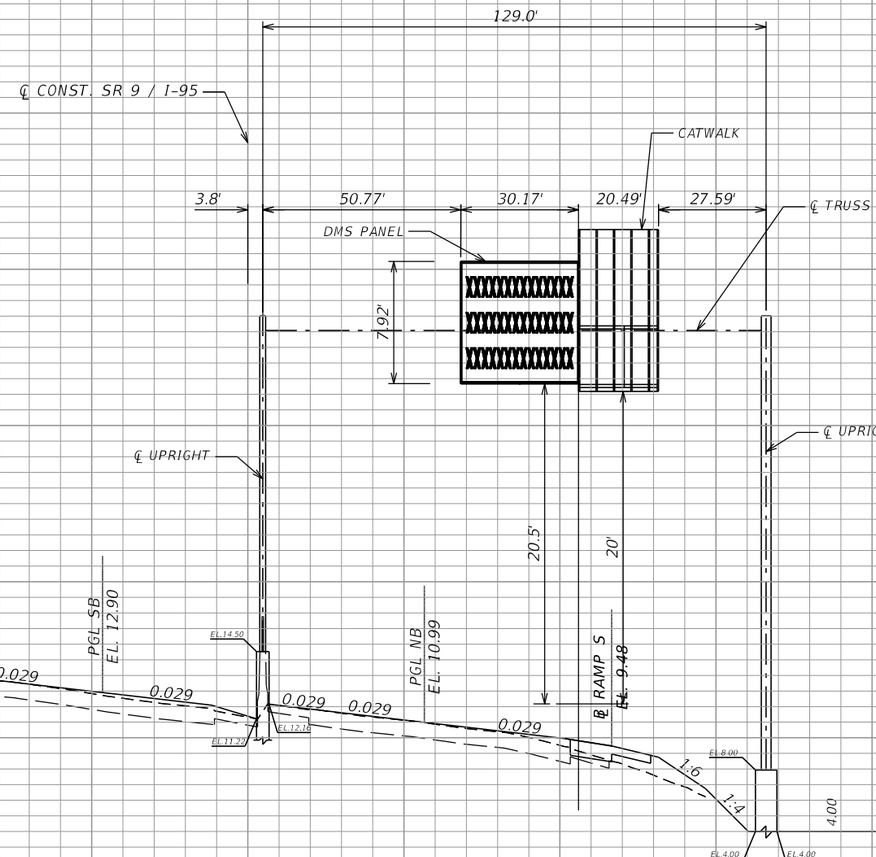
FPID 433108-4-52-01 CONTRACT E4Q32

BY: (FDOT) VS Date: 3/21/2018



STA. 2313+00
(MM 32.58 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-461

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32
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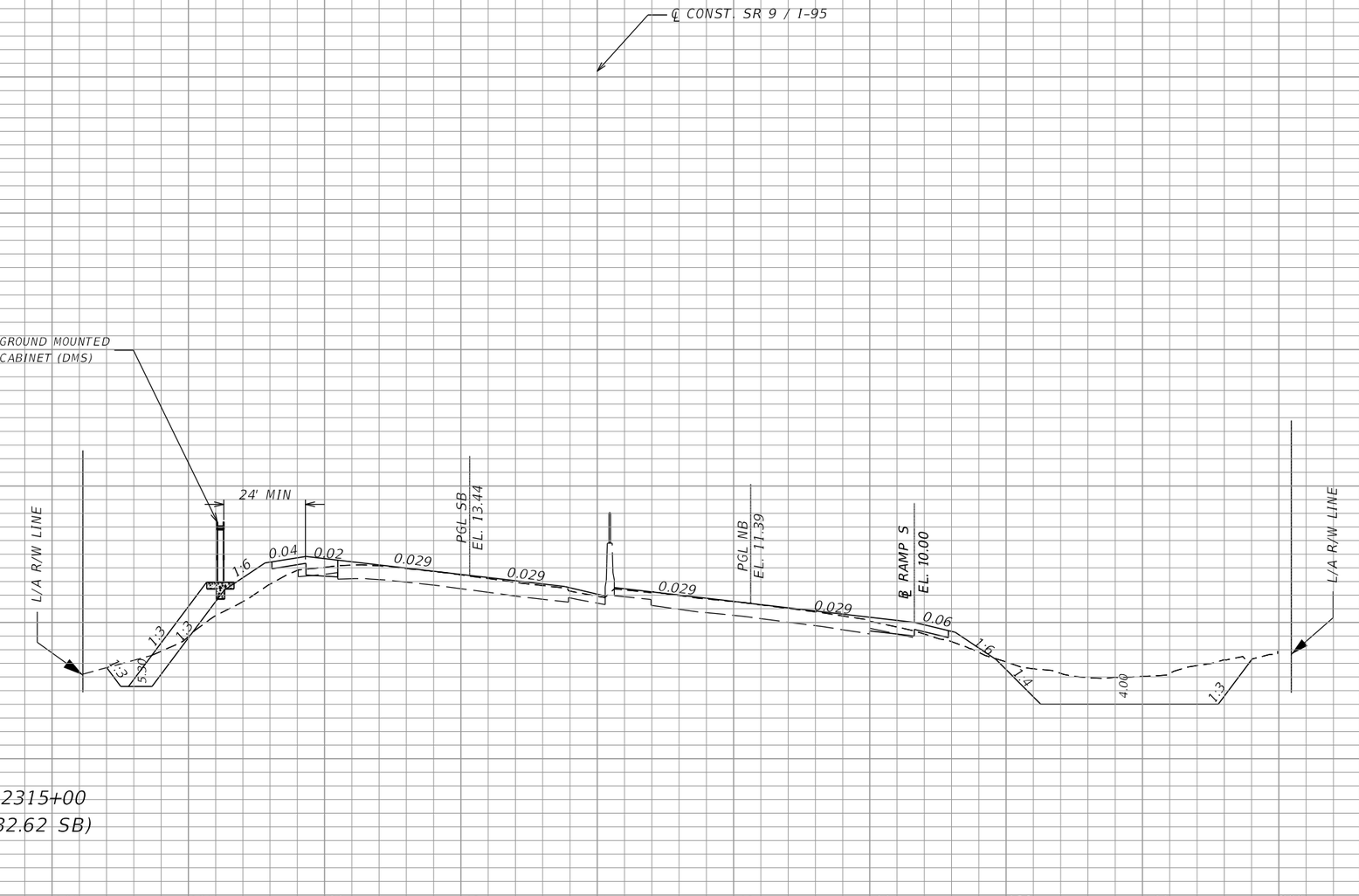

STA. 2315+00
(MM 32.62 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-462

RELEASED FOR CONSTRUCTION
Date: 3/21/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32

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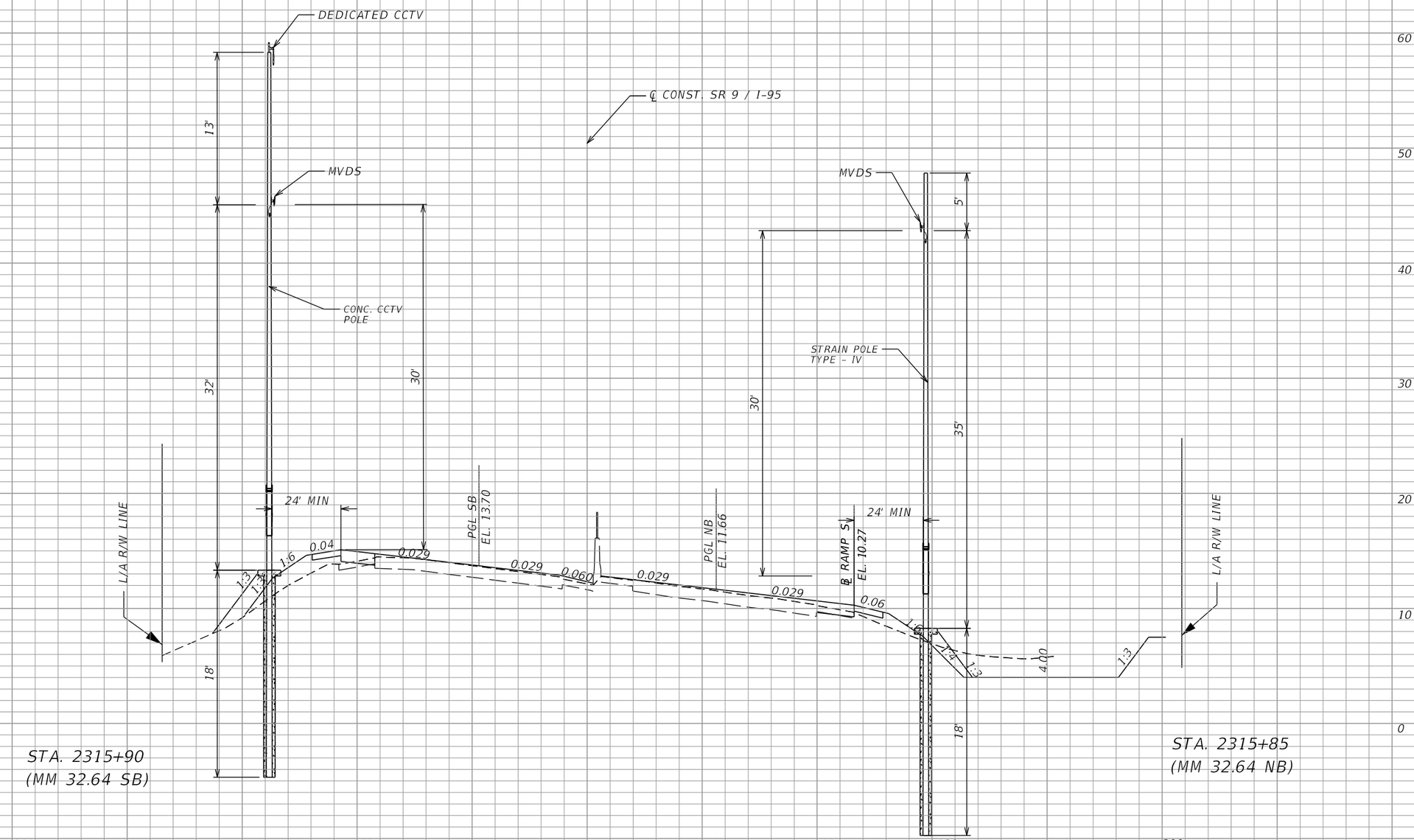

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-463

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-464

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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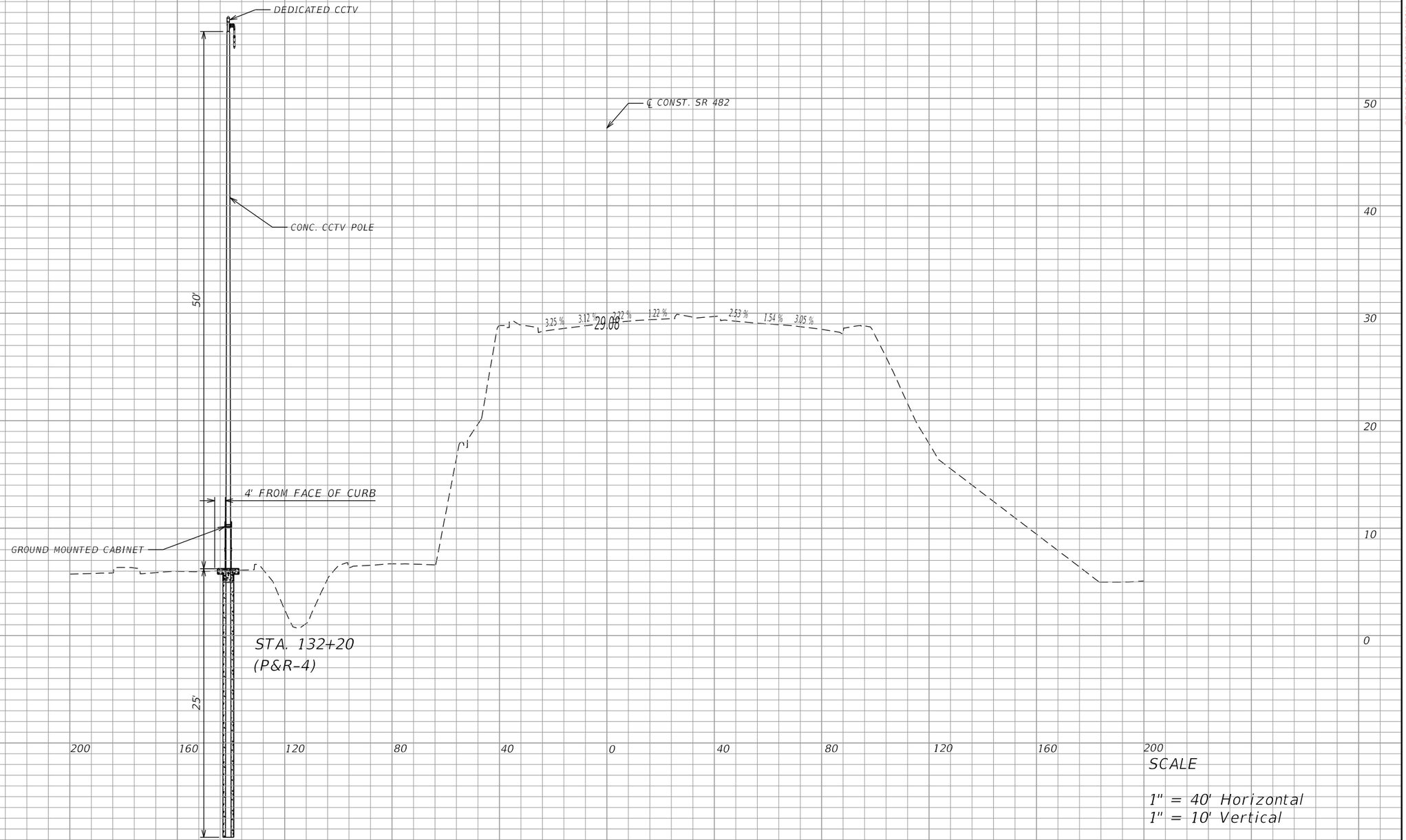

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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225 E. Robinson St., Suite 300
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-465

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 3/21/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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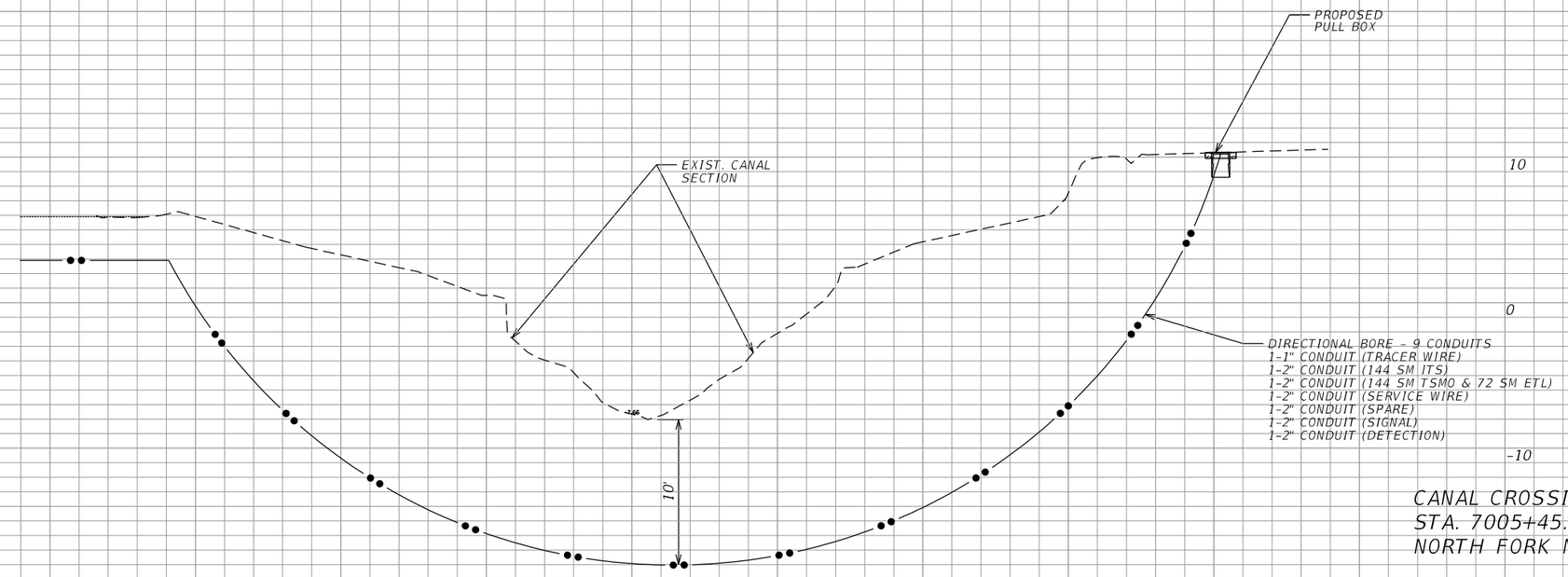

CANAL CROSSING
STA. 7005+45.25
NORTH FORK NEW RIVER

SCALE

1" = 40' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 CONTRACT E4Q32

BY: (FDOT) VS Date: 3/21/2018

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

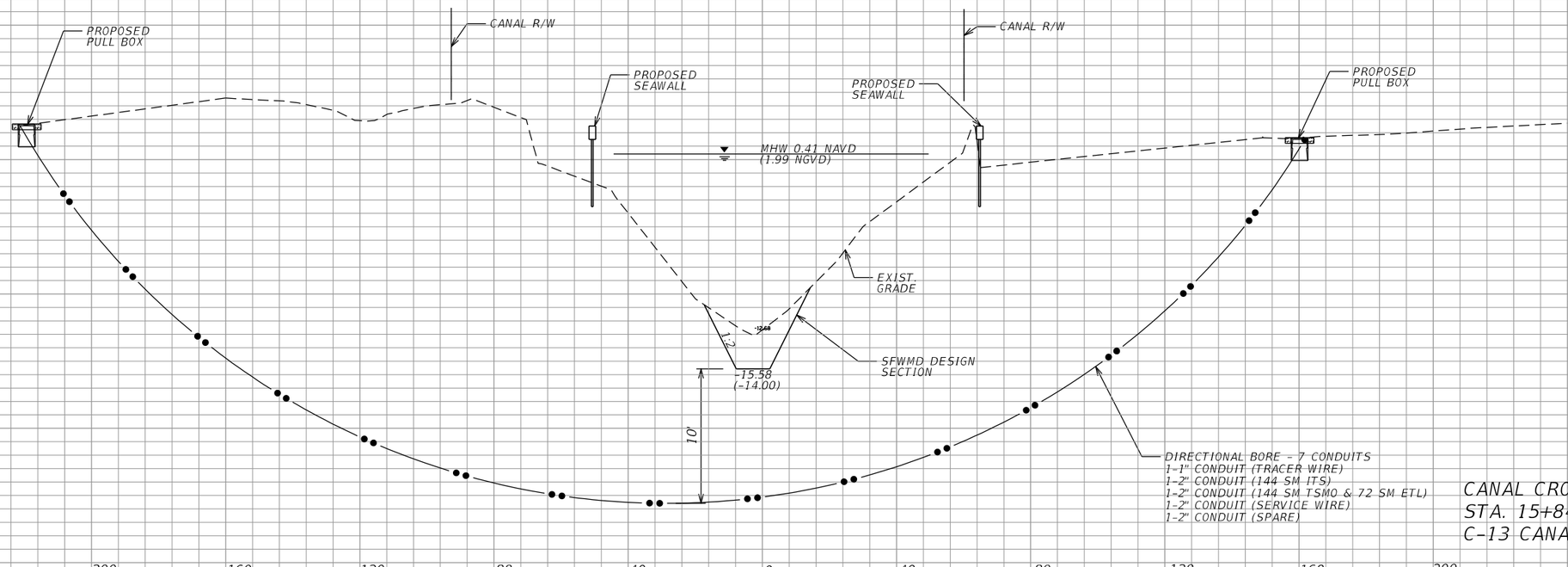
Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

CANAL CROSSINGS
N. FORK NEW RIVER

SHEET NO.
IT-466



10

CANAL CROSSING
STA. 15+84.76
C-13 CANAL

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

CANAL CROSSINGS
C-13 CANAL

SHEET NO.
IT-467

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 3/21/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-4-52-01

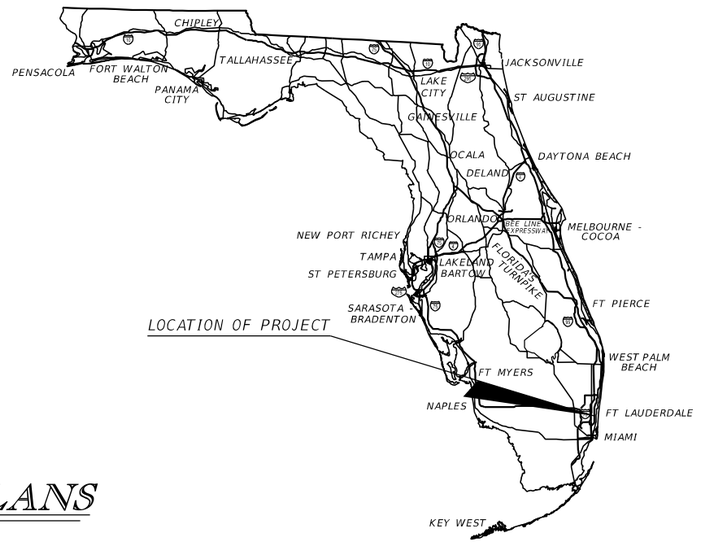
FINANCIAL PROJECT ID 428009-1-52-01

BROWARD COUNTY (86070)

(FEDERAL FUNDS)

STATE ROAD NO. 9

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



INDEX OF ITS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-468	KEY SHEET
IT-469	SIGNATURE SHEET
IT-470	TABULATION OF QUANTITIES
IT-471	SUMMARY OF DEVICES
IT-472 TO IT-473	GENERAL NOTES
IT-474	POLE DATA SHEET
IT-475 TO IT-479	ITS PLAN SHEET
IT-480 TO IT-481	SITE LAYOUT DETAILS
IT-482 TO IT-487	POWER SERVICE DETAILS
IT-488 TO IT-489	SPLICING DIAGRAM
IT-490	NETWORK SCHEMATIC
IT-491	TRENCHING AND PLOWING DETAILS
IT-492	DIRECTIONAL BORE DETAIL
IT-493	CCTV CAMERA LOWERING DEVICE
IT-494	ROUTE MARKER DETAIL
IT-495	FIBER OPTIC SPLICE BOX
IT-496	ELECTRICAL PULL BOX DETAIL
IT-497	FIBER PULL BOX DETAIL
IT-498	MFES PORT ALLOCATION
IT-499	MOUNTING DETAILS
IT-500 TO IT-502	ITS CABINET DETAIL
IT-503 TO IT-504	RAMP SIGNAL CABINET DETAIL
IT-505 TO IT-506	RAMP SIGNAL POLE DETAILS
IT-507	FLASHING BEACON SIGN DETAIL
IT-508 TO IT-515	ITS DEVICE CROSS SECTIONS

GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY 2015 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website:
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, 2015 Standard Specifications for Road and Bridge Construction at the following website:
http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

JARED KNIGHT, P.E.
P.E. LICENSE NUMBER 74758
VANASSE HANGEN BRUSTLIN, INC.
225 EAST ROBINSON STREET, SUITE 300
ORLANDO, FL 32801
CONTRACT NO. 000819
VENDOR NO. VF-042-931-679-001
CERTIFICATE OF AUTHORIZATION 3932

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q32	15	IT-468

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 5/29/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

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JARED N. KNIGHT
LICENSE
No 74758
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Jared N Knight

Digitally signed by Jared N Knight
DN: c=US, o=VHB, ou=VHB, cn=Jared N Knight, 0.9.2342.19200300.100.1.1=A01097C000001517E407F7B00004F8A
Date: 2018.04.23 11:55:21 -04'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

VANASSE HANGEN & BRUSTLIN, INC.
225 E ROBINSON ST., SUITE 300
ORLANDO, FLORIDA 32801
CERTIFICATE OF AUTHORIZATION NO. 3932
JARED N. KNIGHT, P.E. NO. 74758

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-468	KEY SHEET
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IT-507	FLASHING BEACON SIGN DETAIL
IT-508 TO IT-515	ITS DEVICE CROSS SECTIONS

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that the comments have been satisfactorily resolved
2018.05.24 14:37:59-04'00'

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction
2018.05.29 11:52:32-04'00'

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. See responsibility for errors and omissions, correctness of drawings, and design contained therein as stated in the contract documents. Shop drawings must be reviewed and approved by the engineer before fabrication and erection shall remain with the contractor.
BY: (FDOT) VS Date: 5/29/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-469

jknight 4/23/2018 10:14:00 AM \\vhb\proj\Orlando\62442.00 I-95 Express 3A-1\cad\te\E4032\its\KEYSIT01-RAMP.DGN

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																						TOTAL THIS SHEET		GRAND TOTAL	
			IT-475		IT-476		IT-477		IT-478		IT-479		IT-480		IT-481													
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1260		980		880		1290		950														5360			
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	390		280		660		900																2230			
632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, F&I	PI											2		2										4			
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1410		1320		930		1590																5250			
633-1-124	FIBER OPTIC CABLE, F&I, UNDERGROUND, 144 FIBERS	LF	990		1050		950		1220																4210			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	12						12																24			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	1						1																2			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA											4		2										6			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA	1						1																2			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF	690		740		770		1530																3730			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	13		11		14		13		1														52			
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	3		3		3		4																13			
635-2-13	PULL & SPLICE BOX, F&I, 30" X 60" RECTANGULAR	EA	1		1		1		1																4			
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	460		740		780		960		950														3890			
639-2-6	ELECTRICAL SERVICE WIRE, RELOCATE	LF							730		950														1680			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA											4		2										6			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA											4		2										6			
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA											2		2										4			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA	1		1		1		1																4			
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA	1		1		1		1																4			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS	2		2		2		2																8			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA	2		2		2		2																8			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	8		8		8		8																32			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA											2		2										4			
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA											2		2										4			
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA											2												2			
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA											2		2										4			
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA	1		1		1		1																4			
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA											4		2										6			
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA											4		2										6			
700-1-11	SINGLE POST SIGN, F&I, GROUND MOUNT, UP TO 12 SF	AS	2		2		2		2																8			
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT 12-20 SF	AS	2		2		2		2																8			
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNTED, 12-20 SF	AS					1																		1			
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS	2		2		2		2																8			
700-1-60	SINGLE POST SIGN, REMOVE	AS					1																		1			
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA	1		1		1		1																4			
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS	2		2		2		2																8			
710-90	PAINTED PAVEMENT MARKINGS - FINAL SURFACE	LS																										
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 24" WHITE	LF	15		15		15		15																60			
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" WHITE	LF	15		15		15		15																60			

* THESE QUANTITIES ARE PAID FOR UNDER PAINTED PAVEMENT MARKINGS (FINAL SURFACE), LUMP SUM - ITEM NO. 710-90.
THE QUANTITIES SHOWN ARE FOR ONE APPLICATION; SEE SPECIFICATION 710 FOR THE NUMBER OF APPLICATIONS REQUIRED.

REVISIONS			
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-470

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FPID 433108-4-52-01 CONTRACT E4Q32

	DEVICE	STATION	LOCAL HUB	NO. OF CCTV'S	DIRECTED TOWARDS	PLAN SHEET
1	CCTV 95-17.88 SB	242+20	RSC 95-17.87 SB	1	SB HALLANDALE RAMP	IT-475
2	CCTV 95-18.03 NB	249+60	LHUB 95-18.03 NB	1	NB HALLANDALE RAMP	IT-476
3	CCTV 95-18.67 SB	286+00	RSC 95-18.66 SB	1	SB PEMBROKE RAMP	IT-477
4	CCTV 95-18.71 NB	289+75	LHUB 95-18.71 NB	1	NB PEMBROKE RAMP	IT-478

	DEVICE	STATION	LOCAL RSC	NO. OF MVDS'S	PLAN SHEET
1	EX. MVDS 95-17.91 SB	244+00	RSC 95-17.87 SB	1	IT-475
2	EX. MVDS 95-17.95 NB	246+00	RSC 95-18.12 NB	1	IT-475
3	EX. MVDS 95-18.71 NB	290+00	RSC 95-18.96 NB	1	IT-478
4	EX. MVDS 95-18.85 SB	294+00	RSC 95-18.66 SB	1	IT-478

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SUMMARY OF DEVICES

SHEET NO.
IT-471

GENERAL:

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OF THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS. NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.

2. IN ORDER TO MINIMIZE IMPACT TO LANDSCAPING MATERIAL, EXERCISE CAUTION THROUGH LANDSCAPING LIMITS DURING ALL PHASES OF CONSTRUCTION ACTIVITY.

3. PULLING INSTRUCTIONS FOR POWER CONDUCTORS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURES REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURES REQUIREMENTS.

4. ALL ELECTRICAL EQUIPMENT SHALL BE WEATHER RESISTANT.

5. AVOID AND/OR PROTECT ALL TREES AND ROOTS BY HAND DIGGING AS NECESSARY.

6. AT LOCATIONS NEAR REINFORCED EARTH WALLS AND EXISTING BARRIER WALLS, THE CONTRACTOR IS TO ASSURE THAT THE WALL IS NOT UNDERMINED DURING FOUNDATION EXCAVATION AND INSTALLATION. METHODS USED TO SHORE UP WALLS SHALL BE APPROVED BY THE ENGINEER.

7. PLAN DIMENSIONS OF POLES AND STRUCTURES ARE TO THE CENTER OF POLES/UPRIGHTS, CABINETS AND PULL BOXES ARE DIMENSIONED TO THE CENTER. THE LOCATION OF ALL PROPOSED EQUIPMENT TO BE INSTALLED SHALL BE CONSIDERED TO BE APPROXIMATE. ADJUSTMENTS MAY BECOME NECESSARY, VARIATIONS FROM THE PROPOSED LOCATIONS MUST BE VERIFIED WITH THE ENGINEER.

8. THE CONTRACTOR SHALL PLACE EARTH AROUND THE TOP OF THE FOUNDATION AND FEATHER EARTH TO MATCH EXISTING GRADE AND/OR SLOPE. LANDSCAPING SHALL BE RESTORED (AT A MINIMUM) TO EXISTING CONDITIONS.

9. ANY MATERIAL TO BE STOCK PILED FOR PERIODS GREATER THAN 24 HRS SHALL BE PROTECTED BY APPROPRIATE EROSION CONTROL DEVICES (IF REQUIRED).

10. THE COST OF FIBER OPTIC PULL BOX AND SPLICE VAULT REMOVAL SHALL BE INCLUDED IN CLEARING AND GRUBBING.

CONDUIT:

1. MINIMUM REQUIRED CONDUIT BURY DEPTHS SHALL BE MAINTAINED WHERE CONFLICTS OCCUR WITH DRAINAGE OR OTHER UTILITIES PER THESE PLANS.

2. ALL CONDUIT TRENCHES SHALL BE BACK FILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF THE WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE. DO NOT OPEN ANY AREA THAT CANNOT BE BACK FILLED IN THE SAME DAY/NIGHT OPERATIONS.

3. THE CONDUITS TO BE INSTALLED ARE TO BE PLACED SO AS TO TOTALLY AVOID ANY CONFLICTS WITH EXISTING UTILITIES ALONG THE ROUTE. THE CONTRACTOR SHALL ADJUST CONDUIT VERTICALLY OR HORIZONTALLY TO AVOID CONFLICTS WITH UNDERGROUND UTILITIES. THE CONTRACTOR SHALL USE HAND EXCAVATION METHODS WHEN EXCAVATING NEAR EXISTING UTILITIES.

4. CONTRACTOR SHALL FIELD LOCATE ALL ABOVE GROUND AND UNDERGROUND CONFLICTS IN ADVANCE OF THE PLACEMENT OF ANY CONDUIT OR OTHER FACILITIES. CONTRACTOR SHALL FIELD MARK THE PROPOSED ALIGNMENT FOR REVIEW AND CONCURRENCE BY THE CEI PRIOR TO TRENCHING AND/OR PLACEMENT. NO PULL BOXES OR SPLICE VAULTS SHALL BE LOCATED IN DRAINAGE SWALES, DITCHES, OR PAVED SHOULDERS.

5. BRACKETS AND SPACERS REQUIRED TO OFFSET RIGID METAL CONDUIT FROM THE MOUNTING SHALL BE OF SIMILAR MATERIALS TO PREVENT CATHODIC REACTION.

6. ALL NEW CONDUIT SHALL BE PLACED AT A MINIMUM DEPTH OF 36".

PULL BOXES:

1. POWER AND COMPOSITE CABLES MUST BE IN SEPARATE PULL BOXES.

2. UNLESS SPECIFIED OTHERWISE IN THE PLANS, ALL PULL BOX COVERS TO BE FURNISHED AND INSTALLED SHALL BE NON-METALLIC.

3. THE CONTRACTOR SHALL USE THE CORE DRILL METHOD WHEN ACCESSING EXISTING SPLICE VAULTS WITH NEW CONDUIT.

4. ALL SPLICE/PULL BOX COVER LABELING:
   -ALL FDOT FIBER SPLICE BOX AND PULL BOX SHALL INCLUDE THE LABEL "FDOT DISTRICT 4 FIBER OPTIC CABLE" PERMANENTLEY CAST INTO THE TOP OF THE SURFACE.
   -ALL ELECTRICAL FOR ITS PULL BOX SHALL INCLUDE THE LABEL "FDOT DISTRICT 4 ITS"

5. ALL FIBER OPTIC CABLE SHALL HAVE THE FOLLOWING LABELING:
   -144SM FDOT BACKBONE: "FDOT"
   -144SM BROWARD AMS: "BC-ATMS"
   -72SM BROWARD ETS: "BC-ETS"

6. FIBER SPLICE BOXES SHALL BE SPACED AT A MAXIMUM OF 1,320 FEET.

ITS:

1. CONTRACTOR SHALL INSTALL A CONCRETE SERVICE PAD AT EACH CABINET LOCATION.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING AND PROPOSED ROADWAY LIGHTING PRIOR TO INSTALLATION OF CONDUIT, PULL BOXES, AND POLE FOUNDATIONS.

3. ANY DAMAGE CAUSED BY CONTRACTOR TO ANY FDOT DISTRICT 4 ITS INFRASTRUCTURE SHALL BE IMMEDIATELY NOTIFIED TO FDOT DISTRICT 4 TMC AT 954-847-2777.

4. CONTRACTOR SHALL FIELD VERIFY ALL CONNECTIONS PRIOR TO DISCONNECTION SPLICES. THE ENGINEER OF RECORD AND FDOT DISTRICT 4 TMC SHALL BE MADE AWARE OF ANY SPLICE VARIATIONS FROM THE ITS PLANS. THE CONTRACTOR SHALL CONFIRM WITH FDOT DISTRICT 4 ITS OFFICE FOR FINAL FIBER OPTIC SPLICING PRIOR TO PERFORMING ANY SPLICING IN THE FIELD. CONTRACTOR SHALL NOTIFY BROWARD COUNTY PRIOR TO INSTALLATION OF FIBER AND SPLICING THAT THEY IS UTILIZED BY MAINTAINING AGENCY.

5. THE CONTRACTOR SHALL NOTIFY THE FDOT DISTRICT 4 TMC (954-847-2777), 72 HOURS IN ADVANCE OF TAKING ANY EXISTING ITS EQUIPMENT OUT OF SERVICE.

6. SEE ROADWAY PLANS FOR EROSION CONTROL PLANS.

7. AT RAMP METER LOCATIONS WHERE LOOP CABLE DISTANCES EXCEED 1000 FEET. CONTRACTOR SHALL INCREASE CONDUCTORS TO #12 AWG.

8. HDPE CONDUIT COLOR CODE:
   BACKBONE RUN
   -ORANGE (FDOT 144SM FOC)
   -ORANGE W/ WHITE STRIPE (AMS/BCTED 144SM & ETS 72SM)
   -RED (SERVICE WIRE)
   -BLACK (SPARE)
   -BLACK W/WHITE STRIPE (SPARE)
   -BLACK W/ GREEN STRIPE (SPARE)

   DROP RUN
   -ORANGE (24SM FOC)
   -BLACK (SPARE)
   -RED (SERVICE WIRE)

   MISC. CONDUIT
   -WHITE (COMPOSITE CABLING)

   RAMP SIGNAL CABLE
   -WHITE W/RED STRIPE (DETECTOR & SIGNAL CABLING)

   BROWARD COUNTY SIGNAL
   -GREY (SIGNAL CABLING)

   TONE WIRE
   -GREY (TONE WIRE)

9. CONTRACTOR SHALL ENSURE THAT ALL TEMPORARY INFRASTRUCTURE IS REMOVED FROM PROJECT UPON FINAL PROJECT ACCEPTANCE.

UTILITIES:

1. THE UTILITIES SHOWN ON THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT THE EXTENT OF UTILITIES ON THIS PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY UNDERGROUND UTILITIES VERTICALLY AND HORIZONTALLY (VVH) FOR ALL CONDUIT AND DEVICE INSTALLATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DONE TO STRUCTURES, BRIDGE, SHOULDERS, GUARDRAIL, FENCING AND ROADWAY SURFACES CAUSED BY CONSTRUCTION ACTIVITIES.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ANY UTILITY OWNER(S) THAT MAY NOT BE A "SUNSHINE" MEMBER. AT A MINIMUM OF 10 FULL BUSINESS DAYS PRIOR TO BORING UNDER WATER/CANAL. THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA AND THE APPROPRIATE UTILITY OWNERS AND REQUEST UTILITY LOCATIONS. A CONTRACTOR'S REPRESENTATIVE SHALL BE PRESENT WHEN THE UTILITY COMPANIES LOCATE THEIR FACILITIES. THE LOCATION OF EXISTING UTILITIES HALL BE DETERMINED BY THE CONTRACTOR AND THE UTILITY REPRESENTATIVE WHEN NECESSARY DURING CONSTRUCTION. FDOT IS NOT A MEMBER OF THE SUNSHINE STATE ONE CALL SYSTEM. THEREFORE, THE CONTRACTOR WILL BE REQUIRED TO LOCATE ALL FDOT FACILITIES PRIOR TO DIGGING.

3. EXISTING DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED IN PLACE AND REMAIN UNLESS OTHERWISE NOTED.

PAY ITEM NOTES:

1. 633-3-15. SHALL INCLUDE ALL NECESSARY FIBER JUMPERS. SEE SPLICE DIAGRAMS FOR FURTHER DETAILS.

2. 633-3-51. INCLUDES RE-ENTRY TO EXISTING SPLICE ENCLOSURE.

3. 676-2-142, 676-2-143 & 676-2-122. INCLUDES FURNISH AND INSTALL OF POWER DISTRIBUTION UNIT (PDU).

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

GENERAL NOTES

SHEET NO.
IT-472

ABBREVIATIONS:

CCTV=CLOSED CIRCUIT TELEVISION
DCCTV=DEDICATED CLOSED CIRCUIT TELEVISION
DIST=DISTRIBUTION
DMS=DYNAMIC MESSAGE SIGN
EOTL=EDGE OF TRAVEL LANE
EXIST.=EXISTING
EX. =EXISTING
E/W=EQUIPPED WITH
FO=FIBER OPTIC
FOC=FIBER OPTIC CABLE
FOE=FIBER OPTIC & ELECTRICAL CABLE
FOGR=FACE OF GUARDRAIL
FSB=FIBER SPLICE BOX
HDPE=HIGH DENSITY POLYETHYLENE CONDUIT
HART=HIGHWAY ADVISORY RADIO TRANSMITTER
HARB=HIGHWAY ADVISORY RADIO BEACON
LHUB=LOCAL HUB
MOC=MAINTENANCE OF COMMUNICATIONS
MVDS=MICROWAVE VEHICLE DETECTION SYSTEM
VOIP=VOICE OVER INTERNET PROTOCOL
WAP=WIRELESS ACCESS POINT
RGS=RIGID GALVANIZED STEEL
RSC=RAMP SIGNAL CABINET
SM=SINGLE MODE
TTS=TRAVEL TIME SYSTEM
VDS=VEHICLE DETECTION SYSTEM
PDU=POWER DISTRIBUTION UNIT
UPS=UNINTERRUPTED POWER SERVICE
FSB=FIBER SPLICE BOX
RSC=RAMP SIGNAL CABINET

LEGEND:

EXISTING FIBER BACKBONE CONDUIT
EXISTING FIBER DROP CONDUIT
PROPOSED UNDERGROUND TRENCH W/ FIBER CONDUIT
PROPOSED DIRECTIONAL BORE W/ FIBER CONDUIT
PROPOSED BRIDGE MOUNTED CONDUIT W/ FIBER CONDUIT
PROPOSED UNDERGROUND TRENCH W/ ELECTRIC CONDUIT
PROPOSED DIRECTIONAL BORE W/ ELECTRIC CONDUIT
PROPOSED FIBER PULL BOX
EXISTING FIBER PULL BOX
PROPOSED ELECTRIC PULL BOX
PROPOSED FIBER SPLICE BOX
EXISTING FIBER SPLICE BOX
EXISTING ELECTRICAL PULL BOX
EXIST. CCTV POLE W/ LOWERING DEVICE
EXIST. CABINET
PROPOSED POLE MOUNTED VDS SYSTEM
EXIST. POLE MOUNTED VDS SYSTEM
PROPOSED POLE MOUNTED CCTV
EXIST. POLE MOUNTED CCTV
EXIST. POLE MOUNTED VOIP
EXIST. POLE MOUNTED WAP
PROPOSED POLE MOUNTED WAP
PROPOSED DEDICATED CCTV SYSTEM
EXIST. DEDICATED CCTV SYSTEM
PROPOSED VIDEO DETECTION SYSTEM
PROPOSED CABINET (BASE)
EXIST. CABINET (BASE)
PROPOSED POLE MOUNTED CABINET
EXIST. POLE MOUNTED CABINET
PROPOSED DISCONNECT AND TRANSFORMER ON CONCRETE PEDESTAL
RAMP METER SIGNALS
EXISTING DMS TRUSS
PROPOSED DMS SIGN
PORTABLE CHANGEABLE MESSAGE SIGN
EXIST. POWER SERVICE

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9	BROWARD	433108-4-52-01

GENERAL NOTES

SHEET NO. IT-473

	DEVICE	STATION	LOCAL HUB	PLAN SHEET	ABOVE GROUND HEIGHT (FT)	POLE LENGTH (FT)	EMBEDMENT LENGTH (FT)	NOTES
1	CCTV 95-17.88 SB	242+20	RSC 95-17.87 SB	IT-475	50	69	19	CCTV POLE
2	CCTV 95-18.03 NB	249+60	LHUB 95-18.03 NB	IT-476	50	69	19	CCTV POLE
3	CCTV 95-18.67 SB	286+00	RSC 95-18.66 SB	IT-477	50	69	19	CCTV POLE
4	CCTV 95-18.71 NB	289+75	LHUB 95-18.71 NB	IT-478	50	69	19	CCTV POLE

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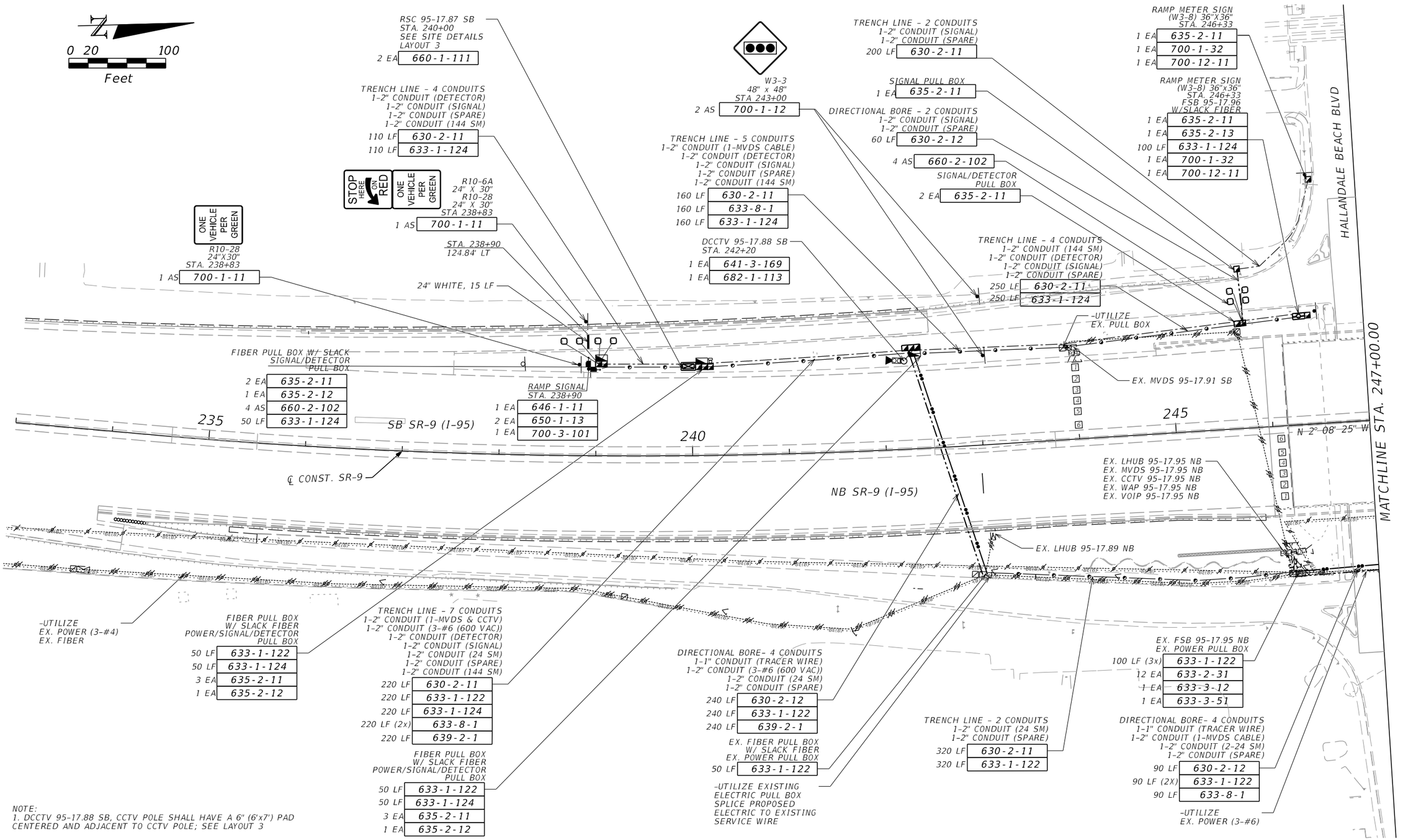
POLE DATA SHEET

SHEET NO.
IT-474



NOTE:
1. DCCTV 95-17.88 SB, CCTV POLE SHALL HAVE A 6" (6'x7') PAD CENTERED AND ADJACENT TO CCTV POLE; SEE LAYOUT 3

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ITS PLAN SHEET

SHEET NO. IT-475

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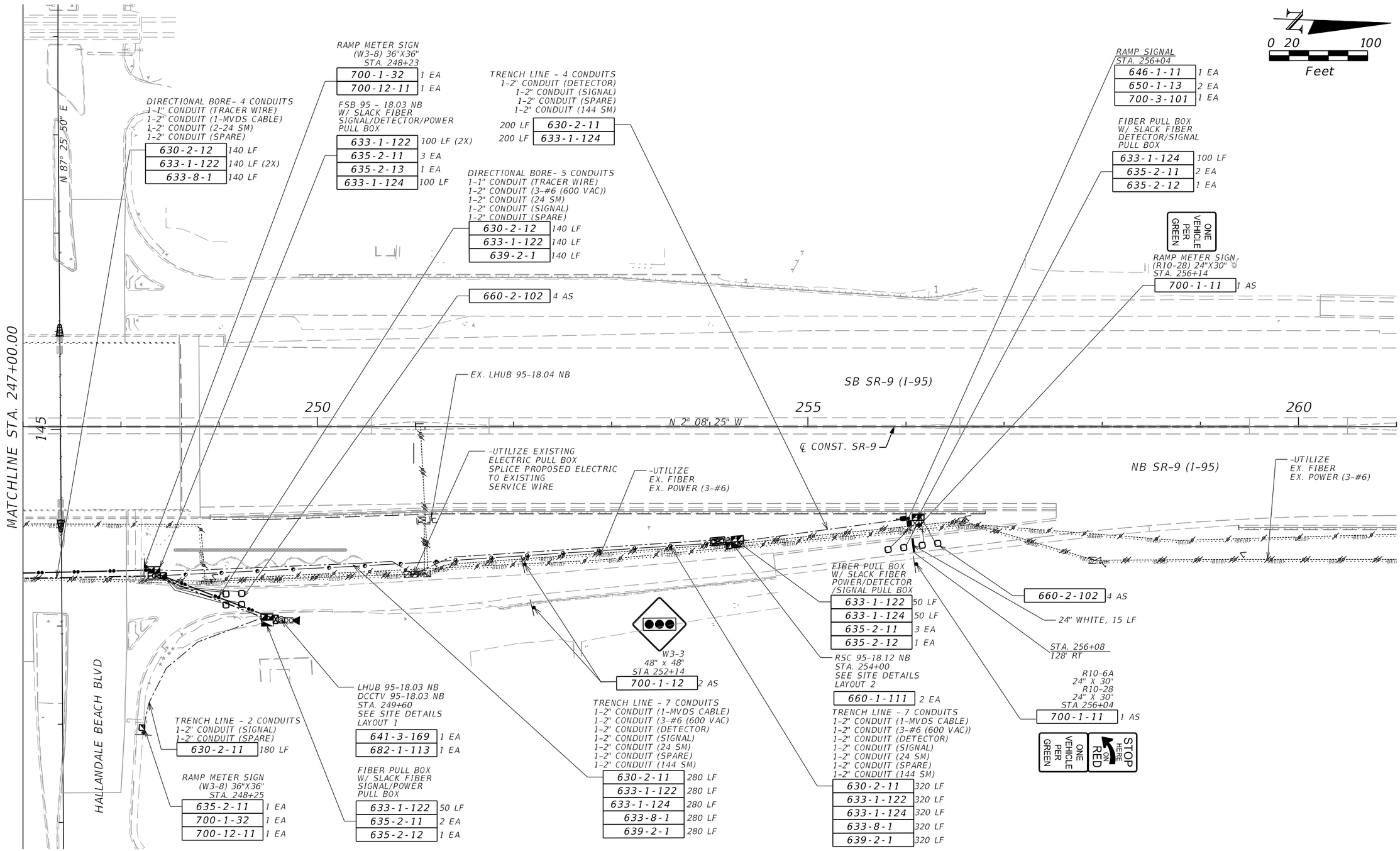

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ITS PLAN SHEET

SHEET NO. IT-476

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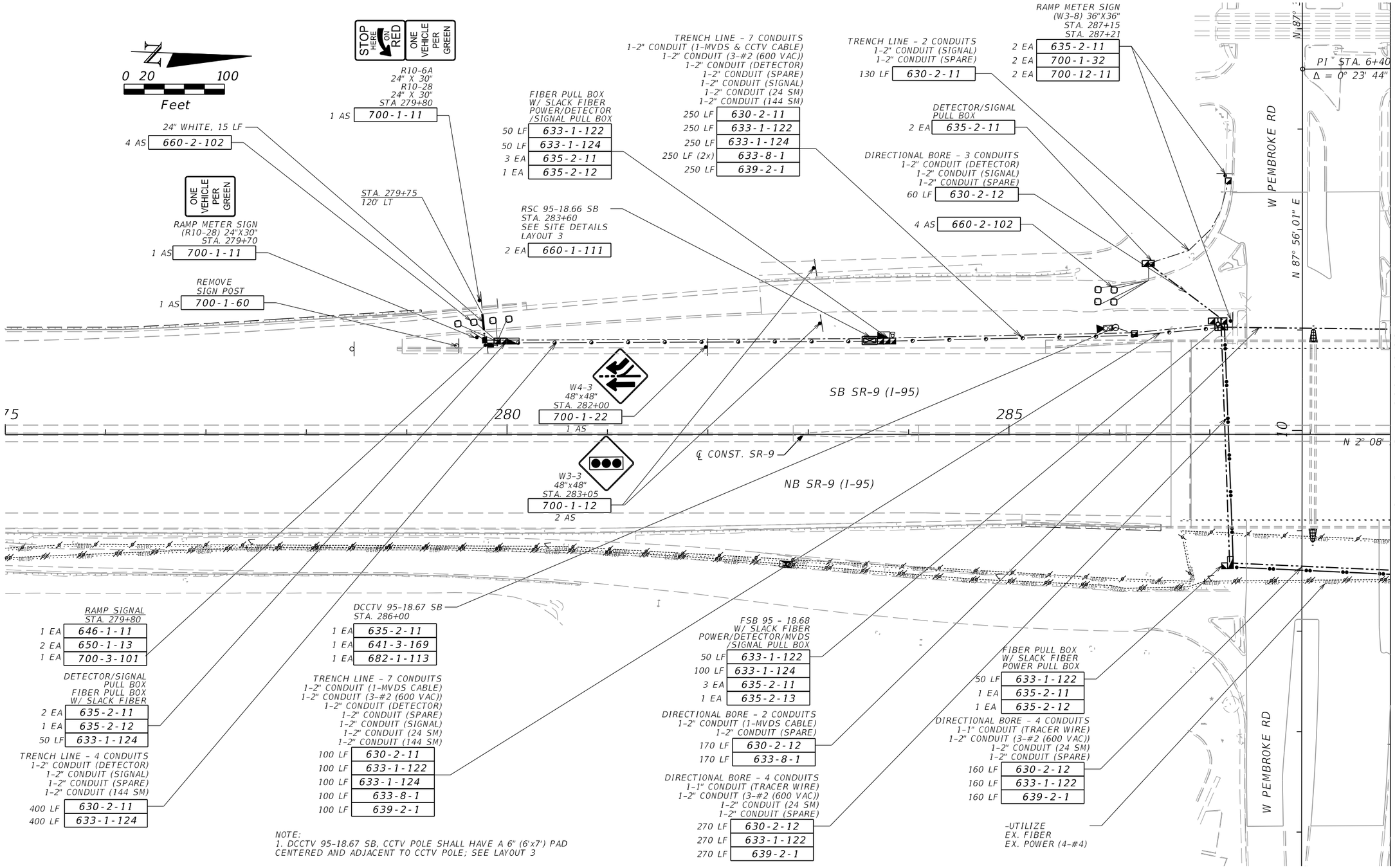

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ITS PLAN SHEET

SHEET NO. IT-477

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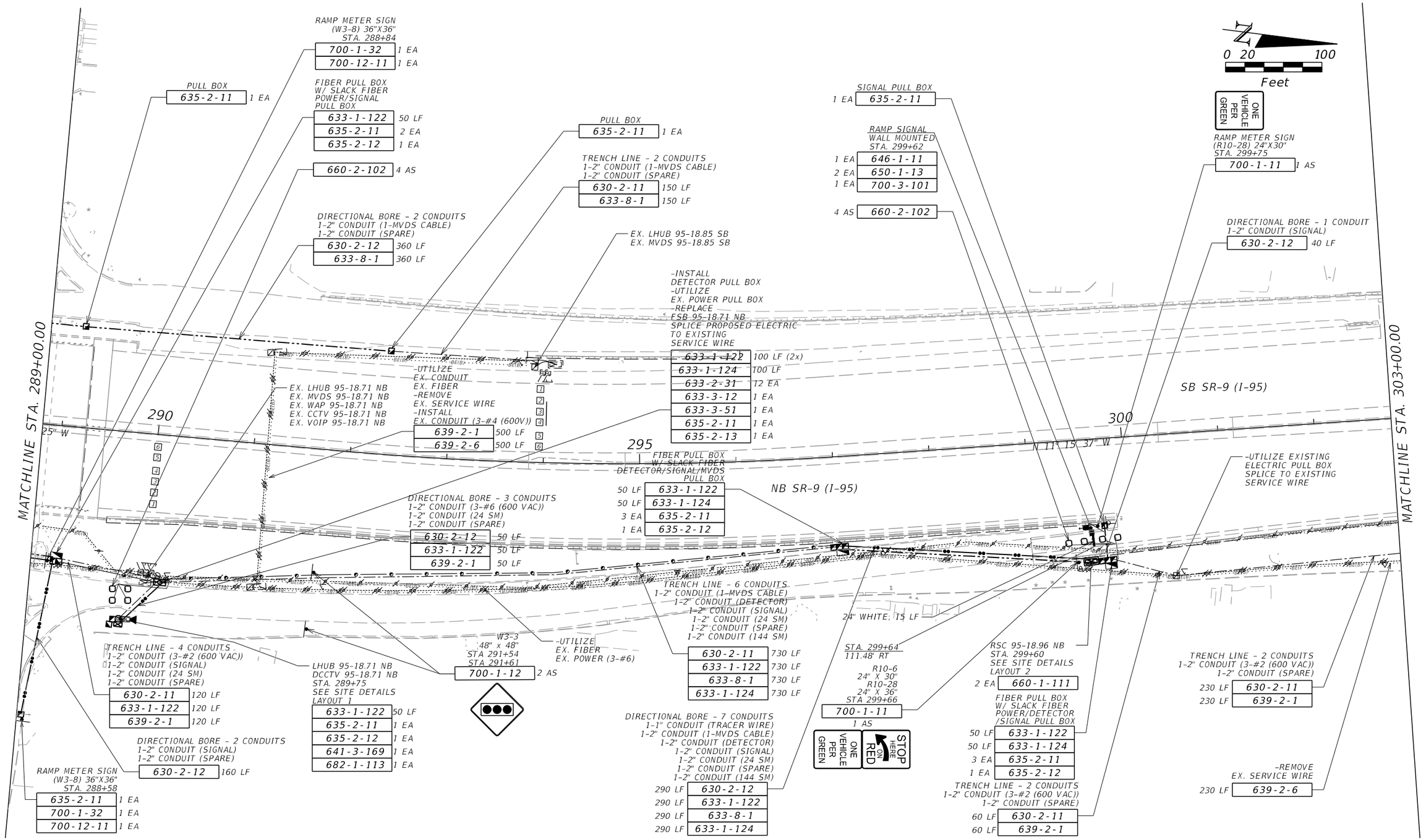

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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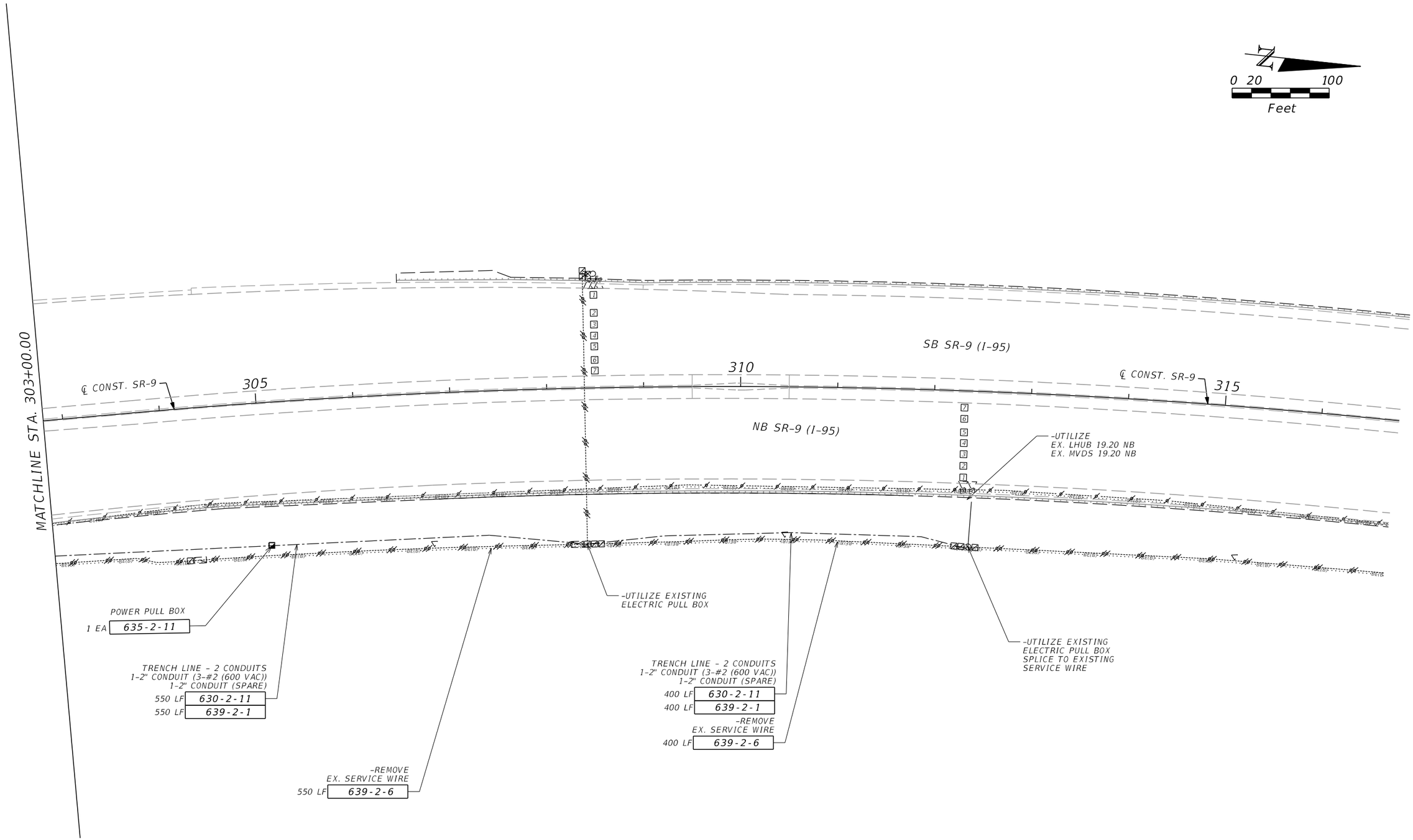

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-479

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 5/29/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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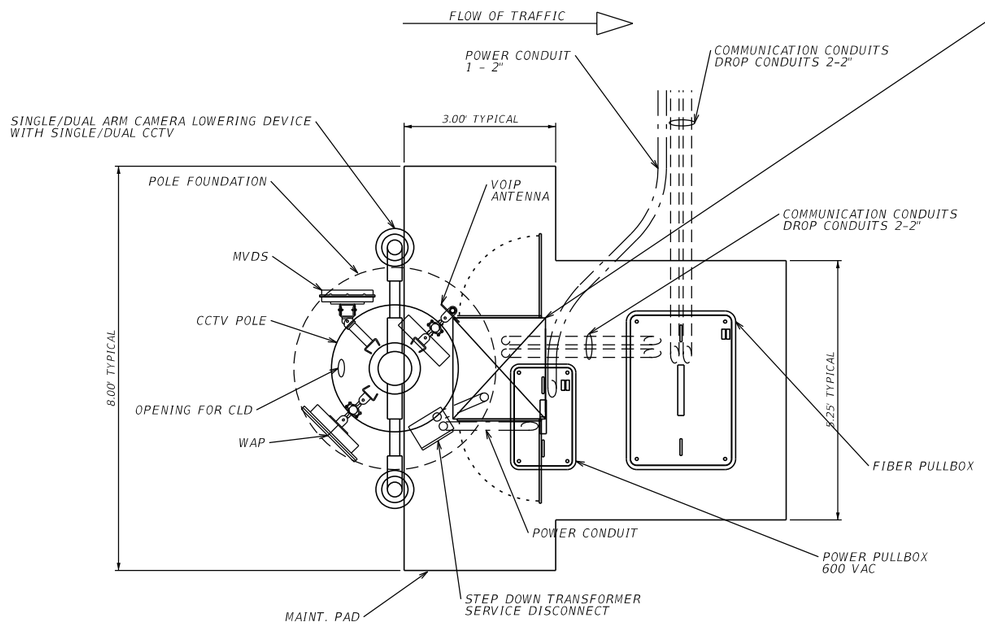
LAYOUT 1



ITS CABINET
LAYOUT PAY ITEMS

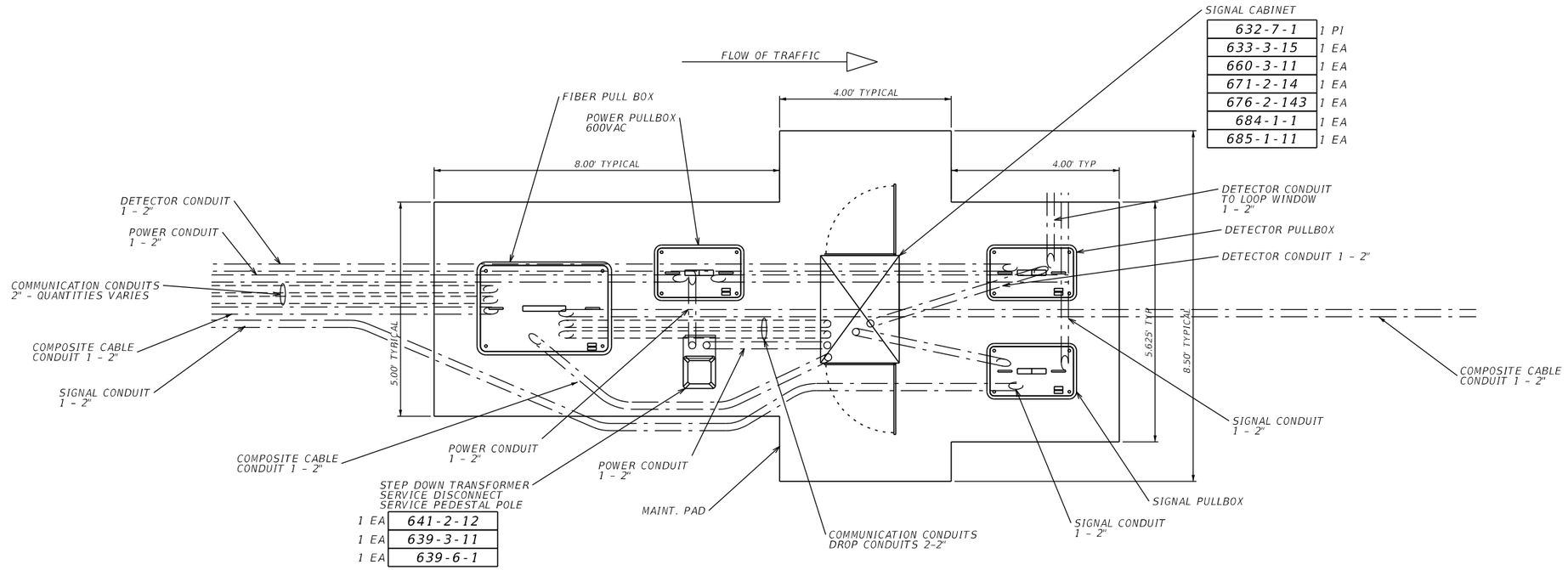
1 EA	633-3-15
1 EA	639-3-11
1 EA	639-6-1
1 EA	676-2-122
1 EA	684-1-1
1 EA	685-1-11

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

TYPICAL CCTV SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LOCATIONS:
95-18.03 NB
95-18.71 NB

LAYOUT 2



SIGNAL CABINET

632-7-1	1 PI
633-3-15	1 EA
660-3-11	1 EA
671-2-14	1 EA
676-2-143	1 EA
684-1-1	1 EA
685-1-11	1 EA

1 EA	641-2-12
1 EA	639-3-11
1 EA	639-6-1

RAMP SIGNAL CABINET SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LOCATIONS:
95-18.12 NB
95-18.96 NB

REVISIONS

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-480

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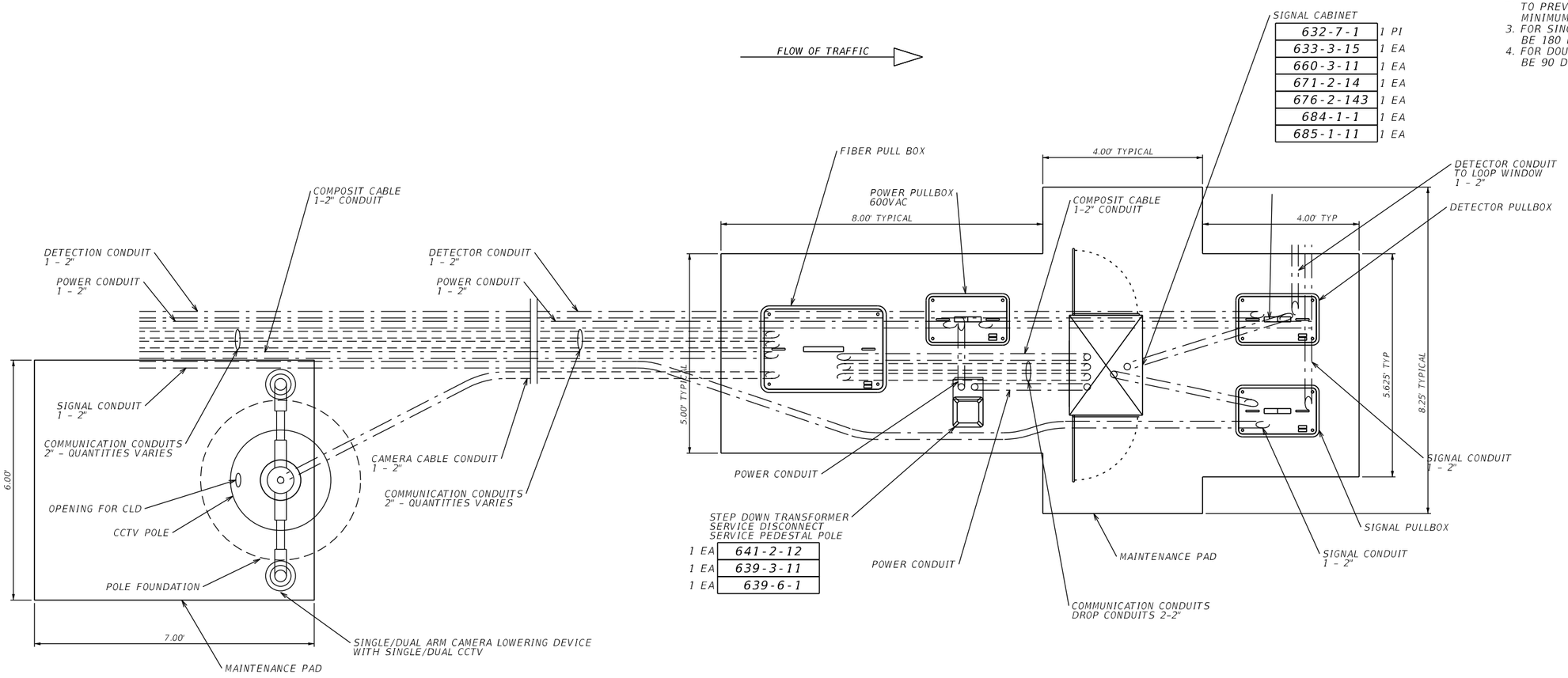
FPID 433108-4-52-01 CONTRACT E4Q32

LAYOUT 3

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA



RAMP SIGNAL CABINET WITH CCTV POLE SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LOCATIONS:
95-17.87 SB
95-18.66 SB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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225 E. Robinson St., Suite 300
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-481

RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 CONTRACT E4Q32

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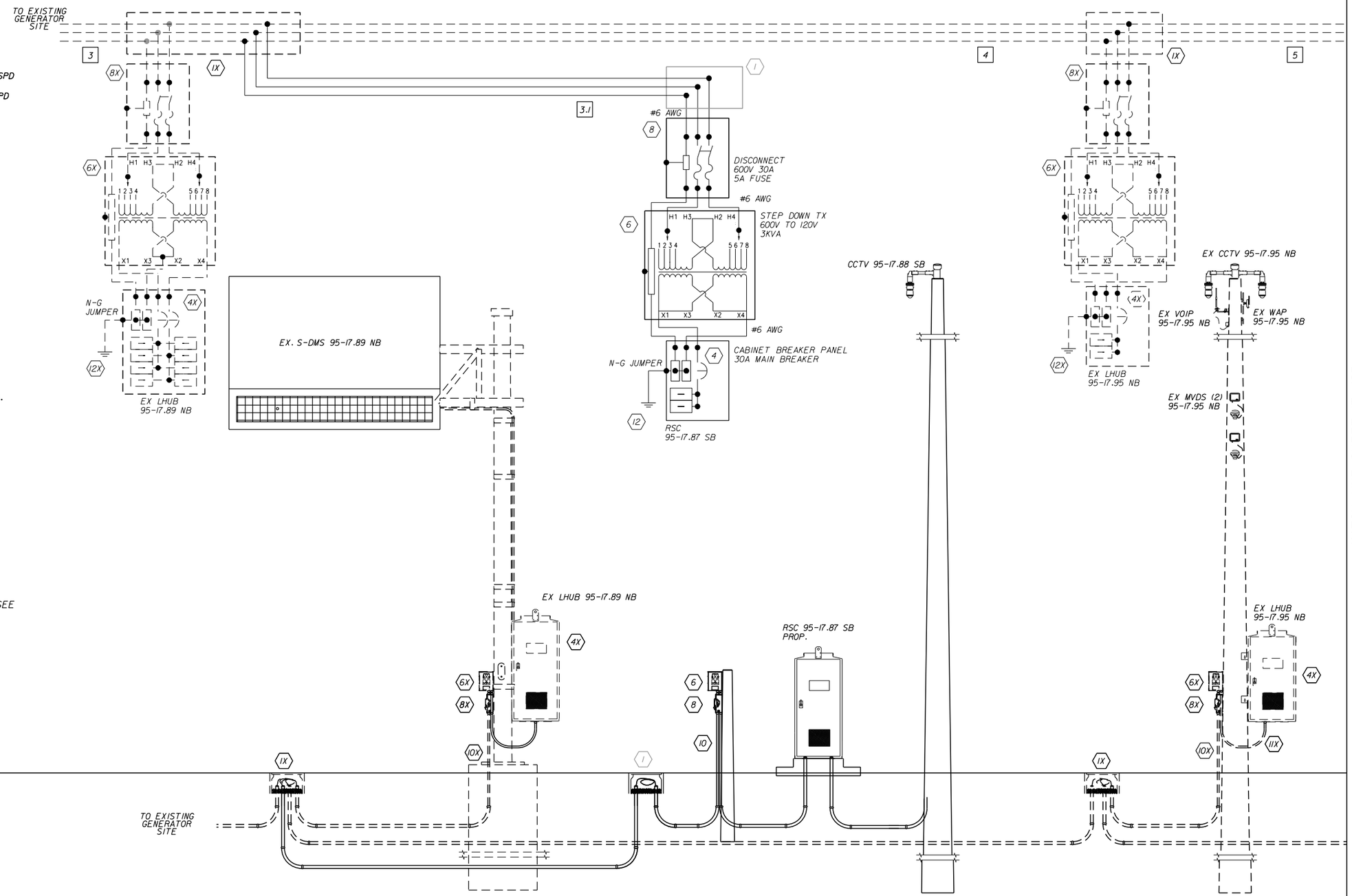
KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA.
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 3.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-482

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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BY: (FDOT) VS Date: 5/29/2018
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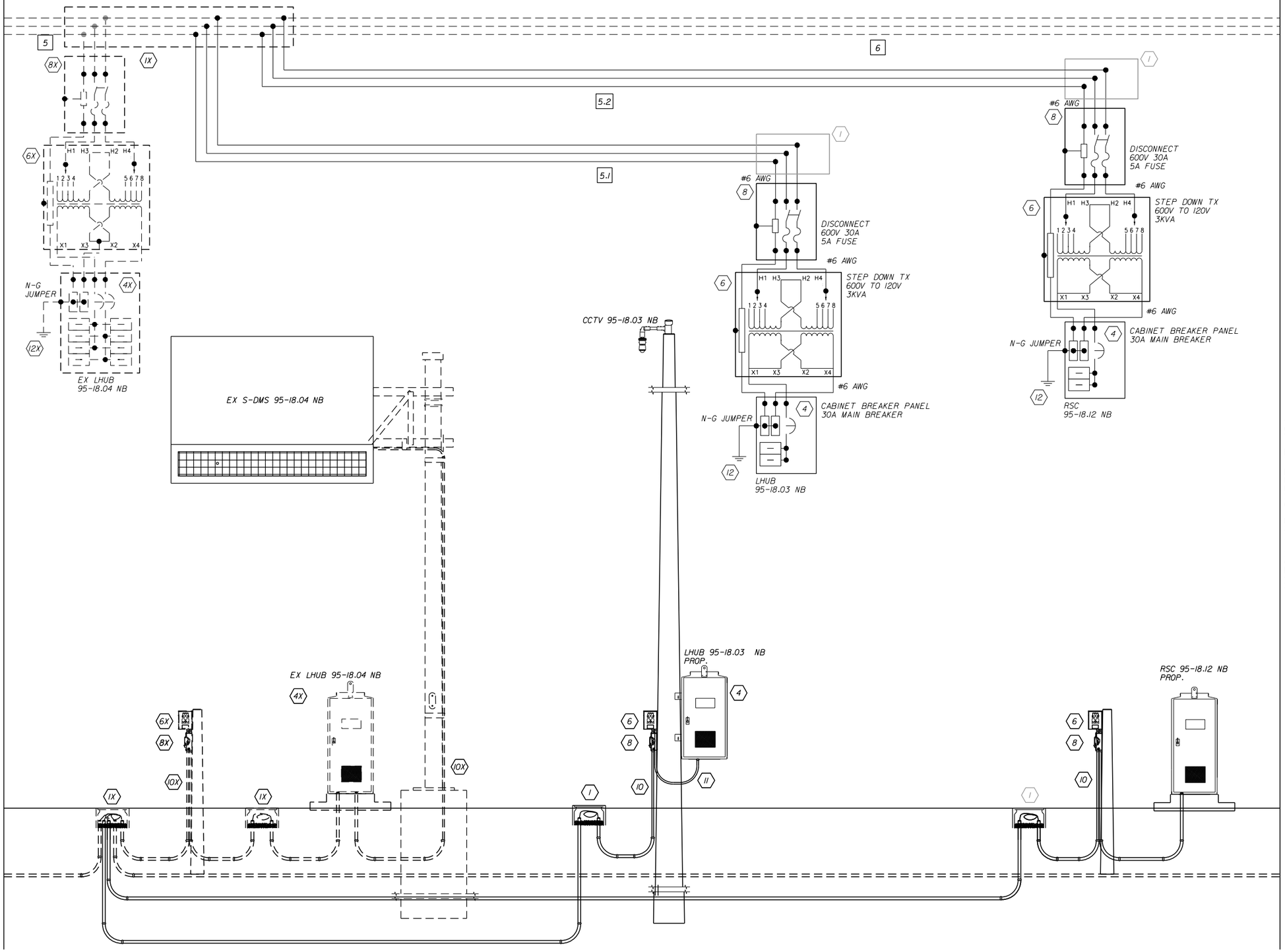
FPID 433108-4-52-01 CONTRACT E4Q32

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA.
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-482



MATCH LINE SHEET IT-484

CIRCUIT 3.1

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FPID 433108-4-52-01 CONTRACT E4G32

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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

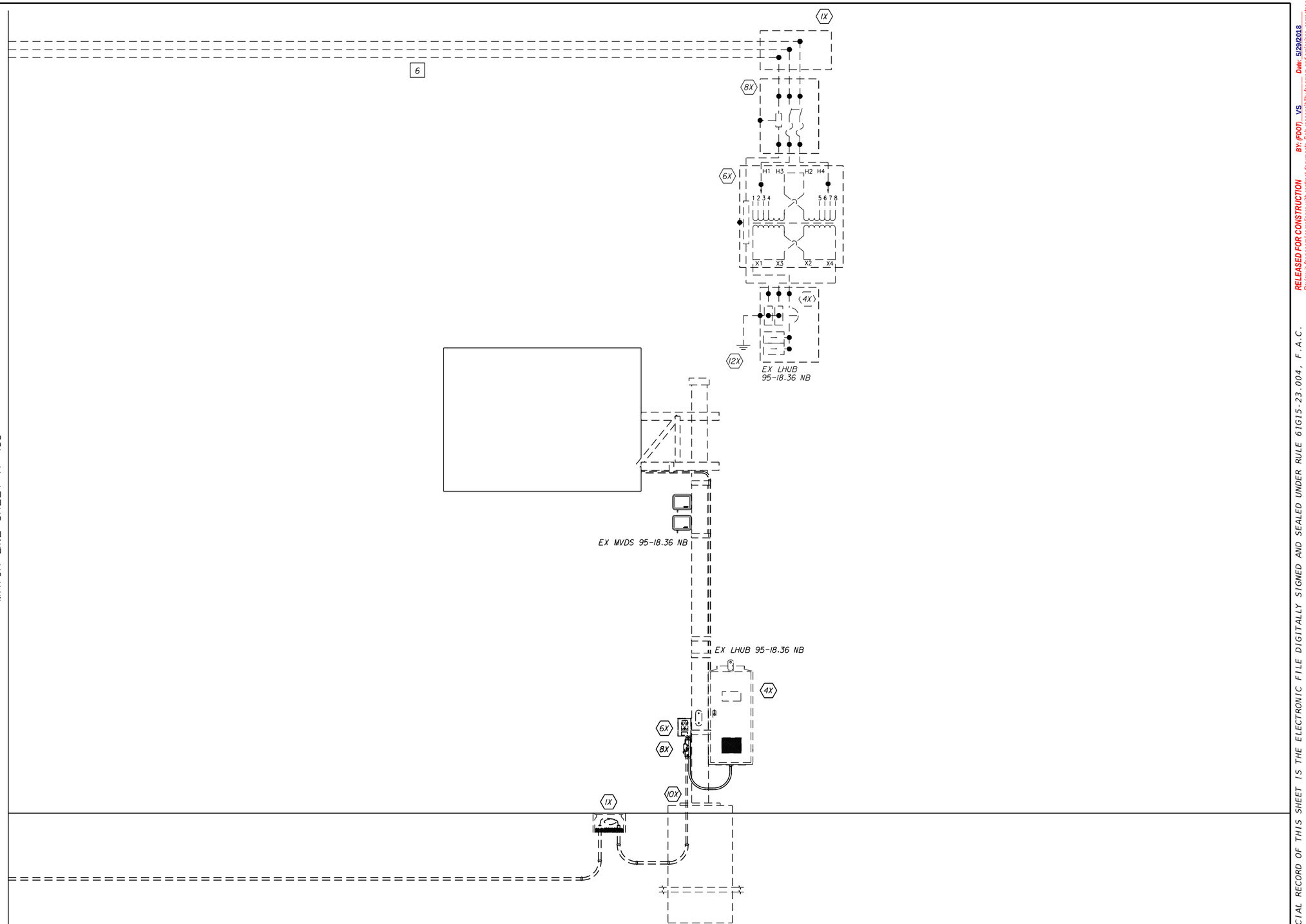
SHEET NO. IT-483

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA.
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-483



CIRCUIT 3.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-484

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 5/29/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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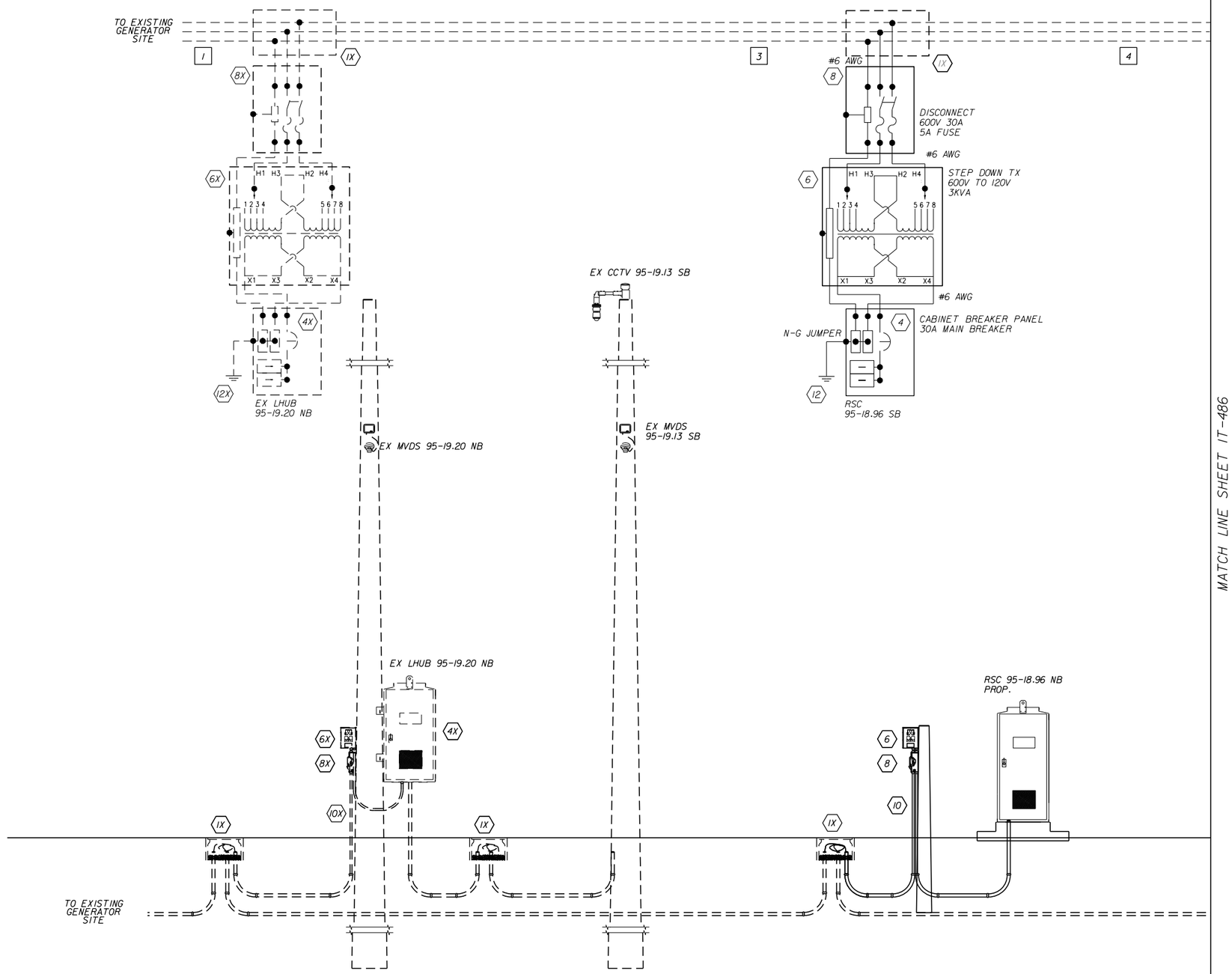
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA.
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 4.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-485

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 5/29/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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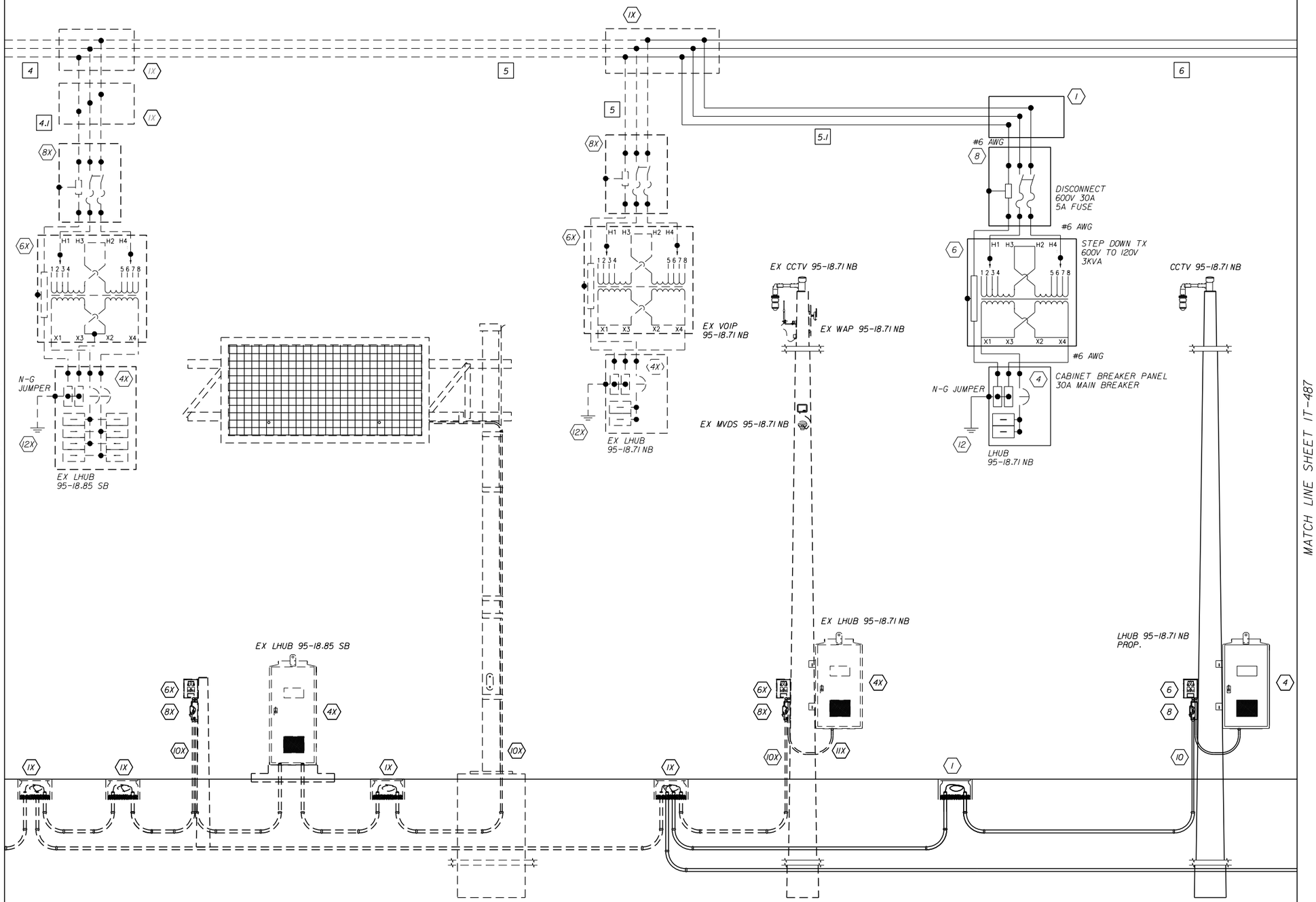
KEYED NOTES:

- 1 PULL BOX
- 1X EXISTING PULL BOX
- 2 PROPOSED SERVICE WIRE
- 2X EXISTING SERVICE WIRE
- 3 PROPOSED GENERATOR
- 3X EXISTING GENERATOR
- 4 PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- 4X EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- 5 PROPOSED NEMA ENCLOSURE
- 5X EXISTING NEMA ENCLOSURE
- 6 PROPOSED TRANSFORMER
- 6X EXISTING TRANSFORMER
- 7 PROPOSED AUTOMATIC TRANSFER SWITCH
- 7X PROPOSED AUTOMATIC TRANSFER SWITCH
- 8 PROPOSED FUSED DISCONNECT
- 8X EXISTING FUSED DISCONNECT
- 9 PROPOSED HDPE CONDUIT
- 9X EXISTING HDPE CONDUIT
- 10 PROPOSED RIGID GALVANIZED STEEL CONDUIT
- 10X EXISTING RIGID GALVANIZED STEEL CONDUIT
- 11 PROPOSED FLEX CONDUIT
- 11X EXISTING FLEX CONDUIT
- 12 PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA.
- 12X EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- 13 PROPOSED METER CAN
- 13X EXISTING METER CAN
- 14 PROPOSED DMS SIGN
- 14X EXISTING DMS SIGN
- 15 PROPOSED HUB BREAKER PANEL
- X CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 4.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-486

RELEASED FOR CONSTRUCTION
Date: 5/29/2018
BY: (FDOT) VS
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FPID 433108-4-52-01 CONTRACT E4Q32
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
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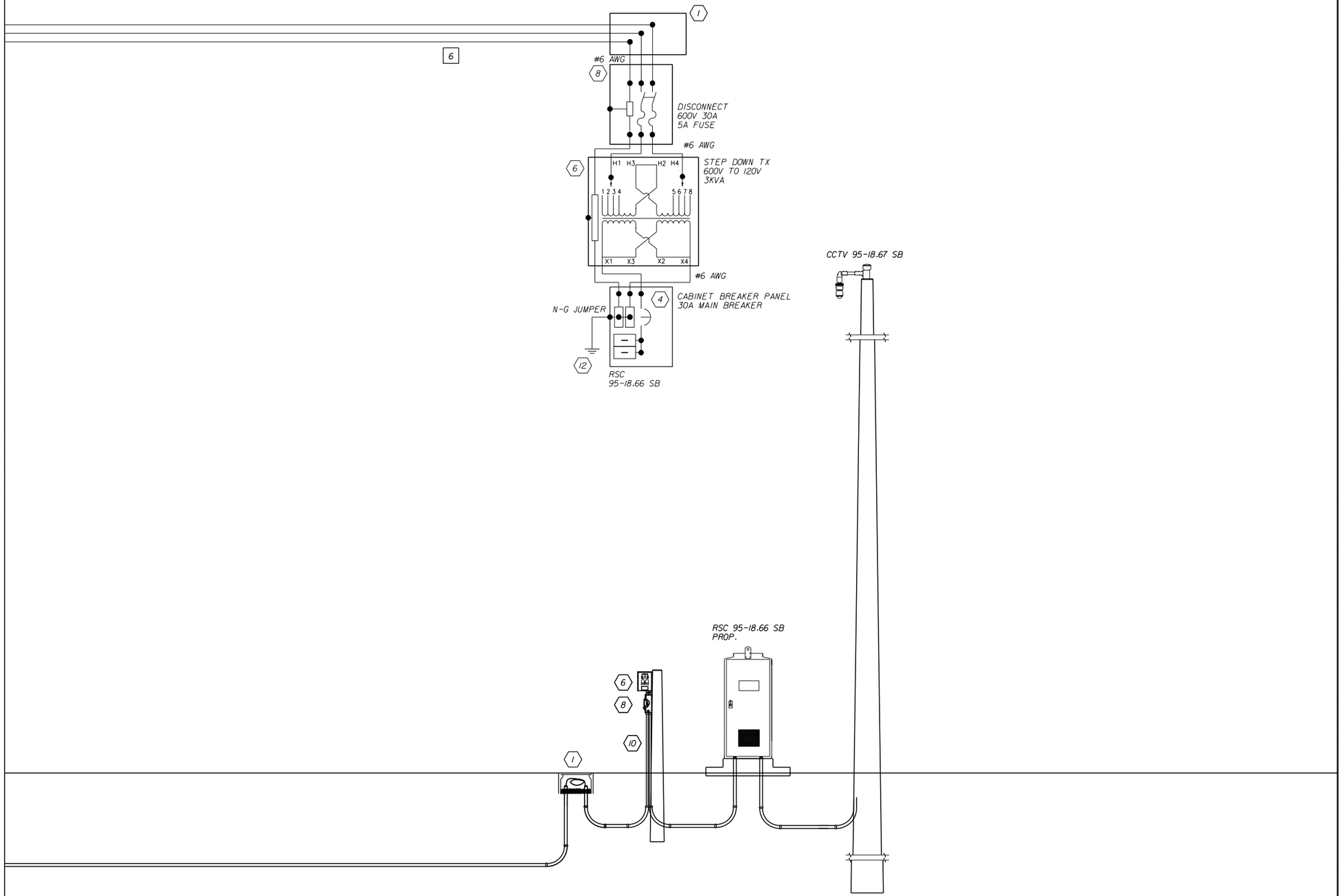
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA.
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-486



CIRCUIT 4.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-487

RELEASED FOR CONSTRUCTION
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BY: (FDOT) VS Date: 5/29/2018
FPID 433108-4-52-01 CONTRACT E4Q32

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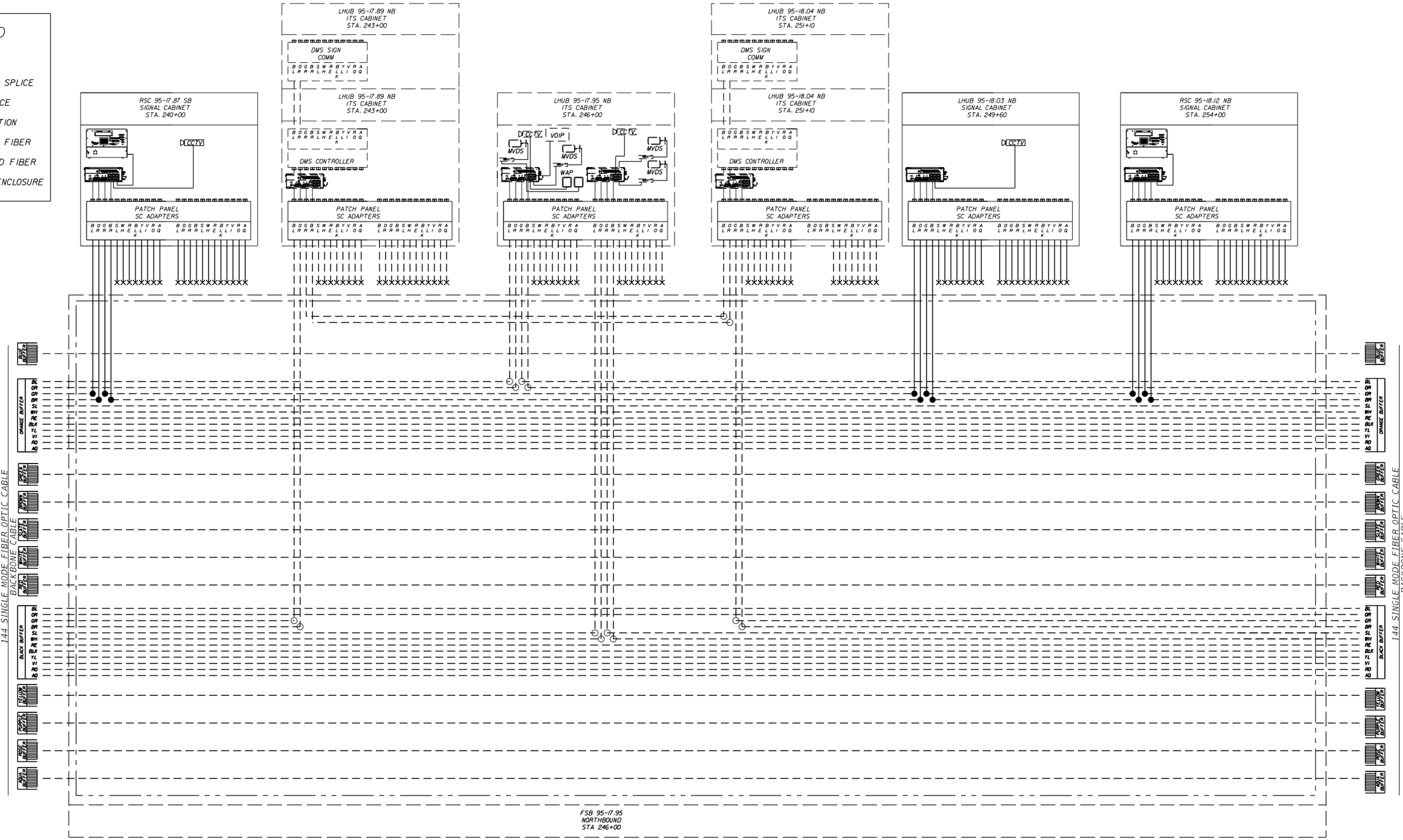
SOUTH SR 9/I-95 NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-488

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 5/29/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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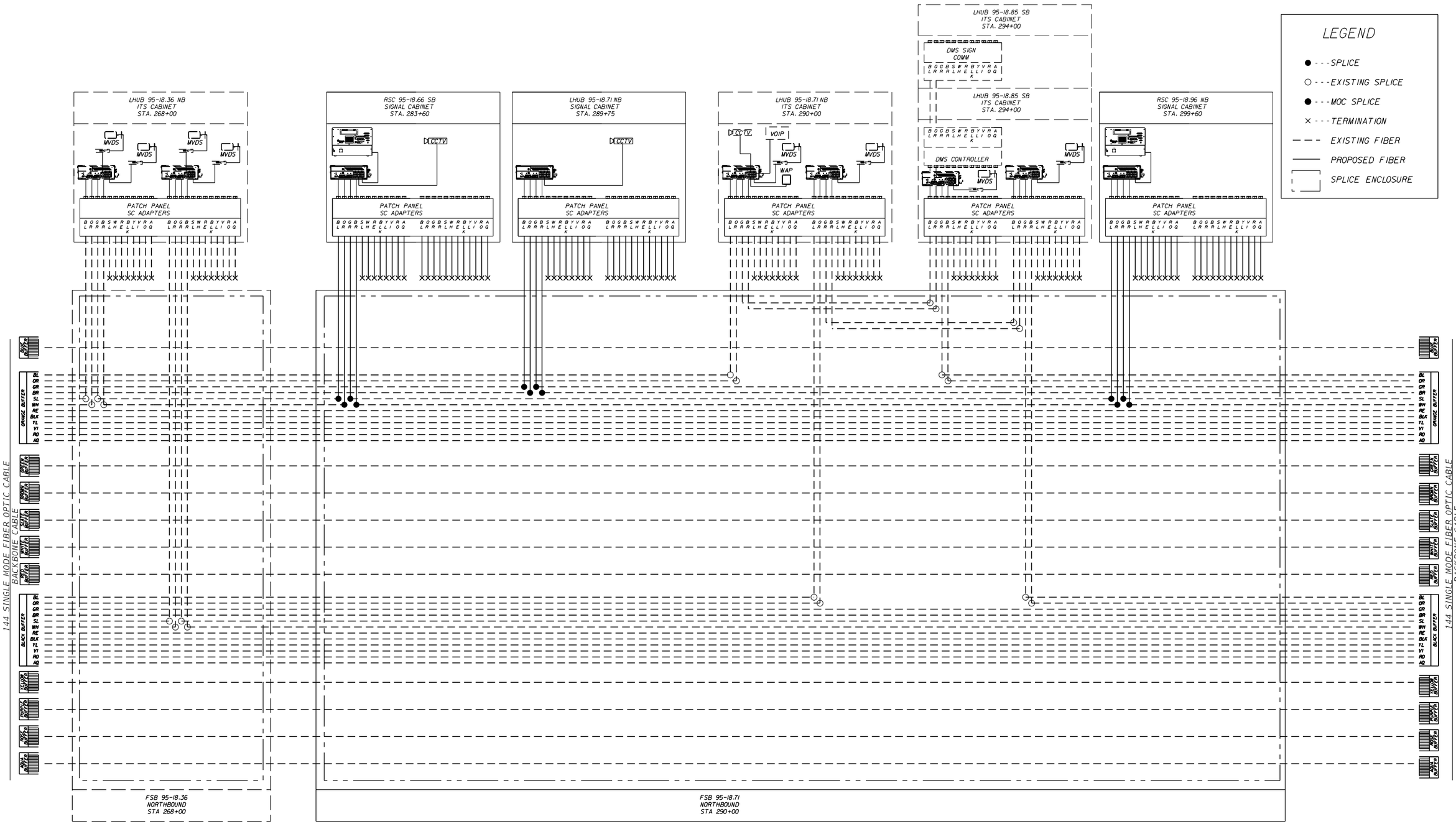
SOUTH SR 9/I-95 NORTH



LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

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DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development,
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9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-489

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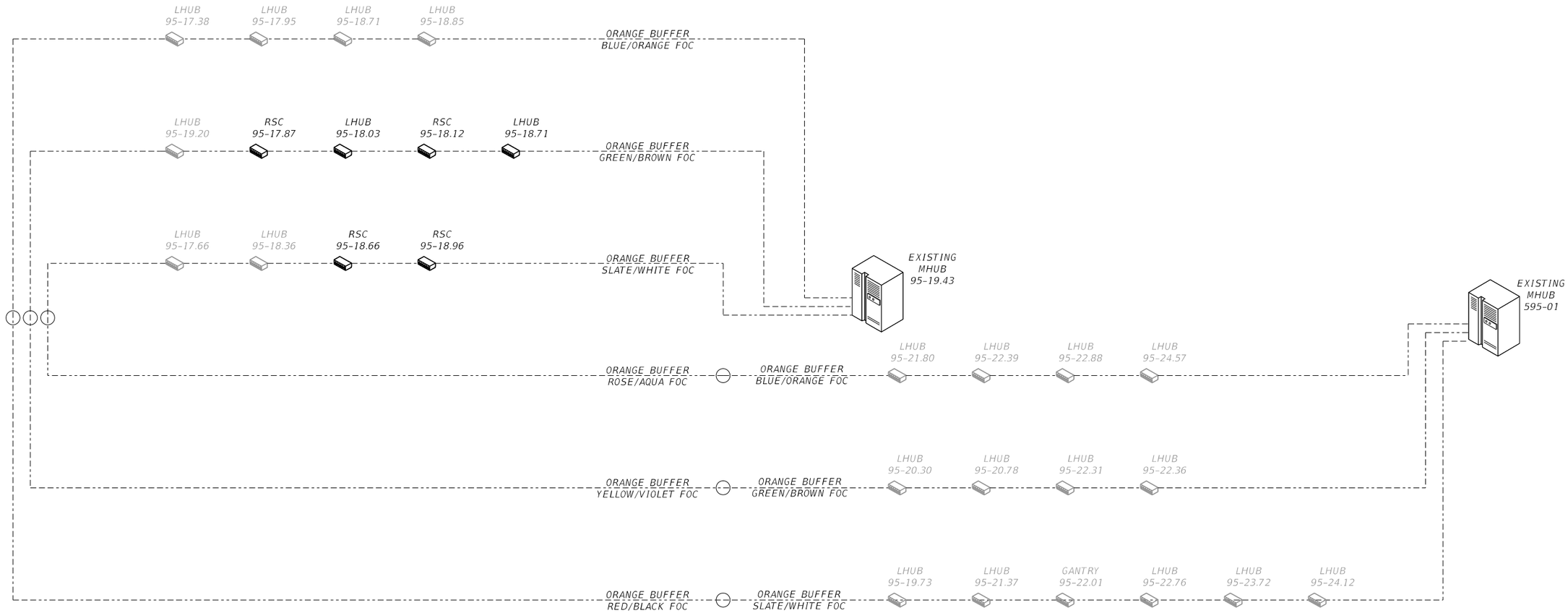

ITS NETWORK LAYOUT

FIELD DEVICES

- HUB SWITCH / ROUTER
- EXISTING ETHERNET SWITCH
- PROPOSED ETHERNET SWITCH

LINK TYPES

- TX LINK
- EXISTING 1000 FX LINK
- PROPOSED 1000 FX LINK
- FIBER PAIR CHANGE

REVISIONS			
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NETWORK SCHEMATIC

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IT-490

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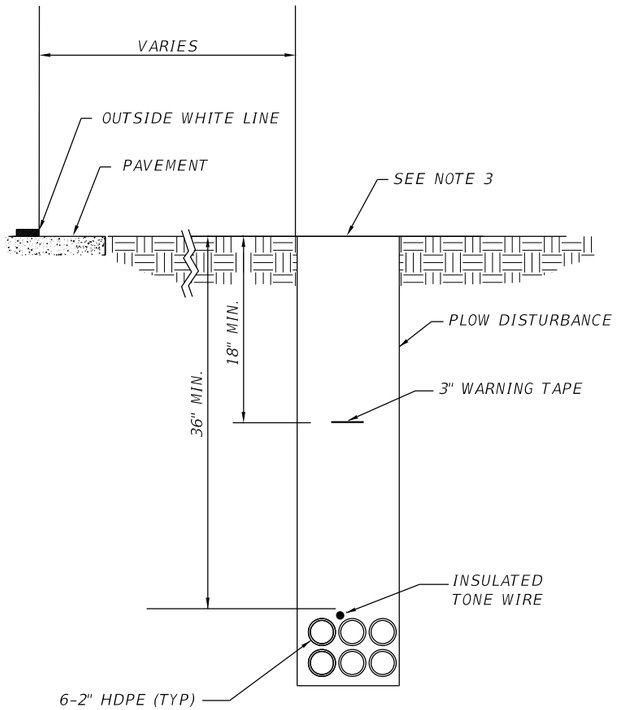
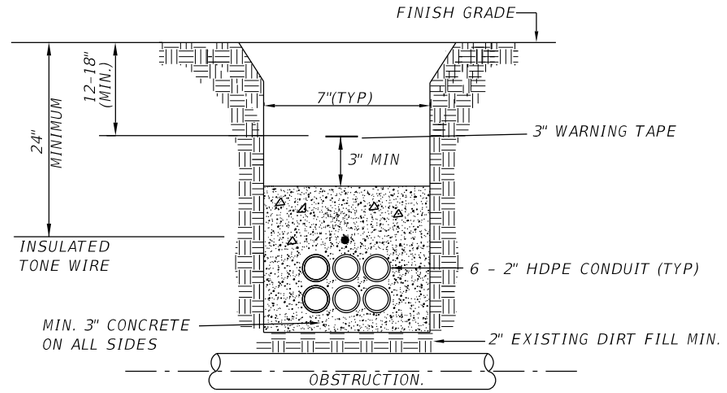
NOTES:

1. TRAFFIC CONTROL FOR LONGITUDINAL INSTALLATION SHALL BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD INDEX SERIES 600.
2. A MINIMUM OF 2'- 0" SHALL BE MAINTAINED FROM EXISTING LANDSCAPE FEATURES.
3. CONSTRUCTION CORRIDOR SHALL BE RESTORED TO ORIGINAL OR IMPROVED CONDITION.
4. JOINT COUPLINGS WILL BE USED AS NECESSARY.
5. CONDUIT PATH WILL BE ROUTED TO AVOID ANY OBSTRUCTIONS SHOULD OBSTRUCTIONS BE ENCOUNTERED, THE FOLLOWING HIERARCHY WILL BE ADHERED TO:
   - A. ROUTE CONDUIT AROUND OBSTRUCTION USING SWEEPING BENDS.
   - B. IF A CANNOT BE ACCOMPLISHED, CONDUIT ROUTING WILL BE MADE UNDER THE OBSTRUCTION.
   - C. IF A OR B CANNOT BE ACCOMPLISHED, THEN CONDUIT CAN BE INSTALLED PER "TYPICAL CROSSING WHERE OBSTRUCTION IS 35" TO 44" IN DEPTH" DETAIL. OWNERS APPROVAL MUST BE OBTAINED.
6. ALL CONCRETE SHALL BE FDOT APPROVED CLASS 1.



STANDARD CROSS SECTION OF PLOWED CONDUIT

N.T.S.



TYPICAL CROSSING WHERE OBSTRUCTION IS 35" TO 44" IN DEPTH.

N.T.S.

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9	BROWARD	433108-4-52-01

TRENCHING AND PLOWING DETAILS

SHEET NO. IT-491

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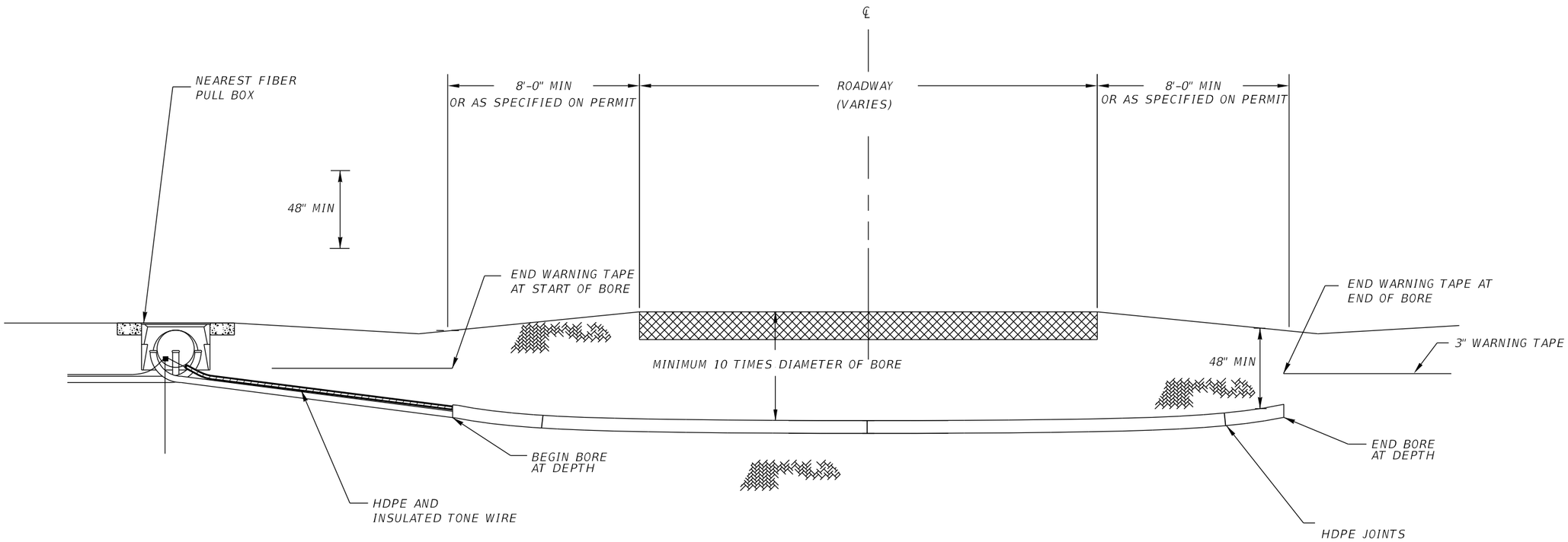
FPID 433108-4-52-01 CONTRACT E4Q32



TYPICAL DIRECTIONAL BORE
N.T.S.

NOTES:

1. UTILITY IN THE PATH OF THE BORE SHALL BE LOCATED AND THE DEPTH OF THE BORE CROSSING SHALL BE DELINEATED TO CROSS UNDER OR OVER UTILITY WITH 12" MINIMUM SEPARATION.

2. FIBER PULL BOX OR SPLICE BOX SHALL BE REQUIRED NEAR ONE END OF DIRECTIONAL BORE. TONE WIRE SHALL BE PULLED IN 1" CONDUIT FOR DIRECTIONAL BORE. ONCE PULLED THROUGH, THE TONE WIRE SHALL BE SPLICED IN NEAREST FIBER PULL BOX.

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DIRECTIONAL BORE DETAIL

SHEET NO.
IT-492

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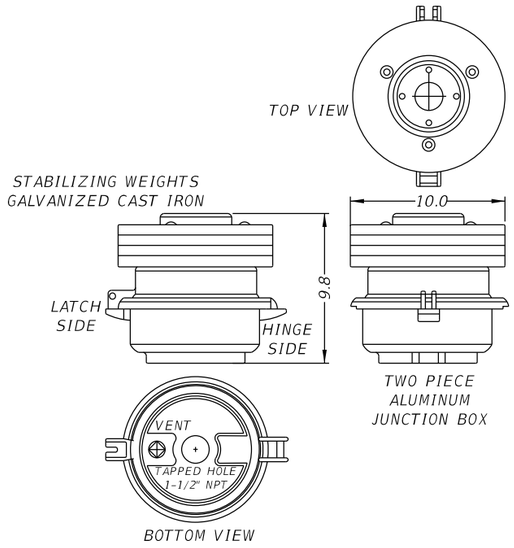
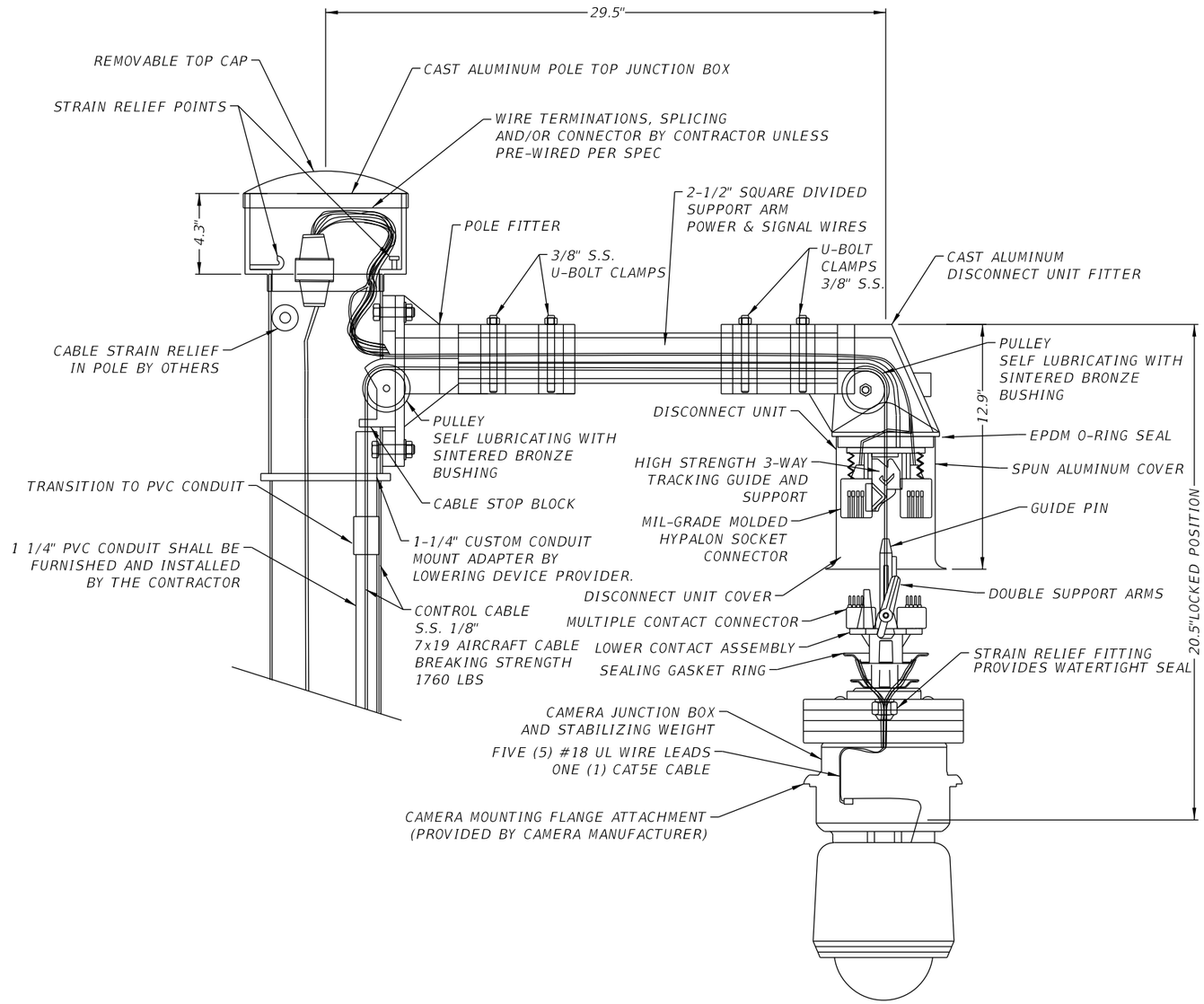


CAMERA JUNCTION BOX



NOTES:

1. INTERNAL CAMERA SUPPLY CABLES RUN THROUGH THE INSIDE OF THE POLE SHALL BE INSTALLED THROUGH EYE HOOKS TO PREVENT INTERFERENCE WITH LOWERING MECHANISM CABLE, UNLESS OTHERWISE NOTED.
2. CAMERA LOWERING DEVICE DETAILS ARE REPRESENTATIVE AND DO NOT REFLECT ACTUAL ENGINEERING DESIGN.
3. LOWERING ARM SHALL BE MOUNTED PERPENDICULAR TO THE ROADWAY OR AS SHOWN IN THE PLANS. THE CCTV POLE SHALL BE POSITIONED SO THAT THE DOME ENCLOSURE CAN BE SAFELY LOWERED ON THE OPPOSITE SIDE OF THE HAND CRANK.

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CCTV CAMERA LOWERING DEVICE

SHEET NO. IT-493

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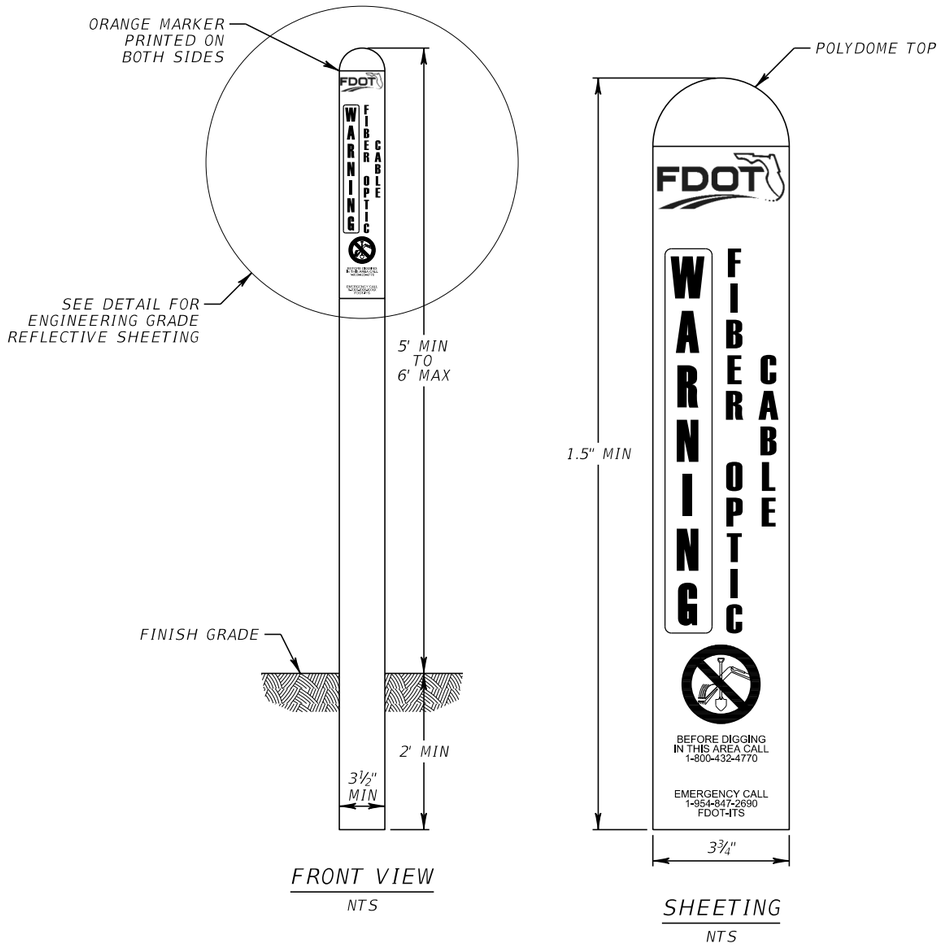
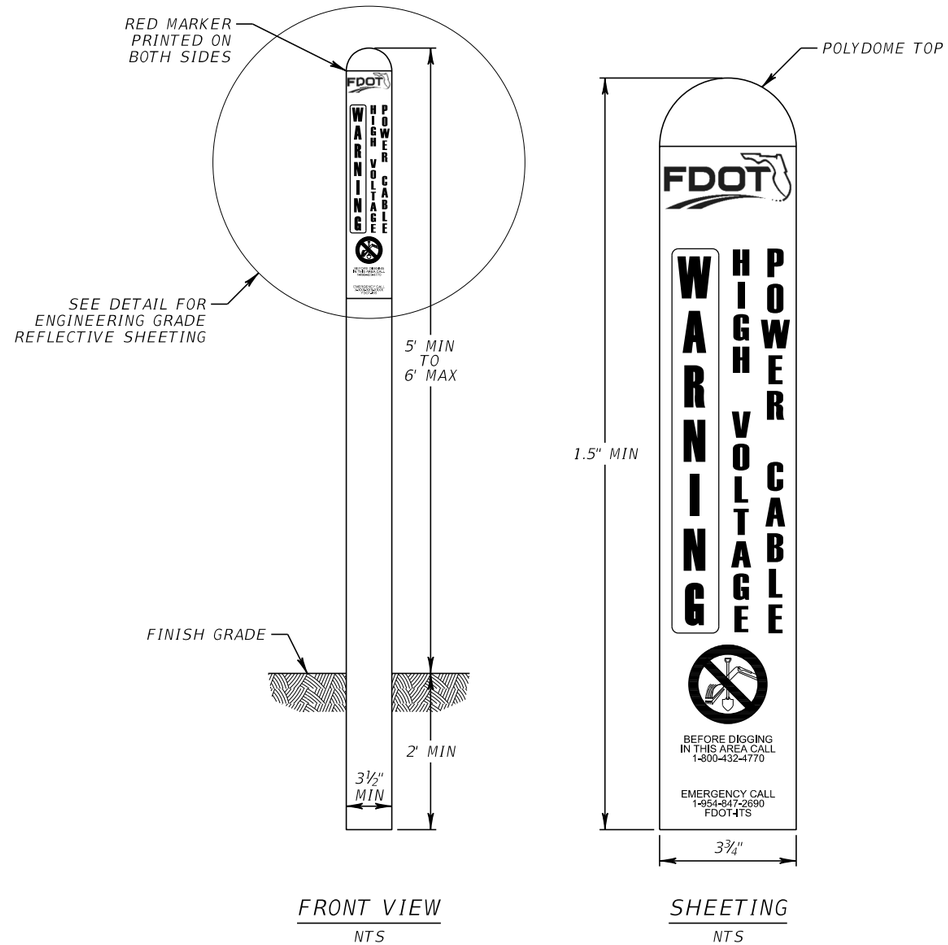
FIBER OPTIC CABLE ROUTE MARKER



FRONT VIEW
NTS

SHEETING
NTS

ELECTRICAL CABLE ROUTE MARKER



FRONT VIEW
NTS

SHEETING
NTS

NOTES:

1. * IF IN INSTANCES WHERE FIBER AND POWER CONDUITS ARE RUNNING IN LINE (ON TOP OF EACH OTHER), THE MARKERS SHALL ALTERNATE BETWEEN FIBER AND POWER.
2. A POLYDOME TOP SHALL BE INSTALLED ON EACH MARKER. (ORANGE FOR FIBER AND RED FOR POWER)

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ROUTE MARKER DETAIL

SHEET NO.
IT-494

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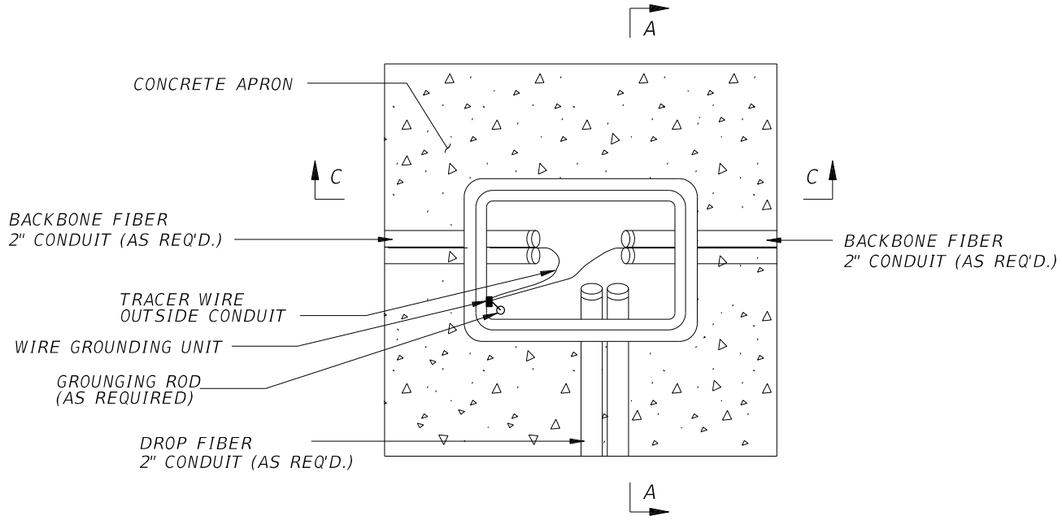
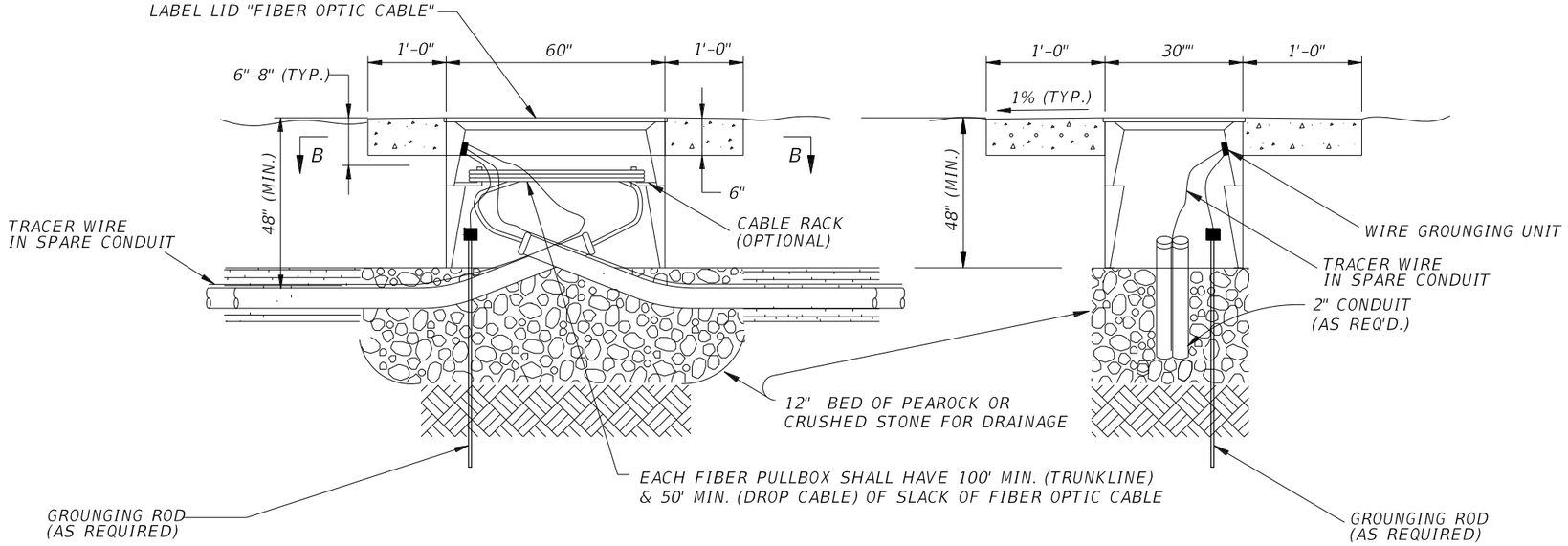


SECTION B-B

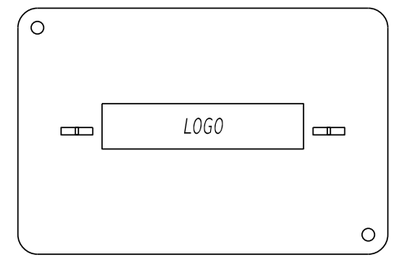
NOTES:

1. REFER TO FLORIDA DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2015 SECTION 635 FOR PULL BOX REQUIREMENTS.
2. FIBER OPTIC PULL BOXES SHALL NOT CONTAIN ELECTRICAL CONDUIT OR CONDUCTOR. ELECTRICAL CONDUIT AND CONDUCTORS SHALL BE INSTALLED IN SEPARATE PULL BOXES.
3. CONDUIT C/L SHALL BE ALIGNED TO TOP EDGE OF PULL BOX TO FACILITATE CABLE PULLING.
4. ALL PULL BOXES SHALL HAVE MINIMUM 1'- 0" WIDE x 6" DEEP CONCRETE APRONS SLOPED AWAY FROM PULL BOX. THE COST OF APRON IS TO BE INCLUDED IN THE COST OF EACH PULL BOX.
5. WIRE GROUNDING UNITS (WGU) FOR TRACER WIRE REQUIRED IN SPLICE BOXES.
6. FIBER OPTIC SPLICE BOX SHALL NOT BE INSTALLED IN ROADWAYS OR DRIVEWAYS.
7. FIBER OPTIC SPLICE BOX LENGTH (LONG SIDE) SHALL BE PARALLEL TO THE CONDUIT RUN. WHEN THE CONDUIT RUN IS PERPENDICULAR AT THE JUNCTION POINT, THE SPLICE BOX SHALL BE PARALLEL TO THE ROADWAY.
8. SPARE FIBER OPTIC CABLE IS TO BE WOUND NEATLY AND CAREFULLY, AS NOT TO EXCEED THE MINIMUM ALLOWABLE BENDING RADIUS OF THE FIBER OPTIC CABLE.
9. 5/8" COPPER BONDED GROUND RODS SHALL BE USED (AS REQUIRED).
10. GROUNDING WIRES SHALL BE EXOTHERMICALLY WELDED TO GROUND RODS (AS REQUIRED).
11. NOTE THAT THE DIMENSIONS SHOWN ARE THE TYPICAL DIMENSIONS AND MANY VARY SLIGHTLY DEPENDING ON THE MANUFACTURER.
12. SEE PULL BOXES GENERAL NOTES FOR SPLICE BOX COVERS LABELING.



SECTION C-C

SECTION A-A



SPLICE BOX COVER

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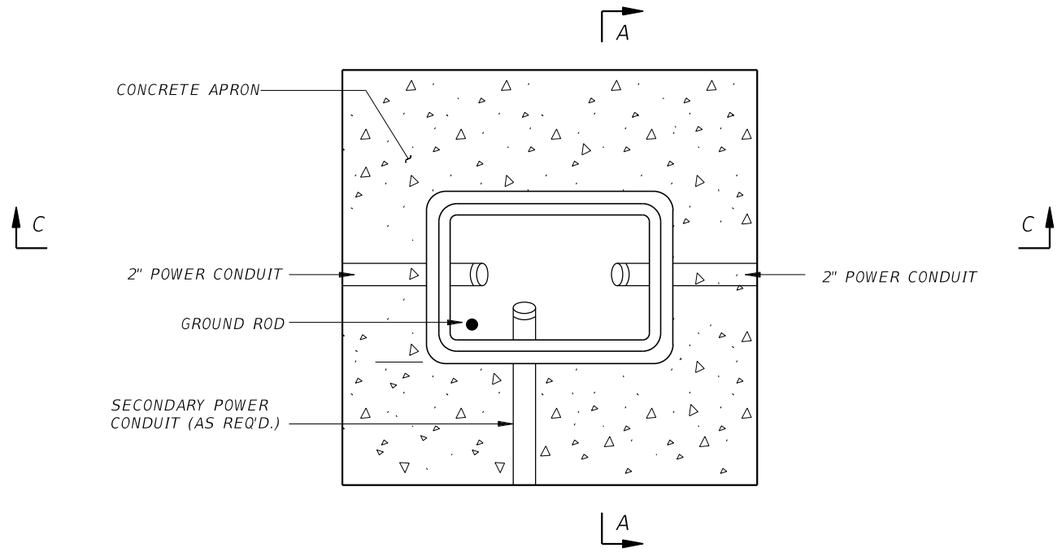
9	BROWARD	433108-4-52-01

FIBER OPTIC SPLICE BOX DETAIL

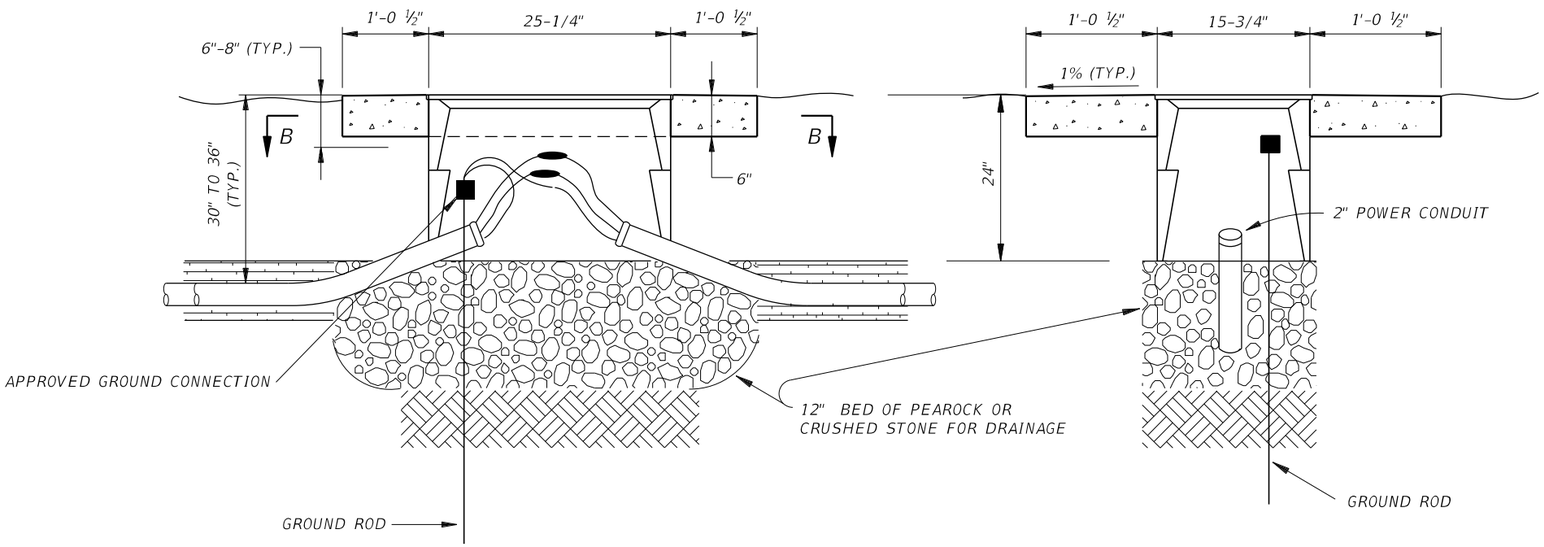
SHEET NO. IT-495



SECTION B-B

NOTES:

1. REFER TO FLORIDA DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2015 SECTION 635 FOR PULL BOX REQUIREMENTS.
2. ELECTRICAL CABLES SHALL BE INSTALLED IN A SEPARATE CONDUIT/PULL BOX SYSTEM FROM THE FIBER OPTIC CONDUIT/PULL BOX SYSTEM. ELECTRICAL AND FIBER OPTIC CONDUITS MAY BE CO-LOCATED WITHIN THE SAME TRENCH AS SHOWN ON THE PLANS.
3. ALL FIBER OPTIC, SIGNAL, & ELECTRIC PULL BOXES SHALL HAVE MINIMUM 1'- 0" WIDE x 6" DEEP CONC APRONS SLOPED AWAY FROM PULL BOX. THE COST OF APRON IS TO BE INCLUDED IN THE COST OF EACH PULL BOX.
4. ALL SPLICES SHALL BE MADE IN PULLBOX PROPERLY TAPED AND WEATHERPROOFED.
5. PULL BOXES SHALL BE PER FLORIDA STANDARD INDEX 17700. PULL BOXES SHALL BE LISTED IN THE FDOT APPROVED PRODUCTS LIST (APL).
6. PULL BOXES SHALL NOT BE INSTALLED IN ROADWAYS, DRIVEWAYS, PEDESTRIAN RAMPS, OR FLARES UNLESS DIRECTED BY THE ENGINEER.
7. THE DIMENSIONS SHOWN ARE TYPICAL DIMENSIONS AND MAY VARY DEPENDING ON MANUFACTURER.



SECTION C-C

SECTION A-A

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ELECTRICAL PULL BOX DETAIL

SHEET NO. IT-496

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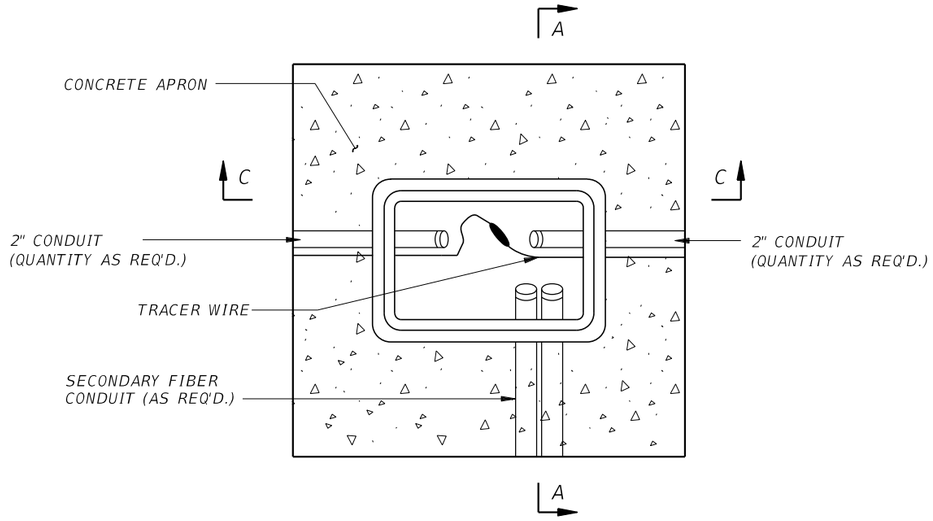
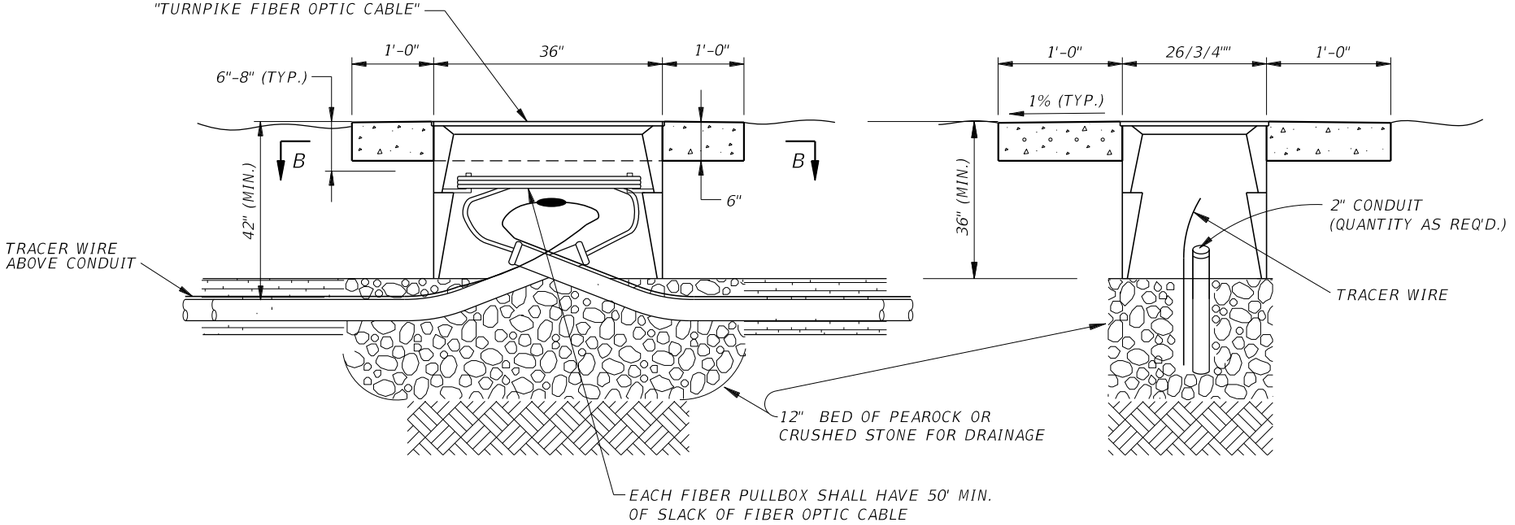


SECTION B-B



SECTION C-C

SECTION A-A

NOTES:

1. REFER TO FLORIDA DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2015 SECTION 635 FOR PULL BOX REQUIREMENTS.
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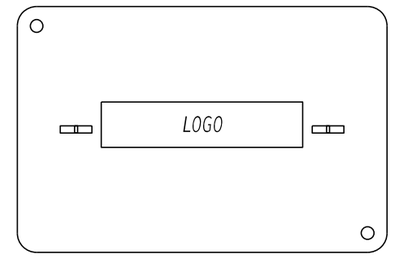
3. CONDUIT C/L SHALL BE ALIGNED TO TOP EDGE OF PULL BOX TO FACILITATE CABLE PULLING.
4. ALL PULL BOXES SHALL HAVE MINIMUM 1'- 0" WIDE x 6" DEEP CONCRETE APRONS SLOPED AWAY FROM PULL BOX. THE COST OF APRON IS TO BE INCLUDED IN THE COST OF EACH PULL BOX.
5. FIBER OPTIC SPLICE BOX SHALL NOT BE INSTALLED IN ROADWAYS OR DRIVEWAYS.
6. SPARE FIBER OPTIC CABLE IS TO BE WOUND NEATLY AND CAREFULLY, AS NOT TO EXCEED THE MINIMUM ALLOWABLE BENDING RADIUS OF THE FIBER OPTIC CABLE.
7. 5/8" COPPER BONDED GROUND RODS SHALL BE USED (AS REQUIRED).
8. GROUNDING WIRES SHALL BE EXOTHERMICALLY WELDED TO GROUND RODS (AS REQUIRED).
9. NOTE THAT THE DIMENSIONS SHOWN ARE THE TYPICAL DIMENSIONS AND MANY VARY SLIGHTLY DEPENDING ON THE MANUFACTURER.
10. SEE PULL BOXES GENERAL NOTES FOR SPLICE BOX COVERS LABELING.



FIBER BOX COVER

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FIBER PULL BOX DETAIL

SHEET NO. IT-497

MFES PORT G16
MAINT. LAPTOP

MFES PORT G15
VOIP

MFES PORT G14
MVDS 2

MFES PORT G13
MVDS 1

MFES PORT G1
FIBER LINK

MFES PORT G2
FIBER LINK

MFES PORT G7
PDU

Console

Network

Monitor

G8 G7 G6 G5 G4 G3 G2 G1

ITS EXPRESS

G16 G15 G14 G13 G7 G5 G3 G1
G12 G11 G10 G9 G8 G6 G4 G2

MFES PORT G11
VANGUARD FIELD CONTROLLER 3

MFES PORT G10
VANGUARD FIELD CONTROLLER 2

MFES PORT G9
VANGUARD FIELD CONTROLLER 1

MFES PORT G12
CONTACT CLOSURE OVER IP DEVICE
OR
ATS MOD BUS

KOHLER Decision-Maker MPAC 1200

MFES PORT G6
MVDS 2

MFES PORT G5
MVDS 2

MFES PORT G4
CCTV 2

MFES PORT G3
CCTV 1

UPS

MFES PORT G8
CABINET UPS

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225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

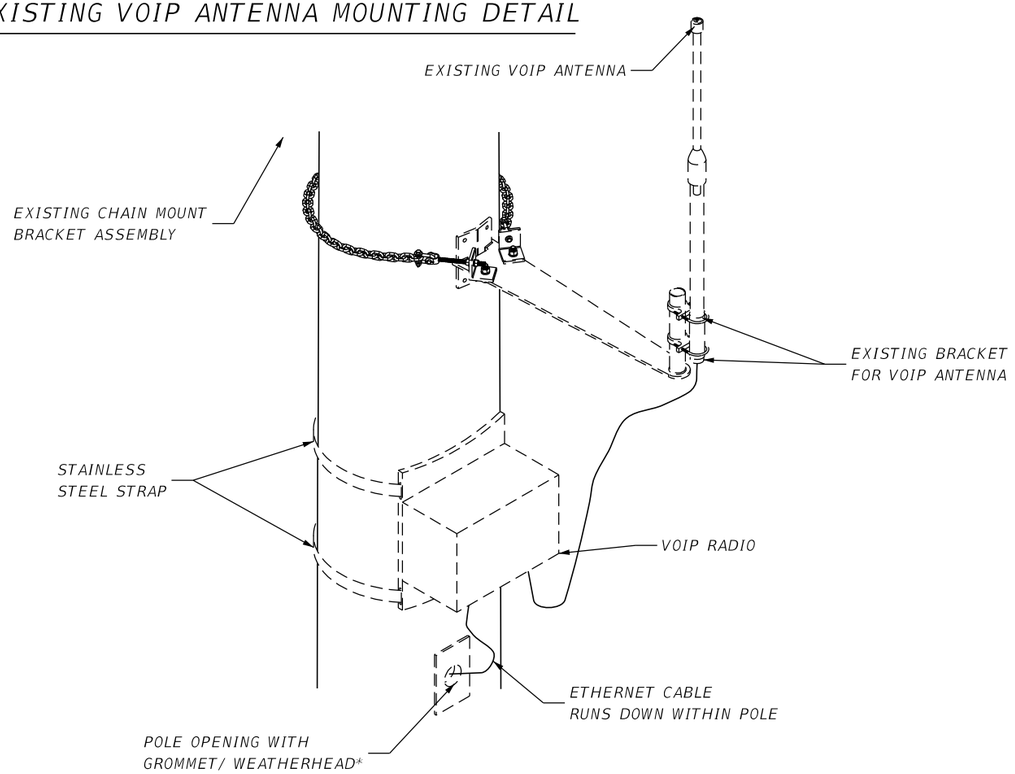
MFES PORT ALLOCATION

SHEET NO.
IT-498

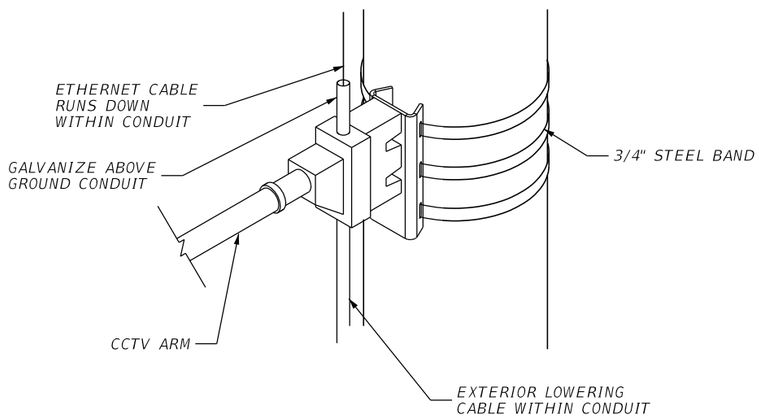
RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 5/29/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

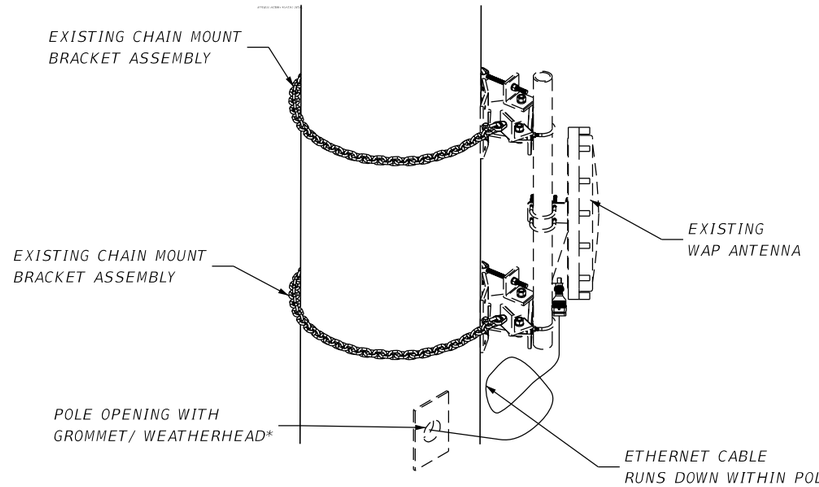
EXISTING VOIP ANTENNA MOUNTING DETAIL



CCTV MOUNTING TO TRUSS DETAIL

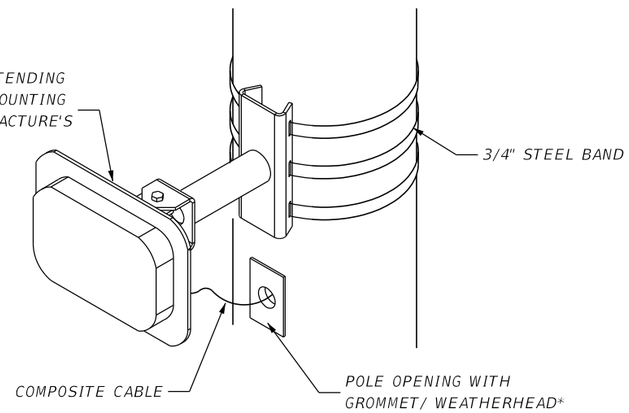


EXISTING WAP ANTENNA MOUNTING DETAIL



MVDS MOUNTING DETAIL

MVDS ON 2-AXIS BRACKET EXTENDING PARALLEL TO THE ROADWAY. MOUNTING HEIGHT SHALL BE PER MANUFACTURE'S SPECIFICATIONS.



*NOTE: DEVICES MOUNTED TO SIGN STRUCTURES SHALL RUN COMPOSITE CABLE THROUGH EXERIOR RISER.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

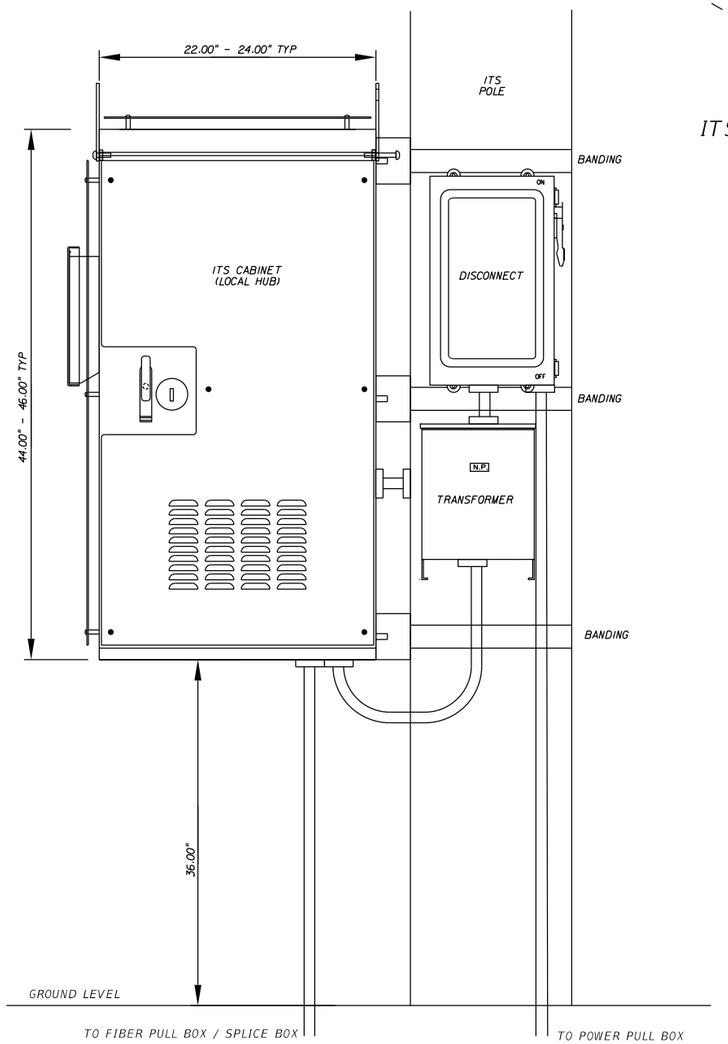
MOUNTING DETAILS

SHEET NO.
IT-499

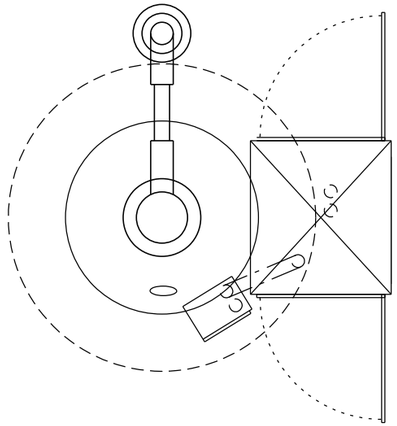
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 5/29/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

ITS CABINET DETAIL FOR SITES:
LHUB 95-18.03 NB
LHUB 95-18.71 NB

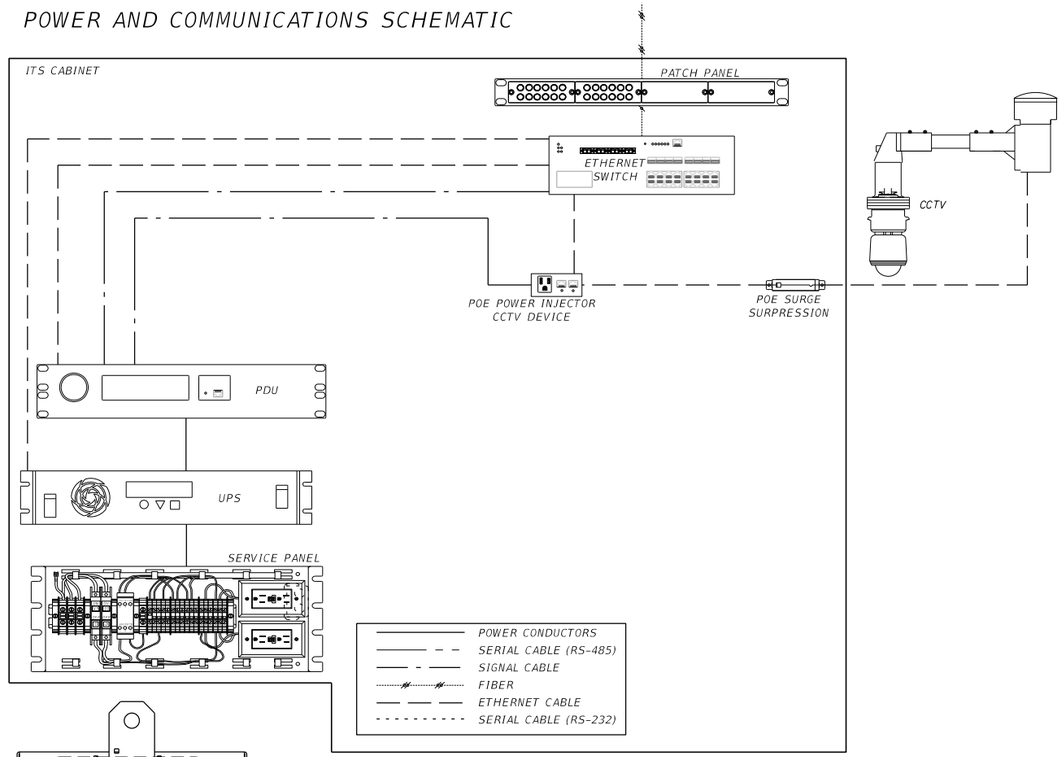
ITS CABINET RISER VIEW

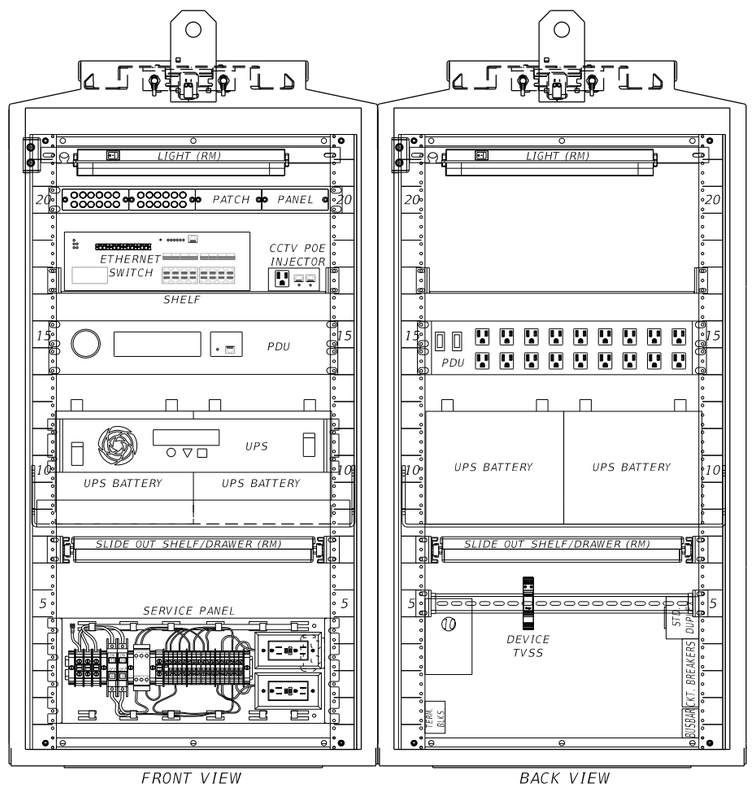


ITS POLE OVERHEAD VIEW



POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 CCTV)

SHEET NO. IT-500

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 5/29/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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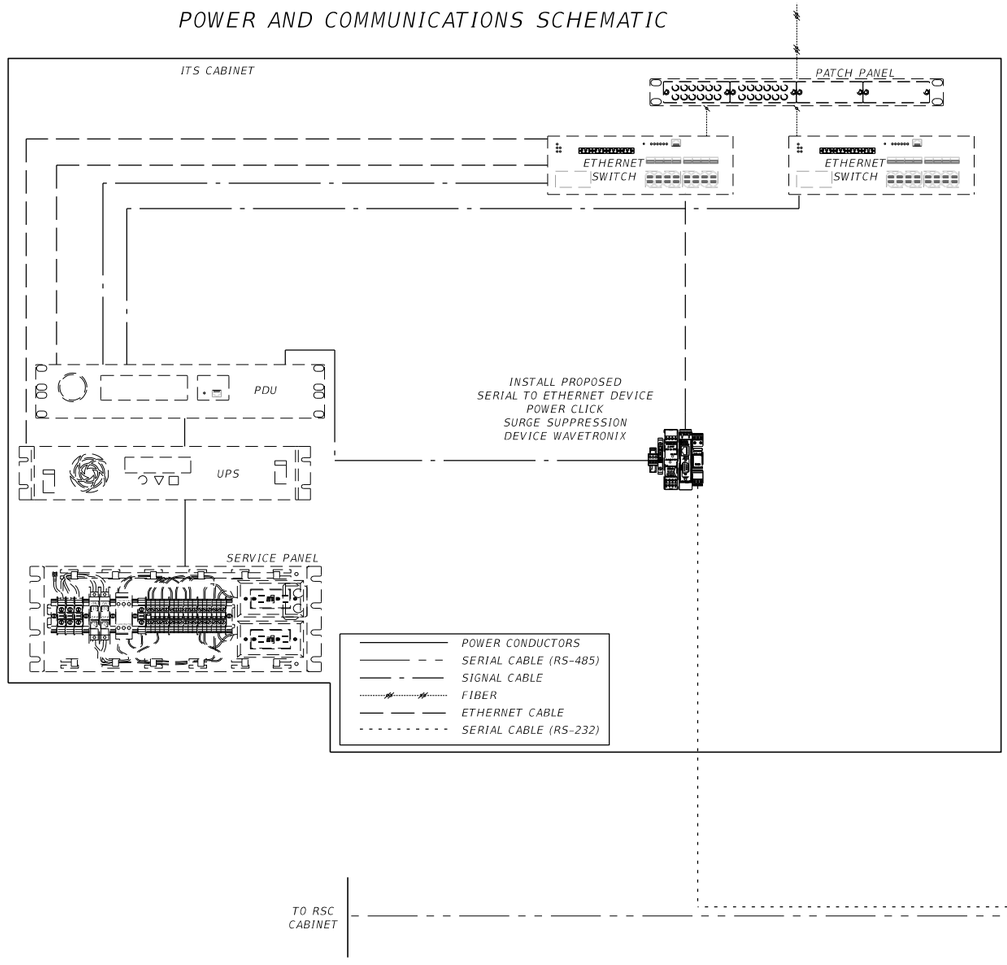
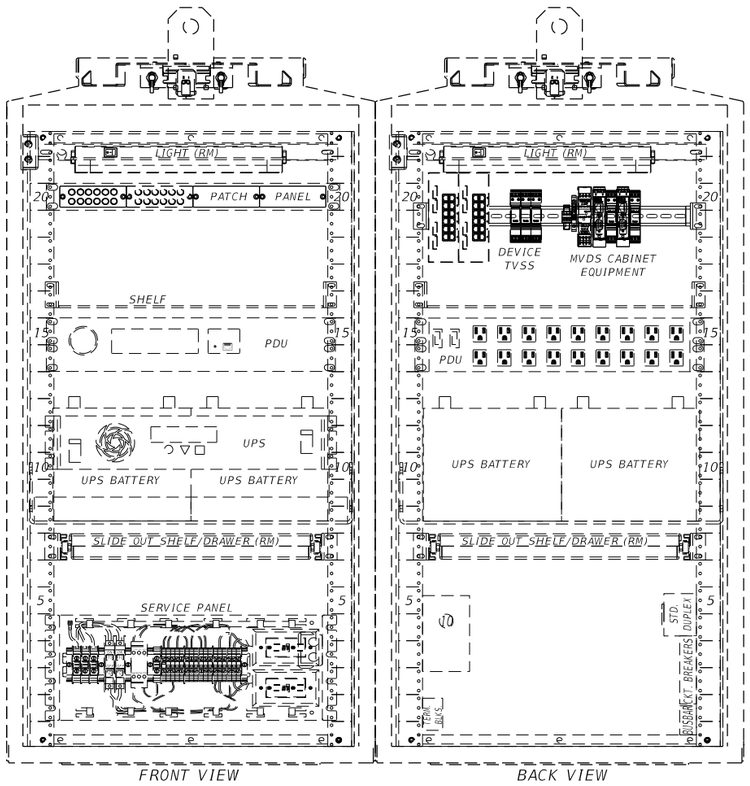
LHUB DETAIL FOR SITES:
EX. LHUB 95-17.95 NB
EX. LHUB 95-18.71 NB
EX. LHUB 95-18.85 SB

POWER AND COMMUNICATIONS SCHEMATIC



ITS CABINET EQUIPMENT LAYOUT VIEW (TYPICAL)



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
3. EQUIPMENT PLACEMENT ARE TYPICAL.
4. CONTRACTOR SHALL REPLACE ONE (1) RS485 TO ETHERNET DEVICE WITH RS232 TO ETHERNET DEVICE AND RUN PROPOSED RS 232 TO EXISTING MVDS.
5. CONTRACTOR SHALL UTILIZE D4 DETECTORS FOR HARDWARE CONNECTION TO RAMP SIGNAL CONTROLLER CABINET. COORDINATE CONNECTION TO EXISTING DETECTOR WITH THE DEPARTMENT PRIOR TO TIME OF INSTALLTION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (MVDS)

SHEET NO. IT-501

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 5/29/2018
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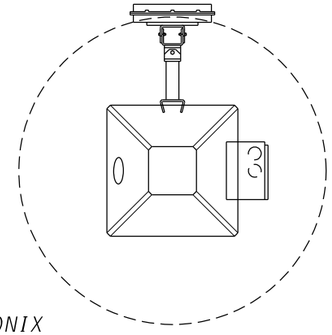
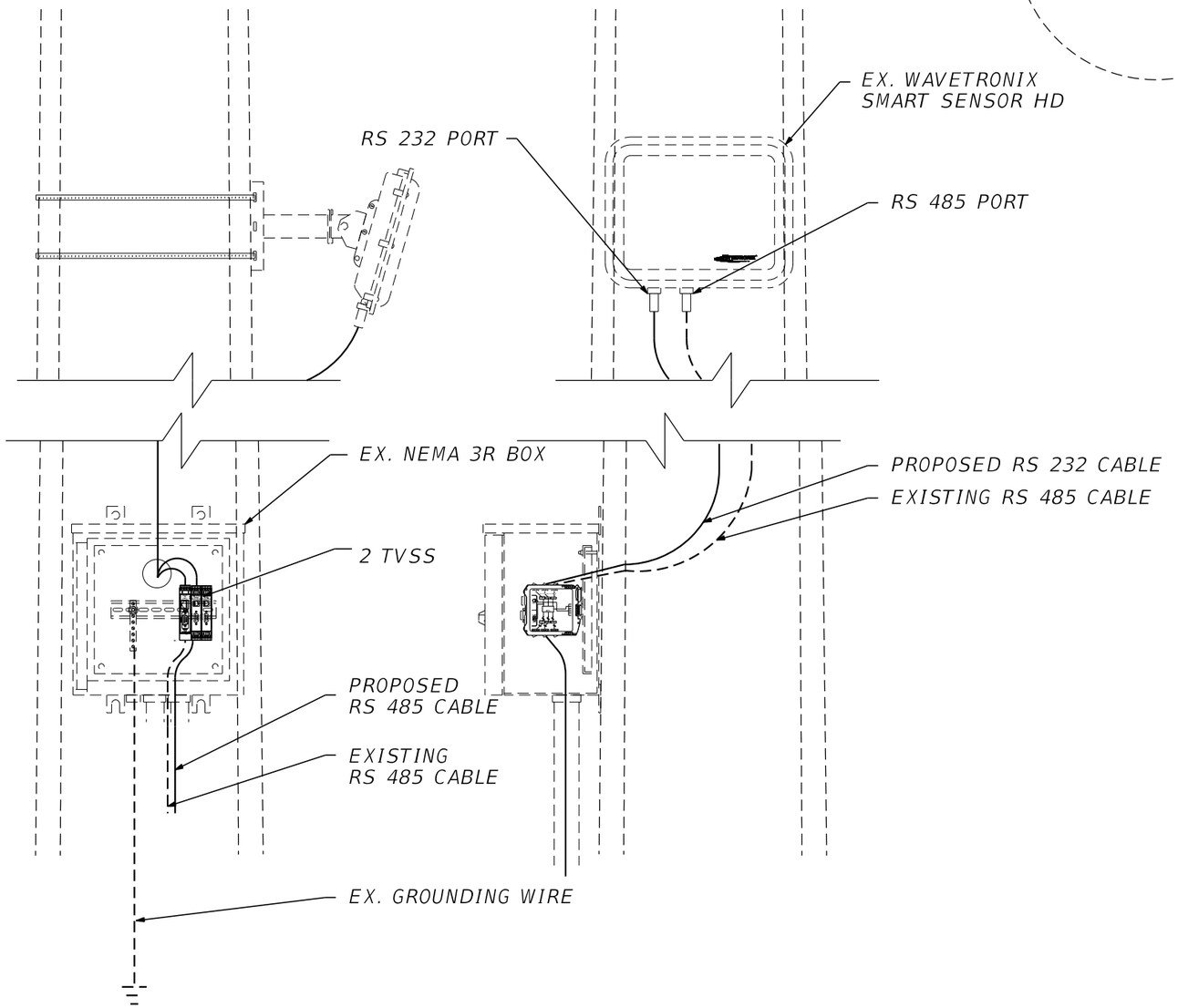
FPID 433108-4-52-01 CONTRACT E4Q32
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NEMA ENCLOSURE DETAIL FOR SITES: EX. MVDS 95-17.91 SB

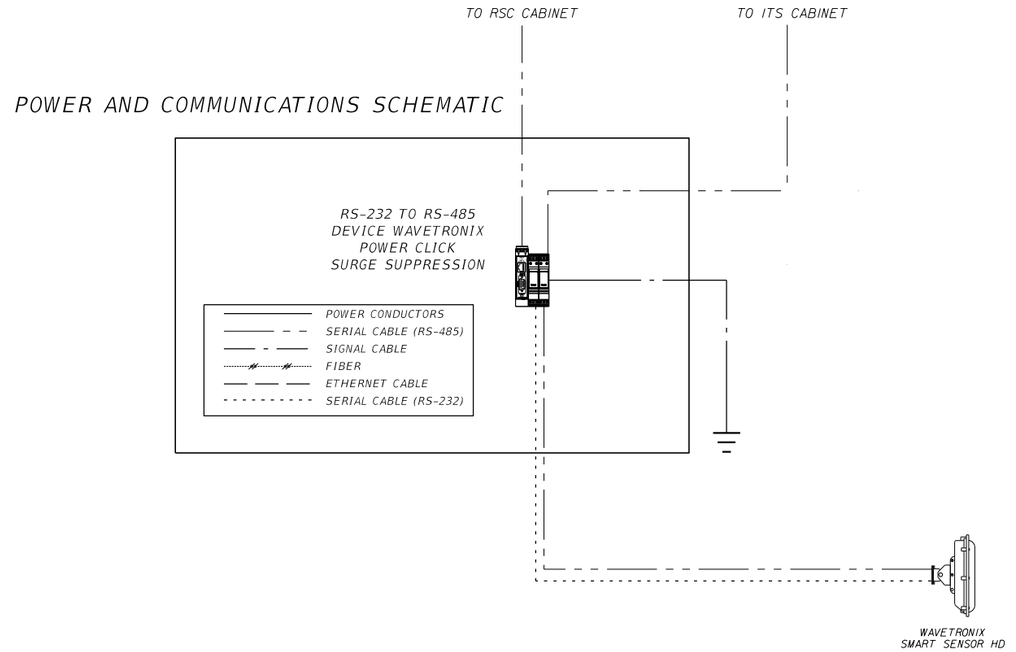
ITS POLE OVERHEAD VIEW



ITS CABINET RISER VIEW



POWER AND COMMUNICATIONS SCHEMATIC



NOTE:

1. EQUIPMENT PLACEMENT IS TYPICAL.
2. CONTRACTOR SHALL UTILIZE D4 DETECTORS FOR HARDWARE CONNECTION TO RAMP SIGNAL CONTROLLER CABINET. COORDINATE CONNECTION TO EXISTING DETECTOR WITH THE DEPARTMENT PRIOR TO TIME OF INSTALLTION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (MVDS AUX. CABINET)

SHEET NO.
IT-502

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 5/29/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

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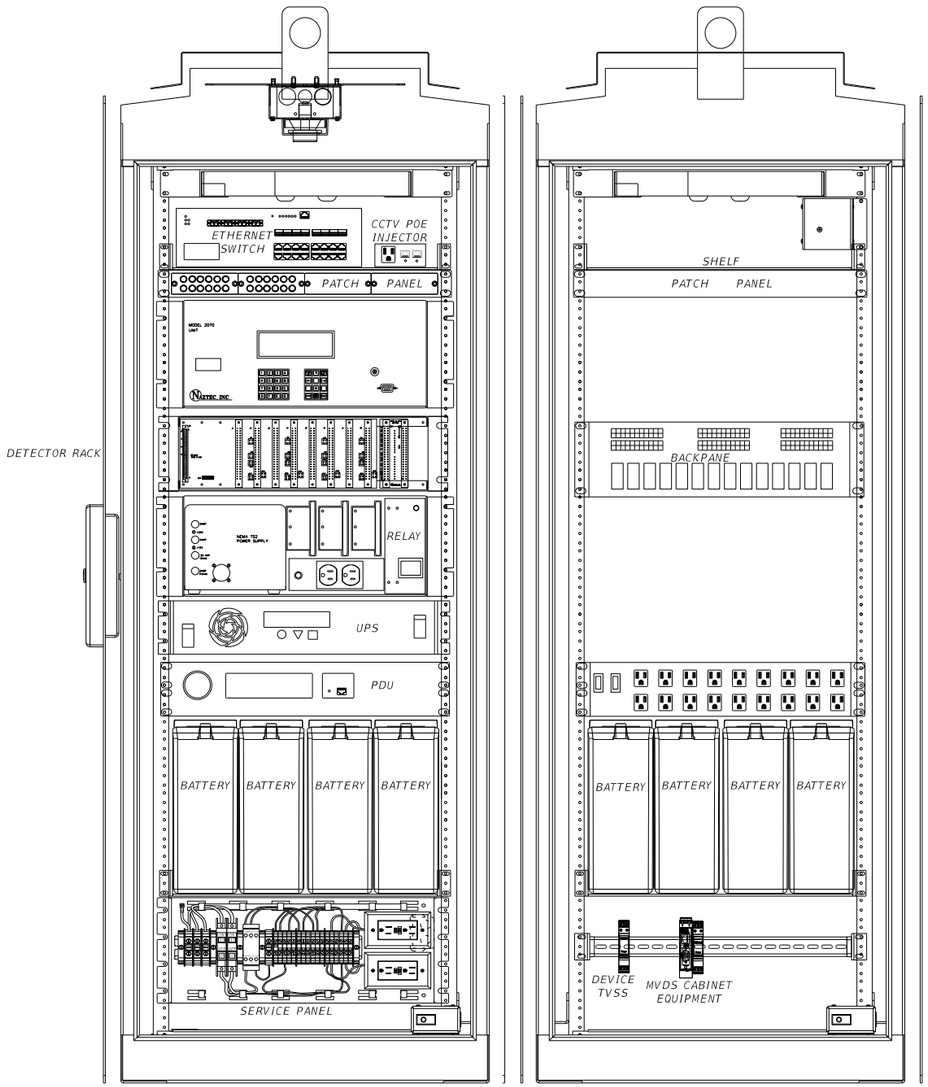
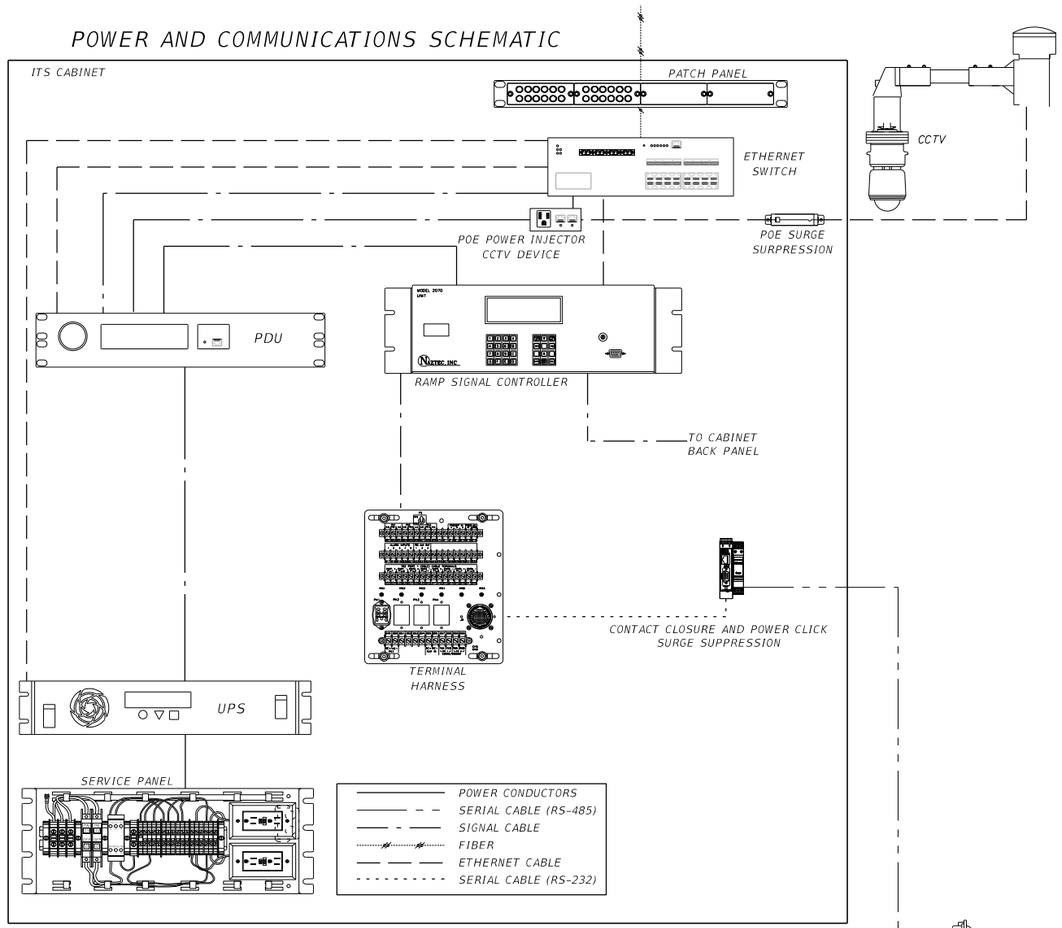
RAMP SIGNAL CABINET DETAIL FOR SITES:
RSC 95-17.87 SB
RSC 95-18.66 SB



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE OT SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL BE GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED. EQUIPMENT PLACEMENT ARE TYPICAL.
7. CONTRACTOR SHALL UTILIZE D4 DETECTORS FOR HARDWARE CONNECTION TO RAMP SIGNAL CONTROLLER CABINET. COORDINATE CONNECTION TO EXISTING DETECTOR WITH THE DEPARTMENT PRIOR TO TIME OF INSTALLTION.

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 5/29/2018
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FPID 433108-4-52-01 CONTRACT E4Q32
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Transportation, Land Development, Environmental Services
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PE # 74758

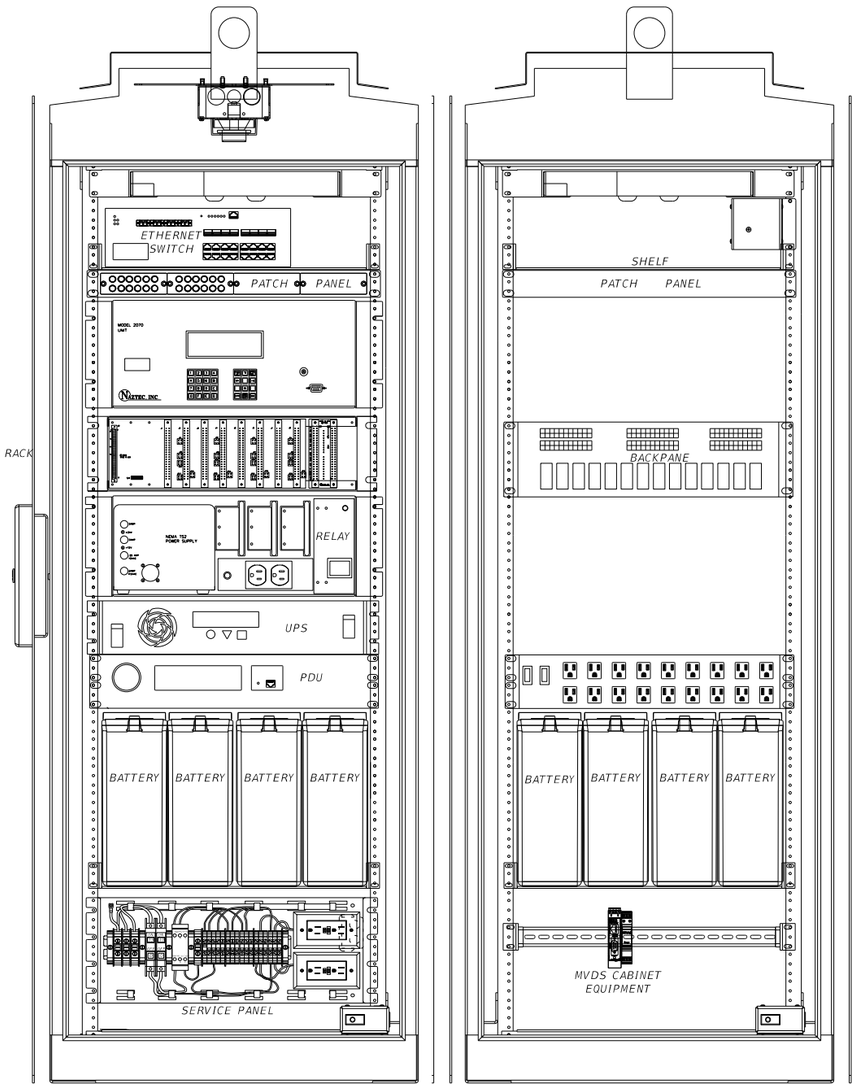
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

RAMP SIGNAL CABINET DETAIL (WITH 1 CCTV)

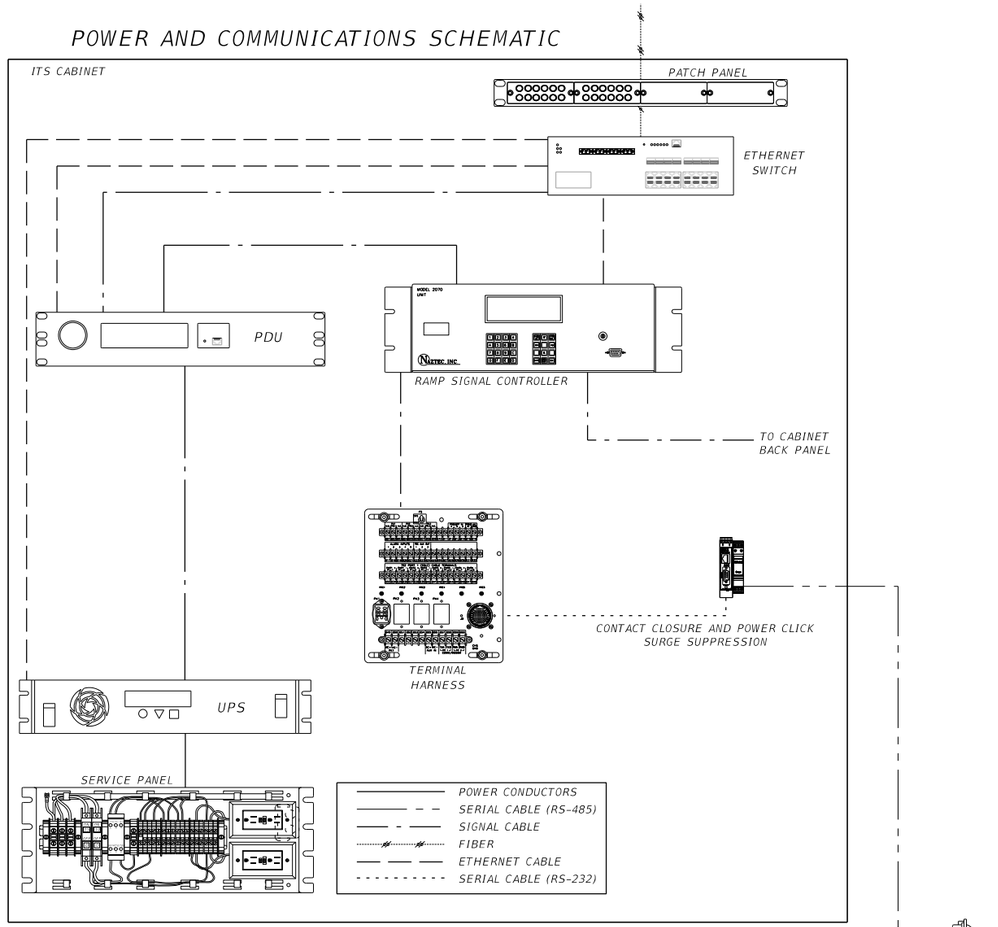
SHEET NO. IT-503

RAMP SIGNAL CABINET DETAIL FOR SITES:
RSC 95-18.12 NB
RSC 95-18.96 NB



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE OT SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL BE GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED. EQUIPMENT PLACEMENT ARE TYPICAL.
7. CONTRACTOR SHALL UTILIZE D4 DETECTORS FOR HARDWARE CONNECTION TO RAMP SIGNAL CONTROLLER CABINET. COORDINATE CONNECTION TO EXISTING DETECTOR WITH THE DEPARTMENT PRIOR TO TIME OF INSTALLTION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

RAMP SIGNAL CABINET DETAIL (DETAILS)

SHEET NO. IT-504

jknight 4/23/2018 10:16:53 AM \\vhb\proj\Orlando\62442.00 I-95 Express 3A-1\cad\te\E4Q32\its\SGDTIT11 - Ramp.dgn

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 5/29/2018
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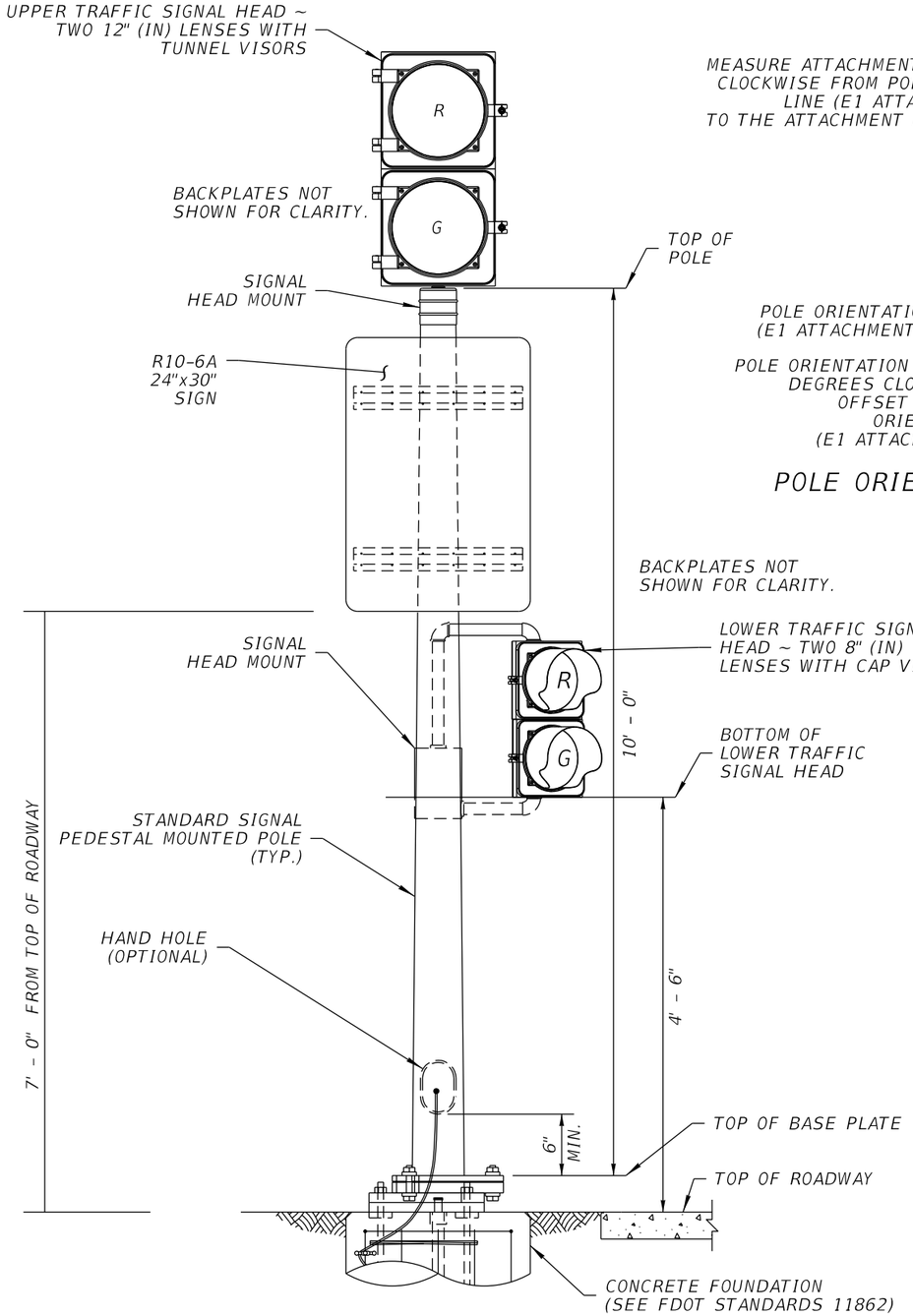
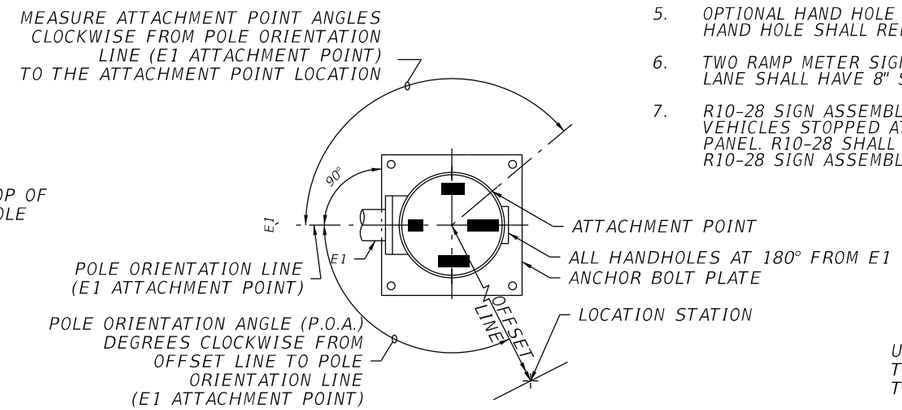
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

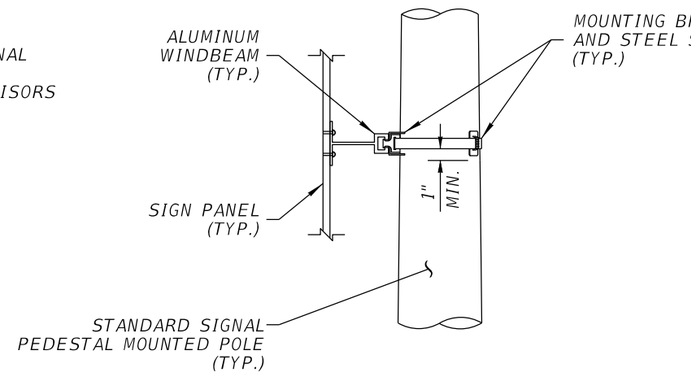
NOTES:
1. RAMP METER SIGNAL POLES AND SIGNALS ARE TO COMPLY TO FDOT STANDARDS AND CLEARZONE CRITERIA.
2. A BACKPLATE SHALL BE INSTALLED ON THE UPPER TRAFFIC SIGNAL HEAD. INSTALL A BACKPLATE ON THE LOWER TRAFFIC SIGNAL HEAD ONLY WHEN REQUIRED.
3. FOR SIGN INSTALLATION DETAIL SEE FDOT DESIGN STANDARDS 11860.
4. SIGNAL POLE SHALL USE SLIP BASE IF INSTALLED CLOSER THAN 5 FT FROM FACE OF GUARDRAIL.
5. OPTIONAL HAND HOLE SHALL FACE THE OPPOSITE DIRECTION FROM THE UPPER TRAFFIC SIGNAL HEAD. HAND HOLE SHALL REMAIN ACCESSIBLE AFTER POLE AND SIGN INSTALLATION IS COMPLETE.
6. TWO RAMP METER SIGNALS SHALL BE INSTALLED ON TWO LANE RAMPS. SIGNALS ADJACENT TO RIGHT LANE SHALL HAVE 8" SIGNAL FACING RIGHT TURN LANE.
7. R10-28 SIGN ASSEMBLY SHALL BE INSTALLED ADJACENT TO RAMP METER SIGNALS SUCH THAT VEHICLES STOPPED AT RAMP STOP BAR SHALL BE ABLE TO VIEW BOTH SIGNAL AND R10-28 SIGN PANEL. R10-28 SHALL DISPLAY "ONE VEHICLE PER GREEN" FOR ONE LANE RAMPS. R10-28 SIGN ASSEMBLY SHALL BE INSTALLED PER FDOT INDEX 17302.



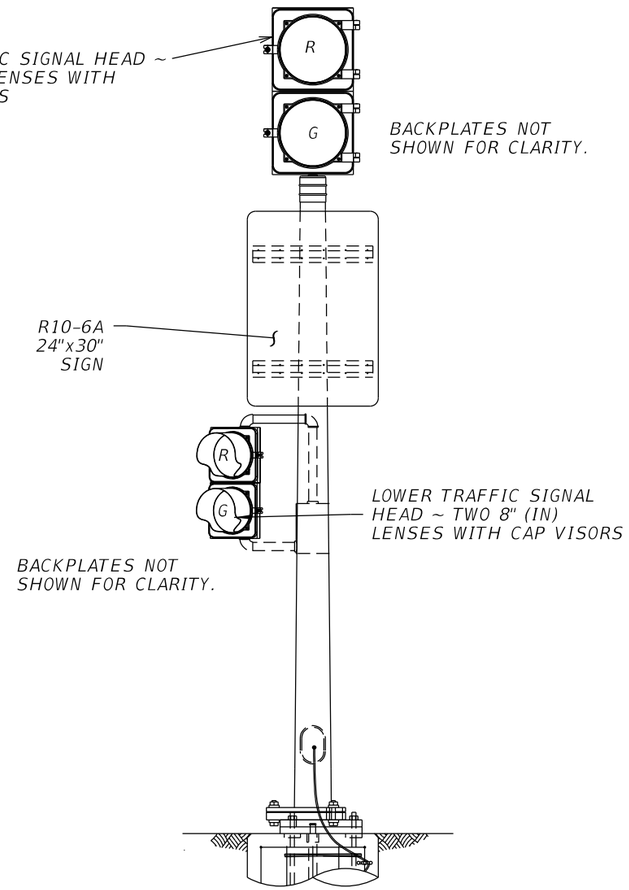
RAMP METER SIGNAL STANDARD INSTALLATION



POLE ORIENTATION AND ATTACHMENT POINT DETAIL



SIGN PLACEMENT DETAIL



RAMP METER SIGNAL INSTALLATION
2 LANE RAMP-SIGNAL ADJACENT TO RIGHT LANE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

RAMP SIGNAL POLE DETAILS (1 OF 2)

SHEET NO. IT-505

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 5/29/2018
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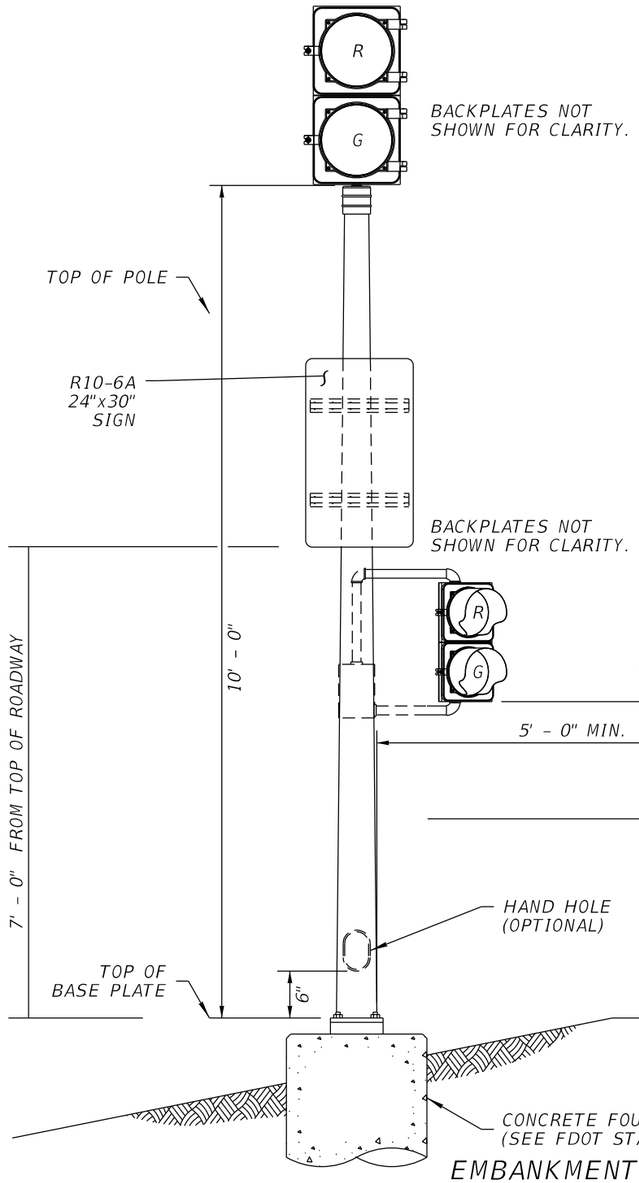
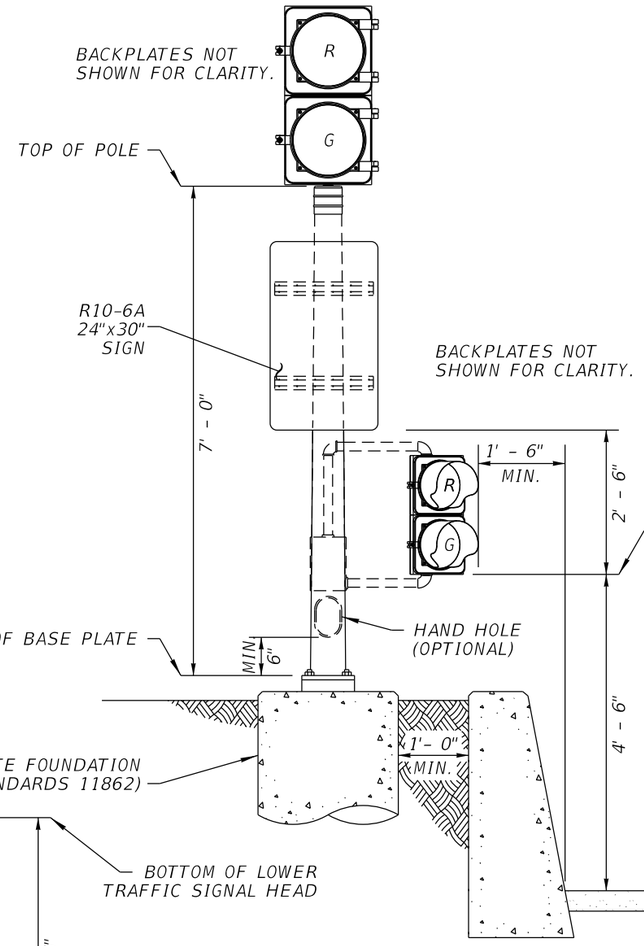
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

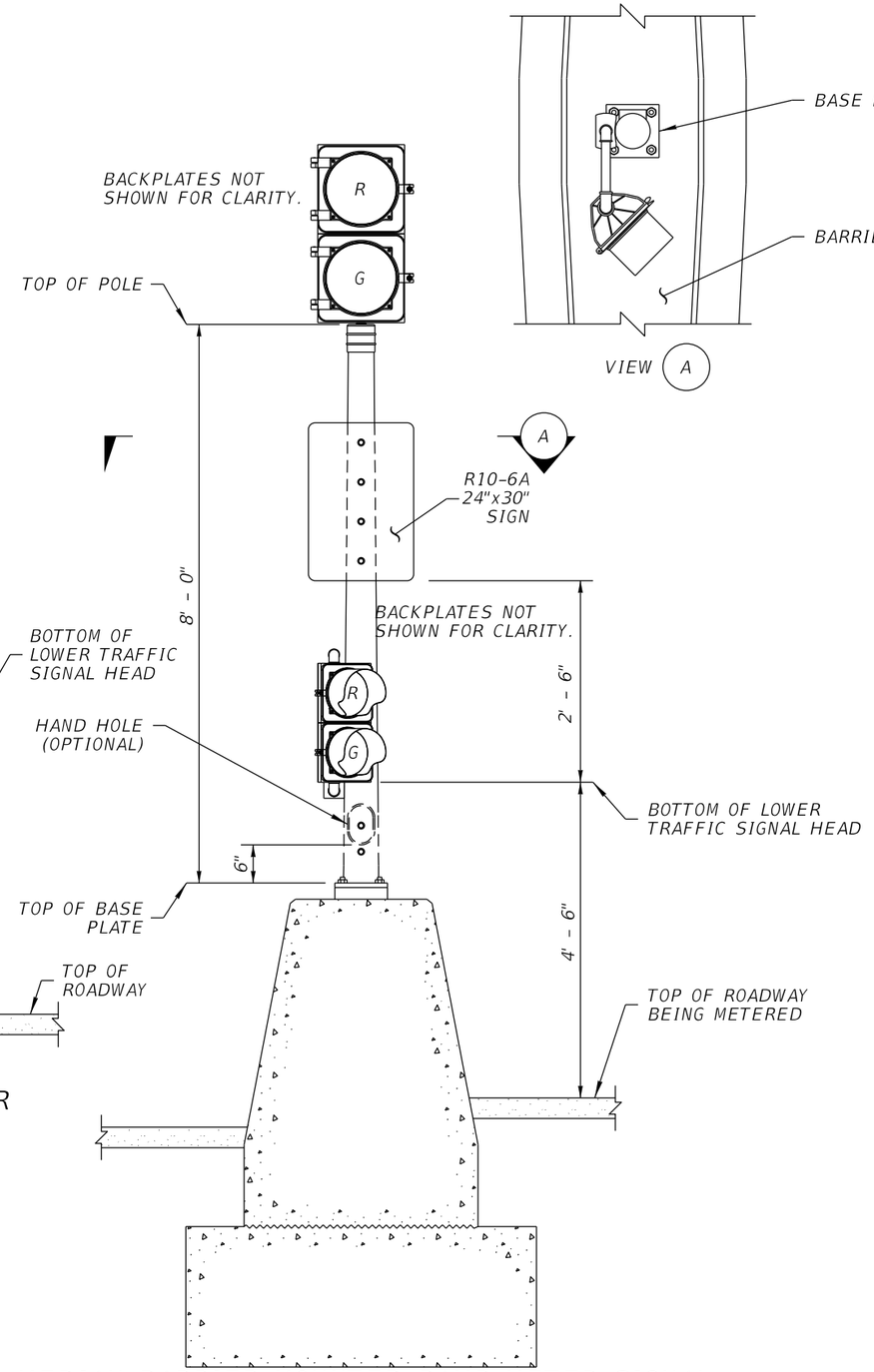
1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL MEDIAN BARRIER MOUNTED REMP METER SIGNAL BASE PLATES AND ANCHORAGES, SIGNED AND SEALED BY A REQISTERED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA, FOR REVIEW PRIOR TO CONSTUCTION OF ALL MEDIAN BARRIER MOUNTED RAMP METER SIGNALS.



EMBANKMENT SECTION BEHIND GUARDRAIL
(GROUND-MOUNTED)



CUT SECTION BEHIND BARRIER
(GROUND-MOUNTED)



MEDIAN BARRIER MOUNTED RAMP METER SIGNAL
(N.T.S.)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

RAMP SIGNAL POLE DETAILS (2 OF 2)

SHEET NO. IT-506

RELEASED FOR CONSTRUCTION BY: (FDOT) VS Date: 5/29/2018
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GROUND MOUNTED FLASHING BEACON SIGN

1. ALUMINUM: Aluminum materials shall meet the requirements of Aluminum Association Alloy 6061-T6 (ASTM B209, B221, B308 or B429), except as noted.

2. Sign panel (W3-8), wind beam and columns shall be installed in accordance with Index 11860 and Section 700 of the Specifications.

3. Height and offset to sign column shall be in accordance with Index 17302.

4. When aluminum column (posts) are installed with a frangible pedestal pole bases, engage all threads on the pedestal pole base and pipe unless the pipe is fully seated into base.

5. Aluminum poles and transformer bases shall meets the requirements of Section 646 of the Specifications.

6. A concrete slab shall be installed around all flashing beacon assemblies installed on slopes 6:1 or greater. Minimum dimension of slab shall be 4'-0" by 5'-0".

7. A concrete slab shall be installed around all pull boxes. Minimum dimension of slab shall be 4'-0" by 4'-0". In urban areas where space is limited slab dimensions may be adjusted as shown in the plans.

8. Provide single pole non-fused watertight breakaway electrical connectors in the frangible pedestal pole base.

9. Holes drilled in sign column for wire entry shall use a bushing or rubber grommet to protect conductors.

10. Flashing beacons shall be installed with backplates

BRIDGE MOUNTED FLASHING BEACON SIGN

1. Materials:

A. Steel Plate: ASTM A36 or ASTM A709 Grade 36
B. Steel Pipe (Support Post): ASTM A501 Schedule 40
C. Aluminum Pipe: ASTM B210 Alloy 6061-T6
D. Galvanized U-Bolts, Nuts and Plate Washer
   a. U-Bolts: ASTM A449
   b. Hex Nuts: ASTM A 536 Lock Nuts
   c. Plate Washer: ASTM A 36 or ASTM A709 Grade 36 or 50
E. Galvanized Anchor bolts, Nuts and Washers:
   a. Anchor Rod: ASTM F1554 Grade 55 fully threaded (for Adhesive Anchors)
   b. Anchor Bolts: ASTM F1554 Grade 55 Grade A Hex
   c. Nuts: ASTM A563 Heavy Hex Locking
   d. Washers: ASTM F436
F. Adhesive Anchor Bonding Material: Specification Section 931 Type HV Adhesive.
G. Weld Material: E70XX
H. Snap-In Post Cap: UV and weather-resistant glass-filled polyester cap

2. Coating:

A. U-Bolts, Threaded Rods, Nuts and Washers: ASTM F2329
B. Other Steel: ASTM A123

3. Fabrication:

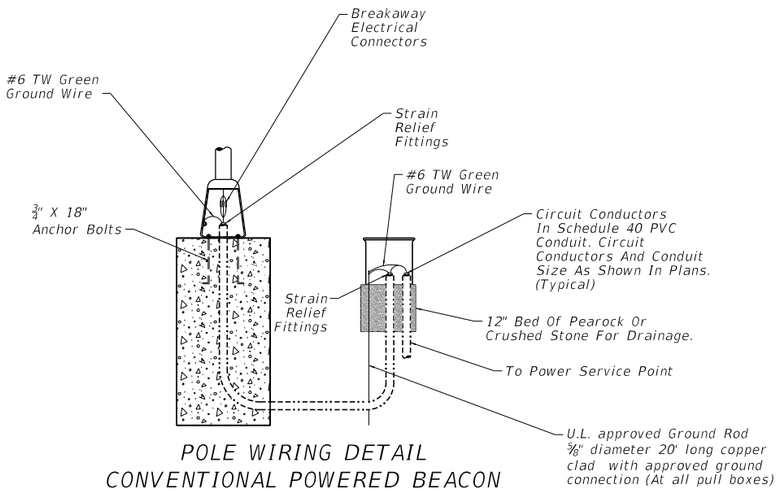
A. Weld: Specification Section 460-6.4
B. Hot dip galvanize after fabrication

4. Construction:

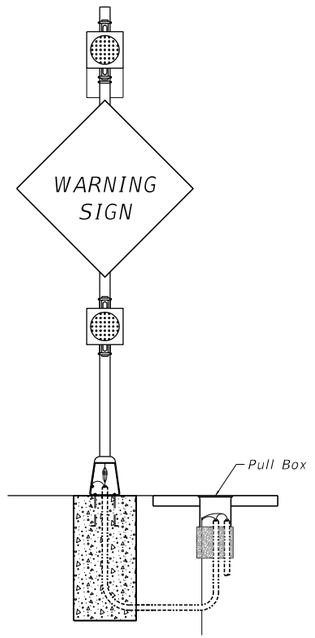
A. Locate Sign Support a minimum of 5 feet from an open joint or transition (sign stationing may be adjusted to accommodate this requirement.
B. Base plate must be flush with back of Traffic Railing
C. Anchors in Traffic Railings:
   a. Install Adhesive Anchors in accordance with Specification section 416 except perform field test on one anchor per sign support location.
   b. Use templates and tie anchors as necessary to maintain correct placement of C-I-P Embedded Anchors
   c. Do not drill into existing conduit

5. Payment:

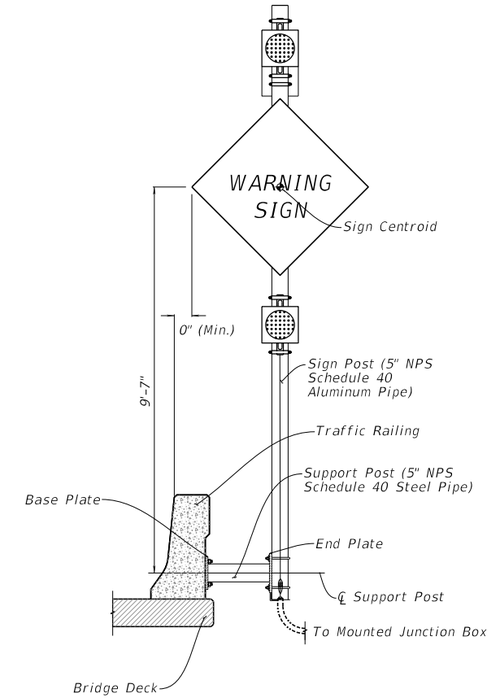
Include the cost of all materials and labor in the cost of the single post sign assembly.



POLE WIRING DETAIL
CONVENTIONAL POWERED BEACON



GROUND MOUNTED BEACON ASSEMBLY



BRIDGE MOUNTED BEACON ASSEMBLY

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

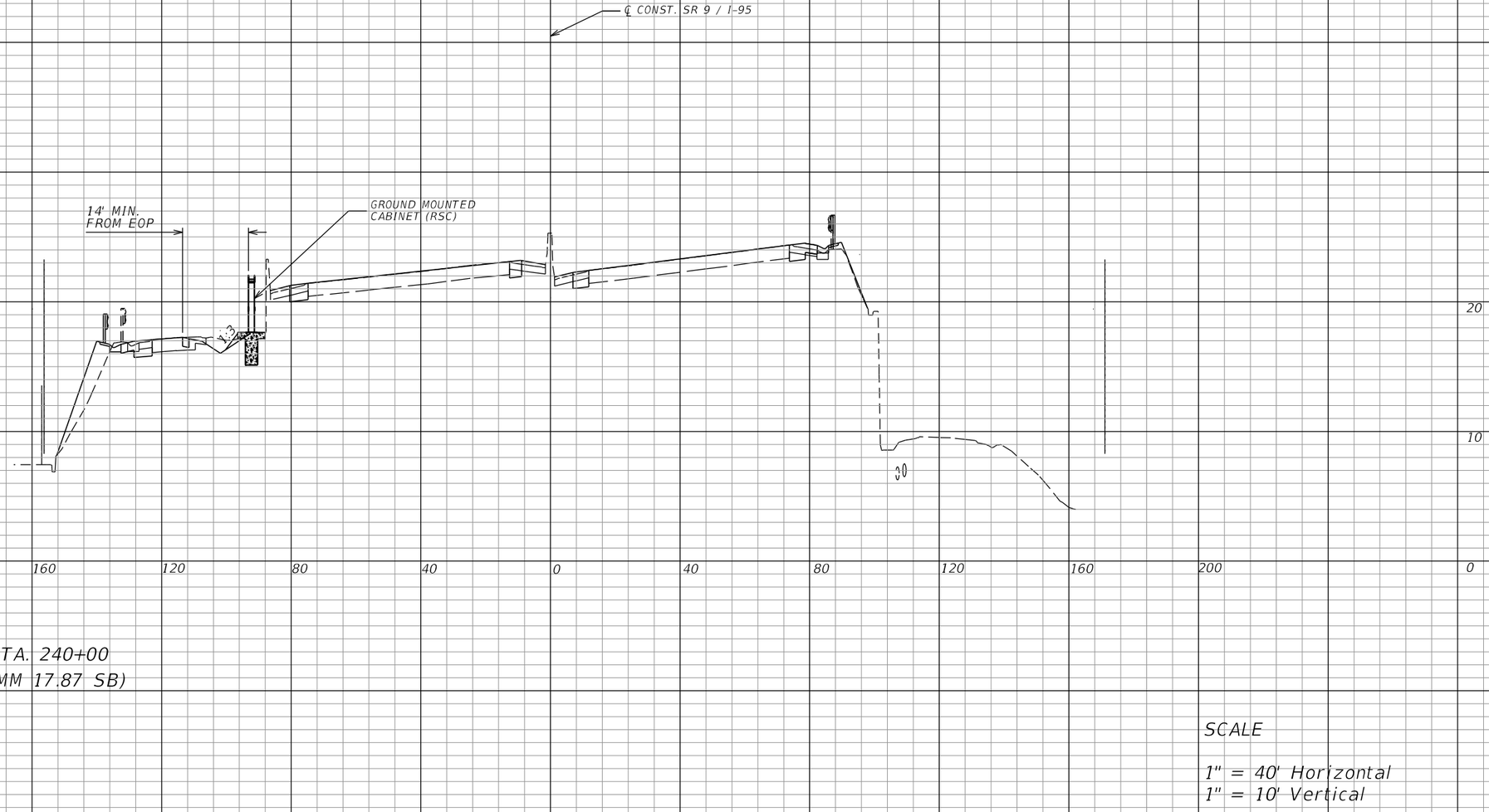
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

FLASHING BEACON SIGN DETAIL

SHEET NO.
IT-507

RELEASED FOR CONSTRUCTION
BY: (FDOT) VS Date: 5/29/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 CONTRACT E4Q32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



STA. 240+00
(MM 17.87 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-508

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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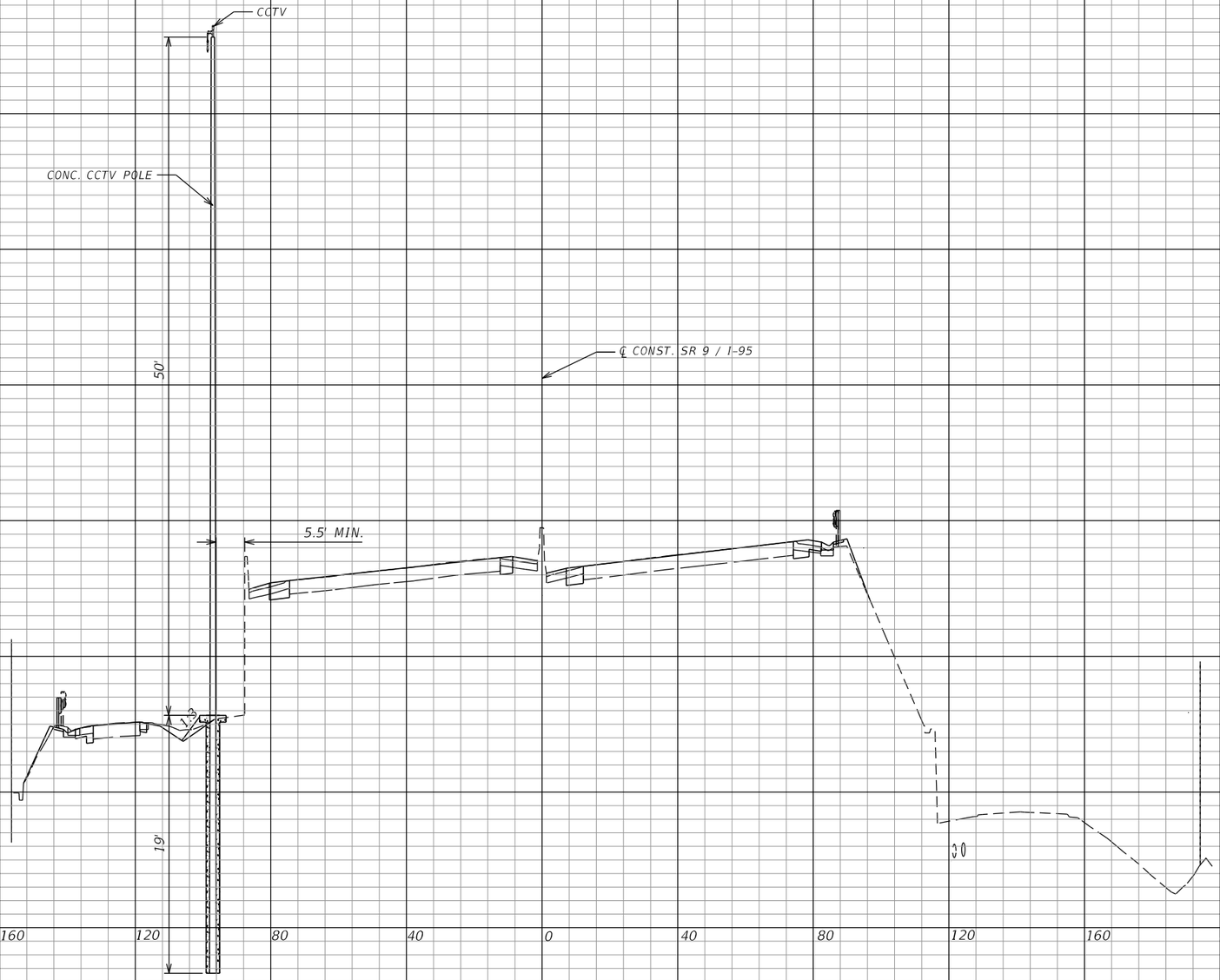

STA. 242+20
(MM 17.88 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-509

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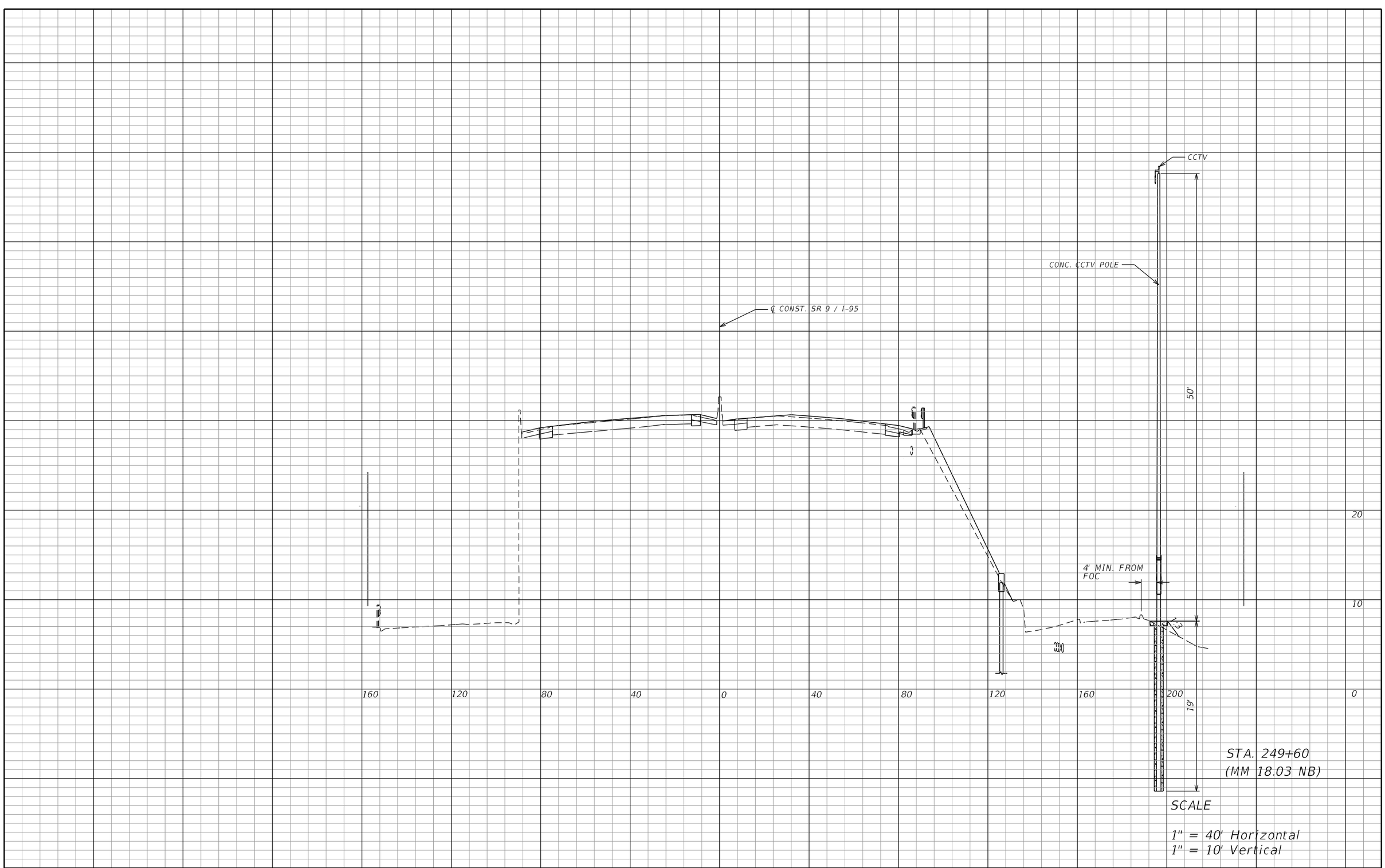

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Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-510

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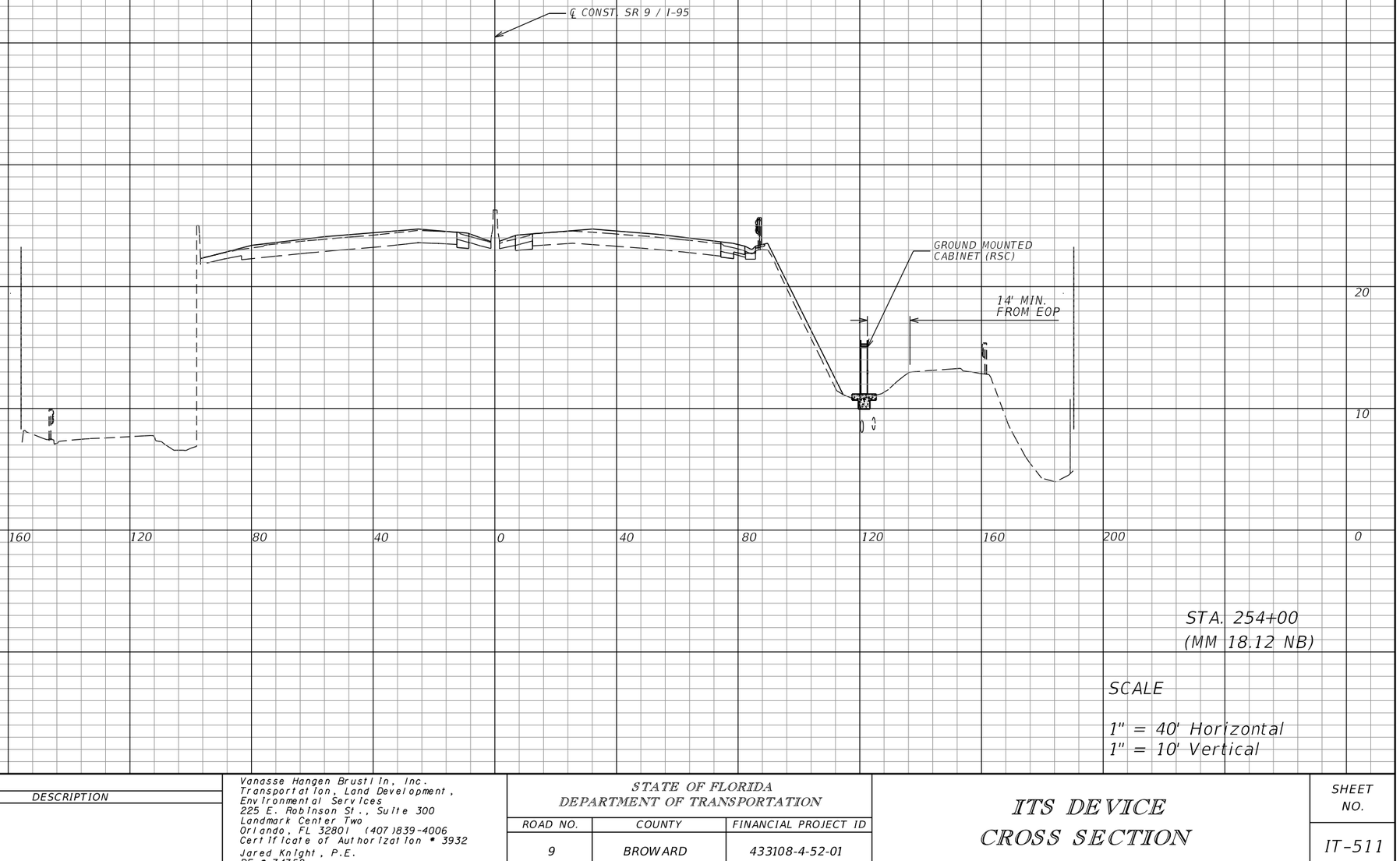

STA. 254+00
(MM 18.12 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
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Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-511

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BY: (FDOT) VS Date: 5/29/2018
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FPID 433108-4-52-01 CONTRACT E4Q32

SEALED UNDER RULE 61G15-23.004, F.A.C.

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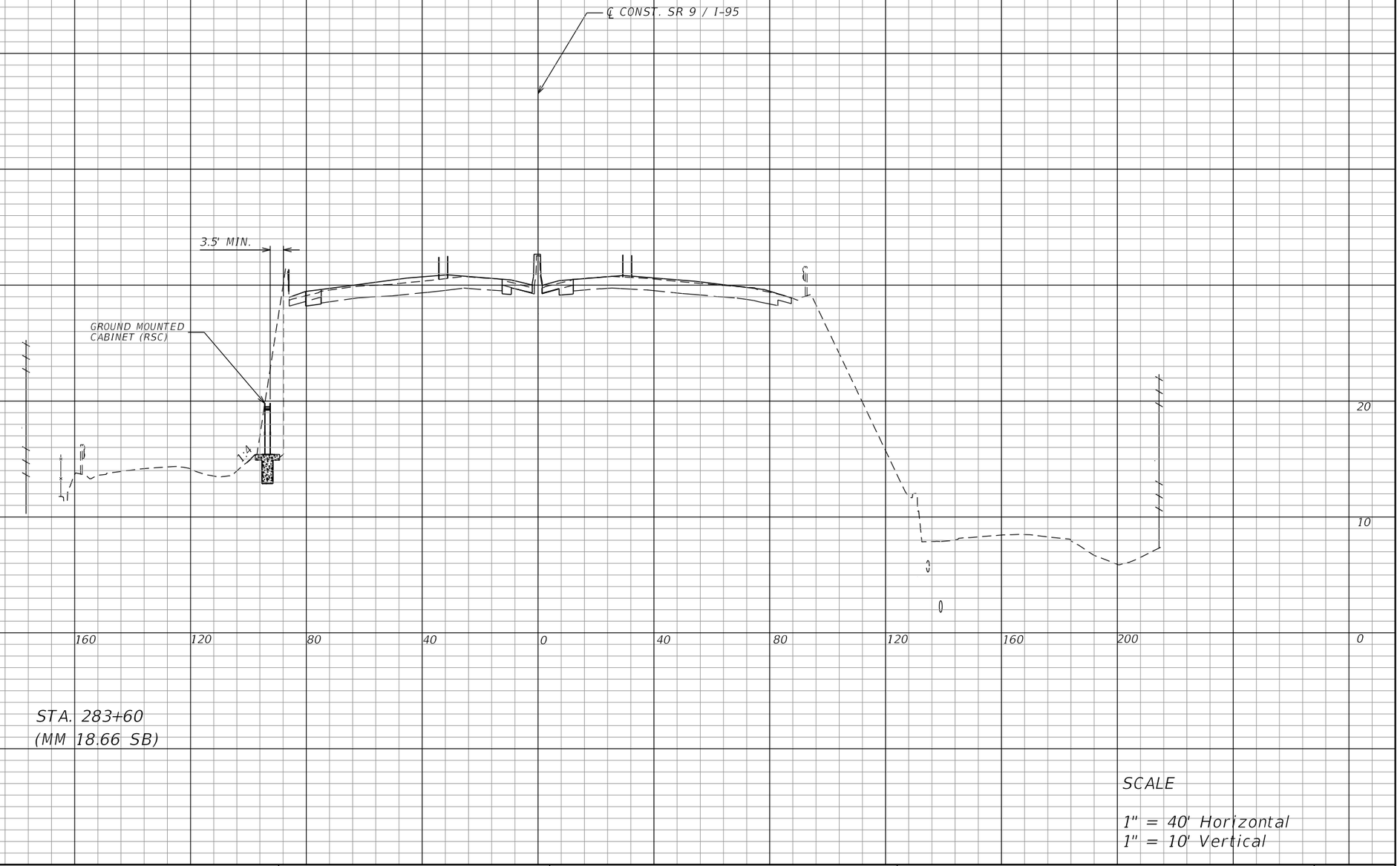

STA. 283+60
(MM 18.66 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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Jared Knight, P.E.
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-512

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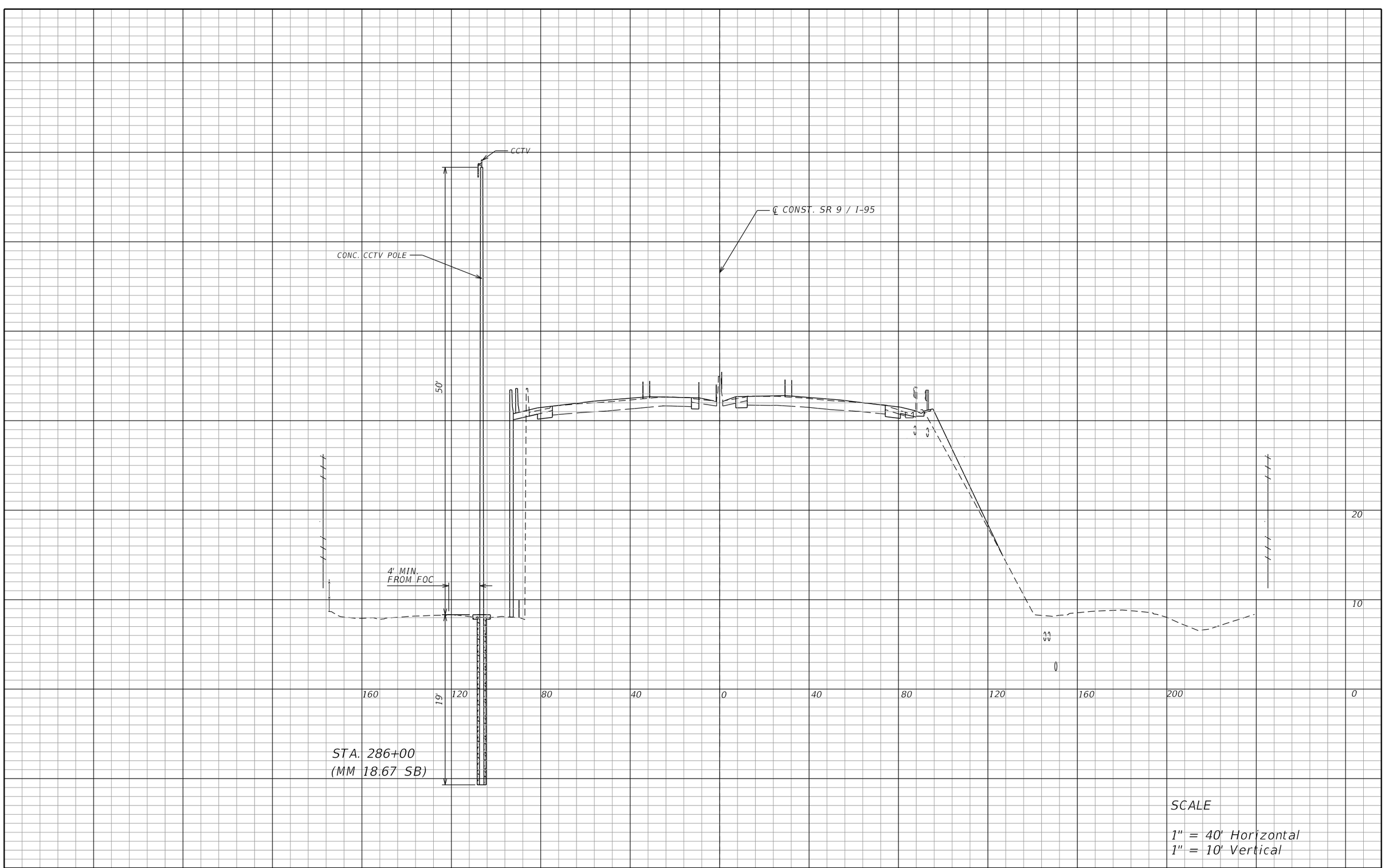
FPID 433108-4-52-01 CONTRACT E4Q32



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DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
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225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-513

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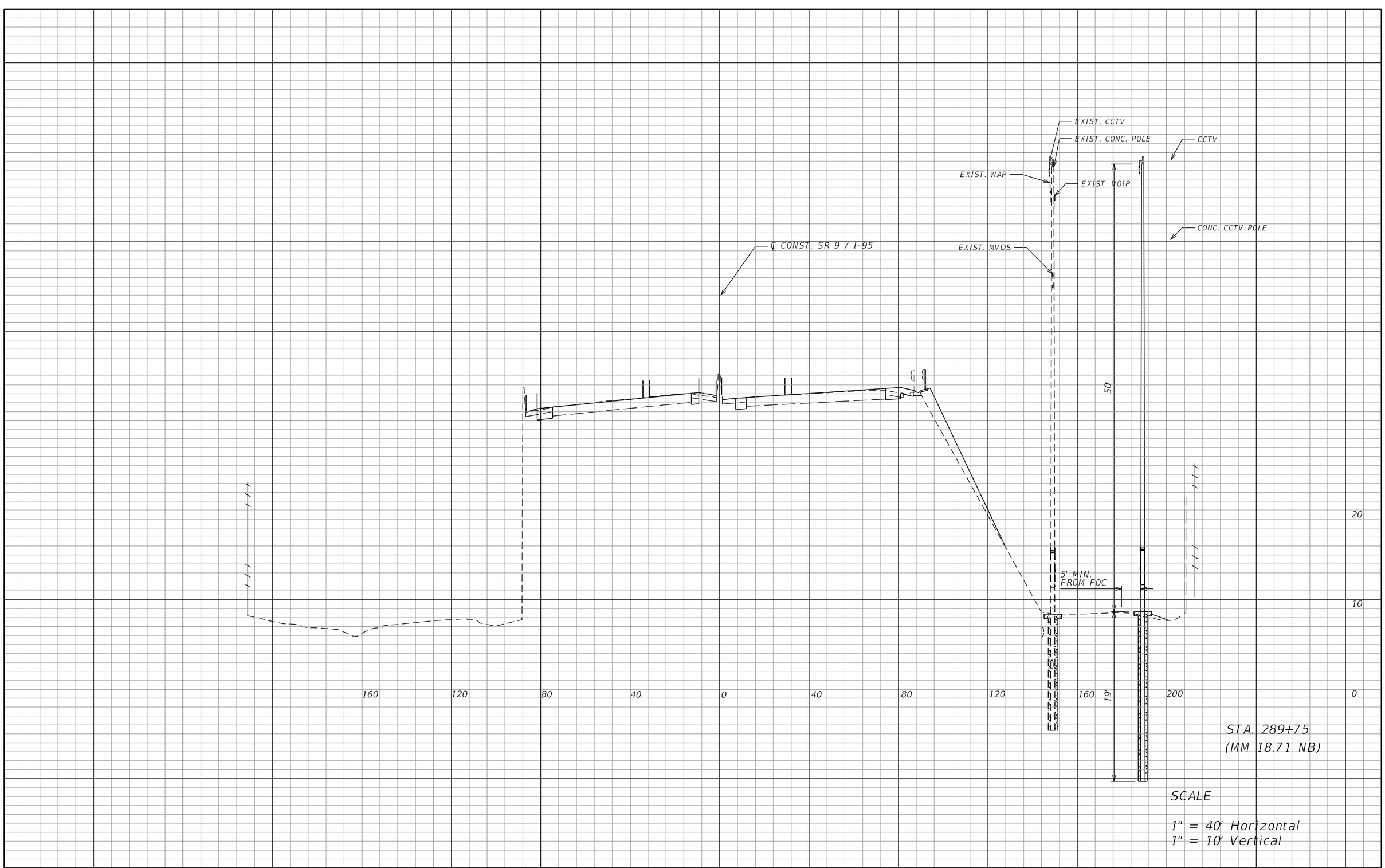

STA. 289+75
(MM 18.71 NB)

SCALE

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1" = 10' Vertical

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Orlando, FL 32801 (407)839-4006
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-514

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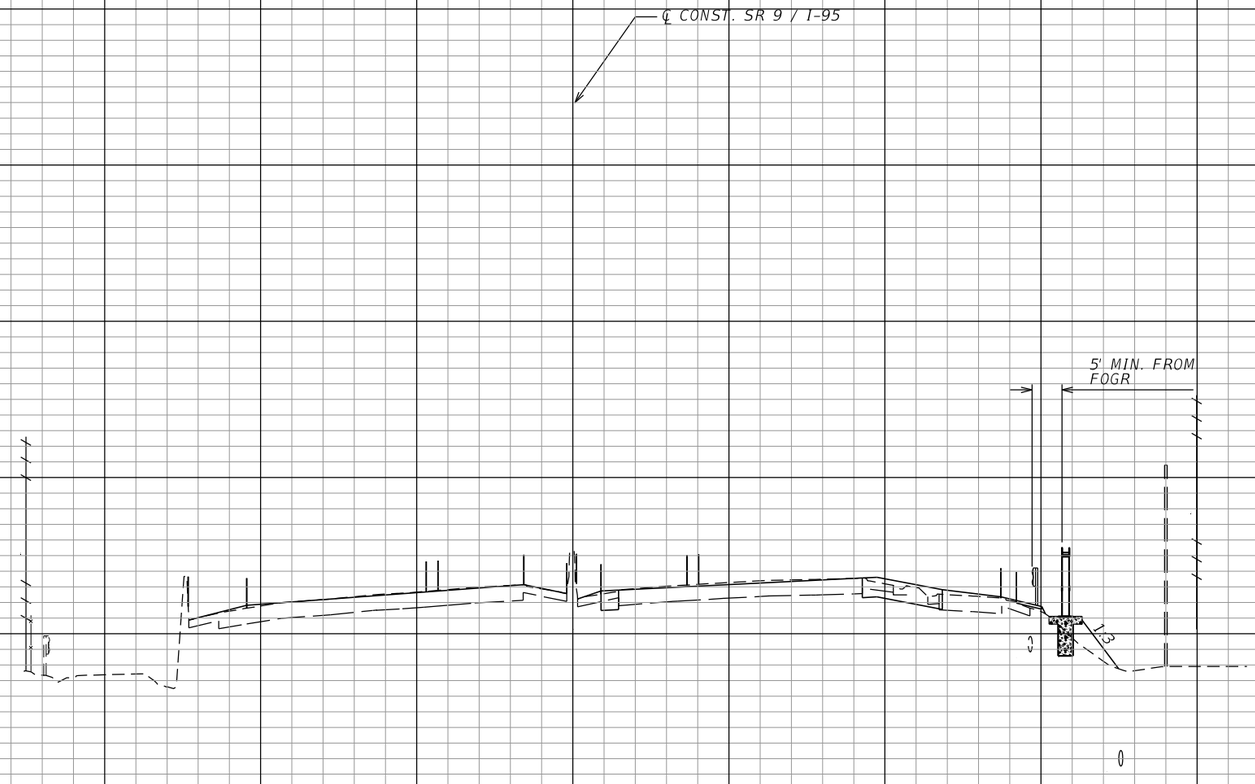

STA. 299+60
(MM 18.96 NB)

SCALE

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1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-515

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FPID 433108-4-52-01 CONTRACT E4Q32

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

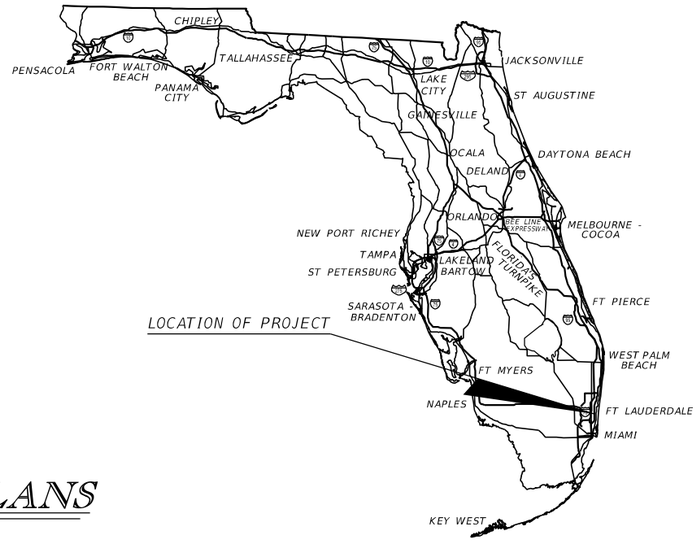
FINANCIAL PROJECT ID 433108-4-52-01

FINANCIAL PROJECT ID 428009-1-52-01

BROWARD COUNTY (86070)

(FEDERAL FUNDS)

STATE ROAD NO. 9



INTELLIGENT TRANSPORTATION SYSTEMS PLANS

INDEX OF ITS PLANS

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IT-163 TO IT-164	SUMMARY OF DEVICES
IT-165 TO IT-166	GENERAL NOTES
IT-167 TO IT-168	POLE DATA SHEET
IT-169 TO IT-174	ITS LAYOUT SHEET
IT-175 TO IT-207	ITS PLAN SHEET (38)
IT-208 TO IT-219 (38)	SITE LAYOUT DETAILS
IT-220 TO IT-222	GENERATOR DETAILS
IT-223 TO IT-267	POWER SERVICE DETAILS
IT-268	STATUS DMS RISER DIAGRAM
IT-269	TOLL RATE DMS RISER DIAGRAM
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IT-314	ROUTE MARKER DETAIL
IT-315	FIBER OPTIC SPLICE BOX DETAIL (38)
IT-316	ELECTRICAL PULL BOX DETAIL
IT-317	FIBER PULL BOX DETAIL
IT-318	MFES PORT ALLOCATION
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IT-320	BRIDGE MOUNT DETAILS
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IT-359 TO IT-361	RAMP SIGNAL CABINET DETAIL (38)
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IT-364	FLASHING BEACON SIGN DETAIL
IT-365 TO IT-375	MASTER HUB BUILDING
IT-376	MASTER HUB BUILDING GRADING PLAN
IT-377 TO IT-465	ITS DEVICE CROSS SECTION (38)
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GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY 2015 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website:
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, 2015 Standard Specifications for Road and Bridge Construction at the following website:
http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

KEY SHEET REVISIONS

DATE	BY	DESCRIPTION
5/4/18	JP	(38) - ADDED SHEET 157A - UPDATED SHEET DESCRIPTION AND NUMBER

INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

JARED KNIGHT, P.E.
P.E. LICENSE NUMBER 74758
VANASSE HANGEN BRUSTLIN, INC.
225 EAST ROBINSON STREET, SUITE 300
ORLANDO, FL 32801
CONTRACT NO. 000819
VENDOR NO. VF-042-931-679-001
CERTIFICATE OF AUTHORIZATION 3932

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q32	15	IT-156

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

JARED N. KNIGHT
LICENSE
No 74758
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

VANASSE HANGEN & BRUSTLIN, INC.
225 E ROBINSON ST., SUITE 300
ORLANDO, FLORIDA 32801
CERTIFICATE OF AUTHORIZATION NO. 3932
JARED N. KNIGHT, P.E. NO. 74758

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-156	KEY SHEET
IT-157A	SIGNATURE SHEET
IT-159A	TABULATION OF QUANTITIES
IT-162A	TABULATION OF QUANTITIES
IT-165	GENERAL NOTES
IT-179 TO IT-180	ITS PLAN SHEET
IT-191	ITS PLAN SHEET
IT-194 TO IT-195	ITS PLAN SHEET
IT-208 TO IT-209	SITE LAYOUT DETAILS
IT-220 TO IT-222	GENERATOR DETAILS
IT-360 TO IT-361	RAMP SIGNAL CABINET DETAIL
IT-362	RAMP SIGNAL POLE DETAILS
IT-370	MASTER HUB BUILDING
IT-376	MASTER HUB BUILDING GRADING PLAN
IT-418	ITS DEVICE CROSS SECTIONS

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REVISIONS			
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Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-157A

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-186*		IT-187*		IT-188*		IT-189		IT-190		IT-191		IT-192		IT-193		IT-194*		IT-195*		IT-196*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	610		1639		1210				290		355		195		2850		2235		2725 38		1510		13619 38			
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	400		390		520				310		790		320		40		560		1659		480		5469			
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF			60														15		13				88			
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF			160														1350						1510			
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1520		380		1620				900		1650		690		430		435		5403 38		655		8820 38			
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF													635		1820		1860		2519		2040		8874			
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF			159		1770								1525		5550		5520		6568		4080		25172			
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF															8400		8400				8400		25200			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	16		4		98				8		12		386		16		16		46		12		614			
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	2		1		3				1		2		5		4		4		7		3		32			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	3		1		10				1		2		34		4		3		7		3		68			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA					1																		1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA	1																						1			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF	420		1750		80				290						380		1155		300		800		5175			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	10		7		9				3		7		3		9		14		27		10		99			
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	4		1		2				2		4		1		2		3		4		3		26			
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA					3								1		4		3		5		3		19			
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA			4														1		1				6			
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS											1								1				2			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																										
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	834		390		1480				890		1655		825		3360		3325		3910 38		1470		18139 38			
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF															2800		2800				1400		7000			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																										
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA													1										1			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA																										
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA											1								1				2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA	1				2				1												1		5			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA			2																				2			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA					1												2				2		5			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA			2						1				2		1				1				7			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA			1																1				2			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																			1				1			
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA															1				1				2			
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA							1				1								1				3			
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA	1				1												1		1		1		5			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS	2				2												2		2		2		10			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA	2				3												2		2		3		12			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	4				4												4		8		8		28			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA	1																						1			
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA	1																						1			
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA			1																				1			
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA			1																				1			
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																										
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA													1										1			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-159A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-219		IT-220		IT-221		IT-222																	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF																							{37986}	38	
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF																							16333		
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF																							2568		
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																							2080		
632-7-1	SIGNAL CABLE- NEW, F&I	PI																							12		
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF																							{33681}	38	
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																							18931		
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF																							52161		
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF																							62227		
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA																							1064		
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA																							63		
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA																							110		
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																							77		
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA							4														4		6		
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																							5		
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF																							15760		
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA			4		4		4														12		278		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA																							77		
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA																							47		
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																							21		
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																									
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS																							4		
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																							2		
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF																							{43887}	38	
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																							14160		
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA			5		5		5														15		95		
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA			1		1		1														3		3		
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																							2		
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA			2		2		2														6		85		
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA			4		4		4														12		43		
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA																							7		
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																							1		
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																							1		
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA																							7		
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA																							8		
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA																							18		
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																							11		
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																							4		
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																							9		
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																							4		
643-1	GUYING WOOD STRAIN POLE, F&I	EA																									
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA																							13		
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS																							26		
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA																							27		
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS																							88		
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA																							55		
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA																							44		
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																							3		
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																							5		
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																							1		
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																							1		
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																									
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																							12		
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																							5		
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																							41		
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																							2		
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																							40		
676-2-600	ITS CABINET, REMOVE	EA																							4		

NOTE:
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630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-162A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL:

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OF THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS. NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.

2. IN ORDER TO MINIMIZE IMPACT TO LANDSCAPING MATERIAL, EXERCISE CAUTION THROUGH LANDSCAPING LIMITS DURING ALL PHASES OF CONSTRUCTION ACTIVITY.

3. PULLING INSTRUCTIONS FOR POWER CONDUCTORS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURES REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURES REQUIREMENTS.

4. ALL ELECTRICAL EQUIPMENT SHALL BE WEATHER RESISTANT.

5. AVOID AND/OR PROTECT ALL TREES AND ROOTS BY HAND DIGGING AS NECESSARY.

6. AT LOCATIONS NEAR REINFORCED EARTH WALLS AND EXISTING BARRIER WALLS, THE CONTRACTOR IS TO ASSURE THAT THE WALL IS NOT UNDERMINED DURING FOUNDATION EXCAVATION AND INSTALLATION. METHODS USED TO SHORE UP WALLS SHALL BE APPROVED BY THE ENGINEER.

7. PLAN DIMENSIONS OF POLES AND STRUCTURES ARE TO THE CENTER OF POLES/UPRIGHTS, CABINETS AND PULL BOXES ARE DIMENSIONED TO THE CENTER. THE LOCATION OF ALL PROPOSED EQUIPMENT TO BE INSTALLED SHALL BE CONSIDERED TO BE APPROXIMATE. ADJUSTMENTS MAY BECOME NECESSARY, VARIATIONS FROM THE PROPOSED LOCATIONS MUST BE VERIFIED WITH THE ENGINEER.

8. THE CONTRACTOR SHALL PLACE EARTH AROUND THE TOP OF THE FOUNDATION AND FEATHER EARTH TO MATCH EXISTING GRADE AND/OR SLOPE. LANDSCAPING SHALL BE RESTORED (AT A MINIMUM) TO EXISTING CONDITIONS.

9. ANY MATERIAL TO BE STOCK PILED FOR PERIODS GREATER THAN 24 HRS SHALL BE PROTECTED BY APPROPRIATE EROSION CONTROL DEVICES (IF REQUIRED).

10. THE COST OF FIBER OPTIC PULL BOX AND SPLICE VAULT REMOVAL SHALL BE INCLUDED IN CLEARING AND GRUBBING.

CONDUIT:

1. MINIMUM REQUIRED CONDUIT BURY DEPTHS SHALL BE MAINTAINED WHERE CONFLICTS OCCUR WITH DRAINAGE OR OTHER UTILITIES PER THESE PLANS.

2. ALL CONDUIT TRENCHES SHALL BE BACK FILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF THE WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE. DO NOT OPEN ANY AREA THAT CANNOT BE BACK FILLED IN THE SAME DAY/NIGHT OPERATIONS.

3. THE CONDUITS TO BE INSTALLED ARE TO BE PLACED SO AS TO TOTALLY AVOID ANY CONFLICTS WITH EXISTING UTILITIES ALONG THE ROUTE. THE CONTRACTOR SHALL ADJUST CONDUIT VERTICALLY OR HORIZONTALLY TO AVOID CONFLICTS WITH UNDERGROUND UTILITIES. THE CONTRACTOR SHALL USE HAND EXCAVATION METHODS WHEN EXCAVATING NEAR EXISTING UTILITIES.

4. CONTRACTOR SHALL FIELD LOCATE ALL ABOVE GROUND AND UNDERGROUND CONFLICTS IN ADVANCE OF THE PLACEMENT OF ANY CONDUIT OR OTHER FACILITIES. CONTRACTOR SHALL FIELD MARK THE PROPOSED ALIGNMENT FOR REVIEW AND CONCURRENCE BY THE CEI PRIOR TO TRENCHING AND/OR PLACEMENT. NO PULL BOXES OR SPLICE VAULTS SHALL BE LOCATED IN DRAINAGE SWALES, DITCHES, OR PAVED SHOULDERS.

5. BRACKETS AND SPACERS REQUIRED TO OFFSET RIGID METAL CONDUIT FROM THE MOUNTING SHALL BE OF SIMILAR MATERIALS TO PREVENT CATHODIC REACTION.

6. ALL NEW CONDUIT SHALL BE PLACED AT A MINIMUM DEPTH OF 36".

PULL BOXES:

1. POWER AND COMPOSITE CABLES MUST BE IN SEPARATE PULL BOXES.

2. UNLESS SPECIFIED OTHERWISE IN THE PLANS, ALL PULL BOX COVERS TO BE FURNISHED AND INSTALLED SHALL BE NON-METALLIC.

3. THE CONTRACTOR SHALL USE THE CORE DRILL METHOD WHEN ACCESSING EXISTING SPLICE VAULTS WITH NEW CONDUIT.

4. ALL SPLICE/PULL BOX COVER LABELING:
   -ALL FDOT FIBER SPLICE BOX AND PULL BOX SHALL INCLUDE THE LABEL "FDOT DISTRICT 4 FIBER OPTIC CABLE" PERMANENTLEY CAST INTO THE TOP OF THE SURFACE.
   -ALL ELECTRICAL FOR ITS PULL BOX SHALL INCLUDE THE LABEL "FDOT DISTRICT 4 ITS"

5. ALL FIBER OPTIC CABLE SHALL HAVE THE FOLLOWING LABELING:
   -144SM FDOT BACKBONE: "FDOT"
   -144SM BROWARD AMS: "BC-ATMS"
   -72SM BROWARD ETS: "BC-ETS"

6. ELECTRICAL PULL BOXES SHALL BE SPACED AT A MAXIMUM OF 900 FEET. (38)

7. FIBER SPLICE BOXES SHALL BE SPACED AT A MAXIMUM OF 1,320 FEET.

ITS:

1. CONTRACTOR SHALL INSTALL A CONCRETE SERVICE PAD AT EACH CABINET LOCATION.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING AND PROPOSED ROADWAY LIGHTING PRIOR TO INSTALLATION OF CONDUIT, PULL BOXES, AND POLE FOUNDATIONS.

3. ANY DAMAGE CAUSED BY CONTRACTOR TO ANY FDOT DISTRICT 4 ITS INFRASTRUCTURE SHALL BE IMMEDIATELY NOTIFIED TO FDOT DISTRICT 4 TMC AT 954-847-2777.

4. CONTRACTOR SHALL FIELD VERIFY ALL CONNECTIONS PRIOR TO DISCONNECTION SPLICES. THE ENGINEER OF RECORD AND FDOT DISTRICT 4 TMC SHALL BE MADE AWARE OF ANY SPLICE VARIATIONS FROM THE ITS PLANS. THE CONTRACTOR SHALL CONFIRM WITH FDOT DISTRICT 4 ITS OFFICE FOR FINAL FIBER OPTIC SPLICING PRIOR TO PERFORMING ANY SPLICING IN THE FIELD. CONTRACTOR SHALL NOTIFY BROWARD COUNTY PRIOR TO INSTALLATION OF FIBER AND SPLICING THAT THEY IS UTILIZED BY MAINTAINING AGENCY.

5. THE CONTRACTOR SHALL NOTIFY THE FDOT DISTRICT 4 TMC (954-847-2777), 72 HOURS IN ADVANCE OF TAKING ANY EXISTING ITS EQUIPMENT OUT OF SERVICE.

6. SEE ROADWAY PLANS FOR EROSION CONTROL PLANS.

7. AT RAMP METER LOCATIONS WHERE LOOP CABLE DISTANCES EXCEED 1000 FEET. CONTRACTOR SHALL INCREASE CONDUCTORS TO #12 AWG.

8. DMS WIRE SIZES SHOWN IN PLANS ARE BASED ON A MAXIMUM OF 350' IN LENGTH. CONTRACTOR SHALL CONTACT ENGINEER OF RECORD TO CONFIRM DMS WIRE SIZES WHERE FIELD INSTALLATION OF THE DMS WIRES EXCEED 350'.

9. HDPE CONDUIT COLOR CODE:
   BACKBONE RUN
   -ORANGE (FDOT 144SM FOC)
   -ORANGE W/ WHITE STRIPE (AMS/BCTED 144SM & ETS 72SM)
   -RED (SERVICE WIRE)
   -BLACK (SPARE)
   -BLACK W/WHITE STRIPE (SPARE)
   -BLACK W/ GREEN STRIPE (SPARE)

   DROP RUN
   -ORANGE (24SM FOC)
   -BLACK (SPARE)
   -RED (SERVICE WIRE)

   MISC. CONDUIT
   -WHITE (COMPOSITE CABLING)

   RAMP SIGNAL CABLE
   -WHITE W/RED STRIPE (DETECTOR & SIGNAL CABLING)

   BROWARD COUNTY SIGNAL
   -GREY (SIGNAL CABLING)

   TONE WIRE
   -GREY (TONE WIRE)

10. CONTRACTOR SHALL ENSURE THAT ALL TEMPORARY INFRASTRUCTURE IS REMOVED FROM PROJECT UPON FINAL PROJECT ACCEPTANCE.

UTILITIES:

1. THE UTILITIES SHOWN ON THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT THE EXTENT OF UTILITIES ON THIS PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY UNDERGROUND UTILITIES VERTICALLY AND HORIZONTALLY (VVH) FOR ALL CONDUIT AND DEVICE INSTALLATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DONE TO STRUCTURES, BRIDGE, SHOULDERS, GUARDRAIL, FENCING AND ROADWAY SURFACES CAUSED BY CONSTRUCTION ACTIVITIES.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ANY UTILITY OWNER(S) THAT MAY NOT BE A "SUNSHINE" MEMBER. AT A MINIMUM OF 10 FULL BUSINESS DAYS PRIOR TO BORING UNDER WATER/CANAL. THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA AND THE APPROPRIATE UTILITY OWNERS AND REQUEST UTILITY LOCATIONS. A CONTRACTOR'S REPRESENTATIVE SHALL BE PRESENT WHEN THE UTILITY COMPANIES LOCATE THEIR FACILITIES. THE LOCATION OF EXISTING UTILITIES HALL BE DETERMINED BY THE CONTRACTOR AND THE UTILITY REPRESENTATIVE WHEN NECESSARY DURING CONSTRUCTION. FDOT IS NOT A MEMBER OF THE SUNSHINE STATE ONE CALL SYSTEM. THEREFORE, THE CONTRACTOR WILL BE REQUIRED TO LOCATE ALL FDOT FACILITIES PRIOR TO DIGGING.

3. EXISTING DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED IN PLACE AND REMAIN UNLESS OTHERWISE NOTED.

PAY ITEM NOTES:

1. 633-3-15. SHALL INCLUDE ALL NECESSARY FIBER JUMPERS. SEE SPLICE DIAGRAMS FOR FURTHER DETAILS.

2. 633-3-51. INCLUDES RE-ENTRY TO EXISTING SPLICE ENCLOSURE.

3. 676-2-142, 676-2-143 & 676-2-122. INCLUDES FURNISH AND INSTALL OF POWER DISTRIBUTION UNIT (PDU).

4. 684-6-40. SHALL INCLUDE RELOCATION OF VOICE OVER IP (VOIP) AND WIRELESS ACCESS POINTS (WAP) UNITS.

5. 700-2-50. SHALL INCLUDE RELOCATION OF ALL ABOVE GROUND EQUIPMENT AND DEVICES ALONG WITH SIGN PANEL, AND SHALL INCLUDE RELOCATION OF HARB AND HART ASSEMBLIES.

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	(38) REVISED NOTE 6		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

GENERAL NOTES

SHEET NO.
IT-165

0 20 100
Feet

TRENCH LINE – 4 CONDUITS
1–2" CONDUIT (144 SM FIBER)
1–2" CONDUIT (SIGNAL)
1–2" CONDUIT (DETECTOR)
1–2" CONDUIT (SPARE)

350 LF	633-1-124
350 LF	630-2-11

L/A R/W LINE

UTILIZE
EX. CONDUIT
EX. FIBER

DIRECTIONAL BORE – 2 CONDUITS
1–2" CONDUIT (SIGNAL)
1–2" CONDUIT (DETECTOR)

630-2-12	160 LF

50 LF	633-1-124
2 EA	635-2-11
1 EA	635-2-12

TRENCH LINE – 6 CONDUITS
1–2" CONDUIT (144 SM)
1–2" CONDUIT (24 SM)
1–2" CONDUIT (3–#6 (600 VAC))
1–2" CONDUIT (DETECTOR)
1–2" CONDUIT (SIGNAL)
1–2" CONDUIT (SPARE)

300 LF	630-2-11
300 LF	633-1-122
300 LF	633-1-124
300 LF	639-2-1

DCCTV 95–26.38 SB
RSC 95–26.38 SB
STA. 1984+40
SEE SITE LAYOUT 22

1 EA	641-3-163
2 EA	660-1-111
1 EA	682-1-113

S–DMS 95–26.44 NB
STA. 1988+30

1 EA	700-8-134

BRIDGE MOUNTED– 3 CONDUITS
1–2" CONDUIT (2 MM DMS)
1–2" CONDUIT (4–#2 (24 VDC))
(2–#10 (24 VDC))
1–2" CONDUIT (SPARE)

130 LF (3x)	630-2-15
160 LF	639-2-1
30 LF (3x)	630-2-14
2 EA	635-3-12

FSB 95–26.43
W/ SLACK FIBER
SIGNAL/DETECTOR
PULL BOX

2 EA	635-2-11
1 EA	635-2-13
100 LF	633-1-122
100 LF	633-1-124

DETECTOR/SIGNAL
PULL BOX
ABOVE GROUND CONDUIT

30 LF (2x)	630-2-14
2 EA	635-2-11
2 EA	635-3-12
1 EA	700-1-32
1 EA	700-12-11

RAMP METER SIGN

635-3-12	1 EA
700-1-32	1 EA
700-12-11	1 EA

–UTILIZE PHASE I
24 SM DROP
144 SM ITS
144 SM
–UTILIZE
EX. CONDUIT

–REMOVE
EX. LHUB 95–26.49 SB

1 EA	641-2-70
1 EA	639-1-620
1 EA	676-2-600

TRENCH LINE – 3 CONDUITS
1–2" CONDUIT (24 SM)
1–2" CONDUIT (SPARE)
1–2" CONDUIT (3–#6 (600 VAC))

290 LF	630-2-11
290 LF	633-1-122
290 LF	639-2-1

FSB 95–26.54 SB

100 LF (2x)	633-1-122
12 EA	633-2-31
1 EA	633-3-51
2 EA	633-3-12
1 EA	635-2-13

–UTILIZE
EX. FIBER PULL BOX
EX. POWER PULL BOX

50 LF (2x)	633-1-122

–INSTALL
EX. CONDUIT (24 SM DROP)
EX. CONDUIT (3–#6 (600 VAC))

300 LF	633-1-122
300 LF	639-2-1

C–D SB

4 AS 660-2-102

RAMP A

ABOVE GROUND CONDUIT
1–2" CONDUIT (SIGNAL)

630-2-14	130 LF

–REMOVE
EX. T–DMS 95–26.46

700-7-600	3 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

635-2-11	3 EA
635-2-12	1 EA
633-1-122	50 LF
633-1-124	50 LF

–UTILIZE PHASE I
24 SM DROP
144 SM ITS
144 SM

–UTILIZE PHASE I
2–24 SM DROP
3–#2 (600 VAC)
–INSTALL
EX. CONDUIT (2–24 SM DROP)

90 LF (2x)	633-1-122

SB SR–9 (I–95)

1980 1985 1990

MATCHLINE STA. 1980+00.00

MATCHLINE STA. 1994+00.00

LHUB 95–26.47 NB
MVDS 95–26.47 NB (2x)
STA. 1990+15
SEE SITE DETAILS
LAYOUT 1

641-3-169	1 EA
660-3-11	2 EA
660-3-12	2 EA

DIRECTIONAL BORE– 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

300 LF	630-2-12
300 LF	633-8-1

NB SR–9 (I–95)

635-2-11 1 EA

–UTILIZE PHASE I
24 SM DROP (TO 95–26.30 NB)
3–#6 (600 VAC)
–INSTALL
EX. CONDUIT (3–24 SM DROP)

180 LF (3x)	633-1-122

SIGNAL PULL BOX
ABOVE GROUND CONDUIT

630-2-14	30 LF
635-2-11	1 EA
635-3-12	1 EA

TRENCH LINE – 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

630-2-11	390 LF
633-8-1	390 LF

RAMP B

–UTILIZE PHASE I
MVDS 95–26.30 NB
–UTILIZE
EX. LHUB 95–26.30 NB
EX. VOIP 95–26.30 NB
EX. DCCTV 95–26.30 NB
STA. 1980+90
SEE SITE DETAILS
LAYOUT 4

–UTILIZE PHASE I
24 SM DROP (TO 95–26.30 NB)
–INSTALL
EX. CONDUIT (2–24 SM DROP))

633-1-122	590 LF (2x)

UTILIZE
EX. CONDUIT
EX 3–#1/0 (600 VAC)

LHUB 95–26.41 NB
STA. 1986+45
SEE SITE DETAILS
LAYOUT 12

–UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (3x)	633-1-122

38

SPLICE INTO
EX. SERVICE WIRE

BRIDGE MOUNT – 1 CONDUITS
1–2" CONDUIT (SIGNAL)

630-2-15	180 LF

1 EA 635-2-11

TRENCH LINE – 1 CONDUITS
1–2" CONDUIT (DETECTOR)

630-2-11	130 LF

DETECTOR PULL BOX
ABOVE GROUND CONDUIT

630-2-14	30 LF
635-2-11	1 EA
635-3-12	1 EA

–UTILIZE PHASE I
144 SM ITS
144 SM
3–#2 (600 VAC)
–INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

660-2-102 4 AS

–UTILIZE PHASE I
FSB 95–26.47 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-122	100 LF (4x)
633-2-31	16 EA
633-3-11	1 EA
633-3-12	2 EA

C–D NB

UTILIZE
EX. CONDUIT
EX 3–#6
EX. FIBER (FOR WAP)
EX. COMPOSITE

TRENCH LINE– 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

350 LF	630-2-11
350 LF	633-8-1

–UTILIZE PHASE I
24 SM DROP (TO 95–26.30 NB)
3–#6 (600 VAC)
–INSTALL
EX. CONDUIT (3–24 SM DROP)
EX. CONDUIT (2 MM DMS)
EX. CONDUIT (4–#2 (24 VDC))
(2–#10 (24 VDC))

150 LF (3x)	633-1-122
150 LF	639-2-1

EX. CCTV 95–26.44 EB/WB
EX. WAP 95–26.44 EB/WB (x2)

1 EA 635-2-11

–UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (2x)	633-1-122

L/A R/W LINE

DAVIE BLVD.

DIRECTIONAL BORE– 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

630-2-12	200 LF
633-8-1	200 LF

RAMP METER SIGN

635-3-12	1 EA (2x)
700-1-32	1 EA (2x)
700-12-11	1 EA (2x)

–UTILIZE
EX. CONDUIT
–INSTALL
EX. CONDUIT (2–24 SM DROP)
EX. CONDUIT (3–#1 (600 VAC))
–REMOVE
EX. 24 SM DROP (TO 95–26.27 NB)

633-1-122	100 LF (2x)
633-1-620	100 LF
639-2-1	100 LF

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT–179

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-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (24 SM DROP)
440 LF 633-1-122

EX. DMS 95-26.55 SB
EX. VOIP 95-26.55 SB
EXIST. TO REMAIN

EX. LHUB 95-26.55 SB
STA. 1994+18
EXIST. TO REMAIN

L/A R/W LINE

C-D SB

LHUB 95-26.63 SB
CCTV 95-26.63 SB
STA. 1998+70
SEE SITE DETAILS
LAYOUT 4
1 EA 641-3-169
1 EA 682-1-113

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
50 LF (1x) 633-1-122
1 EA 635-2-11
1 EA 635-2-12

-REMOVE
EX. DCCTV 95-26.64 SB
EX. CCTV 95-26.64 SB
EX. MVDS 95-26.64 SB
STA. 1999+22
641-3-800 1 EA

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)
630-2-11 190 LF

DIRECTIONAL BORE - 3 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)
630-2-12 80 LF

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)

TRENCHLINE - 3 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
700 LF 630-2-11
700 LF 633-8-1

2 AS 660-2-102

RAMP METER SIGN
1 EA 700-1-32
1 EA 700-12-11
2 EA 635-2-11

2 EA 635-3-12
30 LF 630-2-14

EX. CONDUIT-ABANDON
EX. FIBER-REMOVE
EX. POWER SERVICE-REMOVE

EX. S-DMS 95-26.68 SB
STA. 2001+25
REMOVE
700-8-600 1 EA

DETECTOR/SIGNAL
PULL BOX
635-2-11 2 EA

-UTILIZE
EX. 3-#2/0
EX. CONDUIT
-REMOVE (PHASE I)
EX. FIBER

EX. CONDUIT-ABANDON
EX. FIBER-REMOVE
EX. 3-#6-REMOVE

RAMP D

DETECTOR/SIGNAL
PULL BOX
2 EA 635-2-11

-UTILIZE EX. PULL BOX
EXTEND CONDUIT

RAMP E

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

1995

RAMP SIGNAL
STA. 1999+50
1 EA 646-1-11
2 EA 650-1-13
1 EA 700-3-101
4 AS 660-2-102
2 EA 635-2-11

SB SR-9 (I-95)

2000

-UTILIZE
EX. CONDUIT (MVDS CABLE)
-INSTALL 2 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
630-2-12 230 LF
633-8-1 230 LF

℄ CONST. SR 9

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)

2005

DIRECTIONAL BORE- 6 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
100 LF 630-2-12
100 LF 633-1-122
100 LF 639-2-1

RAMP SIGNAL
STA. 1998+00
1 EA 646-1-11
2 EA 650-1-13
1 EA 700-3-101
4 AS 660-2-102

UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)

NB SR-9 (I-95)

-UTILIZE PHASE I
FSB 95-26.64 NB
W/ SLACK FIBER
POWER PULL BOX
633-1-122 100 LF
633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

-REMOVE
EX. MVDS 95-26.72 NB
STA. 2003+15
641-2-80 1 EA

EXTEND CONDUIT

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
DETECTOR PULL BOX
SIGNAL PULL BOX
633-1-122 50 LF
635-2-11 1 EA (3x)
635-2-12 1 EA

RAMP C

MATCHLINE STA. 1994+00.00

MATCHLINE STA. 2008+00.00

1 EA 635-2-11

TRENCH LINE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
630-2-11 220 LF
633-8-1 220 LF

38

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
90 LF 630-2-12
90 LF 633-8-1

DCCTV 95-26.59 NB
RSC 95-26.59 NB
STA. 1996+10
SEE SITE DETAILS
LAYOUT 22
641-3-169 1 EA
660-1-111 2 EA
682-1-113 1 EA

C-D NB

-UTILIZE PHASE I
FSB 95-26.59 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX
633-1-122 100 LF
633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

FIBER PULL BOX
W/SLACK FIBER
POWER PULL BOX
633-1-122 50 LF
635-2-11 1 EA (3x)
635-2-12 1 EA

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)
-INSTALL
1-2" CONDUIT (24 SM DROP)
220 LF 630-2-11
220 LF 633-1-122

RSC 95-26.71 NB
DCCTV 95-26.71 NB
INCLUDES CONTACT
CLOSURE TO ETHERNET SWITCH
STA. 2002+80
SEE SITE DETAILS
LAYOUT 22
1 EA 641-3-169
2 EA 660-1-111
1 EA 682-1-113

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (24 SM)
1-2" CONDUIT (3-#6 (600 VAC))
40 LF 630-2-11
40 LF 633-1-122
40 LF 639-2-1

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
633-1-122 50 LF

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#1 (600 VAC)
-INSTALL 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
340 LF 630-2-12
340 LF 633-8-1

L/A R/W LINE

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
630-2-12 285 LF
633-8-1 285 LF

N
0 20 100
Feet

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-180

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TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (12-#6 (24 VDC))
(6-#10 (24 VDC))
1-2" CONDUIT (SPARE)

85 LF	630-2-11
85 LF	633-1-122
85 LF (2x)	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-122
1 EA	635-2-11
1 EA	635-2-12

T-DMS 95-29.50 SB
STA. 2149+90

1 EA	700-7-132

L/A R/W LINE

NW 19TH STREET

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	2 EA
635-2-12	1 EA

LHUB 95-29.51 SB
STA. 2150+70
SEE SITE DETAIL
LAYOUT 12

-UTILIZE PHASE IA
FSB 95-29.56 SB
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
24 SM DROP
3-#6 (120/240 VAC)

-UTILIZE PHASE I
LHUB 95-29.58 SB
MVDS 95-29.58 SB
DCCTV 95-29.58 SB
DCCTV 95-29.58 SB
EX. VOIP 95-29.58 SB
STA. 2154+40
SEE SITE DETAILS
LAYOUT 7
(NO TRANSFORMER)

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

-REMOVE
EX. CCTV 95-29.51 SB
EX. MVDS 95-29.51 SB
EX. VOIP 95-29.51 SB

641-3-800	1 EA

SB SR-9 (I-95)

2150

2155

2160

145

-UTILIZE PHASE I
LHUB 95-29.58 NB
MVDS 95-29.58 NB
CCTV 95-29.58 NB
STA. 2154+40
-INSTALL
GEN 95-29.58
STA. 2153+70
(NO TRANSFORMER)
SEE SITE DETAILS
GENERATOR SITE

38

MATCHLINE STA. 2148+00.00

L/A R/W LINE

0.5925Ac

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

-UTILIZE PHASE I
FSB 95-29.49 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF	633-1-122
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	300 LF
633-1-122	300 LF
639-2-1	300 LF

-UTILIZE PHASE I
3-#1/0 (600 VAC)
144 SM ITS
144 SM & 72 SM

POWER SERVICE POLE
SERVICE DISCONNECT
METER

1 AS	639-1-122
1 EA	641-2-12

DIRECTIONAL BORE- 1 CONDUIT
1-2" CONDUIT (3-#4/0 (480 VAC))

150 LF	630-2-12
150 LF	639-2-1

POWER SERVICE POINT
NEW 480V TX

1 EA	635-2-11

38

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#1/0 (600 VAC)

-UTILIZE PHASE I
24 SM DROP
3-#6 (120/240 VAC)
-INSTALL
1-2" CONDUIT (ETHERNET CABLE)

630-2-11	60 LF
633-8-1	60 LF

-UTILIZE PHASE I
FSB 95-29.58 NB
W/ SLACK FIBER
POWER PULL BOX

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (4-#1 (24 VDC))
(2-#8 (24 VDC))
1-2" CONDUIT (SPARE)

270 LF	630-2-11
270 LF	633-1-122
270 LF (2x)	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

100 LF	633-1-122
3 EA	635-2-11
2 EA	635-2-12

LHUB 95-29.63 SB
STA. 2157+00
SEE SITE DETAILS
LAYOUT 12

L/A R/W LINE

C CONST. SR 9

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

290 LF	630-2-12
290 LF	633-1-122
290 LF	639-2-1

NB SR-9 (I-95)

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#1/0 (600 VAC)

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-122

-UTILZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#1/0 (600 VAC)
-INSTALL
EX. CONDUIT (24 SM DROP)
EX. CONDUIT (2 MM DMS)
EX. CONDUIT (4-#2 (24 VDC))
(2-#10 (24 VDC))

155 LF	633-1-122
155 LF	639-2-1

-UTILIZE PHASE I
3-#1/0 (600 VAC)
144 SM ITS
144 SM & 72 SM ITS

-ABANDON (PHASE I)
EX CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

S-DMS 95-29.68 SB
STA. 2159+60

700-8-134	1 EA

S-DMS 95-29.68 NB
STA. 2159+71

700-8-134	1 EA

LHUB 95-29.71 NB
STA. 2161+00
SEE SITE DETAILS
LAYOUT 11

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#2 (24 VAC))
(2-#10 (24 VAC))
1-2" CONDUIT (SPARE)

630-2-12	50 LF
639-2-1	50 LF

-UTILIZE PHASE I
FSB 95-29.71 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF (2x)	633-1-122
8 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

MATCHLINE STA. 2162+00.00

NOTE:
1. LHUB 95-29.51 SB SPARE 2MM FIBER AND POWER FOR TWO ADDITIONAL FUTURE T-DMS SHALL BE INSTALLED IN CONDUIT.

0 20 100
Feet

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 RELOCATED 95-29.58NB		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-191

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (144 SM DROP)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (4-#2 (24 VDC))
(2-#10 (24 VDC))
1-2" CONDUIT (SPARE)

80 LF	630-2-11
80 LF	633-1-124
80 LF (2x)	639-2-1

FSB 95-30.33 SB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

100 LF (2x)	633-1-122
200 LF	633-1-124
8 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA (4x)	635-2-11
1 EA	635-2-13

DIRECTIONAL BORE- 6 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (4-#2 (24 VDC)) (2-#10(24 VDC))
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (SPARE)

630-2-12	60 LF
633-1-124	60 LF
639-2-1	60 LF (2X)

BRIDGE MOUNT - 5 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SPARE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)

630-2-15	270 LF (5x)
633-1-124	270 LF
633-8-1	270 LF
639-2-1	270 LF

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

630-2-11	285 LF
633-1-124	285 LF
633-8-1	285 LF
639-2-1	285 LF

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

350 LF	630-2-11
350 LF	633-1-124
350 LF	633-8-1
350 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-124
1 EA	635-2-11
1 EA	635-2-12

RSC 95-30.33 SB
LHUB 95-30.33 SB
MVDS 95-30.33 SB
DCCTV 95-30.33 SB
STA. 2194+00
SEE SITE DETAILS
LAYOUT 21

1 EA	641-3-163
2 EA	660-1-111
1 EA	660-3-11
1 EA	660-3-12
1 EA	682-1-113

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

630-2-11	250 LF
633-1-124	250 LF
633-8-1	250 LF
639-2-1	250 LF

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-124	50 LF
635-2-11	1 EA
635-2-12	1 EA

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

1400 LF (6x)	633-1-620
1400 LF	639-2-6

L/A R/W LINE

REMOVE
CABLING

RAMP M

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SPARE)

205 LF	630-2-11
205 LF	633-1-124
205 LF	639-2-1

660-2-102
4 AS.

RAMP SIGNAL
STA. 2193+67

646-1-11	1 EA
650-1-13	2 EA
700-3-101	1 EA
635-2-11	1 EA

SB SR-9 (I-95)

SIGNAL/DETECTOR/
POWER PULL BOX
1 EA (3x) 635-2-11

RAMP METER SIGN

630-2-14	15 LF
700-1-32	1 EA
700-12-11	1 EA
635-3-12	1 EA

℄ CONST. SR 9

2195

2200

MATCHLINE STA. 2190+00.00

MATCHLINE STA. 2204+00.00

S-DMS 95-30.3 SB
STA. 2192+00

1 EA	700-8-134

-ABANDON
EX. CONDUIT
-REMOVE
EX. SERVICE WIRE

639-2-6	1400 LF

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (STGNAL)

80 LF	630-2-12

LHUB 95-30.33 NB
MVDS 95-30.33 NB
DCCTV 95-30.33 NB
STA. 2193+70
SEE SITE DETAILS
LAYOUT 5

660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA
641-3-163	1 EA

NB SR-9 (I-95)

LHUB 95-30.41 NB
STA. 2198+00
SEE SITE DETAILS
LAYOUT 11

END DIRECTIONAL BORE
STA. 2197+93

S-DMS 95-30.45 NB
STA. 2200+00

700-8-134	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#1 (24 VDC))
(2-#8 (24 VDC))
1-2" CONDUIT (SPARE)

630-2-11	40 LF
639-2-1	40 LF

RAMP N

BEGIN DIRECTIONAL BORE
STA. 2194+00

L/A R/W LINE

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SPARE)

35 LF	630-2-11
35 LF	633-1-122
35 LF	639-2-1

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (144 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

380 LF	630-2-11
380 LF	633-1-123
380 LF (2x)	633-1-124
380 LF	639-2-1

FSB 95-30.33 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF	633-1-122
200 LF	633-1-123
200 LF (2x)	633-1-124
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-11
1 EA	635-2-13

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (144 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

420 LF	630-2-12
420 LF	633-1-123
420 LF (2x)	633-1-124
420 LF	639-2-1

FSB 95-30.45 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF	633-1-122
200 LF	633-1-123
200 LF (2x)	633-1-124
4 EA	633-2-31
1 EA (2x)	633-3-11
1 EA	633-3-12
2 EA	635-2-11
1 EA	635-2-13

TRENCH LINE - 8 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (144 SM)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (4-#1 (24 VDC))
(2-#8 (24 VDC))
3-2" CONDUIT (SPARE)

200 LF	630-2-11
200 LF	633-1-123
200 LF (2x)	633-1-124
200 LF (2x)	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-123
50 LF (2x)	633-1-124
1 EA	635-2-11
1 EA	635-2-12

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	410 LF
633-1-123	410 LF
633-1-124	410 LF (2x)
639-2-1	410 LF

0 20 100
Feet

38

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT		

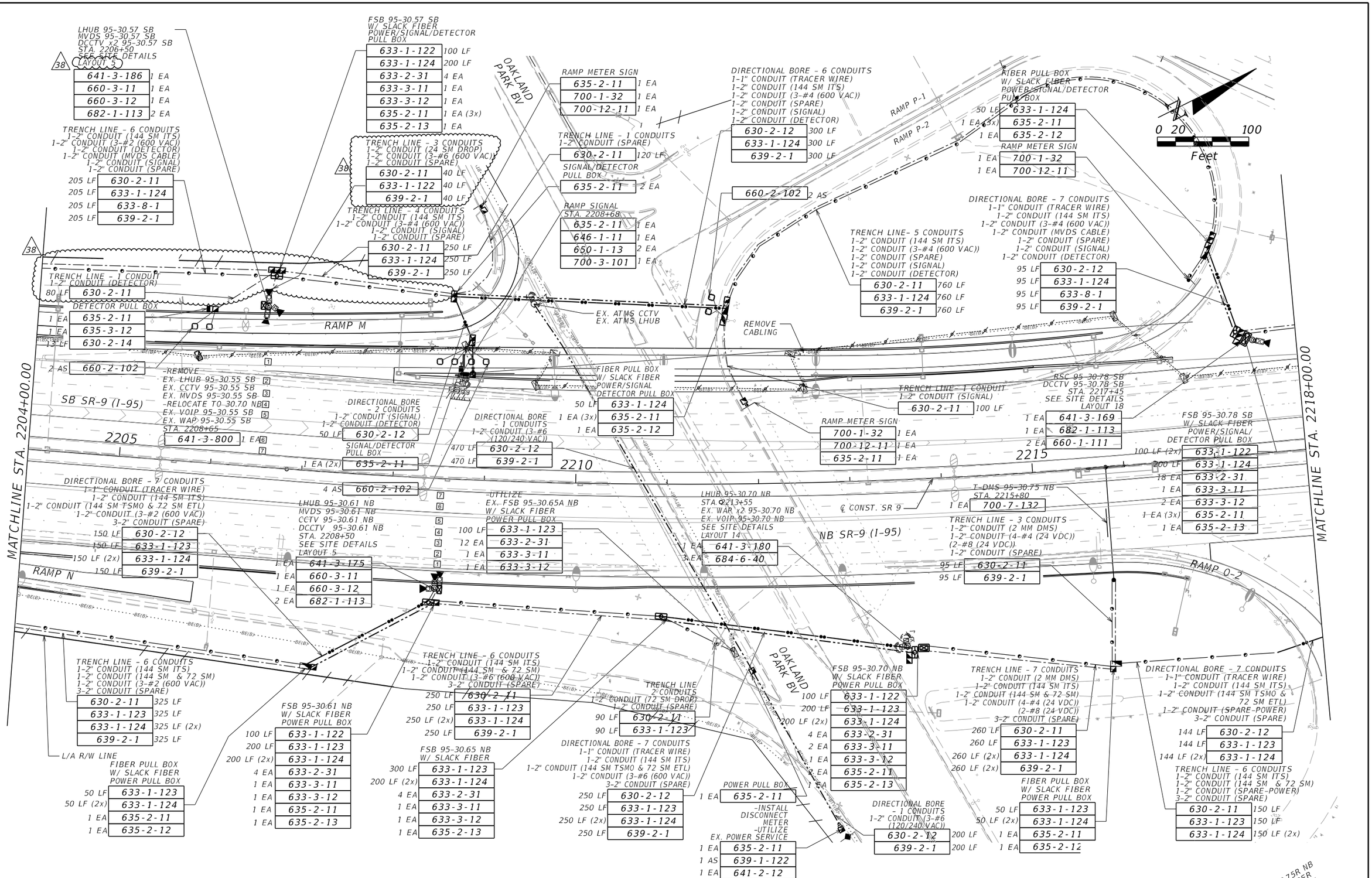
Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-194



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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PE # 74758

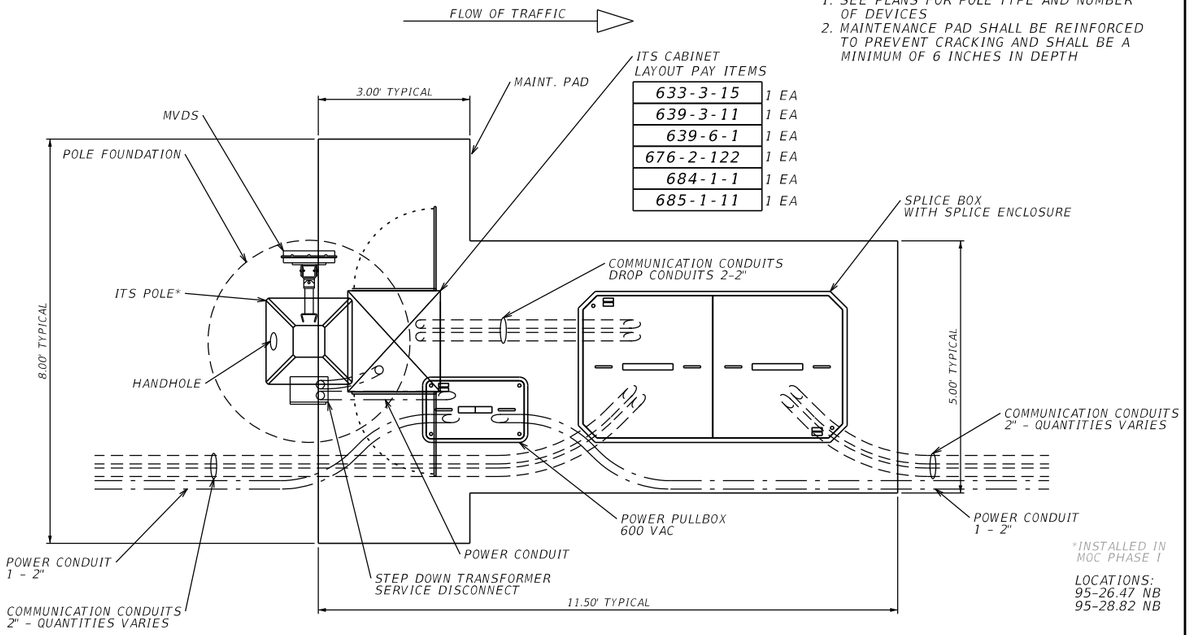
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-195

LAYOUT 1



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

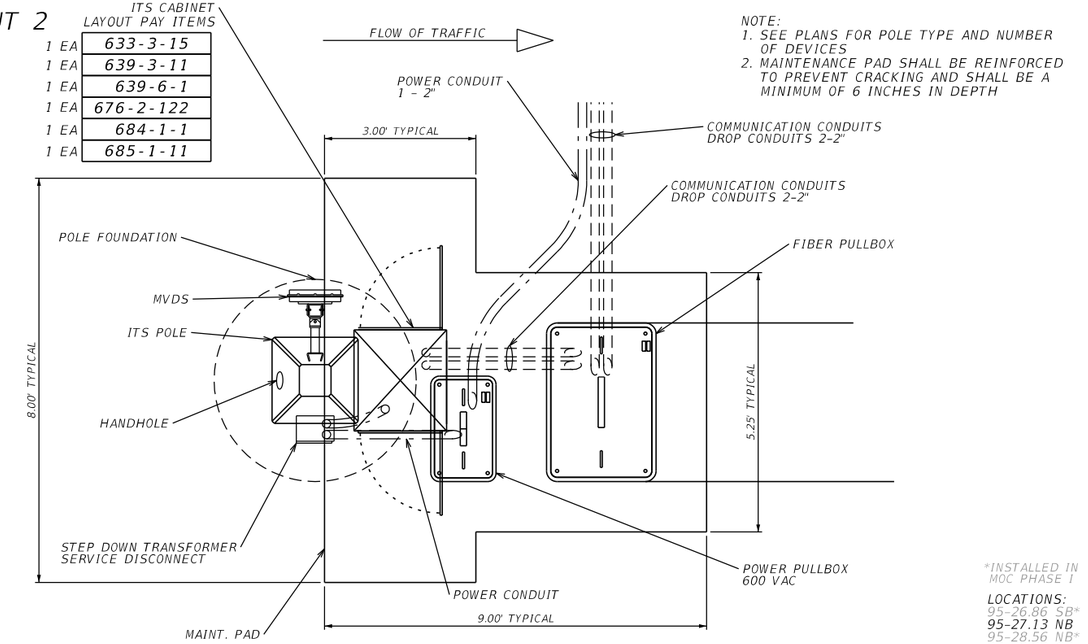
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.47 NB
95-28.82 NB

TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 2



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

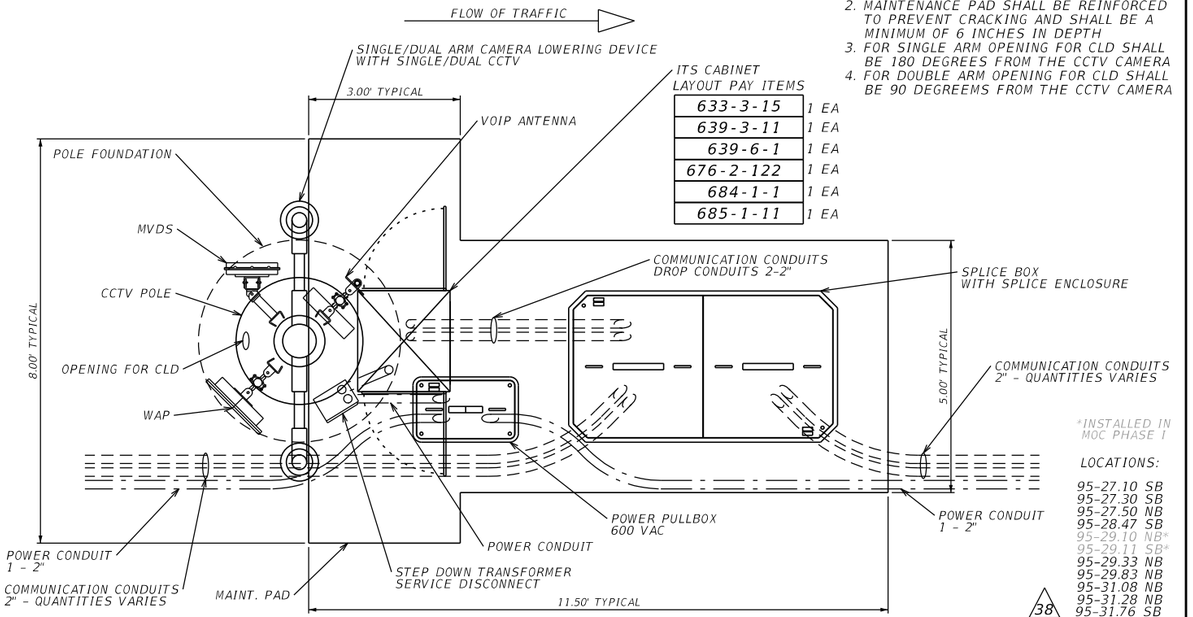
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 SB*
95-27.13 NB
95-28.56 NB*
95-30.83 SB
95-32.64 NB

TYPICAL MVDS SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LAYOUT 3



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

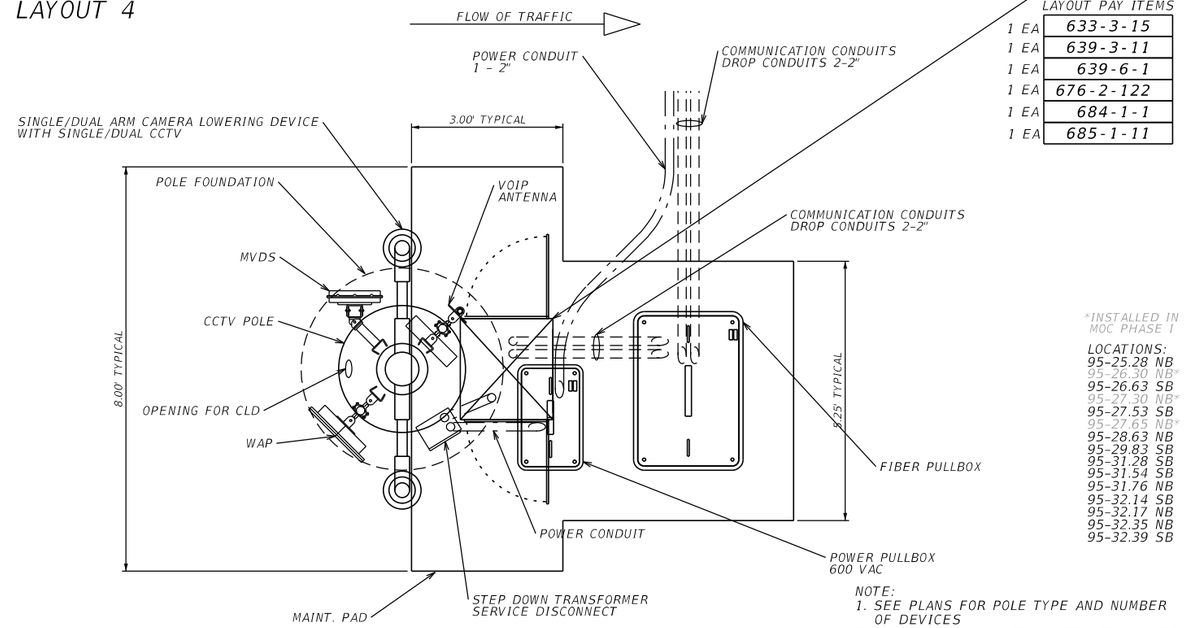
*INSTALLED IN MOC PHASE I

LOCATIONS:
95-27.10 SB
95-27.30 SB
95-27.50 NB
95-28.47 SB
95-29.10 NB*
95-29.11 SB*
95-29.33 NB
95-29.83 NB
95-31.08 NB
95-31.28 NB
95-31.76 SB
95-31.95 SB
95-32.27 SB
95-32.39 NB
95-32.64 SB

38

TYPICAL CCTV SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 4



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-25.28 NB
95-25.30 NB*
95-26.63 SB
95-27.30 NB*
95-27.53 SB
95-27.65 NB*
95-28.63 NB
95-29.83 SB
95-31.28 SB
95-31.54 SB
95-31.76 NB
95-32.14 SB
95-32.17 NB
95-32.35 NB
95-32.39 SB

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

TYPICAL CCTV SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED LAYOUT 95-30.57SB		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

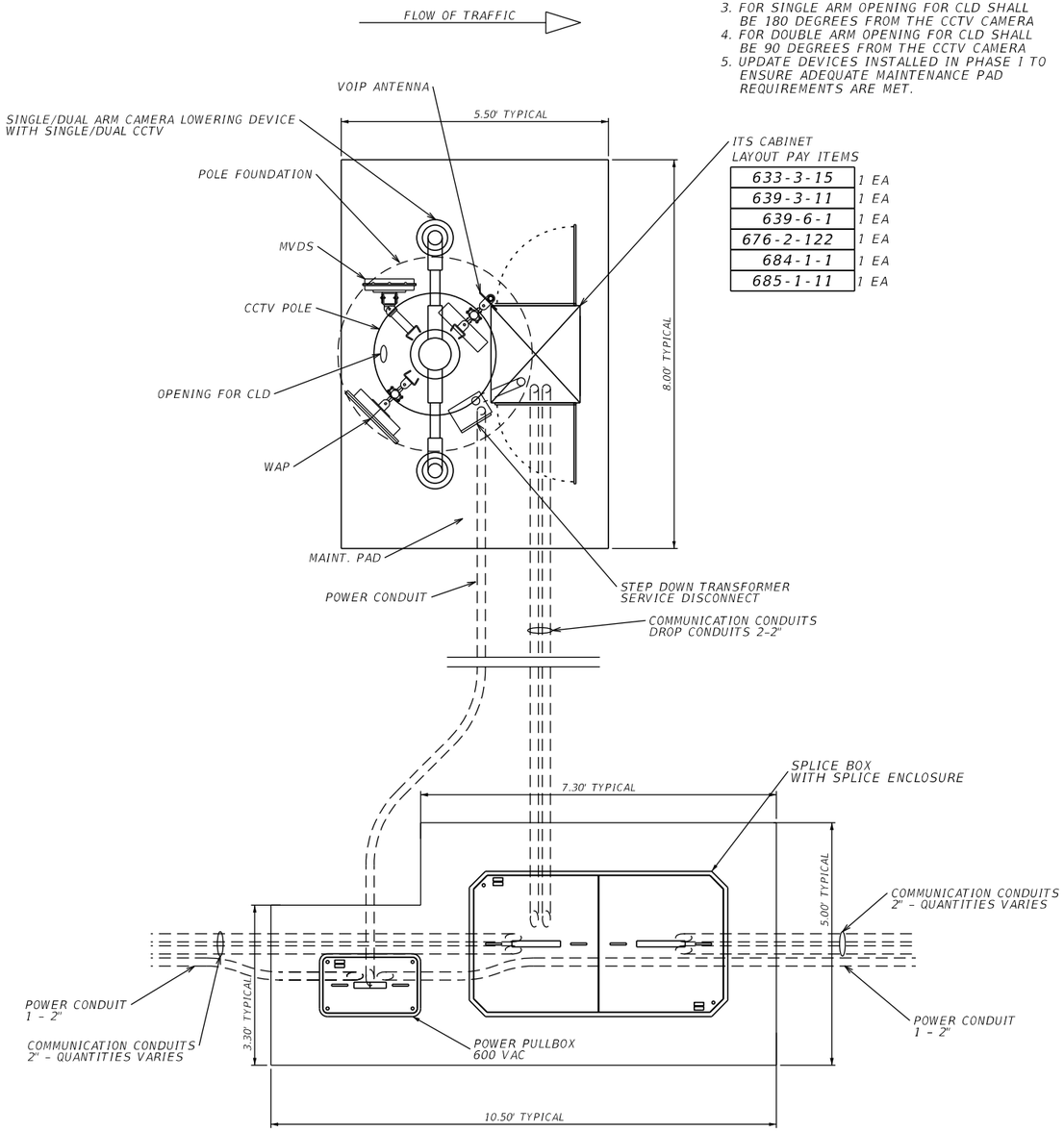
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-208

LAYOUT 5

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREES FROM THE CCTV CAMERA
5. UPDATE DEVICES INSTALLED IN PHASE 1 TO ENSURE ADEQUATE MAINTENANCE PAD REQUIREMENTS ARE MET.



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

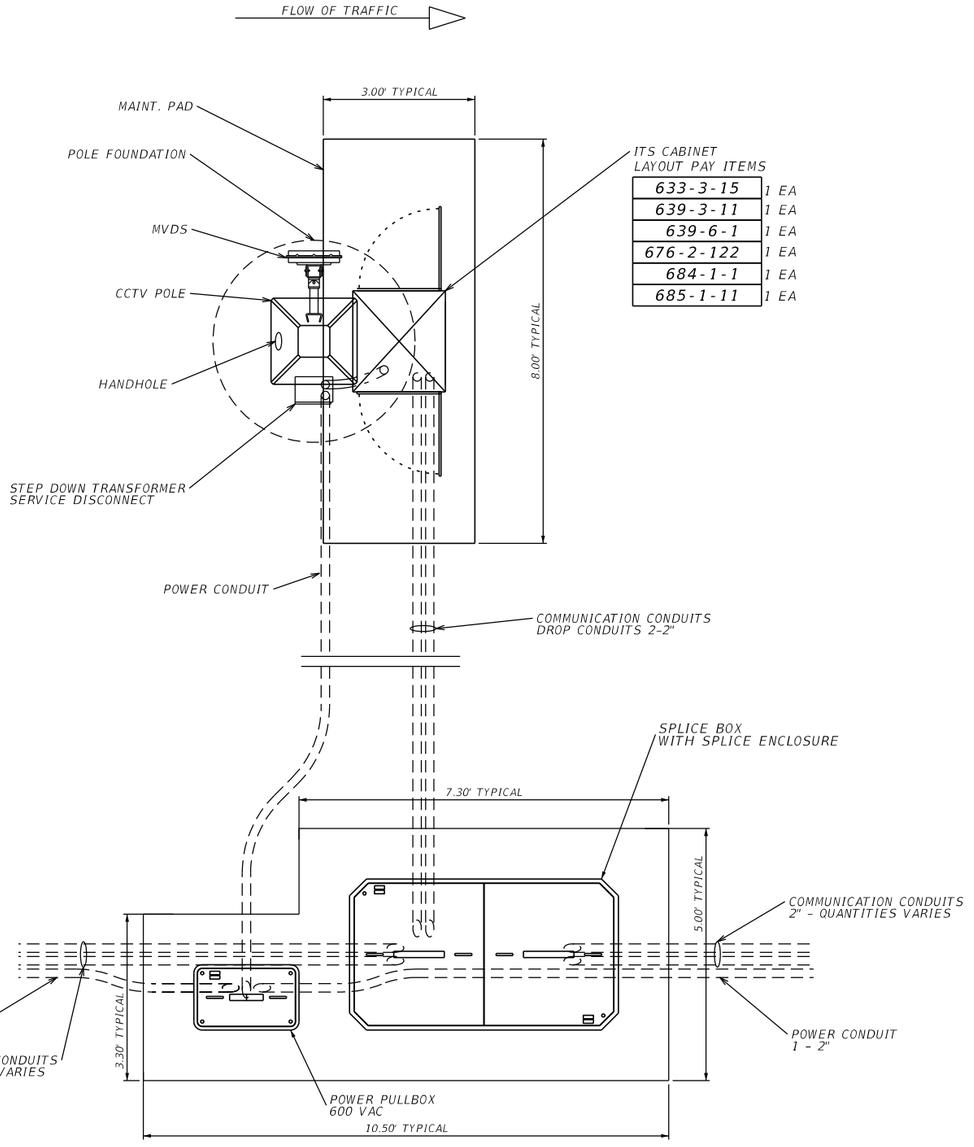
LOCATIONS:
95-27.95 SB*
95-28.10 SB
95-28.30 SB*
95-30.08 NB
95-30.23 NB
95-30.57 SB
95-30.61 NB
95-30.83 NB
95-31.54 NB

38

TYPICAL CCTV SITE LAYOUT - OFFSET FROM BACKBONE

LAYOUT 6

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 NB*
95-28.31 NB
95-28.85 SB

TYPICAL MVDS SITE LAYOUT - OFFSET FROM BACKBONE

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED LAYOUT 95-30.57SB		

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225 E. Robinson St., Suite 300
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-209

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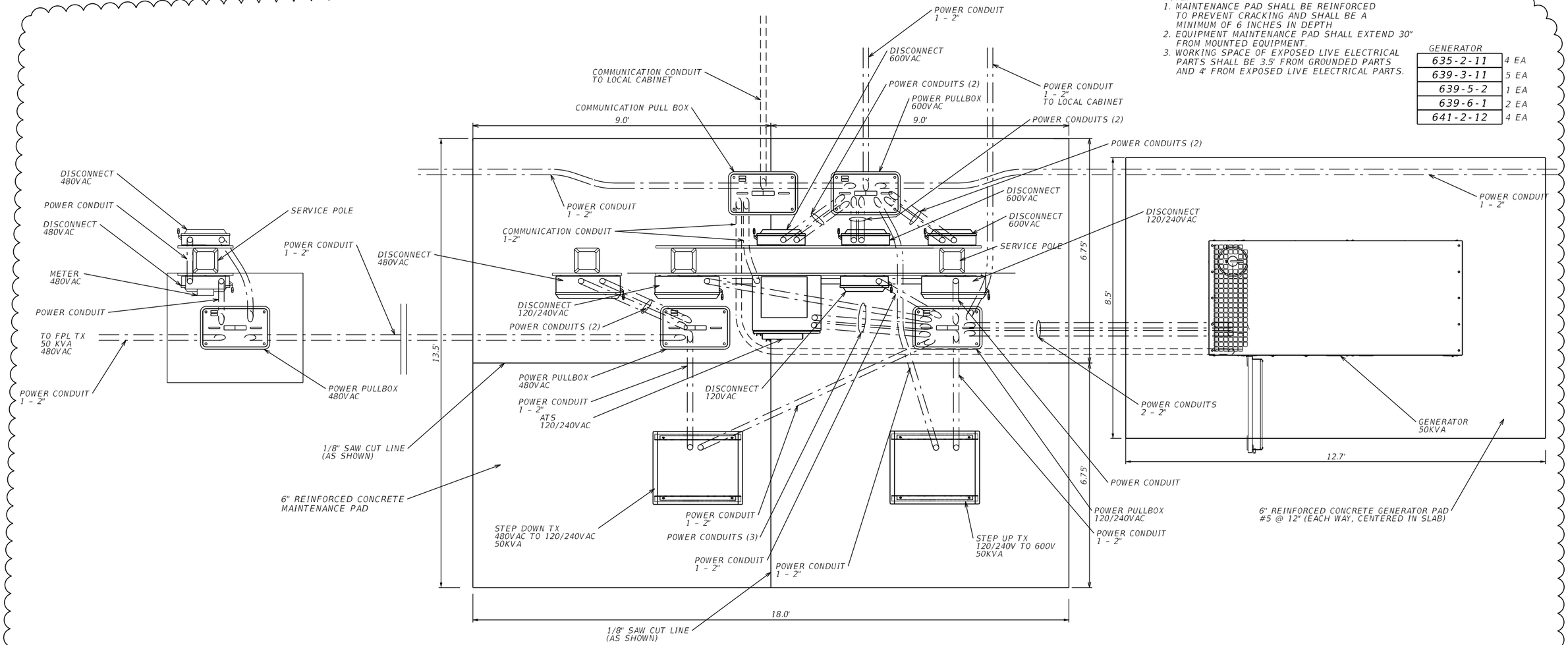
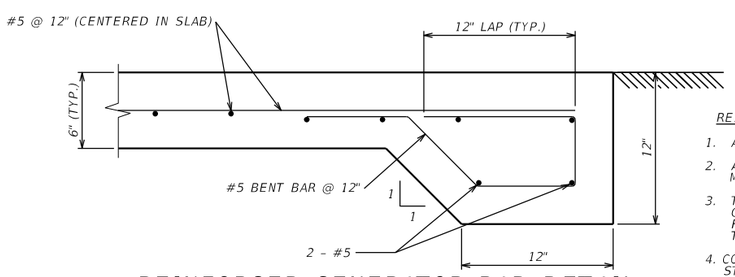
NOTE:
1. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
2. EQUIPMENT MAINTENANCE PAD SHALL EXTEND 30" FROM MOUNTED EQUIPMENT.
3. WORKING SPACE OF EXPOSED LIVE ELECTRICAL PARTS SHALL BE 3.5' FROM GROUNDED PARTS AND 4' FROM EXPOSED LIVE ELECTRICAL PARTS.

GENERATOR	
635-2-11	4 EA
639-3-11	5 EA
639-5-2	1 EA
639-6-1	2 EA
641-2-12	4 EA



GENERATOR 95-27.43 NB SITE LAYOUT



REINFORCED GENERATOR PAD DETAIL

NOT TO SCALE

38

REINFORCED GENERATOR PAD NOTES:

1. ALL CONCRETE SHALL BE FDOT CLASS IV (F'C = 5.5 KSI)
2. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS AND SHALL MEET THE REQUIREMENTS OF ASTM A615. MINIMUM CONCRETE COVER SHALL BE 2".
3. THE DESIGN IS BASED ON ASSUMED SOIL SUBGRADE MODULUS OF 200LB/IN^3 TO 400 LB/IN^3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL HIRE A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF FLORIDA TO CONFIRM THIS ASSUMPTION. IF THE SOIL CONDITIONS VARY FROM THE ASSUMED CONDITION, THE CONTRACTOR WILL NOTIFY THE ENGINEER.
4. CONTRACTOR SHALL UNDERCUT A MINIMUM 2 FEET OF IN-SITU LOOSE MATERIAL, AND REPLACE WITH #57 STONE COMPACTED IN CONTROLLED LIFTS OR FLOWABLE FILL. CONTRACTOR SHALL VERIFY WITH GEOTECH ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
5. REBAR SHALL BE BONDED TO NEAREST NON-CURRENT CARRYING METALLIC OBJECT AND GROUNDED PER NEC.

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED SITE LAYOUT WITH REINFORCED MAINTENANCE PAD DETAIL.		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

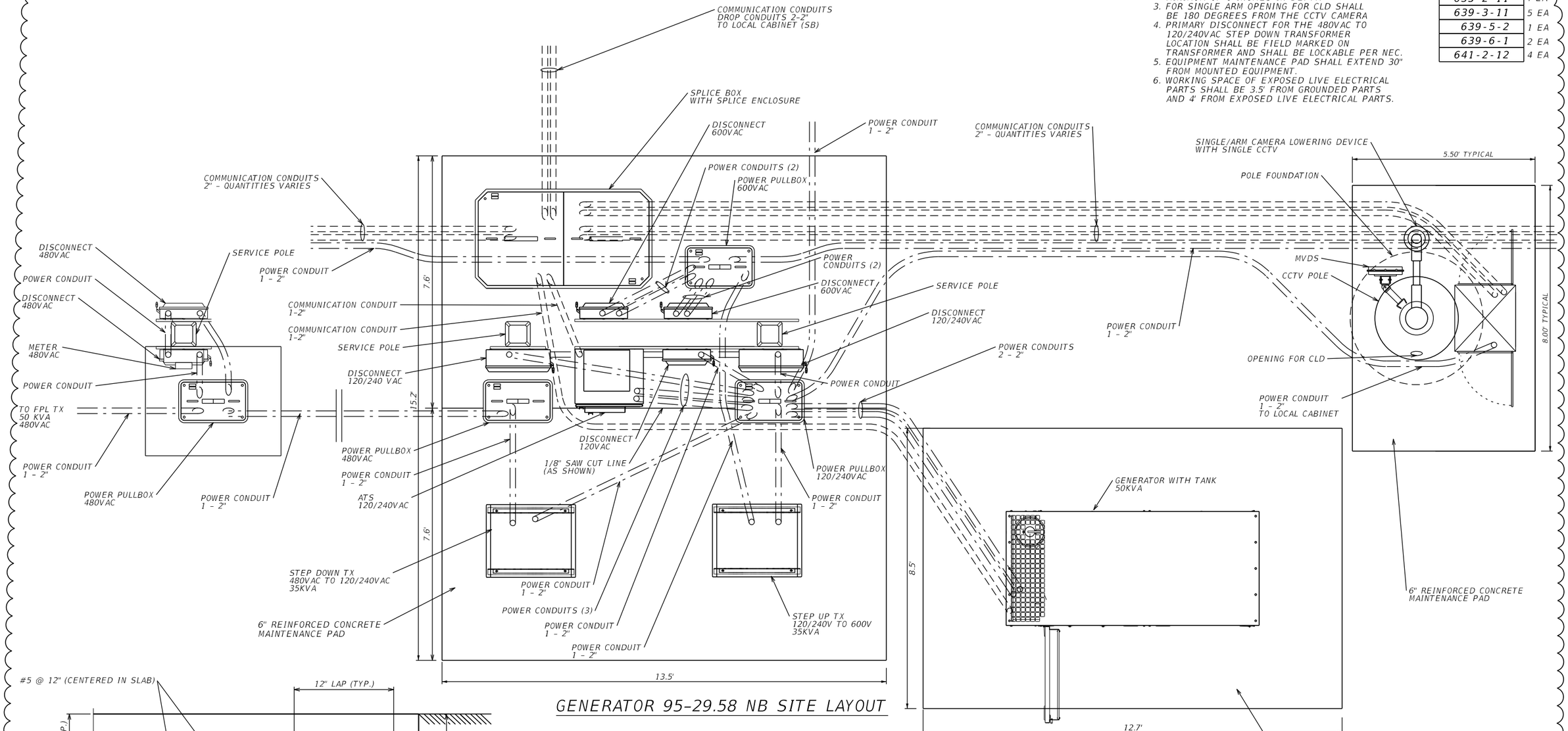
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

GENERATOR DETAILS

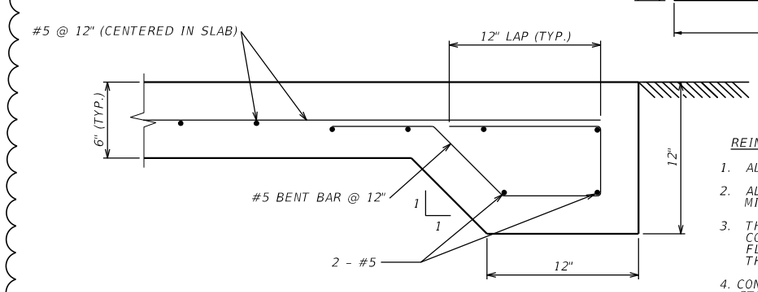
SHEET NO.
IT-220

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. PRIMARY DISCONNECT FOR THE 480VAC TO 120/240VAC STEP DOWN TRANSFORMER LOCATION SHALL BE FIELD MARKED ON TRANSFORMER AND SHALL BE LOCKABLE PER NEC.
5. EQUIPMENT MAINTENANCE PAD SHALL EXTEND 30" FROM MOUNTED EQUIPMENT.
6. WORKING SPACE OF EXPOSED LIVE ELECTRICAL PARTS SHALL BE 3.5' FROM GROUNDED PARTS AND 4' FROM EXPOSED LIVE ELECTRICAL PARTS.

GENERATOR	
635-2-11	4 EA
639-3-11	5 EA
639-5-2	1 EA
639-6-1	2 EA
641-2-12	4 EA



GENERATOR 95-29.58 NB SITE LAYOUT



REINFORCED GENERATOR PAD DETAIL

NOT TO SCALE

38

REINFORCED GENERATOR PAD NOTES:

1. ALL CONCRETE SHALL BE FDOT CLASS IV ($F'c$ = 5.5 KSI)
2. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS AND SHALL MEET THE REQUIREMENTS OF ASTM A615. MINIMUM CONCRETE COVER SHALL BE 2".
3. THE DESIGN IS BASED ON ASSUMED SOIL SUBGRADE MODULUS OF 200LB/IN^3 TO 400 LB/IN^3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL HIRE A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF FLORIDA TO CONFIRM THIS ASSUMPTION. IF THE SOIL CONDITIONS VARY FROM THE ASSUMED CONDITION, THE CONTRACTOR WILL NOTIFY THE ENGINEER.
4. CONTRACTOR SHALL UNDERCUT A MINIMUM 2 FEET OF IN-SITU LOOSE MATERIAL, AND REPLACE WITH #57 STONE COMPACTED IN CONTROLLED LIFTS OR FLOWABLE FILL. CONTRACTOR SHALL VERIFY WITH GEOTECH ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
5. REBAR SHALL BE BONDED TO NEAREST NON-CURRENT CARRYING METALLIC OBJECT AND GROUNDED PER NEC.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED SITE LAYOUT WITH REINFORCED MAINTENANCE PAD DETAIL.		

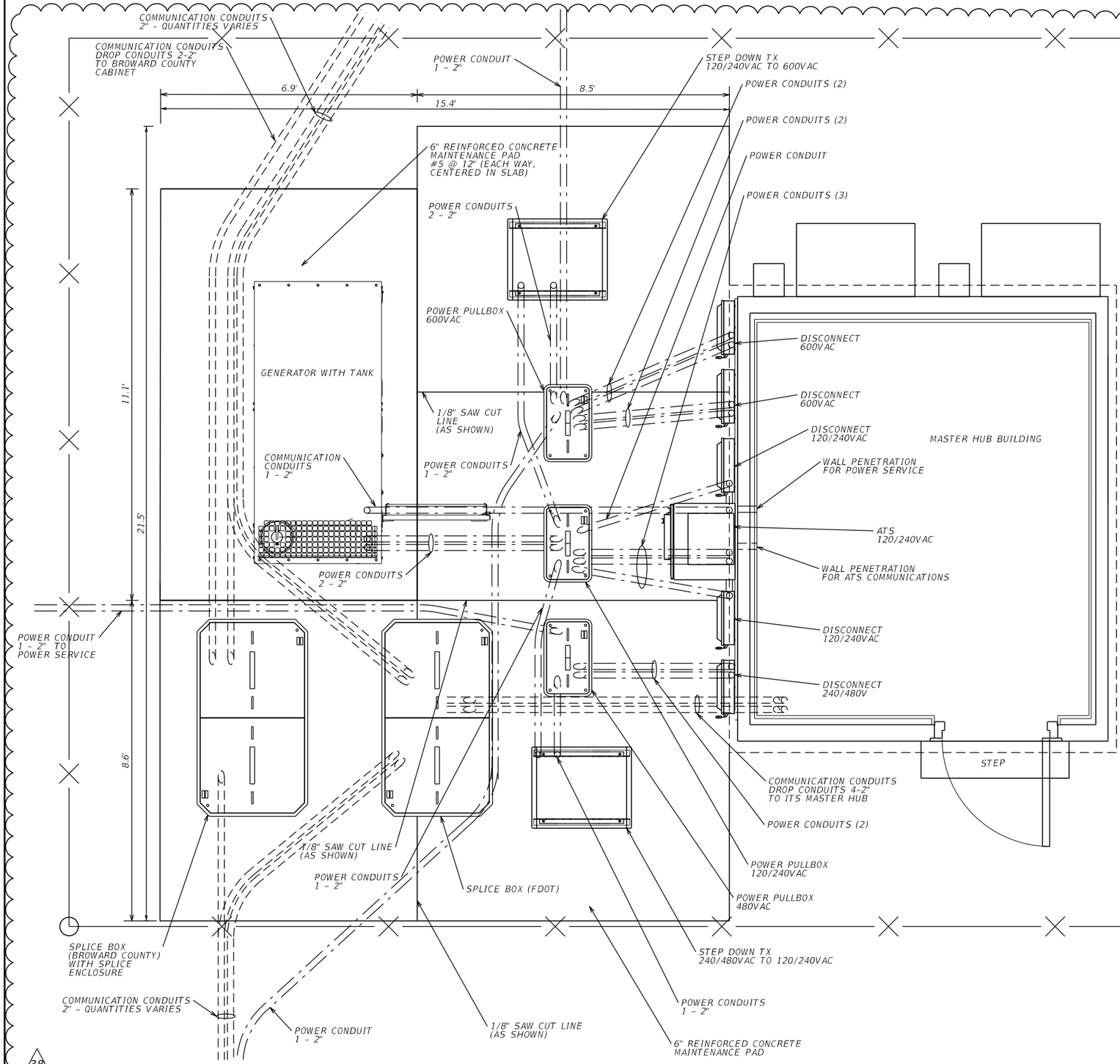
Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

GENERATOR DETAILS

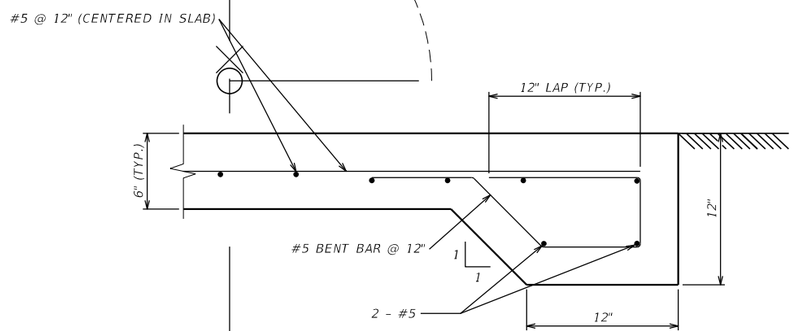
SHEET NO. IT-221



GENERATOR	
635-2-11	4 EA
639-3-11	5 EA
639-5-2	1 EA
639-6-1	2 EA
641-2-12	4 EA

HUB BUILDING	
633-3-16	4 EA
677-1-11	1 EA
684-7	1 EA

NOTE:
1. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
2. EQUIPMENT MAINTENANCE PAD SHALL EXTEND 30" FROM MOUNTED EQUIPMENT.
3. WORKING SPACE OF EXPOSED LIVE ELECTRICAL PARTS SHALL BE 3.5' FROM GROUNDED PARTS AND 4' FROM EXPOSED LIVE ELECTRICAL PARTS.



REINFORCED GENERATOR PAD DETAIL

NOT TO SCALE

REINFORCED GENERATOR PAD NOTES:

1. ALL CONCRETE SHALL BE FDOT CLASS IV (F'C = 5.5 KSI)
2. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS AND SHALL MEET THE REQUIREMENTS OF ASTM A615. MINIMUM CONCRETE COVER SHALL BE 2".
3. THE DESIGN IS BASED ON ASSUMED SOIL SUBGRADE MODULUS OF 200LB/IN^3 TO 400 LB/IN^3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL HIRE A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF FLORIDA TO CONFIRM THIS ASSUMPTION. IF THE SOIL CONDITIONS VARY FROM THE ASSUMED CONDITION, THE CONTRACTOR WILL NOTIFY THE ENGINEER.
4. CONTRACTOR SHALL UNDERCUT A MINIMUM 2 FEET OF IN-SITU LOOSE MATERIAL, AND REPLACE WITH #57 STONE COMPACTED IN CONTROLLED LIFTS OR FLOWABLE FILL. CONTRACTOR SHALL VERIFY WITH GEOTECH ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
5. REBAR SHALL BE BONDED TO NEAREST NON-CURRENT CARRYING METALLIC OBJECT AND GROUNDED PER NEC.

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED SITE LAYOUT WITH REINFORCED MAINTENANCE PAD DETAIL.		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

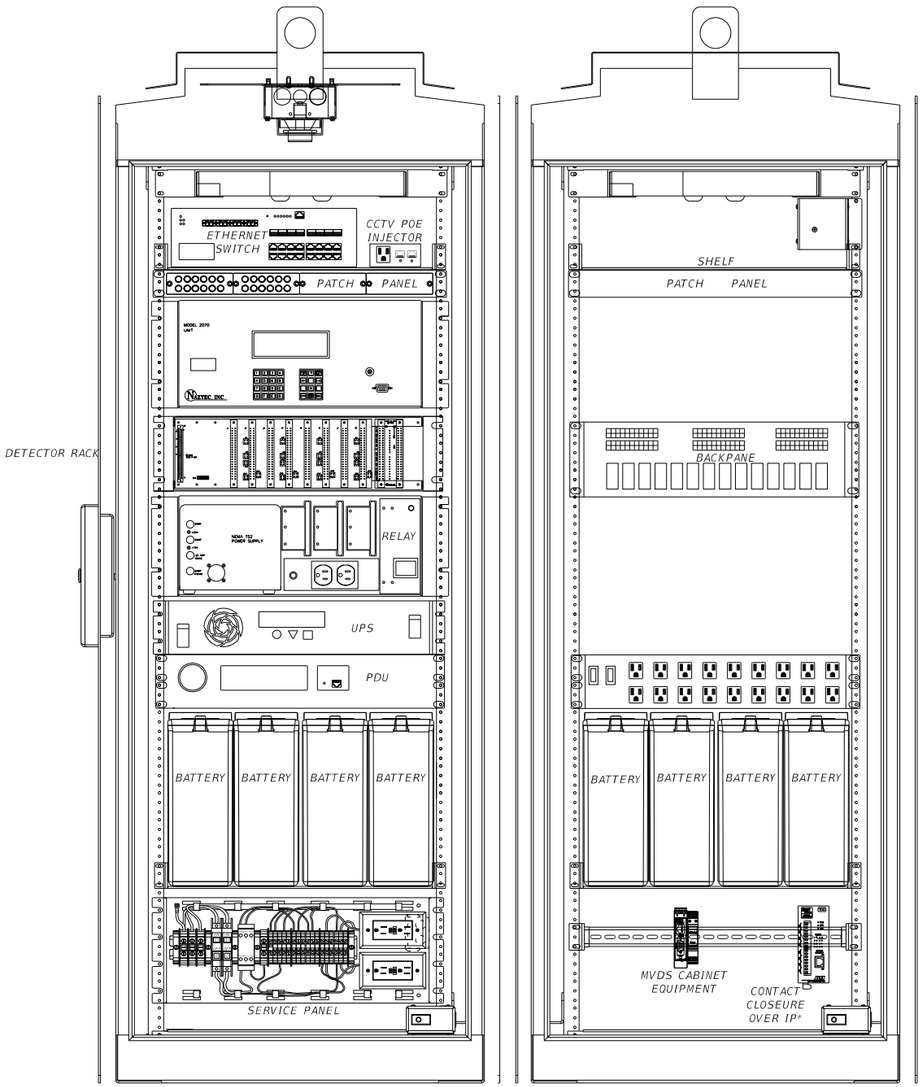
GENERATOR DETAILS

SHEET NO. IT-222

RAMP SIGNAL CABINET DETAIL FOR SITES:

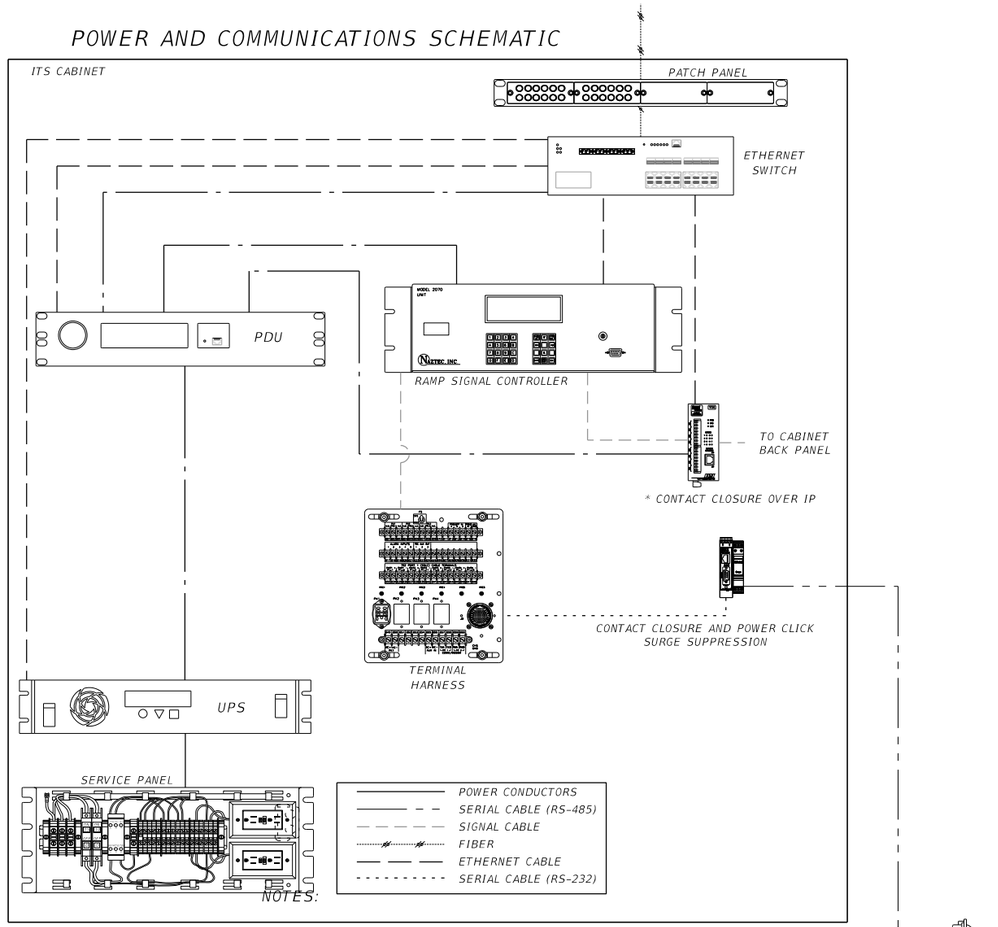
RSC 95-27.65 NB*
RSC 95-28.38 SB*
RSC 95-30.33 SB
RSC 95-30.91 NB
RSC 95-32.20 SB
RSC 95-32.50 NB

* CONTACT CLOSURE OVER IP TO BE INSTALLED AT CABINET



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE OT SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL BE GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED SHEET NAME		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Certificate of Authorization # 3932
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

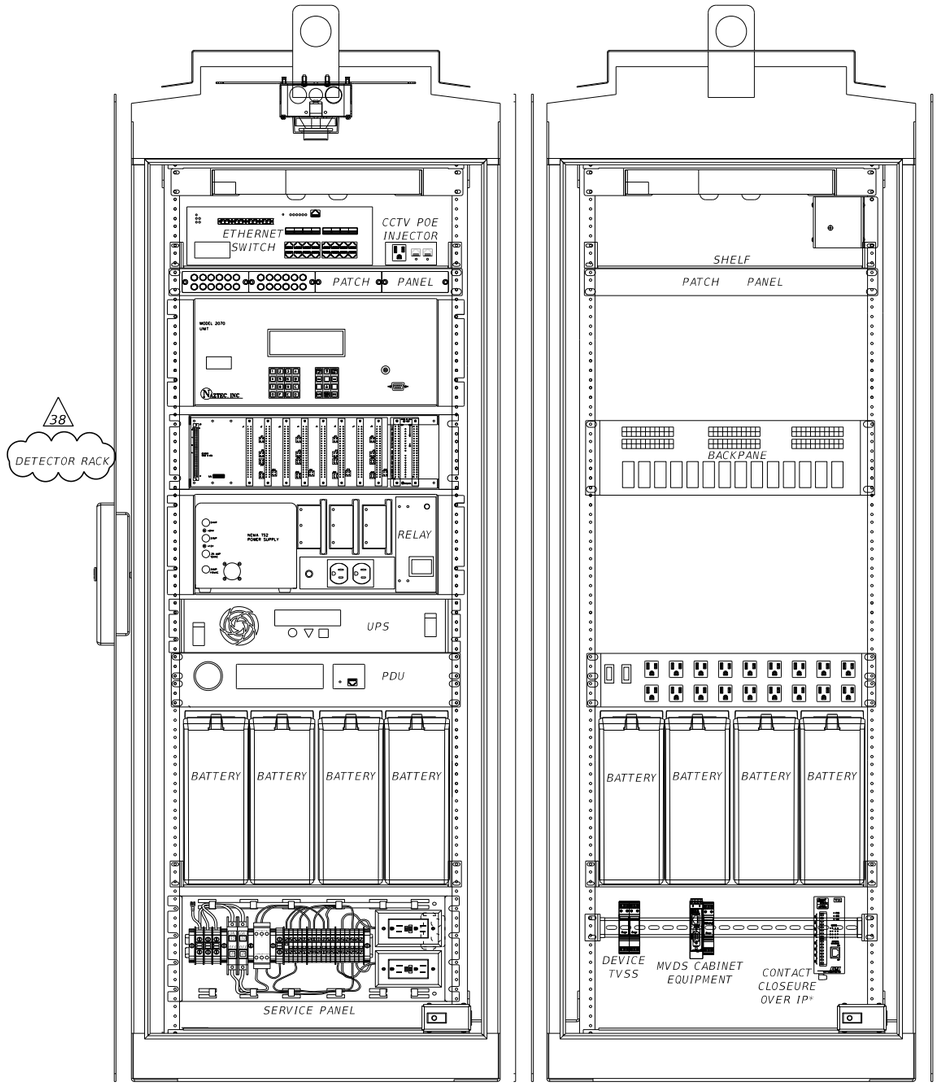
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

38 RAMP SIGNAL CABINET DETAIL

SHEET NO. IT-360

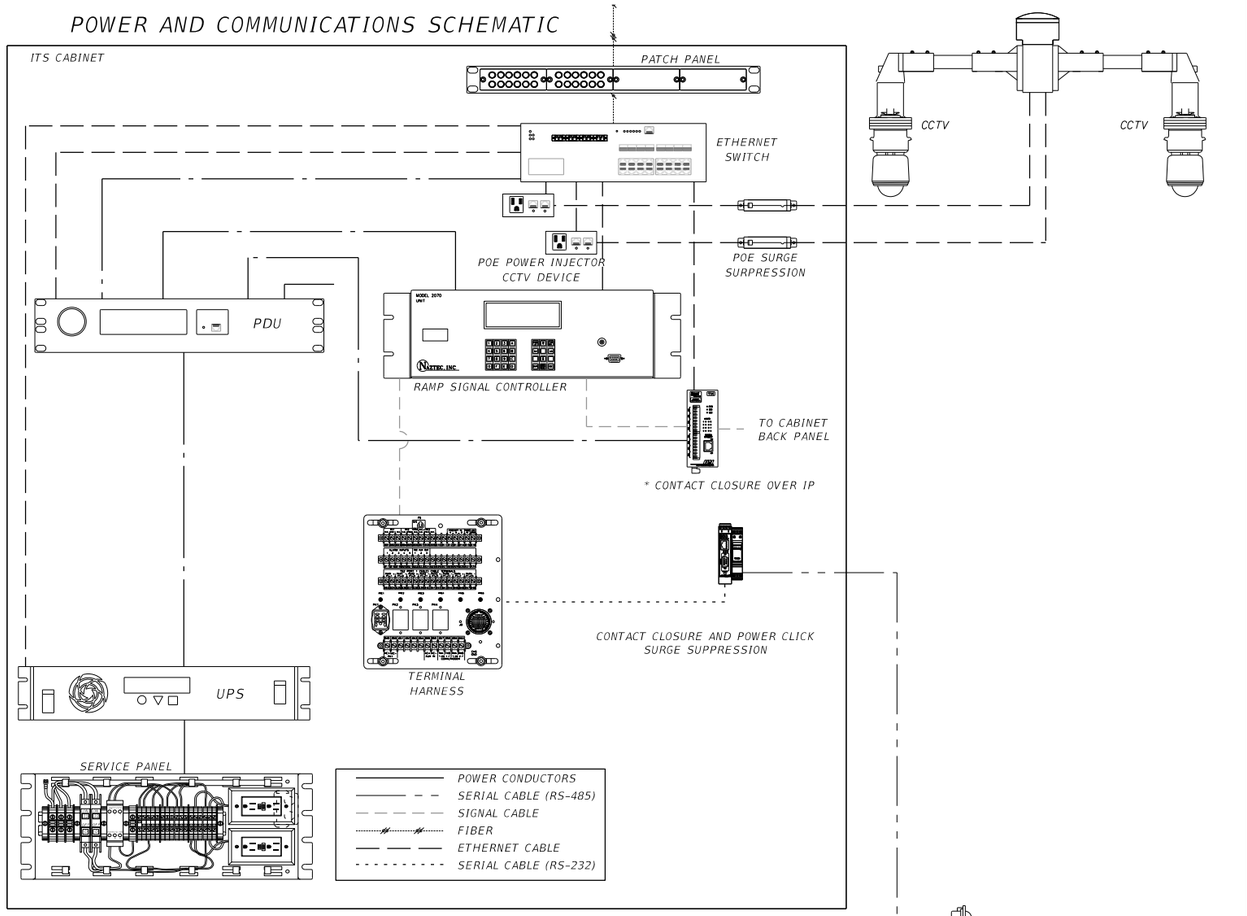
RAMP SIGNAL CABINET DETAIL FOR SITES:
RSC 95-28.69 NB

* CONTACT CLOSURE OVER IP TO BE INSTALLED AT CABINET



FRONT VIEW BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE OT SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL BE GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 ADJUSTED CABINET		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

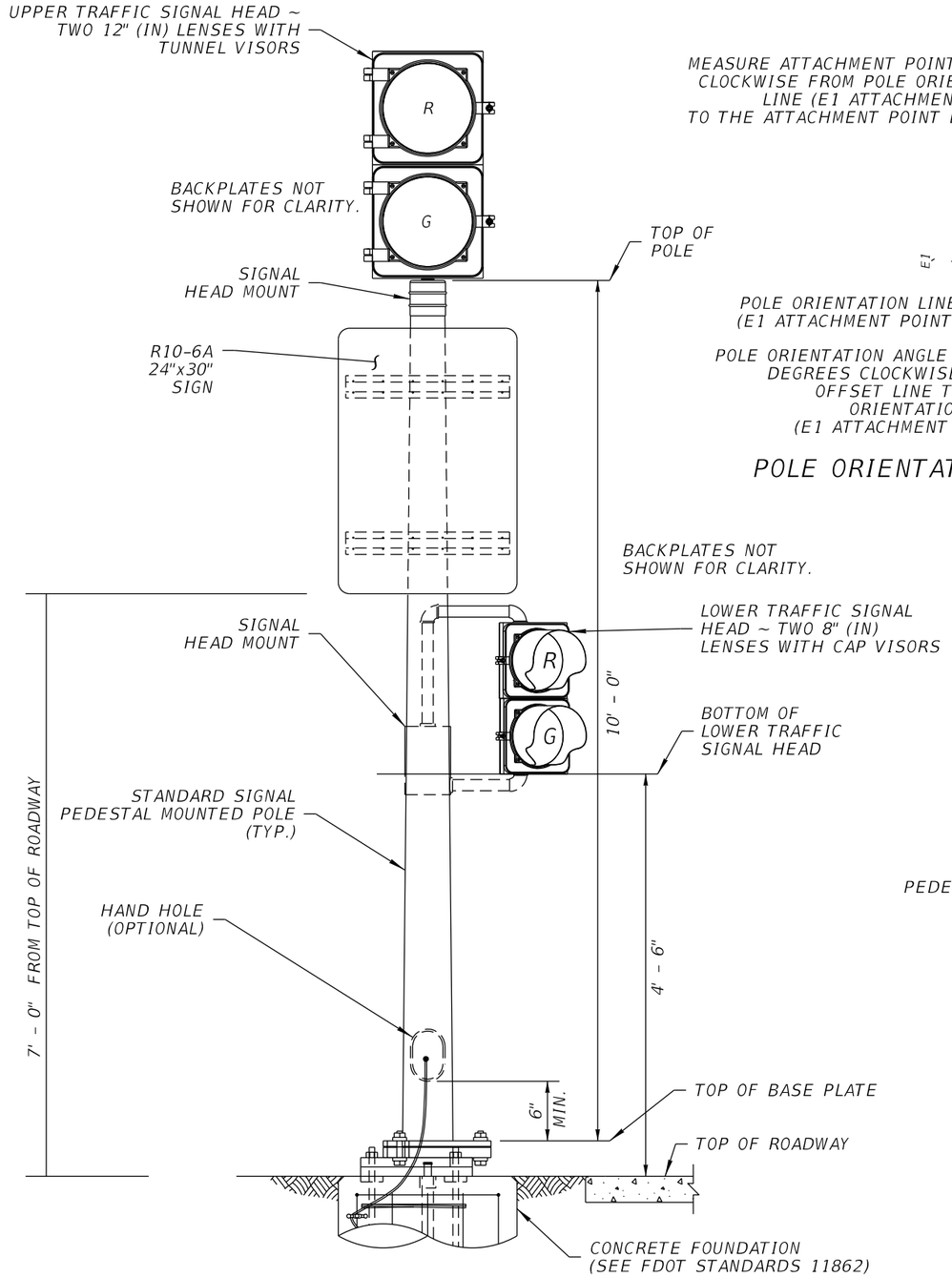
RAMP SIGNAL CABINET DETAIL (WITH 2 CCTV)

SHEET NO. IT-361

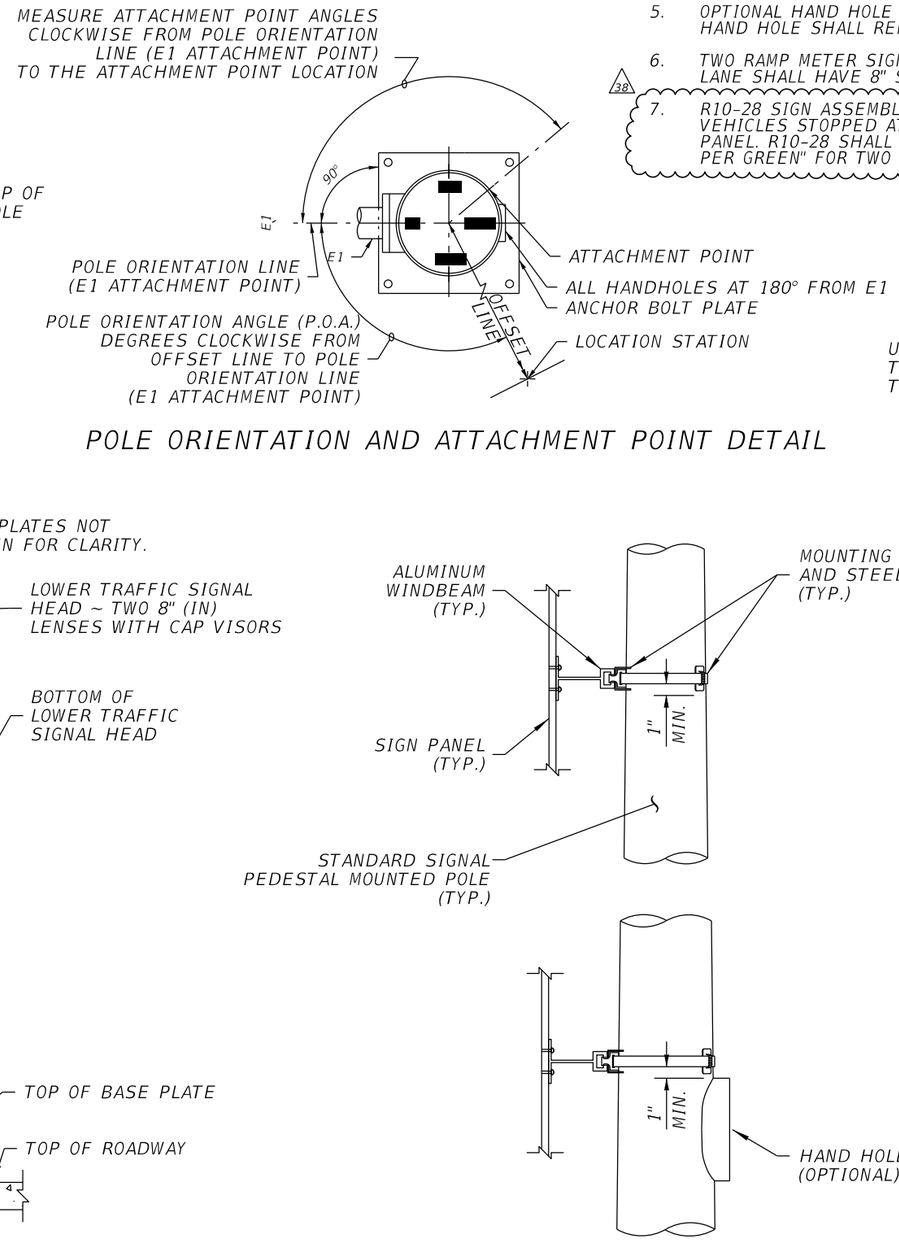
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NOTES:
1. RAMP METER SIGNAL POLES AND SIGNALS ARE TO COMPLY TO FDOT STANDARDS AND CLEARZONE CRITERIA.
2. A BACKPLATE SHALL BE INSTALLED ON THE UPPER TRAFFIC SIGNAL HEAD. INSTALL A BACKPLATE ON THE LOWER TRAFFIC SIGNAL HEAD ONLY WHEN REQUIRED.
3. FOR SIGN INSTALLATION DETAIL SEE FDOT DESIGN STANDARDS 11860.
4. SIGNAL POLE SHALL USE SLIP BASE IF INSTALLED CLOSER THAN 5 FT FROM FACE OF GUARDRAIL.
5. OPTIONAL HAND HOLE SHALL FACE THE OPPOSITE DIRECTION FROM THE UPPER TRAFFIC SIGNAL HEAD. HAND HOLE SHALL REMAIN ACCESSIBLE AFTER POLE AND SIGN INSTALLATION IS COMPLETE.
6. TWO RAMP METER SIGNALS SHALL BE INSTALLED ON TWO LANE RAMPS. SIGNALS ADJACENT TO RIGHT LANE SHALL HAVE 8" SIGNAL FACING RIGHT TURN LANE.

△38
7. R10-28 SIGN ASSEMBLY SHALL BE INSTALLED ADJACENT TO RAMP METER SIGNALS SUCH THAT VEHICLES STOPPED AT RAMP STOP BAR SHALL BE ABLE TO VIEW BOTH SIGNAL AND R10-28 SIGN PANEL. R10-28 SHALL DISPLAY "ONE VEHICLE PER GREEN" FOR ONE LANE RAMPS AND "ONE VEHICLE PER GREEN" FOR TWO LANE RAMPS. R10-28 SIGN ASSEMBLY SHALL BE INSTALLED PER FDOT INDEX 17302.

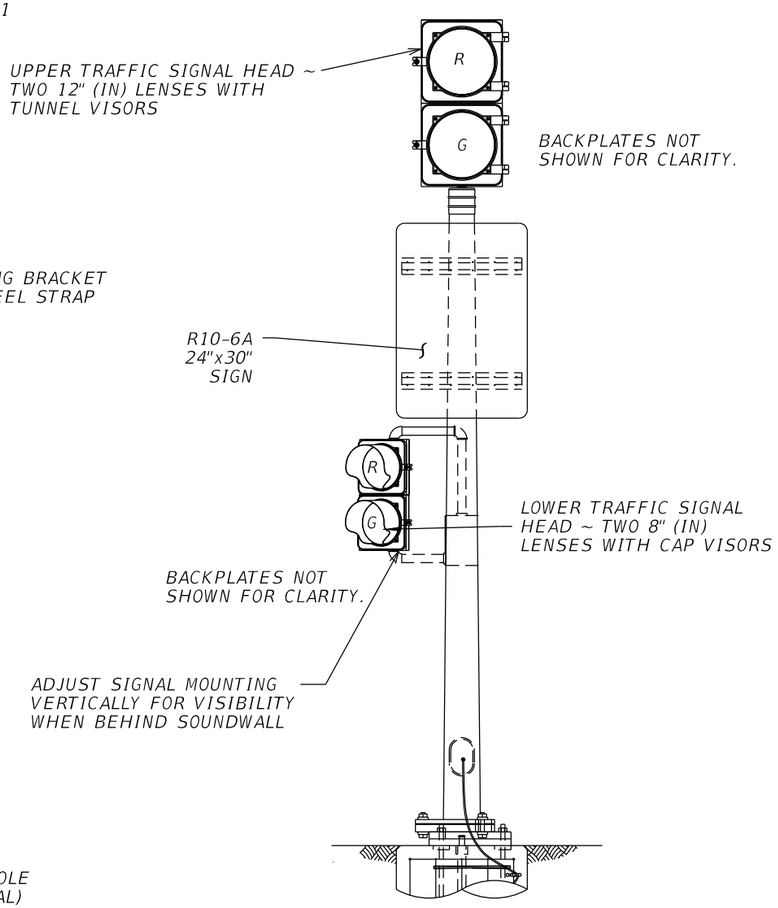


RAMP METER SIGNAL STANDARD INSTALLATION



POLE ORIENTATION AND ATTACHMENT POINT DETAIL

SIGN PLACEMENT DETAIL



RAMP METER SIGNAL INSTALLATION
2 LANE RAMP-SIGNAL ADJACENT TO RIGHT LANE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	△38 UPDATED NOTE 7		

Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

RAMP SIGNAL POLE DETAILS (1 OF 2)

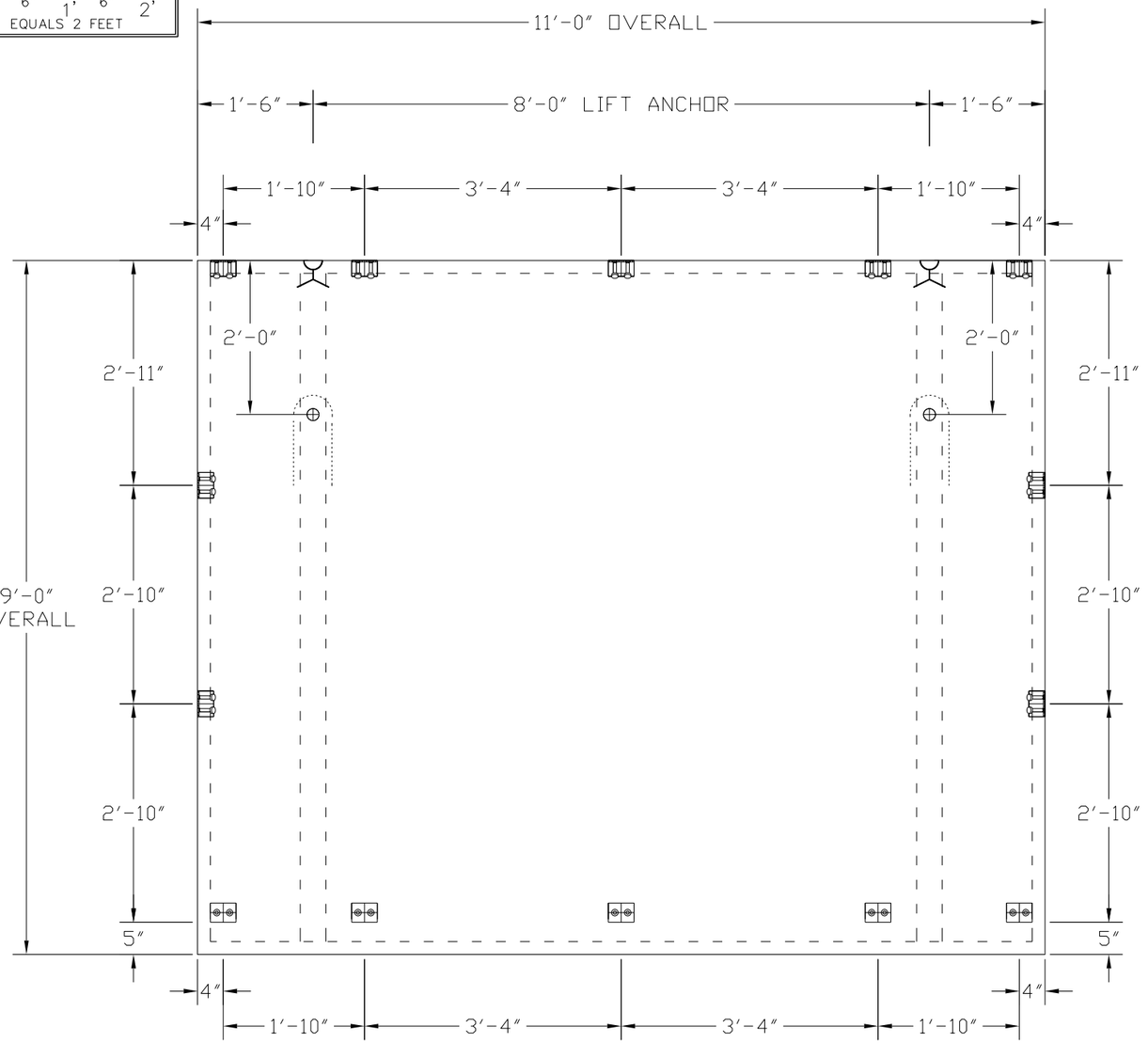
SHEET NO. IT-362

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SCALE VERIFICATION

0' 6" 1' 6" 2'

EQUALS 2 FEET



LW 1|6 FABRICATION 4" THICK LEFT WALL

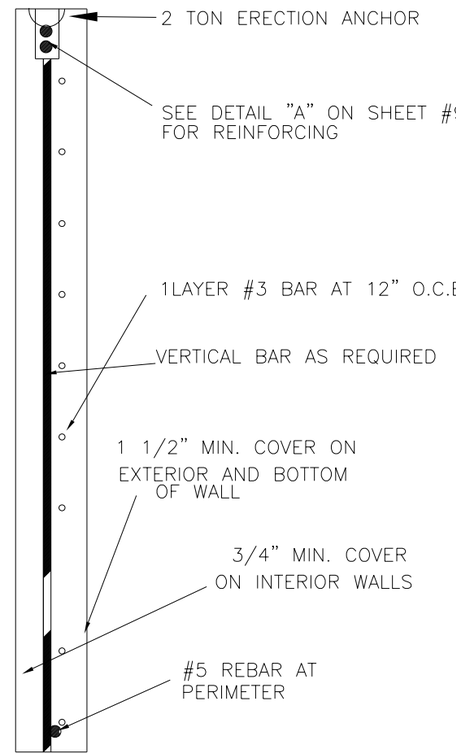
TYPICAL PANEL REINFORCEMENT
(1) LAYER #3 BARS 12 O.C. EACH WAY
(1) #5 BARS @ PERIMETER AS SHOWN
(2) #5 BARS @ LIFTING INSERTS AS SHOWN
EXTRA #5 BARS @ OPENINGS AS SHOWN

NOTE:
SEE DETAILS "D" ON SHEET #9 FOR ROOF TO WALL CONNECTION
SEE DETAILS "E" ON SHEET #9 FOR WALL TO WALL CONNECTION
SEE DETAILS "F" ON SHEET #9 FOR FLOOR TO WALL CONNECTION

DENOTES EDGE ANCHOR SEE DETAIL "A" ON SHEET #9

P-2 A-1 DENOTES LOCATION OF WELD PLATES FOR CONNECTING SEE DETAILS "D,E,F" ON SHEET #9

DENOTES 1 1/4" SCHEDULE 80 STEEL SLEEVE WITH #5 HAIR PIN FOR BUILDING PICK POINTS SEE DETAIL "C" SHEET #9



LW 6|6 PARTIAL SECTION
SCALE = NONE

38

Note:
All details and information on this sheet are provided for informational purposes only. The contractor will provide final design, details, and shop drawings, signed and sealed by a licensed professional engineer in the State of Florida. The contractor will submit the design and details to the engineer for review. Review and approval will be for the limited purpose of checking for conformance with standard design and construction specifications and the information in VHB's documents.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 REMOVED MISCELLANEOUS LINE		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

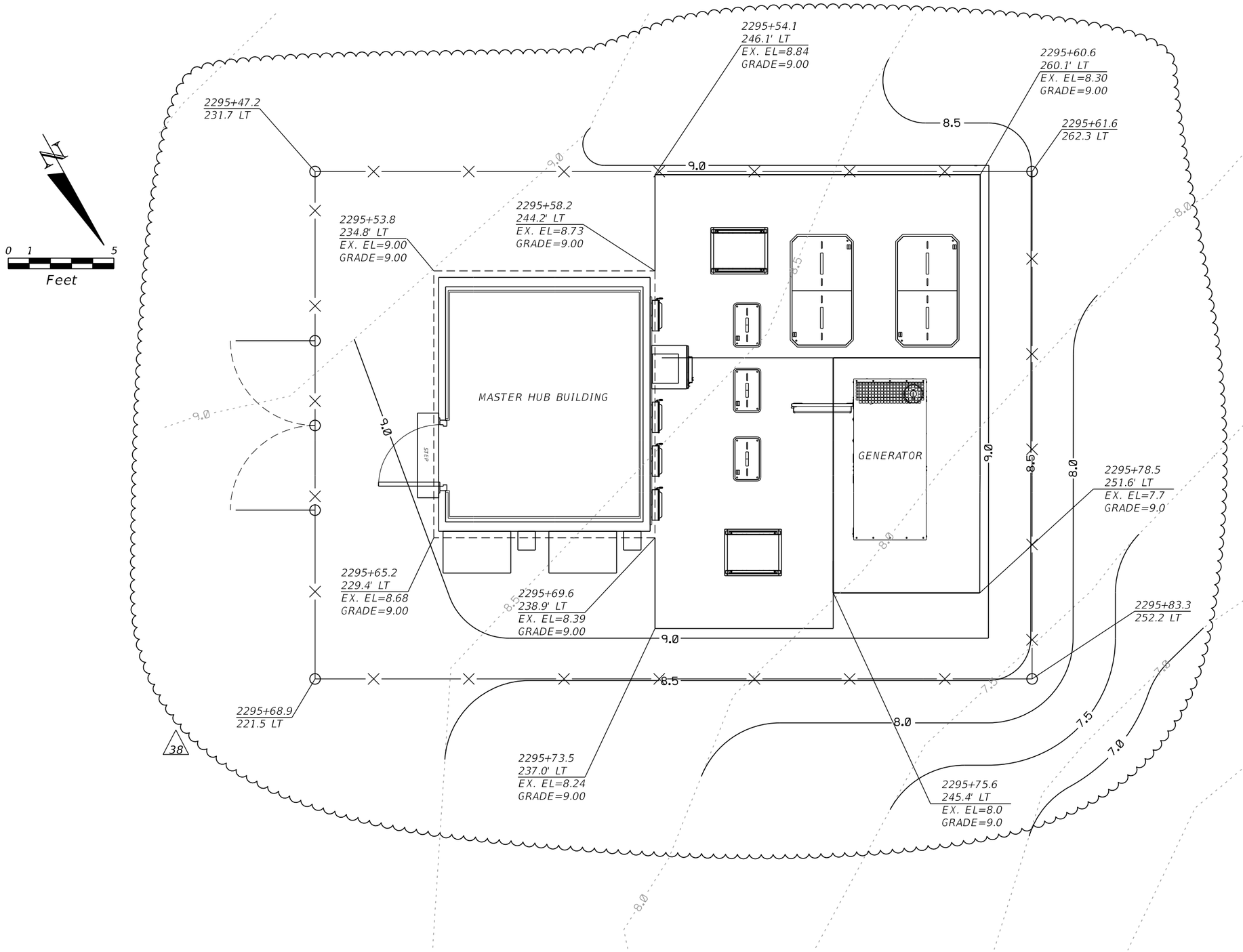
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

MASTER HUB BUILDING (LEFT WALL DETAIL)

SHEET NO. IT-370

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED SITE LAYOUT AND GRADE PLAN		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

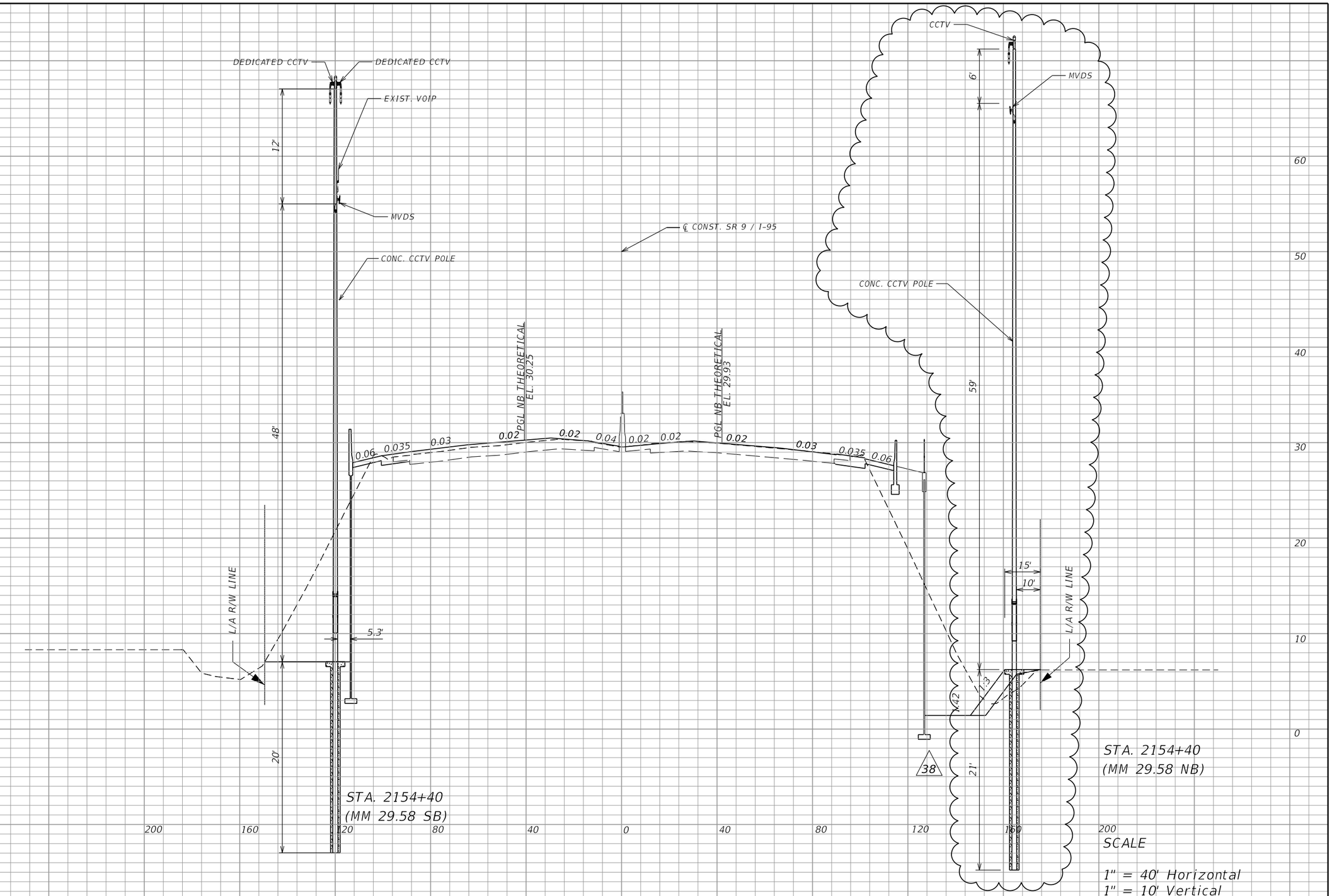
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

MASTER HUB BUILDING GRADING PLAN

SHEET NO. IT-376

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 RELOCATED 95-29.58 NB		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-418

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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-4-52-01

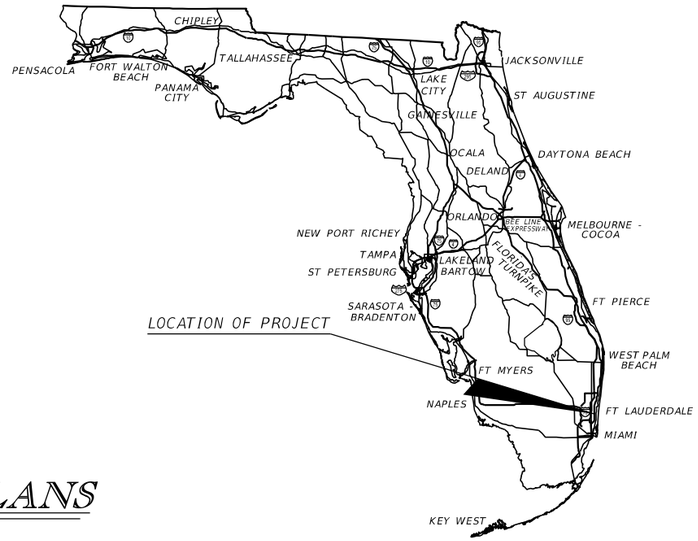
FINANCIAL PROJECT ID 428009-1-52-01

BROWARD COUNTY (86070)

(FEDERAL FUNDS)

STATE ROAD NO. 9

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



INDEX OF ITS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-156	KEY SHEET
IT-157C (47)	SIGNATURE SHEET
IT-158A TO IT-162B	TABULATION OF QUANTITIES
IT-163 TO IT-164	SUMMARY OF DEVICES
IT-165 TO IT-166	GENERAL NOTES
IT-167 TO IT-168	POLE DATA SHEET
IT-169 TO IT-174	ITS LAYOUT SHEET
IT-175 TO IT-207	ITS PLAN SHEET
IT-208 TO IT-219	SITE LAYOUT DETAILS
IT-220 TO IT-222	GENERATOR DETAILS
IT-223 TO IT-267	POWER SERVICE DETAILS
IT-268	STATUS DMS RISER DIAGRAM
IT-269	TOLL RATE DMS RISER DIAGRAM
IT-270 TO IT-299	SPLICING DIAGRAM
IT-300 TO IT-306	BROWARD SPLICING DIAGRAM
IT-307 TO IT-309	NETWORK SCHEMATIC
IT-310	TRENCHING AND PLOWING DETAILS SINGLE CONDUIT BANK
IT-311	DIRECTIONAL BORE DETAIL FIBER OPTIC BACKBONE CONDUIT
IT-312	CCTV CAMERA LOWERING DEVICE
IT-313	DUAL CCTV DETAIL
IT-314	ROUTE MARKER DETAIL
IT-315	FIBER OPTIC SPLICE BOX DETAIL
IT-316	ELECTRICAL PULL BOX DETAIL
IT-317	FIBER PULL BOX DETAIL
IT-318	MFES PORT ALLOCATION
IT-319	MOUNTING DETAILS
IT-320	BRIDGE MOUNT DETAILS
IT-321	BRIDGE STRUCTURE MOUNT DETAILS
IT-322	CONCRETE SLOPE UNDERBRIDGE DETAIL
IT-323 TO IT-358	ITS CABINET DETAIL
IT-359 TO IT-361	RAMP SIGNAL CABINET DETAIL
IT-362 TO IT-363	RAMP SIGNAL POLE DETAILS
IT-364	FLASHING BEACON SIGN DETAIL
IT-365 TO IT-375	MASTER HUB BUILDING
IT-376	MASTER HUB BUILDING GRADING PLAN
IT-377 TO IT-465	ITS DEVICE CROSS SECTION
IT-466 TO IT-467	CANAL CROSSINGS

GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY 2015 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website:
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, 2015 Standard Specifications for Road and Bridge Construction at the following website:
http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

KEY SHEET REVISIONS

DATE	BY	DESCRIPTION
7/31/18	JK	(47) - ADDED SHEET 157C

INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

JARED KNIGHT, P.E.
P.E. LICENSE NUMBER 74758
VANASSE HANGEN BRUSTLIN, INC.
225 EAST ROBINSON STREET, SUITE 300
ORLANDO, FL 32801
CONTRACT NO. 000819
VENDOR NO. VF-042-931-679-001
CERTIFICATE OF AUTHORIZATION 3932

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q32	15	IT-156

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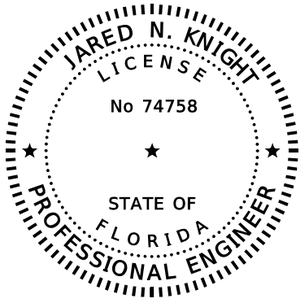

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

VANASSE HANGEN & BRUSTLIN, INC.
225 E ROBINSON ST., SUITE 300
ORLANDO, FLORIDA 32801
CERTIFICATE OF AUTHORIZATION NO. 3932
JARED N. KNIGHT, P.E. NO. 74758

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-156	KEY SHEET
IT-157C	SIGNATURE SHEET
IT-160A	TABULATION OF QUANTITIES
IT-162A	TABULATION OF QUANTITIES
IT-163 TO IT-164	SUMMARY OF DEVICES
IT-168	POLE DATA SHEET
IT-198	ITS PLAN SHEET
IT-199	ITS PLAN SHEET
IT-208 TO IT-209	SITE LAYOUT DETAILS
IT-260	POWER SERVICE DETAILS
IT-320	BRIDGE MOUNT DETAILS
IT-442 TO IT-443	ITS DEVICE CROSS SECTIONS

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-157C

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-197*		IT-198		IT-199		IT-200*		IT-201*		IT-202*		IT-203		IT-204		IT-205		IT-206		IT-207					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1380		1040	47	1870	47	1987		2625		1815		1325		530		870		880		710		15032	47		
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	1287		1050	47	975	47	715		1130		575				490		340		200		115		6877			
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF																										
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																										
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1650		1590	47	780	47	870		1645		1740				1870								10145	47		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF	2747		1660		2665		1820		1165														10057			
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF	3964		3320		5110		3640		4920		2710		925				970		530				26089			
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF	9055		8400		882		9800		6025		1400		825		440								36827			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	28		8		40		16		164		24		50		24								354			
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	4		1		3		2		6		4		1		1								22			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	4		1		4		3		6		4		4		2								28			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA									1														1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																										
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF					200		850		1585		955												3590			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	5		3		9		12		31		16		1		9		6		5		3		100			
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	3		2		5		4		7		4				4								29			
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA	3		1		1		2		7		6		1		1		1		1				24			
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																										
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS									1														1			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																										
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	2482		2090	47	2535	47	2259		3380		2800				880								16426	47		
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF	1400		1400		560				1150		1400												5910			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA															1								1			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																										
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA															1								1			
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA									1						1								2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA											1												1			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA	1				1				1														3			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA									1		1												2			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA	1				1										1								3			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA						47	1		1		1				1								4	47		
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA	1		1						1														3			
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA	2		1		1	47	2		1		1												8	47		
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																										
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA							1		1		1												3			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS							2		2		2												6			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA							2		2		2												6			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS							4		12		4						2		4				26			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA	4		2		2		2		2		4												16			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA	4		2		2		3		2		4												17			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																										
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																										
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																										
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA																										

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-160A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-219		IT-220		IT-221		IT-222																	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF																								47 37726		42
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF																								16373		
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF																								2568		
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																								2080		
632-7-1	SIGNAL CABLE- NEW, F&I	PI																								12		
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF																							47	33481	38	
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																								18911		
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF																								52121	42	
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF																								62227		
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA																								1064		
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA																								63		
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA																								110		
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																								77		
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA							4														4			6		
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																								5		
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF																								15760		
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA			4		4		4														12			278		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA																								77		
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA																								47		
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																								21		
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS																								4		
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																								2		
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF																							47	43667	38	
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																								14160		
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA			5		5		5														15			95		
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA			1		1		1														3			3		
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																								2		
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA			2		2		2														6			85		
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA			4		4		4														12			43		
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA																								7		
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																								1		
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																								1		
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA																								7		
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA																								8		
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA																								18		
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																							47	9		
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																								53	42	
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																							47	10		
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																								4		
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA																								13		
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS																								26		
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA																								27		
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS																								88		
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA																								55		
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA																								44		
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																								3		
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																								5		
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																								1		
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																								1		
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																								12		
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																								5		
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																								41		
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																								2		
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																								40		
676-2-600	ITS CABINET, REMOVE	EA																								4		

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT QUANTITIES	7/31/18	47 MSE WALL 21 ADJUST
6/15/18	42 MSE WALL 15 ADJUST		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization * 3932
Jared Knight, P.E
PE * 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-162A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

	DEVICE	STATION	LOCAL HUB	NO. OF CCTV'S	DIRECTED TOWARDS	PLAN SHEET
1	CCTV 95-25.28 NB	1927+00	LHUB 95-25.28 NB	1	T-DMS 95-25.58 NB	IT-175
2	CCTV 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	S-DMS 95-25.98 NB	IT-176
3	CCTV 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	MAINLINE	IT-176
4	CCTV 95-26.06 NB	1968+90	LHUB 95-26.09 NB	1	T-DMS 95-26.13 NB	IT-178
5	CCTV 95-26.30 NB	1980+90	LHUB 95-26.30 NB	1	S-DMS 95-26.44 NB	IT-179
6	CCTV 95-26.38 SB	1984+40	RSC 95-26.38 SB	1	RAMP A	IT-179
7	CCTV 95-26.44 EB/WB	1988+31	LHUB 95-26.30 NB	1	DAVIE BLVD	IT-179
8	CCTV 95-26.59 NB	1996+10	RSC 95-26.59 NB	1	RAMP	IT-180
9	CCTV 95-26.63 SB	1998+70	LHUB 95-26.63 SB	1	MAINLINE	IT-180
10	CCTV 95-26.71 NB	2002+80	RSC 95-26.71 NB	1	SUPPLEMENTAL	IT-180
11	CCTV 95-26.83 SB	2009+05	LHUB 95-26.83 SB	1	RAMP E	IT-181
12	CCTV 95-27.30 NB	2034+60	LHUB 95-27.30 NB	1	MAINLINE	IT-182
13	CCTV 95-27.36 SB	2036+83	LHUB 95-27.36 SB	1	MAINLINE	IT-183
14	CCTV 95-27.41 SB	2039+50	LHUB 95-27.36 SB	1	SUPPLEMENTAL	IT-183
15	CCTV P&R-1		LHUB P&R-1	1	T-DMS P&R-1	IT-183
16	CCTV 95-27.50 NB	2044+50	LHUB 95-27.50 NB	1	RAMP G	IT-183
17	CCTV 95-27.53 SB	2046+00	LHUB 95-27.53 SB	1	MAINLINE	IT-183
18	CCTV 95-27.65 NB	2052+26	LHUB 95-27.65 NB	1	MAINLINE	IT-184
19	CCTV 95-28.10 NB	2076+00	LHUB 95-28.10 NB	1	MAINLINE	IT-185
20	CCTV 95-28.30 SB	2086+85	LHUB 95-28.30 SB	1	MAINLINE	IT-186
21	CCTV 95-28.47 SB	2095+60	LHUB 95-28.47 SB	1	RAMP I	IT-187
22	CCTV 95-28.63 NB	2104+20	LHUB 95-28.63 NB	1	MAINLINE	IT-187
23	CCTV 95-28.63 NB	2104+15	LHUB 95-28.63 NB	1	RAMP K-1	IT-187
24	CCTV 95-28.69 NB	2107+00	RSC 95-28.69 NB	1	TOLL PLAZA	IT-188
25	CCTV 95-28.69 NB	2107+00	RSC 95-28.69 NB	1	FUTURE T-DMS	IT-188
26	CCTV 95-29.11 SB	2129+25	LHUB 95-29.11 SB	1	MAINLINE	IT-189
27	CCTV 95-29.58 SB	2154+40	LHUB 95-29.58 SB	1	T-DMS 95-29.50 SB	IT-191
28	CCTV 95-29.58 SB	2154+40	LHUB 95-29.58 SB	1	S-DMS 95-29.33 SB	IT-191
29	CCTV 95-29.58 NB	2154+40	LHUB 95-29.58 NB	1	MAINLINE	IT-191
30	CCTV 95-29.83 SB	2167+60	LHUB 95-29.83 SB	1	S-DMS 95-29.68 SB	IT-192
31	CCTV 95-29.83 NB	2167+40	LHUB 95-29.83 NB	1	EX. DMS 95-29.99 NB	IT-192
32	CCTV 95-30.08 SB	2180+70	LHUB 95-30.05 SB	1	MAINLINE	IT-193
33	CCTV 95-30.08 NB	2180+70	LHUB 95-30.08 NB	1	T-DMS 95-30.16 NB	IT-193
34	CCTV 95-30.33 SB	2194+00	LHUB 95-30.33 SB	1	T-DMS 95-30.14 SB	IT-194
35	CCTV 95-30.33 NB	2193+70	LHUB 95-30.33 NB	1	S-DMS 95-30.45 NB	IT-194
36	CCTV 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	RAMP M	IT-195
37	CCTV 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	S-DMS 95-30.30 SB	IT-195
38	CCTV 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	MAINLINE	IT-195
39	CCTV 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	T-DMS 95-30.75 NB	IT-195
40	CCTV 95-30.78 SB	2217+45	RSC 95-30.78 SB	1	RAMP P-2	IT-195
41	CCTV 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	S-DMS 95-30.90 NB	IT-196
42	CCTV 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	RAMP O-2	IT-196
43	CCTV 95-30.87 NB	2223+00	LHUB 95.30.86 NB	1	RAMP O-1	IT-196
44	CCTV 95-31.08 SB	2234+00	LHUB 95-31.08 SB	1	MAINLINE	IT-197
45	CCTV 95-31.54 NB (47)	2257+75	LHUB 95-31.54 NB	1	MAINLINE	IT-198
46	CCTV 95-31.76 SB	2269+50	LHUB 95-31.76 SB	1	FUTURE T-DMS	IT-199
47	CCTV 95-31.95 SB	2280+50	LHUB 95-31.95 SB	1	MAINLINE	IT-200
48	CCTV 95-32.08 SB	2286+00	RSC 95-32.08 SB	1	RAMP U	IT-200
49	CCTV 95-32.14 SB	2289+20	LHUB 95-32.14 SB	1	EL-DMS 95-32.06 SB	IT-201
50	CCTV 95-32.17 NB	2291+00	LHUB 95-32.17 NB	1	TOLL PLAZA	IT-201
51	CCTV 95-32.27 SB	2296+30	LHUB 95-32.27 SB	1	MHUB 95-32.26	IT-201
52	CCTV 95-32.27 SB	2296+30	LHUB 95-32.27 SB	1	RAMP Q	IT-201
53	CCTV 95-32.35 NB	2300+75	LHUB 95-32.35 NB	1	TOLL PLAZA SUPPLEMENT	IT-201
54	CCTV 95-32.35 NB	2300+75	LHUB 95-32.35 NB	1	RAMP U	IT-201
55	CCTV 95-32.39 SB	2302+40	LHUB 95-32.39 SB	1	RAMP T	IT-202
56	CCTV 95-32.39 NB	2302+80	LHUB 95-32.39 NB	1	MAINLINE	IT-202
57	CCTV 95-32.39 NB	2302+80	LHUB 95-32.39 NB	1	RAMP S	IT-202
58	CCTV 95-32.64 SB	2315+90	LHUB 95-32.64 SB	1	FUTURE T-DMS	IT-202
59	CCTV P&R-3	130+25	LHUB P&R-3	1	T-DMS P&R-3	IT-204
60	CCTV P&R-4	132+20	LHUB P&R-4	1	T-DMS P&R-4	IT-204

	DEVICE	STATION	LOCAL HUB	NO. OF WAP'S	PLAN SHEET
1	WAP 95-25.23 NB	1924+80	LHUB 95-25.23 NB	1	IT-175
2	WAP 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	IT-176
3	WAP 95-26.44 EB/WB	1988+31	LHUB 95-26.41 NB	2	IT-179
4	WAP P&R-1		LHUB P&R-1	1	IT-183
5	WAP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	3	IT-183
6	WAP 95-28.30 SB	2086+85	LHUB 95-28.30 SB	2	IT-186
7	WAP 95-30.70 NB	2213+55	LHUB 95-30.70 NB	2	IT-195
8	WAP 95-31.76 SB	2269+50	LHUB 95-31.76	1	IT-199
9	WAP 95-32.32 SB	2298+95	LHUB 95-32.35 NB	2	IT-201

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	T-DMS 95-25.58 NB	1943+30	LHUB 95-25.63 NB	IT-176
2	S-DMS 95-25.98 NB	1963+80	LHUB 95-25.93 NB	IT-177
3	T-DMS 95-26.13 NB	1972+44	LHUB 95-26.09 NB	IT-178
4	S-DMS 95-26.44 NB	1988+30	LHUB 95-26.41 NB	IT-179
5	DMS 95-26.55 SB	1994+18	LHUB 95-26.55 SB	IT-180
6	DMS 95-27.41 NB	2039+80	LHUB 95-27.41 NB	IT-183
7	DMS 95-28.10 SB	2076+10	LHUB 95-28.16 SB	IT-185
8	EL-DMS 95-28.33 NB	2088+00	LHUB 95-28.29 NB	IT-186
9	EL-DMS 95-28.53 SB	2098+90	LHUB 95-28.56 SB	IT-187
10	S-DMS 95-29.33 SB	2141+24	LHUB 95-29.27 SB	IT-190
11	T-DMS 95-29.50 SB	2149+90	LHUB 95-29.51 SB	IT-191
12	S-DMS 95-29.68 SB	2159+60	LHUB 95-29.63 NB	IT-191
13	S-DMS 95-29.68 NB	2159+71	LHUB 95-29.71 SB	IT-191
14	DMS 95-29.99 SB	2175+60	LHUB 95-29.99 SB	IT-192
15	DMS 95-29.99 NB	2176+10	LHUB 95-29.95 NB	IT-192
16	T-DMS 95-30.14 SB	2183+95	LHUB 95-30.20 SB	IT-193
17	T-DMS 95-30.16 NB	2184+80	LHUB 95-30.12 NB	IT-193
18	S-DMS 95-30.3 SB	2192+00	LHUB 95-30.33 SB	IT-194
19	S-DMS 95-30.45 NB	2200+00	LHUB 95-30.41 NB	IT-194
20	T-DMS 95-30.75 NB	2215+80	LHUB 95-30.70 NB	IT-195
21	S-DMS 95-30.9 NB	2224+00	LHUB 95-30.86 NB	IT-196
22	EL-DMS 95-32.06 SB	2285+00	LHUB 95-32.09 SB	IT-200
23	DMS 95-32.58 NB	2313+00	LHUB 95-32.55 NB	IT-202
24	T-DMS P&R-3	130+25	LHUB P&R-3	IT-204
25	T-DMS P&R-4	132+20	LHUB P&R-4	IT-204

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	GEN 95-27.43 NB	2040+92	GEN 95-27.43 NB	IT-183
2	GEN 95-29.58 NB	2154+40	GEN 95-29.58 NB	IT-191
3	GEN 95-32.26 SB	2295+50	GEN 95-32.26 SB	IT-201

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	(47) CCTV POLE UPDATE		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SUMMARY OF DEVICES

SHEET NO. IT-163

	DEVICE	STATION	LOCAL HUB	NO. OF MVDS'S	PLAN SHEET
1	MVDS 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	IT-176
2	MVDS 95-25.58 SB	1943+30	LHUB 95-25.63 NB	1	IT-176
3	MVDS 95-26.13 NB	1972+44	LHUB 95-26.09 NB	1	IT-178
4	MVDS 95-26.13 SB	1972+44	LHUB 95-26.09 NB	1	IT-178
5	MVDS 95-26.30 NB	1980+90	LHUB 95-26.30 NB	1	IT-179
6	MVDS 95-26.47 NB	1990+15	LHUB 95-26.47 NB	2	IT-180
7	MVDS 95-26.86 SB	2010+60	LHUB 95-26.86 SB	2	IT-181
8	MVDS 95-26.86 NB	2010+60	LHUB 95-26.86 NB	2	IT-181
9	MVDS 95-27.10 SB	2023+50	LHUB 95-27.10 SB	2	IT-182
10	MVDS 95-27.13 NB	2024+90	LHUB 95-27.13 NB	1	IT-182
11	MVDS 95-27.20 NB	2028+70	LHUB 95-27.20 SB	4	IT-182
12	MVDS 95-27.30 SB	2033+70	LHUB 95-27.30 SB	2	IT-182
13	MVDS 95-27.30 NB	2034+60	LHUB 95-27.30 NB	1	IT-182
14	MVDS 95-27.50 NB	2044+50	LHUB 95-27.50 NB	1	IT-183
15	MVDS 95-27.53 SB	2046+00	LHUB 95-27.53 SB	1	IT-183
16	MVDS 95-27.65 NB	2052+26	LHUB 95-27.65 NB	2	IT-184
17	MVDS 95-27.95 SB	2068+00	LHUB 95-27.95 SB	1	IT-185
18	MVDS 95-27.95 NB	2067+65	LHUB 95-27.98 NB	1	IT-185
19	MVDS 95-28.10 SB	2076+00	LHUB 95-28.10 SB	1	IT-185
20	MVDS 95-28.10 NB	2076+00	LHUB 95-28.10 NB	1	IT-185
21	MVDS 95-28.30 SB	2086+85	LHUB 95-28.30 SB	1	IT-186
22	MVDS 95-28.31 NB	2087+19	LHUB 95-28.31 NB	1	IT-186
23	MVDS 95-28.56 SB	2100+20	LHUB 95-28.56 SB	1	IT-187
24	MVDS 95-28.56 NB	2100+20	LHUB 95-28.56 NB	1	IT-187
25	MVDS 95-28.82 NB	2114+00	LHUB 95-28.82 NB	1	IT-188
26	MVDS 95-28.85 SB	2115+60	LHUB 95-28.85 SB	1	IT-188
27	MVDS 95-29.11 SB	2129+25	LHUB 95-29.11 SB	1	IT-189
28	MVDS 95-29.10 NB	2128+80	LHUB 95-29.10 NB	1	IT-189
29	MVDS 95-29.33 SB	2141+00	LHUB 95-29.27 SB	1	IT-190
30	MVDS 95-29.33 NB	2141+20	LHUB 95-29.33 NB	1	IT-190
31	MVDS 95-29.58 NB	2154+40	LHUB 95-29.58 NB	1	IT-191
32	MVDS 95-29.58 SB	2154+40	LHUB 95-29.58 SB	1	IT-191
33	MVDS 95-29.83 SB	2167+60	LHUB 95-29.83 SB	1	IT-192
34	MVDS 95-29.83 NB	2167+40	LHUB 95-29.83 NB	1	IT-192
35	MVDS 95-30.08 SB	2180+70	LHUB 95-30.05 SB	1	IT-193
36	MVDS 95-30.08 NB	2180+70	LHUB 95-30.08 NB	1	IT-193
37	MVDS 95-30.33 SB	2194+00	LHUB 95-30.33 SB	1	IT-194
38	MVDS 95-30.33 NB	2193+70	LHUB 95-30.33 NB	1	IT-194
39	MVDS 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	IT-195

	DEVICE	STATION	LOCAL HUB	NO. OF MVDS'S	PLAN SHEET
40	MVDS 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	IT-195
41	MVDS 95-30.83 SB	2220+15	LHUB 95-30.83 SB	1	IT-196
42	MVDS 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	IT-196
43	MVDS 95-31.08 SB	2234+00	LHUB 95-31.08 SB	1	IT-197
44	MVDS 95-31.08 NB	2233+40	LHUB 95-31.08 NB	1	IT-197
45	MVDS 95-31.28 SB	2243+75	LHUB 95-31.28 SB	1	IT-197
46	MVDS 95-31.28 NB	2243+95	LHUB 95-31.28 NB	1	IT-197
47	MVDS 95-31.54 SB	2257+70	LHUB 95-31.54 SB	1	IT-198
48	MVDS 95-31.54 NB	2257+75 (47)	LHUB 95-31.54 NB	1	IT-198
49	MVDS 95-31.76 SB	2269+50	LHUB 95-31.76 SB	1	IT-199
50	MVDS 95-31.76 NB	2269+20	LHUB 95-31.76 NB	1	IT-199
51	MVDS 95-31.95 SB	2280+50	LHUB 95-31.95 SB	1	IT-200
52	MVDS 95-31.95 NB	2279+50	LHUB 95-31.81 NB	2	IT-200
53	MVDS 95-32.14 SB	2289+20	LHUB 95-32.14 SB	1	IT-201
54	MVDS 95-32.17 NB	2291+00	LHUB 95-32.17 NB	1	IT-201
55	MVDS 95-32.39 SB	2302+40	LHUB 95-32.39 SB	1	IT-202
56	MVDS 95-32.39 NB	2302+80	LHUB 95-32.39 NB	1	IT-202
57	MVDS 95-32.64 SB	2315+90	LHUB 95-32.64 SB	1	IT-202
58	MVDS 95-32.64 NB	2315+85	LHUB 95-32.64 NB	1	IT-202

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	VOIP 95-26.30 NB	1980+90	LHUB 95-26.30 NB	IT-179
2	VOIP 95-25.58 NB	1943+30	LHUB 95-25.63 NB	IT-176
3	VOIP 95-26.55 SB	1994+18	LHUB 95-26.55 SB	IT-180
4	VOIP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	IT-183
5	VOIP 95-28.30 SB	2086+85	LHUB 95-28.30 SB	IT-186
6	VOIP 95-29.11 SB	2129+25	LHUB 95-29.11 SB	IT-189
7	VOIP 95-29.58 SB	2154+40	LHUB 95-29.58 SB	IT-191
8	VOIP 95-30.70 NB	2213+55	LHUB 95-30.70 NB	IT-195
9	VOIP 95-31.76 SB	2269+50	LHUB 95-31.76 SB	IT-199

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	(47) CCTV POLE UPDATE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SUMMARY OF DEVICES

SHEET NO. IT-164

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

	DEVICE	STATION	LOCAL HUB	PLAN SHEET	ABOVE GROUND HEIGHT (FT)	POLE LENGTH (FT)	EMBEDMENT LENGTH (FT)	NOTES
38	MVDS 95-29.33 NB	2141+20	LHUB 95-29.33 NB	IT-190	50	69	19	CCTV POLE
39	CCTV, MVDS 95-29.58 NB	2154+40	LHUB 95-29.58 NB	IT-191	65	86	21	CCTV POLE
40	CCTV (2), MVDS, VOIP 95-29.58 SB	2154+40	LHUB 95-29.58 SB	IT-191	60	80	20	CCTV POLE
41	CCTV, MVDS 95-29.83 SB	2167+60	LHUB 95-29.83 SB	IT-192	49	69	20	CCTV POLE
42	CCTV, MVDS 95-29.83 NB	2167+40	LHUB 95-29.83 NB	IT-192	50	69	19	CCTV POLE
43	CCTV, MVDS 95-30.08 SB	2180+70	LHUB 95-30.05 SB	IT-193	67	86	19	CCTV POLE
44	CCTV, MVDS 95-30.08 NB	2180+70	LHUB 95-30.08 NB	IT-193	50	69	19	CCTV POLE
45	CCTV, MVDS 95-30.33 SB	2194+00	LHUB 95-30.33 SB	IT-194	44	63	19	CCTV POLE
46	CCTV, MVDS 95-30.33 NB	2193+70	LHUB 95-30.33 NB	IT-194	44	63	19	CCTV POLE
47	CCTV (2), MVDS 95-30.57 SB	2206+50	LHUB 95-30.57 SB	IT-195	65	86	21	CCTV POLE
48	CCTV (2), MVDS 95-30.61 NB	△42 2209+20	LHUB 95-30.61 NB	IT-195	62	80	18 △42	CCTV POLE
49	WAP (2), VOIP 95-30.7 NB	2213+55	LHUB 95-30.7 NB	IT-195	60	80	20	CCTV POLE
50	CCTV 95-30.78 SB	2217+45	RSC 95-30.78 SB	IT-195	50	69	19	CCTV POLE
51	MVDS 95-30.83 SB	2220+15	LHUB 95-30.83 SB	IT-196	40.5	60	19.5	TYPE IV
52	CCTV (2), MVDS 95-30.83 NB	2220+20	LHUB 95-30.83 NB	IT-196	44	63	19	CCTV POLE
53	CCTV 95-30.87 NB	2223+00	LHUB 95-30.86 NB	IT-196	44	63	19	CCTV POLE
54	CCTV, MVDS 95-31.08 SB	2234+00	LHUB 95-31.08 SB	IT-197	65	86	21	CCTV POLE
55	MVDS 95-31.08 NB	2233+40	LHUB 95-31.08 NB	IT-197	60	80	20	CCTV POLE
56	MVDS 95-31.28 SB	2243+75	LHUB 95-31.28 SB	IT-197	△42 45	69	24 △42	CCTV POLE
57	MVDS 95-31.28 NB	2243+95	LHUB 95-31.28 NB	IT-197	65	86	21	CCTV POLE
58	MVDS 95-31.54 SB	2257+75	LHUB 95-31.54 SB	IT-198	60	80	20	CCTV POLE
59	CCTV, MVDS 95-31.54 NB	2257+75 △47	LHUB 95-31.54 NB	IT-198	△47 65	86	21	CCTV POLE
60	CCTV, MVDS, VOIP, WAP 95-31.76 SB	2269+50	LHUB 95-31.76 SB	IT-199	50	69	19	CCTV POLE
61	MVDS 95-31.76 NB	2269+20	LHUB 95-31.76 NB	IT-199	△47 61	86	25	CCTV POLE
62	CCTV, MVDS 95-31.95 SB	2280+50	LHUB 95-31.95 SB	IT-200	60	86	26	CCTV POLE
63	MVDS (2) 95-31.95 NB	2279+50	LHUB 95-31.81 SB	IT-200	65	86	21	CCTV POLE
64	CCTV 95-32.08 SB	2286+00	RSC 95-32.08 SB	IT-200	50	75	25	CCTV POLE
65	CCTV, MVDS 95-32.14 SB	2289+20	LHUB 95-32.14 SB	IT-201	60	75	15	CCTV POLE
66	CCTV, MVDS 95-32.17 NB	2291+00	LHUB 95-32.17 NB	IT-201	55	80	25	CCTV POLE
67	CCTV (2) 95-32.27 SB	2296+30	LHUB 95-32.27 SB	IT-201	25	38	13	CCTV POLE*
68	WAP 95-32.32 NB	2298+95	LHUB 95-32.35 NB	IT-201	-	-	-	EXIST.
69	CCTV (2) 95-32.35 NB	2300+75	LHUB 95-32.35 NB	IT-201	68	86	18	CCTV POLE
70	CCTV, MVDS 95-32.39 SB	2302+40	LHUB 95-32.39 SB	IT-202	55	75	20	CCTV POLE
71	CCTV (2), MVDS 95-32.39 NB	2302+80	LHUB 95-32.39 NB	IT-202	63	86	23	CCTV POLE
72	CCTV, MVDS 95-32.64 SB	2315+90	LHUB 95-32.64 SB	IT-202	45	63	18	CCTV POLE
73	MVDS 95-32.64 NB	2315+85	LHUB 95-32.64 NB	IT-202	40	58	18	TYPE IV
74	CCTV P&R-3	130+25	LHUB P&R-3	IT-204	50	69	19	CCTV POLE
75	CCTV P&R-4	132+20	LHUB P&R-4	IT-204	50	75	25	CCTV POLE

* NOTE: CONTRACTOR SHALL PROVIDE SIGNED AND SEALED STRUCTURAL DRAWINGS FOR CUSTOM CCTV POLES.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	△42 CCTV POLE UPDATES		
7/31/18	△47 CCTV POLE UPDATES		

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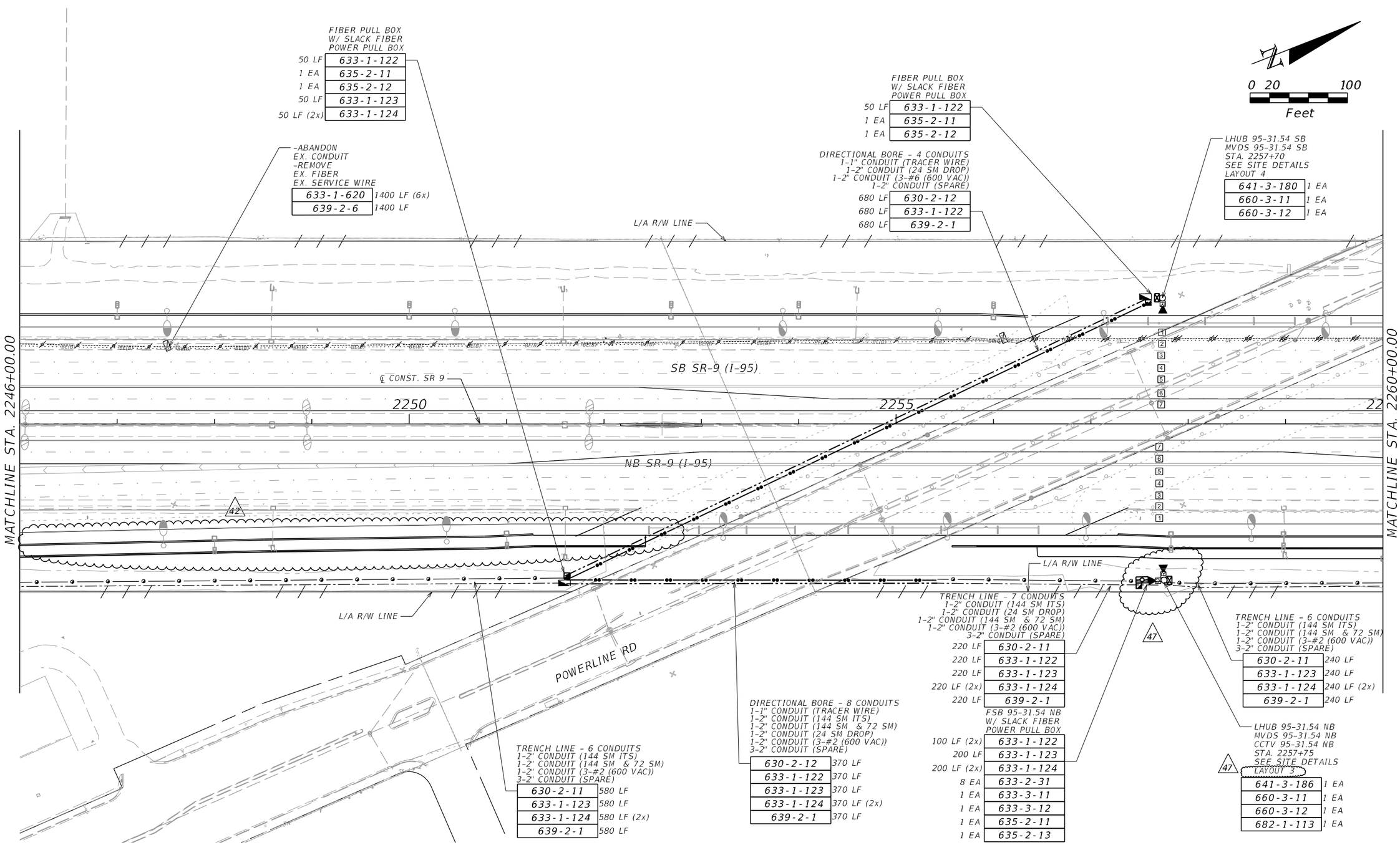
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POLE DATA SHEET

SHEET NO. IT-168

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	42 MSE WALL 19 ADJUST		
7/31/18	47 MSE WALL 21 ADJUST		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-198

NOTE:
SERVICE WIRE AND FIBER OPTIC CABLE SHALL BE INSTALLED, BUT NOT CONNECTED FOR LHUB 95-31.76B SB.

0 20 100
Feet

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

633-1-620	560 LF (6x)
639-2-6	560 LF

LHUB 95-31.76B SB
STA. 2269+40
SEE SITE DETAIL
LAYOUT 12

1 EA	635-2-11
1 EA	635-2-11
1 EA	635-2-12
50 LF	633-1-122

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (12-#4 (24 VDC))
(6-#8 (24 VDC))
1-2" CONDUIT (SPARE)

300 LF	630-2-11
300 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
SIGNAL PULL BOX

1 EA	635-2-11
1 EA	635-2-12

FSB 95-31.76 SB
W/ SLACK FIBER
POWER PULL BOX

100 LF (3x)	633-1-122
100 LF	633-1-123
100 LF (2x)	633-1-124
8 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-11
1 EA	635-2-13

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

200 LF	630-2-12
200 LF	633-1-123
200 LF (2x)	633-1-124
200 LF	639-2-1

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

30 LF	630-2-11
30 LF	639-2-1
30 LF	633-1-122

LHUB 95-31.76 SB
MVDS 95-31.76 SB
DCCTV 95-31.76 SB
EX. WAP 95-31.76 SB
EX. VOIP 95-31.76 SB
STA. 2269+50
SEE SITE DETAILS
LAYOUT 3

641-3-169	1 EA
660-3-11	1 EA
660-3-12	1 EA
684-6-40	2 EA

TRENCH LINE- 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

280 LF	630-2-11
280 LF	633-1-123
280 LF (2x)	633-1-124
280 LF	639-2-1

DIRECTIONAL BORE- 3 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SPARE)

630-2-12	110 LF
633-1-123	110 LF

EX. FSB 31.77 SB
PROSPECT ROAD

633-1-122	100 LF
633-2-31	24 EA
633-3-11	1 EA
633-3-12	2 EA

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER

633-1-620	240 LF (7x)

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-123	50 LF
633-1-124	50 LF (2x)
635-2-11	1 EA
635-2-12	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

-ABANDON
EX. CONDUIT
-REMOVE
EX. 12 SM/36 SM/36 SM
EX. 96 SM/48 SM
EX. 144 SM ITS

633-1-620	630 LF (6x)

-REMOVE
EX. CCTV 95-31.68
EX. LHUB 95-31.68
EX. MVDS 95-31.68
-RELOCATE TO 95-31.76 SB
EX. VOIP 95-31.68
EX. WAP 95-31.68

1 EA	641-2-80

LHUB 95-31.76 NB
MVDS 95-31.76 NB
STA. 2269+20
SEE SITE DETAILS
LAYOUT 4

50 LF	633-1-122
1 EA	641-3-186
1 EA	660-3-11
1 EA	660-3-12
1 EA	635-2-11
1 EA	635-2-12

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	390 LF
633-1-123	390 LF
633-1-124	390 LF (2x)
639-2-1	390 LF

POWER PULL BOX

1 EA	635-2-11

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	670 LF
633-1-123	670 LF
633-1-124	670 LF (2x)
639-2-1	670 LF

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

340 LF	630-2-12
340 LF	633-1-123
340 LF (2x)	633-1-124
340 LF	639-2-1

FSB 95-31.77 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF (2x)	633-1-122
200 LF	633-1-123
200 LF (2x)	633-1-124
8 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (COMPOSITE CABLE)

200 LF	630-2-11
200 LF	633-8-1

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	325 LF
633-1-123	325 LF
633-1-124	325 LF (2x)
639-2-1	325 LF

LHUB 95-31.81 NB
STA. 2272+10
SEE SITE DETAILS
LAYOUT 8

POWERLINE RD
L/A R/W LINE
EX. HART 95-31.68
REMOVE
T-DMS 95-31.72 SB
STA. 2267+00
(FUTURE)
℄ CONST. SR 9
SB SR-9 (I-95)
NB SR-9 (I-95)
PROSPECT RD
MATCHLINE STA. 2260+00.00
MATCHLINE STA. 2274+00.00
2260
2265
2270
47

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

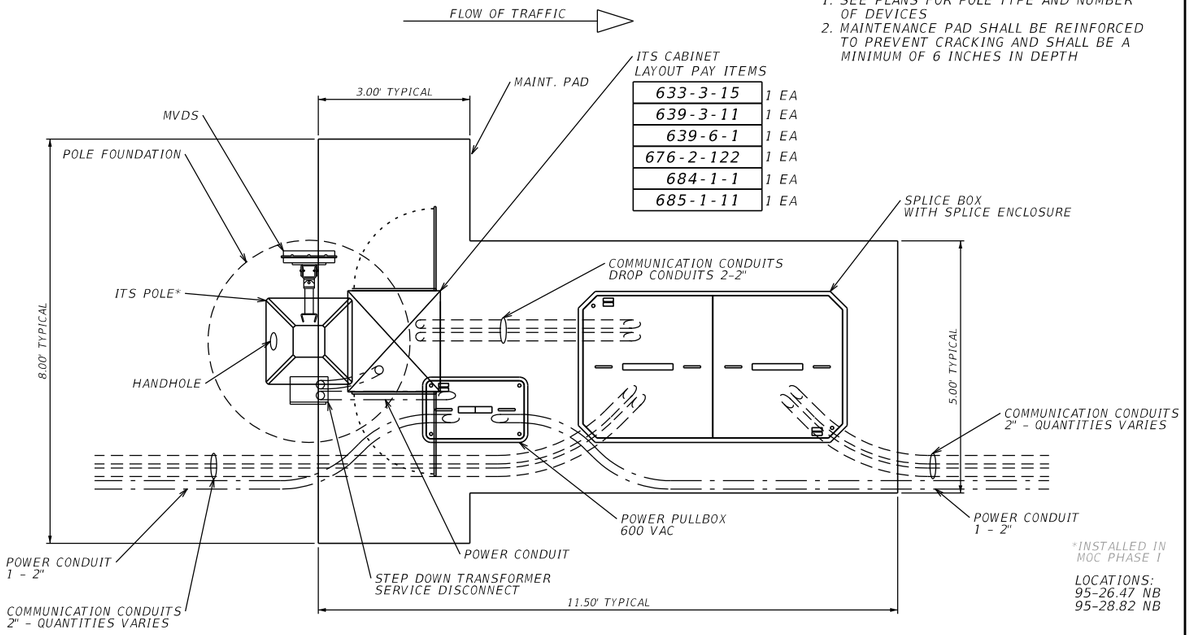
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-199

LAYOUT 1



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

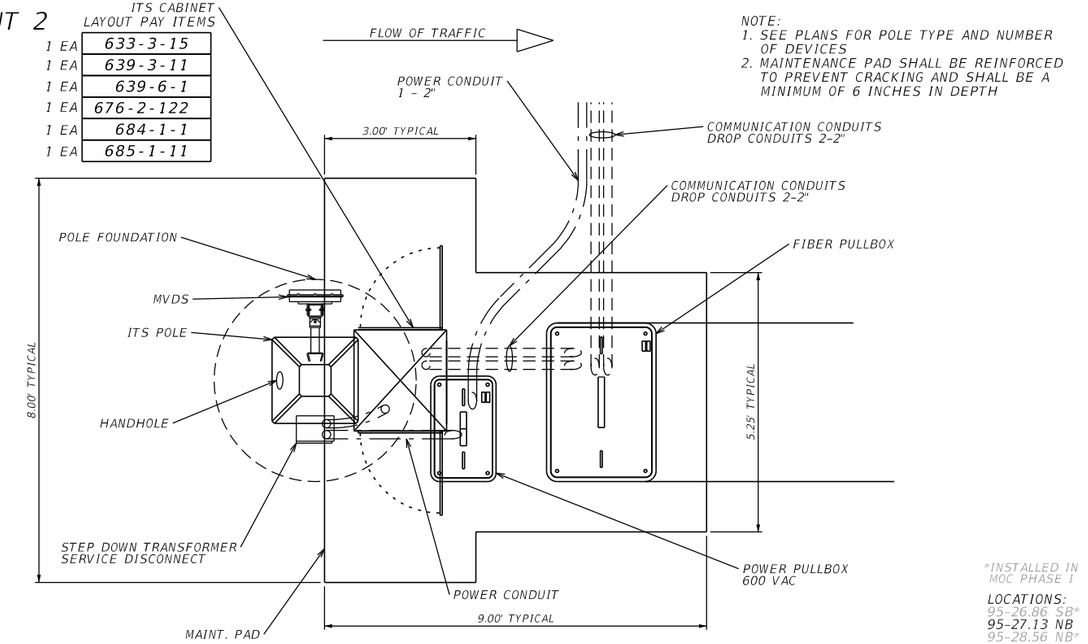
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.47 NB
95-28.82 NB

TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 2



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

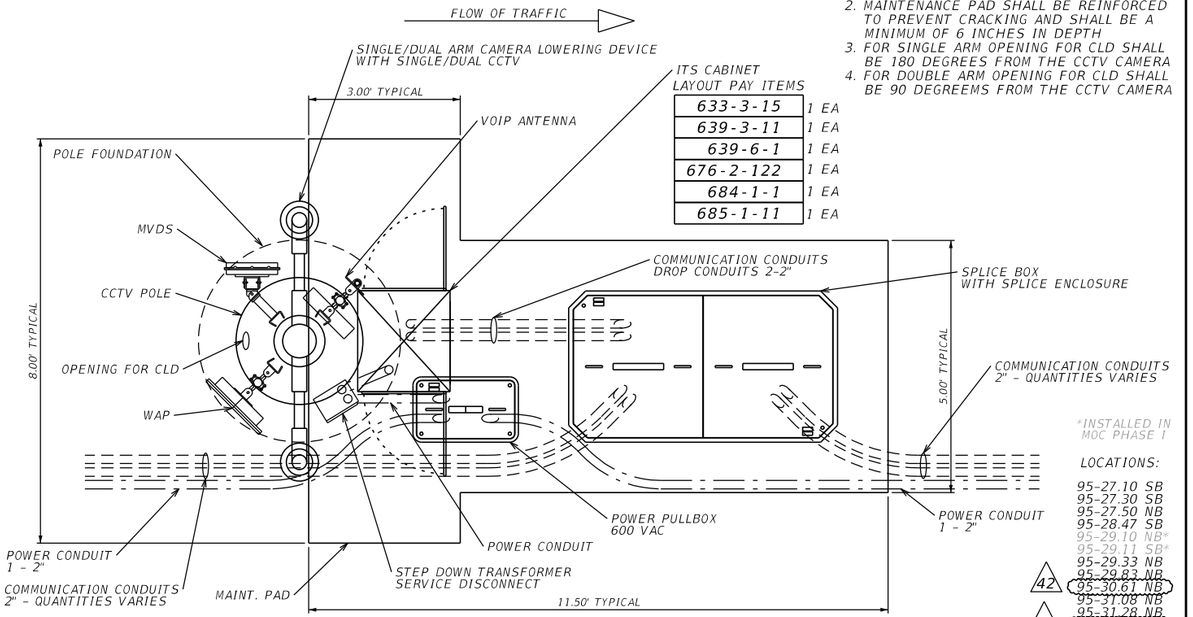
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
~~95-26.86 SB*~~
95-27.13 NB
~~95-28.56 NB*~~
95-30.83 SB
95-32.64 NB

TYPICAL MVDS SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LAYOUT 3



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

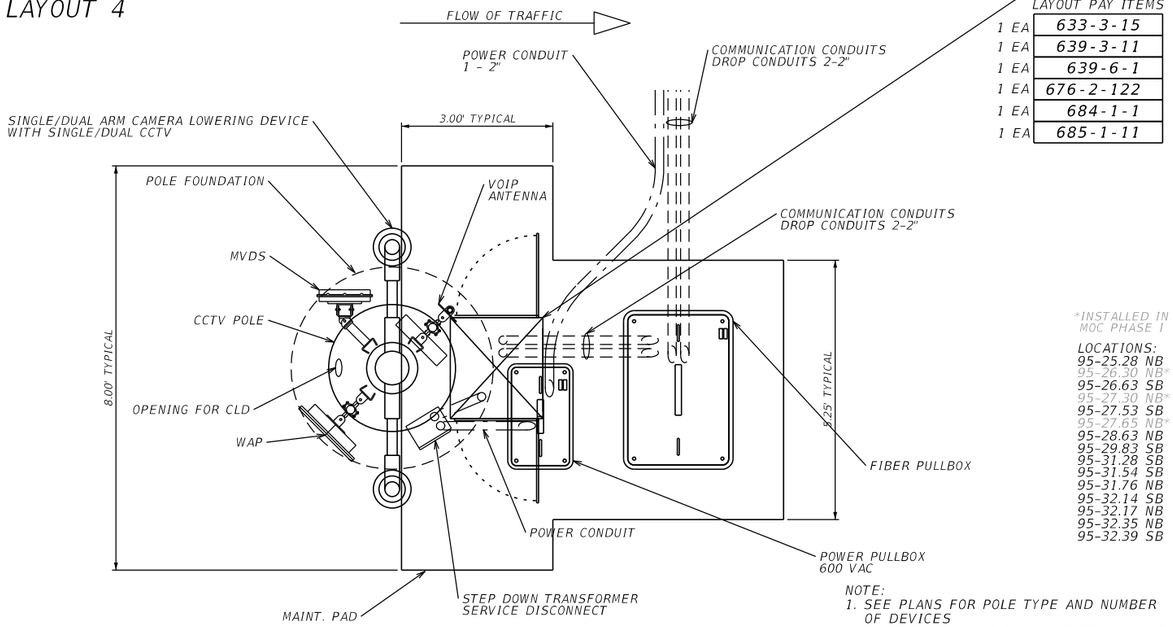
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-27.10 SB
95-27.30 SB
95-27.50 NB
95-28.47 SB
~~95-29.10 NB*~~
~~95-29.11 SB*~~
95-29.33 NB
95-29.83 NB
42 ~~95-30.61 NB~~
95-31.08 NB
95-31.28 NB
47 ~~95-31.54 NB~~
95-31.76 SB
95-31.95 SB
95-32.27 SB
95-32.39 NB
95-32.64 SB
38

TYPICAL CCTV SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 4



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-25.28 NB
~~95-26.30 NB*~~
95-26.63 SB
~~95-27.30 NB*~~
95-27.53 SB
~~95-27.65 NB*~~
95-28.63 NB
95-29.83 SB
95-31.28 SB
95-31.54 SB
95-31.76 NB
95-32.14 SB
95-32.17 NB
95-32.35 NB
95-32.39 SB

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

TYPICAL CCTV SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED LAYOUT 95-30.57SB	7/31/18	47 MSE WALL 21 ADJUST
6/15/18	42 MSE WALL 15 ADJUST		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-208

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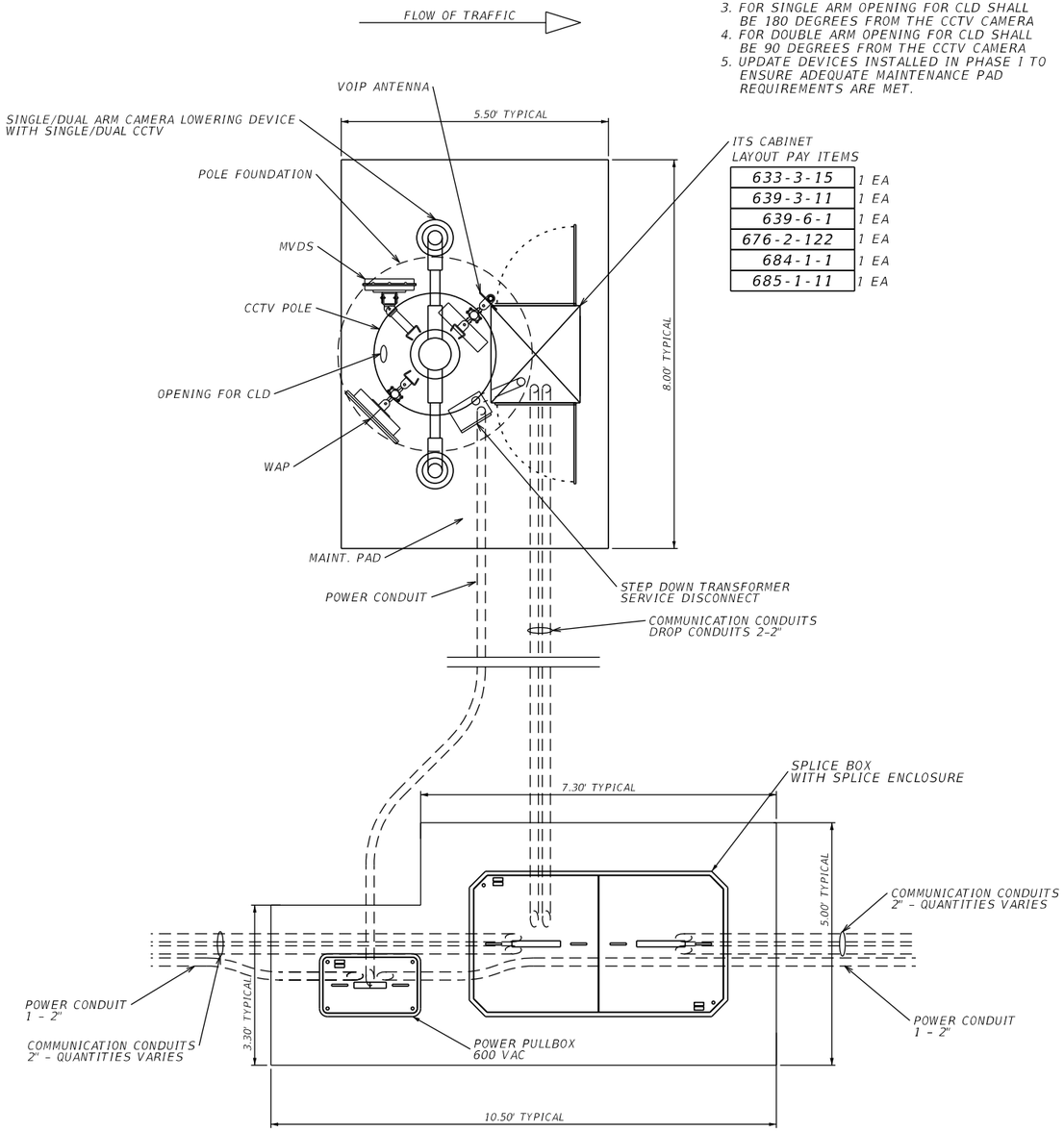
LAYOUT 5

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREES FROM THE CCTV CAMERA
5. UPDATE DEVICES INSTALLED IN PHASE I TO ENSURE ADEQUATE MAINTENANCE PAD REQUIREMENTS ARE MET.



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

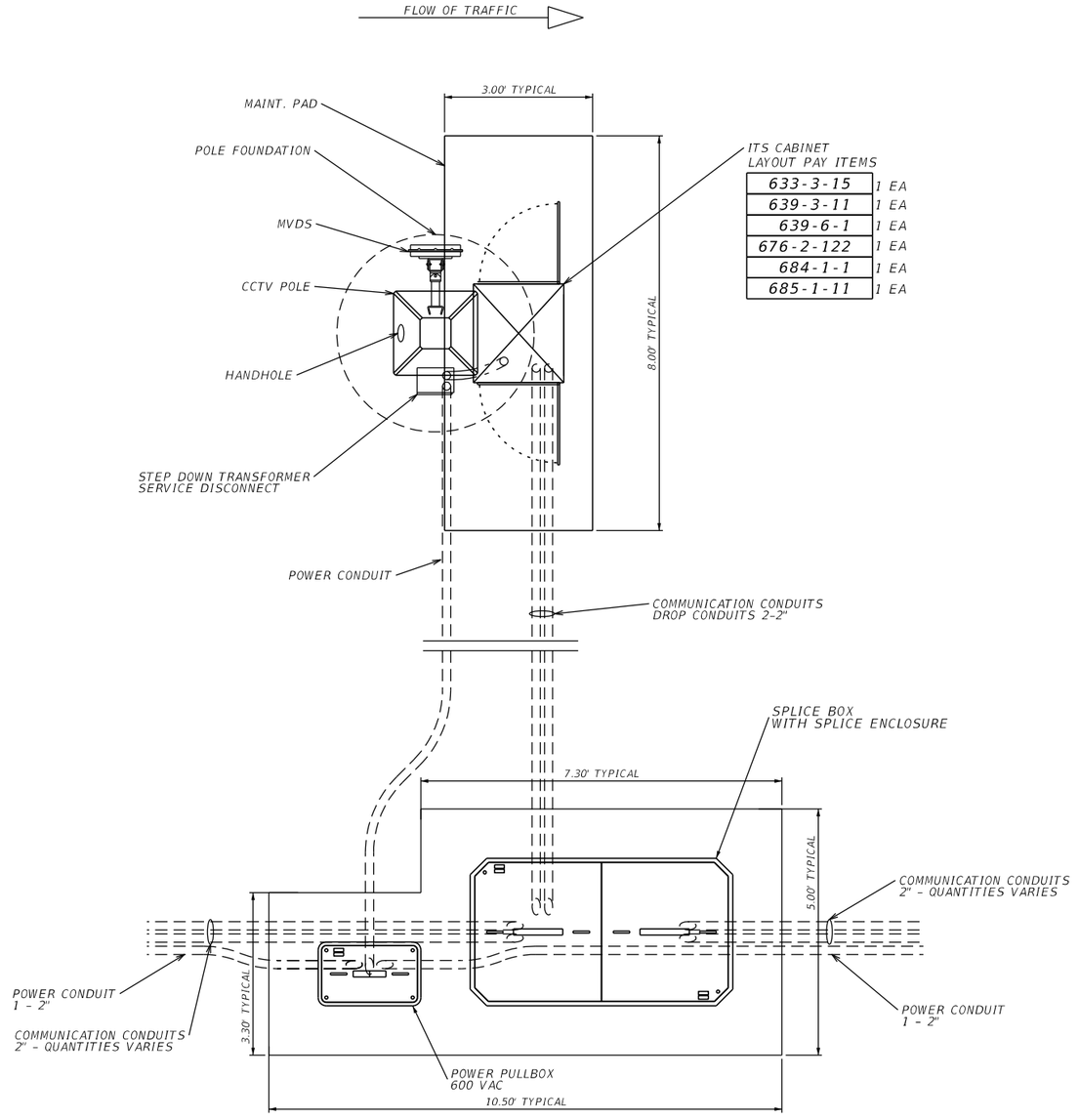
*INSTALLED IN MOC PHASE I

LOCATIONS:
95-27.95 SB*
95-28.10 SB
95-28.30 SB*
95-30.08 NB
95-30.33 NB
95-30.57 SB (38)
95-30.83 NB (42)
(47)

TYPICAL CCTV SITE LAYOUT - OFFSET FROM BACKBONE

LAYOUT 6

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 NB*
95-28.31 NB
95-28.85 SB

TYPICAL MVDS SITE LAYOUT - OFFSET FROM BACKBONE

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	(38) UPDATED LAYOUT 95-30.57SB	7/31/18	(47) MSE WALL 21 ADJUST
6/15/18	(42) MSE WALL 15 ADJUST		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-209

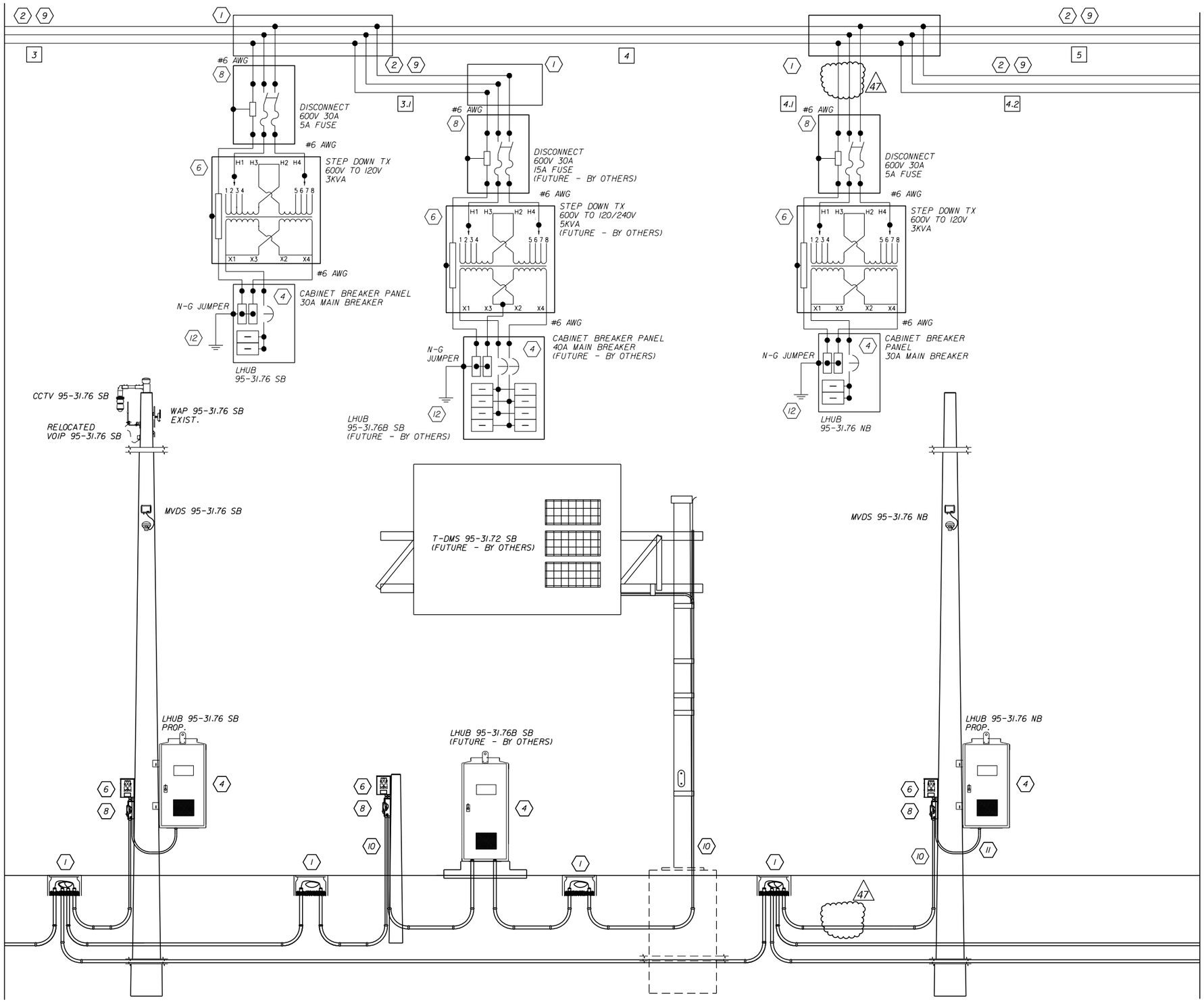
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 9.1

MATCH LINE SHEET IT-259



MATCH LINE SHEET IT-261

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	(47) UPDATED ITS DEVICE DROP		

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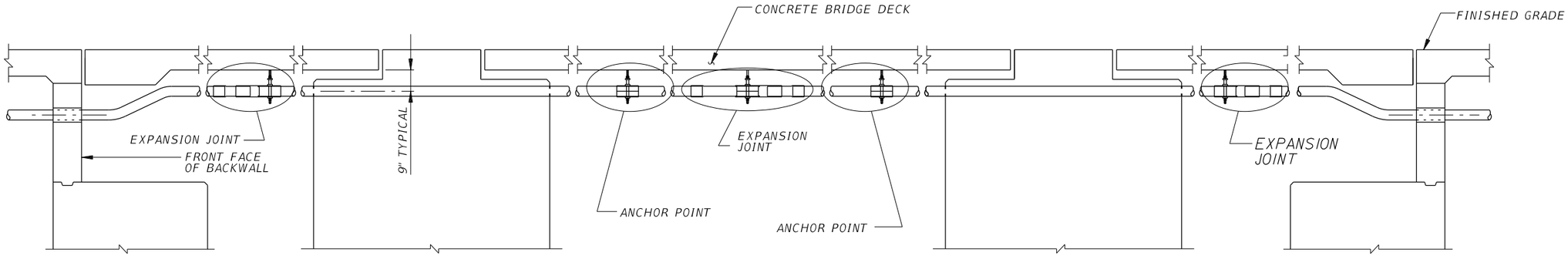
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

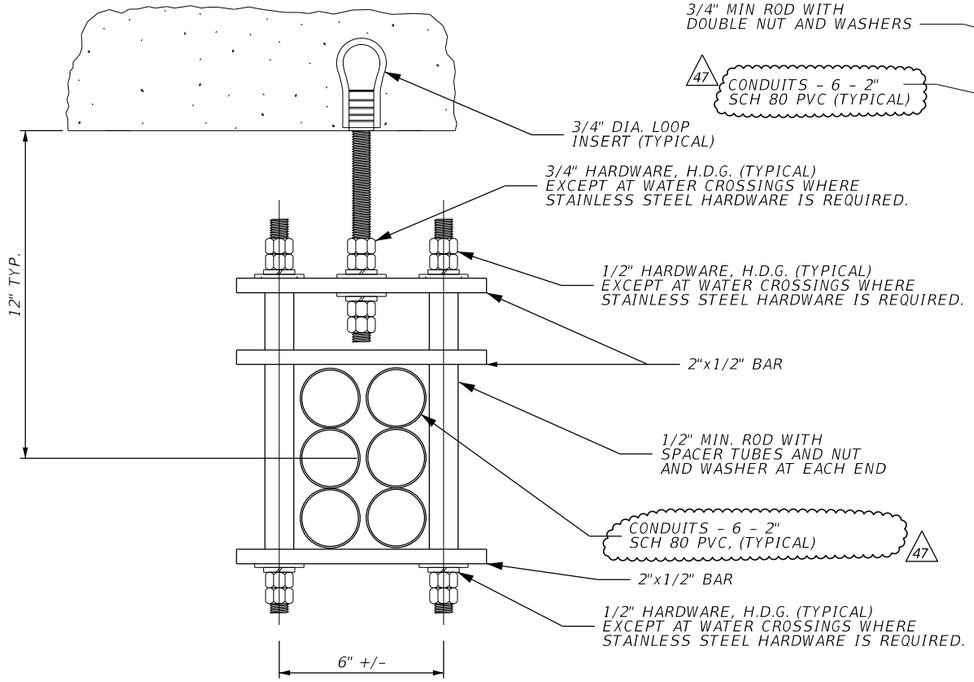
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

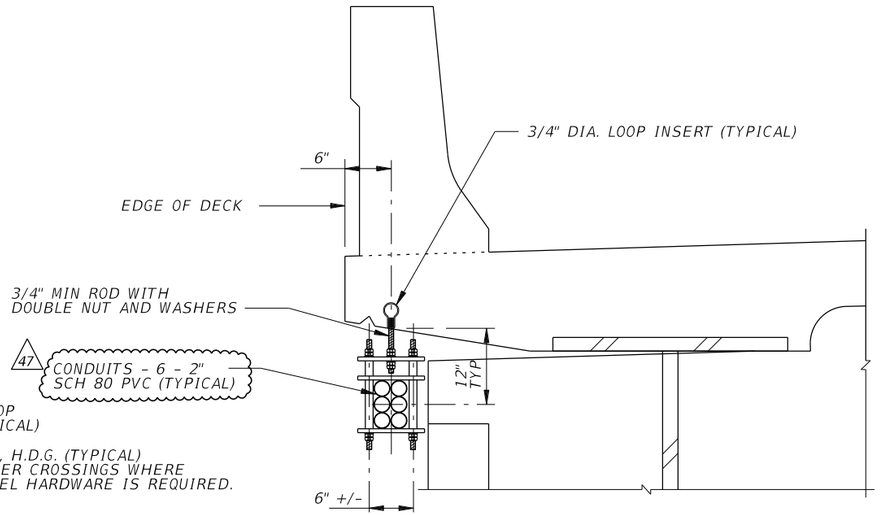
SHEET NO. IT-260



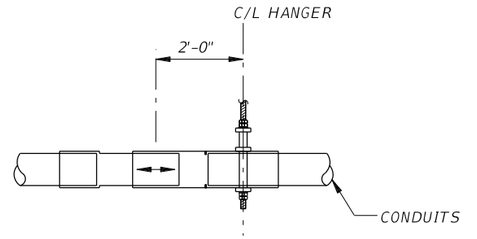
SCHEMATIC CONDUIT ELEVATION



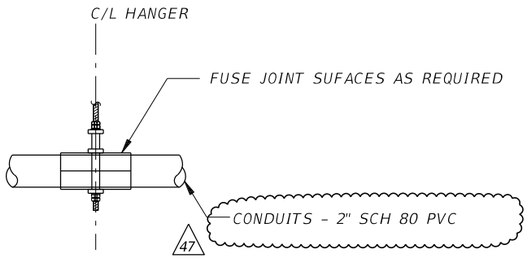
HANGER DETAIL



CONDUIT HANGER MOUNTING DETAIL



EXPANSION JOINT DETAIL



ANCHOR POINT DETAIL

NOTES:

1. EXPANSION JOINT PLACEMENT SHALL BE PER FDOT INDEX 21210.
2. LATERAL MOVEMENT IS FIXED AT MID SPAN BETWEEN EXPANSION JOINT BY USE OF HANGER BRACE.
3. ALL FIBERGLASS CONDUIT HANGERS WILL BE SPACED NO MORE THAN 10' ON CENTER.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/23/18	47 UPDATED BRIDGE MOUNTED CONDUIT		

Vanasse Hangen Brustlin, Inc.
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Landmark Center Two
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BRIDGE MOUNT DETAILS

SHEET NO. IT-320

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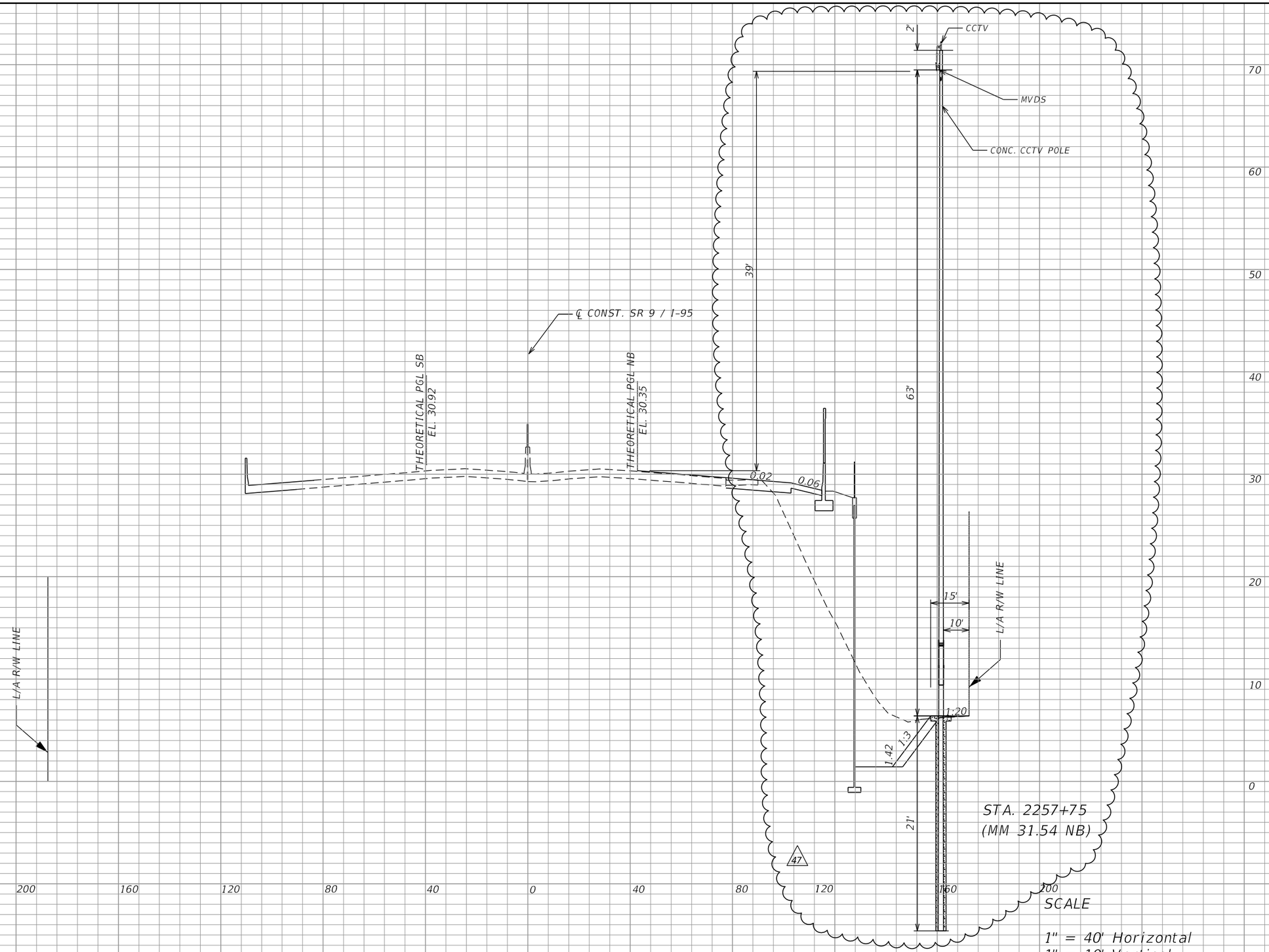

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST		

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Environmental Services
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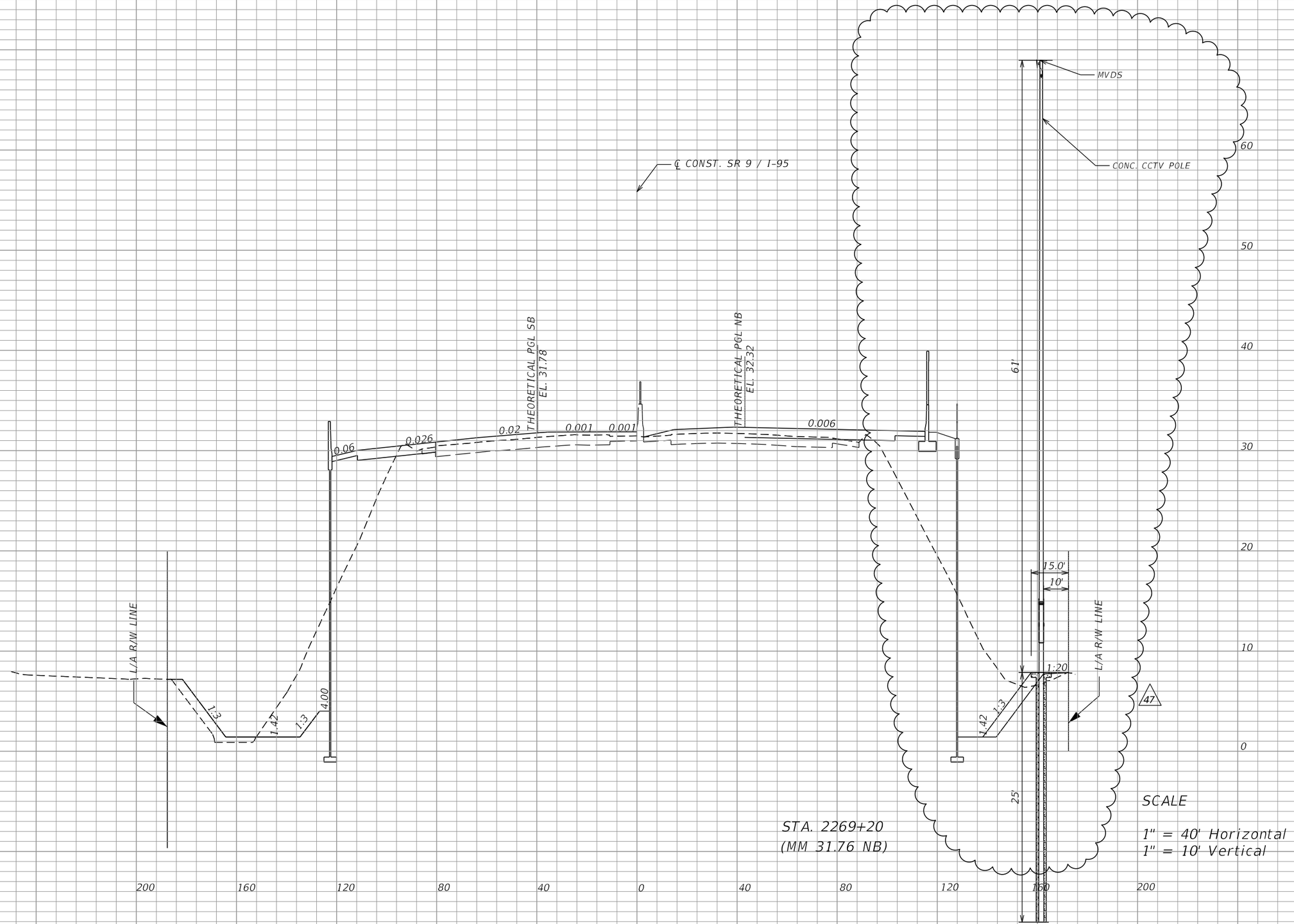
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-442



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST		

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225 E. Robinson St., Suite 300
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-443

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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-4-52-01

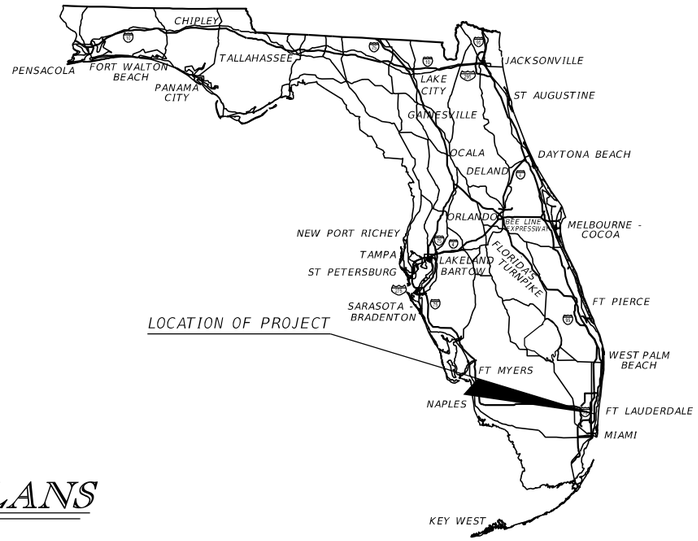
FINANCIAL PROJECT ID 428009-1-52-01

BROWARD COUNTY (86070)

(FEDERAL FUNDS)

STATE ROAD NO. 9

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



INDEX OF ITS PLANS

SHEET NO.	SHEET DESCRIPTION
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IT-158A TO IT-162B	TABULATION OF QUANTITIES
IT-163 TO IT-164	SUMMARY OF DEVICES
IT-165 TO IT-166	GENERAL NOTES
IT-167 TO IT-168	POLE DATA SHEET
IT-169 TO IT-174	ITS LAYOUT SHEET
IT-175 TO IT-207	ITS PLAN SHEET
IT-208 TO IT-219	SITE LAYOUT DETAILS
IT-220 TO IT-222	GENERATOR DETAILS
IT-223 TO IT-267	POWER SERVICE DETAILS
IT-268	STATUS DMS RISER DIAGRAM
IT-269	TOLL RATE DMS RISER DIAGRAM
IT-270 TO IT-299	SPLICING DIAGRAM
IT-300 TO IT-306	BROWARD SPLICING DIAGRAM
IT-307 TO IT-309	NETWORK SCHEMATIC
IT-310	TRENCHING AND PLOWING DETAILS SINGLE CONDUIT BANK
IT-311	DIRECTIONAL BORE DETAIL FIBER OPTIC BACKBONE CONDUIT
IT-312	CCTV CAMERA LOWERING DEVICE
IT-313	DUAL CCTV DETAIL
IT-314	ROUTE MARKER DETAIL
IT-315	FIBER OPTIC SPLICE BOX DETAIL
IT-316	ELECTRICAL PULL BOX DETAIL
IT-317	FIBER PULL BOX DETAIL
IT-318	MFES PORT ALLOCATION
IT-319	MOUNTING DETAILS
IT-320	BRIDGE MOUNT DETAILS
IT-321	BRIDGE STRUCTURE MOUNT DETAILS
IT-322	CONCRETE SLOPE UNDERBRIDGE DETAIL
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IT-359 TO IT-361	RAMP SIGNAL CABINET DETAIL
IT-362 TO IT-363	RAMP SIGNAL POLE DETAILS
IT-364	FLASHING BEACON SIGN DETAIL
IT-365 TO IT-375	MASTER HUB BUILDING
IT-376	MASTER HUB BUILDING GRADING PLAN
IT-377 TO IT-465	ITS DEVICE CROSS SECTION
IT-466 TO IT-467	CANAL CROSSINGS

GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY 2015 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website:
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, 2015 Standard Specifications for Road and Bridge Construction at the following website:
http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

KEY SHEET REVISIONS

DATE	BY	DESCRIPTION
1/22/19	JK	(65) - ADDED SHEETS: 157E

INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

JARED KNIGHT, P.E.
P.E. LICENSE NUMBER 74758
VANASSE HANGEN BRUSTLIN, INC.
225 EAST ROBINSON STREET, SUITE 300
ORLANDO, FL 32801
CONTRACT NO. 000819
VENDOR NO. VF-042-931-679-001
CERTIFICATE OF AUTHORIZATION 3932

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q32	15	IT-156

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JARED N. KNIGHT
LICENSE
No 74758
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

VANASSE HANGEN & BRUSTLIN, INC.
225 E ROBINSON ST., SUITE 300
ORLANDO, FLORIDA 32801
CERTIFICATE OF AUTHORIZATION NO. 3932
JARED N. KNIGHT, P.E. NO. 74758

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-156	KEY SHEET
IT-157E	SIGNATURE SHEET
IT-158A	TABULATION OF QUANTITIES
IT-159A	TABULATION OF QUANTITIES
IT-160A	TABULATION OF QUANTITIES
IT-162A	TABULATION OF QUANTITIES
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IT-185	ITS PLAN SHEET
IT-186	ITS PLAN SHEET
IT-188	ITS PLAN SHEET
IT-191	ITS PLAN SHEET
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IT-194	ITS PLAN SHEET
IT-195	ITS PLAN SHEET
IT-196	ITS PLAN SHEET
IT-197	ITS PLAN SHEET
IT-199	ITS PLAN SHEET
IT-200	ITS PLAN SHEET
IT-208	SITE LAYOUT DETAILS
IT-209	SITE LAYOUT DETAILS
IT-210	SITE LAYOUT DETAILS
IT-212	SITE LAYOUT DETAILS
IT-214	SITE LAYOUT DETAILS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-157E

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-175**		IT-176		IT-177		IT-178*		IT-179*		IT-180*		IT-181*		IT-182*		IT-183*		IT-184*		IT-185*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1435		110		540		1360		1810		1370		440		725		855		100		390		9135			
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	56						543		660		1125		160		200		748		215		280		3987			
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF			1470		540				340		30						100						2480			
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF									570														570			
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	441		520		570		2866		4440		1200				1350		2249		250		630		14516			
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																										
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF									900														900			
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55																								
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF							100		100														200			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	4		4						28		8				16		24		4		8		96			
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	1								1		2				3		1				1		9			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	1		1						4		2				2		3				1		14			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA																										
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA			1						1								1		1				4			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF			1920				880		1240		1865		600						250		240		6995			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	3		4		5		4		14		16		1 65		5		9		6		4 65		71 65			
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	2		2		4		3		2		3				2		2		1		1		22			
635-2-13	PULL & SPLICE BOX, 60"X30" RECTANGULAR	EA	1								2								1						4			
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA			3						9		2						1						15			
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS															1								1			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS							1		1														2			
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	1491		640		720		1773		1300		140				920		1203		100		835		9122			
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF	1250																						1250			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																	1						1			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																	1						1			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA																										
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA																	1						1			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA															1								1			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA							1																1			
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA									1														1			
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA											1								1				2			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA									1														1			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA	1						1		1		3				2								8			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																	2				2		4			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																										
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																										
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA											1												1			
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA							1				2								2				5			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS							2				4								4				10			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA									2		4								3				9			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS							4		8		10						4		8				34			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA									2				2		5		2				2		13			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA									2				2		5		2				2		13			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA			1				1																2			
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA			2				2																4			
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA			1				2	55															3			
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA							1		1												1		3			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 UPDATED DESIGN QUANTITIES		
1/22/19	65 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-158A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-186*		IT-187*		IT-188*		IT-189		IT-190		IT-191		IT-192		IT-193		IT-194*		IT-195*		IT-196*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	610		1639		1210				290		355		195		2850		2235		2665	42	1510		13559	42		
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	400		390		520				310		790		320		40		560		1699		480		5509			
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF			60														15		13				88			
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF			160														1350						1510			
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1520		380		1620				900		1650		690		430		435		540	38	655		8820	38		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF													635		1820		1860		2499		2040		8854			
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF			159		1770								1525		5550		5520		6528	42	4080		25132	42		
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55																								
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF															8400		8400				8400		25200			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	16		4		98				8		12		386		16		16		46		12		614			
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	2		1		3				1		2		5		4		4		7		3		32			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	3		1		10				1		2		34		4		3		7		3		68			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA					1																		1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA	1																						1			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF	420		1750		80				290						380		1155		300		800		5175			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	12	65	7		10	65			3		10	65	3		12	65	16	65	28	65	11	65	112	65		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	4		1		2				2		4		1		2		3		4		3		26			
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA					3								1		4		3		5		3		19			
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA			4														1		1				6			
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS											1								1				2			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																				38				38		
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	834		390		1480				890		1655		825		3360		3325		3890		1470		18119			
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF															2800		2800				1400		7000			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																										
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA													1										1			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA																										
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA											1								1				2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA	1				2				1												1		5			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA			2																				2			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA					1												2				2		5			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA			2						1				2		1				1				7			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA			1																	42			1	42		
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																			2				2			
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA															1				1				2			
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA							1				1								1				3			
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA	1				1												1		1		1		5			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS	2				2												2		2		2		10			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA	2				3												2		2		3		12			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	4				4												4		8		8		28			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA	1																						1			
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA	1																						1			
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA			1																				1			
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA			1																				1			
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA			1	55																	1	55	2	55		
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA													1										1			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT QUANTITIES	11/5/18	55 UPDATED DESIGN QUANTITIES
6/15/18	42 MSE WALL 15 ADJUST	1/22/19	65 UPDATED DESIGN QUANTITIES

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
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Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-159A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-197*		IT-198		IT-199		IT-200*		IT-201*		IT-202*		IT-203		IT-204		IT-205		IT-206		IT-207					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1380		1040		1870	47	2387		2700	55	1805	55	1325		530		870		880		710		15497	47 65		
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	1287		1050	47	1025	65	375	65	1130		620				490		340		200		115		6632	55		
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF																										
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																										
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1650		1590	47	780	47	940		1645		1785	55			1870								10260	47 55		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF	2747		1660		2715		1810		1165												65		10097			
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF	3964		3320		5210	65	3660	65	2145	55	1100	55		55			970		530				20899			
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55							75														75	55		
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF	9055		8400		882		9800		6025		1400		825		440								36827			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	28		8		40		16		164		28	55		55	24								308	55		
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	4		1		3		2		6		4		1		1								22			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	4		1		4		3		6		4		4		2								28			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA									1														1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																										
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF					200		850		1585		780	55											3415	55		
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	6	65	3		9		13	65	31		16		1		9		6		5		3		102	65		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	3		2		5		4		8	55	4				4								30	55		
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA	3		1		1		2		7		6		1		1		1		1				24			
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																										
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS						47			1														1			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS				47																				47		
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	2482		2090		2585	65	2175	65	3380		2835	55			880								16427	65 55		
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF	1400		1400		560				1150		1400												5910	65		
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA															1								1			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																										
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA															1								1			
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA									1						1								2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA											1												1			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA	1				1				1														3			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA									1		1												2			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA	1				1	47									1								3	47		
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA							1		1		1				1								4			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA	1		1			47			1														3	47		
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA	2		1		1		2		1		1												8			
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																										
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA							1		1		1												3			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS							2		2		2												6			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA							2		2		2												6			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS							4		12		4						2		4				26			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA	4		2		2		2		2		4												16			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA	4		2		2		3		2		4												17			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																										
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																										
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																										
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA																										

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST	1/22/19	65 UPDATED DESIGN QUANTITIES
11/5/18	55 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO.
IT-160A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-219		IT-220		IT-221		IT-222																	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF																							38191	42
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF																							16128	65
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF																							2568	
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																							2080	
632-7-1	SIGNAL CABLE- NEW, F&I	PI																							12	
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF																							33596	38
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																							18951	65
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF																							46931	42
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55																					75	
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF																							62227	
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA																							1018	
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA																							63	
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA																							110	
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																							77	
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA							4														4		6	
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																							5	
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF																							15585	
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA			4		4		4														12		297	65
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA																							78	
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA																							47	
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																							21	
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																								
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS																							4	
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																							2	38
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF																							43668	65
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																							14160	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA			5		5		5														15		95	
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA			1		1		1														3		3	
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																							2	
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA			2		2		2														6		85	
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA			4		4		4														12		43	
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA																							7	
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																							1	
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																							1	
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA																							7	
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA																							8	
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA																							18	
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																							9	42
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																							5	
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																							10	
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																							4	
643-1	GUYING WOOD STRAIN POLE, F&I	EA																								
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA																							13	
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS																							26	
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA																							27	
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS																							88	
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA																							55	
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA																							44	
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																							3	
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																							5	
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																							1	
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																							1	
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																								
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																							12	
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																							8	55
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																							41	
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																							2	
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																							40	
676-2-600	ITS CABINET, REMOVE	EA																							4	

NOTE:
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630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	UPDATED CONDUIT QUANTITIES 38	11/5/18	55 UPDATED DESIGN QUANTITIES
6/15/18	MSE WALL 15 ADJUST 42	1/22/19	65 UPDATED DESIGN QUANTITIES
7/31/18	47 MSE WALL 21 ADJUST		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO.
IT-162A

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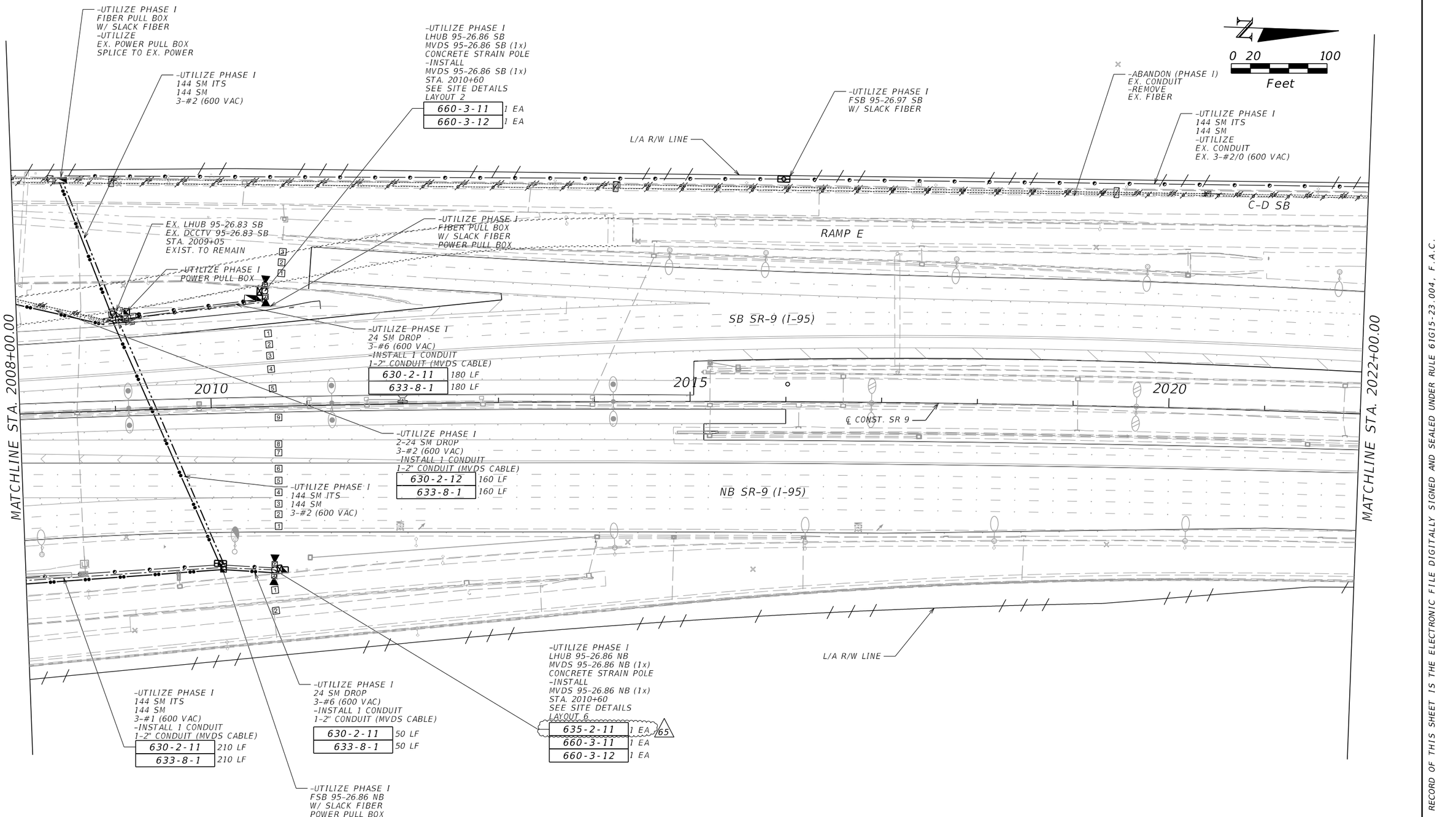

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		

Vanasse Hangen Brustlin, Inc.
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-181

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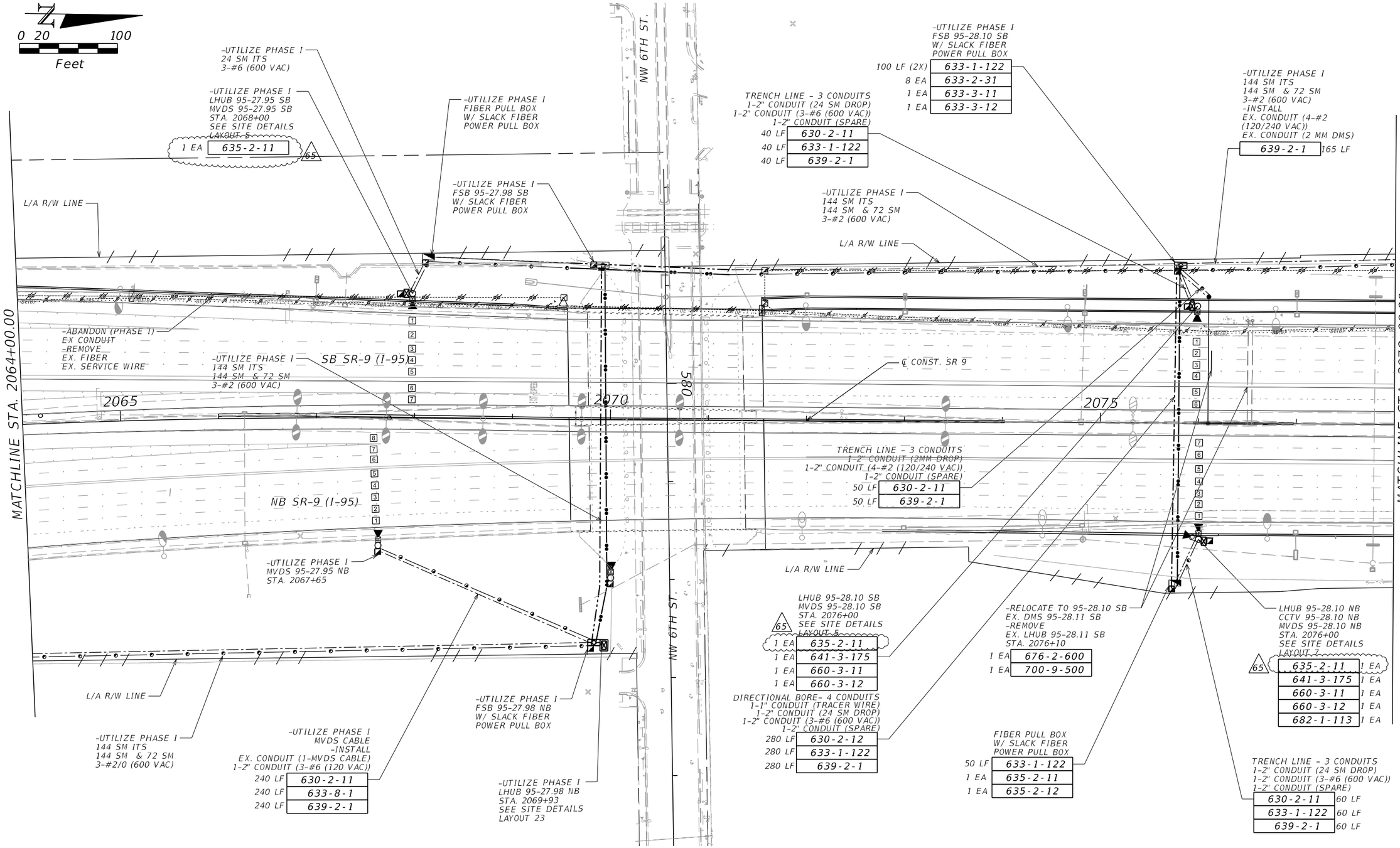

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-185

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0 20 100
Feet

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (4-#2 (120/240 VAC))
EX. CONDUIT (2 MM DMS)

639-2-1	144 LF

-UTILIZE PHASE I
FSB 95-28.16 SB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

-REMOVED IN PHASE I
EX. LHUB 95-28.29 SB
EX. CCTV 95-28.29 SB
EX. MVDS 95-28.29 SB
-RELOCATED IN PHASE I
TO 95-28.30 SB
EX. VOIP 95-28.30 SB
EX. WAP 95-28.30 SB
STA. 2086+11

-UTILIZE PHASE 1
FSB 95-28.29 SB
W/ SLACK FIBER
POWER PULL BOX

100 LF (2X) 633-1-122	
8 EA 633-2-31	
1 EA 633-3-12	
1 EA 633-3-51	

-UTILIZE PHASE I
LHUB 95-28.30 SB
MVDS 95-28.30 SB
CCTV 95-28.30 SB
EX. VOIP 95-28.30 SB
EX. 2-WAP 95-28.30 SB
-REMOVE
TEMP WAP 95-28.30 SB
STA. 2086+85
-RELOCATE TO 95-28.31 NB
EX. MVDS 95-28.30 SB
SEE SITE DETAILS
LAYOUT 5

65 1 EA 635-2-11

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SPARE)

160 LF	630-2-11
160 LF	633-1-122
160 LF	633-8-1
160 LF	639-2-1

-UTILIZE PHASE I
FSB 95-28.35 SB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

100 LF	633-1-122
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

L/A R/W LINE

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)

260 LF	630-2-11
260 LF	633-8-1

RSC 95-28.38 SB
STA. 2091+00
INCLUDES CONTACT
CLOSURE TO ETHERNET SWITCH
SEE SITE DETAILS
LAYOUT 20

50 LF	633-1-122
3 EA	635-2-11
1 EA	635-2-12
2 EA	660-1-111

-UTILIZE PHASE 1
24 SM DROP
3-#6 (600 VAC)

RAMP I

LHUB 95-95-28.16 SB
STA. 2079+50
SEE SITE DETAILS
LAYOUT 9

SB SR-9 (I-95)

ABANDON (PHASE I)
EX CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

DIRECTIONAL BORE - 2 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)

60 LF	630-2-12

660-2-102 4 AS

MATCHLINE STA. 2078+00.00

2080 2085 2090

℄ CONST. SR 9

NB SR-9 (I-95)

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

EL-DMS 95-28.33 NB
STA. 2088+00

1 EA	700-8-137

RAMP SIGNAL
STA. 2090+60

1 EA	646-1-11
2 EA	650-1-13
1 EA	700-3-101
2 EA	635-2-11

MATCHLINE STA. 2092+00.00

L/A R/W LINE

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (2-24 SM DROP)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SPARE)

340 LF	630-2-12
340 LF (2X)	633-1-122
340 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (2X)	633-1-122
2 EA	635-2-11
1 EA	635-2-12

LHUB 95-28.29 NB
STA. 2086+30
SEE SITE DETAILS
LAYOUT 10

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (4-#1/0 (120/240 VAC))
1-2" CONDUIT (SPARE)

80 LF	630-2-11
80 LF	633-1-122
80 LF	639-2-1

-INSTALL
LHUB 95-28.31 NB
-RELOCATE
MVDS 95-28.31 NB
STA. 2087+19
SEE SITE DETAILS
LAYOUT 6

635-2-11	1 EA 65
641-2-14	1 EA
660-3-41	1 EA
660-3-42	1 EA

REMOVED IN PHASE I
EX. LHUB 95-28.31 NB
EX. MVDS 95-28.31 NB
EX. POLE 95-28.31 NB
STA. 2086+90

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	2 EA
635-2-12	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

635-2-11	1 EA
635-2-12	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#1/0 (120/240 VAC))
1-2" CONDUIT (SPARE)

630-2-11	110 LF
639-2-1	110 LF

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		

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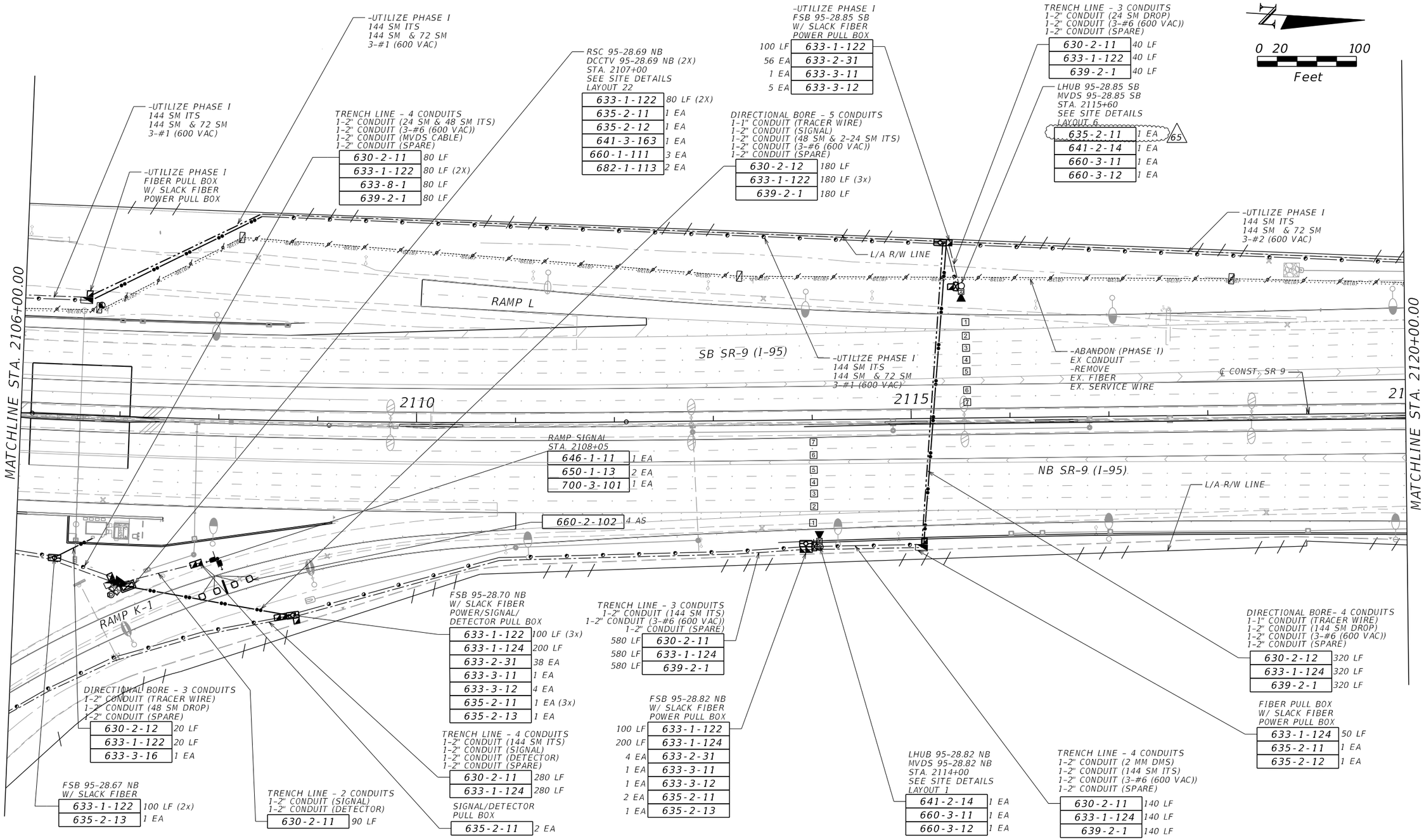
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-186



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-188

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TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (12-#6 (24 VDC))
(6-#10 (24 VDC))
1-2" CONDUIT (SPARE)

85 LF	630-2-11	
85 LF	633-1-122	
85 LF (2x)	639-2-1	

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	2 EA
635-2-12	1 EA

NW 19TH STREET

LHUB 95-29.51 SB
STA. 2150+70
SEE SITE DETAIL
LAYOUT 12

635-2-11 1 EA 65

-UTILIZE PHASE I
LHUB 95-29.58 SB
MVDS 95-29.58 SB
DCCTV 95-29.58 SB
DCCTV 95-29.58 SB
EX. VOIP 95-29.58 SB
STA. 2154+40
SEE SITE DETAILS
LAYOUT 7
(NO TRANSFORMER)

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (4-#1 (24 VDC))
(2-#8 (24 VDC))
1-2" CONDUIT (SPARE)

270 LF	630-2-11	
270 LF	633-1-122	
270 LF (2x)	639-2-1	

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

100 LF	633-1-122	
65 4 EA	635-2-11	
2 EA	635-2-12	

NOTE:
1. LHUB 95-29.51 SB SPARE 2MM FIBER AND POWER FOR TWO ADDITIONAL FUTURE T-DMS SHALL BE INSTALLED IN CONDUIT.

0 20 100
Feet

-UTILIZE PHASE I
3-#1/0 (600 VAC)
144 SM ITS
144 SM & 72 SM ITS

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-122	
1 EA	635-2-11	
1 EA	635-2-12	

-UTILIZE PHASE IA
FSB 95-29.56 SB
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
24 SM DROP
3-#6 (120/240 VAC)

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

LHUB 95-29.63 SB
STA. 2157+00
SEE SITE DETAILS
LAYOUT 12

-ABANDON (PHASE I)
EX CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

T-DMS 95-29.50 SB
STA. 2149+90
1 EA 700-7-132

L/A R/W LINE

SB SR-9 (I-95)

-REMOVE
EX. CCTV 95-29.51 SB
EX. MVDS 95-29.51 SB
EX. VOIP 95-29.51 SB
641-3-800 1 EA

S-DMS 95-29.68 SB
STA. 2159+60
700-8-134 1 EA

MATCHLINE STA. 2148+00.00

2150 2155 2160

145

℄ CONST. SR 9

MATCHLINE STA. 2162+00.00

-UTILIZE PHASE I
LHUB 95-29.58 NB
MVDS 95-29.58 NB
CCTV 95-29.58 NB
STA. 2154+40
-INSTALL
GEN 95-29.58
STA. 2153+70
(NO TRANSFORMER)
SEE SITE DETAILS
GENERATOR SITE
38

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

290 LF	630-2-12
290 LF	633-1-122
290 LF	639-2-1

NB SR-9 (I-95)

S-DMS 95-29.68 NB
STA. 2159+71
700-8-134 1 EA

LHUB 95-29.71 NB
STA. 2161+00
SEE SITE DETAILS
LAYOUT 11

L/A R/W LINE

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

-UTILIZE PHASE I
FSB 95-29.49 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF	633-1-122
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	300 LF
633-1-122	300 LF
639-2-1	300 LF

POWER SERVICE POLE
SERVICE DISCONNECTS
METER

1 AS	639-1-122
1 EA	641-2-12

DIRECTIONAL BORE- 1 CONDUIT
1-2" CONDUIT (3-#4/0 (480 VAC))

150 LF	630-2-12
150 LF	639-2-1

POWER SERVICE POINT
NEW 480V TX
1 EA 635-2-11

-UTILIZE PHASE I
3-#1/0 (600 VAC)
144 SM ITS
144 SM & 72 SM

38

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#1/0 (600 VAC)

-UTILIZE PHASE I
24 SM DROP
3-#6 (120/240 VAC)
-INSTALL
1-2" CONDUIT (ETHERNET CABLE)

630-2-11	60 LF
633-8-1	60 LF

-UTILIZE PHASE I
FSB 95-29.58 NB
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF 633-1-122

-UTILZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#1/0 (600 VAC)
-INSTALL
EX. CONDUIT (24 SM DROP)
EX. CONDUIT (2 MM DMS)
EX. CONDUIT (4-#2 (24 VDC))
(2-#10 (24 VDC))

155 LF	633-1-122
155 LF	639-2-1

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#2 (24 VAC))
(2-#10 (24 VAC))
1-2" CONDUIT (SPARE)

630-2-12	50 LF	
635-2-11	1 EA	65
639-2-1	50 LF	

-UTILIZE PHASE I
FSB 95-29.71 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF (2x)	633-1-122
8 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 RELOCATED 95-29.58NB		
1/22/19	65 UPDATE GROUNDING PULL BOX		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-191

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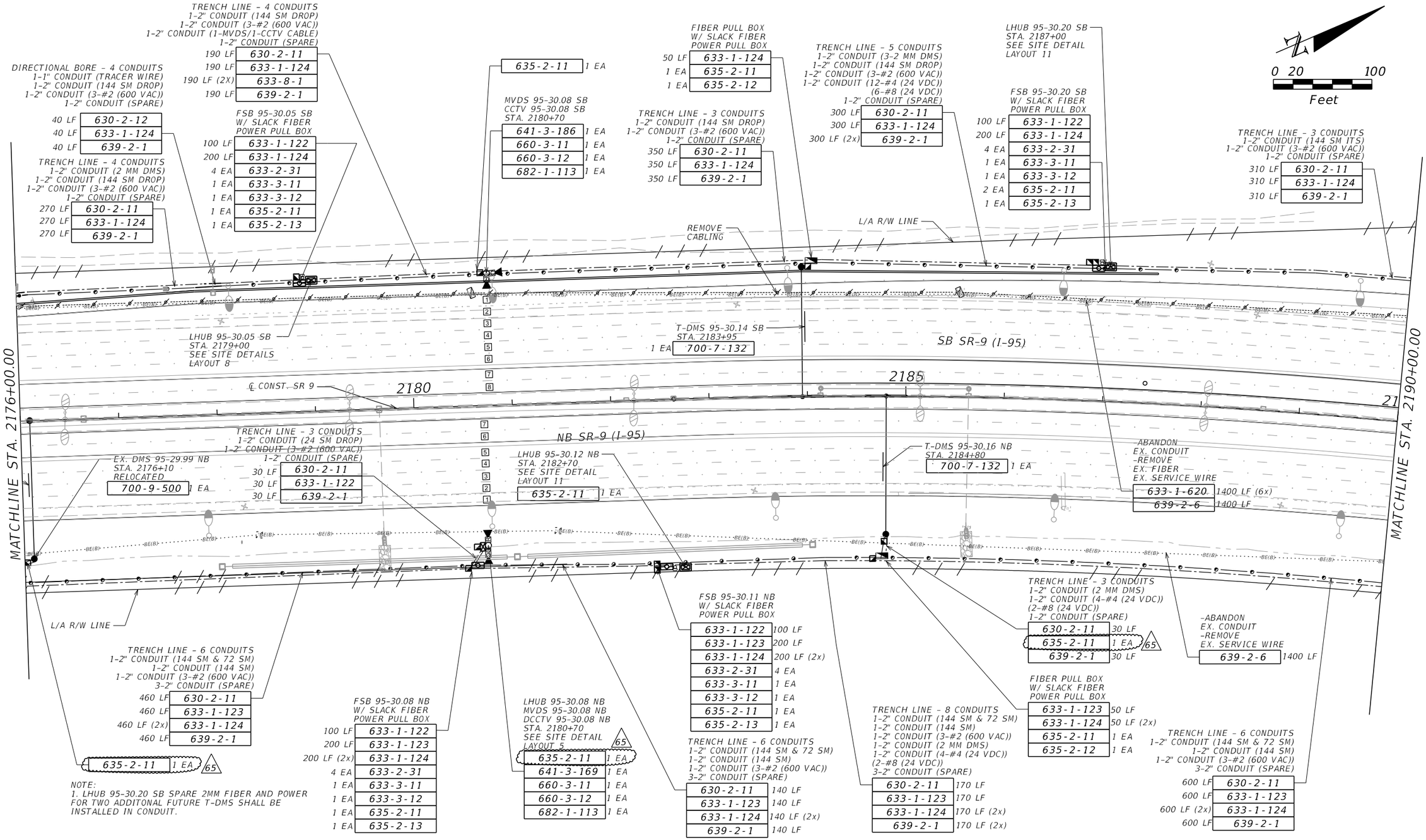

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-193

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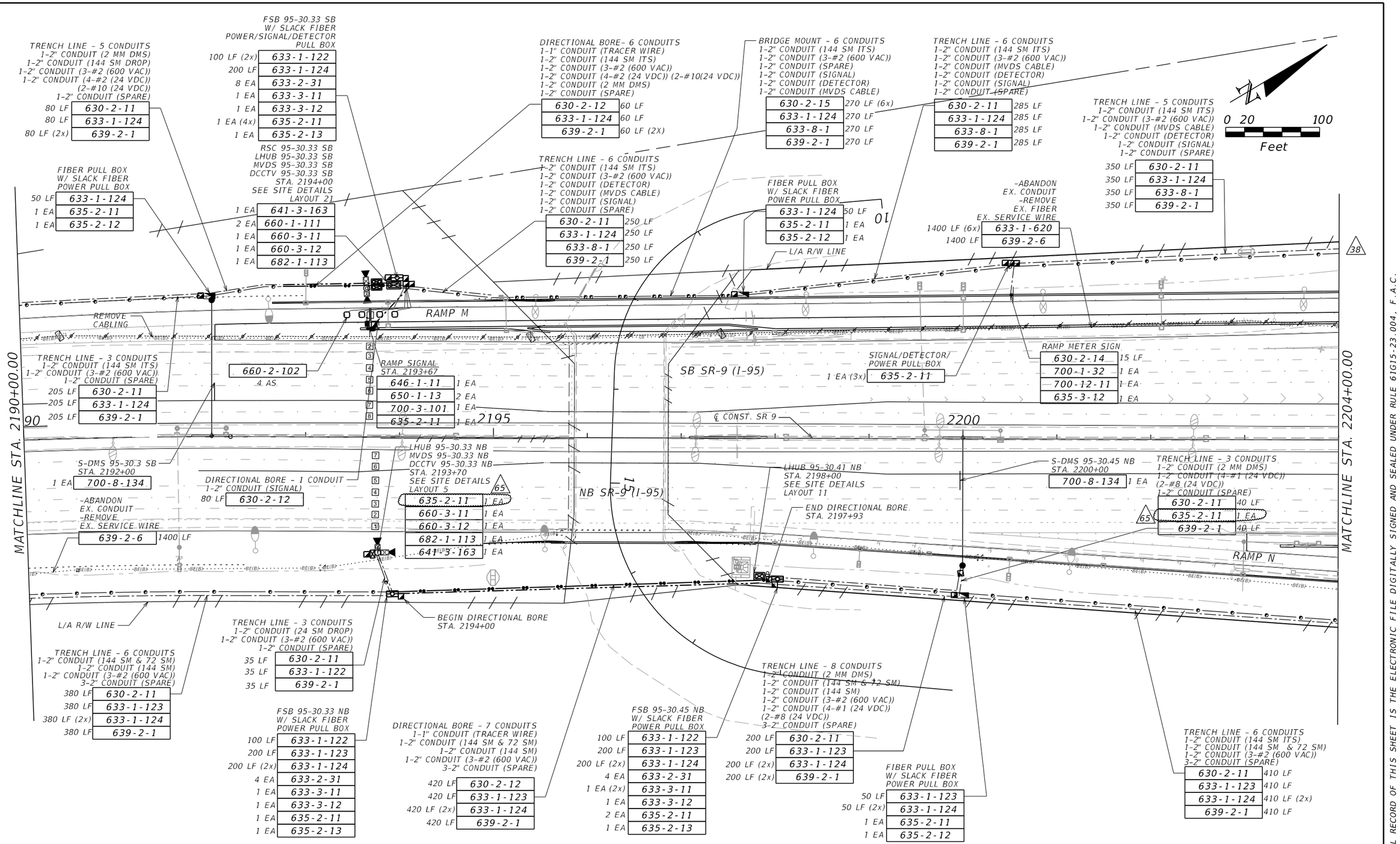

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT		
1/22/19	65 UPDATE GROUNDING PULL BOX		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-194

LHUB 95-30.57 SB
MVDS 95-30.57 SB
DCCTV x2 95-30.57 SB
STA. 2206+50
SEE SITE DETAILS
LAYOUT 5

635-2-11	1 EA
641-3-186	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	2 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

630-2-11	205 LF
633-1-124	205 LF
633-8-1	205 LF
639-2-1	205 LF

TRENCH LINE - 1 CONDUIT
1-2" CONDUIT (DETECTOR)

630-2-11	80 LF

DETECTOR PULL BOX

635-2-11	1 EA
635-3-12	1 EA
630-2-14	13 LF

660-2-102	2 AS

-REMOVE
EX. LHUB 95-30.55 SB
EX. CCTV 95-30.55 SB
EX. MVDS 95-30.55 SB
-RELOCATE TO 30.70 NB
EX. VOIP 95-30.55 SB
EX. WAP 95-30.55 SB
STA. 2208+65

641-3-800	1 EA

SB SR-9 (I-95)

2205

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM TSMO & 72 SM ETL)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-12	190 LF
633-1-123	190 LF
633-1-124	190 LF (2x)
639-2-1	190 LF

RAMP N

L/A R/W LINE

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-123	50 LF
633-1-124	50 LF (2x)
635-2-11	1 EA
635-2-12	1 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	335 LF
633-1-123	335 LF
633-1-124	335 LF (2x)
639-2-1	335 LF

FSB 95-30.61 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA
635-2-13	1 EA

DIRECTIONAL BORE
- 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-12	50 LF

SIGNAL/DETECTOR
PULL BOX

635-2-11	1 EA (2x)

660-2-102	4 AS

LHUB 95-30.61 NB
MVDS 95-30.61 NB
CCTV 95-30.61 NB
DCCTV 95-30.61 NB
STA. 2209+20
SEE SITE DETAILS
LAYOUT 3

641-3-180	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	2 EA

FSB 95-30.57 SB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-122	100 LF
633-1-124	200 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA (3x)
635-2-13	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-11	40 LF
633-1-122	40 LF
639-2-1	40 LF

TRENCH LINE - 4 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

630-2-11	250 LF
633-1-124	250 LF
639-2-1	250 LF

DIRECTIONAL BORE
- 1 CONDUITS
1-2" CONDUIT (3-#6
(120/240 VAC))

630-2-12	470 LF
639-2-1	470 LF

2210

-UTILIZE
EX. FSB 95-30.65A NB
W/ SLACK FIBER
POWER PULL BOX

633-1-123	100 LF
633-2-31	12 EA
633-3-11	1 EA
633-3-12	1 EA

FSB 95-30.65 NB
W/ SLACK FIBER

633-1-123	300 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-13	1 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#6 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	180 LF
633-1-123	180 LF
633-1-124	180 LF (2x)
639-2-1	180 LF

TRENCH LINE
2 CONDUITS
1-2" CONDUIT (72 SM DROP)
1-2" CONDUIT (SPARE)

630-2-11	90 LF
633-1-123	90 LF

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM TSMO & 72 SM ETL)
1-2" CONDUIT (3-#6 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-12	250 LF
633-1-123	250 LF
633-1-124	250 LF (2x)
639-2-1	250 LF

POWER PULL BOX

635-2-11	1 EA

-INSTALL
DISCONNECT
METER
-UTILIZE
EX. POWER SERVICE

635-2-11	1 EA
639-1-122	1 AS
641-2-12	1 EA

RAMP METER SIGN

635-2-11	1 EA
700-1-32	1 EA
700-12-11	1 EA

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (SPARE)

630-2-11	120 LF

SIGNAL/DETECTOR
PULL BOX

635-2-11	2 EA

RAMP SIGNAL
STA. 2208+68

635-2-11	1 EA
646-1-11	1 EA
650-1-13	2 EA
700-3-101	1 EA

EX. ATMS CCTV
EX. ATMS LHUB

REMOVE
CABLING

FIBER PULL BOX
W/ SLACK FIBER
POWER/SIGNAL
DETECTOR PULL BOX

633-1-124	50 LF
635-2-11	1 EA (3x)
635-2-12	1 EA

LHUB 95-30.70 NB
STA. 2213+55
EX. WAP x2 95-30.70 NB
EX. VOIP 95-30.70 NB
SEE SITE DETAILS
LAYOUT 14

641-3-180	1 EA
684-6-40	3 EA

℄ CONST. SR 9

DIRECTIONAL BORE - 6 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (SPARE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-12	300 LF
633-1-124	300 LF
639-2-1	300 LF

660-2-102	2 AS

TRENCH LINE- 5 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (SPARE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-11	760 LF
633-1-124	760 LF
639-2-1	760 LF

RAMP P-1
RAMP P-2

FIBER PULL BOX
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-124	50 LF
635-2-11	1 EA (3x)
635-2-12	1 EA

RAMP METER SIGN

700-1-32	1 EA
700-12-11	1 EA

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SPARE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-12	95 LF
633-1-124	95 LF
633-8-1	95 LF
639-2-1	95 LF

RAMP METER SIGN

700-1-32	1 EA
700-12-11	1 EA

TRENCH LINE- 1 CONDUIT
1-2" CONDUIT (SIGNAL)

630-2-11	100 LF

RSC 95-30.78 SB
DCCTV 95-30.78 SB
STA. 2217+45
SEE SITE DETAILS
LAYOUT 18

641-3-169	1 EA
682-1-113	1 EA
660-1-111	2 EA

2215

T-DMS 95-30.75 NB
STA. 2215+80

700-7-132	1 EA

FSB 95-30.78 SB
W/ SLACK FIBER
POWER/SIGNAL/
DETECTOR PULL BOX

633-1-122	100 LF (2x)
633-1-124	200 LF
633-2-31	18 EA
633-3-11	1 EA
633-3-12	2 EA
635-2-11	1 EA (3x)
635-2-13	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#4 (24 VDC))
(2-#8 (24 VDC))
1-2" CONDUIT (SPARE)

630-2-11	95 LF
635-2-11	1 EA
639-2-1	95 LF

RAMP O-2

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (4-#4 (24 VDC))
(2-#8 (24 VDC))
3-2" CONDUIT (SPARE)

630-2-11	260 LF
633-1-123	260 LF
633-1-124	260 LF (2x)
639-2-1	260 LF (2x)

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-123	50 LF
633-1-124	50 LF (2x)
635-2-11	1 EA
635-2-12	1 EA

DIRECTIONAL BORE
- 1 CONDUITS
1-2" CONDUIT (3-#6
(120/240 VAC))

630-2-12	200 LF
639-2-1	200 LF

FSB 95-30.70 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	2 EA
633-3-12	1 EA
635-2-11	2 EA
635-2-13	1 EA

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (4-#4 (24 VDC))
(2-#8 (24 VDC))
3-2" CONDUIT (SPARE)

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM TSMO &
72 SM ETL)
1-2" CONDUIT (SPARE-POWER)
3-2" CONDUIT (SPARE)

630-2-12	144 LF
633-1-123	144 LF
633-1-124	144 LF (2x)

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (SPARE-POWER)
3-2" CONDUIT (SPARE)

630-2-11	150 LF
633-1-123	150 LF
633-1-124	150 LF (2x)

0 20 100
Feet

MATCHLINE STA. 2204+00.00
MATCHLINE STA. 2218+00.00

OAKLAND PARK BV

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT	1/22/19	65 UPDATE GROUNDING PULL BOX
6/15/18	42 MSE WALL 15 ADJUST		

Vanasse Hangen Brustlin, Inc.
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Environmental Services
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-195

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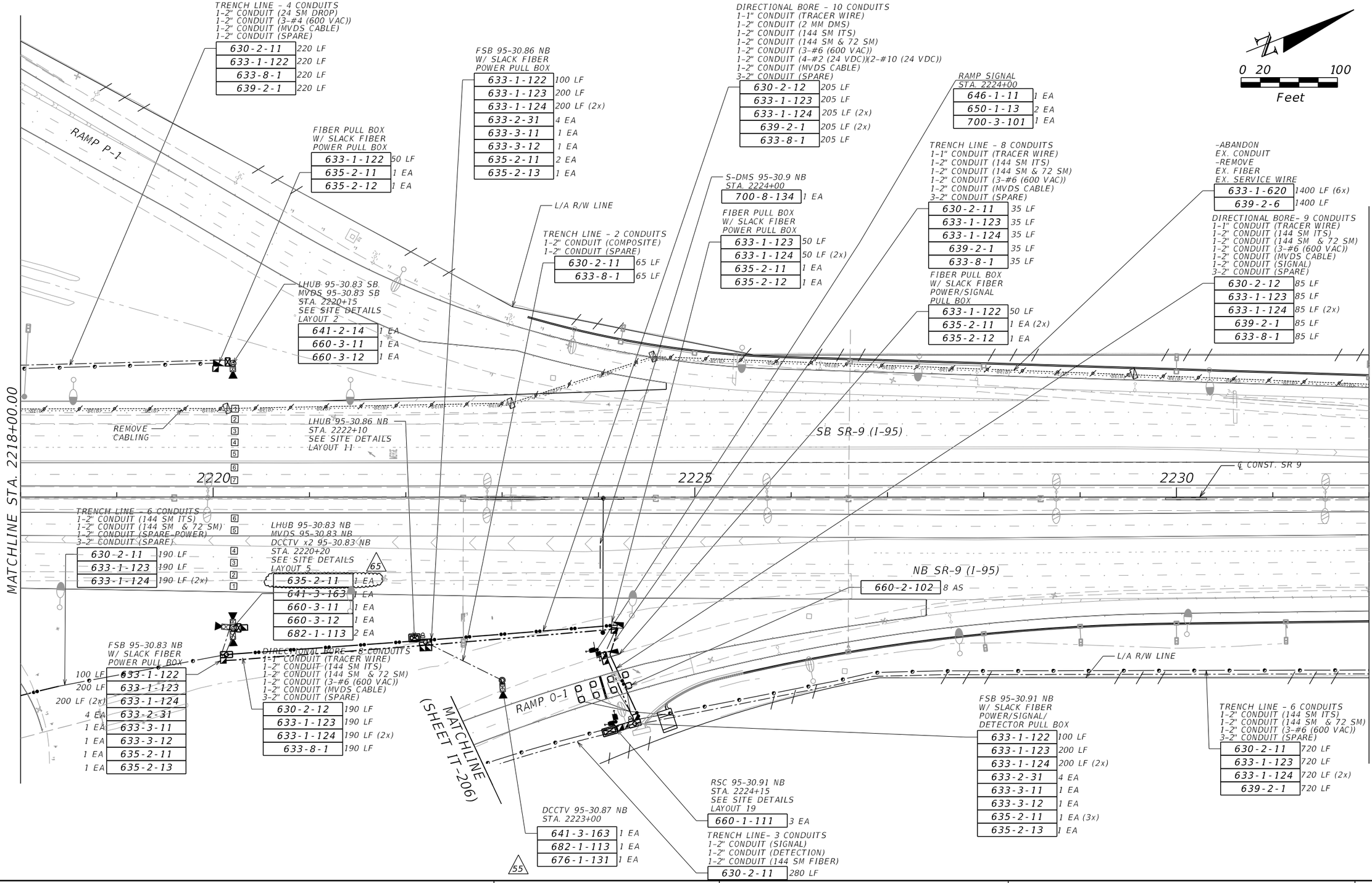

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 ADDED NEMA CABINET AT CCTV POLE		
1/22/19	65 UPDATE GROUNDING PULL BOX		

Vanasse Hangen Brustlin, Inc.
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PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-196

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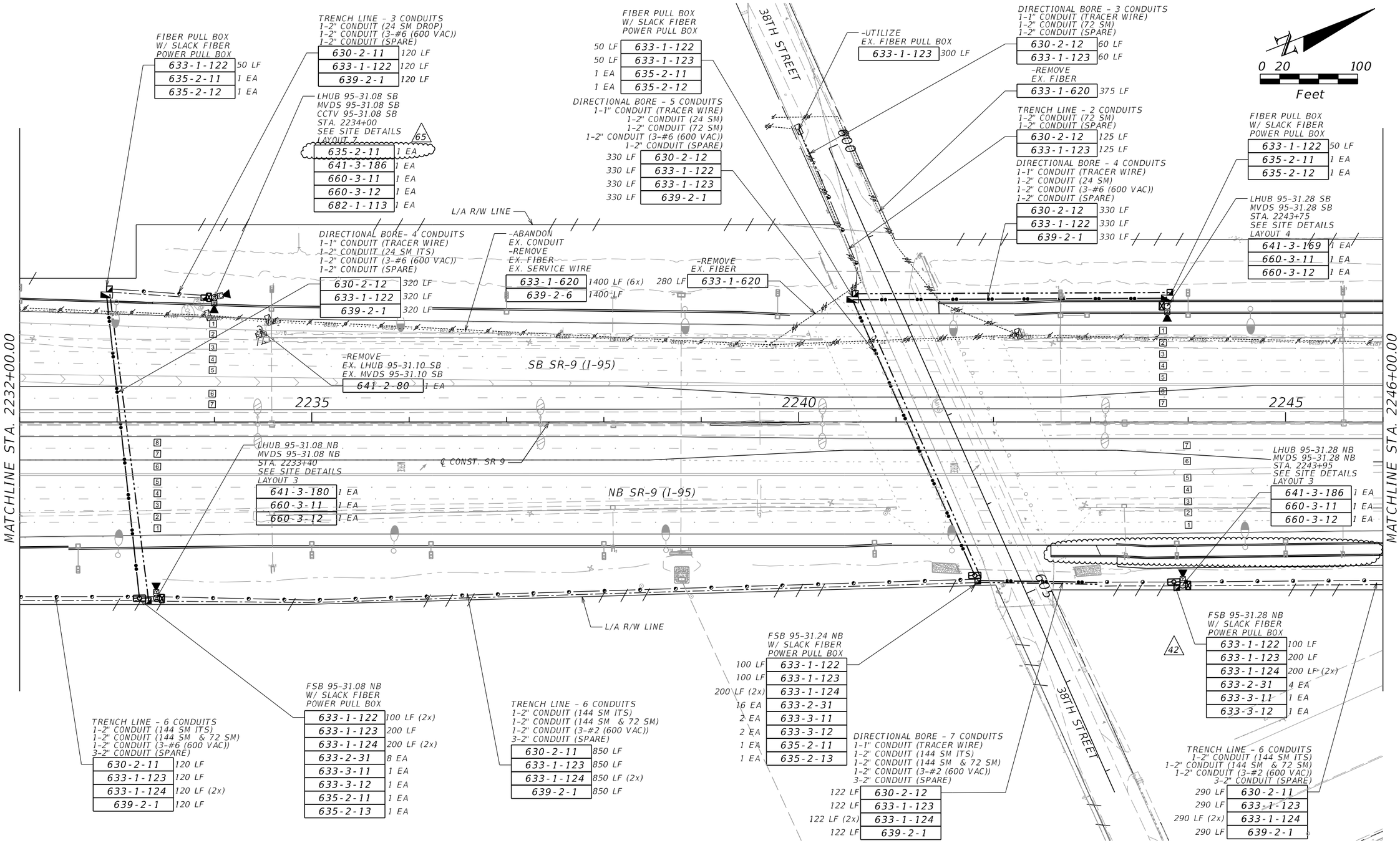

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	42 MSE WALL 19 ADJUST		
1/22/19	65 UPDATE GROUNDING PULL BOX		

Vanasse Hangen Brustlin, Inc.
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-197

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NOTE:
SERVICE WIRE AND FIBER OPTIC CABLE SHALL BE INSTALLED, BUT NOT CONNECTED FOR LHUB 95-31.76B SB.

0 20 100
Feet

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

633-1-620	560 LF (6x)
639-2-6	560 LF

LHUB 95-31.76B SB
STA. 2269+40
SEE SITE DETAIL
LAYOUT 12

1 EA	635-2-11
1 EA	635-2-11
1 EA	635-2-12
50 LF	633-1-122

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (12-#4 (24 VDC))
(6-#8 (24 VDC))
1-2" CONDUIT (SPARE)

300 LF	630-2-11
300 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
SIGNAL PULL BOX

1 EA	635-2-11
1 EA	635-2-12

FSB 95-31.76 SB
W/ SLACK FIBER
POWER PULL BOX

100 LF (3x)	633-1-122
100 LF	633-1-123
100 LF (2x)	633-1-124
8 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-11
1 EA	635-2-13

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

250 LF	630-2-12
250 LF	633-1-123
250 LF (2x)	633-1-124
250 LF	639-2-1

65

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

30 LF	630-2-11
30 LF	639-2-1
30 LF	633-1-122

LHUB 95-31.76 SB
MVDS 95-31.76 SB
DCCTV 95-31.76 SB
EX. WAP 95-31.76 SB
EX. VOIP 95-31.76 SB
STA. 2269+50
SEE SITE DETAILS
LAYOUT 3

641-3-169	1 EA
660-3-11	1 EA
660-3-12	1 EA
684-6-40	2 EA

TRENCH LINE- 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

280 LF	630-2-11
280 LF	633-1-123
280 LF (2x)	633-1-124
280 LF	639-2-1

DIRECTIONAL BORE- 3 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SPARE)

630-2-12	110 LF
633-1-123	110 LF

EX. FSB 31.77 SB
PROSPECT ROAD

633-1-122	100 LF
633-2-31	24 EA
633-3-11	1 EA
633-3-12	2 EA

L/A R/W LINE

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER

633-1-620	240 LF (7x)

65

POWERLINE RD

L/A R/W LINE

EX. HART 95-31.68
REMOVE

SB SR-9 (I-95)

T-DMS 95-31.72 SB
STA. 2267+00
(FUTURE)

STA. 2260+00.00

60

2265

2270

20

STA. 2274+00.00

MATCHLINE STA.

MATCHLINE STA.

℄ CONST. SR 9

NB SR-9 (I-95)

-ABANDON
EX. CONDUIT
-REMOVE
EX. 12 SM/36 SM/36 SM
EX. 96 SM/48 SM
EX. 144 SM ITS

633-1-620
630 LF (6x)

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-123	50 LF
633-1-124	50 LF (2x)
635-2-11	1 EA
635-2-12	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

47

L/A R/W LINE

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	390 LF
633-1-123	390 LF
633-1-124	390 LF (2x)
639-2-1	390 LF

-REMOVE
EX. CCTV 95-31.68
EX. LHUB 95-31.68
EX. MVDS 95-31.68
-RELOCATE TO 95-31.76 SB
EX. VOIP 95-31.68
EX. WAP 95-31.68

1 EA	641-2-80

LHUB 95-31.76 NB
MVDS 95-31.76 NB
STA. 2269+20
SEE SITE DETAILS
LAYOUT 4

50 LF	633-1-122
1 EA	641-3-186
1 EA	660-3-11
1 EA	660-3-12
1 EA	635-2-11
1 EA	635-2-12

POWER PULL BOX

1 EA	635-2-11

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	670 LF
633-1-123	670 LF
633-1-124	670 LF (2x)
639-2-1	670 LF

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

340 LF	630-2-12
340 LF	633-1-123
340 LF (2x)	633-1-124
340 LF	639-2-1

FSB 95-31.77 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF (2x)	633-1-122
200 LF	633-1-123
200 LF (2x)	633-1-124
8 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (COMPOSITE CABLE)

200 LF	630-2-11
200 LF	633-8-1

LHUB 95-31.81 NB
STA. 2272+10
SEE SITE DETAILS
LAYOUT 8

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	325 LF
633-1-123	325 LF
633-1-124	325 LF (2x)
639-2-1	325 LF

PROSPECT RD

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST		
1/22/19	65 UPDATE CONDUIT LOCATION		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-199

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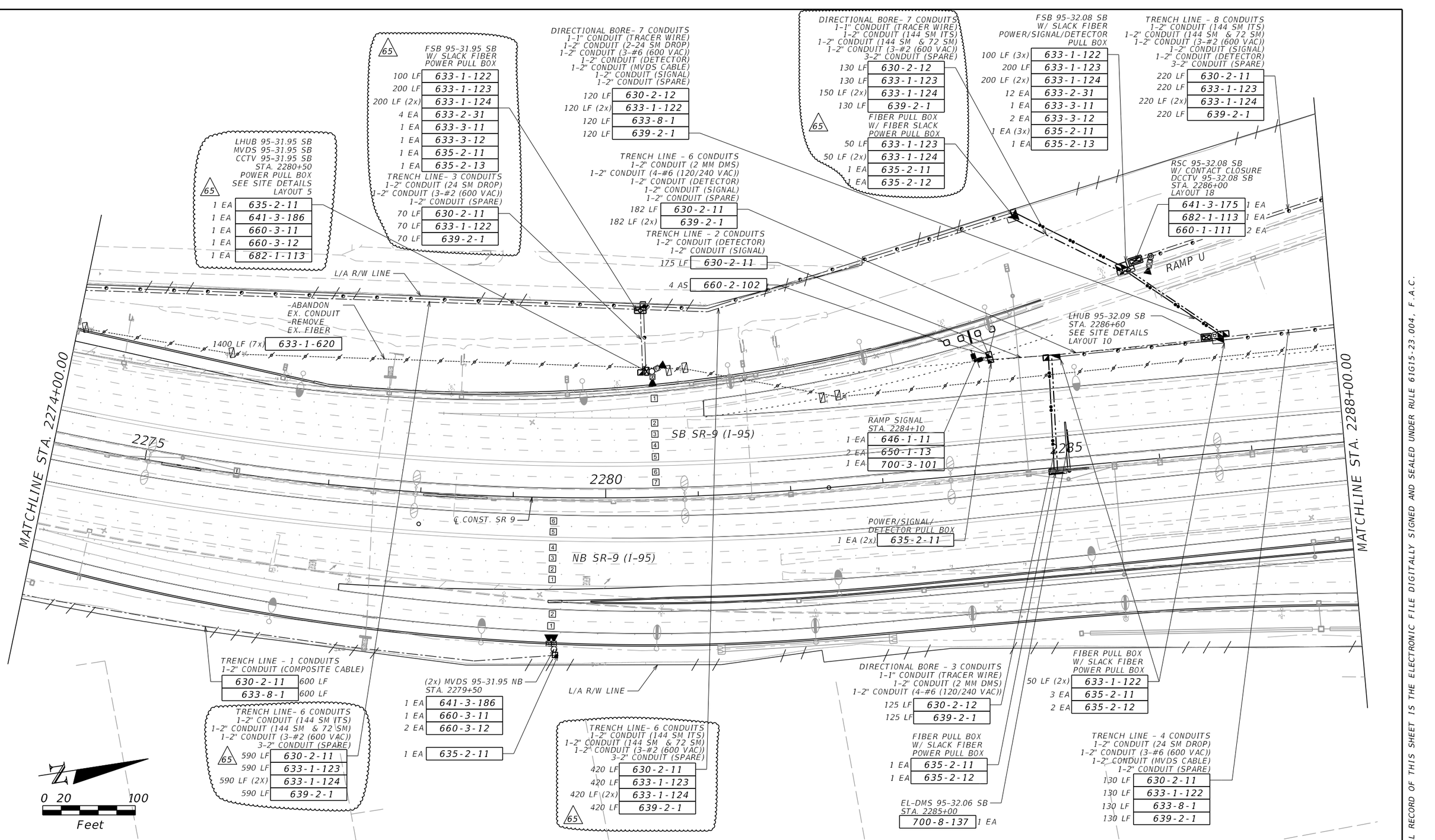

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE CONDUIT LOCATION		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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225 E. Robinson St., Suite 300
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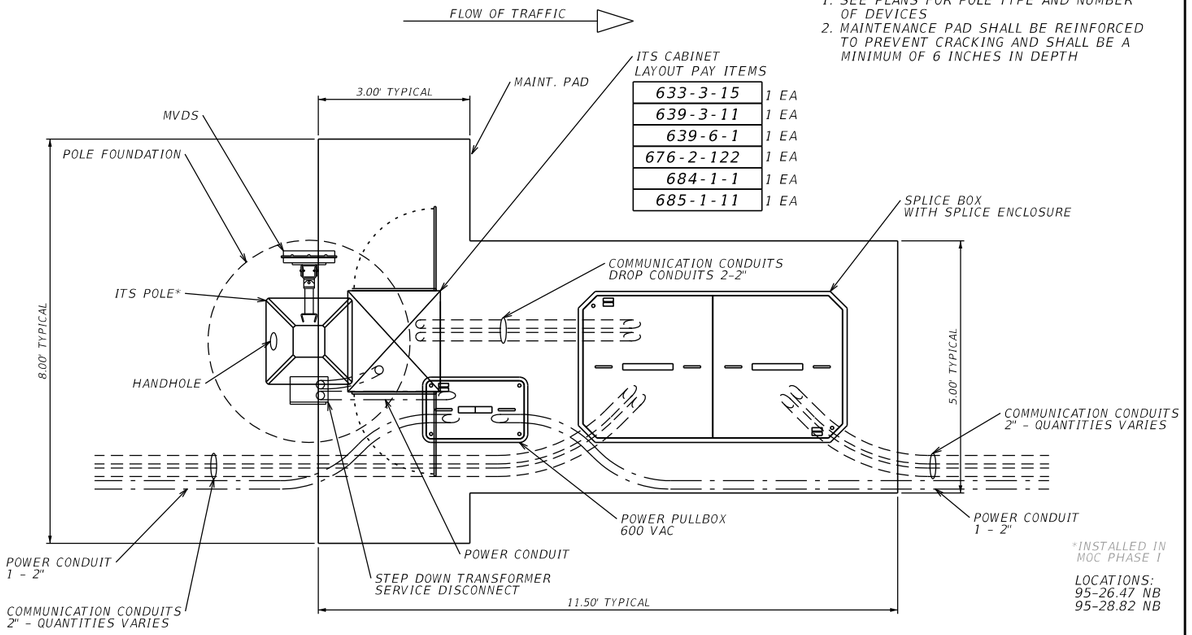
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-200

LAYOUT 1



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

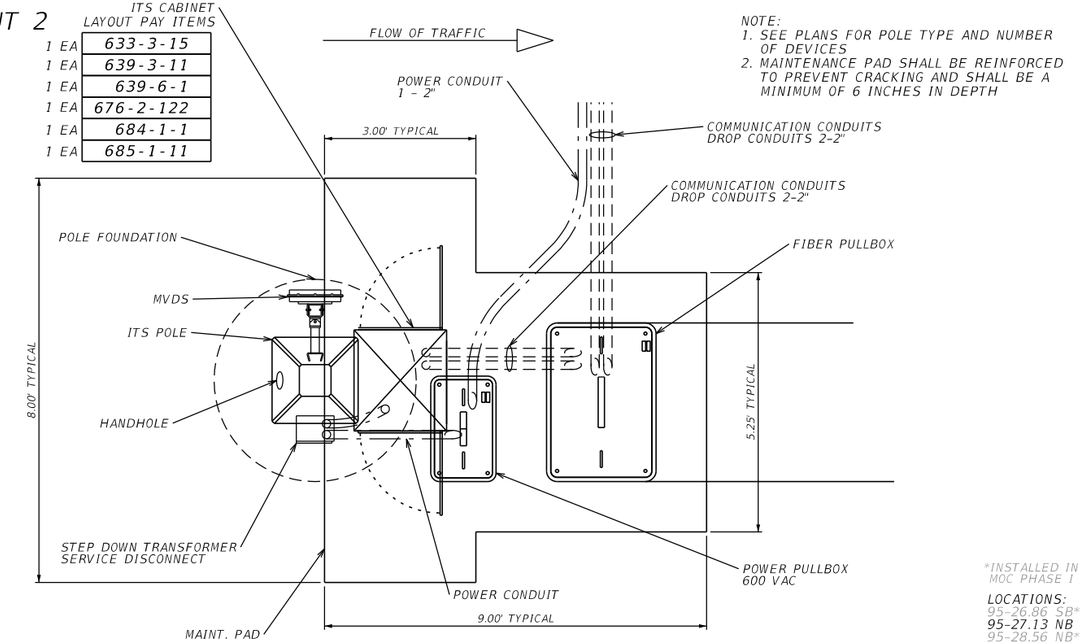
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.47 NB
95-28.82 NB

TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 2



ITS CABINET LAYOUT PAY ITEMS

1 EA	633-3-15
1 EA	639-3-11
1 EA	639-6-1
1 EA	676-2-122
1 EA	684-1-1
1 EA	685-1-11

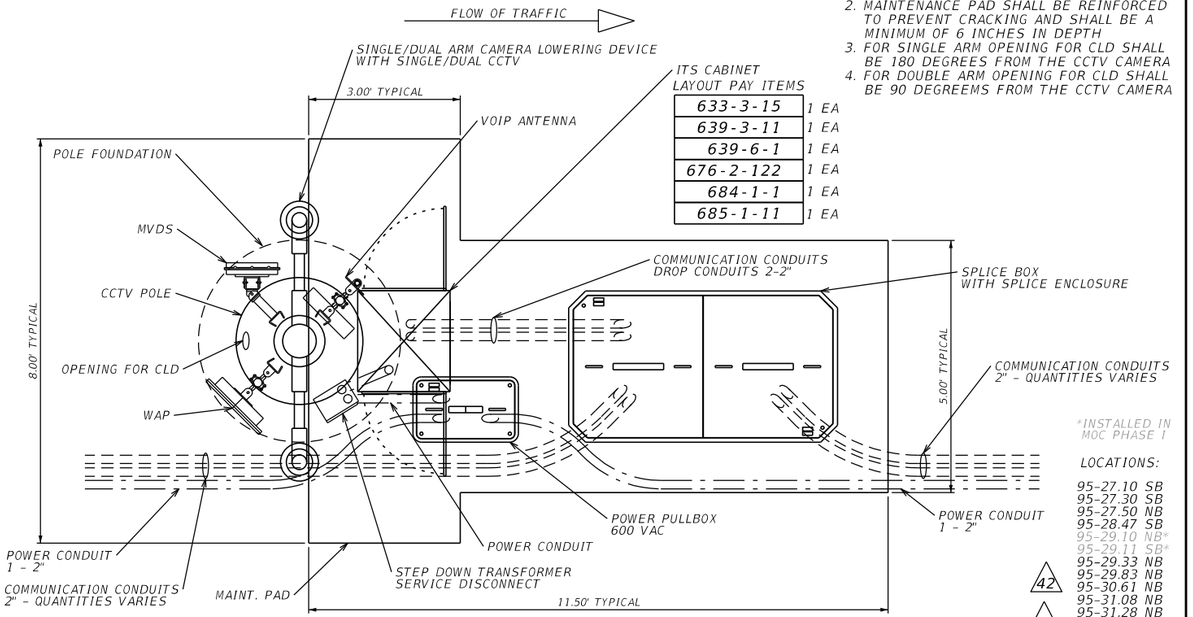
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 SB*
95-27.13 NB
95-28.56 NB*
95-30.83 SB
95-32.64 NB

TYPICAL MVDS SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LAYOUT 3



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

*INSTALLED IN MOC PHASE I

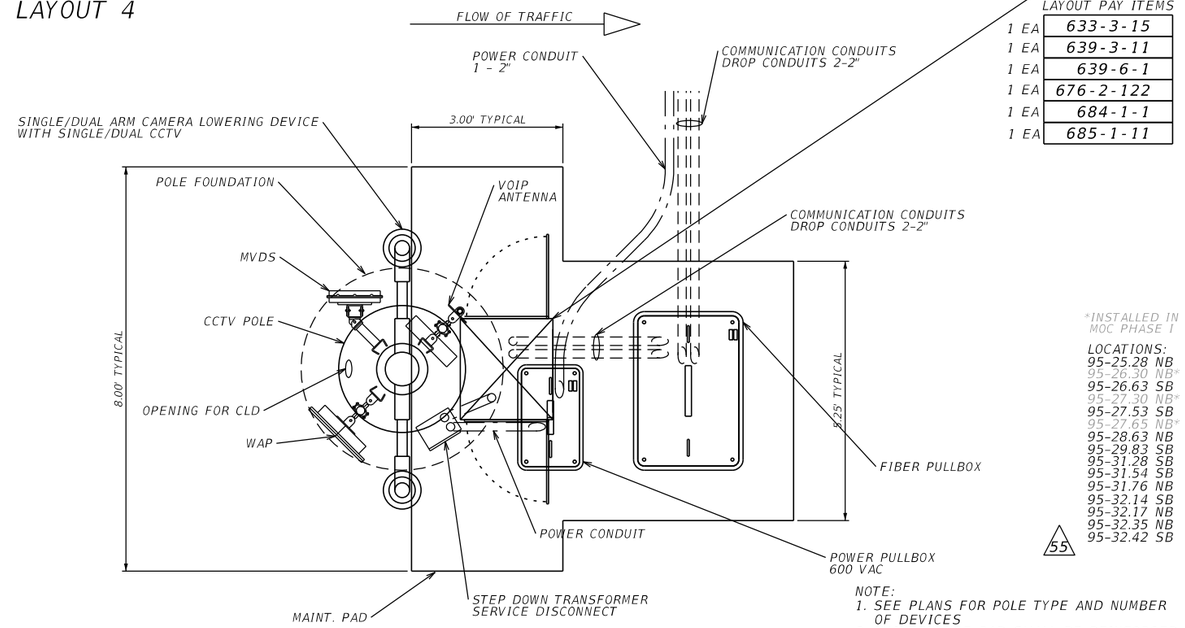
LOCATIONS:
95-27.10 SB
95-27.30 SB
95-27.50 NB
95-28.47 SB
95-29.10 NB*
95-29.11 SB*
95-29.33 NB
95-29.83 NB
95-30.61 NB
95-31.08 NB
95-31.28 NB
95-31.54 NB
95-31.76 SB

42 47 38 65

95-32.27 SB
95-32.39 NB
95-32.64 SB

TYPICAL CCTV SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 4



ITS CABINET LAYOUT PAY ITEMS

1 EA	633-3-15
1 EA	639-3-11
1 EA	639-6-1
1 EA	676-2-122
1 EA	684-1-1
1 EA	685-1-11

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-25.28 NB
95-25.30 NB*
95-26.63 SB
95-27.30 NB*
95-27.53 SB
95-27.65 NB*
95-28.63 NB
95-29.83 SB
95-31.28 SB
95-31.54 SB
95-31.76 NB
95-32.14 SB
95-32.17 NB
95-32.35 NB
95-32.42 SB

55

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREES FROM THE CCTV CAMERA

TYPICAL CCTV SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	UPDATED LAYOUT 95-30.57SB 38	11/5/18	MSE WALL 25 ADJUSTED 55
6/15/18	MSE WALL 15 ADJUST 42	1/22/19	UPDATE GROUNDING PULL BOX 65
7/31/18	MSE WALL 21 ADJUST 47		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-208

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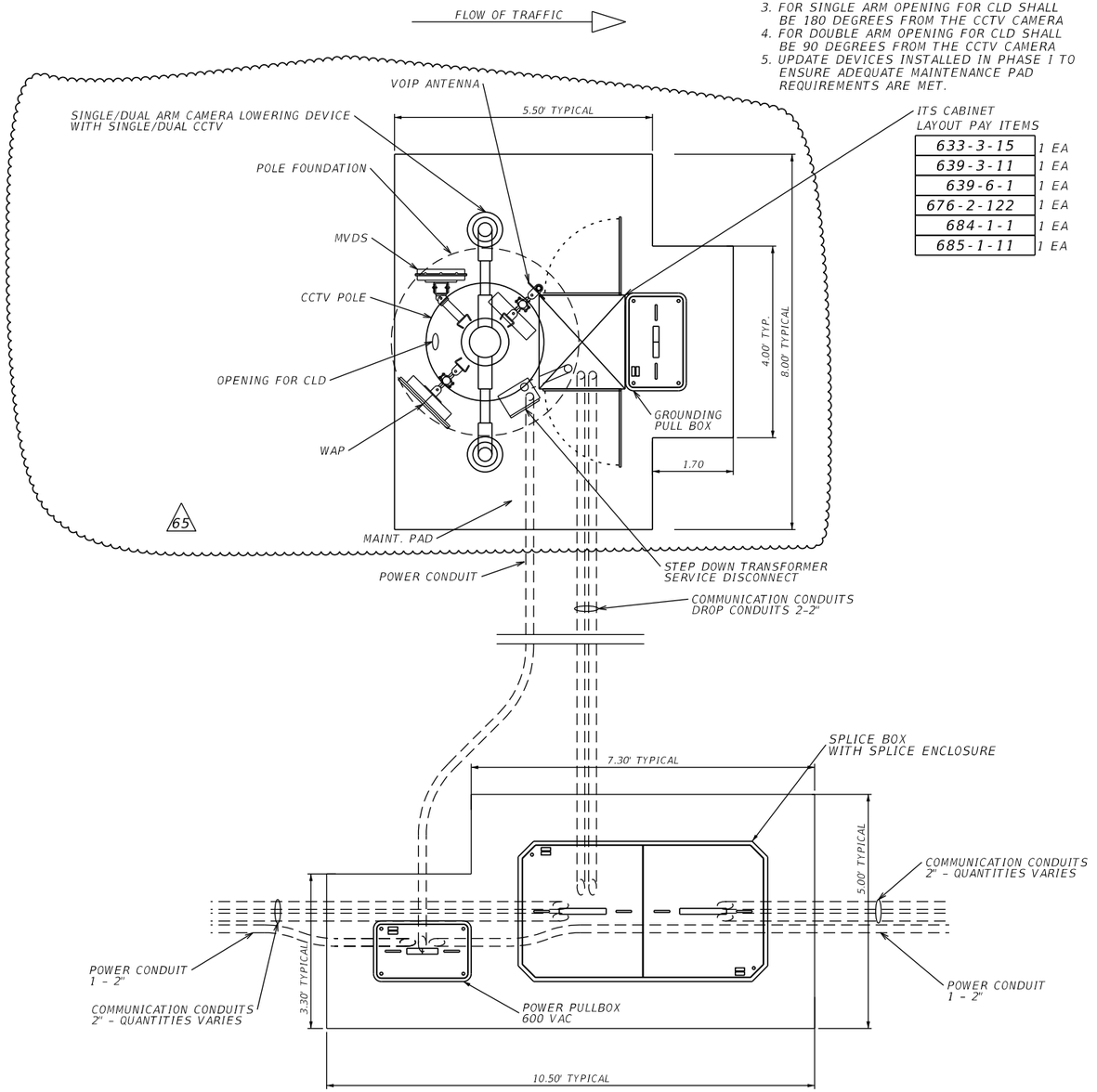
LAYOUT 5

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREES FROM THE CCTV CAMERA
5. UPDATE DEVICES INSTALLED IN PHASE I TO ENSURE ADEQUATE MAINTENANCE PAD REQUIREMENTS ARE MET.



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

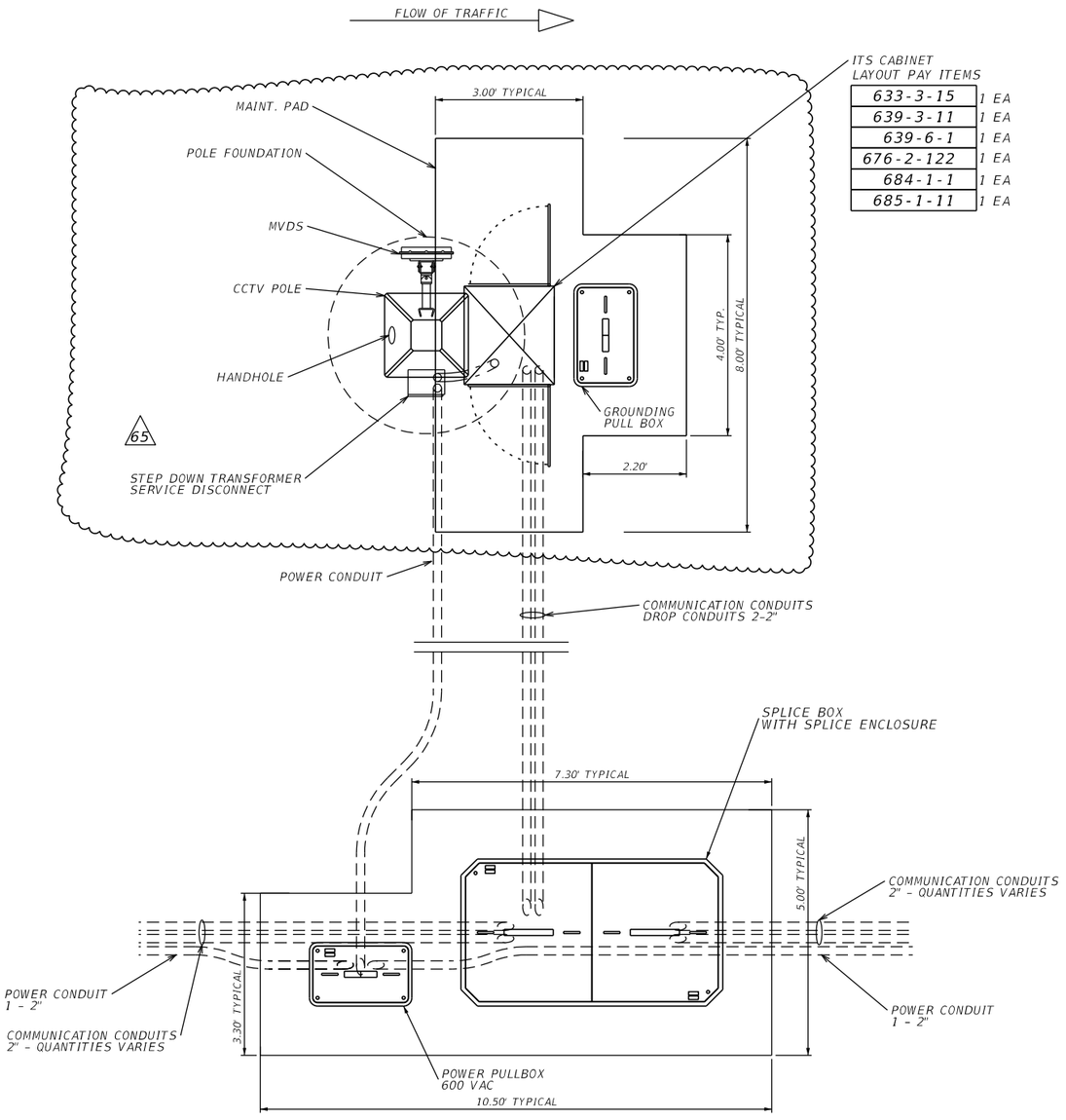
LOCATIONS:
95-27.95 SB*
95-28.10 SB
95-28.30 SB*
95-30.08 NB
95-30.33 NB
95-30.57 SB
95-30.83 NB
95-31.95 SB

38 47 42 65

TYPICAL CCTV SITE LAYOUT - OFFSET FROM BACKBONE

LAYOUT 6

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 NB*
95-28.31 NB
95-28.85 SB

TYPICAL MVDS SITE LAYOUT - OFFSET FROM BACKBONE

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED LAYOUT 95-30.57SB	7/31/18	47 MSE WALL 21 ADJUST
6/15/18	42 MSE WALL 15 ADJUST	1/22/19	65 UPDATE GROUNDING PULL BOX

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

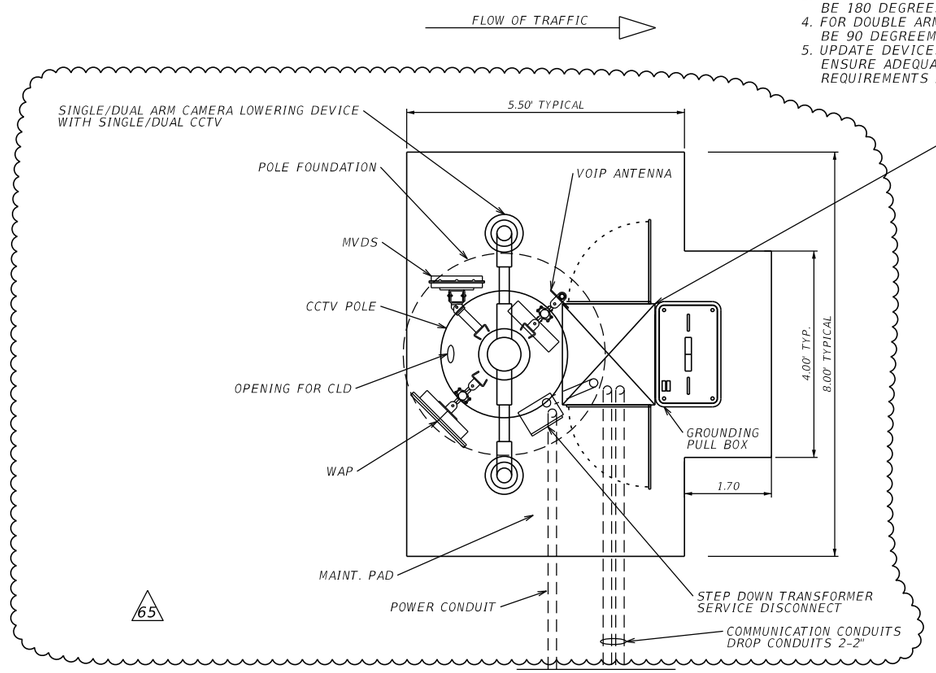
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-209

LAYOUT 7

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA
5. UPDATE DEVICES INSTALLED IN PHASE I TO ENSURE ADEQUATE MAINTENANCE PAD REQUIREMENTS ARE MET.



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

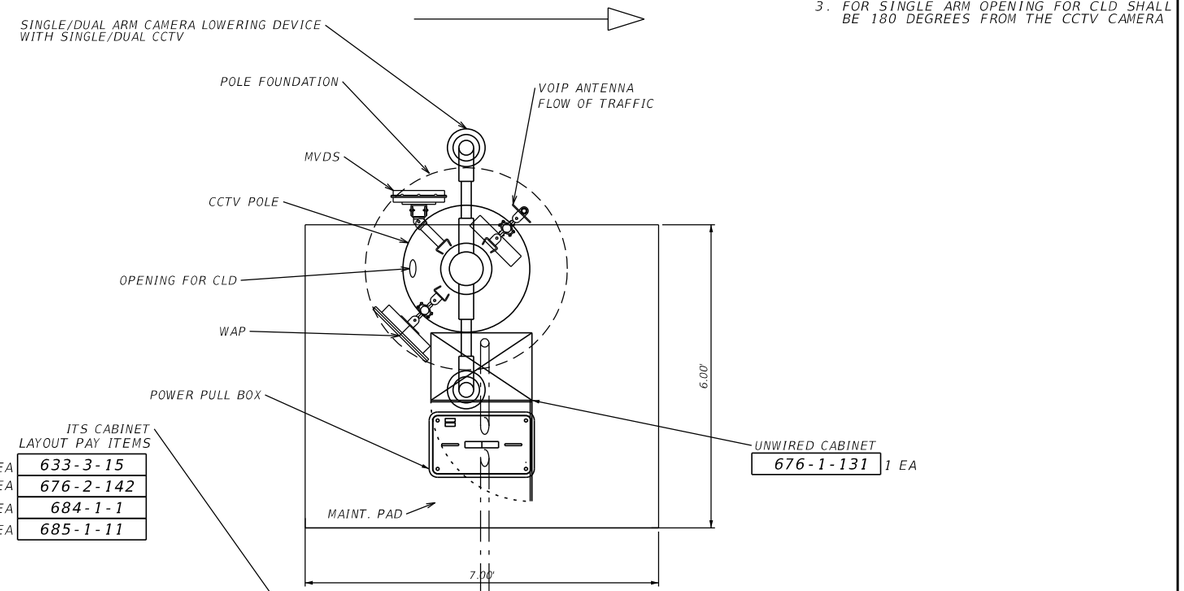
*INSTALLED IN MOC PHASE I

LOCATIONS:
95-28.10 NB
95-29.58 SB*
95-31.08 SB

TYPICAL CCTV SITE LAYOUT - OPPOSITE FROM BACKBONE

LAYOUT 8

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
676-2-142	1 EA
684-1-1	1 EA
685-1-11	1 EA

UNWIRED CABINET: 676-1-131 — 1 EA

STEP DOWN TRANSFORMER SERVICE DISCONNECT SERVICE PEDESTAL POLE

641-2-12	1 EA
639-3-11	1 EA
639-6-1	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-30.05 SB
95-31.81 NB

TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		

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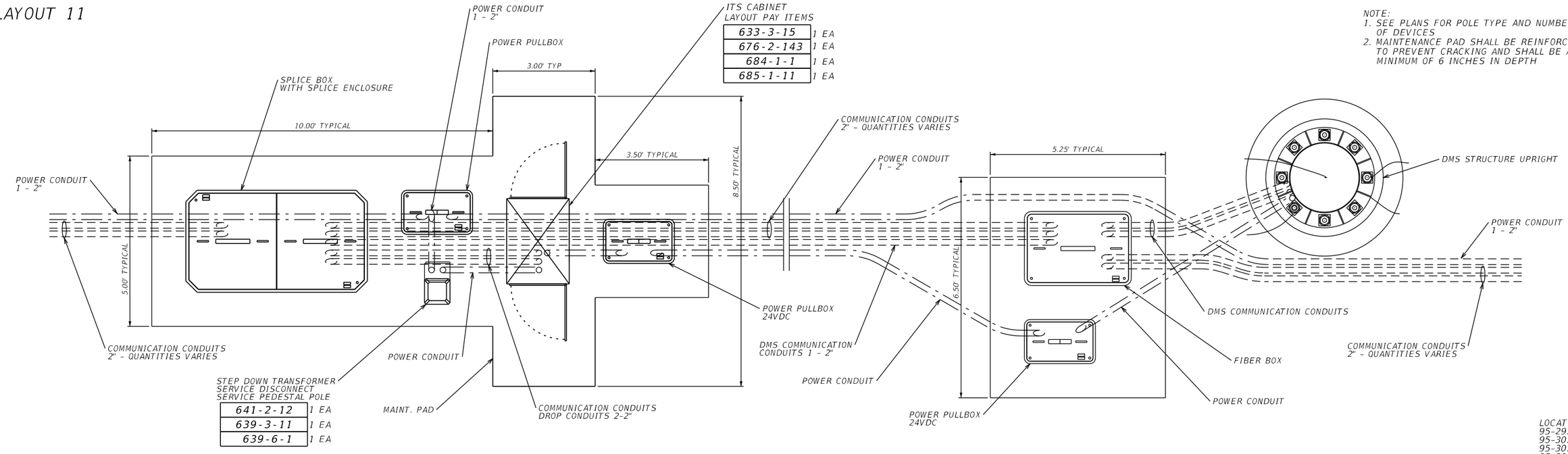
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-210

LAYOUT 11

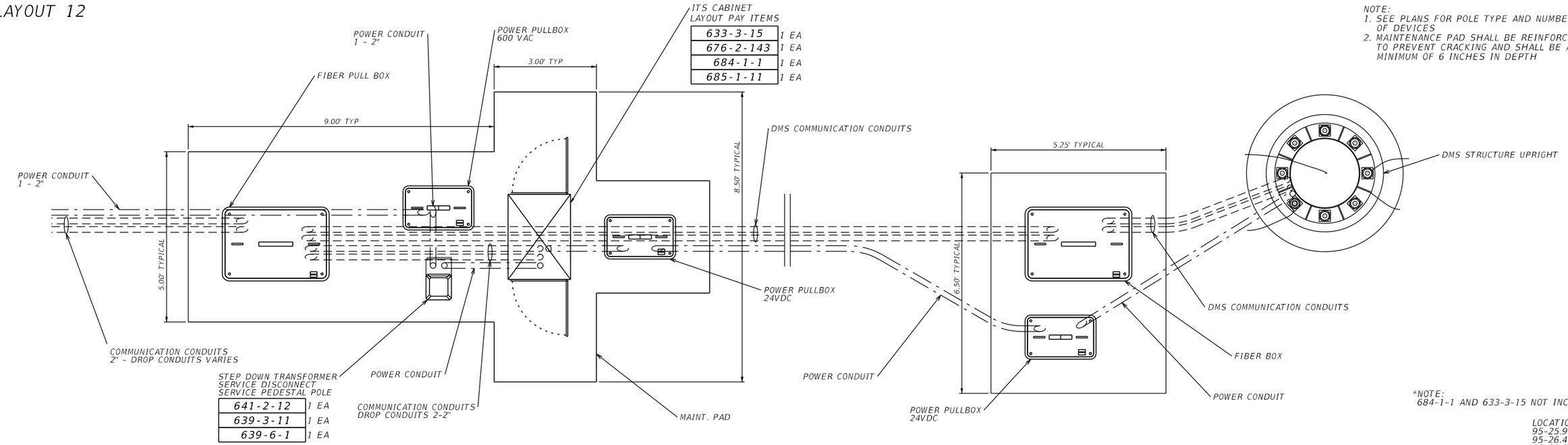


NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

LOCATIONS:
95-29.71 NB
95-30.12 NB
95-30.20 SB
95-30.41 NB
95-30.86 NB

TYPICAL S-DMS/T-DMS CABINET SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 12



NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*NOTE:
684-1-1 AND 633-3-15 NOT INCLUDED.

LOCATIONS:
95-25.93 NB
95-26.41 NB
95-29.51 SB
95-29.63 SB
*95-31.76B SB
*95-32.62 SB

TYPICAL S-DMS/T-DMS CABINET SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-212

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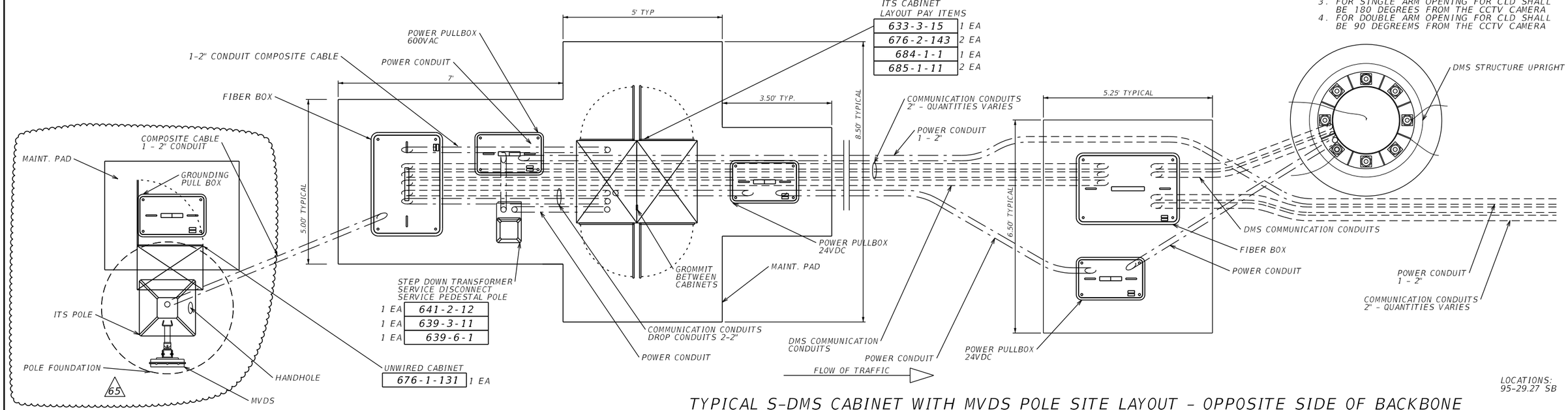
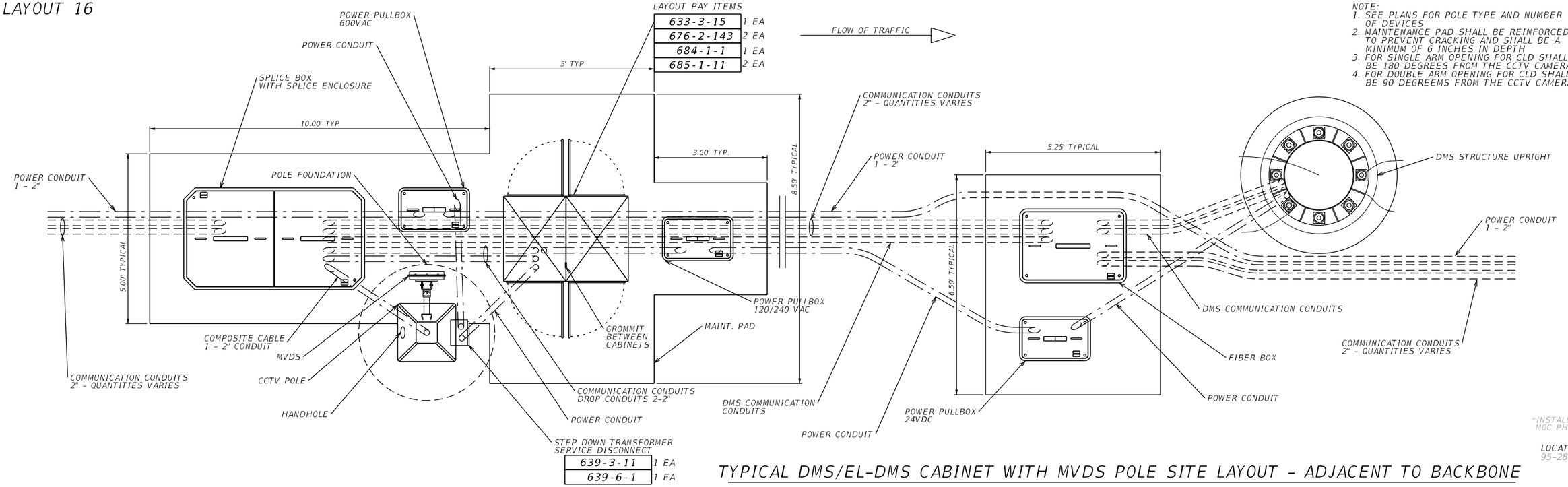
LAYOUT 15



LOCATIONS:
95-29.27 SB

TYPICAL S-DMS CABINET WITH MVDS POLE SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LAYOUT 16



*INSTALLED IN MOC PHASE I

LOCATIONS:
95-28.56 SB*

TYPICAL DMS/EL-DMS CABINET WITH MVDS POLE SITE LAYOUT - ADJACENT TO BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

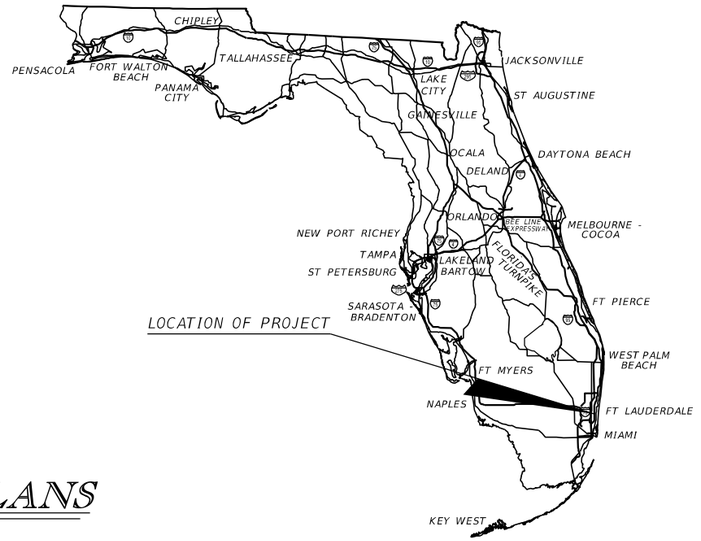
SITE LAYOUT DETAILS

SHEET NO.
IT-214

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION



CONTRACT PLANS

FINANCIAL PROJECT ID 433108-4-52-01

FINANCIAL PROJECT ID 428009-1-52-01

BROWARD COUNTY (86070)

(FEDERAL FUNDS)

STATE ROAD NO. 9

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

INDEX OF ITS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-156	KEY SHEET
IT-157F (84)	SIGNATURE SHEET
IT-158A TO IT-162B	TABULATION OF QUANTITIES
IT-163 TO IT-164	SUMMARY OF DEVICES
IT-167 TO IT-168	GENERAL NOTES
IT-171 TO IT-172	POLE DATA SHEET
IT-174	ITS LAYOUT SHEET
IT-185 TO IT-186	ITS PLAN SHEET
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IT-208 TO IT-211	STATUS DMS RISER DIAGRAM
IT-214	TOLL RATE DMS RISER DIAGRAM
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IT-270 TO IT-271	CCTV CAMERA LOWERING DEVICE
IT-279 TO IT-280	DUAL CCTV DETAIL
IT-283	ROUTE MARKER DETAIL
IT-288	FIBER OPTIC SPLICE BOX DETAIL
IT-293	ELECTRICAL PULL BOX DETAIL
IT-305	FIBER PULL BOX DETAIL
IT-308 TO IT-309	MFES PORT ALLOCATION
IT-323	MOUNTING DETAILS
IT-329	BRIDGE MOUNT DETAILS
IT-332	BRIDGE STRUCTURE MOUNT DETAILS
IT-335	CONCRETE SLOPE UNDERBRIDGE DETAIL
IT-338	ITS CABINET DETAIL
IT-341	RAMP SIGNAL CABINET DETAIL
IT-343	RAMP SIGNAL POLE DETAILS
IT-403 TO IT-404	FLASHING BEACON SIGN DETAIL
IT-415 TO IT-418A	MASTER HUB BUILDING
IT-420	MASTER HUB BUILDING GRADING PLAN
IT-440 TO IT-442	ITS DEVICE CROSS SECTION
IT-444	CANAL CROSSINGS
IT-457	

GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY 2015 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website:
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, 2015 Standard Specifications for Road and Bridge Construction at the following website:
http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

KEY SHEET REVISIONS

DATE	BY	DESCRIPTION
3/9/20	JK	(84) - ADDED SHEET 157F - WALL REVISION 5, 8, 10, 18, 25 - ADDED SHEET 418A

INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

JARED KNIGHT, P.E.
P.E. LICENSE NUMBER 74758
VANASSE HANGEN BRUSTLIN, INC.
225 EAST ROBINSON STREET, SUITE 300
ORLANDO, FL 32801
CONTRACT NO. 000819
VENDOR NO. VF-042-931-679-001
CERTIFICATE OF AUTHORIZATION 3932

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q32	15	IT-156

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors or omissions. Correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:RSOU VS Date: 6/11/2020
FPID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4Q96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

JARED N. KNIGHT
LICENSE
No 74758
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Jared N Knight

Digitally signed by Jared N Knight
Date: 2020.06.01 06:46:06 -04'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

VANASSE HANGEN & BRUSTLIN, INC.
225 E ROBINSON ST., SUITE 300
ORLANDO, FLORIDA 32801
CERTIFICATE OF AUTHORIZATION NO. 3932
JARED N. KNIGHT, P.E. NO. 74758

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-156	KEY SHEET
IT-157F	SIGNATURE SHEET
IT-158A TO IT-162B	TABULATION OF QUANTITIES
IT-163 TO IT-164	SUMMARY OF DEVICES
IT-167 TO IT-168	POLE DATA SHEET
IT-171 TO IT-172	ITS LAYOUT SHEET
IT-174	ITS LAYOUT SHEET
IT-179 TO IT-183	ITS PLAN SHEET
IT-185 TO IT-186	ITS PLAN SHEET
IT-190 TO IT-191	ITS PLAN SHEET
IT-195 TO IT-199	ITS PLAN SHEET
IT-202 TO IT-203	ITS PLAN SHEET
IT-208 TO IT-212	SITE LAYOUT DETAILS
IT-214	SITE LAYOUT DETAILS
IT-244	POWER SERVICE DETAILS
IT-249 TO IT-250	POWER SERVICE DETAILS
IT-260 TO IT-263	POWER SERVICE DETAILS
IT-265	POWER SERVICE DETAILS
IT-270 TO IT-271	SPLICING DIAGRAM
IT-275 TO IT-276	SPLICING DIAGRAM
IT-279 TO IT-280	SPLICING DIAGRAM
IT-283 TO IT-284	SPLICING DIAGRAM
IT-288	SPLICING DIAGRAM
IT-293	SPLICING DIAGRAM
IT-303	BROWARD SPLICING DIAGRAM
IT-305	BROWARD SPLICING DIAGRAM
IT-308 TO IT-309	NETWORK SCHEMATIC
IT-323	ITS CABINET DETAIL
IT-329	ITS CABINET DETAIL
IT-332	ITS CABINET DETAIL
IT-335	ITS CABINET DETAIL
IT-338	ITS CABINET DETAIL
IT-341	ITS CABINET DETAIL
IT-343	ITS CABINET DETAIL
IT-403 TO IT-404	ITS DEVICE CROSS SECTION
IT-415 TO IT-420	ITS DEVICE CROSS SECTION
IT-440 TO IT-442	ITS DEVICE CROSS SECTION
IT-444	ITS DEVICE CROSS SECTION
IT-457	ITS DEVICE CROSS SECTION

Vanita Saini, P.E., FDOT Design PM - This serves as concurrence to release for construction
2020.06.10 12:24:00-04'00'

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that all comments have been satisfactorily resolved
2020.06.08 08:36:39-04'00'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SIGNATURE SHEET

SHEET NO. IT-157F

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-175**		IT-176		IT-177		IT-178*		IT-179*		IT-180*		IT-181*		IT-182*		IT-183*		IT-184*		IT-185*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1435		110		540		1360		1810		1370		440		725		855		100		975		9720			
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	56						543		660		1125		160		200		748		215		280		3987			
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF			1470		540				340		30						100						2480			
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF									570														570			
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	441		520		570		2866		4440		1200				1350		2249		250		540		14426	84		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																										
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF		55							900														900			
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF																										
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF							100		100														200			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	4		4						54	84	8				16		24		4		8		122	84		
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	1										2				3		1				1		8			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	1		1						6		2				2		3				1		16			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA																										
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA			1						1								1		1				4			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF			1920				880		1240		1865		600						250		240		6995			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	3		4		5		4		14		16		1	65	5		9		6		6		73	65		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	2		2		4		3		2		3				2		2		1		2		23			
635-2-13	PULL & SPLICE BOX, 60"X30" RECTANGULAR	EA	1								2								1				1		5	84		
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA			3						9		2						1						15			
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS															1								1			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS							1		1														2			
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	1491		640		720		1773		1300		140				920		1203		100		795		9082			
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF	1250																						1250			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																	1						1			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																	1						1			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA																										
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA																	1						1			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA															1								1			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA							1																1			
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA									1														1			
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA											1								1				2			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA									1														1			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA	1						1		1		3				2								8			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																	2				1		3			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																										
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																					1		1	84		
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA											1												1			
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA							1				2								2				5			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS							2				4								4				10			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA									2		4								3				9			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS							4		8		10						4		8				34			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA									2				2		5		2				2		13			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA									2				2		5		2				2		13			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA			1				1																2			
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA			2				2																4			
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA			1				2	55															3			
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA							1		1												1		3			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 UPDATED DESIGN QUANTITIES	3/9/20	84 UPDATED DESIGN QUANTITIES
1/22/19	65 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-158A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
Acceptance of plans is contingent upon compliance with contract documents, responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: RPOO VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-175		IT-176		IT-177		IT-178*		IT-179*		IT-180*		IT-181*		IT-182*		IT-183*		IT-184*		IT-185*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA																										
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA	1		1				1		1		3						2				1		10			
682-1-400	ITS CCTV CAMERA, RELOCATE	EA			1																				1			
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA													1		1		1						3			
684-1-6	MANAGED FIELD ETHERNET SWITCH, REMOVE	EA									1		1		1		1		1						5	84		
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA			2																				2			
684-7	MANAGED ETHERNET HUB SWITCH	EA																										
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA																										
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS															1		1						2			
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS																										
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS									4		1						1						6			
700-2-60	MULTI-POST SIGN, REMOVE	AS																										
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA							1				2								2				5			
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA			2				2																4			
700-7-600	EMBEDDED DMS, REMOVE	EA									3						3								6			
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA					1				1														2			
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-8-600	FRONT ACCESS DMS, REMOVE	EA							1				1						1						3			
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-9-500	WALK-IN DMS, RELOCATE	EA																					1		1			
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS									4		1				1		2						8			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13,
660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-158B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
Review of plans, specifications, and other contract documents is no responsibility for errors and omissions. Correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4R96
BY: RDD VS Date: 6/11/2020

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																						TOTAL THIS SHEET		GRAND TOTAL	
			IT-186*		IT-187*		IT-188*		IT-189		IT-190		IT-191		IT-192		IT-193		IT-194*		IT-195*		IT-196*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	754	84	1639		1210				305	84	450	84	195		2850		2235		2665	42	1510		13813	42		
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	450	84	390		520				310		830		320		40		560		1699		480		5599	84		
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF			60														15		13				88			
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF			160														1350						1510			
632-7-1	SIGNAL CABLE- NEW, F&I	PI																								84		
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1620	84	380		1620				915	84	1650		690		430		435		540	38	655		8935	38		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF													635		1820		1860		2989	84	2040		9344			
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF			159		1770								1525		5550		5520		6528	42	4080		25132	42		
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55																								
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF															8400		8400				8400		25200			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	16		4		98				8		12		386		16		16		38		12		606			
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	2		1		3				1		2		5		4		4		6	84	3		31	84		
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	3		1		10				1		2		34		4		3		7		3		68			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA					1																		1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA	1										84								1	84			2			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF	420		1750		80				30		60				380		1155		300		800		4975			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	13	65	7		10	65			4	84	10	65	3		12	65	16	65	28	65	11	65	114	65		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	5		1		2				3		4		1		2		3		4		3		28			
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA	1	84			3								1		4		3		5		3		20	84		
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA			4														1		1				6			
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS											1								1				2			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																				38				38		
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	934	84	390		1480				920	84	1625	84	825		3360		3325		3890		1470		18219	84		
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF															2800		2800				1400		7000			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																										
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA													1										1			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA																										
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA											1								1				2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA	1				2				1												1		5			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA			2																				2			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA					1												2				2		5			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA			2						1				2		1				1				7			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA			1																	42			1	42		
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																			2				2			
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA															1				1				2			
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA							1				1								1				3			
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA	1				1												1		1		1		5			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS	2				2												2		2		2		10			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA	2				3												2		2		3		12			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	4				4												4		8		8		28			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA	1																						1			
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA	1																						1			
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA			1																				1			
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA			1																				1			
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA			1	55																	1	55	2	55		
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA													1										1			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT QUANTITIES	11/5/18	55 UPDATED DESIGN QUANTITIES
6/15/18	42 MSE WALL 15 ADJUST	1/22/19	65 UPDATED DESIGN QUANTITIES
		3/9/20	84 UPDATED DESIGN QUANTITIES

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-159A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
BY/PROD: VS Date: 6/11/2020
RELEASED FOR CONSTRUCTION
Reviewed for general conformance with contract documents. Contractor is responsible for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection. Shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4F66

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-186**		IT-187*		IT-188*		IT-189		IT-190		IT-191		IT-192		IT-193		IT-194*		IT-195*		IT-196*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA																										
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA			3		2								2		2		2		5		3		19			
682-1-400	ITS CCTV CAMERA, RELOCATE	EA																										
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA																										
684-1-6	MANAGED FIELD ETHERNET SWITCH, REMOVE	EA	84																									
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA																			3				3			
684-7	MANAGED ETHERNET HUB SWITCH	EA																										
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA																										
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS																										
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS			2																				2			
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS																	1		3				4			
700-2-60	MULTI-POST SIGN, REMOVE	AS		84																								
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA	1																1		1				3	84		
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA										84	1				2				1				4			
700-7-600	EMBEDDED DMS, REMOVE	EA																										
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA									1		2						2				1		6	84		
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA	1		1																				2			
700-8-600	FRONT ACCESS DMS, REMOVE	EA																										
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-9-500	WALK-IN DMS, RELOCATE	EA															1								1			
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS			2														1		3				6			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13,
660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO.
IT-159B

jknight 5/12/2020 4:35:32 PM C:\Work_Projects\62442.00\ITS\TABQIT01.DGN

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Acceptance of plans is conditioned upon compliance with contract documents. Acceptance is not responsibility for errors and omissions. Correctness of dimensions, grades, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F66

BY: RDD VS Date: 6/11/2020

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																						TOTAL THIS SHEET		GRAND TOTAL	
			IT-197*		IT-198		IT-199		IT-200*		IT-201*		IT-202*		IT-203		IT-204		IT-205		IT-206		IT-207					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1580	84	1040	47	1520	47	2387	65	2700	55	1805	55	500	84	530		870		880		710		14522	47 65 84		
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	877	84	1080	47	1020	84 65	375	65	1130		620				490		340		200		115		6247	55 84		
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF				84																						
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																										
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1695	84	1600	47	1970	47	940		1645		1785	55			1870								11505	47 84		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF	2747		1660		2070	84	1810		1165												65		9452	55		
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF	3964		3320		4140	65	3660	65	2145	55	1100	55		55			970		530				19829			
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55							75														75	55		
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF	9055		8400		8820	84	9800		6025		1400				440						84		43940			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	28		8		40		16		164		28	55		55	24								308	55		
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	4		1		4	84	2		6		4				1								22			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	4		1		5		3		6		4				2								25	84		
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA									1														1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																										
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF					200		850		1585		780	55											3415	55		
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	7	65	3		10	84	13	65	31		16		1		9		6		5		3		104	65		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	4		2		6	84	4		8	55	4				4								32	55		
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA	2		1		2		2		7		6		1		1		1		1				24	84		
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																										
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS						47			1														1			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS				47																				47		
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	2477	84	2120	84	2230	65 84	2175	65	3380		2835	55			880						84		16097	65 55		
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF	1400		1400		560				1150		1400												5910			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA															1								1			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																										
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA															1								1			
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA									1						1								2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA			1	84							1												2			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA	1				1				1														3			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA						84			1		1												2			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA															1								1	47		
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA					1	47	1		1						1								4	47		
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA	2					47			1														3	47		
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA	2	84	1		1		2		1		2	84											9	84		
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																										
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA							1		1		1												3			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS							2		2		2												6			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA							2		2		2												6			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS							4		12		4						2		4				26			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA	4		2		2		2		2		4												16			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA	4		2		2		3		2		4												17			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																										
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																										
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																										
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA																										

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST	1/22/19	65 UPDATED DESIGN QUANTITIES
11/5/18	55 UPDATED DESIGN QUANTITIES	3/9/20	84 UPDATED DESIGN QUANTITIES

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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-160A

BY: VS Date: 6/11/2020
RELEASED FOR CONSTRUCTION
Acceptance of plans, with contract documents, is no responsibility for errors and omissions; correctness of dimensions, grades, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4F96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-197*		IT-198		IT-199		IT-200*		IT-201*		IT-202*		IT-203		IT-204		IT-205		IT-206		IT-207					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA																										
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA	1		1		1	/84	2		6		4				2								17	/84		
682-1-400	ITS CCTV CAMERA, RELOCATE	EA																										
~~684-1-1~~	~~MANAGED FIELD ETHERNET SWITCH, F&I~~	~~EA~~																										
~~684-1-6~~	~~MANAGED FIELD ETHERNET SWITCH, REMOVE~~	~~EA~~	/84																									
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA					2																		2			
684-7	MANAGED ETHERNET HUB SWITCH	EA																										
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA																										
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS															1		2		2				5			
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS																										
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS									3												1		4			
700-2-60	MULTI-POST SIGN, REMOVE	AS																										
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA							1		1		1												3			
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA															4								4			
700-7-600	EMBEDDED DMS, REMOVE	EA																										
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA																										
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-8-600	FRONT ACCESS DMS, REMOVE	EA																										
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA							1				1												2			
700-9-500	WALK-IN DMS, RELOCATE	EA																										
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS									3								2		2		1		8			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13,
660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	/84 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-160B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY/RQD VS Date: 6/11/2020
RELEASED FOR CONSTRUCTION
Released for construction with contract documents, but responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4R96

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-208*		IT-209		IT-210		IT-211		IT-212		IT-213*		IT-214*		IT-215*		IT-216		IT-217*		IT-218*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF																										
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF																										
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF																										
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																										
632-7-1	SIGNAL CABLE- NEW, F&I	PI															2		5		1		4		12			
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF																										
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																										
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF		55																								
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55																								
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF																										
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA																										
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA																										
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA																										
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA	32	84	7	84	4		6		9		3		1		4		5		2		4		77	84		
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA																										
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																										
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF																										
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA																										
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA																										
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA																										
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																										
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS																										
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																										
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF																										
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																										
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	32	84	7	84	4		6		11		3		1		4		5		1		4		78	84		
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																										
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA	32	84	7	84	4		6		11		3		1		4		5		1		4		78	84		
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA					2		6		11						2		5						26			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA																										
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA																										
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA																										
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA																										
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																										
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																										
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																										
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																										
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA																										
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS																										
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA																										
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS																										
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA															2		5		1		4		12			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA																										
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																										
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																										
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA															2		5		1		4		12			
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA					2								1										3			
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA	32	84	7	84	2																		41	84		
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA					2																		2			
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA							6		11		3		2		6		5		3		4		40			
676-2-600	ITS CABINET, REMOVE	EA																										

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 UPDATED DESIGN QUANTITIES		
3/9/20	84 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-161A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
BY:RPOO VS Date: 6/11/2020
RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors and omissions. Correctness of dimensions, grades, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-208*		IT-209		IT-210		IT-211		IT-212		IT-213*		IT-214*		IT-215*		IT-216		IT-217*		IT-218*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA																										
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA																										
682-1-400	ITS CCTV CAMERA, RELOCATE	EA																										
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA	32	84	7	84	4		6		9		3		1		4		5		2		4		77	84		
684-1-6	MANAGED FIELD ETHERNET SWITCH, REMOVE	EA	84																									
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA																										
684-7	MANAGED ETHERNET HUB SWITCH	EA																										
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA	32	84	7	84	4		6		11		3		2		6		5		3		4		83	84		
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS																										
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS																										
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS																										
700-2-60	MULTI-POST SIGN, REMOVE	AS																										
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA																										
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA																										
700-7-600	EMBEDDED DMS, REMOVE	EA																										
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA																										
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-8-600	FRONT ACCESS DMS, REMOVE	EA																										
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-9-500	WALK-IN DMS, RELOCATE	EA																										
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS																										

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13,
660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-161B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY: RPOD VS Date: 6/11/2020
RELEASED FOR CONSTRUCTION
Released for construction with contract documents. Is responsibility for errors and omissions, correctness of dimensions, grades, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-219		IT-220		IT-221		IT-222																	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF																							38055	42
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF																							15833	65 84
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF																							2568	
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																							2080	
632-7-1	SIGNAL CABLE- NEW, F&I	PI																							12	
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF																							34866	38
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																							18796	65
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF																							45861	84 42
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55																					75	
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF																							69340	84
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA																							1036	
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA																							62	
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA																							109	
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																							77	
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA							4														4		6	
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																							6	
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF																							15385	
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA			4		4		4														12		303	65
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA																							83	
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA																							49	84
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																							21	
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																								
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS																							4	
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																							2	38
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF																							43398	65 84
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																							14160	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA			5		5		5														15		95	84
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA			1		1		1														3		3	
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																							2	
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA			2		2		2														6		85	84
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA			4		4		4														12		43	
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA																							8	
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																							1	
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																							1	
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA																							7	
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA																							8	
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA																							16	
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																							8	42
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																							5	47
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																							12	84
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																							4	
643-1	GUYING WOOD STRAIN POLE, F&I	EA																								
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA																							13	
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS																							26	
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA																							27	
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS																							88	
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA																							55	
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA																							44	
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																							3	
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																							5	
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																							1	
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																							1	
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																								
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																							12	
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																							8	55
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																							41	
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																							2	84
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																							40	
676-2-600	ITS CABINET, REMOVE	EA																							4	

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT QUANTITIES	11/5/18	55 UPDATED DESIGN QUANTITIES
6/15/18	MSE WALL 15 ADJUST 42	1/22/19	UPDATED DESIGN QUANTITIES 65
7/31/18	47 MSE WALL 21 ADJUST	3/9/20	84 UPDATED DESIGN QUANTITIES

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-162A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
BY:RPOO VS Date: 6/11/2020
RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors and omissions. Correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-219		IT-220		IT-221		IT-222																	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA							1														1		1	
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA																							46	84
682-1-400	ITS CCTV CAMERA, RELOCATE	EA																							1	
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA																							80	
684-1-6	MANAGED FIELD ETHERNET SWITCH, REMOVE	EA	84																						5	84
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA																							7	
684-7	MANAGED ETHERNET HUB SWITCH	EA							1														1		1	
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA																							83	
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS																							7	
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS																							2	
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																								
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS																							14	
700-2-60	MULTI-POST SIGN, REMOVE	AS																								
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA																							11	84
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA																							12	
700-7-600	EMBEDDED DMS, REMOVE	EA																							6	
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA																							8	84
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																							2	
700-8-600	FRONT ACCESS DMS, REMOVE	EA																							3	
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																							2	
700-9-500	WALK-IN DMS, RELOCATE	EA																							2	
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																								
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS																							22	

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13,
660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-162B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY: RPOO VS Date: 6/11/2020
RELEASED FOR CONSTRUCTION
Released for construction, in accordance with contract documents, is responsibility for errors and omissions; correctness of dimensions, grades, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

	DEVICE	STATION	LOCAL HUB	NO. OF CCTV'S	DIRECTED TOWARDS	PLAN SHEET
1	CCTV 95-25.28 NB	1927+00	LHUB 95-25.28 NB	1	T-DMS 95-25.58 NB	IT-175
2	CCTV 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	S-DMS 95-25.98 NB	IT-176
3	CCTV 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	MAINLINE	IT-176
4	CCTV 95-26.06 NB	1968+90	LHUB 95-26.09 NB	1	T-DMS 95-26.13 NB	IT-178
5	CCTV 95-26.30 NB	1980+90	LHUB 95-26.30 NB	1	S-DMS 95-26.44 NB	IT-179
6	CCTV 95-26.38 SB	1984+40	RSC 95-26.38 SB	1	RAMP A	IT-179
7	CCTV 95-26.44 EB/WB	1988+31	LHUB 95-26.30 NB	1	DAVIE BLVD	IT-179
8	CCTV 95-26.59 NB	1996+10	RSC 95-26.59 NB	1	RAMP	IT-180
9	CCTV 95-26.63 SB	1998+70	LHUB 95-26.63 SB	1	MAINLINE	IT-180
10	CCTV 95-26.71 NB	2002+80	RSC 95-26.71 NB	1	SUPPLEMENTAL	IT-180
11	CCTV 95-26.83 SB	2009+05	LHUB 95-26.83 SB	1	RAMP E	IT-181
12	CCTV 95-27.30 NB	2034+60	LHUB 95-27.30 NB	1	MAINLINE	IT-182
13	CCTV 95-27.36 SB	2036+83	LHUB 95-27.36 SB	1	MAINLINE	IT-183
14	CCTV 95-27.41 SB	2039+50	LHUB 95-27.36 SB	1	SUPPLEMENTAL	IT-183
15	CCTV P&R-1		LHUB P&R-1	1	T-DMS P&R-1	IT-183
16	CCTV 95-27.50 NB	2044+50	LHUB 95-27.50 NB	1	RAMP G	IT-183
17	CCTV 95-27.53 SB	2046+00	LHUB 95-27.53 SB	1	MAINLINE	IT-183
18	CCTV 95-27.65 NB	2052+26	LHUB 95-27.65 NB	1	MAINLINE	IT-184
19	CCTV 95-28.10 NB	2076+00	LHUB 95-28.10 NB	1	MAINLINE	IT-185
20	CCTV 95-28.30 SB	2086+85	LHUB 95-28.30 SB	1	MAINLINE	IT-186
21	CCTV 95-28.47 SB	2095+60	LHUB 95-28.47 SB	1	RAMP I	IT-187
22	CCTV 95-28.63 NB	2104+20	LHUB 95-28.63 NB	1	MAINLINE	IT-187
23	CCTV 95-28.63 NB	2104+15	LHUB 95-28.63 NB	1	RAMP K-1	IT-187
24	CCTV 95-28.69 NB	2107+00	RSC 95-28.69 NB	1	TOLL PLAZA	IT-188
25	CCTV 95-28.69 NB	2107+00	RSC 95-28.69 NB	1	FUTURE T-DMS	IT-188
26	CCTV 95-29.11 SB	2129+25	LHUB 95-29.11 SB	1	MAINLINE	IT-189
27	CCTV 95-29.55 SB	2152+50	LHUB 95-29.55 SB (84)	1	T-DMS 95-29.50 SB	IT-191
28	CCTV 95-29.55 SB	2152+50 (84)	LHUB 95-29.55 SB	1	S-DMS 95-29.33 SB	IT-191
29	CCTV 95-29.57 NB	(84) 2153+60	LHUB 95-29.57 NB	1	MAINLINE	IT-191
30	CCTV 95-29.83 SB	2167+60	LHUB 95-29.83 SB	1	S-DMS 95-29.68 SB	IT-192
31	CCTV 95-29.83 NB	2167+40	LHUB 95-29.83 NB	1	EX. DMS 95-29.99 NB	IT-192
32	CCTV 95-30.08 SB	2180+70	LHUB 95-30.05 SB	1	MAINLINE	IT-193
33	CCTV 95-30.08 NB	2180+70	LHUB 95-30.08 NB	1	T-DMS 95-30.16 NB	IT-193
34	CCTV 95-30.33 SB	2194+00	LHUB 95-30.33 SB	1	T-DMS 95-30.14 SB	IT-194
35	CCTV 95-30.33 NB	2193+70	LHUB 95-30.33 NB	1	S-DMS 95-30.45 NB	IT-194
36	CCTV 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	RAMP M	IT-195
37	CCTV 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	S-DMS 95-30.30 SB	IT-195
38	CCTV 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	MAINLINE	IT-195
39	CCTV 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	T-DMS 95-30.75 NB	IT-195
40	CCTV 95-30.78 SB	2217+45	RSC 95-30.78 SB	1	RAMP P-2	IT-195
41	CCTV 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	S-DMS 95-30.90 NB	IT-196
42	CCTV 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	RAMP O-2	IT-196
43	CCTV 95-30.87 NB	2223+00	LHUB 95.30.86 NB	1	RAMP O-1	IT-196
44	CCTV 95-31.08 SB	2234+00	LHUB 95-31.08 SB	1	MAINLINE	IT-197
45	CCTV 95-31.54 NB (47)	2257+75	LHUB 95-31.54 NB	1	MAINLINE	IT-198
46	CCTV 95-31.76 SB	2269+50	LHUB 95-31.76 SB	1	FUTURE T-DMS	IT-199
47	CCTV 95-31.95 SB	2280+50	LHUB 95-31.95 SB	1	MAINLINE	IT-200
48	CCTV 95-32.08 SB	2286+00	RSC 95-32.08 SB	1	RAMP U	IT-200
49	CCTV 95-32.14 SB	2289+20	LHUB 95-32.14 SB	1	EL-DMS 95-32.06 SB	IT-201
50	CCTV 95-32.17 NB	2291+00	LHUB 95-32.17 NB	1	TOLL PLAZA	IT-201
51	CCTV 95-32.27 SB	2296+30	LHUB 95-32.27 SB	1	MHUB 95-32.26	IT-201
52	CCTV 95-32.27 SB	2296+30	LHUB 95-32.27 SB	1	RAMP Q	IT-201
53	CCTV 95-32.35 NB	2300+75	LHUB 95-32.35 NB	1	TOLL PLAZA SUPPLEMENT	IT-201
54	CCTV 95-32.35 NB (55)	2300+75	LHUB 95-32.35 NB	1	RAMP U	IT-201
55	CCTV 95-32.38 SB	2302+00 (84)	LHUB 95-32.38 SB	1	RAMP T	IT-202
56	CCTV 95-32.39 NB	2302+55	LHUB 95-32.39 NB	1	MAINLINE	IT-202
57	CCTV 95-32.39 NB	2302+55	LHUB 95-32.39 NB	1	RAMP S	IT-202
58	CCTV 95-32.64 SB	2315+90	LHUB 95-32.64 SB	1	FUTURE T-DMS	IT-202
59	CCTV P&R-3	130+25	LHUB P&R-3	1	T-DMS P&R-3	IT-204
60	CCTV P&R-4	132+20	LHUB P&R-4	1	T-DMS P&R-4	IT-204

	DEVICE	STATION	LOCAL HUB	NO. OF WAP'S	PLAN SHEET
1	WAP 95-25.23 NB	1924+80	LHUB 95-25.23 NB	1	IT-175
2	WAP 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	IT-176
3	WAP 95-26.44 EB/WB	1988+31	LHUB 95-26.41 NB	2	IT-179
4	WAP P&R-1		LHUB P&R-1	1	IT-183
5	WAP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	3	IT-183
6	WAP 95-28.30 SB	2086+85	LHUB 95-28.30 SB	2	IT-186
7	WAP 95-30.70 NB	2213+55	LHUB 95-30.70 NB	2	IT-195
8	WAP 95-31.76 SB	2269+50	LHUB 95-31.76	1	IT-199
9	WAP 95-32.32 SB	2298+95	LHUB 95-32.35 NB	2	IT-201

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	T-DMS 95-25.58 NB	1943+30	LHUB 95-25.63 NB	IT-176
2	S-DMS 95-25.98 NB	1963+80	LHUB 95-25.93 NB	IT-177
3	T-DMS 95-26.13 NB	1972+44	LHUB 95-26.09 NB	IT-178
4	S-DMS 95-26.44 NB	1988+30	LHUB 95-26.41 NB	IT-179
5	DMS 95-26.55 SB	1994+18	LHUB 95-26.55 SB	IT-180
6	DMS 95-27.41 NB	2039+80	LHUB 95-27.41 NB	IT-183
7	DMS 95-28.10 SB	2076+10	LHUB 95-28.16 SB	IT-185
8	EL-DMS 95-28.33 NB	2088+00	LHUB 95-28.29 NB	IT-186
9	EL-DMS 95-28.53 SB	2098+90	LHUB 95-28.56 SB	IT-187
10	S-DMS 95-29.33 SB	2141+24	LHUB 95-29.27 SB	IT-190
11	T-DMS 95-29.50 SB	2149+90	LHUB 95-29.51 SB	IT-191
12	S-DMS 95-29.68 SB	2159+60 (84)	LHUB 95-29.73 NB	IT-191
13	S-DMS 95-29.68 NB	2159+71	LHUB 95-29.71 SB	IT-191
14	DMS 95-29.99 SB	2175+60	LHUB 95-29.99 SB	IT-192
15	DMS 95-29.99 NB	2176+10	LHUB 95-29.95 NB	IT-192
16	T-DMS 95-30.14 SB	2183+95	LHUB 95-30.20 SB	IT-193
17	T-DMS 95-30.16 NB	2184+80	LHUB 95-30.12 NB	IT-193
18	S-DMS 95-30.3 SB	2192+00	LHUB 95-30.33 SB	IT-194
19	S-DMS 95-30.45 NB	2200+00	LHUB 95-30.41 NB	IT-194
20	T-DMS 95-30.75 NB	2215+80	LHUB 95-30.70 NB	IT-195
21	S-DMS 95-30.9 NB	2224+00	LHUB 95-30.86 NB	IT-196
22	EL-DMS 95-32.06 SB	2285+00	LHUB 95-32.09 SB	IT-200
23	DMS 95-32.58 NB	2313+00	LHUB 95-32.55 NB	IT-202
24	T-DMS P&R-3	130+25	LHUB P&R-3	IT-204
25	T-DMS P&R-4	132+20	LHUB P&R-4	IT-204

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	GEN 95-27.43 NB	2040+92	GEN 95-27.43 NB	IT-183
2	GEN 95-29.58 NB	2154+40	GEN 95-29.58 NB	IT-191
3	GEN 95-32.26 SB	2295+50	GEN 95-32.26 SB	IT-201

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	(47) CCTV POLE UPDATE	3/9/20	(84) MSE 5, 8, 10, 18, 25 ADJUSTMENT
11/5/18	(55) CCTV POLE UPDATE		

Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SUMMARY OF DEVICES

SHEET NO. IT-163

RELEASED FOR CONSTRUCTION
Plans shall be used in conjunction with contract documents. No responsibility for errors and omissions. Correctness of dimensions, grades, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: RJOO VS Date: 6/11/2020
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4F96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

	DEVICE	STATION	LOCAL HUB	NO. OF MVDS'S	PLAN SHEET
1	MVDS 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	IT-176
2	MVDS 95-25.58 SB	1943+30	LHUB 95-25.63 NB	1	IT-176
3	MVDS 95-26.13 NB	1972+44	LHUB 95-26.09 NB	1	IT-178
4	MVDS 95-26.13 SB	1972+44	LHUB 95-26.09 NB	1	IT-178
5	MVDS 95-26.30 NB	1980+90	LHUB 95-26.30 NB	1	IT-179
6	MVDS 95-26.47 NB	1990+15	LHUB 95-26.47 NB	2	IT-180
7	MVDS 95-26.86 SB	2010+60	LHUB 95-26.86 SB	2	IT-181
8	MVDS 95-26.86 NB	2010+60	LHUB 95-26.86 NB	2	IT-181
9	MVDS 95-27.10 SB	2023+50	LHUB 95-27.10 SB	2	IT-182
10	MVDS 95-27.13 NB	2024+90	LHUB 95-27.13 NB	1	IT-182
11	MVDS 95-27.20 NB	2028+70	LHUB 95-27.20 SB	4	IT-182
12	MVDS 95-27.30 SB	2033+70	LHUB 95-27.30 SB	2	IT-182
13	MVDS 95-27.30 NB	2034+60	LHUB 95-27.30 NB	1	IT-182
14	MVDS 95-27.50 NB	2044+50	LHUB 95-27.50 NB	1	IT-183
15	MVDS 95-27.53 SB	2046+00	LHUB 95-27.53 SB	1	IT-183
16	MVDS 95-27.65 NB	2052+26	LHUB 95-27.65 NB	2	IT-184
17	MVDS 95-27.95 SB	2068+00	LHUB 95-27.95 SB	1	IT-185
18	MVDS 95-27.95 NB	2067+65 (84)	LHUB 95-27.98 NB	1	IT-185
19	MVDS 95-28.10 SB	2075+90 (84)	LHUB 95-28.10 SB	1	IT-185
20	MVDS 95-28.10 NB	2076+00	LHUB 95-28.10 NB	1	IT-185
21	MVDS 95-28.30 SB	2086+85	LHUB 95-28.30 SB	1	IT-186
22	MVDS 95-28.31 NB	2087+19	LHUB 95-28.31 NB	1	IT-186
23	MVDS 95-28.56 SB	2100+20	LHUB 95-28.56 SB	1	IT-187
24	MVDS 95-28.56 NB	2100+20	LHUB 95-28.56 NB	1	IT-187
25	MVDS 95-28.82 NB	2114+00	LHUB 95-28.82 NB	1	IT-188
26	MVDS 95-28.85 SB	2115+60	LHUB 95-28.85 SB	1	IT-188
27	MVDS 95-29.11 SB	2129+25	LHUB 95-29.11 SB	1	IT-189
28	MVDS 95-29.10 NB	2128+80	LHUB 95-29.10 NB	1	IT-189
29	MVDS 95-29.28 SB	2138+50	LHUB 95-29.28 SB (84)	1	IT-190
30	MVDS 95-29.33 NB	2141+20	LHUB 95-29.33 NB	1	IT-190
31	MVDS 95-29.57 NB	2153+60 (84)	LHUB 95-29.57 NB	1	IT-191
32	MVDS 95-29.55 SB	2152+50	LHUB 95-29.55 SB (84)	1	IT-191
33	MVDS 95-29.83 SB	2167+60	LHUB 95-29.83 SB	1	IT-192
34	MVDS 95-29.83 NB	2167+40	LHUB 95-29.83 NB	1	IT-192
35	MVDS 95-30.08 SB	2180+70	LHUB 95-30.05 SB	1	IT-193
36	MVDS 95-30.08 NB	2180+70	LHUB 95-30.08 NB	1	IT-193
37	MVDS 95-30.33 SB	2194+00	LHUB 95-30.33 SB	1	IT-194
38	MVDS 95-30.33 NB	2193+70	LHUB 95-30.33 NB	1	IT-194
39	MVDS 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	IT-195

	DEVICE	STATION	LOCAL HUB	NO. OF MVDS'S	PLAN SHEET
40	MVDS 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	IT-195
41	MVDS 95-30.83 SB	2220+15	LHUB 95-30.83 SB	1	IT-196
42	MVDS 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	IT-196
43	MVDS 95-31.08 SB	2234+00	LHUB 95-31.08 SB	1	IT-197
44	MVDS 95-31.08 NB	2233+40	LHUB 95-31.08 NB	1	IT-197
45	MVDS 95-31.28 SB	2243+75	LHUB 95-31.28 SB	1	IT-197
46	MVDS 95-31.28 NB	2243+95	LHUB 95-31.28 NB	1	IT-197
47	MVDS 95-31.55 SB	2258+15	LHUB 95-31.55 SB (84)	1	IT-198
48	MVDS 95-31.54 NB	2257+75 (47)	LHUB 95-31.54 NB	1	IT-198
49	MVDS 95-31.76 SB	2269+50	LHUB 95-31.76 SB	1	IT-199
50	MVDS 95-31.76 NB	2269+20	LHUB 95-31.76 NB	1	IT-199
51	MVDS 95-31.95 SB	2280+50	LHUB 95-31.95 SB	1	IT-200
52	MVDS 95-31.95 NB	2279+50	LHUB 95-31.81 NB	2	IT-200
53	MVDS 95-32.14 SB	2289+20	LHUB 95-32.14 SB	1	IT-201
54	MVDS 95-32.17 NB	2291+00	LHUB 95-32.17 NB	1	IT-201
55	MVDS 95-32.38 SB	2302+00	LHUB 95-32.38 SB (84)	1	IT-202
56	MVDS 95-32.39 NB	2302+55 (55)	LHUB 95-32.39 NB	1	IT-202
57	MVDS 95-32.64 SB	2315+90	LHUB 95-32.64 SB	1	IT-202
58	MVDS 95-32.64 NB	2315+85	LHUB 95-32.64 NB	1	IT-202

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	VOIP 95-26.30 NB	1980+90	LHUB 95-26.30 NB	IT-179
2	VOIP 95-25.58 NB	1943+30	LHUB 95-25.63 NB	IT-176
3	VOIP 95-26.55 SB	1994+18	LHUB 95-26.55 SB	IT-180
4	VOIP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	IT-183
5	VOIP 95-28.30 SB	2086+85	LHUB 95-28.30 SB	IT-186
6	VOIP 95-29.11 SB	2129+25	LHUB 95-29.11 SB	IT-189
7	VOIP 95-29.55 SB	2152+50	LHUB 95-29.55 SB (84)	IT-191
8	VOIP 95-30.70 NB	2213+55	LHUB 95-30.70 NB	IT-195
9	VOIP 95-31.76 SB	2269+50	LHUB 95-31.76 SB	IT-199

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	(47) CCTV POLE UPDATE	3/9/20	(84) MSE 5, 8, 10, 18, 25 ADJUSTMENT
11/5/18	(55) CCTV POLE UPDATE		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SUMMARY OF DEVICES

SHEET NO. IT-164

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors or omissions. Correctness of dimensions, grades, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:(PRO) VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

	DEVICE	STATION	LOCAL HUB	PLAN SHEET	ABOVE GROUND HEIGHT (FT)	POLE LENGTH (FT)	EMBEDMENT LENGTH (FT)	NOTES
1	WAP 95-25.23 NB	1924+80	LHUB 95-25.23 NB	IT-175	-	-	-	EXIST.
2	CCTV 95-25.28 NB	1927+00	LHUB 95-25.28 NB	IT-175	50	69	19	CCTV POLE
3	CCTV 95-26.06 NB	1968+90	LHUB 95-26.09 NB	IT-178	50	69	19	CCTV POLE
4	CCTV, MVDS, VOIP 95-26.30 NB	1980+90	LHUB 95-26.30 NB	IT-179	-	-	-	EXIST.
5	CCTV 95-26.38 SB	1984+40	RSC 95-26.38 SB	IT-179	30	43	13	CCTV POLE*
6	MVDS (2) 95-26.47 NB	1990+15	LHUB 95-26.47 NB	IT-179	45	69	24	CCTV POLE
7	CCTV 95-26.59 NB	1996+10	RSC 95-26.59 NB	IT-180	50	69	19	CCTV POLE
8	CCTV 95-26.63 SB	1998+70	LHUB 95-26.63 SB	IT-180	50	69	19	CCTV POLE
9	CCTV 95-26.71 NB	2002+80	RSC 95-26.71	IT-180	50	69	19	CCTV POLE
10	CCTV 95-26.83 SB	2009+05	LHUB 95-26.83 SB	IT-181	-	-	-	EXIST.
11	MVDS (2) 95-26.86 NB	2010+60	LHUB 95-26.86 NB	IT-181	41	60	19	TYPE IV
12	MVDS (2) 95-26.86 SB	2010+60	LHUB 95-26.86 SB	IT-181	38	54	16	TYPE IV
13	MVDS (2) 95-27.10 SB	2023+50	LHUB 95-27.10 SB	IT-182	50	69	19	CCTV POLE
14	MVDS 95-27.13 NB	2024+90	LHUB 95-27.13 NB	IT-182	28	44	16	TYPE IV
15	MVDS (2) 95-27.30 SB	2033+70	LHUB 95-27.30 SB	IT-182	50	69	19	CCTV POLE
16	CCTV, MVDS 95-27.30 NB	2034+60	LHUB 95-27.30 NB	IT-182	-	-	-	EXIST.
17	VOIP, WAP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	IT-183	-	-	-	EXIST.
18	CCTV, MVDS 95-27.50 NB	2044+50	LHUB 95-27.50 NB	IT-183	50	75	25	CCTV POLE
19	CCTV, MVDS 95-27.53 SB	2046+00	LHUB 95-27.53 SB	IT-183	55	75	20	CCTV POLE
20	CCTV, MVDS (2) 95-27.65 MD	2052+26	LHUB 95-27.65 NB	IT-185	-	-	-	EXIST.
21	MVDS 95-27.95 SB	2068+00	LHUB 95-27.95 SB	IT-185	50	69	19	CCTV POLE
22	MVDS 95-27.95 NB	2067+65	LHUB 95-27.98 NB	IT-185	26	46	20	TYPE IV
23	MVDS 95-28.10 SB	2075+90	LHUB 95-28.10 SB	IT-185	61	86	25	CCTV POLE 84
24	CCTV, MVDS 95-28.10 NB	2076+00	LHUB 95-28.10 NB	IT-185	50	75	25	CCTV POLE
25	CCTV, MVDS, VOIP, WAP (2) 95-28.30 SB	2086+85	LHUB 95-28.30 SB	IT-186	67	86	19	CCTV POLE
26	MVDS 95-28.31 NB	2087+19	LHUB 95-28.31 NB	IT-186	32	50	18	TYPE IV
27	CCTV 95-28.47 SB	2095+60	LHUB 95-28.47 SB	IT-187	55	75	20	CCTV POLE
28	MVDS 95-28.56 NB	2100+20	LHUB 95-28.56 NB	IT-187	39	56	17	TYPE IV
29	MVDS 95-28.56 SB	2100+20	LHUB 95-28.56 SB	IT-187	30	46	16	TYPE IV
30	CCTV 95-28.63 NB	2104+20	LHUB 95-28.63 NB	IT-187	49	69	20	CCTV POLE
31	CCTV 95-28.63 NB	2104+15	LHUB 95-28.63 NB	IT-187	50	69	19	CCTV POLE
32	CCTV (2) 95-28.69 NB	2107+00	RSC 95-28.69 NB	IT-188	44	63	19	CCTV POLE
33	MVDS 95-28.82 NB	2114+00	LHUB 95-28.82 NB	IT-188	28	44	16	TYPE IV
34	MVDS 95-28.85 SB	2115+60	LHUB 95-28.85 SB	IT-188	35	52	17	TYPE IV
35	CCTV, MVDS, VOIP 95-29.11 SB	2129+25	LHUB 95-29.11 SB	IT-189	60	80	20	CCTV POLE
36	MVDS 95-29.10 NB	2128+80	LHUB 95-29.10 NB	IT-189	50	69	19	CCTV POLE
37	MVDS 95-29.28 SB	2138+50	LHUB 95-29.28 SB	IT-190	40	60	20	TYPE IV 84

* NOTE: CONTRACTOR SHALL PROVIDE SIGNED AND SEALED STRUCTURAL DRAWINGS FOR CUSTOM CCTV POLES.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

Vanasse Hangen Brustlin, Inc.
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POLE DATA SHEET

SHEET NO. IT-167

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors or omissions. Correctness of dimensions, grades, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:RPOO VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

	DEVICE	STATION	LOCAL HUB	PLAN SHEET	ABOVE GROUND HEIGHT (FT)	POLE LENGTH (FT)	EMBEDMENT LENGTH (FT)	NOTES
38	MVDS 95-29.33 NB	2141+20	LHUB 95-29.33 NB	IT-190	50	69	19	CCTV POLE
39	CCTV, MVDS 95-29.57 NB 84	2153+60	LHUB 95-29.58 NB	IT-191	65	86	21	CCTV POLE
40	CCTV (2), MVDS, VOIP 95-29.55 SB 84	2152+50	LHUB 95-29.55 SB	IT-191	60	80	20	CCTV POLE
41	CCTV, MVDS 95-29.83 SB	2167+60	LHUB 95-29.83 SB	IT-192	49	69	20	CCTV POLE
42	CCTV, MVDS 95-29.83 NB	2167+40	LHUB 95-29.83 NB	IT-192	50	69	19	CCTV POLE
43	CCTV, MVDS 95-30.08 SB	2180+70	LHUB 95-30.05 SB	IT-193	67	86	19	CCTV POLE
44	CCTV, MVDS 95-30.08 NB	2180+70	LHUB 95-30.08 NB	IT-193	50	69	19	CCTV POLE
45	CCTV, MVDS 95-30.33 SB	2194+00	LHUB 95-30.33 SB	IT-194	44	63	19	CCTV POLE
46	CCTV, MVDS 95-30.33 NB	2193+70	LHUB 95-30.33 NB	IT-194	44	63	19	CCTV POLE
47	CCTV (2), MVDS 95-30.57 SB	2206+50	LHUB 95-30.57 SB	IT-195	65	86	21	CCTV POLE
48	CCTV (2), MVDS 95-30.61 NB	42 2209+20	LHUB 95-30.61 NB	IT-195	62	80	18 42	CCTV POLE
49	WAP (2), VOIP 95-30.7 NB	2213+55	LHUB 95-30.7 NB	IT-195	60	80	20	CCTV POLE
50	CCTV 95-30.78 SB	2217+45	RSC 95-30.78 SB	IT-195	50	69	19	CCTV POLE
51	MVDS 95-30.83 SB	2220+15	LHUB 95-30.83 SB	IT-196	40.5	60	19.5	TYPE IV
52	CCTV (2), MVDS 95-30.83 NB	2220+20	LHUB 95-30.83 NB	IT-196	44	63	19	CCTV POLE
53	CCTV 95-30.87 NB	2223+00	LHUB 95-30.86 NB	IT-196	44	63	19	CCTV POLE
54	CCTV, MVDS 95-31.08 SB	2234+00	LHUB 95-31.08 SB	IT-197	65	86	21	CCTV POLE
55	MVDS 95-31.08 NB	2233+40	LHUB 95-31.08 NB	IT-197	60	80	20 84	CCTV POLE
56	MVDS 95-31.28 SB	2243+75	LHUB 95-31.28 SB	IT-197	55	80	25	CCTV POLE
57	MVDS 95-31.28 NB	2243+95	LHUB 95-31.28 NB	IT-197	65	86	21	CCTV POLE
58	MVDS 95-31.55 SB 84	2258+15	LHUB 95-31.55 SB	IT-198	46	62	16	TYPE IV
59	CCTV, MVDS 95-31.54 NB	2257+75 47	LHUB 95-31.54 NB	IT-198	47 65	86	21	CCTV POLE
60	CCTV, MVDS, VOIP, WAP 95-31.76 SB	2269+50	LHUB 95-31.76 SB	IT-199	56	75	19 84	CCTV POLE
61	MVDS 95-31.76 NB	2269+20	LHUB 95-31.76 NB	IT-199	47 61	86	25	CCTV POLE
62	CCTV, MVDS 95-31.95 SB	2280+50	LHUB 95-31.95 SB	IT-200	60	86	26	CCTV POLE
63	MVDS (2) 95-31.95 NB	2279+50	LHUB 95-31.81 SB	IT-200	65	86	21	CCTV POLE
64	CCTV 95-32.08 SB	2286+00	RSC 95-32.08 SB	IT-200	50	75	25	CCTV POLE
65	CCTV, MVDS 95-32.14 SB	2289+20	LHUB 95-32.14 SB	IT-201	60	75	15	CCTV POLE
66	CCTV, MVDS 95-32.17 NB	2291+00	LHUB 95-32.17 NB	IT-201	55	80	25	CCTV POLE
67	CCTV (2) 95-32.27 SB	2296+30	LHUB 95-32.27 SB	IT-201	25	38	13	CCTV POLE*
68	WAP 95-32.32 NB	2298+95	LHUB 95-32.35 NB	IT-201	-	-	-	EXIST.
69	CCTV (2) 95-32.35 NB	2300+75	LHUB 95-32.35 NB	IT-201	68	86	18	CCTV POLE
70	CCTV, MVDS 95-32.38 SB 84	55 2302+00	LHUB 95-32.42 SB	IT-202	70	86	16	CCTV POLE
71	CCTV (2), MVDS 95-32.39 NB	2302+55	LHUB 95-32.39 NB	IT-202	63	86	23	CCTV POLE
72	CCTV, MVDS 95-32.64 SB	2315+90	LHUB 95-32.64 SB	IT-202	45	63	18	CCTV POLE
73	MVDS 95-32.64 NB	2315+85	LHUB 95-32.64 NB	IT-202	40	58	18	TYPE IV
74	CCTV P&R-3	130+25	LHUB P&R-3	IT-204	50	69	19	CCTV POLE
75	CCTV P&R-4	132+20	LHUB P&R-4	IT-204	50	75	25	CCTV POLE

* NOTE: CONTRACTOR SHALL PROVIDE SIGNED AND SEALED STRUCTURAL DRAWINGS FOR CUSTOM CCTV POLES.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	42 CCTV POLE UPDATES	11/5/18	55 CCTV POLE UPDATES
7/31/18	47 CCTV POLE UPDATES	3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT

Vanasse Hangen Brustlin, Inc.
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

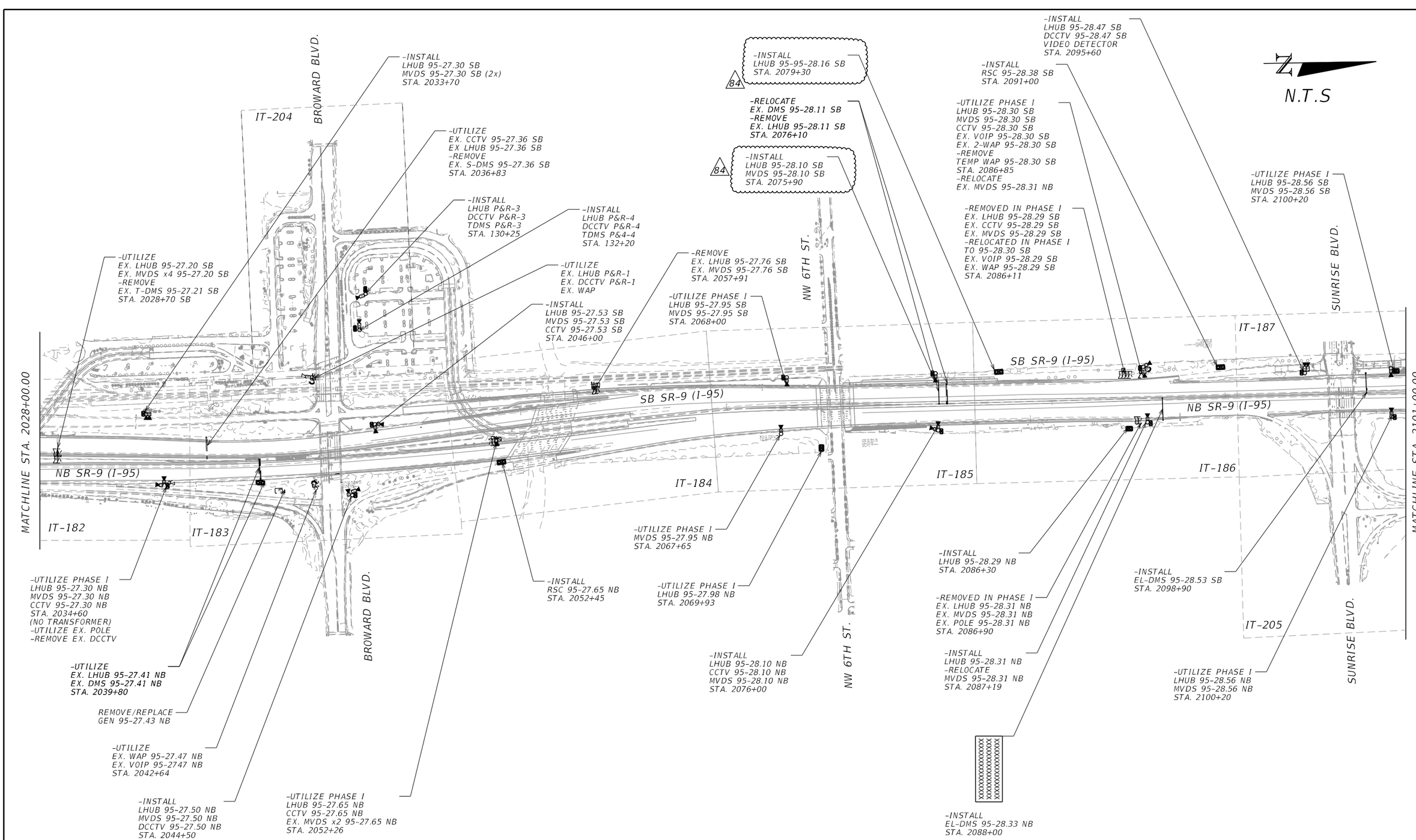
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POLE DATA SHEET

SHEET NO. IT-168

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors or omissions. Correctness of dimensions, grades, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96
BY:RDO VS Date: 6/11/2020

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS LAYOUT SHEET

SHEET NO. IT-171

RELEASED FOR CONSTRUCTION
BY: RJOY VS Date: 6/11/2020
Release is for construction with contract documents. Responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4F96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

N.T.S

-INSTALL
LHUB 95-29.51 SB
STA. 2150+70

-REMOVE
EX. CCTV 95-29.51 SB
EX. MVDS 95-29.51 SB
EX. VOIP 95-29.51 SB

-INSTALL
S-DMS 95-29.33 SB
STA. 2141+24

-UTILIZE PHASE I
LHUB 95-29.11 SB
MVDS 95-29.11 SB
CCTV 95-29.11 SB
EX. VOIP 95-29.11 SB
STA. 2129+25

-INSTALL
LHUB 95-28.85 SB
MVDS 95-28.85 SB
STA. 2115+60

-REMOVE
EX. CCTV 95-29.03 SB
EX. MVDS 95-29.03 SB
EX. HARB 95-29.03 SB
-RELOCATE TO 95-29.11 SB
EX. VOIP 95-29.03 SB
STA. 2125+35

84 -INSTALL
MVDS 95-29.28 SB
STA. 2138+50

84 -INSTALL
LHUB 95-29.28 SB
STA. 2138+20

-REMOVE
EX. MVDS 95-28.62 SB
STA. 2103+30

IT-187

IT-188

IT-189

SB SR-9 (I-95)

NB SR-9 (I-95)

MATCHLINE STA. 2101+00.00

-INSTALL
RSC 95-28.69 NB
DCCTV 95-28.69 NB (2X)
STA. 2107+00

-INSTALL
LHUB 95-28.82 NB
MVDS 95-28.82 NB
STA. 2114+00

-UTILIZE PHASE I
LHUB 95-29.10 NB
MVDS 95-29.10 NB
STA. 2128+80

-INSTALL
LHUB 95-29.33 NB
MVDS 95-29.33 NB
STA. 2141+20

-INSTALL
LHUB 95-28.63 NB
CCTV 95-28.63 NB
STA. 2104+10

-REMOVE
EX. MVDS 95-28.62 NB
STA. 2103+30

-INSTALL
DCCTV 95-28.63
STA. 2104+15
(POLE MOUNTED)

IT-205

IT-190

NW 19TH ST.

84 -UTILIZE PHASE I
LHUB 95-29.55 SB
MVDS 95-29.55 SB
DCCTV 95-29.55 SB
DCCTV 95-29.55 SB
EX. VOIP 95-29.55 SB
STA. 2152+50

-INSTALL
S-DMS 95-29.68 SB
STA. 2159+60

IT-191

84 -INSTALL
LHUB 95-29.73 SB
STA. 2162+00

-INSTALL
LHUB 95-29.83 SB
MVDS 95-29.83 SB
DCCTV 95-29.83 SB
STA. 2167+60

IT-192

SB SR-9 (I-95)

NB SR-9 (I-95)

MATCHLINE STA. 2175+00.00

-INSTALL
T-DMS 95-29.50 SB
STA. 2149+90

84 -UTILIZE PHASE I
LHUB 95-29.57 NB
GEN 95-29.58
MVDS 95-29.57 NB
CCTV 95-29.57 NB
STA. 2153+60

-INSTALL
LHUB 95-29.83 NB
MVDS 95-29.83 NB
DCCTV 95-29.83 NB
STA. 2167+40

-INSTALL
LHUB 95-29.95 NB
STA. 2174+00

-INSTALL
S-DMS 95-29.68 NB
STA. 2159+71

-INSTALL
LHUB 95-29.71 NB
STA. 2161+00

RELEASED FOR CONSTRUCTION
Review comments made in accordance with contract documents. We assume no responsibility for errors or omissions or correctness of dimensions or details, quantities, and safety during fabrication and erection. Shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

BY: PJ20 VS Date: 6/11/2020

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

Vanasse Hangen Brustlin, Inc.
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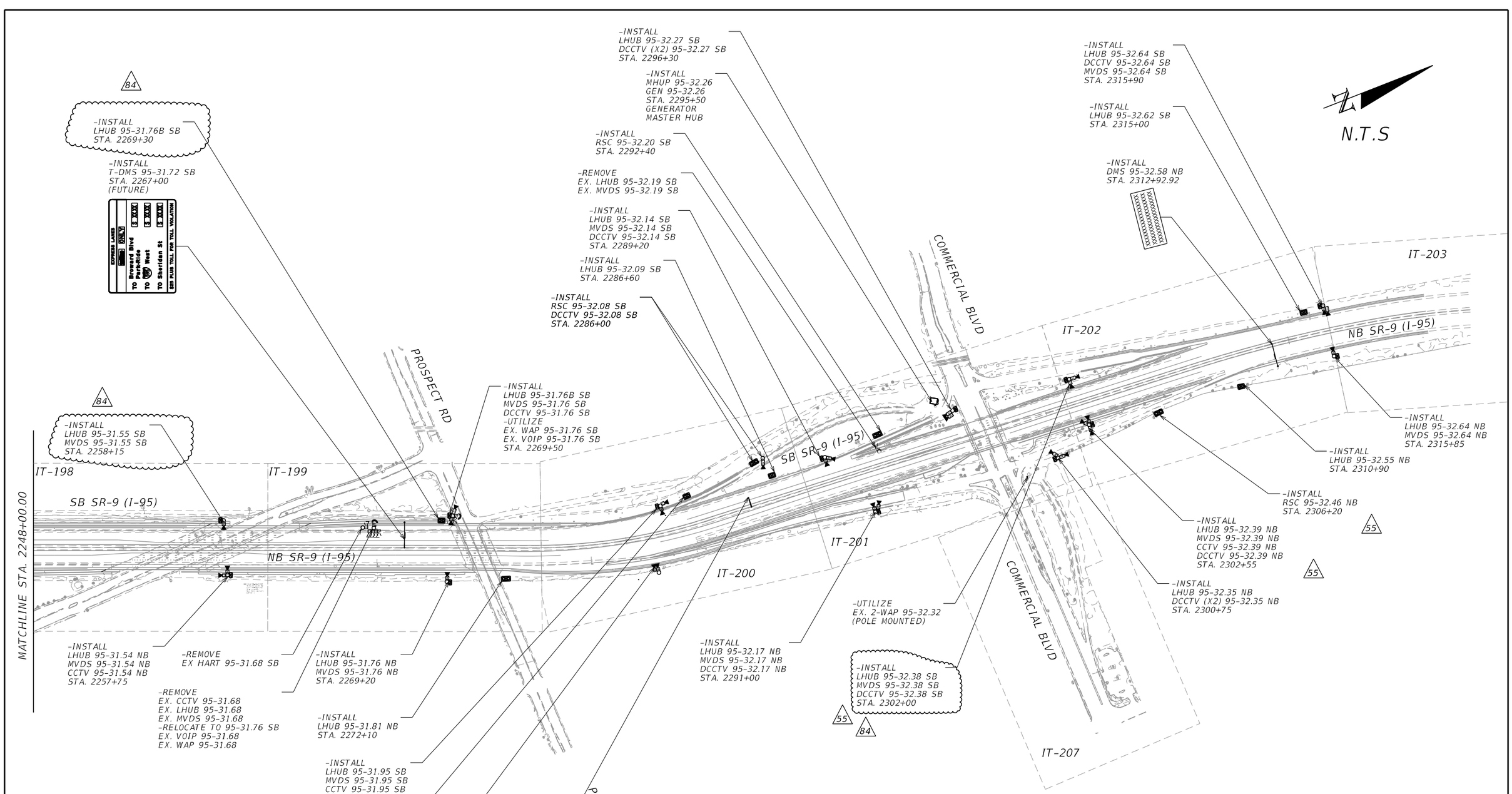
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS LAYOUT SHEET

SHEET NO.
IT-172



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 DEVICE LOCATION UPDATED		
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS LAYOUT SHEET

SHEET NO.
IT-174

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors and omissions. Correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY/PROD: VS Date: 6/11/2020
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4F96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

0 20 100
Feet

TRENCH LINE – 4 CONDUITS
1–2" CONDUIT (144 SM FIBER)
1–2" CONDUIT (SIGNAL)
1–2" CONDUIT (DETECTOR)
1–2" CONDUIT (SPARE)

350 LF	633-1-124
350 LF	630-2-11

L/A R/W LINE

UTILIZE
EX. CONDUIT
EX. FIBER

DIRECTIONAL BORE – 2 CONDUITS
1–2" CONDUIT (SIGNAL)
1–2" CONDUIT (DETECTOR)

630-2-12	160 LF

50 LF	633-1-124
2 EA	635-2-11
1 EA	635-2-12

TRENCH LINE – 6 CONDUITS
1–2" CONDUIT (144 SM)
1–2" CONDUIT (24 SM)
1–2" CONDUIT (3–#6 (600 VAC))
1–2" CONDUIT (DETECTOR)
1–2" CONDUIT (SIGNAL)
1–2" CONDUIT (SPARE)

300 LF	630-2-11
300 LF	633-1-122
300 LF	633-1-124
300 LF	639-2-1

DCCTV 95–26.38 SB
RSC 95–26.38 SB
STA. 1984+40
SEE SITE LAYOUT 22

1 EA	641-3-163
2 EA	660-1-111
1 EA	682-1-113

S–DMS 95–26.44 NB
STA. 1988+30

1 EA	700-8-134

BRIDGE MOUNTED– 3 CONDUITS
1–2" CONDUIT (2 MM DMS)
1–2" CONDUIT (4–#2 (24 VDC))
(2–#10 (24 VDC))
1–2" CONDUIT (SPARE)

130 LF (3x)	630-2-15
160 LF	639-2-1
30 LF (3x)	630-2-14
2 EA	635-3-12

FSB 95–26.43
W/ SLACK FIBER
SIGNAL/DETECTOR
PULL BOX

2 EA	635-2-11
1 EA	635-2-13
100 LF	633-1-122
100 LF	633-1-124

DETECTOR/SIGNAL
PULL BOX
ABOVE GROUND CONDUIT

30 LF (2x)	630-2-14
2 EA	635-2-11
2 EA	635-3-12
1 EA	700-1-32
1 EA	700-12-11

RAMP METER SIGN

635-3-12	1 EA
700-1-32	1 EA
700-12-11	1 EA

–UTILIZE PHASE I
24 SM DROP
144 SM ITS
144 SM
–UTILIZE
EX. CONDUIT

–REMOVE
EX. LHUB 95–26.49 SB

1 EA	641-2-70
1 EA	639-1-620
1 EA	676-2-600

TRENCH LINE – 3 CONDUITS
1–2" CONDUIT (24 SM)
1–2" CONDUIT (SPARE)
1–2" CONDUIT (3–#6 (600 VAC))

290 LF	630-2-11
290 LF	633-1-122
290 LF	639-2-1

FSB 95–26.54 SB

100 LF (2x)	633-1-122
38 EA	633-2-31
1 EA	633-3-51
4 EA	633-3-12
1 EA	635-2-13

–UTILIZE
EX. FIBER PULL BOX
EX. POWER PULL BOX

50 LF (2x)	633-1-122

–INSTALL
EX. CONDUIT (24 SM DROP)
EX. CONDUIT (3–#6 (600 VAC))

300 LF	633-1-122
300 LF	639-2-1

C–D SB

4 AS 660-2-102

RAMP A

ABOVE GROUND CONDUIT
1–2" CONDUIT (SIGNAL)

630-2-14	130 LF

–REMOVE
EX. T–DMS 95–26.46

700-7-600	3 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

635-2-11	3 EA
635-2-12	1 EA
633-1-122	50 LF
633-1-124	50 LF

–UTILIZE PHASE I
24 SM DROP
144 SM ITS
144 SM

–UTILIZE PHASE I
2–24 SM DROP
3–#2 (600 VAC)
–INSTALL
EX. CONDUIT (2–24 SM DROP)

90 LF (2x)	633-1-122

SB SR–9 (I–95)

1985

1990

MATCHLINE STA. 1980+00.00

MATCHLINE STA. 1994+00.00

DAVIE BLVD.

NB SR–9 (I–95)

DIRECTIONAL BORE– 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

300 LF	630-2-12
300 LF	633-8-1

635-2-11 1 EA

–UTILIZE PHASE I
24 SM DROP (TO 95–26.30 NB)
3–#6 (600 VAC)
–INSTALL
EX. CONDUIT (3–24 SM DROP)

180 LF (3x)	633-1-122

SIGNAL PULL BOX
ABOVE GROUND CONDUIT

630-2-14	30 LF
635-2-11	1 EA
635-3-12	1 EA

LHUB 95–26.47 NB
MVDS 95–26.47 NB (2x)
STA. 1990+15
SEE SITE DETAILS
LAYOUT 1

641-3-169	1 EA
660-3-11	2 EA
660-3-12	2 EA

TRENCH LINE – 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

630-2-11	390 LF
633-8-1	390 LF

RAMP B

–UTILIZE PHASE I
MVDS 95–26.30 NB
–UTILIZE
EX. LHUB 95–26.30 NB
EX. VOIP 95–26.30 NB
EX. DCCTV 95–26.30 NB
STA. 1980+90
SEE SITE DETAILS
LAYOUT 4

684-1-6	1 EA

84

–UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF (2x)

–UTILIZE PHASE I
24 SM DROP (TO 95–26.30 NB)
–INSTALL
EX. CONDUIT (2–24 SM DROP))

633-1-122	590 LF (2x)

UTILIZE
EX. CONDUIT
EX 3–#1/0 (600 VAC)

UTILIZE
EX. CONDUIT
EX 3–#6
EX. FIBER (FOR WAP)
EX. COMPOSITE

C–D NB

LHUB 95–26.41 NB
STA. 1986+45
SEE SITE DETAILS
LAYOUT 12

38

–UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (3x)	633-1-122

–UTILIZE PHASE I
24 SM DROP (TO 95–26.30 NB)
3–#6 (600 VAC)
–INSTALL
EX. CONDUIT (3–24 SM DROP)
EX. CONDUIT (2 MM DMS)
EX. CONDUIT (4–#2 (24 VDC))
(2–#10 (24 VDC))

150 LF (3x)	633-1-122
150 LF	639-2-1

EX. CCTV 95–26.44 EB/WB
EX. WAP 95–26.44 EB/WB (x2)

TRENCH LINE– 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

350 LF	630-2-11
350 LF	633-8-1

1 EA 635-2-11

–UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (2x)	633-1-122

L/A R/W LINE

SPLICE INTO
EX. SERVICE WIRE

BRIDGE MOUNT – 1 CONDUITS
1–2" CONDUIT (SIGNAL)

630-2-15	180 LF

1 EA 635-2-11

TRENCH LINE – 1 CONDUITS
1–2" CONDUIT (DETECTOR)

630-2-11	130 LF

DETECTOR PULL BOX
ABOVE GROUND CONDUIT

630-2-14	30 LF
635-2-11	1 EA
635-3-12	1 EA

–UTILIZE PHASE I
144 SM ITS
144 SM
3–#2 (600 VAC)
–INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

660-2-102 4 AS

–UTILIZE PHASE I
FSB 95–26.47 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-122	100 LF (4x)
633-2-31	16 EA
633-3-11	1 EA
633-3-12	2 EA

C–D NB

DIRECTIONAL BORE– 1 CONDUIT
1–2" CONDUIT (MVDS CABLE)

630-2-12	200 LF
633-8-1	200 LF

RAMP METER SIGN

635-3-12	1 EA (2x)
700-1-32	1 EA (2x)
700-12-11	1 EA (2x)

–UTILIZE
EX. CONDUIT
–INSTALL
EX. CONDUIT (2–24 SM DROP)
EX. CONDUIT (3–#1 (600 VAC))
–REMOVE
EX. 24 SM DROP (TO 95–26.27 NB)

633-1-122	100 LF (2x)
633-1-620	100 LF
639-2-1	100 LF

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT		
3/9/20	UPDATE LAYER 2 SWITCH RFI#86 84		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT–179

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BY/PROD: VS Date: 6/11/2020

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. Engineer is not responsible for errors and omissions. Correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4R96

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-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (24 SM DROP)
440 LF 633-1-122

EX. DMS 95-26.55 SB
EX. VOIP 95-26.55 SB
EXIST. TO REMAIN

EX. LHUB 95-26.55 SB
STA. 1994+18
EXIST. TO REMAIN
684-1-6 1 EA
84

L/A R/W LINE

C-D SB

EX. CONDUIT-ABANDON
EX. FIBER-REMOVE
EX. 3-#6-REMOVE

RAMP D

LHUB 95-26.63 SB
CCTV 95-26.63 SB
STA. 1998+70
SEE SITE DETAILS
LAYOUT 4
1 EA 641-3-169
1 EA 682-1-113

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
50 LF (1x) 633-1-122
1 EA 635-2-11
1 EA 635-2-12

DETECTOR/SIGNAL
PULL BOX
2 EA 635-2-11

-REMOVE
EX. DCCTV 95-26.64 SB
EX. CCTV 95-26.64 SB
EX. MVDS 95-26.64 SB
STA. 1999+22
641-3-800 1 EA

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)
630-2-11 190 LF

DIRECTIONAL BORE - 3 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)
630-2-12 80 LF

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)
700 LF 630-2-11
700 LF 633-8-1

TRENCHLINE - 3 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)

2 AS 660-2-102

RAMP METER SIGN
1 EA 700-1-32
1 EA 700-12-11
2 EA 635-2-11
2 EA 635-3-12
30 LF 630-2-14

EX. CONDUIT-ABANDON
EX. FIBER-REMOVE
EX. POWER SERVICE-REMOVE

EX. S-DMS 95-26.68 SB
STA. 2001+25
REMOVE
700-8-600 1 EA

DETECTOR/SIGNAL
PULL BOX
635-2-11 2 EA

-UTILIZE
EX. 3-#2/0
EX. CONDUIT
-REMOVE (PHASE I)
EX. FIBER

-UTILIZE EX. PULL BOX
EXTEND CONDUIT

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

1995

RAMP SIGNAL
STA. 1999+50
1 EA 646-1-11
2 EA 650-1-13
1 EA 700-3-101
4 AS 660-2-102
2 EA 635-2-11

SB SR-9 (I-95)

2000

RAMP E

-UTILIZE
EX. CONDUIT (MVDS CABLE)
-INSTALL 2 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
630-2-12 230 LF
633-8-1 230 LF

℄ CONST. SR 9

2005

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)

DIRECTIONAL BORE- 6 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
100 LF 630-2-12
100 LF 633-1-122
100 LF 639-2-1

RAMP SIGNAL
STA. 1998+00
1 EA 646-1-11
2 EA 650-1-13
1 EA 700-3-101
4 AS 660-2-102

UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)

-UTILIZE PHASE I
FSB 95-26.64 NB
W/ SLACK FIBER
POWER PULL BOX
633-1-122 100 LF
633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

NB SR-9 (I-95)

-REMOVE
EX. MVDS 95-26.72 NB
STA. 2003+15
641-2-80 1 EA

EXTEND CONDUIT

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
DETECTOR PULL BOX
SIGNAL PULL BOX
633-1-122 50 LF
635-2-11 1 EA (3x)
635-2-12 1 EA

RAMP C

MATCHLINE STA. 1994+00.00

1 EA 635-2-11

38

TRENCH LINE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
630-2-11 220 LF
633-8-1 220 LF

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
90 LF 630-2-12
90 LF 633-8-1

DCCTV 95-26.59 NB
RSC 95-26.59 NB
STA. 1996+10
SEE SITE DETAILS
LAYOUT 22
641-3-169 1 EA
660-1-111 2 EA
682-1-113 1 EA

C-D NB

-UTILIZE PHASE I
FSB 95-26.59 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX
633-1-122 100 LF
633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

FIBER PULL BOX
W/SLACK FIBER
POWER PULL BOX
633-1-122 50 LF
635-2-11 1 EA (3x)
635-2-12 1 EA

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

RAMP B

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)
-INSTALL
1-2" CONDUIT (24 SM DROP)
220 LF 630-2-11
220 LF 633-1-122

RSC 95-26.71 NB
DCCTV 95-26.71 NB
INCLUDES CONTACT
CLOSURE TO ETHERNET SWITCH
STA. 2002+80
SEE SITE DETAILS
LAYOUT 22
1 EA 641-3-169
2 EA 660-1-111
1 EA 682-1-113

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (24 SM)
1-2" CONDUIT (3-#6 (600 VAC))
40 LF 630-2-11
40 LF 633-1-122
40 LF 639-2-1

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
633-1-122 50 LF

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#1 (600 VAC)
-INSTALL 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
340 LF 630-2-12
340 LF 633-8-1

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
630-2-12 285 LF
633-8-1 285 LF

C-D NB

L/A R/W LINE

MATCHLINE STA. 2008+00.00

N
0 20 100
Feet

RELEASED FOR CONSTRUCTION
All work shall be performed in accordance with contract documents. Vanasse Hangen Brustlin, Inc. is not responsible for errors and omissions. Contractor is responsible for verifying all dimensions, details, quantities, and safety during fabrication and erection. Shop drawings shall be reviewed by the engineer of record prior to fabrication and erection. Shop drawings shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4P96

BY/RPOD VS Date: 6/11/2020

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT		
3/9/20	UPDATE LAYER 2 SWITCH RFI#86 84		

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Certificate of Authorization # 3932
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-180

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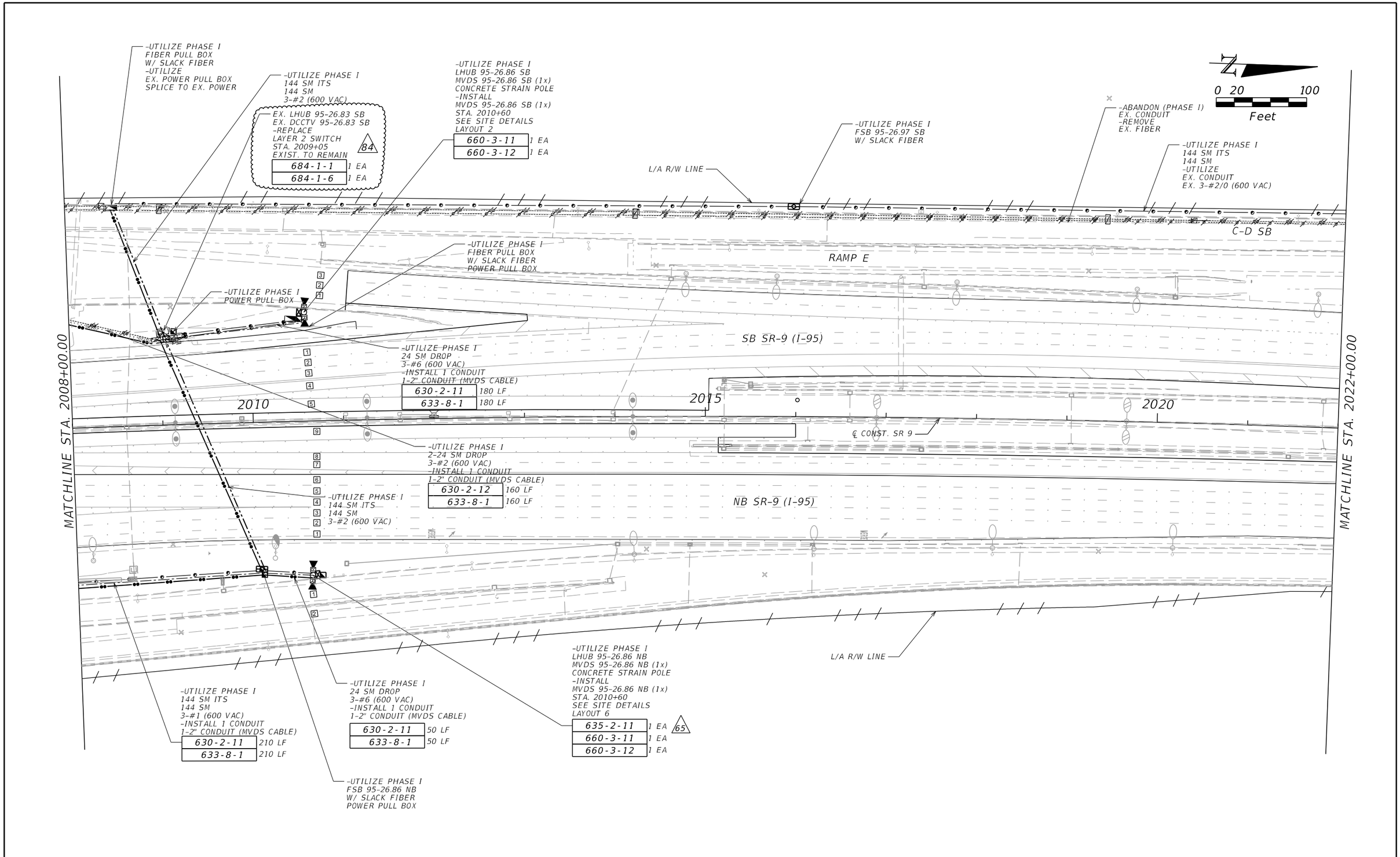

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		
3/9/20	UPDATE LAYER 2 SWITCH RFI#86 84		

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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-181

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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0 20 100
Feet

MATCHLINE STA. 2022+00.00

MATCHLINE STA. 2036+00.00

2025

2030

2035

℄ CONST. SR-9

SB SR-9 (I-95)

NB SR-9 (I-95)

L/A R/W LINE

L/A R/W LINE

LHUB 95-27.10 SB
MVDS 95-27.10 SB (2x)
STA. 2023+50
SEE SITE DETAILS
LAYOUT 3

1 EA	641-3-169
2 EA	660-3-11
2 EA	660-3-12

-UTILIZE PHASE I
FSB 95-27.10 SB
W/ SLACK FIBER
-INSTALL
POWER PULL BOX

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (3-#6 (600 VAC)
1-2" CONDUIT (SPARE)

630-2-12	100 LF
639-2-1	100 LF

-UTILIZE PHASE I
144 SM ITS
144 SM

-UTILIZE
EX. CONDUIT
EX. 3-#2/0 (600 VAC)

-UTILIZE
EX. POWER PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM
-UTILIZE
EX. CONDUIT
EX. 3-#2/0 (600 VAC)

-UTILIZE
EX. FIBER PULL BOX
W/ SLACK
EX. POWER PULL BOX

50 LF	633-1-122

-INSTALL
EX. CONDUIT (24 SM DROP)
-UTILIZE PHASE I
24 SM DROP
3-#2 (600 VAC)

170 LF	633-1-122

-UTILIZE
EX. CONDUIT (24 SM DROP)
EX. CONDUIT (3-#6 (600 VAC))

130 LF	633-1-122
130 LF	639-2-1

-UTILIZE PHASE I
FSB 95-27.22 SB
W/ SLACK FIBER
POWER PULL BOX

100 LF	633-1-122
8 EA	633-2-31
1 EA	633-3-11

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2/0 (600 VAC)

LHUB 95-27.30 SB
MVDS 95-27.30 SB (2x)
W/ CONTACT CLOSURE
STA. 2033+70
SEE SITE DETAILS
LAYOUT 3

641-3-169	1 EA
660-3-11	2 EA
660-3-12	2 EA

-UTILIZE EXIST.
FIBER SPLICE BOX
SLACK FIBER

633-1-122	100 LF (2x)

EX. CONDUIT- ABANDON
EX. SERVICE WIRE- REMOVE

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#4/0 (600 VAC)
-INSTALL
DIRECTIONAL BORE- 1 CONDUITS
1-1" CONDUIT (SIGNAL)

100 LF	630-2-12

RAMP METER SIGN

1 EA	700-1-12
1 EA	700-12-11
35 LF	630-2-11
1 EA	635-2-11

-UTILIZE PHASE I
FSB 95-27.30 SB
W/ SLACK FIBER
POWER PULL BOX
-INSTALL
SIGNAL PULL BOX

633-1-122	100 LF
635-2-11	1 EA
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#4/0 (600 VAC)

-UTILIZE
EX. LHUB 95-27.20 SB
EX. MVDS x4 95-27.20 SB
-REPLACE
LAYER 2 SWITCH
-REMOVE
EX. T-DMS 95-27.21 SB
STA. 2028+70 SB

684-1-1	1 EA
684-1-6	1 EA
700-7-600	3 EA

84

-ABANDON (PHASE I)
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

LHUB 95-27.13 NB
MVDS 95-27.13 NB
STA. 2024+90
SEE SITE DETAILS
LAYOUT 2

1 EA	641-2-14
1 EA	660-3-11
1 EA	660-3-12

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-11	400 LF
633-1-122	400 LF
639-2-1	400 LF

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

-UTILZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
-INSTALL
SIGNAL PULL BOX

1 EA	635-2-11

-UTILIZE PHASE I
LHUB 95-27.30 NB
MVDS 95-27.30 NB
CCTV 95-27.30 NB
STA. 2034+60
SEE SITE DETAILS
LAYOUT 4
(NO TRANSFORMER)
-UTILIZE EX. POLE
-REMOVE EX. DCCTV

SERVICE POLE

1 AS	639-1-122

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
24 SM DROP
3-#6 (120 VAC)

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (3-#4/0 (480 VAC))

290 LF	630-2-11
290 LF	639-2-1

NOTE:
1. T-DMS 95-27.21 SB & LHUB 95-27.20 SB. DURING CONSTRUCTION TO BE REMOVED AFTER EXPRESS LANES ARE OPERATIONAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	UPDATE LAYER 2 SWITCH RFI#86 (84)		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-182

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BY/PROD VS Date: 6/11/2020

RELEASED FOR CONSTRUCTION
All construction shall be in accordance with contract documents. Responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4P96

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MATCHLINE STA. 134+31.45 (SHEET IT-204)

MATCHLINE STA. 2036+00.00

MATCHLINE STA. 2050+00.00

0 20 100 Feet

L/A R/W LINE

BROWARD BLVD

RAMP E

RAMP F

RAMP H

SB SR-9 (I-95)

NB SR-9 (I-95)

℄ CONST. SR 9

2040

2045

2050

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX

50 LF (3x)	633-1-122
1 EA	635-2-11
1 EA	635-2-12

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (3-24 SM DROP)
1-2" CONDUIT (3-#6 (VAC))
1-2" CONDUIT (SPARE)

333 LF	630-2-12
333 LF (3x)	633-1-122
333 LF	639-2-1

-TO REMAIN
EX. LHUB P&R-1
EX. DCCTV P&R-1
EX. WAP

-UTILIZE
EX. CONDUIT
EX. 4-#6 (120/240 VAC)
-INSTALL
EX. CONDUIT (24 SM DROP)

	633-1-122
80 LF	

-UTILIZE PHASE I
144 SM & 72 SM

-REPLACE
EX. FSB 95-27.46

	635-2-13 1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-11	210 LF
633-1-122	210 LF
639-2-1	210 LF

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	260 LF
633-1-122	260 LF
639-2-1	260 LF

-UTILIZE
EX. CCTV 95-27.36 SB
EX LHUB 95-27.36 SB
-REPLACE
LAYER 2 SWITCH
-REMOVE
EX. S-DMS 95-27.36 SB
STA. 2036+83

684-1-1	1 EA
684-1-6	1 EA
700-8-600	1 EA

84

-UTILIZE PHASE I
FSB 95-27.46 SB
W/ SLACK FIBER
POWER PULL BOX

100 LF (4x)	633-1-122
20 EA	633-2-31
1 EA	633-3-51
2 EA	633-3-12

-UTILIZE PHASE I
144 SM ITS
144 SM
24 SM
3-#4/0 (600 VAC)

-UTILIZE
EX. CCTV 95-27.41 SB

EX. LHUB 95-27.41 NB
-REPLACE
LAYER 2 SWITCH
EX. DMS 95-27.41 NB
STA. 2039+80
TO REMAIN
NO TRANSFOMER

684-1-1	1 EA
684-1-6	1 EA

-UTILIZE
EX. COMPOSITE CABLE
-REMOVE (PHASE I).
EX. FIBER
EX. SERVICE WIRE

-UTILIZE PHASE I
24 SM DROP
3-#6 (120 VAC)

-UTILIZE
EX. CONDUIT
EX. POWER
EX. FIBER DROP TO 95-27.47 NB

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#4/0 (600 VAC)
3-#2 (600 VAC)

-UTILIZE
EX. FIBER SPLICE BOX
SLACK FIBER
EX. POWER SPLICE BOX

-UTILIZE PHASE I
FSB 95-27.50 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

LHUB 95-27.50 NB
MVDS 95-27.50 NB
DCCTV 95-27.50 NB
STA. 2044+50
SEE SITE DETAILS
LAYOUT 3

641-3-175	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA

LHUB 95-27.53 SB
MVDS 95-27.53 SB
CCTV 95-27.53 SB
STA. 2046+00
SEE SITE DETAILS
LAYOUT 4

641-3-175	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA

-UTILIZE PHASE I
EX. 4-#6 (120/240 VAC)
2-24 SM DROP
RS-485
3-#6 (120 VAC)
-INSTALL
ETHERNET CABLE

100 LF	633-8-1

-REMOVE/REPLACE
EX. GEN 95-27.43 NB
GEN 95-27.43 NB

1 EA	639-5-60

-UTILIZE PHASE I
POWER PULL BOX

UTILIZE PHASE I
3-#4/0 (480 VAC)

-UTILIZE PHASE I
2-24 SM DROP
3-#4/0 (600 VAC)
3-#4/0 (600 VAC)
3-#2 (600 VAC)

-UTILIZE PHASE I
FSB 95-27.46 NB
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE IA
POWER PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#4/0 (600 VAC)

EX. 3-WAP 95-27.47 NB
EX. VOIP 95-2747 NB
STA. 2042+64
EXIST. TO REMAIN

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (3-#4/0 (480 VAC))

350 LF	630-2-11
350 LF	639-2-1

POWER SERVICE

1 EA	639-3-11
1 EA	641-2-12

DIRECTIONAL BORE- 1 CONDUITS
1-2" CONDUIT (3-#4/0 (480 VAC))

30 LF	630-2-12
30 LF	639-2-1

-UTILIZE
EX. POWER
PULL BOX

L/A R/W LINE

SIGNAL/DETECTOR PULL BOX

1 EA (5x)	635-2-11

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-11	80 LF

RAMP METER SIGN

635-3-12	1 EA
700-1-32	1 EA
700-12-11	1 EA

660-2-102	4 AS

SIGNAL/DETECTOR PULL BOX

630-2-14	50 LF (2x)
635-2-11	1 EA (2x)

DIRECTIONAL BORE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-12	125 LF

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2/0 (600 VAC)
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

RAMP METER SIGN

700-1-12	1 EA
700-12-11	1 EA

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (SIGNAL)

630-2-11	105 LF

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-11	110 LF

RELEASED FOR CONSTRUCTION
As noted in the contract documents, the engineer of record is responsible for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

BY: RDD VS Date: 6/11/2020

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	UPDATE LAYER 2 SWITCH RFI#86 (84)		

Vanasse Hangen Brustlin, Inc.
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-183

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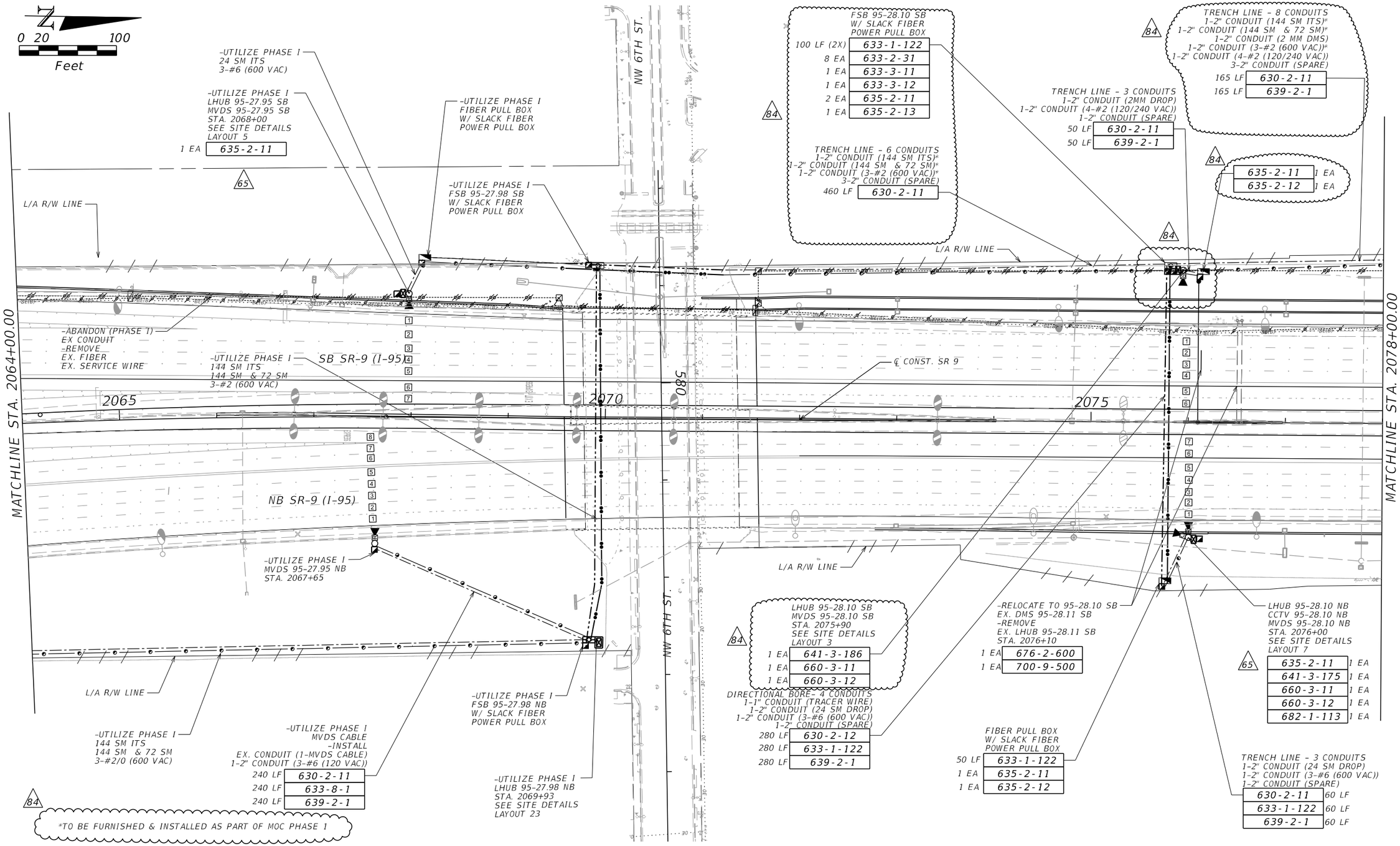

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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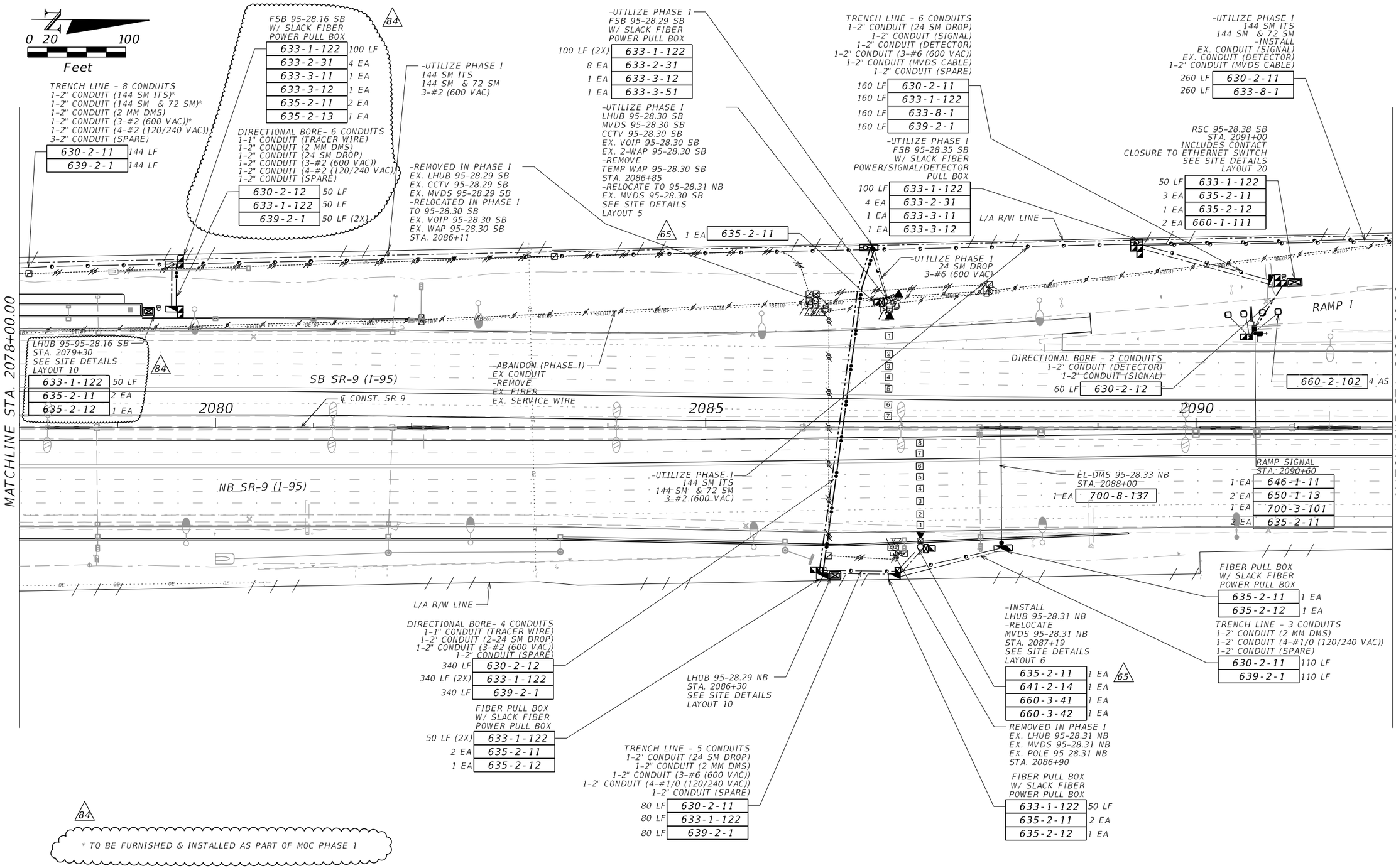
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-185

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:RPOO VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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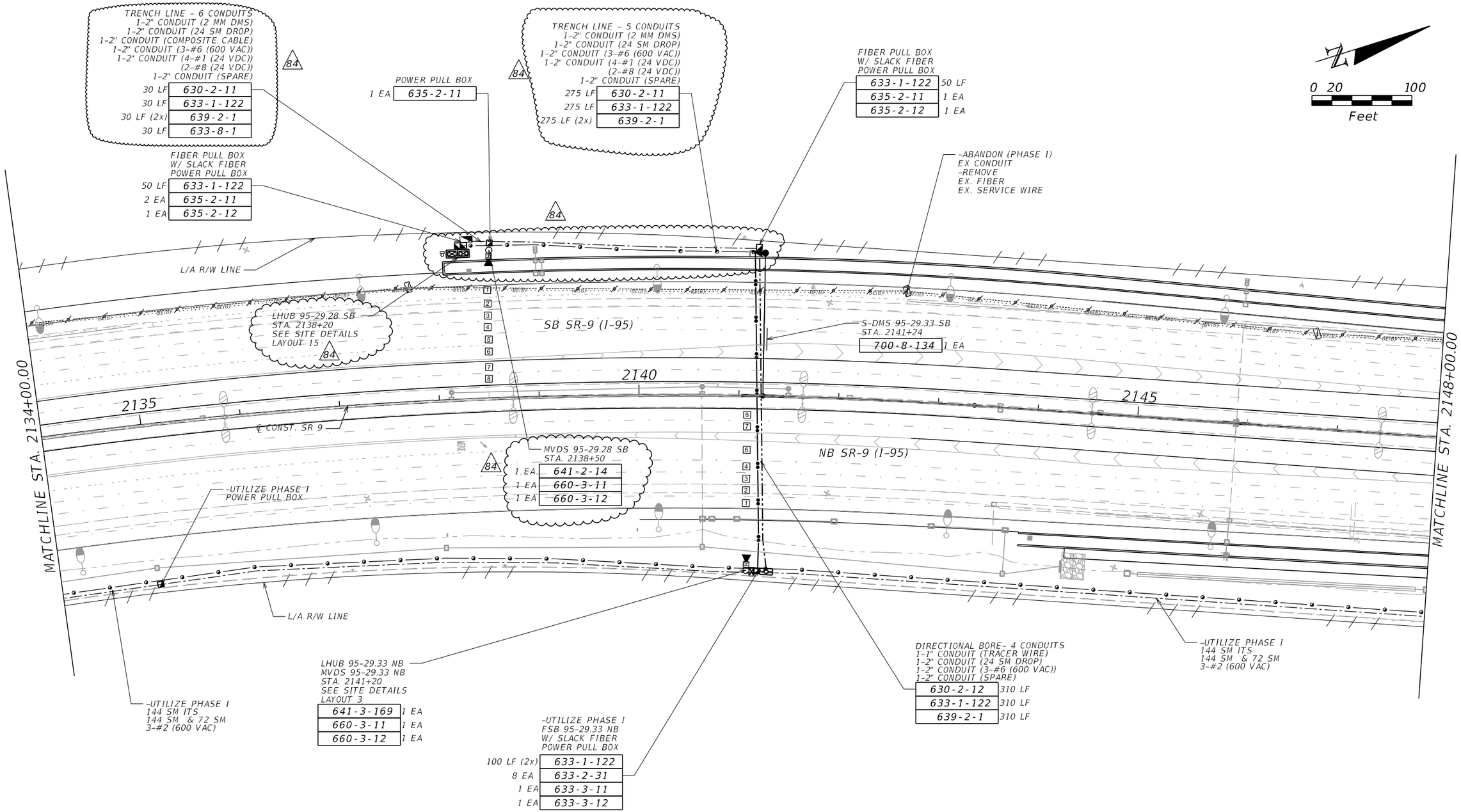
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-186

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. We assume no responsibility for errors and omissions. Correctness of dimensions, grades, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4F96
BY/PROD VS Date: 6/11/2020
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-190

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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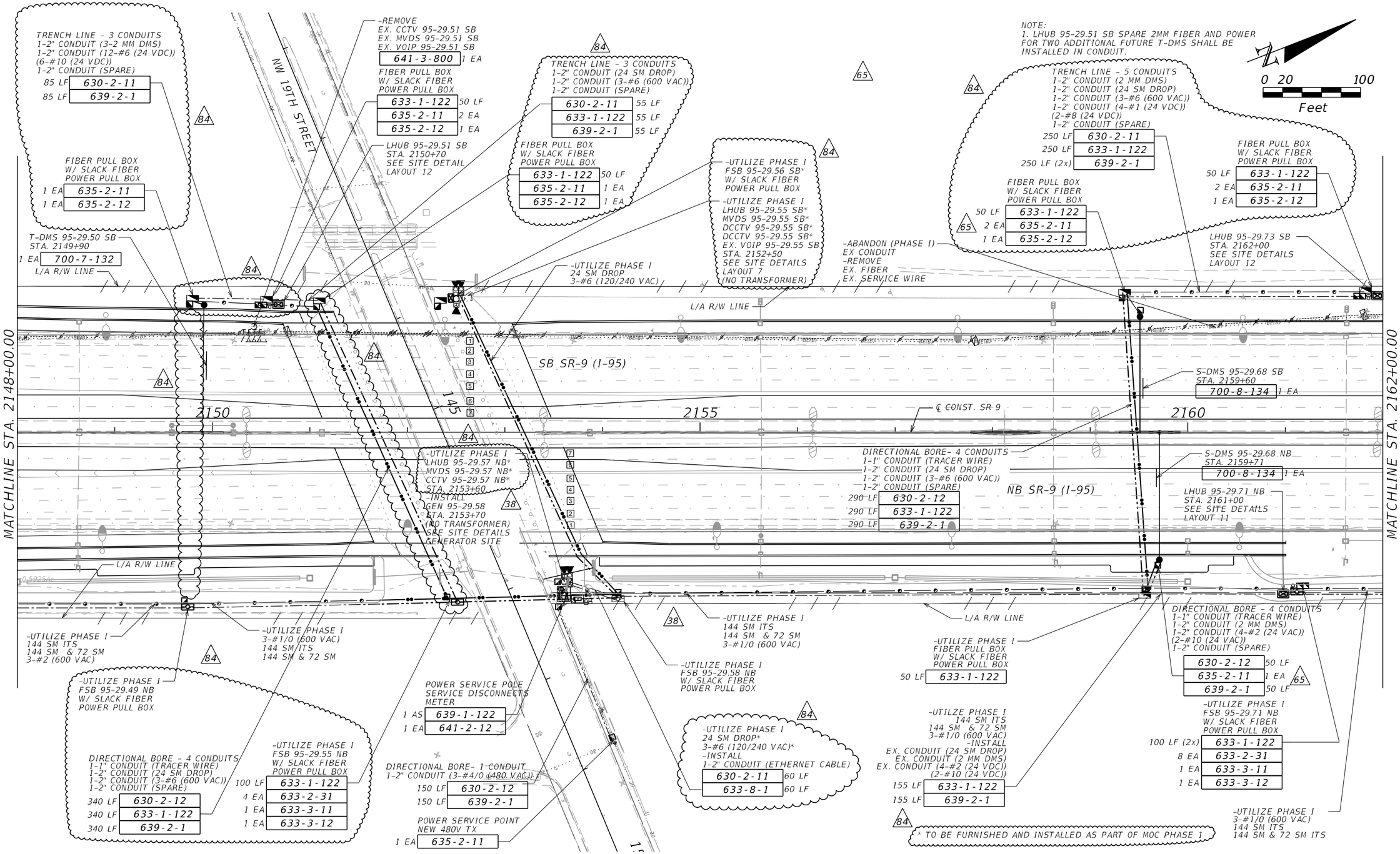

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 RELOCATED 95-29.58NB	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT/RFI #93 84
1/22/19	65 UPDATE GROUNDING PULL BOX		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-191

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FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96
BY/RWD VS Date: 6/11/2020
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

LHUB 95-30.57 SB
MVDS 95-30.57 SB
DCCTV x2 95-30.57 SB
STA. 2206+50
SEE SITE DETAILS
LAYOUT 5

38

635-2-11	1 EA
641-3-186	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	2 EA

65

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

630-2-11	205 LF
633-1-124	205 LF
633-8-1	205 LF
639-2-1	205 LF

FSB 95-30.57 SB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-122	100 LF
633-1-124	200 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA (3x)
635-2-13	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

38

630-2-11	40 LF
633-1-122	40 LF
639-2-1	40 LF

TRENCH LINE - 4 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

630-2-11	250 LF
633-1-124	250 LF
639-2-1	250 LF

OAKLAND PARK BV

RAMP METER SIGN

635-2-11	1 EA
700-1-32	1 EA
700-12-11	1 EA

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (SPARE)

630-2-11	120 LF

SIGNAL/DETECTOR
PULL BOX

635-2-11	2 EA

RAMP SIGNAL
STA. 2208+68

635-2-11	1 EA
646-1-11	1 EA
650-1-13	2 EA
700-3-101	1 EA

DIRECTIONAL BORE - 6 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (SPARE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-12	300 LF
633-1-124	300 LF
639-2-1	300 LF

660-2-102 2 AS

RAMP P-1
RAMP P-2

FIBER PULL BOX
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-124	50 LF
635-2-11	1 EA (3x)
635-2-12	1 EA

RAMP METER SIGN

700-1-32	1 EA
700-12-11	1 EA

635-2-11	1 EA

TRENCH LINE- 5 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (SPARE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-11	760 LF
633-1-124	760 LF
639-2-1	760 LF

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SPARE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-12	95 LF
633-1-124	95 LF
633-8-1	95 LF
639-2-1	95 LF

FIBER PULL BOX
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-124	50 LF
635-2-11	1 EA (3x)
635-2-12	1 EA

RAMP METER SIGN

700-1-32	1 EA
700-12-11	1 EA

635-2-11	1 EA

RAMP P-1
RAMP P-2

0 20 100
Feet

TRENCH LINE - 1 CONDUIT
1-2" CONDUIT (DETECTOR)

630-2-11	80 LF

DETECTOR PULL BOX

635-2-11	1 EA
635-3-12	1 EA
630-2-14	13 LF

660-2-102 2 AS

-REMOVE
EX. LHUB 95-30.55 SB
EX. CCTV 95-30.55 SB
EX. MVDS 95-30.55 SB
-RELOCATE TO 30.70 NB
EX. VOIP 95-30.55 SB
EX. WAP 95-30.55 SB
STA. 2208+65

641-3-800	1 EA

RAMP M

SB SR-9 (I-95)

2205

DIRECTIONAL BORE
- 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-12	50 LF

SIGNAL/DETECTOR
PULL BOX

635-2-11	1 EA (2x)

DIRECTIONAL BORE
- 1 CONDUITS
1-2" CONDUIT (3-#6
(120/240 VAC))

630-2-12	470 LF
639-2-1	470 LF

2210

EX. ATMS CCTV
EX. ATMS LHUB

84

FSB 95-30.63 SB
W/ SLACK FIBER

633-1-123	100 LF
633-2-31	4 EA
633-3-51	1 EA
633-3-12	1 EA

REMOVE
CABLING

TRENCH LINE- 1 CONDUIT
1-2" CONDUIT (SIGNAL)

630-2-11	100 LF

RSC 95-30.78 SB
DCCTV 95-30.78 SB
STA. 2217+45
SEE SITE DETAILS
LAYOUT 18

641-3-169	1 EA
682-1-113	1 EA
660-1-111	2 EA

2215

FSB 95-30.78 SB
W/ SLACK FIBER
POWER/SIGNAL/
DETECTOR PULL BOX

633-1-122	100 LF (2x)
633-1-124	200 LF
633-2-31	18 EA
633-3-11	1 EA
633-3-12	2 EA
635-2-11	1 EA (3x)
635-2-13	1 EA

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM TSMO & 72 SM ETL)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

42

630-2-12	190 LF
633-1-123	190 LF
633-1-124	190 LF (2x)
639-2-1	190 LF

RAMP N

LHUB 95-30.61 NB
MVDS 95-30.61 NB
CCTV 95-30.61 NB
DCCTV 95-30.61 NB
STA. 2209+20
SEE SITE DETAILS
LAYOUT 3

641-3-180	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	2 EA

-UTILIZE
EX. FSB 95-30.65A NB
W/ SLACK FIBER

633-1-123	50 LF

84

LHUB 95-30.70 NB
STA. 2213+55
EX. WAP x2 95-30.70 NB
EX. VOIP 95-30.70 NB
SEE SITE DETAILS
LAYOUT 14

641-3-180	1 EA
684-6-40	3 EA

℄ CONST. SR 9

T-DMS 95-30.75 NB
STA. 2215+80

700-7-132	1 EA

-UTILIZE
EX. CONDUIT
-INSTALL
EX. CONDUIT (1-72 SM DROP)

84

633-1-123	440 LF

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#4 (24 VDC))
(2-#8 (24 VDC))
1-2" CONDUIT (SPARE)

65

630-2-11	95 LF
635-2-11	1 EA
639-2-1	95 LF

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

42

630-2-11	335 LF
633-1-123	335 LF
633-1-124	335 LF (2x)
639-2-1	335 LF

L/A R/W LINE

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-123	50 LF
633-1-124	50 LF (2x)
635-2-11	1 EA
635-2-12	1 EA

FSB 95-30.61 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA
635-2-13	1 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#6 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	180 LF
633-1-123	180 LF
633-1-124	180 LF (2x)
639-2-1	180 LF

FSB 95-30.65 NB
W/ SLACK FIBER

633-1-123	300 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-13	1 EA

TRENCH LINE
2 CONDUITS
1-2" CONDUIT (72 SM DROP)
1-2" CONDUIT (SPARE)

630-2-11	90 LF
633-1-123	90 LF

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM TSMO & 72 SM ETL)
1-2" CONDUIT (3-#6 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-12	250 LF
633-1-123	250 LF
633-1-124	250 LF (2x)
639-2-1	250 LF

POWER PULL BOX

635-2-11	1 EA

-INSTALL
DISCONNECT
METER
-UTILIZE
EX. POWER SERVICE

635-2-11	1 EA
639-1-122	1 AS
641-2-12	1 EA

FSB 95-30.70 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	2 EA
633-3-12	1 EA
635-2-11	2 EA
635-2-13	1 EA

DIRECTIONAL BORE
- 1 CONDUITS
1-2" CONDUIT (3-#6
(120/240 VAC))

630-2-12	200 LF
639-2-1	200 LF

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (4-#4 (24 VDC))
(2-#8 (24 VDC))
3-2" CONDUIT (SPARE)

630-2-11	260 LF
633-1-123	260 LF
633-1-124	260 LF (2x)
639-2-1	260 LF (2x)

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-123	50 LF
633-1-124	50 LF (2x)
635-2-11	1 EA
635-2-12	1 EA

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM TSMO & 72 SM ETL)
1-2" CONDUIT (SPARE-POWER)
3-2" CONDUIT (SPARE)

630-2-12	144 LF
633-1-123	144 LF
633-1-124	144 LF (2x)

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (SPARE-POWER)
3-2" CONDUIT (SPARE)

630-2-11	150 LF
633-1-123	150 LF
633-1-124	150 LF (2x)

MATCHLINE STA. 2204+00.00

MATCHLINE STA. 2218+00.00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT	1/22/19	65 UPDATE GROUNDING PULL BOX
6/15/18	42 MSE WALL 15 ADJUST	3/9/20	UPDATE SPLICE RFI#83 84

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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-195

jknight 3/26/2020 7:35:07 PM C:\Work_Projects\62442.00\ITS\PLANIT22.dgn

BY:RPOO VS Date: 6/11/2020

RELEASED FOR CONSTRUCTION
Plans are released for construction with contract documents. Engineer is responsible for errors and omissions, correctness of dimensions, grades, details, quantities, and safety during fabrication and erection. Shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4F66

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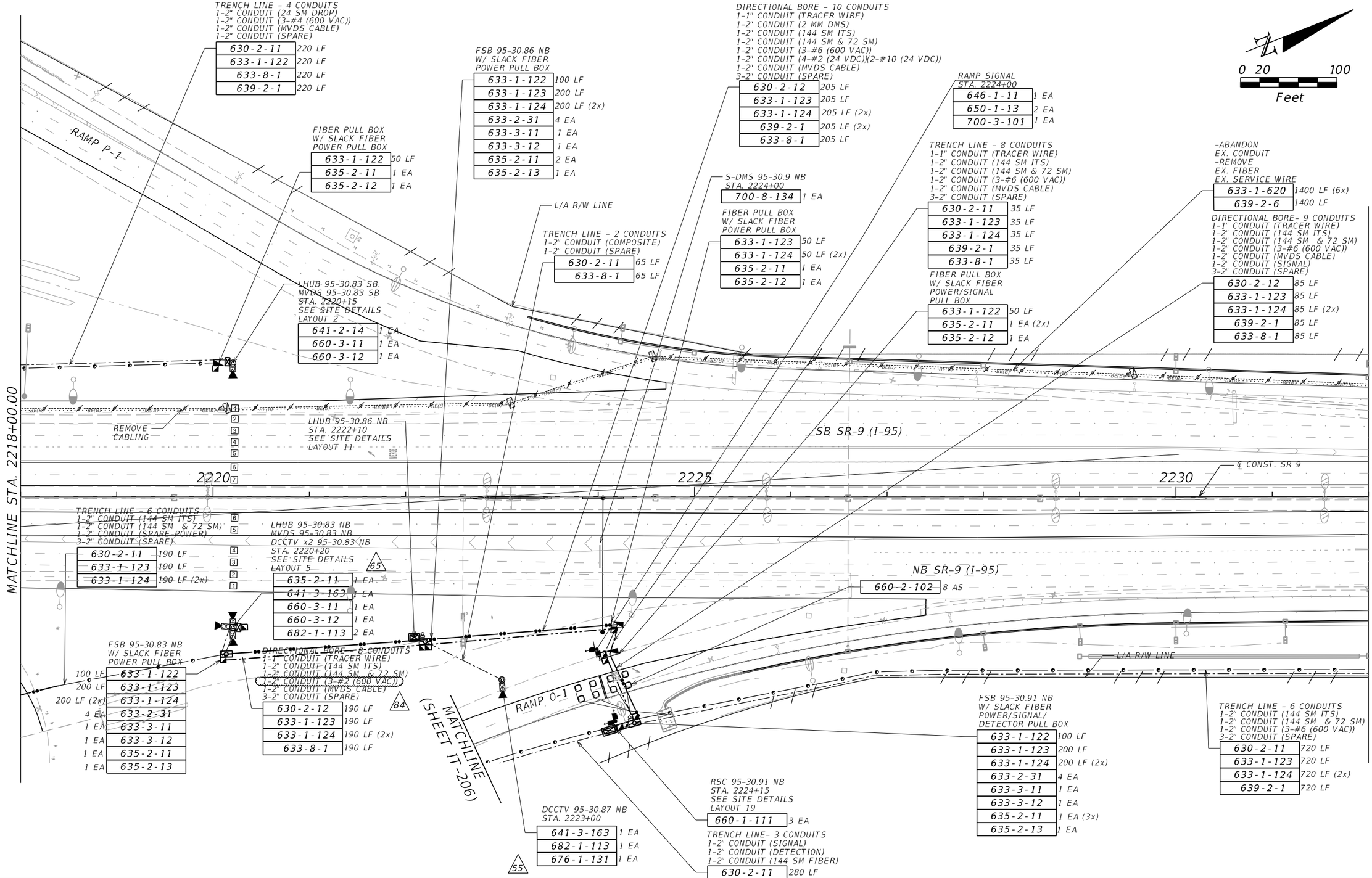

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RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4F96

BY: RDD VS Date: 6/11/2020

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 ADDED NEMA CABINET AT CCTV POLE	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84
1/22/19	65 UPDATE GROUNDING PULL BOX		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
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Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT–196

0 20 100
Feet

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX
633-1-122 50 LF
635-2-11 1 EA
635-2-12 1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
630-2-11 120 LF
633-1-122 120 LF
633-1-123 120 LF
639-2-1 120 LF

LHUB 95-31.08 SB
MVDS 95-31.08 SB
CCTV 95-31.08 SB
STA. 2234+00
SEE SITE DETAILS
LAYOUT 7
65
635-2-11 1 EA
641-3-186 1 EA
660-3-11 1 EA
660-3-12 1 EA
682-1-113 1 EA

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX
50 LF 633-1-122
50 LF 633-1-123
1 EA 635-2-11
1 EA 635-2-12

DIRECTIONAL BORE - 5 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM)
1-2" CONDUIT (72 SM)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
330 LF 630-2-12
330 LF 633-1-122
330 LF 633-1-123
330 LF 639-2-1

-UTILIZE EX. FIBER PULL BOX
633-1-123 300 LF

DIRECTIONAL BORE - 3 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (72 SM)
1-2" CONDUIT (SPARE)
630-2-12 60 LF
633-1-123 60 LF

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (72 SM)
1-2" CONDUIT (SPARE)
630-2-12 125 LF
633-1-123 125 LF

-REMOVE EX. FIBER
633-1-620 375 LF

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
630-2-12 125 LF
633-1-122 125 LF
639-2-1 125 LF

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX
633-1-122 50 LF
635-2-11 1 EA
635-2-12 1 EA

84
TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
630-2-11 200 LF
633-1-122 200 LF
639-2-1 200 LF

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX
633-1-122 50 LF
635-2-11 1 EA
635-2-12 1 EA

84
LHUB 95-31.28 SB
MVDS 95-31.28 SB
STA. 2243+75
SEE SITE DETAILS
LAYOUT 4
641-3-180 1 EA
660-3-11 1 EA
660-3-12 1 EA

L/A R/W LINE

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM ITS)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
630-2-12 320 LF
633-1-122 320 LF
639-2-1 320 LF

-ABANDON EX. CONDUIT
-REMOVE EX. FIBER
EX. SERVICE WIRE
633-1-620 1400 LF (6x)
639-2-6 1400 LF

-REMOVE EX. FIBER
280 LF 633-1-620

-REMOVE EX. LHUB 95-31.10 SB
EX. MVDS 95-31.10 SB
641-2-80 1 EA

38TH STREET

SB SR-9 (I-95)

2235 2240 2245

MATCHLINE STA. 2232+00.00

MATCHLINE STA. 2246+00.00

LHUB 95-31.08 NB
MVDS 95-31.08 NB
STA. 2233+40
SEE SITE DETAILS
LAYOUT 3
641-3-180 1 EA
660-3-11 1 EA
660-3-12 1 EA

℄ CONST. SR 9

NB SR-9 (I-95)

LHUB 95-31.28 NB
MVDS 95-31.28 NB
STA. 2243+95
SEE SITE DETAILS
LAYOUT 3
641-3-186 1 EA
660-3-11 1 EA
660-3-12 1 EA

L/A R/W LINE

605

38TH STREET

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SPARE)
630-2-11 120 LF
633-1-123 120 LF
633-1-124 120 LF (2x)
639-2-1 120 LF

FSB 95-31.08 NB
W/ SLACK FIBER
POWER PULL BOX
633-1-122 100 LF (2x)
633-1-123 200 LF
633-1-124 200 LF (2x)
633-2-31 8 EA
633-3-11 1 EA
633-3-12 1 EA
635-2-11 1 EA
635-2-13 1 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)
630-2-11 850 LF
633-1-123 850 LF
633-1-124 850 LF (2x)
639-2-1 850 LF

FSB 95-31.24 NB
W/ SLACK FIBER
POWER PULL BOX
100 LF 633-1-122
100 LF 633-1-123
200 LF (2x) 633-1-124
16 EA 633-2-31
2 EA 633-3-11
2 EA 633-3-12
1 EA 635-2-11
1 EA 635-2-13

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)
122 LF 630-2-12
122 LF 633-1-123
122 LF (2x) 633-1-124
122 LF 639-2-1

42
FSB 95-31.28 NB
W/ SLACK FIBER
POWER PULL BOX
633-1-122 100 LF
633-1-123 200 LF
633-1-124 200 LF (2x)
633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)
290 LF 630-2-11
290 LF 633-1-123
290 LF (2x) 633-1-124
290 LF 639-2-1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	MSE WALL 19 ADJUST 42	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84
1/22/19	65 UPDATE GROUNDING PULL BOX		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-197

BY/PROD VS Date: 6/11/2020

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. Responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4F96

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FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-122
1 EA	635-2-11
1 EA	635-2-12
50 LF	633-1-123
50 LF (2x)	633-1-124

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

633-1-620	1400 LF (6x)
639-2-6	1400 LF

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-122
1 EA	635-2-11
1 EA	635-2-12

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

84

710 LF	630-2-12
710 LF	633-1-122
710 LF	639-2-1

0 20 100
Feet

84
LHUB 95-31.55 SB
MVDS 95-31.55 SB
STA. 2258+15
SEE SITE DETAILS
LAYOUT 4

641-2-14	1 EA
660-3-11	1 EA
660-3-12	1 EA

MATCHLINE STA. 2246+00.00

L/A R/W LINE

℄ CONST. SR 9

SB SR-9 (I-95)

NB SR-9 (I-95)

2250

2255

MATCHLINE STA. 2260+00.00

42

POWERLINE RD

L/A R/W LINE

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	580 LF
633-1-123	580 LF
633-1-124	580 LF (2x)
639-2-1	580 LF

DIRECTIONAL BORE - 8 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-12	370 LF
633-1-122	370 LF
633-1-123	370 LF
633-1-124	370 LF (2x)
639-2-1	370 LF

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (3-#6 (600 VAC))
3-2" CONDUIT (SPARE)

220 LF	630-2-11
220 LF	633-1-122
220 LF	633-1-123
220 LF (2x)	633-1-124
220 LF	639-2-1

FSB 95-31.54 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF (2x)	633-1-122
200 LF	633-1-123
200 LF (2x)	633-1-124
8 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-11
1 EA	635-2-13

47

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	240 LF
633-1-123	240 LF
633-1-124	240 LF (2x)
639-2-1	240 LF

47
LHUB 95-31.54 NB
MVDS 95-31.54 NB
CCTV 95-31.54 NB
STA. 2257+75
SEE SITE DETAILS
LAYOUT 3

641-3-186	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA

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FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4F96

BY/RDD VS Date: 6/11/2020

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	42 MSE WALL 19 ADJUST	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84
7/31/18	47 MSE WALL 21 ADJUST		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-198

NOTE:
SERVICE WIRE AND FIBER OPTIC CABLE SHALL BE INSTALLED, BUT NOT CONNECTED FOR LHUB 95-31.76B SB.

0 20 100
Feet

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

633-1-620	560 LF (6x)
639-2-6	560 LF

POWERLINE RD

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (12-#4 (24 VDC))
(6-#8 (24 VDC))
1-2" CONDUIT (SPARE)

200 LF	630-2-11
200 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
SIGNAL PULL BOX

1 EA	635-2-11
1 EA	635-2-12

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (12-#4 (24 VDC))
(6-#8 (24 VDC))
1-2" CONDUIT (SPARE)

60 LF	630-2-12
60 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
SIGNAL PULL BOX

1 EA	635-2-11
1 EA	635-2-12

L/A R/W LINE

T-DMS 95-31.72 SB
STA. 2267+00
(FUTURE)

EX. HART 95-31.68
REMOVE

SB SR-9 (I-95)

2265

℄ CONST. SR 9

NB SR-9 (I-95)

MATCHLINE STA. 2260+00.00

DIRECTIONAL BORE - 5 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

30 LF	630-2-12
30 LF	639-2-1
30 LF (2x)	633-1-122

84

-ABANDON
EX. CONDUIT
-REMOVE
EX. 12 SM/36 SM/36 SM
EX. 96 SM/48 SM
EX. 144 SM ITS

633-1-620	630 LF (6x)

DIRECTIONAL BORE - 5 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (2-24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

84

320 LF	630-2-12
320 LF	639-2-1
320 LF (3x)	633-1-122

LHUB 95-31.76B SB
STA. 2269+30
SEE SITE DETAIL
LAYOUT 12

84

2 EA	633-2-11
1 EA	635-2-12
50 LF	633-1-122

LHUB 95-31.76 SB
MVDS 95-31.76 SB
DCCTV 95-31.76 SB
EX. WAP 95-31.76 SB
EX. VOIP 95-31.76 SB
STA. 2269+50
SEE SITE DETAILS
LAYOUT 3

635-2-11	1 EA
635-2-12	1 EA
633-1-122	50 LF (2x)
641-3-175	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA
684-6-40	2 EA

84

TRENCH LINE- 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

60 LF	630-2-11
60 LF	633-1-123
60 LF (2x)	633-1-124
60 LF	639-2-1

DIRECTIONAL BORE- 3 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SPARE)

84

630-2-12	110 LF
633-1-122	110 LF

EX. FSB 31.77 SB
PROSPECT ROAD

633-1-122	100 LF
633-2-31	24 EA
633-3-11	1 EA
633-3-12	2 EA

L/A R/W LINE

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER

633-1-620	240 LF (7x)

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

84

50 LF	633-1-123
50 LF (2x)	633-1-124
1 EA	635-2-11
1 EA	635-2-12

2270

MATCHLINE STA. 2274+00.00

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

84

330 LF	630-2-12
330 LF	633-1-123
330 LF (2x)	633-1-124
330 LF	639-2-1

FSB 95-31.81 NB
W/ SLACK FIBER
POWER PULL BOX

84

633-1-122	100 LF
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA
635-2-13	1 EA

PROSPECT RD

L/A R/W LINE

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	390 LF
633-1-123	390 LF
633-1-124	390 LF (2x)
639-2-1	390 LF

POWER PULL BOX

1 EA	635-2-11

-REMOVE
EX. CCTV 95-31.68
EX. LHUB 95-31.68
EX. MVDS 95-31.68
-RELOCATE TO 95-31.76 SB
EX. VOIP 95-31.68
EX. WAP 95-31.68

1 EA	641-2-80

LHUB 95-31.76 NB
MVDS 95-31.76 NB
STA. 2269+20
SEE SITE DETAILS
LAYOUT 4

47

50 LF	633-1-122
1 EA	641-3-186
1 EA	660-3-11
1 EA	660-3-12
1 EA	635-2-11
1 EA	635-2-12

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	530 LF
633-1-123	530 LF
633-1-124	530 LF (2x)
639-2-1	530 LF

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (24 SM ITS)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

84

140 LF	630-2-11
140 LF	633-1-122
140 LF	633-1-123
140 LF (2x)	633-1-124
140 LF	639-2-1

FSB 95-31.77 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF (3x)	633-1-122
200 LF	633-1-123
200 LF (2x)	633-1-124
12 EA	633-2-31
2 EA	633-3-11
2 EA	633-3-12
1 EA	635-2-11
1 EA	635-2-13

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SPARE)

170 LF	630-2-12
170 LF	633-1-123
170 LF (2x)	633-1-124
170 LF	639-2-1

LHUB 95-31.81 NB
STA. 2272+10
SEE SITE DETAILS
LAYOUT 8

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (COMPOSITE CABLE)

200 LF	630-2-11
200 LF	633-8-1

RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4P96

BY: RDO VS Date: 6/11/2020

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84
1/22/19	65 UPDATE CONDUIT LOCATION		

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Certificate of Authorization # 3932
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-199

JacobPerez 3/20/2020 3:13:21 PM \\vhb\gbl\proj\Orlando\62442.00 I-95 Express 3A-1\cad\te\E4032\its\PLANIT26.dgn

6 SM
ABINET

-UTILIZE
EX. 24 SM ATMS
EX. 96 SM RR PROJECT
-REMOVE
EX. 144 SM ITS
EX. SERVICE WIRE

633-1-620	1400 LF
639-2-6	1400 LF

84
LHUB 95-32.38 SB
MVDS 95-32.38 SB
DCCTV 95-32.38 SB
STA. 2302+00
SEE SITE DETAILS
LAYOUT 4

641-3-186	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

55

TRENCH LINE - 9 CONDUITS
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
3-2" CONDUIT (SPARE)

630-2-11	380 LF
633-8-1	380 LF
639-2-1	380 LF

55

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

635-2-11	1 EA (3x)
635-2-13	1 EA

RAMP SIGNAL
STA. 2306+30

646-1-11	1 EA
650-1-13	2 EA
700-3-101	1 EA

55

L/A R/W LINE

DIRECTIONAL BORE - 10 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
3-2" CONDUIT (SPARE)

630-2-12	60 LF
633-8-1	60 LF
639-2-1	60 LF

55

TRENCH LINE - 8 CONDUITS
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (12-#6 (24 VDC))
(6-#10 (24 VDC))
3-2" CONDUIT (SPARE)

630-2-11	230 LF
633-1-124	230 LF
639-2-1	230 LF (2x)

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-124	50 LF
635-2-11	1 EA
635-2-12	1 EA

DIRECTIONAL BORE- 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#6 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-12	290 LF
633-1-124	290 LF
639-2-1	290 LF

NOTE:
SERVICE WIRE AND FIBER OPTIC
CABLE SHALL BE INSTALLED, BUT
NOT CONNECTED FOR LHUB 95-32.62 SB.

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#6 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	100 LF
633-1-122	100 LF
633-1-124	100 LF
639-2-1	100 LF

55

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	2 EA
635-2-13	1 EA

LHUB 95-32.64 SB
DCCTV 95-32.64 SB
MVDS 95-32.64 SB
STA. 2315+90
SEE SITE DETAILS
LAYOUT 3

641-3-163	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA

FSB 95-32.64 SB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF (2x)
633-1-124	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA
635-2-13	1 EA

55

DIRECTIONAL BORE - 5 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SPARE)

630-2-12	270 LF
633-1-122	270 LF
633-8-1	270 LF
639-2-1	270 LF

55

RAMP T

SB SR-9 (I-95)

2305

2310

2315

DMS 95-32.58 SB
(FUTURE)

LHUB 95-32.62 SB
STA. 2315+00
SEE SITE DETAILS
LAYOUT 12

℄ CONST. SR 9

42
DMS 95-32.58 NB
STA. 2312+92.92

700-9-137	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#4 (120/240 VDC))
1-2" CONDUIT (SPARE)

630-2-11	70 LF
639-2-1	70 LF

NB SR-9 (I-95)

42
660-2-102 4 AS

RAMP S

L/A R/W LINE

LHUB 95-32.39 NB
MVDS 95-32.39 NB
CCTV 95-32.39 NB
DCCTV 95-32.39 NB
STA. 2302+55
SEE SITE DETAILS
LAYOUT 3

55

641-3-186	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	2 EA

FSB 95-32.39 NB
W/ SLACK FIBER
POWER PULL BOX

55

633-1-122	100 LF (2x)
633-2-31	6 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA
635-2-13	1 EA

TRENCH LINE - 9 CONDUITS
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
3-2" CONDUIT (SPARE)

630-2-11	70 LF
633-8-1	70 LF
639-2-1	70 LF

55

FSB 95-32.46 NB
W/ SLACK FIBER
POWER/SIGNAL/
DETECTOR PULL BOX

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA (3x)
635-2-13	1 EA

55

RSC 95-32.46 NB
STA. 2306+20
SEE SITE DETAILS
LAYOUT 19

55

660-1-111	2 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#6 (600 VAC))
3-2" CONDUIT (SPARE)

55

630-2-11	440 LF
639-2-1	440 LF

FSB 95-32.55 NB
W/ SLACK FIBER
POWER PULL BOX

55

633-1-122	100 LF (2x)
633-1-124	100 LF
633-2-31	10 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	2 EA
635-2-13	1 EA

LHUB 95-32.55 NB
STA. 2310+90
SEE SITE DETAILS
LAYOUT 9

TRENCH LINE - 10 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (4-#4 (120/240 VAC))
3-2" CONDUIT (SPARE)

630-2-11	180 LF
633-1-122	180 LF
633-1-124	180 LF
639-2-1	180 LF (2x)

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (24 DROP)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#6 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	335 LF
633-1-122	335 LF
639-2-1	335 LF

LHUB 95-32.64 NB
MVDS 95-32.64 NB
STA. 2315+85
SEE SITE DETAILS
LAYOUT 2

641-2-14	1 EA
660-3-11	1 EA
660-3-12	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
633-1-124	50 LF
635-2-11	1 EA
635-2-12	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

MATCHLINE STA. 2302+00

MATCHLINE STA. 2316+00

0 20 100
Feet

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	42 -MSE WALL 26 ADJUST -ADJUSTED OVERHEAD SIGN STRUCTURE	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84
11/5/18	55 -MSE WALL 25 ADJUST -REMOVAL OF 3A-1 BACKBONE NORTH OF MASTERHUB -ADJUST POLE 95-32.39 NB AND RSC 95-32.46 NB		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

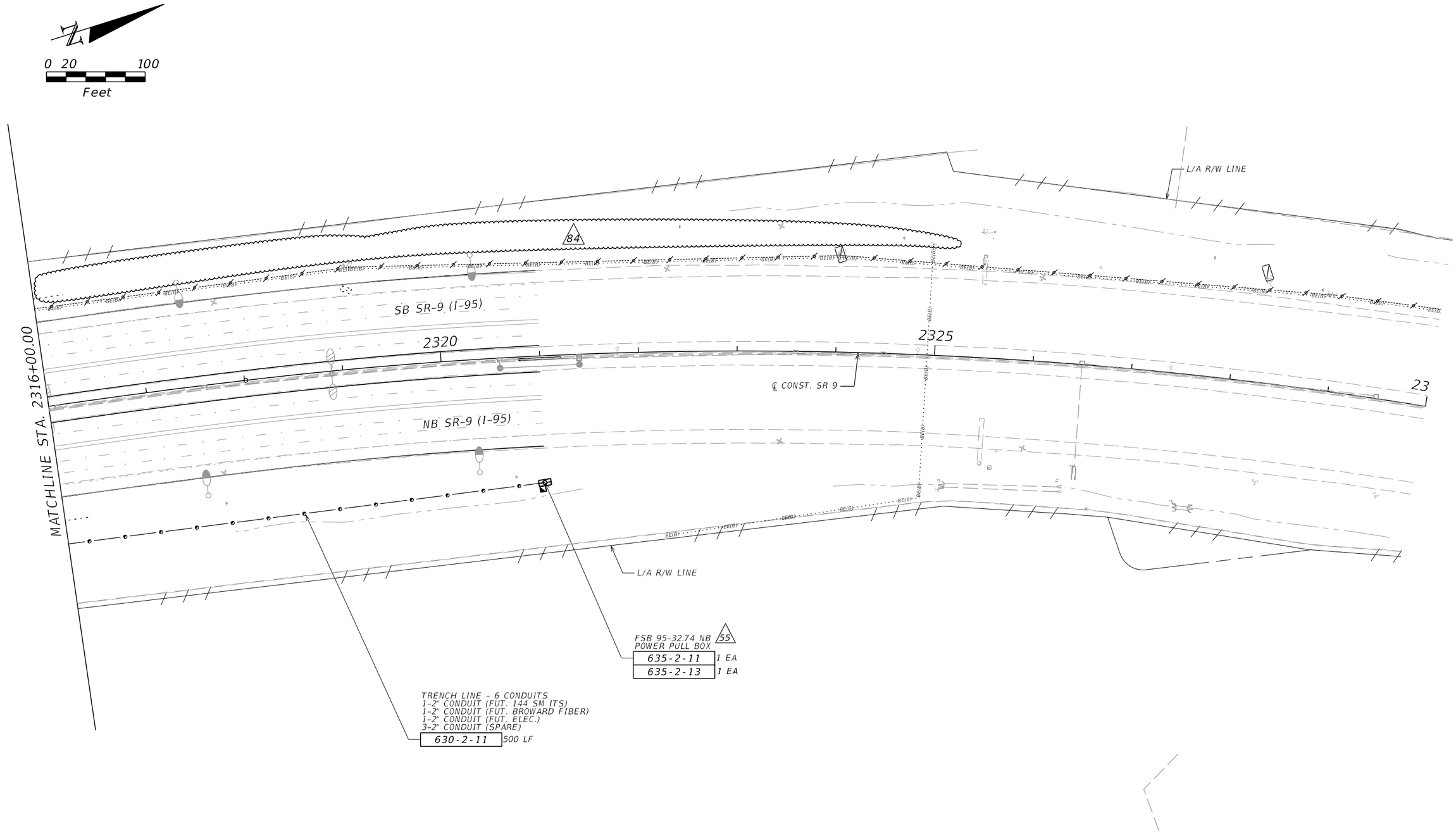
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-202

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. Contractor is responsible for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection. Shall remain with the contractor.
BY: RPOO1 VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 -MSE WALL 25 ADJUST -REMOVAL OF 3A-1 BACKBONE NORTH OF MASTERHUB -ADJUST POLE 95-32.39 NB AND RSC 95-32.46 NB	3/9/20	UPDATE SB FIBER RFI#87 84

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-203

jknight 3/26/2020 7:25:19 PM C:\Work_Projects\62442.00\ITS\PLANIT30.dgn

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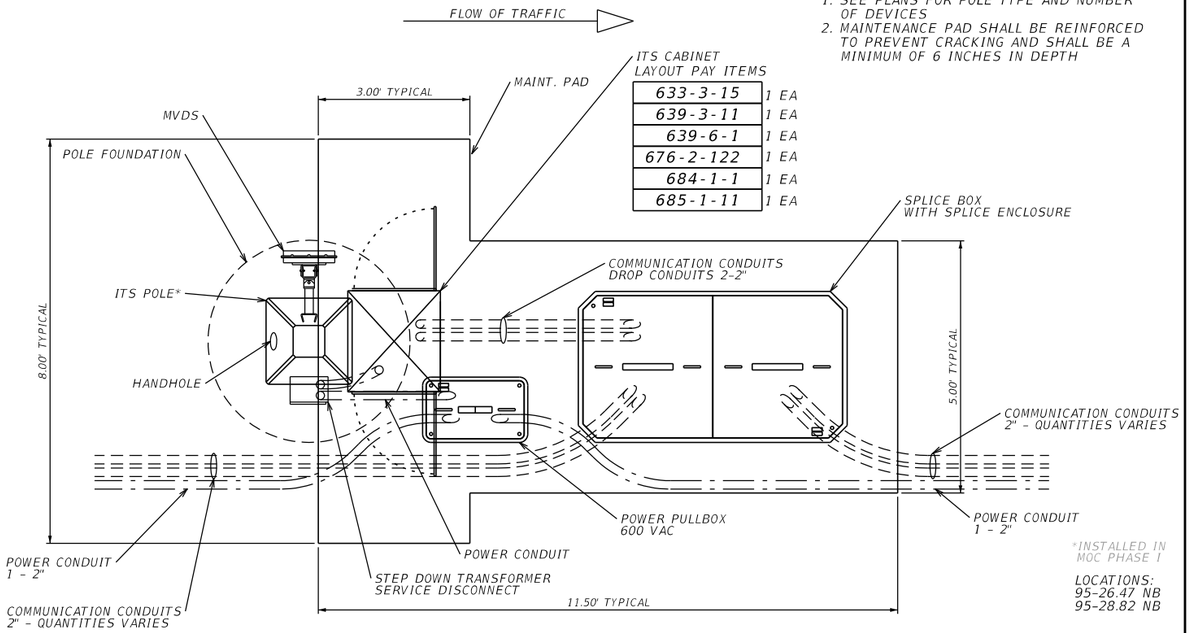
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

LAYOUT 1



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

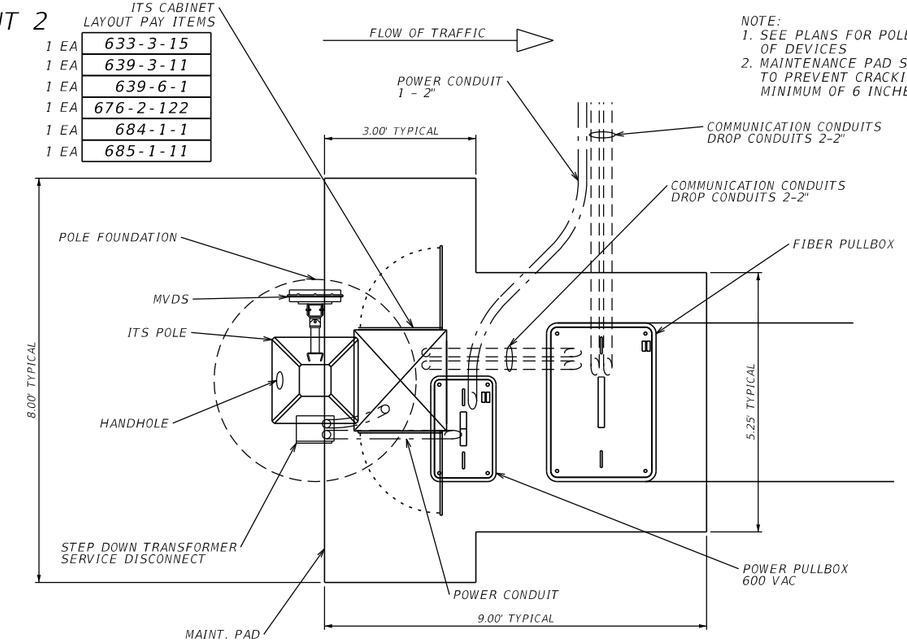
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.47 NB
95-28.82 NB

TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 2



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

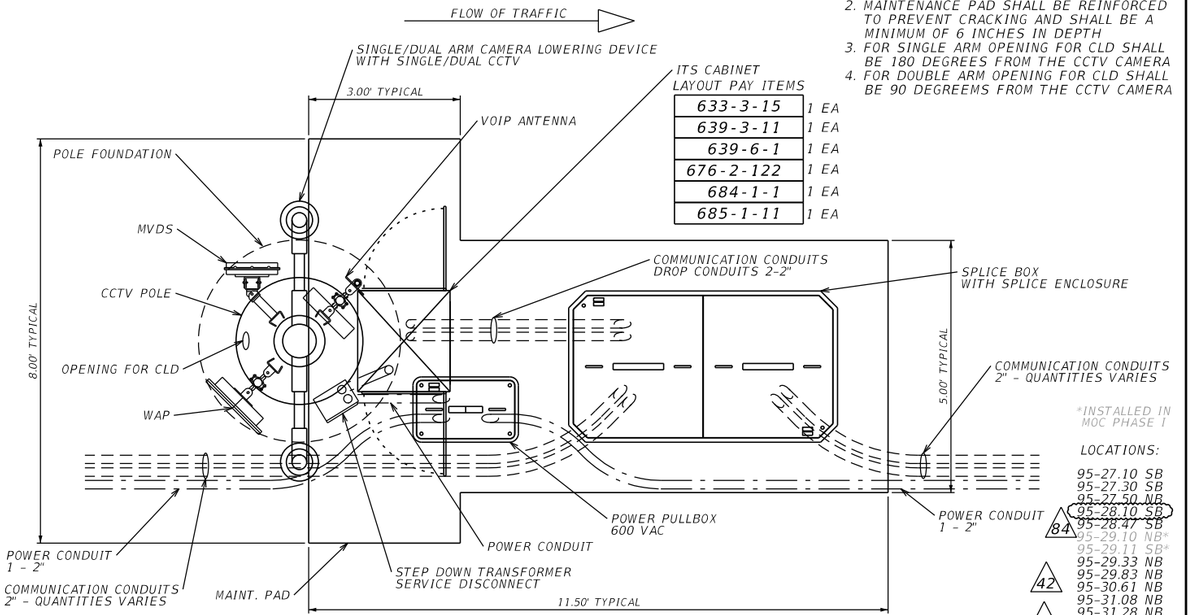
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 SB*
95-27.13 NB
95-28.56 NB*
95-30.83 SB
95-32.64 NB

TYPICAL MVDS SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LAYOUT 3



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

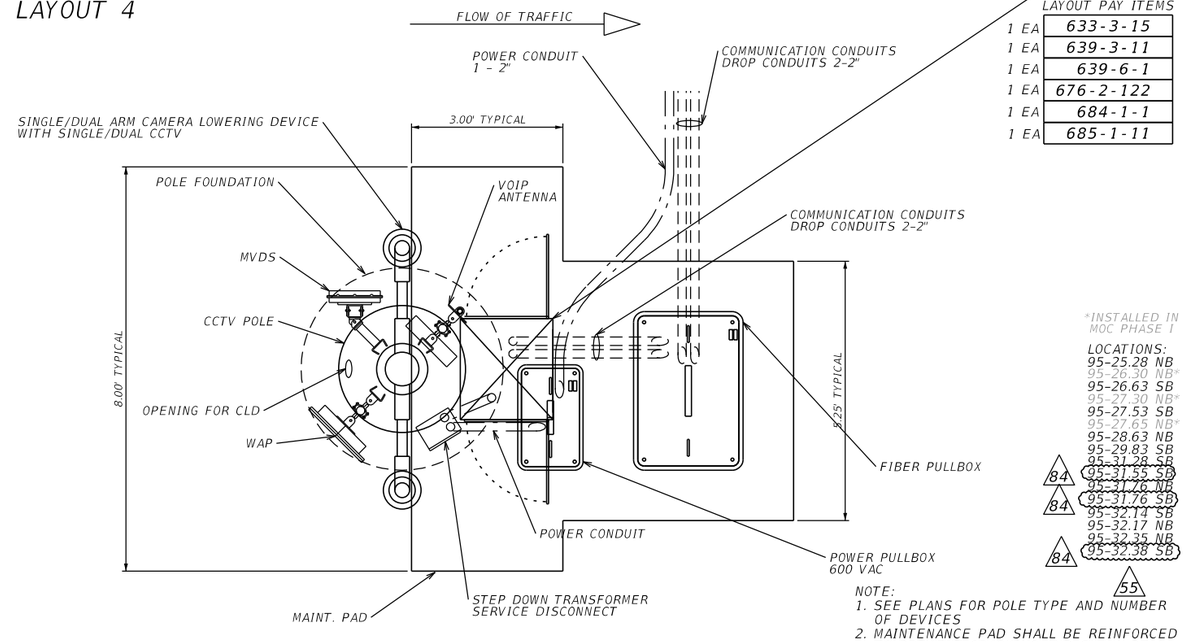
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-27.10 SB
95-27.30 SB
95-27.50 NB
95-28.10 SB (84)
95-28.47 SB
95-29.10 NB*
95-29.11 SB*
95-29.33 NB
95-29.83 NB (42)
95-30.61 NB
95-31.08 NB (47)
95-31.28 NB
95-31.54 NB (38, 65)
95-32.27 SB
95-32.39 NB
95-32.64 SB

TYPICAL CCTV SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 4



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-25.28 NB
95-25.30 NB*
95-26.63 SB
95-27.30 NB*
95-27.53 SB
95-27.65 NB*
95-28.63 NB
95-29.83 SB
95-31.28 SB
95-31.55 SB (84)
95-31.76 NB
95-31.76 SB (84)
95-32.14 SB
95-32.17 NB
95-32.35 NB
95-32.38 SB (84)
(55)

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREES FROM THE CCTV CAMERA

TYPICAL CCTV SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	UPDATED LAYOUT 95-30.57SB (38)	11/5/18	MSE WALL 25 ADJUSTED (55)
6/15/18	MSE WALL 15 ADJUST (42)	1/22/19	UPDATE GROUNDING PULL BOX (65)
7/31/18	MSE WALL 21 ADJUST (47)	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT (84)

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-208

RELEASED FOR CONSTRUCTION
Released for construction, but shall be used with contract documents. Is responsibility for errors and omissions, correctness of dimensions, grades, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: RPOO VS Date: 6/11/2020
FPID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4F96

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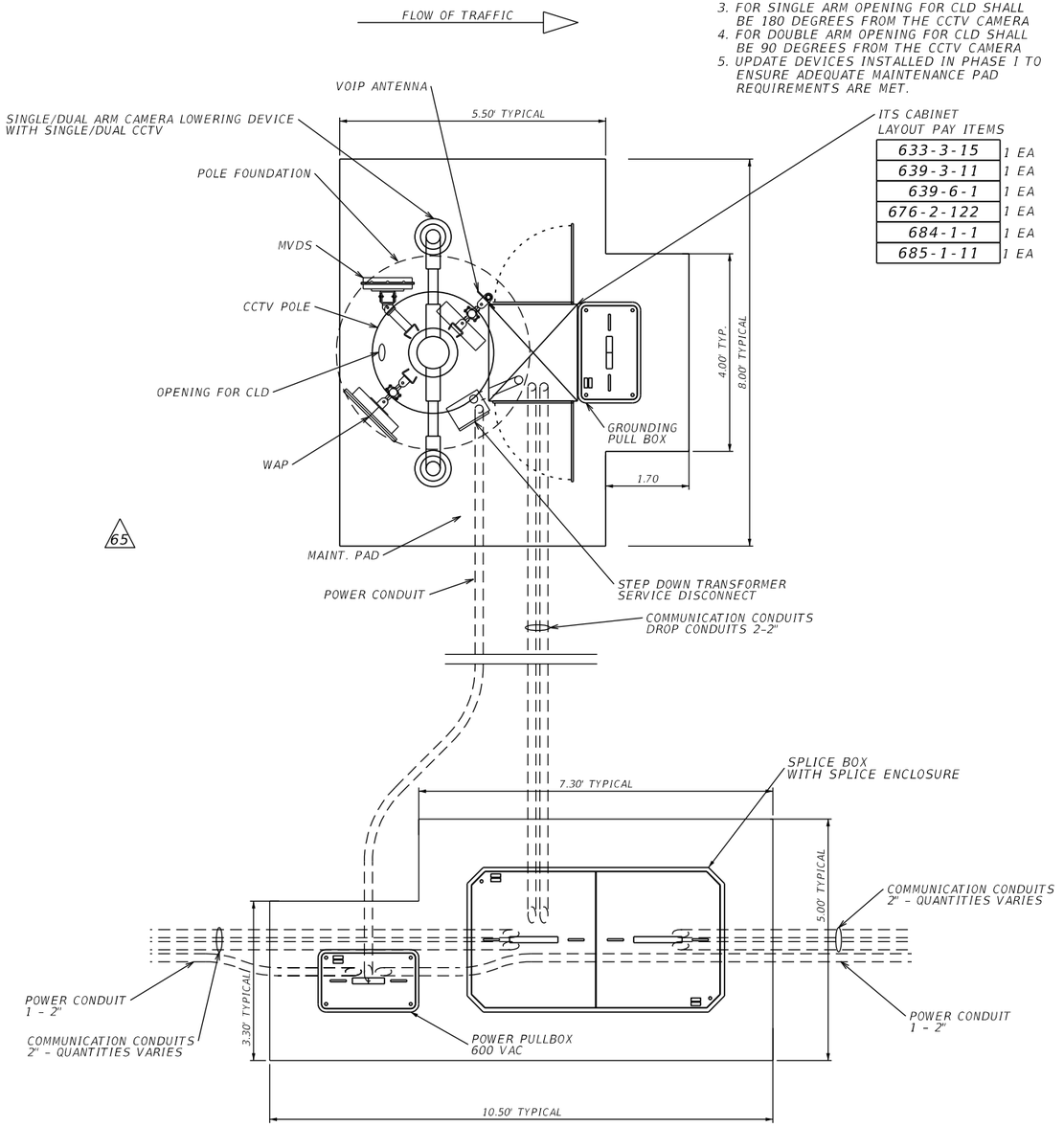
LAYOUT 5

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREES FROM THE CCTV CAMERA
5. UPDATE DEVICES INSTALLED IN PHASE I TO ENSURE ADEQUATE MAINTENANCE PAD REQUIREMENTS ARE MET.



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

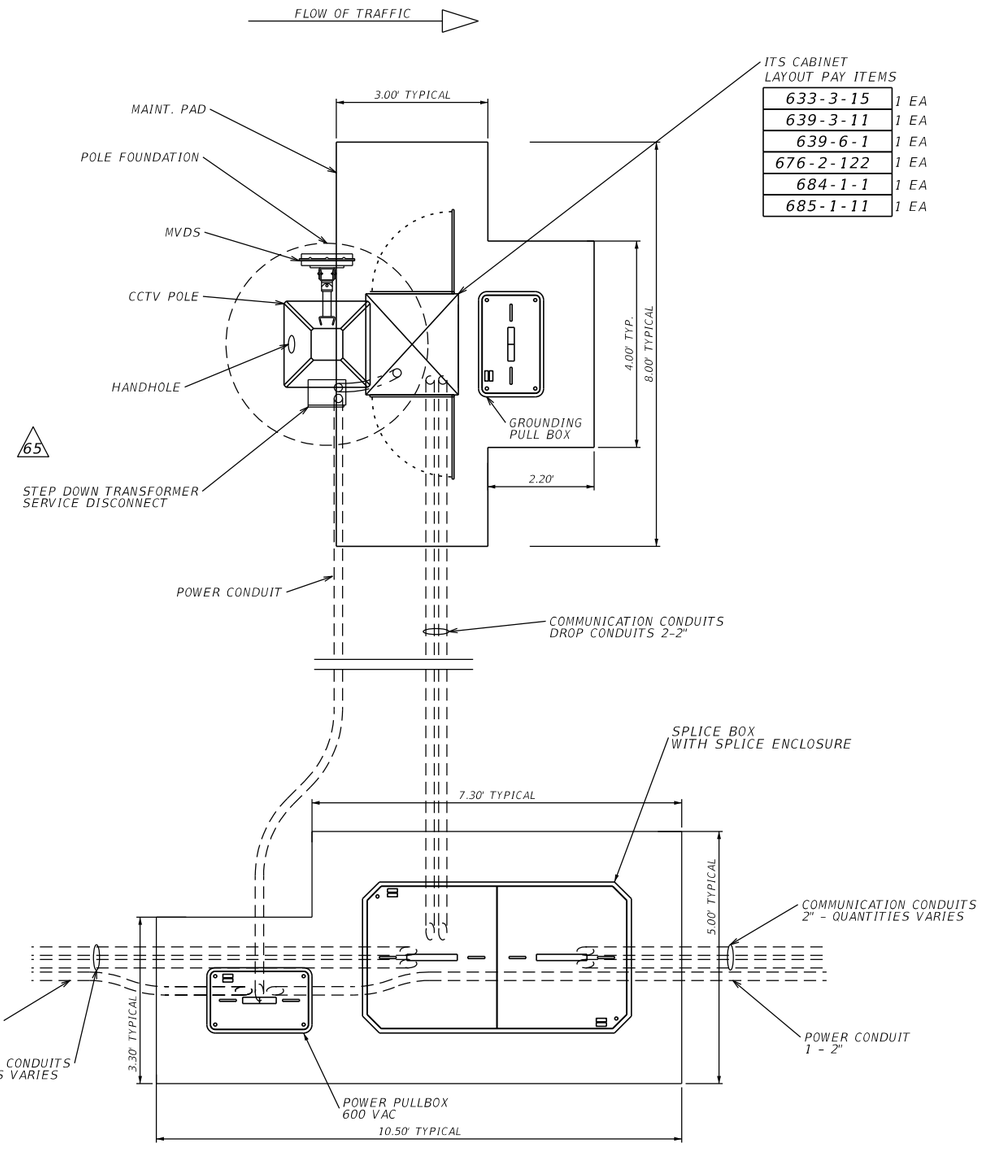
*INSTALLED IN MOC PHASE I

LOCATIONS:
84 95-27.95 SB*
95-28.30 SB*
38 95-30.08 NB
95-30.33 NB
95-30.57 SB
47 42 95-30.83 NB
95-31.95 SB
65

TYPICAL CCTV SITE LAYOUT - OFFSET FROM BACKBONE

LAYOUT 6

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 NB*
95-28.31 NB
95-28.85 SB

TYPICAL MVDS SITE LAYOUT - OFFSET FROM BACKBONE

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED LAYOUT 95-30.57SB	1/22/19	65 UPDATE GROUNDING PULL BOX
6/15/18	MSE WALL 15 ADJUST 42		
7/31/18	47 MSE WALL 21 ADJUST	3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-209

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors and omissions. Correctness of dimensions, grades, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: JACOB PEREZ VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

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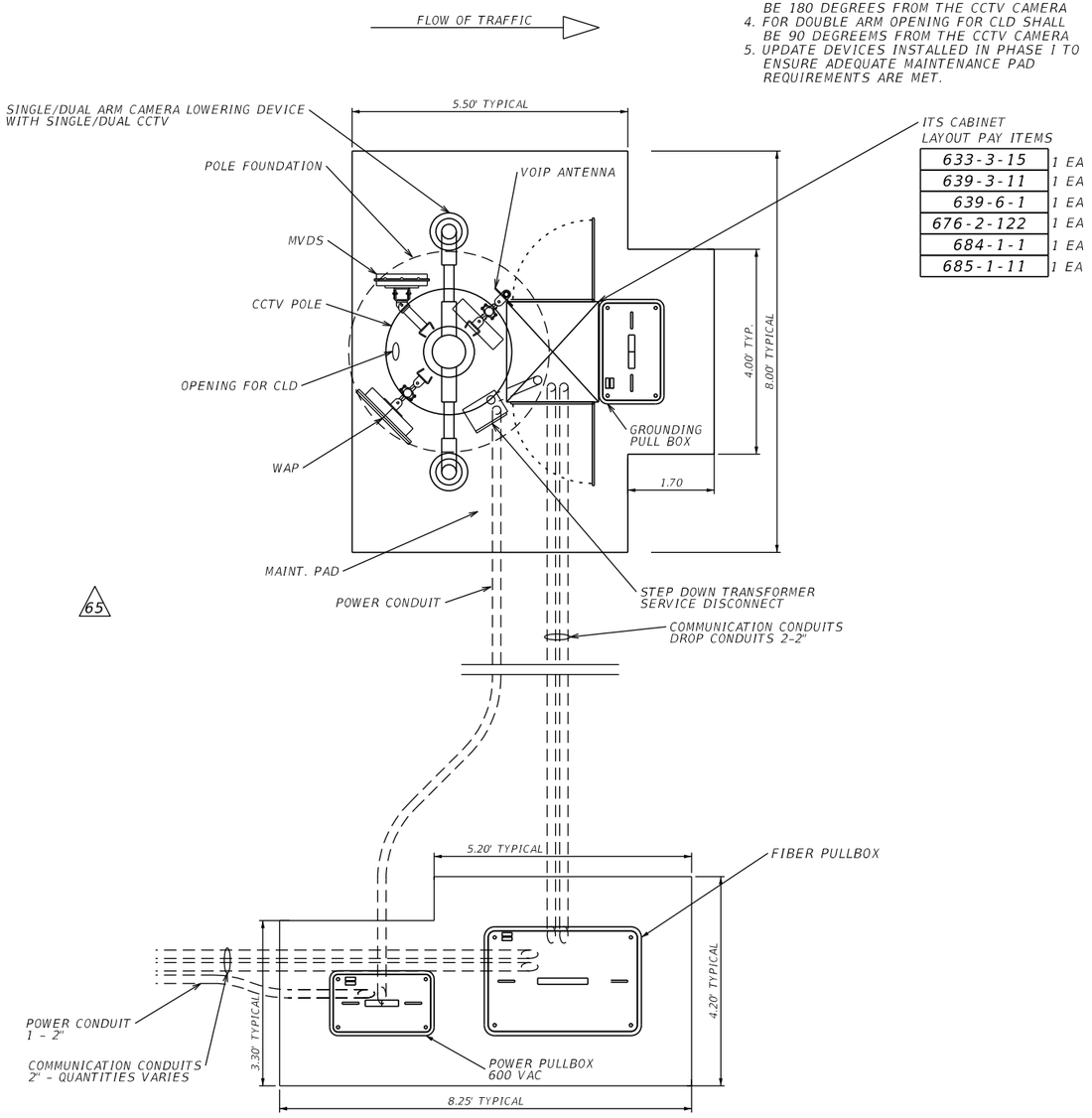
LAYOUT 7

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA
5. UPDATE DEVICES INSTALLED IN PHASE I TO ENSURE ADEQUATE MAINTENANCE PAD REQUIREMENTS ARE MET.



TYPICAL CCTV SITE LAYOUT - OPPOSITE FROM BACKBONE

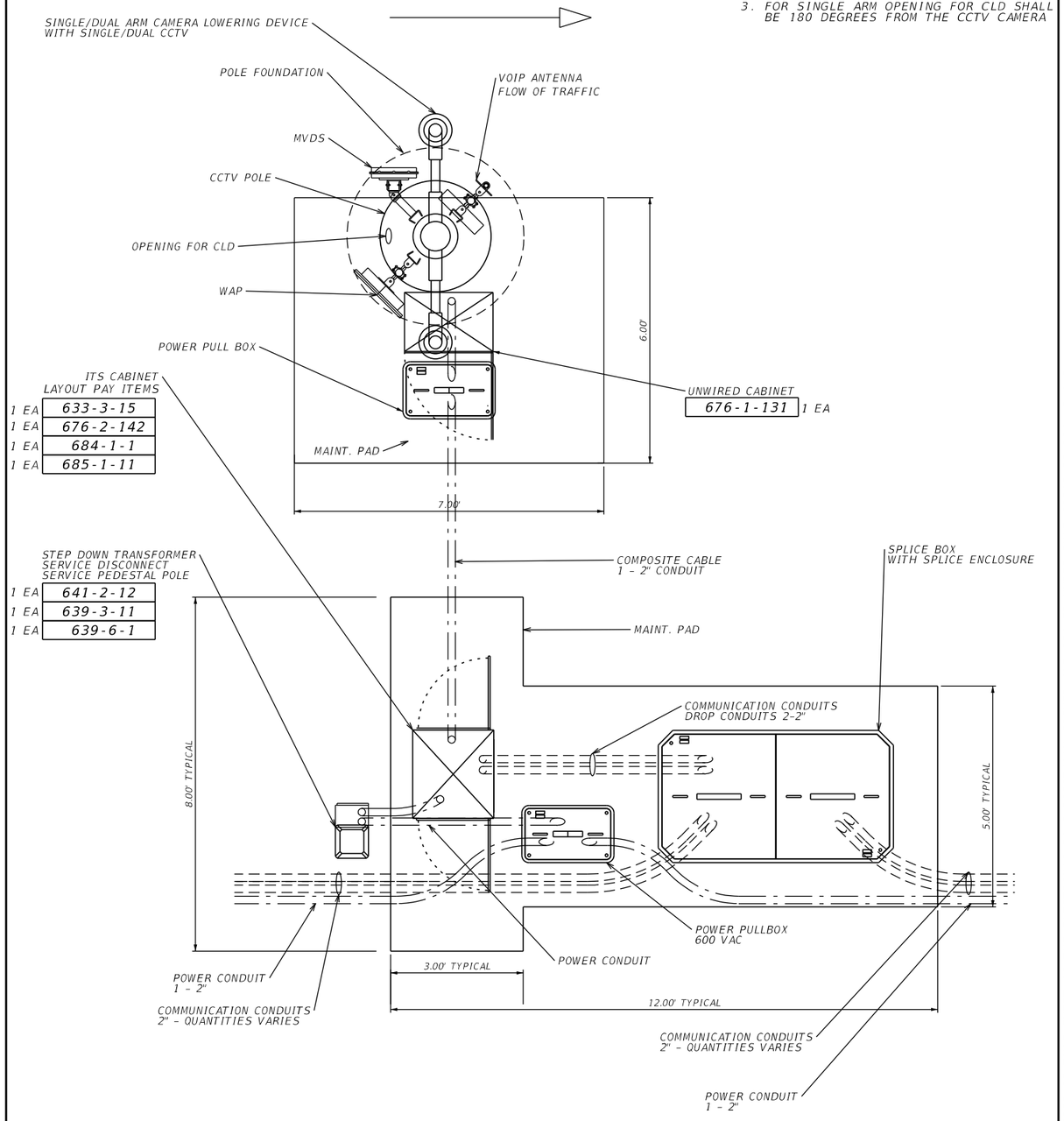
*INSTALLED IN MOC PHASE I

LOCATIONS:
~~95-28.16 NB~~
95-29.55 SB*
~~95-31.88 SB~~

84

LAYOUT 8

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA



TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-30.05 SB
95-31.81 NB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

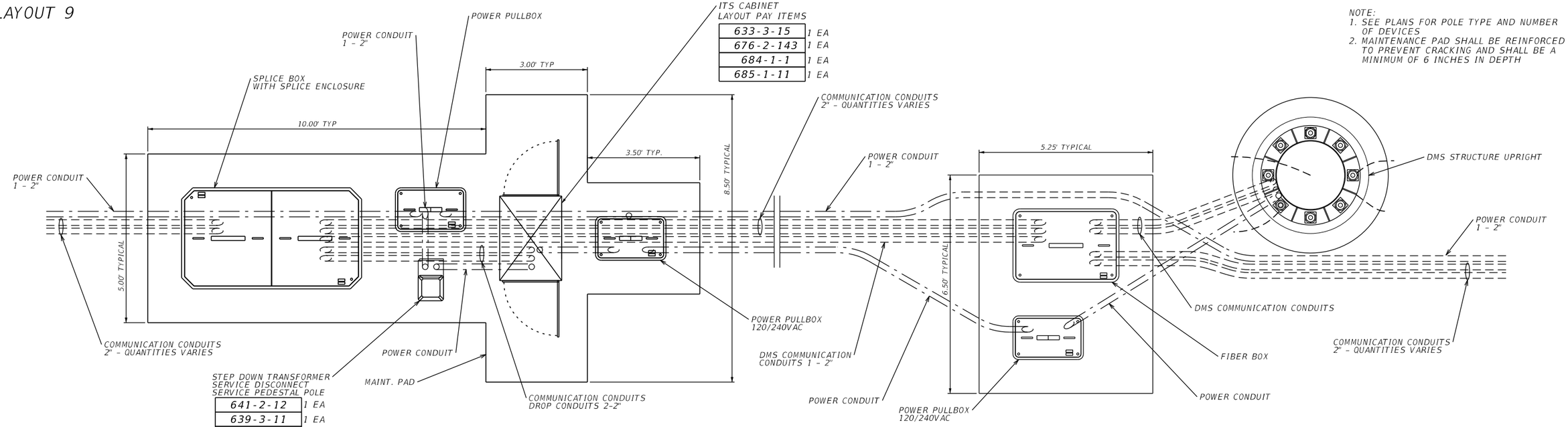
SITE LAYOUT DETAILS

SHEET NO.
IT-210

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. Signature is responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection. Shall remain with the contractor.
BY: RPOO VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

LAYOUT 9

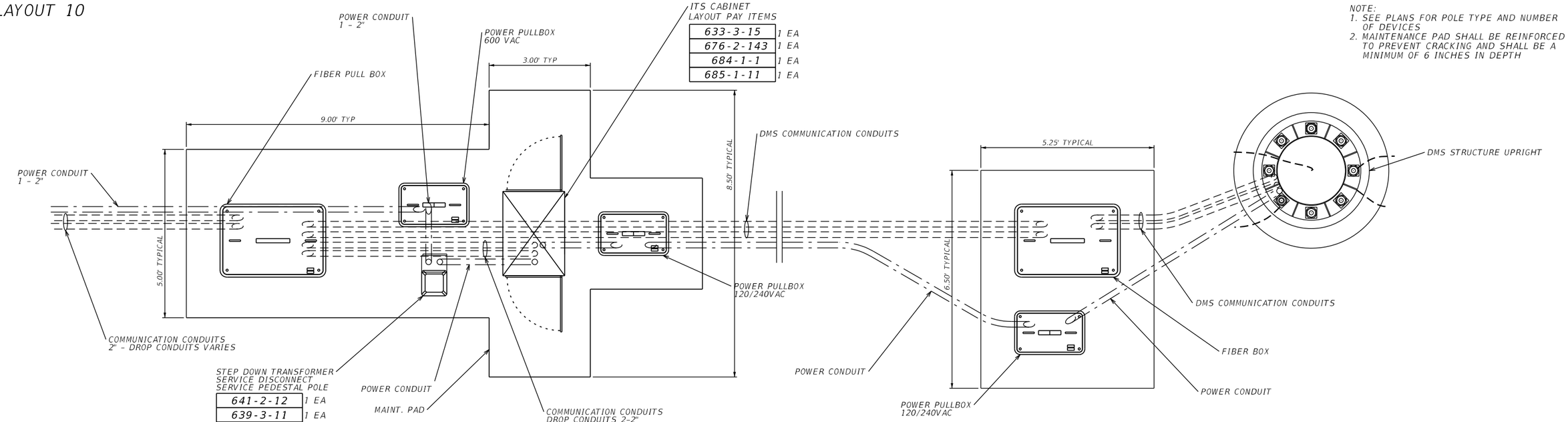


NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

TYPICAL DMS/EL DMS CABINET SITE LAYOUT - ADJACENT TO BACKBONE

84 LOCATIONS:
95-29.95 NB
95-29.99 SB
95-32.55 NB

LAYOUT 10



NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

TYPICAL DMS/EL DMS CABINET SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

84 LOCATIONS:
95-28.16 SB
95-28.29 NB
95-32.09 SB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

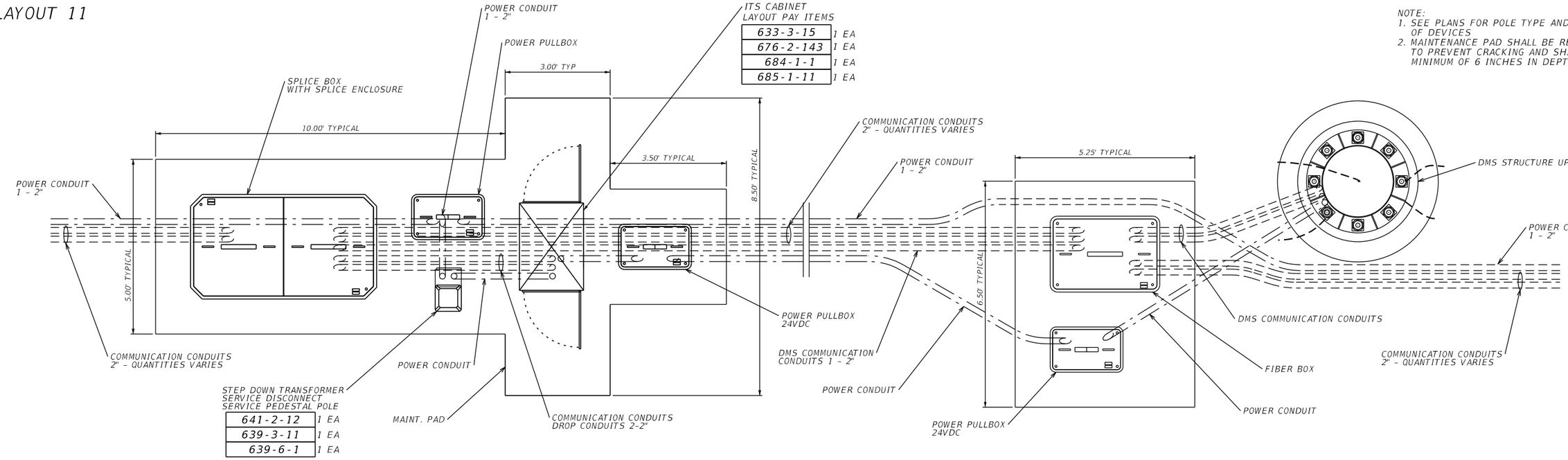
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-211

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

LAYOUT 11

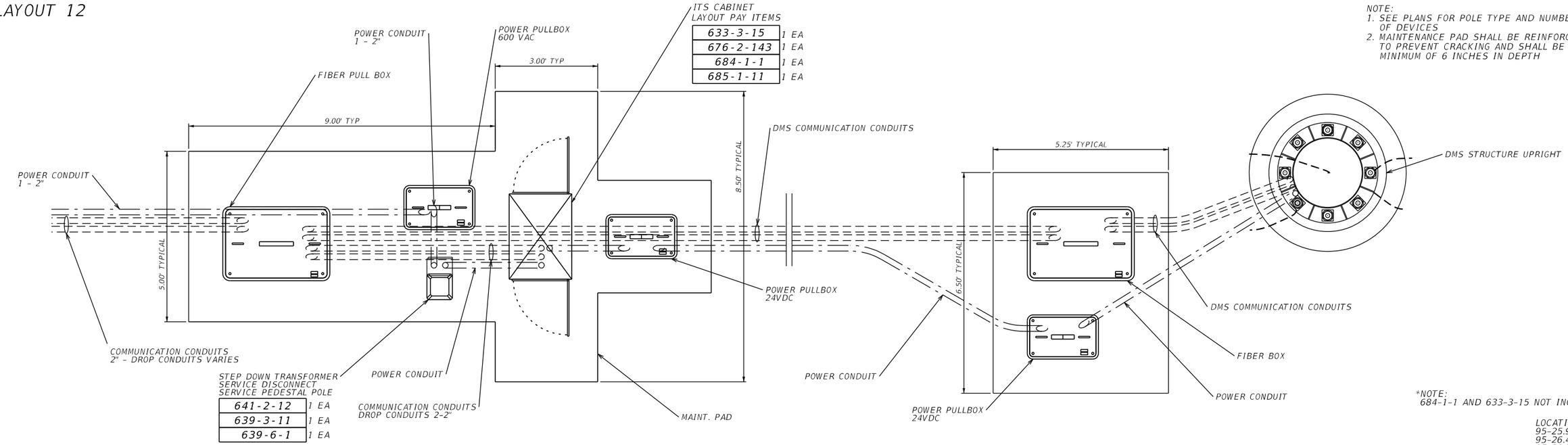


NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

LOCATIONS:
95-29.71 NB
95-30.12 NB
95-30.20 SB
95-30.41 NB
95-30.86 NB

TYPICAL S-DMS/T-DMS CABINET SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 12



NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*NOTE:
684-1-1 AND 633-3-15 NOT INCLUDED.

LOCATIONS:
95-25.93 NB
95-26.41 NB
95-29.51 SB
95-29.73 SB
*95-31.76B SB
*95-32.62 SB

84

TYPICAL S-DMS/T-DMS CABINET SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

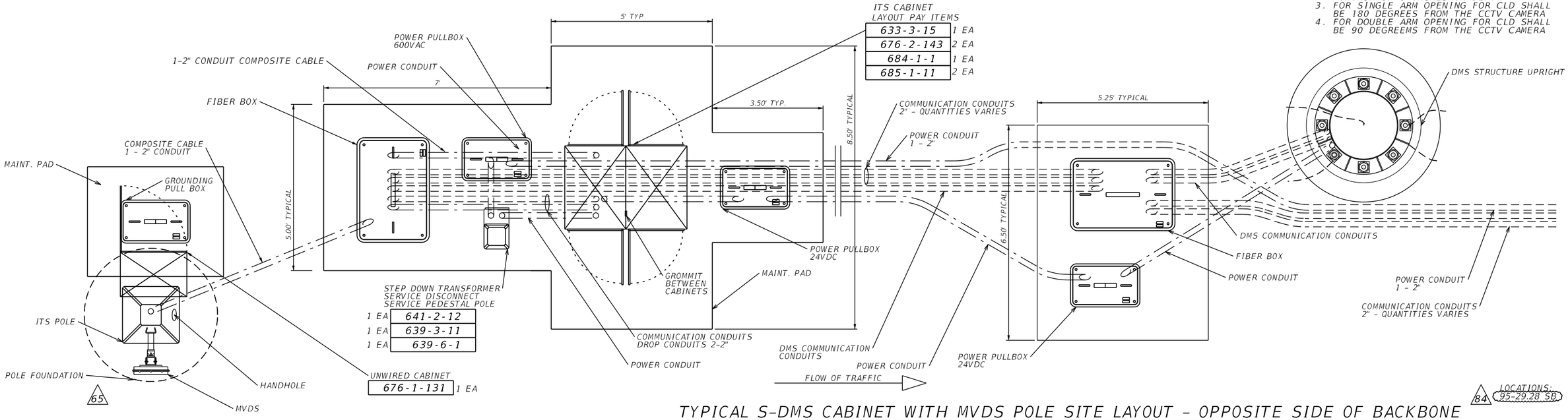
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-212

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

LAYOUT 15

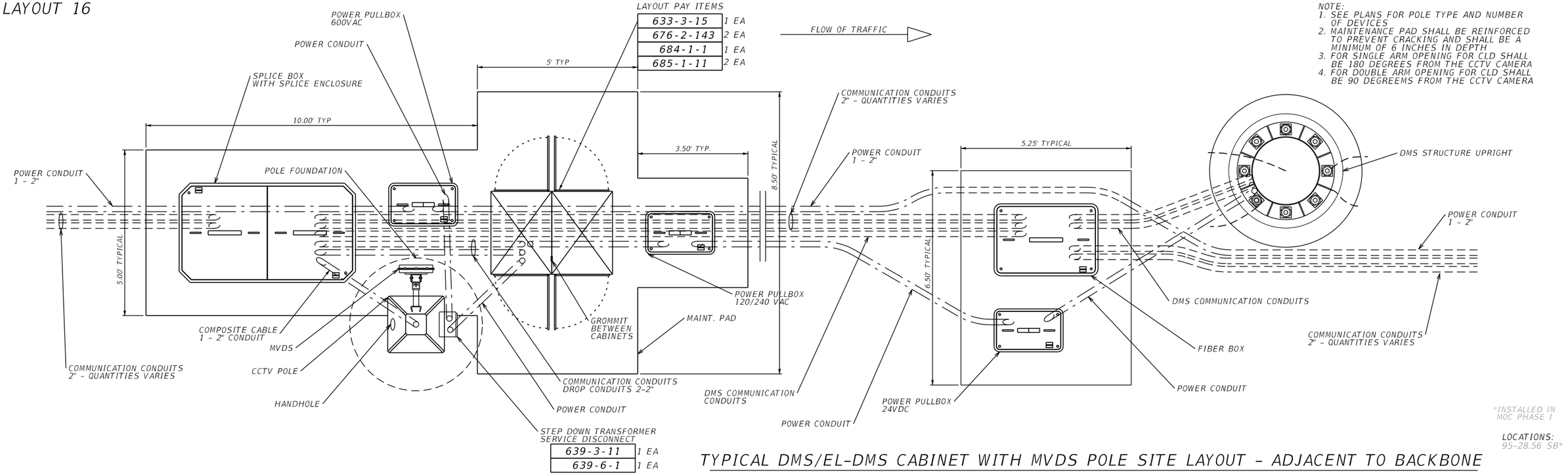


NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

84 LOCATIONS: 95-29.28 SB

TYPICAL S-DMS CABINET WITH MVDS POLE SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LAYOUT 16



NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

*INSTALLED IN MOC PHASE I

LOCATIONS: 95-28.56 SB*

TYPICAL DMS/EL-DMS CABINET WITH MVDS POLE SITE LAYOUT - ADJACENT TO BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX		
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO. IT-214

BY/PROD VS Date: 6/11/2020
RELEASED FOR CONSTRUCTION
Review of these plans shall not relieve the contractor of responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection. Shall remain with the contractor.
FPID 433108-4-52-01 and 433108-4-52-21 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

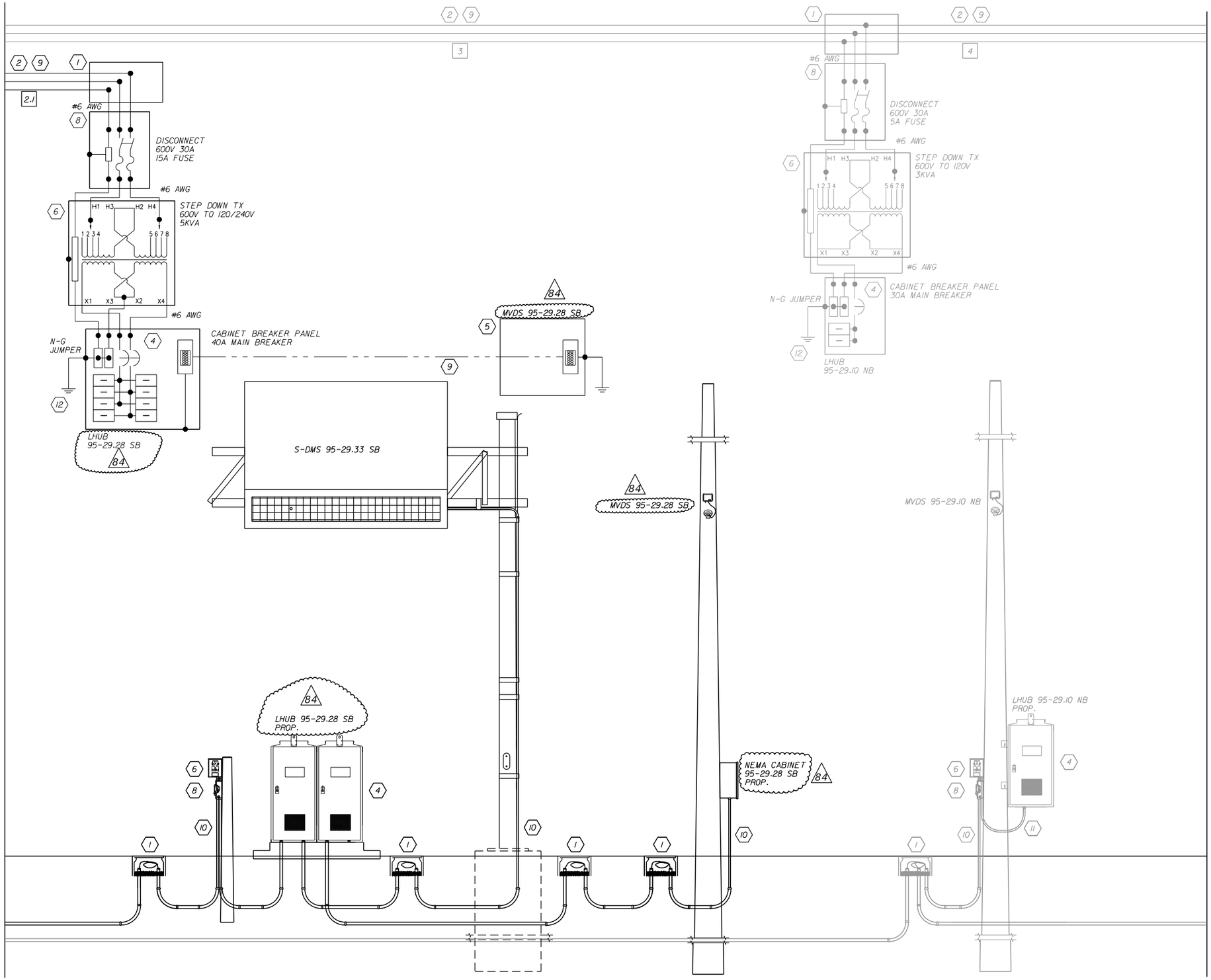
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 8.1

MATCH LINE SHEET IT-243



MATCH LINE SHEET IT-245

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

Vanasse Hangen Brustlin, Inc.
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

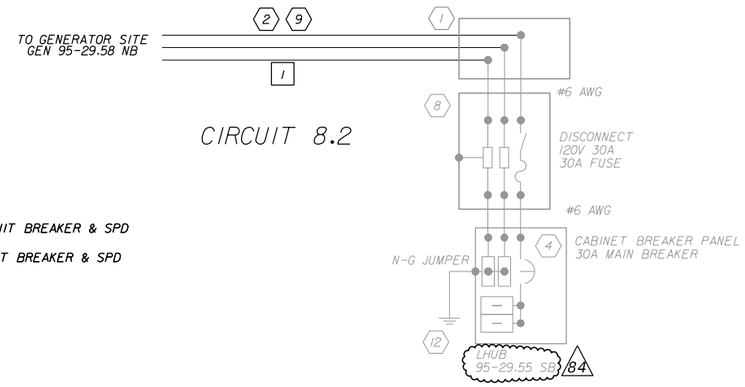
SHEET NO. IT-244

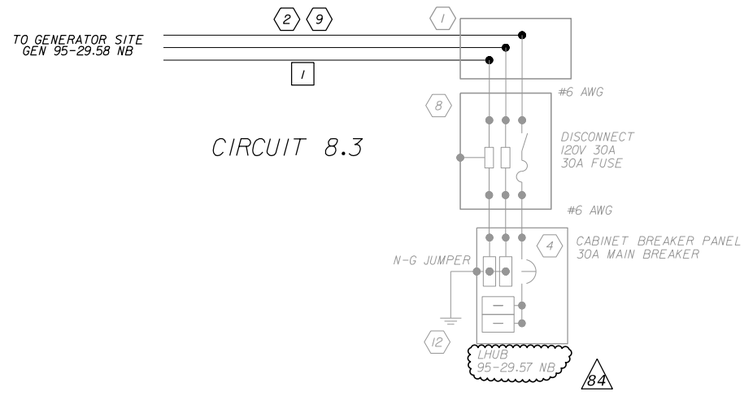
RELEASED FOR CONSTRUCTION
Released for construction in accordance with contract documents. Acceptance of responsibility for errors and omissions, correctness of dimensions, grades, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96
BY: RDD VS Date: 6/11/2020
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

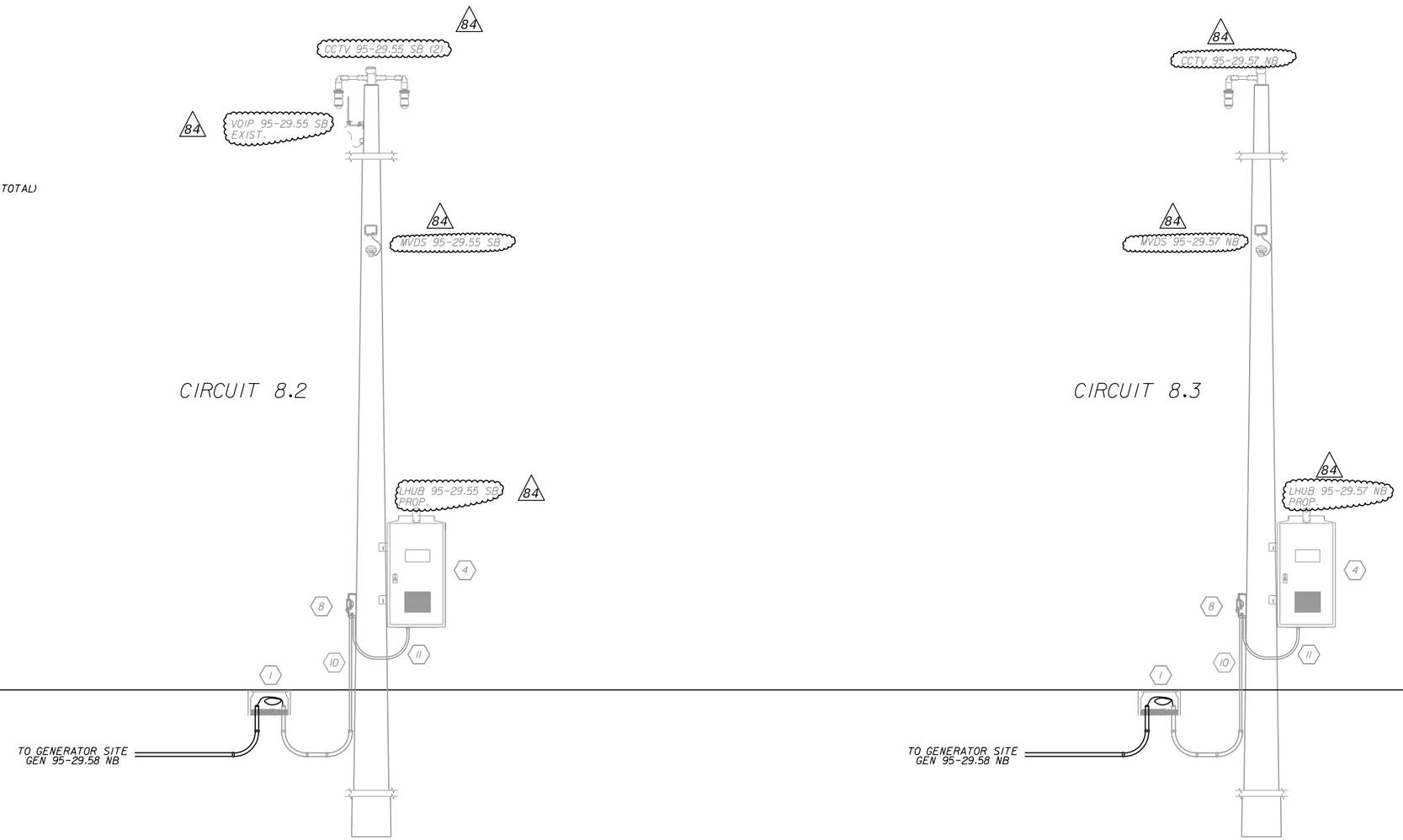
KEYED NOTES:

- 1 PULL BOX
- 1X EXISTING PULL BOX
- 2 PROPOSED SERVICE WIRE
- 2X EXISTING SERVICE WIRE
- 3 PROPOSED GENERATOR
- 3X EXISTING GENERATOR
- 4 PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- 4X EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- 5 PROPOSED NEMA ENCLOSURE
- 5X EXISTING NEMA ENCLOSURE
- 6 PROPOSED TRANSFORMER
- 6X EXISTING TRANSFORMER
- 7 PROPOSED AUTOMATIC TRANSFER SWITCH
- 7X PROPOSED AUTOMATIC TRANSFER SWITCH
- 8 PROPOSED FUSED DISCONNECT
- 8X EXISTING FUSED DISCONNECT
- 9 PROPOSED HDPE CONDUIT
- 9X EXISTING HDPE CONDUIT
- 10 PROPOSED RIGID GALVANIZED STEEL CONDUIT
- 10X EXISTING RIGID GALVANIZED STEEL CONDUIT
- 11 PROPOSED FLEX CONDUIT
- 11X EXISTING FLEX CONDUIT
- 12 PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- 12X EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- 13 PROPOSED METER CAN
- 13X EXISTING METER CAN
- 14 PROPOSED DMS SIGN
- 14X EXISTING DMS SIGN
- 15 PROPOSED HUB BREAKER PANEL
- X CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.







CIRCUIT 8.2
CIRCUIT 8.3

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO.
IT-249

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

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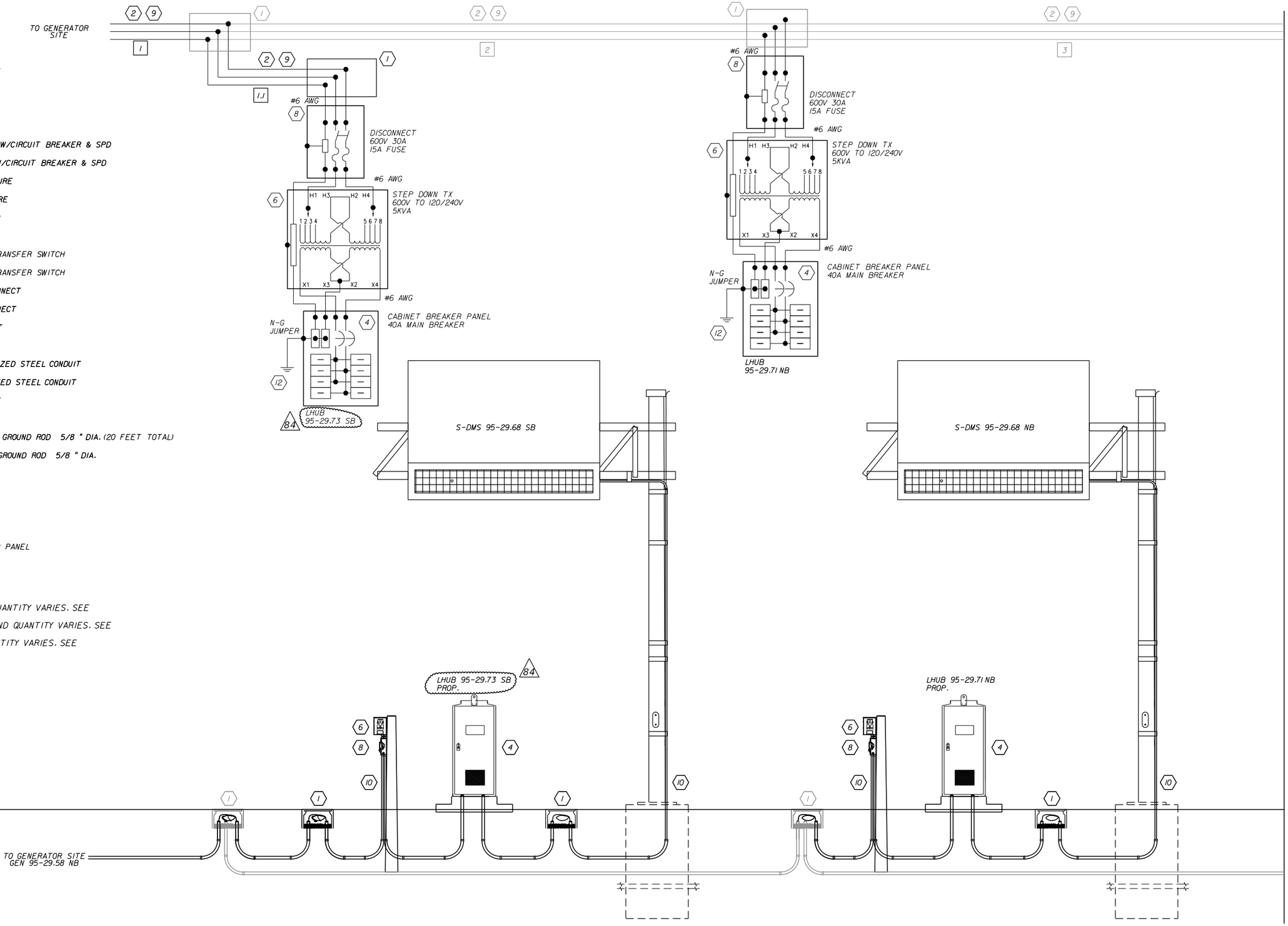
KEYED NOTES:

- (1) PULL BOX
- (1X) EXISTING PULL BOX
- (2) PROPOSED SERVICE WIRE
- (2X) EXISTING SERVICE WIRE
- (3) PROPOSED GENERATOR
- (3X) EXISTING GENERATOR
- (4) PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- (4X) EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- (5) PROPOSED NEMA ENCLOSURE
- (5X) EXISTING NEMA ENCLOSURE
- (6) PROPOSED TRANSFORMER
- (6X) EXISTING TRANSFORMER
- (7) PROPOSED AUTOMATIC TRANSFER SWITCH
- (7X) PROPOSED AUTOMATIC TRANSFER SWITCH
- (8) PROPOSED FUSED DISCONNECT
- (8X) EXISTING FUSED DISCONNECT
- (9) PROPOSED HDPE CONDUIT
- (9X) EXISTING HDPE CONDUIT
- (10) PROPOSED RIGID GALVANIZED STEEL CONDUIT
- (10X) EXISTING RIGID GALVANIZED STEEL CONDUIT
- (11) PROPOSED FLEX CONDUIT
- (11X) EXISTING FLEX CONDUIT
- (12) PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- (12X) EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- (13) PROPOSED METER CAN
- (13X) EXISTING METER CAN
- (14) PROPOSED DMS SIGN
- (14X) EXISTING DMS SIGN
- (15) PROPOSED HUB BREAKER PANEL
- [X] CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 8.4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-250

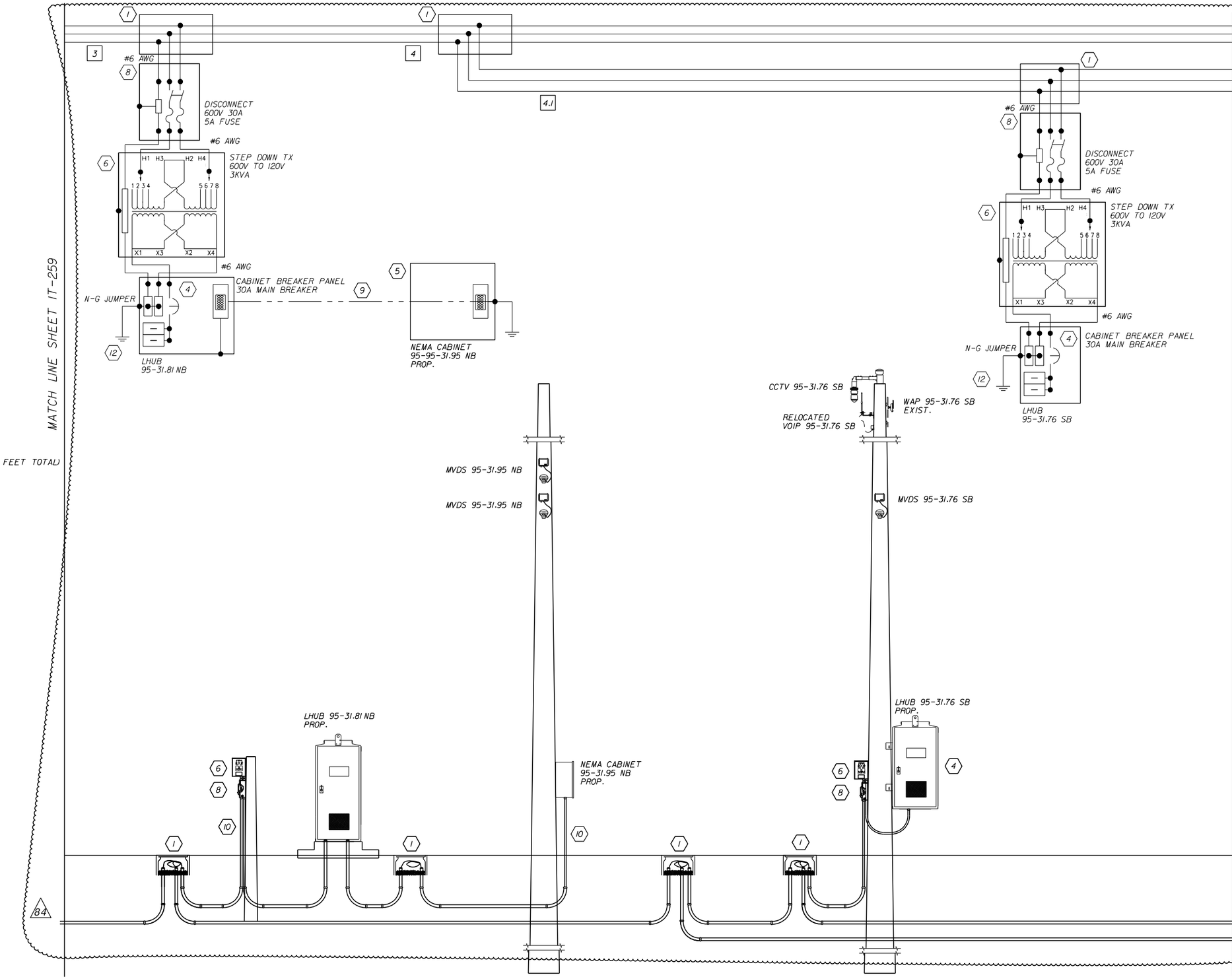
RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors or omissions. Correctness of dimensions, grades, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:RDO VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- 1 PULL BOX
- 1X EXISTING PULL BOX
- 2 PROPOSED SERVICE WIRE
- 2X EXISTING SERVICE WIRE
- 3 PROPOSED GENERATOR
- 3X EXISTING GENERATOR
- 4 PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- 4X EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- 5 PROPOSED NEMA ENCLOSURE
- 5X EXISTING NEMA ENCLOSURE
- 6 PROPOSED TRANSFORMER
- 6X EXISTING TRANSFORMER
- 7 PROPOSED AUTOMATIC TRANSFER SWITCH
- 7X PROPOSED AUTOMATIC TRANSFER SWITCH
- 8 PROPOSED FUSED DISCONNECT
- 8X EXISTING FUSED DISCONNECT
- 9 PROPOSED HDPE CONDUIT
- 9X EXISTING HDPE CONDUIT
- 10 PROPOSED RIGID GALVANIZED STEEL CONDUIT
- 10X EXISTING RIGID GALVANIZED STEEL CONDUIT
- 11 PROPOSED FLEX CONDUIT
- 11X EXISTING FLEX CONDUIT
- 12 PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- 12X EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- 13 PROPOSED METER CAN
- 13X EXISTING METER CAN
- 14 PROPOSED DMS SIGN
- 14X EXISTING DMS SIGN
- 15 PROPOSED HUB BREAKER PANEL
- X CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 9.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 UPDATED ITS DEVICE DROP		
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-260

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

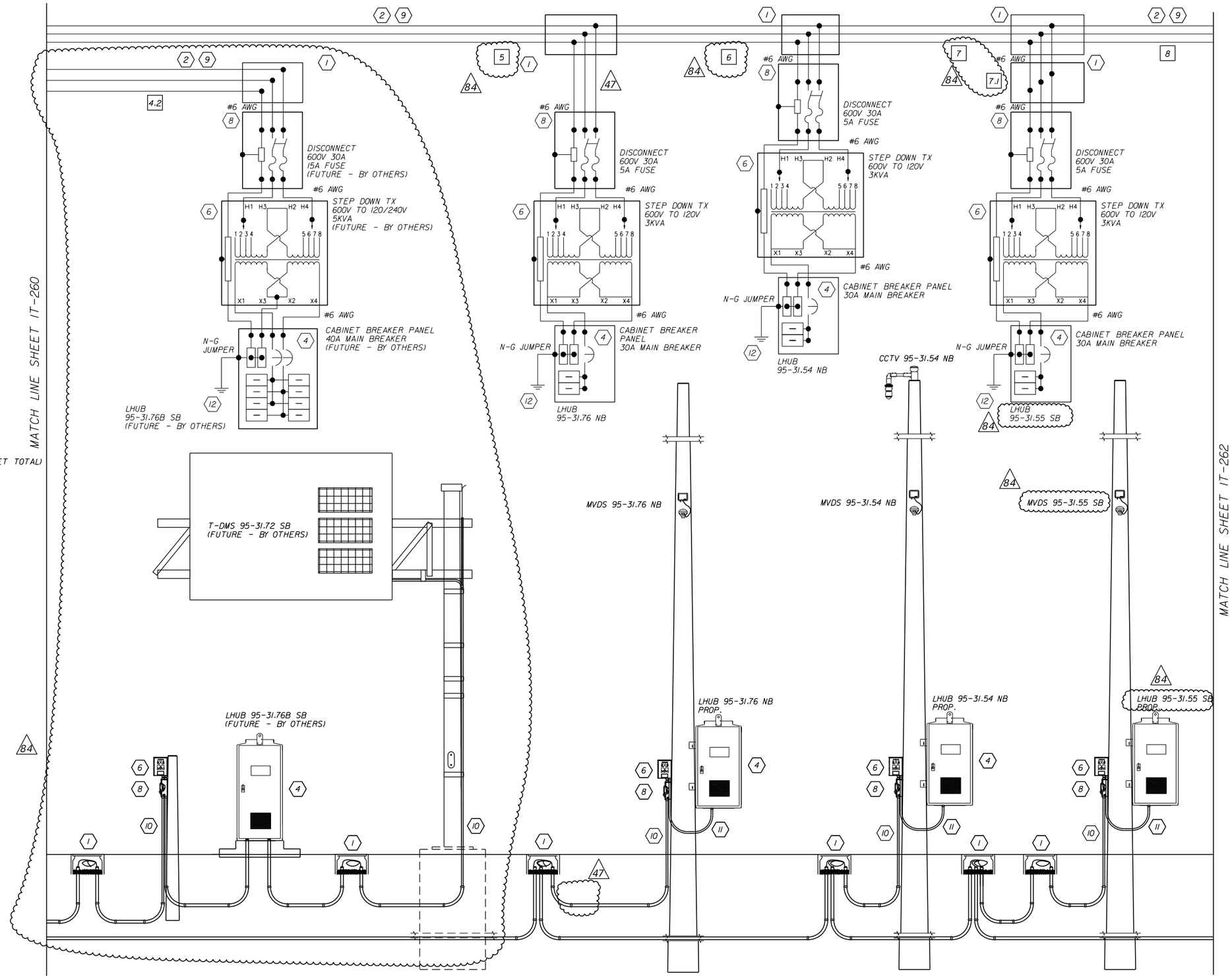
JacobPerez 3/20/2020 3:38:08 PM \\vhb\gbl\proj\Orlando\62442.00 I-95 Express 3A-1\cad\te\E4032\its\SSDTIT01.DGN

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

CIRCUIT 9.1



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

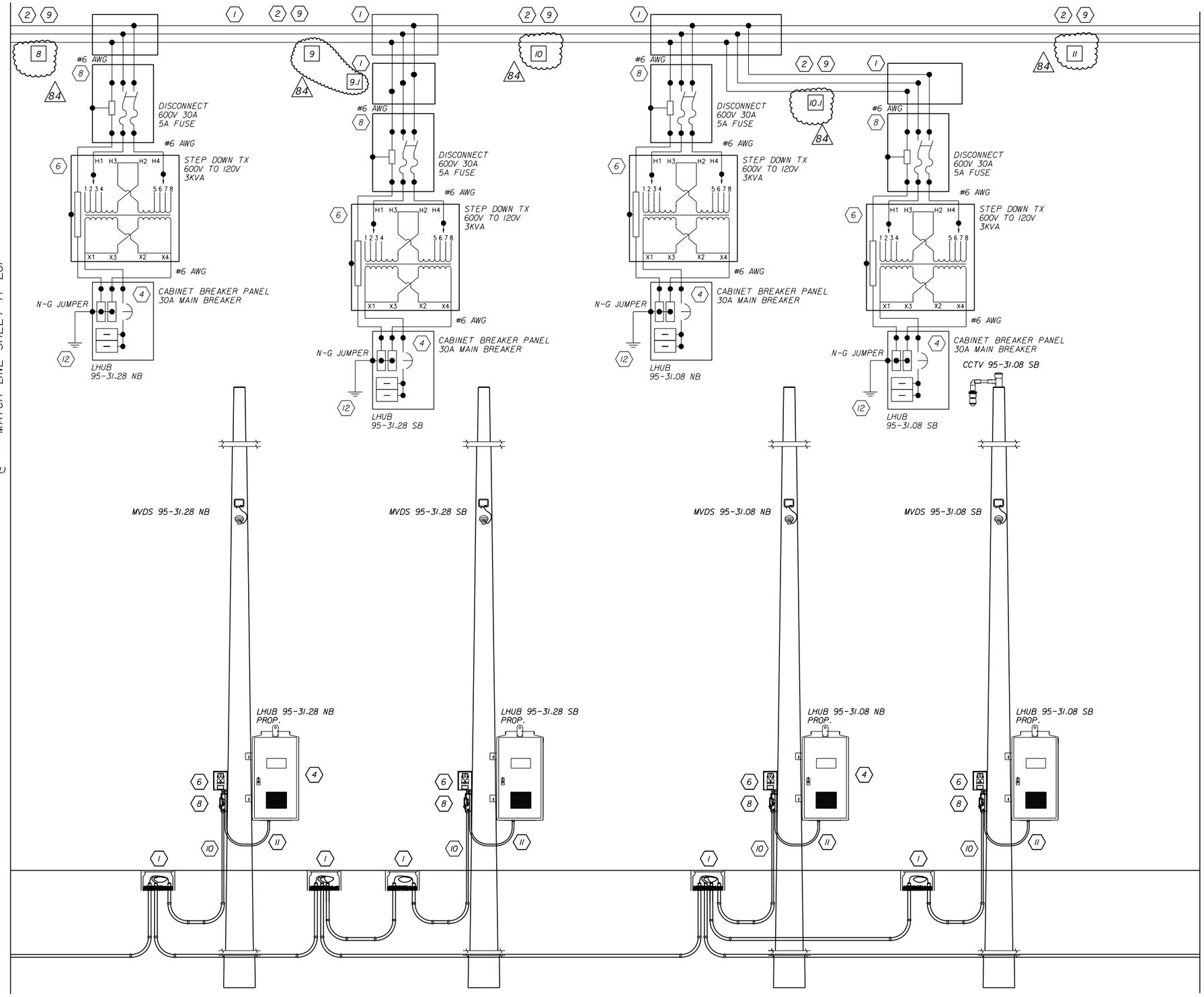
SHEET NO. IT-261

RELEASED FOR CONSTRUCTION
Released for construction, but shall be consistent with contract documents. Responsibility for errors and omissions, correctness of dimensions, grades, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96
BY: RDO VS Date: 6/11/2020
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- 1 PULL BOX
- 1X EXISTING PULL BOX
- 2 PROPOSED SERVICE WIRE
- 2X EXISTING SERVICE WIRE
- 3 PROPOSED GENERATOR
- 3X EXISTING GENERATOR
- 4 PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- 4X EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- 5 PROPOSED NEMA ENCLOSURE
- 5X EXISTING NEMA ENCLOSURE
- 6 PROPOSED TRANSFORMER
- 6X EXISTING TRANSFORMER
- 7 PROPOSED AUTOMATIC TRANSFER SWITCH
- 7X PROPOSED AUTOMATIC TRANSFER SWITCH
- 8 PROPOSED FUSED DISCONNECT
- 8X EXISTING FUSED DISCONNECT
- 9 PROPOSED HDPE CONDUIT
- 9X EXISTING HDPE CONDUIT
- 10 PROPOSED RIGID GALVANIZED STEEL CONDUIT
- 10X EXISTING RIGID GALVANIZED STEEL CONDUIT
- 11 PROPOSED FLEX CONDUIT
- 11X EXISTING FLEX CONDUIT
- 12 PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- 12X EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- 13 PROPOSED METER CAN
- 13X EXISTING METER CAN
- 14 PROPOSED DMS SIGN
- 14X EXISTING DMS SIGN
- 15 PROPOSED HUB BREAKER PANEL
- X CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 9.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO.
IT-262

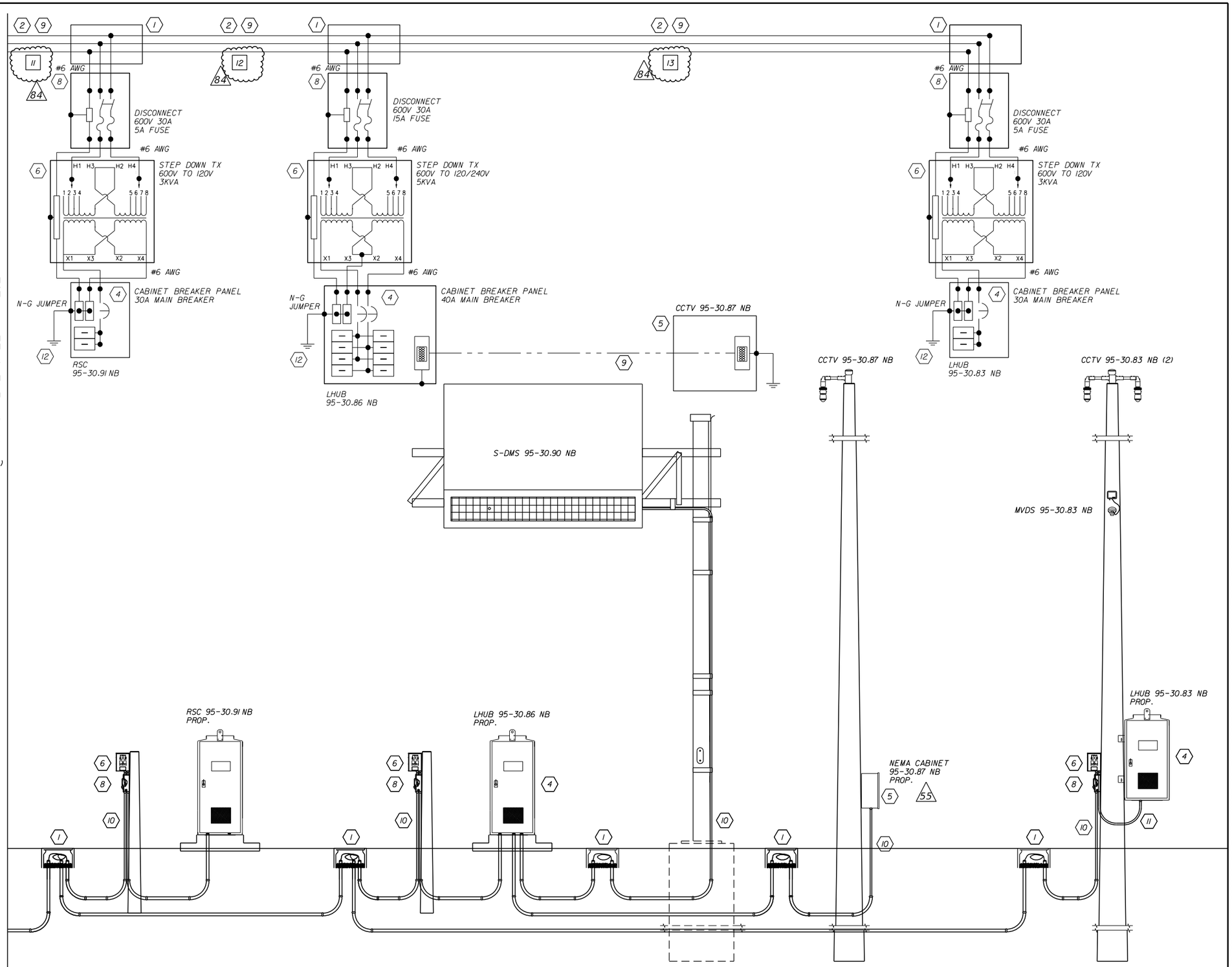
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

- 1 PULL BOX
- 1X EXISTING PULL BOX
- 2 PROPOSED SERVICE WIRE
- 2X EXISTING SERVICE WIRE
- 3 PROPOSED GENERATOR
- 3X EXISTING GENERATOR
- 4 PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- 4X EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- 5 PROPOSED NEMA ENCLOSURE
- 5X EXISTING NEMA ENCLOSURE
- 6 PROPOSED TRANSFORMER
- 6X EXISTING TRANSFORMER
- 7 PROPOSED AUTOMATIC TRANSFER SWITCH
- 7X PROPOSED AUTOMATIC TRANSFER SWITCH
- 8 PROPOSED FUSED DISCONNECT
- 8X EXISTING FUSED DISCONNECT
- 9 PROPOSED HDPE CONDUIT
- 9X EXISTING HDPE CONDUIT
- 10 PROPOSED RIGID GALVANIZED STEEL CONDUIT
- 10X EXISTING RIGID GALVANIZED STEEL CONDUIT
- 11 PROPOSED FLEX CONDUIT
- 11X EXISTING FLEX CONDUIT
- 12 PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- 12X EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- 13 PROPOSED METER CAN
- 13X EXISTING METER CAN
- 14 PROPOSED DMS SIGN
- 14X EXISTING DMS SIGN
- 15 PROPOSED HUB BREAKER PANEL
- X CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 9.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 ADDED NEMA CABINET AT CCTV POLE		
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-263

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

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KEYED NOTES:

- 1 PULL BOX
- 1X EXISTING PULL BOX
- 2 PROPOSED SERVICE WIRE
- 2X EXISTING SERVICE WIRE
- 3 PROPOSED GENERATOR
- 3X EXISTING GENERATOR
- 4 PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- 4X EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- 5 PROPOSED NEMA ENCLOSURE
- 5X EXISTING NEMA ENCLOSURE
- 6 PROPOSED TRANSFORMER
- 6X EXISTING TRANSFORMER
- 7 PROPOSED AUTOMATIC TRANSFER SWITCH
- 7X PROPOSED AUTOMATIC TRANSFER SWITCH
- 8 PROPOSED FUSED DISCONNECT
- 8X EXISTING FUSED DISCONNECT
- 9 PROPOSED HDPE CONDUIT
- 9X EXISTING HDPE CONDUIT
- 10 PROPOSED RIGID GALVANIZED STEEL CONDUIT
- 10X EXISTING RIGID GALVANIZED STEEL CONDUIT
- 11 PROPOSED FLEX CONDUIT
- 11X EXISTING FLEX CONDUIT
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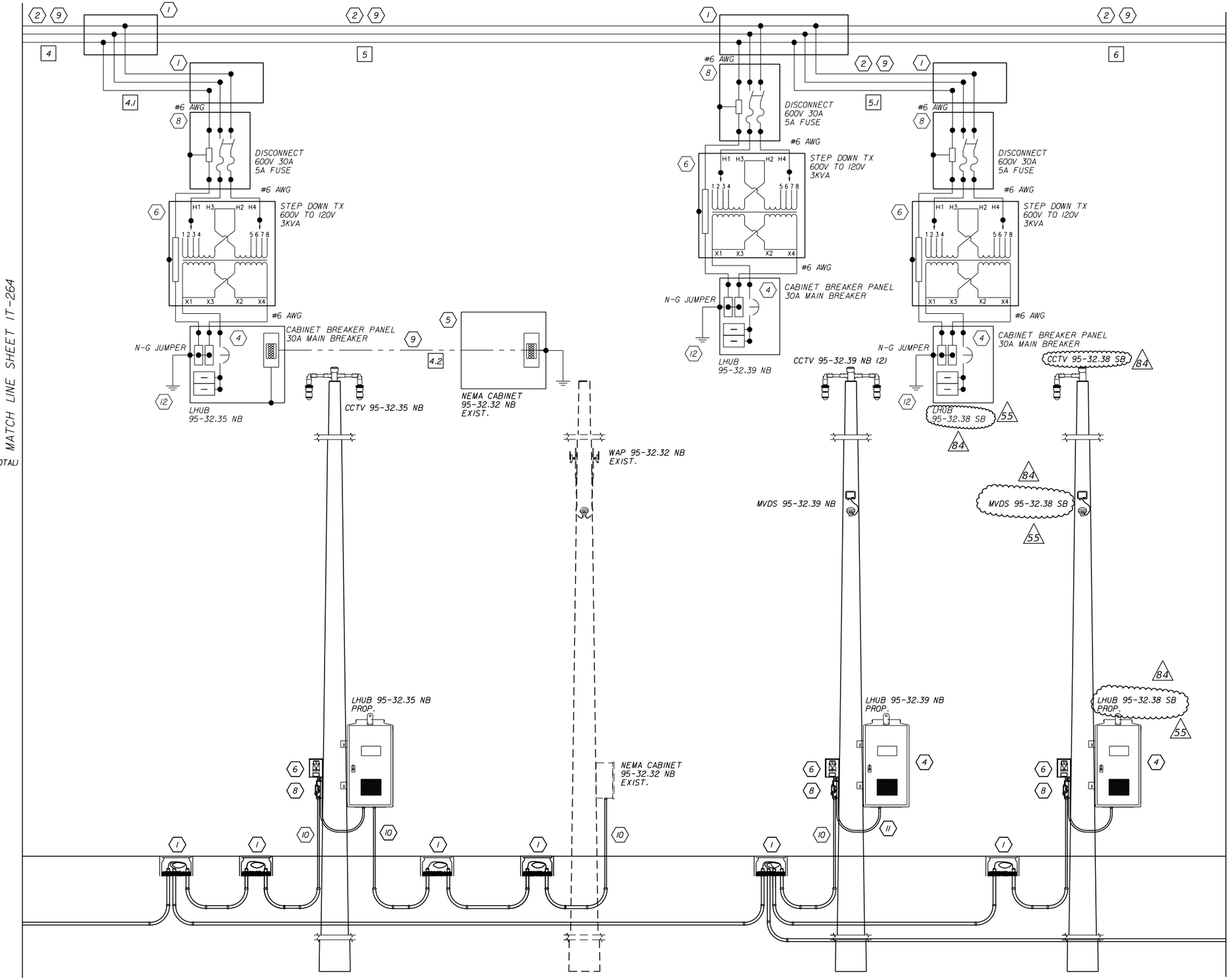
- 12X EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- 13 PROPOSED METER CAN
- 13X EXISTING METER CAN
- 14 PROPOSED DMS SIGN
- 14X EXISTING DMS SIGN
- 15 PROPOSED HUB BREAKER PANEL
- X CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 9.3

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 DEVICE LOCATION ADJUSTED		
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-265

JacobPerez 3/20/2020 3:41:23 PM \\vhb\gbl\proj\Orlando\62442.00 I-95 Express 3A-1\cad\te\E4032\its\SSDTIT01.DGN

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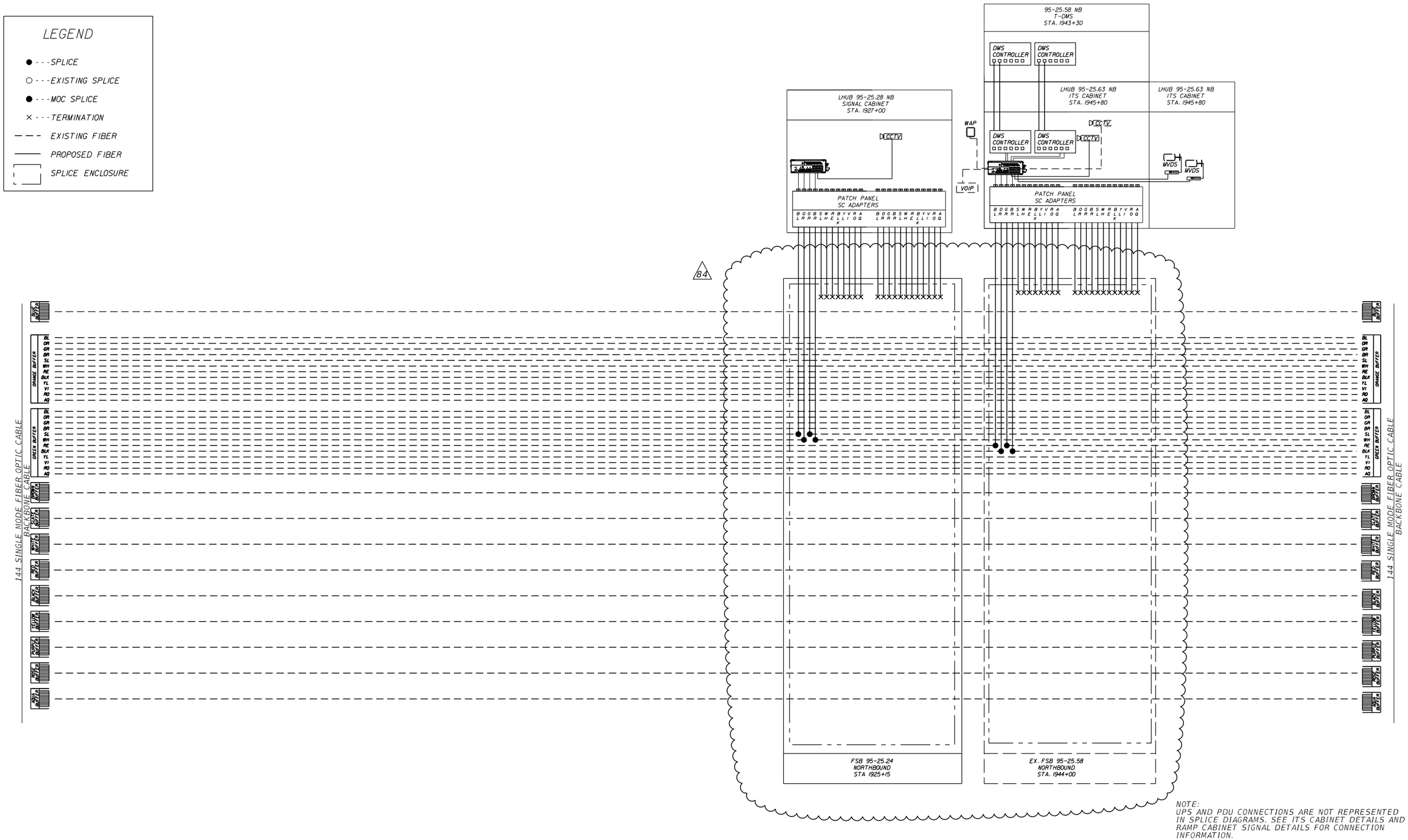
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 UPDATE LAYER 2 SWITCH RFI#86		

Vanasse Hangen Brustlin, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-270

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
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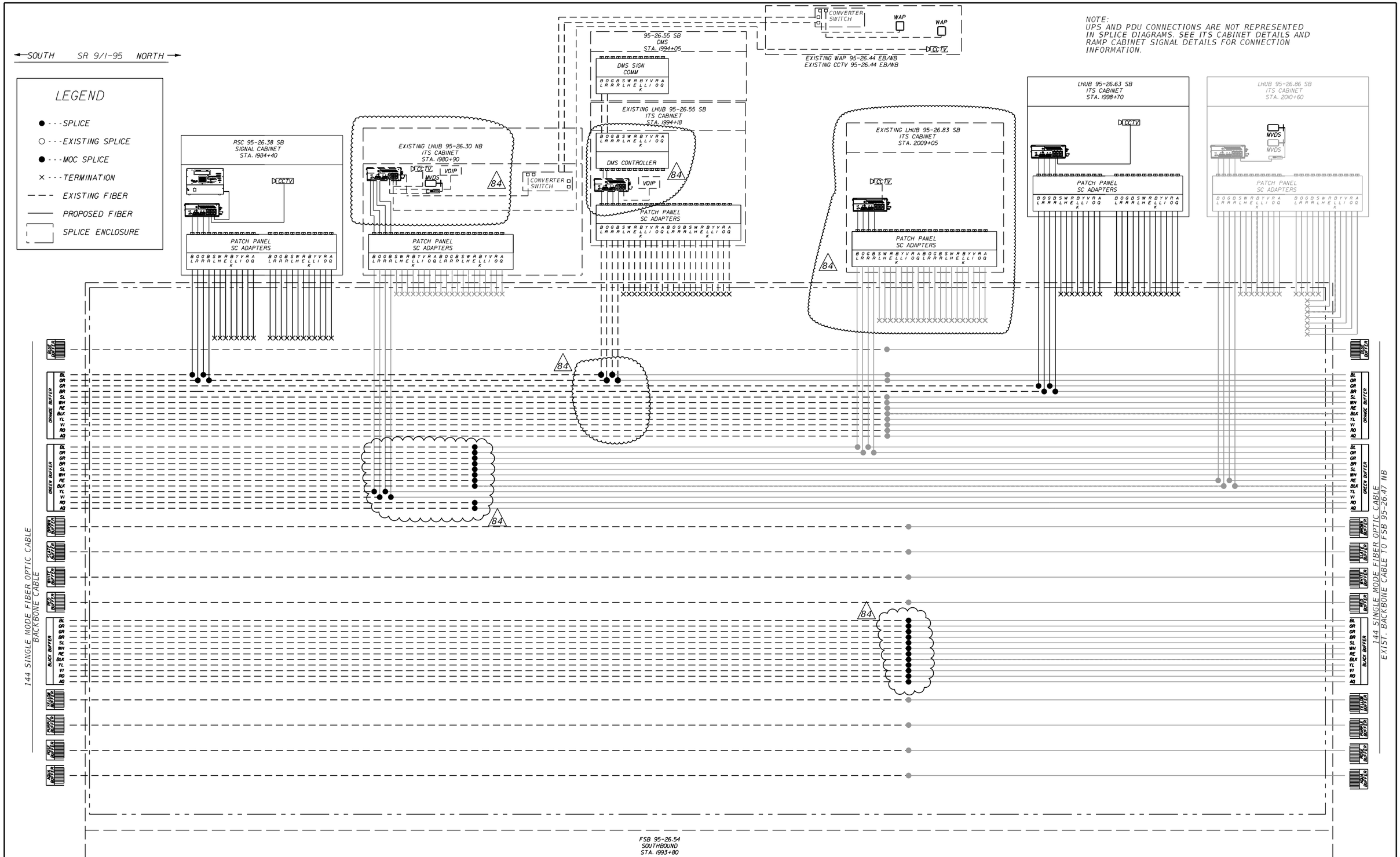
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 UPDATE LAYER 2 SWITCH RFI#86		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-271

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
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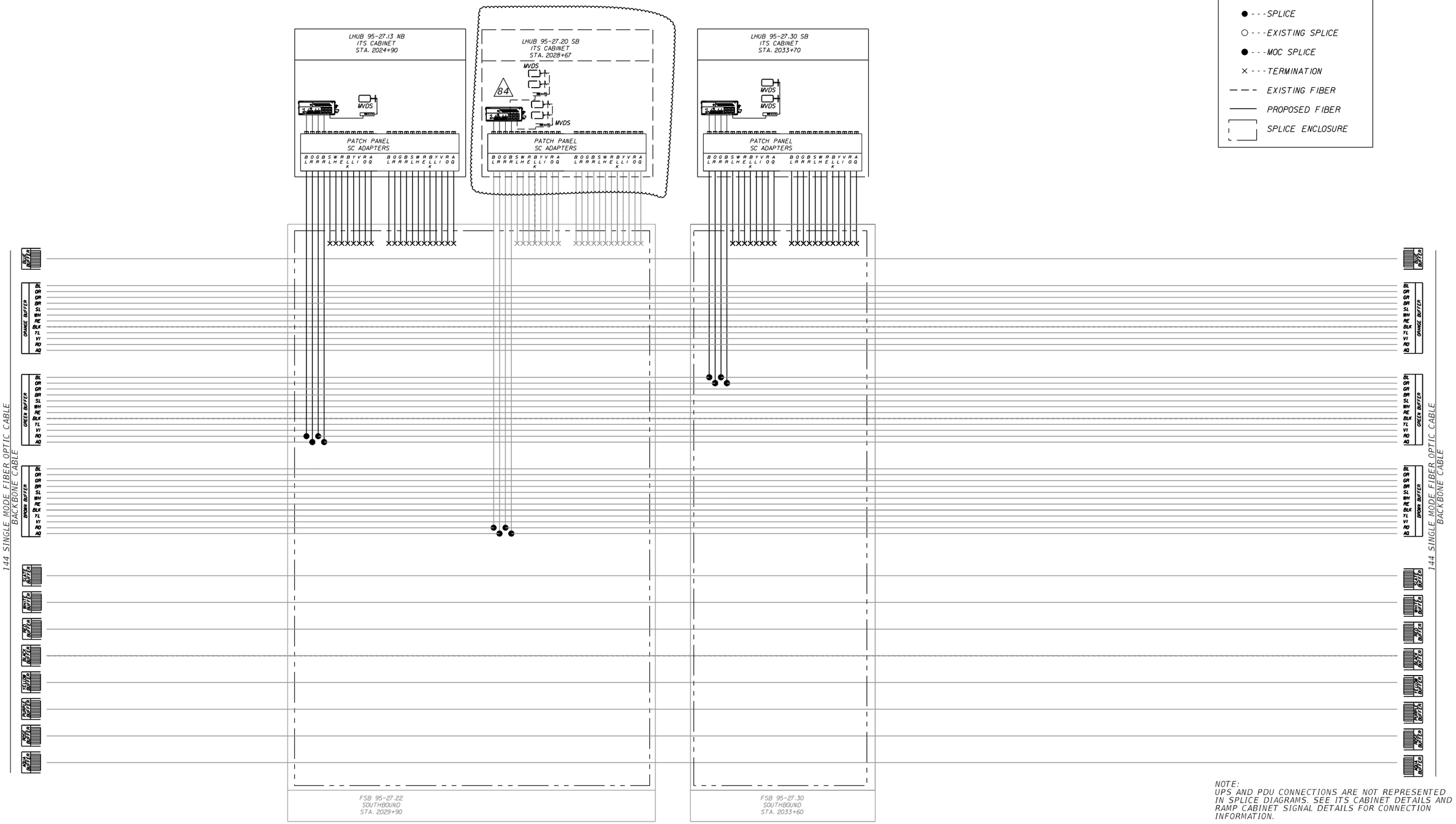
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	UPDATE LAYER 2 SWITCH RFI#86 (84)		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-275

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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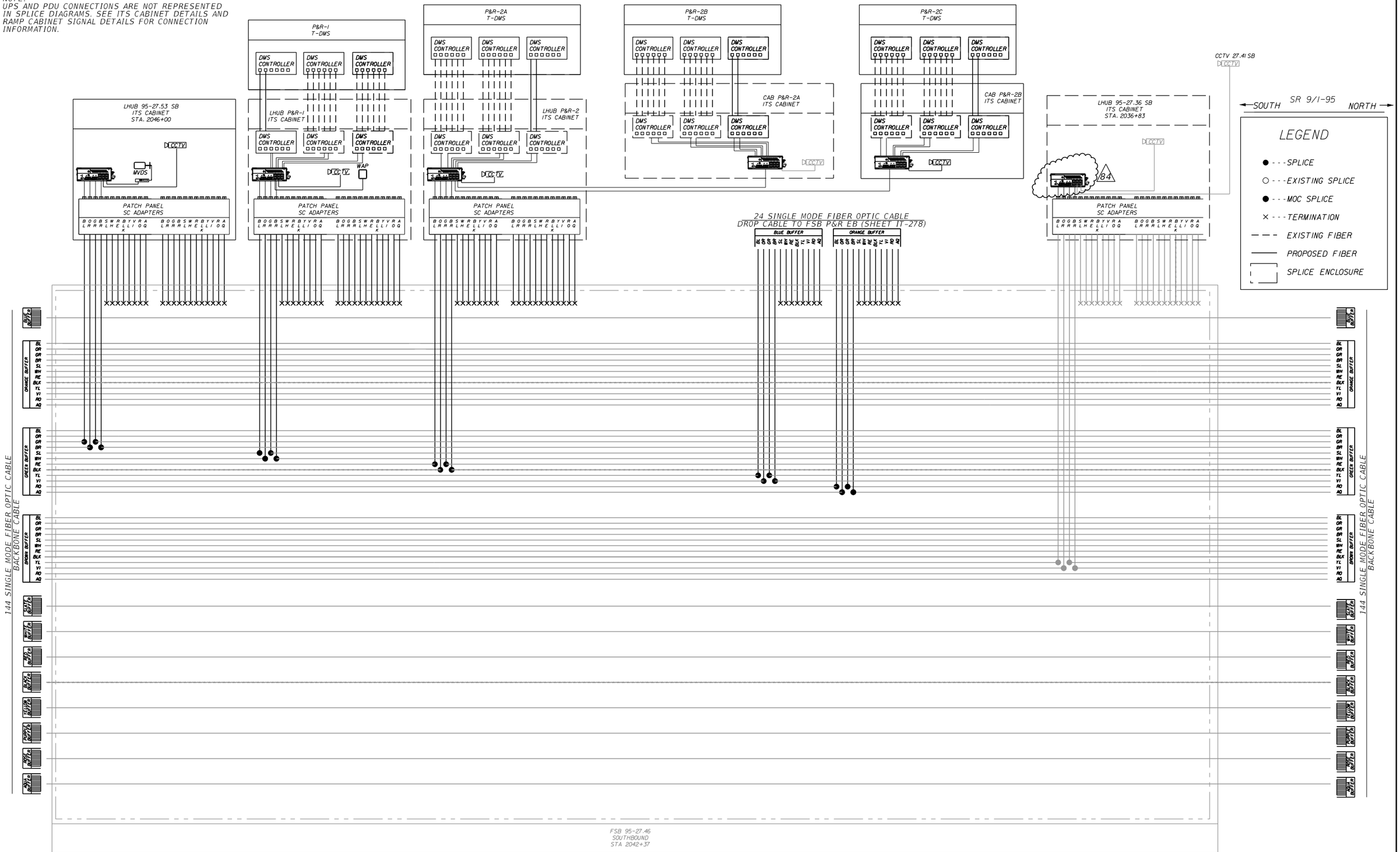
NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	UPDATE LAYER 2 SWITCH RFI#86 (84)		

Vanasse Hangen Brustlin, Inc.
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225 E. Robinson St., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-276

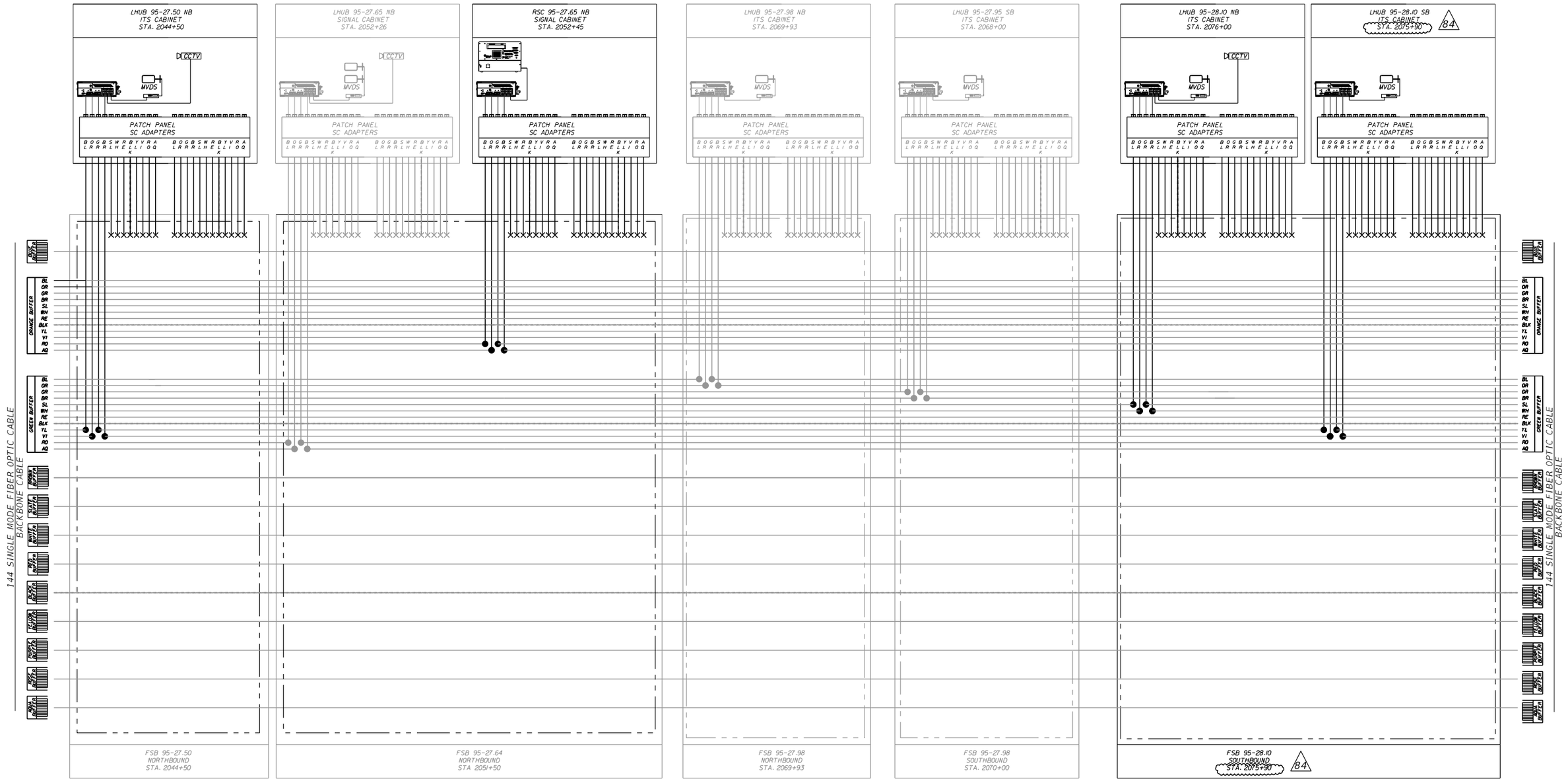
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-279

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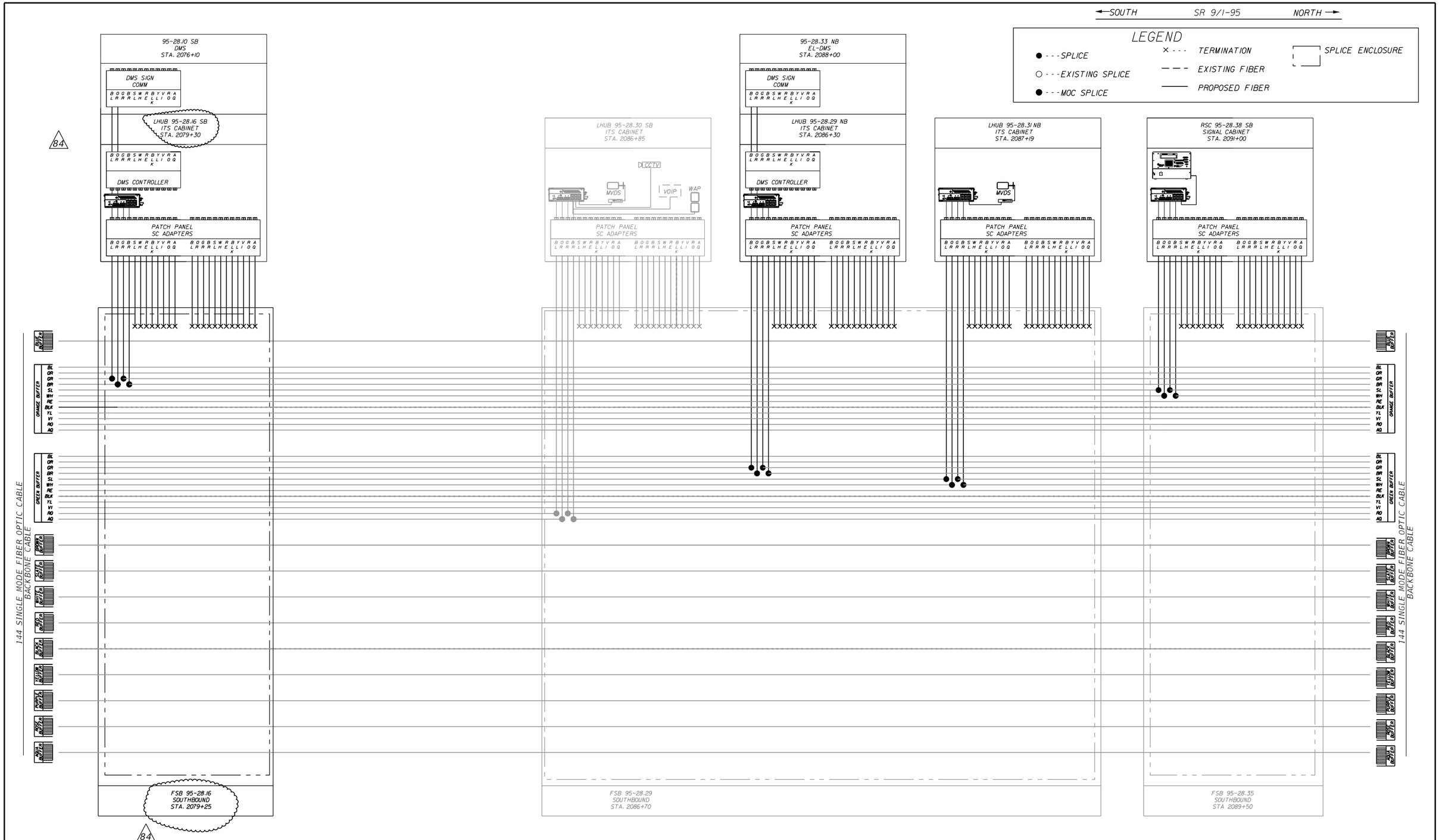
RELEASED FOR CONSTRUCTION
BY: JPEREZ VS Date: 6/11/2020
Released for construction, but must comply with contract documents. Is responsibility for errors and omissions, correctness of dimensions, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

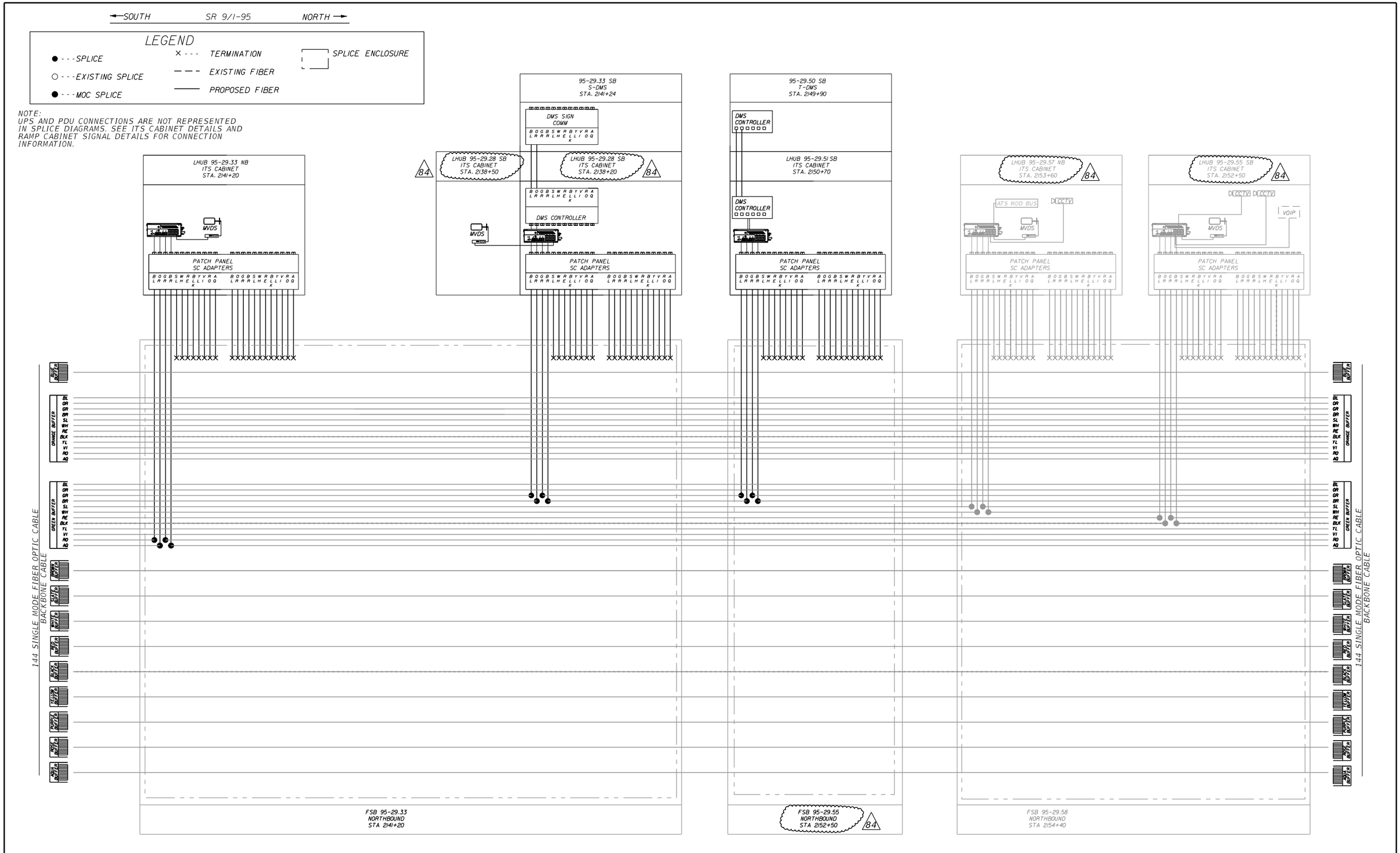
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-280

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT/RFI #93 (84)		

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Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-283

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
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FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

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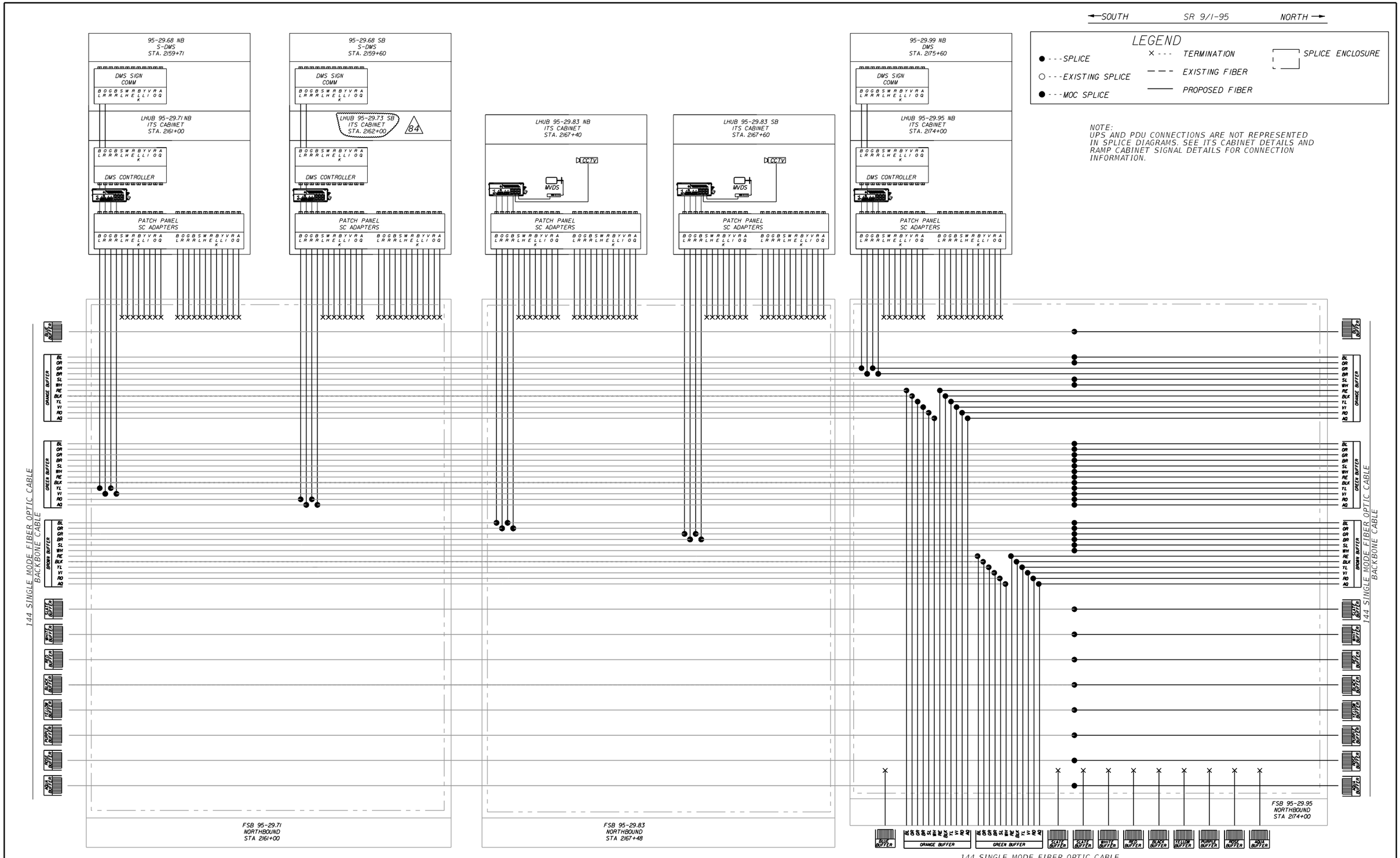

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
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FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-284

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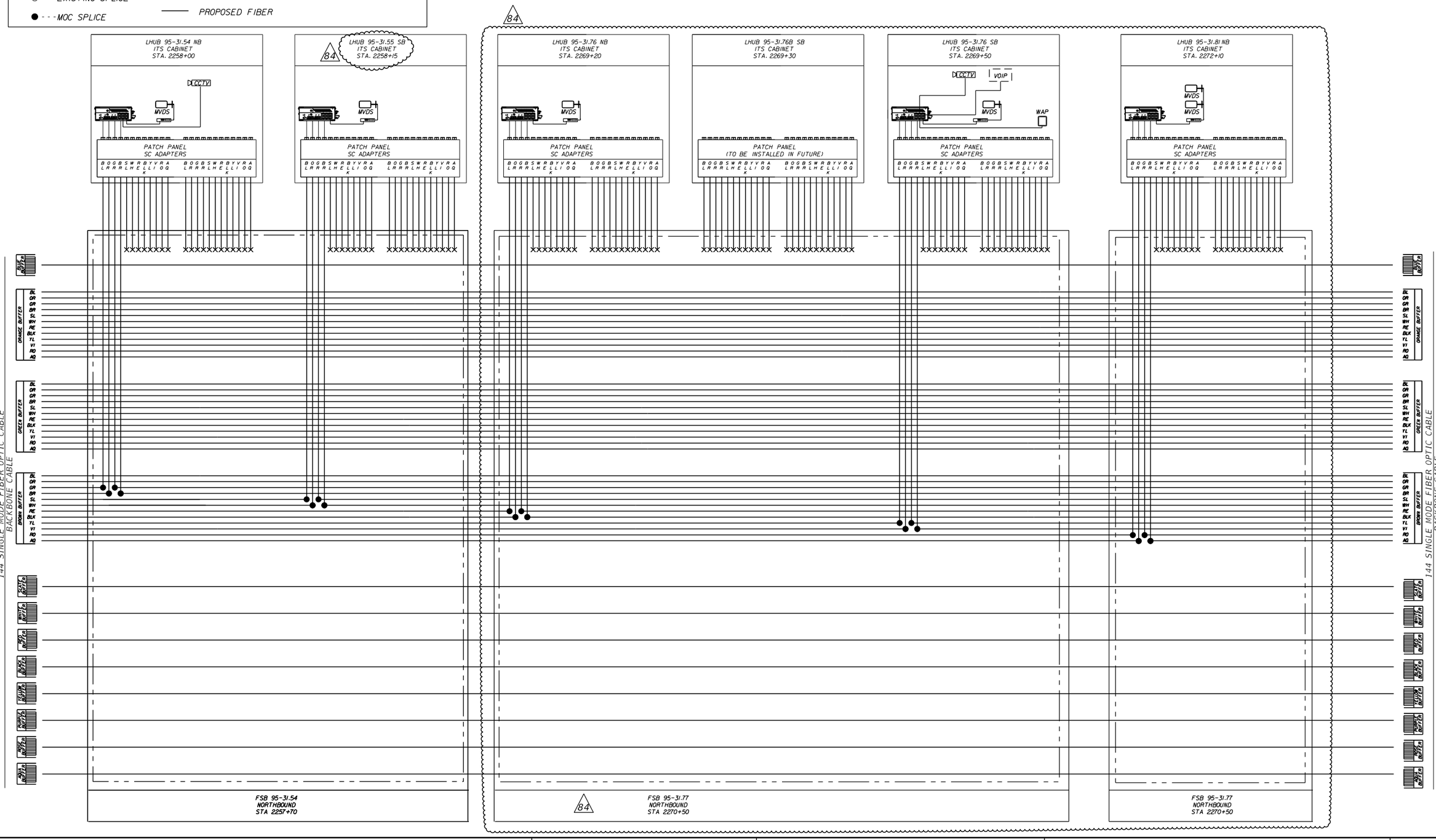
←SOUTH SR 9/I-95 NORTH →

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- ▭ SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT RFI #75		

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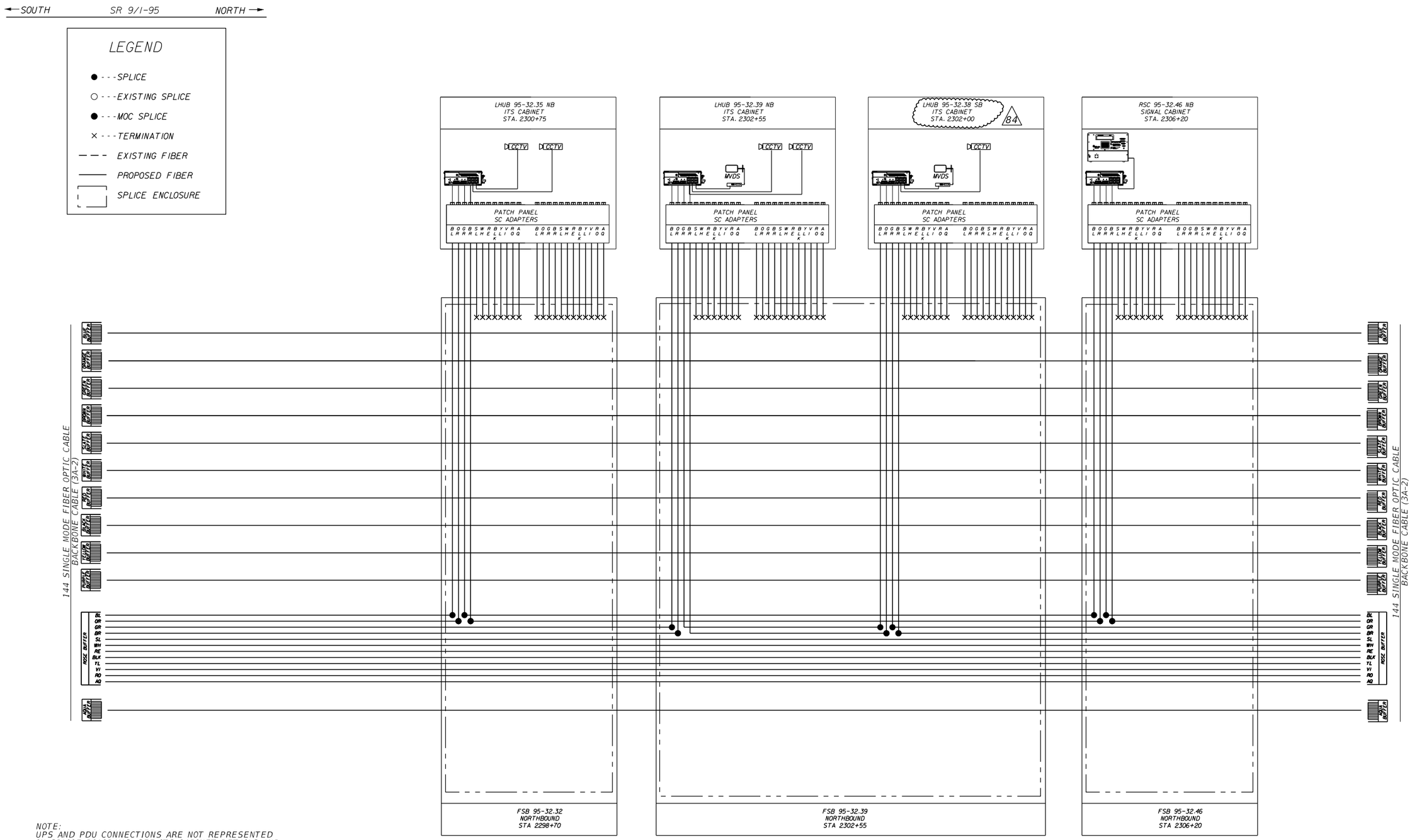
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-288

RELEASED FOR CONSTRUCTION
Acceptance of this plan is subject to its consistency with contract documents, responsibility for errors and omissions, correctness of dimensions, grades, quantities, and safety during fabrication and erection. Shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96
BY: PEREZ, JACOB VS Date: 6/11/2020
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 SPLICES MOVED TO 3A-2 BACKBONE		
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT RFI #75		

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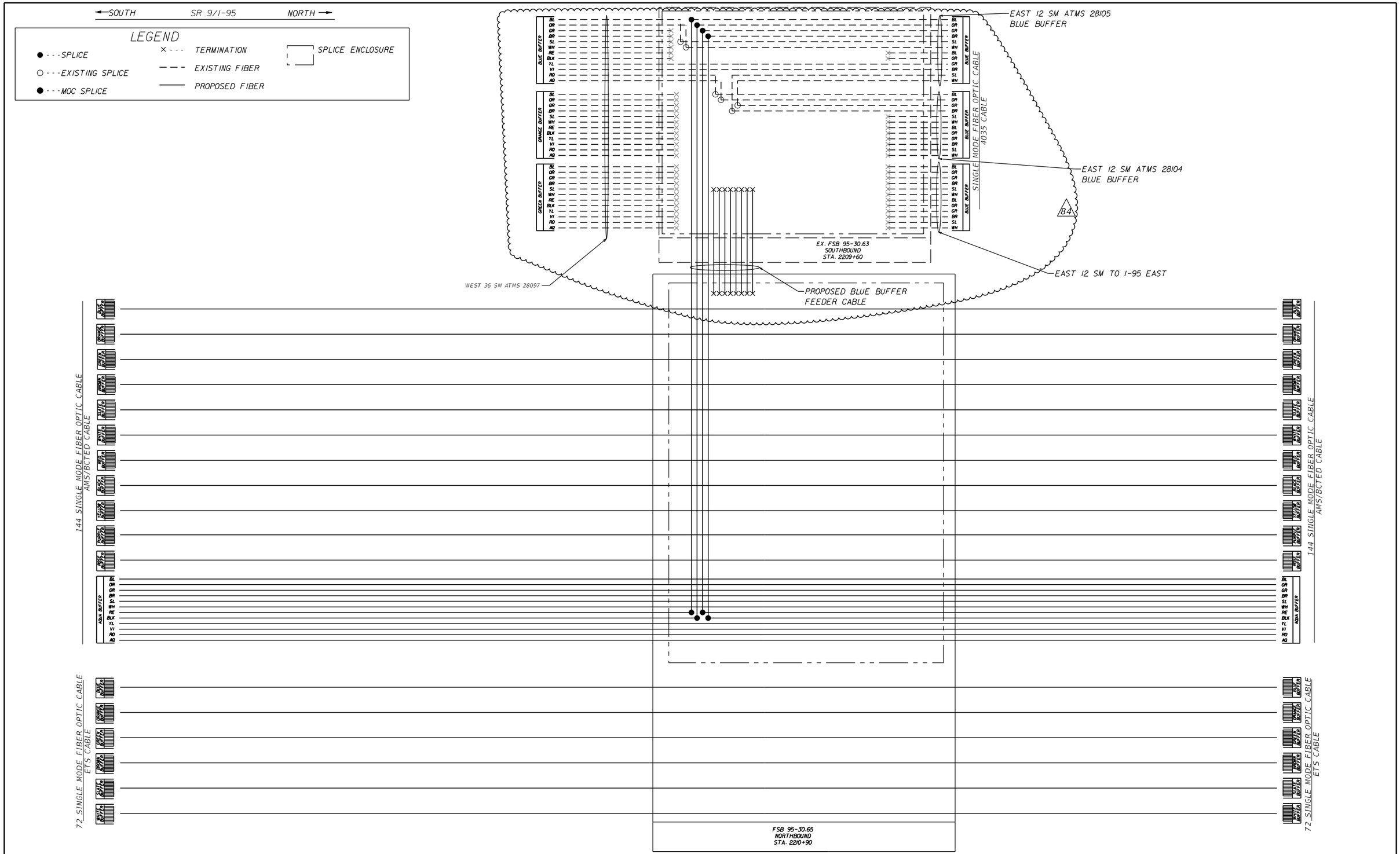
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-293

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	UPDATE LAYER 2 SWITCH RFI#83 84		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BROWARD SPLICING DIAGRAM

SHEET NO.
IT-303

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
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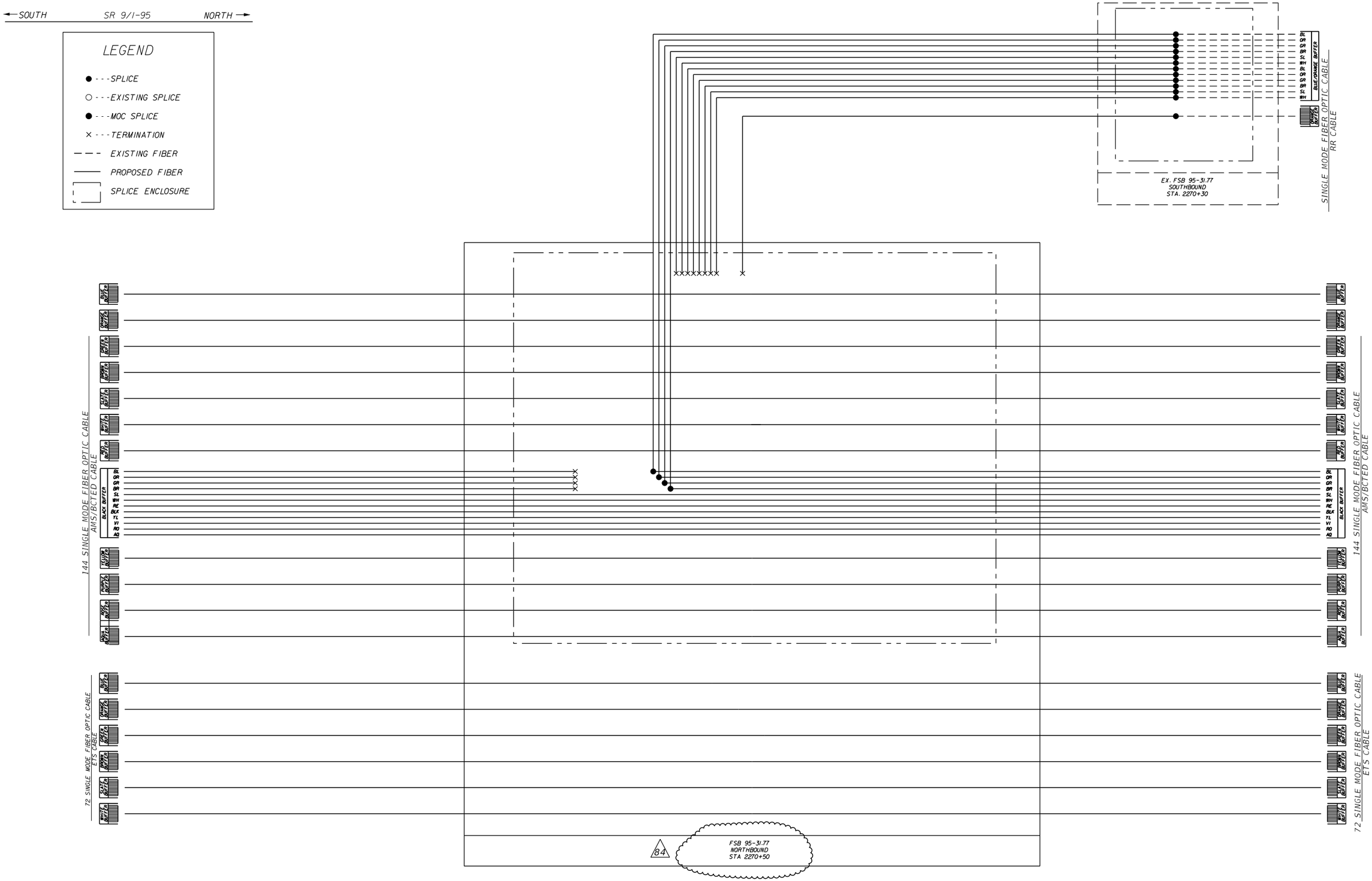
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
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FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BROWARD SPLICING DIAGRAM

SHEET NO.
IT-305



ITS NETWORK LAYOUT

FIELD DEVICES

HUB SWITCH / ROUTER

EXISTING ETHERNET SWITCH

PROPOSED ETHERNET SWITCH

LINK TYPES

TX LINK

EXISTING 1000 FX LINK

PROPOSED 1000 FX LINK

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

NETWORK SCHEMATIC

SHEET NO.

IT-308

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT RFI #86		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

NETWORK SCHEMATIC

SHEET NO.
IT-309

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

ITS CABINET DETAIL FOR SITES:

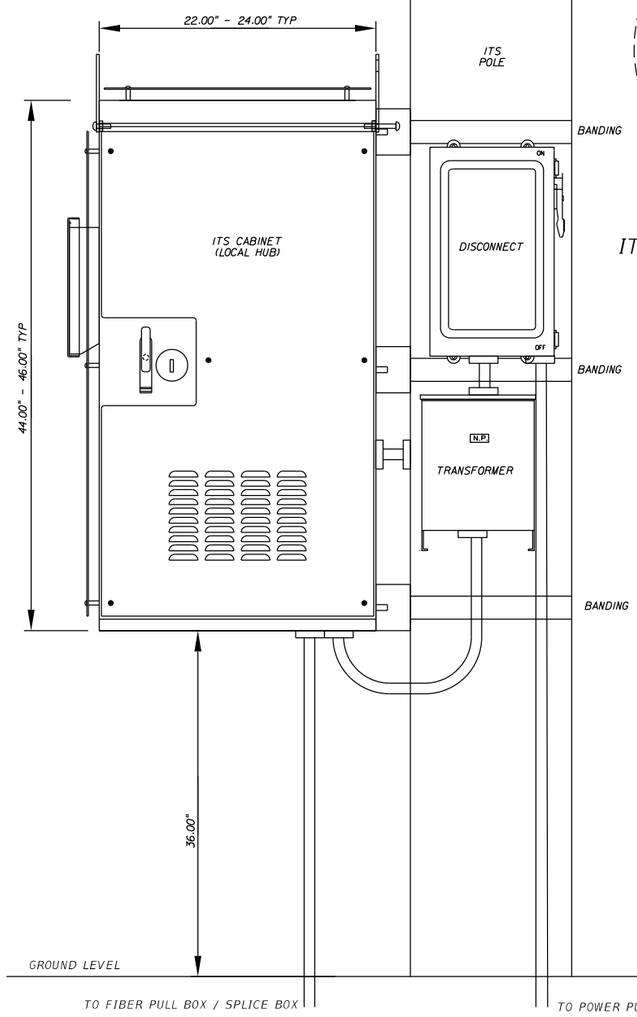
LHUB 95-27.95 SB
*LHUB 95-27.98 NB
LHUB 95-28.10 SB
LHUB 95-29.10 NB
LHUB 95-29.33 NB
LHUB 95-31.08 NB
LHUB 95-31.28 SB
LHUB 95-31.28 NB
LHUB 95-31.55 SB
LHUB 95-31.76 NB

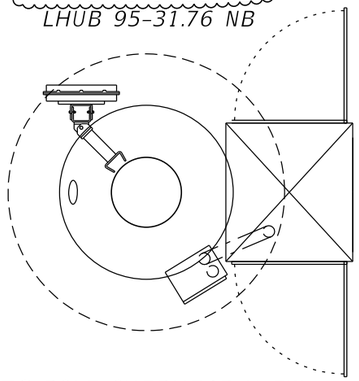
LHUB 95-27.13 NB
LHUB 95-28.31 NB
LHUB 95-28.56 NB
LHUB 95-28.82 NB
LHUB 95-28.85 SB
LHUB 95-30.83 SB
LHUB 95-32.64 NB

84

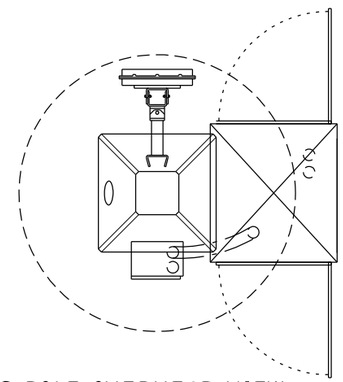
* GROUND MOUNTED CABINET

ITS CABINET RISER VIEW

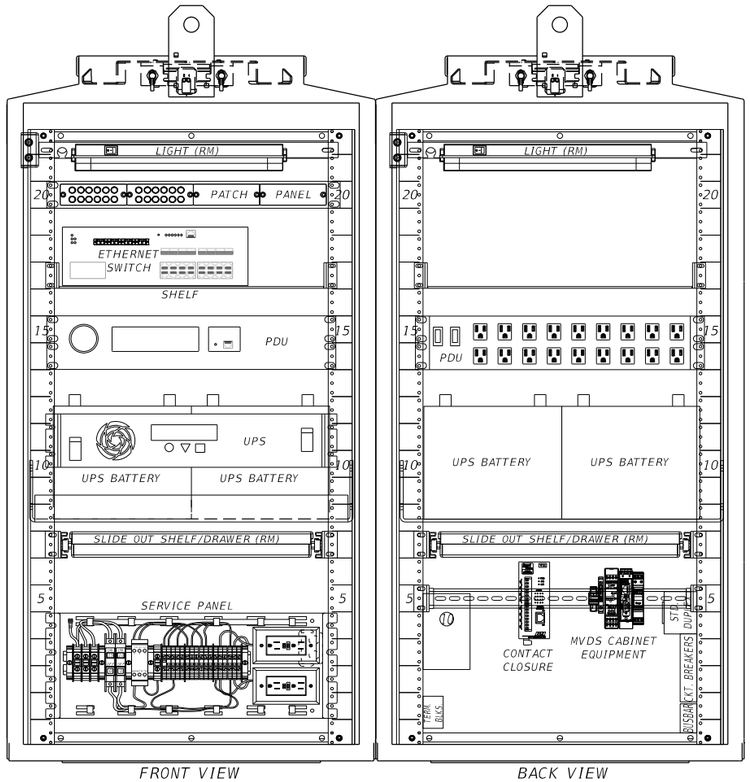




ITS POLE OVERHEAD VIEW



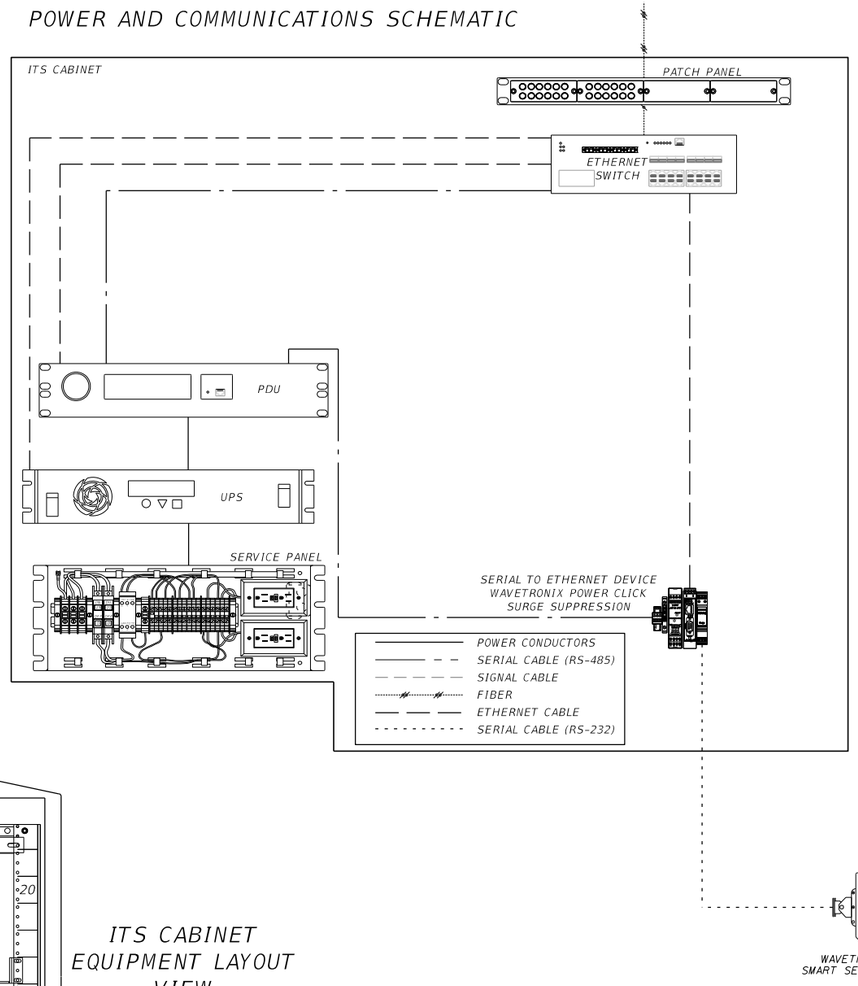
ITS POLE OVERHEAD VIEW



FRONT VIEW

BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. GROUND MOUNTED CABINET SHALL UTILIZE RS-485 FROM MVDS. CABINETS SHALL INCLUDE ADDITIONAL 120 VAC SURGE PROTECTION DEVICE FOR POWER SERVICE WIRE FROM MVDS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 MVDS)

SHEET NO. IT-323

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
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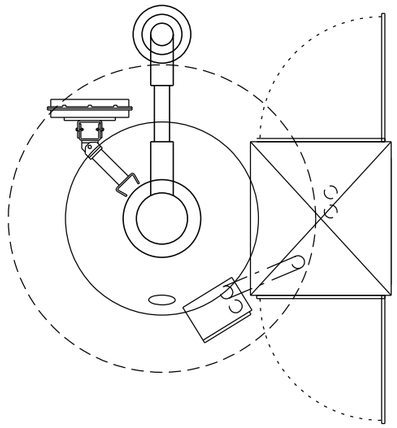
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

ITS CABINET DETAIL FOR SITES:

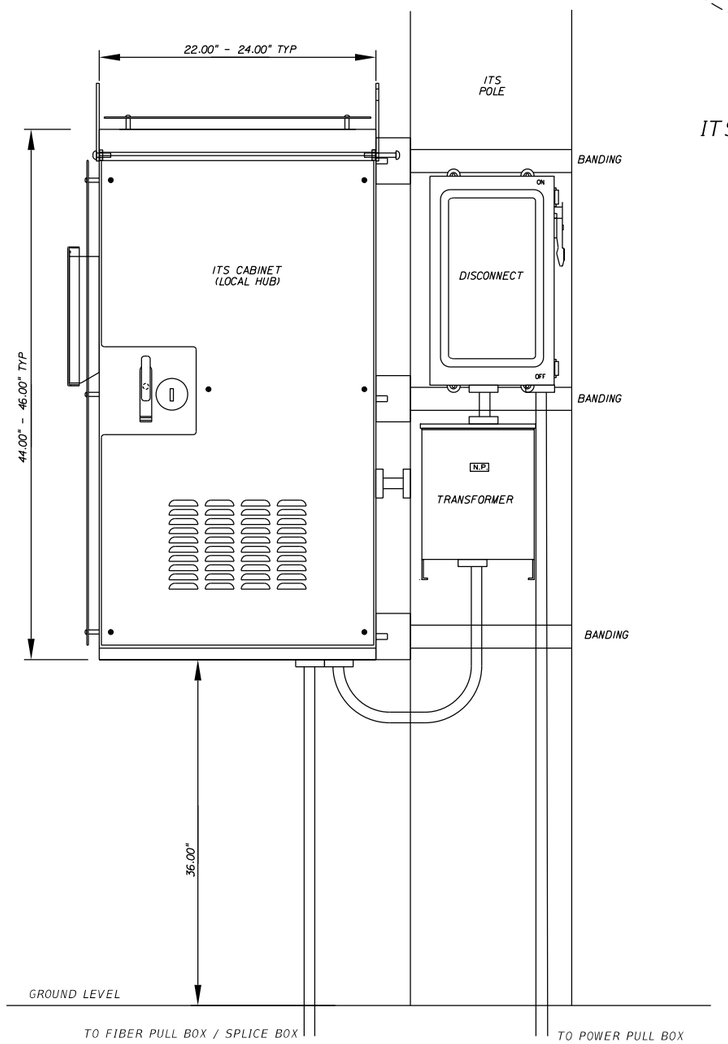
LHUB 95-27.30 NB	LHUB 95-30.08 NB
LHUB 95-27.50 NB	LHUB 95-30.33 NB
LHUB 95-27.53 SB	LHUB 95-31.08 SB
LHUB 95-28.10 NB	LHUB 95-31.54 NB
LHUB 95-29.83 SB	LHUB 95-31.95 SB
LHUB 95-29.83 NB	LHUB 95-32.17 NB
*LHUB 95-30.05 SB	LHUB 95-32.14 SB
	LHUB 95-32.38 SB
	LHUB 95-32.64 SB

84 55

*GROUND MOUNTED CABINET

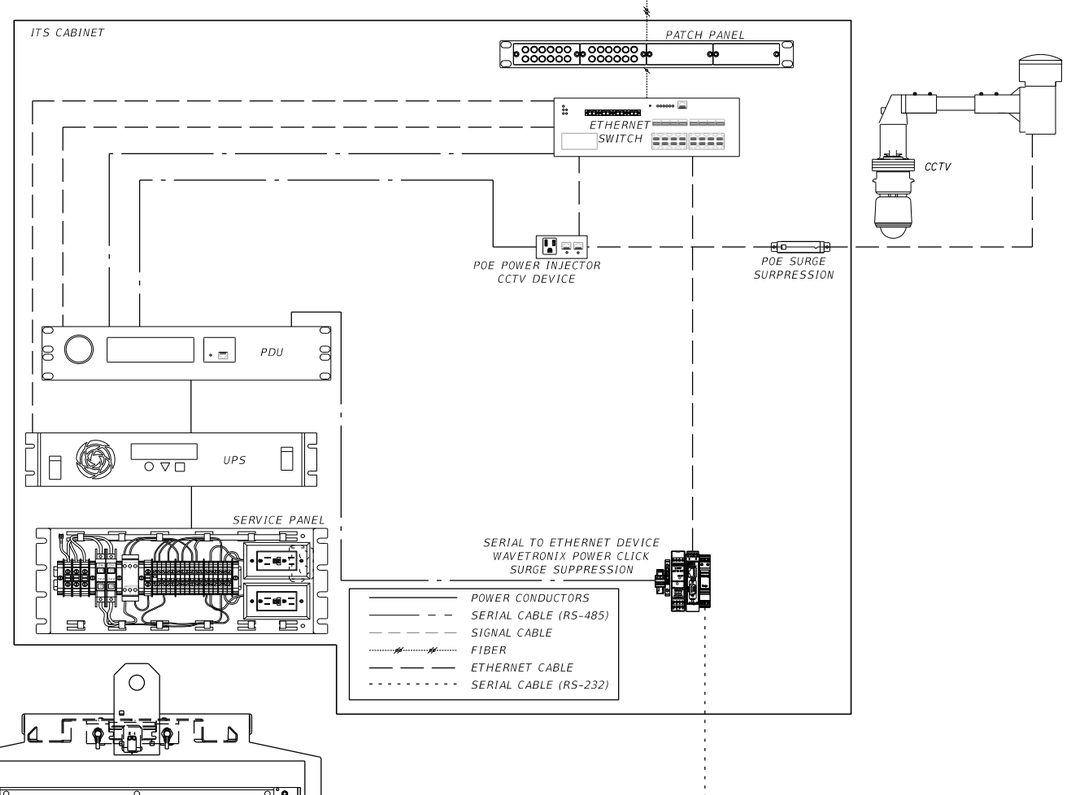


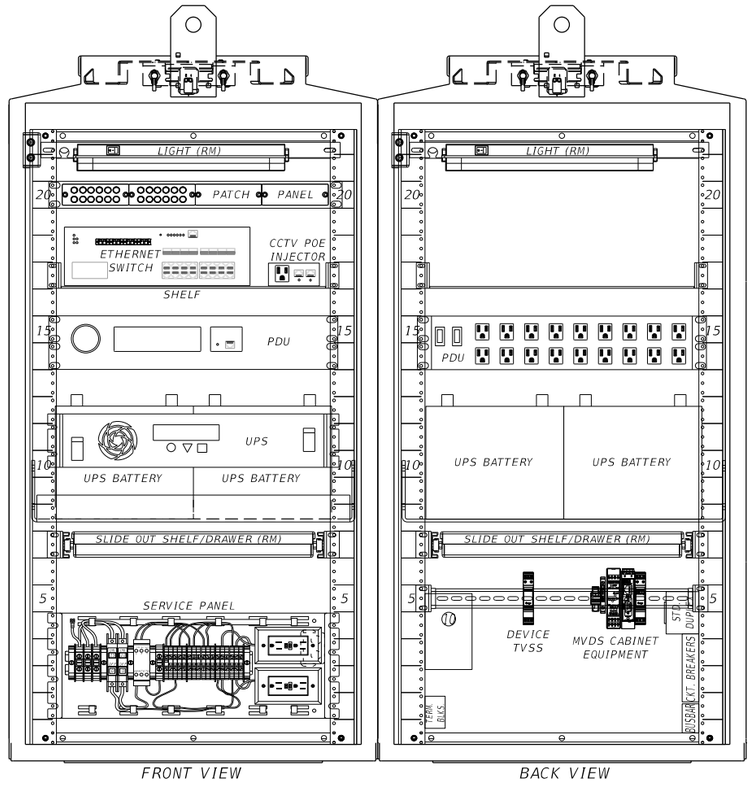
ITS CABINET RISER VIEW



ITS POLE OVERHEAD VIEW

POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. GROUND MOUNTED CABINET SHALL UTILIZE RS-485 FROM MVDS. CABINETS SHALL INCLUDE ADDITIONAL 120 VAC SURGE PROTECTION DEVICE FOR POWER SERVICE WIRE FROM MVDS.

RELEASED FOR CONSTRUCTION
Released for construction, but subject to compliance with contract documents. No responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96
BY: RDO VS Date: 6/11/2020

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	DEVICE LOCATION ADJUSTED 55		
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 CCTV & 1 MVDS)

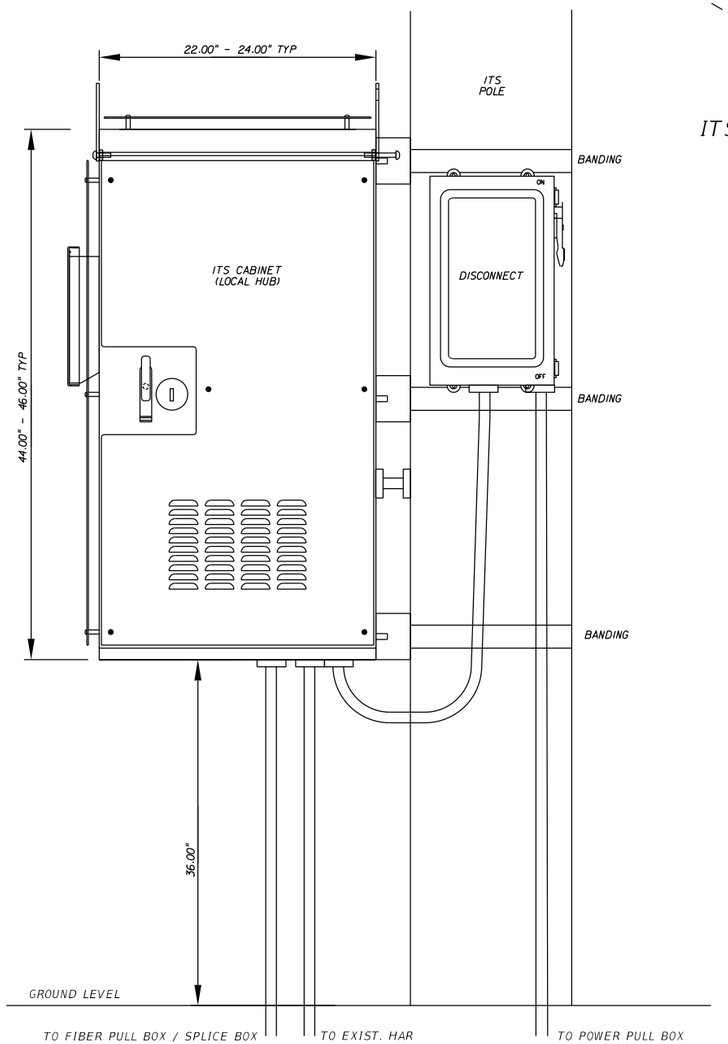
SHEET NO. IT-329

ITS CABINET DETAIL FOR SITES:

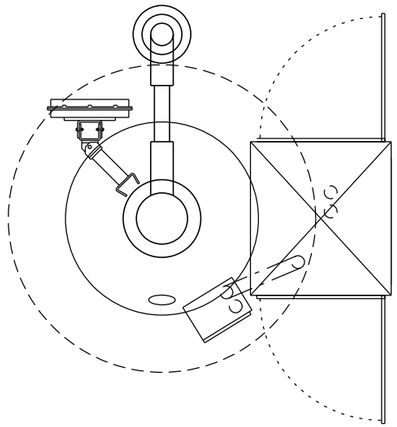
LHUB 95-29.57 NB

84

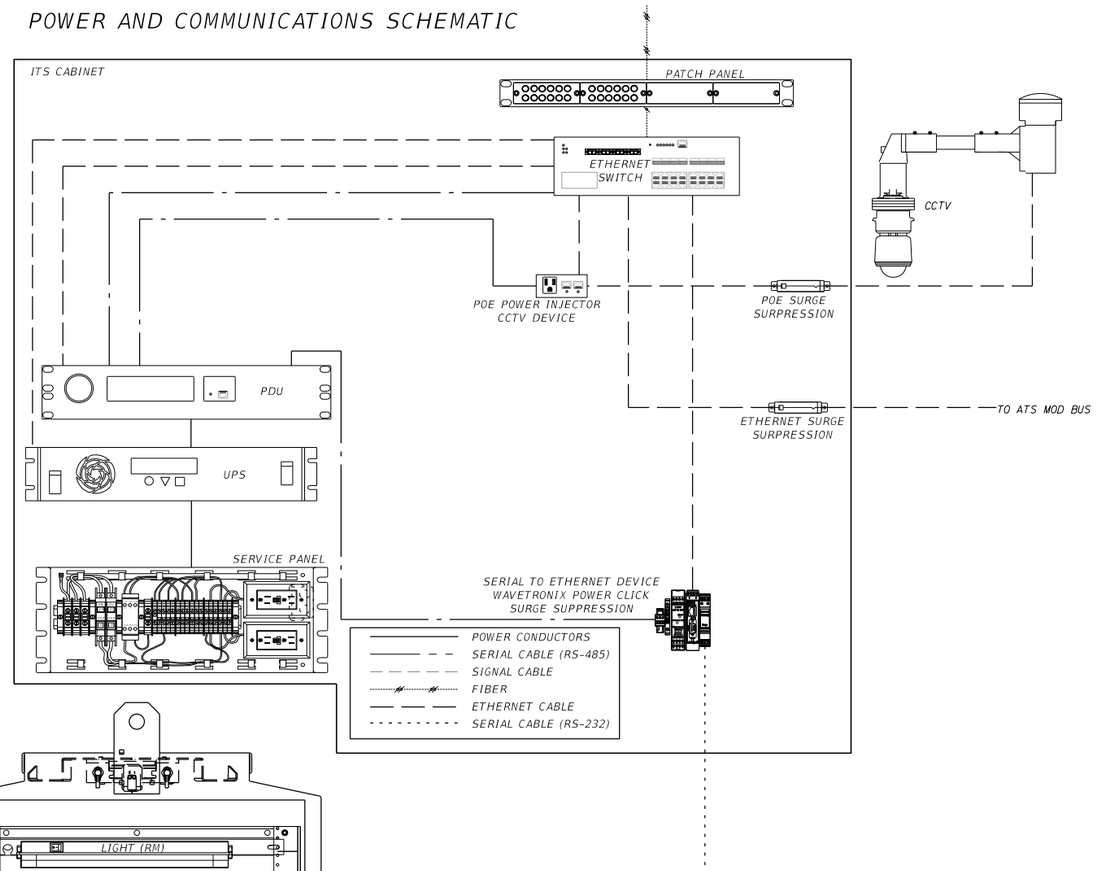
ITS CABINET RISER VIEW

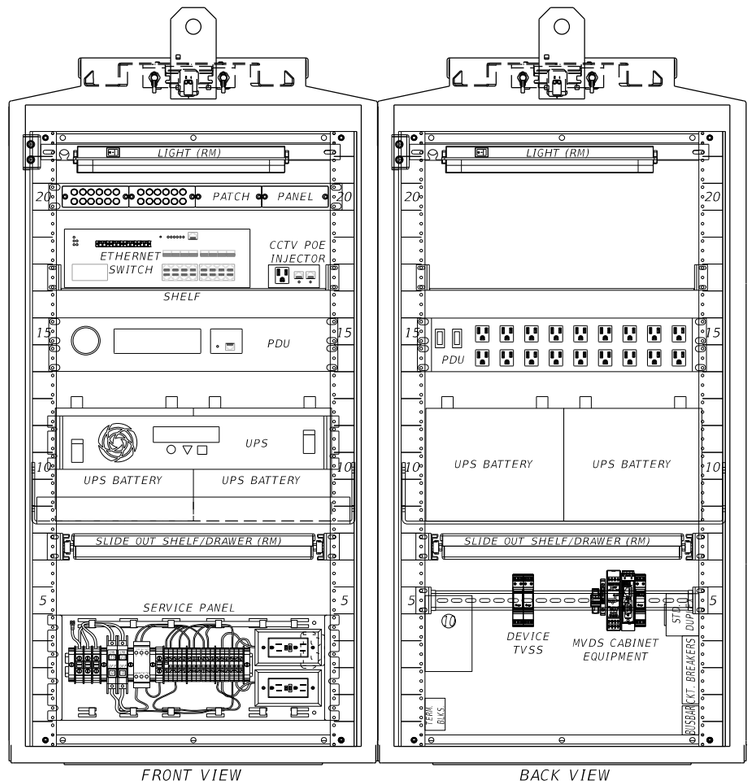


ITS POLE OVERHEAD VIEW



POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors and omissions. Correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

BY: RSO VS Date: 6/11/2020

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

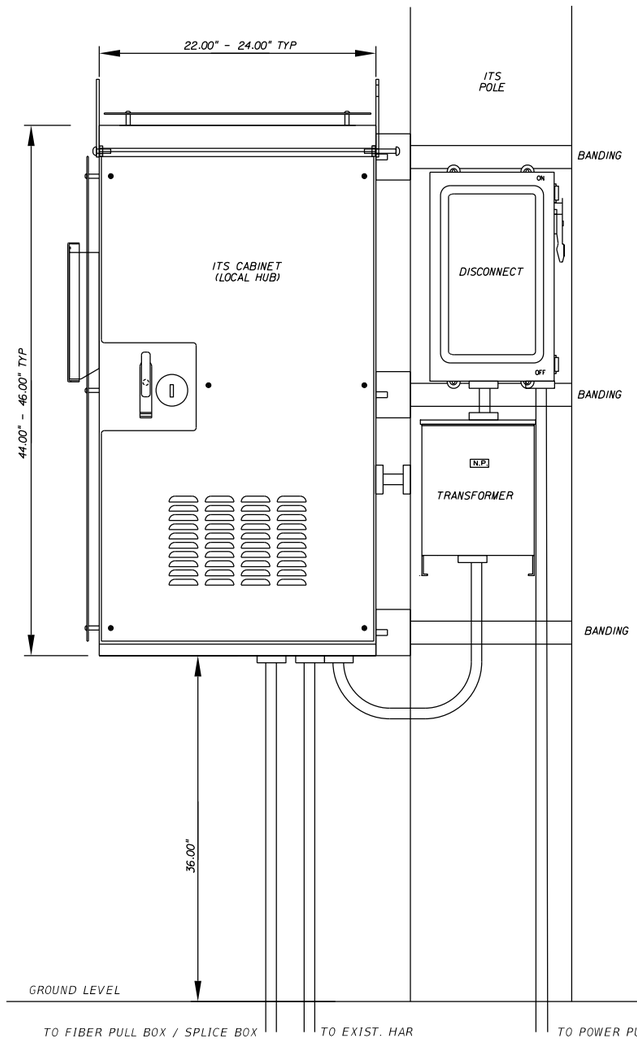
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

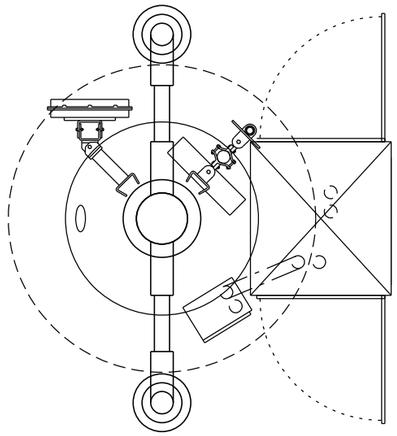
ITS CABINET DETAIL (1 CCTV, 1 MVDS, & ATS MODBUS)

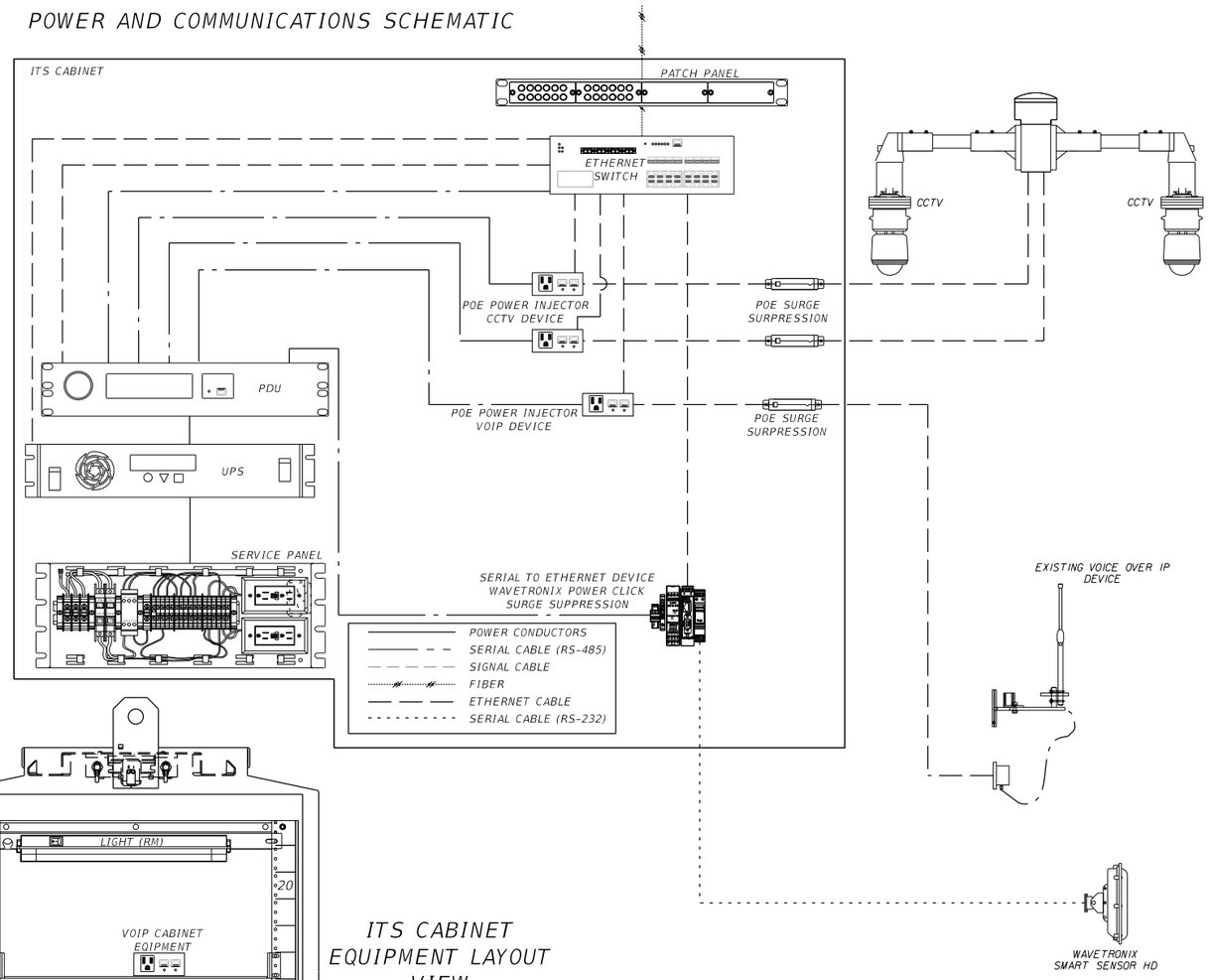
SHEET NO. IT-332

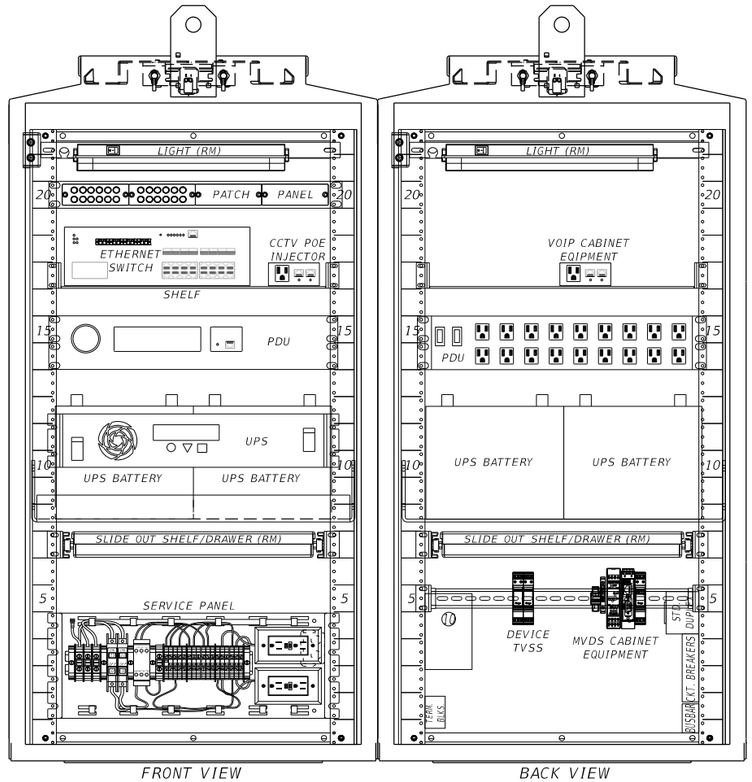
ITS CABINET DETAIL FOR SITES:

LHUB 95-29.55 SB 84


ITS CABINET RISER VIEW


ITS POLE OVERHEAD VIEW


POWER AND COMMUNICATIONS SCHEMATIC



FRONT VIEW

BACK VIEW

ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. CABINET SHALL GROUNDED PER FDOT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (2 CCTV, 1 MVDS, 1 VOIP)

SHEET NO. IT-335

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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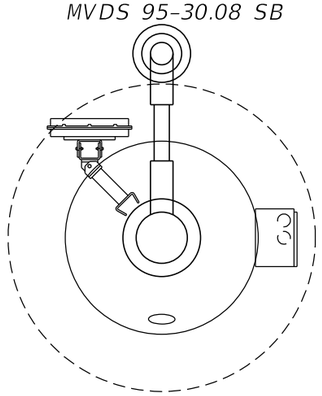
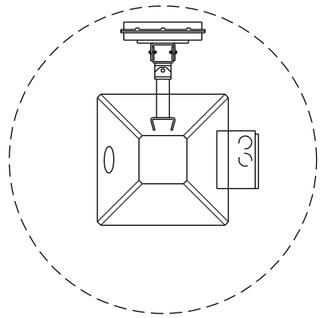
NEMA ENCLOSURE DETAIL FOR SITES:
MVDS 95-30.08 SB

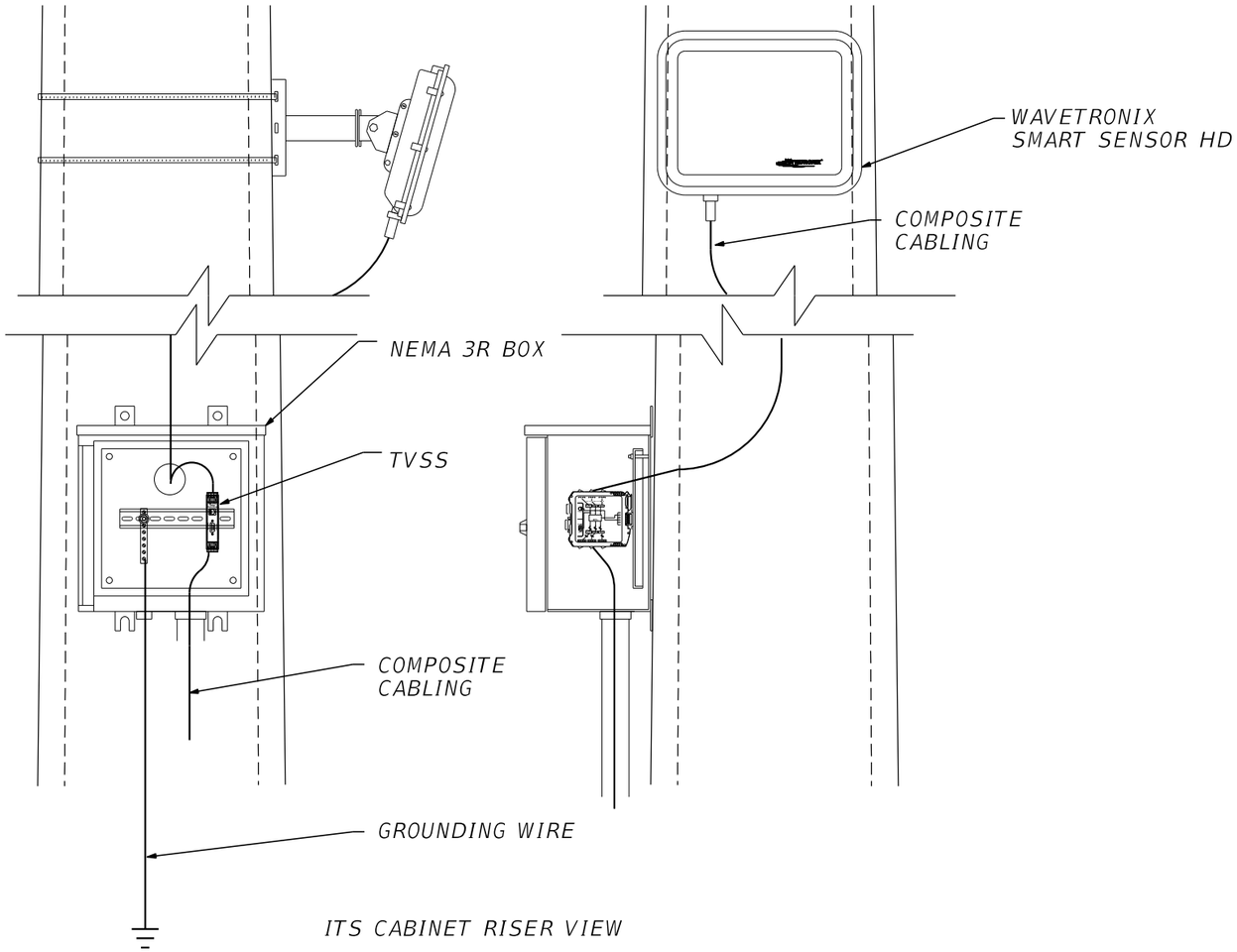


ITS POLE OVERHEAD VIEW

NEMA ENCLOSURE DETAIL FOR SITES:
~~MVDS 95-27.95 NB~~
MVDS 95-29.28 SB 84

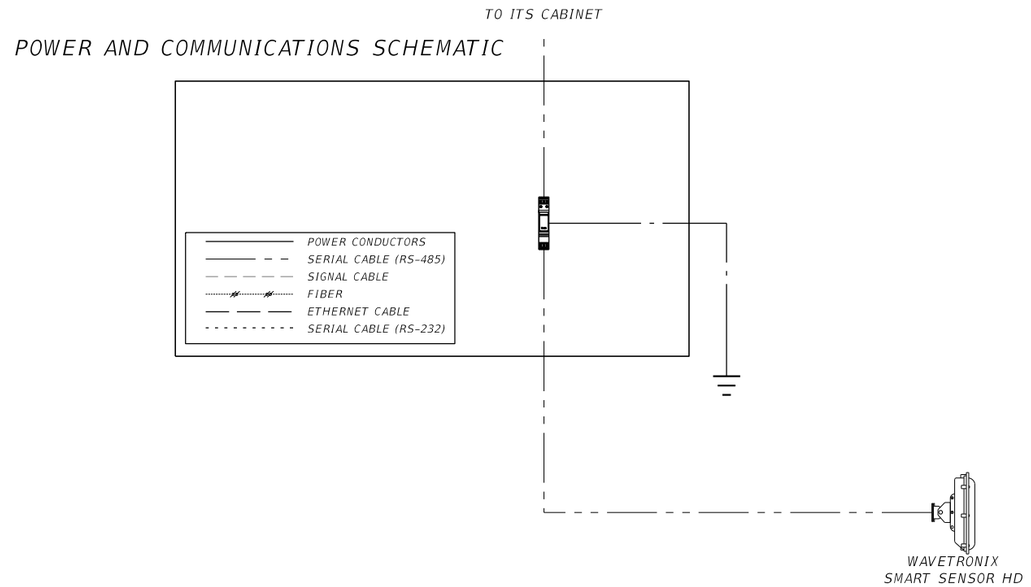


ITS POLE OVERHEAD VIEW



ITS CABINET RISER VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR DIN RAIL MOUNTED EQUIPMENT.
2. CABINETS SHALL BE NEMA 3R
3. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
4. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
5. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

Vanasse Hangen Brustlin, Inc.
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (MVDS AUX. CABINET)

SHEET NO.
IT-338

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

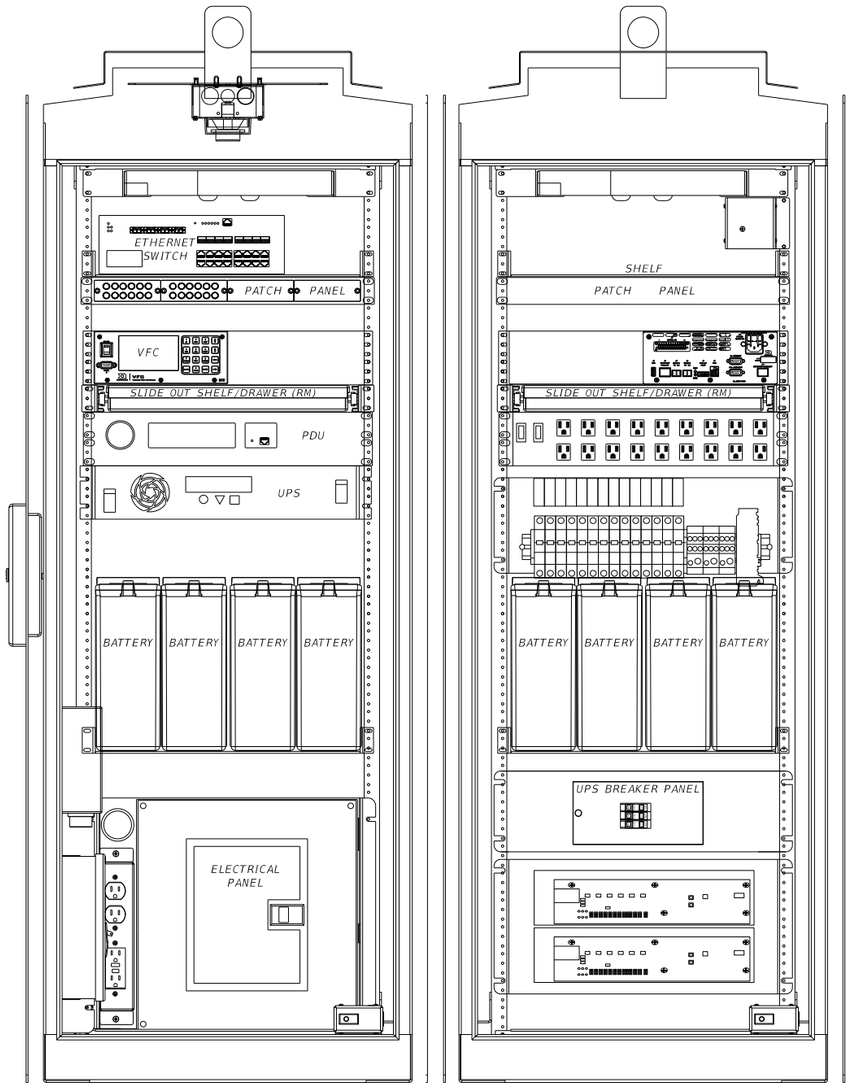
RELEASED FOR CONSTRUCTION
Released for construction with contract documents. By responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

BY: RWD VS Date: 6/11/2020

ITS S-DMS CABINET DETAIL FOR SITES:

LHUB 95-25.93 NB
LHUB 95-26.41 NB
84 LHUB 95-29.73 SB
LHUB 95-29.71 NB
LHUB 95-30.41 NB

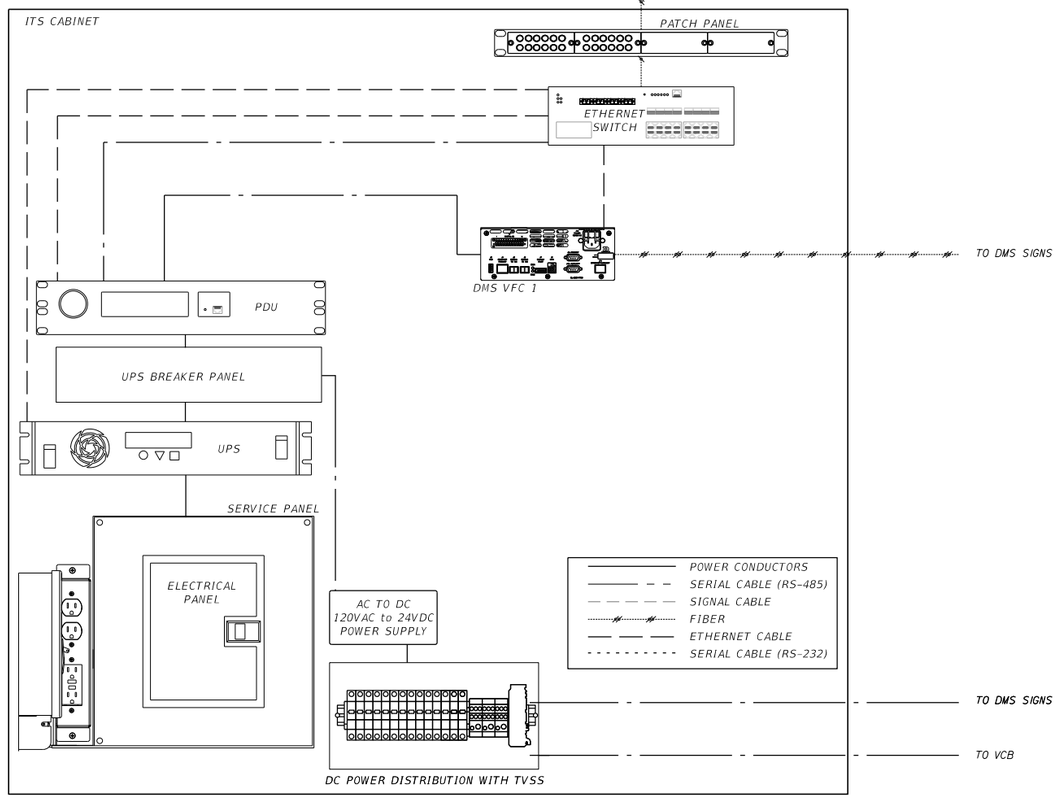
55



FRONT VIEW

BACK VIEW

POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	UPDATED LHUB 95-30.86 NB 55		
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL
(S-DMS)

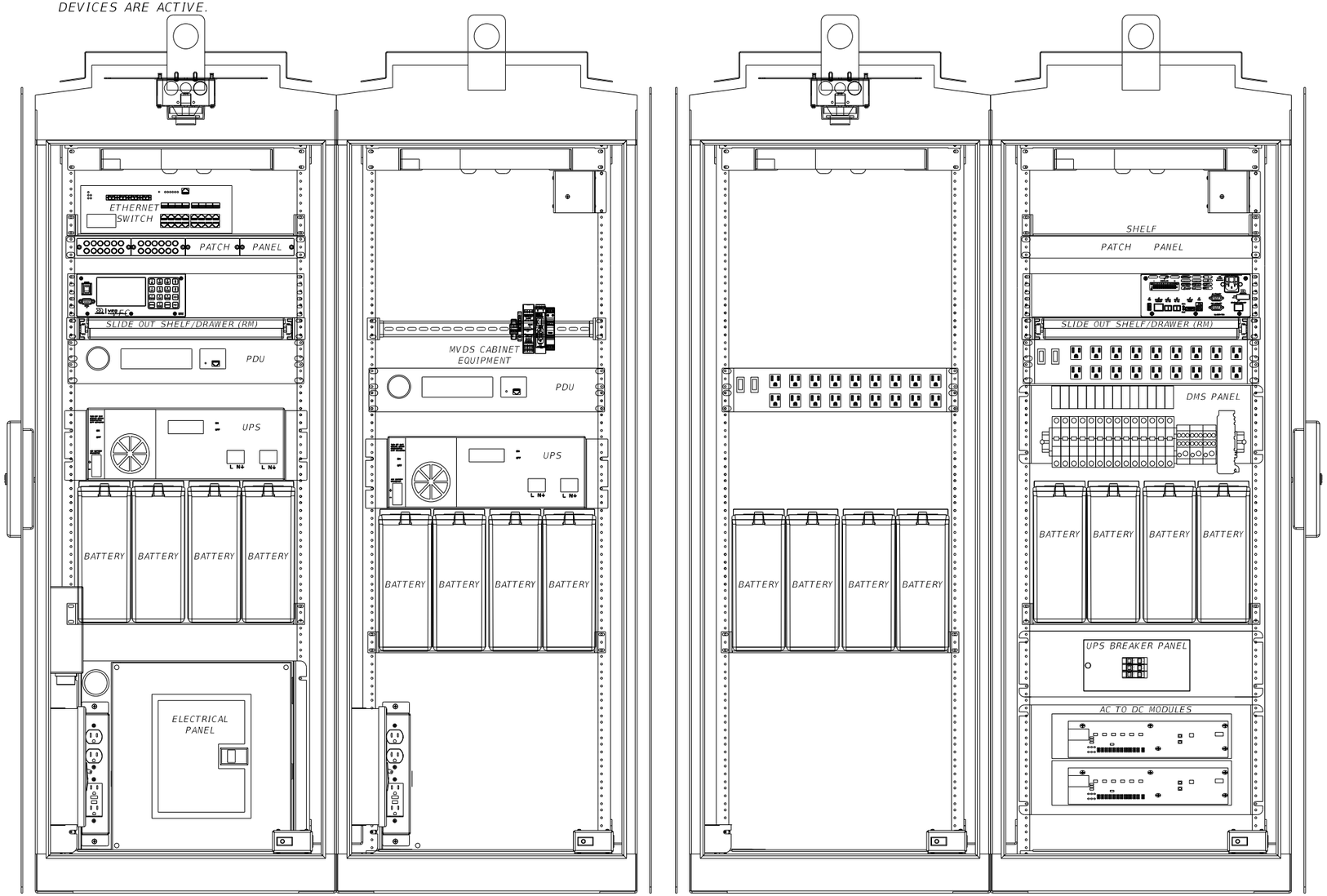
SHEET NO.
IT-341

ITS S-DMS CABINET DETAIL FOR SITES:

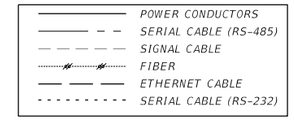
LHUB 95-29.28 SB 84

NOTES:

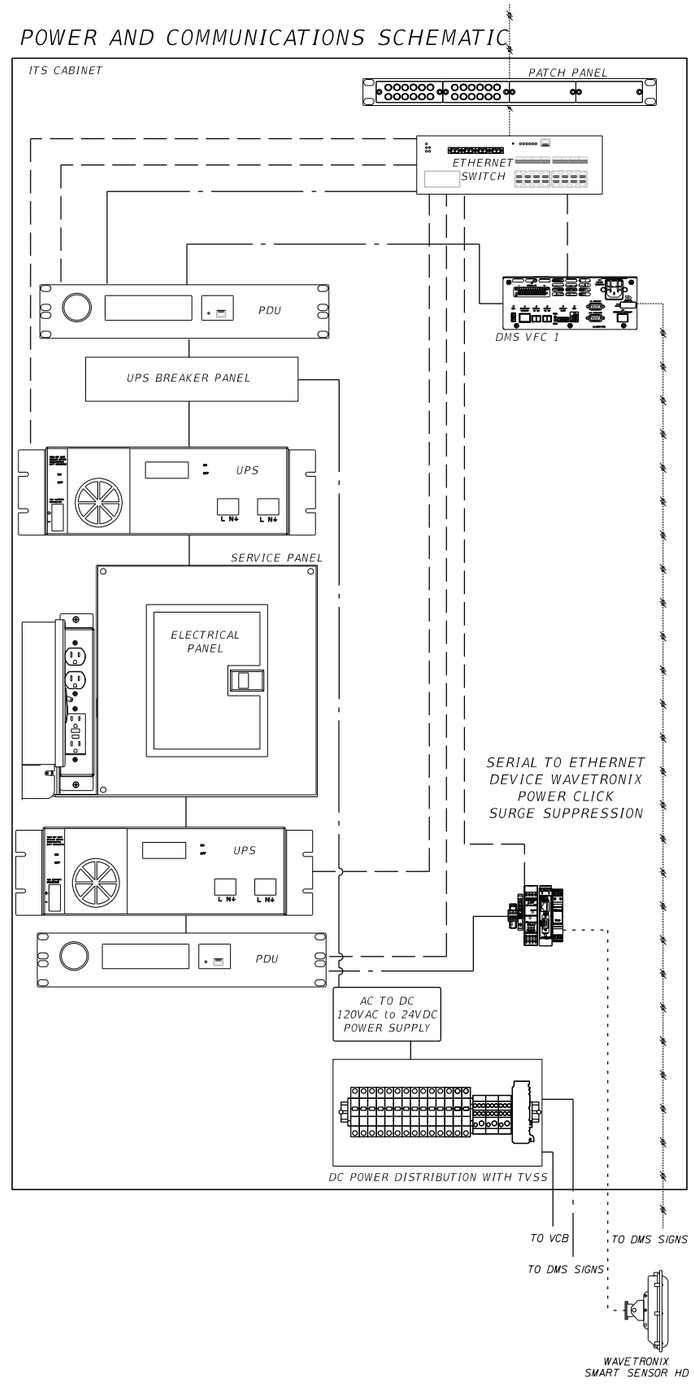
1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 334 AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE GROUND MOUNTED.
7. EQUIPMENT PLACEMENT ARE TYPICAL.



FRONT VIEW FRONT VIEW BACK VIEW BACK VIEW



POWER AND COMMUNICATIONS SCHEMATIC



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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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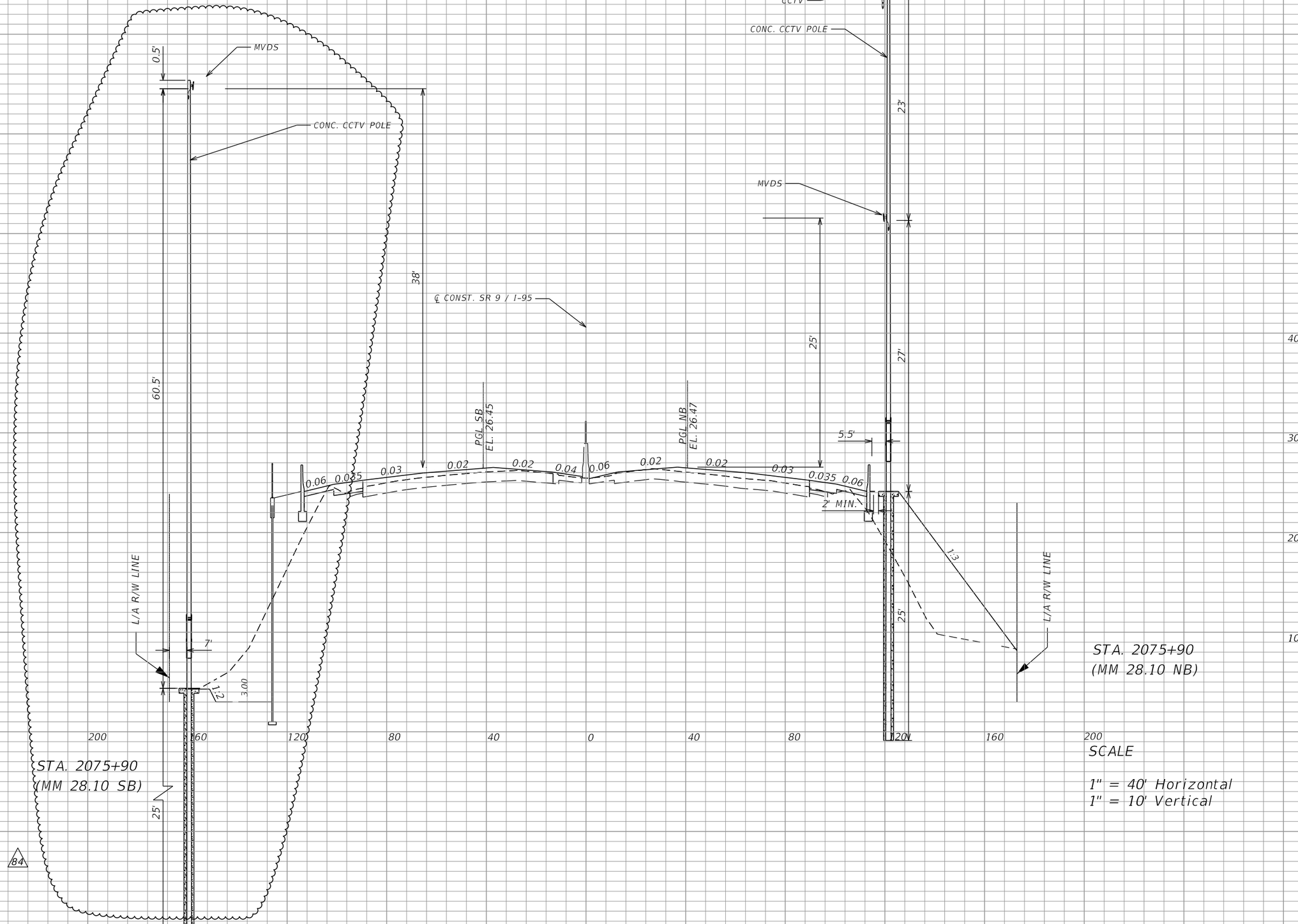
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (S-DMS & 1 MVDS)

SHEET NO. IT-343



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-403

RELEASED FOR CONSTRUCTION
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BY:RPOO VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

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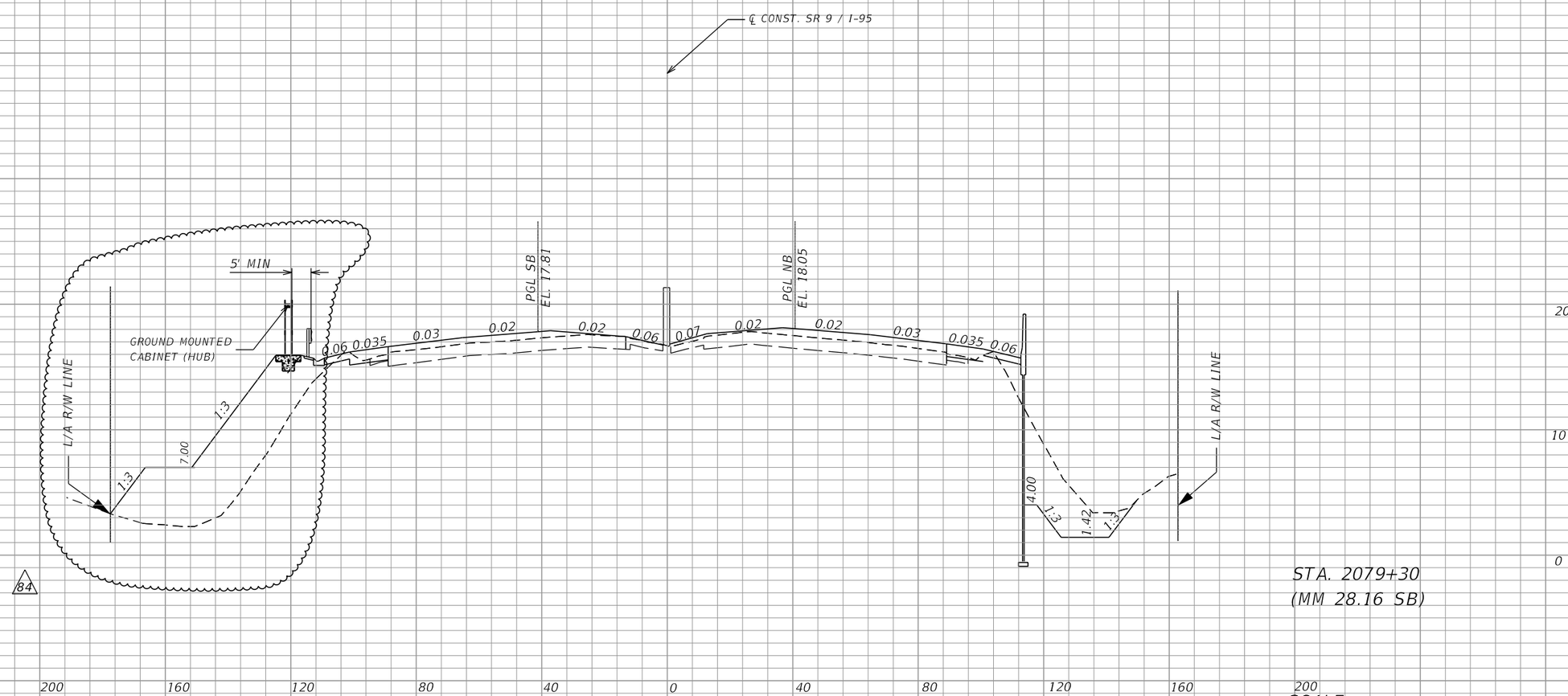

STA. 2079+30
(MM 28.16 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-404

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FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

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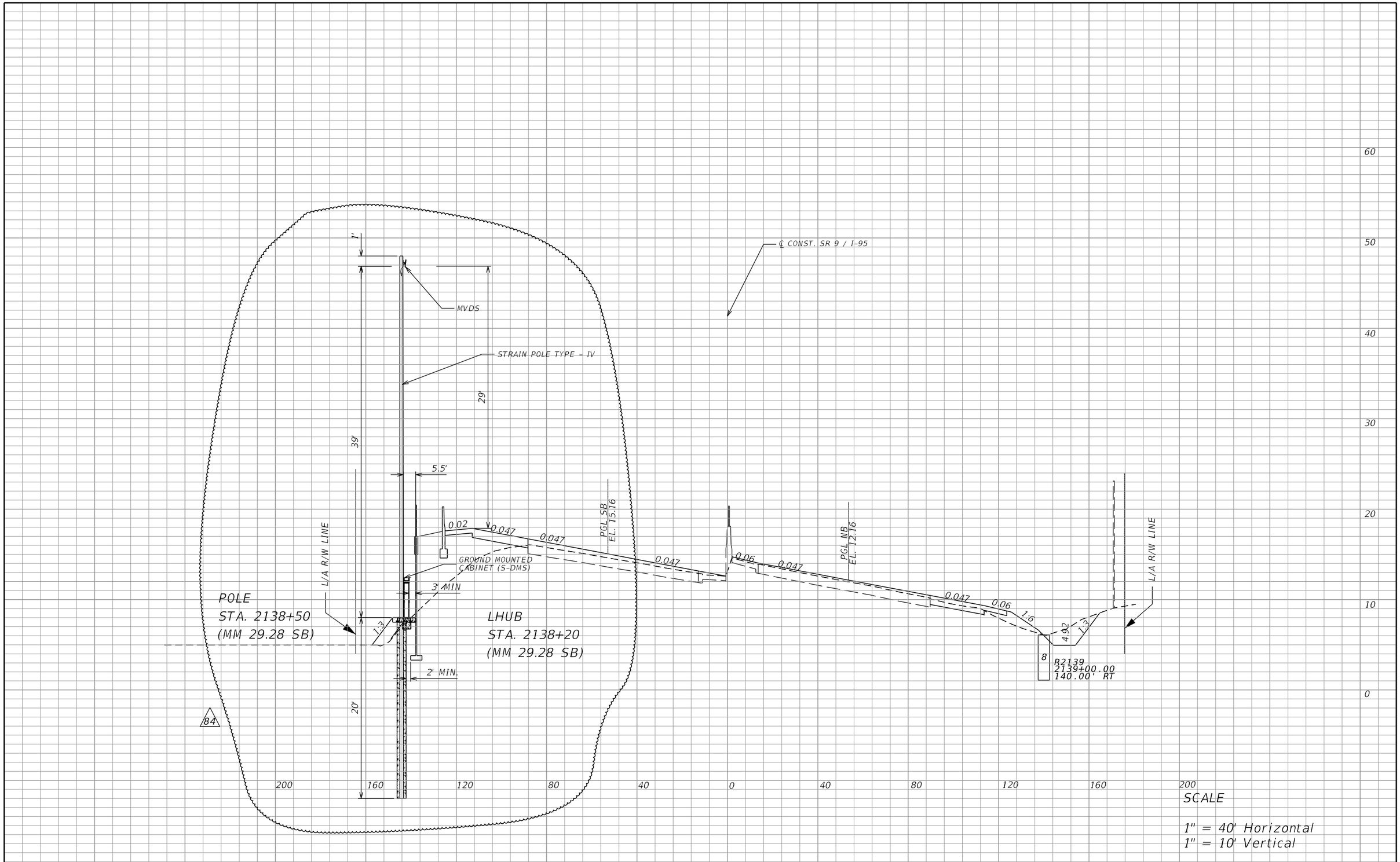

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-415

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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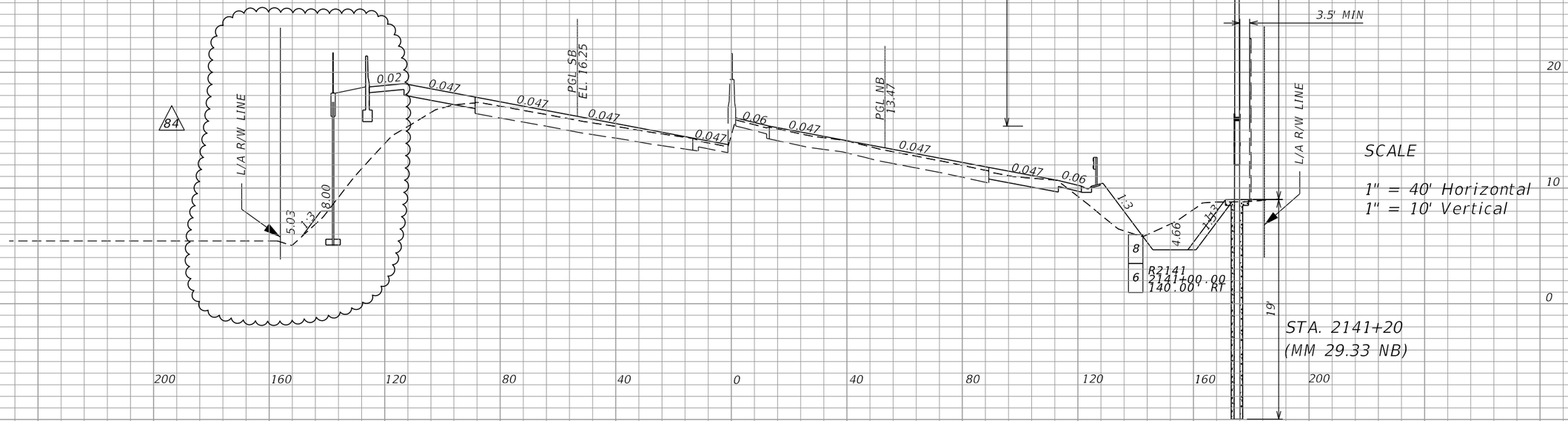

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-416

RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96
BY: RDO VS Date: 6/11/2020
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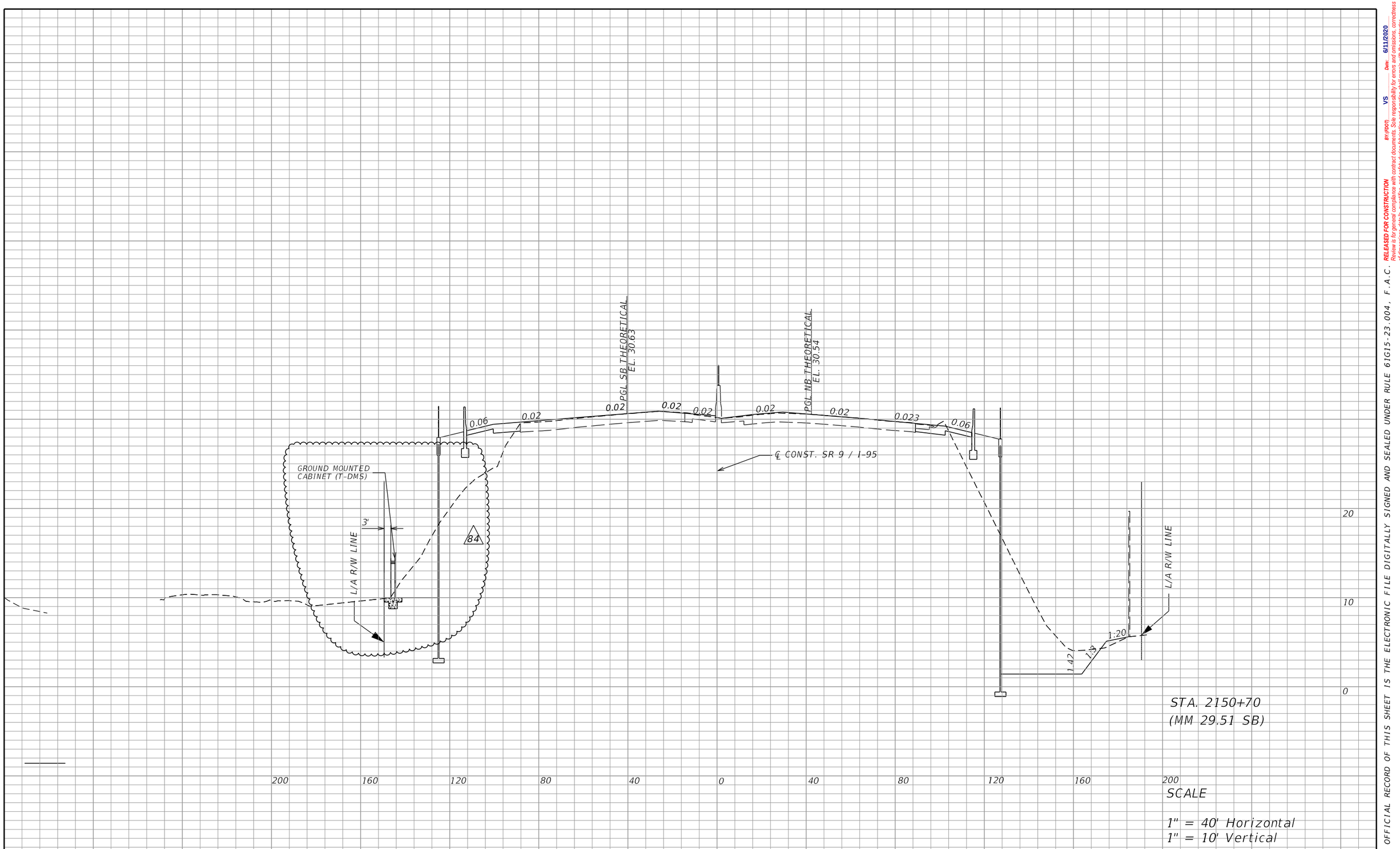

STA. 2150+70
(MM 29.51 SB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-417

RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(PSO) VS Date: 6/11/2020
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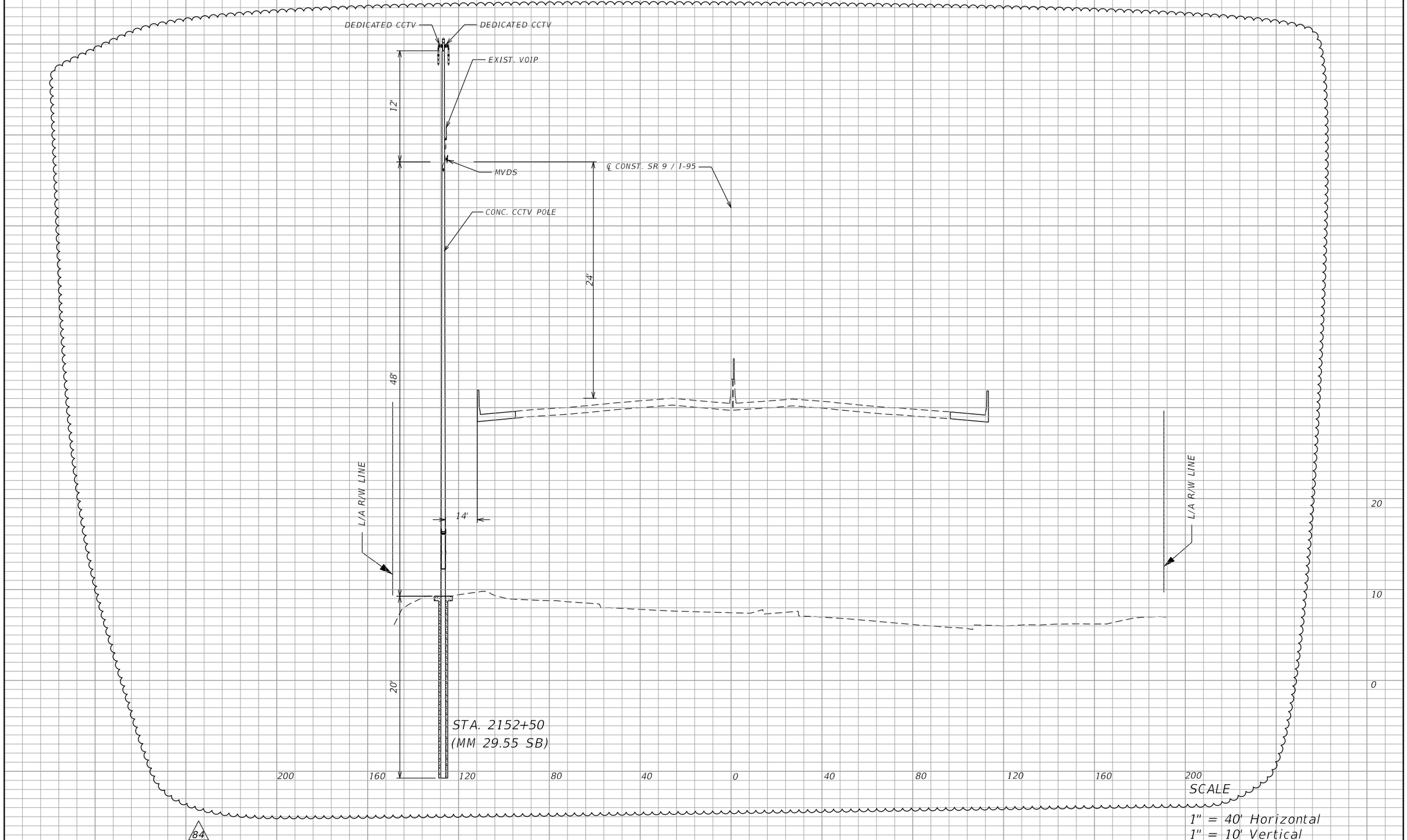

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/19/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-418

RELEASED FOR CONSTRUCTION
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BY:RDO VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

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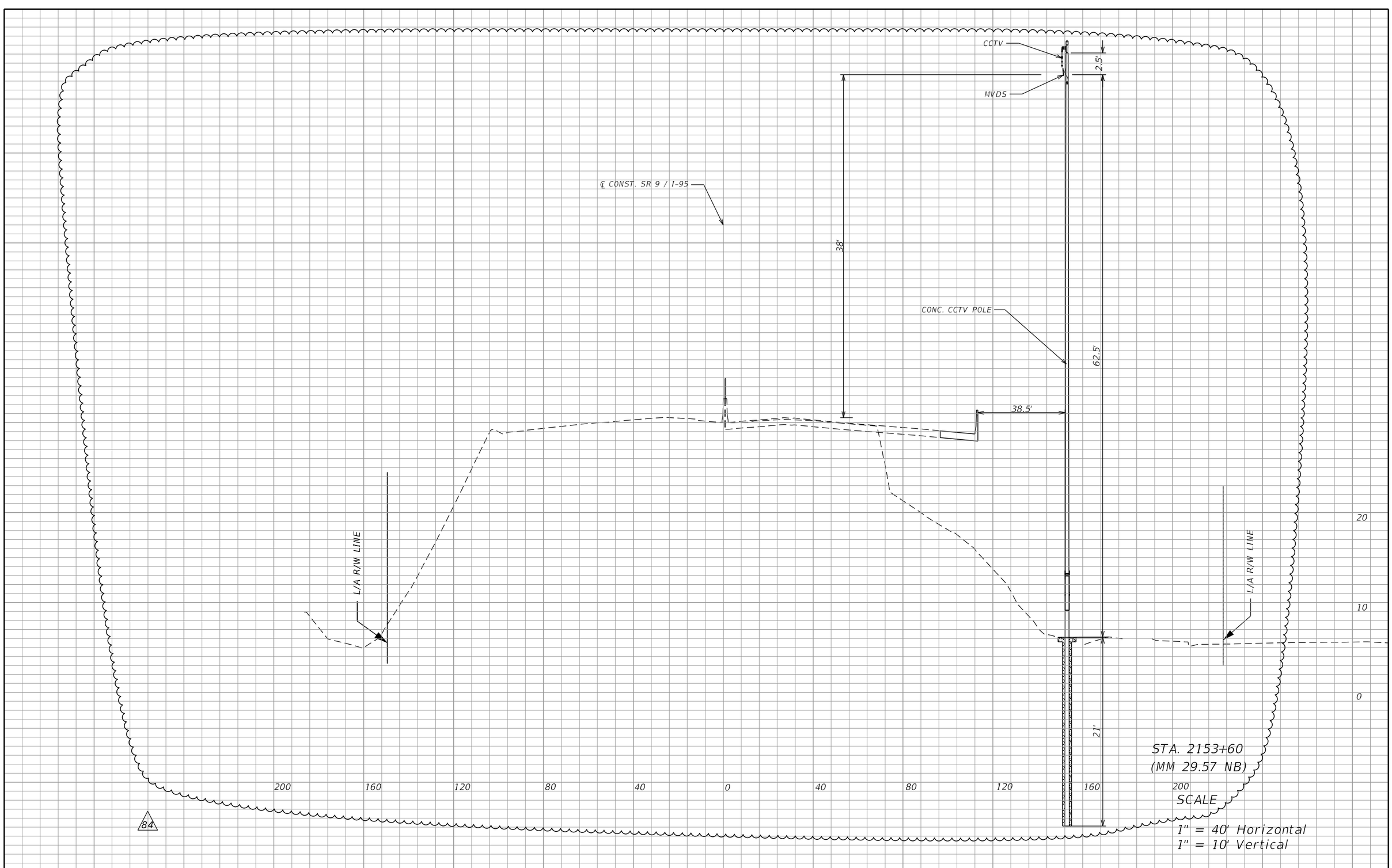

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/19/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-418A

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:(PSO) VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

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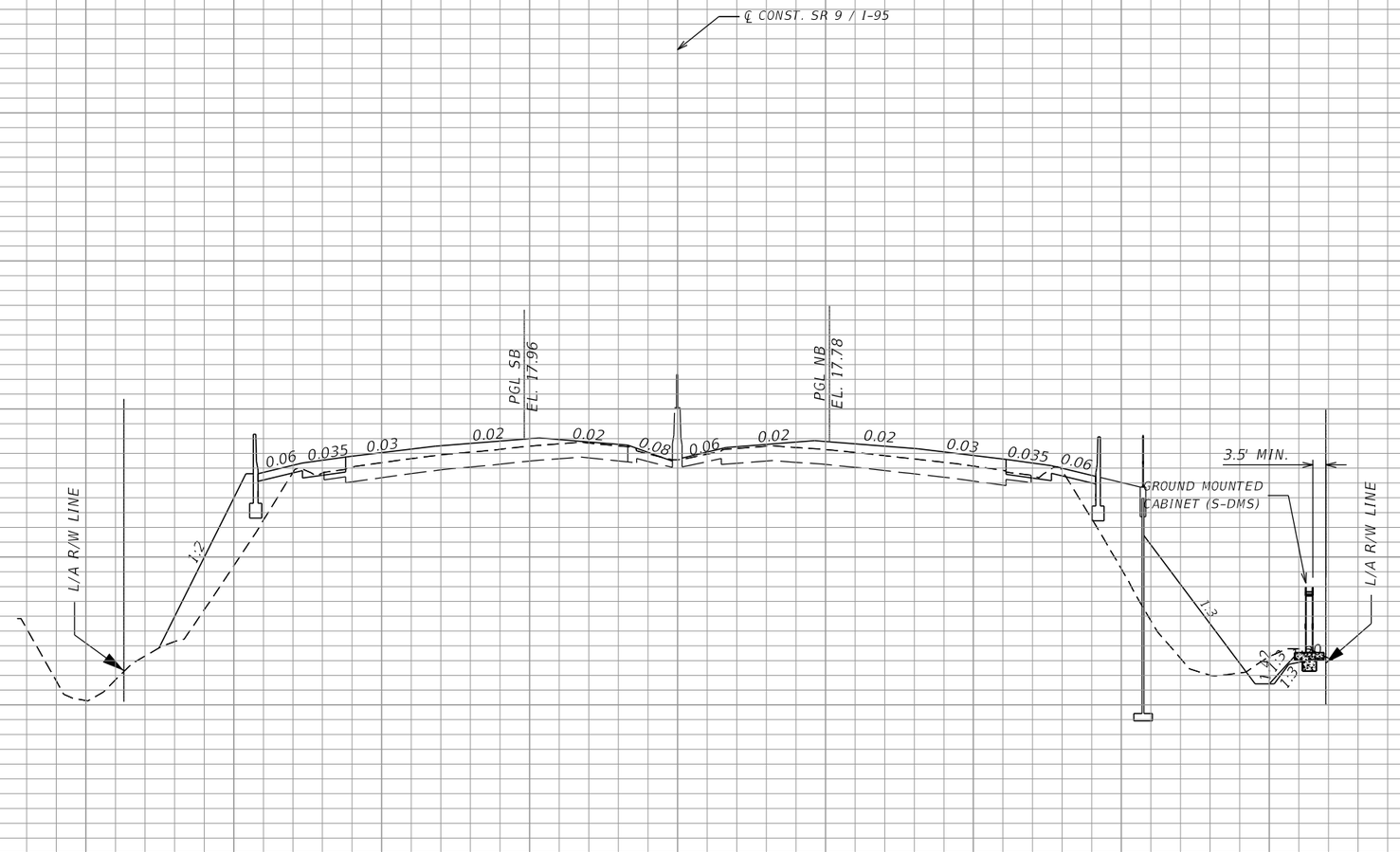

STA. 2161+00
(MM 29.71 NB)

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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225 E. Robinson St., Suite 300
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Certificate of Authorization # 3932
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
84
IT-419

jknight 3/26/2020 9:11:56 PM C:\Work_Projects\62442.00\ITS\SSXSIT01.DGN

RELEASED FOR CONSTRUCTION
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FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

BY: RDO VS Date: 6/11/2020

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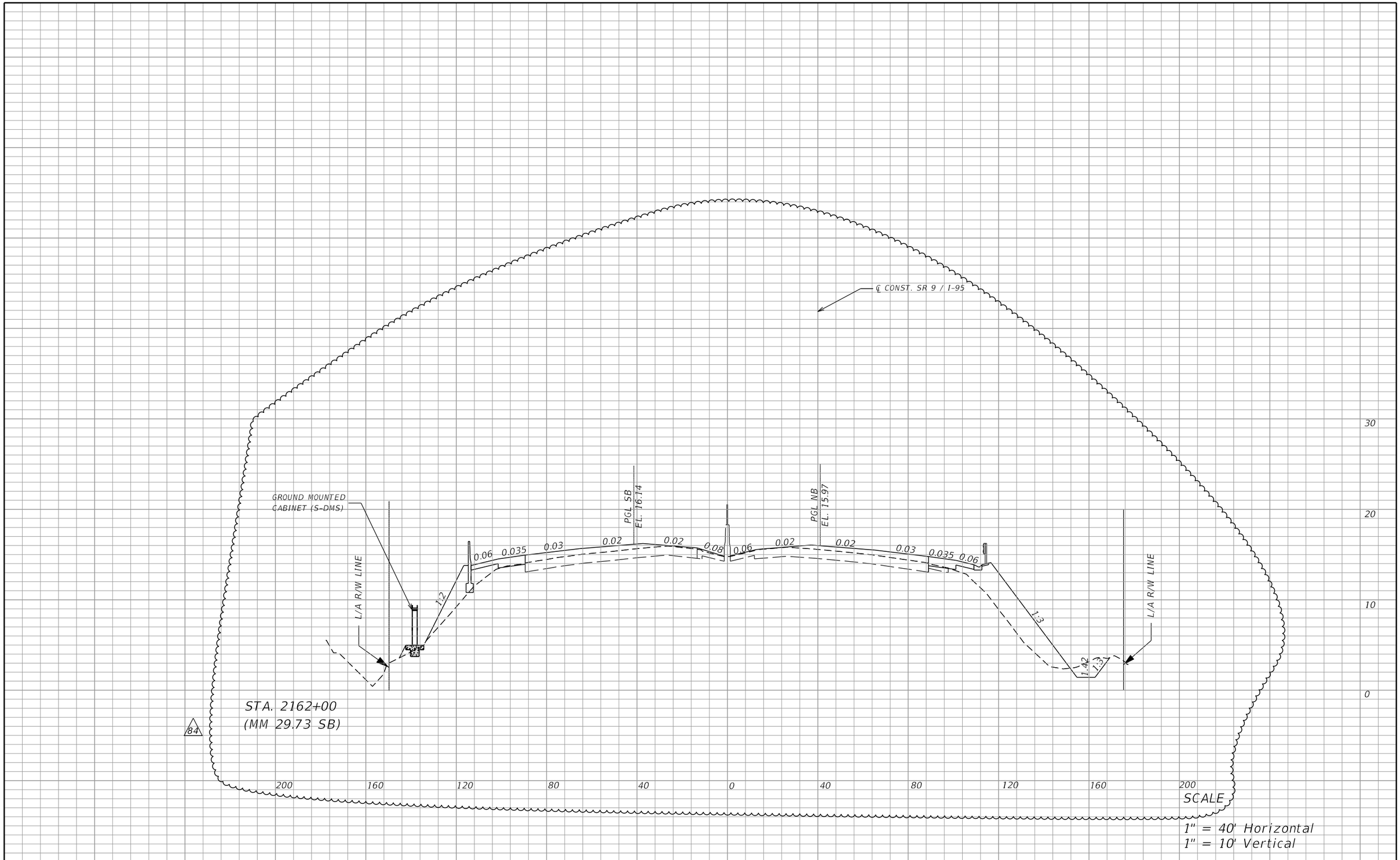

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

84

SHEET NO. IT-420

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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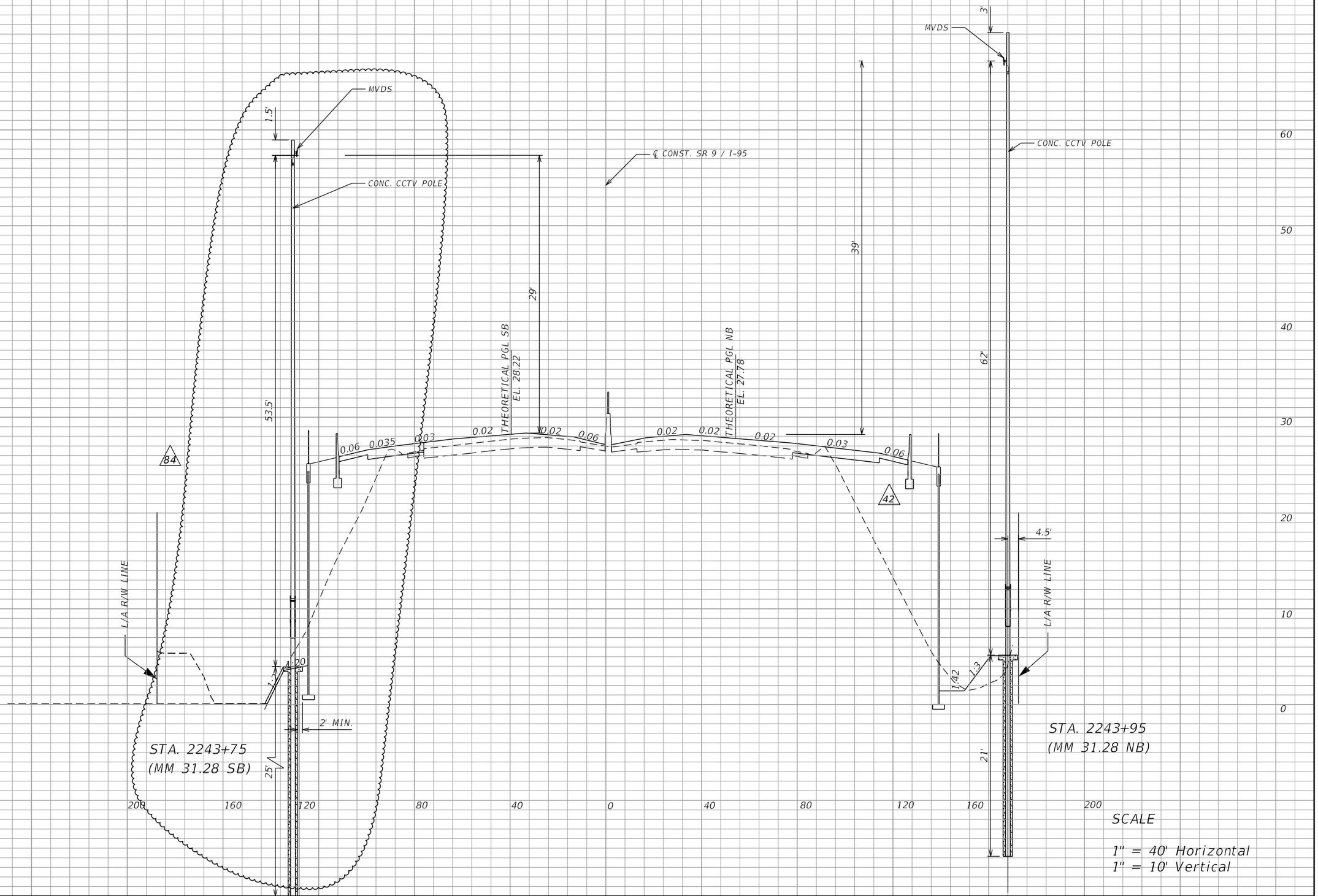

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	42 MSE WALL 19 ADJUST UPDATED CCTV POLE	3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT

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PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-440

RELEASED FOR CONSTRUCTION
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BY:RPOO VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96

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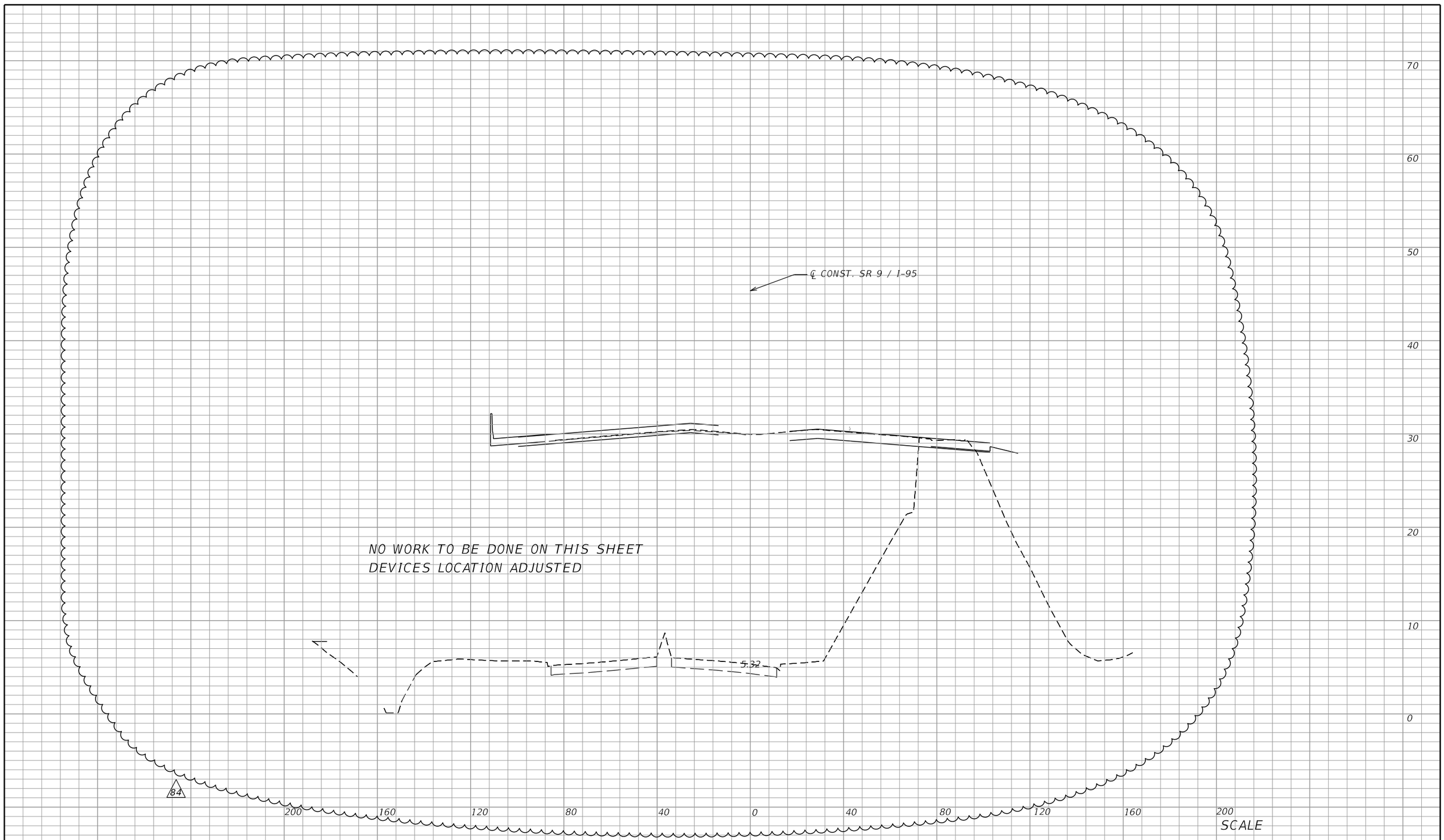

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-441

JacobPerez 3/20/2020 4:18:19 PM \\vhb\gbl\proj\Orlando\62442.00 I-95 Express 3A-1\cad\te\E4032\its\SSXSIT01.DGN

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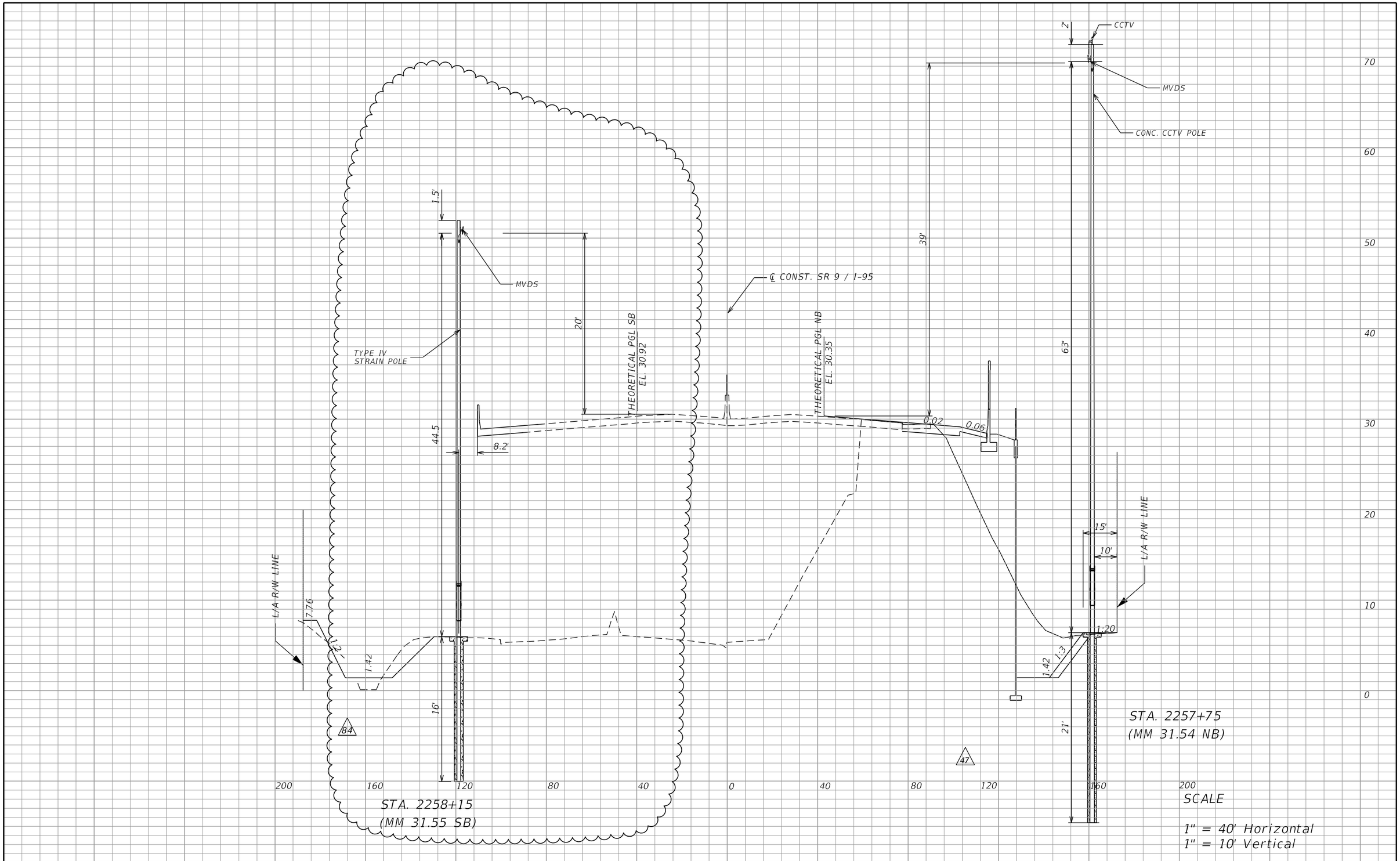
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST		
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-442

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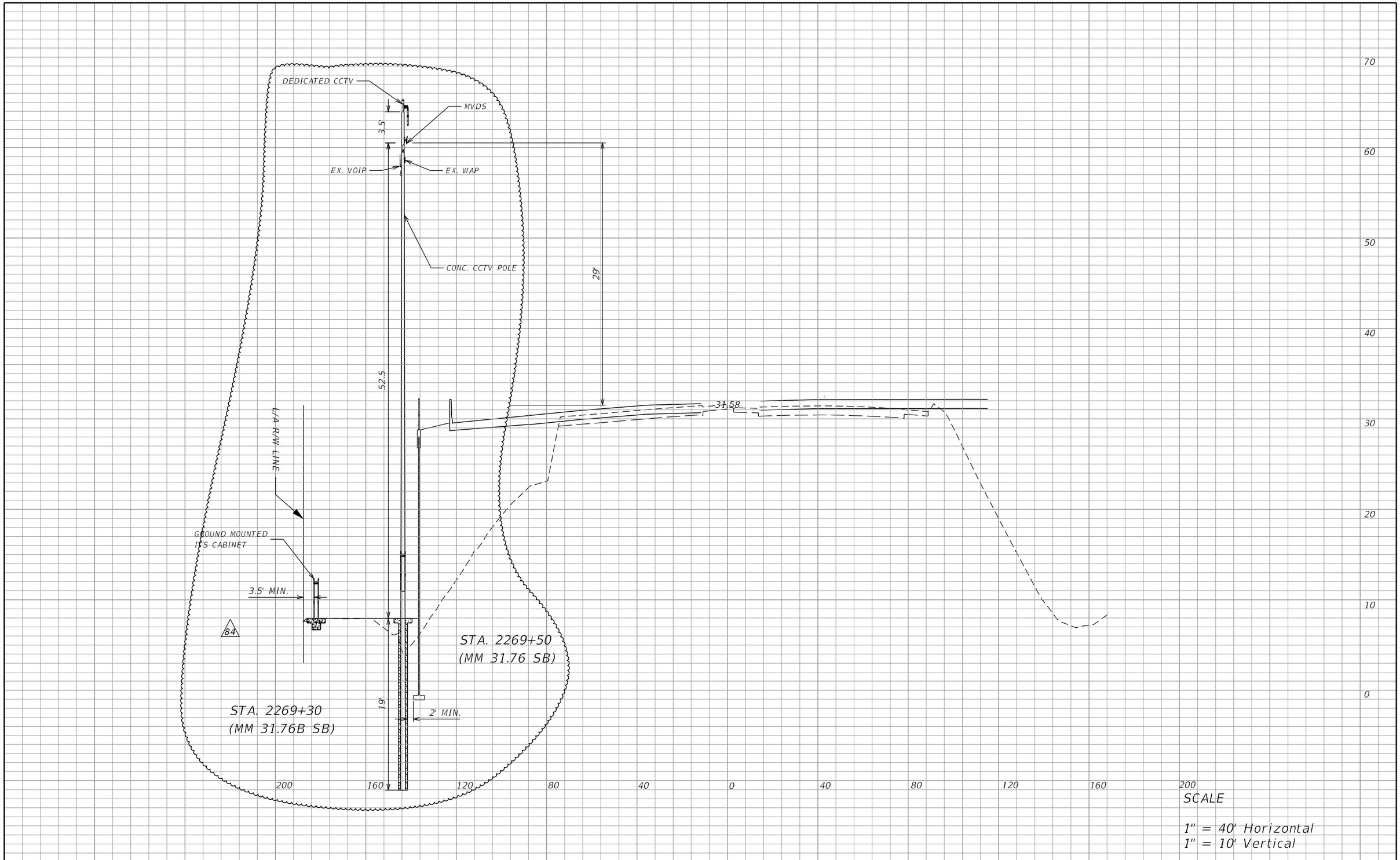
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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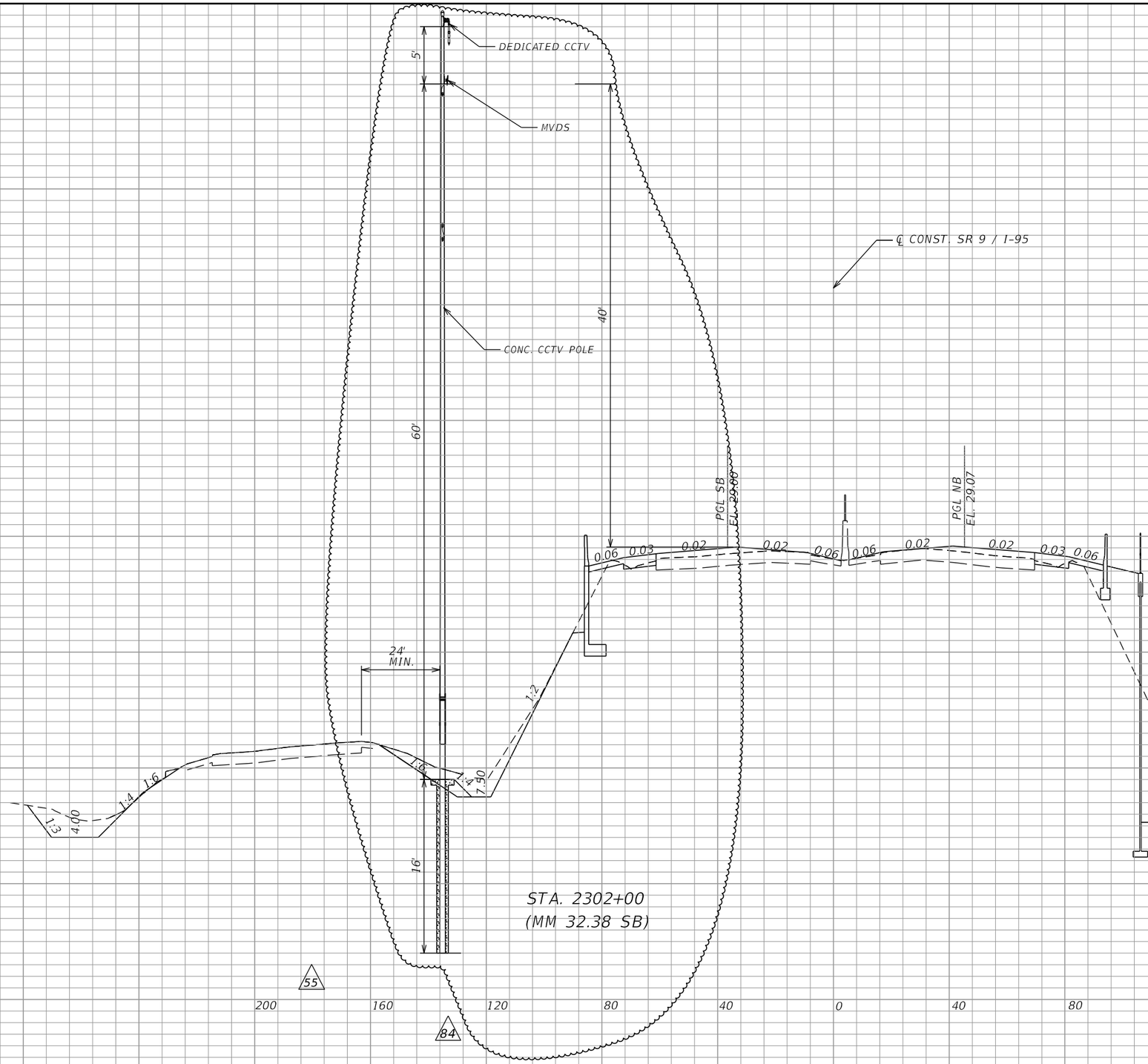
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-444

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/11/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 MSE WALL 25 ADJUST AND CCTV ADJUSTED	3/12/20	WALL 25 ADJUSTMENT 84

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

84

SHEET NO. IT-457

RELEASED FOR CONSTRUCTION
Released for construction with contract documents. No responsibility for errors or omissions. Correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:(PSO) VS Date: 6/11/2020
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-4-52-01

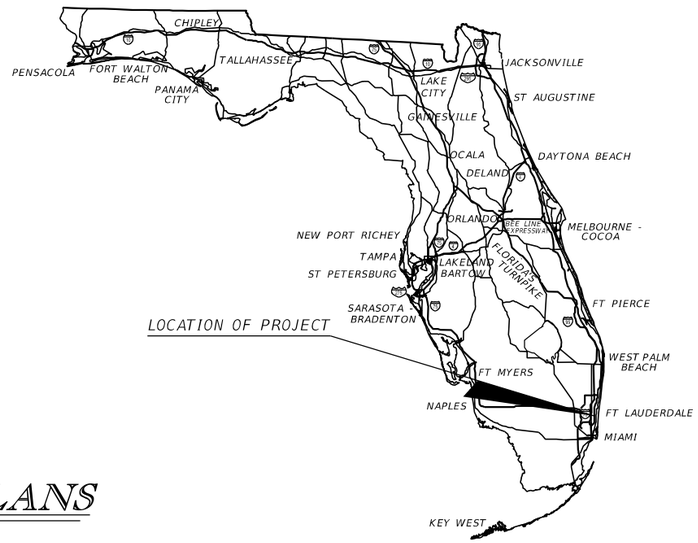
FINANCIAL PROJECT ID 428009-1-52-01

BROWARD COUNTY (86070)

(FEDERAL FUNDS)

STATE ROAD NO. 9

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



INDEX OF ITS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-156	KEY SHEET
IT-157G (140)	SIGNATURE SHEET
IT-163 - IT-164	SUMMARY OF DEVICES
IT-167	POLE DATA SHEET
IT-171	ITS LAYOUT SHEET
IT-177	ITS PLAN SHEET
IT-179 - IT-183	ITS PLAN SHEET
IT-185 - IT-186	ITS PLAN SHEET
IT-199	ITS PLAN SHEET
IT-201	ITS PLAN SHEET
IT-208 - IT-209	SITE LAYOUT DETAILS
IT-219	SITE LAYOUT DETAILS
IT-222	GENERATOR DETAILS
IT-226	POWER SERVICE DETAILS
IT-234	POWER SERVICE DETAILS
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IT-290 - IT-294	SPLICING DIAGRAM
IT-301	SPLICING DIAGRAM
IT-307	NETWORK SCHEMATIC
IT-309	NETWORK SCHEMATIC
IT-322	CONCRETE SLOPE UNDERBRIDGE DETAIL
IT-323	ITS CABINET DETAIL
IT-329 - IT-330	ITS CABINET DETAIL
IT-336	ITS CABINET DETAIL
IT-376	MASTER HUB BUILDING GRADING PLAN
IT-395	ITS DEVICE CROSS SECTION
IT-401 - IT-402	ITS DEVICE CROSS SECTION
IT-415	ITS DEVICE CROSS SECTION

KEY SHEET REVISIONS

DATE	DESCRIPTION
04/13/21	(140) ADDED SHEET IT-157G

GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY 2015 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website:
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, 2015 Standard Specifications for Road and Bridge Construction at the following website:
http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

JARED KNIGHT, P.E.
P.E. LICENSE NUMBER 74758
VANASSE HANGEN BRUSTLIN, INC.
225 EAST ROBINSON STREET, SUITE 300
ORLANDO, FL 32801
CONTRACT NO. 000819
VENDOR NO. VF-042-931-679-001
CERTIFICATE OF AUTHORIZATION 3932

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q32	15	IT-156

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RELEASED FOR CONSTRUCTION
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PID 433108-4-52-01 and 428009-1-52-01 CONTRACT E4Q32

BY: FDOT VS D#: 6/21/2021

JARED N. KNIGHT
LICENSE
No 74758
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Jared N Knight

Digitally signed by Jared N Knight
Date: 2021.05.14 16:59:30 -04'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

VANASSE HANGEN & BRUSTLIN, INC.
225 E ROBINSON ST., SUITE 300
ORLANDO, FLORIDA 32801
CERTIFICATE OF AUTHORIZATION NO. 3932
JARED N. KNIGHT, P.E. NO. 74758

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-156	KEY SHEET
IT-157G	SIGNATURE SHEET
IT-158A	TABULATION OF QUANTITIES
IT-158B	TABULATION OF QUANTITIES
IT-159A	TABULATION OF QUANTITIES
IT-160A	TABULATION OF QUANTITIES
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IT-163 - IT-164	SUMMARY OF DEVICES
IT-167	POLE DATA SHEET
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IT-179 - IT-183	ITS PLAN SHEET
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IT-226	POWER SERVICE DETAILS
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IT-336	ITS CABINET DETAIL
IT-376	MASTER HUB BUILDING GRADING PLAN
IT-395	ITS DEVICE CROSS SECTION
IT-401 - IT-402	ITS DEVICE CROSS SECTION
IT-415	ITS DEVICE CROSS SECTION
IT-458	ITS DEVICE CROSS SECTION

Vanita Saini, P.E., FDOT
Design PM - This serves as concurrence to release for construction
2021.06.21 11:19:05-04'00'

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that all comments have been satisfactorily resolved
2021.06.11 08:15:06 -04'00'

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
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FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-157G

jknight 4/15/2021 7:42:00 PM C:\Work_Projects\62442.00\ITS\KEYSIT01_rev125.DGN

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-175**		IT-176		IT-177		IT-178*		IT-179*		IT-180*		IT-181*		IT-182*		IT-183*		IT-184*		IT-185*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1435		110		540		1360		1810		1370		440		760	140	855		100		975		9755	140		
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	56						543		660		1125		160		200		748		215		280		3987			
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF			1470		540				340		30						100						2480			
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF									570														570			
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	441		520		570		2866		4440		1200				1350		2249		250		540		14426	84		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																										
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF									900														900			
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55																								
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF							100		100														200			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	4		4						54	84	8				16		24		4		8		122	84		
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	1								1		2				3		1				1		9			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	1		1						6		2				2		3				1		16			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA																										
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA			1						1								1		1			140	4			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF			1920				880		1240		1865		600						250			140	6755			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	3		4		4		4		14		16		1	65	6	140	9		6		5		72	65		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	2		2		3	140	3		2		3				2		2		1		2		22	84		
635-2-13	PULL & SPLICE BOX, 60"X30" RECTANGULAR	EA	1								1	140							1	140			1		3			
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA			3		2				9		2						1						17			
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS															1								1			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS							1		1														2			
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	1491		640		720		1773		1300		140				920		1203		100		555	140	8842	140		
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF	1250																						1250			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																	1						1			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																	1						1			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA																										
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA																	1						1			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA															1								1			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA							1																1			
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA									1														1			
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA											1								1				2			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA									1														1			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA	1						1		1		3				2								8			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																	2				1		3			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																										
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																					1		1	84		
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA											1												1			
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA							1				2								2				5			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS							2				4								4				10			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA									2		4								3				9			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS							4		8		10						4		8				34			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA									2				2		5		2				2		13			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA									2				2		5		2				2		13			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA			1				1								1	140							3	140		
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA			2				2								2								6			
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA			1				2	55							1	140							4	140		
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA							1		1												1		3			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 UPDATED DESIGN QUANTITIES	3/9/20	84 UPDATED DESIGN QUANTITIES
1/22/19	65 UPDATED DESIGN QUANTITIES	04/13/21	140 UPDATED DESIGN QUANTITIES

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-158A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4K48

BY: VS D.#: 6/21/2021

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-175		IT-176		IT-177		IT-178*		IT-179*		IT-180*		IT-181*		IT-182*		IT-183*		IT-184*		IT-185*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA																										
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA	1		1				1		1		3						2				1		10			
682-1-400	ITS CCTV CAMERA, RELOCATE	EA			1							140		140											1	140		
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA									1		1		1		1		1						5			
684-1-6	MANAGED FIELD ETHERNET SWITCH, REMOVE	EA									2		2		2	140	2	140	1						9	84		
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA			2																				2			
684-7	MANAGED ETHERNET HUB SWITCH	EA																										
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA																										
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS															1		1						2			
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS																										
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS									4		1						1						6			
700-2-60	MULTI-POST SIGN, REMOVE	AS																										
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA							1				2								2				5			
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA			2				2																4			
700-7-600	EMBEDDED DMS, REMOVE	EA									3						3								6			
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA					1				1														2			
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-8-600	FRONT ACCESS DMS, REMOVE	EA							1				1						1						3			
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																										
700-9-500	WALK-IN DMS, RELOCATE	EA																					1		1			
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS									4		1				1		2						8			

NOTE:
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630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

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630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13,
660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 UPDATED DESIGN QUANTITIES		
04/13/21	140 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-158B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY:(PDOT) VS Date: 6/21/2021

RELEASED FOR CONSTRUCTION
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PID 433108-4-52-01 and 433934-4-52-01 CONTRACT E4K48

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-186*		IT-187*		IT-188*		IT-189		IT-190		IT-191		IT-192		IT-193		IT-194*		IT-195*		IT-196*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	754	△84	1639		1210				305	△84	450	△84	195		2850		2235		2665	△42	1510		13813	△42		
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	450	△84	390		520				310		830		320		40		560		1699		480		5599	△84		
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF			60														15		13				88			
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF			160														1350						1510			
632-7-1	SIGNAL CABLE- NEW, F&I	PI																								△84		
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1620	△84	380		1620				915	△84	1650		690		430		435		540	△38	655		8935	△38		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF													635		1820		1860		2989	△84	2040		9344			
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF		△55	159		1770								1525		5550		5520		6528	△42	4080		25132	△42		
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF																										
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF															8400		8400				8400		25200			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	16		4		98				8		12		386		16		16		38	△84	12		606			
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	2		1		3				1		2		5		4		4		6	△84	3		31	△84		
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	3		1		10				1		2		34		4		3		7		3		68			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA					1							△84								△84			1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA	1										△84								1				2			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF	420		1750		80				30	△84	60				380		1155		300		800		4975			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	14	△65	7		10	△65			4	△84	10	△65	3		12	△65	16	△65	28	△65	11	△65	115	△65	△40	
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	5	△140	1		2				3		4		1		2		3		4		3		28			
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA		△84			3								1		4		3		5		3		19	△84		
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA			4														1		1				6			
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS											1								1				2	△38		
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS		△84																		△38						
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	934	△84	390		1480				920	△84	1625	△84	825		3360		3325		3890		1470		18219	△84		
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF															2800		2800				1400		7000			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																										
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA													1										1			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA																										
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA											1								1				2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA	1				2				1												1		5			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA			2																				2			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA					1												2				2		5			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA			2						1				2		1				1	△42			7	△42		
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA			1																				1			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																			2				2			
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA															1				1				2			
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA							1				1								1				3			
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA	1				1												1		1		1		5			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS	2				2												2		2		2		10			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA	2				3												2		2		3		12			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	4				4												4		8		8		28			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA	1																						1			
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA	1																						1			
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA			1																				1			
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA			1																				1			
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA			1	△55																	1	△55	2	△55		
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA													1										1			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	△38 UPDATED CONDUIT QUANTITIES	1/22/19	△65 UPDATED DESIGN QUANTITIES
6/15/18	△42 MSE WALL 15 ADJUST	3/9/20	△84 UPDATED DESIGN QUANTITIES
11/5/18	△55 UPDATED DESIGN QUANTITIES	04/13/21	△140 UPDATED DESIGN QUANTITIES

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-159A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
BY:(PDOT) VS D#: 6/21/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PPID:433108-4-52-01 and 433108-4-32-01 CONTRACT:E4K48

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-197*		IT-198		IT-199		IT-200*		IT-201*		IT-202*		IT-203		IT-204		IT-205		IT-206		IT-207					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1580		1040		1520	47	2387		2700	55	1805	55	500	84	530		870		880		710		14522	47 65 84		
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	877	84	1080	47 84	1020	65 84	375	65	1130		620				490		340		200		115		6247	55 84		
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF				84																						
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																										
632-7-1	SIGNAL CABLE- NEW, F&I	PI																										
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1695	84	1600	47	1970	47	940		1645		1785	55			1870								11505	47 55 84		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF	2747		1660		2070	84	1810		1165												65		9452			
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF	3964		3320		4140	65	3660	65	2145	55	1100	55		55			970		530				19829			
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55							75														75	55		
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF	9055		8400		8820	84	9800		6025		1400				440						84		43940			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	28		8		40		16		164		28	55		55	24								308	55		
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	4		1		4	84	2		6		4				1								22			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	4		1		5		3		6		4				2								25	84		
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA									1														1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																										
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF					200		850		1690	140	780	55											3520	55 140		
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	7	65	3		10		13	65	32		16		1		9		6		5		3		105	65		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	4		2		6	84	4		8	55	4				4								32			
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA	2		1		2		2		7		6		1		1		1		1				24	55 84		
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																										
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS						47			1														1			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS				47		47																		47		
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	2477	84	2120	47 84	2230	65 84	2175	65	3380		2835	55			880						84		16097	65 55		
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF	1400		1400	84	560				1150		1400												5910			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA															1								1			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																										
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA															1								1			
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA									1						1								2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA			1	84							1												2			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA	1				1				1														3			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA						84			1		1												2			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA															1								1	47		
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA					1	47	1		1						1								4			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA	2					47			1														3	47		
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA	2	84	1		1		2		1		2	84											9	84		
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																										
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA							1		1		1												3			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS							2		2		2												6			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA							2		2		2												6			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS							4		12		4						2		4				26			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA	4		2		2		2		2		4												16			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA	4		2		2		3		2		4												17			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																										
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																										
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																										
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA																										

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST	1/22/19	65 UPDATED DESIGN QUANTITIES
11/5/18	UPDATED DESIGN QUANTITIES 55	04/13/21	UPDATED DESIGN QUANTITIES 140
3/9/20	84 UPDATED DESIGN QUANTITIES		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
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Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-160A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4K48

BY: (PDOT) VS D.#: 6/21/2021

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-219		IT-220		IT-221		IT-222																	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF																						47	38090	42
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF																						55	15833	84
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF							15	140													15	140	2583	65
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																							2080	140
632-7-1	SIGNAL CABLE- NEW, F&I	PI																							12	
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF																						55 47	34866	38
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																							18796	65
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF		55																					45861	84 42
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF																							75	
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF																							69340	84
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA																							1036	
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA																							62	
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA																							109	
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																							77	
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA							4														4		6	
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																							6	
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF																							15250	
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA			4		4		6	140													14	140	306	65
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA																							82	
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA							2														2	140	48	84
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																							23	140
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																								
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS																							4	
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																						55 47	2	38
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF																							43158	65 84
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																							14160	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA			5		5		5														15		95	84
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA			1		1		1														3		3	
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																							2	
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA			2		2		2														6		85	84
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA			4		4		4														12		43	
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA																							8	
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																							1	
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																							1	
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA																							7	
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA																							8	
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA																							16	
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																							8	42
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																						47	5	
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																							12	84
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																							4	
643-1	GUYING WOOD STRAIN POLE, F&I	EA																								
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA																							13	
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS																							26	
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA																							27	
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS																							88	
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA																							55	
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA																							44	
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																							4	
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																							7	140
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																							1	
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																							1	
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																								
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																							12	140
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																							9	55
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																							41	
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																							2	84
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																							40	
676-2-600	ITS CABINET, REMOVE	EA																							4	

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT QUANTITIES	1/22/19	UPDATED DESIGN QUANTITIES 65
6/15/18	MSE WALL 15 ADJUST 42	3/9/20	84 UPDATED DESIGN QUANTITIES
7/31/18	47 MSE WALL 21 ADJUST	04/13/21	UPDATED DESIGN QUANTITIES 140
11/5/18	UPDATED DESIGN QUANTITIES 55		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-162A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4K48
BY: JKNIGHT VS D#: 6/21/2021

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																						TOTAL THIS SHEET		GRAND TOTAL	
			IT-219		IT-220		IT-221		IT-222																			
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
677-1-11	EQUIPMENT SHELTER, F&I, UP TO 120 SF	EA							1																1		1	
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE-PRESSURIZED, IP, HD	EA							1	140															1	140	48	84
682-1-400	ITS CCTV CAMERA, RELOCATE	EA																									1	140
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA																									82	
684-1-6	MANAGED FIELD ETHERNET SWITCH, REMOVE	EA	84																								9	84
684-6-40	WIRELESS COMMUNICATION DEVICE, RELOCATE	EA																									7	
684-7	MANAGED ETHERNET HUB SWITCH	EA							1																1		1	
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE	EA																									83	
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS																									7	
700-1-13	SINGLE POST SIGN, F&I, GROUND MOUNT, 21-30 SF	AS																									2	
700-1-22	SINGLE POST SIGN, F&I, BARRIER MOUNT, 12-20 SF	AS																										
700-1-32	SINGLE POST SIGN, F&I, BRIDGE MOUNT INDEX, 12-20 SF	AS																									14	
700-2-60	MULTI-POST SIGN, REMOVE	AS																										
700-3-101	SIGN PANEL, F&I, GROUND MOUNT, UP TO 12 SF	EA																									11	84
700-7-132	EMBEDDED DMS, F&I, W/ UPS, FULL COLOR, 12-20 SF	EA																									12	
700-7-600	EMBEDDED DMS, REMOVE	EA																									6	
700-8-134	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 31-50 SF	EA																									8	84
700-8-137	FRONT ACCESS DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																									2	
700-8-600	FRONT ACCESS DMS, REMOVE	EA																									3	
700-9-137	WALK-IN DMS, F&I, W/ UPS, FULL COLOR, 201-300 SF	EA																									2	
700-9-500	WALK-IN DMS, RELOCATE	EA																									2	
700-10-600	DMS SUPPORT STRUCTURE, REMOVE	EA																										
700-12-11	SIGN BEACON, F&I, GROUND MOUNT, AC POWERED, ONE BEACON	AS																									22	

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13,
660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 UPDATED DESIGN QUANTITIES		
04/13/21	UPDATED DESIGN QUANTITIES 140		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-162B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

VS D#: 6/21/2021 BY:(FDOT)

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433934-4-52-01 CONTRACT E4K48

	DEVICE	STATION	LOCAL HUB	NO. OF CCTV'S	DIRECTED TOWARDS	PLAN SHEET
1	CCTV 95-25.28 NB	1927+00	LHUB 95-25.28 NB	1	T-DMS 95-25.58 NB	IT-175
2	CCTV 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	S-DMS 95-25.98 NB	IT-176
3	CCTV 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	MAINLINE	IT-176
4	CCTV 95-26.06 NB	1968+90	LHUB 95-26.09 NB	1	T-DMS 95-26.13 NB	IT-178
5	CCTV 95-26.30 NB	1980+90	LHUB 95-26.30 NB	1	S-DMS 95-26.44 NB	IT-179
6	CCTV 95-26.38 SB	1984+40	RSC 95-26.38 SB	1	RAMP A	IT-179
7	CCTV 95-26.44 EB/WB	1988+31	LHUB 95-26.30 NB	1	DAVIE BLVD	IT-179
8	CCTV 95-26.59 NB	1996+10	RSC 95-26.59 NB	1	RAMP	IT-180
9	CCTV 95-26.63 SB	1998+70	LHUB 95-26.63 SB	1	MAINLINE	IT-180
10	CCTV 95-26.71 NB	2002+80	RSC 95-26.71 NB	1	SUPPLEMENTAL	IT-180
11	CCTV 95-26.83 SB	2009+05	LHUB 95-26.83 SB	1	RAMP E	IT-181
12	CCTV 95-27.30 NB	2034+60	LHUB 95-27.30 NB	1	MAINLINE	IT-182
13	CCTV 95-27.36 SB	2036+83	LHUB 95-27.36 SB	1	MAINLINE	IT-183
14	CCTV 95-27.41 SB	2039+50	LHUB 95-27.36 SB	1	SUPPLEMENTAL	IT-183
15	CCTV P&R-1		LHUB P&R-1	1	T-DMS P&R-1	IT-183
16	CCTV 95-27.50 NB	2044+50	LHUB 95-27.50 NB	1	RAMP G	IT-183
17	CCTV 95-27.53 SB	2046+00	LHUB 95-27.53 SB	1	MAINLINE	IT-183
18	CCTV 95-27.65 NB	2052+26	LHUB 95-27.65 NB	1	MAINLINE	IT-184
19	CCTV 95-28.10 NB	2076+00	LHUB 95-28.10 NB	1	MAINLINE	IT-185
20	CCTV 95-28.30 SB	2086+85	LHUB 95-28.30 SB	1	MAINLINE	IT-186
21	CCTV 95-28.47 SB	2095+60	LHUB 95-28.47 SB	1	RAMP I	IT-187
22	CCTV 95-28.63 NB	2104+20	LHUB 95-28.63 NB	1	MAINLINE	IT-187
23	CCTV 95-28.63 NB	2104+15	LHUB 95-28.63 NB	1	RAMP K-1	IT-187
24	CCTV 95-28.69 NB	2107+00	RSC 95-28.69 NB	1	TOLL PLAZA	IT-188
25	CCTV 95-28.69 NB	2107+00	RSC 95-28.69 NB	1	FUTURE T-DMS	IT-188
26	CCTV 95-29.11 SB	2129+25	LHUB 95-29.11 SB	1	MAINLINE	IT-189
27	CCTV 95-29.55 SB	2152+50	LHUB 95-29.55 SB	1	T-DMS 95-29.50 SB	IT-191
28	CCTV 95-29.55 SB	2152+50	LHUB 95-29.55 SB	1	S-DMS 95-29.33 SB	IT-191
29	CCTV 95-29.57 NB	2153+60	LHUB 95-29.57 NB	1	MAINLINE	IT-191
30	CCTV 95-29.83 SB	2167+60	LHUB 95-29.83 SB	1	S-DMS 95-29.68 SB	IT-192
31	CCTV 95-29.83 NB	2167+40	LHUB 95-29.83 NB	1	EX. DMS 95-29.99 NB	IT-192
32	CCTV 95-30.08 SB	2180+70	LHUB 95-30.05 SB	1	MAINLINE	IT-193
33	CCTV 95-30.08 NB	2180+70	LHUB 95-30.08 NB	1	T-DMS 95-30.16 NB	IT-193
34	CCTV 95-30.33 SB	2194+00	LHUB 95-30.33 SB	1	T-DMS 95-30.14 SB	IT-194
35	CCTV 95-30.33 NB	2193+70	LHUB 95-30.33 NB	1	S-DMS 95-30.45 NB	IT-194
36	CCTV 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	RAMP M	IT-195
37	CCTV 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	S-DMS 95-30.30 SB	IT-195
38	CCTV 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	MAINLINE	IT-195
39	CCTV 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	T-DMS 95-30.75 NB	IT-195
40	CCTV 95-30.78 SB	2217+45	RSC 95-30.78 SB	1	RAMP P-2	IT-195
41	CCTV 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	S-DMS 95-30.90 NB	IT-196
42	CCTV 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	RAMP O-2	IT-196
43	CCTV 95-30.87 NB	2223+00	LHUB 95.30.86 NB	1	RAMP O-1	IT-196
44	CCTV 95-31.08 SB	2234+00	LHUB 95-31.08 SB	1	MAINLINE	IT-197
45	CCTV 95-31.54 NB	2257+75	LHUB 95-31.54 NB	1	MAINLINE	IT-198
46	CCTV 95-31.76 SB	2269+50	LHUB 95-31.76 SB	1	FUTURE T-DMS	IT-199
47	CCTV 95-31.95 SB	2280+50	LHUB 95-31.95 SB	1	MAINLINE	IT-200
48	CCTV 95-32.08 SB	2286+00	RSC 95-32.08 SB	1	RAMP U	IT-200
49	CCTV 95-32.14 SB	2289+20	LHUB 95-32.14 SB	1	EL-DMS 95-32.06 SB	IT-201
50	CCTV 95-32.17 NB	2291+00	LHUB 95-32.17 NB	1	TOLL PLAZA	IT-201
50A	CCTV 95-32.26 SB	2295-50	LHUB 95-32.27 SB	1	MHUB 95-32.26	IT-201
51	CCTV 95-32.27 SB	2296+30	LHUB 95-32.27 SB	1	MHUB 95-32.26	IT-201
52	CCTV 95-32.27 SB	2296+30	LHUB 95-32.27 SB	1	RAMP Q	IT-201
53	CCTV 95-32.35 NB	2300+75	LHUB 95-32.35 NB	1	TOLL PLAZA SUPPLEMENT	IT-201
54	CCTV 95-32.35 NB	2300+75	LHUB 95-32.35 NB	1	RAMP U	IT-201
55	CCTV 95-32.38 SB	2302+00	LHUB 95-32.38 SB	1	RAMP T	IT-202
56	CCTV 95-32.39 NB	2302+55	LHUB 95-32.39 NB	1	MAINLINE	IT-202
57	CCTV 95-32.39 NB	2302+55	LHUB 95-32.39 NB	1	RAMP S	IT-202
58	CCTV 95-32.64 SB	2315+90	LHUB 95-32.64 SB	1	FUTURE T-DMS	IT-202
59	CCTV P&R-3	130+25	LHUB P&R-3	1	T-DMS P&R-3	IT-204
60	CCTV P&R-4	132+20	LHUB P&R-4	1	T-DMS P&R-4	IT-204

	DEVICE	STATION	LOCAL HUB	NO. OF WAP'S	PLAN SHEET
1	WAP 95-25.23 NB	1924+80	LHUB 95-25.23 NB	1	IT-175
2	WAP 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	IT-176
3	WAP 95-26.44 EB/WB	1988+31	LHUB 95-26.41 NB	2	IT-179
4	WAP P&R-1		LHUB P&R-1	1	IT-183
5	WAP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	3	IT-183
6	WAP 95-28.30 SB	2086+85	LHUB 95-28.30 SB	2	IT-186
7	WAP 95-30.70 NB	2213+55	LHUB 95-30.70 NB	2	IT-195
8	WAP 95-31.76 SB	2269+50	LHUB 95-31.76	1	IT-199
9	WAP 95-32.32 SB	2298+95	LHUB 95-32.35 NB	2	IT-201

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	T-DMS 95-25.58 NB	1943+30	LHUB 95-25.63 NB	IT-176
2	S-DMS 95-25.98 NB	1963+80	LHUB 95-25.93 NB	IT-177
3	T-DMS 95-26.13 NB	1972+44	LHUB 95-26.09 NB	IT-178
4	S-DMS 95-26.44 NB	1988+30	LHUB 95-26.41 NB	IT-179
5	DMS 95-26.55 SB	1994+18	LHUB 95-26.55 SB	IT-180
6	DMS 95-27.41 NB	2039+80	LHUB 95-27.41 NB	IT-183
7	DMS 95-28.10 SB	2076+10	LHUB 95-28.16 SB	IT-185
8	EL-DMS 95-28.33 NB	2088+00	LHUB 95-28.29 NB	IT-186
9	EL-DMS 95-28.53 SB	2098+90	LHUB 95-28.56 SB	IT-187
10	S-DMS 95-29.33 SB	2141+24	LHUB 95-29.27 SB	IT-190
11	T-DMS 95-29.50 SB	2149+90	LHUB 95-29.51 SB	IT-191
12	S-DMS 95-29.68 SB	2159+60	LHUB 95-29.73 NB	IT-191
13	S-DMS 95-29.68 NB	2159+71	LHUB 95-29.71 SB	IT-191
14	DMS 95-29.99 SB	2175+60	LHUB 95-29.99 SB	IT-192
15	DMS 95-29.99 NB	2176+10	LHUB 95-29.95 NB	IT-192
16	T-DMS 95-30.14 SB	2183+95	LHUB 95-30.20 SB	IT-193
17	T-DMS 95-30.16 NB	2184+80	LHUB 95-30.12 NB	IT-193
18	S-DMS 95-30.3 SB	2192+00	LHUB 95-30.33 SB	IT-194
19	S-DMS 95-30.45 NB	2200+00	LHUB 95-30.41 NB	IT-194
20	T-DMS 95-30.75 NB	2215+80	LHUB 95-30.70 NB	IT-195
21	S-DMS 95-30.9 NB	2224+00	LHUB 95-30.86 NB	IT-196
22	EL-DMS 95-32.06 SB	2285+00	LHUB 95-32.09 SB	IT-200
23	DMS 95-32.58 NB	2313+00	LHUB 95-32.55 NB	IT-202
24	T-DMS P&R-3	130+25	LHUB P&R-3	IT-204
25	T-DMS P&R-4	132+20	LHUB P&R-4	IT-204

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	GEN 95-27.43 NB	2040+92	GEN 95-27.43 NB	IT-183
2	GEN 95-29.58 NB	2154+40	GEN 95-29.58 NB	IT-191
3	GEN 95-32.26 SB	2295+50	GEN 95-32.26 SB	IT-201

RELEASED FOR CONSTRUCTION
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PPID 433108-4-52-01 and 433924-4-52-01 CONTRACT E4K48
BY:(PDOT) VS D#: 6/21/2021

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 CCTV POLE UPDATE	3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT
11/5/18	55 CCTV POLE UPDATE	04/13/21	140 RFI 101

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SUMMARY OF DEVICES

SHEET NO. IT-163

	DEVICE	STATION	LOCAL HUB	NO. OF MVDS'S	PLAN SHEET
1	MVDS 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	IT-176
2	MVDS 95-25.58 SB	1943+30	LHUB 95-25.63 NB	1	IT-176
3	MVDS 95-26.13 NB	1972+44	LHUB 95-26.09 NB	1	IT-178
4	MVDS 95-26.13 SB	1972+44	LHUB 95-26.09 NB	1	IT-178
5	MVDS 95-26.30 NB	1980+90	LHUB 95-26.30 NB	1	IT-179
6	MVDS 95-26.47 NB	1990+15	LHUB 95-26.47 NB	2	IT-180
7	MVDS 95-26.86 SB	2010+60	LHUB 95-26.86 SB	2	IT-181
8	MVDS 95-26.86 NB	2010+60	LHUB 95-26.86 NB	2	IT-181
9	MVDS 95-27.10 SB	2023+50	LHUB 95-27.10 SB	2	IT-182
10	MVDS 95-27.13 NB (140)	2024+90	LHUB 95-27.13 NB (140)	1	IT-182
11	MVDS 95-27.20 SB	2028+97	LHUB 95-27.20 SB	1	IT-182
12	MVDS 95-27.30 SB	2033+70	LHUB 95-27.30 SB (140)	2	IT-182
13	MVDS 95-27.30 NB	2034+60	LHUB 95-27.30 NB	2	IT-182
14	MVDS 95-27.50 NB	2044+50	LHUB 95-27.50 NB	1	IT-183
15	MVDS 95-27.53 SB	2046+00	LHUB 95-27.53 SB	1	IT-183
16	MVDS 95-27.65 NB	2052+26	LHUB 95-27.65 NB	2	IT-184
17 (140)	MVDS 95-27.95 SB	2070+15	LHUB 95-27.95 SB	1	IT-185
18	MVDS 95-27.95 NB	2067+65 (84)	LHUB 95-27.98 NB	1	IT-185
19	MVDS 95-28.10 SB	2075+90	LHUB 95-28.10 SB	1	IT-185
20	MVDS 95-28.10 NB	2076+00	LHUB 95-28.10 NB	1	IT-185
21	MVDS 95-28.30 SB	2086+85	LHUB 95-28.30 SB	1	IT-186
22	MVDS 95-28.31 NB	2087+19	LHUB 95-28.31 NB	1	IT-186
23	MVDS 95-28.56 SB	2100+20	LHUB 95-28.56 SB	1	IT-187
24	MVDS 95-28.56 NB	2100+20	LHUB 95-28.56 NB	1	IT-187
25	MVDS 95-28.82 NB	2114+00	LHUB 95-28.82 NB	1	IT-188
26	MVDS 95-28.85 SB	2115+60	LHUB 95-28.85 SB	1	IT-188
27	MVDS 95-29.11 SB	2129+25	LHUB 95-29.11 SB	1	IT-189
28	MVDS 95-29.10 NB	2128+80	LHUB 95-29.10 NB	1	IT-189
29	MVDS 95-29.28 SB	2138+50	LHUB 95-29.28 SB (84)	1	IT-190
30	MVDS 95-29.33 NB	2141+20	LHUB 95-29.33 NB	1	IT-190
31	MVDS 95-29.57 NB	2153+60 (84)	LHUB 95-29.57 NB	1	IT-191
32	MVDS 95-29.55 SB	2152+50	LHUB 95-29.55 SB (84)	1	IT-191
33	MVDS 95-29.83 SB	2167+60	LHUB 95-29.83 SB	1	IT-192
34	MVDS 95-29.83 NB	2167+40	LHUB 95-29.83 NB	1	IT-192
35	MVDS 95-30.08 SB	2180+70	LHUB 95-30.05 SB	1	IT-193
36	MVDS 95-30.08 NB	2180+70	LHUB 95-30.08 NB	1	IT-193
37	MVDS 95-30.33 SB	2194+00	LHUB 95-30.33 SB	1	IT-194
38	MVDS 95-30.33 NB	2193+70	LHUB 95-30.33 NB	1	IT-194
39	MVDS 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	IT-195

	DEVICE	STATION	LOCAL HUB	NO. OF MVDS'S	PLAN SHEET
40	MVDS 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	IT-195
41	MVDS 95-30.83 SB	2220+15	LHUB 95-30.83 SB	1	IT-196
42	MVDS 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	IT-196
43	MVDS 95-31.08 SB	2234+00	LHUB 95-31.08 SB	1	IT-197
44	MVDS 95-31.08 NB	2233+40	LHUB 95-31.08 NB	1	IT-197
45	MVDS 95-31.28 SB	2243+75	LHUB 95-31.28 SB	1	IT-197
46	MVDS 95-31.28 NB	2243+95	LHUB 95-31.28 NB	1	IT-197
47	MVDS 95-31.55 SB	2258+15	LHUB 95-31.55 SB (84)	1	IT-198
48	MVDS 95-31.54 NB	2257+75 (47)	LHUB 95-31.54 NB	1	IT-198
49	MVDS 95-31.76 SB	2269+50	LHUB 95-31.76 SB	1	IT-199
50	MVDS 95-31.76 NB	2269+20	LHUB 95-31.76 NB	1	IT-199
51	MVDS 95-31.95 SB	2280+50	LHUB 95-31.95 SB	1	IT-200
52	MVDS 95-31.95 NB	2279+50	LHUB 95-31.81 NB	2	IT-200
53	MVDS 95-32.14 SB	2289+20	LHUB 95-32.14 SB	1	IT-201
54	MVDS 95-32.17 NB	2291+00	LHUB 95-32.17 NB	1	IT-201
55	MVDS 95-32.38 SB	2302+00	LHUB 95-32.38 SB (84)	1	IT-202
56	MVDS 95-32.39 NB	2302+55 (55)	LHUB 95-32.39 NB	1	IT-202
57	MVDS 95-32.64 SB	2315+90	LHUB 95-32.64 SB	1	IT-202
58	MVDS 95-32.64 NB	2315+85	LHUB 95-32.64 NB	1	IT-202

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	VOIP 95-26.30 NB	1980+90	LHUB 95-26.30 NB	IT-179
2	VOIP 95-25.58 NB	1943+30	LHUB 95-25.63 NB	IT-176
3	VOIP 95-26.55 SB	1994+18	LHUB 95-26.55 SB	IT-180
4	VOIP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	IT-183
5	VOIP 95-28.30 SB	2086+85	LHUB 95-28.30 SB	IT-186
6	VOIP 95-29.11 SB	2129+25	LHUB 95-29.11 SB	IT-189
7	VOIP 95-29.55 SB	2152+50	LHUB 95-29.55 SB (84)	IT-191
8	VOIP 95-30.70 NB	2213+55	LHUB 95-30.70 NB	IT-195
9	VOIP 95-31.76 SB	2269+50	LHUB 95-31.76 SB	IT-199

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	(47) CCTV POLE UPDATE	3/9/20	(84) MSE 5, 8, 10, 18, 25 ADJUSTMENT
11/5/18	(55) CCTV POLE UPDATE	04/13/21	(140) MSE 4 ADJUSTMENT, RFI 123, RFI 137

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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SUMMARY OF DEVICES

SHEET NO. IT-164

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BY:(PDOT) VS D#: 6/21/2021
RELEASED FOR CONSTRUCTION
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PID 433108-4-52-01 and 435904-4-52-01 CONTRACT E4K48
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	DEVICE	STATION	LOCAL HUB	PLAN SHEET	ABOVE GROUND HEIGHT (FT)	POLE LENGTH (FT)	EMBEDMENT LENGTH (FT)	NOTES
1	WAP 95-25.23 NB	1924+80	LHUB 95-25.23 NB	IT-175	-	-	-	EXIST.
2	CCTV 95-25.28 NB	1927+00	LHUB 95-25.28 NB	IT-175	50	69	19	CCTV POLE
3	CCTV 95-26.06 NB	1968+90	LHUB 95-26.09 NB	IT-178	50	69	19	CCTV POLE
4	CCTV, MVDS, VOIP 95-26.30 NB	1980+90	LHUB 95-26.30 NB	IT-179	-	-	-	EXIST.
5	CCTV 95-26.38 SB	1984+40	RSC 95-26.38 SB	IT-179	30	43	13	CCTV POLE*
6	MVDS (2) 95-26.47 NB	1990+15	LHUB 95-26.47 NB	IT-179	45	69	24	CCTV POLE
7	CCTV 95-26.59 NB	1996+10	RSC 95-26.59 NB	IT-180	50	69	19	CCTV POLE
8	CCTV 95-26.63 SB	1998+70	LHUB 95-26.63 SB	IT-180	50	69	19	CCTV POLE
9	CCTV 95-26.71 NB	2002+80	RSC 95-26.71	IT-180	50	69	19	CCTV POLE
10	CCTV 95-26.83 SB	2009+05	LHUB 95-26.83 SB	IT-181	-	-	-	EXIST.
11	MVDS (2) 95-26.86 NB	2010+60	LHUB 95-26.86 NB	IT-181	41	60	19	TYPE IV
12	MVDS (2) 95-26.86 SB	2010+60	LHUB 95-26.86 SB	IT-181	38	54	16	TYPE IV
13	MVDS (2) 95-27.10 SB	2023+50	LHUB 95-27.10 SB	IT-182	50	69	19	CCTV POLE
14	MVDS 95-27.13 NB	2024+90	LHUB 95-27.13 NB	IT-182	28	44	16	TYPE IV
15	MVDS (2) 95-27.30 SB	2033+70	LHUB 95-27.30 SB	IT-182	50	69	19	CCTV POLE
16	CCTV, MVDS (2) 95-27.30 NB △140	2034+60	LHUB 95-27.30 NB	IT-182	-	-	-	EXIST.
17	VOIP, WAP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	IT-183	-	-	-	EXIST.
18	CCTV, MVDS 95-27.50 NB	2044+50	LHUB 95-27.50 NB	IT-183	50	75	25	CCTV POLE
19	CCTV, MVDS 95-27.53 SB	2046+00	LHUB 95-27.53 SB	IT-183	55	75	20	CCTV POLE
20	CCTV, MVDS (2) 95-27.65 MD	2052+26	LHUB 95-27.65 NB	IT-185	-	-	-	EXIST.
21	MVDS 95-27.95 SB	2068+00	LHUB 95-27.95 SB	IT-185	50	69	19	CCTV POLE △140
22	MVDS 95-27.95 NB	2067+65	LHUB 95-27.98 NB	IT-185	50	69	19	CCTV POLE
23	MVDS 95-28.10 SB	2075+90	LHUB 95-28.10 SB	IT-185	61	86	25	CCTV POLE △84
24	CCTV, MVDS 95-28.10 NB	2076+00	LHUB 95-28.10 NB	IT-185	50	75	25	CCTV POLE
25	CCTV, MVDS, VOIP, WAP (2) 95-28.30 SB	2086+85	LHUB 95-28.30 SB	IT-186	67	86	19	CCTV POLE
26	MVDS 95-28.31 NB	2087+19	LHUB 95-28.31 NB	IT-186	32	50	18	TYPE IV
27	CCTV 95-28.47 SB	2095+60	LHUB 95-28.47 SB	IT-187	55	75	20	CCTV POLE
28	MVDS 95-28.56 NB	2100+20	LHUB 95-28.56 NB	IT-187	39	56	17	TYPE IV
29	MVDS 95-28.56 SB	2100+20	LHUB 95-28.56 SB	IT-187	30	46	16	TYPE IV
30	CCTV 95-28.63 NB	2104+20	LHUB 95-28.63 NB	IT-187	49	69	20	CCTV POLE
31	CCTV 95-28.63 NB	2104+15	LHUB 95-28.63 NB	IT-187	50	69	19	CCTV POLE
32	CCTV (2) 95-28.69 NB	2107+00	RSC 95-28.69 NB	IT-188	44	63	19	CCTV POLE
33	MVDS 95-28.82 NB	2114+00	LHUB 95-28.82 NB	IT-188	28	44	16	TYPE IV
34	MVDS 95-28.85 SB	2115+60	LHUB 95-28.85 SB	IT-188	35	52	17	TYPE IV
35	CCTV, MVDS, VOIP 95-29.11 SB	2129+25	LHUB 95-29.11 SB	IT-189	60	80	20	CCTV POLE
36	MVDS 95-29.10 NB	2128+80	LHUB 95-29.10 NB	IT-189	50	69	19	CCTV POLE
37	MVDS 95-29.28 SB	2138+50	LHUB 95-29.28 SB	IT-190	40	60	20	TYPE IV △84

* NOTE: CONTRACTOR SHALL PROVIDE SIGNED AND SEALED STRUCTURAL DRAWINGS FOR CUSTOM CCTV POLES.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT △84		
04/13/21	MSE 4 ADJUSTMENT, RFI 123, RFI 137 △140		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POLE DATA SHEET

SHEET NO. IT-167

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PID 433108-4-52-01 and 433934-4-52-01 CONTRACT E4K46
BY:(FDOT) VS D4#: 6/21/2021

N.T.S

MATCHLINE STA. 2028+00.00

MATCHLINE STA. 2101+00.00

IT-182

IT-183

IT-184

IT-185

IT-186

IT-187

IT-204

IT-205

BROWARD BLVD.

SUNRISE BLVD.

NW 6TH ST.

NB SR-9 (I-95)

SB SR-9 (I-95)

-INSTALL
LHUB 95-27.30 SB
MVDS 95-27.30 SB (2x)
STA. 2033+70

-UTILIZE
EX. CCTV 95-27.36 SB
EX LHUB 95-27.36 SB
-REMOVE
EX. S-DMS 95-27.36 SB
STA. 2036+83

-INSTALL
LHUB P&R-3
DCCTV P&R-3
TDMS P&R-3
STA. 130+25

-INSTALL
LHUB P&R-4
DCCTV P&R-4
TDMS P&4-4
STA. 132+20

140 -UTILIZE
EX. LHUB 95-27.20 SB
EX. MVDS x1 95-27.20 SB
-REMOVE
EX. T-DMS 95-27.21 SB
STA. 2028+70 SB

-UTILIZE
EX. LHUB P&R-1
EX. DCCTV P&R-1
EX. WAP

-INSTALL
LHUB 95-27.53 SB
MVDS 95-27.53 SB
CCTV 95-27.53 SB
STA. 2046+00

-REMOVE
EX. LHUB 95-27.76 SB
EX. MVDS 95-27.76 SB
STA. 2057+91

140 -UTILIZE PHASE I
LHUB 95-27.99 SB
MVDS 95-27.99 SB
STA. 2070+15

84 -INSTALL
LHUB 95-95-28.16 SB
STA. 2079+30

-RELOCATE
EX. DMS 95-28.11 SB
-REMOVE
EX. LHUB 95-28.11 SB
STA. 2076+10

84 -INSTALL
LHUB 95-28.10 SB
MVDS 95-28.10 SB
STA. 2075+90

-INSTALL
LHUB 95-28.47 SB
DCCTV 95-28.47 SB
VIDEO DETECTOR
STA. 2095+60

-INSTALL
RSC 95-28.38 SB
STA. 2091+00

-UTILIZE PHASE I
LHUB 95-28.30 SB
MVDS 95-28.30 SB
CCTV 95-28.30 SB
EX. VOIP 95-28.30 SB
EX. 2-WAP 95-28.30 SB
-REMOVE
TEMP WAP 95-28.30 SB
STA. 2086+85
-RELOCATE
EX. MVDS 95-28.31 NB

-REMOVED IN PHASE I
EX. LHUB 95-28.29 SB
EX. CCTV 95-28.29 SB
EX. MVDS 95-28.29 SB
-RELOCATED IN PHASE I
TO 95-28.30 SB
EX. VOIP 95-28.29 SB
EX. WAP 95-28.29 SB
STA. 2086+11

-UTILIZE PHASE I
LHUB 95-28.56 SB
MVDS 95-28.56 SB
STA. 2100+20

140 -UTILIZE PHASE I
MVDS 95-27.99 NB
STA. 2070+20

140 -UTILIZE PHASE I
LHUB 95-27.99 NB
STA. 2070+20

-INSTALL
RSC 95-27.65 NB
STA. 2052+45

-INSTALL
LHUB 95-28.10 NB
CCTV 95-28.10 NB
MVDS 95-28.10 NB
STA. 2076+00

-INSTALL
LHUB 95-28.29 NB
STA. 2086+30

-REMOVED IN PHASE I
EX. LHUB 95-28.31 NB
EX. MVDS 95-28.31 NB
EX. POLE 95-28.31 NB
STA. 2086+90

-INSTALL
LHUB 95-28.31 NB
-RELOCATE
MVDS 95-28.31 NB
STA. 2087+19

-INSTALL
EL-DMS 95-28.33 NB
STA. 2088+00

-INSTALL
EL-DMS 95-28.53 SB
STA. 2098+90

-UTILIZE PHASE I
LHUB 95-28.56 NB
MVDS 95-28.56 NB
STA. 2100+20

140 -UTILIZE PHASE I
LHUB 95-27.30 NB
MVDS 95-27.30 NB (2x)
CCTV 95-27.30 NB
STA. 2034+60
(NO TRANSFORMER)
-UTILIZE EX. POLE
-REMOVE EX. DCCTV

-UTILIZE
EX. LHUB 95-27.41 NB
EX. DMS 95-27.41 NB
STA. 2039+80

REMOVE/REPLACE
GEN 95-27.43 NB

-UTILIZE
EX. WAP 95-27.47 NB
EX. VOIP 95-2747 NB
STA. 2042+64

-INSTALL
LHUB 95-27.50 NB
MVDS 95-27.50 NB
DCCTV 95-27.50 NB
STA. 2044+50

-UTILIZE PHASE I
LHUB 95-27.65 NB
CCTV 95-27.65 NB
EX. MVDS x2 95-27.65 NB
STA. 2052+26

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PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4K48
BY: FDOT VS DATE: 6/21/2021

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		
04/13/21	140 MSE 4 ADJUSTMENT, RFI 123, RFI 137		

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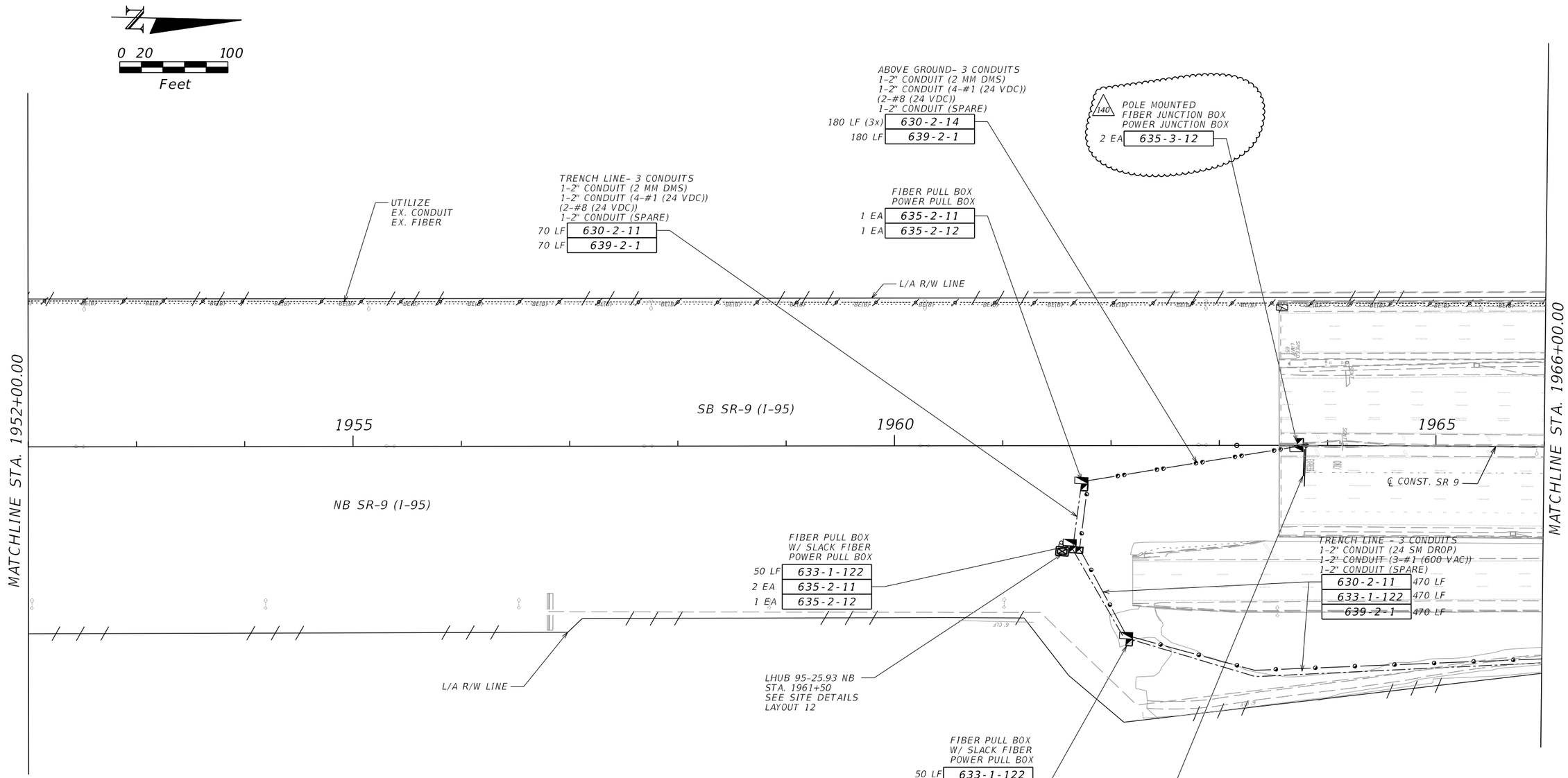
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS LAYOUT SHEET

SHEET NO. IT-171



NOTE:
1. LHUB 95-25.93 NB SHALL BE INSTALLED UNDER BRIDGE.

2. CONDUIT FROM OVERHEAD TRUSS TO LHUB 95-25.93 NB SHALL RUN UNDERNEATH BRIDGE AND UTILIZE ABOVEGROUND GALVANIZED CONDUIT ALONG CONCRETE SLOPE PROTECTION UNDERBRIDGE DECK.

3. RECONSTRUCT MEDIAN BARRIER WALL AS NECESSARY. SEE 433108-4-52-01 SIGNING PLANS-SPAN/CANTILEVER SIGN STRUCTURE DETAILS. SEE INDEX 410 FOR BARRIER WALL DETAILS. 140

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 RFI 62		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-177

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
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FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

0 20 100
Feet

TRENCH LINE - 4 CONDUITS
1-2" CONDUIT (144 SM FIBER)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SPARE)

350 LF	633-1-124
350 LF	630-2-11

L/A R/W LINE

UTILIZE
EX. CONDUIT
EX. FIBER

DIRECTIONAL BORE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)

630-2-12	160 LF

50 LF	633-1-124
2 EA	635-2-11
1 EA	635-2-12

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM)
1-2" CONDUIT (24 SM)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

300 LF	630-2-11
300 LF	633-1-122
300 LF	633-1-124
300 LF	639-2-1

DCCTV 95-26.38 SB
RSC 95-26.38 SB
STA. 1984+40
SEE SITE LAYOUT 22

1 EA	641-3-163
2 EA	660-1-111
1 EA	682-1-113

S-DMS 95-26.44 NB
STA. 1988+30

1 EA	700-8-134

BRIDGE MOUNTED- 3 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#2 (24 VDC))
(2-#10 (24 VDC))
1-2" CONDUIT (SPARE)

130 LF (3x)	630-2-15
160 LF	639-2-1
30 LF (3x)	630-2-14
2 EA	635-3-12

FSB 95-26.43
W/ SLACK FIBER
SIGNAL/DETECTOR
PULL BOX

2 EA	635-2-11
1 EA	635-2-13
100 LF	633-1-122
100 LF	633-1-124

DETECTOR/SIGNAL
PULL BOX
ABOVE GROUND CONDUIT

30 LF (2x)	630-2-14
2 EA	635-2-11
2 EA	635-3-12
1 EA	700-1-32
1 EA	700-12-11

RAMP METER SIGN

635-3-12	1 EA
700-1-32	1 EA
700-12-11	1 EA

-UTILIZE PHASE I
24 SM DROP
144 SM ITS
144 SM
-UTILIZE
EX. CONDUIT

-REMOVE
EX. LHUB 95-26.49 SB

1 EA	641-2-70
1 EA	639-1-620
1 EA	676-2-600

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM)
1-2" CONDUIT (SPARE)
1-2" CONDUIT (3-#6 (600 VAC))

290 LF	630-2-11
290 LF	633-1-122
290 LF	639-2-1

140 -UTILIZE
EX. FSB 95-26.54 SB

100 LF (2x)	633-1-122
38 EA	633-2-31
1 EA	633-3-51
4 EA	633-3-12

84 84 140

-UTILIZE
EX. FIBER PULL BOX
EX. POWER PULL BOX

50 LF (2x)	633-1-122

-INSTALL
EX. CONDUIT (24 SM DROP)
EX. CONDUIT (3-#6 (600 VAC))

300 LF	633-1-122
300 LF	639-2-1

C-D SB

4 AS 660-2-102

RAMP A

ABOVE GROUND CONDUIT
1-2" CONDUIT (SIGNAL)

630-2-14	130 LF

-REMOVE
EX. T-DMS 95-26.46

700-7-600	3 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

635-2-11	3 EA
635-2-12	1 EA
633-1-122	50 LF
633-1-124	50 LF

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (2-24 SM DROP)

90 LF (2x)	633-1-122

SB SR-9 (I-95)

1980 1985 1990

MATCHLINE STA. 1980+00.00

MATCHLINE STA. 1994+00.00

DAVIE BLVD.

NB SR-9 (I-95)

DIRECTIONAL BORE- 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)

300 LF	630-2-12
300 LF	633-8-1

-UTILIZE PHASE I
MVDS 95-26.30 NB
-UTILIZE
EX. LHUB 95-26.30 NB
EX. VOIP 95-26.30 NB
EX. DCCTV 95-26.30 NB
STA. 1980+90
SEE SITE DETAILS
LAYOUT 4

684-1-1	1 EA
684-1-6	2 EA

84 140

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF (2x)

-UTILIZE
EX. CONDUIT
-INSTALL
EX. CONDUIT (2-24 SM DROP)
EX. CONDUIT (3-#1 (600 VAC))
-REMOVE
EX. 24 SM DROP (TO 95-26.27 NB)

633-1-122	100 LF (2x)
633-1-620	100 LF
639-2-1	100 LF

-UTILIZE PHASE I
24 SM DROP (TO 95-26.30 NB)
3-#6 (600 VAC)
-INSTALL
EX. CONDUIT (3-24 SM DROP)

180 LF (3x)	633-1-122

635-2-11 1 EA

-UTILIZE PHASE I
24 SM DROP (TO 95-26.30 NB)
-INSTALL
EX. CONDUIT (2-24 SM DROP))

633-1-122	590 LF (2x)

UTILIZE
EX. CONDUIT
EX 3-#1/0 (600 VAC)

UTILIZE
EX. CONDUIT
EX 3-#6
EX. FIBER (FOR WAP)
EX. COMPOSITE

C-D NB

LHUB 95-26.41 NB
STA. 1986+45
SEE SITE DETAILS
LAYOUT 12

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (3x)	633-1-122

-UTILIZE PHASE I
24 SM DROP (TO 95-26.30 NB)
3-#6 (600 VAC)
-INSTALL
EX. CONDUIT (3-24 SM DROP)
EX. CONDUIT (2 MM DMS)
EX. CONDUIT (4-#2 (24 VDC))
(2-#10 (24 VDC))

150 LF (3x)	633-1-122
150 LF	639-2-1

EX. CCTV 95-26.44 EB/WB
EX. WAP 95-26.44 EB/WB (x2)

TRENCH LINE- 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)

350 LF	630-2-11
350 LF	633-8-1

1 EA 635-2-11

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (2x)	633-1-122

L/A R/W LINE

38

SPLICE INTO
EX. SERVICE WIRE

BRIDGE MOUNT - 1 CONDUITS
1-2" CONDUIT (SIGNAL)

630-2-15	180 LF

1 EA 635-2-11

SIGNAL PULL BOX
ABOVE GROUND CONDUIT

630-2-14	30 LF
635-2-11	1 EA
635-3-12	1 EA

LHUB 95-26.47 NB
MVDS 95-26.47 NB (2x)
STA. 1990+15
SEE SITE DETAILS
LAYOUT 1

641-3-169	1 EA
660-3-11	2 EA
660-3-12	2 EA

TRENCH LINE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)

630-2-11	390 LF
633-8-1	390 LF

RAMP B

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (DETECTOR)

630-2-11	130 LF

DETECTOR PULL BOX
ABOVE GROUND CONDUIT

630-2-14	30 LF
635-2-11	1 EA
635-3-12	1 EA

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

660-2-102 4 AS

-UTILIZE PHASE I
FSB 95-26.47 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

633-1-122	100 LF (4x)
633-2-31	16 EA
633-3-11	1 EA
633-3-12	2 EA

C-D NB

DIRECTIONAL BORE- 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)

630-2-12	200 LF
633-8-1	200 LF

RAMP METER SIGN

635-3-12	1 EA (2x)
700-1-32	1 EA (2x)
700-12-11	1 EA (2x)

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (2-24 SM DROP)

90 LF (2x)	633-1-122

SB SR-9 (I-95)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT	04/13/21	140 UPDATED SWITCH, UTILZE EX FSB RFI 119
3/9/20	84 UPDATED LAYER 2 SWITCH RFI 86		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-179

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BY:(PDOT) VS D#: 6/21/2021

RELEASED FOR CONSTRUCTION
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PID 433108-4-52-01 and 433994-4-52-01 CONTRACT E4K48

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-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (24 SM DROP)
440 LF 633-1-122

EX. DMS 95-26.55 SB
EX. VOIP 95-26.55 SB
EXIST. TO REMAIN

EX. LHUB 95-26.55 SB
STA. 1994+18
EXIST. TO REMAIN
684-1-1 1 EA
684-1-6 2 EA
140
84

L/A R/W LINE

C-D SB

EX. CONDUIT-ABANDON
EX. FIBER-REMOVE
EX. 3-#6-REMOVE

RAMP D

LHUB 95-26.63 SB
CCTV 95-26.63 SB
STA. 1998+70
SEE SITE DETAILS
LAYOUT 4
1 EA 641-3-169
1 EA 682-1-113

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
50 LF (1x) 633-1-122
1 EA 635-2-11
1 EA 635-2-12

DETECTOR/SIGNAL
PULL BOX
2 EA 635-2-11

-REMOVE
EX. DCCTV 95-26.64 SB
EX. CCTV 95-26.64 SB
EX. MVDS 95-26.64 SB
STA. 1999+22
641-3-800 1 EA

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)
630-2-11 190 LF

DIRECTIONAL BORE - 3 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)
630-2-12 80 LF

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)

TRENCHLINE - 3 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
700 LF 630-2-11
700 LF 633-8-1

2 AS 660-2-102

RAMP METER SIGN
1 EA 700-1-32
1 EA 700-12-11
2 EA 635-2-11
2 EA 635-3-12
30 LF 630-2-14

EX. CONDUIT-ABANDON
EX. FIBER-REMOVE
EX. POWER SERVICE-REMOVE

EX. S-DMS 95-26.68 SB
STA. 2001+25
REMOVE
700-8-600 1 EA

DETECTOR/SIGNAL
PULL BOX
635-2-11 2 EA

-UTILIZE
EX. 3-#2/0
EX. CONDUIT
-REMOVE (PHASE I)
EX. FIBER

-UTILIZE EX. PULL BOX
EXTEND CONDUIT

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

1995

RAMP SIGNAL
STA. 1999+50
1 EA 646-1-11
2 EA 650-1-13
1 EA 700-3-101
4 AS 660-2-102
2 EA 635-2-11

SB SR-9 (I-95)

2000

RAMP E

-UTILIZE
EX. CONDUIT (MVDS CABLE)
-INSTALL 2 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
630-2-12 230 LF
633-8-1 230 LF

℄ CONST. SR 9

2005

-UTILIZE PHASE I
2-24 SM DROP
3-#2 (600 VAC)

DIRECTIONAL BORE- 6 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
100 LF 630-2-12
100 LF 633-1-122
100 LF 639-2-1

RAMP SIGNAL
STA. 1998+00
1 EA 646-1-11
2 EA 650-1-13
1 EA 700-3-101
4 AS 660-2-102

UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)

NB SR-9 (I-95)

-UTILIZE PHASE I
FSB 95-26.64 NB
W/ SLACK FIBER
POWER PULL BOX
633-1-122 100 LF
633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

-REMOVE
EX. MVDS 95-26.72 NB
STA. 2003+15
641-2-80 1 EA

EXTEND CONDUIT

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
DETECTOR PULL BOX
SIGNAL PULL BOX
633-1-122 50 LF
635-2-11 1 EA (3x)
635-2-12 1 EA

RAMP C

MATCHLINE STA. 1994+00.00

MATCHLINE STA. 2008+00.00

1 EA 635-2-11

TRENCH LINE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
630-2-11 220 LF
633-8-1 220 LF

38

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
90 LF 630-2-12
90 LF 633-8-1

DCCTV 95-26.59 NB
RSC 95-26.59 NB
STA. 1996+10
SEE SITE DETAILS
LAYOUT 22
641-3-169 1 EA
660-1-111 2 EA
682-1-113 1 EA

C-D NB

-UTILIZE PHASE I
FSB 95-26.59 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX
633-1-122 100 LF
633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

FIBER PULL BOX
W/SLACK FIBER
POWER PULL BOX
633-1-122 50 LF
635-2-11 1 EA (3x)
635-2-12 1 EA

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2 (600 VAC)
-INSTALL
1-2" CONDUIT (24 SM DROP)
220 LF 630-2-11
220 LF 633-1-122

RSC 95-26.71 NB
DCCTV 95-26.71 NB
INCLUDES CONTACT
CLOSURE TO ETHERNET SWITCH
STA. 2002+80
SEE SITE DETAILS
LAYOUT 22
1 EA 641-3-169
2 EA 660-1-111
1 EA 682-1-113

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (24 SM)
1-2" CONDUIT (3-#6 (600 VAC))
40 LF 630-2-11
40 LF 633-1-122
40 LF 639-2-1

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
633-1-122 50 LF

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#1 (600 VAC)
-INSTALL 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
340 LF 630-2-12
340 LF 633-8-1

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (MVDS CABLE)
630-2-12 285 LF
633-8-1 285 LF

C-D NB

L/A R/W LINE

0 20 100
Feet

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PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4R46
BY: FDOT VS Date: 6/21/2021

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT	04/13/21	140 UPDATED LAYER 2 SWITCH RFI 119
3/9/20	84 UPDATED LAYER 2 SWITCH RFI 86		

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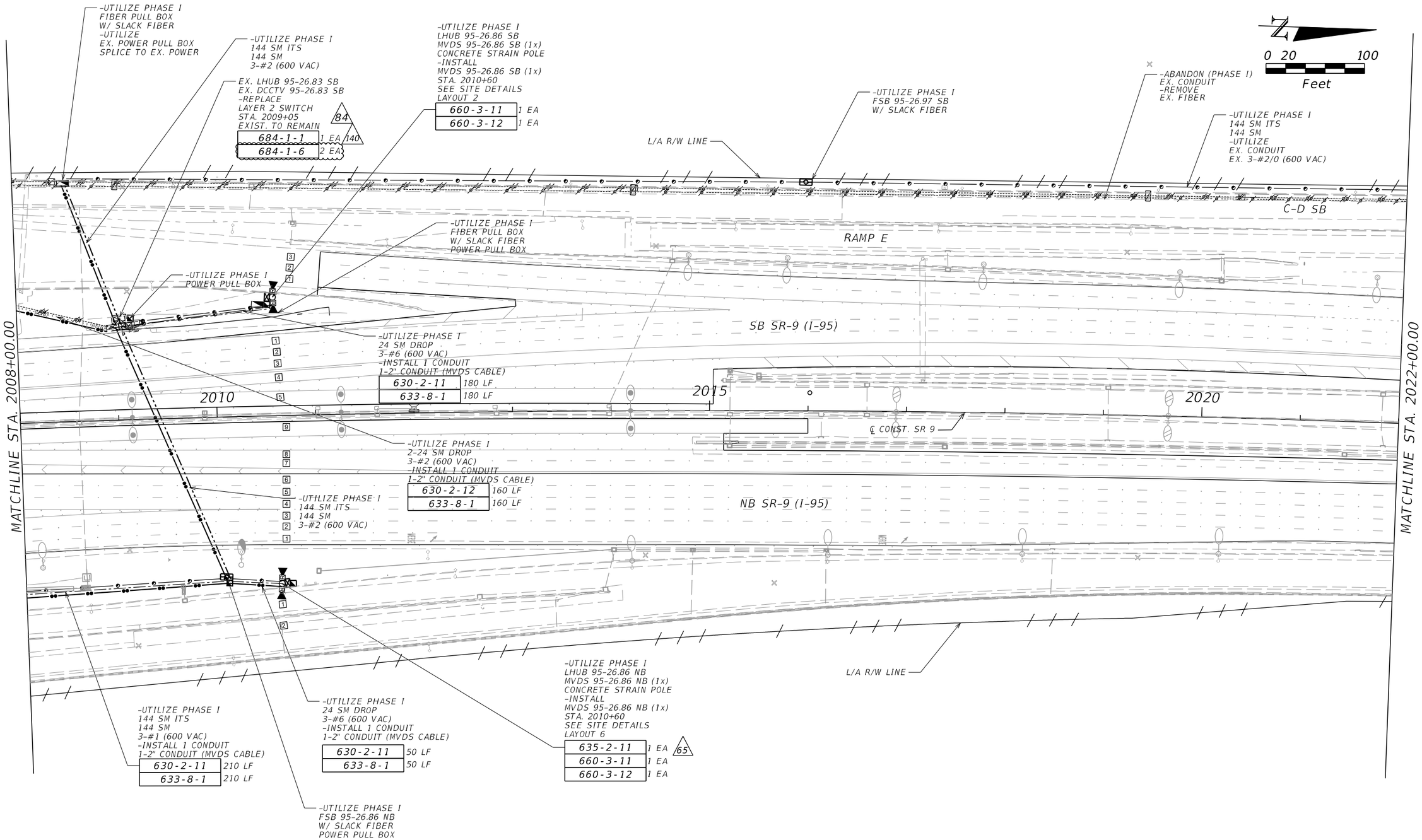
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-180



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATED GROUNDING PULL BOX	04/13/21	140 UPDATED LAYER 2 SWITCH RFI 119
3/9/20	84 UPDATED LAYER 2 SWITCH RFI 86		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-181

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PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4K48

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0 20 100
Feet

MATCHLINE STA. 2022+00.00

MATCHLINE STA. 2036+00.00

2025

2030

2035

℄ CONST. SR-9

NB SR-9 (I-95)

SB SR-9 (I-95)

L/A R/W LINE

L/A R/W LINE

-UTILIZE PHASE I
FSB 95-27.10 SB
W/ SLACK FIBER
-INSTALL
POWER PULL BOX

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA

DIRECTIONAL BORE - 1 CONDUIT
1-2" CONDUIT (3-#6 (600 VAC)
1-2" CONDUIT (SPARE)

630-2-12	100 LF
639-2-1	100 LF

LHUB 95-27.10 SB
MVDS 95-27.10 SB (2x)
STA. 2023+50
SEE SITE DETAILS
LAYOUT 3

641-3-169	1 EA
660-3-11	2 EA
660-3-12	2 EA

-UTILIZE
EX. POWER PULL BOX

-UTILIZE PHASE I
144 SM ITS
144 SM
-UTILIZE
EX. CONDUIT
EX. 3-#2/0 (600 VAC)

-UTILIZE
EX. FIBER PULL BOX
W/ SLACK
EX. POWER PULL BOX

633-1-122	50 LF

-UTILIZE PHASE I
144 SM ITS
144 SM
-UTILIZE
EX. CONDUIT
EX. 3-#2/0 (600 VAC)

-INSTALL
EX. CONDUIT (24 SM DROP)
-UTILIZE PHASE I
24 SM DROP
3-#2 (600 VAC)

633-1-122	170 LF

140
TRENCH LINE - 1 CONDUIT
1-2" CONDUIT (EX. MVDS CABLE)

630-2-11	35 LF

-UTILIZE
EX. CONDUIT (24 SM DROP)
EX. CONDUIT (3-#6 (600 VAC))

633-1-122	130 LF
639-2-1	130 LF

-UTILIZE
EX. FIBER PULL BOX
W/ SLACK
EX. POWER PULL BOX

633-1-122	50 LF

-UTILZE PHASE I
FSB 95-27.22 SB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-2-31	8 EA
633-3-11	1 EA

LHUB 95-27.30 SB
MVDS 95-27.30 SB (2x)
W/ CONTACT CLOSURE
STA. 2033+70
SEE SITE DETAILS
LAYOUT 3

641-3-169	1 EA
660-3-11	2 EA
660-3-12	2 EA

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#2/0 (600 VAC)

-UTILIZE EXIST.
FIBER SPLICE BOX
SLACK FIBER

633-1-122	100 LF (2x)

EX. CONDUIT- ABANDON
EX. SERVICE WIRE- REMOVE

-RELOCATE
MVDS 95-27.20 SB
STA. 2028+97
(SEE NOTE 2)

635-2-11	1 EA
660-3-42	1 EA
676-1-131	1 EA

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#4/0 (600 VAC)
-INSTALL
DIRECTIONAL BORE- 1 CONDUITS
1-1" CONDUIT (SIGNAL)

630-2-12	100 LF

RAMP METER SIGN

700-1-12	1 EA
700-12-11	1 EA
630-2-11	35 LF
635-2-11	1 EA

-UTILIZE PHASE I
FSB 95-27.30 SB
W/ SLACK FIBER
POWER PULL BOX
-INSTALL
SIGNAL PULL BOX

633-1-122	100 LF
635-2-11	1 EA
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

-UTILIZE PHASE I
144 SM ITS
144 SM
3-#4/0 (600 VAC)

-UTILIZE
EX. LHUB 95-27.20 SB
-REPLACE
LAYER 2 SWITCH
-REMOVE
EX. T-DMS 95-27.21 SB
STA. 2028+70 SB

84

684-1-1	1 EA
684-1-6	2 EA
700-7-600	3 EA

-ABANDON (PHASE I)
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

LHUB 95-27.13 NB
MVDS 95-27.13 NB
STA. 2024+90
SEE SITE DETAILS
LAYOUT 2

641-2-14	1 EA
660-3-11	1 EA
660-3-12	1 EA

NOTES:
1. T-DMS 95-27.21 SB. DURING CONSTRUCTION TO BE REMOVED AFTER EXPRESS LANES ARE OPERATIONAL.
2. MOUNT MVDS 95-27.20 SB BELOW SIGN TRICHORD.

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-11	400 LF
633-1-122	400 LF
639-2-1	400 LF

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

RELOCATE TO 95-27.30 NB
MVDS 95-27.20 NB
RELOCATE TO 95-27-20 SB
MVDS 95-27.20 SB

-UTILZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX
-INSTALL
SIGNAL PULL BOX

635-2-11	1 EA

-UTILIZE PHASE I
LHUB 95-27.30 NB
MVDS 95-27.30 NB
CCTV 95-27.30 NB
STA. 2034+60
SEE SITE DETAILS
LAYOUT 4
(NO TRANSFORMER)
-UTILIZE EX. POLE
-REMOVE EX. DCCTV
-RELOCATE MVDS 95-27.30 NB

660-3-41	1 EA
660-3-42	1 EA

SERVICE POLE

639-1-122	1 AS

-UTILIZE PHASE I
FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE I
24 SM DROP
3-#6 (120 VAC)

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (3-#4/0 (480 VAC))

630-2-11	290 LF
639-2-1	290 LF

140

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	UPDATED LAYER 2 SWITCH RFI 86 (84)	04/13/21	(140) UPDATED SWITCH, RFI 123

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-182

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BY:(PDOT) VS DATE: 6/21/2021

RELEASED FOR CONSTRUCTION
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PID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4K48

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MATCHLINE STA. 134+31.45 (SHEET IT-204)

MATCHLINE STA. 2036+00.00

MATCHLINE STA. 2050+00.00

0 20 100 Feet

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX
50 LF (3x) 633-1-122
1 EA 635-2-11
1 EA 635-2-12

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (3-24 SM DROP)
1-2" CONDUIT (3-#6 (VAC))
1-2" CONDUIT (SPARE)
333 LF 630-2-12
333 LF (3x) 633-1-122
333 LF 639-2-1

-TO REMAIN
EX. LHUB P&R-1
EX. DCCTV P&R-1
EX. WAP

-UTILIZE
EX. CONDUIT
EX. 4-#6 (120/240 VAC)
-INSTALL
EX. CONDUIT (24 SM DROP)
633-1-122 80 LF

L/A R/W LINE

-UTILIZE
EX. CCTV 95-27.36 SB
EX LHUB 95-27.36 SB
-REPLACE
LAYER 2 SWITCH
-REMOVE
EX. S-DMS 95-27.36 SB
STA. 2036+83
684-1-1 1 EA
684-1-6 1 EA
700-8-600 1 EA

RAMP E

84

-UTILIZE PHASE I
FSB 95-27.46 SB
W/ SLACK FIBER
POWER PULL BOX
100 LF (4x) 633-1-122
20 EA 633-2-31
1 EA 633-3-51
2 EA 633-3-12

140 -UTILIZE EX. FSB 95-27.46 SB

-UTILIZE PHASE I
144 SM ITS
144 SM
24 SM
3-#4/0 (600 VAC)

BROWARD BLVD.

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
630-2-12 260 LF
633-1-122 260 LF
639-2-1 260 LF

140

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)
630-2-11 210 LF
633-1-122 210 LF
639-2-1 210 LF

L/A R/W LINE

FIBER PULL BOX W/ SLACK FIBER POWER PULL BOX
633-1-122 50 LF
635-2-11 1 EA
635-2-12 1 EA

LHUB 95-27.53 SB
MVDS 95-27.53 SB
CCTV 95-27.53 SB
STA. 2046+00
SEE SITE DETAILS
LAYOUT 4
641-3-175 1 EA
660-3-11 1 EA
660-3-12 1 EA
682-1-113 1 EA

RAMP H

-UTILIZE
EX. CCTV 95-27.41 SB

SB SR-9 (I-95)

℄ CONST. SR 9

EX. LHUB 95-27.41 NB
-REPLACE
LAYER 2 SWITCH
EX. DMS 95-27.41 NB
STA. 2039+80
TO REMAIN
NO TRANSFOMER
684-1-1 1 EA
684-1-6 1 EA

2040

2045

LHUB 95-27.50 NB
MVDS 95-27.50 NB
DCCTV 95-27.50 NB
STA. 2044+50
SEE SITE DETAILS
LAYOUT 3
641-3-175 1 EA
660-3-11 1 EA
660-3-12 1 EA
682-1-113 1 EA

-UTILIZE PHASE I
FSB 95-27.50 NB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX
633-1-122 100 LF
633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

-UTILIZE
EX. COMPOSITE CABLE
-REMOVE (PHASE I).
EX. FIBER
EX. SERVICE WIRE

NB SR-9 (I-95)

-UTILIZE PHASE I
24 SM DROP
3-#6 (120 VAC)

-UTILIZE
EX. CONDUIT
EX. POWER
EX. FIBER DROP TO 95-27.47 NB

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#4/0 (600 VAC)
3-#2 (600 VAC)

-UTILIZE
EX. FIBER SPLICE BOX
SLACK FIBER
EX. POWER SPLICE BOX

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
630-2-11 80 LF

-UTILIZE PHASE I
EX. 4-#6 (120/240 VAC)
2-24 SM DROP
RS-485
3-#6 (120 VAC)
-INSTALL
ETHERNET CABLE
100 LF 633-8-1

RAMP F

-REMOVE/REPLACE
EX. GEN 95-27.43 NB
GEN 95-27.43 NB
1 EA 639-5-60

-UTILIZE PHASE I
POWER PULL BOX

EX. 3-WAP 95-27.47 NB
EX. VOIP 95-2747 NB
STA. 2042+64
EXIST. TO REMAIN

RAMP METER SIGN
635-3-12 1 EA
700-1-32 1 EA
700-12-11 1 EA

660-2-102 4 AS

SIGNAL/DETECTOR PULL BOX
630-2-14 50 LF (2x)
635-2-11 1 EA (2x)

L/A R/W LINE

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#2/0 (600 VAC)
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
3-#4/0 (600 VAC)

-UTILIZE PHASE I
3-#4/0 (480 VAC)

-UTILIZE PHASE I
2-24 SM DROP
3-#4/0 (600 VAC)
3-#4/0 (600 VAC)
3-#2 (600 VAC)

DIRECTIONAL BORE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
630-2-12 125 LF

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (3-#4/0 (480 VAC))
350 LF 630-2-11
350 LF 639-2-1

POWER SERVICE
1 EA 639-3-11
1 EA 641-2-12

-UTILIZE PHASE I
FSB 95-27.46 NB
W/ SLACK FIBER
POWER PULL BOX

-UTILIZE PHASE IA
POWER PULL BOX

L/A R/W LINE

DIRECTIONAL BORE- 1 CONDUITS
1-2" CONDUIT (3-#4/0 (480 VAC))
30 LF 630-2-12
30 LF 639-2-1

-UTILIZE
EX. POWER
PULL BOX

SIGNAL/DETECTOR PULL BOX
1 EA (5x) 635-2-11

RAMP METER SIGN
700-1-12 1 EA
700-12-11 1 EA

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (SIGNAL)
630-2-11 105 LF

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
630-2-11 110 LF

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	UPDATE LAYER 2 SWITCH RFI#86 (84)		
04/13/21	(140) RFI 118		

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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-183

BY:[PDOT] VS D#: 6/21/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4K48
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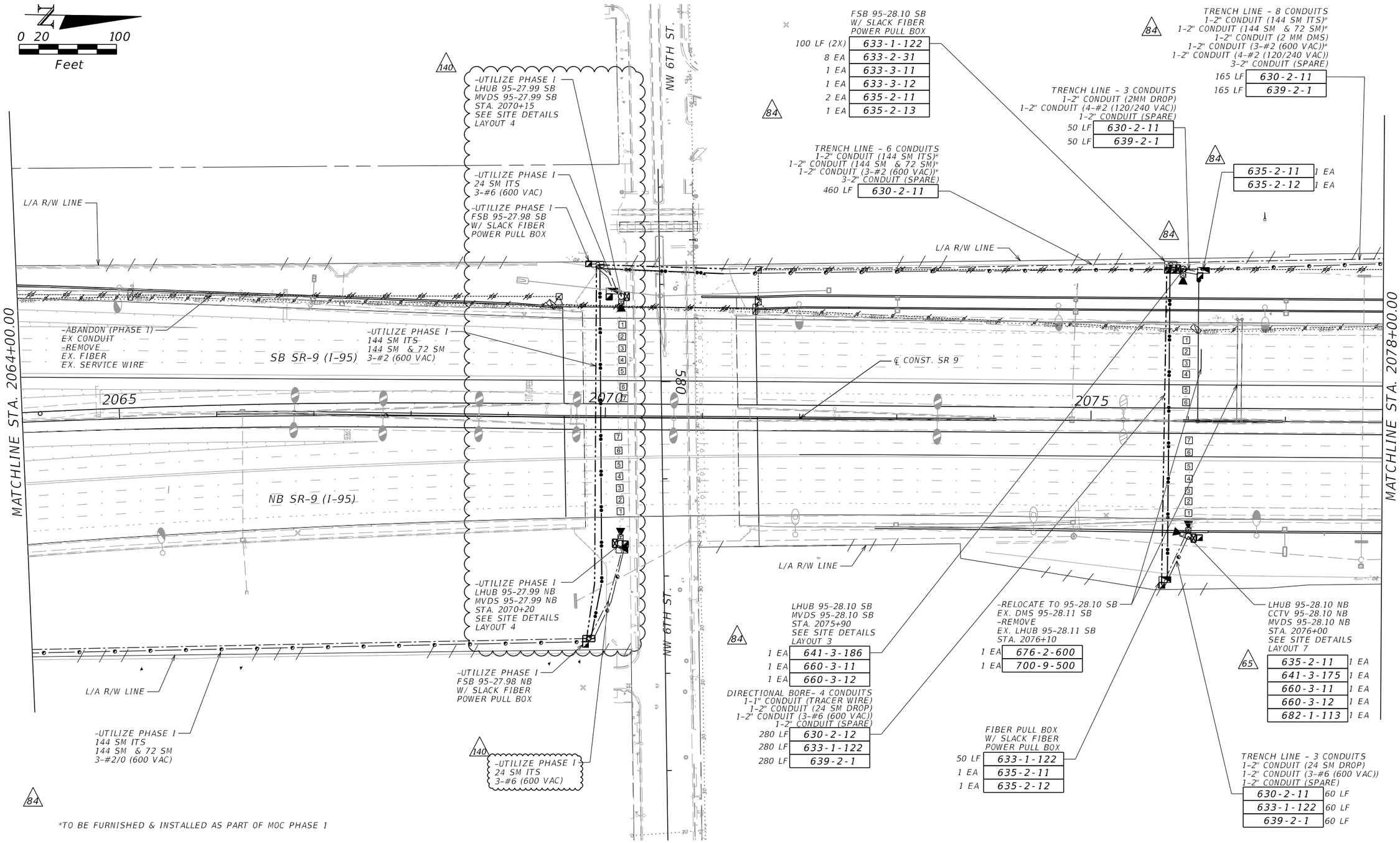

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATE GROUNDING PULL BOX	04/13/21	140 MSE 4 ADJUSTMENT, RFI 137
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-185

BY:(FDOT) VS D#: 6/21/2021
RELEASED FOR CONSTRUCTION
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PID 433108-4-52-01 and 433108-4-32-01 CONTRACT E4G40
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0 20 100
Feet

MATCHLINE STA. 2078+00.00

MATCHLINE STA. 2092+00.00

SB SR-9 (I-95)

NB SR-9 (I-95)

2080 2085 2090

℄ CONST. SR 9

RAMP I

L/A R/W LINE

TRENCH LINE - 8 CONDUITS
1-2" CONDUIT (144 SM ITS)*
1-2" CONDUIT (144 SM & 72 SM)*
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (3-#2 (600 VAC))*
1-2" CONDUIT (4-#2 (120/240 VAC))
3-2" CONDUIT (SPARE)

630-2-11	144 LF
639-2-1	144 LF

-UTILIZE PHASE 1
FSB 95-28.16 SB
W/ SLACK FIBER
POWER PULL BOX

84

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

140

DIRECTIONAL BORE- 6 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (4-#2 (120/240 VAC))
1-2" CONDUIT (SPARE)

630-2-12	50 LF
633-1-122	50 LF
639-2-1	50 LF (2X)

-UTILIZE PHASE 1
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

-REMOVED IN PHASE 1
EX. LHUB 95-28.29 SB
EX. CCTV 95-28.29 SB
EX. MVDS 95-28.29 SB
-RELOCATED IN PHASE 1
TO 95-28.30 SB
EX. VOIP 95-28.30 SB
EX. WAP 95-28.30 SB
STA. 2086+11

LHUB 95-95-28.16 SB
STA. 2079+30
SEE SITE DETAILS
LAYOUT 10

84

633-1-122	50 LF
635-2-11	2 EA
635-2-12	1 EA

-ABANDON (PHASE I)
EX CONDUIT
-REMOVE
EX FIBER
EX. SERVICE WIRE

-UTILIZE PHASE 1
FSB 95-28.29 SB
W/ SLACK FIBER
POWER PULL BOX

100 LF (2X)	633-1-122
8 EA	633-2-31
1 EA	633-3-12
1 EA	633-3-51

-UTILIZE PHASE I
LHUB 95-28.30 SB
MVDS 95-28.30 SB
CCTV 95-28.30 SB
EX. VOIP 95-28.30 SB
EX. 2-WAP 95-28.30 SB
-REMOVE
TEMP WAP 95-28.30 SB
STA. 2086+85
-RELOCATE TO 95-28.31 NB
EX. MVDS 95-28.30 SB
SEE SITE DETAILS
LAYOUT 5

65 1 EA 635-2-11

-UTILIZE PHASE 1
144 SM ITS
144 SM & 72 SM
3-#2 (600 VAC)

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SPARE)

160 LF	630-2-11
160 LF	633-1-122
160 LF	633-8-1
160 LF	639-2-1

-UTILIZE PHASE 1
FSB 95-28.35 SB
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

100 LF	633-1-122
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12

-UTILIZE PHASE 1
24 SM DROP
3-#6 (600 VAC)

-UTILIZE PHASE I
144 SM ITS
144 SM & 72 SM
-INSTALL
EX. CONDUIT (SIGNAL)
EX. CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)

260 LF	630-2-11
260 LF	633-8-1

RSC 95-28.38 SB
STA. 2091+00
INCLUDES CONTACT
CLOSURE TO ETHERNET SWITCH
SEE SITE DETAILS
LAYOUT 20

50 LF	633-1-122
3 EA	635-2-11
1 EA	635-2-12
2 EA	660-1-111

DIRECTIONAL BORE - 2 CONDUITS
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)

60 LF	630-2-12

660-2-102 4 AS

EL-DMS 95-28.33 NB
STA. 2088+00
1 EA 700-8-137

RAMP SIGNAL
STA. 2090+60

1 EA	646-1-11
2 EA	650-1-13
1 EA	700-3-101
2 EA	635-2-11

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

635-2-11	1 EA
635-2-12	1 EA

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (4-#1/0 (120/240 VAC))
1-2" CONDUIT (SPARE)

630-2-11	110 LF
639-2-1	110 LF

L/A R/W LINE

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (2-24 SM DROP)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SPARE)

340 LF	630-2-12
340 LF (2X)	633-1-122
340 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF (2X)	633-1-122
2 EA	635-2-11
1 EA	635-2-12

LHUB 95-28.29 NB
STA. 2086+30
SEE SITE DETAILS
LAYOUT 10

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (2 MM DMS)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (4-#1/0 (120/240 VAC))
1-2" CONDUIT (SPARE)

80 LF	630-2-11
80 LF	633-1-122
80 LF	639-2-1

-INSTALL
LHUB 95-28.31 NB
-RELOCATE
MVDS 95-28.31 NB
STA. 2087+19
SEE SITE DETAILS
LAYOUT 6

65

635-2-11	1 EA
641-2-14	1 EA
660-3-41	1 EA
660-3-42	1 EA

REMOVED IN PHASE I
EX. LHUB 95-28.31 NB
EX. MVDS 95-28.31 NB
EX. POLE 95-28.31 NB
STA. 2086+90

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	2 EA
635-2-12	1 EA

84

* TO BE FURNISHED & INSTALLED AS PART OF MOC PHASE 1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/22/19	65 UPDATED GROUNDING PULL BOX	04/13/21	140 UPDATED QUANTITIES
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-186

jknight 4/15/2021 7:42:09 PM C:\Work_Projects\62442.00\ITS\PLANIT13.dgn

BY:FDOT VS D#: 6/21/2021

RELEASED FOR CONSTRUCTION
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PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4K56

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NOTE:
SERVICE WIRE AND FIBER OPTIC CABLE SHALL BE INSTALLED, BUT NOT CONNECTED FOR LHUB 95-31.76B SB.

0 20 100
Feet

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

633-1-620	560 LF (6x)
639-2-6	560 LF

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (12-#4 (24 VDC))
(6-#8 (24 VDC))
1-2" CONDUIT (SPARE)

630-2-11	200 LF
639-2-1	200 LF

FIBER PULL BOX
W/ SLACK FIBER
SIGNAL PULL BOX

635-2-11	1 EA
635-2-12	1 EA

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (12-#4 (24 VDC))
(6-#8 (24 VDC))
1-2" CONDUIT (SPARE)

630-2-12	60 LF
639-2-1	60 LF

FIBER PULL BOX
W/ SLACK FIBER
SIGNAL PULL BOX

635-2-11	1 EA
635-2-12	1 EA

LHUB 95-31.76B SB
STA. 2269+30
SEE SITE DETAIL
LAYOUT 12

635-2-11	2 EA
635-2-12	1 EA
633-1-122	50 LF

LHUB 95-31.76 SB
MVDS 95-31.76 SB
DCCTV 95-31.76 SB
EX. WAP 95-31.76 SB
EX. VOIP 95-31.76 SB
STA. 2269+50
SEE SITE DETAILS
LAYOUT 3

635-2-11	1 EA
635-2-12	1 EA
633-1-122	50 LF (2x)
641-3-175	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA
684-6-40	2 EA

TRENCH LINE- 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	60 LF
633-1-123	60 LF
633-1-124	60 LF (2x)
639-2-1	60 LF

DIRECTIONAL BORE- 3 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SPARE)

630-2-12	110 LF
633-1-122	110 LF

EX. FSB 31.77 SB
PROSPECT ROAD

633-1-122	100 LF
633-2-31	24 EA
633-3-11	1 EA
633-3-12	2 EA

L/A R/W LINE

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER

633-1-620	240 LF (7x)

POWERLINE RD

L/A R/W LINE

SB SR-9 (I-95)

EX. HART 95-31.68
REMOVE

T-DMS 95-31.72 SB
STA. 2267+00
(FUTURE)

DIRECTIONAL BORE - 5 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	30 LF
639-2-1	30 LF
633-1-122	30 LF (2x)

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-123	50 LF
633-1-124	50 LF (2x)
635-2-11	1 EA
635-2-12	1 EA

2265

2270

20

MATCHLINE STA. 2260+00.00

MATCHLINE STA. 2274+00.00

℄ CONST. SR 9

NB SR-9 (I-95)

-ABANDON
EX. CONDUIT
-REMOVE
EX. 12 SM/36 SM/36 SM
EX. 96 SM/48 SM
EX. 144 SM ITS

633-1-620	630 LF (6x)

DIRECTIONAL BORE - 5 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (2-24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-12	320 LF
639-2-1	320 LF
633-1-122	320 LF (3x)

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-12	330 LF
633-1-123	330 LF
633-1-124	330 LF (2x)
639-2-1	330 LF

FSB 95-31.81 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA
635-2-13	1 EA

L/A R/W LINE

-REMOVE
EX. CCTV 95-31.68
EX. LHUB 95-31.68
EX. MVDS 95-31.68
-RELOCATE TO 95-31.76 SB
EX. VOIP 95-31.68
EX. WAP 95-31.68

641-2-80	1 EA

LHUB 95-31.76 NB
MVDS 95-31.76 NB
STA. 2269+20
SEE SITE DETAILS
LAYOUT 4

633-1-122	50 LF
641-3-186	1 EA
660-3-11	1 EA
660-3-12	1 EA
635-2-11	1 EA
635-2-12	1 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	390 LF
633-1-123	390 LF
633-1-124	390 LF (2x)
639-2-1	390 LF

POWER PULL BOX

635-2-11	1 EA

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	530 LF
633-1-123	530 LF
633-1-124	530 LF (2x)
639-2-1	530 LF

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (24 SM ITS)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	140 LF
633-1-122	140 LF
633-1-123	140 LF
633-1-124	140 LF (2x)
639-2-1	140 LF

FSB 95-31.77 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF (3x)
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	12 EA
633-3-11	2 EA
633-3-12	2 EA
635-2-11	1 EA
635-2-13	1 EA

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-12	170 LF
633-1-123	170 LF
633-1-124	170 LF (2x)
639-2-1	170 LF

LHUB 95-31.81 NB
STA. 2272+10
SEE SITE DETAILS
LAYOUT 8

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (COMPOSITE CABLE)

630-2-11	200 LF
633-8-1	200 LF

PROSPECT RD

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PID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4K48
BY: FDOT VS DATE: 6/21/2021

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84
1/22/19	65 UPDATED CONDUIT LOCATION	04/13/21	UPDATED CONDUIT 140

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO.
IT-199

TRENCH LINE - 8 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SIGNAL)
3-2" CONDUIT (SPARE)

600 LF	630-2-11
600 LF	633-1-123
600 LF (2x)	633-1-124
600 LF	639-2-1

TRENCH LINE - 8 CONDUITS
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SIGNAL)
55 1-2" CONDUIT (DETECTOR)
3-2" CONDUIT (SPARE)

420 LF	630-2-11
420 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX

50 LF	633-1-123
50 LF (2x)	633-1-124
1 EA (3x)	635-2-11
1 EA	635-2-12
2 AS	660-2-102

DIRECTIONAL BORE - 9 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUTURE BROWARD FIBER)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (ETHERNET CABLE)
3-2" CONDUIT (SPARE)
140 55

105 LF	630-2-12
105 LF	633-8-1
105 LF	639-2-1

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
1-2" CONDUIT (SIGNAL)
3-2" CONDUIT (SPARE)

180 LF	630-2-11
180 LF	633-1-123
180 LF (2x)	633-1-124
180 LF	639-2-1

FSB 95-32.26A SB
W/ SLACK FIBER
POWER/SIGNAL/
DETECTOR PULL BOX

633-1-123	200 LF
633-1-124	200 LF
635-2-13	1 EA

RAMP METER SIGN

635-2-11	1 EA
700-1-32	1 EA
700-12-11	1 EA

TRENCH LINE- 2 CONDUITS
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

630-2-11	100 LF

L/A R/W LINE

NOTE:
INTERCEPT CONDUIT FOR EX. 96 SM FIBER. RELOCATE EX. FIBER RUNNING ALONG COMMERCIAL BLVD FROM EXISTING TO PROPOSED MASTER HUB.

FIBER PULL BOX
-INTERCEPT
EX. 96 SM FIBER
55

635-2-12	1 EA

TRENCH LINE - 1 CONDUIT
1-2" CONDUIT (EX. 96 SM FIBER TO TMC)

630-2-11	75 LF
633-1-420	75 LF

FSB 95-32.26B SB
W/ SLACK FIBER
POWER/SIGNAL
PULL BOX

633-1-124	200 LF
635-2-11	1 EA (3x)
635-2-13	1 EA

-UTILIZE
EX. 24 SM ATMS
EX. 96 SM RR PROJECT
-REMOVE
EX. 144 SM ITS
EX. SERVICE WIRE

633-1-620	700 LF
639-2-6	700 LF

TRENCH LINE - 4 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

630-2-11	120 LF
633-1-122	120 LF
633-8-1	120 LF
639-2-1	120 LF

LHUB 95-32.14 SB
MVDS 95-32.14 SB
DCCTV 95-32.14 SB
STA. 2289+20
SEE SITE DETAILS
LAYOUT 4

641-3-175	1 EA
660-3-11	1 EA
660-3-12	1 EA
682-1-113	1 EA

RSC 95-32.20 SB
STA. 2292+40
SEE SITE DETAILS
LAYOUT 20

50 LF	633-1-122
1 EA (3x)	635-2-11
1 EA	635-2-12
2 EA	660-1-111

RAMP SIGNAL
STA. 2992+07

646-1-11	1 EA
650-1-13	2 EA
700-3-101	1 EA

POWER PULL BOX
635-2-11
1 EA

POWER SERVICE
TRANSFORMER

635-2-11	1 EA
639-1-122	1 AS
641-2-12	1 EA

MHUB 95-32.26
(MHUB TO BE DESIGNED BY OTHERS)
GEN 95-32.26
STA. 2295+50
GENERATOR
MASTER HUB
(3-#2 (600 VAC))
639-2-1 30 LF

FSB 95-32.27 SB
W/ SLACK FIBER
POWER/SIGNAL/COMMUNICATION/
DETECTOR PULL BOX

633-1-122	100 LF
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA (4x)
635-2-13	1 EA

140 55 140

TRENCHLINE - 3 CONDUITS
1-2" CONDUIT (FUT. FIBER)
1-2" (144 SM & 72 SM ITS)
1-2" (SPARE)

35 LF	630-2-11
35 LF	633-1-123
35 LF	633-1-124

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

633-1-620	450 LF (6x)
639-2-6	450 LF

EX. MHUB 95-32.26 SB
EX. FSB 95-32.26C SB

633-1-123	50 LF
633-1-124	50 LF
633-2-31	132 EA
633-3-11	1 EA

LHUB 95-32.27 SB
DCCTV 2x 95-32.27 SB
STA. 2296+30
SEE SITE DETAILS
LAYOUT 3

641-3-163	1 EA
682-1-113	2 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER/SIGNAL/DETECTOR
PULL BOX
55

633-1-123	50 LF
635-2-11	1 EA (3x)
635-2-12	1 EA

TRENCH LINE - 9 CONDUITS
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (MVDS CABLE)
3-2" CONDUIT (SPARE)
55

630-2-11	185 LF
633-8-1	185 LF
639-2-1	185 LF

6 AS 660-2-102

FSB 95-32.22 NB
W/ SLACK FIBER

633-1-122	100 LF
633-2-31	16 EA
633-3-11	1 EA
633-3-12	2 EA
635-2-13	1 EA

55

FSB 95-32.32 NB
W/ SLACK FIBER
SIGNAL PULL BOX
POWER PULL BOX
55

100 LF	633-1-122
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA (2x)	635-2-11
1 EA	635-2-13

4 AS 660-2-102

LHUB 95-32.35 NB
DCCTV x2 95-32.35 NB
STA. 2300+75
SEE SITE DETAILS
LAYOUT 4
INCLUDE CONTACT
CLOSURE TO
ETHERNET SWITCH

641-3-186	1 EA
682-1-113	2 EA

DIRECTIONAL BORE- 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (DETECTOR)
1-2" CONDUIT (SPARE)

65 LF	630-2-12
65 LF	633-1-122
65 LF	633-8-1
65 LF	639-2-1

EX. LHUB 95-32.19 SB
EX. MVDS 95-32.19 SB
REMOVE

1 EA	641-2-80

DIRECTIONAL BORE- 8 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
3-2" CONDUIT (SPARE)
55

630-2-12	280 LF
633-8-1	280 LF
639-2-1	280 LF

TRENCH LINE - 2 CONDUITS
1-2" CONDUIT (48 SM ITS)
1-2" CONDUIT (SPARE)

630-2-11	50 LF
633-1-122	50 LF

TOLL PLAZA

633-3-16	1 EA

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
3-2" CONDUIT (SPARE)
55

630-2-11	400 LF
633-8-1	400 LF
639-2-1	400 LF

DIRECTIONAL BORE- 9 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
3-2" CONDUIT (SPARE)
55

220 LF	630-2-12
220 LF	633-8-1
220 LF	639-2-1

DIRECTIONAL BORE- 5 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

100 LF	630-2-12
100 LF	633-1-122
100 LF	639-2-1

RAMP METER SIGN

635-2-11	2 EA
700-1-32	2 EA
700-12-11	2 EA

TRENCH LINE - 8 CONDUITS
1-2" CONDUIT (FUT. 144 SM ITS)
1-2" CONDUIT (FUT. BROWARD FIBER)
1-2" CONDUIT (3-#4 (600 VAC))
1-2" CONDUIT (MVDS CABLE)
1-2" CONDUIT (SIGNAL)
3-2" CONDUIT (SPARE)

630-2-11	115 LF
633-8-1	115 LF
639-2-1	115 LF

TRENCH LINE - 5 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (ETHERNET CABLE)
1-2" CONDUIT (SIGNAL)
1-2" CONDUIT (SPARE)

630-2-11	200 LF
633-1-122	200 LF
633-8-1	200 LF
639-2-1	200 LF

TRENCH LINE- 1 CONDUITS
1-2" CONDUIT (SIGNAL)

630-2-11	150 LF

FSB 95-32.20 SB
W/ SLACK FIBER
POWER/SIGNAL/
DETECTOR PULL BOX
55

100 LF	633-1-122
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA (3x)	635-2-11
1 EA	635-2-13

LHUB 95-32.17 NB
MVDS 95-32.17 NB
DCCTV 95-32.17 NB
STA. 2291+00
SEE SITE DETAILS
LAYOUT 4

1 EA	641-3-180
1 EA	660-3-11
1 EA	660-3-12
1 EA	682-1-113
50 LF	633-1-122
1 EA	635-2-11
1 EA	635-2-12

FSB 95-32.21 NB
W/ SLACK FIBER
POWER PULL BOX
55

100 LF	633-1-122
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-11
1 EA	635-2-13

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

230 LF	630-2-12
230 LF	633-1-122
230 LF	639-2-1

DIRECTIONAL BORE- 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

130 LF	630-2-12
130 LF	633-1-122
130 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

633-1-122	50 LF
635-2-11	1 EA
635-2-12	1 EA

FIBER PULL BOX
W/ SLACK FIBER
POWER/SIGNAL PULL BOX

633-1-122	50 LF
635-2-11	1 EA (2x)
635-2-12	1 EA

TRENCH LINE- 1 CONDUITS
1-2" CONDUIT (2-SIGNAL)

630-2-11	70 LF

EX. 2-WAP
95-32.32
(POLE MOUNTED)
TO REMAIN

COMMERCIAL BLVD

RAMP Q
RAMP R

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER

633-1-620	375 LF (7x)

2290 ℄ CONST. SR 9
2295
2300
SB SR-9 (I-95)
NB SR-9 (I-95)

MATCHLINE STA. 2288+00.00
MATCHLINE STA. 2302+00.00
MATCHLINE STA. 24+00.00
(SHEET IT-207)

0 20 100
Feet

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PID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4C48
BY: VS DATE: 6/21/2021

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 -MSE WALL 25 ADJUST -REMOVAL OF 3A-1 BACKBONE NORTH OF MASTERHUB		
04/13/21	140 RFI 101		

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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-201

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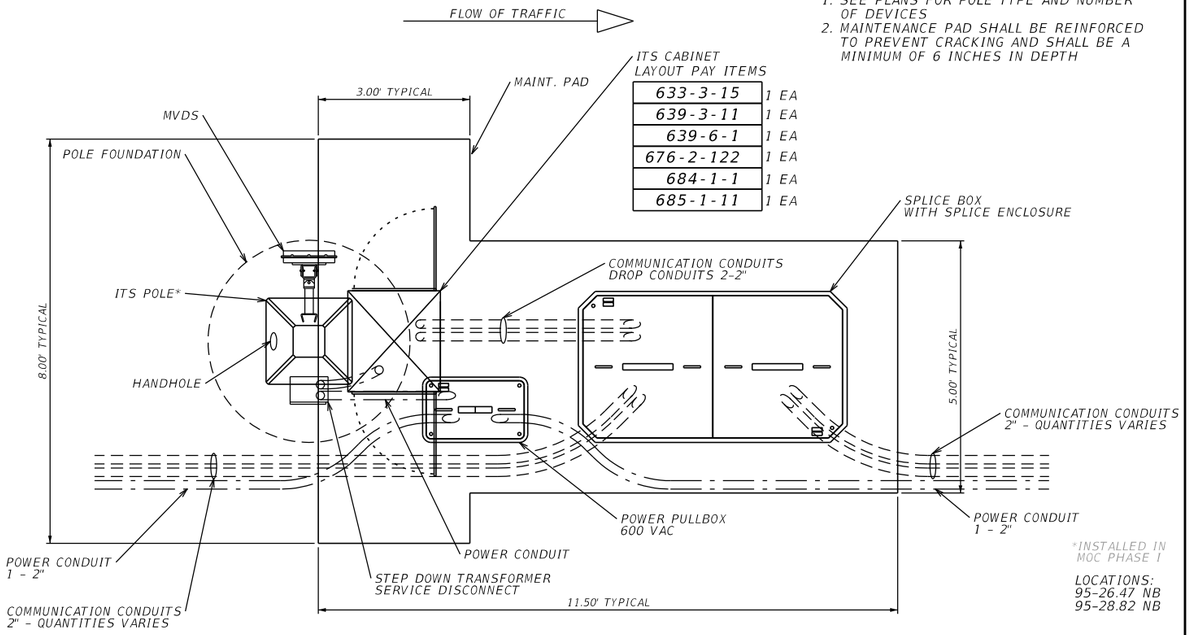
LAYOUT 1



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

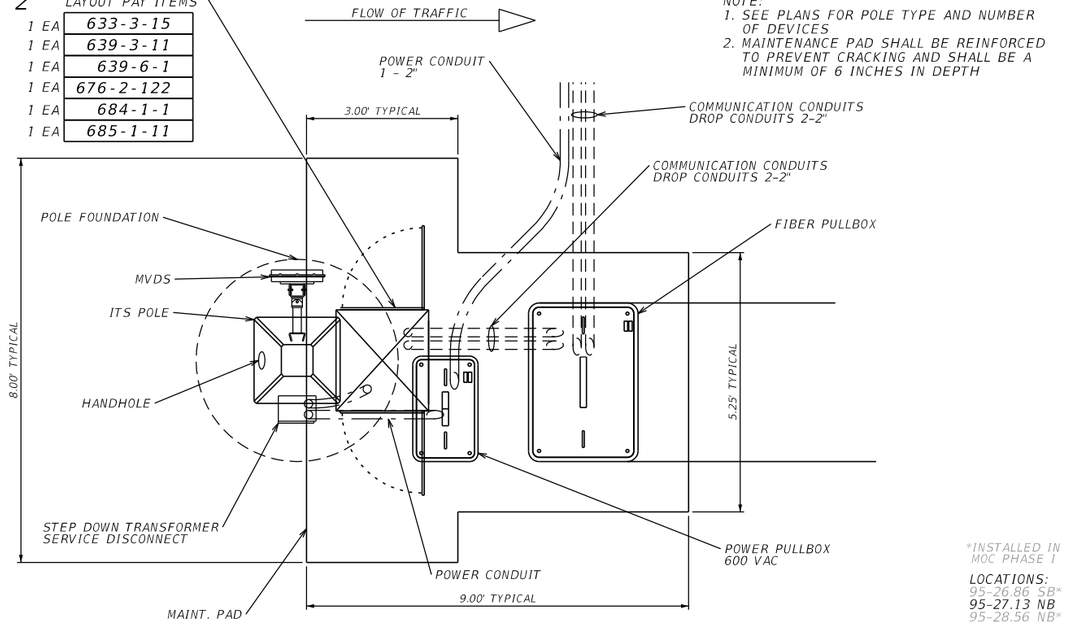
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.47 NB
95-28.82 NB

TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 2



ITS CABINET LAYOUT PAY ITEMS

1 EA	633-3-15
1 EA	639-3-11
1 EA	639-6-1
1 EA	676-2-122
1 EA	684-1-1
1 EA	685-1-11

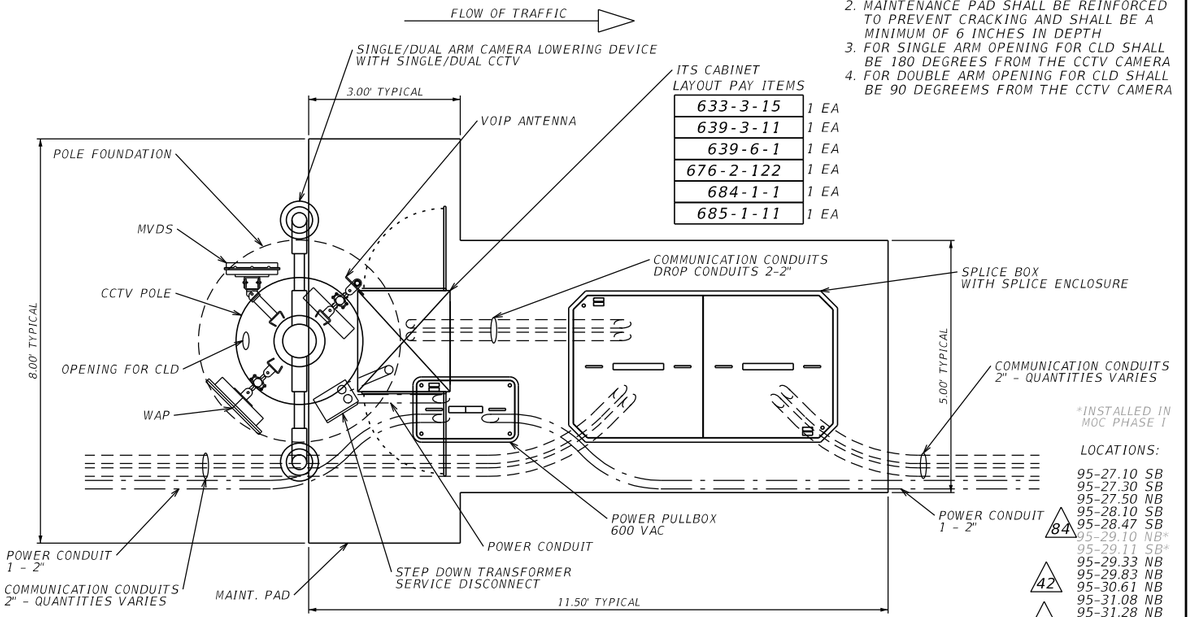
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 SB*
95-27.13 NB
95-28.56 NB*
95-30.83 SB
95-32.64 NB

TYPICAL MVDS SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

LAYOUT 3



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

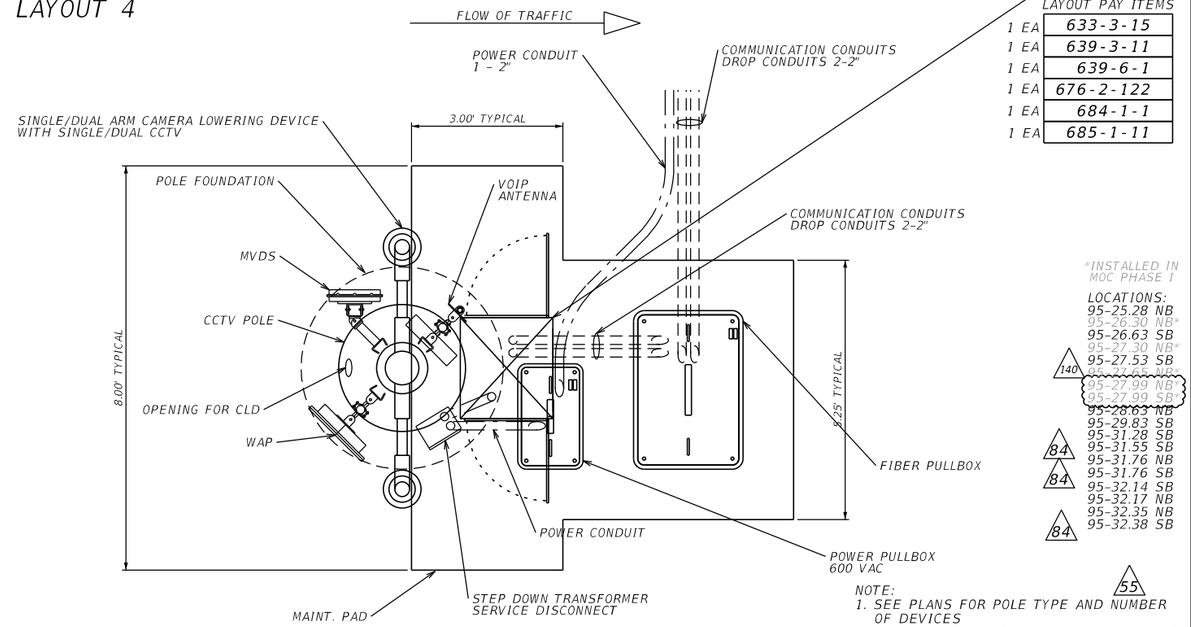
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREEMS FROM THE CCTV CAMERA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-27.10 SB
95-27.30 SB
95-27.50 NB
95-28.10 SB
95-28.47 SB
84 95-29.10 NB*
95-29.11 SB*
95-29.33 NB
42 95-29.83 NB
95-30.61 NB
47 95-31.08 NB
95-31.28 NB
38 95-31.54 NB
65 95-32.27 SB
95-32.39 NB
95-32.64 SB

TYPICAL CCTV SITE LAYOUT - ADJACENT TO BACKBONE

LAYOUT 4



ITS CABINET LAYOUT PAY ITEMS

1 EA	633-3-15
1 EA	639-3-11
1 EA	639-6-1
1 EA	676-2-122
1 EA	684-1-1
1 EA	685-1-11

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-25.28 NB
95-26.30 NB*
95-26.63 SB
95-27.30 NB*
140 95-27.53 SB
95-27.55 NB*
95-27.99 NB*
95-27.99 SB*
95-28.83 NB
95-29.83 SB
84 95-31.28 SB
95-31.55 SB
84 95-31.76 NB
95-31.76 SB
95-32.14 SB
95-32.17 NB
95-32.35 NB
84 95-32.38 SB

55
NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREES FROM THE CCTV CAMERA

TYPICAL CCTV SITE LAYOUT - OPPOSITE SIDE OF BACKBONE

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	UPDATED LAYOUT 95-30.57SB 38	1/22/19	UPDATE GROUNDING PULL BOX 65
6/15/18	MSE WALL 15 ADJUST 42	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84
7/31/18	MSE WALL 21 ADJUST 47	04/13/21	MSE 4 ADJUSTMENT, RFI 137 140
11/5/18	MSE WALL 25 ADJUSTED 55		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-208

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BY:(PDOT) VS D#: 6/21/2021
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PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4K48
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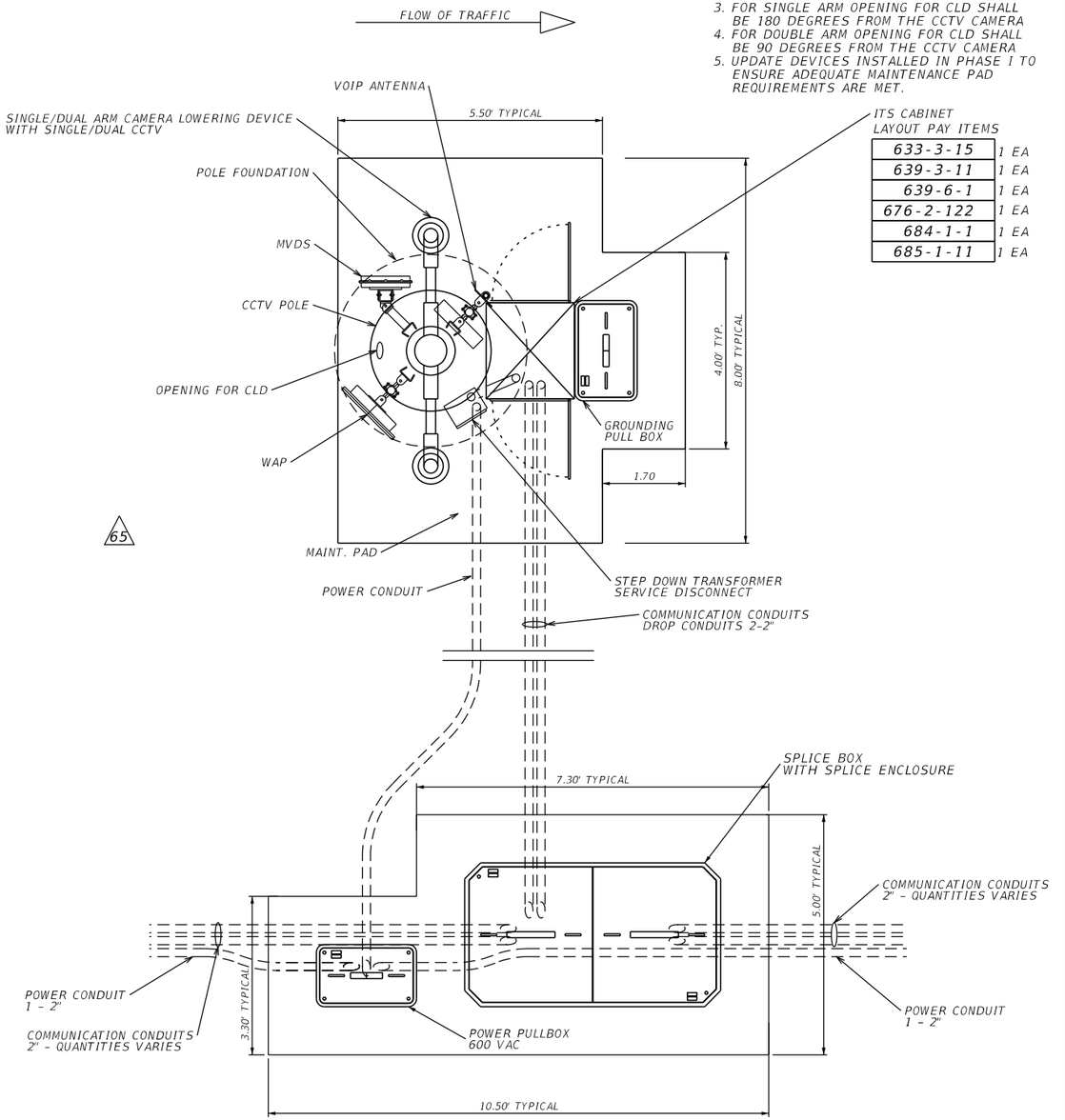
LAYOUT 5

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA
4. FOR DOUBLE ARM OPENING FOR CLD SHALL BE 90 DEGREES FROM THE CCTV CAMERA
5. UPDATE DEVICES INSTALLED IN PHASE I TO ENSURE ADEQUATE MAINTENANCE PAD REQUIREMENTS ARE MET.



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

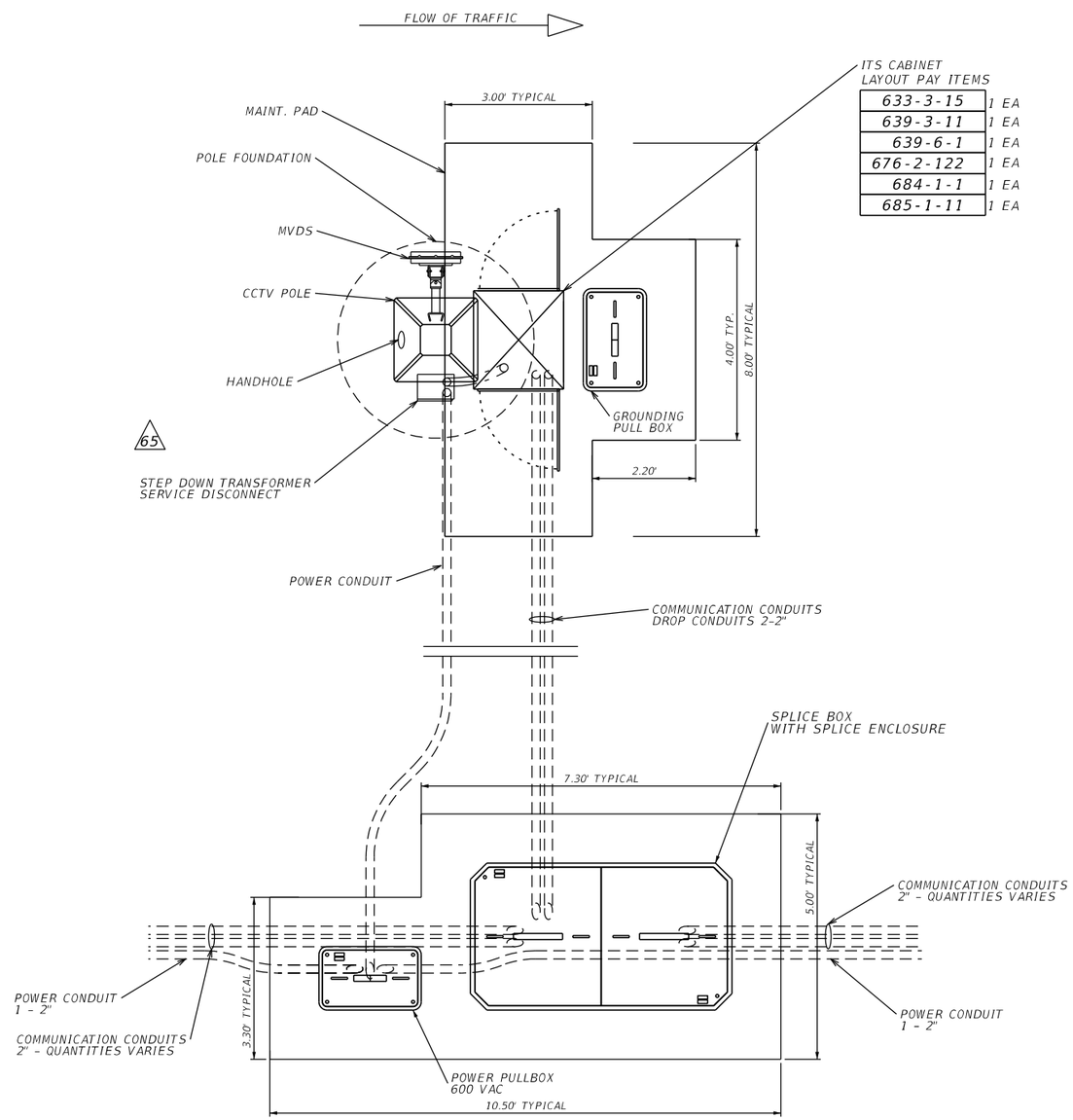
*INSTALLED IN MOC PHASE I

LOCATIONS:
95-28.30 SB*
95-30.08 NB
95-30.33 NB
95-30.57 SB
95-30.83 NB
95-31.95 SB

TYPICAL CCTV SITE LAYOUT - OFFSET FROM BACKBONE

LAYOUT 6

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH



ITS CABINET LAYOUT PAY ITEMS

633-3-15	1 EA
639-3-11	1 EA
639-6-1	1 EA
676-2-122	1 EA
684-1-1	1 EA
685-1-11	1 EA

*INSTALLED IN MOC PHASE I

LOCATIONS:
95-26.86 NB*
95-28.31 NB
95-28.85 SB

TYPICAL MVDS SITE LAYOUT - OFFSET FROM BACKBONE

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PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4K48
BY: FDOT VS D4: 6/21/2021

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED LAYOUT 95-30.57SB	1/22/19	65 UPDATE GROUNDING PULL BOX
6/15/18	MSE WALL 15 ADJUST 42	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84
7/31/18	47 MSE WALL 21 ADJUST	04/13/21	140 MSE 4 ADJUSTMENT

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

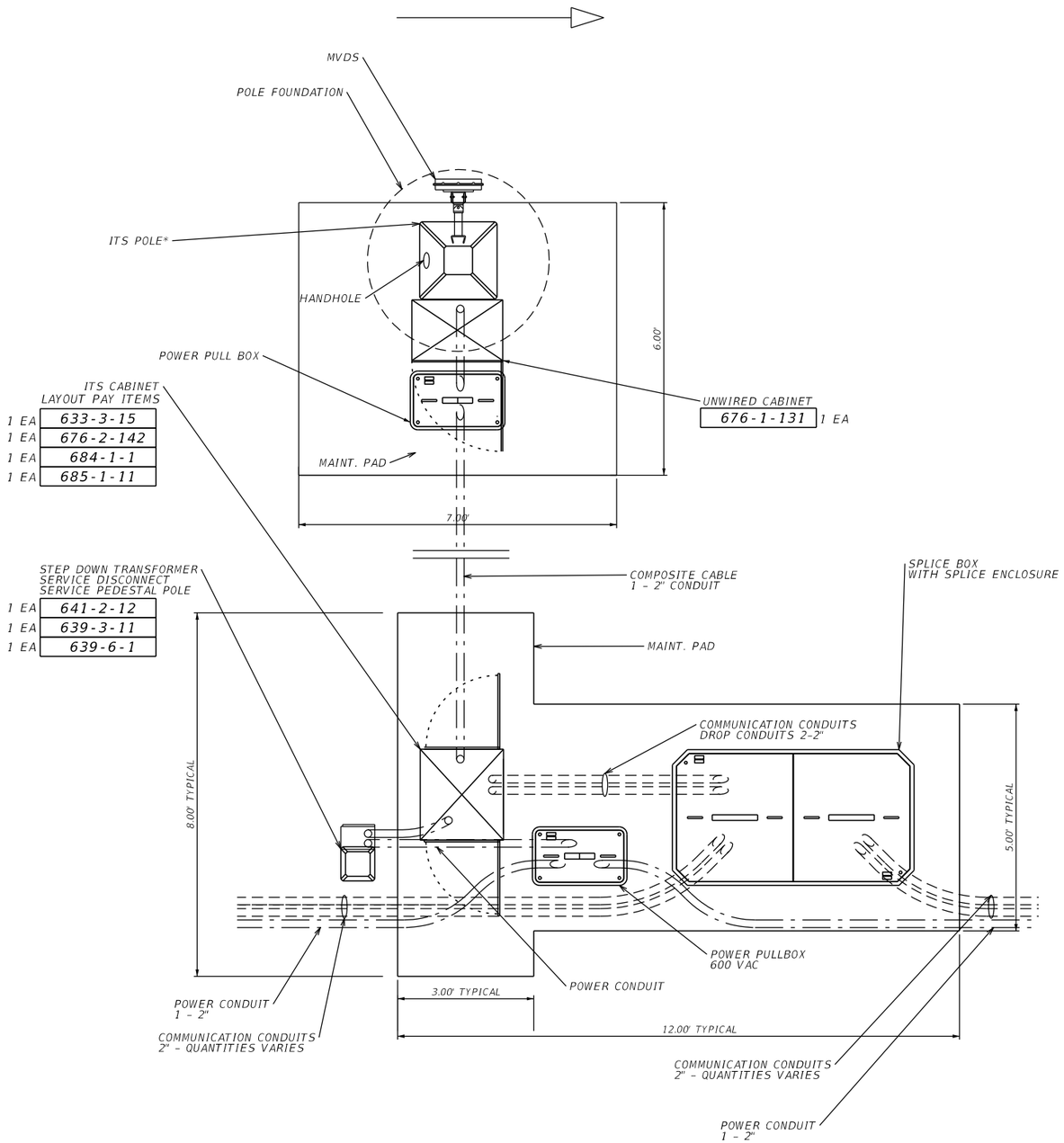
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-209

LAYOUT 23

NOTE:
1. SEE PLANS FOR POLE TYPE AND NUMBER OF DEVICES
2. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
3. FOR SINGLE ARM OPENING FOR CLD SHALL BE 180 DEGREES FROM THE CCTV CAMERA



*INSTALLED IN MOC PHASE I

LOCATIONS: 140

TYPICAL MVDS SITE LAYOUT - ADJACENT TO BACKBONE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 RFI 137 - SITE LAYOUT NOT APPLICABLE		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SITE LAYOUT DETAILS

SHEET NO.
IT-219

RELEASED FOR CONSTRUCTION
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FPID:433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 6/21/2021
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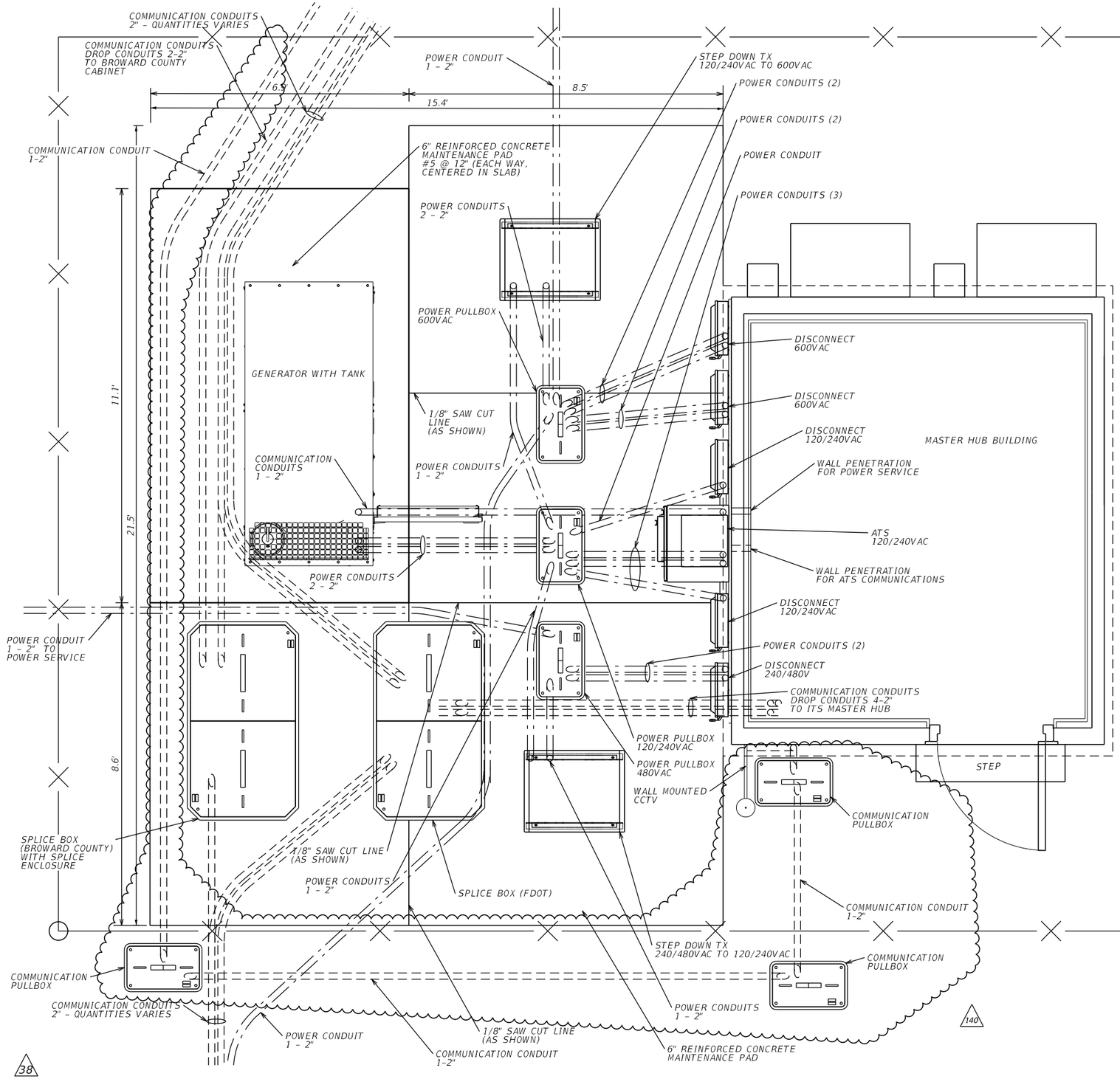
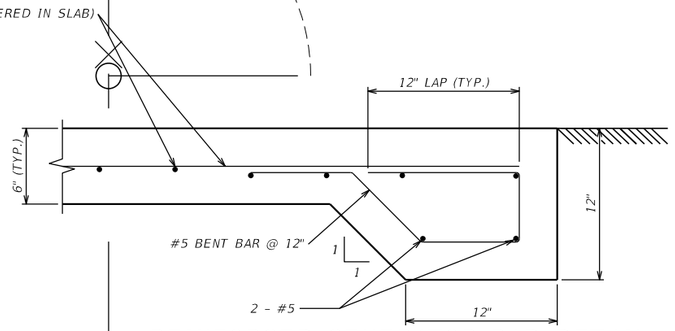


GENERATOR	
635-2-11	6 EA
639-3-11	5 EA
639-5-2	1 EA
639-6-1	2 EA
641-2-12	4 EA

HUB BUILDING	
630-2-14	15 LF
633-3-16	4 EA
635-2-13	2 EA
677-1-11	1 EA
682-1-113	1 EA
684-7	1 EA

NOTE:
1. MAINTENANCE PAD SHALL BE REINFORCED TO PREVENT CRACKING AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH
2. EQUIPMENT MAINTENANCE PAD SHALL EXTEND 30" FROM MOUNTED EQUIPMENT.
3. WORKING SPACE OF EXPOSED LIVE ELECTRICAL PARTS SHALL BE 3.5' FROM GROUNDED PARTS AND 4' FROM EXPOSED LIVE ELECTRICAL PARTS.
4. CCTV SHALL BE MOUNTED TO TOP OF EXTERIOR WALL.

140



REINFORCED GENERATOR PAD DETAIL

NOT TO SCALE

REINFORCED GENERATOR PAD NOTES:

1. ALL CONCRETE SHALL BE FDOT CLASS IV (F'C = 5.5 KSI)
2. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS AND SHALL MEET THE REQUIREMENTS OF ASTM A615. MINIMUM CONCRETE COVER SHALL BE 2".
3. THE DESIGN IS BASED ON ASSUMED SOIL SUBGRADE MODULUS OF 200LB/IN³ TO 400 LB/IN³. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL HIRE A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF FLORIDA TO CONFIRM THIS ASSUMPTION. IF THE SOIL CONDITIONS VARY FROM THE ASSUMED CONDITION, THE CONTRACTOR WILL NOTIFY THE ENGINEER.
4. CONTRACTOR SHALL UNDERCUT A MINIMUM 2 FEET OF IN-SITU LOOSE MATERIAL, AND REPLACE WITH #57 STONE COMPACTED IN CONTROLLED LIFTS OR FLOWABLE FILL. CONTRACTOR SHALL VERIFY WITH GEOTECH ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
5. REBAR SHALL BE BONDED TO NEAREST NON-CURRENT CARRYING METALLIC OBJECT AND GROUNDED PER NEC.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED SITE LAYOUT WITH REINFORCED MAINTENANCE PAD DETAIL.		
04/13/21	140 RFI 101		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

GENERATOR DETAILS

SHEET NO. IT-222

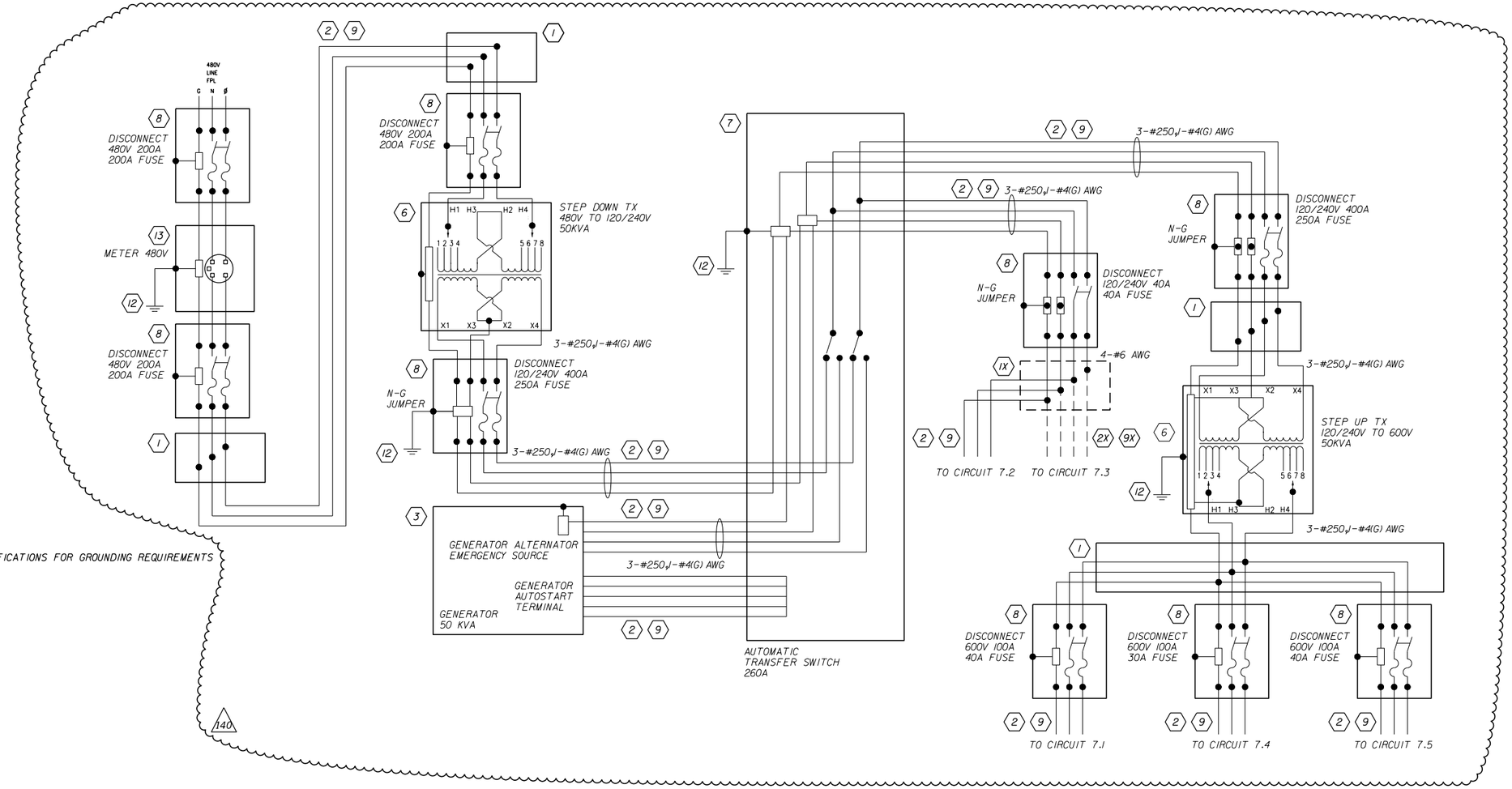
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: VS DATE: 6/21/2021
PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4K48

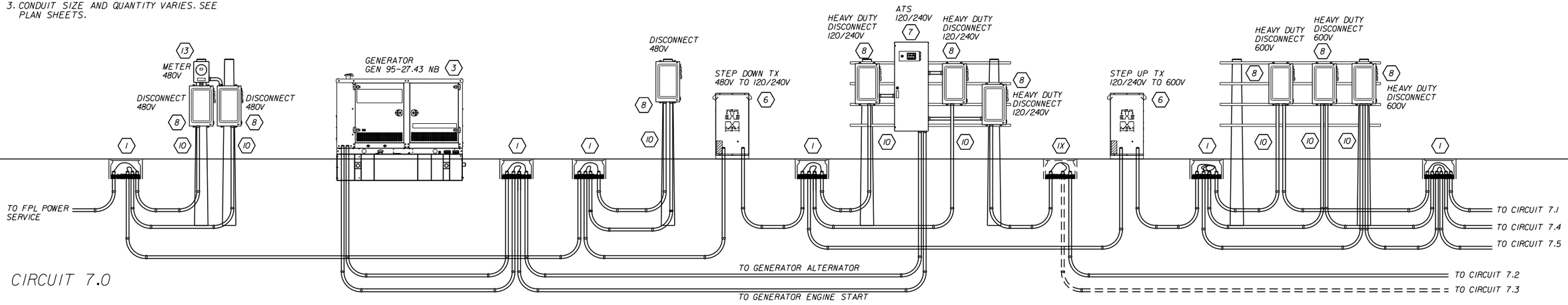
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. SEE SPECIFICATIONS FOR GROUNDING REQUIREMENTS
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.





CIRCUIT 7.0

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 WIRE SIZE CLARIFICATION AND N-G JUMPER		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO.
IT-224

jknight 4/14/2021 7:24:43 PM C:\Work_Projects\62442.00\ITS\SSDTIT01.DGN

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 6/21/2021

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KEYED NOTES:

1. PULL BOX
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3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
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6X. EXISTING TRANSFORMER
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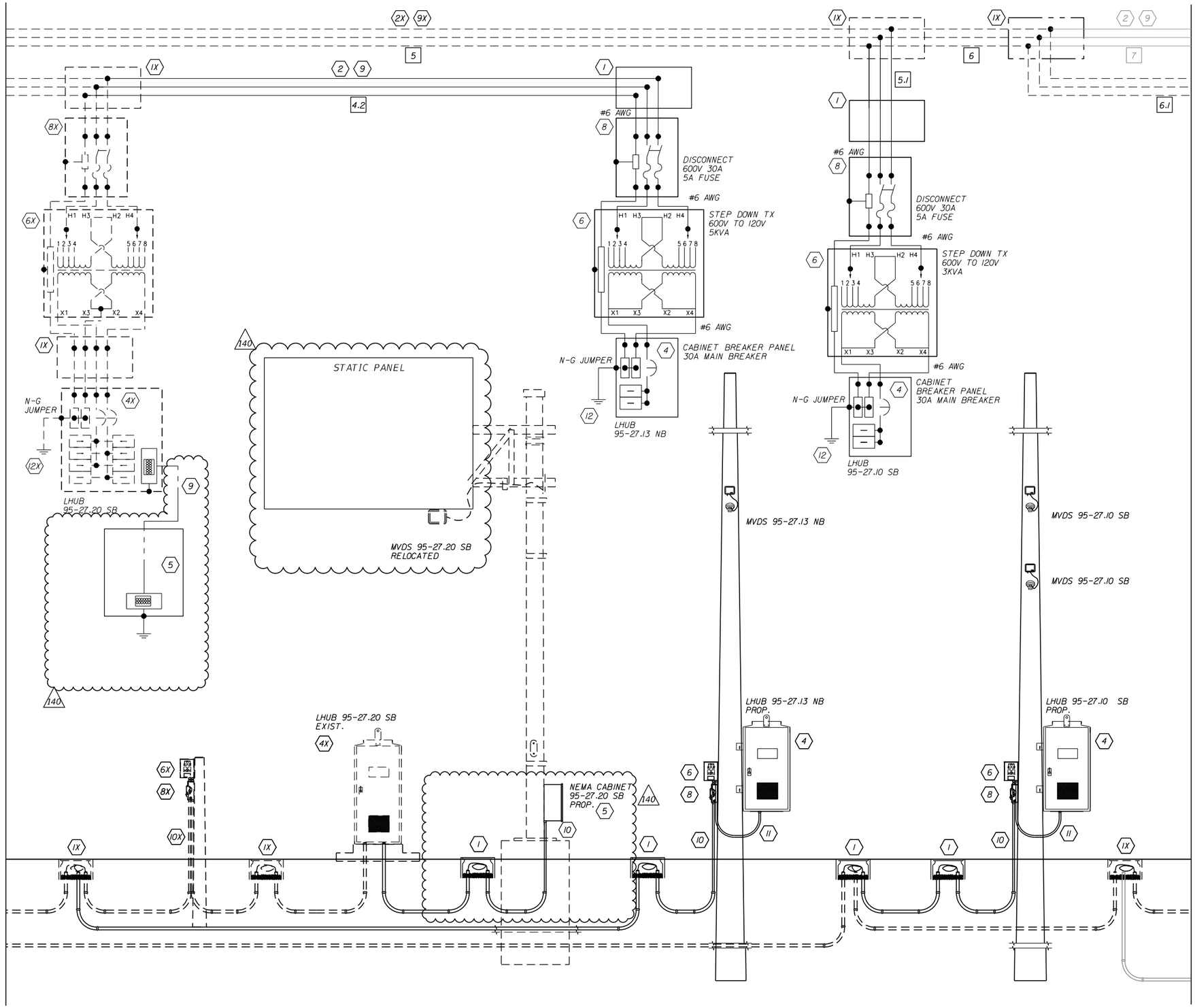
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.

MATCH LINE SHEET IT-225



MATCH LINE SHEET IT-227

CIRCUIT 7.1

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 RFI 123		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-226

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

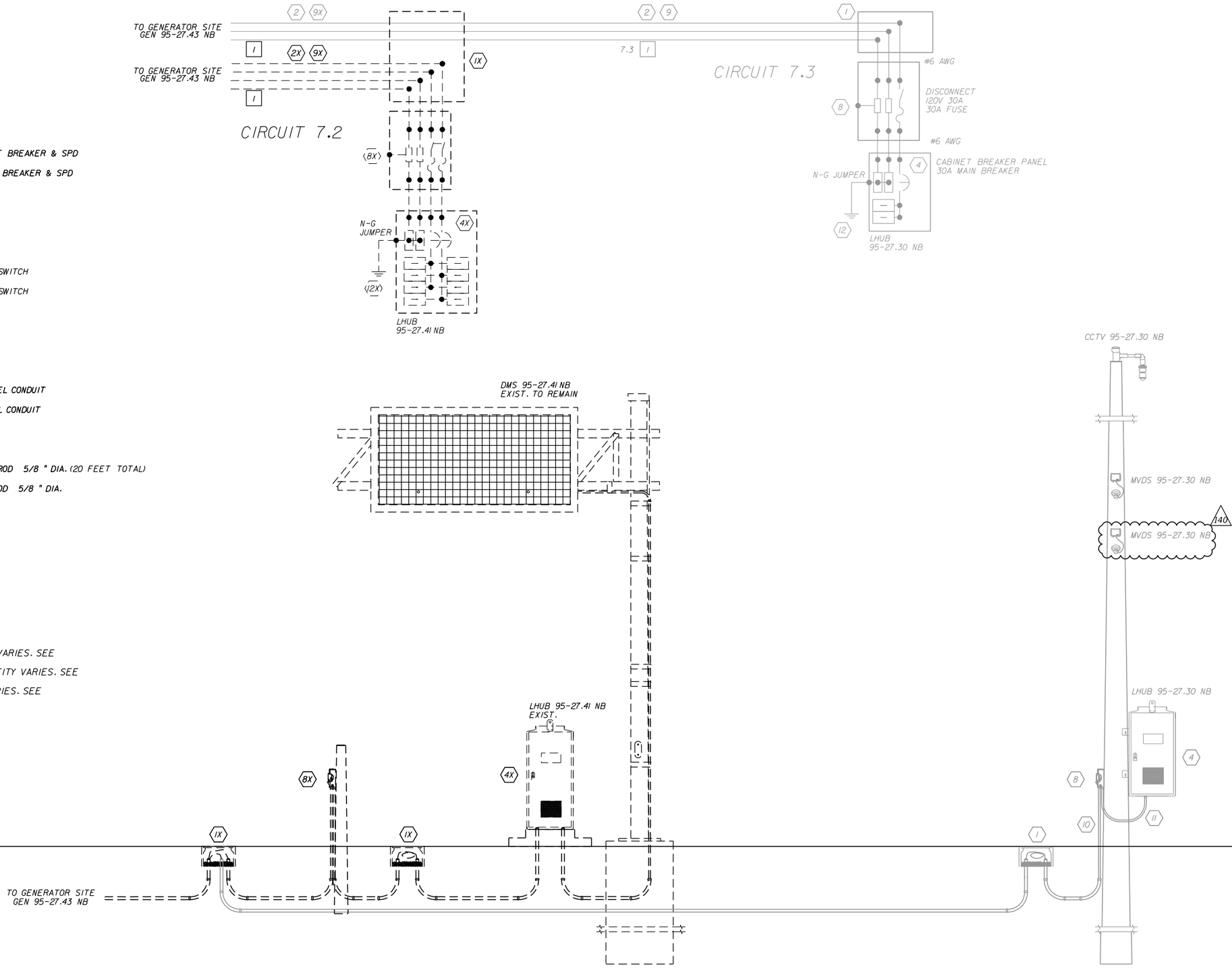
BY:[PDOT] VS D#: 6/21/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4Q32

KEYED NOTES:

- 1 PULL BOX
- 1X EXISTING PULL BOX
- 2 PROPOSED SERVICE WIRE
- 2X EXISTING SERVICE WIRE
- 3 PROPOSED GENERATOR
- 3X EXISTING GENERATOR
- 4 PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- 4X EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- 5 PROPOSED NEMA ENCLOSURE
- 5X EXISTING NEMA ENCLOSURE
- 6 PROPOSED TRANSFORMER
- 6X EXISTING TRANSFORMER
- 7 PROPOSED AUTOMATIC TRANSFER SWITCH
- 7X PROPOSED AUTOMATIC TRANSFER SWITCH
- 8 PROPOSED FUSED DISCONNECT
- 8X EXISTING FUSED DISCONNECT
- 9 PROPOSED HDPE CONDUIT
- 9X EXISTING HDPE CONDUIT
- 10 PROPOSED RIGID GALVANIZED STEEL CONDUIT
- 10X EXISTING RIGID GALVANIZED STEEL CONDUIT
- 11 PROPOSED FLEX CONDUIT
- 11X EXISTING FLEX CONDUIT
- 12 PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
- 12X EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- 13 PROPOSED METER CAN
- 13X EXISTING METER CAN
- 14 PROPOSED DMS SIGN
- 14X EXISTING DMS SIGN
- 15 PROPOSED HUB BREAKER PANEL
- X CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 7.2
CIRCUIT 7.3

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 RFI 123		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO.
IT-234

jknight 4/14/2021 7:25:34 PM C:\Work_Projects\62442.00\ITS\SSDTIT01.DGN

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R98
BY:(FDOT) VS Date: 6/21/2021

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KEYED NOTES:

1. PULL BOX
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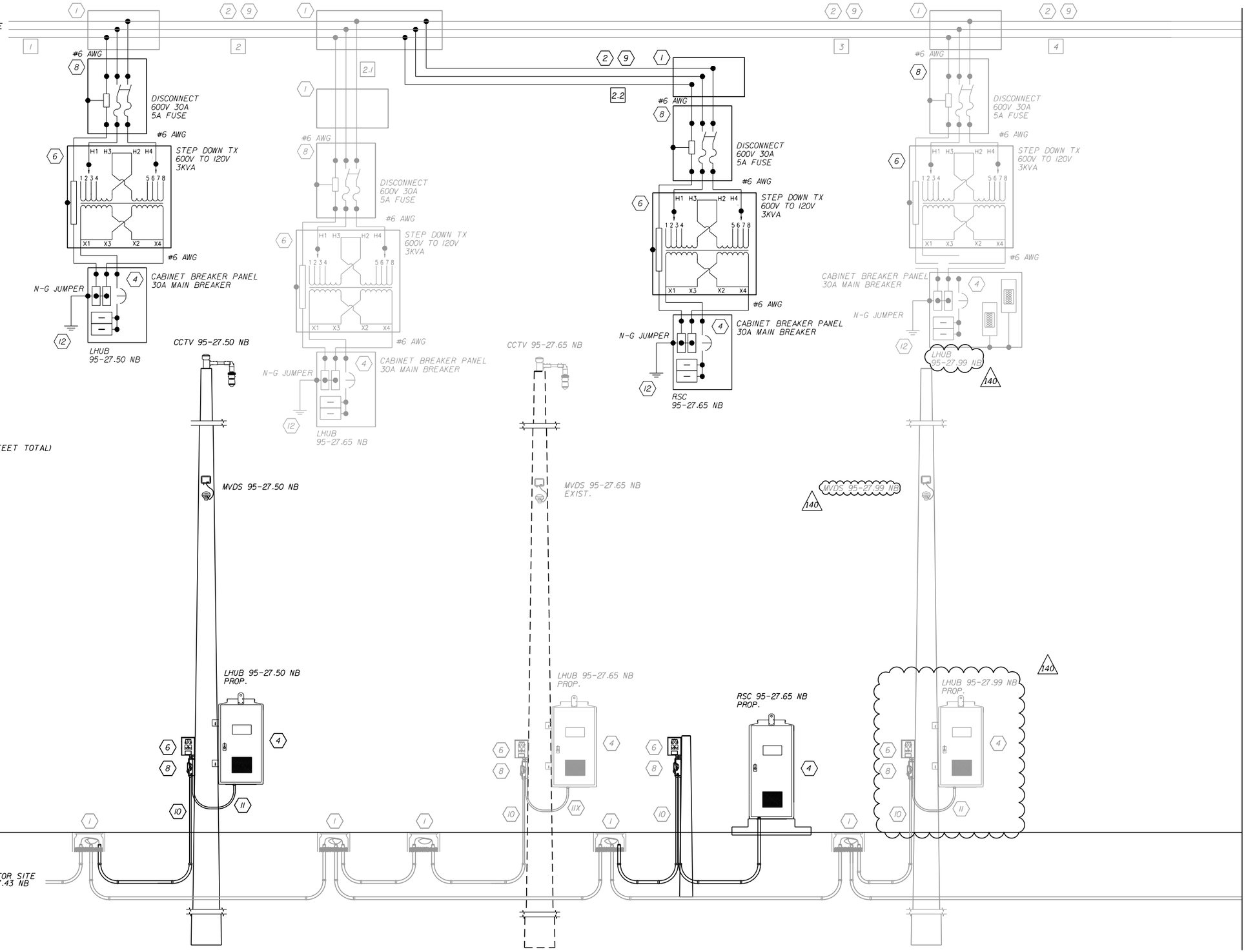
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 7.5

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 RFI 137		

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Transportation, Land Development, Environmental Services
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-238

jknight 4/14/2021 7:25:58 PM C:\Work_Projects\62442.00\ITS\SSDTIT01.DGN

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 6/21/2021

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KEYED NOTES:

- 1 PULL BOX
- 1X EXISTING PULL BOX
- 2 PROPOSED SERVICE WIRE
- 2X EXISTING SERVICE WIRE
- 3 PROPOSED GENERATOR
- 3X EXISTING GENERATOR
- 4 PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- 4X EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- 5 PROPOSED NEMA ENCLOSURE
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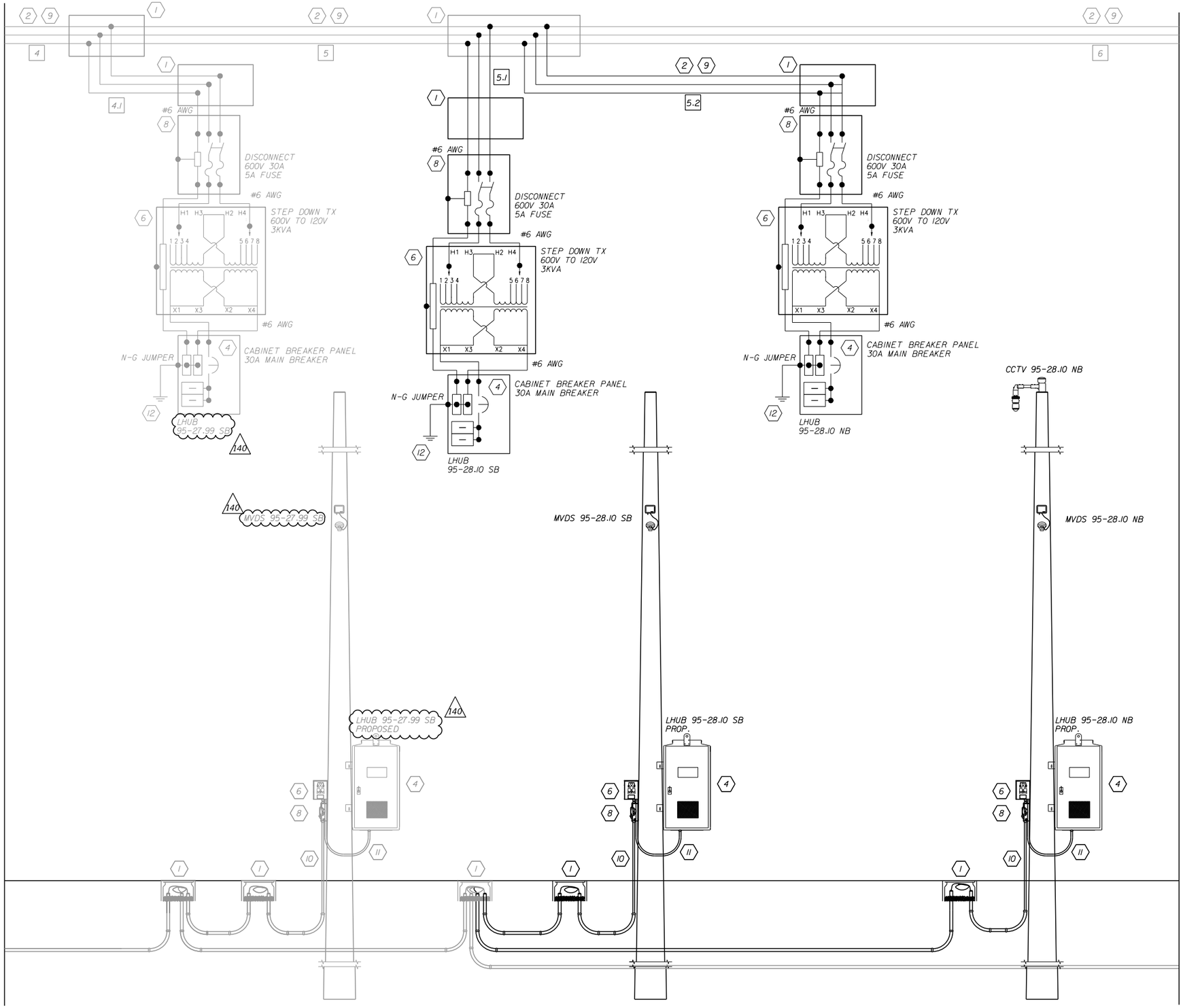
- 12X EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
- 13 PROPOSED METER CAN
- 13X EXISTING METER CAN
- 14 PROPOSED DMS SIGN
- 14X EXISTING DMS SIGN
- 15 PROPOSED HUB BREAKER PANEL
- X CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 7.5

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 MSE 4 ADJUSTMENT		

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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO.
IT-239

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:(FDOT) VS Date: 6/21/2021
FPID:433108-4-52-01 and 433108-4-52-01 CONTRACT E4R96

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KEYED NOTES:

- 1 PULL BOX
- 1X EXISTING PULL BOX
- 2 PROPOSED SERVICE WIRE
- 2X EXISTING SERVICE WIRE
- 3 PROPOSED GENERATOR
- 3X EXISTING GENERATOR
- 4 PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
- 4X EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
- 5 PROPOSED NEMA ENCLOSURE
- 5X EXISTING NEMA ENCLOSURE
- 6 PROPOSED TRANSFORMER
- 6X EXISTING TRANSFORMER
- 7 PROPOSED AUTOMATIC TRANSFER SWITCH
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- 8 PROPOSED FUSED DISCONNECT
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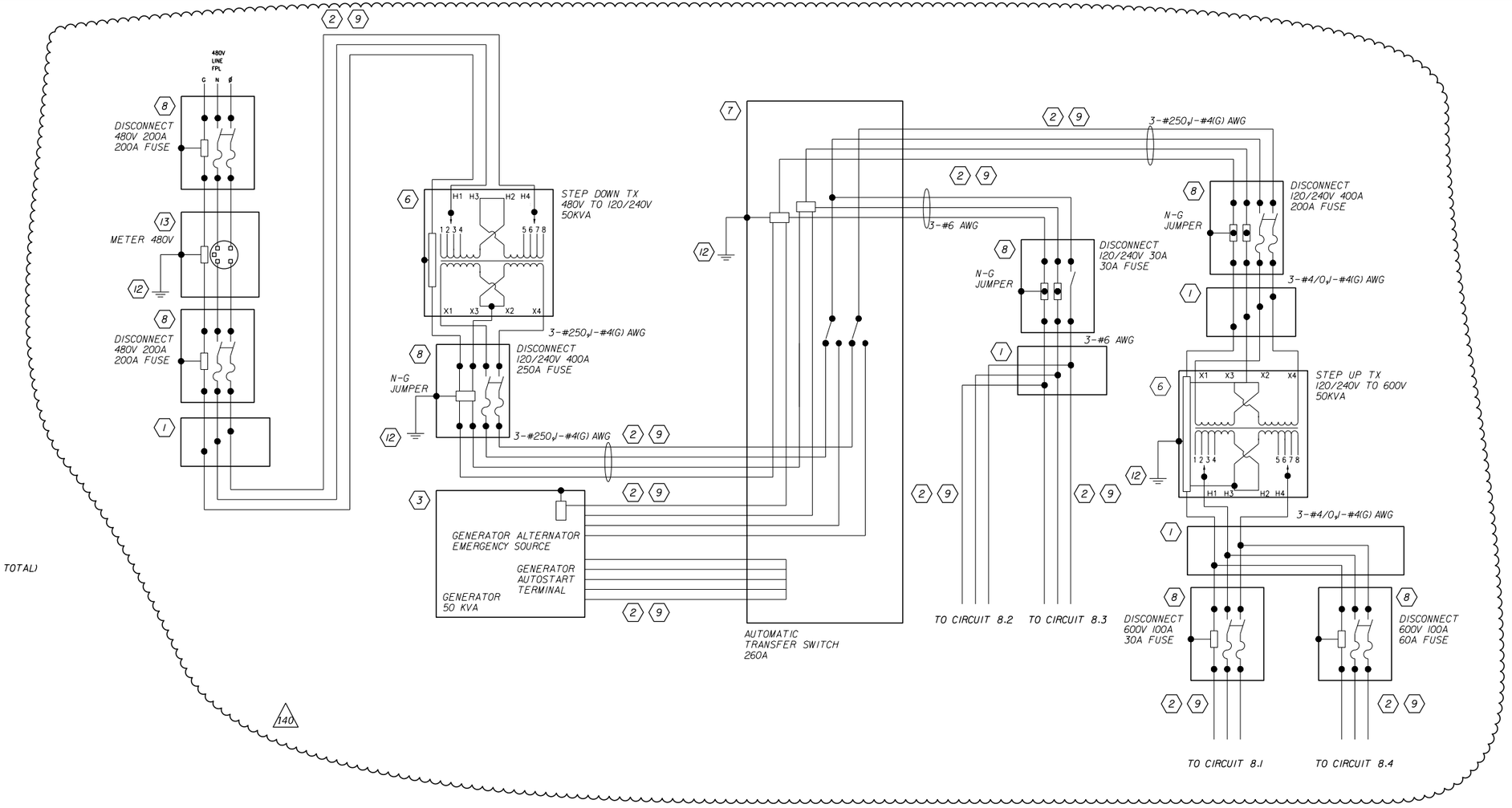
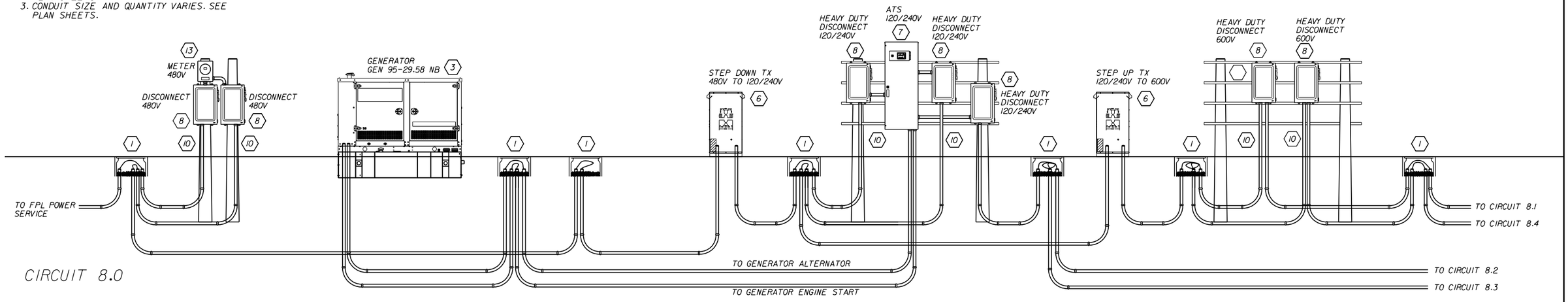
- 15 PROPOSED HUB BREAKER PANEL
- X CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.





CIRCUIT 8.0

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 WIRE SIZE CLARIFICATION AND N-G JUMPER		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-242

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:(FDOT) VS Date: 6/21/2021
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
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4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
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5X. EXISTING NEMA ENCLOSURE
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7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
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8X. EXISTING FUSED DISCONNECT
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12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FOOT TOTAL) SEE SPECIFICATIONS FOR GROUNDING REQUIREMENTS
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
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14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
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NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
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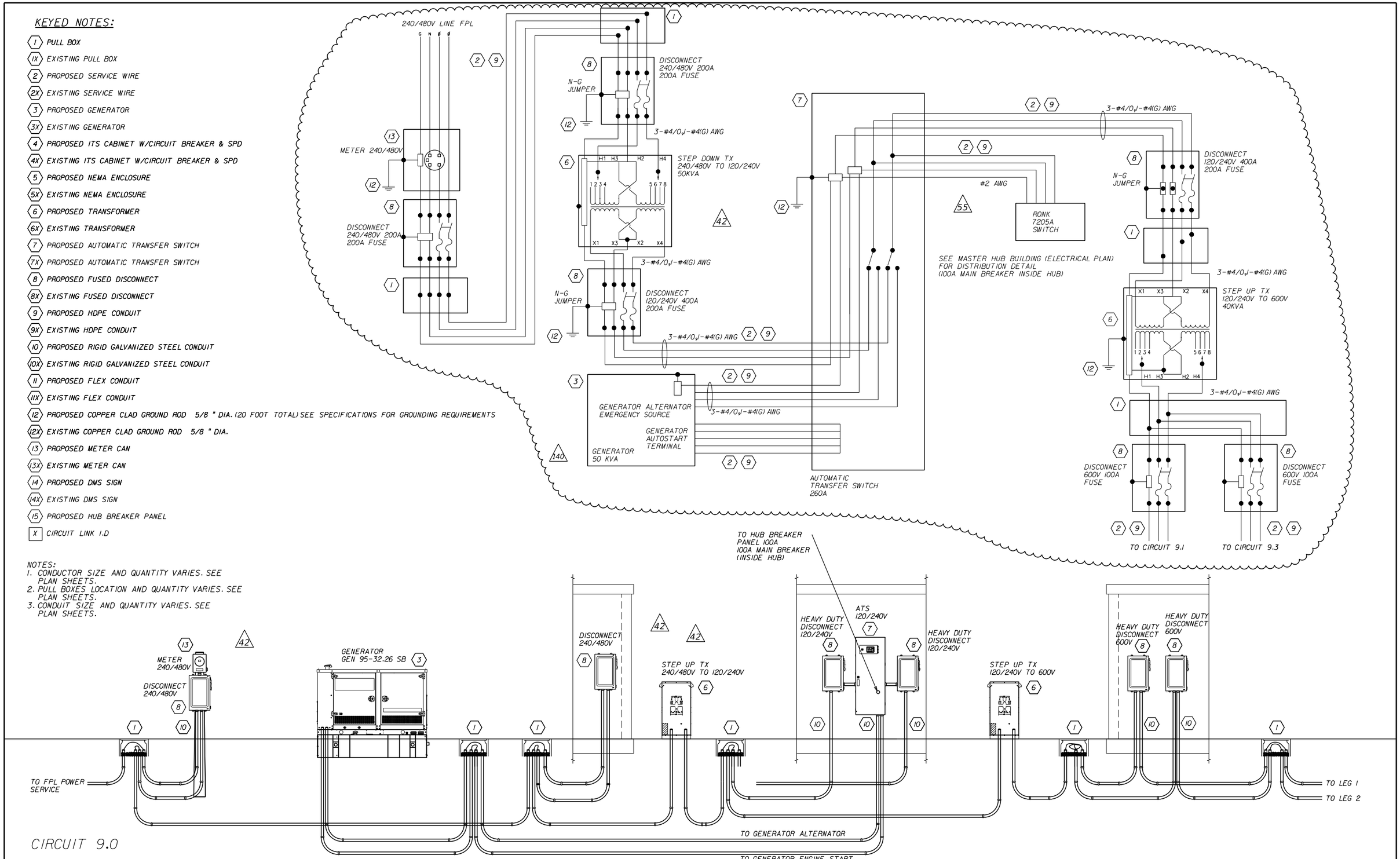

CIRCUIT 9.0

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	42 UPDATED FPL VOLTAGE.	04/13/21	140 WIRE SIZE CLARIFICATION AND N-G JUMPER
11/5/18	55 UPDATED NEUTRAL AT STEP UP XFMR		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-258

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 6/21/2021

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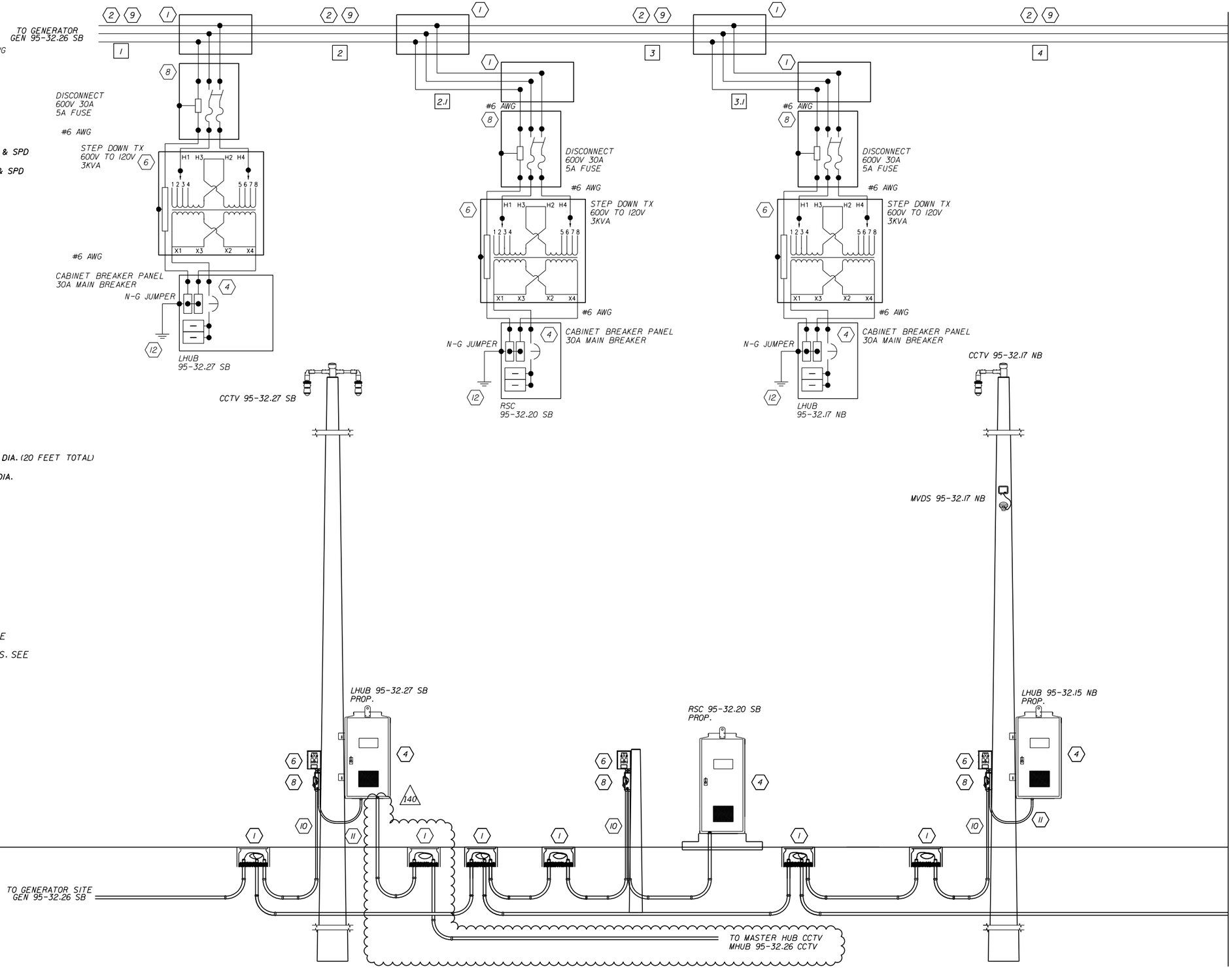
KEYED NOTES:

1. PULL BOX
1X. EXISTING PULL BOX
2. PROPOSED SERVICE WIRE
2X. EXISTING SERVICE WIRE
3. PROPOSED GENERATOR
3X. EXISTING GENERATOR
4. PROPOSED ITS CABINET W/CIRCUIT BREAKER & SPD
4X. EXISTING ITS CABINET W/CIRCUIT BREAKER & SPD
5. PROPOSED NEMA ENCLOSURE
5X. EXISTING NEMA ENCLOSURE
6. PROPOSED TRANSFORMER
6X. EXISTING TRANSFORMER
7. PROPOSED AUTOMATIC TRANSFER SWITCH
7X. PROPOSED AUTOMATIC TRANSFER SWITCH
8. PROPOSED FUSED DISCONNECT
8X. EXISTING FUSED DISCONNECT
9. PROPOSED HDPE CONDUIT
9X. EXISTING HDPE CONDUIT
10. PROPOSED RIGID GALVANIZED STEEL CONDUIT
10X. EXISTING RIGID GALVANIZED STEEL CONDUIT
11. PROPOSED FLEX CONDUIT
11X. EXISTING FLEX CONDUIT
12. PROPOSED COPPER CLAD GROUND ROD 5/8 " DIA. (20 FEET TOTAL)
12X. EXISTING COPPER CLAD GROUND ROD 5/8 " DIA.
13. PROPOSED METER CAN
13X. EXISTING METER CAN
14. PROPOSED DMS SIGN
14X. EXISTING DMS SIGN
15. PROPOSED HUB BREAKER PANEL
X. CIRCUIT LINK I.D

NOTES:
1. CONDUCTOR SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.
2. PULL BOXES LOCATION AND QUANTITY VARIES. SEE PLAN SHEETS.
3. CONDUIT SIZE AND QUANTITY VARIES. SEE PLAN SHEETS.



CIRCUIT 9.3

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 RFI 101		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

POWER SERVICE DETAILS

SHEET NO. IT-264

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 6/21/2021

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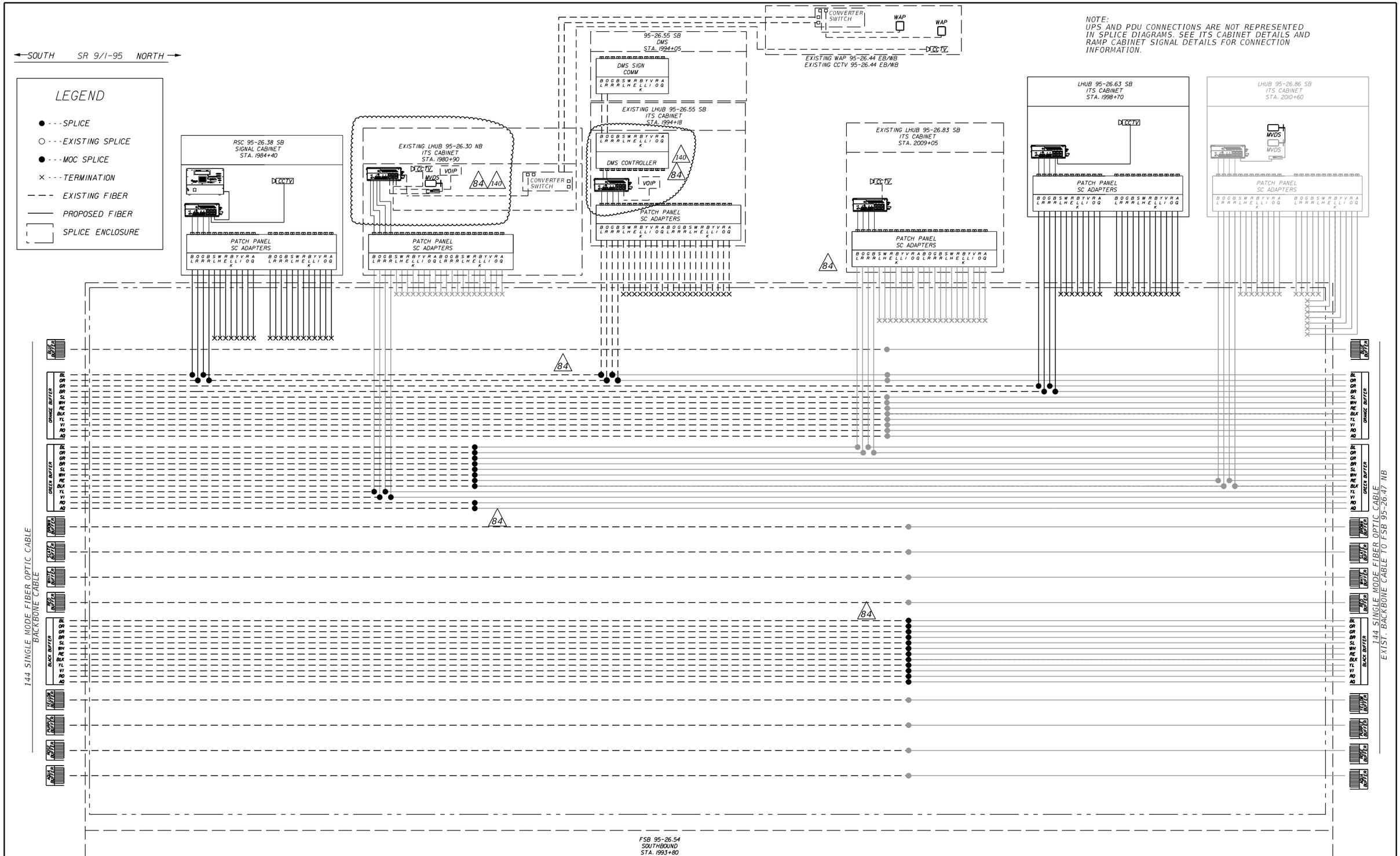

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 UPDATED LAYER 2 SWITCH RFI 86		
04/13/21	140 UPDATED LAYER 2 SWITCH		

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-271

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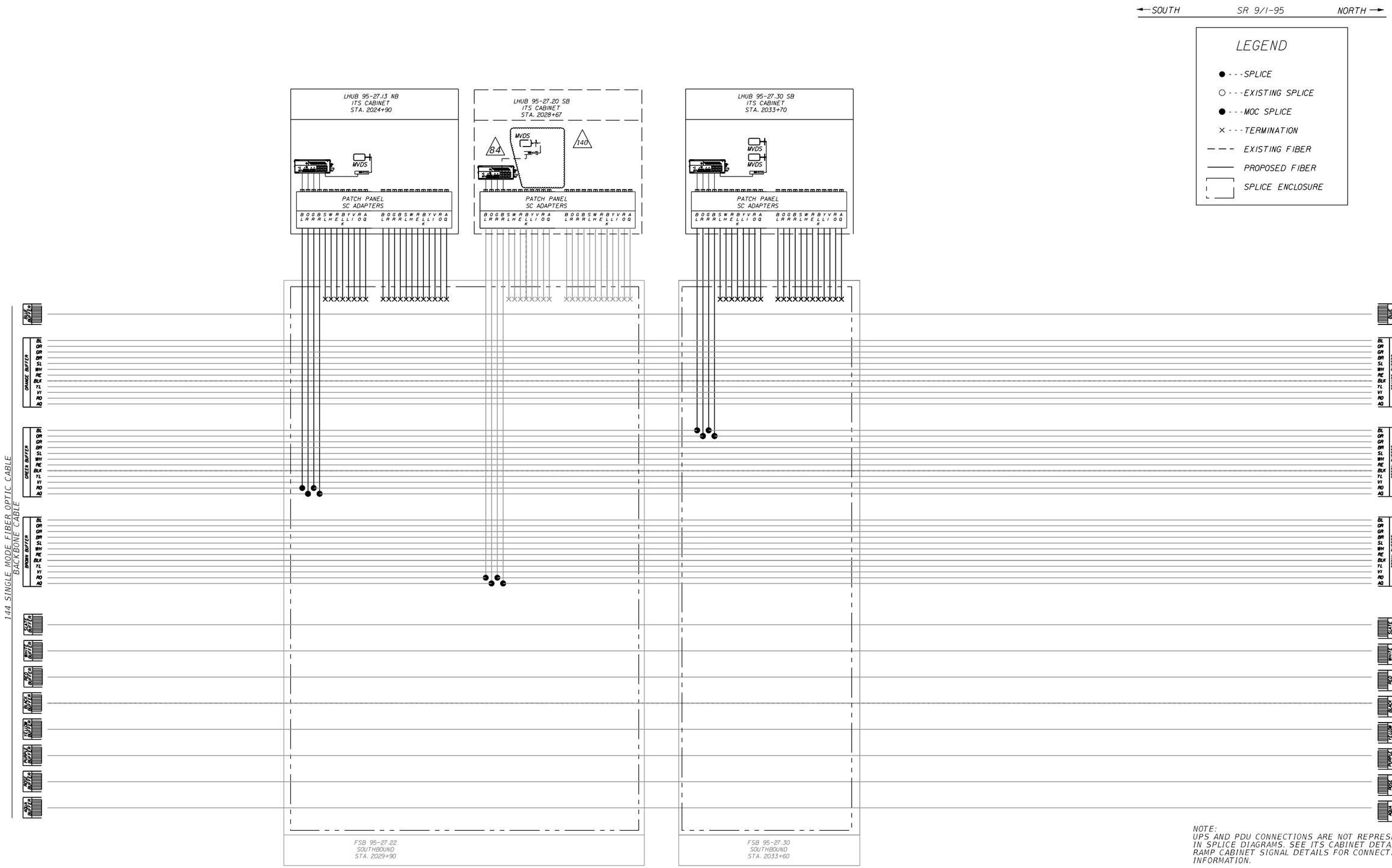
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	UPDATED LAYER 2 SWITCH RFI 86 (84)		
04/13/21	(140) RFI 123		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-275

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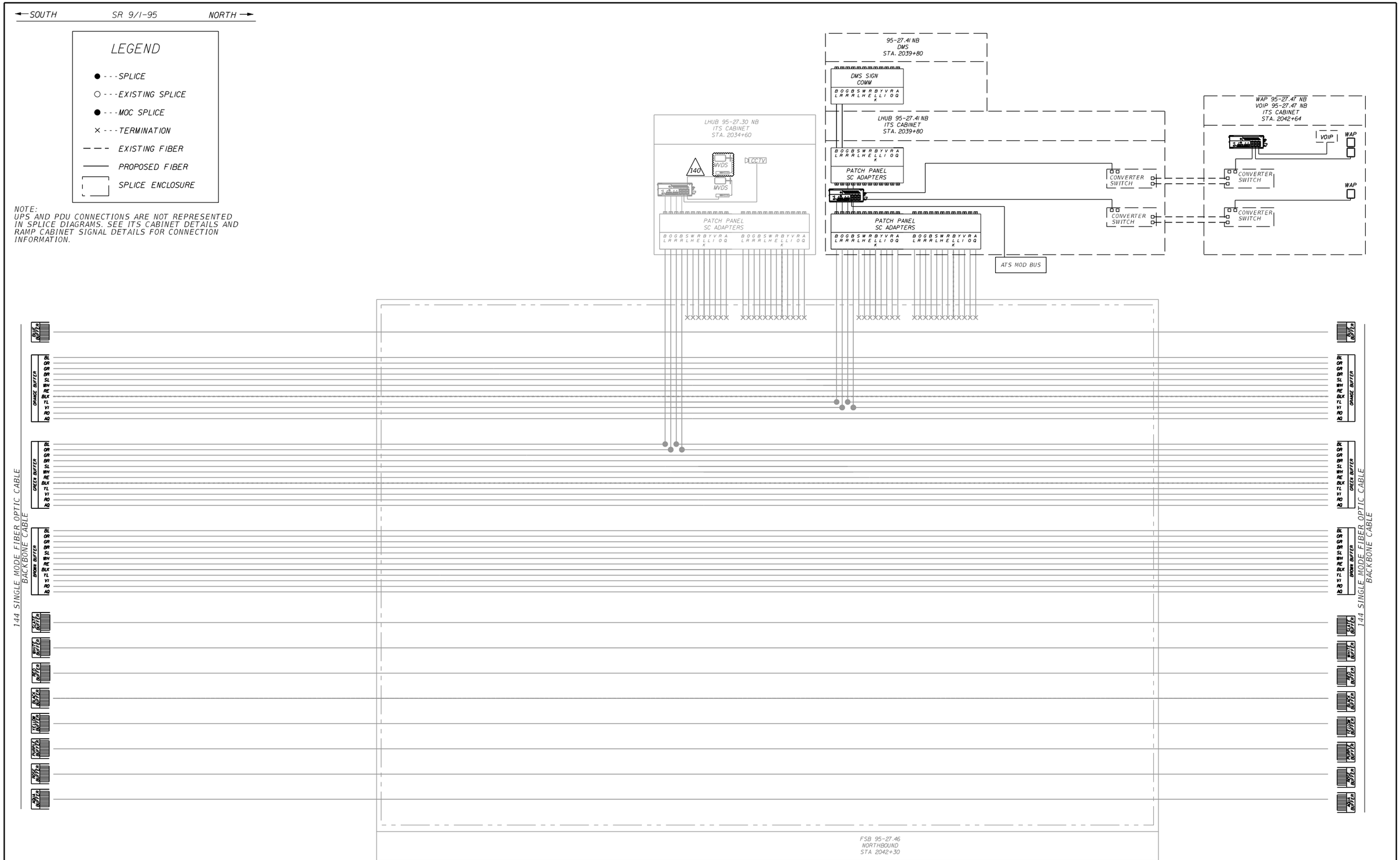
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 RFI 123		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-277

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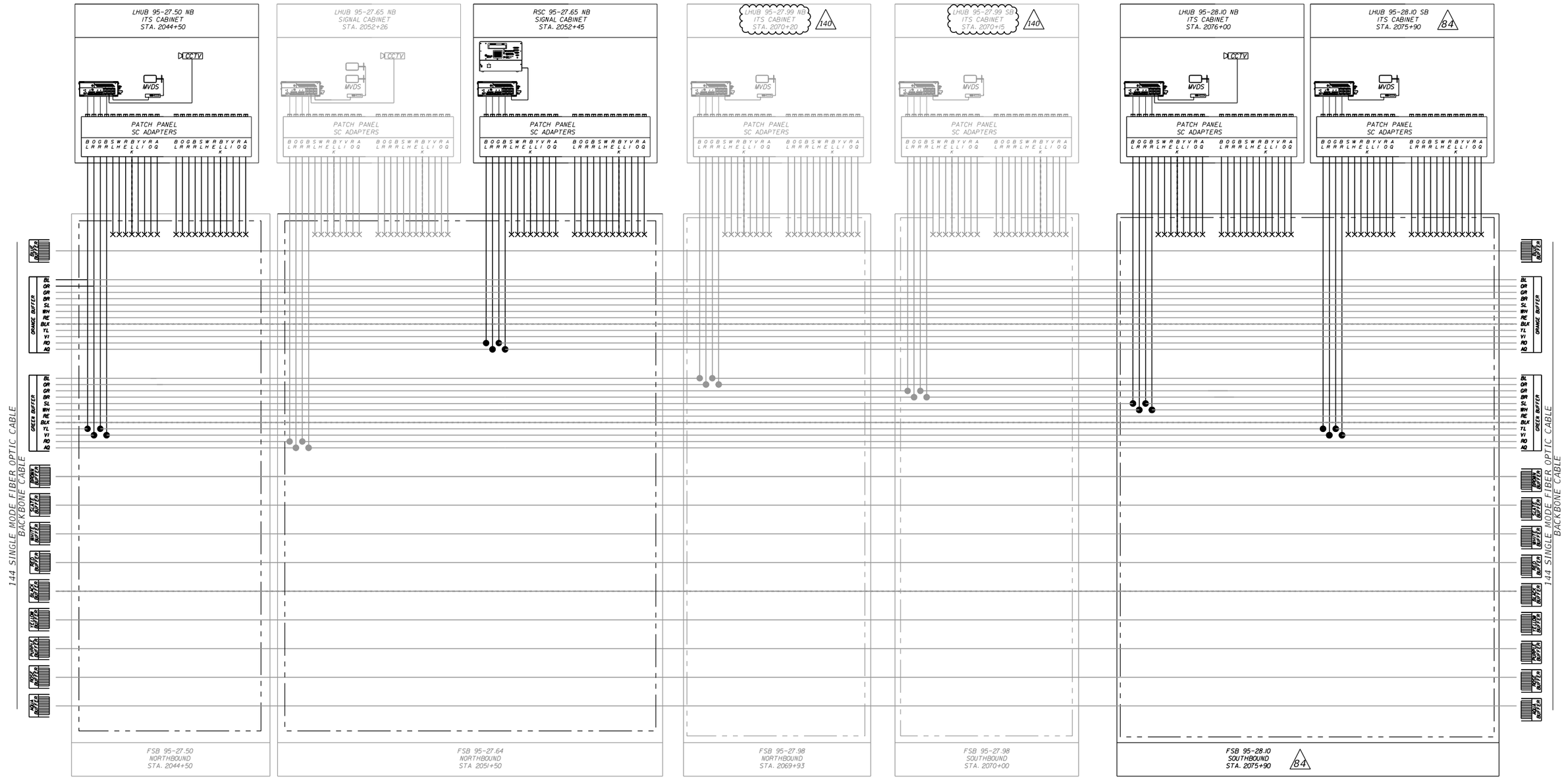
BY:(FDOT) VS Date: 6/21/2021
FPID:433108-4-52-01 and 433108-4-52-01 CONTRACT E4R96

SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		
04/13/21	140 MSE 4 ADJUSTMENT, RFI 137		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-279

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BY:(PDOT) VS D#: 6/21/2021

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PID 433108-4-52-01 and 433984-4-52-01 CONTRACT E4K56

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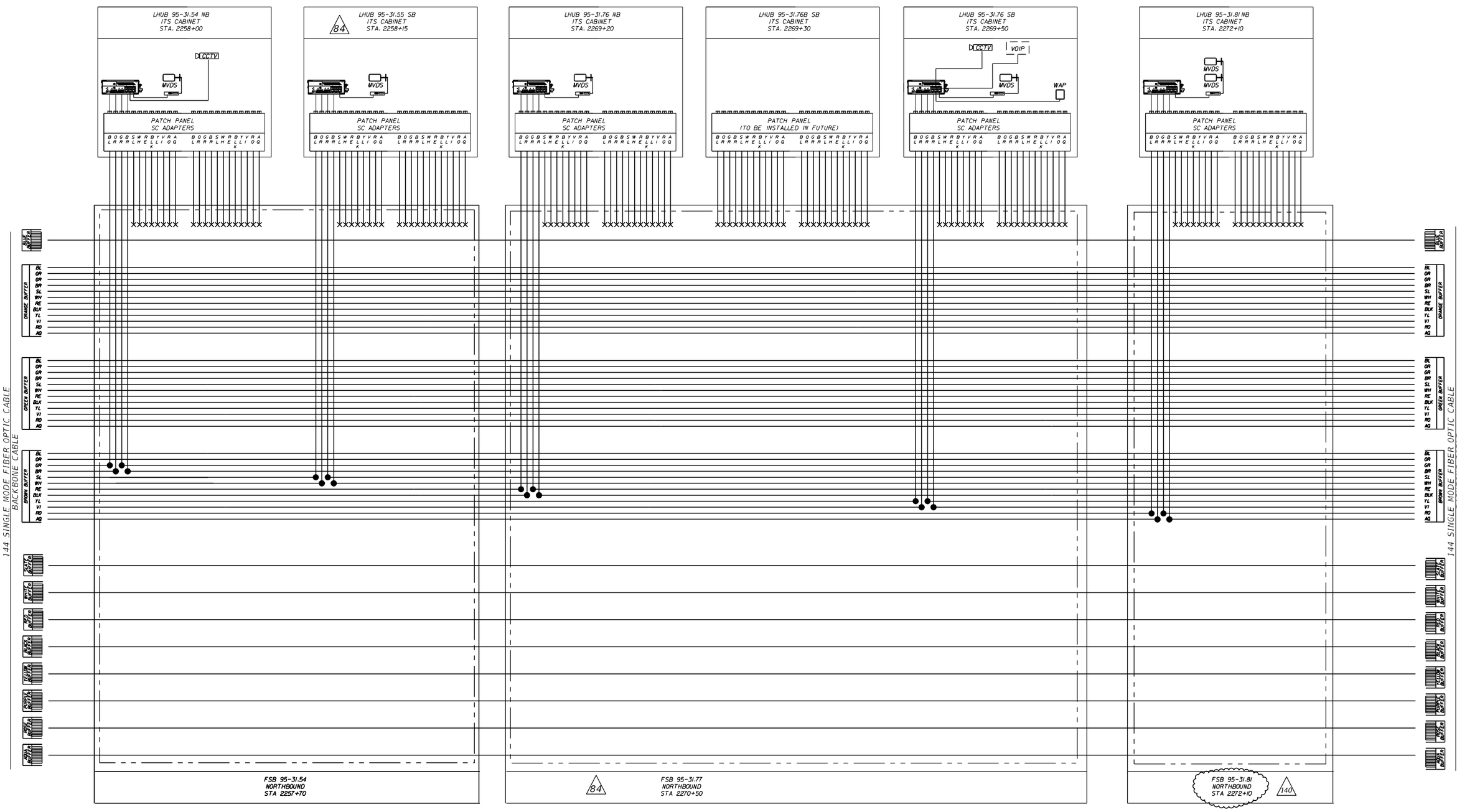
←SOUTH SR 9/I-95 NORTH →

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- ▭ SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT RFI #75		
04/13/21	140 UPDATED CALLOUT		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-288

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BY:(FDOT) VS D#: 6/21/2021

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PID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4K56

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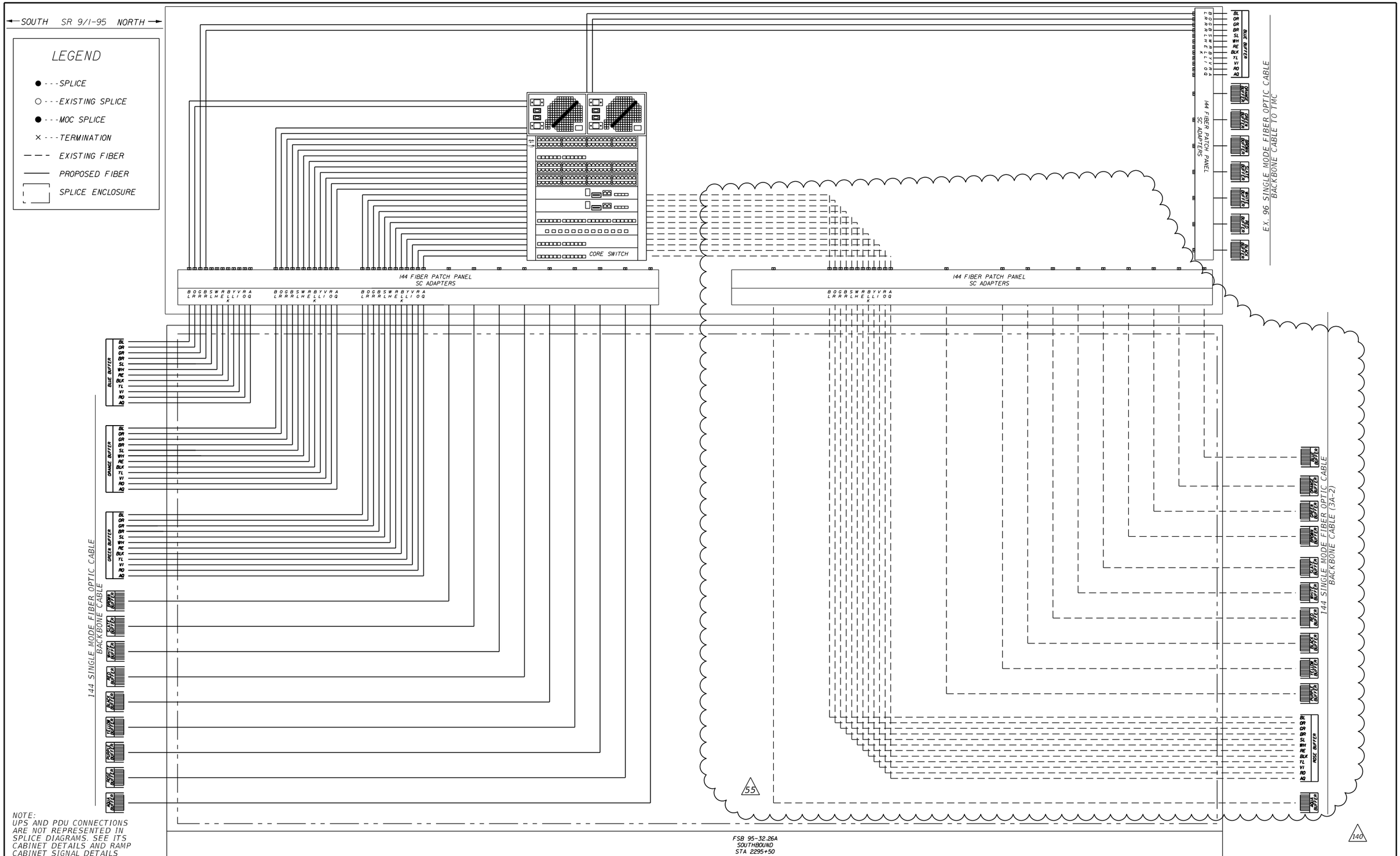

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

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PPID:433108-4-52-01 and 433108-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 6/21/2021

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 3A-1 BACKBONE NORTH OF MASTER HUB REMOVED		
04/13/21	140 UPDATED 3A-2 CABLE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

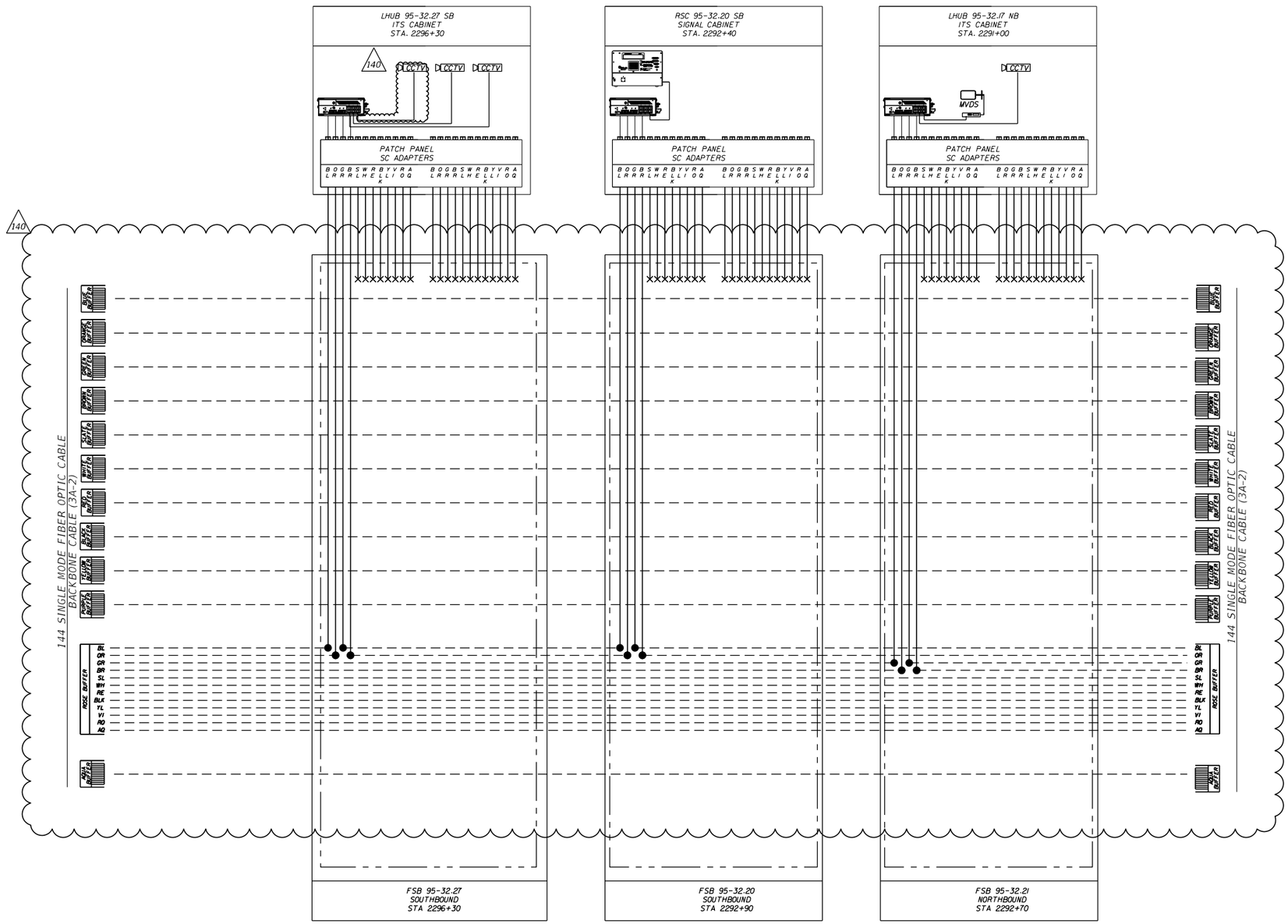
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-290

jknight 4/14/2021 8:57:58 PM C:\Work_Projects\62442.00\ITS\SPDTIT01.dgn

SOUTH — SR 9/I-95 — NORTH



LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

55

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 SPLICES MOVED TO 3A-2 BACKBONE		
04/13/21	140 UPDATED 3A-2 CABLE, RFI 101		

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO. IT-291

BY:(PDOT) VS DATE: 6/21/2021
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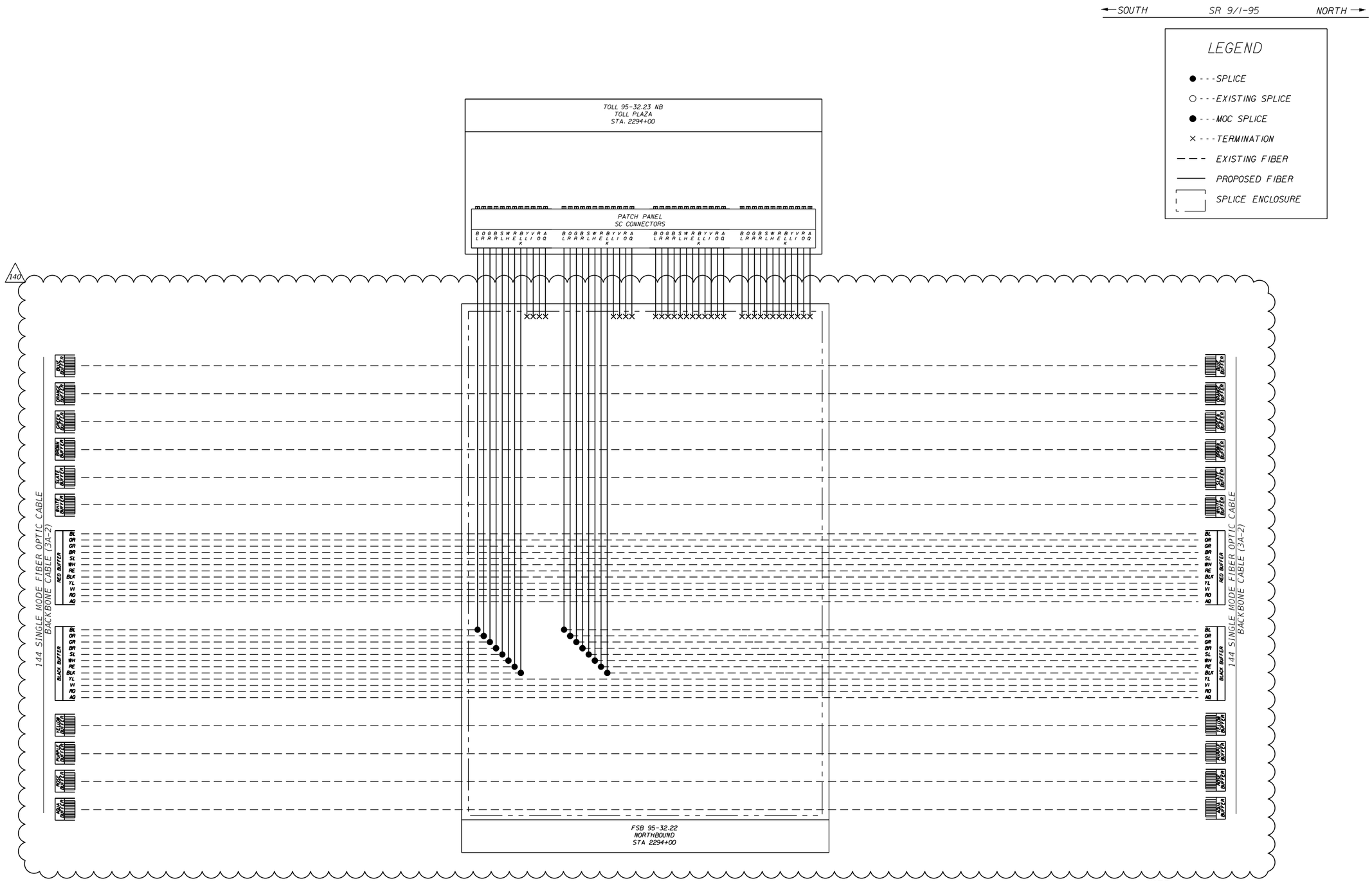
PID 433108-4-52-01 and 433934-4-52-01 CONTRACT E4K48
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

55

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 SPLICES MOVED TO 3A-2 BACKBONE		
04/13/21	140 UPDATED 3A-2 CABLE		

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-292

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
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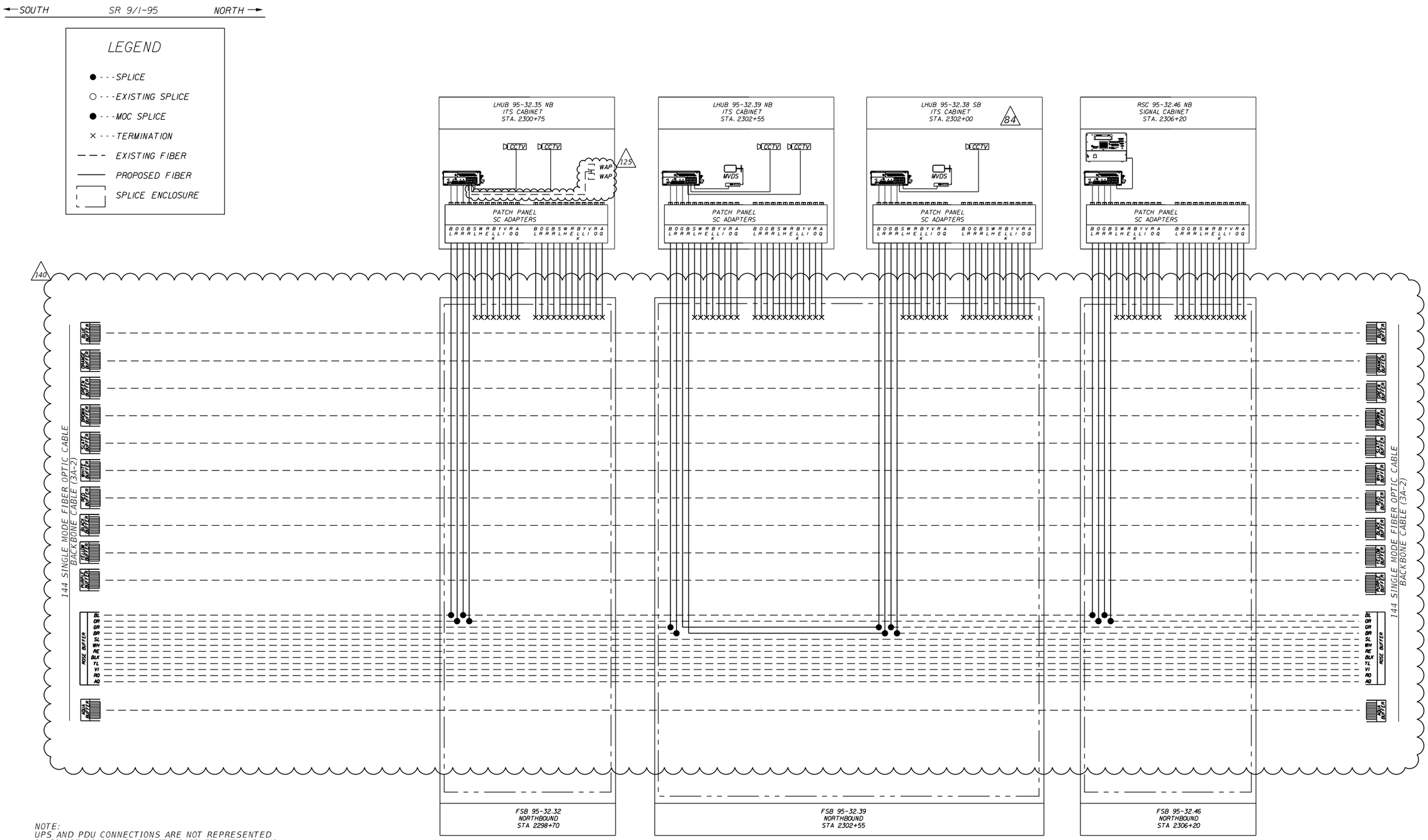
FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 SPLICES MOVED TO 3A-2 BACKBONE	04/13/21	140 UPDATED 3A-2 CABLE
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT RFI #75		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-293

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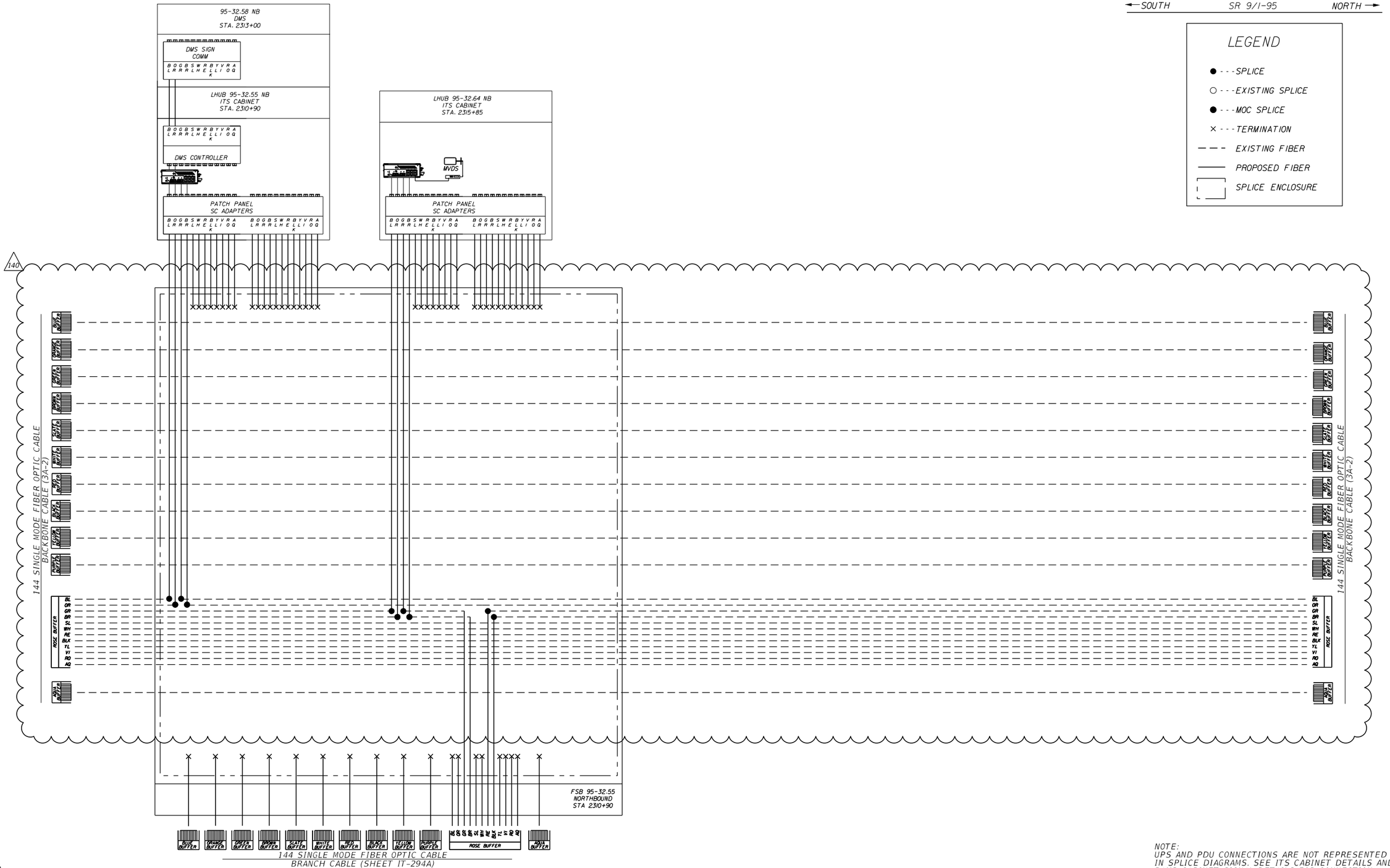
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 6/21/2021



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 SPLICES MOVED TO 3A-2 BACKBONE		
04/13/21	140 UPDATED 3A-2 CABLE		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-294

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FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

SOUTH ← SR 9/I-95 → NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- SPLICE ENCLOSURE

36 SINGLE MODE FIBER OPTIC CABLE
OIT 36

96 SINGLE MODE FIBER OPTIC CABLE
9002/9003 CABLE

12 SINGLE MODE FIBER OPTIC CABLE
1111 CABLE

144 SINGLE MODE FIBER OPTIC CABLE
AMS/BCTED CABLE

144 SINGLE MODE FIBER OPTIC CABLE
AMS/BCTED CABLE

72 SINGLE MODE FIBER OPTIC CABLE
ETS CABLE

12 SINGLE MODE FIBER OPTIC CABLE
4003 CABLE

140 FSB 95-27.46
SOUTHBOUND
STA 2042+20

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 RFI 118		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BROWARD
SPLICING DIAGRAM

SHEET NO. IT-301

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BY:(PDOT) VS D#: 6/21/2021

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Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4K56

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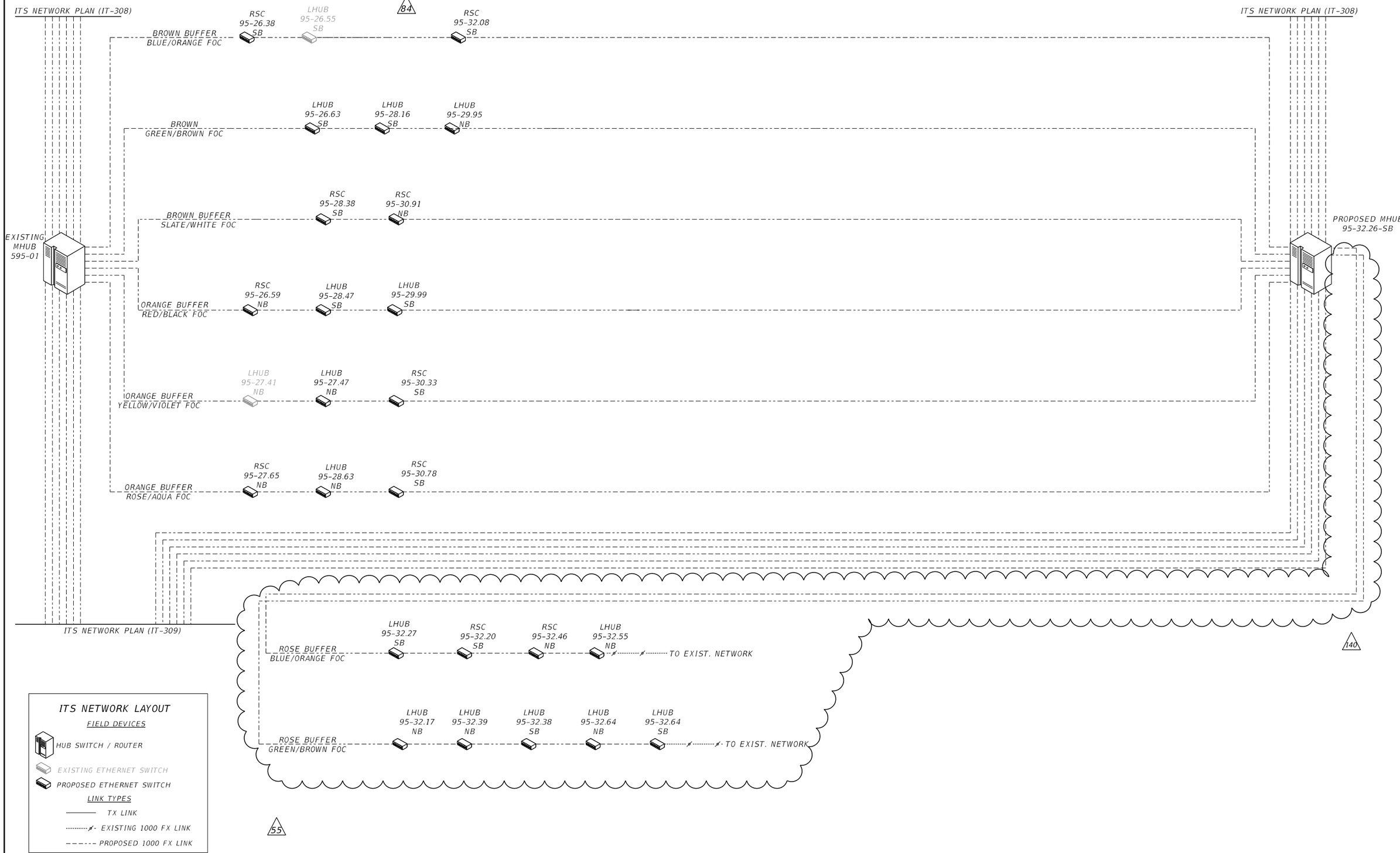

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BY:(FDOT) VS Date: 6/21/2021
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R36

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 LHUBS REMOVED FROM 3A-1 NETWORK DIAGRAM	04/13/21	140 INSERTED LHUBS
3/9/20	MSE 5, 8, 18 ADJUSTMENT UPDATE LAYER 2 SWITCH RFI#86 84		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

NETWORK SCHEMATIC

SHEET NO.
IT-307

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT RFI #86		
04/13/21	140 MSE 4 ADJUSTMENT, RFI 137		

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

NETWORK SCHEMATIC

SHEET NO.
IT-309

jknight 4/14/2021 9:08:58 PM C:\Work_Projects\62442.00\ITS\SPDTIT03.DGN

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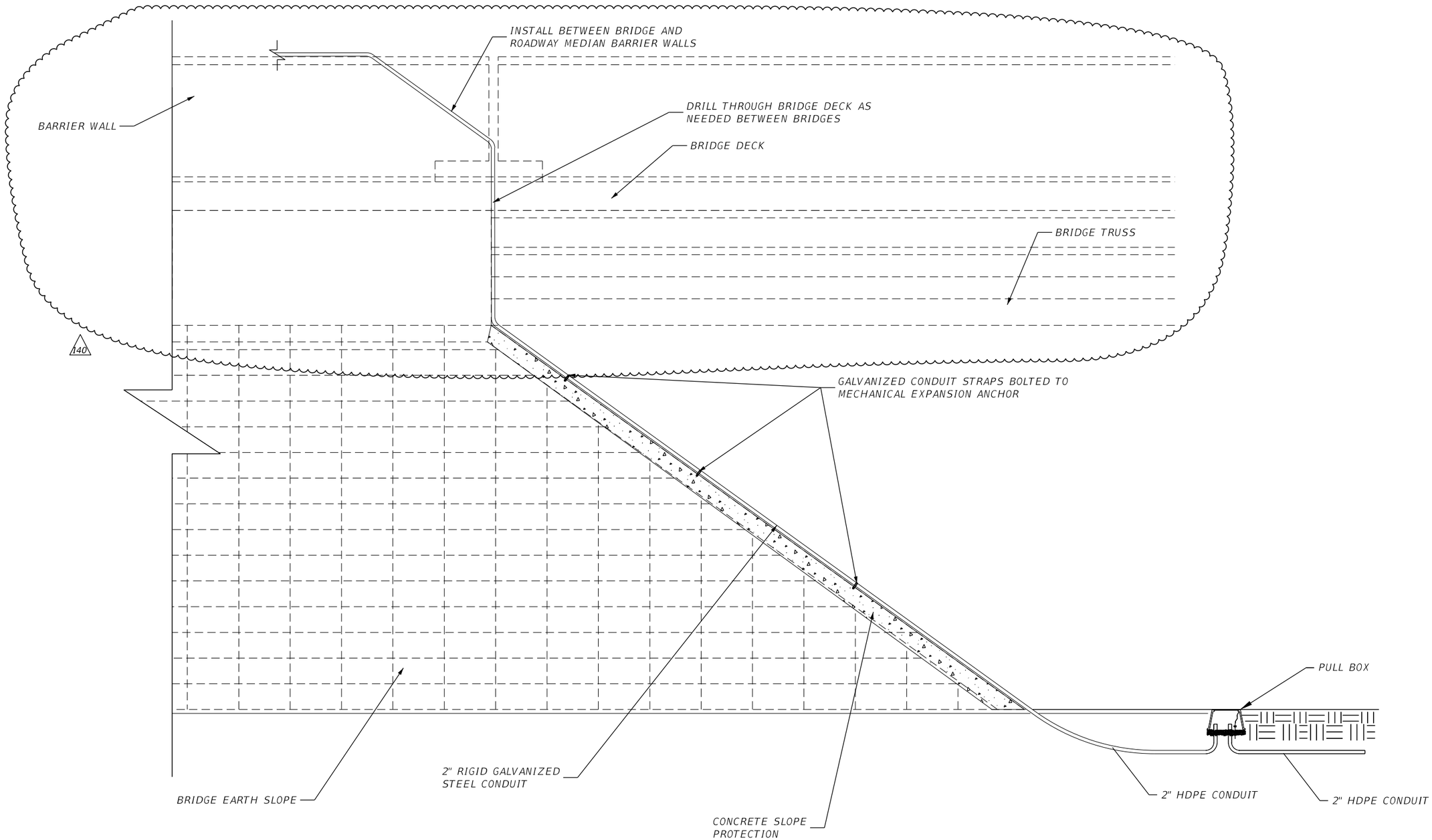
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96



CONCRETE SLOPE MOUNTED CONDUIT

N.T.S.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 RFI 62		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

CONCRETE SLOPE UNDERBRIDGE DETAIL

SHEET NO. IT-322

BY:[FDOT] VS DATE: 6/21/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433994-4-52-01 CONTRACT E4K56
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ITS CABINET DETAIL FOR SITES:

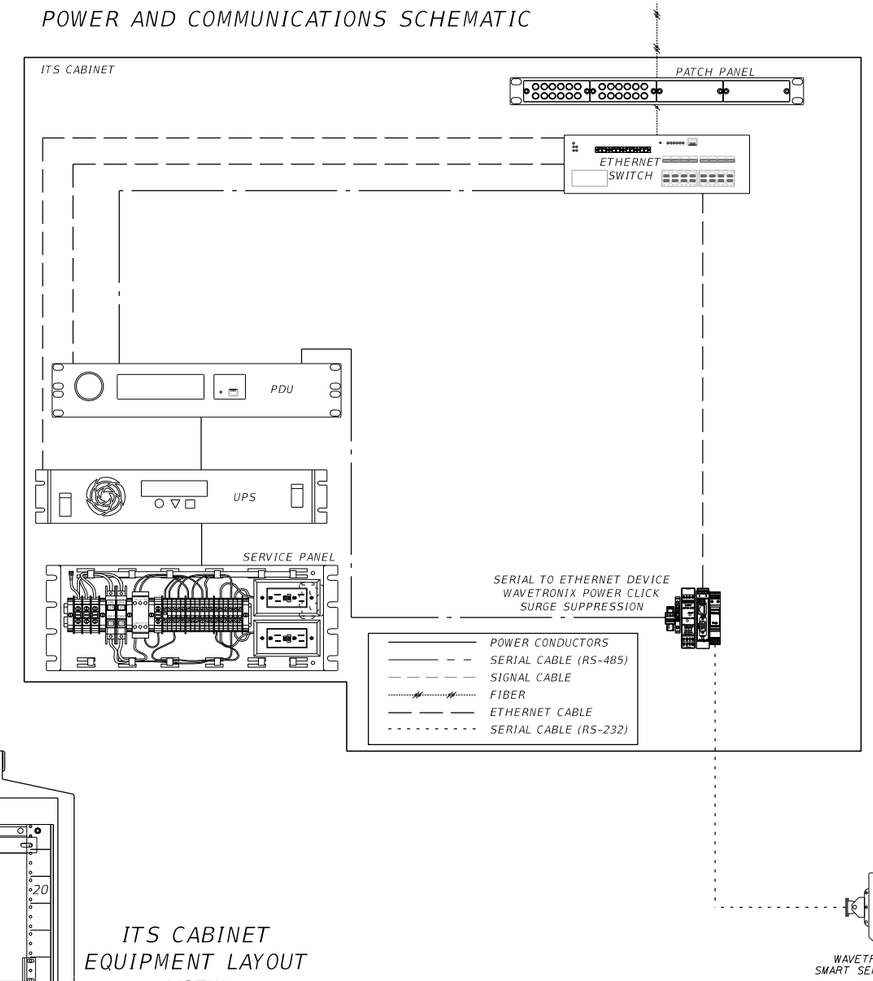
LHUB 95-27.99 SB
*LHUB 95-27.99 NB
LHUB 95-28.10 SB
LHUB 95-29.10 NB
LHUB 95-29.33 NB
LHUB 95-31.08 NB
LHUB 95-31.28 SB
LHUB 95-31.28 NB
LHUB 95-31.55 SB
LHUB 95-31.76 NB

140

84

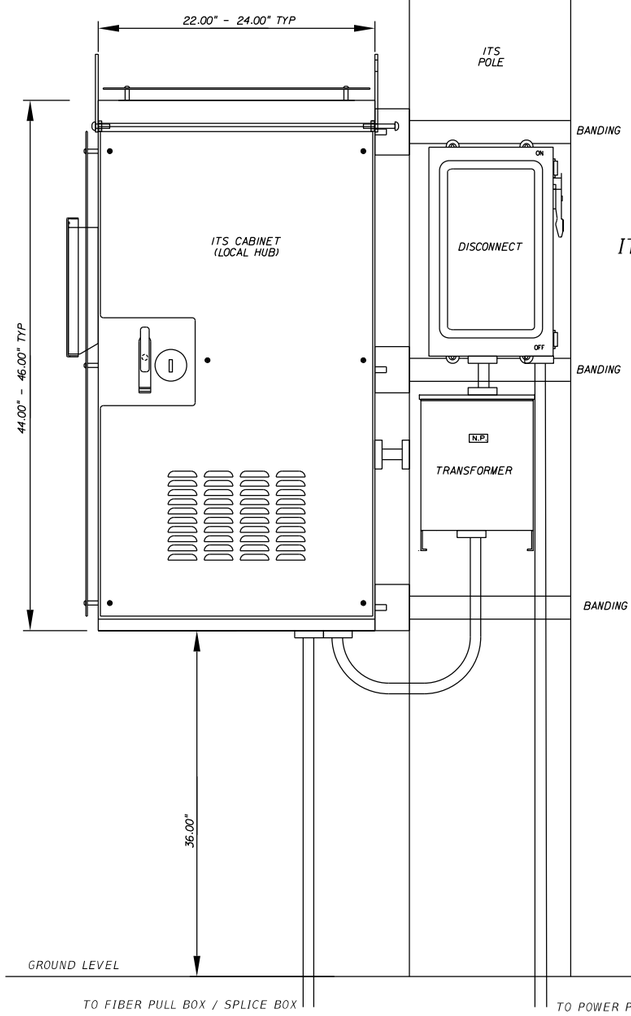
LHUB 95-27.13 NB
LHUB 95-28.31 NB
LHUB 95-28.56 NB
LHUB 95-28.82 NB
LHUB 95-28.85 SB
LHUB 95-30.83 SB
LHUB 95-32.64 NB

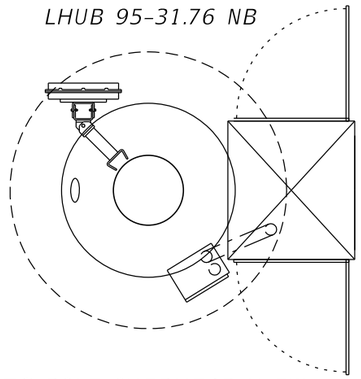
POWER AND COMMUNICATIONS SCHEMATIC



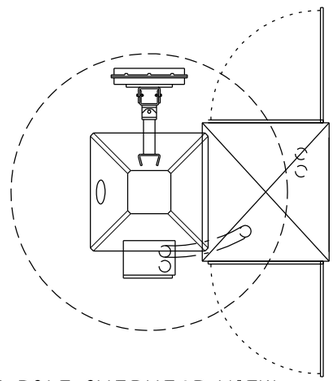
* GROUND MOUNTED CABINET

ITS CABINET RISER VIEW

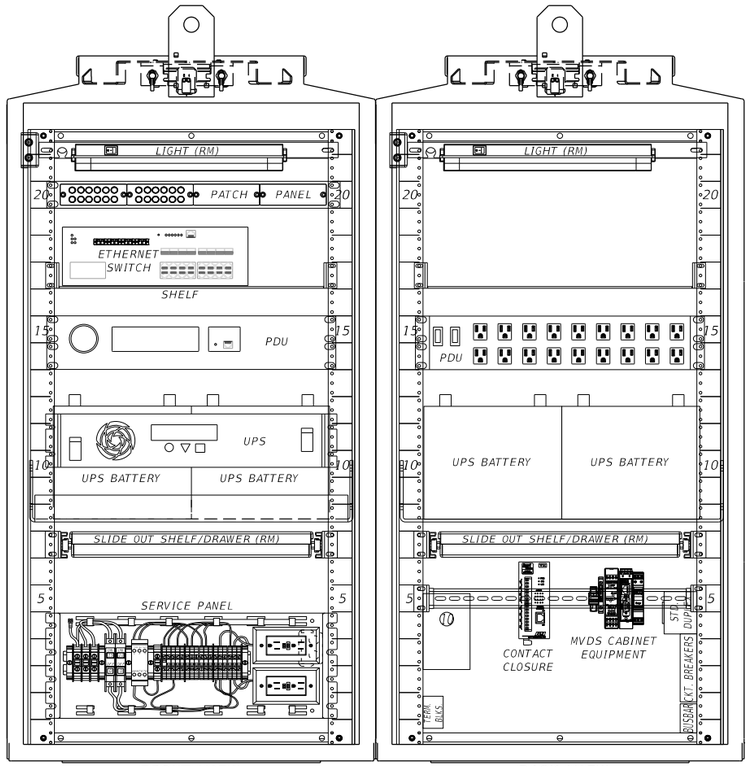




ITS POLE OVERHEAD VIEW



ITS POLE OVERHEAD VIEW



FRONT VIEW

BACK VIEW

ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. GROUND MOUNTED CABINET SHALL UTILIZE RS-485 FROM MVDS. CABINETS SHALL INCLUDE ADDITIONAL 120 VAC SURGE PROTECTION DEVICE FOR POWER SERVICE WIRE FROM MVDS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		
04/13/21	MSE 4 ADJUSTMENT, RFI 137 140		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 MVDS)

SHEET NO. IT-323

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
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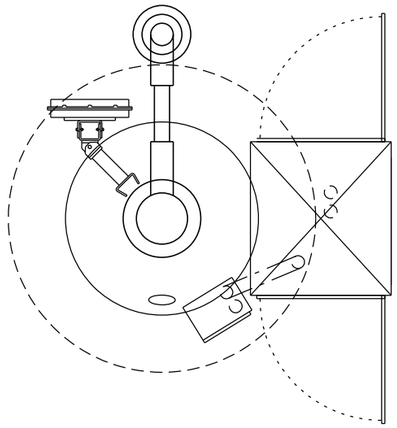
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

ITS CABINET DETAIL FOR SITES:

140

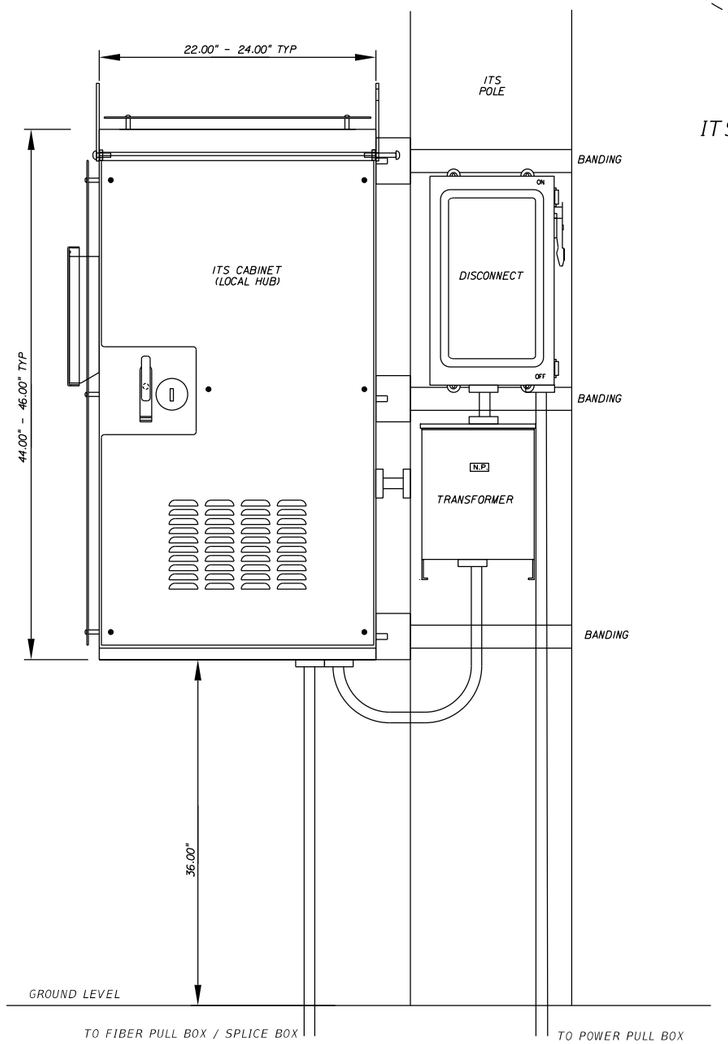
LHUB 95-27.50 NB	LHUB 95-30.08 NB
LHUB 95-27.53 SB	LHUB 95-30.33 NB
LHUB 95-28.10 NB	LHUB 95-31.08 SB
LHUB 95-29.83 SB	LHUB 95-31.54 NB
LHUB 95-29.83 NB	LHUB 95-31.95 SB
*LHUB 95-30.05 SB	LHUB 95-32.17 NB
	LHUB 95-32.14 SB
84	LHUB 95-32.38 SB 55
	LHUB 95-32.64 SB

*GROUND MOUNTED CABINET

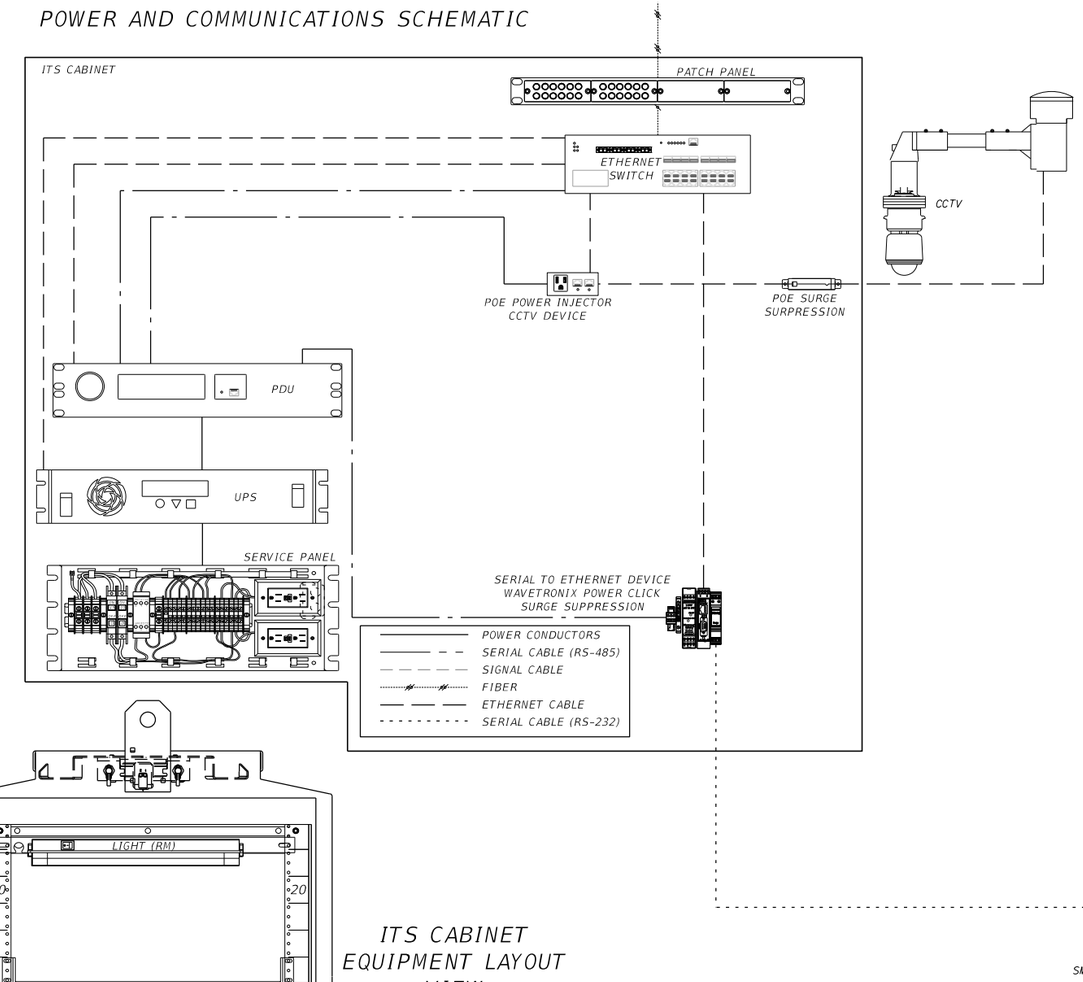


ITS POLE OVERHEAD VIEW

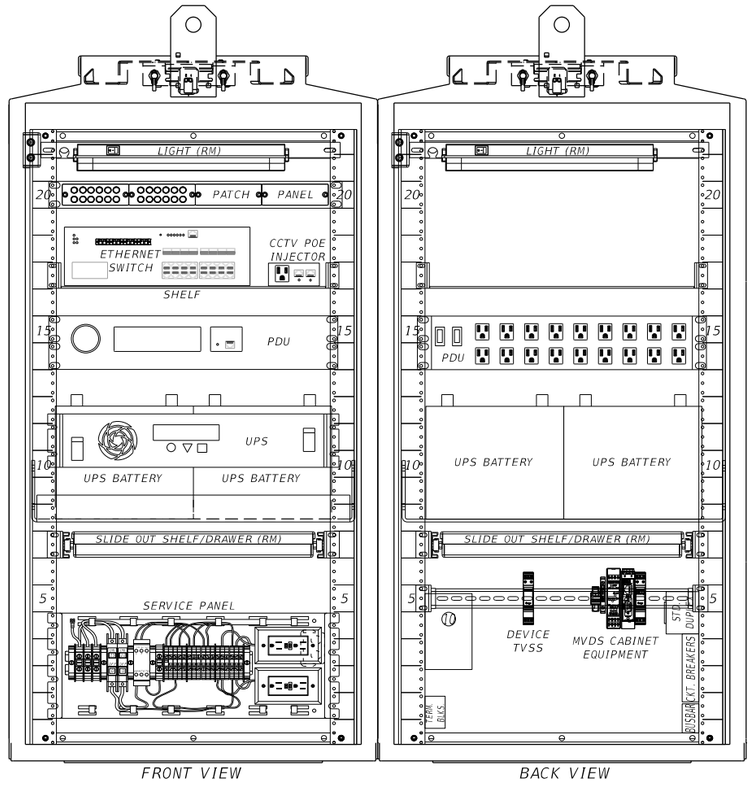
ITS CABINET RISER VIEW



POWER AND COMMUNICATIONS SCHEMATIC



ITS CABINET EQUIPMENT LAYOUT VIEW



FRONT VIEW

BACK VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. GROUND MOUNTED CABINET SHALL UTILIZE RS-485 FROM MVDS. CABINETS SHALL INCLUDE ADDITIONAL 120 VAC SURGE PROTECTION DEVICE FOR POWER SERVICE WIRE FROM MVDS.

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
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FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	DEVICE LOCATION ADJUSTED 55	04/13/21	RFI 123 140
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

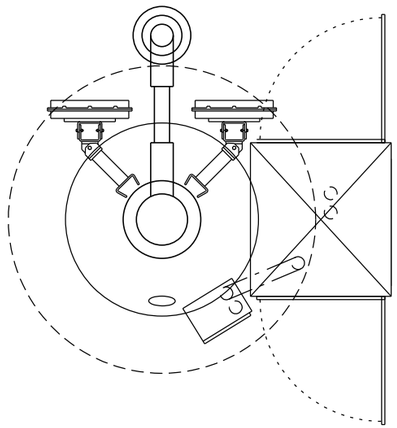
ITS CABINET DETAIL (1 CCTV & 1 MVDS)

SHEET NO. IT-329

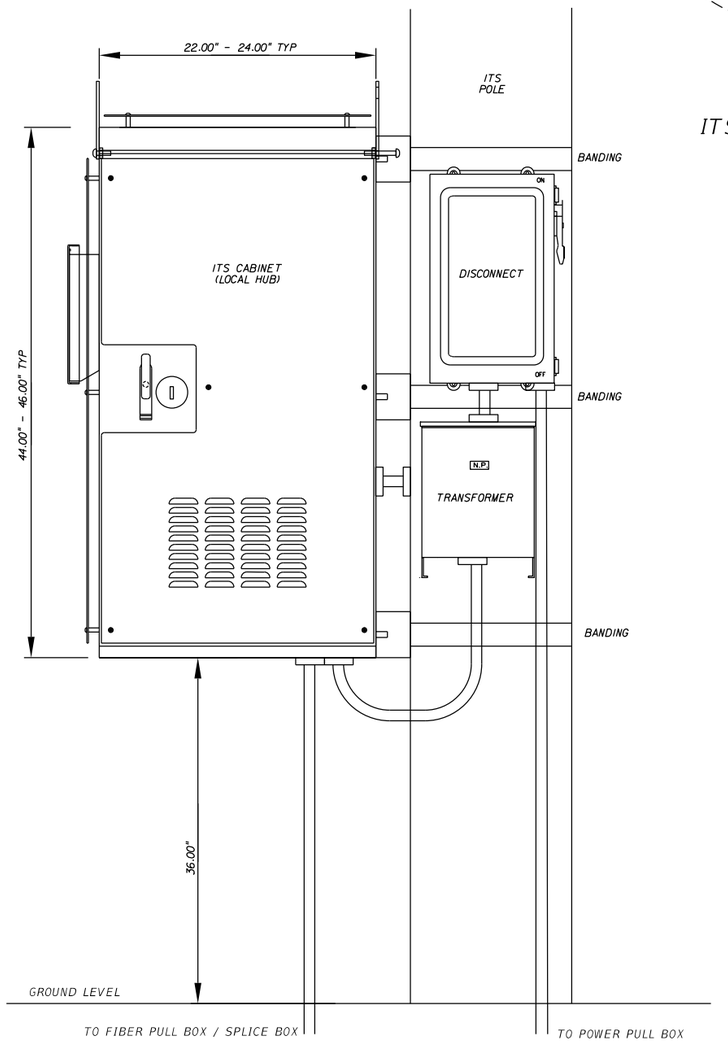
ITS CABINET DETAIL FOR SITES:

LHUB 95-27.30 NB
LHUB 95-27.65 NB
140

*GROUND MOUNTED CABINET

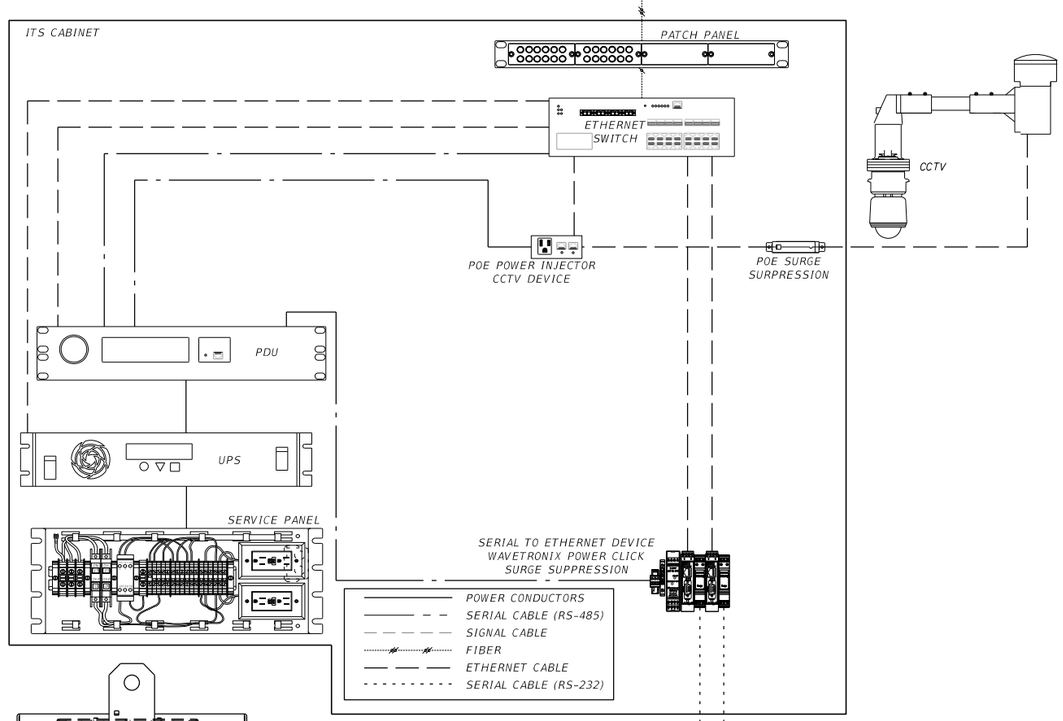


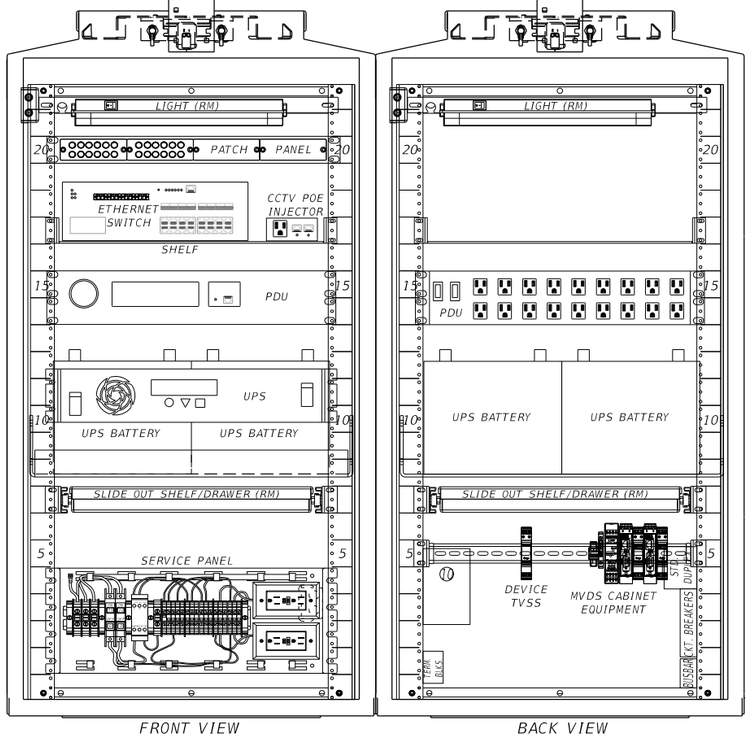
ITS CABINET RISER VIEW



ITS POLE OVERHEAD VIEW

POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.
8. CONTRACTOR SHALL CONNECT NUMBER OF MVDS AS NECESSARY TO COVER ALL LANES AS SHOWN IN PLANS

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	RFI 123 (140)		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL (1 CCTV & 2 MVDS)

SHEET NO. IT-330

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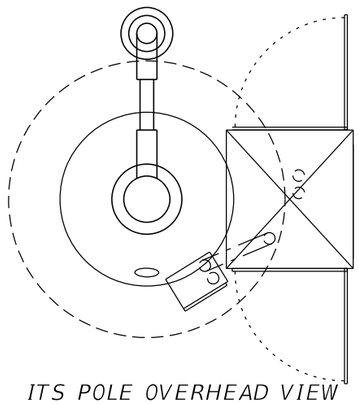
PPID 433108-4-52-01 and 433108-4-52-01 CONTRACT E4K58

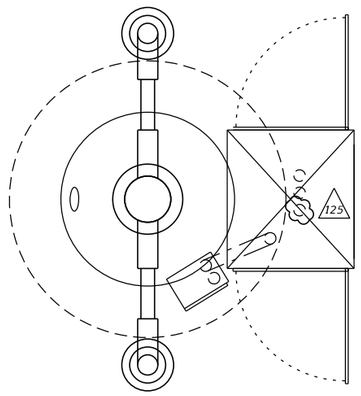
BY: FDOT VS D.#: 6/21/2021

ITS CABINET DETAIL FOR SITES:
LHUB 95-28.63 NB



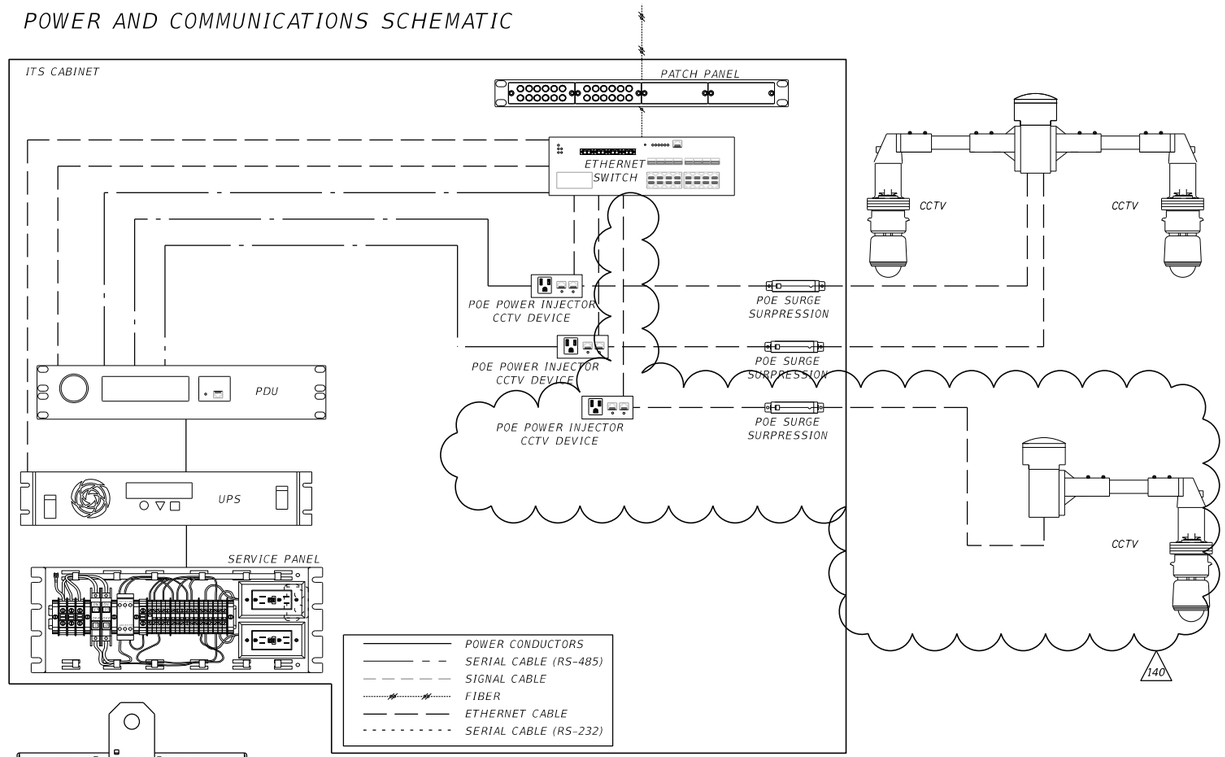
ITS POLE OVERHEAD VIEW

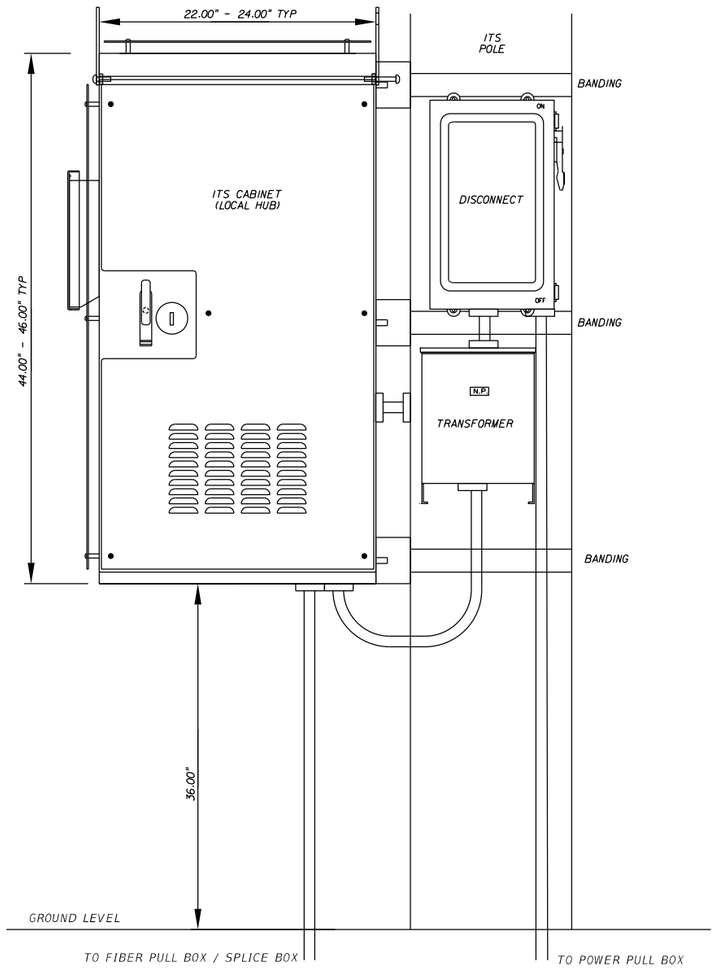
ITS CABINET DETAIL FOR SITES:
LHUB 95-32.27 SB



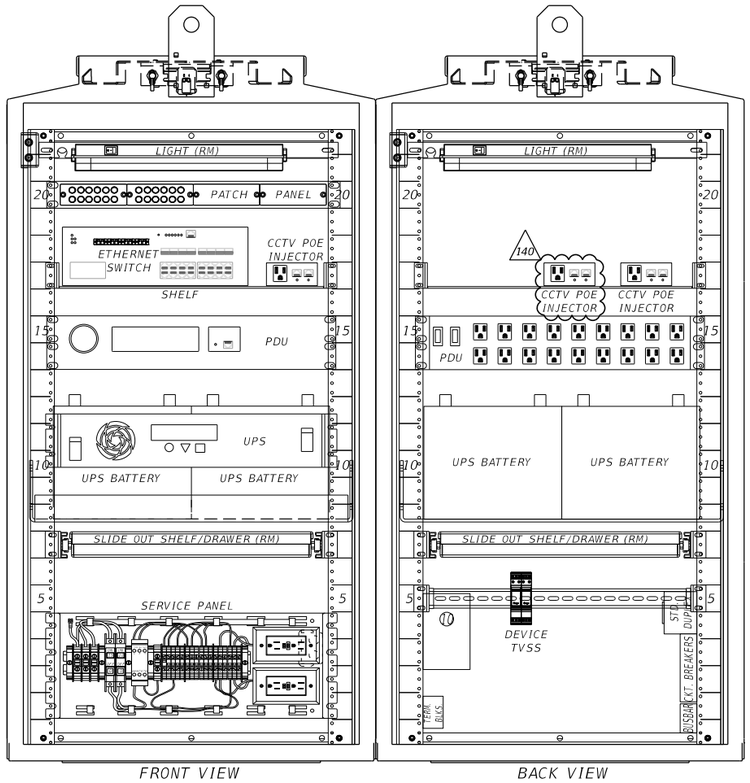
ITS POLE OVERHEAD VIEW

POWER AND COMMUNICATIONS SCHEMATIC





ITS CABINET RISER VIEW



FRONT VIEW

BACK VIEW

ITS CABINET EQUIPMENT LAYOUT VIEW

NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CABINETS SHALL BE TYPE 170 MODEL 336S AND FABRICATED IN ACCORDANCE TO SECTION 676 OF THE FDOT MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES.
3. BUS RATING SHALL BE A MINIMUM OF THE FULL ELECTRICAL LOAD WHEN ALL CABINET AND EXTERNAL DEVICES ARE ACTIVE.
4. 19" DOUBLE DIN RAIL SHALL BE GROUNDED PER AND MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL SUBMIT A CABINET LAYOUT/WIRING DIAGRAM FOR APPROVAL.
6. CABINET SHALL BE INSTALLED ON POLE OPPOSITE DIRECTION OF TRAVEL.
7. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	RFI 101 140		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS CABINET DETAIL
(2 CCTV)

SHEET NO.
IT-336

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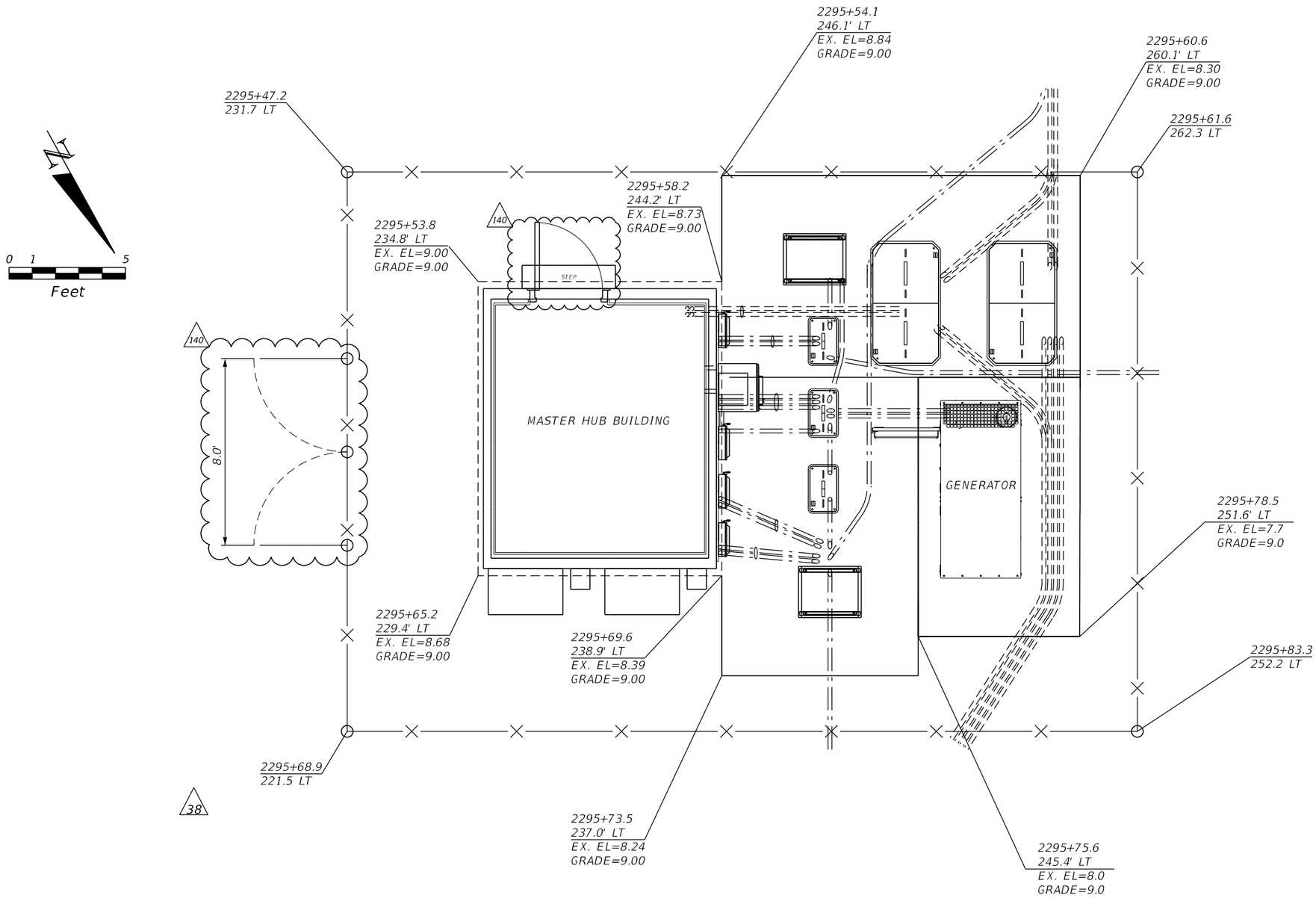
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED SITE LAYOUT AND GRADE PLAN		
04/13/21	140 RFI 135		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

MASTER HUB BUILDING GRADING PLAN

SHEET NO.
IT-376

jknight 4/14/2021 9:08:56 PM C:\Work_Projects\62442.00\ITS\SGDTIT14.DGN

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
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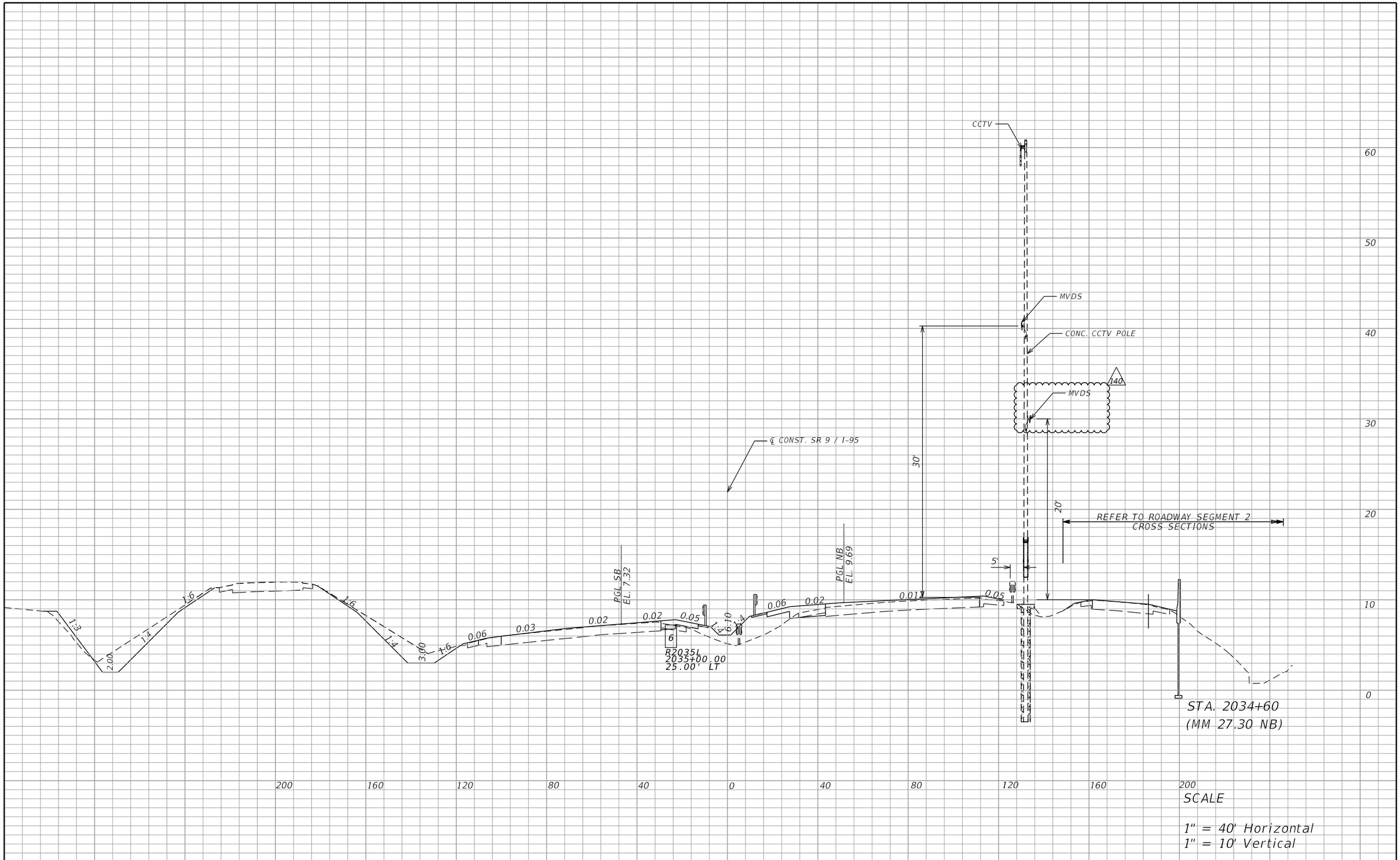
FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4R36



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 RFI 123		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-395

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
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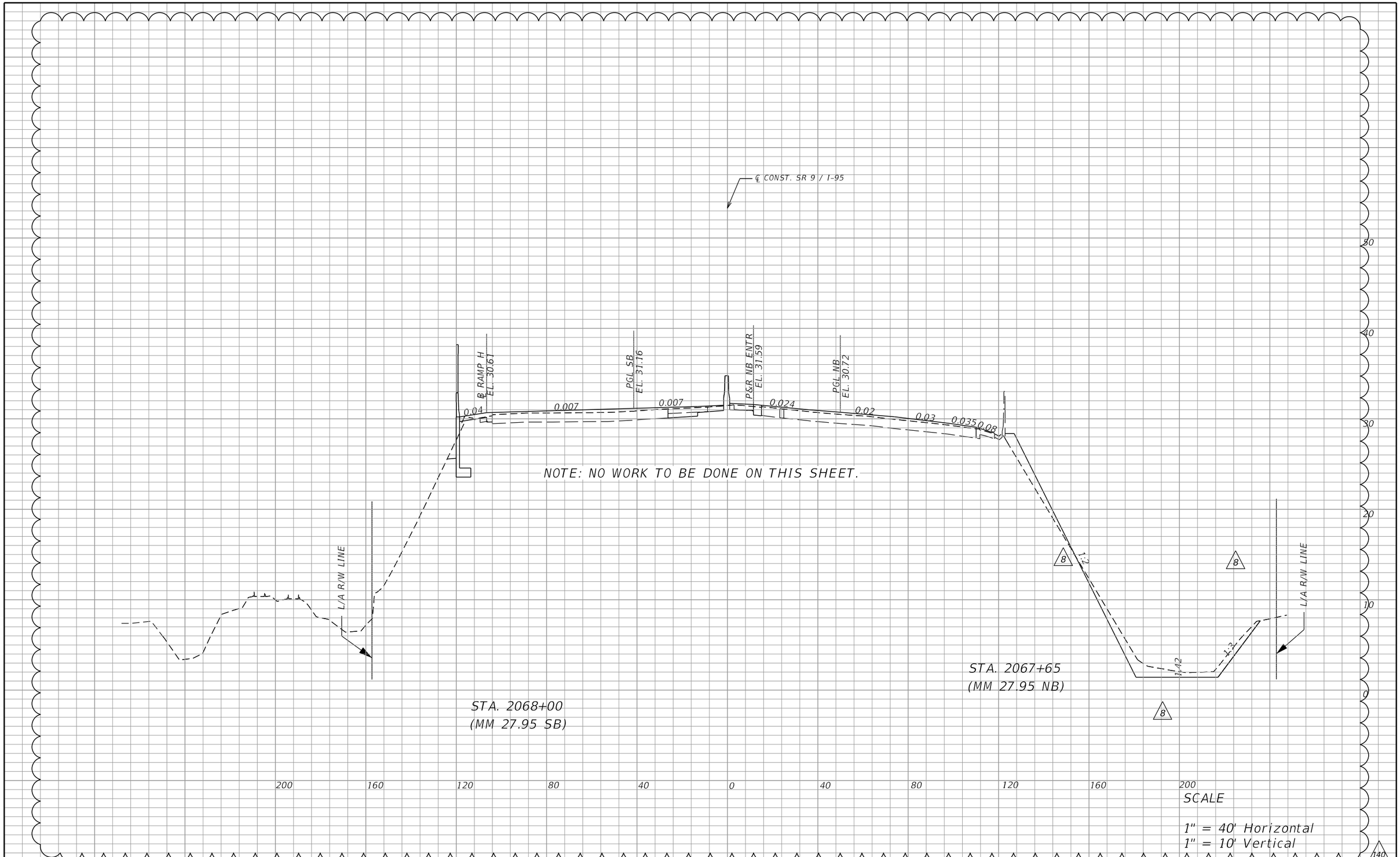
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/16/17	8 ADJUSTED LOCATION OF LHUB ADJUSTED EMBEDMENT DEPTH		
04/13/21	140 MSE 4 ADJUSTMENT, RFI 137		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-401

jknight 4/14/2021 7:52:14 PM C:\Work_Projects\62442.00\ITS\SSXSIT01.DGN

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
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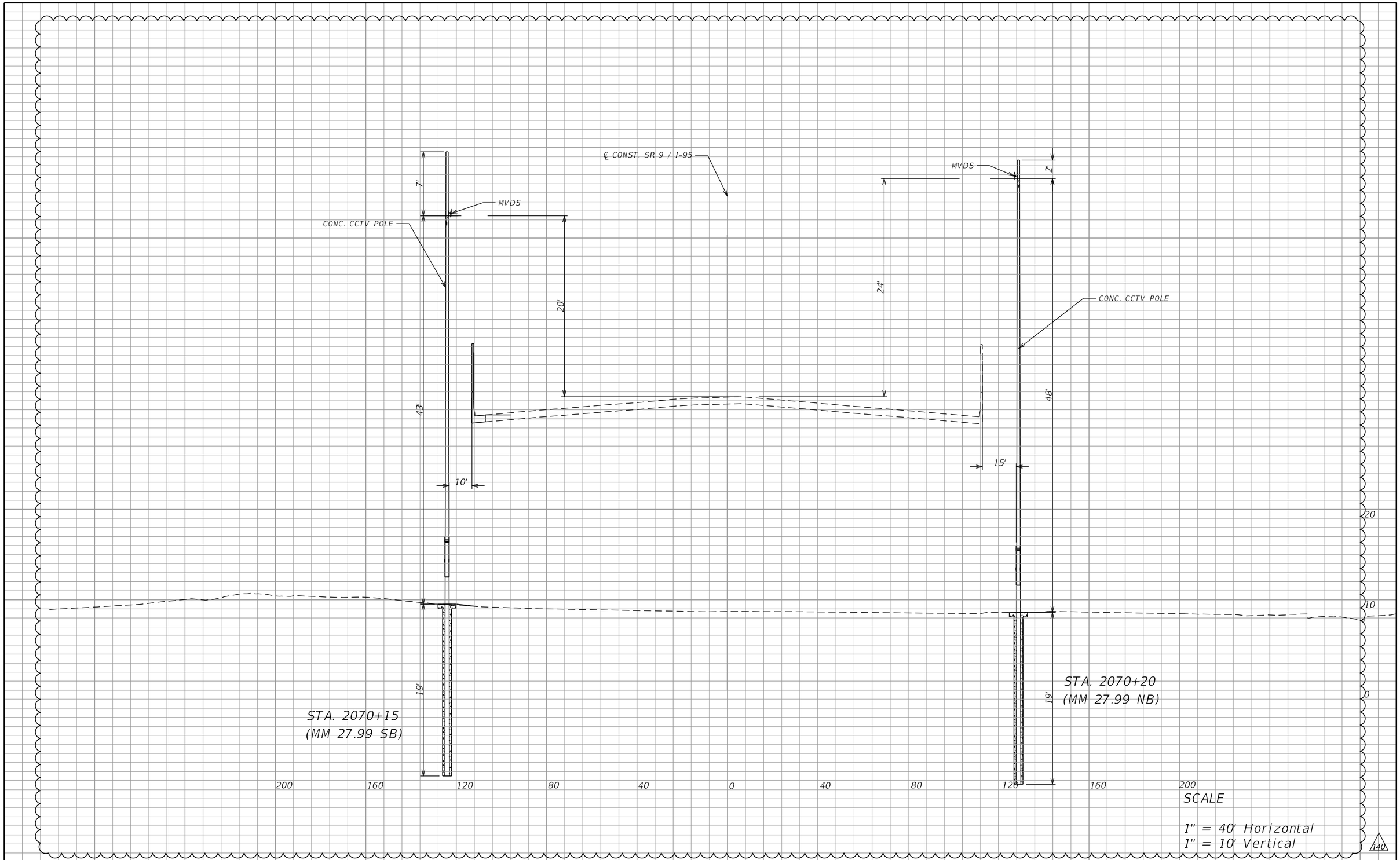
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96



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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 ADJUSTED LOCATION OF LHUB		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
Landmark Center Two
Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

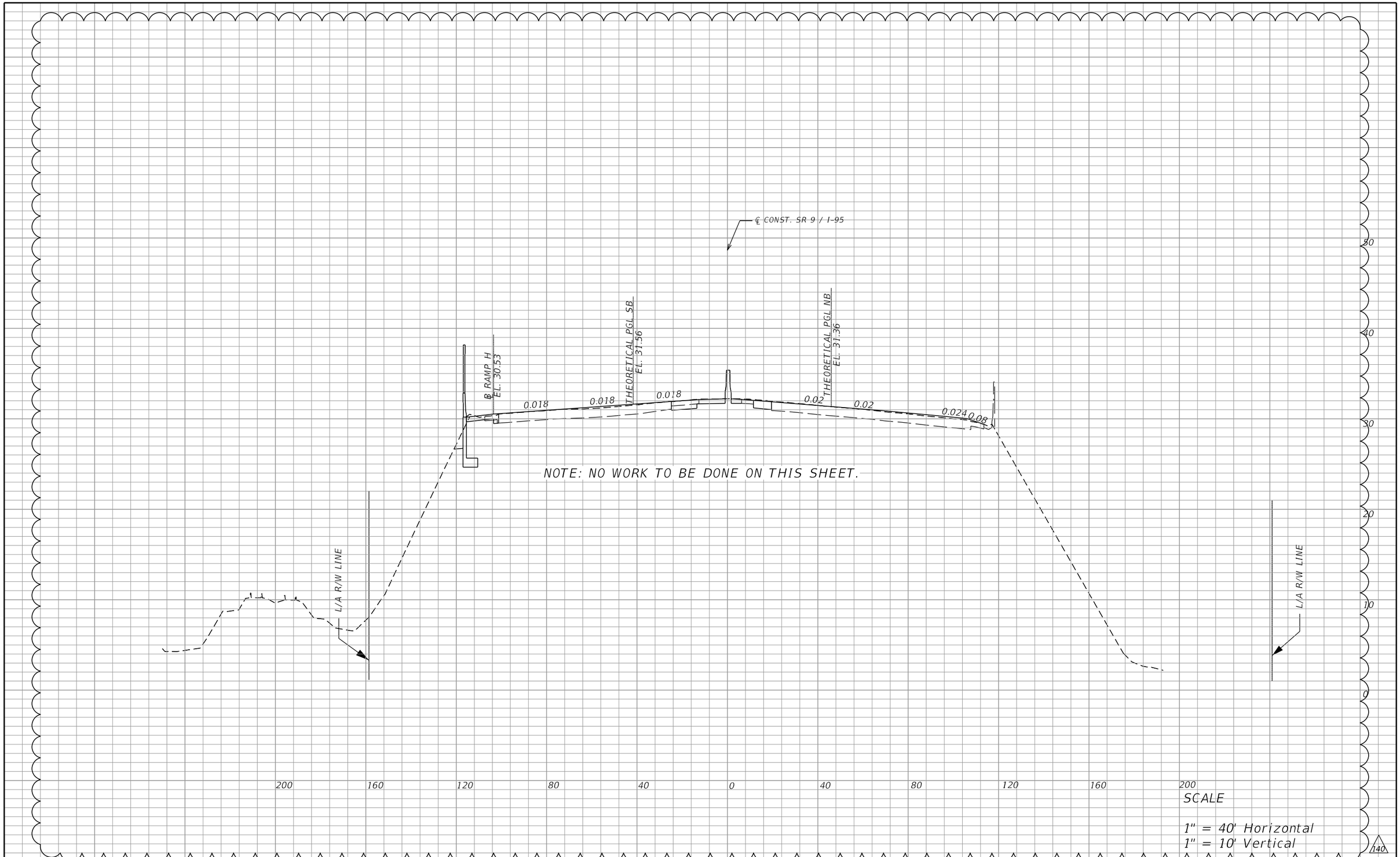
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-401A

jknight 4/14/2021 7:54:24 PM C:\Work_Projects\62442.00\ITS\SSXSIT01.DGN



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
04/13/21	140 MSE 4 ADJUSTMENT		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
225 E. Robinson St., Suite 300
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-402

jknight 4/14/2021 7:52:41 PM C:\Work_Projects\62442.00\ITS\SSXSIT01.DGN

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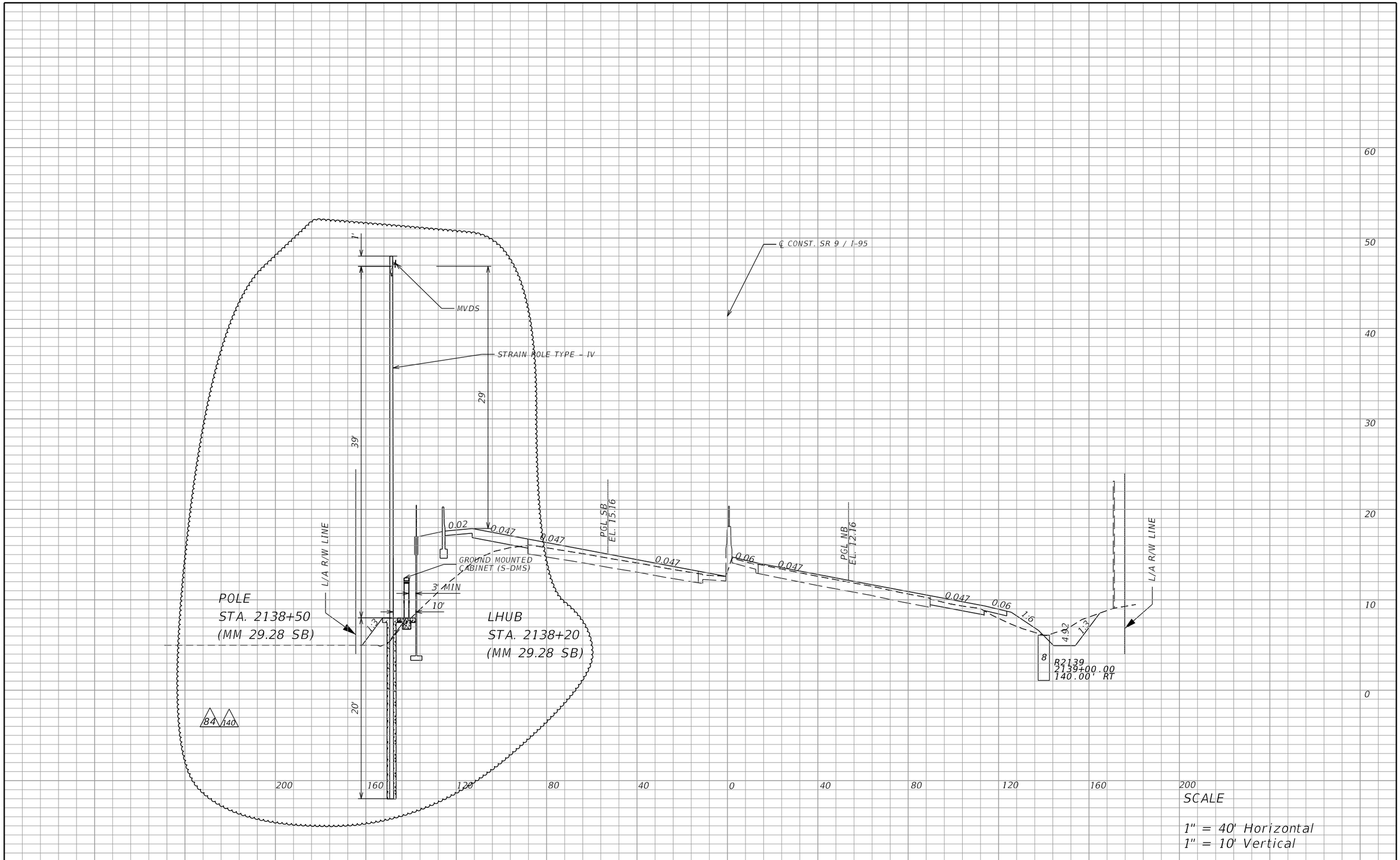
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		
04/13/21	140 RFI 127		

Vanasse Hangen Brustlin, Inc.
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Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-415

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/21/2021
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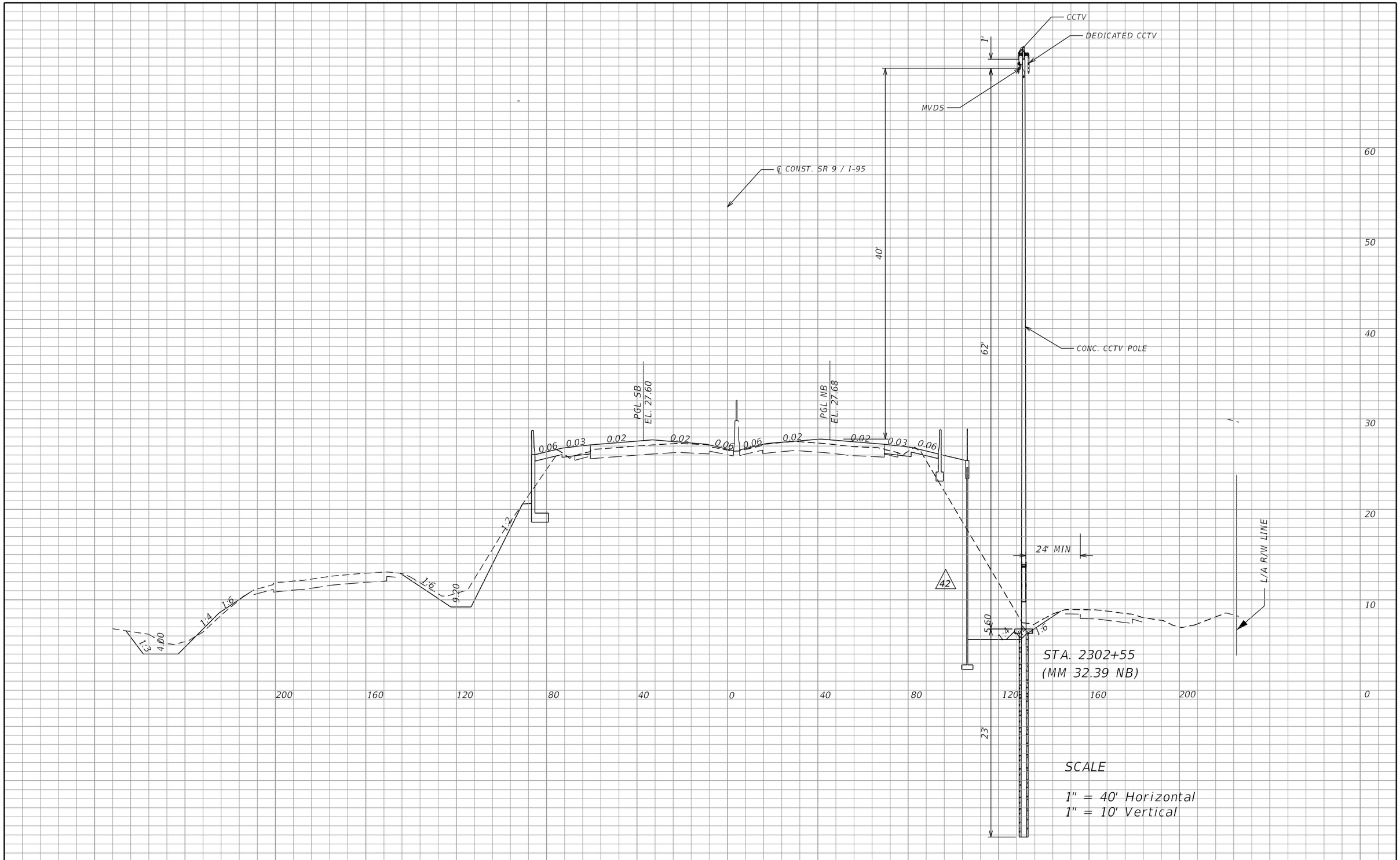
FPID:433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	42 MSE WALL 26 ADJUST	4/13/21	UPDATED PAGE NUMBER 140
11/5/18	55 MSE WALL 25 ADJUST AND CCTV ADJUSTED		

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
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225 E. Robinson St., Suite 300
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

140

SHEET NO.

IT-458

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FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-4-52-01

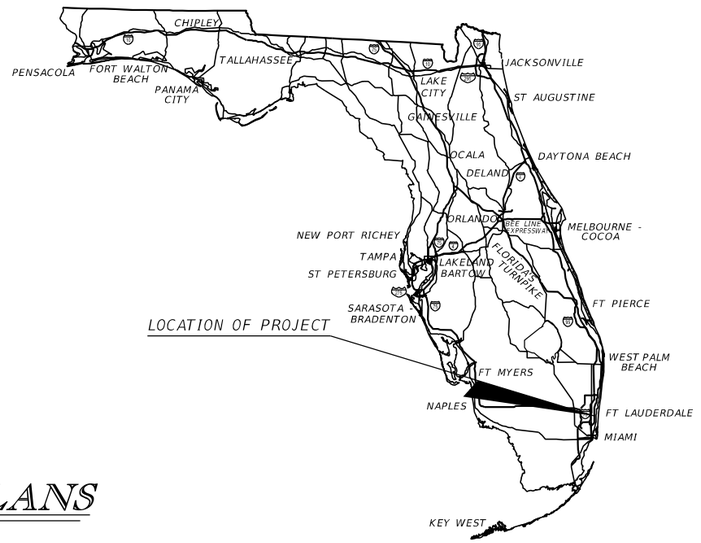
FINANCIAL PROJECT ID 428009-1-52-01

BROWARD COUNTY (86070)

(FEDERAL FUNDS)

STATE ROAD NO. 9

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



INDEX OF ITS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-156	KEY SHEET
IT-157H (155)	SIGNATURE SHEET
IT-163 - IT-164	SUMMARY OF DEVICES
IT-167	POLE DATA SHEET
IT-171	ITS LAYOUT SHEET
IT-177	ITS PLAN SHEET
IT-179 - IT-183	ITS PLAN SHEET
IT-185 - IT-186	ITS PLAN SHEET
IT-199	ITS PLAN SHEET
IT-201	ITS PLAN SHEET
IT-208 - IT-209	SITE LAYOUT DETAILS
IT-219	SITE LAYOUT DETAILS
IT-222	GENERATOR DETAILS
IT-226	POWER SERVICE DETAILS
IT-234	POWER SERVICE DETAILS
IT-238 - IT-239	POWER SERVICE DETAILS
IT-264	POWER SERVICE DETAILS
IT-271	SPLICING DIAGRAM
IT-275	SPLICING DIAGRAM
IT-277	SPLICING DIAGRAM
IT-279	SPLICING DIAGRAM
IT-288	SPLICING DIAGRAM
IT-290 - IT-294	SPLICING DIAGRAM
IT-301	SPLICING DIAGRAM
IT-307	NETWORK SCHEMATIC
IT-309	NETWORK SCHEMATIC
IT-322	CONCRETE SLOPE UNDERBRIDGE DETAIL
IT-323	ITS CABINET DETAIL
IT-329 - IT-330	ITS CABINET DETAIL
IT-336	ITS CABINET DETAIL
IT-376	MASTER HUB BUILDING GRADING PLAN
IT-395	ITS DEVICE CROSS SECTION
IT-401 - IT-402	ITS DEVICE CROSS SECTION
IT-415	ITS DEVICE CROSS SECTION

KEY SHEET REVISIONS

DATE	DESCRIPTION
11/12/21	(155) ADDED SHEET IT-157H

GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY 2015 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website:
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, 2015 Standard Specifications for Road and Bridge Construction at the following website:
http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

JARED KNIGHT, P.E.
P.E. LICENSE NUMBER 74758
VANASSE HANGEN BRUSTLIN, INC.
225 EAST ROBINSON STREET, SUITE 300
ORLANDO, FL 32801
CONTRACT NO. 000819
VENDOR NO. VF-042-931-679-001
CERTIFICATE OF AUTHORIZATION 3932

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q32	15	IT-156

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY FDOT VS Date: 2/24/2022
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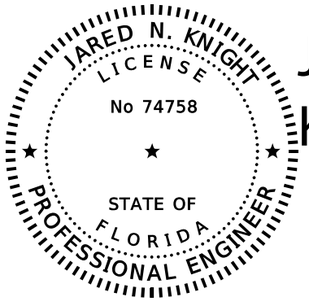
PID 433108-5-52-01 and 433109-4-52-01 CONTRACT E4A96



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Jared N Knight

Digitally signed by Jared N Knight
Date: 2021.12.02 12:00:08 -05'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

VANASSE HANGEN & BRUSTLIN, INC.
225 E ROBINSON ST., SUITE 300
ORLANDO, FLORIDA 32801
CERTIFICATE OF AUTHORIZATION NO. 3932
JARED N. KNIGHT, P.E. NO. 74758

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-156	KEY SHEET
IT-157H	SIGNATURE SHEET
IT-159A	TABULATION OF QUANTITIES
IT-160A	TABULATION OF QUANTITIES
IT-162A	TABULATION OF QUANTITIES
IT-163	SUMMARY OF DEVICES
IT-164	SUMMARY OF DEVICES
IT-168	POLE DATA SHEET
IT-174	ITS LAYOUT SHEET
IT-194	ITS PLAN SHEET
IT-199	ITS PLAN SHEET
IT-288	SPLICING DIAGRAM
IT-320	BRIDGE MOUNT DETAILS
IT-443	ITS DEVICE CROSS SECTION
IT-444	ITS DEVICE CROSS SECTION

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that all comments have been satisfactorily resolved
2022.01.26 11:42:29-05'00'

Vanita Saini, P.E. FDOT Design PM
- This serves as concurrence to release for construction
2022.02.24 15:21:10-05'00'

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:FDOT ____ VS ____ Date: 2/24/2022
PID 433108-5-52-01 and 433109-1-52-01 CONTRACT E4R96

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
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Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SIGNATURE SHEET

SHEET NO. IT-157H

jknight 12/2/2021 11:22:07 AM C:\Work_Projects\62442.00\ITS\KEYSIT01_revXX.DGN

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-186*		IT-187*		IT-188*		IT-189		IT-190		IT-191		IT-192		IT-193		IT-194*		IT-195*		IT-196*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	754	84	1639		1210				305	84	450	84	195		2850		2235		2665	42	1510		13813	42		
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	450	84	390		520				310		830		320		40		560		1699		480		5599	84		
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF			60														15		13				88			
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF			160														1350						1510			
632-7-1	SIGNAL CABLE- NEW, F&I	PI																								84		
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1620	84	380		1620				915	84	1650		690		430		435		540	38	655		8935	38		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF													635		1820		1860		2989	84	2040		9344		155	
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF		55	159		1770								1525		5550		5570	155	6528	42	4080		25182	42		
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF																										
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF															8400		8400				8400		25200			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	16		4		98				8		12		386		16		16		38		12		606			
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	2		1		3				1		2		5		4		4		6	84	3		31	84		
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	3		1		10				1		2		34		4		3		7		3		68			
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA					1																		1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA	1										84								1	84			2			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF	420		1750		80				30	84	60				380		1155	65	300		800		4975			
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	14	65 140	7		10	65			4	84	10	65	3		12	65	21		28	65	11	65	120	65 140		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	5		1		2				3		4		1		2		4	155	4		3		29			
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA		84			3								1		4		3		5		3		19	84		
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA			4														9	155	1				14	155		
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS											1								1				2			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																				38				38		
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	934	84	390		1480				920	84	1625	84	825		3360		3325		3890		1470		18219	84		
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF															2800		2800				1400		7000			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA																										
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA													1										1			
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA																										
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA											1								1				2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA	1				2				1												1		5			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA			2																				2			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA					1												2				2		5			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA			2						1				2		1				1				7			
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA			1																	42			1	42		
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																			2				2			
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA															1				1				2			
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA							1				1								1				3			
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA	1				1												1		1		1		5			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS	2				2												2		2		2		10			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA	2				3												2		2		3		12			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	4				4												4		8		8		28			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA					2				2				2		2		2		2		2		14			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA	1																						1			
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA	1																						1			
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA			1																				1			
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA			1																				1			
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA			1	55																	1	55	2	55		
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA													1										1			

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT QUANTITIES	1/22/19	65 UPDATED DESIGN QUANTITIES
6/15/18	MSE WALL 15 ADJUST 42	3/9/20	84 UPDATED DESIGN QUANTITIES
11/5/18	55 UPDATED DESIGN QUANTITIES	04/13/21	140 UPDATED DESIGN QUANTITIES
		11/11/21	155 UPDATED DESIGN QUANTITIES

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-159A

BY FDOT VS Date: 2/24/2022
RELEASED FOR CONSTRUCTION
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PPID 433108-5-52-01 and 433109-1-52-01 CONTRACT E4R96
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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																						TOTAL THIS SHEET		GRAND TOTAL	
			IT-197*		IT-198		IT-199		IT-200*		IT-201*		IT-202*		IT-203		IT-204		IT-205		IT-206		IT-207					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	1580		1040		1550	47	2387		2700	55	1805	55	500	84	530		870		880		710		14552	47 65		
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	877	84	1080	47	1050	84 65	375	65	1130		620				490		340		200		115		6277	55 84		
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF				84		155																		155		
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																										
632-7-1	SIGNAL CABLE- NEW, F&I	PI						155																		155		
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF	1695	84	1600	47	2150	47	940		1645		1785	55			1870								11685	47 84		
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF	2747		1660		2070	84	1810		1165														9452	55		
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF	3964		3320		4140	65	3660	65	2145	55	1100	55		55			970		530			65	19829			
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55							75														75	55		
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF	9055		8400		8820	84	9800		6025		1400				440							84	43940			
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA	28		8		40		16		164		28	55		55	24								308	55		
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA	4		1		4	84	2		6		4				1								22			
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA	4		1		5		3		6		4				2								25	84		
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																										
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA									1														1			
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																								55		
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF					200	155	850		1690	140	780	55											3520	55 140		
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA	7	65	3		9		13	65	32		16		1		9		6		5		3		104	65 155		
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA	4		2		6	84	4		8	55	4				4								32	55 84		
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA	2		1		2		2		7		6		1		1		1		1				24			
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																										
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																										
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS						47			1														1			
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS				47																				47		
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	2477	84	2120	84	2290	65 84	2175	65	3380		2835	55			880							84	16157	55	155	
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF	1400		1400		560				1150		1400												5910	65		
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA						155									1								1			
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA																										
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																										
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA															1								1			
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA									1						1								2			
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA			1	84							1												2			
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																										
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																										
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA	1				1				1														3			
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA						84			1		1												2			
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA															1								1	47		
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA						47	1		1						1								3			
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA	2					47			1														3	47		
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA	2	84	1		2		2		1		2	84											10	84		
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA						155																		155		
643-1	GUYING WOOD STRAIN POLE, F&I	EA																										
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA							1		1		1												3			
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS							2		2		2												6			
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA							2		2		2												6			
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS							4		12		4						2		4				26			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA	4		2		2		2		2		4												16			
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA	4		2		2		3		2		4												17			
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																										
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																										
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																										
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																										
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																										
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																										
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																										
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																										
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																										
676-2-600	ITS CABINET, REMOVE	EA																										

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST	1/22/19	65 UPDATED DESIGN QUANTITIES
11/5/18	UPDATED DESIGN QUANTITIES 55	04/13/21	UPDATED DESIGN QUANTITIES 140
3/9/20	84 UPDATED DESIGN QUANTITIES	11/11/21	155 UPDATED DESIGN QUANTITIES

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Certificate of Authorization # 3932
Jared Knight, P.E
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-160A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY FDOT VS Date: 2/24/2022
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL	
			IT-219		IT-220		IT-221		IT-222																	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF																							38120	42
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF																							15863	84
630-2-14	CONDUIT, F&I, ABOVE GROUND	LF							15	140													15		2583	
630-2-15	CONDUIT, F&I, BRIDGE MOUNT	LF																							2080	140
632-7-1	SIGNAL CABLE- NEW, F&I	PI																							12	
633-1-122	FIBER OPTIC CABLE, F&I, UG, 24 FIBERS	LF																							35046	38
633-1-123	FIBER OPTIC CABLE, F&I, UG, 72 FIBERS	LF																							18796	65
633-1-124	FIBER OPTIC CABLE, F&I, UG, 144 FIBERS	LF																							45911	84
633-1-420	FIBER OPTIC CABLE, F&I, UG, RELOCATE	LF		55																					75	42
633-1-620	FIBER OPTIC CABLE, REMOVE, UG	LF																							69340	84
633-2-31	FOC CONNECTION, INSTALL, SPLICE	EA																							1036	
633-3-11	FOC HARDWARE, F&I, SPLICE ENCLOSURE	EA																							62	
633-3-12	FOC HARDWARE, F&I, SPLICE TRAY	EA																							109	
633-3-15	FOC HARDWARE, F&I, PATCH PANEL-PRETERMINATED	EA																							77	
633-3-16	FOC HARDWARE, F&I, PATCH PANEL-FIELD TERMINATED	EA							4														4		6	
633-3-51	FIBER OPTIC CONNECTION HARDWARE, MODIFY SPLICE ENCLOSURE	EA																							6	
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	LF																							15250	
635-2-11	PULL & SPLICE BOX, 13"X24" COVER SIZE	EA			4		4		6	140													14	140	310	65
635-2-12	PULL & SPLICE BOX, 24"X36" COVER SIZE	EA																							83	155
635-2-13	PULL & SPLICE BOX, 60"X30" ROUND COVER SIZE	EA							2														2	140	48	84
635-3-12	JUNCTION BOX, F&I, MOUNTED	EA																							31	140
639-1-112	ELECTRICAL POWER SERVICE, F&I, OH, METER BY CONTRACTOR	AS																								
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER BY CONTRACTOR	AS																							4	
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS																							2	38
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF																							43218	65
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF																							14160	84
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA			5		5		5														15		95	84
639-5-2	EMERGENCY GENERATOR-PERMANENT, 25-50 KW, F&I	EA			1		1		1														3		3	
639-5-60	EMERGENCY GENERATOR, REMOVE	EA																							2	
639-6-1	ELECTRICAL POWER SERVICE, TRANSFORMER, F&I	EA			2		2		2														6		85	84
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA			4		4		4														12		43	
641-2-14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA																							8	
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, SERVICE POLE	EA																							1	
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW REMOVAL, POLE > 30'	EA																							1	
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL, POLE > 30'	EA																							7	
641-3-163	CONC CCTV POLE, F&I, W/LOWER DEVICE, 63'	EA																							8	
641-3-169	CONC CCTV POLE, F&I, W/LOWER DEVICE, 69'	EA																							16	
641-3-175	CONC CCTV POLE, F&I, W/LOWER DEVICE, 75'	EA																							7	42
641-3-180	CONC CCTV POLE, F&I, W/LOWER DEVICE, 80'	EA																							5	
641-3-186	CONC CCTV POLE, F&I, W/LOWER DEVICE, 86'	EA																							13	84
641-3-800	CONC CCTV POLE, POLE REMOVAL, DEEP	EA																							4	
643-1	GUYING WOOD STRAIN POLE, F&I	EA																								
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL, F&I	EA																							13	
650-1-13	TRAFFIC SIGNAL, F&I, ALUMINUM, 2-SECT, 1-2 WAYS	AS																							26	
660-1-111	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11	EA																							27	
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS																							88	
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT	EA																							55	
660-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA																							44	
660-3-41	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, CABINET EQUIPMENT	EA																							4	
660-3-42	VEHICLE DETECTION SYSTEM-MICROWAVE, RELOCATE, ABOVE GROUND	EA																							7	140
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA																							1	
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA																							1	
670-5-140	TRAFFIC CONTROLLER ASSEMBLY, F&I MODEL 2070	AS																								
671-2-14	TRAFFIC CONTROLLER W/O CABINET, F&I, IN EXIST. CABINET	EA																							12	140
676-1-131	TRAFFIC SIGNAL CONTROLLER CABINET, F&I, NEMA SIZE 1	EA																							9	55
676-2-122	ITS CABINET, F&I, POLE MOUNT, 336S W/ SUNSHIELD	EA																							41	
676-2-142	ITS CABINET, F&I, BASE MOUNT, 336S W/ SUNSHIELD	EA																							2	84
676-2-143	ITS CABINET, F&I, BASE MOUNT, 334	EA																							40	
676-2-600	ITS CABINET, REMOVE	EA																							4	

NOTE:
* QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-11, 630-2-12, 633-8-1, 635-3-11, 660-3-11, 660-3-12, 670-5-140, 671-2-14, 671-2-143.

** QUANTITIES HAVE BEEN UPDATED FOR THE FOLLOWING PAY ITEMS AFTER CHANGE IN SCOPE PER FDOT DIRECTIVE:
630-2-12, 630-2-14, 630-2-15, 633-1-122, 633-8-1, 635-2-11, 635-3-12, 641-3-169, 641-3-180, 646-1-11, 650-1-13, 660-1-111, 660-2-012, 676-2-122, 682-1-113, 700-1-22, 700-3-101, 700-12-11.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT QUANTITIES	1/22/19	84 UPDATED DESIGN QUANTITIES 65
6/15/18	MSE WALL 15 ADJUST 42	3/9/20	UPDATED DESIGN QUANTITIES
7/31/18	47 MSE WALL 21 ADJUST	04/13/21	UPDATED DESIGN QUANTITIES 140
11/5/18	UPDATED DESIGN QUANTITIES 55	11/11/21	155 UPDATED DESIGN QUANTITIES

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

TABULATION OF QUANTITIES

SHEET NO. IT-162A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. S/Se responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96
BY VS Date: 2/24/2022

	DEVICE	STATION	LOCAL HUB	NO. OF CCTV'S	DIRECTED TOWARDS	PLAN SHEET
1	CCTV 95-25.28 NB	1927+00	LHUB 95-25.28 NB	1	T-DMS 95-25.58 NB	IT-175
2	CCTV 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	S-DMS 95-25.98 NB	IT-176
3	CCTV 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	MAINLINE	IT-176
4	CCTV 95-26.06 NB	1968+90	LHUB 95-26.09 NB	1	T-DMS 95-26.13 NB	IT-178
5	CCTV 95-26.30 NB	1980+90	LHUB 95-26.30 NB	1	S-DMS 95-26.44 NB	IT-179
6	CCTV 95-26.38 SB	1984+40	RSC 95-26.38 SB	1	RAMP A	IT-179
7	CCTV 95-26.44 EB/WB	1988+31	LHUB 95-26.30 NB	1	DAVIE BLVD	IT-179
8	CCTV 95-26.59 NB	1996+10	RSC 95-26.59 NB	1	RAMP	IT-180
9	CCTV 95-26.63 SB	1998+70	LHUB 95-26.63 SB	1	MAINLINE	IT-180
10	CCTV 95-26.71 NB	2002+80	RSC 95-26.71 NB	1	SUPPLEMENTAL	IT-180
11	CCTV 95-26.83 SB	2009+05	LHUB 95-26.83 SB	1	RAMP E	IT-181
12	CCTV 95-27.30 NB	2034+60	LHUB 95-27.30 NB	1	MAINLINE	IT-182
13	CCTV 95-27.36 SB	2036+83	LHUB 95-27.36 SB	1	MAINLINE	IT-183
14	CCTV 95-27.41 SB	2039+50	LHUB 95-27.36 SB	1	SUPPLEMENTAL	IT-183
15	CCTV P&R-1		LHUB P&R-1	1	T-DMS P&R-1	IT-183
16	CCTV 95-27.50 NB	2044+50	LHUB 95-27.50 NB	1	RAMP G	IT-183
17	CCTV 95-27.53 SB	2046+00	LHUB 95-27.53 SB	1	MAINLINE	IT-183
18	CCTV 95-27.65 NB	2052+26	LHUB 95-27.65 NB	1	MAINLINE	IT-184
19	CCTV 95-28.10 NB	2076+00	LHUB 95-28.10 NB	1	MAINLINE	IT-185
20	CCTV 95-28.30 SB	2086+85	LHUB 95-28.30 SB	1	MAINLINE	IT-186
21	CCTV 95-28.47 SB	2095+60	LHUB 95-28.47 SB	1	RAMP I	IT-187
22	CCTV 95-28.63 NB	2104+20	LHUB 95-28.63 NB	1	MAINLINE	IT-187
23	CCTV 95-28.63 NB	2104+15	LHUB 95-28.63 NB	1	RAMP K-1	IT-187
24	CCTV 95-28.69 NB	2107+00	RSC 95-28.69 NB	1	TOLL PLAZA	IT-188
25	CCTV 95-28.69 NB	2107+00	RSC 95-28.69 NB	1	FUTURE T-DMS	IT-188
26	CCTV 95-29.11 SB	2129+25	LHUB 95-29.11 SB	1	MAINLINE	IT-189
27	CCTV 95-29.55 SB	2152+50	LHUB 95-29.55 SB	1	T-DMS 95-29.50 SB	IT-191
28	CCTV 95-29.55 SB	2152+50	LHUB 95-29.55 SB	1	S-DMS 95-29.33 SB	IT-191
29	CCTV 95-29.57 NB	2153+60	LHUB 95-29.57 NB	1	MAINLINE	IT-191
30	CCTV 95-29.83 SB	2167+60	LHUB 95-29.83 SB	1	S-DMS 95-29.68 SB	IT-192
31	CCTV 95-29.83 NB	2167+40	LHUB 95-29.83 NB	1	EX. DMS 95-29.99 NB	IT-192
32	CCTV 95-30.08 SB	2180+70	LHUB 95-30.05 SB	1	MAINLINE	IT-193
33	CCTV 95-30.08 NB	2180+70	LHUB 95-30.08 NB	1	T-DMS 95-30.16 NB	IT-193
34	CCTV 95-30.33 SB	2194+00	LHUB 95-30.33 SB	1	T-DMS 95-30.14 SB	IT-194
35	CCTV 95-30.33 NB	2193+70	LHUB 95-30.33 NB	1	S-DMS 95-30.45 NB	IT-194
36	CCTV 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	RAMP M	IT-195
37	CCTV 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	S-DMS 95-30.30 SB	IT-195
38	CCTV 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	MAINLINE	IT-195
39	CCTV 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	T-DMS 95-30.75 NB	IT-195
40	CCTV 95-30.78 SB	2217+45	RSC 95-30.78 SB	1	RAMP P-2	IT-195
41	CCTV 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	S-DMS 95-30.90 NB	IT-196
42	CCTV 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	RAMP O-2	IT-196
43	CCTV 95-30.87 NB	2223+00	LHUB 95.30.86 NB	1	RAMP O-1	IT-196
44	CCTV 95-31.08 SB	2234+00	LHUB 95-31.08 SB	1	MAINLINE	IT-197
45	CCTV 95-31.54 NB	2257+75	LHUB 95-31.54 NB	1	MAINLINE	IT-198
46	CCTV 95-31.76 SB	2269+15	LHUB 95-31.76 SB	1	FUTURE T-DMS	IT-199
47	CCTV 95-31.95 SB	2280+50	LHUB 95-31.95 SB	1	MAINLINE	IT-200
48	CCTV 95-32.08 SB	2286+00	RSC 95-32.08 SB	1	RAMP U	IT-200
49	CCTV 95-32.14 SB	2289+20	LHUB 95-32.14 SB	1	EL-DMS 95-32.06 SB	IT-201
50	CCTV 95-32.17 NB	2291+00	LHUB 95-32.17 NB	1	TOLL PLAZA	IT-201
50A	CCTV 95-32.26 SB	2295-50	LHUB 95-32.27 SB	1	MHUB 95-32.26	IT-201
51	CCTV 95-32.27 SB	2296+30	LHUB 95-32.27 SB	1	MHUB 95-32.26	IT-201
52	CCTV 95-32.27 SB	2296+30	LHUB 95-32.27 SB	1	RAMP Q	IT-201
53	CCTV 95-32.35 NB	2300+75	LHUB 95-32.35 NB	1	TOLL PLAZA SUPPLEMENT	IT-201
54	CCTV 95-32.35 NB	2300+75	LHUB 95-32.35 NB	1	RAMP U	IT-201
55	CCTV 95-32.38 SB	2302+00	LHUB 95-32.38 SB	1	RAMP T	IT-202
56	CCTV 95-32.39 NB	2302+55	LHUB 95-32.39 NB	1	MAINLINE	IT-202
57	CCTV 95-32.39 NB	2302+55	LHUB 95-32.39 NB	1	RAMP S	IT-202
58	CCTV 95-32.64 SB	2315+90	LHUB 95-32.64 SB	1	FUTURE T-DMS	IT-202
59	CCTV P&R-3	130+25	LHUB P&R-3	1	T-DMS P&R-3	IT-204
60	CCTV P&R-4	132+20	LHUB P&R-4	1	T-DMS P&R-4	IT-204

	DEVICE	STATION	LOCAL HUB	NO. OF WAP'S	PLAN SHEET
1	WAP 95-25.23 NB	1924+80	LHUB 95-25.23 NB	1	IT-175
2	WAP 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	IT-176
3	WAP 95-26.44 EB/WB	1988+31	LHUB 95-26.41 NB	2	IT-179
4	WAP P&R-1		LHUB P&R-1	1	IT-183
5	WAP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	3	IT-183
6	WAP 95-28.30 SB	2086+85	LHUB 95-28.30 SB	2	IT-186
7	WAP 95-30.70 NB	2213+55	LHUB 95-30.70 NB	2	IT-195
8	WAP 95-31.76 SB	2269+15	LHUB 95-31.76	1	IT-199
9	WAP 95-32.32 SB	2298+95	LHUB 95-32.35 NB	2	IT-201

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	T-DMS 95-25.58 NB	1943+30	LHUB 95-25.63 NB	IT-176
2	S-DMS 95-25.98 NB	1963+80	LHUB 95-25.93 NB	IT-177
3	T-DMS 95-26.13 NB	1972+44	LHUB 95-26.09 NB	IT-178
4	S-DMS 95-26.44 NB	1988+30	LHUB 95-26.41 NB	IT-179
5	DMS 95-26.55 SB	1994+18	LHUB 95-26.55 SB	IT-180
6	DMS 95-27.41 NB	2039+80	LHUB 95-27.41 NB	IT-183
7	DMS 95-28.10 SB	2076+10	LHUB 95-28.16 SB	IT-185
8	EL-DMS 95-28.33 NB	2088+00	LHUB 95-28.29 NB	IT-186
9	EL-DMS 95-28.53 SB	2098+90	LHUB 95-28.56 SB	IT-187
10	S-DMS 95-29.33 SB	2141+24	LHUB 95-29.27 SB	IT-190
11	T-DMS 95-29.50 SB	2149+90	LHUB 95-29.51 SB	IT-191
12	S-DMS 95-29.68 SB	2159+60	LHUB 95-29.73 NB	IT-191
13	S-DMS 95-29.68 NB	2159+71	LHUB 95-29.71 SB	IT-191
14	DMS 95-29.99 SB	2175+60	LHUB 95-29.99 SB	IT-192
15	DMS 95-29.99 NB	2176+10	LHUB 95-29.95 NB	IT-192
16	T-DMS 95-30.14 SB	2183+95	LHUB 95-30.20 SB	IT-193
17	T-DMS 95-30.16 NB	2184+80	LHUB 95-30.12 NB	IT-193
18	S-DMS 95-30.3 SB	2192+00	LHUB 95-30.33 SB	IT-194
19	S-DMS 95-30.45 NB	2200+00	LHUB 95-30.41 NB	IT-194
20	T-DMS 95-30.75 NB	2215+80	LHUB 95-30.70 NB	IT-195
21	S-DMS 95-30.9 NB	2224+00	LHUB 95-30.86 NB	IT-196
22	EL-DMS 95-32.06 SB	2285+00	LHUB 95-32.09 SB	IT-200
23	DMS 95-32.58 NB	2313+00	LHUB 95-32.55 NB	IT-202
24	T-DMS P&R-3	130+25	LHUB P&R-3	IT-204
25	T-DMS P&R-4	132+20	LHUB P&R-4	IT-204

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	GEN 95-27.43 NB	2040+92	GEN 95-27.43 NB	IT-183
2	GEN 95-29.58 NB	2154+40	GEN 95-29.58 NB	IT-191
3	GEN 95-32.26 SB	2295+50	GEN 95-32.26 SB	IT-201

RELEASED FOR CONSTRUCTION
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BY:FDOT VS Date: 2/24/2022
PID 433108-5-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 CCTV POLE UPDATE	3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT
11/5/18	55 CCTV POLE UPDATE	04/13/21	RFI 101 140
		11/11/21	RFI 155 155

Vanasse Hangen Brustlin, Inc.
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SUMMARY OF DEVICES

SHEET NO. IT-163

	DEVICE	STATION	LOCAL HUB	NO. OF MVDS'S	PLAN SHEET
1	MVDS 95-25.58 NB	1943+30	LHUB 95-25.63 NB	1	IT-176
2	MVDS 95-25.58 SB	1943+30	LHUB 95-25.63 NB	1	IT-176
3	MVDS 95-26.13 NB	1972+44	LHUB 95-26.09 NB	1	IT-178
4	MVDS 95-26.13 SB	1972+44	LHUB 95-26.09 NB	1	IT-178
5	MVDS 95-26.30 NB	1980+90	LHUB 95-26.30 NB	1	IT-179
6	MVDS 95-26.47 NB	1990+15	LHUB 95-26.47 NB	2	IT-180
7	MVDS 95-26.86 SB	2010+60	LHUB 95-26.86 SB	2	IT-181
8	MVDS 95-26.86 NB	2010+60	LHUB 95-26.86 NB	2	IT-181
9	MVDS 95-27.10 SB	2023+50	LHUB 95-27.10 SB	2	IT-182
10	MVDS 95-27.13 NB (140)	2024+90	LHUB 95-27.13 NB (140)	1	IT-182
11	MVDS 95-27.20 SB	2028+70	LHUB 95-27.20 SB	4	IT-182
12	MVDS 95-27.30 SB	2033+70	LHUB 95-27.30 SB (140)	2	IT-182
13	MVDS 95-27.30 NB	2034+60	LHUB 95-27.30 NB	1	IT-182
14	MVDS 95-27.50 NB	2044+50	LHUB 95-27.50 NB	1	IT-183
15	MVDS 95-27.53 SB	2046+00	LHUB 95-27.53 SB	1	IT-183
16	MVDS 95-27.65 NB	2052+26	LHUB 95-27.65 NB	2	IT-184
17 (140)	MVDS 95-27.95 SB	2070+15	LHUB 95-27.95 SB	1	IT-185
18	MVDS 95-27.95 NB	2067+65 (84)	LHUB 95-27.98 NB	1	IT-185
19	MVDS 95-28.10 SB	2075+90	LHUB 95-28.10 SB	1	IT-185
20	MVDS 95-28.10 NB	2076+00	LHUB 95-28.10 NB	1	IT-185
21	MVDS 95-28.30 SB	2086+85	LHUB 95-28.30 SB	1	IT-186
22	MVDS 95-28.31 NB	2087+19	LHUB 95-28.31 NB	1	IT-186
23	MVDS 95-28.56 SB	2100+20	LHUB 95-28.56 SB	1	IT-187
24	MVDS 95-28.56 NB	2100+20	LHUB 95-28.56 NB	1	IT-187
25	MVDS 95-28.82 NB	2114+00	LHUB 95-28.82 NB	1	IT-188
26	MVDS 95-28.85 SB	2115+60	LHUB 95-28.85 SB	1	IT-188
27	MVDS 95-29.11 SB	2129+25	LHUB 95-29.11 SB	1	IT-189
28	MVDS 95-29.10 NB	2128+80	LHUB 95-29.10 NB	1	IT-189
29	MVDS 95-29.28 SB	2138+50	LHUB 95-29.28 SB (84)	1	IT-190
30	MVDS 95-29.33 NB	2141+20	LHUB 95-29.33 NB	1	IT-190
31	MVDS 95-29.57 NB	2153+60 (84)	LHUB 95-29.57 NB	1	IT-191
32	MVDS 95-29.55 SB	2152+50	LHUB 95-29.55 SB (84)	1	IT-191
33	MVDS 95-29.83 SB	2167+60	LHUB 95-29.83 SB	1	IT-192
34	MVDS 95-29.83 NB	2167+40	LHUB 95-29.83 NB	1	IT-192
35	MVDS 95-30.08 SB	2180+70	LHUB 95-30.05 SB	1	IT-193
36	MVDS 95-30.08 NB	2180+70	LHUB 95-30.08 NB	1	IT-193
37	MVDS 95-30.33 SB	2194+00	LHUB 95-30.33 SB	1	IT-194
38	MVDS 95-30.33 NB	2193+70	LHUB 95-30.33 NB	1	IT-194
39	MVDS 95-30.57 SB	2206+50	LHUB 95-30.57 SB	1	IT-195

	DEVICE	STATION	LOCAL HUB	NO. OF MVDS'S	PLAN SHEET
40	MVDS 95-30.61 NB	2208+50	LHUB 95-30.61 NB	1	IT-195
41	MVDS 95-30.83 SB	2220+15	LHUB 95-30.83 SB	1	IT-196
42	MVDS 95-30.83 NB	2220+20	LHUB 95-30.83 NB	1	IT-196
43	MVDS 95-31.08 SB	2234+00	LHUB 95-31.08 SB	1	IT-197
44	MVDS 95-31.08 NB	2233+40	LHUB 95-31.08 NB	1	IT-197
45	MVDS 95-31.28 SB	2243+75	LHUB 95-31.28 SB	1	IT-197
46	MVDS 95-31.28 NB	2243+95	LHUB 95-31.28 NB	1	IT-197
47	MVDS 95-31.55 SB	2258+15	LHUB 95-31.55 SB (84)	1	IT-198
48	MVDS 95-31.54 NB	2257+75 (47)	LHUB 95-31.54 NB	1	IT-198
49	MVDS 95-31.76 SB	2269+15 (155)	LHUB 95-31.76 SB	1	IT-199
50	MVDS 95-31.76 NB	2269+20	LHUB 95-31.76 NB	1	IT-199
51	MVDS 95-31.95 SB	2280+50	LHUB 95-31.95 SB	1	IT-200
52	MVDS 95-31.95 NB	2279+50	LHUB 95-31.81 NB	2	IT-200
53	MVDS 95-32.14 SB	2289+20	LHUB 95-32.14 SB	1	IT-201
54	MVDS 95-32.17 NB	2291+00	LHUB 95-32.17 NB	1	IT-201
55	MVDS 95-32.38 SB	2302+00	LHUB 95-32.38 SB (84)	1	IT-202
56	MVDS 95-32.39 NB	2302+55 (55)	LHUB 95-32.39 NB	1	IT-202
57	MVDS 95-32.64 SB	2315+90	LHUB 95-32.64 SB	1	IT-202
58	MVDS 95-32.64 NB	2315+85	LHUB 95-32.64 NB	1	IT-202

	DEVICE	STATION	LOCAL HUB	PLAN SHEET
1	VOIP 95-26.30 NB	1980+90	LHUB 95-26.30 NB	IT-179
2	VOIP 95-25.58 NB	1943+30	LHUB 95-25.63 NB	IT-176
3	VOIP 95-26.55 SB	1994+18	LHUB 95-26.55 SB	IT-180
4	VOIP 95-27.47 NB	2042+64	LHUB 95-27.41 NB	IT-183
5	VOIP 95-28.30 SB	2086+85	LHUB 95-28.30 SB	IT-186
6	VOIP 95-29.11 SB	2129+25	LHUB 95-29.11 SB	IT-189
7	VOIP 95-29.55 SB	2152+50	LHUB 95-29.55 SB (84)	IT-191
8	VOIP 95-30.70 NB	2213+55	LHUB 95-30.70 NB	IT-195
9	VOIP 95-31.76 SB	2269+15 (155)	LHUB 95-31.76 SB	IT-199

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	(47) CCTV POLE UPDATE	3/9/20	(84) MSE 5, 8, 10, 18, 25 ADJUSTMENT
		04/13/21	MSE 4 ADJUSTMENT, RFI 123, RFI 137 (140)
11/5/18	(55) CCTV POLE UPDATE	11/4/21	RFI 155 (155)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SUMMARY OF DEVICES

SHEET NO. IT-164

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RELEASED FOR CONSTRUCTION
BY:FDOT VS Date: 2/24/2022
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FPID 433108-5-52-01 and 433109-4-52-01 CONTRACT E4R96

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	DEVICE	STATION	LOCAL HUB	PLAN SHEET	ABOVE GROUND HEIGHT (FT)	POLE LENGTH (FT)	EMBEDMENT LENGTH (FT)	NOTES
38	MVDS 95-29.33 NB	2141+20	LHUB 95-29.33 NB	IT-190	50	69	19	CCTV POLE
39	CCTV, MVDS 95-29.57 NB (84)	2153+60	LHUB 95-29.58 NB	IT-191	65	86	21	CCTV POLE
40	CCTV (2), MVDS, VOIP 95-29.55 SB (84)	2152+50	LHUB 95-29.55 SB	IT-191	60	80	20	CCTV POLE
41	CCTV, MVDS 95-29.83 SB	2167+60	LHUB 95-29.83 SB	IT-192	49	69	20	CCTV POLE
42	CCTV, MVDS 95-29.83 NB	2167+40	LHUB 95-29.83 NB	IT-192	50	69	19	CCTV POLE
43	CCTV, MVDS 95-30.08 SB	2180+70	LHUB 95-30.05 SB	IT-193	67	86	19	CCTV POLE
44	CCTV, MVDS 95-30.08 NB	2180+70	LHUB 95-30.08 NB	IT-193	50	69	19	CCTV POLE
45	CCTV, MVDS 95-30.33 SB	2194+00	LHUB 95-30.33 SB	IT-194	44	63	19	CCTV POLE
46	CCTV, MVDS 95-30.33 NB	2193+70	LHUB 95-30.33 NB	IT-194	44	63	19	CCTV POLE
47	CCTV (2), MVDS 95-30.57 SB	2206+50	LHUB 95-30.57 SB	IT-195	65	86	21	CCTV POLE
48	CCTV (2), MVDS 95-30.61 NB	(42) 2209+20	LHUB 95-30.61 NB	IT-195	62	80	18 (42)	CCTV POLE
49	WAP (2), VOIP 95-30.7 NB	2213+55	LHUB 95-30.7 NB	IT-195	60	80	20	CCTV POLE
50	CCTV 95-30.78 SB	2217+45	RSC 95-30.78 SB	IT-195	50	69	19	CCTV POLE
51	MVDS 95-30.83 SB	2220+15	LHUB 95-30.83 SB	IT-196	40.5	60	19.5	TYPE IV
52	CCTV (2), MVDS 95-30.83 NB	2220+20	LHUB 95-30.83 NB	IT-196	44	63	19	CCTV POLE
53	CCTV 95-30.87 NB	2223+00	LHUB 95-30.86 NB	IT-196	44	63	19	CCTV POLE
54	CCTV, MVDS 95-31.08 SB	2234+00	LHUB 95-31.08 SB	IT-197	65	86	21	CCTV POLE
55	MVDS 95-31.08 NB	2233+40	LHUB 95-31.08 NB	IT-197	60	80	20 (84)	CCTV POLE
56	MVDS 95-31.28 SB	2243+75	LHUB 95-31.28 SB	IT-197	55	80	25	CCTV POLE
57	MVDS 95-31.28 NB	2243+95	LHUB 95-31.28 NB	IT-197	65	86	21	CCTV POLE
58	MVDS 95-31.55 SB (84)	2258+15	LHUB 95-31.55 SB	IT-198	46	62	16	TYPE IV
59	CCTV, MVDS 95-31.54 NB	2257+75 (47)	LHUB 95-31.54 NB	IT-198	(47) 65	86	21	CCTV POLE
60	CCTV, MVDS, VOIP, WAP 95-31.76 SB	2269+15	LHUB 95-31.76 SB	IT-199	63	86	(155) 23 (84)	CCTV POLE
61	MVDS 95-31.76 NB	2269+20	LHUB 95-31.76 NB	IT-199	(47) 61	86	25	CCTV POLE
62	CCTV, MVDS 95-31.95 SB	2280+50	LHUB 95-31.95 SB	IT-200	60	86	26	CCTV POLE
63	MVDS (2) 95-31.95 NB	2279+50	LHUB 95-31.81 SB	IT-200	65	86	21	CCTV POLE
64	CCTV 95-32.08 SB	2286+00	RSC 95-32.08 SB	IT-200	50	75	25	CCTV POLE
65	CCTV, MVDS 95-32.14 SB	2289+20	LHUB 95-32.14 SB	IT-201	60	75	15	CCTV POLE
66	CCTV, MVDS 95-32.17 NB	2291+00	LHUB 95-32.17 NB	IT-201	55	80	25	CCTV POLE
67	CCTV (2) 95-32.27 SB	2296+30	LHUB 95-32.27 SB	IT-201	25	38	13	CCTV POLE*
68	WAP 95-32.32 NB	2298+95	LHUB 95-32.35 NB	IT-201	-	-	-	EXIST.
69	CCTV (2) 95-32.35 NB	2300+75	LHUB 95-32.35 NB	IT-201	68	86	18	CCTV POLE
70	CCTV, MVDS 95-32.38 SB (84)	(55) 2302+00	LHUB 95-32.42 SB	IT-202	70	86	16	CCTV POLE
71	CCTV (2), MVDS 95-32.39 NB	2302+55	LHUB 95-32.39 NB	IT-202	63	86	23	CCTV POLE
72	CCTV, MVDS 95-32.64 SB	2315+90	LHUB 95-32.64 SB	IT-202	45	63	18	CCTV POLE
73	MVDS 95-32.64 NB	2315+85	LHUB 95-32.64 NB	IT-202	40	58	18	TYPE IV
74	CCTV P&R-3	130+25	LHUB P&R-3	IT-204	50	69	19	CCTV POLE
75	CCTV P&R-4	132+20	LHUB P&R-4	IT-204	50	75	25	CCTV POLE

* NOTE: CONTRACTOR SHALL PROVIDE SIGNED AND SEALED STRUCTURAL DRAWINGS FOR CUSTOM CCTV POLES.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
6/15/18	(42) CCTV POLE UPDATES	11/5/18	(55) CCTV POLE UPDATES
7/31/18	(47) CCTV POLE UPDATES	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT (84)
		11/11/21	RFI 155 (155)

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9	BROWARD	433108-4-52-01

POLE DATA SHEET

SHEET NO. IT-168

RELEASED FOR CONSTRUCTION
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BY:FDOT ____ VS ____ Date: 2/24/2022
PID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

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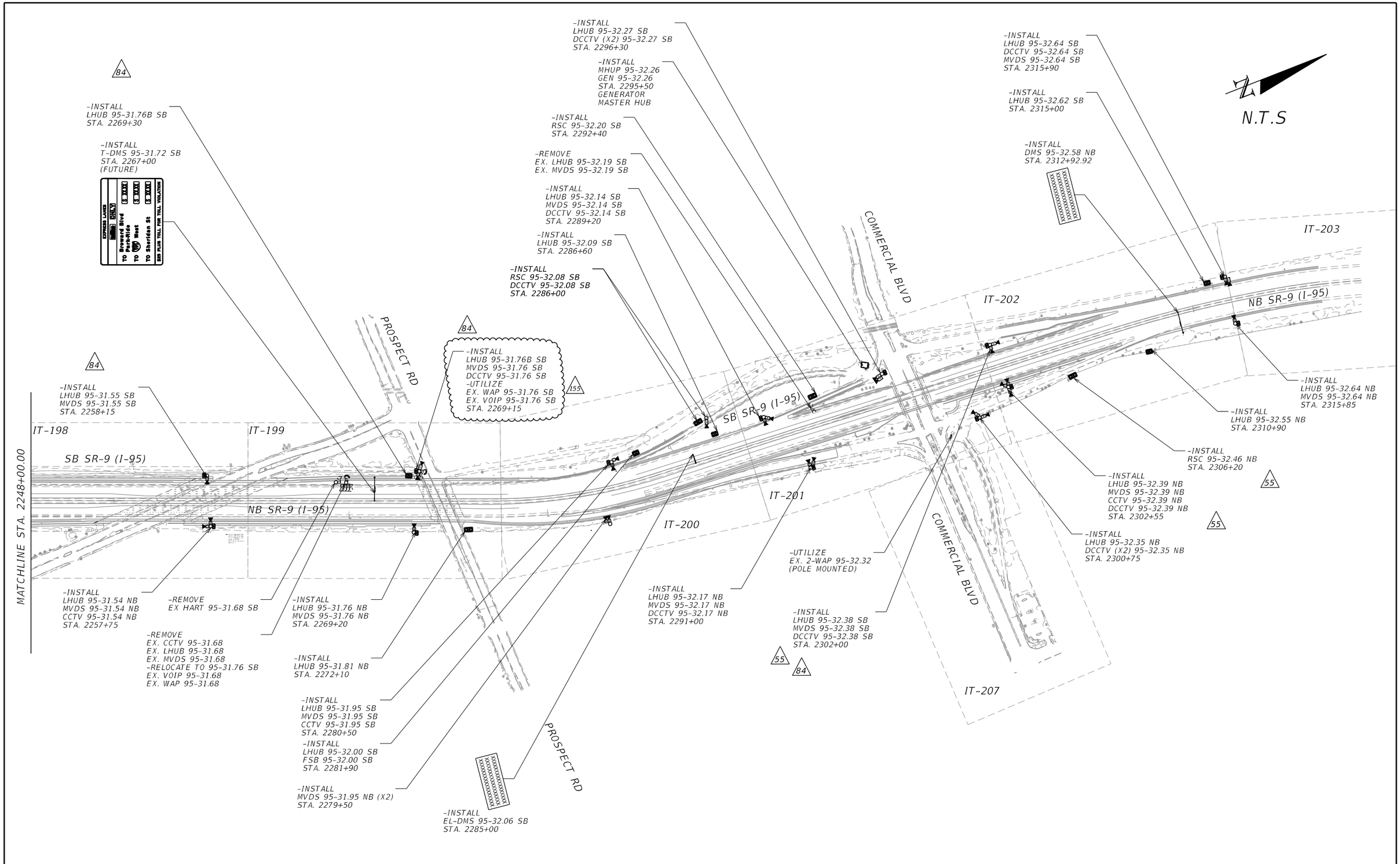

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/5/18	55 DEVICE LOCATION UPDATED	11/11/21	155 RFI 155
3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS LAYOUT SHEET

SHEET NO.
IT-174

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RELEASED FOR CONSTRUCTION BY:FDOT VS Date: 2/24/2022
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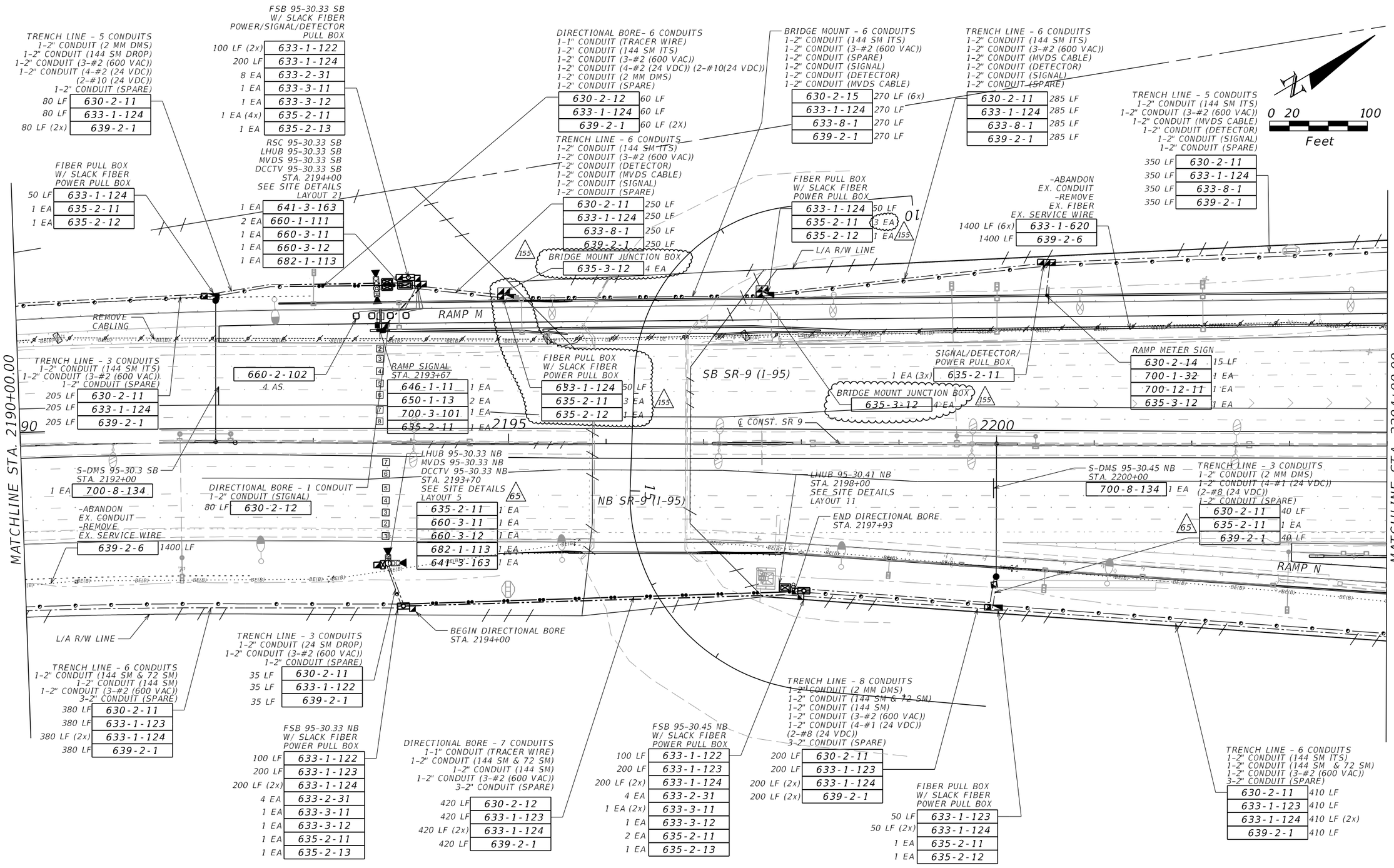
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/4/18	38 UPDATED CONDUIT	11/11/21	155 RFI 96
1/22/19	65 UPDATE GROUNDING PULL BOX		

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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ITS PLAN SHEET

SHEET NO. IT-194

BY:FDOT VS Date: 2/24/2022
RELEASED FOR CONSTRUCTION
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PID 433108-5-52-01 and 433109-4-52-01 CONTRACT E4R96
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NOTE:
SERVICE WIRE AND FIBER OPTIC CABLE SHALL BE INSTALLED, BUT NOT CONNECTED FOR LHUB 95-31.76B SB.

0 20 100
Feet

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER
EX. SERVICE WIRE

633-1-620	560 LF (6x)
639-2-6	560 LF

TRENCH LINE - 3 CONDUITS
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (12-#4 (24 VDC))
(6-#8 (24 VDC))
1-2" CONDUIT (SPARE)

200 LF	630-2-11
200 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
SIGNAL PULL BOX

1 EA	635-2-11
1 EA	635-2-12

DIRECTIONAL BORE - 4 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (3-2 MM DMS)
1-2" CONDUIT (12-#4 (24 VDC))
(6-#8 (24 VDC))
1-2" CONDUIT (SPARE)

60 LF	630-2-12
60 LF	639-2-1

FIBER PULL BOX
W/ SLACK FIBER
SIGNAL PULL BOX

1 EA	635-2-11
1 EA	635-2-12

LHUB 95-31.76 SB
MVDS 95-31.76 SB
DCCTV 95-31.76 SB
EX. WAP 95-31.76 SB
EX. VOIP 95-31.76 SB
STA. 2269+15
SEE SITE DETAILS
LAYOUT 4

635-2-11	1 EA
635-2-12	1 EA
633-1-122	50 LF (2x)
641-3-186	1 EA
660-3-11	1 EA
660-3-12	1 EA 155
682-1-113	1 EA 84
684-6-40	2 EA

LHUB 95-31.76B SB
STA. 2269+30
SEE SITE DETAIL
LAYOUT 12

635-2-11	2 EA
635-2-12	1 EA
633-1-122	50 LF

TRENCH LINE- 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

60 LF	630-2-11
60 LF	633-1-123
60 LF (2x)	633-1-124
60 LF	639-2-1

DIRECTIONAL BORE- 3 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (SPARE)

630-2-12	110 LF
633-1-122	110 LF

EX. FSB 31.77 SB
PROSPECT ROAD

633-1-122	100 LF
633-2-31	24 EA
633-3-11	1 EA
633-3-12	2 EA

L/A R/W LINE

-ABANDON
EX. CONDUIT
-REMOVE
EX. FIBER

633-1-620	240 LF (7x)

FIBER PULL BOX
W/ SLACK FIBER
POWER PULL BOX

50 LF	633-1-123
50 LF (2x)	633-1-124
1 EA	635-2-11
1 EA	635-2-12

TRENCH LINE - 4 CONDUITS
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

30 LF	630-2-11
30 LF	639-2-1
30 LF (2x)	633-1-122

T-DMS 95-31.72 SB
STA. 2267+00
(FUTURE)

EX. HART 95-31.68
REMOVE

SB SR-9 (I-95)

NB SR-9 (I-95)

℄ CONST. SR 9

-ABANDON
EX. CONDUIT
-REMOVE
EX. 12 SM/36 SM/36 SM
EX. 96 SM/48 SM
EX. 144 SM ITS

633-1-620	630 LF (6x)

DIRECTIONAL BORE - 5 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (24 SM DROP)
1-2" CONDUIT (2-24 SM DROP)
1-2" CONDUIT (3-#6 (600 VAC))
1-2" CONDUIT (SPARE)

380 LF	630-2-12
380 LF	639-2-1
380 LF (3x)	633-1-122

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

330 LF	630-2-12
330 LF	633-1-123
330 LF (2x)	633-1-124
330 LF	639-2-1

FSB 95-31.81 NB
W/ SLACK FIBER
POWER PULL BOX

633-1-122	100 LF
633-1-123	200 LF
633-1-124	200 LF (2x)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-11	1 EA
635-2-13	1 EA

L/A R/W LINE

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	390 LF
633-1-123	390 LF
633-1-124	390 LF (2x)
639-2-1	390 LF

POWER PULL BOX

1 EA	635-2-11

-REMOVE
EX. CCTV 95-31.68
EX. LHUB 95-31.68
EX. MVDS 95-31.68
-RELOCATE TO 95-31.76 SB
EX. VOIP 95-31.68
EX. WAP 95-31.68

1 EA	641-2-80

LHUB 95-31.76 NB
MVDS 95-31.76 NB
STA. 2269+20
SEE SITE DETAILS
LAYOUT 4

50 LF	633-1-122
1 EA	641-3-186
1 EA	660-3-11
1 EA	660-3-12
1 EA	635-2-11
1 EA	635-2-12

TRENCH LINE - 6 CONDUITS
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

630-2-11	530 LF
633-1-123	530 LF
633-1-124	530 LF (2x)
639-2-1	530 LF

TRENCH LINE - 7 CONDUITS
1-2" CONDUIT (24 SM ITS)
1-2" CONDUIT (144 SM ITS)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

140 LF	630-2-11
140 LF	633-1-122
140 LF	633-1-123
140 LF (2x)	633-1-124
140 LF	639-2-1

FSB 95-31.77 NB
W/ SLACK FIBER
POWER PULL BOX

100 LF (3x)	633-1-122
200 LF	633-1-123
200 LF (2x)	633-1-124
12 EA	633-2-31
2 EA	633-3-11
2 EA	633-3-12
1 EA	635-2-11
1 EA	635-2-13

DIRECTIONAL BORE - 7 CONDUITS
1-1" CONDUIT (TRACER WIRE)
1-2" CONDUIT (144 SM)
1-2" CONDUIT (144 SM & 72 SM)
1-2" CONDUIT (3-#2 (600 VAC))
3-2" CONDUIT (SPARE)

170 LF	630-2-12
170 LF	633-1-123
170 LF (2x)	633-1-124
170 LF	639-2-1

LHUB 95-31.81 NB
STA. 2272+10
SEE SITE DETAILS
LAYOUT 8

TRENCH LINE - 1 CONDUITS
1-2" CONDUIT (COMPOSITE CABLE)

200 LF	630-2-11
200 LF	633-8-1

PROSPECT RD

MATCHLINE STA. 2260+00.00

MATCHLINE STA. 2274+00.00

2265

2270

60

20

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST	3/9/20	MSE 5, 8, 10, 18, 25 ADJUSTMENT 84
1/22/19	65 UPDATED CONDUIT LOCATION	04/13/21	UPDATED CONDUIT 140
		11/11/21	155 155

Vanasse Hangen Brustlin, Inc.
Transportation, Land Development, Environmental Services
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Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS PLAN SHEET

SHEET NO. IT-199

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BY/FDOT VS Date: 2/24/2022
RELEASED FOR CONSTRUCTION
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FPID 433108-5-52-01 and 433109-1-52-01 CONTRACT E4R96

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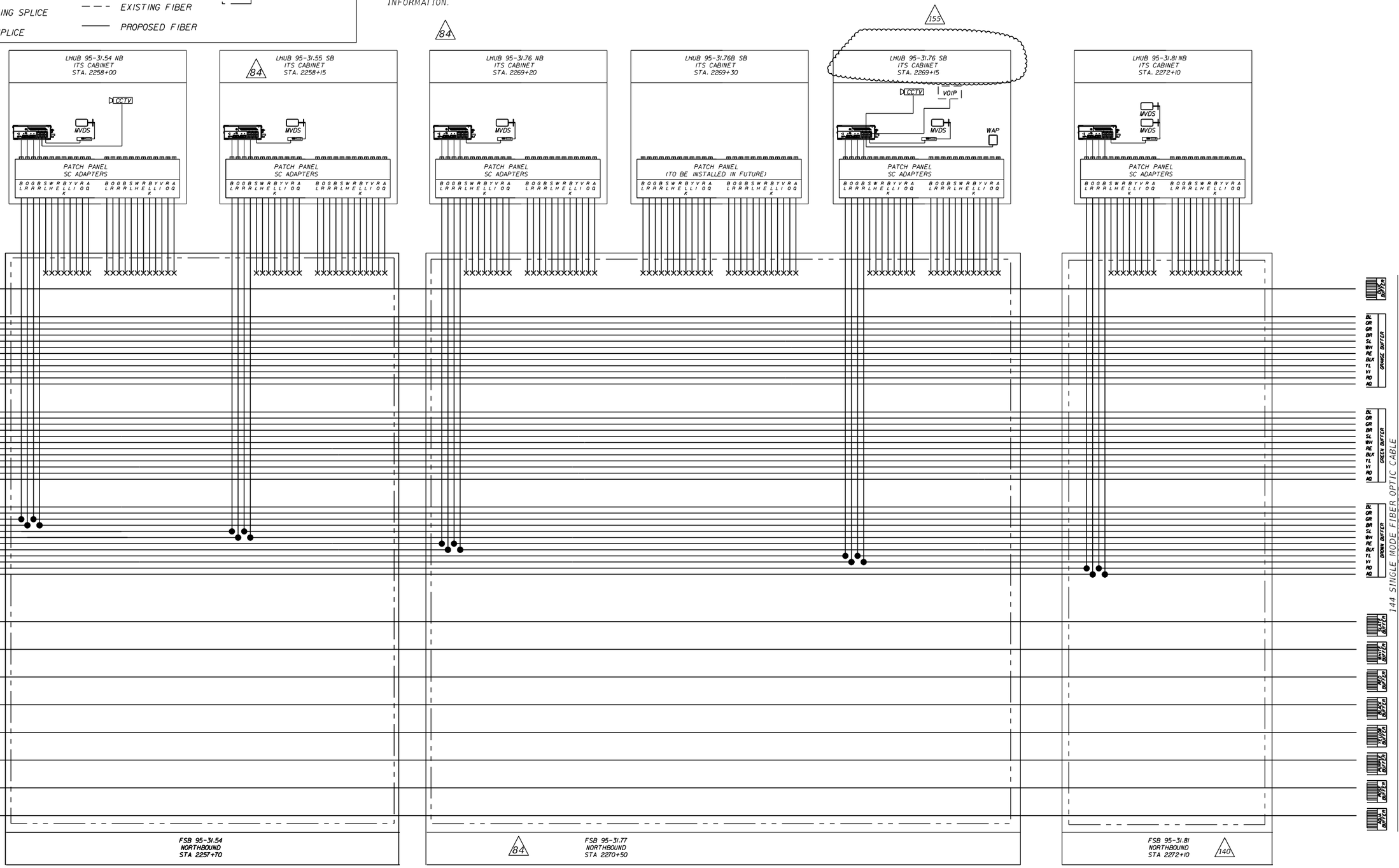
SOUTH — SR 9/I-95 — NORTH

LEGEND

- ● - - - SPLICE
- ○ - - - EXISTING SPLICE
- ● - - - MOC SPLICE
- × - - - TERMINATION
- — — — EXISTING FIBER
- ——— PROPOSED FIBER
- ▭ SPLICE ENCLOSURE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT RFI #75	11/11/21	RFI 155 155
04/13/21	140 UPDATED CALLOUT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

SPLICING DIAGRAM

SHEET NO.
IT-288

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FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

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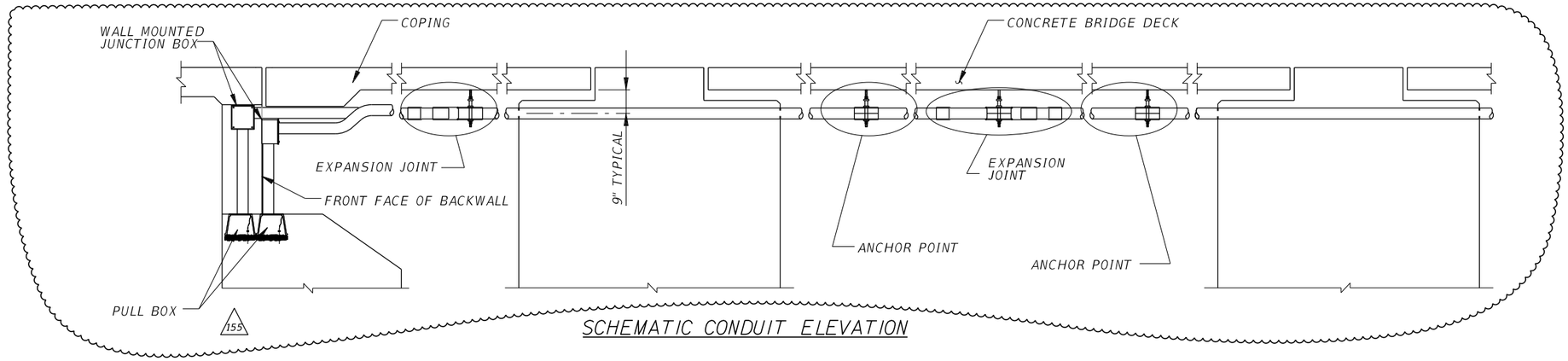
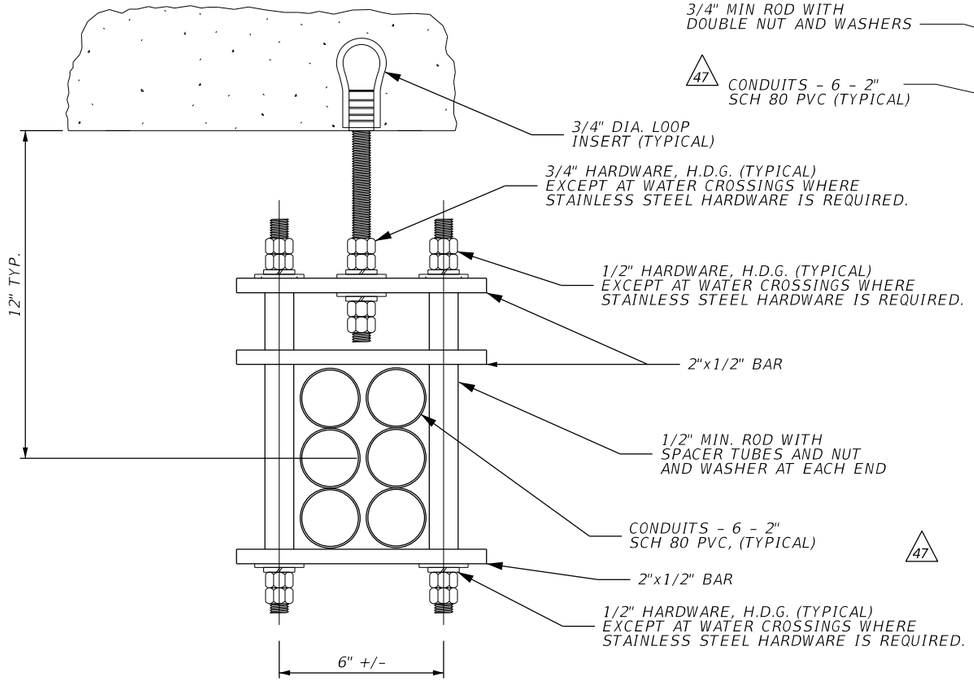
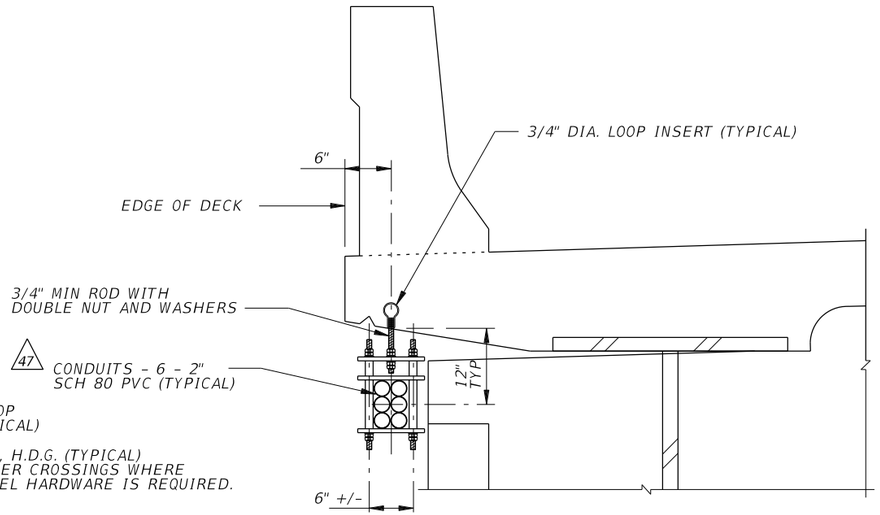


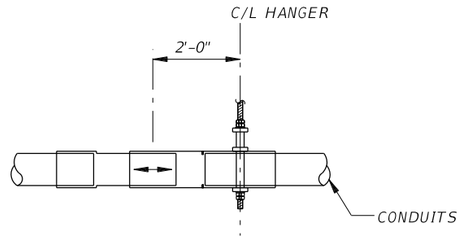
SCHEMATIC CONDUIT ELEVATION



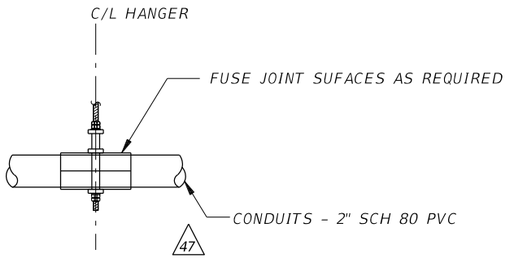
HANGER DETAIL



CONDUIT HANGER MOUNTING DETAIL



EXPANSION JOINT DETAIL



ANCHOR POINT DETAIL

NOTES:

1. EXPANSION JOINT PLACEMENT SHALL BE PER FDOT INDEX 21210.
2. LATERAL MOVEMENT IS FIXED AT MID SPAN BETWEEN EXPANSION JOINT BY USE OF HANGER BRACE.
3. ALL FIBERGLASS CONDUIT HANGERS WILL BE SPACED NO MORE THAN 10' ON CENTER.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/23/18	47 UPDATED BRIDGE MOUNTED CONDUIT		
11/11/21	155 RFI 96		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

BRIDGE MOUNT DETAILS

SHEET NO. IT-320

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FPID 433108-5-52-01 and 433109-4-52-01 CONTRACT E4R96

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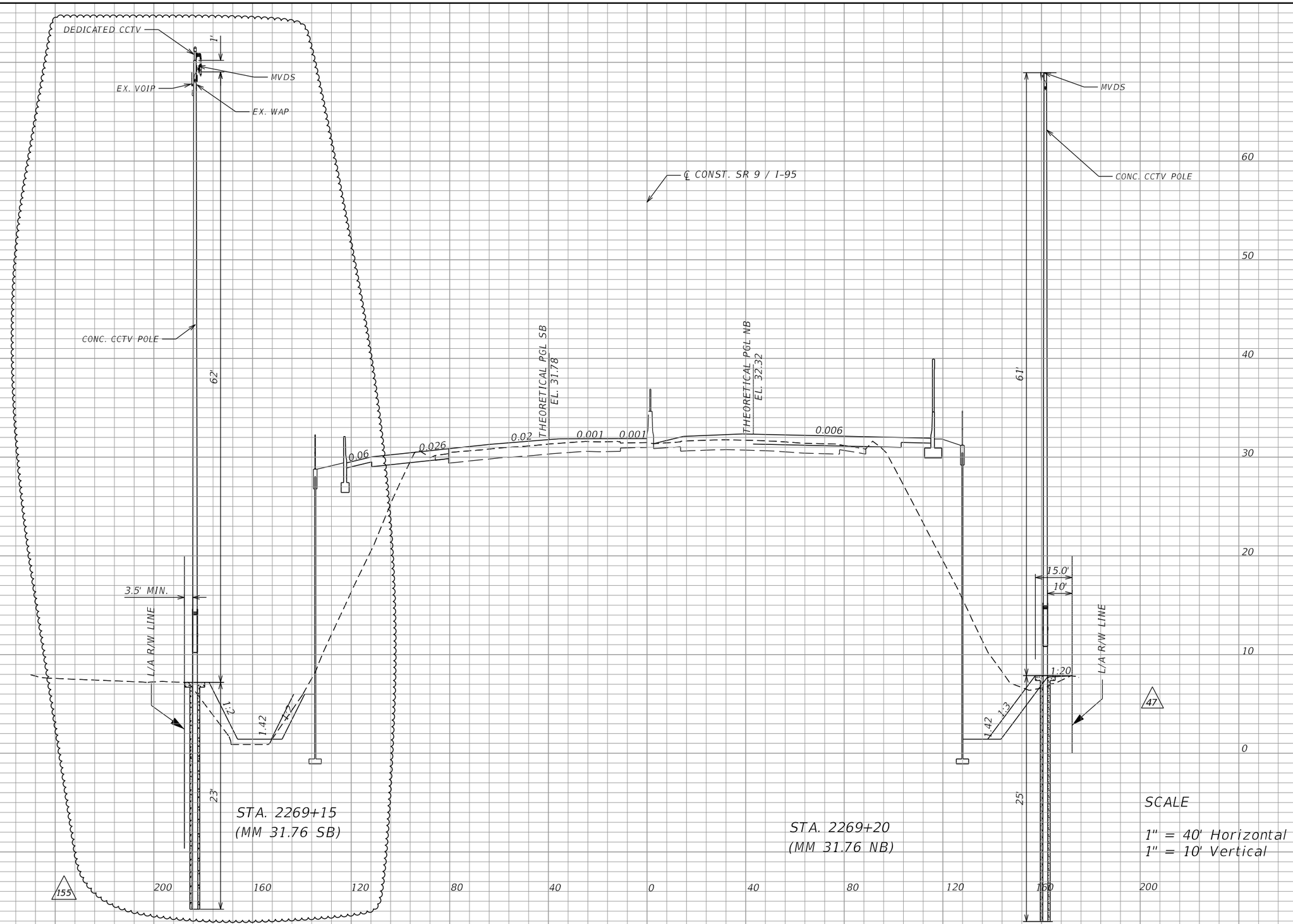

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7/31/18	47 MSE WALL 21 ADJUST		
11/11/21	RFI 155 155		

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PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO.
IT-443

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BY:FDOT VS Date: 2/24/2022
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

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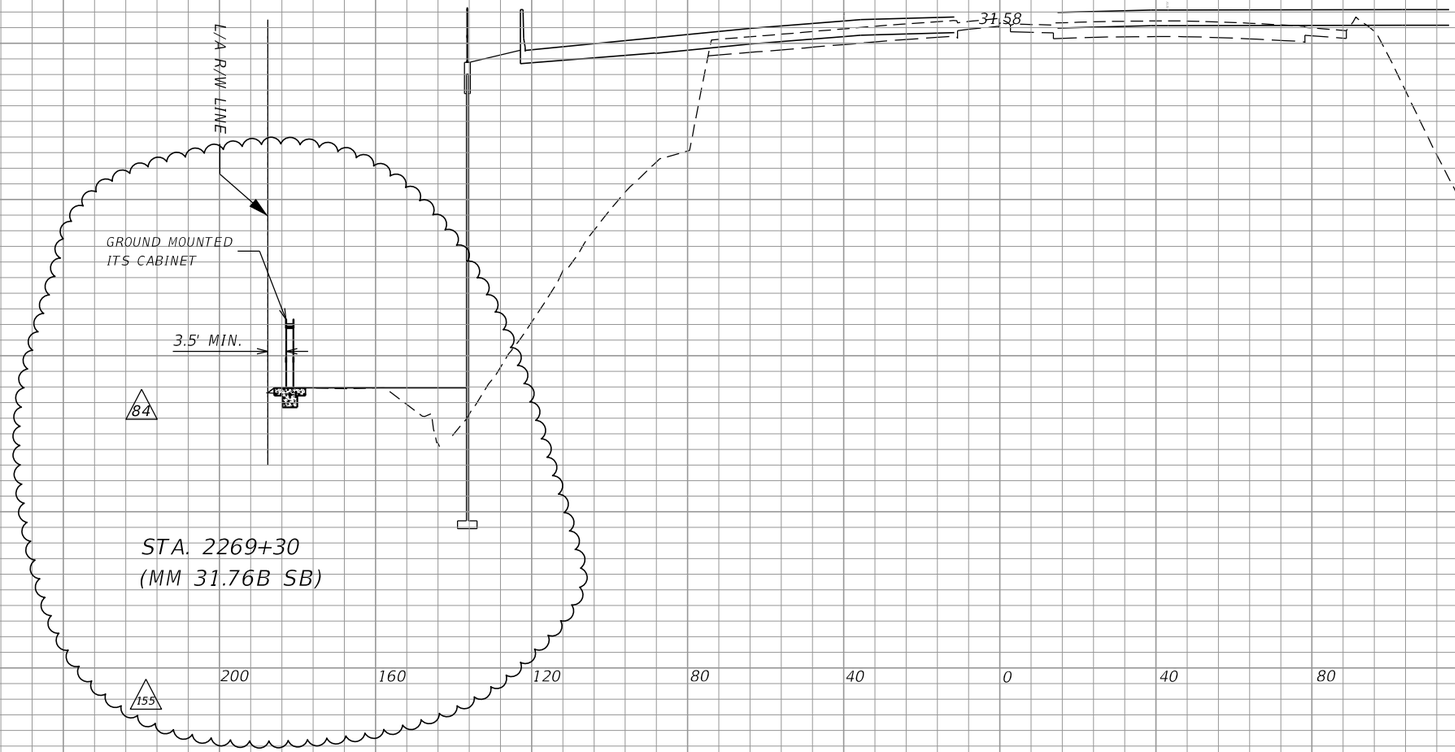

SCALE

1" = 40' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/9/20	84 MSE 5, 8, 10, 18, 25 ADJUSTMENT		
11/11/21	RFI 155 155		

Vanasse Hangen Brustlin, Inc.
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225 E. Robinson St., Suite 300
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Orlando, FL 32801 (407)839-4006
Certificate of Authorization # 3932
Jared Knight, P.E.
PE # 74758

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-4-52-01

ITS DEVICE CROSS SECTION

SHEET NO. IT-444

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FPID 433108-4-5241 and 433109-1-432-01 CONTRACT E4R96

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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

FINAL AS-BUILT PLANS

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-5-52-01

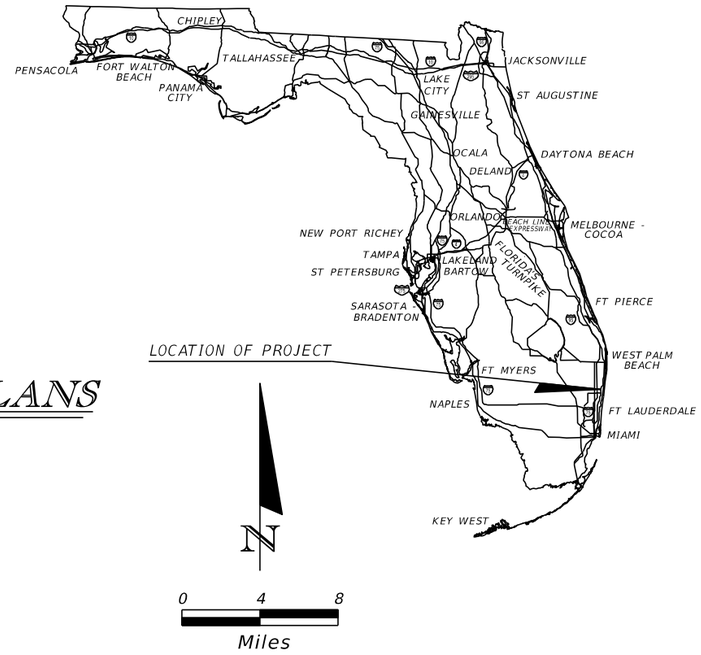
BROWARD COUNTY (86075)

STATE ROAD NO. 9 (1-95)

SR 9/I-95 FROM NORTH OF COMMERCIAL BOULEVARD (SR 870)

TO SOUTH OF SW 10TH STREET

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



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IT-6-IT-11	COMMUNICATIONS OVERVIEW
IT-12	I-95 3A-2 BCTED COMMUNICATIONS PLANS
IT-13-IT-16	ITS DEVICE SUMMARY TABLE
IT-17	ITS LEGEND, ABBREVIATIONS AND CONDUIT COLOR CODING
IT-18	ITS GENERAL NOTES
IT-19-IT-106	ITS PLANS
IT-107-IT-202	ITS CROSS SECTIONS
IT-203-IT-212	ITS DETAILS
IT-213-IT-215	CABINET DETAILS
IT-216-IT-219	ITS WIRING DIAGRAMS
IT-220-IT-245	FDOT SPLICING DIAGRAMS
IT-246-IT-247	BCTED SPLICING DIAGRAMS
IT-248	MFES PORT ALLOCATION
IT-249	RAMP SIGNAL SPECIAL DETAIL
IT-250-IT-256	DMS STRUCTURAL DETAILS
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IT-265	ITS ELECTRICAL GENERAL NOTES
IT-266-IT-355	ITS ELECTRICAL PLANS
IT-356-IT-360	ITS ELECTRICAL ONE-LINE SCHEMATICS
IT-361-IT-363	SERVICE POINT ONE-LINE SCHEMATICS
IT-364-IT-365	POWER STATION DETAILS
IT-366-IT-368	ITS ELECTRICAL DETAILS
IT-369-IT-370	ITS DEVICES
IT-371-IT-376	SUNGUIDE LANE ASSIGNMENT
IT-377-IT-380	SEQUENTIAL CABLE LENGTH
IT-381	ITS - FIBER MARKERS
IT-382	RSS CABINET WIRING DIAGRAM

IT-2E Final As-Built Signature Sheet

Index of Shop Drawings
See Sheet IT-2E

Name of Contractor: Prince Contracting, LLC
Name of all consultants involved: HNTB, JBS, Target, Carnahan Proctor
Resident Engineer: Scott Case, P.E.
Project Manager: Christian Rojas, P.E.
Project Administrator: Reinaldo Jorge
District Secretary: Gerry O'Reily, P.E.
Date Work Started: 1/8/2016
Date Work Final Acceptance: 10/3/2019

GOVERNING DESIGN STANDARDS:

Florida Department of Transportation, FY 2015 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website: http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, 2015 Standard Specifications for Road and Bridge Construction at the following website: http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

REVISIONS:

1. INTELLIGENT TRANSPORTATION SYSTEMS SHEETS: IT-1,IT-2A,IT-11,IT-13 THRU IT-15,IT-21,IT-22,IT-31 THRU IT-33,IT-39,IT-40,IT-45,IT-50,IT-54,IT-57, IT-59,IT-69,IT-72,IT-87,IT-91,IT-101,IT-112,IT-120A, IT-121,IT-139A,IT-140,IT-154A,IT-156,IT-160,IT-183A, IT-185A,IT-186,IT-188,IT-210,IT-245, IT-268,IT-269, IT-279,IT-286,IT-287,IT-291,IT-297,IT-301,IT-306, IT-316,IT-339,IT-349,IT-352,IT-356 THRU IT-358, IT-360,IT-364 AND IT-365 (10-27-2017)

2. INTELLIGENT TRANSPORTATION SYSTEMS SHEETS: IT-1,IT-2B,IT-6 THRU IT-11,IT-13 THRU IT-16,IT-22,IT-29,IT-31, IT-32,IT-34,IT-37,IT-39,IT-40,IT-50,IT-54,IT-55,IT-57,IT-59 THRU IT-61,IT-75,IT-77,IT-78,IT-80,IT-84,IT-87,IT-92,IT-93,IT-101, IT-115,IT-120,IT-121,IT-121A,IT-139B,IT-141A,IT-145A, IT-163,IT-164A,IT-180A,IT-225,IT-227,IT-230 THRU IT-245, IT-269,IT-276,IT-279,IT-284,IT-286,IT-292 THRU IT-297,IT-299 THRU IT-304,IT-306 THRU IT-308,IT-322,IT-324,IT-325,IT-327, IT-331 THRU IT-333,IT-340,IT-341,IT-352 THRU IT-363 (03-16-2018)

3. INTELLIGENT TRANSPORTATION SYSTEMS SHEETS: IT-1, IT-2C,IT-9,IT-10,IT-13 THRU IT-16, IT-70 THRU IT-83, IT-87 THRU IT-95, IT-161,IT-162,IT-163,IT-164A,IT-166,IT-167, IT-177,IT-178,IT-180A,IT-181,IT-182,IT-234, IT-235,IT-236,IT-238,IT-239,IT-240,IT-241,IT-318 IT-320 THRU IT-330,IT-335, IT-337 THRU IT-343, IT-358,IT-359 (REVISED 02/01/19)

KEY SHEET REVISIONS

DATE	DESCRIPTION
10/27/17	1 ADDED SHEETS IT-2A, IT-120A,IT-139A,IT-154A, IT-183A,IT-185A
03/16/18	2 ADDED SHEETS IT-2B, IT-121A, IT-139B, IT-141A, IT-145A, IT-164A, IT-180A
02/01/19	3 ADDED SHEET IT-2C, DELETED SHEETS IT-161, IT-162, IT-164A, IT-167, IT-177, IT-180A, IT-181, IT-182,
09/13/19	AS BUILTS, IT-2D, IT-369 THRU IT-382

AS-BUILT PLANS
SR 9 (I-95)
SEPTEMBER 2019

INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

TIMOTHY R. RAYNER, P.E.
P.E. NO.: 80987
PARSONS BRINCKERHOFF, INC.
277 BENDIX ROAD, SUITE 300
VIRGINIA BEACH, VA 23452
(757) 466-1732
CERT. OF AUTH. NO. 01462
VENDOR NO.: 111531569
CERTIFICATE OF AUTHORIZATION NO.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q64	16	IT-1

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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

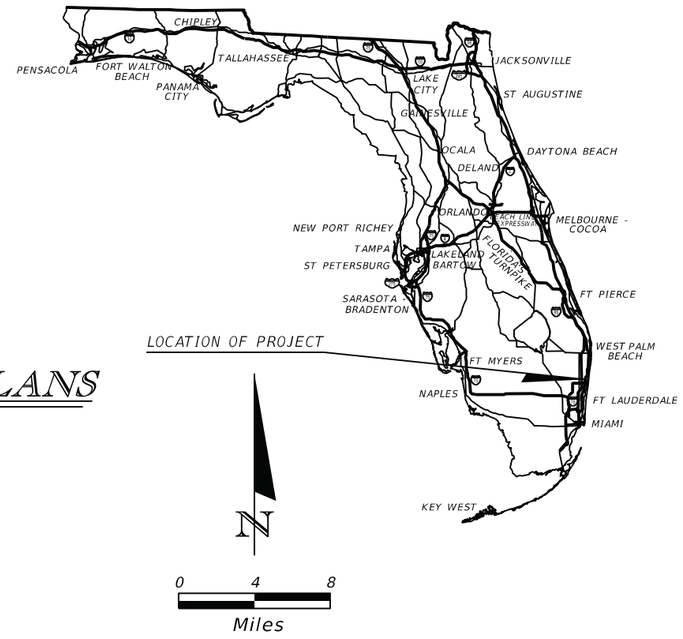
CONTRACT PLANS

FINANCIAL PROJECT ID 433108-5-52-01

BROWARD COUNTY (86075)

STATE ROAD NO. 9 (1-95)
SR 9/I-95 FROM NORTH OF COMMERCIAL BOULEVARD (SR 870)
TO SOUTH OF SW 10TH STREET

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



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IT-12	I-95 3A-2 BCTED COMMUNICATIONS PLANS
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IT-17	ITS LEGEND, ABBREVIATIONS AND CONDUIT COLOR CODING
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IT-361-IT-363	SERVICE POINT ONE-LINE SCHEMATICS
IT-364-IT-365	POWER STATION DETAILS
IT-366-IT-368	ITS ELECTRICAL DETAILS

VOID

REVISIONS:

INTELLIGENT TRANSPORTATION SYSTEMS SHEETS:
IT-1,IT-2A,IT-11,IT-13 THRU IT-15,IT-21,IT-22,IT-31 THRU IT-33,IT-39,IT-40,IT-45,IT-50,IT-54,IT-57, IT-59,IT-69,IT-72,IT-87,IT-91,IT-101,IT-112,IT-120A, IT-121,IT-139A,IT-140,IT-154A,IT-156,IT-160,IT-183A, IT-185A,IT-186,IT-188,IT-210,IT-245, IT-268,IT-269, IT-279,IT-286,IT-287,IT-291,IT-297,IT-301,IT-306, IT-316,IT-339,IT-349,IT-352,IT-356 THRU IT-358, IT-360,IT-364 AND IT-365 (10-27-2017)

2 INTELLIGENT TRANSPORTATION SYSTEMS SHEETS:
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3 INTELLIGENT TRANSPORTATION SYSTEMS SHEETS:
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KEY SHEET REVISIONS

DATE	DESCRIPTION
10/27/17	1 ADDED SHEETS IT-2A, IT-120A,IT-139A,IT-154A, IT-183A,IT-185A
03/16/18	2 ADDED SHEETS IT-2B, IT-121A, IT-139B, IT-141A, IT-145A, IT-164A, IT-180A
02/01/19	3 ADDED SHEET IT-2C, DELETED SHEETS IT-161, IT-162, IT-164A, IT-167, IT-177, IT-180A, IT-181, IT-182,

GOVERNING DESIGN STANDARDS:

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INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

TIMOTHY R. RAYNER, P.E.
P.E. NO.: 80987
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277 BENDIX ROAD, SUITE 300
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(757) 466-1732
CERT. OF AUTH. NO. 01462
VENDOR NO.: 111531569
CERTIFICATE OF AUTHORIZATION NO.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q64	16	IT-1

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of design, quantities, dimensions, fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

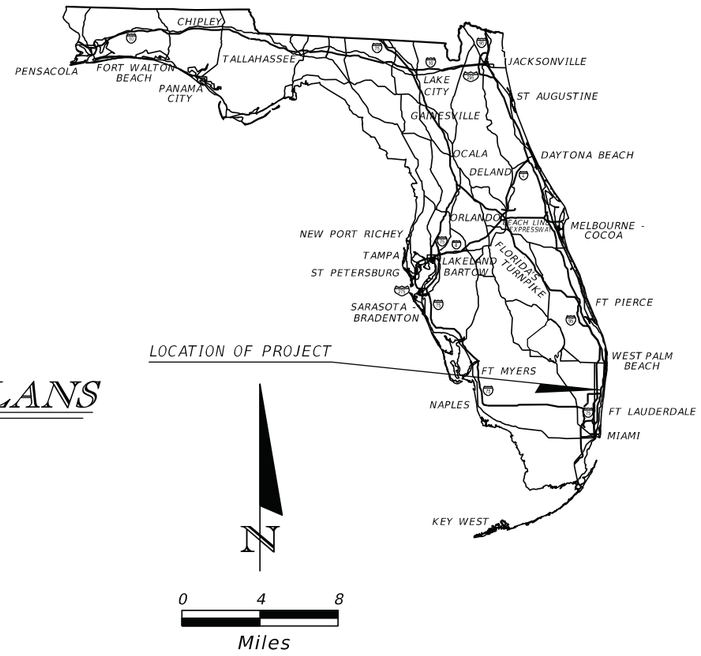
CONTRACT PLANS

FINANCIAL PROJECT ID 433108-5-52-01

BROWARD COUNTY (86075)

STATE ROAD NO. 9 (1-95)
SR 9/I-95 FROM NORTH OF COMMERCIAL BOULEVARD (SR 870)
TO SOUTH OF SW 10TH STREET

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



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REVISIONS:

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IT-1,IT-2A,IT-11,IT-13 THRU IT-15,IT-21,IT-22,IT-31 THRU IT-33,IT-39,IT-40,IT-45,IT-50,IT-54,IT-57, IT-59,IT-69,IT-72,IT-87,IT-91,IT-101,IT-112,IT-120A, IT-121,IT-139A,IT-140,IT-154A,IT-156,IT-160,IT-183A, IT-185A,IT-186,IT-188,IT-210,IT-245, IT-268,IT-269, IT-279,IT-286,IT-287,IT-291,IT-297,IT-301,IT-306, IT-316,IT-339,IT-349,IT-352,IT-356 THRU IT-358, IT-360,IT-364 AND IT-365 (10-27-2017)

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INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

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CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q64	16	IT-1

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q64 BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-5-52-01

BROWARD COUNTY (86075)

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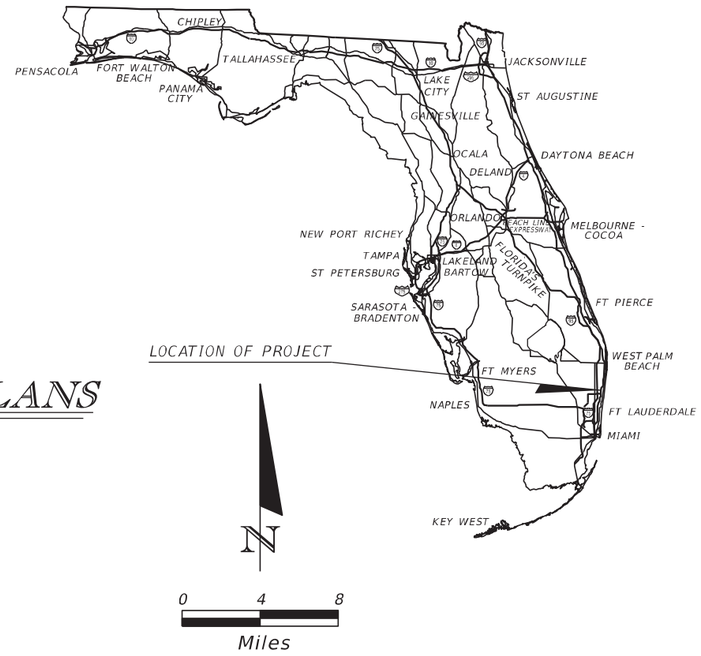

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INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

TIMOTHY R. RAYNER, P.E.
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(757) 466-1732
CERT. OF AUTH. NO. 01462
VENDOR NO.: 111531569
CERTIFICATE OF AUTHORIZATION NO.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q64	16	IT-1

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design, quantities, dimensions, and details shall remain with the contractor. Review does not authorize deviations from contract documents. Sole responsibility for fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec)

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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-5-52-01

BROWARD COUNTY (86075)

STATE ROAD NO. 9 (1-95)

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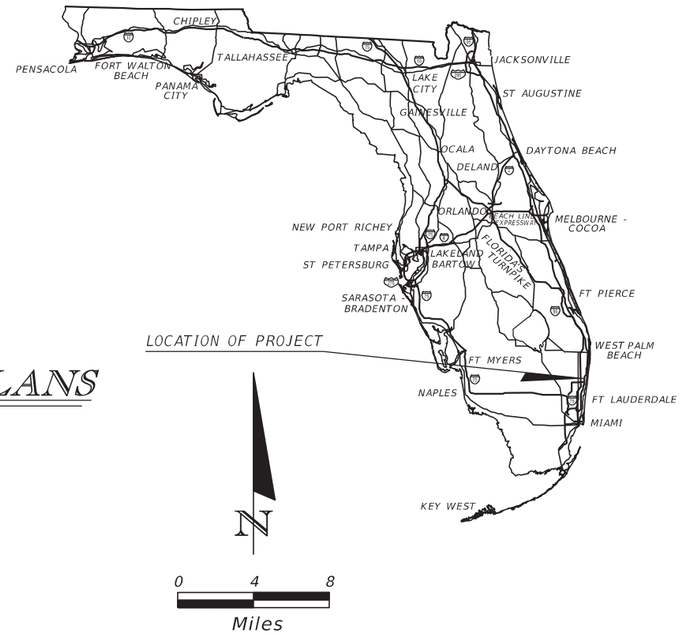
TO SOUTH OF SW 10TH STREET

INTELLIGENT TRANSPORTATION SYSTEMS PLANS



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IT-366-IT-368	ITS ELECTRICAL DETAILS

VOID

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REVISIONS:

KEY SHEET REVISIONS	
DATE	DESCRIPTION

INTELLIGENT TRANSPORTATION SYSTEMS PLANS ENGINEER OF RECORD:

TIMOTHY R. RAYNER, P.E.
P.E. NO.: 80987
PARSONS BRINCKERHOFF, INC.
277 BENDIX ROAD, SUITE 300
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FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4Q64	16	IT-1

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

TIMOTHY RAYMOND RAYNER
LICENSE
No 80987
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

PARSONS BRINCKERHOFF, INC.
277 BENDIX ROAD, SUITE 300
VIRGINIA BEACH, VA 23452
(757) 466-1732
CERT. OF AUTH. NO. 01462
EOR: TIMOTHY R. RAYNER, P.E. NO. 80987

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING CHANGES, INDICATED IN REDLINE REVISION, IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD.

THE ENGINEER HAS RELIED ON AS-BUILT INFORMATION PROVIDED BY OTHERS AND TO THE BEST OF OUR KNOWLEDGE, REFLECTS AS-CONSTRUCTED CONDITIONS.

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
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IT-381	ITS - FIBER MARKERS
IT-382	RSS CABINET WIRING DIAGRAM

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

KEVIN WILLIAM WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

PARSONS BRINCKERHOFF, INC.
2202 N. WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520-4444
CERT. OF AUTH. NO. 01462
EOR: KEVIN WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING CHANGES, INDICATED IN REDLINE REVISION, IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD.

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INTELLIGENT TRANSPORTATION SYSTEMS ELECTRICAL PLANS

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IT-284	ITS ELECTRICAL PLAN
IT-286 THRU IT-293	ITS ELECTRICAL PLANS
IT-295 THRU IT-297	ITS ELECTRICAL PLANS
IT-301	ITS ELECTRICAL PLAN
IT-303	ITS ELECTRICAL PLAN
IT-306 THRU IT-308	ITS ELECTRICAL PLANS
IT-310 THRU IT-319	ITS ELECTRICAL PLANS
IT-322	ITS ELECTRICAL PLAN
IT-325	ITS ELECTRICAL PLAN
IT-329 THRU IT-335	ITS ELECTRICAL PLANS
IT-337	ITS ELECTRICAL PLAN
IT-340	ITS ELECTRICAL PLAN
IT-343 THRU IT-345	ITS ELECTRICAL PLANS
IT-348 THRU IT-349	ITS ELECTRICAL PLANS
IT-351 THRU IT-355	ITS ELECTRICAL PLANS
IT-356 THRU IT-358	ITS ELECTRICAL ONE LINE SCHEMATIC
IT-360	ITS ELECTRICAL ONE LINE SCHEMATIC
IT-367	ITS ELECTRICAL DETAIL

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

TREVOR K. JOHNSON
LICENSE
No 65624
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

PARSONS BRINCKERHOFF, INC.
2202 N. WEST SHORE BLVD., SUITE 300
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CERT. OF AUTH. NO. 01462
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INTELLIGENT TRANSPORTATION SYSTEMS STRUCTURAL PLANS

SHEET NO.	SHEET DESCRIPTION
IT-2D	SIGNATURE SHEET
IT-364	POWER STATION DETAILS

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	ADDED SHEET		

Parsons Brinckerhoff, Inc.
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

FINAL AS-BUILT SIGNATURE SHEET

SHEET NO.
IT-2D

TIMOTHY RAYMOND RAYNER
LICENSE
No 80987
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy R Rayner
2019.04.01 17:19:11-04'00'

PARSONS BRINCKERHOFF, INC.
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(757) 466-1732
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EOR: TIMOTHY R. RAYNER, P.E. NO. 80987

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-1	KEY SHEET
IT-2C	SIGNATURE SHEET
IT-9 THRU IT-10	COMMUNICATIONS OVERVIEW
IT-13 THRU IT-16	ITS DEVICE SUMMARY TABLE
IT-70 THRU IT-83	ITS PLANS
IT-87 THRU IT-95	
IT-161 THRU IT-164A, IT-166,IT-167,IT-177, IT-178,IT-180A,IT-181, IT-182	ITS CROSS SECTIONS
IT-234 THRU IT-236, IT-238 THRU IT-241	FDOT SPLICING DIAGRAMS

KEVIN WILLIAM WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Kevin W Walsh
2019.04.01 17:17:38 -04'00'

PARSONS BRINCKERHOFF, INC.
2202 N. WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520-4444
CERT. OF AUTH. NO. 01462
EOR: KEVIN WALSH, P.E. NO. 78396

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS ELECTRICAL PLANS

SHEET NO.	SHEET DESCRIPTION
IT-2C	SIGNATURE SHEET
IT-318	ITS ELECTRICAL PLANS
IT-320 THRU IT-330,IT-335, IT-337 THRU IT-343	
IT-358 THRU IT-359	ITS ELECTRICAL ONE-LINE SCHEMATIC

Juan C Bolivar
Corridor Design Consultant (Stantec) - This serves as confirmation that the comments have been satisfactorily resolved
2019.04.02 18:49:47-04'00'

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction
2019.04.10 08:13:31-04'00'

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of design, quantities, and details continues with the EOR. Review for fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	⚠ ADDED SHEET		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SIGNATURE SHEET

SHEET NO. IT-2C

TIMOTHY RAYMOND RAYNER
LICENSE
No 80987
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy R Rayner
2018.08.15
10:05:08-04'00'

PARSONS BRINCKERHOFF, INC.
277 BENDIX ROAD, SUITE 300
VIRGINIA BEACH, VA 23452
(757) 466-1732
CERT. OF AUTH. NO. 01462
EOR: TIMOTHY R. RAYNER, P.E. NO. 80987

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-1	KEY SHEET
IT-2B	SIGNATURE SHEET
IT-6-IT-11	COMMUNICATIONS OVERVIEW
IT-13-IT-16	ITS DEVICE SUMMARY TABLE
IT-22,IT-29,IT-31, IT-32,IT-34,IT-37, IT-39,IT-40,IT-50, IT-54,IT-55,IT-57, IT-59 THRU IT-61, IT-75,IT-77,IT-78, IT-80,IT-84,IT-87, IT-92,IT-93,IT-101	ITS PLANS
IT-120,IT-121,IT-121A, IT-139B,IT-141A, IT-145A,IT-163, IT-164A,IT-180A	ITS CROSS SECTIONS
IT-225,IT-227,IT-230 THRU IT-244	FDOT SPLICING DIAGRAMS

KEVIN WILLIAM WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Kevin W Walsh
2018.08.07 12:40:49 -04'00'

PARSONS BRINCKERHOFF, INC.
2202 N. WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520-4444
CERT. OF AUTH. NO. 01462
EOR: KEVIN WALSH, P.E. NO. 78396

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS ELECTRICAL PLANS

SHEET NO.	SHEET DESCRIPTION
IT-2B	SIGNATURE SHEET
IT-269,IT-276,IT-279, IT-284,IT-286,IT-292 THRU IT-297,IT-299 THRU IT-304,IT-306 THRU IT-308,IT-322, IT-324,IT-325,IT-327, IT-331 THRU IT-333, IT-340,IT-341, IT-352 THRU IT-355	ITS ELECTRICAL PLANS
IT-356 THRU IT-360	ITS ELECTRICAL ONE-LINE SCHEMATICS
IT-361 THRU IT-363	SERVICE POINT ONE-LINE SCHEMATICS

Juan C Bolivar
Corridor Design Consultant (Stantec) - This serves as confirmation that the comments have been satisfactorily resolved
2018.08.21 18:37:42-04'00'

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction
2018.08.22 10:02:33-04'00'

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED SHEET NUMBERS		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SIGNATURE SHEET

SHEET NO.
IT-2B

TIMOTHY RAYMOND RAYNER
LICENSE
No 80987
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy R Rayner
2018.03.01 17:44:55-05'00'

PARSONS BRINCKERHOFF, INC.
277 BENDIX ROAD, SUITE 300
VIRGINIA BEACH, VA 23452
(757) 466-1732
CERT. OF AUTH. NO. 01462
EOR: TIMOTHY R. RAYNER, P.E. NO. 80987

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-1	KEY SHEET
IT-2A	SIGNATURE SHEET
IT-11	COMMUNICATIONS OVERVIEW
IT-13-IT-15	ITS DEVICE SUMMARY TABLE
IT-21,IT-22,IT-31 THRU IT-33,IT-39,IT-40,IT-45, IT-50,IT-54,IT-57,IT-59, IT-69,IT-72,IT-87,IT-91, IT-101	ITS PLANS
IT-112,IT-121,IT-140, IT-156,IT-160,IT-186,IT-188	ITS CROSS SECTIONS
IT-210	ITS DETAILS
IT-245	FDOT SPLICING DIAGRAMS

KEVIN WILLIAM WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Kevin W Walsh
2018.03.02 08:36:20 -05'00'

PARSONS BRINCKERHOFF, INC.
2202 N. WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520-4444
CERT. OF AUTH. NO. 01462
EOR: KEVIN WALSH, P.E. NO. 78396

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS ELECTRICAL PLANS

SHEET NO.	SHEET DESCRIPTION
IT-2A	SIGNATURE SHEET
IT-268,IT-269,IT-279, IT-286,IT-287,IT-291, IT-297,IT-301,IT-306, IT-316,IT-339,IT-349, IT-352	ITS ELECTRICAL PLANS
IT-356 THRU IT-358,IT-360	ITS ELECTRICAL ONE-LINE SCHEMATICS
IT-364-IT-365	POWER STATION DETAILS

Patrick C Leung
Corridor Design Consultant (Stantec) - This serves as confirmation that the comments have been satisfactorily resolved
2018.03.14 11:34:57-04'00'

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction
2018.03.21 08:10:03-04'00'

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SIGNATURE SHEET

SHEET NO.
IT-2A

TIMOTHY RAYMOND RAYNER
LICENSE
No 80987
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy R Rayner
Digitally signed by Timothy R Rayner
DN: CN=O=D.O.D.PKI, 1920.EBI.108.17=#0100720000140207F796DF0097DD3, ou=PARSONS BRINCKERHOFF, OU=NetTrust ACES Business Representative, C=US
Date: 2017.07.26 16:21:23-04'00'

PARSONS BRINCKERHOFF, INC.
277 BENDIX ROAD, SUITE 300
VIRGINIA BEACH, VA 23452
(757) 466-1732
CERT. OF AUTH. NO. 01462
EOR: TIMOTHY R. RAYNER, P.E. NO. 80987

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

SHEET NO.	SHEET DESCRIPTION
IT-1	KEY SHEET
IT-2	SIGNATURE SHEET
IT-3-IT-5	PROJECT LAYOUT
IT-6-IT-11	COMMUNICATIONS OVERVIEW
IT-12	I-95 3A-2 BCTED COMMUNICATIONS PLANS
IT-13-IT-16	ITS DEVICE SUMMARY TABLE
IT-17	ITS LEGEND, ABBREVIATIONS AND CONDUIT COLOR CODING
IT-18	ITS GENERAL NOTES
IT-19-IT-106	ITS PLANS
IT-107-IT-202	ITS CROSS SECTIONS
IT-203-IT-212	ITS DETAILS
IT-213-IT-215	CABINET DETAILS
IT-216-IT-219	ITS WIRING DIAGRAMS
IT-220-IT-245	FDOT SPLICING DIAGRAMS
IT-246-IT-247	BCTED SPLICING DIAGRAMS
IT-248	MFES PORT ALLOCATION
IT-249	RAMP SIGNAL SPECIAL DETAIL

TREVOR K. JOHNSON
LICENSE
No 65624
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Digitally signed by Trevor K Johnson
Date: 2017.07.26 17:01:55 -04'00'

PARSONS BRINCKERHOFF, INC.
2202 N. WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520-4444
CERT. OF AUTH. NO. 01462
EOR: TREVOR K. JOHNSON, P.E. NO. 65624

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS STRUCTURAL PLANS

SHEET NO.	SHEET DESCRIPTION
IT-364-IT-365	POWER STATION DETAILS

KEVIN WILLIAM WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Kevin W Walsh
2017.07.26 17:18:33
-04'00'

PARSONS BRINCKERHOFF, INC.
2202 N. WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520-4444
CERT. OF AUTH. NO. 01462
EOR: KEVIN WALSH, P.E. NO. 78396

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS ELECTRICAL PLANS

SHEET NO.	SHEET DESCRIPTION
IT-2	SIGNATURE SHEET
IT-261-IT-263	ITS ELECTRICAL PROJECT LAYOUT PLANS
IT-264	ITS ELECTRICAL LEGEND AND ABBREVIATIONS
IT-265	ITS ELECTRICAL GENERAL NOTES
IT-266-IT-355	ITS ELECTRICAL PLANS
IT-356-IT-360	ITS ELECTRICAL ONE-LINE SCHEMATICS
IT-361-IT-363	SERVICE POINT ONE-LINE SCHEMATICS
IT-364-IT-365	POWER STATION DETAILS
IT-366-IT-368	ITS ELECTRICAL DETAILS

Patrick C Leung
Corridor Design Consultant (Stantec) - This serves as confirmation that the comments have been satisfactorily resolved
2017.08.25 18:35:01-04'00'

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction
2017.08.28 09:53:28-04'00'

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

MORGAN VILLANUEVA
LICENSE
No 60292
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Morgan Villanueva
2017.07.27
10:11:26 -04'00'

CAP ENGINERRING, INC.
343 ALMERIA AVE
CORAL GABLES, FL 33134
CERT. OF AUTH. NO. 27051
EOR: MORGAN VILLANUEVA, P.E. NO. 60292

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS STRUCTURAL PLANS

SHEET NO.	SHEET DESCRIPTION
IT-250-IT-256	DMS STRUCTURAL DETAILS

HUGO E. SOTO
LICENSE
No 36440
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Hugo E Soto
Digitally signed by Hugo E Soto
DN: cn=Hugo E Soto, c=US, o=IdenTrust ACES Business Representative, ou=TERRACON CONSULTANTS INC., email=Hugo.Soto@terracon.com
Date: 2017.07.27 16:04:56 -04'00'

TERRACON
16200 NW 59th AVENUE, SUITE 106
MIAMI, FL 33014
CERT. OF AUTH. NO. 8830
EOR: HUGO E. SOTO, P.E. NO. 36440

"THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY REDLINE REVISION."

INTELLIGENT TRANSPORTATION SYSTEMS STRUCTURAL PLANS

SHEET NO.	SHEET DESCRIPTION
IT-257-IT-260	REPORT OF CORE BORINGS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

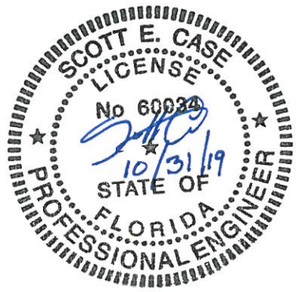
SIGNATURE SHEET

SHEET NO. IT-2

$PLTDRVL$ $PENTBLL$ abreuk 7/25/2017 7:44:41 AM c:\projectwise\pb\projectwiseint\abreuk\d0146451\SIGNIT01.DGN

THIS ITEM HAS BEEN SIGNED AND SEALED BY: SCOTT CASE, P.E.
STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO.: 60034

ON THE DATE INDICATED HERE: 10/31/2019



HNTB Corporation
610 Crescent Executive Court, Suite 400
Lake Mary, FL 32746
CERTIFICATION OF AUTHORIZATION: N/A

This project was constructed in substantial compliance with these plans as provided by the Engineer of Record. These plans reflect "as-built" conditions and no changes were made to the plan sheets.

Directional Bores

EDMS #:	Description:
1376102	ITS Directional Bore Path Reports

EDMS #:	Shop Drawing Description:
1147011	ITS Infrastructure Spec Sheets Response
1155457	Microwave Vehicle Detection System Spec sheet
1158203	ITS Infrastructure Spec Sheet Revision 1
1175744	Surge Protective
1176592	ITS Square Poles
1177214	Overhead Cantilever DMS
1189711	Rev. 1 Closed Circuit TV Cameras
1189712	Camera Lowering Device
1196975	Rev. 1 ITS 336S Cabinets
1207983	Rev. 1 RSS Ramp Signal Controller
1207992	Rev. 3 ITS 334 Cabinets
1213253	Meter Enclosure Fuse Disc Switches
1215661	DMS Signs
1359707	R2 ITS Transformers
1359710	R6 ITS RSS Signals, Poles, Mounting Hardware
1359712	R9 ITS RSS Pre-formed Loops
1359714	R2 ITS CLD Poles
1359717	ITS FOC
1359723	R2 ITS Layer 2 Switch
1359740	ITS Surge Protective Devices Rev. 1
1359741	R1 ITS UPS and UPS Batteries
1359745	R5 ITS RSS Signals Poles Mounting Hardware Tbase
1359748	R2 ITS Splice Vault Cover
1359749	ITS Infrastructure Splice KIT
1359750	ITS FIBER and Power Tags
1359751	R8 ITS RSS Cabinet
1359752	ITS Infrastructure Spec Sheets 3A2
1359737	ITS Generator and ATS
1380461	Fiber Optic Cable and Communication Equipment
1380462	ITS Layer 3 Switch

Date	Name	Position (Title)	Review Type, If Applicable
RESIDENT OFFICE			
DISTRICT OFFICE			

REVISIONS

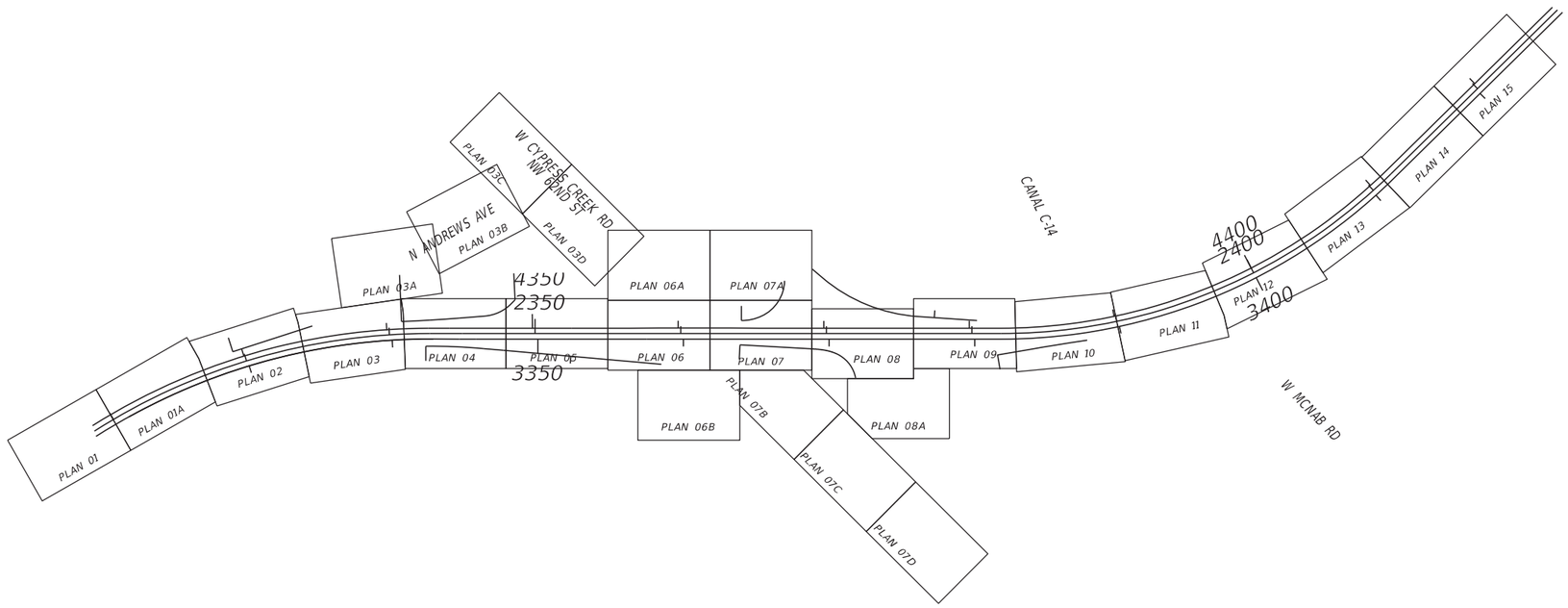
	DATE	DESCRIPTION		DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID

FINAL "AS-BUILT" SIGNATURE SHEET

SHEET NO.
IT-2E



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

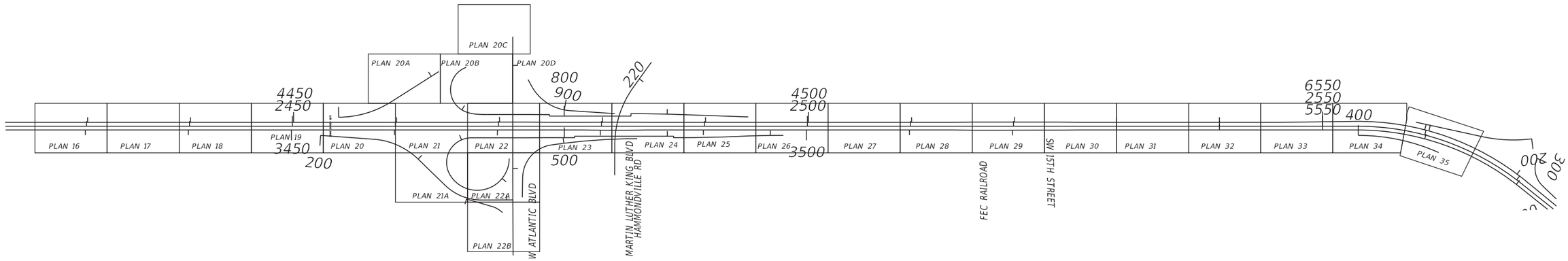
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

PROJECT LAYOUT (1 OF 3)

SHEET NO. IT-3



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

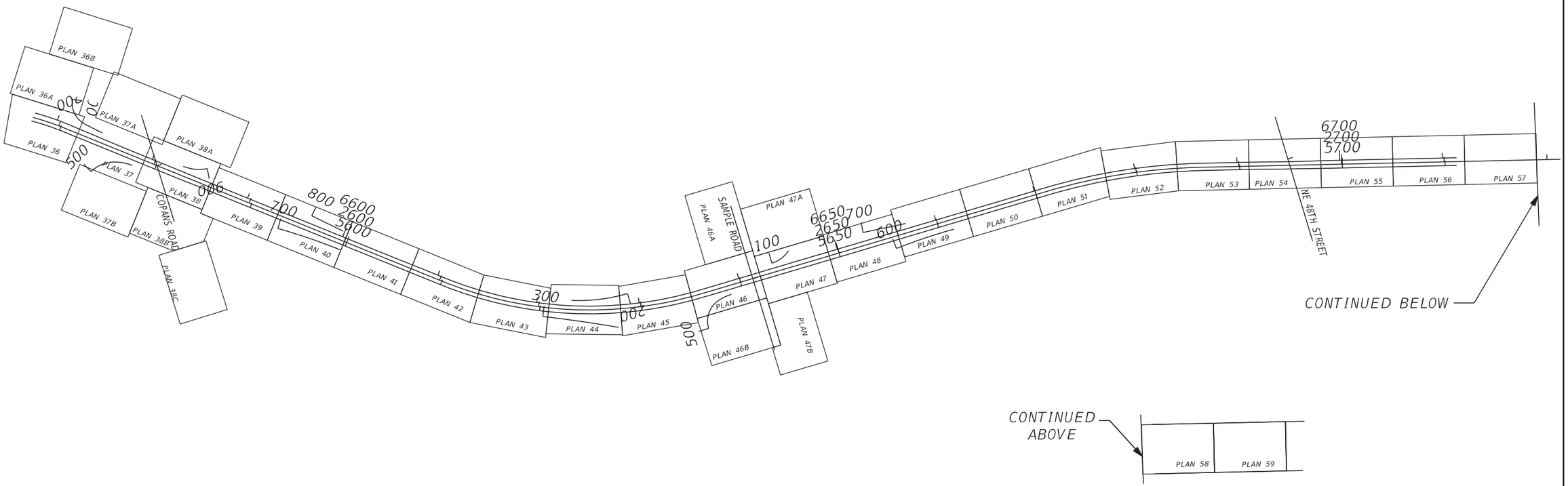
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

PROJECT LAYOUT (2 OF 3)

SHEET NO.
IT-4

$PLTDRVL$ $PENTBLL$ abreuk 7/25/2017 7:44:52 AM c:\projectwise\pb\projectwiseint\abreuk\d0146451\PLAYIT02.DGN



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

PROJECT LAYOUT (3 OF 3)

SHEET NO. IT-5

EXISTING REGIONAL TRANSPORTATION MANAGEMENT CENTER (RTMC)

EXISTING FDOT BROWARD OPS CENTER (POWERLINE BUILDING)

EXISTING FDOT HUB I-95 @ COMMERCIAL BLVD.

EXISTING SV AT 2319+00 SPLICE PROP AND EXIST 24 COUNT BLUE BUFFER COLOR-COLOR

I-95

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- PROPOSED WALK-IN DMS
- PROPOSED FRONT ACCESS DMS
- PROPOSED STATUS DMS
- PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- PROPOSED SPLICE BOX
- DEVICE SERVER — DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

144-COUNT SM TRUNK CABLE

10 GigE — C2C

BLUE BUFFER

ORANGE BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

GREEN BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

BROWN BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

BLACK BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER (FIBERS 9-12)

AQUA BUFFER

24 COUNT BLUE BUFFER (FIBERS 1-6)

SV-1 | SV-2 | SV-3 | SV-4 | SV-5 | SV-6 | SV-7 | SV-8 | SV-9

SV-1: DEVICE SERVER; FL D4 095 015.6 NB NS DS EL-GP 6; 015.6 CCTV EL-GP 1 — CCTV; DEVICE SERVER; FL D4 095 015.6 SB SS DS EL-GP 6

SV-2: DEVICE SERVER; FL D4 095 015.8 NB NS DS EL-GP 6

SV-3: DEVICE SERVER; FL D4 095 015.7 SB SS DS EL-GP-ON 6; 015.8 CCTV GP 1 — D-CCTV; 955B015.7; DEVICE SERVER; FL D4 095 016.0 SB SS DS EL-GP-ON 6; 016.0 CCTV EL-GP 1 — CCTV

SV-4: DEVICE SERVER; FL D4 095 016.0 NB NS DS EL-GP-OF 6

SV-5: DEVICE SERVER; FL D4 095 016.2 NB NS DS EL-GP 6; DEVICE SERVER; FL D4 095 016.2 SB SS DS EL-GP 6; 016.2 CCTV GP 1 — D-CCTV; POWER SERVICE POINT A

SV-6: 016.4 CCTV GP 1 — D-CCTV; DEVICE SERVER; FL D4 095 016.4 SB SS DS EL-GP-ON 6; FL D4 DOT 095 016.4 NB LS 1; 016.5 CCTV TOLL 1; GANTRY 4 TOLL; DEVICE SERVER; FL D4 095 016.4 NB NS DS EL-GP-OF 6

SV-7: 016.5 CCTV EL-GP 1 — CCTV

SV-8: FL D4 DOT 095 016.9 NB TR 1 — DMS; 016.6 CCTV GP 1 — D-CCTV; DEVICE SERVER; FL D4 095 016.6 SB SS DS EL-GP-OF 7

SV-9: 016.7 CCTV EL 1; DEVICE SERVER; FL D4 095 016.7 NB NS DS EL-GP-ON 6

CANAL C-14

ROADWAYS

COMMERCIAL BLVD.

N ANDREWS AVENUE

W CYPRESS CREEK ROAD

NW 62ND STREET

MATCH LINE A

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED 016.5 CCTV EL-GP 1, 016.2 CCTV GP 1 & 016.6 CCTV GP 1 . REMOVED 016.4 CCTV EL-GP 1 & 016.5 CCTV GP 1. MODIFIED SPLICE FOR CONTROLLER IN SV-9.		
9/13/19	AS-BUILTS		

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Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 1 OF 6)

SHEET NO. IT-6

EXISTING REGIONAL TRANSPORTATION MANAGEMENT CENTER (RTMC)

EXISTING FDOT HUB I-95 @ COMMERCIAL BLVD.

10/100/1000 MBPS, 10 GigE

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- PROPOSED SPLICE BOX
- DEVICE SERVER — DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

N

144-COUNT SM TRUNK CABLE

I-95

10 GigE — C2C

BLUE BUFFER

ORANGE BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

GREEN BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

BROWN BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

BLACK BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

SV-1 | SV-2 | SV-3 | SV-4 | SV-5 | SV-6 | SV-7 | SV-8 | SV-9

SV-1: FL D4 095 015.6 NB NS DS EL-GP 6 — 015.6 CCTV EL-GP 1 — CCTV; FL D4 095 015.6 SB SS DS EL-GP 6

SV-2: FL D4 095 015.8 NB NS DS EL-GP 6

SV-3: FL D4 095 015.7 SB SS DS EL-GP-ON 6 — 015.8 CCTV GP 1 — D-CCTV — 955B015.7 — DMS; FL D4 095 016.0 SB SS DS EL-GP-ON 6 — 016.0 CCTV EL-GP 1 — CCTV; FL D4 095 016.0 NB NS DS EL-GP-OF 6

SV-4: FL D4 095 016.2 NB NS DS EL-GP 6

SV-5: FL D4 095 016.2 SB SS DS EL-GP 6 — 016.2 CCTV GP 1 — D-CCTV; POWER SERVICE POINT A

SV-6: 016.4 CCTV GP 1 — D-CCTV; FL D4 095 016.4 SB SS DS EL-GP-ON 6 — FL D4 DOT 095 016.4 NB LS 1 — STATUS DMS; 016.5 CCTV TOLL 1 — D-CCTV; GANTRY 4 TOLL; FL D4 095 016.4 NB NS DS EL-GP-OF 6

SV-7: 016.5 CCTV EL-GP 1 — CCTV

SV-8: FL D4 DOT 095 016.9 NB TR 1 — DMS; 016.6 CCTV GP 1 — D-CCTV; FL D4 095 016.6 SB SS DS EL-GP-OF 7

SV-9: 016.7 CCTV EL 1 — D-CCTV; FL D4 095 016.7 NB NS DS EL-GP-ON 6

CANAL C-14

ROADWAYS

COMMERCIAL BLVD.

N ANDREWS AVENUE

W CYPRESS CREEK ROAD

NW 62ND STREET

MATCH LINE A

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)

BY: (Stantec) JB

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED 016.5 CCTV EL-GP 1, 016.2 CCTV GP 1 & 016.6 CCTV GP 1 . REMOVED 016.4 CCTV EL-GP 1 & 016.5 CCTV GP 1. MODIFIED SPLICE FOR CONTROLLER IN SV-9.		

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 1 OF 6)

SHEET NO. IT-6

EXISTING REGIONAL TRANSPORTATION MANAGEMENT CENTER (RTMC)

EXISTING FDOT HUB I-95 @ COMMERCIAL BLVD.

10/100/1000 MBPS, 10 GigE

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- PROPOSED SPLICE BOX
- DEVICE SERVER — DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

N

144-COUNT SM TRUNK CABLE

I-95

10 GigE

BLUE BUFFER — C2C

ORANGE BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

GREEN BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

BROWN BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

BLACK BUFFER: BLUE/ORANGE, GREEN/BROWN, SLATE/WHITE, RED/BLACK, YELLOW/VIOLET, ROSE/AQUA

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

MATCH LINE A

SV-1 — DEVICE SERVER — FL D4 095 015.6 NB NS DS EL-GP 6 — 015.6 CCTV EL-GP 1 — CCTV

SV-2 — DEVICE SERVER — FL D4 095 015.8 NB NS DS EL-GP 6

SV-3 — DEVICE SERVER — FL D4 095 015.7 SB SS DS EL-GP-ON 6 — 015.8 CCTV GP 1 — D-CCTV — 955B015.7 — DMS

SV-4 — DEVICE SERVER — FL D4 095 016.0 SB SS DS EL-GP-ON 6 — 016.0 CCTV EL-GP 1 — CCTV — FL D4 095 016.0 NB NS DS EL-GP-OF 6

SV-5 — DEVICE SERVER — FL D4 095 016.2 NB NS DS EL-GP 6 — FL D4 095 016.2 SB SS DS EL-GP 6 — POWER SERVICE POINT A

SV-6 — DEVICE SERVER — 016.4 CCTV GP 1 — D-CCTV — FL D4 095 016.4 SB SS DS EL-GP-ON 6 — FL D4 D0T 095 016.4 NB LS 1 — STATUS DMS — 016.5 CCTV TOLL 1 — D-CCTV — GANTRY 4 TOLL

SV-7 — DEVICE SERVER — FL D4 095 016.4 NB NS DS EL-GP-OF 6 — 016.4 CCTV EL-GP 1 — CCTV — 016.5 CCTV GP 1 — D-CCTV

SV-8 — DEVICE SERVER — FL D4 D0T 095 016.9 NB TR 1 — DMS — FL D4 095 016.6 SB SS DS EL-GP-OF 7

SV-9 — DEVICE SERVER — 016.7 CCTV EL 1 — D-CCTV — FL D4 095 016.7 NB NS DS EL-GP-ON 6

CANAL C-14

ROADWAYS: COMMERCIAL BLVD. · N ANDREWS AVENUE · W CYPRESS CREEK ROAD · NW 62ND STREET

VOID

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

DO NOT SCALE DRAWING — CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD
RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stamless) BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 1 OF 6)

SHEET NO. IT-6

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH (10/100/1000 MBPS, 10 GigE)
- 1 GigE SWITCH (ETHERNET)
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

N

144-COUNT SM TRUNK CABLE

MATCH LINE A

MATCH LINE B

10 GigE

BLUE BUFFER — C2C

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

SV-9A | SV-10 | SV-11 | SV-12 | SV-13 | SV-14 | SV-15 | SV-16 | SV-17 | SV-18

SV-9A: ETHERNET → DEVICE SERVER → FL D4 095 016.8 NB NS DS EL-GP 6 → CCTV

SV-10: ETHERNET → DEVICE SERVER → FL D4 095 016.9 SB SS DS EL-GP 6 → 016.9 CCTV GP 1 → CCTV

SV-11: ETHERNET → 016.9 CCTV EL 1 → D-CCTV → $XX.XX

SV-12: ETHERNET → FL D4 DOT 095 017.1 NB LS 1 → STATUS DMS

SV-13: ETHERNET → DEVICE SERVER → FL D4 095 017.1 SB SS DS EL-GP 6 → FL D4 095 017.2 NB NS DS EL-GP 6 → D-CCTV → 017.2 CCTV EL 1

SV-14: ETHERNET → DEVICE SERVER → FL D4 095 017.4 NB NS DS EL-GP 6 → 017.4 CCTV EL-GP 1 → CCTV

SV-15: ETHERNET → DEVICE SERVER → FL D4 095 017.4 SB SS DS EL-GP 6 → FL D4 095 017.3 NB TR 1 → $XX.XX → DMS

SV-16: ETHERNET → FL D4 DOT 095 017.5 NB LS 1 → STATUS DMS → POWER SERVICE POINT B

SV-17: ETHERNET → DEVICE SERVER → FL D4 095 017.6 SB SS DS EL-GP 7 → FL D4 095 017.6 NB NS DS EL-GP 6

SV-18: ETHERNET → DEVICE SERVER → FL D4 095 017.9 SB SS DS EL-GP 6 → 017.9 CCTV EL-GP 1 → CCTV

ETHERNET → DEVICE SERVER → FL D4 095 017.9 NB NS DS EL-GP 6

ETHERNET → DEVICE SERVER → FL D4 095 018.1 NB NS DS EL-GP-OF 7 → 018.1 CCTV EL-GP 1 → CCTV

ETHERNET → GANTRY 5 TOLL

ETHERNET → 018.2 CCTV TOLL 1 → D-CCTV

W MCNAB ROAD

SW 3RD STREET

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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design, quantities, and details remains with the EOR. Fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICE FOR EXISTING WALK-IN DMS IN SV-13 & POWER SERVICE POINT B IN SV-14.		

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 2 OF 6)

SHEET NO. IT-7

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

144-COUNT SM TRUNK CABLE

MATCH LINE A

MATCH LINE B

10 GigE

BLUE BUFFER — C2C

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

SV-9A

- DEVICE SERVER
- FL D4 095 016.8 NB NS DS EL-GP 6
- CCTV

SV-10

- DEVICE SERVER
- FL D4 095 016.9 SB SS DS EL-GP 6
- 016.9 CCTV GP 1
- CCTV
- DEVICE SERVER
- 016.9 CCTV EL 1
- D-CCTV
- $XX.XX

SV-11

- DEVICE SERVER
- FL D4 DOT 095 017.1 NB LS 1
- STATUS DMS

SV-12

- DEVICE SERVER
- FL D4 095 017.1 SB SS DS EL-GP 6

SV-13

- DEVICE SERVER
- FL D4 095 017.2 NB NS DS EL-GP 6
- 017.2 CCTV EL 1
- D-CCTV
- DEVICE SERVER
- FL D4 095 017.4 NB NS DS EL-GP 6
- 017.4 CCTV EL-GP 1
- CCTV
- DEVICE SERVER
- FL D4 095 017.4 SB SS DS EL-GP 6
- FL D4 DOT 095 017.3 NB TR 1
- DMS
- $XX.XX

SV-14

- DEVICE SERVER
- FL D4 DOT 095 017.5 NB LS 1
- STATUS DMS
- POWER SERVICE POINT B

SV-15

- DEVICE SERVER
- FL D4 095 017.6 SB SS DS EL-GP 7
- DEVICE SERVER
- FL D4 095 017.6 NB NS DS EL-GP 6

SV-16

- DEVICE SERVER
- FL D4 095 017.9 SB SS DS EL-GP 6
- 017.9 CCTV EL-GP 1
- CCTV
- DEVICE SERVER
- FL D4 095 017.9 NB NS DS EL-GP 6

SV-17

- DEVICE SERVER
- FL D4 095 018.1 NB NS DS EL-GP-OF 7
- 018.1 CCTV EL-GP 1
- CCTV

SV-18

- 018.2 CCTV TOLL 1
- D-CCTV
- GANTRY 5 TOLL

W MCNAB ROAD

SW 3RD STREET

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 2 OF 6)

SHEET NO. IT-7

$PLTDRVL$ $PENTBLL$ USER: konukb 7/25/2017 8:21:01 AM c:\projectwise\pb\projectwiseint\konukb\d0146451\NWLYIT01.DGN

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- PROPOSED WALK-IN DMS
- PROPOSED FRONT ACCESS DMS
- PROPOSED STATUS DMS
- PROPOSED TOLL DMS
- $XX.XX — TOLL DMS (BY OTHERS)
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

144-COUNT SM TRUNK CABLE

MATCH LINE B

10 GigE

BLUE BUFFER — c2c

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

MATCH LINE C

SV-19 | SV-20 | SV-20A | SV-21 | SV-22 | SV-23 | SV-24 | SV-25

018.2 CCTV GP 2 — D-CCTV — $XX.XX

018.3 CCTV GP 1 — D-CCTV

FL D4 095 018.1 SB SS DS EL-GP-ON 6 — DEVICE SERVER

FL D4 095 018.3 NB NS DS EL-GP-ON 6 — DEVICE SERVER

FL D4 095 018.3 SB SS DS EL-GP-OF 6 — DEVICE SERVER

018.3 CCTV GP 1 — D-CCTV

018.3 CCTV GP 2 — D-CCTV

W ATLANTIC BLVD.

FL D4 095 018.5 NB NS DS EL-GP-ON 7 — DEVICE SERVER

018.4 CCTV GP 1 — D-CCTV

FL D4 095 018.5 SB SS DS EL-GP-OF 7 — DEVICE SERVER

018.5 CCTV EL-GP 1 — CCTV

FL D4 095 018.8 SB SS DS EL-GP-OF 6 — DEVICE SERVER

FL D4 095 018.6 NB NS DS EL-GP-ON 6 — DEVICE SERVER

018.6 CCTV GP 1 — D-CCTV — $XX.XX

MLK BLVD. HAMMONDVILLE ROAD

FL D4 095 019.0 SB SS DS EL-GP 6 — DEVICE SERVER

FL D4 095 019.0 NB NS DS EL-GP 6 — DEVICE SERVER

019.0 CCTV EL-GP 1 — CCTV

FL D4 095 019.2 SB SS DS EL-GP 6 — DEVICE SERVER

FL D4 095 019.2 NB NS DS EL-GP 6 — DEVICE SERVER

955B019.2

FEC RXR

019.5 CCTV EL-GP 1 — CCTV

FL D4 095 019.5 SB SS DS EL-GP 6 — DEVICE SERVER

FL D4 095 019.5 NB NS DS EL-GP 6 — DEVICE SERVER

FL D4 095 019.7 SB SS DS EL-GP 6 — DEVICE SERVER

FL D4 095 019.6 NB NS DS EL-GP 6 — DEVICE SERVER — DMS

POWER SERVICE POINT C

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED 018.3 CCTV GP 1, 018.5 CCTV GP 1, 019.0 CCTV GP 1 & TWO TOLL DMS'. MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS. MOVED 018.5 CCTV GP 1, AND 019.0 CCTV GP 1, UPDATED NAMES ACCORDINGLY 018.2 CCTV GP 2, AND 018.6 CCTV GP 1.	9/13/19	AS-BUILTS

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(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 3 OF 6)

SHEET NO. IT-8

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH (10/100/1000 MBPS, 10 GigE)
- 1 GigE SWITCH (ETHERNET)
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- $XX.XX — TOLL DMS (BY OTHERS)
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

N

144-COUNT SM TRUNK CABLE

10 GigE

c2c

BLUE BUFFER

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

MATCH LINE B

MATCH LINE C

SV-19 | SV-20 | SV-21 | SV-22 | SV-23 | SV-24 | SV-25

018.2 CCTV GP 2 — $XX.XX

018.3 CCTV GP 1 — D-CCTV

FL D4 095 018.1 SB SS DS EL-GP-ON 6 — DEVICE SERVER

FL D4 095 018.3 NB NS DS EL-GP-ON 6 — DEVICE SERVER

FL D4 095 018.3 SB SS DS EL-GP-OF 6 — DEVICE SERVER

018.3 CCTV GP 1 — D-CCTV

018.3 CCTV GP 2 — D-CCTV

FL D4 095 018.5 NB NS DS EL-GP-ON 7 — ETHERNET

018.4 CCTV GP 1 — D-CCTV

FL D4 095 018.5 SB SS DS EL-GP 1 — DEVICE SERVER

018.5 CCTV EL-GP 1 — CCTV

FL D4 095 018.8 SB SS DS EL-GP-OF 6

FL D4 095 018.6 NB NS DS EL-GP-ON 6 — ETHERNET

018.6 CCTV GP 1 — D-CCTV

$XX.XX

FL D4 095 019.0 SB SS DS EL-GP 6 — DEVICE SERVER

FL D4 095 019.0 NB NS DS EL-GP 6 — DEVICE SERVER

019.0 CCTV EL-GP 1 — CCTV

FL D4 095 019.2 SB SS DS EL-GP 6 — DEVICE SERVER

FL D4 095 019.2 NB NS DS EL-GP 6 — DEVICE SERVER

955B019.2 — DMS

FEC RXR

019.5 CCTV EL-GP 1 — CCTV

FL D4 095 019.5 SB SS DS EL-GP 6 — DEVICE SERVER

FL D4 095 019.5 NB NS DS EL-GP 6 — DEVICE SERVER

FL D4 095 019.7 SB SS DS EL-GP 6 — DEVICE SERVER

DMS

FL D4 095 019.6 NB NS DS EL-GP 6 — DEVICE SERVER

POWER SERVICE POINT C

W ATLANTIC BLVD.

MLK BLVD. HAMMONDVILLE ROAD

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design, quantities, dimensions, and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED 018.3 CCTV GP 1, 018.5 CCTV GP 1, 019.0 CCTV GP 1 & TWO TOLL DMS'. MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS. MOVED 018.5 CCTV GP 1, AND 019.0 CCTV GP 1, UPDATED NAMES ACCORDINGLY 018.2 CCTV GP 2, AND 018.6 CCTV GP 1.		

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 3 OF 6)

SHEET NO. IT-8

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

144-COUNT SM TRUNK CABLE

10 GigE

C2C

BLUE BUFFER

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

MATCH LINE B

MATCH LINE C

SV-19

- 018.3 CCTV GP 1
- FL D4 095 018.1 SB SS DS EL-GP-ON 6
- FL D4 095 018.3 NB NS DS EL-GP-ON 6
- FL D4 095 018.3 SB SS DS EL-GP-OF 6
- 018.2 CCTV GP 1

SV-20

- FL D4 095 018.5 NB NS DS EL-GP-ON 7
- 018.4 CCTV GP 1
- FL D4 095 018.5 SB SS DS EL-GP
- 018.5 CCTV EL-GP 1
- FL D4 095 018.8 SB SS DS EL-GP-OF 6
- FL D4 095 018.6 NB NS DS EL-GP-ON 6

SV-22

- FL D4 095 019.0 SB SS DS EL-GP 6
- FL D4 095 019.0 NB NS DS EL-GP 6
- 019.0 CCTV EL-GP 1

SV-23

- FL D4 095 019.2 SB SS DS EL-GP 6
- FL D4 095 019.2 NB NS DS EL-GP 6
- 955B019.2 — DMS

SV-24

- 019.5 CCTV EL-GP 1
- FL D4 095 019.5 SB SS DS EL-GP 6
- FL D4 095 019.5 NB NS DS EL-GP 6

SV-25

- FL D4 095 019.7 SB SS DS EL-GP 6
- DMS
- FL D4 095 019.6 NB NS DS EL-GP 6
- POWER SERVICE POINT C

W ATLANTIC BLVD.

MLK BLVD. HAMMONDVILLE ROAD

FEC RXR

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 3 OF 6)

SHEET NO. IT-8

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- PROPOSED WALK-IN DMS
- PROPOSED FRONT ACCESS DMS
- PROPOSED STATUS DMS
- PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

N

144-COUNT SM TRUNK CABLE

MATCH LINE C

MATCH LINE D

10 GigE

C2C

BLUE BUFFER

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

SV-26 | SV-27 | SV-28 | SV-29 | SV-30 | SV-31 | SV-32 | SV-32A | SV-33

DMS

CCTV

DEVICE SERVER

FL D4 095 020.0 SB SS DS EL-GP 6

FL D4 095 020.0 NB NS DS EL-GP 6

020.0 CCTV EL-GP 1

FL D4 095 020.1 SB SS DS EL-GP-ON 6

FL D4 095 020.2 NB NS DS EL-GP 6

FL D4 095 020.3 SB SS DS EL-GP-OF 6

020.3 CCTV EL-GP 1

FL D4 095 020.4 NB NS DS EL-GP-ON 6

FL D4 095 020.6 NB NS DS EL-GP 6

FL D4 095 020.5 SB SS DS EL-GP-ON 6

FL D4 095 020.7 SB SS DS EL-GP 5

FL D4 095 020.7 NB NS DS EL-GP-ON 6

FL D4 095 020.9 NB NS DS EL-GP 6

020.9 CCTV EL-GP 1

FL D4 095 020.9 SB SS DS EL-GP 6

95NB020.9

FL D4 095 021.0 SB SS DS EL-GP 6

FL D4 095 021.1 NB NS DS EL-GP 6

E COPANS ROAD

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED 020.3 CCTV GP 1 & 020.3 CCTV GP 2. MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.	9/13/19	AS-BUILTS
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 4 OF 6)

SHEET NO. IT-9

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

MATCH LINE C

MATCH LINE D

144-COUNT SM TRUNK CABLE

10 GigE

BLUE BUFFER — C2C

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

SV-26 SV-27 SV-28 SV-30 SV-31 SV-32 SV-33

ETHERNET — DEVICE SERVER

FL D4 095 020.0 SB SS DS EL-GP 6

FL D4 095 020.0 NB NS DS EL-GP 6

020.0 CCTV EL-GP 1

FL D4 095 020.1 SB SS DS EL-GP-ON 6

FL D4 095 020.2 NB NS DS EL-GP 6

FL D4 095 020.3 SB SS DS

020.3 CCTV EL-GP

FL D4 095 020.4 NB NS DS EL-GP-ON 6

FL D4 095 020.6 NB NS DS EL-GP 6

FL D4 095 020.5 SB SS DS EL-GP-ON 6

FL D4 095 020.7 SB SS DS EL-GP 5

FL D4 095 020.7 NB NS DS EL-GP-ON 6

FL D4 095 020.9 NB NS DS EL-GP 6

020.9 CCTV EL-GP 1

FL D4 095 020.9 SB SS DS EL-GP 6

95WB020.9

FL D4 095 021.0 SB SS DS EL-GP 6

FL D4 095 021.1 NB NS DS EL-GP 6

DMS — CCTV — DMS

E COPANS ROAD

VOID

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of design, details, dimensions, and coordination of work rests with contractor. Approval does not relieve contractor of responsibility for means, methods, techniques, sequences and procedures of construction or safety precautions and programs in connection with the work. Contractor shall verify and coordinate all quantities, dimensions, fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4G64
BY: (Stantec) JB BY: (FDOT) MS

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED 020.3 CCTV GP 1 & 020.3 CCTV GP 2. MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 4 OF 6)

SHEET NO. IT-9

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH (10/100/1000 MBPS, 10 GigE)
- 1 GigE SWITCH (ETHERNET)
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

N

144-COUNT SM TRUNK CABLE

MATCH LINE C

MATCH LINE D

10 GigE

C2C

BLUE BUFFER

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

SV-26 | SV-27 | SV-28 | SV-30 | SV-31 | SV-32 | SV-33

DMS

FL D4 095 020.0 SB SS DS EL-GP 6

FL D4 095 020.0 NB NS DS EL-GP 6

020.0 CCTV EL-GP 1

FL D4 095 020.1 SB SS DS EL-GP-ON 6

020.2 CCTV GP 1

FL D4 095 020.2 NB NS DS EL-GP 6

020.3 CCTV GP 1

FL D4 095 020.3 SB SS DS EL-GP-OF 6

020.3 CCTV EL-GP 1

020.3 CCTV GP 1

FL D4 095 020.4 NB NS DS EL-GP-ON 6

020.4 CCTV GP 1

FL D4 095 020.6 NB NS DS EL-GP 6

020.6 CCTV GP 1

020.6 CCTV GP 1

FL D4 095 020.5 SB SS DS EL-GP-ON 6

FL D4 095 020.7 SB SS DS EL-GP 5

FL D4 095 020.7 NB NS DS EL-GP-ON 6

FL D4 095 020.9 NB NS DS EL-GP 6

020.9 CCTV EL-GP 1

FL D4 095 020.9 SB SS DS EL-GP 6

95NB020.9

FL D4 095 021.0 SB SS DS EL-GP 6

FL D4 095 021.1 NB NS DS EL-GP 6

DMS

E COPANS ROAD

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of design, quantities, and dimensions rests with the Engineer of Record. Review of shop drawings, fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q84

BY: (Stantec) JB

BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED 020.3 CCTV GP 1 & 020.3 CCTV GP 2. MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 4 OF 6)

SHEET NO. IT-9

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

N

144-COUNT SM TRUNK CABLE

MATCH LINE C

MATCH LINE D

10 GigE

C2C

BLUE BUFFER

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

SV-26 | SV-27 | SV-28 | SV-29 | SV-30 | SV-31 | SV-32 | SV-33

ETHERNET — DEVICE SERVER

SV-26: FL D4 095 020.0 SB SS DS EL-GP 6 — DMS

SV-26: FL D4 095 020.0 NB NS DS EL-GP 6 — CCTV

SV-26: 020.0 CCTV EL-GP 1

SV-26: FL D4 095 020.1 SB SS DS EL-GP-ON 6

SV-27: 020.2 CCTV GP 1 — D-CCTV

SV-28: FL D4 095 020.2 NB NS DS EL-GP 6

SV-28: 020.3 CCTV GP 1 — D-CCTV

SV-28: FL D4 095 020.3 SB SS DS EL-GP-OF 6

SV-28: 020.3 CCTV EL-GP 1 — CCTV

SV-28: FL D4 095 020.4 NB NS DS EL-GP-ON 6

SV-29: FL D4 095 020.6 NB NS DS EL-GP 6 — D-CCTV

SV-29: 020.6 CCTV GP 1

SV-29: 020.6 CCTV GP 1 — D-CCTV

SV-30: FL D4 095 020.5 SB SS DS EL-GP-ON 6

SV-30: FL D4 095 020.7 SB SS DS EL-GP 5

SV-31: FL D4 095 020.7 NB NS DS EL-GP-ON 6

SV-32: FL D4 095 020.9 NB NS DS EL-GP 6 — CCTV

SV-32: 020.9 CCTV EL-GP 1

SV-32: FL D4 095 020.9 SB SS DS EL-GP 6

SV-32: 95NB020.9 — DMS

SV-33: FL D4 095 021.0 SB SS DS EL-GP 6

SV-33: FL D4 095 021.1 NB NS DS EL-GP 6

E COPANS ROAD

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

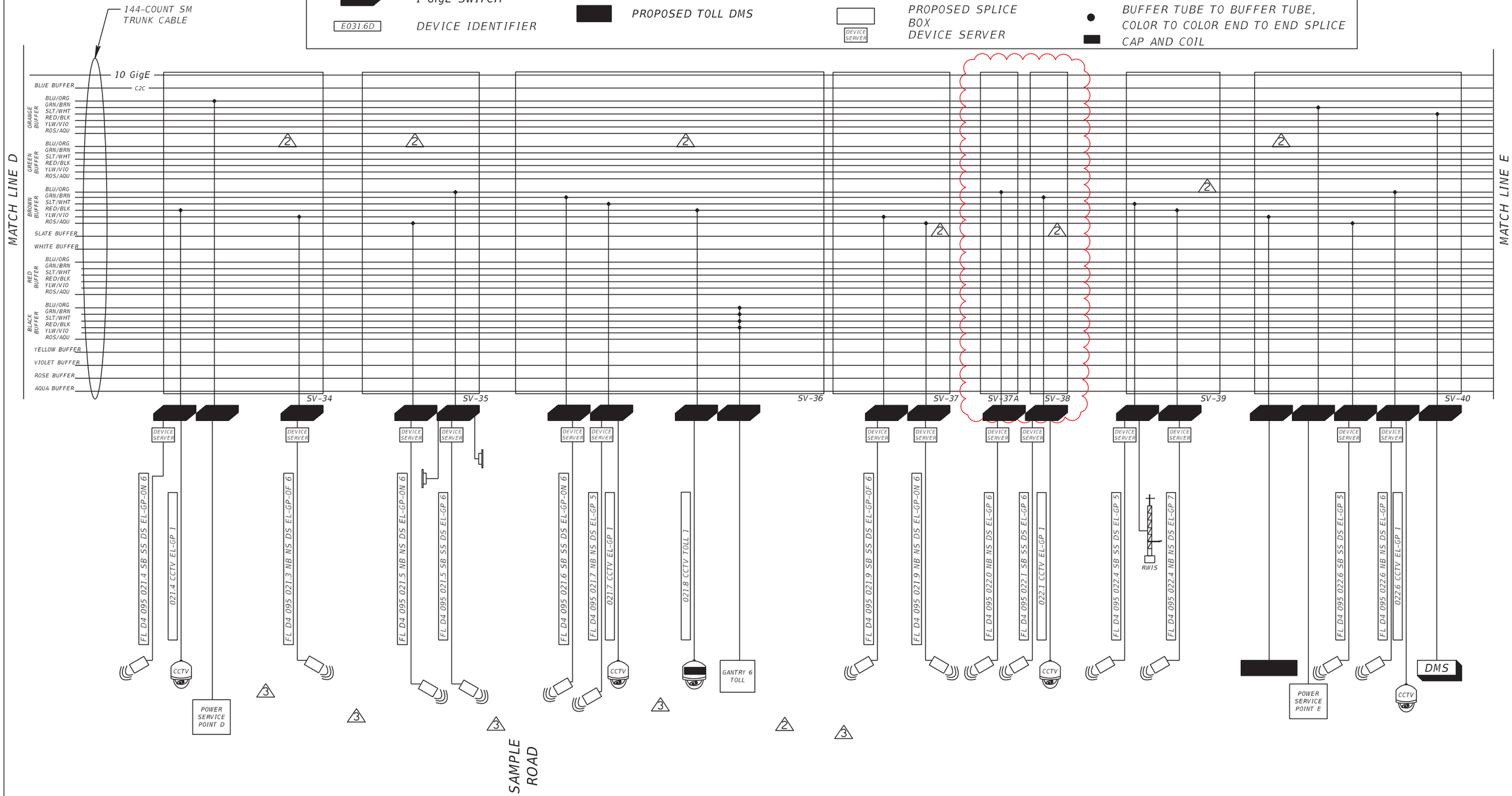
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 4 OF 6)

SHEET NO. IT-9

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- PROPOSED WALK-IN DMS
- PROPOSED FRONT ACCESS DMS
- PROPOSED STATUS DMS
- PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED 021.6 CCTV GP 1. MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.	9/13/19	AS-BUILTS
02/01/19	3 RSS REMOVAL CHANGES		

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 5 OF 6)

SHEET NO. IT-10

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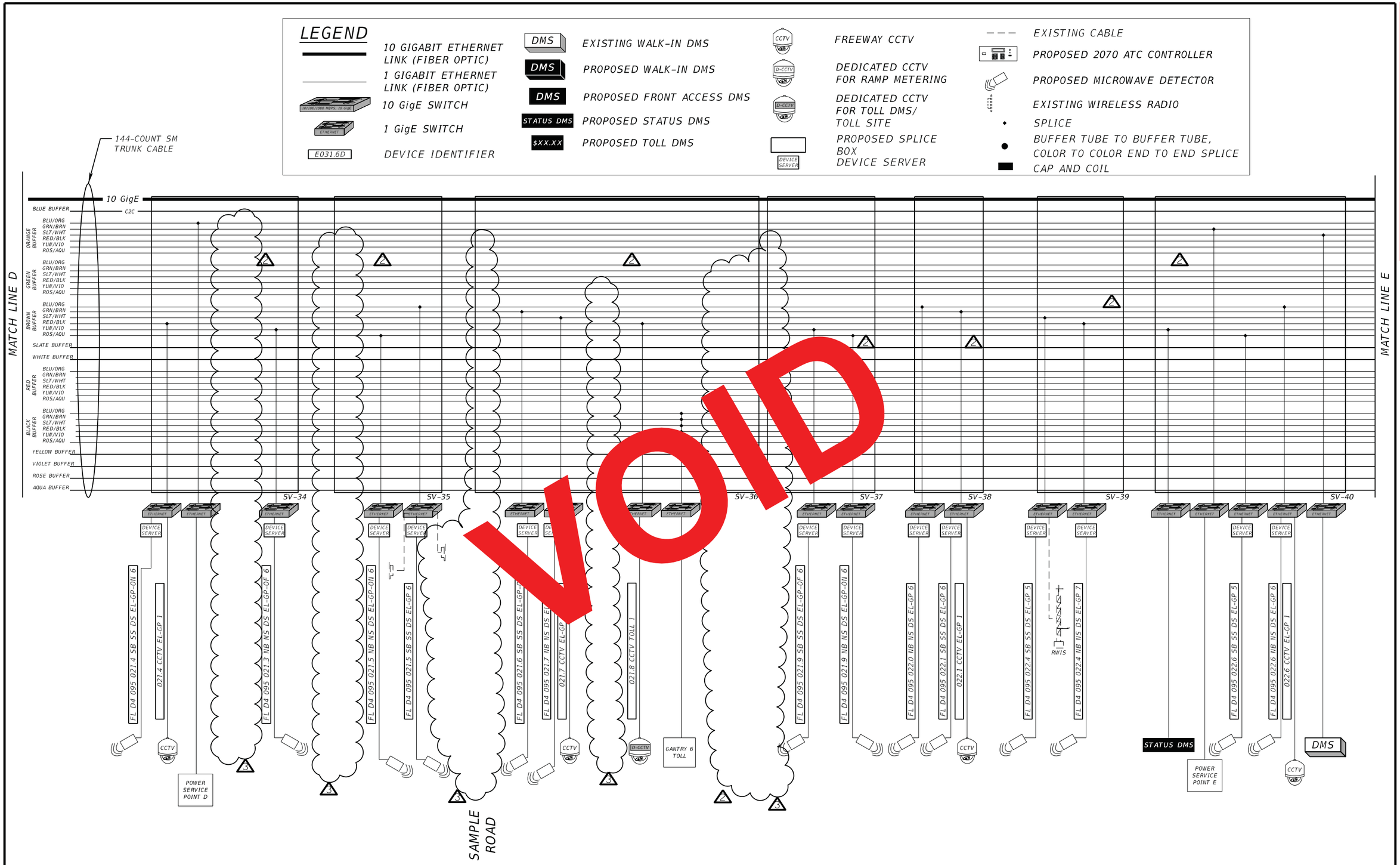

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED 021.6 CCTV GP 1. MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		
02/01/19	3 RSS REMOVAL CHANGES		

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9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 5 OF 6)

SHEET NO. IT-10

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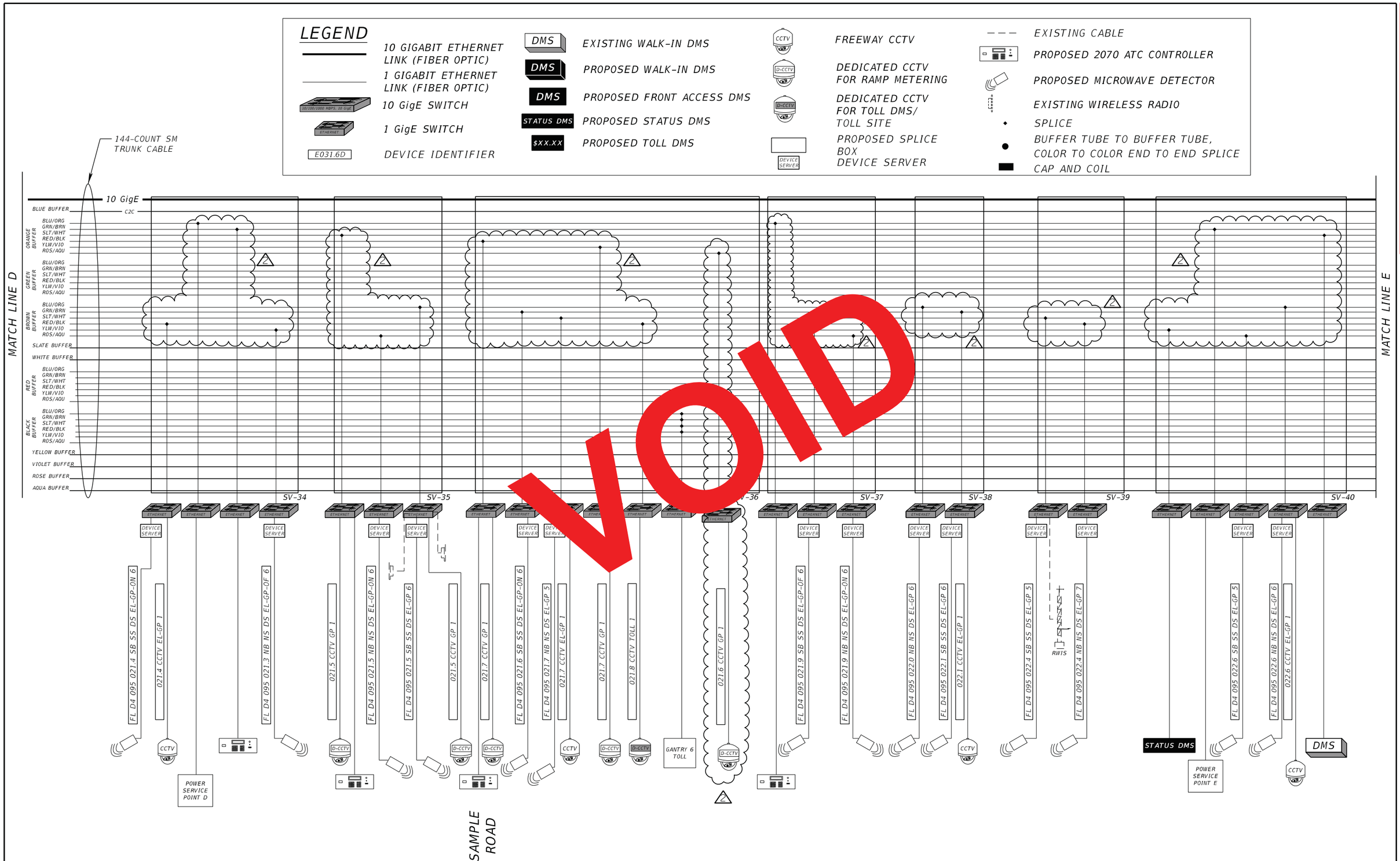
RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS



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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) JB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED 021.6 CCTV GP 1. MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 5 OF 6)

SHEET NO. IT-10

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- PROPOSED SPLICE BOX
- DEVICE SERVER — DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

MATCH LINE D

144-COUNT SM TRUNK CABLE

10 GigE

C2C

BLUE BUFFER

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

SV-34

- DEVICE SERVER
- FL D4 095 021.4 SB SS DS EL-GP-ON 6
- 021.4 CCTV EL-GP 1
- CCTV
- POWER SERVICE POINT D
- FL D4 095 021.3 NB NS DS EL-GP-OF 6

SV-35

- DEVICE SERVER
- 021.5 CCTV GP 1
- D-CCTV
- FL D4 095 021.5 NB NS DS EL-ON 6
- FL D4 095 021.5 SB SS DS EL-GP 6
- DEVICE SERVER
- 021.5 CCTV GP 1
- D-CCTV

SAMPLE ROAD

- 021.7 CCTV GP 1
- D-CCTV
- FL D4 095 021.6 SB SS DS EL-GP-ON 6
- FL D4 095 021.7 NB NS DS EL-GP 5
- 021.7 CCTV EL-GP 1
- CCTV
- 021.7 CCTV GP 1
- D-CCTV
- 021.8 CCTV TOLL 1
- D-CCTV
- GANTRY 6 TOLL

SV-37

- DEVICE SERVER
- FL D4 095 021.9 SB SS DS EL-GP-OF 6
- DEVICE SERVER
- FL D4 095 021.9 NB NS DS EL-GP-ON 6

SV-38

- DEVICE SERVER
- FL D4 095 022.0 NB NS DS EL-GP 6
- DEVICE SERVER
- FL D4 095 022.1 SB SS DS EL-GP 6
- 022.1 CCTV EL-GP 1
- CCTV

SV-39

- DEVICE SERVER
- FL D4 095 022.4 SB SS DS EL-GP 5
- RWIS
- DEVICE SERVER
- FL D4 095 022.4 NB NS DS EL-GP 7

SV-40

- STATUS DMS
- POWER SERVICE POINT E
- DEVICE SERVER
- FL D4 095 022.6 SB SS DS EL-GP 5
- DEVICE SERVER
- FL D4 095 022.6 NB NS DS EL-GP 6
- 022.6 CCTV EL-GP 1
- CCTV
- DMS

MATCH LINE E

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 5 OF 6)

SHEET NO. IT-10

$PLTDRVL$ $PENTBLL$ USER: konukb 7/25/2017 8:21:02 AM c:\projectwise\pb\projectwiseint\konukb\d0146451\NWLYIT01.DGN

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- PROPOSED WALK-IN DMS
- PROPOSED FRONT ACCESS DMS
- PROPOSED STATUS DMS
- PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL

144-COUNT SM TRUNK CABLE

10 GigE

c2c

BLUE BUFFER

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER

WHITE BUFFER

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER

VIOLET BUFFER

ROSE BUFFER

AQUA BUFFER

MATCH LINE E

SV-41

SV-42

DEVICE SERVER

DEVICE SERVER

022.8 CCTV EL 1

FL D4 095 022.9 SB SS DS EL-GP 4

FL D4 095 022.9 NB NS DS EL-GP 4

FL D4 095 023.0 SB LS 1

FL D4 DOT 095 023.2 SB TR 1

023.2 CCTV EL 1

DMS

NE 48TH STREET

SW 10TH ST.

1

SEE DETAIL THIS SHEET FOR GREEN BUFFER SPLICING

BLUE BUFFER

ORANGE BUFFER

GREEN BUFFER

BROWN BUFFER

SV-43

EXISTING 144-COUNT SM FOC

EXISTING 48-COUNT SM FOC

EXISTING FDOT HUB BUILDING
I-95, NORTH OF HILLSBORO BLVD.

EXISTING 48-COUNT SMFOC-GREEN BUFFER SPLICING DETAIL

BLUE
ORANGE
GREEN
BROWN
SLATE
WHITE
RED
BLACK
YELLOW
VIOLET
ROSE
AQUA

GREEN BUFFER

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SPLICES		
03/16/18	2 MODIFIED SPLICING SEQUENCE IN SV-41 & SV-42.		
09/13/19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 6 OF 6)

SHEET NO. IT-11

LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
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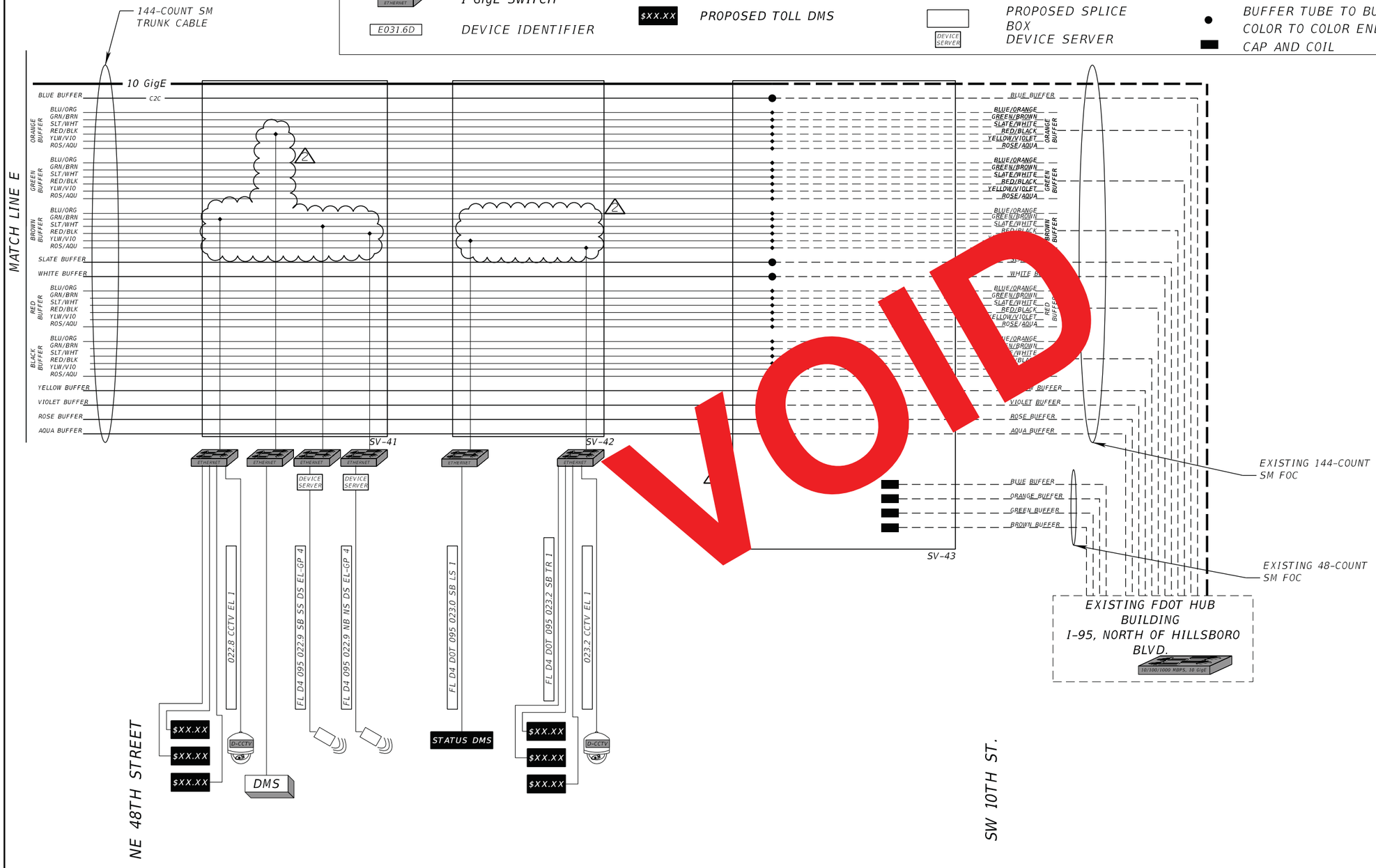
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL



VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design details, dimensions and quantities of items shown lies with the contractor. Review is only for fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SPLICES		
03/16/18	2 MODIFIED SPLICING SEQUENCE IN SV-41 & SV-42.		

Parsons Brinckerhoff, Inc.
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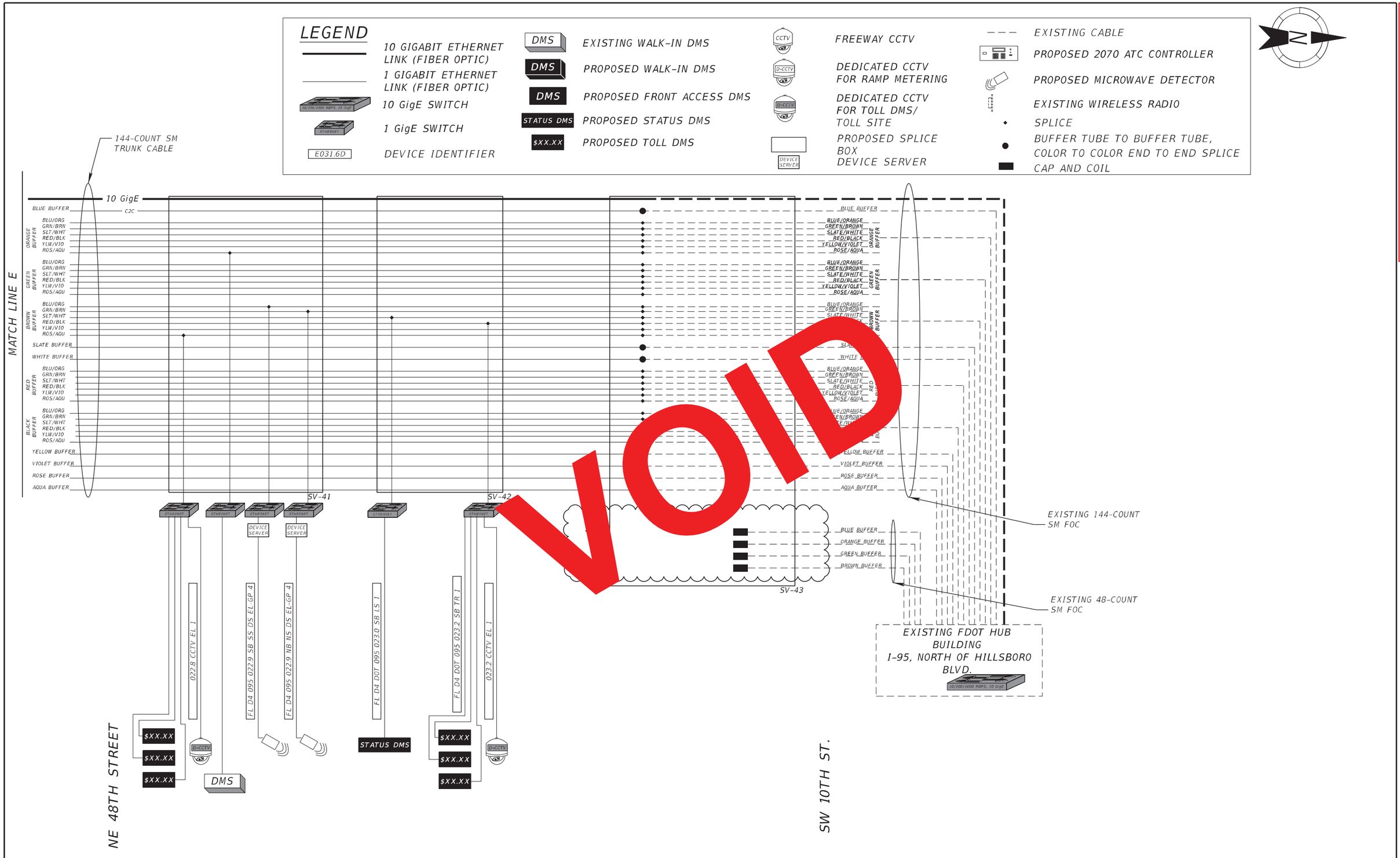
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 6 OF 6)

SHEET NO. IT-11



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SPLICES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 6 OF 6)

SHEET NO. IT-11

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

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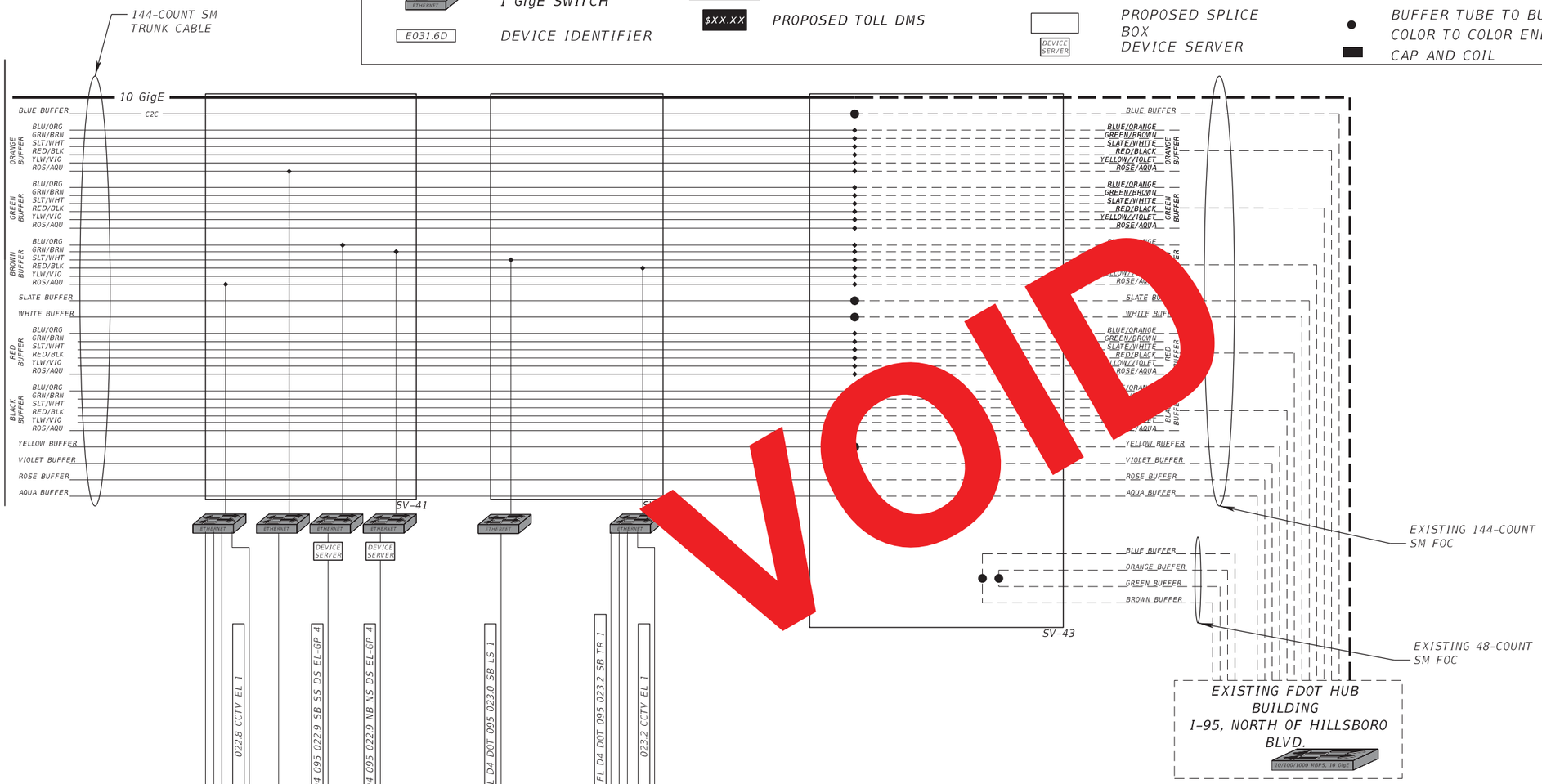
LEGEND

- 10 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 1 GIGABIT ETHERNET LINK (FIBER OPTIC)
- 10 GigE SWITCH
- 1 GigE SWITCH
- E031.6D — DEVICE IDENTIFIER
- DMS — EXISTING WALK-IN DMS
- DMS — PROPOSED WALK-IN DMS
- DMS — PROPOSED FRONT ACCESS DMS
- STATUS DMS — PROPOSED STATUS DMS
- $XX.XX — PROPOSED TOLL DMS
- CCTV — FREEWAY CCTV
- D-CCTV — DEDICATED CCTV FOR RAMP METERING
- D-CCTV — DEDICATED CCTV FOR TOLL DMS/ TOLL SITE
- DEVICE SERVER — PROPOSED SPLICE BOX / DEVICE SERVER
- EXISTING CABLE
- PROPOSED 2070 ATC CONTROLLER
- PROPOSED MICROWAVE DETECTOR
- EXISTING WIRELESS RADIO
- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- CAP AND COIL



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

COMMUNICATIONS OVERVIEW (SHEET 6 OF 6)

SHEET NO. IT-11

$PLTDRVL$ $PENTBLL$ USER: konukb 7/25/2017 8:21:02 AM c:\projectwise\pb\projectwiseint\konukb\d0146451\NWLYIT01.DGN

LEGEND

- EXISTING CCTV CAMERA
- EXISTING QUEUE DETECTION DEVICE
- EXISTING RAILROAD GATE MONITORING DEVICE
- EXISTING 1 GigE SWITCH
- EXISTING LONG HAUL SWITCH (10 GigE)
- E10 — 10 MBPS ETHERNET
- E100 — 100 MBPS ETHERNET
- SM FIBER OPTIC CABLE
- NUMBER OF FIBER STRANDS
- PROPOSED SPLICE BOX
- CAP AND COIL
- EXISTING 10 GigE LINK
- EXISTING CABLE
- EXISTING SPLICE BOX
- EXISTING/PROPOSED FUSION SPLICE

EXISTING BROWARD COUNTY TRAFFIC MANAGEMENT CENTER

10/100/1000 MBPS, 10 GigE

96-COUNT SM FO CABLE

EXISTING SPLICE VAULT AT COMMERCIAL BLVD

I-95

BLUE BUFFER
- BLUE/ORANGE
- GREEN/BROWN
- SLATE/WHITE
- RED/BLACK
- YELLOW/VIOLET
- ROSE/AQUA

ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

144-COUNT SM TRUNK CABLE

CCTV — E100 — ETHERNET — 2 2 — 24-COUNT DROP CABLE — RGMD

EXISTING PILOT PROJECT CABINET CYPRESS CREEK ROAD WEST OF CSX RR

24-COUNT SM FO CABLE

EXISTING POLE MOUNTED CABINET CYPRESS CREEK ROAD EAST OF CSX RR

24-COUNT SM FO CABLE

EXISTING GROUND MOUNTED JUNCTION BOX CYPRESS CREEK ROAD AT ANDREWS AVENUE

24-COUNT SM FO CABLE

EXISTING SIGNAL CABINET CYPRESS CREEK ROAD AT I-95 SB OFF RAMP

24-COUNT SM FO CABLE

CYPRESS CREEK ROAD

FIBER OPTIC SPLICE VAULT I-95 SB AT NORTH OF CYPRESS CREEK ROAD (SV-6A)

24-COUNT SM FO CABLE

FIBER OPTIC SPLICE VAULT I-95 NB AT NORTH OF CYPRESS CREEK ROAD (SV-6)

CCTV — E100 — ETHERNET — 2 2 — 6-COUNT DROP CABLE — RGMD

EXISTING PILOT PROJECT CABINET MCNAB ROAD (AT CSX RR)

6-COUNT SM FO CABLE

EXISTING GROUND MOUNTED JUNCTION BOX MCNAB ROAD (SOUTH SIDE)

24-COUNT SM FO CABLE

EXISTING FIBER OPTIC SPLICE VAULT I-95 AT MCNAB ROAD

24-COUNT SM FO CABLE

FIBER OPTIC SPLICE VAULT I-95 SB AT MCNAB ROAD (SV-10A)

MCNAB ROAD

24-COUNT SM FO CABLE

144-COUNT SM TRUNK CABLE

FIBER OPTIC SPLICE VAULT I-95 NB AT MCNAB ROAD (SV-10)

FIBER OPTIC SPLICE VAULT I-95 AT SOUTH OF SW 10TH STREET (SV-43)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

I-95 3A-2 BCTED COMMUNICATIONS PLAN

SHEET NO. IT-12

ITS POLE DATA

ITS PLAN SHEET	CROSS SECTION SHEET	STATION		MVDS DEVICE NAME									CCTV DEVICE NAME						D-CCTV DEVICE NAME						POLE MOUNTED CABINET DEVICE NAME			
1	IT-107	2322+85	left	FL	D4	095	015.6	SB	SS	DS	EL-GP	6													015.6	CAB	SS	
1	IT-108	2323+02	right	FL	D4	095	015.6	NB	NS	DS	EL-GP	6	015.6	CCTV	EL-GP	1									015.6	CAB	NS	
2	IT-110	2331+20	left	FL	D4	095	015.7	SB	SS	DS	EL-GP-ON	6													015.7	CAB	SS	
3	IT-111	2335+21	right	FL	D4	095	015.8	NB	NS	DS	EL-GP	6													015.8	CAB	NS	
3	IT-112	2338+00	left																015.9	CCTV	GP	1						
4	IT-114	2346+00	right	FL	D4	095	016.0	NB	NS	DS	EL-GP-OF	6													016.0	CAB	NS	
4	IT-113	2344+47	left	FL	D4	095	016.0	SB	SS	DS	EL-GP-ON	6	016.0	CCTV	EL-GP	1									016.0	CAB	SS	
6	IT-115	2357+74	left	FL	D4	095	016.2	SB	SS	DS	EL-GP	6							016.2	CCTV	GP	1			016.2	CAB	SS	
6	IT-116	2357+93	right	FL	D4	095	016.2	NB	NS	DS	EL-GP	6													016.2	CAB	NS	
7	IT-119	2366+94	left																016.4	CCTV	GP	1						
7	IT-117	2364+20	left	FL	D4	095	016.4	SB	SS	DS	EL-GP-ON	6													016.4	CAB	SS	
8	IT-120	2369+05	right	FL	D4	095	016.4	NB	NS	DS	EL-GP-OF	6													016.4	CAB	NS	
8	IT-120A	2371+32	left																016.5	CCTV	TOLL	1			016.5	CAB	SS	
8	IT-121	2372+80	right										016.5	CCTV	EL-GP	1									016.5	CAB	NS	
9	IT-121A	2376+42	right										016.6	CCTV	GP	1									016.6	CAB	NS	
10	IT-123	2383+15	right	FL	D4	095	016.7	NB	NS	DS	EL-GP-ON	6							016.7	CCTV	EL	1			016.7	CAB	NS	
9	IT-122	2378+05	left	FL	D4	095	016.6	SB	SS	DS	EL-GP-OF	7													016.6	CAB	SS	
11	IT-124	2390+65	left	FL	D4	095	016.9	SB	SS	DS	EL-GP	6	016.9	CCTV	GP	1									016.9	CAB	SS	
10	IT-125	2387+00	right	FL	D4	095	016.8	NB	NS	DS	EL-GP	6													016.8	CAB	NS	
13	IT-129	2409+00	right	FL	D4	095	017.2	NB	NS	DS	EL-GP	6							017.2	CCTV	EL	1			017.2	CAB	NS	
13	IT-128	2404+00	left	FL	D4	095	017.1	SB	SS	DS	EL-GP	6													017.1	CAB	SS	
14	IT-131	2417+00	left	FL	D4	095	017.4	SB	SS	DS	EL-GP	6													017.4	CAB	SS	
14	IT-132	2417+04	right	FL	D4	095	017.4	NB	NS	DS	EL-GP	6	017.4	CCTV	EL-GP	1									017.4	CAB	NS	
16	IT-134	2430+06	right	FL	D4	095	017.6	NB	NS	DS	EL-GP	6													017.6	CAB	NS	
16	IT-135	2430+10	left	FL	D4	095	017.6	SB	SS	DS	EL-GP	7	017.6	CCTV	EL-GP	1									017.6	CAB	SS	
18	IT-136	2443+22	right	FL	D4	095	017.9	NB	NS	DS	EL-GP	6													017.9	CAB	NS	
18	IT-137	2443+54	left	FL	D4	095	017.9	SB	SS	DS	EL-GP	6													017.9	CAB	SS	
20	IT-138	2454+91	right	FL	D4	095	018.1	NB	NS	DS	EL-GP-OF	7	018.1	CCTV	EL-GP	1									018.1	CAB	NS	
20	IT-139	2454+95	left	FL	D4	095	018.1	SB	SS	DS	EL-GP-ON	6													018.1	CAB	SS	
21	IT-139A	2461+21	right																018.2	CCTV	TOLL	1			018.2	CAB	NS	
21	IT-139B	2461+21	left																018.2	CCTV	GP	2						
20A	IT-140	2464+10	left																018.2	CCTV	GP	1			018.2	CAB	SS	
21A	IT-141	2464+72	right																018.3	CCTV	GP	1						
21A	IT-141A	2466+27	right																018.3	CCTV	GP	2			018.3	CAB	NS	3
22	IT-142	2468+02	right	FL	D4	095	018.3	NB	NS	DS	EL-GP-ON	6													018.3	CAB	NS	
22	IT-143	2468+99	left	FL	D4	095	018.3	SB	SS	DS	EL-GP-OF	6													018.3	CAB	SS	3
22A	IT-144	2472+78	right																018.4	CCTV	GP	1			018.4	CAB	NS	
23	IT-145	2477+68	left	FL	D4	095	018.5	SB	SS	DS	EL-GP-OF	7	018.5	CCTV	EL-GP	1									018.5	CAB	SS	
23	IT-147	2479+98	right	FL	D4	095	018.5	NB	NS	DS	EL-GP-ON	7																
25	IT-145A	2490+15	left																018.7	CCTV	GP	1						
25	IT-148	2490+85	left	FL	D4	095	018.8	SB	SS	DS	EL-GP-OF	6													018.8	CAB	SS	
24	IT-146	2484+50	right	FL	D4	095	018.6	NB	NS	DS	EL-GP-ON	6													018.6	CAB	NS	
26	IT-149	2501+75	right	FL	D4	095	019.0	NB	NS	DS	EL-GP	6	019.0	CCTV	EL-GP	1									019.0	CAB	NS	
27	IT-150	2503+74	left	FL	D4	095	019.0	SB	SS	DS	EL-GP	6													019.0	CAB	SS	
28	IT-151	2515+84	right	FL	D4	095	019.2	NB	NS	DS	EL-GP	6													019.2	CAB	NS	
28	IT-152	2516+05	left	FL	D4	095	019.2	SB	SS	DS	EL-GP	6													019.2	CAB	SS	
31	IT-154	2530+00	right	FL	D4	095	019.5	NB	NS	DS	EL-GP	6													019.5	CAB	NS	
30	IT-153	2528+12	left	FL	D4	095	019.5	SB	SS	DS	EL-GP	6	019.5	CCTV	EL-GP	1									019.5	CAB	SS	
32	IT-155	2541+55	left	FL	D4	095	019.7	SB	SS	DS	EL-GP	6													019.7	CAB	SS	
32	IT-154A	2537+00	right	FL	D4	095	019.6	NB	NS	DS	EL-GP	6													019.6	CAB	NS	
34	IT-157	2544+46	right	FL	D4	095	020.0	NB	NS	DS	EL-GP	6	020.0	CCTV	EL-GP	1									020.0	CAB	NS	
34	IT-158	2535+03	left	FL	D4	095	020.0	SB	SS	DS	EL-GP	6													020.0	CAB	SS	
35	IT-159	2561+14	left	FL	D4	095	020.1	SB	SS	DS	EL-GP-ON	6													020.1	CAB	SS	
37	IT-163	2574+99	left	FL	D4	095	020.3	SB	SS	DS	EL-GP-OF	6	020.3	CCTV	EL-GP	1									020.3	CAB	SS	
36	IT-160	2565+04	right	FL	D4	095	020.2	NB	NS	DS	EL-GP	6													020.2	CAB	NS	
37	IT-164	2578+04	right	FL	D4	095	020.4	NB	NS	DS	EL-GP-ON	6													020.4	CAB	NS	
38	IT-165	2583+01	left	FL	D4	095	020.5	SB	SS	DS	EL-GP-ON	6													020.5	CAB	SS	
40	IT-168	2594+19	left	FL	D4	095	020.7	SB	SS	DS	EL-GP	5													020.7	CAB	SS	
38	IT-166	2585+99	right	FL	D4	095	020.6	NB	NS	DS	EL-GP	6													020.6	CAB	NS	
40	IT-169	2596+00	right	FL	D4	095	020.7	NB	NS	DS	EL-GP-ON	6													020.7	CAB	NS	
41	IT-170	2601+70	right	FL	D4	095	020.9	NB	NS	DS	EL-GP	6	020.9	CCTV	EL-GP	1									020.9	CAB	NS	
41	IT-171	2601+70	left	FL	D4	095	020.9	SB	SS	DS	EL-GP	6													020.9	CAB	SS	
42	IT-173	2612+00	left	FL	D4	095	021.0	SB	SS	DS	EL-GP	6													021.0	CAB	SS	
43	IT-174	2617+00	right	FL	D4	095	021.1	NB	NS	DS	EL-GP	6													021.1	CAB	NS	
45	IT-176	2628+25	left	FL	D4	095	021.4	SB	SS	DS	EL-GP-ON	6	021.4	CCTV	EL-GP	1									021.4	CAB	SS	
46	IT-179	2638+02	right	FL	D4	095	021.5	NB	NS	DS	EL-GP-ON	6													021.5	CAB	NS	
44	IT-175	2624+00	right	FL	D4	095	021.3	NB	NS	DS	EL-GP-OF	6													021.3	CAB	NS	
46	IT-178	2637+92	left	FL	D4	095	021.5	SB	SS	DS	EL-GP	6													021.5	CAB	SS	
47	IT-180	2642+42	left	FL	D4	095	021.6	SB	SS	DS	EL-GP-ON	6													021.6	CAB	SS	
47	IT-183	2646+56	right	FL	D4	095	021.7	NB	NS	DS	EL-GP	5	021.7	CCTV	EL-GP	1									021.7	CAB	NS	
48	IT-183A	2649+31	left																021.8	CCTV	TOLL	1			021.8	CAB	SS	
48	IT-184	2655+86	right	FL	D4	095	021.9	NB	NS	DS	EL-GP-ON	6													021.9	CAB	NS	
48	IT-185	2655+94	left	FL	D4	095	021.9	SB	SS	DS	EL-GP-OF	6													021.9	CAB	SS	
50	IT-185A	2663+60	right	FL	D4	095	022.0	NB	NS	DS	EL-GP	6													022.0	CAB	NS	
50	IT-186	2669+26	left	FL	D4	095	022.1	SB	SS	DS	EL-GP	6	022.1	CCTV	EL-GP	1									022.1	CAB	SS	
52	IT-187	2681+70	left	FL	D4	095	022.4	SB	SS	DS	EL-GP	5													022.4	CAB	SS	
52	IT-188	2681+98	right	FL	D4	095	022.4	NB	NS	DS	EL-GP	7													022.4	CAB	NS	
54	IT-191	2694+40	right	FL	D4	095	022.6	NB	NS	DS	EL-GP	6	022.6	CCTV	EL-GP	1									022.6	CAB	NS	
54	IT-190	2694+02	left	FL	D4	095	022.6	SB	SS	DS	EL-GP	5													022.6	CAB	SS	
56	IT-202	2708+02	right	FL	D4	095	022.9	NB	NS	DS	EL-GP	4													022.9	CAB	NS	
56	IT-194	2708+12	left	FL	D4	095	022.9	SB	SS	DS	EL-GP	4	022.9	CCTV	EL	1			022.9	CCTV	EL	1			022.9	CAB	SS	
59	IT-197	2727+70	left																023.2	CCTV	EL	1						

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED POLE DATA TABLE	9/13/19	AS-BUILTS per RFI 193, 216, 226, 315, 357 & 419
3/16/18	2 UPDATED POLE DATA TABLE		
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO. IT-13

ITS POLE DATA

ITS PLAN SHEET	CROSS SECTION SHEET	STATION	MVDS DEVICE NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	POLE MOUNTED CABINET DEVICE NAME
1	IT-107	2322+85 left	FL D4 095 015.6 SB SS DS EL-GP 6			015.6 CAB SS
1	IT-108	2323+02 right	FL D4 095 015.6 NB NS DS EL-GP 6	015.6 CCTV EL-GP 1		015.6 CAB NS
2	IT-110	2331+20 left	FL D4 095 015.7 SB SS DS EL-GP-ON 6			015.7 CAB SS
3	IT-111	2335+21 right	FL D4 095 015.8 NB NS DS EL-GP 6			015.8 CAB NS
3	IT-112	2338+00 left			015.9 CCTV GP 1	
4	IT-114	2346+00 right	FL D4 095 016.0 NB NS DS EL-GP-OF 6			016.0 CAB NS
4	IT-113	2344+47 left	FL D4 095 016.0 SB SS DS EL-GP-ON 6	016.0 CCTV EL-GP 1		016.0 CAB SS
6	IT-115	2357+74 left	FL D4 095 016.2 SB SS DS EL-GP 6		016.2 CCTV GP 1	016.2 CAB SS
6	IT-116	2357+93 right	FL D4 095 016.2 NB NS DS EL-GP 6			016.2 CAB NS
7	IT-119	2366+94 left			016.4 CCTV GP 1	
7	IT-117	2364+20 left	FL D4 095 016.4 SB SS DS EL-GP-ON 6			016.4 CAB SS
8	IT-120	2369+05 right	FL D4 095 016.4 NB NS DS EL-GP-OF 6			016.4 CAB NS
8	IT-120A	2371+32 left			016.5 CCTV TOLL 1	016.5 CAB SS
8	IT-121	2372+80 right		016.5 CCTV EL-GP 1		016.5 CAB NS
9	IT-121A	2376+42 right		016.6 CCTV GP 1		016.6 CAB NS
10	IT-123	2383+15 right	FL D4 095 016.7 NB NS DS EL-GP-ON 6		016.7 CCTV EL 1	016.7 CAB NS
9	IT-122	2378+05 left	FL D4 095 016.6 SB SS DS EL-GP-OF 7			016.6 CAB SS
11	IT-124	2390+65 left	FL D4 095 016.9 SB SS DS EL-GP 6	016.9 CCTV GP 1		016.9 CAB SS
10	IT-125	2387+00 right	FL D4 095 016.8 NB NS DS EL-GP 6			016.8 CAB NS
13	IT-129	2409+00 right	FL D4 095 017.2 NB NS DS EL-GP 6		017.2 CCTV EL 1	017.2 CAB NS
13	IT-128	2404+00 left	FL D4 095 017.1 SB SS DS EL-GP 6			017.1 CAB SS
14	IT-131	2417+00 left	FL D4 095 017.4 SB SS DS EL-GP 6			017.4 CAB SS
14	IT-132	2417+04 right	FL D4 095 017.4 NB NS DS EL-GP 6	017.4 CCTV EL-GP 1		017.4 CAB NS
16	IT-134	2430+06 right	FL D4 095 017.6 NB NS DS EL-GP 6			017.6 CAB NS
16	IT-135	2430+10 left	FL D4 095 017.6 SB SS DS EL-GP 7			017.6 CAB SS
18	IT-136	2443+22 right	FL D4 095 017.9 NB NS DS EL-GP 6			017.9 CAB NS
18	IT-137	2443+54 left	FL D4 095 017.9 SB SS DS EL-GP 6	017.9 CCTV EL-GP 1		017.9 CAB SS
20	IT-138	2454+91 right	FL D4 095 018.1 NB NS DS EL-GP-OF 7	018.1 CCTV EL-GP 1		018.1 CAB NS
20	IT-139	2454+95 left	FL D4 095 018.1 SB SS DS EL-GP-ON 6			018.1 CAB SS
21	IT-139A	2461+21 right			018.2 CCTV TOLL 1	018.2 CAB NS
21	IT-139B	2461+21 left			018.2 CCTV GP 2	
20A	IT-140	2464+10 left			.2 CCTV GP 1	018.2 CAB SS
21A	IT-141	2464+72 right			CCTV GP 1	
21A	IT-141A	2466+27 right			TV GP 2	018.3 CAB NS 3
22	IT-142	2468+02 right	FL D4 095 018.3 NB NS DS EL-GP-ON			018.3 CAB NS
22	IT-143	2468+99 left	FL D4 095 018.3 SB SS DS EL-GP-OF			018.3 CAB SS 3
22A	IT-144	2472+78 right			018. GP 1	018.4 CAB NS
23	IT-145	2477+68 left	FL D4 095 018.5 SB SS P-OF 7	CTV EL-GP 1		018.5 CAB SS
23	IT-147	2475+98 right	FL D4 095 018.5 NB NS ON 7			
24	IT-145A	2483+20 left			018.6 P 1	
25	IT-148	2490+85 left	FL D4 095 018.8 SB SS DS EL-GP 6			018.8 CAB SS
24	IT-146	2484+50 right	FL D4 095 018.6 NB NS DS EL-GP 6			018.6 CAB NS
26	IT-149	2501+75 right	FL D4 095 019.0 NB NS DS EL-GP 6	019.0 CCTV EL-GP 1		019.0 CAB NS
27	IT-150	2503+62 left	FL D4 095 019.0 SB SS DS EL-GP 6			019.0 CAB SS
28	IT-151	2515+84 right	FL D4 095 019.2 NB NS DS EL-GP 6			019.2 CAB NS
28	IT-152	2516+05 left	FL D4 095 019.2 SB SS DS EL-GP 6			019.2 CAB SS
31	IT-154	2536+ right	FL D4 095 019.5 NB NS DS EL-GP 6			019.5 CAB NS
30	IT-153	left	FL D4 095 019.5 SB SS DS EL-GP 6	CCTV EL-GP 1		019.5 CAB SS
32	IT-155	2 left	FL D4 095 019.7 SB SS DS EL-GP 6			019.7 CAB SS
32	IT-154A	2 right	FL D4 095 019.6 NB NS DS EL-GP 6			019.6 CAB NS
34	IT-157	25 right	FL D4 095 020.0 NB NS DS EL-GP 6	020.0 CCTV EL-GP 1		020.0 CAB NS
34	IT-158	25 left	FL D4 095 020.0 SB SS DS EL-GP 6			020.0 CAB SS
35	IT-159	256 left	FL D4 095 020.1 SB SS DS EL-GP-ON 6			020.1 CAB SS
36	IT-163	257 left	FL D4 095 020.3 SB SS DS EL-GP-OF 6	020.3 CCTV EL-GP 1		020.3 CAB SS
37		256 right	FL D4 095 020.2 NB NS DS EL-GP 6			020.2 CAB NS
38	IT-165	2 left	FL D4 095 020.5 SB SS DS EL-GP-ON 6			020.5 CAB SS
40	IT-168	25 left	FL D4 095 020.7 SB SS DS EL-GP 5			020.7 CAB SS
38	IT-166	2585+ right	FL D4 095 020.6 NB NS DS EL-GP 6			020.6 CAB NS
41	IT-170	2601+70 right	FL D4 095 020.9 NB NS DS EL-GP 6	020.9 CCTV EL-GP 1		020.9 CAB NS
41	IT-171	2602+90 left	FL D4 095 020.9 SB SS DS EL-GP 6			020.9 CAB SS
42	IT-173	2612+00 left	FL D4 095 021.0 SB SS DS EL-GP 6			021.0 CAB SS
43	IT-174	2617+00 right	FL D4 095 021.1 NB NS DS EL-GP 6			021.1 CAB NS
45	IT-176	2628+25 left	FL D4 095 021.4 SB SS DS EL-GP-ON 6	021.4 CCTV EL-GP 1		021.4 CAB SS
46	IT-179	2638+02 right	FL D4 095 021.5 NB NS DS EL-GP-ON 6			021.5 CAB NS
44	IT-175	2624+00 right	FL D4 095 021.3 NB NS DS EL-GP-OF 6			021.3 CAB NS
46	IT-178	2637+25 left	FL D4 095 021.5 SB SS DS EL-GP 6			021.5 CAB SS
47	IT-180	2642+42 left	FL D4 095 021.6 SB SS DS EL-GP-ON 6			021.6 CAB SS
47	IT-183	2646+56 right	FL D4 095 021.7 NB NS DS EL-GP 5	021.7 CCTV EL-GP 1		021.7 CAB NS
48	IT-183A	2649+31 left			021.8 CCTV TOLL 1	021.8 CAB SS
48	IT-184	2655+86 right	FL D4 095 021.9 NB NS DS EL-GP-ON 6			021.9 CAB NS
48	IT-185	2655+94 left	FL D4 095 021.9 SB SS DS EL-GP-OF 6			021.9 CAB SS
50	IT-185A	2663+60 right	FL D4 095 022.0 NB NS DS EL-GP 6			022.0 CAB NS
50	IT-186	2665+26 left	FL D4 095 022.1 SB SS DS EL-GP 6	022.1 CCTV EL-GP 1		022.1 CAB SS
52	IT-187	2681+70 left	FL D4 095 022.4 SB SS DS EL-GP 5			022.4 CAB SS
52	IT-188	2681+98 right	FL D4 095 022.4 NB NS DS EL-GP 7			022.4 CAB NS
54	IT-191	2694+40 right	FL D4 095 022.6 NB NS DS EL-GP 6	022.6 CCTV EL-GP 1		022.6 CAB NS
54	IT-190	2694+02 left	FL D4 095 022.6 SB SS DS EL-GP 5			022.6 CAB SS
55	IT-193	2702+85 left			022.8 CCTV EL 1	
56	IT-202	2708+02 right	FL D4 095 022.9 NB NS DS EL-GP 4			022.9 CAB NS
56	IT-194	2708+12 left	FL D4 095 022.9 SB SS DS EL-GP 4			022.9 CAB SS
59	IT-197	2727+50 left			023.2 CCTV EL 1	

VOID

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, details and quantities will be that of the fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED POLE DATA TABLE		
3/16/18	2 UPDATED POLE DATA TABLE		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO. IT-13

ITS POLE DATA

ITS PLAN SHEET	CROSS SECTION SHEET	STATION	MVDS DEVICE NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	POLE MOUNTED CABINET DEVICE NAME
1	IT-107	2322+85 left	FL D4 095 015.6 SB SS DS EL-GP 6			015.6 CAB SS
1	IT-108	2323+02 right	FL D4 095 015.6 NB NS DS EL-GP 6	015.6 CCTV EL-GP 1		015.6 CAB NS
2	IT-110	2331+20 left	FL D4 095 015.7 SB SS DS EL-GP-ON 6			015.7 CAB SS
3	IT-111	2335+21 right	FL D4 095 015.8 NB NS DS EL-GP 6			015.8 CAB NS
3	IT-112	2338+00 left			015.9 CCTV GP 1	
4	IT-114	2346+00 right	FL D4 095 016.0 NB NS DS EL-GP-OF 6			016.0 CAB NS
4	IT-113	2344+47 left	FL D4 095 016.0 SB SS DS EL-GP-ON 6	016.0 CCTV EL-GP 1		016.0 CAB SS
6	IT-115	2357+74 left	FL D4 095 016.2 SB SS DS EL-GP 6		016.2 CCTV GP 1	016.2 CAB SS
6	IT-116	2357+93 right	FL D4 095 016.2 NB NS DS EL-GP 6			016.2 CAB NS
7	IT-119	2366+94 left			016.4 CCTV GP 1	
7	IT-117	2364+30 left	FL D4 095 016.4 SB SS DS EL-GP-ON 6			016.4 CAB SS
8	IT-120	2369+05 right	FL D4 095 016.4 NB NS DS EL-GP-OF 6			016.4 CAB NS
8	IT-120A	2371+32 left			016.5 CCTV TCLL 1	016.5 CAB SS
8	IT-121	2372+80 right		016.5 CCTV EL-GP 1		016.5 CAB NS
9	IT-121A	2376+42 right		016.6 CCTV GP 1		016.6 CAB NS
10	IT-123	2383+15 right	FL D4 095 016.7 NB NS DS EL-GP-ON 6		016.7 CCTV EL 1	016.7 CAB NS
9	IT-122	2378+05 left	FL D4 095 016.6 SB SS DS EL-GP-OF 7			016.6 CAB SS
11	IT-124	2390+65 left	FL D4 095 016.9 SB SS DS EL-GP 6	016.9 CCTV GP 1		016.9 CAB SS
10	IT-125	2387+00 right	FL D4 095 016.8 NB NS DS EL-GP 6			016.8 CAB NS
13	IT-129	2409+00 right	FL D4 095 017.2 NB NS DS EL-GP 6		017.2 CCTV EL 1	017.2 CAB NS
13	IT-128	2404+00 left	FL D4 095 017.1 SB SS DS EL-GP 6			017.1 CAB SS
14	IT-131	2417+00 left	FL D4 095 017.4 SB SS DS EL-GP 6			017.4 CAB SS
14	IT-132	2417+04 right	FL D4 095 017.4 NB NS DS EL-GP 6	017.4 CCTV EL-GP 1		017.4 CAB NS
16	IT-134	2430+06 right	FL D4 095 017.6 NB NS DS EL-GP 6			017.6 CAB NS
16	IT-135	2430+10 left	FL D4 095 017.6 SB SS DS EL-GP 7			017.6 CAB SS
18	IT-136	2443+22 right	FL D4 095 017.9 NB NS DS EL-GP 6			017.9 CAB NS
18	IT-137	2443+54 left	FL D4 095 017.9 SB SS DS EL-GP 6	017.9 CCTV EL-GP 1		017.9 CAB SS
20	IT-138	2454+91 right	FL D4 095 018.1 NB NS DS EL-GP-OF 7	018.1 CCTV EL-GP 1		018.1 CAB NS
20	IT-139	2454+95 left	FL D4 095 018.1 SB SS DS EL-GP-ON 6			018.1 CAB SS
21	IT-139A	2461+21 right				018.2 CAB NS
21	IT-139B	2461+21 left			018.2 CCTV	
20A	IT-140	2464+10 left			018.2 CCTV	3.2 CAB SS
21A	IT-141	2464+72 right			018.3 CCTV GP	
21A	IT-141A	2466+27 right			018.3 CCTV GP	CAB NS 3
22	IT-142	2468+02 right	FL D4 095 018.3 NB NS DS EL-GP-ON			CAB NS
22	IT-143	2468+99 left	FL D4 095 018.3 SB SS DS EL-GP-OF			CAB SS 3
22A	IT-144	2472+78 right			018.4 CCTV GP	CAB NS
23	IT-145	2477+68 left	FL D4 095 018.5 SB SS DS EL-GP-OF 7	CCTV EL-GP		5 CAB SS
24	IT-145	2479+96 right	FL D4 095 018			
24	IT-145A	2483+20 left				
25	IT-148	2490+85 left	FL D4 095 SB SS DS 6			018.8 CAB SS
26	IT-146	2488+50 right	FL D4 095 NB NS DS EL			018.8 CAB NS
26	IT-149	2501+75 right	D4 O NB NS DS EL	019.0 P 1		019.0 CAB NS
27	IT-150	2503+62 le	D4 O SB SS DS EL-G			019.0 CAB SS
28	IT-151	2515+84 rig	D4 2 NB NS DS EL-GP			019.2 CAB NS
28	IT-152	2516+05 lef	D4 SB SS DS EL-GP			019.2 CAB SS
31	IT-154	2530+00 right	D4 095 NB NS DS EL-GP			019.5 CAB NS
30	IT-153	2528+12 left	D4 095 SS DS EL-	019.5 CCTV EL-GP 1		019.5 CAB SS
32	IT-155	2541+55 left	D4 095 SS DS			019.7 CAB SS
32	IT-156	2547+00 right	D4 095 01 6			019.6 CAB NS
34	IT-	right	D4 095 020.0 P 6	020.0 CCTV EL-GP 1		020.0 CAB NS
34	IT-158	left	D4 095 020.0 SB SS DS EL-GP 6			020.0 CAB SS
35	IT-159		095 020.1 SB SS DS EL-GP-ON 6			020.1 CAB SS
37	IT-163	2575	095 020.3 SB SS DS EL-GP-OF 6	020.3 CCTV EL-GP 1	020.3 CCTV GP 2	020.3 CAB SS
36	IT-160	2565+04	095 020.2 NB NS DS EL-GP 6			020.2 CAB NS
36A	IT-161	2566+00		020.2 CCTV GP 1		
37	IT-162	2574+51 right			020.3 CCTV GP 1	
37	IT-164	2578+04 right	095 020.4 NB NS DS EL-GP-ON 6			020.4 CAB NS
37B	IT-164A	2580+09 right			020.4 CCTV GP 1	020.4 CAB NS 3
38	IT-165	2583+01 left	FL D4 095 020.5 SB SS DS EL-GP-ON 6			020.5 CAB SS
40	IT-168	2594+19 left	FL D4 095 020.7 SB SS DS EL-GP 5			020.7 CAB SS
38	IT-166	2585+99 right	FL D4 095 020.6 NB NS DS EL-GP 6		020.6 CCTV GP 1	020.6 CAB NS
38A	IT-167	2586+24 left			020.6 CCTV GP 1	
40	IT-169	2596+00 right	FL D4 095 020.7 NB NS DS EL-GP-ON 6			020.7 CAB NS
41	IT-170	2601+70 right	FL D4 095 020.9 NB NS DS EL-GP 6	020.9 CCTV EL-GP 1		020.9 CAB NS
41	IT-171	2602+90 left	FL D4 095 020.9 SB SS DS EL-GP 6			020.9 CAB SS
42	IT-173	2612+00 left	FL D4 095 021.0 SB SS DS EL-GP 6			021.0 CAB SS
43	IT-174	2617+00 right	FL D4 095 021.1 NB NS DS EL-GP 6			021.1 CAB NS
45	IT-176	2628+25 left	FL D4 095 021.4 SB SS DS EL-GP-ON 6	021.4 CCTV EL-GP 1		021.4 CAB SS
46	IT-179	2638+02 right	FL D4 095 021.5 NB NS DS EL-GP-ON 6			021.5 CAB NS
44	IT-175	2624+00 right	FL D4 095 021.3 NB NS DS EL-GP-OF 6			021.3 CAB NS
46	IT-178	2637+92 left	FL D4 095 021.5 SB SS DS EL-GP 6		021.5 CCTV GP 1	021.5 CAB SS
46B	IT-177	2635+70 right			021.5 CCTV GP 1	
47	IT-180	2642+13 left	FL D4 095 021.6 SB SS DS EL-GP-ON 6			021.6 CAB SS
47A	IT-180A	2643+34 left			021.6 CCTV GP 1	021.6 CAB SS 2
47	IT-181	2644+70 right			021.7 CCTV GP 1	021.7 CAB NS 2
47A	IT-182	2646+00 left			021.7 CCTV GP 2	
47	IT-183	2646+56 right	FL D4 095 021.7 NB NS DS EL-GP 5	021.7 CCTV EL-GP 1		021.7 CAB NS
48	IT-183A	2649+31 left			021.8 CCTV TCLL 1	021.8 CAB SS
48	IT-184	2655+86 right	FL D4 095 021.9 NB NS DS EL-GP-ON 6			021.9 CAB NS
48	IT-185	2655+94 left	FL D4 095 021.9 SB SS DS EL-GP-OF 6			021.9 CAB SS
50	IT-185A	2663+60 right	FL D4 095 022.0 NB NS DS EL-GP 6			022.0 CAB NS
50	IT-186	2669+26 left	FL D4 095 022.1 SB SS DS EL-GP 6	022.1 CCTV EL-GP 1		022.1 CAB SS
52	IT-187	2681+70 left	FL D4 095 022.4 SB SS DS EL-GP 5			022.4 CAB SS
52	IT-188	2681+98 right	FL D4 095 022.4 NB NS DS EL-GP 7			022.4 CAB NS
54	IT-191	2694+40 right	FL D4 095 022.6 NB NS DS EL-GP 6	022.6 CCTV EL-GP 1		022.6 CAB NS
54	IT-190	2694+02 left	FL D4 095 022.6 SB SS DS EL-GP 5			022.6 CAB SS
55	IT-193	2702+85 left			022.8 CCTV EL 1	
56	IT-202	2708+02 right	FL D4 095 022.9 NB NS DS EL-GP 4			022.9 CAB NS
56	IT-194	2708+12 left	FL D4 095 022.9 SB SS DS EL-GP 4			022.9 CAB SS
59	IT-197	2727+50 left			023.2 CCTV EL 1	

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) BY: (FDOT)

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3/16/18	2 UPDATED POLE DATA TABLE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO. IT-13

VOID

ITS POLE DATA

ITS PLAN SHEET	CROSS SECTION SHEET	STATION		MVDS DEVICE NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	POLE MOUNTED CABINET DEVICE NAME	
1	IT-107	2322+85	left	FL D4 095 015.6 SB SS DS EL-GP 6			015.6 CAB SS	
1	IT-108	2323+02	right	FL D4 095 015.6 NB NS DS EL-GP 6	015.6 CCTV EL-GP 1		015.6 CAB NS	
2	IT-110	2331+20	left	FL D4 095 015.7 SB SS DS EL-GP-ON 6			015.7 CAB SS	
3	IT-111	2335+21	right	FL D4 095 015.8 NB NS DS EL-GP 6			015.8 CAB NS	
3	IT-112	2338+00	left			015.9 CCTV GP 1		
4	IT-114	2346+00	right	FL D4 095 016.0 NB NS DS EL-GP-OF 6			016.0 CAB NS	
4	IT-113	2344+47	left	FL D4 095 016.0 SB SS DS EL-GP-ON 6	016.0 CCTV EL-GP 1		016.0 CAB SS	
6	IT-115	2357+74	left	FL D4 095 016.2 SB SS DS EL-GP 6			016.2 CAB SS	
6	IT-116	2357+93	right	FL D4 095 016.2 NB NS DS EL-GP 6			016.2 CAB NS	
7	IT-119	2366+94	left			016.4 CCTV GP 1		
7	IT-117	2364+20	left	FL D4 095 016.4 SB SS DS EL-GP-ON 6			016.4 CAB SS	
8	IT-120	2369+05	right	FL D4 095 016.4 NB NS DS EL-GP-OF 6	016.4 CCTV EL-GP 1		016.4 CAB NS	
8	IT-120A	2371+32	left			016.5 CCTV TOLL 1	016.5 CAB SS	
8	IT-121	2372+80	right		016.5 CCTV GP 1		016.5 CAB NS	
10	IT-123	2383+15	right	FL D4 095 016.7 NB NS DS EL-GP-ON 6		016.7 CCTV EL 1	016.7 CAB NS	
9	IT-122	2378+05	left	FL D4 095 016.6 SB SS DS EL-GP-OF 7			016.6 CAB SS	
11	IT-124	2390+65	left	FL D4 095 016.9 SB SS DS EL-GP 6	016.9 CCTV GP 1		016.9 CAB SS	
10	IT-125	2387+00	right	FL D4 095 016.8 NB NS DS EL-GP 6			016.8 CAB NS	
13	IT-129	2409+00	right	FL D4 095 017.2 NB NS DS EL-GP 6		017.2 CCTV EL 1	017.2 CAB NS	
13	IT-128	2404+00	left	FL D4 095 017.1 SB SS DS EL-GP 6			017.1 CAB SS	
14	IT-131	2417+00	left	FL D4 095 017.4 SB SS DS EL-GP 6			017.4 CAB SS	
14	IT-132	2417+04	right	FL D4 095 017.4 NB NS DS EL-GP 6	017.4 CCTV EL-GP 1		017.4 CAB NS	
16	IT-134	2430+06	right	FL D4 095 017.6 NB NS DS EL-GP 6			017.6 CAB NS	
16	IT-135	2430+10	left	FL D4 095 017.6 SB SS DS EL-GP 7			017.6 CAB SS	
18	IT-136	2443+22	right	FL D4 095 017.9 NB NS DS EL-GP 6			017.9 CAB NS	
18	IT-137	2443+54	left	FL D4 095 017.9 SB SS DS EL-GP 6	017.9 CCTV EL-GP 1		017.9 CAB SS	
20	IT-138	2454+91	right	FL D4 095 018.1 NB NS DS EL-GP-OF 7	018.1 CCTV EL-G[illegible]		018.1 CAB NS	
20	IT-139	2454+95	left	FL D4 095 018.1 SB SS DS EL-GP-ON 6			018.1 CAB SS	
21	IT-139A	2461+21	right			018.2 [illegible] 1	018.2 CAB NS	
20A	IT-140	2464+10	left			018.2 CCT[illegible]	018.2 CAB SS	
21A	IT-141	2464+72	right			018.3 CCTV [illegible]		
22	IT-142	2468+02	right	FL D4 095 018.3 NB NS DS EL-GP-[illegible]			018.3 CAB NS	
22	IT-143	2468+99	left	FL D4 095 018.3 SB SS DS EL-GP-[illegible]			018.3 CAB SS	3
22A	IT-144	2472+78	right			018.4 CCTV GP[illegible]	018.4 CAB NS	
23	IT-145	2477+68	left	FL D4 095 018.5 SB SS DS EL-GP-OF [illegible]	[illegible]5 CCTV [illegible]		018.5 CAB SS	
23	IT-147	2479+98	right	FL D4 095 018.5 [illegible] EL-GP-ON [illegible]				
25	IT-148	2490+85	left	FL D4 095 [illegible]-OF 6			018.8 CAB SS	
24	IT-146	2484+50	right	FL D4 095 [illegible] NS [illegible]N 6			018.6 CAB NS	
26	IT-149	2501+75	right	FL D4 0[illegible] NB NS DS [illegible] 6	0[illegible] EL-GP [illegible]		019.0 CAB NS	
27	IT-150	2503+62	left	FL D4 [illegible]0 SB SS DS [illegible] 6			019.0 CAB SS	
28	IT-151	2515+84	right	[illegible] D4 [illegible].2 NB NS DS EL[illegible]			019.2 CAB NS	
28	IT-152	2516+05	le[illegible]	[illegible] D4 [illegible].2 SB SS DS EL-[illegible]			019.2 CAB SS	
31	IT-154	2530+00	righ[illegible]	[illegible] D4 [illegible]5 NB NS DS EL-[illegible]			019.5 CAB NS	
30	IT-153	2528+12	left	[illegible] D4 0[illegible] SB SS DS EL-[illegible]	019.5 CCTV EL-GP 1		019.5 CAB SS	
32	IT-155	2541+55	left	[illegible] D4 0[illegible] SB SS DS EL[illegible]			019.7 CAB SS	
32	[illegible]	2537+00	right	[illegible] D4 095 [illegible] NS DS [illegible] 6			019.6 CAB NS	
34	[illegible]	[illegible]54+46	right	[illegible] D4 095 [illegible] 6	020.0 CCTV EL-GP 1		020.0 CAB NS	
34	IT[illegible]	[illegible]08	left	[illegible] D4 095 020.[illegible]P 6			020.0 CAB SS	
35	IT-15[illegible]	[illegible]	left	[illegible]4 095 020.1 [illegible]L-GP-ON 6			020.1 CAB SS	
37	IT-163	[illegible]	[illegible]eft	[illegible]4 095 020.3 SB SS DS EL-GP-OF 6	020.3 CCTV EL-GP 1		020.3 CAB SS	
36	IT-160	256[illegible]	[illegible]	[illegible]4 095 020.2 NB NS DS EL-GP 6			020.2 CAB NS	
36A	IT-161	2566+[illegible]	[illegible]		020.2 CCTV GP 1			
37	IT-162	2574+51	[illegible]			020.3 CCTV GP 1		
37	IT-164	2578+04	rig[illegible]	[illegible] 095 020.4 NB NS DS EL-GP-ON 6			020.4 CAB NS	
38	IT-165	2583+01	left	[illegible]4 095 020.5 SB SS DS EL-GP-ON 6			020.5 CAB SS	
40	IT-163	2594+19	left	FL D4 095 020.7 SB SS DS EL-GP 5			020.7 CAB SS	
38	IT-166	2585+99	right	FL D4 095 020.6 NB NS DS EL-GP 6		020.6 CCTV GP 1	020.6 CAB NS	
38A	IT-167	2586+24	left			020.6 CCTV GP 1		
40	IT-169	2596+00	right	FL D4 095 020.7 NB NS DS EL-GP-ON 6			020.7 CAB NS	
41	IT-170	2601+70	right	FL D4 095 020.9 NB NS DS EL-GP 6	020.9 CCTV EL-GP 1		020.9 CAB NS	
41	IT-171	2602+90	left	FL D4 095 020.9 SB SS DS EL-GP 6			020.9 CAB SS	
42	IT-173	2612+00	left	FL D4 095 021.0 SB SS DS EL-GP 6			021.0 CAB SS	
43	IT-174	2617+00	right	FL D4 095 021.1 NB NS DS EL-GP 6			021.1 CAB NS	
45	IT-176	2628+25	left	FL D4 095 021.4 SB SS DS EL-GP-ON 6	021.4 CCTV EL-GP 1		021.4 CAB SS	
46	IT-179	2638+02	right	FL D4 095 021.5 NB NS DS EL-GP-ON 6			021.5 CAB NS	
44	IT-175	2624+00	right	FL D4 095 021.3 NB NS DS EL-GP-OF 6			021.3 CAB NS	
46	IT-178	2637+92	left	FL D4 095 021.5 SB SS DS EL-GP 6		021.5 CCTV GP 1	021.5 CAB SS	
46B	IT-177	2635+70	right			021.5 CCTV GP 1		
47	IT-180	2642+42	left	FL D4 095 021.6 SB SS DS EL-GP-ON 6			021.6 CAB SS	
47	IT-181	2644+70	right			021.7 CCTV GP 1	021.7 CAB NS	_2
47A	IT-182	2646+00	left			021.7 CCTV GP 3		
47	IT-183	2646+56	right	FL D4 095 021.7 NB NS DS EL-GP 5	021.7 CCTV EL-GP 1		021.7 CAB NS	
48	IT-183A	2649+31	left			021.8 CCTV TOLL 1	021.8 CAB SS	
48	IT-184	2655+86	right	FL D4 095 021.9 NB NS DS EL-GP-ON 6			021.9 CAB NS	
48	IT-185	2655+94	left	FL D4 095 021.9 SB SS DS EL-GP-OF 6			021.9 CAB SS	
50	IT-185A	2663+60	right	FL D4 095 022.0 NB NS DS EL-GP 6			022.0 CAB NS	
50	IT-186	2669+26	left	FL D4 095 022.1 SB SS DS EL-GP 6	022.1 CCTV EL-GP 1		022.1 CAB SS	
52	IT-187	2681+70	left	FL D4 095 022.4 SB SS DS EL-GP 5			022.4 CAB SS	
52	IT-188	2681+98	right	FL D4 095 022.4 NB NS DS EL-GP 7			022.4 CAB NS	
54	IT-191	2694+40	right	FL D4 095 022.6 NB NS DS EL-GP 6	022.6 CCTV EL-GP 1		022.6 CAB NS	
54	IT-190	2694+02	left	FL D4 095 022.6 SB SS DS EL-GP 5			022.6 CAB SS	
55	IT-193	2702+85	left			022.8 CCTV EL 1		
56	IT-202	2708+02	right	FL D4 095 022.9 NB NS DS EL-GP 4			022.9 CAB NS	
56	IT-194	2708+12	left	FL D4 095 022.9 SB SS DS EL-GP 4			022.9 CAB SS	
59	IT-197	2727+50	left			023.2 CCTV EL 1		

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 **CONTRACT E4Q64**
BY: (Stantec) P L **BY: (FDOT)** CS

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO. IT-13

ITS POLE DATA

ITS PLAN SHEET	CROSS SECTION SHEET	STATION		MVDS DEVICE NAME									CCTV DEVICE NAME					D-CCTV DEVICE NAME				POLE MOUNTED CABINET DEVICE NAME			
1	IT-107	2322+85	left	FL	D4	095	015.6	SB	SS	DS	EL-GP	6										015.6	CAB	SS	
1	IT-108	2323+02	right	FL	D4	095	015.6	NB	NS	DS	EL-GP	6	015.6	CCTV	EL-GP	1						015.6	CAB	NS	
2	IT-110	2331+20	left	FL	D4	095	015.7	SB	SS	DS	EL-GP-ON	6										015.7	CAB	SS	
3	IT-111	2335+21	right	FL	D4	095	015.8	NB	NS	DS	EL-GP	6										015.8	CAB	NS	
3	IT-112	2336+09	left															015.8	CCTV	GP	1				
4	IT-114	2346+00	right	FL	D4	095	016.0	NB	NS	DS	EL-GP-OF	6										016.0	CAB	NS	
4	IT-113	2344+47	left	FL	D4	095	016.0	SB	SS	DS	EL-GP-ON	6	016.0	CCTV	EL-GP	1						016.0	CAB	SS	
6	IT-115	2357+74	left	FL	D4	095	016.2	SB	SS	DS	EL-GP	6										016.2	CAB	SS	
6	IT-116	2357+93	right	FL	D4	095	016.2	NB	NS	DS	EL-GP	6										016.2	CAB	NS	
7	IT-119	2366+94	left															016.4	CCTV	GP	1				
7	IT-117	2364+20	left	FL	D4	095	016.4	SB	SS	DS	EL-GP-ON	6										016.4	CAB	SS	
8	IT-120	2369+05	right	FL	D4	095	016.4	NB	NS	DS	EL-GP-OF	6	016.4	CCTV	EL-GP	1						016.4	CAB	NS	
8		2371+32	left															016.5	CCTV	TOLL	1	016.5	CAB	SS	
8	IT-121	2372+80	right										016.5	CCTV	GP	1						016.5	CAB	NS	
10	IT-123	2383+15	right	FL	D4	095	016.7	NB	NS	DS	EL-GP-ON	6						016.7	CCTV	EL	1	016.7	CAB	NS	
9	IT-122	2378+05	left	FL	D4	095	016.6	SB	SS	DS	EL-GP-OF	7										016.6	CAB	SS	
11	IT-124	2390+65	left	FL	D4	095	016.9	SB	SS	DS	EL-GP	6	016.9	CCTV	GP	1						016.9	CAB	SS	
10	IT-125	2387+00	right	FL	D4	095	016.8	NB	NS	DS	EL-GP	6										016.8	CAB	NS	
13	IT-129	2409+00	right	FL	D4	095	017.2	NB	NS	DS	EL-GP	6						017.2	CCTV	EL	1	017.2	CAB	NS	
13	IT-128	2404+00	left	FL	D4	095	017.1	SB	SS	DS	EL-GP	6										017.1	CAB	SS	
14	IT-131	2417+00	left	FL	D4	095	017.4	SB	SS	DS	EL-GP	6										017.4	CAB	SS	
14	IT-132	2417+04	right	FL	D4	095	017.4	NB	NS	DS	EL-GP	6	017.4	CCTV	EL-GP	1						017.4	CAB	NS	
16	IT-134	2430+06	right	FL	D4	095	017.6	NB	NS	DS	EL-GP	6										017.6	CAB	NS	
16	IT-135	2430+10	left	FL	D4	095	017.6	SB	SS	DS	EL-GP	7										017.6	CAB	SS	
18	IT-136	2443+22	right	FL	D4	095	017.9	NB	NS	DS	EL-GP	6										017.9	CAB	NS	
18	IT-137	2443+54	left	FL	D4	095	017.9	SB	SS	DS	EL-GP	6	017.9	CC								017.9	CAB	SS	
20	IT-138	2454+91	right	FL	D4	095	018.1	NB	NS	DS	EL-GP-OF	7	018			1						018.1	CAB	NS	
20	IT-139	2454+95	left	FL	D4	095	018.1	SB	SS	DS	EL-GP-ON	6										018.1	CAB	SS	
21		2461+21	right															018.2	CCTV			018.2	CAB	NS	
20A	IT-140	2464+10	left															018.2	CCTV			018.2	CAB	SS	
21A	IT-141	2464+72	right															018.3	CCTV						
22	IT-142	2468+02	right	FL	D4	095	018.3	NB	NS	DS	EL-GP-											018.3	CAB	NS	
22	IT-143	2468+99	left	FL	D4	095	018.3	SB	SS	DS	EL-GP-OF											018.3	CAB	SS	
22A	IT-144	2472+78	right															018.4	CCTV			018.4	CAB	NS	
23	IT-145	2477+68	left	FL	D4	095					GP-OF			CCTV	EL							018.5	CAB	SS	
23	IT-147	2479+98	right	FL	D4	0		NB	NS		ON	7										018.5	CAB	NS	
25	IT-148	2490+85	left	FL	D4		8	SB	SS	DS	F	6										018.8	CAB	SS	
24	IT-146	2484+50	right	FL	D4		18.6	NB	NS	DS		6										018.6	CAB	NS	
26	IT-149	2501+75	ri	FL	D4		019.0	NB	NS	DS		6	019		EL-GP	1						019.0	CAB	NS	
27	IT-150	2503+62		FL	D4		19.0	SB	SS	DS	E	6										019.0	CAB	SS	
28	IT-151	2515+84	ri	FL	D4		9.2	NB	NS	DS	E	6										019.2	CAB	NS	
28	IT-152	2516+05	le	FL	D4		2	SB	SS	DS	E	6										019.2	CAB	SS	
31	IT-154	2530+00	rig		D4			NB	NS	DS		6										019.5	CAB	NS	
30		2528+12	lef		D4	09		SB	SS	DS		6	019.5	CCTV	EL-GP	1						019.5	CAB	SS	
32		2541+55	lef		D4	095						6										019.7	CAB	SS	
32		+00	right		D4	095	01				EL-GP	6										019.6	CAB	NS	
34	IT-15		right		D4	095	020.0	NB		SS	EL-GP	6	020.0	CCTV	EL-GP	1						020.0	CAB	NS	
34	IT-158		left		D4	095	020.0	SB	SS	DS	EL-GP	6										020.0	CAB	SS	
35	IT-159	25			D4	095	020.1	SB	SS	DS	EL-GP-ON	6										020.1	CAB	SS	
37	IT-163	2574+			D4	095	020.3	SB	SS	DS	EL-GP-OF	6	020.3	CCTV	EL-GP	1						020.3	CAB	SS	
36	IT-160	2565+04			D4	095	020.2	NB	NS	DS	EL-GP	6										020.2	CAB	NS	
36A	IT-161	2566+00	le										020.2	CCTV	GP	1									
37	IT-162	2574+51	right															020.3	CCTV	GP	1				
37	IT-164	2578+04	right	FL	D4	095	020.4	NB	NS	DS	EL-GP-ON	6										020.4	CAB	NS	
38	IT-165	2583+01	left	FL	D4	095	020.5	SB	SS	DS	EL-GP-ON	6										020.5	CAB	SS	
40	IT-168	2594+19	left	FL	D4	095	020.7	SB	SS	DS	EL-GP	5										020.7	CAB	SS	
39	IT-166	2585+99	right	FL	D4	095	020.6	NB	NS	DS	EL-GP	6						020.6	CCTV	GP	1	020.6	CAB	NS	
38A	IT-167	2586+24	left															020.6	CCTV	GP	1				
40	IT-169	2596+00	right	FL	D4	095	020.7	NB	NS	DS	EL-GP-ON	6										020.7	CAB	NS	
41	IT-170	2601+70	right	FL	D4	095	020.9	NB	NS	DS	EL-GP	6	020.9	CCTV	EL-GP	1						020.9	CAB	NS	
41	IT-171	2602+90	left	FL	D4	095	020.9	SB	SS	DS	EL-GP	6										020.9	CAB	SS	
42	IT-173	2612+00	left	FL	D4	095	021.0	SB	SS	DS	EL-GP	6										021.0	CAB	SS	
43	IT-174	2617+00	right	FL	D4	095	021.1	NB	NS	DS	EL-GP	6										021.1	CAB	NS	
45	IT-176	2628+25	left	FL	D4	095	021.4	SB	SS	DS	EL-GP-ON	6	021.4	CCTV	EL-GP	1						021.4	CAB	SS	
46	IT-179	2638+02	right	FL	D4	095	021.5	NB	NS	DS	EL-GP-ON	6										021.5	CAB	NS	
44	IT-175	2624+00	right	FL	D4	095	021.3	NB	NS	DS	EL-GP-OF	6										021.3	CAB	NS	
46	IT-178	2637+92	left	FL	D4	095	021.5	SB	SS	DS	EL-GP	6						021.5	CCTV	GP	1	021.5	CAB	SS	
46B	IT-177	2635+70	right															021.5	CCTV	GP	1				
47	IT-180	2642+42	left	FL	D4	095	021.6	SB	SS	DS	EL-GP-ON	6										021.6	CAB	SS	
47	IT-181	2644+70	right															021.7	CCTV	GP	1	021.7	CAB	NS	2
47A	IT-182	2646+00	left															021.7	CCTV	GP	1				
47	IT-183	2646+56	right	FL	D4	095	021.7	NB	NS	DS	EL-GP	5	021.7	CCTV	EL-GP	1						021.7	CAB	NS	
48		2649+31	left															021.8	CCTV	TOLL	1	021.8	CAB	SS	
48	IT-184	2655+86	right	FL	D4	095	021.9	NB	NS	DS	EL-GP-ON	6										021.9	CAB	NS	
48	IT-185	2655+94	left	FL	D4	095	021.9	SB	SS	DS	EL-GP-OF	6										021.9	CAB	SS	
50	IT-186	2663+60	right	FL	D4	095	022.0	NB	NS	DS	EL-GP	6										022.0	CAB	NS	
50	IT-186	2669+26	left	FL	D4	095	022.1	SB	SS	DS	EL-GP	6	022.1	CCTV	EL-GP	1						022.1	CAB	SS	
52	IT-187	2681+70	left	FL	D4	095	022.4	SB	SS	DS	EL-GP	5										022.4	CAB	SS	
52	IT-188	2681+98	right	FL	D4	095	022.4	NB	NS	DS	EL-GP	7										022.4	CAB	NS	
54	IT-191	2694+40	right	FL	D4	095	022.6	NB	NS	DS	EL-GP	6	022.6	CCTV	EL-GP	1						022.6	CAB	NS	
54	IT-190	2694+02	left	FL	D4	095	022.6	SB	SS	DS	EL-GP	5										022.6	CAB	SS	
55	IT-193	2702+85	left															022.8	CCTV	EL	1				
56	IT-202	2708+02	right	FL	D4	095	022.9	NB	NS	DS	EL-GP	4										022.9	CAB	NS	
56	IT-194	2708+12	left	FL	D4	095	022.9	SB	SS	DS	EL-GP	4										022.9	CAB	SS	
59	IT-197	2727+50	left															023.2	CCTV	EL	1				

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO.
IT-13

MVDS DEVICE NAME									STATION		ITS PLAN SHEET	CABINET DEVICE NAME		
FL	D4	095	015.6	SB	SS	DS	EL-GP	6	2322+85	left	1	015.6	CAB	SS
FL	D4	095	015.6	NB	NS	DS	EL-GP	6	2323+02	right	1	015.6	CAB	NS
FL	D4	095	015.7	SB	SS	DS	EL-GP-ON	6	2331+20	left	2	015.7	CAB	SS
FL	D4	095	015.8	NB	NS	DS	EL-GP	6	2335+21	right	3	015.8	CAB	NS
FL	D4	095	016.0	NB	NS	DS	EL-GP-OF	6	2346+00	right	4	016.0	CAB	NS
FL	D4	095	016.0	SB	SS	DS	EL-GP-ON	6	2344+47	left	4	016.0	CAB	SS
FL	D4	095	016.2	SB	SS	DS	EL-GP	6	2357+74	left	6	016.2	CAB	SS
FL	D4	095	016.2	NB	NS	DS	EL-GP	6	2357+93	right	6	016.2	CAB	NS
FL	D4	095	016.4	SB	SS	DS	EL-GP-ON	6	2364+20	left	7	016.4	CAB	SS
FL	D4	095	016.4	NB	NS	DS	EL-GP-OF	6	2369+05	right	8	016.4	CAB	NS
FL	D4	095	016.7	NB	NS	DS	EL-GP-ON	6	2383+15	right	10	016.7	CAB	NS
FL	D4	095	016.6	SB	SS	DS	EL-GP-OF	7	2378+05	left	9	016.6	CAB	SS
FL	D4	095	016.9	SB	SS	DS	EL-GP	6	2390+65	left	11	016.9	CAB	SS
FL	D4	095	016.8	NB	NS	DS	EL-GP	6	2387+00	right	10	016.8	CAB	NS
FL	D4	095	017.2	NB	NS	DS	EL-GP	6	240+90	right	13	017.2	CAB	NS
FL	D4	095	017.1	SB	SS	DS	EL-GP	6	2404+00	left	13	017.1	CAB	SS
FL	D4	095	017.4	NB	NS	DS	EL-GP	6	2417+04	right	14	017.4	CAB	NS
FL	D4	095	017.4	SB	SS	DS	EL-GP	6	2417+00	left	14	017.4	CAB	SS
FL	D4	095	017.6	NB	NS	DS	EL-GP	6	2430+06	right	16	017.6	CAB	NS
FL	D4	095	017.6	SB	SS	DS	EL-GP	7	2430+10	left	16	017.6	CAB	SS
FL	D4	095	017.9	NB	NS	DS	EL-GP	6	2443+22	right	18	017.9	CAB	NS
FL	D4	095	017.9	SB	SS	DS	EL-GP	6	2443+54	left	18	017.9	CAB	SS
FL	D4	095	018.1	NB	NS	DS	EL-GP-OF	7	2454+91	right	20	018.1	CAB	NS
FL	D4	095	018.1	SB	SS	DS	EL-GP-ON	6	2454+95	left	20	018.1	CAB	SS
FL	D4	095	018.3	NB	NS	DS	EL-GP-ON	6	2468+02	right	22	018.3	CAB	NS_2
FL	D4	095	018.3	SB	SS	DS	EL-GP-OF	6	2468+99	left	22	018.3	CAB	SS_3
FL	D4	095	018.5	SB	SS	DS	EL-GP-OF	7	2477+68	left	23	018.5	CAB	SS
FL	D4	095	018.5	NB	NS	DS	EL-GP-ON	7	2479+98	right	23	018.5	CAB	NS
FL	D4	095	018.8	SB	SS	DS	EL-GP-OF	6	2490+85	left	25	018.8	CAB	SS
FL	D4	095	018.6	NB	NS	DS	EL-GP-ON	6	2484+50	right	24	018.6	CAB	NS
FL	D4	095	019.0	NB	NS	DS	EL-GP	6	2501+75	right	26	019.0	CAB	NS
FL	D4	095	019.0	SB	SS	DS	EL-GP	6	2503+74	left	27	019.0	CAB	SS
FL	D4	095	019.2	NB	NS	DS	EL-GP	6	2515+84	right	28	019.2	CAB	NS
FL	D4	095	019.2	SB	SS	DS	EL-GP	6	2516+05	left	28	019.2	CAB	SS
FL	D4	095	019.5	NB	NS	DS	EL-GP	6	2530+00	right	31	019.5	CAB	NS
FL	D4	095	019.5	SB	SS	DS	EL-GP	6	2528+12	left	30	019.5	CAB	SS
FL	D4	095	019.7	SB	SS	DS	EL-GP	6	2541+55	left	32	019.7	CAB	SS
FL	D4	095	019.6	NB	NS	DS	EL-GP	6	2537+00	right	32	019.6	CAB	NS
FL	D4	095	020.0	NB	NS	DS	EL-GP	6	2554+46	right	34	020.0	CAB	NS
FL	D4	095	020.0	SB	SS	DS	EL-GP	6	2555+03	left	34	020.0	CAB	SS
FL	D4	095	020.2	NB	NS	DS	EL-GP	6	2565+04	right	36	020.2	CAB	NS
FL	D4	095	020.1	SB	SS	DS	EL-GP-ON	6	2561+14	left	35	020.1	CAB	SS
FL	D4	095	020.3	SB	SS	DS	EL-GP-OF	6	2574+99	left	37	020.3	CAB	SS
FL	D4	095	020.4	NB	NS	DS	EL-GP-ON	6	2578+04	right	37	020.4	CAB	NS
FL	D4	095	020.6	NB	NS	DS	EL-GP	6	2585+99	right	38	020.6	CAB	NS
FL	D4	095	020.5	SB	SS	DS	EL-GP-ON	6	2583+01	left	38	020.5	CAB	SS
FL	D4	095	020.7	SB	SS	DS	EL-GP	5	2594+19	left	40	020.7	CAB	SS
FL	D4	095	020.7	NB	NS	DS	EL-GP-ON	6	2596+00	right	40	020.7	CAB	NS
FL	D4	095	020.9	SB	SS	DS	EL-GP	6	2601+70	left	41	020.9	CAB	SS
FL	D4	095	020.9	NB	NS	DS	EL-GP	6	2601+70	right	41	020.9	CAB	NS
FL	D4	095	021.0	SB	SS	DS	EL-GP	6	261+00	left	42	021.0	CAB	SS
FL	D4	095	021.1	NB	NS	DS	EL-GP	6	2617+00	right	43	021.1	CAB	NS
FL	D4	095	021.3	NB	NS	DS	EL-GP-OF	6	2624+00	right	44	021.3	CAB	NS
FL	D4	095	021.4	SB	SS	DS	EL-GP-ON	6	2628+25	left	45	021.4	CAB	SS

MVDS DEVICE NAME									STATION		ITS PLAN SHEET	CABINET DEVICE NAME		
FL	D4	095	021.5	NB	NS	DS	EL-GP-ON	6	2638+02	right	46	021.5	CAB	NS
FL	D4	095	021.6	SB	SS	DS	EL-GP-ON	6	2642+42	left	47	021.6	CAB	SS
FL	D4	095	021.5	SB	SS	DS	EL-GP	6	2637+90	left	46	021.5	CAB	SS
FL	D4	095	021.7	NB	NS	DS	EL-GP	5	2646+50	right	47	021.7	CAB	NS
FL	D4	095	021.9	NB	NS	DS	EL-GP-ON	6	2655+86	right	48	021.9	CAB	NS
FL	D4	095	021.9	SB	SS	DS	EL-GP-OF	6	2655+94	left	48	021.9	CAB	SS
FL	D4	095	022.0	NB	NS	DS	EL-GP	6	2663+60	right	50	022.0	CAB	NS
FL	D4	095	022.1	SB	SS	DS	EL-GP	6	2669+26	left	50	022.1	CAB	SS
FL	D4	095	022.4	SB	SS	DS	EL-GP	5	2681+70	left	52	022.4	CAB	SS
FL	D4	095	022.4	NB	NS	DS	EL-GP	7	2681+98	right	52	022.4	CAB	NS
FL	D4	095	022.6	NB	NS	DS	EL-GP	6	2694+40	right	54	022.6	CAB	NS
FL	D4	095	022.6	SB	SS	DS	EL-GP	5	2694+02	left	54	022.6	CAB	SS
FL	D4	095	022.9	NB	NS	DS	EL-GP	4	2708+02	right	56	022.9	CAB	NS
FL	D4	095	022.9	SB	SS	DS	EL-GP	4	2708+12	left	56	022.9	CAB	SS

CCTV DEVICE NAME				STATION		ITS PLAN SHEET	CABINET DEVICE NAME			VIEWING RAMP IF D-CCTV-RSS	VIEWING TOLL GANTRY IF D-CCTV
015.6	CCTV	EL-GP	1	2323+02	right	1	015.6	CAB	NS		
015.9	CCTV	GP	1	2338+00	left	3	015.9	CAB	SS	Andrews Ramp A	
016.0	CCTV	EL-GP	1	2344+47	left	4	016.0	CAB	SS		
016.2	CCTV	GP	1	2357+74	left	6	016.2	CAB	SS	Cypress Creek Ramp A	
016.4	CCTV	GP	1	2366+94	left	7	016.4	CAB	SS_2	Cypress Creek Ramp A	
016.5	CCTV	TOLL	1	2371+32	left	8	016.5	CAB	SS		Toll Gantry Site 4
016.5	CCTV	EL-GP	1	2372+80	right	8	016.5	CAB	NS		
016.6	CCTV	GP	1	2376+42	right	9	016.6	CAB	NS	Cypress Creek Ramp C	
016.7	CCTV	EL	1	2383+15	right	10	016.7	CAB	NS		
016.9	CCTV	GP	1	2390+65	left	11	016.9	CAB	SS		
016.9	CCTV	EL	1	2393+00	right	11	016.9	CAB	NS		
017.2	CCTV	EL	1	2409+00	right	13	017.2	CAB	NS		
017.4	CCTV	EL-GP	1	2417+04	right	14	017.4	CAB	NS		
017.6	CCTV	EL-GP	1	2430+10	left	16	017.6	CAB	SS		
018.1	CCTV	EL-GP	1	2454+91	right	20	018.1	CAB	NS		
018.2	CCTV	TOLL	1	2461+21	right	21	018.2	CAB	NS		Toll Gantry Site 5
018.2	CCTV	GP	1	2464+10	left	20A	018.2	CAB	SS	Atlantic Ramp A	
018.3	CCTV	GP	1	2464+72	right	21A	018.3	CAB	NS	Atlantic Ramp C	
018.3	CCTV	GP	2	2466+27	right	21A	018.3	CAB	NS_3	Atlantic Ramp C	
018.2	CCTV	GP	2	2461+21	left	23	018.1	CAB	SS_3		
018.5	CCTV	EL-GP	1	2477+68	left	23	018.5	CAB	SS		
018.4	CCTV	GP	1	2472+78	right	22	018.4	CAB	NS	Atlantic Ramp F	
018.7	CCTV	GP	1	2489+78	left	25	018.7	CAB	SS		
019.0	CCTV	EL-GP	1	2501+75	right	26	019.0	CAB	NS		
019.5	CCTV	EL-GP	1	2528+12	left	30	019.5	CAB	SS		
020.0	CCTV	EL-GP	1	2554+50	right	34	020.0	CAB	NS		
020.3	CCTV	EL-GP	1	2574+99	left	37	020.3	CAB	SS		
020.9	CCTV	EL-GP	1	2601+70	right	41	020.9	CAB	NS		
021.4	CCTV	EL-GP	1	2628+25	left	45	021.4	CAB	SS		
021.8	CCTV	TOLL	1	2649+31	left	48	021.8	CAB	SS		Toll Gantry Site 6
021.7	CCTV	EL-GP	2	2646+56	right	47	021.7	CAB	NS		
022.1	CCTV	EL-GP	1	2669+26	left	50	022.1	CAB	SS		
022.6	CCTV	EL-GP	1	2694+40	right	54	022.6	CAB	NS		
022.9	CCTV	EL	1	2708+12	left	56	022.9	CAB	SS		
023.2	CCTV	EL	1	2727+70	left	59	023.2	CAB	SS		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CCTV SUMMARY TABLE	9/16/19	AS-BUILT per RFI 193, 216, 226, 356 & 357.
3/16/18	2 UPDATED CCTV SUMMARY TABLE		
2/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO.
IT-14

MVDS DEVICE NAME									STATION		ITS PLAN SHEET	CABINET DEVICE NAME		
FL	D4	095	015.6	SB	SS	DS	EL-GP	6	2322+85	left	1	015.6	CAB	SS
FL	D4	095	015.6	NB	NS	DS	EL-GP	6	2323+02	right	1	015.6	CAB	NS
FL	D4	095	015.7	SB	SS	DS	EL-GP-ON	6	2331+20	left	2	015.7	CAB	SS
FL	D4	095	015.8	NB	NS	DS	EL-GP	6	2335+21	right	3	015.8	CAB	NS
FL	D4	095	016.0	NB	NS	DS	EL-GP-OF	6	2346+00	right	4	016.0	CAB	NS
FL	D4	095	016.0	SB	SS	DS	EL-GP-ON	6	2344+47	left	4	016.0	CAB	SS
FL	D4	095	016.2	SB	SS	DS	EL-GP	6	2357+74	left	6	016.2	CAB	SS
FL	D4	095	016.2	NB	NS	DS	EL-GP	6	2357+93	right	6	016.2	CAB	NS
FL	D4	095	016.4	SB	SS	DS	EL-GP-ON	6	2364+20	left	7	016.4	CAB	SS
FL	D4	095	016.4	NB	NS	DS	EL-GP-OF	6	2369+05	right	8	016.4	CAB	NS
FL	D4	095	016.7	NB	NS	DS	EL-GP-ON	6	2383+15	right	10	016.7	CAB	NS
FL	D4	095	016.6	SB	SS	DS	EL-GP-OF	7	2378+05	left	9	016.6	CAB	SS
FL	D4	095	016.9	SB	SS	DS	EL-GP	6	2390+65	left	11	016.9	CAB	SS
FL	D4	095	016.8	NB	NS	DS	EL-GP	6	2387+00	right	10	016.8	CAB	NS
FL	D4	095	017.2	NB	NS	DS	EL-GP	6	240+90	right	13	017.2	CAB	NS
FL	D4	095	017.1	SB	SS	DS	EL-GP	6	2404+00	left	13	017.1	CAB	SS
FL	D4	095	017.4	NB	NS	DS	EL-GP	6	2417+04	right	14	017.4	CAB	NS
FL	D4	095	017.4	SB	SS	DS	EL-GP	6	2417+00	left	14	017.4	CAB	SS
FL	D4	095	017.6	NB	NS	DS	EL-GP	6	2430+06	right	16	017.6	CAB	NS
FL	D4	095	017.6	SB	SS	DS	EL-GP	7	2430+10	left	16	017.6	CAB	SS
FL	D4	095	017.9	NB	NS	DS	EL-GP	6	2443+22	right	18	017.9	CAB	NS
FL	D4	095	017.9	SB	SS	DS	EL-GP	6	2443+54	left	18	017.9	CAB	SS
FL	D4	095	018.1	NB	NS	DS	EL-GP-OF	7	2454+91	right	20	018.1	CAB	NS
FL	D4	095	018.1	SB	SS	DS	EL-GP-ON	6	2454+95	left	20	018.1	CAB	SS
FL	D4	095	018.3	NB	NS	DS	EL-GP-ON	6	2468+02	right	22	018.3	CAB	NS
FL	D4	095	018.3	SB	SS	DS	EL-GP-OF	6	2468+99	left	22	018.3	[illegible]	[illegible]
FL	D4	095	018.5	SB	SS	DS	EL-GP-OF	7	2477+68	left	23	018.5	[illegible]	SS
FL	D4	095	018.5	NB	NS	DS	EL-GP-ON	7	2479+98	right	23	018.5	[illegible]	NS
FL	D4	095	018.8	SB	SS	DS	EL-GP-OF	6	2490+85	left	[illegible]	[illegible]	[illegible]	SS
FL	D4	095	018.6	NB	NS	DS	EL-GP-ON	6	2484+50	right	24	018.6	[illegible]	NS
FL	D4	095	019.0	NB	NS	DS	EL-GP	6	2501+75	right	26	019.0	[illegible]	NS
FL	D4	095	019.0	SB	SS	DS	EL-GP	6	2503+62	[illegible]	27	019.0	[illegible]	[illegible]
FL	D4	095	019.2	NB	NS	DS	EL-GP	6	2515+84	[illegible]	28	[illegible]	CAB	[illegible]
FL	D4	095	019.2	SB	SS	DS	EL-GP	6	2516+05	left	28	[illegible]	CAB	SS
FL	D4	095	019.5	NB	NS	DS	EL-GP	6	2530+00	right	[illegible]	[illegible]	CAB	NS
FL	D4	095	019.5	SB	SS	DS	EL-GP	6	2528+12	left	[illegible]	[illegible]	CAB	SS
FL	D4	095	019.7	SB	SS	DS	EL-GP	6	2541+55	left	32	[illegible]	CAB	SS
FL	D4	095	019.6	NB	NS	DS	EL-GP	6	2537+00	right	32	019.6	CAB	NS
FL	D4	095	020.0	NB	NS	DS	EL-GP	6	2554+46	right	34	020.0	CAB	NS
FL	D4	095	020.0	SB	SS	DS	EL-GP	6	2555+03	left	34	020.0	CAB	SS
FL	D4	095	020.2	NB	NS	DS	EL-GP	6	2565+04	right	36	020.2	CAB	NS
FL	D4	095	020.1	SB	SS	DS	EL-GP-ON	6	2561+14	left	35	020.1	CAB	SS
FL	D4	095	020.3	SB	SS	DS	EL-GP-OF	6	2574+99	left	37	020.3	CAB	SS
FL	D4	095	020.4	NB	NS	DS	EL-GP-ON	6	2578+04	right	37	020.4	CAB	NS
FL	D4	095	020.6	NB	NS	DS	EL-GP	6	2585+99	right	38	020.6	CAB	NS
FL	D4	095	020.5	SB	SS	DS	EL-GP-ON	6	2583+01	left	38	020.5	CAB	SS
FL	D4	095	020.7	SB	SS	DS	EL-GP	5	2594+19	left	40	020.7	CAB	SS
FL	D4	095	020.7	NB	NS	DS	EL-GP-ON	6	2596+00	right	40	020.7	CAB	NS
FL	D4	095	020.9	SB	SS	DS	EL-GP	6	2602+90	left	41	020.9	CAB	SS
FL	D4	095	020.9	NB	NS	DS	EL-GP	6	2601+70	right	41	020.9	CAB	NS
FL	D4	095	021.0	SB	SS	DS	EL-GP	6	261+00	left	42	021.0	CAB	SS
FL	D4	095	021.1	NB	NS	DS	EL-GP	6	2617+00	right	43	021.1	CAB	NS
FL	D4	095	021.3	NB	NS	DS	EL-GP-OF	6	2624+00	right	44	021.3	CAB	NS
FL	D4	095	021.4	SB	SS	DS	EL-GP-ON	6	2628+25	left	45	021.4	CAB	SS

MVDS DEVICE NAME									STATION		ITS PLAN SHEET	CABINET DEVICE NAME		
FL	D4	095	021.5	NB	NS	DS	EL-GP-ON	6	2638+02	right	46	021.5	CAB	NS
FL	D4	095	021.6	SB	SS	DS	EL-GP-ON	6	2642+42	left	47	021.6	CAB	SS
FL	D4	095	021.5	SB	SS	DS	EL-GP	6	2637+90	left	46	021.5	CAB	SS
FL	D4	095	021.7	NB	NS	DS	EL-GP	5	2646+50	right	47	021.7	CAB	NS
FL	D4	095	021.9	NB	NS	DS	EL-GP-ON	6	2655+86	right	48	021.9	CAB	NS
FL	D4	095	021.9	SB	SS	DS	EL-GP-OF	6	2655+94	left	48	021.9	CAB	SS
FL	D4	095	022.0	NB	NS	DS	EL-GP	6	2663+60	right	50	022.0	CAB	NS
FL	D4	095	022.1	SB	SS	DS	EL-GP	6	2669+26	left	50	022.1	CAB	SS
FL	D4	095	022.4	SB	SS	DS	EL-GP	5	2681+70	left	52	022.4	CAB	SS
FL	D4	095	022.4	NB	NS	DS	EL-GP	7	2681+98	right	52	022.4	CAB	NS
FL	D4	095	022.6	NB	NS	DS	EL-GP	6	2694+40	right	54	022.6	CAB	NS
FL	D4	095	022.6	SB	SS	DS	EL-GP	5	2694+02	left	54	022.6	CAB	SS
FL	D4	095	022.9	NB	NS	DS	EL-GP	4	2708+02	right	56	022.9	CAB	NS
FL	D4	095	022.9	SB	SS	DS	EL-GP	4	2708+12	left	56	022.9	CAB	SS

VOID

[illegible]ICE NAME				STATION		ITS PLAN SHEET	CABINET DEVICE NAME			VIEWING RAMP IF D-CCTV-RSS	VIEWING TOLL GANTRY IF D-CCTV
[illegible]	[illegible]	[illegible]	1	2323+02	right	1	015.6	CAB	NS		
015.9	[illegible]	[illegible]	1	2338+00	left	3	015.9	CAB	SS	Andrews Ramp A	
016.0	CCTV	[illegible]	1	2344+47	left	4	016.0	CAB	SS		
[illegible]	CCTV	[illegible]	1	2357+74	left	6	016.2	CAB	SS	Cypress Creek Ramp A	
[illegible]	CCTV	[illegible]	1	2366+94	left	7	016.4	CAB	SS_2	Cypress Creek Ramp A	
[illegible]	CCTV	[illegible]	1	2371+32	left	8	016.5	CAB	SS		Toll Gantry Site 4
[illegible]	CCTV	[illegible]	1	2372+80	right	8	016.5	CAB	NS		
[illegible]	[illegible]	[illegible]	1	2376+42	right	9	016.6	CAB	NS	Cypress Creek Ramp C	
[illegible]	[illegible]	EL	1	2383+15	right	10	016.7	CAB	NS		
[illegible]	[illegible]	GP	1	2390+65	left	11	016.9	CAB	SS		
[illegible]	CCTV	EL	1	2393+00	right	11	016.9	CAB	NS		
017.2	CCTV	EL	1	2409+00	right	13	017.2	CAB	NS		
017.4	CCTV	EL-GP	1	2417+04	right	14	017.4	CAB	NS		
017.9	CCTV	EL-GP	1	2443+54	left	18	017.9	CAB	SS		
018.1	CCTV	EL-GP	1	2454+91	right	20	018.1	CAB	NS		
018.2	CCTV	TOLL	1	2461+21	right	21	018.2	CAB	NS		Toll Gantry Site 5
018.2	CCTV	GP	1	2464+10	left	20A	018.2	CAB	SS	Atlantic Ramp A	
018.3	CCTV	GP	1	2464+72	right	21A	018.3	CAB	NS	Atlantic Ramp C	
018.3	CCTV	GP	2	2466+27	right	21A	018.3	CAB	NS_3	Atlantic Ramp C	
018.2	CCTV	GP	2	2461+21	left	23	018.1	CAB	SS_3		
018.5	CCTV	EL-GP	1	2477+68	left	23	018.5	CAB	SS		
018.4	CCTV	GP	1	2472+78	right	22	018.4	CAB	NS	Atlantic Ramp F	
018.6	CCTV	GP	1	2483+20	left	24	018.6	CAB	SS		
019.0	CCTV	EL-GP	1	2501+75	right	26	019.0	CAB	NS		
019.5	CCTV	EL-GP	1	2528+12	left	30	019.5	CAB	SS		
020.0	CCTV	EL-GP	1	2554+50	right	34	020.0	CAB	NS		
020.3	CCTV	EL-GP	1	2574+99	left	37	020.3	CAB	SS		
020.9	CCTV	EL-GP	1	2601+70	right	41	020.9	CAB	NS		
021.4	CCTV	EL-GP	1	2628+25	left	45	021.4	CAB	SS		
021.8	CCTV	TOLL	1	2649+31	left	48	021.8	CAB	SS		Toll Gantry Site 6
021.7	CCTV	EL-GP	2	2646+56	right	47	021.7	CAB	NS		
022.1	CCTV	EL-GP	1	2669+26	left	50	022.1	CAB	SS		
022.6	CCTV	EL-GP	1	2694+40	right	54	022.6	CAB	NS		
022.8	CCTV	EL	1	2702+85	left	55	022.8	CAB	SS		
023.2	CCTV	EL	1	2727+50	left	59	023.2	CAB	SS		

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CCTV SUMMARY TABLE		
3/16/18	2 UPDATED CCTV SUMMARY TABLE		
2/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO. IT-14

VOID

MVDS DEVICE NAME									STATION		ITS PLAN SHEET	CABINET DEVICE NAME		
FL	D4	095	015.6	SB	SS	DS	EL-GP	6	2322+85	left	1	015.6	CAB	SS
FL	D4	095	015.6	NB	NS	DS	EL-GP	6	2323+02	right	1	015.6	CAB	NS
FL	D4	095	015.7	SB	SS	DS	EL-GP-ON	6	2331+20	left	2	015.7	CAB	SS
FL	D4	095	015.8	NB	NS	DS	EL-GP	6	2335+21	right	3	015.8	CAB	NS
FL	D4	095	016.0	NB	NS	DS	EL-GP-OF	6	2346+00	right	4	016.0	CAB	NS
FL	D4	095	016.0	SB	SS	DS	EL-GP-ON	6	2344+47	left	4	016.0	CAB	SS
FL	D4	095	016.2	SB	SS	DS	EL-GP	6	2357+74	left	6	016.2	CAB	SS
FL	D4	095	016.2	NB	NS	DS	EL-GP	6	2357+93	right	6	016.2	CAB	NS
FL	D4	095	016.4	SB	SS	DS	EL-GP-ON	6	2364+20	left	7	016.4	CAB	SS
FL	D4	095	016.4	NB	NS	DS	EL-GP-OF	6	2369+05	right	8	016.4	CAB	NS
FL	D4	095	016.7	NB	NS	DS	EL-GP-ON	6	2383+15	right	10	016.7	CAB	NS
FL	D4	095	016.6	SB	SS	DS	EL-GP-OF	7	2378+05	left	9	016.6	CAB	SS
FL	D4	095	016.9	SB	SS	DS	EL-GP	6	2390+65	left	11	016.9	CAB	SS
FL	D4	095	016.8	NB	NS	DS	EL-GP	6	2387+00	right	10	016.8	CAB	NS
FL	D4	095	017.2	NB	NS	DS	EL-GP	6	240+90	right	13	017.2	CAB	NS
FL	D4	095	017.1	SB	SS	DS	EL-GP	6	2404+00	left	13	017.1	CAB	SS
FL	D4	095	017.4	NB	NS	DS	EL-GP	6	2417+04	right	14	017.4	CAB	NS
FL	D4	095	017.4	SB	SS	DS	EL-GP	6	2417+00	left	14	017.4	CAB	SS
FL	D4	095	017.6	NB	NS	DS	EL-GP	6	2430+06	right	16	017.6	CAB	NS
FL	D4	095	017.6	SB	SS	DS	EL-GP	7	2430+10	left	16	017.6	CAB	SS
FL	D4	095	017.9	NB	NS	DS	EL-GP	6	2443+22	right	18	017.9	CAB	NS
FL	D4	095	017.9	SB	SS	DS	EL-GP	6	2443+54	left	18	017.9	CAB	SS
FL	D4	095	018.1	NB	NS	DS	EL-GP-OF	7	2454+91	right	20	018.1	CAB	NS
FL	D4	095	018.1	SB	SS	DS	EL-GP-ON	6	2454+95	left	20	018.1	CAB	[illegible]
FL	D4	095	018.3	NB	NS	DS	EL-GP-ON	6	2468+02	right	22	018.3	CAB	[illegible]
FL	D4	095	018.3	SB	SS	DS	EL-GP-OF	6	2468+99	left	22	[illegible]	CAB	[illegible]
FL	D4	095	018.5	SB	SS	DS	EL-GP-OF	7	2477+68	left	23	[illegible]	CAB	[illegible]
FL	D4	095	018.5	NB	NS	DS	EL-GP-ON	7	2479+98	right	23	[illegible]	CAB	[illegible]
FL	D4	095	018.8	SB	SS	DS	EL-GP-OF	6	2490+85	left	25	[illegible]	CAB	[illegible]
FL	D4	095	018.6	NB	NS	DS	EL-GP-ON	6	2484+50	right	24	[illegible]	CAB	[illegible]
FL	D4	095	019.0	NB	NS	DS	EL-GP	6	2501+75	right	[illegible]	[illegible]	CAB	NS
FL	D4	095	019.0	SB	SS	DS	EL-GP	6	2503+62	left	[illegible]	[illegible]	CAB	SS
FL	D4	095	019.2	NB	NS	DS	EL-GP	6	2515+84	right	28	[illegible]	CAB	NS
FL	D4	095	019.2	SB	SS	DS	EL-GP	6	2516+05	left	28	[illegible]	CAB	SS
FL	D4	095	019.5	NB	NS	DS	EL-GP	6	2530+00	right	31	[illegible]	CAB	NS
FL	D4	095	019.5	SB	SS	DS	EL-GP	6	2528+12	left	30	019.5	CAB	SS
FL	D4	095	019.7	SB	SS	DS	EL-GP	6	2541+55	left	32	019.7	CAB	SS
FL	D4	095	019.6	NB	NS	DS	EL-GP	6	2537+00	right	32	019.6	CAB	NS
FL	D4	095	020.0	NB	NS	DS	EL-GP	6	2554+46	right	34	020.0	CAB	NS
FL	D4	095	020.0	SB	SS	DS	EL-GP	6	2555+03	left	34	020.0	CAB	SS
FL	D4	095	020.2	NB	NS	DS	EL-GP	6	2565+04	right	36	020.2	CAB	NS
FL	D4	095	020.1	SB	SS	DS	EL-GP-ON	6	2561+14	left	35	020.1	CAB	SS
FL	D4	095	020.3	SB	SS	DS	EL-GP-OF	6	2574+99	left	37	020.3	CAB	SS
FL	D4	095	020.4	NB	NS	DS	EL-GP-ON	6	2578+04	right	37	020.4	CAB	NS
FL	D4	095	020.6	NB	NS	DS	EL-GP	6	2585+99	right	38	020.6	CAB	NS
FL	D4	095	020.5	SB	SS	DS	EL-GP-ON	6	2583+01	left	38	020.5	CAB	SS
FL	D4	095	020.7	SB	SS	DS	EL-GP	5	2594+19	left	40	020.7	CAB	SS
FL	D4	095	020.7	NB	NS	DS	EL-GP-ON	6	2596+00	right	40	020.7	CAB	NS
FL	D4	095	020.9	SB	SS	DS	EL-GP	6	2602+90	left	41	020.9	CAB	SS
FL	D4	095	020.9	NB	NS	DS	EL-GP	6	2601+70	right	41	020.9	CAB	NS
FL	D4	095	021.0	SB	SS	DS	EL-GP	6	261+00	left	42	021.0	CAB	SS
FL	D4	095	021.1	NB	NS	DS	EL-GP	6	2617+00	right	43	021.1	CAB	NS
FL	D4	095	021.3	NB	NS	DS	EL-GP-OF	6	2624+00	right	44	021.3	CAB	NS
FL	D4	095	021.4	SB	SS	DS	EL-GP-ON	6	2628+25	left	45	021.4	CAB	SS

MVDS DEVICE NAME									STATION		ITS PLAN SHEET	CABINET DEVICE NAME		
FL	D4	095	021.5	NB	NS	DS	EL-GP-ON	6	2638+02	right	46	021.5	CAB	NS
FL	D4	095	021.6	SB	SS	DS	EL-GP-ON	6	2642+42	left	47	021.6	CAB	SS
FL	D4	095	021.5	SB	SS	DS	EL-GP	6	2637+90	left	46	021.5	CAB	SS
FL	D4	095	021.7	NB	NS	DS	EL-GP	5	2646+50	right	47	021.7	CAB	NS
FL	D4	095	021.9	NB	NS	DS	EL-GP-ON	6	2655+86	right	48	021.9	CAB	NS
FL	D4	095	021.9	SB	SS	DS	EL-GP-OF	6	2655+94	left	48	021.9	CAB	SS
FL	D4	095	022.0	NB	NS	DS	EL-GP	6	2663+60	right	50	022.0	CAB	NS
FL	D4	095	022.1	SB	SS	DS	EL-GP	6	2669+26	left	50	022.1	CAB	SS
FL	D4	095	022.4	SB	SS	DS	EL-GP	5	2681+70	left	52	022.4	CAB	SS
FL	D4	095	022.4	NB	NS	DS	EL-GP	7	2681+98	right	52	022.4	CAB	NS
FL	D4	095	022.6	NB	NS	DS	EL-GP	6	2694+40	right	54	022.6	CAB	NS
FL	D4	095	022.6	SB	SS	DS	EL-GP	5	2694+02	left	54	022.6	CAB	SS
FL	D4	095	022.9	NB	NS	DS	EL-GP	4	2708+02	right	56	022.9	CAB	NS
FL	D4	095	022.9	SB	SS	DS	EL-GP	4	2708+12	left	56	022.9	CAB	SS

CCTV DEVICE NAME				STATION		ITS PLAN SHEET	CABINET DEVICE NAME			VIEWING RAMP IF D-CCTV-RSS	VIEWING TOLL GANTRY IF D-CCTV
[illegible]	[illegible]	EL-GP	[illegible]	2323+02	right	1	015.6	CAB	NS		
015.9	[illegible]	GP	[illegible]	2338+00	left	3	015.9	CAB	SS	Andrews Ramp A	
016.0	[illegible]	EL-GP	[illegible]	2344+47	left	4	016.0	CAB	SS		
[illegible]	[illegible]	GP	[illegible]	2357+74	left	6	016.2	CAB	SS	Cypress Creek Ramp A	
[illegible]	[illegible]	GP	[illegible]	2366+94	left	7	016.4	CAB	SS_2	Cypress Creek Ramp A	
[illegible]	[illegible]	[illegible]	1	2371+32	left	8	016.5	CAB	SS		Toll Gantry Site 4
[illegible]	CCTV	[illegible]	1	2372+80	right	8	016.5	CAB	NS		
[illegible]	CCTV	GP	1	2376+42	right	9	016.6	CAB	NS	Cypress Creek Ramp C	
[illegible]	CCTV	EL	1	2383+15	right	10	016.7	CAB	NS		
[illegible]	CCTV	GP	1	2390+65	left	11	016.9	CAB	SS		
016.9	CCTV	EL	1	2393+00	right	11	016.9	CAB	NS		
017.2	CCTV	EL	1	2409+00	right	13	017.2	CAB	NS		
017.4	CCTV	EL-GP	1	2417+04	right	14	017.4	CAB	NS		
017.9	CCTV	EL-GP	1	2443+54	left	18	017.9	CAB	SS		
018.1	CCTV	EL-GP	1	2454+91	right	20	018.1	CAB	NS		
018.2	CCTV	TOLL	1	2461+21	right	21	018.2	CAB	NS		Toll Gantry Site 5
018.2	CCTV	GP	1	2464+10	left	20A	018.2	CAB	SS	Atlantic Ramp A	
018.3	CCTV	GP	1	2464+72	right	21A	018.3	CAB	NS	Atlantic Ramp C	
018.3	CCTV	GP	2	2466+27	right	21A	018.3	CAB	NS_3	Atlantic Ramp C	
018.2	CCTV	GP	2	2461+21	left	23	018.1	CAB	SS_3		
018.5	CCTV	EL-GP	1	2477+68	left	23	018.5	CAB	SS		
018.4	CCTV	GP	1	2472+78	right	22	018.4	CAB	NS	Atlantic Ramp F	
018.6	CCTV	GP	1	2483+20	left	24	018.6	CAB	SS		
019.0	CCTV	EL-GP	1	2501+75	right	26	019.0	CAB	NS		
019.5	CCTV	EL-GP	1	2528+12	left	30	019.5	CAB	SS		
020.0	CCTV	EL-GP	1	2554+50	right	34	020.0	CAB	NS		
020.2	CCTV	GP	1	2566+00	left	36A	020.1	CAB	SS_2	Copans Ramp ES	
020.3	CCTV	GP	1	2574+51	right	37	020.4	CAB	NS_2	Copans Ramp EN	
020.3	CCTV	GP	2	2574+99	left	37	020.3	CAB	SS	Copans Ramp WS	
020.3	CCTV	EL-GP	1	2574+99	left	37	020.3	CAB	SS		
020.4	CCTV	GP	1	2580+09	right	37B	020.4	CAB	NS_3	Copans Ramp EN	
020.6	CCTV	GP	1	2585+99	right	38	020.6	CAB	NS	Copans Ramp WN	
020.6	CCTV	GP	1	2586+24	left	38A	020.5	CAB	SS_2	Copans Ramp WS	
020.9	CCTV	EL-GP	1	2601+70	right	41	020.9	CAB	NS		
021.4	CCTV	EL-GP	1	2628+25	left	45	021.4	CAB	SS		
021.5	CCTV	GP	1	2635+70	right	46B	021.5	CAB	NS_2	Sample Ramp EN	
021.5	CCTV	GP	1	2637+92	left	46	021.5	CAB	SS	Sample Ramp ES	
021.6	CCTV	GP	1	2643+34	left	47A	021.6	CAB	SS_2	Sample Ramp WS	
021.7	CCTV	GP	2	2646+00	left	47A	021.7	CAB	SS	Sample Ramp WS	
021.8	CCTV	TOLL	1	2649+31	left	48	021.8	CAB	SS		Toll Gantry Site 6
021.7	CCTV	GP	1	2644+70	right	47	021.7	CAB	NS_2	Sample Ramp WN	
021.7	CCTV	EL-GP	2	2646+56	right	47	021.7	CAB	NS		
022.1	CCTV	EL-GP	1	2669+26	left	50	022.1	CAB	SS		
022.6	CCTV	EL-GP	1	2694+40	right	54	022.6	CAB	NS		
022.8	CCTV	EL	1	2702+85	left	55	022.8	CAB	SS		
023.2	CCTV	EL	1	2727+50	left	59	023.2	CAB	SS		

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CCTV SUMMARY TABLE		
3/16/18	2 UPDATED CCTV SUMMARY TABLE		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO. IT-14

VOID

MVDS DEVICE NAME									STATION		ITS PLAN SHEET	CABINET DEVICE NAME		
FL	D4	095	015.6	SB	SS	DS	EL-GP	6	2322+85	left	1	015.6	CAB	SS
FL	D4	095	015.6	NB	NS	DS	EL-GP	6	2323+02	right	1	015.6	CAB	NS
FL	D4	095	015.7	SB	SS	DS	EL-GP-ON	6	2331+20	left	2	015.7	CAB	SS
FL	D4	095	015.8	NB	NS	DS	EL-GP	6	2335+21	right	3	015.8	CAB	NS
FL	D4	095	016.0	NB	NS	DS	EL-GP-OF	6	2346+00	right	4	016.0	CAB	NS
FL	D4	095	016.0	SB	SS	DS	EL-GP-ON	6	2344+47	left	4	016.0	CAB	SS
FL	D4	095	016.2	SB	SS	DS	EL-GP	6	2357+74	left	6	016.2	CAB	SS
FL	D4	095	016.2	NB	NS	DS	EL-GP	6	2357+93	right	6	016.2	CAB	NS
FL	D4	095	016.4	SB	SS	DS	EL-GP-ON	6	2364+20	left	7	016.4	CAB	SS
FL	D4	095	016.4	NB	NS	DS	EL-GP-OF	6	2369+05	right	8	016.4	CAB	NS
FL	D4	095	016.7	NB	NS	DS	EL-GP-ON	6	2383+15	right	10	016.7	CAB	NS
FL	D4	095	016.6	SB	SS	DS	EL-GP-OF	7	2378+05	left	9	016.6	CAB	SS
FL	D4	095	016.9	SB	SS	DS	EL-GP	6	2390+65	left	11	016.9	CAB	SS
FL	D4	095	016.8	NB	NS	DS	EL-GP	6	2387+00	right	10	016.8	CAB	NS
FL	D4	095	017.2	NB	NS	DS	EL-GP	6	240+90	right	13	017.2	CAB	NS
FL	D4	095	017.1	SB	SS	DS	EL-GP	6	2404+00	left	13	017.1	CAB	SS
FL	D4	095	017.4	NB	NS	DS	EL-GP	6	2417+04	right	14	017.4	CAB	NS
FL	D4	095	017.4	SB	SS	DS	EL-GP	6	2417+00	left	14	017.4	CAB	SS
FL	D4	095	017.6	NB	NS	DS	EL-GP	6	2430+06	right	16	017.6	CAB	NS
FL	D4	095	017.6	SB	SS	DS	EL-GP	7	2430+10	left	16	017.6	CAB	SS
FL	D4	095	017.9	NB	NS	DS	EL-GP	6	2443+22	right	18	017.9	CAB	NS
FL	D4	095	017.9	SB	SS	DS	EL-GP	6	2443+54	left	18	017.9	CAB	SS
FL	D4	095	018.1	NB	NS	DS	EL-GP-OF	7	2454+91	right	20	018.1	CAB	[illegible]
FL	D4	095	018.1	SB	SS	DS	EL-GP-ON	6	2454+95	left	20	018.1	[illegible]	[illegible]
FL	D4	095	018.3	NB	NS	DS	EL-GP-ON	6	2468+02	right	22	018.3	[illegible]	NS
FL	D4	095	018.3	SB	SS	DS	EL-GP-OF	6	2468+99	left	22	018.3	[illegible]	SS
FL	D4	095	018.5	SB	SS	DS	EL-GP-OF	7	2477+68	left	23	018.5	[illegible]	SS
FL	D4	095	018.5	NB	NS	DS	EL-GP-ON	7	2479+98	right	23	018.5	[illegible]	NS
FL	D4	095	018.8	SB	SS	DS	EL-GP-OF	6	2490+85	[illegible]	25	[illegible]	[illegible]	SS
FL	D4	095	018.6	NB	NS	DS	EL-GP-ON	6	2484+50	[illegible]	24	[illegible]	[illegible]	[illegible]
FL	D4	095	019.0	NB	NS	DS	EL-GP	6	2501+75	[illegible]	26	[illegible]	CAB	[illegible]
FL	D4	095	019.0	SB	SS	DS	EL-GP	6	2503+62	left	[illegible]	[illegible]	CAB	SS
FL	D4	095	019.2	NB	NS	DS	EL-GP	6	2515+84	right	[illegible]	[illegible]	CAB	NS
FL	D4	095	019.2	SB	SS	DS	EL-GP	6	2516+05	left	[illegible]	[illegible]	CAB	SS
FL	D4	095	019.5	NB	NS	DS	EL-GP	6	2530+00	right	31	[illegible]	CAB	NS
FL	D4	095	019.5	SB	SS	DS	EL-GP	6	2528+12	left	30	019.5	CAB	SS
FL	D4	095	019.7	SB	SS	DS	EL-GP	6	2541+55	left	32	019.7	CAB	SS
FL	D4	095	019.6	NB	NS	DS	EL-GP	6	2537+00	right	32	019.6	CAB	NS
FL	D4	095	020.0	NB	NS	DS	EL-GP	6	2554+46	right	34	020.0	CAB	NS
FL	D4	095	020.0	SB	SS	DS	EL-GP	6	2555+03	left	34	020.0	CAB	SS
FL	D4	095	020.2	NB	NS	DS	EL-GP	6	2565+04	right	36	020.2	CAB	NS
FL	D4	095	020.1	SB	SS	DS	EL-GP-ON	6	2561+14	left	35	020.1	CAB	SS
FL	D4	095	020.3	SB	SS	DS	EL-GP-OF	6	2574+99	left	37	020.3	CAB	SS
FL	D4	095	020.4	NB	NS	DS	EL-GP-ON	6	2578+04	right	37	020.4	CAB	NS
FL	D4	095	020.6	NB	NS	DS	EL-GP	6	2585+99	right	38	020.6	CAB	NS
FL	D4	095	020.5	SB	SS	DS	EL-GP-ON	6	2583+01	left	38	020.5	CAB	SS
FL	D4	095	020.7	SB	SS	DS	EL-GP	5	2594+19	left	40	020.7	CAB	SS
FL	D4	095	020.7	NB	NS	DS	EL-GP-ON	6	2596+00	right	40	020.7	CAB	NS
FL	D4	095	020.9	SB	SS	DS	EL-GP	6	2602+90	left	41	020.9	CAB	SS
FL	D4	095	020.9	NB	NS	DS	EL-GP	6	2601+70	right	41	020.9	CAB	NS
FL	D4	095	021.0	SB	SS	DS	EL-GP	6	261+00	left	42	021.0	CAB	SS
FL	D4	095	021.1	NB	NS	DS	EL-GP	6	2617+00	right	43	021.1	CAB	NS
FL	D4	095	021.3	NB	NS	DS	EL-GP-OF	6	2624+00	right	44	021.3	CAB	NS
FL	D4	095	021.4	SB	SS	DS	EL-GP-ON	6	2628+25	left	45	021.4	CAB	SS

MVDS DEVICE NAME									STATION		ITS PLAN SHEET	CABINET DEVICE NAME		
FL	D4	095	021.5	NB	NS	DS	EL-GP-ON	6	2638+02	right	46	021.5	CAB	NS
FL	D4	095	021.6	SB	SS	DS	EL-GP-ON	6	2642+42	left	47	021.6	CAB	SS
FL	D4	095	021.5	SB	SS	DS	EL-GP	6	2637+90	left	46	021.5	CAB	SS
FL	D4	095	021.7	NB	NS	DS	EL-GP	5	2646+50	right	47	021.7	CAB	NS
FL	D4	095	021.9	NB	NS	DS	EL-GP-ON	6	2655+86	right	48	021.9	CAB	NS
FL	D4	095	021.9	SB	SS	DS	EL-GP-OF	6	2655+94	left	48	021.9	CAB	SS
FL	D4	095	022.0	NB	NS	DS	EL-GP	6	2663+60	right	50	022.0	CAB	NS
FL	D4	095	022.1	SB	SS	DS	EL-GP	6	2669+26	left	50	022.1	CAB	SS
FL	D4	095	022.4	SB	SS	DS	EL-GP	5	2681+70	left	52	022.4	CAB	SS
FL	D4	095	022.4	NB	NS	DS	EL-GP	7	2681+98	right	52	022.4	CAB	NS
FL	D4	095	022.6	NB	NS	DS	EL-GP	6	2694+40	right	54	022.6	CAB	NS
FL	D4	095	022.6	SB	SS	DS	EL-GP	5	2694+02	left	54	022.6	CAB	SS
FL	D4	095	022.9	NB	NS	DS	EL-GP	4	2708+02	right	56	022.9	CAB	NS
FL	D4	095	022.9	SB	SS	DS	EL-GP	4	2708+12	left	56	022.9	CAB	SS

Rev.	[illegible]EVICE NAME				STATION		ITS PLAN SHEET	CABINET DEVICE NAME			VIEWING RAMP IF D-CCTV-RSS	VIEWING TOLL GANTRY IF D-CCTV
	[illegible]	[illegible]	EL-GP	[illegible]	[illegible]	right	1	015.6	CAB	NS		
△1	[illegible]	[illegible]	GP	[illegible]	2338+00	left	3	015.9	CAB	SS	Andrews Ramp A	
	[illegible]	[illegible]	[illegible]	[illegible]	2344+47	left	4	016.0	CAB	SS		
△1	[illegible]	CCTV	[illegible]	[illegible]	2366+94	left	7	016.4	CAB	SS_2	Cypress Creek Ramp A	
	[illegible]	CCTV	[illegible]	1	2371+32	left	8	016.5	CAB	SS		Toll Gantry Site 4
	[illegible]	CCTV	[illegible]	1	2369+05	right	8	016.4	CAB	NS		
	[illegible]	[illegible]	GP	1	2372+80	right	8	016.5	CAB	NS	Cypress Creek Ramp C	
	[illegible]	[illegible]	EL	1	2383+15	right	10	016.7	CAB	NS		
	016.9	CCTV	GP	1	2390+65	left	11	016.9	CAB	SS		
	016.9	CCTV	EL	1	2393+00	right	11	016.9	CAB	NS		
	017.2	CCTV	EL	1	2409+00	right	13	017.2	CAB	NS		
	017.4	CCTV	EL-GP	1	2417+04	right	14	017.4	CAB	NS		
	017.9	CCTV	EL-GP	1	2443+54	left	18	017.9	CAB	SS		
	018.1	CCTV	EL-GP	1	2454+91	right	20	018.1	CAB	NS		
	018.2	CCTV	TOLL	1	2461+21	right	21	018.2	CAB	NS		Toll Gantry Site 5
	018.2	CCTV	GP	1	2464+10	left	20A	018.2	CAB	SS	Atlantic Ramp A	
	018.3	CCTV	GP	1	2464+72	right	21A	018.3	CAB	NS	Atlantic Ramp C	
	018.5	CCTV	EL-GP	1	2477+68	left	23	018.5	CAB	SS		
	018.4	CCTV	GP	1	2472+78	right	22	018.4	CAB	NS	Atlantic Ramp F	
	019.0	CCTV	EL-GP	1	2501+75	right	26	019.0	CAB	NS		
	019.5	CCTV	EL-GP	1	2528+12	left	30	019.5	CAB	SS		
	020.0	CCTV	EL-GP	1	2554+50	right	34	020.0	CAB	NS		
△1	020.2	CCTV	GP	1	2566+00	left	36A	020.1	CAB	SS_2	Copans Ramp ES	
△1	020.3	CCTV	GP	1	2574+51	right	37	020.4	CAB	NS_2	Copans Ramp EN	
	020.3	CCTV	EL-GP	1	2574+99	left	37	020.3	CAB	SS		
△1	020.6	CCTV	GP	1	2585+99	right	38	020.6	CAB	NS	Copans Ramp WN	
△1	020.6	CCTV	GP	1	2586+24	left	38A	020.5	CAB	SS_2	Copans Ramp WS	
	020.9	CCTV	EL-GP	1	2601+70	right	41	020.9	CAB	NS		
	021.4	CCTV	EL-GP	1	2628+25	left	45	021.4	CAB	SS		
△1	021.5	CCTV	GP	1	2635+70	right	46B	021.5	CAB	NS_2	Sample Ramp EN	
	021.5	CCTV	GP	1	2637+92	left	46	021.5	CAB	SS	Sample Ramp ES	
	021.7	CCTV	GP	3	2646+00	left	47A	021.7	CAB	SS	Sample Ramp WS	
	021.8	CCTV	TOLL	1	2649+31	left	48	021.8	CAB	SS		Toll Gantry Site 6
	021.7	CCTV	GP	1	2644+70	right	47	021.7	CAB	NS_2	Sample Ramp WN	
	021.7	CCTV	EL-GP	2	2646+56	right	47	021.7	CAB	NS		
	022.1	CCTV	EL-GP	1	2669+26	left	50	022.1	CAB	SS		
	022.6	CCTV	EL-GP	1	2694+40	right	54	022.6	CAB	NS		
	022.8	CCTV	EL	1	2702+85	left	55	022.8	CAB	SS		
	023.2	CCTV	EL	1	2727+50	left	59	023.2	CAB	SS		

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	△1 UPDATED CCTV SUMMARY TABLE		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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EOR: TIMOTHY R. RAYNER, P.E.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO. IT-14

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) P L BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

MVDS DEVICE NAME									STATION		ITS PLAN SHEET	CABINET DEVICE NAME		
FL	D4	095	015.6	SB	SS	DS	EL-GP	6	2322+85	left	1	015.6	CAB	SS
FL	D4	095	015.6	NB	NS	DS	EL-GP	6	2323+02	right	1	015.6	CAB	NS
FL	D4	095	015.7	SB	SS	DS	EL-GP-ON	6	2331+20	left	2	015.7	CAB	SS
FL	D4	095	015.8	NB	NS	DS	EL-GP	6	2335+21	right	3	015.8	CAB	NS
FL	D4	095	016.0	NB	NS	DS	EL-GP-OF	6	2346+00	right	4	016.0	CAB	NS
FL	D4	095	016.0	SB	SS	DS	EL-GP-ON	6	2344+47	left	4	016.0	CAB	SS
FL	D4	095	016.2	SB	SS	DS	EL-GP	6	2357+74	left	6	016.2	CAB	SS
FL	D4	095	016.2	NB	NS	DS	EL-GP	6	2357+93	right	6	016.2	CAB	NS
FL	D4	095	016.4	SB	SS	DS	EL-GP-ON	6	2364+20	left	7	016.4	CAB	SS
FL	D4	095	016.4	NB	NS	DS	EL-GP-OF	6	2369+05	right	8	016.4	CAB	NS
FL	D4	095	016.7	NB	NS	DS	EL-GP-ON	6	2383+15	right	10	016.7	CAB	NS
FL	D4	095	016.6	SB	SS	DS	EL-GP-OF	7	2378+05	left	9	016.6	CAB	SS
FL	D4	095	016.9	SB	SS	DS	EL-GP	6	2390+65	left	11	016.9	CAB	SS
FL	D4	095	016.8	NB	NS	DS	EL-GP	6	2387+00	right	10	016.8	CAB	NS
FL	D4	095	017.2	NB	NS	DS	EL-GP	6	240+90	right	13	017.2	CAB	NS
FL	D4	095	017.1	SB	SS	DS	EL-GP	6	2404+00	left	13	017.1	CAB	SS
FL	D4	095	017.4	NB	NS	DS	EL-GP	6	2417+04	right	14	017.4	CAB	NS
FL	D4	095	017.4	SB	SS	DS	EL-GP	6	2417+00	left	14	017.4	CAB	SS
FL	D4	095	017.6	NB	NS	DS	EL-GP	6	2430+06	right	16	017.6	CAB	NS
FL	D4	095	017.6	SB	SS	DS	EL-GP	7	2430+10	left	16	017.6	CAB	SS
FL	D4	095	017.9	NB	NS	DS	EL-GP	6	2443+22	right	18	017.9	CAB	NS
FL	D4	095	017.9	SB	SS	DS	EL-GP	6	2443+54	left	18	017.9	CAB	SS
FL	D4	095	018.1	NB	NS	DS	EL-GP-OF	7	2454+91	right	20	018.1	CA	S
FL	D4	095	018.1	SB	SS	DS	EL-GP-ON	6	2454+95	left	20	018.1	C	SS
FL	D4	095	018.3	NB	NS	DS	EL-GP-ON	6	2468+02	right	22	8.3	C	NS
FL	D4	095	018.3	SB	SS	DS	EL-GP-OF	6	2468+99	left	22	.3	CA	S
FL	D4	095	018.5	SB	SS	DS	EL-GP-OF	7	2477+68	left	23	5	CA	
FL	D4	095	018.5	NB	NS	DS	EL-GP-ON	7	2479+98		23	5	CAB	
FL	D4	095	018.8	SB	SS	DS	EL-GP-OF	6	2490+85	lef	25		CAB	S
FL	D4	095	018.6	NB	NS	DS	EL-GP-ON	6	2484+50	right			CAB	NS
FL	D4	095	019.0	NB	NS	DS	EL-GP	6	2501+75	right			CAB	NS
FL	D4	095	019.0	SB	SS	DS	EL-GP	6	2503+62	left	27		CAB	SS
FL	D4	095	019.2	NB	NS	DS	EL-GP	6	2515+84	right	28		CAB	NS
FL	D4	095	019.2	SB	SS	DS	EL-GP	6	2516+05	left	28	019.2	CAB	SS
FL	D4	095	019.5	NB	NS	DS	EL-GP	6	2530+00	right	31	019.5	CAB	NS
FL	D4	095	019.5	SB	SS	DS	EL-GP	6	2528+12	left	30	019.5	CAB	SS
FL	D4	095	019.7	SB	SS	DS	EL-GP	6	2541+55	left	32	019.7	CAB	SS
FL	D4	095	019.6	NB	NS	DS	EL-GP	6	2537+00	right	32	019.6	CAB	NS
FL	D4	095	020.0	NB	NS	DS	EL-GP	6	2554+46	right	34	020.0	CAB	NS
FL	D4	095	020.0	SB	SS	DS	EL-GP	6	2555+03	left	34	020.0	CAB	SS
FL	D4	095	020.2	NB	NS	DS	EL-GP	6	2565+04	right	36	020.2	CAB	NS
FL	D4	095	020.1	SB	SS	DS	EL-GP-ON	6	2561+14	left	35	020.1	CAB	SS
FL	D4	095	020.3	SB	SS	DS	EL-GP-OF	6	2574+99	left	37	020.3	CAB	SS
FL	D4	095	020.4	NB	NS	DS	EL-GP-ON	6	2578+04	right	37	020.4	CAB	NS
FL	D4	095	020.6	NB	NS	DS	EL-GP	6	2585+99	right	38	020.6	CAB	NS
FL	D4	095	020.5	SB	SS	DS	EL-GP-ON	6	2583+01	left	38	020.5	CAB	SS
FL	D4	095	020.7	SB	SS	DS	EL-GP	5	2594+19	left	40	020.7	CAB	SS
FL	D4	095	020.7	NB	NS	DS	EL-GP-ON	6	2596+00	right	40	020.7	CAB	NS
FL	D4	095	020.9	SB	SS	DS	EL-GP	6	2602+90	left	41	020.9	CAB	SS
FL	D4	095	020.9	NB	NS	DS	EL-GP	6	2601+70	right	41	020.9	CAB	NS
FL	D4	095	021.0	SB	SS	DS	EL-GP	6	261+00	left	42	021.0	CAB	SS
FL	D4	095	021.1	NB	NS	DS	EL-GP	6	2617+00	right	43	021.1	CAB	NS
FL	D4	095	021.3	NB	NS	DS	EL-GP-OF	6	2624+00	right	44	021.3	CAB	NS
FL	D4	095	021.4	SB	SS	DS	EL-GP-ON	6	2628+25	left	45	021.4	CAB	SS

MVDS DEVICE NAME									STATION		ITS PLAN SHEET	CABINET DEVICE NAME		
FL	D4	095	021.5	NB	NS	DS	EL-GP-ON	6	2638+02	right	46	021.5	CAB	NS
FL	D4	095	021.6	SB	SS	DS	EL-GP-ON	6	2642+42	left	47	021.6	CAB	SS
FL	D4	095	021.5	SB	SS	DS	EL-GP	6	2637+90	left	46	021.5	CAB	SS
FL	D4	095	021.7	NB	NS	DS	EL-GP	5	2646+50	right	47	021.7	CAB	NS
FL	D4	095	021.9	NB	NS	DS	EL-GP-ON	6	2655+86	right	48	021.9	CAB	NS
FL	D4	095	021.9	SB	SS	DS	EL-GP-OF	6	2655+94	left	48	021.9	CAB	SS
FL	D4	095	022.0	NB	NS	DS	EL-GP	6	2663+60	right	50	022.0	CAB	NS
FL	D4	095	022.1	SB	SS	DS	EL-GP	6	2669+26	left	50	022.1	CAB	SS
FL	D4	095	022.4	SB	SS	DS	EL-GP	5	2681+70	left	52	022.4	CAB	SS
FL	D4	095	022.4	NB	NS	DS	EL-GP	7	2681+98	right	52	022.4	CAB	NS
FL	D4	095	022.6	NB	NS	DS	EL-GP	6	2694+40	right	54	022.6	CAB	NS
FL	D4	095	022.6	SB	SS	DS	EL-GP	5	2694+02	left	54	022.6	CAB	SS
FL	D4	095	022.9	NB	NS	DS	EL-GP	4	2708+02	right	56	022.9	CAB	NS
FL	D4	095	022.9	SB	SS	DS	EL-GP	4	2708+12	left	56	022.9	CAB	SS

CCTV				STATION		ITS PLAN SHEET	CABINET DEVICE NAME			VIEWING RAMP IF D-CCTV-RSS	VIEWING TOLL GANTRY IF D-CCTV
CCTV		GP	1	2323+0	nt	1	015.6	CAB	NS		
CCTV			1		left	3	015.8	CAB	SS	Andrews Ramp A	
016.0	V		1	47	left	4	016.0	CAB	SS		
016.4			1	2366+94	left	7	016.4	CAB	SS	Cypress Creek Ramp A	
016.5		TO	1	2371+32	left	8	016.5	CAB	SS		Toll Gantry Site 4
016.4		EL-GP	1	2369+05	right	8	016.4	CAB	NS		
016.5		GP	1	2372+80	right	8	016.5	CAB	NS	Cypress Creek Ramp C	
016.7	V	EL	1	2383+15	right	10	016.7	CAB	NS		
	CCTV	GP	1	2390+65	left	11	016.9	CAB	SS		
	CCTV	EL	1	2393+00	right	11	016.9	CAB	NS		
017.2	CCTV	EL	1	2409+00	right	13	017.2	CAB	NS		
017.4	CCTV	EL-GP	1	2417+04	right	14	017.4	CAB	NS		
017.9	CCTV	EL-GP	1	2443+54	left	18	017.9	CAB	SS		
018.1	CCTV	EL-GP	1	2454+91	right	20	018.1	CAB	NS		
018.2	CCTV	TOLL	1	2461+21	right	21	018.2	CAB	NS		Toll Gantry Site 5
018.2	CCTV	GP	1	2464+10	left	20A	018.2	CAB	SS	Atlantic Ramp A	
018.3	CCTV	GP	1	2464+72	right	21A	018.3	CAB	NS	Atlantic Ramp C	
018.5	CCTV	EL-GP	1	2477+68	left	23	018.5	CAB	SS		
018.4	CCTV	GP	1	2472+78	right	22	018.4	CAB	NS	Atlantic Ramp F	
019.0	CCTV	EL-GP	1	2501+75	right	26	019.0	CAB	NS		
019.5	CCTV	EL-GP	1	2528+12	left	30	019.5	CAB	SS		
020.0	CCTV	EL-GP	1	2554+50	right	34	020.0	CAB	NS		
020.2	CCTV	GP	1	2566+00	left	36A	020.1	CAB	SS	Copans Ramp ES	
020.3	CCTV	EL-GP	1	2574+99	left	37	020.3	CAB	SS		
020.2	CCTV	GP	1	2565+04	right	36	020.2	CAB	NS	Copans Ramp EN	
020.6	CCTV	GP	1	2586+24	left	38A	020.5	CAB	SS	Copans Ramp WS	
020.6	CCTV	GP	1	2585+99	right	39	020.6	CAB	NS	Copans Ramp WN	
020.9	CCTV	EL-GP	1	2601+70	right	41	020.9	CAB	NS		
021.4	CCTV	EL-GP	1	2628+25	left	45	021.4	CAB	SS		
021.3	CCTV	GP	1	2624+00	right	44	021.3	CAB	NS	Sample Ramp EN	
021.5	CCTV	GP	1	2637+92	left	46	021.5	CAB	SS	Sample Ramp ES	
021.7	CCTV	GP	1	2646+00	left	47A	021.7	CAB	SS	Sample Ramp WS	
021.8	CCTV	TOLL	1	2649+31	left	48	021.8	CAB	SS		Toll Gantry Site 6
021.7	CCTV	GP	1	2644+70	right	47	021.7	CAB	NS_2	Sample Ramp WN	
021.7	CCTV	EL-GP	2	2646+56	right	47	021.7	CAB	NS		
022.1	CCTV	EL-GP	1	2669+26	left	50	022.1	CAB	SS		
022.6	CCTV	EL-GP	1	2694+40	right	54	022.6	CAB	NS		
022.8	CCTV	EL	1	2702+85	left	55	022.8	CAB	SS		
023.2	CCTV	EL	1	2727+50	left	59	023.2	CAB	SS		

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO.
IT-14

TYPE 336S CABINET DEVICE			STATION		ITS PLAN SHEET	MOUNT TYPE	TECHNICIAN PAD TYPE
015.6	CAB	SS	2322+85	left	1	POLE MOUNT	PARALLEL
015.6	CAB	NS	2323+02	right	1	POLE MOUNT	
015.7	CAB	SS	2331+20	left	2	POLE MOUNT	PARALLEL
015.8	CAB	NS	2335+21	right	3	POLE MOUNT	PARALLEL
016.0	CAB	NS	2346+00	right	4	POLE MOUNT	PARALLEL
016.0	CAB	SS	2344+47	left	4	POLE MOUNT	
016.2	CAB	SS	2357+74	left	6	POLE MOUNT	PARALLEL
016.2	CAB	NS	2357+93	right	6	POLE MOUNT	PARALLEL
016.2	CAB	SS	2357+74	left	6	POLE MOUNT	
016.4	CAB	SS	2364+20	left	7	POLE MOUNT	PARALLEL
016.4	CAB	NS	2369+05	right	8	POLE MOUNT	
016.5	CAB	SS	2371+32	left	8	POLE MOUNT	
016.5	CAB	NS	2372+80	right	8	POLE MOUNT	
016.6	CAB	NS	2376+42	right	9	POLE MOUNT	
016.6	CAB	SS	2378+05	left	9	POLE MOUNT	PARALLEL
016.7	CAB	NS	2383+15	right	10	POLE MOUNT	
016.9	CAB	SS	2390+65	left	11	POLE MOUNT	
016.8	CAB	NS	2387+00	right	10	POLE MOUNT	PARALLEL
017.2	CAB	NS	2409+00	right	13	POLE MOUNT	
017.1	CAB	SS	2404+00	left	13	POLE MOUNT	PARALLEL
017.4	CAB	SS	2417+00	left	14	POLE MOUNT	PARALLEL
017.4	CAB	NS	2417+04	right	14	POLE MOUNT	
017.6	CAB	NS	2430+06	right	16	POLE MOUNT	PERPENDICULAR
017.6	CAB	SS	2430+10	left	16	POLE MOUNT	PARALLEL
017.9	CAB	NS	2443+22	right	18	POLE MOUNT	PERPENDICULAR
017.9	CAB	SS	2443+54	left	18	POLE MOUNT	
018.1	CAB	NS	2454+91	right	20	POLE MOUNT	
018.1	CAB	SS	2454+95	left	20	POLE MOUNT	PARALLEL
018.2	CAB	NS	2461+21	right	21	POLE MOUNT	
018.2	CAB	SS	2464+10	left	20A	POLE MOUNT	
018.3	CAB	NS _3	2466+27	right	21A	POLE MOUNT	
018.3	CAB	NS _2	2468+02	right	22	POLE MOUNT	PARALLEL
018.3	CAB	SS	2468+99	left	22	POLE MOUNT	
018.4	CAB	NS	2472+78	right	22A	POLE MOUNT	
018.5	CAB	SS	2477+68	left	23	POLE MOUNT	
018.6	CAB	NS	2484+50	right	24	POLE MOUNT	PARALLEL
018.8	CAB	SS	2490+85	left	25	POLE MOUNT	PARALLEL
019.0	CAB	NS	2501+75	right	26	POLE MOUNT	
019.0	CAB	SS	2503+74	left	27	POLE MOUNT	PARALLEL
019.2	CAB	NS	2515+84	right	28	POLE MOUNT	PARALLEL
019.2	CAB	SS	2516+05	left	28	POLE MOUNT	PARALLEL
019.5	CAB	NS	2530+00	right	31	POLE MOUNT	PARALLEL
019.5	CAB	SS	2528+12	left	30	POLE MOUNT	
019.7	CAB	SS	2541+55	left	32	POLE MOUNT	PARALLEL
019.6	CAB	NS	2537+00	right	32	POLE MOUNT	PARALLEL
020.0	CAB	NS	2554+46	right	34	POLE MOUNT	
020.0	CAB	SS	2555+03	left	34	POLE MOUNT	PARALLEL
020.1	CAB	SS	2561+14	left	35	POLE MOUNT	PARALLEL
020.2	CAB	NS	2565+04	right	36	POLE MOUNT	PERPENDICULAR
020.3	CAB	SS	2574+99	left	37	POLE MOUNT	
020.4	CAB	NS	2578+04	right	37	POLE MOUNT	PARALLEL
020.5	CAB	SS	2583+01	left	38	POLE MOUNT	PARALLEL
020.6	CAB	NS	2585+99	right	39	POLE MOUNT	
020.7	CAB	SS	2594+19	left	40	POLE MOUNT	PERPENDICULAR
020.7	CAB	NS	2596+00	right	40	POLE MOUNT	PERPENDICULAR
020.9	CAB	NS	2601+70	right	41	POLE MOUNT	
020.9	CAB	SS	2601+70	left	41	POLE MOUNT	PARALLEL
021.0	CAB	SS	2612+00	left	42	POLE MOUNT	PARALLEL
021.1	CAB	NS	2617+00	right	43	POLE MOUNT	PARALLEL
021.3	CAB	NS	2624+00	right	44	POLE MOUNT	PARALLEL
021.4	CAB	SS	2628+25	left	45	POLE MOUNT	
021.5	CAB	SS	2637+92	left	46	POLE MOUNT	
021.5	CAB	NS	2638+02	right	46	POLE MOUNT	PARALLEL
021.6	CAB	SS	2642+42	left	47	POLE MOUNT	PARALLEL
021.7	CAB	NS	2646+56	right	47	POLE MOUNT	
021.8	CAB	SS	2649+31	left	48	POLE MOUNT	
021.9	CAB	NS	2655+86	right	48	POLE MOUNT	PERPENDICULAR
021.9	CAB	SS	2655+94	left	48	POLE MOUNT	PERPENDICULAR
022.0	CAB	NS	2663+60	right	50	POLE MOUNT	PARALLEL
022.1	CAB	SS	2669+26	left	50	POLE MOUNT	
022.4	CAB	SS	2681+70	left	52	POLE MOUNT	PARALLEL
022.4	CAB	NS	2681+98	right	52	POLE MOUNT	PARALLEL
022.6	CAB	SS	2694+02	left	54	POLE MOUNT	PARALLEL
022.6	CAB	NS	2694+40	right	54	POLE MOUNT	
022.9	CAB	NS	2708+02	right	56	POLE MOUNT	PARALLEL
022.9	CAB	SS	2708+12	left	56	POLE MOUNT	PARALLEL

TYPE 334 CABINET DEVICE			STATION		ITS PLAN SHEET	MOUNT TYPE	TECHNICIAN PAD TYPE
015.8	CAB	SS	2332+58	left	2	GROUND MOUNT	PARALLEL
015.8	CAB	SS _2	2336+33	left	3	GROUND MOUNT	PARALLEL
016.4	CAB	SS _2	2366+05	left	7	GROUND MOUNT	PARALLEL
016.4	CAB	NS _2	2364+62	right	7	GROUND MOUNT	PARALLEL
016.6	E-CAB	NS	2379+50	right	9	GROUND MOUNT	PARALLEL
016.7	CAB	NS _2	2381+14	right	9	GROUND MOUNT	PERPENDICULAR
016.9	CAB	NS	2394+00	right	11	GROUND MOUNT	PARALLEL
017.0	CAB	NS	2397+59	right	12	GROUND MOUNT	PARALLEL
017.3	CAB	NS	2414+29	right	14	GROUND MOUNT	PARALLEL
017.4	E-CAB	SS	2417+20	left	14	GROUND MOUNT	PARALLEL
017.5	CAB	NS	2422+28	right	15	GROUND MOUNT	PERPENDICULAR
018.1	CAB	SS _2	2458+60	left	20	GROUND MOUNT	PERPENDICULAR
018.1	CAB	SS _3	2458+77	left	20	GROUND MOUNT	PERPENDICULAR
018.3	CAB	NS	2465+66	right	21	GROUND MOUNT	PERPENDICULAR
018.5	CAB	NS	2476+96	right	23	GROUND MOUNT	PARALLEL
018.6	CAB	NS _2	2480+48	right	23	GROUND MOUNT	PARALLEL
018.7	CAB	SS	2489+78	left	25	GROUND MOUNT	PERPENDICULAR
019.2	CAB	SS _2	2516+27	left	29	GROUND MOUNT	PARALLEL
019.8	E-CAB	NS	2544+30	right	33	GROUND MOUNT	PARALLEL
019.8	E-CAB	SS	2544+35	left	33	GROUND MOUNT	PARALLEL
020.8	CAB	NS	2601+40	right	41	GROUND MOUNT	PERPENDICULAR
022.6	CAB	SS _2	2693+85	left	54	GROUND MOUNT	PARALLEL
022.6	E-CAB	NS	2694+60	right	54	GROUND MOUNT	PARALLEL
022.7	CAB	SS	2700+11	left	55	GROUND MOUNT	PARALLEL
022.8	E-CAB	SS	2706+80	left	56	GROUND MOUNT	PARALLEL
023.0	CAB	SS	2717+60	left	57	GROUND MOUNT	PERPENDICULAR
023.2	CAB	SS	2726+61	left	59	GROUND MOUNT	PERPENDICULAR

POWER STATION NAME	STATION	ITS PLAN SHEET
A	2361+82	6B
B	2425+01	15
C	2544+61	33
D	2626+85	44
E	2693+65	54

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CABINET SUMMARY TABLES	10/27/17	AS-BUILT per RFI 356, 357 & 419
3/16/18	2 UPDATED CABINET SUMMARY TABLES		
2/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO. IT-15

TYPE 336S CABINET DEVICE			STATION		ITS PLAN SHEET	MOUNT TYPE	TECHNICIAN PAD TYPE
015.6	CAB	SS	2322+85	left	1	POLE MOUNT	PARALLEL
015.6	CAB	NS	2323+02	right	1	POLE MOUNT	
015.7	CAB	SS	2331+20	left	2	POLE MOUNT	PARALLEL
015.8	CAB	NS	2335+21	right	3	POLE MOUNT	PARALLEL
016.0	CAB	NS	2346+00	right	4	POLE MOUNT	PARALLEL
016.0	CAB	SS	2344+47	left	4	POLE MOUNT	
016.2	CAB	SS	2357+74	left	6	POLE MOUNT	PARALLEL
016.2	CAB	NS	2357+93	right	6	POLE MOUNT	PARALLEL
016.2	CAB	SS	2357+74	left	6	POLE MOUNT	
016.4	CAB	SS	2364+20	left	7	POLE MOUNT	PARALLEL
016.4	CAB	NS	2369+05	right	8	POLE MOUNT	
016.5	CAB	SS	2371+32	left	8	POLE MOUNT	
016.5	CAB	NS	2372+80	right	8	POLE MOUNT	
016.6	CAB	NS	2376+42	right	9	POLE MOUNT	
016.6	CAB	SS	2378+05	left	9	POLE MOUNT	PARALLEL
016.7	CAB	NS	2383+15	right	10	POLE MOUNT	
016.9	CAB	SS	2390+65	left	11	POLE MOUNT	
016.8	CAB	NS	2387+00	right	10	POLE MOUNT	PARALLEL
017.2	CAB	NS	2409+00	right	13	POLE MOUNT	
017.1	CAB	SS	2404+00	left	13	POLE MOUNT	PARALLEL
017.4	CAB	SS	2417+00	left	14	POLE MOUNT	PARALLEL
017.4	CAB	NS	2417+04	right	14	POLE MOUNT	
017.6	CAB	NS	2430+06	right	16	POLE MOUNT	PERPENDICULAR
017.6	CAB	SS	2430+10	left	16	POLE MOUNT	PARALLEL
017.9	CAB	NS	2443+22	right	18	POLE MOUNT	PERPENDICULAR
017.9	CAB	SS	2443+54	left	18	POLE MOUNT	
018.1	CAB	NS	2454+91	right	20	POLE MOUNT	
018.1	CAB	SS	2454+95	left	20	POLE MOUNT	PARALLEL
018.2	CAB	NS	2461+21	right	21	POLE MOUNT	
018.2	CAB	SS	2464+10	left	20A	POLE MOUNT	
018.3	CAB	NS_3	2466+27	right	21A	POLE MOUNT	
018.3	CAB	NS_2	2468+02	right	22	POLE MOUNT	PARALLEL
018.3	CAB	SS	2468+99	left	22	POLE MOUNT	
018.4	CAB	NS	2472+78	right	22A	POLE MOUNT	
018.5	CAB	SS	2477+68	left	23	POLE MOUNT	
018.6	CAB	NS	2484+50	right	24	POLE MOUNT	PARALLEL
018.8	CAB	SS	2490+85	left	25	POLE MOUNT	PARALLEL
019.0	CAB	NS	2501+75	right	26	POLE MOUNT	
019.0	CAB	SS	2503+62	left	27	POLE MOUNT	PARALLEL
019.2	CAB	NS	2515+84	right	28	POLE MOUNT	PARALLEL
019.2	CAB	SS	2516+05	left	28	POLE MOUNT	PARALLEL
019.5	CAB	NS	2530+00	right	31	POLE MOUNT	PARALLEL
019.5	CAB	SS	2528+12	left	30	POLE MOUNT	
019.7	CAB	SS	2541+55	left	32	POLE MOUNT	[illegible]LEL
019.6	CAB	NS	2537+00	right	32	POLE MOUNT	[illegible]LEL
020.0	CAB	NS	2554+46	right	34	POLE MOUNT	
020.0	CAB	SS	2555+03	left	34	[illegible]E MOUNT	[illegible]EL
020.1	CAB	SS	2561+14	left	35	[illegible]OUNT	[illegible]L
020.2	CAB	NS	2565+04	right	36	[illegible]NT	PERP[illegible]ULAR
020.3	CAB	SS	2574+99	left	37	PO[illegible]	
020.4	CAB	NS	2578+04	right	37	POLE[illegible]	PA[illegible]
020.5	CAB	SS	2583+01	left	38	POLE MOUNT	
020.6	CAB	NS	2585+99	right	39	POLE MOUNT	
020.7	CAB	SS	2594+19	left	40	POLE MOUNT	PERP[illegible]ULAR
020.7	CAB	NS	2596+00	right	40	POLE MOUNT	PERPENDICULAR
020.9	CAB	NS	2601+70	right	41	POLE MOUNT	
020.9	CAB	SS	2602+90	left	41	POLE MOUNT	PARALLEL
021.0	CAB	SS	2612+00	left	42	POLE MOUNT	PARALLEL
021.1	CAB	NS	2617+00	right	43	POLE MOUNT	PARALLEL
021.3	CAB	NS	2624+00	right	44	POLE MOUNT	PARALLEL
021.4	CAB	SS	2628+25	left	45	POLE MOUNT	
021.5	CAB	SS	2637+92	left	46	POLE MOUNT	
021.5	CAB	NS	2638+02	right	46	POLE MOUNT	PARALLEL
021.6	CAB	SS	2642+42	left	47	POLE MOUNT	PARALLEL
021.7	CAB	NS	2646+56	right	47	POLE MOUNT	
021.8	CAB	SS	2649+31	left	48	POLE MOUNT	
021.9	CAB	NS	2655+86	right	48	POLE MOUNT	PERPENDICULAR
021.9	CAB	SS	2655+94	left	48	POLE MOUNT	PERPENDICULAR
022.0	CAB	NS	2663+60	right	50	POLE MOUNT	PARALLEL
022.1	CAB	SS	2669+26	left	50	POLE MOUNT	
022.4	CAB	SS	2681+70	left	52	POLE MOUNT	PARALLEL
022.4	CAB	NS	2681+98	right	52	POLE MOUNT	PARALLEL
022.6	CAB	SS	2694+02	left	54	POLE MOUNT	PARALLEL
022.6	CAB	NS	2694+40	right	54	POLE MOUNT	
022.9	CAB	NS	2708+02	right	56	POLE MOUNT	PARALLEL
022.9	CAB	SS	2708+12	left	56	POLE MOUNT	PARALLEL

TYPE 334 CABINET DEVICE			STATION		ITS PLAN SHEET	MOUNT TYPE	TECHNICIAN PAD TYPE
015.8	CAB	SS	2332+58	left	2	GROUND MOUNT	PARALLEL
015.8	CAB	SS_2	2336+33	left	3	GROUND MOUNT	PARALLEL
016.4	CAB	SS_2	2366+05	left	7	GROUND MOUNT	PARALLEL
016.4	CAB	NS_2	2364+62	right	7	GROUND MOUNT	PARALLEL
016.6	E-CAB	NS	2379+50	right	9	GROUND MOUNT	PARALLEL
016.7	CAB	NS_2	2381+14	right	9	GROUND MOUNT	PERPENDICULAR
016.9	CAB	NS	2394+00	right	11	GROUND MOUNT	PARALLEL
017.0	CAB	NS	2397+59	right	12	GROUND MOUNT	PARALLEL
017.3	CAB	NS	2414+29	right	14	GROUND MOUNT	PARALLEL
017.4	E-CAB	SS	2417+20	left	14	GROUND MOUNT	PARALLEL
017.5	CAB	NS	2422+28	right	15	GROUND MOUNT	PERPENDICULAR
018.1	CAB	SS_2	2458+60	left	20	GROUND MOUNT	PERPENDICULAR
018.1	CAB	SS_3	2458+77	left	20	GROUND MOUNT	PERPENDICULAR
018.3	CAB	NS	2465+66	right	21	GROUND MOUNT	PERPENDICULAR
018.5	CAB	NS	2476+96	right	23	GROUND MOUNT	PARALLEL
018.6	CAB	NS_2	2480+48	right	23	GROUND MOUNT	PARALLEL
018.6	CAB	SS	2483+00	left	24	GROUND MOUNT	PERPENDICULAR
019.2	CAB	SS_2	2516+27	left	29	GROUND MOUNT	PARALLEL
019.8	E-CAB	NS	2544+30	right	33	GROUND MOUNT	PARALLEL
019.8	E-CAB	SS	2544+35	left	33	GROUND MOUNT	PARALLEL
022.4	CAB	NS	2681+80	right	41	GROUND MOUNT	PERPENDICULAR
022.6	CAB	SS_2	2693+		54	GROUND MOUNT	PARALLEL
022.6	E-CAB	NS			54	GROUND MOUNT	PARALLEL
022.7	CAB					GROUND MOUNT	PARALLEL
022.8	E-[illegible]		2706+80	left		GROUND MOUNT	PARALLEL
023.0	CA[illegible]		2717+60	left		GROUND MOUNT	PERPENDICULAR
023.2	CAB[illegible]		2726+61	left		GROUND MOUNT	PERPENDICULAR

POW[illegible]ION NAME	STATION	ITS PLAN SHEET
	2361+82	6B
B	2425+01	15
C	2544+61	33
D	2626+85	44
E	2693+65	54

VOID

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, details and quantities will remain with the contractor. Review does not extend to means, methods, techniques, sequences, procedures of construction, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CABINET SUMMARY TABLES		
3/16/18	2 UPDATED CABINET SUMMARY TABLES		
2/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO.
IT-15

TYPE 336S CABINET DEVICE			STATION		ITS PLAN SHEET	MOUNT TYPE	TECHNICIAN PAD TYPE
015.6	CAB	SS	2322+85	left	1	POLE MOUNT	PARALLEL
015.6	CAB	NS	2323+02	right	1	POLE MOUNT	
015.7	CAB	SS	2331+20	left	2	POLE MOUNT	PARALLEL
015.8	CAB	NS	2335+21	right	3	POLE MOUNT	PARALLEL
016.0	CAB	NS	2346+00	right	4	POLE MOUNT	PARALLEL
016.0	CAB	SS	2344+47	left	4	POLE MOUNT	
016.2	CAB	SS	2357+74	left	6	POLE MOUNT	PARALLEL
016.2	CAB	NS	2357+93	right	6	POLE MOUNT	PARALLEL
016.2	CAB	SS	2357+74	left	6	POLE MOUNT	
016.4	CAB	SS	2364+20	left	7	POLE MOUNT	PARALLEL
016.4	CAB	NS	2369+05	right	8	POLE MOUNT	
016.5	CAB	SS	2371+32	left	8	POLE MOUNT	
016.5	CAB	NS	2372+80	right	8	POLE MOUNT	
016.6	CAB	NS	2376+42	right	9	POLE MOUNT	
016.6	CAB	SS	2378+05	left	9	POLE MOUNT	PARALLEL
016.7	CAB	NS	2383+15	right	10	POLE MOUNT	
016.9	CAB	SS	2390+65	left	11	POLE MOUNT	
016.8	CAB	NS	2387+00	right	10	POLE MOUNT	PARALLEL
017.2	CAB	NS	2409+00	right	13	POLE MOUNT	
017.1	CAB	SS	2404+00	left	13	POLE MOUNT	PARALLEL
017.4	CAB	SS	2417+00	left	14	POLE MOUNT	PARALLEL
017.4	CAB	NS	2417+04	right	14	POLE MOUNT	
017.6	CAB	NS	2430+06	right	16	POLE MOUNT	PERPENDICULAR
017.6	CAB	SS	2430+10	left	16	POLE MOUNT	PARALLEL
017.9	CAB	NS	2443+22	right	18	POLE MOUNT	PERPENDICULAR
017.9	CAB	SS	2443+54	left	18	POLE MOUNT	
018.1	CAB	NS	2454+91	right	20	POLE MOUNT	
018.1	CAB	SS	2454+95	left	20	POLE MOUNT	PARALLEL
018.2	CAB	NS	2461+21	right	21	POLE MOUNT	
018.2	CAB	SS	2464+10	left	20A	POLE MOUNT	
018.3	CAB	NS	2466+27	right	21A	POLE MOUNT	
018.3	CAB	NS	2468+02	right	22	POLE MOUNT	PARALLEL
018.3	CAB	SS	2468+99	left	22	POLE MOUNT	
018.4	CAB	NS	2472+78	right	22A	POLE MOUNT	
018.5	CAB	SS	2477+68	left	23	POLE MOUNT	
018.6	CAB	NS	2484+50	right	24	POLE MOUNT	PARALLEL
018.8	CAB	SS	2490+85	left	25	POLE MOUNT	PARALLEL
019.0	CAB	NS	2501+75	right	26	POLE MOUNT	
019.0	CAB	SS	2503+62	left	27	POLE MOUNT	PARALLEL
019.2	CAB	NS	2515+84	right	28	POLE MOUNT	PARALLEL
019.2	CAB	SS	2516+05	left	28	POLE MOUNT	PARALLEL
019.5	CAB	NS	2530+00	right	31	POLE MOUNT	PARALLEL
019.5	CAB	SS	2528+12	left	30	POLE MOUNT	
019.7	CAB	SS	2541+55	left	32	POLE MOUNT	PARALLEL
019.6	CAB	NS	2537+00	right	32	POLE MOUNT	PARALLEL
020.0	CAB	NS	2554+46	right	34	POLE MOUNT	
020.0	CAB	SS	2555+03	left	34	POLE MOUNT	
020.1	CAB	SS	2561+14	left	35	POLE MOUNT	PA
020.2	CAB	NS	2565+04	right	36	POLE MOUNT	PERPEND
020.3	CAB	SS	2574+99	left	37	POLE MOUNT	
020.4	CAB	NS	2578+04	right	37	POLE MOUNT	PARALLEL
020.4	CAB	NS	2580+09	right	37B	POLE MOUNT	
020.5	CAB	SS	2583+01	left	38	POLE MOUNT	PARALLEL
020.6	CAB	NS	2585+99	right	39	POLE MOUNT	
020.7	CAB	SS	2594+19	left	40	POLE MOUNT	PERPENDICULAR
020.7	CAB	NS	2596+00	right	40	POLE MOUNT	PERPENDICULAR
020.9	CAB	NS	2601+70	right	41	POLE MOUNT	
020.9	CAB	SS	2602+90	left	41	POLE MOUNT	PARALLEL
021.0	CAB	SS	2612+00	left	42	POLE MOUNT	PARALLEL
021.1	CAB	NS	2617+00	right	43	POLE MOUNT	PARALLEL
021.3	CAB	NS	2624+00	right	44	POLE MOUNT	PARALLEL
021.4	CAB	SS	2628+25	left	45	POLE MOUNT	
021.5	CAB	SS	2637+92	left	46	POLE MOUNT	
021.5	CAB	NS	2638+02	right	46	POLE MOUNT	PARALLEL
021.6	CAB	SS	2642+42	left	47	POLE MOUNT	PARALLEL
021.6	CAB	SS	2643+34	left	47A	POLE MOUNT	
021.7	CAB	NS	2644+70	right	47	POLE MOUNT	
021.7	CAB	NS	2646+56	right	47	POLE MOUNT	
021.8	CAB	SS	2649+31	left	48	POLE MOUNT	
021.9	CAB	NS	2655+86	right	48	POLE MOUNT	PERPENDICULAR
021.9	CAB	SS	2655+94	left	48	POLE MOUNT	PERPENDICULAR
022.0	CAB	NS	2663+60	right	50	POLE MOUNT	PARALLEL
022.1	CAB	SS	2669+26	left	50	POLE MOUNT	
022.4	CAB	SS	2681+70	left	52	POLE MOUNT	PARALLEL
022.4	CAB	NS	2681+98	right	52	POLE MOUNT	PARALLEL
022.6	CAB	SS	2694+02	left	54	POLE MOUNT	PARALLEL
022.6	CAB	NS	2694+40	right	54	POLE MOUNT	
022.9	CAB	NS	2708+02	right	56	POLE MOUNT	PARALLEL
022.9	CAB	SS	2708+12	left	56	POLE MOUNT	PARALLEL

TYPE 334 CABINET DEVICE			STATION		ITS PLAN SHEET	MOUNT TYPE	TECHNICIAN PAD TYPE
015.8	CAB	SS	2332+58	left	2	GROUND MOUNT	PARALLEL
015.8	CAB	SS_2	2336+33	left	3	GROUND MOUNT	PARALLEL
016.4	CAB	SS_2	2366+05	left	7	GROUND MOUNT	PARALLEL
016.4	CAB	NS_2	2364+62	right	7	GROUND MOUNT	PARALLEL
016.6	E-CAB	NS	2379+50	right	9	GROUND MOUNT	PARALLEL
016.7	CAB	NS_2	2381+14	right	9	GROUND MOUNT	PERPENDICULAR
016.9	CAB	NS	2394+00	right	11	GROUND MOUNT	PARALLEL
017.0	CAB	NS	2397+59	right	12	GROUND MOUNT	PARALLEL
017.3	CAB	NS	2414+29	right	14	GROUND MOUNT	PARALLEL
017.4	E-CAB	SS	2417+20	left	14	GROUND MOUNT	PARALLEL
017.5	CAB	NS	2422+28	right	15	GROUND MOUNT	PERPENDICULAR
018.1	CAB	SS_2	2458+60	left	20	GROUND MOUNT	PERPENDICULAR
018.1	CAB	SS_3	2458+77	left	20	GROUND MOUNT	PERPENDICULAR
018.3	CAB	NS	2465+66	right	21	GROUND MOUNT	PERPENDICULAR
018.5	CAB	NS	2476+96	right	23	GROUND MOUNT	PARALLEL
018.6	CAB	NS_2	2480+48	right	23	GROUND MOUNT	PARALLEL
018.6	CAB	SS	2483+00	left	24	GROUND MOUNT	PERPENDICULAR
019.2	CAB	SS_2	2516+27	left	29	GROUND MOUNT	PARALLEL
019.8	E-CAB	NS	2544+30	right	33	GROUND MOUNT	PARALLEL
019.8	E-CAB	SS	2544+35	left	33	GROUND MOUNT	PARALLEL
020.1	CAB	SS_2	2564+51	left	35	GROUND MOUNT	PERPENDICULAR
020.4	CAB	NS_2	2575+79	right	37	GROUND MOUNT	PARALLEL
020.5	CAB	SS_2	2584+97	left	38	GROUND MOUNT	PERPENDICULAR
020.7	CAB	NS_2	2593+09	right	40	GROUND MOUNT	PERPENDICULAR
020.8	CAB	NS	2601+40	right	41	GROUND MOUNT	PERPENDICULAR
021.4	CAB	SS_2	2629+09	left	45	GROUND MOUNT	PARALLEL
021.5	CAB	NS_2	2636+79	right		OUND MOUNT	PARALLEL
021.7	CAB	SS	2645+35			D MOUNT	PERPENDICULAR
021.9	CAB	NS_2	2654		48	MOUNT	PERPENDICULAR
022.6	CAB	SS_2	2	left	54	GR UNT	PARALLEL
022.6	E-CAB	NS	26	right	54	GRO NT	PARALLEL
022.7	C		2700	t	55	GROU NT	PARALLEL
022.8	E-		2706+8		56	GROUN T	PARALLEL
023.0	CA		2717+60		57	GROUN T	PERPENDICULAR
023.2	CAB		2726+61		59	GROUN T	PERPENDICULAR

ER STATION NAME	STATION	ITS PLAN SHEET
A	2361+82	6B
B	2425+01	15
C	2544+61	33
D	2626+85	44
E	2693+65	54

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, & construction details with field data, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CABINET SUMMARY TABLES		
3/16/18	2 UPDATED CABINET SUMMARY TABLES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO. IT-15

TYPE 336S CABINET DEVICE			STATION		ITS PLAN SHEET	MOUNT TYPE	TECHNICIAN PAD TYPE
015.6	CAB	SS	2322+85	left	1	POLE MOUNT	PARALLEL
015.6	CAB	NS	2323+02	right	1	POLE MOUNT	
015.7	CAB	SS	2331+20	left	2	POLE MOUNT	PARALLEL
015.8	CAB	NS	2335+21	right	3	POLE MOUNT	PARALLEL
016.0	CAB	NS	2346+00	right	4	POLE MOUNT	PARALLEL
016.0	CAB	SS	2344+47	left	4	POLE MOUNT	
016.2	CAB	SS	2357+74	left	6	POLE MOUNT	PARALLEL
016.2	CAB	NS	2357+93	right	6	POLE MOUNT	PARALLEL
016.4	CAB	SS	2364+20	left	7	POLE MOUNT	PARALLEL
016.4	CAB	NS	2369+05	right	8	POLE MOUNT	
016.5	CAB	SS	2371+32	left	8	POLE MOUNT	
016.5	CAB	NS	2372+80	right	8	POLE MOUNT	
016.6	CAB	SS	2378+05	left	9	POLE MOUNT	PARALLEL
016.7	CAB	NS	2383+15	right	10	POLE MOUNT	
016.9	CAB	SS	2390+65	left	11	POLE MOUNT	
016.8	CAB	NS	2387+00	right	10	POLE MOUNT	PARALLEL
017.2	CAB	NS	2409+00	right	13	POLE MOUNT	
017.1	CAB	SS	2404+00	left	13	POLE MOUNT	PARALLEL
017.4	CAB	SS	2417+00	left	14	POLE MOUNT	PARALLEL
017.4	CAB	NS	2417+04	right	14	POLE MOUNT	
017.6	CAB	NS	2430+06	right	16	POLE MOUNT	PERPENDICULAR
017.6	CAB	SS	2430+10	left	16	POLE MOUNT	PARALLEL
017.9	CAB	NS	2443+22	right	18	POLE MOUNT	PERPENDICULAR
017.9	CAB	SS	2443+54	left	18	POLE MOUNT	
018.1	CAB	NS	2454+91	right	20	POLE MOUNT	
018.1	CAB	SS	2454+95	left	20	POLE MOUNT	PARALLEL
018.2	CAB	NS	2461+21	right	21	POLE MOUNT	
018.2	CAB	SS	2464+10	left	20A	POLE MOUNT	
018.3	CAB	NS_2	2468+02	right	22	POLE MOUNT	PARALLEL
018.3	CAB	SS	2468+99	left	22	POLE MOUNT	
018.4	CAB	NS	2472+78	right	22A	POLE MOUNT	
018.5	CAB	SS	2477+68	left	23	POLE MOUNT	
018.6	CAB	NS	2484+50	right	24	POLE MOUNT	PARALLEL
018.8	CAB	SS	2490+85	left	25	POLE MOUNT	PARALLEL
019.0	CAB	NS	2501+75	right	26	POLE MOUNT	
019.0	CAB	SS	2503+62	left	27	POLE MOUNT	PARALLEL
019.2	CAB	NS	2515+84	right	28	POLE MOUNT	PARALLEL
019.2	CAB	SS	2516+05	left	28	POLE MOUNT	PARALLEL
019.5	CAB	NS	2530+00	right	31	POLE MOUNT	PARALLEL
019.5	CAB	SS	2528+12	left	30	POLE MOUNT	
019.7	CAB	SS	2541+55	left	32	POLE MOUNT	PARALLEL
019.6	CAB	NS	2537+00	right	32	POLE MOUNT	PARALLEL
020.0	CAB	NS	2554+46	right	34	POLE MOUNT	
020.0	CAB	SS	2555+03	left	34	POLE MOUNT	
020.1	CAB	SS	2561+14	left	35	POLE MOUNT	PARALLEL
020.2	CAB	NS	2565+04	right	36	POLE MOUNT	PERPENDICULAR
020.3	CAB	SS	2574+99	left	37	POLE MOUNT	
020.4	CAB	NS	2578+04	right	37	POLE MOUNT	PARALLEL
020.5	CAB	SS	2583+01	left	38	POLE MOUNT	PARALLEL
020.6	CAB	NS	2585+99	right	39	POLE MOUNT	
020.7	CAB	SS	2594+19	left	40	POLE MOUNT	PERPENDICULAR
020.7	CAB	NS	2596+00	right	40	POLE MOUNT	PERPENDICULAR
020.9	CAB	NS	2601+70	right	41	POLE MOUNT	
020.9	CAB	SS	2602+90	left	41	POLE MOUNT	PARALLEL
021.0	CAB	SS	2612+00	left	42	POLE MOUNT	PARALLEL
021.1	CAB	NS	2617+00	right	43	POLE MOUNT	PARALLEL
021.3	CAB	NS	2624+00	right	44	POLE MOUNT	PARALLEL
021.4	CAB	SS	2628+25	left	45	POLE MOUNT	
021.5	CAB	SS	2637+92	left	46	POLE MOUNT	
021.5	CAB	NS	2638+02	right	46	POLE MOUNT	PARALLEL
021.6	CAB	SS	2642+42	left	47	POLE MOUNT	PARALLEL
021.7	CAB	NS_2	2644+70	right	47	POLE MOUNT	
021.7	CAB	NS	2646+56	right	47	POLE MOUNT	
021.8	CAB	SS	2649+31	left	48	POLE MOUNT	
021.9	CAB	NS	2655+86	right	48	POLE MOUNT	PERPENDICULAR
021.9	CAB	SS	2655+94	left	48	POLE MOUNT	PERPENDICULAR
022.0	CAB	NS	2663+60	right	50	POLE MOUNT	PARALLEL
022.1	CAB	SS	2669+26	left	50	POLE MOUNT	
022.4	CAB	SS	2681+70	left	52	POLE MOUNT	PARALLEL
022.4	CAB	NS	2681+98	right	52	POLE MOUNT	PARALLEL
022.6	CAB	SS	2694+02	left	54	POLE MOUNT	PARALLEL
022.6	CAB	NS	2694+40	right	54	POLE MOUNT	
022.9	CAB	NS	2708+02	right	56	POLE MOUNT	PARALLEL
022.9	CAB	SS	2708+12	left	56	POLE MOUNT	PARALLEL

TYPE 334 CABINET DEVICE			STATION		ITS PLAN SHEET	MOUNT TYPE	TECHNICIAN PAD TYPE
015.8	CAB	SS	2332+58	left	2	GROUND MOUNT	PARALLEL
015.8	CAB	SS_2	2336+33	left	3	GROUND MOUNT	PARALLEL
016.4	CAB	SS_2	2366+05	left	7	GROUND MOUNT	PARALLEL
016.4	CAB	NS_2	2364+62	right	7	GROUND MOUNT	PARALLEL
016.6	E-CAB	NS	2379+50	right	9	GROUND MOUNT	PARALLEL
016.7	CAB	NS_2	2381+14	right	9	GROUND MOUNT	PERPENDICULAR
016.9	CAB	NS	2394+00	right	11	GROUND MOUNT	PARALLEL
017.0	CAB	NS	2397+59	right	12	GROUND MOUNT	PARALLEL
017.3	CAB	NS	2414+29	right	14	GROUND MOUNT	PARALLEL
017.4	E-CAB	SS	2417+20	left	14	GROUND MOUNT	PARALLEL
017.5	CAB	NS	2422+28	right	15	GROUND MOUNT	PERPENDICULAR
018.1	CAB	SS_2	2458+60	left	20	GROUND MOUNT	PERPENDICULAR
018.3	CAB	NS	2465+66	right	21	GROUND MOUNT	PERPENDICULAR
018.5	CAB	NS	2476+96	right	23	GROUND MOUNT	PARALLEL
018.6	CAB	NS_2	2480+48	right	23	GROUND MOUNT	PARALLEL
019.2	CAB	SS_2	2516+27	left	29	GROUND MOUNT	PARALLEL
019.8	E-CAB	NS	2544+30	right	33	GROUND MOUNT	PARALLEL
019.8	E-CAB	SS	2544+35	left	33	GROUND MOUNT	PARALLEL
020.1	CAB	SS_2	2564+51	left	35	GROUND MOUNT	PERPENDICULAR
020.4	CAB	NS_2	2575+79	right	37	GROUND MOUNT	PARALLEL
020.5	CAB	SS_2	2584+97	left	38	GROUND MOUNT	PERPENDICULAR
020.7	CAB	NS_2	2593+09	right	40	GROUND MOUNT	PERPENDICULAR
020.8	CAB	NS	2601+40	right	41	GROUND MOUNT	PERPENDICULAR
021.4	CAB	SS_2	2629+09	left	45	GROUND MOUNT	PARALLEL
021.5	CAB	NS_2	2636+79	right	46	GROUND MOUNT	PARALLEL
021.7	CAB	SS	2645+35	left	46	GROUND MOUNT	PERPENDICULAR
021.9	CAB	NS_2	2654+91	left	47	GROUND MOUNT	PERPENDICULAR
022.6	CAB	SS_2	26[illegible]	[illegible]	54	[illegible]ND MOUNT	PARALLEL
022.6	E-CAB	NS	[illegible]	right	54	[illegible]D MOUNT	PARALLEL
022.7	CAB	SS	[illegible]	left	55	[illegible]MOUNT	PARALLEL
022.8	[illegible]	[illegible]S	27[illegible]	left	56	GR[illegible]MOUNT	PARALLEL
023.0	[illegible]	[illegible]	271[illegible]	[illegible]ft	57	GR[illegible]MOUNT	PERPENDICULAR
023.2	CA[illegible]	[illegible]	2726+[illegible]	[illegible]	59	GR[illegible]MOUNT	PERPENDICULAR

POWER ST[illegible]	NAME	[illegible]ATION	ITS PLAN SHEET
[illegible]	A	2361+82	6B
[illegible]	B	2425+01	15
[illegible]	C	2544+61	33
[illegible]	D	2626+85	44
[illegible]	E	2693+65	54

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, details and quantities will be that of the shop drawing fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec) _____

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CABINET SUMMARY TABLES		

Parsons Brinckerhoff, Inc.
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Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO. IT-15

TYPE 336S CABINET DEVICE			STATION		ITS PLAN SHEET	MOUNT TYPE	TECHNICIAN PAD TYPE
015.6	CAB	SS	2322+85	left	1	POLE MOUNT	PARALLEL
015.6	CAB	NS	2323+02	right	1	POLE MOUNT	PERPENDICULAR
015.7	CAB	SS	2331+20	left	2	POLE MOUNT	PARALLEL
015.8	CAB	NS	2335+21	right	3	POLE MOUNT	PARALLEL
016.0	CAB	NS	2346+00	right	4	POLE MOUNT	PARALLEL
016.0	CAB	SS	2344+47	left	4	POLE MOUNT	PARALLEL
016.2	CAB	SS	2357+74	left	6	POLE MOUNT	PARALLEL
016.2	CAB	NS	2357+93	right	6	POLE MOUNT	PARALLEL
016.4	CAB	SS	2364+20	left	7	POLE MOUNT	PARALLEL
016.4	CAB	NS	2369+05	right	8	POLE MOUNT	PARALLEL
016.5	CAB	SS	2371+32	left	8	POLE MOUNT	PARALLEL
016.5	CAB	NS	2372+80	right	8	POLE MOUNT	PERPENDICULAR
016.6	CAB	SS	2378+05	left	9	POLE MOUNT	PARALLEL
016.7	CAB	NS	2383+15	right	10	POLE MOUNT	PERPENDICULAR
016.9	CAB	SS	2390+65	left	11	POLE MOUNT	PARALLEL
016.8	CAB	NS	2387+00	right	10	POLE MOUNT	PARALLEL
017.2	CAB	NS	2409+00	right	13	POLE MOUNT	PARALLEL
017.1	CAB	SS	2404+00	left	13	POLE MOUNT	PARALLEL
017.4	CAB	SS	2417+00	left	14	POLE MOUNT	PARALLEL
017.4	CAB	NS	2417+04	right	14	POLE MOUNT	PERPENDICULAR
017.6	CAB	NS	2430+06	right	16	POLE MOUNT	PERPENDICULAR
017.6	CAB	SS	2430+10	left	16	POLE MOUNT	PARALLEL
017.9	CAB	NS	2443+22	right	18	POLE MOUNT	PERPENDICULAR
017.9	CAB	SS	2443+54	left	18	POLE MOUNT	PARALLEL
018.1	CAB	NS	2454+91	right	20	POLE MOUNT	PARALLEL
018.1	CAB	SS	2454+95	left	20	POLE MOUNT	PARALLEL
018.2	CAB	NS	2461+21	right	21	POLE MOUNT	PARALLEL
018.2	CAB	SS	2464+10	left	20A	POLE MOUNT	PERPENDICULAR
018.3	CAB	NS	2468+02	right	22	POLE MOUNT	PARALLEL
018.3	CAB	SS	2468+99	left	22	POLE MOUNT	PARALLEL
018.4	CAB	NS	2472+78	right	22A	POLE MOUNT	PERPENDICULAR
018.5	CAB	SS	2477+68	left	23	POLE MOUNT	PARALLEL
018.6	CAB	NS	2484+50	right	24	POLE MOUNT	PARALLEL
018.8	CAB	SS	2490+85	left	25	POLE MOUNT	PARALLEL
019.0	CAB	NS	2501+75	right	26	POLE MOUNT	PARALLEL
019.0	CAB	SS	2503+62	left	27	POLE MOUNT	PARALLEL
019.2	CAB	NS	2515+84	right	28	POLE MOUNT	PARALLEL
019.2	CAB	SS	2516+05	left	28	POLE MOUNT	PARALLEL
019.5	CAB	NS	2530+00	right	31	POLE MOUNT	PARALLEL
019.5	CAB	SS	2528+12	left	30	POLE MOUNT	PARALLEL
019.7	CAB	SS	2541+55	left	32	POLE MOUNT	PARALLEL
019.6	CAB	NS	2537+00	right	32	POLE MOUNT	PARALLEL
020.0	CAB	NS	2554+46	right	34	POLE MOUNT	PARALLEL
020.0	CAB	SS	2555+03	left	34	POLE MOUNT	PARALLEL
020.1	CAB	SS	2561+14	left	35	POLE MOUNT	PARALLEL
020.2	CAB	NS	2565+04	right	36	POLE MOUNT	PERPENDICULAR
020.3	CAB	SS	2574+99	left	37	POLE MOUNT	PARALLEL
020.4	CAB	NS	2578+04	right	37	POLE MOUNT	PARALLEL
020.5	CAB	SS	2583+01	left	38	POLE MOUNT	PARALLEL
020.6	CAB	NS	2585+99	right	39	POLE MOUNT	PARALLEL
020.7	CAB	SS	2594+19	left	40	POLE MOUNT	PERPENDICULAR
020.7	CAB	NS	2596+00	right	40	POLE MOUNT	PERPENDICULAR
020.9	CAB	NS	2601+70	right	41	POLE MOUNT	PERPENDICULAR
020.9	CAB	SS	2602+90	left	41	POLE MOUNT	PARALLEL
021.0	CAB	SS	2612+00	left	42	POLE MOUNT	PARALLEL
021.1	CAB	NS	2617+00	right	43	POLE MOUNT	PARALLEL
021.3	CAB	NS	2624+00	right	44	POLE MOUNT	PARALLEL
021.4	CAB	SS	2628+25	left	45	POLE MOUNT	PARALLEL
021.5	CAB	SS	2637+92	left	46	POLE MOUNT	PARALLEL
021.5	CAB	NS	2638+02	right	46	POLE MOUNT	PARALLEL
021.6	CAB	SS	2642+42	left	47	POLE MOUNT	PARALLEL
021.7	CAB	NS_2	2644+70	right	47	POLE MOUNT	PARALLEL
021.7	CAB	NS	2646+56	right	47	POLE MOUNT	PARALLEL
021.8	CAB	SS	2649+31	left	48	POLE MOUNT	PARALLEL
021.9	CAB	NS	2655+86	right	48	POLE MOUNT	PERPENDICULAR
021.9	CAB	SS	2655+94	left	48	POLE MOUNT	PERPENDICULAR
022.0	CAB	NS	2663+60	right	50	POLE MOUNT	PARALLEL
022.1	CAB	SS	2669+26	left	50	POLE MOUNT	PARALLEL
022.4	CAB	SS	2681+70	left	52	POLE MOUNT	PARALLEL
022.4	CAB	NS	2681+98	right	52	POLE MOUNT	PARALLEL
022.6	CAB	SS	2694+02	left	54	POLE MOUNT	PARALLEL
022.6	CAB	NS	2694+40	right	54	POLE MOUNT	PARALLEL
022.9	CAB	NS	2708+02	right	56	POLE MOUNT	PARALLEL
022.9	CAB	SS	2708+12	left	56	POLE MOUNT	PARALLEL

TYPE 334 CABINET DEVICE			STATION		ITS PLAN SHEET	MOUNT TYPE	TECHNICIAN PAD TYPE
015.8	CAB	SS	2332+58	left	2	GROUND MOUNT	PARALLEL
015.8	CAB	SS_2	2334+60	left	3	GROUND MOUNT	PARALLEL
016.4	CAB	SS_2	2365+83	left	7	GROUND MOUNT	PARALLEL
016.4	CAB	NS_2	2364+62	right	7	GROUND MOUNT	PARALLEL
016.6	E-CAB	NS	2379+50	right	9	GROUND MOUNT	PARALLEL
016.4	CAB	NS	2382+68	right	9	GROUND MOUNT	PERPENDICULAR
016.9	CAB	NS	2394+00	right	11	GROUND MOUNT	PARALLEL
017.0	CAB	NS	2397+59	right	12	GROUND MOUNT	PARALLEL
017.3	CAB	NS	2414+29	right	14	GROUND MOUNT	PARALLEL
017.4	E-CAB	SS	2417+20	left	14	GROUND MOUNT	PARALLEL
017.5	CAB	NS	2422+28	right	15	GROUND MOUNT	PERPENDICULAR
018.1	CAB	SS_2	2457+48	left	20	GROUND MOUNT	PERPENDICULAR
018.3	CAB	NS	2465+60	right	21	GROUND MOUNT	PERPENDICULAR
018.5	CAB	NS	2477+25	right	23	GROUND MOUNT	PARALLEL
018.6	CAB	NS_2	2480+48	right	23	GROUND MOUNT	PARALLEL
019.2	CAB	SS_2	2516+27	left	29	GROUND MOUNT	PARALLEL
019.8	E-CAB	NS	2544+30	right	33	GROUND MOUNT	PARALLEL
019.8	E-CAB	SS	2544+35	left	33	GROUND MOUNT	PARALLEL
020.1	CAB	SS_2	2564+51	left	35	GROUND MOUNT	PERPENDICULAR
020.4	CAB	NS_2	2575+79	right	37	GROUND MOUNT	PARALLEL
020.5	CAB	SS	[illegible]		38	GROUND MOUNT	PERPENDICULAR
020.7	CAB	[illegible]	[illegible]		40	GROUND MOUNT	PERPENDICULAR
020.8	CA[illegible]		2601+40	right	[illegible]	GROUND MOUNT	PERPENDICULAR
021.4	CA[illegible]		2629+09	left	[illegible]	GROUND MOUNT	PARALLEL
[illegible].5	CAB		2636+79	right	[illegible]	GROUND MOUNT	PARALLEL
[illegible]	CAB		2645+35	left	[illegible]	GROUND MOUNT	PERPENDICULAR
[illegible]	CAB	NS	2654+91	right	[illegible]	GROUND MOUNT	PERPENDICULAR
[illegible]	AB	SS_	[illegible]85	left	[illegible]	GROUND MOUNT	PARALLEL
02[illegible]	B	NS	[illegible]0	right	[illegible]	GROUND MOUNT	PARALLEL
022.[illegible]		SS	[illegible]	[illegible]	[illegible]	GROUND MOUNT	PARALLEL
022.8		SS	27[illegible]	[illegible]	56	GROUND MOUNT	PARALLEL
023.0			271[illegible]	[illegible]ft	57	GROUND MOUNT	PERPENDICULAR
023.2	CA[illegible]		2726+[illegible]	left	59	GROUND MOUNT	PERPENDICULAR

POWER STATION NAME	STATION	ITS PLAN SHEET
A	2361+82	6B
B	2425+01	15
C	2544+61	33
D	2626+85	44
E	2693+65	54

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICE SUMMARY TABLE

SHEET NO.
IT-15

CROSS REFERENCE ITS DEVICE SUMMARY TABLE

COMMUNICATIONS OVERVIEW SHEET	ITS PLAN SHEET	MVDS DEVICE NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	DMS DEVICE NAME
1	1	FL D4 095 015.6 SB SS DS EL-GP 6			
1	1	FL D4 095 015.6 NB NS DS EL-GP 6	015.6 CCTV EL-GP 1		
1	2	FL D4 095 015.7 SB SS DS EL-GP-ON 6			
1	2				095.0 SB 15.7
1	3	FL D4 095 015.8 NB NS DS EL-GP 6			
1	3			015.8 CCTV GP 1	
1	4	FL D4 095 016.0 NB NS DS EL-GP-OF 6			
1	4	FL D4 095 016.0 SB SS DS EL-GP-ON 6	016.0 CCTV EL-GP 1		
1	6	FL D4 095 016.2 SB SS DS EL-GP 6			
1	6	FL D4 095 016.2 NB NS DS EL-GP 6		016.2 CCTV GP 1	
1	7			016.4 CCTV GP 1	
1	7	FL D4 095 016.4 SB SS DS EL-GP-ON 6			FL D4 DOT 95 16.4 NB LS 1
1	8	FL D4 095 016.4 NB NS DS EL-GP-OF 6	016.5 CCTV EL-GP 1	016.5 CCTV TOLL 1	
1	10	FL D4 095 016.7 NB NS DS EL-GP-ON 6		016.7 CCTV EL 1	
1	9	FL D4 095 016.6 SB SS DS EL-GP-OF 7			
1	9			016.6 CCTV GP 1	FL D4 95 16.9 NB NS DS EL-GP 6
2	11	FL D4 095 016.9 SB SS DS EL-GP 6	016.9 CCTV GP 1		
2	10	FL D4 095 016.8 NB NS DS EL-GP 6			
2	12				FL D4 DOT 95 17.1 NB LS 1
2	13	FL D4 095 017.2 NB NS DS EL-GP 6		017.2 CCTV EL 1	
2	13	FL D4 095 017.1 SB SS DS EL-GP 6			
2	14	FL D4 095 017.4 SB SS DS EL-GP 6			
2	14	FL D4 095 017.4 NB NS DS EL-GP 6	017.4 CCTV EL-GP 1		FL D4 DOT 95 17.3 NB TR 1
2	15				FL D4 DOT 95 17.5 NB LS 1
2	16	FL D4 095 017.6 NB NS DS EL-GP 6			
2	16	FL D4 095 017.6 SB SS DS EL-GP 7	017.6 CCTV EL-GP 1		
2	18	FL D4 095 017.9 NB NS DS EL-GP 6			
2	18	FL D4 095 017.9 SB SS DS EL-GP 6			
2	20	FL D4 095 018.1 NB NS DS EL-GP-OF 7	018.1 CCTV EL-GP 1		
2	21			018.2 CCTV TOLL 1	
3	20	FL D4 095 018.1 SB SS DS EL-GP-ON 6			
3	20A			018.2 CCTV GP 1	
3	21A			018.3 CCTV GP 1	
3	22	FL D4 095 018.3 NB NS DS EL-GP-ON 6			
3	22	FL D4 095 018.3 SB SS DS EL-GP-OF 6			
3	22A			018.4 CCTV GP 1	
3	23	FL D4 095 018.5 SB SS DS EL-GP-OF 7	018.5 CCTV EL-GP 1	018.5 CCTV GP 1	
3	23	FL D4 095 018.5 NB NS DS EL-GP-ON 7			
3	25	FL D4 095 018.8 SB SS DS EL-GP-OF 6		018.7 CCTV GP 1	
3	24	FL D4 095 018.6 NB NS DS EL-GP-ON 6			
3	26	FL D4 095 019.0 NB NS DS EL-GP 6	019.0 CCTV EL-GP 1	019.0 CCTV GP 1	
3	27	FL D4 095 019.0 SB SS DS EL-GP 6			
3	28	FL D4 095 019.2 NB NS DS EL-GP 6			095.0 SB 19.2
3	28	FL D4 095 019.2 SB SS DS EL-GP 6			
3	31	FL D4 095 019.5 NB NS DS EL-GP 6			
3	30	FL D4 095 019.5 SB SS DS EL-GP 6	019.5 CCTV EL-GP 1		
3	32	FL D4 095 019.7 SB SS DS EL-GP 6			
3	32	FL D4 095 019.6 NB NS DS EL-GP 6			
4	34	FL D4 095 020.0 NB NS DS EL-GP 6	020.0 CCTV EL-GP 1		
4	34	FL D4 095 020.0 SB SS DS EL-GP 6			
4	35	FL D4 095 020.1 SB SS DS EL-GP-ON 6			3
4	37	FL D4 095 020.3 SB SS DS EL-GP-OF 6	020.3 CCTV EL-GP 1		
3 4	36	FL D4 095 020.2 NB NS DS EL-GP 6			
4	37	FL D4 095 020.4 NB NS DS EL-GP-ON 6			
4	38	FL D4 095 020.5 SB SS DS EL-GP-ON 6			
3 4	40	FL D4 095 020.7 SB SS DS EL-GP 5			
4	38	FL D4 095 020.6 NB NS DS EL-GP 6			
4	40	FL D4 095 020.7 NB NS DS EL-GP-ON 6			
4	41	FL D4 095 020.9 NB NS DS EL-GP 6	020.9 CCTV EL-GP 1		095.0 NB 20.9
4	41	FL D4 095 020.9 SB SS DS EL-GP 6			
4	42	FL D4 095 021.0 SB SS DS EL-GP 6			
4	43	FL D4 095 021.1 NB NS DS EL-GP 6			
5	45	FL D4 095 021.4 SB SS DS EL-GP-ON 6	021.4 CCTV EL-GP 1		
5	46	FL D4 095 021.5 NB NS DS EL-GP-ON 6			
5	44	FL D4 095 021.3 NB NS DS EL-GP-OF 6			
3 5	46	FL D4 095 021.5 SB SS DS EL-GP 6			
5	47	FL D4 095 021.6 SB SS DS EL-GP-ON 6			
3 5	47	FL D4 095 021.7 NB NS DS EL-GP 5	021.7 CCTV EL-GP 1		
5	48	FL D4 095 021.9 NB NS DS EL-GP-ON 6			
5	48	FL D4 095 021.9 SB SS DS EL-GP-OF 6		021.8 CCTV TOLL 1	
5	50	FL D4 095 022.0 NB NS DS EL-GP 6			
5	50	FL D4 095 022.1 SB SS DS EL-GP 6	022.1 CCTV EL-GP 1		
5	52	FL D4 095 022.4 SB SS DS EL-GP 5			
5	52	FL D4 095 022.4 NB NS DS EL-GP 7			
5	53				FL D4 DOT 95 22.5 SB LS 1
5	54	FL D4 095 022.6 NB NS DS EL-GP 6	022.6 CCTV EL-GP 1		
5	54	FL D4 095 022.6 SB SS DS EL-GP 5			
6	55				FL D4 DOT 95 22.7 SB TR 1
6	56	FL D4 095 022.9 NB NS DS EL-GP 4			
6	56	FL D4 095 022.9 SB SS DS EL-GP 4		022.9 CCTV EL 1	
6	57				FL D4 DOT 95 23.0 SB LS 1
6	58				FL D4 DOT 95 23.2 SB TR 1
6	59			023.2 CCTV EL 1	

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NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 UPDATED SUMMARY TABLE	9/16/19	AS-BUILT per RFI 193, 216, & 226
2/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

CROSS REFERENCE ITS DEVICE SUMMARY TABLE

SHEET NO. IT-16

CROSS REFERENCE ITS DEVICE SUMMARY TABLE

COMMUNICATIONS OVERVIEW SHEET	ITS PLAN SHEET	MVDS DEVICE NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	DMS DEVICE NAME
1	1	FL D4 095 015.6 SB SS DS EL-GP 6			
1	1	FL D4 095 015.6 NB NS DS EL-GP 6	015.6 CCTV EL-GP 1		
1	2	FL D4 095 015.7 SB SS DS EL-GP-ON 6			
1	2				095.0 SB 15.7
1	3	FL D4 095 015.8 NB NS DS EL-GP 6			
1	3			015.8 CCTV GP 1	
1	4	FL D4 095 016.0 NB NS DS EL-GP-OF 6			
1	4	FL D4 095 016.0 SB SS DS EL-GP-ON 6	016.0 CCTV EL-GP 1		
1	6	FL D4 095 016.2 SB SS DS EL-GP 6			
1	6	FL D4 095 016.2 NB NS DS EL-GP 6		016.2 CCTV GP 1	
1	7			016.4 CCTV GP 1	
1	7	FL D4 095 016.4 SB SS DS EL-GP-ON 6			FL D4 DOT 95 16.4 NB LS 1
1	8	FL D4 095 016.4 NB NS DS EL-GP-OF 6	016.5 CCTV EL-GP 1	016.5 CCTV TOLL 1	
1	10	FL D4 095 016.7 NB NS DS EL-GP-ON 6		016.7 CCTV EL 1	
1	9	FL D4 095 016.6 SB SS DS EL-GP-OF 7			
1	9			016.6 CCTV GP 1	FL D4 95 16.9 NB NS DS EL-GP 6
2	11	FL D4 095 016.9 SB SS DS EL-GP 6	016.9 CCTV GP 1		
2	10	FL D4 095 016.8 NB NS DS EL-GP 6			
2	12				FL D4 DOT 95 17.1 NB LS 1
2	13	FL D4 095 017.2 NB NS DS EL-GP 6		017.2 CCTV EL 1	
2	13	FL D4 095 017.1 SB SS DS EL-GP 6			
2	14	FL D4 095 017.4 SB SS DS EL-GP 6			
2	14	FL D4 095 017.4 NB NS DS EL-GP 6	017.4 CCTV EL-GP 1		FL D4 DOT 95 17.3 NB TR 1
2	15				FL D4 DOT 95 17.5 NB LS 1
2	16	FL D4 095 017.6 NB NS DS EL-GP 6			
2	16	FL D4 095 017.6 SB SS DS EL-GP 7			
2	18	FL D4 095 017.9 NB NS DS EL-GP 6			
2	18	FL D4 095 017.9 SB SS DS EL-GP 6	017.9 CCTV EL-GP 1		
2	20	FL D4 095 018.1 NB NS DS EL-GP-OF 7	018.1 CCTV EL-GP 1		
2	21			018.2 CCTV TOLL 1	
3	20	FL D4 095 018.1 SB SS DS EL-GP-ON 6			
3	20A			GP 1	
3	21A			GP 1	
3	22	FL D4 095 018.3 NB NS DS EL-GP-ON 6			
3	22	FL D4 095 018.3 SB SS DS EL-GP-OF 6			
3	22A			018.4 CCTV 1	
3	23	FL D4 095 018.5 SB SS DS EL-GP-OF 7	018 CCTV E	018.5 CCTV	
3	23	FL D4 095 018.5 NB NS DS EL-GP-ON 7			
3	25	FL D4 095 018.8 SB SS DS EL-GP-OF 6			
3	24	FL D4 095 018.6 NB NS DS EL-GP-ON 6			
3	26	FL D4 095 019.0 NB NS DS EL-GP 6	019.0 EL-GP	9.0 CCTV G	
3	27	FL D4 095 019.0 SB SS DS			
3	28	FL D4 095 019.2 NB NS			095.0 SB 19.2
3	28	FL D4 095 019.2 SB SS EL-GP			
3	31	FL D4 095 019.5 NB NS EL-GP			
3	30	FL D4 095 019.5 SB S S EL-GP 6	CCTV 1		
3	32	FL D4 095 019 SB S S EL-GP 6			
3	32	FL D4 095 0 NB N S EL-GP 6			
4	34	FL D4 095 0 NB N S EL-GP 6	CCTV EL 1		
4	34	FL D4 095 02 B S EL-GP 6			
4	35	FL D4 095 02 B SS EL-GP-ON 6			
4	37	FL D4 095 020 B SS GP-OF 6	CCTV EL-GP 1		
4	36	D4 095 020 NS DS GP			
4	37	FL 095 020 NS DS			
4	38	FL 020.5 SS DS EL-GP-ON 6			
4	40	FL D4 20.7 SS DS EL-GP 5			
4	38	FL D4 NS DS EL-GP 6			
4	40	FL D4 095 NS DS EL-GP-ON 6			
4	41	FL D4 095 020 NS DS EL-GP 6	020.9 CCTV EL-GP 1		095.0 NB 20.9
4	41	FL D4 095 020.9 SB SS DS EL-GP 6			
4	42	FL D4 095 021.0 SB SS DS EL-GP 6			
4	43	FL D4 095 021.1 NB NS DS EL-GP 6			
5	45	FL D4 095 021.4 SB SS DS EL-GP-ON 6	021.4 CCTV EL-GP 1		
5	46	FL D4 095 021.5 NB NS DS EL-GP-ON 6			
5	44	FL D4 095 021.3 NB NS DS EL-GP-OF 6			
5	46	FL D4 095 021.5 SB SS DS EL-GP 6			
5	47	FL D4 095 021.6 SB SS DS EL-GP-ON 6			
5	47	FL D4 095 021.7 NB NS DS EL-GP 5	021.7 CCTV EL-GP 1		
5	48	FL D4 095 021.9 NB NS DS EL-GP-ON 6			
5	48	FL D4 095 021.9 SB SS DS EL-GP-OF 6		021.8 CCTV TOLL 1	
5	50	FL D4 095 022.0 NB NS DS EL-GP 6			
5	50	FL D4 095 022.1 SB SS DS EL-GP 6	022.1 CCTV EL-GP 1		
5	52	FL D4 095 022.4 SB SS DS EL-GP 5			
5	52	FL D4 095 022.4 NB NS DS EL-GP 7			
5	53				FL D4 DOT 95 22.5 SB LS 1
5	54	FL D4 095 022.6 NB NS DS EL-GP 6	022.6 CCTV EL-GP 1		
5	54	FL D4 095 022.6 SB SS DS EL-GP 5			
6	55			022.8 CCTV EL 1	FL D4 DOT 95 22.7 SB TR 1
6	56	FL D4 095 022.9 NB NS DS EL-GP 4			
6	56	FL D4 095 022.9 SB SS DS EL-GP 4			
6	57				FL D4 DOT 95 23.0 SB LS 1
6	58				FL D4 DOT 95 23.2 SB TR 1
6	59			023.2 CCTV EL 1	

VOID

2

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 UPDATED SUMMARY TABLE		
2/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

CROSS REFERENCE ITS DEVICE SUMMARY TABLE

SHEET NO. IT-16

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, details and quantities rests with Contractor. Approval of fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

CROSS REFERENCE ITS DEVICE SUMMARY TABLE

COMMUNICATIONS OVERVIEW SHEET	ITS PLAN SHEET	NVDS DEVICE NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	BMS DEVICE NAME
1	1	FL D4 095 015.6 SB SS DS EL-GP 6			
1	1	FL D4 095 015.6 NB NS DS EL-GP 6	015.6 CCTV EL-GP 1		
1	2	FL D4 095 015.7 SB SS DS EL-GP-CN 6			
1	2				095.0 SB 157
1	3	FL D4 095 015.8 NB NS DS EL-GP 6			
1	3			015.8 CCTV GP 1	
1	4	FL D4 095 016.0 NB NS DS EL-GP-OF 6			
1	4	FL D4 095 016.0 SB SS DS EL-GP-CN 6	016.0 CCTV EL-GP 1		
1	6	FL D4 095 016.2 SB SS DS EL-GP 6			
1	6	FL D4 095 016.2 NB NS DS EL-GP 6		016.2 CCTV GP 1	
1	7			016.4 CCTV GP 1	
1	7	FL D4 095 016.4 SB SS DS EL-GP-CN 6			FL D4 D0T 95 16.4 NB LS 1
1	8	FL D4 095 016.4 NB NS DS EL-GP-OF 6	016.5 CCTV EL-GP 1	016.5 CCTV TOLL 1	
1	10	FL D4 095 016.7 NB NS DS EL-GP-CN 6		016.7 CCTV EL 1	
1	9	FL D4 095 016.6 SB SS DS EL-GP-OF 7			
1	9			016.6 CCTV GP 1	FL D4 9[illegible] 16.9 NB NS DS EL-GP 6
2	11	FL D4 095 016.9 SB SS DS EL-GP 6	016.9 CCTV GP 1		
2	10	FL D4 095 016.8 NB NS DS EL-GP 6			
2	12				FL D4 D0T 95 17.1 NB LS 1
2	13	FL D4 095 017.2 NB NS DS EL-GP 6		017.2 CCTV EL 1	
2	13	FL D4 095 017.1 SB SS DS EL-GP 6			
2	14	FL D4 095 017.4 SB SS DS EL-GP 6			
2	14	FL D4 095 017.4 NB NS DS EL-GP 6	017.4 CCTV EL-GP 1		FL D4 D0T 95 17.3 NB TR 1
2	15				FL D4 D0T 95 17.5 NB LS 1
2	16	FL D4 095 017.6 NB NS DS EL-GP 6			
2	16	FL D4 095 017.6 SB SS DS EL-GP 7			
2	18	FL D4 095 017.9 NB NS DS EL-GP 6			
2	18	FL D4 095 017.9 SB SS DS EL-GP 6	017.9 CCTV EL-GP 1		
2	20	FL D4 095 018.1 NB NS DS EL-GP-OF 7	018.1 CCTV EL-GP 1		
2	21			018.2 CCTV TOL	
3	20	FL D4 095 018.1 SB SS DS EL-GP-CN 6			
3	20A			018.2 C 1	
3	21			018.2 CC 2	
3	21A			8.3 CCTV 1	
3	22	FL D4 095 018.3 NB NS DS EL-GP-CN 6			
3	22	FL D4 095 018.3 SB SS DS EL-GP-OF 6			
3	22A			CCTV GP	
3	23	FL D4 095 018.5 SB SS DS EL-GP-OF 7	CCTV EL-GP 1	TV GP	
3	23	FL D4 095 018.5 NB NS DS EL-GP-CN			
3	25	FL D4 095 018.8 SB SS DS EL-GP			
3	24	FL D4 095 018.6 NB NS DS EL-		018. GP 1	
3	26	FL D4 095 019.0 NB NS DS 6	019.0 CCTV		
3	27	FL D4 095 019.0 SB SS DS 6			
3	28	FL D4 095 019.2 NB DS 6			095.0 SB 192
3	28	FL D4 095 019.2 S DS 6			
3	31	FL D4 095 019.5 N DS 6			
3	30	FL D4 095 019.5 SB DS 6	019.5 CCTV EL-G		
3	32	FL D4 095 019.7 SB DS EL			
3	32	095 019.6 NB DS EL-			
4	34	FL 020.0 NB DS EL-GP 1			
4	34	FL 020.0 SB DS EL-GP			
4	35	FL D4 SB S EL-GP-CN 6			
4	37	FL D4 SB EL-GP-OF 6	020.3 CCTV EL-GP 1	020.3 CCTV GP 1	
4	36	FL D4 095 EL-GP 6			
4	36A		020.2 CCTV GP 1		
4	37	FL D4 095 020.4 EL-GP-CN 6			
4	37B			020.4 CCTV GP 1	
4	38	FL D4 095 020.5 SB DS EL-GP-CN 6			
4	40	FL D4 095 020.7 SB SS DS EL-GP 5			
4	39	FL D4 095 020.6 NB NS DS EL-GP 6		020.6 CCTV GP 1	
4	38A			020.6 CCTV GP 1	
4	40	FL D4 095 020.7 NB NS DS EL-GP-CN 6			
4	41	FL D4 095 020.9 NB NS DS EL-GP 6	020.9 CCTV EL-GP 1		095.0 NB 209
4	41	FL D4 095 020.9 SB SS DS EL-GP 6			
4	42	FL D4 095 021.0 SB SS DS EL-GP 6			
4	43	FL D4 095 021.1 NB NS DS EL-GP 6			
5	45	FL D4 095 021.4 SB SS DS EL-GP-CN 6	021.4 CCTV EL-GP 1		
5	46	FL D4 095 021.5 NB NS DS EL-GP-CN 6			
5	44	FL D4 095 021.3 NB NS DS EL-GP-OF 6			
5	46	FL D4 095 021.5 SB SS DS EL-GP 6		021.5 CCTV GP 1	
5	46B			021.5 CCTV GP 1	
5	47	FL D4 095 021.6 SB SS DS EL-GP-CN 6			
5	47	FL D4 095 021.7 NB NS DS EL-GP 5	021.7 CCTV EL-GP 1	021.7 CCTV GP 1	
5	47A			021.6 CCTV GP 1	
5	48	FL D4 095 021.9 NB NS DS EL-GP-CN 6			
5	48	FL D4 095 021.9 SB SS DS EL-GP-OF 6		021.8 CCTV TOLL 1	
5	50	FL D4 095 022.0 NB NS DS EL-GP 6			
5	50	FL D4 095 022.1 SB SS DS EL-GP 6	022.1 CCTV EL-GP 1		
5	52	FL D4 095 022.4 SB SS DS EL-GP 5			
5	52	FL D4 095 022.4 NB NS DS EL-GP 7			
5	53				FL D4 D0T 95 22.5 SB LS 1
5	54	FL D4 095 022.6 NB NS DS EL-GP 6	022.6 CCTV EL-GP 1		
5	54	FL D4 095 022.6 SB SS DS EL-GP 5			
6	55			022.8 CCTV EL 1	FL D4 D0T 95 22.7 SB TR 1
6	56	FL D4 095 022.9 NB NS DS EL-GP 4			
6	56	FL D4 095 022.9 SB SS DS EL-GP 4			
6	57				FL D4 D0T 95 23.0 SB LS 1
6	58				FL D4 D0T 95 23.2 SB TR 1
6	59			023.2 CCTV EL 1	

VOID

△2

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, details, quantities and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	△2 UPDATED SUMMARY TABLE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

CROSS REFERENCE ITS DEVICE SUMMARY TABLE

SHEET NO. IT-16

CROSS REFERENCE ITS DEVICE SUMMARY TABLE

COMMUNICATIONS OVERVIEW SHEET	ITS PLAN SHEET	MVDS DEVICE NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	DMS DEVICE NAME
1	1	FL D4 095 015.6 SB SS DS EL GP 6			
1	1	FL D4 095 015.6 NB NS DS EL GP 6	015.6 CCTV EL GP 1		
1	2	FL D4 095 015.7 SB SS DS EL GP ON 6			
1	2				095.0 SB 15.7
1	3	FL D4 095 015.8 NB NS DS EL GP 6			
1	3			015.8 CCTV GP 1	
1	4	FL D4 095 016.0 NB NS DS EL GP OF 6			
1	4	FL D4 095 016.0 SB SS DS EL GP ON 6	016.0 CCTV EL GP 1		
1	6	FL D4 095 016.2 SB SS DS EL GP 6			
1	6	FL D4 095 016.2 NB NS DS EL GP 6			
1	7			016.4 CCTV GP 1	
1	7	FL D4 095 016.4 SB SS DS EL GP ON 6			FL D4 DOT 95 16.4 NB LS 1
1	8	FL D4 095 016.4 NB NS DS EL GP OF 6	016.4 CCTV EL GP 1	016.5 CCTV TOLL 1	
1	8		016.5 CCTV GP 1		
1	10	FL D4 095 016.7 NB NS DS EL GP ON 6		016.7 CCTV EL 1	
1	9	FL D4 095 016.6 SB SS DS EL-GP-OF 7			
1	9				FL D4 95 16.9 NB NS DS EL-GP 6
2	11	FL D4 095 016.9 SB SS DS EL-GP 6	016.9 CCTV GP 1		
2	10	FL D4 095 016.8 NB NS DS EL-GP 6			
2	12				FL D4 DOT 95 17.1 NB LS 1
2	13	FL D4 095 017.2 NB NS DS EL-GP 6		017.2 CCTV EL 1	
2	13	FL D4 095 017.1 SB SS DS EL-GP 6			
2	14	FL D4 095 017.4 SB SS DS EL GP 6			
2	14	FL D4 095 017.4 NB NS DS EL GP 6	017.4 CCTV EL GP 1		FL D4 DOT 95 17.3 NB TR 1
2	15				FL D4 DOT 95 17.5 NB LS 1
2	16	FL D4 095 017.6 NB NS DS EL GP 6			
2	16	FL D4 095 017.6 SB SS DS EL GP 7			
2	18	FL D4 095 017.9 NB NS DS EL GP 6			
2	18	FL D4 095 017.9 SB SS DS EL-GP 6	017.9 CCTV EL-GP 1		
2	20	FL D4 095 018.1 NB NS DS EL GP OF 7	018.1 CCTV EL GP 1		
2	21			V TOLL 1	
3	20	FL D4 095 018.1 SB SS DS EL GP ON 6			
3	20A			CCTV GP 1	
3	21A			TV GP 1	
3	22	FL D4 095 018.3 NB NS DS EL GP ON 6			
3	22	FL D4 095 018.3 SB SS DS EL GP OF 6			
3	22A			018.4 GP 1	
3	23	FL D4 095 018.5 SB SS DS	018.5 CCT 1		
3	23	FL D4 095 018.5 NB NS			
3	25	FL D4 095 018.8 SB S GP OF			
3	24	FL D4 095 018.6 NB EL GP ON 6			
3	26	FL D4 095 019.0 NB DS EL GP 6	V EL GP		
3	27	FL D4 095 19.0 SB DS EL GP 6			
3	28	FL D4 3.2 NB DS EL GP 6			095.0 SB 19.2
3	28	FL D4 .2 SB DS EL-GP 6			
3	31	FL D4 .5 NB S EL GP 6			
3	30	FL D4 5 SB EL GP 6	019 EL GP 1		
3	32	FL D4 7 SB EL GP 6			
3		FL D4 NB N GP 6			
4		FL D4 NB NS CCTV EL GP 1			
4		D4 SB SS D			
4		D4 SB SS DS EL			
4	37	095 SB SS DS EL GP OF 6	020.3 CCTV EL GP 1		
4	36	NB NS DS EL GP 6			
4	36A		020.2 CCTV GP 1		
4	37			020.3 CCTV GP 1	
4	37	FL D4 B NS DS EL GP ON 6			
4	38	FL D4 095 SB SS DS EL GP ON 6			
4	40	FL D4 095 020.7 SB SS DS EL-GP 5			
4	39	FL D4 095 020.6 NB NS DS EL-GP 6		020.6 CCTV GP 1	
4	38A			020.6 CCTV GP 1	
4	40	FL D4 095 020.7 NB NS DS EL-GP-ON 6			
4	41	FL D4 095 020.9 NB NS DS EL-GP 6	020.9 CCTV EL-GP 1		095.0 NB 20.9
4	41	FL D4 095 020.9 SB SS DS EL-GP 6			
4	42	FL D4 095 021.0 SB SS DS EL-GP 6			
4	43	FL D4 095 021.1 NB NS DS EL-GP 6			
5	45	FL D4 095 021.4 SB SS DS EL-GP-ON 6	021.4 CCTV EL-GP 1		
5	46	FL D4 095 021.5 NB NS DS EL-GP-ON 6			
5	44	FL D4 095 021.3 NB NS DS EL-GP-OF 6			
5	46	FL D4 095 021.5 SB SS DS EL-GP 6		021.5 CCTV GP 1	
5	46B			021.5 CCTV GP 1	
5	47	FL D4 095 021.6 SB SS DS EL-GP-ON 6			
5	47			021.7 CCTV GP 1	
5	47A			021.7 CCTV GP 1	
5	47	FL D4 095 021.7 NB NS DS EL GP 5	021.7 CCTV EL GP 1		
5	48	FL D4 095 021.9 NB NS DS EL GP ON 6			
5	48	FL D4 095 021.9 SB SS DS EL GP OF 6		021.8 CCTV TOLL 1	
5	50	FL D4 095 022.0 NB NS DS EL GP 6			
5	50	FL D4 095 022.1 SB SS DS EL GP 6	022.1 CCTV EL GP 1		
5	52	FL D4 095 022.4 SB SS DS EL GP 5			
5	52	FL D4 095 022.4 NB NS DS EL GP 7			
5	53				FL D4 DOT 95 22.5 SB LS 1
5	54	FL D4 095 022.6 NB NS DS EL GP 6	022.6 CCTV EL GP 1		
5	54	FL D4 095 022.6 SB SS DS EL GP 5			
6	55			022.8 CCTV EL 1	FL D4 DOT 95 22.7 SB TR 1
6	56	FL D4 095 022.9 NB NS DS EL GP 4			
6	56	FL D4 095 022.9 SB SS DS EL GP 4			
6	57				FL D4 DOT 95 23.0 SB LS 1
6	58				FL D4 DOT 95 23.2 SB TR 1
6	59			023.2 CCTV EL 1	

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

CROSS REFERENCE ITS DEVICE SUMMARY TABLE

SHEET NO. IT-16

ITS EQUIPMENT ABBREVIATIONS AND SYMBOLS

AG:	ABOVE GROUND
AMS:	ARTERIAL MANAGEMENT SYSTEM
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
BCTED:	BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
C:	CONDUIT
CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRUIT BREAKER
CCTV:	CLOSED-CIRCUIT TELEVISION
CKT	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CMSS:	CHANGEABLE MESSAGE SIGN - TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN - TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
DVE:	DIGITAL VIDEO ENCODER
EB:	EAST BOUND
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (PROJECT ELEC UTILITY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD	MOUNTED
MVDS:	MICROWAVE VEHICLE DETECTION SYSTEM
NB:	NORTH BOUND
PB:	PULLBOX
POA:	ITS POLE WITH CLD (CAMERA LOWERING DEVICE)
POB:	ITS POLE WITHOUT CLD (CAMERA LOWERING DEVICE)
PNL:	PANEL
PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W	RIGHT OF WAY
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SB:	SOUTH BOUND
SW:	SWITCH
SPD:	SURGE PROTECTION DEVICE
STP:	SHIELDED TWISTED PAIR
TMS:	TRANSPORTATION MANAGEMENT SYSTEM
TSM&O:	TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS
TTMS:	TELEMETERED TRAFFIC MONITORING SITE
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
XFMR:	TRANSFORMER

LEGEND

- SPLICE BOX
- EXISTING SPLICE BOX
- ITS CABINET (POLE MOUNTED)
- ITS CABINET (GROUND MOUNTED)
- DEDICATED CCTV CAMERA
- CCTV CAMERA
- EXISTING CCTV CAMERA
- MVDS
- EXISTING MVDS
- MVDS DETECTION ZONE
- ITS POWER STATION
- 13"x24" ELECTRICAL PULL BOX OR JUNCTION BOX
- ITS PULL BOX
- RAMP METERING CONTROL SIGNAL
- RAMP METERING LOOP DETECTOR SENSOR
- PORTABLE TRAFFIC MONITORING SITES (PTMS)

- ITS EQUIPMENT POLE
- UG ITS CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- HORIZONTAL DIRECTIONAL BORE CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- SURFACE MOUNTED AND ABOVE GROUND CONDUIT. CONDUIT SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE NOTED.
- EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)
- EXISTING UG FOC MAIN COMMUNICATION CONDUIT ABANDONED
- EXISTING JACKED/BORE CONDUIT
- EXISTING R/W
- EXISTING LA R/W

CONDUIT COLOR CODING SCHEDULE

CONDUIT	COLOR OF CONDUIT
BACKBONE RUN / DROP RUN	
FIBER OPTIC: CABLE (FDOT 144SM FOC)	ORANGE
FIBER OPTIC: CABLE (AMS/BCTED 144SM FOC)	ORANGE WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #1	BLACK
FIBER OPTIC SPARE: FOC SPARE #2	BLACK WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #3	BLACK WITH GREEN STRIPE
FIBER OPTIC: CABLE (24SM FOC)	ORANGE
ELECTRICAL: SERVICE WIRE	RED
MISCELLANEOUS CONDUIT	
COMPOSITE: ETHERNET CAT5 / 6 CABLING	WHITE
RAMP SIGNAL	
SIGNAL CABLE: SIGNAL / DETECTOR / LOOP LEAD-IN)	WHITE WITH RED STRIPE
TONE WIRE	GREY
BROWARD COUNTY ARTERIAL	
FIBER OPTIC: CABLE (24SM FOC)	GREY WITH WHITE STRIPE

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9-13-19	ASBUILT- ABANDONED CONDUIT		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS LEGEND, ABBREVIATION

SHEET NO. IT-17

ITS EQUIPMENT ABBREVIATIONS AND SYMBOLS

AG:	ABOVE GROUND
AMS:	ARTERIAL MANAGEMENT SYSTEM
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
BCTED:	BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
C:	CONDUIT
CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRUIT BREAKER
CCTV:	CLOSED-CIRCUIT TELEVISION
CKT	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CMSS:	CHANGEABLE MESSAGE SIGN - TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN - TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
DVE:	DIGITAL VIDEO ENCODER
EB:	EAST BOUND
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (PROJECT ELEC UTILITY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD	MOUNTED
MVDS:	MICROWAVE VEHICLE DETECTION SYSTEM
NB:	NORTH BOUND
PB:	PULLBOX
POA:	ITS POLE WITH CLD (CAMERA LOWERING DEVICE)
POB:	ITS POLE WITHOUT CLD (CAMERA LOWERING DEVICE)
PNL:	PANEL
PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W	RIGHT OF WAY
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SB:	SOUTH BOUND
SW:	SWITCH
SPD:	SURGE PROTECTION DEVICE
STP:	SHIELDED TWISTED PAIR
TMS:	TRANSPORTATION MANAGEMENT SYSTEM
TSM&O:	TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS
TTMS:	TELEMETERED TRAFFIC MONITORING SITE
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
XFMR:	TRANSFORMER

LEGEND

- SPLICE BOX
- EXISTING SPLICE BOX
- ITS CABINET (POLE MOUNTED)
- ITS CABINET (GROUND MOUNTED)
- DEDICATED CCTV CAMERA
- CCTV CAMERA
- EXISTING CCTV CAMERA
- MVDS
- EXISTING MVDS
- MVDS DETECTION ZONE
- ITS POWER STATION
- 13"x24" ELECTRICAL PULL BOX OR JUM[illegible] BOX
- ITS PULL BOX
- RAMP METERING CONTROL SIG[illegible]
- RAMP METERIN[illegible] ECTOR [illegible]OR
- PORTABL[illegible] AFFIC MONIT[illegible] SITE[illegible]MS)
- [illegible]METE[illegible] TRAFFIC MONI[illegible]NG SITES (TTMS)

- ITS EQUIPMENT POLE
- UG ITS CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- HORIZONTAL DIRECTIONAL BORE CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- SURFACE MOUNTED AND ABOVE GROUND CONDUIT. CONDUIT SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE NOTED.
- EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)
- EXISTING UG FOC MAIN COMMUNICATION CONDUIT
- EXISTING JACKED/BORE CONDUIT
- EXISTING R/W
- EXISTING LA R/W

VOID

CONDUIT COLOR CODING SCHEDULE

CONDUIT	COLOR OF CONDUIT
BACKBONE RUN / DROP RUN	
FIBER OPTIC: CABLE (FDOT 144SM FOC)	ORANGE
FIBER OPTIC: CABLE (AMS/BCTED 144SM FOC)	ORANGE WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #1	BLACK
FIBER OPTIC SPARE: FOC SPARE #2	BLACK WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #3	BLACK WITH GREEN STRIPE
FIBER OPTIC: CABLE (24SM FOC)	ORANGE
ELECTRICAL: SERVICE WIRE	RED
MISCELLANEOUS CONDUIT	
COMPOSITE: ETHERNET CAT5 / 6 CABLING	WHITE
RAMP SIGNAL	
SIGNAL CABLE: SIGNAL / DETECTOR / LOOP LEAD-IN)	WHITE WITH RED STRIPE
TONE WIRE	GREY
BROWARD COUNTY ARTERIAL	
FIBER OPTIC: CABLE (24SM FOC)	GREY WITH WHITE STRIPE

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS LEGEND, ABBREVIATION

SHEET NO.
IT-17

ITS NOTES

GENERAL

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OR THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS, NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.

2. IN ORDER TO MINIMIZE IMPACT TO LANDSCAPING MATERIAL, EXERCISE CAUTION THROUGH LANDSCAPING LIMITS DURING ALL PHASES OF CONSTRUCTION ACTIVITY. CONTRACTOR SHALL REPAIR / REPLACE ANY DAMAGED LANDSCAPING AND PLANT BEDS CAUSED BY THEIR CONSTRUCTION ACTIVITY

3. THE WORK CORRIDOR SHALL BE RESTORED TO PRE-WORK CONDITIONS.

4. FOR ALL OVERHEAD SIGN STRUCTURES, EXERCISE ALL APPROPRIATE SAFETY MEASURES WHEN WORKING IN OR AROUND THESE AREAS. CAUTION SHALL BE TAKEN WITH RESPECT TO MAINTAINING THE POWER FEED AND GROUNDING CIRCUITRY. ALL FEATURES SHALL BE RESTORED TO ORIGINAL PRE-WORK CONDITIONS.

5. HAND DIG THE FIRST 4' AT EACH POLE INSTALLATION LOCATION. BACKFILLING AROUND POLE SHALL CONFORM TO SECTION 125 OF THE STANDARD SPECIFICATIONS.

6. PULLING INSTRUCTIONS FOR POWER CONDUCTORS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURES REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURERS REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY N.E.C. OR N.E.S.C. FOR CABLE USED.

7. AVOID AND/OR PROTECT ALL TREES AND ROOTS BY HAND DIGGING AS NECESSARY.

8. BASELINES SHOWN ON THE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT STAKED IN THE FIELD.

9. THE RIGHT OF WAY DESIGNATIONS SHOWN ON THE PLANS ARE NOT TIED TO A SURVEYED CENTERLINE AND AS SUCH ARE APPROXIMATE.

10. IF WIRES, PVC CONDUIT AND/OR CABINETS TO PTMS LOCATIONS ARE DAMAGED DUE TO PROJECT, THESE SITES NEED TO BE REPAIRED OR REPLACED AS IN THE FIELD. "CALL THE PLANNING DEPARTMENT IF THE INDUCTIVE LOOPS AND/OR PIEZOS ARE CUT, IN ORDER TO PERFORM AN INSPECTION. CONTACT KARA SCHWARTZ 954-777-4364 AND E-MAIL KARA.SCHWARTZ@DOT.STATE.FL .US"

11. ALL TRAFFIC CONTROL DEVICES MAINTAINED BY BROWARD COUNTY, THAT ARE REMOVED OR DAMAGED BY CONSTRUCTION SHALL BE REPLACED USING CURRENT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS.

12. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE A COPY OF THE REQUEST TO THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC). THE CONTRACTOR SHALL PROVIDE THE DCIC WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE, AND PROVIDE A DESCRIPTION OF THE SPECIFIC MANNER IN WHICH THE MATERIAL WILL BE USED. THE PROJECT ENGINEER SHALL COORDINATE WITH THE DCIC PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AS HAZARDOUS MATERIALS, SUCH PRODUCTS DO NOT REQUIRE AN MSDS SUBMITTAL. ALL BULK PETROLEUM PRODUCTS STORED ON SITE SHALL REQUIRE PROPER STORAGE WHICH INCLUDES SECONDARY CONTAINMENT.

13. IF SUSPECT CONTAMINATED OR HAZARDOUS MATERIAL IS FOUND ON THE PROJECT, OR ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC) AT PHONE NUMBER (954) 777-4286.

14. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING OR STOCKPILING AREAS WITH THE DISTRICT CONSTRUCTION ENVIRONMENTAL COORDINATOR AT (954) 777-4665.

15. BLACK AND RED BUFFER TUBE OF FDOT 144 SMFO IS ALLOCATED FOR TOLL COMMUNICATIONS.

CONDUIT

1. CONDUIT RUN SHALL NOT EXCEED 270° OF BENDS BETWEEN PULL BOXES.

2. ALL HDPE CONDUIT CONNECTIONS SHALL BE JOINED WITH A MECHANICAL COUPLE OR APPROVED EQUAL.

3. MINIMUM REQUIRED CONDUIT BURY DEPTHS SHALL BE MAINTAINED WHERE CONFLICTS OCCUR WITH DRAINAGE OR OTHER UTILITIES PER THESE PLANS.

4. JACK AND BORE OPERATIONS IF USED SHALL MEET THE REQUIREMENTS OF FDOT'S UTILITY ACCOMMODATION MANUAL (LATEST EDITION).

5. ALL CONDUIT TRENCHES SHALL BE BACKFILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF EACH WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE. DO NOT OPEN ANY AREA THAT CANNOT BE BACKFILLED IN THE SAME DAY/NIGHT OPERATION.

6. CONDUIT INSTALLATION MUST MEET THE CONDUIT INSTALLATION REQUIREMENTS OF THE 2014 UTILITY ACCOMMODATION MANUAL AT A MINIMUM.

7. TRACER WIRE SHALL BE INSTALLED FOR ALL FIBER BACKBONE, FIBER LATERAL, AND MULTI-CONDUCTOR COMMUNICATION CABLE RUNS. THE TRACER WIRE SHALL BE PLACED ALONG THE CENTERLINE OF THE TOP OUTER SURFACE OF INSTALLED CONDUIT RUN DURING TRENCH OPERATION AND INSTALL THE TRACER WIRE IN AN ENCASEMENT FOR A BORING OPERATION.

PULL BOXES

1. POWER AND COMMUNICATIONS CABLE MUST BE IN SEPARATE PULL BOXES.

2. SLACK CABLE STORAGE: STORE A TOTAL OF 200 FEET OF SPARE FIBER OPTIC CABLE IN SPLICE BOXES, AND 50 FEET IN PULL BOXES, PER 2015 FDOT STANDARD SPECIFICATION 633-3.1.4.

ITS

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING AND PROPOSED ROADWAY LIGHTING PRIOR TO INSTALLATION OF DMS, CONDUIT, PULL BOXES, AND POLE FOUNDATIONS.

2. VEGETATION SHALL BE REMOVED OR CUT BACK AS DIRECTED BY THE ENGINEER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR ALL DEVICE LOCATIONS.

3. GROUNDING FOR ALL COMPONENTS SHALL BE PER THE PLANS AND SPECIFICATIONS.

4. ALL DIMENSIONS SHOWN FOR THE PURPOSE OF DEVICE POLE LOCATIONS ARE MADE FROM THE REFERENCE POINT SHOWN TO THE FACE OF THE POLE NEAREST THE ROADWAY.

5. WHEN RUNNING CABLES INSIDE THE STRAIN POLE, ENSURE THAT WATER DOES NOT ENTER THE CABINET BY RUNNING DOWN THE CABLE.

6. AT LOCATIONS WHERE UNDERGROUND UTILITIES OR STORM ARE WITHIN TWO FEET OF THE ITS POLE FOUNDATIONS OR CONDUIT RUN, THE CONTRACTOR WILL HAND DIG THE FIRST FOUR FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.

7. CONTRACTOR SHALL INSTALL MVDS IN ACCORDANACE WITH MANUFACTURER SPECIFICATIONS.

MAINTENANCE OF TRAFFIC NOTES

1. THE EXISTING POSTED SPEED IS TO BE MAINTAINED ON THE ROADWAYS DURING CONSTRUCTION. ALL SPEED LIMIT SIGNS ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

2. LANE CLOSURE RESTRICTIONS FOR THE ARTERIALS WILL BE PROVIDED DURING THE PERMITTING PROCESS.

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

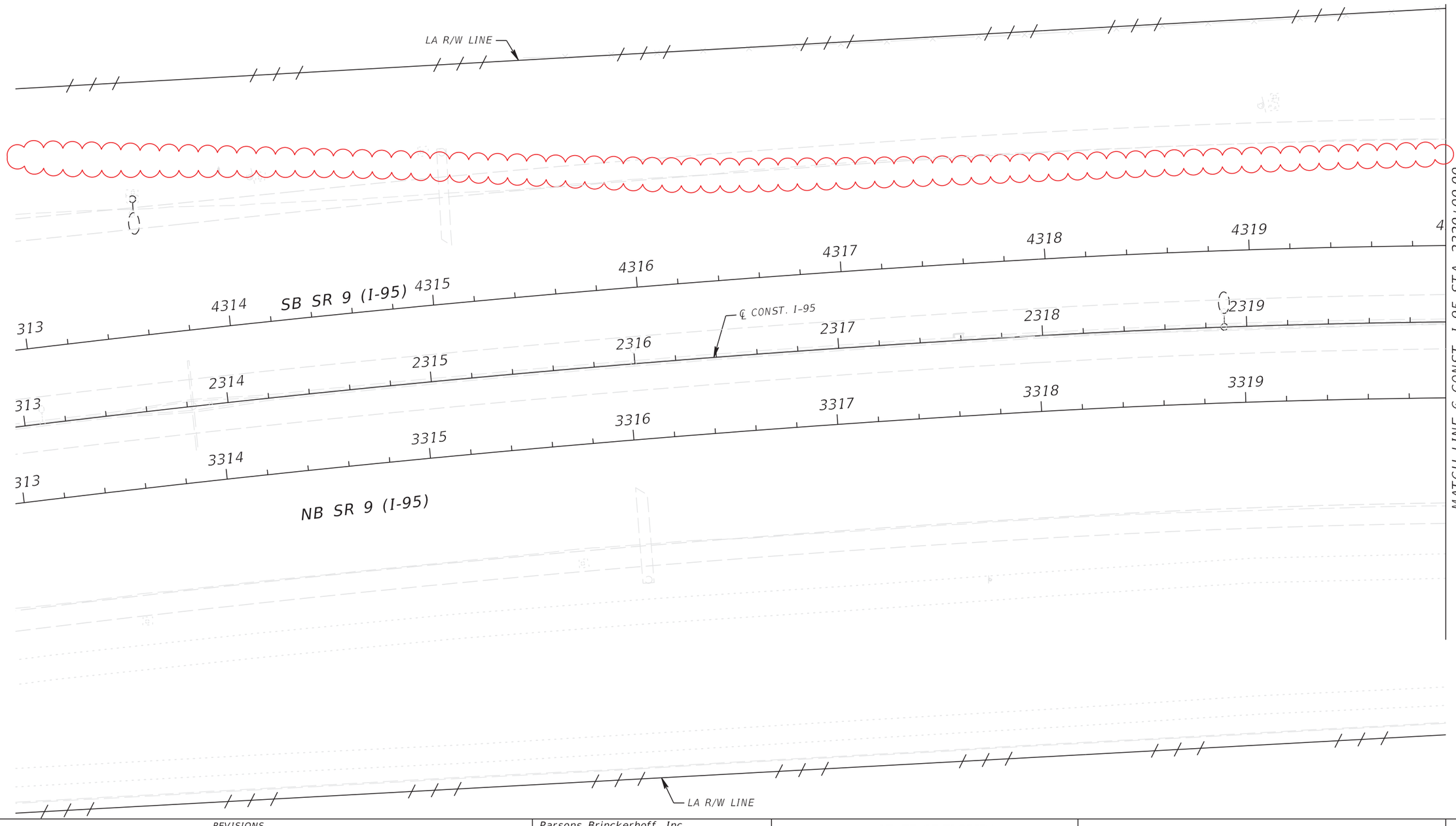
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS GENERAL NOTES

SHEET NO. IT-18

1" = 50'

THIS SHEET DOES NOT INCLUDE PROPOSED WORK



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS - REMOVED EXISTING CONDUIT		

Parsons Brinckerhoff, Inc.
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (1)

SHEET NO.
IT-19

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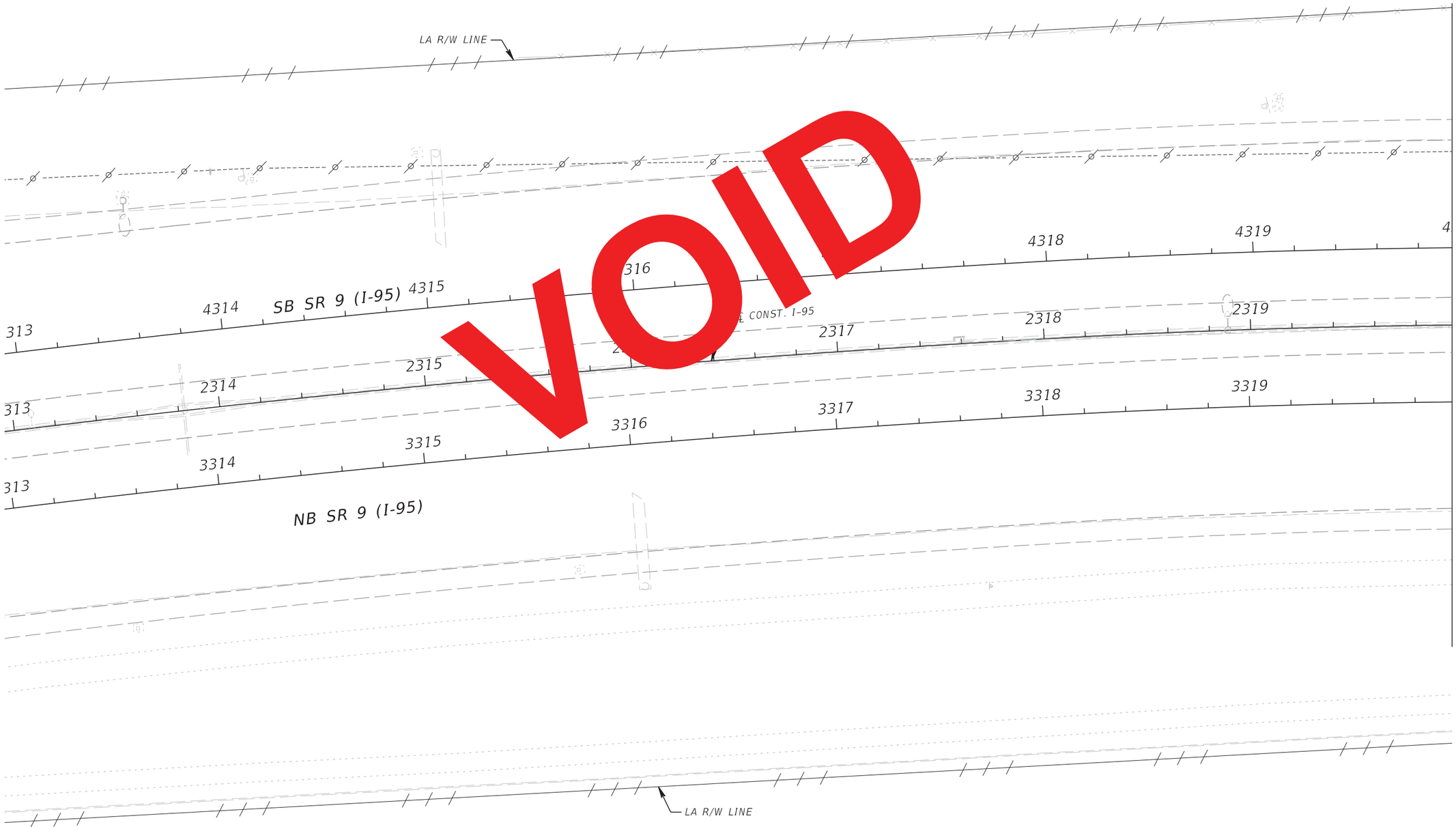
1" = 50'

THIS SHEET DOES NOT INCLUDE PROPOSED WORK



VOID

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BY: (Stantec) PE BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (1)

SHEET NO.
IT-19

1" = 50'

STA. 2322+85
FL D4 095 015.6 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
015.6 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING VOIP TO BE
REMOVED AND RETURNED
TO THE DEPARTMENT
(VOIP 95-32.9)

EXISTING DEVICES, CABINET
AND POLE TO BE REMOVED
(C9033, FLD4095032.9NBSS/
FLD4095032.9SBSS)

BEGIN PROJECT
I-95 EXPRESS LANES
PHASE 3A-2
STA. 2321+00.00

SB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2320+00.00

320 4321 4322 4323 4324 4325 4326 4327

2320 2321 2322 2323 2324 2325 2326 2327

3320 3321 3322 3323 3325 3326

℄ CONST. I-95

NB SR 9 (I-95)

STA. 2323+02
FL D4 095 015.6 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
015.6 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
015.6 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

TIE FIBER OPTIC BACKBONE CONDUIT
INTO 3A-1 JUNCTION BOX; INSTALL FIBER OPTIC
CABLE THROUGH CONDUIT INSTALLED AS PART
OF 3A1 PROJECT TIE IN JUNCTION BOX TO HUB
AT COMMERCIAL BLVD.

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-1
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

SWALE 19-17

LA R/W LINE

5-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
USE EXISTING 3A1 CONDUIT TO CONTINUE
144 COUNT FIBER OPTIC CABLE TO COMMERCIAL BLVD HUB

5-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
USE EXISTING 3A1 CONDUIT TO CONTINUE
144 COUNT FIBER OPTIC CABLE TO COMMERCIAL BLVD HUB

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

MATCH LINE ℄ CONST. I-95 STA. 2327+00.00

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS PER RFI 411, PTMS'S REMOVED		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (1A)

SHEET NO.
IT-20

1" = 50'

STA. 2322+85
FL D4 095 015.6 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
015.6 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING VOIP TO BE
REMOVED AND RETURNED
TO THE DEPARTMENT
(VOIP 95-32.9)

EXISTING DEVICES, CABINET
AND POLE TO BE REMOVED
(C9033, FLD4095032.9NBSS/
FLD4095032.9SBSS)

BEGIN PROJECT
I-95 EXPRESS LANES
PHASE 3A-2
STA. 2321+00.00

SB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2320+00.00

4321 4322 4323 4325 4326 4327

2320 2321 2322 2323 2325 2326 2327

3320 3321 3322 3323 3325 3326

℄ CONST. I-95

NB SR 9 (I-95)

TIE FIBER OPTIC BACKBONE CONDUIT
INTO 3A-1 JUNCTION BOX; INSTALL FIBER OPTIC
CABLE THROUGH CONDUIT INSTALLED AS PART
OF 3A1 PROJECT TIE IN JUNCTION BOX TO HUB
AT COMMERCIAL BLVD.

STA. 2323+02
FL D4 095 015.6 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
015.6 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
015.6 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-1
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

SWALE 19-17

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
USE EXISTING 3A1 CONDUIT TO CONTINUE
144 COUNT FIBER OPTIC CABLE TO COMMERCIAL BLVD HUB

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
USE EXISTING 3A1 CONDUIT TO CONTINUE
144 COUNT FIBER OPTIC CABLE TO COMMERCIAL BLVD HUB

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

MATCH LINE ℄ CONST. I-95 STA. 2327+00.00

VOID

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (1A)

SHEET NO.
IT-20

STA. 2331+20
FL D4 095 015.7 SB SS DS EL-GP-ON 6
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
015.7 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

R/W LINE

1" = 50'

STA. 2332+58
015.8 CAB SS
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

95 SB 015.7
STA. 2331+00
WALK-IN DMS
OVERHEAD TRUSS SIGN STRUCTURE

℄ CONST. ANDA

1

101 103 104

SB SR 9 (I-95)

4328 4329 4330 4331 4332 4333 4334

℄ CONST. I-95

2327 2328 2329 2330 2331 2332 2333 2334

4-2" HDPE
3 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
4 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE,
1-6 COUNT MM FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

3327 3328 3329 3330 3332 3333

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2327+00.00

MATCH LINE ℄ CONST. I-95 STA. 2334+00.00

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
9/13/19	AS-BUILT		

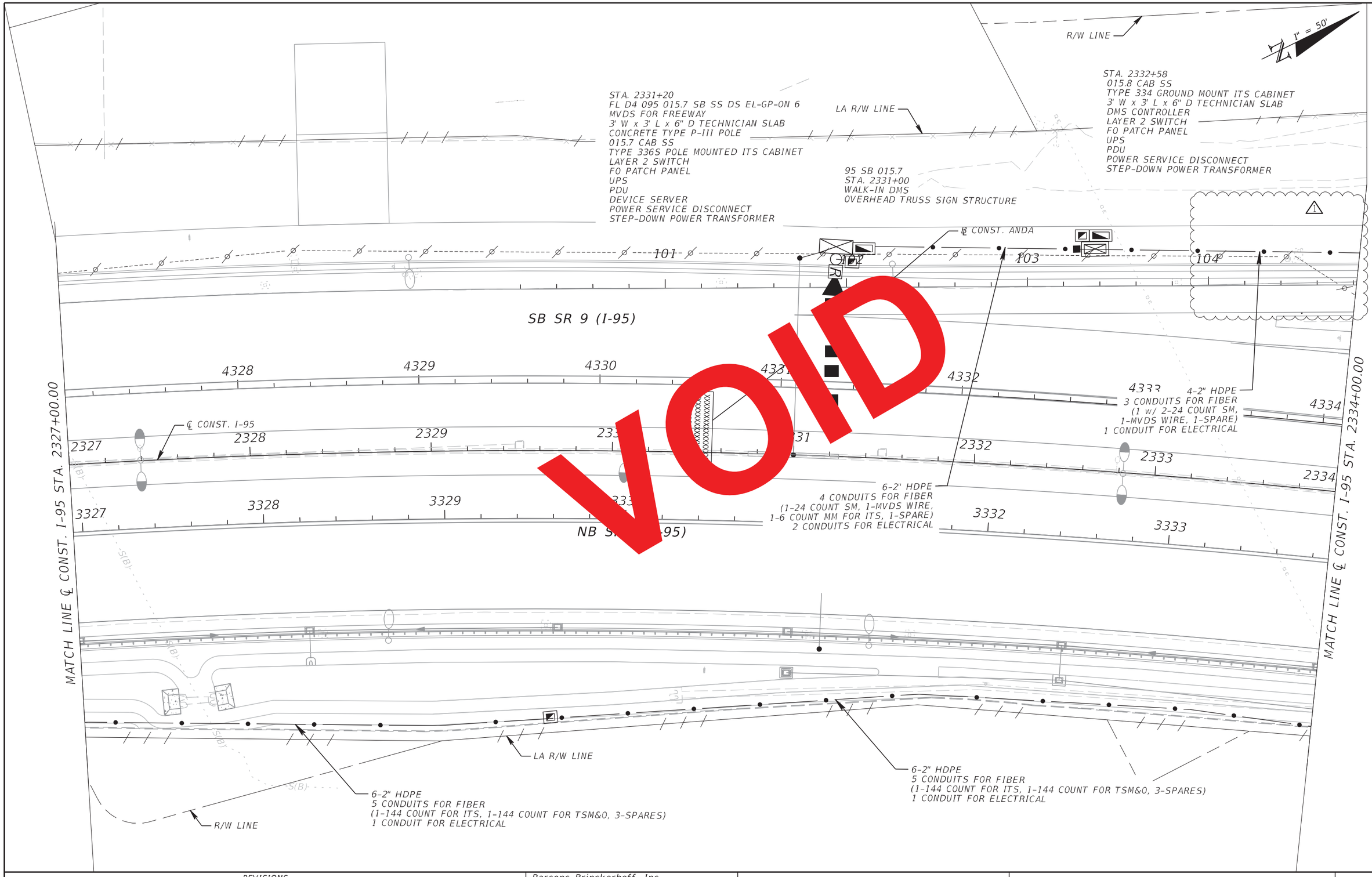
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (2)

SHEET NO.
IT-21



VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design, quantities, and detailed dimensions rests with engineer of record. Review of shop drawings does not relieve contractor of responsibility for dimensions which shall be confirmed and correlated at the job site, for fabrication and erection which shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64 BY: (FDOT)
BY: (Stantec) P.L.

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
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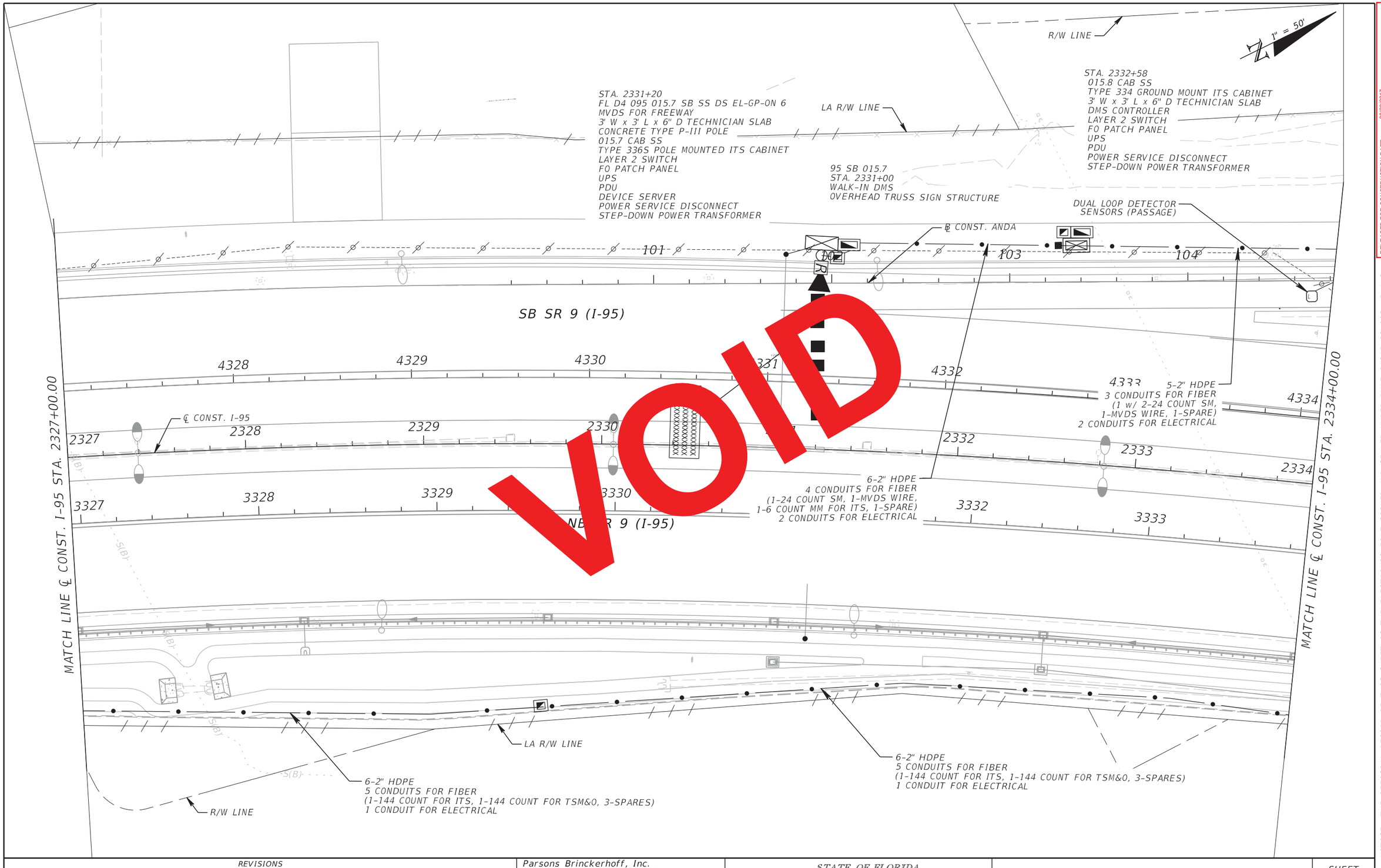
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (2)

SHEET NO. IT-21



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (2)

SHEET NO.
IT-21

MATCH LINE SEE ITS PLAN (3A)

1" = 50'

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)
1

2

ANDREWS RAMP A

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR SENSORS (PASSAGE)

105

2-2" HDPE
2 CONDUITS FOR FIBER
(1-CAT5E, 1-SPARE)

STA. 2338+00
015.9 CCTV GP 1,
CCTV IP CAMERA FOR
DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING DEVICE, CABINET
AND POLE TO BE REMOVED
TO BE REMOVED
(FLD4095033.2NSSS)

DUAL LOOP DETECTOR SENSORS (DEMAND)

1-2" HDPE
(1 SIGNAL WIRE)

STOP HERE ON RED

STOP HERE ON RED

TWO VEHICLES PER GREEN

STA. 2335+97
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

7-2" HDPE
1 CONDUIT FOR SIGNAL
(1-SIGNAL WIRE)
4 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS,
1-CAT5E, 1-SPARE)
2 CONDUITS FOR ELECTRICAL
2

RAMP METERING CONTROL SIGNAL

SB SR 9 (I-95)

2000

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4335 4336 4337 4339 4340 4341

4-2" HDPE
3 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2336+33
015.8 CAB SS_2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

2334 2335 2337 2338 2339 2340 2341

3334 3335 3336 3337 3338 3339 3340

MATCH LINE ℄ CONST. I-95 STA. 2334+00.00

MATCH LINE ℄ CONST. I-95 STA. 2341+00.00

NB SR 9 (I-95)

SV-2
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 2335+21
FL D4 095 015.8 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
015.8 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-3
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

948

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
03/16/18	2 REVISED ELECTRICAL CONDUIT		
09/13/19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (3)

SHEET NO.
IT-22

MATCH LINE SEE ITS PLAN (3A)

ANDREWS RAMP A

1" = 50'

7-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 6 LOOP DETECTOR WIRES)
4 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE,
1-CAT5E, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE (1-144 COUNT
FOR TSM&O RAMP EXTENSION)

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

STA. 2338+00
015.9 CCTV GP 1,
CCTV IP CAMERA FOR
DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING DEVICE, CABINET
AND POLE TO BE REMOVED
TO BE REMOVED
(FLD4095033.2NSSS)

2-2" HDPE
2 CONDUITS FOR FIBER
(1-CAT5E, 1-SPARE)

DUAL LOOP DETECTOR
SENSORS (DEMAND)

1-2" HDPE
(1 SIGNAL WIRE)

STOP HERE ON RED

STOP HERE ON RED

TWO VEHICLES PER GREEN

STA. 2335+97
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

7-2" HDPE
1 CONDUIT FOR SIGNAL
(1-SIGNAL WIRE)
4 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS,
1-CAT5E, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

RAMP METERING
CONTROL SIGNAL

SB SR 9 (I-95)

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2336+33
015.8 CAB SS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

NB SR 9 (I-95)

SV-2
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 2335+21
FL D4 095 015.8 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
015.8 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-3
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

MATCH LINE ℄ CONST. I-95 STA. 2334+00.00

MATCH LINE ℄ CONST. I-95 STA. 2341+00.00

2000 2334 2335 2337 2339 2340 2341 3334 3335 3336 3339 3340 4335 4336 4337 4339 4340 4341 948

VOID

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of
dimensions, quantities and coordination with other trades, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED ELECTRICAL CONDUIT		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
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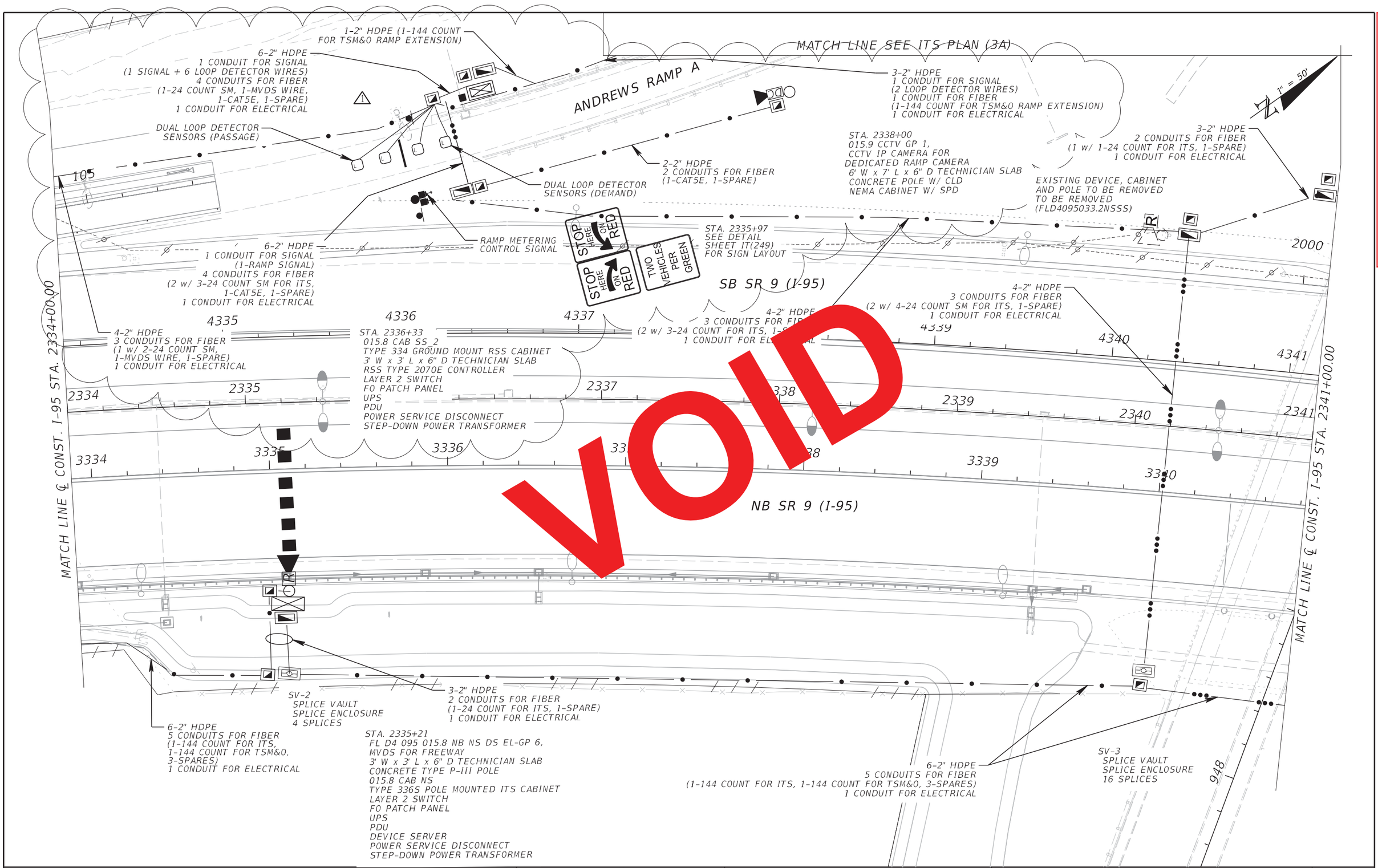
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (3)

SHEET NO.
IT-22



VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design details, dimensions and quantities of items shown rests with the engineer of record. Review of shop drawings does not relieve contractor from responsibility for fabrication and erection which shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64 BY: (FDOT)
BY: (Stantec) P.L.

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

Parsons Brinckerhoff, Inc.
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Virginia Beach, VA 23452
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (3)

SHEET NO. IT-22

MATCH LINE SEE ITS PLAN (3A)

ANDREWS RAMP A

6-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 6 LOOP DETECTOR WIRES)
4 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE,
1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

6-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL)
4 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS, 1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

105

DUAL LOOP DETECTOR
SENSORS (DEMAND)

RAMP METERING
CONTROL SIGNAL

STOP HERE ON RED

STOP HERE ON RED

TWO VEHICLES PER GREEN

STA. 2334+18
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

5-2" HDPE
3 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

STA. 2334+60
015.8 CAB SS_2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
4 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS,
1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2336+09
015.8 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

EXISTING DEVICE, CABINET
AND POLE TO BE REMOVED
TO BE REMOVED
(FLD4095033.2NSSS)

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1" = 50'

SB SR 9 (I-95)

NB SR 9 (I-95)

VOID

4335 4336 4337 4339 4340 4341

2334 2335 2337 2338 2339 2340 2341

3334 3335 3336 3337 3338 3339 3340

2000

948

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-2
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2335+21
FL D4 095 015.8 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
015.8 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-3
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

MATCH LINE ℄ CONST. I-95 STA. 2334+00.00

MATCH LINE ℄ CONST. I-95 STA. 2341+00.00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec) FL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (3)

SHEET NO.
IT-22

1" = 50'

2-2" HDPE
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

ADVANCED WARNING
BEACON SIGN (TYP)

RAMP METERED WHEN FLASHING

STA. 955+07

MATCH LINE SEE ITS PLAN (3B)

955

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSOR (QUEUE)

N ANDREWS WAY

85'

ANDREWS RAMP A

STA. 954+98

954

N ANDREWS AVE

953

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (3)

MATCH LINE SEE ITS PLAN (4)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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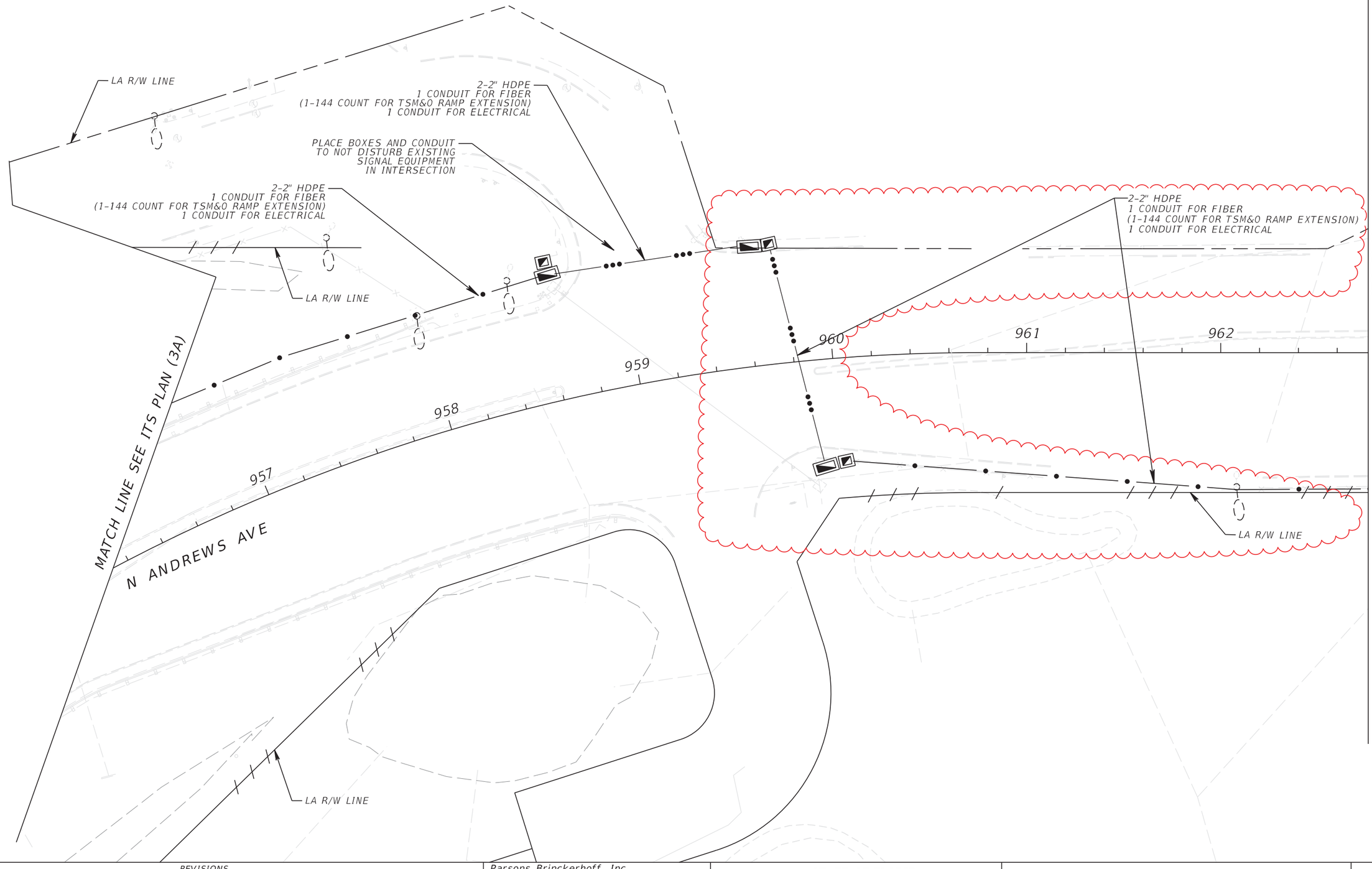
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (3A)

SHEET NO.
IT-23



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 454		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (3B)

SHEET NO.
IT-24

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

1" = 50'

LA R/W LINE

2-2" HDPE
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

PLACE BOXES AND CONDUIT
TO NOT DISTURB EXISTING
SIGNAL EQUIPMENT
IN INTERSECTION

2-2" HDPE
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

2-2" HDPE
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (3A)

MATCH LINE SEE ITS PLAN (3C)

957 958 959 960 961 962

N ANDREWS AVE

LA R/W LINE

LA R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

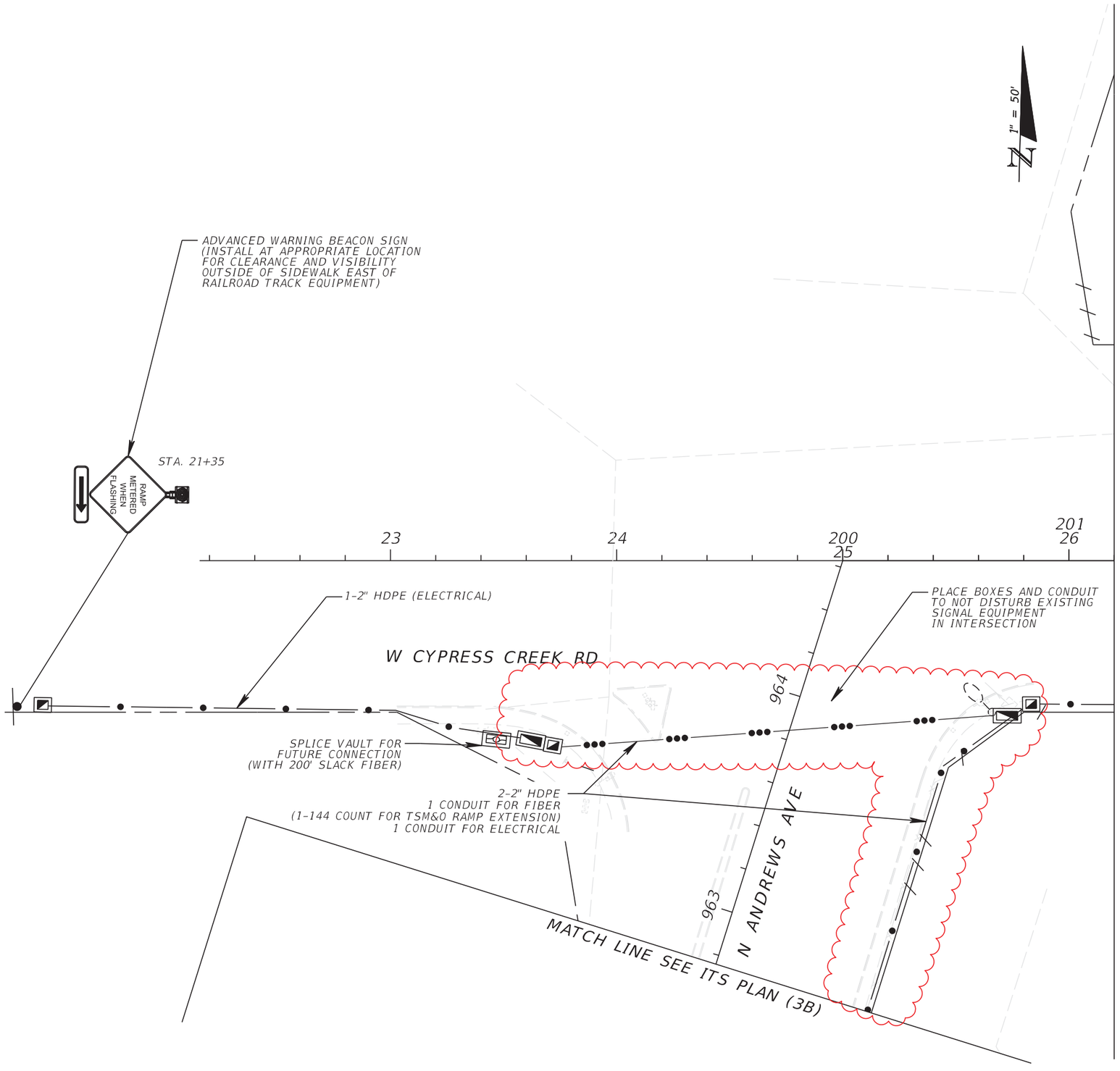
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (3B)

SHEET NO.
IT-24



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 454		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (3C)

SHEET NO.
IT-25

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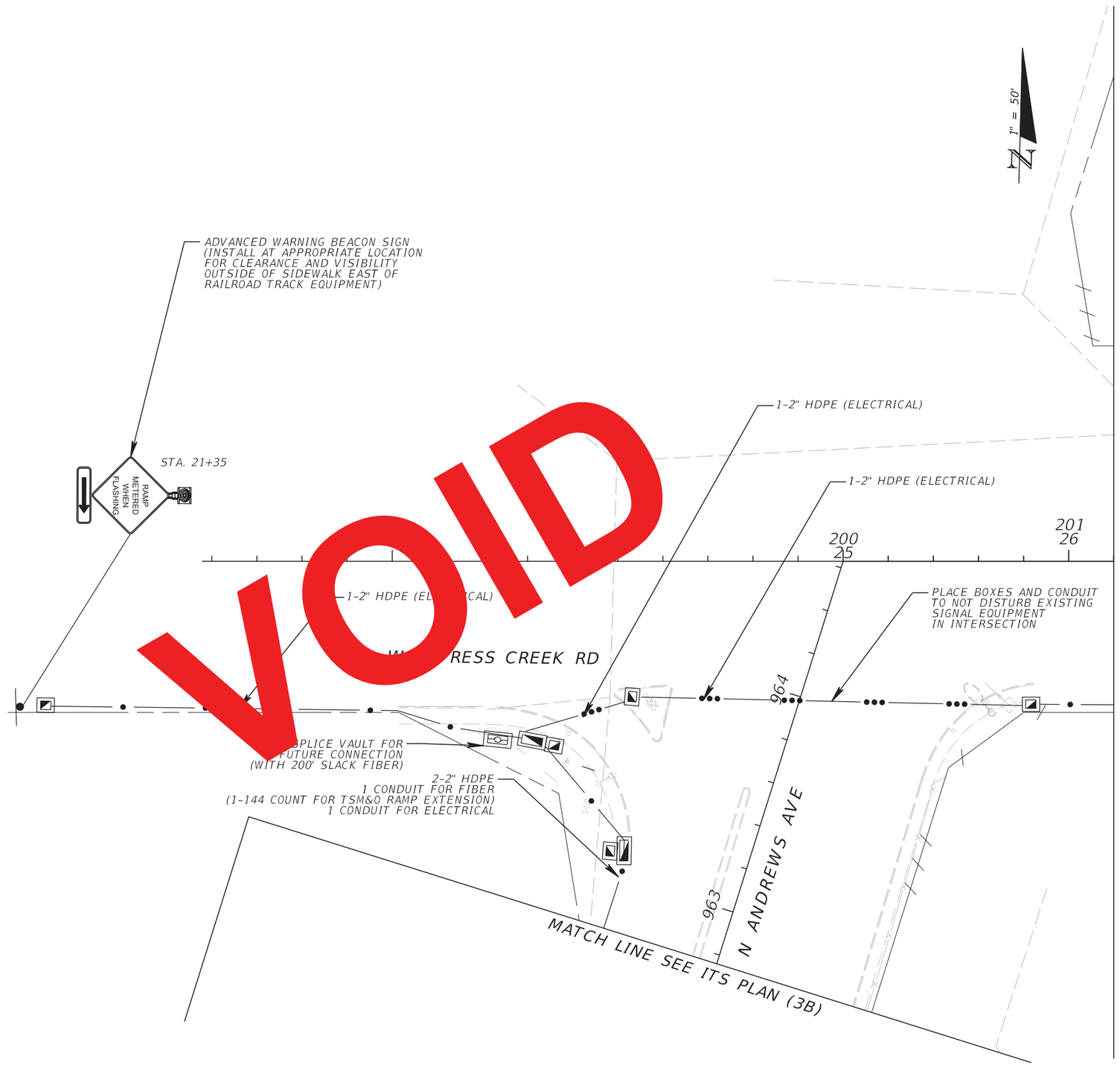

VOID

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) FL BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (3C)

SHEET NO. IT-25

1" = 50'

ADVANCED WARNING BEACON SIGN

LA R/W LINE

STA. 205+95

RAMP METERED WHEN FLASHING

W CYPRESS CREEK RD

1-2" HDPE (ELECTRICAL)

202 27 | 203 28 | 204 29 | 205 30 | 206 31 | 207 32

MATCH LINE SEE ITS PLAN (3C)

MATCH LINE SEE ITS PLAN (6A)

LA R/W LINE

1-2" HDPE (ELECTRICAL)

PARK N RIDE

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4Q64

BY: (Stamped) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (3D)

SHEET NO.

IT-26

MATCH LINE SEE ITS PLAN 3A

N ANDREWS AVE

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

STA. 2344+47
FL D4 095 016.0 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
016.0 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
016.0 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

1" = 50'

℄ CONST. PRB

PARK-N-RIDE RAMP B

SB SR 9 (I-95)

NB SR 9 (I-95)

℄ CONST. I-95

℄ CONST. CYPB

STA. 2346+00
FL D4 095 016.0 NB NS DS EL-GP-OF 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.0 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

MATCH LINE ℄ CONST. I-95 STA. 2341+00.00

MATCH LINE ℄ CONST. I-95 STA. 2348+00.00

R/W LINE

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-4
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
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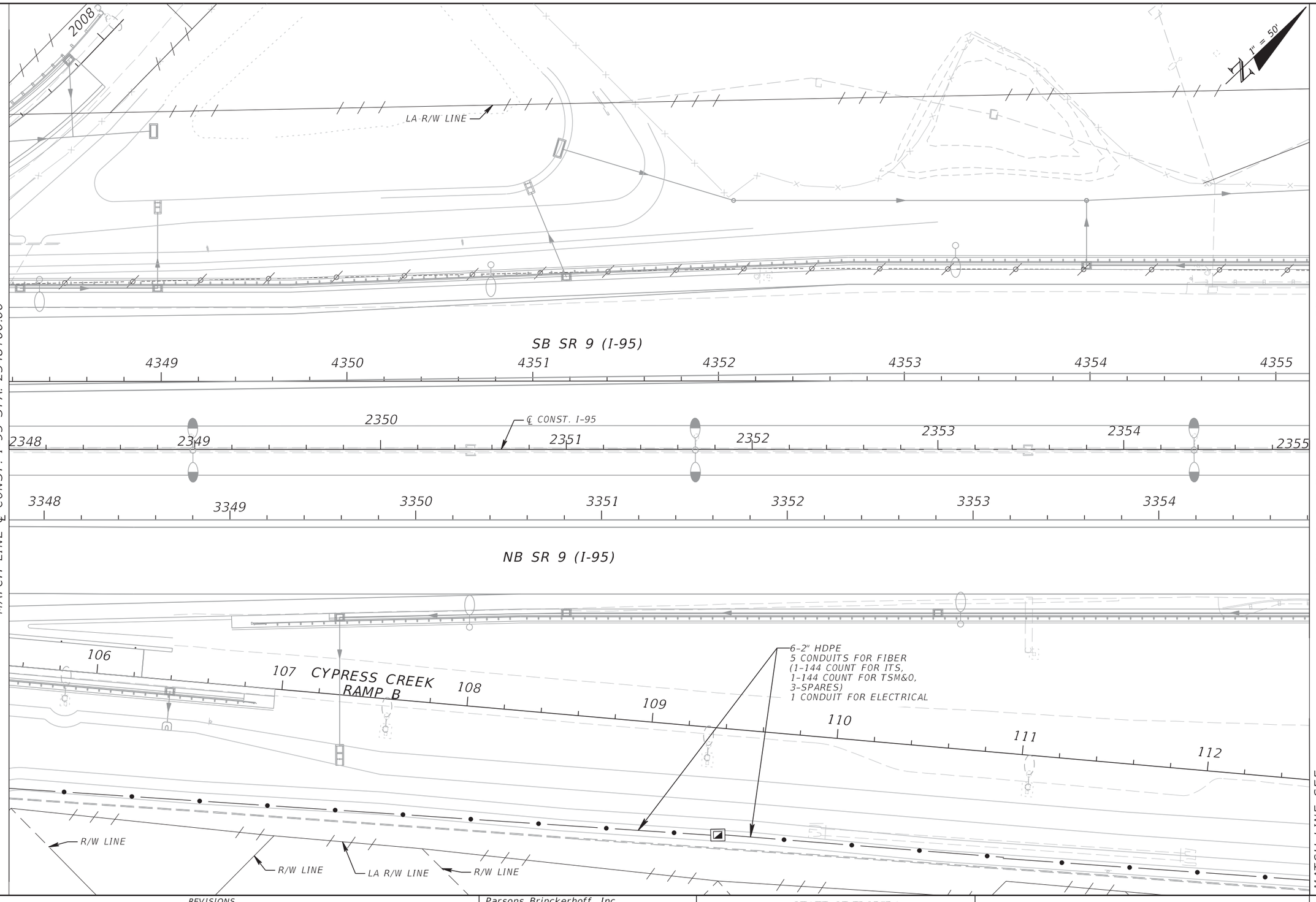
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (4)

SHEET NO.
IT-27



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (5)

SHEET NO.

IT-28

MATCH LINE SEE ITS PLAN (6A)

1" = 50'

STA. 2357+74
FL D4 095 016.2 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
016.2 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
016.2 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING VOIP TO BE REMOVED
AND RETURNED TO DEPARTMENT
(VOIP 95-33.5)

EXISTING DEVICES, CABINET
AND POLE TO BE REMOVED
(C9034, FLD4095033.5NBSS/
FLD4095033.5SBSS)

37 W CYPRESS CREEK RD
NW 62ND ST 38

ADVANCED WARNING
BEACON SIGN (TYP)

RAMP METERED WHEN FLASHING

STA. 213+39

2-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

SB SR 9 (I-95)

4356 4357 4358 4359 4360 4361 4362

℄ CONST. I-95

2355 2356 2357 2358 2359 2360 2361 2362

NB SR 9 (I-95)

3355 3356 3357 3358 3359 3360 3361

STA. 2357+93
FL D4 095 016.2 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.2 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (6B)

MATCH LINE ℄ CONST. I-95 STA. 2355+00.00

MATCH LINE ℄ CONST. I-95 STA. 2362+00.00

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 REVISED CCTV LOCATION		
09/13/19	AS-BUILTS per RFI 346		

Parsons Brinckerhoff, Inc.
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (6)

SHEET NO.
IT-29

MATCH LINE SEE ITS PLAN (6A)

1" = 50'

STA. 2357+74
FL D4 095 016.2 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
016.2 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
016.2 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING VOIP TO BE REMOVED
AND RETURNED TO DEPARTMENT
(VOIP 95-33.5)

EXISTING DEVICES, CABINET
AND POLE TO BE REMOVED
(C9034, FLD4095033.5NBSS/
FLD4095033.5SBSS)

37 W CYPRESS CREEK RD
NW 62ND ST 38

RAMP METERED WHEN FLASHING

STA. 213+39

1-2" HDPE (ELECTRICAL)

ADVANCED WARNING BEACON SIGN (TYP)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

SB SR 9 (I-95)

4356 4357 4358 4359 4360 4361 4362

2355 2356 2357 2358 2359 2360 2361 2362

℄ CONST.

NB SR 9 (I-95)

3355 3356 3357 3358 3359 3360 3361

213 214 215 216

39 40 41

STA. 2357+93
FL D4 095 016.2 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.2 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (6B)

MATCH LINE ℄ CONST. I-95 STA. 2355+00.00

MATCH LINE ℄ CONST. I-95 STA. 2362+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of information and dimensions rests with the Engineer of Record. Fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CCTV LOCATION		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (6)

SHEET NO.
IT-29

MATCH LINE SEE ITS PLAN (6A)

1" = 50'

STA. 2357+74
FL D4 095 016.2 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.2 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING VOIP TO BE REMOVED AND RETURNED TO DEPARTMENT (VOIP 95-33.5)

EXISTING DEVICES, CABINET AND POLE TO BE REMOVED (C9034, FLD4095033.5NBSS/ FLD4095033.5SBSS)

SB SR 9 (I-95)

NB SR 9 (I-95)

37 W CYPRESS CREEK RD
NW 62ND ST 38

RAMP METERED WHEN FLASHING

STA. 213+39

1-2" HDPE (ELECTRICAL)

ADVANCED WARNING BEACON SIGN (TYP)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2357+93
FL D4 095 016.2 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.2 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

MATCH LINE SEE ITS PLAN (6B)

MATCH LINE ℄ CONST. I-95 STA. 2355+00.00

MATCH LINE ℄ CONST. I-95 STA. 2362+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) PE

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (6)

SHEET NO.
IT-29

1" = 50'

MATCH LINE SEE ITS PLAN (3D)

CYPRESS CREEK RAMP A

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

DUAL LOOP DETECTOR SENSOR (QUEUE)

2-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER (1-144 COUNT FOR TSM&O RAMP EXTENSION)

RAMP METERED WHEN FLASHING

RAMP METERED WHEN FLASHING

ADVANCED WARNING BEACON SIGN (TYP)

79'

SPLICE VAULT FOR FUTURE CONNECTION (WITH 200' SLACK FIBER)

1-2" HDPE (ELECTRICAL)

2-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (6)

MATCH LINE SEE ITS PLAN (7A)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 346		

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STATE OF FLORIDA
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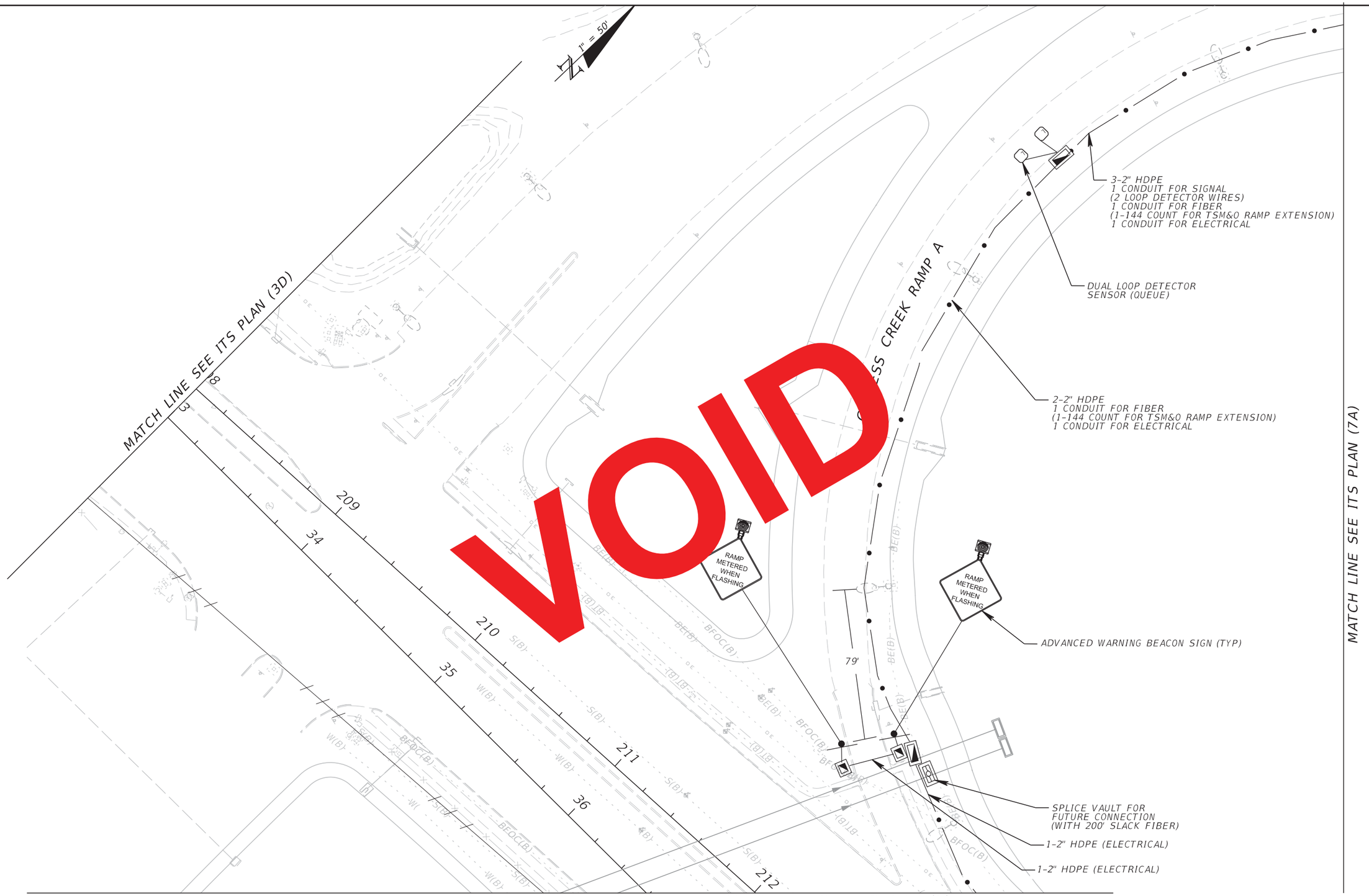
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (6A)

SHEET NO.

IT-30



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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (6A)

SHEET NO.
IT-30

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

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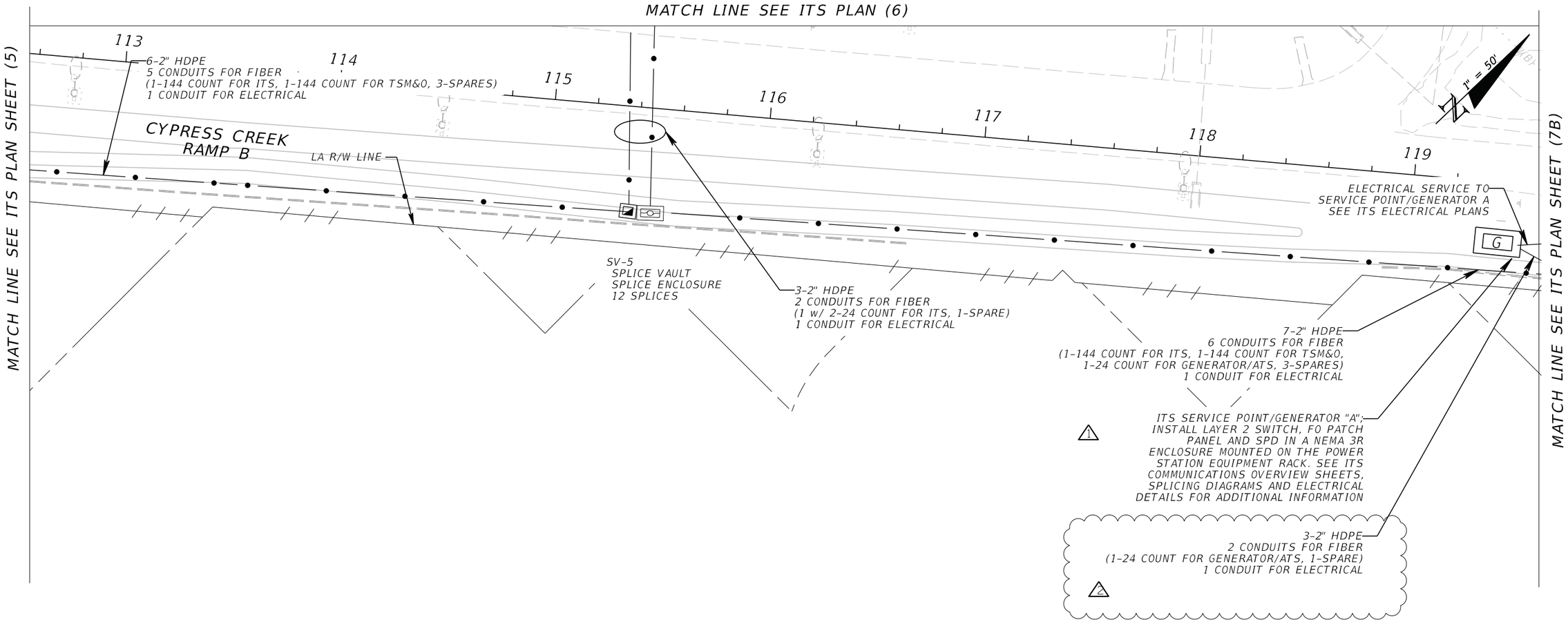

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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) JB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "A" CALLOUT		
03/16/18	2 REVISED GENERATOR CALLOUTS		

Parsons Brinckerhoff, Inc.
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

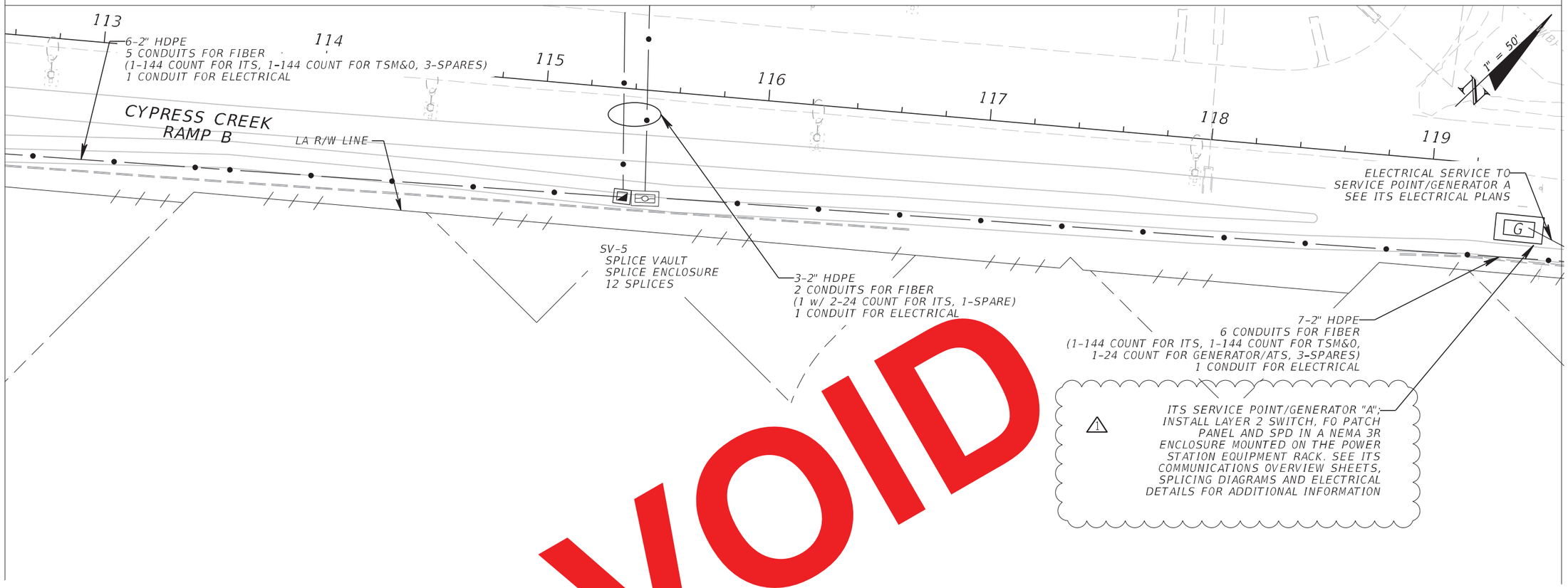
ITS PLAN (6B)

SHEET NO.
IT-31

MATCH LINE SEE ITS PLAN (6)

MATCH LINE SEE ITS PLAN SHEET (5)

MATCH LINE SEE ITS PLAN SHEET (7B)



1 ITS SERVICE POINT/GENERATOR "A"; INSTALL LAYER 2 SWITCH, FO PATCH PANEL AND SPD IN A NEMA 3R ENCLOSURE MOUNTED ON THE POWER STATION EQUIPMENT RACK. SEE ITS COMMUNICATIONS OVERVIEW SHEETS, SPLICING DIAGRAMS AND ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design, construction and all dimensions shall remain with the contractor. Review does not extend to means, methods, techniques, sequences, procedures of construction, safety precautions or fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64 BY: (FDOT) PL
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "A" CALLOUT		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

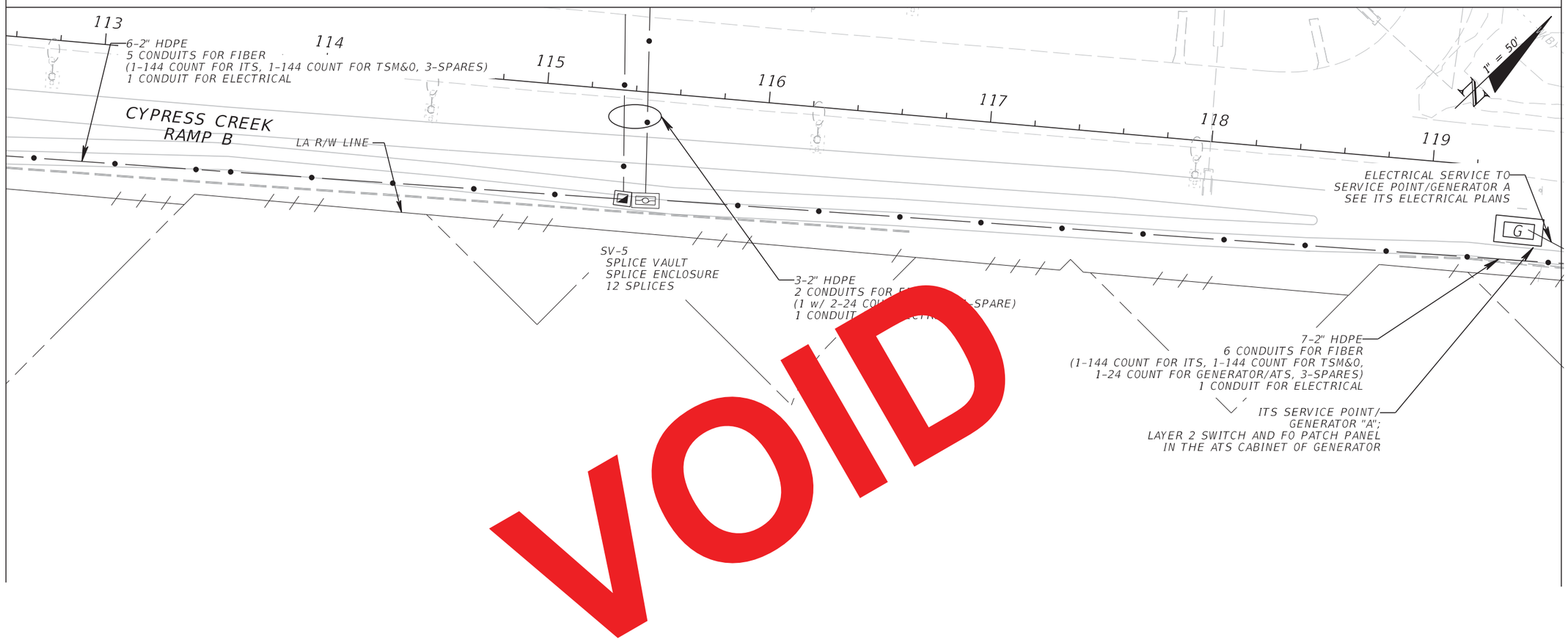
ITS PLAN (6B)

SHEET NO. IT-31

MATCH LINE SEE ITS PLAN (6)

MATCH LINE SEE ITS PLAN SHEET (5)

MATCH LINE SEE ITS PLAN SHEET (7B)



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec) PL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (6B)

SHEET NO.
IT-31

MATCH LINE SEE ITS PLAN (7A)

2-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
1 CONDUIT FOR SIGNAL
(SIGNAL + 6 LOOP DETECTOR WIRES)
4 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE, 1-CAT5E, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

8-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE)
5 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION,
2 w/ 3-24 COUNT SM FOR ITS, 1-CAT5E, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

4-2" HDPE
(1-24 COUNT SM, 1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2366+05
016.4 CAB SS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

2-2" HDPE
2 CONDUITS FOR FIBER
(1-CAT5E, 1-SPARE)

DUAL LOOP DETECTOR SENSORS (DEMAND)

CYPRESS CREEK RAMP A

STA. 2366+94
016.4 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

SV-6BC
SPLICE VAULT

1" = 50

STOP HERE ON RED
ONE VEHICLE PER GREEN

2-2" HDPE
1 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 SM COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2366+04
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

RAMP METERING CONTROL SIGNAL

1-2" HDPE (1 SIGNAL WIRE)

℄ CONST. CYPA

STA. 2364+20
FL D4 095 016.4 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.4 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SB SR 9 (I-95)

DUAL LOOP DETECTOR SENSORS (PASSAGE)

1-2" HDPE
(ELECTRICAL)

FL D4 DOT 095 016.4 NB LS 1
STA. 2366+26
1-LINE STATUS DMS
OVERHEAD TRUSS SIGN STRUCTURE

5-2" HDPE
3 CONDUITS FOR TOLL
(1-48 COUNT FOR TOLL,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR FIBER
(1-24 COUNT FOR BCTED)
1 CONDUIT FOR ELECTRICAL

℄ CONST. I-95

MATCH LINE ℄ CONST. I-95 STA. 2362+00.00

MATCH LINE ℄ CONST. I-95 STA. 2369+00.00

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

EXPRESS LANES ENTRANCE 1 MILE
XXXXXXXXXXXXXXX
NO TRUCKS
LEFT
ONLY

6-2" HDPE
5 CONDUITS FOR TOLL & FIBER
(1-48 COUNT FOR TOLL,
2 w/ 3-24 COUNT SM FOR ITS,
1-24 COUNT FOR BCTED, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

NB SR 9 (I-95)

4-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

7-2" HDPE
5 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL,
1-24 COUNT FOR BCTED, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

℄ CONST.

CYPRESS CREEK RAMP E

W CYPRESS CREEK RD
NW 62ND ST

STA. 2364+62
016.4 CAB NS 2
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

RAMP METERED WHEN FLASHING

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (7B)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP; ADDED BROWARD CO. SPLICE VAULT AT 2367+40		
03/16/18	2 REVISED ELECTRICAL CONDUIT		
09/13/19	AS-BUILTS per RFI 346		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7)

SHEET NO.
IT-32

MATCH LINE SEE ITS PLAN (7A)

STA. 2366+05
016.4 CAB SS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
1 CONDUIT FOR SIGNAL
(SIGNAL + 6 LOOP DETECTOR WIRES)
4 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE, 1-CAT5E, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

8-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE)
5 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION, 2 w/ 3-24 COUNT SM FOR ITS, 1-CAT5E, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

4-2" HDPE
(1-24 COUNT SM, 1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
2 CONDUITS FOR FIBER
(1-CAT5E, 1-SPARE)

℄ CONST. CYPA

DUAL LOOP DETECTOR SENSORS (DEMAND)

CYPRESS CREEK RAMP A

STA. 2366+94
016.4 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

SV-6BC
SPLICE VAULT

1" = 50

STOP HERE ON RED
ONE VEHICLE PER GREEN
STOP HERE ON RED

2-2" HDPE
1 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 SM COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2366+04
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

RAMP METERING CONTROL SIGNAL

1-2" HDPE (1 SIGNAL WIRE)

SB SR 9 (I-95)

5-2" HDPE
3 CONDUITS FOR TOLL
(1-48 COUNT FOR TOLL, 1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR FIBER
(1-24 COUNT FOR BCTED)
1 CONDUIT FOR ELECTRICAL

STA. 2364+20
FL D4 095 016.4 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.4 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

FL D4 DOT 095 016.4 NB LS 1
STA. 2366+26
1-LINE STATUS DMS
OVERHEAD TRUSS SIGN STRUCTURE

LOOP DETECTOR (PASSAGE)

℄ CONST. I-95

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR TOLL & FIBER
(1-48 COUNT FOR TOLL, 2 w/ 3-24 COUNT SM FOR ITS, 1-24 COUNT FOR BCTED, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXPRESS LANES
NO TRUCKS
ONLY

NB SR 9 (I-95)

4-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

7-2" HDPE
5 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT FOR ITS, 1-48 COUNT FOR TOLL, 1-24 COUNT FOR BCTED, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

℄ CONST.

W CYPRESS CREEK RD
NW 62ND ST

STA. 2364+62
016.4 CAB NS 2
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

RAMP METERED WHEN FLASHING

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

CYPRESS CREEK RAMP E

SV-6
SPLICE VAULT
2 SPLICE ENCLOSURES
(1 FOR ITS, 1 FOR BCTED)
36 SPLICES (16 FOR ITS, 4 FOR BCTED, 16 FOR TOLL)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (7B)

MATCH LINE ℄ CONST. I-95 STA. 2362+00.00

MATCH LINE ℄ CONST. I-95 STA. 2369+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of reference dimensions, quantities and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 JB
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP; ADDED BROWARD CO. SPLICE VAULT AT 2367+40		
3/16/18	2 REVISED ELECTRICAL CONDUIT		

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7)

SHEET NO. IT-32

MATCH LINE SEE ITS PLAN (7A)

STA. 2366+05
016.4 CAB SS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6-2" HDPE
1 CONDUIT FOR SIGNAL
(SIGNAL + 6 LOOP DETECTOR WIRES)
4 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE,
1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (1-144 COUNT
FOR TSM&O RAMP
EXTENSION)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
2 CONDUITS FOR FIBER
(1-CAT5E, 1-SPARE)

℄ CONST. CYPA

CYPRESS CREEK RAMP A

STA. 2366+94
016.4 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

1" = 50'

SV-6BC
SPLICE VAULT

7-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE)
5 CONDUITS FOR FIBER
(1-144 COUNT FOR
TSM&O RAMP EXTENSION,
2 w/ 3-24 COUNT SM FOR ITS,
1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSORS (DEMAND)

1-2" HDPE (ELECTRICAL)

STOP HERE ON RED

ONE VEHICLE PER GREEN

STOP HERE ON RED

2-2" HDPE
1 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 SM COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2366+04
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

RAMP METERING
CONTROL SIGNAL

1-2" HDPE (1 SIGNAL WIRE)

SB SR 9 (I-95)

DUAL LOOP DETECTOR
SENSORS (DEMAND)

5-2" HDPE
3 CONDUITS FOR TOLL
(1-48 COUNT FOR TOLL,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR FIBER
(1-24 COUNT FOR BCTED)
1 CONDUIT FOR ELECTRICAL

STA. 2364+20
FL D4 095 016.4 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.4 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

FL D4 DOT 095 016.4 NB LS 1
STA. 2366+26
1-LINE STATUS DMS
OVERHEAD TRUSS SIGN STRU

℄ CONST. I-95

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

EXPRESS LANES ENTRANCE 1 MILE
NO TRUCKS
LEFT
ONLY

6-2" HDPE
5 CONDUITS FOR TOLL & FIBER
(1-48 COUNT FOR TOLL,
2 w/ 3-24 COUNT SM FOR ITS,
1-24 COUNT FOR BCTED, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

NB SR 9 (I-95)

4-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

7-2" HDPE
5 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL,
1-24 COUNT FOR BCTED, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

℄ CONST.

CYPRESS CREEK RAMP E

W CYPRESS CREEK RD
NW 62ND ST

STA. 2364+62
016.4 CAB NS 2
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

RAMP METERED WHEN FLASHING

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

SV-6
SPLICE VAULT
2 SPLICE ENCLOSURES
(1 FOR ITS, 1 FOR BCTED)
36 SPLICES (16 FOR ITS,
4 FOR BCTED, 16 FOR TOLL)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (7B)

MATCH LINE ℄ CONST. I-95 STA. 2362+00.00

MATCH LINE ℄ CONST. I-95 STA. 2369+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of plans remains with EOR. Review does not relieve contractor of responsibility for means, methods, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec)

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP; ADDED BROWARD CO. SPLICE VAULT AT 2367+40		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7)

SHEET NO.
IT-32

MATCH LINE SEE ITS PLAN (7A)

STA. 2365+83
016.4 CAB SS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6-2" HDPE
1 CONDUIT FOR SIGNAL
(SIGNAL + 6 LOOP DETECTOR WIRES)
4 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE,
1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE)
4 CONDUITS FOR FIBER
(2-24 COUNT SM FOR ITS,
1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

DUAL LOOP DETECTOR
SENSORS (DEMAND)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
2 CONDUITS FOR FIBER
(1-CAT5E, 1-SPARE)

℄ CONST. CYPA

CYPRESS CREEK RAMP A

STA. 2366+94
016.4 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

1" = 50

STOP HERE ON RED
ONE VEHICLE PER GREEN

STA. 2365+73
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 SM COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2364+20
FL D4 095 016.4 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.4 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

FL D4 DOT 095 016.4 NB LS 1
STA. 2366+26
1-LINE STATUS DMS
OVERHEAD TRUSS

RAMP METERING CONTROL

SB SR 9 (I-95)

HDPE (1 SIGNAL WIRE)

5-2" HDPE
3 CONDUITS FOR TOLL
(1-48 COUNT FOR TOLL,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR FIBER
(1-24 COUNT FOR BCTED)
1 CONDUIT FOR ELECTRICAL

℄ CONST. I-95

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

EXPRESS LANES ENTRANCE 1 MILE
LEFT
NO TRUCKS
ONLY

NB SR 9 (I-95)

4-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR TOLL & FIBER
(1-48 COUNT FOR TOLL,
2 w/ 3-24 COUNT SM FOR ITS,
1-24 COUNT FOR BCTED, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

℄ CONST.

7-2" HDPE
5 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL,
1-24 COUNT FOR BCTED, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

CYPRESS CREEK RAMP E

SV-6
SPLICE VAULT
2 SPLICE ENCLOSURES
(1 FOR ITS, 1 FOR BCTED)
36 SPLICES (16 FOR ITS,
4 FOR BCTED, 16 FOR TOLL)

W CYPRESS CREEK RD
NW 62ND ST

STA. 2364+62
016.4 CAB NS 2
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

RAMP METERED WHEN FLASHING

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (7B)

MATCH LINE ℄ CONST. I-95 STA. 2362+00.00

MATCH LINE ℄ CONST. I-95 STA. 2369+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7)

SHEET NO.
IT-32

MATCH LINE SEE ITS PLAN (6A)

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

1

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

LA R/W LINE

1" = 50'

CYPRESS CREEK RAMP A

CYPRESS CREEK RAMP D

1-2" HDPE (1-24 COUNT FOR BCTED) (SEE NOTE 1)

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

104

100

NOTES:
1. A PORTION OF THIS AS-BUILT CONDUIT ROUTING IS NOT SHOWN BETWEEN THE PLAN SHEETS BUT CONTINUES AT THE TOP LEFT OF ITS PLAN (8) AND TERMINATES TO THE FIBER PULLBOX AT ITS CABINET 016.5 CAB SS. CONDUIT IS ROUTED AROUND POND 20-6. EXISTING ITS CONDUIT EXIST ALONG CYPRESS CREEK RAMP D AND AT THE NEW LOCATION OF THIS PROPOSED FIBER SPLICE VAULT BUT ARE NOT SHOWN ON THIS SHEET. REFER TO PREVIOUS AS-BUILT ITS DRAWINGS FOR ADDITIONAL INFORMATION.

MATCH LINE SEE ITS PLAN (7)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 MOVED SIGN POST LOCATION		
09/13/19	AS-BUILTS per RFI 346 & 434		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

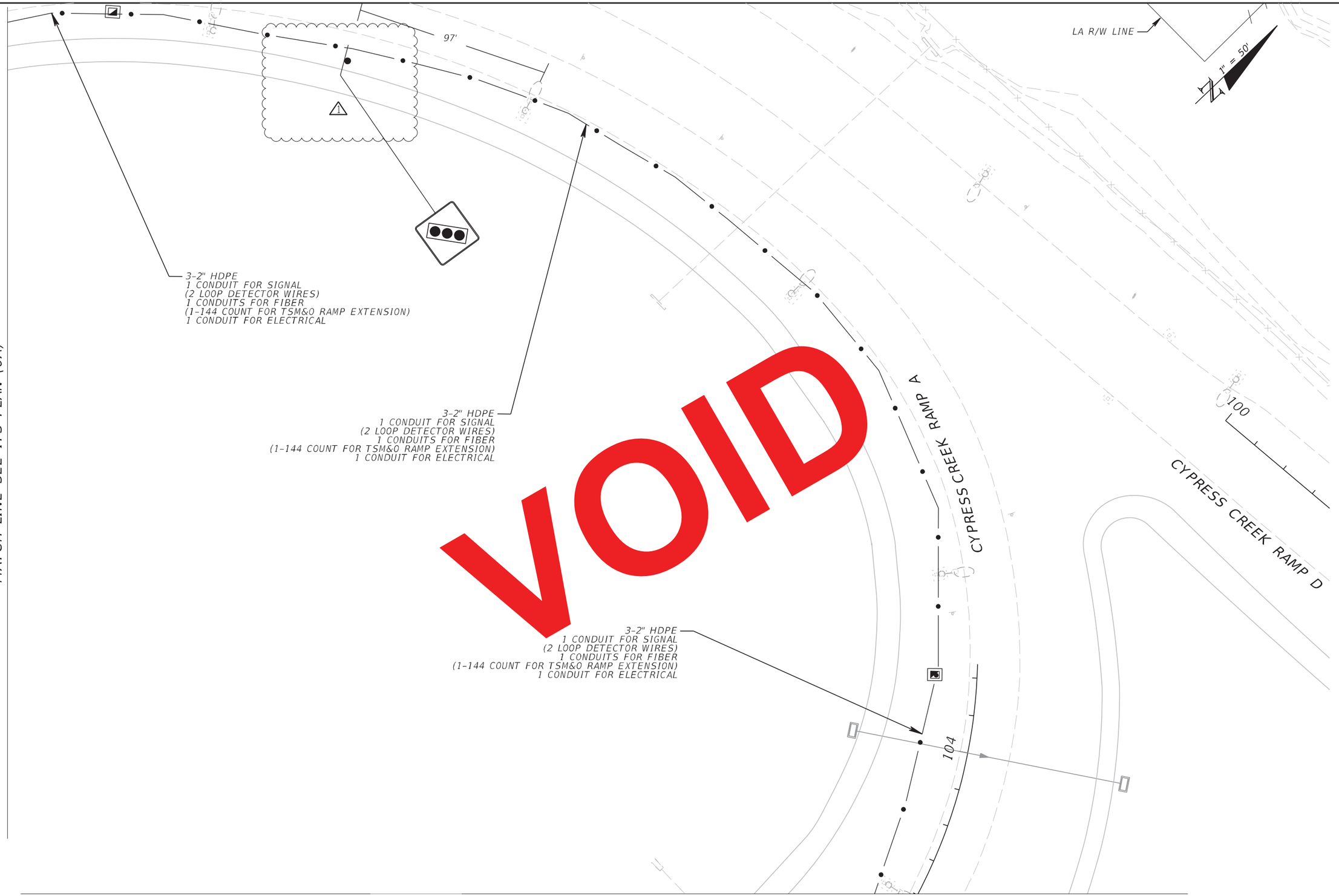
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7A)

SHEET NO.
IT-33

MATCH LINE SEE ITS PLAN (6A)



MATCH LINE SEE ITS PLAN (7)

RELEASED FOR CONSTRUCTION DATE: 03/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of plans/shop drawings and all quantities will be that of the engineer of record. Fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL

BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 MOVED SIGN POST LOCATION		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7A)

SHEET NO. IT-33

MATCH LINE SEE ITS PLAN (6A)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

97'

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

1" = 50'

CYPRESS CREEK RAMP A

CYPRESS CREEK RAMP D

100

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

104

MATCH LINE SEE ITS PLAN (7)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) FL BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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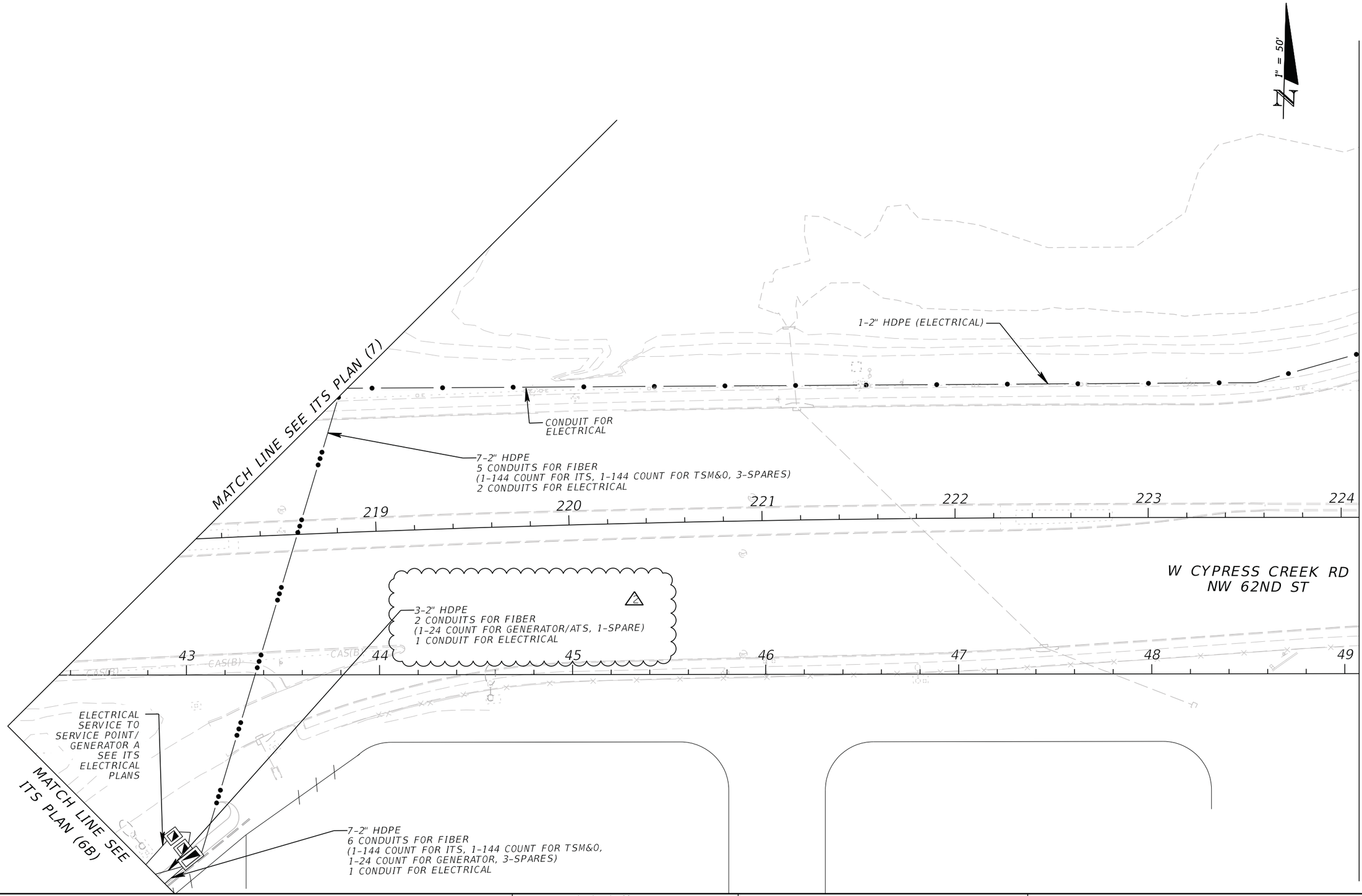
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7A)

SHEET NO. IT-33



RELEASED FOR CONSTRUCTION DATE: 08/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions and quantities shall remain with the contractor. Review does not authorize deviation from contract requirements.

FPID 433108-5-52-01 CONTRACT E4Q84

BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 REVISED GENERATOR CALLOUTS		

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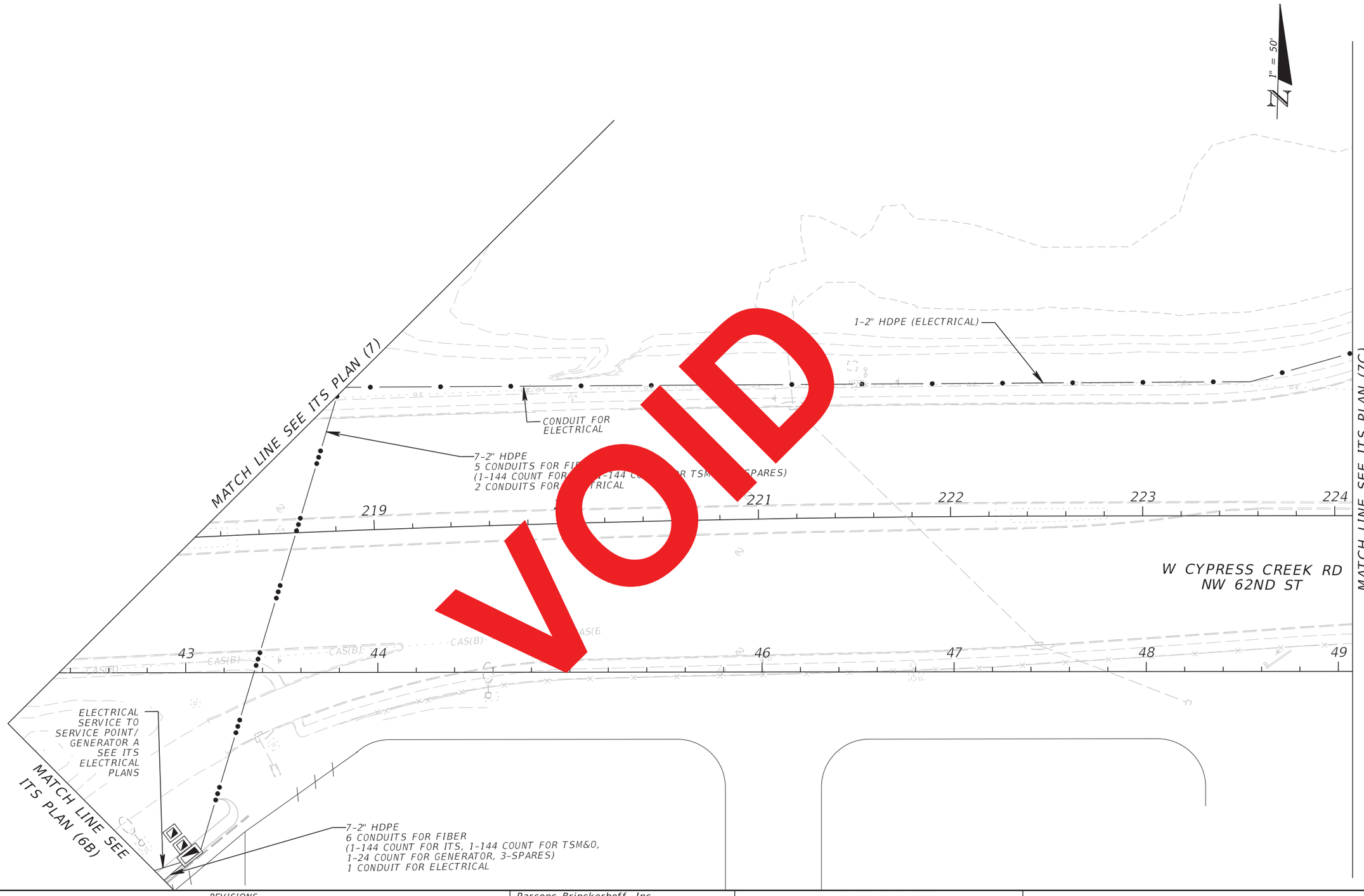
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7B)

SHEET NO. IT-34



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q64

BY: (Stamped) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7B)

SHEET NO. IT-34

MATCH LINE SEE ITS PLAN (8A)

MATCH LINE SEE ITS PLAN (7B)

MATCH LINE SEE ITS PLAN (7D)

1-2" HDPE (ELECTRICAL)

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

ADVANCED WARNING BEACON SIGN (TYP)

1" = 50'

CYPRESS CREEK RAMP E

CYPRESS CREEK RAMP C

RAMP METERED WHEN FLASHING

STA. 226+31

STA. 226+71

STA. 229+14

STA. 229+32

LA R/W LINE

1-2" HDPE (RAMP SIGNAL POWER)

35'

1-2" HDPE (ELECTRICAL)

SPLICE VAULT FOR FUTURE CONNECTION (WITH 200' SLACK FIBER)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

W CYPRESS CREEK RD
NW 62ND ST

225 226 227 228 229 230 231

50 51 52 53 54 55 56

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)

BY: (Stantec) FL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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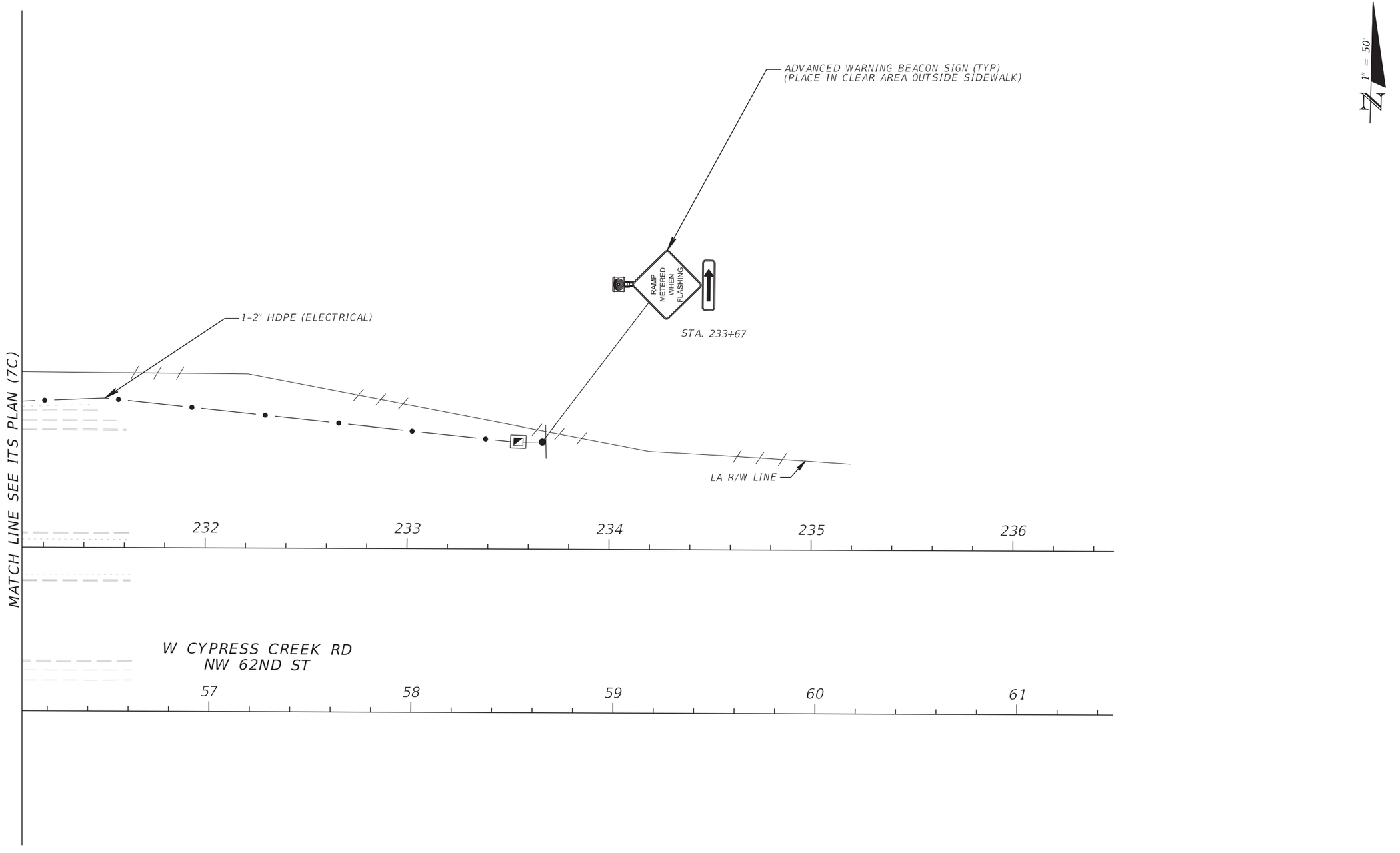
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7C)

SHEET NO.
IT-35



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (7D)

SHEET NO. IT-36

5-2" HDPE
3 CONDUITS FOR TOLL
(1-48 COUNT FOR TOLL,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR FIBER
(1-24 COUNT FOR BCTED)
1 CONDUIT FOR ELECTRICAL

1 CONDUIT FOR FIBER
(1-24 COUNT FOR BCTED)
(SEE NOTE 1)

EXISTING FIBER CONDUIT
(FIBER BROKEN AND
ABANDONED IN PLACE)

1" = 50'

TOLL DOOR

COIL 200 FT
OF 48-COUNT FIBER

TOLL SITE
PARKING AREA

TOLL GANTRY - SITE 4
STA. 2371+85.00
SEE TOLLING PLANS

SV-6A
SPLICE VAULT
SPLICE ENCLOSURE (BCTED)
24 SPLICES

CYPRESS CREEK RAMP D

STA. 2371+32
016.5 CCTV TOLL 1,
CCTV IP CAMERA FOR TOLL SITE 4
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
016.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SB SR 9 (I-95)

4370 4371 4372 4373 4374 4375 4376

℄ CONST. I-95

2369 2370 2371 2372 2373 2374 2375 2376

3369 3370 3371 3372 NB SR 9 (I-95) 3373 3374 3375

MATCH LINE ℄ CONST. I-95 STA. 2369+00.00

SV-7
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

CYPRESS CREEK RAMP E

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2369+05
FL D4 095 016.4 NB NS DS EL-GP-OF 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.4 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 2372+80
016.5 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
016.5 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

NOTES:
1. A PORTION OF THIS AS-BUILT CONDUIT ROUTING IS NOT SHOWN BETWEEN THE PLAN SHEETS BUT CONTINUES AT THE BOTTOM RIGHT OF ITS PLAN (7A) AND TERMINATES TO A FIBER SPLICE VAULT FOR BCTED. CONDUIT IS ROUTED AROUND POND 20-6.

MATCH LINE SEE ITS PLAN 8A

MATCH LINE ℄ CONST. I-95 STA. 2376+00.00

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 DELETED CCTV; REVISED ELECTRICAL CONDUIT		
09/13/19	AS-BUILTS per RFI 303 & 434		

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License No: 80987

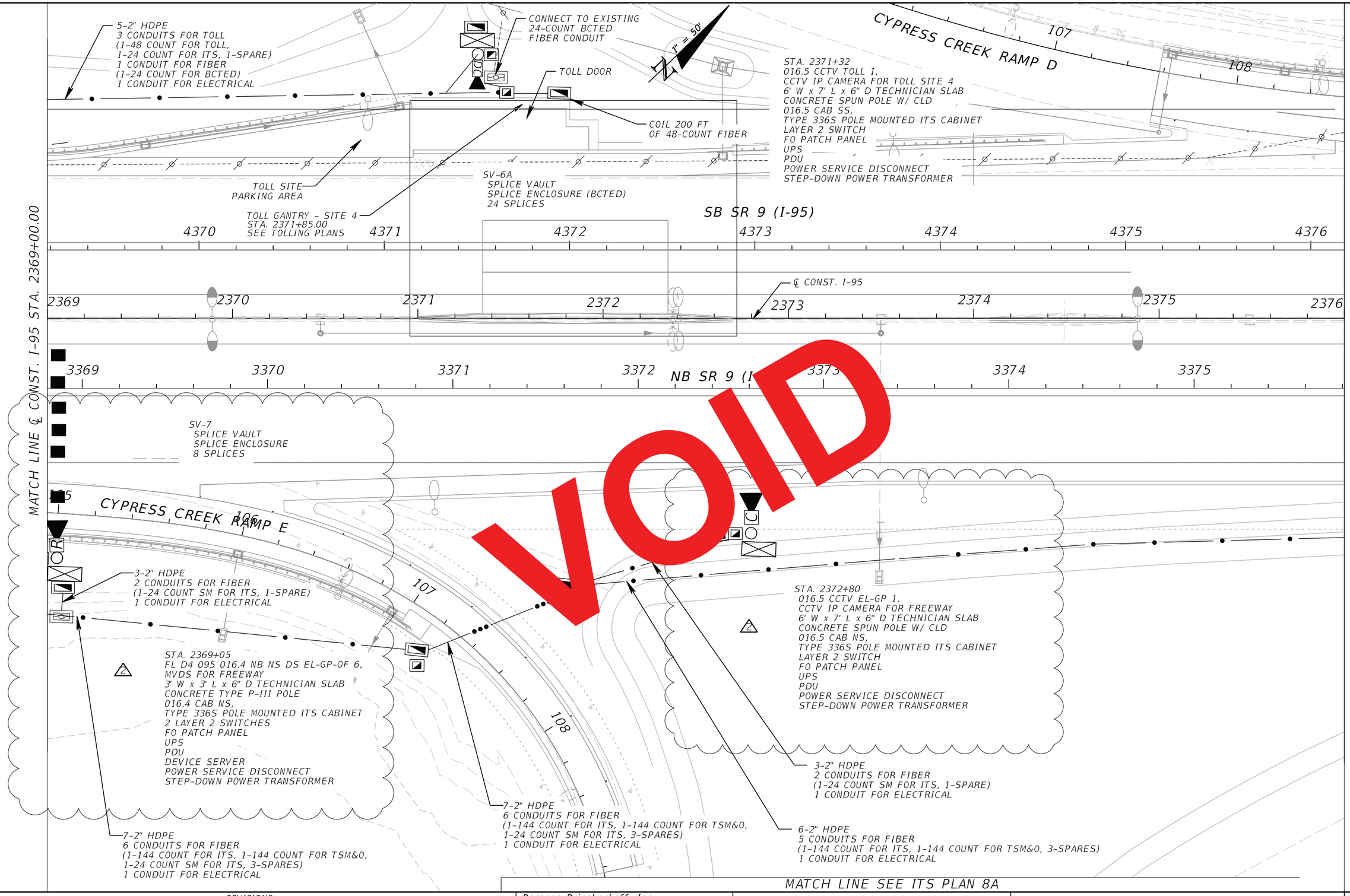
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (8)

SHEET NO.
IT-37

c:\projectwise\pb\projectwiseint\perezr\d0128749\Color_FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseVBI\Documents\FL - Miami Projects\I-95 Phase 3A-2\data\Asbuilts - LTG.tbl USER: PerezR 12/30/2019 8:03:17 PM c:\projectwise\pb\projectwiseint\perezr\d0146451\planit08_AsBuilt.DGN



VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) JB

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 DELETED CCTV; REVISED ELECTRICAL CONDUIT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (8)

SHEET NO.
IT-37

MATCH LINE ℄ CONST. I-95 STA. 2369+00.00

5-2" HDPE
3 CONDUITS FOR TOLL
(1-48 COUNT FOR TOLL,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR FIBER
(1-24 COUNT FOR BCTED)
1 CONDUIT FOR ELECTRICAL

CONNECT TO EXISTING
24-COUNT BCTED
FIBER CONDUIT

TOLL DOOR

1" = 50'

COIL 200 FT
OF 48-COUNT FIBER

TOLL SITE
PARKING AREA

TOLL GANTRY - SITE 4
STA. 2371+85.00
SEE TOLLING PLANS

SV-6A
SPLICE VAULT
SPLICE ENCLOSURE (BCTED)
24 SPLICES

CYPRESS CREEK RAMP D

STA. 2371+32
016.5 CCTV TOLL 1,
CCTV IP CAMERA FOR TOLL SITE 4
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
016.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SB SR 9 (I-95)

4370 4371 4372 4373 4374 4375 4376
2369 2370 2371 2372 2374 2375 2376
3369 3370 3371 3374 3375

SR 9 (I-95)

CYPRESS CREEK RAMP E

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2369+05
FL D4 095 016.4 NB NS DS EL-GP-OF 6,
MVDS FOR FREEWAY
016.4 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W CLD
016.4 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 2372+80
016.5 CCTV GP 1,
CCTV IP CAMERA (DEDICATED RAMP CAMERA)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W CLD
016.5 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN 8A

MATCH LINE ℄ CONST. I-95 STA. 2376+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (8)

SHEET NO.
IT-37

MATCH LINE SEE ITS PLAN (8)

MATCH LINE SEE ITS PLAN (9)

CYPRESS CREEK RAMP E

CYPRESS CREEK RAMP C

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)

DUAL LOOP DETECTOR
SENSOR (QUEUE)
EACH LANE

40'

1" = 50'

3-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

MATCH LINE SEE ITS PLAN SHEET (7C)

DUAL LOOP DETECTOR
SENSOR (QUEUE)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (8A)

SHEET NO.
IT-38

LA R/W LINE

STA. 2378+05
FL D4 095 016.6 SB SS DS EL-GP-OF 7
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.6 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1" = 50'

℄ CONST. CYPD

109 110 111 112

SB SR 9 (I-95)

4377 4378 4379 4380 4381 4382 4383

℄ CONST. I-95

2376 2377 2378 2379 2380 2381 2382 2383

NB SR 9 (I-95)

3376 3377 3378 3379 3381 3382

MATCH LINE ℄ CONST. I-95 STA. 2376+00.00

MATCH LINE ℄ CONST. I-95 STA. 2383+00.00

STA. 2381+14
016.7 CAB NS_2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

STOP HERE ON RED
STOP HERE ON RED
TWO VEHICLES PER GREEN

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL WIRE)

STA. 2381+56
SEE DETAIL
SHEET IT(249)

DUAL LOOP DETECTOR SENSORS (PASSAGE)

RAMP METERING CONTROL SIGNAL

DUAL LOOP DETECTOR SENSORS (DEMAND)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1 SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2376+42
016.6 CCTV GP 1,
CCTV IP CAMERA (DEDICATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
016.6 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING SIGN, CABINET, CONTROLLER & STRUCTURE TO REMAIN AND BE CONNECTED TO NEW NETWORK (ADD LAYER 2 SWITCH AND PATCH PANEL)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

9-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES,
1-144 COUNT FOR TSM&O RAMP EXTENSION)
2 CONDUITS FOR ELECTRICAL

3-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

SV-8
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

CYPRESS CREEK RAMP C

100 101

2-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 4 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUIT FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)

℄ CONST. CYPC

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
3 CONDUIT FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE, 1-SPARE)

1-2" HDPE
(1-144 COUNT FOR RAMP EXTENSION)

2-2" HDPE
2 CONDUITS FOR ELECTRICAL

7-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (8A)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS				
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP	09/13/19	AS-BUILTS per RFI 303 & RFM 026
03/16/18	2 REVISED ELECTRICAL CONDUIT; REVISED CCTV LOCATION		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (9)

SHEET NO.
IT-39

LA R/W LINE

STA. 2378+05
FL D4 095 016.6 SB SS DS EL-GP-OF 7
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.6 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1" = 50'

℄ CONST. CYPD

SB SR 9 (I-95)

℄ CONST. I-95

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2376+00.00

MATCH LINE ℄ CONST. I-95 STA. 2383+00.00

109 110 111 112 101 100

4377 4378 4379 4380 4381 4382 4383

2376 2377 2378 2379 2381 2382 2383

3376 3377 3378 379 3381 3382

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1 SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2376+42
016.6 CCTV GP 1,
CCTV IP CAMERA (DEDICATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
016.6 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING SIGN, CABINET, CONTROLLER & STRUCTURE TO REMAIN AND BE CONNECTED TO NEW NETWORK (ADD LAYER 2 SWITCH AND PATCH PANEL)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

9-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES,
1-144 COUNT FOR TSM&O RAMP EXTENSION)
2 CONDUITS FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2381+14
016.7 CAB NS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

RAMP METERING CONTROL SIGNAL

DUAL LOOP DETECTOR SENSORS (DEMAND)

SV-8
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

CYPRESS CREEK RAMP C

2-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 4 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
2 CONDUITS FOR ELECTRICAL

STA. 2381+56
SEE DETAIL
SHEET IT(249)

TWO VEHICLES PER GREEN

STOP HERE ON RED

STOP HERE ON RED

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL WIRE)

DUAL LOOP DETECTOR SENSORS (PASSAGE)

4-2" HDPE
3 CONDUIT FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)

℄ CONST. CYPC

3-2" HDPE
3 CONDUIT FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE, 1-SPARE)

1-2" HDPE
(1-144 COUNT FOR RAMP EXTENSION)

7-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (8A)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and fabrication processes and techniques of construction and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED ELECTRICAL CONDUIT; REVISED CCTV LOCATION		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (9)

SHEET NO. IT-39

LA R/W LINE

STA. 2378+05
FL D4 095 016.6 SB SS DS EL-GP-OF 7
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.6 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1" = 50'

℄ CONST. CYPD

109 110 111 112

SB SR 9 (I-95)

4377 4378 4379 4380 4381 4382 4383

℄ CONST. I-95

2376 2377 2378 2379 2380 2381 2382 2383

MATCH LINE ℄ CONST. I-95 STA. 2376+00.00

MATCH LINE ℄ CONST. I-95 STA. 2383+00.00

NB SR 9 (I-95)

3376 3377 3378 3381 3382

STA. 2381+14
016.7 CAB NS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

TWO VEHICLES PER GREEN

STOP HERE ON RED

STOP HERE ON RED

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL WIRE)

DUAL LOOP DETECTOR SENSORS (PASSAGE)

STA. 2381+56
SEE DETAIL
SHEET IT(249)

RAMP METERING CONTROL SIGNAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

101 100

5-2" HDPE
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

CYPRESS CREEK RAMP C

SV-8
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

DUAL LOOP DETECTOR SENSORS (DEMAND)

℄ CONST. CYPC

STA. 2376+42
016.6 CCTV GP 1,
CCTV IP CAMERA (DEDICATED)
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
016.6 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

XXX

EXISTING SIGN, CABINET, CONTROLLER & STRUCTURE TO REMAIN AND BE CONNECTED TO NEW NETWORK (ADD LAYER 2 SWITCH AND PATCH PANEL)

8-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES,
1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE
(1-144 COUNT FOR RAMP EXTENSION)

2-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 4 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (8A)

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design, dimensions, quantities and details shown on shop drawings, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) P.L.

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (9)

SHEET NO. IT-39

LA R/W LINE

STA. 2378+05
FL D4 095 016.6 SB SS DS EL-GP-0F 7
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.6 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1" = 50'

109 110 111 112

℄ CONST. CYPD

SB SR 9 (I-95)

4377 4378 4379 4380 4381 4382 4383

2376 2377 2378 2379 2380 2381 2382 2383

NB SR 9 (I-95)

3376 3377 3378 3379 3380 3381

MATCH LINE ℄ CONST. I-95 STA. 2376+00.00

MATCH LINE ℄ CONST. I-95 STA. 2383+00.00

RAMP METERING CONTROL SIGNAL

STA. 2382+68
016.6 CAB NS
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

TWO VEHICLES PER GREEN

STOP HERE ON RED

STOP HERE ON RED

STA. 2382+98
SEE DETAIL
SHEET IT(249)

DUAL LOOP DETECTOR SENSORS (DEMAND)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 4 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING SIGN, CABINET, CONTROLLER
& STRUCTURE TO REMAIN AND BE
CONNECTED TO NEW NETWORK
(ADD LAYER 2 SWITCH AND PATCH PANEL)

SV-8
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

CYPRESS CREEK RAMP C

℄ CONST. CYPC

8-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT
FOR TSM&O, 3-SPARES,
1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (1-144 COUNT
FOR RAMP EXTENSION)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (8A)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (9)

SHEET NO.
IT-39

LA R/W LINE

CANAL C-14

1" = 50'

SB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2383+00.00

MATCH LINE ℄ CONST. I-95 STA. 2390+00.00

℄ CONST. I-95

4384 4385 4386 4387 4388 4389 4390

2383 2384 2385 2386 2387 2388 2389 2390

14 15 16 17 18

STA. 2383+15
FL D4 095 016.7 NB NS DS EL-GP-ON 6,
MDVS FOR FREEWAY
016.7 CCTV EL 1,
CCTV IP CAMERA (DEDICATED)
DEVICE SERVER
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
016.7 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3383 3385 3386 3387 3388 3389

NB SR 9 (I-95)

102 103 104 105 106

STA. 2387+00
FL D4 095 016.8 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
016.8 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

DIRECTIONAL BORE:
GENERAL PERMIT NO. MOD 6049
APPLICATION NO. 16-0817-5M

4-2" HDPE
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-9
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

4-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-9A
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

LA R/W LINE

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP	09/13/19	AS-BUILTS
03/16/18	2 REVISED ELECTRICAL CONDUIT		

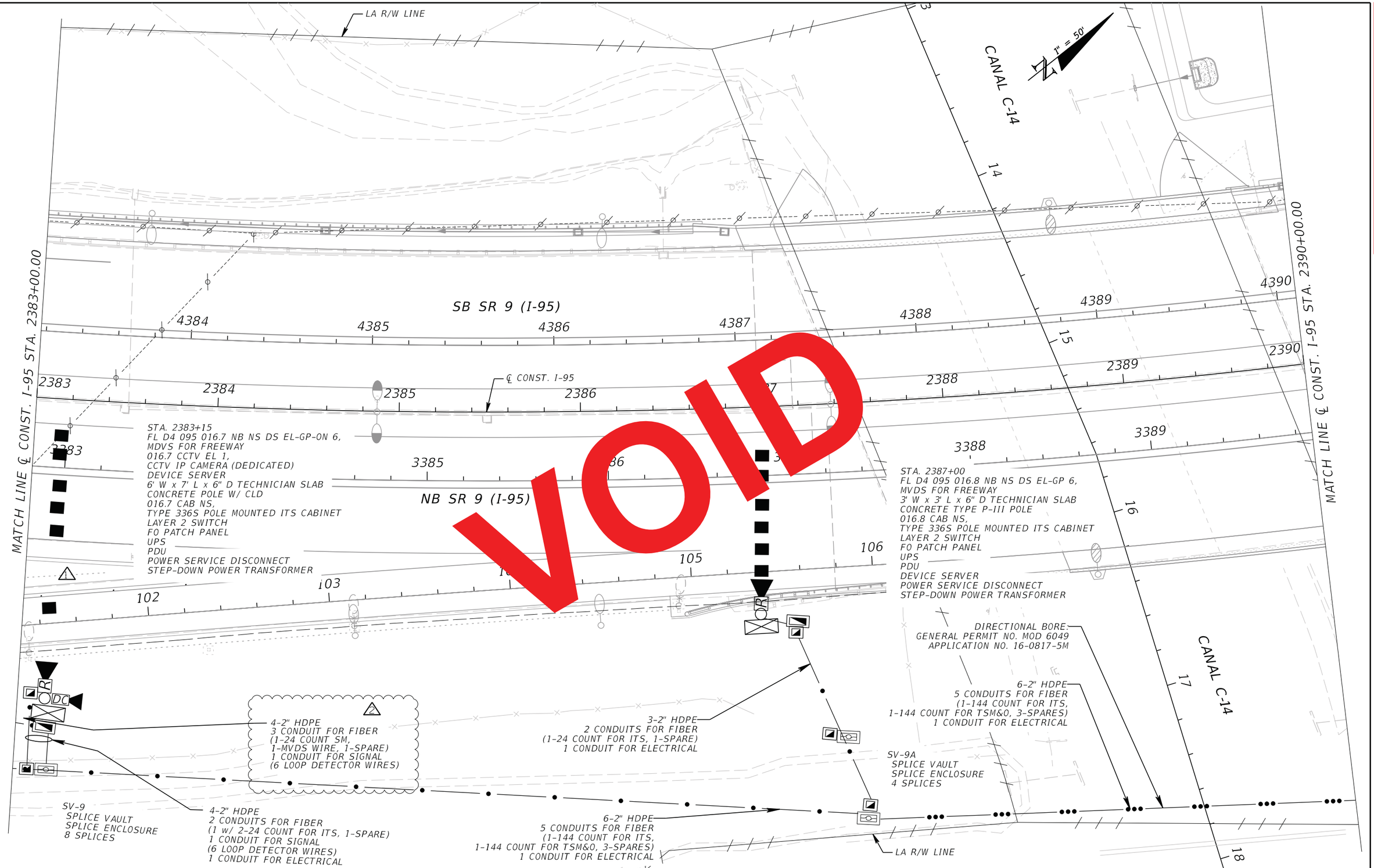
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (10)

SHEET NO.
IT-40



RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of errors or omissions on shop drawings and other data submitted for approval rests with the contractor. Approval does not relieve the contractor of responsibility for dimensions, quantities and erection. Fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED ELECTRICAL CONDUIT		

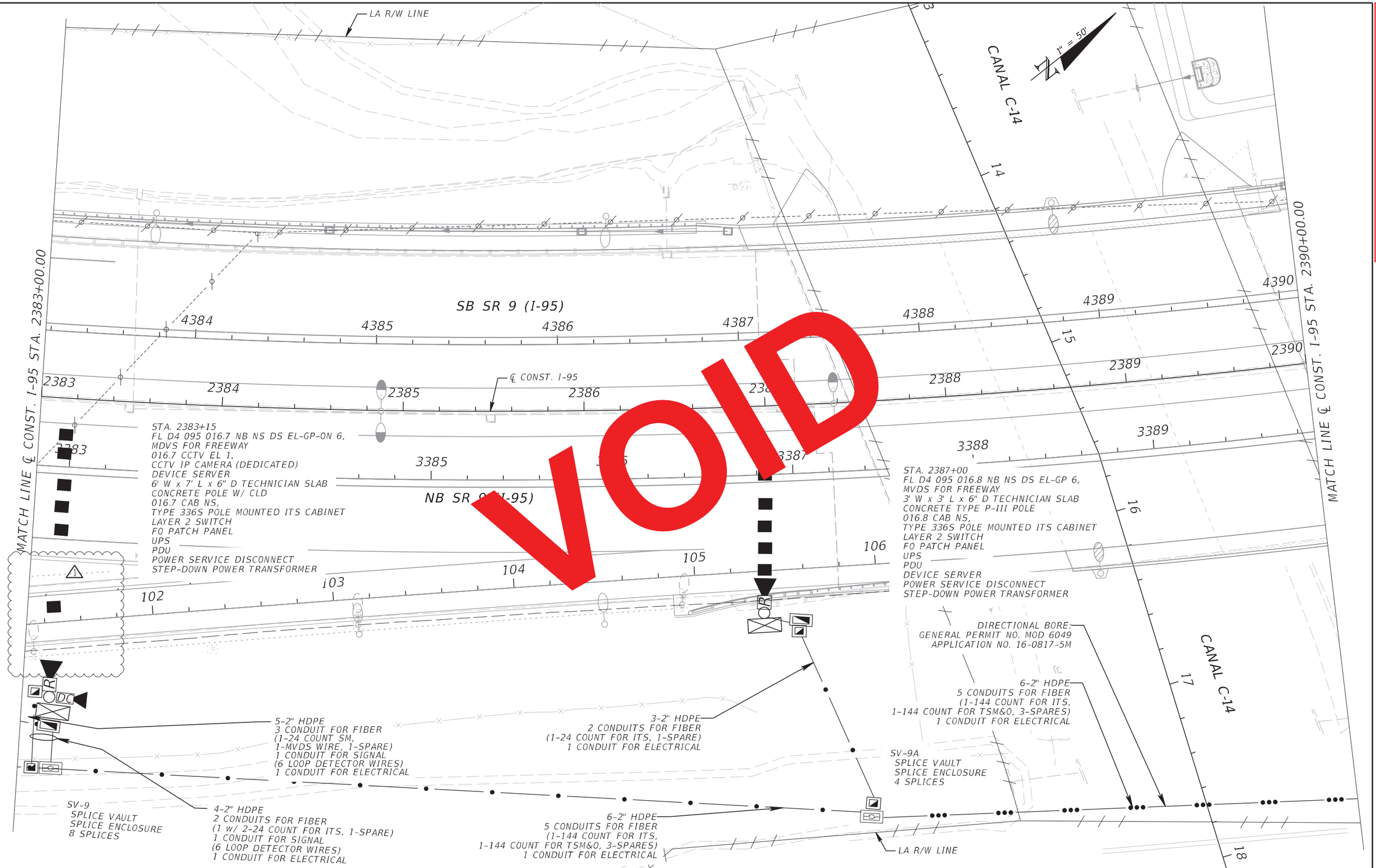
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (10)

SHEET NO. IT-40



NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

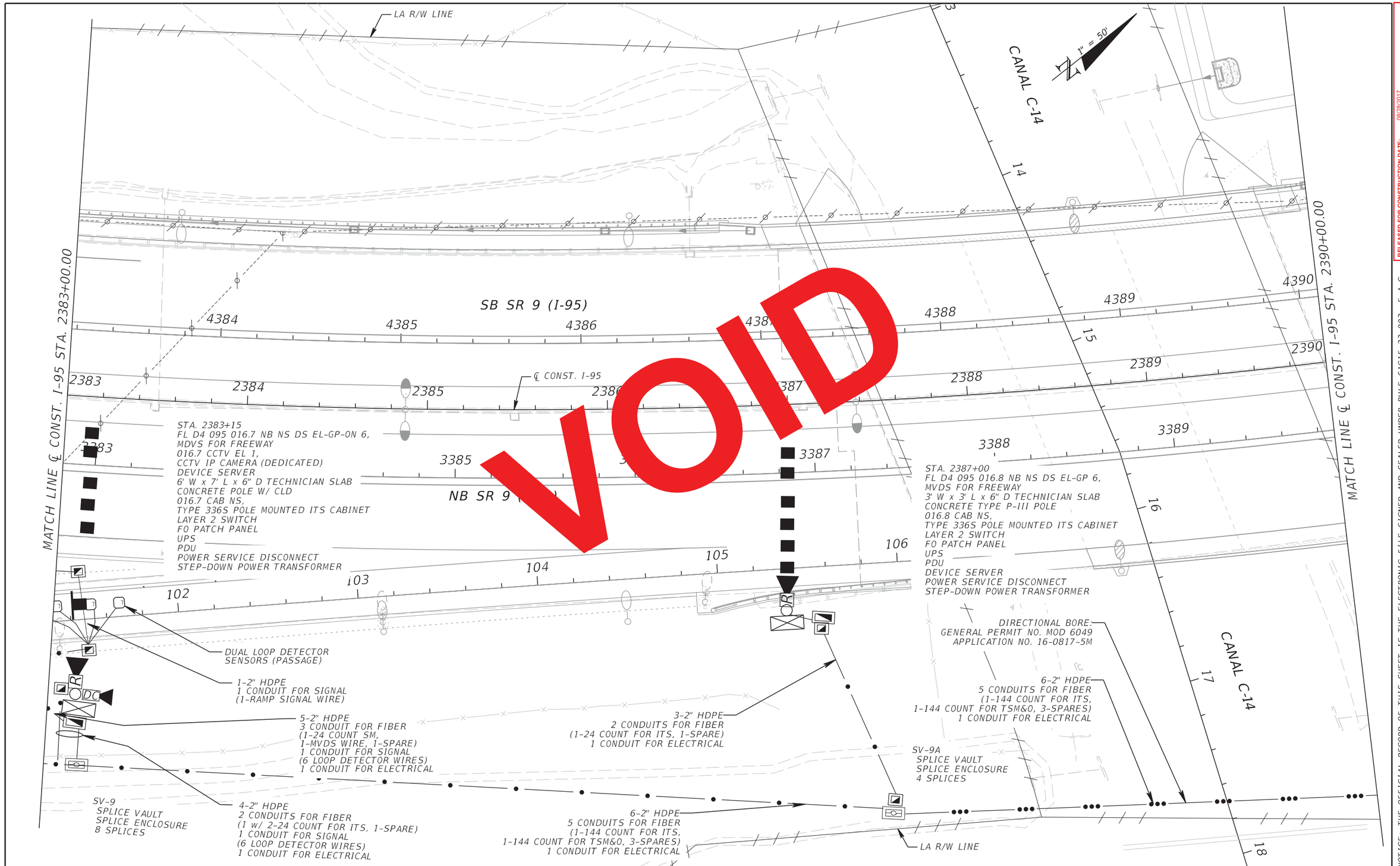
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (10)

SHEET NO.
IT-40

C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\zz_Standards (FDOTSS4 MRI)\RESOURCES\plot\FDOT_LtGrayExDkGrayPr.tbl Borges 3/1/2018 1:21:55 PM c:\projectwise\pb\projectwiseint\borges\d0146451\planit10.DGN



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (10)

SHEET NO.
IT-40

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

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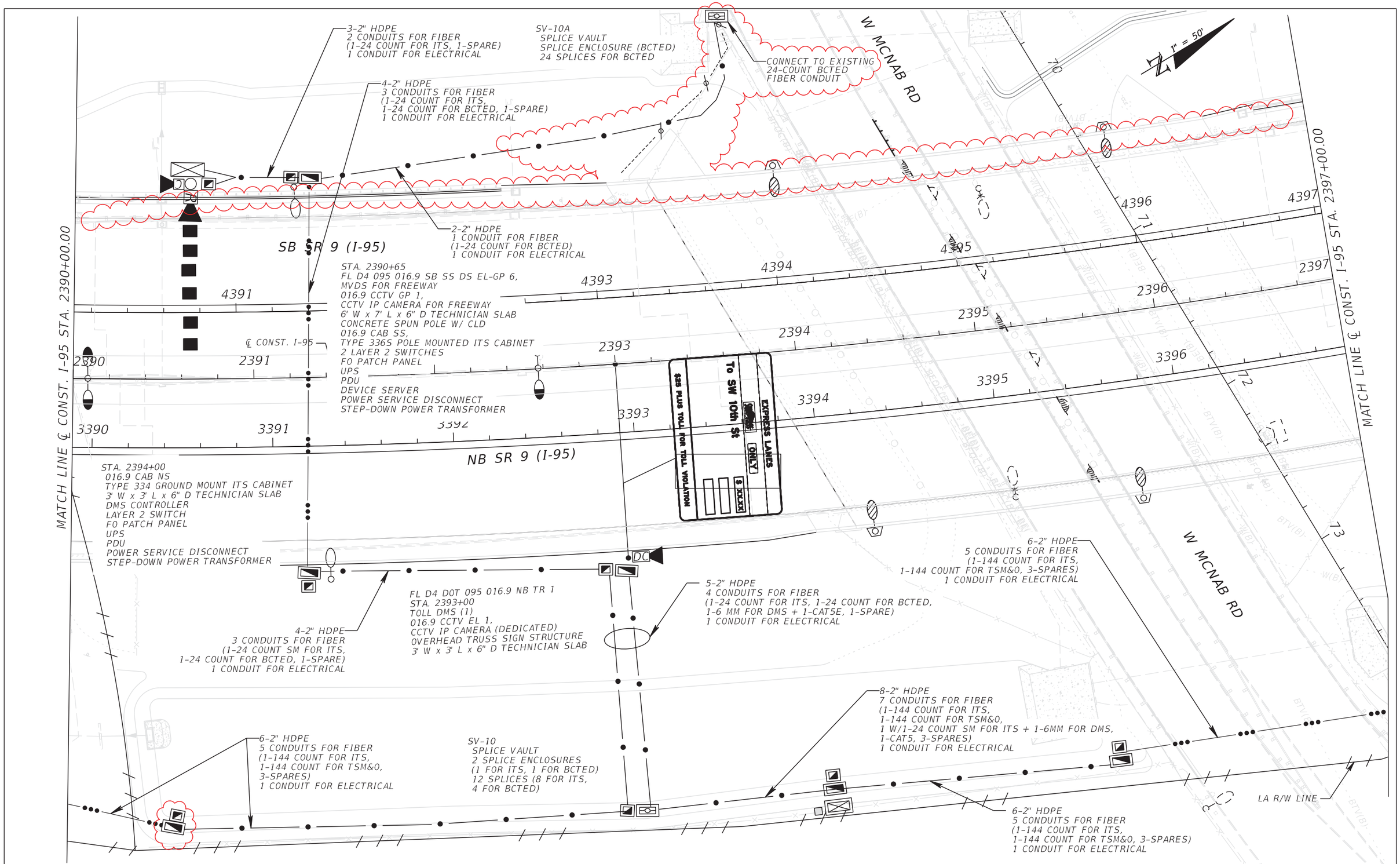

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (11)

SHEET NO.
IT-41

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-10A
SPLICE VAULT
SPLICE ENCLOSURE (BCTED)
24 SPLICES FOR BCTED

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-24 COUNT FOR BCTED, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

CONNECT TO EXISTING
24-COUNT BCTED
FIBER CONDUIT

W MCNAB RD

1" = 50'

2-2" HDPE
1 CONDUIT FOR FIBER
(1-24 COUNT FOR BCTED)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

STA. 2390+65
FL D4 095 016.9 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
016.9 CCTV GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
016.9 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

℄ CONST. I-95

MATCH LINE ℄ CONST. I-95 STA. 2390+00.00

MATCH LINE ℄ CONST. I-95 STA. 2397+00.00

NB SR 9 (I-95)

STA. 2394+00
016.9 CAB NS
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

FL D4 DOT 095 016.9 NB TR
STA. 2393+00
TOLL DMS (1)
016.9 CCTV EL 1,
CCTV IP CAMERA (DEDICATED)
OVERHEAD TRUSS SIGN STRUCTURE
3' W x 3' L x 6" D TECHNICIAN SLAB

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-24 COUNT FOR BCTED, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
4 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-24 COUNT FOR BCTED,
1-6 MM FOR DMS + 1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-10
SPLICE VAULT
2 SPLICE ENCLOSURES
(1 FOR ITS, 1 FOR BCTED)
12 SPLICES (8 FOR ITS,
4 FOR BCTED)

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1 W/1-24 COUNT SM FOR ITS + 1-6MM FOR DMS,
1-CAT5, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (11)

SHEET NO.
IT-41

EXISTING VOIP TO BE REMOVED AND RETURNED TO DEPARTMENT (VOIP 95-34.2)

LA R/W LINE

1" = 50'

EXISTING DEVICES, CABINET AND POLE TO BE REMOVED (C9035, FLD4095034.2NBSS/ FLD4095034.2SBSS)

SB SR 9 (I-95)

4398 4399 4400 4401 4402 4403

2397 2398 2399 2400 2401 2402 2403 2404

℄ CONST. I-95

3397 3398 3399 3400 3401 3402 3403 3404

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2397+00.00

MATCH LINE ℄ CONST. I-95 STA. 2404+00.00

EXPRESS LANES ENTRANCE ½ MILE

NO TRUCKS

LEFT

STA. 2397+59
017.0 CAB NS
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

FL D4 DOT 095 017.1 NB LS 1
STA. 2401+00
1-LINE STATUS DMS
OVERHEAD TRUSS SIGN STRUCTURE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

LA R/W LINE

SV-11
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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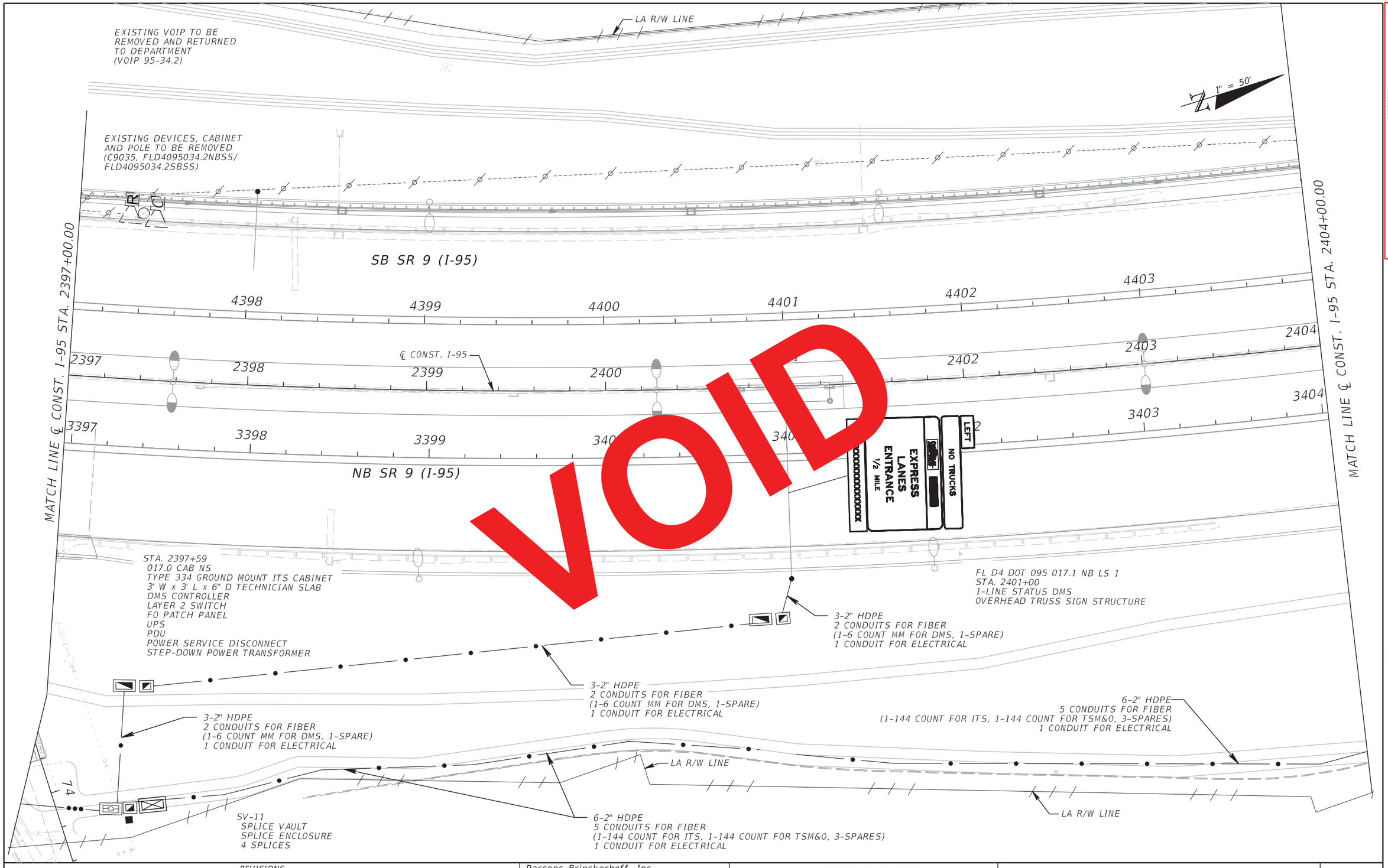
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (12)

SHEET NO.
IT-42



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FPID 433108-5-52-01 CONTRACT E4Q64

BY: (Stamped) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (12)

SHEET NO. IT-42

1" = 50'

STA. 2404+00
FL D4 095 017.1 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
017.1 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

SB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2404+00.00

4404 4405 4406 4407 4408 4409 4410

2404 2405 2406 ℄ CONST. I-95 2407 2408 2409 2410 2411

MATCH LINE ℄ CONST. I-95 STA. 2411+00.00

3405 3406 3407 3408 3409 3410 3411

NB SR 9 (I-95)

STA. 2409+00
FL D4 095 017.2 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
017.2 CCTV EL 1,
CCTV IP CAMERA (DEDICATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
017.2 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-12
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (13)

SHEET NO.
IT-43

1" = 50'

STA. 2404+00
FL D4 095 017.1 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
017.1 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

SB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2404+00.00

4404 4405 4406 4407 4408 4409 4410
2404 2405 2406 ℄ CONST. I-95 2407 2408 2409 2410 2411
3405 3406 3407 3408 3409 3410 3411

SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2411+00.00

STA. 2409+00
FL D4 095 017.2 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
017.2 CCTV EL 1,
CCTV IP CAMERA (DEDICATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
017.2 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-12
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (13)

SHEET NO. IT-43

1" = 50'

MATCH LINE ℄ CONST. I-95 STA. 2411+00.00

MATCH LINE ℄ CONST. I-95 STA. 2418+00.00

LA R/W LINE

STA. 2417+00
FL D4 095 017.4 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
017.4 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING SIGN, CABINET, CONTROLLER & STRUCTURE TO REMAIN AND BE CONNECTED TO NEW NETWORK (ADD LAYER 2 SWITCH AND PATCH PANEL IN EXISTING DMS CABINET)

EXISTING DEVICE TO BE REMOVED (FLD4095034.7NSSS)

SB SR 9 (I-95)

4411 4412 4413 4414 4415 4416 4417

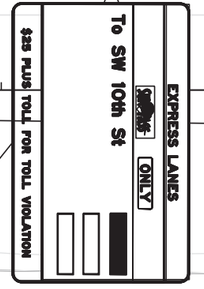
℄ CONST. I-95

2411 2412 2413 2414 2415 2416 2417 2418

3412 3413 3414 3416 3417 3418

NB SR 9 (I-95)

STA. 2417+04
FL D4 095 017.4 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
017.4 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
017.4 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER



STA. 2414+29
017.3 CAB NS
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM FOR TOLL DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPAREs)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-13
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

FL D4 DOT 095 017.3 NB TR 1
STA. 2416+00
TOLL DMS (1)
OVERHEAD TRUSS SIGN STRUCTURE
3' W x 3' L x 6" D TECHNICIAN SLAB

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 235 & RFM 026		

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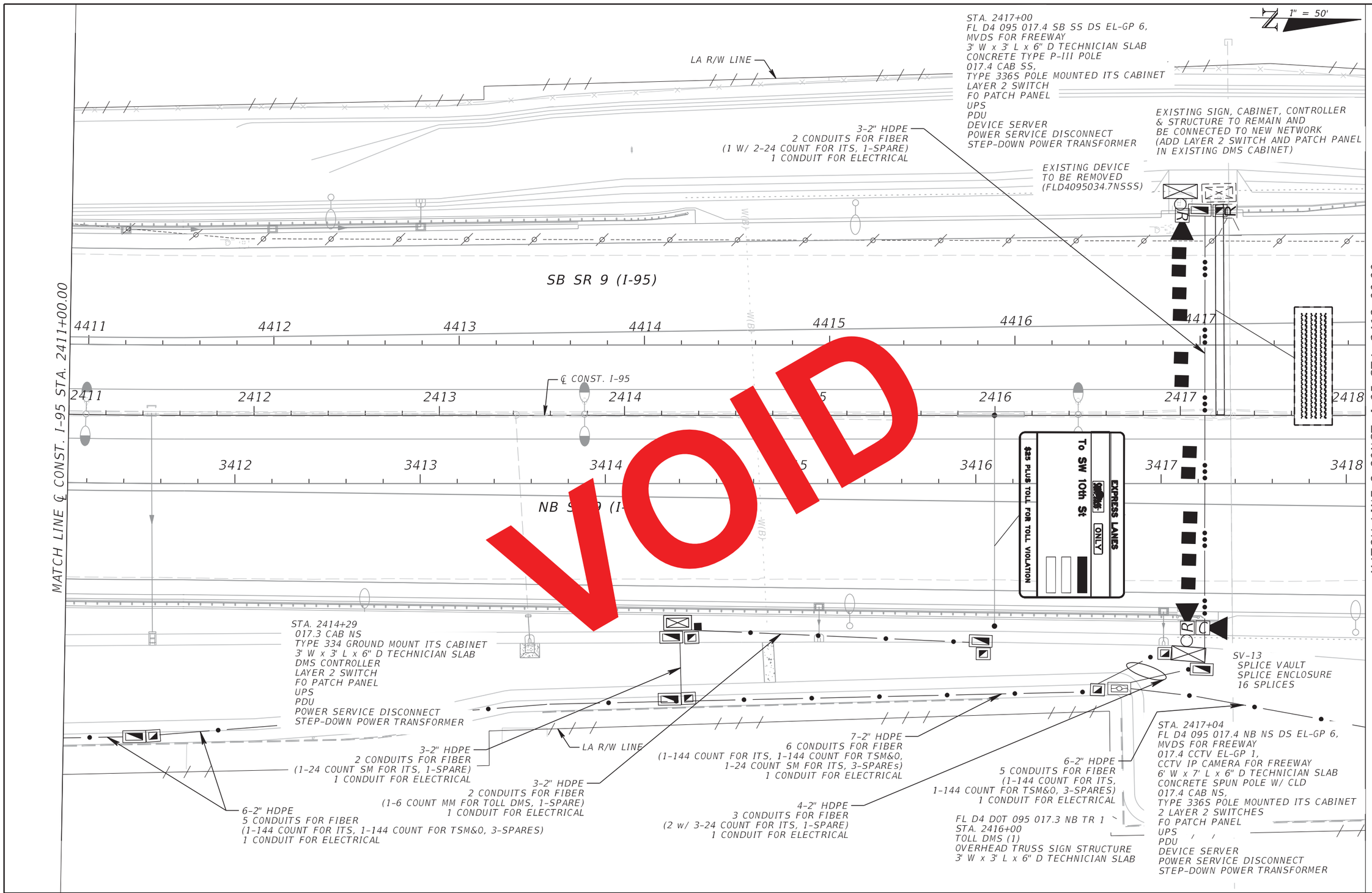
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (14)

SHEET NO.
IT-44



VOID

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (14)

SHEET NO.
IT-44

1" = 50'

MATCH LINE ℄ CONST. I-95 STA. 2418+00.00

MATCH LINE ℄ CONST. I-95 STA. 2425+30.00

LA R/W LINE

SB SR 9 (I-95)

4418 4419 4420 4421 4422 4423 4424 4425

2418 2419 2420 2421 ℄ CONST. I-95 2422 2423 2424 2425

3419 NB SR 9 (I-95) 3420 3421 3422 3423 3424 3425

1 ITS SERVICE POINT/GENERATOR "B"; INSTALL LAYER 2 SWITCH, FO PATCH PANEL AND SPD IN A NEMA 3R ENCLOSURE MOUNTED ON THE POWER STATION EQUIPMENT RACK. SEE ITS COMMUNICATIONS OVERVIEW SHEETS, SPLICING DIAGRAMS AND ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION

EXPRESS LANES ENTRANCE

XXXXXXXXXXXXXXXX

NO TRUCKS ONLY

LEFT LANE ONLY

STA. 2422+28
017.5 CAB NS
TYPE 334 GROUND MOUNT ITS CABINET
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR GENERATOR/ATS,
1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR GENERATOR/ATS, 1-SPARE)

1-2" HDPE
1 CONDUIT FOR ELECTRICAL

ELECTRICAL SERVICE TO
SERVICE POINT/GENERATOR B
SEE ITS ELECTRICAL PLANS

G

SV-14
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

FL D4 DOT 095 017.5 NB LS 1
STA. 2424+00
1-LINE STATUS DMS
OVERHEAD TRUSS SIGN STRUCTURE

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "B" CALLOUT		
09/13/19	AS-BUILTS per RFI 235 & RFM 026		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (15)

SHEET NO.
IT-45

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

1" = 50'

MATCH LINE ℄ CONST. I-95 STA. 2418+00.00

MATCH LINE ℄ CONST. I-95 STA. 2425+30.00

LA R/W LINE

SB SR 9 (I-95)

4418 4419 4420 4421 4422 4423 4424 4425

2418 2419 2420 2421 2422 2423 2424 2425

℄ CONST. I-95

3419 NB SR 9 (I-95) 3420 3421 3422 3423 3424 3425

ITS SERVICE POINT/GENERATOR "B"; INSTALL LAYER 2 SWITCH, FO PATCH PANEL AND SPD IN A NEMA 3R ENCLOSURE MOUNTED ON THE POWER STATION EQUIPMENT RACK. SEE ITS COMMUNICATIONS OVERVIEW SHEETS, SPLICING DIAGRAMS AND ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION

EXPRESS LANES ENTRANCE
XXXX

MATCH LINE ℄ CONST. I-95 STA. 2418+00.00

1" = 50'

LA R/W LINE

SB SR 9 (I-95)

4418 4419 4420 4421 4423 4424 4425

2418 2419 2420 2421 2423 2424 2425

3419 NB SR 9 (I-95) 3420 3422 3423 3424

EXPRESS LANES ENTRANCE
ONLY
NO TRUCKS
LEFT

STA. 2422+28
017.5 CAB NS
TYPE 334 GROUND MOUNT ITS CABINET
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

ITS SERVICE POINT/
GENERATOR "B";
LAYER 2 SWITCH AND
FO PATCH PANEL
IN THE ATS CABINET
OF GENERATOR

G

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR GENERATOR/ATS,
1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR GENERATOR/ATS, 1-SPARE)

ELECTRICAL SERVICE TO
SERVICE POINT/GENERATOR B
SEE ITS ELECTRICAL PLANS

SV-14
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

LA R/W LINE

FL D4 DOT 095 017.5 NB LS 1
STA. 2424+00
1-LINE STATUS DMS
OVERHEAD TRUSS SIGN STRUCTURE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2425+30.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (15)

SHEET NO.
IT-45

1" = 50'

STA. 2430+10
FL D4 095 017.6 SB SS DS EL-GP 7,
MVDS FOR FREEWAY
017.6 CCTV EL-GP 1
CCTV IP CAMERA FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
017.6 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

SB SR 9 (I-95)

4426 4427 4428 4429 4430 4431

2426 2427 ℄ CONST. I-95 2428 2429 2430 2431 2432

3426 3427 3428 3429 3430 3431 3432

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2425+30.00

MATCH LINE ℄ CONST. I-95 STA. 2432+00.00

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2430+06
FL D4 095 017.6 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
017.6 CAB NS
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-15
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

LA R/W LINE

R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 193		

Parsons Brinckerhoff, Inc.
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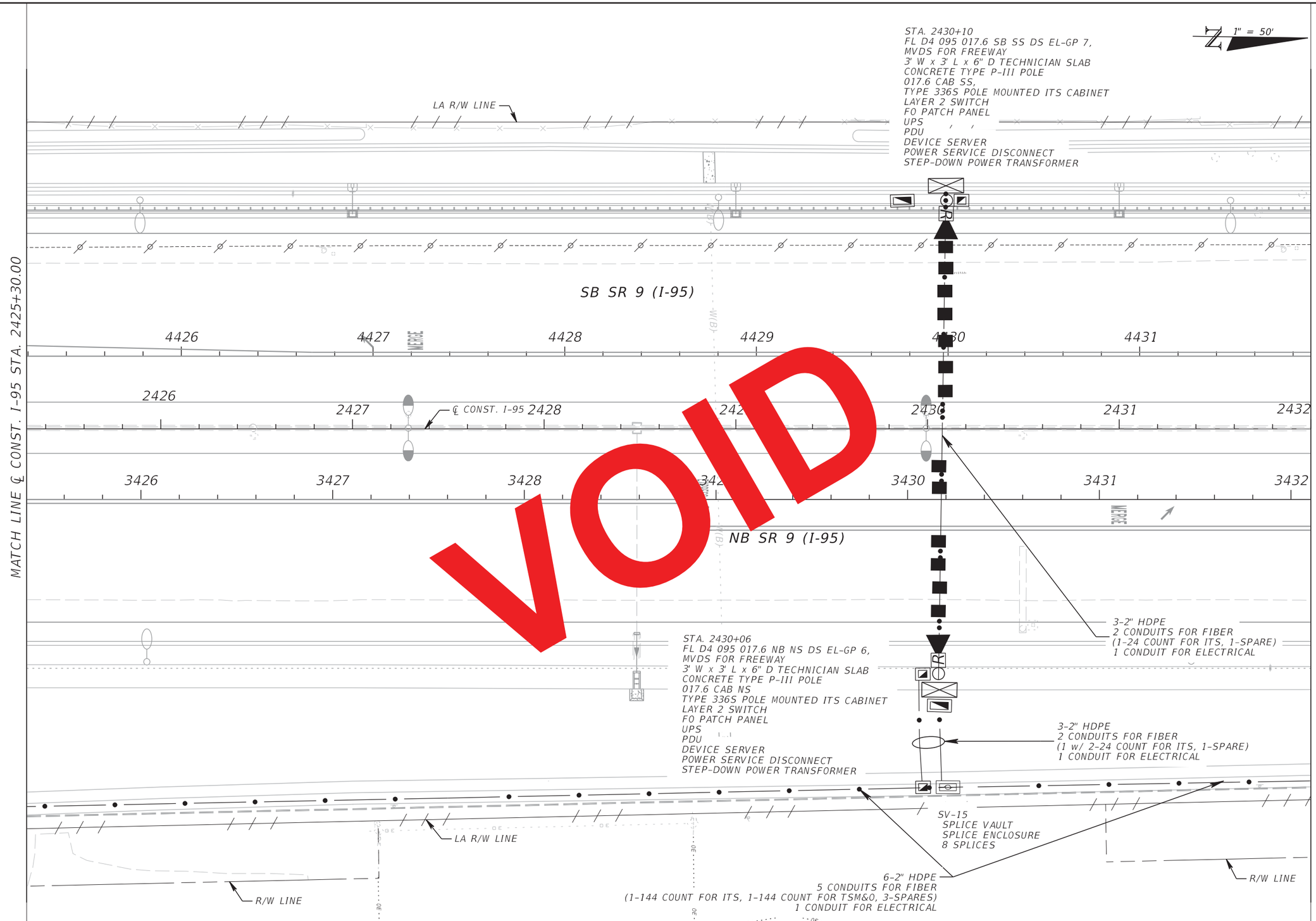
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (16)

SHEET NO.
IT-46



VOID

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (16)

SHEET NO.
IT-46

1" = 50'

EXISTING VOIP TO BE REMOVED AND RETURNED TO DEPARTMENT (VOIP 95-35.1)

LA R/W LINE

EXISTING DEVICES, CABINET AND POLE TO BE REMOVED (C9036, FLD4095035.1NBSS/ LFD4095035.1SBSS)

SB SR 9 (I-95)

4432 4433 4434 4435 4436 4437 4438

℄ CONST. I-95

2432 2433 2434 2435 2436 2437 2438 2439

3433 3434 3435 3436 3437 3438 3439

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2432+00.00

MATCH LINE ℄ CONST. I-95 STA. 2439+00.00

LA R/W LINE

R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (17)

SHEET NO.
IT-47

1" = 50'

STA. 2443+54
FL D4 095 017.9 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
017.9 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

SB SR 9 (I-95)

4439 4440 4441 4442 4443 4444 4445

℄ CONST. I-95

2439 2440 2441 2442 2443 2444 2445 2446

NB SR 9 (I-95)

3440 3441 3442 3443 3444 3445 3446

MATCH LINE ℄ CONST. I-95 STA. 2439+00.00

MATCH LINE ℄ CONST. I-95 STA. 2446+00.00

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2443+22
FL D4 095 017.9 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
017.9 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

SV-16
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 193		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (18)

SHEET NO.
IT-48

1" = 50'

STA. 2443+54
FL D4 095 017.9 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
017.9 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
017.9 CAB SS
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

SB SR 9 (I-95)

4439 4440 4441 4442 4443 4444 4445

℄ CONST. I-95

2439 2440 2441 2442 2443 2444 2445 2446

NB SR 9 (I-95)

3440 3441 3442 3443 3444 3445 3446

MATCH LINE ℄ CONST. I-95 STA. 2439+00.00

MATCH LINE ℄ CONST. I-95 STA. 2446+00.00

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2443+22
FL D4 095 017.9 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
017.9 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

SV-16
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (18)

SHEET NO.
IT-48

1" = 50'

R/W LINE

LA R/W LINE

SB SR 9 (I-95)

4446 4447 4448 4449 4450 4451 4452

℄ CONST. I-95

2446 2447 2448 2449 2450 2451 2452 2453

3447 3448 3449 3450 3451 3452 3453

NB SR 9 (I-95)

200

LA R/W LINE

R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2446+00.00

MATCH LINE ℄ CONST. I-95 STA. 2453+00.00

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (19)

SHEET NO.

IT-49

1" = 50'

R/W LINE

LA R/W LINE

SB SR 9 (I-95)

4446 4447 4448 4449 4451 4452

2446 2447 2448 2449 2451 2452 2453

3447 3448 3451 3452 3453

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2446+00.00

MATCH LINE ℄ CONST. I-95 STA. 2453+00.00

200

OE

LA R/W LINE

R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (19)

SHEET NO.
IT-49

1" = 50'

MATCH LINE SEE ITS PLAN (20A)

STA. 2454+95
FL D4 095 018.1 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
018.1 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

1 7-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
4 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION,
1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

ADJUST MERGE LANE STRIPING
(SEE SIGNING AND PAVEMENT MARKING PLANS)

DUAL LOOP DETECTOR SENSORS (DEMAND)

LA R/W LINE

DUAL LOOP DETECTOR SENSORS (PASSAGE)

RAMP METERING CONTROL SIGNAL

3-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

STA. 2458+14
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)

STOP HERE ON RED
STOP HERE ON RED
TWO VEHICLES PER GREEN

℄ CONST. ATLA

SW 3RD ST

ATLANTIC RAMP A

100 101 102 103 104

4-2" HDPE
3 CONDUITS FOR COMMUNICATION
(1-24 COUNT FOR ITS,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM (BY OTHERS),
1-SPARE)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL WIRE,
6 LOOP DETECTOR WIRES)
3 CONDUIT FOR FIBER
(1-24 COUNT FOR ITS,
1-MVDS WIRE, 1-SPARE)
3 CONDUITS FOR ELECTRICAL

1-2" HDPE
(1-144 COUNT FOR TSM&O RAMP EXTENSION)

5-2" HDPE
4 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS,
1-CAT5E (BY OTHERS),
1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2458+60
018.1 CAB SS_2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

5-2" HDPE
4 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-CAT5E (BY OTHERS),
1-6 COUNT MM (BY OTHERS), 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM (BY OTHERS), 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4453 4454 4455 4456 4457 2460

2453 2454 2455 2456 2457

℄ CONST. I-95

EXPRESS LANES ONLY $ XXXX TO Sunrise Blvd $$$ PLUS TOLL FOR TOLL VIOLATION

3454 3455 3456 3457 3460

NB SR 9 (I-95)

2 SIGN STRUCTURE FOR
FUTURE DMS SIGN
(SIGN PANEL AND DMS TO
BE INSTALLED BY OTHERS)

STA. 2458+77
018.1 CAB SS_3
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

MATCH LINE ℄ CONST. I-95 STA. 2453+00.00

MATCH LINE ℄ CONST. I-95 STA. 2460+00.00

201 202 203 204 205 206 207

ATLANTIC RAMP B

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-17
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

STA. 2454+91
FL D4 095 018.1 NB NS DS EL-GP-OF 7,
MVDS FOR FREEWAY
018.1 CCTV EL-GP 1,
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ 2 CLDS
018.1 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

℄ CONST. ATLB

SW 3RD ST

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

LA R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
03/16/18	2 ADDED T-DMS		
09/13/19	AS-BUILTS		

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (20)

SHEET NO.
IT-50

c:\projectwise\pb\projectwiseint\perezr\d0128749\Color_FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseVB1\Documents\FL - Miami Projects\I-95 Phase 3A-2\data\Asbuilts - LTG.tbl USER: PerezR 12/30/2019 8:04:40 PM c:\projectwise\pb\projectwiseint\perezr\d0146451\planit20_AsBuilt.DGN

1" = 50'

MATCH LINE SEE ITS PLAN (20A)

STA. 2454+95
FL D4 095 018.1 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
018.1 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
4 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION,
1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

ADJUST MERGE LANE STRIPING
(SEE SIGNING AND PAVEMENT
MARKING PLANS)

DUAL LOOP DETECTOR
SENSORS (DEMAND)

LA R/W LINE

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

RAMP METERING
CONTROL SIGNAL

3-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O
RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

STA. 2458+14
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR
WIRES)

STOP HERE ON RED
STOP HERE ON RED
TWO VEHICLES PER GREEN

℄ CONST. ATLA

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM (BY OTHERS),
1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR COMMUNICATION
(1-24 COUNT FOR ITS,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL WIRE,
6 LOOP DETECTOR WIRES,
3 CONDUIT FOR FIBER
(1-24 COUNT FOR ITS,
1-MVDS WIRE, 1-SPARE)
3 CONDUITS FOR ELECTRICAL

1-2" HDPE
(1-144 COUNT
FOR TSM&O
RAMP
EXTENSION)

5-2" HDPE
4 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS,
1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2458+60
018.1 CAB SS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

5-2" HDPE
4 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-CAT5E,1-6 COUNT MM (BY OTHERS),
1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM (BY OTHERS), 1-SPARE)
1 CONDUIT FOR ELECTRICAL

℄ CONST. I-95

3-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM (BY OTHERS),
1-SPARE)
1 CONDUIT FOR ELECTRICAL

SIGN STRUCTURE FOR
FUTURE DMS SIGN
(SIGN PANEL AND DMS TO
BE INSTALLED BY OTHERS)

STA. 2458+77
018.1 CAB SS 3
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SW 3RD ST

ATLANTIC RAMP A

ATLANTIC RAMP B

MATCH LINE ℄ CONST. I-95 STA. 2453+00.00

MATCH LINE ℄ CONST. I-95 STA. 2460+00.00

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-17
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

STA. 2454+91
FL D4 095 018.1 NB NS DS EL-GP-OF 7,
MVDS FOR FREEWAY
018.1 CCTV EL-GP 1,
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ 2 CLDS
018.1 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

℄ CONST. ATLB

R/W LINE

LA R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design, quantities, and details remains with the EOR. Field fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 ADDED T-DMS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (20)

SHEET NO. IT-50

1" = 50'

STA. 2454+95
FL D4 095 018.1 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
018.1 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
4 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION,
1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

ADJUST MERGE LANE STRIPING
(SEE SIGNING AND PAVEMENT
MARKING PLANS)

DUAL LOOP DETECTOR
SENSORS (DEMAND)

LA R/W LINE

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

RAMP METERING
CONTROL SIGNAL

℄ CONST.
ATLA

MATCH LINE SEE ITS PLAN (20A)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O
RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR
WIRES)

STA. 2458+14
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

STOP HERE ON RED
STOP HERE ON RED
TWO VEHICLES PER GREEN

SW 3RD ST

ATLANTIC RAMP A

SB SR 9 (I-95)

4-2" HDPE
3 CONDUITS FOR COMMUNICATION
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL WIRE,
6 LOOP DETECTOR WIRES,
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE (1-144 COUNT
FOR TSM&O RAMP
EXTENSION)

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2458+60
018.1 CAB SS_2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

4-2" HDPE
3 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT FOR ITS, 1-6 COUNT MM, 1-

℄ CONST. I-95

NB SR 9 (I-95)

4-2" HDPE
3 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT FOR ITS, 1-6 COUNT MM, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2453+00.00

MATCH LINE ℄ CONST. I-95 STA. 2460+00.00

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-17
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

STA. 2454+91
FL D4 095 018.1 NB NS DS EL-GP-OF 7,
MVDS FOR FREEWAY
018.1 CCTV EL-GP 1,
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ 2 CLDS
018.1 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SW 3RD ST

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

℄ CONST. ATLB

ATLANTIC RAMP B

LA R/W LINE

R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design, quantities, and details shall remain with the engineer of record. Responsibility for means and methods of construction and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64 BY: (FDOT)
BY: (Stantec) PL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

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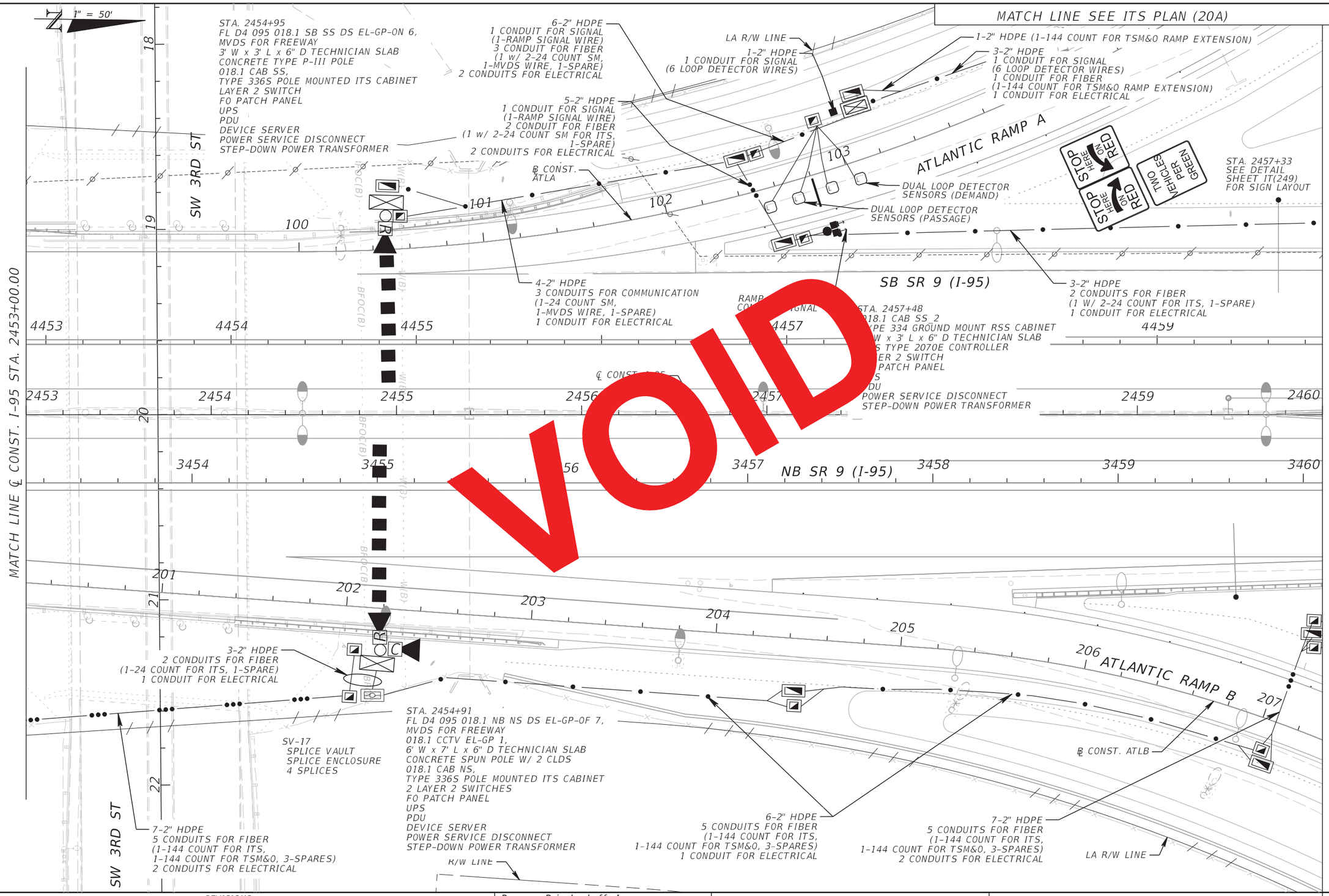
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (20)

SHEET NO.
IT-50



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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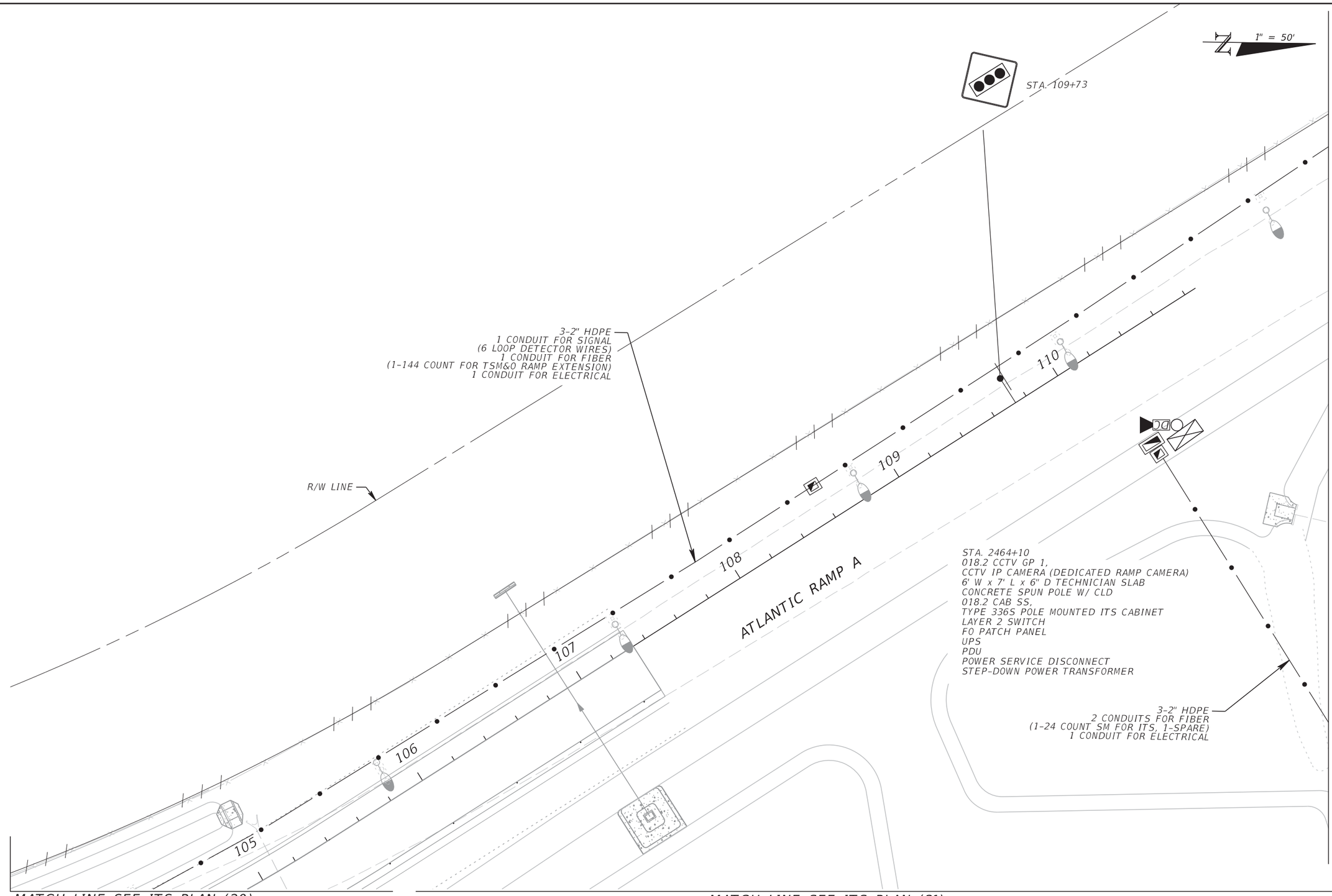
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (20)

SHEET NO.

IT-50



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (20A)

SHEET NO. IT-51

1" = 50'

MATCH LINE SEE ITS PLAN (20C)

MATCH LINE SEE ITS PLAN (20A)

ATLANTIC RAMP A

ATLANTIC RAMP D

785

786

787

788

789

DUAL LOOP DETECTOR SENSOR (QUEUE)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)

RAMP METERED WHEN FLASHING

STA. 229+54

STA. 230+02

ADVANCED WARNING BEACON SIGN (TYP)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

2-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

℄ SURVEY AT

693

230

231

232

233

W ATLANTIC BLVD

MATCH LINE SEE ITS PLAN (21)

MATCH LINE SEE ITS PLAN (22)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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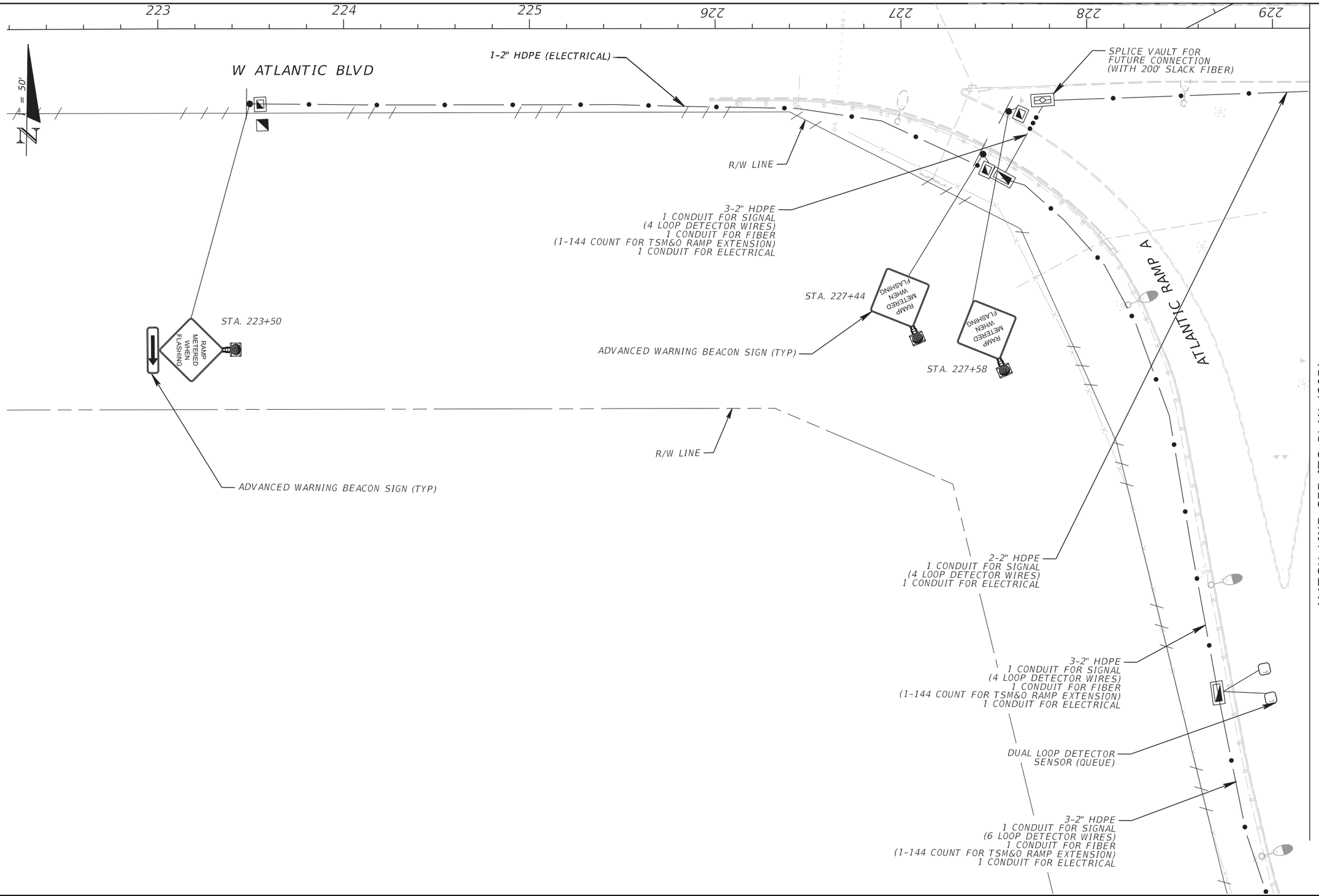
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (20B)

SHEET NO. IT-52



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (20C)

SHEET NO.

IT-53

MATCH LINE SEE ITS PLAN 20A

MATCH LINE SEE ITS PLAN 20B

1" = 50'

5-2" HDPE
4 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS,
1-CAT5E (BY OTHERS),
1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(2 W/ 3-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
1 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

ATLANTIC RAMP D

790

℄ CONST. ATLD

STA. 2461+21
018.2 CCTV GP 2
CCTV IP CAMERA (DEDICATED FOR TOLL DMS)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

SB SR 9 (I-95)

5-2" HDPE
4 CONDUITS FOR FIBER
(3 w/ 5-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2465+66
018.3 CAB NS
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

TOLL GANTRY - SITE 5
STA. 2460+60.00
SEE TOLLING PLANS

4460 4461 4462 4463 4464

2460 2461 2462 2463 2464 2465 2466 2467

℄ CONST. I-95

NB SR 9 (I-95)

3461 3462 3463 3464 3465 3466 3467

MATCH LINE ℄ CONST. I-95 STA. 2460+00.00

MATCH LINE ℄ CONST. I-95 STA. 2467+00.00

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 6 LOOP
DETECTOR WIRES)
1 CONDUIT (CAT5E)

RAMP METERING
CONTROL SIGNAL

2-2" HDPE
2 CONDUITS FOR FIBER
(1-48 COUNT SM FOR TOLL,
1-SPARE)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE,
1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARE)
1 CONDUIT FOR
ELECTRICAL

TOLL
DOOR

SV-19
SPLICE VAULT
2 SPLICE ENCLOSURES
32 SPLICES

10-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
7 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-MVDS WIRE,
1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARE)
2 CONDUITS FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSORS (DEMAND)

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

TOLL SITE
PARKING AREA

STA. 2465+92
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

STOP HERE ON RED

STOP HERE ON RED

ONE VEHICLE PER GREEN

COIL 120 FT
OF 48-COUNT FIBER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

ATLANTIC RAMP B

208

STA. 2461+21
018.2 CCTV TOLL 1,
CCTV IP CAMERA FOR TOLL SITE 5
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
018.2 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SV-18
SPLICE VAULT
1 SPLICE ENCLOSURE
20 SPLICES (4 FOR ITS,
16 FOR TOLL)

℄ CONST. ATLC

1-2" HDPE
1 CONDUIT FOR FIBER
(1-CAT5E)

ATLANTIC RAMP C

489

1-2" HDPE (1-144 COUNT
FOR RAMP EXTENSION)

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION
1-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

MATCH LINE SEE ITS PLAN 21A

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP	09/13/19	AS-BUILTS per RFI 403 & 496
03/16/18	2 REVISED CCTV LOCATION & ADDED D-CCTV		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (21)

SHEET NO.
IT-54

MATCH LINE SEE ITS PLAN 20A

MATCH LINE SEE ITS PLAN 20B

1" = 50'

ATLANTIC RAMP D

790

5-2" HDPE
4 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS,
1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(2 W/ 3-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
1 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

℄ CONST. ATLD

STA. 2461+21
018.2 CCTV GP 2
CCTV IP CAMERA (DEDICATED FOR TOLL DMS)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

SB SR 9 (I-95)

TOLL GANTRY - SITE 5
STA. 2460+60.00
SEE TOLLING PLANS

5-2" HDPE
4 CONDUITS FOR FIBER
(3 w/ 5-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2465+66
018.3 CAB NS
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

4460 4461 4462 4463 4464

2460 2461 2462 2463 2465 2466 2467

℄ CONST

NB SR 9 (I-

3461 3462 3463 3465 3466 3467

2-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 6 LOOP
DETECTOR WIRES)
1 CONDUIT (CAT5E)

RAMP METERING
CONTROL SIGNAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
2 CONDUITS FOR FIBER
(1-48 COUNT SM FOR TOLL,
1-SPARE)

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

SV-19
SPLICE VAULT
2 SPLICE ENCLOSURES
32 SPLICES

8-2" HDPE
7 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE,
1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARE)
1 CONDUIT FOR
ELECTRICAL

TOLL
DOOR

TOLL SITE
PARKING AREA

STA. 2465+92
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

11-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
8 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-MVDS WIRE,
1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARE)
2 CONDUITS FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSORS (DEMAND)

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

COIL 200 FT
OF 48-COUNT FIBER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

ATLANTIC RAMP B

208

STOP HERE ON RED

STOP HERE ON RED

ONE VEHICLE PER GREEN

STA. 2461+21
018.2 CCTV TOLL 1,
CCTV IP CAMERA FOR TOLL SITE 5
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
018.2 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SV-18
SPLICE VAULT
2 SPLICE ENCLOSURES
(1 FOR ITS, 1 FOR TOLL)
20 SPLICES (4 FOR ITS,
16 FOR TOLL)

℄ CONST. ATLC

1-2" HDPE
1 CONDUIT FOR FIBER
(1-CAT5E)

ATLANTIC RAMP C

489

1-2" HDPE (1-144 COUNT
FOR RAMP EXTENSION)

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION
1-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

MATCH LINE SEE ITS PLAN 21A

MATCH LINE ℄ CONST. I-95 STA. 2460+00.00

MATCH LINE ℄ CONST. I-95 STA. 2467+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details shall remain with the contractor. Approval does not relieve contractor of responsibility for fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED CCTV LOCATION & ADDED D-CCTV		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
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Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (21)

SHEET NO.
IT-54

MATCH LINE SEE ITS PLAN 20A

MATCH LINE SEE ITS PLAN 20B

1" = 50'

ATLANTIC RAMP D

790

3-2" HDPE
1 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

TOLL GANTRY - SITE 5
STA. 2460+60.00
SEE TOLLING PLANS

℄ CONST. ATLD

SB SR 9 (I-95)

4460 4461 4462 4463 446

SPARE)

2460

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2465+66
018.3 CAB NS
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

2461 2462 2463 2465 2466 2467

℄ I-95

SR 9 (I-95)

2-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 6 LOOP
DETECTOR WIRES)
1 CONDUIT (CAT5E)

3461 3462 3465 3466 3467

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

RAMP METERING
CONTROL SIGNAL

2-2" HDPE
2 CONDUITS FOR FIBER
(1-48 COUNT SM FOR TOLL, 1-SPARE)

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-19
SPLICE VAULT
1 SPLICE ENCLOSURE
24 SPLICES

8-2" HDPE
7 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE,
1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARE)
1 CONDUIT FOR
ELECTRICAL

TOLL
DOOR

TOLL SITE
PARKING AREA

STA. 2465+92
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

9-2" HDPE
7 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE,
1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARE)
2 CONDUITS FOR ELECTRICAL

STOP HERE ON RED

STOP HERE ON RED

ONE VEHICLE PER GREEN

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

DUAL LOOP DETECTOR
SENSORS (DEMAND)

COIL 200 FT
OF 48-COUNT FIBER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

ATLANTIC RAMP B

208

STA. 2461+21
018.2 CCTV TOLL 1,
CCTV IP CAMERA FOR TOLL SITE 5
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
018.2 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SV-18
SPLICE VAULT
2 SPLICE ENCLOSURES
(1 FOR ITS, 1 FOR TOLL)
20 SPLICES (4 FOR ITS,
16 FOR TOLL)

℄ CONST. ATLC

2-2" HDPE
1 CONDUIT FOR FIBER
(1-CAT5E)
1 CONDUIT FOR ELECTRICAL

ATLANTIC RAMP C

489

1-2" HDPE (1-144 COUNT
FOR RAMP EXTENSION)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2460+00.00

MATCH LINE ℄ CONST. I-95 STA. 2467+00.00

MATCH LINE SEE ITS PLAN 21A

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design, construction details and compliance with applicable codes, standards and specifications shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠ RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (21)

SHEET NO.
IT-54

MATCH LINE SEE ITS PLAN 20A

MATCH LINE SEE ITS PLAN 20B

1" = 50'

ATLANTIC RAMP D

790

3-2" HDPE
1 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

TOLL GANTRY - SITE 5
STA. 2460+60.00
SEE TOLLING PLANS

℄ CONST. ATLD

SB SR 9 (I-95)

STA. 2465+60
018.3 CAB NS
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

4-2" HDPE
3 CONDUITS FOR FIBER
(2 COUNT FOR ITS, 1-SPARE)
CONDUIT FOR ELECTRICAL

4460 4461 4462 4463 4464

2460 2461 2462 2463 2464 2465 2466 2467

℄ CONST. I-95

NB SR 9 (I-95)

3461 3462 3463 3464 3465 3466 3467

2-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 6 LOOP
DETECTOR WIRES)
1 CONDUIT (CAT5E)

RAMP METERING
CONTROL SIGNAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

HDPE
NDUITS FOR
4 COUNT FOR ITS,
4 COUNT FOR TSM&O, 3-SPARES)
NDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE,
1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARE)
1 CONDUIT FOR
ELECTRICAL

2-2" HDPE
2 CONDUITS FOR FIBER
(1-48 COUNT SM FOR TOLL, 1-SPARE)

SV-19
SPLICE VAULT
1 SPLICE ENCLOSURE
24 SPLICES

TOLL
DOOR

TOLL SITE
PARKING AREA

9-2" HDPE
7 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE,
1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARE)
2 CONDUITS FOR ELECTRICAL

STA. 2466+04
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

STOP HERE ON RED
STOP HERE ON RED
ONE VEHICLE PER GREEN

DUAL LOOP DETECTOR
SENSORS (DEMAND)

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

ATLANTIC RAMP C

490

469

℄ CONST. ATLC

1-2" HDPE (1-144 COUNT
FOR RAMP EXTENSION)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTEN
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
1 CONDUIT FOR FIBER
(1-CAT5E)
1 CONDUIT FOR ELECTRICAL

COIL 200 FT
OF 48-COUNT FIBER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

ATLANTIC RAMP B

208

SV-18
SPLICE VAULT
2 SPLICE ENCLOSURES
(1 FOR ITS, 1 FOR TOLL)
20 SPLICES (4 FOR ITS,
16 FOR TOLL)

STA. 2461+21
018.2 CCTV TOLL 1,
CCTV IP CAMERA FOR TOLL SITE 5
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
018.2 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

MATCH LINE ℄ CONST. I-95 STA. 2460+00.00

MATCH LINE ℄ CONST. I-95 STA. 2467+00.00

MATCH LINE SEE ITS PLAN 21A

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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(757) 466-1732
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (21)

SHEET NO.
IT-54

MATCH LINE SEE ITS PLAN (21)

MATCH LINE SEE ITS PLAN (20)

MATCH LINE SEE ITS PLAN (22A)

1" = 50'

STA. 2464+72
018.3 CCTV GP 1,
CCTV IP CAMERA (DEDICATED RAMP CAMERA)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
NEMA CABINET W/ SPD

2-2" HDPE
1 CONDUIT FOR FIBER
(1-CAT5E)

ATLANTIC RAMP B

ATLANTIC RAMP C

STA. 484+44

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O
RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION,
1-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

R/W LINE

2

STA. 2466+27
018.3 CCTV GP 2,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
018.3 CAB NS_3,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION,
1-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

DC

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED CCTV LOCATION		

Parsons Brinckerhoff, Inc.
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (21A)

SHEET NO.
IT-55

MATCH LINE SEE ITS PLAN (21)

MATCH LINE SEE ITS PLAN (20)

MATCH LINE SEE ITS PLAN (22A)

1" = 50'

STA. 2464+72
018.3 CCTV GP 1,
CCTV IP CAMERA (DEDICATED RAMP CAMERA)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
NEMA CABINET W/ SPD

2-2" HDPE
1 CONDUIT FOR FIBER
(1-CAT5E)
1 CONDUIT FOR ELECTRICAL

STA. 484+44

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

R/W LINE

ATLANTIC RAMP B

ATLANTIC RAMP C

209 210 211 213 214 215 216 30

488 487 486 485 484

DC

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (21A)

SHEET NO. IT-55

MATCH LINE SEE ITS PLAN (20B)

ADVANCED WARNING BEACON SIGN (TYP)

RAMP METERED WHEN FLASHING

℄ CONST. ATLD

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 234+24

1" = 50'

ATLANTIC RAMP D-2

STA. 2468+99
FL D4 095 018.3 SB SS DS EL-GP-OF 6,
MDVS FOR FREEWAY
DEVICE SERVER
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
018.3 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

1-2" HDPE (ELECTRICAL)

SB SR 9 (I-95)

℄ CONST. I-95

NB SR 9 (I-95)

STA. 2468+02
FL D4 095 018.3 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
018.3 CAB NS 2,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

ATLANTIC RAMP C

W ATLANTIC BLVD

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARE)
2 CONDUITS FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-24 COUNT, 1-MVDS WIRE,
1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARE)
1 CONDUIT FOR ELECTRICAL

℄ CONST. ATLF

ATLANTIC RAMP F

MATCH LINE ℄ CONST. I-95 STA. 2467+00.00

MATCH LINE ℄ CONST. I-95 STA. 2474+00.00

MATCH LINE SEE ITS PLAN (22A)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (22)

SHEET NO.
IT-56

MATCH LINE SEE ITS PLAN (20B)

ADVANCED WARNING BEACON SIGN (TYP)

RAMP METERED WHEN FLASHING

℄ CONST. ATLD

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 234+24

1" = 50'

ATLANTIC RAMP D-2

STA. 2468+99
FL D4 095 018.3 SB SS DS EL-GP-OF 6,
MDVS FOR FREEWAY
DEVICE SERVER
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
018.3 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

1-2" HDPE (ELECTRICAL)

SB SR 9 (I-95)

℄ CONST. I-95

NB SR 9 (I-95)

STA. 2468+02
FL D4 095 018.3 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
018.3 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

ATLANTIC RAMP C

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARE)
2 CONDUITS FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-24 COUNT, 1-MVDS WIRE,
1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARE)
1 CONDUIT FOR ELECTRICAL

W ATLANTIC BLVD

℄ CONST. ATLF

ATLANTIC RAMP F

MATCH LINE ℄ CONST. I-95 STA. 2467+00.00

MATCH LINE ℄ CONST. I-95 STA. 2474+00.00

MATCH LINE SEE ITS PLAN (22A)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (22)

SHEET NO.
IT-56

1" = 50'

MATCH LINE SEE ITS PLAN (22)

STA. 2472+78
018.4 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
018.4 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

144 COUNT FOR RAMP EXTENSION

SPLICE VAULT
FOR FUTURECONNECTION
(WITH 200'SLACK FIBER)

1-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)

10-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION,
1-24 COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUITS FOR ELECTRICAL

10-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP
EXTENSION, 1-24
COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUITS FOR ELECTRICAL

ADVANCED WARNING BEACON SIGN (TYP)

SPLICE VAULT FOR
FUTURE CONNECTION
(WITH 200' SLACK FIBER)

SEE DETAIL 2

RAMP METERED WHEN FLASHING

STA. 479+17

STA. 479+17

RAMP METERED WHEN FLASHING

1-2" HDPE
(ELECTRICAL)

STA. 605+50 (LT)
STA. 605+56 (RT)

DUAL LOOP DETECTOR
SENSOR (QUEUE)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

RAMP METERED WHEN FLASHING

STA. 479+26

MATCH LINE SEE ITS PLAN (21A)

MATCH LINE SEE ITS PLAN (22B)

ATLANTIC RAMP B

ATLANTIC RAMP C

ATLANTIC RAMP F

W ATLANTIC BLVD

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 MOVED SIGN POST LOCATION		
3/16/18	2 ADDED ELECTRICAL CONDUIT		
9/13/19	AS-BUILTS per RFI 403		

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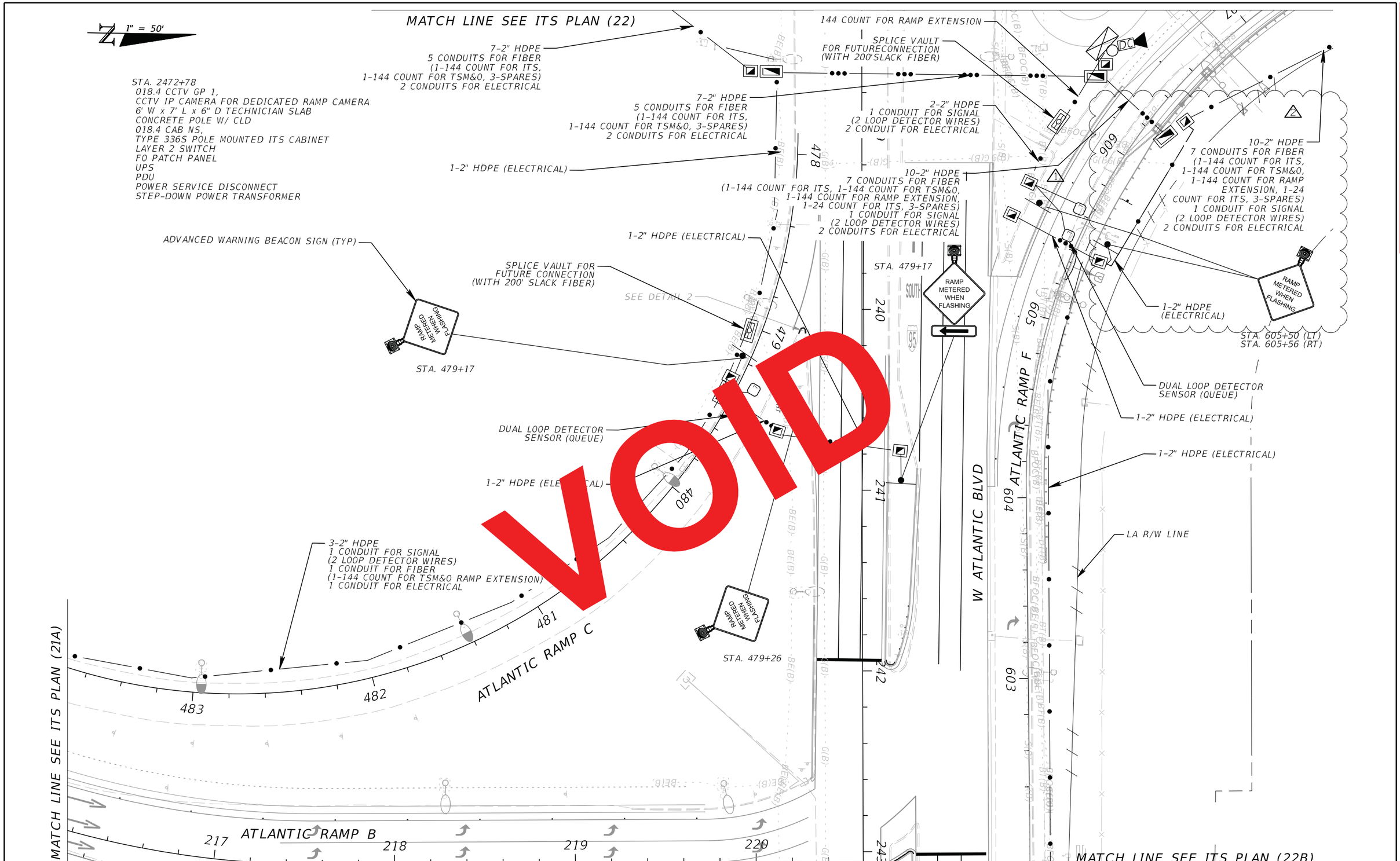
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (22A)

SHEET NO.
IT-57



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 MOVED SIGN POST LOCATION		
3/16/18	2 ADDED ELECTRICAL CONDUIT		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (22A)

SHEET NO.
IT-57

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\zz_Standards (FDOTSS4 MRI)\RESOURCES\plot\FDOT_LtGrayExDkGrayPr.tbl Borges 6/22/2018 9:58:50 AM c:\projectwise\pb\projectwiseint\borges\d0146451\planit22A.DGN

1" = 50'

MATCH LINE SEE ITS PLAN (22)

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

144 COUNT FOR RAMP EXTENSION

SPLICE VAULT
FOR FUTURECONNECTION
(WITH 200'SLACK FIBER)

STA. 2472+78
018.4 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
018.4 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

2-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUIT FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

10-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION,
1-24 COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUITS FOR ELECTRICAL

9-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP
EXTENSION, 1-24
COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

ADVANCED WARNING BEACON SIGN (TYP)

1-2" HDPE (ELECTRICAL)

SPLICE VAULT FOR
FUTURE CONNECTION
(WITH 200' SLACK FIBER)

SEE DETAIL 2

STA. 479+17

RAMP METERED WHEN FLASHING

STA. 479+17

RAMP METERED WHEN FLASHING

STA. 605+50 (LT)
STA. 605+56 (RT)

DUAL LOOP DETECTOR SENSOR (QUEUE)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

DUAL LOOP DETECTOR SENSOR (QUEUE)

1-2" HDPE (ELECTRICAL)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

RAMP METERED WHEN FLASHING

STA. 479+26

MATCH LINE SEE ITS PLAN (21A)

MATCH LINE SEE ITS PLAN (22B)

ATLANTIC RAMP C

ATLANTIC RAMP B

ATLANTIC RAMP F

W ATLANTIC BLVD

483 482 481 478 479 241 242 243 217 218 219 220 909 509 604 603

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of
plans/shop drawings and all dimensions and field conditions rests with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec) PL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 MOVED SIGN POST LOCATION		

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (22A)

SHEET NO.
IT-57

1" = 50'

MATCH LINE SEE ITS PLAN (22)

STA. 2472+78
018.4 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
018.4 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

ADVANCED WARNING BEACON SIGN (TYP)

SPLICE VAULT FOR
FUTURE CONNECTION
(WITH 200' SLACK FIBER)

SEE DETAIL 2

RAMP METERED WHEN FLASHING

STA. 479+17

DUAL LOOP DET R
SENSOR (

1-2 (ELECTR

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

144 COUNT FOR RAMP EXTENSION

SPLICE VAULT
FOR FUTURECONNECTION
(WITH 200'SLACK FIBER)

2-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUIT FOR ELECTRICAL

10-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION,
1-24 COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

STA. 479+17

RAMP METERED WHEN FLASHING

STA. 479+26

9-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP
EXTENSION, 1-24
COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

RAMP METERED WHEN FLASHING

STA. 605+50 (LT)
STA. 605+56 (RT)

DUAL LOOP DETECTOR
SENSOR (QUEUE)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

LA R/W LINE

ATLANTIC RAMP C

ATLANTIC RAMP F

W ATLANTIC BLVD

ATLANTIC RAMP B

MATCH LINE SEE ITS PLAN (21A)

MATCH LINE SEE ITS PLAN (22B)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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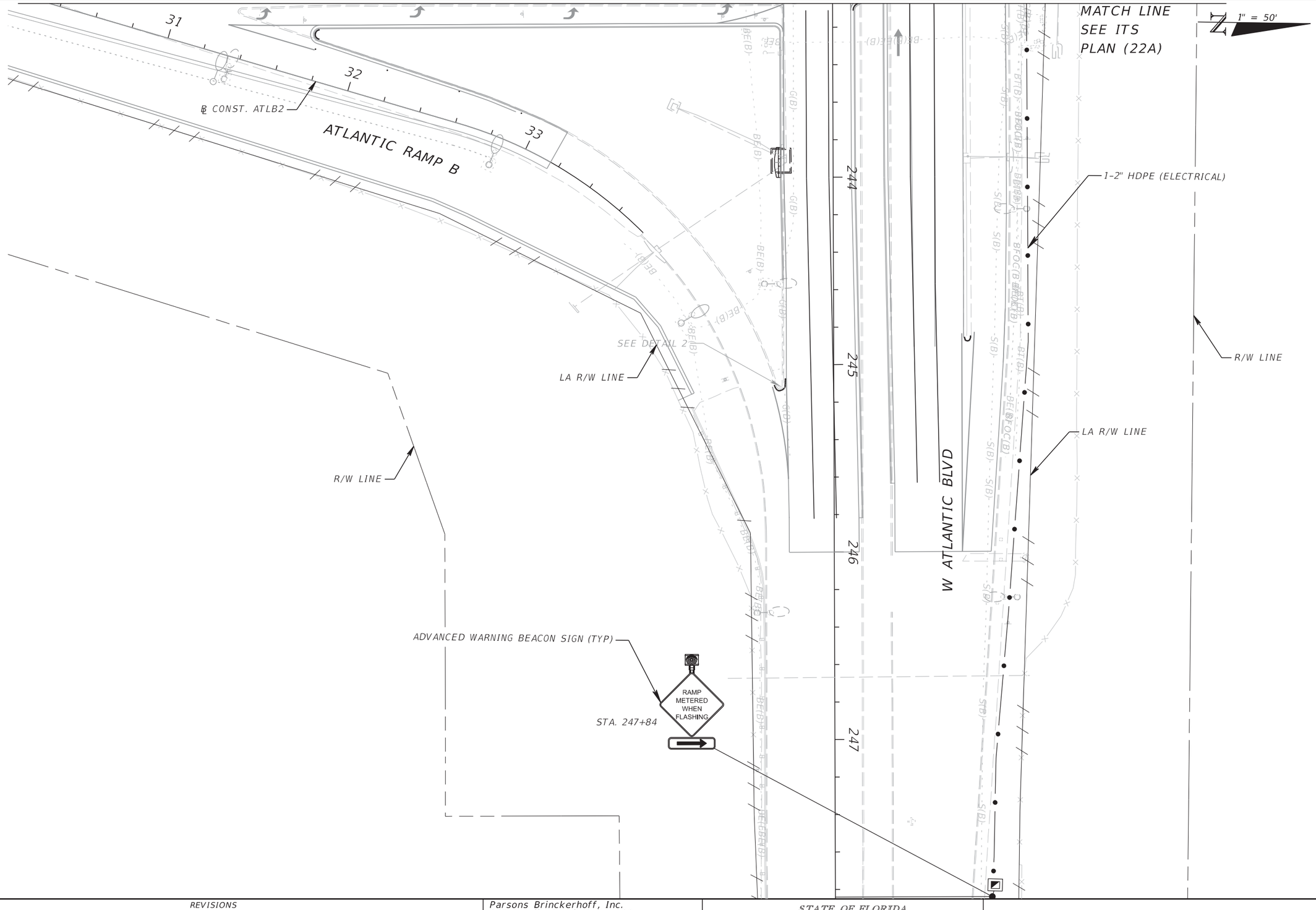
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (22A)

SHEET NO.
IT-57



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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (22B)

SHEET NO.
IT-58

1" = 50'

℄ CONST. ATLF

EXISTING VOIP TO BE REMOVED AND RETURNED TO DEPARTMENT (VOIP 95-35.8)

EXISTING WAP (WAP 95-35.8) TO BE RELOCATED TO POLE STA. 2477+68 SB

EXISTING DEVICES AND CABINET TO BE REMOVED (C9037, FLD4095035.8NSSS)

ATLANTIC RAMP E

SB SR 9 (I-95)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
1-6 COUNT MM (BY OTHERS), 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

STA. 2477+68
FL D4 095 018.5 SB SS DS EL-GP-OF 7,
MVDS FOR FREEWAY
018.5 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
WAP 95-35.8 (RELOCATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
018.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SIGN STRUCTURE FOR FUTURE DMS SIGN (SIGN PANEL AND DMS TO BE INSTALLED BY OTHERS)

4-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM (BY OTHERS), 1-SPARE)
2 CONDUITS FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXPRESS LANES ONLY $ XXXX TO Sunrise Blvd $$$ PLUS TOLL FOR TOLL VIOLATION

℄ CONST. I-95

6-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE, 1 SPARE)
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL WIRE)

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)

1-2" HDPE
2 CONDUITS FOR SIGNAL
(1 RAMP SIGNAL WIRE,
6 LOOP DETECTOR WIRES)

NB SR 9 (I-

STA. 2476+96
018.5 CAB NS
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

ONE VEHICLE PER GREEN

STOP HERE ON RED

STOP HERE ON RED

STA. 2477+46
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

RAMP METERING CONTROL SIGNAL

STA. 2479+98
FL D4 095 018.5 NB NS DS EL-GP-ON 7,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS COMPOSITE CABLE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

10-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUITS FOR ELECTRICAL

℄ CONST. ATLF

609 ATLANTIC RAMP F 610

6-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUITS FOR ELECTRICAL

DUAL LOOP DETECTOR SENSORS (PASSAGE)

DUAL LOOP DETECTOR SENSORS (DEMAND)

SV-20
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS,
1-MVDS WIRE & COMPOSITE CABLE, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1 w/2-24 COUNT SM,
1-MVDS WIRE, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 608+56

LA R/W LINE

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

15" PIPE

MATCH LINE ℄ CONST. I-95 STA. 2474+00.00

MATCH LINE ℄ CONST. I-95 STA. 2481+00.00

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP; ADDED MVDS WIRE TO 2480+48 CABINET		
03/16/18	2 ADDED T-DMS; REVISED ELECTRICAL CONDUIT		
09/13/19	AS-BUILTS per RFI 354, 356, 490		

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (23)

SHEET NO.
IT-59

1" = 50'

MATCH LINE ℄ CONST. I-95 STA. 2474+00.00

MATCH LINE ℄ CONST. I-95 STA. 2481+00.00

℄ CONST. ATLE

EXISTING VOIP TO BE REMOVED AND RETURNED TO DEPARTMENT (VOIP 95-35.8)

EXISTING WAP (WAP 95-35.8) TO BE RELOCATED TO POLE STA. 2477+68 SB

EXISTING DEVICES AND CABINET TO BE REMOVED (C9037, FLD4095035.8NSSS)

ATLANTIC RAMP E

SB SR 9 (I-95)

NB SR 9 (I-

℄ CONST. I-95

℄ CONST. ATLF

ATLANTIC RAMP F

LA R/W LINE

STA. 2477+68
FL D4 095 018.5 SB SS DS EL-GP-OF 7,
MVDS FOR FREEWAY
018.5 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
WAP 95-35.8 (RELOCATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
018.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-6 COUNT MM (BY OTHERS), 1-SPARE)
2 CONDUITS FOR ELECTRICAL

SIGN STRUCTURE FOR FUTURE DMS SIGN (SIGN PANEL AND DMS TO BE INSTALLED BY OTHERS)

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-6 COUNT MM (BY OTHERS), 1-SPARE)
2 CONDUITS FOR ELECTRICAL

4-2" HDPE
2 CONDUITS FOR FIBER
(1-6 COUNT MM (BY OTHERS), 1-SPARE)
2 CONDUITS FOR ELECTRICAL

EXPRESS LANES ONLY
TO Sunrise Blvd $ XX.XX
$85 PLUS TOLL FOR TOLL VIOLATION

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL WIRE)

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)

1-2" HDPE
2 CONDUITS FOR SIGNAL
(1 RAMP SIGNAL WIRE,
6 LOOP DETECTOR WIRES)

STA. 2476+96
018.5 CAB NS
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

ONE VEHICLE PER GREEN

STOP HERE ON RED

RAMP METERING CONTROL SIGNAL

STA. 2479+98
FL D4 095 018.5 NB NS DS EL-GP-ON 7,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM, 1-MVDS
COMPOSITE CABLE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2477+46
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

10-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUITS FOR ELECTRICAL

6-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUITS FOR ELECTRICAL

STA. 608+36

DUAL LOOP DETECTOR SENSORS (PASSAGE)

DUAL LOOP DETECTOR SENSORS (DEMAND)

SV-20
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS,
1-MVDS WIRE & COMPOSITE CABLE, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1 w/2-24 COUNT SM,
1-MVDS WIRE, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design details, dimensions, quantities and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB
BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP; ADDED MVDS WIRE TO 2480+48 CABINET		
3/16/18	2 ADDED T-DMS; REVISED ELECTRICAL CONDUIT		

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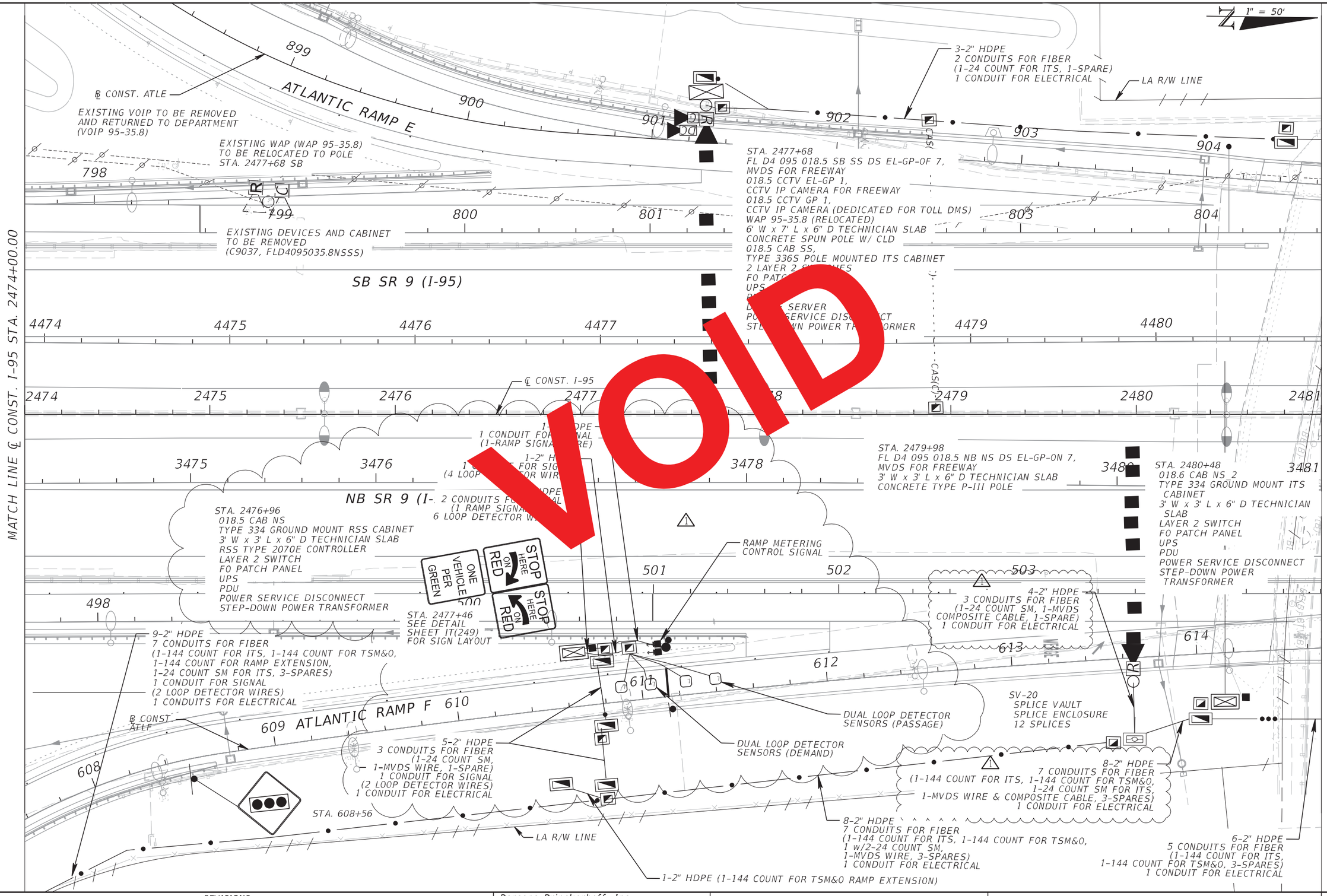
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (23)

SHEET NO. IT-59



RELEASED FOR CONSTRUCTION DATE: 03/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and field conditions rests with Contractor. Approval of fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G64

BY: (Stantec) PL BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠ RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP; ADDED MVDS WIRE TO 2480+48 CABINET		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (23)

SHEET NO. IT-59

1" = 50'

℄ CONST. ATLE

EXISTING VOIP TO BE REMOVED AND RETURNED TO DEPARTMENT (VOIP 95-35.8)

EXISTING WAP (WAP 95-35.8) TO BE RELOCATED TO POLE STA. 2477+68 SB

EXISTING DEVICES AND CABINET TO BE REMOVED (C9037, FLD4095035.8NSSS)

ATLANTIC RAMP E

SB SR 9 (I-95)

NB SR 9 (I-95)

℄ CONST. I-95

MATCH LINE ℄ CONST. I-95 STA. 2474+00.00

MATCH LINE ℄ CONST. I-95 STA. 2481+00.00

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

STA. 2477+68
FL D4 095 018.5 SB SS DS EL-GP-OF 7,
MVDS FOR FREEWAY
018.5 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
WAP 95-35.8 (RELOCATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
018.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVI
POWER S CONNECT
STEP NSFORMER

STA. 2479+98
FL D4 095 018.5 NB NS DS EL-GP-ON 7,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE

STA. 2480+48
018.6 CAB NS_2
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

STA. 2477+25
018.5 CAB NS
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

ONE VEHICLE PER GREEN

STOP HERE ON RED

STA. 2478+61
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL WIRE)

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

9-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION, (DEMAND)
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUITS FOR ELECTRICAL

ATLANTIC RAMP F

DUAL LOOP DETECTOR SENSORS (PASSAGE)

SV-20
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

1-2" HDPE
1 CONDUIT FOR SIGNAL
(10 LOOP DETECTOR WIRES)

STA. 608+56

LA R/W LINE

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1-RAMP SIGNAL WIRE)

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1 w/2-24 COUNT SM,
1-MVDS WIRE, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4284 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (23)

SHEET NO.
IT-59

1" = 50'

R/W LINE

LA R/W LINE

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
1-6 COUNT MM (BY OTHERS), 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
1-6 COUNT MM (BY OTHERS), 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

℄ CONST. ATLD

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

NB SR 9 (I-95)

℄ CONST. I-95

MATCH LINE ℄ CONST. I-95 STA. 2481+00.00

MATCH LINE ℄ CONST. I-95 STA. 2488+00.00

MLK BLVD
HAMMONDVILLE RD

℄ SURVEY HAMMONDVILLE

R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2484+50
FL D4 095 018.6 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
018.6 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED T-DMS CABINET; ADDED ELECTRICAL CONDUIT; ADDED D-CCTV		
09/13/19	AS-BUILTS per RFI 354, 356, 490, 497		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (24)

SHEET NO.
IT-60

1" = 50'

MATCH LINE ℄ CONST. I-95 STA. 2481+00.00

MATCH LINE ℄ CONST. I-95 STA. 2488+00.00

R/W LINE

LA R/W LINE

223

224

225

226

227

MLK BLVD
HAMMONDVILLE RD

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-6 COUNT MM (BY OTHERS),
1-SPARE)
2 CONDUITS FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE
1 CONDUIT FOR FIBER
(1-CAT5E)

STA. 2483+00
018.6 CAB SS
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

STA. 2483+20
018.6 CCTV GP 1
CCTV IP CAMERA (DEDICATED FOR TOLL DMS)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

℄ CONST. I-95

3-2" HDPE
2 CONDUITS FOR FIBER
(1-w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

805 806 807 808 809 810 811

SB SR 9 (I-95)

4481 4482 4483 4484 4485 4486 4487

2481 2482 2483 2484 2485 2486 2487 2488

3482 3483 3484 3485 3486 3487 3488

NB SR 9 (I-95)

505 506 507 508 509 510 511

615 616 617

2-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

OR

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

℄ SURVEY HAMMONDVILLE

STA. 2484+50
FL D4 095 018.6 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
018.6 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

VERIFY

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and construction details shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q84

BY: (Stantec) JB

BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED T-DMS CABINET; ADDED ELECTRICAL CONDUIT; ADDED D-CCTV		

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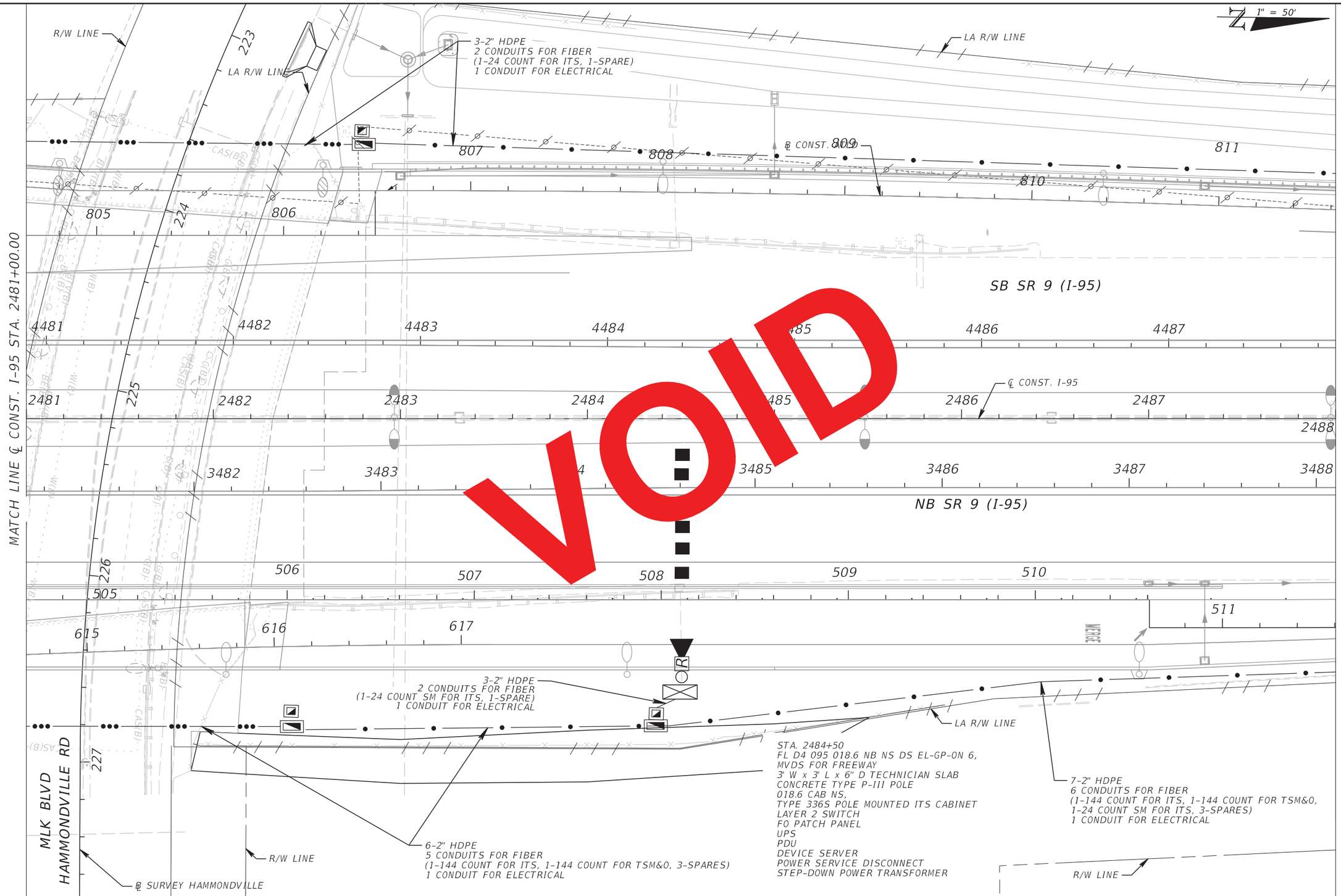
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (24)

SHEET NO.

IT-60



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (24)

SHEET NO.
IT-60

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) PL BY: (FDOT)

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C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\zz_Standards (FDOTSS4 MRI)\RESOURCES\plot\FDOT_LtGrayExDkGrayPr.tbl abreuk 7/26/2017 9:29:46 AM c:\projectwise\pb\projectwiseint\abreuk\d0146451\planit24.DGN

1" = 50'

STA. 2489+70
018.7 CAB SS
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
1-6 COUNT MM (BY OTHERS), 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2490+85
FL D4 095 018.8 SB SS DS EL-GP-OF 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
018.8 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

812 813 814 815 816 817

SB SR 9 (I-95)

1-2" HDPE
1 CONDUIT FOR FIBER
(1-CAT5 FOR ITS)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

℄ CONST. ATLD

STA. 2490+24
018.7 CCTV GP 1
CCTV IP CAMERA (DEDICATED FOR TOLL DMS)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

4488 4489 4490 4491 4492 4493 4494

2488 2489 2490 2491 2492 2493 2494 2495

℄ CONST. I-95

3489 3490 3491 3492 3493 3494 3495

MATCH LINE ℄ CONST. I-95 STA. 2488+00.00

MATCH LINE ℄ CONST. I-95 STA. 2495+00.00

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/3-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

NB SR 9 (I-95)

512 513 514 515 516 517 518

SV-21
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

LA R/W LINE

℄ CONST. ATLC

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED T-DMS CABINET		
09/13/19	AS-BUILTS per RFI 356, 403, 490		

Parsons Brinckerhoff, Inc.
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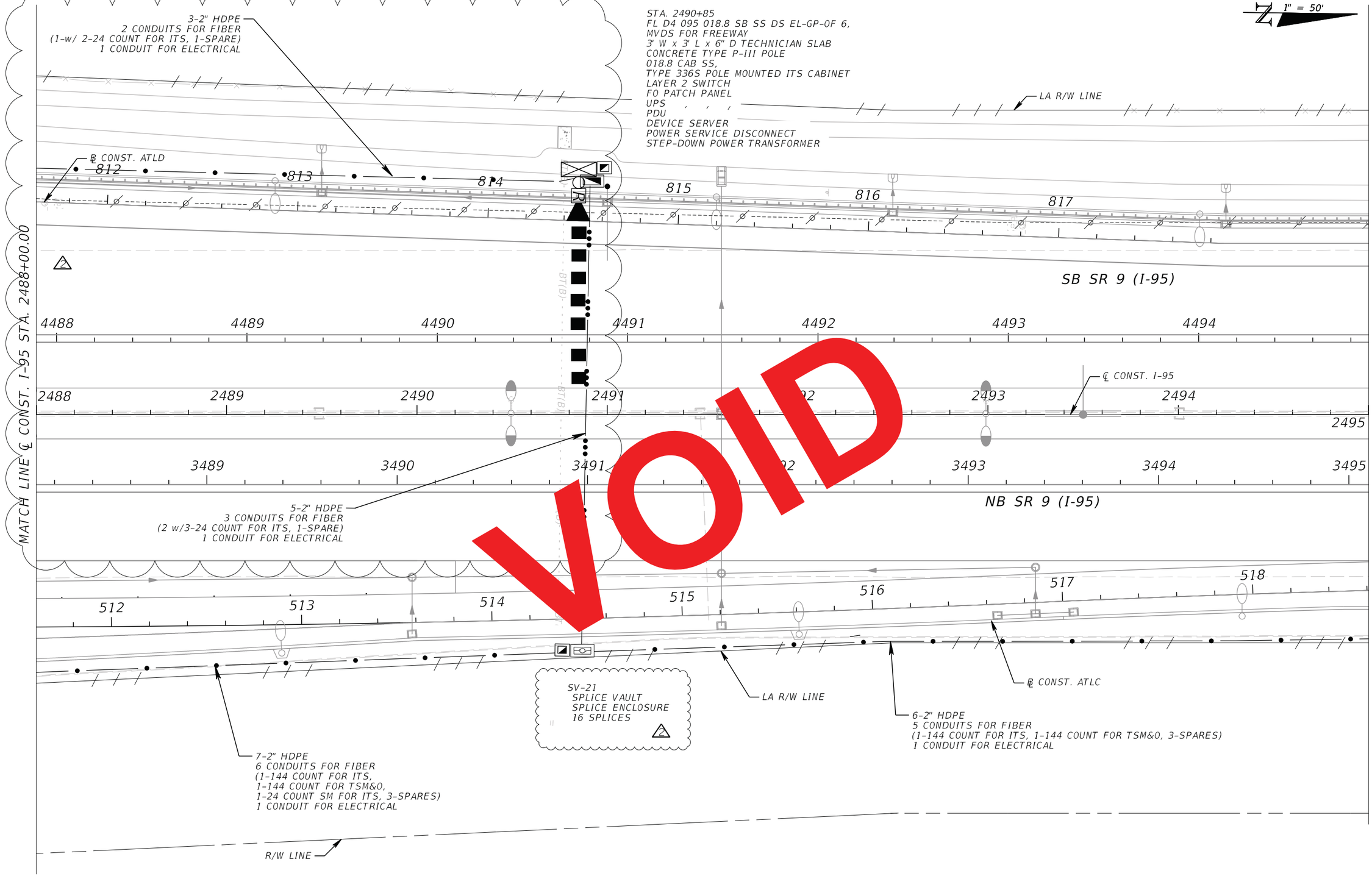
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (25)

SHEET NO.
IT-61



VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of reference notes and quantities remains with the EOR of Record. Sole responsibility for construction and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED T-DMS CABINET		

Parsons Brinckerhoff, Inc.
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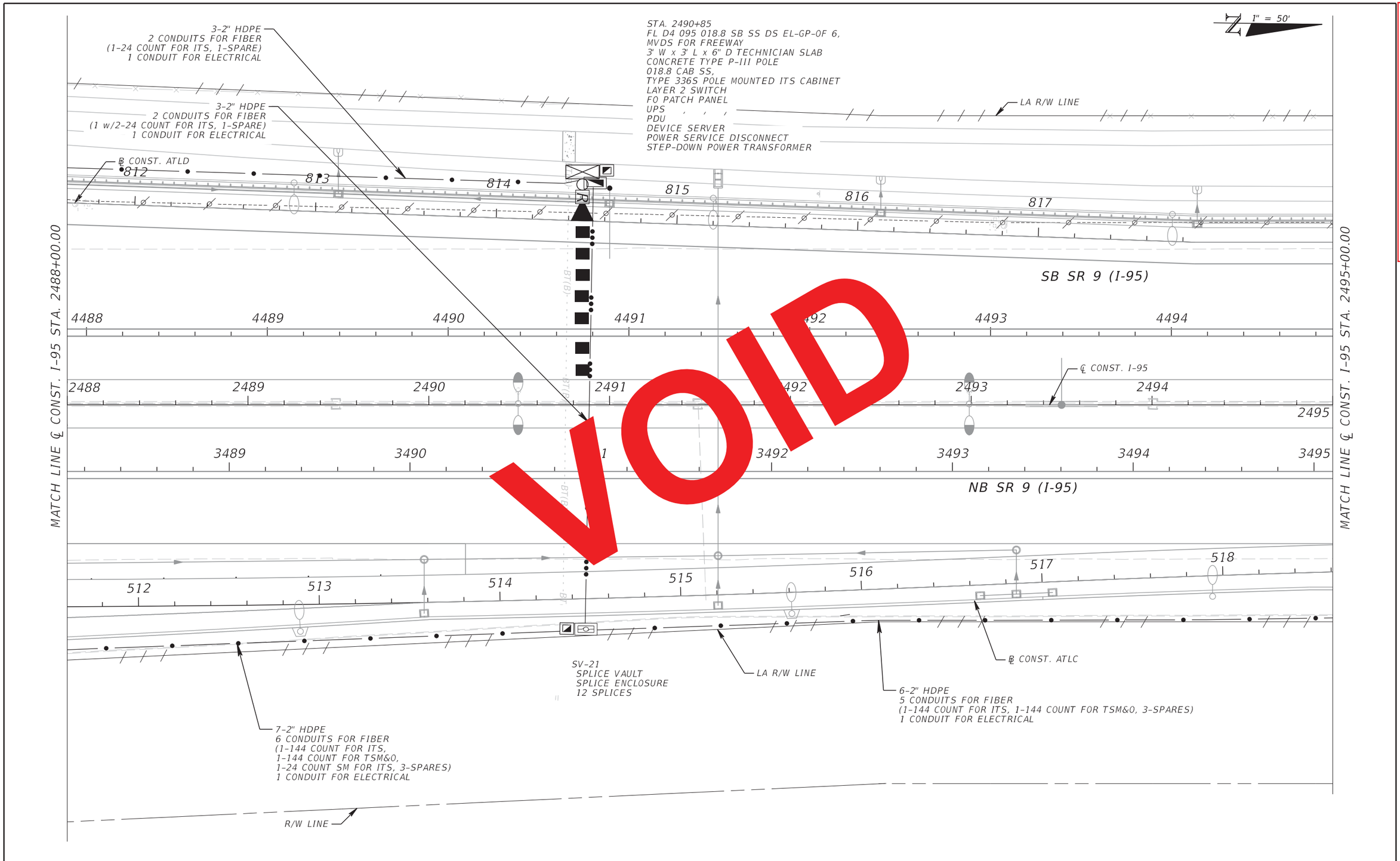
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (25)

SHEET NO.
IT-61



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RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) PL BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (25)

SHEET NO.
IT-61

C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\zz_Standards (FDOTSS4 MRI)\RESOURCES\plot\FDOT_LtGrayExDkGrayPr.tbl abreuk 7/26/2017 9:29:50 AM c:\projectwise\pb\projectwiseint\abreuk\d0146451\planit25.DGN

1" = 50'

EXISTING DEVICE, CABINET
AND POLE TO BE REMOVED
(FLD4095036.2NBSS/
FLD4095036.2SBSS)

LA R/W LINE

SB SR 9 (I-95)

4495 4496 4497 4498 4499 4500

2495 2496 2497 2498 2499 2500 2502

℄ CONST. I-95

3496 3497 3498 3499 3500 3502

NB SR 9 (I-95)

519 520 521

℄ CONST. ATLC

LA R/W LINE

R/W LINE

STA. 2501+75
FL D4 095 019.0 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
019.0 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
019.0 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 4-SPARES)

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM DROP CABLE, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2495+00.00

MATCH LINE ℄ CONST. I-95 STA. 2502+00.00

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED D-CCTV; DELETED ELECTRICAL CONDUIT		
09/13/19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (26)

SHEET NO.
IT-62

1" = 50'

EXISTING DEVICE, CABINET
AND POLE TO BE REMOVED
(FLD4095036.2NBSS/
FLD4095036.2SBSS)

LA R/W LINE

SB SR 9 (I-95)

4495 4496 4497 4498 4499 4500 4501

2495 2496 2497 2498 2499 2500 2501 2502

3496 3497 3498 3499 3500 3501 3502

NB SR 9 (I-95)

519 520 521

℄ CONST. ATLC

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 2501+75
FL D4 095 019.0 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
019.0 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
019.0 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

R/W LINE

MATCH LINE ℄ CONST. I-95 STA. 2495+00.00

MATCH LINE ℄ CONST. I-95 STA. 2502+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (26)

SHEET NO.
IT-62

1" = 50'

STA. 2503+74
FL D4 095 019.0 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
019.0 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

CR

SB SR 9 (I-95)

4502 4503 4504 4505 4506 4507 4508

℄ CONST. I-95

2502 2503 2504 2505 2506 2507 2508 2509

3503 3504 3505 3506 3507 3508 3509

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2502+00.00

MATCH LINE ℄ CONST. I-95 STA. 2509+00.00

LA R/W LINE

SV-22
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM DROP CABLE, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 357		

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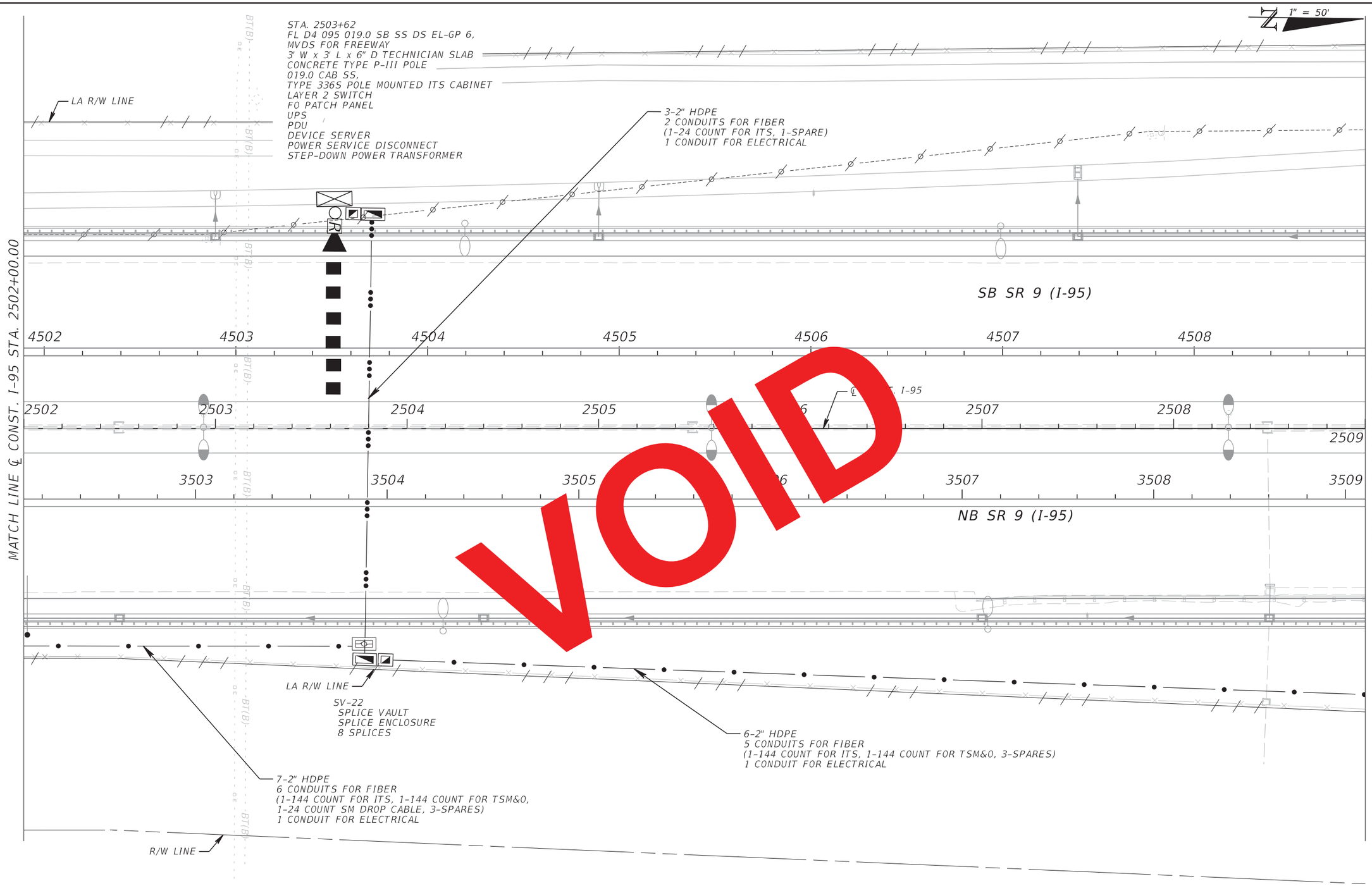
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (27)

SHEET NO.
IT-63



VOID

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (27)

SHEET NO.
IT-63

1" = 50'

LA R/W LINE

4-2" HDPE
3 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

95 SB 019.2
STA. 2515+84
FRONT ACCESS DMS
OVERHEAD TRUSS SIGN STRUCTURE

4-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM FOR ITS, 1-SPARE)
2 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

4509 4510 4511 4512 4513 4514 4515

℄ CONST. I-95

2509 2510 2511 2512 2513 2514 2515 2516

3510 3511 3512 3513 3514 3515 3516

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2509+00.00

MATCH LINE ℄ CONST. I-95 STA. 2516+00.00

SV-23
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

LA R/W LINE

STA. 2515+84
FL D4 095 019.2 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
019.2 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (28)

SHEET NO.
IT-64

1" = 50'

LA R/W LINE

4-2" HDPE
3 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

95 SB 019.2
STA. 2515+84
FRONT ACCESS DMS
OVERHEAD TRUSS SIGN STRUCTURE

XXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXX

SB SR 9 (I-95)

4-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM FOR ITS, 1-SPARE)
2 CONDUIT FOR ELECTRICAL

4509 4510 4511 4512 4513 4514 4515

℄ CONST. I-95

2509 2510 2511 2512 2513 2514 2515 2516

3510 3511 3512 3513 3514 3515 3516

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2509+00.00

MATCH LINE ℄ CONST. I-95 STA. 2516+00.00

SV-23
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 2515+84
FL D4 095 019.2 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
019.2 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

R/W LINE

VOID

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (28)

SHEET NO.
IT-64

1" = 50'

R/W LINE

LA R/W LINE

5-2" HDPE
3 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

STA. 2516+05
FL D4 095 019.2 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
CONCRETE TYPE P-III POLE
019.2 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

LA R/W LINE

STA. 2516+27
019.2 CAB SS 2
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SB SR 9 (I-95)

4516 4517 4518 4519 4520 4521 4522

℄ CONST. I-95

2516 2517 2518 2519 2520 2521 2522 2523

NB SR 9 (I-95)

3517 3518 3519 3520 3521 3522 3523

MATCH LINE ℄ CONST. I-95 STA. 2516+00.00

MATCH LINE ℄ CONST. I-95 STA. 2523+00.00

LA R/W LINE

LA R/W LINE

R/W LINE

R/W LINE

R/W LINE

FEC RAILROAD

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT SM FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT
FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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09/13/19	AS-BUILTS		

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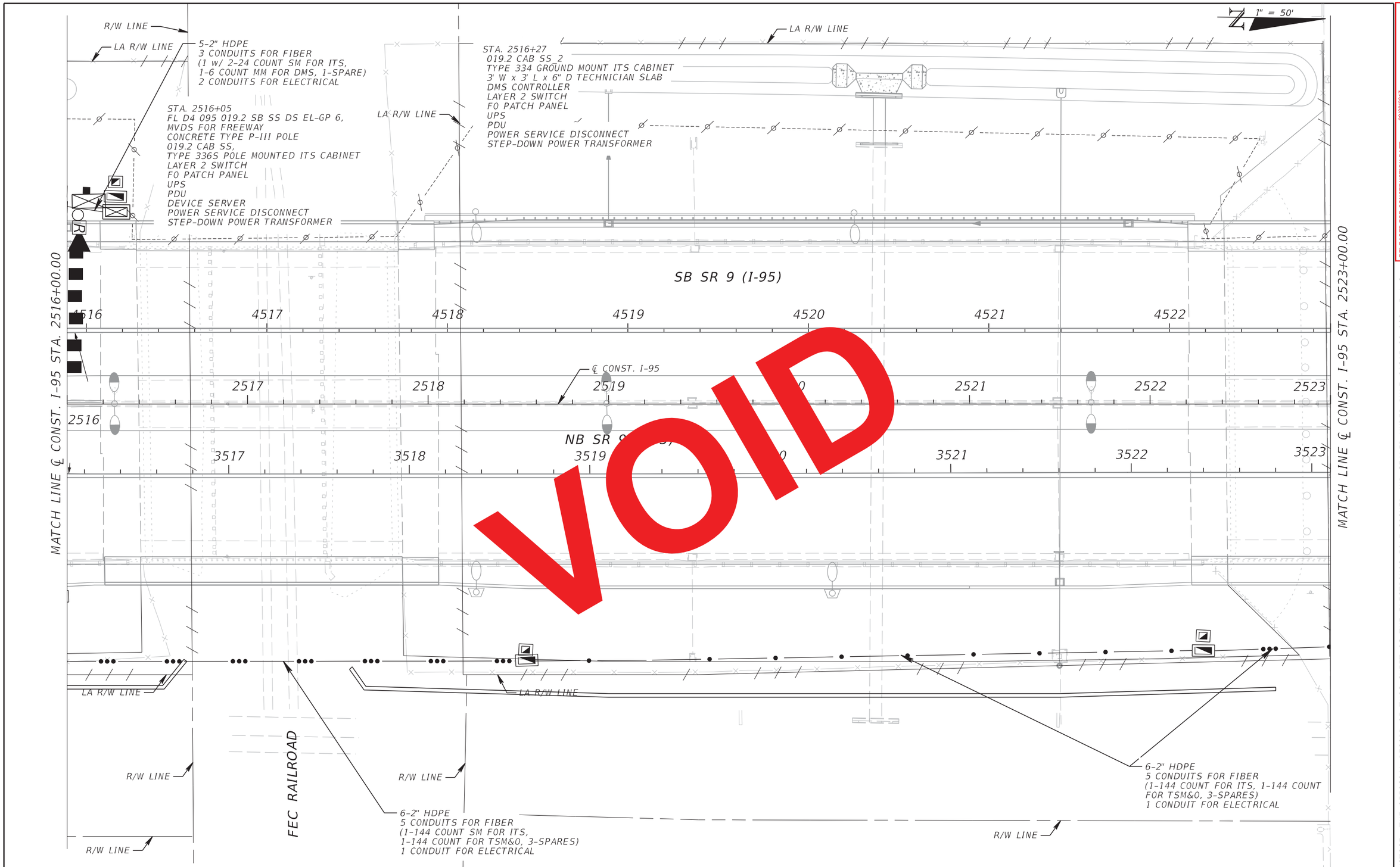
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (29)

SHEET NO.
IT-65



VOID

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (29)

SHEET NO.

IT-65

1" = 50'

SW 15TH STREET

LA R/W LINE

STA. 2528+12
FL D4 095 019.5 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
019.5 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
019.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING VOIP TO BE REMOVED
AND RETURNED TO DEPARTMENT
(VOIP 95-36.7)

EXISTING DEVICES, CABINET
AND POLE TO BE REMOVED
(C9038, FLD4095036.7NBSS/
FLD4095036.7SBSS)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

6523 6524 6525 6526 6527 6528 6529 6530

2523 2524 2525 2526 2527 2528 2529 2530

℄ CONST. I-95

5523 5524 5525 5526 5527 5528 5529 5530

MATCH LINE ℄ CONST. I-95 STA. 2523+00.00

MATCH LINE ℄ CONST. I-95 STA. 2530+00.00

NB SR 9 (I-95)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 SM FOR ITS, 1 SPARE)
1 CONDUIT FOR ELECTRICAL (SPARE)

SV-24
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 SM FOR ITS, 3 SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

SW 15TH STREET

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 490		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (30)

SHEET NO.
IT-66

1" = 50'

SW 15TH STREET

LA R/W LINE

STA. 2528+12
FL D4 095 019.5 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
019.5 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
019.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING VOIP TO BE REMOVED
AND RETURNED TO DEPARTMENT
(VOIP 95-36.7)

EXISTING DEVICES, CABINET
AND POLE TO BE REMOVED
(C9038, FLD4095036.7NBSS/
FLD4095036.7SBSS)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

6523 6524 6525 6526 6527 6528 6529 6530

2523 2524 2525 2526 2528 2529 2530

℄ CONST. I-95

5523 5524 5525 5528 5529 5530

SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2523+00.00

MATCH LINE ℄ CONST. I-95 STA. 2530+00.00

SV-24
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 SM FOR ITS, 3 SPARES)
1 CONDUIT FOR ELECTRICAL

SW 15TH STREET

R/W LINE

VOID

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec) FL

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (30)

SHEET NO.
IT-66

1" = 50'

LA R/W LINE

SB SR 9 (I-95)

6530 6531 6532 6533 6534 6535 6536 6537

℄ CONST. I-95

2530 2531 2532 2533 2534 2535 2536 2537

5530 5531 5532 5533 5534 5535 5536 5537

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2530+00.00

MATCH LINE ℄ CONST. I-95 STA. 2537+00.00

STA. 2530+00
FL D4 095 019.5 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
019.5 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (31)

SHEET NO.
IT-67

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

1" = 50'

LA R/W LINE

SB SR 9 (I-95)

6530 6531 6532 6533 6534 6535 6536 6537

2530 2531 2532 2533 2535 2536 2537

5530 5531 5532 5535 5536 5537

℄ CONST. I-95

NB SR

MATCH LINE ℄ CONST. I-95 STA. 2530+00.00

MATCH LINE ℄ CONST. I-95 STA. 2537+00.00

STA. 2530+00
FL D4 095 019.5 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
019.5 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

VOID

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BY: (Stantec) BY: (FDOT)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (31)

SHEET NO.
IT-67

1" = 50'

STA. 2541+55
FL D4 095 019.7 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
019.7 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

ELECTRICAL SERVICE TO
SERVICE POINT/GENERATOR C
SEE ITS ELECTRICAL PLANS

LA R/W LINE

SB SR 9 (I-95)

4-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

6537 6538 6539 6540 6541 6542 6543 6544

2537 2538 2539 2540 2541 2542 2543 2544

℄ CONST. I-95

5537 5538 5539 5540 5541 5542 5543 5544

MATCH LINE ℄ CONST. I-95 STA. 2537+00.00

MATCH LINE ℄ CONST. I-95 STA. 2544+00.00

5-2" HDPE
3 CONDUITS FOR FIBER
(2 W/ 3-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

NB SR 9 (I-95)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 SM FOR ITS, 1 SPARE)
1 CONDUIT FOR ELECTRICAL (SPARE)

SV-25
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

OR

STA. 2537+00
FL D4 095 019.6 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
019.6 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 SM FOR ITS, 3 SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

R/W LINE

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 490		

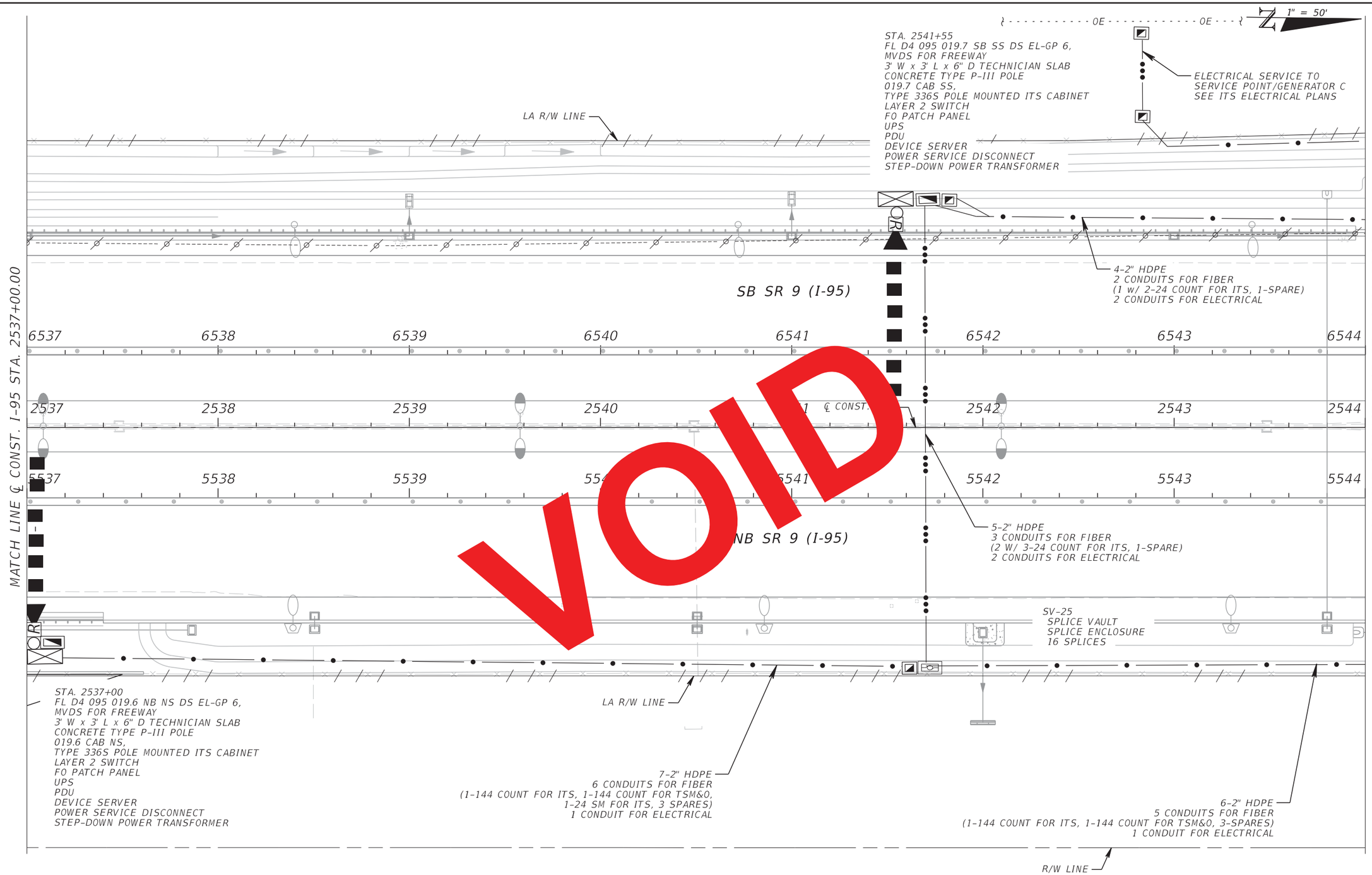
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (32)

SHEET NO.
IT-68



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Z84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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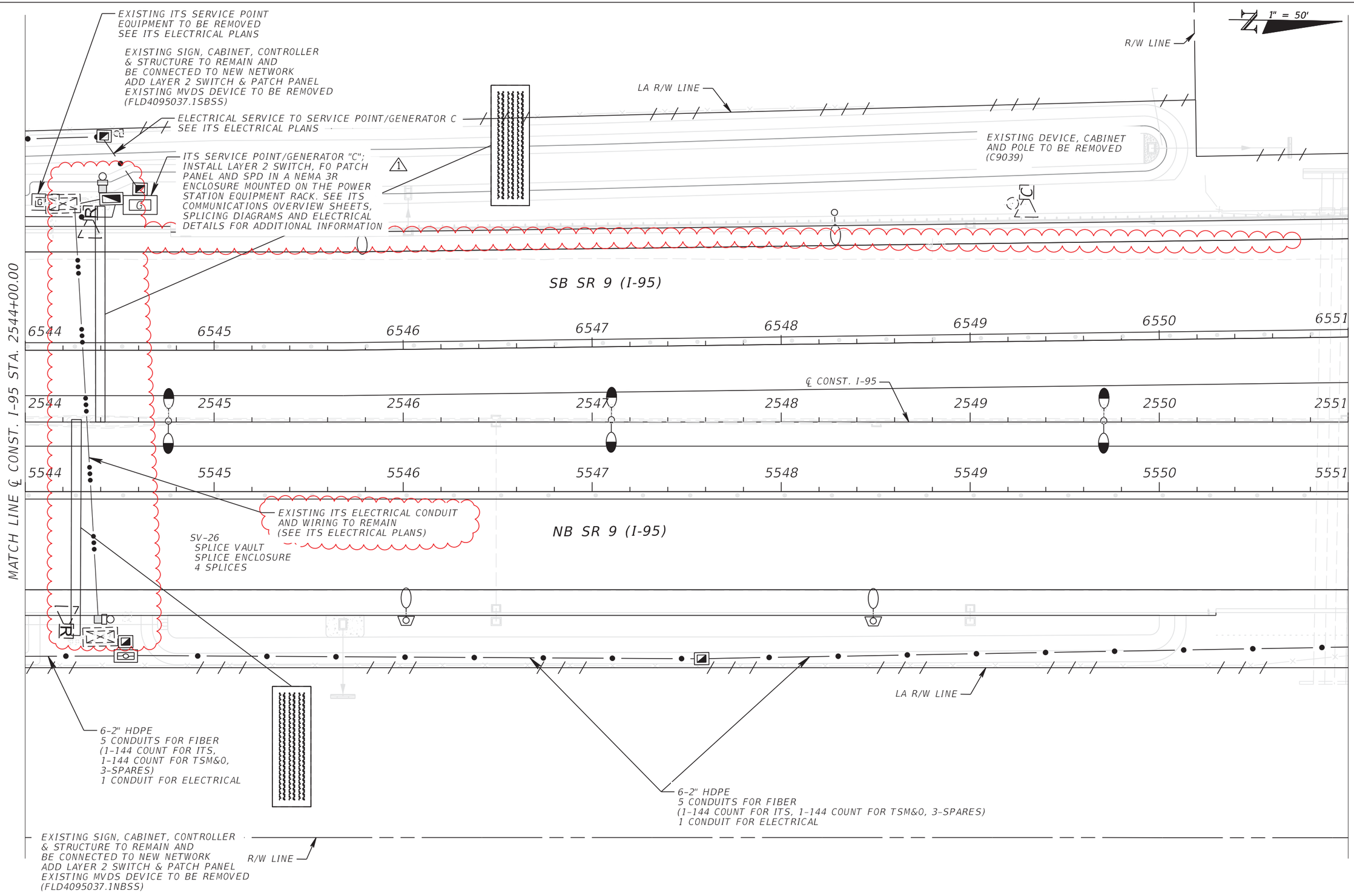
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (32)

SHEET NO.
IT-68



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "C" CALLOUT		
09/13/19	AS-BUILTS per RFI 521 & RFM 026		

Parsons Brinckerhoff, Inc.
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (33)

SHEET NO.
IT-69

EXISTING ITS SERVICE POINT
EQUIPMENT TO BE REMOVED
SEE ITS ELECTRICAL PLANS

EXISTING SIGN, CABINET, CONTROLLER
& STRUCTURE TO REMAIN AND
BE CONNECTED TO NEW NETWORK
ADD LAYER 2 SWITCH & PATCH PANEL
EXISTING MVDS DEVICE TO BE REMOVED
(FLD4095037.1SBSS)

ELECTRICAL SERVICE TO SERVICE POINT/GENERATOR C
SEE ITS ELECTRICAL PLANS

ITS SERVICE POINT/GENERATOR "C";
INSTALL LAYER 2 SWITCH, FO PATCH
PANEL AND SPD IN A NEMA 3R
ENCLOSURE MOUNTED ON THE POWER
STATION EQUIPMENT RACK. SEE ITS
COMMUNICATIONS OVERVIEW SHEETS,
SPLICING DIAGRAMS AND ELECTRICAL
DETAILS FOR ADDITIONAL INFORMATION

1" = 50'

R/W LINE

LA R/W LINE

EXISTING DEVICE, CABINET
AND POLE TO BE REMOVED
(C9039)

SB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2544+00.00

6544 6545 6546 6547 6548 6549 6550 6551

2544 2545 2546 2547 2548 2549 2550 2551

5544 5545 5546 5547 5548 5549 5550 5551

℄ CONST. I-95

SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2551+00.00

SV-26
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

EXISTING SIGN, CABINET, CONTROLLER
& STRUCTURE TO REMAIN AND
BE CONNECTED TO NEW NETWORK
ADD LAYER 2 SWITCH & PATCH PANEL
EXISTING MVDS DEVICE TO BE REMOVED
(FLD4095037.1NBSS)

R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of primary construction, as well as means, methods, techniques, sequences and procedures of construction and safety precautions and programs incidental thereto, shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "C" CALLOUT		

Parsons Brinckerhoff, Inc.
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (33)

SHEET NO.
IT-69

EXISTING ITS SERVICE POINT
EQUIPMENT TO BE REMOVED
SEE ITS ELECTRICAL PLANS

EXISTING SIGN, CABINET, CONTROLLER
& STRUCTURE TO REMAIN AND
BE CONNECTED TO NEW NETWORK
ADD LAYER 2 SWITCH & PATCH PANEL
EXISTING MVDS DEVICE TO BE REMOVED
(FLD4095037.1SBSS)

ELECTRICAL SERVICE TO SERVICE POINT/GENERATOR C
SEE ITS ELECTRICAL PLANS

ITS SERVICE POINT/
GENERATOR "C";
LAYER 2 SWITCH AND FO PATCH PANEL
IN THE ATS CABINET OF GENERATOR

1" = 50'

R/W LINE

LA R/W LINE

EXISTING DEVICE, CABINET
AND POLE TO BE REMOVED
(C9039)

SB SR 9 (I-95)

6544 6545 6546 6547 6549 6550 6551

2544 2545 2546 2547 2548 2549 2550 2551

5544 5545 5546 5547 5548 5549 5550 5551

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2544+00.00

MATCH LINE ℄ CONST. I-95 STA. 2551+00.00

SV-26
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

EXISTING SIGN, CABINET, CONTROLLER
& STRUCTURE TO REMAIN AND
BE CONNECTED TO NEW NETWORK
ADD LAYER 2 SWITCH & PATCH PANEL
EXISTING MVDS DEVICE TO BE REMOVED
(FLD4095037.1NBSS)

R/W LINE

LA R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (33)

SHEET NO.
IT-69

3

STA. 2555+03
FL D4 095 020.0 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.0 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

R/W LINE

1" = 50'

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2551+00.00

SB SR 9 (I-95)

6551 6552 6553 6554 6555 6556 6557 6558

2551 2552 2553 2554 2555 2556 2557 2558

℄ CONST. I-95

5551 5552 5553 5554 5555 5556 5557

NB SR 9 (I-95)

STA. 2554+46
FL D4 095 020.0 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
020.0 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
020.0 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

401 402 COPANS RAMP NE 403 404

MATCH LINE ℄ CONST. I-95 STA. 2558+00.00

℄ CONST. COPANS RAMP SE

SWALE 23-11

SV-27
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES
FUTURE RSS FOR COPANS RAMP ES

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (34)

SHEET NO.
IT-70

3

STA. 2555+03
FL D4 095 020.0 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.0 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

R/W LINE

1" = 50'

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2551+00.00

SB SR 9 (I-95)

6551 6552 6553 6554 6555 6556 6557 6558

2551 2552 2553 2554 2555 2556 2557 2558

℄ CONST. I-95

5551 5552 5553 5554 5555 5556 5557

MATCH LINE ℄ CONST. I-95 STA. 2558+00.00

STA. 2554+46
FL D4 095 020.0 NB NS EL-GP
MVDS FOR FREEWAY
020.0 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE W/
020.0 CAB NS
TYPE 336S POLE MOUNTED CABINET
2 LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

NB SR 9 (I-95)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

402 COPANS RAMP NE 403 404

℄ CONST. COPANS RAMP SE

SWALE 23-11

SV-27
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details rests with the contractor. Approval does not relieve contractor of responsibility for any deviations from the contract documents. Review of any specific deviation does not imply approval of any other deviation not specifically noted. Any fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4G64
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

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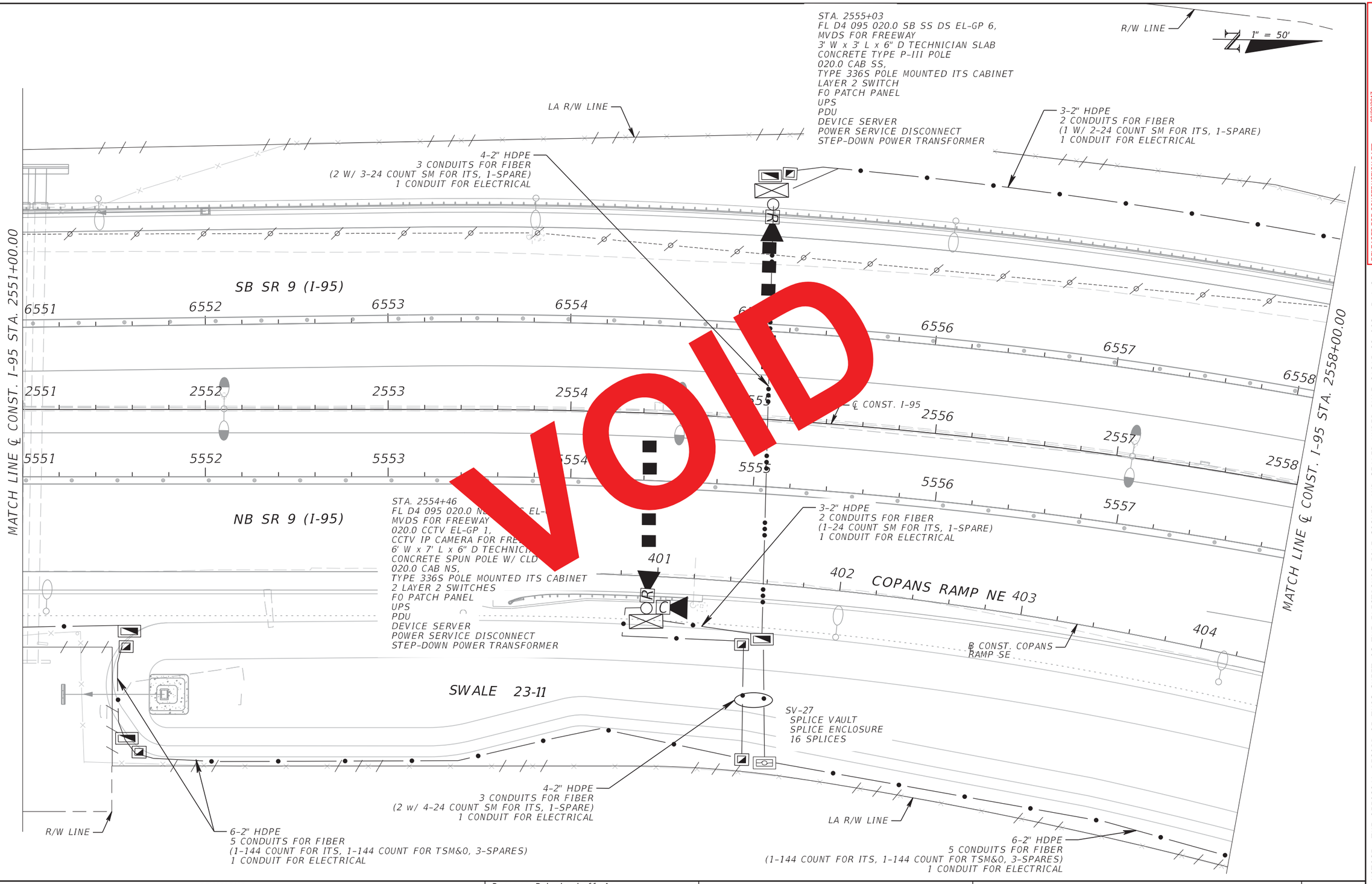
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (34)

SHEET NO.
IT-70



RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) PL BY: (FDOT)

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REVISIONS			
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (34)

SHEET NO.
IT-70

C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\zz_Standards (FDOTSS4 MRI)\RESOURCES\plot\FDOT_LtGrayExDkGrayPr.tbl abreuk 7/26/2017 9:30:34 AM c:\projectwise\pb\projectwiseint\abreuk\d0146451\planit34.DGN

3

1" = 50'

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

STA. 2561+14
FL D4 095 020.1 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.1 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SB SR 9 (I-95)

208 COPANS RAMP ES

NB SR 9 (I-95)

℄ CONST. I-95

MATCH LINE ℄ CONST. I-95 STA. 2558+00.00

MATCH LINE ℄ CONST. I-95 STA. 2565+00.00

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

SWALE 23-11

COPANS RAMP NE

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	AS BUILTS		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (35)

SHEET NO.
IT-71

3

1" = 50'

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

STA. 2561+14
FL D4 095 020.1 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.1 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SB SR 9 (I-9

NB SR 9 (I-95)

℄ CONST. I-95

208 COPANS RAMP ES

COPANS RAMP NE

SWALE 23-11

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2558+00.00

MATCH LINE ℄ CONST. I-95 STA. 2565+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of design, dimensions, and quantities rests with contractor. Approval does not relieve contractor of responsibility for errors and omissions. Fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4C64
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (35)

SHEET NO. IT-71

1" = 50'

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

STA. 2561+14
FL D4 095 020.1 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.1 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SB SR 9 (I-95)

208 COPANS RAMP ES

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

STA. 2564+20
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

STOP HERE ON RED

STOP HERE ON RED

ONE VEHICLE PER GREEN

DUAL LOOP
DETECTOR
SENSORS
(DEMAND)

RAMP METERING
CONTROL SIGNAL

2-2" HDPE
1-CAT5E FOR ITS
1 CONDUIT FOR
ELECTRICAL

7-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 6 LOOP DETECTOR WIRES)
4 CONDUIT FOR FIBER
(1-CAT5E, 1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

STA. 2564+51
020.1 CAB SS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

SWALE 23-11

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

COPANS RAMP NE

MATCH LINE ℄ CONST. I-95 STA. 2558+00.00

MATCH LINE ℄ CONST. I-95 STA. 2565+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (35)

SHEET NO.
IT-71

MATCH LINE SEE ITS PLAN (36A)

1" = 50'

SB SR 9 (I-95)

NB SR 9 (I-95)

6565 6566 6567 6568 6569 6570 6571 6572

2565 2566 2567 2568 2569 2570 2571 2572

5565 5566 5567 5568 5569 5570 5571

℄ CONST. I-95

MATCH LINE ℄ CONST. I-95 STA. 2565+00.00

MATCH LINE ℄ CONST. I-95 STA. 2572+00.00

COPANS RAMP SE

302

COPANS RAMP NE

STA. 2565+04
FL D4 095 020.2 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.2 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EOR

1 3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-28
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

LA R/W LINE

POND 23-15

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 MOVED MVDS POLE OFFSET		
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	AS-BUILTS		

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (36)

SHEET NO.
IT-72

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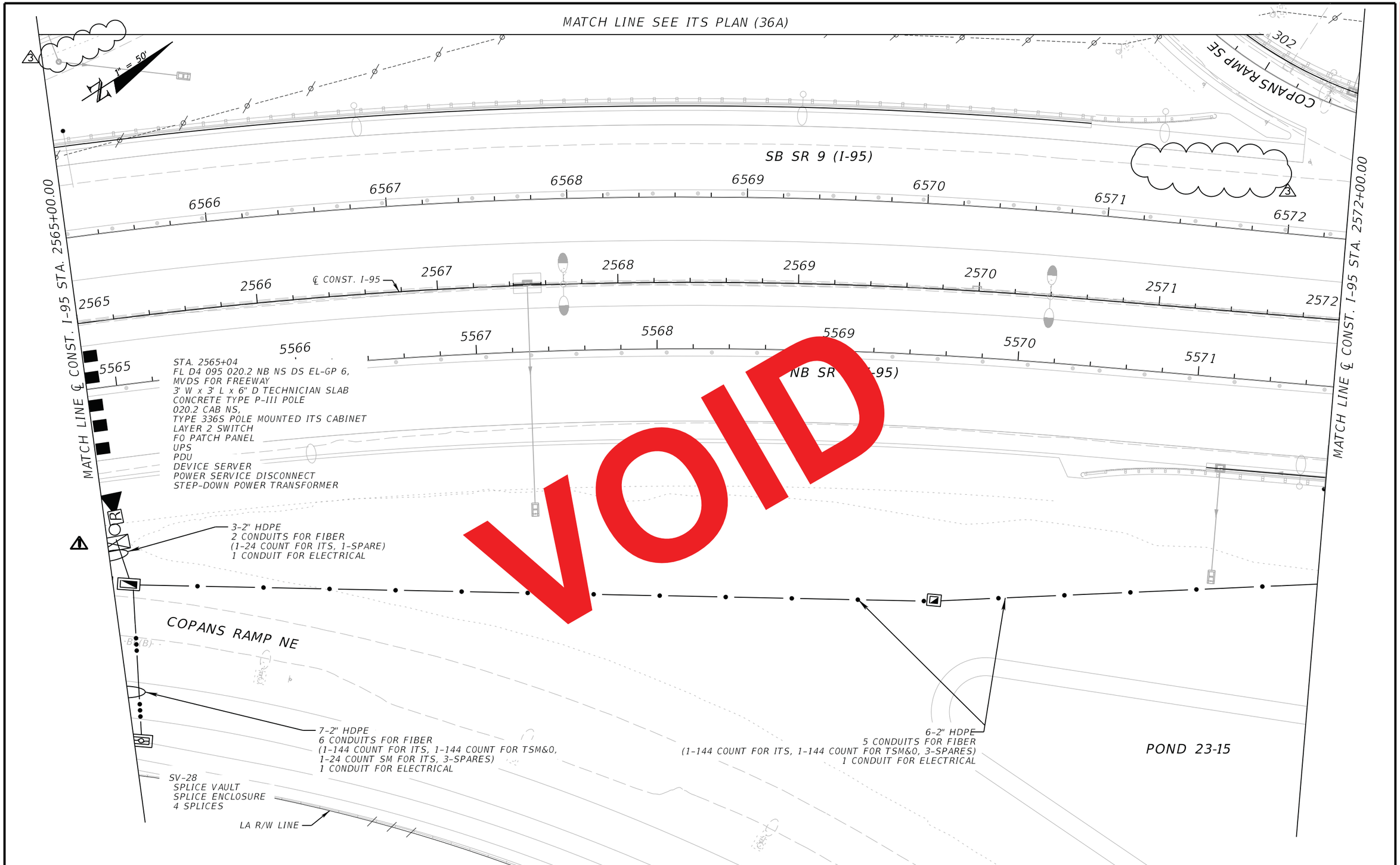

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 MOVED MVDS POLE OFFSET		
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (36)

SHEET NO.
IT-72

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

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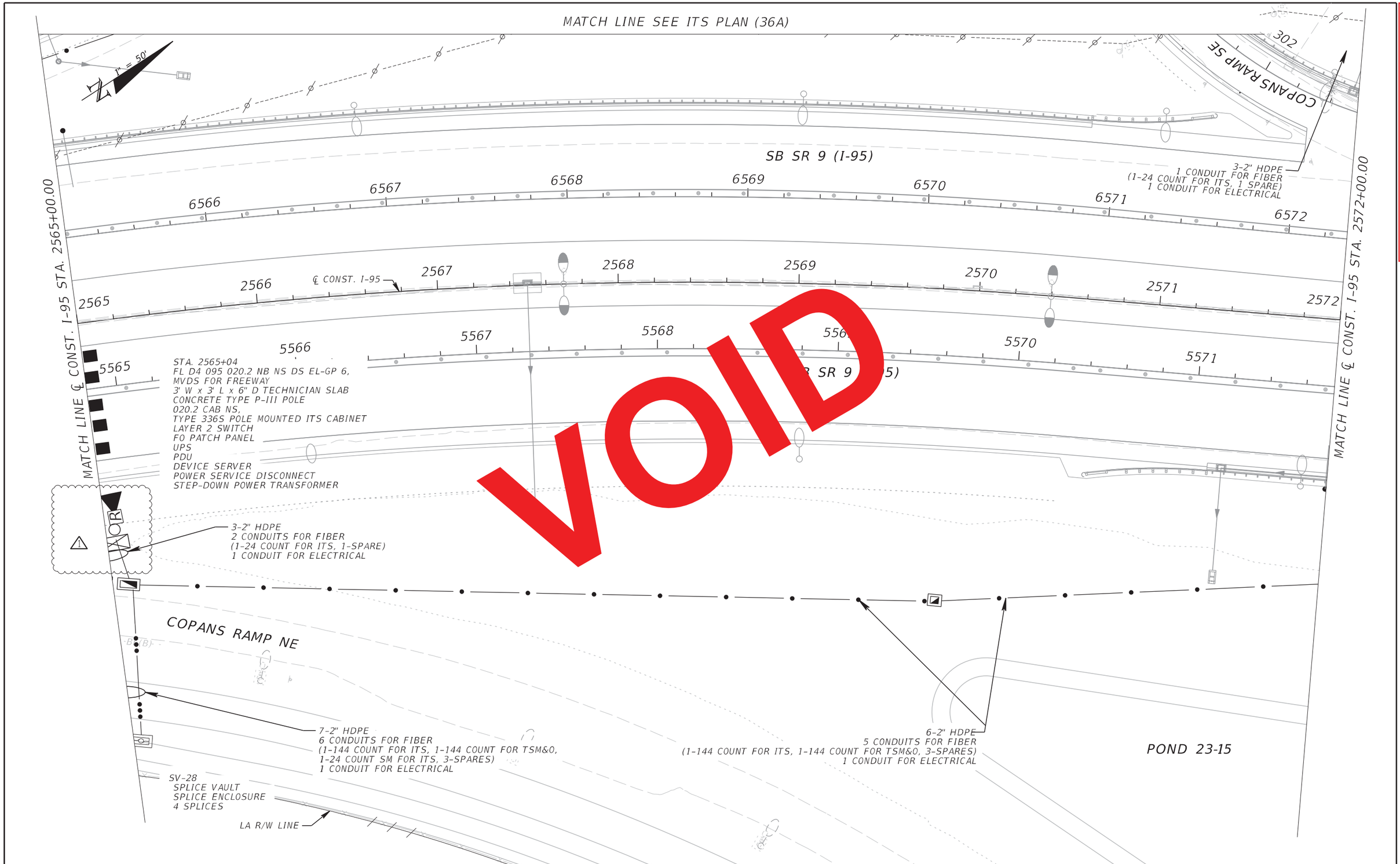
c:\projectwise\pb\projectwiseint\perezr\d0173361\433108652O1_I95_Ph3BI_FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3B-I\data\433108552O1_I95_Ph3bI-ltg.tbl PerezR 3/8/2019 3:46:56 PM c:\projectwise\pb\projectwiseint\perezr\d0146451\planit36.DGN



RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	△1 MOVED MVDS POLE OFFSET		

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (36)

SHEET NO.
IT-72

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MATCH LINE SEE ITS PLAN (36A)

1" = 50'

SB SR 9 (I-95)

COPANS RAMP SE

302

6566 6567 6568 6569 6570 6571 6572

2565 2566 ℄ CONST. I-95 2567 2568 2569 2570 2571 2572

5565 5566 5567 5568 5569 5570 5571

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2565+00.00

MATCH LINE ℄ CONST. I-95 STA. 2572+00.00

STA. 2565+04
FL D4 095 020.2 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.2 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

COPANS RAMP NE

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-28
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

POND 23-15

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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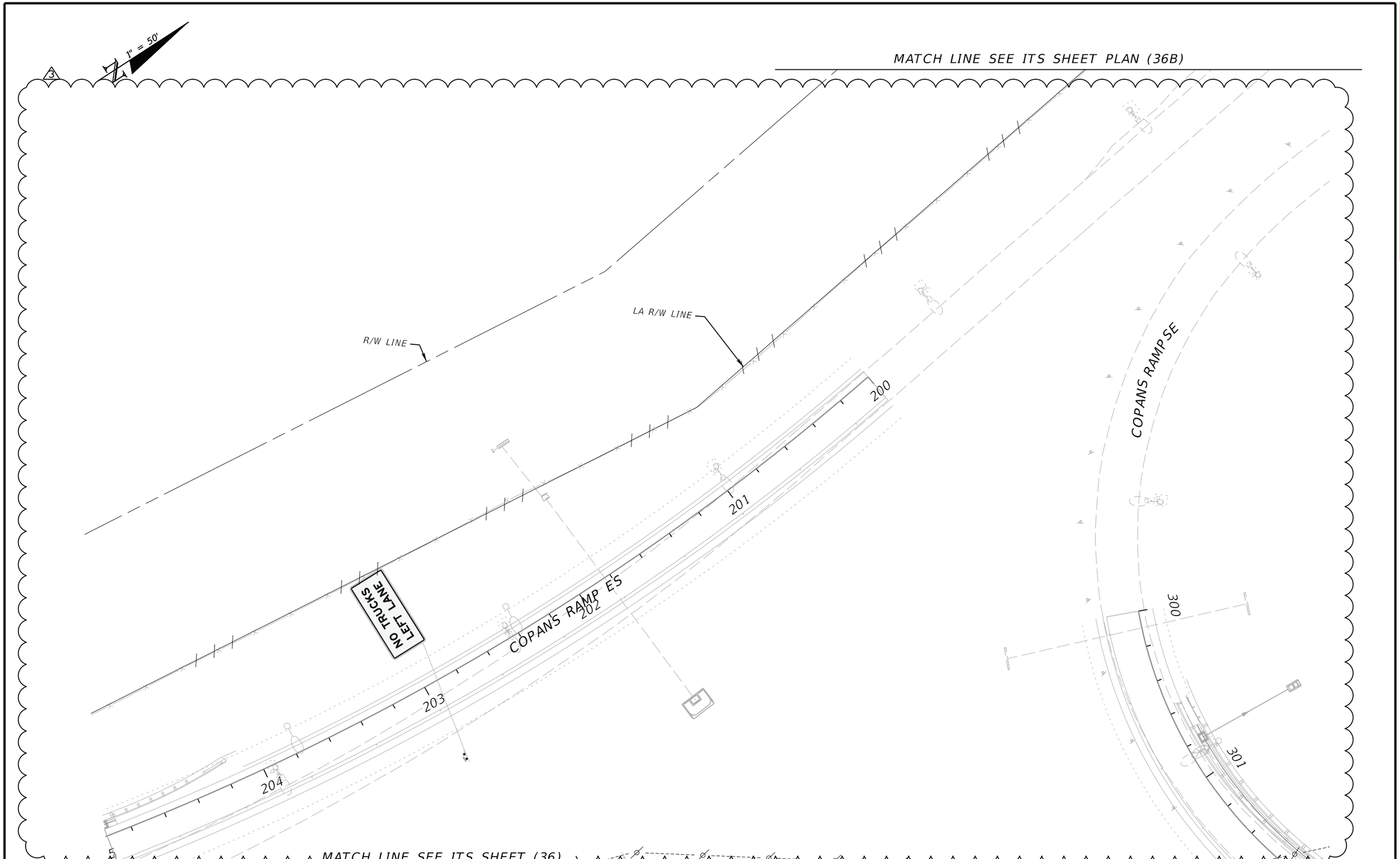
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (36)

SHEET NO. IT-72



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (36A)

SHEET NO. IT-73

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) DS

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1" = 50'

MATCH LINE SEE ITS SHEET PLAN (36B)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

R/W LINE

23'

COPANS RAMP SE

201

STA. 2566+00
020.2 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
NEMA CABINET W/ SPD

NO TRUCKS LEFT LANE

COPANS RAMP ES

202

203

204

300

301

2-2" HDPE
1-CAT5E FOR ITS
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS SHEET (36)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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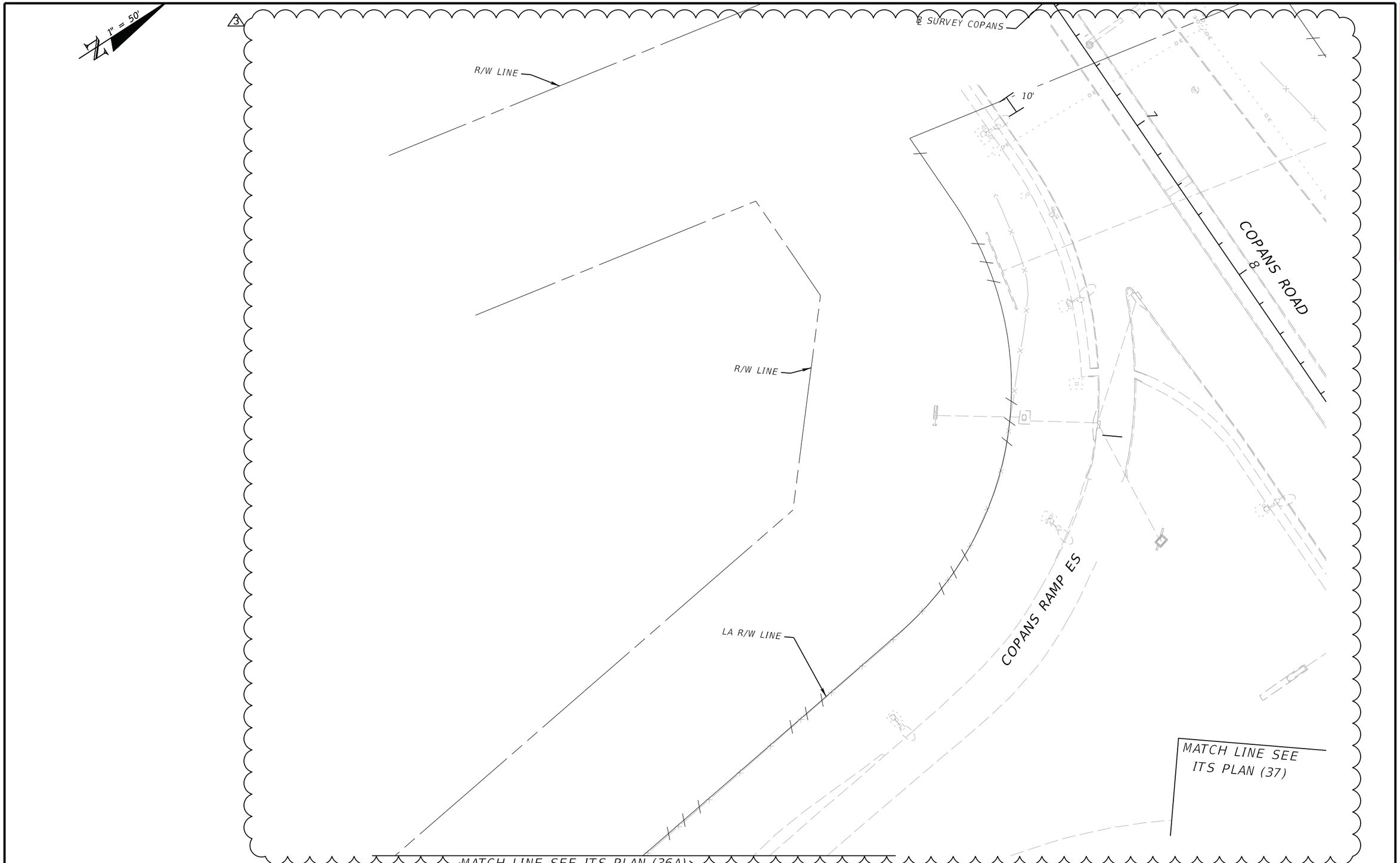
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (36A)

SHEET NO.
IT-73



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (36B)

SHEET NO.
IT-74

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

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1" = 50'

℄ SURVEY COPANS

R/W LINE

STA. 6+46

RAMP METERED WHEN FLASHING

ADVANCED WARNING BEACON SIGN (TYP)

10'

1-2" HDPE (ELECTRICAL)

COPANS ROAD

SPLICE VAUL
TURE CONNEC
(W 0' SLACK FIB

DUAL LOOP DETECTOR SENSOR (QUEUE)

R/

57'

VOID

1-2" HDPE (ELECTRICAL)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

COPANS RAMP ES

RAMP METERED WHEN FLASHING

MATCH LINE SEE ITS PLAN (37)

MATCH LINE SEE ITS PLAN (36A)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (36B)

SHEET NO. IT-74

MATCH LINE SEE ITS PLAN (37A)

MATCH LINE ℄ CONST. I-95 STA. 2572+00.00

MATCH LINE ℄ CONST. I-95 STA. 2579+00.00

STA. 2574+99
FL D4 095 020.3 SB SS DS EL-GP-0F 6,
MVDS FOR FREEWAY
020.3 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
WAP 95-37.7 (RELOCATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
020.3 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING WAP (WAP 95-37.7)
TO BE RELOCATED TO POLE
STA. 2574+99 SB

303

COPANS RAMP SE

COPANS ROAD EN

1" = 50'

SB SR 9 (I-95)

6573 6574 6575 6576 6577

2572 2573 ℄ CONST. I-95 2574 2575 2576 2577 2579

STA. 2578+04
FL D4 095 020.4 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.4 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
FO PATCH PANEL
LAYER 2 SWITCH
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

5572 5573 5574 5575 5576 5577 5578

NB SR 9 (I-95)

SV-29
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES
FUTURE RSS
FOR COPANS
RAMP EN

503 COPANS RAMP EN

504

502

501

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1 w/ 1-24" COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT SM,
3-SPARES
1 CONDUIT FOR ELECTRICAL

POND 23-15

MATCH LINE SEE ITS PLAN (37B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED D-CCTV		
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	AS-BUILTS		

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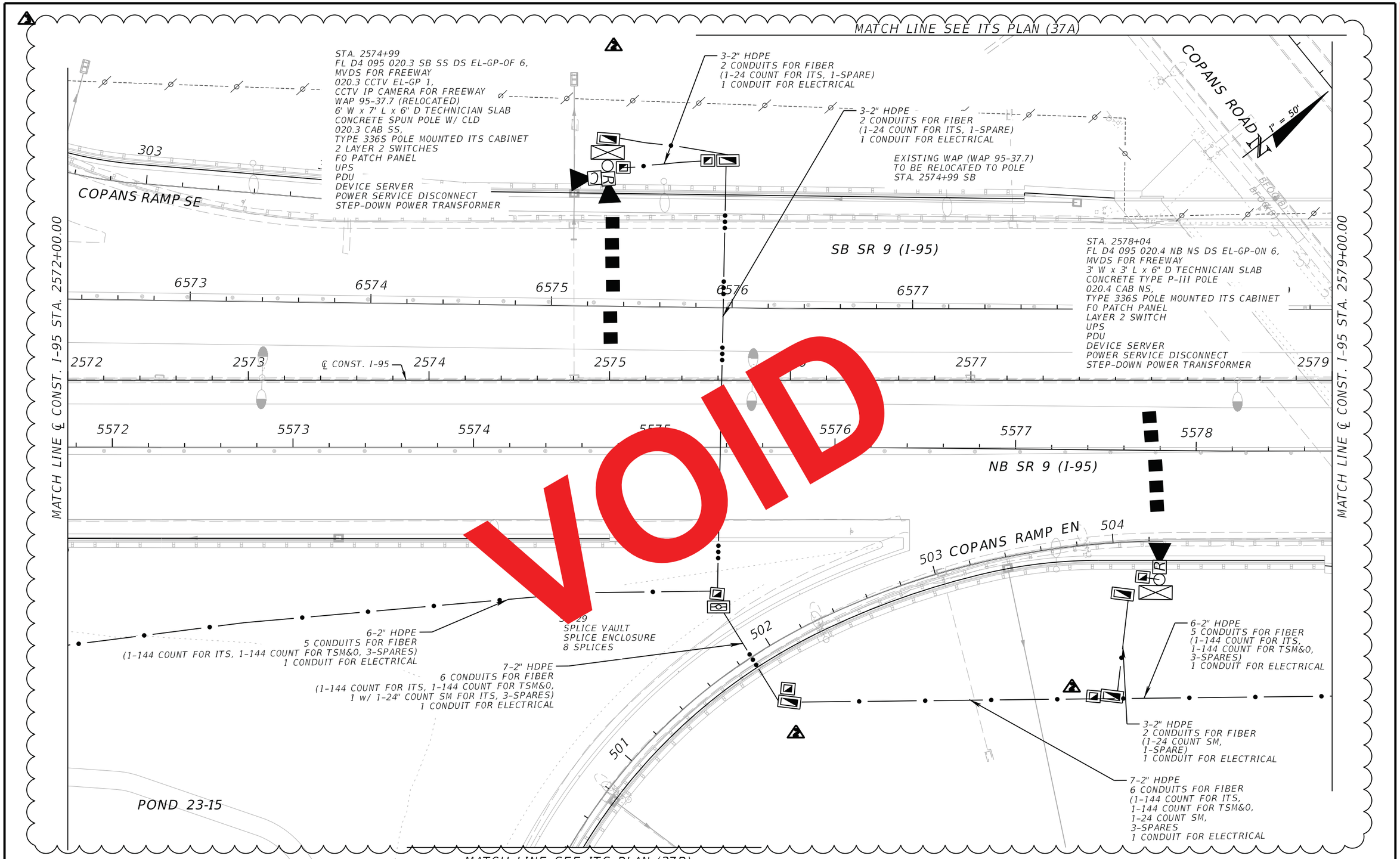
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (37)

SHEET NO.
IT-75



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED D-CCTV		
02/01/19	3 RSS REMOVAL CHANGES		

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (37)

SHEET NO.
IT-75

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) ES

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MATCH LINE SEE ITS PLAN (37A)

STA. 2574+99
FL D4 095 020.3 SB SS DS EL-GP-OF 6,
MVDS FOR FREEWAY
020.3 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
020.3 CCTV GP 2,
CCTV IP CAMERA (DEDICATED RAMP CAMERA)
WAP 95-37.7 (RELOCATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
020.3 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING WAP (WAP 95-37.7)
TO BE RELOCATED TO POLE
STA. 2574+99 SB

COPANS ROAD EN

1" = 50'

303

COPANS RAMP SE

SB SR 9 (I-95)

STA. 2578+04
FL D4 095 020.4 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.4 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
FO PATCH PANEL
LAYER 2 SWITCH
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6573 6574 6575 6576 6577

2572 2573 ℄ CONST. I-95 2574 2575 2577 2579

5572 5573 5574 5577 5578

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2572+00.00

MATCH LINE ℄ CONST. I-95 STA. 2579+00.00

RAM[illegible]ERING
CONT[illegible]NAL

STA. 2575+99
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

DUAL LOOP DETECTOR
SENSORS (DEMAND)

1-2" HDPE
[illegible]OR SIGNAL
[illegible]NAL WIRE)

503 COPANS RAMP EN

504

501 502

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

STA. 2574+51
020.3 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-29
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

11-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE)
8 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
2 w/ 3-24 COUNT SM FOR ITS, 1-CAT5E, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE AND 6 LOOP WIRES)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE
1 CONDUIT FOR FIBER
(1-CAT5E)

STA. 2575+79
020.4 CAB NS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE AND 6 LOOP WIRES)

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (1-144 COUNT FOR
TSM&O RAMP EXTENSION)

5-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT SM,
1-MVDS WIRE, 3-SPARES
1 CONDUIT FOR ELECTRICAL

POND 23-15

MATCH LINE SEE ITS PLAN (37B)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and details of fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED D-CCTV		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (37)

SHEET NO.
IT-75

MATCH LINE SEE ITS PLAN (37A)

MATCH LINE ℄ CONST. I-95 STA. 2572+00.00

MATCH LINE ℄ CONST. I-95 STA. 2579+00.00

STA. 2574+99
FL D4 095 020.3 SB SS DS EL-GP-0F 6,
MVDS FOR FREEWAY
020.3 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
WAP 95-37.7 (RELOCATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
020.3 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING WAP (WAP 95-37.7)
TO BE RELOCATED TO POLE
STA. 2574+99 SB

COPANS ROAD

1" = 50'

303

COPANS RAMP SE

SB SR 9 (I-95)

STA. 2578+04
FL D4 095 020.4 NB NS DS EL-GP-0N 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.4 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
FO PATCH PANEL
LAYER 2 SWITCH
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6573 6574 6575 6576 6577

2572 2573 ℄ CONST. I-95 2574 2575 257 2577 2579

5572 5573 5574 575 5577 5578

ONE VEHICLE PER GREEN

STOP HERE ON RED

NB SR 9 (I-95)

RAMP METER CONTROL SIGNAL

STA. 2575+99
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

DUAL LOOP DETECTOR SENSORS (DEMAND)

503 COPANS RAMP EN 504

DUAL LOOP DETECTOR SENSORS (PASSAGE)

STA. 2574+51
020.3 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-29
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

502

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE AND 6 LOOP WIRES)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
3-SPARES)
1 CONDUIT FOR ELECTRICAL

9-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE)
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1 w/ 2-24 COUNT SM FOR ITS, 1-CAT5E, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
1 CONDUIT FOR FIBER (1-CAT5E)
1 CONDUIT FOR ELECTRICAL

STA. 2575+79
020.4 CAB NS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

501

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE AND 6 LOOP WIRES)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT SM,
1-MVDS WIRE, 3-SPARES
1 CONDUIT FOR ELECTRICAL

POND 23-15

MATCH LINE SEE ITS PLAN (37B)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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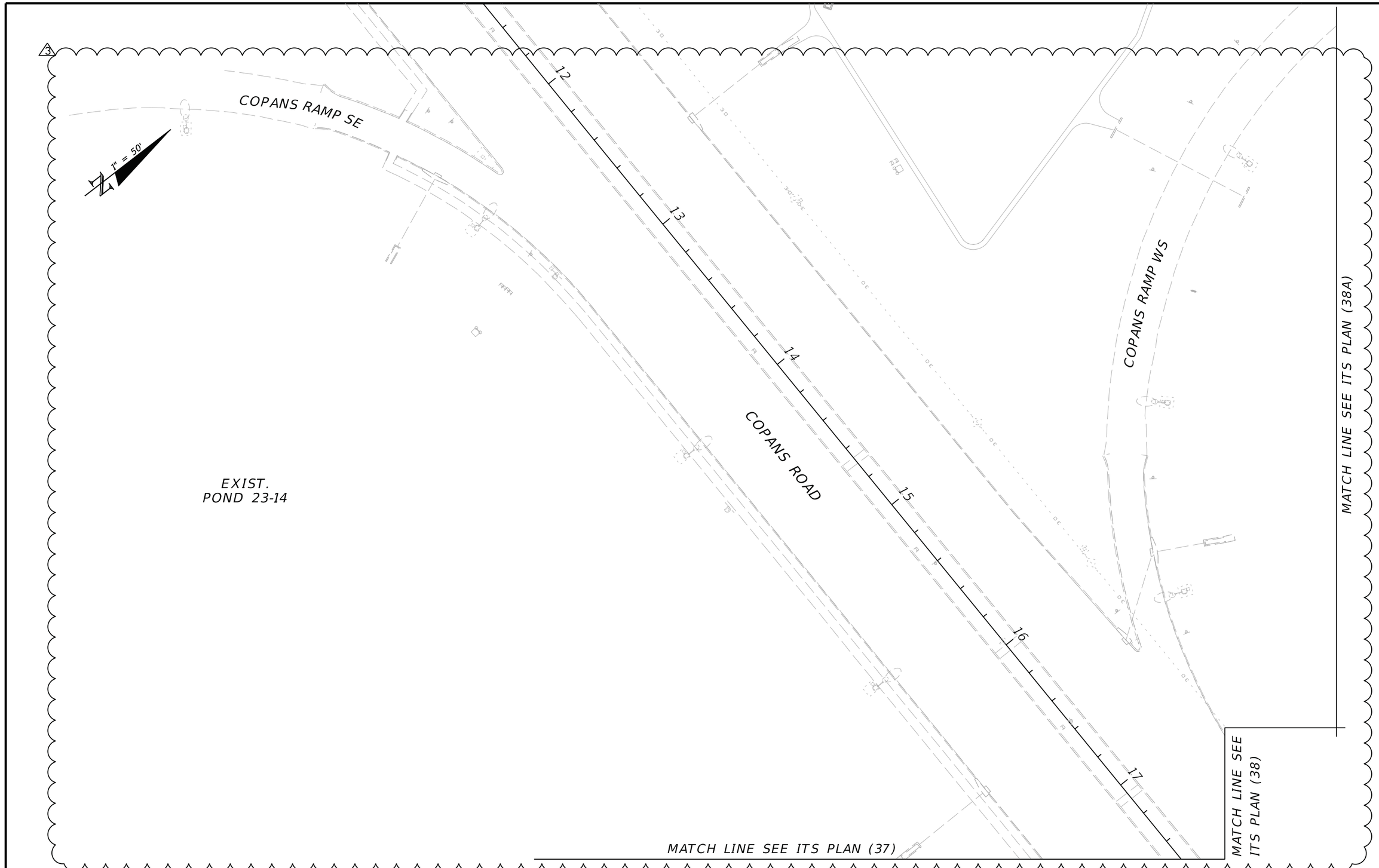
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (37)

SHEET NO.
IT-75



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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (37A)

SHEET NO.
IT-76

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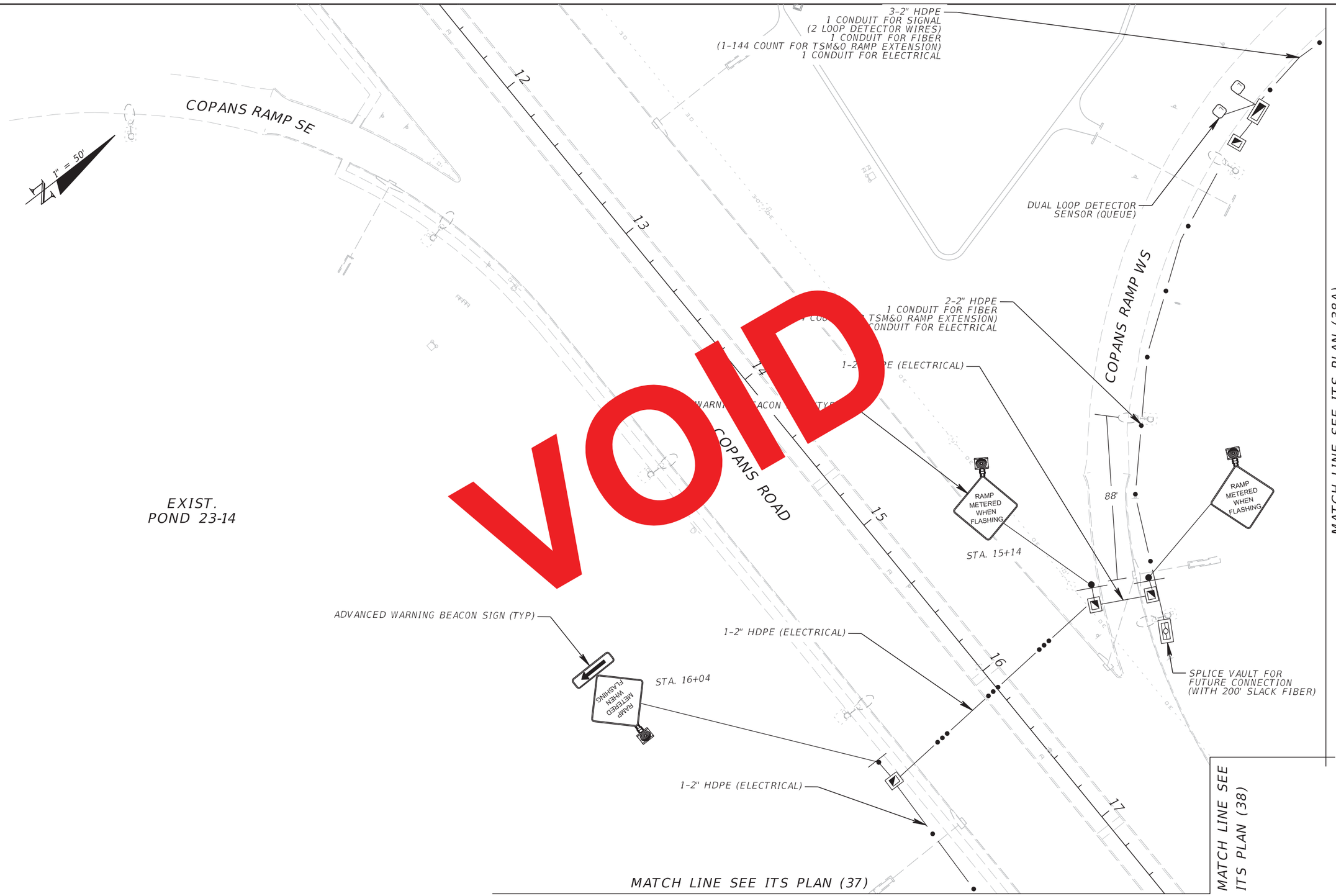

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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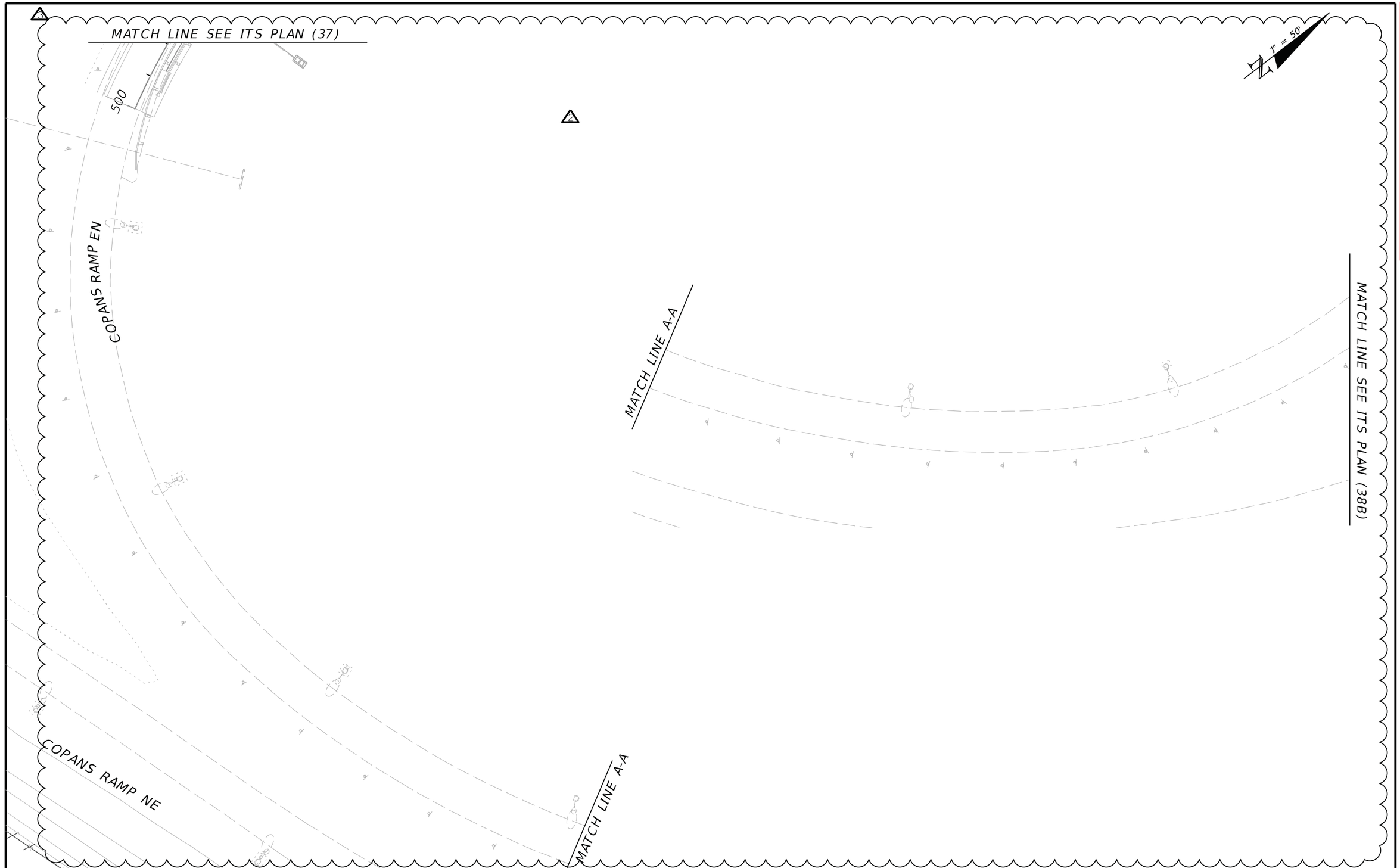
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (37A)

SHEET NO.
IT-76



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED D-CCTV; ADDED ELECTRICAL CONDUIT		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (37B)

SHEET NO.
IT-77

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

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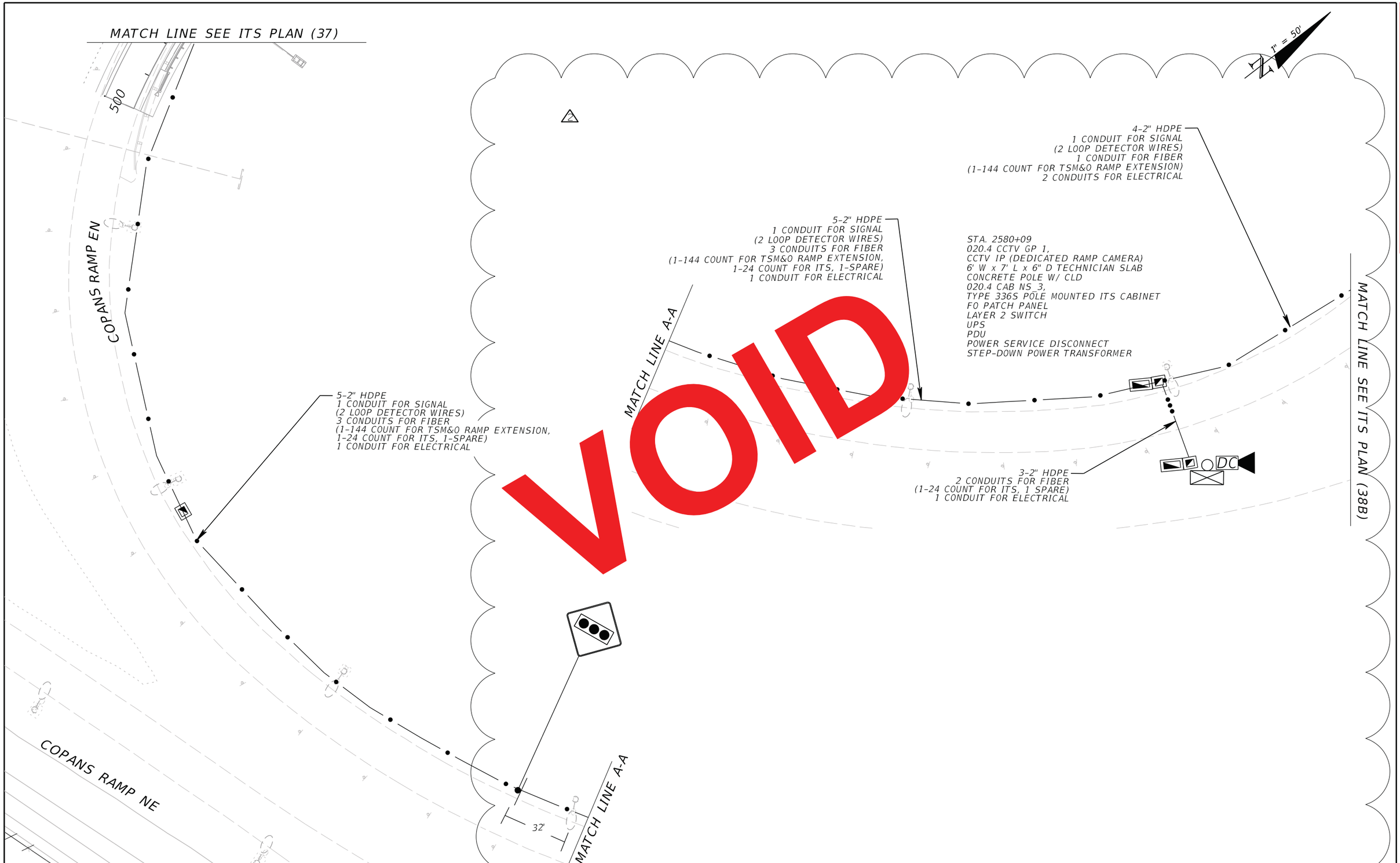

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	△2 ADDED D-CCTV; ADDED ELECTRICAL CONDUIT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (37B)

SHEET NO.
IT-77

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

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MATCH LINE SEE ITS PLAN (37)

500

COPANS RAMP EN

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP [illegible]NSION)
1 CONDUIT FOR ELECTRICAL

1" = 50'

VOID

COPANS RAMP NE

32'

MATCH LINE SEE ITS PLAN (38B)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (37B)

SHEET NO.
IT-77

MATCH LINE SEE ITS PLAN (37A)

MATCH LINE SEE ITS PLAN (38A)

COPANS ROAD

COPANS RAMP WS

EXISTING VOIP TO BE REMOVED AND RETURNED TO DEPARTMENT (VOIP 95-37.8)

EXISTING DEVICES, CABINET AND POLE TO BE REMOVED (C9040, FLD4095037.8NBSS/ FLD4095037.8SBSS)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

1" = 50'

SB SR 9 (I-95)

NB SR 9 (I-95)

℄ CONST. I-95

STA. 2583+01
FL D4 095 020.5 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM
FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2585+99
FL D4 095 020.6 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
020.6 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SV-30
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES
FUTURE RSS FOR
COPANS RAMP WS

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2579+00.00

MATCH LINE ℄ CONST. I-95 STA. 2586+00.00

MATCH LINE SEE ITS PLAN (38B)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED ELECTRICAL CONDUIT		
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	ASBUILTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
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EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38)

SHEET NO.
IT-78

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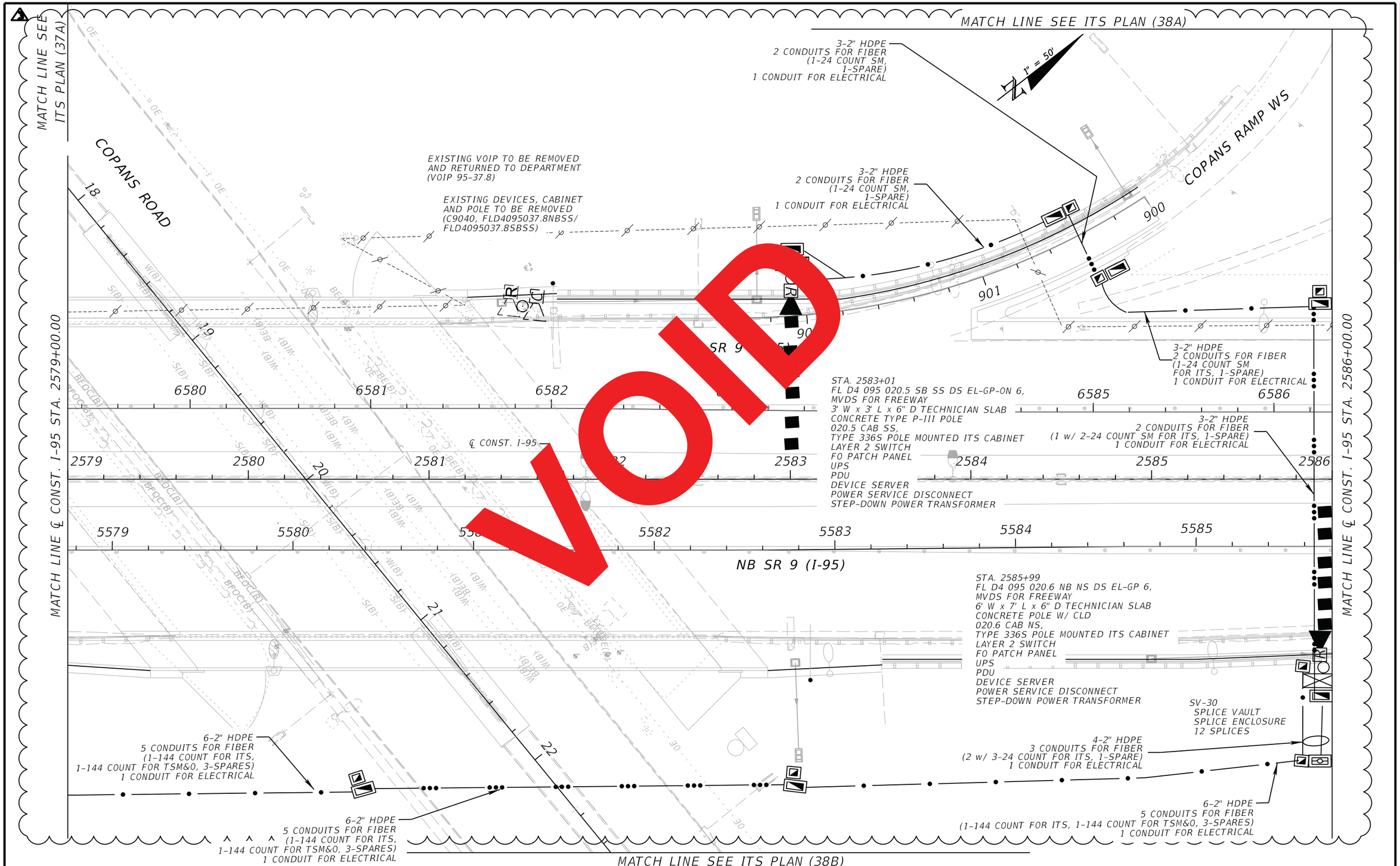

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED ELECTRICAL CONDUIT		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38)

SHEET NO.
IT-78

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

c:\projectwise\pb\projectwiseint\perezr\d0173361\433108652O1_I95_Ph3B1_FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3B-1\data\433108552O1_I95_Ph3b1-ltg.tbl PerezR 3/8/2019 3:47:12 PM c:\projectwise\pb\projectwiseint\perezr\d0146451\planit38.DGN

MATCH LINE SEE ITS PLAN (37A)

MATCH LINE SEE ITS PLAN (38A)

COPANS ROAD

COPANS RAMP

STA. 2584+97
020.5 CAB SS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING VOIP TO BE REMOVED AND RETURNED TO DEPARTMENT (VOIP 95-37.8)

EXISTING DEVICES, CABINET AND POLE TO BE REMOVED (C9040, FLD4095037.8NBSS/ FLD4095037.8SBSS)

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE (1-144 COUNT FOR TSM&O RAMP EXTENSION)

DUAL LOOP DETECTOR SENSORS (PASSAGE)

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR SENSORS (DEMAND)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
2 CONDUITS FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION,
1-24 COUNT FOR ITS)
1 CONDUIT FOR ELECTRICAL

STA. 2584+38
SEE DETAIL SHEET IT(249) FOR SIGN LAYOUT

STOP HERE ON RED

ONE VEHICLE PER GREEN

2-2" HDPE
1-CAT5E FOR ITS
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM
FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

RAMP [illegible] RING CONTRO[illegible]NAL

STA. 258[illegible]
FL D4 09[illegible]0.5 SB SS DS EL-GP-ON 6,
MVDS F[illegible] EEWAY
[illegible]' W [illegible] 6" D TECHNICIAN SLAB
[illegible] TYPE P-III POLE
[illegible] CAB SS,
[illegible]E 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

5-2" HDPE
4 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE,
1-CAT5E, 1-SPARE)
1 CONDUIT FOR RAMP SIGNAL POWER AND
2 LOOP WIRES

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 4 LOOP DETECTOR WIRES)

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2585+99
FL D4 095 020.6 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
020.6 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
020.6 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SV-30
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

NB SR 9 (I-95)

℄ CONST. I-95

STA. 23+03

RAMP METERED WHEN FLASHING

1-2" HDPE (ELECTRICAL)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE (ELECTRICAL)

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE
(ELECTRICAL)

MATCH LINE SEE ITS PLAN (38B)

MATCH LINE ℄ CONST. I-95 STA. 2579+00.00

MATCH LINE ℄ CONST. I-95 STA. 2586+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of performance data, quantities and safety of construction and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB
BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED ELECTRICAL CONDUIT		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38)

SHEET NO. IT-78

MATCH LINE SEE ITS PLAN (37A)

MATCH LINE SEE ITS PLAN (38A)

MATCH LINE SEE ITS PLAN (38B)

℄ CONST. I-95 STA. 2579+00.00

℄ CONST. I-95 STA. 2586+00.00

COPANS ROAD

COPANS RAMP W

SB SR 9 (I-95)

NB SR 9 (I-95)

℄ CONST. I-95

1" = 50'

STA. 2584+97
020.5 CAB SS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING VOIP TO BE REMOVED
AND RETURNED TO DEPARTMENT
(VOIP 95-37.8)

EXISTING DEVICES, CABINET
AND POLE TO BE REMOVED
(C9040, FLD4095037.8NBSS/
FLD4095037.8SBSS)

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSORS (DEMAND)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O
RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

STA. 2584+38
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

STOP HERE ON RED

ONE VEHICLE PER GREEN

2-2" HDPE
1-CAT5E FOR ITS
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM
FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

RAMP METERING
CONTROL SIGNAL

STA. 2584+38
FL D4 095 020.5 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH FANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

5-2" HDPE
4 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE
1-CAT5E, 1-SPARE)
1 CONDUIT FOR RAMP
SIGNAL POWER AND
2 LOOP WIRES

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 4 LOOP
DETECTOR WIRES)

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2585+99
FL D4 095 020.6 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
020.6 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
020.6 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SV-30
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 23+03

RAMP METERED WHEN FLASHING

1-2" HDPE (ELECTRICAL)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE
(ELECTRICAL)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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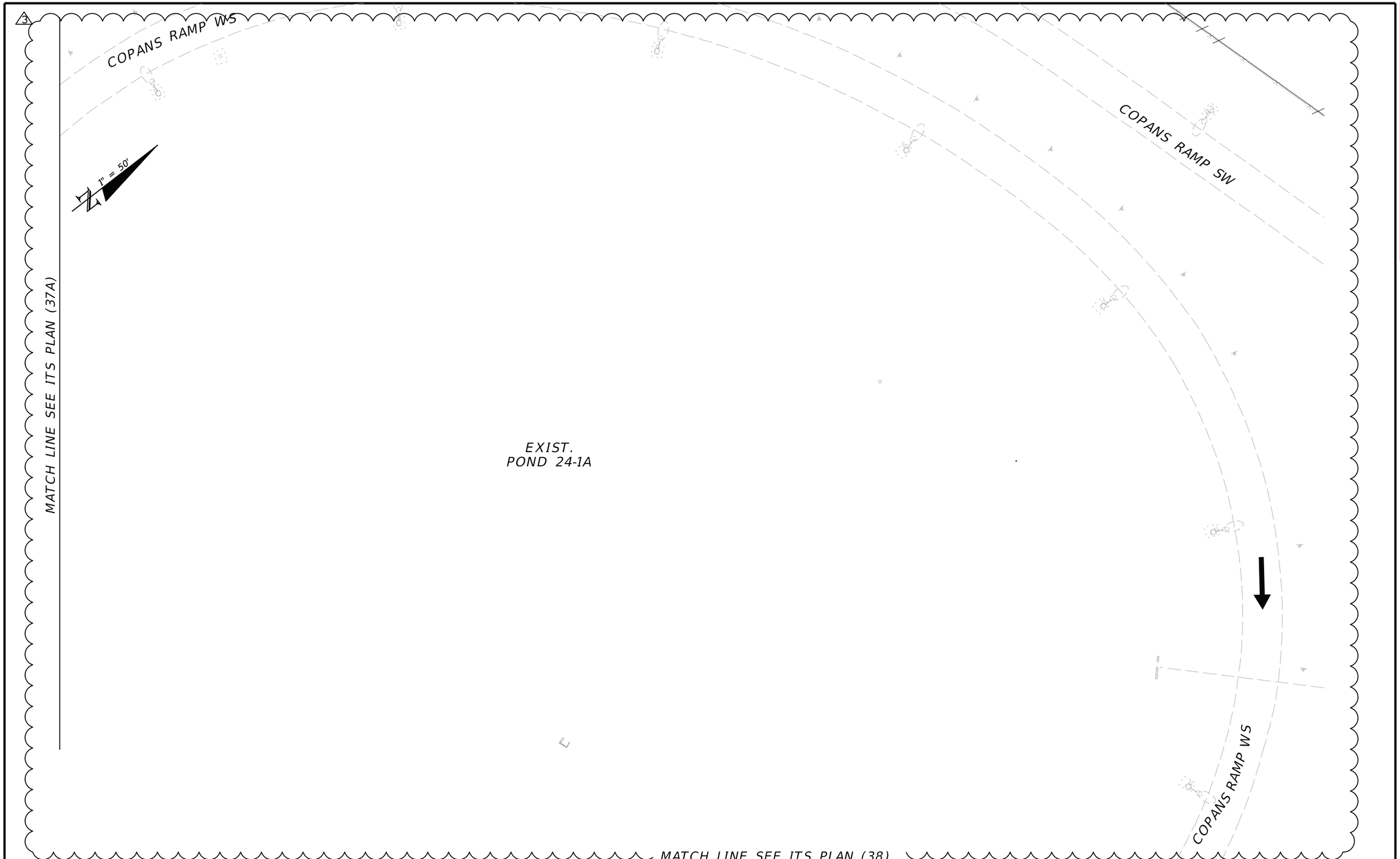
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38)

SHEET NO.
IT-78



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

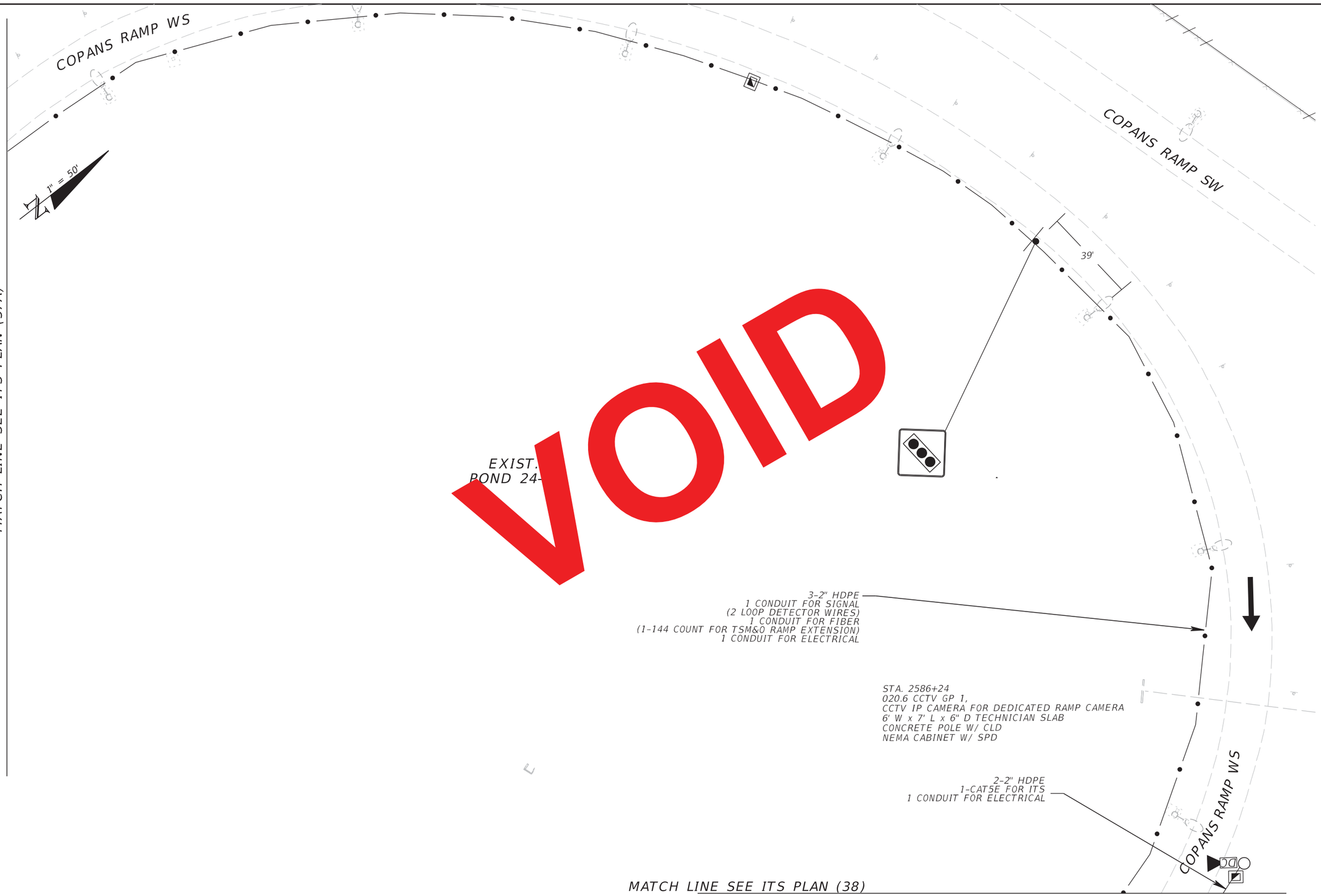
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38A)

SHEET NO.
IT-79

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS



MATCH LINE SEE ITS PLAN (37A)

MATCH LINE SEE ITS PLAN (38)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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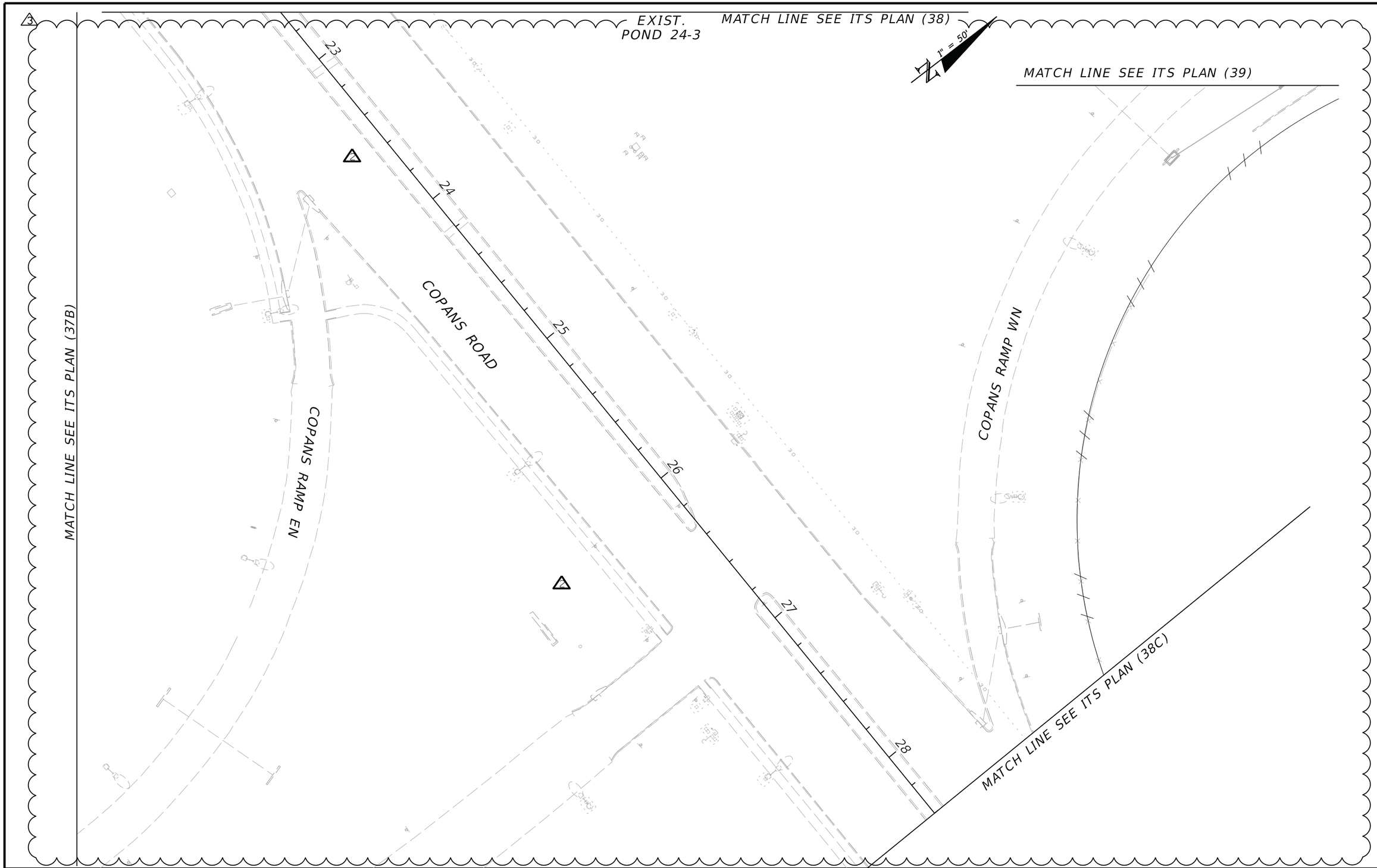
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38A)

SHEET NO.

IT-79



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED ELECTRICAL CONDUIT		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38B)

SHEET NO. IT-80

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

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c:\projectwise\pb\projectwiseint\perezr\d0173361\433108652O1_I95_Ph3BI_FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3B-I\data\433108552O1_I95_Ph3bI-ltg.tbl PerezR 3/8/2019 3:47:18 PM c:\projectwise\pb\projectwiseint\perezr\d0146451\planit38B.DGN

MATCH LINE SEE ITS PLAN (37B)

EXIST. POND 24-3

MATCH LINE SEE ITS PLAN (38)

1" = 50'

MATCH LINE SEE ITS PLAN (39)

2-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

23

24

25

27

28

24'

24'

COPANS ROAD

COPANS RAMP EN

COPANS RAMP WN

7'

72'

RAMP METERED WHEN FLASHING

RAMP METERED WHEN FLASHING

RAMP METERED WHEN FLASHING

SPLICE VAULT FOR FUTURE CONNECTION (WITH 200' SLACK FIBER)

ADVANCED WARNING BEACON SIGN (TYP)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

SPLICE VAULT FOR FUTURE CONNECTION (WITH 200' SLACK FIBER)

DUAL LOOP DETECTOR SENSOR (QUEUE)

DUAL LOOP DETECTOR SENSOR (QUEUE)

3-2" HDPE
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
2 CONDUITS FOR ELECTRICAL

4-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
2 CONDUITS FOR ELECTRICAL

2-2" HDPE
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

MATCH LINE SEE ITS PLAN (38C)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and fabrication which are to be performed or coordinated with the contract documents and field conditions is solely that of the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED ELECTRICAL CONDUIT		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38B)

SHEET NO. IT-80

MATCH LINE SEE ITS PLAN (37B)

EXIST. POND 24-3

MATCH LINE SEE ITS PLAN (38)

1" = 50'

MATCH LINE SEE ITS PLAN (39)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

24'

24'

RAMP METERED WHEN FLASHING

SPLICE VAULT FOR FUTURE CONNECTION (WITH 200' SLACK FIBER)

COPANS ROAD

COPANS RAMP EN

RAMP METERED WHEN FLASHING

ADVANCED WARNIN BEACON SIGN (TYP)

2-2" HDPE
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR SENSOR (QUEUE)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

SPL ULT FOR FUTURE NECTION (200' S FIBER)

RAMP METERED WHEN FLASHING

COPANS RAMP WN

7'

DUAL LOOP DETECTOR SENSOR (QUEUE)

72'

RAMP METERED WHEN FLASHING

23

24

25

26

27

28

2-2" HDPE
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE (ELECTRICAL)

MATCH LINE SEE ITS PLAN (38C)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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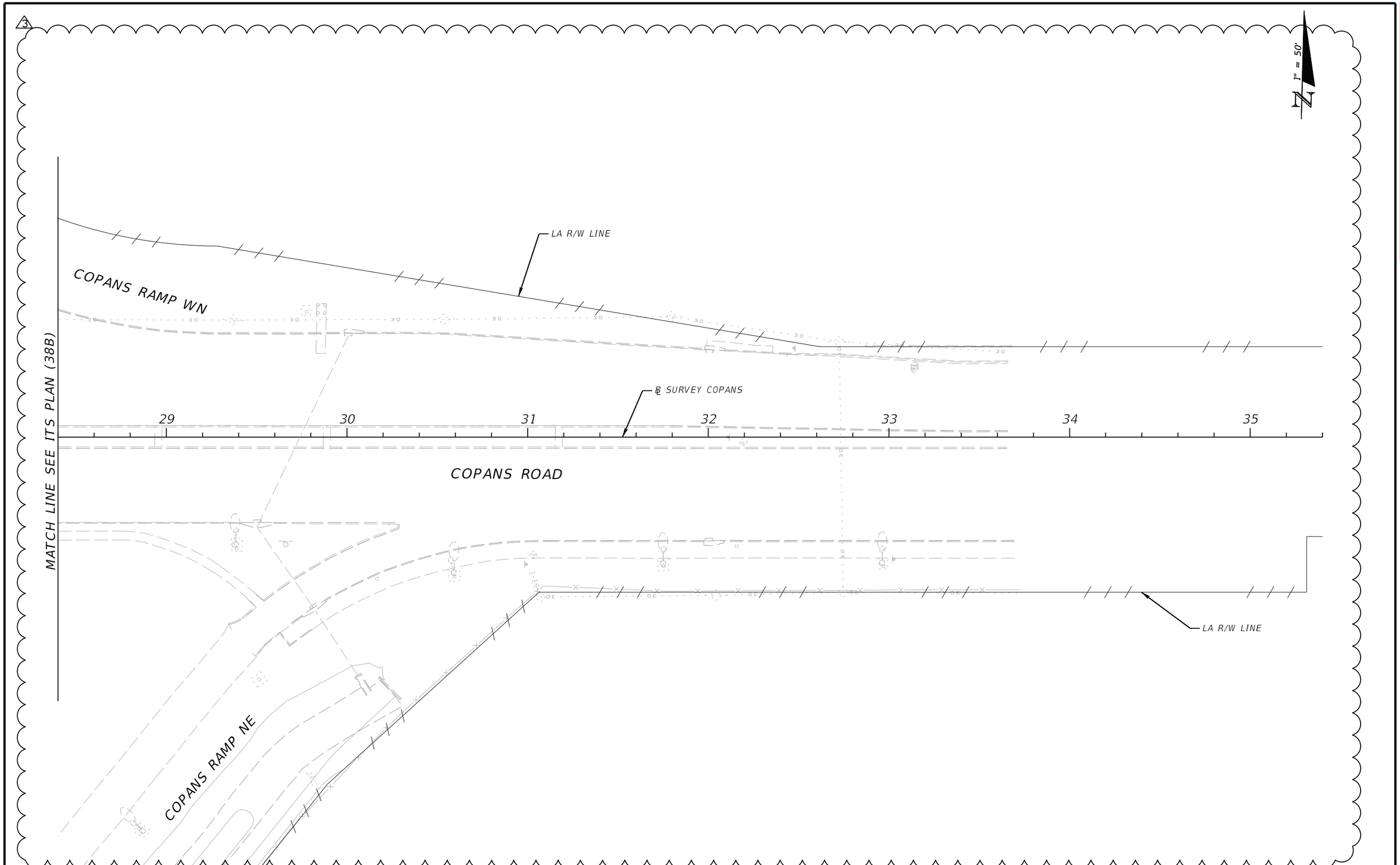
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38B)

SHEET NO.
IT-80



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38C)

SHEET NO.
IT-81

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

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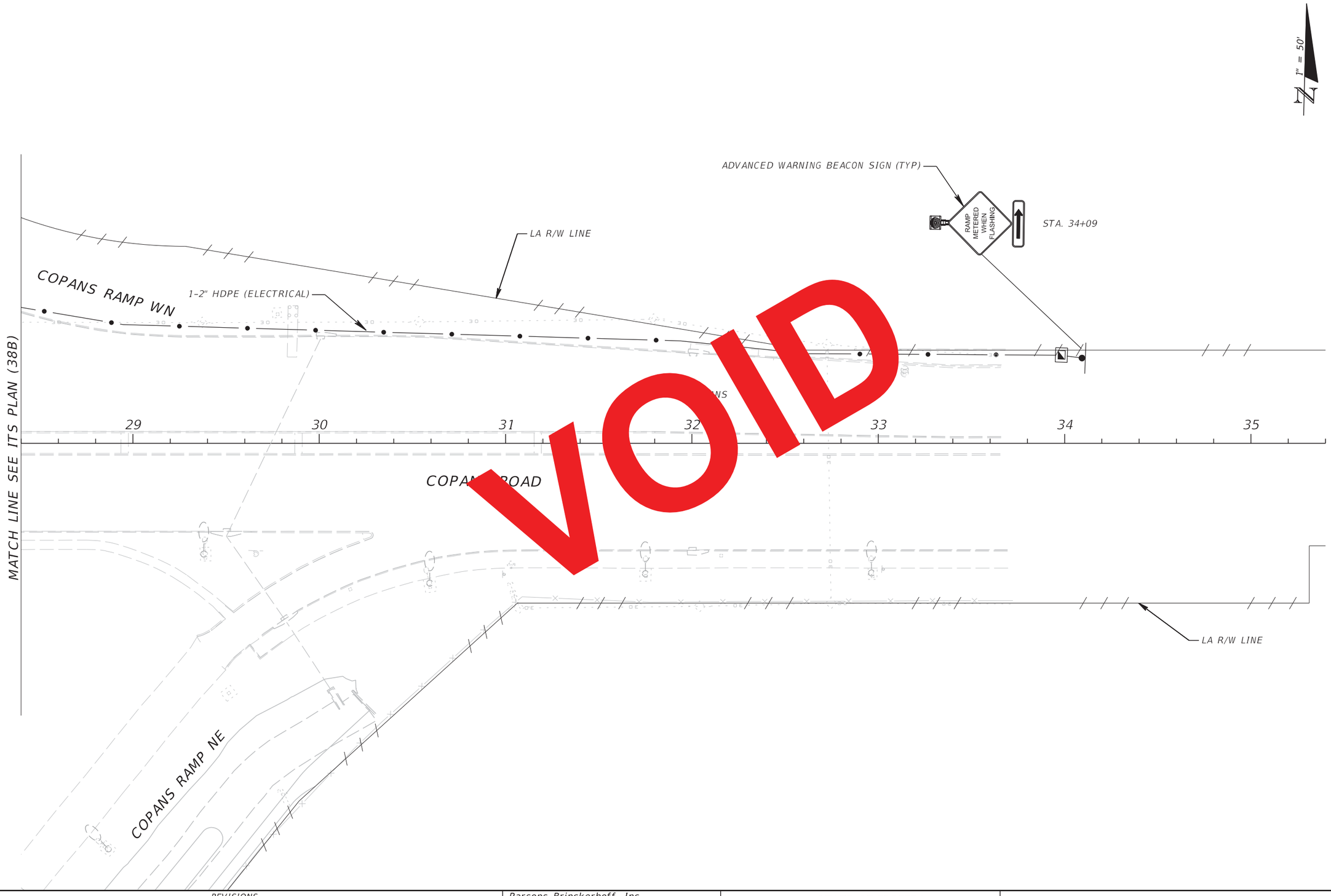

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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(757) 466-1732
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (38C)

SHEET NO.

IT-81

3

1" = 50'

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

6587 6588 6589 6590 6591 6592 6593

℄ CONST. I-95

2586 2587 2588 2589 2590 2591 2592 2593

5586 5587 5588 5589 5590 5591 5592

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2586+00.00

MATCH LINE ℄ CONST. I-95 STA. 2593+00.00

1-2" HDPE (1-144 COUNT FOR
TSM&O RAMP EXTENSION)

COPANS RAMP WN

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN SHEET 38B

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	ASBUILTS		

Parsons Brinckerhoff, Inc.
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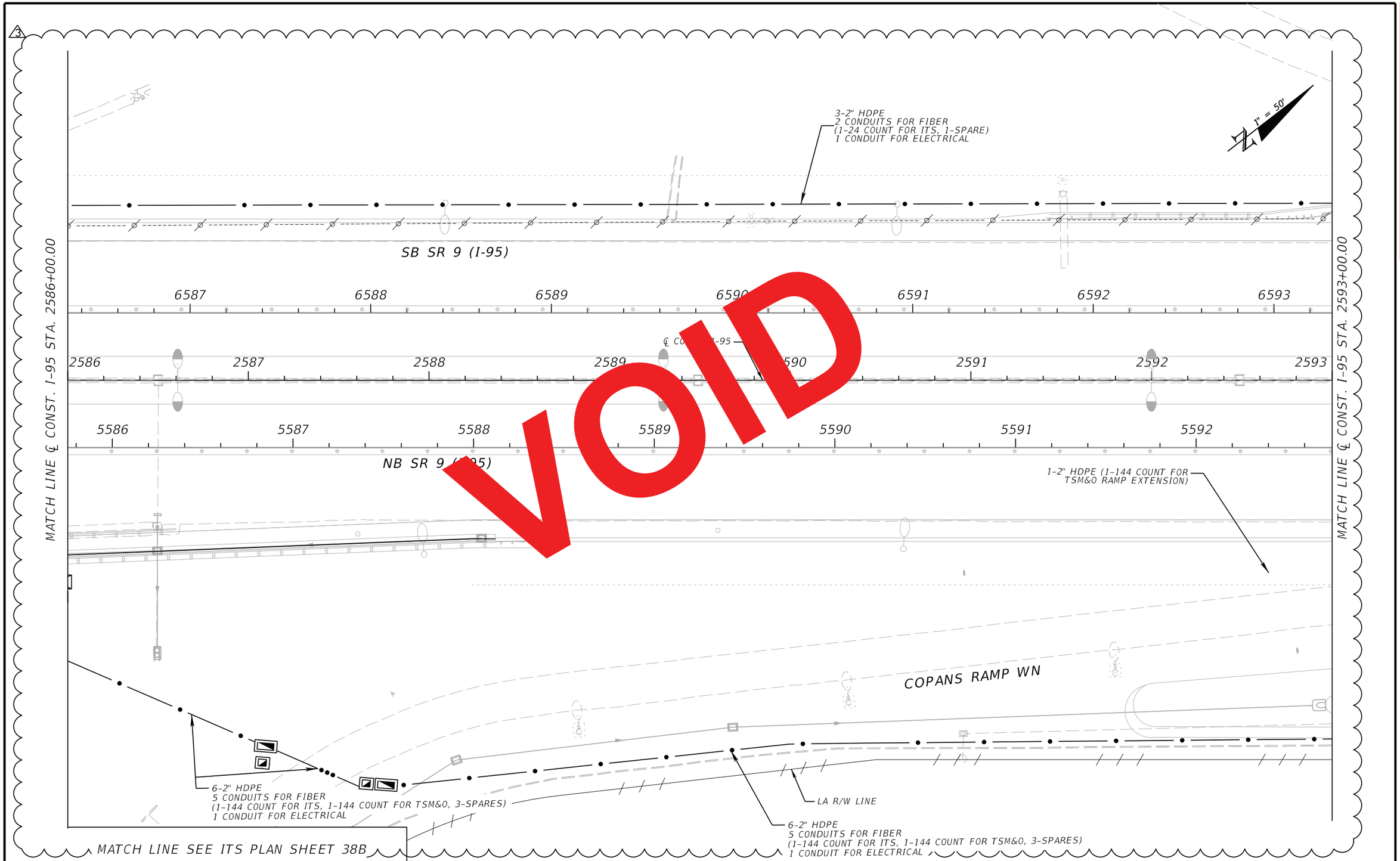
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (39)

SHEET NO.
IT-82



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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (39)

SHEET NO.
IT-82

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MATCH LINE ℄ CONST. I-95 STA. 2586+00.00

MATCH LINE ℄ CONST. I-95 STA. 2593+00.00

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1" = 50'

SB SR 9 (I-95)

6587 6588 6589 6590 6591 6592 6593

℄ CONST. I-95

2586 2587 2588 2589 2590 2591 2592 2593

5586 5587 5588 5589 5590 5591 5592

NB SR 9 (I-95)

VOID

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

COPANS RAMP WN

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN SHEET 38B

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (39)

SHEET NO.
IT-82

3

STA. 2594+19
FL D4 095 020.7 SB SS DS EL-GP 5,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.7 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1" = 50'

LA R/W LINE

800 801 802 803

COPANS RAMP SW

SB SR 9 (I-95)

6594 6595 6596 6597 6598 6599 6600

℄ CONST. I-95

2593 2594 2595 2596 2597 2598 2599 2600

5593 5594 5595 5596 5597 5598 5599

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2593+00.00

MATCH LINE ℄ CONST. I-95 STA. 2600+00.00

700 701 702 COPANS RAMP WN 703 704 705 706

POND 24-5

STA. 2596+00
FL D4 095 020.7 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.7 CAB NS, TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SV-31
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL (SPARE)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (40)

SHEET NO.
IT-83

3

MATCH LINE ℄ CONST. I-95 STA. 2593+00.00

MATCH LINE ℄ CONST. I-95 STA. 2600+00.00

1" = 50'

STA. 2594+19
FL D4 095 020.7 SB SS DS EL-GP 5,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.7 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

800 801 802 803

COPANS RAMP SW

SB SR 9 (I-95)

6594 6595 6596 6597 6598 6599 6600

℄ CONST. I-95

2593 2594 2595 2596 2598 2599 2600

5593 5594 5595 5597 5598 5599

NB SR 9 (I-95)

700 701 704 705 706

POND 24-5

STA. 2596+00
FL D4 095 020.7 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.7 CAB NS, TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SV-31
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details continues with Contractor. Approval for fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4C64
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (40)

SHEET NO. IT-83

MATCH LINE ℄ CONST. I-95 STA. 2593+00.00

STA. 2594+19
FL D4 095 020.7 SB SS DS EL-GP 5,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.7 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1" = 50'

LA R/W LINE

800 801 802 803

COPANS RAMP SW

SR SR 9 (I-95)

STA. 2593+49
020.7 CAB NS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6594 6596 6597 6598 6599 6600

2593 2594 2595 2596 2598 2599 2600

℄ CONST. I-95

ONE VEHICLE PER GREEN

STOP HERE ON RED

STOP HERE ON RED

STA. 2593+48
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

5593 5595 5597 5598 5599

NB SR 9 (I-95)

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE)

RAMP METERING
CONTROL SIGNAL

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

4-2" HDPE
3 CONDUIT FOR FIBER
(1-24 COUNT SM FOR ITS,
1-MVDS WIRE, 1 SPARE)
1 CONDUIT FOR ELECTRICAL

700 702 COPANS RAMP WN 703 704 705 706

DUAL LOOP DETECTOR
SENSORS (DEMAND)

2-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE
1 CONDUIT FOR SIGNAL
(4 LOOP DETECTOR WIRES)

I-95

SV-31
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

STA. 2596+00
FL D4 095 020.7 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.7 CAB NS, TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

5-2" HDPE
1 CONDUIT FOR SIGNAL
(6 LOOP DETECTOR WIRES)
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2600+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4B84 BY: (FDOT)
BY: (Stantec) FL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (40)

SHEET NO.
IT-83

1" = 50'

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

STA. 2602+90
FL D4 095 020.9 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.9 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

6601 6602 6603 6604 6605 6606 6607

℄ CONST. I-95

2600 2601 2602 2603 2604 2605 2606 2607

5600 5601 5602 5603 5604 5605 5606

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2600+00.00

MATCH LINE ℄ CONST. I-95 STA. 2607+00.00

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2601+40
020.8 CAB NS
TYPE 334 GROUND MOUNT ITS CABINET
DMS CONTROLLER
LAYER 2 SWITCH
3' W x 3' L TECHNICIAN SLAB
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 3-24 COUNT
FOR ITS,
1-SPARE)
1 CONDUIT FOR
ELECTRICAL

95 NB 020.9
STA. 2603+10
FRONT ACCESS DMS
CANTILEVER SIGN STRUCTURE

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

SWALE 24-1

STA. 2601+70
FL D4 095 020.9 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
020.9 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
020.9 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SV-32
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 REVISED GENERATOR CALLOUTS		
09/13/19	AS-BUILTS per RFI 093 & 315		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (41)

SHEET NO.
IT-84

1" = 50'

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

STA. 2602+90
FL D4 095 020.9 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
020.9 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

SB SR 9 (I-95)

6601 6602 6603 6604 6605 6606 6607

2600 2601 2602 2603 2605 2606 2607

5600 5601 5602 5604 5605 5606

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2600+00.00

MATCH LINE ℄ CONST. I-95 STA. 2607+00.00

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2601+40
020.8 CAB NS
TYPE 334 GROUND MOUNT ITS CABINET
DMS CONTROLLER
LAYER 2 SWITCH
3' W x 3' L TECHNICIAN SLAB
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 3-24 COUNT SM FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

95 NB 020.9
STA. 2603+10
FRONT ACCESS DMS
CANTILEVER SIGN STRUCTURE

STA. 2601+70
FL D4 095 020.9 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
020.9 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
020.9 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

SWALE 24-1

SV-32
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details of fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 REVISED GENERATOR CALLOUTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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(757) 466-1732
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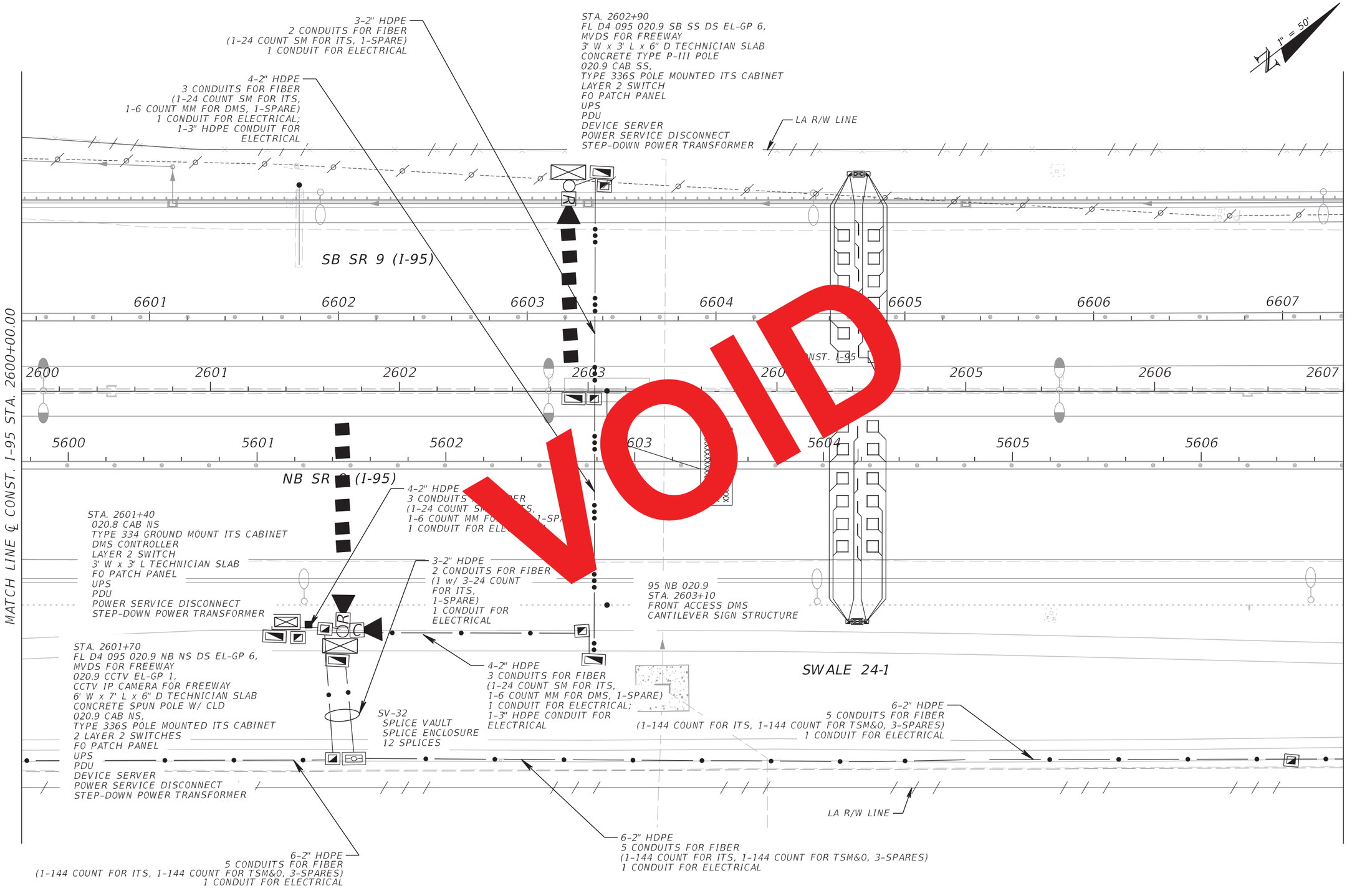
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (41)

SHEET NO. IT-84



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (41)

SHEET NO.
IT-84

STA. 2612+00
FL D4 095 021.0 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.0 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

1" = 50'

LA R/W LINE

EXISTING DEVICE, CABINET
AND POLE TO BE REMOVED
TO BE REMOVED
(FLD4095038.4NSSS)

SB SR 9 (I-95)

6608 6609 6610 6611 6612 6613 6614

N 37° 25' 59" E

℄ CONST. I-95

2607 2608 2609 2610 2611 2612 2613 2614

5607 5608 5609 5610 5611 5612 5613

NB SR 9 (I-95)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 4-SPARES)
1 CONDUIT FOR ELECTRICAL

SWALE 24-1

SV-32A
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2607+00.00

MATCH LINE ℄ CONST. I-95 STA. 2614+00.00

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILTS per RFI 093 & 555		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (42)

SHEET NO.
IT-85

STA. 2612+00
FL D4 095 021.0 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.0 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

1" = 50'

LA R/W LINE

EXISTING DEVICE, CABINET
AND POLE TO BE REMOVED
TO BE REMOVED
(FLD4095038.4NSSS)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

6608 6609 6610 6611 6612 6613 6614

N 37° 25' 59" E

℄ CONST. I-95

2607 2608 2609 2610 2612 2613 2614

5607 5608 5609 5611 5612 5613

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2607+00.00

MATCH LINE ℄ CONST. I-95 STA. 2614+00.00

SWALE 24-1

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (42)

SHEET NO.
IT-85

1" = 50'

LA R/W LINE

POND 24-6

SB SR 9 (I-95)

6615 6616 6617 6618 6619 6620 6621

2614 2615 2616 2617 2618 2619 2620 2621

℄ CONST. I-95

5614 5615 5616 5617 5618 5619 5620

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2614+00.00

MATCH LINE ℄ CONST. I-95 STA. 2621+00.00

300

STA. 2617+00
FL D4 095 021.1 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.1 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SWALE 24-1

SV-33
SPLICE VAULT
SPLICE ENCLOSURE
4 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILTS per RFI 555		

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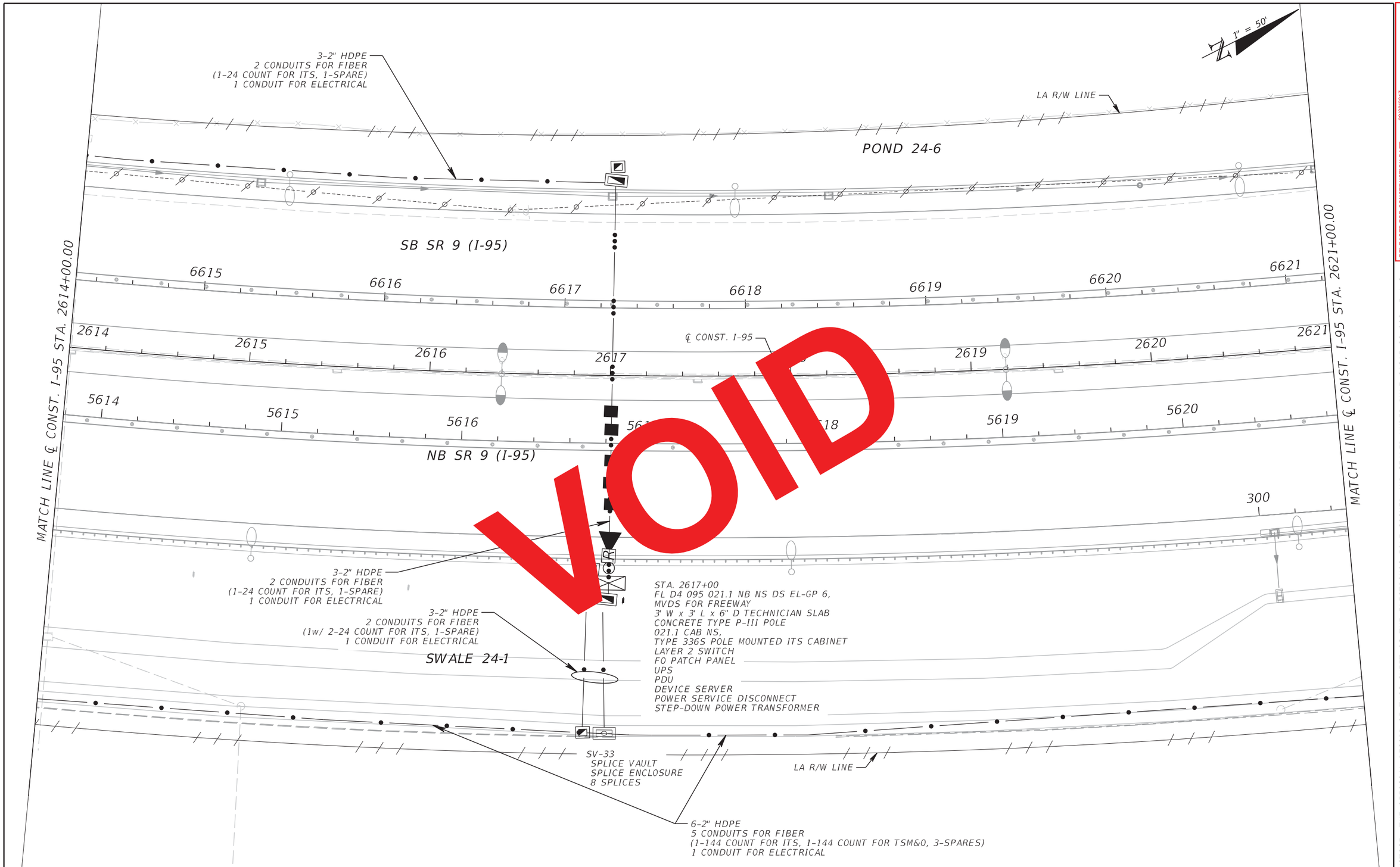
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (43)

SHEET NO.
IT-86



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (43)

SHEET NO.
IT-86

3

1" = 50'

R/W LINE

R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

POND 24-6

SAMPLE RAMP ES

SB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2621+00.00

MATCH LINE ℄ CONST. I-95 STA. 2628+00.00

201 202 203 204 205

6622 6623 6624 6625 6626 6627 6628

2621 2622 2623 2624 2625 2626 2627 2628

℄ CONST. I-95

5621 5622 5623 5624 5625 5626

NB SR 9 (I-95)

STA. 2624+00
FL D4 095 021.3 NB NS DS EL-GP-OF 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.3 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR GENERATOR/ATS,
1-SPARE)
2 CONDUITS FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
2 W/ 3-24 COUNT (2 FOR ITS, 1 FOR GENERATOR/ATS),
3-SPARES)
1 CONDUIT FOR ELECTRICAL

301 302 303 306 307

SAMPLE RAMP NE

SWALE 24-1

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-34
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

ITS SERVICE POINT/GENERATOR "D";
INSTALL LAYER 2 SWITCH, FO PATCH
PANEL AND SPD IN A NEMA 3R
ENCLOSURE MOUNTED ON THE POWER
STATION EQUIPMENT RACK. SEE ITS
COMMUNICATIONS OVERVIEW SHEETS,
SPLICING DIAGRAMS AND ELECTRICAL
DETAILS FOR ADDITIONAL INFORMATION

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

1

2

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "D" CALLOUT	09/13/19	AS-BUILTS per RFI 555
03/16/18	2 REVISED GENERATOR CALLOUTS		
02/01/19	3 RSS REMOVAL CHANGES		

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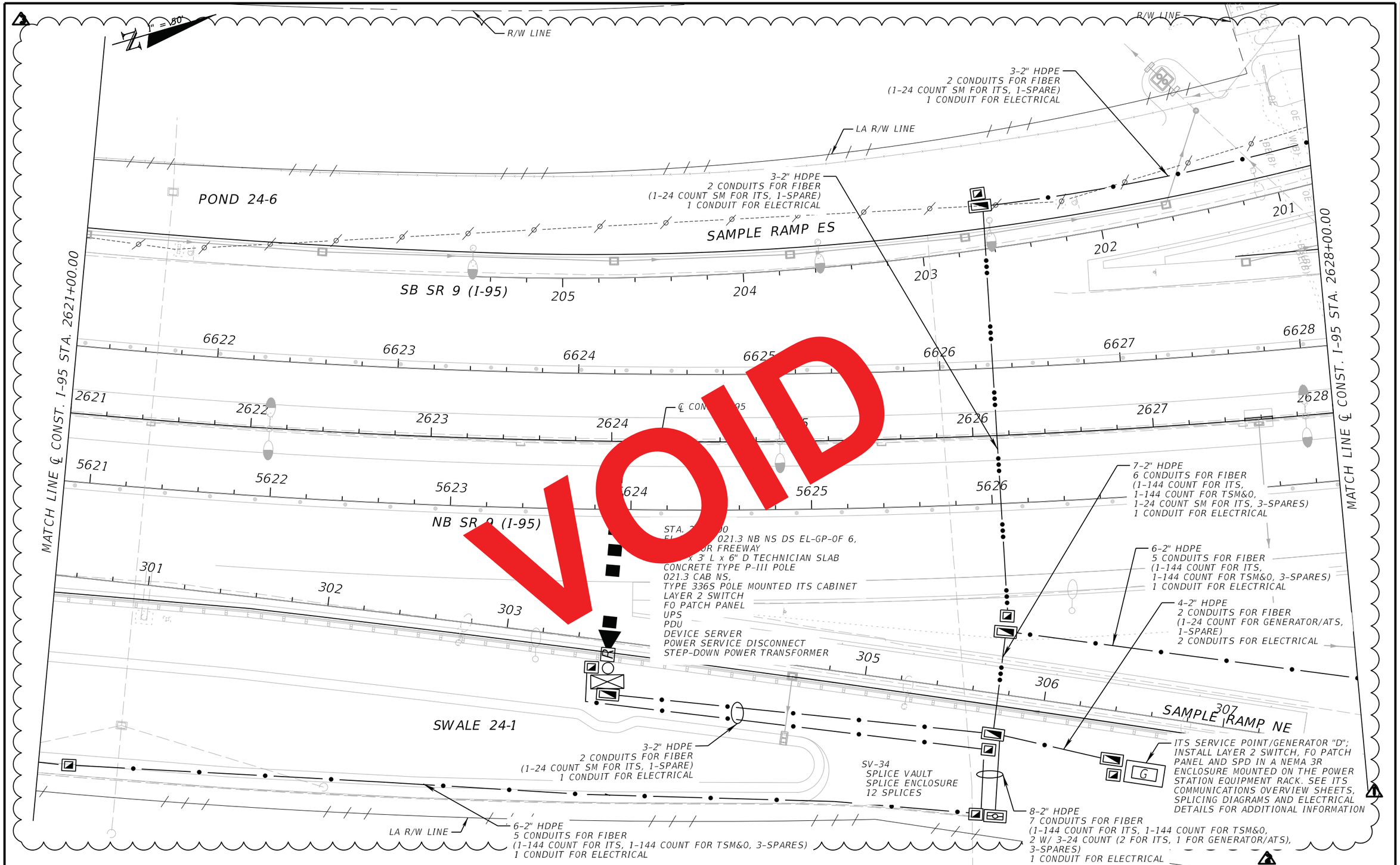
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (44)

SHEET NO.
IT-87



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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "D" CALLOUT		
03/16/18	2 REVISED GENERATOR CALLOUTS		
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (44)

SHEET NO. IT-87

c:\projectwise\pb\projectwiseint\perezr\d0173361\433108652O1_I95_Ph3BI_FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3B-I\data\433108552O1_I95_Ph3bI-itg.tbl PerezR 3/8/2019 3:47:28 PM c:\projectwise\pb\projectwiseint\perezr\d0146451\planit44.DGN

N
1" = 50'

R/W LINE

R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

POND 24-6

SAMPLE RAMP ES

SB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2621+00.00

MATCH LINE ℄ CONST. I-95 STA. 2628+00.00

NB SR 9 (I-95)

SWALE 24-1

SAMPLE RAMP NE

STA. 2624+00
FL D4 095 021.3 NB NS DS EL-GP-0F 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.3 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1 W/ 2-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR GENERATOR/ATS,
1-SPARE)
2 CONDUITS FOR ELECTRICAL

ITS SERVICE POINT/GENERATOR "D";
INSTALL LAYER 2 SWITCH, FO PATCH
PANEL AND SPD IN A NEMA 3R
ENCLOSURE MOUNTED ON THE POWER
STATION EQUIPMENT RACK. SEE ITS
COMMUNICATIONS OVERVIEW SHEETS,
SPLICING DIAGRAMS AND ELECTRICAL
DETAILS FOR ADDITIONAL INFORMATION

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-34
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
2 W/ 4-24 COUNT (3 FOR ITS, 1 FOR GENERATOR/ATS),
3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of information and dimensions rests with the contractor. Approval does not relieve contractor of responsibility for satisfactory fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "D" CALLOUT		
03/16/18	2 REVISED GENERATOR CALLOUTS		

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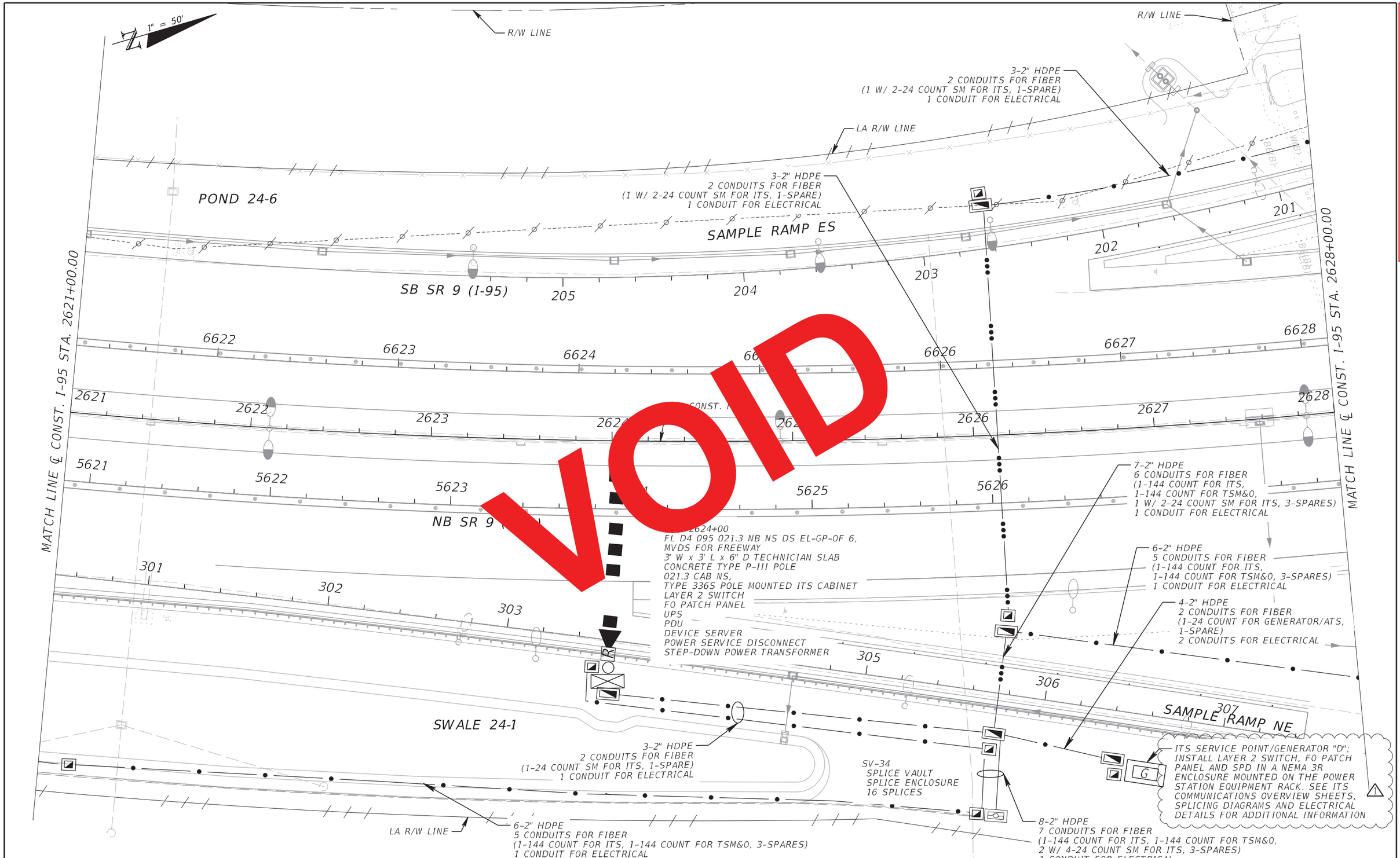
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (44)

SHEET NO.
IT-87



RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "D" CALLOUT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (44)

SHEET NO. IT-87

1" = 50'

R/W LINE

R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

POND 24-6

SAMPLE RAMP ES

SB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2621+00.00

MATCH LINE ℄ CONST. I-95 STA. 2628+00.00

6622 6623 6624 6626 6627 6628

2621 2622 2623 2626 2627 2628

5621 5622 5623 5624 5625 5626

NB SR 9 (I-95)

201 202 203 204 205

301 302 303 305 306

STA. 2624+00
FL D4 095 021.3 NB NS DS EL-GP-OF 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.3 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1 W/ 2-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR GENERATOR/ATS,
1-SPARE)
2 CONDUITS FOR ELECTRICAL

ITS SERVICE POINT/GENERATOR "D";
LAYER 2 SWITCH AND FO PATCH
PANEL IN THE ATS CABINET
OF GENERATOR

SAMPLE RAMP NE

SWALE 24-1

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-34
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
2 W/ 4-24 COUNT SM FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4284
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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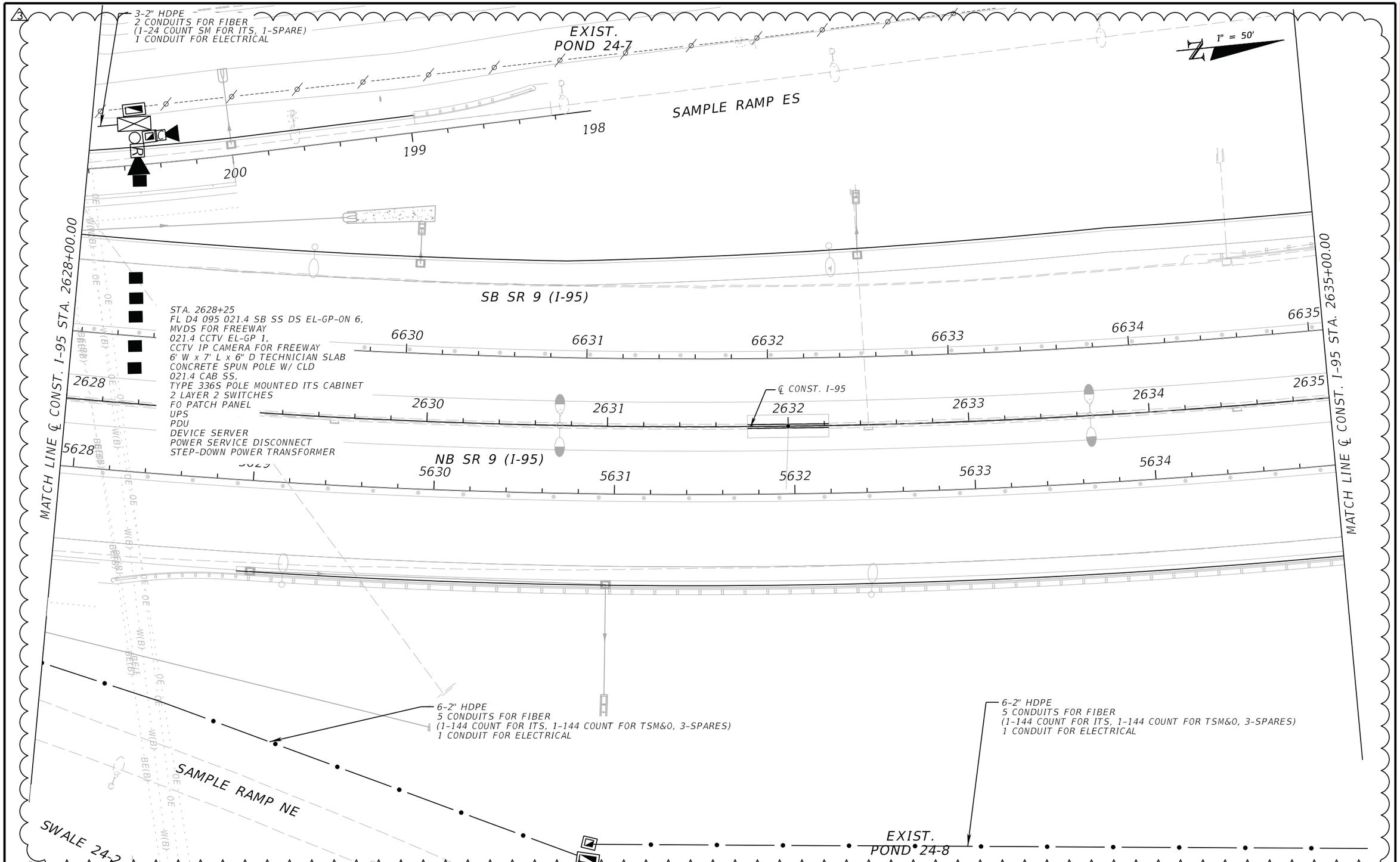
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (44)

SHEET NO.
IT-87



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (45)

SHEET NO.
IT-88

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

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c:\projectwise\pb\projectwiseint\perezr\d0173361\433108652O1_I95_Ph3BI_FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3B-I\data\433108552O1_I95_Ph3bI-ltg.tbl PerezR 3/8/2019 3:47:33 PM c:\projectwise\pb\projectwiseint\perezr\d0146451\planit45.DGN

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

5-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 6 LOOP DETECTOR WIRES)
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSORS (DEMAND)

EXIST.
POND 24-7

SAMPLE RAMP ES

198

199

200

1" = 50'

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

STA. 2629+09
021.4 CAB SS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE)

STA. 2628+87
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

STOP HERE ON RED

STOP HERE ON RED

ONE VEHICLE PER GREEN

RAMP METERING
CONTROL SIGNAL

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE)

SB SR 9 (I-95)

STA. 2628+25
FL D4 095 021.4 SB SS DS EL-GP-ON 6,
MVDS FOR FREEWAY
021.4 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
021.4 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6630 6631 6632 6633 6634 6635

2628 2630 2631 2632 2633 2634 2635

5628 5630 5631 5632 5633 5634

NB SR 9 (I-95)

MATCH LINE ℄ CONST. I-95 STA. 2628+00.00

MATCH LINE ℄ CONST. I-95 STA. 2635+00.00

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SAMPLE RAMP NE

SWALE 24-2

EXIST.
POND 24-8

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (45)

SHEET NO.
IT-88

3

1" = 50'

MATCH LINE SEE ITS PLAN (46A)

SAMPLE RAMP ES

STA. 2637+92
FL D4 095 021.5 SB SS DS EL-GP 6,
MDVS FOR FREEWAY
WAP 95-38.9 (RELOCATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
021.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXIST.
SWALE 24-3

EXISTING WAP (WAP 95-38.9)
TO BE RELOCATED TO POLE
STA. 2637+92

EXISTING VOIP TO BE REMOVED
AND RETURNED TO DEPARTMENT
(VOIP 95-38.9)

SAMPLE ROAD

SB SR 9 (I-95)

EXISTING DEVICES, CABINET
AND POLE TO BE REMOVED
(C9041, FLD4095038.9NBSS/
FLD4095038.9SBSS)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

℄ CONST. I-95

NB SR 9 (I-95)

STA. 2638+02
FL D4 095 021.5 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.5 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUITS FOR ELECTRICAL

SAMPLE RAMP EN

SAMPLE ROAD

MATCH LINE ℄ CONST. I-95 STA. 2635+00.00

MATCH LINE ℄ CONST. I-95 STA. 2642+00.00

MATCH LINE SEE ITS PLAN (46B)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	AS-BUILTS PER RFI 093		

Parsons Brinckerhoff, Inc.
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License No: 80987

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (46)

SHEET NO.
IT-89

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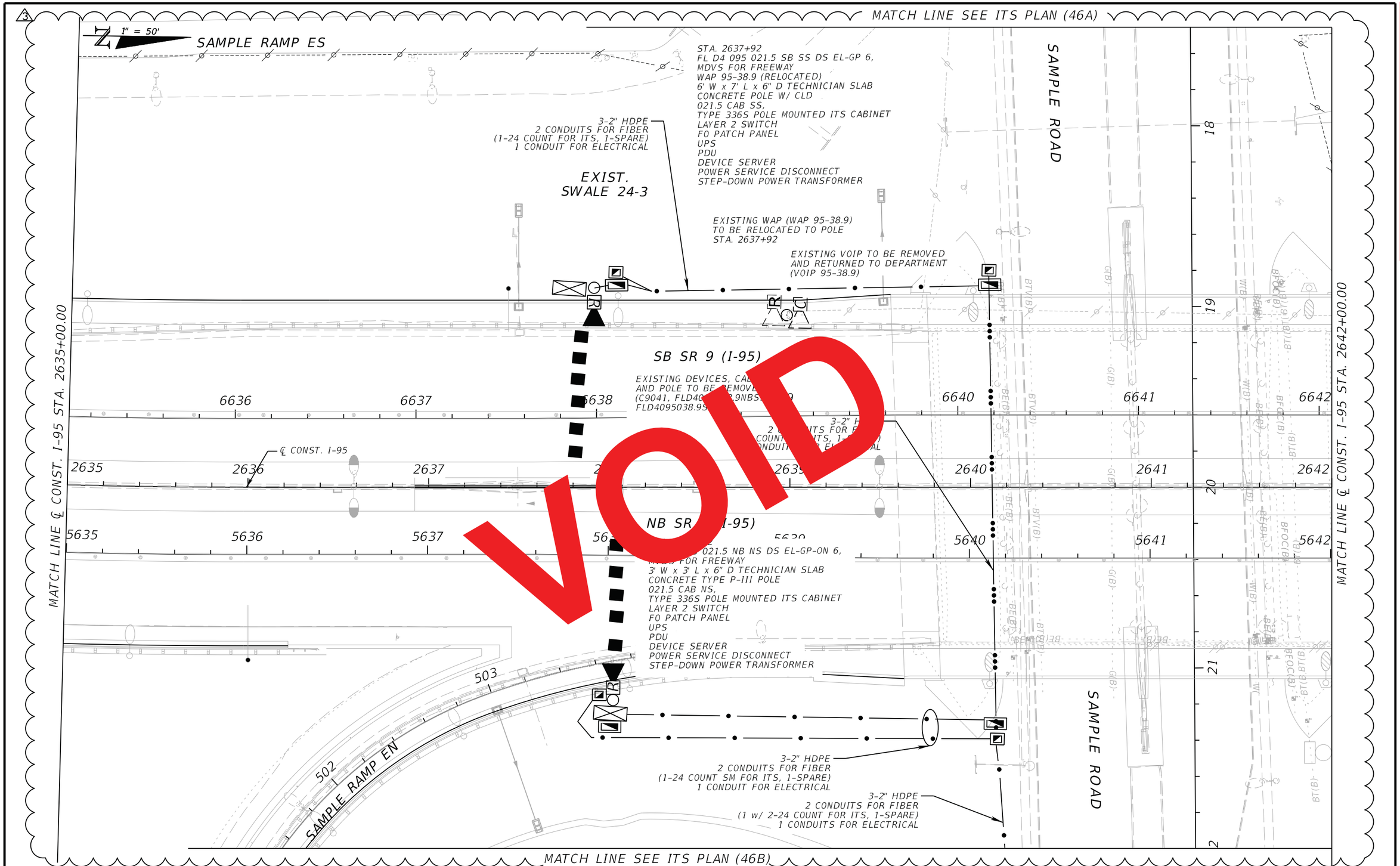

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (46)

SHEET NO.
IT-89

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

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MATCH LINE SEE ITS PLAN (46A)

1" = 50'

SAMPLE RAMP ES

STA. 2637+92
FL D4 095 021.5 SB SS DS EL-GP 6,
MDVS FOR FREEWAY
021.5 CCTV GP 1,
CCTV IP CAMERA (DEDICATED RAMP CAMERA)
WAP 95-38.9 (RELOCATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
021.5 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

STA. 18+54

RAMP METERED WHEN FLASHING

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXIST.
SWALE 24-3

EXISTING WAP (WAP 95-38.9)
TO BE RELOCATED TO POLE
STA. 2367+92

EXISTING VOIP TO BE REMOVED
AND RETURNED TO DEPARTMENT
(VOIP 95-38.9)

1-2" HDPE (ELECTRICAL)

ADVANCED WARNING
BEACON SIGN (TYP)

1-2" HDPE (ELECTRICAL)

SAMPLE ROAD

SB SR 9 (I-

EXIS ES, CA
REMOV
1, FLD40 ONBS 0
4095038.9SB

2" HDPE
2 ITS FOR FIBER
COUNT ITS, 1-SPARE)
CONDUIT FOR ELECTRICAL

VOID

NB SR 9 (I-95)

STA. 2638+02
FL D4 095 021.5 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.5 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-CAT5E)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL WIRE)

RAMP METERING
CONTROL SIGNAL

STA. 2636+85
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

STOP HERE ON RED
STOP HERE ON RED
ONE VEHICLE PER GREEN

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

2-2" HDPE
1 CONDUIT
FOR 1-CAT5E
1 CONDUIT FOR
ELECTRICAL

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O
RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

STA. 2636+79
021.5 CAB NS 2
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SAMPLE RAMP EN

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 4 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-CAT5E)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSORS (DEMAND)

5-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

SAMPLE ROAD

RAMP METERED WHEN FLASHING

STA. 21+51

1-2" HDPE
(ELECTRICAL)

MATCH LINE ℄ CONST. I-95 STA. 2635+00.00

MATCH LINE ℄ CONST. I-95 STA. 2642+00.00

MATCH LINE SEE ITS PLAN (46B)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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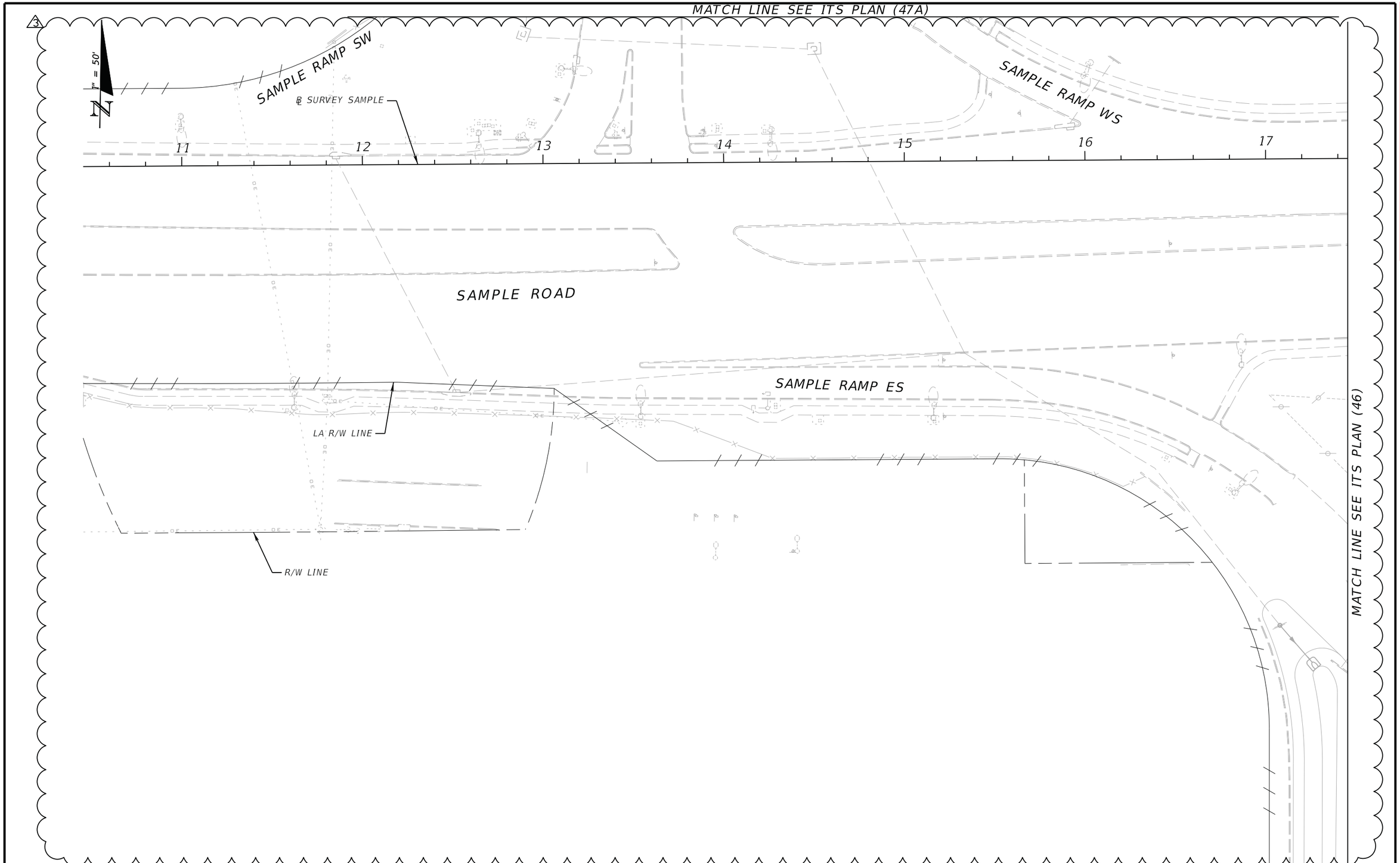
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (46)

SHEET NO.
IT-89



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (46A)

SHEET NO.
IT-90

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

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c:\projectwise\pb\projectwiseint\perezr\d0173361\433108652O1_I95_Ph3BI_FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3B-I\data\433108552O1_I95_Ph3bI-itg.tbl PerezR 3/8/2019 3:47:45 PM c:\projectwise\pb\projectwiseint\perezr\d0146451\planit46A.DGN

MATCH LINE SEE ITS PLAN (47A)

1" = 50'

SAMPLE RAMP SW

℄ SURVEY SAMPLE

11 12 13 14 15 16 17

SAMPLE ROAD

STA. 15+27

STA. 13+40

RAMP METERED WHEN FLASHING

DUAL LOOP DETECTOR SENSOR (QUEUE)

SAMPLE RAMP WS

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

1-2" HDPE (ELECTRICAL)

SAWCUT & TIE TO EXIST 10.00

LA R/W LINE

R/W LINE

35'

DUAL LOOP DETECTOR SENSOR (QUEUE)

1-2" HDPE (ELECTRICAL)

ADVANCED WARNING BEACON SIGN (TYP)

SPLICE VAULT FOR FUTURE CONNECTION (WITH 200' SLACK FIBER)

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (46)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (46A)

SHEET NO.

IT-90

3

MATCH LINE SEE ITS PLAN (46)

1" = 50'

EXIST.
POND 24-9

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUITS FOR ELECTRICAL

SV-35
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

SAMPLE RAMP EN

501

500

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

1

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUITS FOR ELECTRICAL

1

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUITS FOR ELECTRICAL

SAMPLE ROAD

22

23

24

25

℄ SURVEY SAMPLE

26

SAMPLE RAMP WN

MATCH LINE SEE ITS PLAN (47B)

SAMPLE RAMP NE

MATCH LINE SEE
ITS PLAN (47B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ELECTRICAL CONDUIT		
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	AS-BUILTS PER RFI 093		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (46B)

SHEET NO.
IT-91

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MATCH LINE SEE ITS PLAN (46)

1" = 50'

EXIST.
POND 24-9

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUITS FOR ELECTRICAL

SV-35
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

SAMPLE RAMP EN

501

500

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUITS FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUITS FOR ELECTRICAL

SAMPLE ROAD

SAMPLE RAMP WN

SAMPLE RAMP NE

℄ SURVEY SAMPLE

23

24

25

26

MATCH LINE SEE ITS PLAN (47B)

VOID

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details rests with the contractor. Approval does not relieve contractor of responsibility for means, methods, techniques, sequences, procedures of construction, safety precautions and programs incident thereto. Review of a separate item does not indicate approval of the assembly in which the item functions. Contractor shall verify and coordinate all quantities and dimensions. Fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	1 REVISED ELECTRICAL CONDUIT 3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (46B)

SHEET NO.
IT-91

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MATCH LINE SEE ITS PLAN (46)

1" = 50'

EXIST. POND 24-9

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
1 CONDUIT FOR 1-CAT5E
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1 SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE
(ELECTRICAL)

SV-35
SPLICE VAULT
SPLICE ENCLOSURE
12 SPLICES

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
FOR TSM&O, 3-SPARES)
ITS FOR ELECTRICAL

VAULT FO
FUT CONNECTIO
TH 20 CK FIB

1-2" HDPE (ELECTRICAL)

DUAL LOOP DETECTOR
SENSOR (QUEUE)

1-2" HDPE (ELECTRICAL)

STA. 2635+70
021.5 CCTV GP 1,
CCTV IP CAMERA FOR DEDICATED RAMP CAMERA
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

45'

18'

RAMP METERED WHEN FLASHING

SAMPLE RAMP EN

SAMPLE RAMP NE

SAMPLE RAMP WN

SAMPLE ROAD

500

501

23

24

25

26

℄ SURVEY SAMPLE

MATCH LINE SEE ITS PLAN (47B)

MATCH LINE SEE ITS PLAN (47B)

VOID

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RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of plans/shop drawings and all related dimensions and detailing, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec) BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
	1 REVISED ELECTRICAL CONDUIT		

Parsons Brinckerhoff, Inc.
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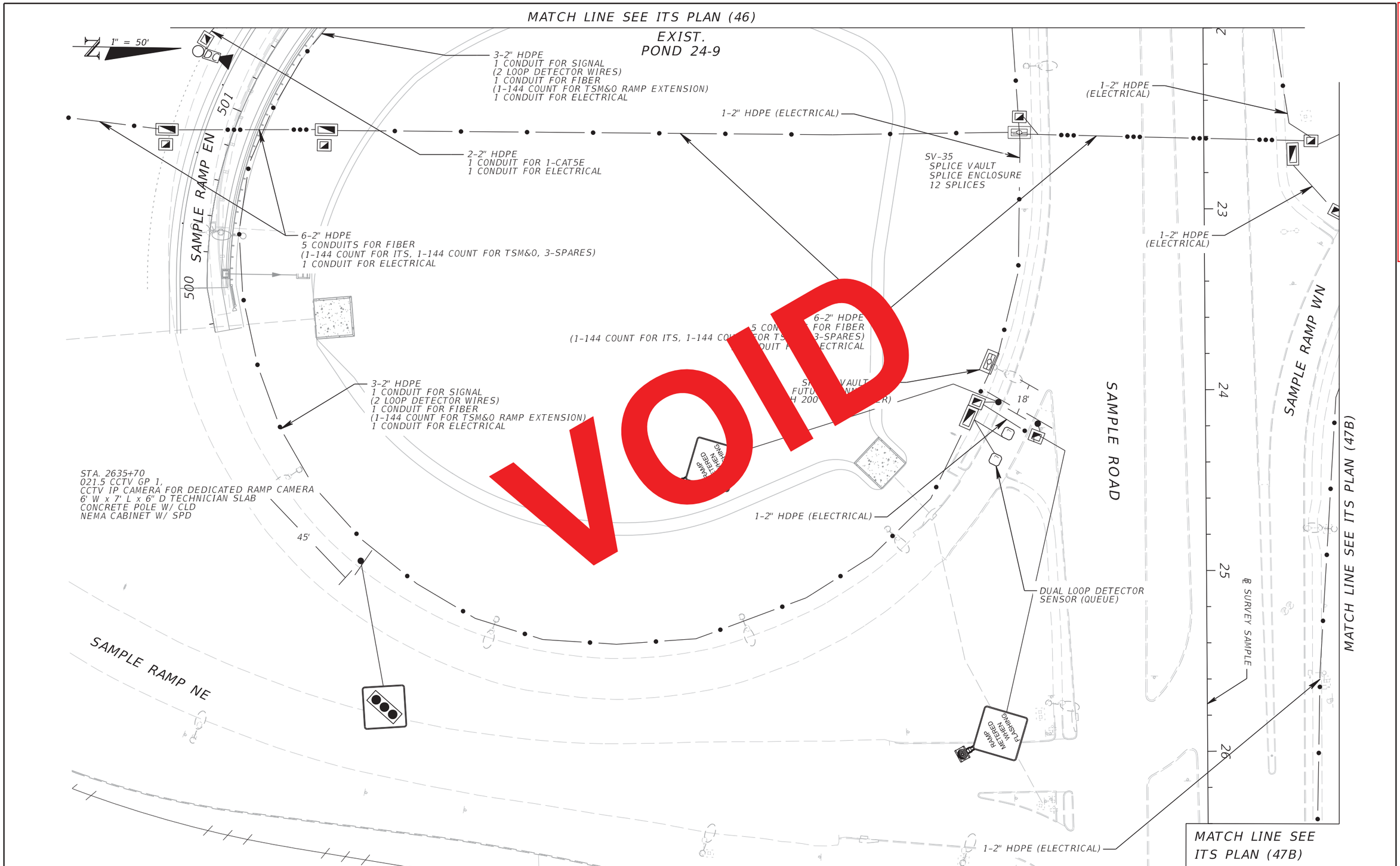
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (46B)

SHEET NO. IT-91



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (46B)

SHEET NO.
IT-91

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

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3

MATCH LINE SEE ITS PLAN (47A)

1" = 50'

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

2

102

101

SAMPLE RAMP WS

4-2" HDPE
3 CONDUITS FOR TOLL ITS
(1-48 COUNT SM FOR TOLL,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(1- w/ 2-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

TOLL SITE
PARKING AREA

2

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

6644 6645 6646 6648 6649

FL D4 095 021.6 SB SS DS EL-GP-ON 6,
STA. 2642+42
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.6 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

N 0° 57' 35" W

℄ CONST. I-95

2642 2644 2645 2646 2647 2648 2649

N 0° 57' 35" W

5644 5645 5646 5647 5648 5649

NB SR 9 (I-95)

STA. 2646+56
FL D4 095 021.7 NB NS DS EL-GP 5,
MVDS FOR FREEWAY
021.7 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
021.7 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
4 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

2

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-36
SPLICE VAULT
1 SPLICE ENCLOSURES
28 SPLICES (12 FOR ITS,
16 FOR TOLL)
FUTURE RSS FOR SAMPLE
RAMP WS

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SWALE 25-1

SAMPLE RAMP WN

MATCH LINE ℄ CONST. I-95 STA. 2642+00.00

MATCH LINE ℄ CONST. I-95 STA. 2649+00.00

MATCH LINE SEE ITS PLAN (47B)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED D-CCTV; ADDED ELECTRICAL CONDUIT		
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (47)

SHEET NO.
IT-92

3

MATCH LINE SEE ITS PLAN (47A)

1" = 50'

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

SAMPLE RAMP WS

SB SR 9 (I-95)

4-2" HDPE
3 CONDUITS FOR TOLL ITS
(1-48 COUNT SM FOR TOLL,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(1- w/ 2-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

TOLL SITE
PARKING AREA

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

FL D4 095 021.6 SB SS DS EL-GP-0N 6,
STA. 2642+42
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.6 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

N 0° 57' 35" W

℄ CONST. I-95

N [illegible] (I-95)

STA. 2646
FL D4 095 [illegible] NB M [illegible] EL-GP 5,
[illegible] DS FOR [illegible] WAY
[illegible] CCTV [illegible] 1,
[illegible] CAME[illegible] OR FRE[illegible]
6' [illegible] L x C[illegible] ECHNI[illegible]
CONC[illegible] SPU[illegible] W/ C[illegible]
021.7[illegible] NS,
TYPE [illegible] POLE [illegible] ED ITS CABINET
2 LAYE[illegible] SWITCH
FO PA[illegible] ANEL
UPS
PDU
D[illegible] SERVER
[illegible] SERVICE DISCONNECT
[illegible]EP-DOWN POWER TRANSFORMER

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-36
SPLICE VAULT
2 SPLICE ENCLOSURES
(1 FOR ITS, 1 FOR TOLL)
28 SPLICES (12 FOR ITS,
16 FOR TOLL)

5-2" HDPE
4 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SWALE 25-1

SAMPLE RAMP WN

2642 2644 2645 2646 2647 2648 2649
6644 6645 6646 6648 6649
5644 5645 5647 5648 5649

VOID

MATCH LINE ℄ CONST. I-95 STA. 2642+00.00

MATCH LINE ℄ CONST. I-95 STA. 2649+00.00

MATCH LINE SEE ITS PLAN (47B)

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, fit and coordination of work rests with fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4G64
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED D-CCTV; ADDED ELECTRICAL CONDUIT		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (47)

SHEET NO. IT-92

MATCH LINE SEE ITS PLAN (47A)

1" = 50'

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

1-2" HDPE (1-144 COUNT FOR
TSM&O RAMP EXTENSION)

DUAL LOOP DETECTOR
SENSORS (DEMAND)

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

SAMPLE RAMP WS

STOP HERE ON RED

ONE VEHICLE PER GREEN

STOP HERE ON RED

3-2" HDPE
2 CONDUITS FOR FIBER
(1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-MVDS WIRE, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

STA. 2644+71
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

4-2" HDPE
3 CONDUITS FOR TOLL ITS
(1-48 COUNT SM FOR TOLL,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
4 CONDUITS FOR FIBER
(2- w/ 4-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

4-2" HDPE
3 CONDUITS FOR FIBER
(2 W/ 3-24 COUNT SM FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

TOLL SITE
PARKING AREA

RAMP METERING
CONTROL SIGNAL

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 4 LOOP DETECTORS)

6644 6645 6646 6648 6649

2642 2644 2647 2648 2649

5644 5647 5648 5649

FL D4 095 021.6 SB SS DS EL-GP-ON 6,
STA. 2642+42
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.6 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

N 0° 57' 35" W

STA. 2645+35
021.7 CAB SS
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORM

STA. 2646+56
FL D4 095 0 NB NS EL-GP 5,
MVDS FOR F AY
021.7 CCTV P 1,
CCTV IP A FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
021.7 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

CONST. I-95

SB SR 9 (I-95)

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2644+70
021.7 CCTV GP 1,
CCTV IP CAMERA (DEDICATED RAMP CAME
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W CLD
021.7 CAB NS_2,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

DUAL LOOP DETECTOR
SENSOR (QUEUE)

SWALE 25-1

2-2" HDPE
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O
RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

130'

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

SAMPLE RAMP WN

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(3 w/ 6-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-36
SPLICE VAULT
2 SPLICE ENCLOSURES
(1 FOR ITS, 1 FOR TOLL)
40 SPLICES (24 FOR ITS,
16 FOR TOLL)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MATCH LINE SEE ITS PLAN (47B)

MATCH LINE ℄ CONST. I-95 STA. 2642+00.00

MATCH LINE ℄ CONST. I-95 STA. 2649+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, details, quantities, and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED D-CCTV; ADDED ELECTRICAL CONDUIT		

Parsons Brinckerhoff, Inc.
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(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (47)

SHEET NO. IT-92

MATCH LINE SEE ITS PLAN (47A)

1" = 50'

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSORS (DEMAND)

DUAL LOOP DETECTOR
SENSORS (PASSAGE)

SAMPLE RAMP WS

3-2" HDPE
2 CONDUIT FOR FIBER
(1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STOP HERE ON RED

ONE VEHICLE PER GREEN

STOP HERE ON RED

STA. 2644+71
SEE DETAIL
SHEET IT(249)
FOR SIGN LAYOUT

4-2" HDPE
3 CONDUITS FOR TOLL ITS
(1-48 COUNT SM FOR TOLL,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
4 CONDUITS FOR FIBER
(2- w/ 3-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
3 CONDUIT FOR FIBER
(1-24 COUNT SM,
1-MVDS WIRE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

TOLL SITE
PARKING AREA

RAMP METERING
CONTROL SIGNAL

1-2" HDPE
1 CONDUIT FOR SIGNAL
(1 SIGNAL + 4 LOOP DETECTOR W

6644 6645 6646 6647 6648 6649

2642 2644 2647 2648 2649

5644 5647 5648 5649

N 0° 57' 35" W

FL D4 095 021.6 SB SS DS EL-GP-ON 6,
STA. 2642+42
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.6 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

STA. 2645+35
021.7 CAB SS
TYPE 334 GROUND MOUNT RSS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
RSS TYPE 2070E CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORM

STA. 2644+70
021.7 CCTV GP 1,
CCTV IP CAMERA (DEDICATED RAMP CAMERA)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W CLD
021.7 CAB NS 2,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

STA. 2646+
FL D4 095
MVDS FOR
021.7 CCTV
CCTV IP CA
6' W x 7' L
CONCRETE
POLE MOUNTED ITS CABINET
2
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

NB
EL-GP-5,
WAY
1,
FOR FREEWAY
D TECHNICIAN SLAB
N POLE W/ CLD

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(3 w/ 5-24 COUNT FOR ITS,
1-48 COUNT FOR TOLL ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-36
SPLICE VAULT
2 SPLICE ENCLOSURES
(1 FOR ITS, 1 FOR TOLL)
36 SPLICES (20 FOR ITS,
16 FOR TOLL)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

DUAL LOOP DETECTOR
SENSOR (QUEUE)

SWALE 25-1

2-2" HDPE
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O
RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

130'

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

SAMPLE RAMP WN

MATCH LINE SEE ITS PLAN (47B)

MATCH LINE ℄ CONST. I-95 STA. 2642+00.00

MATCH LINE ℄ CONST. I-95 STA. 2649+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec) PE

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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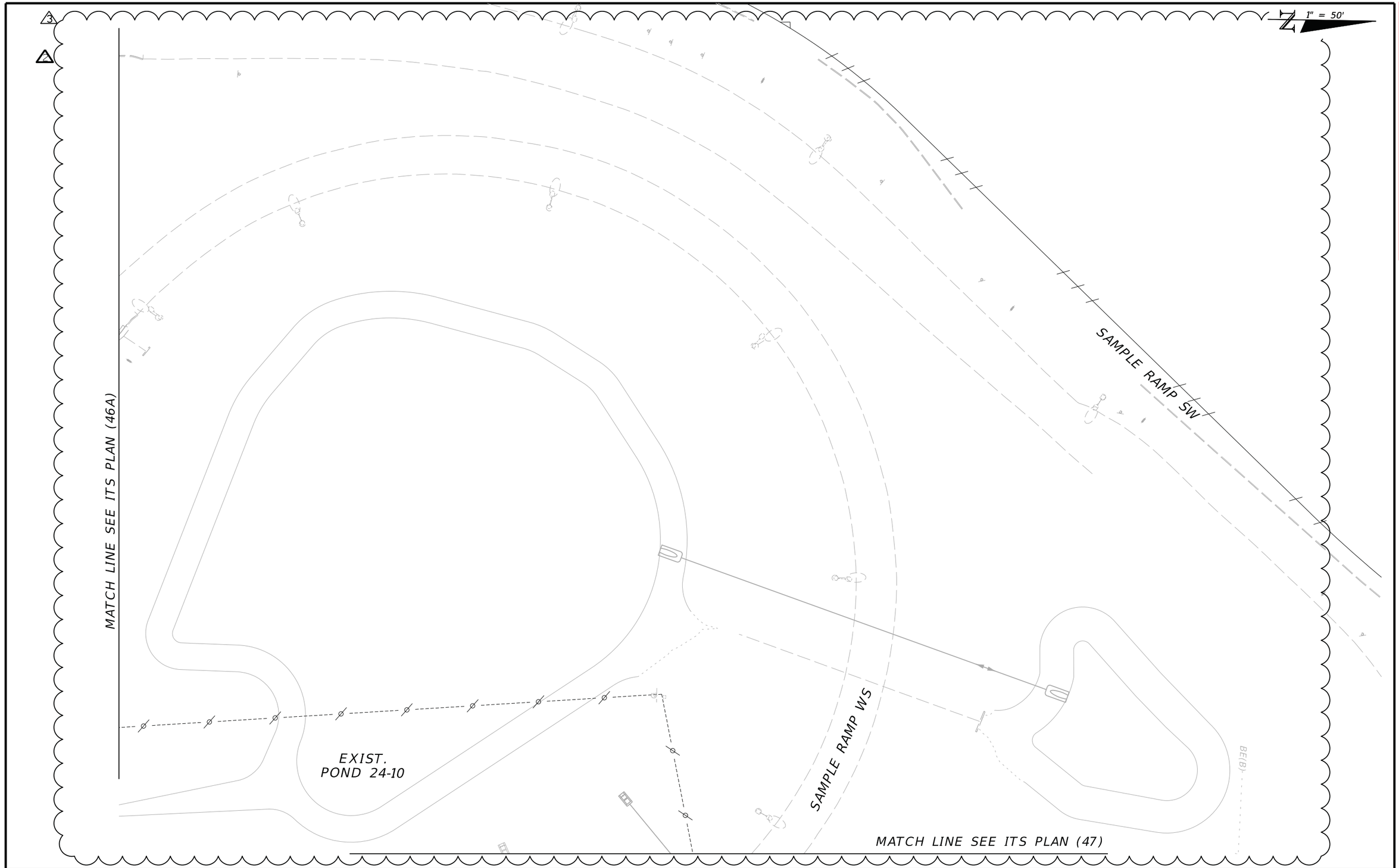
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (47)

SHEET NO.
IT-92



RELEASED FOR CONSTRUCTION DATE: 04/15/2019

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and construction means, methods, techniques, sequences and procedures, and for safety precautions and programs rests with the contractor. Review of shop drawings does not relieve the contractor of responsibility for errors or omissions in the shop drawings. Fabrication and erection shall remain with the contractor.

FPID:433108-5-52-01 CONTRACT E4C64

BY: (Stantec) JB BY: (FDOT) DS

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED D-CCTV		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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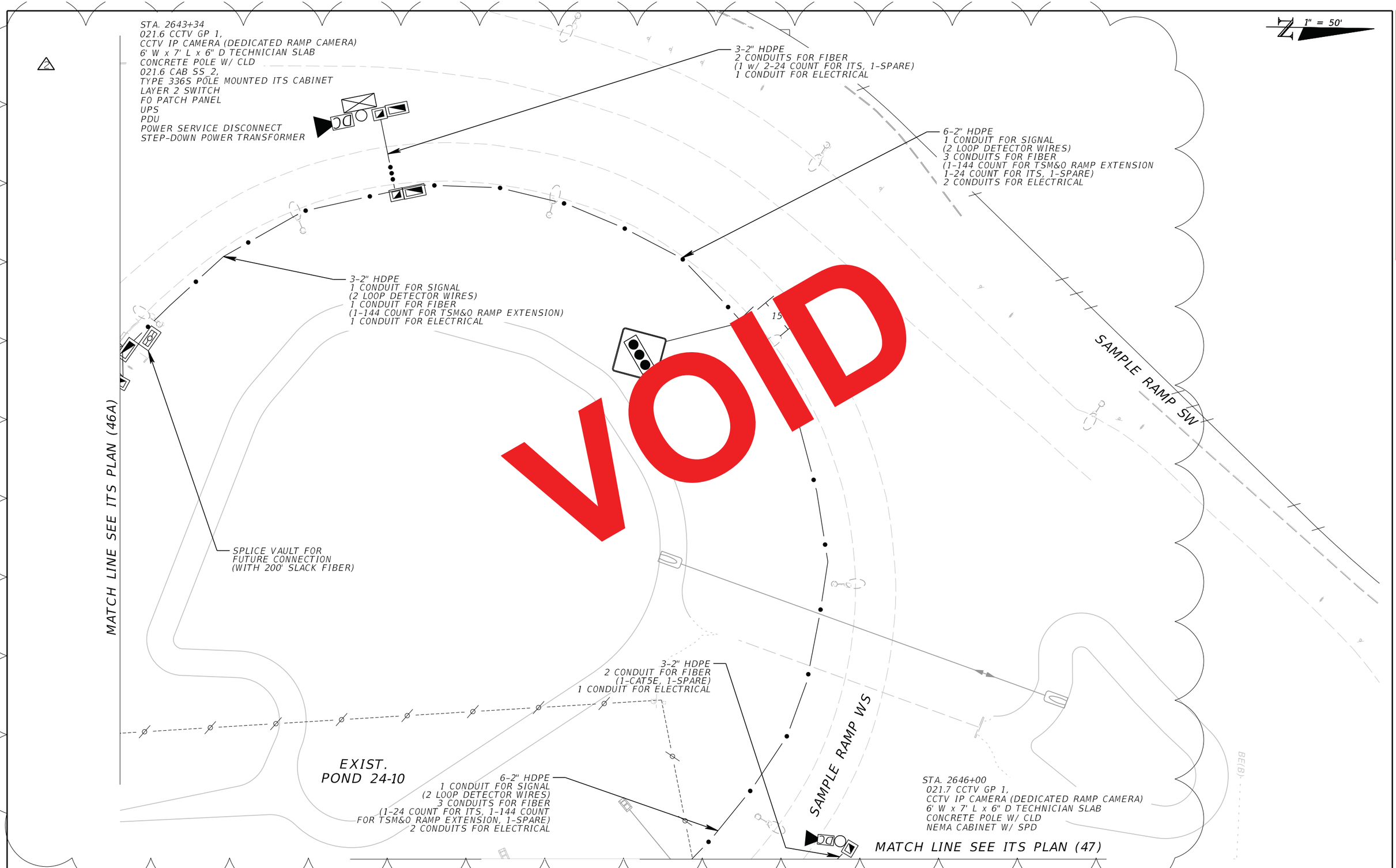
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (47A)

SHEET NO. IT-93



RELEASED FOR CONSTRUCTION DATE: 08/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)

BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED D-CCTV		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (47A)

SHEET NO.

IT-93

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1" = 50'

3-2" HDPE
1 CONDUIT FOR SIGNAL
(2 LOOP DETECTOR WIRES)
1 CONDUIT FOR FIBER
(1-144 COUNT FOR TSM&O RAMP EXTENSION)
1 CONDUIT FOR ELECTRICAL

SAMPLE RAMP SW

SPLICE VAULT FOR
FUTURE CONNECTION
(WITH 200' SLACK FIBER)

MATCH LINE SEE ITS PLAN (46A)

EXIST.
POND 24-10

3-2" HDPE
2 CONDUIT FOR FIBER
(1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SAMPLE RAMP WS

STA. 2646+00
021.7 CCTV GP 1,
CCTV IP CAMERA (DEDICATED RAMP CAMERA)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

MATCH LINE SEE ITS PLAN (47)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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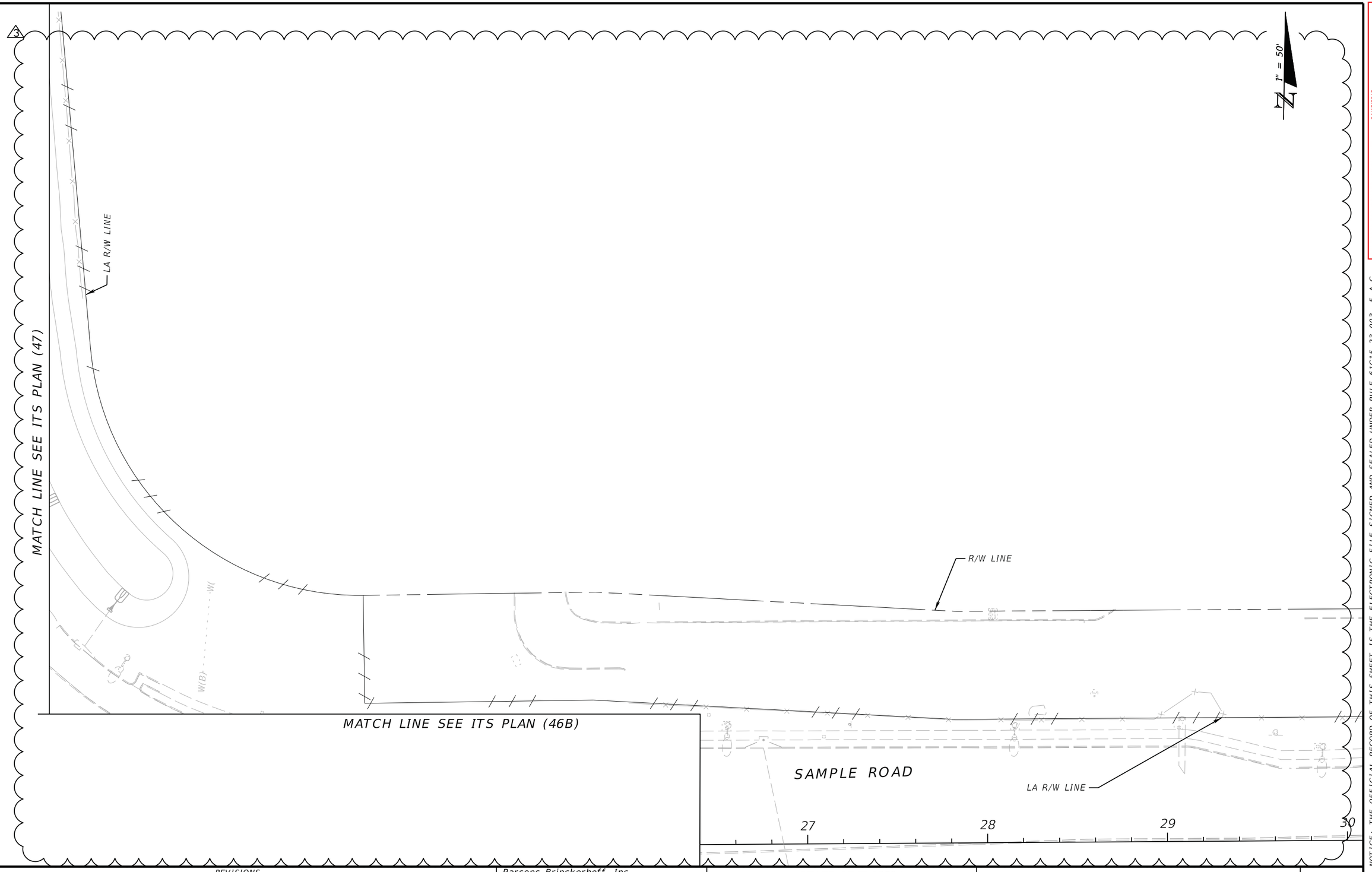
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (47A)

SHEET NO.
IT-93



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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (47B)

SHEET NO.
IT-94

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VOID

MATCH LINE SEE ITS PLAN (47)

LA R/W LINE

SPLICE VAULT FOR FUTURE CONNECTION (WITH 200' SLACK FIBER)

STA. 22+94

ADVANCED WARNING BEACON SIGN (TYP)

RAMP METERED WHEN FLASHING

RAMP METERED WHEN FLASHING

STA. 23+12

1-2" HDPE (ELECTRICAL)

MATCH LINE SEE ITS PLAN (46B)

1-2" HDPE (ELECTRICAL)

RAMP METERED WHEN FLASHING

STA. 29+73

R/W LINE

SAMPLE ROAD

LA R/W LINE

27 28 29 30

1" = 50'

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (47B)

SHEET NO.

IT-94

3

4-2" HDPE
3 CONDUITS FOR TOLL ITS
(1-48 COUNT SM FOR TOLL,
1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

1-2" HDPE
1 CONDUIT FOR TOLL ITS
(1-48 COUNT SM FOR TOLL)

TOLL DOOR

COIL 200 FT OF 48-COUNT FIBER

TOLL GANTRY - SITE 6
STA. 2650+00.00
SEE TOLLING PLANS

STA. 2649+31
021.8 CCTV TOLL 1,
CCTV IP CAMERA FOR TOLL SITE 6
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
021.8 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

LA R/W LINE

1" = 50'

700 701 702 703

SAMPLE RAMP SW

SWALE 25-3

CR

SB SR 9 (I-95)

STA. 2655+94
FL D4 095 021.9 SB SS DS EL-GP-OF 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.9 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6650 6651 6652 6653 6654 6655 6656

2649 2650 2651 2652 2653 2654 2655 2656

℄ CONST. I-95

NB SR 9 (I-95)

5650 5651 5652 5653 5655 5656

STA. 2655+86
FL D4 095 021.9 NB NS DS EL-GP-ON 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
021.9 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

MATCH LINE ℄ CONST. I-95 STA. 2649+00.00

MATCH LINE ℄ CONST. I-95 STA. 2656+00.00

600

SAMPLE RAMP WN

CR

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SWALE 25-2

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SV-37
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES
FUTURE RSS FOR
SAMPLE RAMP WN

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		
09/13/19	AS-BUILT		

Parsons Brinckerhoff, Inc.
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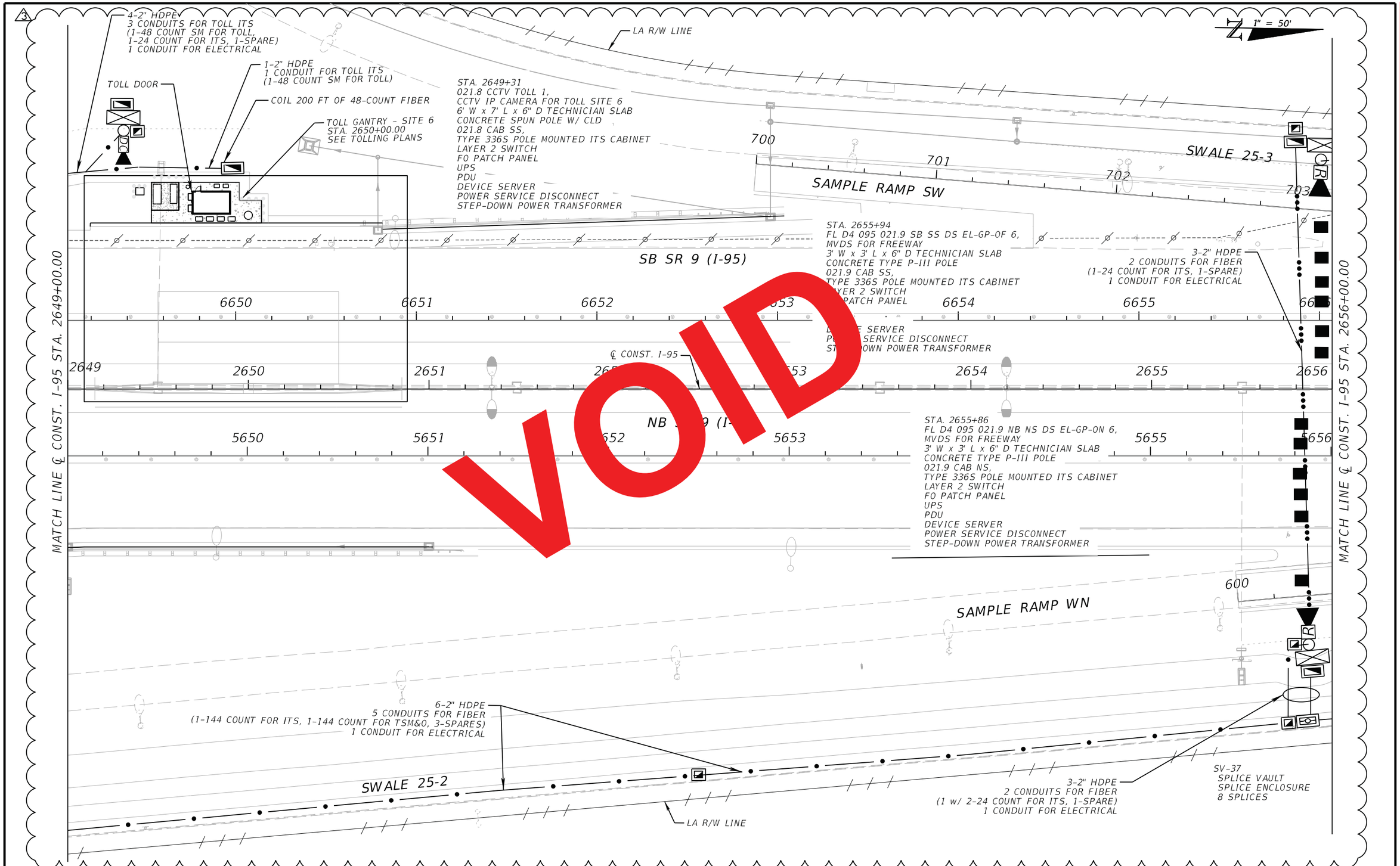
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (48)

SHEET NO.
IT-95



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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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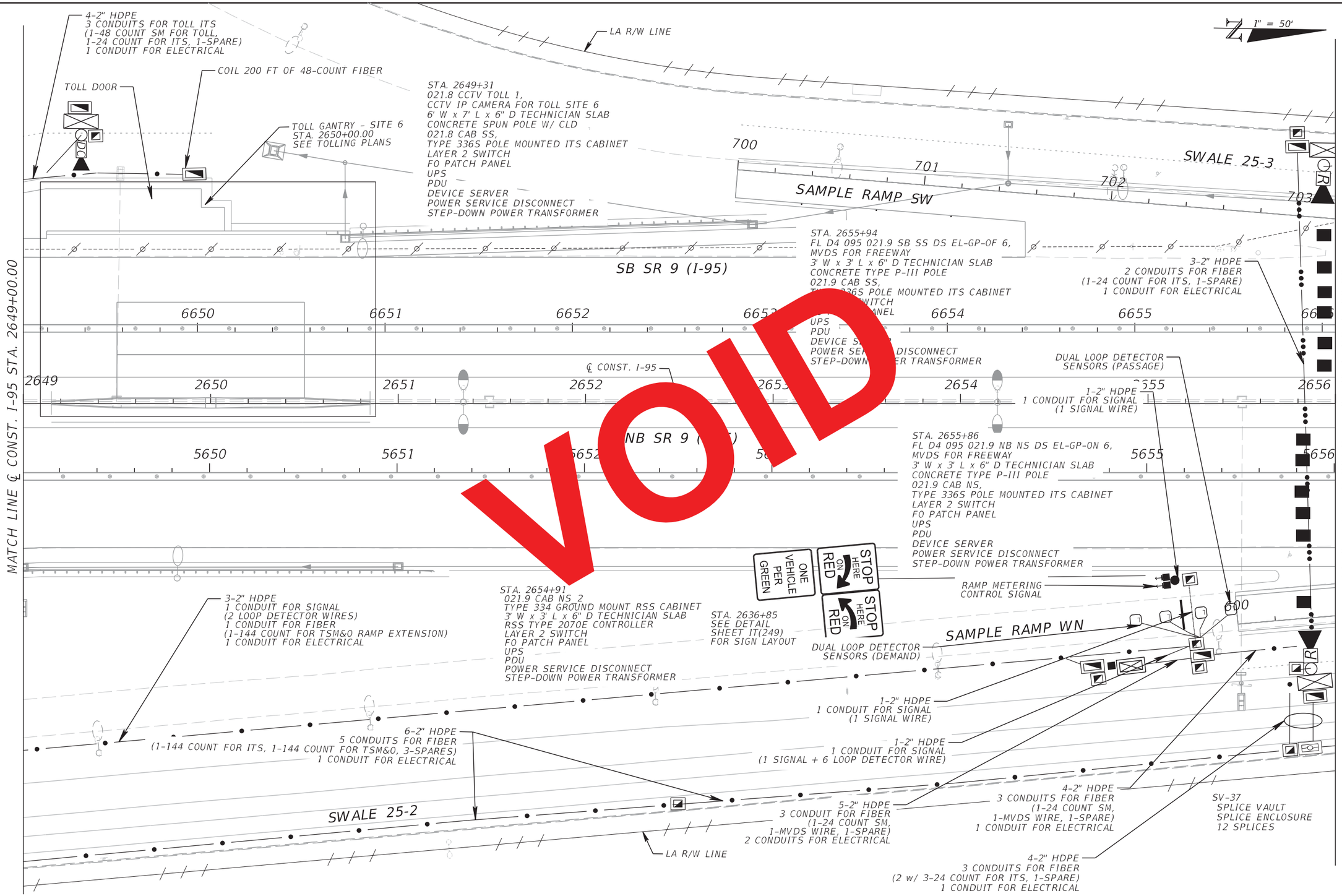
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (48)

SHEET NO.
IT-95

c:\projectwise\pb\projectwiseint\perezr\d0173361\433108652O1_I95_Ph3BI_FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3B-I\data\433108552O1_I95_Ph3bI-itg.tbl PerezR 3/8/2019 3:48:16 PM c:\projectwise\pb\projectwiseint\perezr\d0146451\planit48.DGN



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (48)

SHEET NO.
IT-95

1" = 50'

LA R/W LINE

70 71 72 73 74 75 76 77 78 79 80

SB SR 9 (I-95)

6657 6658 6659 6660 6661 6662 6663

℄ CONST. I-95

2656 2657 2658 2659 2660 2661 2662 2663

NB SR 9 (I-95)

5657 5658 5659 5660 5661 5662 5663

MATCH LINE ℄ CONST. I-95 STA. 2656+00.00

MATCH LINE ℄ CONST. I-95 STA. 2663+00.00

601 602 603 604 605

SWALE 25-2

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS, DIRECTIONAL BORE ADDED		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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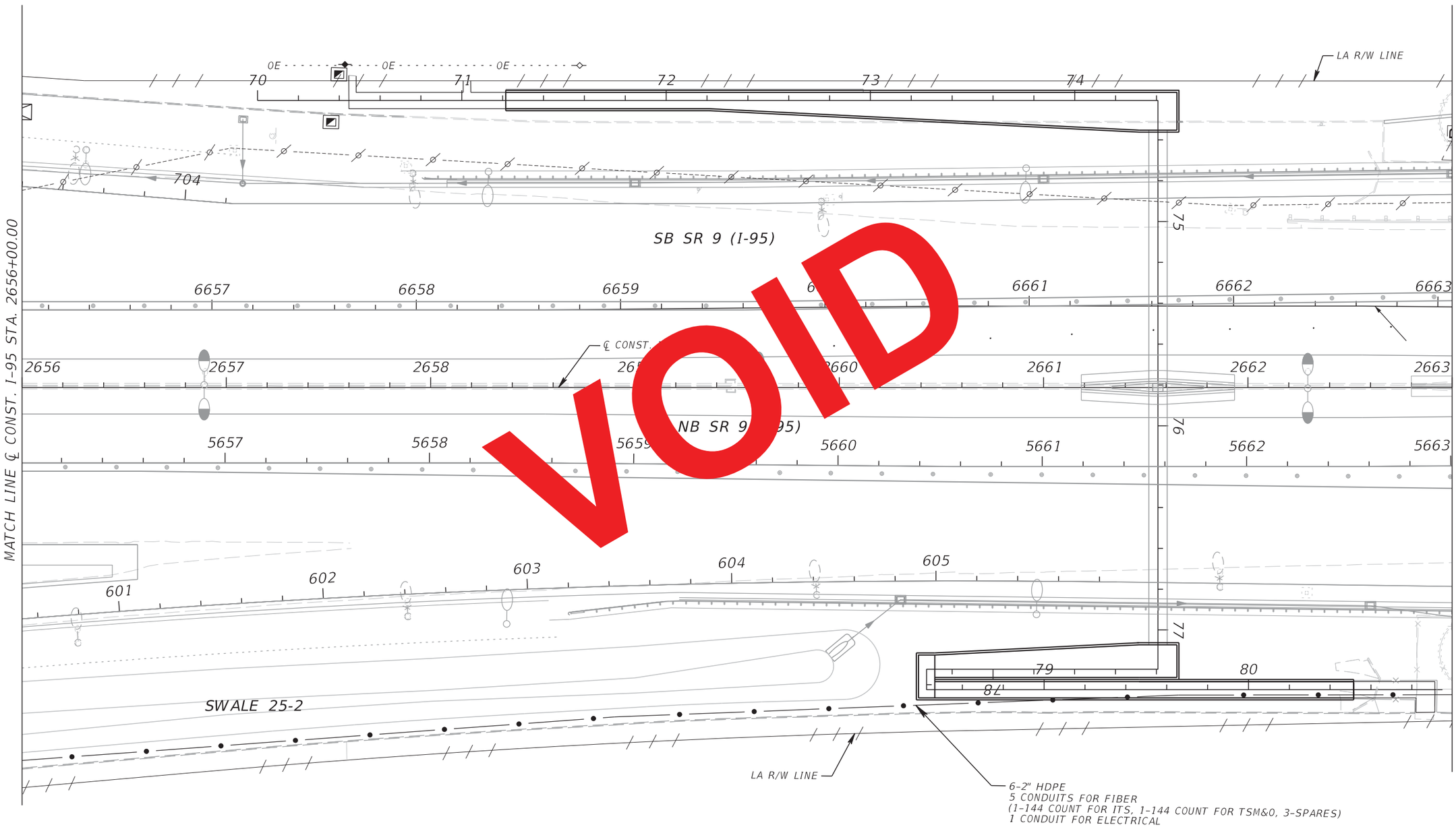
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (49)

SHEET NO.
IT-96

1" = 50'



MATCH LINE ℄ CONST. I-95 STA. 2656+00.00

MATCH LINE ℄ CONST. I-95 STA. 2663+00.00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (49)

SHEET NO.
IT-96

1" = 50'

END 16' SOUND WALL
STA. 2663+44

EXISTING DEVICE
AND CABINET
TO BE REMOVED
(FLD4095039.4NSSS)

LA R/W LINE

STA. 2669+26
FL D4 095 022.1 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
022.1 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
022.1 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

1-2" HDPE
1 CONDUIT FOR FIBER
(1-24 COUNT SM FOR ITS)

2-2" HDPE
1 CONDUIT FOR FIBER
(1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

6664 6665 6666 6667 6668 6669 6670

℄ CONST. I-95

2663 2664 2665 2666 2667 2668 2669 2670

NB SR 9 (I-95)

5664 5665 5666 5667 5668 5669 5670

MATCH LINE ℄ CONST. I-95 STA. 2663+00.00

MATCH LINE ℄ CONST. I-95 STA. 2670+00.00

STA. 2663+60
FL D4 095 022.0 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
022.0 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

POND 25-2

1-2" HDPE
1 CONDUIT FOR FIBER
(1-24 COUNT SM FOR ITS)

SV-38
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 SM FOR ITS, 3 SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 348 & 497, DIRECTIONAL BORE ADDED		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
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EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (50)

SHEET NO.
IT-97

1" = 50'

END 16' SOUND WALL
STA. 2663+44

EXISTING DEVICE
AND CABINET
TO BE REMOVED
(FLD4095039.4NSSS)

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2669+26
FL D4 095 022.1 SB SS DS EL-GP 6,
MVDS FOR FREEWAY
022.1 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
022.1 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SB SR 9 (I-95)

6664 6665 6666 6668 6669 6670

℄ CONST

2663 2664 2665 2667 2668 2669 2670

NB SR 9 (I-95)

5664 5665 5666 5667 5668 5669 5670

MATCH LINE ℄ CONST. I-95 STA. 2663+00.00

MATCH LINE ℄ CONST. I-95 STA. 2670+00.00

STA. 2663+60
FL D4 095 022.0 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
022.0 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

POND 25-2

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-24 SM FOR ITS, 3 SPARES)
1 CONDUIT FOR ELECTRICAL

SV-38
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (50)

SHEET NO.
IT-97

1" = 50'

LA R/W LINE

POND 25-1

SB SR 9 (I-95)

6671 6672 6673 6674 6675 6676 6677

MATCH LINE ℄ CONST. I-95 STA. 2670+00.00

℄ CONST. I-95

2670 2671 2672 2673 2674 2675 2676 2677

NB SR 9 (I-95)

5671 5672 5673 5674 5675 5676

MATCH LINE ℄ CONST. I-95 STA. 2677+00.00

POND 25-2

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (51)

SHEET NO.
IT-98

1" = 50'

LA R/W LINE

POND 25-1

SB SR 9 (I-95)

6671 6672 6673 6674 6675 6676 6677

℄ CONST. I-95

2670 2671 2672 2673 2674 2675 2676 2677

NB SR 9 (I-95)

5671 5672 5673 5674 5675 5676

MATCH LINE ℄ CONST. I-95 STA. 2670+00.00

MATCH LINE ℄ CONST. I-95 STA. 2677+00.00

POND 25-2

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (51)

SHEET NO.
IT-98

1" = 50'

MATCH LINE ℄ CONST. I-95 STA. 2677+00.00

MATCH LINE ℄ CONST. I-95 STA. 2684+00.00

LA R/W LINE

LA R/W LINE

EXISTING VOIP TO BE REMOVED
AND RETURNED TO DEPARTMENT
(VOIP 95-39.7)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING RWIS
TO BE RELOCATED

STA. 2681+70
022.4 RWIS SS
RELOCATED RWIS, STA. 2681+70
FL D4 095 022.4 SB SS DS EL-GP 5,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
022.4 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SB SR 9 (I-95)

EXISTING DEVICES, CABINET
AND POLE TO BE REMOVED
(C9042, FLD4095039.7NSSS)

6678 6679 6680 6681 6682 6683 6684

℄ CONST. I-95

2677 2678 2679 2680 2681 2682 2683 2684

NB SR 9 (I-95)

5677 5678 5679 5680 5681 5682

STA. 2681+98
FL D4 095 022.4 NB NS DS EL-GP 7,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
022.4 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

SV-39
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

POND 25-2

POND 25-2

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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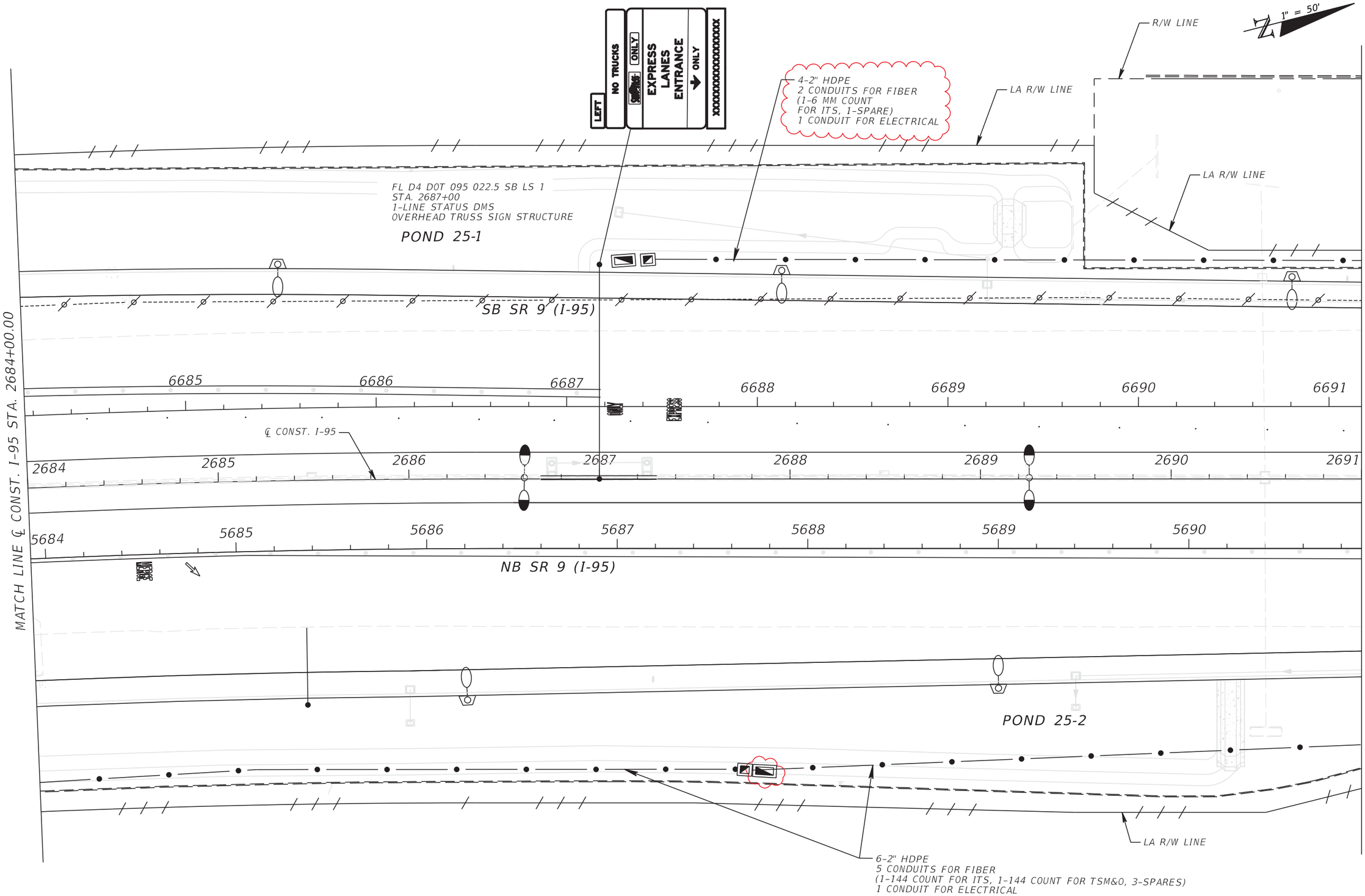
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (52)

SHEET NO.
IT-99



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILTS per RFI 413 & 477		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (53)

SHEET NO.
IT-100

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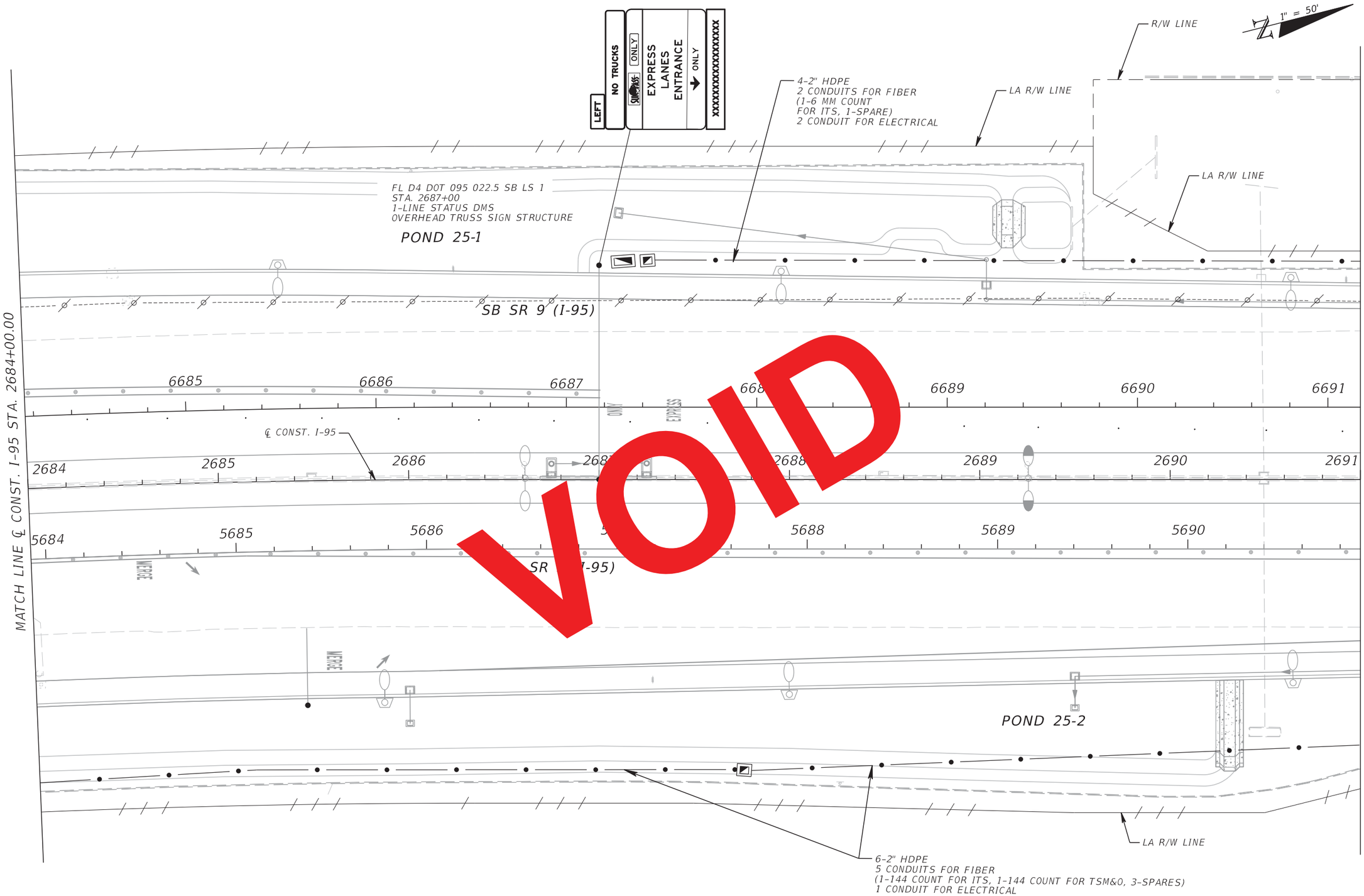

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4284 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (53)

SHEET NO.
IT-100

1" = 50'

R/W LINE

STA. 2693+85
022.6 CAB SS_2
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
DMS CONTROLLER
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

4-2" HDPE
2 CONDUITS FOR FIBER
(1-6 MM COUNT
FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2694+02
FL D4 095 022.6 SB SS DS EL-GP 5,
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
022.6 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

NW 48TH STREET

R/W LINE

ELECTRICAL SERVICE TO
SERVICE POINT/GENERATOR E
SEE ITS ELECTRICAL PLANS

LA R/W LINE

SB SR 9 (I-95)

5-2" HDPE
3 CONDUITS FOR FIBER
(2-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

MATCH LINE ℄ CONST. I-95 STA. 2691+00.00

MATCH LINE ℄ CONST. I-95 STA. 2698+00.00

6693 6694 6695 6696 6697 6698

ONLY EXPRESS

℄ CONST. I-95

2691 2692 2693 2694 2695 2696 2697 2698

NB SR 9 (I-95)

5691 5692 5693 5694 5695 5697

STA. 2694+40
FL D4 095 022.6 NB NS DS EL-GP 6,
MVDS FOR FREEWAY
022.6 CCTV EL-GP 1,
CCTV IP CAMERA FOR FREEWAY
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
022.6 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
2 LAYER 2 SWITCHES
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

ELECTRICAL SERVICE TO
SERVICE POINT/GENERATOR E
SEE ITS ELECTRICAL PLANS

ITS SERVICE POINT/GENERATOR "E";
INSTALL LAYER 2 SWITCH, FO PATCH PANEL AND SPD IN A NEMA
3R ENCLOSURE MOUNTED ON THE POWER STATION EQUIPMENT RACK.
SEE ITS COMMUNICATIONS OVERVIEW SHEETS, SPLICING DIAGRAMS
AND ELECTRICAL DETAILS FOR ADDITIVE INFORMATION
1

SV-40
SPLICE VAULT
SPLICE ENCLOSURE
20 SPLICES

SPLICE VAULT FOR
FUTURE CONNECTION
(WITH 200' SLACK FIBER)

POND 25-2

POND 25-3

NE 48TH STREET

EXISTING SIGN, CABINET, CONTROLLER
& STRUCTURE TO REMAIN AND BE
CONNECTED TO NEW NETWORK
(ADD LAYER 2 SWITCH AND PATCH PANEL)

℄ SURVEY 48TH

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE
3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR GENERATOR/ATS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
4 CONDUITS FOR FIBER
(3 w/ 5-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT
FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "E" CALLOUT	9/13/19	AS-BUILTS per RFI 413, 477 & 514
03/16/18	2 ADDED FIBER BOX BY EXISTING GENERATOR		

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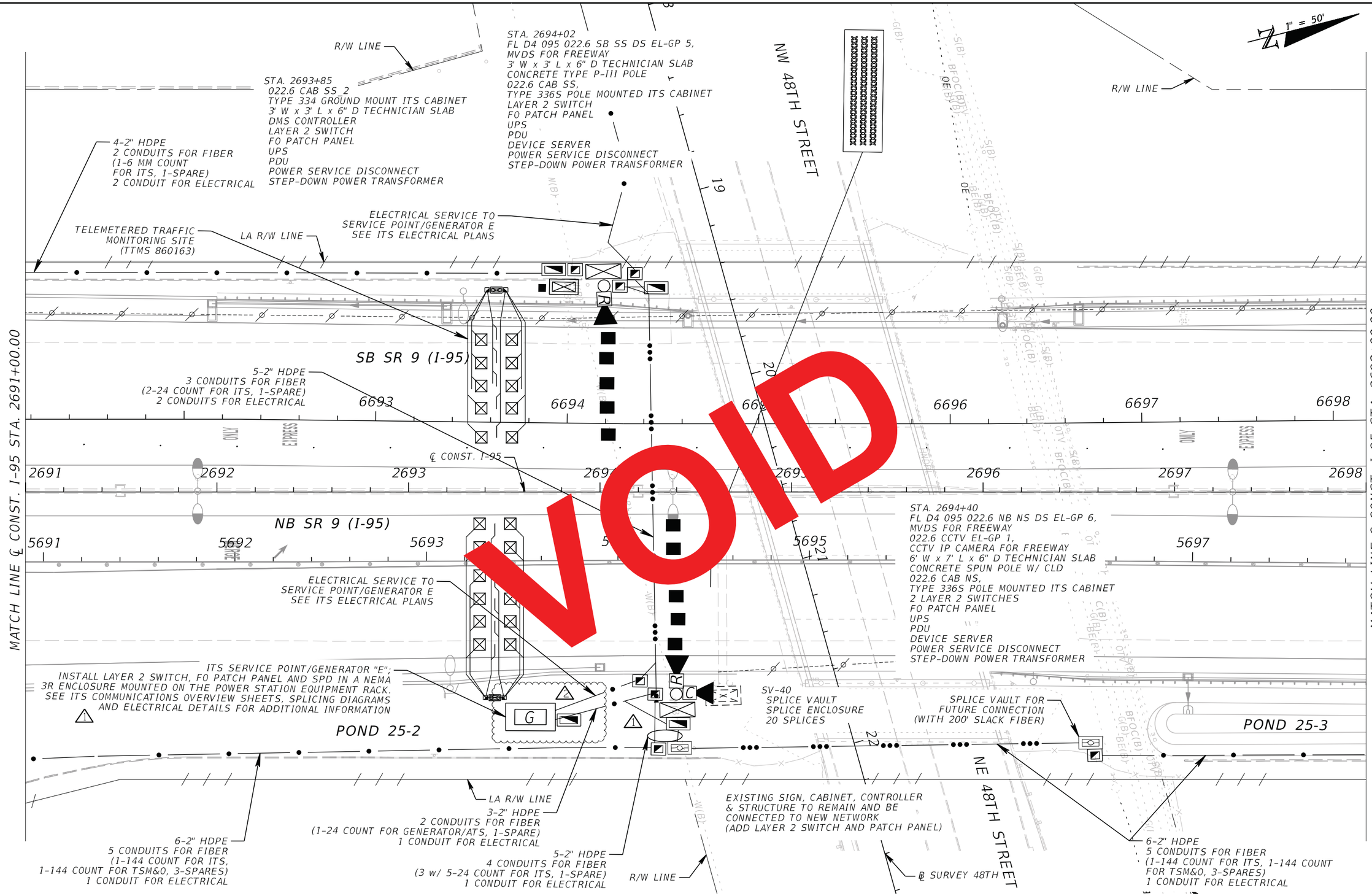
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (54)

SHEET NO.
IT-101



RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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03/16/18	2 ADDED FIBER BOX BY EXISTING GENERATOR		

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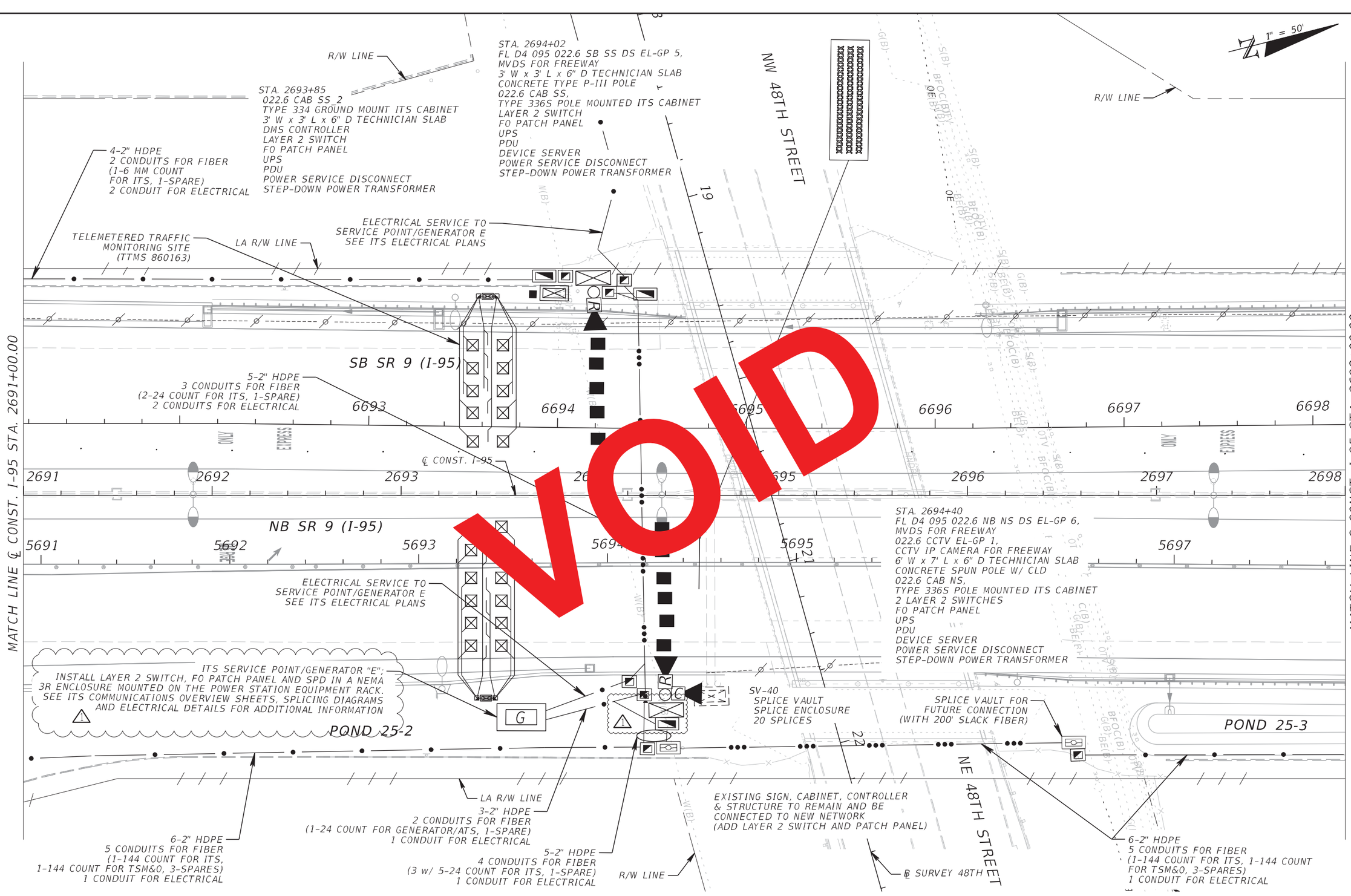
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (54)

SHEET NO.
IT-101



RELEASED FOR CONSTRUCTION DATE: 03/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of design concept, calculations and compliance with laws and regulations shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL

BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SERVICE POINT / GENERATOR "E" CALLOUT		

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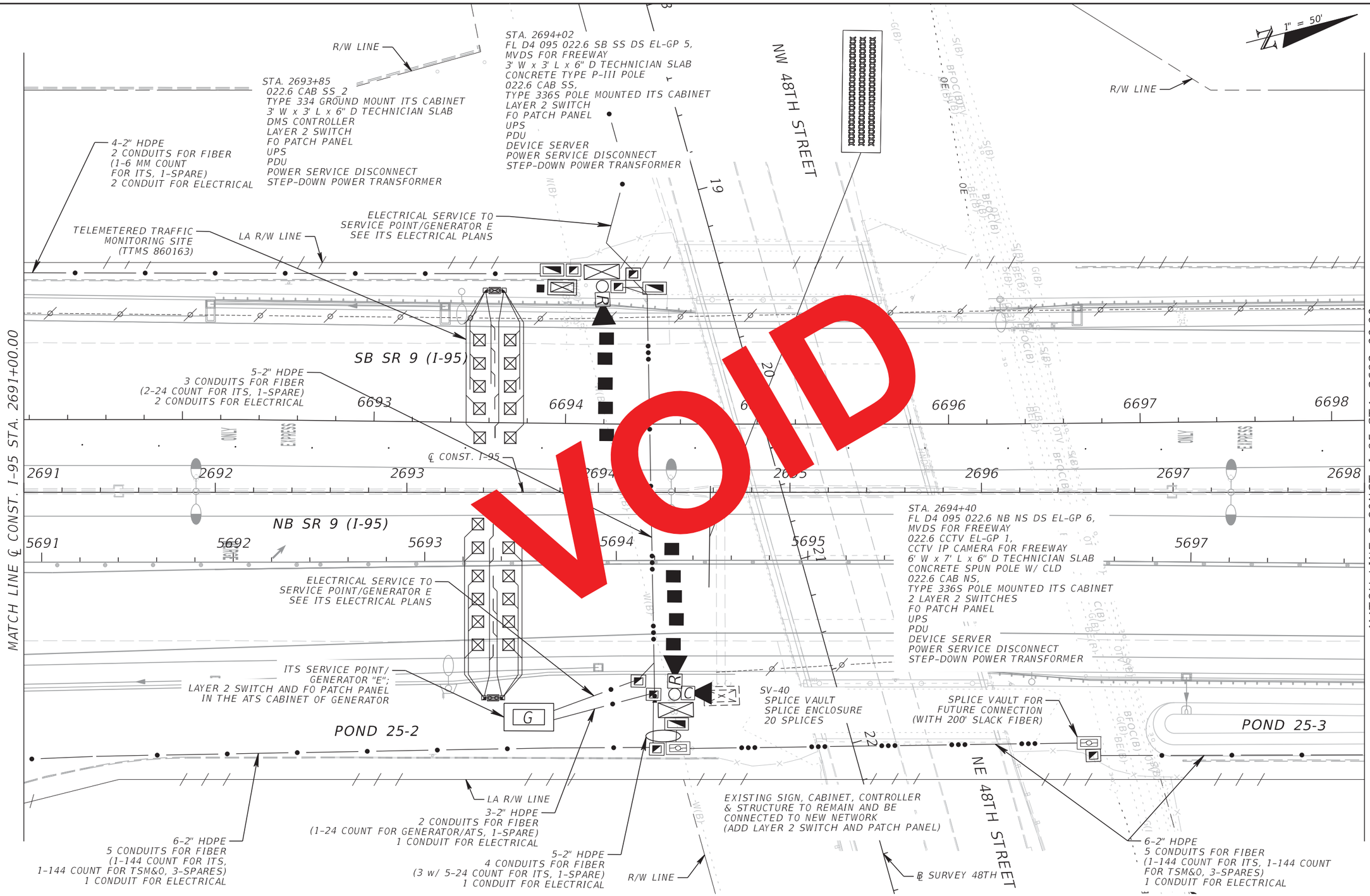
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (54)

SHEET NO.
IT-101



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec) FL

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (54)

SHEET NO.

IT-101

1" = 50'

EXPRESS LANES
ONLY
to Cypress Creek Rd $ XX.XX
to Sunrise Blvd $ XX.XX
to Broward Blvd Park-Ride $ XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(3-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2700+11
022.7 CAB SS
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' L x 6" D TECHNICIAN SLAB
3 DMS CONTROLLERS
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1-CAT5E, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

FL D4 DOT 095 022.7 SB TR 1
STA. 2698+50
TOLL DMS
OVERHEAD TRUSS SIGN STRUCTURE
3' W x 3' L x 6" D TECHNICIAN SLAB

SB SR 9 (I-95)

6699 6700 6701 6702 6703 6704 6705

℄ CONST. I-95

2698 2699 2700 2701 2702 2703 2704 2705

NB SR 9 (I-95)

5698 5699 5700 5701 5702 5703 5704

MATCH LINE ℄ CONST. I-95 STA. 2698+00.00

MATCH LINE ℄ CONST. I-95 STA. 2705+00.00

POND 25-3

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 216		

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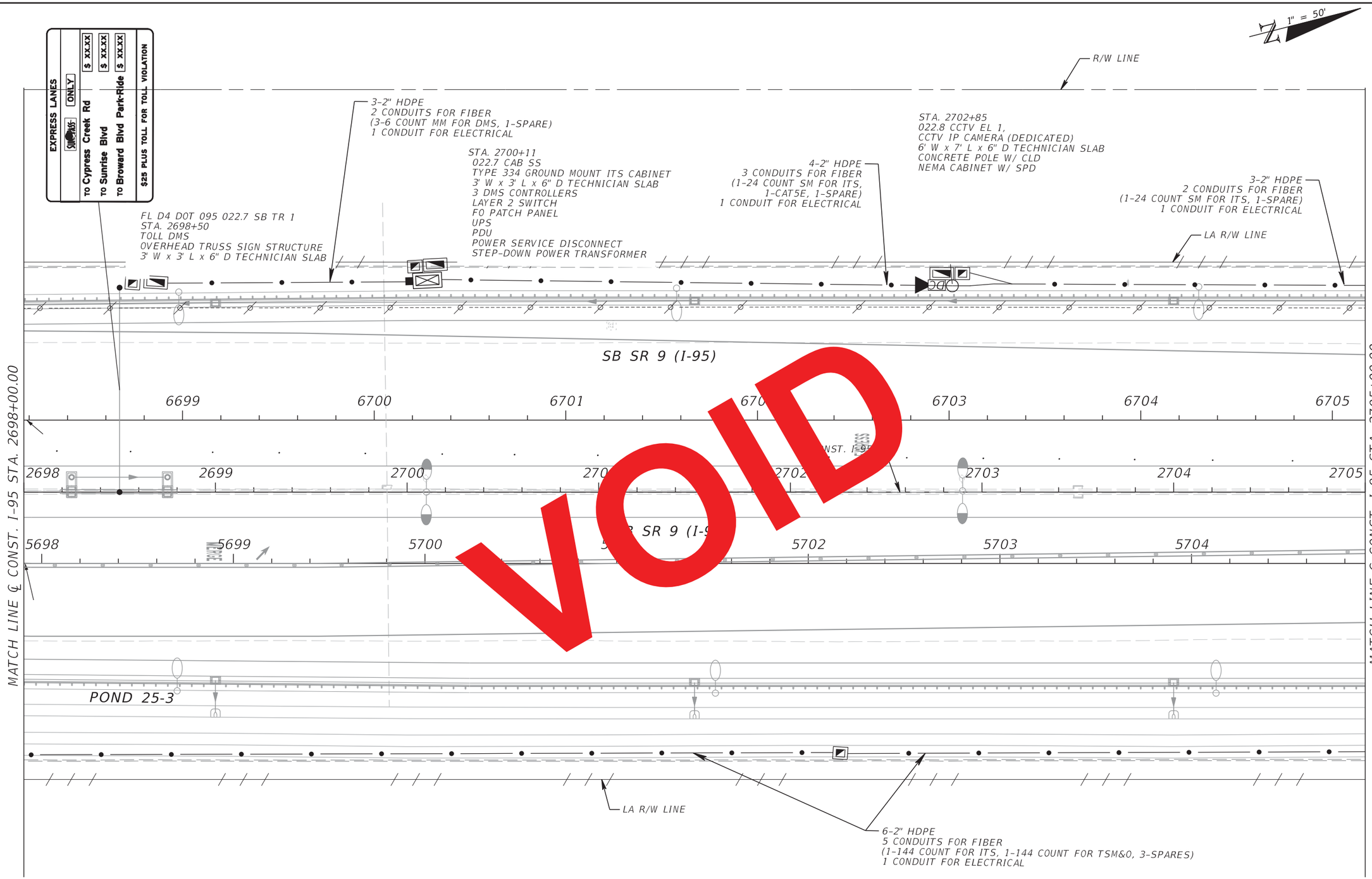
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (55)

SHEET NO.
IT-102



VOID

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FPID 433108-5-52-01 CONTRACT E4284 BY: (FDOT)
BY: (Stantec)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (55)

SHEET NO.
IT-102

1" = 50'

R/W LINE

EXISTING SIGN, CABINET, CONTROLLER
& STRUCTURE TO REMAIN AND
BE CONNECTED TO NEW NETWORK
(ADD LAYER 2 SWITCH AND PATCH PANEL)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING ITS SERVICE POINT EQUIPMENT
AND MVDS DEVICE TO BE REMOVED
(FLD4095040.2NSSS)

STA. 2708+12
022.9 CCTV EL 1,
CCTV IP CAMERA (DEDICATED)
FL D4 095 022.9 SB SS DS EL-GP 4
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE SPUN POLE W/ CLD
022.9 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

CONVERT PULL BOX TO SPLICE VAULT
FOR BACKBONE CONNECTION

LA R/W LINE

SV-43
SPLICE VAULT
SPLICE ENCLOSURE
72 SPLICES

SB SR 9 (I-95)

6706 6707 6708 6709 6710 6711

2705 2706 2707 2708 2709 2710 2711

CONST. I-95

MATCH LINE ℄ CONST. I-95 STA. 2705+00.00

5705 5706 NB SR 9 (I-95) 5707 5708 5709 5710 5711

MATCH LINE ℄ CONST. I-95 STA. 2712+00.00

POND 25-3

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1 w/ 2-24 COUNT,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SV-41
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

SV-42
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 2708+02
FL D4 095 022.9 NB NS DS EL-GP 4
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
022.9 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1 w/ 2-24 COUNT,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 216		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (56)

SHEET NO.
IT-103

1" = 50'

R/W LINE

STA. 2708+12
FL D4 095 022.9 SB SS DS EL-GP 4
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
022.9 CAB SS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

EXISTING SIGN, CABINET, CONTROLLER
& STRUCTURE TO REMAIN AND
BE CONNECTED TO NEW NETWORK
(ADD LAYER 2 SWITCH AND PATCH PANEL)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING ITS SERVICE POINT EQUIPMENT
AND MVDS DEVICE TO BE REMOVED
(FLD4095040.2NSSS)

3-2" HDPE
2 CONDUITS FOR FIBER
(1 w/ 2-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 3-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

CONVERT PULL BOX TO SPLICE VAULT
FOR BACKBONE CONNECTION

LA R/W LINE

SV-43
SPLICE VAULT
SPLICE ENCLOSURE
72 SPLICES

SB SR 9 (I-95)

6706 6707 6708 6710 6711

2705 2706 2707 2709 2710 2711

ONLY
EXPRESS

NB SR 9 (I-95)

5705 5706 5707 5709 5710 5711

MATCH LINE ℄ CONST. I-95 STA. 2705+00.00

MATCH LINE ℄ CONST. I-95 STA. 2712+00.00

POND 25-3

SV-41
SPLICE VAULT
SPLICE ENCLOSURE
16 SPLICES

SV-42
SPLICE VAULT
SPLICE ENCLOSURE
8 SPLICES

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1 w/ 2-24 COUNT,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

STA. 2708+02
FL D4 095 022.9 NB NS DS EL-GP 4
MVDS FOR FREEWAY
3' W x 3' L x 6" D TECHNICIAN SLAB
CONCRETE TYPE P-III POLE
022.9 CAB NS,
TYPE 336S POLE MOUNTED ITS CABINET
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
DEVICE SERVER
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUITS FOR FIBER
(2 w/ 4-24 COUNT SM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1 w/ 2-24 COUNT,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

VOID

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FPID 433108-5-52-01 CONTRACT E4284 BY: (FDOT)
BY: (Stantec)

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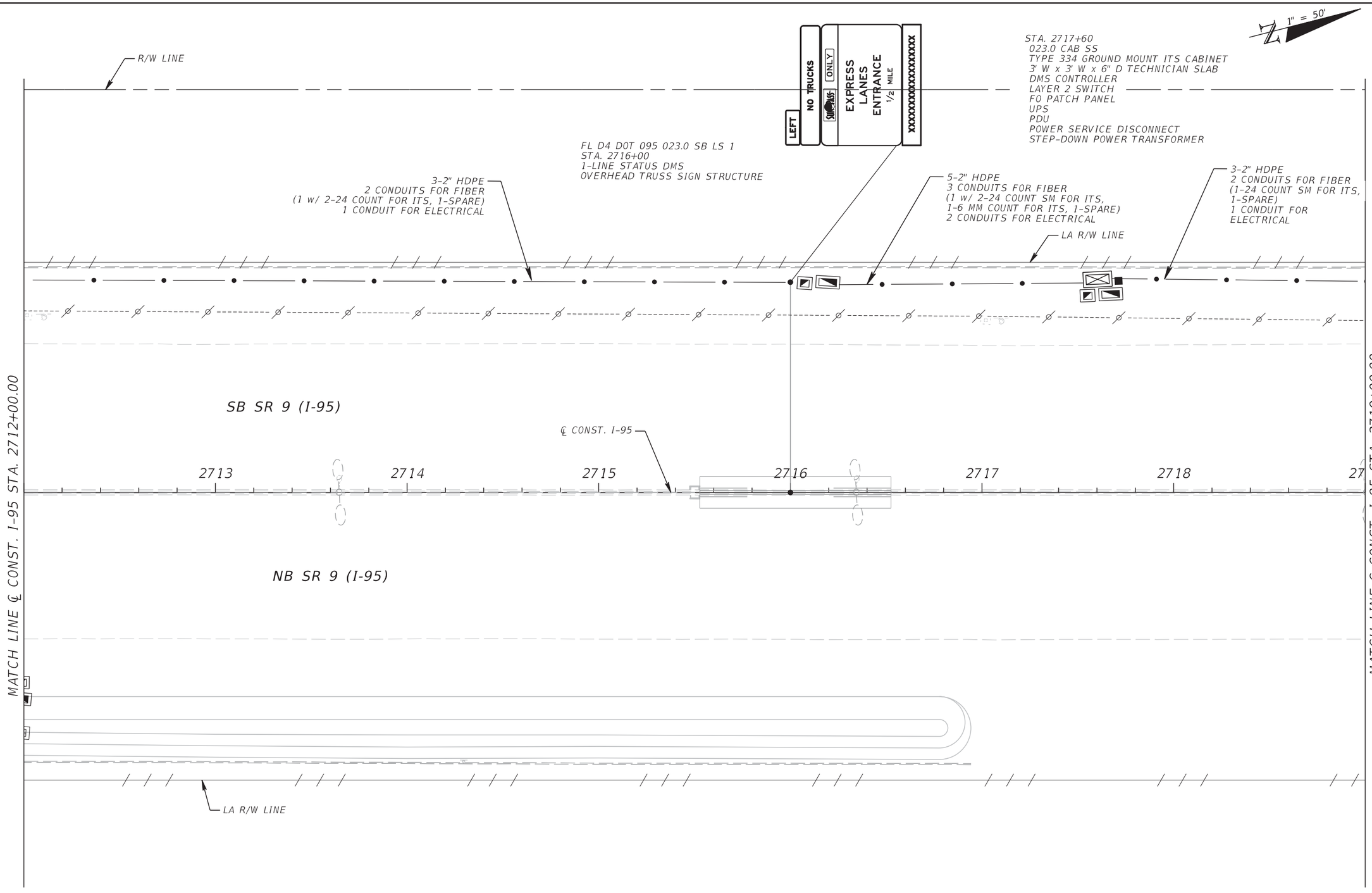
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (56)

SHEET NO.
IT-103



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FPID 433108-5-52-01 CONTRACT E4Z84 BY: (FDOT)
BY: (Stantec)

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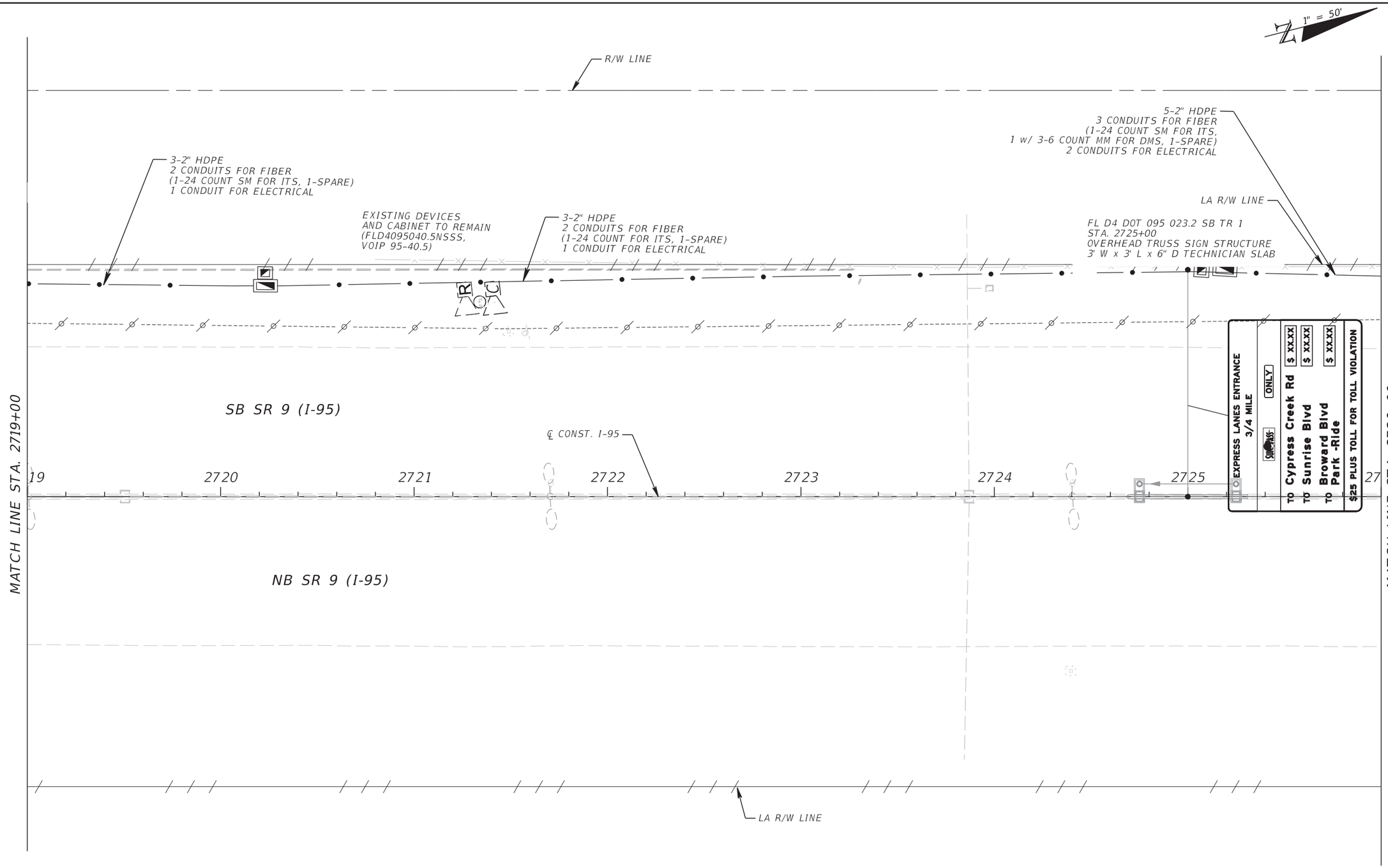
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (57)

SHEET NO.
IT-104



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (58)

SHEET NO.

IT-105

1" = 50'

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1 w/ 3-6 COUNT MM FOR DMS , 1-SPARE)
2 CONDUITS FOR ELECTRICAL

STA. 2726+61
023.2 CAB SS
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' W x 6" D TECHNICIAN SLAB
3 DMS CONTROLLERS
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

STA. 2727+70
023.2 CCTV EL 1,
CCTV IP CAMERA (DEDICATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

LA R/W LINE

2-2" HDPE
1-CAT5E
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

℄ CONST. I-95

MATCH LINE STA. 2726+00

26 2727 2728 2729 2730 2731 2732 27

NB SR 9 (I-95)

END ITS PROJECT
I-95 EXPRESS LANES
PHASE 3A-2
STA. 2727+50.00

LA R/W LINE

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS per RFI 226		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (59)

SHEET NO.
IT-106

1" = 50'

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT SM FOR ITS,
1 w/ 3-6 COUNT MM FOR DMS , 1-SPARE)
2 CONDUITS FOR ELECTRICAL

STA. 2726+61
023.2 CAB SS
TYPE 334 GROUND MOUNT ITS CABINET
3' W x 3' W x 6" D TECHNICIAN SLAB
3 DMS CONTROLLERS
LAYER 2 SWITCH
FO PATCH PANEL
UPS
PDU
POWER SERVICE DISCONNECT
STEP-DOWN POWER TRANSFORMER

STA. 2727+50
023.2 CCTV EL 1,
CCTV IP CAMERA (DEDICATED)
6' W x 7' L x 6" D TECHNICIAN SLAB
CONCRETE POLE W/ CLD
NEMA CABINET W/ SPD

LA R/W LINE

2-2" HDPE
1-CAT5E
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

℄ CONST. I-9

MATCH LINE STA. 2726+00

26 2727 2728 272 2730 2731 2732 27

NB SR 95)

END ITS PROJECT
I-95 EXPRESS LANES
PHASE 3A-2
STA. 2727+50.00

LA R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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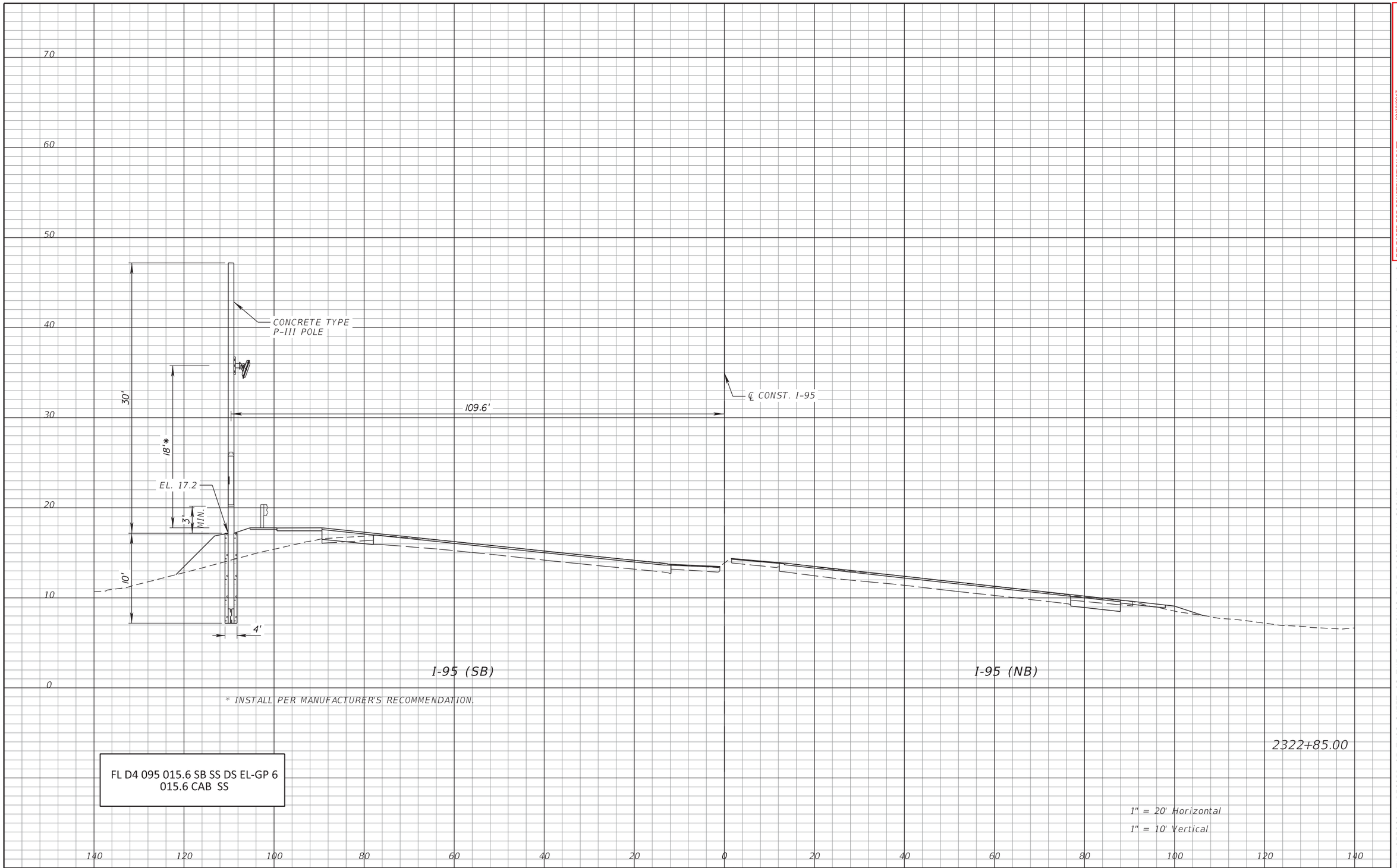
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS PLAN (59)

SHEET NO.
IT-106



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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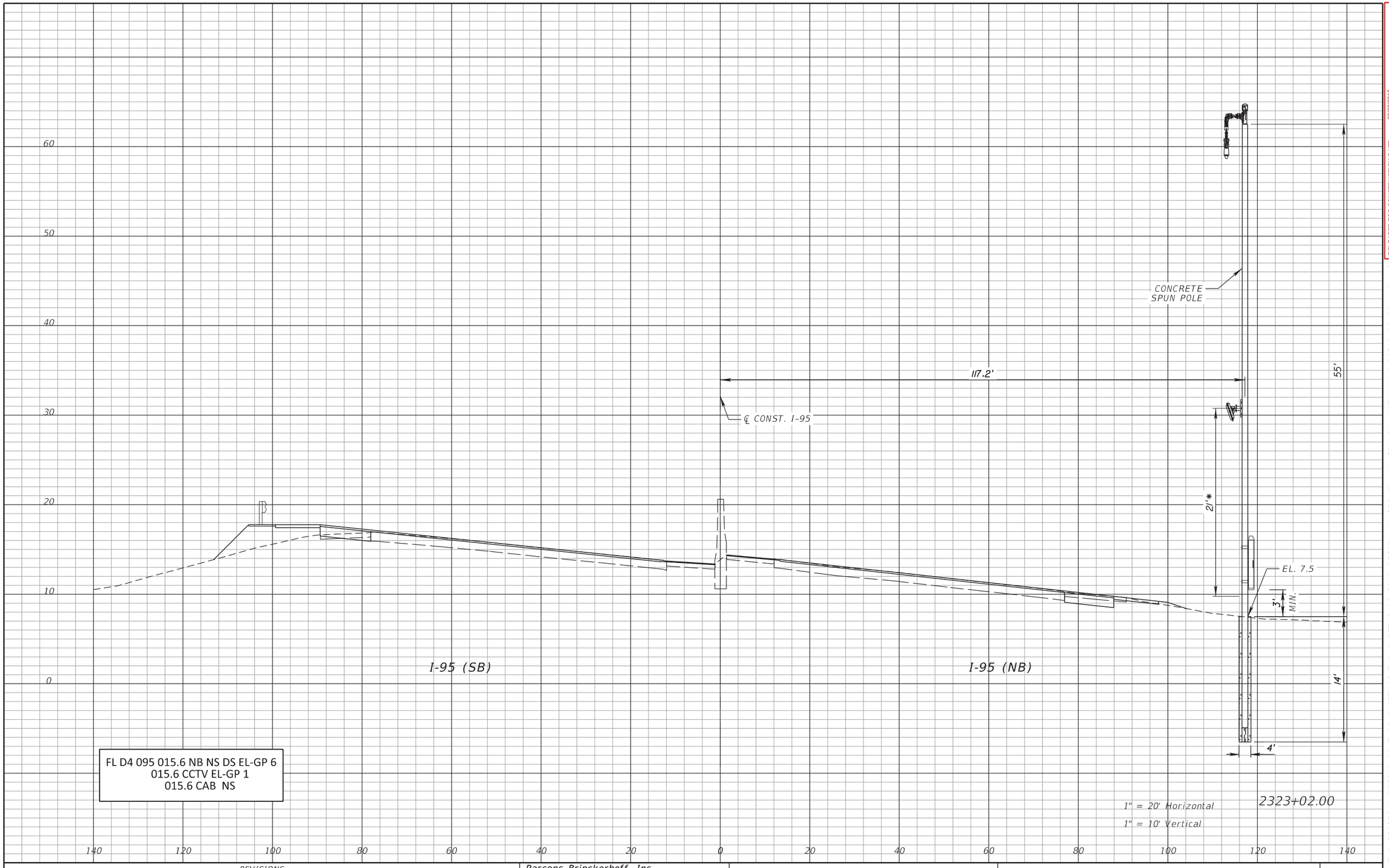
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-107



FL D4 095 015.6 NB NS DS EL-GP 6
015.6 CCTV EL-GP 1
015.6 CAB NS

1" = 20' Horizontal
1" = 10' Vertical

2323+02.00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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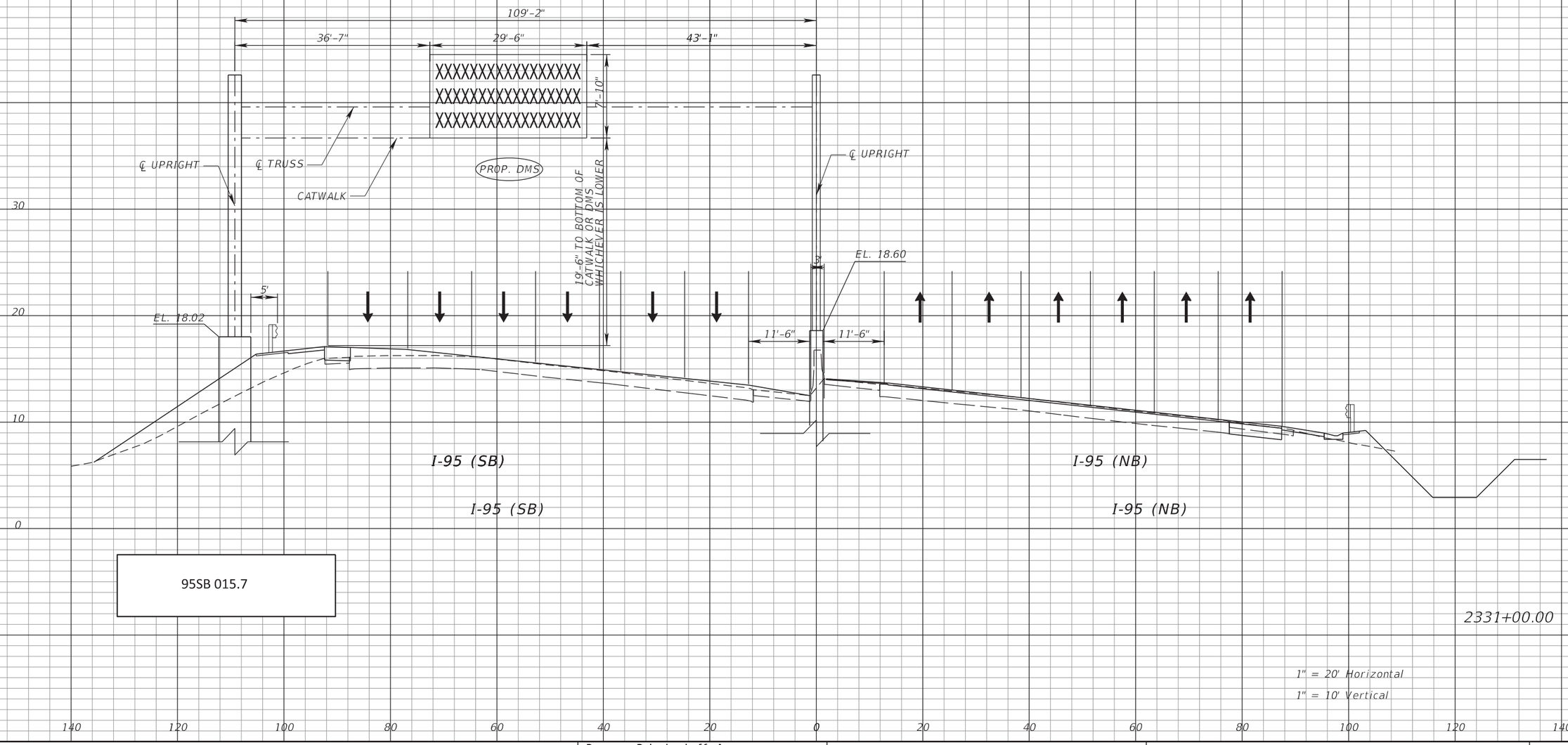
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-108



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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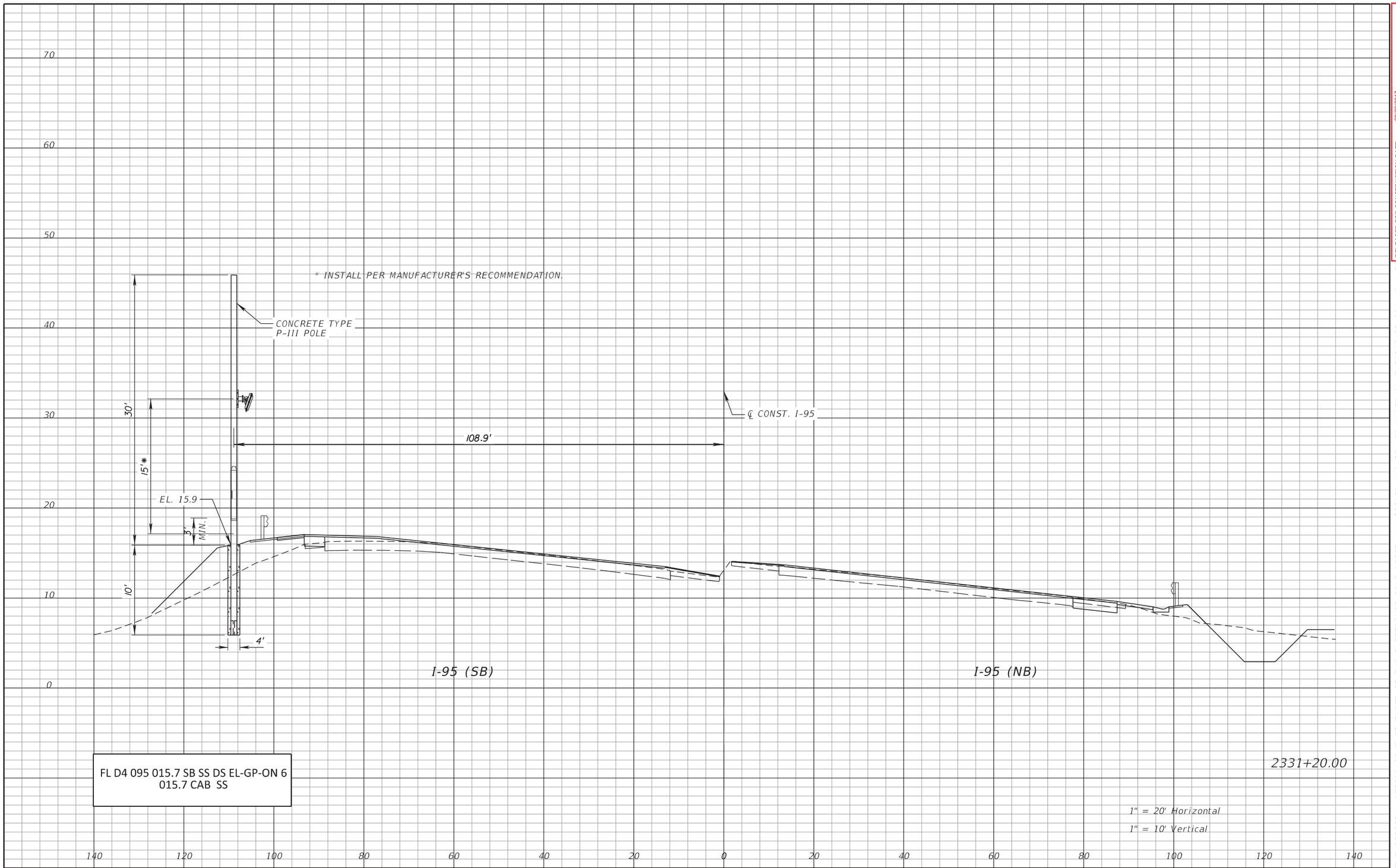
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-109



FL D4 095 015.7 SB SS DS EL-GP-ON 6
015.7 CAB SS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-110

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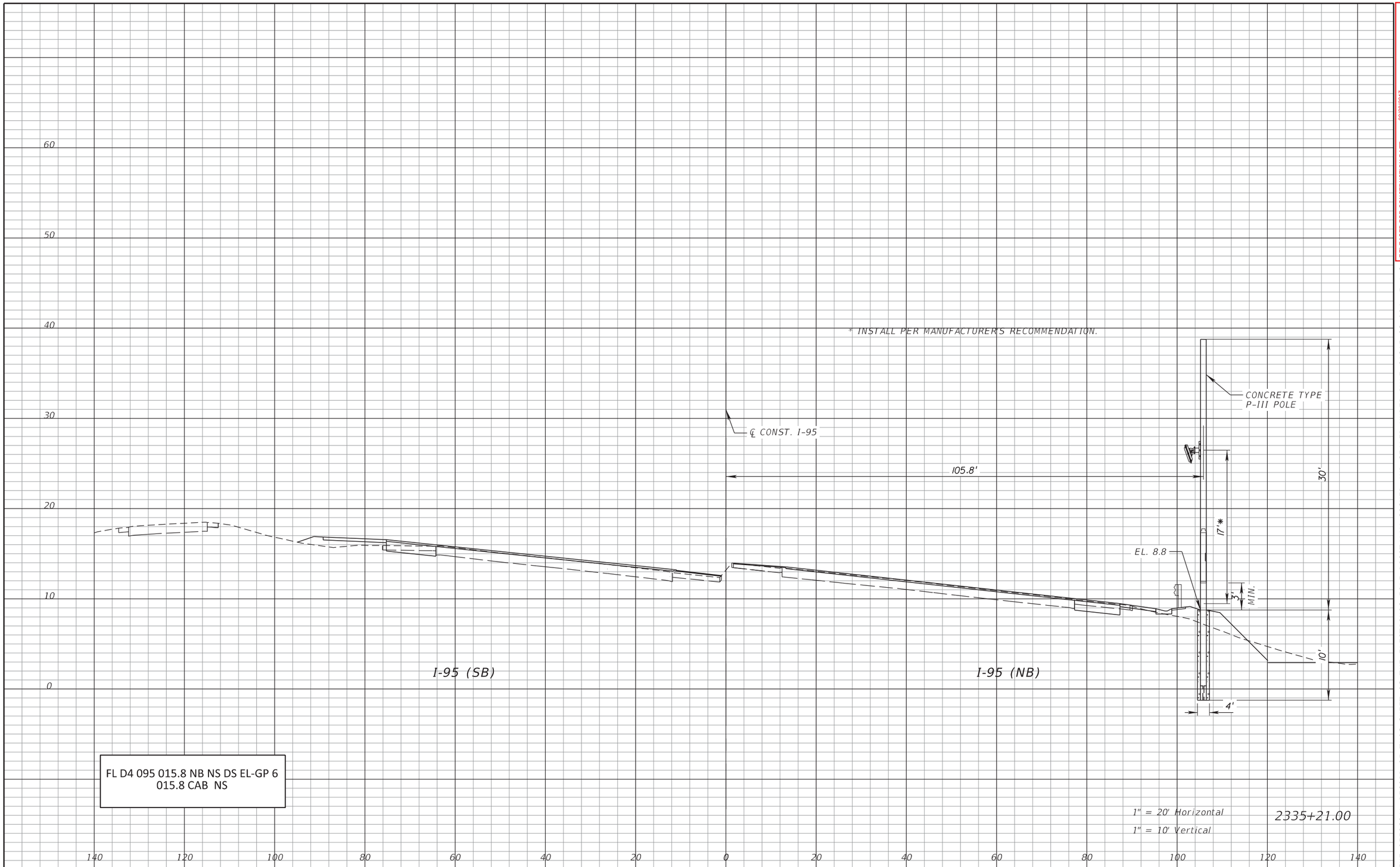

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RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT) OB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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License No: 80987

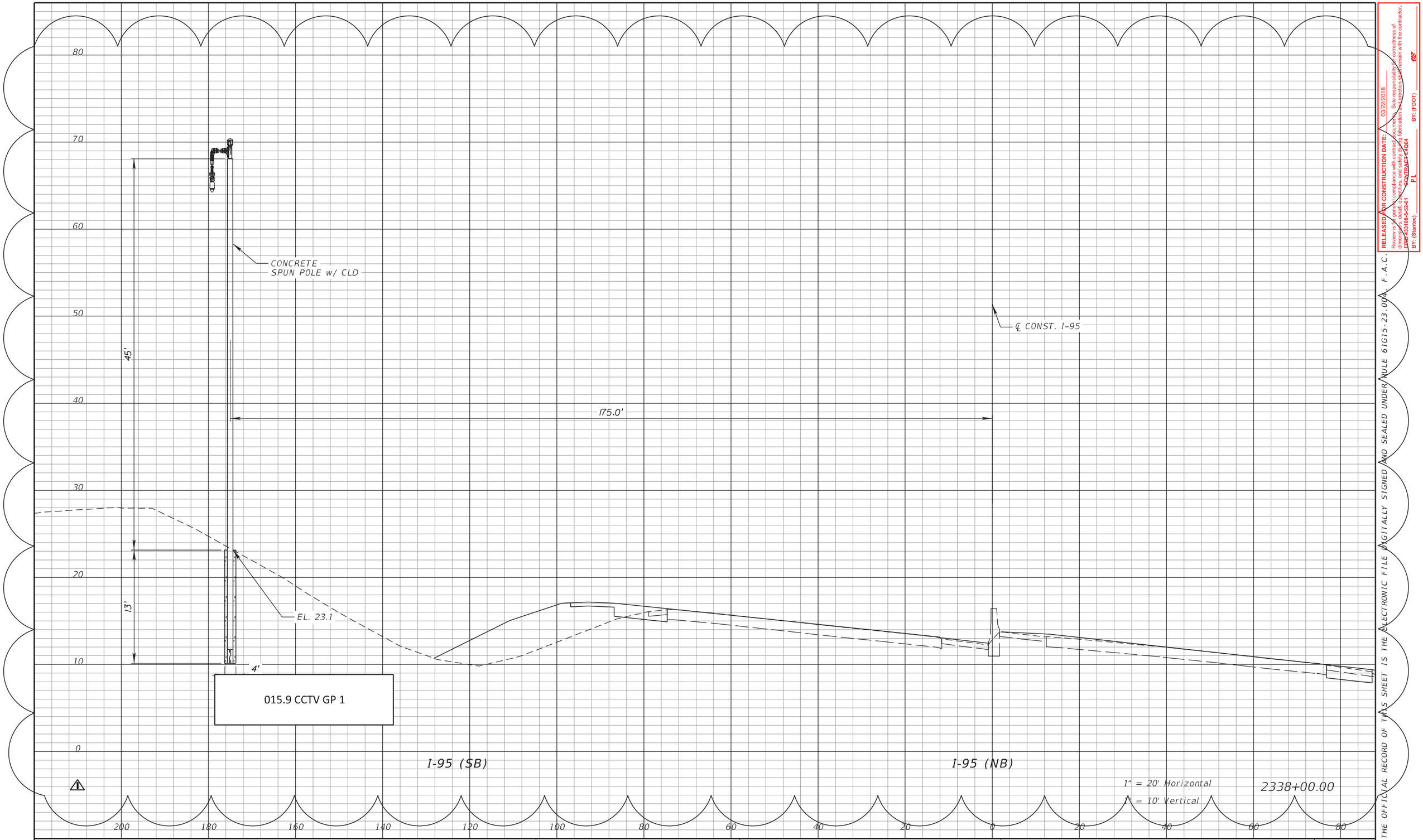
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-111

$PLTDRVL$ $PENTBLL$ abreuk 7/25/2017 7:48:27 AM c:\projectwise\pb\projectwiseint\abreuk\d0128698\SSXSIT01.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 ADDED CROSS SECTION (CCTV POLE MOVED FROM 2336+09)		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

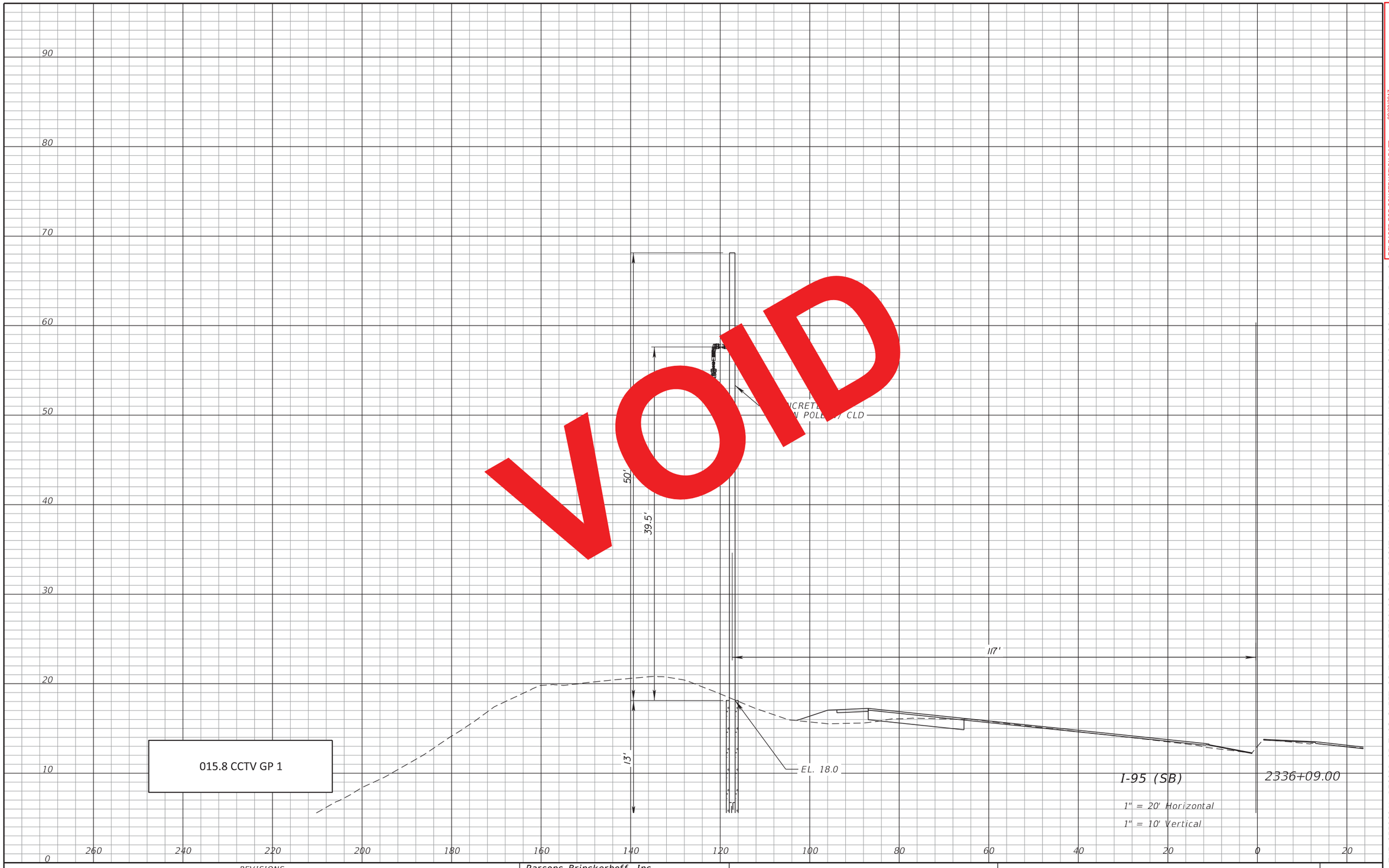
ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-112

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID: 433108-5-52-01 CONTRACT: E4Q64 BY: (FDOT)
BY: (Stantec) PL

C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3A-2\data\FDOT.tbl Borges 3/1/2018 1:22:53 PM c:\projectwise\pb\projectwiseint\borges\d0128698\SSXSIT01.dgn



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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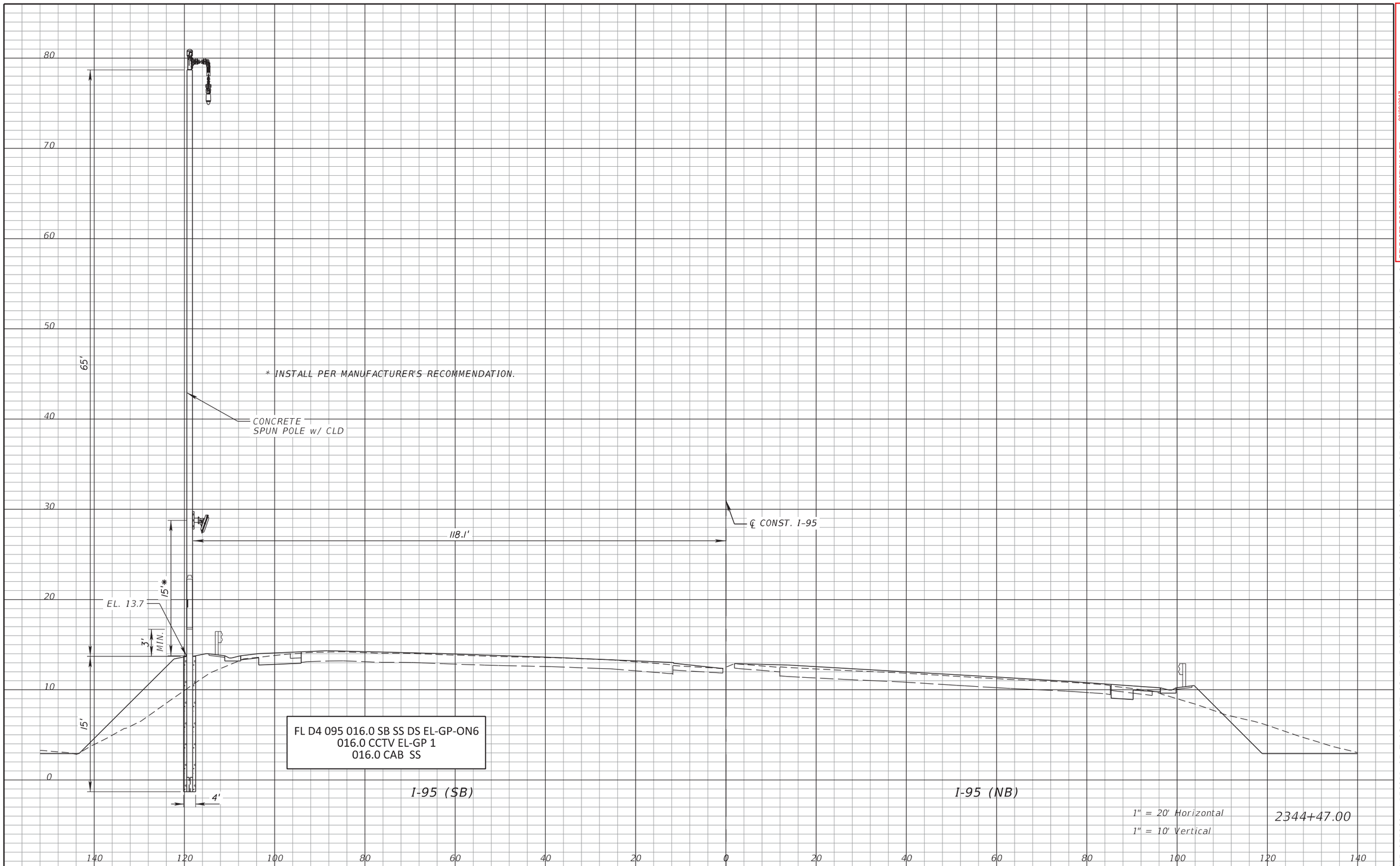
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-112



1" = 20' Horizontal
1" = 10' Vertical

2344+47.00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-113

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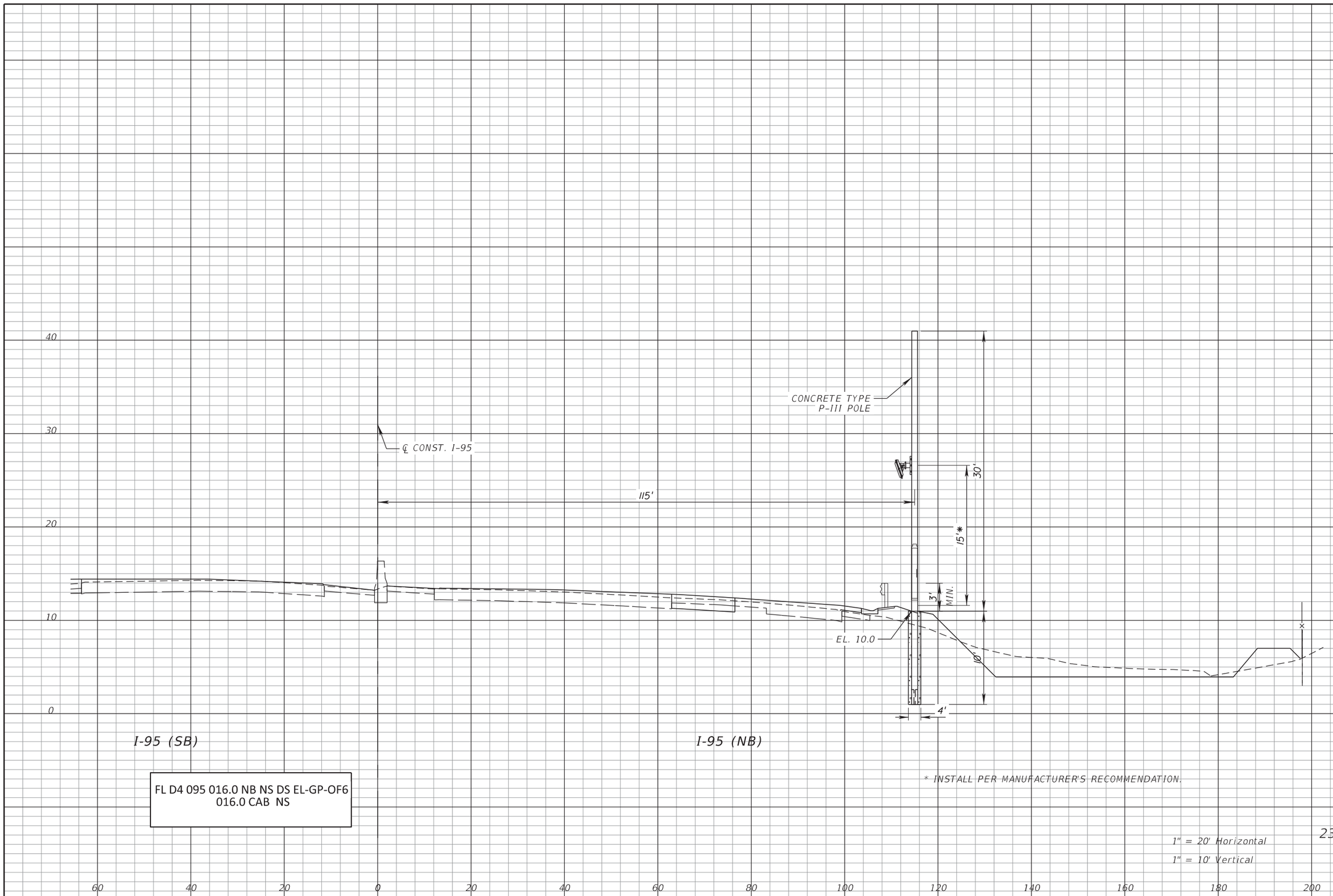

FL D4 095 016.0 NB NS DS EL-GP-OF6
016.0 CAB NS

* INSTALL PER MANUFACTURER'S RECOMMENDATION.

1" = 20' Horizontal
1" = 10' Vertical

2346+00.00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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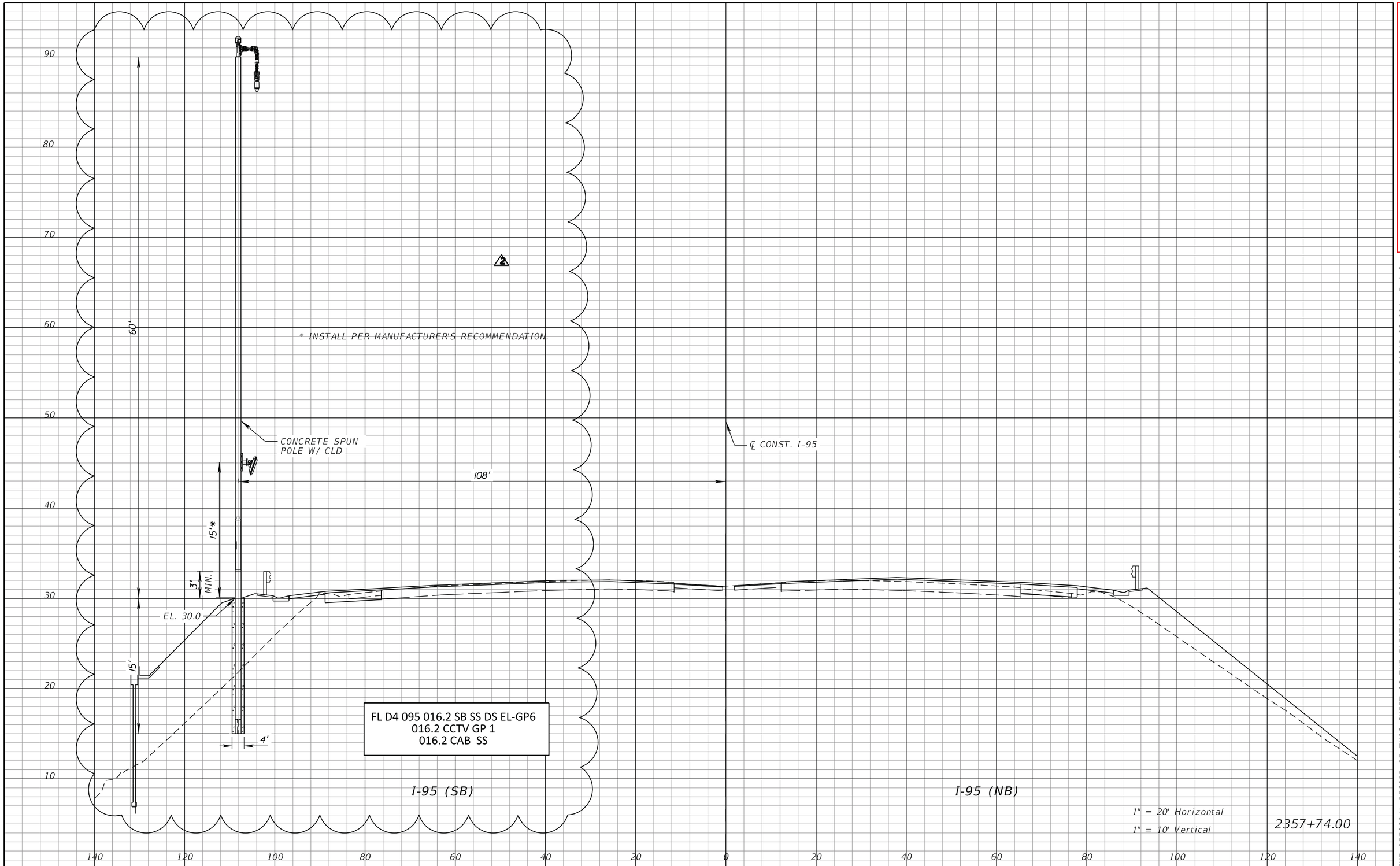
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-114



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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) JB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED D-CCTV TO EXISTING MVDS POLE. POLE CHANGED TO CONCRETE SPUN POLE W/ CLD.		

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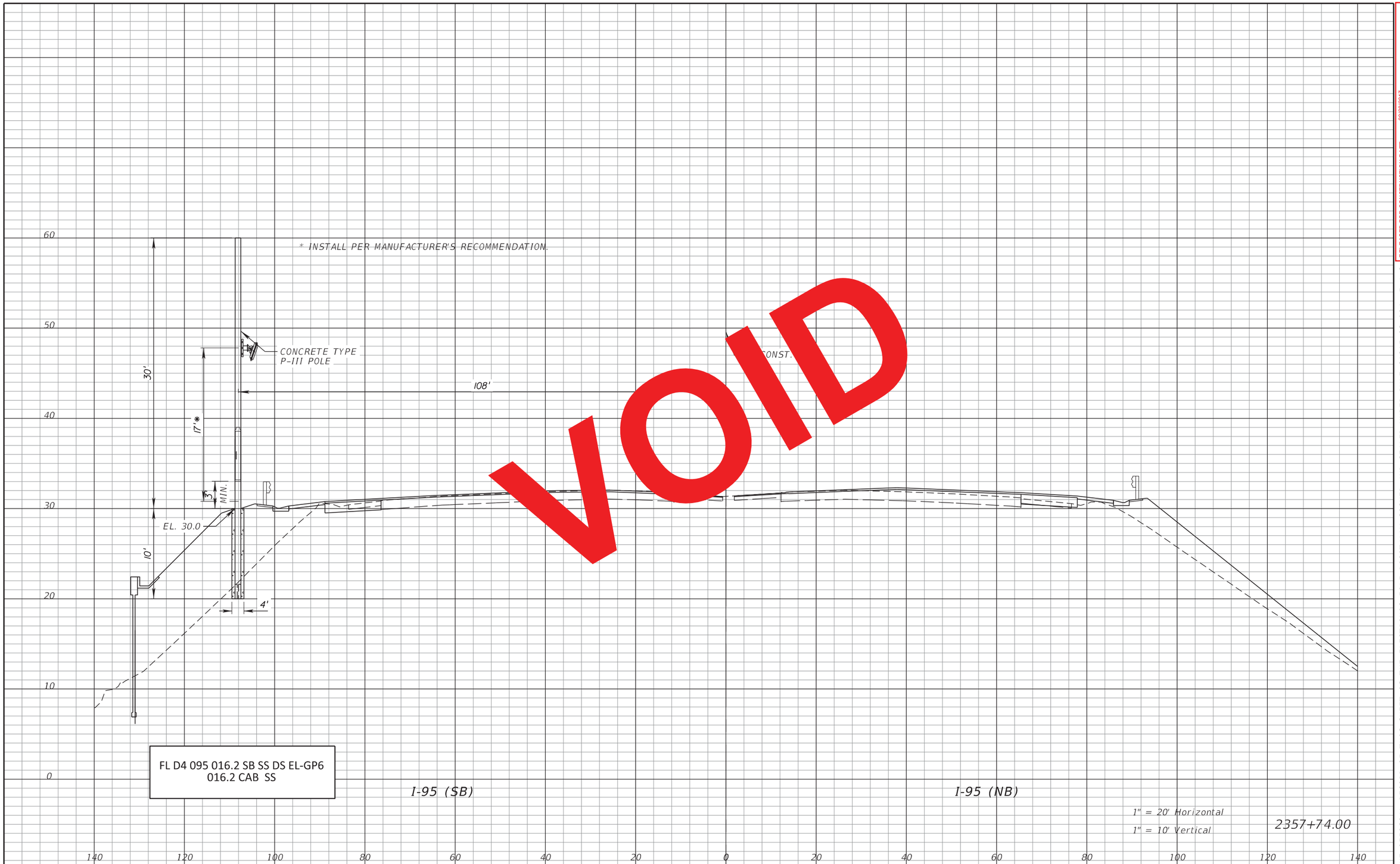
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-115



VOID

FL D4 095 016.2 SB SS DS EL-GP6
016.2 CAB SS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-115

* INSTALL PER MANUFACTURER'S RECOMMENDATION.

℄ CONST. I-95

96.1'

CONCRETE TYPE P-III POLE

30'

EL. 31.0

17'*

3' MIN.

10'

4'

50
40
30
20
10
0

I-95 (SB)

I-95 (NB)

FL D4 095 016.2 NB NS DS EL-GP6
016.2 CAB NS

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

1" = 20' Horizontal
1" = 10' Vertical

2357+93.00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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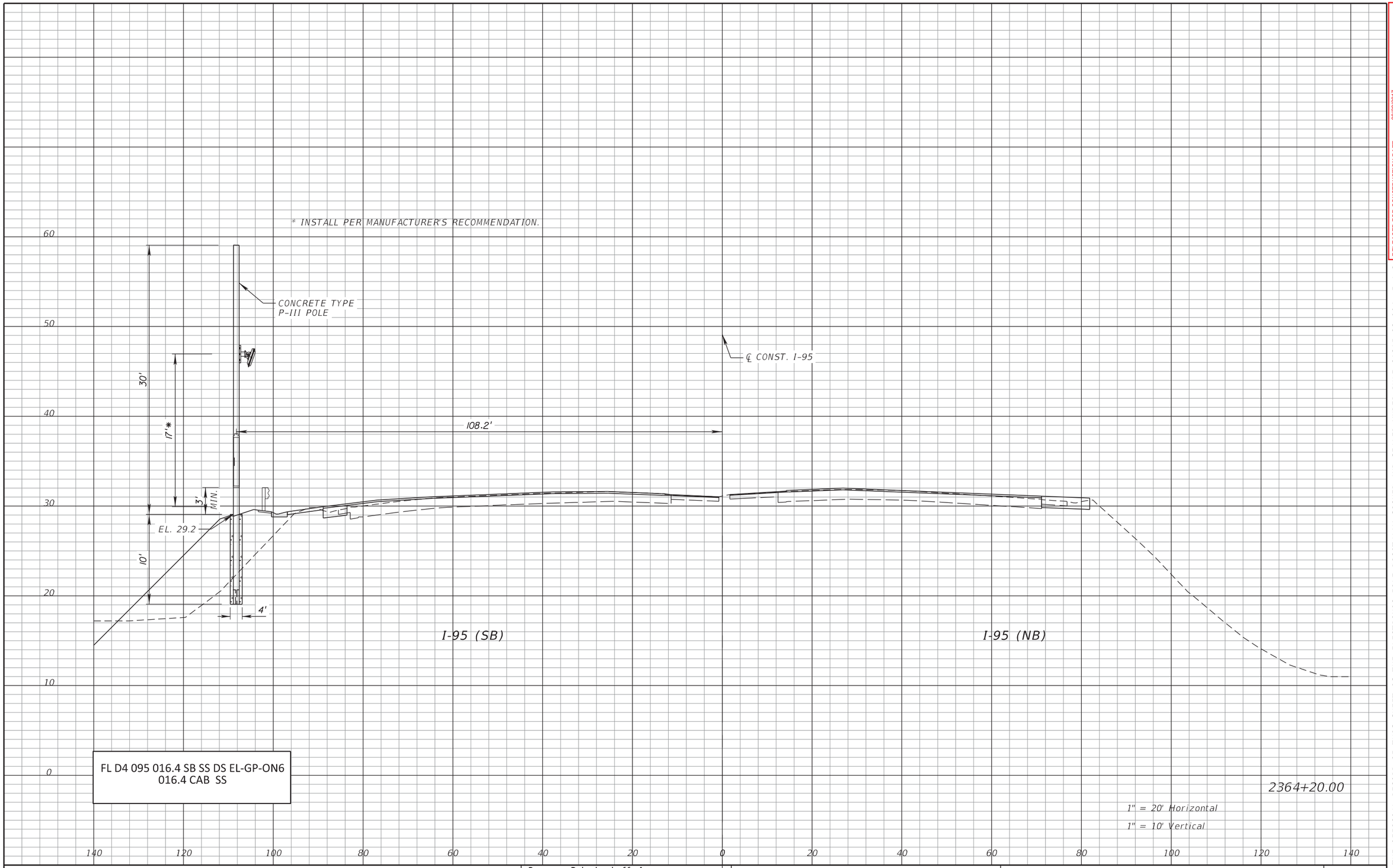
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-116



FL D4 095 016.4 SB SS DS EL-GP-ON6
016.4 CAB SS

2364+20.00

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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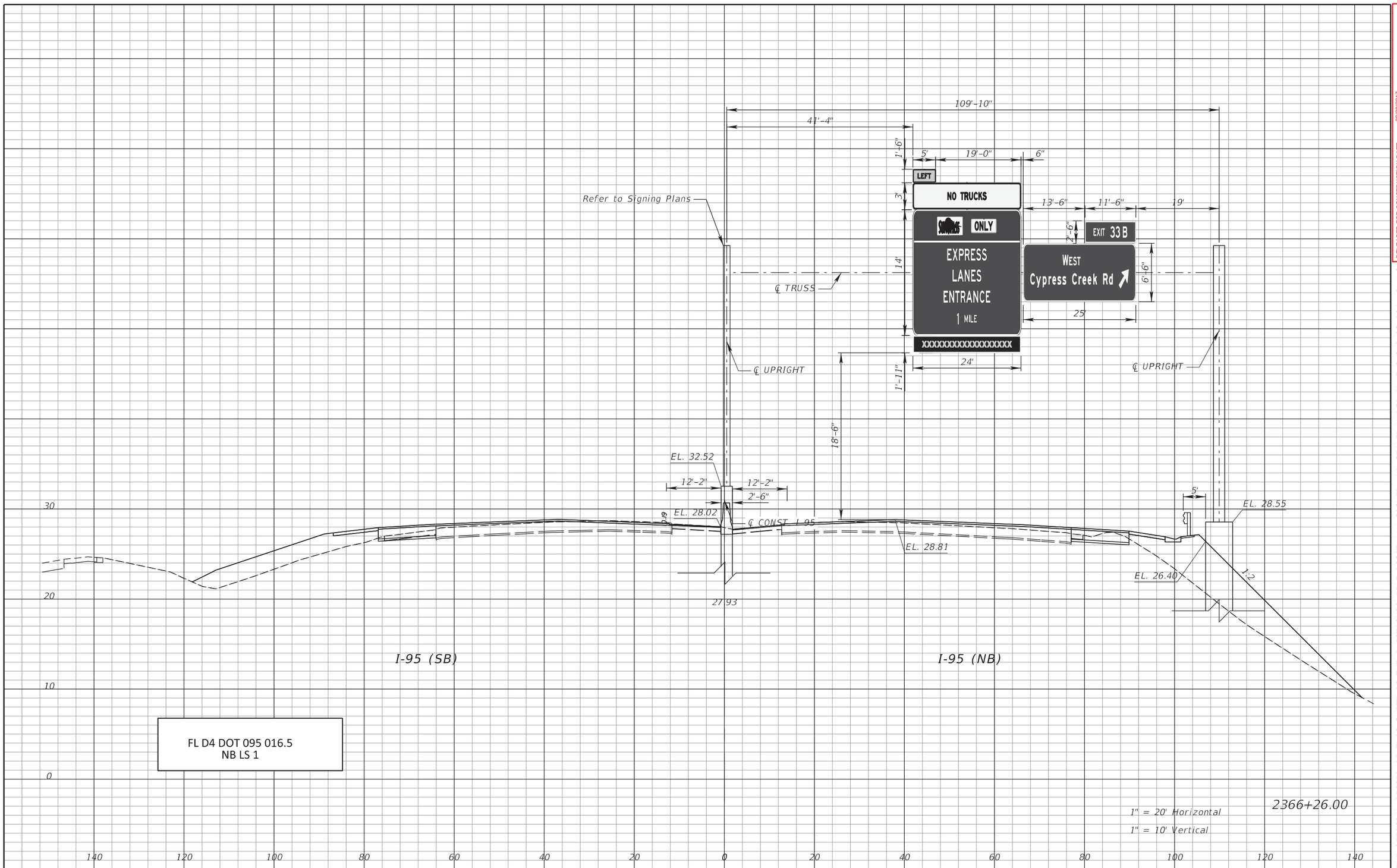
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-117



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-118

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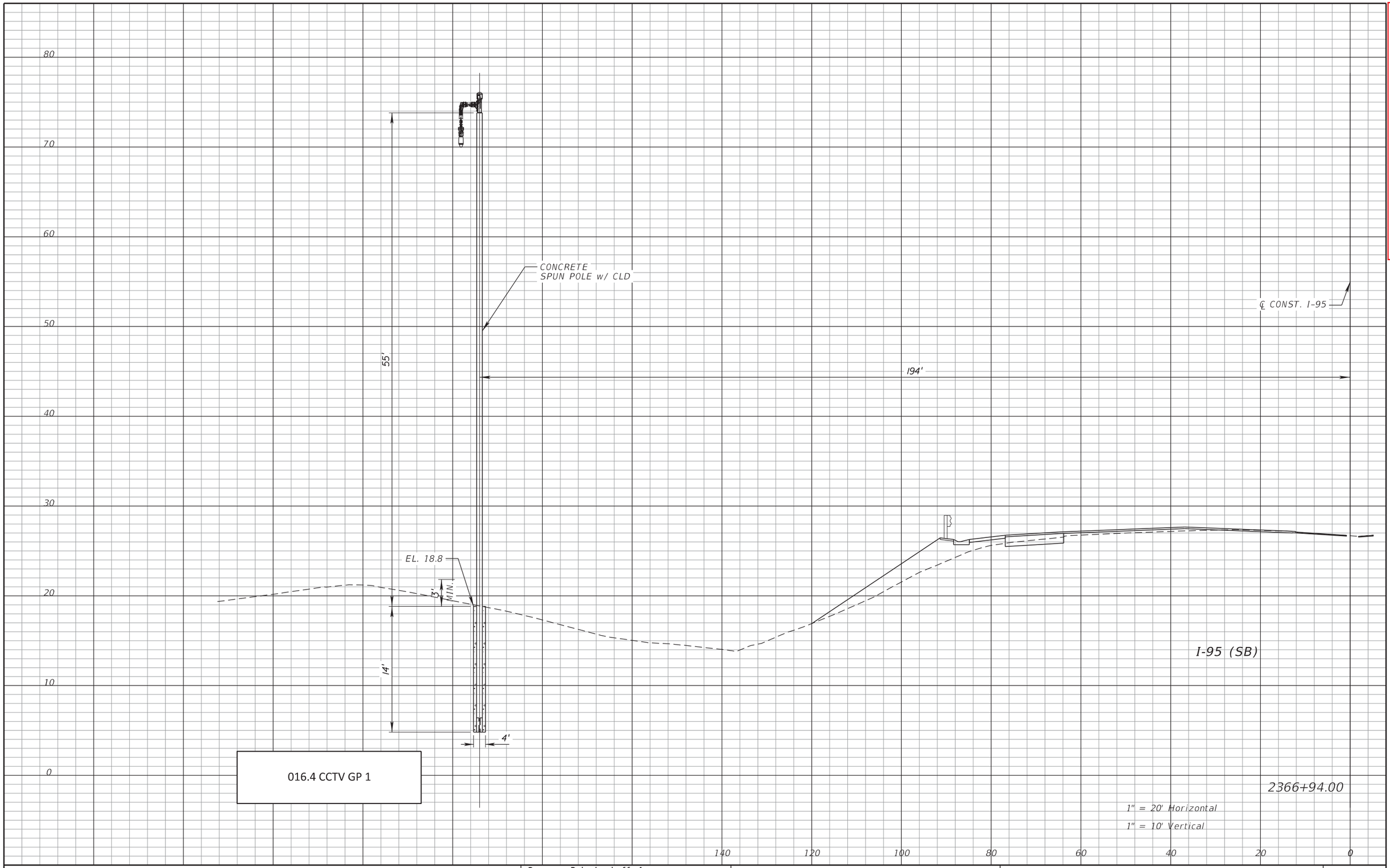

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

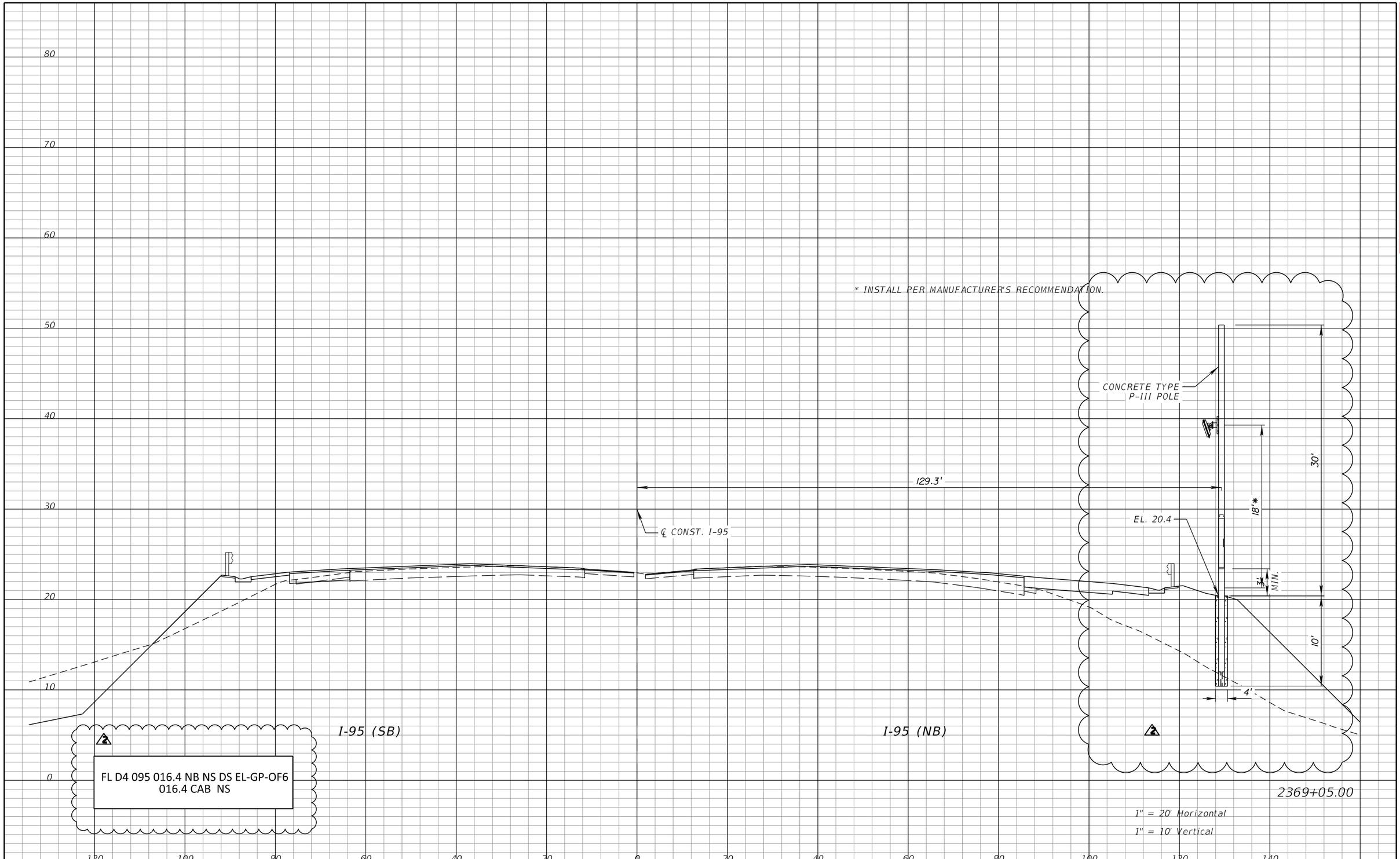
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-119

$PLTDRVL$ $PENTBLL$ abreuk 7/25/2017 7:48:28 AM c:\projectwise\pb\projectwiseint\abreuk\d0128698\SSXSIT01.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 CCTV REMOVED FROM POLE. POLE CHANGED TO CONCRETE TYPE P-III POLE.		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-120

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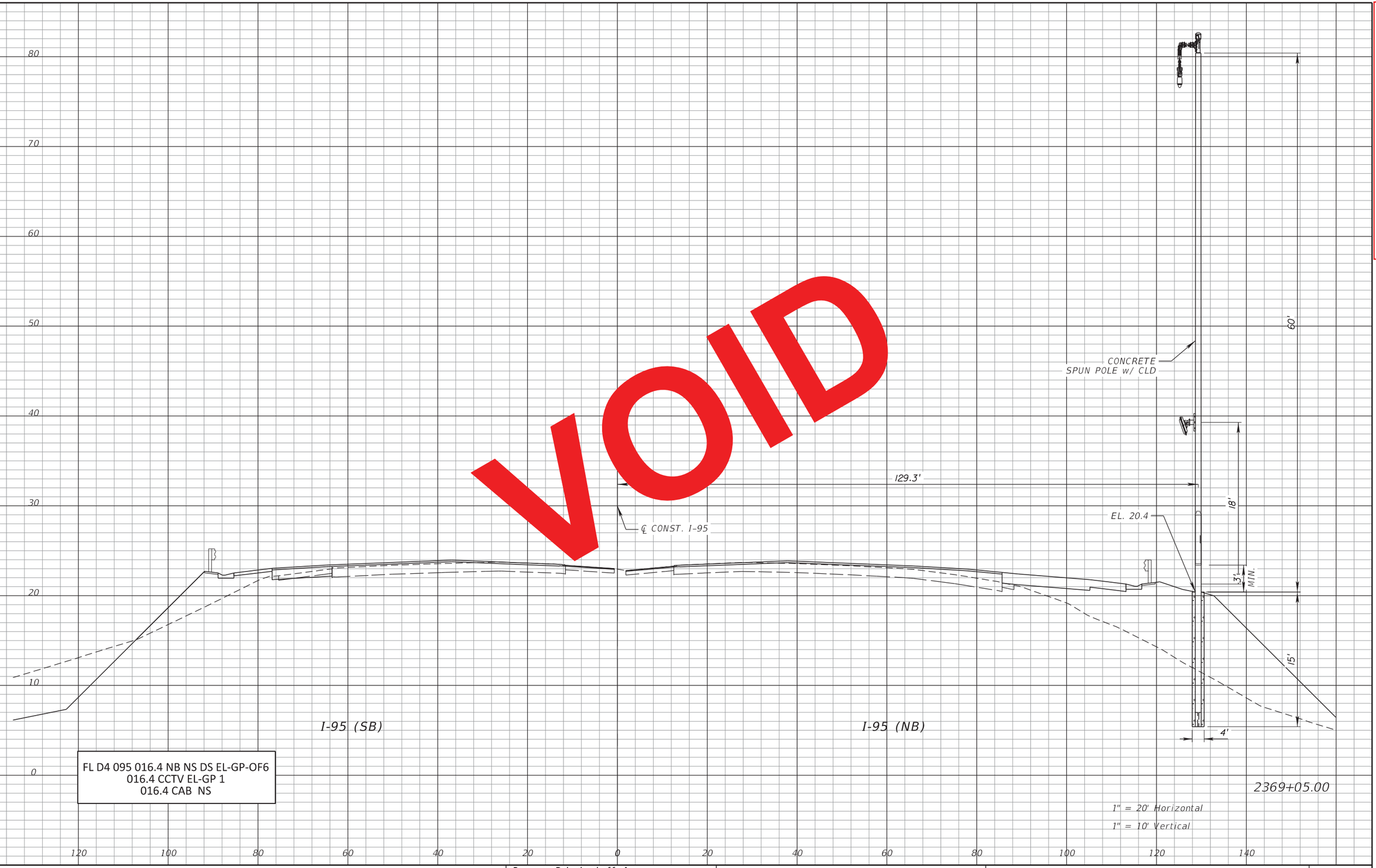
RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) JB

VOID



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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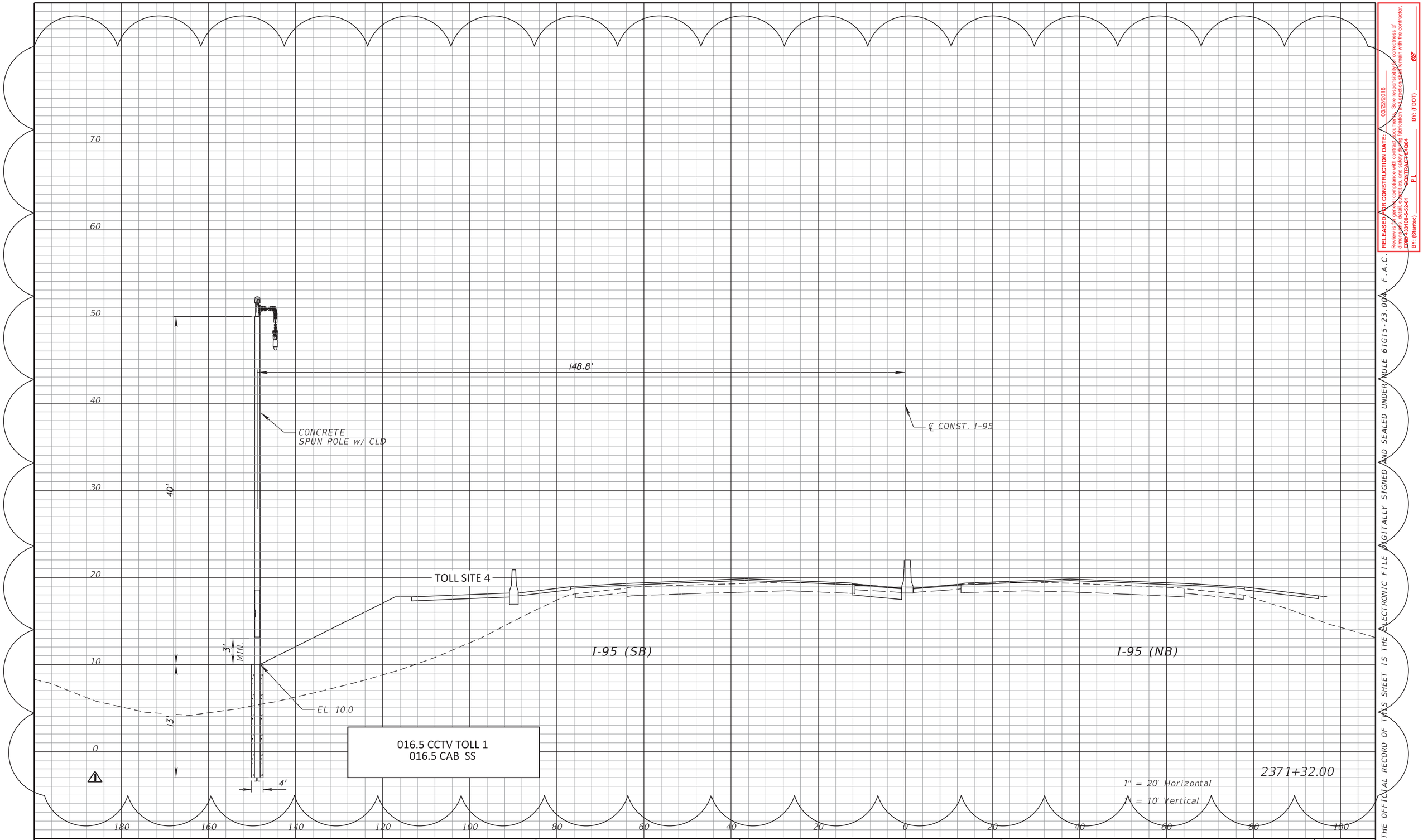
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-120



RELEASED FOR CONSTRUCTION DATE: 03/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of means, methods, techniques, sequences and procedures of fabrication and erection remain with the contractor.

FPID: 433108-5-52-01 CONTRACT: T4064 PL

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠ ADDED CROSS SECTION FOR TOLL SITE CCTV POLE		

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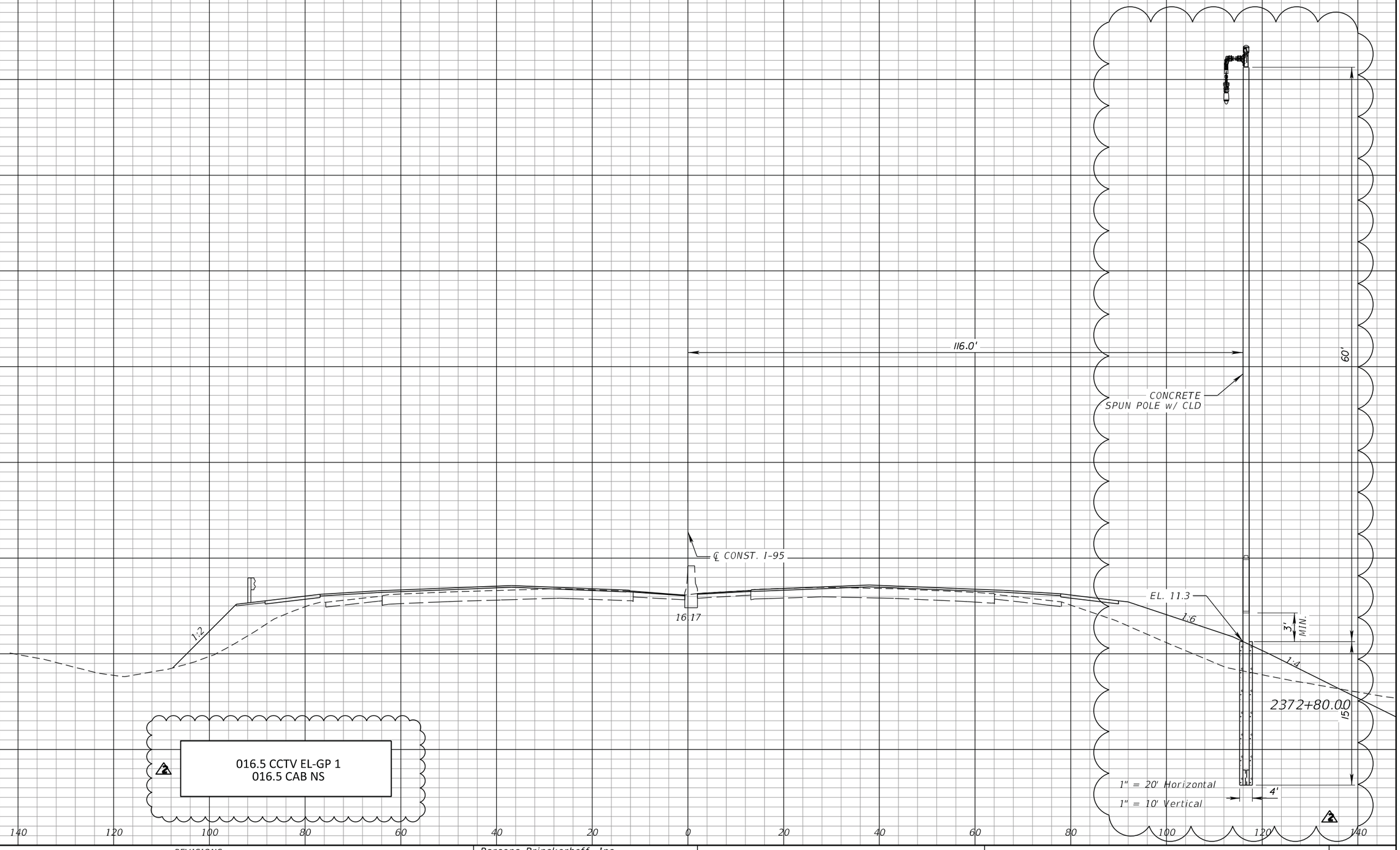
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-120A



RELEASED FOR CONSTRUCTION DATE: 08/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and coordination with other trades rests with the contractor. Review of shop drawings does not relieve contractor of responsibility for dimensions which are to fit in the field, for fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 REMOVED D-CCTV. CHANGED CCTV FROM GP-1 TO EL-GP 1.		

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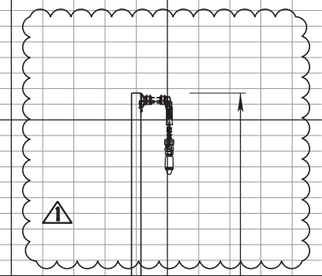
DEPARTMENT OF TRANSPORTATION

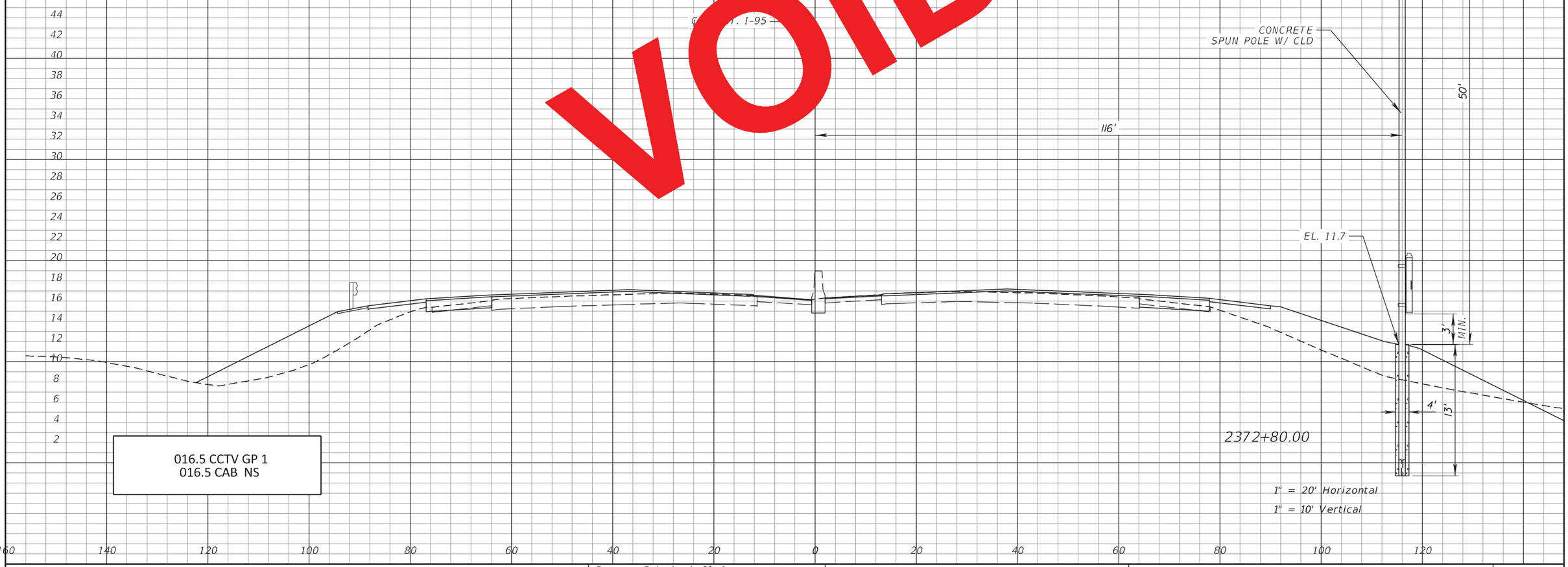
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-121

VOID





RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and satisfactory fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec) _____

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 RE-ORIENTED CCTV TO RAMP SIDE OF POLE		

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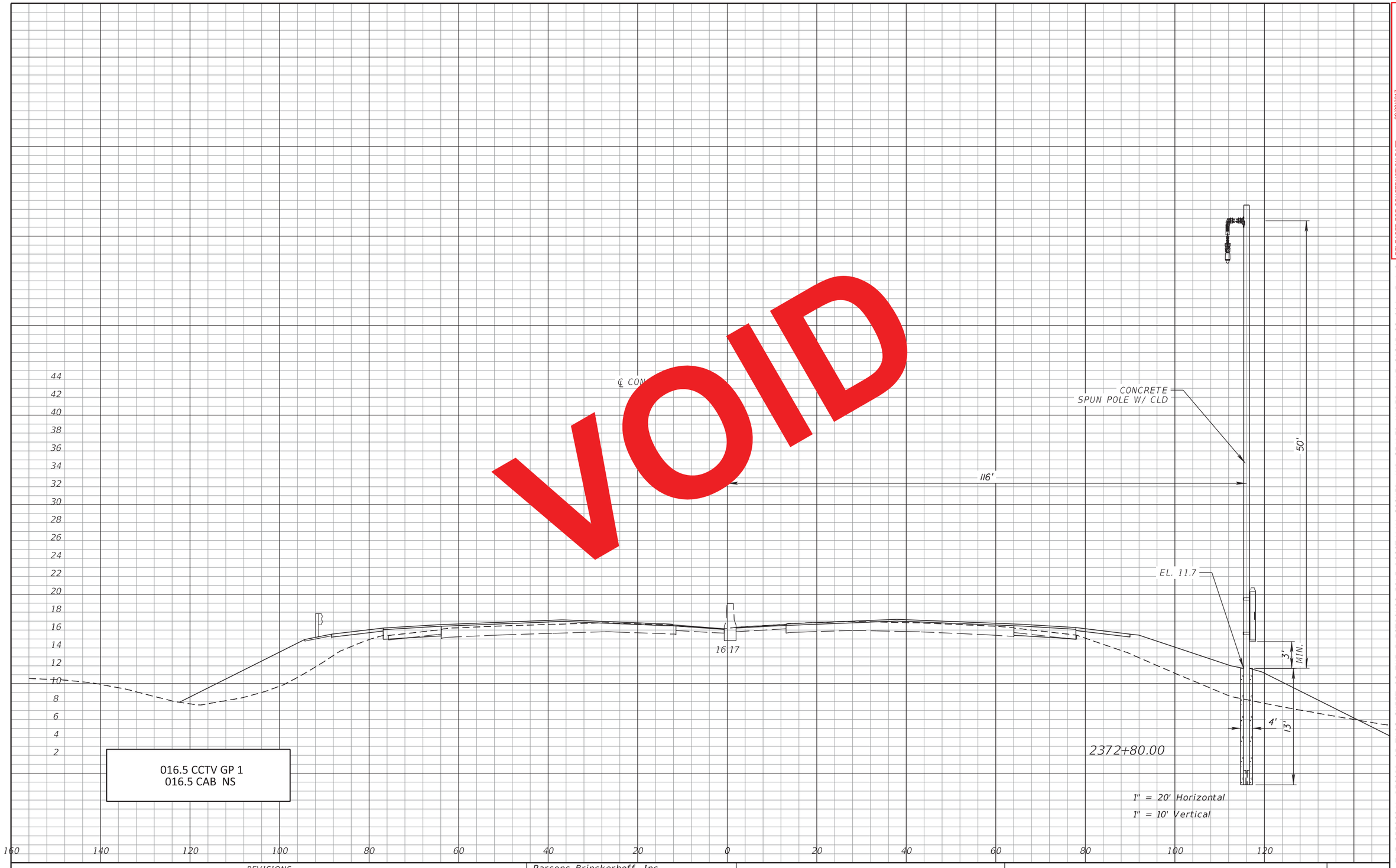
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-121



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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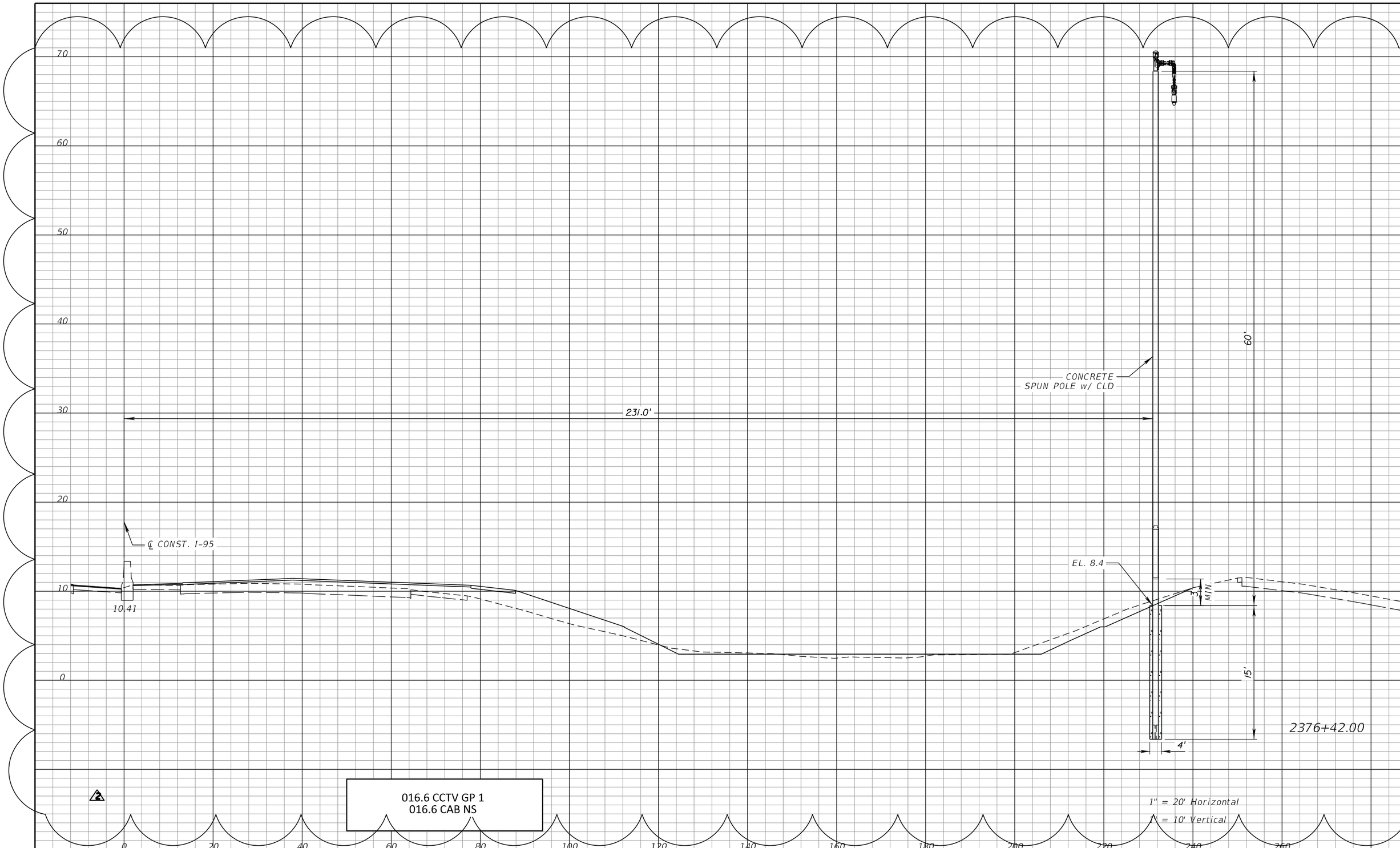
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-121



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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Reviewed for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
PID: 433108-5-52-01 CONTRACT: E4Q64 BY: (FDOT)
BY: (Stantec) JB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED CROSS SECTION FOR NEW CCTV POLE		

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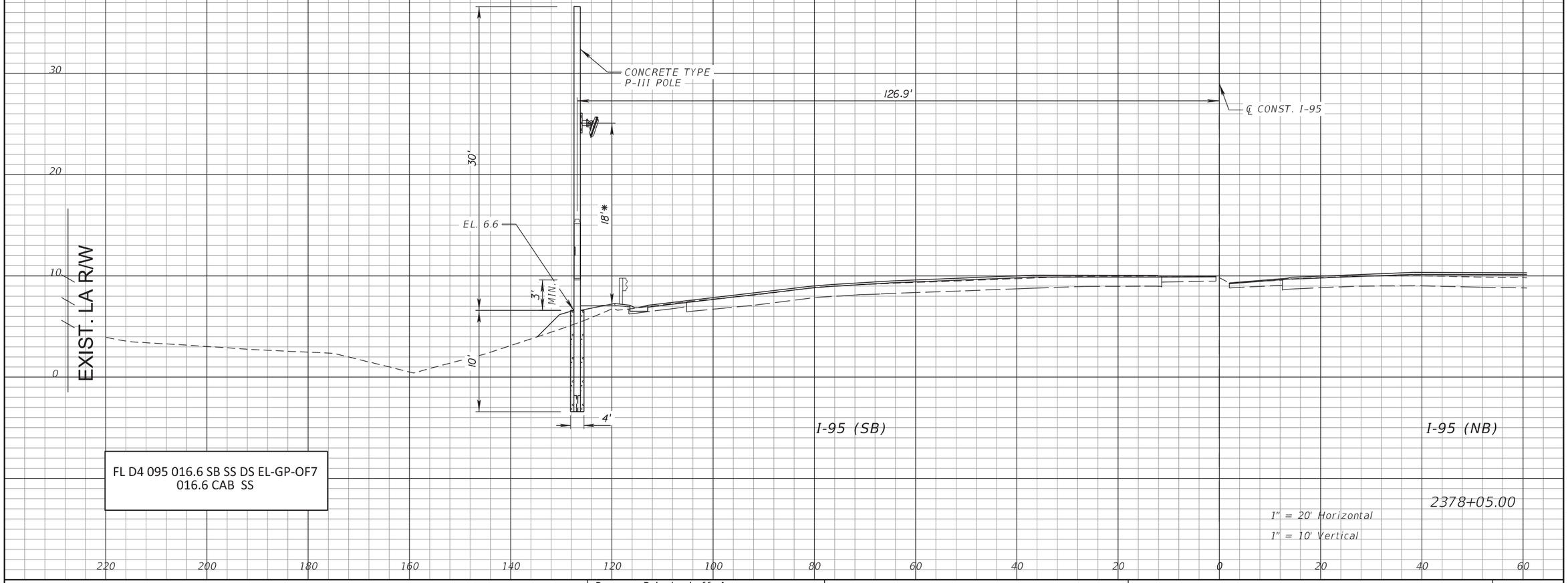
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-121A

* INSTALL PER MANUFACTURER'S RECOMMENDATION.



FL D4 095 016.6 SB SS DS EL-GP-OF7
016.6 CAB SS

2378+05.00

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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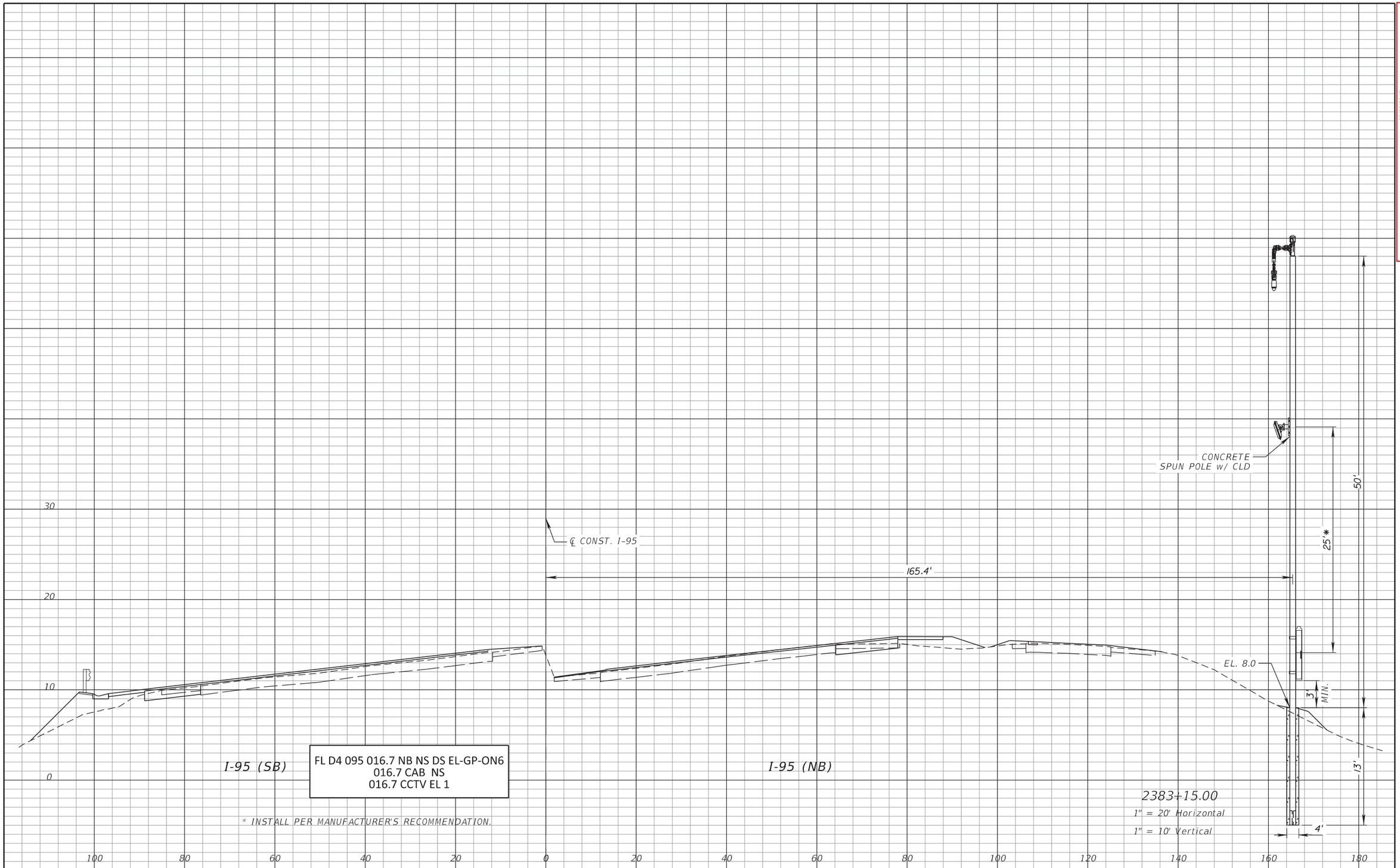
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-122



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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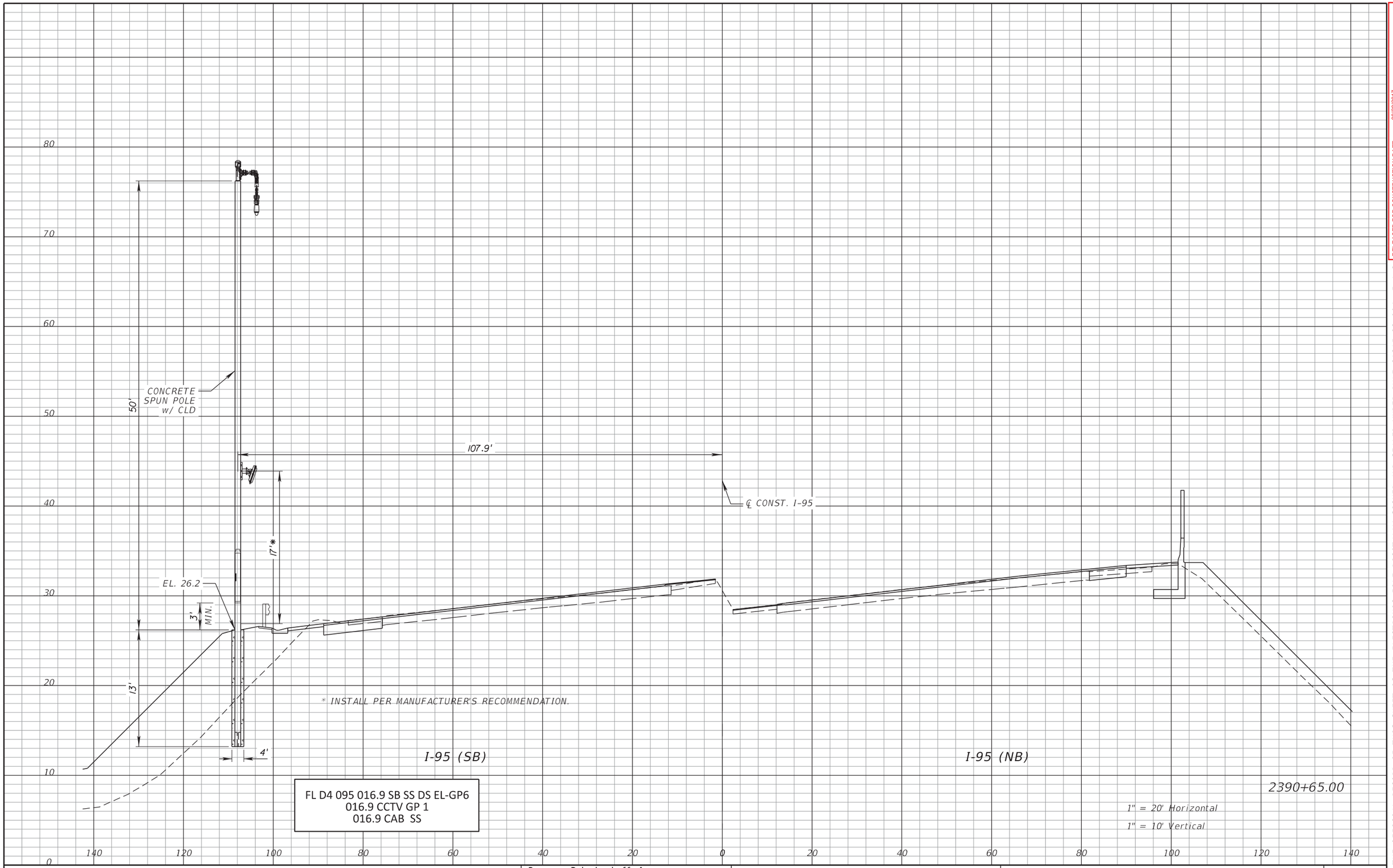
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-123



FL D4 095 016.9 SB SS DS EL-GP6
016.9 CCTV GP 1
016.9 CAB SS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-124

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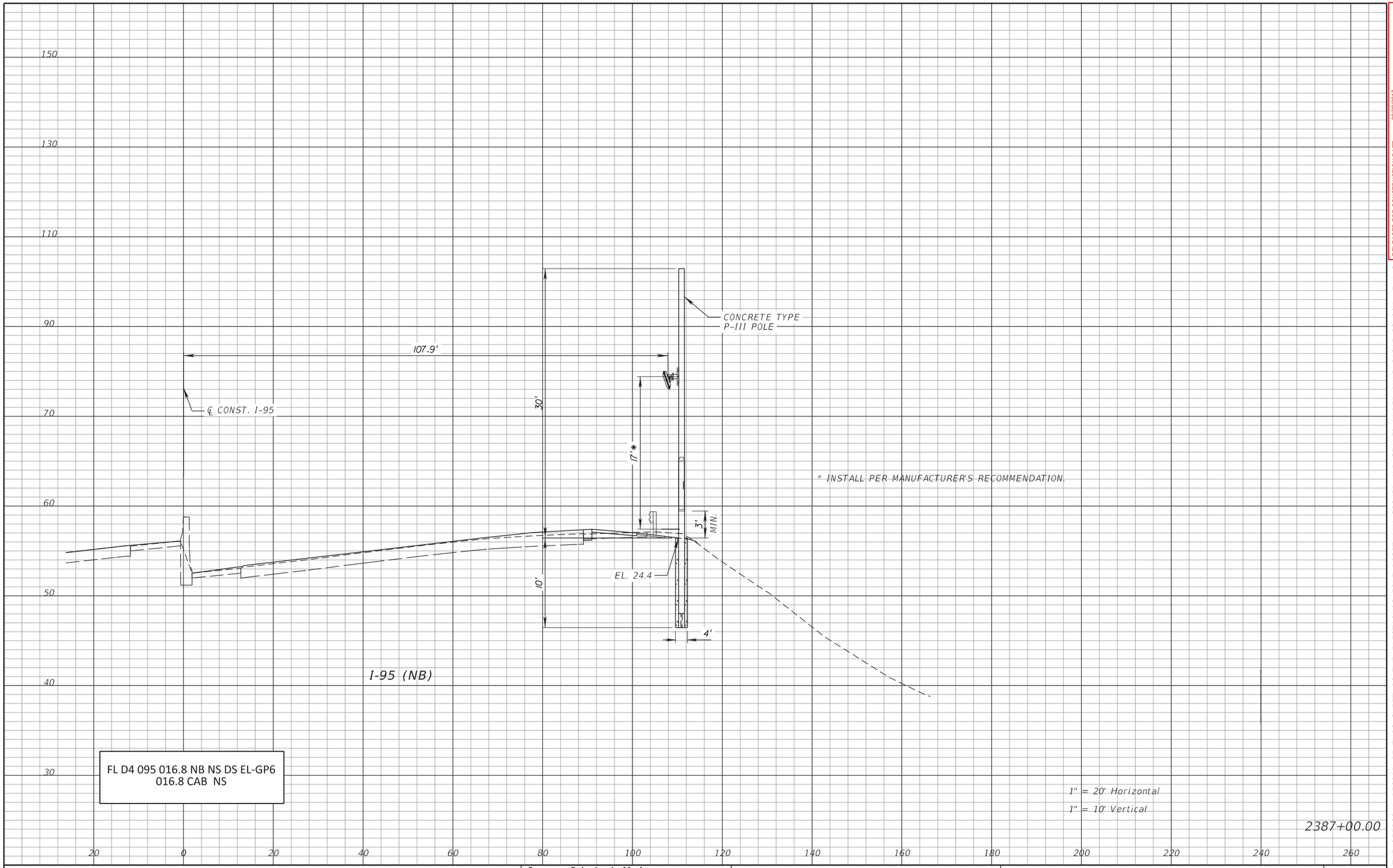

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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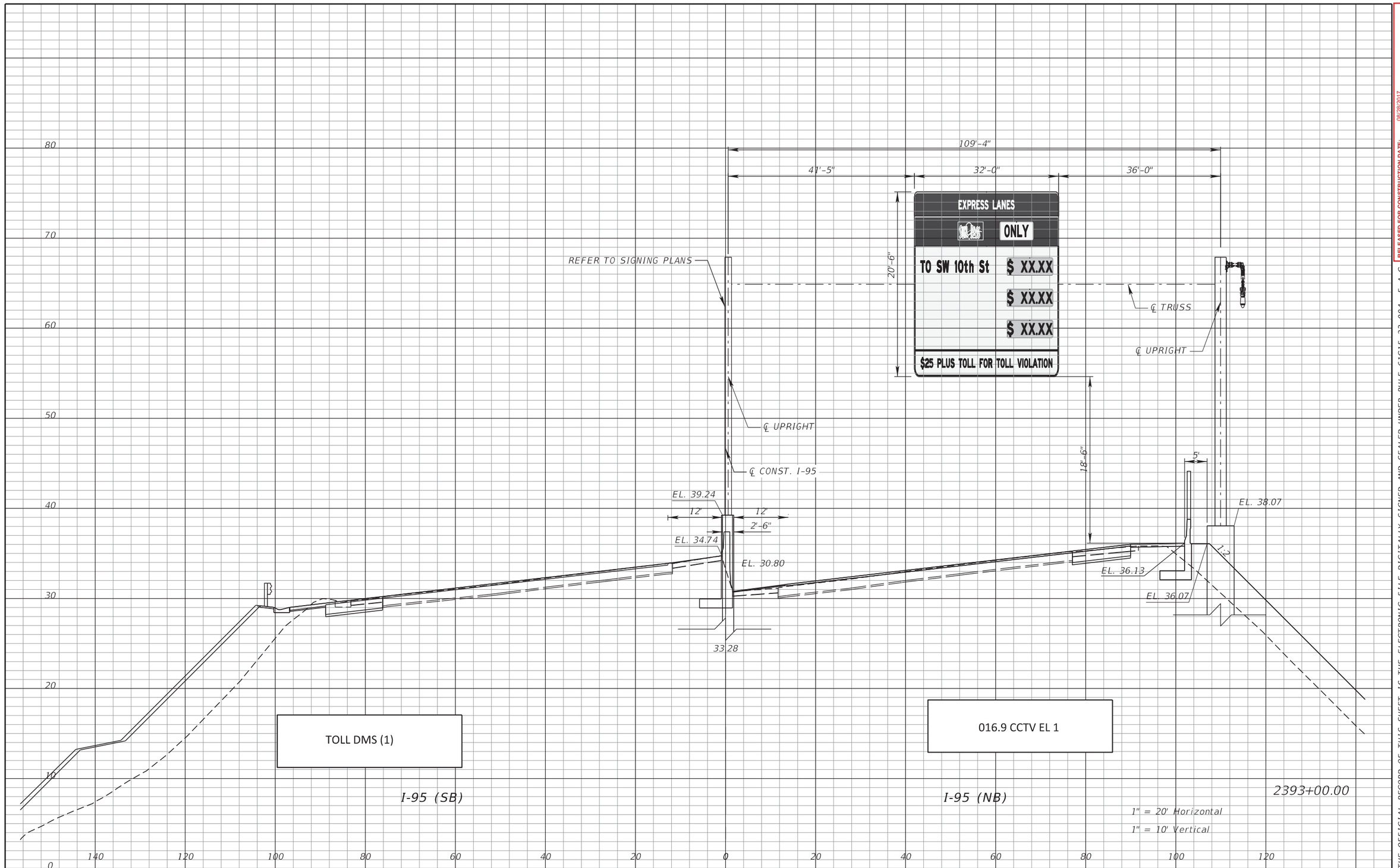
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-125



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

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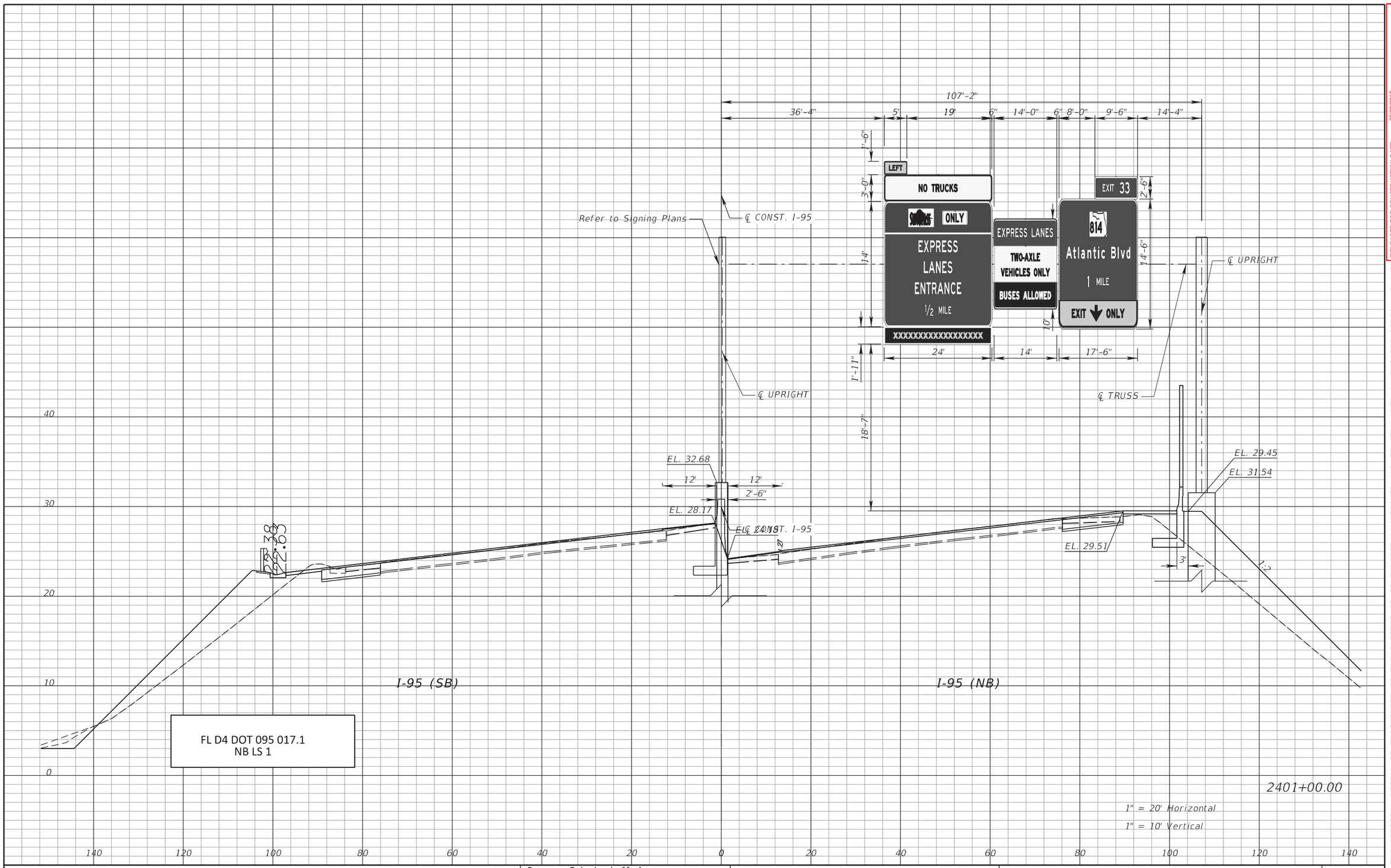
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-126



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-127

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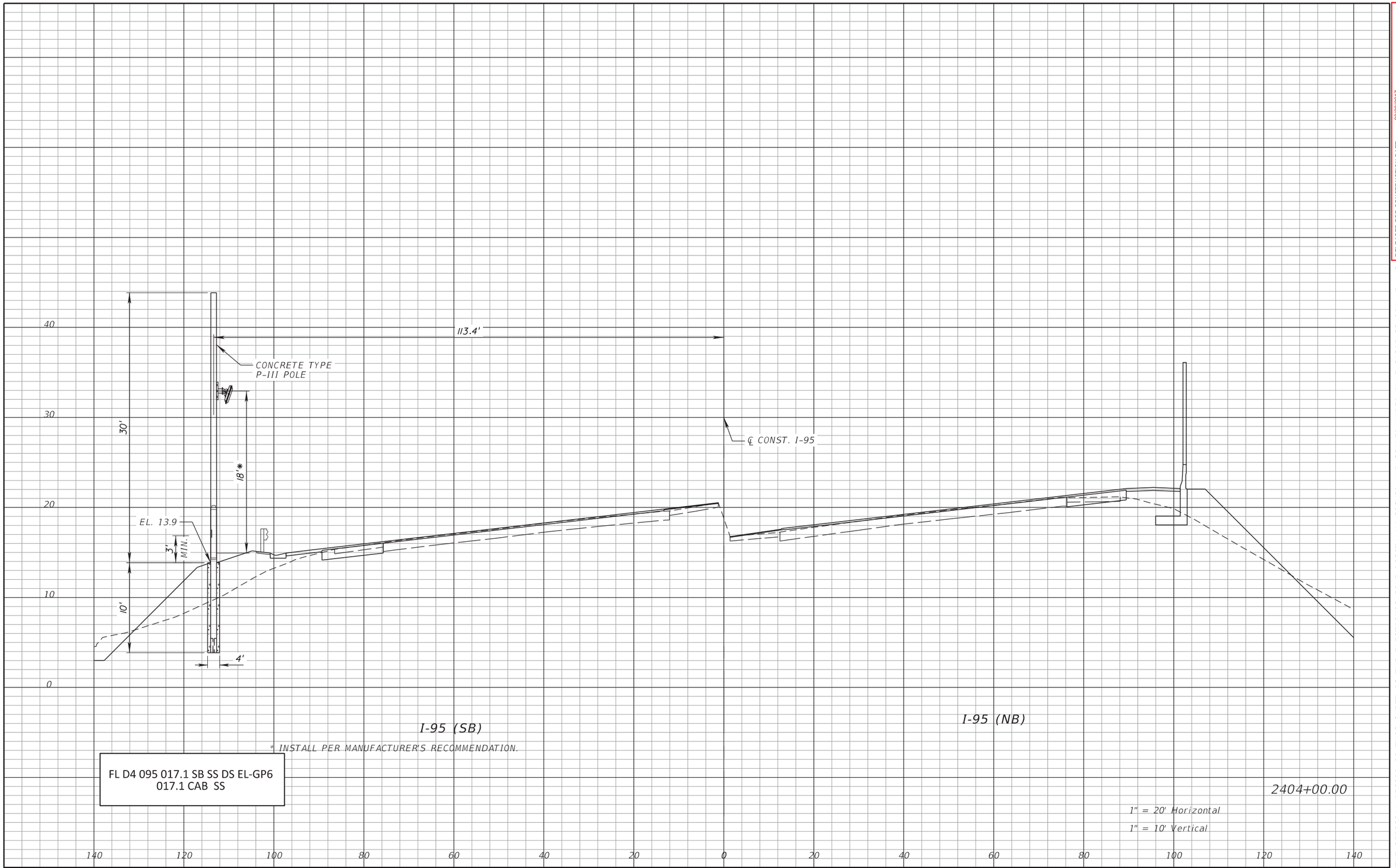

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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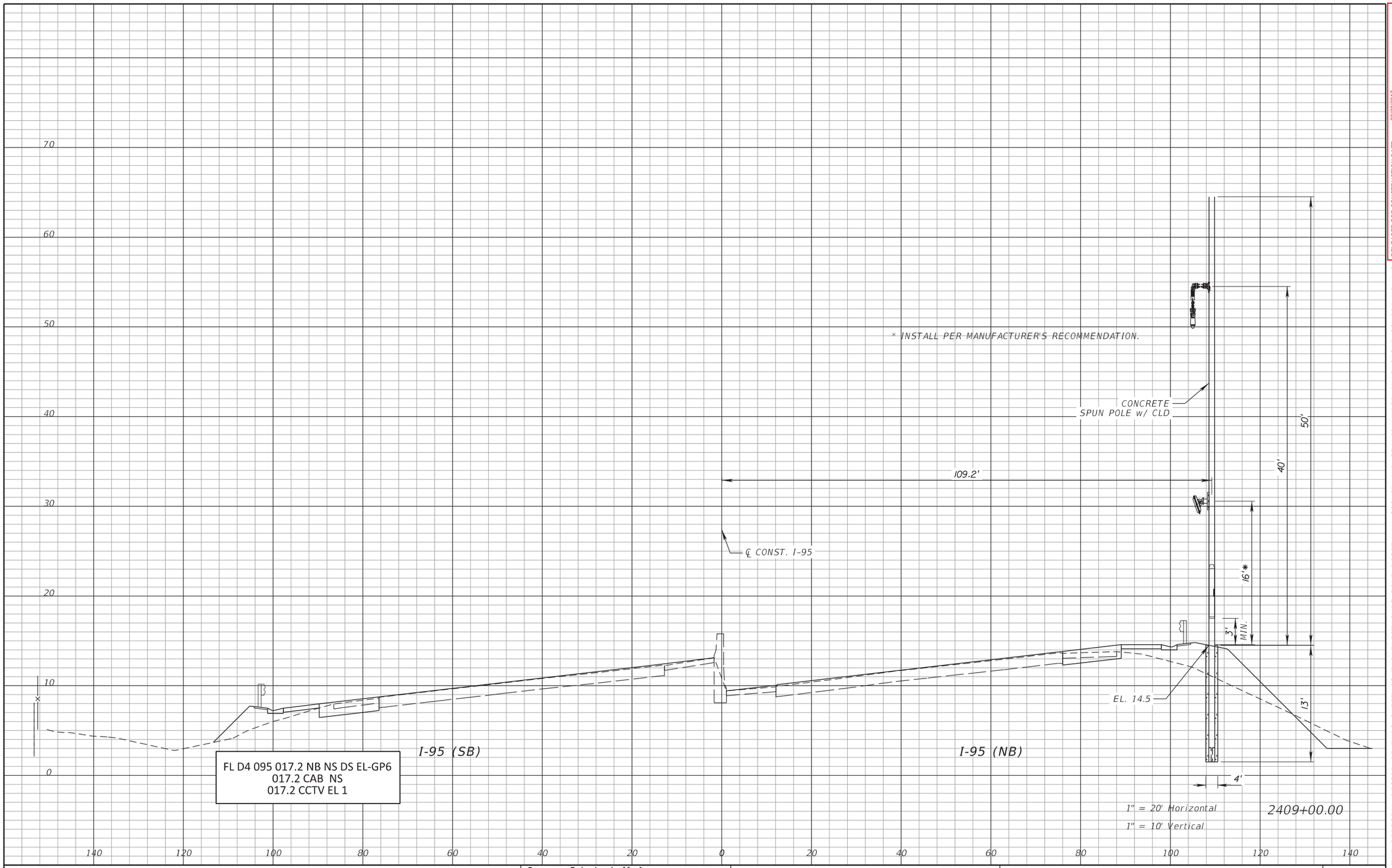
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-128



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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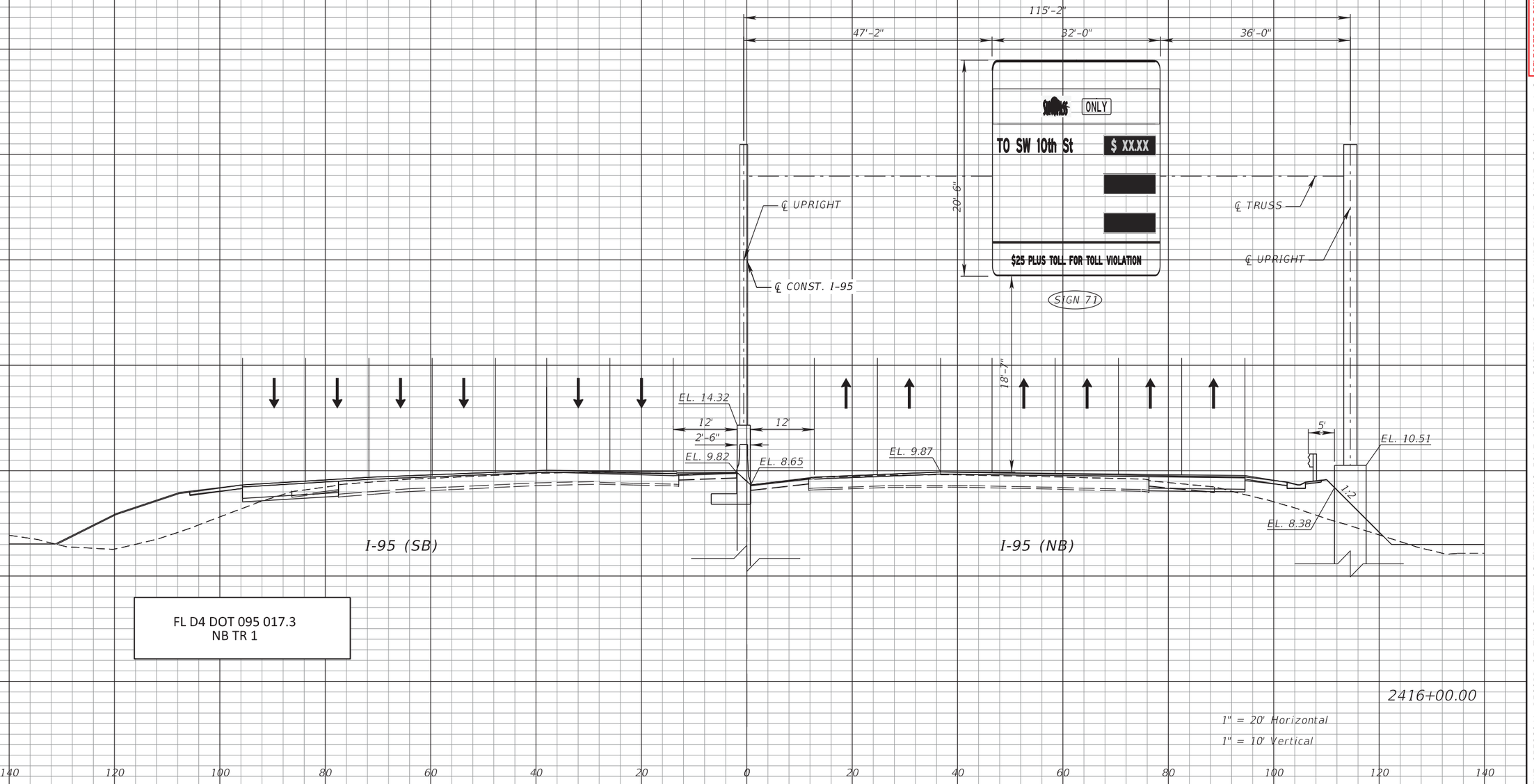
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-129



FL D4 DOT 095 017.3
NB TR 1

2416+00.00

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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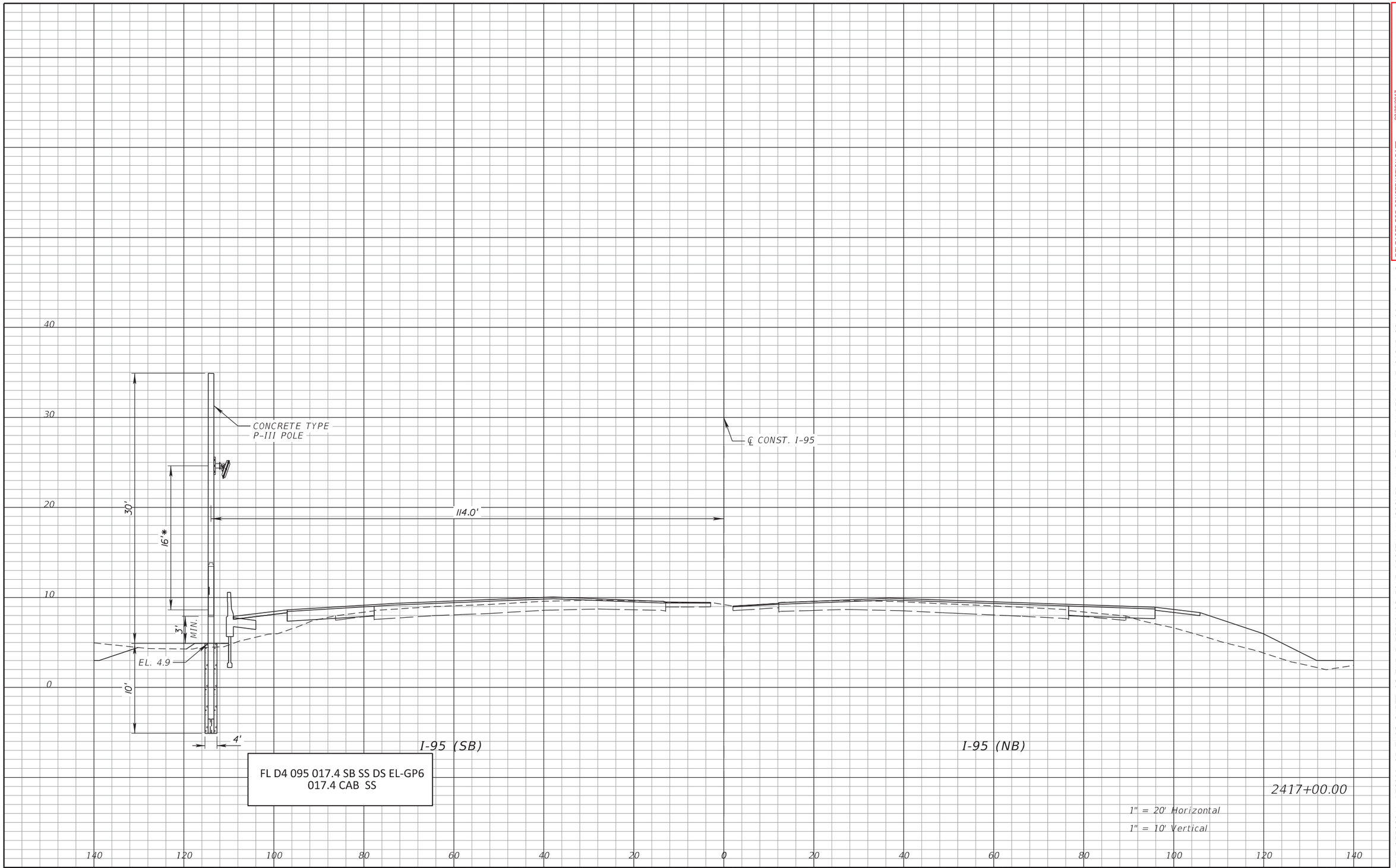
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-130



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

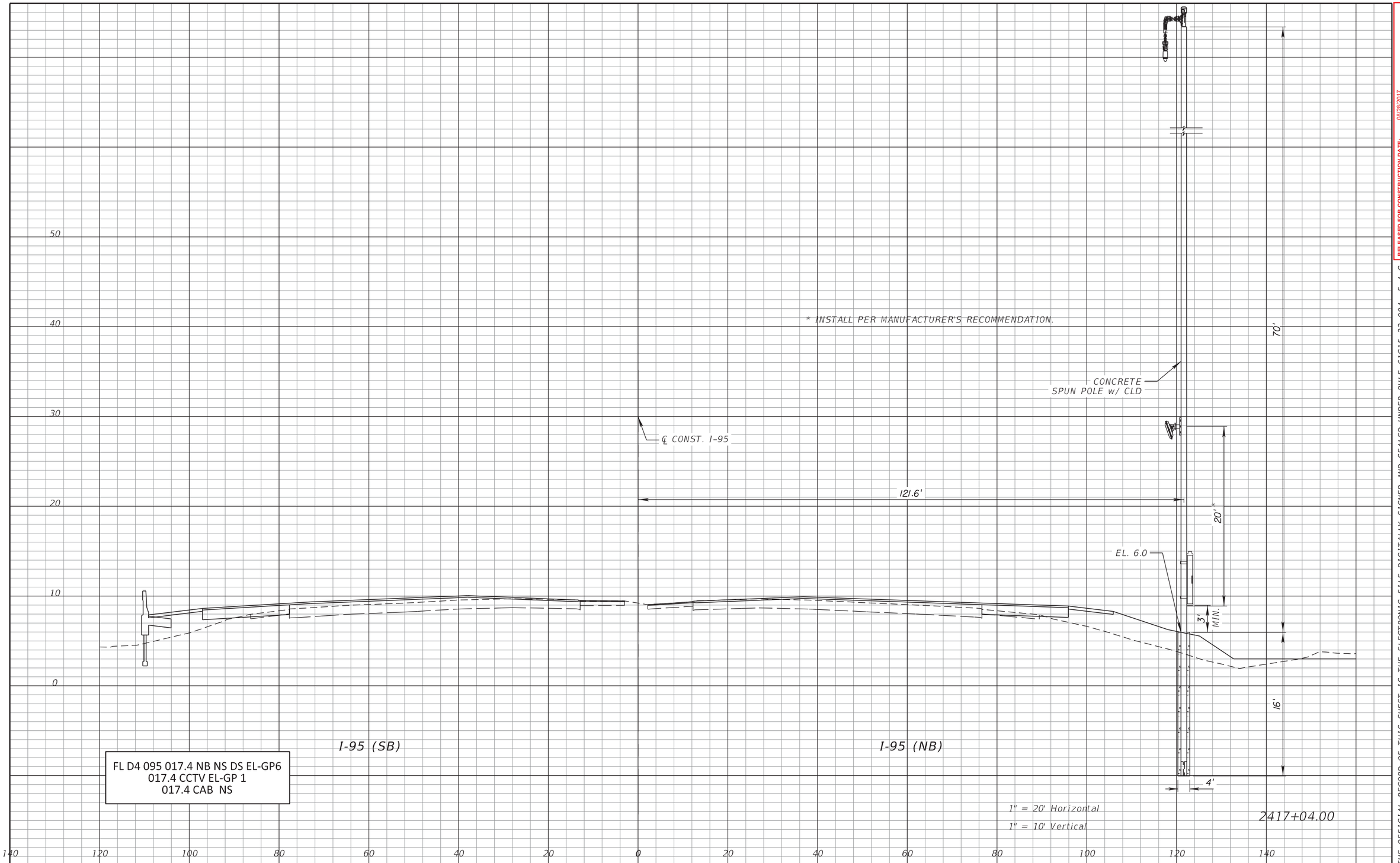
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-131



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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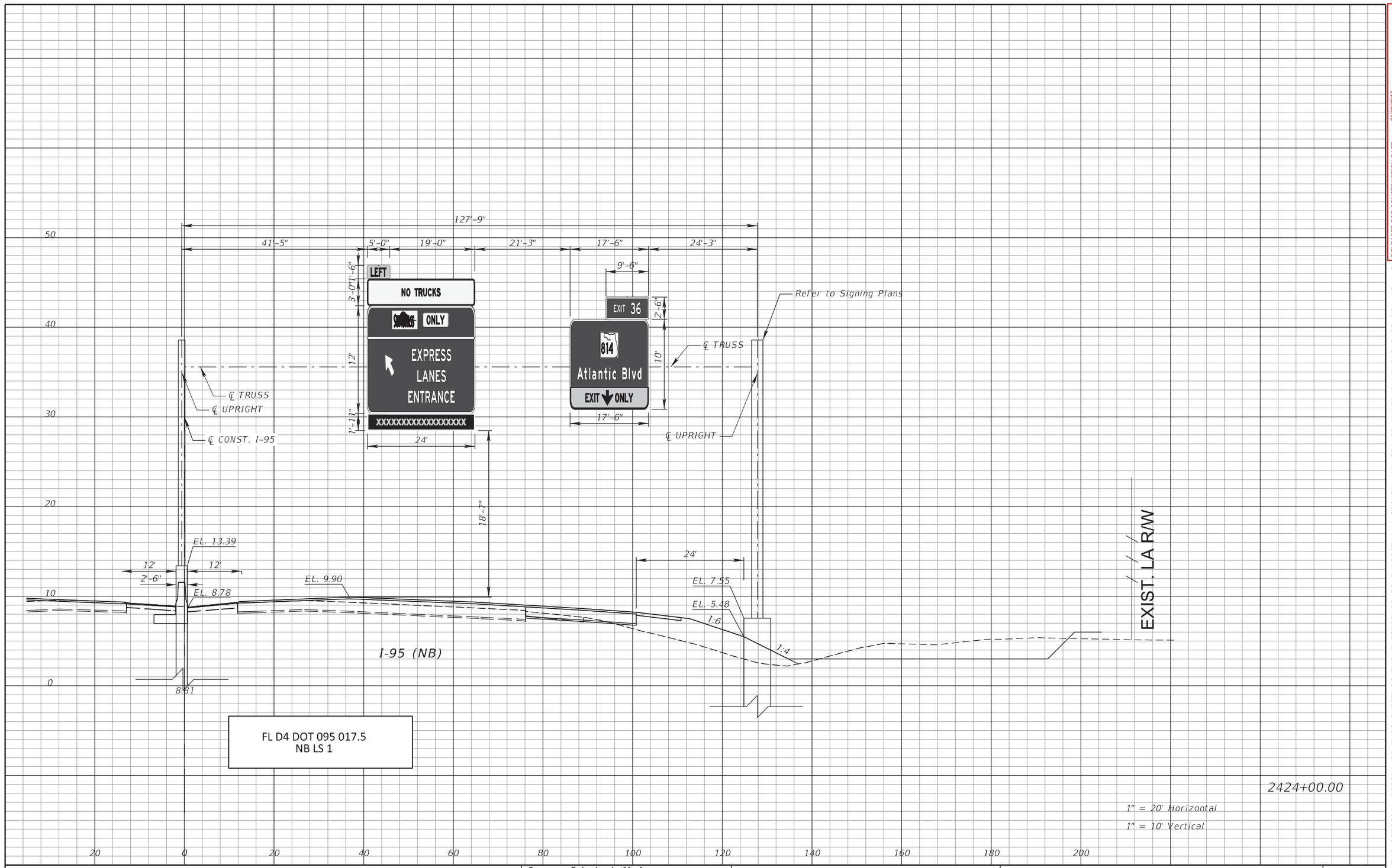
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-132

$PLTDRVL$ $PENTBLL$ abreuk 7/25/2017 7:48:31 AM c:\projectwise\pb\projectwiseint\abreuk\d0128698\SSXSIT01.dgn



FL D4 DOT 095 017.5
NB LS 1

2424+00.00

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-133

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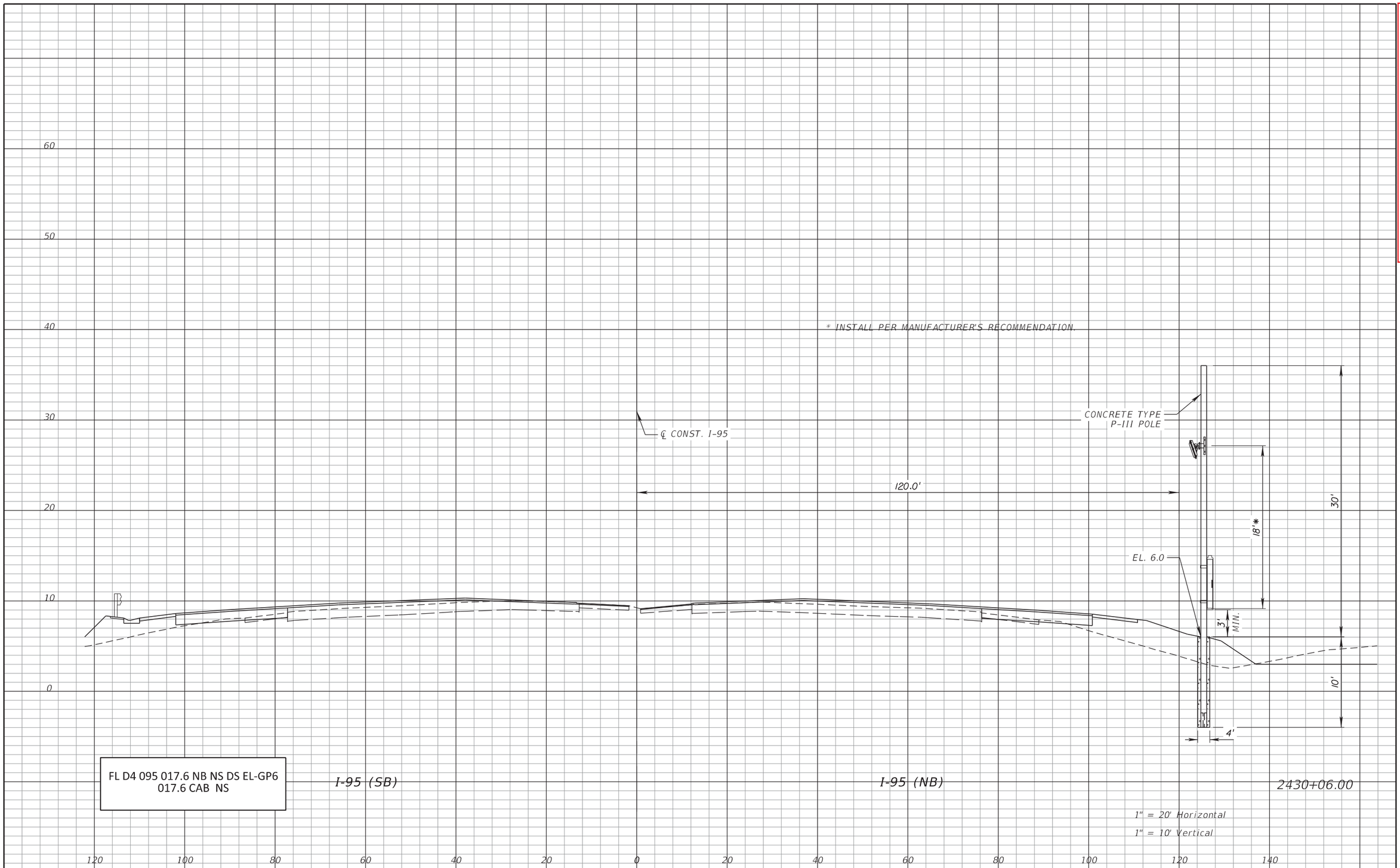

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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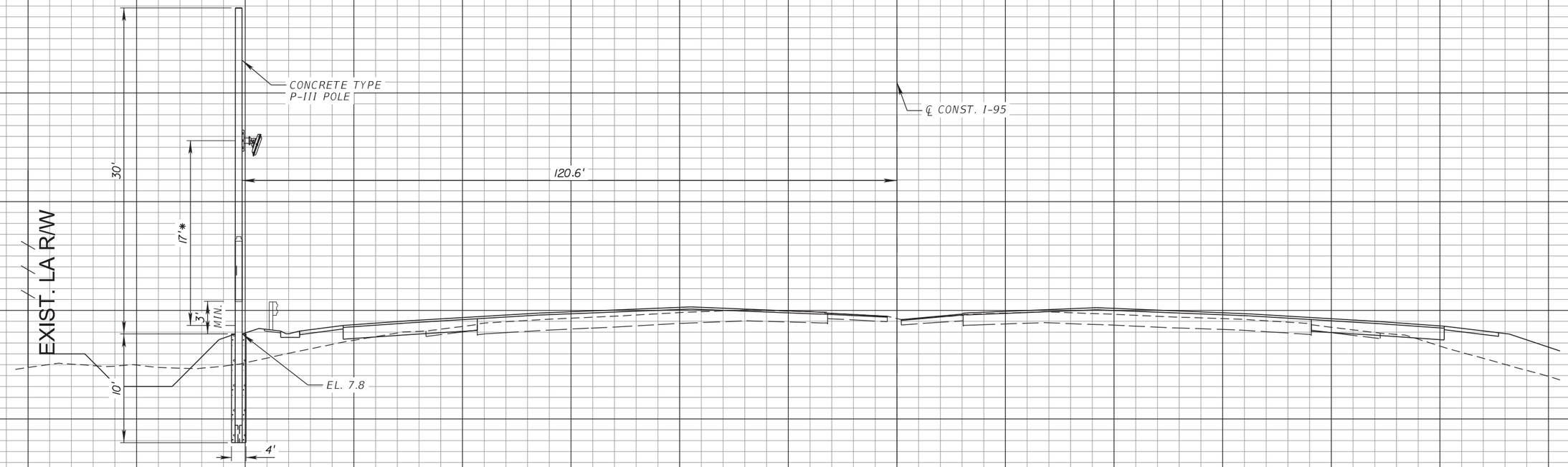
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-134

* INSTALL PER MANUFACTURER'S RECOMMENDATION.



FL D4 095 017.6 SB SS DS EL-GP7
017.6 CAB SS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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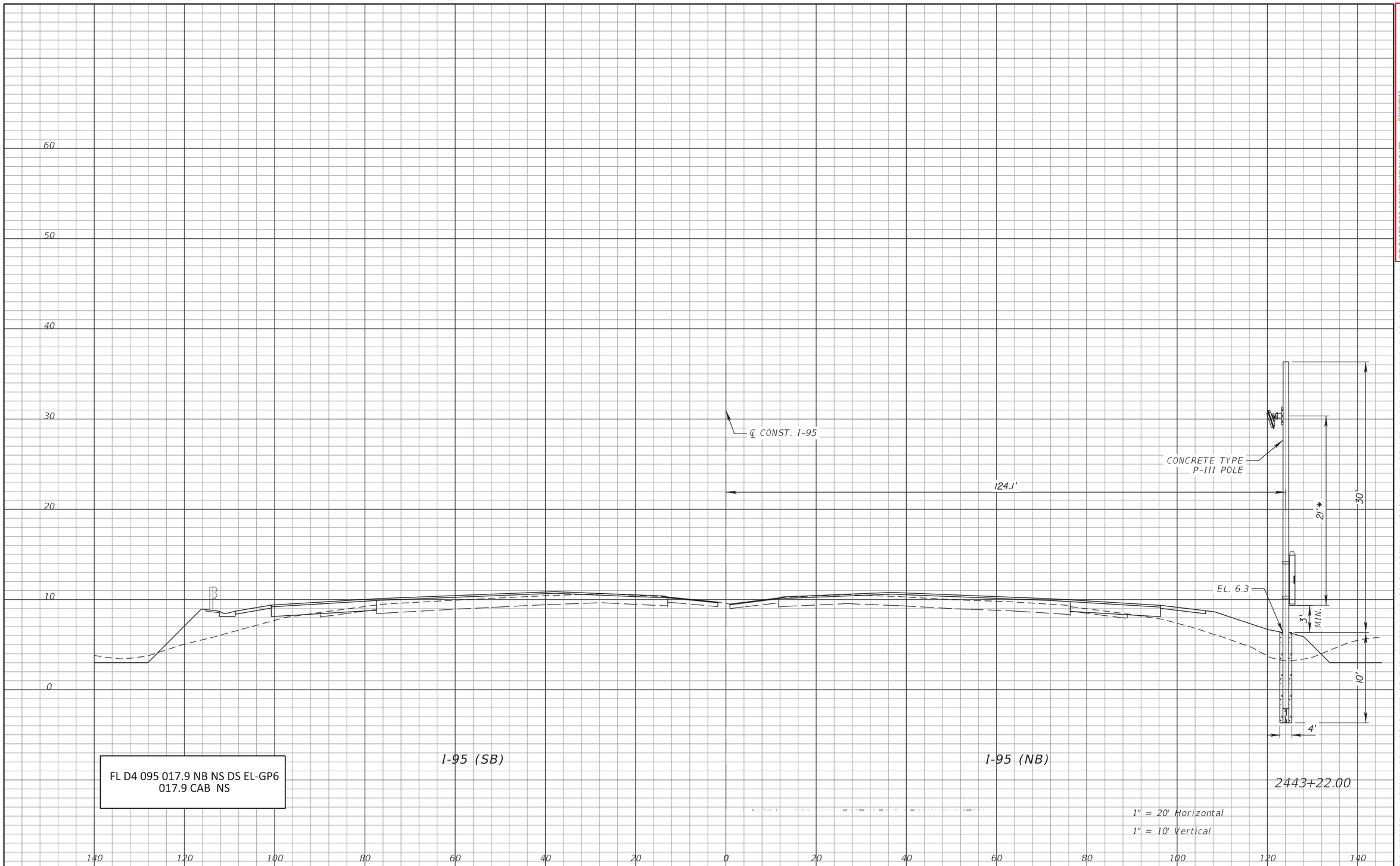
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-135



FL D4 095 017.9 NB NS DS EL-GP6
017.9 CAB NS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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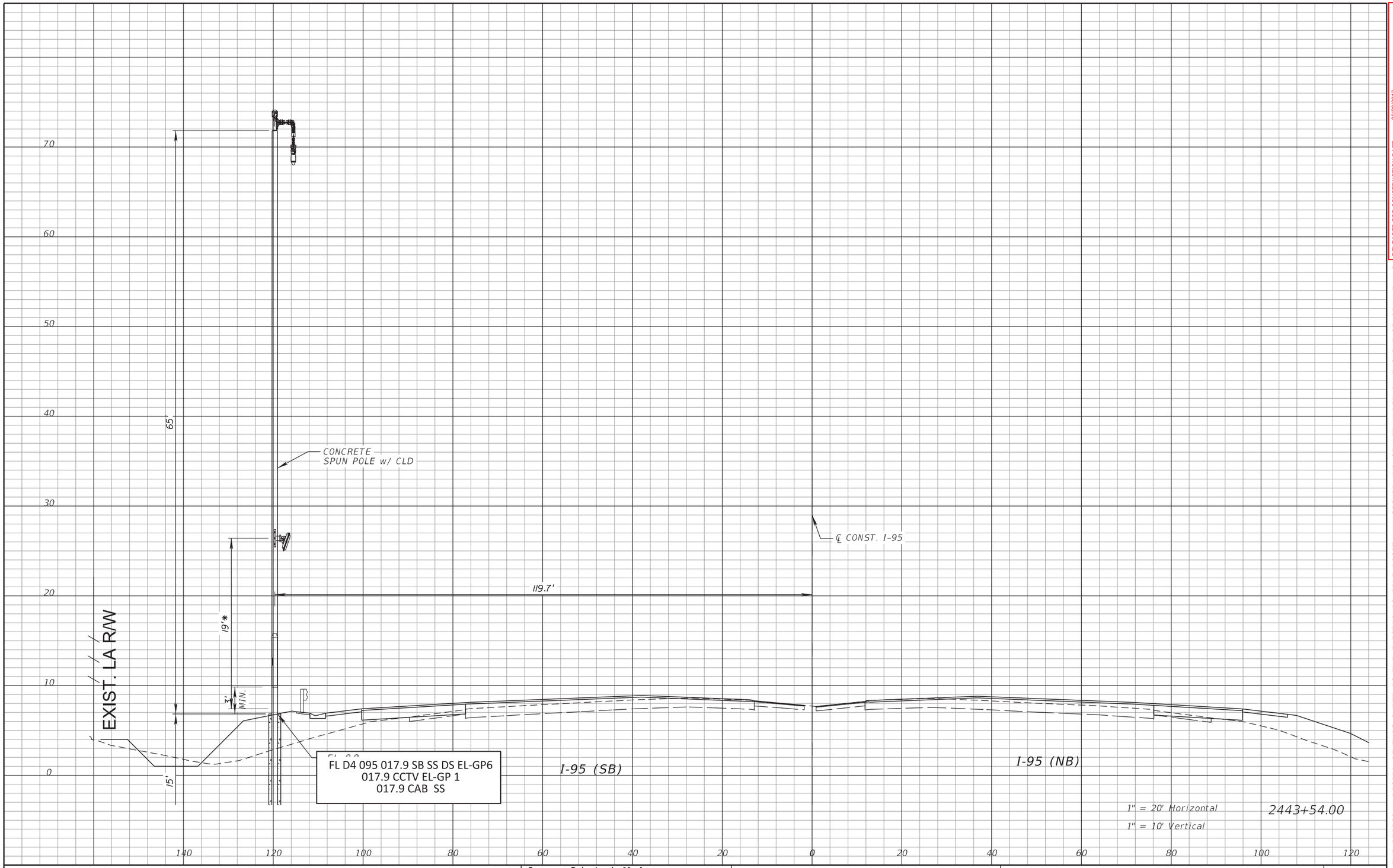
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-136



1" = 20' Horizontal
1" = 10' Vertical

2443+54.00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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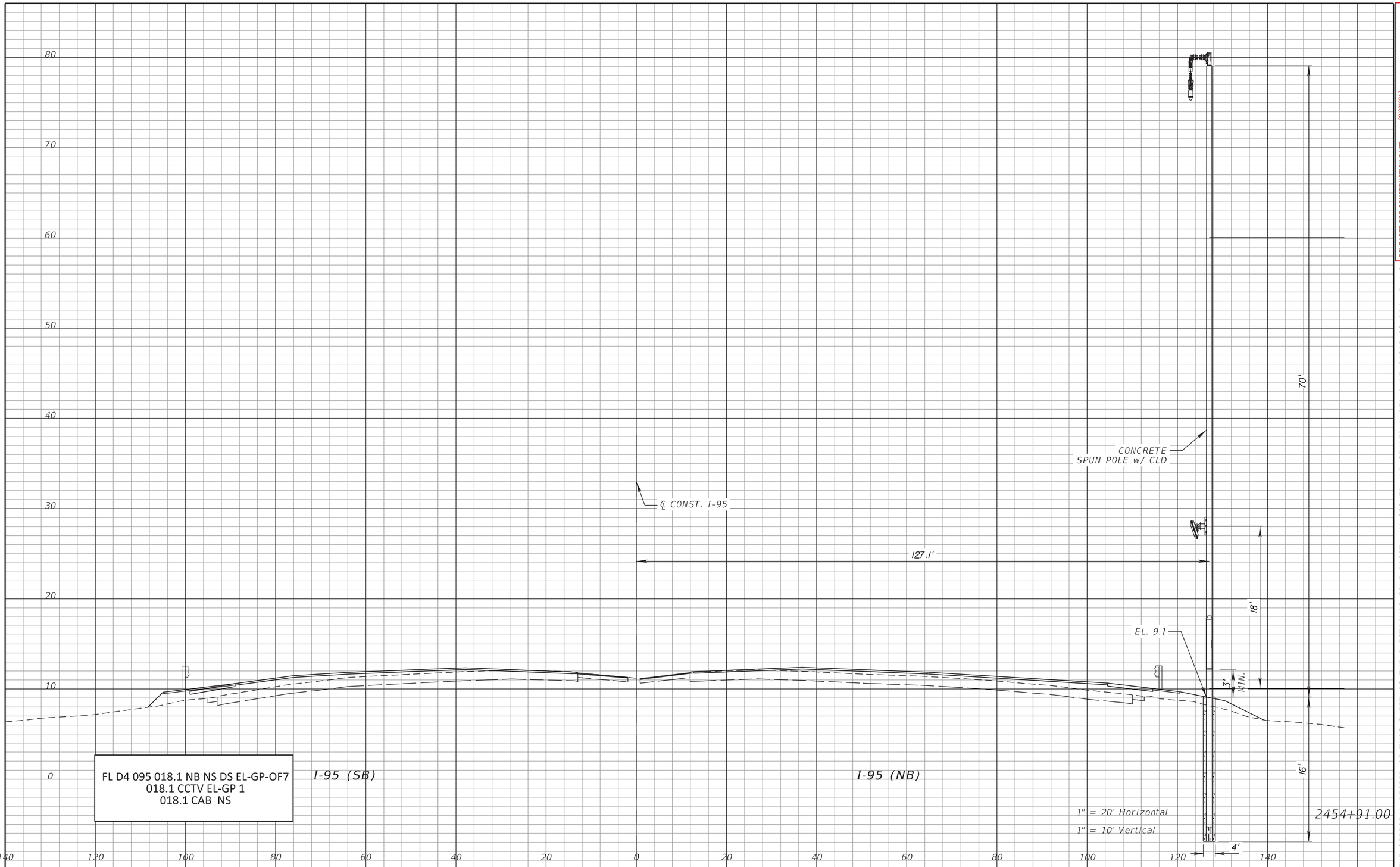
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-137

$PLTDRVL$ $PENTBLL$ abreuk 7/25/2017 7:48:32 AM c:\projectwise\pb\projectwiseint\abreuk\d0128698\SSXSIT01.dgn



FL D4 095 018.1 NB NS DS EL-GP-OF7
018.1 CCTV EL-GP 1
018.1 CAB NS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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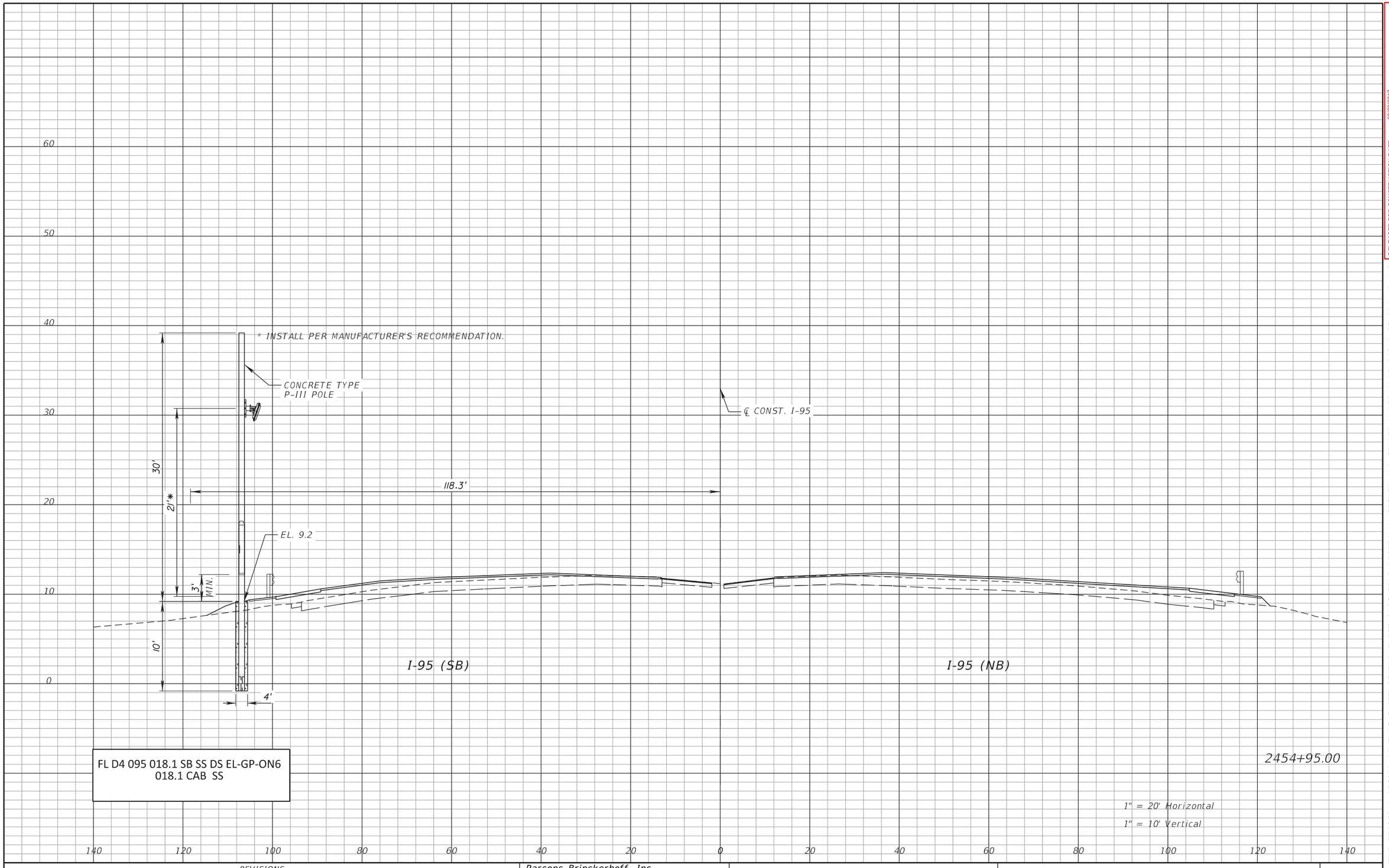
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-138



RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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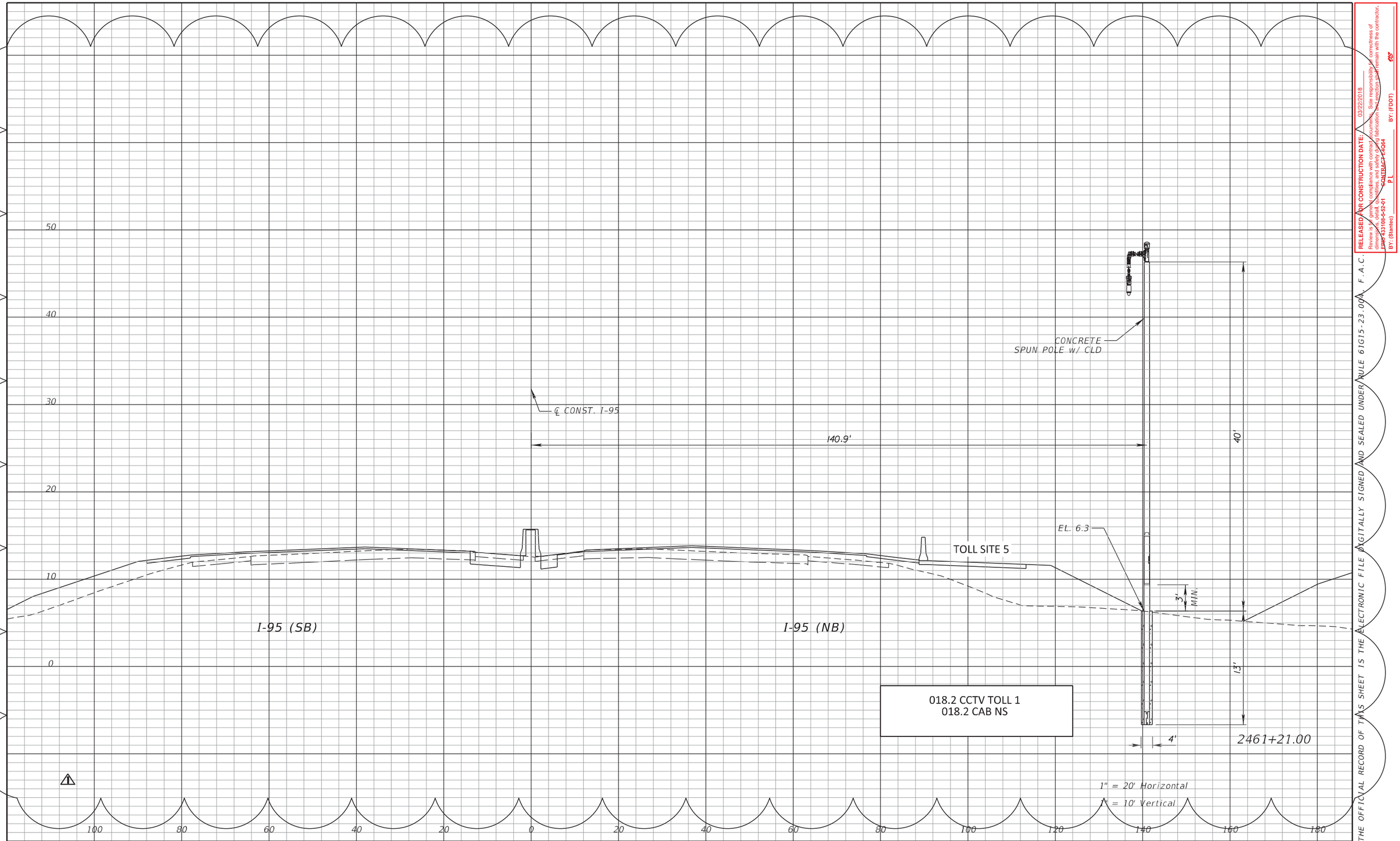
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-139



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID: 433108-5-52-01 CONTRACT: E4Q64 BY: (FDOT)
BY: (Stantec) PL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 ADDED CROSS SECTION FOR TOLL SITE CCTV POLE		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
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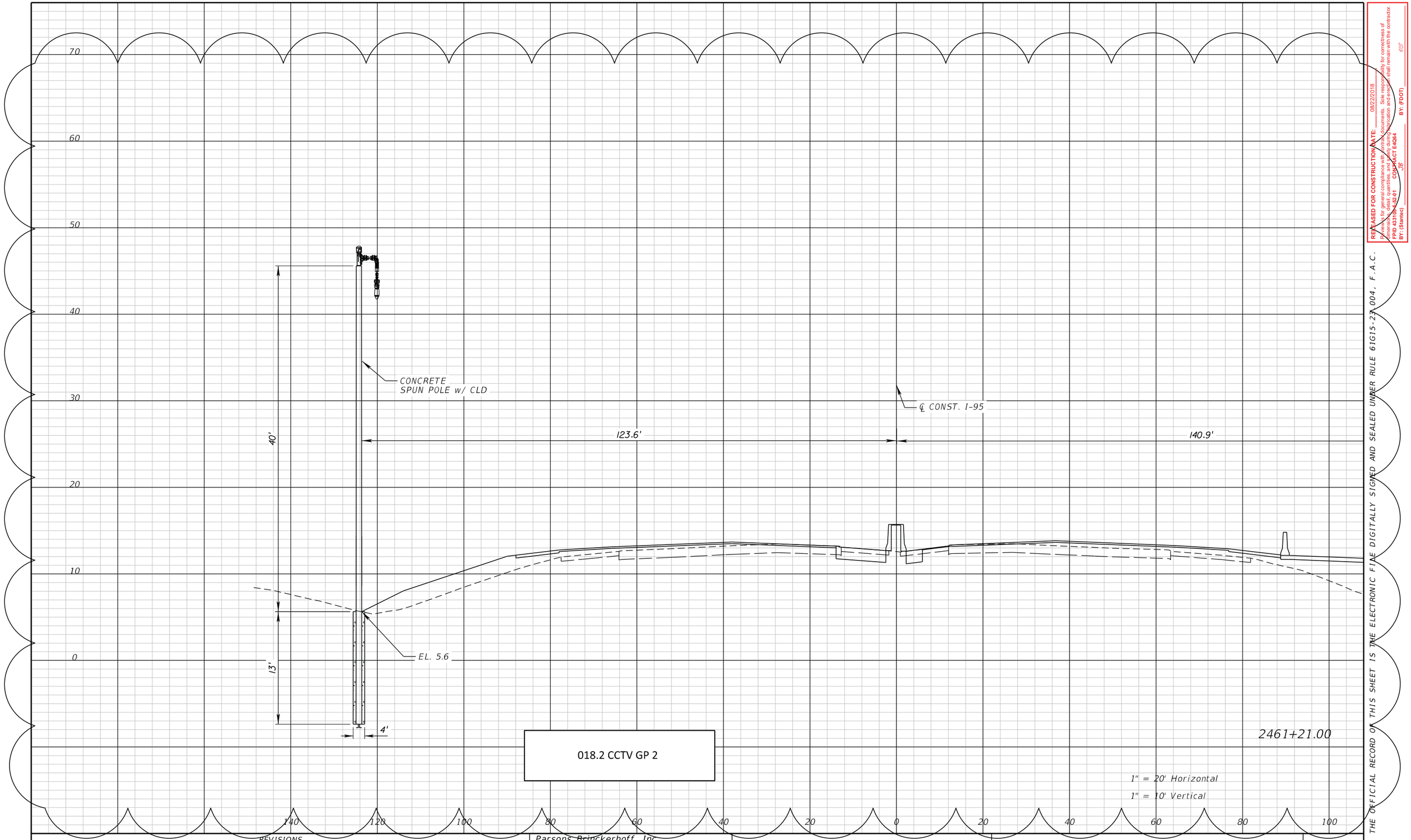
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-139A



RELEASED FOR CONSTRUCTION DATE: 08/22/2018
As reviewed for general compliance with contract documents. Sole responsibility for correctness of plans remains with Engineer of Record. Review, acceptance and construction shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED CROSS SECTION FOR NEW D-CCTV		

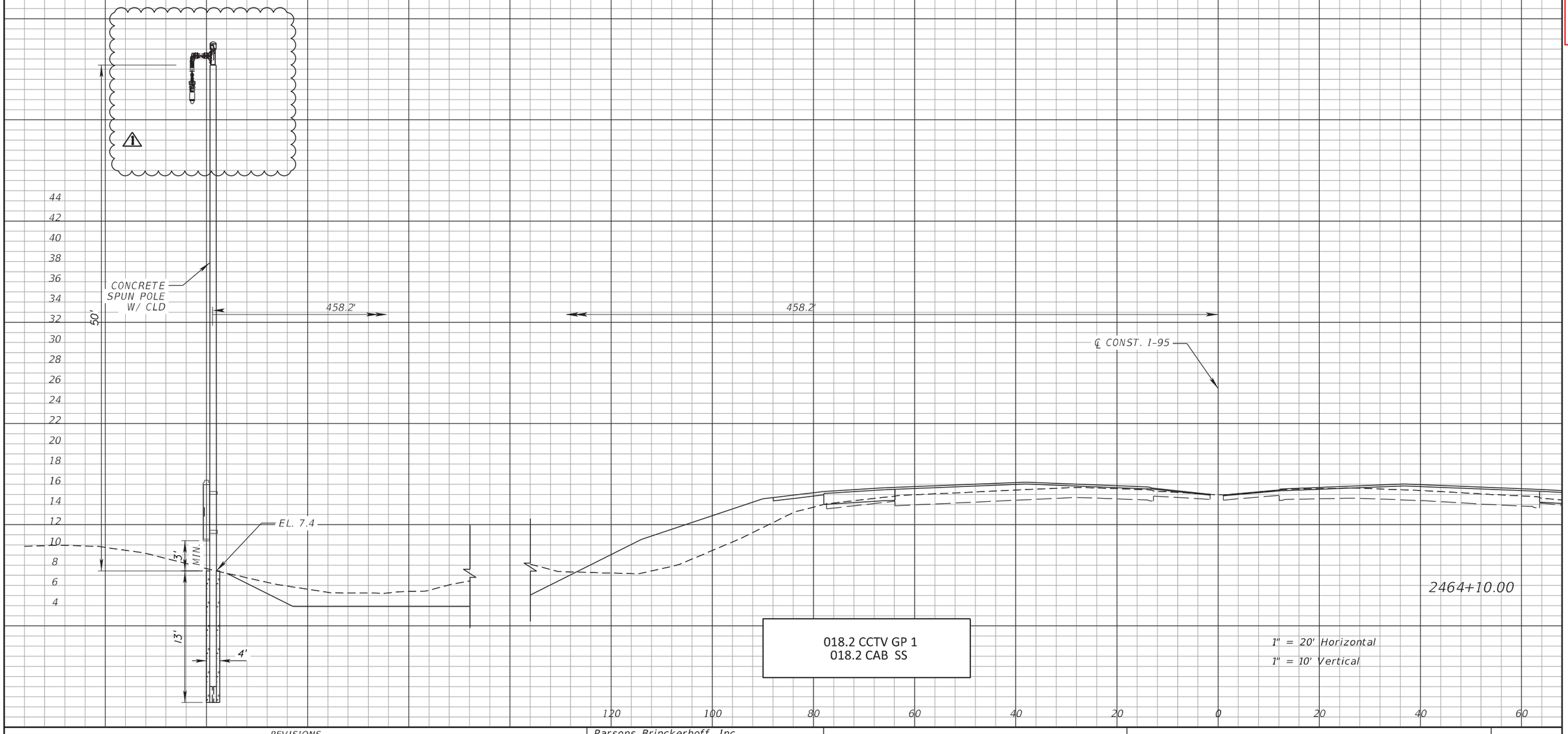
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-139B



RELEASED FOR CONSTRUCTION DATE: 03/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and satisfactory fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL

BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 RE-ORIENTED CCTV TO RAMP SIDE OF POLE		

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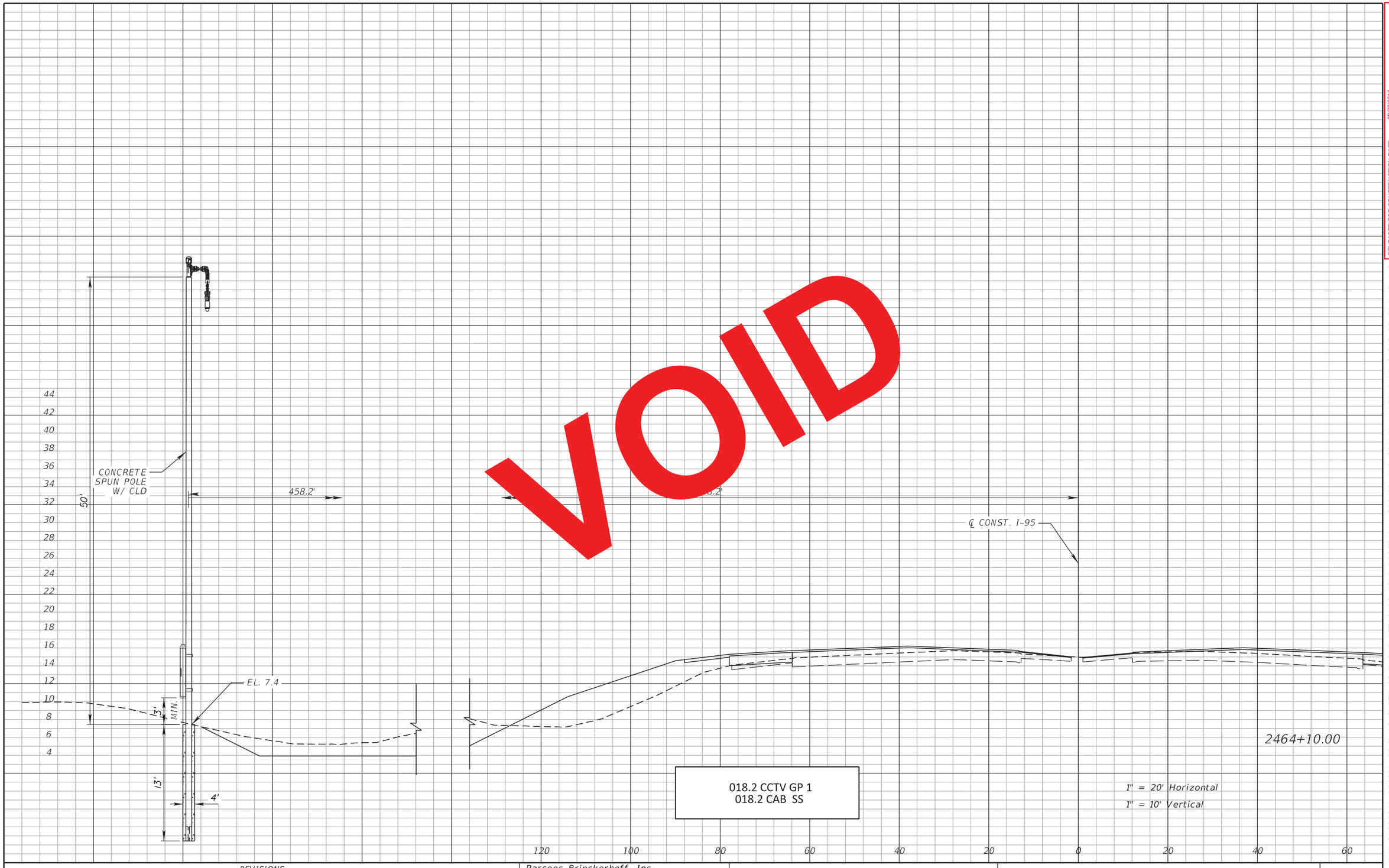
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-140



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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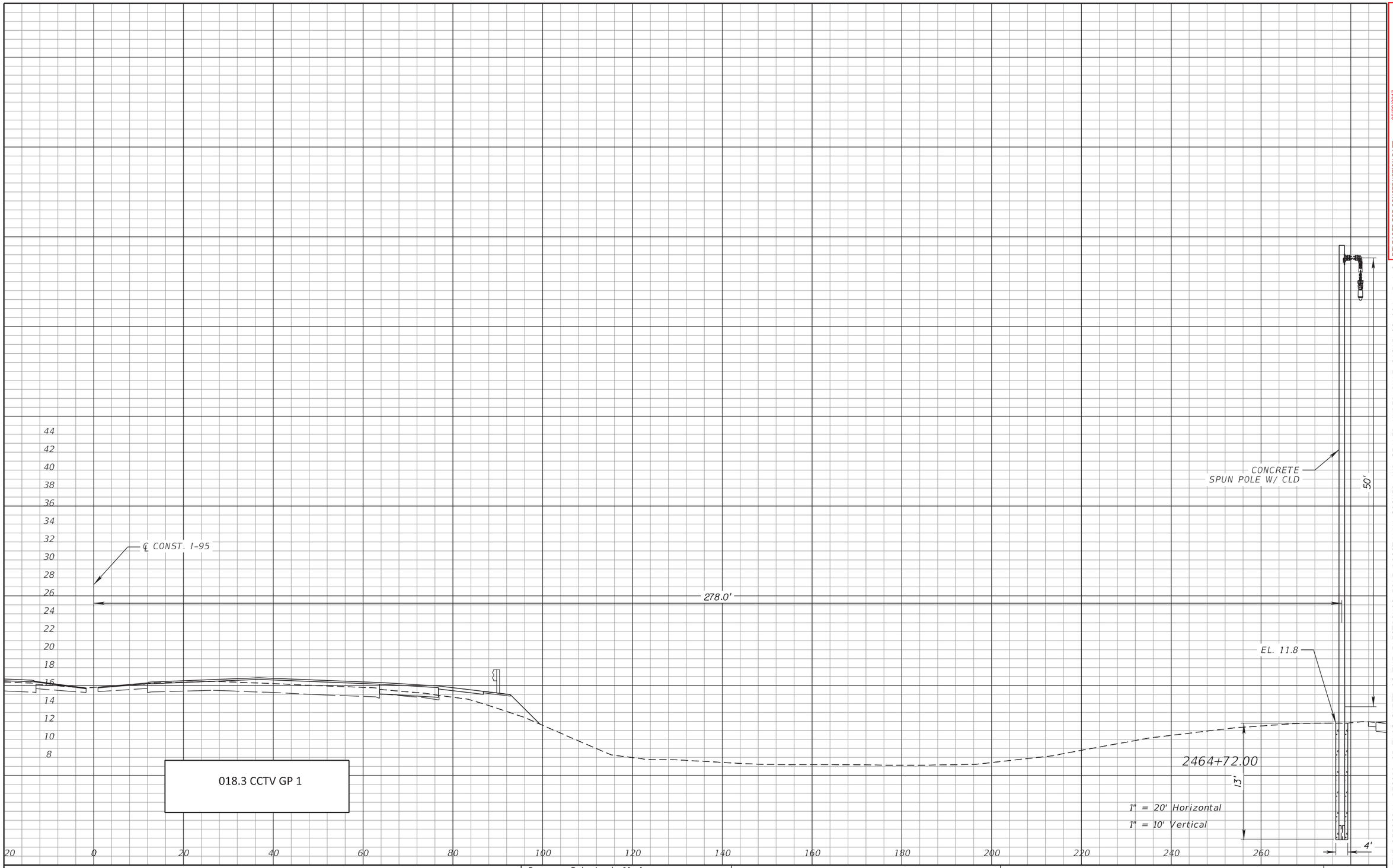
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-140



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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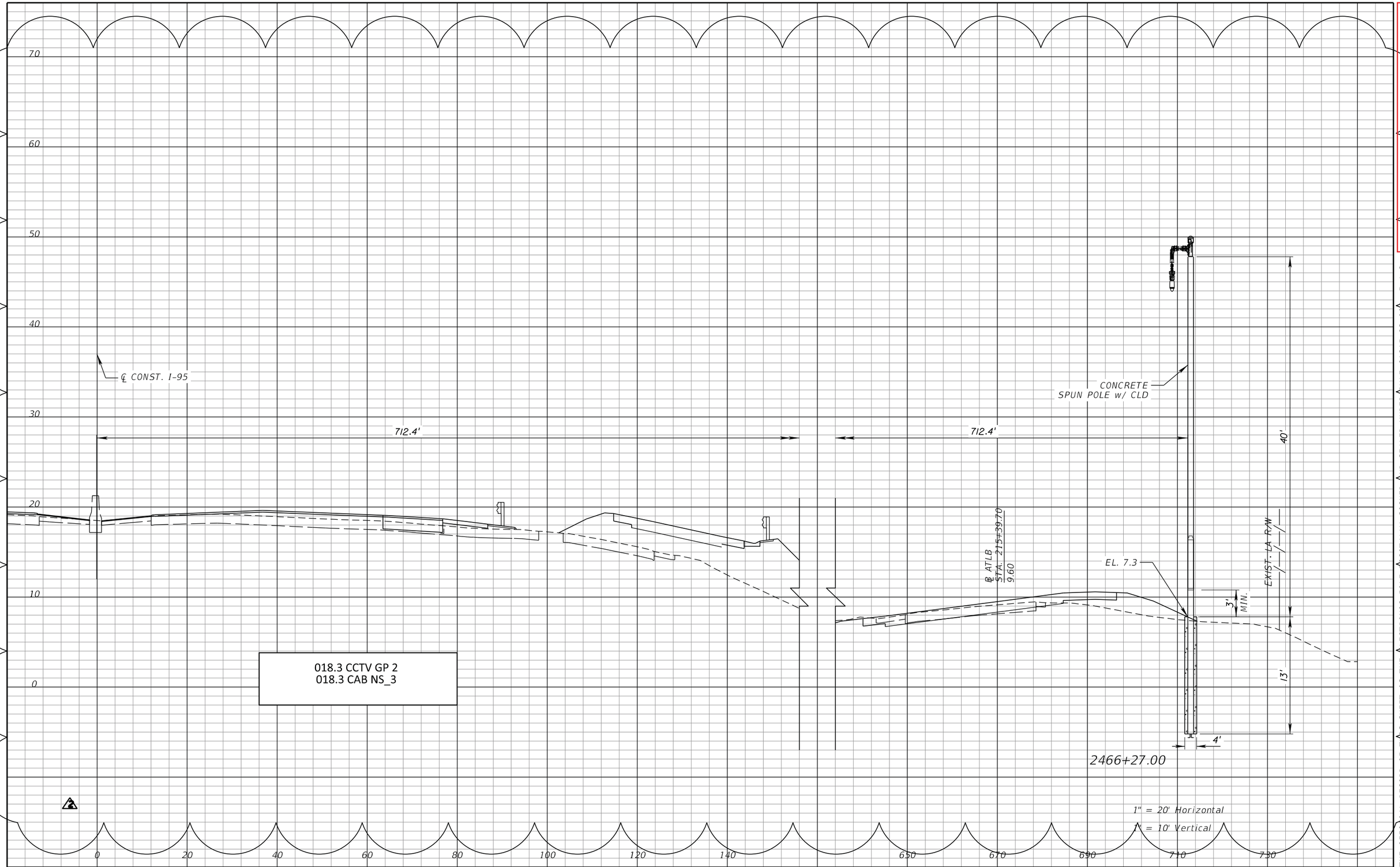
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-141



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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Reviewed for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
PID: 433108-5-52-01 CONTRACT: E4Q64
BY: (Stantec) JB BY: (FDOT) 03

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED CROSS SECTION FOR NEW D-CCTV POLE		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
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EOR: TIMOTHY R. RAYNER, P.E.
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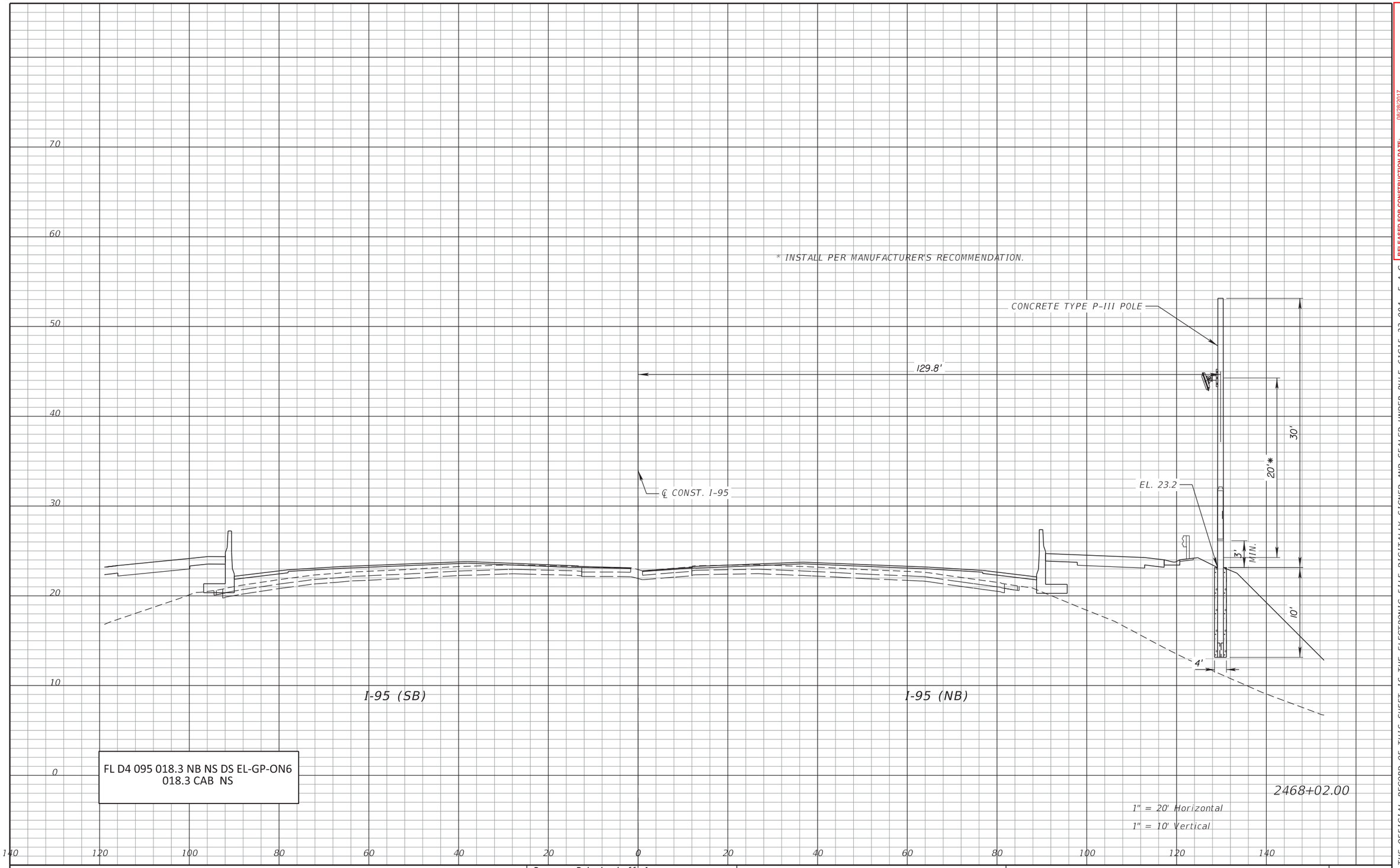
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-141A



FL D4 095 018.3 NB NS DS EL-GP-ON6
018.3 CAB NS

2468+02.00

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-142

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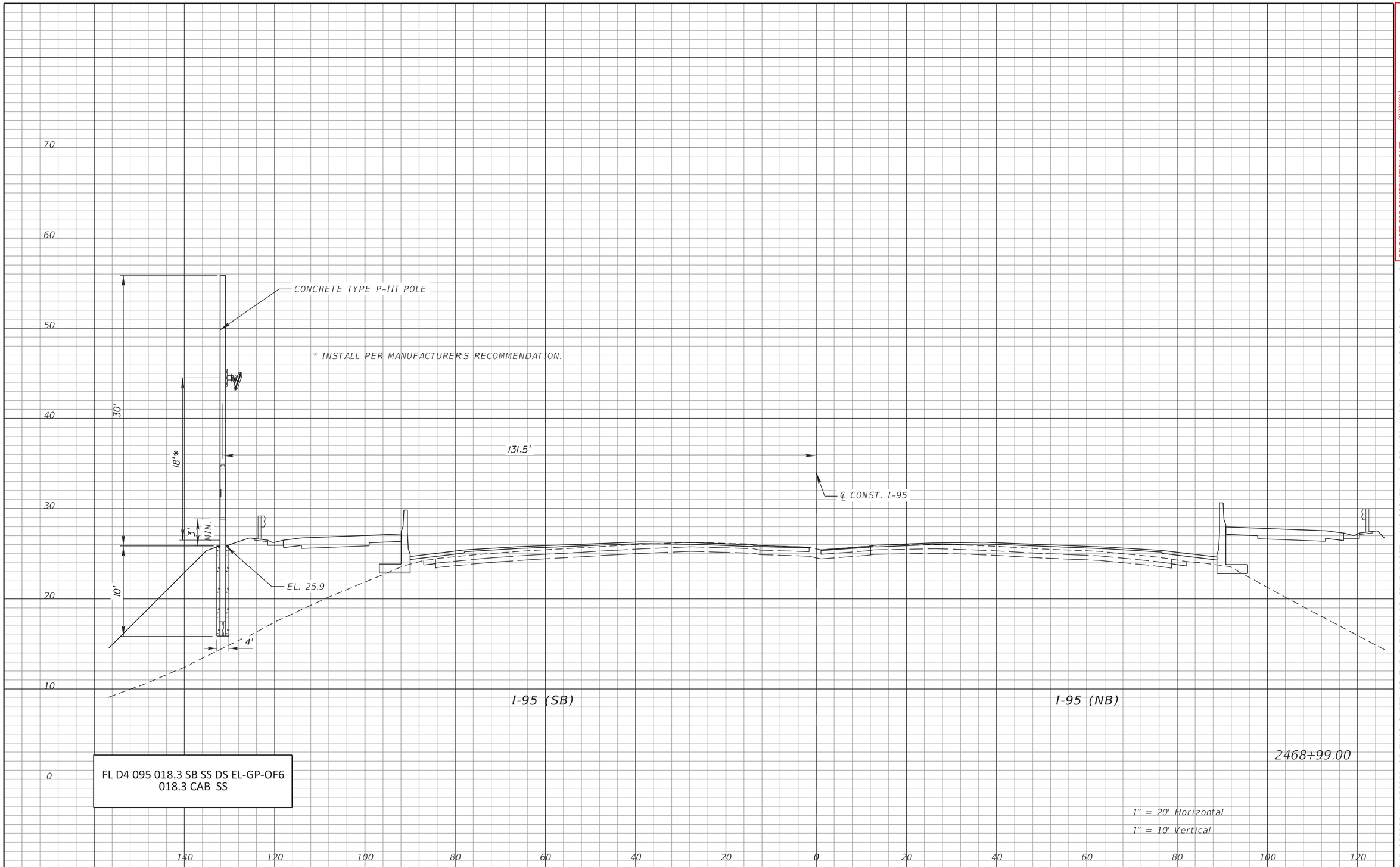

FL D4 095 018.3 SB SS DS EL-GP-OF6
018.3 CAB SS

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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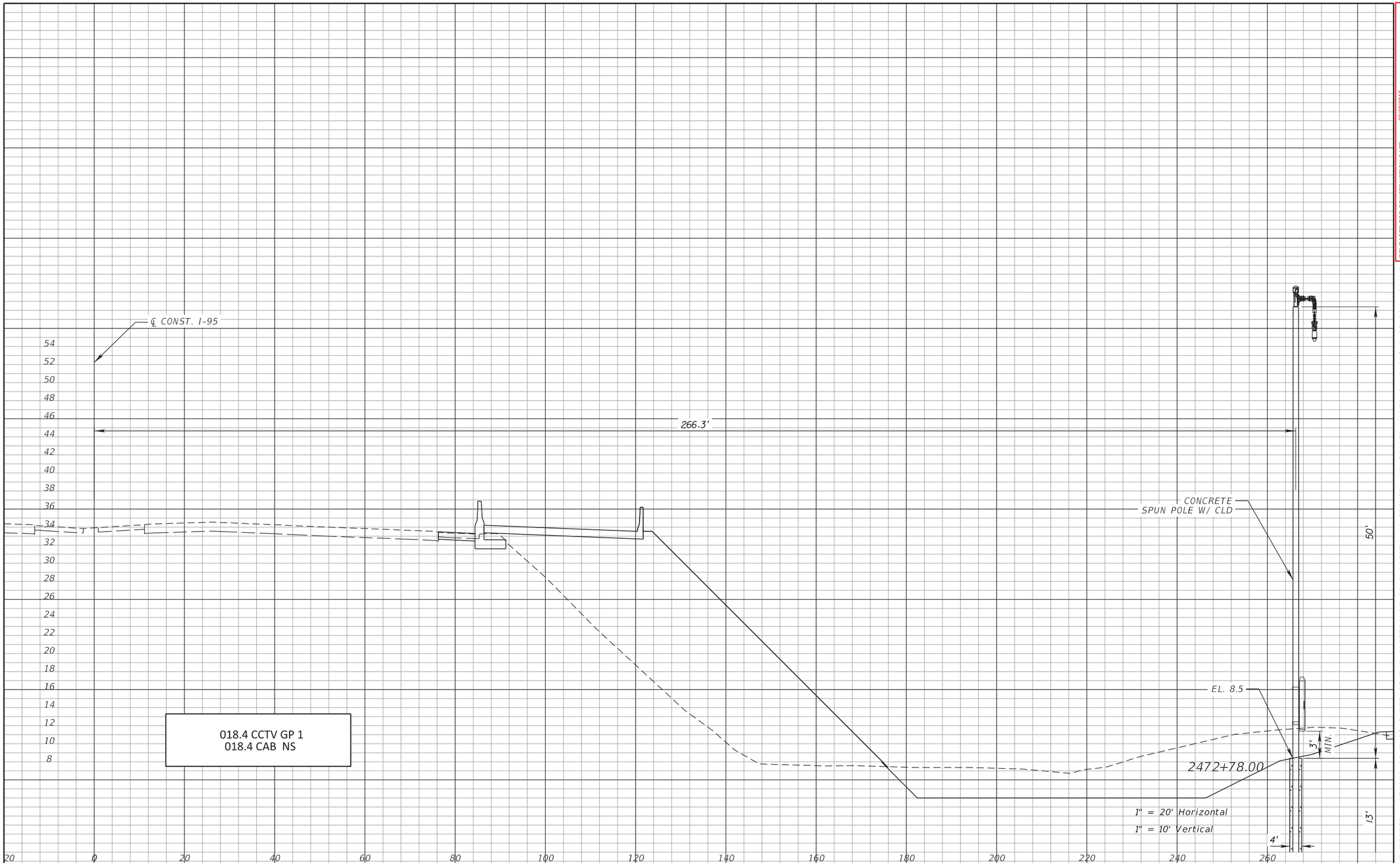
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-143



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

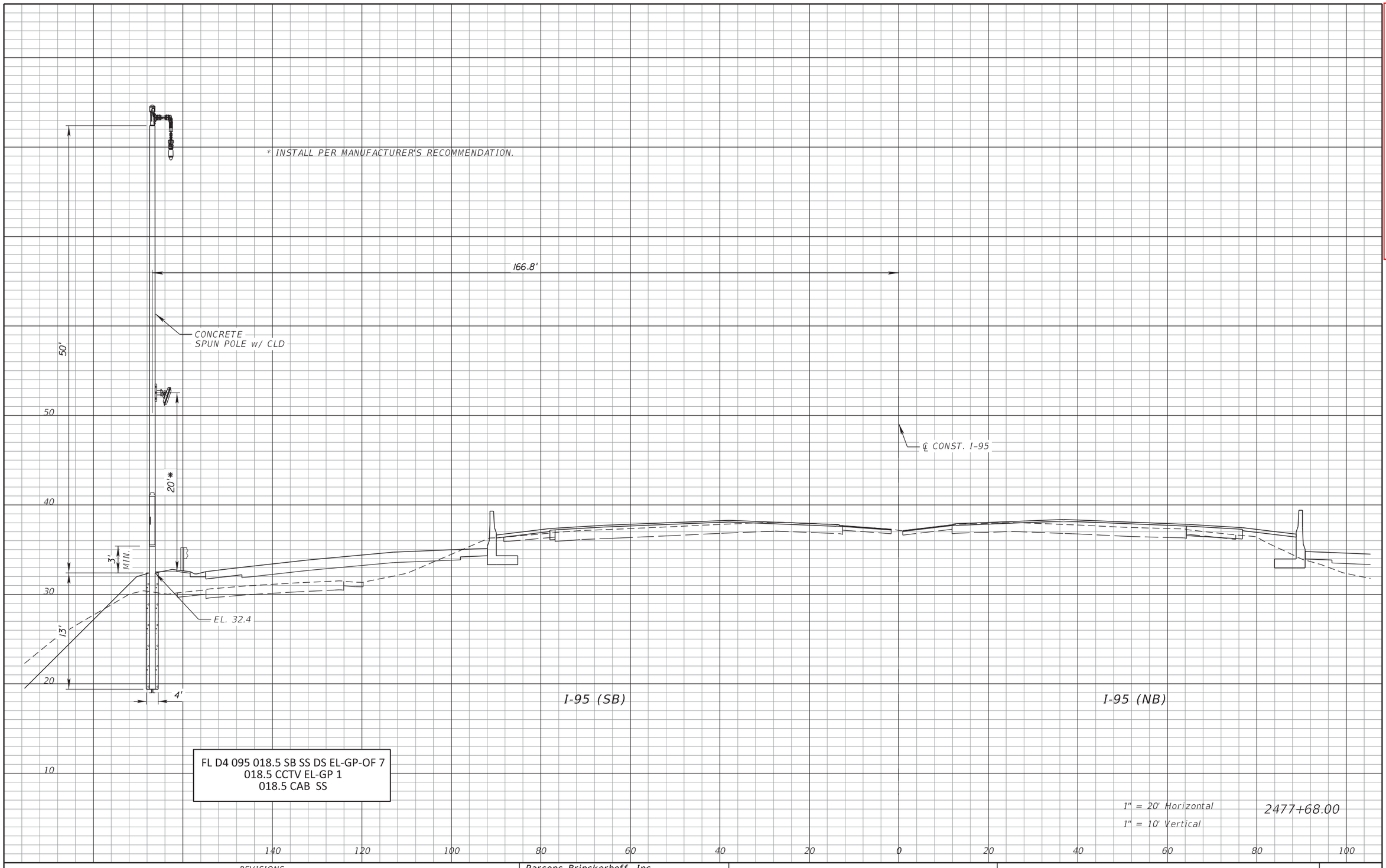
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-144



FL D4 095 018.5 SB SS DS EL-GP-OF 7
018.5 CCTV EL-GP 1
018.5 CAB SS

1" = 20' Horizontal
1" = 10' Vertical

2477+68.00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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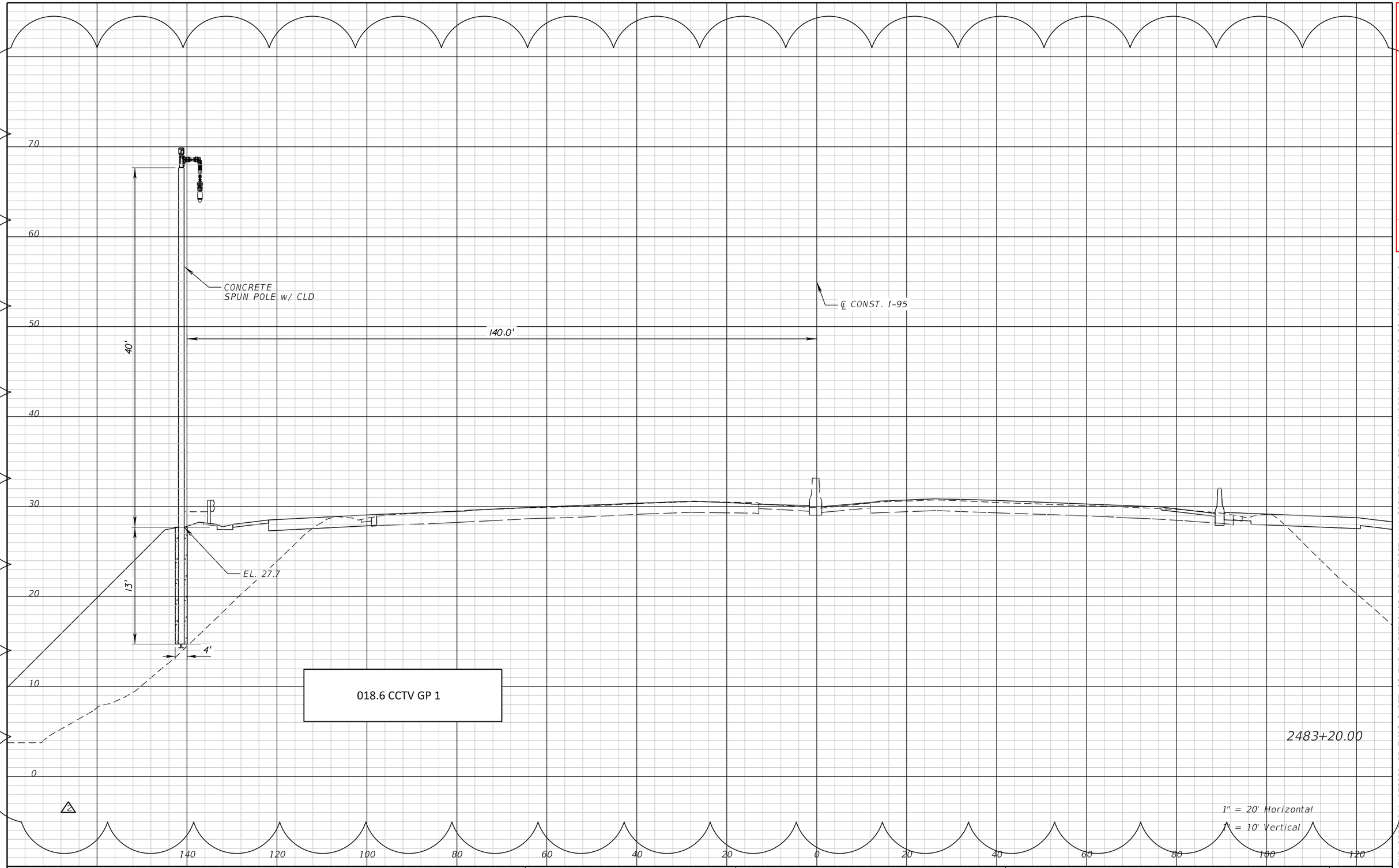
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-145



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	△2 ADDED CROSS SECTION FOR NEW D-CCTV		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-145A

RELEASED FOR CONSTRUCTION DATE 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPN: 433108-5-52-01 CONTRACT: E4Q64
BY: (Stantec) BY: (FDOT)

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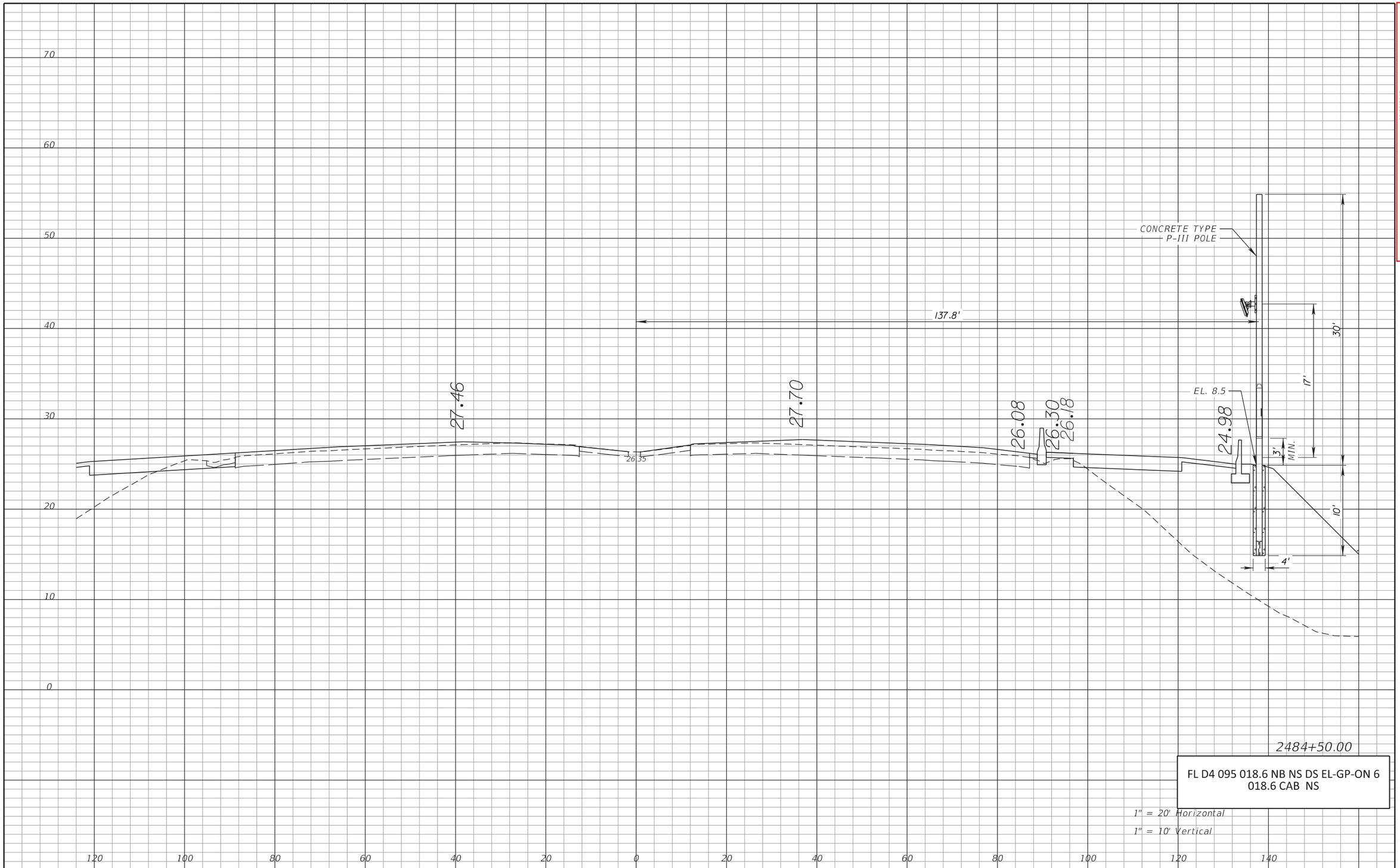
C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\zz_Standards (FDOTSS4 MRI)\RESOURCES\plot\FDOT_LtGrayExDkGrayPr.tbl Borges 6/22/2018 10:01:52 AM c:\projectwise\pb\projectwiseint\borges\d0128698\SSXSIT01.dgn



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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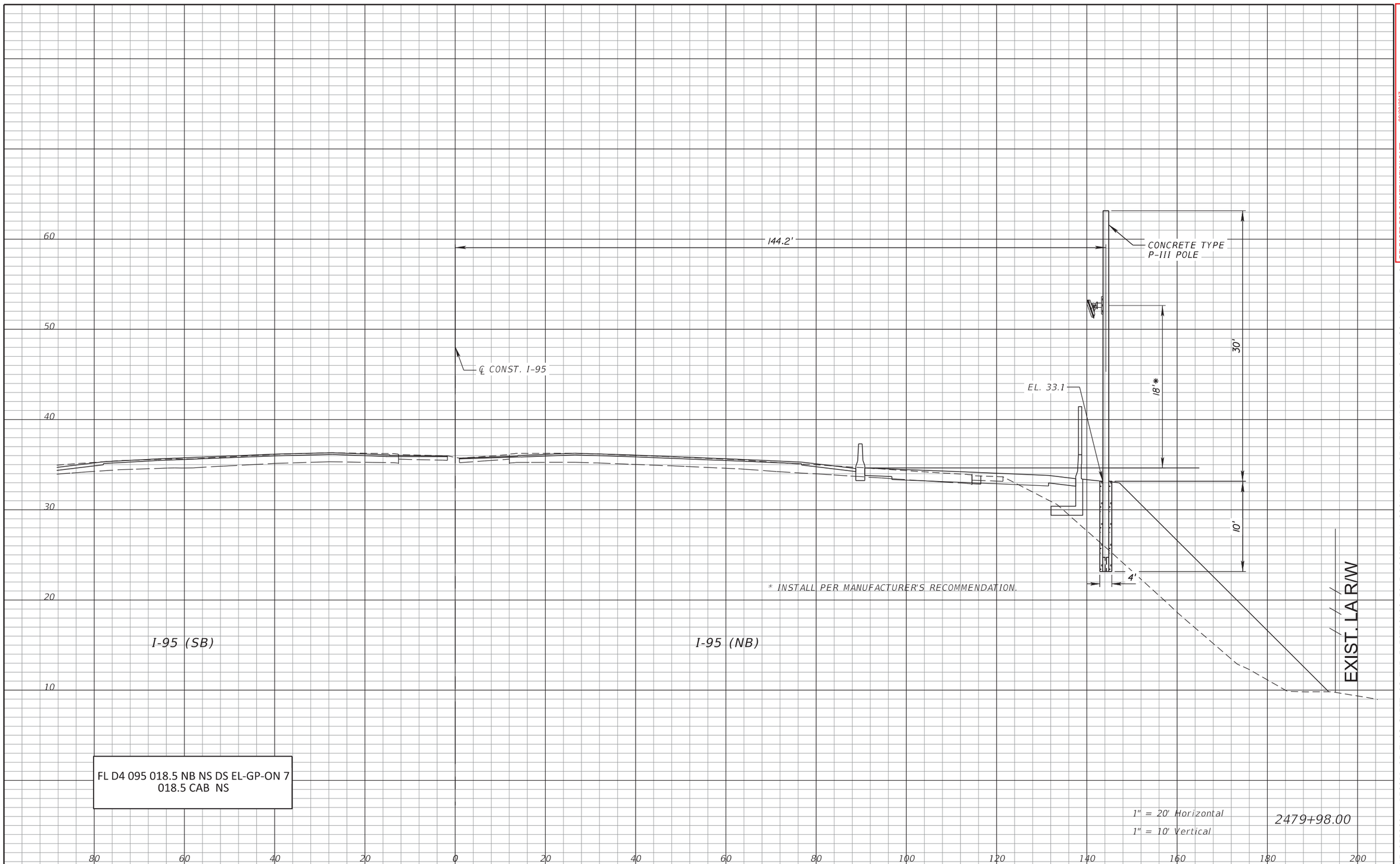
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-146

$PLTDRVL$ $PENTBLL$ Barber 6/12/2017 6:30:25 PM T:\Sys\PROJECTS\433108552O1_I95_Ph3A2\ITS\SSXSIT01.dgn



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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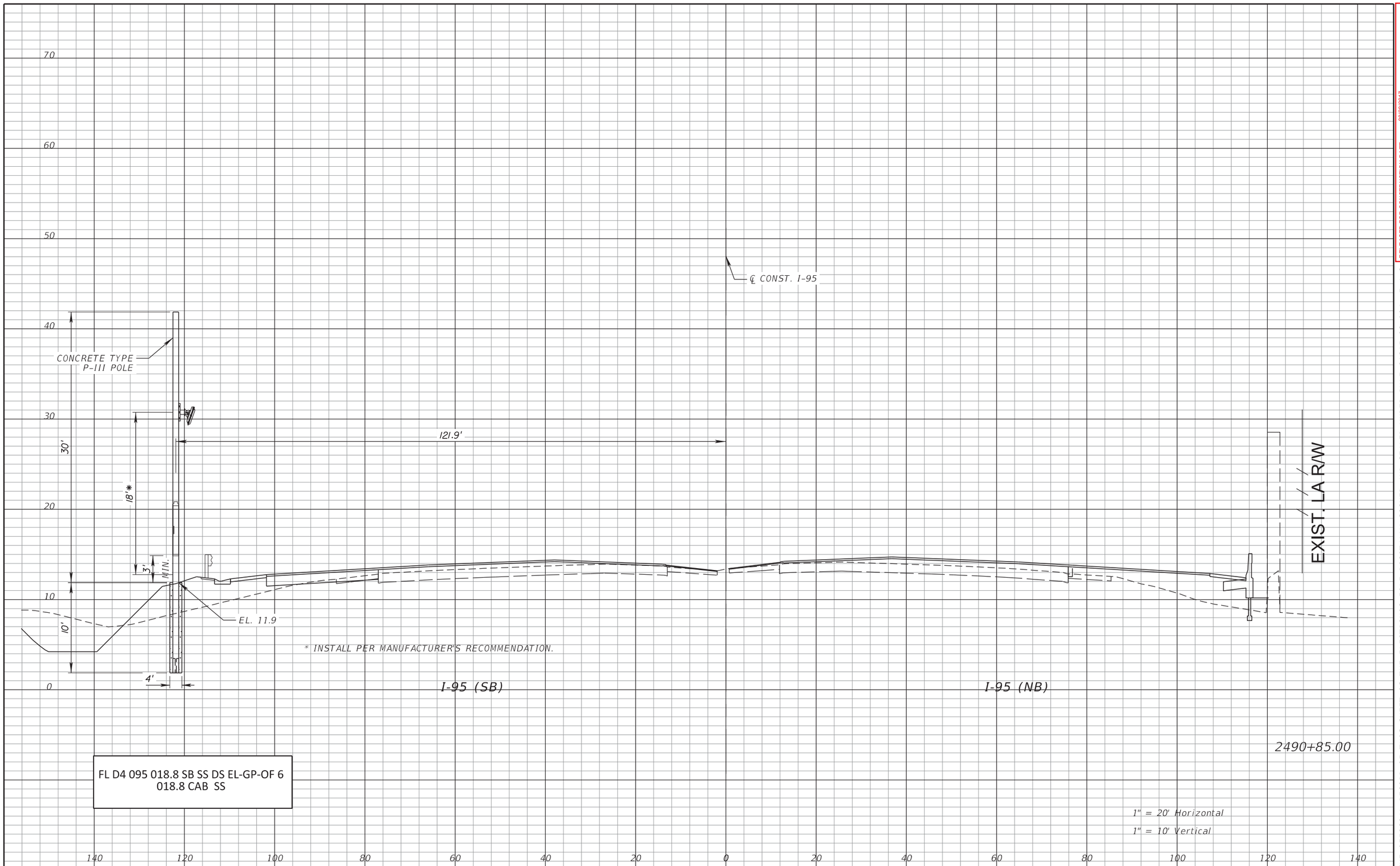
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-147



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-148

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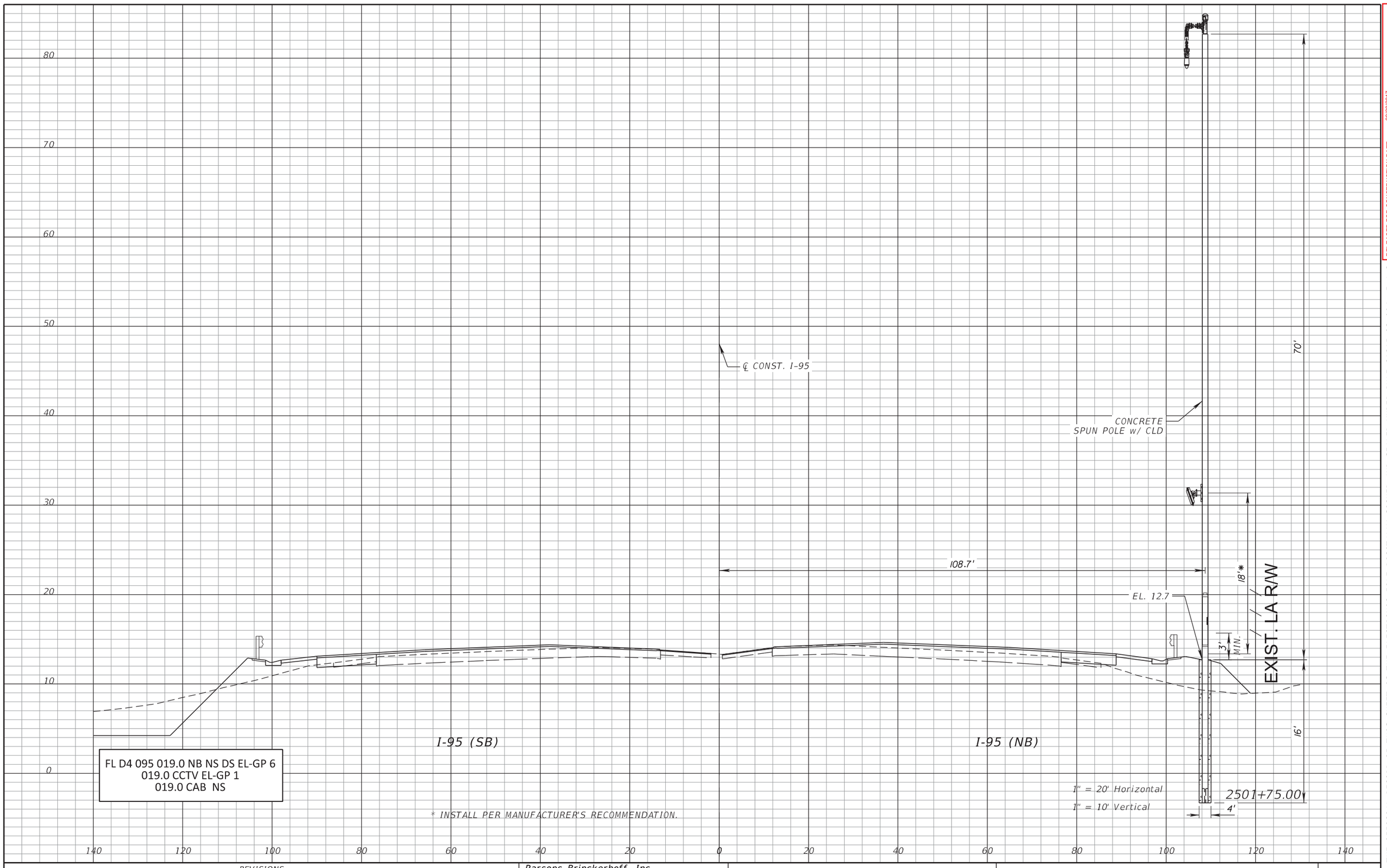

FL D4 095 019.0 NB NS DS EL-GP 6
019.0 CCTV EL-GP 1
019.0 CAB NS

* INSTALL PER MANUFACTURER'S RECOMMENDATION.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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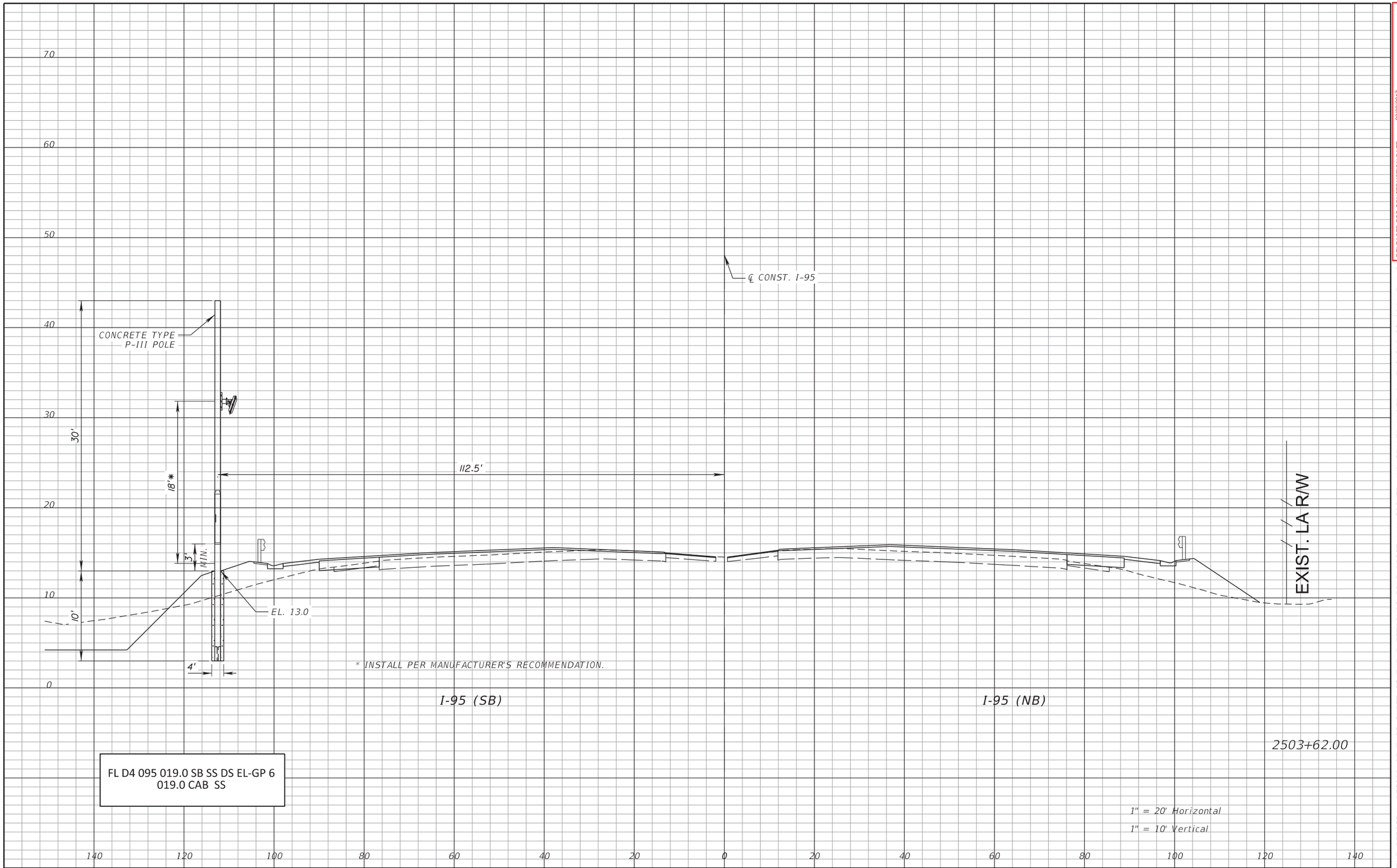
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-149



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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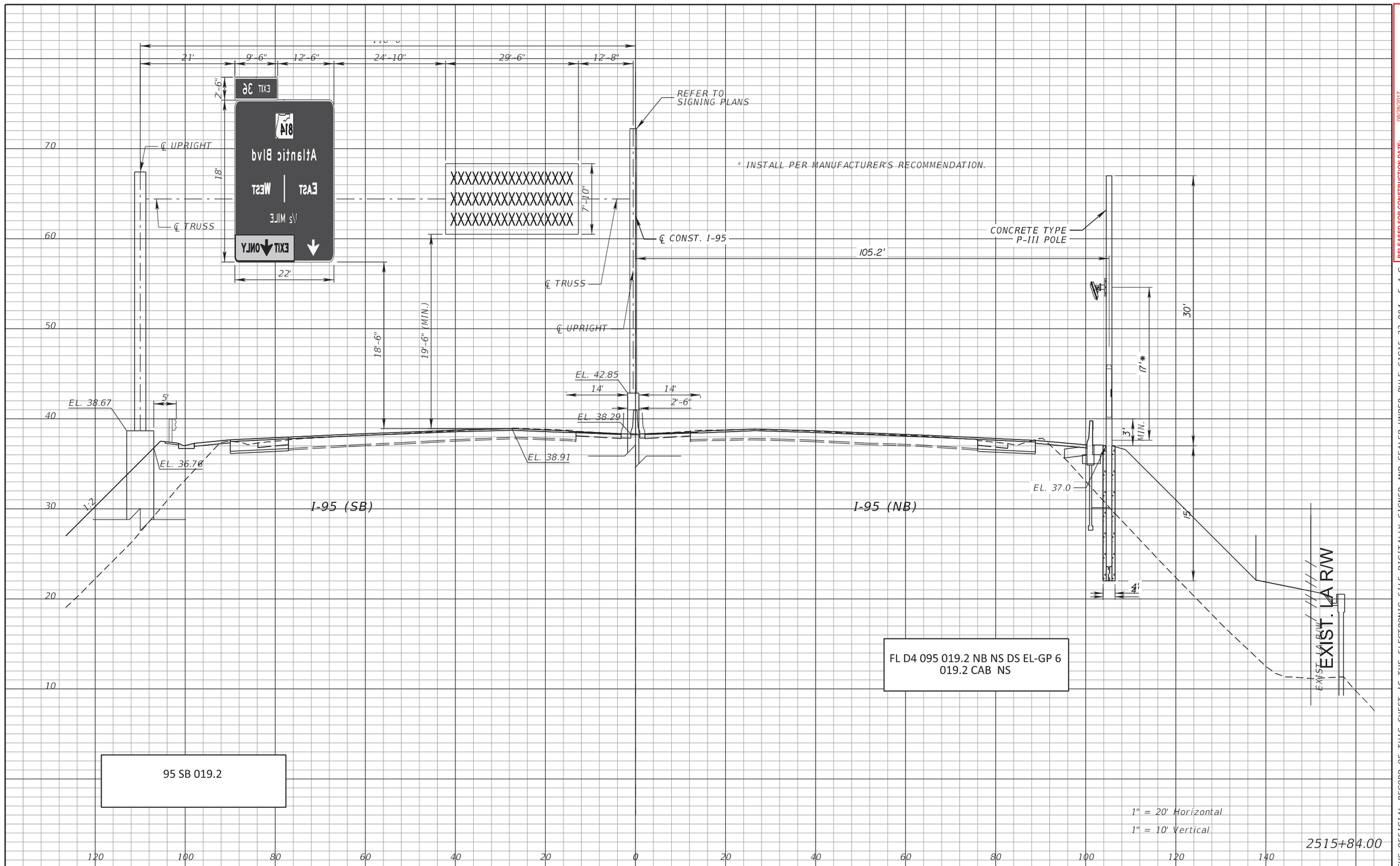
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-150



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-151

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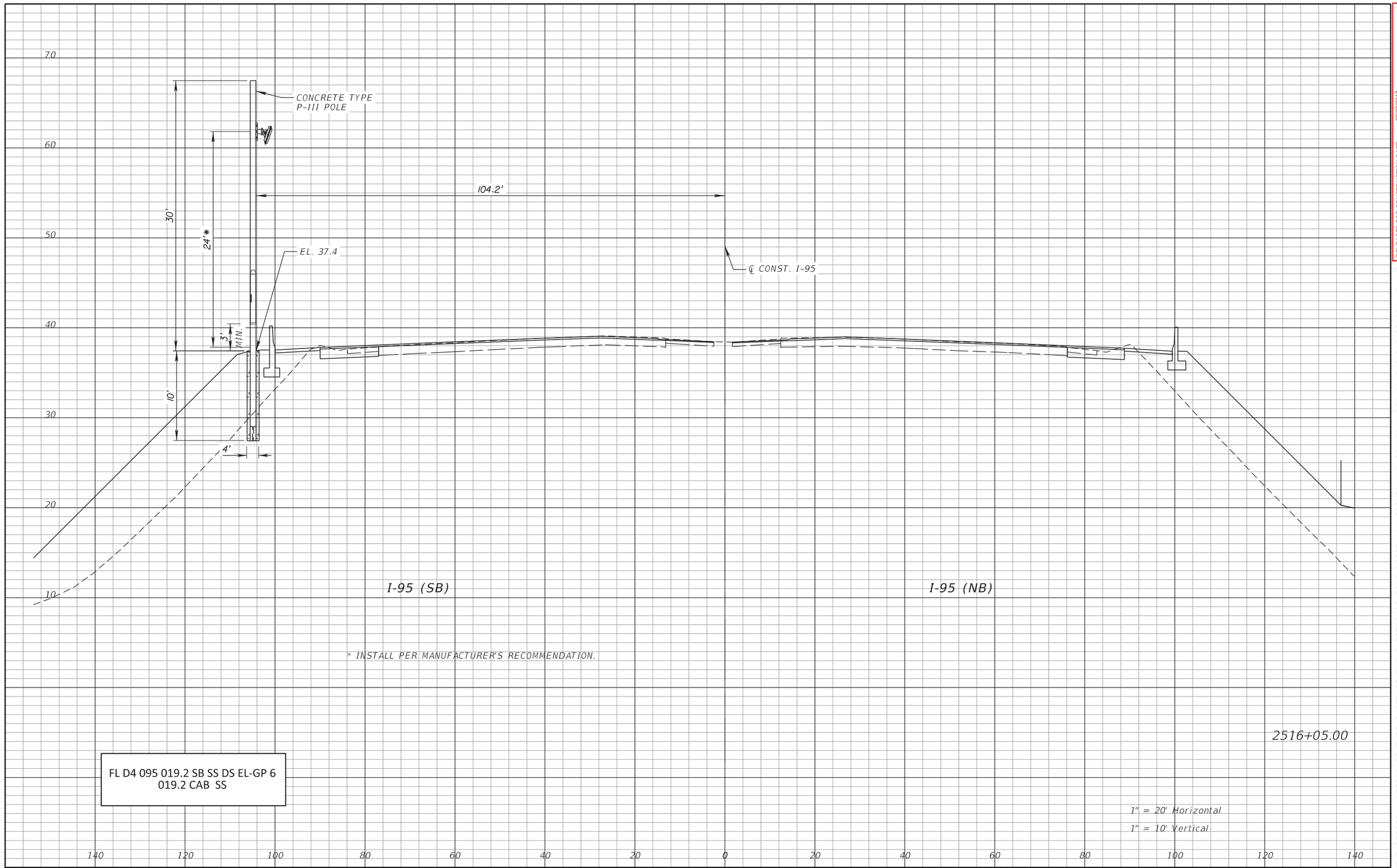

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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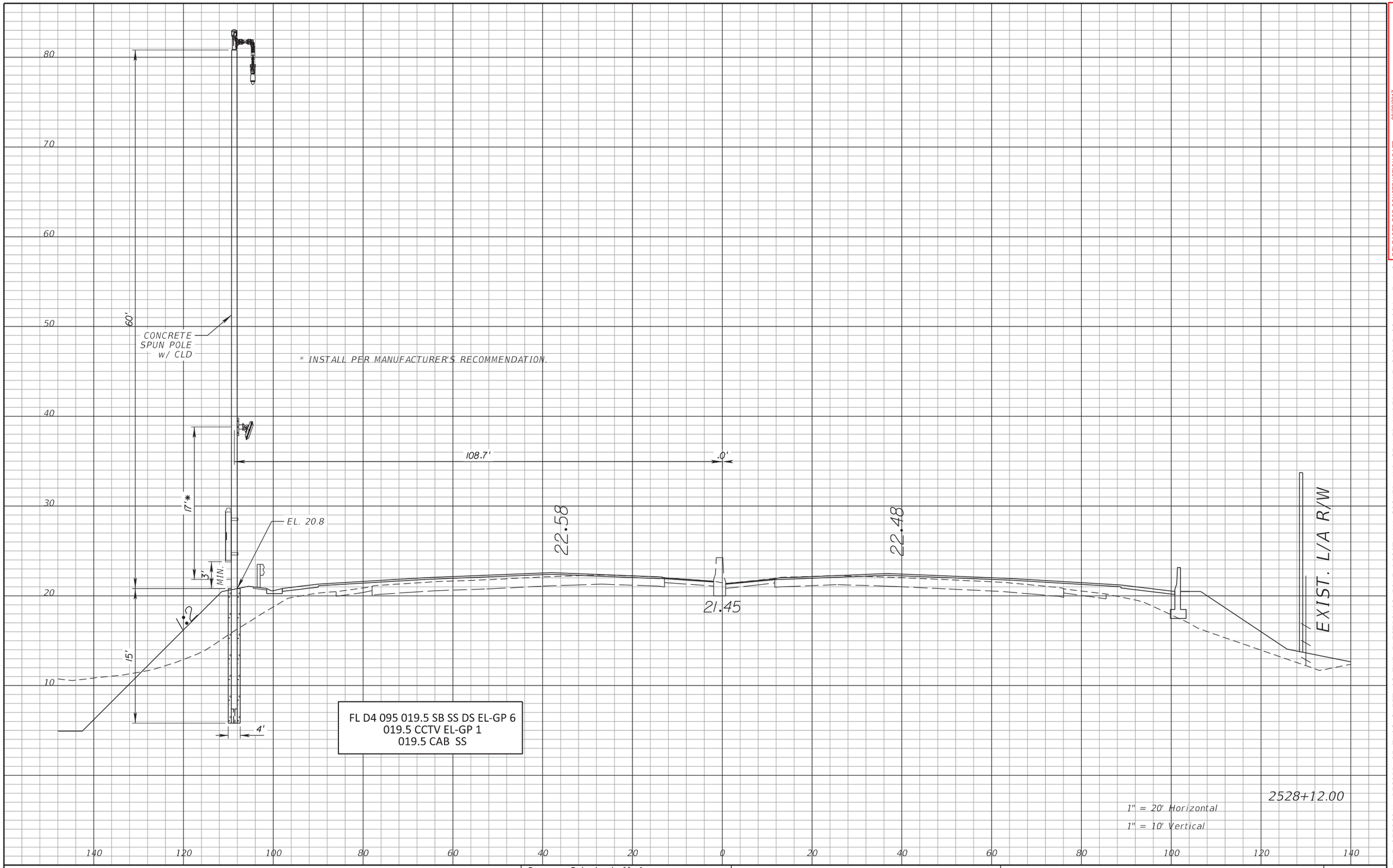
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-152



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-153

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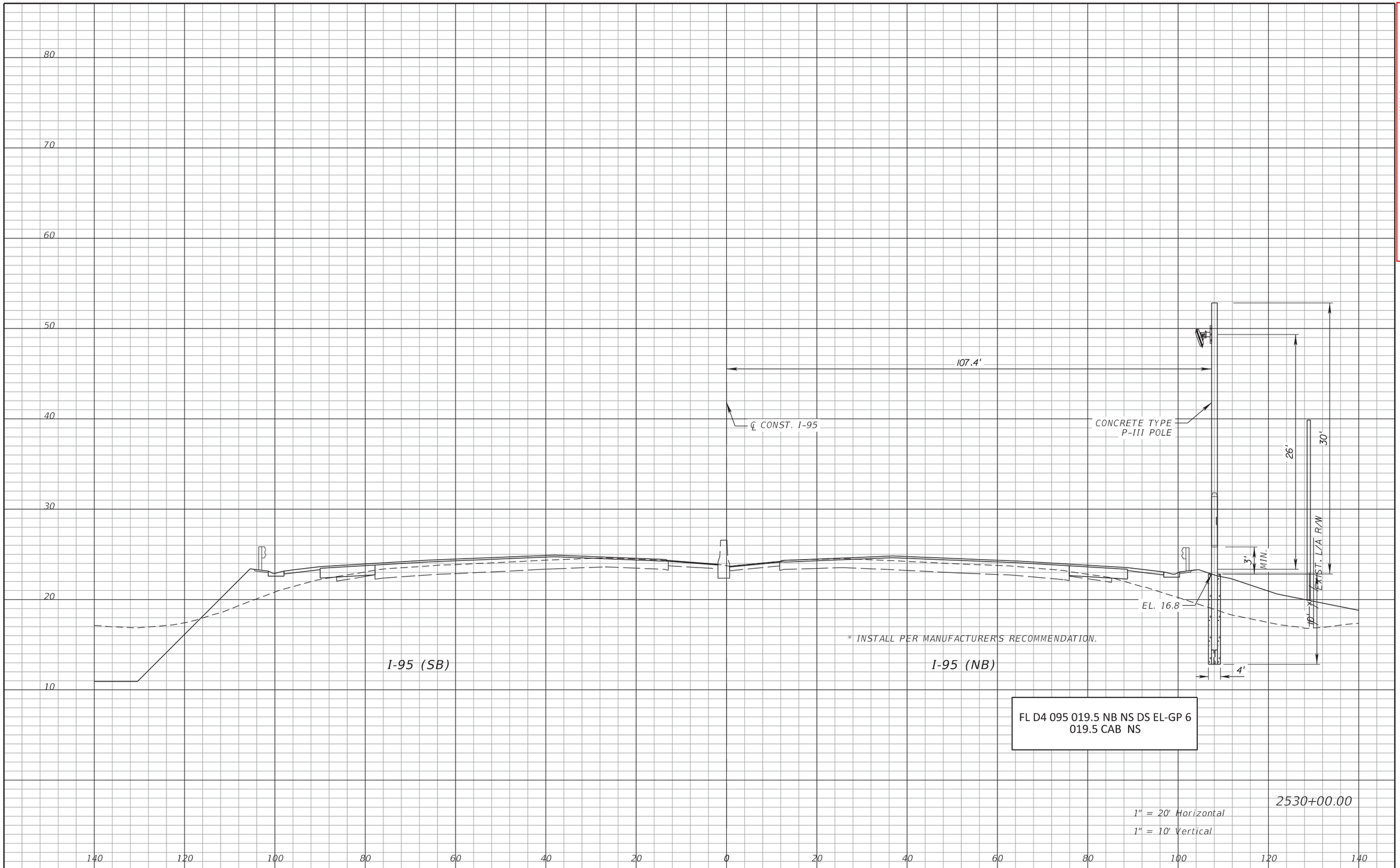

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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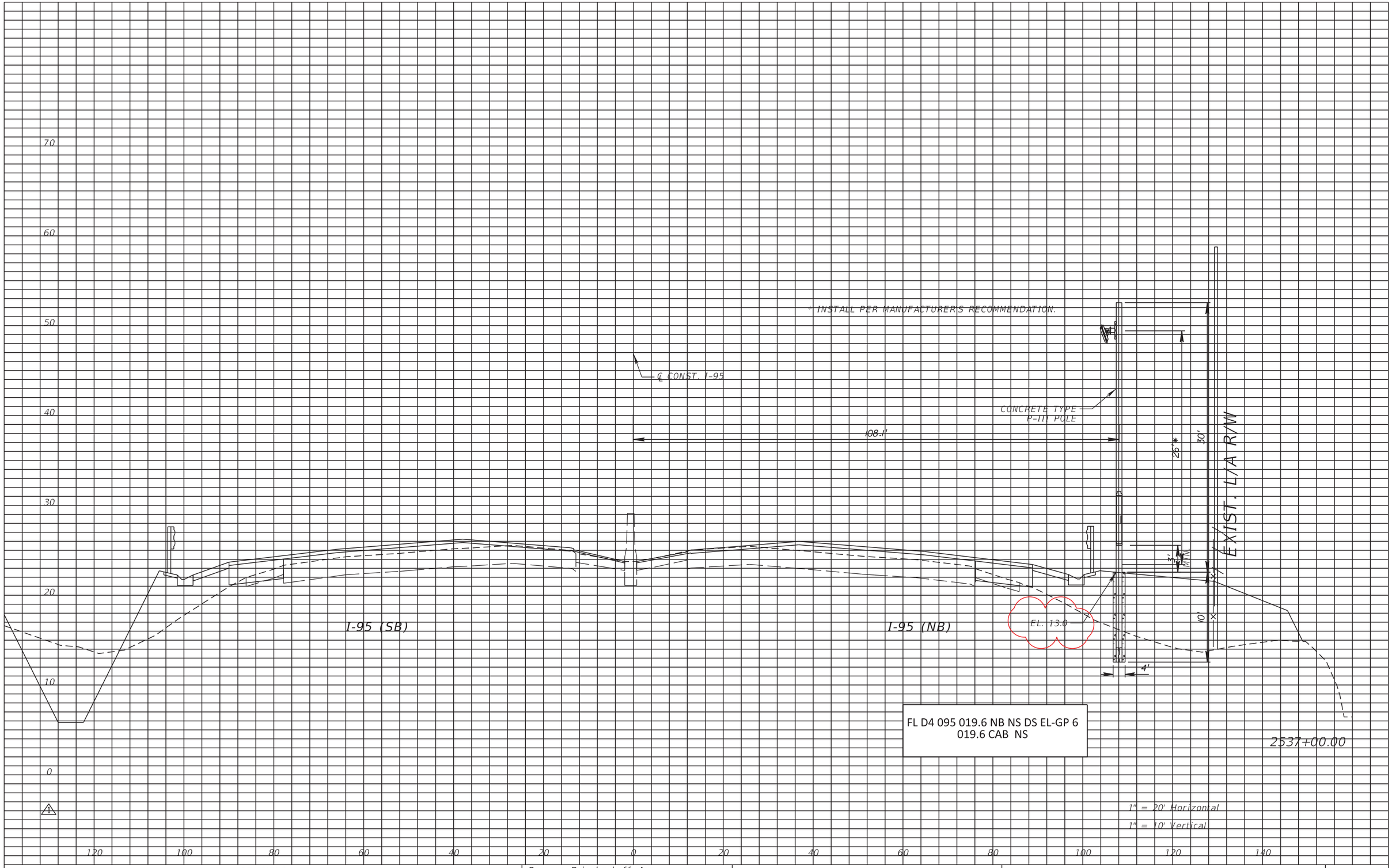
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-154



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 ADDED CROSS SECTION (MVDS POLE MOVED FROM 2541+60)		
9/13/19	AS-BUILTS REVISED ELEVATION		

Parsons Brinckerhoff, Inc.
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License No: 80987

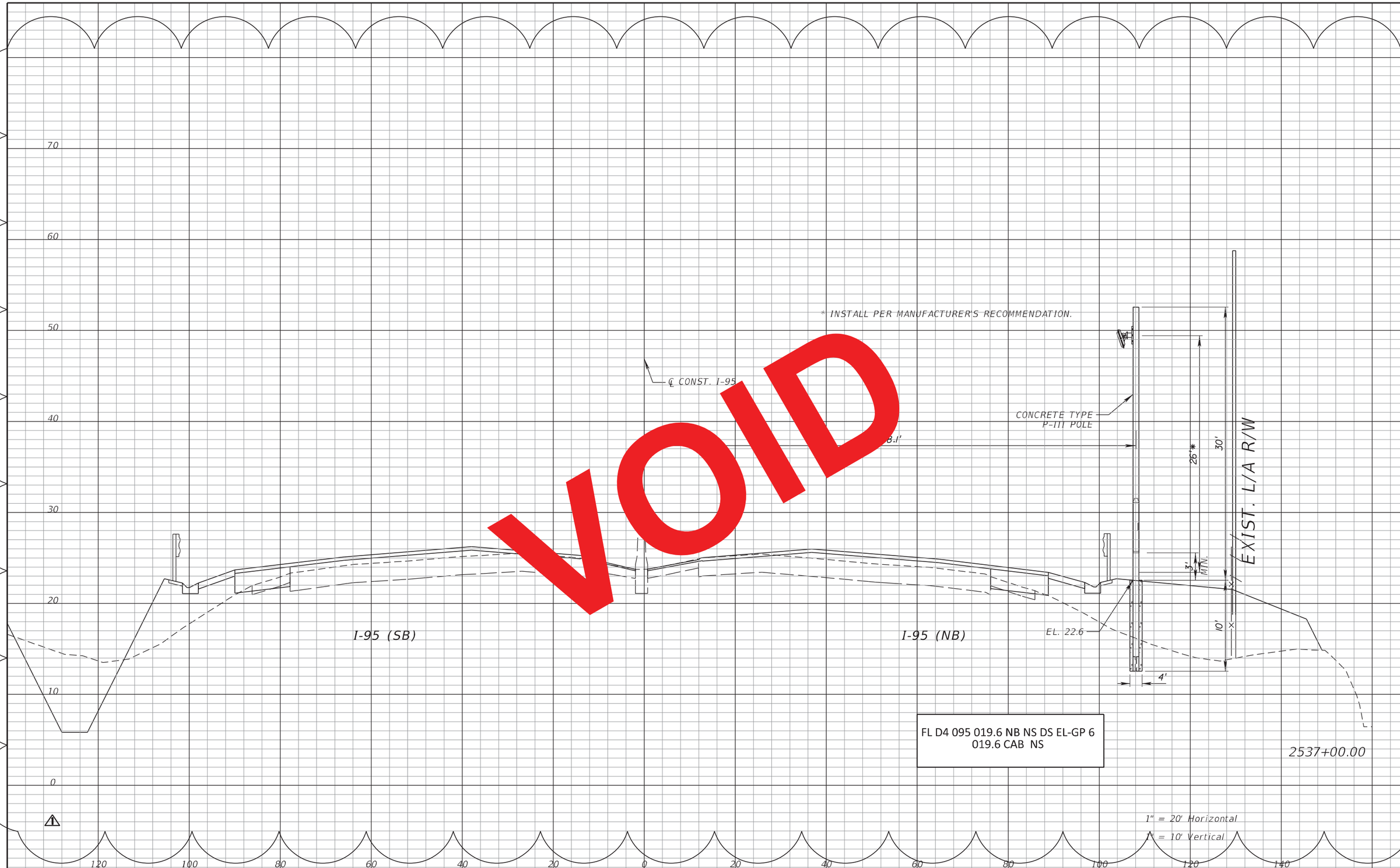
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-154A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID: 433108-5-52-01 CONTRACT: E4Q64 BY: (FDOT)
BY: (Stantec) PL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 ADDED CROSS SECTION (MVDS POLE MOVED FROM 2541+60)		

Parsons Brinckerhoff, Inc.
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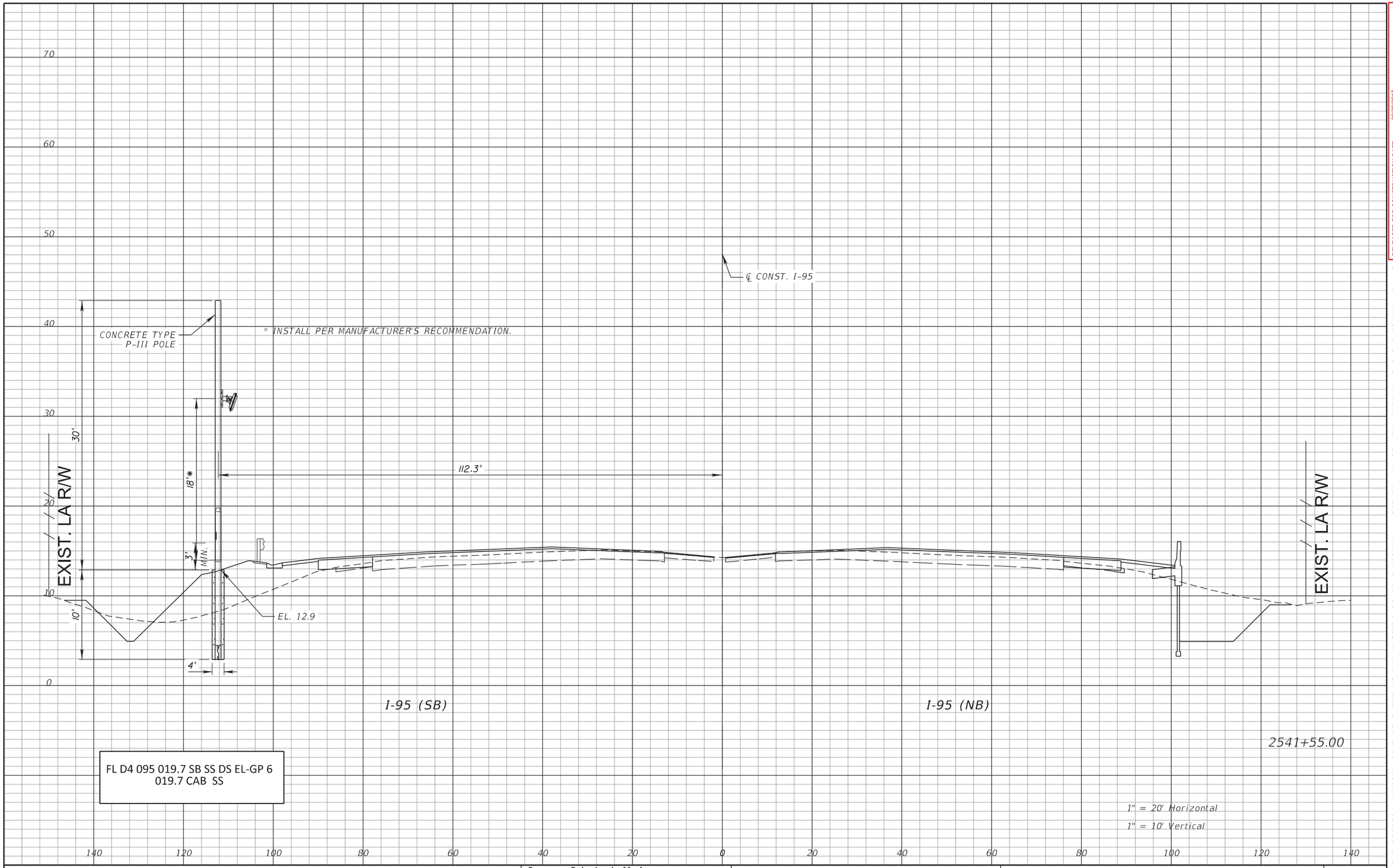
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-154A



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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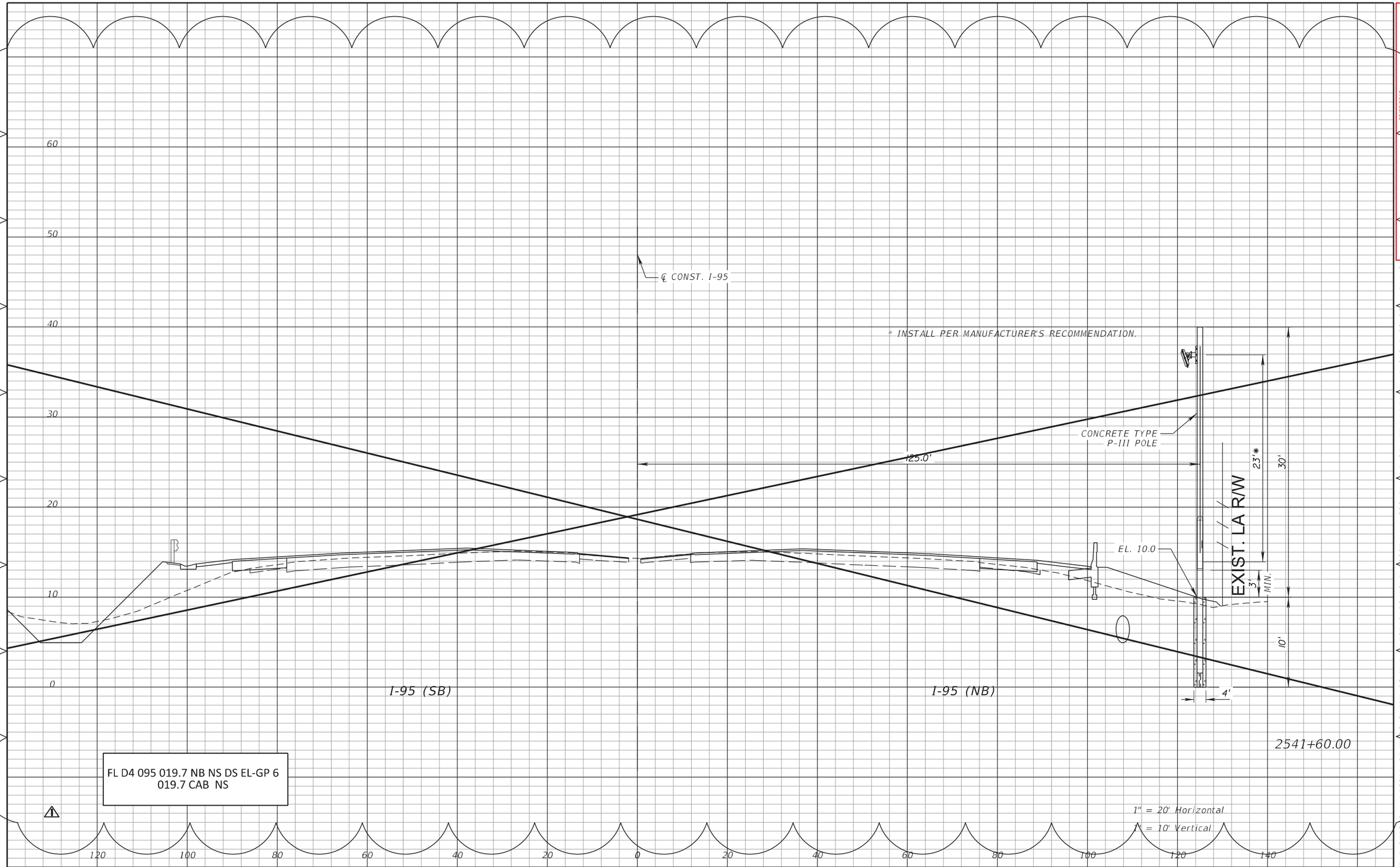
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-155



RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of primary design, quantities and dimensions, and fabrication and erection, shall remain with the contractor.
FPID: 433108-5-52-01 CONTRACT: T-5054 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠ DELETE CROSS SECTION (MVDS POLE MOVED TO 2537+00)		

Parsons Brinckerhoff, Inc.
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EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

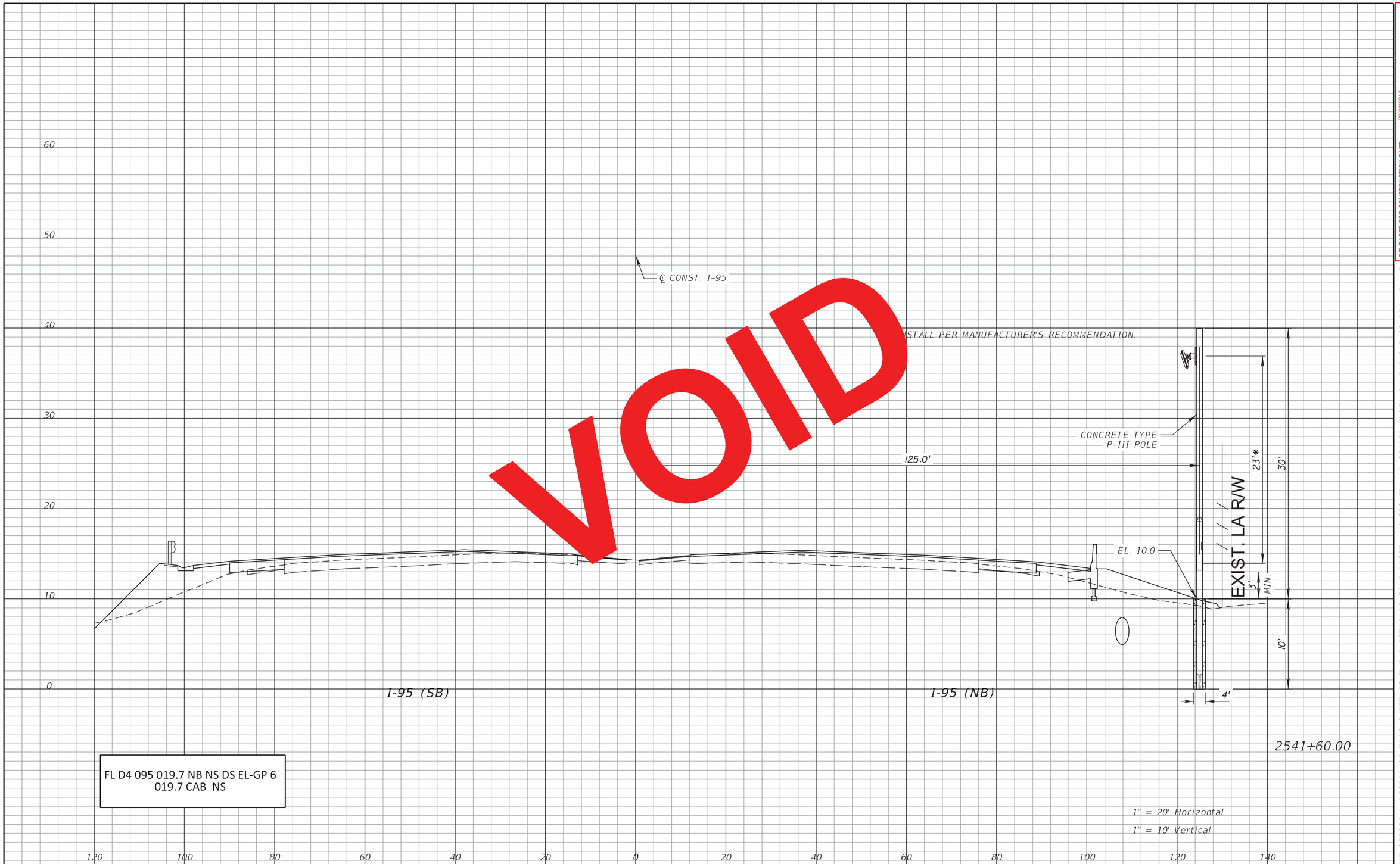
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-156

VOID



FL D4 095 019.7 NB NS DS EL-GP 6
019.7 CAB NS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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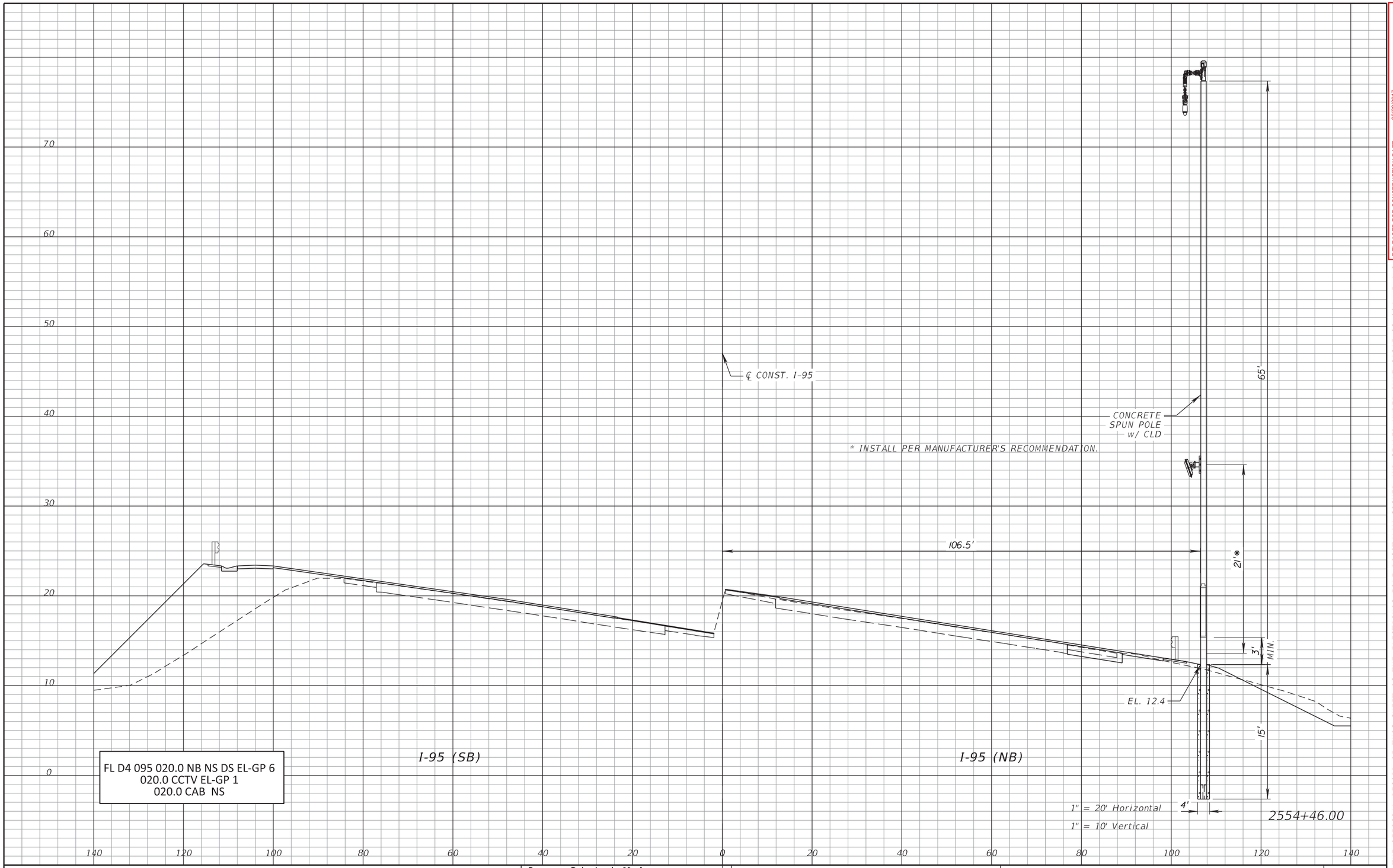
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-156



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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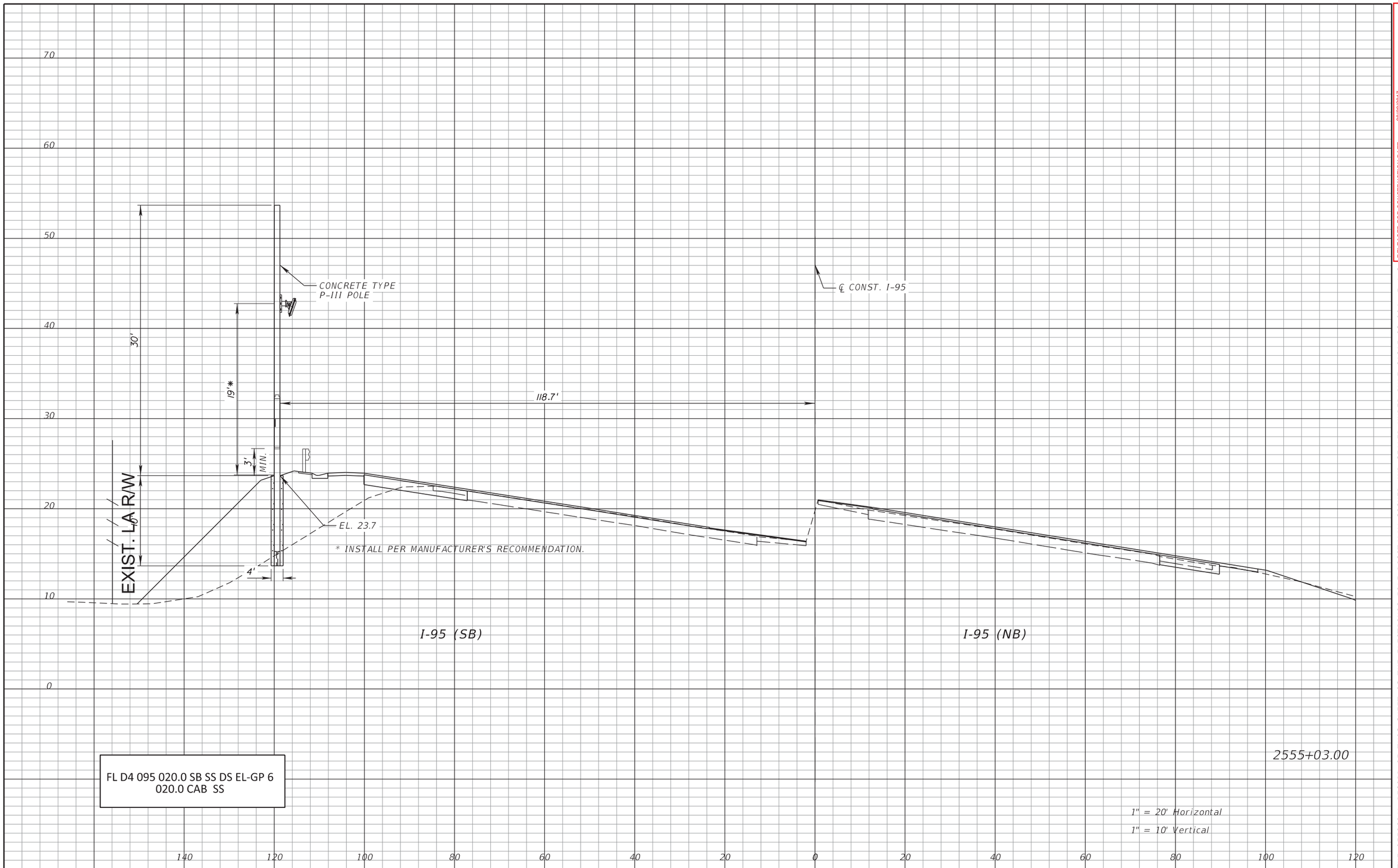
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-157



FL D4 095 020.0 SB SS DS EL-GP 6
020.0 CAB SS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-158

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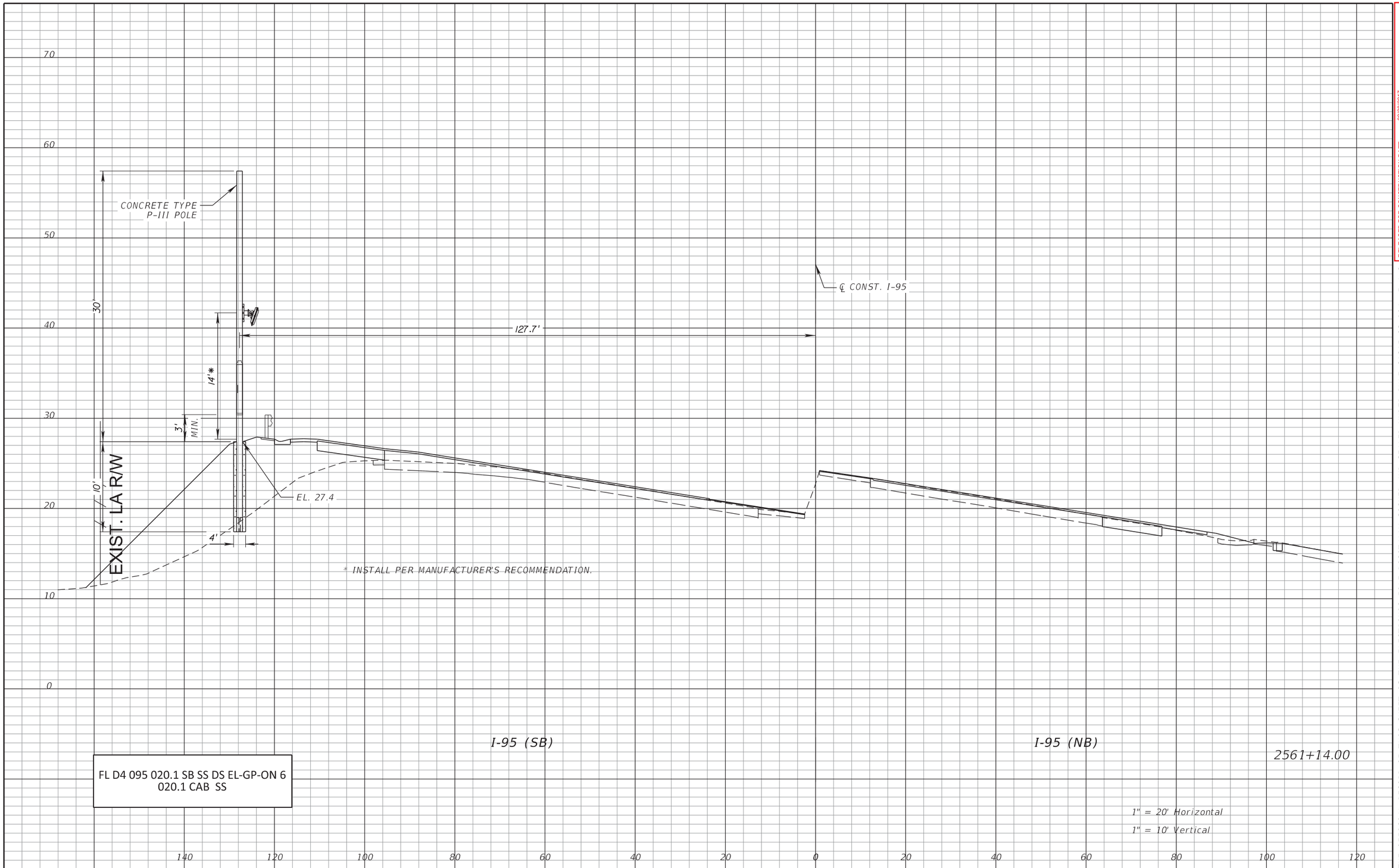

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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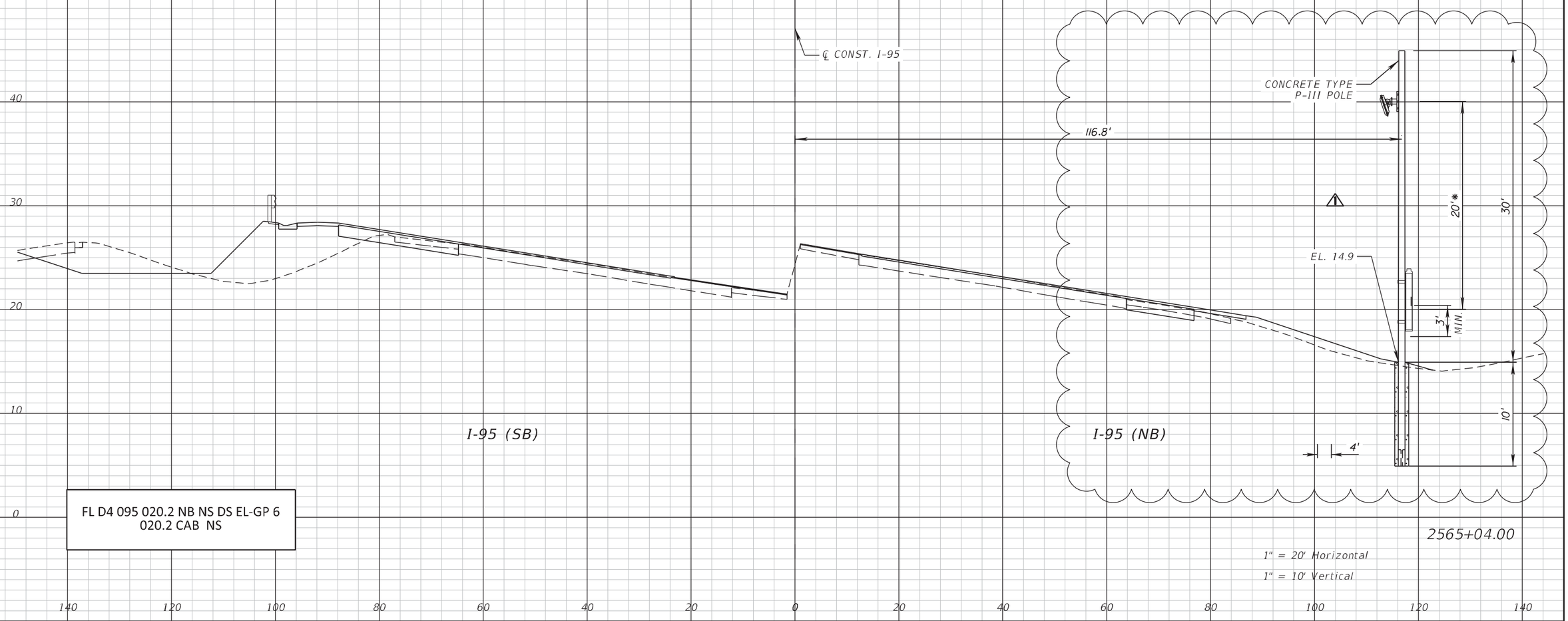
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-159

* INSTALL PER MANUFACTURER'S RECOMMENDATION.



FL D4 095 020.2 NB NS DS EL-GP 6
020.2 CAB NS

2565+04.00

1" = 20' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠ MOVED NVDS POLE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-160

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details shall remain with the contractor. Review does not authorize deviations from contract documents and does not relieve the contractor of responsibility for errors in shop drawings. Fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec) _____

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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70
60
50
40
30
20
10
0

INSTALL PE... MANUFACTURER'S RECOMMENDATION.

...ST. I-...

CONCRETE SPUN POLE w/ CLD

101.9'

30'

20'*

EL. 17.4

3' MIN.

10'

4'

I-95 (SB)

I-95 (NB)

FL D4 095 020.2 NB NS DS EL-GP 6
020.2 CAB NS

2565+04.00

1" = 20' Horizontal
1" = 10' Vertical

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-160

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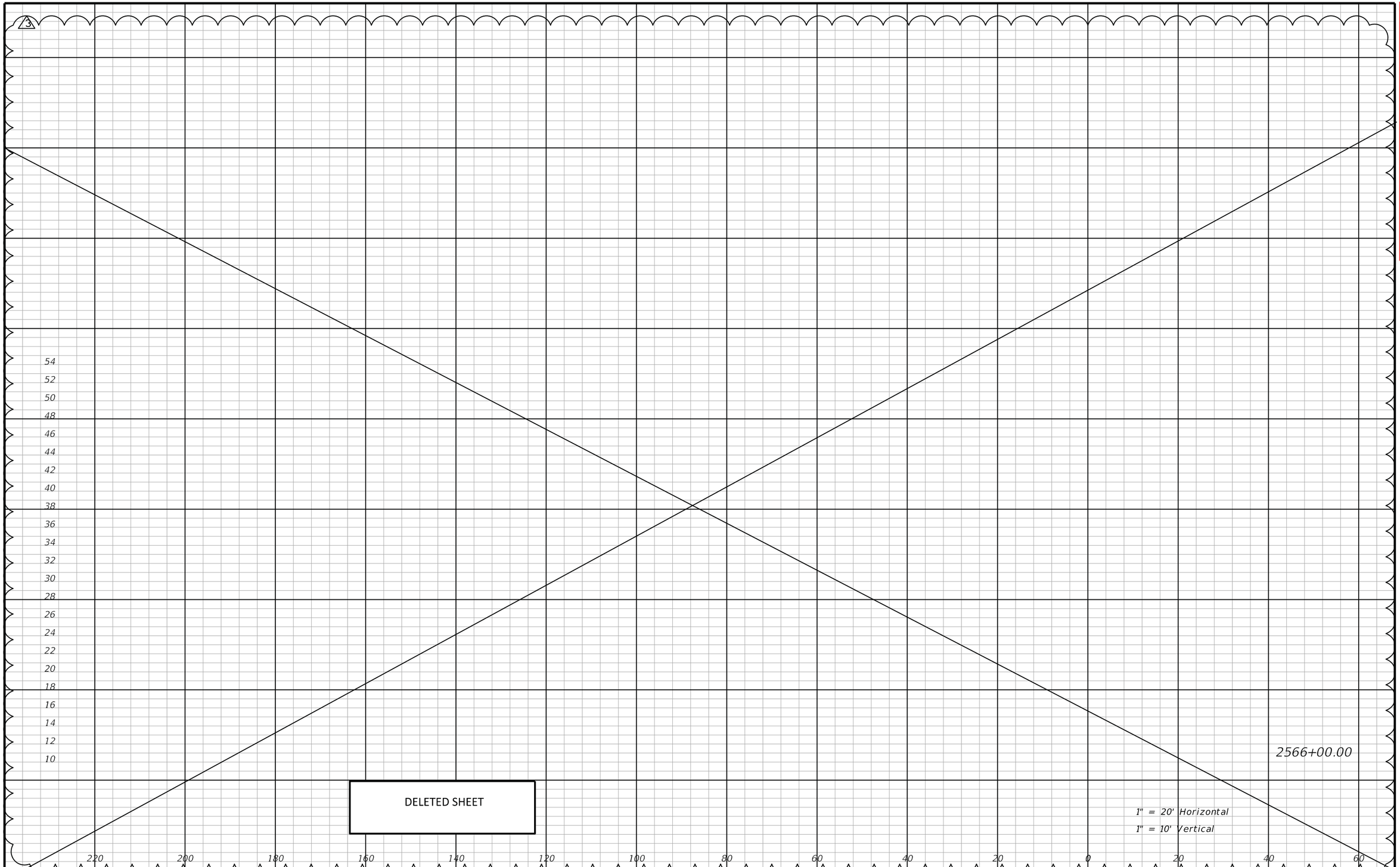

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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) DB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-161

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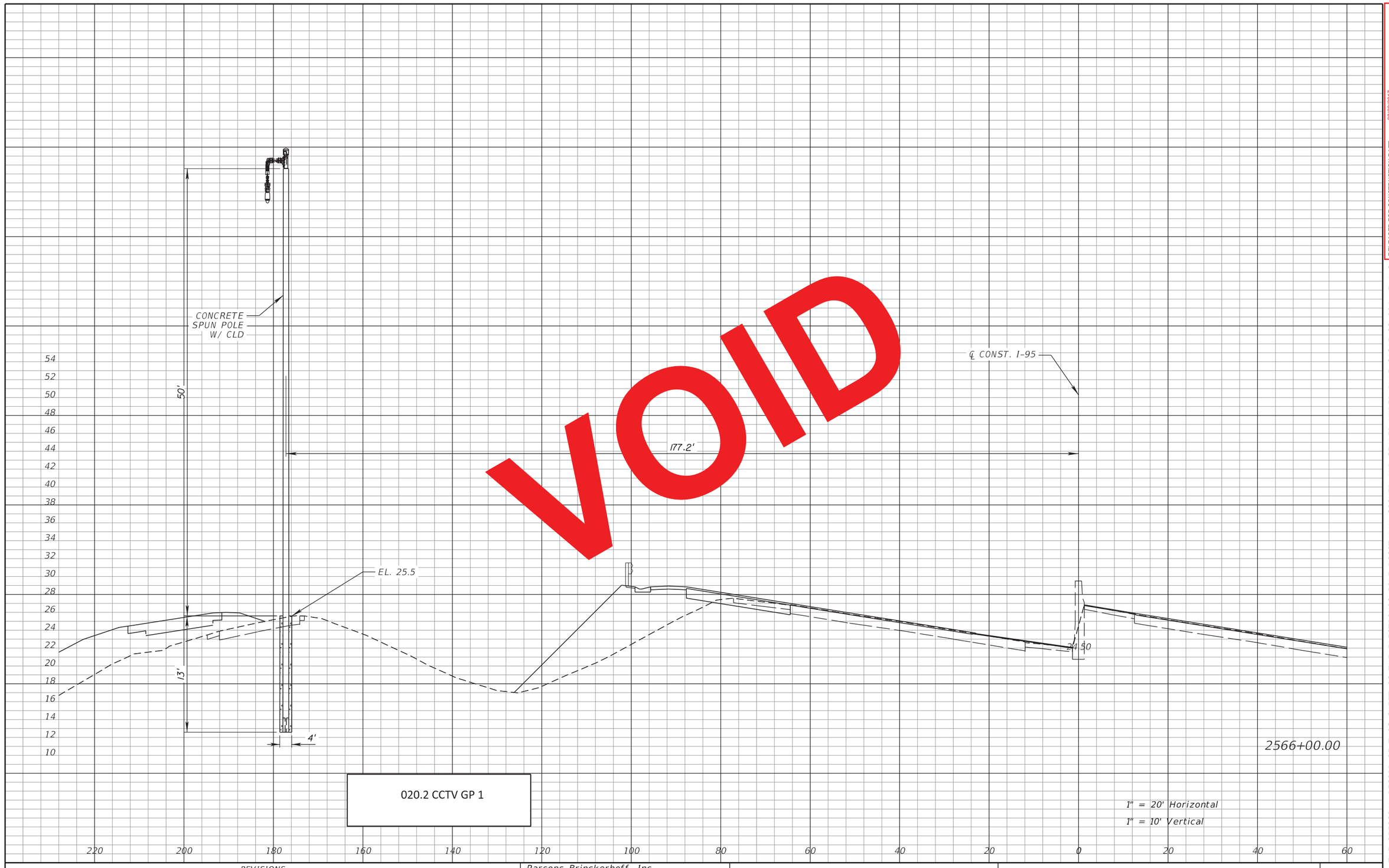

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
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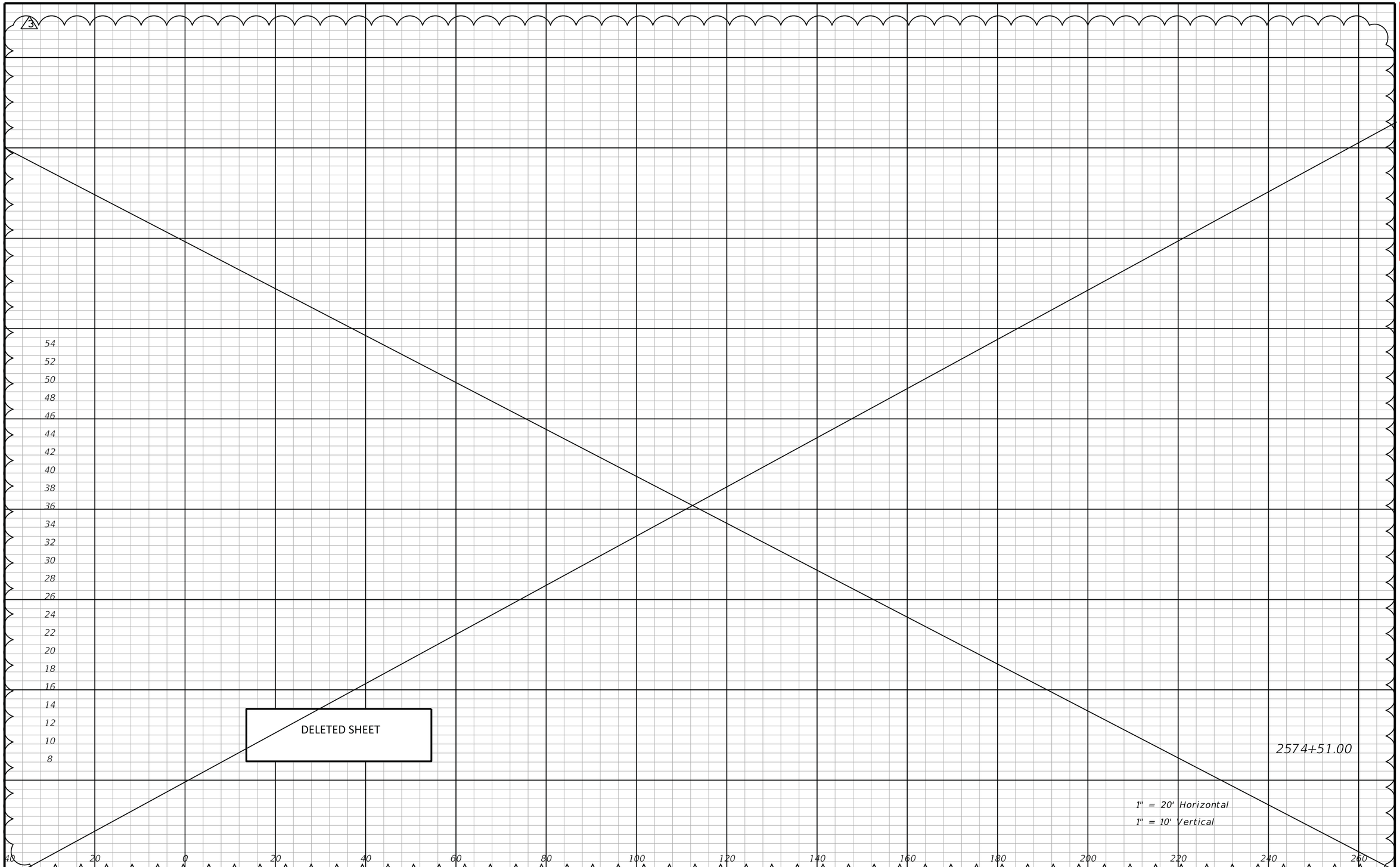
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-161



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-162

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

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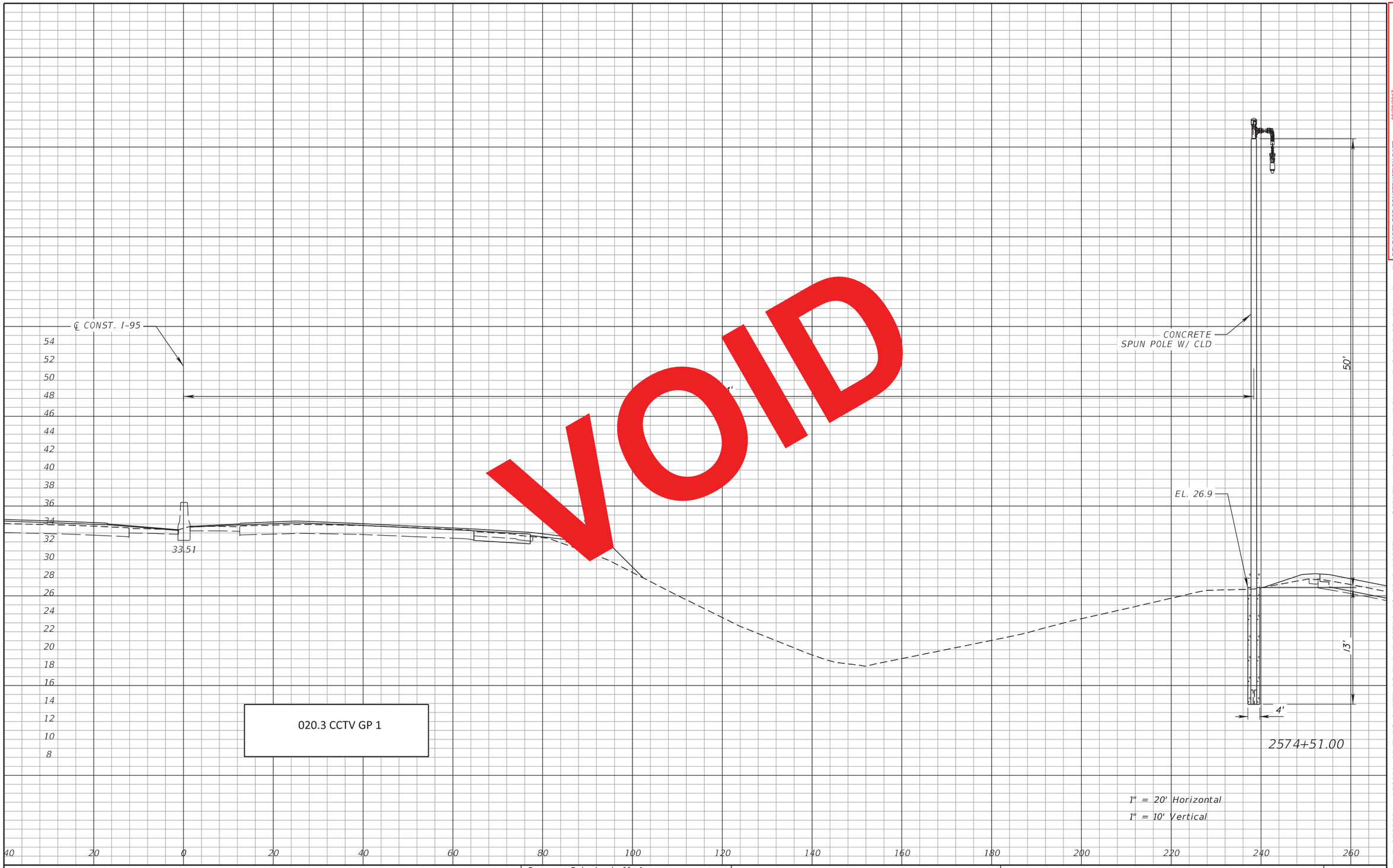

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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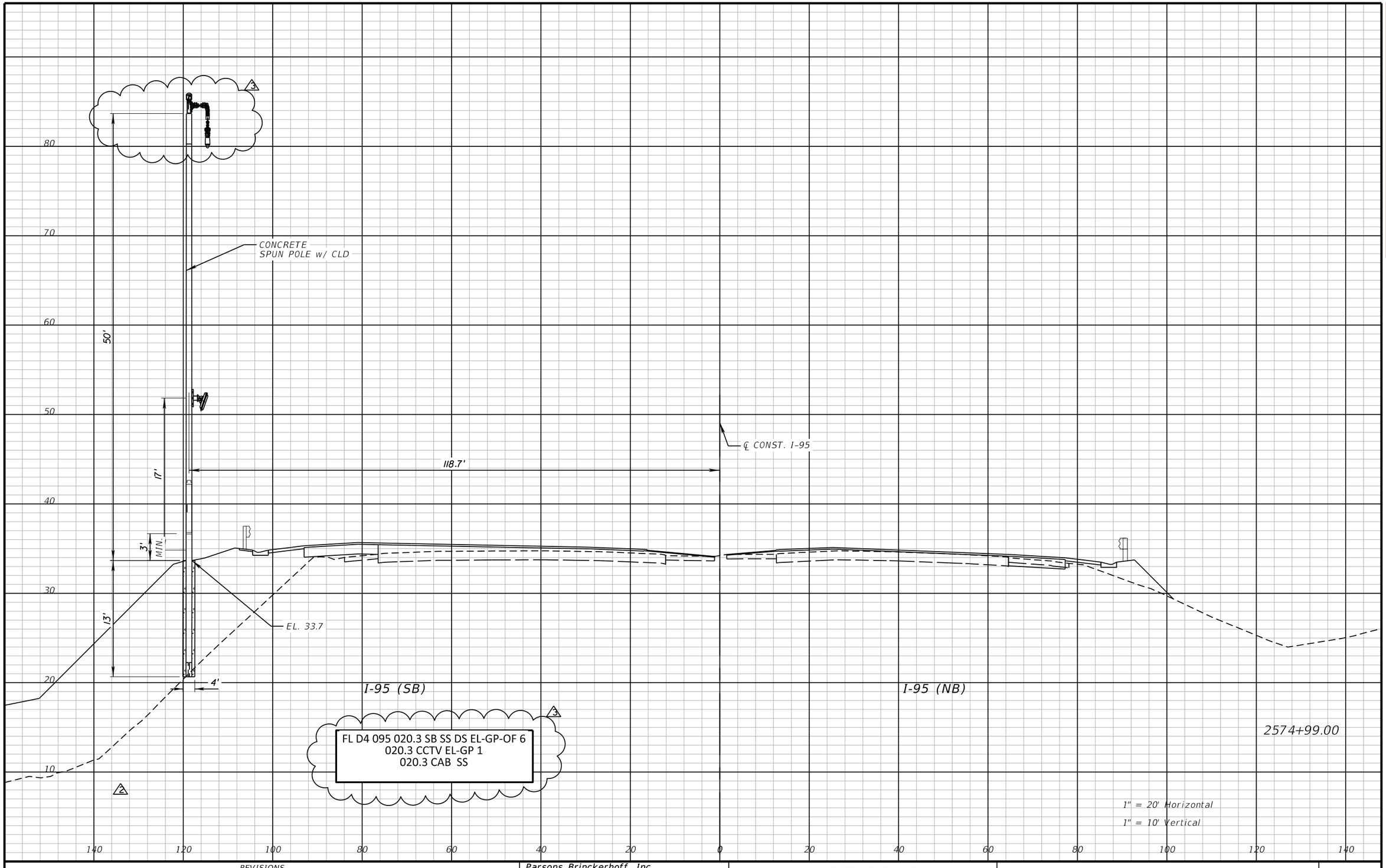
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-162



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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) JB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED D-CCTV TO EXISTING POLE		
02/01/19	3 ADDED D-CCTV TO EXISTING POLE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-163

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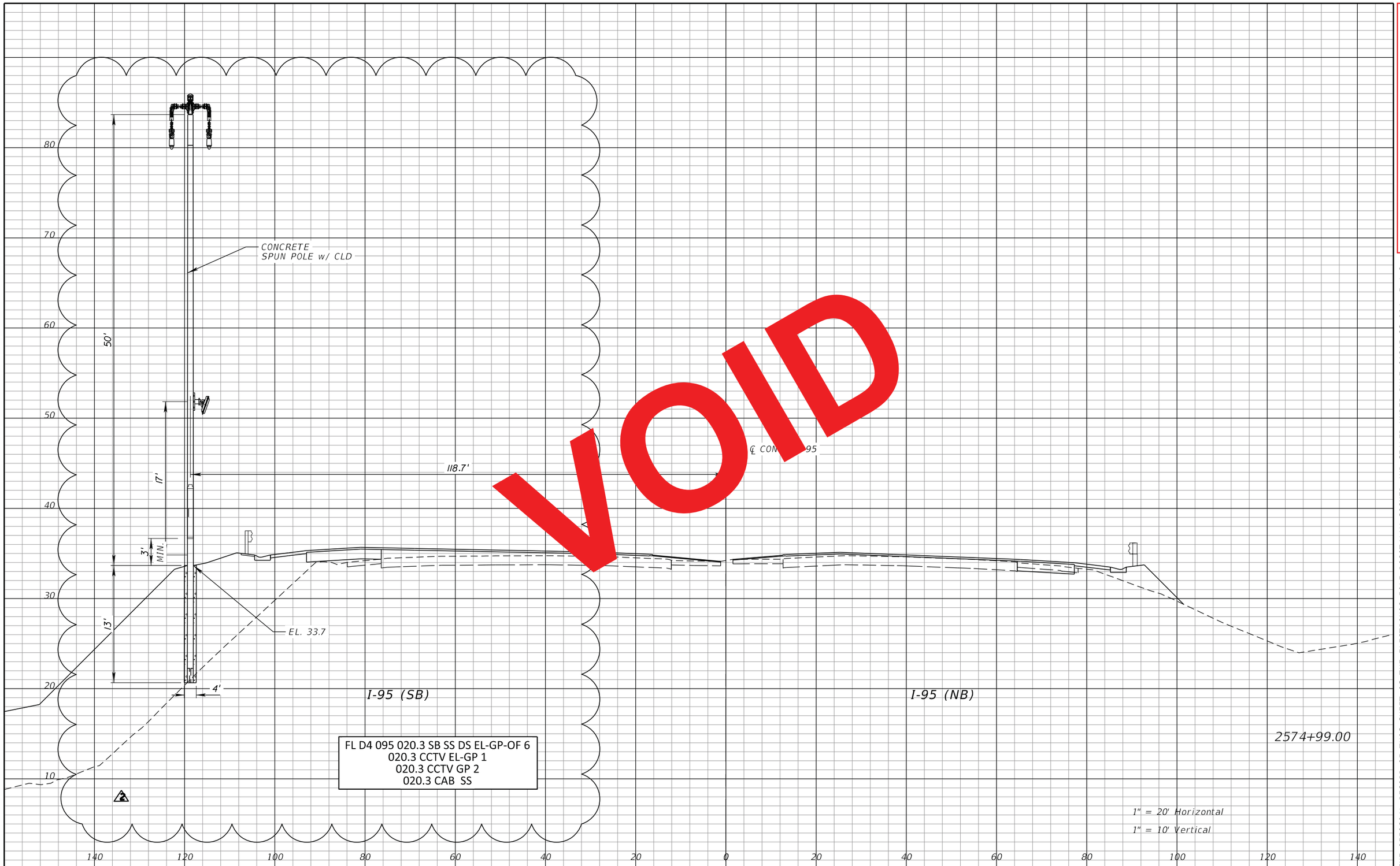

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED D-CCTV TO EXISTING POLE		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-163

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FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) JB

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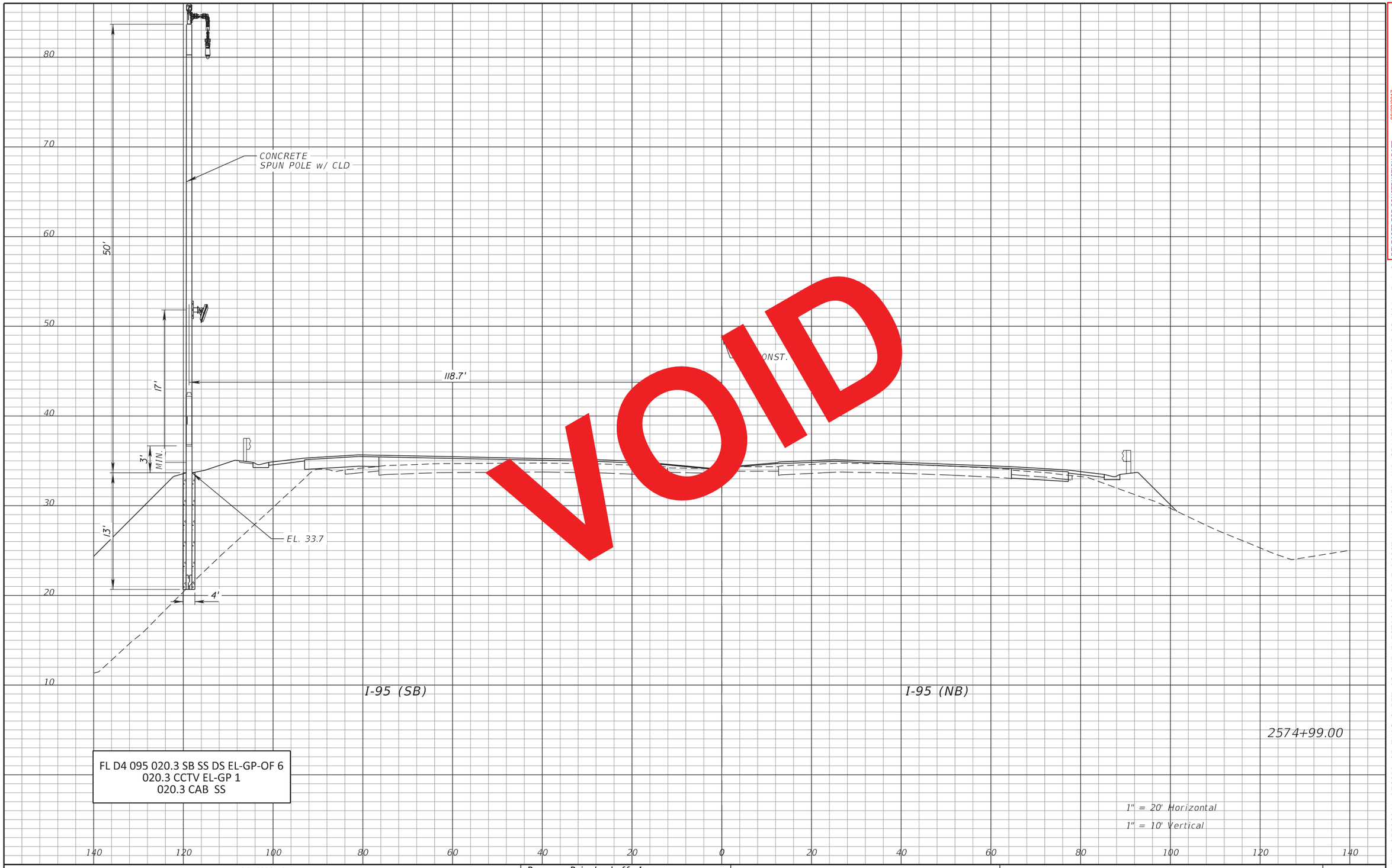

VOID

FL D4 095 020.3 SB SS DS EL-GP-OF 6
020.3 CCTV EL-GP 1
020.3 CAB SS

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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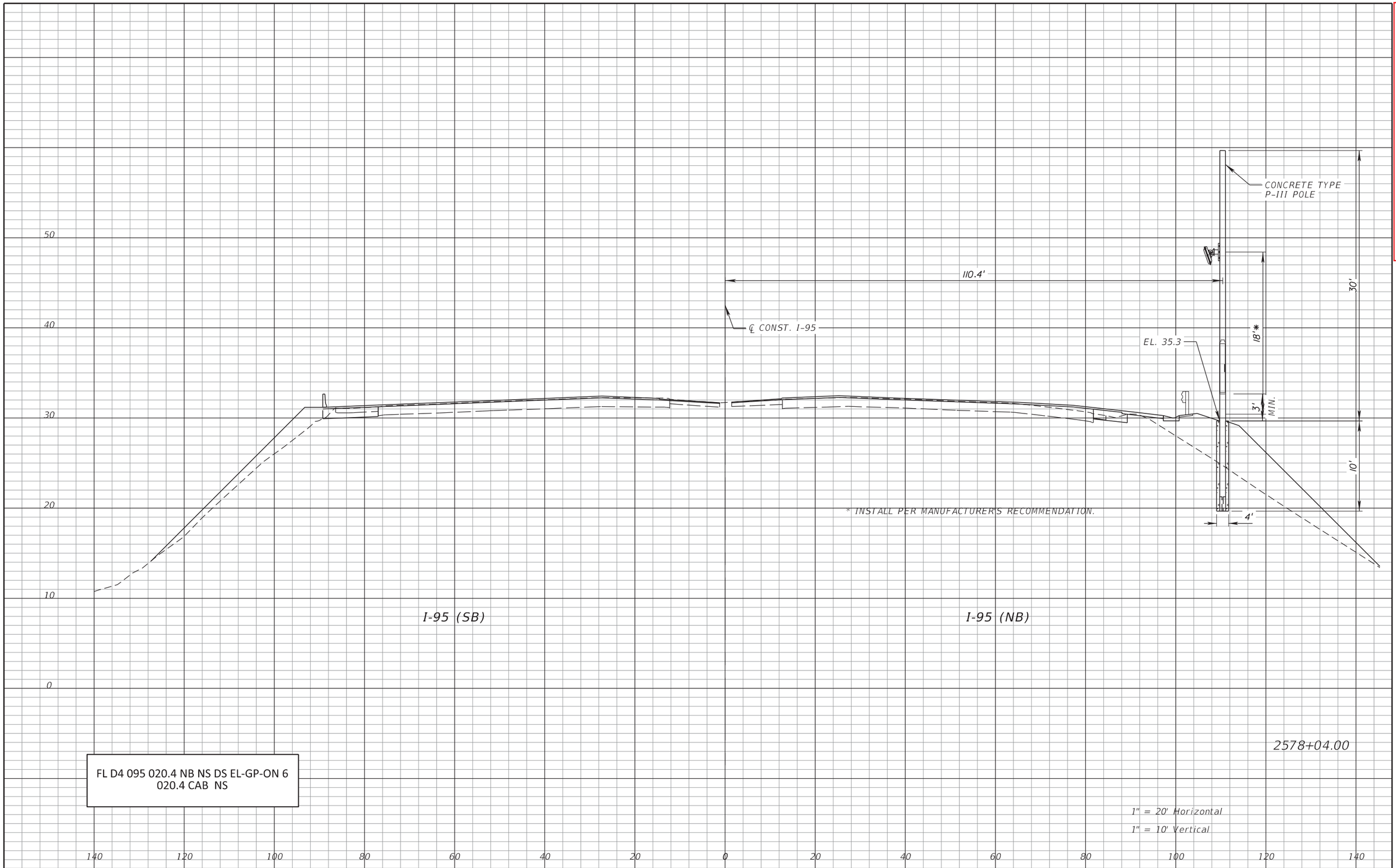
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-163



FL D4 095 020.4 NB NS DS EL-GP-ON 6
020.4 CAB NS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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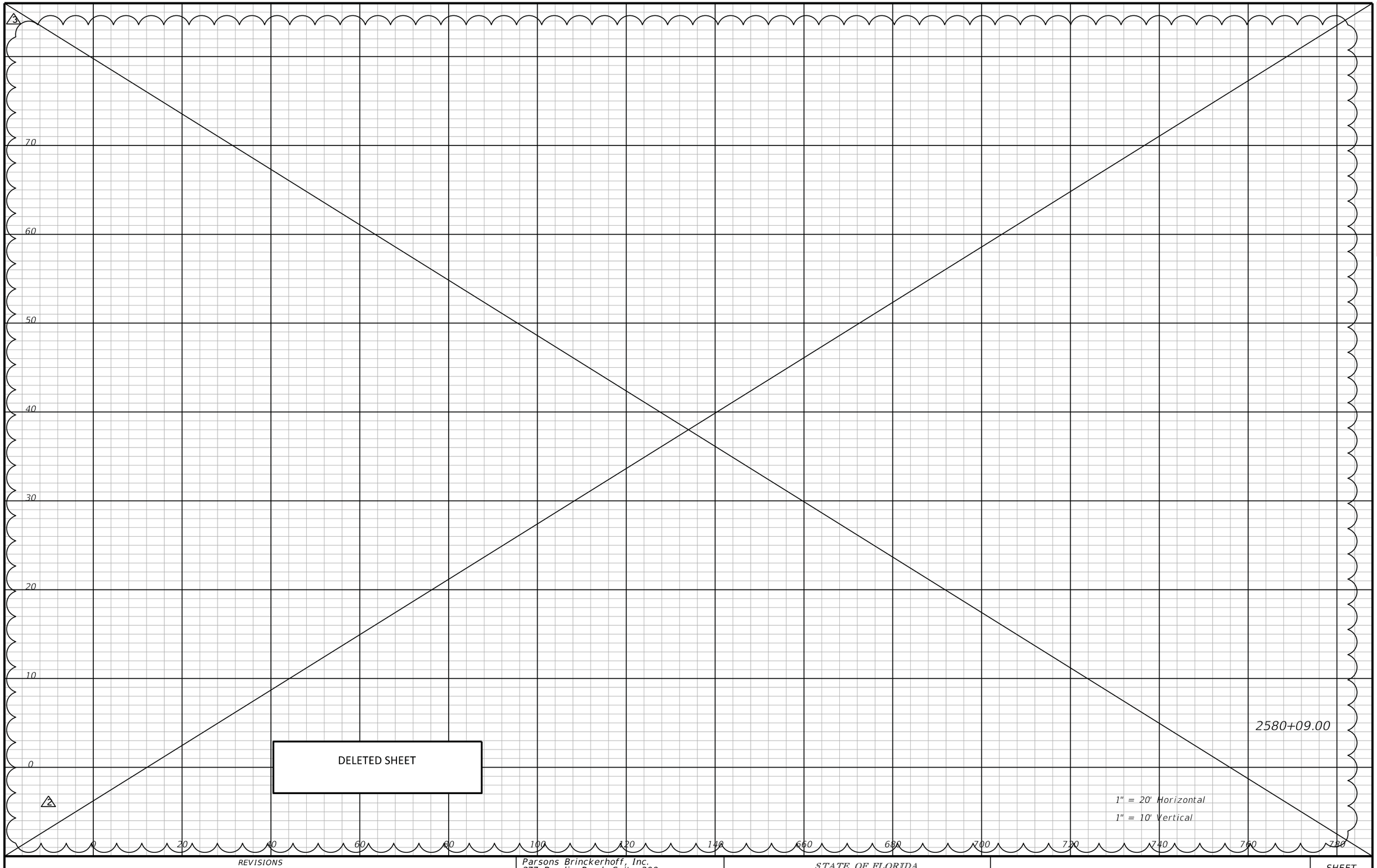
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-164



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED CROSS SECTION FOR NEW D-CCTV POLE		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-164A

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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) DB

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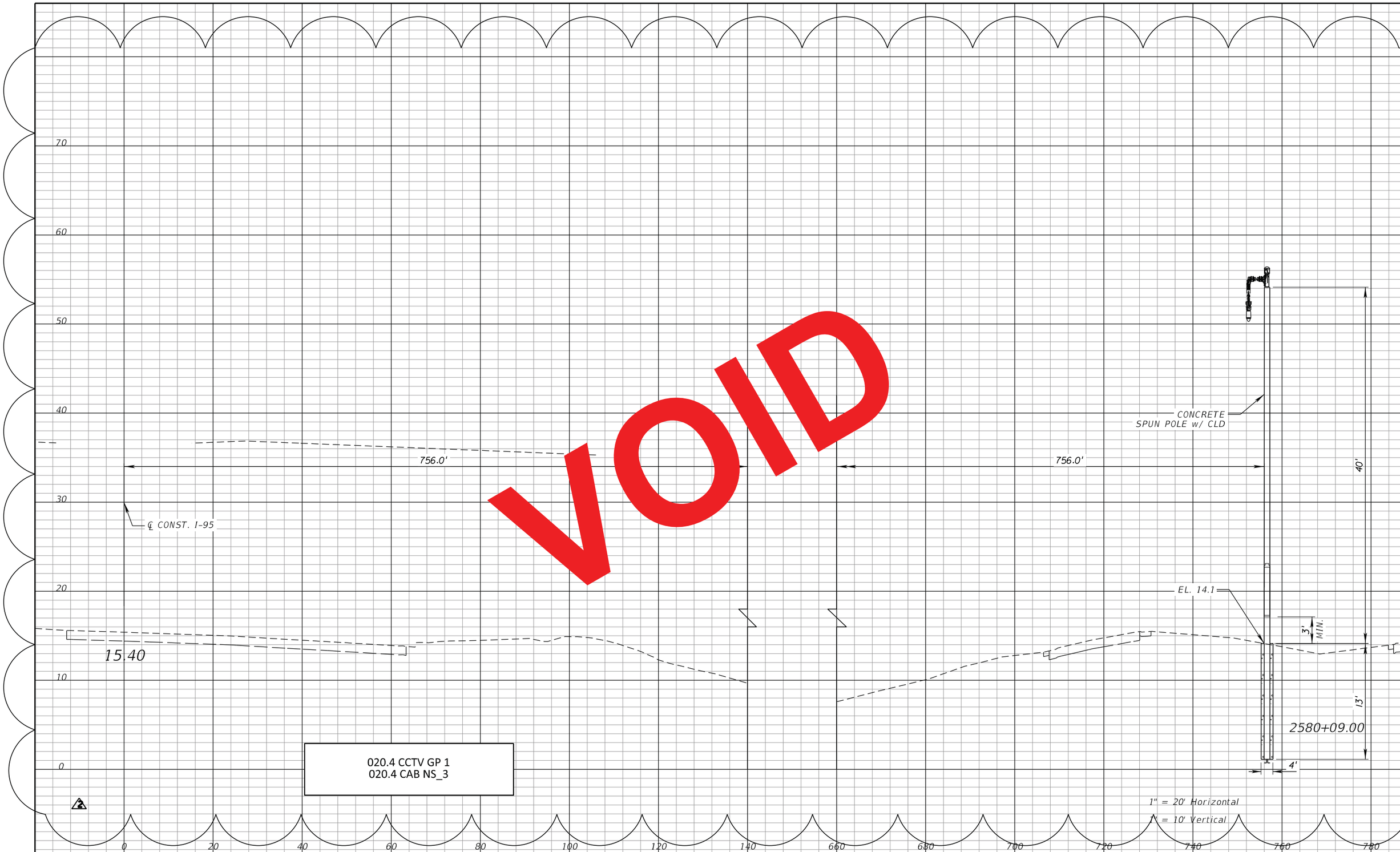

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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Reviewed for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
PID: 433108-5-52-01 CONTRACT: E4Q64
BY: (Stantec) JB BY: (FDOT) 03

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED CROSS SECTION FOR NEW D-CCTV POLE		

Parsons Brinckerhoff, Inc.
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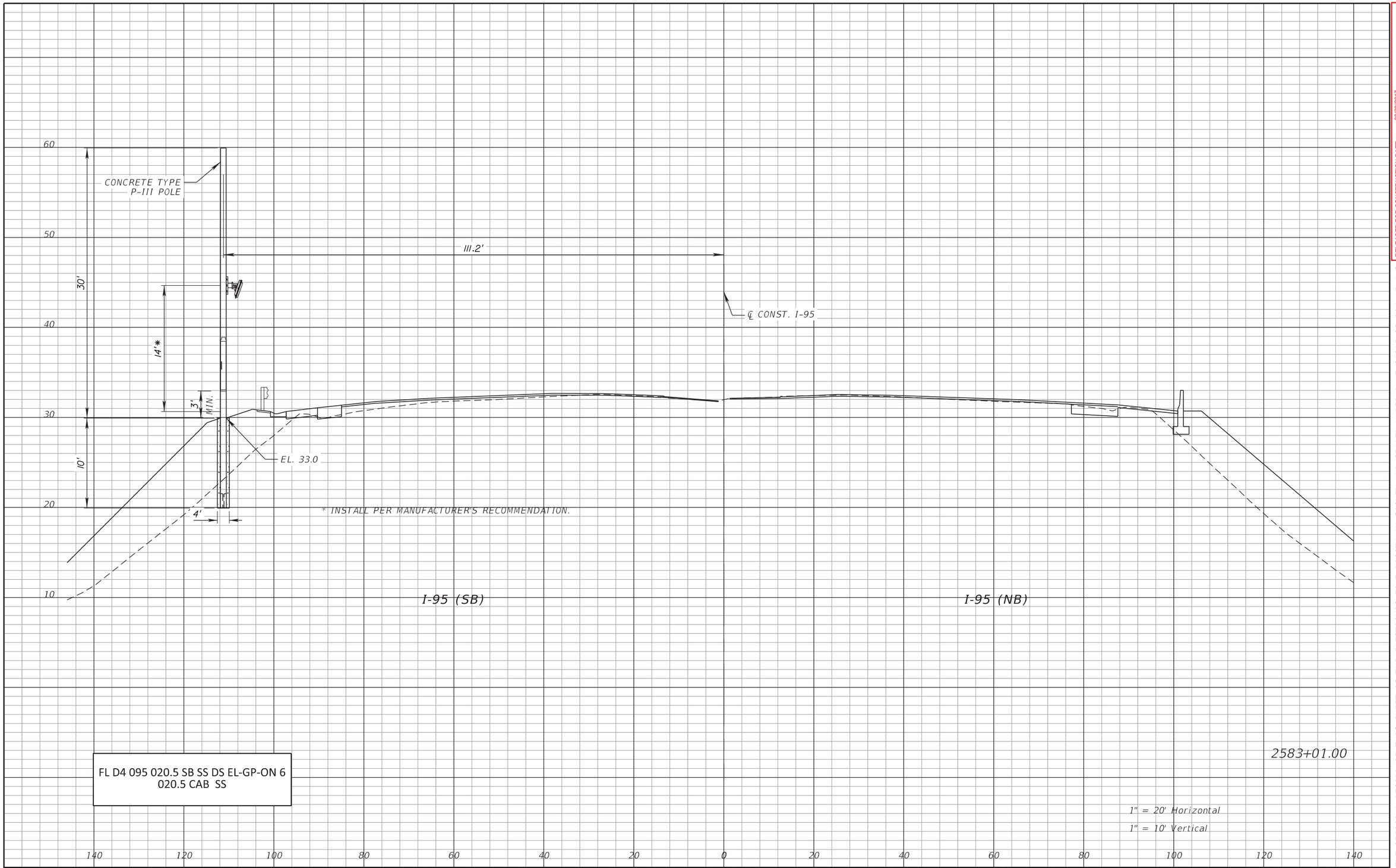
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-164A



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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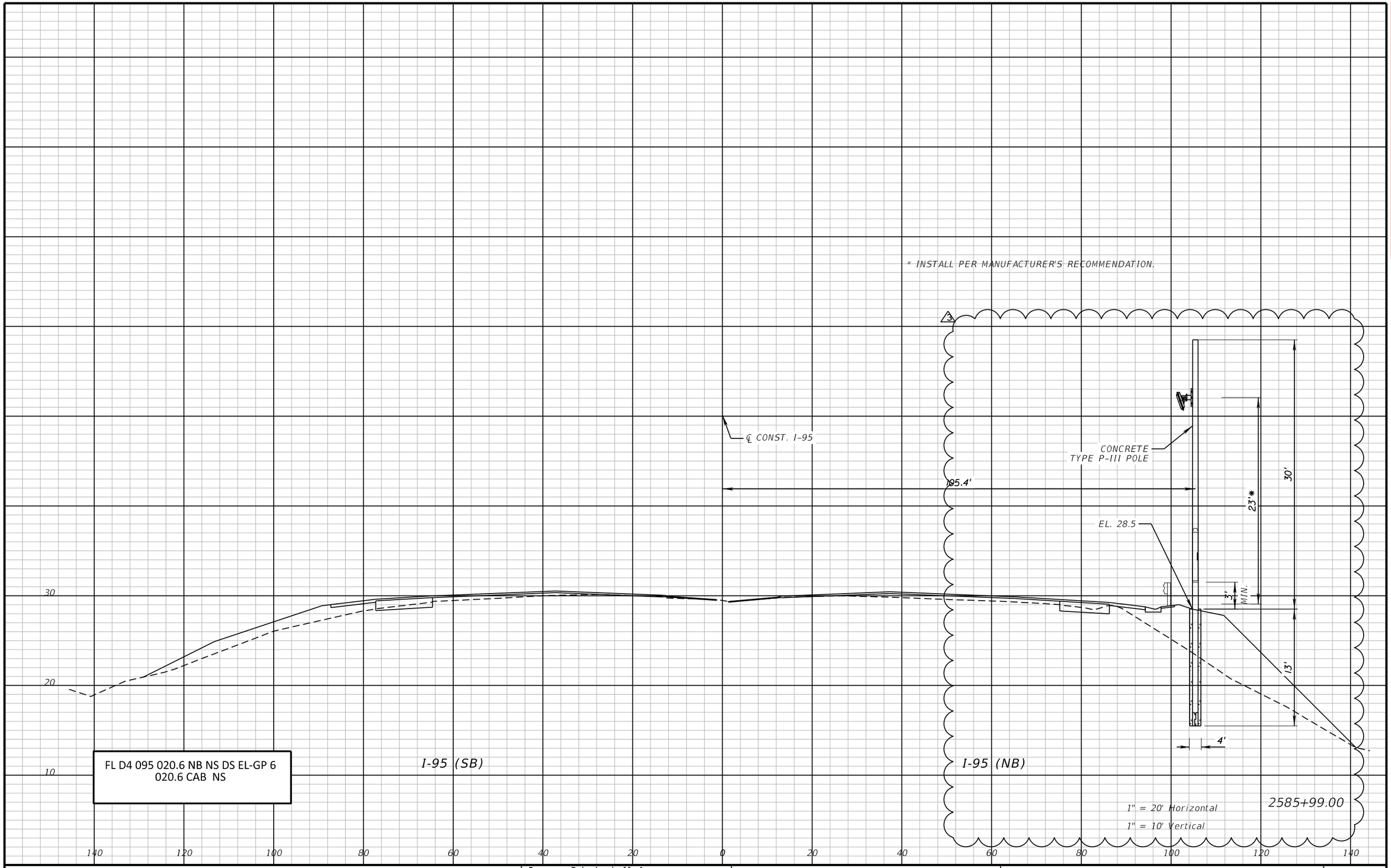
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-165



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-166

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

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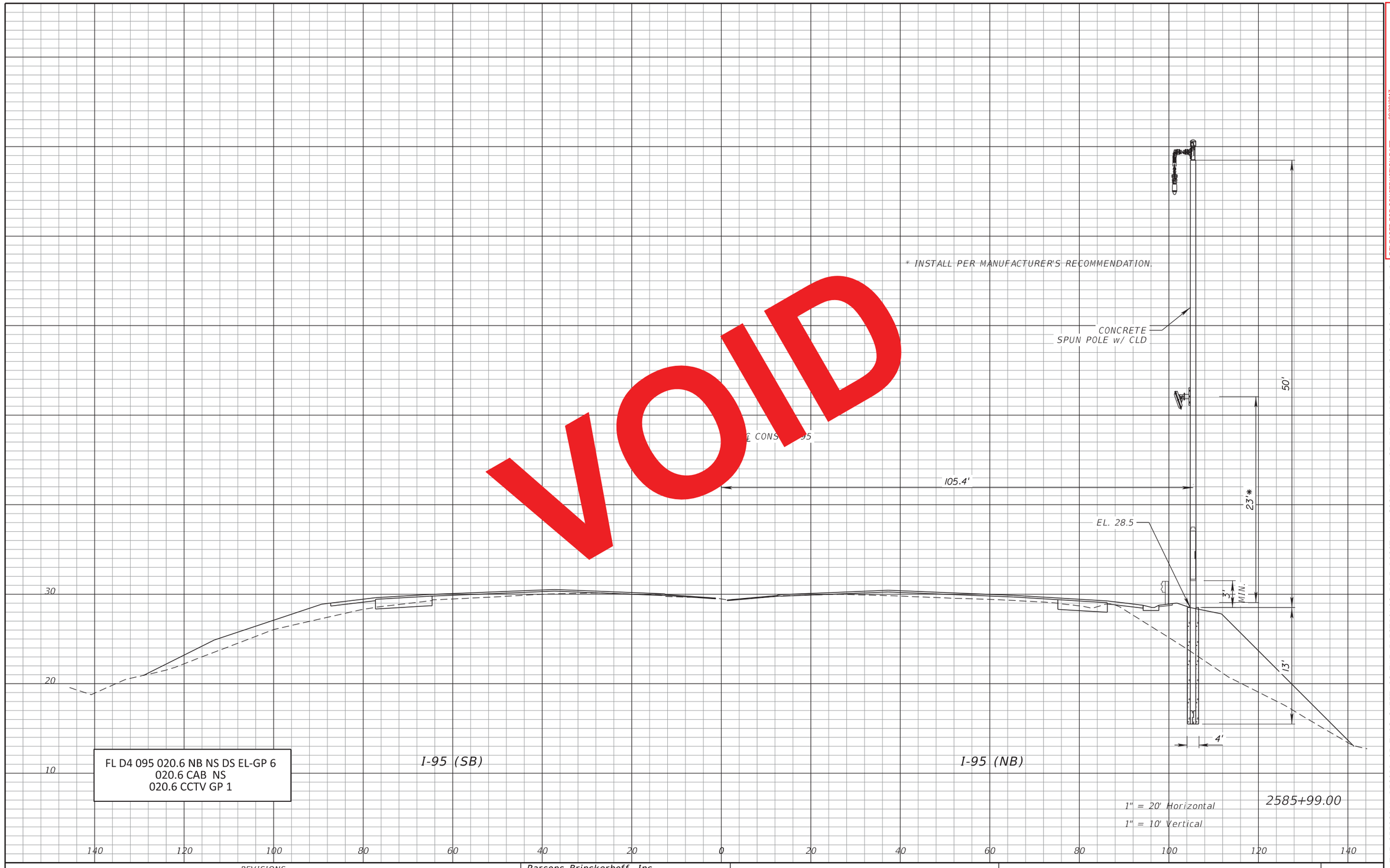
VOID

* INSTALL PER MANUFACTURER'S RECOMMENDATION.



FL D4 095 020.6 NB NS DS EL-GP 6
020.6 CAB NS
020.6 CCTV GP 1

I-95 (SB)

I-95 (NB)

1" = 20' Horizontal
1" = 10' Vertical

2585+99.00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-166

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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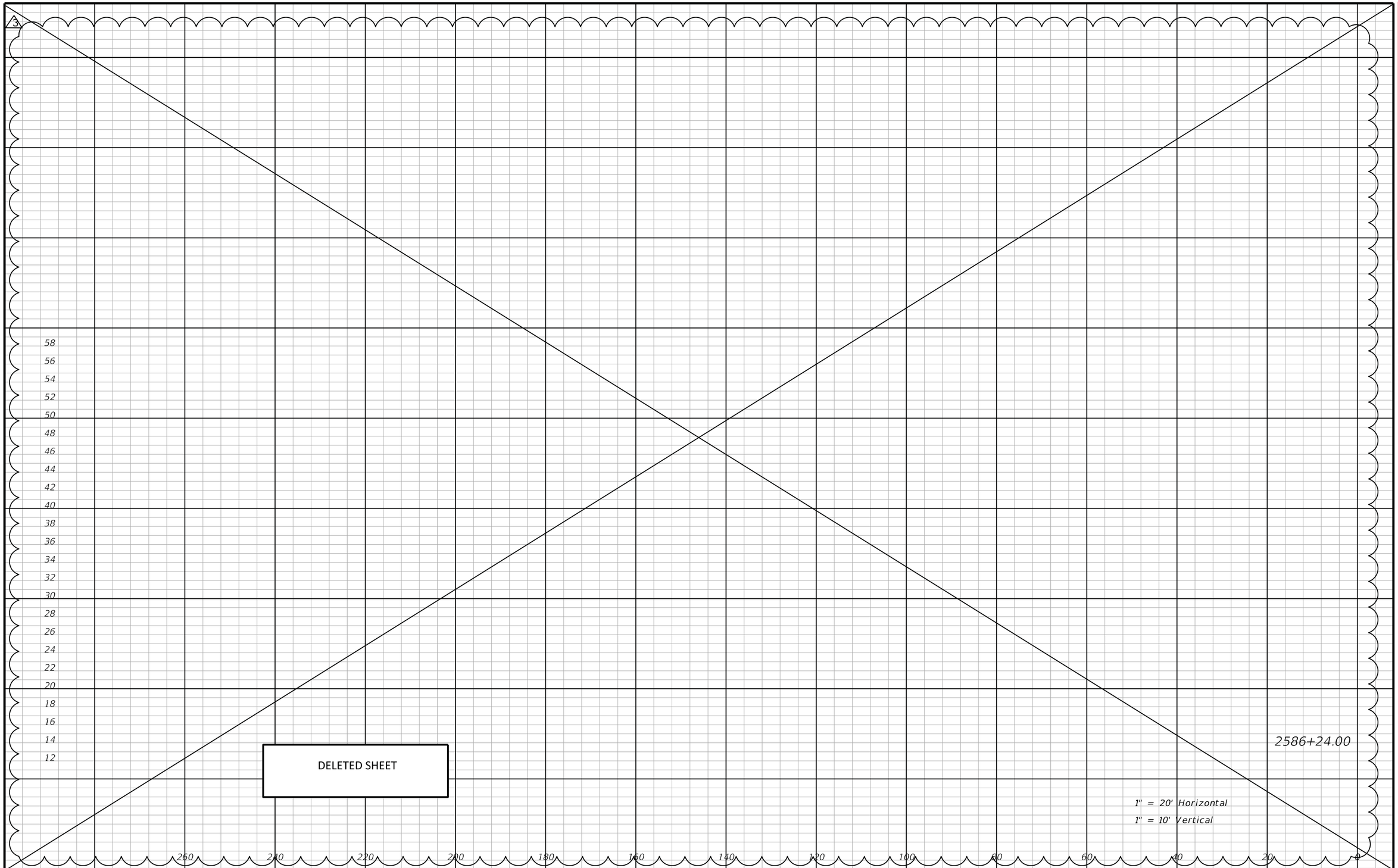

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-167

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) DS

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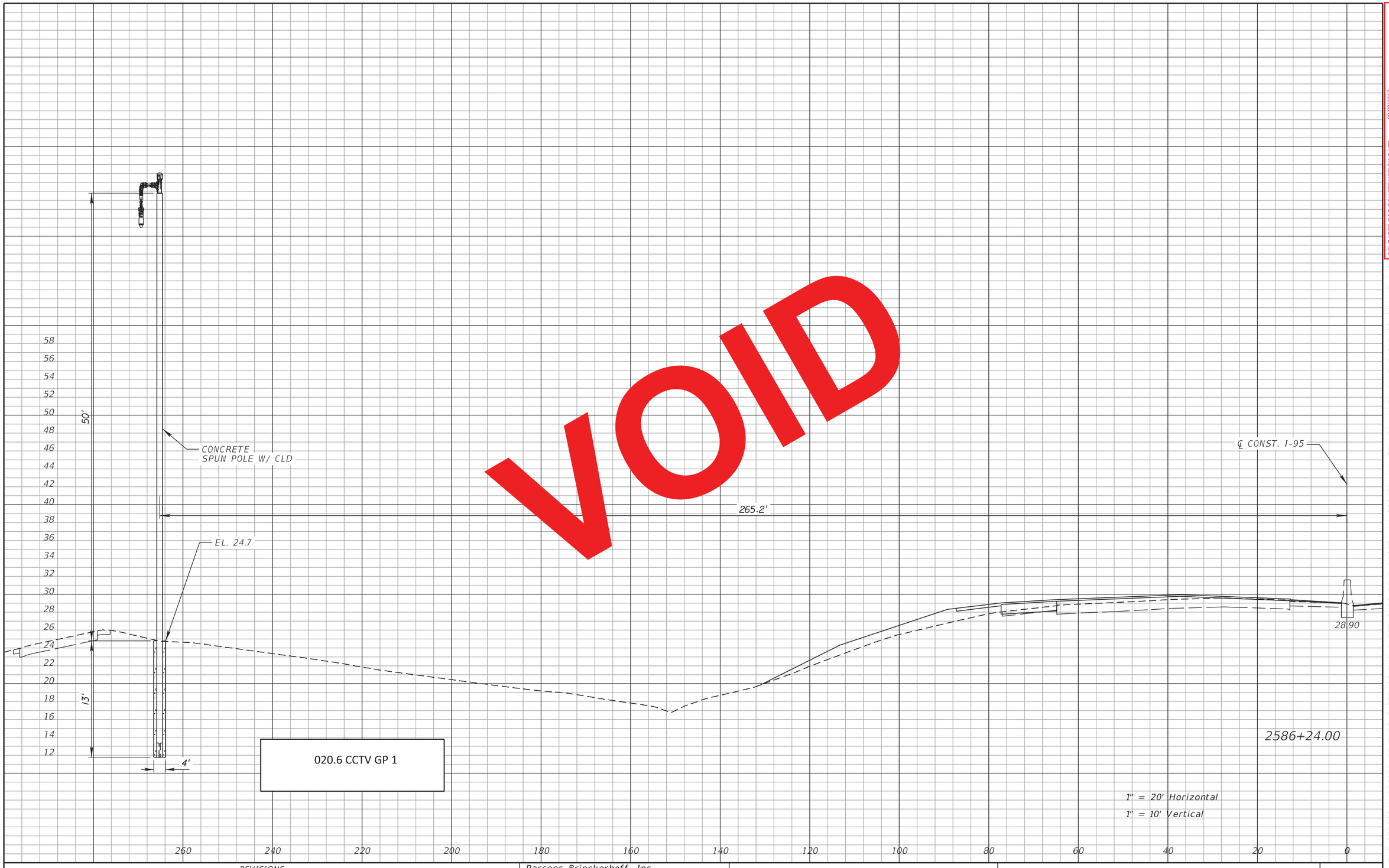

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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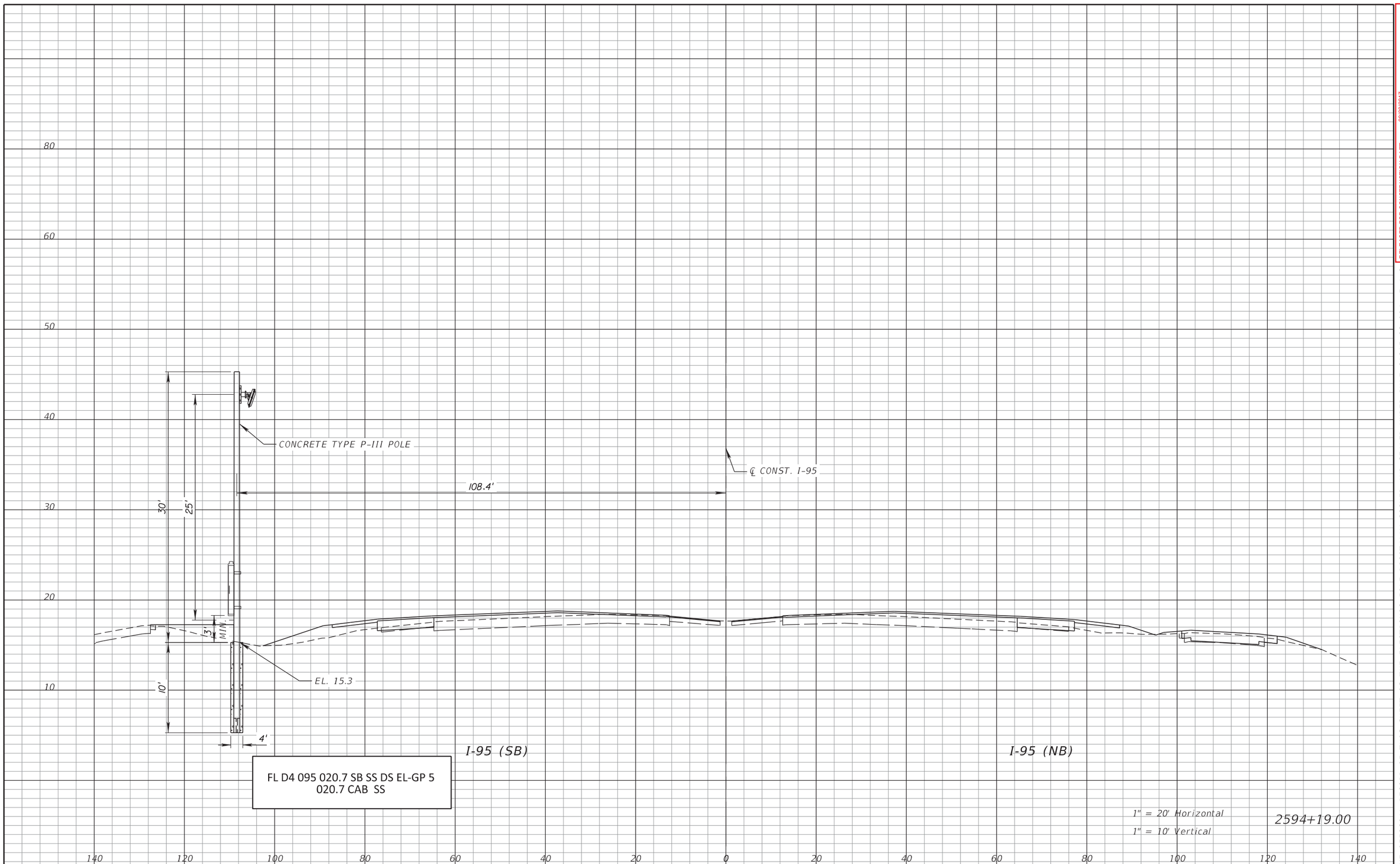
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-167



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-168

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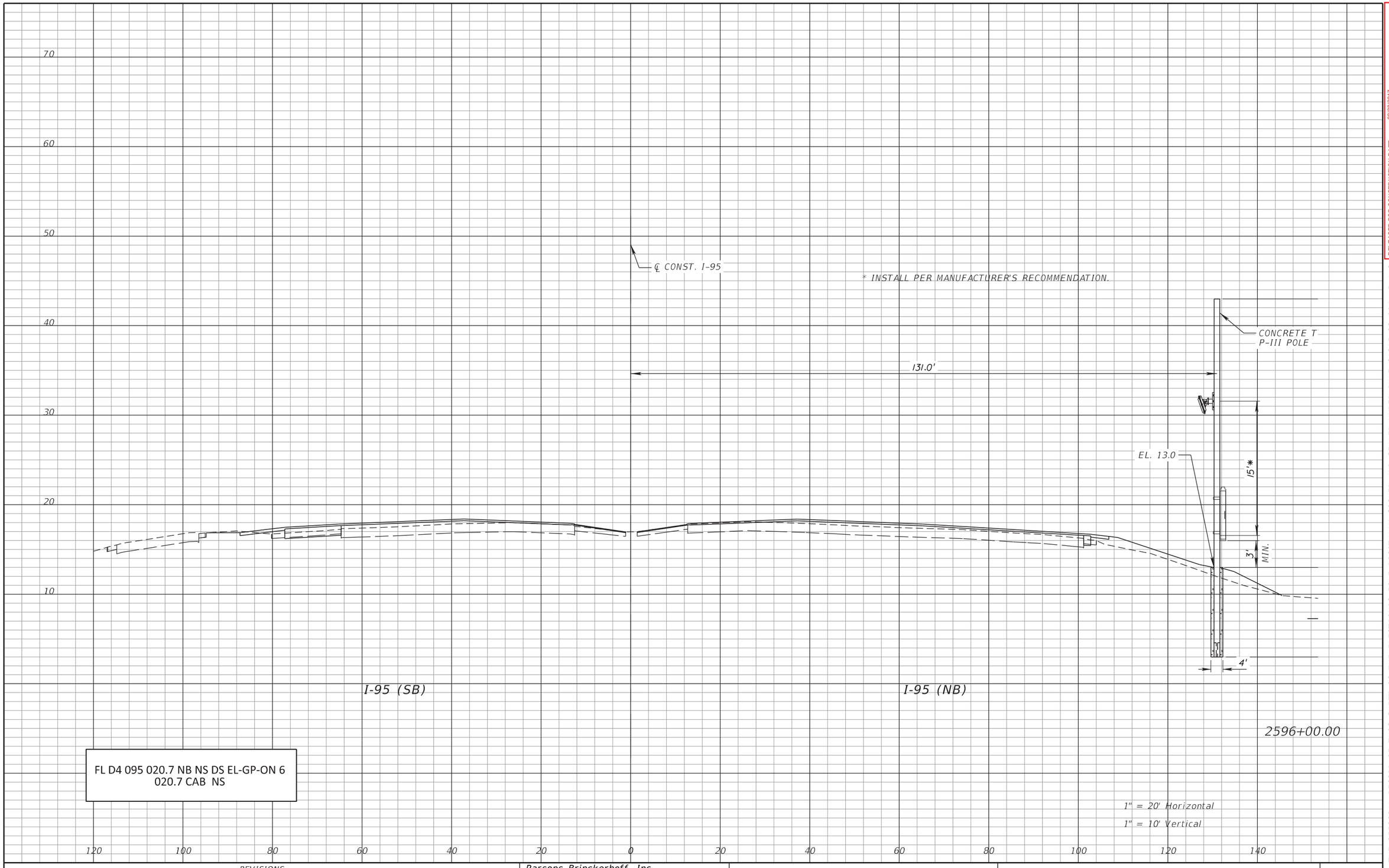

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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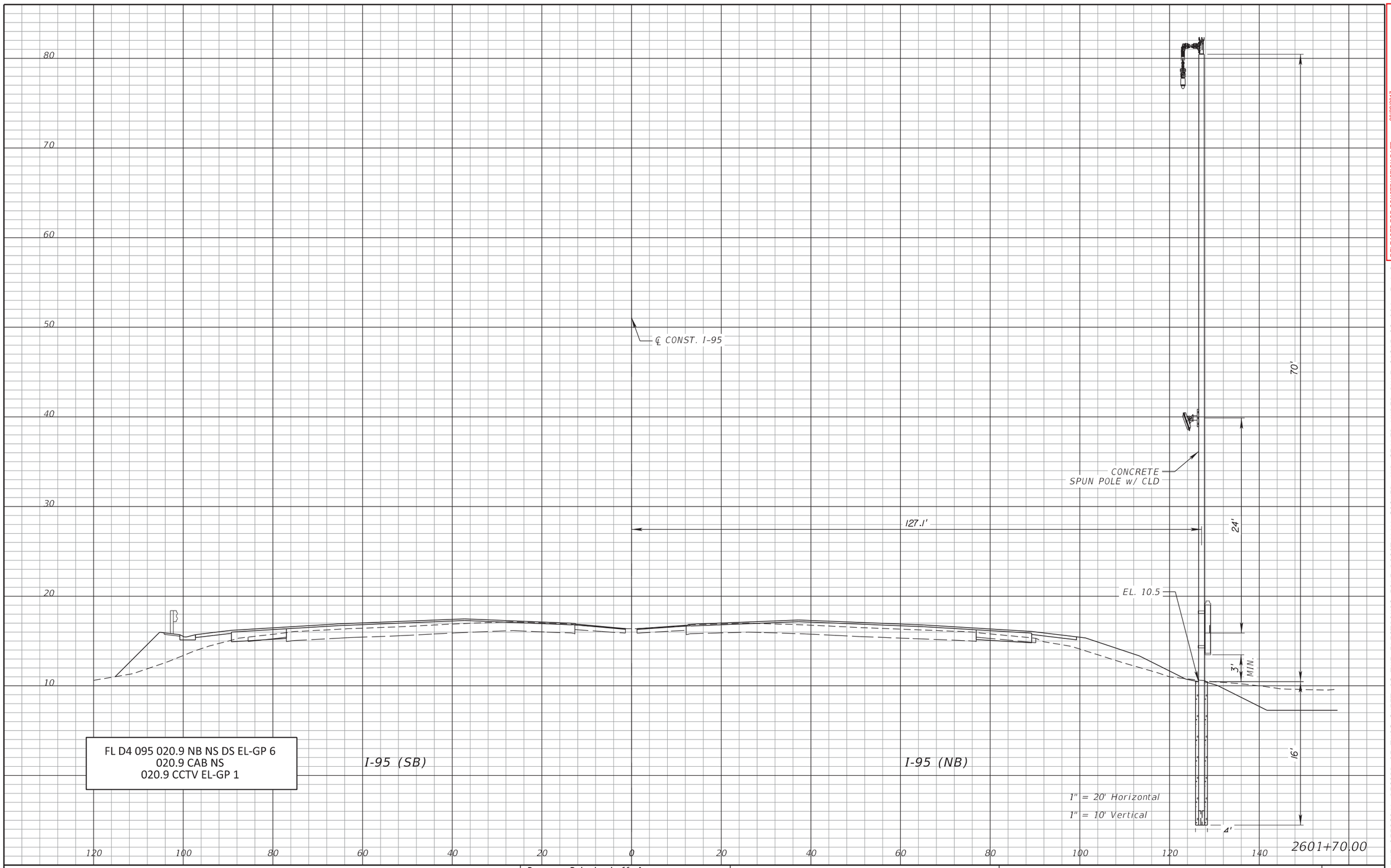
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-169



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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-170

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RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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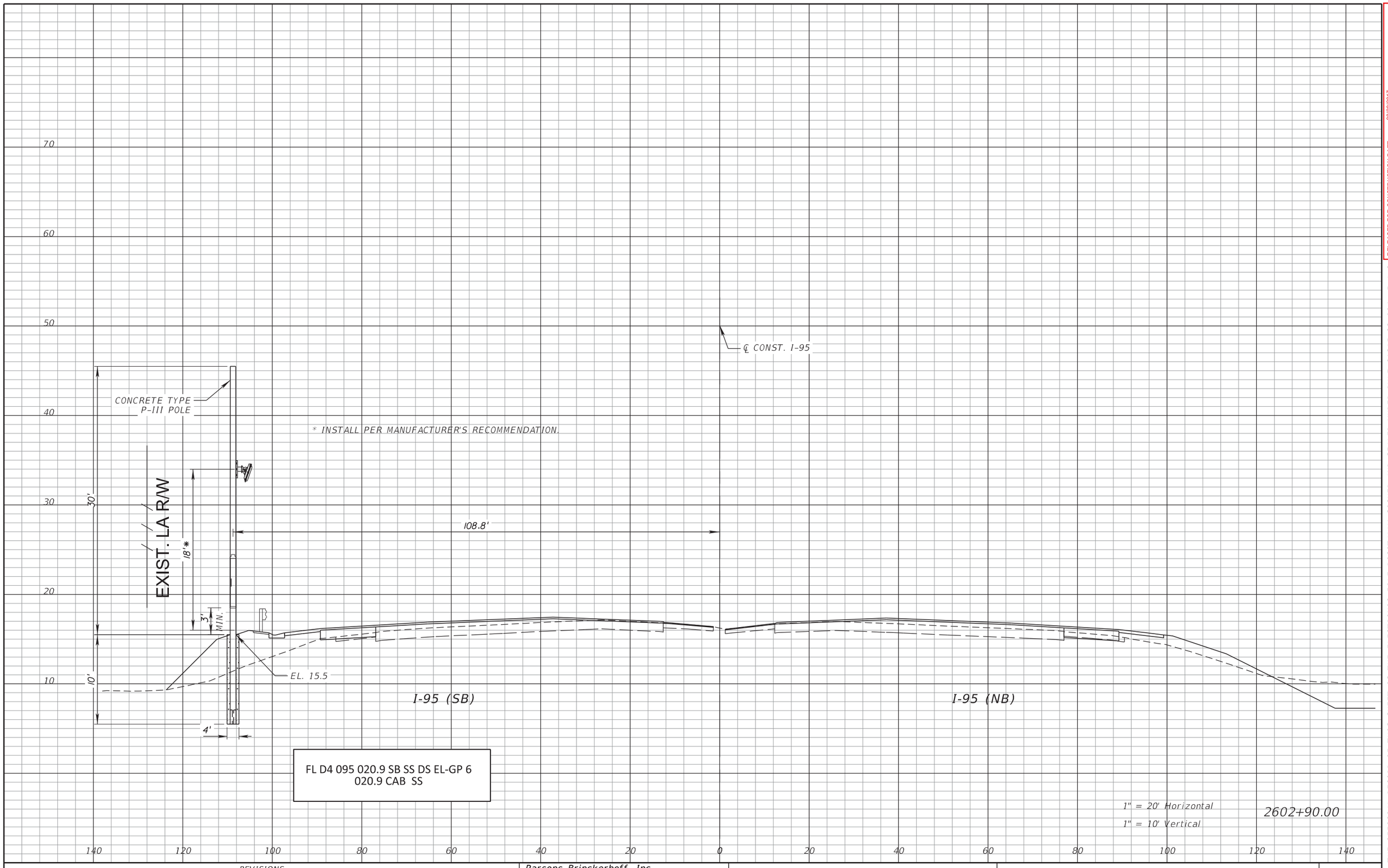

FL D4 095 020.9 SB SS DS EL-GP 6
020.9 CAB SS

1" = 20' Horizontal
1" = 10' Vertical

2602+90.00

REVISIONS			
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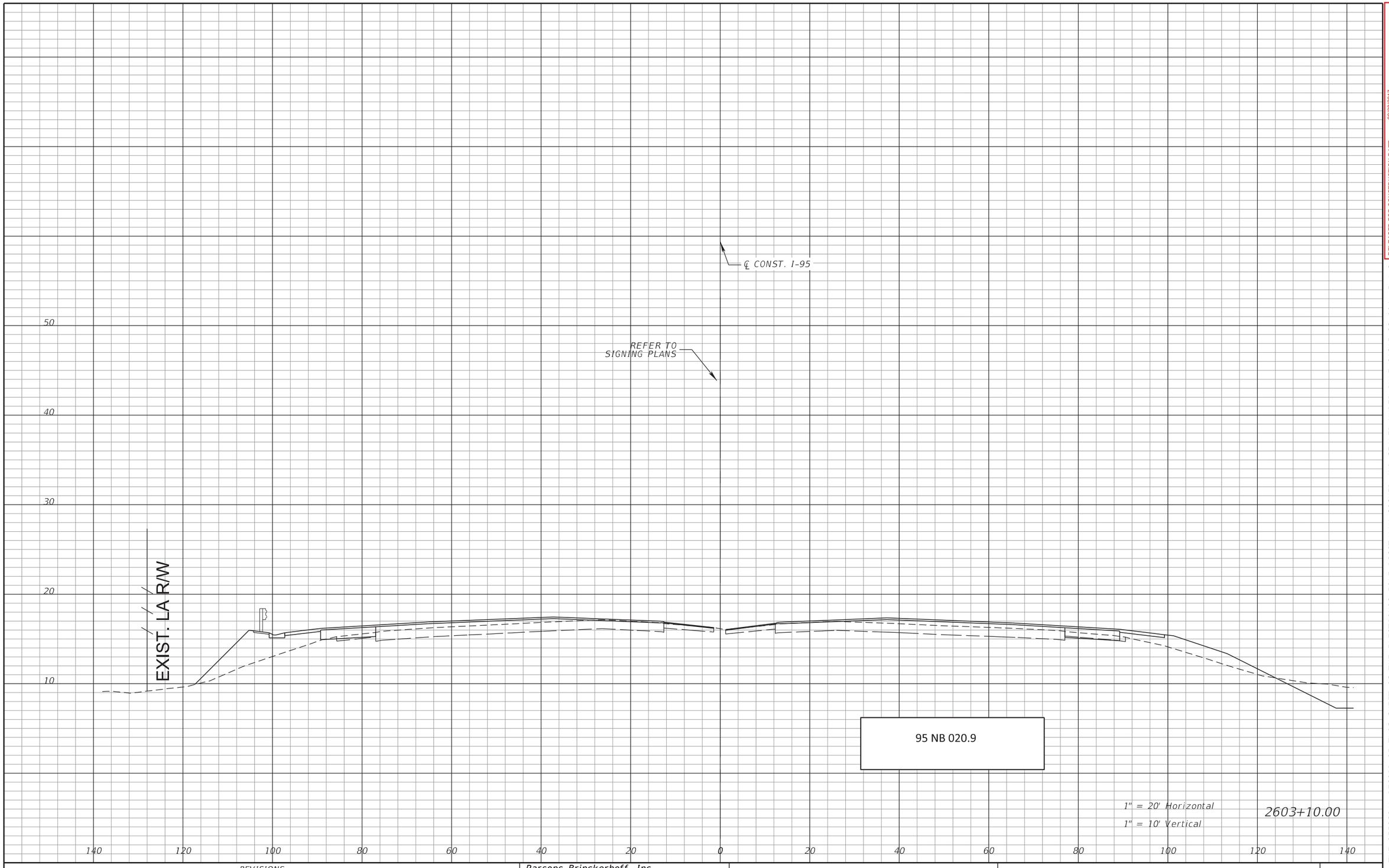
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-171



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-172

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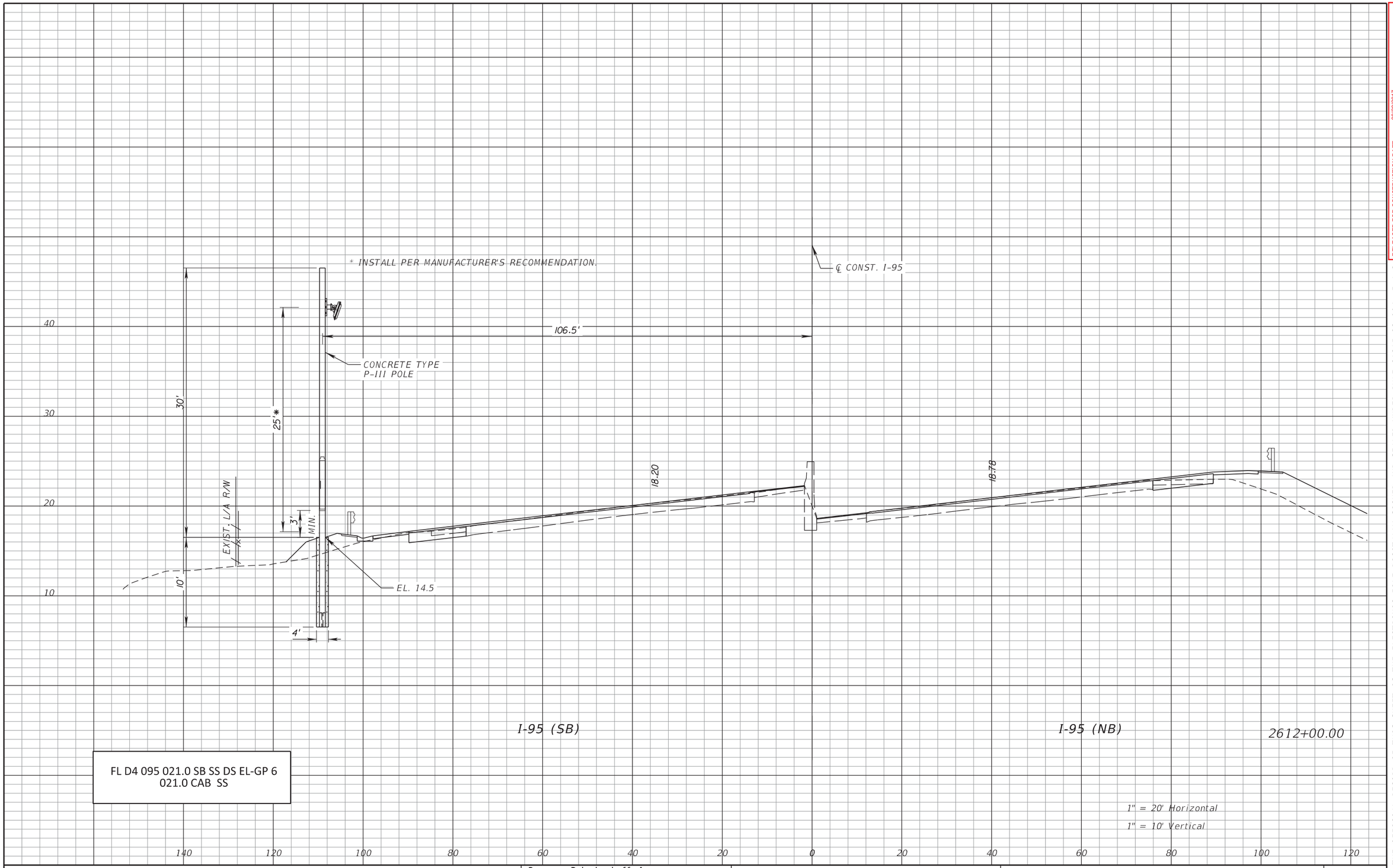

FL D4 095 021.0 SB SS DS EL-GP 6
021.0 CAB SS

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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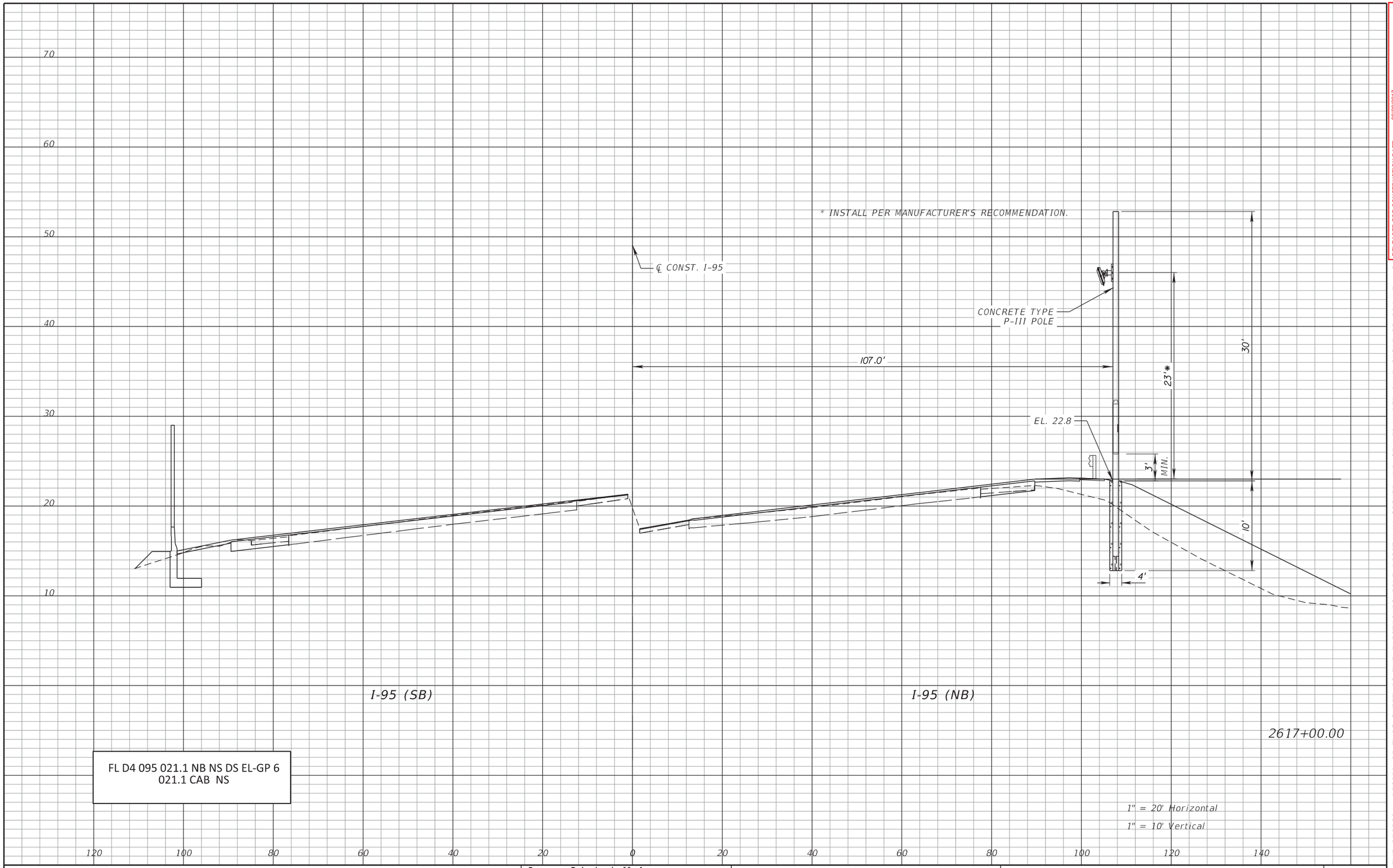
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-173



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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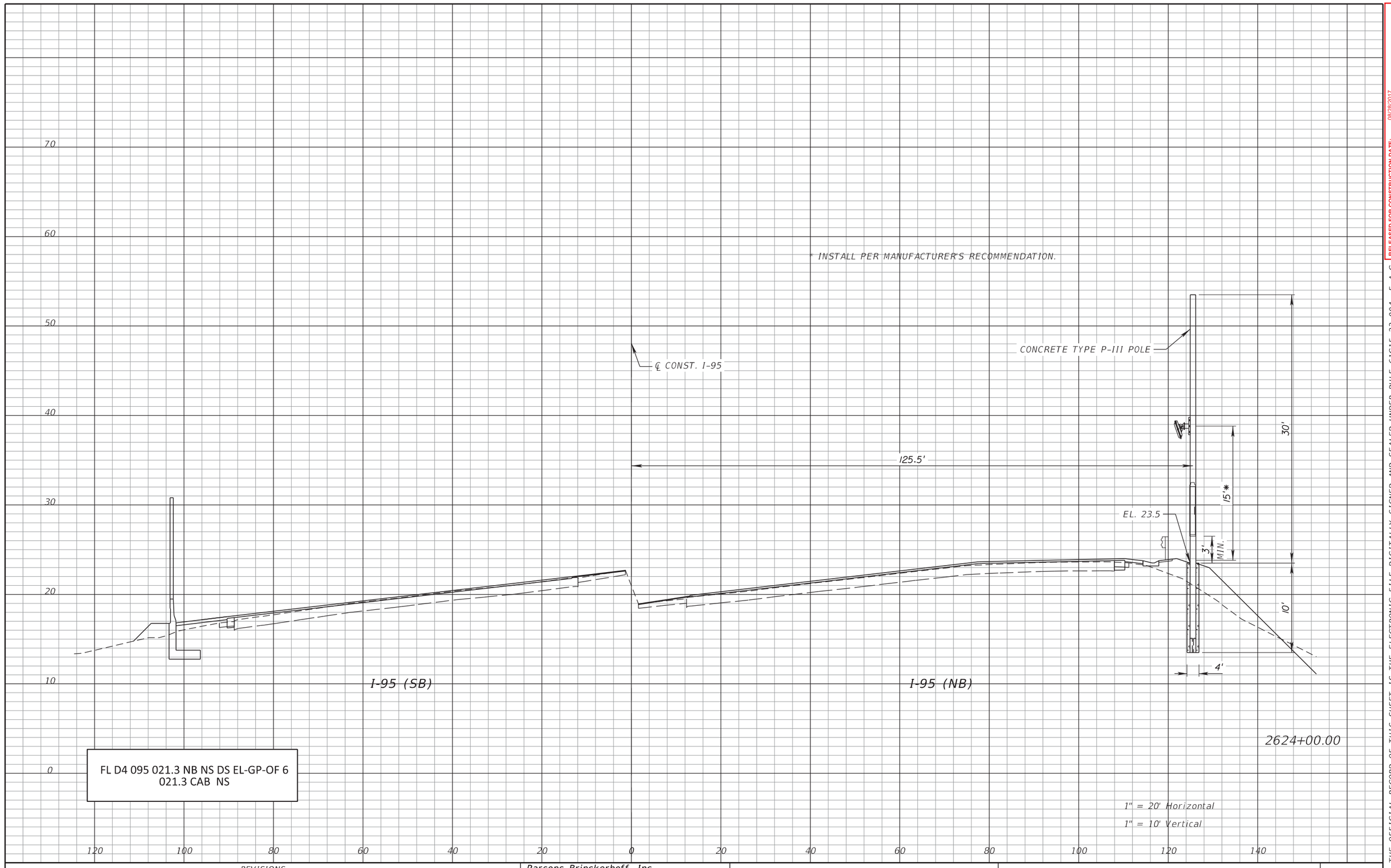
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-174



1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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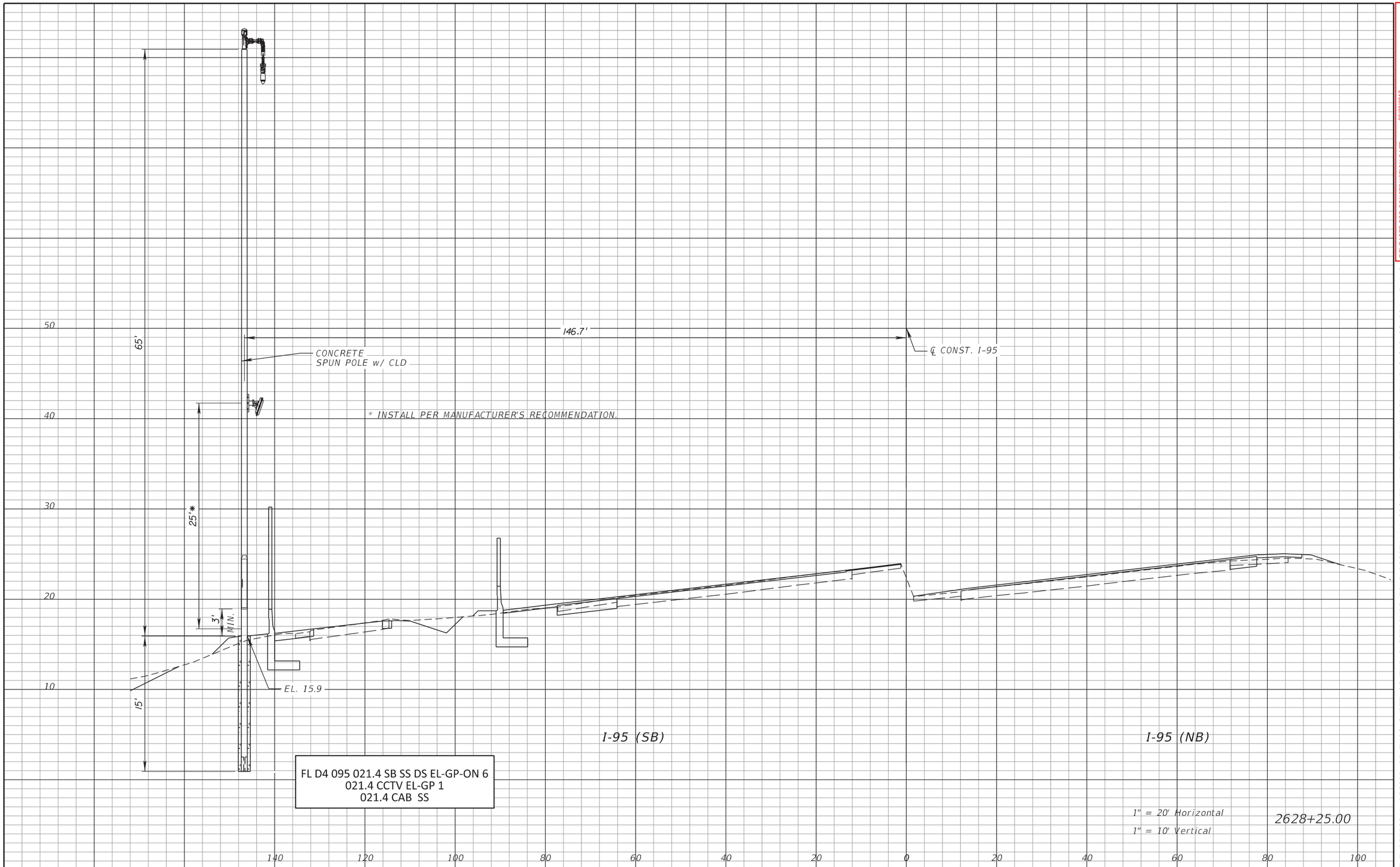
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-175



1" = 20' Horizontal
1" = 10' Vertical

2628+25.00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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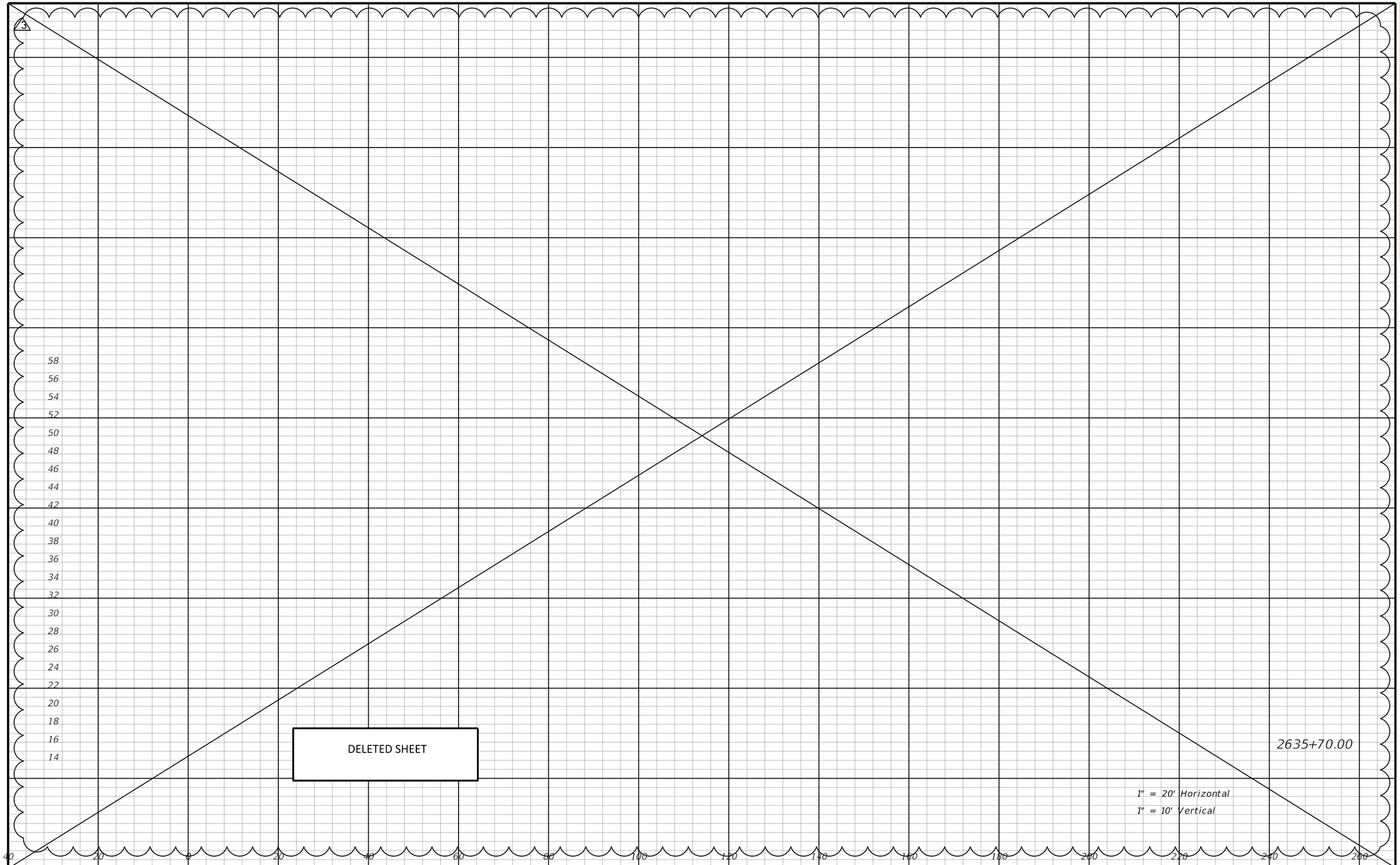
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-176



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-177

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) DB

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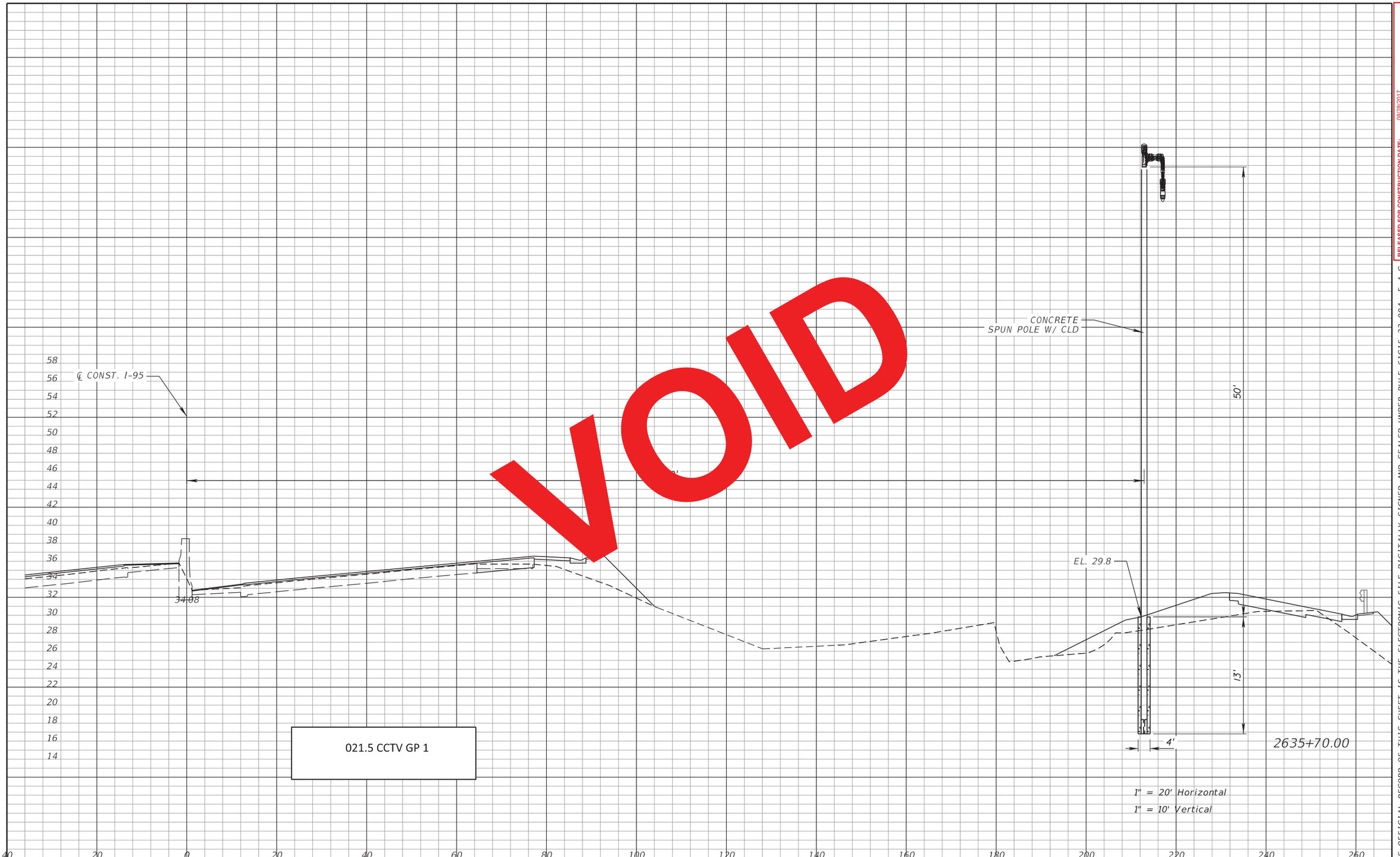

VOID

021.5 CCTV GP 1

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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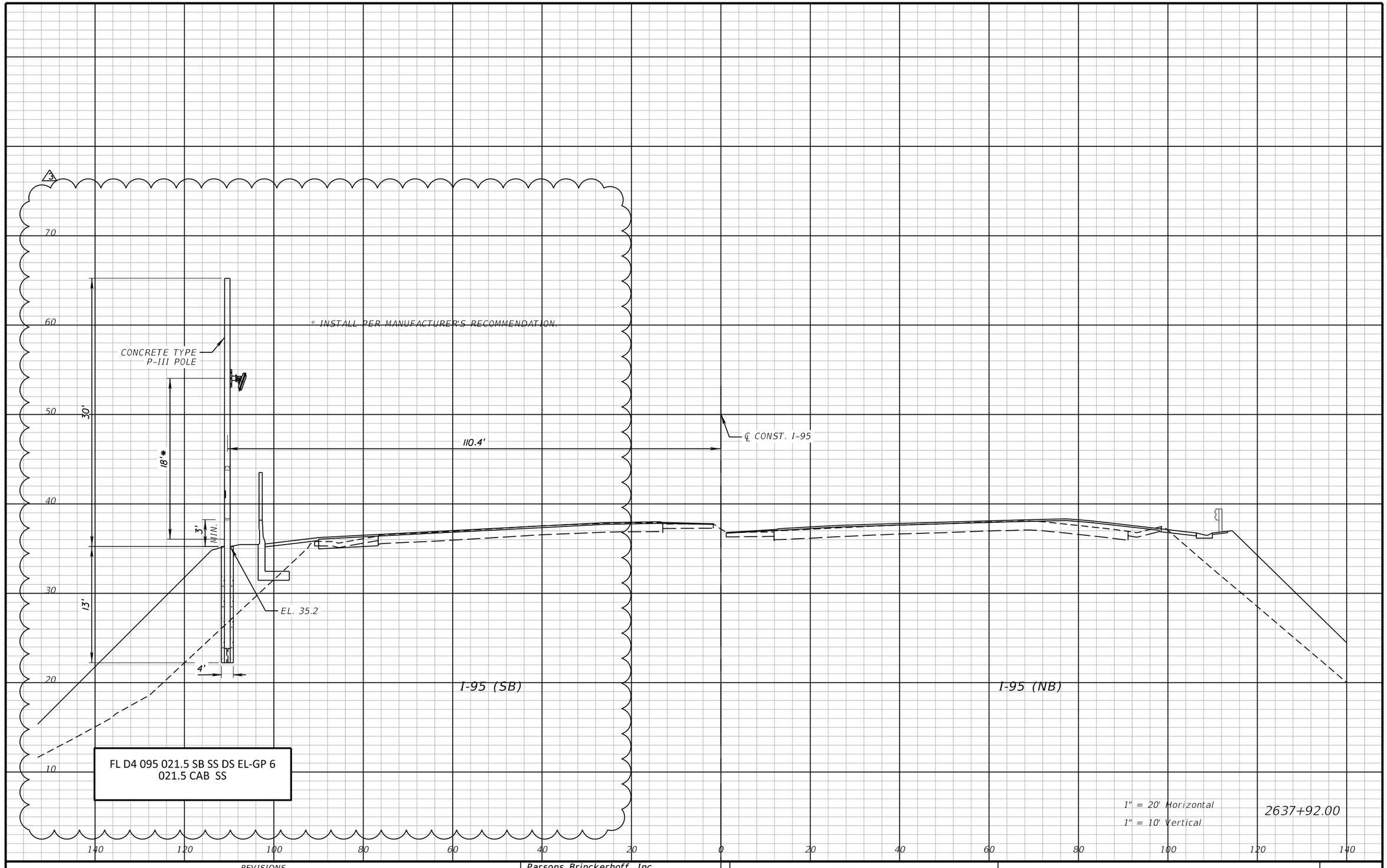
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-177



REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-178

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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) DB

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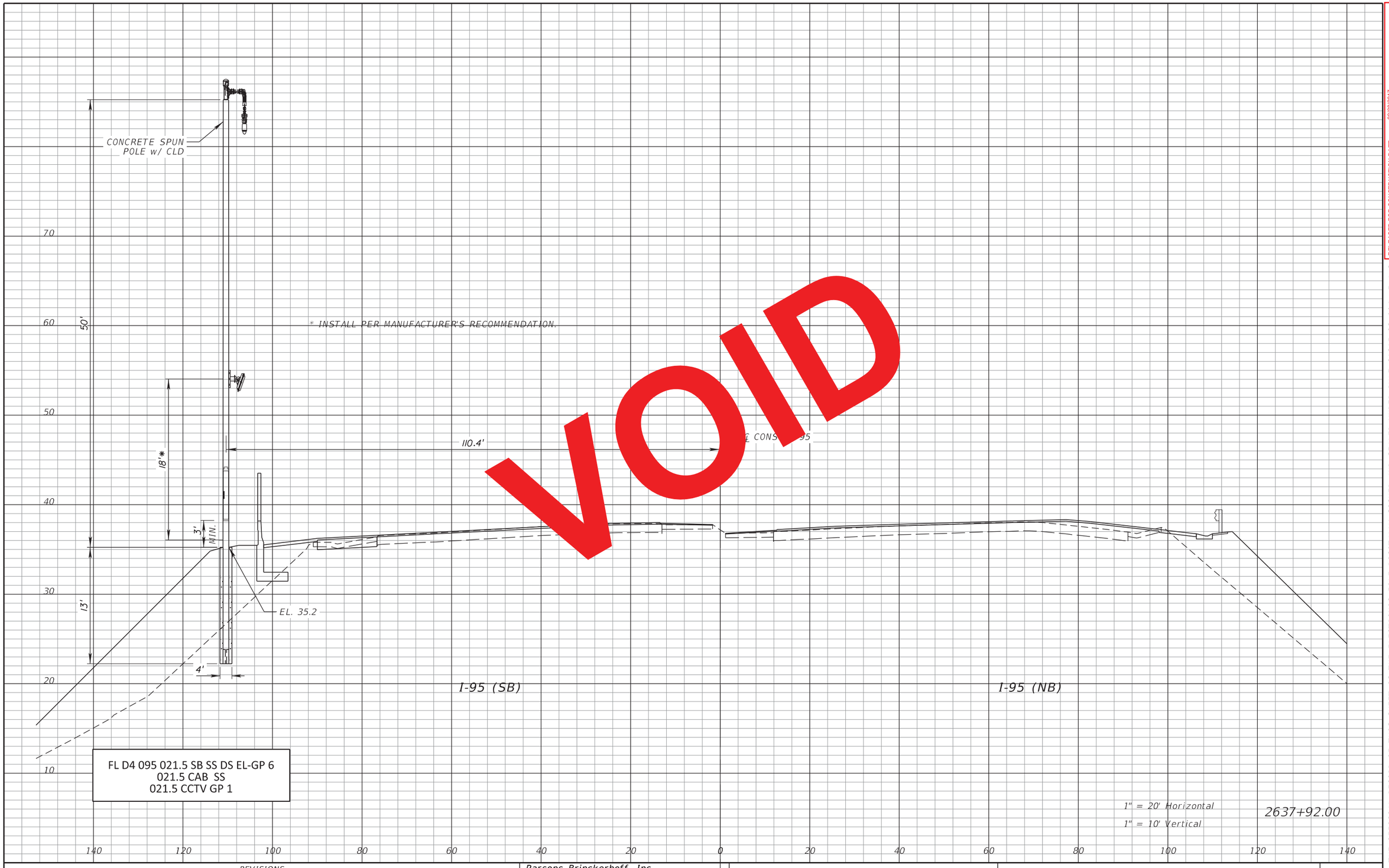

VOID

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-178

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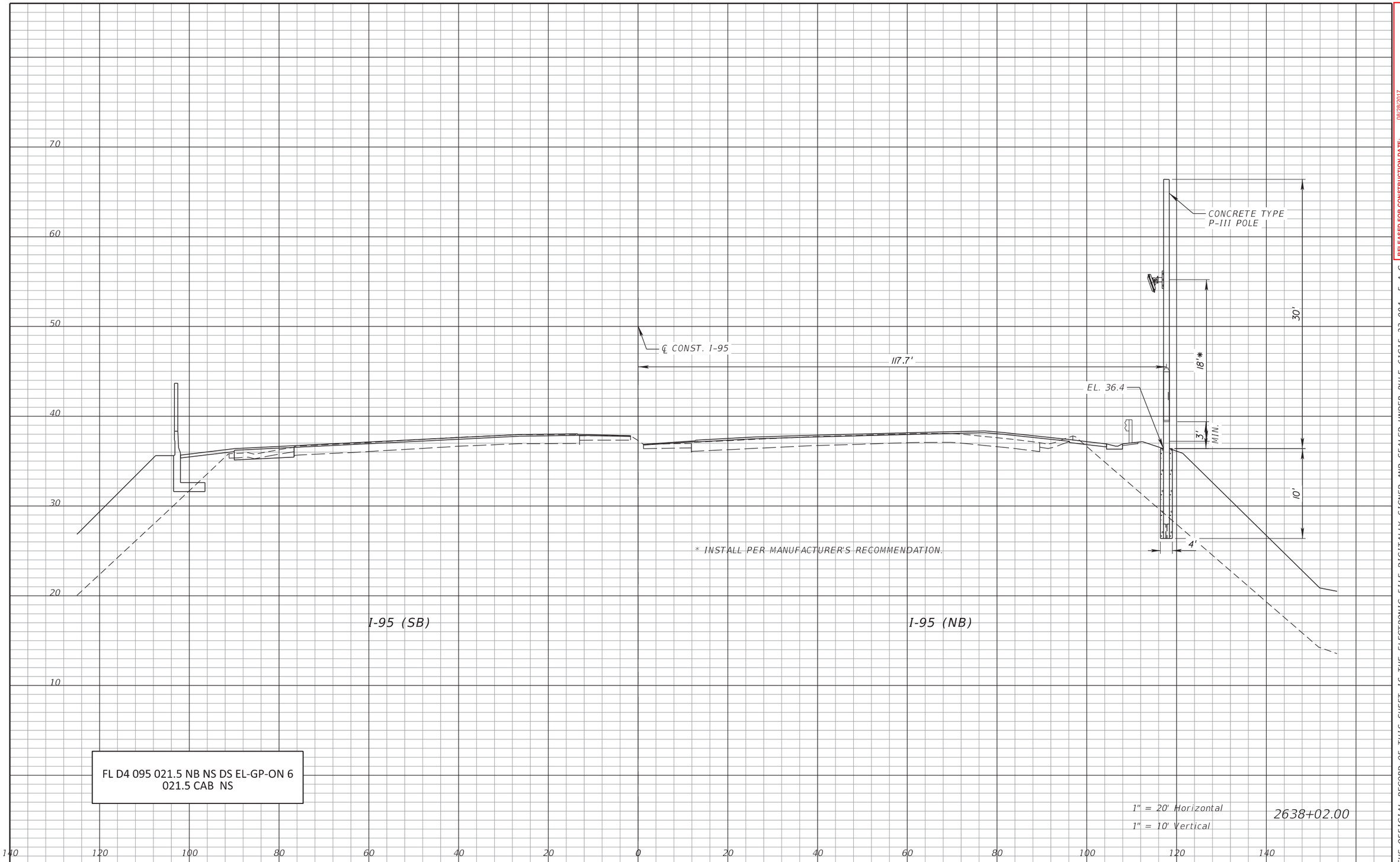

FL D4 095 021.5 NB NS DS EL-GP-ON 6
021.5 CAB NS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-179

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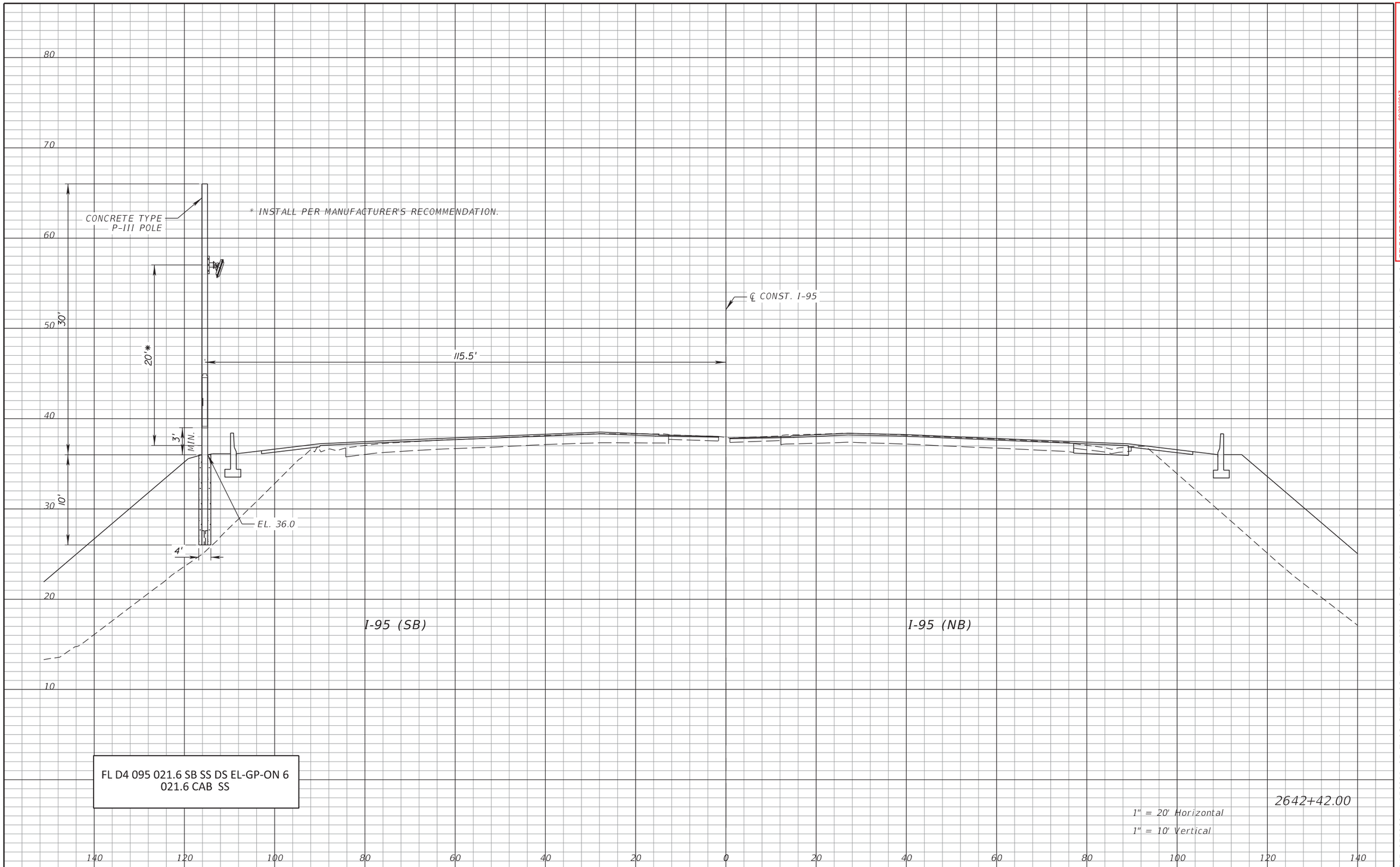

FL D4 095 021.6 SB SS DS EL-GP-ON 6
021.6 CAB SS

2642+42.00

1" = 20' Horizontal

1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
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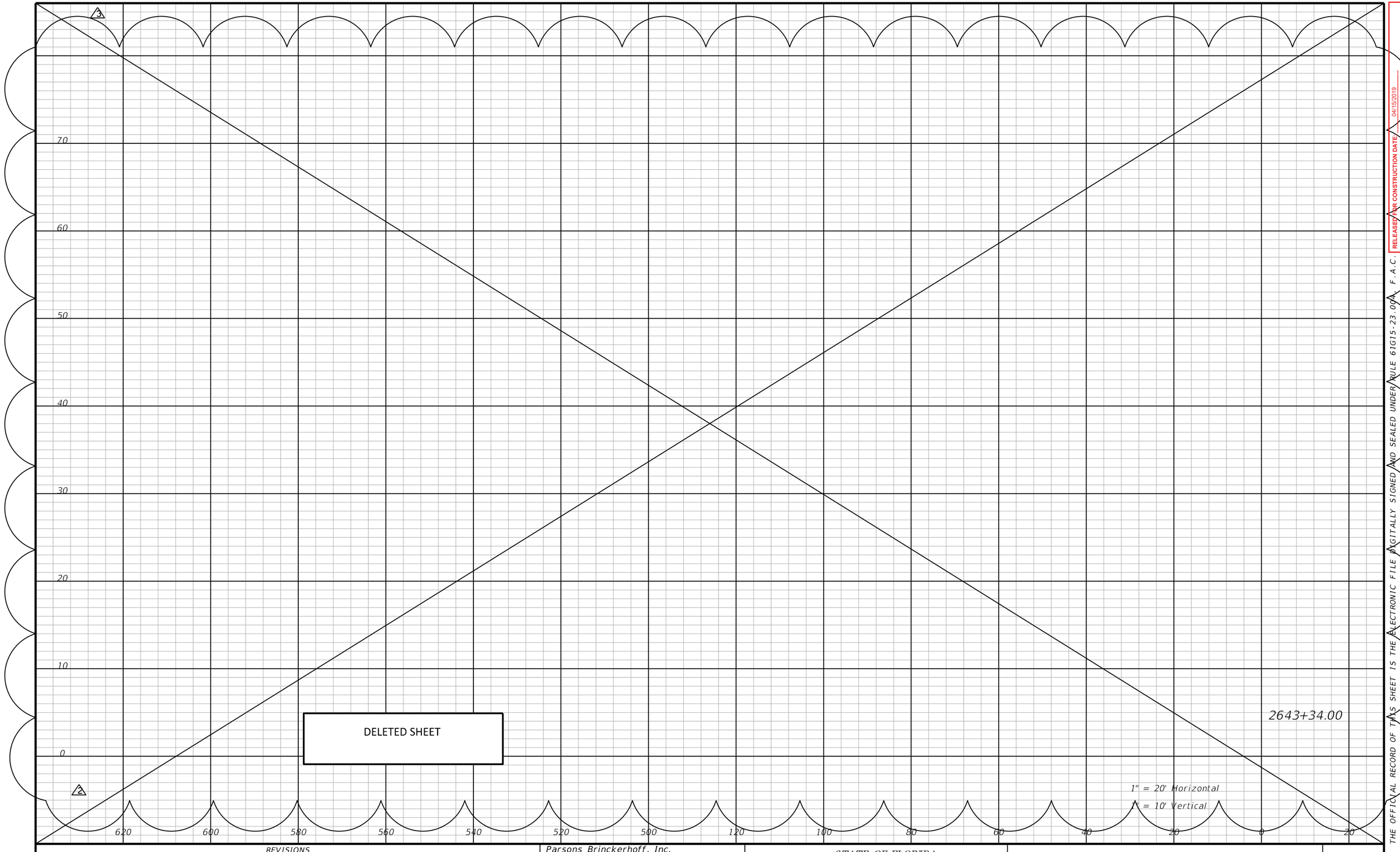
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-180



DELETED SHEET

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED CROSS SECTION FOR NEW D-CCTV POLE		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

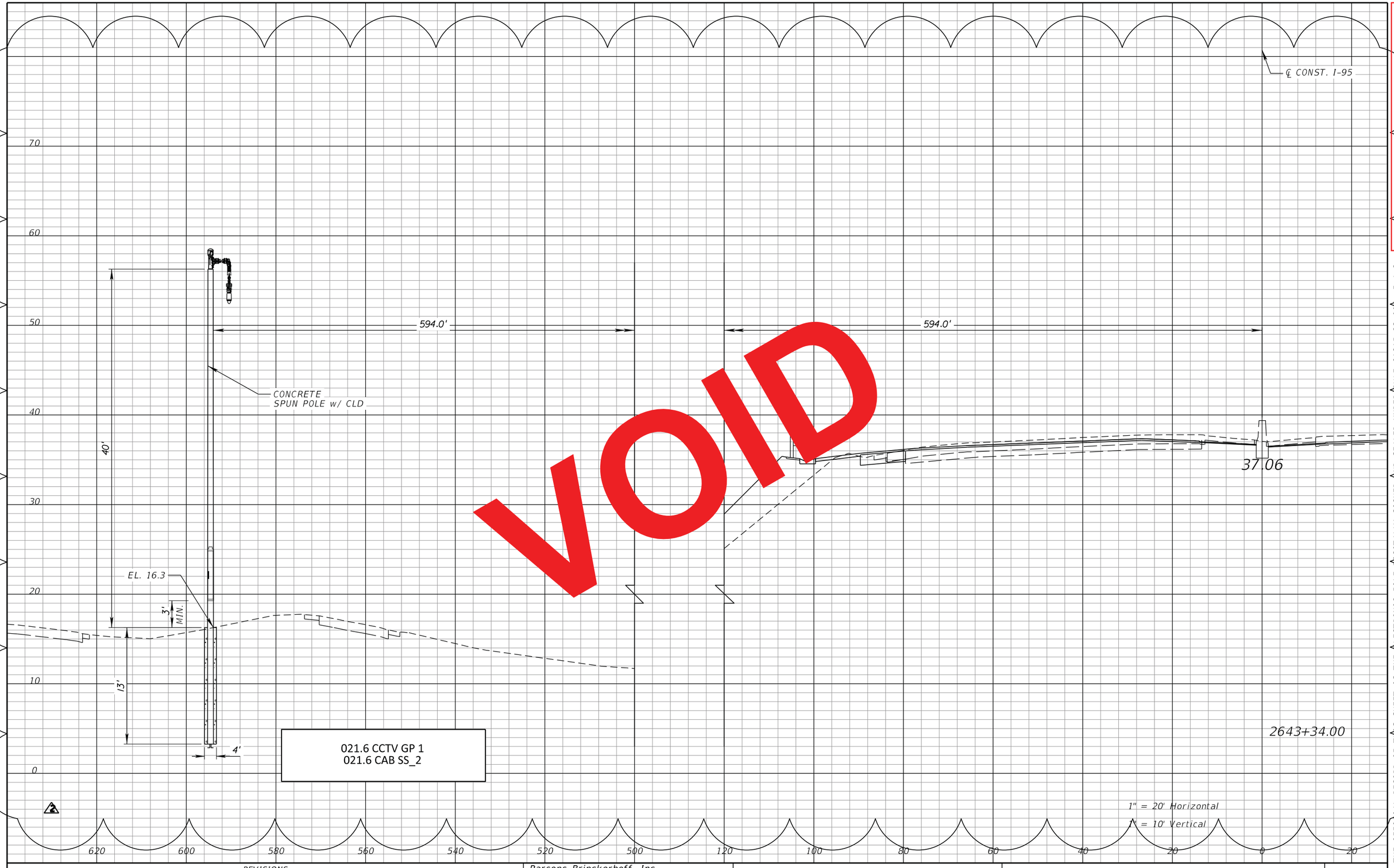
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-180A

RELEASED FOR CONSTRUCTION DATE 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety of the fabrication and erection shall remain with the contractor.
PPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Reviews for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
PID: 433108-5-52-01 CONTRACT: E4Q64 BY: (FDOT)
BY: (Stantec) JB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED CROSS SECTION FOR NEW D-CCTV POLE		

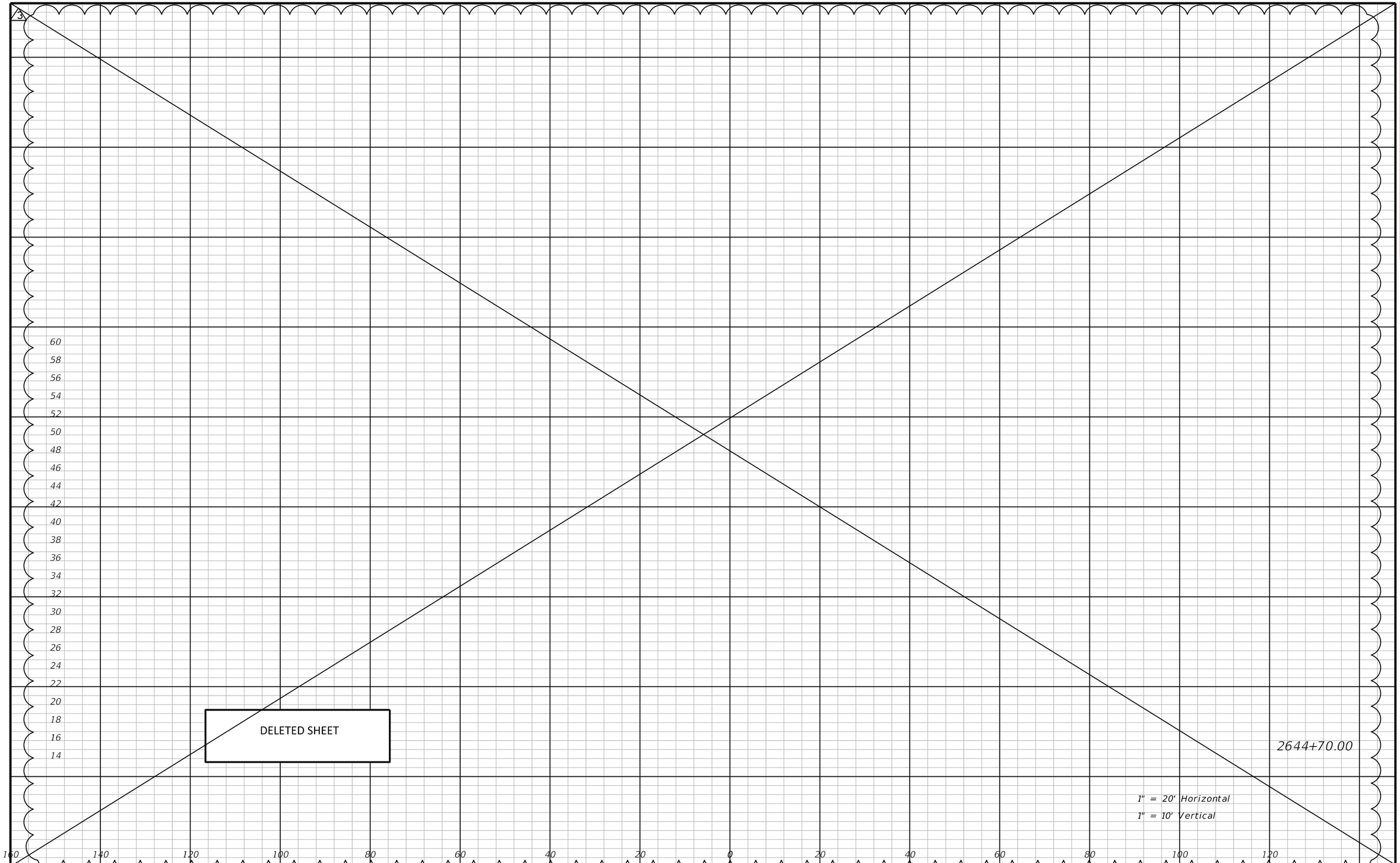
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-180A



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
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EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-181

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) DB

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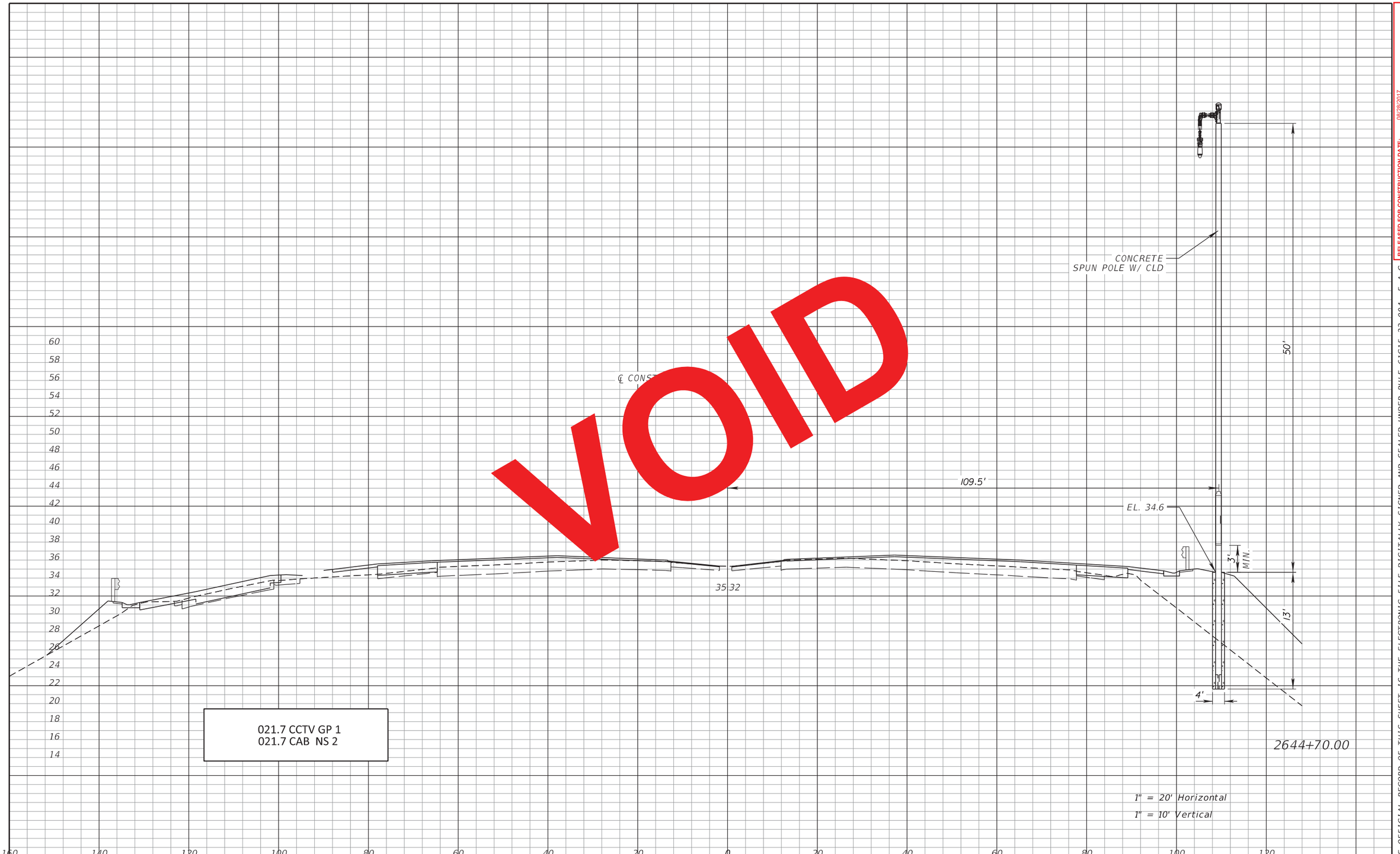

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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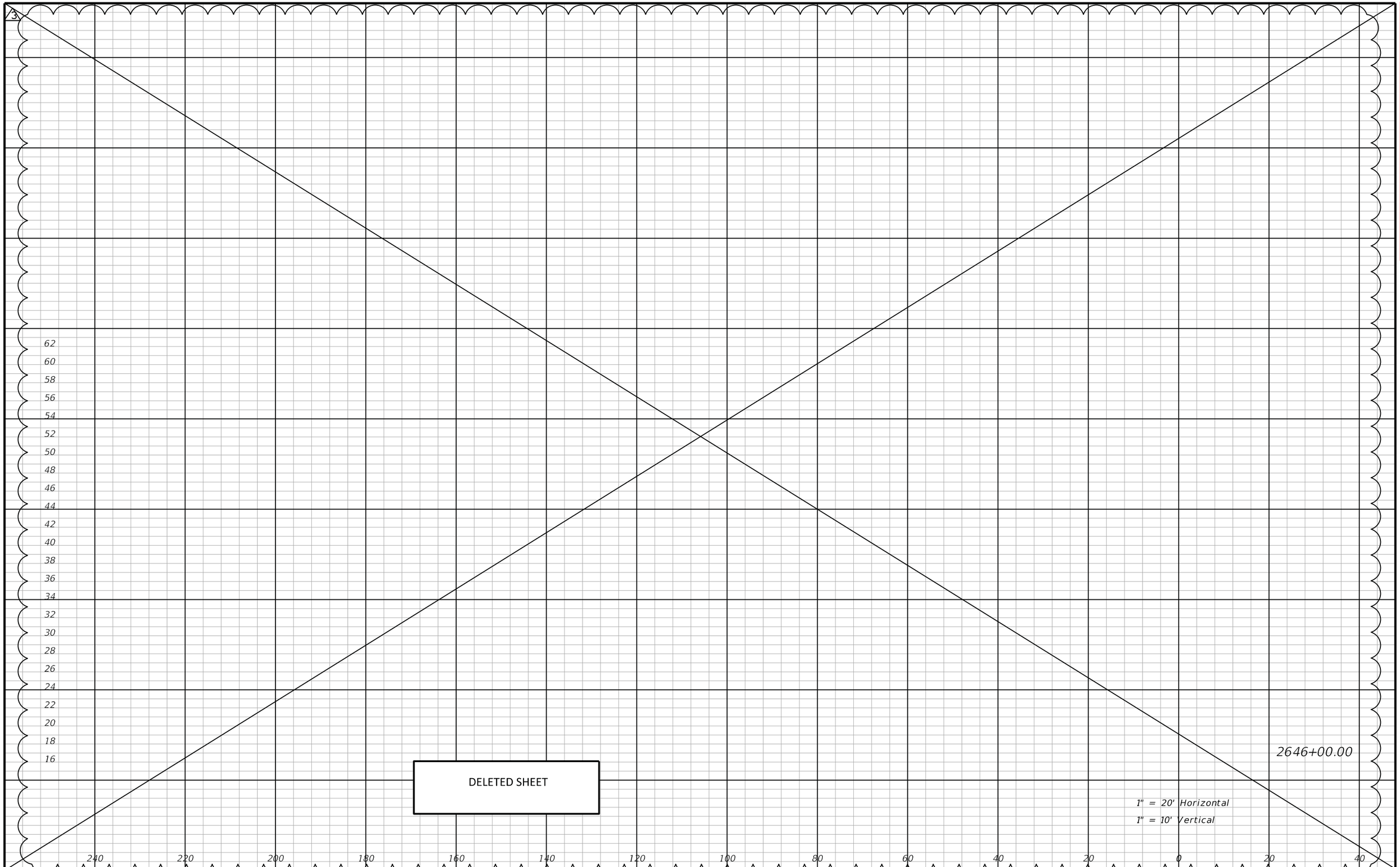
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-181



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
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License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

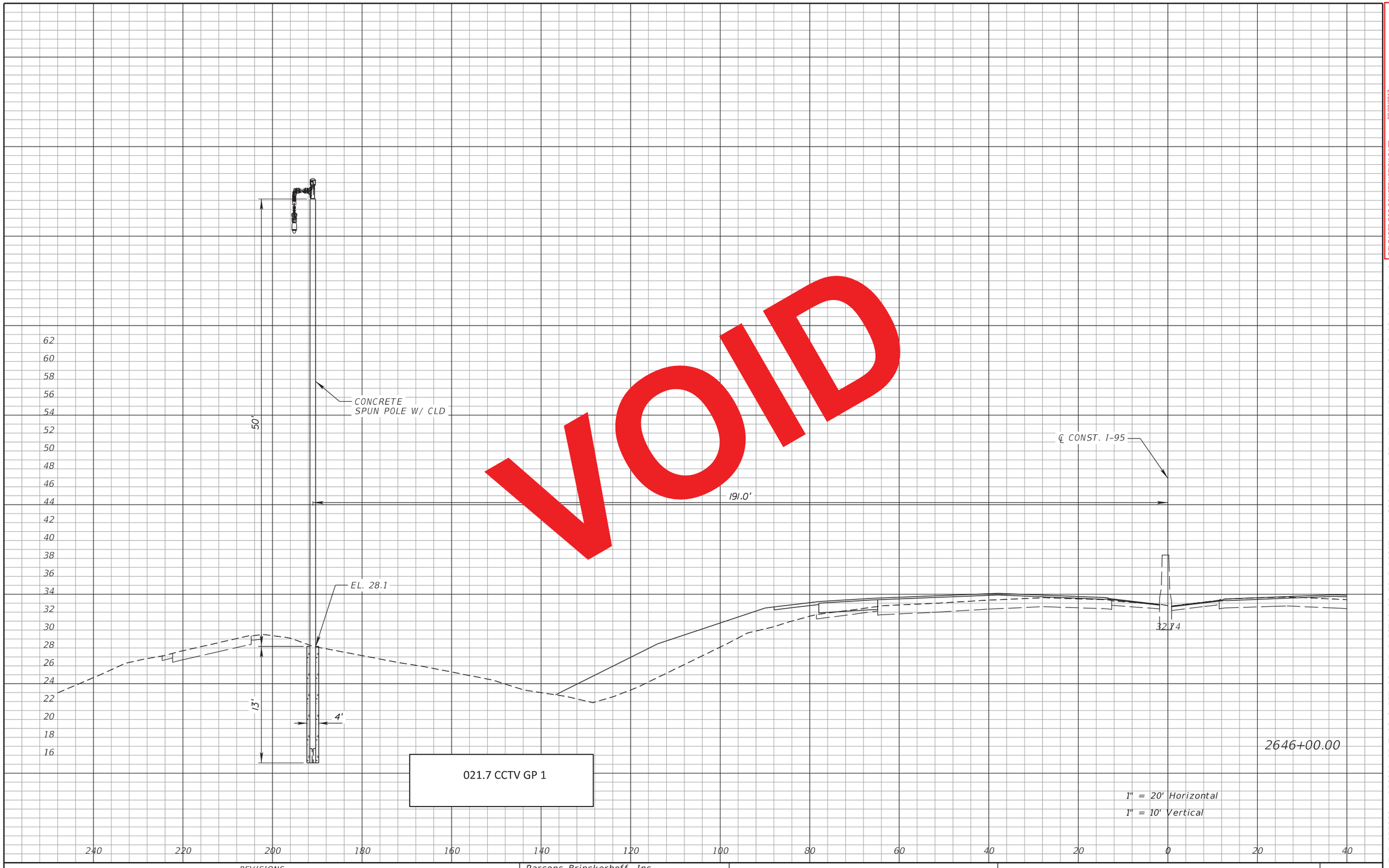
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-182

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) DB

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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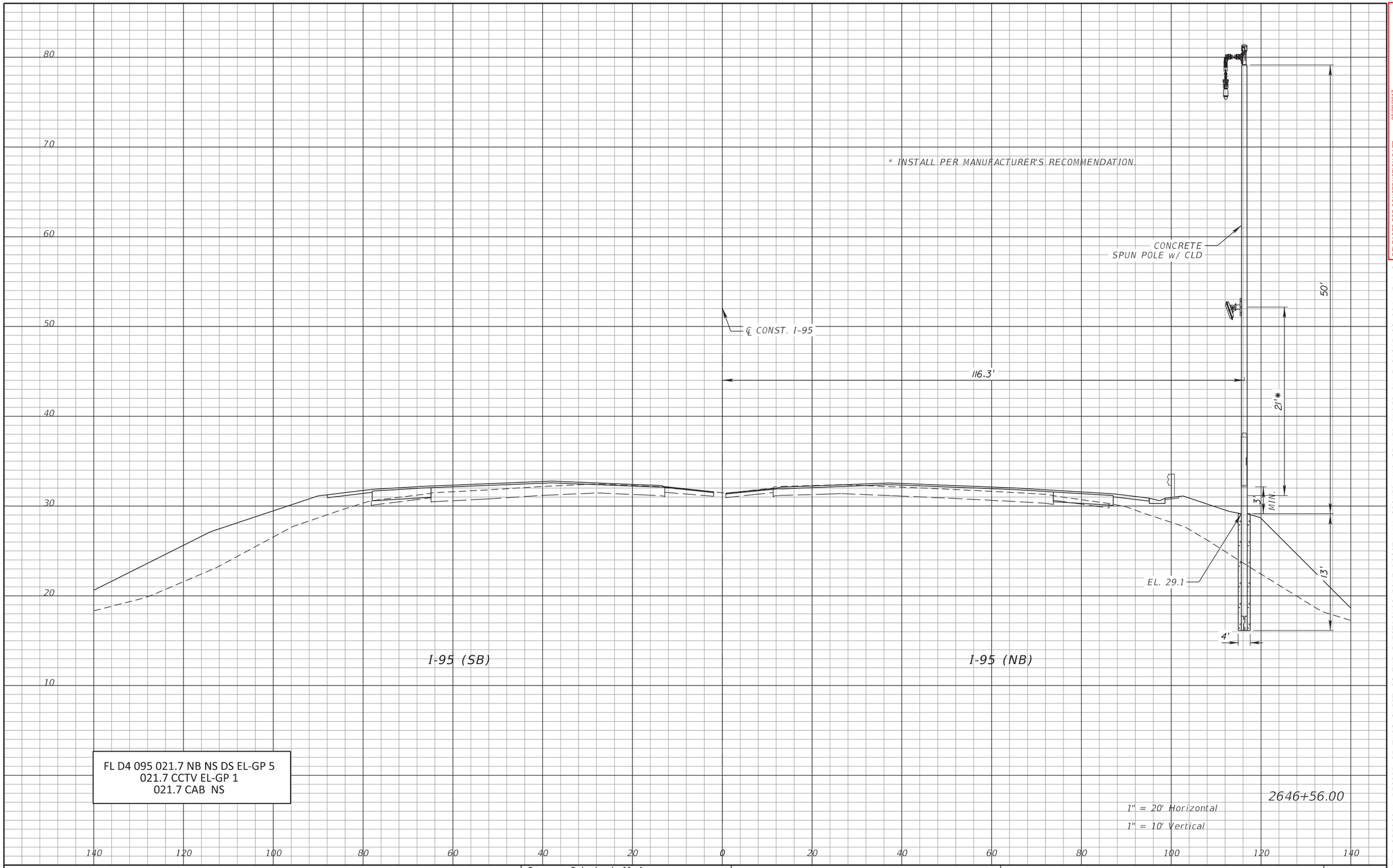
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-182



FL D4 095 021.7 NB NS DS EL-GP 5
021.7 CCTV EL-GP 1
021.7 CAB NS

2646+56.00

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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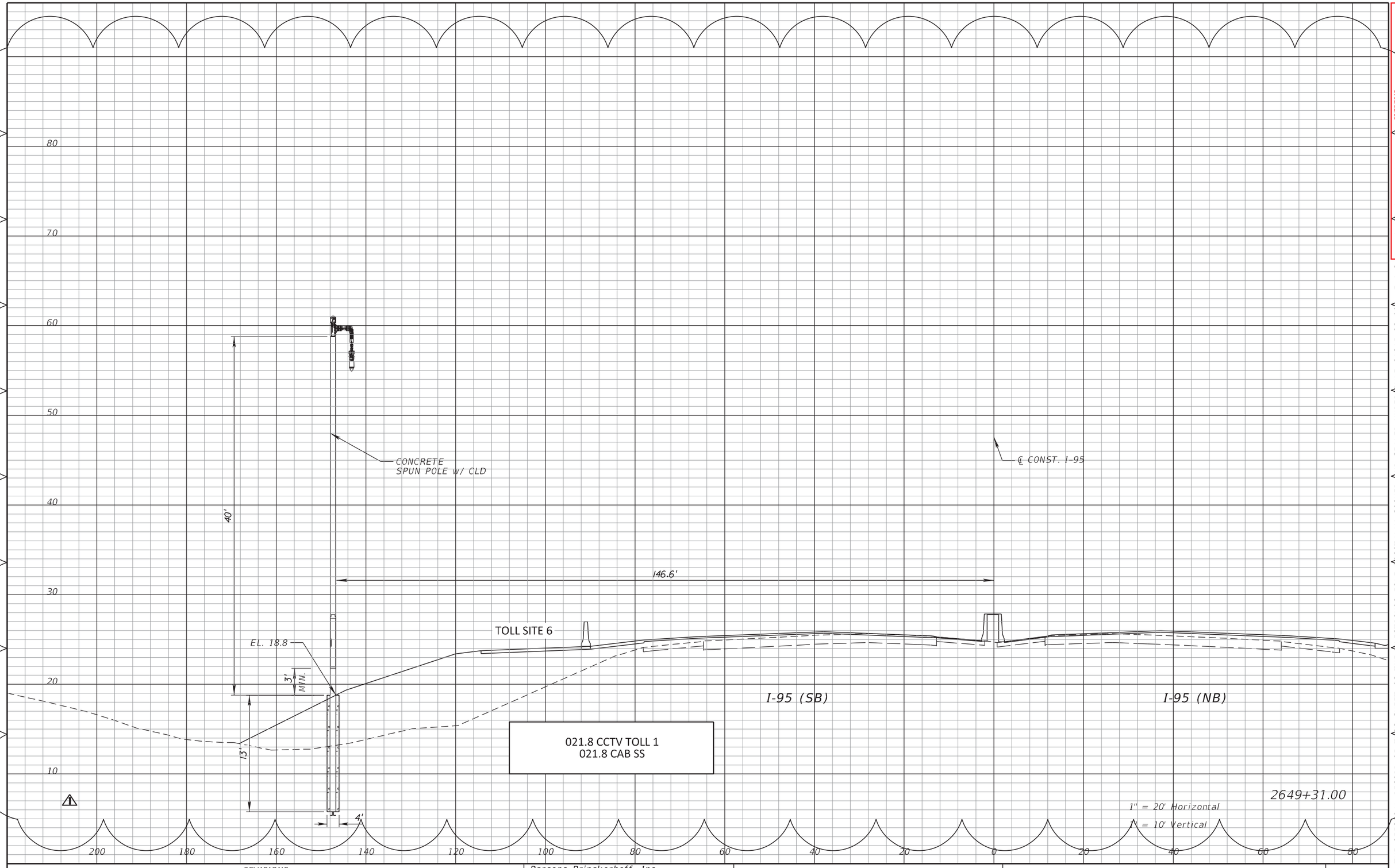
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-183



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 ADDED CROSS SECTION FOR TOLL SITE CCTV POLE		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

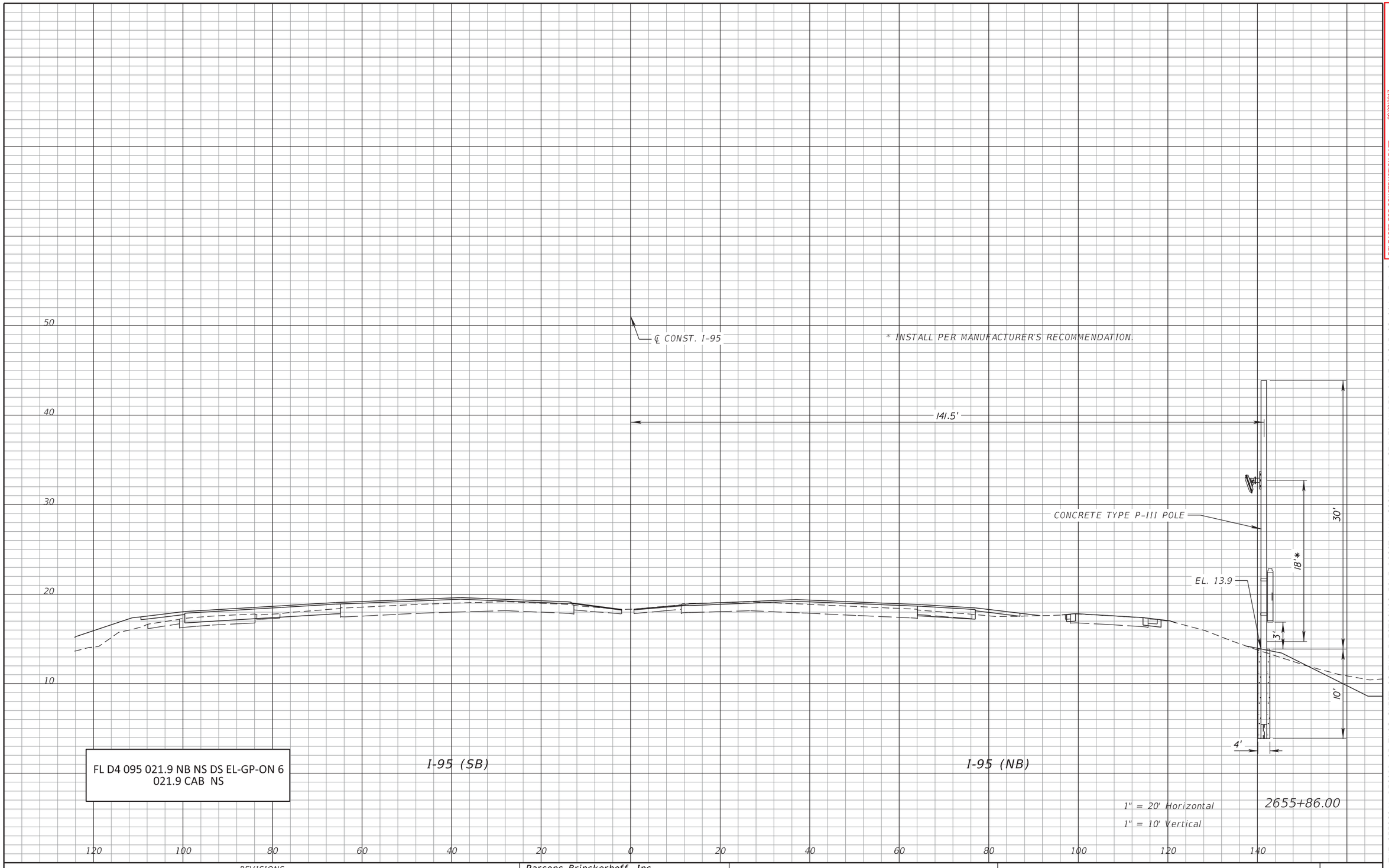
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-183A

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID: 433108-5-52-01 CONTRACT: E4Q64 BY: (FDOT)
BY: (Stantec) PL
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



FL D4 095 021.9 NB NS DS EL-GP-ON 6
021.9 CAB NS

1" = 20' Horizontal
1" = 10' Vertical

2655+86.00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

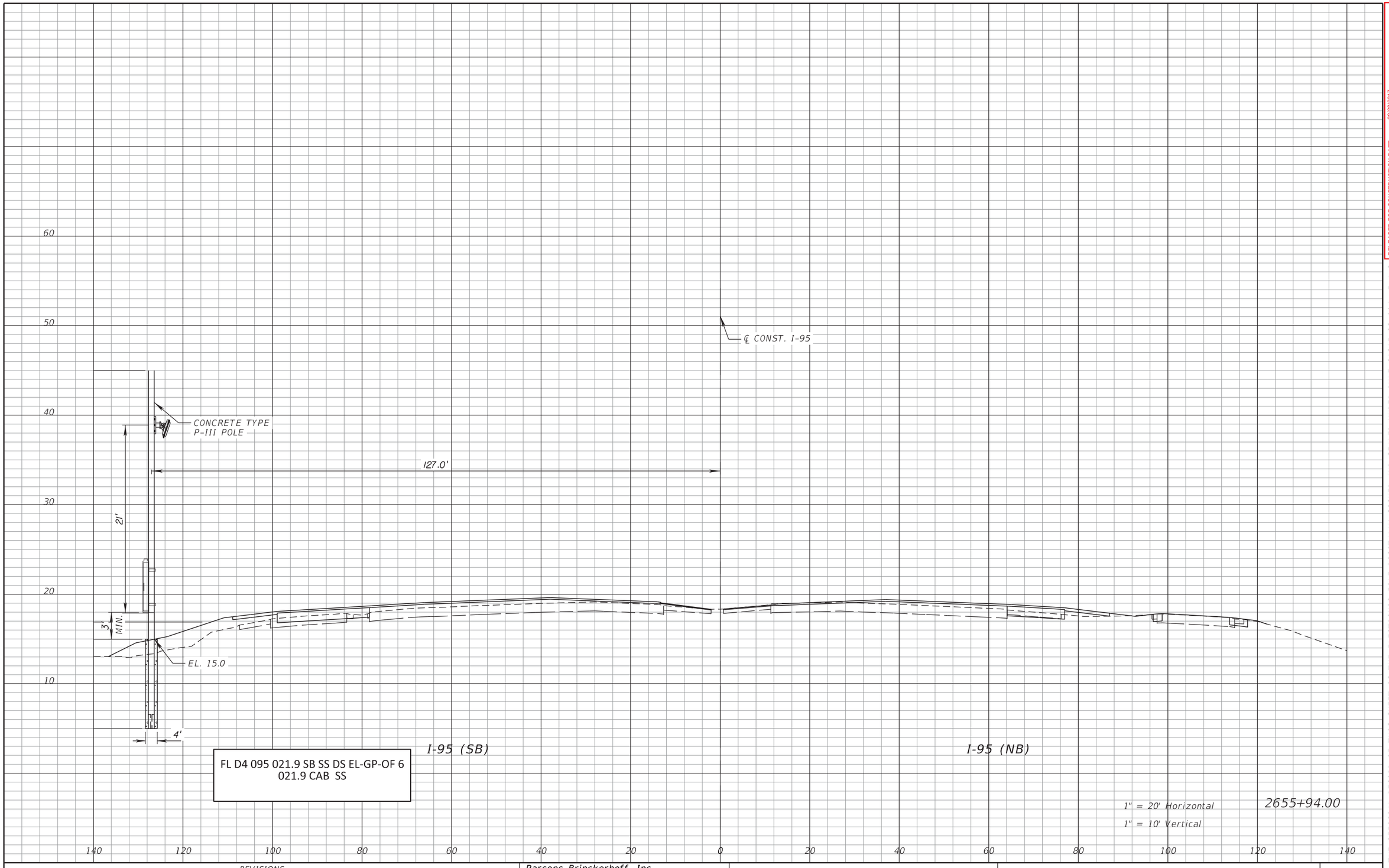
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-184

$PLTDRVL$ $PENTBLL$ abreuk 7/25/2017 7:48:44 AM c:\projectwise\pb\projectwiseint\abreuk\d0128698\SSXSIT01.dgn



FL D4 095 021.9 SB SS DS EL-GP-OF 6
021.9 CAB SS

1" = 20' Horizontal
1" = 10' Vertical

2655+94.00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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(757) 466-1732
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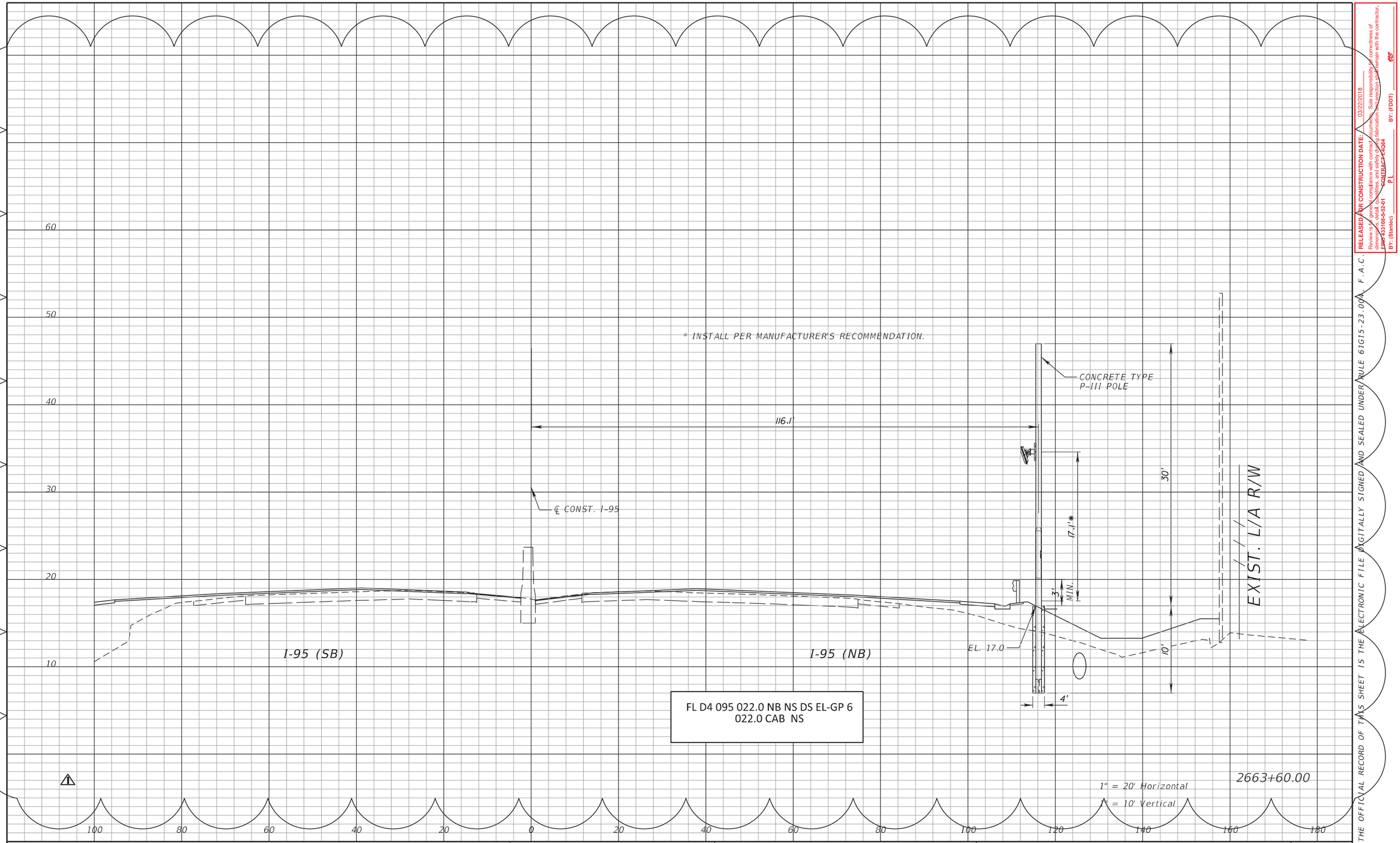
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-185



FL D4 095 022.0 NB NS DS EL-GP 6
022.0 CAB NS

2663+60.00

1" = 20' Horizontal
1" = 10' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 ADDED CROSS SECTION (MOVED MVDS POLE FROM 2669+26)		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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(757) 466-1732
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EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-185A

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of project quantities, dimensions, and detailing rests with the fabricator and erection subcontractor. Compliance with the contract documents must remain with the contractor.
FPID: 433108-5-52-01 CONTRACT: E4G64
BY: (Stantec) PL
BY: (FDOT) MS

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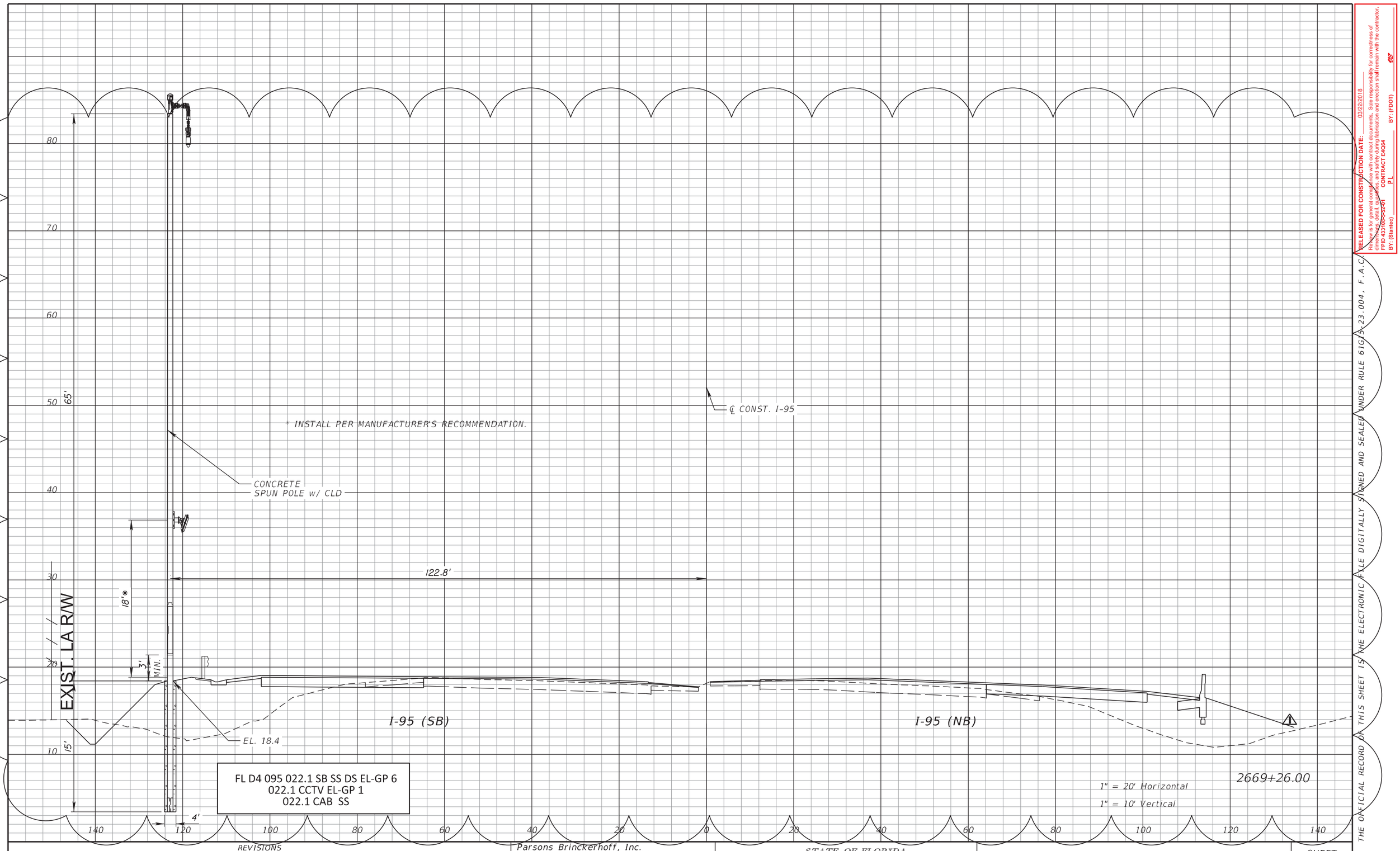


THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) PL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 DELETED MVDS POLE ON NB SIDE		

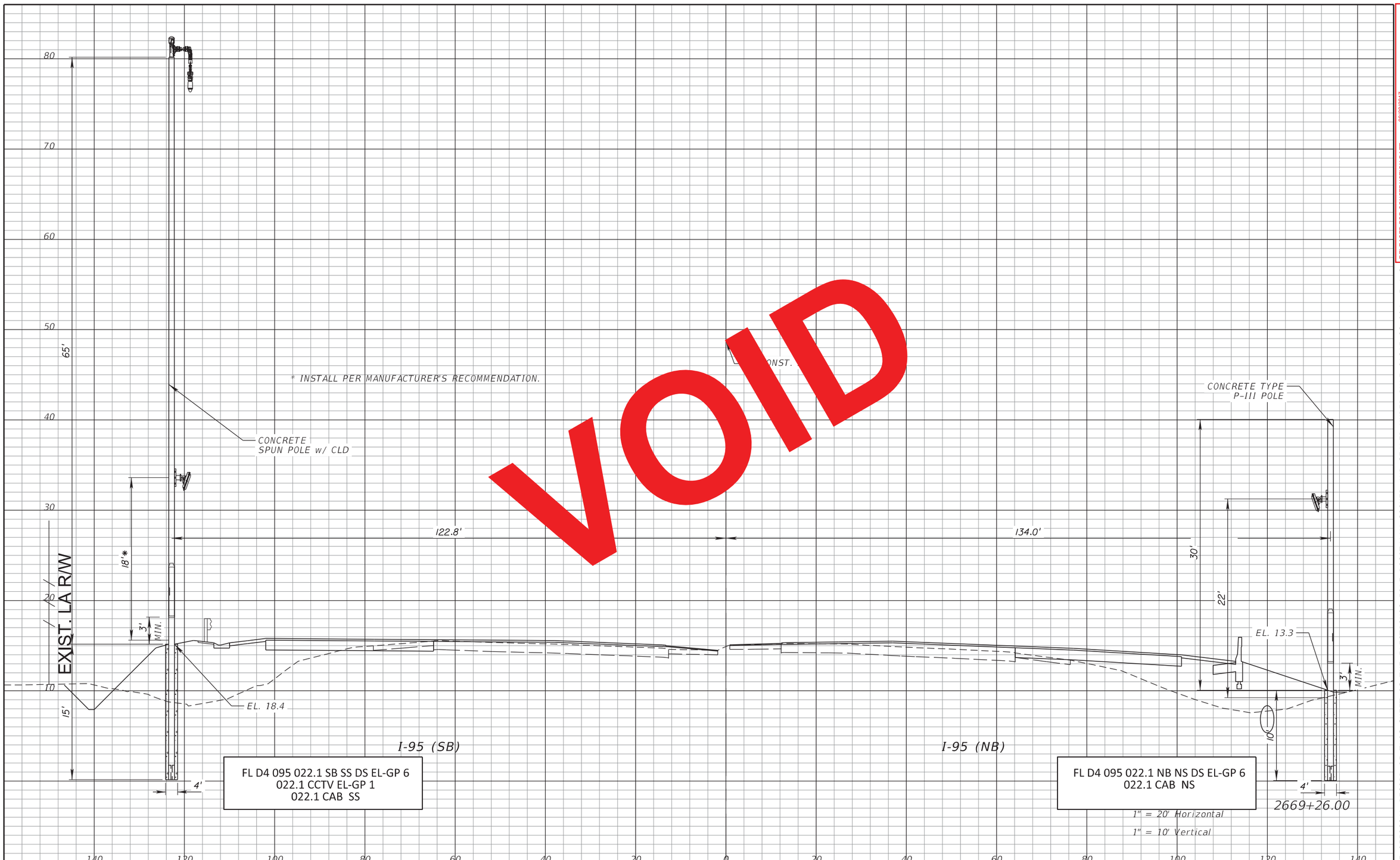
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-186



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

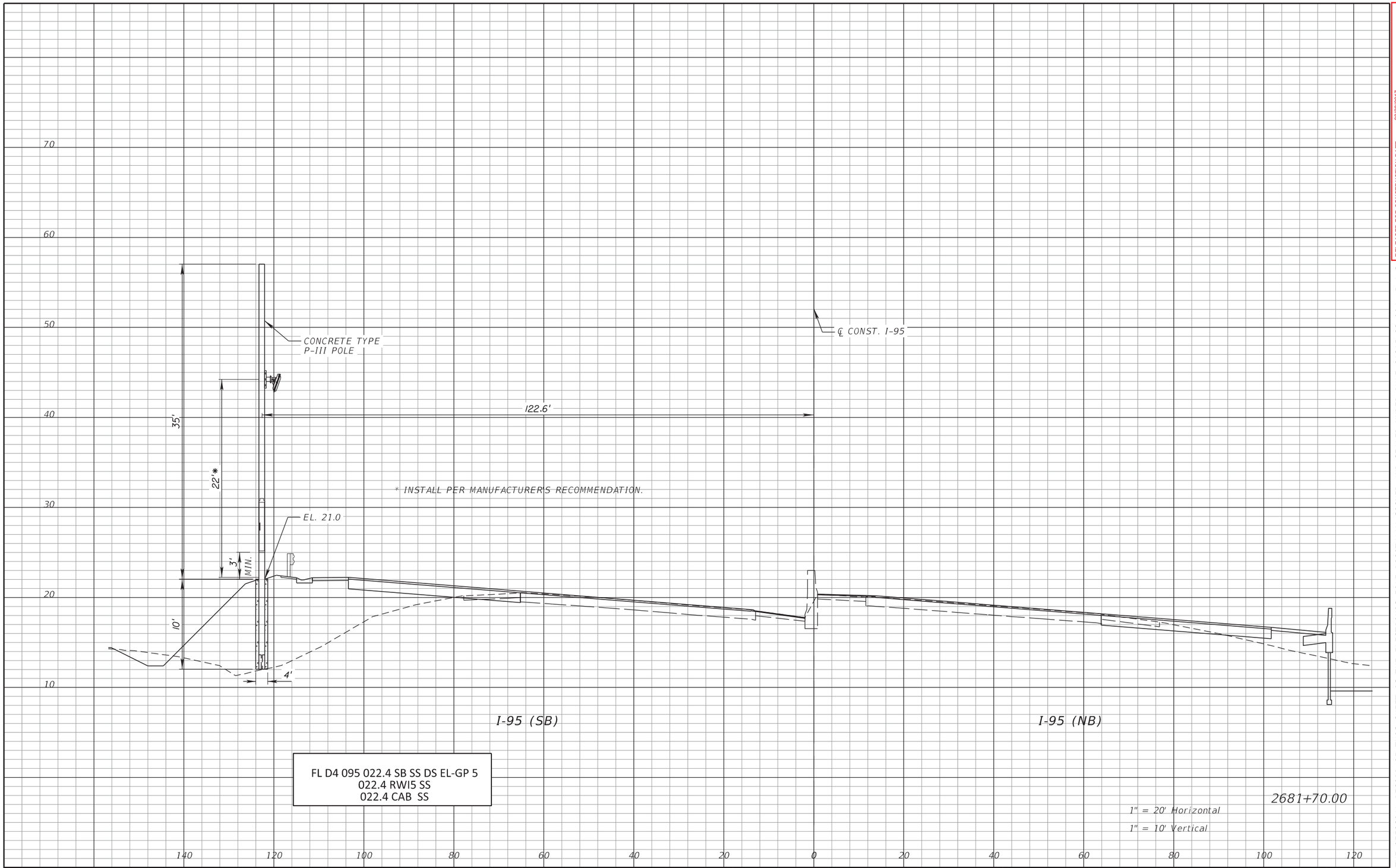
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-186



FL D4 095 022.4 SB SS DS EL-GP 5
022.4 RWI5 SS
022.4 CAB SS

2681+70.00

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
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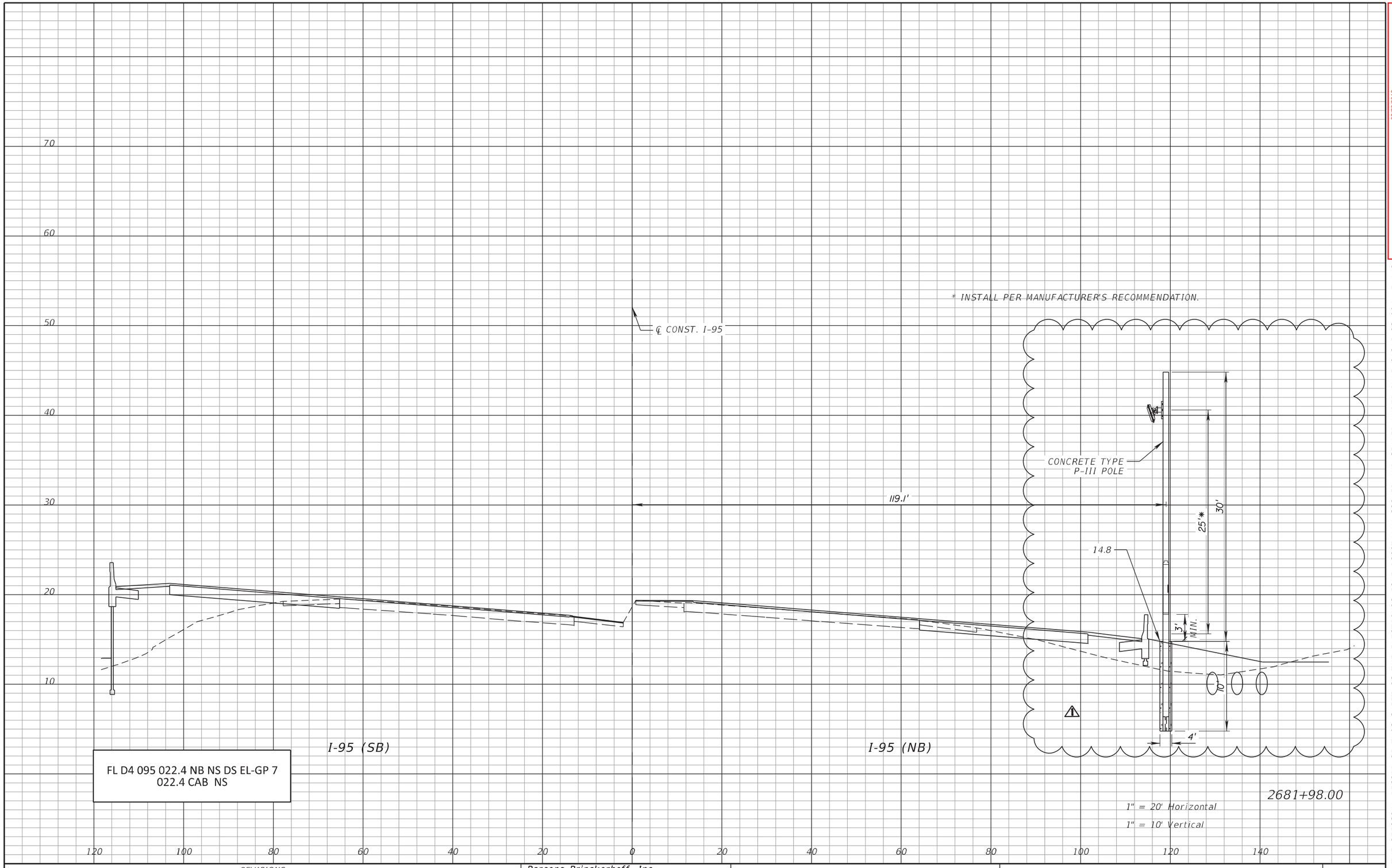
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-187



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) PL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 MOVED MVDS POLE CLOSER TO WALL; ADDED LAND BRIDGE CULVERTS		

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Virginia Beach, VA 23452
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EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-188

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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* INSTALL PER MANUFACTURER'S RECOMMENDATION.

℄ CONST. I-95

CONCRETE TYPE P-III POLE

154.0'

30'*

EL. 12.5

3' MIN.

4'

70
60
50
40
30
20
10

I-95 (SB)

I-95 (NB)

FL D4 095 022.4 NB NS DS EL-GP 7
022.4 CAB NS

2681+98.00

1" = 20' Horizontal
1" = 10' Vertical

120 100 80 60 40 20 0 20 40 60 80 100 120 140

REVISIONS			
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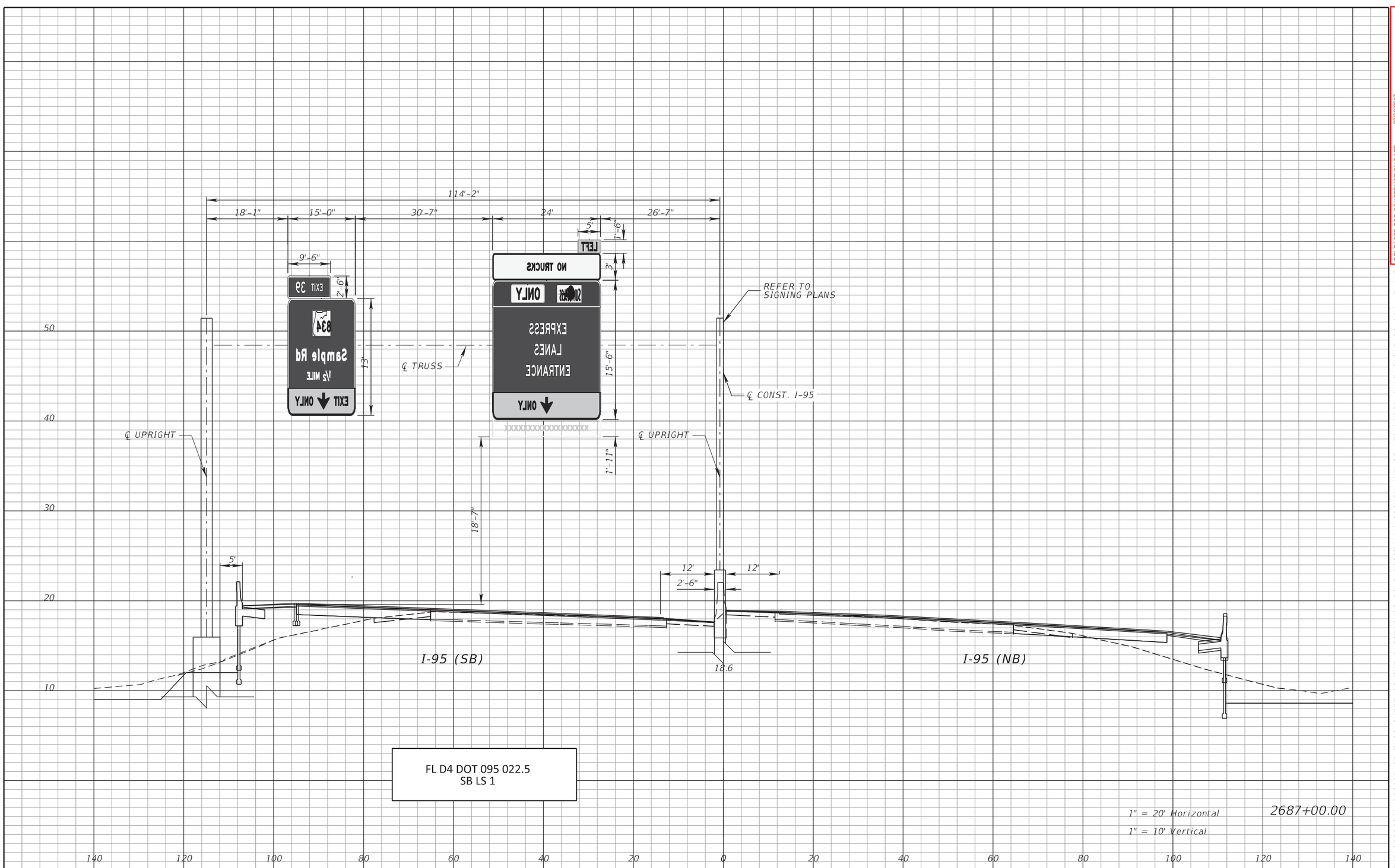
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-188



FL D4 DOT 095 022.5
SB LS 1

1" = 20' Horizontal
1" = 10' Vertical

2687+00.00

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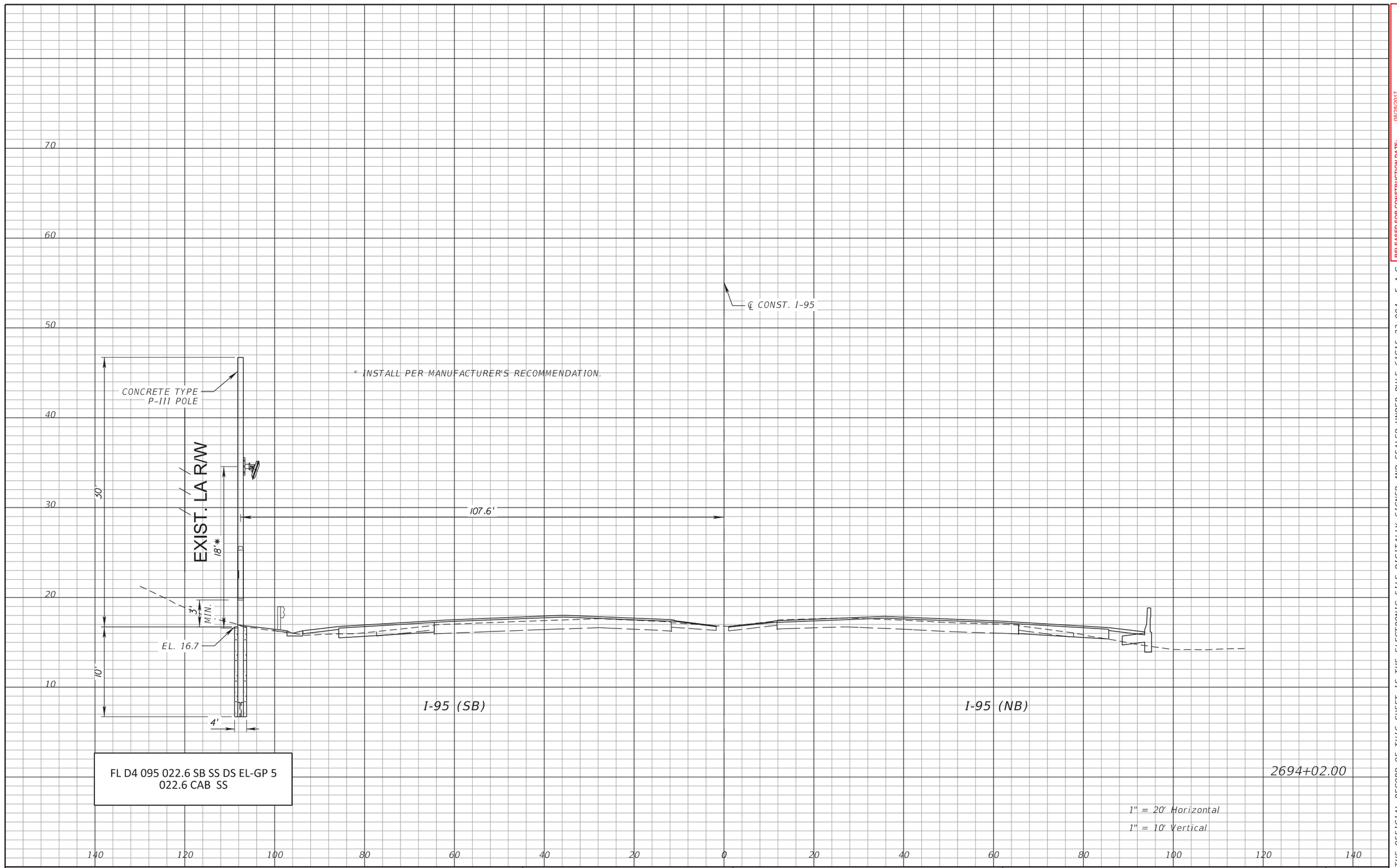
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-189

$PLTDRVL$ $PENTBLL$ Barber 6/12/2017 6:30:19 PM T:\Sys\PROJECTS\43310855201_I95_Ph3A2\ITS\SSXSIT01.dgn



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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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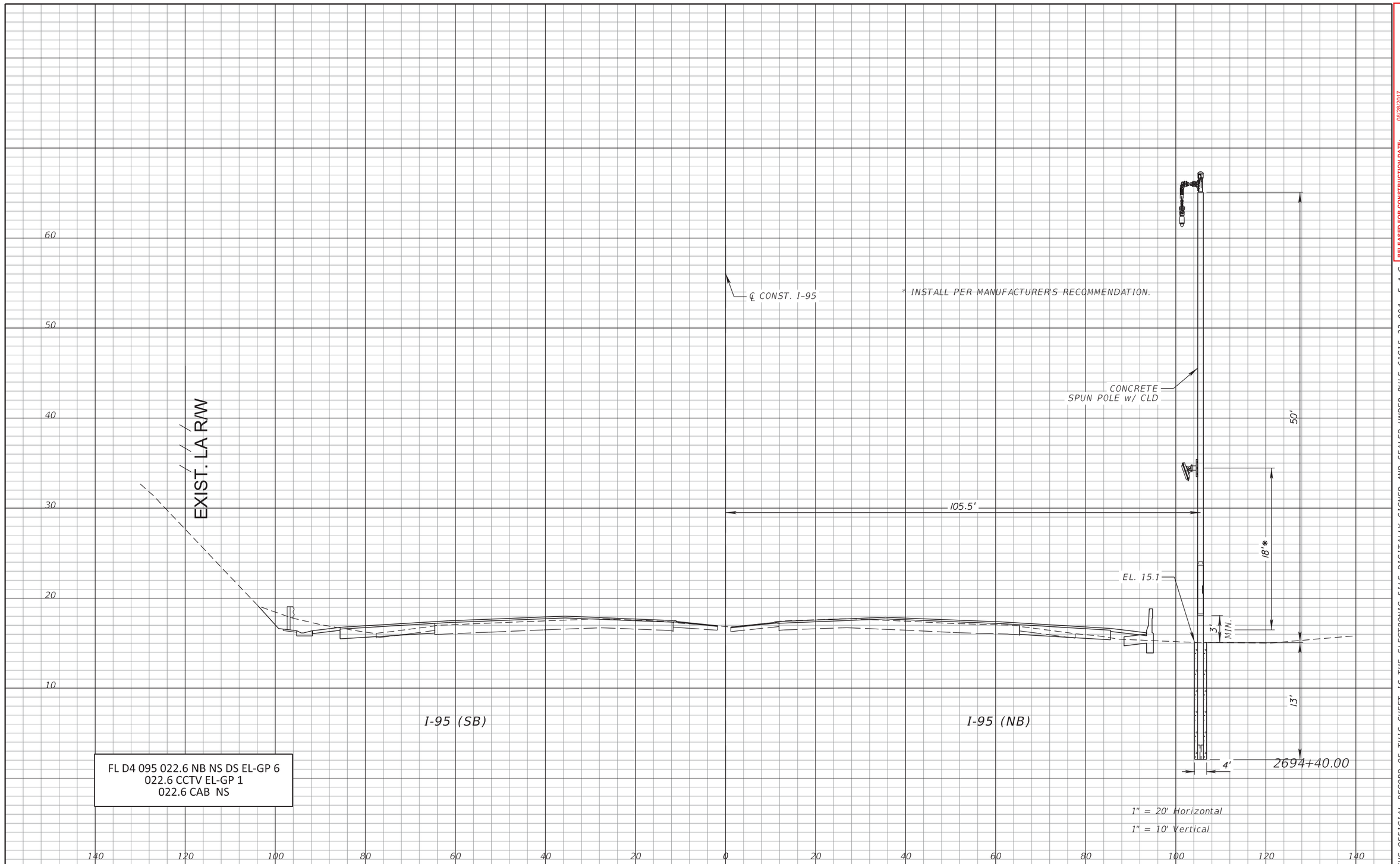
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-190



FL D4 095 022.6 NB NS DS EL-GP 6
022.6 CCTV EL-GP 1
022.6 CAB NS

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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BY: (Stantec) PE BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-191

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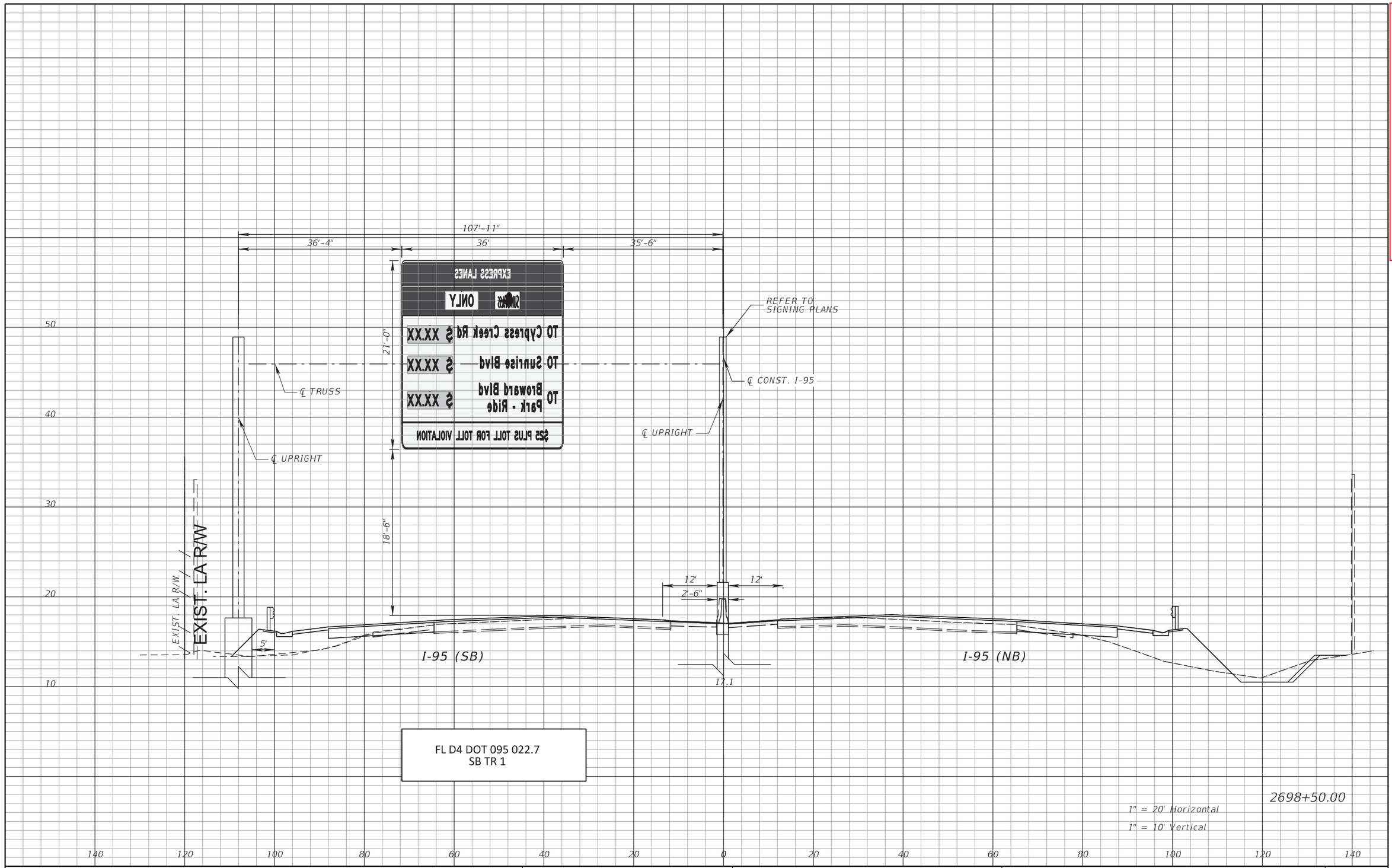

FL D4 DOT 095 022.7
SB TR 1

2698+50.00

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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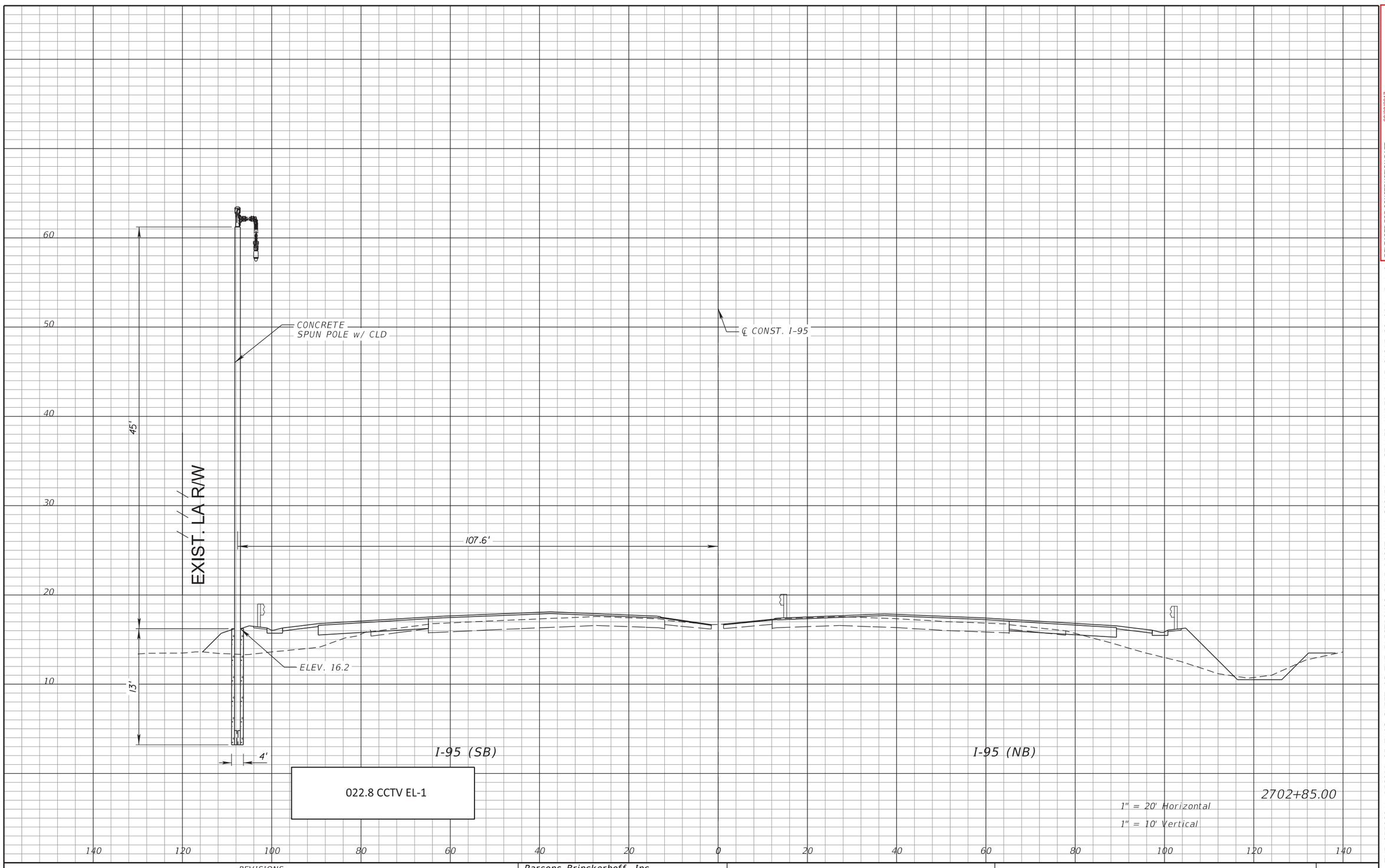
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-192

$PLTDRVL$ $PENTBLL$ Barber 6/12/2017 6:30:20 PM T:\Sys\PROJECTS\43310855201_I95_Ph3A2\ITS\SSXSIT01.dgn



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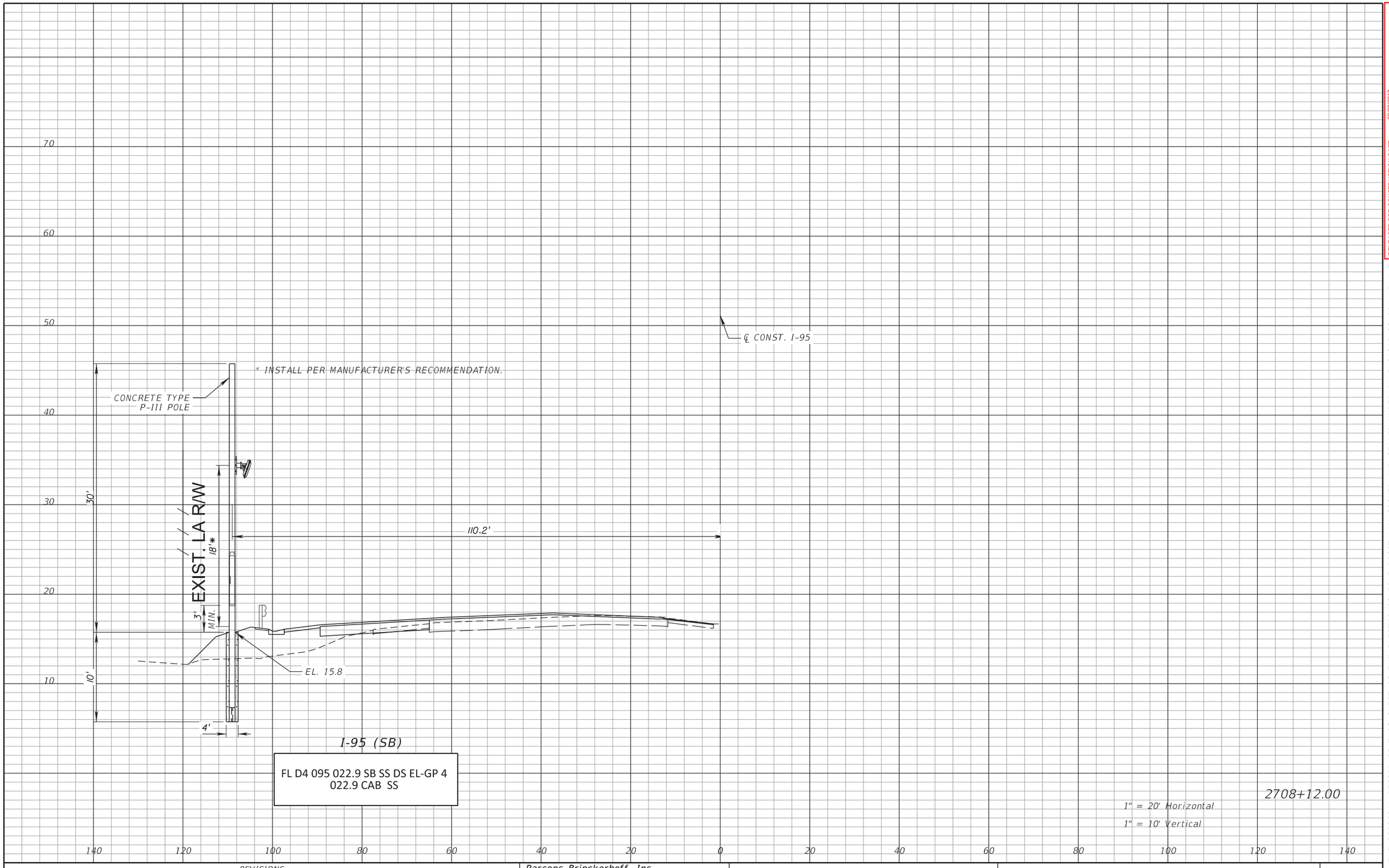
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-193



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PL BY: (FDOT)

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STATE OF FLORIDA
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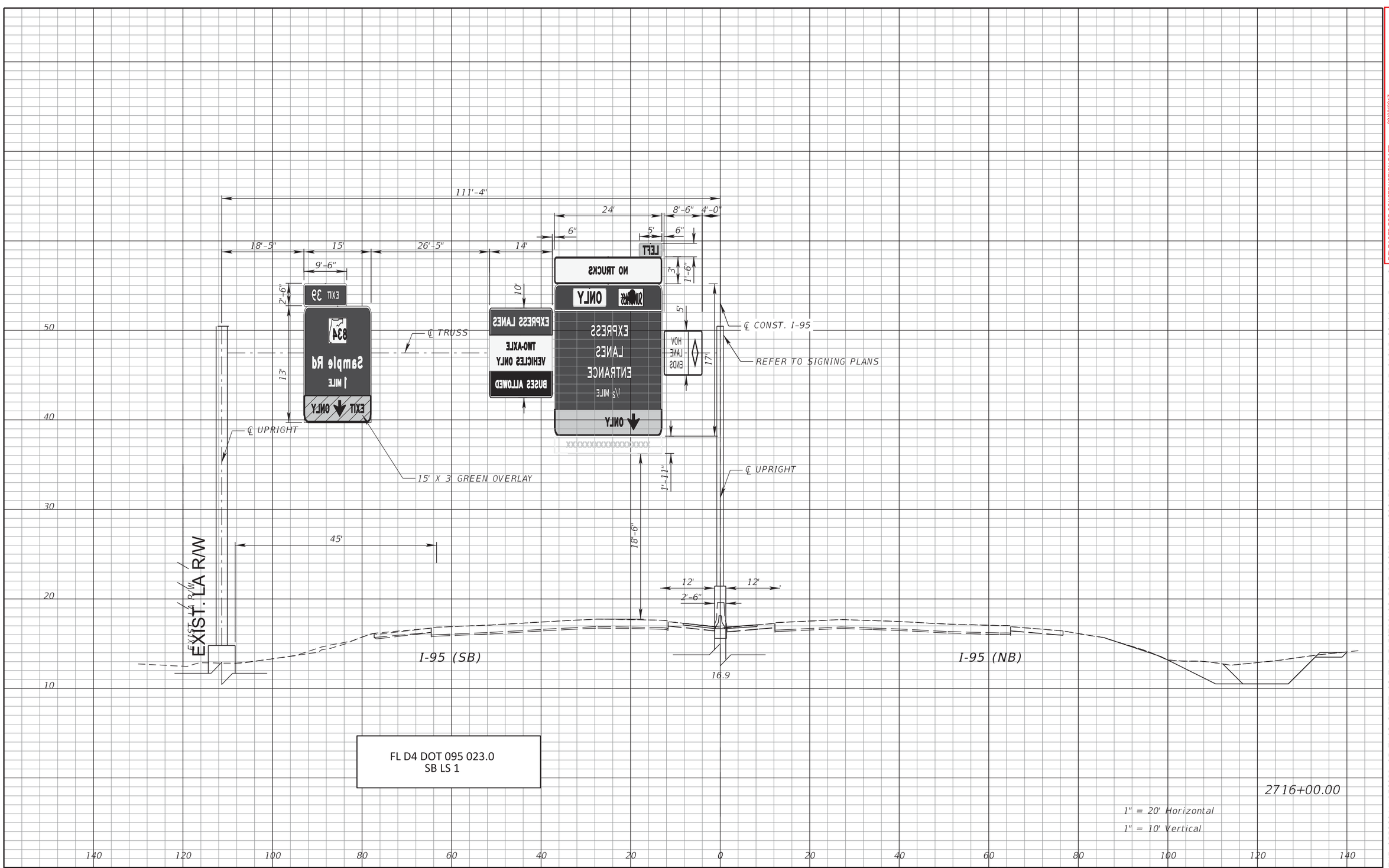
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-194



FL D4 DOT 095 023.0
SB LS 1

2716+00.00

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-195

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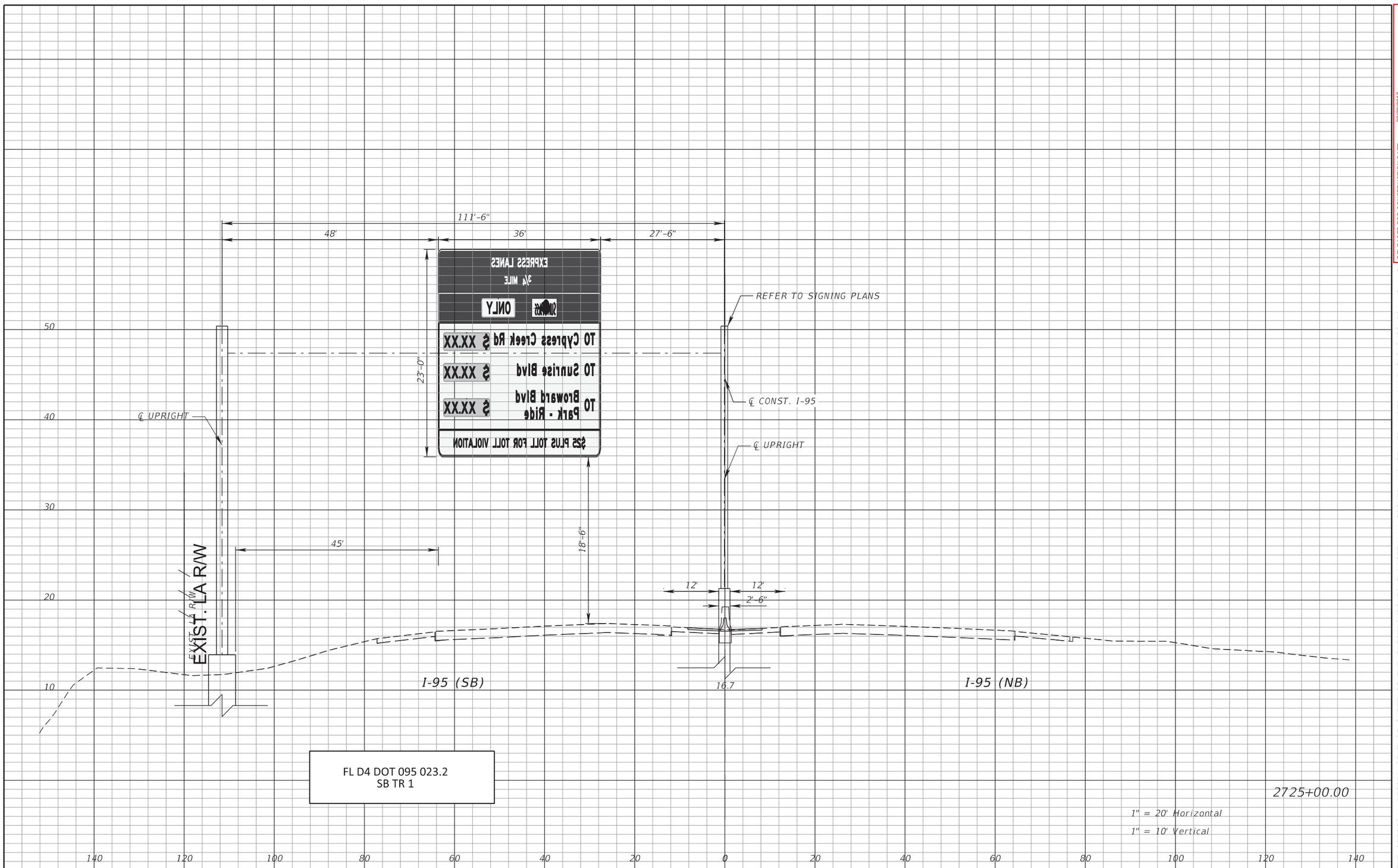

FL D4 DOT 095 023.2
SB TR 1

2725+00.00

1" = 20' Horizontal
1" = 10' Vertical

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
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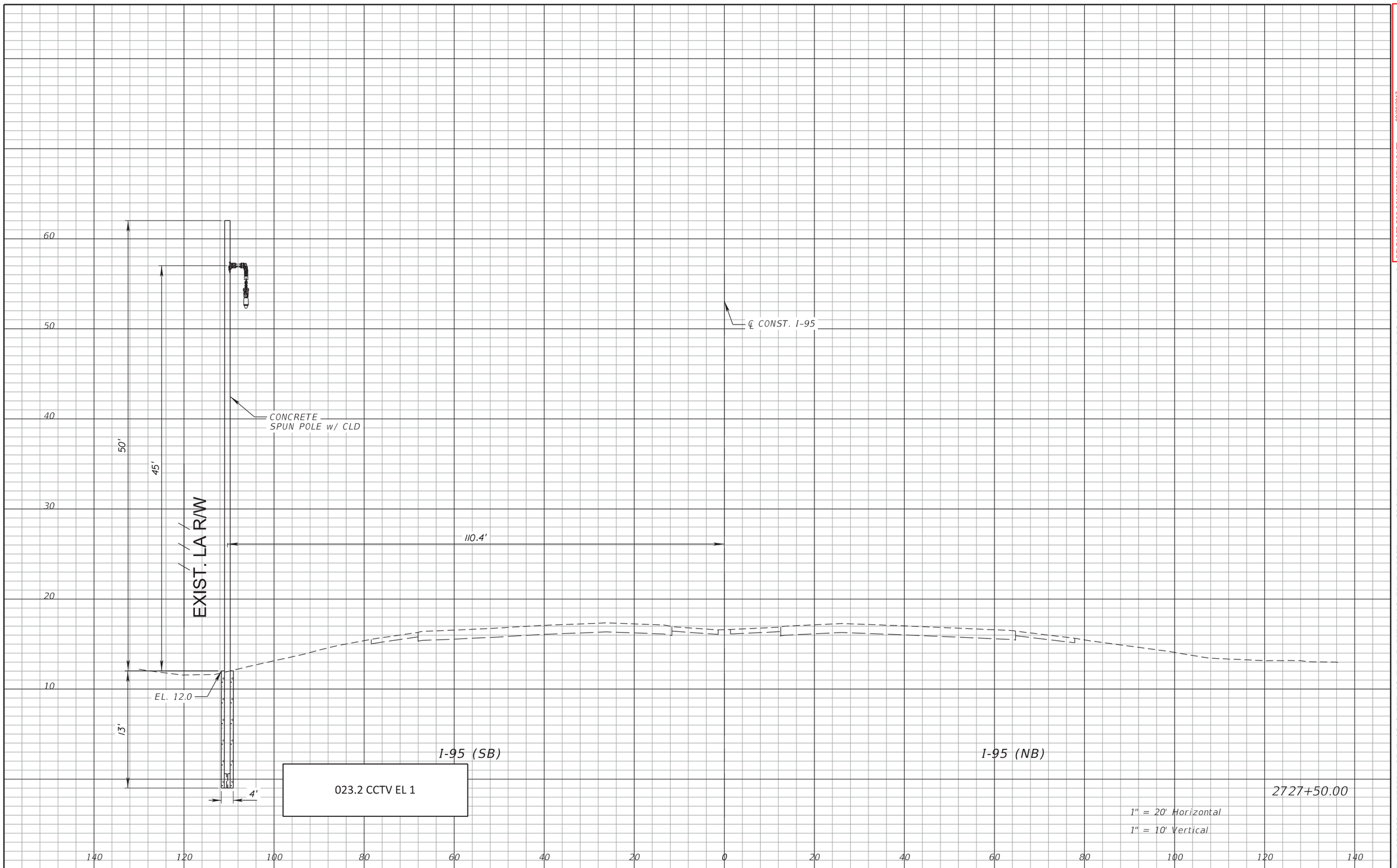
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-196



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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-197

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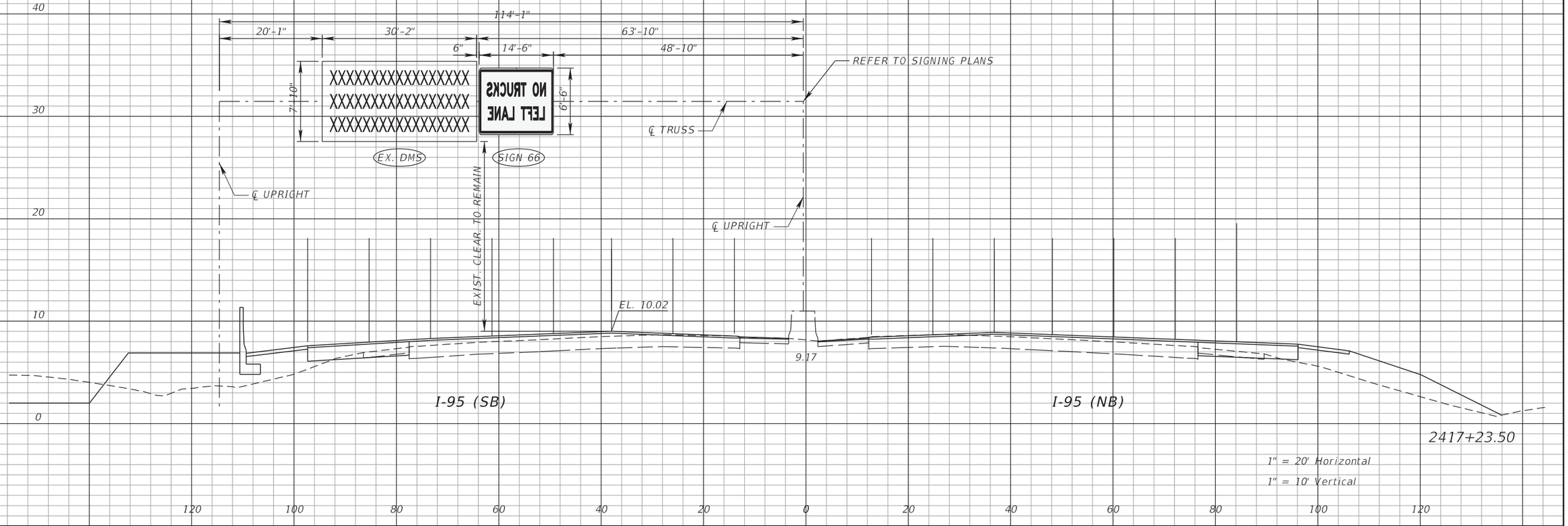

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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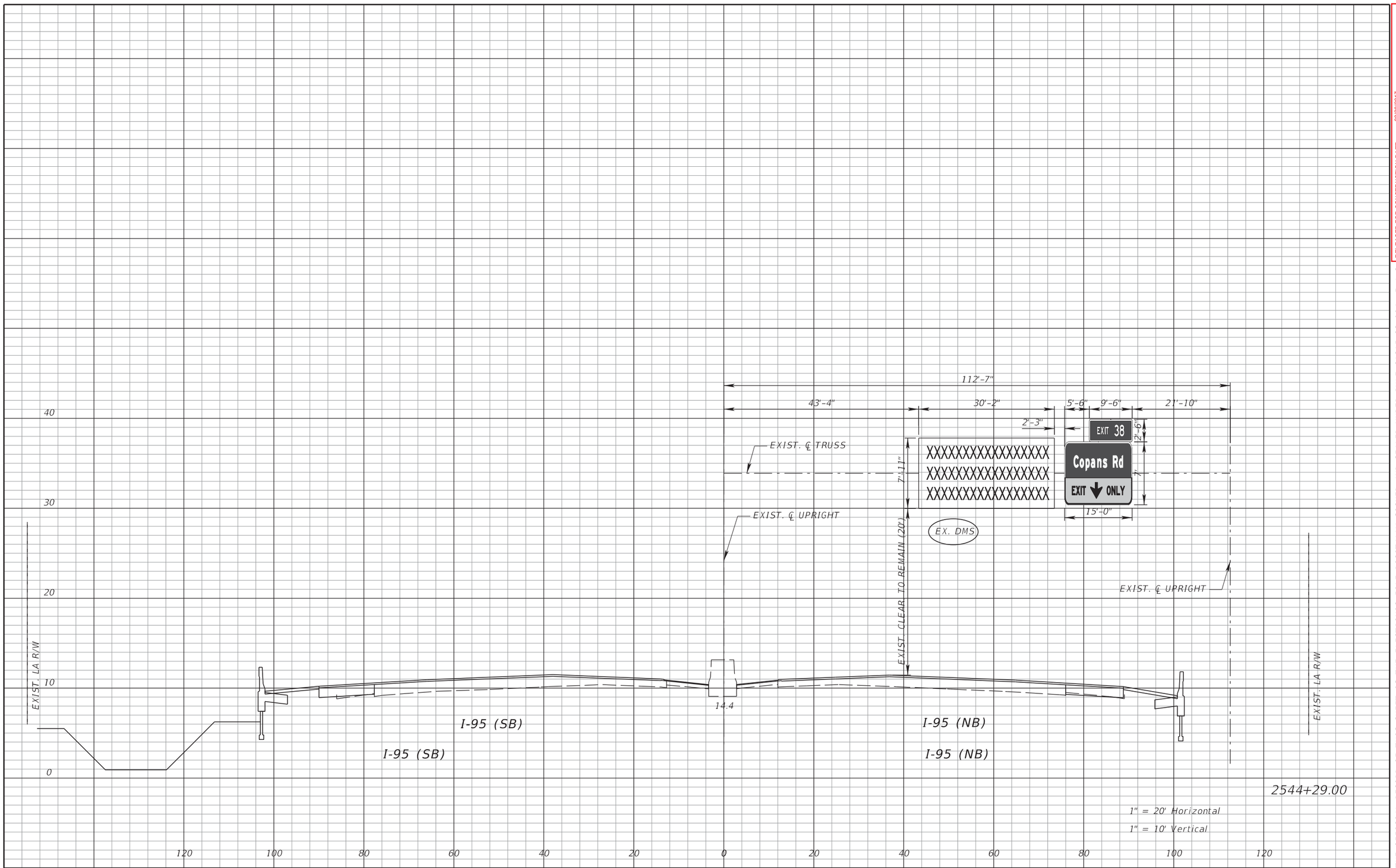
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-198



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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) P.E. BY: (FDOT)

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-199

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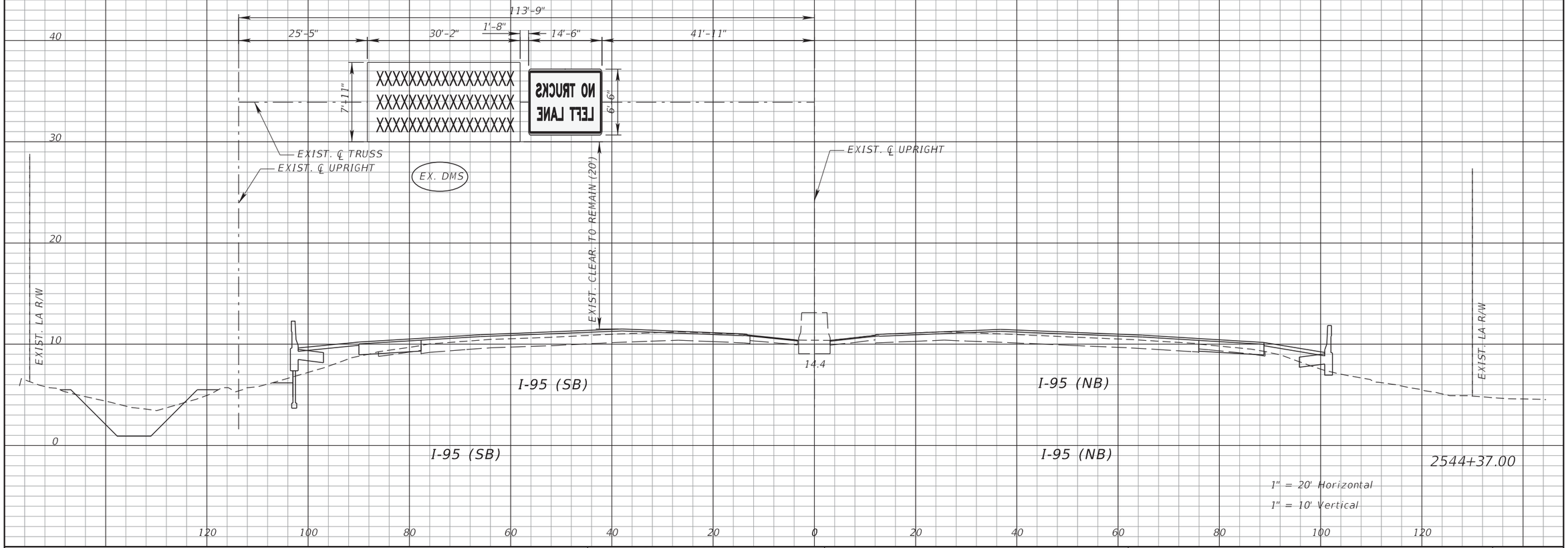

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-200

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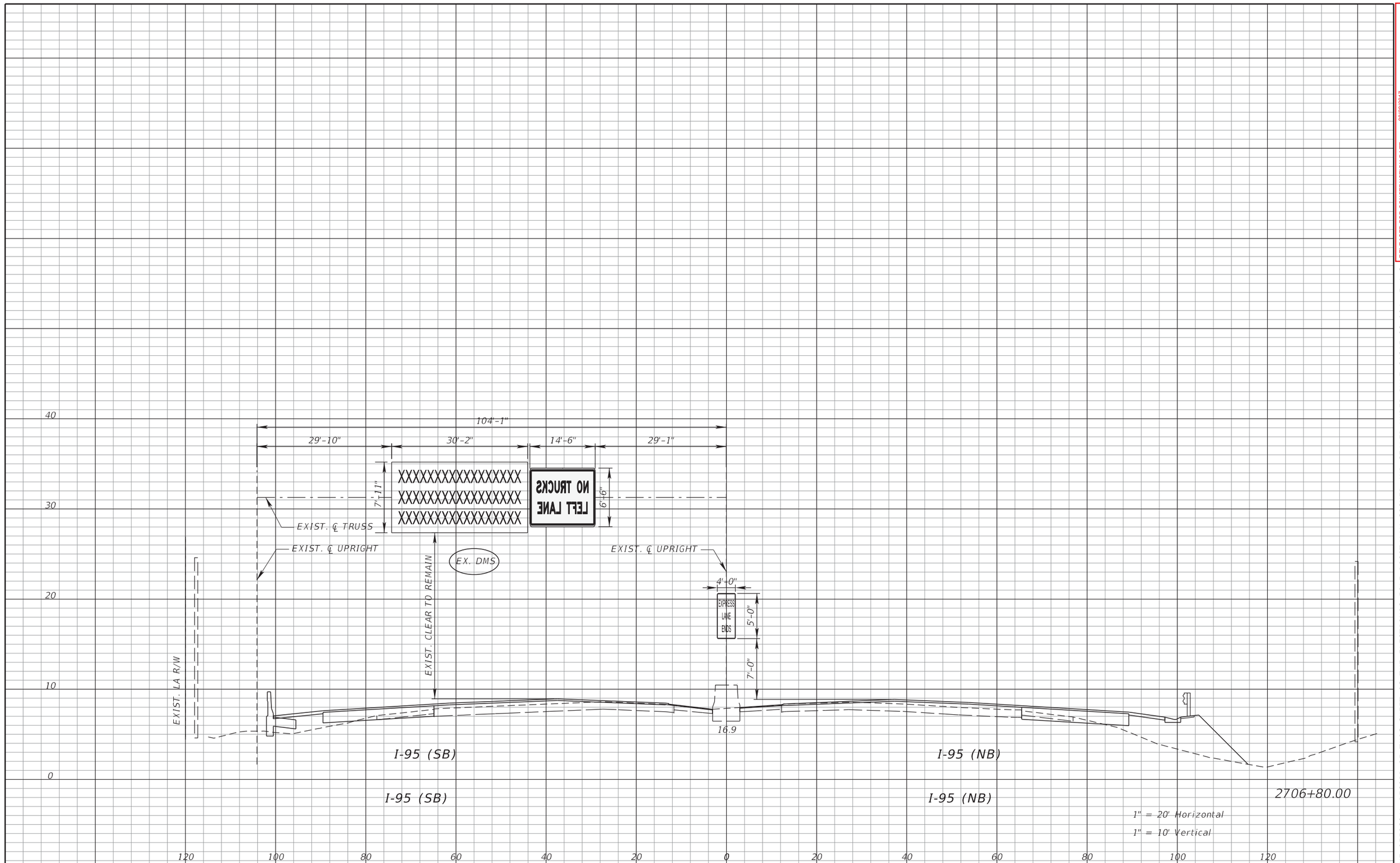

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-201

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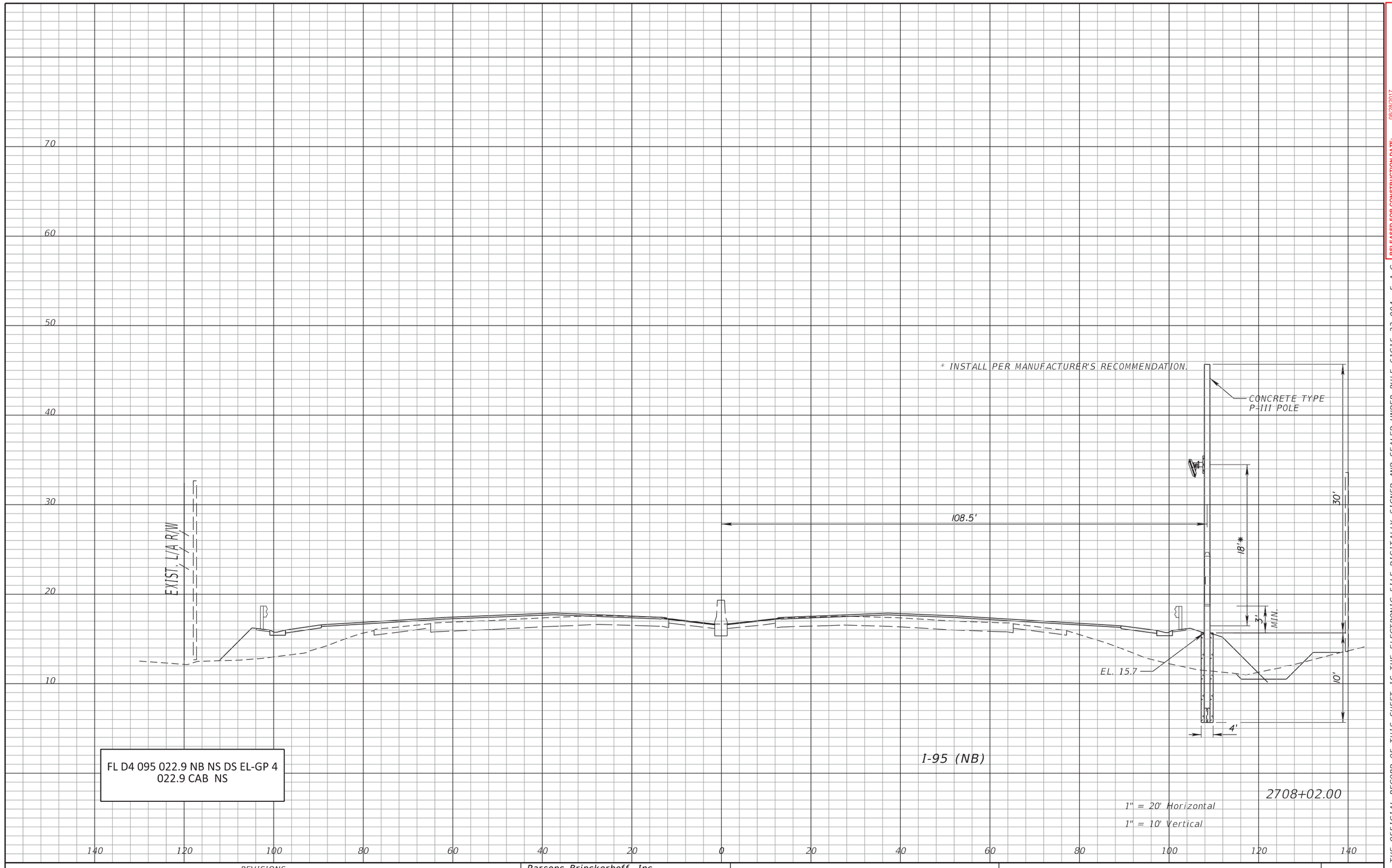

FL D4 095 022.9 NB NS DS EL-GP 4
022.9 CAB NS

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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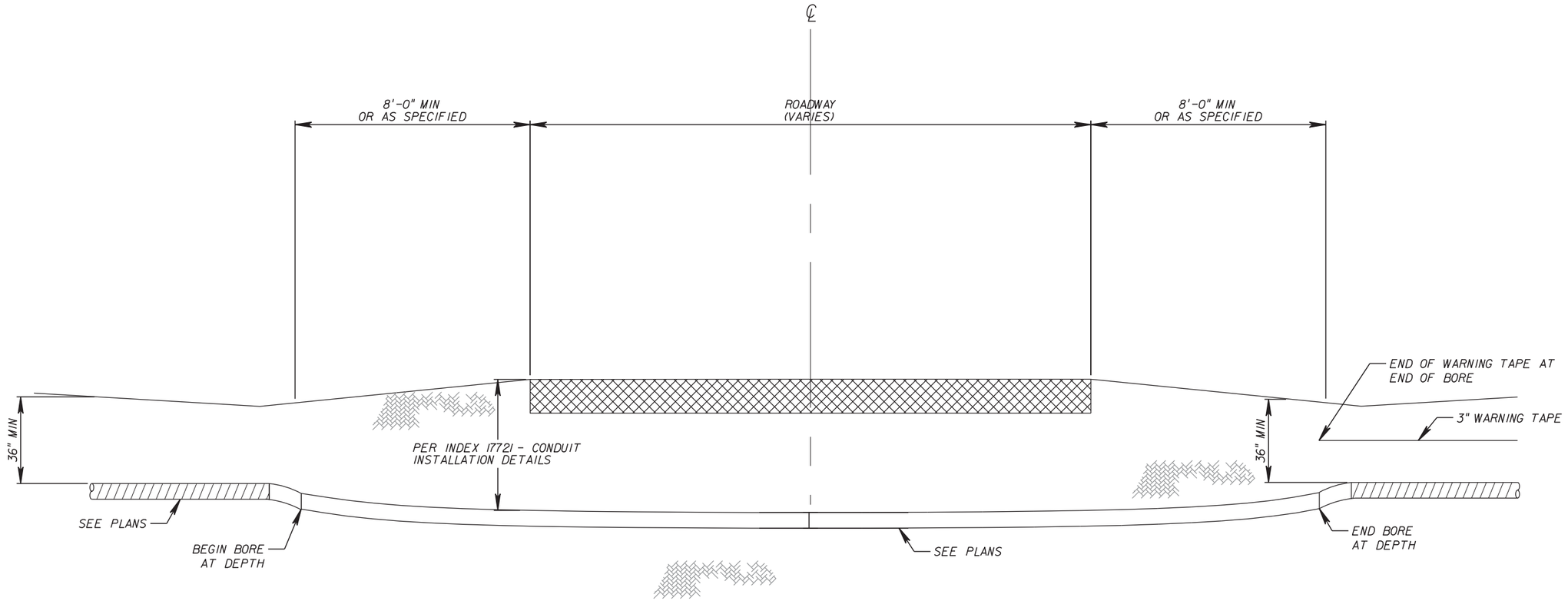
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

ITS CROSS SECTIONS
SR 9 (I-95)

SHEET NO.
IT-202



TYPICAL DIRECTIONAL BORE
NTS

NOTES:

1. UTILITY IN THE PATH OF THE BORE SHALL BE LOCATED AND THE DEPTH OF THE BORE CROSSING SHALL BE DELINEATED TO CROSS UNDER OR OVER UTILITY WITH 12" MINIMUM SEPARATION.
2. DEPTH SHALL BE IN ACCORDANCE WITH INDEX 17721 - CONDUIT INSTALLATION DETAILS.
3. PULL BOXES SHALL BE INSTALLED AT THE BEGINNING AND END OF BORE AS NECESSARY. SEE PLAN SHEETS FOR PULL BOX LOCATIONS.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PL BY: (FDOT)

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REVISIONS			
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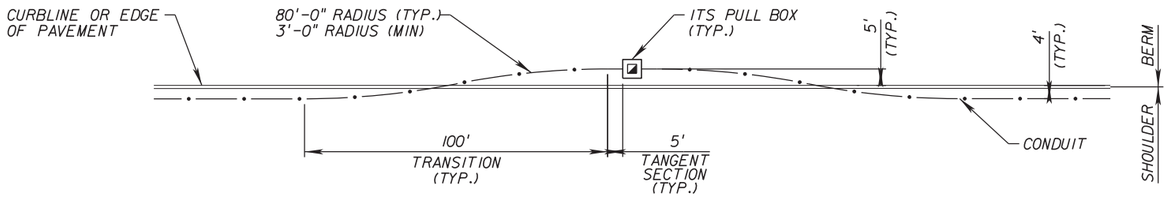
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

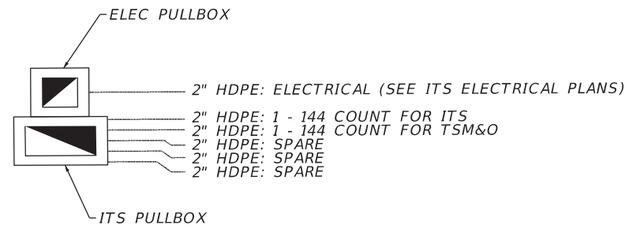
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

DIRECTIONAL BORE DETAIL

SHEET NO.
IT-203



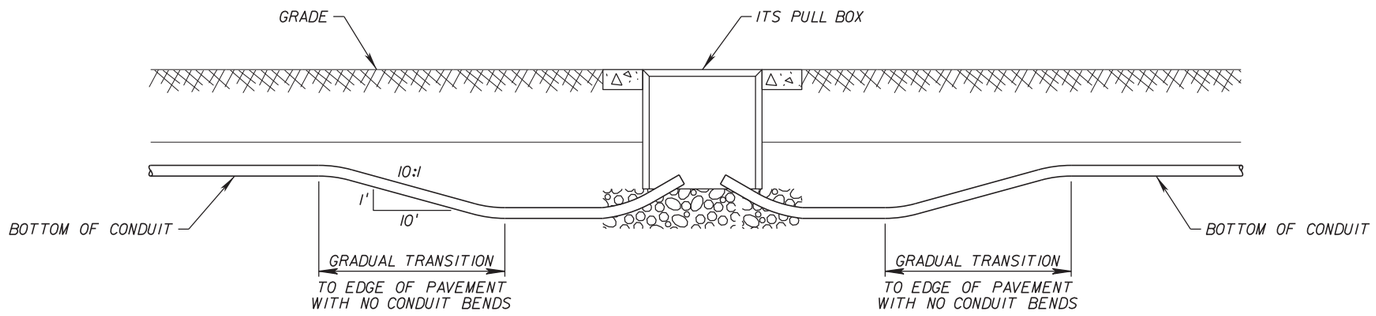
TYPICAL CONDUIT TRANSITION



PLAN VIEW

CONDUIT LAYOUT AT ITS AND ELEC PULLBOXES

(SINGLE OPEN TRENCH)



ELEVATION OF CONDUIT TRENCH AND

FIBER OPTIC PULL BOX

NOTE:

BACKFILL THE TRENCH WITHIN THE SAME DAY.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

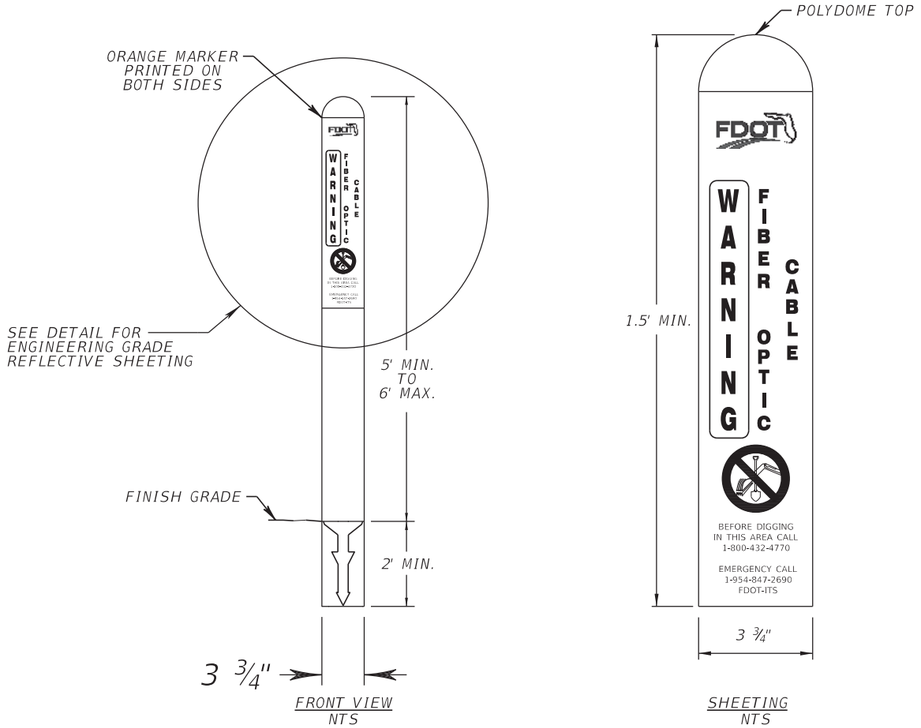
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

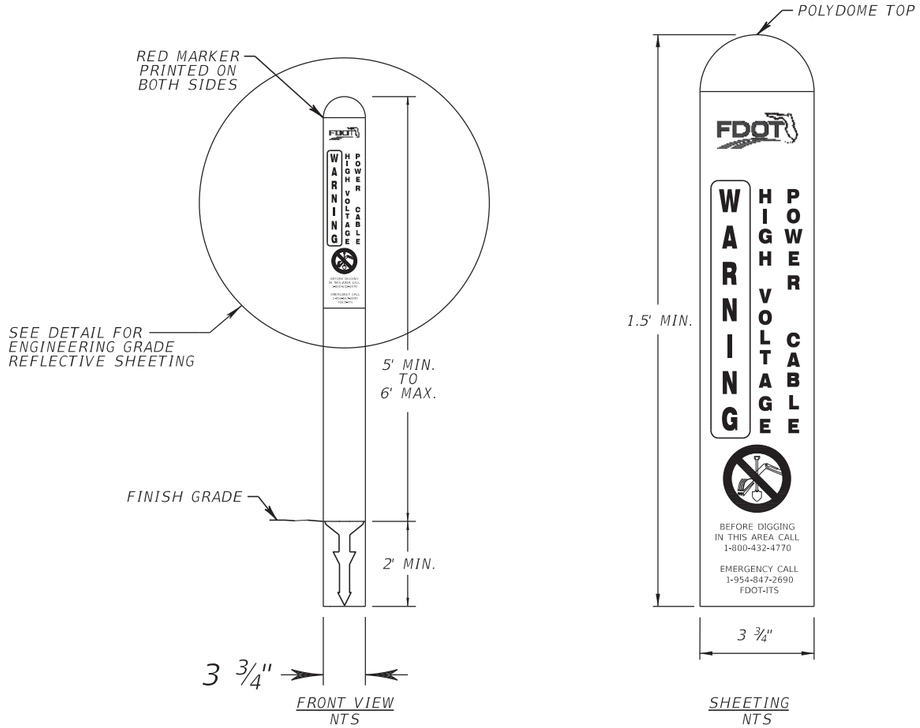
ITS UNDERGROUND CONDUIT TRANSITION DETAILS

SHEET NO. IT-204

FIBER OPTIC CABLE ROUTE MARKER



ELECTRICAL CABLE ROUTE MARKER



NOTES:

1. FOR TRENCH LINES WITH BOTH FIBER OPTIC CABLE AND POWER SERVICE WIRE, INSTALL POWER MARKER ALTERNATING WITH FIBER MARKER.
2. INSTALL FIBER OPTIC CABLE MARKER AT EVERY FIBER PULL BOX AND EVERY CHANGE IN DIRECTION NOT TO EXCEED 500 FEET.
3. TUBULAR MARKER TO BE PLACED OVER A V-CHANNEL METALLIC FENCE POST.
4. NO SEPARATE PAYMENT FOR ROUTE MARKERS. SHALL BE INCIDENTAL TO CONDUIT INSTALLATION.
5. A POLYDOME TOP SHALL BE INSTALLED ON EACH MARKER ORANGE, FOR FIBER AND RED FOR POWER.
6. ALL ROUTE MARKERS SHALL MEET SECTION 630 OF STANDARD SPECIFICATIONS.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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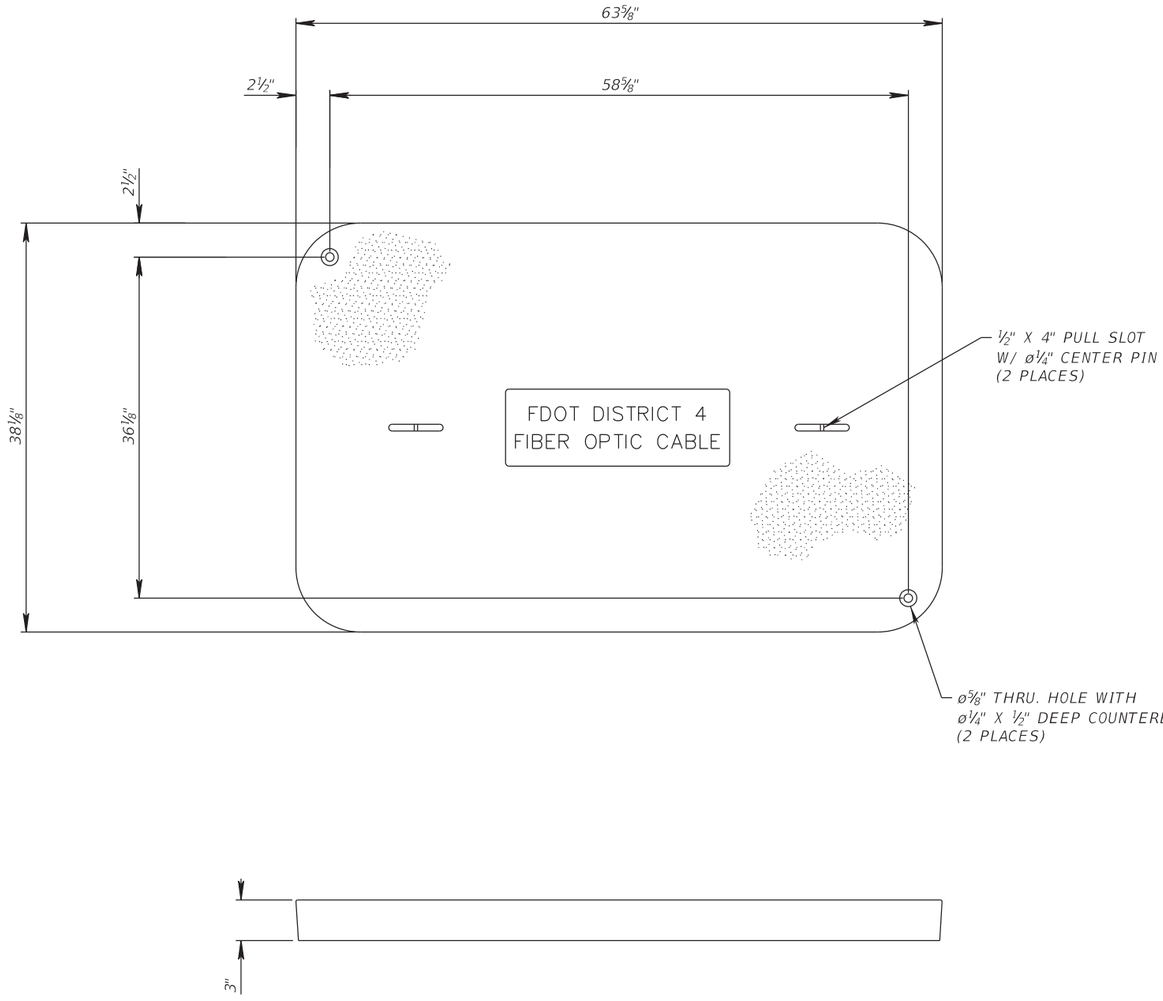
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

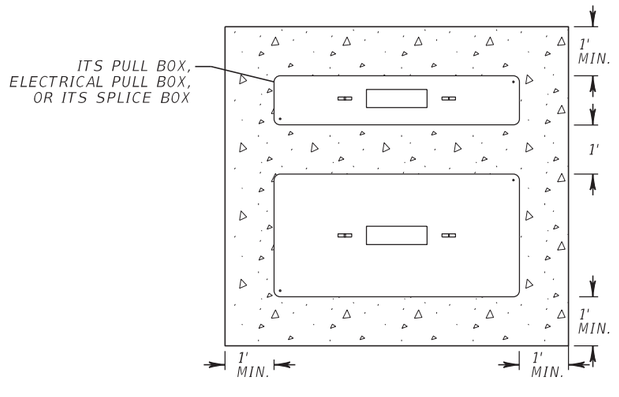
CABLE ROUTE MARKER DETAILS

SHEET NO. IT-205



NOTES:

1. SPLICE BOX AND FO PULL BOX COVERS SHALL INCLUDE THE WORDS "FDOT DISTRICT 4 FIBER OPTIC CABLE". PERMANENTLY CAST INTO THEIR TOP SURFACE.
2. THIS COVER IS RATED FOR A STATIC DESIGN LOAD OF 22,500 LBS. OVER A 10" X 20" AREA AND MUST PASS A MIN. STATIC TEST LOAD OF 33,750 LBS.
3. FURNISH W/(2) ⅜-7" X 4" LONG HEX HEAD AUGER BOLTS AND (2) ø⅜" FLAT WASHERS.



NOTES:

1. CONCRETE REINFORCEMENT AND INSTALLATION REQUIREMENTS TO BE PER INDEX 17700.
2. WHEN MULTIPLE CONFIGURATIONS OF PULL BOXES ARE ADJACENT TO ONE ANOTHER, THEY SHALL BE FORMED TOGETHER WITH AN EXPANSION JOINT BETWEEN THE APRONS UTILIZED TO AVOID CRACKING.
3. THE ORIENTATION OF CONCRETE APRONS WITH MULTIPLE PULL & JUNCTION BOXES SHALL BE DETERMINED IN THE FIELD.

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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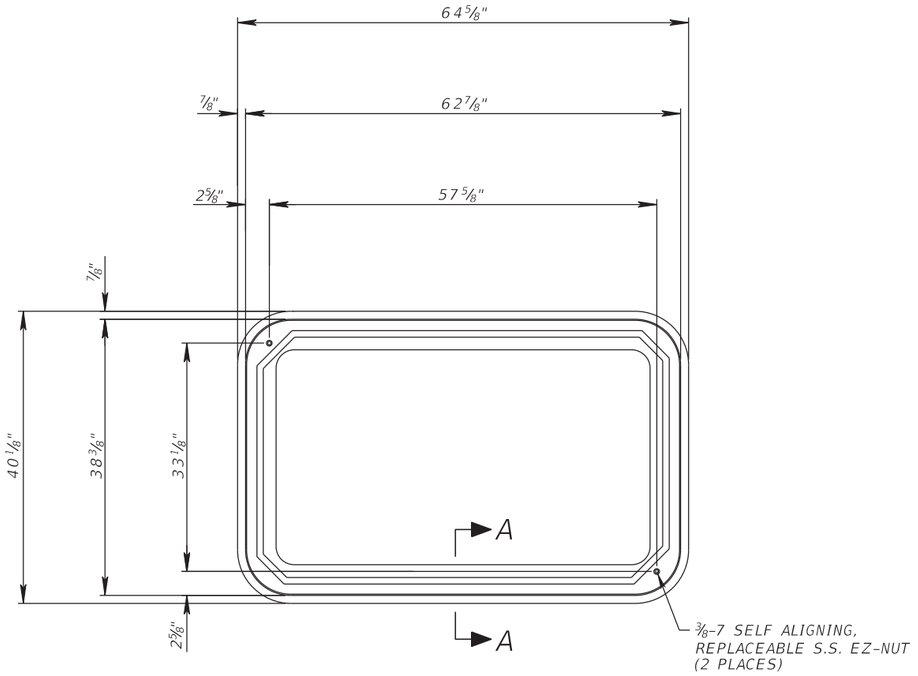
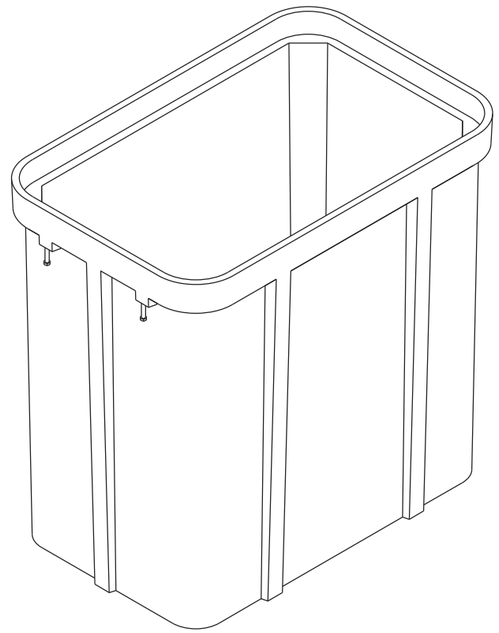
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

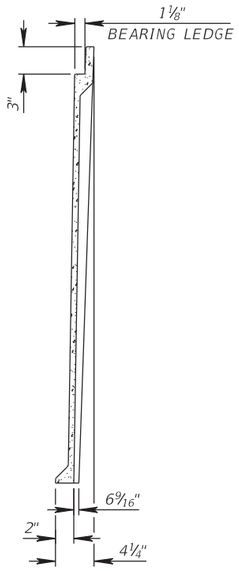
FIBER OPTIC SPLICE VAULT COVER DETAIL CONCRETE APRON DETAIL

SHEET NO. IT-206

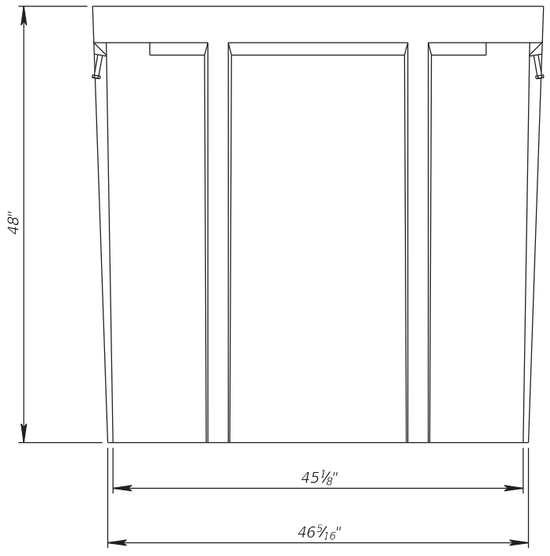


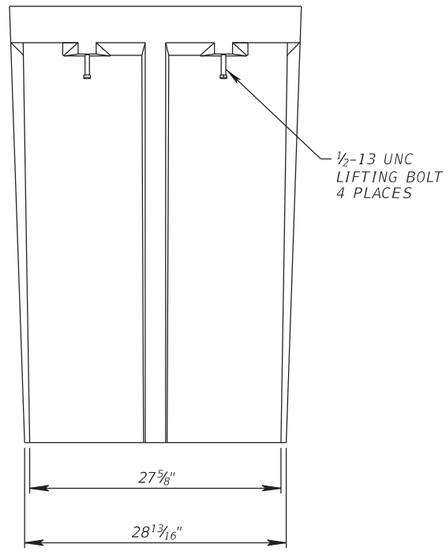


30" W x 60" L x 48" D
DESIGN LOAD: 22,500 LBS



SECTION A-A





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9	BROWARD	433108-5-52-01

FIBER OPTIC SPLICE BOX DETAIL

SHEET NO.
IT-207

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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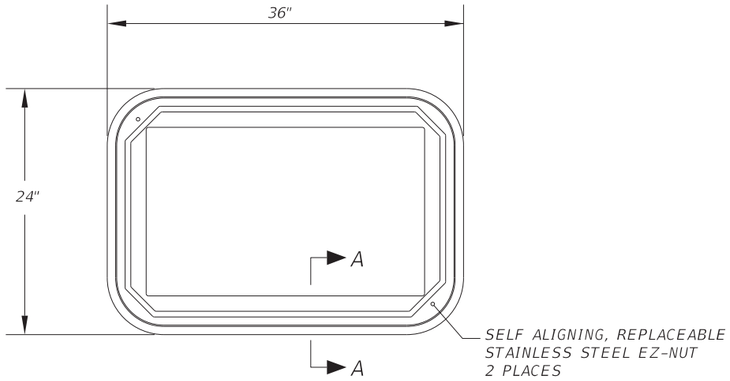
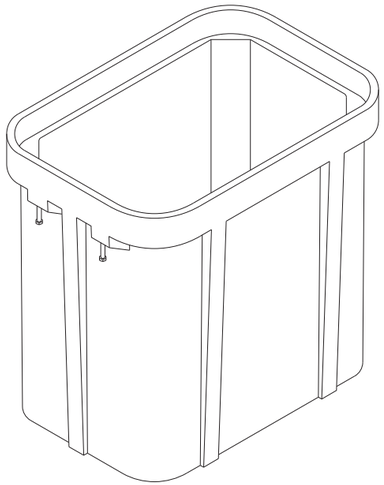
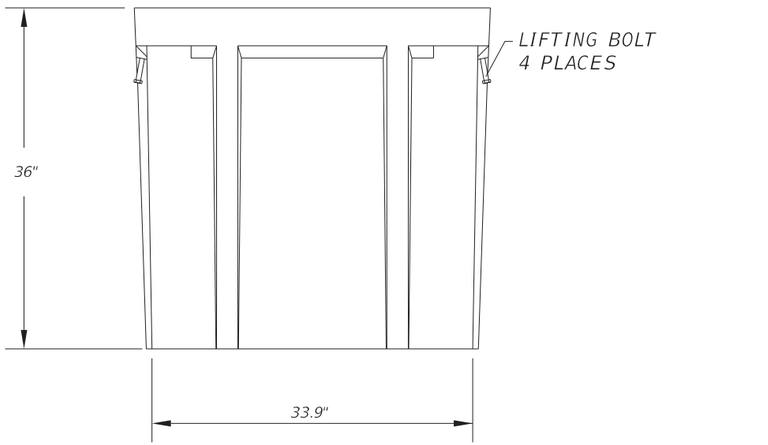
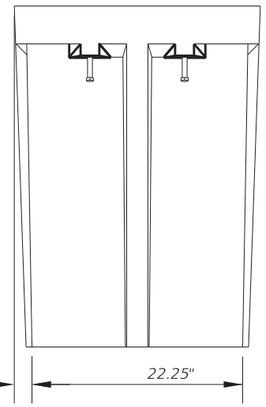
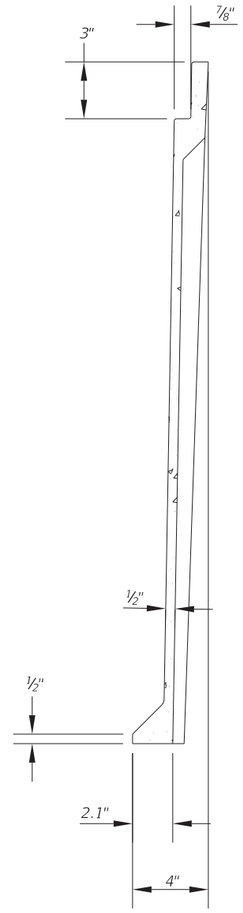


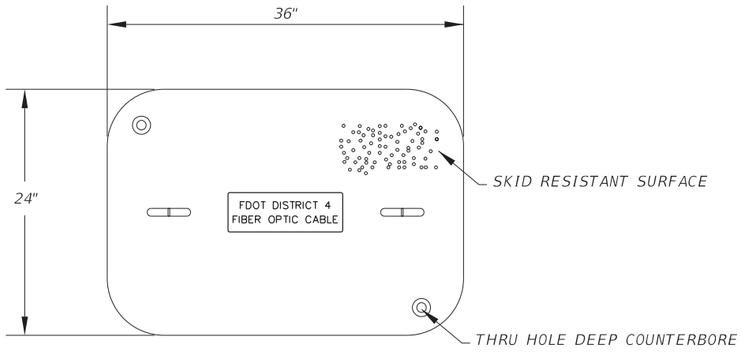


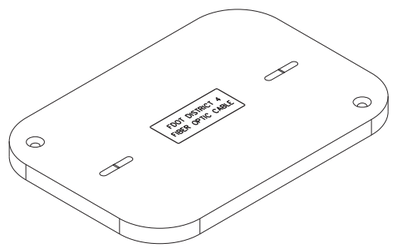






SECTION A-A





RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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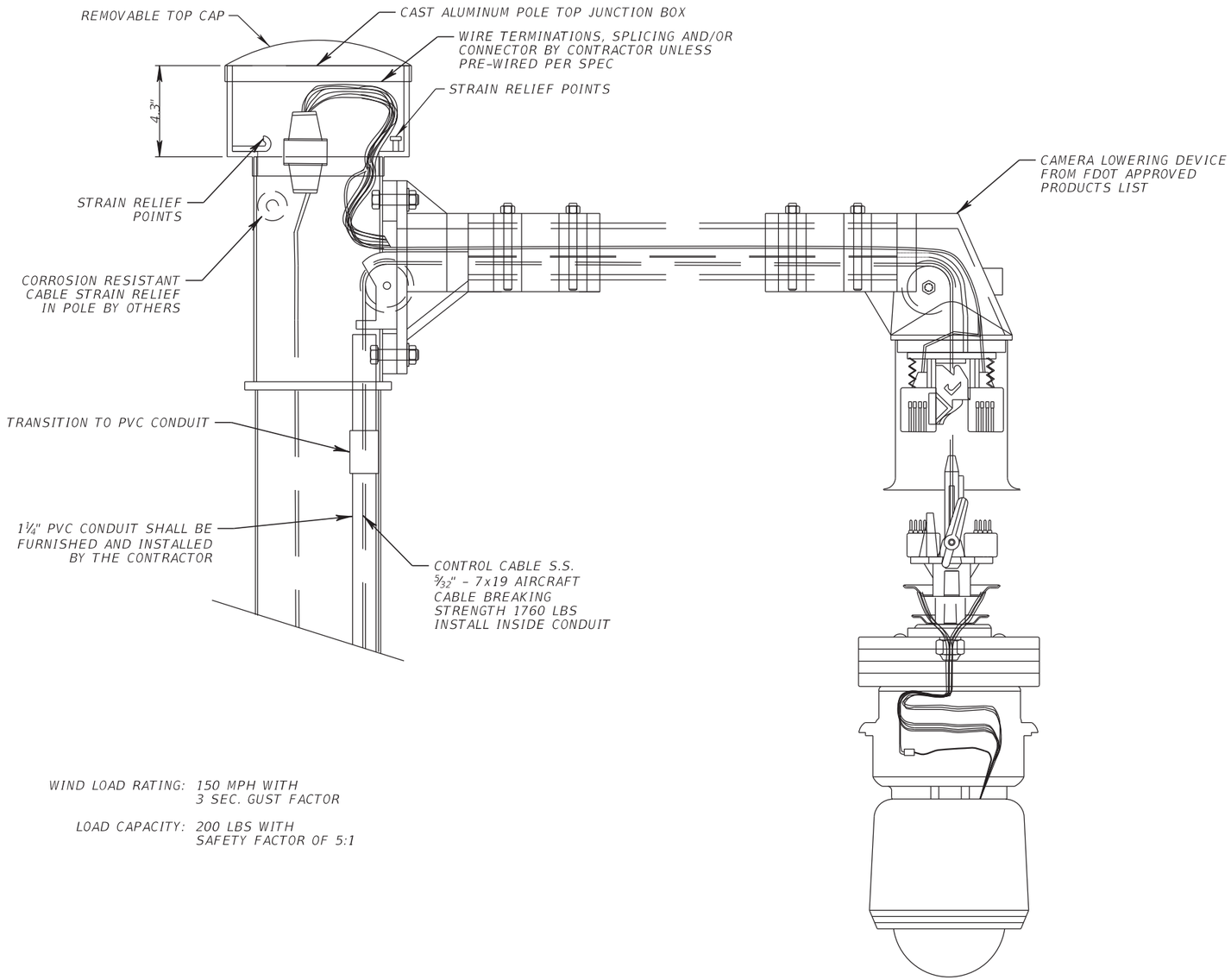
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

FIBER OPTIC PULL BOX DETAILS

SHEET NO.
IT-208

SINGLE ARM CAMERA LOWERING SYSTEM
NTS



WIND LOAD RATING: 150 MPH WITH 3 SEC. GUST FACTOR

LOAD CAPACITY: 200 LBS WITH SAFETY FACTOR OF 5:1

NOTES:

1. CAMERA LOWERING DEVICE DETAILS ARE REPRESENTATIVE AND DO NOT REFLECT ACTUAL ENGINEERING DESIGN. APL APPROVED EQUIVALENT CAMERA LOWERING DEVICE IS ALSO ACCEPTABLE.
2. LOWERING ARM SHALL BE MOUNTED PERPENDICULAR TO THE ROADWAY OR AS SHOWN IN THE PLANS OR AS DIRECTED BY THE DEPARTMENT. THE CCTV POLE SHALL BE POSITIONED SO THAT THE DOME ENCLOSURE CAN BE SAFELY LOWERED.
3. CAMERA LOWERING SYSTEM, TO INCLUDE POLE TOP J-BOX, MOUNTING HARDWARE & LOWERING CABLE.
4. CAMERA LOWERING DEVICE TO BE SHIPPED READY FOR POLE ATTACHMENT TO INCLUDE 100 FT. OF COMPOSITE POWER AND SIGNAL CABLE PRE WIRED TO LOWERING DEVICE AT THE FACTORY.
5. CONTRACTOR SHALL EXERCISE EXTREME CAUTION THAT THE PRODUCT IS ASSEMBLED CORRECTLY AND MORE IMPORTANTLY ALL NECESSARY PERSONS ARE TRAINED IN THE PROPER SAFE OPERATION OF THE SYSTEM. PRIOR TO ERECTING THE FIRST POLE THE CONTRACTOR MUST CONTACT THE LOWERING DEVICE SUPPLIER AND SCHEDULE FOR A FACTORY REPRESENTATIVE TO BE ON SITE.
6. THE ORIENTATION OF THE SINGLE ARM ATTACHED TO THE TENON SHALL BE FIELD VERIFIED PRIOR TO INSTALLATION TO ENSURE CCTV CAMERA CAPTURES THE PROPER VIEWING ANGLES, AND THE ITS POLE WILL NOT BLOCK THE CAMERA VIEWING FIELDS.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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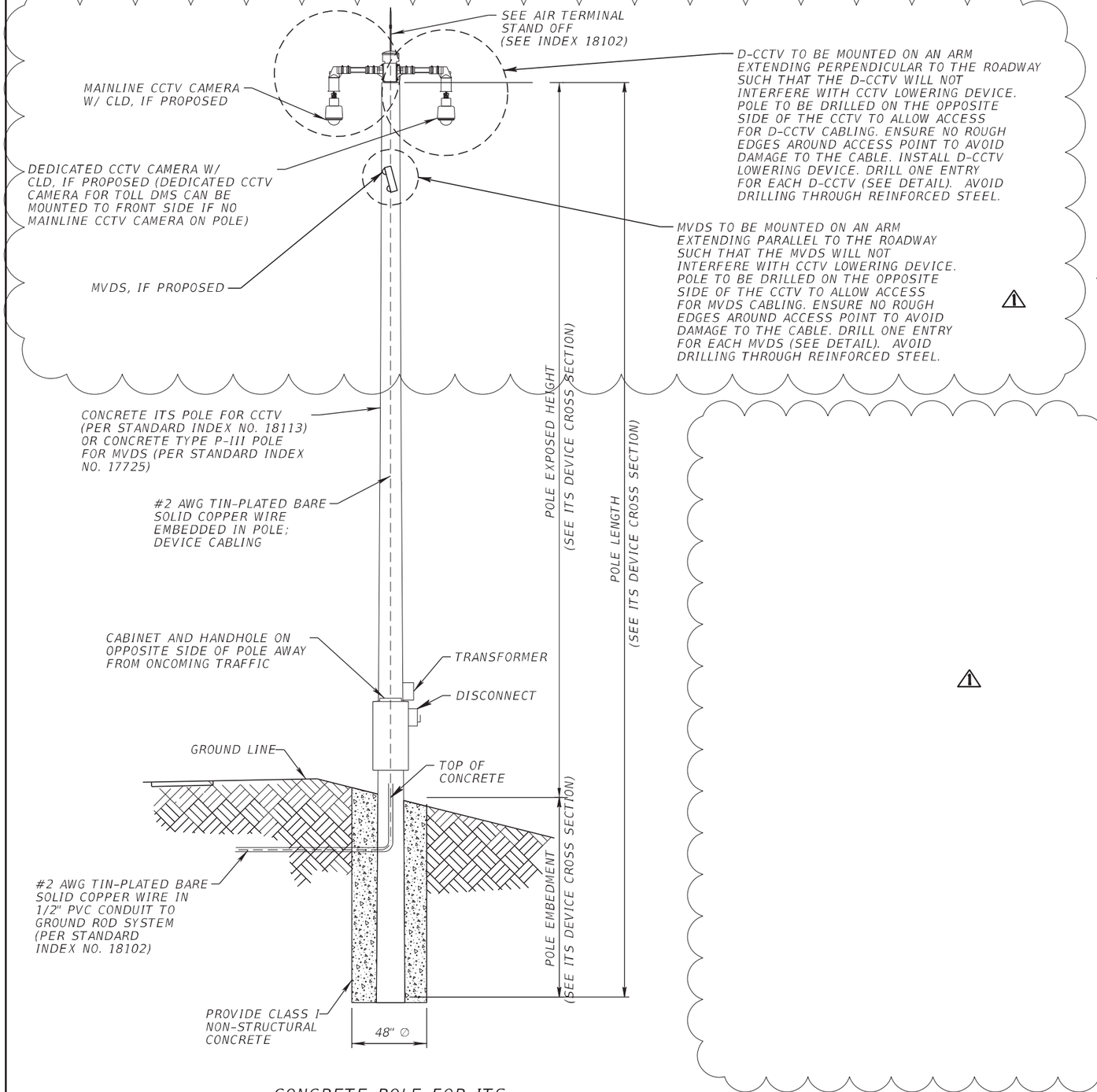
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

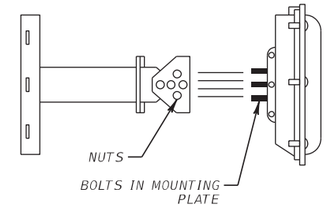
CCTV LOWERING DEVICE DETAILS

SHEET NO. IT-209

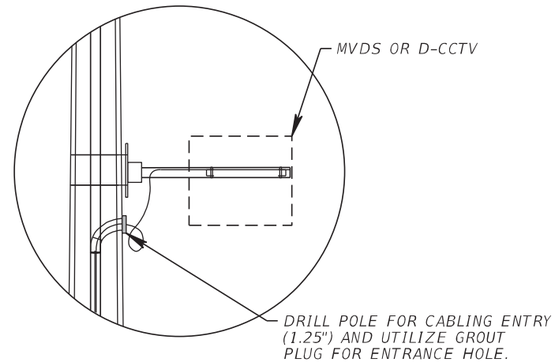


CONCRETE POLE FOR ITS
NTS

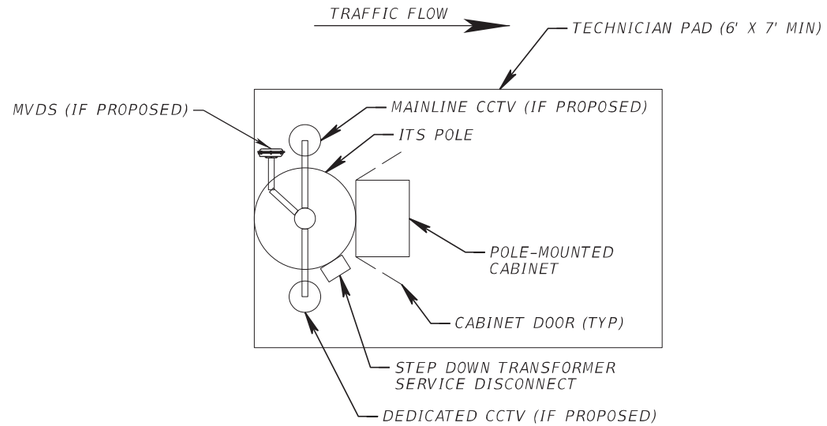
NOTE: ALL ITS DEVICE HEIGHTS SHOWN ON CROSS SECTION



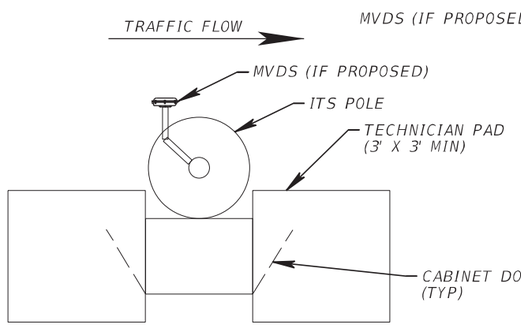
SENSOR ATTACHMENT DETAIL



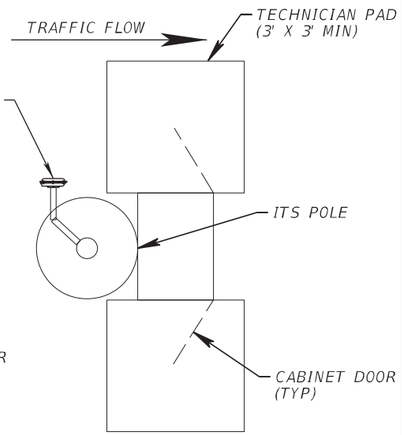
MVDS OR D-CCTV WITH ATTACHMENT ARM ON CONCRETE POLES
(FOR INFORMATION ONLY)
NTS



ITS POLE OVERHEAD LAYOUT (CCTV POLE)



ITS POLE OVERHEAD LAYOUT - PARALLEL TECHNICIAN PAD (MVDS POLE)



ITS POLE OVERHEAD LAYOUT - PERPENDICULAR TECHNICIAN PAD (MVDS POLE)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠ MOVED DEDICATED CCTV ON POLE DETAIL; DELETED AIR TERMINAL STAND OFF DETAIL		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS CONCRETE POLE DETAIL

SHEET NO.
IT-210

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec)

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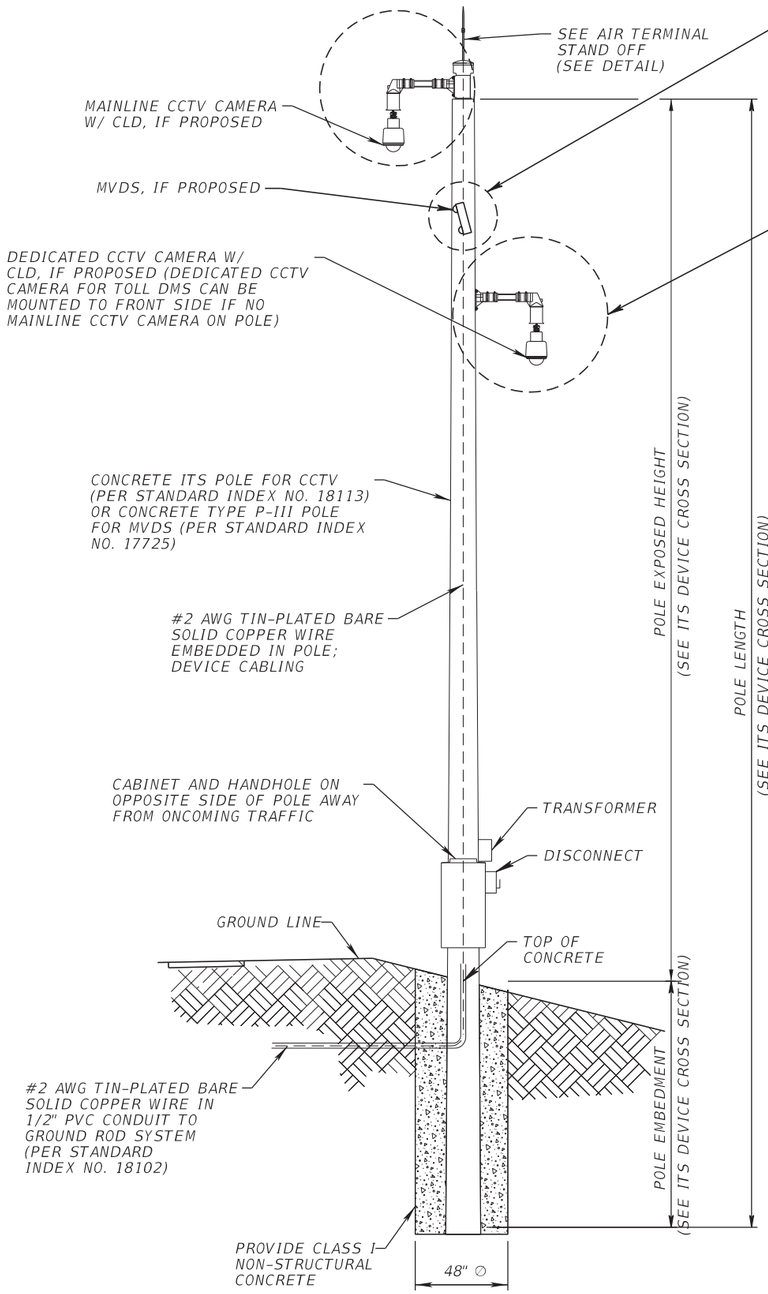
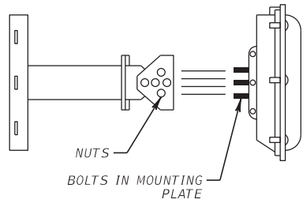
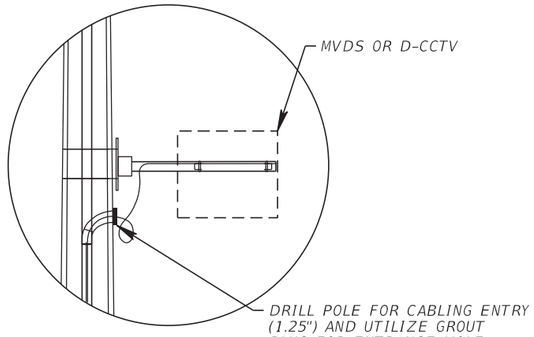


CONCRETE POLE FOR ITS
NTS

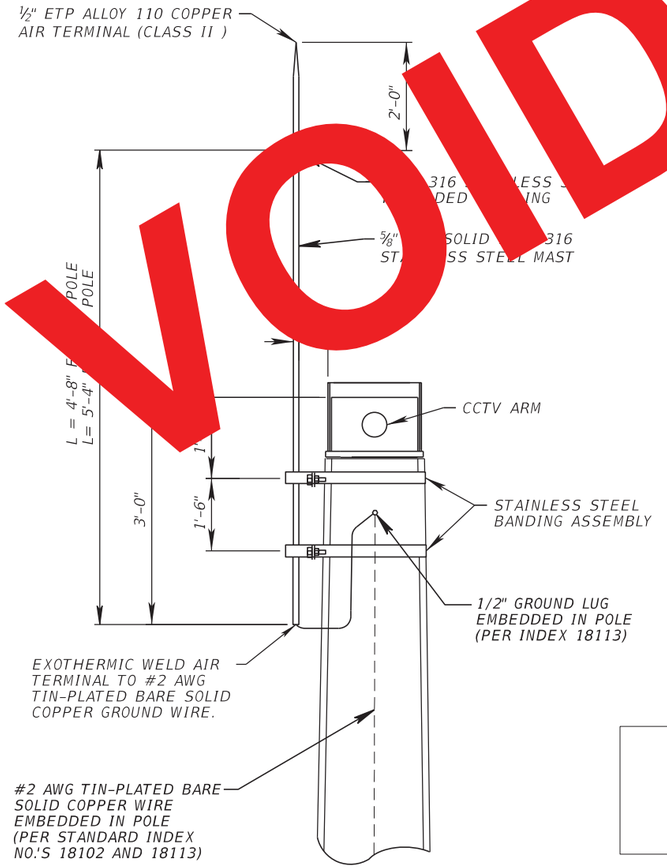
NOTE: ALL ITS DEVICE HEIGHTS SHOWN ON CROSS SECTION



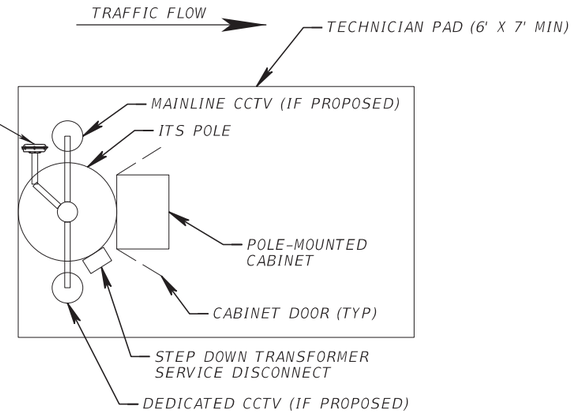
SENSOR ATTACHMENT DETAIL



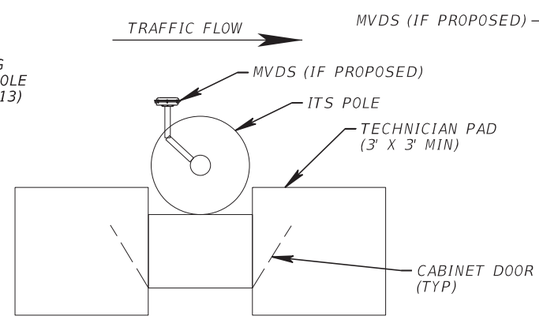
MVDS OR D-CCTV WITH ATTACHMENT ARM ON CONCRETE POLES
(FOR INFORMATION ONLY)
NTS



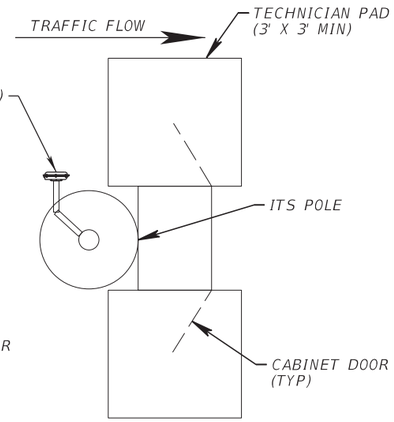
AIR TERMINAL STAND OFF DETAIL
NTS



ITS POLE OVERHEAD LAYOUT (CCTV POLE)



ITS POLE OVERHEAD LAYOUT - PARALLEL TECHNICIAN PAD (MVDS POLE)



ITS POLE OVERHEAD LAYOUT - PERPENDICULAR TECHNICIAN PAD (MVDS POLE)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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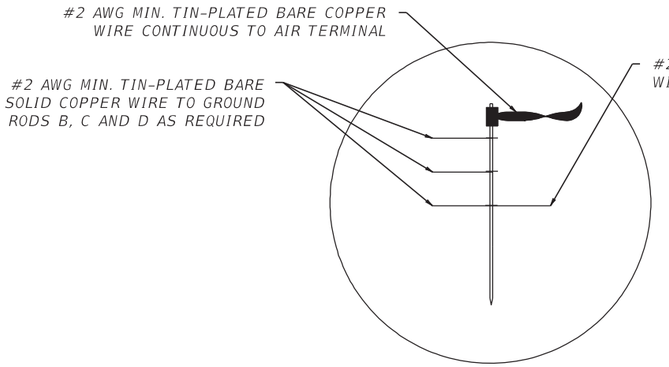
Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

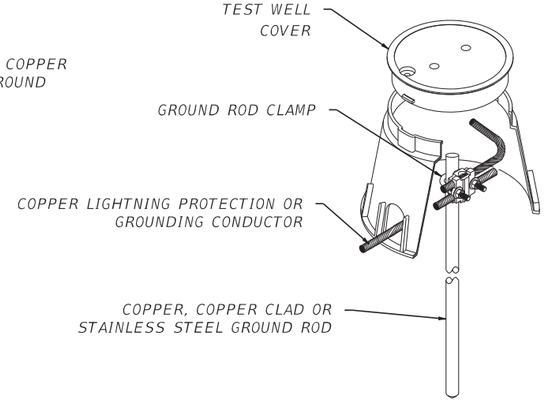
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS CONCRETE POLE DETAIL

SHEET NO. IT-210



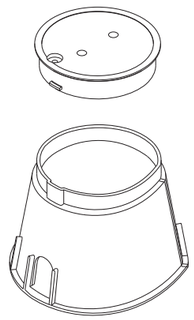
INSET "A"



GROUND ROD DETAIL
NTS

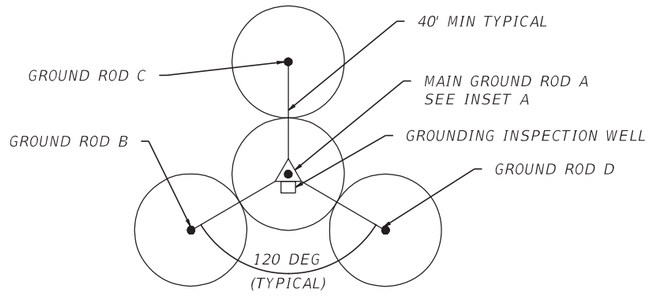
NOTES:

1. EXOTHERMICALLY WELD ALL CONNECTIONS TO GROUND RODS.
2. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 6" ABOVE WIRE.
3. GROUND ROD A IS REQUIRED AND SHALL BE INSTALLED IN A PULL BOX. GROUND RODS B, C AND D WILL BE REQUIRED AS NECESSARY TO MEET THE GROUND RESISTANCE REQUIREMENTS IN THE CONTRACT DOCUMENTS AS IDENTIFIED BY THE EOR.
4. PLACE GROUND SYSTEM WITHIN RIGHT WAY.
5. USE OPTIMAL CONFIGURATION IF SPACE IS AVAILABLE OTHERWISE USE GEOMETRIC CONFIGURATION. IN MEDIAN USE OPTIMAL IF POSSIBLE OTHERWISE USE GEOMETRIC OR MEDIAN CONCEPT IN THAT ORDER AS IDENTIFIED BY THE EOR.
6. MAIN GROUND ROD TO BE PLACED WITHIN 3 FEET OF POLE.
7. IF ANY PART OF A GROUNDING ARRAY IS WITHIN 100' OF ANY PART OF ANOTHER GROUND SYSTEM, THE MAIN GROUND ROD OF EACH SYSTEM SHALL BE BONDED WITH AN AWG #6 CONDUCTOR EXOTHERMIC WELDED TO THE MAIN GROUND ROD OF EACH SYSTEM.
8. AFTER COMPLETION OF THE GROUNDING ARRAY, AND ITS CONNECTION TO OTHER GROUND SYSTEMS IF APPLICABLE, IT SHALL BE TESTED BY A FULL FALL OF POTENTIAL TEST AS DEFINED IN IEEE STANDARD 81 (CURRENT EDITION).



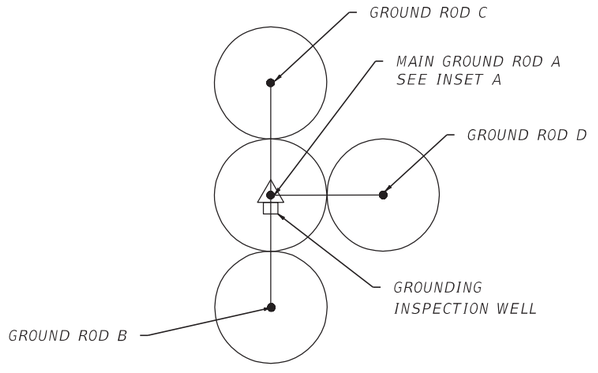
GROUNDING INSPECTION WELL

20' RADIUS EACH "SPHERE OF INFLUENCE"



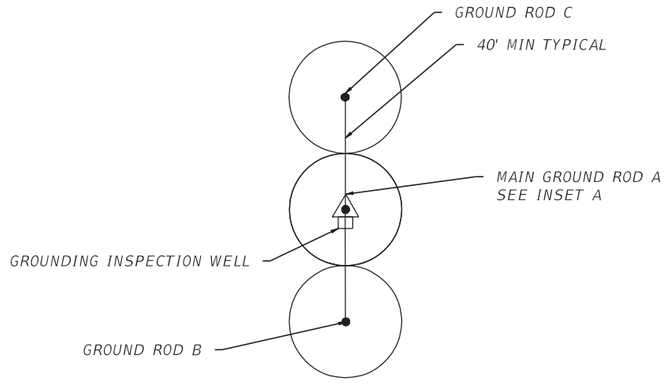
(PREFERRED)
GROUND ROD PLACEMENT DETAIL
(TYPICAL EACH POLE)
(OPTIMAL CONFIGURATION)

20' RADIUS EACH "SPHERE OF INFLUENCE"



(ALTERNATIVE 1)
GROUND ROD PLACEMENT DETAIL
FOR POLE LOCATED IN GEOMETRIC CONSTRAINT AREA SUCH AS LIMITATION DUE TO R/W CONSTRAINT.

20' RADIUS EACH "SPHERE OF INFLUENCE"



(ALTERNATIVE 2)
GROUND ROD PLACEMENT DETAIL
FOR POLE LOCATED IN NARROW MEDIAN AND SIMILAR CONSTRAINTS

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

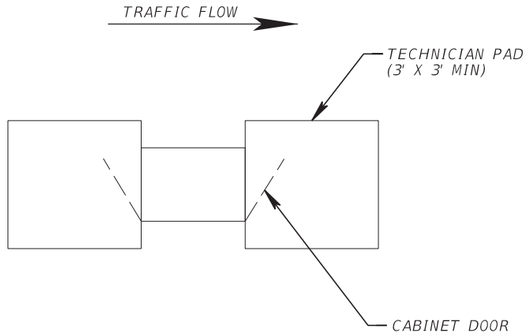
ITS POLE GROUNDING ARRAY

SHEET NO. IT-211

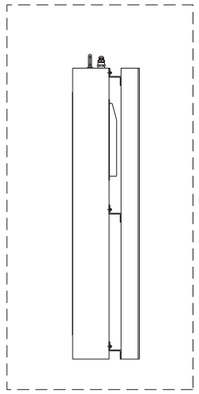
NOTES:

1. WHEN INSTALLING ABOVEGROUND CONDUIT ON SIGN STRUCTURES, THE CONDUIT SHALL BE ATTACHED TO THE BACK LOWER MONOTUBE TO MINIMIZE VISUAL IMPACT.

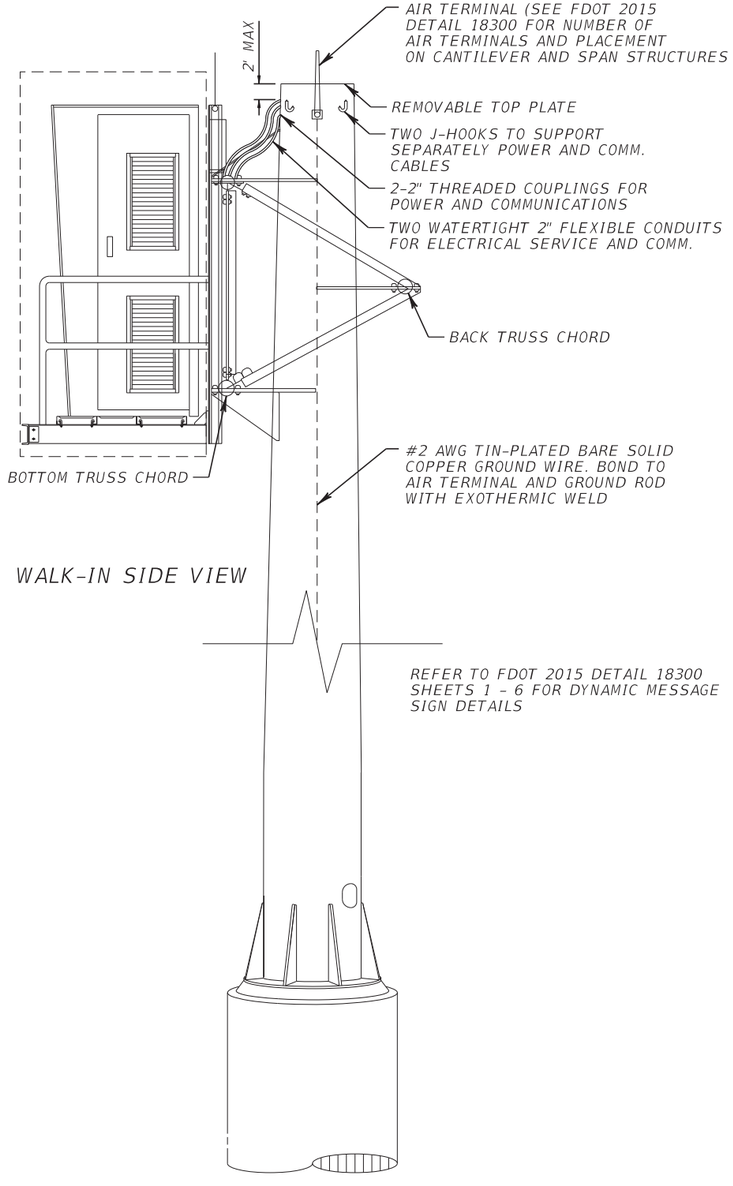
2. STAINLESS STEEL BANDS SHALL BE SIZED TO SUPPORT THREE TIMES THE WEIGHT OF THE ITS COMPONENTS.



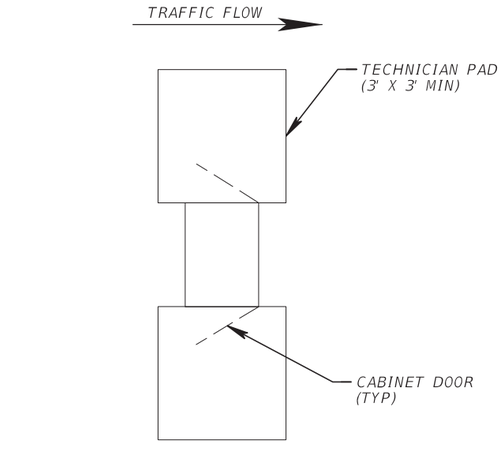
GROUND-MOUNTED CABINET
OVERHEAD LAYOUT -
PARALLEL TECHNICIAN PAD



FRONT ACCESS SIDE VIEW



WALK-IN SIDE VIEW



GROUND-MOUNTED CABINET
OVERHEAD LAYOUT -
PERPENDICULAR TECHNICIAN PAD

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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BY: (Stantec)

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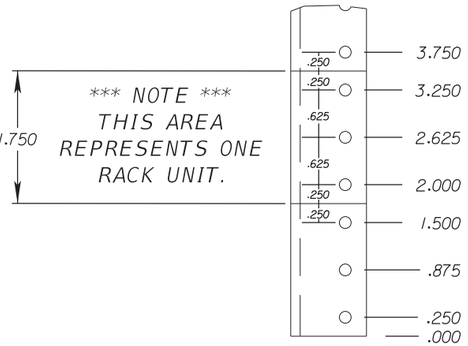
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

FREEWAY DMS INSTALLATION DETAILS

SHEET NO.
IT-212

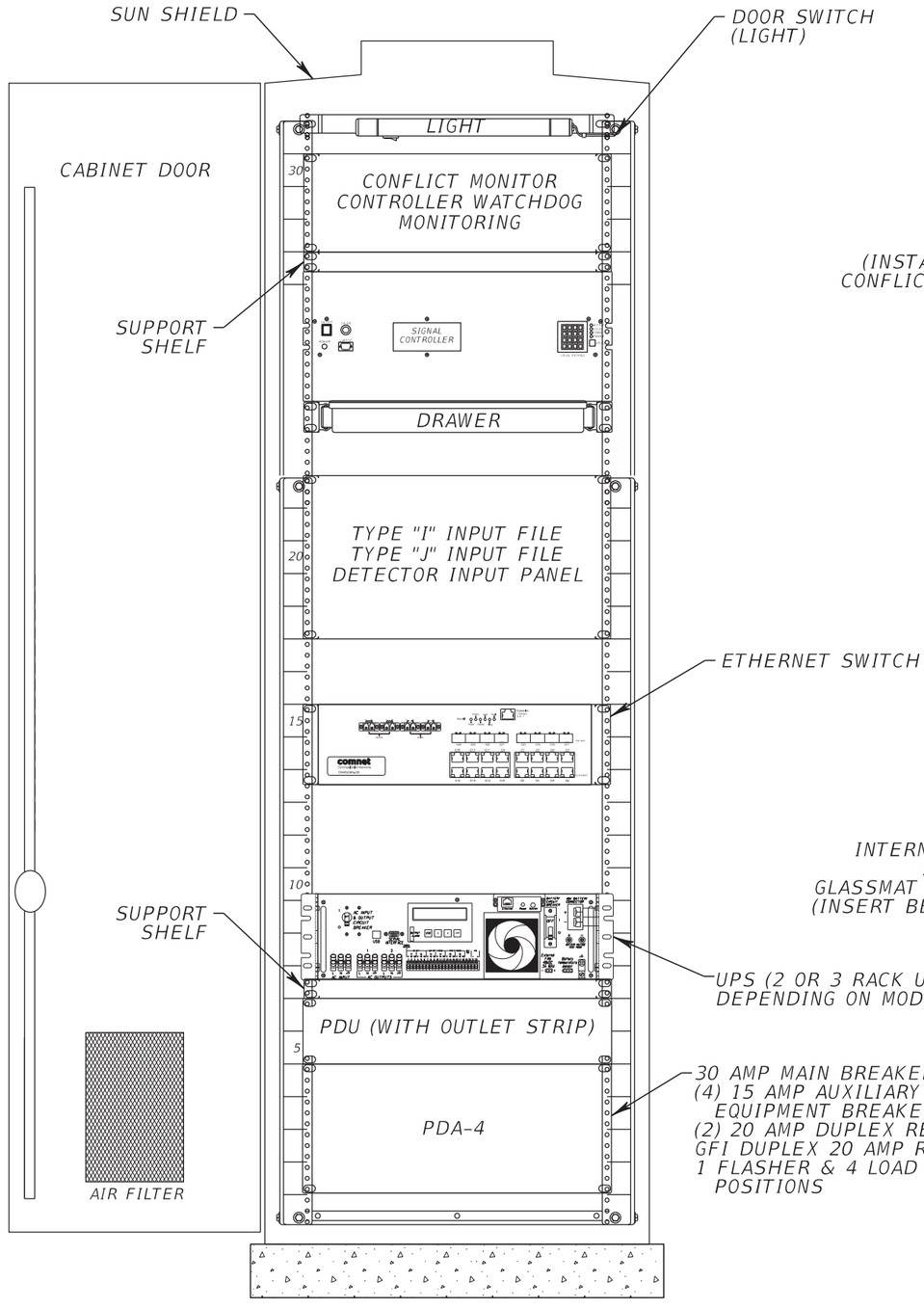


FRONT VIEW
RACK RAIL DETAIL

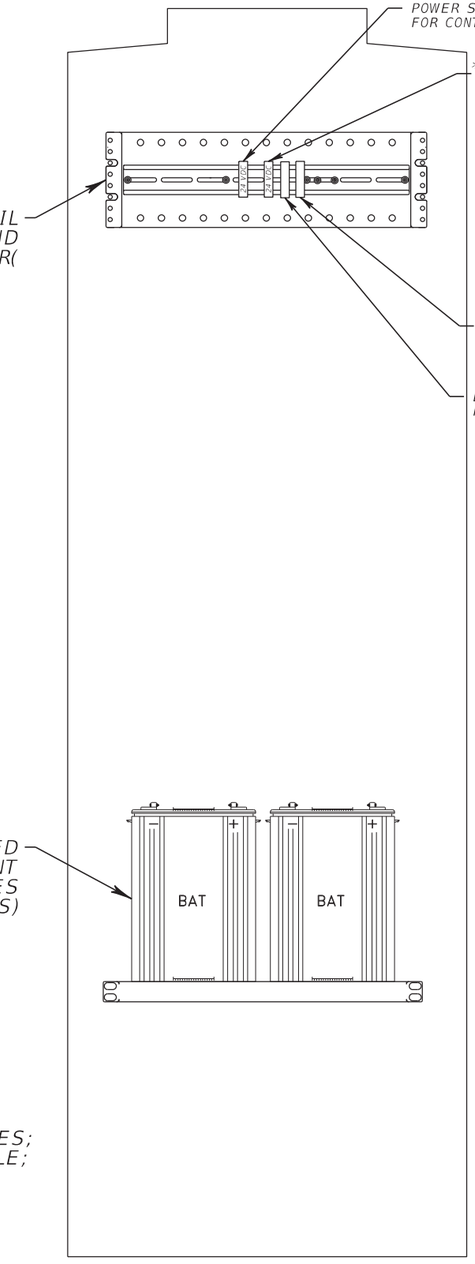
* IF REQUIRED, SEE PLAN SHEETS FOR REQUIRED DEVICES AT EACH LOCATION.

NOTES:

1. LABEL ALL ELECTRICAL RECEPTACLES EXCEPT GFCI AS "ELECTRONIC EQUIPMENT ONLY". LABEL GFCI RECEPTACLES AS "CONVENIENCE RECEPTACLES"
2. ALL DIN RAILS SHALL BE GROUNDED AS PART OF THE CABINET GROUNDING SYSTEM.
3. POWER DISTRIBUTION ASSEMBLY COMPONENT LAYOUT, ORIENTATION AND LOCATION MAY VARY.
4. TECH DRAWER WILL SLIDE OUT ON PRIMARY SIDE OF CABINET.



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR RSS / D-CCTV - FRONT VIEW



BACK VIEW

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BY: (Stantec)

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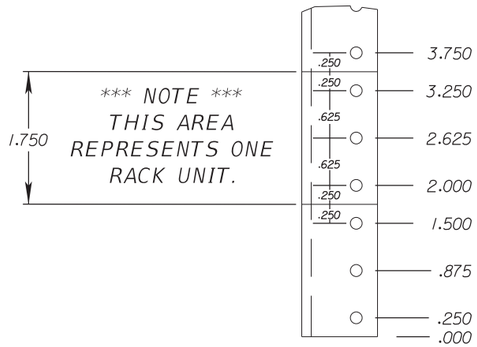
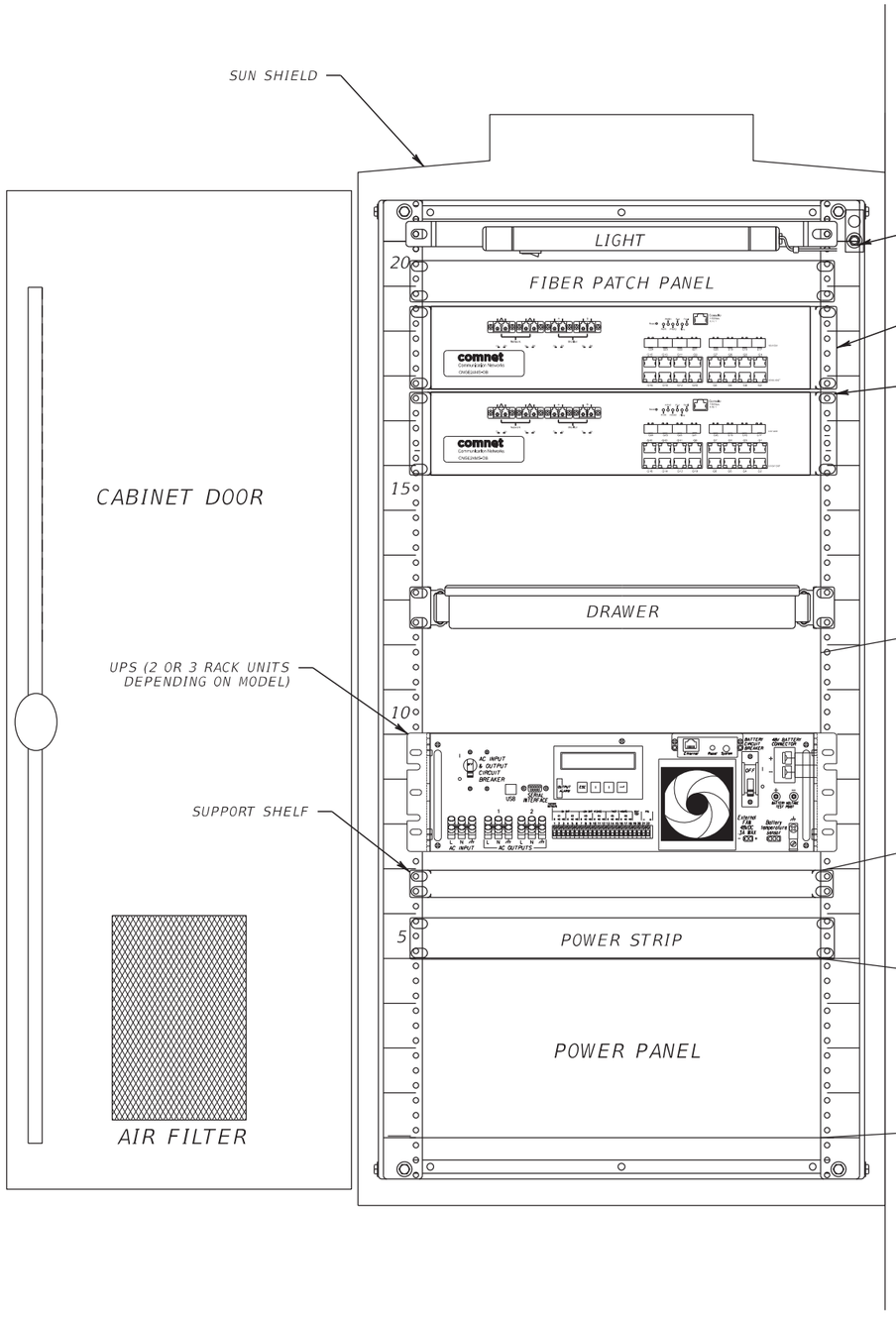
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

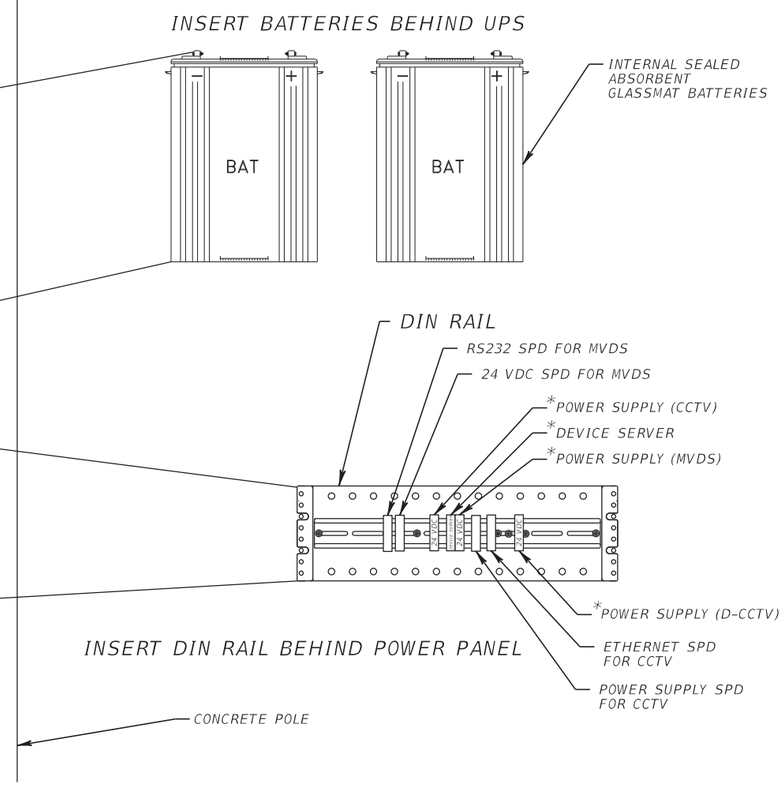
RSS AND D-CCTV TYPE 334 CABINET DETAILS

SHEET NO. IT-213



FRONT VIEW
RACK RAIL DETAIL





NOTES:

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2. ALL DIN RAILS SHALL BE GROUNDED AS PART OF THE CABINET GROUNDING SYSTEM.
3. POWER DISTRIBUTION ASSEMBLY COMPONENT LAYOUT, ORIENTATION AND LOCATION MAY VARY.
4. EQUIPMENT PLACEMENT SHOWN IS TYPICAL.

POLE MOUNTED FIELD EQUIPMENT CABINET FOR CCTV/ D-CCTV / MVDS

* IF REQUIRED, SEE PLAN SHEETS FOR REQUIRED DEVICES AT EACH LOCATION.

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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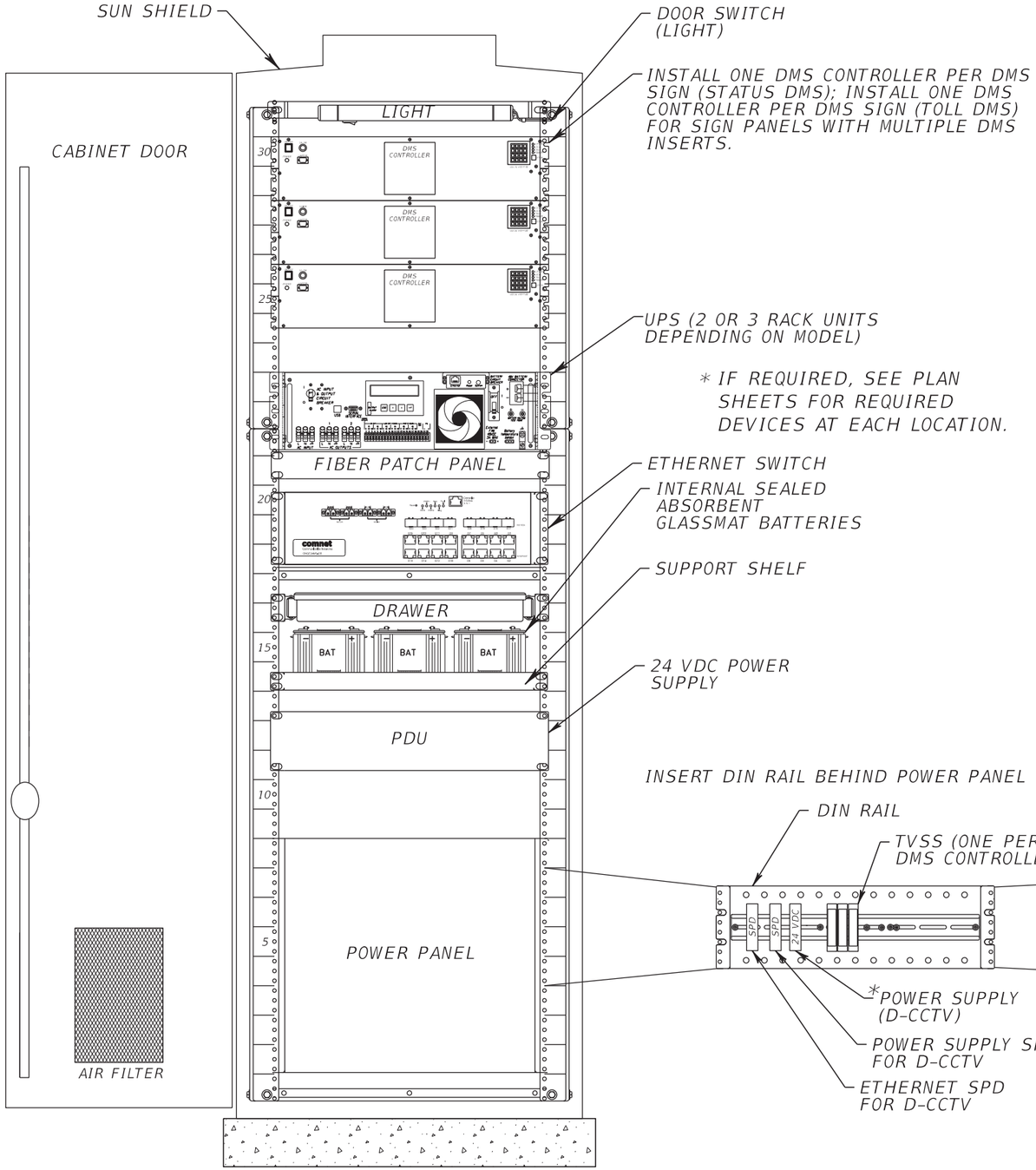
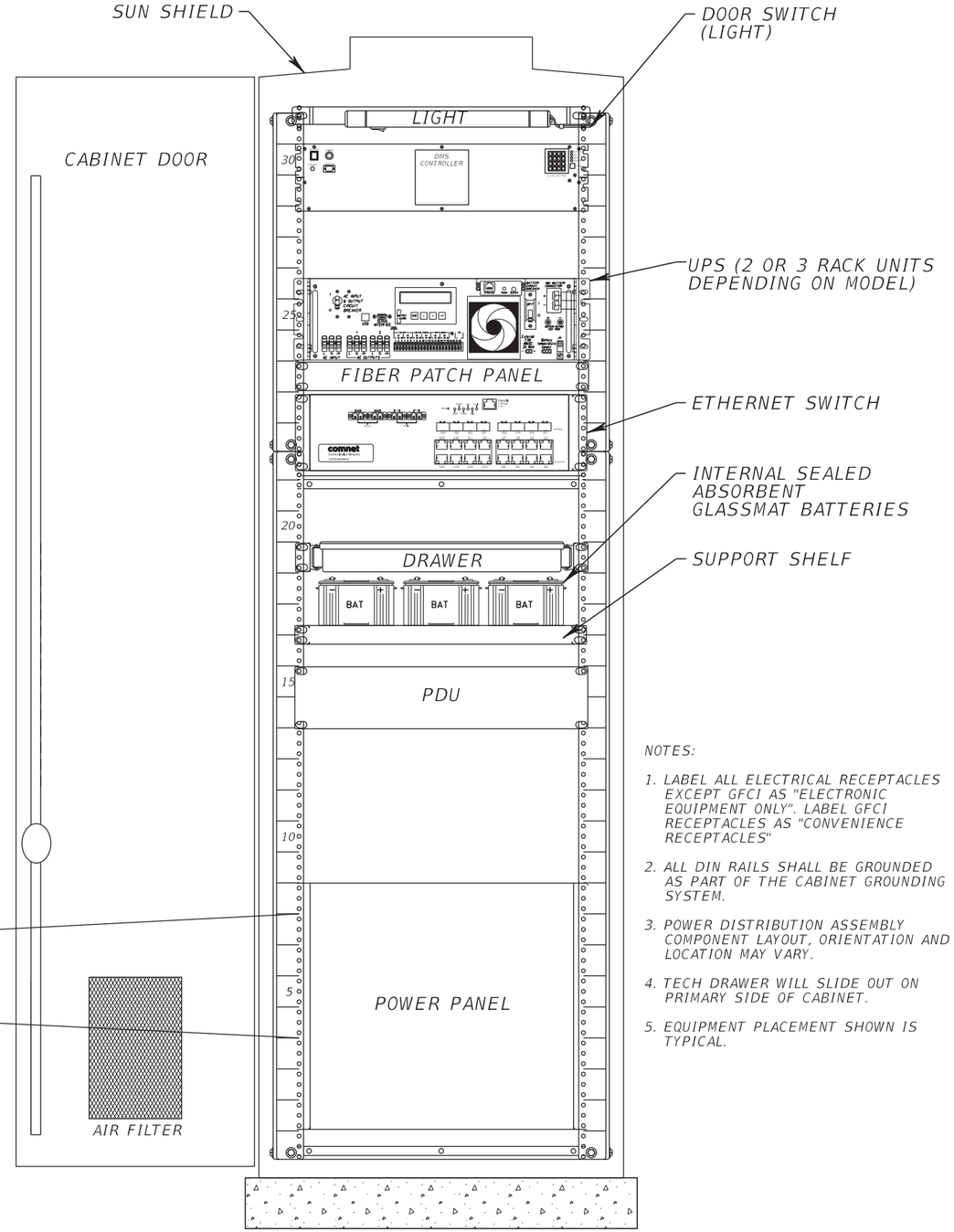
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

CCTV, D-CCTV AND MVDS TYPE 336 CABINET DETAILS

SHEET NO. IT-214



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR T-DMS OR S-DMS



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR FREEWAY DMS

NOTES:

1. LABEL ALL ELECTRICAL RECEPTACLES EXCEPT GFCI AS "ELECTRONIC EQUIPMENT ONLY". LABEL GFCI RECEPTACLES AS "CONVENIENCE RECEPTACLES"
2. ALL DIN RAILS SHALL BE GROUNDED AS PART OF THE CABINET GROUNDING SYSTEM.
3. POWER DISTRIBUTION ASSEMBLY COMPONENT LAYOUT, ORIENTATION AND LOCATION MAY VARY.
4. TECH DRAWER WILL SLIDE OUT ON PRIMARY SIDE OF CABINET.
5. EQUIPMENT PLACEMENT SHOWN IS TYPICAL.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
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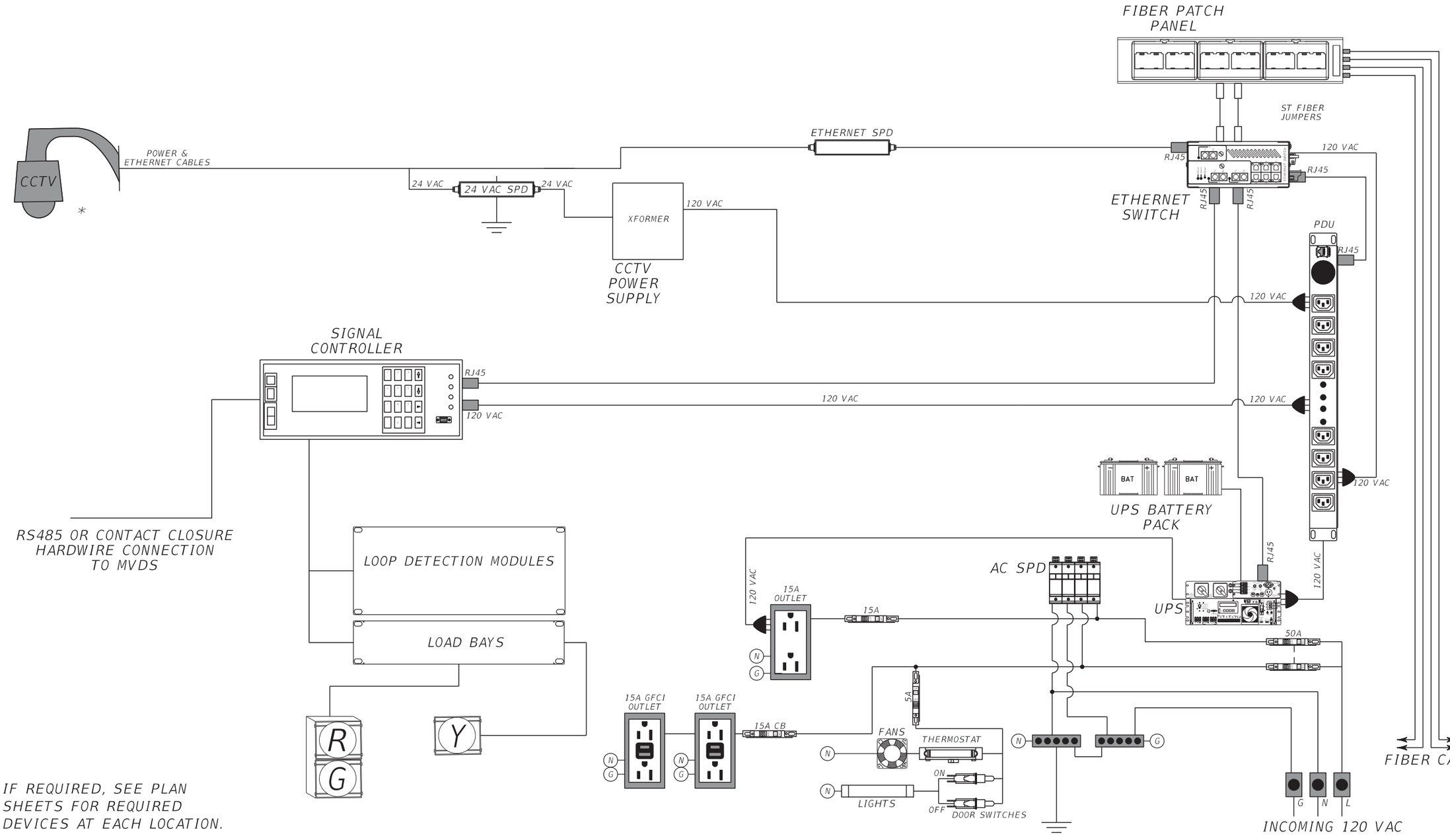
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

DMS
TYPE 334 CABINET DETAILS

SHEET NO. IT-215

TYPICAL RSS AND D-CCTV CONNECTION DIAGRAM

334 GROUND MOUNTED CABINET



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BY: (Stantec) BY: (FDOT)

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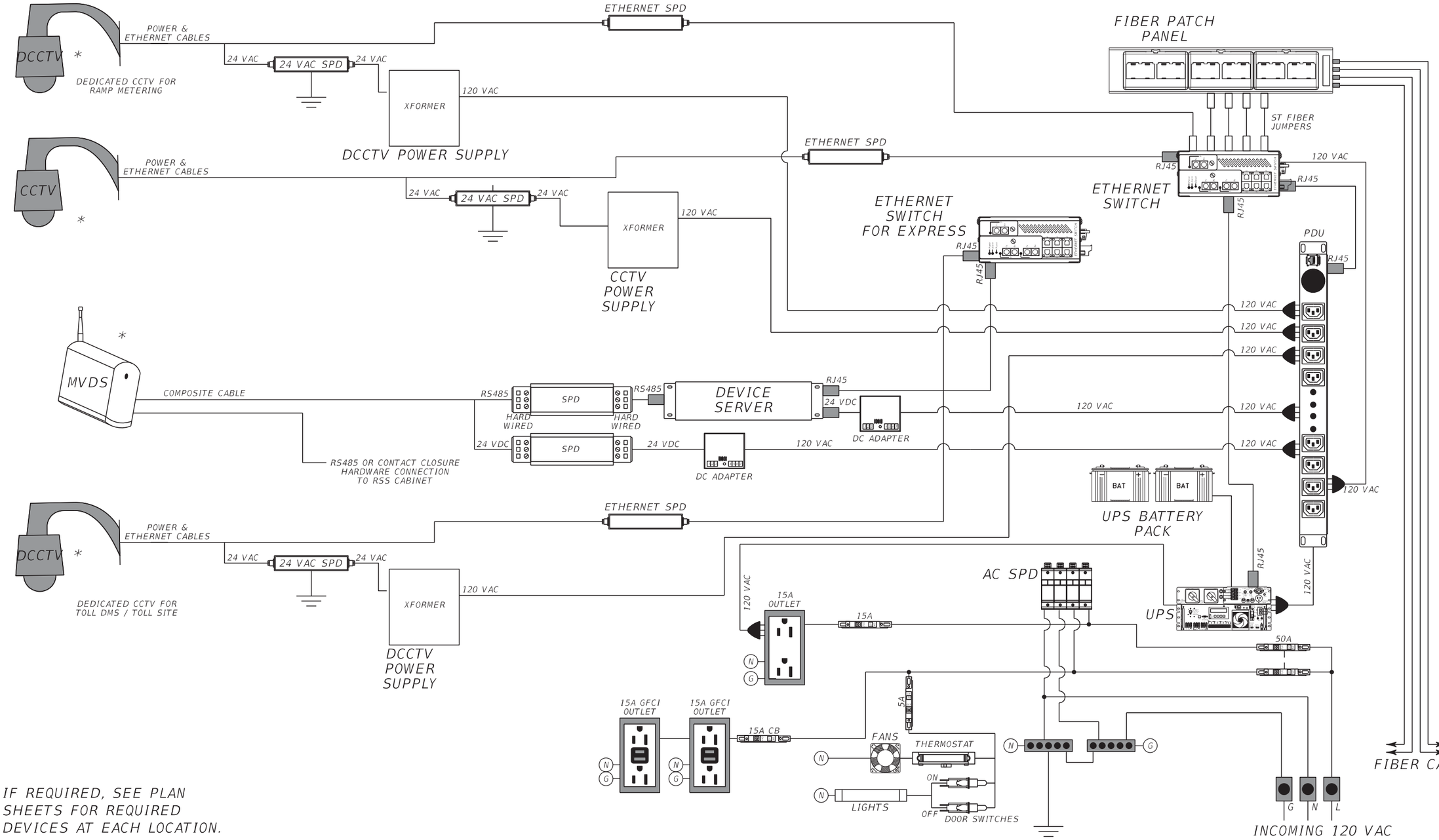
WIRING DIAGRAMS

SHEET NO. IT-216

TYPICAL CCTV, D-CCTV AND MVDS CONNECTION DIAGRAM

336 POLE MOUNTED CABINET



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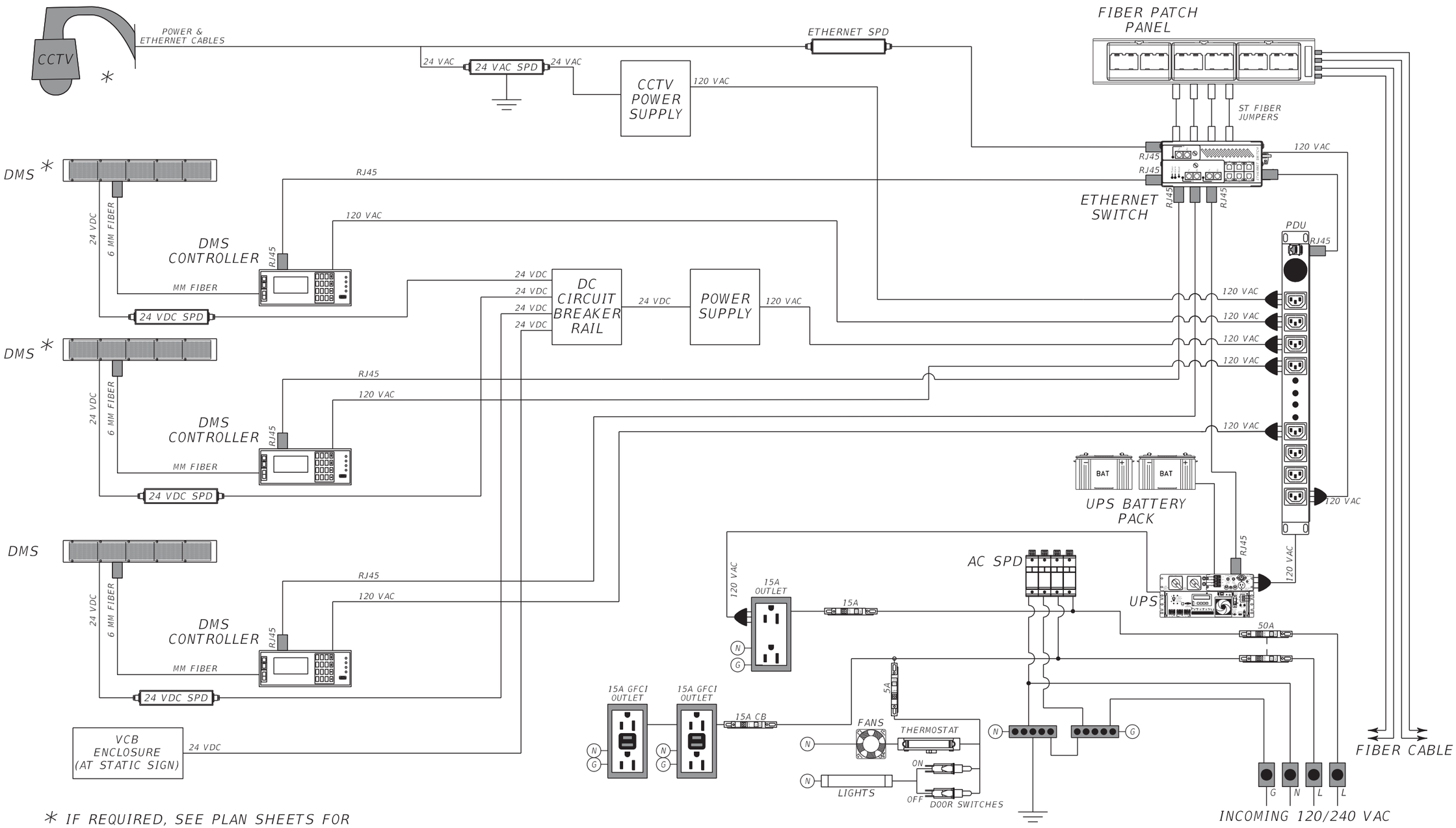
9	BROWARD	433108-5-52-01

WIRING DIAGRAMS

SHEET NO. IT-217

TYPICAL STATUS AND TOLL DMS CONNECTION DIAGRAM

334 GROUND MOUNTED CABINET



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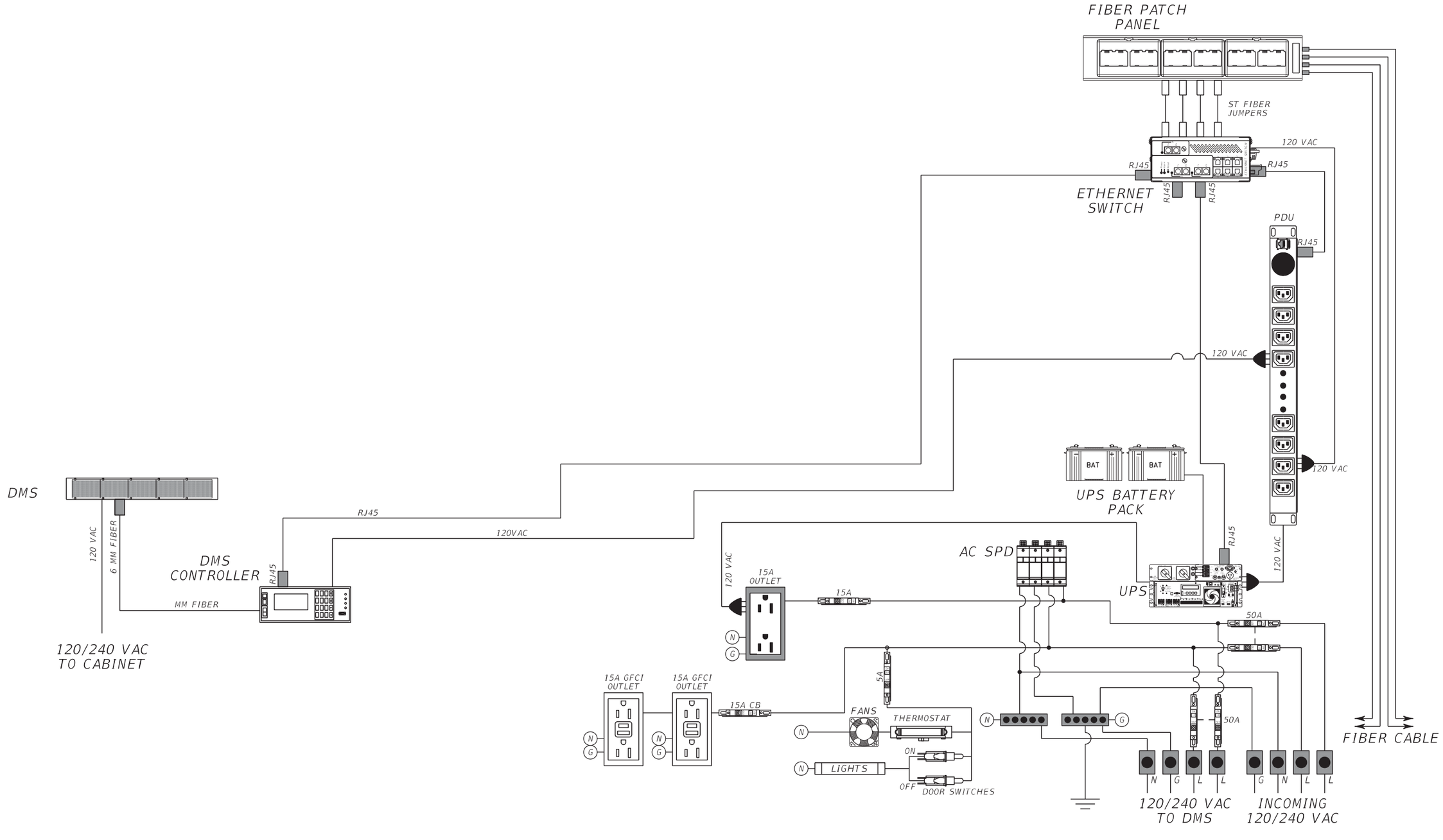
WIRING DIAGRAMS

SHEET NO.
IT-218

TYPICAL FREEWAY DMS CONNECTION DIAGRAM



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FPID 433108-5-52-01 CONTRACT E4G84

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9	BROWARD	433108-5-52-01

WIRING DIAGRAMS

SHEET NO.
IT-219

SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- — — - EXISTING FIBER

EXISTING BROWARD COUNTY TRAFFIC MANAGEMENT CENTER

EXISTING 96 SINGLE MODE FIBER OPTIC CABLE

MASTER HUB @ COMMERCIAL BLVD

LAYER 3 SWITCH

144 SINGLE MODE FIBER OPTIC CABLE BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

144 FIBER PATCH PANEL ST ADAPTERS

C2C

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

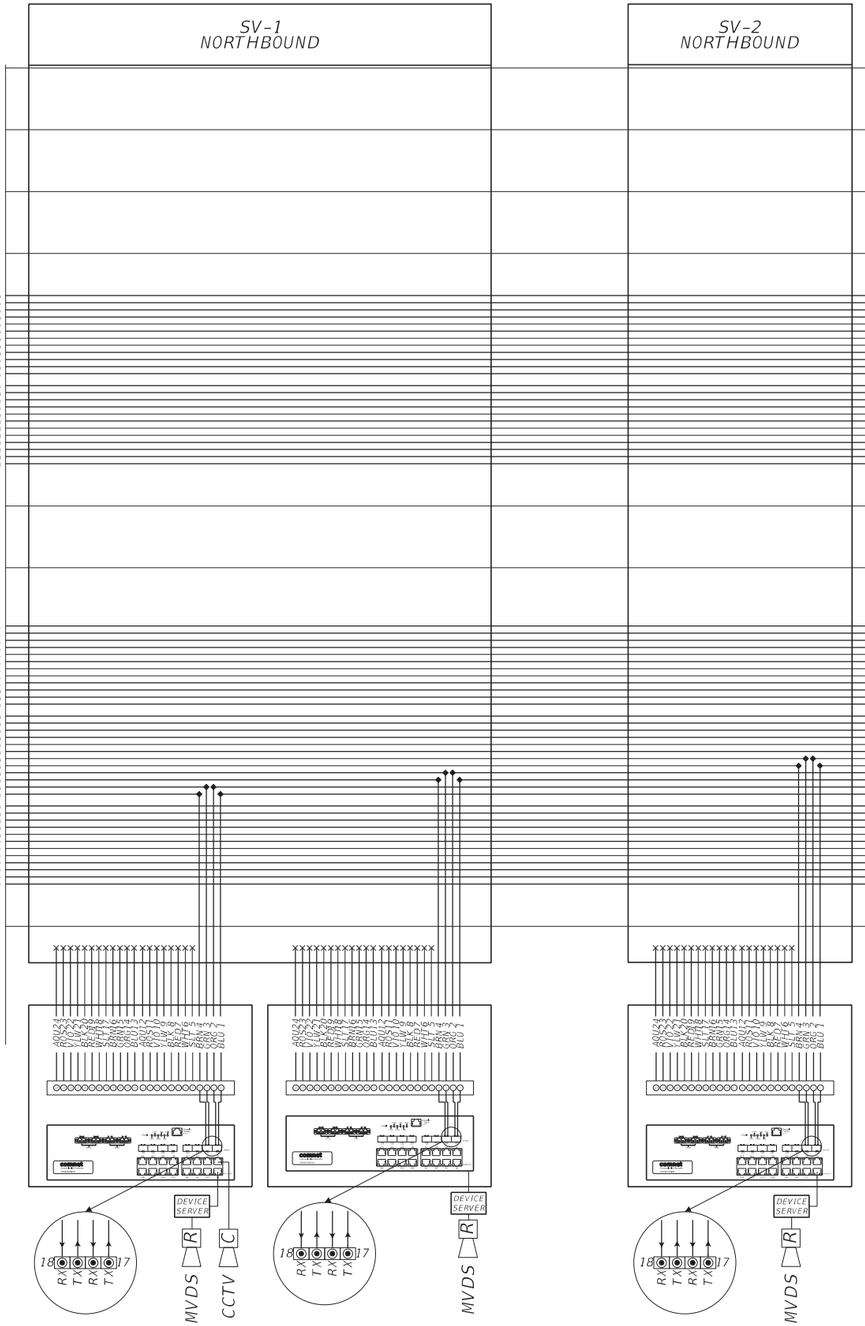
SPLICING DIAGRAM (1)

SHEET NO. IT-220

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE TO COMMERCIAL BLVD HUB

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER



NOTE:

UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- – – – EXISTING FIBER
- 2070 PROPOSED 2070 ATC CONTROLLER
- RWIS ROAD WEATHER INFORMATION SYSTEM
- PSP POWER SERVICE POINT
- EX. WI RADIO EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

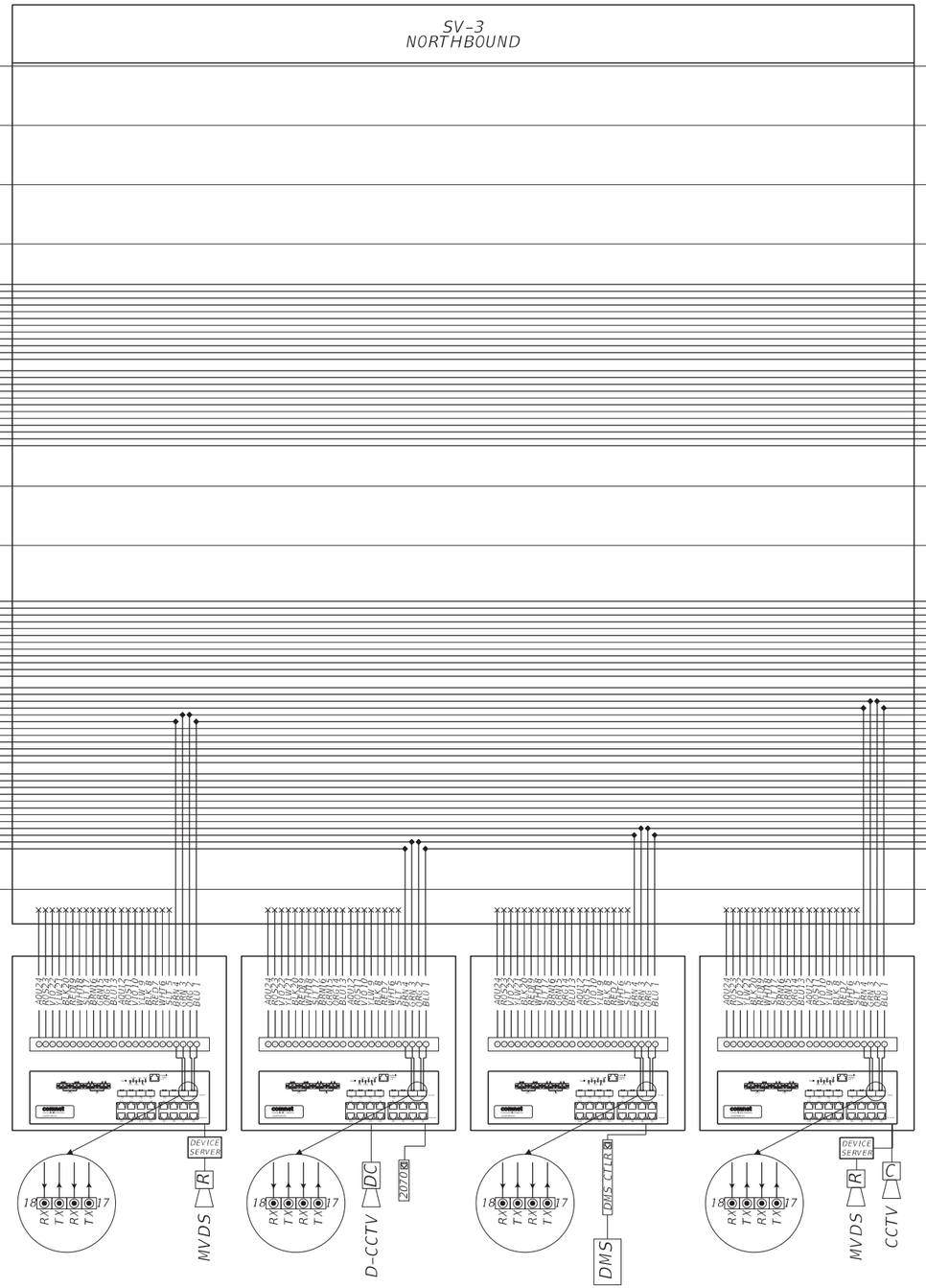
SPLICING DIAGRAM (2)

SHEET NO.
IT-221

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

SV-3
NORTHBOUND



144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

NOTE:

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SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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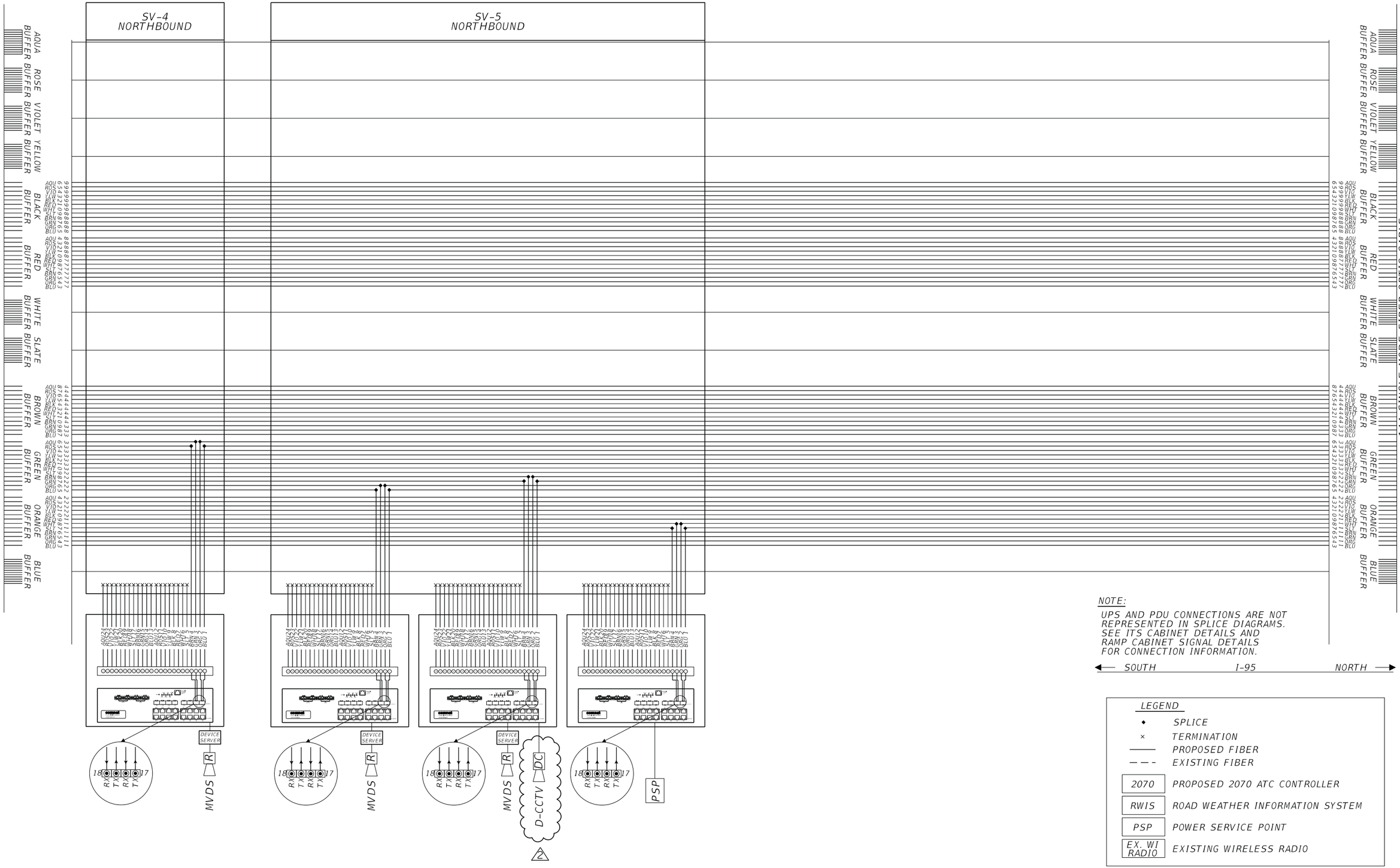
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (3)

SHEET NO.
IT-222



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

← SOUTH I-95 NORTH →

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) JB

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED D-CCTV IN SV-5.		

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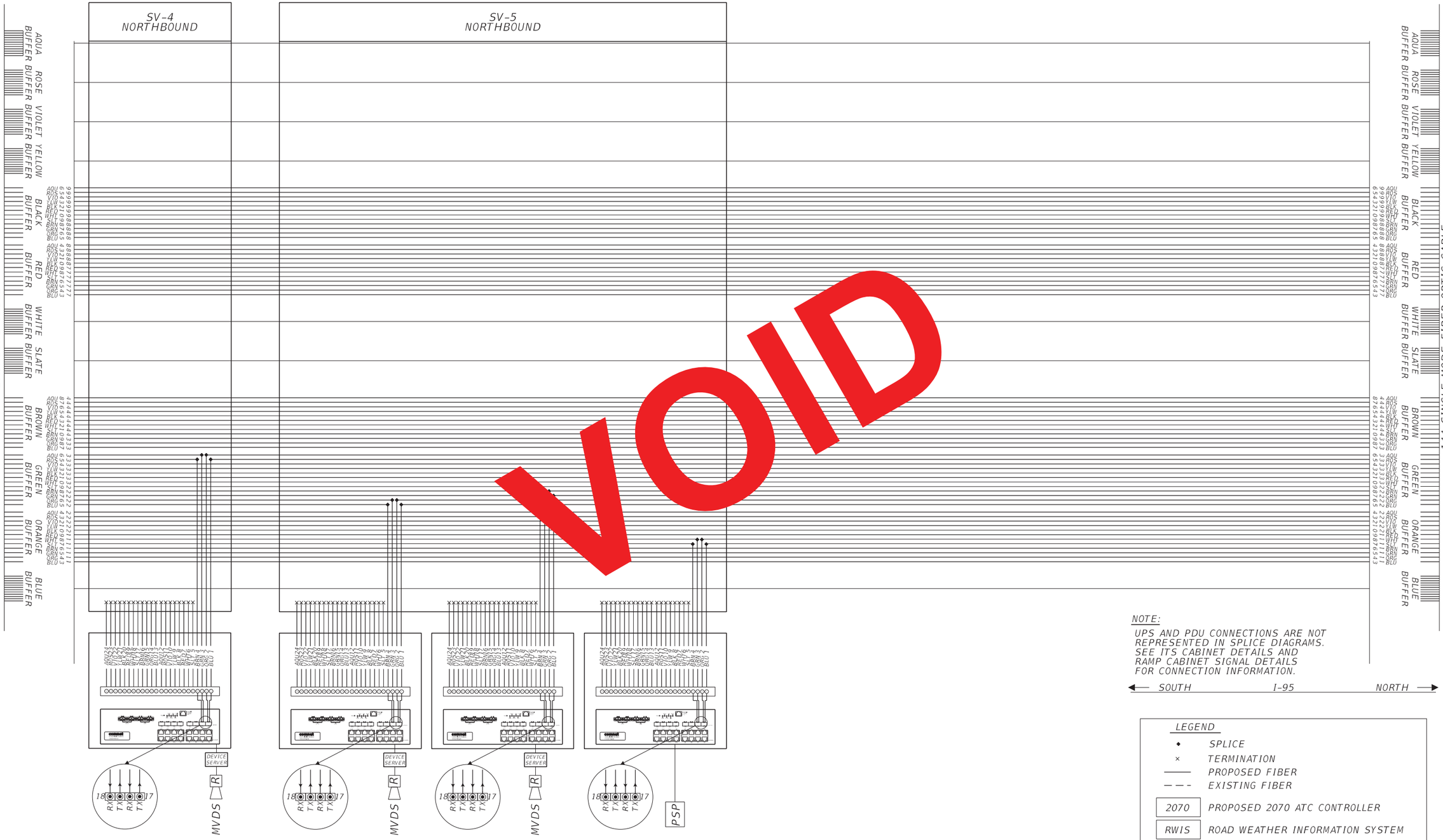
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (4)

SHEET NO.
IT-223



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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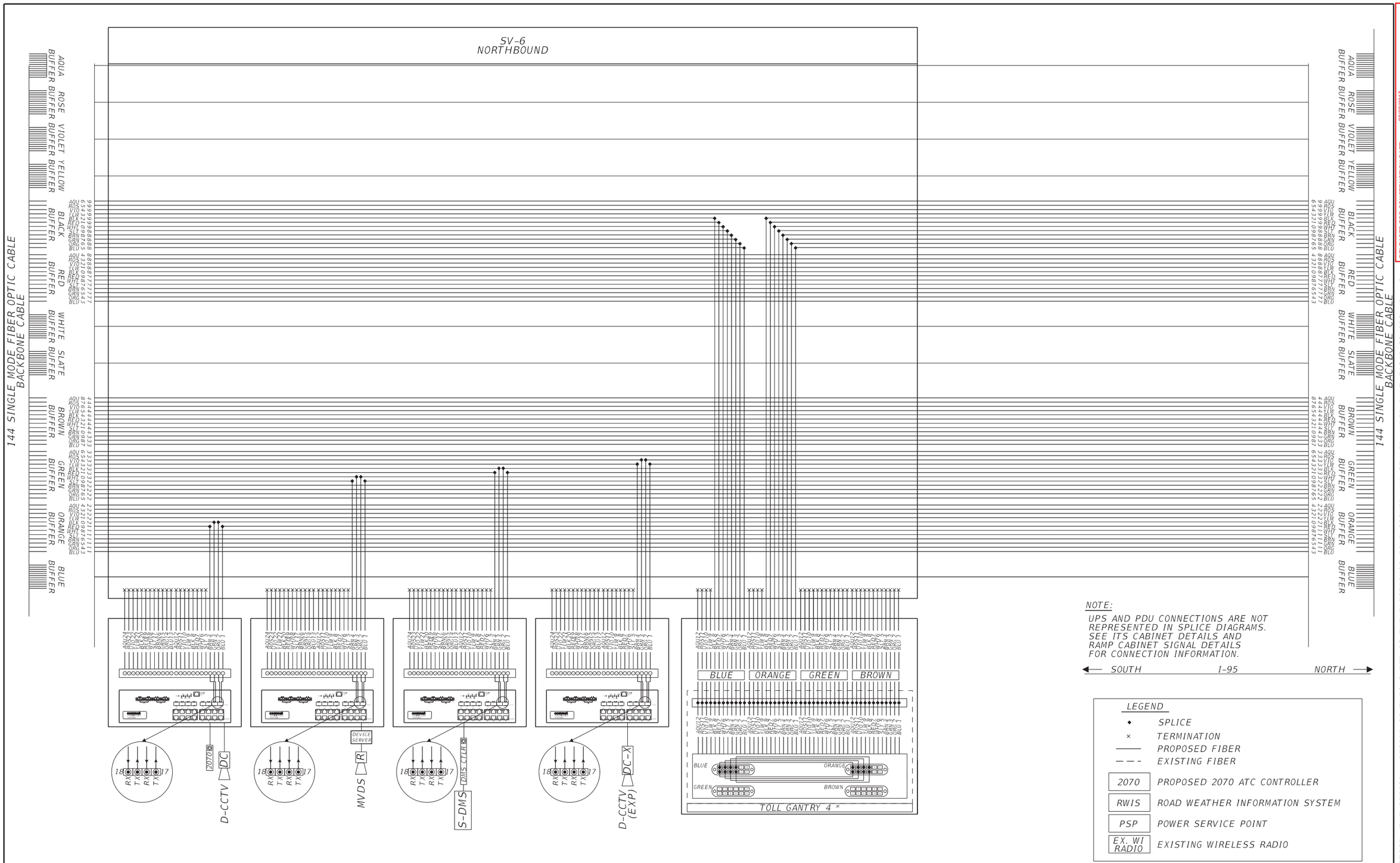
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (4)

SHEET NO.
IT-223



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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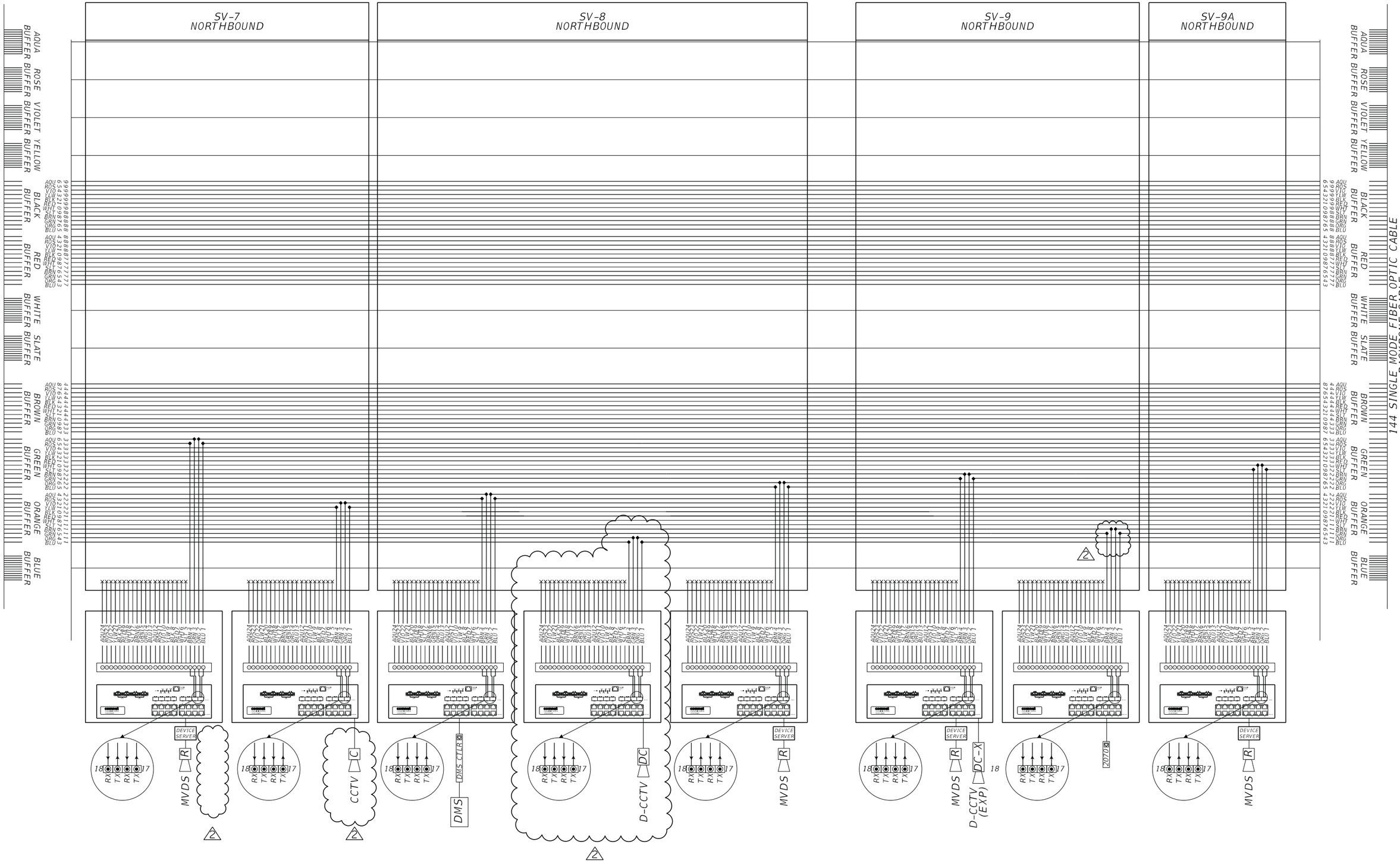
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (5)

SHEET NO. IT-224

$PLTDRVL$ $PENTBLL$ USER: konukb 7/25/2017 8:21:21 AM c:\projectwise\pb\projectwiseint\konukb\d0146451\SPDTIT01.DGN



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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED CCTV IN SV-7 & D-CCTV IN SV-8. REMOVED 016.4 CCTV EL-GP 1 & 016.5 CCTV GP 1 IN SV-7. MODIFIED SPLICE FOR CONTROLLER IN SV-9.		

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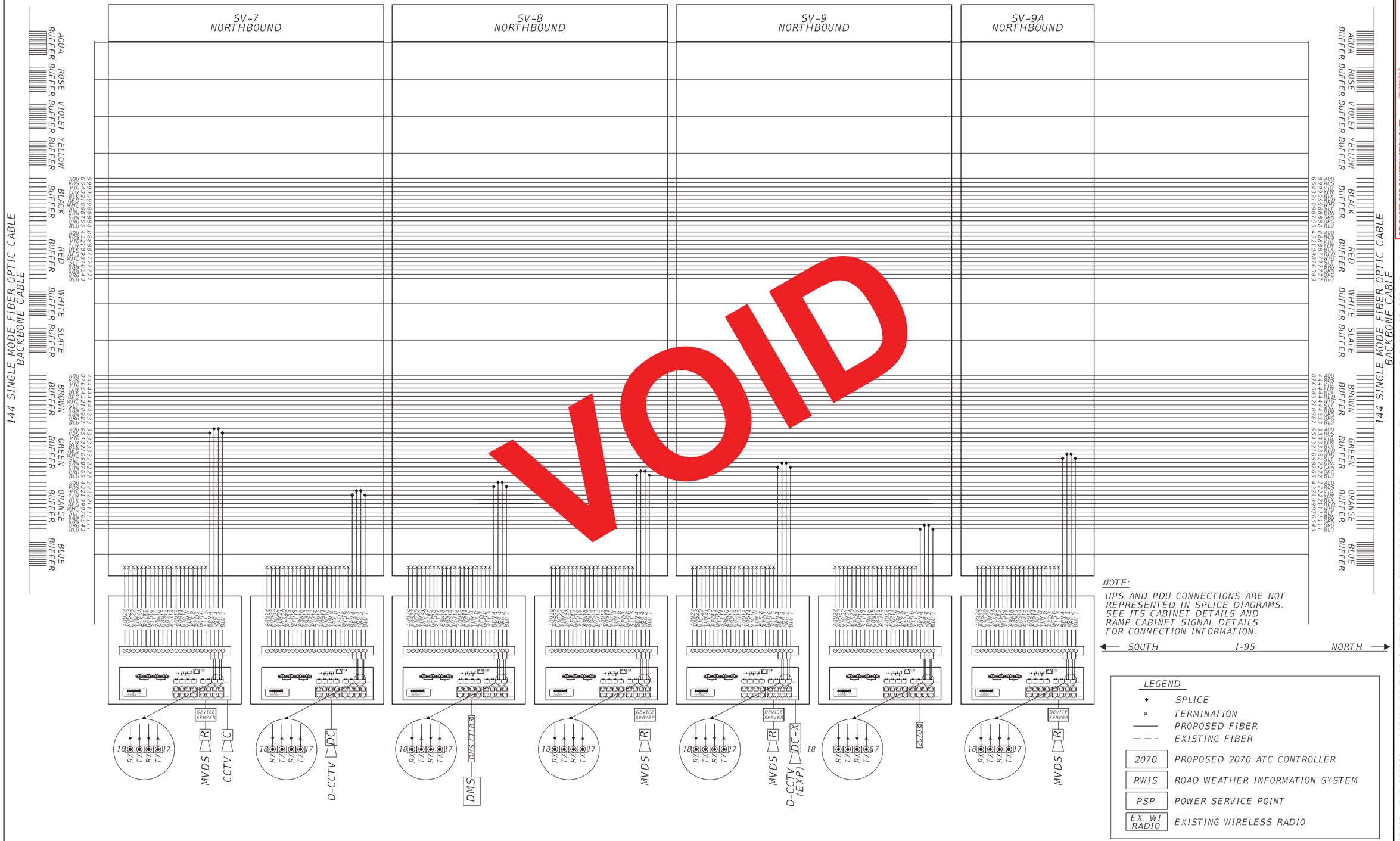
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (6)

SHEET NO. IT-225



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RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) PL BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (6)

SHEET NO.
IT-225

$PLTDRVL$ $PENTBLL$ USER: konukb 7/25/2017 8:21:21 AM c:\projectwise\pb\projectwiseint\konukb\d0146451\SPDTIT01.DGN

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

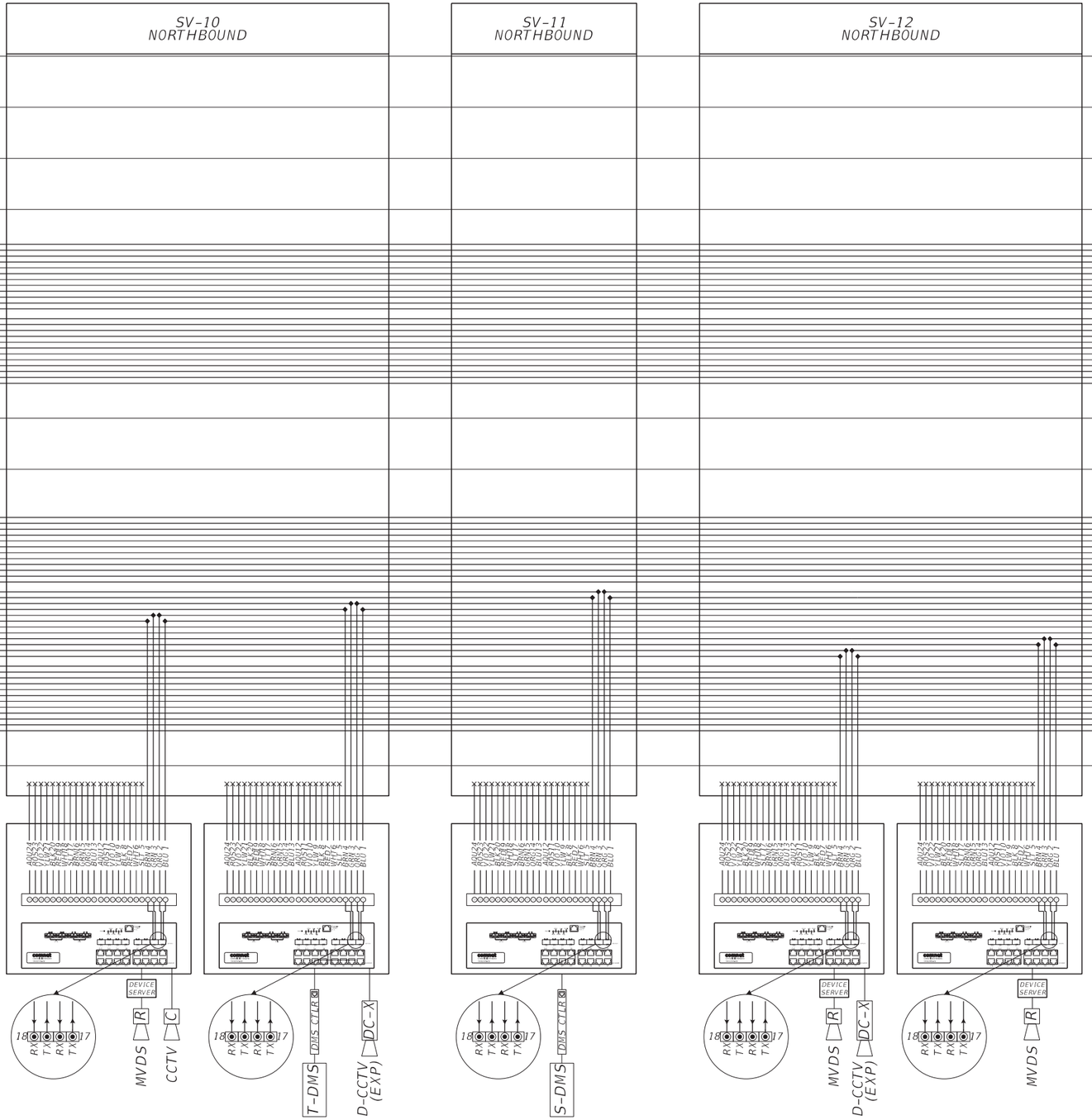
SV-10 NORTHBOUND

SV-11 NORTHBOUND

SV-12 NORTHBOUND

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER



NOTE:

UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- – – – EXISTING FIBER
- 2070 PROPOSED 2070 ATC CONTROLLER
- RWIS ROAD WEATHER INFORMATION SYSTEM
- PSP POWER SERVICE POINT
- EX. WI RADIO EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (7)

SHEET NO. IT-226

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

SV-13
NORTHBOUND

SV-14
NORTHBOUND

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

2

DEVICE SERVER
R
C
MVDS
CCTV
DMS CTLR
DMS
T-DMS
S-DMS
PSP
RX TX RX TX
17 18

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- – – – EXISTING FIBER

2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and work methods remains with the contractor. Review is not approval of safety precautions or work fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICE FOR DMS IN SV-13 & POWER SERVICE POINT B IN SV-14.		

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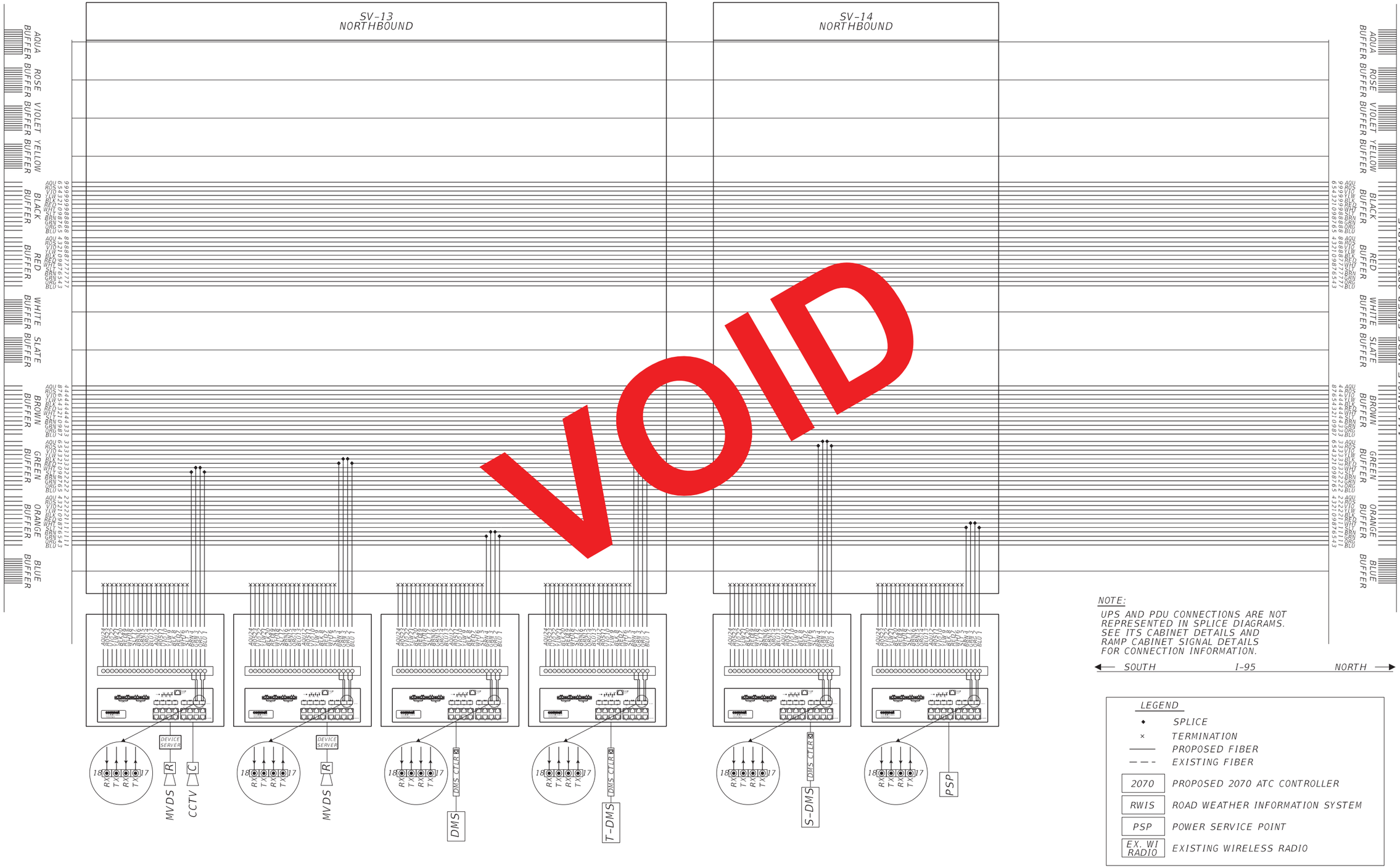
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (8)

SHEET NO.
IT-227



NOTE:

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SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- — — — EXISTING FIBER
- 2070 PROPOSED 2070 ATC CONTROLLER
- RWIS ROAD WEATHER INFORMATION SYSTEM
- PSP POWER SERVICE POINT
- EX. WI RADIO EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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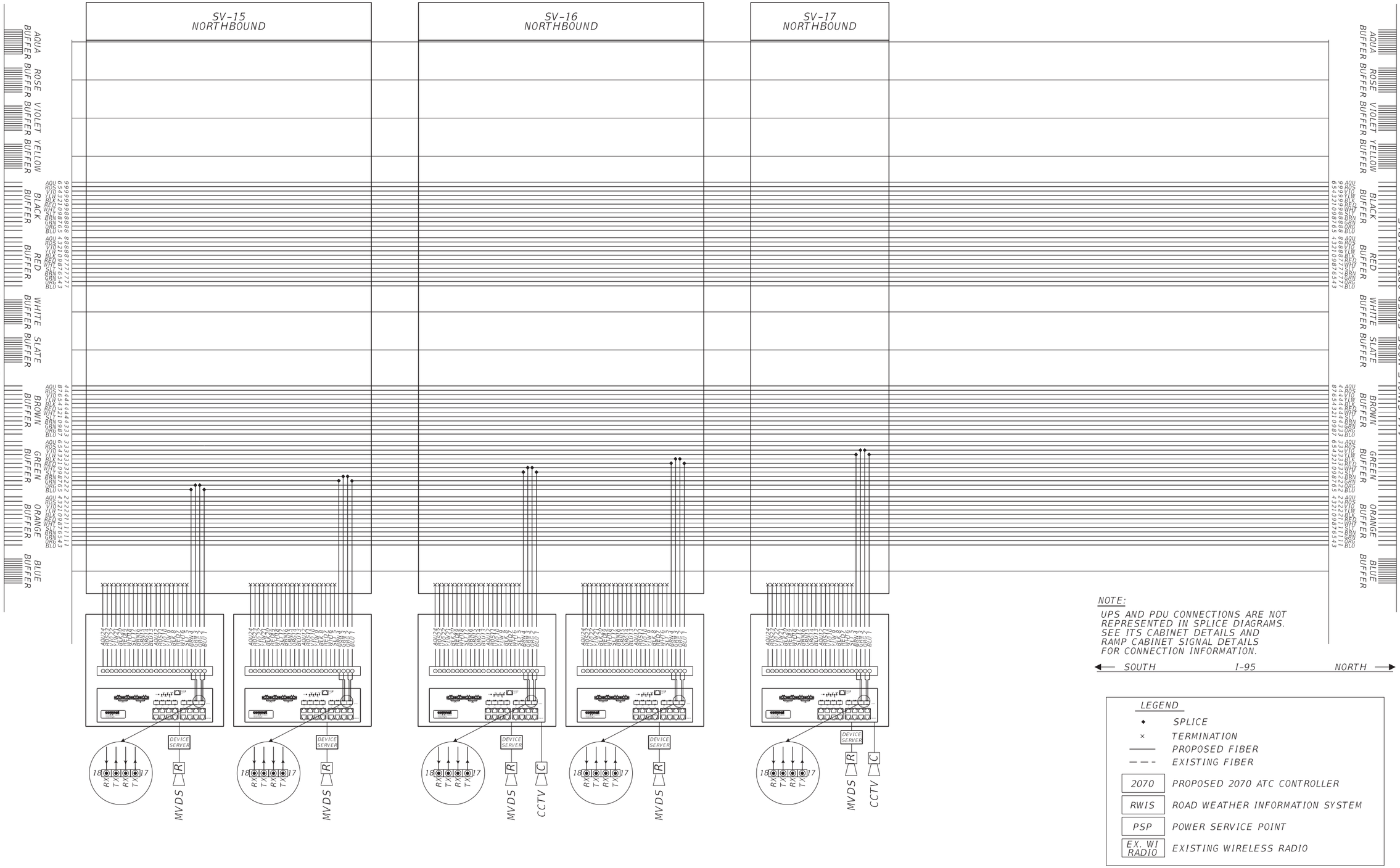
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (8)

SHEET NO. IT-227



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (9)

SHEET NO. IT-228

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

SV-18
NORTHBOUND

BLUE | ORANGE | GREEN | BROWN

BLUE | ORANGE | GREEN | BROWN

TOLL GANTRY 5 *

18 RX TX RX TX 17

DC

D-CCTV (EXP)

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

NOTE:

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SOUTH ⟵ I-95 ⟶ NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- – – – EXISTING FIBER
- 2070 PROPOSED 2070 ATC CONTROLLER
- RWIS ROAD WEATHER INFORMATION SYSTEM
- PSP POWER SERVICE POINT
- EX. WI RADIO EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (10)

SHEET NO.
IT-229

SV-19
NORTHBOUND

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

T-DMS (BY OTHERS)
DMS CTLR
D-CCTV
2070
DEVICE SERVER
MVDS

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FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED TOLL DMS & D-CCTV CAMERA. MODIFIED SPLICING SEQUENCE IN SV-19.		

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

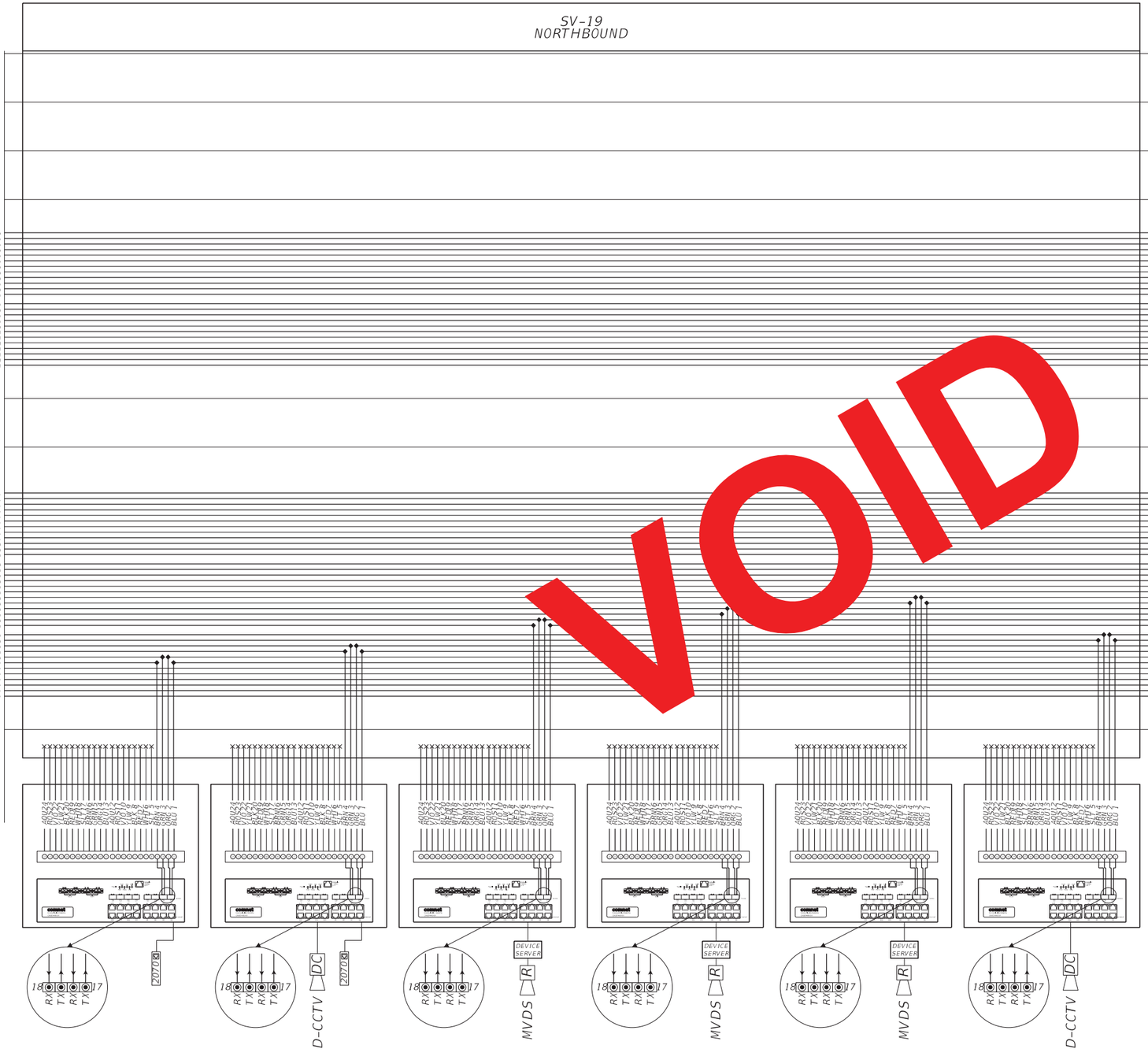
SPLICING DIAGRAM (11)

SHEET NO.
IT-230

SV-19
NORTHBOUND

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER



VOID

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

NOTE:
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SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
— — —	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (11)

SHEET NO.
IT-230

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

SV-20 NORTHBOUND

SV-21 NORTHBOUND

2 ADDED TOLL DMS & D-CCTV CAMERA IN SV-21. MODIFIED SPLICING SEQUENCE IN SPLICE VAULTS.

18 RX TX RX TX 17

DEVICE SERVER

R

MVDS

2070

DC

D-CCTV

C

EX. WI RADIO

CCTV

DMS CTLR

T-DMS (BY OTHERS)

NOTE:
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SOUTH ← I-95 → NORTH

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and work methods remains with the contractor. Notify engineer of discrepancies and variations. Fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED TOLL DMS & D-CCTV CAMERA IN SV-21. MODIFIED SPLICING SEQUENCE IN SPLICE VAULTS.		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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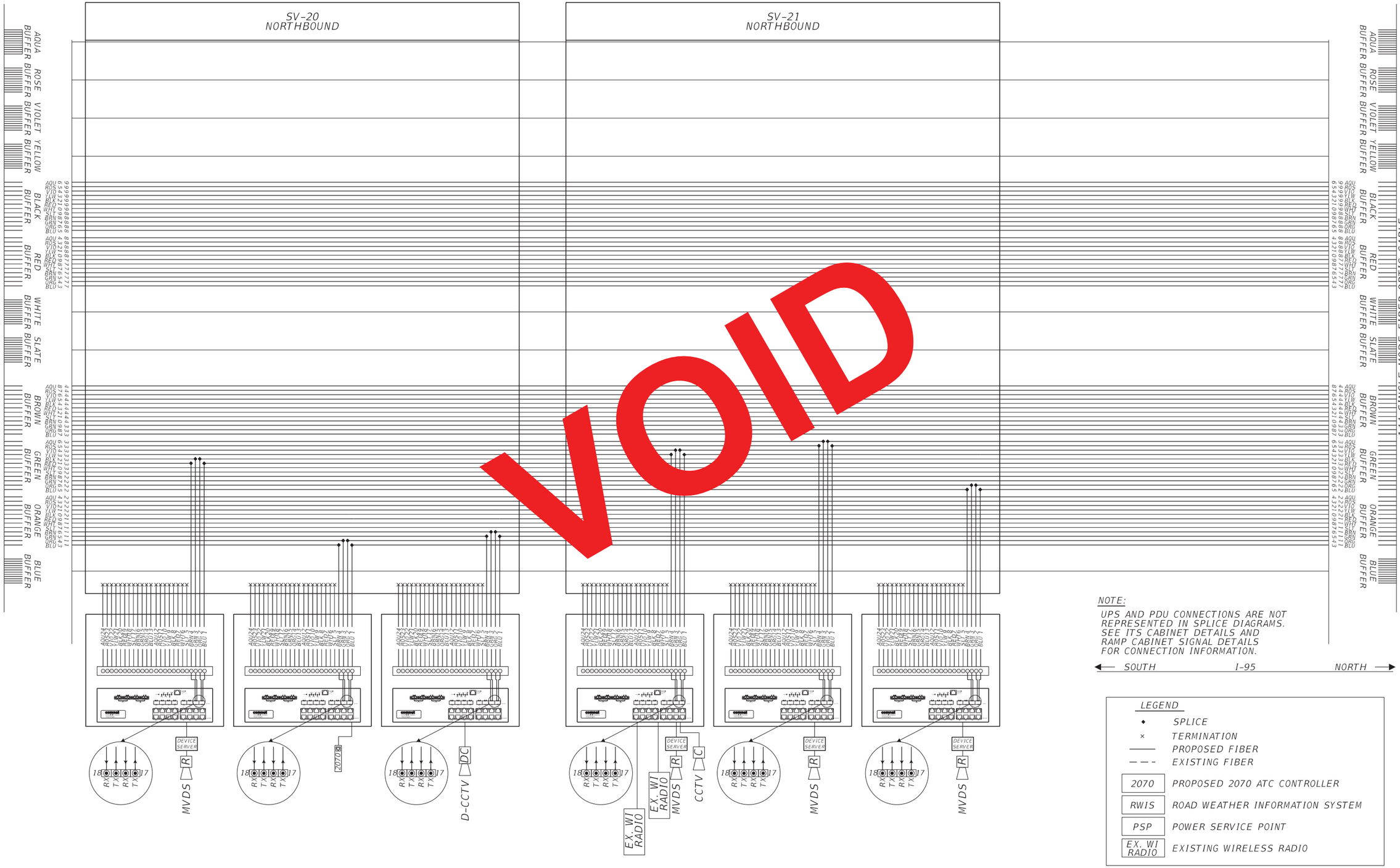
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (12)

SHEET NO. IT-231



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (12)

SHEET NO.

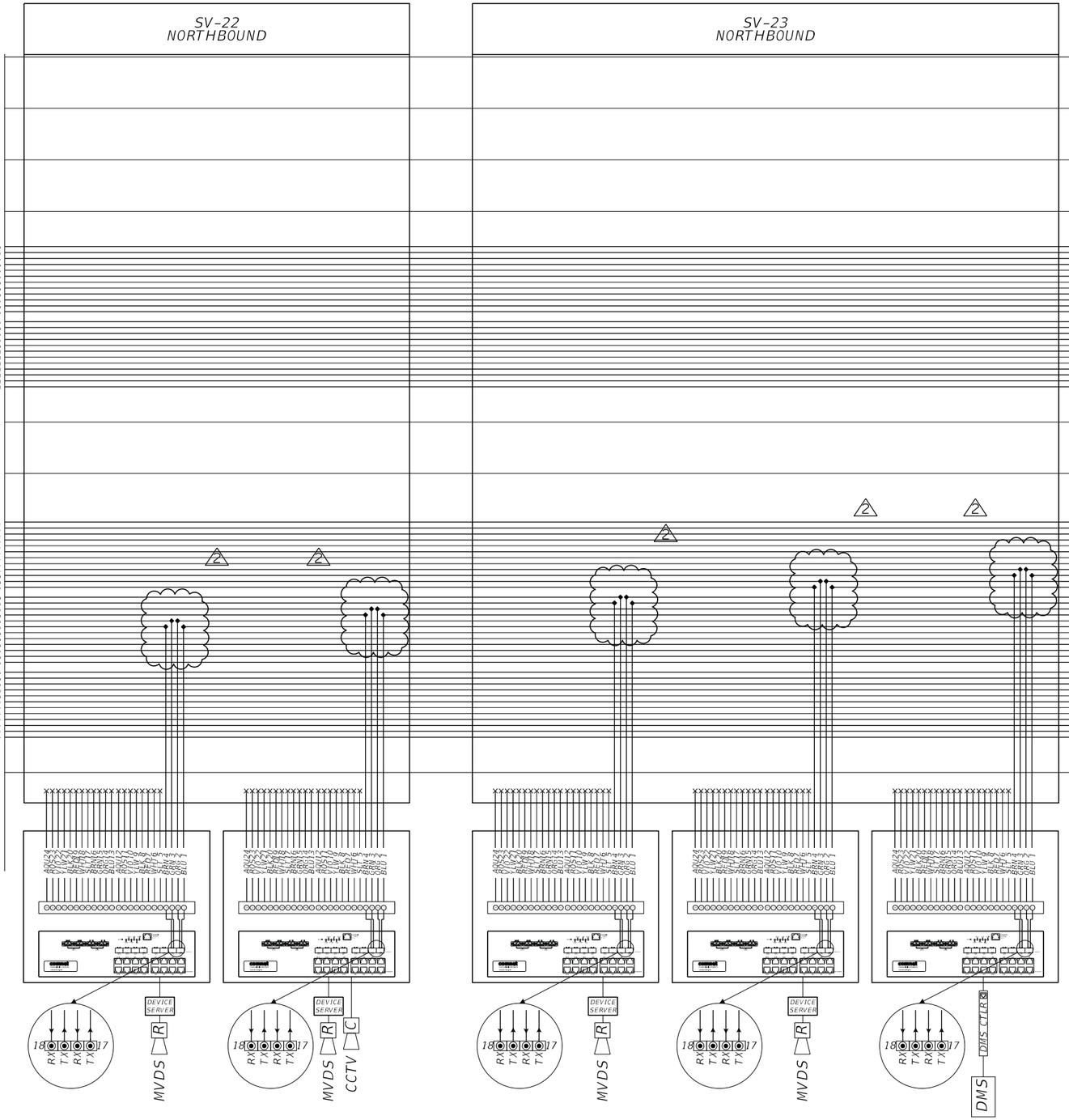
IT-231

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

SV-22
NORTHBOUND

SV-23
NORTHBOUND



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and field conditions remains with the contractor. Review of shop drawings does not relieve contractor of responsibility for deviations from contract documents.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED TOLL D-CCTV CAMERA. MODIFIED SPLICING SEQUENCE IN SPLICE VAULTS.		

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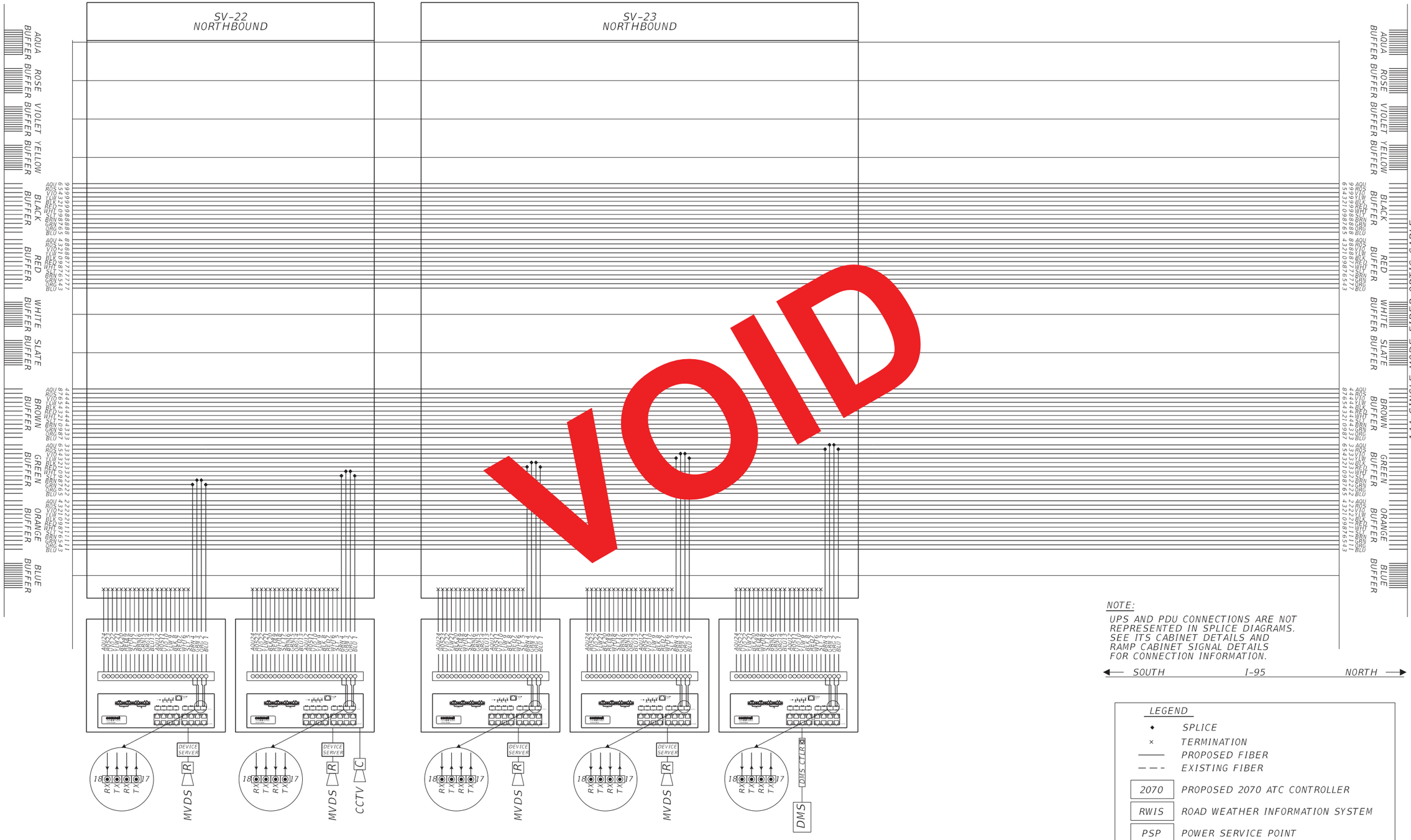
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (13)

SHEET NO.
IT-232



NOTE:

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SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- – – – EXISTING FIBER
- 2070 PROPOSED 2070 ATC CONTROLLER
- RWIS ROAD WEATHER INFORMATION SYSTEM
- PSP POWER SERVICE POINT
- EX. WI RADIO EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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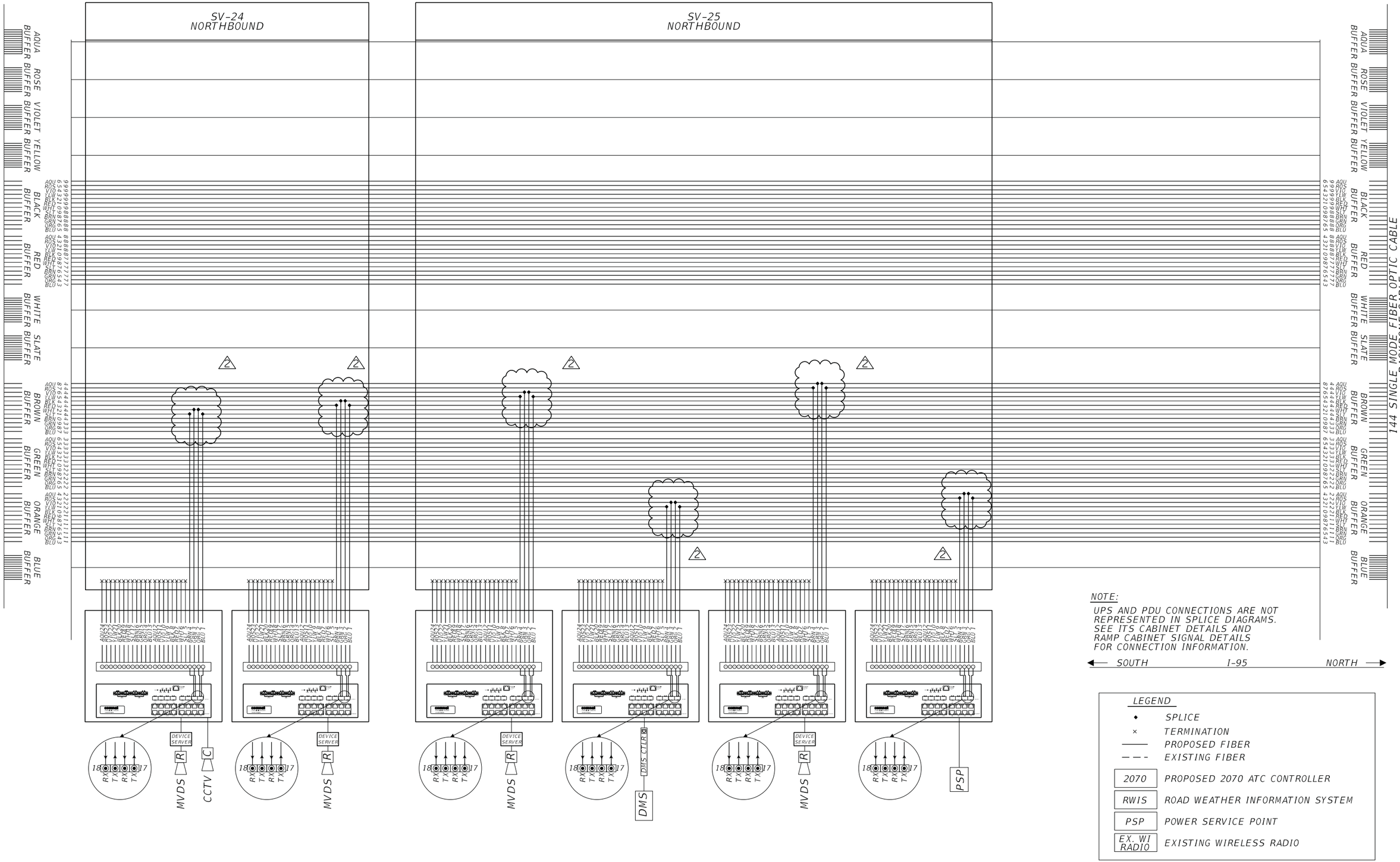
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (13)

SHEET NO. IT-232



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← SOUTH I-95 NORTH →

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		

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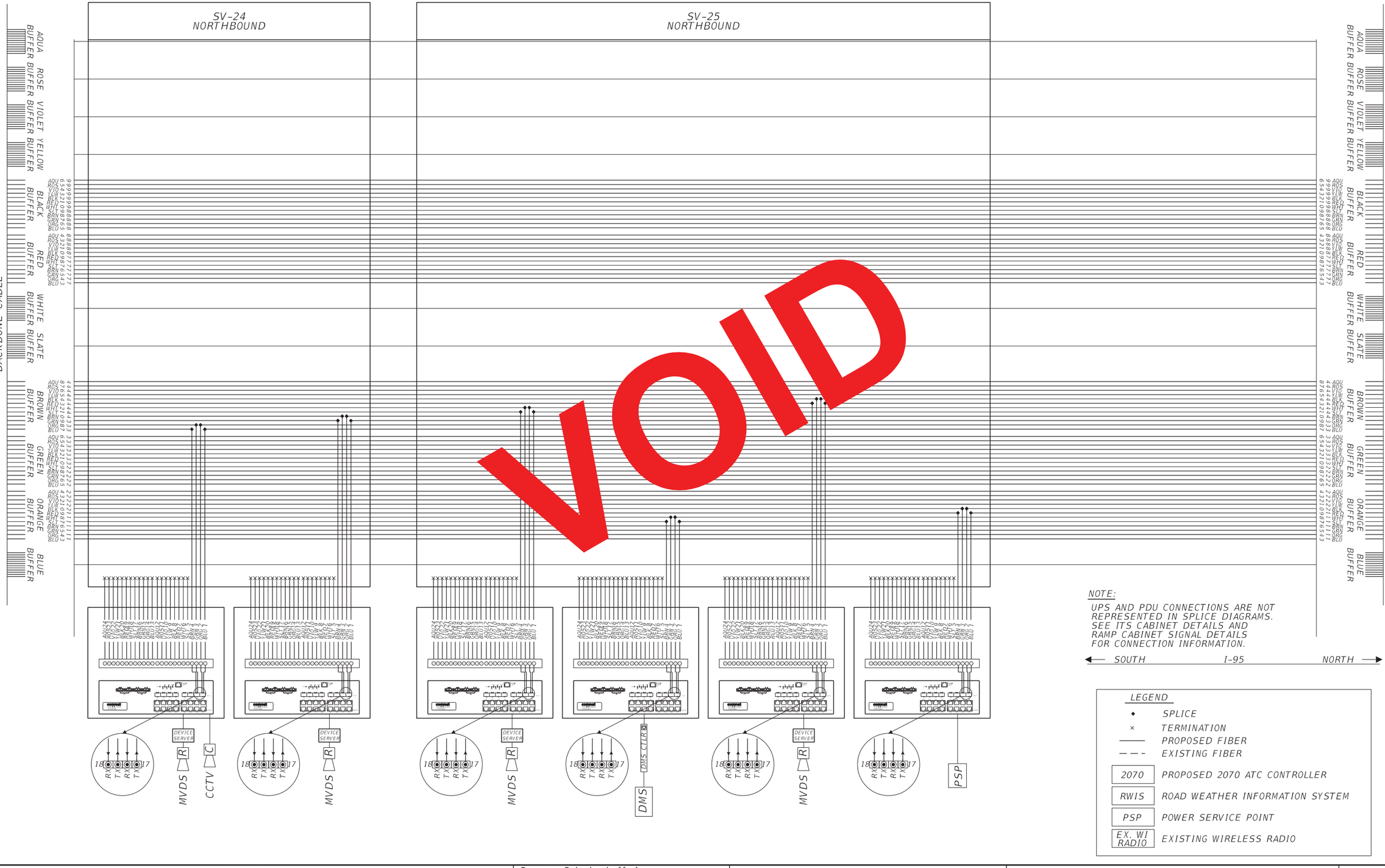
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (14)

SHEET NO.
IT-233



VOID

NOTE:

UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- — — — EXISTING FIBER
- 2070 PROPOSED 2070 ATC CONTROLLER
- RWIS ROAD WEATHER INFORMATION SYSTEM
- PSP POWER SERVICE POINT
- EX. WI RADIO EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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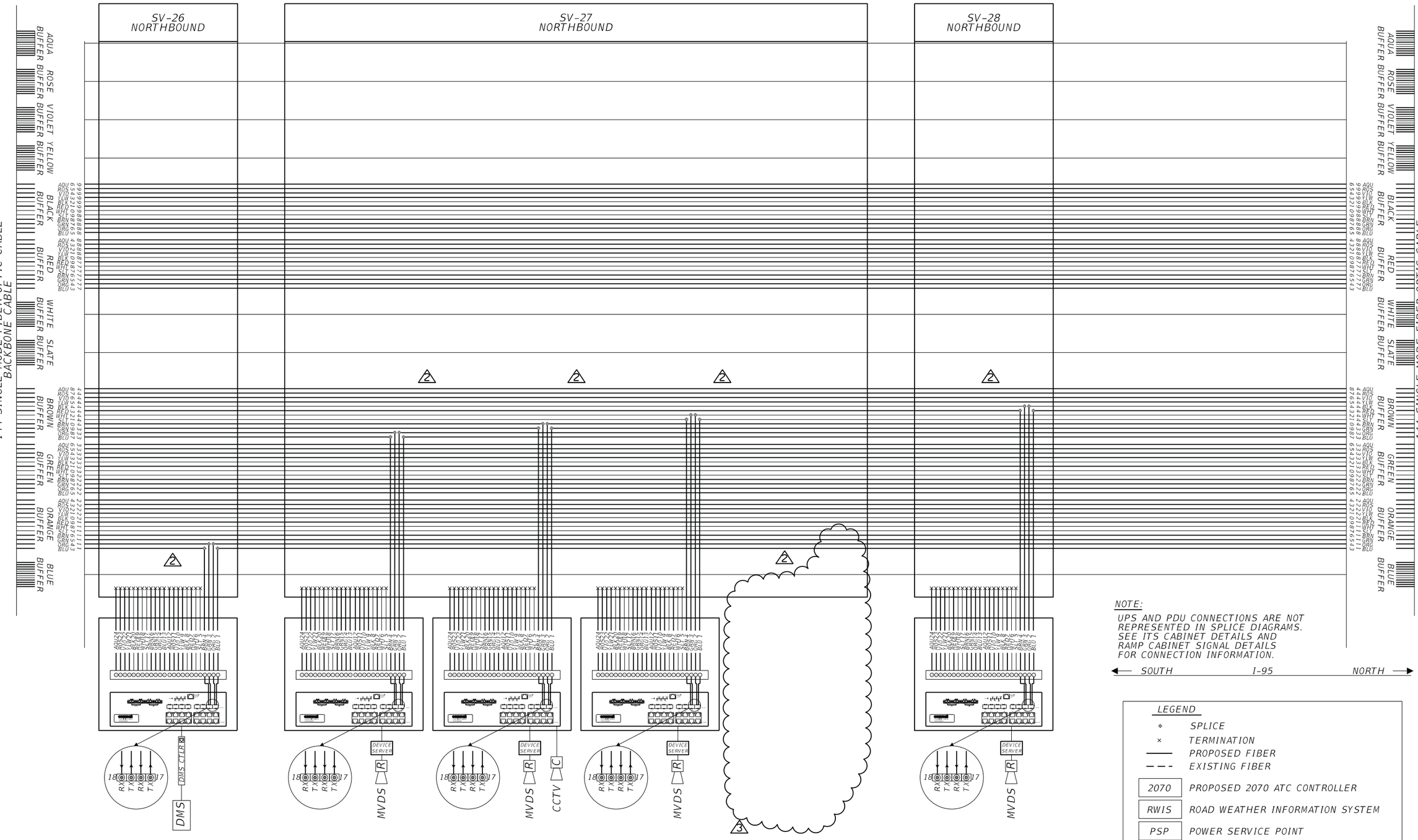
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (14)

SHEET NO.

IT-233



NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and coordination with shop drawings, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64
BY: (Stantec) JB BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
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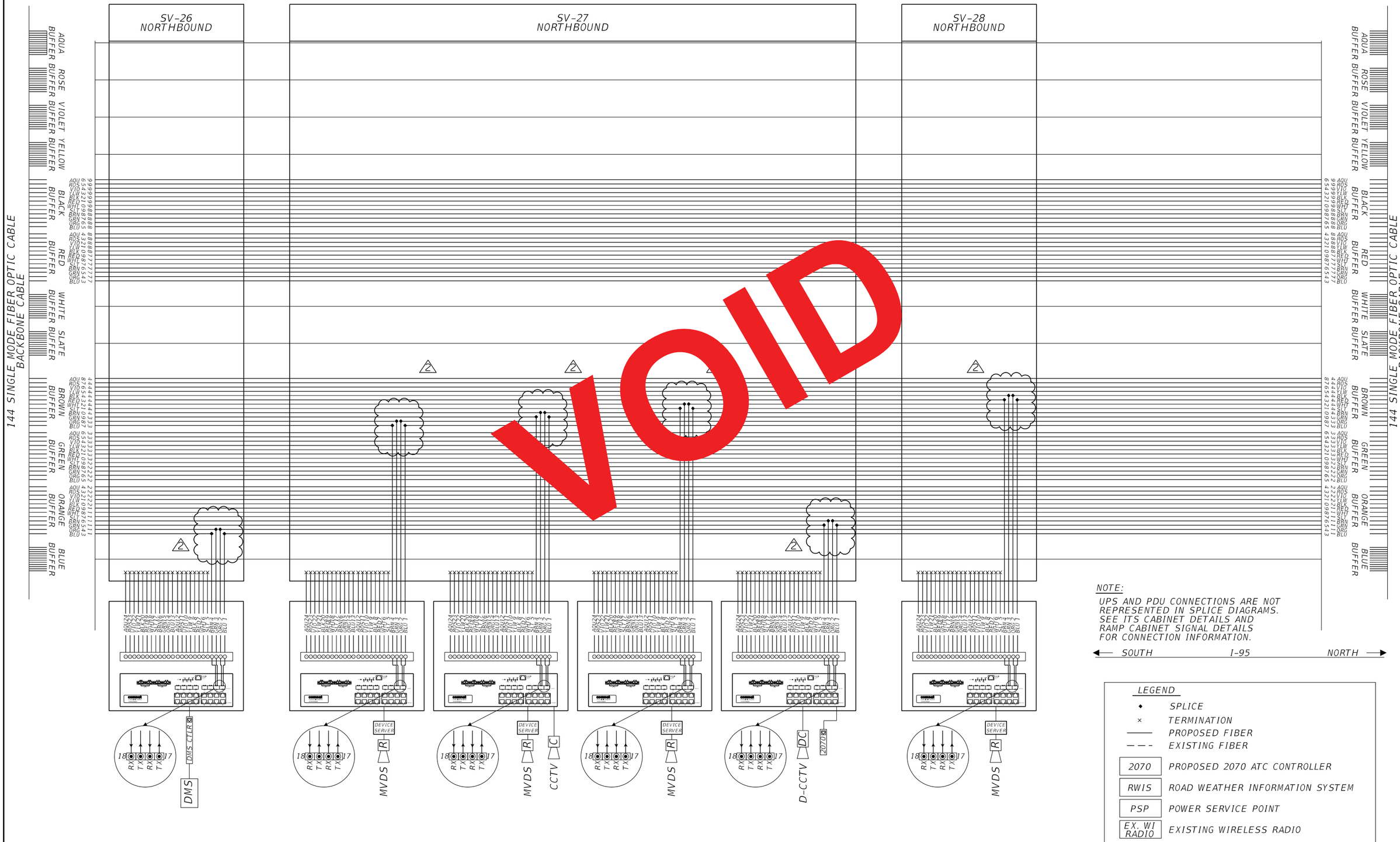
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (15)

SHEET NO.
IT-234



VOID

NOTE:

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SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of design and quantities remains with the design professional of record. Fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)

BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (15)

SHEET NO. IT-234

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

SV-26
NORTHBOUND

SV-27
NORTHBOUND

SV-28
NORTHBOUND

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

VOID

DMS CTLR
DMS
DEVICE SERVER
MVDS
CCTV
D-CCTV
2070
RX TX RX TX
18 17

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- – – – EXISTING FIBER
- 2070 PROPOSED 2070 ATC CONTROLLER
- RWIS ROAD WEATHER INFORMATION SYSTEM
- PSP POWER SERVICE POINT
- EX. WI RADIO EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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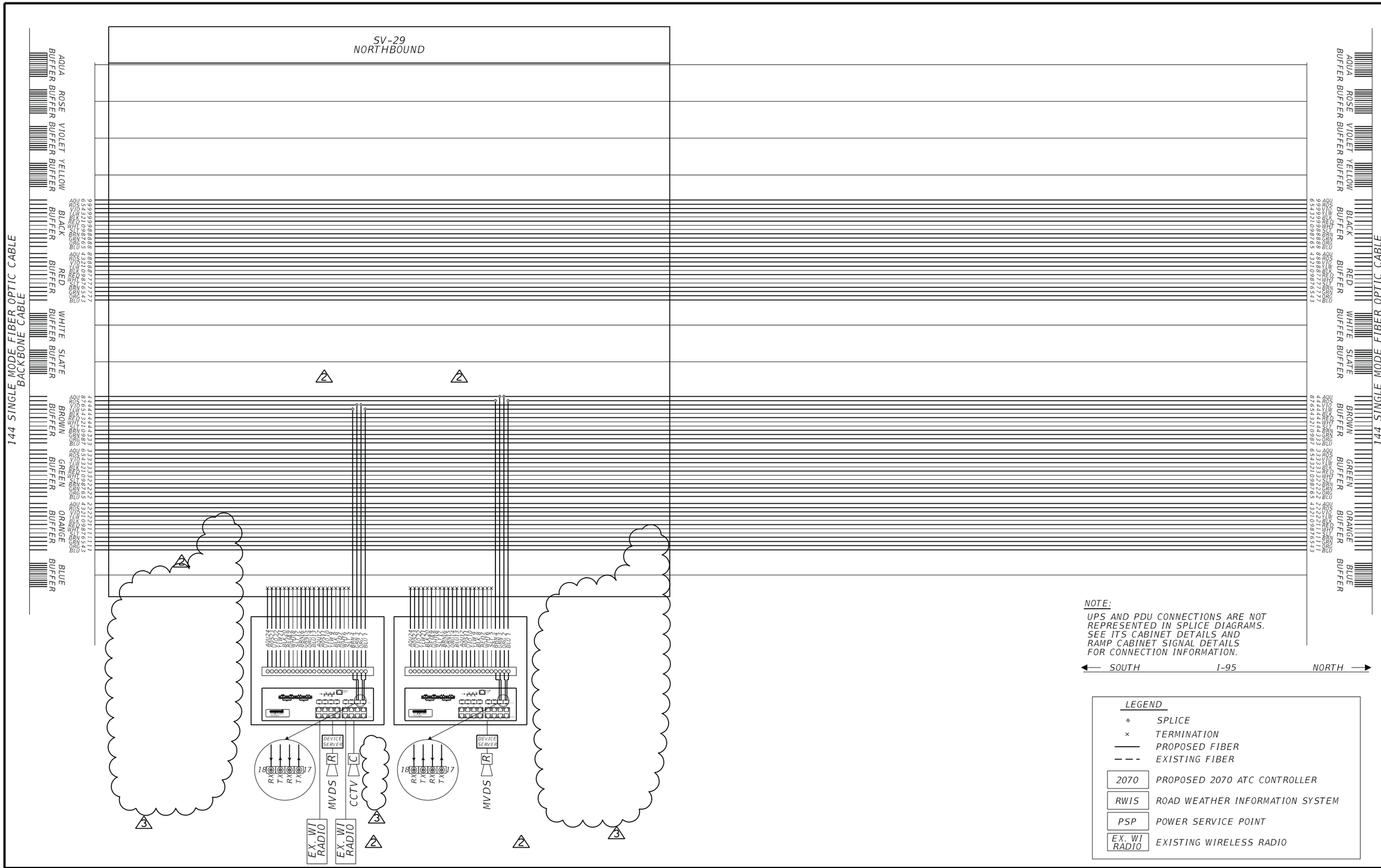
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (15)

SHEET NO.
IT-234



NOTE:
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← SOUTH I-95 NORTH →

LEGEND

◆	SPLICE
×	TERMINATION
——	PROPOSED FIBER
- - -	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) JB

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED D-CCTV CAMERAS IN SV-29. MODIFIED SPLICING SEQUENCE IN SV-29.		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

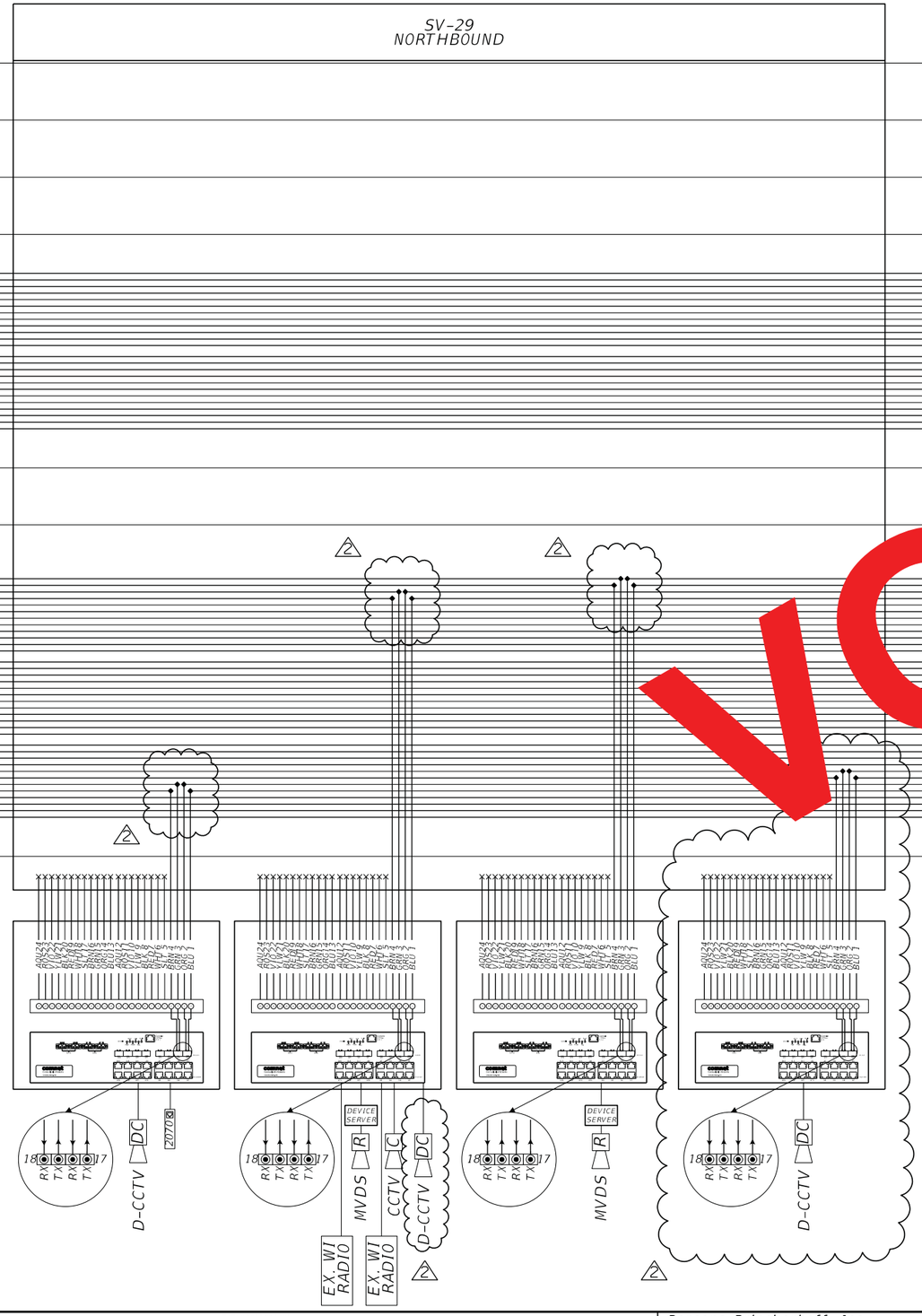
SPLICING DIAGRAM (16)

SHEET NO.
IT-235

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

SV-29
NORTHBOUND



VOID

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of information and dimensions shall remain with the fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED D-CCTV CAMERAS IN SV-29. MODIFIED SPLICING SEQUENCE IN SV-29.		

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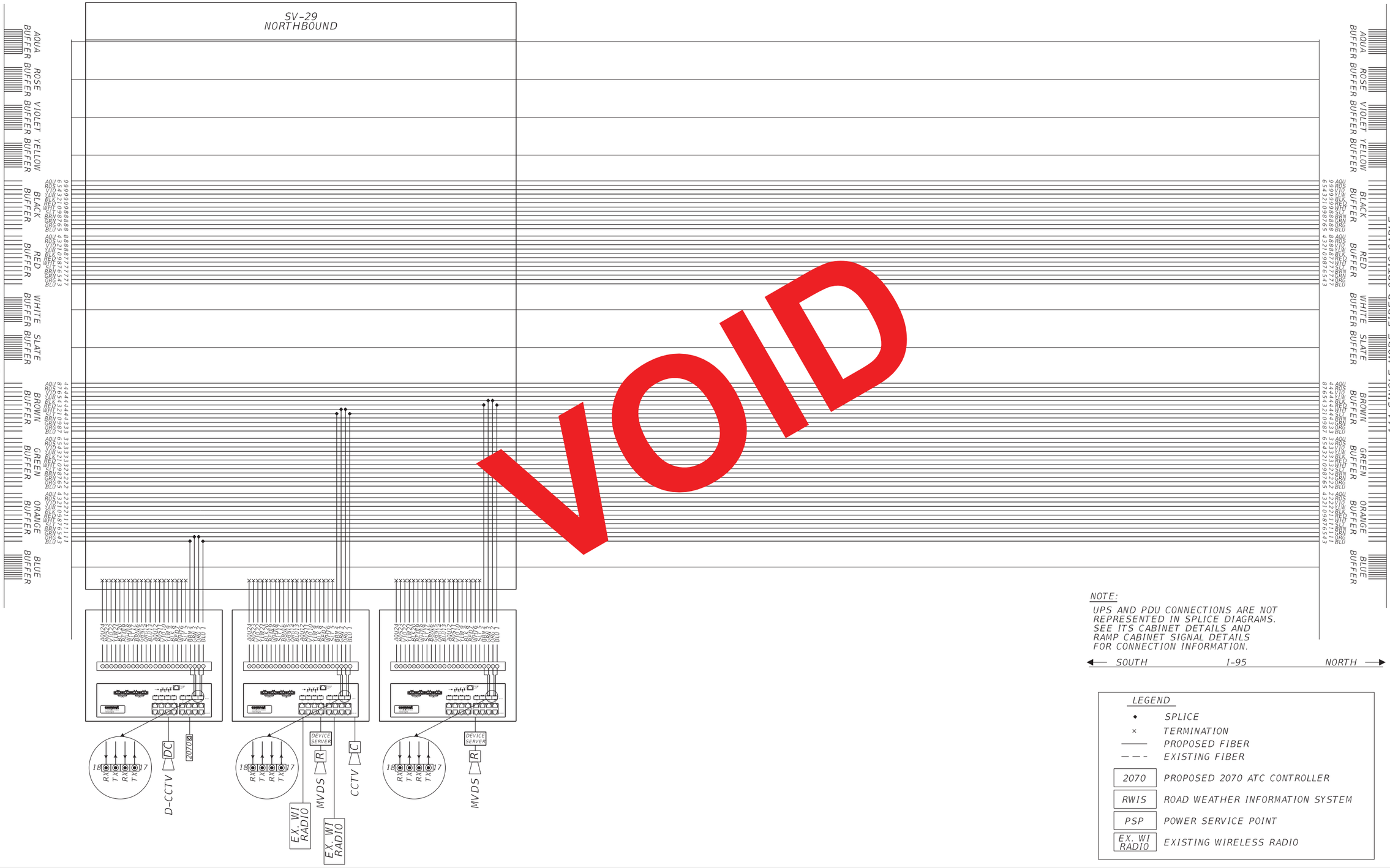
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (16)

SHEET NO.
IT-235



NOTE:
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← SOUTH I-95 NORTH →

LEGEND

◆	SPLICE
×	TERMINATION
——	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) PL BY: (FDOT)

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REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (16)

SHEET NO.
IT-235

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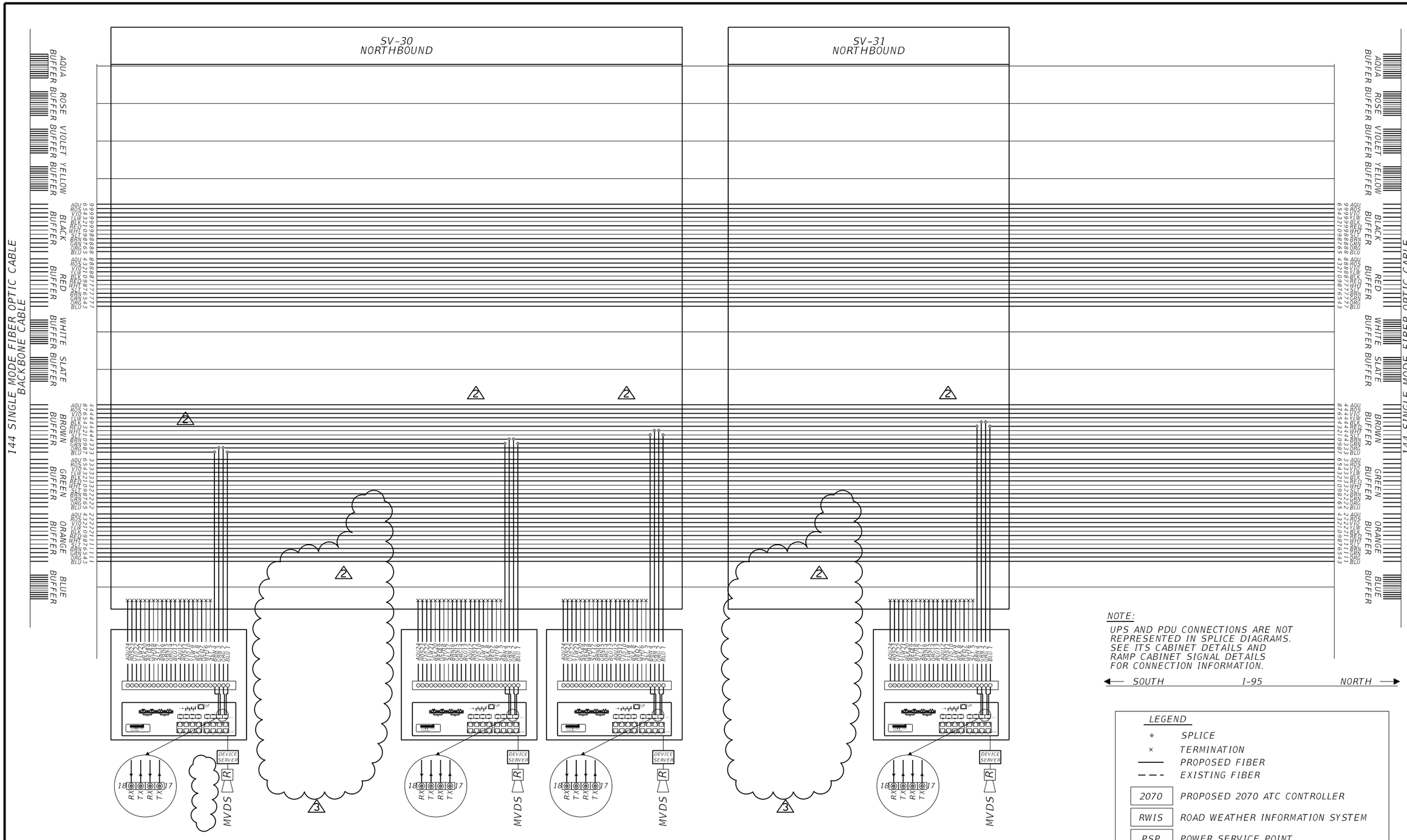

NOTE:
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← SOUTH I-95 NORTH →

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) JB

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (17)

SHEET NO.
IT-236

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

SV-30
NORTHBOUND

SV-31
NORTHBOUND

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

VOID

△2

18 RX TX RX TX 17

D-CCTV

DC

MVDS

R

DEVICE SERVER

2070

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for corrections of errors/omissions shall remain with the EOR. Responsibility for means, methods, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	△2 MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (17)

SHEET NO.
IT-236

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

SV-30
NORTHBOUND

SV-31
NORTHBOUND

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

VOID

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- — — — EXISTING FIBER
- 2070 — PROPOSED 2070 ATC CONTROLLER
- RWIS — ROAD WEATHER INFORMATION SYSTEM
- PSP — POWER SERVICE POINT
- EX. WI RADIO — EXISTING WIRELESS RADIO

D-CCTV | MVDS | DEVICE SERVER | 2070

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (17)

SHEET NO.
IT-236

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

SV-32
NORTHBOUND

SV-33
NORTHBOUND

2

DEVICE SERVER

R

IC

MVDS

CCTV

DMS CTLR

DMS

18 RX TX RX TX 17

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and work methods remains with the contractor. Approval does not relieve contractor of responsibility for deviations from plans or specifications. Fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		

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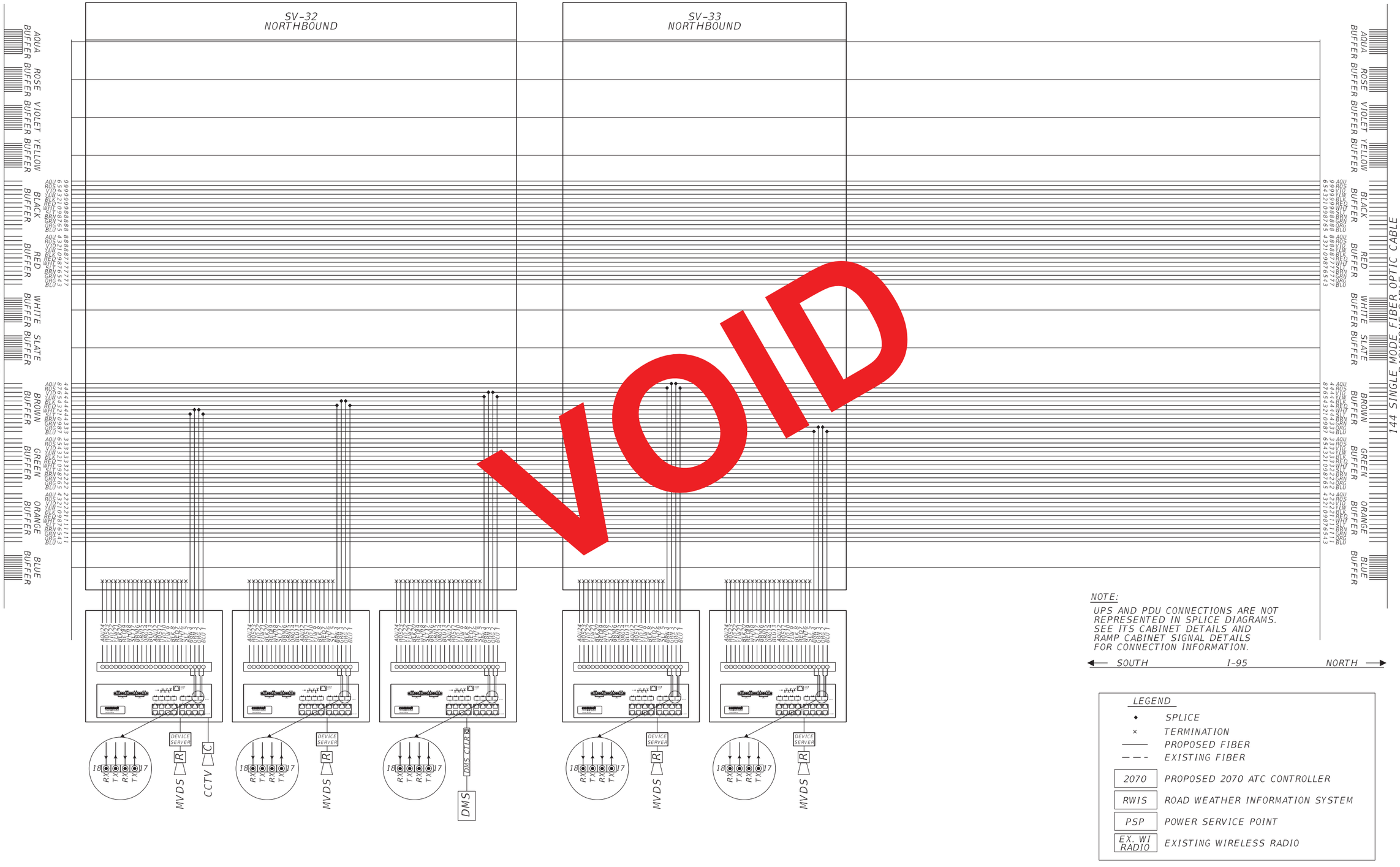
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (18)

SHEET NO. IT-237



NOTE:

UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

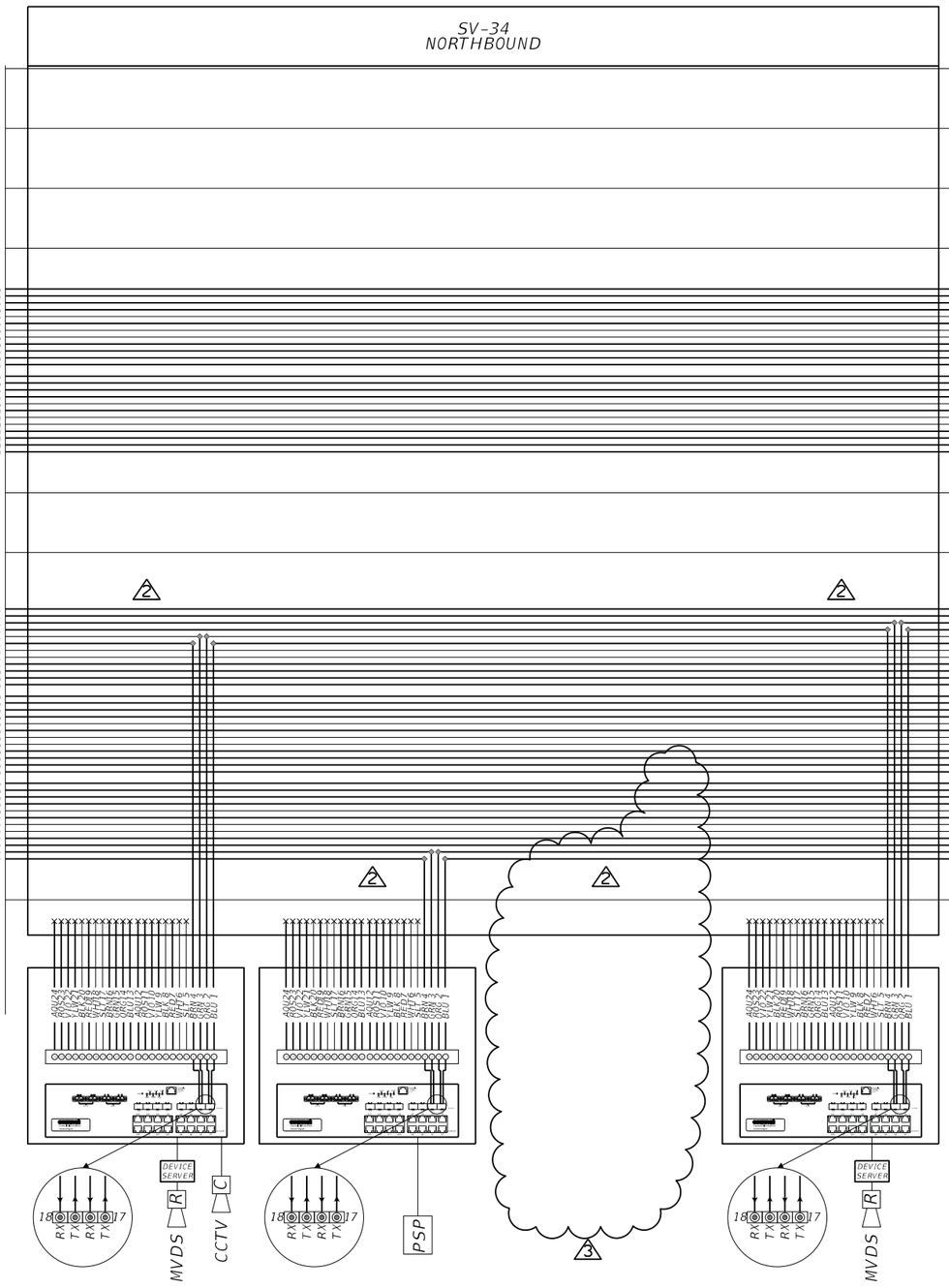
SPLICING DIAGRAM (18)

SHEET NO. IT-237

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

SV-34
NORTHBOUND



144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and coordination with shop drawings, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN SV-34.		
02/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

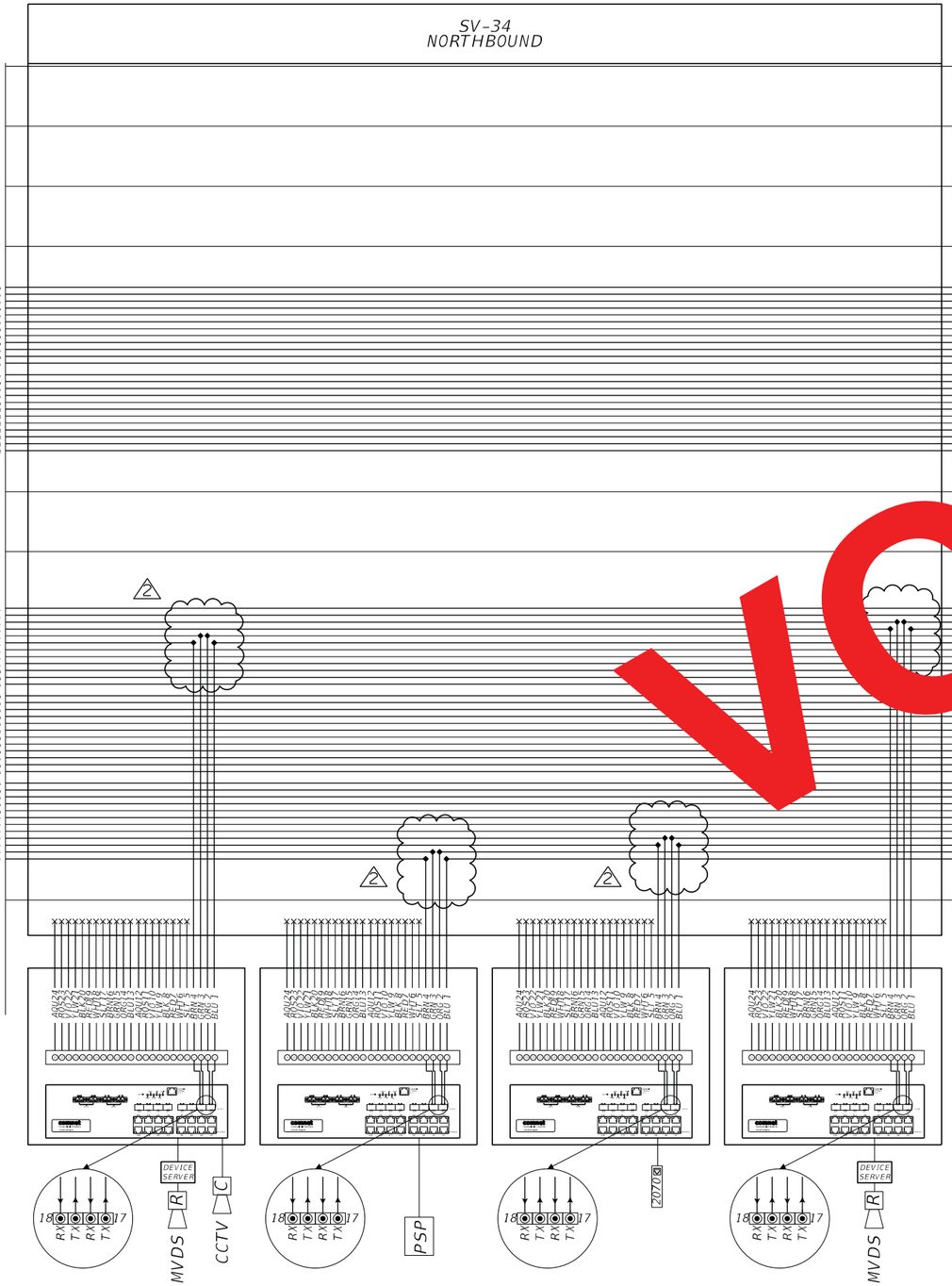
SPLICING DIAGRAM (19)

SHEET NO.
IT-238

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

SV-34
NORTHBOUND



144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

VOID

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design and quantities shall remain with the Engineer of Record. Review of fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN SV-34.		

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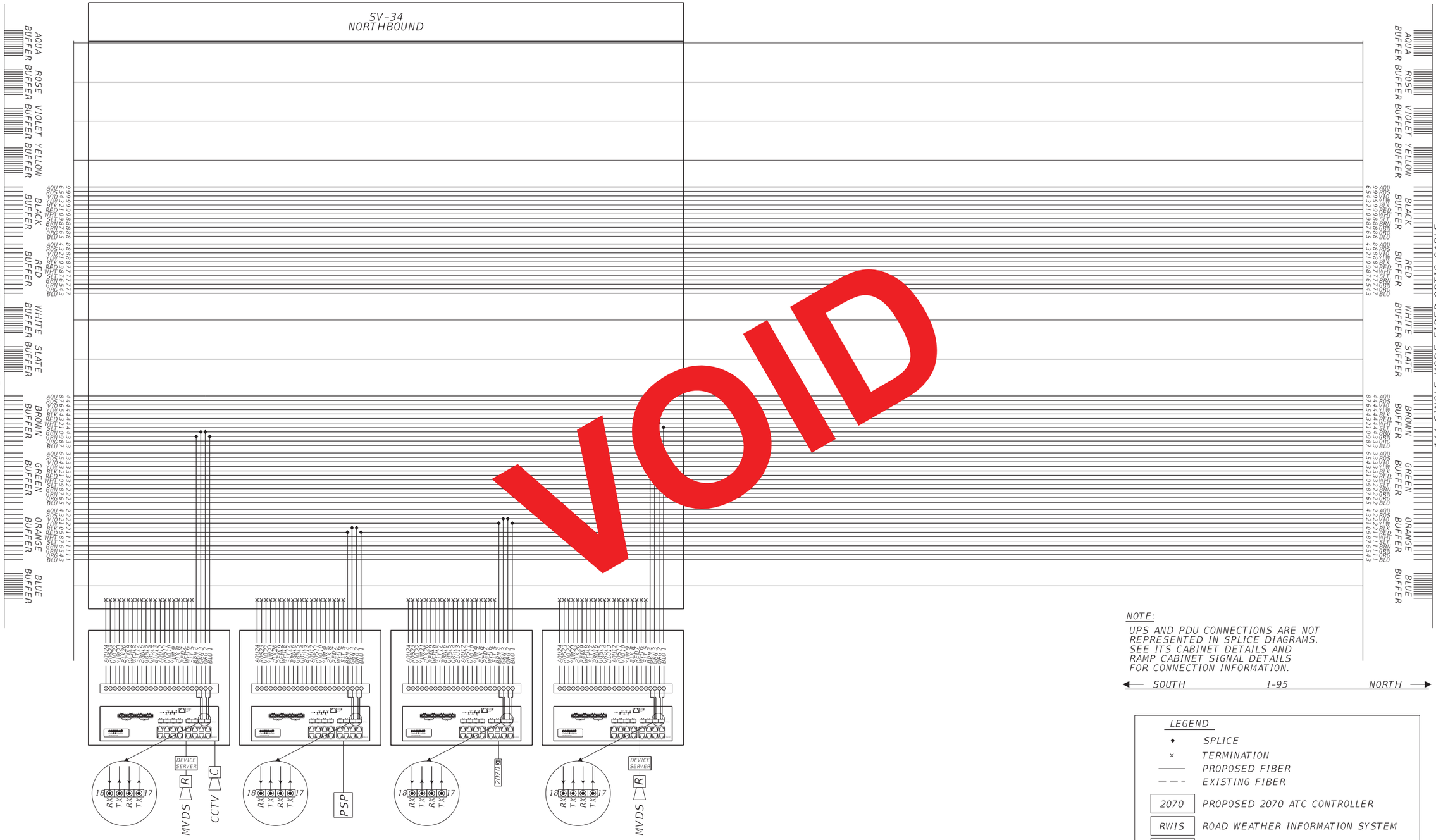
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (19)

SHEET NO.
IT-238



NOTE:

UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- – – – EXISTING FIBER
- 2070 PROPOSED 2070 ATC CONTROLLER
- RWIS ROAD WEATHER INFORMATION SYSTEM
- PSP POWER SERVICE POINT
- EX. WI RADIO EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

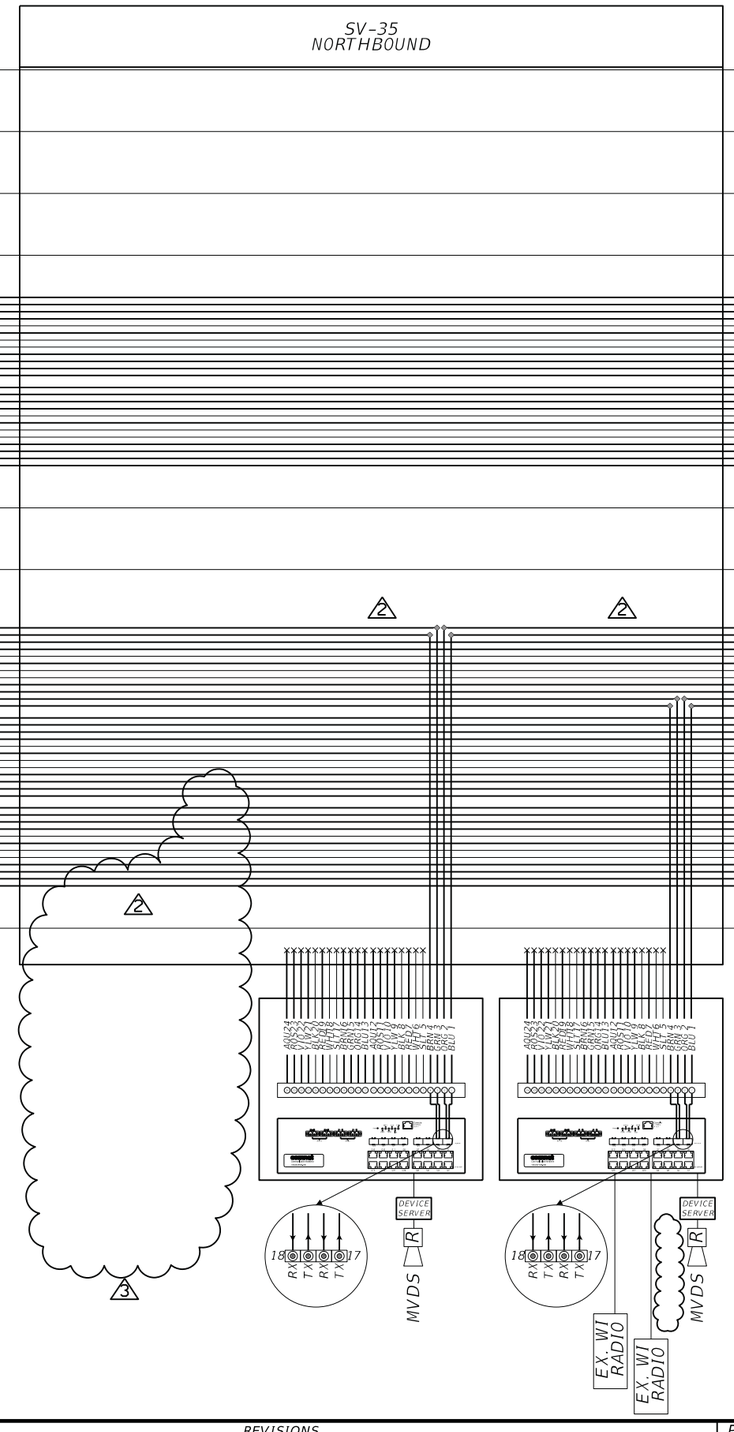
SPLICING DIAGRAM (19)

SHEET NO. IT-238

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

SV-35
NORTHBOUND



144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

NOTE:
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SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and compliance with shop drawings, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN SV-35.		
02/01/19	3 RSS REMOVAL CHANGES		

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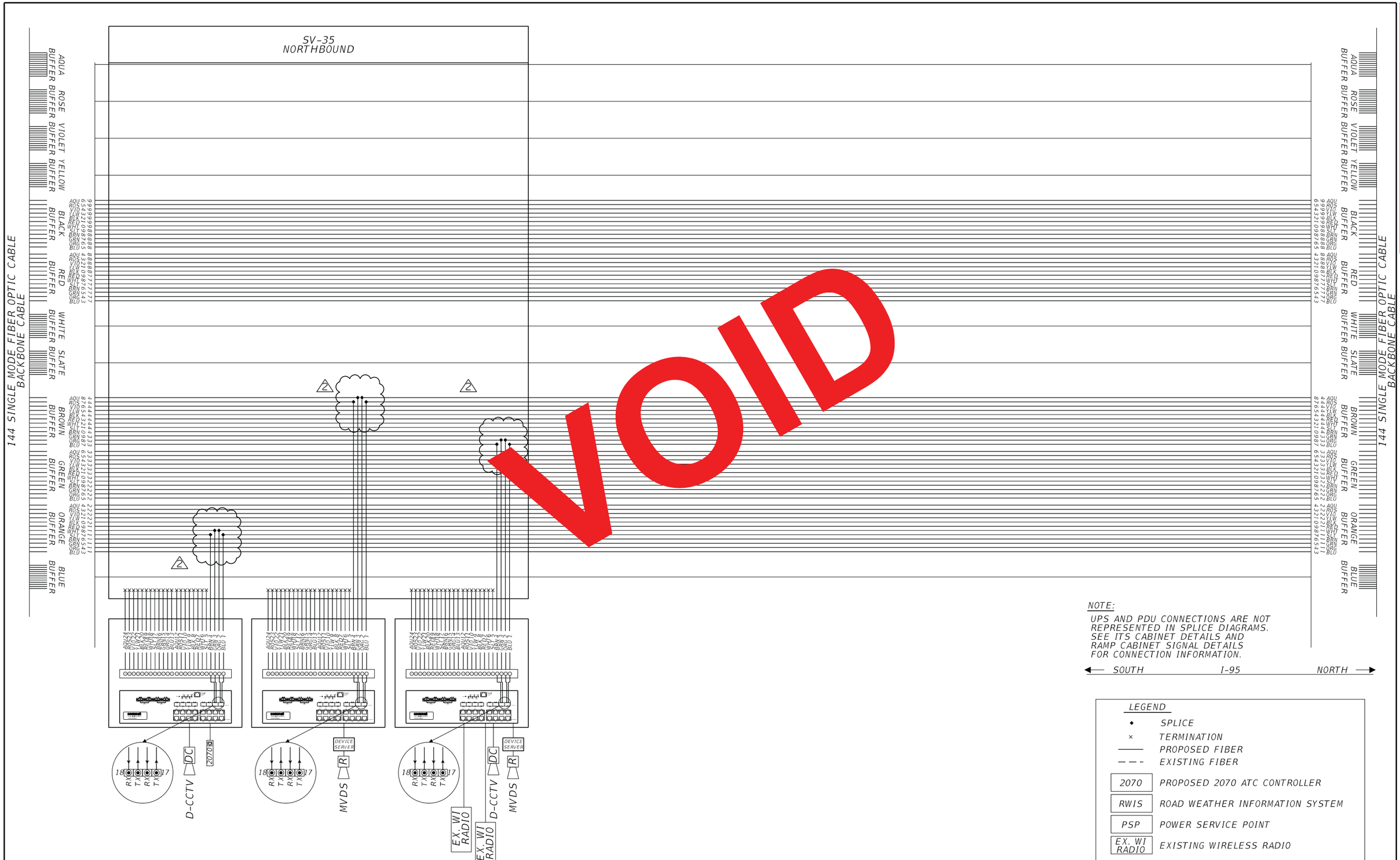
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (20)

SHEET NO. IT-239



NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) JB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN SV-35.		

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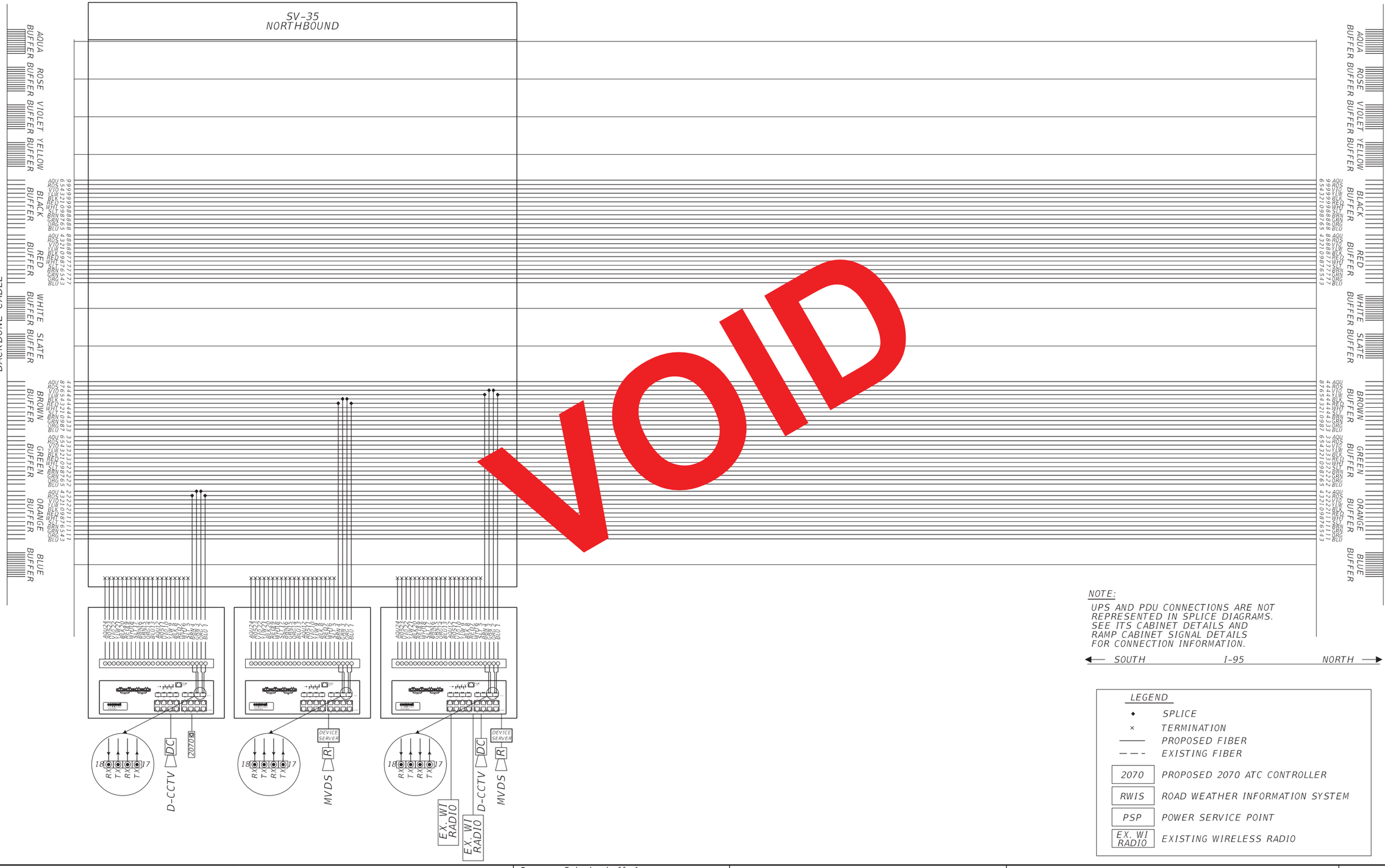
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (20)

SHEET NO.
IT-239



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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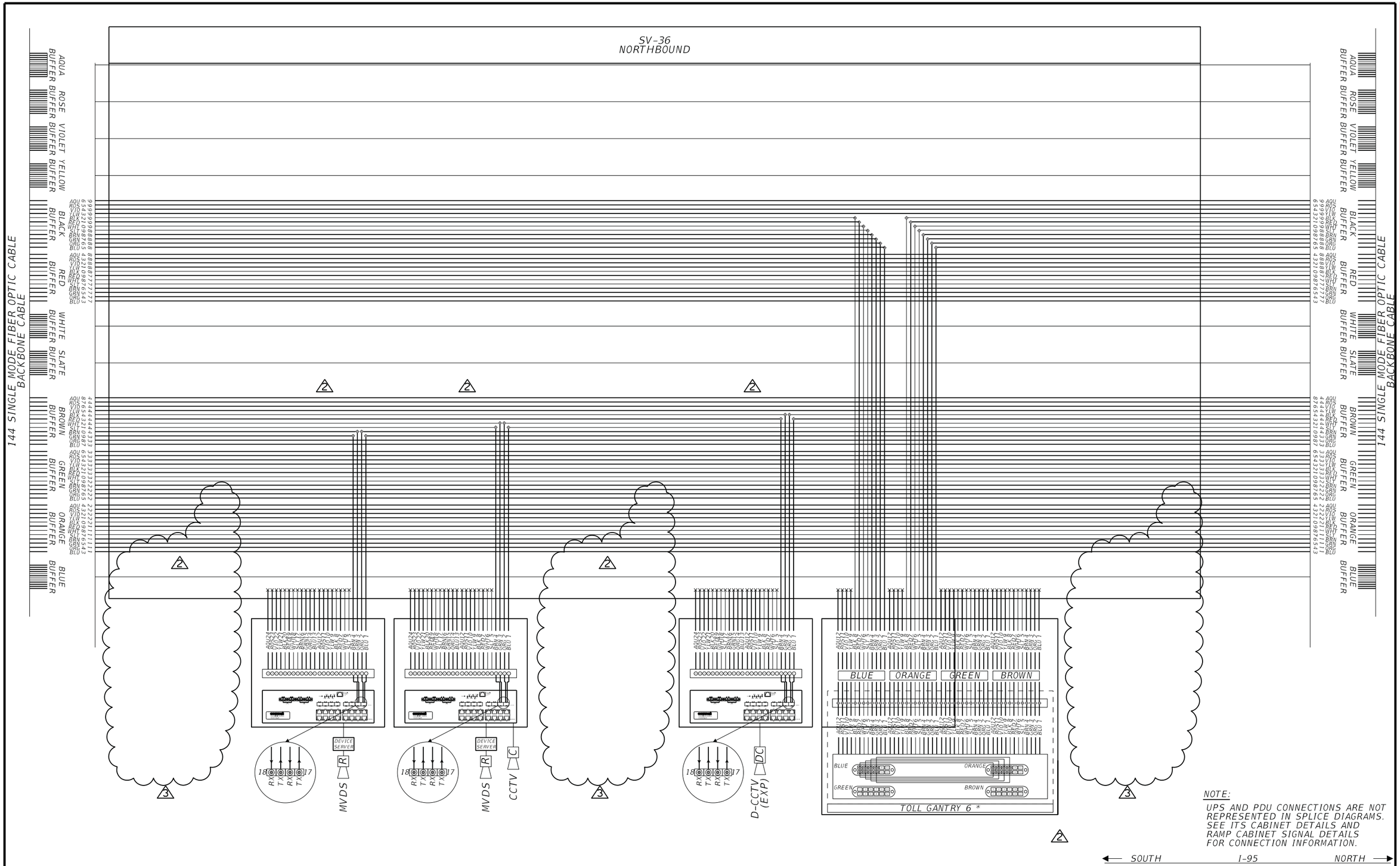
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (20)

SHEET NO. IT-239



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED D-CCTV CAMERA. MODIFIED SPLICING SEQUENCE IN SV-36.		
02/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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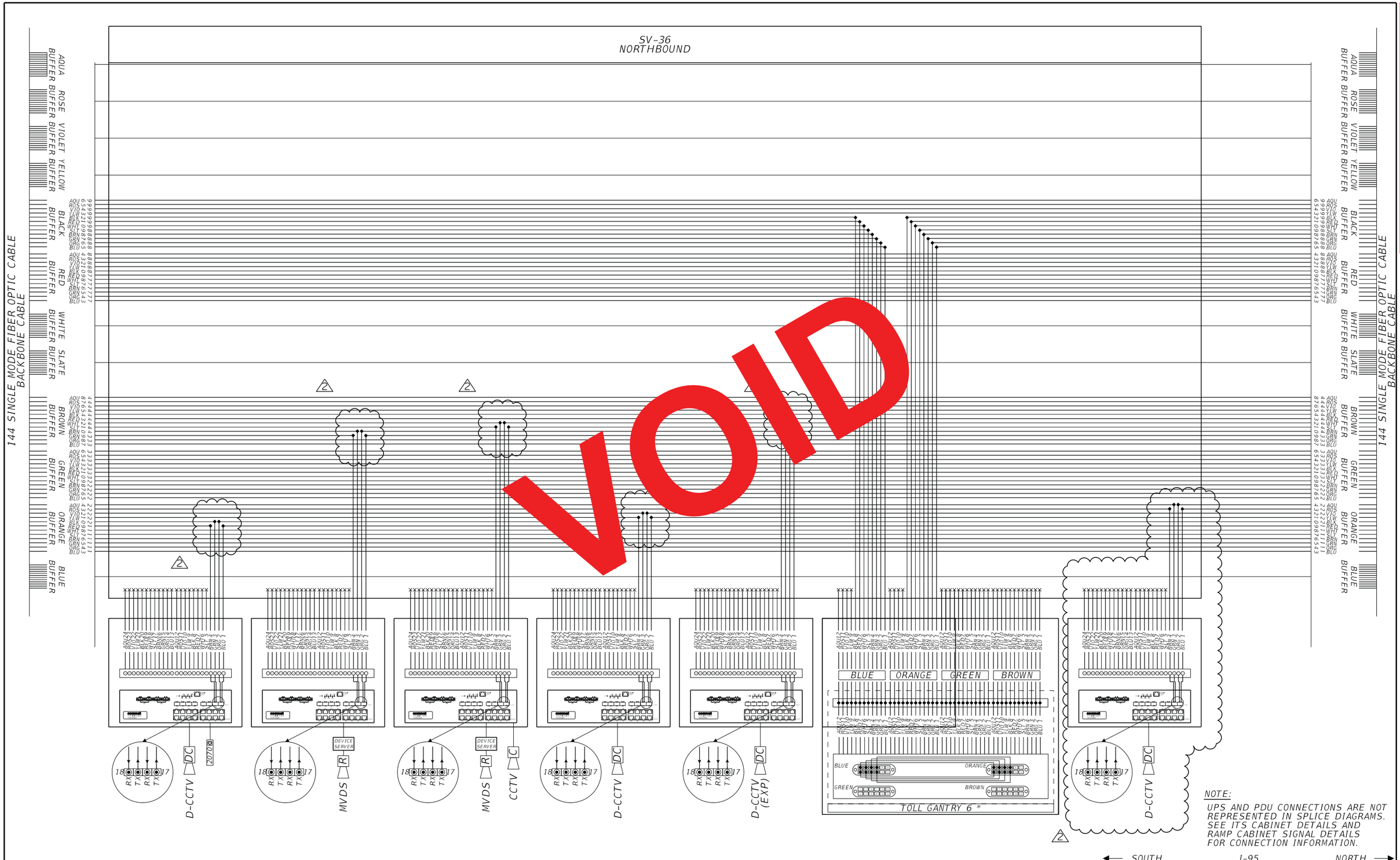
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (21)

SHEET NO.
IT-240



NOTE:
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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) JB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 ADDED D-CCTV CAMERA. MODIFIED SPLICING SEQUENCE IN SV-36.		

Parsons Brinckerhoff, Inc.
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(757) 466-1732
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (21)

SHEET NO.
IT-240

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER | ROSE BUFFER | VIOLET BUFFER | YELLOW BUFFER | BLACK BUFFER | RED BUFFER | WHITE BUFFER | SLATE BUFFER | BROWN BUFFER | GREEN BUFFER | ORANGE BUFFER | BLUE BUFFER

SV-36
NORTHBOUND

VOID

D-CCTV | 2070

MVDS | DEVICE SERVER | R

MVDS | DEVICE SERVER | R

CCTV | C

D-CCTV | DC

D-CCTV (EXP) | DC

BLUE | ORANGE | GREEN | BROWN

BLUE | ORANGE | GREEN | BROWN

TOLL GANTRY 6 *

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (21)

SHEET NO.
IT-240

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

SV-37
NORTHBOUND

SV-38
NORTHBOUND

2

3

18 RX TX RX TX 17

DEVICE SERVER

R

MVDS

C

CCTV

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and compliance with contract documents, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4C64
BY: (Stantec) JB BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		
02/01/19	3 RSS REMOVAL CHANGES		

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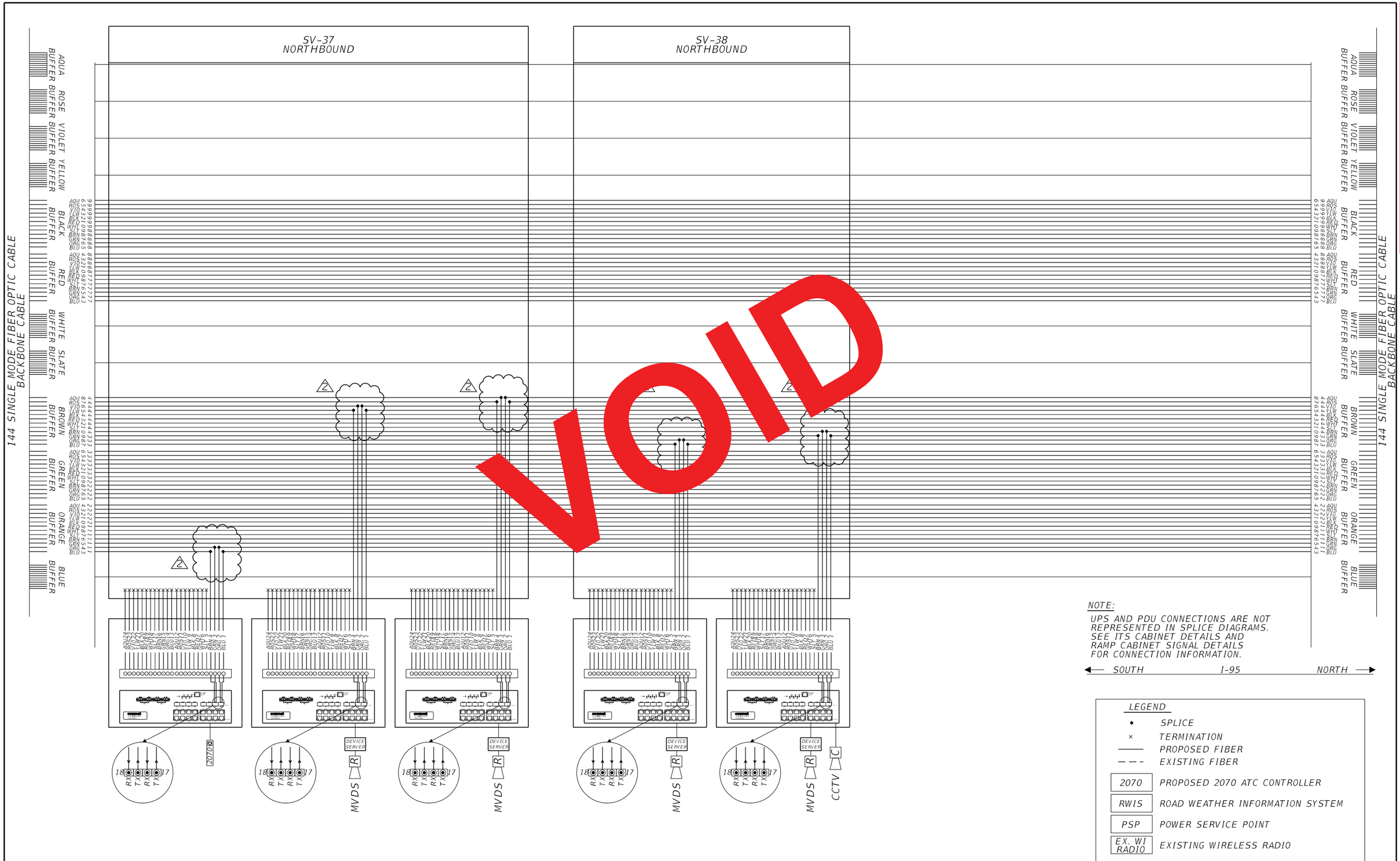
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (22)

SHEET NO. IT-241



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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		

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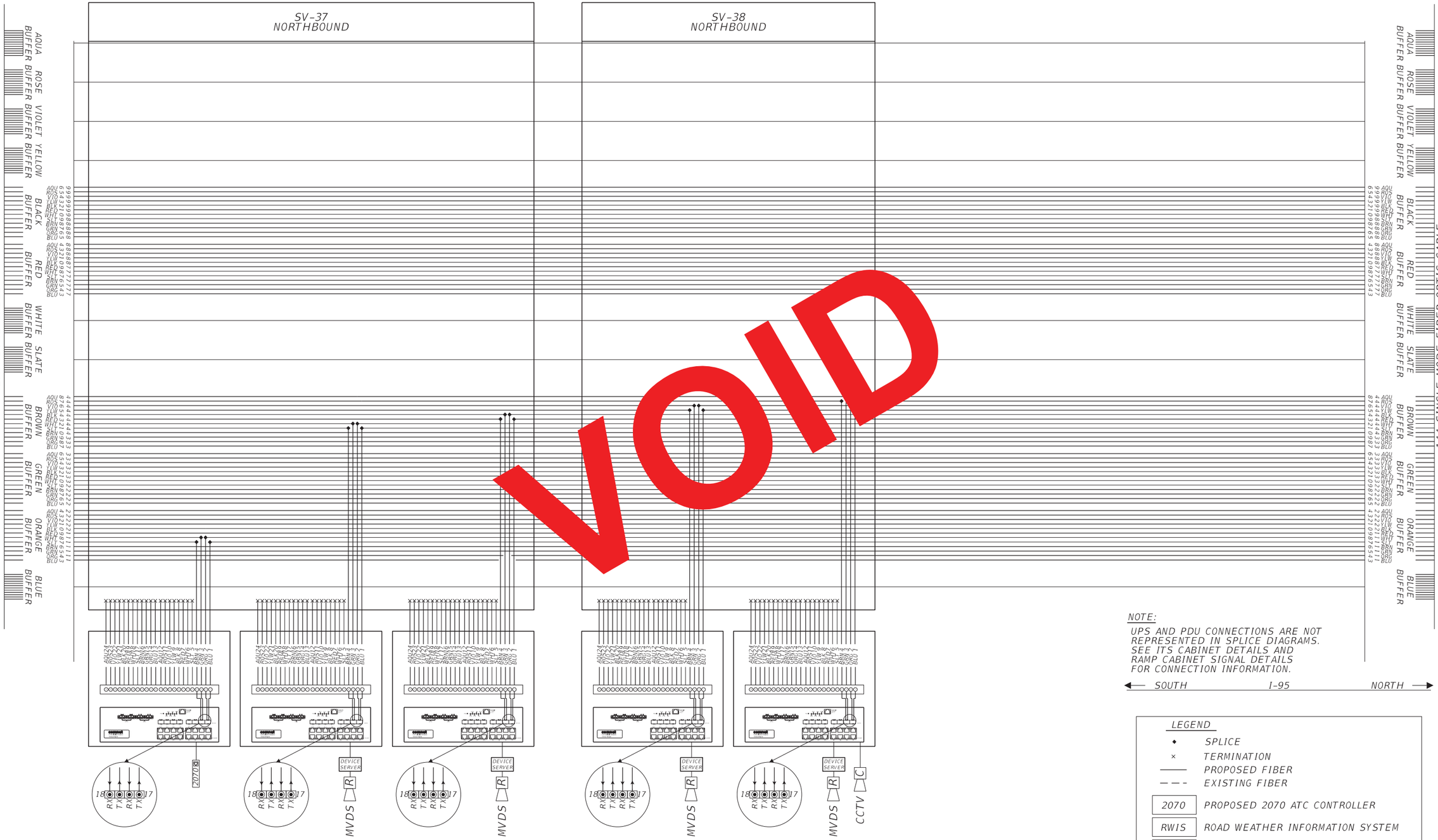
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (22)

SHEET NO.
IT-241



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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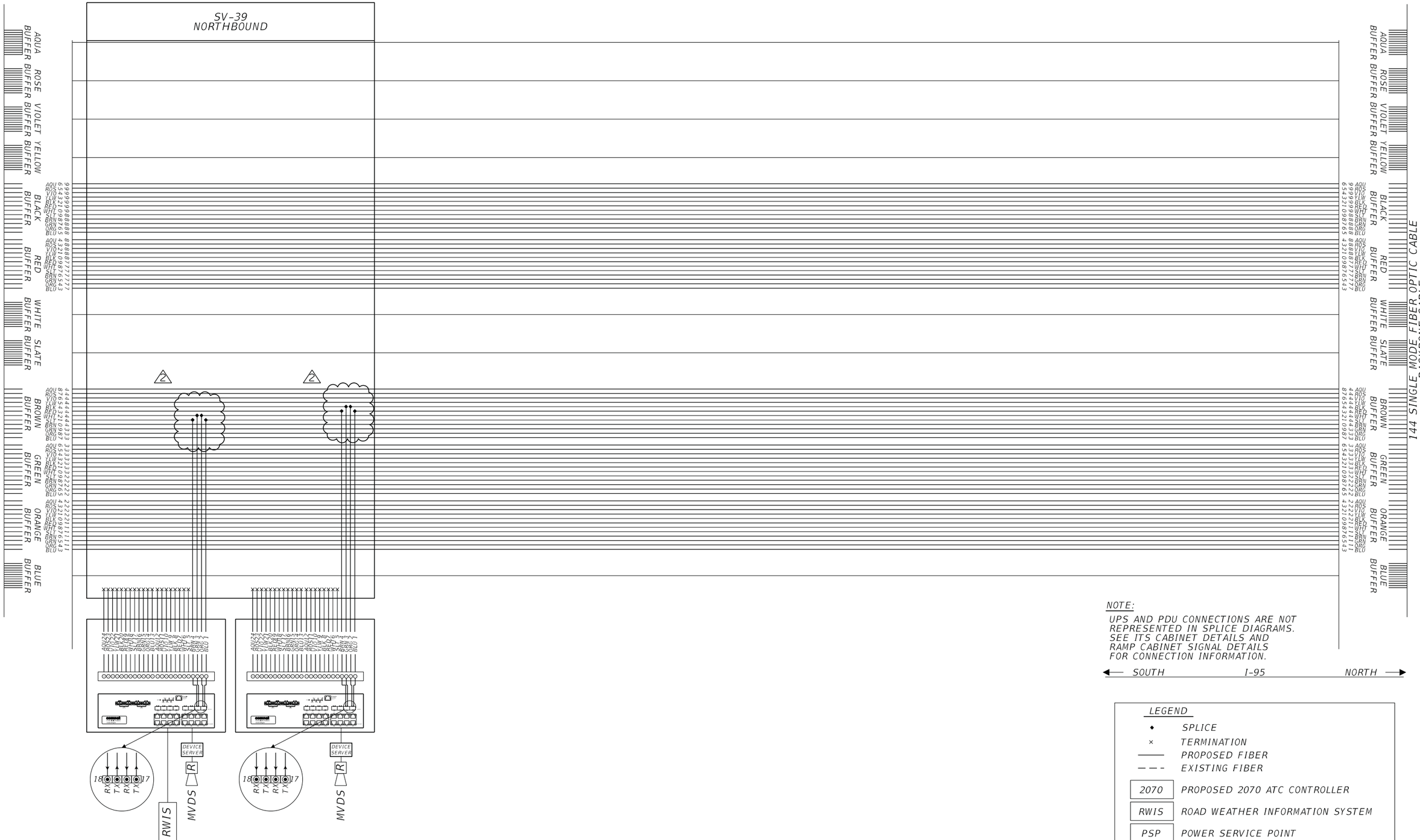
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (22)

SHEET NO.

IT-241



NOTE:

UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- – – – EXISTING FIBER
- 2070 PROPOSED 2070 ATC CONTROLLER
- RWIS ROAD WEATHER INFORMATION SYSTEM
- PSP POWER SERVICE POINT
- EX. WI RADIO EXISTING WIRELESS RADIO

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN SV-39.		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

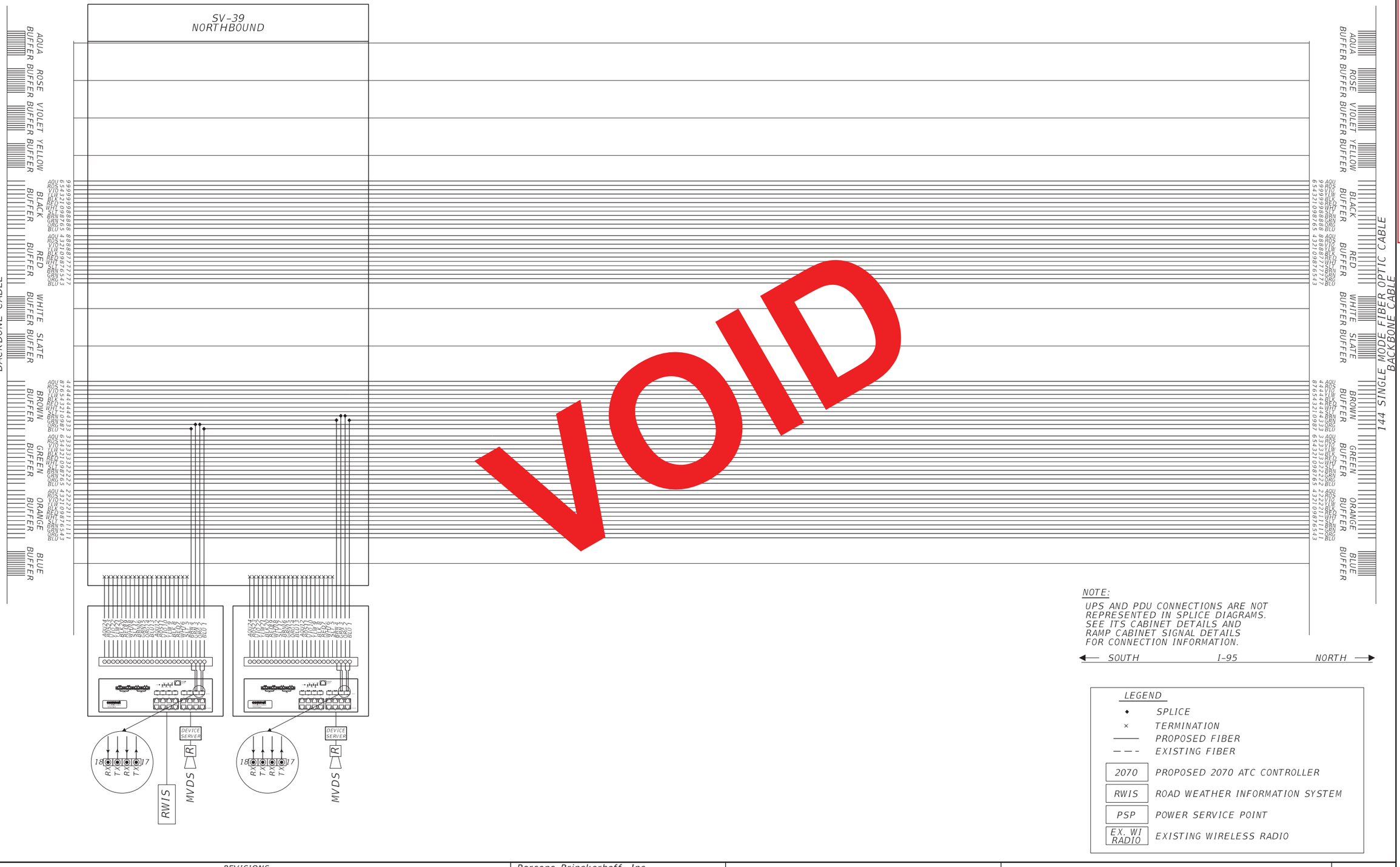
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (23)

SHEET NO. IT-242

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and work methods remains with the contractor. Approval of fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 JB
BY: (Stantec) BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (23)

SHEET NO. IT-242

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

SV-40
NORTHBOUND

2 2 2

S-DMS
DMS CTLR
PSP
MVDS
DEVICE SERVER
R
CCTV
C
DMS

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and coordination of work lies with fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 JB
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN SV-40.		

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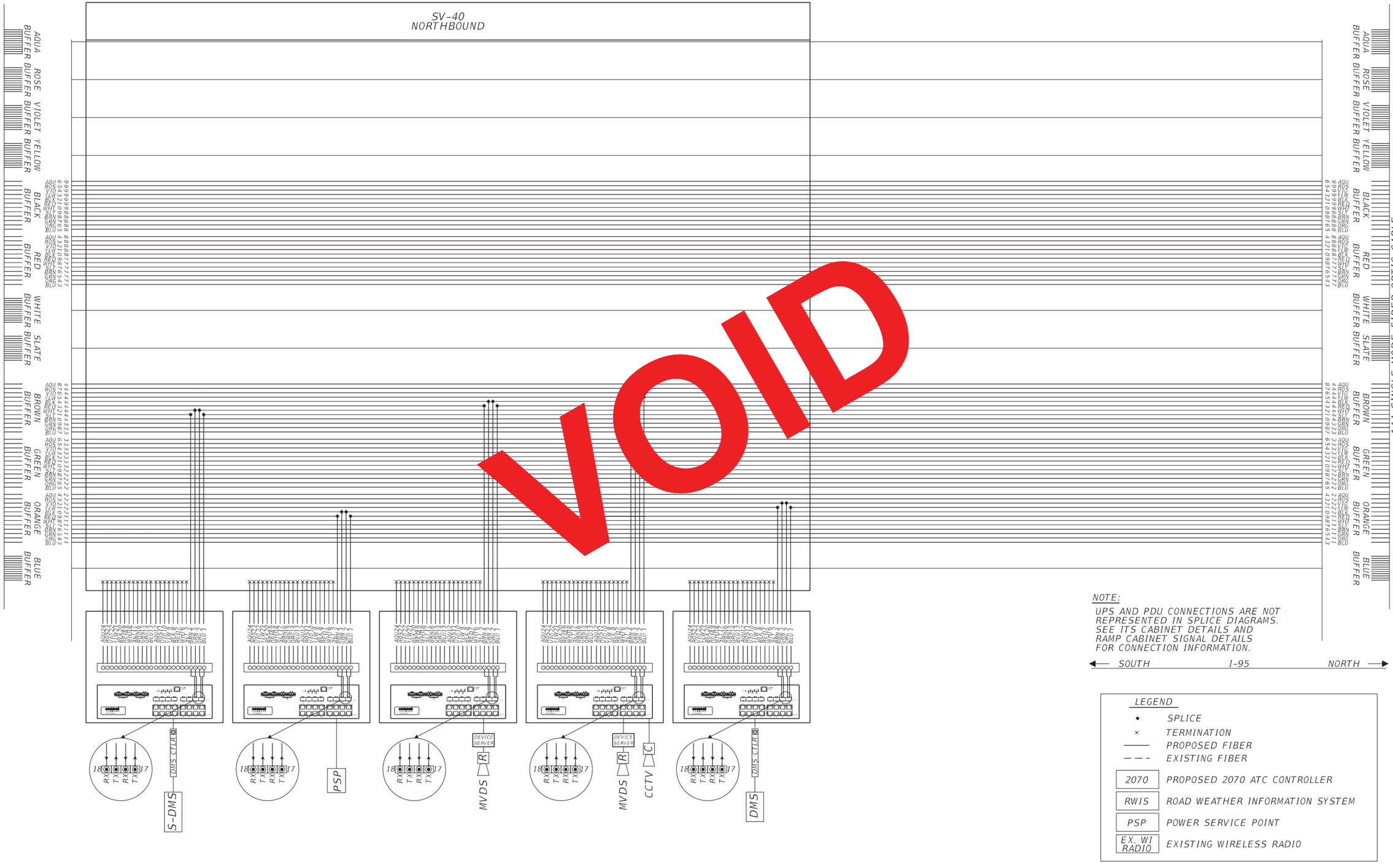
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (24)

SHEET NO. IT-243



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (24)

SHEET NO. IT-243

144 SINGLE MODE FIBER OPTIC CABLE
BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

SV-41
NORTHBOUND

SV-42
NORTHBOUND

2

T-DMS
T-DMS
T-DMS
D-CCTV (EXP)
DMS
DEVICE SERVER
MVDS
DEVICE SERVER
MVDS
S-DMS
T-DMS
T-DMS
T-DMS
D-CCTV (EXP)

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

LEGEND

◆	SPLICE
×	TERMINATION
———	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and field conditions remains with the contractor. Review of shop drawings does not relieve contractor of responsibility for deviations from contract documents. Review of a specific item does not indicate approval of the assembly in which the item functions.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/16/18	2 MODIFIED SPLICING SEQUENCE IN ALL SPLICE VAULTS.		

Parsons Brinckerhoff, Inc.
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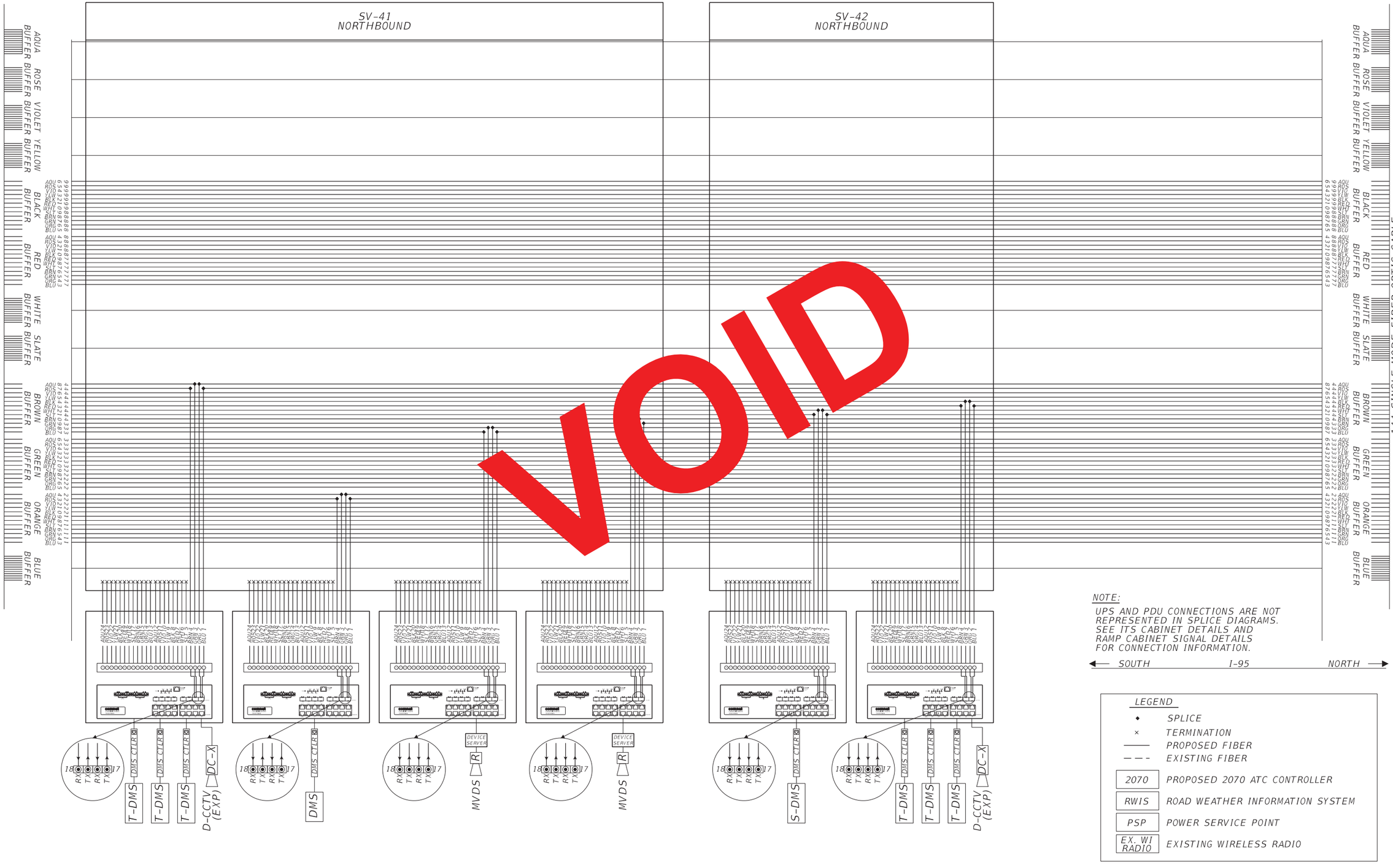
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (25)

SHEET NO.
IT-244



NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

← SOUTH I-95 NORTH →

LEGEND

◆	SPLICE
×	TERMINATION
——	PROPOSED FIBER
– – –	EXISTING FIBER
2070	PROPOSED 2070 ATC CONTROLLER
RWIS	ROAD WEATHER INFORMATION SYSTEM
PSP	POWER SERVICE POINT
EX. WI RADIO	EXISTING WIRELESS RADIO

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (25)

SHEET NO.
IT-244

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) PL BY: (FDOT)

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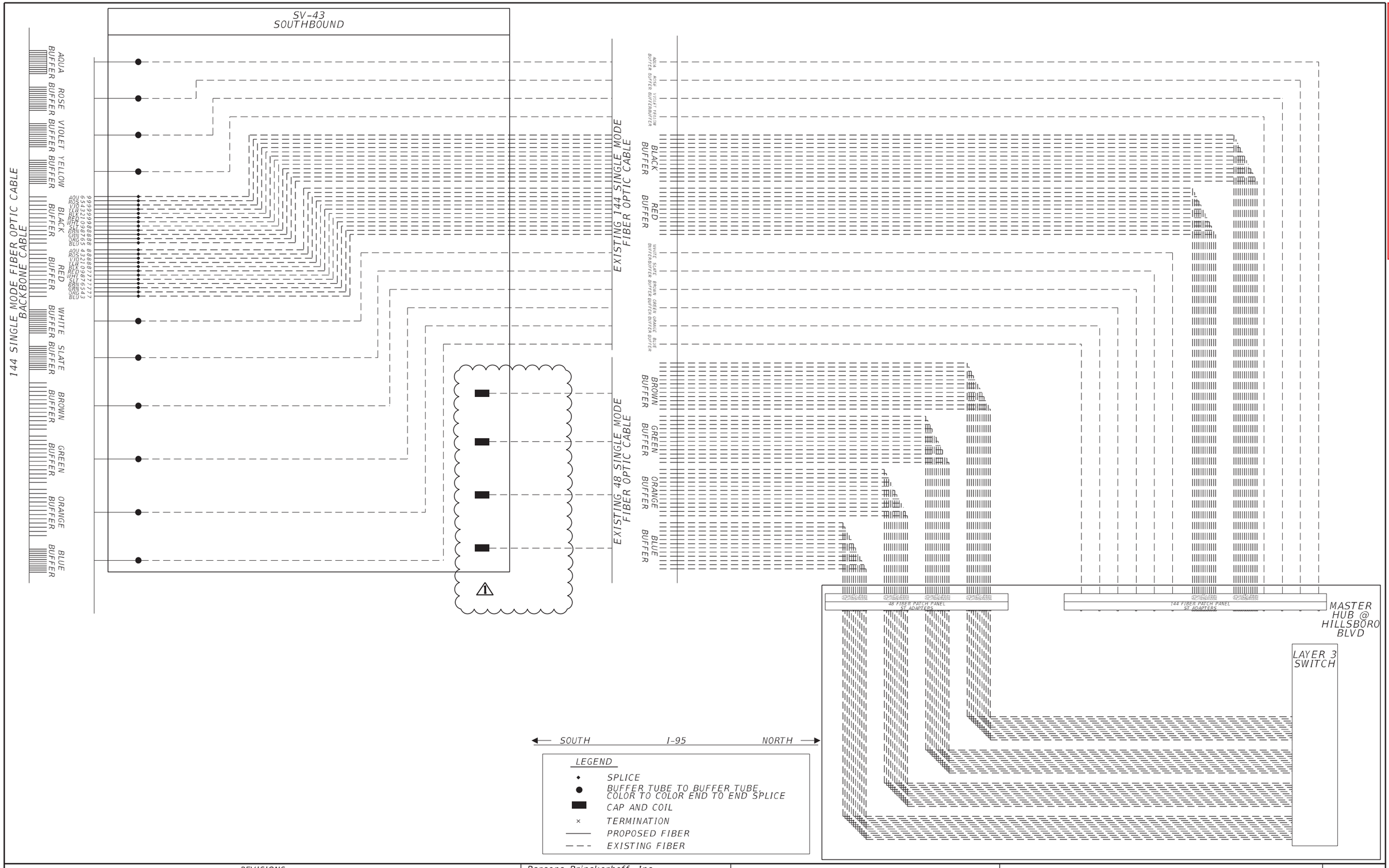

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RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 REVISED ITS SPLICES		

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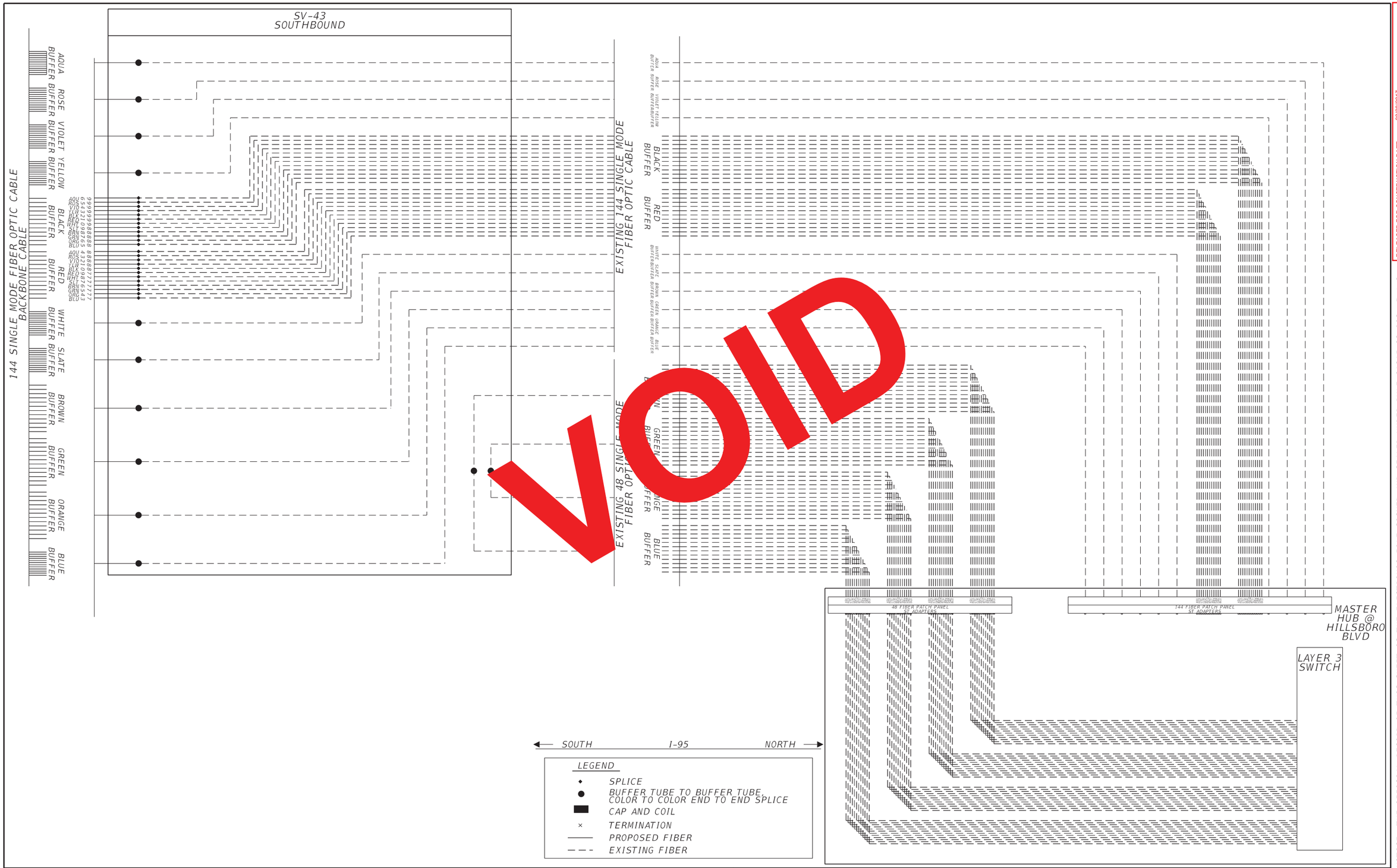
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (26)

SHEET NO.
IT-245



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RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) PL BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SPLICING DIAGRAM (26)

SHEET NO.
IT-245

$PLTDRVL$ $PENTBLL$ USER: konukb 7/25/2017 8:21:32 AM c:\projectwise\pb\projectwiseint\konukb\d0146451\SPDTIT01.DGN

SOUTH ← I-95 → NORTH

LEGEND
- ◆ SPLICE
- × TERMINATION
- ——— PROPOSED FIBER
- — — - EXISTING FIBER

EXISTING BROWARD COUNTY TRAFFIC MANAGEMENT CENTER

EXISTING 96 SINGLE MODE FIBER OPTIC CABLE

144 SINGLE MODE FIBER OPTIC CABLE
BROWARD COUNTY BACKBONE CABLE

AQUA BUFFER
ROSE BUFFER
VIOLET BUFFER
YELLOW BUFFER
BLACK BUFFER
RED BUFFER
WHITE BUFFER
SLATE BUFFER
BROWN BUFFER
GREEN BUFFER
ORANGE BUFFER
BLUE BUFFER

MASTER HUB @ COMMERCIAL BLVD

144 FIBER PATCH PANEL
ST ADAPTERS

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RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

BROWARD SPLICING DIAGRAM (1)

SHEET NO.
IT-246

144 SINGLE MODE FIBER OPTIC CABLE
BROWARD COUNTY BACKBONE CABLE

AQUA BUFFER TUBE
ROSE BUFFER TUBE
VIOLET BUFFER TUBE
YELLOW BUFFER TUBE
BLACK BUFFER TUBE
RED BUFFER TUBE
WHITE BUFFER TUBE
SLATE BUFFER TUBE
BROWN BUFFER TUBE
GREEN BUFFER TUBE
ORANGE BUFFER TUBE
BLUE BUFFER TUBE

12 11 10 9 8 7 6 5 4 3 2 1

AQU
ROS
VIO
YEL
BLK
RED
WHT
SLA
BRN
GRN
ORG
BLU

FIBER OPTIC SPLICE VAULT
I-95 NB AT NORTH OF
CYPRESS CREEK ROAD (SV-6)

FIBER OPTIC SPLICE VAULT
I-95 NB AT MCNAB ROAD
(SV-10)

FIBER OPTIC SPLICE VAULT
I-95 AT SOUTH OF
SW 10TH STREET (SV-43)

AQU12
ROS11
VIO10
YEL9
BLK8
RED7
WHT6
SLA5
BRN4
GRN3
ORG2
BLU1

BLUE BUFFER

ORANGE BUFFER

24-COUNT SM FO CABLE

MATCHLINE A

MATCHLINE B

MATCHLINE A

FIBER OPTIC SPLICE VAULT
I-95 SB AT NORTH OF
CYPRESS CREEK ROAD (SV-6A)

EXISTING 24 SINGLE MODE FIBER OPTIC
CABLE ON CYPRESS CREEK RD

MATCHLINE B

FIBER OPTIC SPLICE VAULT
I-95 SB AT MCNAB ROAD
(SV-10A)

EXISTING 24 SINGLE MODE FIBER OPTIC
CABLE ON MCNAB RD

SOUTH ⟵ I-95 ⟶ NORTH

LEGEND

- SPLICE
- BUFFER TUBE TO BUFFER TUBE, COLOR TO COLOR END TO END SPLICE
- × TERMINATION
- PROPOSED FIBER
- EXISTING FIBER
- CAP AND COIL
- CAP AND COIL BUFFER TUBE

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) FL BY: (FDOT)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
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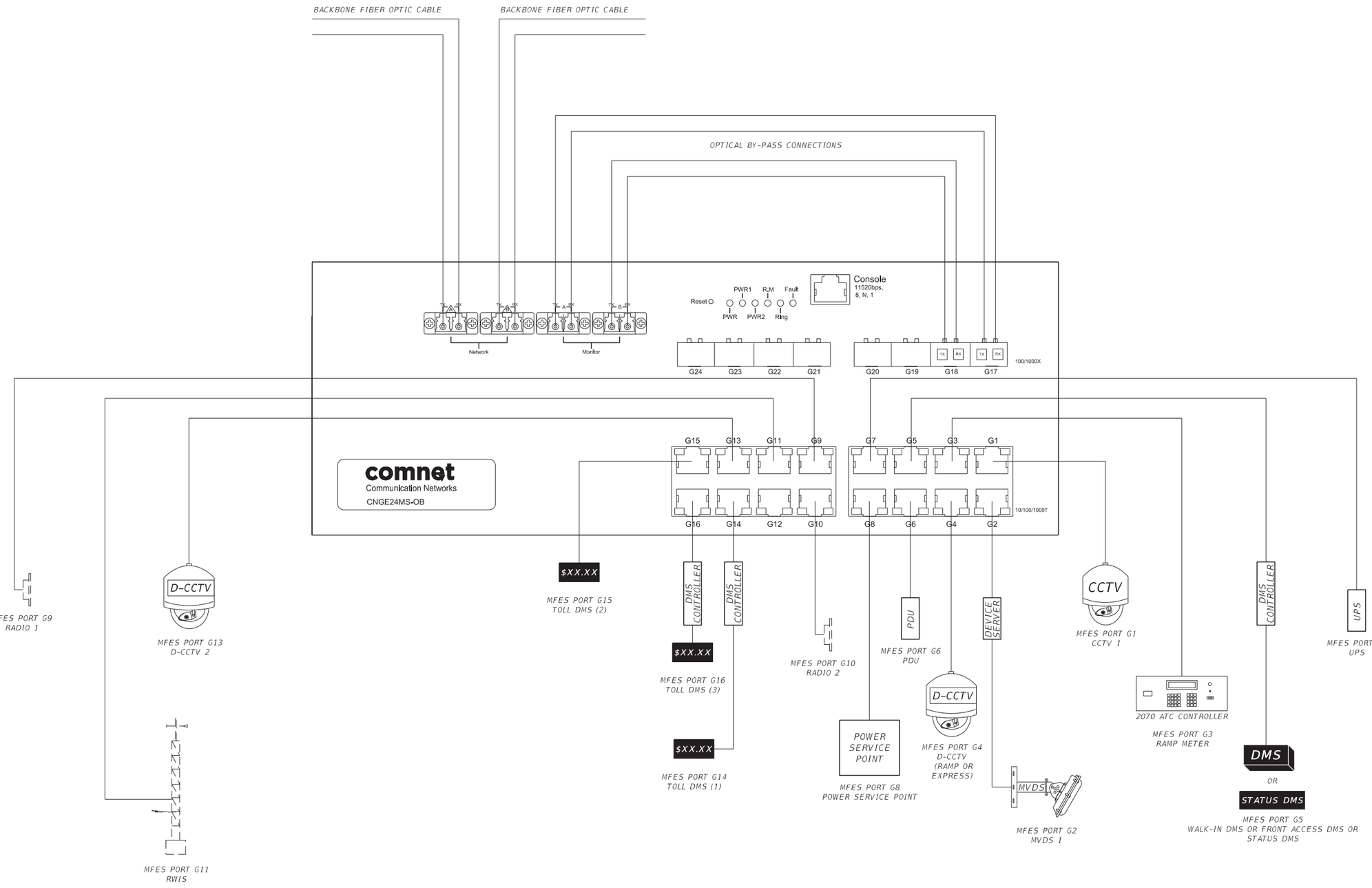
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

BROWARD SPLICING DIAGRAM (2)

SHEET NO. IT-247



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

MFES PORT ALLOCATION

SHEET NO.
IT-248

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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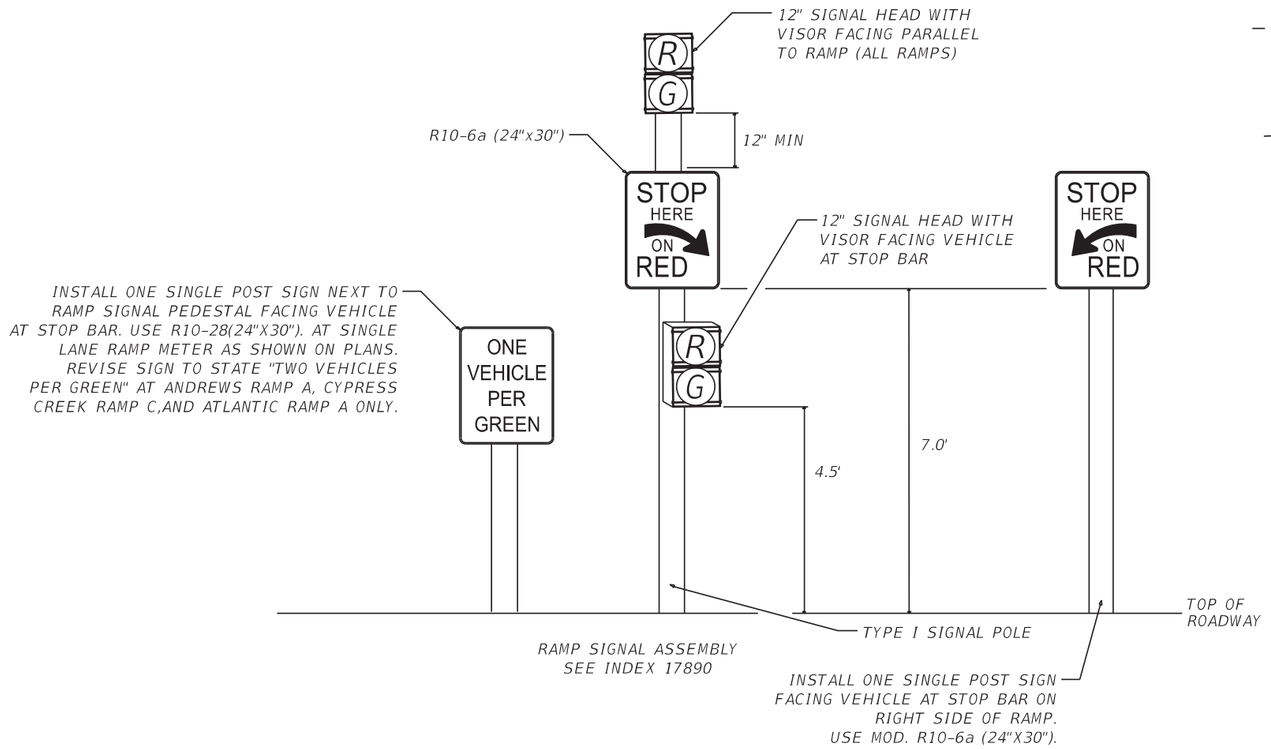
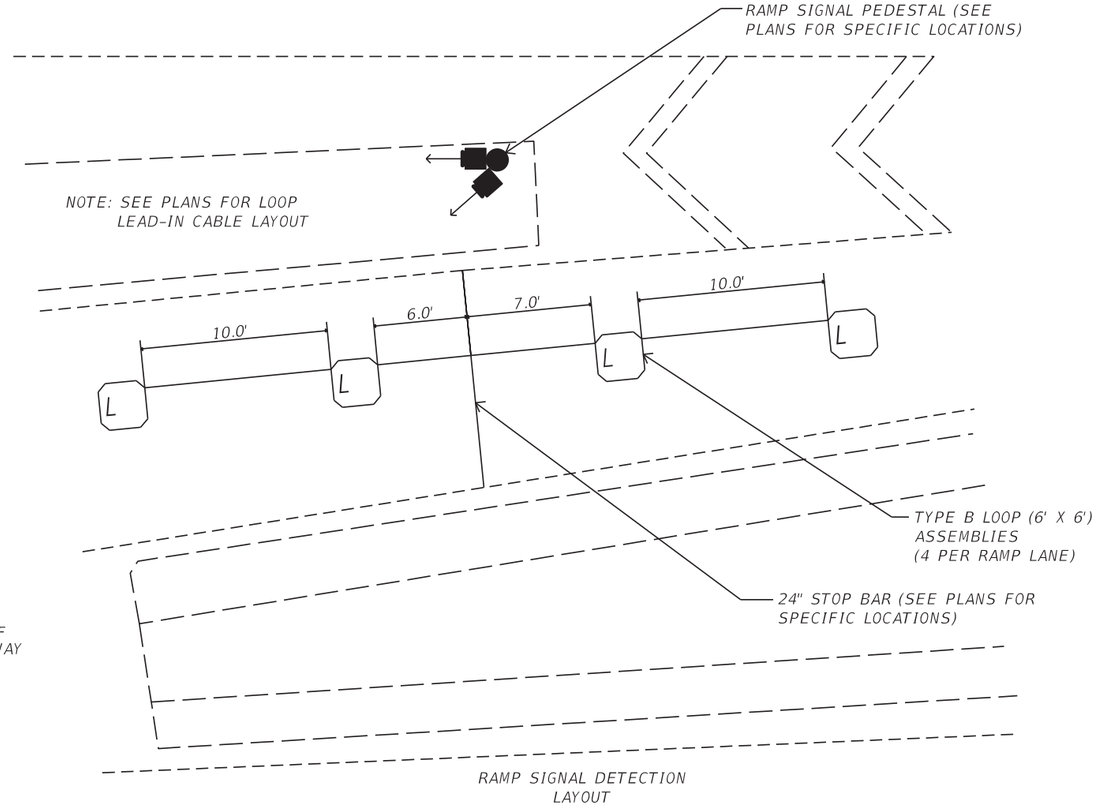
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

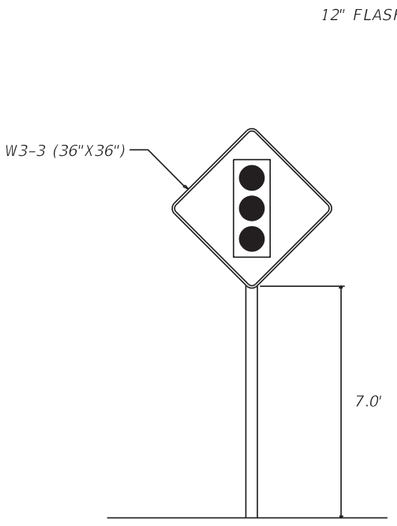
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

$PLTDRVL$ $PENTBLL$ USER: konukb 7/25/2017 8:21:49 AM c:\projectwise\pb\projectwiseint\konukb\d0146451\SGDTIT01.DGN

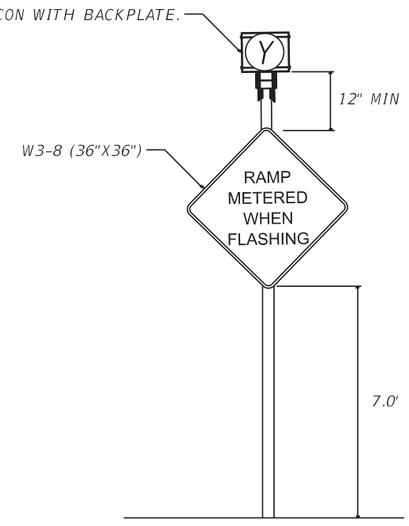




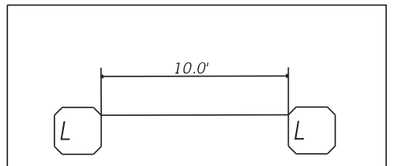
RAMP SIGNAL DETECTION LAYOUT



SIGNAL AHEAD SIGN ASSEMBLY



ADVANCED RAMP SIGNAL WARNING BEACON ASSEMBLY SEE INDEX 11862



RAMP QUEUE DETECTION LAYOUT

NOTE: SEE PLANS FOR LOOP LEAD-IN CABLE LAYOUT

1. ALL POLE ASSEMBLIES SHALL BE BREAK-AWAY.
2. VISORS FOR SIGNAL HEADS SHALL BE ANGLED.
3. THE CONTRACTOR SHALL CONNECT THE RAMP SIGNALS AND THE ADVANCED WARNING SIGNALS TO THE ASSOCIATED CONTROLLER CABINET USING INDIVIDUAL 10 AWG CONDUCTORS (THWN-COPPER) CABLES EXCEPT WHERE LOWER DISTANCES REQUIRE SPECIFIC CONDUCTORS AS NOTED IN THE PLANS.
4. SIGNAL POLE AND WARNING SIGNAL SHALL BE GROUNDED IN ACCORDANCE WITH SECTION 620 OF THE STANDARD SPECIFICATIONS.
5. CABINET LOCATIONS VARY (SEE PLANS). CABINET SHALL BE LOCATED OUTSIDE OF THE CLEAR ZONE. NO CABINET SHALL BE LOCATED IN ANY AREA WHICH COLLECTS STORMWATER.
6. ALL LOOPS SHALL BE CENTERED IN THEIR RESPECTIVE LANE(S).
7. ADVANCED WARNING BEACON ASSEMBLIES, MOD. R10-6a AND W3-8 SIGNS AND SHALL BE PLACED IN ACCORDANCE WITH INDEXES 11860, 11862 & 17302.
8. AN ADVANCE QUEUE LOOP IS TO BE PLACED IN EACH TRAVEL LANE THAT EXISTS AT THE RAMP ENTRACE. SEE PLANS FOR NUMBER OF LOOPS NEEDED AT EACH LOCATION.
9. ALL SIGNAL HEADS SHALL BE LED.
10. THE CONTRACTOR SHALL PROVIDE TYPE 334 CABINETS AT EACH RSS LOCATION, AS SPECIFIED IN RFP.

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILT per RFI 487		

Parsons Brinckerhoff, Inc.
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EOR: TIMOTHY R. RAYNER, P.E.
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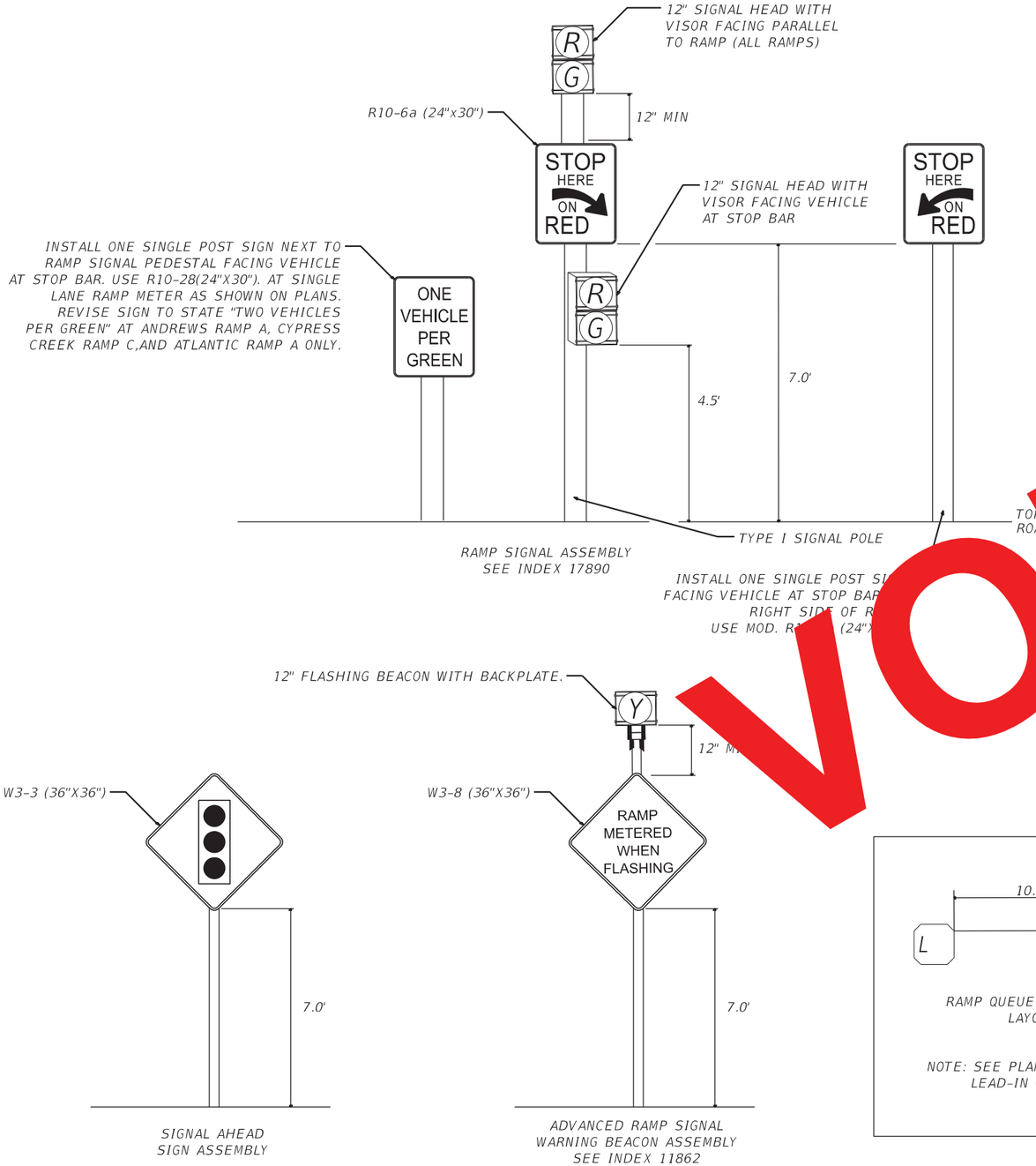
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

RAMP SIGNAL SPECIAL DETAIL

SHEET NO.
IT-249



VOID

NOTES:

1. ALL POLE ASSEMBLIES SHALL BE BREAK-AWAY.
2. VISORS FOR SIGNAL HEADS SHALL BE ANGLED.
3. THE CONTRACTOR SHALL CONNECT THE RAMP SIGNALS AND THE ADVANCED WARNING SIGNALS TO THE ASSOCIATED CONTROLLER CABINET USING INDIVIDUAL 10 AWG CONDUCTORS (THWN-COPPER) CABLES EXCEPT WHERE LOWER DISTANCES REQUIRE SPECIFIC CONDUCTORS AS NOTED IN THE PLANS.
4. SIGNAL POLE AND WARNING SIGNAL SHALL BE GROUNDED IN ACCORDANCE WITH SECTION 620 OF THE STANDARD SPECIFICATIONS.
5. CABINET LOCATIONS VARY (SEE PLANS). CABINET SHALL BE LOCATED OUTSIDE OF THE CLEAR ZONE. NO CABINET SHALL BE LOCATED IN ANY AREA WHICH COLLECTS STORMWATER. THE TOP OF SLAB ELEVATION FOR THE CABINET BASE SHALL BE EQUAL TO OR GREATER THAN THAT OF THE EDGE OF THE RAMP PAVEMENT.
6. ALL LOOPS SHALL BE CENTERED IN THEIR RESPECTIVE LANE(S).
7. ADVANCED WARNING BEACON ASSEMBLIES, MOD. R10-6a AND W3-8 SIGNS AND SHALL BE PLACED IN ACCORDANCE WITH INDEXES 11860, 11862 & 17302.
8. AN ADVANCE QUEUE LOOP IS TO BE PLACED IN EACH TRAVEL LANE THAT EXISTS AT THE RAMP ENTRACE. SEE PLANS FOR NUMBER OF LOOPS NEEDED AT EACH LOCATION.
9. ALL SIGNAL HEADS SHALL BE LED.
10. THE CONTRACTOR SHALL PROVIDE TYPE 334 CABINETS AT EACH RSS LOCATION, AS SPECIFIED IN RFP.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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EOR: TIMOTHY R. RAYNER, P.E.
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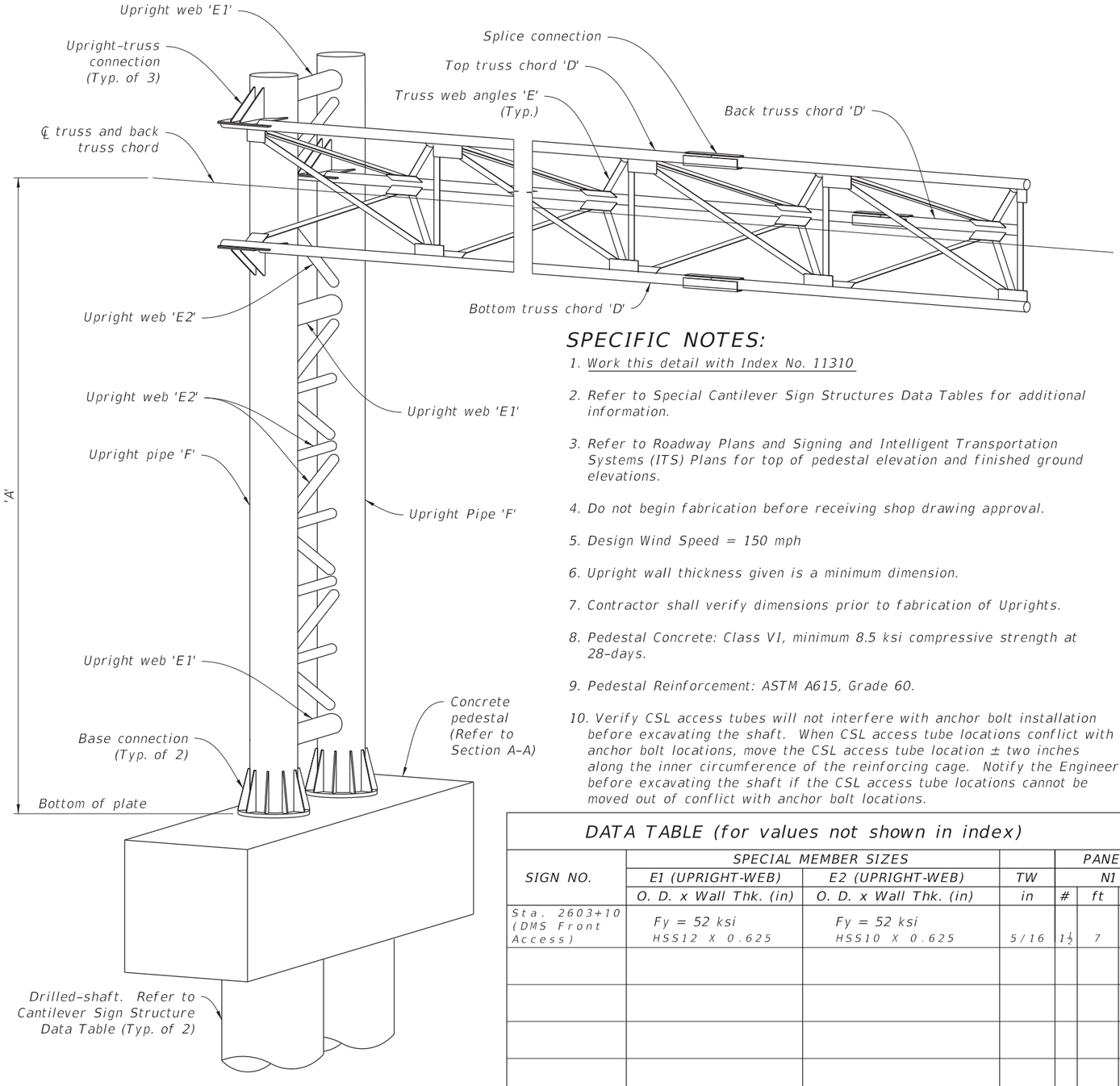
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

RAMP SIGNAL SPECIAL DETAIL

SHEET NO. IT-249



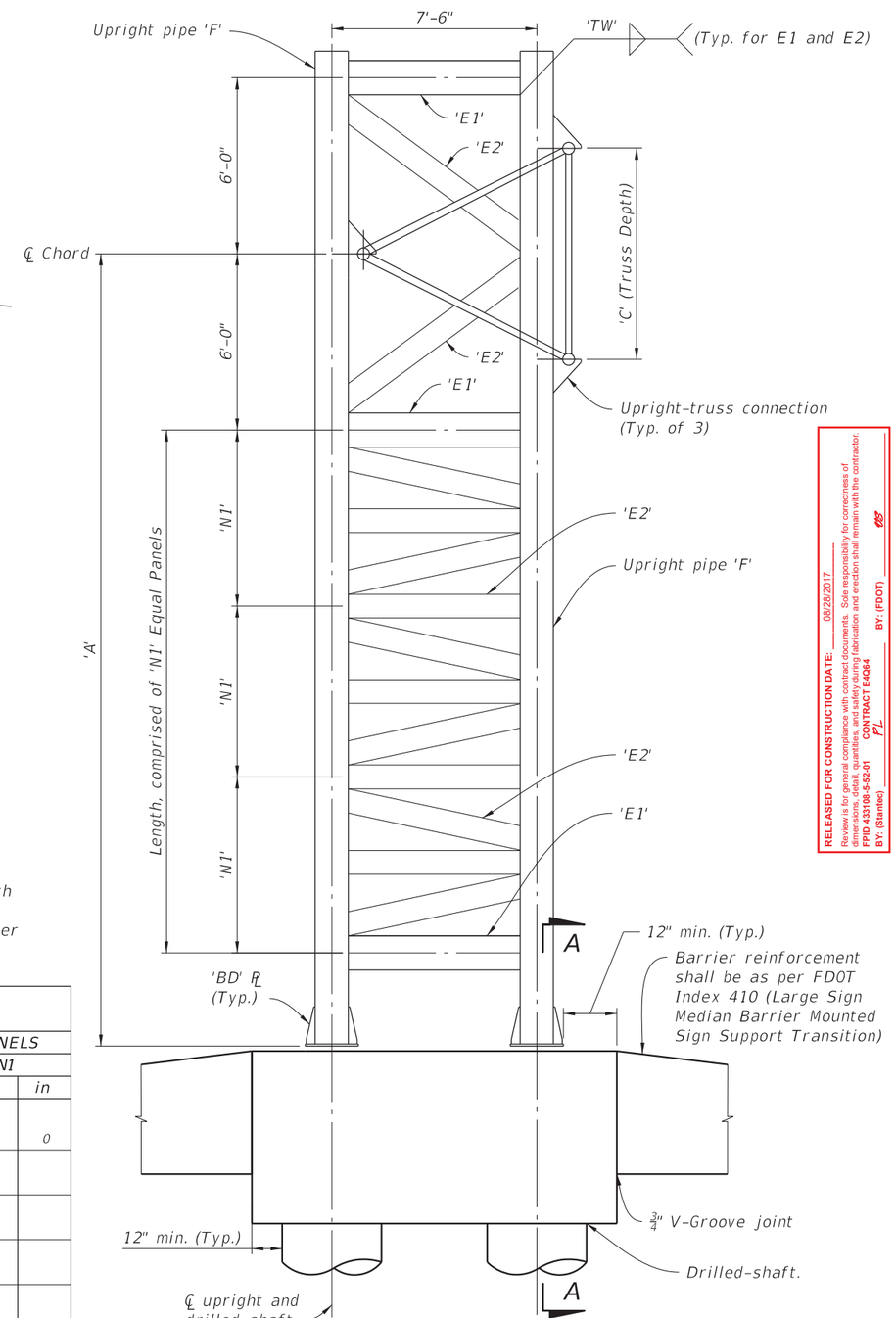
ISOMETRIC VIEW

SPECIFIC NOTES:

1. Work this detail with Index No. 11310
2. Refer to Special Cantilever Sign Structures Data Tables for additional information.
3. Refer to Roadway Plans and Signing and Intelligent Transportation Systems (ITS) Plans for top of pedestal elevation and finished ground elevations.
4. Do not begin fabrication before receiving shop drawing approval.
5. Design Wind Speed = 150 mph
6. Upright wall thickness given is a minimum dimension.
7. Contractor shall verify dimensions prior to fabrication of Uprights.
8. Pedestal Concrete: Class VI, minimum 8.5 ksi compressive strength at 28-days.
9. Pedestal Reinforcement: ASTM A615, Grade 60.
10. Verify CSL access tubes will not interfere with anchor bolt installation before excavating the shaft. When CSL access tube locations conflict with anchor bolt locations, move the CSL access tube location ± two inches along the inner circumference of the reinforcing cage. Notify the Engineer before excavating the shaft if the CSL access tube locations cannot be moved out of conflict with anchor bolt locations.

DATA TABLE (for values not shown in index)

SIGN NO.	SPECIAL MEMBER SIZES			PANELS		
	E1 (UPRIGHT-WEB)	E2 (UPRIGHT-WEB)	TW	N1		
	O. D. x Wall Thk. (in)	O. D. x Wall Thk. (in)	in	#	ft	in
Sta. 2603+10 (DMS Front Access)	Fy = 52 ksi HSS12 X 0.625	Fy = 52 ksi HSS10 X 0.625	5/16	1½	7	0



ELEVATION VIEW

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (FDOT) PZ
BY: (Stantec)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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Morgan Villanueva, P.E., S.I.
FL Lic. No. 60292

DRAWN BY: A.R.
CHECKED BY: C.D.P.
DESIGNED BY: A.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAILS

REF. DWG. NO.:

PROJECT NAME: I-95 EXPRESS LANES, PHASE 3A-2

SHEET NO.: IT-250

CANTILEVER SIGN STRUCTURES DATA TABLE

Table Date 01-01-11

SIGN NO.	STATION / OFFSET	DIMENSIONS				PANELS	MEMBER SIZES			BACKRAKE
		A	B		C	N	D (CHORD)	E (WEB)	F (DUAL UPRIGHT)	G
		ft	ft	in	in	#	O. D. x Wall Thk. (in)	Angle (in)	O. D. x Wall Thk. (in)	in
(DMS Front Access)	2603+10.00	19.0100	9	3	96	4	6.63 x 0.432	4 x 4 x 1/2	Fy = 60 ksi 16.00 x 0.750	3.2489

NOTES [Notes Date 7-01-13]:
1. Work these Data Tables with Index 11310.
2. Design Wind Speed = 150 mph.
3. Upright wall thickness given is a minimum dimension.

FOUNDATION NOTES [Notes Date 7-01-12]:
1. Design based on Borings taken by TERRACON CONSULTANTS, INC.

2. Assumptions and Values used in design:
Soil Type Sand
Soil Layer Thickness = Varies
Soil Friction Angle = 30 deg. to 37 deg.
Soil Weight = from 105 pcf to 123 pcf
Design Water Table considered above top of shaft
Saturated soil weight for design = 42.6 pcf to 60.6 pcf

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN NO.	GUSSET PLATES																TRUSS CONNECTION									SPLICE			
	GA	GB	GC		GD		GE		GF		GG		GH		GJ	GK	TA	TB	TC	TD	TE	TF	TG	TH	TJ	SA	SB	SC	SD
	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	in	in	#	#	in	in	in	in	in	in	Angle (in)	#	in	#
(DMS Front Access)	1/2	3/4	1	2-1/4		6-3/4	1	0		5-3/4		11-1/2		6-1/2		9-1/2	3/16	1-1/4	6	6	2	3/4	11/16	1/4	3/16	5/16	NO SPLICE	NA	NA	NA

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 07-01-13

SIGN NO.	BASE CONNECTION										ANCHOR		FOOTING - DRILLED SHAFT							
	BA	BB	BC	BD	BE		BF	BG	BH	BJ	BK		FA		FB		FC	FD	FE	
	in	#	in	in	ft	in	in	in	in	in	ft	in	ft	in	ft	in	# / Size	#	in	
(DMS Front Access)	2-3/4	8	2-3/4	5/8	2	3	5/16	5/16	5/16	3/16	5	7	29	0	2	6	8 / 9	54	6	

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Z64 BY: (FDOT)
BY: (Stantec) FL

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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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Morgan Villanueva, P.E., S.I.
FL Lic. No. 60292

DRAWN BY: A.R.
CHECKED BY: C.D.P.
DESIGNED BY: A.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAILS

REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES, PHASE 3A-2

SHEET NO. IT-251

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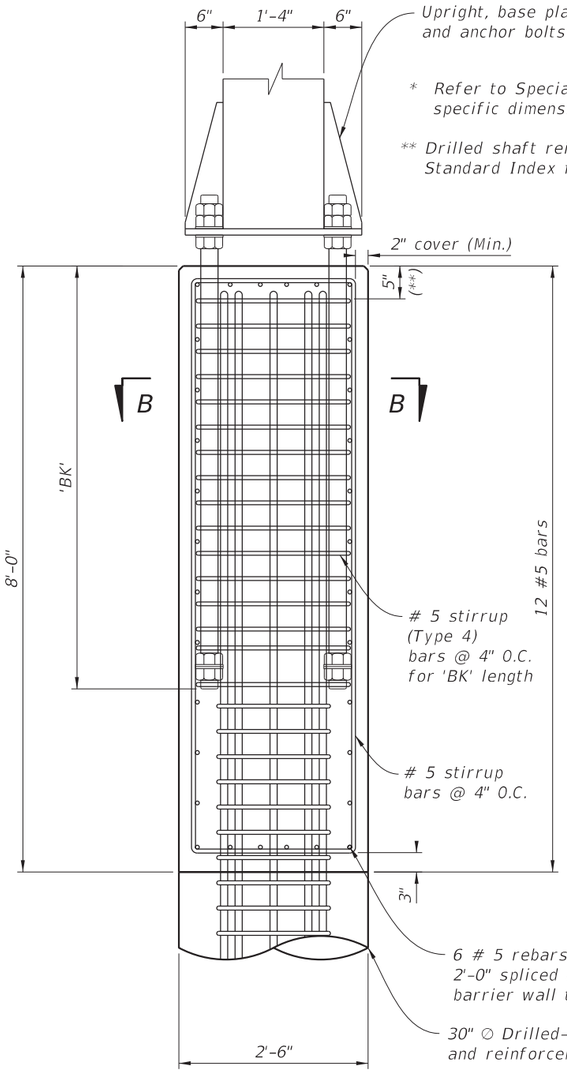
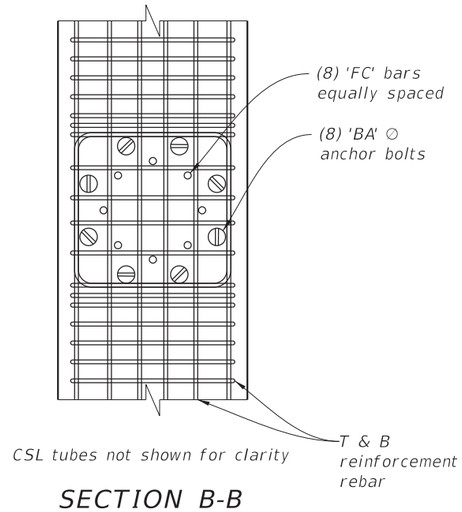
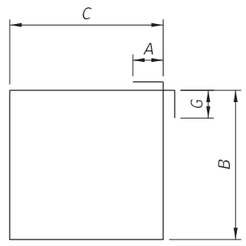


SECTION A-A



CSL tubes not shown for clarity

SECTION B-B
(For Anchor Bolt Layout)



TYPE 4 BENDING DETAIL
(Refer to Standard Bar Bending Details Index No. 21300)

SPECIAL CANTILEVER SIGN STRUCTURE:
2603+10 (DMS)

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RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433106-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Statntec) FL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CAP ENGINEERING, INC
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Morgan Villanueva, P.E., S.I.
FL Lic. No. 60292

DRAWN BY:	CHECKED BY:	DESIGNED BY:	CHECKED BY:
A.R.	C.D.P.	A.R.	M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

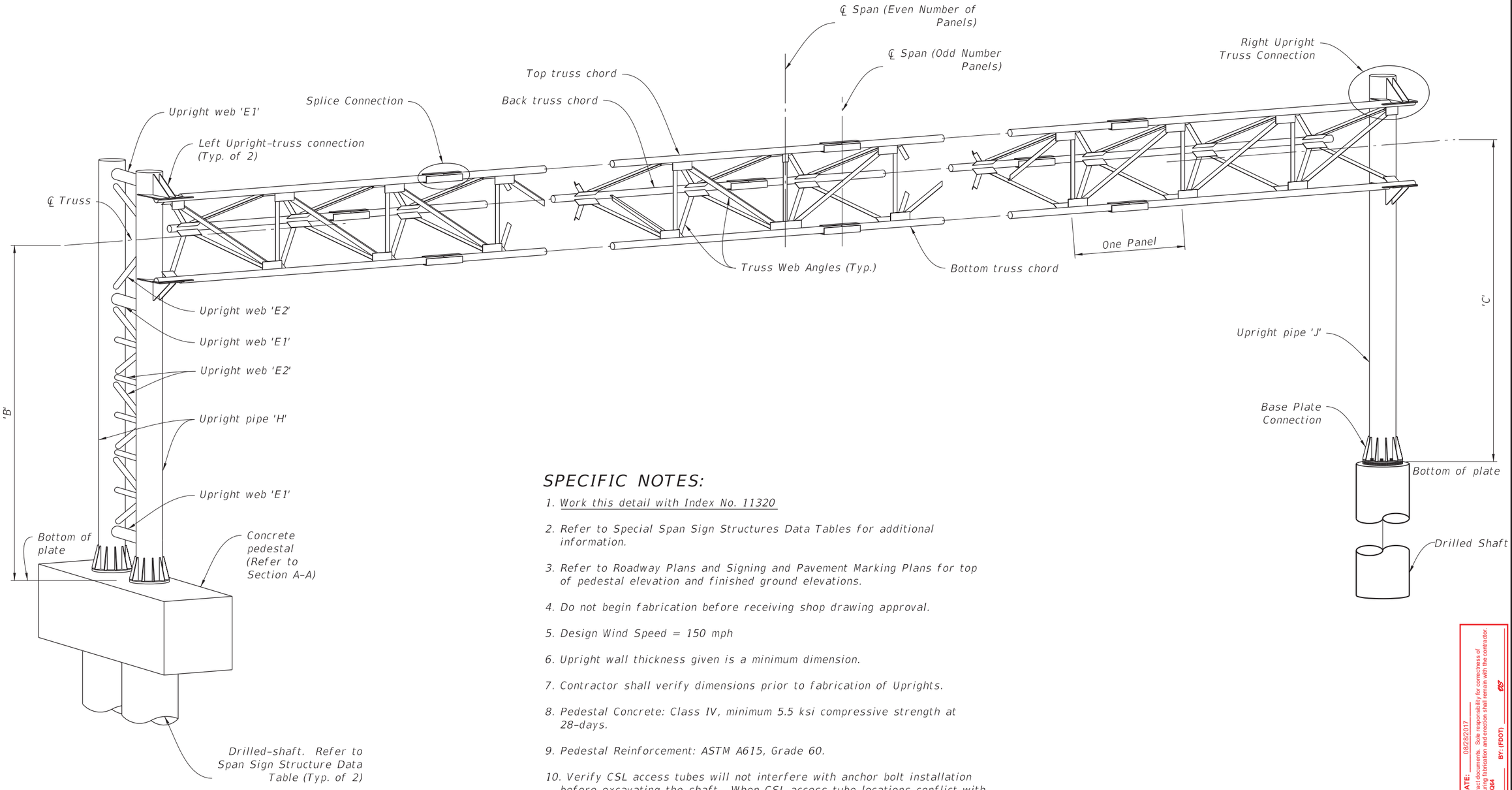
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAILS

PROJECT NAME: I-95 EXPRESS LANES, PHASE 3A-2

REF. DWG. NO.

SHEET NO. IT-252



SPECIFIC NOTES:

1. Work this detail with Index No. 11320
2. Refer to Special Span Sign Structures Data Tables for additional information.
3. Refer to Roadway Plans and Signing and Pavement Marking Plans for top of pedestal elevation and finished ground elevations.
4. Do not begin fabrication before receiving shop drawing approval.
5. Design Wind Speed = 150 mph
6. Upright wall thickness given is a minimum dimension.
7. Contractor shall verify dimensions prior to fabrication of Uprights.
8. Pedestal Concrete: Class IV, minimum 5.5 ksi compressive strength at 28–days.
9. Pedestal Reinforcement: ASTM A615, Grade 60.
10. Verify CSL access tubes will not interfere with anchor bolt installation before excavating the shaft. When CSL access tube locations conflict with anchor bolt locations, move the CSL access tube location ± two inches along the inner circumference of the reinforcing cage. Notify the Engineer before excavating the shaft if the CSL access tube locations cannot be moved out of conflict with anchor bolt locations.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec)

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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CAP ENGINEERING, INC
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Morgan Villanueva, P.E., S.I.
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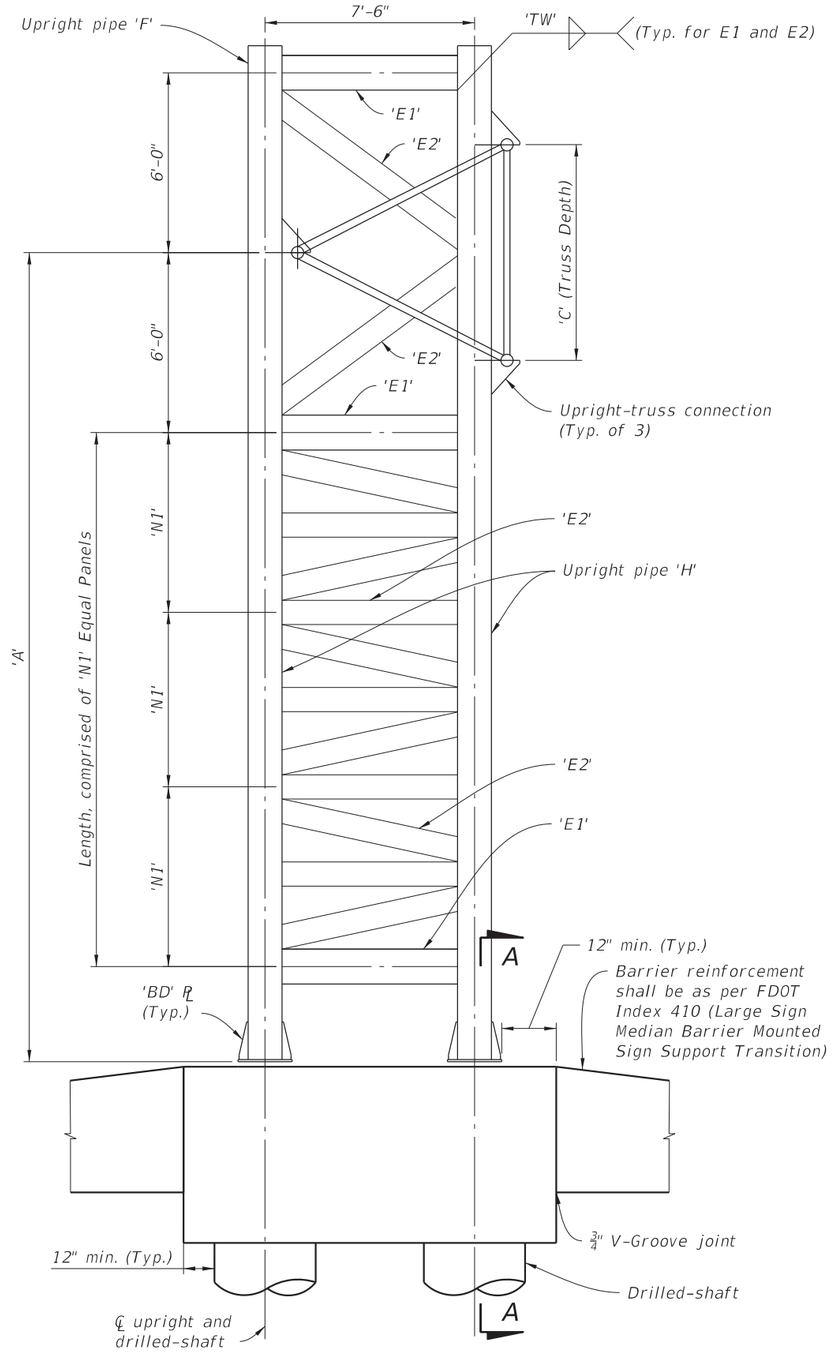
CHECKED BY: C.D.P.
DESIGNED BY: A.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

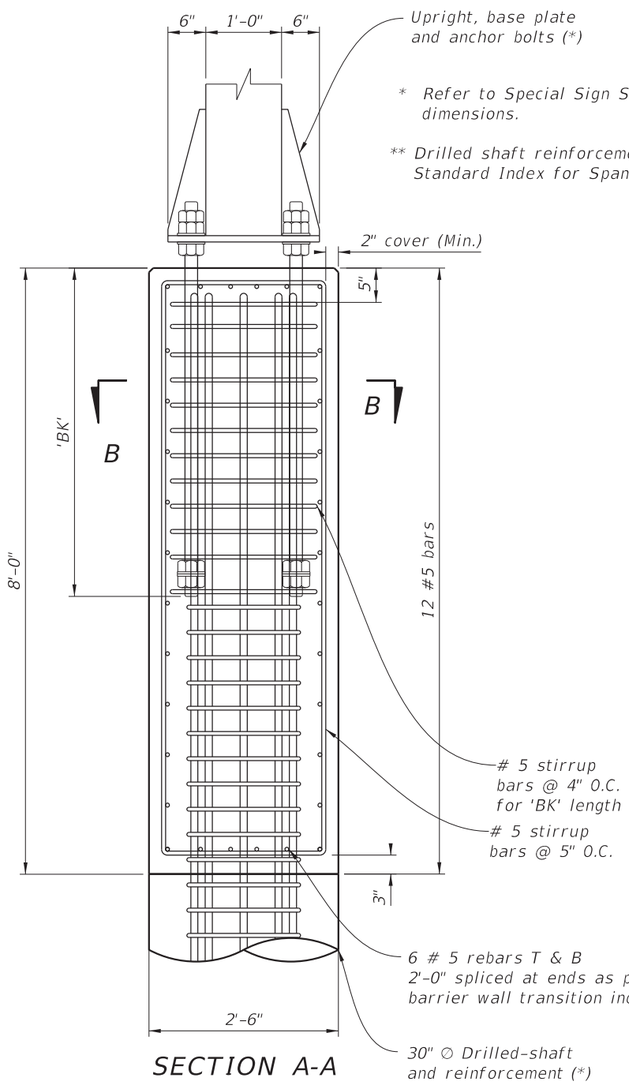
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS
REF. DWG. NO.
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3A-2
SHEET NO. IT-253



ELEVATION VIEW

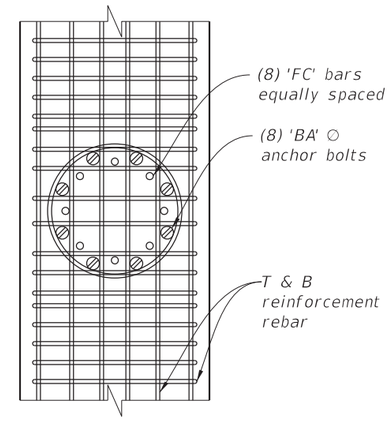
	DATA TABLE (for values not shown in index)						
SIGN NO.	STATION	SPECIAL MEMBER SIZES			PANELS		
		E1 (UPRIGHT-WEB)	E2 (UPRIGHT-WEB)	TW	N1		
		O. D. x Wall Thk. (in)	O. D. x Wall Thk. (in)	in	#	ft	in
Walk-in DMS	2331+00.00	HSS10 X 0.625	HSS8.625 X 0.500	5/16	2	6	0



SECTION A-A

* Refer to Special Sign Structure Span Table for specific dimensions.

** Drilled shaft reinforcement cover shall be as per FDOT Standard Index for Span Sign Structure (11320)



CSL tubes not shown for clarity

SECTION B-B
(For Anchor Bolt Layout)

SPECIAL SPAN SIGN STRUCTURE:
2331 + 00.00 (Walk-in DMS)

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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT) [illegible]

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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DESIGNED BY: A.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS

PROJECT NAME: I-95 EXPRESS LANES, PHASE 3A-2

REF. DWG. NO.

SHEET NO. IT-254

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SPAN SIGN STRUCTURES DATA TABLE

Table Date 01-01-11

SIGN#	STATION	DIMENSIONS			PNLS	MEMBER SIZES						SPLICE		
		A	B	C	D	E	F (CHORD)	G (WEB)	H (LEFT DUAL PRIGHT)	J (RIGHT UPRIGHT)	K (CAMBER)	SA	SB	SC
		ft	ft	ft	#	in	O. D. x Wall Thk. (in)	Angle (in)	O. D. x Wall Thk. (in)	O. D. x Wall Thk. (in)	in	Angle (in)	#	in
Walk-in DMS	2331+00.00	109.1667	22.0200	22.5900	14	72	6.63 x 0.432	4 x 4 x 3/8	12.00 x 0.625	24.00 x 0.750	2-3/4	6 x 6 x 1/2	10	1

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN#	ALTERNATE SPLICE						GUSSET PLATES																			
	PA	PB	PC	PD	PE	PF	GA	GB	GC		GD		GE		GF		GG		GH		GJ		GK		GL
	in	in	in	in	in	#	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	in
Walk-in DMS	1-1/2	2	3/8	7/16	1	12	1/2	1	1	6-1/4		8-3/4	1	5-1/2		7-1/2	2	5	1	1-1/4		10	1	4-3/4	3/16

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN#	LEFT UPRIGHT CONNECTION								RIGHT UPRIGHT CONNECTION							
	LA	LB	LC	LD	LE	LF	LG	LH	RA	RB	RC	RD	RE	RF	RG	RH
	in	#	in	in	in	in	in	in	in	#	in	in	in	in	in	in
Walk-in DMS	1-1/4	6	1-1/2	7/8	11/16	1/4	3/16	5/16	7/8	4	1/2	1/2	3/16	3/16	3/16	3/16

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN#	LEFT BASE CONNECTION									RIGHT BASE CONNECTION									
	BA	BB	BC	BD	BE		BF	BG	BH	BJ	CA	CB	CC	CD	CE		CF	CG	CH	CJ
	in	#	in	in	ft	in	in	in	in	in	in	#	in	in	ft	in	in	in	in	in
Walk-in DMS	2	8	2	5/8	1	8	5/16	5/16	5/16	3/16	2-1/4	12	1-1/2	1/2	2	5-3/4	5/16	5/16	5/16	1/4

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 07-01-13

SIGN#	LEFT DRILLED SHAFT								RIGHT DRILLED SHAFT								
	DA		DB		DC	DD	DE	DF	FA		FB		FC	FD	FE	FF	
	ft	in	ft	in	# / size	#	in	in	ft	in	ft	in	# / size	#	in	in	
Walk-in DMS	34	0	2	6	8 / 9	36	6	45	31	6	5	6	22 / 11	40	6	45	

NOTES [Notes Date 7-01-13]:

1. Work these Data Tables with Index 11320.
2. Design Wind Speed = 150 mph
3. Upright wall thickness given is a minimum dimension.
4. Erection is the Contractor's responsibility. To facilitate erection, the Contractor should consider using two vertical lift points, each located near a panel point approximately 20 to 25% of the truss length from each end.
5. 'DC' and 'FC' shall include quantity and size of reinforcing steel.

FOUNDATION NOTES [Notes Date 7-01-12]:

1.Design based on Borings taken by TERRACON CONSULTANTS, INC.
2.Assumptions and Values used in design:
Soil Type Sand
Soil Layer Thickness = Varies
Soil Friction Angle = 30 deg. to 37 deg.
Soil Weight = from 105 pcf to 123 pcf
Design Water Table considered above top of shaft
Saturated soil weight for design = 42.6 pcf to 60.6 pcf

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail quantities, and safety during fabrication and erection shall remain with the contractor.
FPID #433108-52-01 CONTRACT E4Q04
BY: (Statitec) PZ BY: (FDOT)

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CAP ENGINEERING, INC
E.B. # 27051
343 Almeria Ave
Coral Gables, FL 33134
Ph: (305) 448.1711, Fax: (305) 448.1712
Morgan Villanueva, P.E., S.I.
FL Lic. No. 60292

DRAWN BY: A.R.
CHECKED BY: C.D.P.
DESIGNED BY: A.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS

PROJECT NAME: I-95 EXPRESS LANES, PHASE 3A-2

REF. DWG. NO.

SHEET NO. IT-255

GENERAL NOTES:

1. Design specification: FDOT Structures Manual (current edition) and AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.
2. Work this detail with Index No. 18300.
3. Catwalk and handrail design and installation shall comply with AISC, AASHTO, and OSHA requirements as applicable.
4. Shop drawings are required and fabrication shall not begin until these shop drawings are approved.
5. All steel items shall be galvanized as follows:

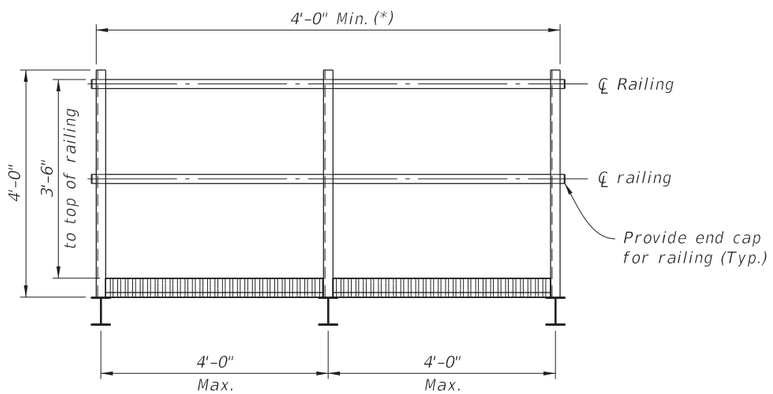
All nuts, bolts, and washers	ASTM F2329
All other steel items	ASTM A123

5. Bolts shall be ASTM A325 Type 1, (installed per specification Section 700) with single, self-locking nuts. install all nuts as per manufacturer's specifications.
6. All bolt holes shall be equal to the bolt diameter plus $\frac{1}{16}$", prior to galvanizing.
7. Weld metal: E70XX.
8. Welding shall conform to American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition).
9. Shop assemble the entire structure after galvanizing and prior to shipment. If necessary, disassemble and secure components for shipment.
10. Design Live Loads:

    Single load of 500 lb distributed over 2.0 ft transversely to the member.

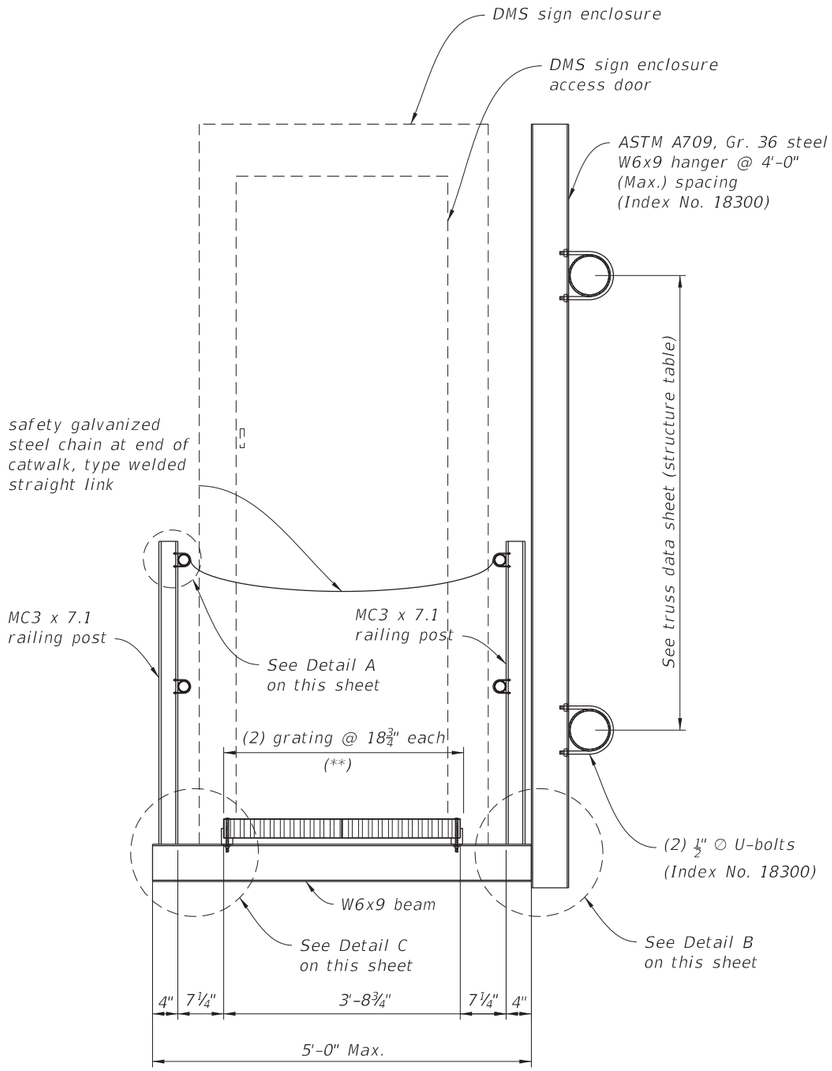
    Railings: 0.050 klf, both transversely and vertically, acting simultaneously. In addition, a concentrated load of 0.20 kips, which act simultaneously with the above loads at any point at any direction.

    Posts: concentrated load P = 0.20 kips + 0.050 klf x (post spacing) applied transversely.



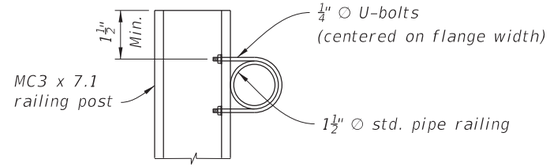
(*) Extend Catwalk from DMS to outer edge of paved shoulder.

FRONT VIEW (Back hangers not shown for clarity)
Scale: $\frac{3}{8}$" = 1'-0"

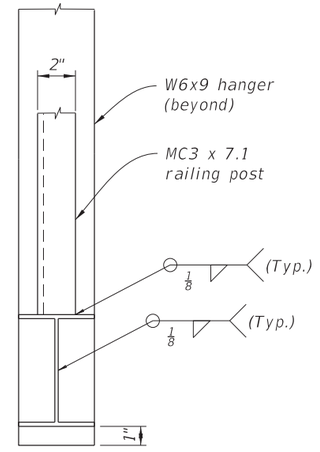


(**) Verify location of grating with DMS sign enclosure access door.

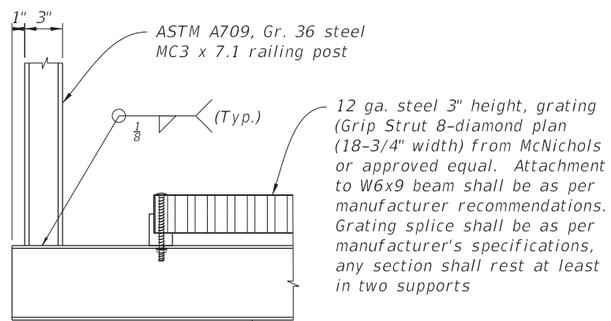
TYPICAL SECTION
Scale: $\frac{1}{2}$" = 1'-0"



DETAIL A
Scale: 6" = 1'-0"



DETAIL B (Front section)
Scale: 1½" = 1'-0"



DETAIL C
Scale: 1" = 1'-0"

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID: 433108-5-52-01 CONTRACT E4J84 BY: (FDOT)
BY: (Barnes) PE

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CAP ENGINEERING, INC
E.B. # 27051
343 Almeria Ave
Coral Gables, FL 33134
Ph: (305) 448.1711, Fax: (305) 448.1712
Morgan Villanueva, P.E., S.I.
FL Lic. No. 60292

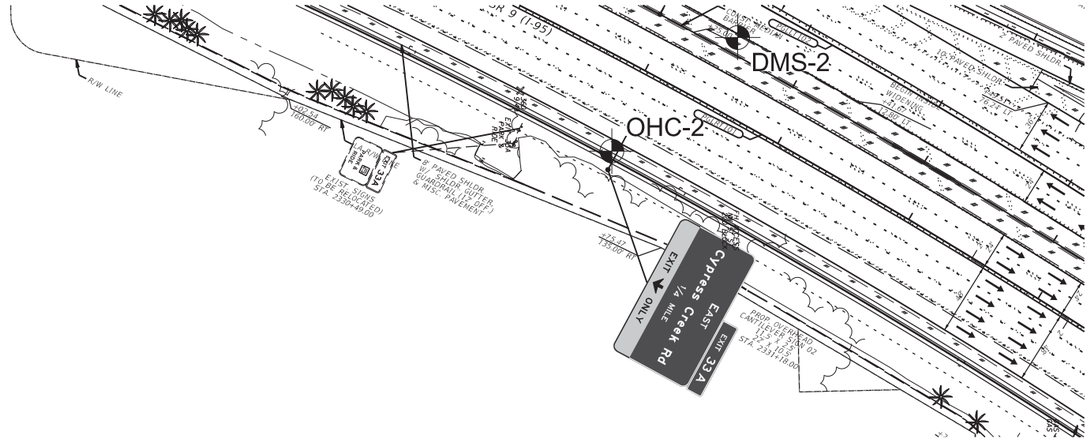
DRAWN BY:	A.R.
CHECKED BY:	C.D.P.
DESIGNED BY:	A.R.
CHECKED BY:	M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SHEET TITLE: CATWALK DETAILS FOR DYNAMIC MESSAGE SIGN WALK-IN
REF. DWG. NO.
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3A-2
SHEET NO. IT-256

jroque 6/7/2017 1:15:32 PM c:\projectwise\pb\projectwiseint\jroque\d0176683\MiscStrSignCatwalk.dgn



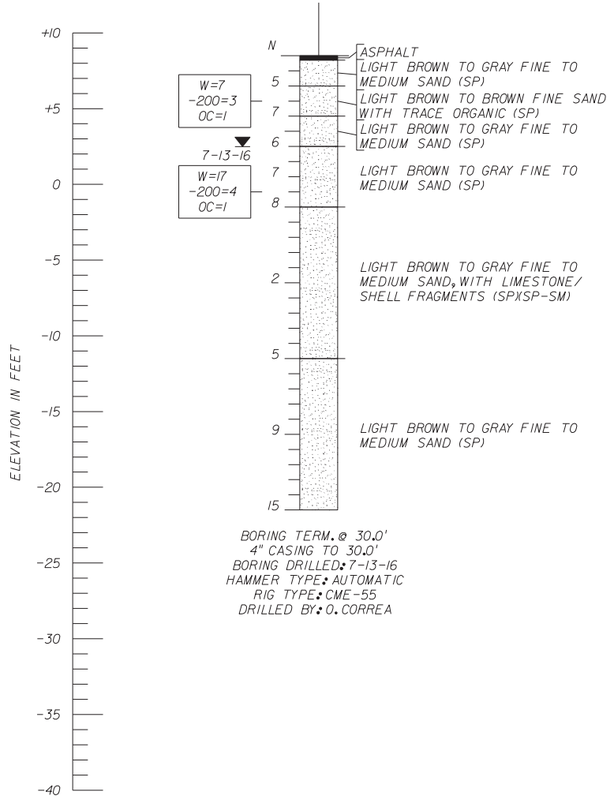
SCALE IN FEET

0 50 100

LEGEND

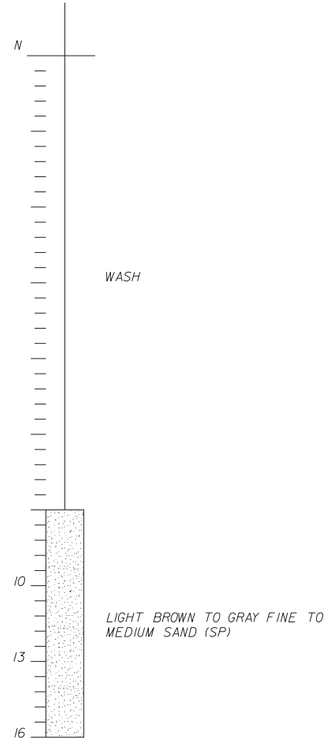
APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING

BORING No.: OHC-2
STATION: 2331+13
OFFSET: 92' RT.
LATITIUDE: 26.197185
LONGITUDE: -80.149732
ELEVATION: +8.5'



BORING TERM. @ 30.0'
4" CASING TO 30.0'
BORING DRILLED: 7-13-16
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME-55
DRILLED BY: O. CORREA

BORING No.: OHC-2A
STATION: 2331+13
OFFSET: 92' RT.
LATITIUDE: 26.197185
LONGITUDE: -80.149732
ELEVATION: +8.5'



BORING TERM. @ 45.0'
4" CASING TO 45.0'
BORING DRILLED: 12-13-16
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME-55
DRILLED BY: H. AVELLANADA

LEGEND

SAND

(SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL
SYMBOL

7-13-16 ENCOUNTERED GROUNDWATER LEVEL (DATE OF READING)

W=0
-200=0
OC=0
NATURAL MOISTURE CONTENT (%)
FINES PASSING No. 200 SIEVE (%)
ORGANIC CONTENT (%)

N STANDARD PENETRATION RESISTANCE IN BLOW PER FOOT UNLESS OTHERWISE NOTED

AUTOMATIC HAMMER

STANDARD PENETRATION TEST DATA

SPOON INSIDE DIA.	1 3/8 in.
SPOON OUTSIDE DIA.	2 in.
ASTM STANDARD DROP AUTOMATIC HAMMER	
AVG. HAMMER DROP	30 in.
HAMMER WEIGHT	140 lbs.

GRANULAR MATERIALS

RELATIVE DENSITY	SPT (BLOWS/FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40

SILTS AND CLAYS

CONSISTENCY	SPT (BLOWS/FOOT)
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTES:

1) LAYER BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL LAYERS AT EACH TEST HOLE LOCATION ONLY. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, field conditions, and detailing fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stamped) BY: (FDOT)
PL

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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

HUGO E. SOTO, P.E.
P.E. LICENSE NUMBER 36440
TERRACON
16200 NW 59th. AVENUE – SUITE 106
MIAMI, FLORIDA 33014
CERTIFICATE OF AUTHORIZATION No. 8830

DRAWN BY: MG 6-8-17
CHECKED BY: RN 6-8-17
DESIGNED BY:
CHECKED BY:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SHEET TITLE: REPORT OF CORE BORINGS

REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES AND RAMP SIGNALS - PHASE 3A-2

SHEET NO. IT-257

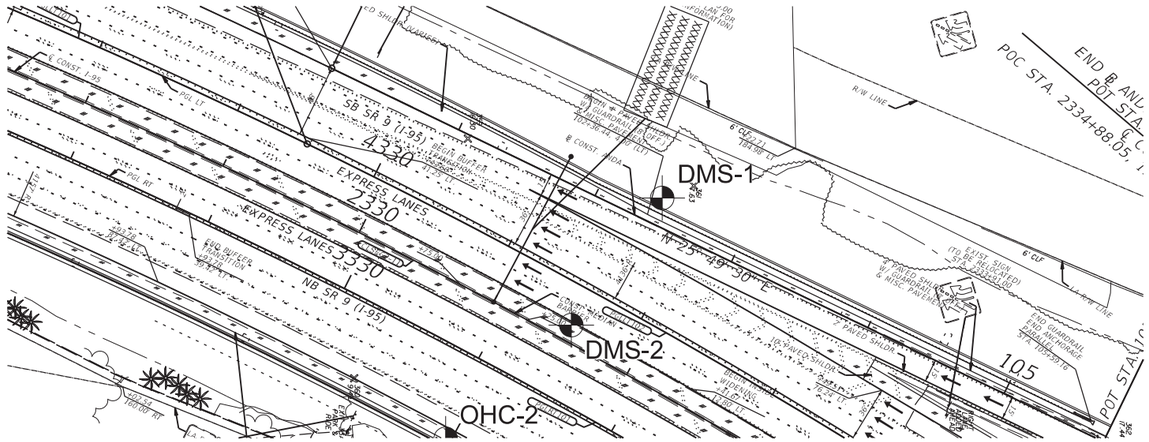
TERRACON Project No.: H

SCALE IN FEET

0 50 100

LEGEND

APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING



LEGEND

SAND

(SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL SYMBOL

6-23-16 ENCOUNTERED GROUNDWATER LEVEL (DATE OF READING)

N STANDARD PENETRATION RESISTANCE IN BLOW PER FOOT UNLESS OTHERWISE NOTED

BORING No.: DMS-1
STATION: 2331+35
OFFSET: 117' LT.
LATITIUDE: 26.197581
LONGITUDE: -80.150214
ELEVATION: +9.2'

N	TOPSOIL, BROWN FINE SAND WITH ROOTS (OL)
12	LIGHT BROWN TO BROWN FINE TO MEDIUM SAND, TRACE LIMEROCK FRAGMENTS (SP|SP-SM)
3	
4	
6-23-16 3	
7	DARK BROWN FINE TO MEDIUM SAND WITH TRACE ORGANICS (SP)
14	
12	
16	LIGHT BROWN TO GRAY FINE TO MEDIUM SAND (SP)
23	
25	
28	

BORING TERM. @ 40.0'
NO CASING
BORING DRILLED: 6-23-16
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME-55
DRILLED BY: O. CORREA

BORING No.: DMS-2
STATION: 2331+46
OFFSET: 8' LT.
LATITIUDE: 26.197414
LONGITUDE: -80.149961
ELEVATION: +12.7'

N	ASPHALT
45	
52	
53	LIGHT BROWN TO BROWN FINE TO MEDIUM SAND, TRACE LIMEROCK FRAGMENTS (SP|SP-SM)
51	
6-23-16 37	
27	
22	
10	LIGHT BROWN TO GRAY FINE TO MEDIUM SAND (SP)
14	
13	
12	

BORING TERM. @ 40.0'
NO CASING
BORING DRILLED: 6-23-16
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME-55
DRILLED BY: O. CORREA

ELEVATION IN FEET: +15, +10, +5, 0, -5, -10, -15, -20, -25, -30, -35

AUTOMATIC HAMMER

STANDARD PENETRATION TEST DATA

SPOON INSIDE DIA.	1 3/8 in.
SPOON OUTSIDE DIA.	2 in.
ASTM STANDARD DROP	AUTOMATIC HAMMER
AVG. HAMMER DROP	30 in.
HAMMER WEIGHT	140 lbs.

GRANULAR MATERIALS

RELATIVE DENSITY	SPT (BLOWS/FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40

SILTS AND CLAYS

CONSISTENCY	SPT (BLOWS/FOOT)
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTES:

1) LAYER BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL LAYERS AT EACH TEST HOLE LOCATION ONLY. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of design, details, dimensions, field conditions, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec) PL

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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

HUGO E. SOTO, P.E.
P.E. LICENSE NUMBER 36440
TERRACON
16200 NW 59th. AVENUE – SUITE 106
MIAMI, FLORIDA 33014
CERTIFICATE OF AUTHORIZATION No. 8830

DRAWN BY: MG 6-8-17
CHECKED BY: RN 6-8-17
DESIGNED BY:
CHECKED BY:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SHEET TITLE: REPORT OF CORE BORINGS

REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES AND RAMP SIGNALS - PHASE 3A-2

SHEET NO. IT-258

TERRACON Project No.: H

mgarcia 6/8/2017 11:17:00 AM N:\CADD\FDOT-Projects\433108\geotech\Signs\sngeo02-258.dgn

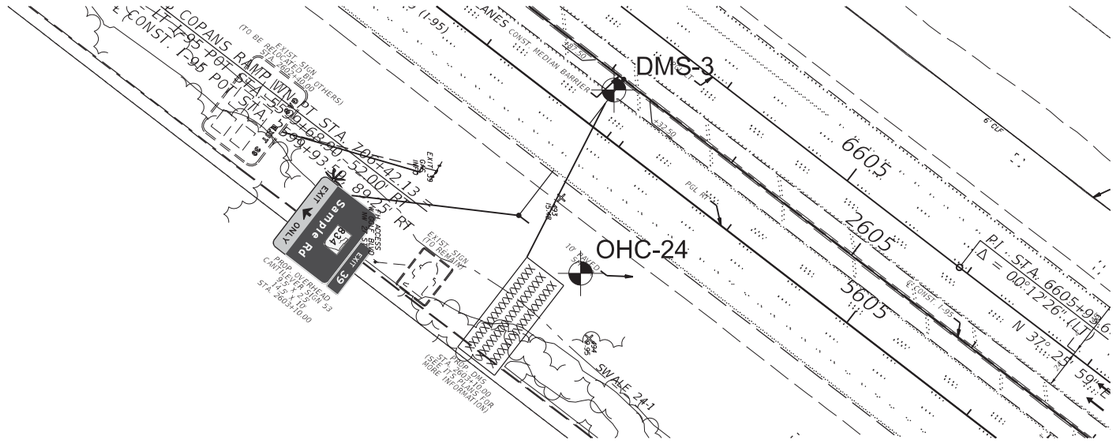


SCALE IN FEET

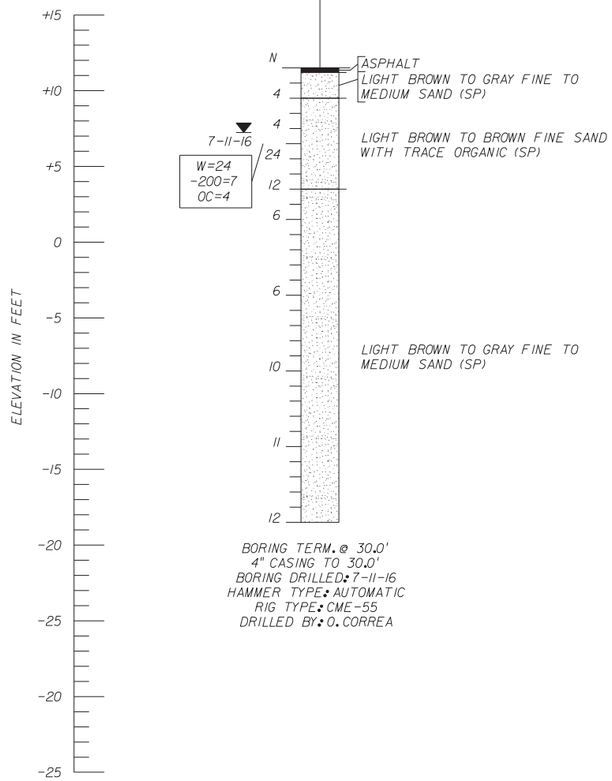
0 50 100

LEGEND

APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING

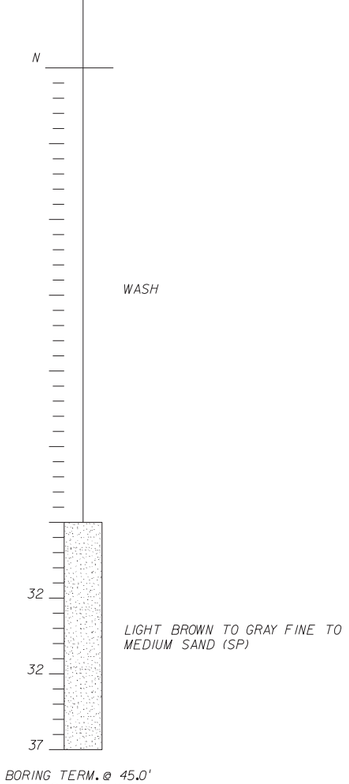


BORING No.: OHC-24
STATION: 2603+66
OFFSET: 118' LT.
LATITIUDE: 26.265368
LONGITUDE: -80.128484
ELEVATION: +11.4'



BORING TERM. @ 30.0'
4" CASING TO 30.0'
BORING DRILLED: 7-11-16
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME-55
DRILLED BY: O. CORREA

BORING No.: OHC-24A
STATION: 2603+66
OFFSET: 118' LT.
LATITIUDE: 26.265368
LONGITUDE: -80.128484
ELEVATION: +11.4'



BORING TERM. @ 45.0'
4" CASING TO 45.0'
BORING DRILLED: 12-15-16
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME-55
DRILLED BY: H. AVELLANADA

LEGEND

SAND

(SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL SYMBOL

7-11-16 ENCOUNTERED GROUNDWATER LEVEL (DATE OF READING)

W=0
-200=0
OC=0
NATURAL MOISTURE CONTENT (%)
FINES PASSING No. 200 SIEVE (%)
ORGANIC CONTENT (%)

N STANDARD PENETRATION RESISTANCE IN BLOW PER FOOT UNLESS OTHERWISE NOTED

AUTOMATIC HAMMER

STANDARD PENETRATION TEST DATA

SPOON INSIDE DIA.	1 3/8 in.
SPOON OUTSIDE DIA.	2 in.
ASTM STANDARD DROP	AUTOMATIC HAMMER
AVG. HAMMER DROP	30 in.
HAMMER WEIGHT	140 lbs.

GRANULAR MATERIALS

RELATIVE DENSITY	SPT (BLOWS/FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40

SILTS AND CLAYS

CONSISTENCY	SPT (BLOWS/FOOT)
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTES:

1) LAYER BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL LAYERS AT EACH TEST HOLE LOCATION ONLY. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PL BY: (FDOT)

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REVISIONS

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P.E. LICENSE NUMBER 36440
TERRACON
16200 NW 59th. AVENUE – SUITE 106
MIAMI, FLORIDA 33014
CERTIFICATE OF AUTHORIZATION No. 8830

DRAWN BY: MG 6-8-17
CHECKED BY: RN 6-8-17
DESIGNED BY:
CHECKED BY:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

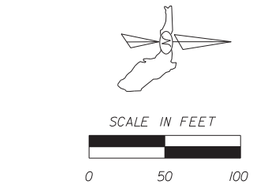
SHEET TITLE: REPORT OF CORE BORINGS

REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES AND RAMP SIGNALS - PHASE 3A-2

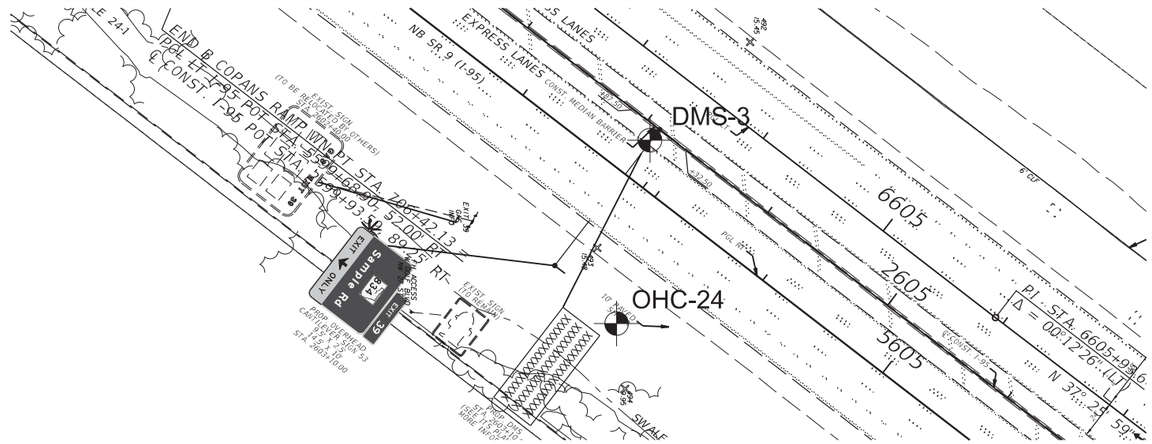
SHEET NO. IT-259

TERRACON Project No.: H



LEGEND

APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING



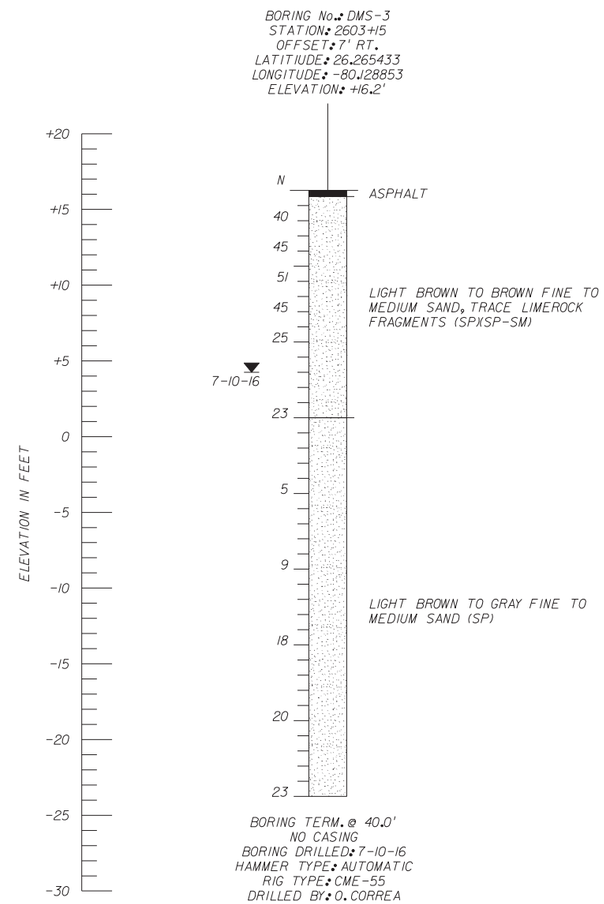
LEGEND

SAND

(SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL SYMBOL

7-10-16 ENCOUNTERED GROUNDWATER LEVEL (DATE OF READING)

N STANDARD PENETRATION RESISTANCE IN BLOW PER FOOT UNLESS OTHERWISE NOTED



AUTOMATIC HAMMER

STANDARD PENETRATION TEST DATA

SPOON INSIDE DIA.	1 3/8 in.
SPOON OUTSIDE DIA.	2 in.
ASTM STANDARD DROP AUTOMATIC HAMMER	
AVG. HAMMER DROP	30 in.
HAMMER WEIGHT	140 lbs.

GRANULAR MATERIALS

RELATIVE DENSITY	SPT (BLOWS/FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40

SILTS AND CLAYS

CONSISTENCY	SPT (BLOWS/FOOT)
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTES:

1) LAYER BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL LAYERS AT EACH TEST HOLE LOCATION ONLY. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

HUGO E. SOTO, P.E.
P.E. LICENSE NUMBER 36440
TERRACON
16200 NW 59th. AVENUE – SUITE 106
MIAMI, FLORIDA 33014
CERTIFICATE OF AUTHORIZATION No. 8830

DRAWN BY: MG 6-8-17
CHECKED BY: RN 6-8-17
DESIGNED BY:
CHECKED BY:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

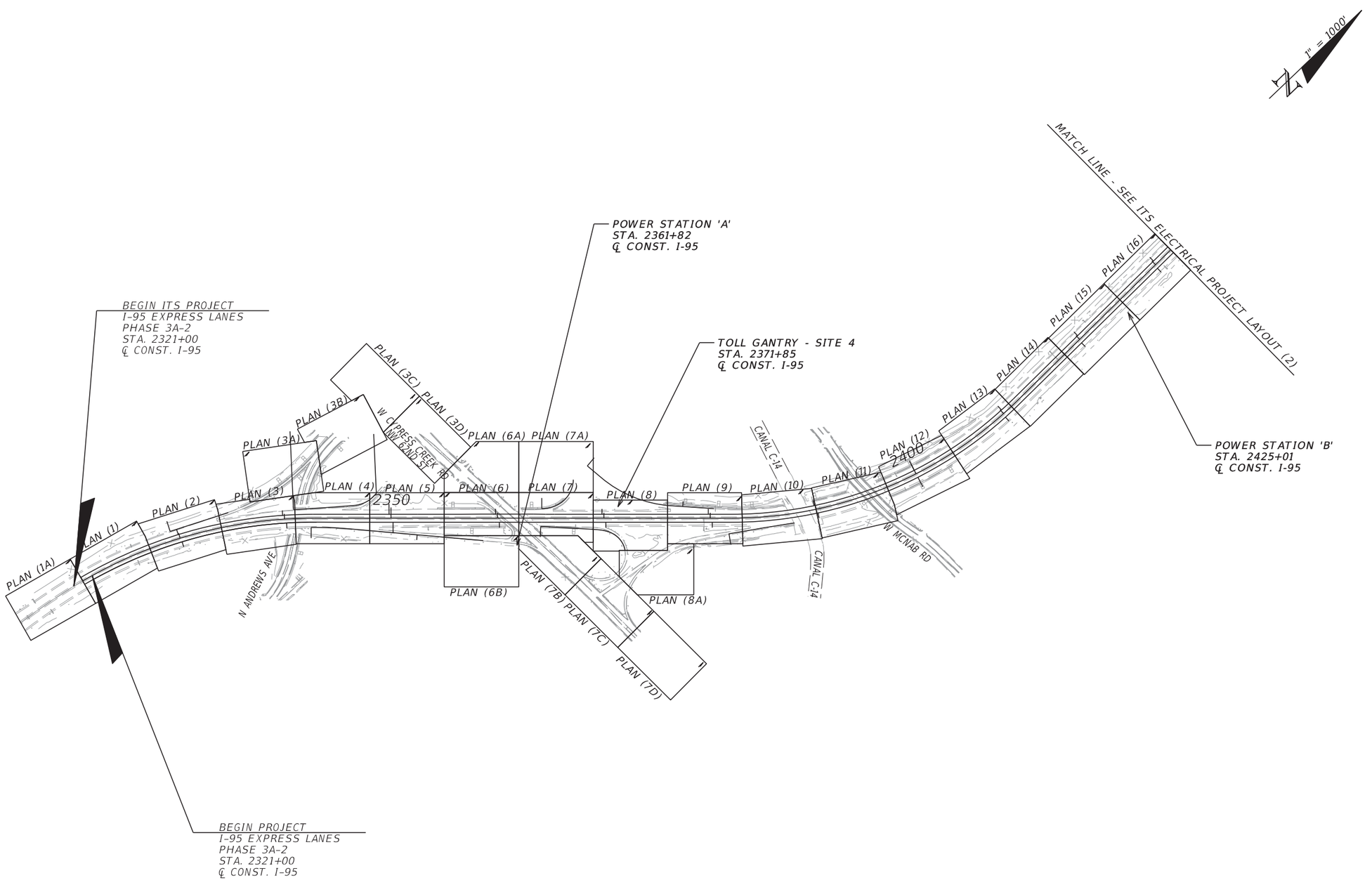
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SHEET TITLE: REPORT OF CORE BORINGS

PROJECT NAME: I-95 EXPRESS LANES AND RAMP SIGNALS - PHASE 3A-2

REF. DWG. NO.

SHEET NO. IT-260



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) P.E. BY: (FDOT)

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DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

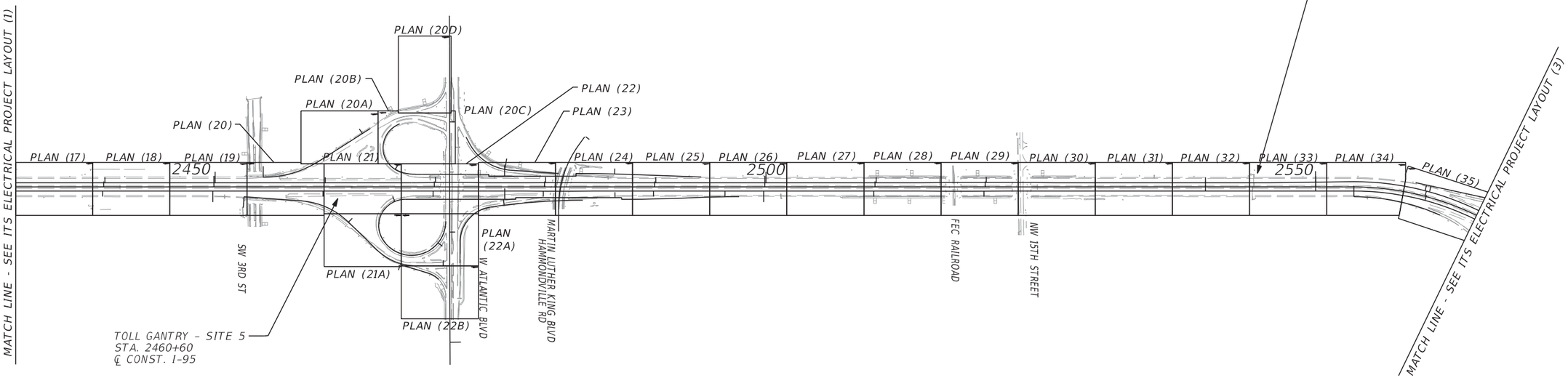
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PROJECT LAYOUT PLAN (1)

SHEET NO. IT-261

N

1"=1000'



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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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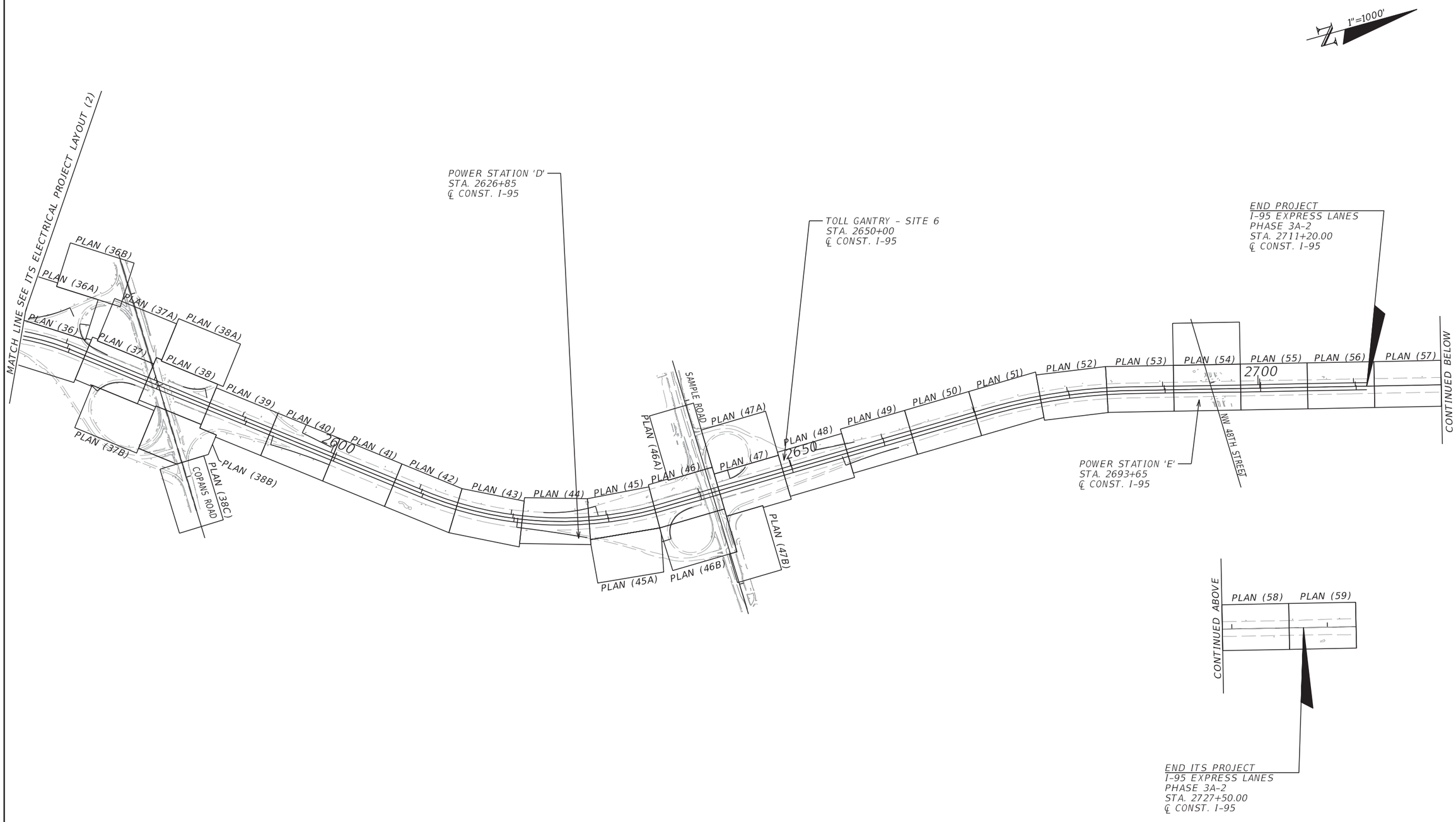
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PROJECT LAYOUT PLAN (2)

SHEET NO. IT-262



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PROJECT LAYOUT PLAN (3)

SHEET NO. IT-263

ITS EQUIPMENT ABBREVIATIONS AND SYMBOLS

AC	ALTERNATING CURRENT
AF:	AMPS FRAME (FRAME RATING OF CIRCUIT BREAKER) OR AMPS FUSED (FUSE RATING)
AG:	ABOVE GROUND
AS:	AMPS SWITCH (AMP RATING OF A FUSED DISCONNECT SWITCH)
AT:	AMPS TRIP (TRIP RATING OF CIRCUIT BREAKER)
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
C:	CONDUIT
CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRUIT BREAKER
CCTV:	CLOSED CIRCUIT TELEVISION
CKT:	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CLR:	CENTERLINE OF REBAR
CMSS:	CHANGEABLE MESSAGE SIGN – TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN – TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
EB:	EAST BOUND
ELEC:	ELECTRICAL
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (ELECTRIC UTILITY COMPANY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD:	MOUNTED
MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
NB	NORTHBOUND
NEC:	NATIONAL ELECTRICAL CODE
OCPD:	OVERCURRENT PROTECTION DEVICE
PB:	PULLBOX
POA:	ITS POLE WITH CLD (CAMERA LOWERING DEVICE)
POB:	ITS POLE WITHOUT CLD (CAMERA LOWERING DEVICE)
PNL:	PANEL
PP:	POWER PANELBOARD OR PATCH PANEL
PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W:	RIGHT OF WAY
SB	SOUTHBOUND
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SW:	SWITCH
SPD:	SURGE PROTECTION DEVICE
STP:	SHIELDED TWISTED PAIR
TMS:	TRANSPORTATION MANAGEMENT SYSTEM
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
XFMR:	TRANSFORMER

LEGEND

- SPLICE BOX
- EXISTING SPLICE BOX
- NEW ITS CABINET (POLE MOUNTED)
- EXISTING ITS CABINET (POLE MOUNTED)
- NEW ITS CABINET (GROUND MOUNTED)
- EXISTING ITS CABINET (GROUND MOUNTED)
- CCTV CAMERA
- EXISTING CCTV CAMERA
- DEDICATED CCTV CAMERA
- MVDS
- EXISTING MVDS
- DMS (DYNAMIC MESSAGE SIGN)
- EXISTING DMS (DYNAMIC MESSAGE SIGN)
- EXISTING HAR SIGN
- RAMP METERING CONTROL SIGNAL
- RAMP METERING LOOP DETECTOR SENSOR
- PORTABLE TRAFFIC MONITORING SITES (PTMS)
- TELEMETERED TRAFFIC MONITORING SITES (TTMS)
- G — ITS POWER STATION (SEE SHEETS IT-364 AND IT-365 FOR POWER STATION DETAILS)
- ELECTRICAL PULL BOX, 13" X 24" (UNLESS OTHERWISE NOTED ON PLANS). SEE SECTION 635 OF THE 2015 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND 2015 FDOT DESIGN STANDARDS INDEX NO. 17500.
- EXISTING ELECTRICAL PULL BOX
- TRANSFORMER (kVA AND VOLTAGE RATING AS SHOWN ON PLANS). ALL TRANFORMERS SHALL BE EQUIPPED WITH +/- 2.5% AND +/- 5.0% VOLTAGE TAPS ABOVE AND BELOW NOMINAL VOLTAGE. ADDITIONALLY, ALL TRANSFORMERS SHALL BE PROVIDED WITH EXTERNAL SURGE PROTECTION DEVICES (SPD'S) AS CLOSE AS POSSIBLE TO BOTH THE TRANSFORMER PRIMARY AND SECONDARY WINDING TERMINALS. SPD'S SHALL BE MOUNTED AS RECOMMENDED BY THE TRANSFORMER MANUFACTURER.
- DP — 120/240V, SINGLE PHASE DISTRIBUTION PANEL
- F — #AS / #AT — DISCONNECT SWITCH, 2POLE, 10kAIC, UNLESS OTHERWISE NOTED. F-INDICATES A FUSED DISCONNECT SWITCH (IF OMITTED, SWITCH SHALL BE NON-FUSED) #AS- DISCONNECT SWITCH AMP RATING (IF OMMITED FROM PLANS, SWITCH SHALL BE 30 AMP RATED UNLESS OTHERWISE NOTED) #AT- FUSE SIZE INDICATED ON PLANS
- SPD — SURGE PROTECTION DEVICE (SPD), UL 1449 THIRD EDITION LISTED. THE SPD AT EACH MAIN SERVICE DISCONNECTING MEANS SHALL BE A 'TYPE 1' SPD WITH A MINIMUM SURGE CAPACITY OF 80kA PER PHASE. ALL OTHER SPD'S SHALL BE 'TYPE 2' SPD'S WITH A MINIMUM SURGE CAPACITY OF 20kA PER PHASE. ALL SPD'S SHALL HAVE 25% MORE CAPACITY FOR THE RATING OF THE NOMINAL OPERATING SINGLE PHASE VOLTAGE(S) AND MAXIMUM CONTINOUS OPERATING VOLTAGES PER ATTACHMENT J, SECTION II, OF THE RFP. ALL SPD'S SHALL HAVE A MINIMUM SHORT CIRCUIT CURRENT INTERRUPT RATING (SCCR) OF 100kAIC. ALL SPD'S SHALL BE PROVIDED WITH FORM C DRY CONTACT FOR REMOTE STATUS MONITORING.

- GROUND ROD, 5/8" DIAMETER AND A MININUM OF 8 FT IN LENGTH, COPPER CLAD. GROUND RODS SHALL BE UL 467 LISTED. GROUND ROD ASSEMBLIES SHALL CONSIST OF TWO OR MORE GROUND RODS COUPLED TOGETHER AND INSTALLED PER 2015 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (STANDARD SPECIFICATIONS HEREIN) SECTION 620-2.2. GROUND ROD ARRAYS SHALL CONSIST OF TWO OR MORE GROUND ROD ASSEMBLIES AND BE INSTALLED PER 2015 FDOT SPECIFICATIONS SECTION 620-2.3 GROUND RODS, GROUND ROD ASSEMBLIES, AND GROUND ROD ARRAYS SHALL BE INSTALLED AS REQUIRED PER THE PLANS AND CONTRACT DOCUMENTS AND PER 2015 FDOT STANDARD SPECIFICATION SECTION 620. DASHED CIRCLE INDICATES THE GROUND ROD IS INSTALLED IN AN GROUND INSPECTION/TEST WELL.
- STANDBY GENERATOR, 120/240V, SINGLE PHASE
- SECONDARY ELECTRICAL POWER (INCLUDES FUSED DISCONNECT SWITCH, STEP-DOWN TRANSFORMER AND SPD'S)
- POWER SERVICE POLE TYPE PII, UNDERGROUND SERVICE
- ITS EQUIPMENT POLE
- UTILITY POWER DROP POLE
- EXISTING UTILITY POWER DROP POLE
- #AF / #AT / 2P / LSI — ENCLOSED CIRCUIT BREAKER, NEMA 3R ENCLOSURE
  AF= AMP FRAME
  AT= AMP TRIP
  2P = 2 POLE
  LSI = LONG TIME, SHORT TIME, AND INSTANTANEOUS TRIP (CIRCUIT BREAKER ADJUSTABLE TRIP SETTINGS/FUNCTIONS)
- E N — AUTOMATIC TRANSFER SWITCH (RATING AND CONFIGURATION AS SHOWN ON PLANS).
- UG ITS ELECTRICAL CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- HORIZONTAL DIRECTIONAL DRILLING CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- HORIZONTAL JACK AND BORE CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)
- EXISTING UG FOC MAIN COMMUNICATION CONDUIT ABANDONED
- EXISTING JACKED/BORE CONDUIT
- EQUIPMENT OUTLINES AND ENCLOSURES
- EXISTING R/W
- EXISTING L/A R/W

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	ASBUILT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL LEGEND AND ABBREVIATIONS

SHEET NO. IT-264

ITS EQUIPMENT ABBREVIATIONS AND SYMBOLS

AC	ALTERNATING CURRENT
AF:	AMPS FRAME (FRAME RATING OF CIRCUIT BREAKER) OR AMPS FUSED (FUSE RATING)
AG:	ABOVE GROUND
AS:	AMPS SWITCH (AMP RATING OF A FUSED DISCONNECT SWITCH)
AT:	AMPS TRIP (TRIP RATING OF CIRCUIT BREAKER)
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
C:	CONDUIT
CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRUIT BREAKER
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CKT:	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
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CMSS:	CHANGEABLE MESSAGE SIGN - TOLL STATUS
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DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
EB:	EAST BOUND
ELEC:	ELECTRICAL
EOR:	ENGINEER OF RECORD
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FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD:	MOUNTED
MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
NB	NORTHBOUND
NEC:	NATIONAL ELECTRICAL CODE
OCPD:	OVERCURRENT PROTECTION DEVICE
PB:	PULLBOX
POA:	ITS POLE WITH CLD (CAMERA LOWERING DEVICE)
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PNL:	PANEL
PP:	POWER PANELBOARD OR PATCH PANEL
PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W:	RIGHT OF WAY
SB	SOUTHBOUND
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SW:	SWITCH
SPD:	SURGE PROTECTION DEVICE
STP:	SHIELDED TWISTED PAIR
TMS:	TRANSPORTATION MANAGEMENT SYSTEM
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
XFMR:	TRANSFORMER

LEGEND

SPLICE BOX

EXISTING SPLICE BOX

NEW ITS CABINET (POLE MOUNTED)

EXISTING ITS CABINET (POLE MOUNTED)

NEW ITS CABINET (GROUND MOUNTED)

EXISTING ITS CABINET (GROUND MOUNTED)

CCTV CAMERA

EXISTING CCTV CAMERA

DEDICATED CCTV CAMERA

MVDS

EXISTING MVDS

DMS (DYNAMIC MESSAGE SIGN)

EXISTING DMS (DYNAMIC MESSAGE SIGN)

EXISTING HAR SIGN

RAMP METERING CONTROL SIGNAL

RAMP METERING LOOP DETECTOR SENSOR

PORTABLE TRAFFIC MONITORING

TELEMETERED TRAFFIC MONITORING SITES (TTMS)

ITS P ON (SE FEETS I
AN ER S N DE

TRICAL PULL 13" X UNLE HERWISE NOTED ON
S). SEE SECTI 5 OF 2015 FDOT STANDARD
CIFICATIONS FO AD AN DGE CONSTRUCTION AND
FDOT DESIGN DARDS DEX NO. 17500.

G

E G ELECTRI ULL BOX

TRAN AND VOLTAGE RATING AS SHOWN ON PLANS).
ALL TRAN ERS SHALL BE EQUIPPED WITH +/- 2.5% AND +/-
5.0% VOLTAGE TAPS ABOVE AND BELOW NOMINAL VOLTAGE.
ADDITIONALLY, ALL TRANSFORMERS SHALL BE PROVIDED WITH
EXTERNAL SURGE PROTECTION DEVICES (SPD'S) AS CLOSE AS
POSSIBLE TO BOTH THE TRANSFORMER PRIMARY AND SECONDARY
WINDING TERMINALS. SPD'S SHALL BE MOUNTED AS RECOMMENDED
BY THE TRANSFORMER MANUFACTURER.

DP — 120/240V, SINGLE PHASE DISTRIBUTION PANEL

DISCONNECT SWITCH, 2POLE, 10kAIC,
UNLESS OTHERWISE NOTED.
F-INDICATES A FUSED DISCONNECT SWITCH (IF OMITTED,
SWITCH SHALL BE NON-FUSED)
#AS- DISCONNECT SWITCH AMP RATING (IF OMMITED FROM PLANS,
SWITCH SHALL BE 30 AMP RATED UNLESS OTHERWISE NOTED)
#AT- FUSE SIZE INDICATED ON PLANS

F — #AS / #AT

SURGE PROTECTION DEVICE (SPD), UL 1449 THIRD EDITION LISTED.
THE SPD AT EACH MAIN SERVICE DISCONNECTING MEANS
SHALL BE A 'TYPE 1' SPD WITH A MINIMUM SURGE CAPACITY OF
80kA PER PHASE. ALL OTHER SPD'S SHALL BE 'TYPE 2' SPD'S WITH
A MINIMUM SURGE CAPACITY OF 20kA PER PHASE. ALL SPD'S SHALL
HAVE 25% MORE CAPACITY FOR THE RATING OF THE NOMINAL
OPERATING SINGLE PHASE VOLTAGE(S) AND MAXIMUM CONTINOUS
OPERATING VOLTAGES PER ATTACHMENT J, SECTION II, OF THE RFP.
ALL SPD'S SHALL HAVE A MINIMUM SHORT CIRCUIT CURRENT INTERRUPT
RATING (SCCR) OF 100kAIC. ALL SPD'S SHALL BE PROVIDED
WITH FORM C DRY CONTACT FOR REMOTE STATUS MONITORING.

SPD

GROUND ROD, 5/8" DIAMETER AND A MININUM OF 8 FT IN LENGTH, COPPER CLAD. GROUND RODS SHALL BE UL 467 LISTED. GROUND ROD ASSEMBLIES SHALL CONSIST OF TWO OR MORE GROUND RODS COUPLED TOGETHER AND INSTALLED PER 2015 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (STANDARD SPECIFICATIONS HEREIN) SECTION 620-2.2. GROUND ROD ARRAYS SHALL CONSIST OF TWO OR MORE GROUND ROD ASSEMBLIES AND BE INSTALLED PER 2015 FDOT SPECIFICATIONS SECTION 620-2.3 GROUND RODS, GROUND ROD ASSEMBLIES, AND GROUND ROD ARRAYS SHALL BE INSTALLED AS REQUIRED PER THE PLANS AND CONTRACT DOCUMENTS AND PER 2015 FDOT STANDARD SPECIFICATION SECTION 620. DASHED CIRCLE INDICATES THE GROUND ROD IS INSTALLED IN AN GROUND INSPECTION/TEST WELL.

STANDBY GENERATOR, 120/240V, SINGLE PHASE

SECONDARY ELECTRICAL POWER (INCLUDES FUSED DISCONNECT SWITCH, STEP-DOWN TRANSFORMER AND SPD'S)

POWER SERVICE POLE TYPE PII, UNDERGROUND SERVICE

ITS EQUIPMENT POLE

UTILITY POWER DROP POLE

EXISTING UTILITY POWER DROP POLE

#AF
#AT
2P
LSI

ENCLOSED CIRCUIT BREAKER, NEMA 3R ENCLOSURE
AF= AMP FRAME
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E N

AUTOMATIC TRANSFER SWITCH (RATING AND CONFIGURATION AS SHOWN ON PLANS).

UG ITS ELECTRICAL CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.

HORIZONTAL DIRECTIONAL DRILLING CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.

HORIZONTAL JACK AND BORE CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.

EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)

EXISTING UG FOC MAIN COMMUNICATION CONDUIT

EXISTING JACKED/BORE CONDUIT

EQUIPMENT OUTLINES AND ENCLOSURES

EXISTING R/W

EXISTING L/A R/W

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL LEGEND AND ABBREVIATIONS

SHEET NO. IT-264

ITS ELECTRICAL NOTES

1. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT FOR EOR APPROVAL EQUIPMENT SPECIFICATION AND DESIGN DATA FOR ALL MATERIAL PROPOSED FOR THE PROJECT.

2. THE CONTRACTOR SHALL STAKE ALL SERVICE POLE LOCATIONS AND REQUEST UTILITY COMPANIES TO LOCATE AND STAKE UNDERGROUND UTILITIES PRIOR TO EXCAVATING.

3. THE CONTRACTOR SHALL BE AWARE OF ALL EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PROJECT PLANS. THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES ARE APPROXIMATE AND BASED ON THE INFORMATION FURNISHED TO THE ENGINEER BY THE UTILITY OWNER(S) AND ARE SHOWN AS NOTICE TO THE CONTRACTOR THAT UNDERGROUND UTILITIES EXIST. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OWNER(S) FOR LOCATION AND STAKING OF UNDERGROUND FACILITIES BEFORE EXCAVATING.

4. STATE OF FLORIDA STATUTE 556 REQUIRES THAT BEFORE EXCAVATING, NOTICE BE GIVEN TO THE UTILITY OWNER A MINIMUM OF TWO (2) FULL BUSINESS DAYS AND A MAXIMUM OF FIVE (5) FULL BUSINESS DAYS BEFORE BEGINING ANY EXCAVATION OR DEMOLITION. NOT ALL UTILITY COMPANIES ARE MEMBERS OF "SUNSHINE" 811.

5. THE LOCATION OF THE CONDUCTORS, CONDUITS, JUNCTION BOXES AND SERVICE POLES ARE DIAGRAMMATIC ONLY AND MAY BE SHIFTED FOLLOWING PRE-APPROVAL BY THE ENGINEER TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITY LOCATIONS.

6. ELECTRICAL WORK SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 70) NATIONAL ELECTRICAL CODE (NEC), NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE, THE NATIONAL ELECTRICAL SAFETY CODE (NESC), AND THE STANDARD PRACTICE OF GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION, NECA-1-2010. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER THE NATIONAL ELECTRICAL CODE REQUIREMENTS.

7. ALL CIRCUIT BREAKERS, LOCATED WITHIN ITS CABINETS, THAT DIRECTLY PROTECT BRANCH CIRCUIT WIRING THAT EXITS THE CABINET AND PROVIDES POWER TO DMS SIGNS OR OTHER REMOTELY LOCATED ITS DEVICES (NOT AT THE ITS CABINET SITE) SHALL ACT AS THE LOCAL DISCONNECTING MEANS FOR THE REMOTE EQUIPMENT. THESE CIRCUIT BREAKERS SHALL BE CAPABLE OF BEING LOCKED IN THE OPEN POSITION PER THE REQUIREMENTS OF NEC ARTICLE 110.25.

8. PROVIDE IDENTIFICATION FOR EACH BRANCH CIRCUIT IN A PANELBOARD. PROVIDE NAMEPLATES FOR ALL EQUIPMENT AND DEVICES. PROVIDE WIRE LABELS ON EACH CONDUCTOR IN PULL BOXES AND JUNCTION BOXES.

9. THE CONTRACTOR SHALL NOTIFY FP&L AT LEAST 48 HOURS PRIOR TO ANY INSTALLATION THAT IS WITHIN 10 FEET OF ENERGIZED ELECTRICAL CONDUCTORS. FP&L, AT ITS OPTION, SHALL ASSIST THE F.D.O.T. CONTRACTOR, COVER ENERGIZED CONDUCTORS AT INSTALLATION SITE, OR TAKE OTHER SAFETY PRECAUTIONS AS NECESSARY. EXTREME CAUTION SHALL BE EXERCISED AT ALL TIMES IN PERFORMANCE OF WORK AROUND THE PRIMARY MEDIUM AND HIGH VOLTAGE COMPONENTS.

10. PULLING INSTRUCTIONS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURER'S REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS.

11. ALL CONDUITS UNDER ROADWAY SHALL BE INSTALLED PRIOR TO INSTALLATION OF ROADWAY BASE AND SURFACE (OR CONCRETE), EXCEPT WHERE OTHERWISE SPECIFIED IN THE PLANS.

12. THE CONTRACTOR SHALL PROVIDE NOTICE TO THE UTILITY OWNER(S) PER FLORIDA STATUTE 553.851 (2004) AND 556 (2012). THESE STATUTES REQUIRE THAT BEFORE EXCAVATING, NOTICE BE GIVEN TO THE UTILITY OWNER A MINIMUM OF TWO (2) DAYS AND A MAXIMUM OF FIVE (5) FULL BUSINESS DAYS, EXCLUDING SATURDAY, SUNDAY AND LEGAL HOLIDAYS. NOT ALL UTILITY COMPANIES ARE MEMBERS OF "SUNSHINE 811".

Always call 811 two full business days before you dig

Sunshine811.com

ITS ELECTRICAL NOTES (CONTINUED)

13. DIRECTIONAL DRILLING BORE OPERATIONS IF USED SHALL MEET THE REQUIREMENTS OF F.D.O.T.'S UTILITY ACCOMMODATION GUIDE MANUAL (LATEST EDITION).

14. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE WITHIN TWO FEET OF THE ITS POLE FOUNDATIONS OR CONDUIT RUN, AS DETERMINED BY THE CONTRACTOR, THE CONTRACTOR WILL HAND DIG THE FIRST 4 FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.

15. ALL EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.

16. THE CONTRACTOR SHALL CONTACT FP&L TO DETERMINE IF A SERVICE PROCESSING FEE IS REQUIRED AND VERIFY THE PROPER METERING ENCLOSURE AND ANY ADDITIONAL DISCONNECT DEVICE REQUIREMENTS.

17. ALL SPLICES SHALL BE MADE IN PULLBOXES ONLY WITH COMPRESSION SLEEVES PROPERLY INSULATED FOR 600V, WATERPROOFED, ENCAPSULATED AND RATED FOR SUBMERSIBLE SERVICE.

18. DMS SIGN DISCONNECT SWITCH TO BE INSTALLED ON THE SIGN STRUCTURE VERTICAL MEMBER.

19. ALL INFORMATION SHOWN ON THE ITS ELECTRICAL DRAWINGS REGARDING EXISTING ELECTRICAL EQUIPMENT (INCLUDING EQUIPMENT RATINGS, CONDUIT AND WIRING) ARE SHOWN FOR INFORMATION PURPOSES ONLY AND ARE BASED ON INFORMATION FROM AS-BUILT AND CONSTRUCTION DRAWINGS PROVIDED BY THE DEPARTMENT. NOTIFY THE EOR IF CONTRARY FIELD CONDITIONS ARE FOUND BY THE CONTRACTOR.

20. ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

21. ALL ELECTRICAL PULL BOX COVERS FOR THE I-95 EXPRESS LANES SERVICE ITS SHALL INCLUDE THE WORDS "FDOT DISTRICT 4 ITS" PERMANENTLY CAST INTO THEIR TOP SURFACE.

22. CONDUIT RUN SHALL NOT EXCEED 270° OF BENDS BETWEEN PULL BOXES UNLESS APPROVED BY THE ENGINEER OF RECORD (EOR).

23. THE MAXIMUM SPACING BETWEEN ADJACENT ELECTRICAL PULL BOXES SHALL BE LESS THAN 900 FEET.

24. ALL UNINTERRUPTIBLE POWER SUPPLY (UPS) UNITS SHALL BE PROVIDED WITH A SIMPLE NETWORK MANAGEMENT PROTOCOL (SNMP) ETHERNET COMMUNICATION CARD FOR REMOTE MONITORING OF THE UPS FROM THE TRANSPORTATION MANAGEMENT CENTER (TMC). THE UPS UNITS SHALL BE CONFIGURED TO EMAIL STATUS AND ALARM NOTIFICATIONS THROUGH THE ITS ETHERNET NETWORK.

25. TOP ENTRY CONDUIT SHALL NOT BE USED FOR ANY CONDUIT INSTALLED BETWEEN ELECTRICAL EQUIPMENT. NEMA 3R THREADED HUBS SHALL BE USED FOR ALL RACEWAY CONNECTIONS BETWEEN ELECTRICAL ENCLOSURES.

26. ELECTRICAL ROUTE MARKERS AND BURIED WARNING TAPE SHALL BE INSTALLED ABOVE ALL BURIED ELECTRICAL CONDUITS PER THE POWER CABLE ROUTE MARKER DETAIL ON ITS SHEET IT-198.

27. OVERCURRENT PROTECTION DEVICE SIZING SHALL BE BASED ON AN 80% RATING FOR DEVICES UP TO AND INCLUDING 250 AMPS AND BASED ON A 100% RATING FOR DEVICE ABOVE 250 AMPS.

28. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANY, FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING:

CHRIS ARTIS OFFICE: (954) 321-2049.

29. CONDUCTORS CAN BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE A PROPER CONNECTION TO THE ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE WHERE THE CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS IT IS CONNECTED TO. THIS DOWN SPLICE SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

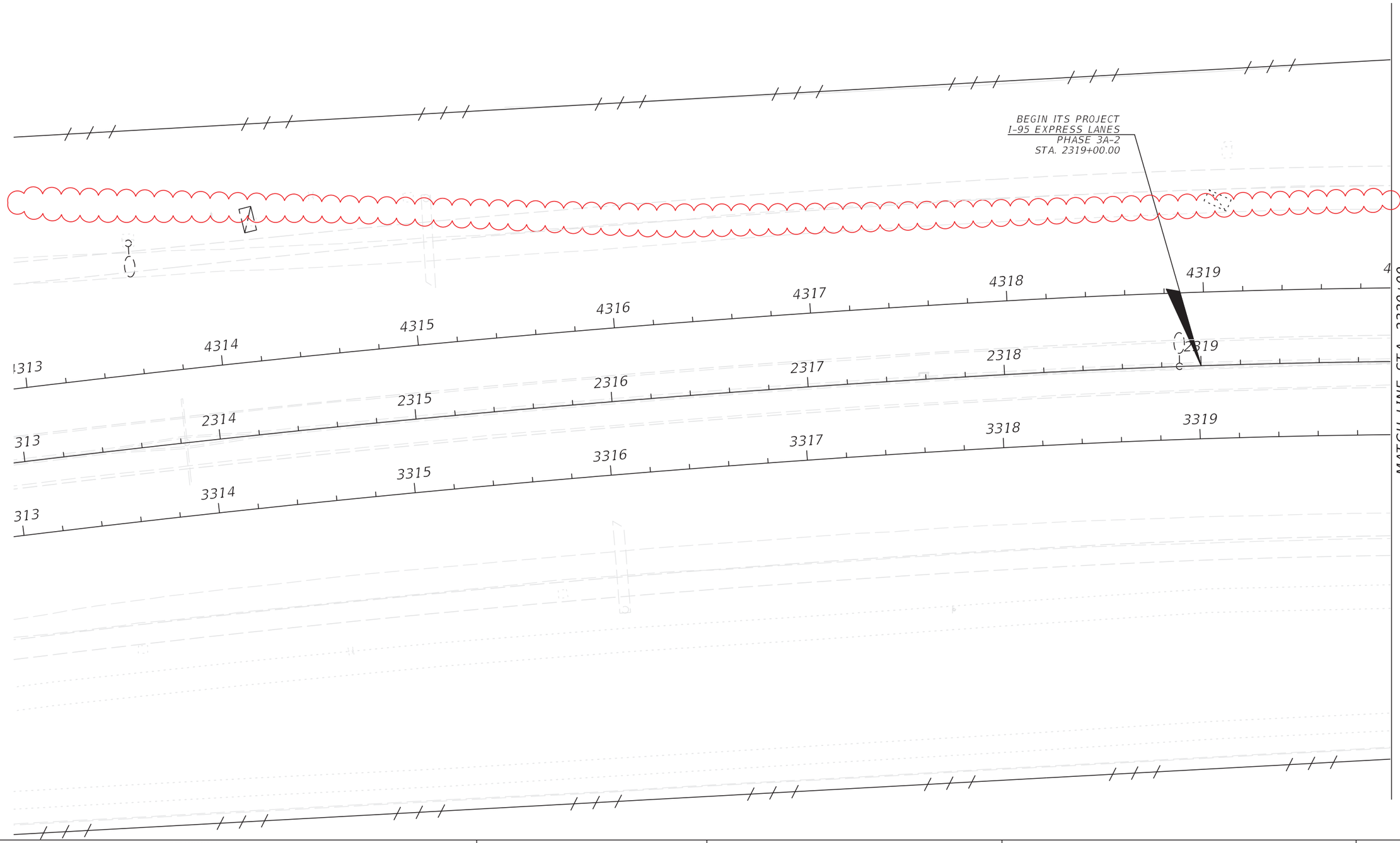
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL GENERAL NOTES

SHEET NO. IT-265

NOTE:
1. ALL EXISTING ITS ELECTRICAL CONDUITS AND WIRING WITHIN THE PROJECT LIMITS SHALL BE ABANDONED IN PLACE UNLESS OTHERWISE NOTED. THE DEENERGIZATION AND REMOVAL OF ITS ELECTRICAL WIRING SHALL ONLY OCCUR ONCE THE NEW ITS ELECTRICAL POWER SYSTEMS ARE INSTALLED AND READY FOR FINAL ITS EQUIPMENT CONNECTIONS TO THE NEW POWER SYSTEM. COORDINATE MAINTENANCE OF POWER OF ALL EXISTING ITS DEVICES WITH THE DB TEAMS OF ADJACENT PROJECTS TO THE NORTH AND SOUTH OF PHASE 3A-2 TO AVOID POWER DISRUPTION TO ITS EQUIPMENT.

1" = 50'



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (1A)

SHEET NO.
IT-266

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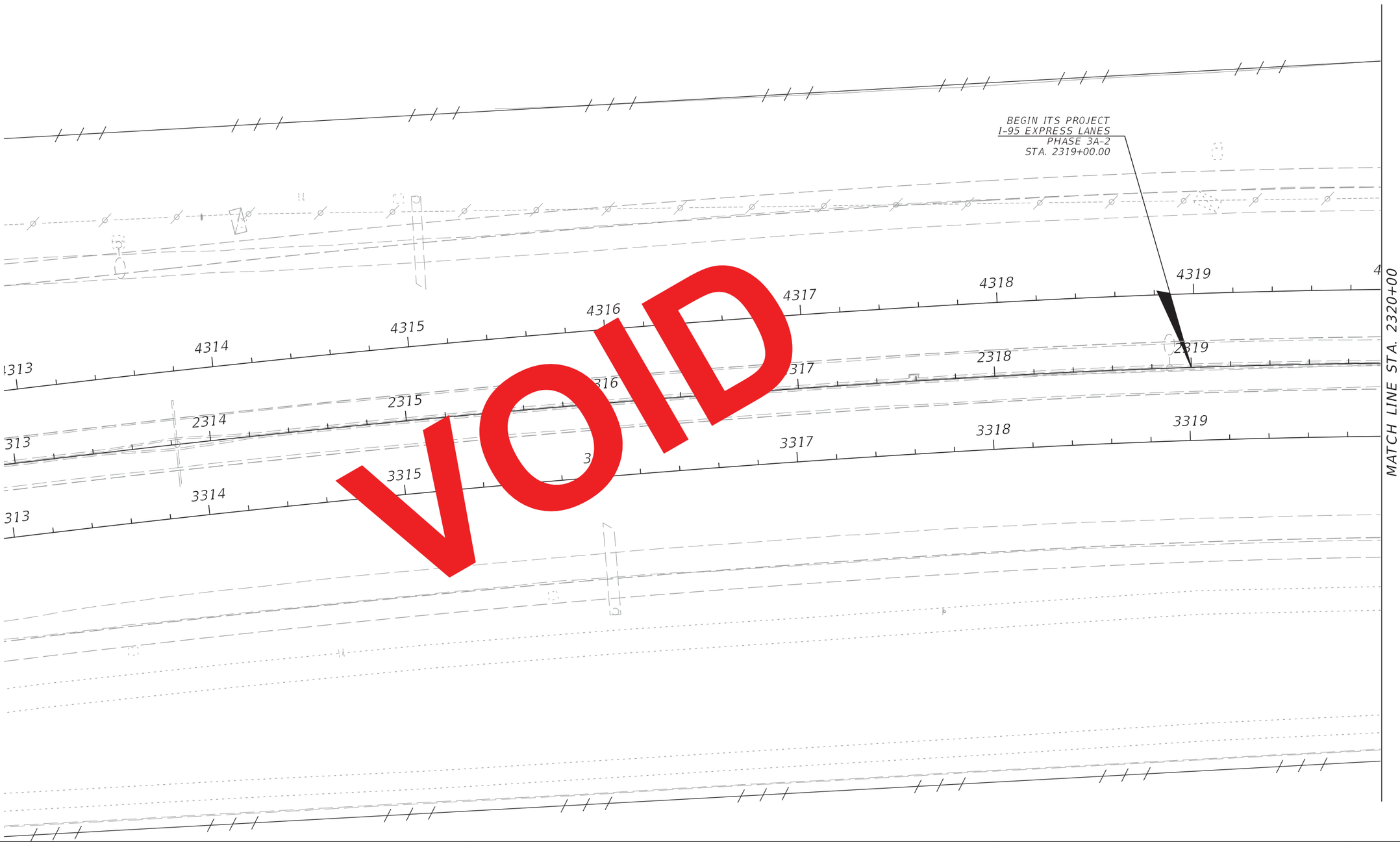
NOTE:
1. ALL EXISTING ITS ELECTRICAL CONDUITS AND WIRING WITHIN THE PROJECT LIMITS SHALL BE ABANDONED IN PLACE UNLESS OTHERWISE NOTED. THE DEENERGIZATION AND REMOVAL OF ITS ELECTRICAL WIRING SHALL ONLY OCCUR ONCE THE NEW ITS ELECTRICAL POWER SYSTEMS ARE INSTALLED AND READY FOR FINAL ITS EQUIPMENT CONNECTIONS TO THE NEW POWER SYSTEM. COORDINATE MAINTENANCE OF POWER OF ALL EXISTING ITS DEVICES WITH THE DB TEAMS OF ADJACENT PROJECTS TO THE NORTH AND SOUTH OF PHASE 3A-2 TO AVOID POWER DISRUPTION TO ITS EQUIPMENT.

1" = 50'



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (1A)

SHEET NO.
IT-266

1" = 50'

LA R/W LINE

BEGIN PROJECT
I-95 EXPRESS LANES
PHASE 3A-2
STA. 2321+00.00

015.6 CAB SS
STA. 2322+85

STATIC SIGN

PORTABLE TRAFFIC MONITORING SITE
STA. 2325+61
(NO HARDWIRED POWER REQUIRED)

SB SR 9 (I-95)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

MATCH LINE STA. 2320+00

320 4321 4322 4323 4324 4325 4326 4327

PGL LT

EXPRESS LANES

2320 2321 2322 2323 2324 2325 2326 2327

MATCH LINE STA. 2327+00

℄ CONST. I-95

3320 3321 3322 3323 3324 3325 3326

PGL RT

NB SR 9 (I-95)

EXPRESS LANES

015.6 CAB NS
STA. 2323+02

SWALE 20-2A1

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

LA R/W LINE

PORTABLE TRAFFIC MONITORING SITE
STA. 2325+85
(NO HARDWIRED POWER REQUIRED)

R/W LINE

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REVISIONS			
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09/13/19	AS-BUILTS		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (1)

SHEET NO.
IT-267

1" = 50'

LA R/W LINE

BEGIN PROJECT
I-95 EXPRESS LANES
PHASE 3A-2
STA. 2321+00.00

015.6 CAB SS
STA. 2322+85

STATIC SIGN

PORTABLE TRAFFIC MONITORING SITE
STA. 2325+61
(NO HARDWIRED POWER REQUIRED)

SB SR 9 (I-95)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

PGL LT

EXPRESS LANES

℄ CONST. I

NB SR 9 (I-95)

PGL RT

EXPRESS LANES

015.6 CAB NS
STA. 2323+02

SWALE 20-2A

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

LA R/W LINE

PORTABLE TRAFFIC MONITORING SITE
STA. 2325+85
(NO HARDWIRED POWER REQUIRED)

R/W LINE

MATCH LINE STA. 2320+00

MATCH LINE STA. 2327+00

VOID

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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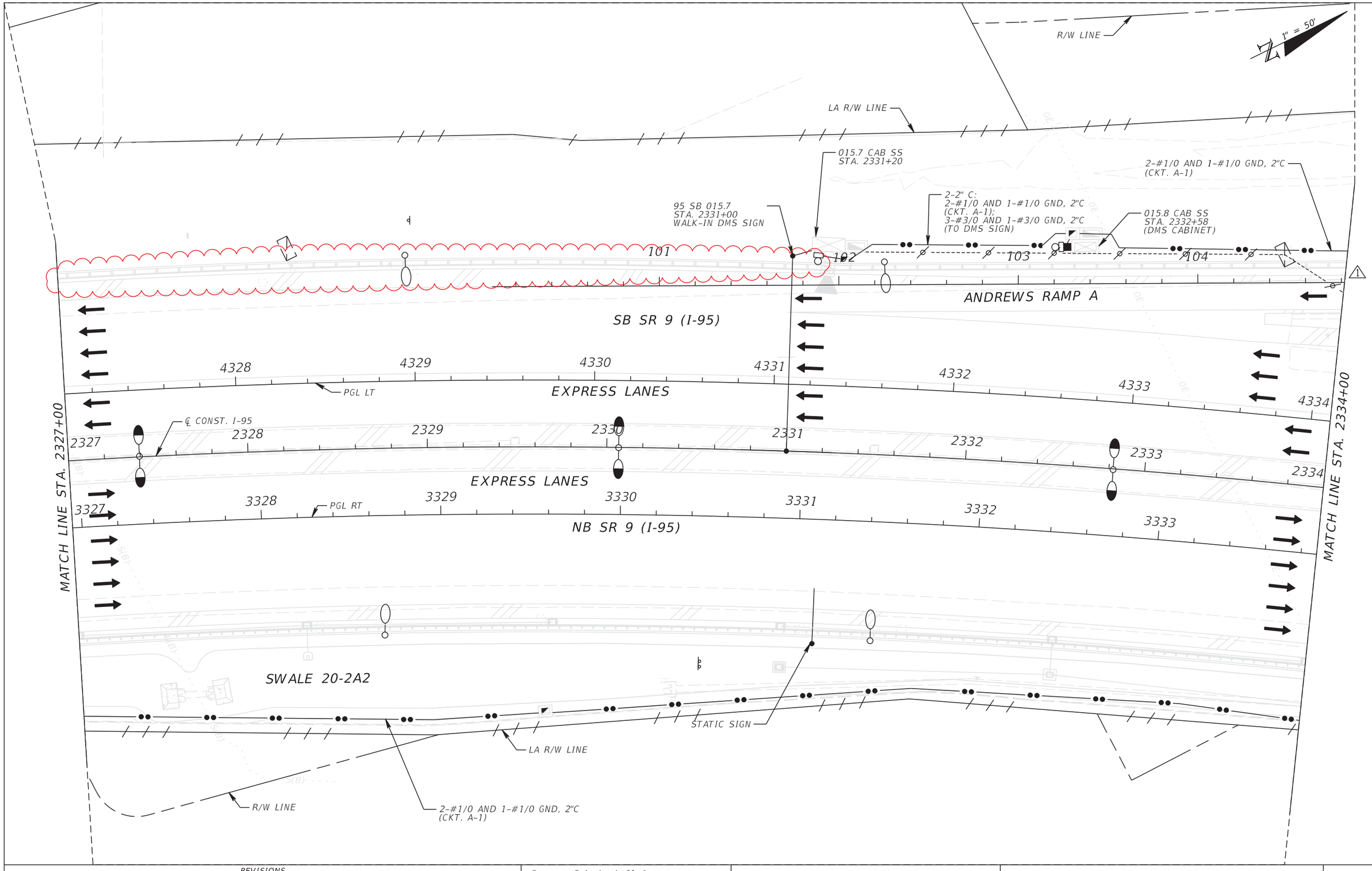
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (1)

SHEET NO.
IT-267



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17 9/13/19	⚠1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP (LOOP DETECTOR MOVED OFF SHEET) AS-BUILT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (2)

SHEET NO.
IT-268

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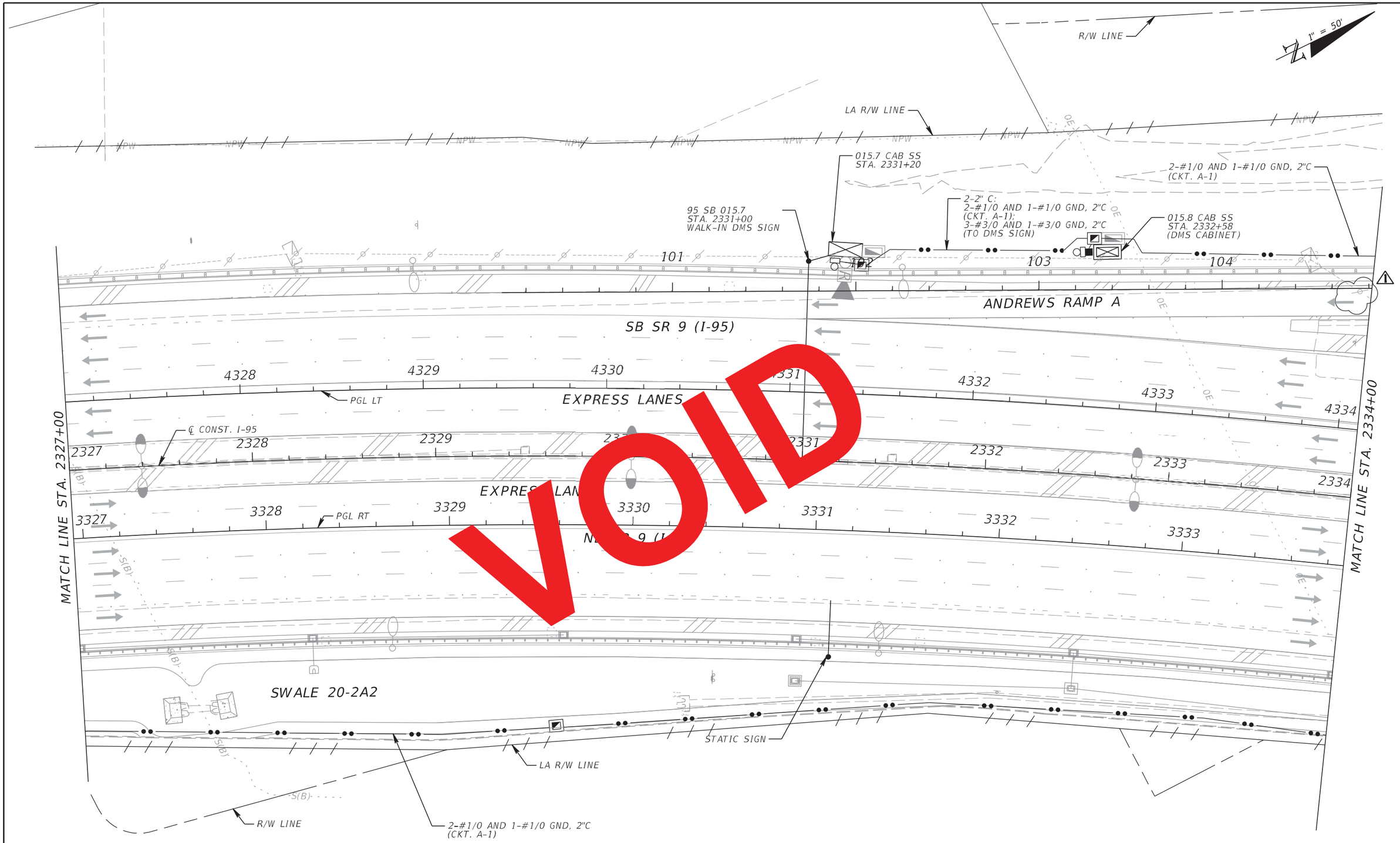

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	△1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP (LOOP DETECTOR MOVED OFF SHEET)		

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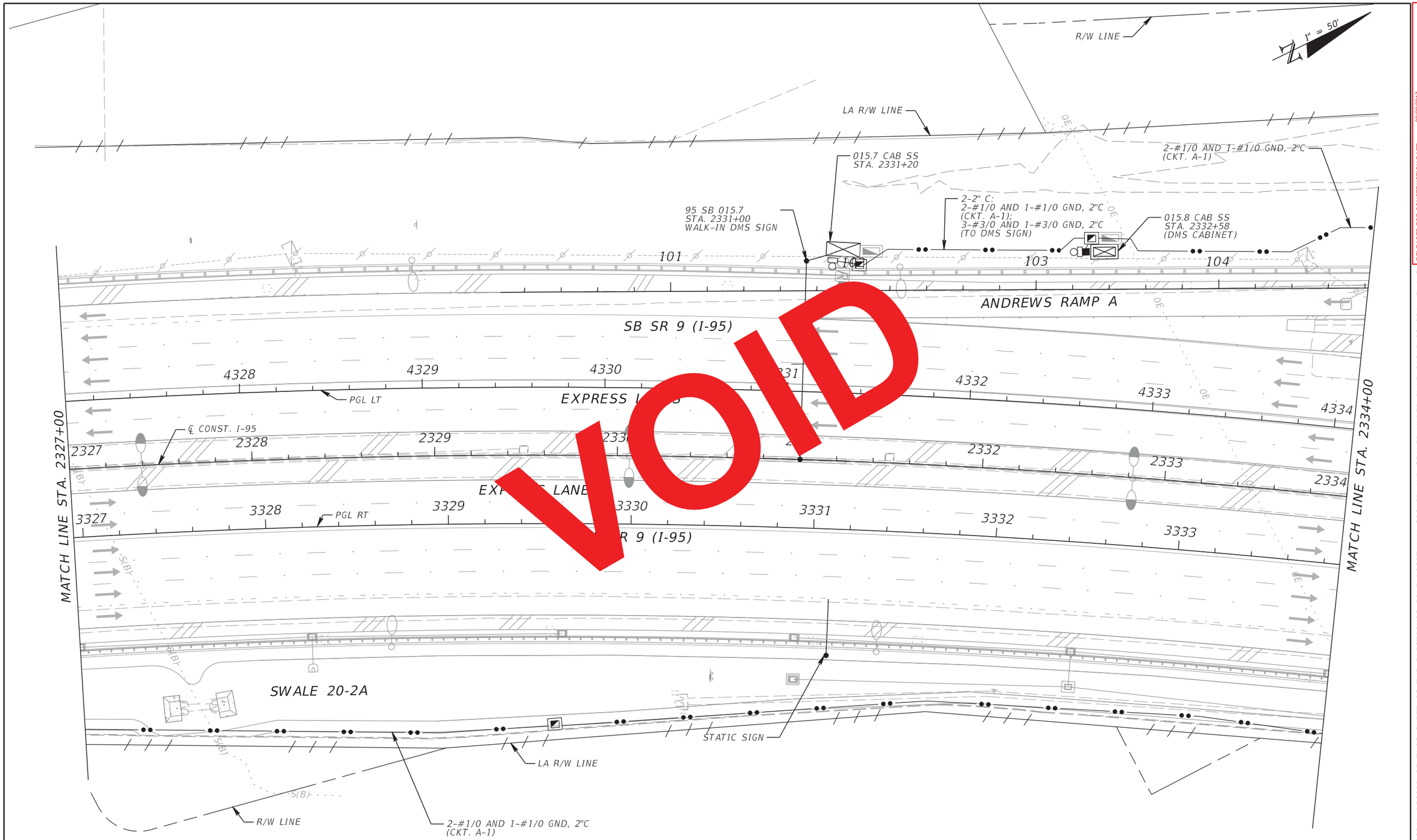
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (2)

SHEET NO.
IT-268



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (2)

SHEET NO.
IT-268

MATCH LINE SEE ITS ELECTRICAL PLAN (3A)

015.8 CAB SS 2
STA. 2336+33
(RSS CABINET)
SEE NOTE 1

ANDREWS RAMP A

SEE NOTE 1

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

2-2"C :
2#1/0 AND 1#1/0 GND, 2"C
(CKT. A-1);
3#10 AND 1#10 GND, 2"C (CKT. A-1)
FOR RED/GREEN SIGNAL POWER

2#8 AND 1#8 GND, 2"C
(CKT. A-1) FOR ADVANCED
WARNING BEACON POWER
(ANDREWS RAMP A)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

RED/GREEN SIGNAL
STA. 2335+97
(ANDREWS RAMP A)

3#10 AND 1#10 GND
(CKT. A-1) FOR RED/GREEN
SIGNAL POWER

SB SR 9 (I-95)

4335 4336 4337 4338 4339 4340 4341

PGL LT

EXPRESS LANES

℄ CONST. I-95

2334 2335 2336 2337 2338 2339 2340 2341

EXPRESS LANES

3334 3335 3336 3337 3338 3339 3340

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2334+00

MATCH LINE STA. 2341+00

1" = 50'

2000

948

SWALE 20-2B

015.8 CAB NS
STA. 2335+21

LA R/W LINE

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

R/W LINE

ANDREWS AVE.

℄ SURVEY
ANDREWS
AVE.

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM THIS RSS CABINET WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCATED D-CCTV. SEE ITS PLANS FOR CONDUIT ROUTING.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED CONDUIT AND WIRE QUANTITY		
09/13/19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3)

SHEET NO.
IT-269

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MATCH LINE SEE ITS ELECTRICAL PLAN (3A)

015.8 CAB SS 2
STA. 2336+33
(RSS CABINET)
SEE NOTE 1

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

ANDREWS RAMP A

SEE NOTE 1

2#8 AND 1#8 GND, 2"C
(CKT. A-1) FOR ADVANCED
WARNING BEACON POWER
(ANDREWS RAMP A)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

105

2-2"C :
2#1/0 AND 1#1/0 GND, 2"C
(CKT. A-1);
3#10 AND 1#10 GND, 2"C (CKT. A-1)
FOR RED/GREEN SIGNAL POWER

RED/GREEN SIGNAL
STA. 2335+97
(ANDREWS RAMP A)

3#10 AND 1#10 GND
(CKT. A-1) FOR RED/GREEN
SIGNAL POWER

SB SR 9 (I-95)

4335 4336 4337 4338 4339 4340 4341

PGL LT

EXPRESS LANES

℄ CONST. I-95

2334 2335 2336 2337 2338 2339 2340 2341

EXPRESS LANES

3334 3335 3336 3339 3340

NB SR 9 (I-95)

MATCH LINE STA. 2334+00

MATCH LINE STA. 2341+00

015.8 CAB NS
STA. 2335+21

SWALE 20-2B

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

LA R/W LINE

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

R/W LINE

ANDREWS AVE.

948

℄ SURVEY
ANDREWS
AVE.

2000

1" = 50'

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM THIS RSS CABINET WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCATED D-CCTV. SEE ITS PLANS FOR CONDUIT ROUTING.

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of information, coordination and construction is retained by the contractor. Review shall not be construed as authorization and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED CONDUIT AND WIRE QUANTITY		

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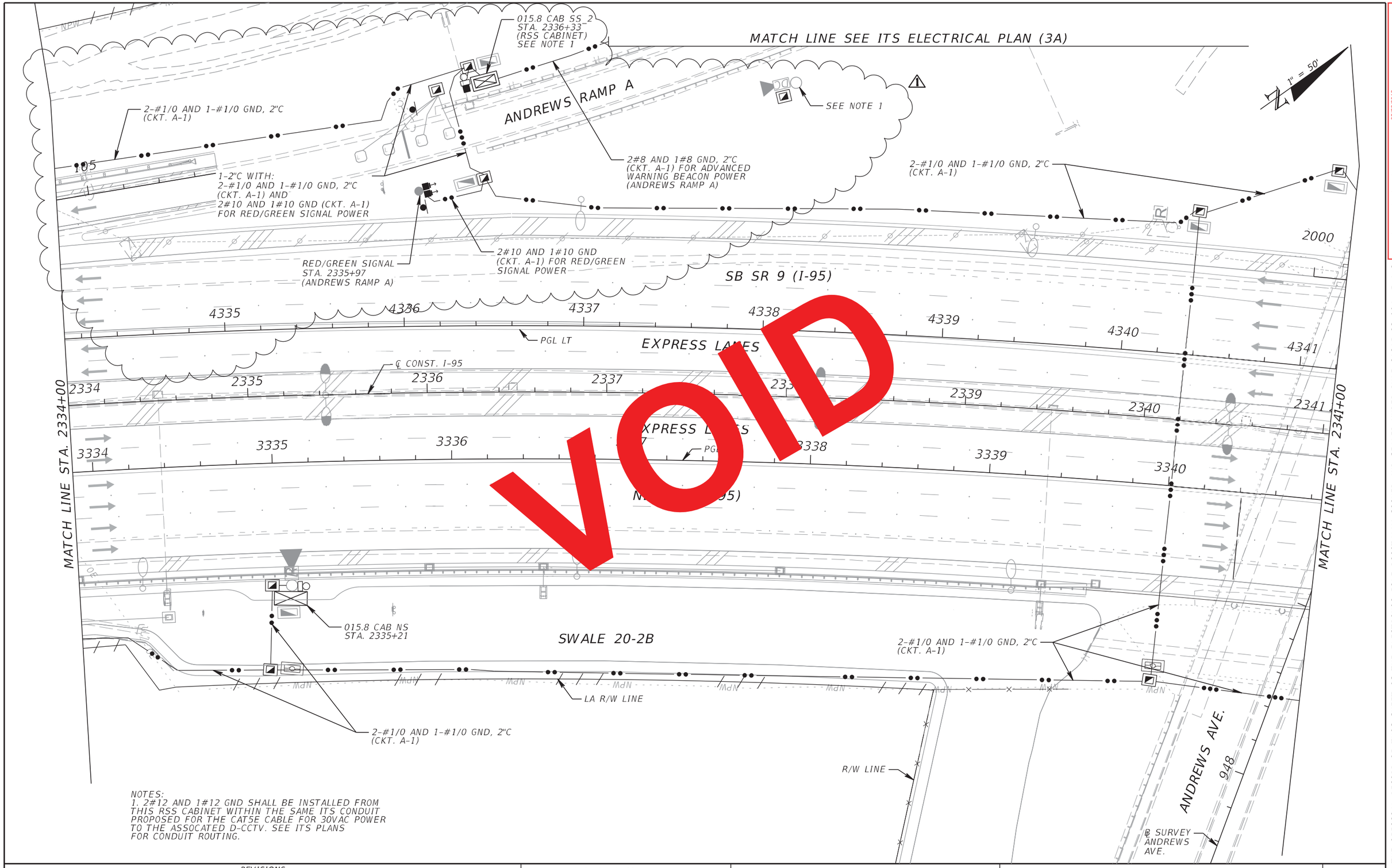
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3)

SHEET NO.
IT-269



VOID

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM THIS RSS CABINET WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCATED D-CCTV. SEE ITS PLANS FOR CONDUIT ROUTING.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3)

SHEET NO.
IT-269

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design and detail remains with the engineer of record. Review does not authorize deviation from contract documents or specifications.
FPID 433108-5-52-01 CONTRACT E4G64 PL
BY: (Stantec) BY: (FDOT)

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T:\Standards\Clients\FL_DOT\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV81\Documents\FL - Miami Projects\I-95 Phase 3A-2\Lighting\eng_data\433108552OI_I95_Ph3A2LTG.tbl PerezR 3/1/2018 9:47:09 AM c:\projectwise\pb\projectwiseint\perezr\d0137985\planit03_E.DGN

MATCH LINE SEE ITS ELECTRICAL PLAN (3A)

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1)

2#10 AND 1#10 GND, 2"C (CKT. A-1) FOR RED/GREEN SIGNAL POWER

015.8 CAB SS 2 STA. 2334+60 (RSS CABINET) SEE NOTE 1

ANDREWS RAMP A

2#8 AND 1#8 GND, 2"C (CKT. A-1) FOR ADVANCED WARNING BEACON POWER (ANDREWS RAMP A)

105

1-2"C WITH: 2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1) AND 2#10 AND 1#10 GND (CKT. A-1) FOR RED/GREEN SIGNAL POWER

SEE NOTE 1

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1)

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1)

2#10 AND 1#10 GND (CKT. A-1) FOR RED/GREEN SIGNAL POWER

SB SR 9 (I-95)

4335 4336 4337 4339 4340 4341

PGL LT

EXPRESS LA

RED/GREEN SIGNAL STA. 2334+18 (ANDREWS RAMP A)

℄ CONST. I-95

2334 2335 2336 2337 2338 2339 2340 2341

XPRESS LA

PGL

3334 3335 3336 3338 3339 3340

NB SR 9 (I-95)

MATCH LINE STA. 2334+00

MATCH LINE STA. 2341+00

2000

948

015.8 CAB NS STA. 2335+21

SWALE 20-2B

LA R/W LINE

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1)

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1)

R/W LINE

ANDREWS AVE.

℄ SURVEY ANDREWS AVE.

1" = 50'

VOID

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM THIS RSS CABINET WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCATED D-CCTV.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

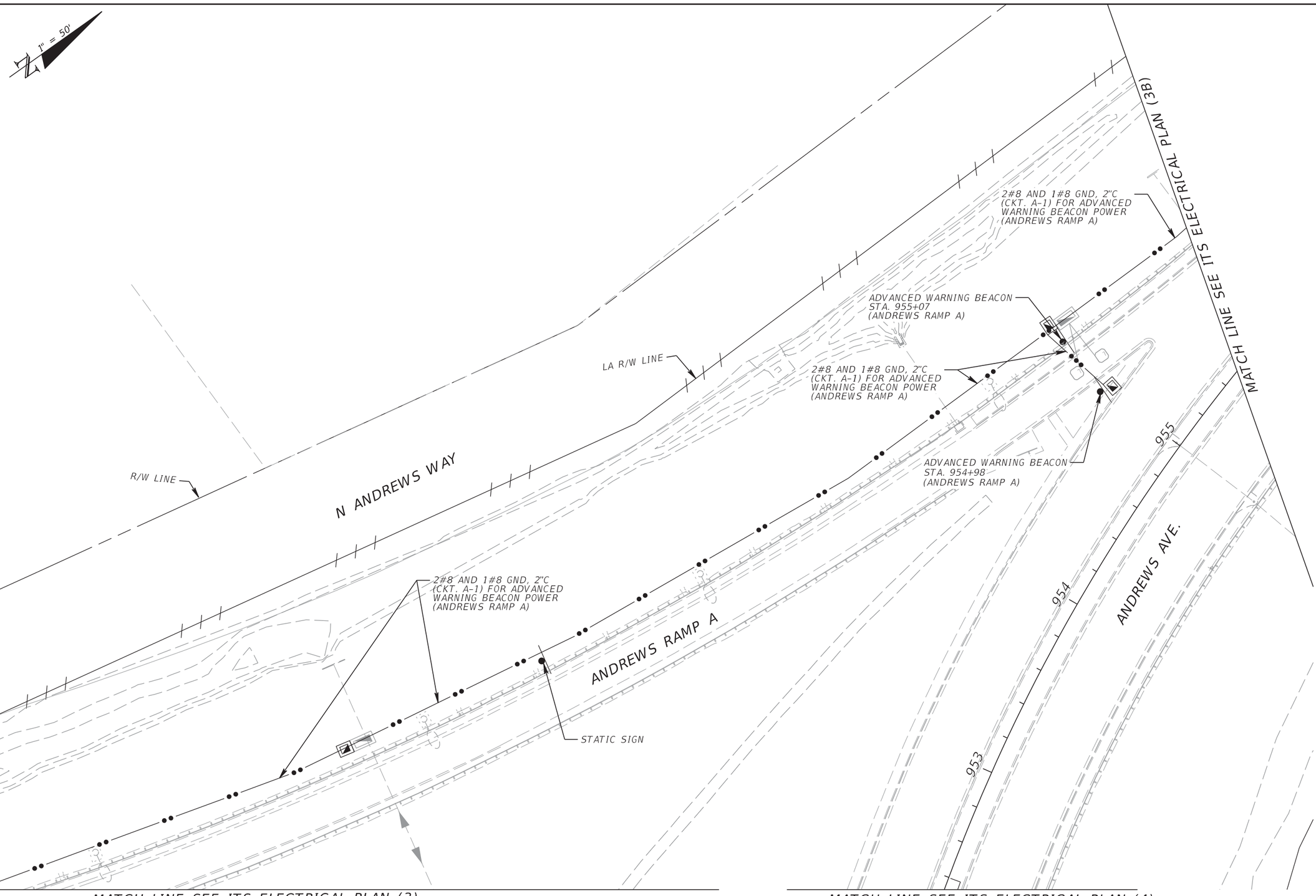
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3)

SHEET NO.

IT-269



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3A)

SHEET NO.

IT-270

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (3A)

2#8 AND 1#8 GND, 2"C
(CKT. A-1) FOR ADVANCED
WARNING BEACON POWER
(ANDREWS RAMP A)

ANDREWS RAMP A

ANDREWS AVE.

956

957

958

959

960

961

962

LA/R/W LINE

MATCH LINE SEE ITS ELECTRICAL PLAN (3C)

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9/13/19	AS-BUILTS per RFI 454		

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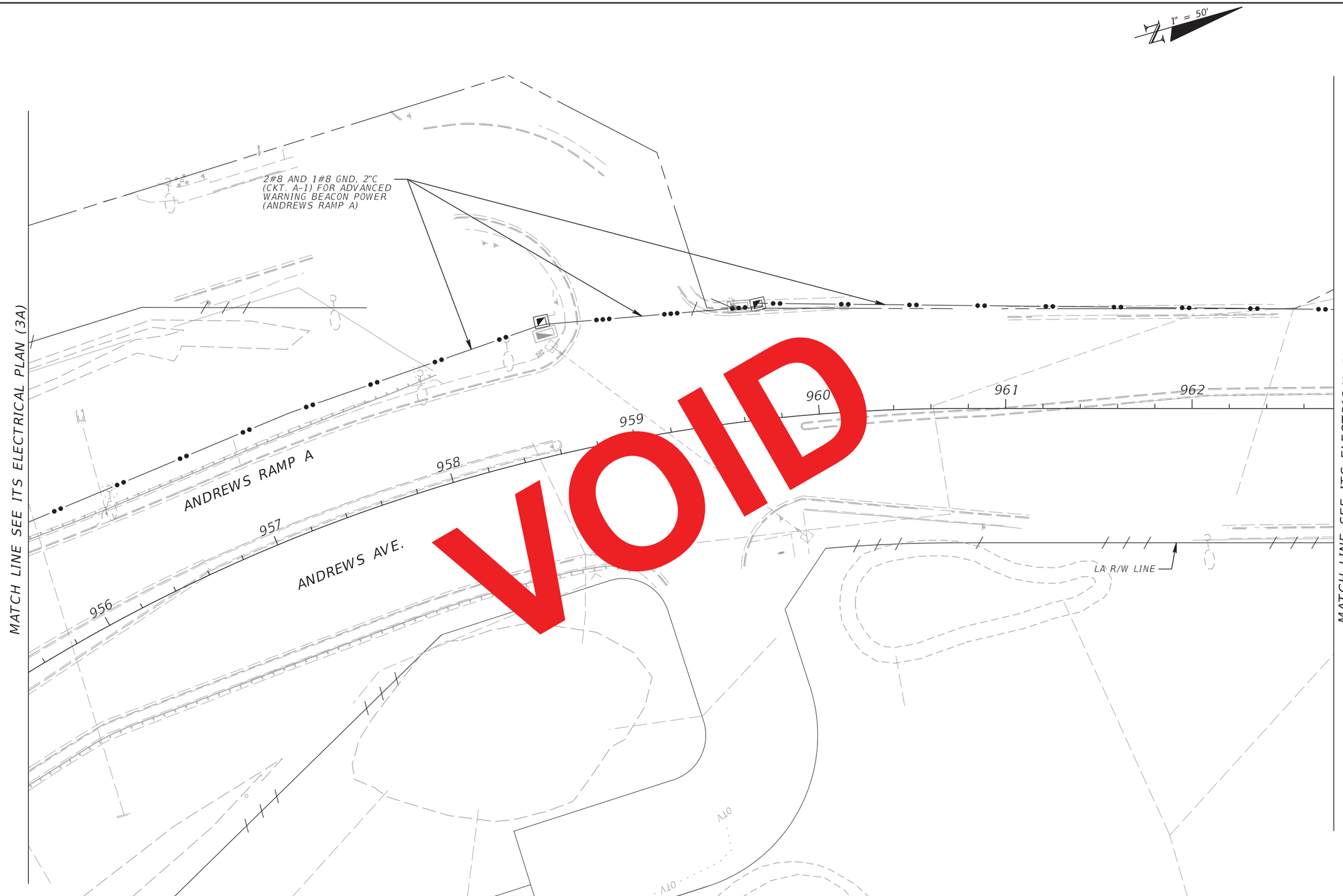
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3B)

SHEET NO.
IT-271



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3B)

SHEET NO. IT-271

1" = 50'

W CYPRESS CREEK RD
NW 62ND ST

23 24 200 25 201 26

2#8 AND 1#8 GND, 2"C
(CKT. A-1) FOR ADVANCED
WARNING BEACON POWER
(ANDREWS RAMP A)

2#8 AND 1#8 GND, 2"C
(CKT. A-1) FOR ADVANCED
WARNING BEACON POWER
(ANDREWS RAMP A)

ADVANCED WARNING BEACON
STA. 962+92
(ANDREWS RAMP A)

2#8 AND 1#8 GND, 2"C
(CKT. A-1) FOR ADVANCED
WARNING BEACON POWER
(ANDREWS RAMP A)

964

963

ANDREWS AVE.

MATCH LINE SEE ITS ELECTRICAL PLAN (3B)

MATCH LINE SEE ITS ELECTRICAL PLAN (3D)

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REVISIONS			
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9/13/19	AS-BUILTS per RFI 454		

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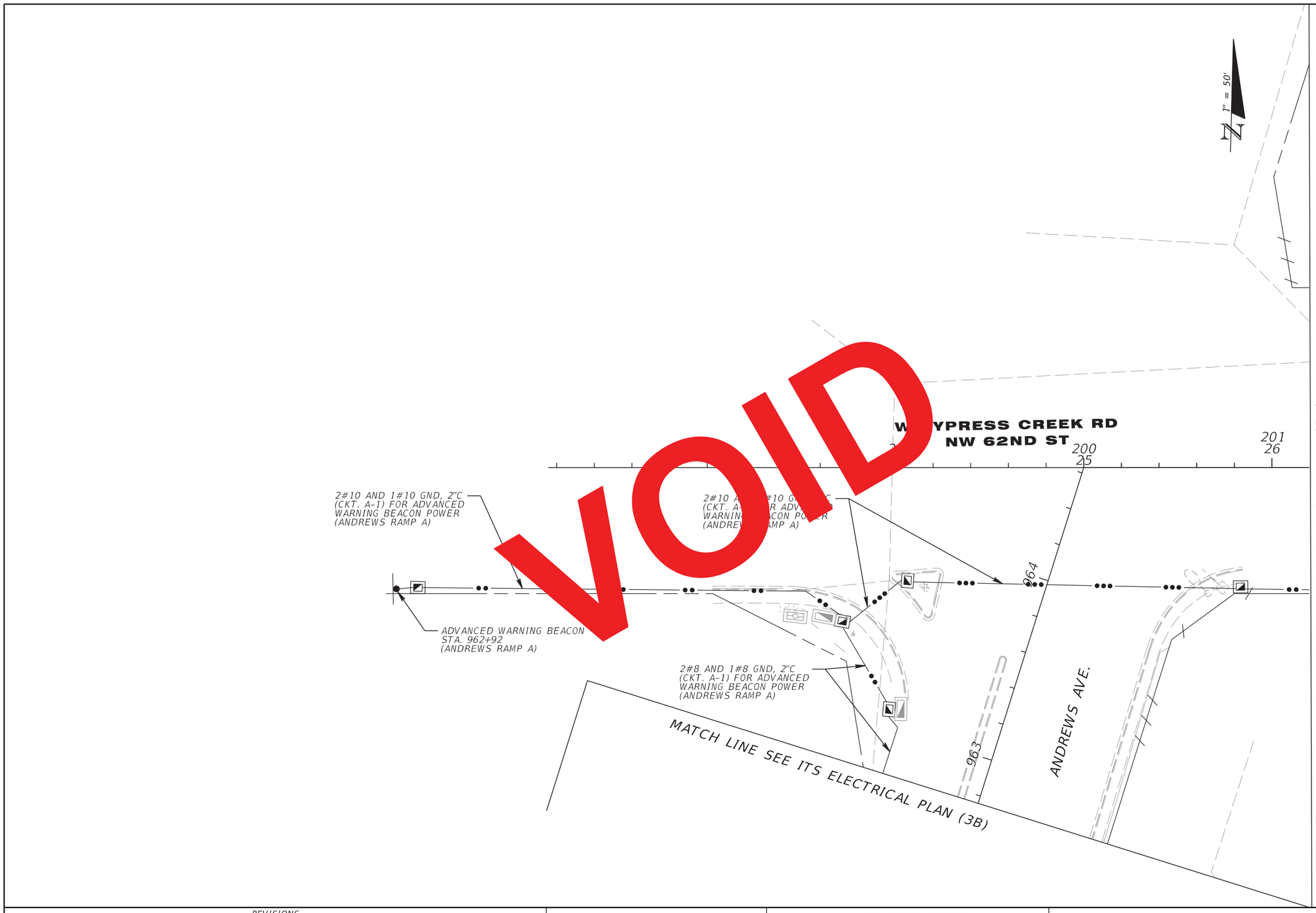
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3C)

SHEET NO.
IT-272



VOID

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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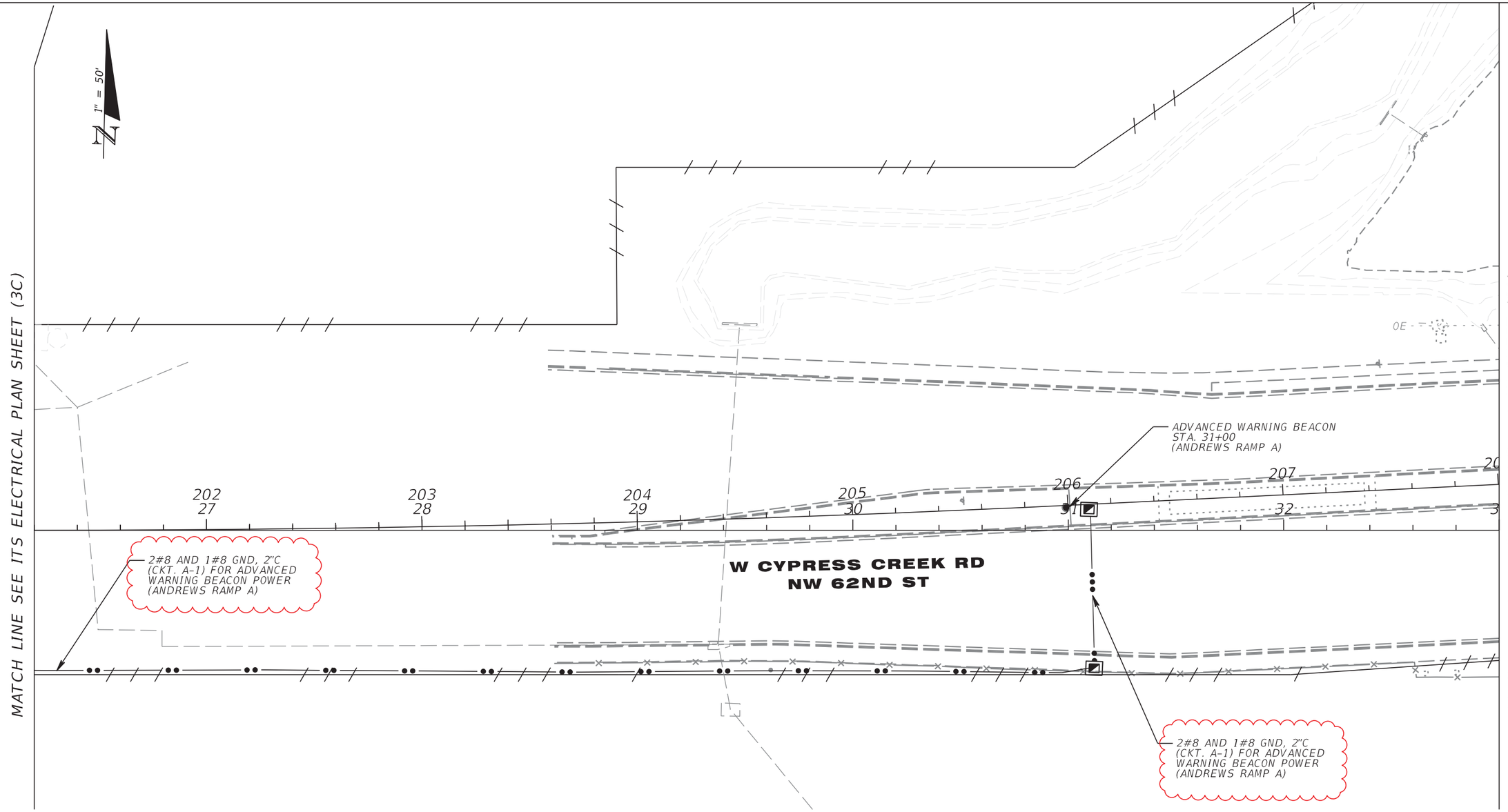
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3C)

SHEET NO.
IT-272



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9/13/19	AS-BUILTS per RFI 454		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3D)

SHEET NO.
IT-273

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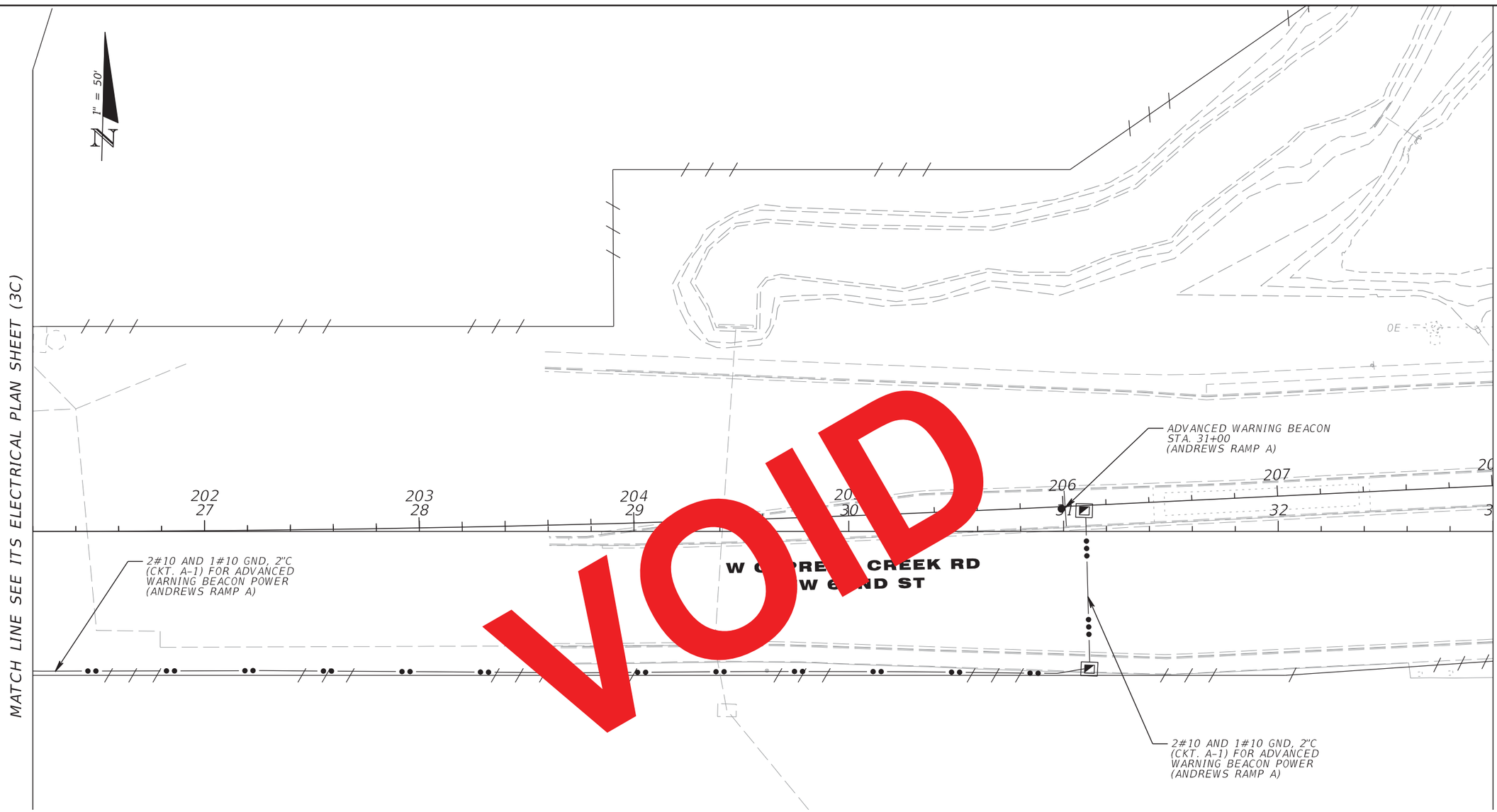

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (3D)

SHEET NO. IT-273

MATCH LINE SEE ITS ELECTRICAL SHEET (3A)

ANDREWS AVE.

952

951

950

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1)

LA R/W LINE

SWALE 20-5

016.0 CAB SS STA. 2344+47

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1)

2001 2002 2003 2004 2005 2006 2007

PARK-N-RIDE RAMP B

SB SR 9 (I-95)

4342 4343 4344 4345 4346 4347 4348

EXPRESS LANES

2341 2342 2343 2344 2345 2346 2347 2348

℄ CONST. I-95

EXPRESS LANES

3341 3342 3343 3344 3345 3346 3347

NB SR 9 (I-95)

MATCH LINE STA. 2341+00

MATCH LINE STA. 2348+00

4212' R

100 101 102 103 104 105

CYPRESS CREEK RAMP B

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1)

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1)

016.0 CAB NS STA. 2346+00

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. A-1)

SWALE 20-6

R/W LINE

LA R/W LINE

1" = 50'

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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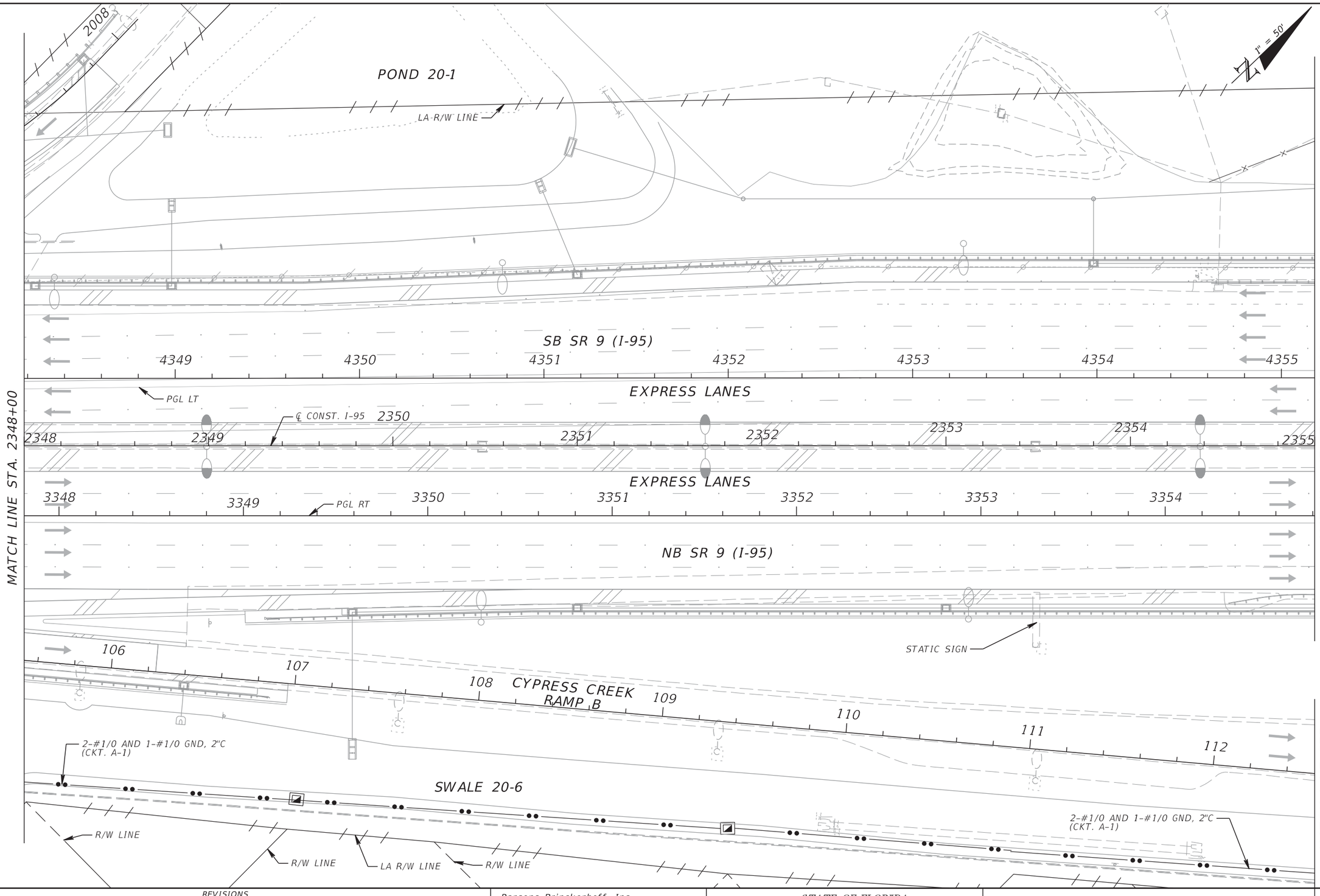
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (4)

SHEET NO.

IT-274



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (5)

SHEET NO.

IT-275

MATCH LINE SEE ITS ELECTRICAL PLAN (6A)

1" = 50'

POND 20-2

LA R/W LINE

016.2 CAB SS
STA. 2357+74

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

SB SR 9 (I-95)

EXISTING ITS POLE AND DEVICES TO BE REMOVED

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 2)

CYPRESS CREEK RD
NW 62ND ST

ADVANCED WARNING BEACON STA. 213+39 (CYPRESS CREEK RAMP C)

2#10 AND 1#10 GND, 2"C (CKT. A-2) FOR ADVANCED WARNING BEACON POWER (CYPRESS CREEK RAMP C)

2#6 AND 1#6 GND, 2"C (CKT A-2) FOR ADVANCED WARNING BEACON POWER (CYPRESS CREEK RAMP A)

1-2"C FOR ADVANCED WARNING BEACON POWER (2 CIRCUITS): 2#6 AND 1#6 GND (CKT. A-2) (FOR CYPRESS CREEK RAMP A) AND 2#10 AND 1#10 GND (CKT. A-2) ((FOR CYPRESS CREEK RAMP C) (SEE NOTE 1)

POND 20-5

4356 4357 4358 4359 4360 4361 4362

PGL LT

EXPRESS LANES

℄ CONST. I-95

2355 2356 2357 2358 2359 2360 2361 2362

EXPRESS LANES

PGL RT

3355 3356 3357 3358 3359 3360 3361

NB SR 9 (I-95)

MATCH LINE STA. 2355+00

MATCH LINE STA. 2362+00

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.
2. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

016.2 CAB NS
STA. 2357+93

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

MATCH LINE SEE ITS ELECTRICAL (6B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CCTV LOCATION, ADDED NOTE		
9/13/19	AS-BUILTS per RFI 346		

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2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
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EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (6)

SHEET NO.
IT-276

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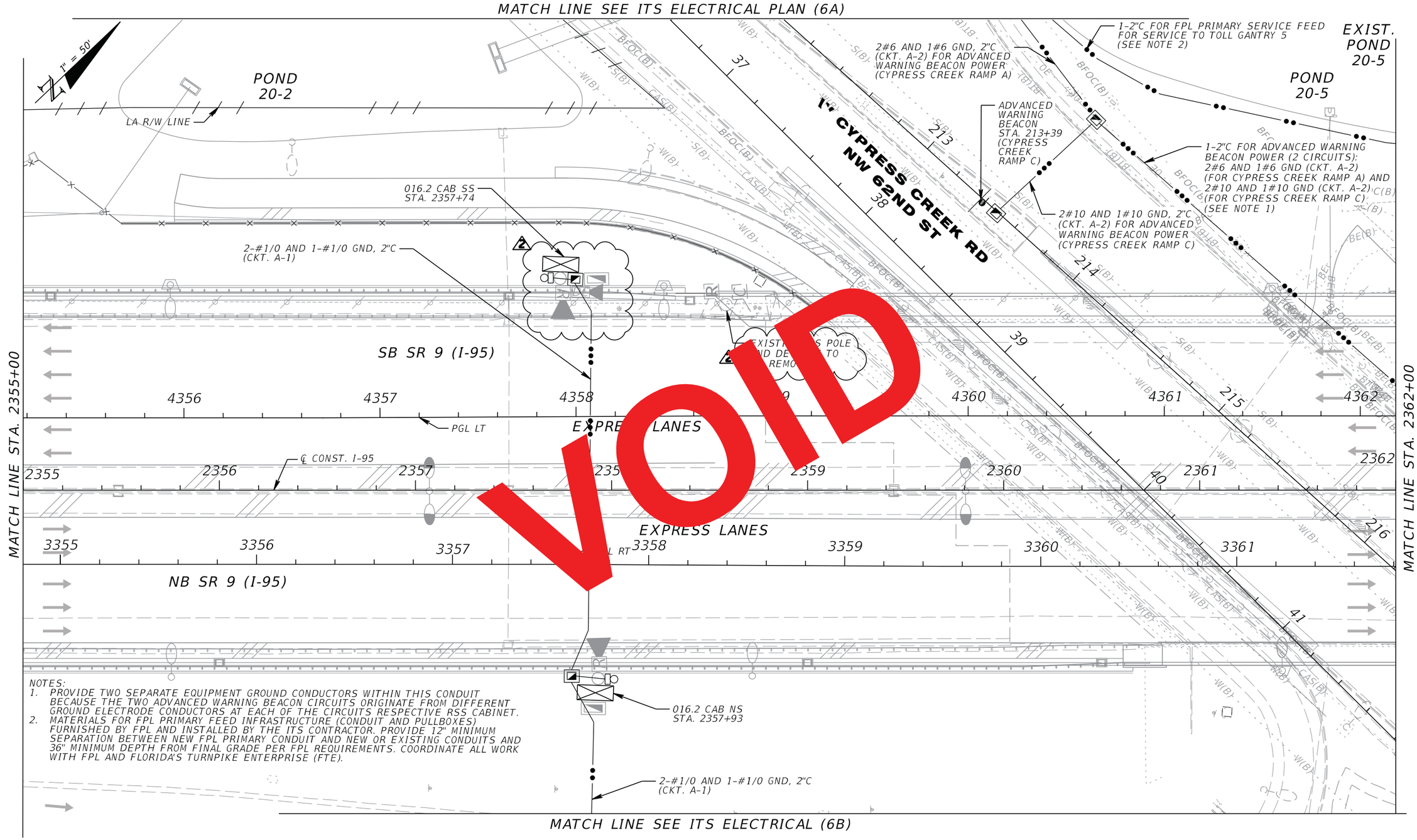

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.
2. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CCTV LOCATION, ADDED NOTE		

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (6)

SHEET NO.
IT-276

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

MATCH LINE SEE ITS ELECTRICAL PLAN (6A)

1" = 50'

POND 20-2

LA R/W LINE

016.2 CAB SS
STA. 2357+74

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

SB SR 9 (I-95)

PGL LT

EXPRESS LANES

℄ CONST. I-95

PGL RT

EXPRESS LANES

NB SR 9 (I-95)

I-95

CYPRESS CREEK RD
NW 62ND ST

2#6 AND 1#6 GND, 2"C
(CKT. A-2) FOR ADVANCED
WARNING BEACON POWER
(CYPRESS CREEK RAMP A)

1-2"C FOR FPL PRIMARY SERVICE FEED
FOR SERVICE TO TOLL GANTRY 5
(SEE NOTE 2)

ADVANCED
WARNING
BEACON
STA. 213+39
(CYPRESS
CREEK
RAMP C)

1-2"C FOR ADVANCED WARNING
BEACON POWER (2 CIRCUITS):
2#6 AND 1#6 GND (CKT. A-2)
(FOR CYPRESS CREEK RAMP A) AND
2#10 AND 1#10 GND (CKT. A-2)
(FOR CYPRESS CREEK RAMP C)
(SEE NOTE 1)

2#10 AND 1#10 GND, 2"C
(CKT. A-2) FOR ADVANCED
WARNING BEACON POWER
(CYPRESS CREEK RAMP C)

EXIST.
POND
20-5

POND
20-5

016.2 CAB NS
STA. 2357+93

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. A-1)

MATCH LINE STA. 2355+00

MATCH LINE STA. 2362+00

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.
2. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

MATCH LINE SEE ITS ELECTRICAL (6B)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (6)

SHEET NO.
IT-276

1" = 50'

MATCH LINE SEE ELECTRICAL ITS PLAN (3D)

CYPRESS CREEK RAMP D

CYPRESS CREEK RAMP A

W CYPRESS CREEK RD
NW 62ND ST

SWALE
20-10

POND
20-2

EXIST.
POND
20-5

EXISTING FPL POLE WITH
NEW FUSE AND RISER

1-2"C FOR FPL PRIMARY
SERVICE FEED FOR SERVICE
TO TOLL GANTRY 4
(SEE NOTE 1)

1-2"C FOR FPL PRIMARY SERVICE FEED
FOR SERVICE TO TOLL GANTRY 4
(SEE NOTE 1)

ADVANCED WARNING BEACON
STA. 211+82
(CYPRESS CREEK RAMP A)

ADVANCED WARNING BEACON
STA. 211+99
(CYPRESS CREEK RAMP A)

2#6 AND 1#6 GND, 2"C
(CKT. A-2) FOR ADVANCED
WARNING BEACON POWER
(CYPRESS CREEK RAMP A)

NOTES:
1.MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

MATCH LINE SEE ELECTRICAL ITS PLAN (7A)

MATCH LINE SEE ELECTRICAL ITS PLAN (6)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILTS per RFI 346		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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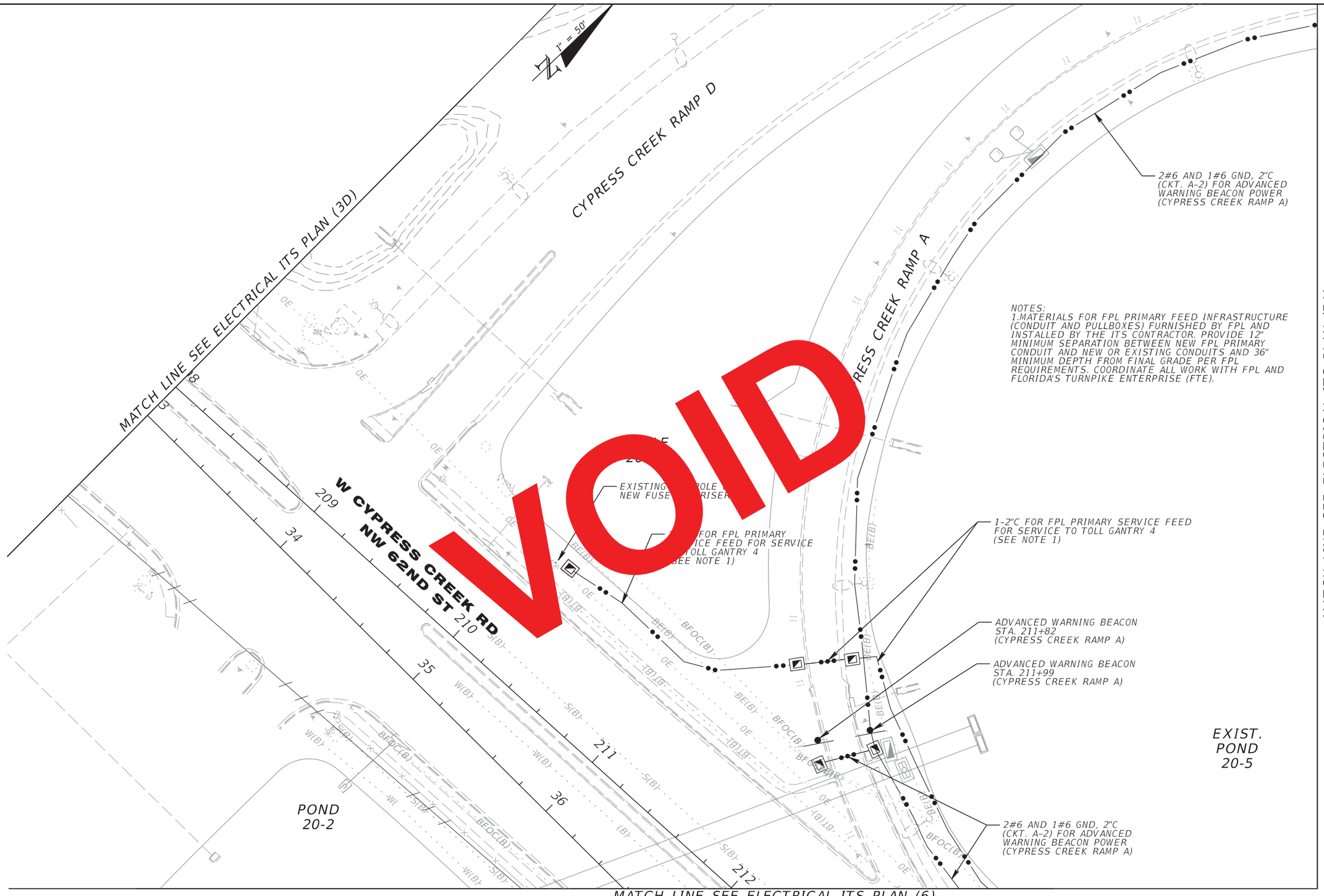
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (6A)

SHEET NO.
IT-277



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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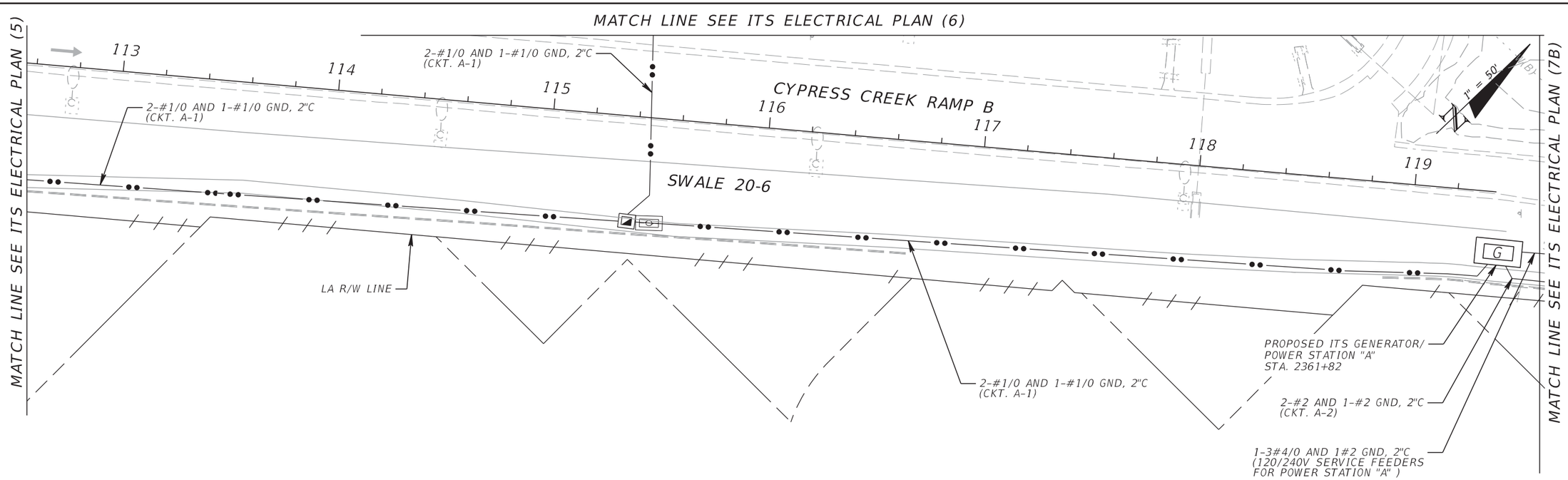
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (6A)

SHEET NO.
IT-277



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (6B)

SHEET NO.

IT-278

MATCH LINE SEE ITS ELECTRICAL PLAN (7A)

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.

2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM RSS CABINET 016.4 CAB SS (STA. 2365+85) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCIATED D-CCTV. SEE ITS PLAN (07) FOR CONDUIT.

POND 20-5

POND 20-6

1" = 50'

2#6 AND 1#6 GND, 2"C (CKT A-2) FOR ADVANCED WARNING BEACON POWER (CYPRESS CREEK RAMP A)

STA. 2366+05
016.4 CAB SS 2
(RSS CABINET)
SEE NOTE 2

SEE NOTE 2

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 1 ON ITS ELECTRICAL PLAN 8)

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 1 ON ITS ELECTRICAL PLAN 8)

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

CYPRESS CREEK RAMP A

016.4 CAB SS
STA. 2364+20

RED/GREEN SIGNAL
STA. 2366+04
(CYPRESS CREEK RAMP A)

1-2"C FOR ADVANCED WARNING BEACON POWER (2 CIRCUITS):
2#6 AND 1#6 GND (CKT. A-2)
(FOR CYPRESS CREEK RAMP A) AND
2#10 AND 1#10 GND (CKT. A-2)
(FOR CYPRESS CREEK RAMP C)
(SEE NOTE 1)

2-2"C:
2#2 AND 1#2 GND, 2"C (CKT. A-2);
3#10 AND 1#10 GND, 2"C FOR RED/GREEN SIGNAL POWER
(CKT. A-2) (CYPRESS CREEK RAMP A)

3#10 AND 1#10 GND, 2"C FOR RED/GREEN SIGNAL POWER (CKT. A-2) (CYPRESS CREEK RAMP A)

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

SB SR 9 (I-95)

EXPRESS LANES

PGL LT

℄ CONST. I-95

EXPRESS LANES

EXPRESS LANES ENTRANCE 1 MILE

NO TRUCKS

ONLY

LEFT

NB SR 9 (I-95)

PGL RT

016.4 CAB NS 2
STA. 2364+62
(DMS CABINET)

FL D4 DOT 095 016.4 NB LS 1
STA. 2366+26
(1-LINE STATUS DMS SIGN)

CYPRESS CREEK RAMP E

W CYPRESS CREEK RD
NW 62ND ST

FPL SERVICE POLE

3#4/0 AND 1#2 GND, 2"C (120/240V SERVICE FEEDERS FOR POWER STATION "A")

2-2" C:
2-#2 AND 1-#2 GND, 2"C;
(CKT. A-2);
4-#4 AWG, 2"C
(TO DMS SIGN)

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

ADVANCED WARNING BEACON
STA. 218+50
(CYPRESS CREEK RAMP A)

2#10 AND 1#10 GND, 2"C (CKT. A-2) FOR ADVANCED WARNING BEACON POWER (CYPRESS CREEK RAMP C)

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

EXIST. POND 20-7

MATCH LINE SEE ITS ELECTRICAL PLAN (7B)

MATCH LINE STA. 2362+00

MATCH LINE STA. 2369+00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP; ADDED BROWARD CO. SPLICE VAULT AT 2367+40		
3/16/18	2 REVISED CONDUIT QUANTITY		
9/13/19	AS-BUILTS per RFI 346 & 466		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (7)

SHEET NO.
IT-279

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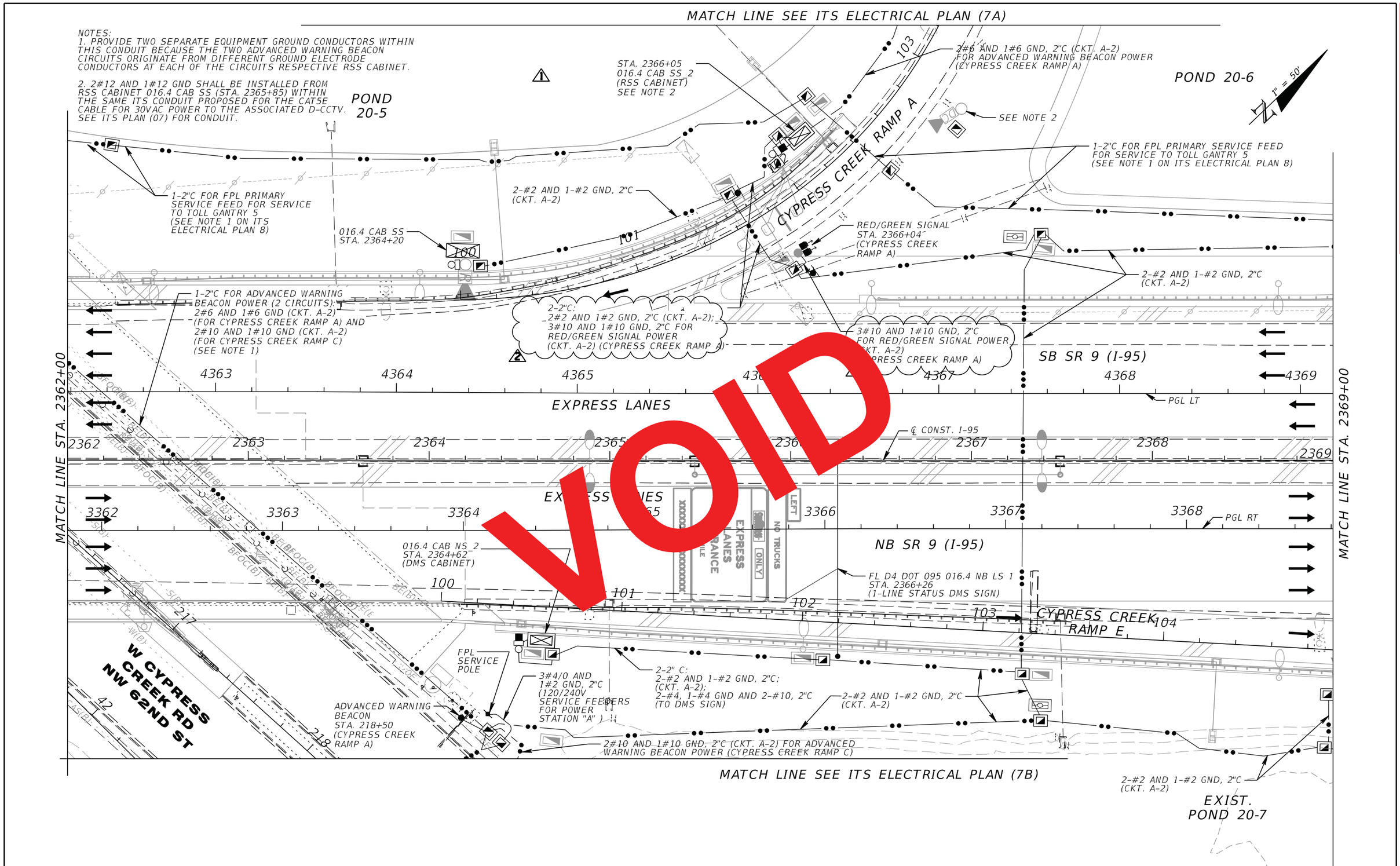

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP; ADDED BROWARD CO. SPLICE VAULT AT 2367+40		
3/16/18	2 REVISED CONDUIT QUANTITY		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (7)

SHEET NO.
IT-279

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

MATCH LINE SEE ITS ELECTRICAL PLAN (7A)

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.

2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM RSS CABINET 016.4 CAB SS (STA. 2365+85) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCIATED D-CCTV. SEE ITS PLAN (07) FOR CONDUIT.

POND 20-5

STA. 2366+05
016.4 CAB SS_2
(RSS CABINET)
SEE NOTE 2

2#6 AND 1#6 GND, 2"C (CKT. A-2)
FOR ADVANCED WARNING BEACON POWER
(CYPRESS CREEK RAMP A)

POND 20-6

1" = 50'

SEE NOTE 2

CYPRESS CREEK RAMP A

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 1 ON ITS ELECTRICAL PLAN 8)

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 1 ON ITS ELECTRICAL PLAN 8)

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

016.4 CAB SS
STA. 2364+20

RED/GREEN SIGNAL
STA. 2366+04
(CYPRESS CREEK RAMP A)

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

1-2"C FOR ADVANCED WARNING BEACON POWER (2 CIRCUITS):
2#6 AND 1#6 GND (CKT. A-2)
(FOR CYPRESS CREEK RAMP A) AND
2#10 AND 1#10 GND (CKT. A-2)
(FOR CYPRESS CREEK RAMP C)
(SEE NOTE 1)

1-2"C WITH:
2-#2 AND 1-#2 GND, 2"C (CKT. A-2) AND
2#10 AND 1#10 GND FOR RED/GREEN SIGNAL POWER (CKT. A-2) (CYPRESS CREEK RAMP A)

1-2"C FOR ND 1#10 GND, 2"C
(CKT. REEN SIGNAL POWER
(CYPR REEK RAMP A)

SB SR 9 (I-95)

EXPRESS LA

PGL LT

℄ CONST. I-95

NB SR 9 (I-95)

PGL RT

EXPRESS LANES ENTRANCE 1 MILE

LEFT

NO TRUCKS

ONLY

016.4 CAB NS_2
STA. 2364+62
(DMS CABINET)

FPL SERVICE POLE

3#4/0 AND 1#2 GND, 2"C (120/240V SERVICE FEEDERS FOR POWER STATION "A")

2-2" C:
2-#2 AND 1-#2 GND, 2"C;
(CKT. A-2);
2-#4, 1-#4 GND AND 2-#10, 2"C
(TO DMS SIGN)

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

ADVANCED WARNING BEACON
STA. 218+50
(CYPRESS CREEK RAMP A)

2#10 AND 1#10 GND, 2"C (CKT. A-2) FOR ADVANCED WARNING BEACON POWER (CYPRESS CREEK RAMP C)

W CYPRESS CREEK RD
NW 62ND ST

CYPRESS CREEK RAMP E

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

EXIST. POND 20-7

MATCH LINE SEE ITS ELECTRICAL PLAN (7B)

MATCH LINE STA. 2362+00

MATCH LINE STA. 2369+00

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of plans remains with EOR. All means, methods, and procedures of construction and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64
BY: (Stantec) PL BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠ RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP; ADDED BROWARD CO. SPLICE VAULT AT 2367+40		

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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (7)

SHEET NO.
IT-279

MATCH LINE SEE ITS ELECTRICAL PLAN (7A)

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.

2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM RSS CABINET 016.4 CAB SS (STA. 2365+85) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCIATED D-CCTV. SEE ITS PLAN (07) FOR CONDUIT.

POND 20-5

2#6 AND 1#6 GND, 2"C (CKT. A-2) FOR ADVANCED WARNING BEACON POWER (CYPRESS CREEK RAMP A)

STA. 2365+83
016.4 CAB SS_2
(RSS CABINET)
SEE NOTE 2

SEE NOTE 2

POND 20-6

1" = 50'

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 1 ON ITS ELECTRICAL PLAN 8)

1-2"C WITH:
2-#2 AND 1-#2 GND, 2"C (CKT. A-2) AND 2#10 AND 1#10 GND FOR RED/GREEN SIGNAL POWER (CKT. A-2) (FOR CYPRESS CREEK RAMP A)

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 1 ON ITS ELECTRICAL PLAN 8)

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

016.4 CAB SS
STA. 2364+20

CYPRESS CREEK RAMP A

1-2"C FOR ADVANCED WARNING BEACON POWER (2 CIRCUITS):
2#6 AND 1#6 GND (CKT. A-2)
(FOR CYPRESS CREEK RAMP A) AND
2#10 AND 1#10 GND (CKT. A-2)
(FOR CYPRESS CREEK RAMP C)
(SEE NOTE 1)

1-2"C WITH:
2-#2 AND 1-#2 GND, 2"C (CKT. A-2) AND 2#10 AND 1#10 GND FOR RED/GREEN SIGNAL POWER (CKT. A-2) (FOR CYPRESS CREEK RAMP A)

RED/GREEN SIGNAL
STA. 2365+56
(CYPRESS CREEK
RAMP A)

2#10 AND 1#
D RED/GREEN
A-2)
ESS CREEK
P A)

2-#2 AND 1-#2 GND, 2"C
(CKT. A-2)

SB SR 9 (I-95)

EXPRESS LANES

EXPRESS LANES

PGL LT

℄ CONST. I-95

PGL RT

NB SR 9 (I-95)

016.4 CAB NS_2
STA. 2364+62
(DMS CABINET)

EXPRESS LANES ENTRANCE 1 MILE

LEFT

NO TRUCKS

EXPRESS LANES ONLY

W CYPRESS CREEK RD
NW 62ND ST

FPL SERVICE POLE

3#4/0 AND 1#2 GND, 2"C (120/240V SERVICE FEEDERS FOR POWER STATION "A")

2-2" C:
2-#2 AND 1-#2 GND, 2"C; (CKT. A-2);
2-#4, 1-#4 GND AND 2-#10, 2"C (TO DMS SIGN)

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

ADVANCED WARNING BEACON
STA. 218+50
(CYPRESS CREEK RAMP A)

2#10 AND 1#10 GND, 2"C (CKT. A-2) FOR ADVANCED WARNING BEACON POWER (CYPRESS CREEK RAMP C)

CYPRESS CREEK RAMP E

2-#2 AND 1-#2 GND, 2"C
(CKT. A-2)

EXIST.
POND 20-7

MATCH LINE SEE ITS ELECTRICAL PLAN (7B)

MATCH LINE STA. 2362+00

MATCH LINE STA. 2369+00

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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License No: 78396

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (7)

SHEET NO.
IT-279

MATCH LINE SEE ITS ELECTRICAL PLAN (6A)

STATIC SIGN

EXIST.
POND
20-5

CYPRESS CREEK RAMP A

CYPRESS CREEK RAMP D

LA R/W LINE

1" = 50'

100

104

POND 20-6

MATCH LINE SEE ITS ELECTRICAL PLAN (7)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (7A)

SHEET NO.
IT-280

MATCH LINE SEE ITS ELECTRICAL PLAN (6A)

2#6 AND 1#6 GND, 2"C (CKT. A-2)
FOR ADVANCED WARNING BEACON POWER
(CYPRESS CREEK RAMP A)

STATIC SIGN

LA R/W LINE

1" = 50'

CYPRESS CREEK RAMP D

CYPRESS CREEK RAMP A

100

EXIST.
POND
20-5

104

2#6 AND 1#6 GND, 2"C (CKT. A-2)
FOR ADVANCED WARNING BEACON POWER
(CYPRESS CREEK RAMP A)

POND 20-6

MATCH LINE SEE ITS ELECTRICAL PLAN (7)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec) PE

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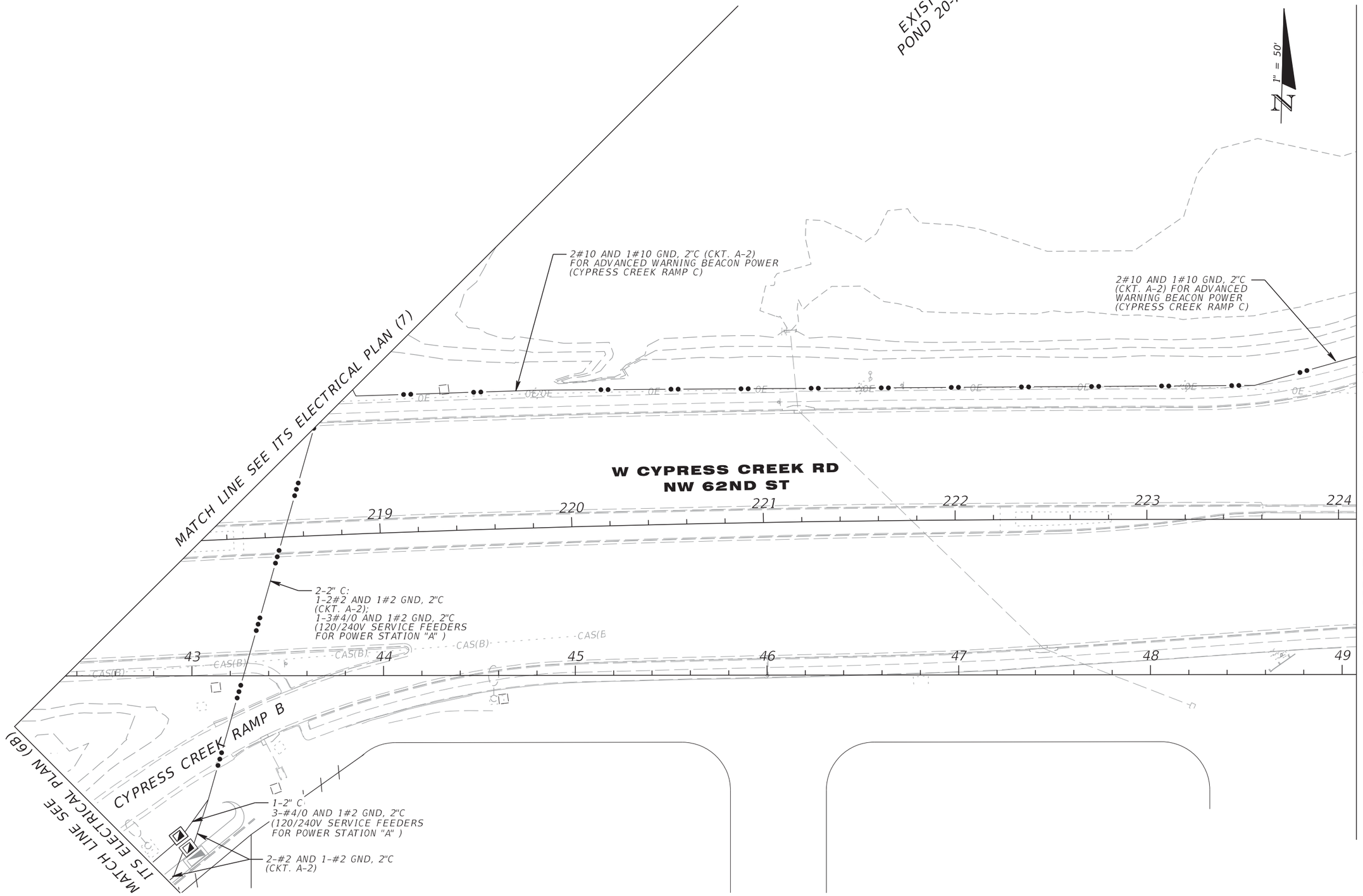
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (7A)

SHEET NO.
IT-280



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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (7B)

SHEET NO.
IT-281

MATCH LINE SEE
ITS ELECTRICAL PLAN (8A)

EXIST.
POND 20-7

CYPRESS CREEK
RAMP E

CYPRESS CREEK RAMP C

CYPRESS CREEK RAMP C

1" = 50'

2#10 AND 1#10 GND, 2"C
(CKT. A-2) FOR ADVANCED
WARNING BEACON POWER
(CYPRESS CREEK RAMP C)

2#10 AND 1#10 GND, 2"C
(CKT. A-2) FOR ADVANCED
WARNING BEACON POWER
(CYPRESS CREEK RAMP C)

ADVANCED WARNING BEACON
STA. 226+31
(CYPRESS CREEK RAMP C)

ADVANCED WARNING BEACON
STA. 226+71
(CYPRESS CREEK RAMP C)

ADVANCED WARNING BEACON
STA. 229+32
(CYPRESS CREEK RAMP C)

ADVANCED WARNING BEACON
STA. 229+14
(CYPRESS CREEK RAMP C)

2#10 AND 1#10 GND, 2"C
(CKT. A-2) FOR ADVANCED
WARNING BEACON POWER
(CYPRESS CREEK RAMP C)

2#10 AND 1#10 GND, 2"C
(CKT. A-2) FOR ADVANCED
WARNING BEACON POWER
(CYPRESS CREEK RAMP C)

W CYPRESS CREEK RD
NW 62ND ST

225 226 227 228 229 230 231

50 51 52 53 54 55 56

MATCH LINE SEE ITS ELECTRICAL PLAN (7B)

MATCH LINE SEE ITS ELECTRICAL PLAN (7D)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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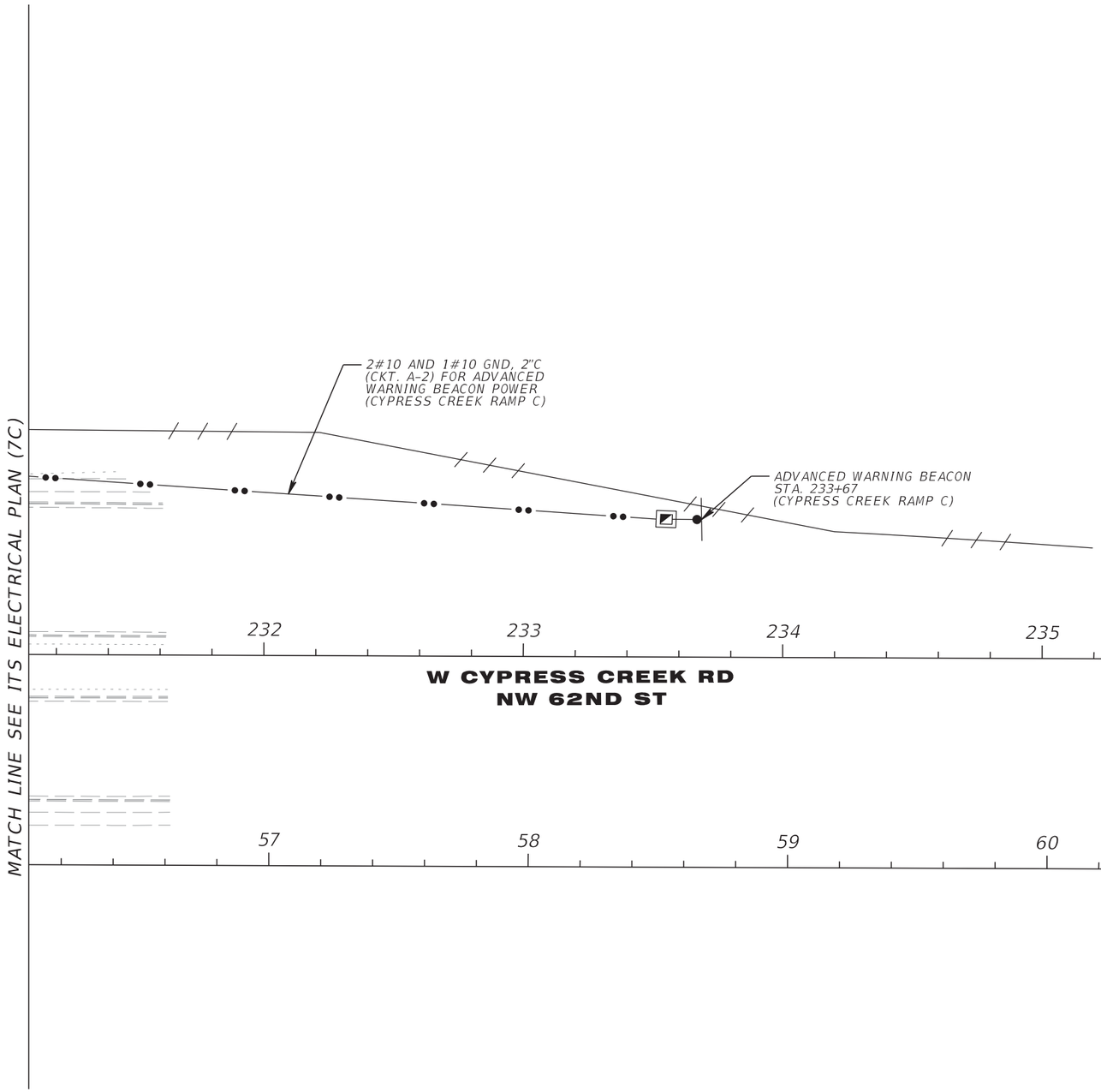
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (7C)

SHEET NO.
IT-282



1" = 50'

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (7D)

SHEET NO. IT-283

POND 20-6

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 4 (SEE NOTE 1)

016.5 CAB SS STA. 2371+32

1" = 50'

CYPRESS CREEK RAMP D

107

108

STATIC SIGN

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

TOLL GANTRY - SITE 4 STA. 2371+85 SEE TOLLING PLANS

SB SR 9 (I-95)

4370 4371 4372 4373 4374 4375 4376

EXPRESS LANES

PGL LT

℄ CONST. I-95

2369 2370 2371 2372 2373 2374 2375 2376

EXPRESS LANES

3369 3370 3371 3372 3373 3374 3375

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2369+00

MATCH LINE STA. 2376+00

105 CYPRESS CREEK RAMP E 106 107 108

016.4 CAB NS STA. 2369+05

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

2-#4 AND 1-#4 GND, 2"C (CKT. A-2)

016.5 CAB NS STA. 2372+80

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

EXIST. POND 20-7

POND 20-8

NOTES:
1.MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

MATCH LINE SEE ITS ELECTRICAL PLAN SHEET (8A)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CCTV LOCATIONS & WIRE SIZING		
9/13/19	AS-BUILTS per RFI 303		

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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (8)

SHEET NO.

IT-284

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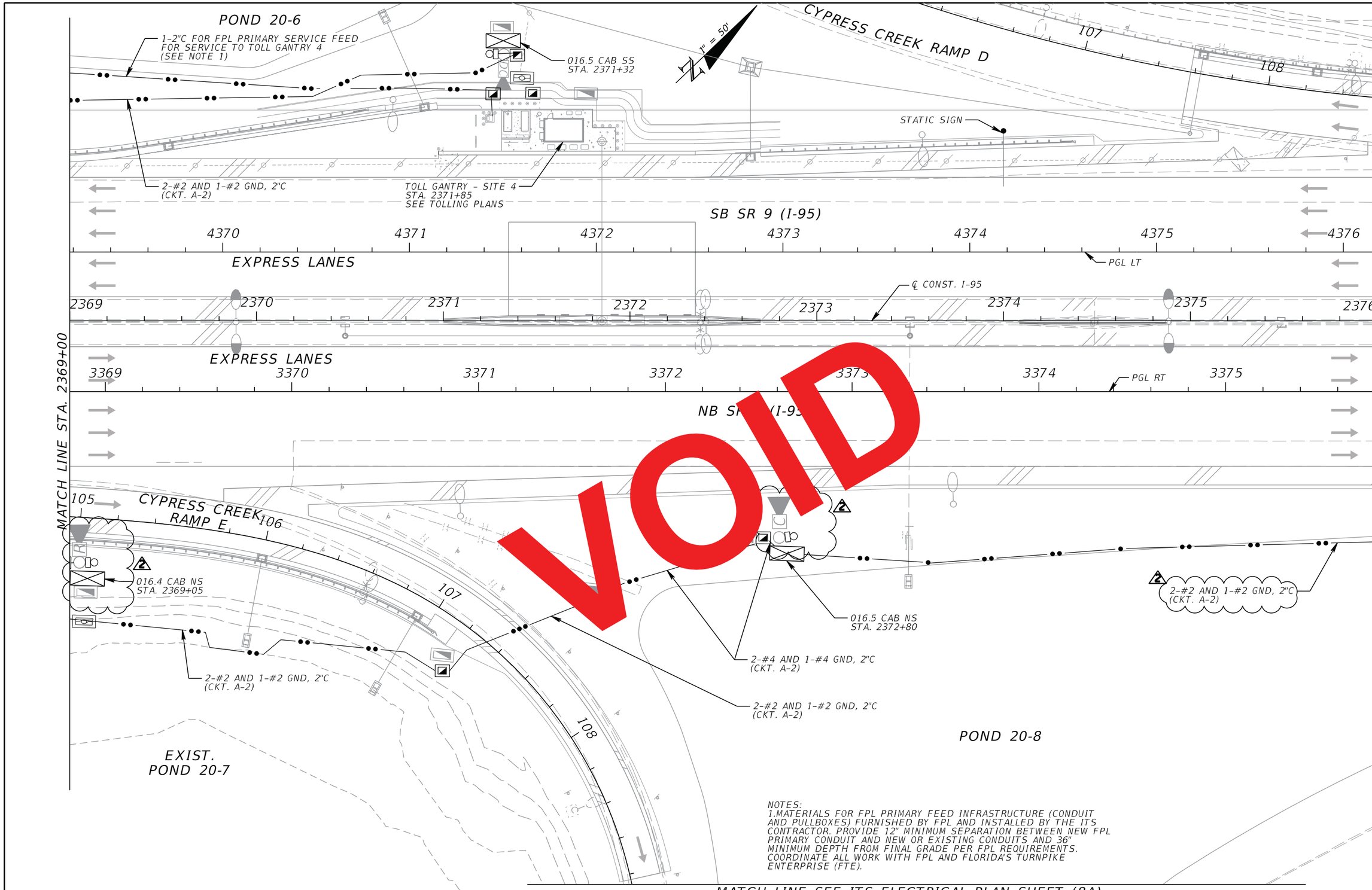

NOTES:
1.MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

MATCH LINE SEE ITS ELECTRICAL PLAN SHEET (8A)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CCTV LOCATIONS & WIRE SIZING		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (8)

SHEET NO.
IT-284

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

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POND 20-6

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 4 (SEE NOTE 1)

016.5 CAB SS STA. 2371+32

1" = 50'

CYPRESS CREEK RAMP D

107

108

STATIC SIGN

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

TOLL GANTRY - SITE 4 STA. 2371+85 SEE TOLLING PLANS

SB SR 9 (I-95)

4370 4371 4372 4373 4374 4375 4376

EXPRESS LANES

PGL LT

℄ CONST. I-95

2369 2370 2371 2372 2374 2375 2376

EXPRESS LANES

3369 3370 3371 3372 3374 3375

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2376+00

MATCH LINE STA. 2369+00

105

CYPRESS CREEK RAMP E

106

107

108

016.4 CAB NS STA. 2369+05

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

2-#4 AND 1-#4 GND, 2"C (CKT. A-2)

016.5 CAB NS STA. 2372+80

2-#4 AND 1-#4 GND, 2"C (CKT. A-2)

2-#2 AND 1-#2 GND, 2"C (CKT. A-2)

2-#4 AND 1-#4 GND, 2"C (CKT. A-2)

EXIST. POND 20-7

POND 20-8

NOTES:
1.MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

MATCH LINE SEE ITS ELECTRICAL PLAN SHEET (8A)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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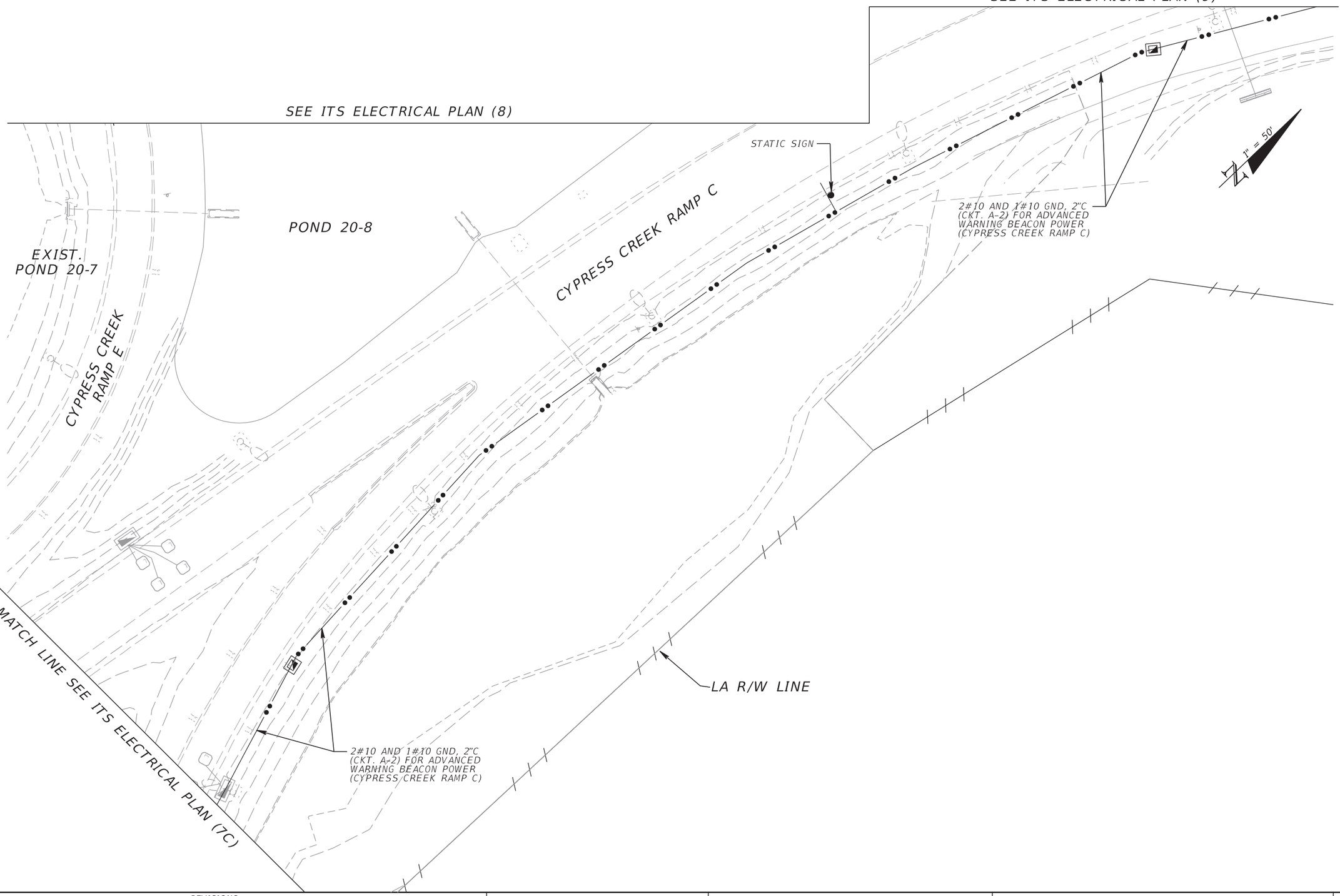
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (8)

SHEET NO.

IT-284



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (8A)

SHEET NO. IT-285

LA R/W LINE

016.6 CAB SS
STA. 2378+05

2-#4 AND 1-#4 GND, 2"C
(CKT. A-2)

STATIC SIGN

NOTES:
1. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. REPLACE THE DMS SIGN WIRING WITH NEW #1 AWG WIRING. FIELD VERIFY EXACT QUANTITY OF WIRES REQUIRED.

1" = 50'

109 110 111 112

CYPRESS CREEK RAMP D

2-#4 AND 1-#4 GND, 2"C
(CKT. A-2)

SB SR 9 (I-95)

4377 4378 4379 4380 4381 4382 4383

EXPRESS LANES

PGL LT

℄ CONST. I-95

2376 2377 2378 2379 2380 2381 2382 2383

MATCH LINE STA. 2376+00

EXPRESS LANES

3376 3377 3378 3379 3380 3381 3382

PGL RT

MATCH LINE STA. 2383+00

NB SR 9 (I-95)

(EXISTING WALK-IN
DMS SIGN TO REMAIN)
STA. 2379+40

EXISTING ITS POWER STATION/
GENERATOR #7 (ZONE 7)
TO BE REMOVED

RED/GREEN SIGNAL
STA. 2381+56
(CYPRESS CREEK
RAMP C)

3#10 AND 1#10 GND, 2"C (CKT. A-2)
FOR RED/GREEN SIGNAL POWER
(CYPRESS CREEK RAMP C)

016.6 E-CAB NS
STA. 2379+66
(EXISTING DMS CABINET TO REMAIN)
(SEE NOTE 1)

2-#2 AND 1-#2 GND, 2"C
(CKT. A-2)

2-#4 AND 1-#4 GND, 2"C
(CKT. A-2)

2-#4 AND 1-#4 GND, 2"C
(CKT. A-2)

101 100

POND 20-8

CYPRESS CREEK RAMP C

016.7 CAB NS 2
STA. 2381+14
(RSS CABINET)

2-2"C:
2-#4 AND 1-#4 GND, 2"C (CKT. A-2) AND
2#10 AND 1#10 GND, 2"C (CKT. A-2) FOR
ADVANCED WARNING BEACON POWER
(CYPRESS CREEK RAMP C)

016.6 CAB NS
STA. 2376+42

2#10 AND 1#10 GND, 2"C
(CKT. A-2) FOR ADVANCED
WARNING BEACON POWER
(CYPRESS CREEK RAMP C)

2-#4 AND 1-#4 GND, 2"C
(CKT. A-2)

MATCH LINE ITS ELECTRICAL PLAN (8A)

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REVISIONS

DATE		DESCRIPTION	DATE	DESCRIPTION
10/27/17	1	RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP, UPDATED NOTES AND CALLOUTS AT EXISTING DMS CABINET	9/13/19	AS-BUILTS per RFI 303 & RFM 026
3/16/18	2	ADDED ITS EQUIPMENT, REVISED CONDUIT AND WIRE QUANTITY		
9/13/19		AS-BUILTS		

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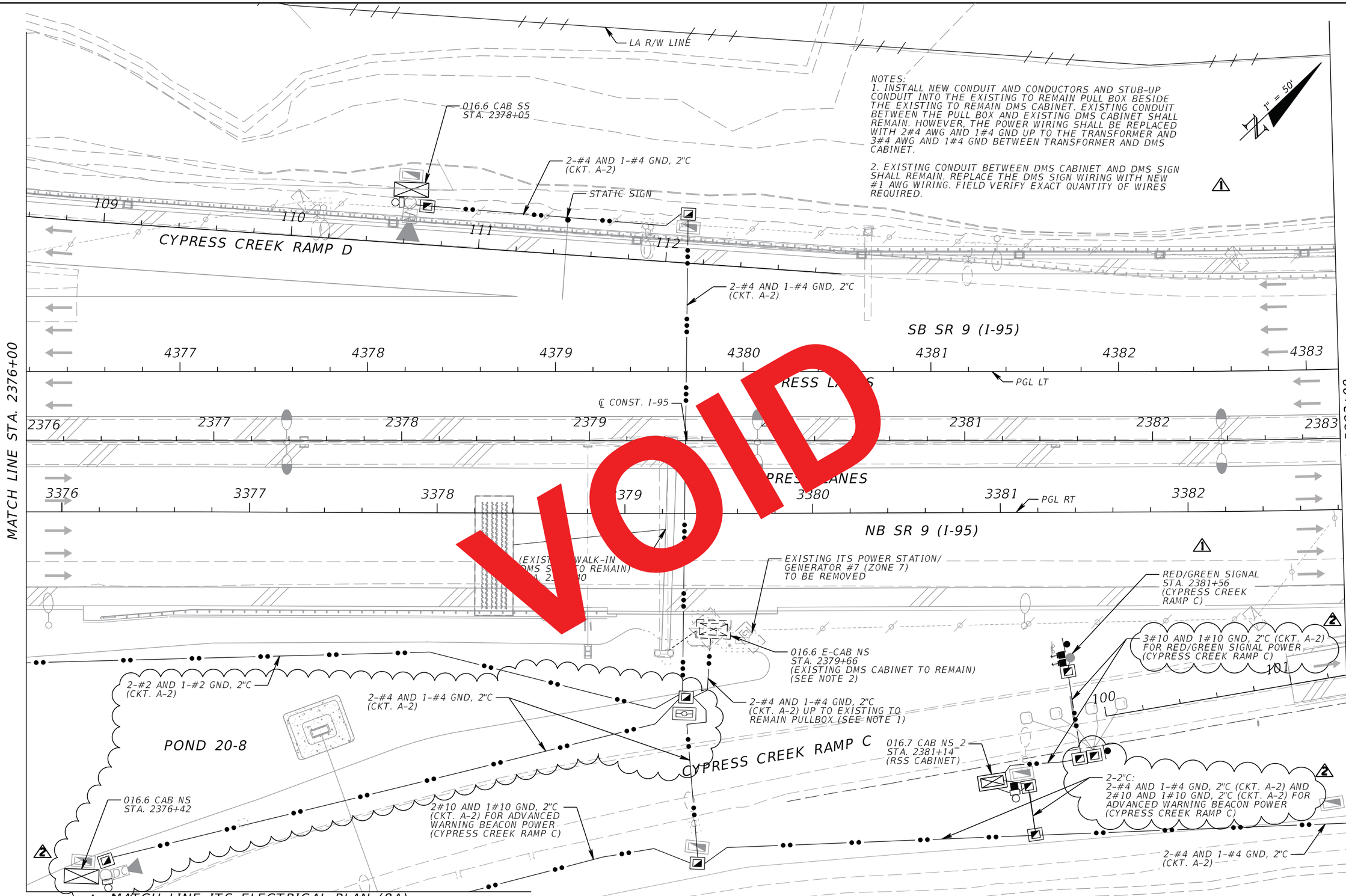
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (9)

SHEET NO.
IT-286



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP, UPDATED NOTES AND CALLOUTS AT EXISTING DMS CABINET		
3/16/18	2 ADDED ITS EQUIPMENT, REVISED CONDUIT AND WIRE QUANTITY		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

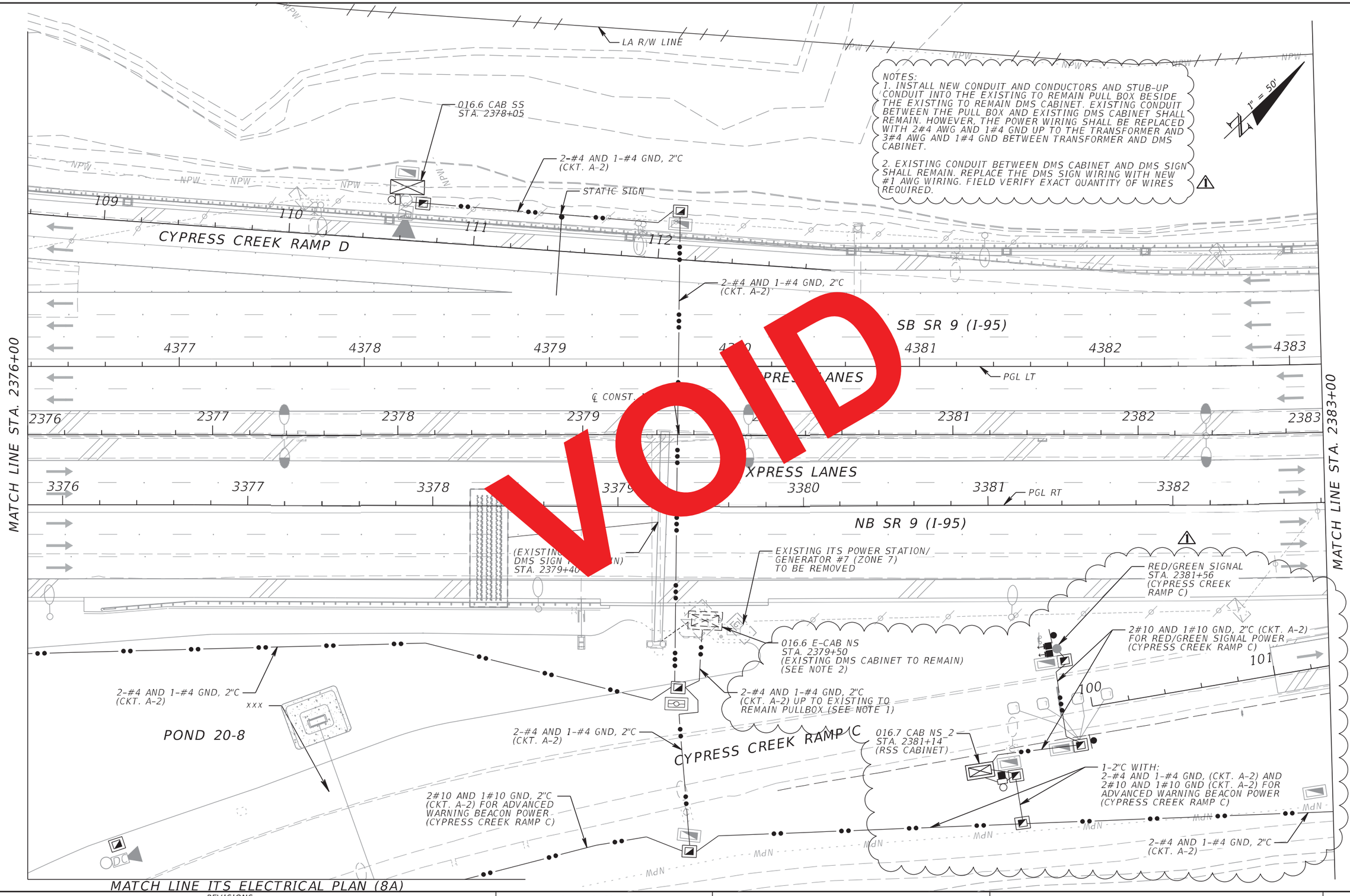
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (9)

SHEET NO.
IT-286

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of means, methods, quantities and dimensions rests with contractor. Review does not relieve contractor of responsibility for fabrication and direction shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) PL

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP, UPDATED NOTES AND CALLOUTS AT EXISTING DMS CABINET		

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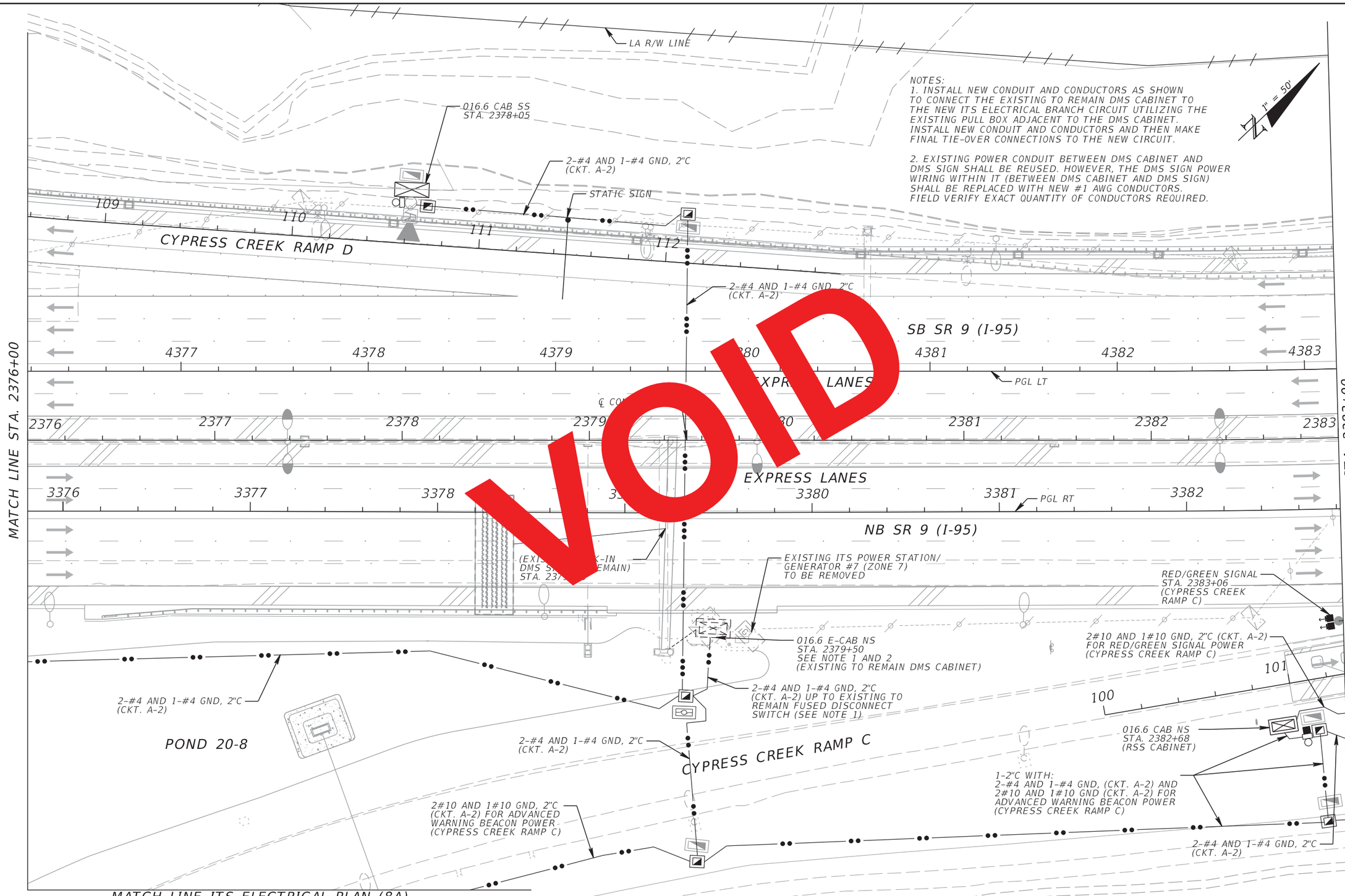
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (9)

SHEET NO.
IT-286



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (9)

SHEET NO.
IT-286

LA R/W LINE

SWALE
21A-1

CANAL C-14

1" = 50'

SB SR 9 (I-95)

EXPRESS LANES

NB SR 9 (I-95)

CYPRESS CREEK RAMP C

℄ CONST. I-95

PGL LT

PGL RT

MATCH LINE STA. 2383+00

MATCH LINE STA. 2390+00

13 14 15 16 17

2383 2384 2385 2386 2387 2388 2389 2390

3383 3384 3385 3386 3387 3388 3389

4384 4385 4386 4387 4388 4389 4390

102 103 104 105 106

016.7 CAB NS
STA. 2383+15

016.8 CAB NS
STA. 2387+00

2-#4 AND 1-#4 GND, 2"C
(CKT. A-2)

2-#4 AND 1-#4 GND, 2"C
(CKT. A-2)

LA R/W LINE

CANAL C-14

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
09/13/19	AS-BUILTS		

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (10)

SHEET NO.
IT-287

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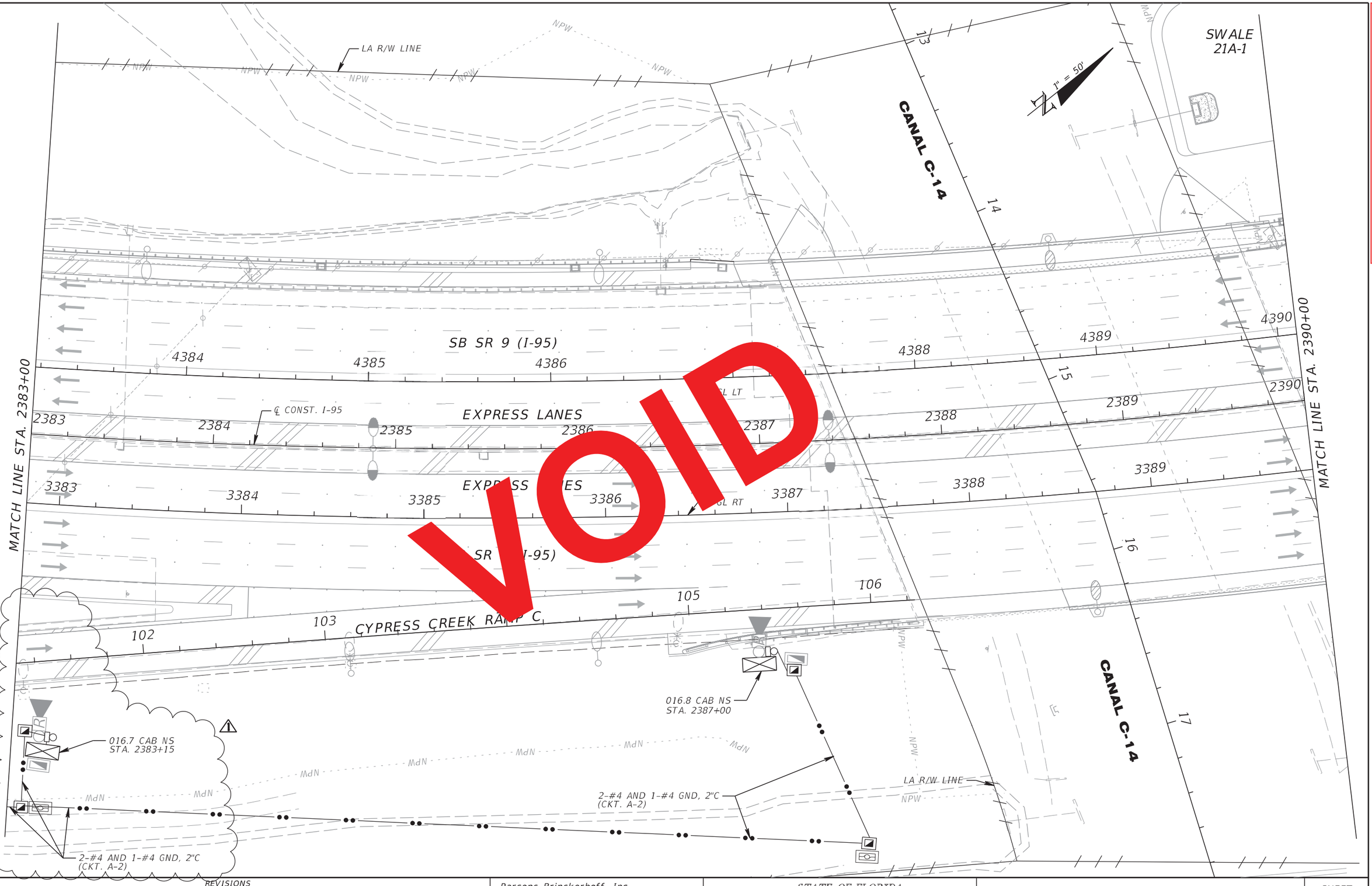

VOID

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (10)

SHEET NO.
IT-287

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of professional seal and signature with latest revision date rests with the engineer. Contractor is responsible for all dimensions, which shall be verified at the job site and he shall assume responsibility for fabrication and erection. Review shall not relieve the contractor of responsibility for errors or omissions in the shop drawings.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec) _____

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VOID

LA R/W LINE

SWALE 21A-1

CANAL C-14

1" = 50'

SB SR 9 (I-95)

EXPRESS LANES

℄ CONST. I-95

PGL RT

NB SR 9 (I-95)

CYPRESS CREEK RAMP C

MATCH LINE STA. 2383+00

MATCH LINE STA. 2390+00

4384 4385 4386 4387 4388 4389 4390

2383 2384 2385 2386 2387 2388 2389 2390

3383 3384 3385 3386 3387 3388 3389

102 103 104 105 106

13 14 15 16 17

2#10 AND 1#10 GND, 2"C (CKT. A-2)
FOR RED/GREEN SIGNAL POWER
(CYPRESS CREEK RAMP C)

016.7 CAB NS
STA. 2383+15

016.8 CAB NS
STA. 2387+00

2-#4 AND 1-#4 GND, 2"C
(CKT. A-2)

2-#4 AND 1-#4 GND, 2"C
(CKT. A-2)

LA R/W LINE

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (10)

SHEET NO.
IT-287

SWALE 21A-1

SWALE 21A-3

1" = 50'

016.9 CAB SS
STA. 2390+65

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

SB SR 9 (I-95)

NB SR 9 (I-95)

℄ CONST. I-95

EXPRESS LANES

EXPRESS LANES

PGL LT

PGL RT

To SW 10th St

FL D4 DOT 095 016.9 NB TR 1
STA. 2393+00
(1 PANEL TOLL RATE DMS SIGN)

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

2-#4 AND 1-#4 GND, 2"C (CKT. B-1);
4-#2 AWG, 2"C
(TO DMS SIGN)

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

016.9 CAB NS
STA. 2394+00
(DMS CABINET)

SWALE 21A-2

W MCNAB RD

L4 R/W LINE

MATCH LINE STA. 2390+00

MATCH LINE STA. 2397+00

2390 2391 2392 2393 2394 2395 2396 2397

3390 3391 3392 3393 3394 3395 3396

4391 4392 4393 4394 4395 4396 4397

70 71 72 73

W(B) BTV(B) BELB BFCL(B) BFCR(B) BRCL(B) BRCR(B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILTS per RFI 466		

Parsons Brinckerhoff, Inc.
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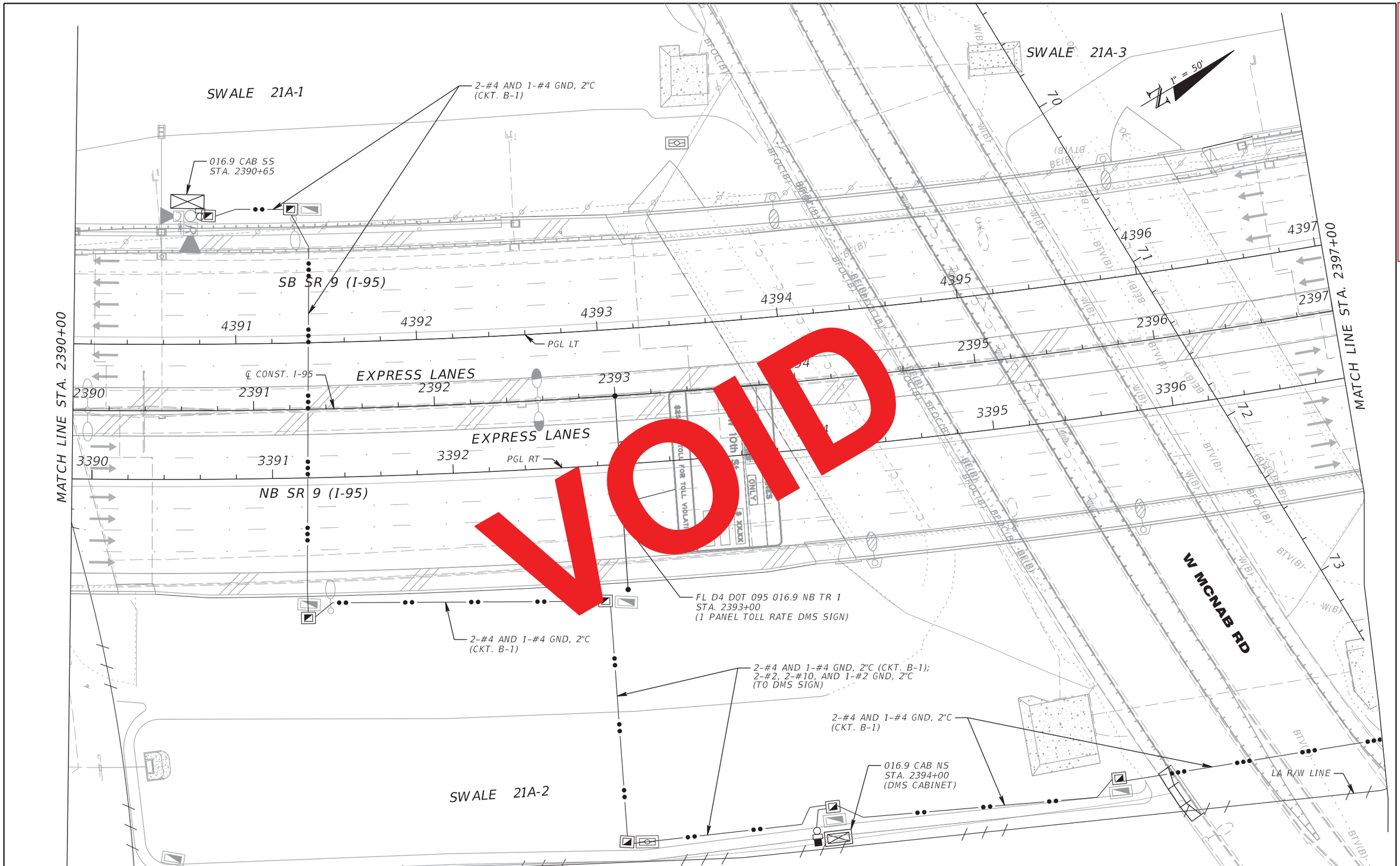
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (11)

SHEET NO.
IT-288



REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (11)

SHEET NO.
IT-288

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

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LA R/W LINE

SWALE 21A-3

1" = 50'

STATIC SIGN

SB SR 9 (I-95)

MATCH LINE STA. 2397+00

4398 4399 4400 4401 4402 4403

PGL LT

MATCH LINE STA. 2404+00

2397 2398 ℄ CONST. I-95 2399 2400 2401 2402 2403 2404

EXPRESS LANES

3397 3398 3399 3400 3401 3402 3403 3404

EXPRESS LANES

PGL RT

NB SR 9 (I-95)

EXPRESS LANES ENTRANCE ½ MILE

NO TRUCKS

ONLY

FL D4 D0T 095 017.1 NB LS 1
STA. 2401+00
(1-LINE STATUS DMS SIGN)

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

4-#1 AWG, 2"C
(TO DMS SIGN)

SWALE 21A-4

017.0 CAB NS
FL D4 D0T 095 017.1 NB LS 1
STA. 2397+59
(DMS CABINET)

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

LA R/W LINE

LA R/W LINE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILTS per RFI 466		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (12)

SHEET NO.
IT-289

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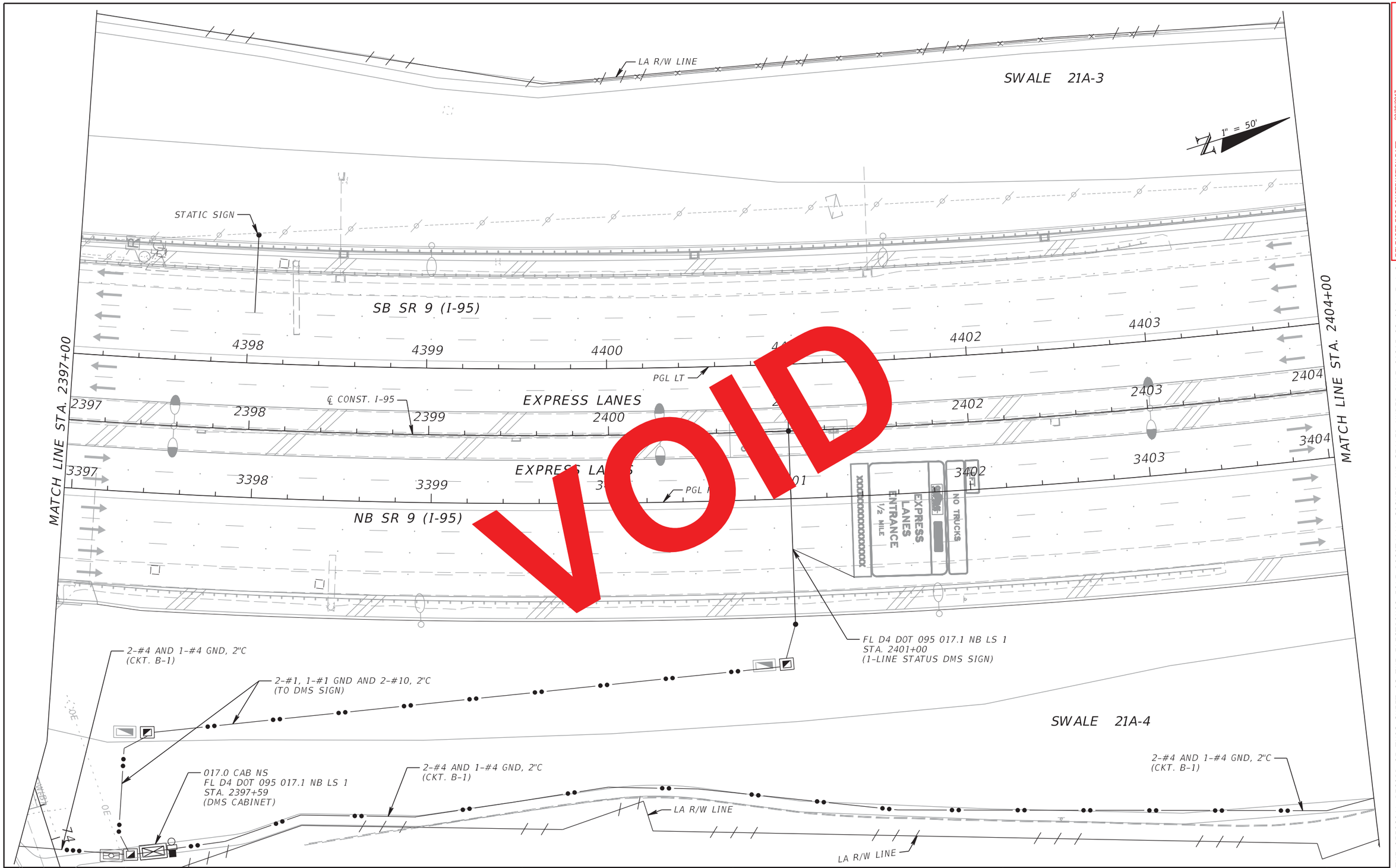

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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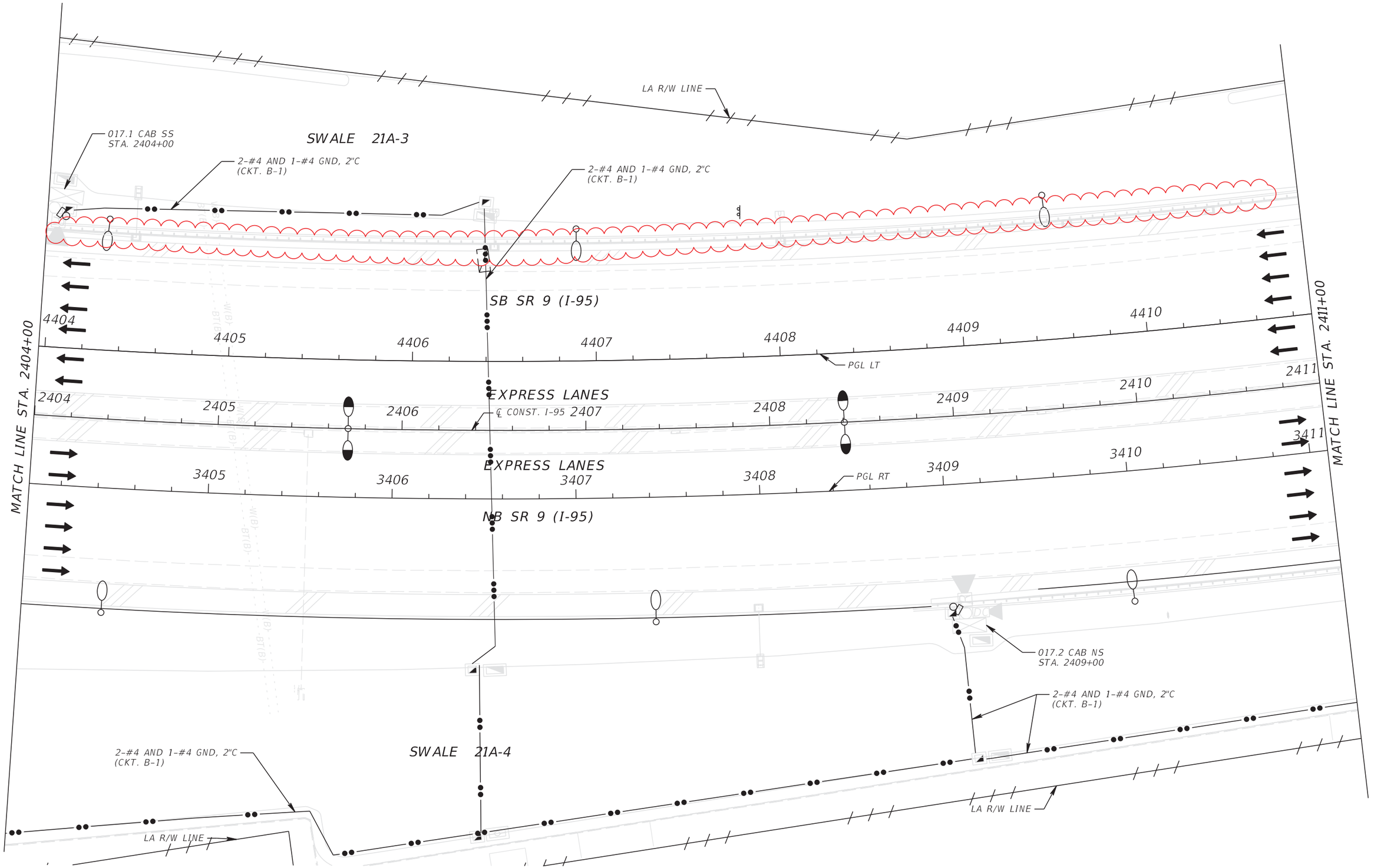
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (12)

SHEET NO.
IT-289



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS		

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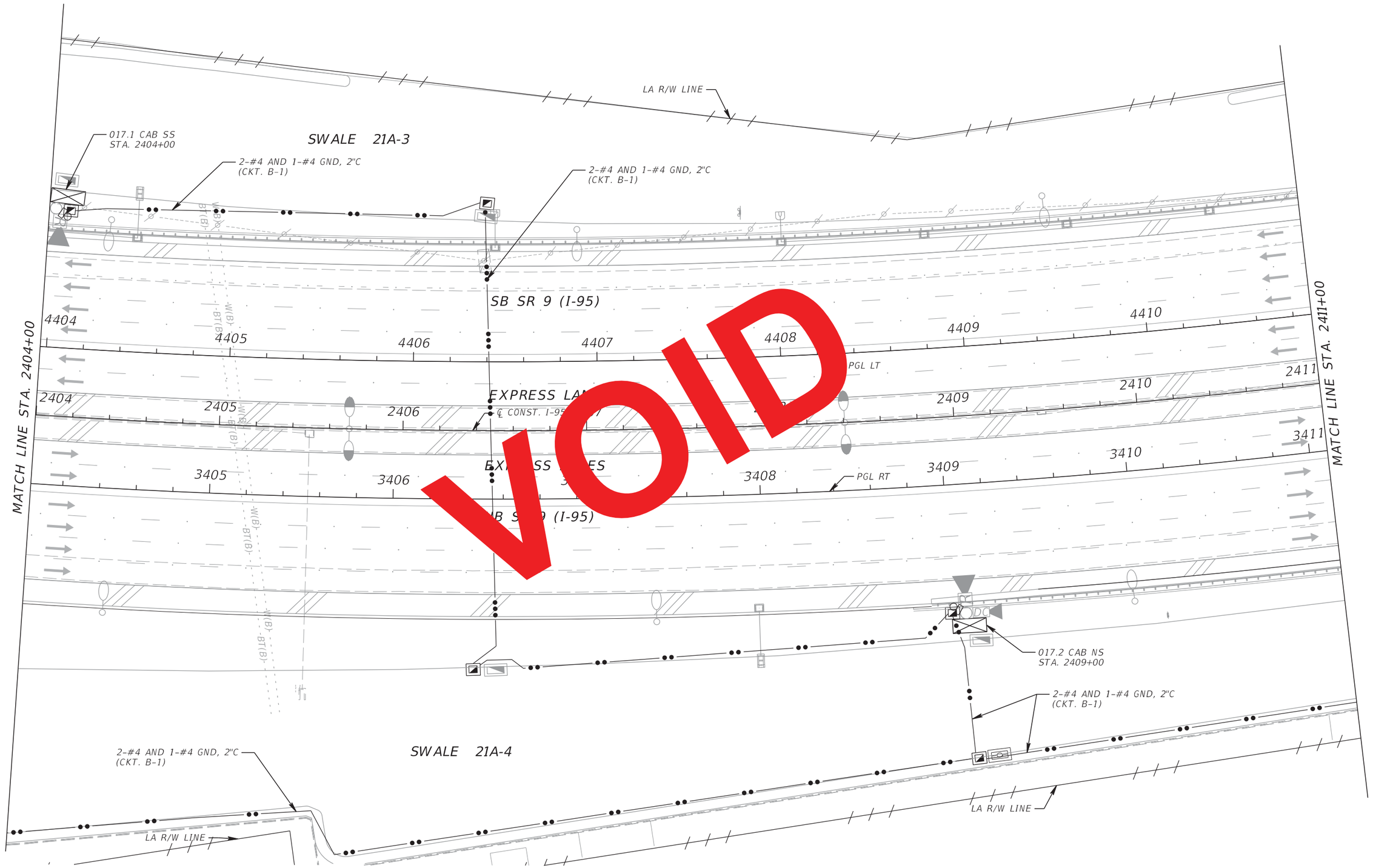
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (13)

SHEET NO.
IT-290

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (13)

SHEET NO.
IT-290

1" = 50'

NOTES:
1. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

2-#4 AND 1-#4 GND, 2"C (CKT. B-1)

LA R/W LINE

017.4 CAB SS
STA. 2417+00

017.4 E-CAB SS
(EXISTING DMS CABINET TO REMAIN)
STA. 2417+20
(SEE NOTE 2)

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

SWALE 21A-3

EXISTING TO REMAIN WALK-IN DMS
STA. 2417+20

SB SR 9 (I-95)

4411 4412 4413 4414 4415 4416 4417

EXPRESS LANES

PGL LT

℄ CONST. I-95

2411 2412 2413 2414 2415 2416 2417 2418

EXPRESS LANES

3412 3413 3414 3415 3416 3417 3418

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2411+00

MATCH LINE STA. 2418+00

FL D4 DOT 095 017.3 NB TR 1'
STA. 2416+00
(1-PANEL TOLL RATE DMS)

017.3 CAB NS
STA. 2414+29

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

SWALE 21A-4

4-#2 AWG, 2"C
(TO DMS SIGN)

017.4 CAB NS
STA. 2417+04

LA R/W LINE

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

2-#2 AND 1-#2 GND, 2"C
(CKT. B-1)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
9/13/19	AS-BUILTS per RFM 026 & RFI 235 & 466		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (14)

SHEET NO.
IT-291

NOTES:
1. INSTALL NEW CONDUIT AND CONDUCTORS AND STUB-UP CONDUIT INTO THE EXISTING TO REMAIN PULL BOX BESIDE THE EXISTING TO REMAIN DMS CABINET. EXISTING CONDUIT BETWEEN THE PULL BOX AND EXISTING DMS CABINET SHALL REMAIN. HOWEVER, THE POWER WIRING SHALL BE REPLACED WITH 2#4 AWG AND 1#4 GND UP TO THE TRANSFORMER AND 3#4 AWG AND 1#4 GND BETWEEN TRANSFORMER AND DMS CABINET.
2. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

1" = 50'

2-#4 AND 1-#4 GND, 2"C (CKT. B-1) UP TO EXISTING TO REMAIN PULLBOX (SEE NOTE 1)

LA R/W LINE

017.4 CAB SS
STA. 2417+00

017.4 E-CAB SS
(EXISTING DMS CABINET TO REMAIN)
STA. 2417+20
(SEE NOTE 2)

2-#4 AND 1-#4 GND, 2"C (CKT. B-1)

SWALE 21A-3

EXISTING TO REMAIN WALK-IN DMS STA. 2417+20

SB SR 9 (I-95)

4411 4412 4413 4414 4415 4416 4417

EXPRESS LANES

PGL LT

℄ CONST. I-95

2411 2412 2413 2414 2415 2416 2417 2418

EXPRESS LANE

3412 3413 3414 3415 3416 3417 3418

PGL RT

NB S (I-

$35 PLUS TOLL FOR TOLL VIOLATION

To SW 10th St

EXPRESS LANES ONLY

FL D4 DOT 095 017.3 NB TR 1
STA. 2416+00
(1-PANEL TOLL RATE DMS)

017.3 CAB NS
STA. 2414+29

2-#4 AND 1-#4 GND, 2"C (CKT. B-1)

SWALE 21A-4

017.4 CAB NS
STA. 2417+04

2-#2, 1-#2 GND AND 2-#10, 2"C (TO DMS SIGN)

2-#2 AND 1-#2 GND, 2"C (CKT. B-1)

LA R/W LINE

2-#4 AND 1-#4 GND, 2"C (CKT. B-1)

MATCH LINE STA. 2411+00

MATCH LINE STA. 2418+00

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of engineering design and all quantities rests with design engineer. Review does not extend to means, methods, techniques, sequences or procedures of construction or safety precautions and programs incidental thereto. Responsibility for fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (14)

SHEET NO.
IT-291

1" = 50'

2-#4 AND 1-#4 GND, 2"C (CKT. B-1)
UP TO EXISTING TO REMAIN
FUSED DISCONNECT SWITCH

LA R/W LINE

017.4 CAB SS
STA. 2417+00

017.4 E-CAB SS
(DMS CABINET)
STA. 2417+20

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

EXISTING
TO REMAIN
WALK-IN DMS
STA. 2417+20

SWALE 21A-3

SB SR 9 (I-95)

4411 4412 4413 4414 4416 4417

EXPRESS LANES

℄ CONST. I-95

2411 2412 2413 2414 2416 2417 2418

EXPRE LAI

3412 3413 3415 3416 3417 3418

PGL RT

SR 9 -95)

MATCH LINE STA. 2411+00

MATCH LINE STA. 2418+00

$35 PLUS TOLL FOR TOLL VIOLATION

SW 10th St

EXPRESS LANES

ONLY

FL D4 DOT 095 017.3 NB TR 1
STA. 2416+00
(1-PANEL TOLL RATE DMS)

017.3 CAB NS
STA. 2414+29

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

SWALE 21A-4

LA R/W LINE

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

2-#2, 1-#2 GND AND 2-#10, 2"C
(TO DMS SIGN)

2-#2 AND 1-#2 GND, 2"C
(CKT. B-1)

017.4 CAB NS
STA. 2417+04

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (14)

SHEET NO.
IT-291

1" = 50'

LA R/W LINE

PORTABLE TRAFFIC MONITORING SITE
STA. 2422+59
(NO HARDWIRED POWER REQUIRED)

SWALE 21A-3

SB SR 9 (I-95)

4418 4419 4420 4421 4422 4423 4424 4425

PGL LT

℄ CONST. I-95

EXPRESS LANES

2418 2419 2420 2421 2422 2423 2424 2425

EXPRESS LANES

3419 3420 3421 3422 3423 3424 3425

PGL RT

MATCH LINE STA. 2418+00

MATCH LINE STA. 2425+30

NB SR 9 (I-95)

STA. 2424+00
FL D4 DOT 095 017.5 NB LS 1
(1 LINE STATUS DMS)

EXPRESS LANES ENTRANCE

NO TRUCKS ONLY

PROPOSED ITS GENERATOR/
POWER STATION "B"
STA. 2425+01

2-#2 AND 1-#2 GND, 2"C
(CKT. B-1)

017.5 CAB NS
STA. 2422+28
(DMS CABINET)

2-#2 AND 1-#2 GND, 2"C
(CKT. B-1)

4-#2 AWG, 2"C
(TO DMS SIGN)

2-#3/0 AND 1-#3/0 GND, 2"C
(CKT. B-2)

SWALE 21A-4

PORTABLE TRAFFIC MONITORING SITE
STA. 2422+59
(NO HARDWIRED POWER REQUIRED)

1-2"C WITH:
2-#2 AND 1-#2 GND,
(CKT. B-1) AND
2-#3/0 AND 1-#3/0 GND,
(CKT. B-2)

2-#2 AND 1-#2 GND, 2"C
(CKT. B-1)

3-#4/0 AND 1-#2 GND, 2" C
(120/240V POWER STATION B
SERVICE FEEDERS)

LA R/W LINE

EXISTING FPL DISTRIBUTION POLE
AND POLE MOUNTED TRANSFORMER

R/W LINE

EXISTING FPL DISTRIBUTION POLE WITH NEW
POLE MOUNTED TRANSFORMER AND RISER

SW 9TH ST

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		
9/13/19	AS-BUILTS per RFI 466		

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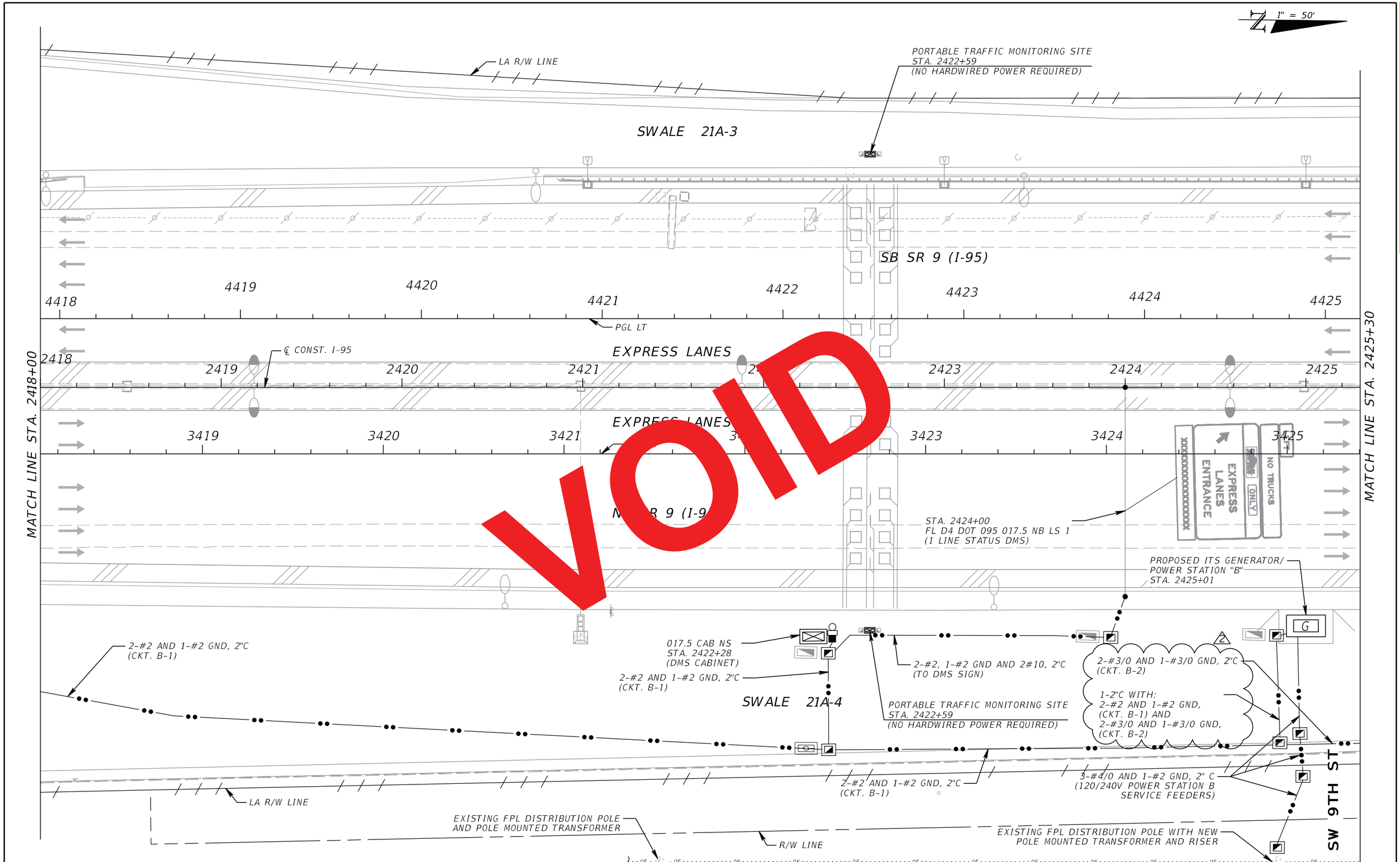
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (15)

SHEET NO.
IT-292



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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (15)

SHEET NO.
IT-292

C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3A-2\lighting\eng_data\433108552OI_I95_Ph3A2LTG.tbl abreuk 8/7/2018 9:59:56 AM c:\projectwise\pb\projectwiseint\abreuk\d0137985\planit15_E.DGN

1" = 50'

LA R/W LINE

PORTABLE TRAFFIC MONITORING SITE
STA. 2422+59
(NO HARDWIRED POWER REQUIRED)

SWALE 21A-3

SB SR 9 (I-95)

4418 4419 4420 4421 4422 4423 4424 4425

PGL LT

℄ CONST. I-95

EXPRESS LANES

2418 2419 2420 2421 2423 2424 2425

3419 3420 3423 3424 3425

NB SR 9 (I-95)

MATCH LINE STA. 2418+00

MATCH LINE STA. 2425+30

STA. 2424+00
FL D4 DOT 095 017.5 NB LS 1
(1 LINE STATUS DMS)

EXPRESS LANES ENTRANCE

NO TRUCKS

ONLY

PROPOSED ITS GENERATOR/
POWER STATION "B"
STA. 2425+01

G

2-#2 AND 1-#2 GND, 2"C
(CKT. B-1)

017.5 CAB NS
STA. 2422+28
(DMS CABINET)

2-#2 AND 1-#2 GND, 2"C
(CKT. B-1)

2-#2, 1-#2 GND AND 2#10, 2"C
(TO DMS SIGN)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

1-2"C WITH:
2-#2 AND 1-#2 GND,
(CKT. B-1) AND
2-#1 AND 1-#1 GND,
(CKT. B-2)

SWALE 21A-4

PORTABLE TRAFFIC MONITORING SITE
STA. 2422+59
(NO HARDWIRED POWER REQUIRED)

2-#2 AND 1-#2 GND, 2"C
(CKT. B-1)

3-#4/0 AND 1-#2 GND, 2" C
(120/240V POWER STATION B
SERVICE FEEDERS)

SW 9TH ST

LA R/W LINE

EXISTING FPL DISTRIBUTION POLE
AND POLE MOUNTED TRANSFORMER

R/W LINE

EXISTING FPL DISTRIBUTION POLE WITH NEW
POLE MOUNTED TRANSFORMER AND RISER

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (15)

SHEET NO.
IT-292

1" = 50'

017.6 CAB SS
STA. 2430+10

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

SWALE 21A-3

SB SR 9 (I-95)

4426 4427 4428 4429 4430 4431

PGL LT

EXPRESS LANES

2426 2427 2428 2429 2430 2431 2432

℄ CONST. I-95

EXPRESS LANES

3426 3427 3428 3429 3430 3431 3432

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2425+30

MATCH LINE STA. 2432+00

017.6 CAB NS
STA. 2430+06

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

2-#3/0 AND 1-#3/0 GND, 2"C
(CKT. B-2)

2-#3/0 AND 1-#3/0 GND, 2"C
(CKT. B-2)

SWALE 21A-4

LA R/W LINE

R/W LINE

EXISTING FPL DISTRIBUTION POLE
AND POLE MOUNTED TRANSFORMER

R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		
9/13/19	AS-BUILTS per RFI 193		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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STATE OF FLORIDA
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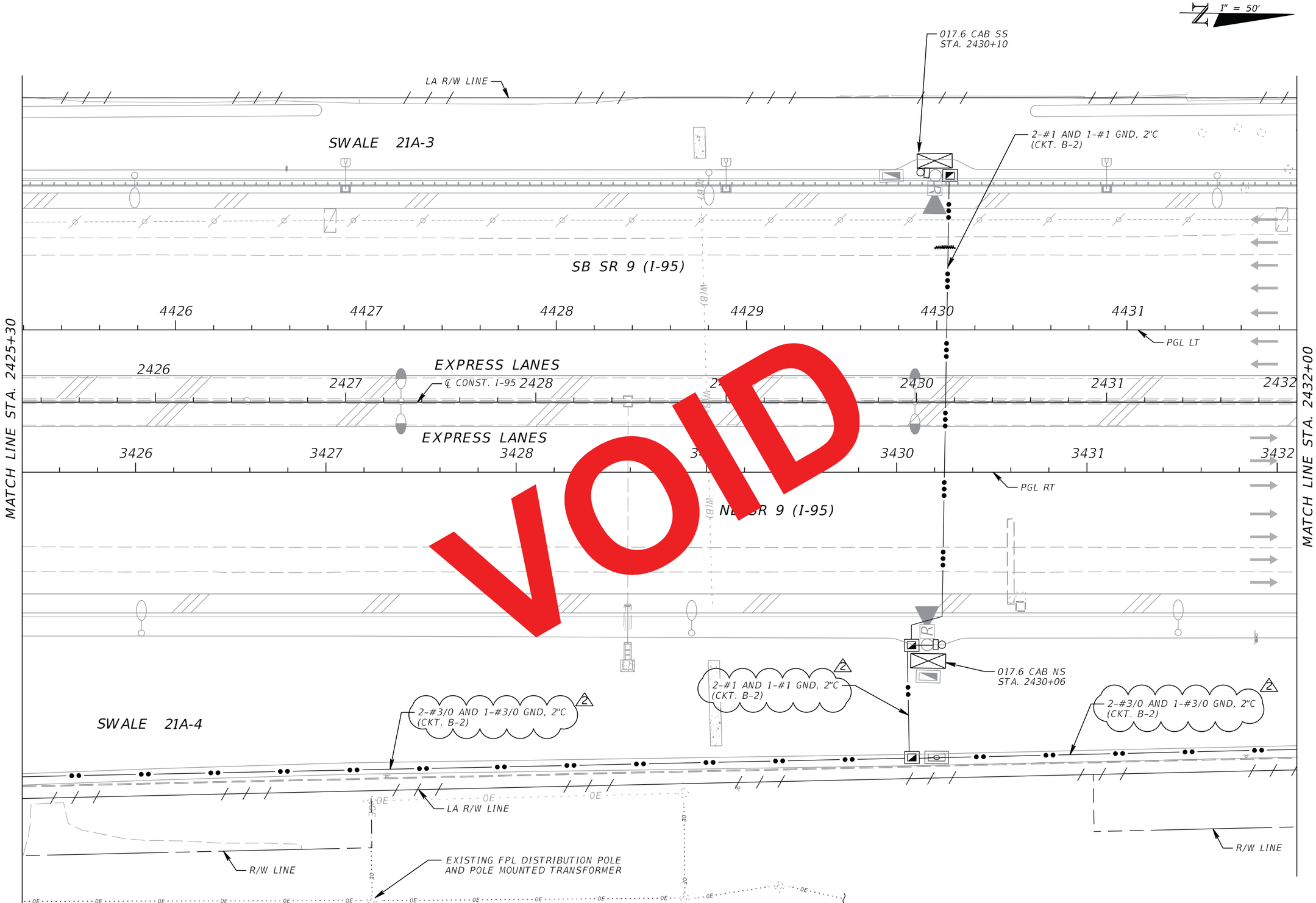
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (16)

SHEET NO.
IT-293



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (16)

SHEET NO.
IT-293

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

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1" = 50'

017.6 CAB SS
STA. 2430+10

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

SWALE 21A-3

SB SR 9 (I-95)

4426 4427 4428 4429 4430 4431

PGL LT

2426 2427 2428 2429 2430 2431 2432

EXPRESS LANES

℄ CONST. I-95

EXPRESS LANES

3426 3427 3428 3429 3430 3431 3432

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2425+30

MATCH LINE STA. 2432+00

017.6 CAB NS
STA. 2430+06

2-#1 AND 1-#1 GND. 2"C
(CKT. B-2)

2-#1 AND 1-#1 GND. 2"C
(CKT. B-2)

SWALE 21A-4

LA R/W LINE

R/W LINE

EXISTING FPL DISTRIBUTION POLE
AND POLE MOUNTED TRANSFORMER

R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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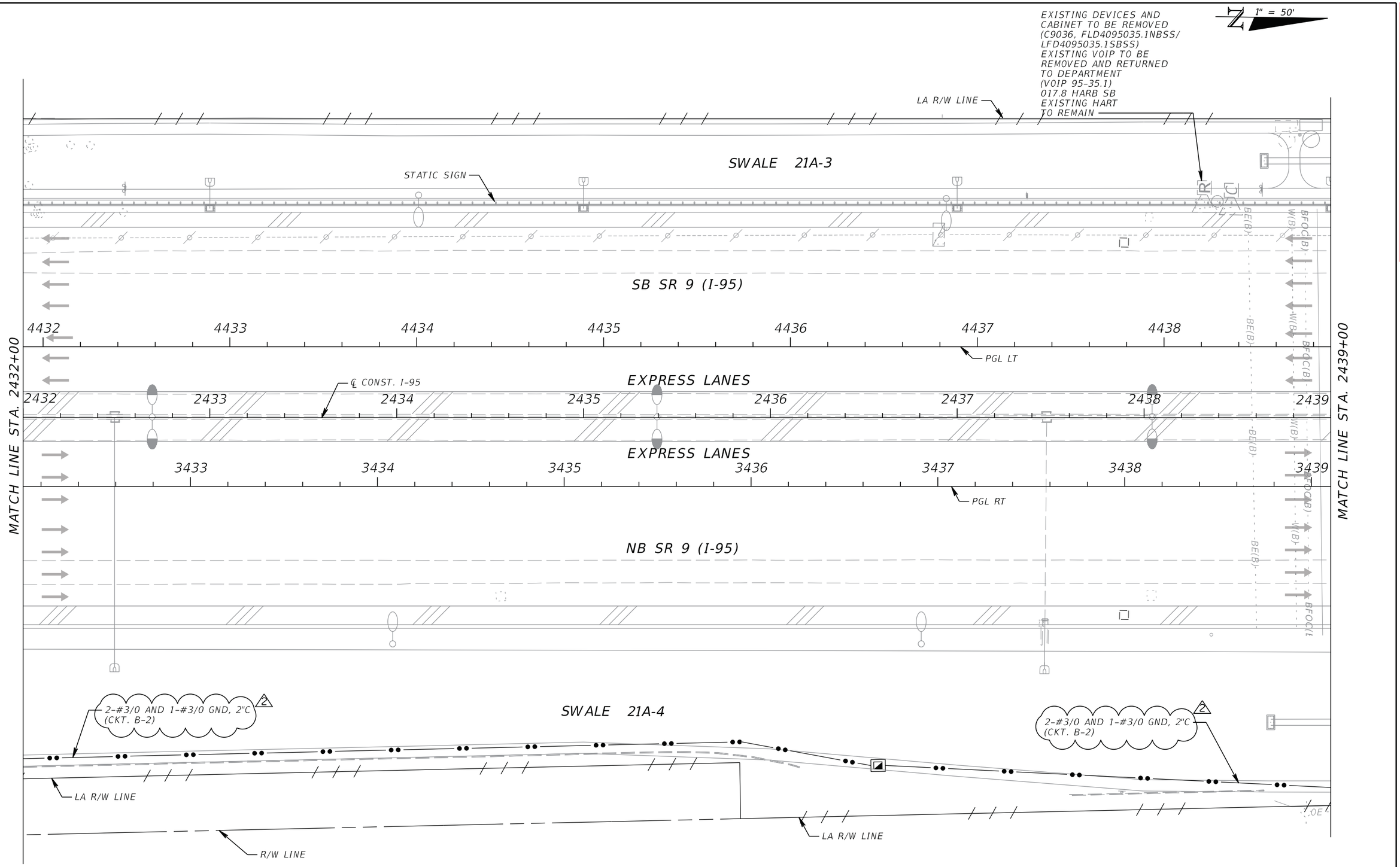
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (16)

SHEET NO.
IT-293



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (17)

SHEET NO.
IT-294

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) JB

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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1" = 50'

EXISTING DEVICES AND CABINET TO BE REMOVED (C9036, FLD4095035.1NBSS/ LFD4095035.1SBSS)
EXISTING VOIP TO BE REMOVED AND RETURNED TO DEPARTMENT (VOIP 95-35.1)
017.8 HARB SB
EXISTING HART TO REMAIN

LA R/W LINE

STATIC SIGN

SWALE 21A-3

SB SR 9 (I-95)

4432 4433 4434 4435 4436 4437 4438

PGL LT

℄ CONST. I-95

2432 2433 2434 2435 2436 2437 2438 2439

EXPRESS LA

EXPRESS ES

3433 3434 3436 3437 3438 3439

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2432+00

MATCH LINE STA. 2439+00

BE(B) BFOC(B) W(B)

SWALE 21A-4

2-#1 AND 1-#1 GND. 2"C (CKT. B-2)

LA R/W LINE

R/W LINE

2-#1 AND 1-#1 GND, 2"C (CKT. B-2)

LA R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (17)

SHEET NO.
IT-294

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1" = 50'

017.9 CAB SS
STA. 2443+54

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

SWALE 21A-3A

SB SR 9 (I-95)

4439 4440 4441 4442 4443 4444 4445

STATIC SIGN

PGL LT

℄ CONST. I-95

EXPRESS LANES

2439 2440 2441 2442 2443 2444 2445 2446

EXPRESS LANES

3440 3441 3442 3443 3444 3445 3446

PGL RT

MATCH LINE STA. 2439+00

MATCH LINE STA. 2446+00

NB SR 9 (I-95)

017.9 CAB NS
STA. 2443+22

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

SWALE 21A-4A

2-#3/0 AND 1-#3/0 GND, 2"C
(CKT. B-2)

2-#3/0 AND 1-#3/0 GND, 2"C
(CKT. B-2)

OE

LA R/W LINE

FPL SERVICE POLE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		
9/13/19	AS-BUILTS per RFI 193		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (18)

SHEET NO.

IT-295

1" = 50'

LA R/W LINE

017.9 CAB SS
STA. 2443+54

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

SWALE 21A-3A

SB SR 9 (I-95)

4439 4440 4441 4442 4443 4444 4445

STATIC SIGN

℄ CONST. I-95

LT

EXPRESS LANES

2439 2440 2441 2442 2443 2444 2445 2446

3440 3441 3442 3443 3444 3445 3446

PGL RT

MATCH LINE STA. 2439+00

MATCH LINE STA. 2446+00

017.9 CAB NS
STA. 2443+22

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

SWALE 21A-4A

2-#3/0 AND 1-#3/0 GND, 2"C
(CKT. B-2)

2-#3/0 AND 1-#3/0 GND, 2"C
(CKT. B-2)

OE

LA R/W LINE

FPL SERVICE POLE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of information and dimensions rests with the Contractor. Review shall not be construed as approval of any safety precautions or methods of fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB
BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		

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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (18)

SHEET NO.
IT-295

1" = 50'

LA R/W LINE

017.9 CAB SS
STA. 2443+54

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

SWALE 21A-3A

SB SR 9 (I-95)

4439 4440 4441 4442 4443 4444 4445

STATIC SIGN

℄ CONST. I-95

EXPRESS LANES

2439 2440 2441 2442 2443 2444 2445 2446

3440 3441 3443 3444 3445 3446

PGL R

NB SR 9 (I-95)

MATCH LINE STA. 2439+00

MATCH LINE STA. 2446+00

017.9 CAB NS
STA. 2443+22

SWALE 21A-4A

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

OE

LA R/W LINE

FPL SERVICE POLE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (18)

SHEET NO.
IT-295

1" = 50'

R/W LINE

LA R/W LINE

SWALE 21A-3A

SB SR 9 (I-95)

4446 4447 4448 4449 4450 4451 4452

PGL LT

℄ CONST. I-95

EXPRESS LANES

2446 2447 2448 2449 2450 2451 2452 2453

EXPRESS LANES

3447 3448 3449 3450 3451 3452 3453

PGL RT

MATCH LINE STA. 2446+00

MATCH LINE STA. 2453+00

NB SR 9 (I-95)

200'

STATIC SIGN

NEW FPL SERVICE POLE, FUSE, AND RISER

2-#3/0 AND 1-#3/0 GND, 2"C (CKT. B-2)

2

SWALE 21A-4

SWALE 21A-4A

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 1)

OE

EXISTING FPL POLE

LA R/W LINE

2-#3/0 AND 1-#3/0 GND, 2"C (CKT. B-2)

R/W LINE

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		
09/13/19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (19)

SHEET NO.

IT-296

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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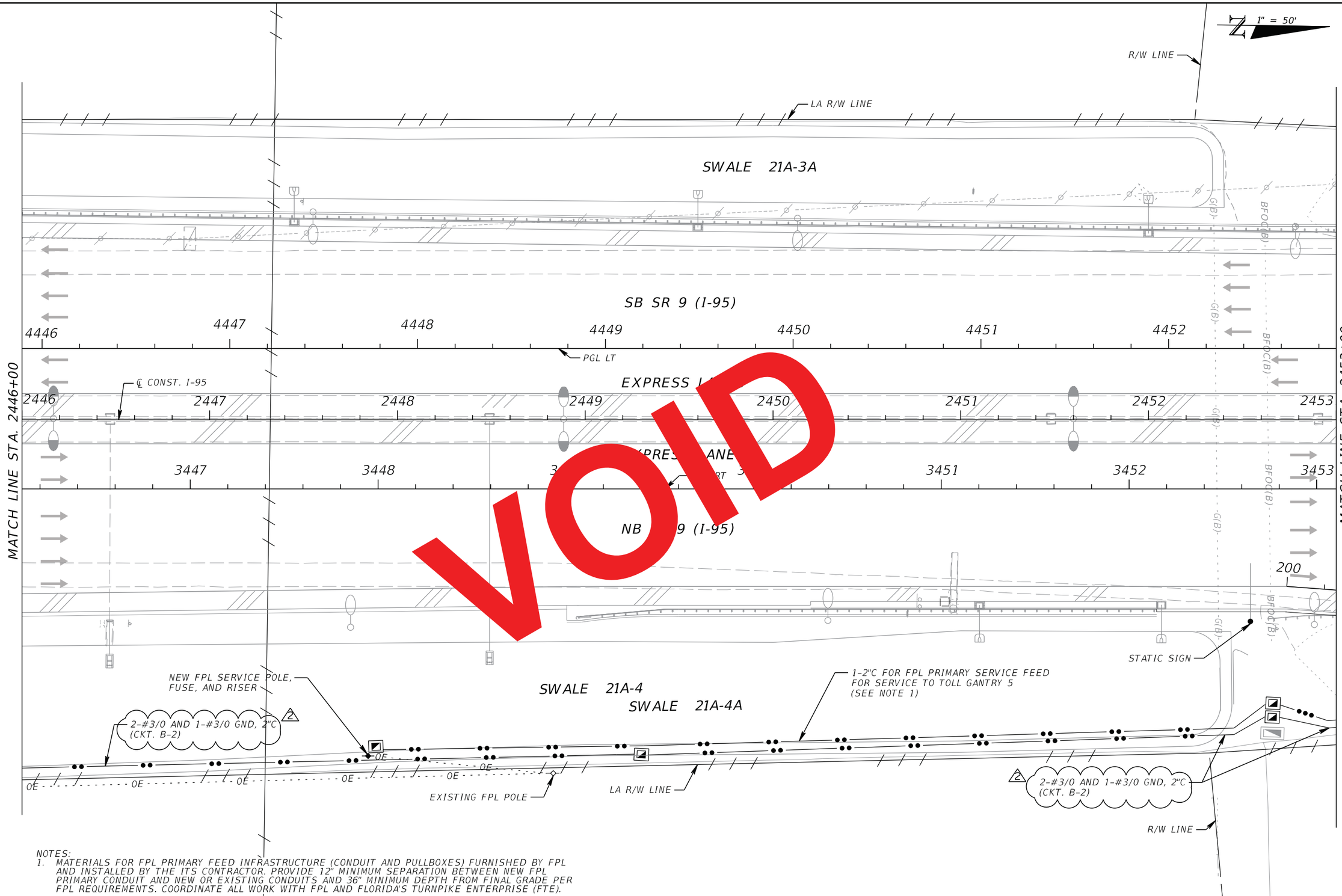

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (19)

SHEET NO.
IT-296

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 13

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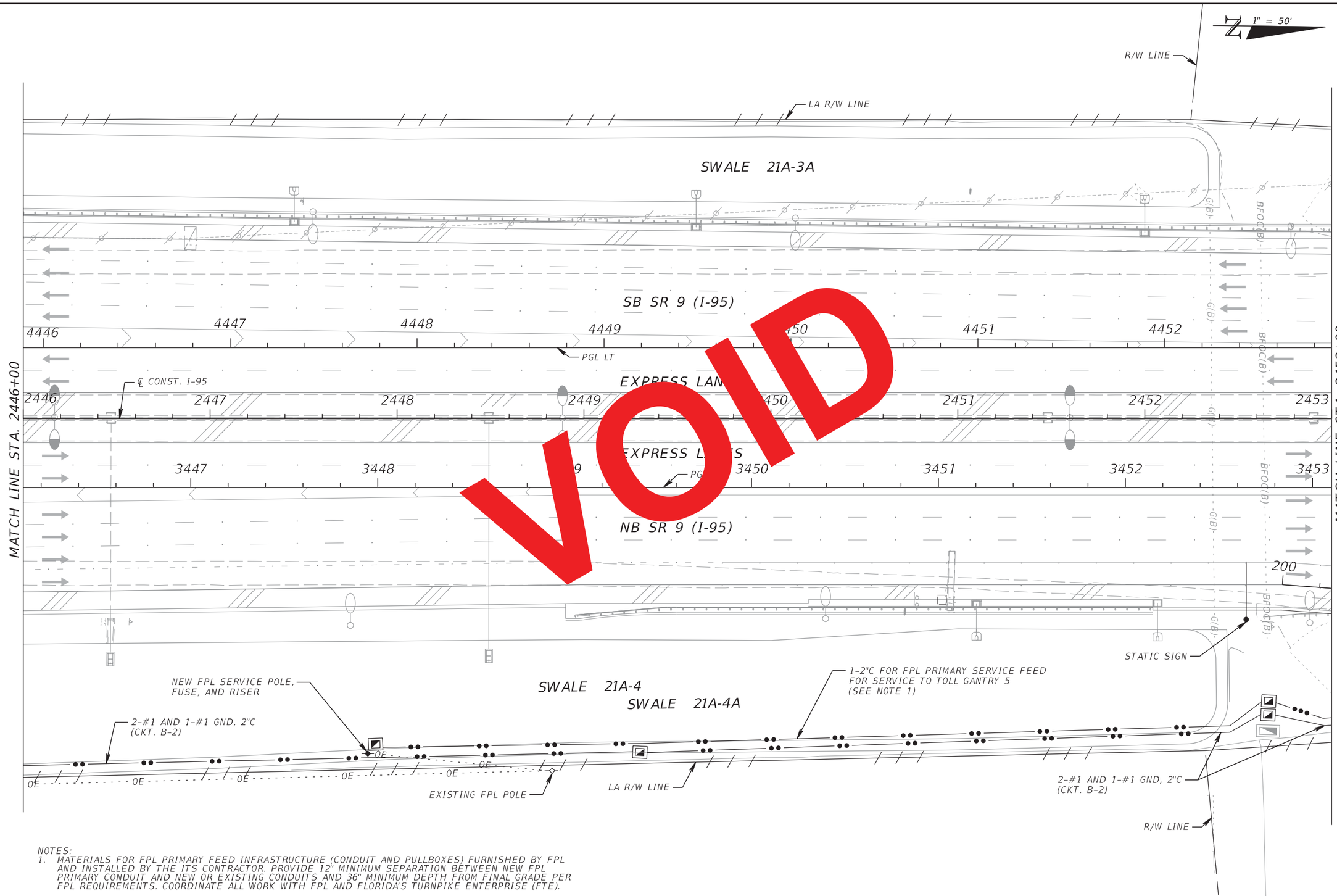

VOID

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (19)

SHEET NO.
IT-296

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (20A)

SW 3RD ST

1-2"C FOR ADVANCED WARNING BEACON POWER
2#8 AND 1#8 GND, 2"C (CKT. B-2)
(ATLANTIC RAMP A)

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2);

LA R/W LINE

POND 21B-1

RED/GREEN SIGNAL
STA. 2458+14
(ATLANTIC RAMP A)

018.1 CAB SS_2
STA. 2458+60
(RSS CABINET)

ATLANTIC RAMP A

POND 21B-2

018.1 CAB SS_3
STA. 2458+77
(DMS CABINET)
SEE NOTE 2

STATIC SIGN

018.1 CAB SS
STA. 2454+95

2-2"C:
2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2);
1-2"C FOR ADVANCED
WARNING BEACON POWER
2#8 AND 1#8 GND, 2"C (CKT. B-2)
(ATLANTIC RAMP A)

1-2"C SPARE (ITS ELECTRICAL)
SEE NOTE 2

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

SB SR 9 (I-95)

1-2"C SPARE
(ITS ELECTRICAL)
FOR FUTURE DMS
SIGN WIRING

3-2"C:
1-2"C WITH 2-#2/0 AND 1-#2/0 GND (CKT. B-2);
1-2"C WITH 2#8 AND 1#8 GND (CKT. B-2)
FOR ADVANCED WARNING BEACON POWER
AND 3#10 AND 1#10 GND (CKT. B-2)
FOR RED/GREEN SIGNAL POWER
(BOTH ATLANTIC RAMP A);
1-2"C SPARE (ITS ELECTRICAL)
FROM 018.1 CAB SS_3 FOR
FUTURE DMS SIGN POWER WIRING

PGL LT

℄ CONST. I-95

EXPRESS LANES

EXPRESS LANES

SIGN STRUCTURE FOR
FUTURE DMS SIGN
(SIGN PANEL AND DMS TO
BE INSTALLED BY OTHERS)

PGL RT

MATCH LINE STA. 2453+00

MATCH LINE STA. 2460+00

NB SR 9 (I-95)

1-2"C FOR FPL PRIMARY SERVICE FEED
FOR SERVICE TO TOLL GANTRY 5
(SEE NOTE 1)

2-2"C:
1-2"C FOR FPL PRIMARY SERVICE FEED
FOR SERVICE TO TOLL GANTRY 5
(SEE NOTE 1);
2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

STATIC SIGN

1-2"C FOR FPL PRIMARY SERVICE
FEED FOR SERVICE TO TOLL GANTRY 5
(SEE NOTE 1)

018.1 CAB NS
STA. 2454+91

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

2-#3/0 AND 1-#3/0 GND, 2"C
(CKT. B-2)

SW 3RD ST

ATLANTIC RAMP B

POND 21B-4

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

G-16 CANAL

LA R/W LINE

R/W LINE

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).
2. DMS CABINET 018.1 CAB SS_3 IS FOR FUTURE DMS SIGN (TO BE INSTALLED IN PHASE 3B-1). REFER TO ITS PLANS FOR ADDITIONAL INFORMATION.

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED CONDUIT QUANTITY AND WIRE SIZES, AND ADDED ITS EQUIPMENT		
09/13/19	AS-BUILTS		

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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (20)

SHEET NO.
IT-297

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (20A)

SW 3RD ST

1-2"C FOR ADVANCED WARNING BEACON POWER
2#8 AND 1#8 GND, 2"C (CKT. B-2)
(ATLANTIC RAMP A)

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2);

LA R/W LINE

POND 21B-1

RED/GREEN SIGNAL
STA. 2458+14
(ATLANTIC RAMP A)

018.1 CAB SS_2
STA. 2458+60
(RSS CABINET)

ATLANTIC RAMP A

018.1 CAB SS_3
STA. 2458+77
(DMS CABINET)
SEE NOTE 2

POND 21B-2

STATIC SIGN

018.1 CAB SS
STA. 2454+95

2-2"C:
2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2);
1-2"C FOR ADVANCED
WARNING BEACON POWER
2#8 AND 1#8 GND, 2"C (CKT. B-2)
(ATLANTIC RAMP A)

1-2"C SPARE (ITS ELECTRICAL)
SEE NOTE 2

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

SB SR 9 (I-95)

1-2"C SPARE
(ITS ELECTRICAL)
FOR FUTURE DMS
SIGN WIRING

3-2"C:
1-2"C WITH 2-#2/0 AND 1-#2/0 GND (CKT. B-2);
1-2"C WITH 2#8 AND 1#8 GND (CKT. B-2)
FOR ADVANCED WARNING BEACON POWER
AND 3#10 AND 1#10 GND (CKT. B-2)
FOR RED/GREEN SIGNAL POWER
(BOTH ATLANTIC RAMP A);
1-2"C SPARE (ITS ELECTRICAL)
FROM 018.1 CAB SS_3 FOR
FUTURE DMS SIGN POWER WIRING

PGL LT

℄ CONST. I-95

EXPRESS LANES

SIGN STRUCTURE FOR
FUTURE DMS SIGN
(SIGN PANEL AND DMS TO
BE INSTALLED BY OTHERS)

PGL RT

NB SR 9 (I-95)

2-2"C:
1-2"C FOR FPL PRIMARY SERVICE FEED
FOR SERVICE TO TOLL GANTRY 5
(SEE NOTE 1);
2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

1-2"C FOR FPL PRIMARY SERVICE FEED
FOR SERVICE TO TOLL GANTRY 5
(SEE NOTE 1)

STATIC SIGN

1-2"C FOR FPL PRIMARY SERVICE
FEED FOR SERVICE TO TOLL GANTRY 5
(SEE NOTE 1)

018.1 CAB NS
STA. 2454+91

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

2-#3/0 AND 1-#3/0 GND, 2"C
(CKT. B-2)

ATLANTIC RAMP B

POND 21B-4

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

G-16 CANAL

LA R/W LINE

R/W LINE

SW 3RD ST

MATCH LINE STA. 2453+00

MATCH LINE STA. 2460+00

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).
2. DMS CABINET 018.1 CAB SS_3 IS FOR FUTURE DMS SIGN (TO BE INSTALLED IN PHASE 3B-1). REFER TO ITS PLANS FOR ADDITIONAL INFORMATION.

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details of design, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED CONDUIT QUANTITY AND WIRE SIZES, AND ADDED ITS EQUIPMENT		

Parsons Brinckerhoff, Inc.
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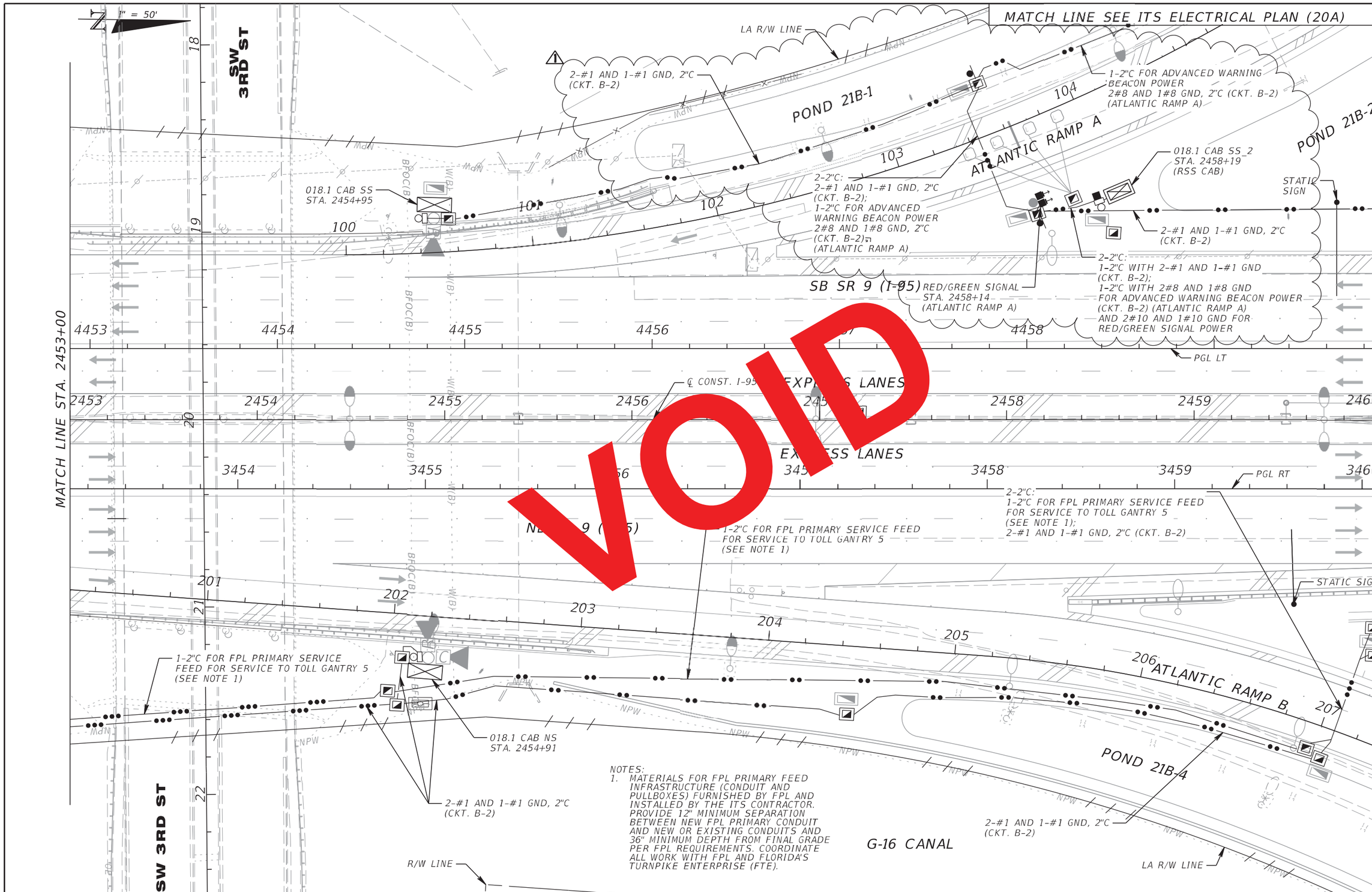
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (20)

SHEET NO.
IT-297



NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) PL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (20)

SHEET NO.
IT-297

T:\Standards\Clients\FL_DOT\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3A-2\lighting\eng_data\433108552OI_I95_Ph3A2LTG.tbl PerezR 3/1/2018 9:48:07 AM c:\projectwise\pb\projectwiseint\perezr\d0137985\planit20_E.DGN

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (20A)

MATCH LINE STA. 2453+00

MATCH LINE STA. 2460+00

SW 3RD ST

SW 3RD ST

1-2" C FOR ADVANCED WARNING BEACON POWER
2#8 AND 1#8 GND, 2"C (CKT. B-2)
(ATLANTIC RAMP A)

LA R/W LINE

018.1 CAB SS_2
STA. 2457+48
(RSS CAB)

2-2"C:
2-#1 AND 1-#1 GND, 2"C
(CKT. B-2);
1-2" C FOR RED/GREEN
SIGNAL POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP A)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

POND 21B-1

POND 21B-2

ATLANTIC RAMP A

018.1 CAB SS
STA. 2454+95

1-2" C FOR RED/GREEN SIGNAL POWER
2#10 AND 1#10 GND, 2"C (CKT. B-2)
(ATLANTIC RAMP A)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

STATIC SIGN

RED/GREEN SIGNAL
STA. 2457+33
(ATLANTIC RAMP A)

SB SR 9 (I-95)

PGL LT

℄ CONST. I-95

EXPRESS LANES

NB SR 9 (I-95)

PGL RT

2-2"C:
1-2"C FOR FPL PRIMARY SERVICE FEED
FOR SERVICE TO TOLL GANTRY 5
(SEE NOTE 1);
2-#1 AND 1-#1 GND, 2"C (CKT. B-2)

1-2"C FOR FPL PRIMARY SERVICE FEED
FOR SERVICE TO TOLL GANTRY 5
(SEE NOTE 1)

STATIC SIGN

1-2"C FOR FPL PRIMARY SERVICE
FEED FOR SERVICE TO TOLL GANTRY 5
(SEE NOTE 1)

018.1 CAB NS
STA. 2454+91

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

ATLANTIC RAMP B

POND 21B-4

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

G-16 CANAL

R/W LINE

LA R/W LINE

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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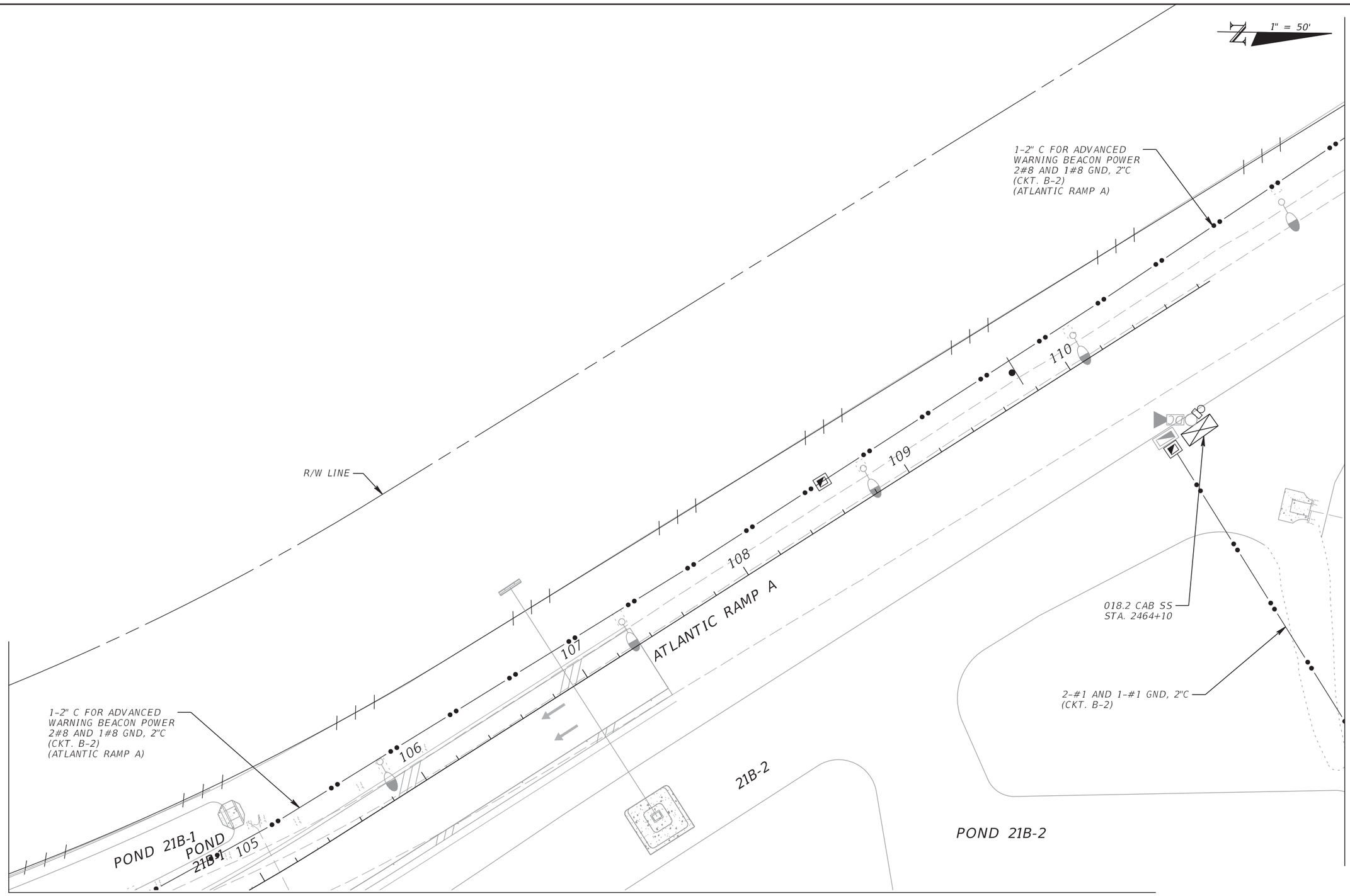
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (20)

SHEET NO.
IT-297



RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (20A)

SHEET NO. IT-298

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (20C)

MATCH LINE SEE ITS ELECTRICAL PLAN (20A)

ATLANTIC RAMP A

1-2" C FOR ADVANCED WARNING BEACON POWER 2#8 AND 1#8 GND, 2"C (CKT. B-2) (ATLANTIC RAMP A)

785

786

787

788

789

ATLANTIC RAMP D

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

EXIST. POND 21B-2A

EXIST. POND 21B-2A

MATCH LINE SEE ITS ELECTRICAL PLAN (22)

2

1-2" C FOR ADVANCED WARNING BEACON POWER 2#8 AND 1#8 GND, 2"C (CKT. B-2) (ATLANTIC RAMP A)

ADVANCED WARNING BEACON STA. 229+54 (ATLANTIC RAMP A)

ADVANCED WARNING BEACON STA. 230+02 (ATLANTIC RAMP A)

1-2" C FOR ADVANCED WARNING BEACON POWER 2#10 AND 1#10 GND, 2"C (CKT. B-2) (ATLANTIC RAMP A)

230

231

232

233

W ATLANTIC BLVD

RELEASED FOR CONSTRUCTION DATE: 08/22/2018

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4Q84

BY: (Stantec) JB

BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZE		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (20B)

SHEET NO. IT-299

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (20C)

MATCH LINE SEE ITS ELECTRICAL PLAN (20A)

ATLANTIC RAMP A

1-2" C FOR ADVANCED WARNING BEACON POWER 2#8 AND 1#8 GND, 2"C (CKT. B-2) (ATLANTIC RAMP A)

1-2" C FOR ADVANCED WARNING BEACON POWER 2#10 AND 1#10 GND, 2"C (CKT. B-2) (ATLANTIC RAMP A)

ADVANCED WARNING BEACON STA. 229+54 (ATLANTIC RAMP A)

ADVANCED WARNING BEACON STA. 230+02 (ATLANTIC RAMP A)

1-2" C FOR ADVANCED WARNING BEACON POWER 2#10 AND 1#10 GND, 2"C (CKT. B-2) (ATLANTIC RAMP A)

VOID

785

786

787

788

789

230

231

232

233

ATLANTIC RAMP D

2-#1 AND 1-#1 GND, 2"C (CKT. B-2)

EXIST. POND 21B-2A

EXIST. POND 21B-2A

W ATLANTIC BLVD

MATCH LINE SEE ITS ELECTRICAL PLAN (22)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (20B)

SHEET NO. IT-299

223 224 225 226 227 228 229

W ATLANTIC BLVD

1" = 50'

1-2" C FOR ADVANCED WARNING BEACON POWER 2#10 AND 1#10 GND, 2"C (CKT. B-2)

ADVANCED WARNING BEACON STA. 223+50

ADVANCED WARNING BEACON STA. 227+57 (ATLANTIC RAMP A)

ADVANCED WARNING BEACON STA. 277+44 (ATLANTIC RAMP A)

1-2" C FOR ADVANCED WARNING BEACON POWER 2#8 AND 1#8 GND, 2"C (CKT. B-2) (ATLANTIC RAMP A)

2

1-2" C FOR ADVANCED WARNING BEACON POWER 2#8 AND 1#8 GND, 2"C (CKT. B-2) (ATLANTIC RAMP A)

ATLANTIC RAMP A

LA R/W LINE

R/W LINE

1-2" C FOR ADVANCED WARNING BEACON POWER 2#8 AND 1#8 GND, 2"C (CKT. B-2) (ATLANTIC RAMP A)

MATCH LINE SEE ITS ELECTRICAL PLAN (20B)

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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and satisfactory fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZE		

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STATE OF FLORIDA
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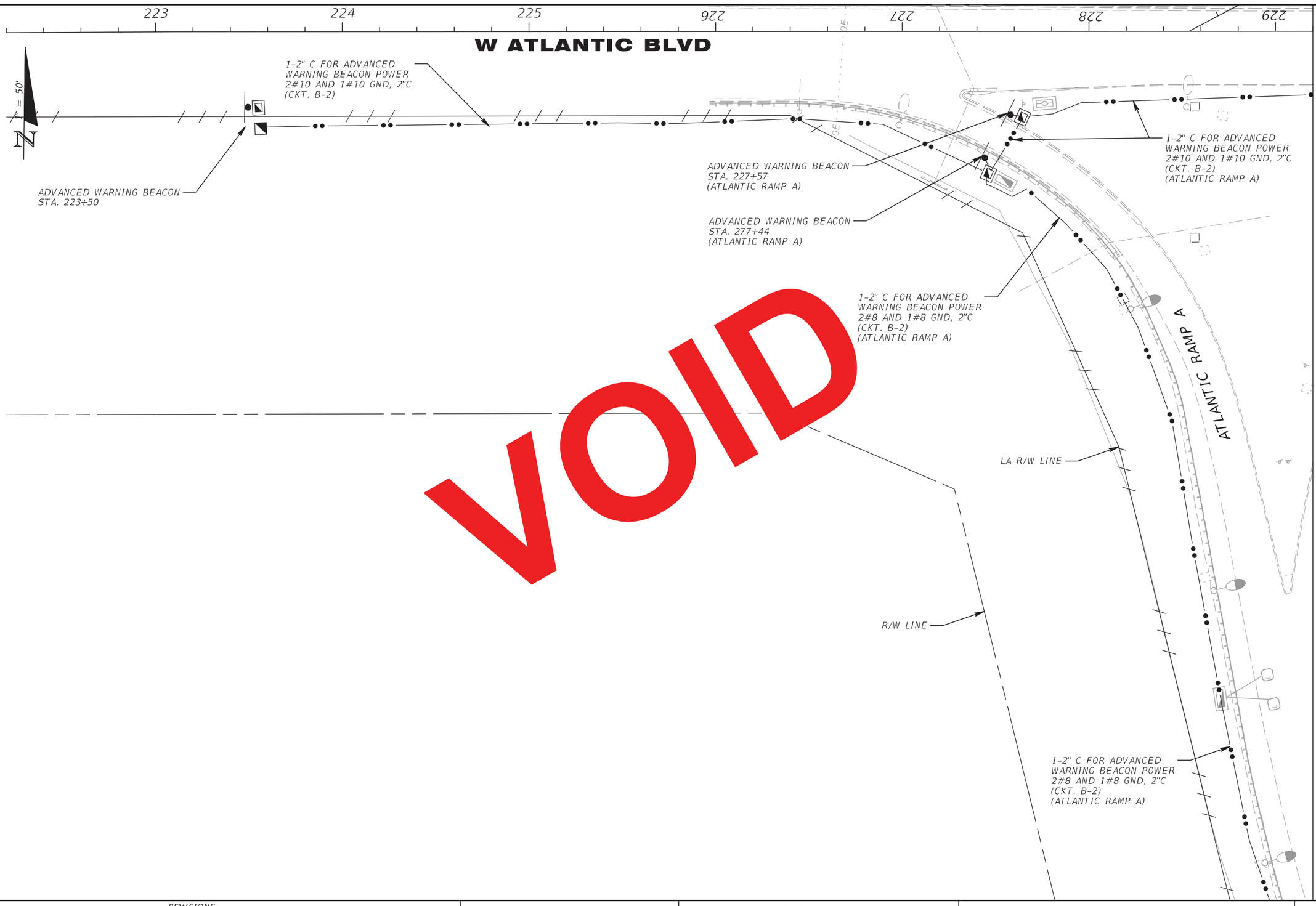
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (20C)

SHEET NO. IT-300



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec) PE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (20C)

SHEET NO. IT-300

MATCH LINE SEE ITS ELECTRICAL PLAN (20A)

MATCH LINE SEE ITS ELECTRICAL PLAN (20B)

1" = 50'

POND 21B-2

POND 21B-2

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

790

ATLANTIC RAMP D

SEE ITS PLANS FOR CAMERA WIRING AND CONDUIT

SB SR 9 (I-95)

4460 4461 4462 4463 4464 4465 4466

2460 2461 2462 2463 2464 2465 2466 2467

PGL LT

℄ CONST. I-95

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

EXPRESS LANES

EXPRESS LANES

3461 3462 3463 3464 3465 3466 3467

PGL RT

018.3 CAB NS STA. 2465+66 (RSS CABINET) SEE NOTE 2

NB SR 9 (I-95)

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 1)

TOLL GANTRY - SITE 5 STA. 2460+60 SEE TOLLING PLANS

1-2"C FOR ADVANCED WARNING BEACON POWER 3#10 AND 1#10 GND, 2"C (CKT. B-2) (ATLANTIC RAMP C)

RED/GREEN SIGNAL STA. 2465+92 (ATLANTIC RAMP C)

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

490

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

018.2 CAB NS STA. 2461+21

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).
2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM THIS CABINET WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCIATED D-CCTV. SEE ITS ELECTRICAL PLAN (21A) FOR D-CCTV LOCATION. SEE ITS PLAN (21) FOR CONDUIT.

POND 21B-5

2-2"C: 2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2); 1-2" WITHIN ADVANCED WARNING BEACON POWER 2#10 AND 1#10 GND, 2"C (CKT. B-2) (ATLANTIC RAMP C)

489 ATLANTIC RAMP C

EXIST. POND 21B-5A

2-2"C: 2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2); 1-2"C WITH 2#10 AND 1#10 GND (CKT. B-2) FOR ADVANCED WARNING BEACON POWER (ATLANTIC RAMP C)

208 ATLANTIC RAMP B

MATCH LINE STA. 2460+00

MATCH LINE STA. 2467+00

MATCH LINE SEE ITS ELECTRICAL PLAN (21A)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED CONDUIT AND WIRE QUANTITY, WIRE SIZES, AND ADDED ITS EQUIPMENT		
09/13/19	AS-BUILTS		

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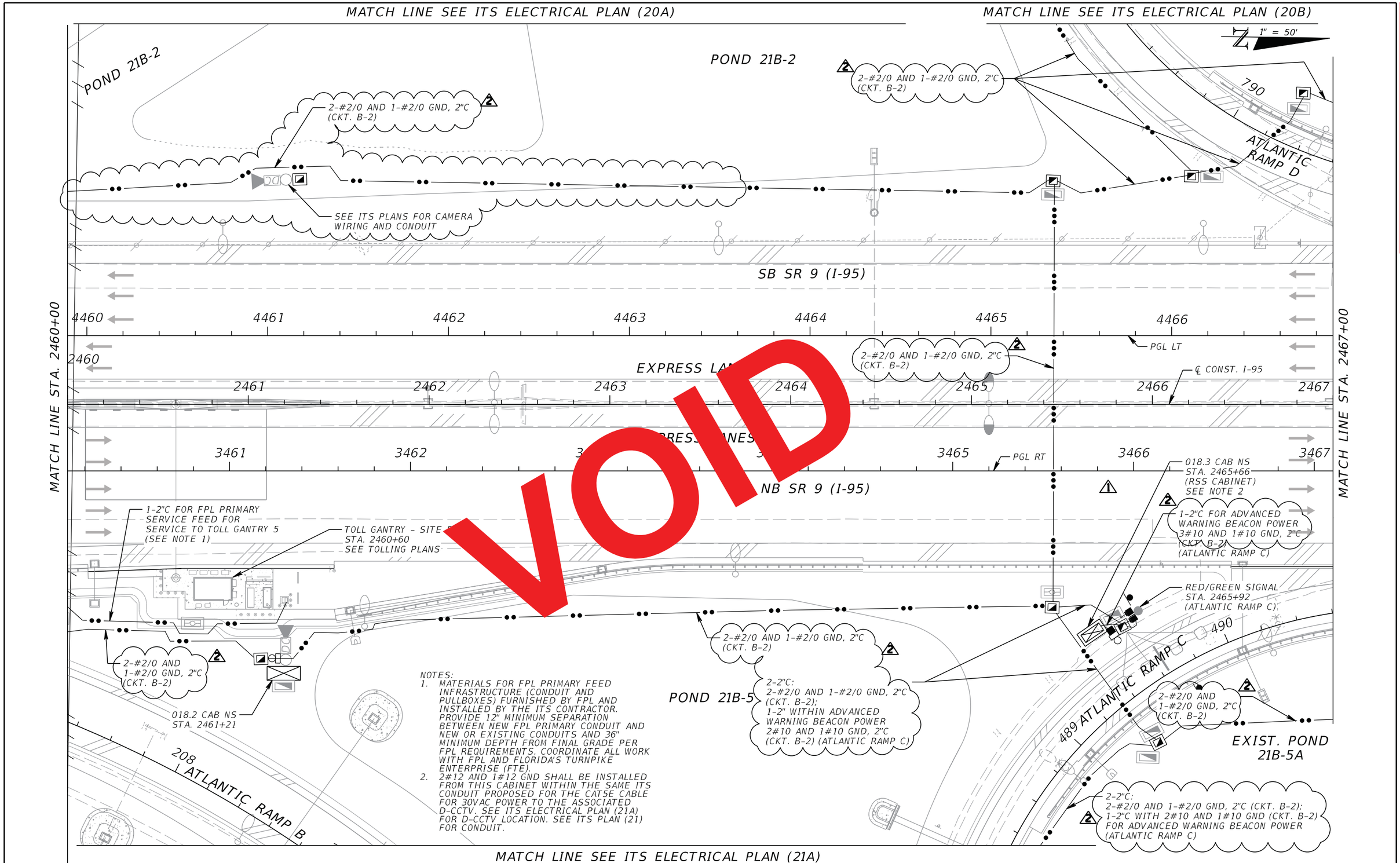
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (21)

SHEET NO.

IT-301



NOTES:
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2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM THIS CABINET WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCIATED D-CCTV. SEE ITS ELECTRICAL PLAN (21A) FOR D-CCTV LOCATION. SEE ITS PLAN (21) FOR CONDUIT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED CONDUIT AND WIRE QUANTITY, WIRE SIZES, AND ADDED ITS EQUIPMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (21)

SHEET NO.
IT-301

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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MATCH LINE SEE ITS ELECTRICAL PLAN (20A)

MATCH LINE SEE ITS ELECTRICAL PLAN (20B)

1" = 50'

POND 21B-2

POND 21B-2

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

790

ATLANTIC RAMP D

SB SR 9 (I-95)

4460 4461 4462 4463 4465 4466

2460 2461 2462 2463 2465 2466 2467

PGL LT

℄ CONST. I-95

EXPRESS LANES

3461 3462 3464 3465 3466 3467

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2460+00

MATCH LINE STA. 2467+00

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 1)

TOLL GANTRY - SITE 5
STA. 2460+60
SEE TOLLING PLANS

018.3 CAB NS
STA. 2465+66
(RSS CABINET)
SEE NOTE 2

1-2" C FOR ADVANCED WARNING BEACON POWER 2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP C)

RED/GREEN SIGNAL
STA. 2465+92
(ATLANTIC RAMP C)

490

489 ATLANTIC RAMP C

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

018.2 CAB NS
STA. 2461+21

208 ATLANTIC RAMP B

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).
2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM THIS CABINET WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCIATED D-CCTV. SEE ITS ELECTRICAL PLAN (21A) FOR D-CCTV LOCATION. SEE ITS PLAN (21) FOR CONDUIT.

POND 21B-5

2-2"C:
2-#1 AND 1-#1 GND, 2"C
(CKT. B-2);
ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP C)

EXIST.
POND 21B-5A

MATCH LINE SEE ITS ELECTRICAL PLAN (21A)

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of plans remains with EOR. Additional submittals may be required. Approval does not relieve contractor of responsibility for dimensions, quantities, and erection and shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) PL

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

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EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (21)

SHEET NO.
IT-301

MATCH LINE SEE ITS ELECTRICAL PLAN (20A)

MATCH LINE SEE ITS ELECTRICAL PLAN (20B)

1" = 50'

POND 21B-2

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

790 ATLANTIC RAMP D

SB SR 9 (I-95)

4460 4461 4462 4463 4464 4465 4466

2460 2461 2462 2463 2464 2465 2466 2467

EXPRESS LANES

PGL LT

℄ CONST. I-95

PGL RT

3461 3462 3463 3464 3465 3466 3467

NB SR 9 (I-95)

MATCH LINE STA. 2460+00

MATCH LINE STA. 2467+00

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 5 (SEE NOTE 1)

TOLL GANTRY - SITE 5
STA. 2460+60
SEE TOLLING PLANS

018.3 CAB NS
STA. 2465+60
(RSS CABINET)
SEE NOTE 2

RED/GREEN SIGNAL
STA. 2466+03
(ATLANTIC RAMP C)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

018.2 CAB NS
STA. 2461+21

208 ATLANTIC RAMP B

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).
2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM THIS CABINET WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCIATED D-CCTV. SEE ITS ELECTRICAL PLAN (21A) FOR D-CCTV LOCATION. SEE ITS PLAN (21) FOR CONDUIT.

POND 21B-5

2-2"C:
2-#1 AND 1-#1 GND, 2"C
(CKT. B-2);
ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP C)

489 ATLANTIC RAMP C 490

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

1-2" C FOR ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP C)

EXIST.
POND 21B-5A

MATCH LINE SEE ITS ELECTRICAL PLAN (21A)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (21)

SHEET NO.
IT-301

C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpw1nf02.pbsvc.com:pw1seV81\Documents\FL - Miami Projects\I-95 Phase 3A-2\lighting\eng_data\433108552O1_I95_Ph3A2LTG.tbl abreuk 7/26/2017 12:27:14 PM c:\projectwise\pb\projectwiseint\abreuk\d0137985\planit21_E.DGN

MATCH LINE SEE ITS ELECTRICAL PLAN (21)

1" = 50'

STATIC SIGN

POND 21B-4

ATLANTIC RAMP B

210

211

212

213

214

215

216

POND 21B-5

SEE NOTE 1

ATLANTIC RAMP C

488

487

486

485

484

EXIST.
POND 21B-5A

EXIST.
POND 21B-5A

2-2"C;
2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2);
1-2"C WITH 2#10 AND 1#10 GND (CKT. B-2)
FOR ADVANCED WARNING BEACON POWER
(ATLANTIC RAMP C)

1-2"C FOR ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP C)

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

018.3 CAB NS 3
STA. 2466+27

STATIC SIGN

R/W LINE

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM CABINET 018.3 CAB NS (STA. 2465+60) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCATED D-CCTV. SEE ITS ELECTRICAL PLAN (21) FOR CABINET LOCATION. SEE ITS PLAN (22A) FOR CONDUIT.

MATCH LINE SEE ITS ELECTRICAL PLAN (22A)

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RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY AND WIRE SIZES, AND ADDED ITS EQUIPMENT		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (21A)

SHEET NO.
IT-302

MATCH LINE SEE ITS ELECTRICAL PLAN (21)

1" = 50'

POND 21B-5

EXIST.
POND 21B-5A

STATIC SIGN

POND 21B-4

ATLANTIC RAMP B

210

211

212

213

214

215

216

ATLANTIC RAMP C

488

487

486

485

484

SEE NOTE 1

1-2" C FOR ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C (CKT. B-2)
(ATLANTIC RAMP C)

EXIST.
POND 21B-5A

1-2" C FOR ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP C)

R/W LINE

STATIC SIGN

30

VOID

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM CABINET 018.3 CAB NS (STA. 2465+60) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCATED D-CCTV. SEE ITS ELECTRICAL PLAN (21) FOR CABINET LOCATION. SEE ITS PLAN (21A) FOR CONDUIT.

MATCH LINE SEE ITS ELECTRICAL PLAN (22A)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (21A)

SHEET NO.
IT-302

MATCH LINE SEE ITS ELECTRICAL PLAN (20B)

EXIST.
POND 21B-2A

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

018.3 CAB SS
STA. 2468+99

1-2" C FOR ADVANCED WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C (CKT. B-2)
(ATLANTIC RAMP A)

1-2"C FOR ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND,
(CKT. B-2)
(ATLANTIC RAMP C)

ADVANCED WARNING
BEACON
STA. 794+60
(ATLANTIC RAMP C)

POND
21B-8

1" = 50'

W ATLANTIC
BLVD

ATLANTIC RAMP D

SB SR 9 (I-95)

1-2"C FOR ADVANCED WARNING
BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP A) AND
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP C)
SEE NOTE 1

PGL LT

STATIC SIGN

℄ CONST. I-95

EXPRESS LANES

EXPRESS LANES

PGL RT

NB SR 9 (I-95)

ATLANTIC RAMP C

018.3 CAB NS_2
STA. 2468+02

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

2-2"C:
2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2);
1-2"C FOR ADVANCED WARNING
BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP A) AND
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP C)
SEE NOTE 1

NOTE:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.

EXIST.
POND 21B-5A

ATLANTIC
RAMP F

MATCH LINE STA. 2467+00

MATCH LINE STA. 2474+00

MATCH LINE SEE ITS ELECTRICAL PLAN (22A)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY AND WIRE SIZES, AND ADDED ITS EQUIPMENT		
09/13/19	AS-BUILTS		

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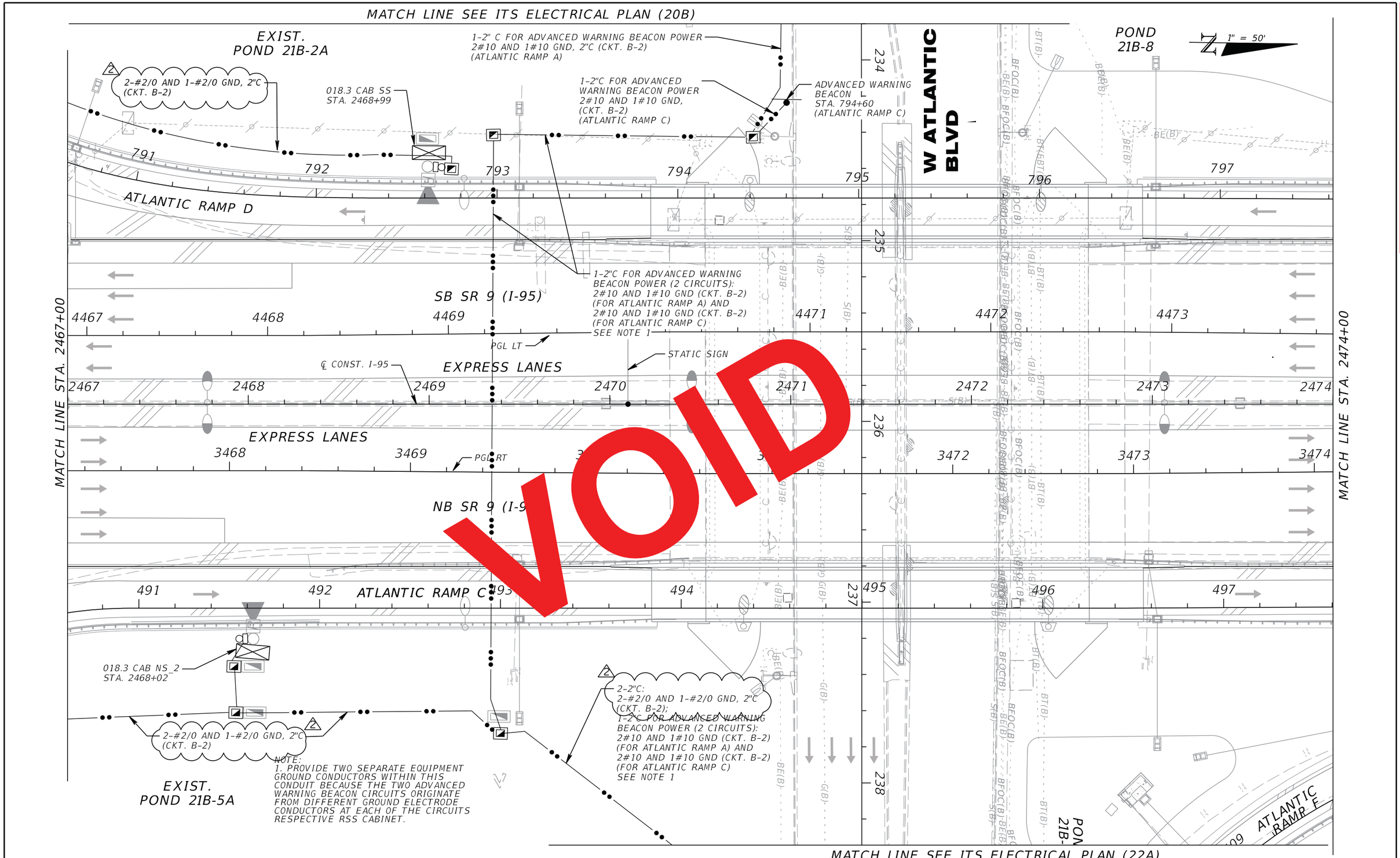
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (22)

SHEET NO.
IT-303



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY AND WIRE SIZES, AND ADDED ITS EQUIPMENT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (22)

SHEET NO. IT-303

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

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C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3A-2\lighting\eng_data\433108552OI_I95_Ph3A2LTG.tbl abreuk 8/7/2018 10:02:51 AM c:\projectwise\pb\projectwiseint\abreuk\d0137985\planit22_E.DGN

MATCH LINE SEE ITS ELECTRICAL PLAN (20B)

EXIST.
POND 21B-2A

1-2" C FOR ADVANCED WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C (CKT. B-2)
(ATLANTIC RAMP A)

2-#1 AND 1-#1 GND, 2"C
CKT. B-2

018.3 CAB SS
STA. 2468+99

1-2"C FOR ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND,
(CKT. B-2)
(ATLANTIC RAMP C)

ADVANCED WARNING
BEACON
STA. 794+60
(ATLANTIC RAMP C)

W ATLANTIC
BLVD

POND
21B-8

1" = 50'

ATLANTIC RAMP D

SB SR 9 (I-95)

1-2"C FOR ADVANCED WARNING
BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP A) AND
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP C)
SEE NOTE 1

PGL LT

STATIC SIGN.

℄ CONST. I-95

EXPRESS LANES

EXPRESS LANES

PGL RT

NB SR 9 (I-95)

ATLANTIC RAMP C

018.3 CAB NS
STA. 2468+02

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

2-2"C:
2-#1 AND 1-#1 GND, 2"C
(CKT. B-2) AND
1-2"C FOR ADVANCED WARNING
BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP A) AND
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP C)
SEE NOTE 1

NOTE:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.

EXIST.
POND 21B-5A

ATLANTIC RAMP F

MATCH LINE STA. 2467+00

MATCH LINE STA. 2474+00

MATCH LINE SEE ITS ELECTRICAL PLAN (22A)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (22)

SHEET NO.
IT-303

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (22)

2-2"C:
2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2);
1-2"C FOR ADVANCED WARNING
BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP A) AND
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP C)
SEE NOTE 1

1-2"C FOR ADVANCED WARNING
BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP A) AND
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP C)
SEE NOTE 1

EXIST.
POND 21B-5A

ADVANCED
WARNING BEACON
STA. 479+26
(ATLANTIC RAMP C)

ADVANCED WARNING BEACON
STA. 479+17
(ATLANTIC RAMP C)

ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP C)

1-2"C FOR ADVANCED WARNING
BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP A) AND
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP C)
SEE NOTE 1

ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP A)

ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP C)

ADVANCED WARNING BEACON
STA. 240+96
(ATLANTIC RAMP A)

018.4 CAB NS
STA. 2472+78

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

ADVANCED WARNING BEACON
STA. 605+56
(ATLANTIC RAMP F)

2-2"C:
2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2);
2#10 AND 1#10 GND, 2"C
FOR ADVANCED WARNING
BEACON POWER (CKT. B-2)
(ATLANTIC RAMP F)

ADVANCED WARNING BEACON
STA. 605+51
(ATLANTIC RAMP F)

ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP F)

ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP F)

MATCH LINE SEE ITS
ELECTRICAL PLAN (23)

MATCH LINE SEE ITS
ELECTRICAL PLAN (21A)

MATCH LINE SEE ITS ELECTRICAL PLAN (22B)

W ATLANTIC BLVD

ATLANTIC RAMP F

ATLANTIC RAMP C

ATLANTIC RAMP B

LA R/W LINE

R/W LINE

NOTE:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINETS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (22A)

SHEET NO.
IT-304

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB
BY: (FDOT)

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N 1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (22)

NOTE:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINETS.

2-2"C:
2-#1 AND 1-#1 GND, 2"C
(CKT. B-2) AND
1-2"C FOR ADVANCED WARNING
BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP A) AND
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP C)
SEE NOTE 1

1-2"C FOR ADVANCED WARNING
BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP A) AND
2#10 AND 1#10 GND (CKT. B-2)
(FOR ATLANTIC RAMP C)
SEE NOTE 1

EXIST.
POND 21B-5A

ADVANCED
WARNING BEACON
STA. 479+26
(ATLANTIC RAMP C)

ADVANCED WARNING BEACON
STA. 479+17
(ATLANTIC RAMP C)

ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP C)

1-2"C FOR ADVANCED WAR
BEACON POWER (2 CIRCUI
2#10 AND 1#10 GND (CKT
(FOR ATLANTIC RAMP A) AN
2#10 AND GND (CKT.
(FOR ATLA MP C)
SEE NOTE 1

ADVANCED
WARNING BEACON POWE
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP A)

ADVANCED WARNING BEACON
STA. 240+96
(ATLANTIC RAMP A)

018.4 CAB NS
STA. 2472+78

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

ADVANCED WARNING BEACON
STA. 605+56
(ATLANTIC RAMP F)

1-2"C WITH:
2-#1 AND 1-#1 GND,
(CKT. B-2) AND
2#10 AND 1#10 GND
FOR ADVANCED WARNING
BEACON POWER (CKT. B-2)
(ATLANTIC RAMP F)

ADVANCED WARNING BEACON
STA. 605+51
(ATLANTIC RAMP F)

ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP F)

ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. B-2)
(ATLANTIC RAMP F)

ATLANTIC RAMP F

W ATLANTIC BLVD

LA R/W LINE

R/W LINE

ATLANTIC RAMP B

ATLANTIC RAMP C

MATCH LINE SEE ITS ELECTRICAL PLAN (21A)

MATCH LINE SEE ITS ELECTRICAL PLAN (22B)

MATCH LINE SEE ITS ELECTRICAL PLAN (23)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec) FL

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2202 North West Shore Blvd, Suite 300
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(813) 520-4444
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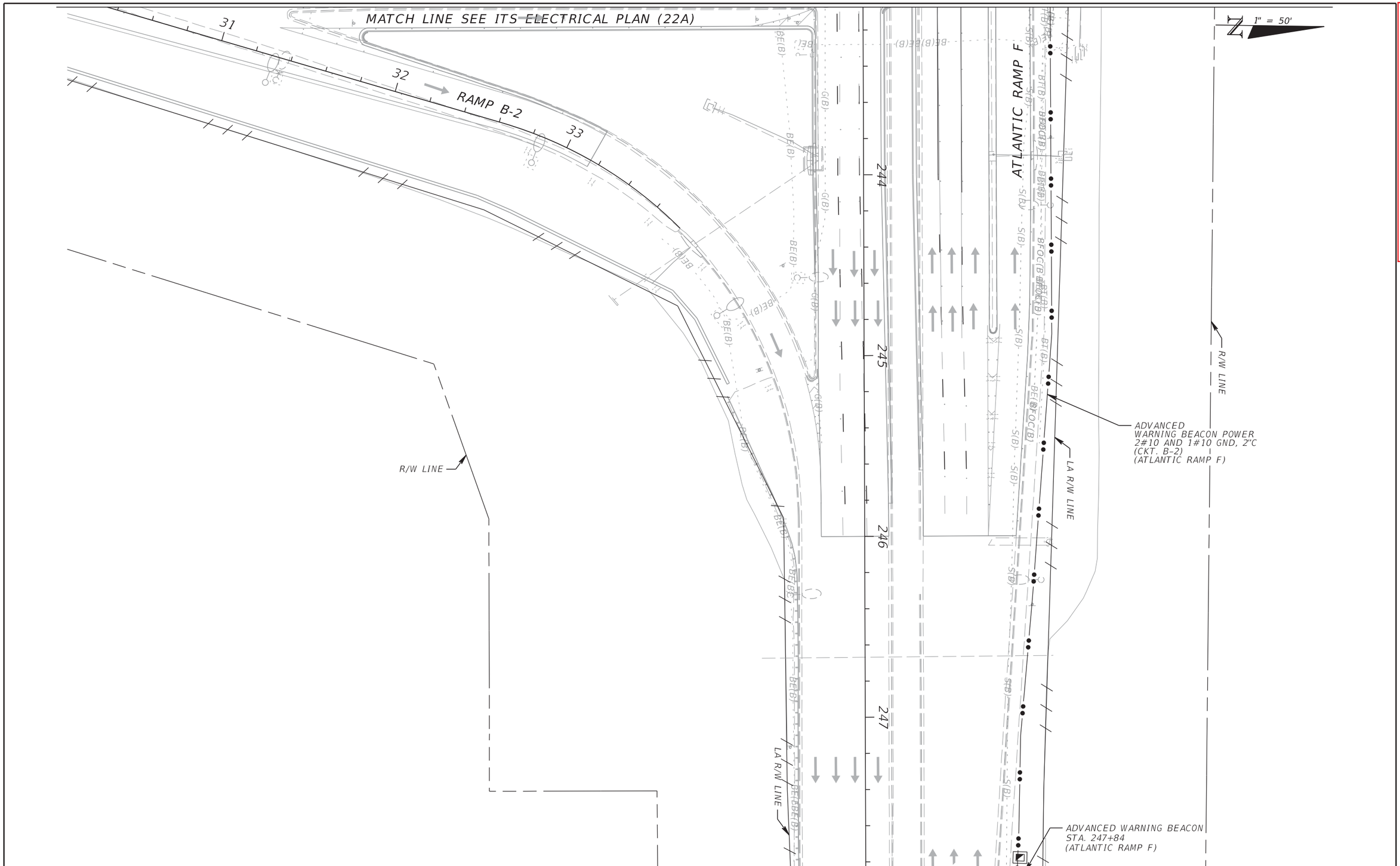
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (22A)

SHEET NO. IT-304



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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (22B)

SHEET NO.
IT-305

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) PL BY: (FDOT)

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SWALE 21B-11

LA R/W LINE

1" = 50'

1-2"C SPARE (ITS ELECTRICAL) FOR FUTURE DMS SIGN POWER

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

018.5 CAB SS STA. 2477+68

ATLANTIC RAMP E

STATIC SIGN

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

ATLANTIC RAMP D

2-2"C SPARE (ITS ELECTRICAL) FOR FUTURE DMS SIGN POWER WIRING

SB SR 9 (I-95)

EXPRESS LANES

℄ CONST. I-95

EXPRESS LANES

NB SR 9 (I-95)

SIGN STRUCTURE FOR FUTURE DMS SIGN (SIGN PANEL AND DMS TO BE INSTALLED BY OTHERS)

2#2/0 AND 1#2/0 GND, 2"C (CKT B-2); 5#10 & 1#10 GND, 2"C FOR RED/GREEN SIGNAL AND ADVANCED WARNING BEACON POWER (ATLANTIC RAMP F)

RED/GREEN SIGNAL POWER 3#10 AND 1#10 GND, 2"C (CKT. B-2) (ATLANTIC RAMP F)

RED/GREEN SIGNAL STA. 2477+46 (ATLANTIC RAMP F)

ATLANTIC RAMP C

ATLANTIC RAMP F

SEE ITS PLANS FOR MVDS CONDUIT AND WIRING

018.5 CAB NS STA. 2475+36 (RSS CAB)

STATIC RAMP SIGN

15" PIPE

2-2"C; 2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2); 2#10 AND 1#10 GND, 2"C FOR ADVANCED WARNING BEACON POWER (CKT. B-2) (ATLANTIC RAMP F)

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

018.6 CAB NS_2 STA. 2480+48

R/W LINE

LA R/W LINE

C-1 CANAL

MATCH LINE STA. 2474+00

MATCH LINE STA. 2481+00

MATCH LINE SEE ITS ELECTRICAL PLAN (22A)

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED CONDUIT AND WIRE QUANTITY, WIRE SIZES, AND ADDED ITS EQUIPMENT		
9/13/19	AS-BUILTS per RFI 354, 356, 490		

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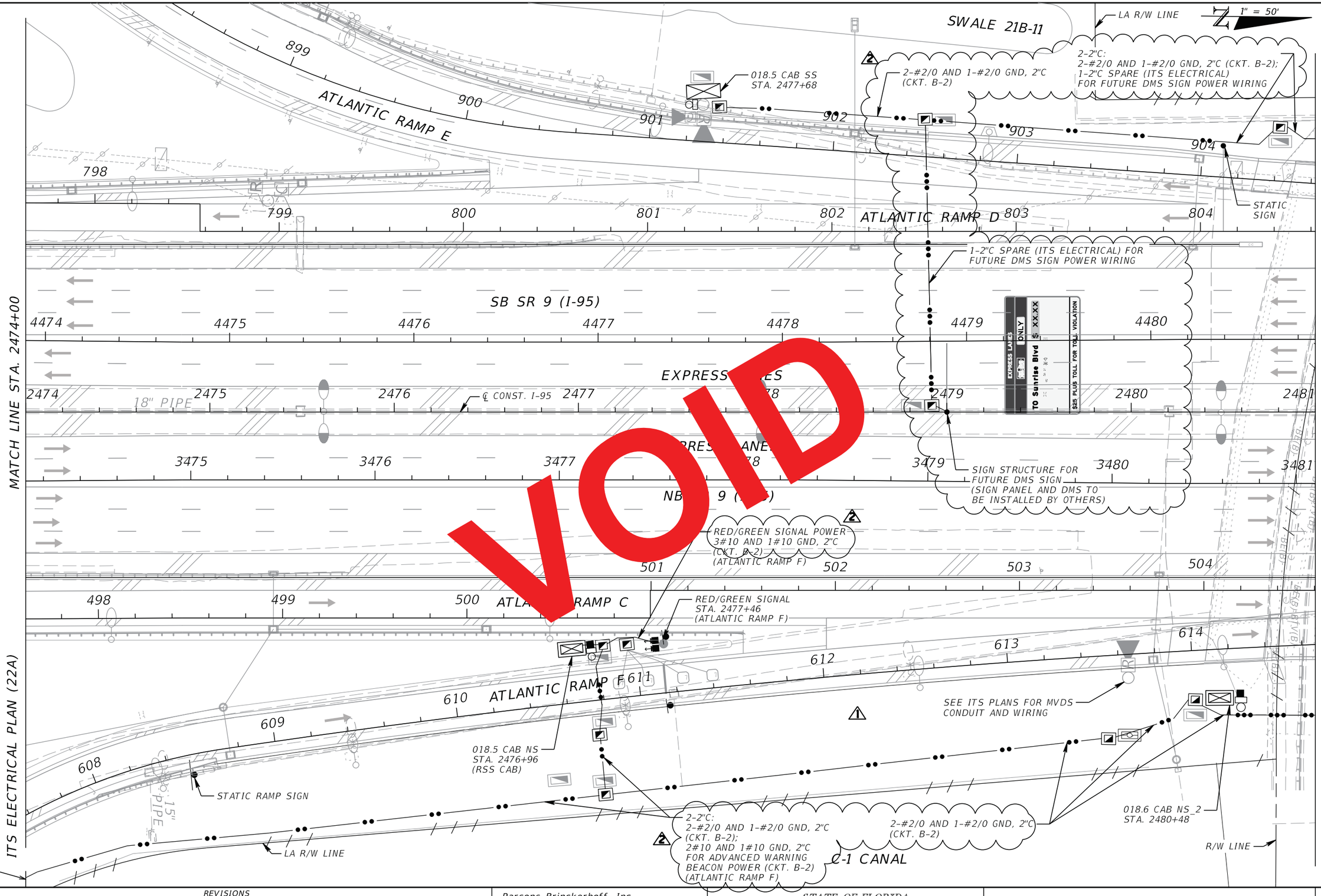
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (23)

SHEET NO.

IT-306



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FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		
3/16/18	2 REVISED CONDUIT AND WIRE QUANTITY, WIRE SIZES, AND ADDED ITS EQUIPMENT		

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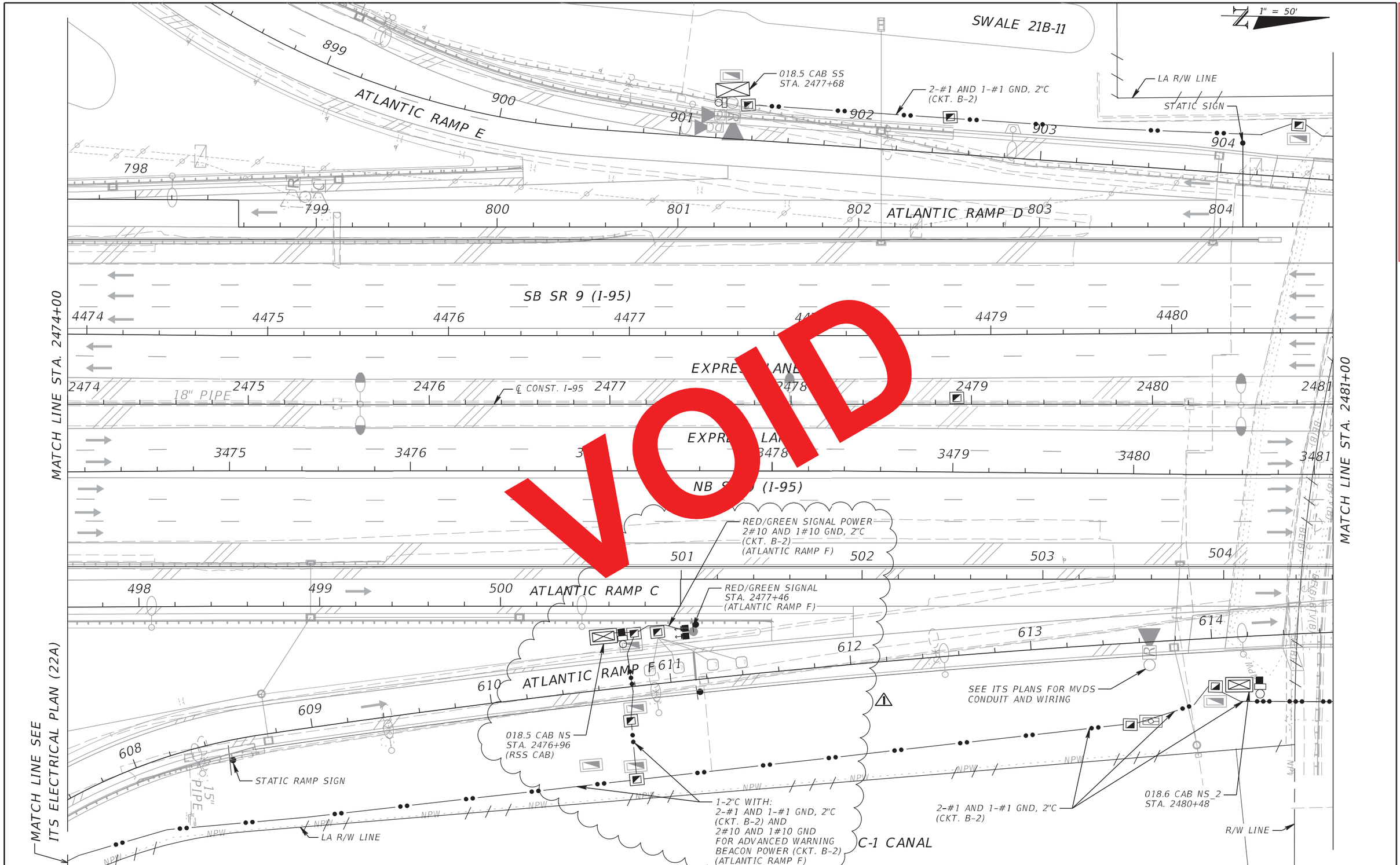
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (23)

SHEET NO. IT-306



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 RAMP SIGNAL SYSTEM AND CABINET MOVED ALONG RAMP		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (23)

SHEET NO.
IT-306

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) PL

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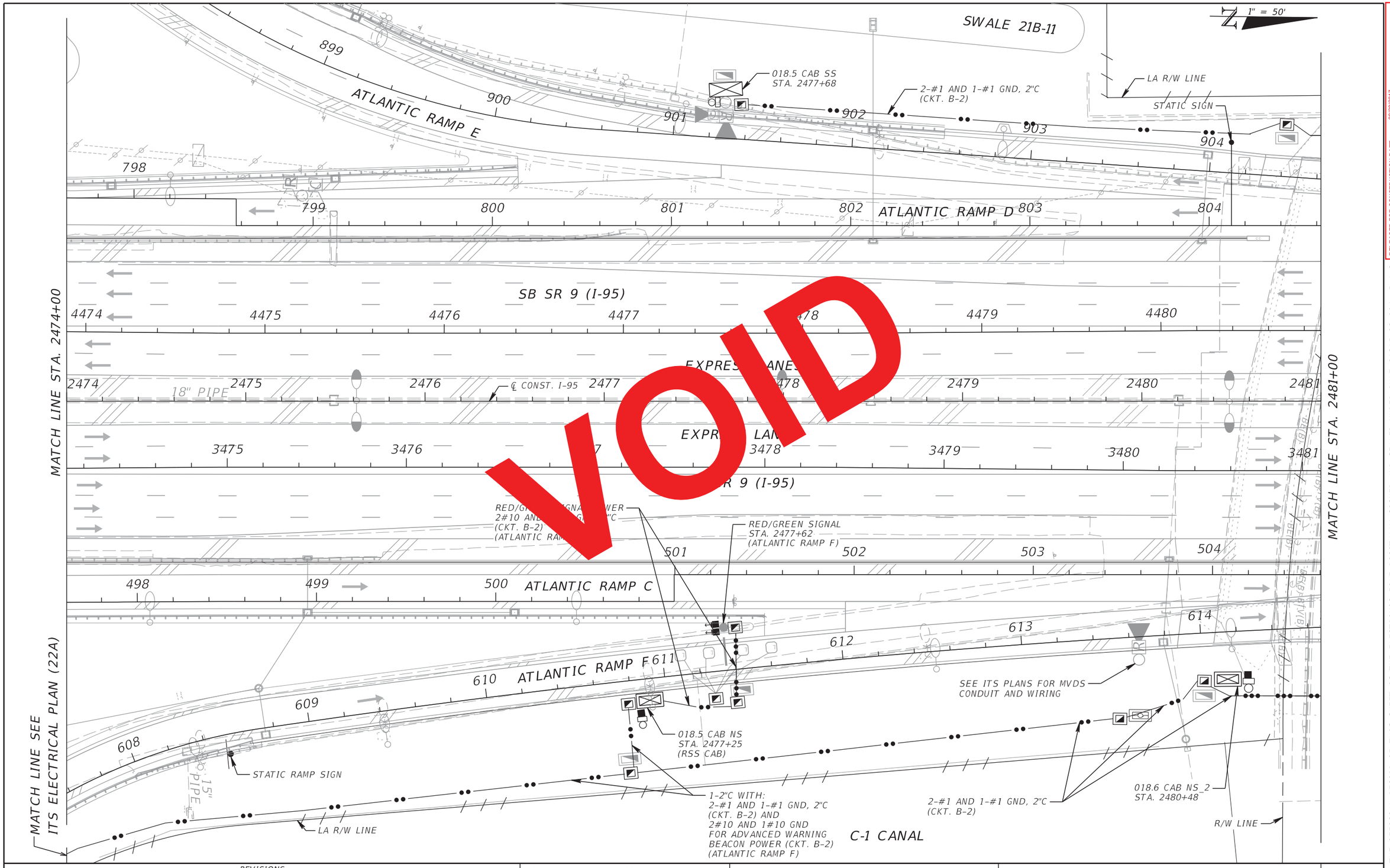

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) PL BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (23)

SHEET NO.
IT-306

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1" = 50'

R/W LINE

LA R/W LINE

LA R/W LINE

1-2"C SPARE (ITS ELECTRICAL) FOR FUTURE DMS SIGN POWER

SWALE 22-1

2"C SPARE (ITS ELECTRICAL) FOR FUTURE DMS SIGN POWER

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

ATLANTIC RAMP D

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

SB SR 9 (I-95)

EXPRESS LANES

℄ CONST. I-95

EXPRESS LANES

NB SR 9 (I-95)

ATLANTIC RAMP C

ATLANTIC RAMP C

018.6 CAB NS STA. 2484+50

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

LA R/W LINE

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

C-1 CANAL

R/W LINE

R/W LINE

MLK BLVD. / HAMMONDVILLE RD

MATCH LINE STA. 2481+00

MATCH LINE STA. 2488+00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY AND WIRE SIZES, AND ADDED ITS EQUIPMENT		
9/13/19	AS-BUILTS per RFI 356, 490, 497		

Parsons Brinckerhoff, Inc.
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (24)

SHEET NO.

IT-307

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R/W LINE

LA R/W LINE

2-2"C;
2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2);
1-2"C SPARE (ITS ELECTRICAL)
FOR FUTURE DMS SIGN POWER WIRING

2

018.6 CAB SS
STA. 2483+00
(DMS CABINET)
SEE NOTE 1

SEE ITS PLANS FOR CAMERA
WIRING AND CONDUIT

LA R/W LINE

SWALE 22-1

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

2

1" = 50'

ATLANTIC RAMP D

SB SR 9 (I-95)

EXPRESS LANES

℄ CONST. I-95

EXPRESS LANES

NB SR 9 (I-95)

ATLANTIC RAMP C

ATLANTIC RAMP C

MLK BLVD
HAMMONDVILLE RD

018.6 CAB NS
STA. 2484+50

LA R/W LINE

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

2

C-1 CANAL

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

2

R/W LINE

R/W LINE

MATCH LINE STA. 2481+00

MATCH LINE STA. 2488+00

805 806 807 808 809 810 811

4481 4482 4483 4484 4485 4486 4487

2481 2482 2483 2484 2485 2486 2487 2488

3482 3483 3484 3485 3486 3487 3488

505 506 507 508 509 510 511

615 616 617

223 224 225 226 227

NOTES:
1. DMS CABINET 018.6 CAB SS IS FOR FUTURE DMS SIGN (TO BE INSTALLED IN PHASE 3B-1). REFER TO ITS PLANS FOR ADDITIONAL INFORMATION.

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details is assumed by the engineer of record. Shop fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY AND WIRE SIZES, AND ADDED ITS EQUIPMENT		

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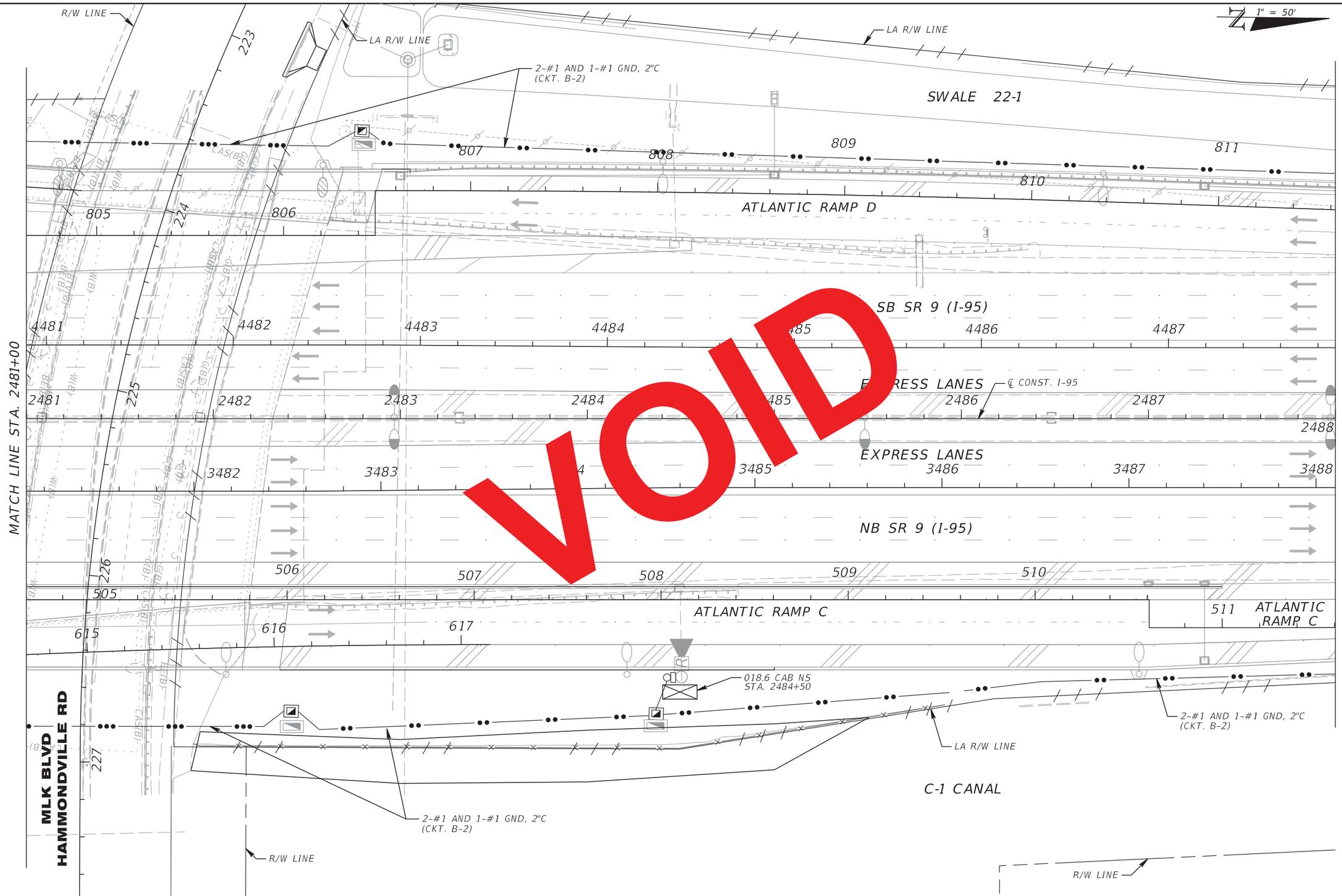
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (24)

SHEET NO.
IT-307



VOID

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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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DEPARTMENT OF TRANSPORTATION

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9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (24)

SHEET NO.
IT-307

1" = 50'

018.6 CAB SS
STA. 2483+00
(DMS CABINET)
SEE NOTE 1

1-2"C SPARE (ITS ELECTRICAL)
FOR FUTURE DMS SIGN POWER

1-2"C SPARE (ITS ELECTRICAL)
FOR FUTURE DMS SIGN POWER

018.8 CAB SS
STA. 2490+85

LA R/W LINE

2-#2/0 AND
1-#2/0 GND, 2"C
(CKT. B-2)

STATIC
SIGN

SWALE 22-1

812 813 814 815 816 817

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

ATLANTIC RAMP D

SEE ITS PLANS FOR CAMERA
WIRING AND CONDUIT

SB SR 9 (I-95)

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

4488 4489 4490 4491 4492 4493 4494

EXPRESS LANES

℄ CONST. I-95

STATIC SIGN

2488 2489 2490 2491 2492 2493 2494 2495

EXPRESS LANES

3489 3490 3491 3492 3493 3494 3495

NB SR 9 (I-95)

MATCH LINE STA. 2488+00

MATCH LINE STA. 2495+00

512 513 514 515 516 517 518

ATLANTIC RAMP C

2-#2/0 AND 1-#2/0 GND, 2"C
(CKT. B-2)

C-1 CANAL

R/W LINE

NOTES:
1. DMS CABINET 018.6 CAB SS IS FOR FUTURE DMS SIGN (TO BE INSTALLED IN PHASE 3B-1). REFER TO ITS PLANS FOR ADDITIONAL INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		
9/13/19	AS-BUILTS per RFI 356, 490		

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (25)

SHEET NO.
IT-308

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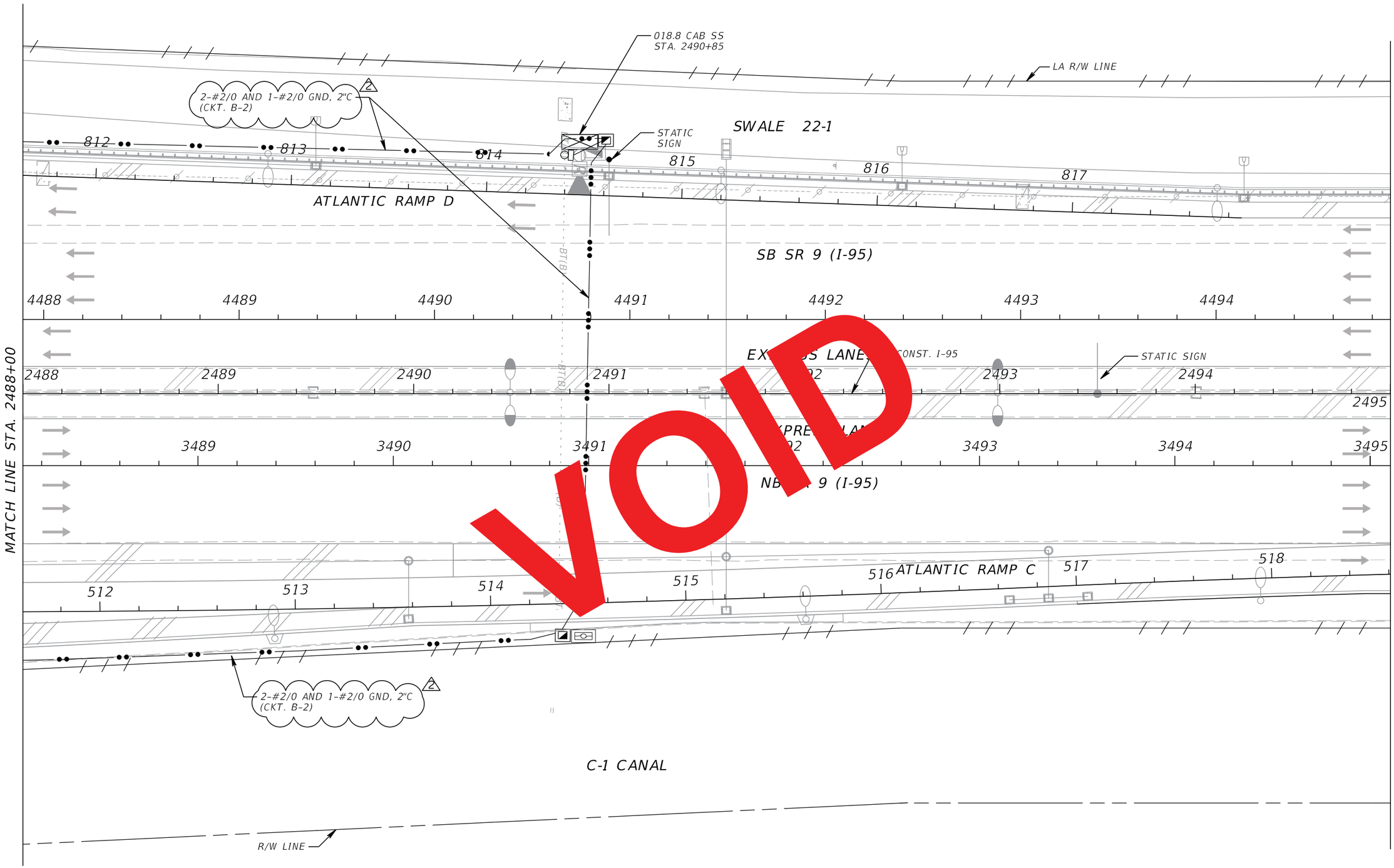

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (25)

SHEET NO.
IT-308

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

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1" = 50'

018.8 CAB SS
STA. 2490+85

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

STATIC SIGN

SWALE 22-1

812 813 814 815 816 817

ATLANTIC RAMP D

SB SR 9 (I-95)

4488 4489 4490 4491 4492 4493 4494

EXPRESS LANES ℄ C I-95

STATIC SIGN

2488 2489 2490 2491 2492 2493 2494 2495

EXPRESS LANES

3489 3490 3491 3492 3493 3494 3495

NB SR 9 (I-95)

MATCH LINE STA. 2488+00

MATCH LINE STA. 2495+00

512 513 514 515 516 517 518

ATLANTIC RAMP C

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

C-1 CANAL

R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (25)

SHEET NO.
IT-308

1" = 50'

LA R/W LINE

SWALE 22-1

EXISTING DEVICE AND CABINET TO BE REMOVED

SWALE 22-1

SB SR 9 (I-95)

4495 4496 4497 4498 4499 4500 4501

EXPRESS LANES

℄ CONST. I-95

2495 2496 2497 2498 2499 2500 2501 2502

EXPRESS LANES

3496 3497 3498 3499 3500 3501 3502

NB SR 9 (I-95)

519 ATLANTIC RAMP C 520 521

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C (CKT. C-1)

019.0 CAB NS STA. 2501+75

C-1 CANAL

R/W LINE

MATCH LINE STA. 2495+00

MATCH LINE STA. 2502+00

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (26)

SHEET NO.

IT-309

1" = 50'

LA R/W LINE

019.0 CAB SS
STA. 2503+74

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

SWALE 22-1

BT(B)-OE

SB SR 9 (I-95)

4502 4503 4504 4505 4506 4507 4508

EXPRESS LANES

℄ CONST. I-95

2502 2503 2504 2505 2506 2507 2508 2509

EXPRESS LANES

3503 3504 3505 3506 3507 3508 3509

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2502+00

MATCH LINE STA. 2509+00

STATIC SIGN

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

C-1 CANAL

R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILTS per RFI 357		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (27)

SHEET NO.
IT-310

1" = 50'

LA R/W LINE

019.0 CAB SS
STA. 2503+62

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

SWALE 22-1

SB SR 9 (I-95)

4502 4503 4504 4505 4506 4507 4508

EXPRESS LANES

℄ I-95

2502 2503 2504 2505 2507 2508 2509

3503 3504 3505 3507 3508 3509

NB SR 9 (I-95)

PGL RT

MATCH LINE STA. 2502+00

MATCH LINE STA. 2509+00

BT(B)
OE

STATIC SIGN

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

C-1 CANAL

R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (27)

SHEET NO.
IT-310

1" = 50'

LA R/W LINE

SWALE 22-1

SB SR 9 (I-95)

3-#4 AND
1-#4 GND, 2"C
(TO DMS SIGN)

4509 4510 4511 4512 4513 4514 4515

PGL LT

95 SB 019.2
STA. 2515+84
(FRONT ACCESS DMS)

℄ CONST. I-95

EXPRESS LANES

2509 2510 2511 2512 2513 2514 2515 2516

EXPRESS LANES

3510 3511 3512 3513 3514 3515 3516

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2509+00

MATCH LINE STA. 2516+00

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

019.2 CAB NS
STA. 2515+84

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)
(JACK AND BORE CONDUIT)

C-1 CANAL

R/W LINE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS		

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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (28)

SHEET NO.
IT-311

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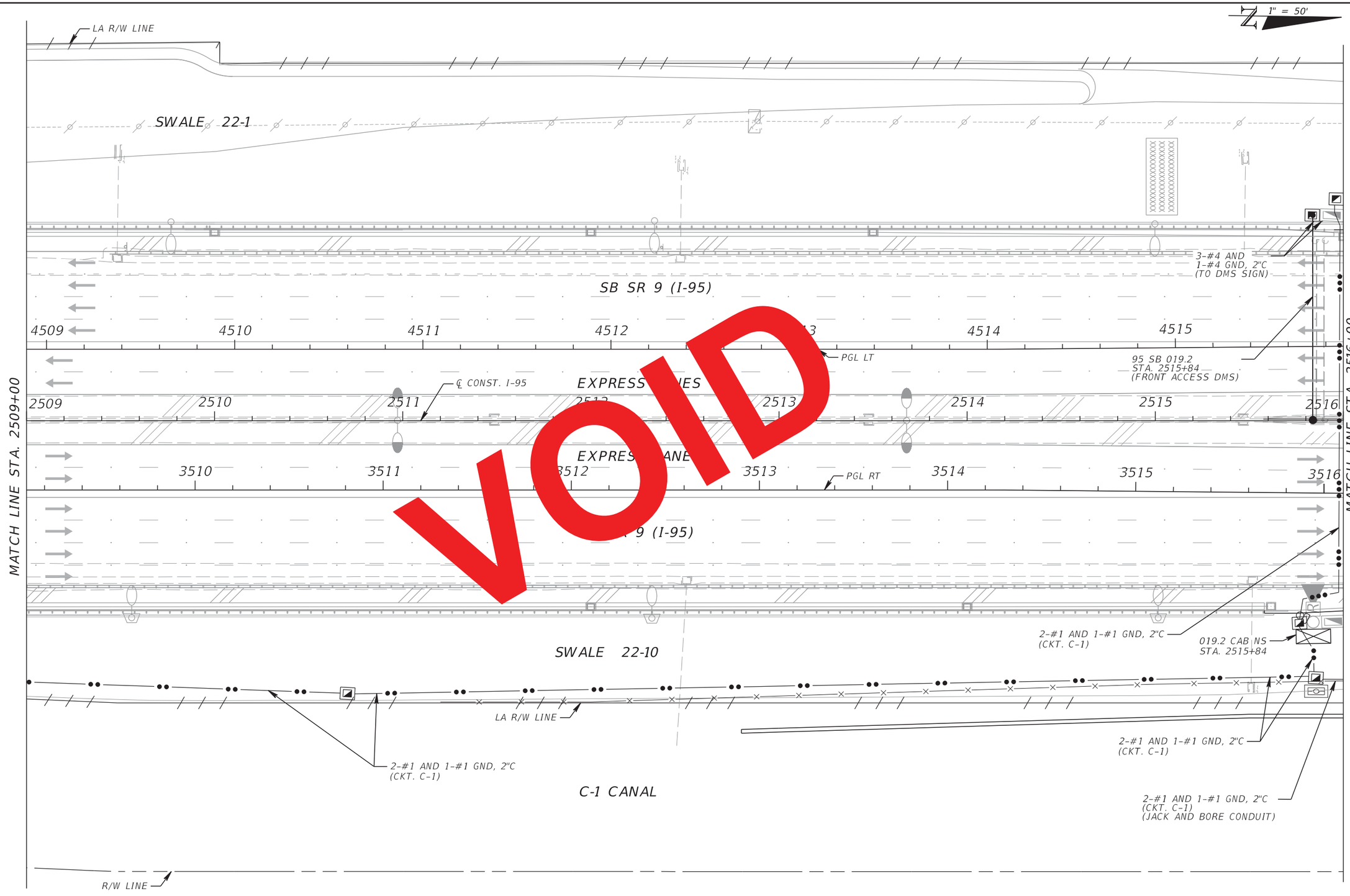

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (28)

SHEET NO.

IT-311

1" = 50'

R/W LINE

LA R/W LINE

LA R/W LINE

LA R/W LINE

SWALE 22-11

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

019.2 CAB SS 2
STA. 2516+27
(DMS CABINET)

3-#4 AND 1-#4 GND, 2"C
(TO DMS SIGN)

019.2 CAB SS
STA. 2516+05

SB SR 9 (I-95)

MATCH LINE STA. 2516+00

4516 4517 4518 4519 4520 4521 4522

PGL LT

EXPRESS LANES

℄ CONST. I-95

2516 2517 2518 2519 2520 2521 2522 2523

EXPRESS LANES

3517 3518 3519 3520 3521 3522 3523

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2523+00

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)
(JACK AND BORE CONDUIT)

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

C-1 CANAL

R/W LINE

R/W LINE

R/W LINE

FEC RAILROAD

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REVISIONS			
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09/13/19	AS-BUILTS		

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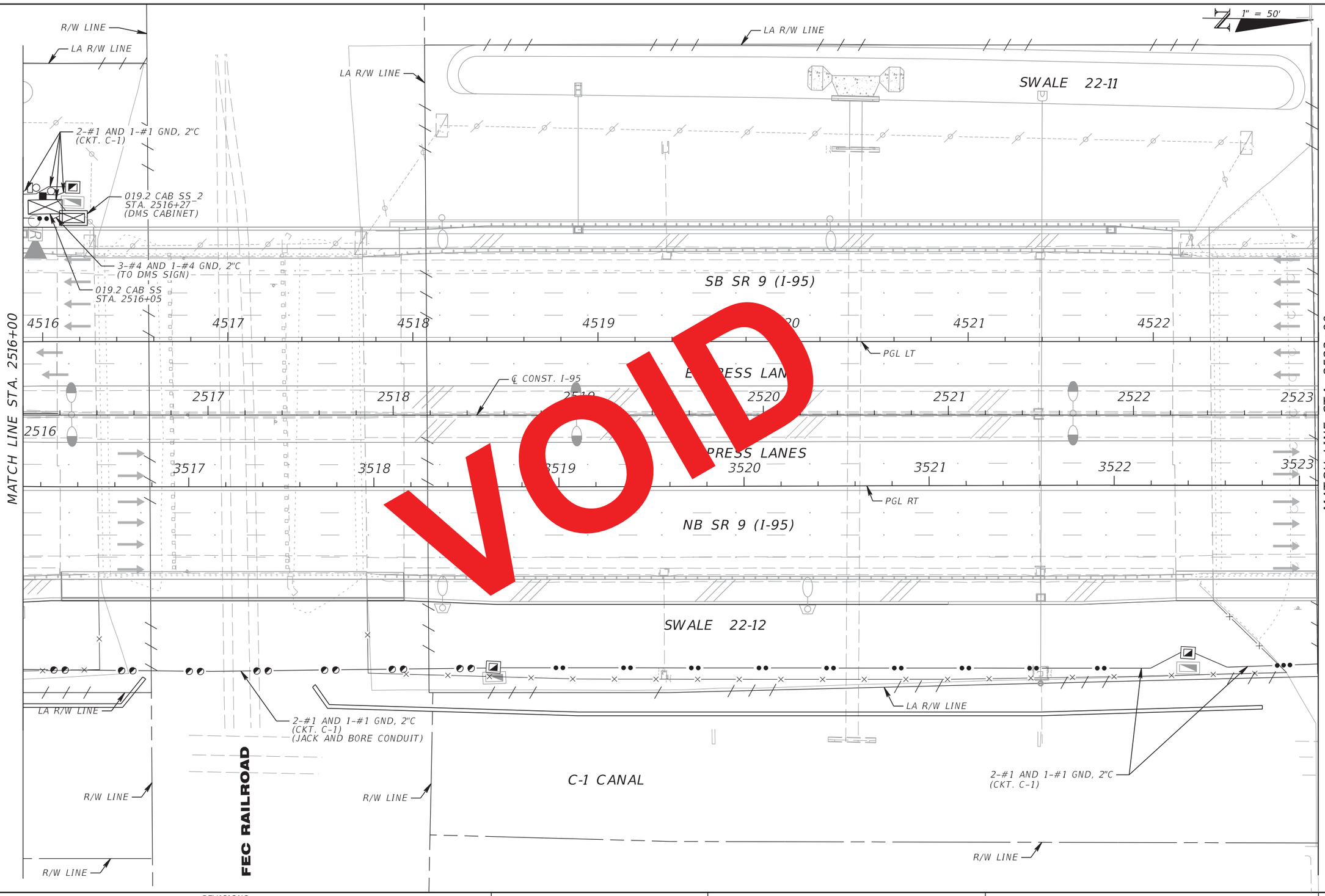
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (29)

SHEET NO.

IT-312



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stamtec) BY: (FDOT)

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REVISIONS			
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (29)

SHEET NO.
IT-312

1" = 50'

NW 15TH STREET

LA R/W LINE

019.5 CAB SS
STA. 2528+12

SWALE 23-1

SB SR 9 (I-95)

6523 6524 6525 6526 6527 6528 6529 6530

PGL LT

EXPRESS LANES

℄ CONST. I-95

2523 2524 2525 2526 2527 2528 2529 2530

EXPRESS LANES

5523 5524 5525 5526 5527 5528 5529 5530

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2523+00

MATCH LINE STA. 2530+00

1-2" ELECTRICAL SPARE

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-1)

C-1 CANAL

NW 15TH STREET

R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILT per RFI 490		

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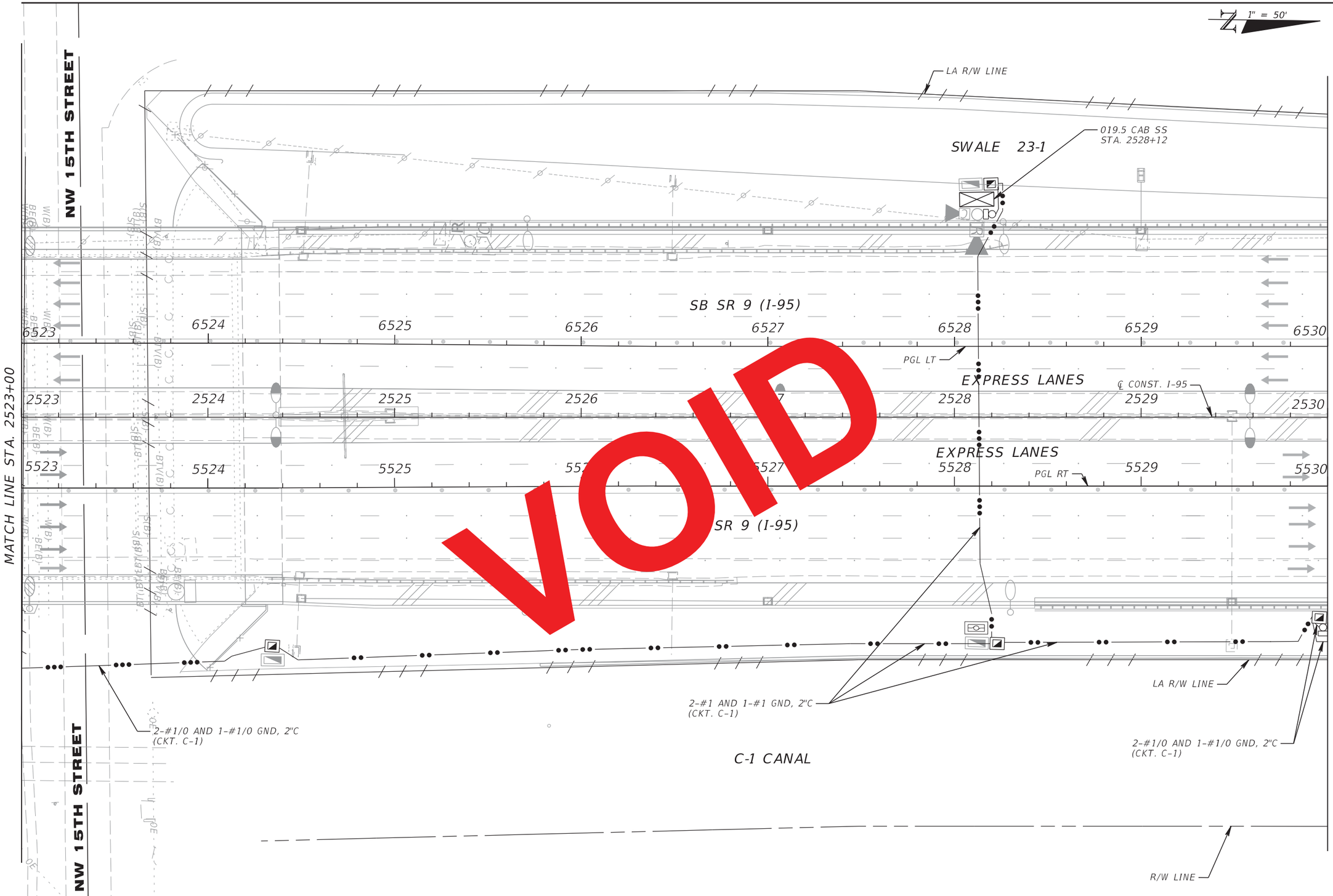
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (30)

SHEET NO.
IT-313



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (30)

SHEET NO.
IT-313

1" = 50'

PORTABLE TRAFFIC MONITORING SITE
STA. 2532+78
(NO HARDWIRED POWER REQUIRED)

LA R/W LINE

STATIC SIGN

SWALE 23-1

SB SR 9 (I-95)

6530 6531 6532 6533 6534 6535 6536 6537

PGL LT

EXPRESS LANES

℄ CONST. I-95

2530 2531 2532 2533 2534 2535 2536 2537

EXPRESS LANES

5530 5531 5532 5533 5534 5535 5536 5537

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2530+00

MATCH LINE STA. 2537+00

LA R/W LINE

PORTABLE TRAFFIC MONITORING SITE
STA. 2532+78
(NO HARDWIRED POWER REQUIRED)

019.5 CAB NS
STA. 2530+00

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-1)

C-1 CANAL

R/W LINE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (31)

SHEET NO.
IT-314

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1" = 50'

PORTABLE TRAFFIC MONITORING SITE
STA. 2532+78
(NO HARDWIRED POWER REQUIRED)

LA R/W LINE

STATIC SIGN

SWALE 23-1

SB SR 9 (I-95)

6530 6531 6532 6533 6535 6536 6537

PGL LT

EXPRES ANES CONST. I-95

2530 2531 2532 2534 2535 2536 2537

EXPRESS NES

5530 5531 5532 5533 PGL RT 5534 5535 5536 5537

9 (I-95)

MATCH LINE STA. 2530+00

MATCH LINE STA. 2537+00

LA R/W LINE

PORTABLE TRAFFIC MONITORING SITE
STA. 2532+78
(NO HARDWIRED POWER REQUIRED)

019.5 CAB NS
STA. 2530+00

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-1)

C-1 CANAL

R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (31)

SHEET NO.
IT-314

1" = 50'

OE OE

2-#1 AND 1-#1 GND, 2"C (CKT. C-1)

EXISTING FPL POLE WITH NEW POLE MOUNTED TRANSFORMER AND RISER

019.7 CAB SS STA. 2541+55 (CKT. C-1)

3-#4/0 AND 1-#2 GND, 2"C (120/240V SERVICE FEEDERS TO POWER STATION C)

LA R/W LINE

2-2" C: 1-2#1/0 AND 1-#1/0 GND, 2"C (CKT. C-1); 1-2#1/0 AND 1-#1/0 GND (CKT. C-2)

SWALE 23-1

SB SR 9 (I-95)

6537 6538 6539 6540 6541 6542 6543 6544

PGL LT

EXPRESS LANES

℄ CONST. I-95

2537 2538 2539 2540 2541 2542 2543 2544

EXPRESS LANES

5537 5538 5539 5540 5541 5542 5543 5544

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2537+00

MATCH LINE STA. 2544+00

SWALE 23-2

LA R/W LINE

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. C-1)

1-2" ELECTRICAL SPARE

1-2"C WITH: 2-#1/0 AND 1-#1/0 GND (CKT. C-2)

019.6 CAB NS STA. 2537+00 (CKT. C-1)

C-1 CANAL

R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILT per RFI 490 & 521		

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License No: 78396

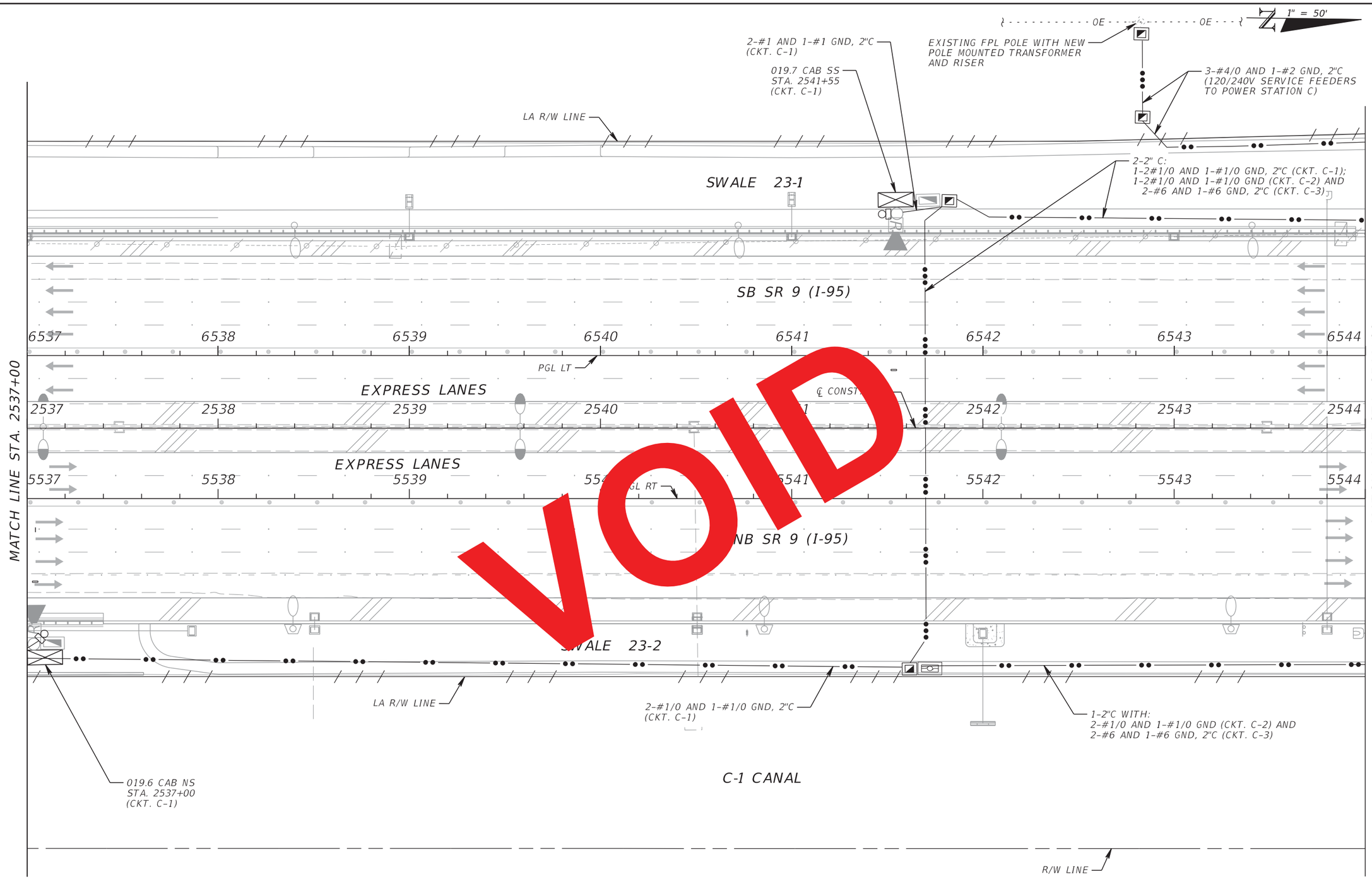
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (32)

SHEET NO.

IT-315



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (32)

SHEET NO.
IT-315

1" = 50'

EXISTING ITS POWER STATION/
GENERATOR #8 (ZONE 8)
TO BE REMOVED

3-#4/0 AND 1-#2 GND, 2"C
(120/240V SERVICE FEEDERS
TO POWER STATION C)

019.8 E-CAB SS
STA. 2544+27
(EXISTING TO REMAIN DMS CABINET)
2-#6 AND 1-#6 GND, 2"C
(CKT. C-3) (SEE NOTE 1)

R/W LINE

LA R/W LINE

SWALE 23-1

PROPOSED ITS SERVICE POINT/
GENERATOR C
STA. 2544+61

2-2" C:
1-2#1/0 AND 1-#1/0 GND, 2"C (CKT. C-1);
1-2#1/0 AND 1-#1/0 GND (CKT. C-2)

SB SR 9 (I-95)

MATCH LINE STA. 2544+00

6544 6545 6546 6547 6548 6549 6550 6551

PGL LT

EXPRESS LANES

2544 2545 2546 2547 2548 2549 2550 2551

℄ CONST. I-95

EXISTING TO REMAIN WALK-IN DMS SIGN
STA. 2544+40

EXISTING CONDUIT WITH
3#6 AWG AND 1#6 GND (CKT. C-3)
TO REMAIN FOR POWER TO NB DMS SIGN
(SEE NOTE 2)

EXPRESS LANES

5544 5545 5546 5547 5548 5549 5550 5551

PGL RT

MATCH LINE STA. 2551+00

EXISTING TO REMAIN WALK-IN DMS SIGN
STA. 2544+27

EXISTING ITS ELECTRICAL CONDUIT
AND WIRING TO REMAIN
(SEE ITS ELECTRICAL PLANS)

NB SR 9 (I-95)

019.8 E-CAB NS
STA. 2544+43
(EXISTING TO REMAIN DMS CABINET)
2-#6 AND 1-#6 GND, 2"C
(CKT. C-3) (SEE NOTE 1)

SWALE 23-3

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

LA R/W LINE

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

1-2"C WITH:
2-#1/0 AND 1-#1/0 GND (CKT. C-2)

C-1 CANAL

NOTES:
1. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

2. RECONNECT EXISTING TO REMAIN #6 AWG WIRING TO NEW CKT. C-3 AT THE EXISTING DMS CABINET 019.8 E-CAB SS TO EXTEND CKT. C-3 TO THE EXISTING TO REMAIN SB WALK-IN DMS.

R/W LINE

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
9/13/19	AS-BUILT per RFI 521 & RFM 026		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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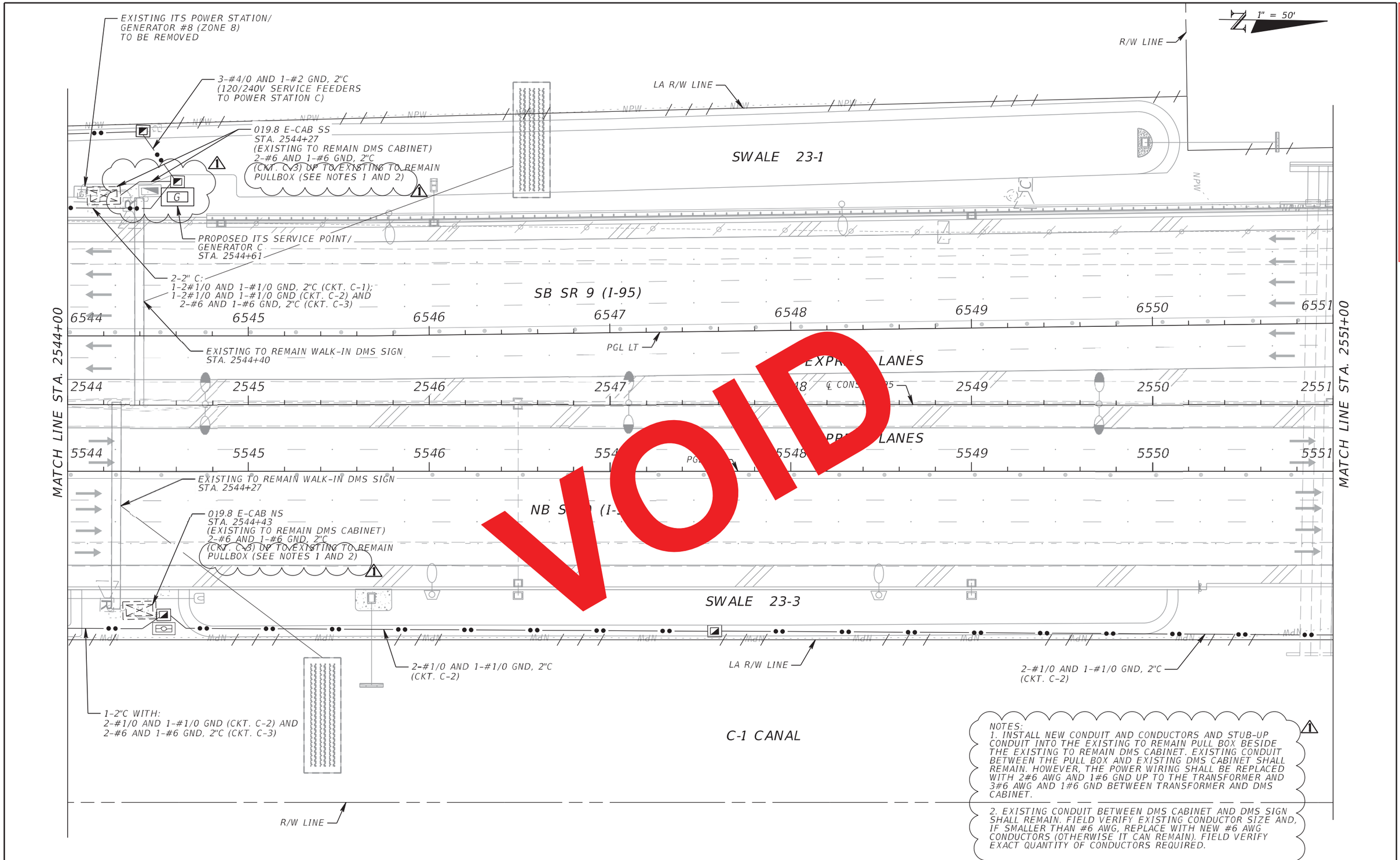
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (33)

SHEET NO.
IT-316

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. INSTALL NEW CONDUIT AND CONDUCTORS AND STUB-UP CONDUIT INTO THE EXISTING TO REMAIN PULL BOX BESIDE THE EXISTING TO REMAIN DMS CABINET. EXISTING CONDUIT BETWEEN THE PULL BOX AND EXISTING DMS CABINET SHALL REMAIN. HOWEVER, THE POWER WIRING SHALL BE REPLACED WITH 2#6 AWG AND 1#6 GND UP TO THE TRANSFORMER AND 3#6 AWG AND 1#6 GND BETWEEN TRANSFORMER AND DMS CABINET.

2. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		

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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (33)

SHEET NO. IT-316

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) PL

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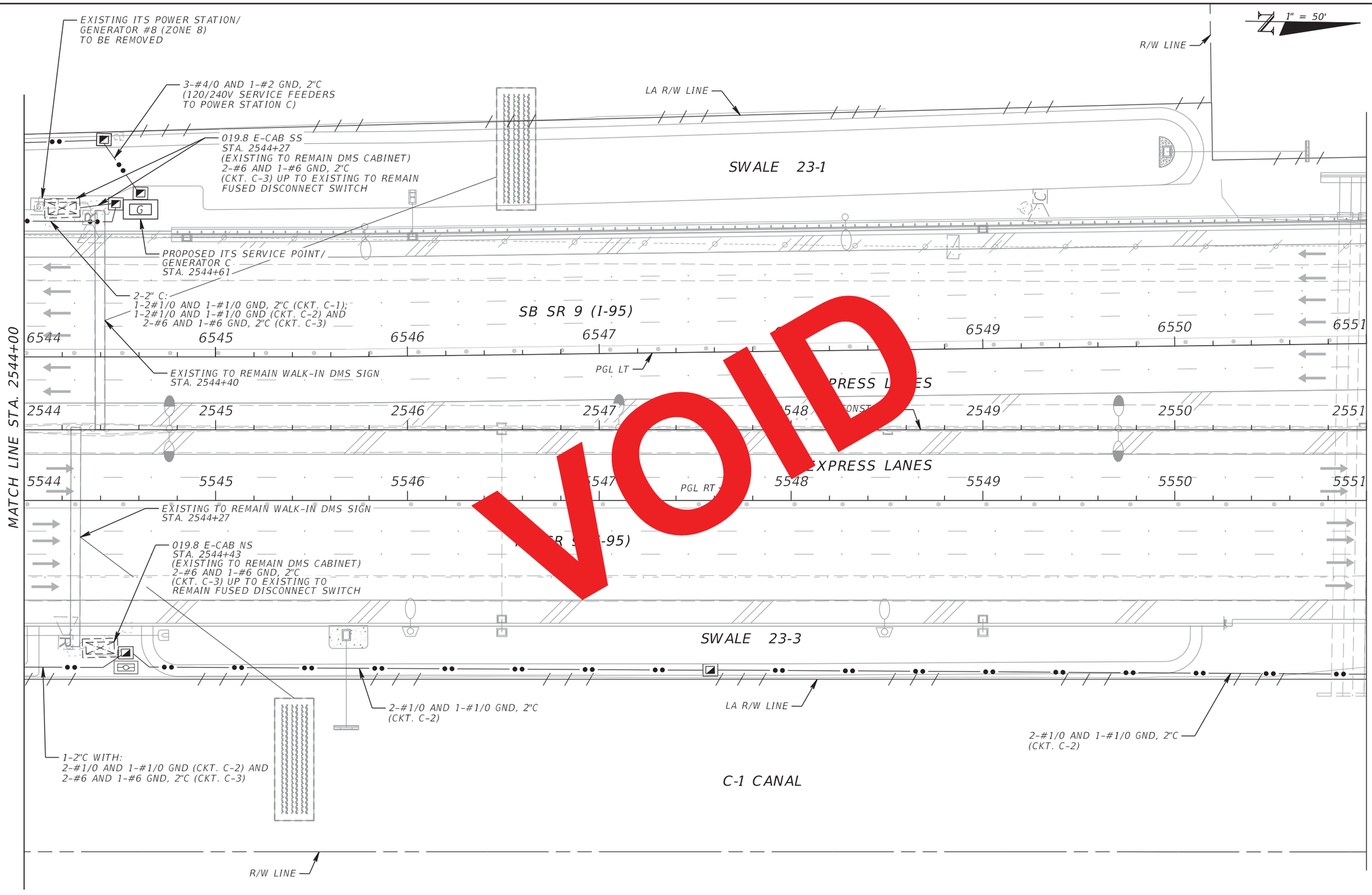

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (33)

SHEET NO.

IT-316

C-1 CANAL

R/W LINE

1" = 50'

LA R/W LINE

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

020.0 CAB SS
STA. 2555+03

SB SR 9 (I-95)

6551 6552 6553 6554 6555 6556 6557 6558

PGL LT

EXPRESS LANES

2551 2552 2553 2554 2555 2556 2557 2558

℄ CONST. I-95

EXPRESS LANES

5551 5552 5553 5554 5555 5556 5557

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2551+00

MATCH LINE STA. 2558+00

400 401 402 403 COPANS RAMP NE 404

STATIC SIGN

020.0 CAB NS
STA. 2554+46

℄ CONST. COPANS
RAMP NE

SWALE 23-11

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

R/W LINE

LA R/W LINE

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DATE	DESCRIPTION	DATE	DESCRIPTION
09/13/19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (34)

SHEET NO.
IT-317

C-1 CANAL

R/W LINE

1" = 50'

LA R/W LINE

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

020.0 CAB SS
STA. 2555+03

SB SR 9 (I-95)

6551 6552 6553 6554 6556 6557 6558

PGL LT

EXPRESS LANES

2551 2552 2553 2556 2557

℄ CONST. I-95

EXPRESS LANES

5551 5552 5553 5554 5555 5556 5557 2558

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2551+00

MATCH LINE STA. 2558+00

STATIC SIGN

401 402 403 COPANS RAMP NE 404

020.0 CAB NS
STA. 2554+46

℄ CONST. COPANS
RAMP NE

SWALE 23-11

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

R/W LINE

LA R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (34)

SHEET NO.

IT-317

1" = 50'

C-1 CANAL

3

020.1 CAB SS
STA. 2561+14

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

LA R/W LINE

206 COPANS RAMP ES

207

208

209

210

211

SB SR 9 (I-95)

6559 6560 6561 6562 6563 6564 6565

EXPRESS LANES

2558 2559 2560 ℄ CONST. I-95 2561 2562 2563 2564 2565

EXPRESS LANES

5558 5559 5560 5561 5562 5563 5564

NB SR 9 (I-95)

MATCH LINE STA. 2558+00

MATCH LINE STA. 2565+00

MATCH LINE SEE ITS
ELECTRICAL PLAN (36A)

405 406 407 408

COPANS RAMP NE

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

SWALE 23-11

LA R/W LINE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		
09/13/19	AS BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (35)

SHEET NO.
IT-318

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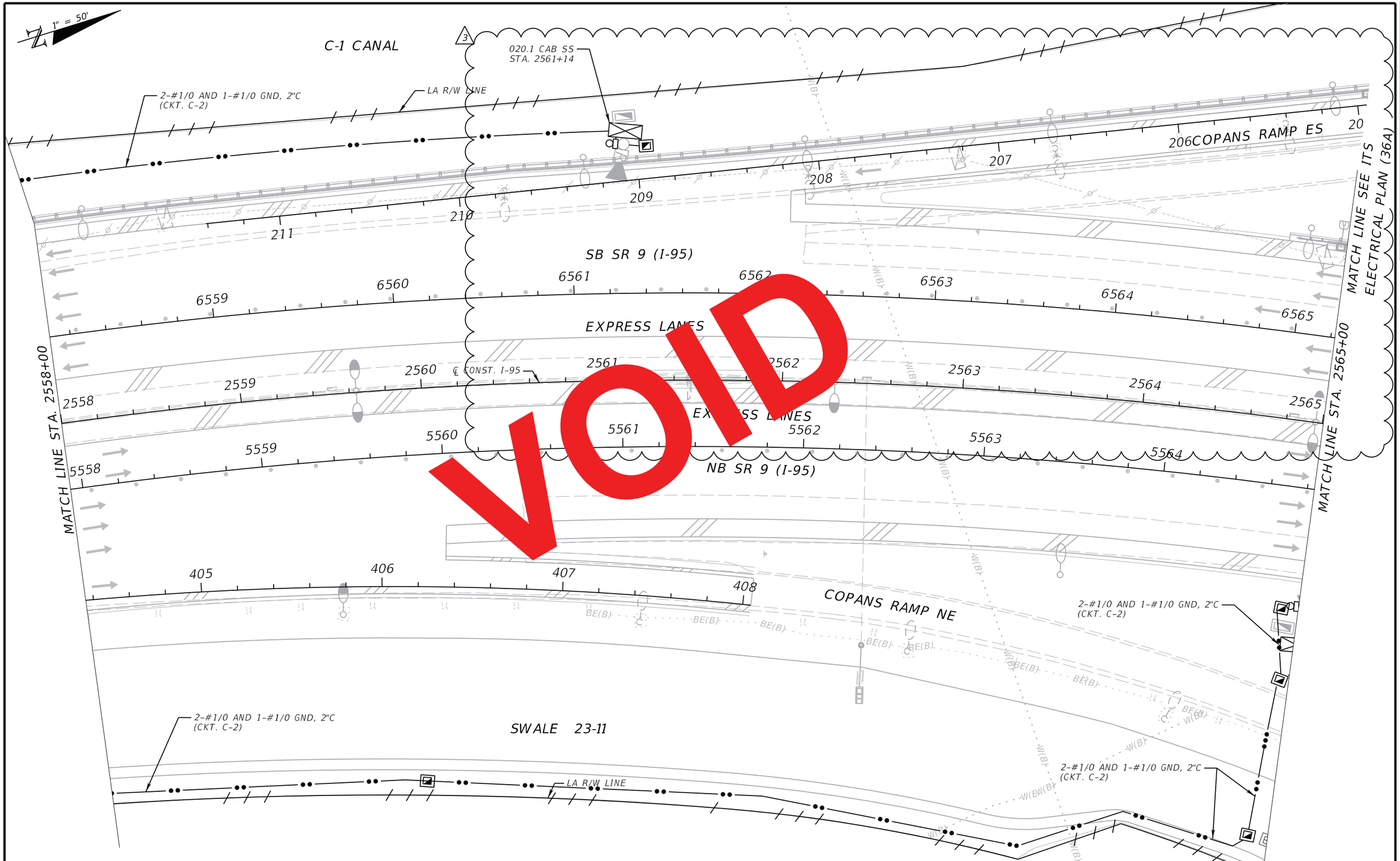

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (35)

SHEET NO.
IT-318

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

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1" = 50'

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM CABINET 020.1 CAB SS (STA. 2564+51) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV ON ITS ELECTRICAL PLAN (36A). SEE ITS PLAN (35) FOR CONDUIT.

C-1 CANAL

020.1 CAB SS
STA. 2561+14

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

LA R/W LINE

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#10 AND 1#10 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP ES)

2#10 AND 1#10 GND, 2"C
(CKT. C-2) FOR
RED/GREEN
SIGNAL POWER

COPANS RAMP ES

020.1 CAB SS 2
STA. 2564+51
(RSS CAB)
SEE NOTE 1

2-2"C:
2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2);
1-2" C FOR ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. C-2)

RED/GREEN SIGNAL
STA. 2564+20
(COPANS RAMP ES)

SB SR 9 (I-95)

EXPRESS LANES

℄ CONST. I-95

NB SR 9 (I-95)

MATCH LINE STA. 2558+00

MATCH LINE STA. 2565+00

MATCH LINE SEE ITS
ELECTRICAL PLAN (364)

VOID

COPANS RAMP NE

SWALE 23-11

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

LA R/W LINE

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (35)

SHEET NO.
IT-318

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MATCH LINE SEE ITS ELECTRICAL PLAN (36A)

1" = 50'

STATIC SIGN

SB SR 9 (I-95)

6565 6566 6567 6568 6569 6570 6571 6572

EXPRESS LANES

2565 2566 2567 2568 2569 2570 2571 2572

℄ CONST. I-95

EXPRESS LANES

5565 5566 5567 5568 5569 5570 5571

NB SR 9 (I-95)

MATCH LINE STA. 2565+00

MATCH LINE STA. 2572+00

COPANS RAMP SE

302

020.2 CAB NS
STA. 2565+04

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

COPANS RAMP NE

POND 23-15

SWALE 23-11

LA R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (36)

SHEET NO.
IT-319

MATCH LINE SEE ITS ELECTRICAL PLAN (36A)

1" = 50'

STATIC SIGN

302

COPANS RAMP SE

SB SR 9 (I-95)

EXPRESS LANES

6565 6566 6567 6568 6569 6570 6571 6572

2565 2566 2567 2568 2569 2570 2571 2572

℄ CONST. I-95

MATCH LINE STA. 2565+00

MATCH LINE STA. 2572+00

5565 5566 5567 5568 5569 5570 5571

NB 9 (I-95)

VOID

020.2 CAB NS
STA. 2565+04

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

COPANS RAMP NE

BE(B)

SWALE 23-11

POND 23-15

LA R/W LINE

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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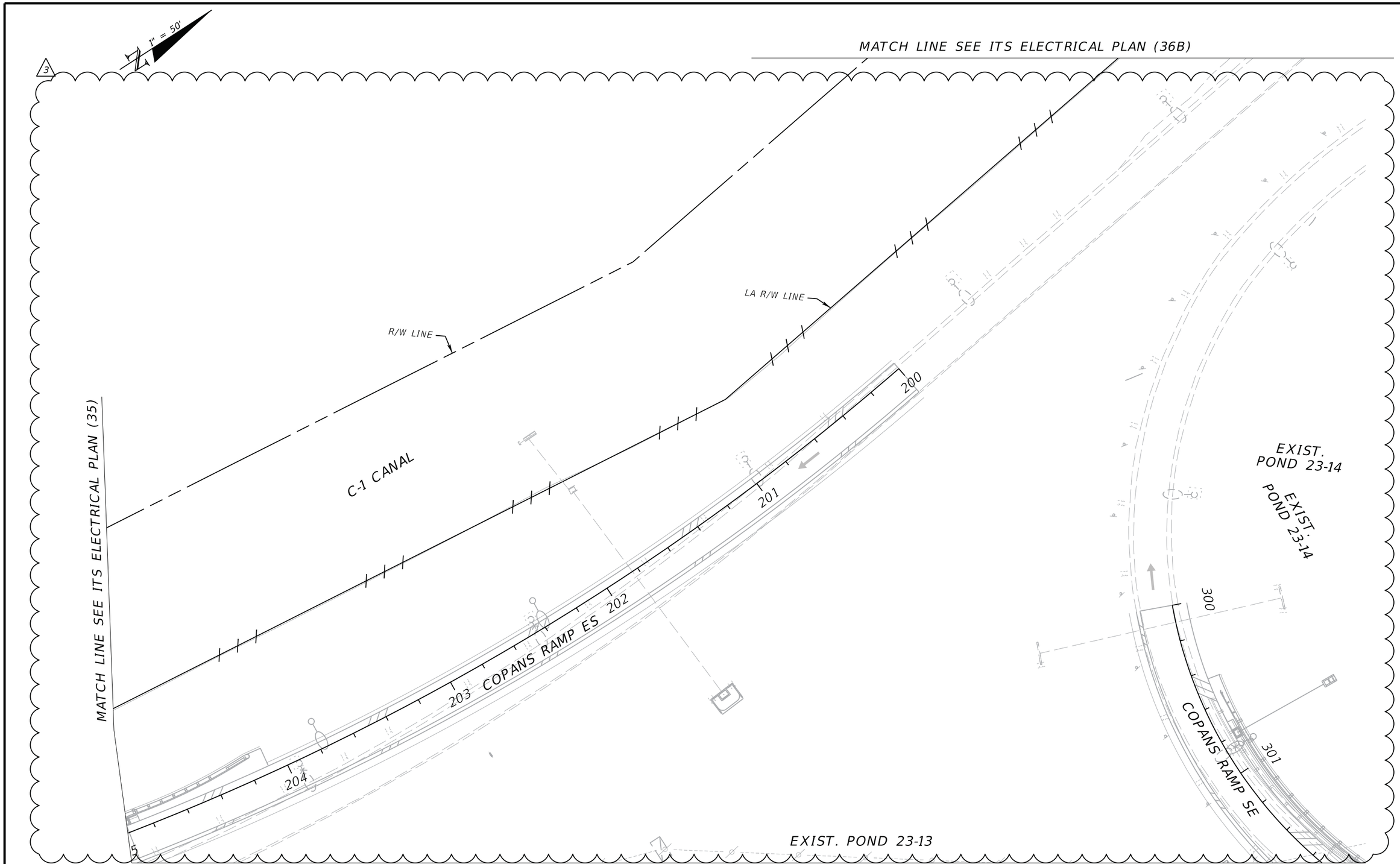
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (36)

SHEET NO.

IT-319



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/16/19	3 RSS EQUIPMENT REMOVAL		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (36A)

SHEET NO.
IT-320

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

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1" = 50'

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM CABINET 020.1 CAB SS (STA. 2564+51) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV. SEE ITS ELECTRICAL PLAN (35) FOR CABINET LOCATION. SEE ITS PLAN (36A) FOR CONDUIT.

MATCH LINE SEE ITS ELECTRICAL PLAN (35)

MATCH LINE SEE ITS ELECTRICAL PLAN (36B)

R/W LINE

LA R/W LINE

2#10 AND 1#10 GND, 2"C (CKT. C-2) FOR ADVANCED WARNING BEACON POWER (COPANS RAMP ES)

STATIC SIGN

C-1 CANAL

201

203 COPANS RAMP ES 202

204

SEE NOTE 1

EXIST. POND 23-14

300

301

COPANS RAMP SE

EXIST. POND 23-13

MATCH LINE SEE ITS ELECTRICAL PLAN (36)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4284 BY: (FDOT)
BY: (Stantec)

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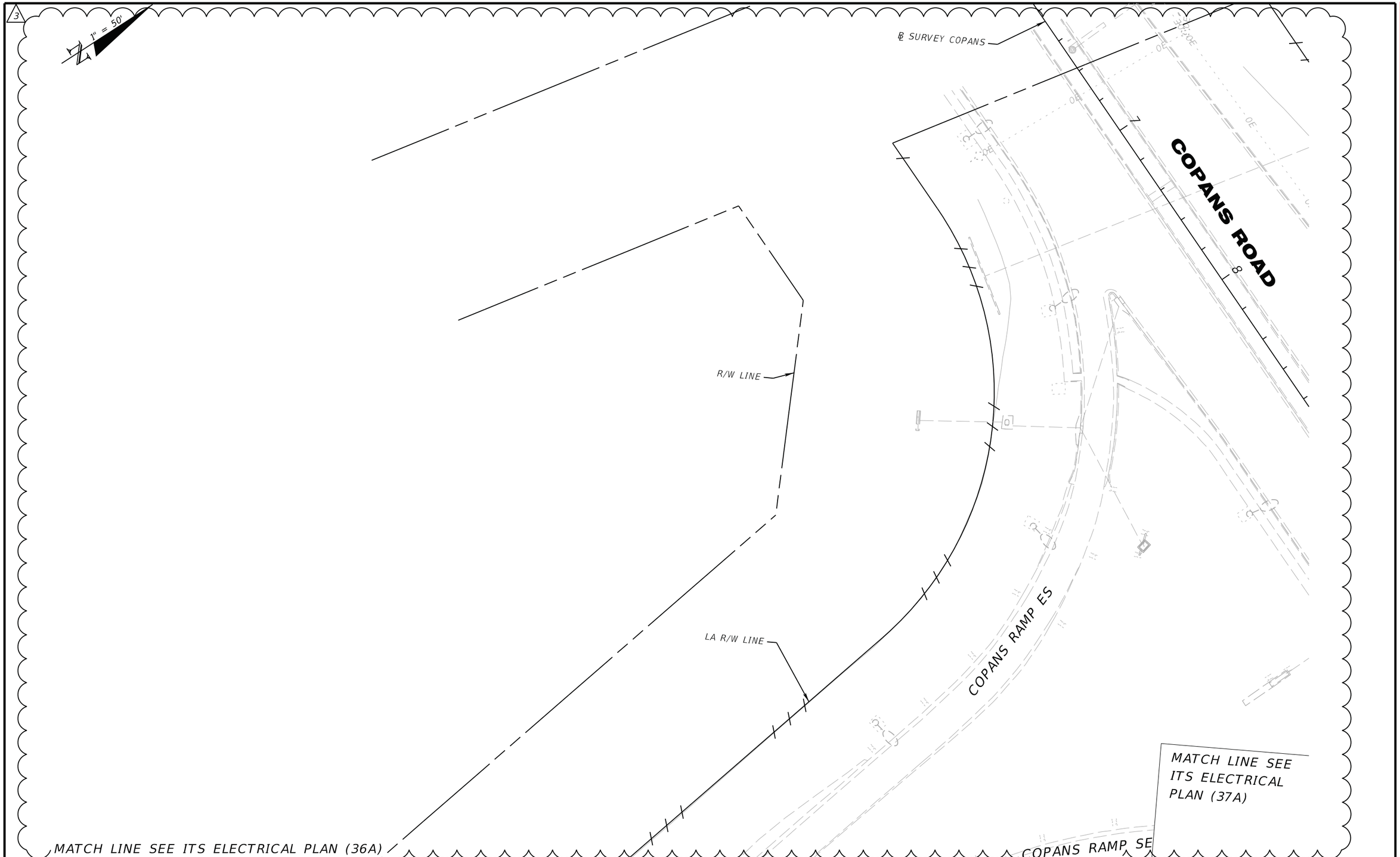
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (36A)

SHEET NO.
IT-320



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Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/16/19	3 RSS EQUIPMENT REMOVAL		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (36B)

SHEET NO.
IT-321

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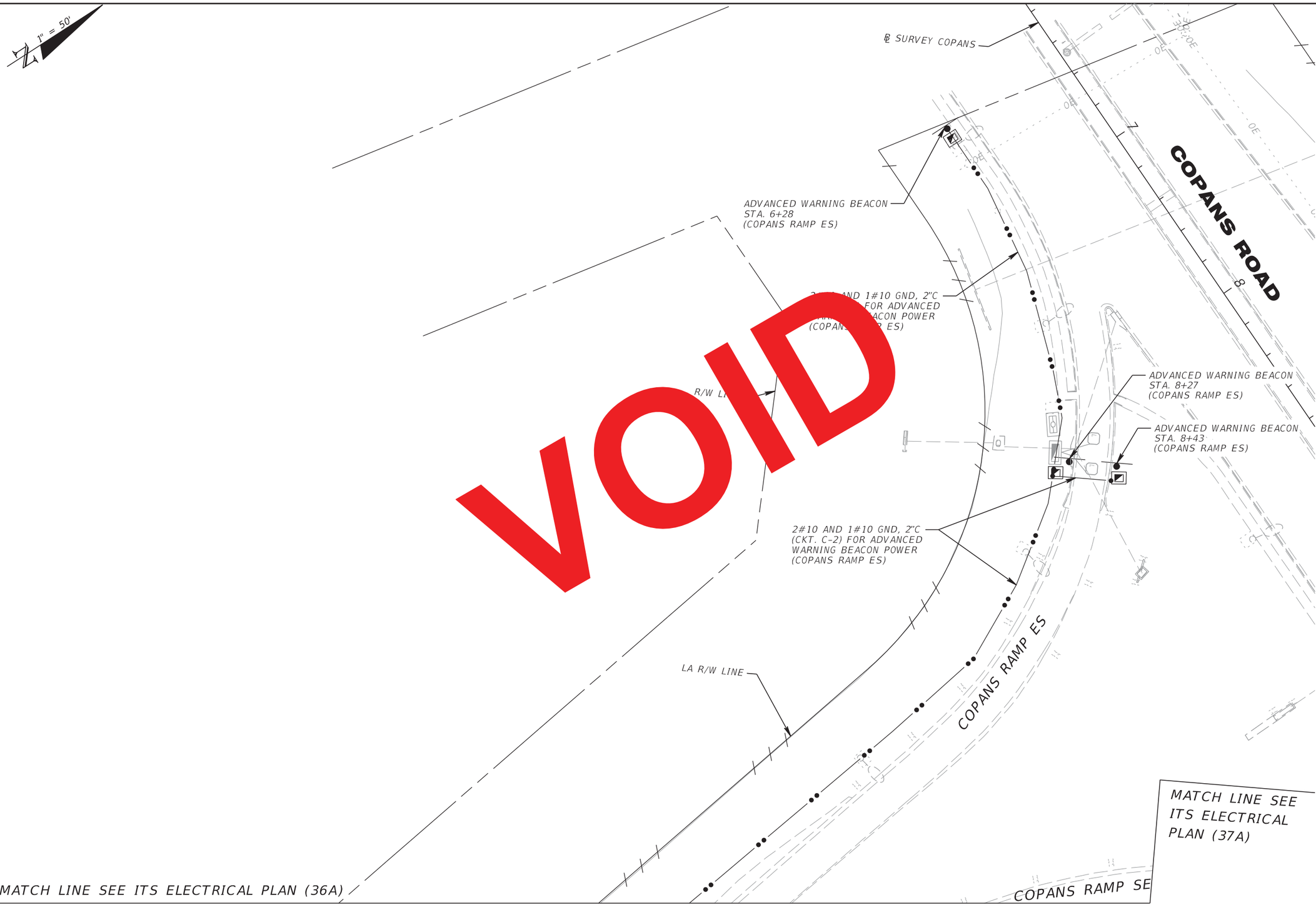

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (36B)

SHEET NO. IT-321

MATCH LINE SEE ITS ELECTRICAL PLAN (37A)

EXIST. POND 23-14

EXIST. POND 23-14

℄ CONST. COPANS RAMP SE

020.3 CAB SS
STA. 2574+99

+26.23
105.93 LT

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

COPANS ROAD

1" = 50'

303

STATIC SIGN

304

COPANS RAMP SE

SB SR 9 (I-95)

6573 6574 6575 6576 6577 6578 6579

EXPRESS LANES

2572 2573 ℄ CONST. I-95 2574 2575 2576 2577 2578 2579

EXPRESS LANES

5572 5573 5574 5575 5576 5577 5578

NB SR 9 (I-95)

MATCH LINE STA. 2572+00

MATCH LINE STA. 2579+00

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1 AND 1-#1 GND, 2"C, (CKT. C-2);

504

503

502

501 COPANS RAMP EN

020.4 CAB NS
STA. 2578+04

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

POND 23-15

MATCH LINE SEE ITS ELECTRICAL PLAN (37B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY		
2/01/19	3 RSS EQUIPMENT REMOVAL		
09/13/19	AS-BUILTS		

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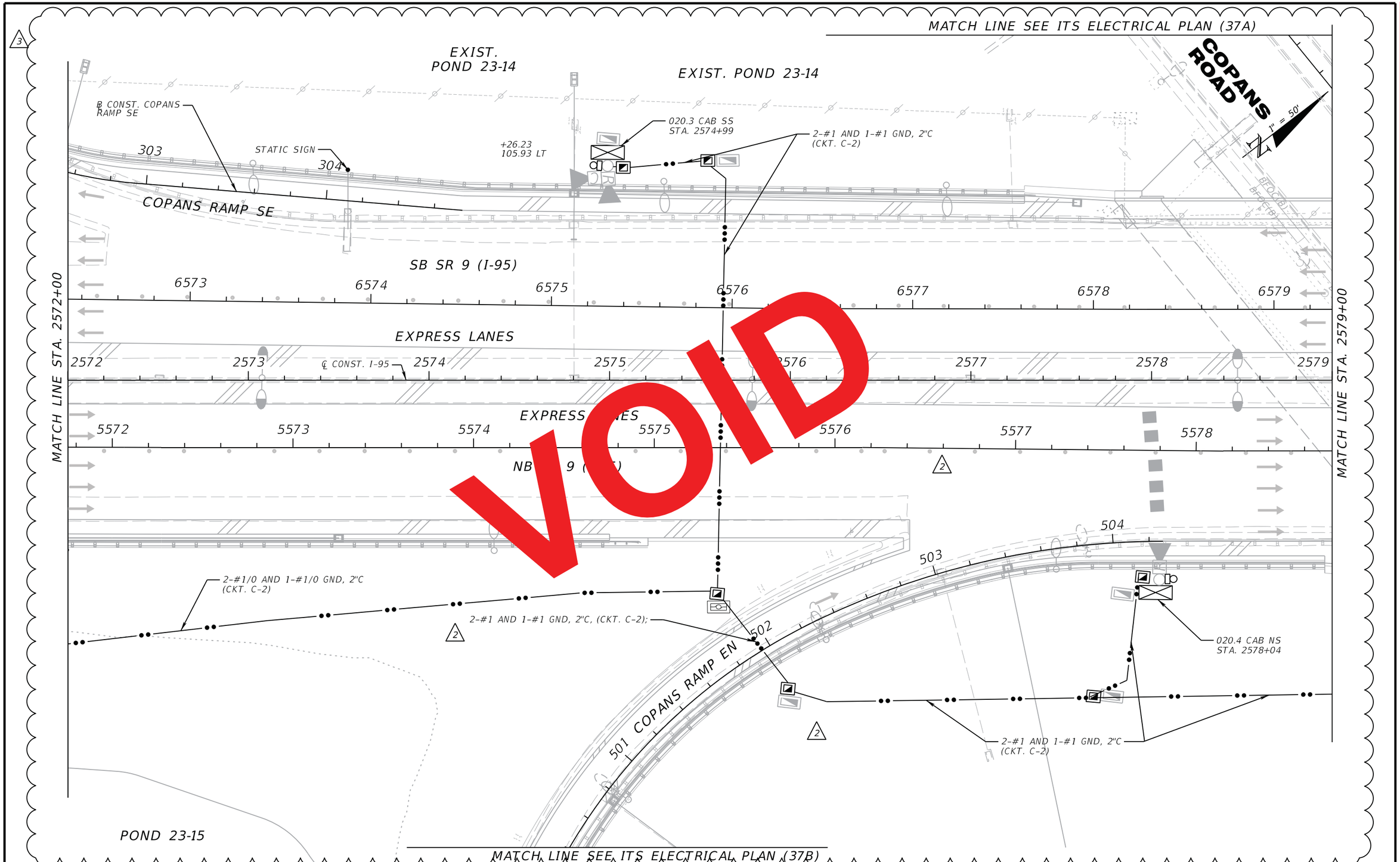
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (37)

SHEET NO.

IT-322



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY		
2/01/19	3 RSS EQUIPMENT REMOVAL		

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (37)

SHEET NO.
IT-322

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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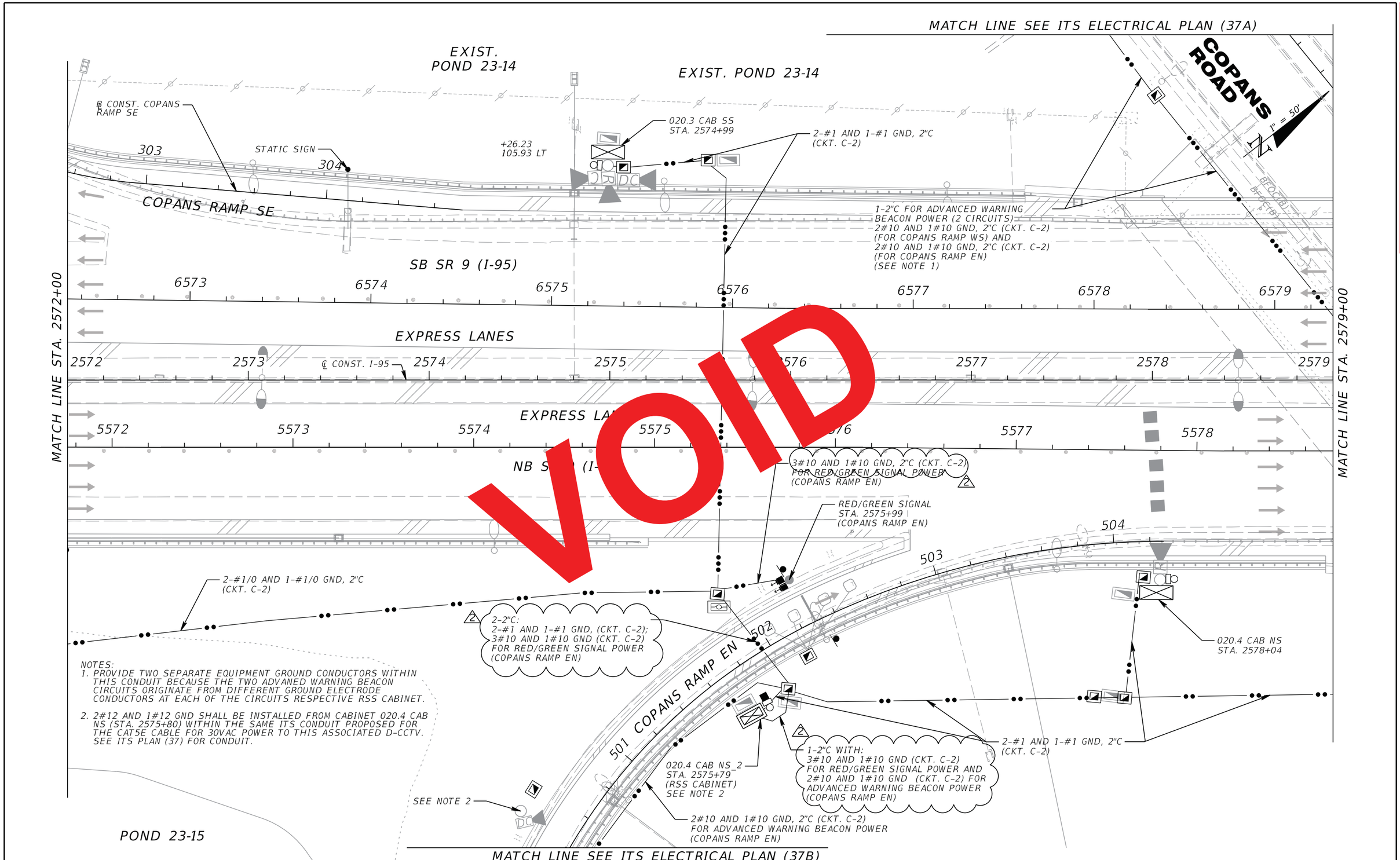

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.
2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM CABINET 020.4 CAB NS (STA. 2575+80) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV. SEE ITS PLAN (37) FOR CONDUIT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (37)

SHEET NO.
IT-322

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

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MATCH LINE SEE ITS ELECTRICAL PLAN (37A)

EXIST. POND 23-14

EXIST. POND 23-14

℄ CONST. COPANS RAMP SE

303

STATIC SIGN

304

COPANS RAMP SE

+26.23
105.93 LT

020.3 CAB SS
STA. 2574+99

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

1-2"C FOR ADVANCED WARNING BEACON POWER (2 CIRCUITS)
2#10 AND 1#10 GND, 2"C (CKT. C-2)
(FOR COPANS RAMP WS) AND
2#10 AND 1#10 GND, 2"C (CKT. C-2)
(FOR COPANS RAMP EN)
(SEE NOTE 1)

1" = 50'

SB SR 9 (I-95)

EXPRESS LANES

℄ CONST. I-95

EXPRESS LANES

NB SR 9 (I-95)

MATCH LINE STA. 2572+00

MATCH LINE STA. 2579+00

6573 6574 6575 6576 6577 6578 6579

2572 2573 2574 2575 2576 2577 2578 2579

5572 5573 5574 5575 5576 5577 5578

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2#10 AND 1#10 GND, 2"C (CKT. C-2)
FOR RED/GREEN SIGNAL POWER
(COPANS RAMP EN)

RED/GREEN SIGNAL
STA. 2575+99
(COPANS RAMP EN)

504

503

502

501

020.4 CAB NS
STA. 2578+04

1-2"C WITH:
2-#1 AND 1-#1 GND,
(CKT. C-2) AND
2#10 AND 1#10 GND (CKT. C-2)
FOR RED/GREEN SIGNAL POWER
(COPANS RAMP EN)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

020.4 CAB NS_2
STA. 2575+79
(RSS CABINET)
SEE NOTE 2

1-2"C WITH:
4#10 AND 1#10 GND, 2"C (CKT. C-2)
FOR RED/GREEN SIGNAL POWER AND
ADVANCED WARNING BEACON POWER
(COPANS RAMP EN)

SEE NOTE 2

2#10 AND 1#10 GND, 2"C (CKT. C-2)
FOR ADVANCED WARNING BEACON POWER
(COPANS RAMP EN)

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.

2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM CABINET 020.4 CAB NS (STA. 2575+80) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV. SEE ITS PLAN (37) FOR CONDUIT.

POND 23-15

MATCH LINE SEE ITS ELECTRICAL PLAN (37B)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

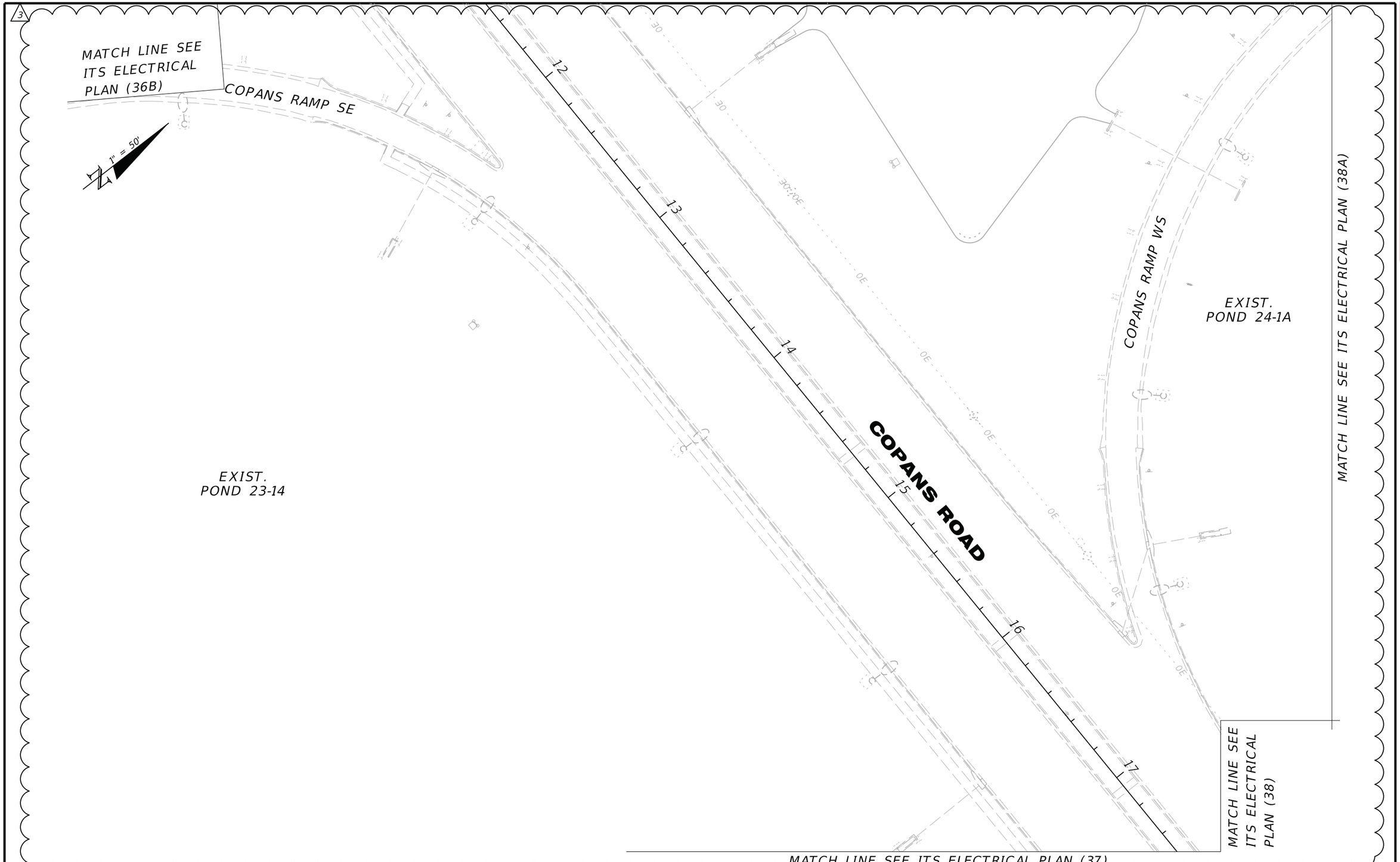
Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (37)

SHEET NO.
IT-322



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
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Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (37A)

SHEET NO.
IT-323

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

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MATCH LINE SEE ITS ELECTRICAL PLAN (36B)

COPANS RAMP SE

1" = 50'

EXIST. POND 23-14

VOID

COPANS ROAD

COPANS RAMP WS

EXIST. POND 24-1A

2#8 AND 1#8 GND, 2"C (CKT. C-2) FOR ADVANCED WARNING BEACON POWER (COPANS RAMP WS)

ADVANCED WARNING BEACON STA. 16+31 (COPANS RAMP WS)

ADVANCED WARNING BEACON STA. 16+07 (COPANS RAMP WS)

2#10 AND 1#10 GND, 2"C (CKT. C-2) FOR ADVANCED WARNING BEACON POWER (COPANS RAMP WS)

2#10 AND 1#10 GND, 2"C (CKT. C-2) FOR ADVANCED WARNING BEACON POWER (COPANS RAMP WS)

ADVANCED WARNING BEACON STA. 16+04 (COPANS RAMP EN)

1-2"C FOR ADVANCED WARNING BEACON POWER (2 CIRCUITS): 2#10 AND 1#10 GND, 2"C (CKT. C-2) (FOR COPANS RAMP WS) AND 2#10 AND 1#10 GND, 2"C (CKT. C-2) (FOR COPANS RAMP EN) (SEE NOTE 1)

MATCH LINE SEE ITS ELECTRICAL PLAN (38)

MATCH LINE SEE ITS ELECTRICAL PLAN (38A)

MATCH LINE SEE ITS ELECTRICAL PLAN (37)

NOTE:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
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EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (37A)

SHEET NO.
IT-323

MATCH LINE SEE ITS ELECTRICAL SHEET (37)

3

500

EXIST.
POND 23-16

COPANS RAMP EN

2

MATCH LINE A-A

COPANS RAMP EN

COPANS RAMP NE

SWALE 23-11

COPANS RAMP NE

MATCH LINE A-A

MATCH LINE SEE ITS ELECTRICAL PLAN (38B)

1" = 50'

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details rests with the contractor. Approval does not relieve contractor of responsibility for deviations, errors, or omissions in shop drawings, fabrication and erection; shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4C64
BY: (Statitec) JB BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY, ADDED ITS EQUIPMENT		
2/01/19	3 RSS EQUIPMENT REMOVAL		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (37B)

SHEET NO.
IT-324

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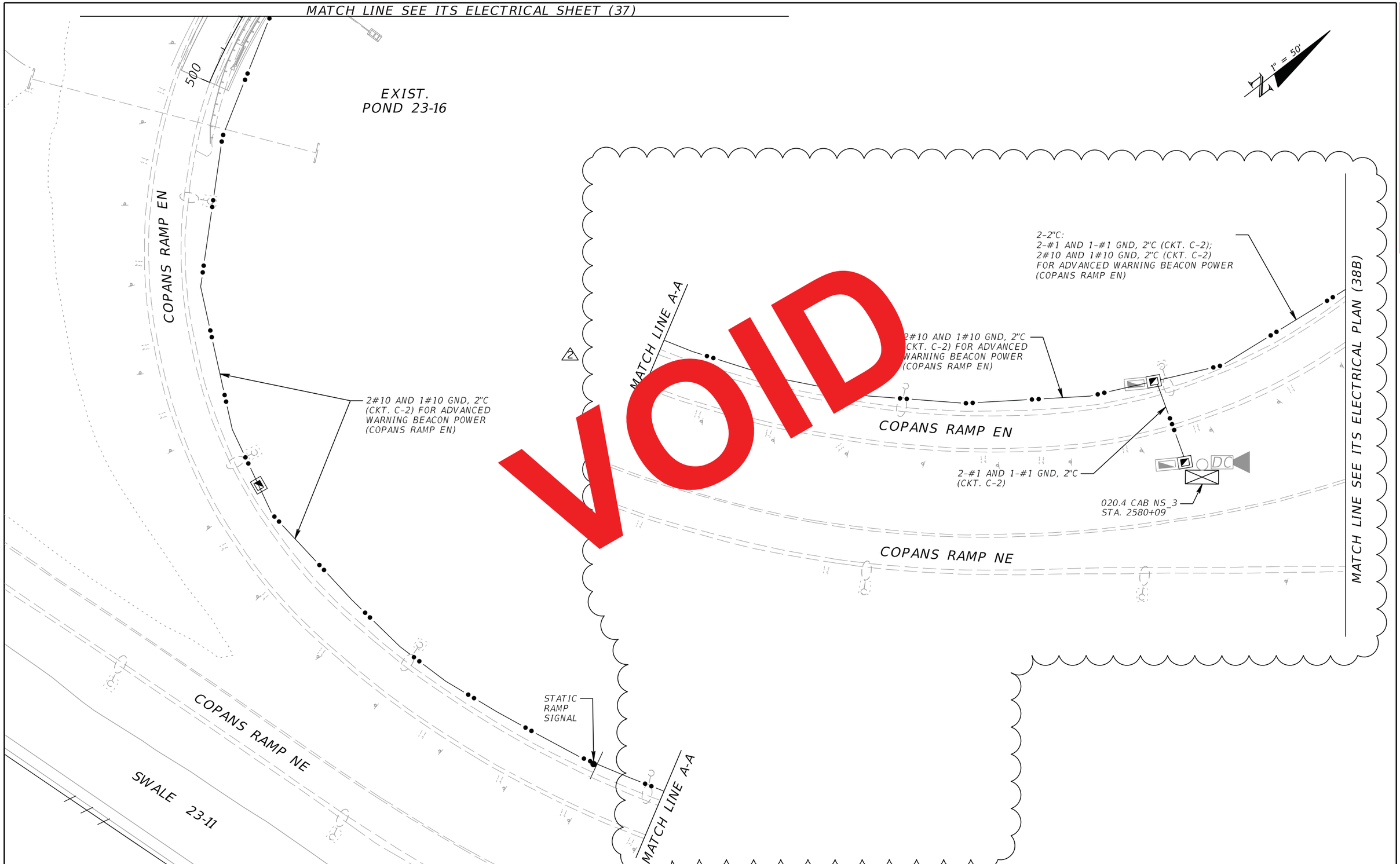

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY, ADDED ITS EQUIPMENT		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (37B)

SHEET NO.
IT-324

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4C64
BY: (Stantec) JB BY: (FDOT)

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MATCH LINE SEE ITS ELECTRICAL SHEET (37)

EXIST.
POND 23-16

500

COPANS RAMP EN

#10 AND 1#10 GND, 2"C
(KT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP EN)

STATIC RAMP SIGNAL

COPANS RAMP NE

SWALE 23-11

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (38B)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (37B)

SHEET NO.
IT-324

MATCH LINE SEE ITS ELECTRICAL PLAN (38A)

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.

2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM CABINET 020.5 CAB SS (STA. 2584+97) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV ON ITS ELECTRICAL PLAN (38A). SEE ITS PLAN (38) FOR CONDUIT.

1" = 50'

COPANS ROAD

EXISTING VOIP TO BE REMOVED AND RETURNED TO DEPARTMENT (VOIP 95-37.8)
EXISTING DEVICES AND CABINET TO BE REMOVED (C9040, FLD4095037.8NBSS/ FLD4095037.8SBSS)

020.5 CAB SS
STA. 2583+01

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

EXIST.
POND 24-1A

900 COPANS RAMP WS

STATIC SIGN

901

902

SB SR 9 (I-95)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

EXPRESS LANES

NB SR 9 (I-95)

2-#1 AND 1-#1 GND, 2"C, (CKT. C-2)

STATIC SIGN

020.6 CAB NS
STA. 2585+99

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

EXIST.
POND 24-3

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

MATCH LINE STA. 2579+00

MATCH LINE STA. 2586+00

MATCH LINE SEE ITS ELECTRICAL PLAN (38B)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY		
2/01/19	3 RSS EQUIPMENT REMOVAL		
09/13/19	ASBUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38)

SHEET NO.
IT-325

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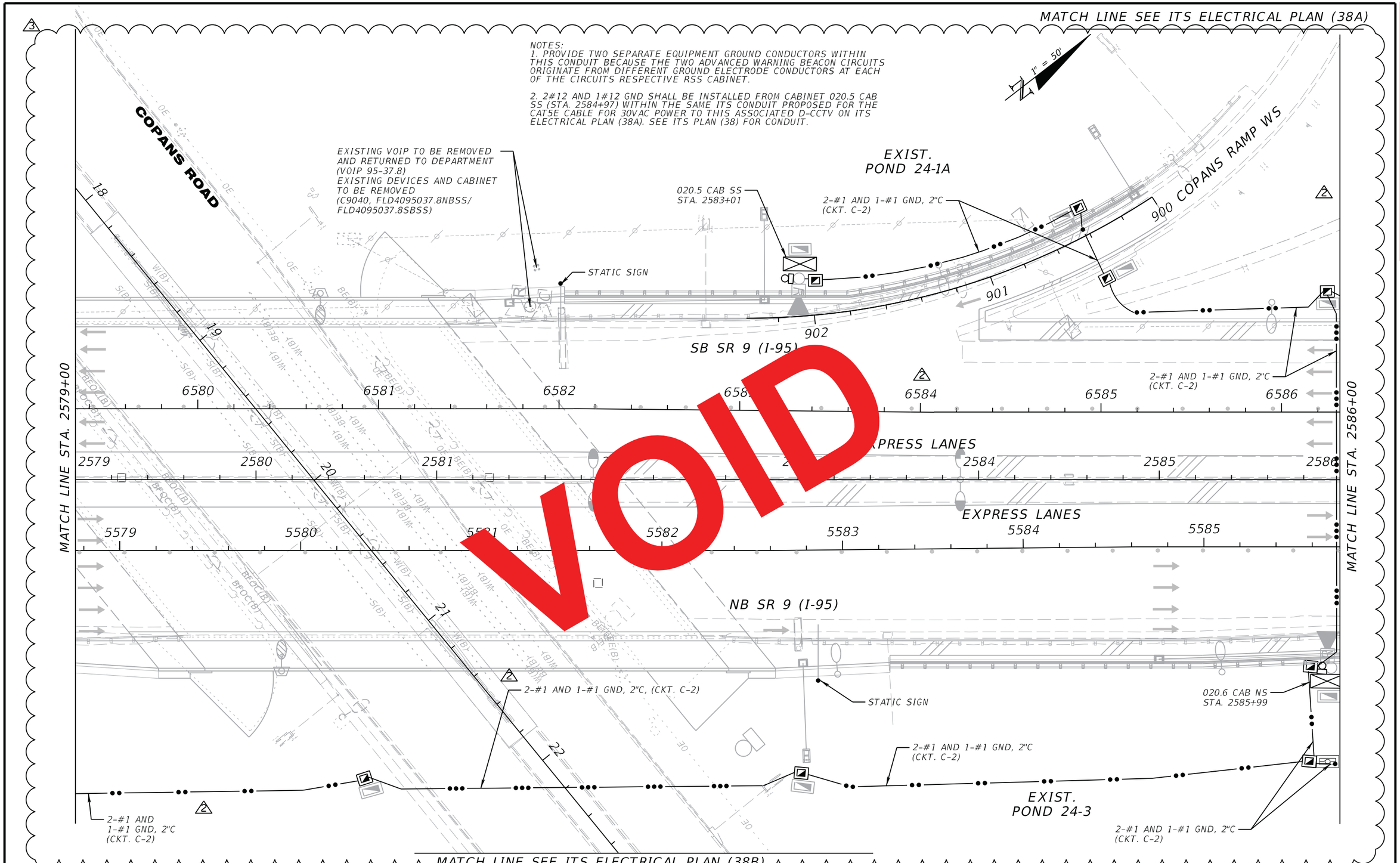

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY		
2/01/19	3 RSS EQUIPMENT REMOVAL		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38)

SHEET NO. IT-325

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

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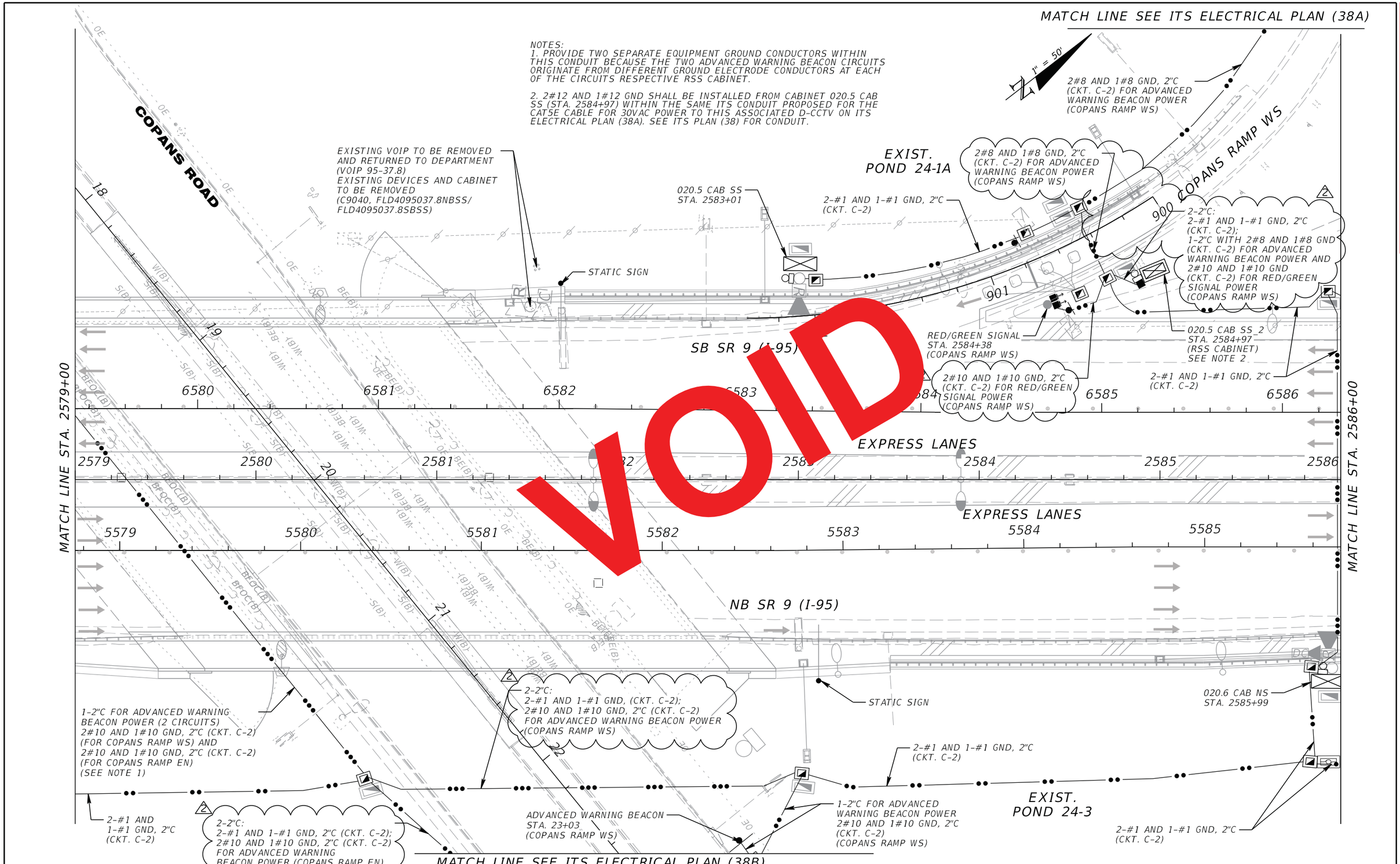

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

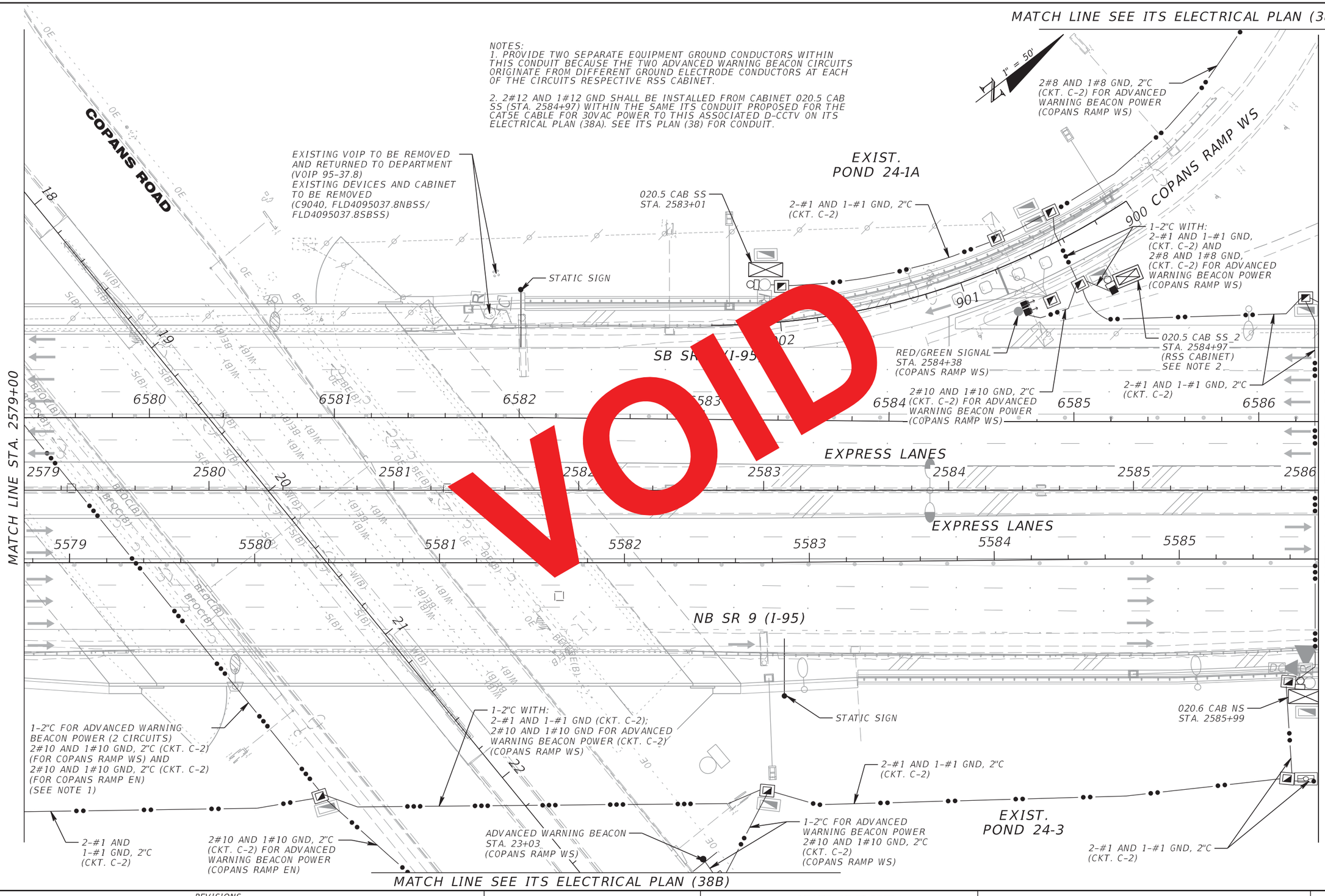
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38)

SHEET NO. IT-325

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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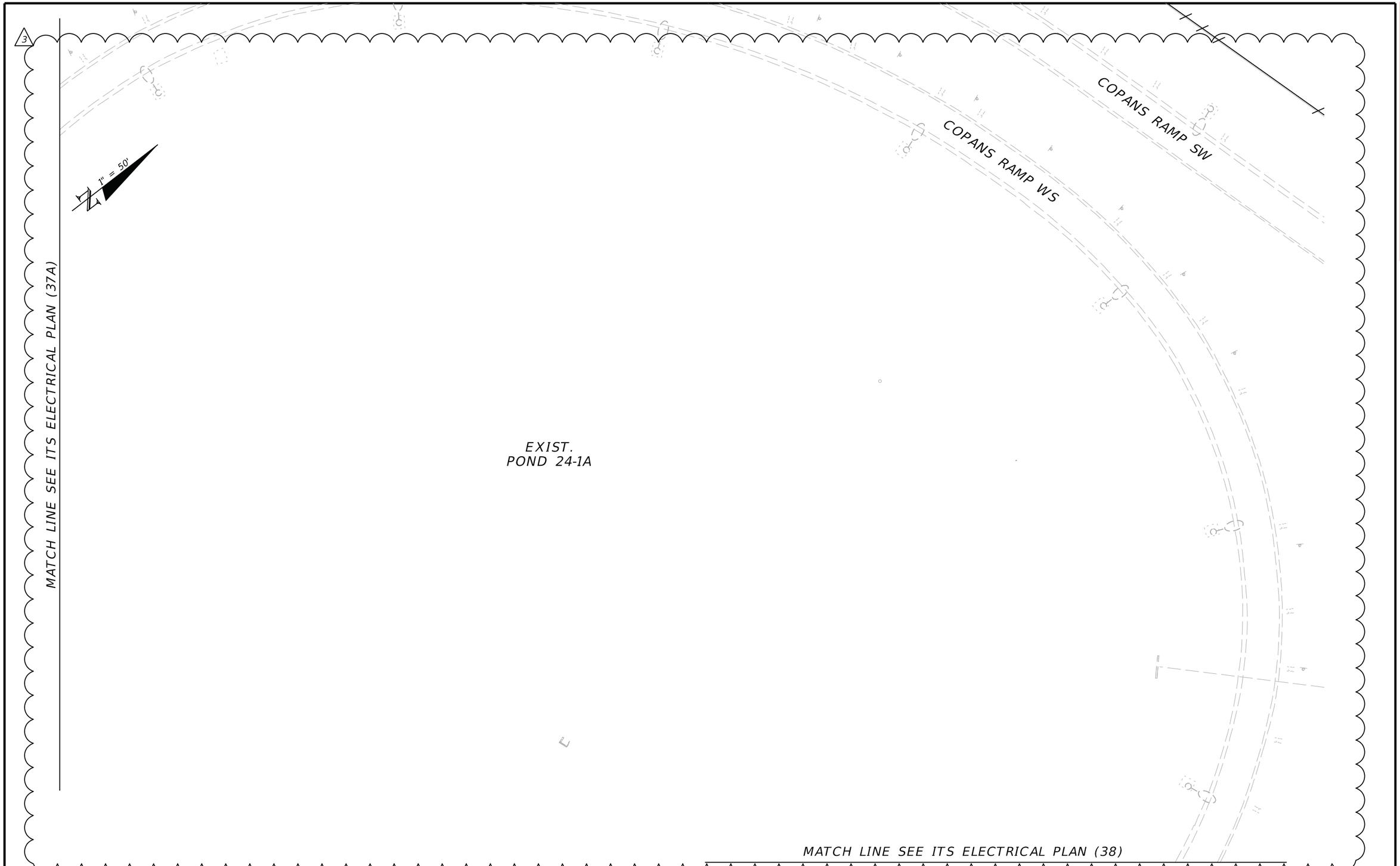
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38)

SHEET NO. IT-325



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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38A)

SHEET NO.
IT-326

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MATCH LINE SEE ITS ELECTRICAL PLAN (37A)

2#8 AND 1#8 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP WS)

1" = 50'

COPANS RAMP SW

COPANS RAMP WS

STATIC RAMP SIGNAL

EXIST.
POND 24-

VOID

SEE NOTE 1

2#8 AND 1#8 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP WS)

MATCH LINE SEE ITS ELECTRICAL PLAN (38)

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM CABINET 020.5 CAB SS (STA. 2584+97) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV. SEE ITS ELECTRICAL PLAN (38) FOR CABINET LOCATION. SEE ITS PLAN (38A) FOR CONDUIT.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

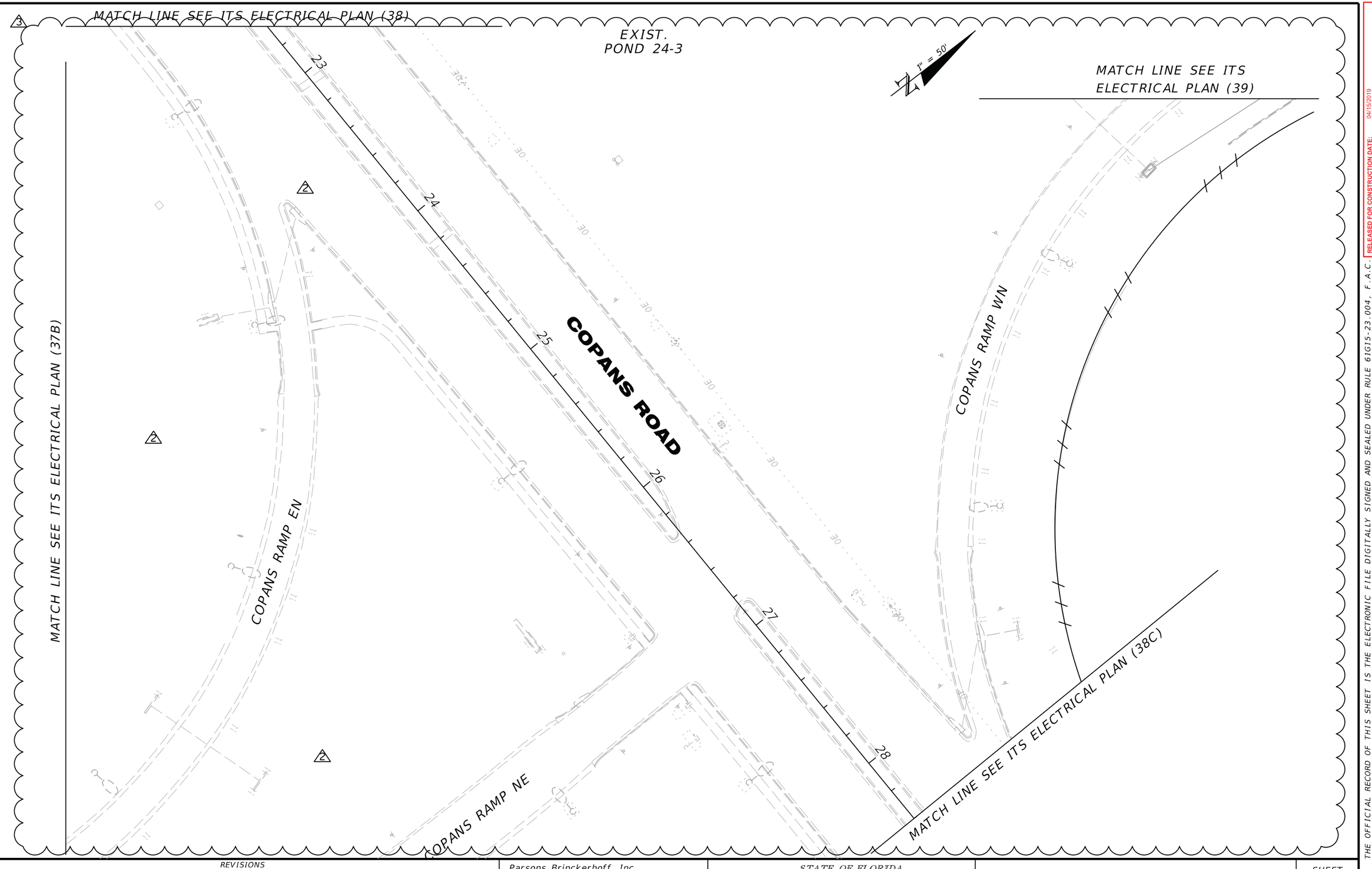
Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38A)

SHEET NO.
IT-326



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY		
2/01/19	3 RSS EQUIPMENT REMOVAL		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38B)

SHEET NO.
IT-327

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details remains with the contractor. Review of shop drawings, fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4C64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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MATCH LINE SEE ITS ELECTRICAL PLAN (38)

EXIST.
POND 24-3

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (37B)

2-2"C:
2-#1 AND 1-#1 GND, 2"C (CKT. C-2);
2#10 AND 1#10 GND, 2"C (CKT. C-2)
FOR ADVANCED WARNING BEACON POWER
(COPANS RAMP EN)

ADVANCED WARNING BEACON
STA. 23+87
(COPANS RAMP EN)

ADVANCED WARNING BEACON
STA. 23+74
(COPANS RAMP EN)

2#10 AND 1#10 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP EN)

COPANS RAMP EN

COPANS ROAD

COPANS RAMP NE

2-2"C:
2-#1 AND 1-#1 GND, 2"C (CKT. C-2);
2#10 AND 1#10 GND, 2"C (CKT. C-2)
FOR ADVANCED WARNING BEACON POWER
(COPANS RAMP EN)

MATCH LINE SEE ITS
ELECTRICAL PLAN (39)

2#8 AND 1#8 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP WN)

COPANS RAMP WN

ADVANCED WARNING BEACON
STA. 27+70
(COPANS RAMP WN)

ADVANCED WARNING BEACON
STA. 27+85
(COPANS RAMP WN)

2#8 AND 1#8 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP WN)

2#10 AND 1#10 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP WN)

MATCH LINE SEE ITS ELECTRICAL PLAN (38C)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38B)

SHEET NO.
IT-327

MATCH LINE SEE ITS ELECTRICAL PLAN (38)

EXIST.
POND 24-3

1" = 50'

MATCH LINE SEE ITS
ELECTRICAL PLAN (39)

2#10 AND 1#10 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP EN)

ADVANCED WARNING BEACON
STA. 23+87
(COPANS RAMP EN)

ADVANCED WARNING BEACON
STA. 23+74
(COPANS RAMP EN)

2#10 AND 1#10 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP EN)

MATCH LINE SEE ITS ELECTRICAL PLAN (37B)

COPANS RAMP EN

COPANS ROAD

COPANS RAMP NE

2#8 AND 1#8 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP WN)

COPANS RAMP WN

ADVANCED WARNING BEACON
STA. 27+70
(COPANS RAMP WN)

ADVANCED WARNING BEACON
STA. 27+85
(COPANS RAMP WN)

2#8 AND 1#8 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP WN)

2#10 AND 1#10 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP WN)

MATCH LINE SEE ITS ELECTRICAL PLAN (38C)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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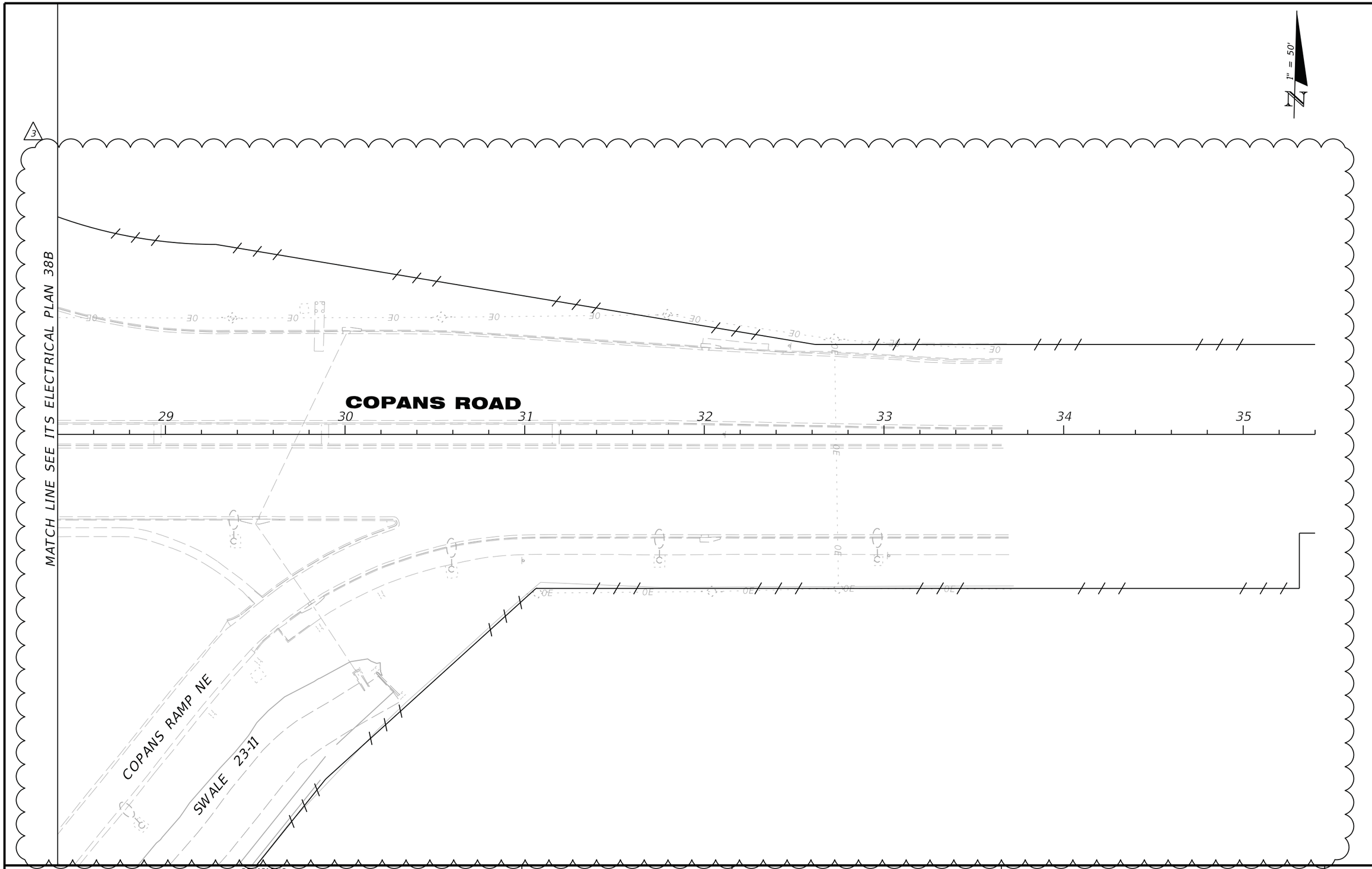
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38B)

SHEET NO.
IT-327



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38C)

SHEET NO.
IT-328

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) KS

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MATCH LINE SEE ITS ELECTRICAL PLAN 38B

2#10 AND 1#10 GND, 2"C
(CKT. C-2) FOR ADVANCED
WARNING BEACON POWER
(COPANS RAMP WN)

ADVANCED WARNING BEACON
STA. 34+09
(COPANS RAMP WN)

1" = 50'

COPANS ROAD

29 30 31 32 33 34 35

COPANS RAMP NE

SWALE 23-11

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (38C)

SHEET NO. IT-328

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COPANS RAMP SW

EXIST.
POND 24-2

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

STATIC SIGN

1" = 50'

SB SR 9 (I-95)

6587 6588 6589 6590 6591 6592 6593

PGL LT

EXPRESS LANES

2586 2587 2588 2589 2590 2591 ℄ CONST. I-95 2592 2593

EXPRESS LANES

5586 5587 5588 5589 PGL RT 5590 5591 5592

NB SR 9 (I-95)

MATCH LINE STA. 2586+00

MATCH LINE STA. 2593+00

3

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

COPANS RAMP WN

POND 24-5

EXIST.
POND 24-3

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

MATCH LINE SEE ITS
ELECTRICAL PLAN SHEET (38B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19 09/13/19	3 RSS EQUIPMENT REMOVAL ASBUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (39)

SHEET NO.
IT-329

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COPANS RAMP SW

EXIST.
POND 24-2

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

STATIC SIGN

1" = 50'

SB SR 9 (I-95)

6587 6588 6589 6590 6591 6592 6593

PGL LT

MATCH LINE STA. 2586+00

2586 2587 2588 2589 2590 2591 ℄ CONST. I-95 2592 2593

EXPRESS LANES

5586 5587 5588 5591 5592

NB SR 9 (I-95)

MATCH LINE STA. 2593+00

3

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

COPANS RAMP WN

POND 24-5

EXIST.
POND 24-3

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

MATCH LINE SEE ITS
ELECTRICAL PLAN SHEET (38B)

VOID

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of design, details, dimensions, and coordination with other work rests with the contractor. Approval does not relieve the contractor of responsibility for errors or omissions. Any deviation and revision shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4C64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

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2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
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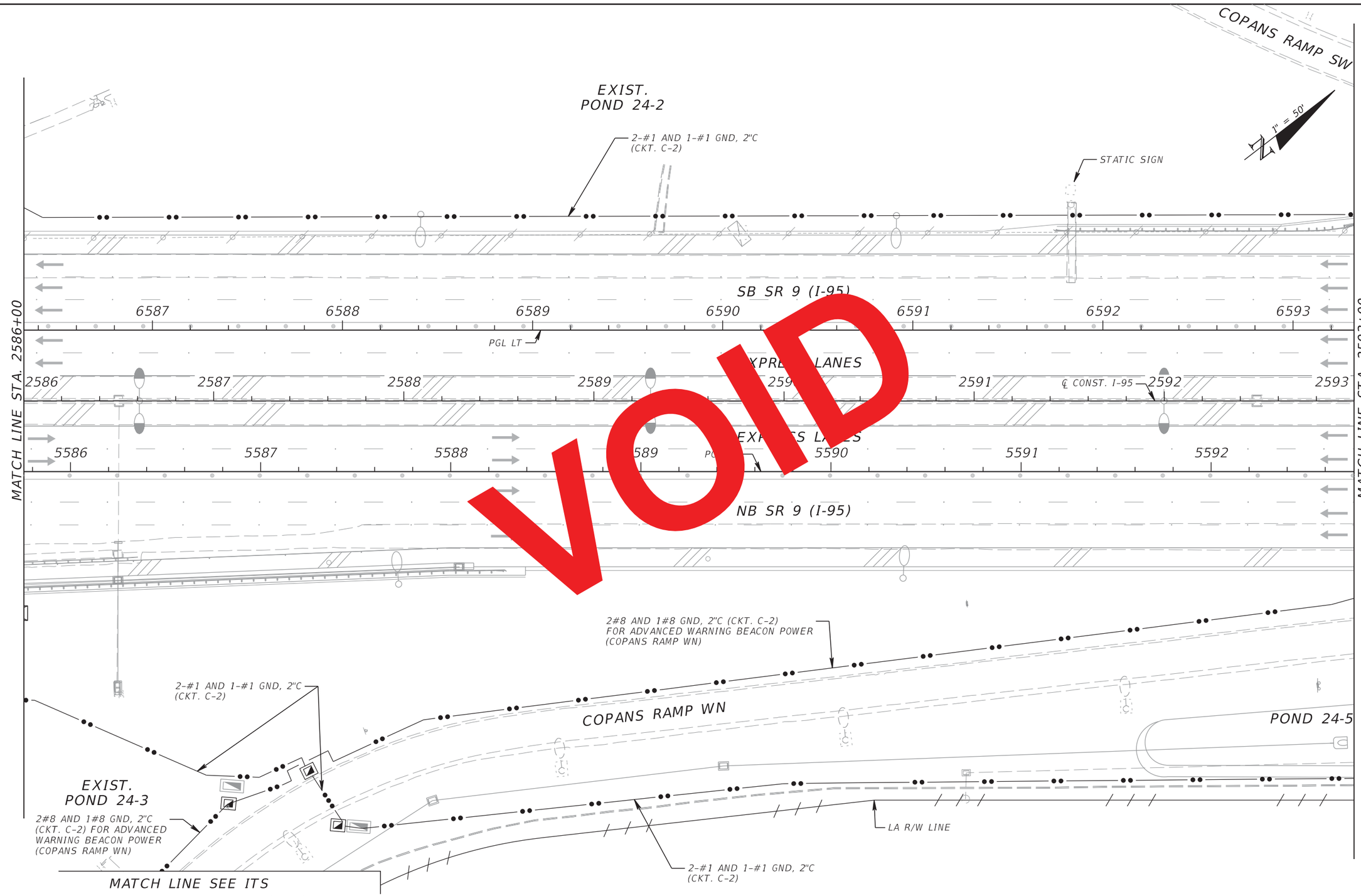
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (39)

SHEET NO.
IT-329



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (39)

SHEET NO.
IT-329

C-1 CANAL

1" = 50'

LA R/W LINE

020.7 CAB SS
STA. 2594+19

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

800 801 802 803

COPANS RAMP SW

SB SR 9 (I-95)

6594 6595 6596 6597 6598 6599 6600

MATCH LINE STA. 2593+00

MATCH LINE STA. 2600+00

EXPRESS LANES

2593 2594 2595 2596 2597 2598 ℄ CONST. I-95 2599 2600

EXPRESS LANES

5593 5594 5595 5596 5597 5598 5599

NB SR 9 (I-95)

700 701 702 COPANS RAMP WN 703 704 705 706

020.7 CAB NS
STA. 2596+00

POND 24-5

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

1-2" ELECTRICAL (SPARE)

SWALE 24-1

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

3

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		
9/13/19	AS-BUILT CONDUIT CHANGE		

Parsons Brinckerhoff, Inc.
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License No: 78396

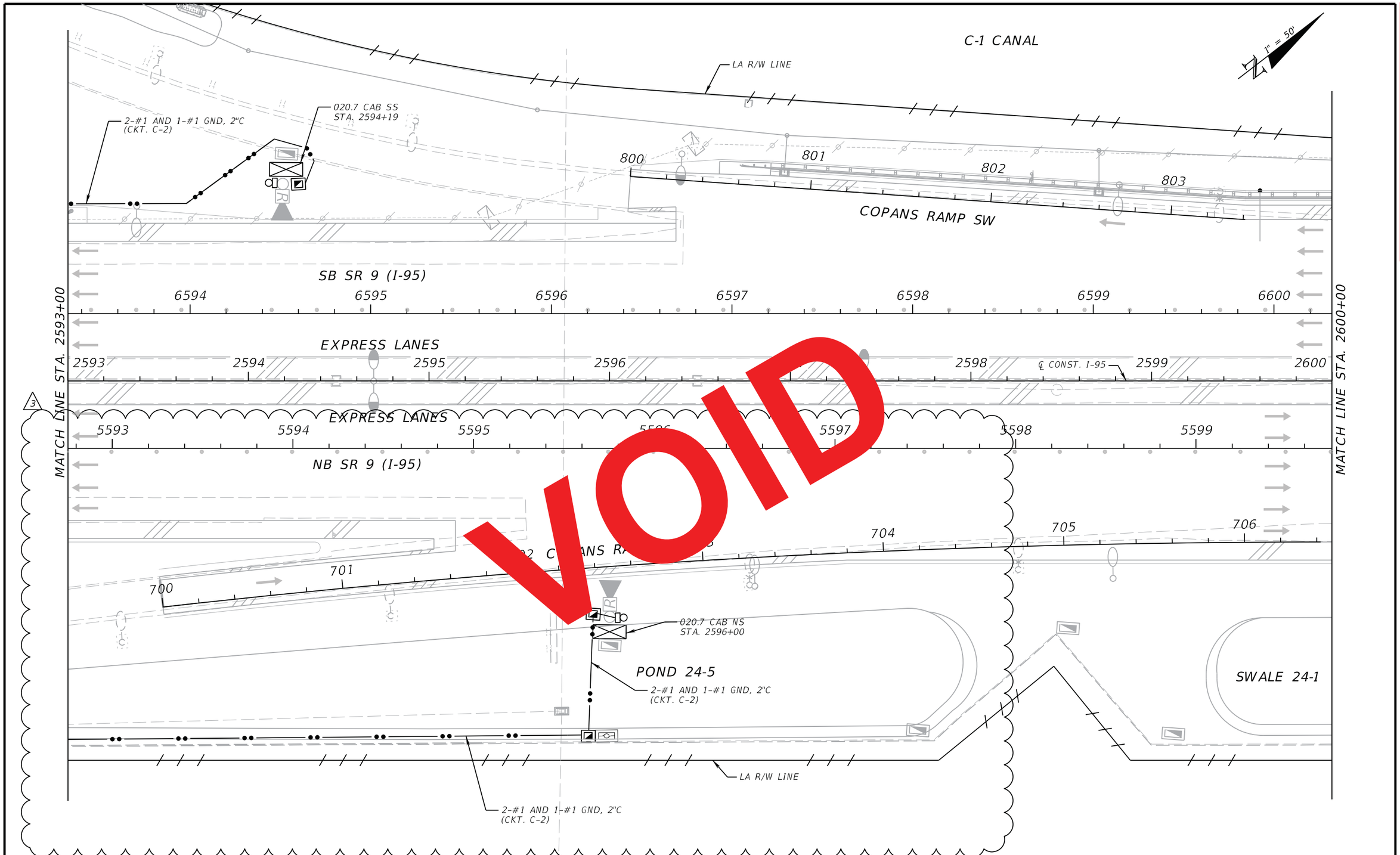
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (40)

SHEET NO.

IT-330



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (40)

SHEET NO.
IT-330

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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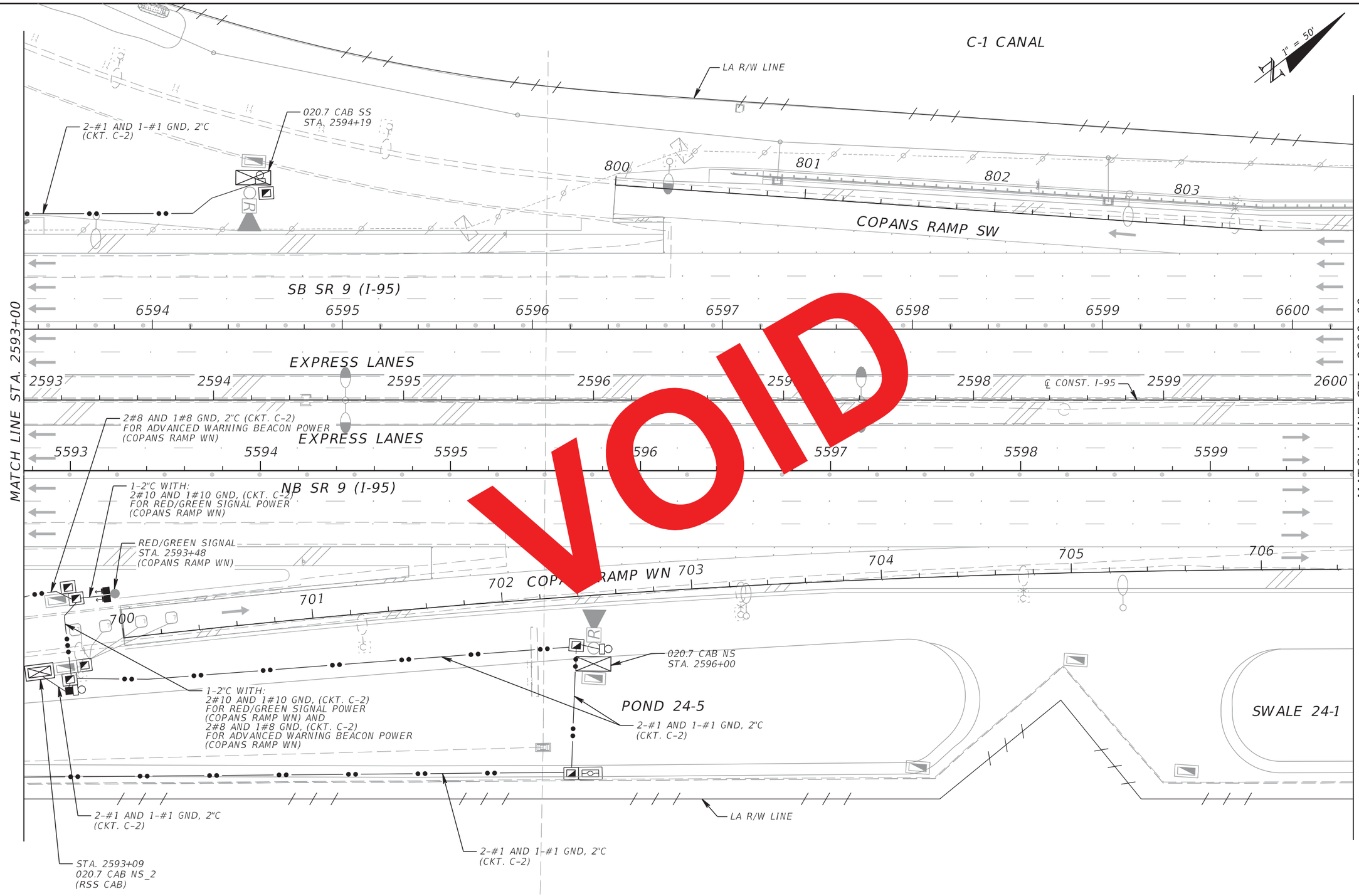

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4284

BY: (Stantec) PE BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
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Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (40)

SHEET NO. IT-330

C-1 CANAL

PORTABLE TRAFFIC MONITORING SITE
STA. 2604+43
(NO HARDWIRED POWER REQUIRED)

1" = 50'

020.9 CAB SS
STA. 2602+90

LA R/W LINE

STATIC SIGN

2-#2 AND 1-#2 GND, 2"C
(CKT. D-1)

SB SR 9 (I-95)

6601 6602 6603 6604 6605 6606 6607

PGL LT

EXPRESS LANES

2600 2601 2602 2603 2604 2605 ℄ CONST. I-95 2606 2607

EXPRESS LANES

5600 5601 5602 5603 PGL RT 5604 5605 5606

NB SR 9 (I-95)

3-#4/0 AND 1-#4/0 GND, 2"C
(TO DMS SIGN)

95 NB 020.9
STA. 2603+10
(FRONT ACCESS DMS SIGN)

3-#4/0 AND 1-#4/0 GND, 2"C
(TO DMS SIGN)

020.8 CAB NS
STA. 2601+40
(DMS CABINET)

STATIC SIGN

PORTABLE TRAFFIC MONITORING SITE
STA. 2604+43
(NO HARDWIRED POWER REQUIRED)

1-2" ELECTRICAL (SPARE)

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

020.9 CAB NS
STA. 2601+70

SWALE 24-1

LA R/W LINE

2-#2 AND 1-#2 GND, 2"C
(CKT. D-1)

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

MATCH LINE STA. 2600+00

MATCH LINE STA. 2607+00

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES, REVISED CONDUIT SIZE		
9/13/19	AS-BUILT per RFI 093 & 315		

Parsons Brinckerhoff, Inc.
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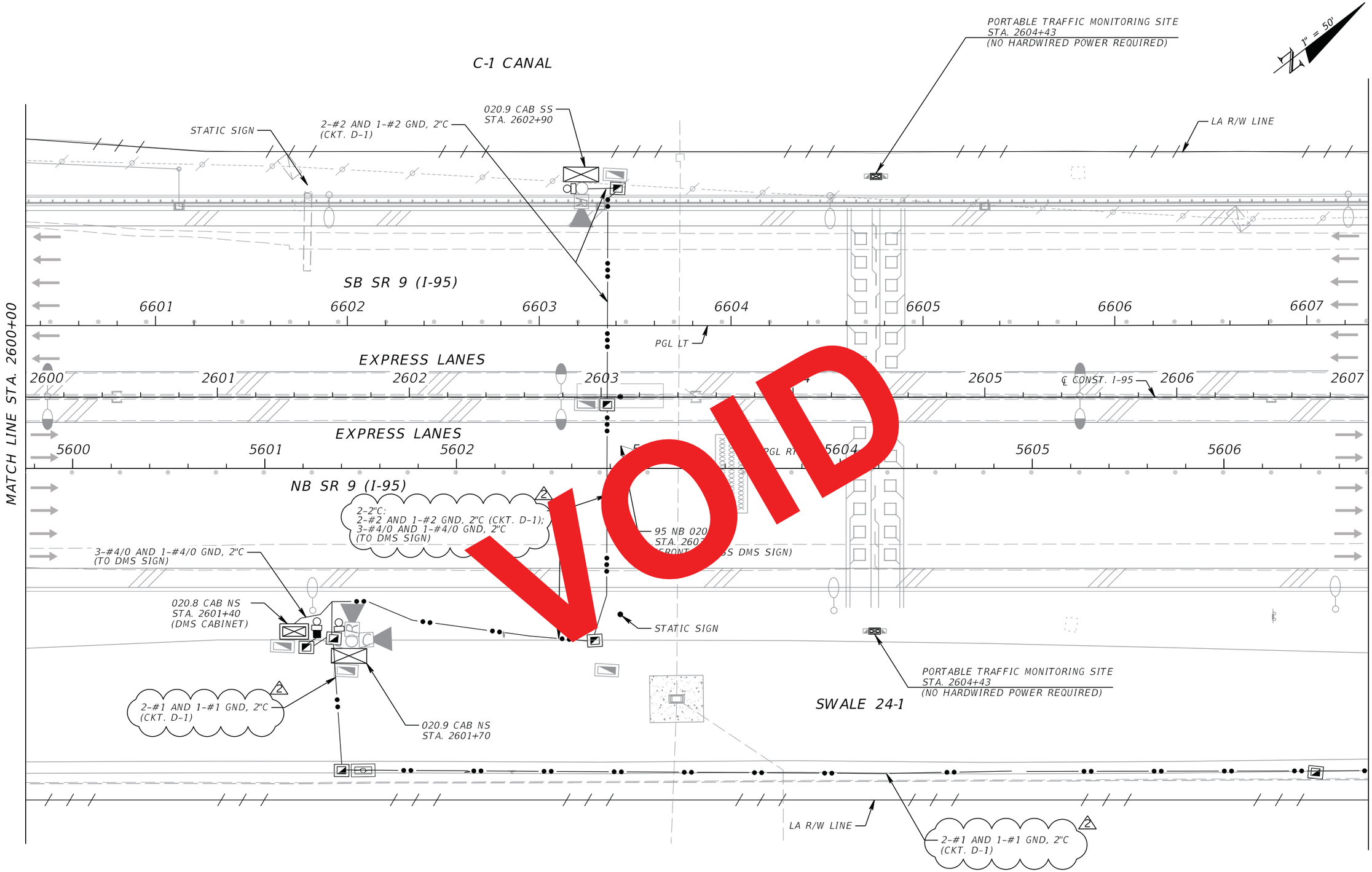
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (41)

SHEET NO.

IT-331



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZES, REVISED CONDUIT SIZE		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (41)

SHEET NO.
IT-331

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

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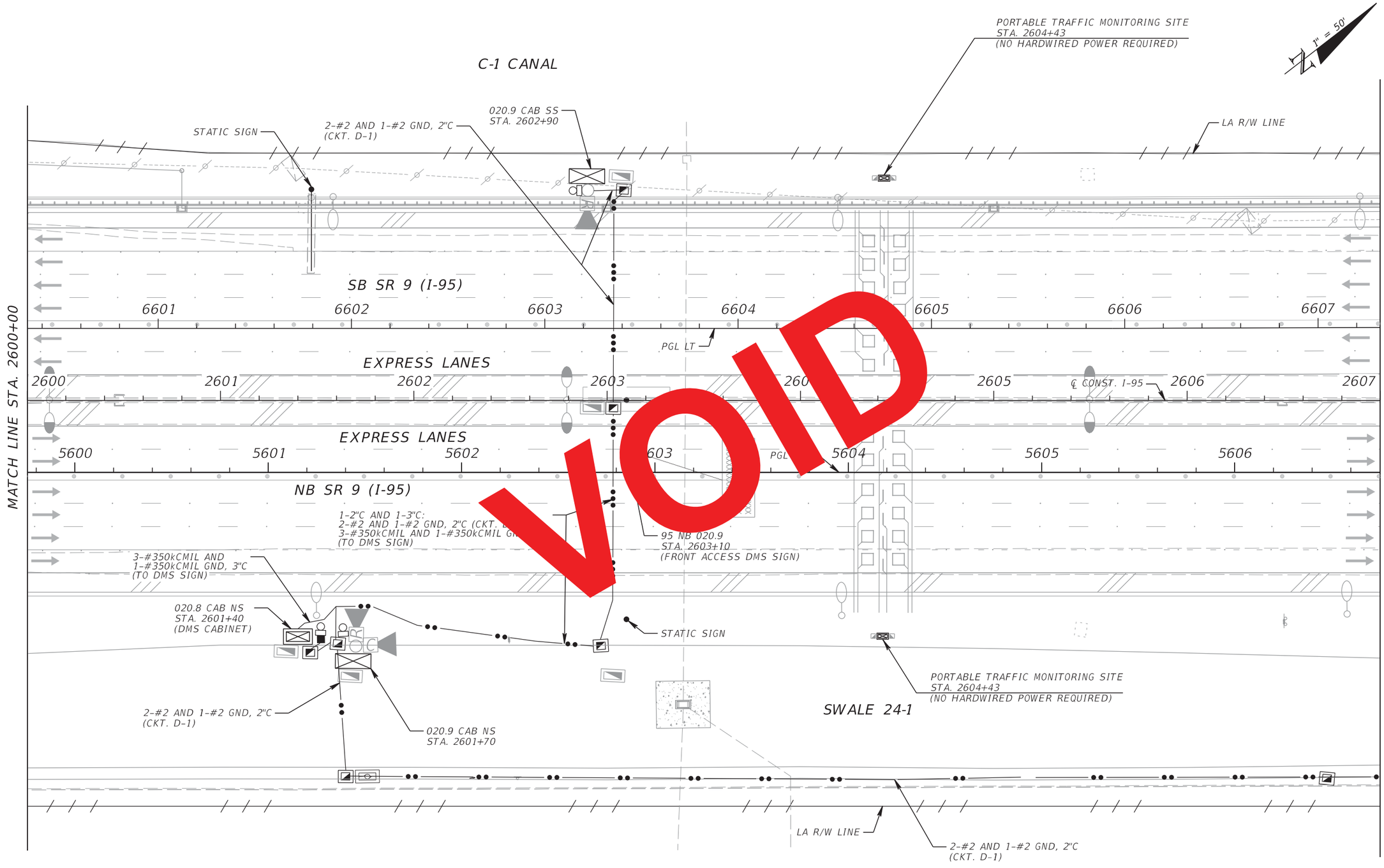
C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3A-2\lighting\eng_data\433108552OI_I95_Ph3A2LTG.tbl abreuk 8/7/2018 10:05:32 AM c:\projectwise\pb\projectwiseint\abreuk\d0137985\planit41_E.DGN



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (41)

SHEET NO.
IT-331

C-1 CANAL

021.0 CAB SS
STA. 2612+00

LA R/W LINE

SB SR 9 (I-95)

6608 6609 6610 6611 6612 6613 6614

PGL LT

EXPRESS LANES

℄ CONST. I-95

2607 2608 2609 2610 2611 2612 2613 2614

EXPRESS LANES

5607 5608 5609 5610 5611 5612 5613

STATIC SIGN

MATCH LINE STA. 2607+00

MATCH LINE STA. 2614+00

NB SR 9 (I-95)

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

SWALE 24-1

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

LA R/W LINE

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

1" = 50'

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZE		
9/13/19	AS-BUILT per RFI 555		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (42)

SHEET NO.
IT-332

C-1 CANAL

1" = 50'

021.0 CAB SS
STA. 2612+00

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

LA R/W LINE

SB SR 9 (I-95)

6608 6609 6610 6611 6612 6613 6614

PGL LT

EXPRESS LANES

2607 2608 2609 2610 2611 2612 2613 2614

℄ CONST. I-95

EXPRESS LANES

5607 5608 5609 5611 5612 5613

STATIC SIGN

MATCH LINE STA. 2607+00

MATCH LINE STA. 2614+00

NB SR 9 (I-95)

SWALE 24-1

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

LA R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of information on shop drawings and details and for fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB
BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (42)

SHEET NO.
IT-332

C-1 CANAL

1" = 50'

021.0 CAB SS
STA. 2612+00

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

LA R/W LINE

SB SR 9 (I-95)

6608 6609 6610 6611 6612 6613 6614

PGL LT

EXPRESS LANES

2607 2608 2609 2610 2611 2612 2613 2614

℄ C I-95

EXPRESS LANES

5607 5608 5609 610 5611 5612 5613

STATIC SIGN

NB SR 9 (I-95)

MATCH LINE STA. 2607+00

MATCH LINE STA. 2614+00

SWALE 24-1

2-#2 AND 1-#2 GND, 2"C
(CKT. D-1)

LA R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PL BY: (FDOT)

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REVISIONS			
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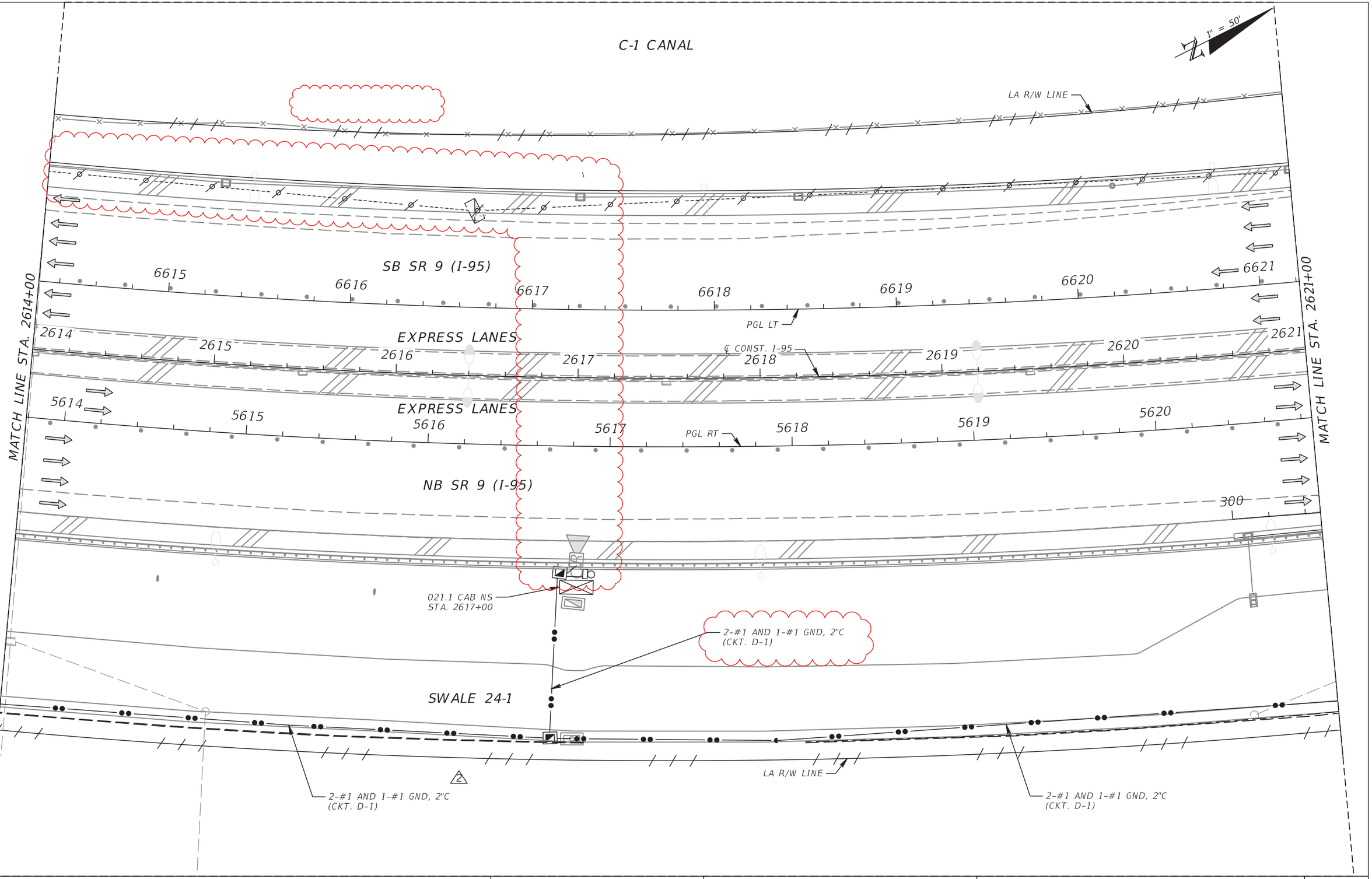
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (42)

SHEET NO.

IT-332



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZE		
9/13/19	AS-BUILT per RFI 555		

Parsons Brinckerhoff, Inc.
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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (43)

SHEET NO.
IT-333

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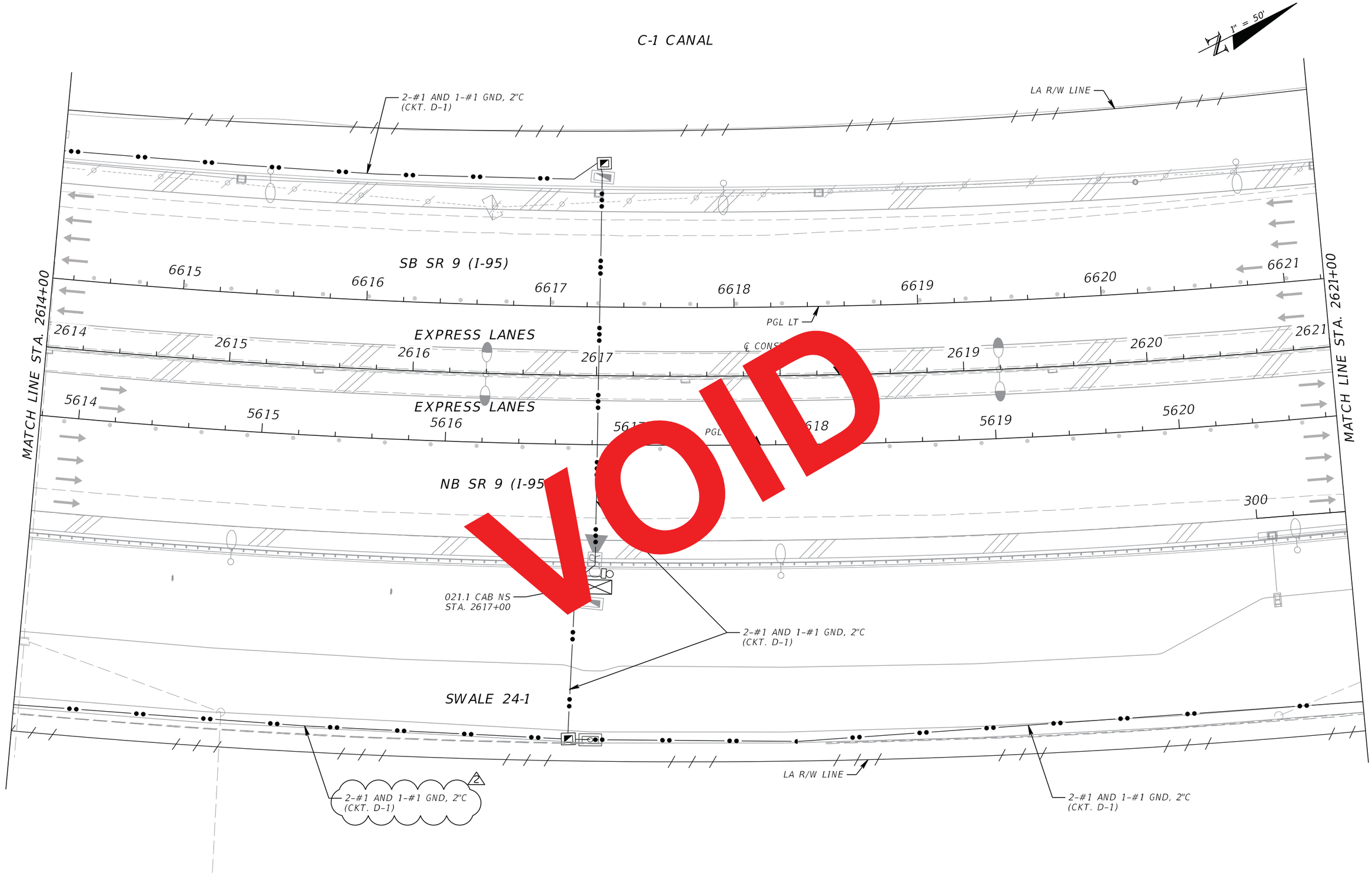

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (43)

SHEET NO.
IT-333

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

C-1 CANAL

1" = 50'

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

LA R/W LINE

SB SR 9 (I-95)

EXPRESS LANES

EXPRESS LANES

NB SR 9 (I-95)

MATCH LINE STA. 2614+00

MATCH LINE STA. 2621+00

6614 6615 6616 6617 6618 6619 6620 6621

2614 2615 2616 2617 2618 2619 2620 2621

5614 5615 5616 5617 5618 5619 5620

300

021.1 CAB NS
STA. 2617+00

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

SWALE 24-1

LA R/W LINE

2-#2 AND 1-#2 GND, 2"C
(CKT. D-1)

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (43)

SHEET NO.

IT-333

1" = 50'

R/W LINE

C-1 CANAL

R/W LINE

POND 24-7

LA R/W LINE

2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

201

202

203

204 SAMPLE RAMP ES

205

SB SR 9 (I-95)

6622 6623 6624 6625 6626 6627 6628

PGL LT

EXPRESS LANES

2621 2622 2623 2624 2625 2626 2627 2628

℄ CONST. I-95

EXPRESS LANES

5621 5622 5623 5624 5625 5626 5627

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2621+00

MATCH LINE STA. 2628+00

301 302 303 304 305 306 SAMPLE RAMP NE 307

STATIC SIGN

021.3 CAB NS
STA. 2624+00

2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

SWALE 24-1

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

2-#1 AND 1-#1 GND, 2"C
(CKT. D-1)

LA R/W LINE

G

ITS SERVICE POINT/
GENERATOR D
STA. 2626+85

2-2" C:
2-#1 AND 1-#1 GND, 2"C
(CKT. D-1);
2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

3-#4/0 & 1#2 GND, 2"C
(120/240V SERVICE FEEDERS
TO POWER STATION D)

MATCH LINE SEE ITS ELECTRICAL PLAN (45A)

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RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (44)

SHEET NO.
IT-334

3

POND 24-7

2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

021.4 CAB SS
STA. 2628+25

198

200 SAMPLE RAMP ES 199

1" = 50'

STATIC RAMP SIGNAL

EXIST.
SWALE 24-3

SB SR 9 (I-95)

6629 6630 6631 6632 6633 6634 6635

PGL LT

MATCH LINE STA. 2628+00

℄ CONST. I-95

2628 2629 2630 2631 2632 2633 2634 2635

EXPRESS LANES

5628 5629 5630 5631 5632 5633 5634

PGL RT

STATIC SIGN

EXPRESS LANES

MATCH LINE STA. 2635+00

NB SR 9 (I-95)

2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

SAMPLE
RAMP NE

EXIST.
POND 24-8

MATCH LINE SEE ITS ELECTRICAL PLAN (45A)

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, verification of quantities, and coordination with other trades rests with the contractor. Review shall not relieve contractor of responsibility for errors in fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4G64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

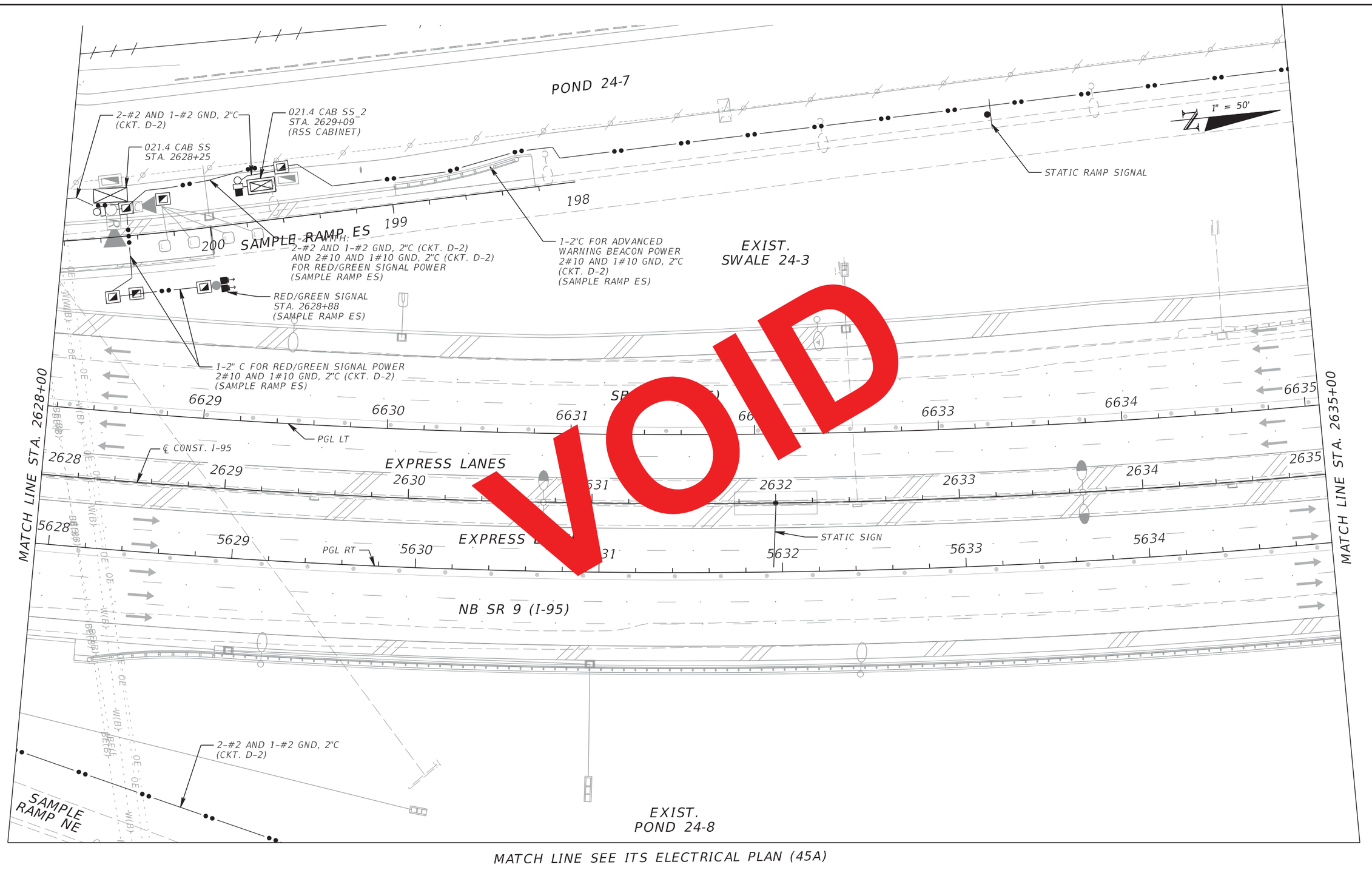
Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (45)

SHEET NO. IT-335



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec) PE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (45)

SHEET NO.
IT-335

MATCH LINE SEE ITS ELECTRICAL PLAN (45)

MATCH LINE SEE ITS ELECTRICAL PLAN (44)

MATCH LINE SEE ITS ELECTRICAL PLAN (46B)

1" = 50'

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

EXIST. POND 24-8

EXISTING FPL POLE (TRANSMISSION)

EXISTING SOUND WALL

SAMPLE RAMP NE

EXISTING FPL POLE (DISTRIBUTION)

EXISTING PAD MOUNTED TRANSFORMER

3-#4/0 & 1#2 GND, 2"C (120/240V SERVICE FEEDERS TO POWER STATION D)

NEW FPL POLE, TRANSFORMER AND RISER (SEE NOTE 1)

SWALE 24-2

LA R/W LINE

OE

BE(B)

W(B)

NOTE:
1. NEW FPL POLE TO BE IN LINE WITH EXISTING OVERHEAD DISTRIBUTION LINES AND BE APPROXIMATELY 5 FEET FROM THE EXISTING PAD MOUNTED TRANSFORMER. COORDINATE ALL WORK WITH FPL .

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) FL BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (45A)

SHEET NO.

IT-336

3

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (46A)

POND 24-7

SAMPLE RAMP ES

EXIST. SWALE 24-3

021.5 CAB SS
STA. 2637+92

2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

STATIC SIGN

SAMPLE ROAD

MATCH LINE
SEE ITS ELECTRICAL
PLAN (47A)

SB SR 9 (I-95)

6636 6637 6638 6639 6640 6641 6642

PGL LT

MATCH LINE STA. 2635+00

℄ CONST. I-95

EXPRESS LANES

2635 2636 2637 2638 2639 2640 2641 2642

EXPRESS LANES

5635 5636 5637 5638 5639 5640 5641 5642

NB SR 9 (I-95)

MATCH LINE STA. 2642+00

STATIC SIGN

504

SAMPLE RAMP EN

503

502

021.5 CAB NS
STA. 2638+02

2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

18 19 20 21 2

MATCH LINE SEE ITS ELECTRICAL PLAN (46B)

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		
09/13/19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (46)

SHEET NO.
IT-337

3

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (46A)

POND 24-7

SAMPLE RAMP ES

EXIST.
SWALE 24-3

021.5 CAB SS
STA. 2637+92

2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

STATIC SIGN

SAMPLE ROAD

SB SR 9 (I-95)

6636 6637 6638 6640 6641 6642

PGL LT

℄ CONST. I-95

EXPRESS LANES

2635 2636 2637 2639 2640 2641 2642

EXPRESS LANES

5635 5636 5637 5638 5639 5640 5641 5642

NB SR 9 (I-95)

MATCH LINE STA. 2635+00

MATCH LINE STA. 2642+00

MATCH LINE
SEE ITS ELECTRICAL
PLAN (47A)

18 19 20 21 22

504 503 502

SAMPLE RAMP EN

STATIC SIGN

021.5 CAB NS
STA. 2638+02

2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

MATCH LINE SEE ITS ELECTRICAL PLAN (46B)

VOID

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and construction methods rests with the contractor. Review of fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4C64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (46)

SHEET NO.
IT-337

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (46A)

POND 24-7

SAMPLE RAMP ES

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP ES)

EXIST. SWALE 24-3

021.5 CAB SS STA. 2637+92

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP WS)

ADVANCED WARNING BEACON STA. 18+44 (SAMPLE RAMP EN)

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP EN)

1-2"C FOR ADVANCED WARNING BEACON POWER (2 CIRCUITS): 2#10 AND 1#10 GND, (CKT. D-2) (FOR SAMPLE RAMP EN) AND 2#10 AND 1#10 GND, (CKT. D-2) (FOR SAMPLE RAMP WS) (SEE NOTE 1)

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM RSS CABINET 021.5 CAB NS (STA. 2636+79) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV ON ITS ELECTRICAL PLAN (46B). SEE ITS PLAN (46) FOR CONDUIT.

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

STATIC SIGN

SAMPLE ROAD

MATCH LINE SEE ITS ELECTRICAL PLAN (47A)

MATCH LINE STA. 2635+00

MATCH LINE STA. 2642+00

SB SR 9 (I-95)

PGL LT

℄ CONST. I-95

EXPRESS LANES

EXPRESS LANES

NB SR 9 (I-95)

RED/GREEN SIGNAL STA. 2636+85 (SAMPLE RAMP EN)

STATIC SIGN

SAMPLE RAMP EN

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR RED/GREEN SIGNAL POWER (SAMPLE RAMP EN)

021.5 CAB NS STA. 2638+02

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP EN)

1-2"C WITH: 2-#2 AND 1-#2 GND, 2"C (CKT. D-2) AND 2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR RED/GREEN SIGNAL POWER (SAMPLE RAMP EN)

021.5 CAB NS_2 STA. 2636+79 (RSS CABINET) SEE NOTE 1

2-2"C: 1-2"C WITH 2-#2 AND 1-#2 GND (CKT. D-2); 1-2"C FOR ADVANCED WARNING BEACON POWER (2 CIRCUITS): 2#10 AND 1#10 GND (CKT. D-2) (FOR SAMPLE RAMP EN) AND 2#10 AND 1#10 GND (CKT. D-2) (FOR SAMPLE RAMP WS) (SEE NOTE 1)

ADVANCED WARNING BEACON STA. 21+51 (SAMPLE RAMP WS)

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP WS)

MATCH LINE SEE ITS ELECTRICAL PLAN (46B)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

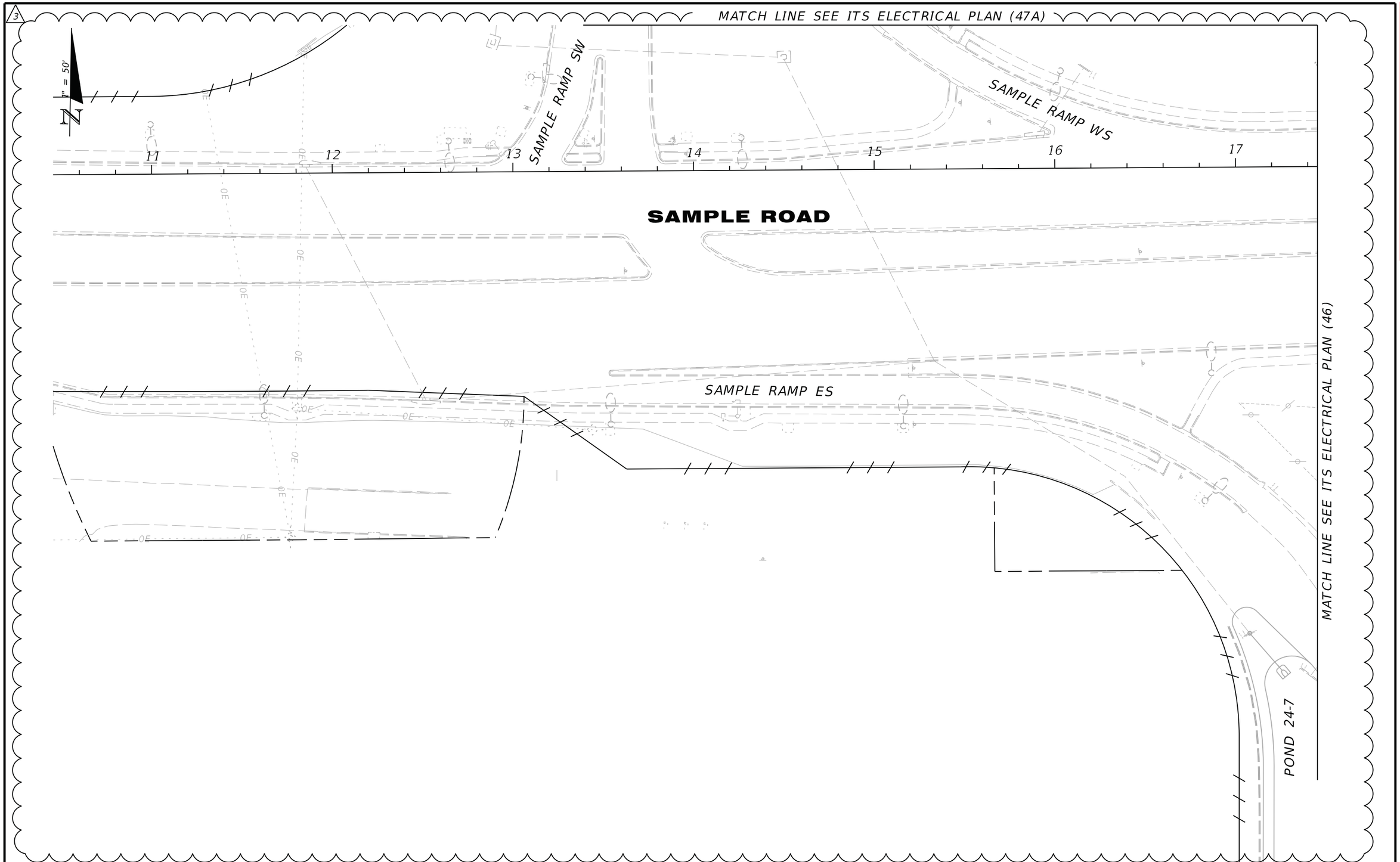
Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (46)

SHEET NO. IT-337



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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (46A)

SHEET NO.
IT-338

c:\projectwise\pb\projectwiseint\perezr\d0173361\433108652OI_I95_Ph3BI_FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3A-2\lighting\eng_data\433108552OI_I95_Ph3A2LTG.tbl PerezR 3/8/2019 4:45:30 PM c:\projectwise\pb\projectwiseint\perezr\d0137985\planit46A_E.DGN

MATCH LINE SEE ITS ELECTRICAL PLAN (47A)

1" = 50'

SAMPLE RAMP SW

SAMPLE RAMP WS

SAMPLE ROAD

11 12 13 14 15 16 17

ADVANCED WARNING BEACON
STA. 15+44
(SAMPLE RAMP WS)

ADVANCED WARNING BEACON
STA. 15+27
(SAMPLE RAMP WS)

2#10 AND 1#10 GND, 2"C
(CKT. D-2) FOR ADVANCED
WARNING BEACON POWER
(SAMPLE RAMP WS)

1-2"C FOR ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. D-2)
(SAMPLE RAMP ES)

ADVANCED WARNING BEACON
STA. 16+60
(SAMPLE RAMP ES)

ADVANCED WARNING BEACON
STA. 16+48
(SAMPLE RAMP ES)

1-2"C FOR ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C
(CKT. D-2)
(SAMPLE RAMP ES)

ADVANCED WARNING BEACON
STA. 10+53
(SAMPLE RAMP ES)

1-2"C FOR ADVANCED
WARNING BEACON POWER
2#10 AND 1#10 GND, 2"C (CKT. D-2)
(SAMPLE RAMP ES)

POND 24-7

MATCH LINE SEE ITS ELECTRICAL PLAN (46)

OE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (46A)

SHEET NO. IT-338

MATCH LINE SEE ITS ELECTRICAL PLAN 46

1" = 50'

EXIST. POND 24-9

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2);

501

500 SAMPLE RAMP EN

EXIST. POND 24-9

SAMPLE ROAD

SAMPLE RAMP WN

SAMPLE RAMP NE

23

24

25

26

MATCH LINE SEE ITS ELECTRICAL PLAN (45A)

MATCH LINE SEE ITS ELECTRICAL PLAN (47A)

MATCH LINE SEE ITS ELECTRICAL PLAN (47B)

MATCH LINE SEE ITS ELECTRICAL PLAN (47B)

RELEASED FOR CONSTRUCTION DATE: 04/15/2019

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and details rests with the Engineer of Record. Shop fabrication and erection shall remain with the contractor.

FPID:433108-5-52-01 CONTRACT E4C64

BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 CONDUIT QUANTITY REVISED		
2/01/19	3 RSS EQUIPMENT REMOVAL		

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (46B)

SHEET NO. IT-339

MATCH LINE SEE ITS ELECTRICAL PLAN 46

1" = 50'

SEE NOTE 2

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP EN)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

EXIST. POND 24-9

2-2"C:
1-2"C WITH 2-#2 AND 1-#2 GND (CKT. D-2);
1-2"C FOR ADVANCED WARNING BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. D-2) (FOR SAMPLE RAMP EN) AND
2#10 AND 1#10 GND (CKT. D-2) (FOR SAMPLE RAMP WS)
(SEE NOTE 1)

EXIST. POND 24-9

500 SAMPLE RAMP EN

501

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.

2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM RSS CABINET 021.5 CAB NS (STA. 2636+79) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30V POWER TO THIS ASSOCIATED D-CCTV. SEE ITS ELECTR PLAN (46) FOR CABINET LOCATION. SEE ITS PLAN (46) CONDUIT.

2-2"C WITH:
2-#2 AND 1-#2 G 2"C (CK 2);
2#10 AND 1# 2"C (CK 2)
FOR ADVANC ARNING BEAC WER
(FOR SAMPLE 2 WS)

VOID

2#10 A #10 GN 2 C (CKT. D FOR ADVANCED WARNIN ACON POWER (SAM MP EN)

STATIC RAMP SIGNAL

SAMPLE RAMP NE

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP WS)

SAMPLE ROAD

ADVANCE WARNING BEACON STA. 24+18 (SAMPLE RAMP EN)

ADVANCE WARNING BEACON STA. 24+6 (SAMPLE RAMP EN)

SAMPLE RAMP WN

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP WN)

23

24

25

26

MATCH LINE SEE ITS ELECTRICAL PLAN (45A)

MATCH LINE SEE ITS ELECTRICAL PLAN (47)

MATCH LINE SEE ITS ELECTRICAL PLAN (47B)

MATCH LINE SEE ITS ELECTRICAL PLAN (47B)

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of performance data and all dimensions rests with engineer of record. Review of fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64 PL
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 CONDUIT QUANTITY REVISED		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (46B)

SHEET NO. IT-339

MATCH LINE SEE ITS ELECTRICAL PLAN 46

1" = 50'

SEE NOTE 2

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP EN)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

EXIST. POND 24-9

2-2"C:
1-2"C WITH 2-#2 AND 1-#2 GND (CKT. D-2);
1-2"C FOR ADVANCED WARNING BEACON POWER (2 CIRCUITS):
2#10 AND 1#10 GND (CKT. D-2) (FOR SAMPLE RAMP EN) AND
2#10 AND 1#10 GND (CKT. D-2) (FOR SAMPLE RAMP WS)
(SEE NOTE 1)

EXIST. POND 24-9

500 SAMPLE RAMP EN

501

NOTES:
1. PROVIDE TWO SEPARATE EQUIPMENT GROUND CONDUCTORS WITHIN THIS CONDUIT BECAUSE THE TWO ADVANCED WARNING BEACON CIRCUITS ORIGINATE FROM DIFFERENT GROUND ELECTRODE CONDUCTORS AT EACH OF THE CIRCUITS RESPECTIVE RSS CABINET.

2. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM RSS CABINET 021.5 CAB NS (STA. 2636+79) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV. SEE ITS ELECTRICAL PLAN (46) FOR CABINET LOCATION. SEE ITS PLAN (46) FOR CONDUIT.

1-2"C WITH:
2-#2 AND 1-#2 GND (CKT. D-2) AND
2#10 AND 1#10 GND (CKT. D-2)
FOR ADVANCED WARNING BEACON POWER
(FOR SAMPLE RAMP WS)

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP EN)

VOID

STATIC RAMP SIGNAL

2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP WS)

SAMPLE ROAD

ADVANCE WARNING BEACON STA. 24+18 (SAMPLE RAMP EN)

ADVANCE WARNING BEACON STA. 24+6 (SAMPLE RAMP EN)

SAMPLE RAMP NE

SAMPLE RAMP WN

2#10 AND 1#10 GND, 2"C (CKT. D-2) FOR ADVANCED WARNING BEACON POWER (SAMPLE RAMP WN)

23

24

25

26

MATCH LINE SEE ITS ELECTRICAL PLAN (45A)

MATCH LINE SEE ITS ELECTRICAL PLAN (47)

MATCH LINE SEE ITS ELECTRICAL PLAN (47B)

MATCH LINE SEE ITS ELECTRICAL PLAN (47B)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4284 BY: (FDOT)
BY: (Stantec) PE

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (46B)

SHEET NO.
IT-339

MATCH LINE SEE ITS ELECTRICAL PLAN (47A)

1" = 50'

△3

△2 2-#4 AND 1-#4 GND, 2"C (CKT. D-2);

021.6 CAB SS STA. 2642+42

△2 2-#4 AND 1-#4 GND, 2"C (CKT. D-2)

SAMPLE RAMP WS

△2 2-#4 AND 1-#4 GND, 2"C (CKT. D-2)

SB SR 9 (I-95)

MATCH LINE STA. 2642+00

6643 6644 6645 6646 6647 6648 6649

PGL LT

2-#4 AND 1-#4 GND, 2"C (CKT. D-2)

℄ CONST. I-95

EXPRESS LANES

2642 2643 2644 2645 2646 2647 2648 2649

EXPRESS LANES

5643 5644 PGL RT 5645 5646 5647 5648 5649

NB SR 9 (I-95)

MATCH LINE STA. 2649+00

021.7 CAB NS STA. 2646+56

2-#4 AND 1-#4 GND, 2"C (CKT. D-2)

△2 2-#2 AND 1-#2 GND, 2"C (CKT. D-2)

SWALE 25-1

SAMPLE RAMP WN

2-#4 AND 1-#4 GND, 2"C (CKT. D-2)

SWALE 25-2

MATCH LINE SEE ITS ELECTRICAL PLAN (46B)

MATCH LINE SEE ITS ELECTRICAL PLAN (47B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	△2 REVISED CONDUIT AND WIRE QUANTITY, REVISED WIRE SIZE		
2/01/19	△3 RSS EQUIPMENT REMOVAL		
09/13/19	AS-BUILTS		

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (47)

SHEET NO. IT-340

3 1" = 50'

MATCH LINE SEE STA. 2642+00

MATCH LINE SEE ITS ELECTRICAL PLAN (46B)

MATCH LINE SEE ITS ELECTRICAL PLAN (47A)

MATCH LINE STA. 2649+00

MATCH LINE SEE ITS ELECTRICAL PLAN (47B)

021.6 CAB SS
STA. 2642+42

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2);

2-#4 AND
1-#4 GND, 2"C
(CKT. D-2)

SAMPLE RAMP WS

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

SB SR 9 (I-95)

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

PGL LT

℄ CONST. I-95

EXPRESS LANES

EXPRESS LANES

PGL RT

NB SR 9 (I-95)

021.7 CAB NS
STA. 2646+56

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

SWALE 25-1

SAMPLE RAMP WN

SWALE 25-2

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

6643 6644 6645 6646 6647 6648 6649

2642 2643 2644 2645 2647 2648 2649

5643 5644 5645 5647 5648 5649

VOID

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of design, shop drawings, working drawings, and fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4G64
BY: (Stantec) JB BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT AND WIRE QUANTITY, REVISED WIRE SIZE		
2/01/19	3 RSS EQUIPMENT REMOVAL		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (47)

SHEET NO. IT-340

1" = 50'

MATCH LINE SEE ITS ELECTRICAL PLAN (47A)

021.6 CAB SS
STA. 2642+42

2-#4 AND
1-#4 GND, 2"C
(CKT. D-2)

2-2"C:
2-#4 AND 1-#4 GND, 2"C
(CKT. D-2);
2-#10 AND 1-#10 GND, 2"C
(CKT. D-2) FOR ADVANCED
WARNING BEACON POWER
(SAMPLE RAMP WS)

SAMPLE RAMP WS

1-2"C WITH:
2-#10 AND 1-#10 GND, 2"C (CKT. D-2)
FOR ADVANCED WARNING BEACON POWER AND
3-#10 AND 1-#10 FOR RED/GREEN SIGNAL
(SAMPLE RAMP WS)

021.7 CAB SS
STA. 2645+35
(RSS CAB)
SEE NOTE 1

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM RSS CABINET 021.7 CAB SS (STA. 2645+35) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV ON ITS ELECTRICAL PLAN (47A). SEE ITS PLAN (47) FOR CONDUIT.

RED/GREEN SIGNAL
STA. 2644+69
(SAMPLE RAMP WS)

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

3-#10 AND 1-#10
FOR RED/GREEN SIGNAL
(SAMPLE RAMP WS)

SB SR 9 (I-95)

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

PGL LT

℄ CONST. I-95

EXPRESS LANES

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2642+00

MATCH LINE STA. 2649+00

6643 6644 6645 6646 6647 6648 6649

2642 2643 2644 2645 2647 2648 2649

5643 5644 5645 5647 5648 5649

021.7 CAB NS_2
STA. 2644+70

021.7 CAB NS
STA. 2646+56

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

STATIC SIGN

2#4 AND 1#4 GND, 2"C
(CKT. D-2) FOR ADVANCED
WARNING BEACON POWER
(SAMPLE RAMP WN)

2-#2 AND 1-#2 GND, 2"C
(CKT. D-2)

SWALE 25-1

SAMPLE RAMP WN

SWALE 25-2

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

2#10 AND 1#10 GND, 2"C
(CKT. D-2) FOR ADVANCED
WARNING BEACON POWER
(SAMPLE RAMP WN)

MATCH LINE SEE ITS ELECTRICAL PLAN (46B)

MATCH LINE SEE ITS ELECTRICAL PLAN (47B)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, details and quantities is with the Contractor. Shop drawings shall be submitted as required by the contract documents. Any fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT AND WIRE QUANTITY, REVISED WIRE SIZE		

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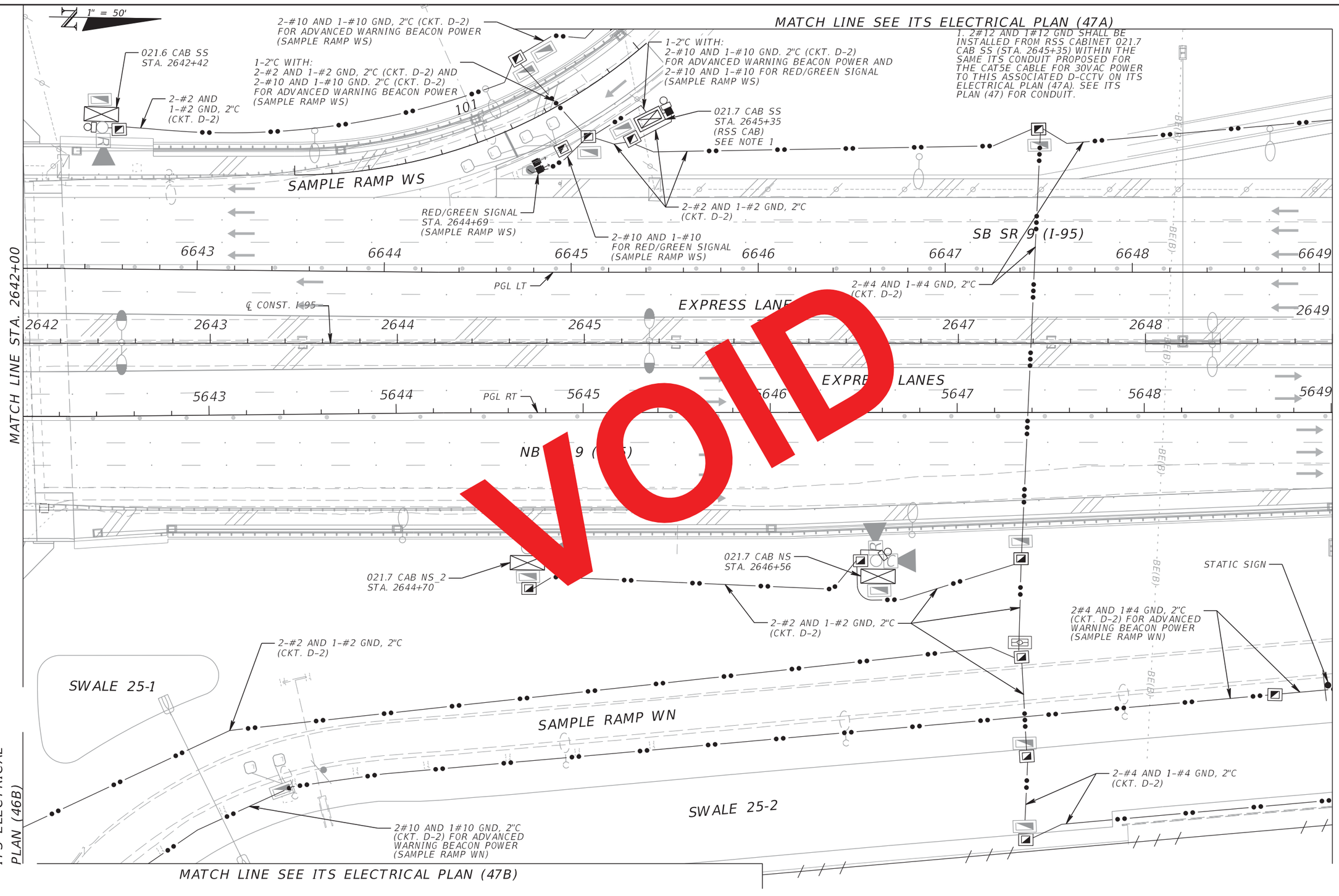
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (47)

SHEET NO.
IT-340



VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PL BY: (FDOT)

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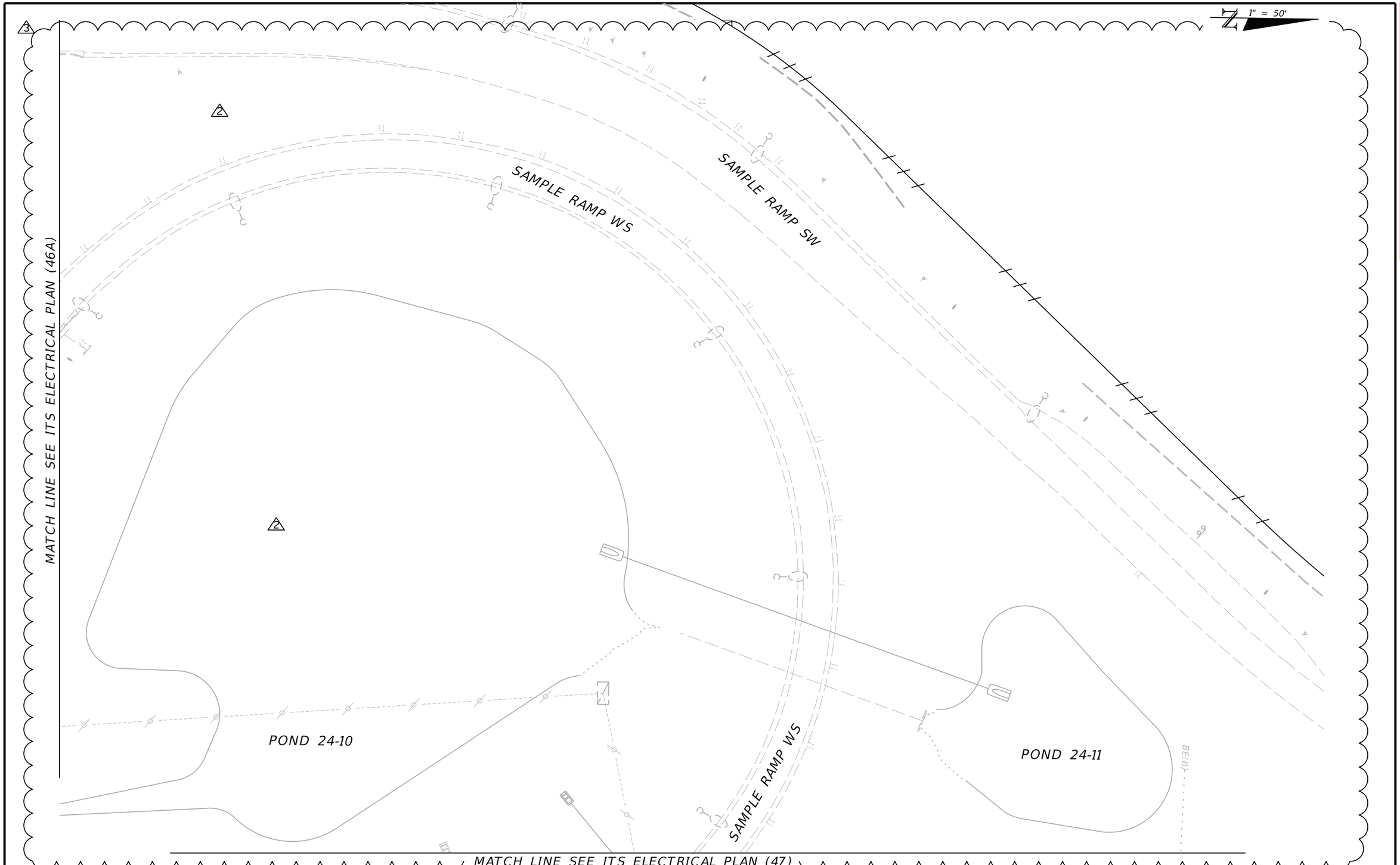
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (47)

SHEET NO. IT-340



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY, ADDED ITS EQUIPMENT		
2/01/19	3 RSS EQUIPMENT REMOVAL		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (47A)

SHEET NO.
IT-341

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) VS

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1" = 50'

021.6 CAB SS_2
STA. 2643+34

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

SAMPLE RAMP WS

SAMPLE RAMP SW

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM RSS CABINET 021.7 CAB SS (STA. 2645+35) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV. SEE ITS ELECTRICAL PLAN (47) FOR CABINET LOCATION. SEE ITS PLAN (47A) FOR CONDUIT.

STATIC [illegible]IGNAL

2-#10 AND 1-#10 GND, 2"C (CKT. D-2)
FOR ADVANCED WARNING BEACON POWER
(SAMPLE RAMP WS)

VOID

2 2-2"C:
2-#4 AND 1-#4 GND, 2"C (CKT. D-2);
2-#10 AND 1-#10 GND, 2"C (CKT. D-2)
FOR ADVANCED WARNING BEACON POWER
(SAMPLE RAMP WS)

POND 24-10

POND 24-11

SAMPLE RAMP WS

SEE NOTE 1

MATCH LINE SEE ITS ELECTRICAL PLAN (46A)

MATCH LINE SEE ITS ELECTRICAL PLAN (47)

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB
BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED CONDUIT QUANTITY, ADDED ITS EQUIPMENT		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (47A)

SHEET NO.
IT-341

1" = 50'

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM RSS CABINET 021.7 CAB SS (STA. 2645+35) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THIS ASSOCIATED D-CCTV. SEE ITS ELECTRICAL PLAN (47) FOR CABINET LOCATION. SEE ITS PLAN (47A) FOR CONDUIT.

MATCH LINE SEE ITS ELECTRICAL PLAN (46A)

SAMPLE RAMP WS

SAMPLE RAMP SW

2-#10 AND 1-#10 GND, 2"C (CKT. D-2)
FOR ADVANCED WARNING BEACON POWER
(SAMPLE RAMP WS)

STATIC[illegible] SIGNAL

2-#10 AND 1-#10 GND, 2"C (CKT. D-2)
FOR ADVANCED WARNING BEACON POWER
(SAMPLE RAMP WS)

VOID

POND 24-10

POND 24-11

2-#10 AND 1-#10 GND, 2"C (CKT. D-2)
FOR ADVANCED WARNING BEACON POWER
(SAMPLE RAMP WS)

SAMPLE RAMP WS

SEE NOTE 1

BE(B)

MATCH LINE SEE ITS ELECTRICAL PLAN (47)

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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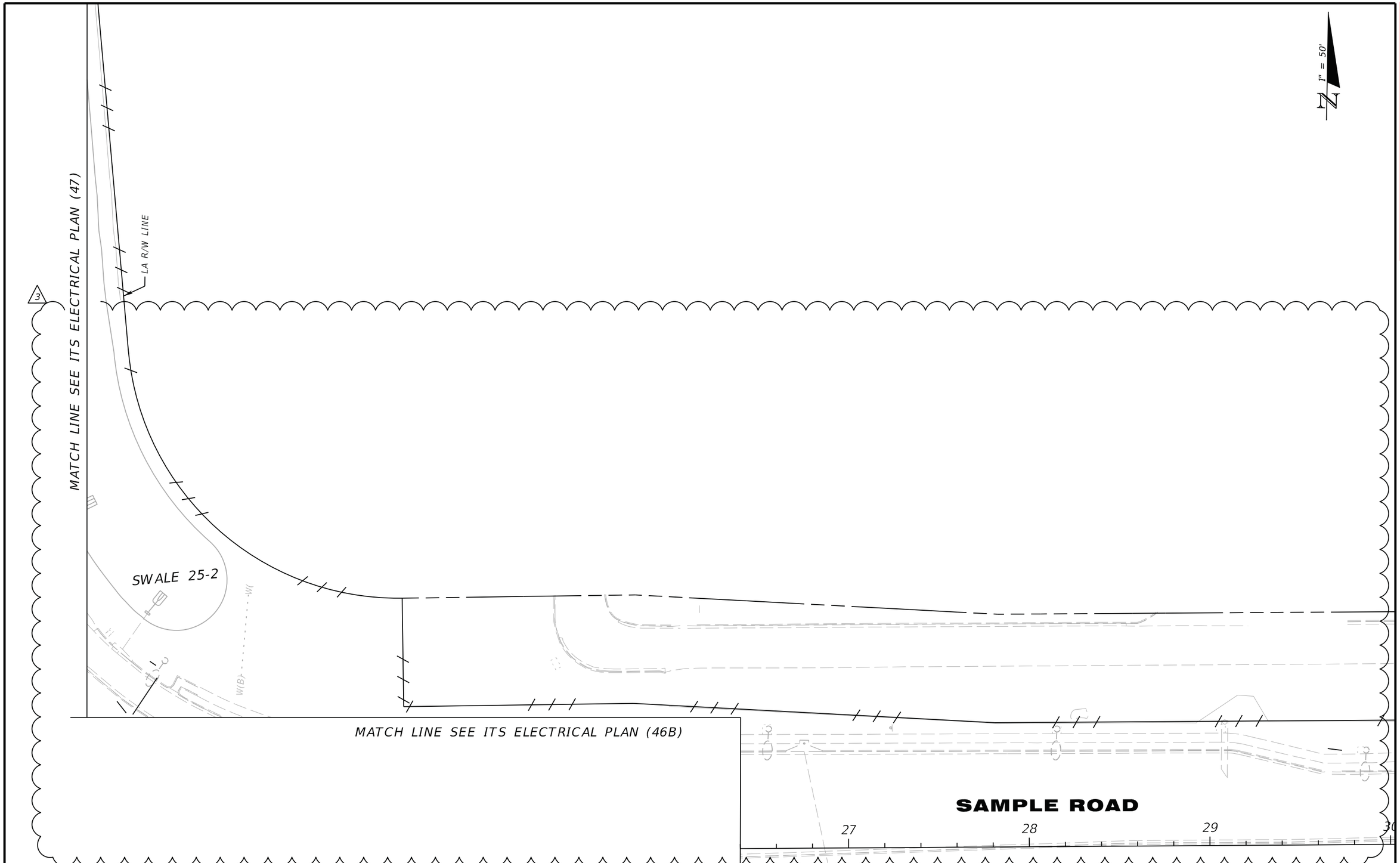
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (47A)

SHEET NO.
IT-341



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (47B)

SHEET NO.
IT-342

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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) KS

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MATCH LINE SEE ITS ELECTRICAL PLAN (47)

LA R/W LINE

2#2 AND 1#2 GND, 2"C
(CKT. D-2) FOR ADVANCED
WARNING BEACON POWER
(SAMPLE RAMP WN)

ADVANCED WARNING BEACON
STA. 22+94
(SAMPLE RAMP WN)

ADVANCED WARNING BEACON
STA. 23+11
(SAMPLE RAMP WN)

SWALE 25-2

2#2 AND 1#2 GND, 2"C
(CKT. D-2) FOR ADVANCED
WARNING BEACON POWER
(SAMPLE RAMP WN)

MATCH LINE SEE ITS ELECTRICAL PLAN (46B)

VOID

1" = 50'

2#10 AND 1#10 GND, 2"C
(CKT. D-2) FOR ADVANCED
WARNING BEACON POWER
(SAMPLE RAMP WN)

ADVANCED WARNING BEACON
STA. 29+73
(SAMPLE RAMP WN)

SAMPLE ROAD

27 28 29 30

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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STATE OF FLORIDA
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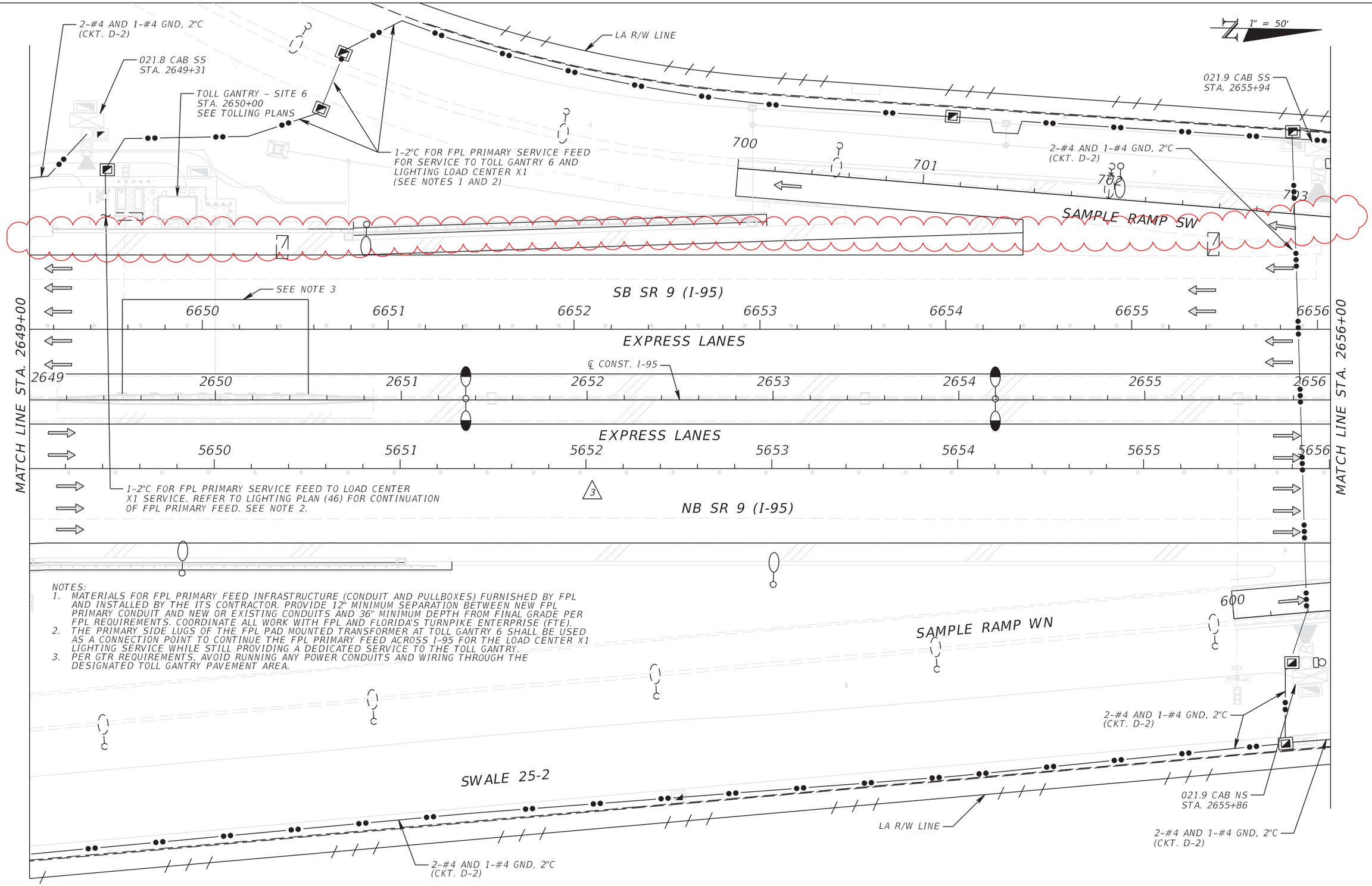
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (47B)

SHEET NO.
IT-342



NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).
2. THE PRIMARY SIDE LUGS OF THE FPL PAD MOUNTED TRANSFORMER AT TOLL GANTRY 6 SHALL BE USED AS A CONNECTION POINT TO CONTINUE THE FPL PRIMARY FEED ACROSS I-95 FOR THE LOAD CENTER X1 LIGHTING SERVICE WHILE STILL PROVIDING A DEDICATED SERVICE TO THE TOLL GANTRY.
3. PER GTR REQUIREMENTS, AVOID RUNNING ANY POWER CONDUITS AND WIRING THROUGH THE DESIGNATED TOLL GANTRY PAVEMENT AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		
09/13/19	AS-BUILT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (48)

SHEET NO.
IT-343

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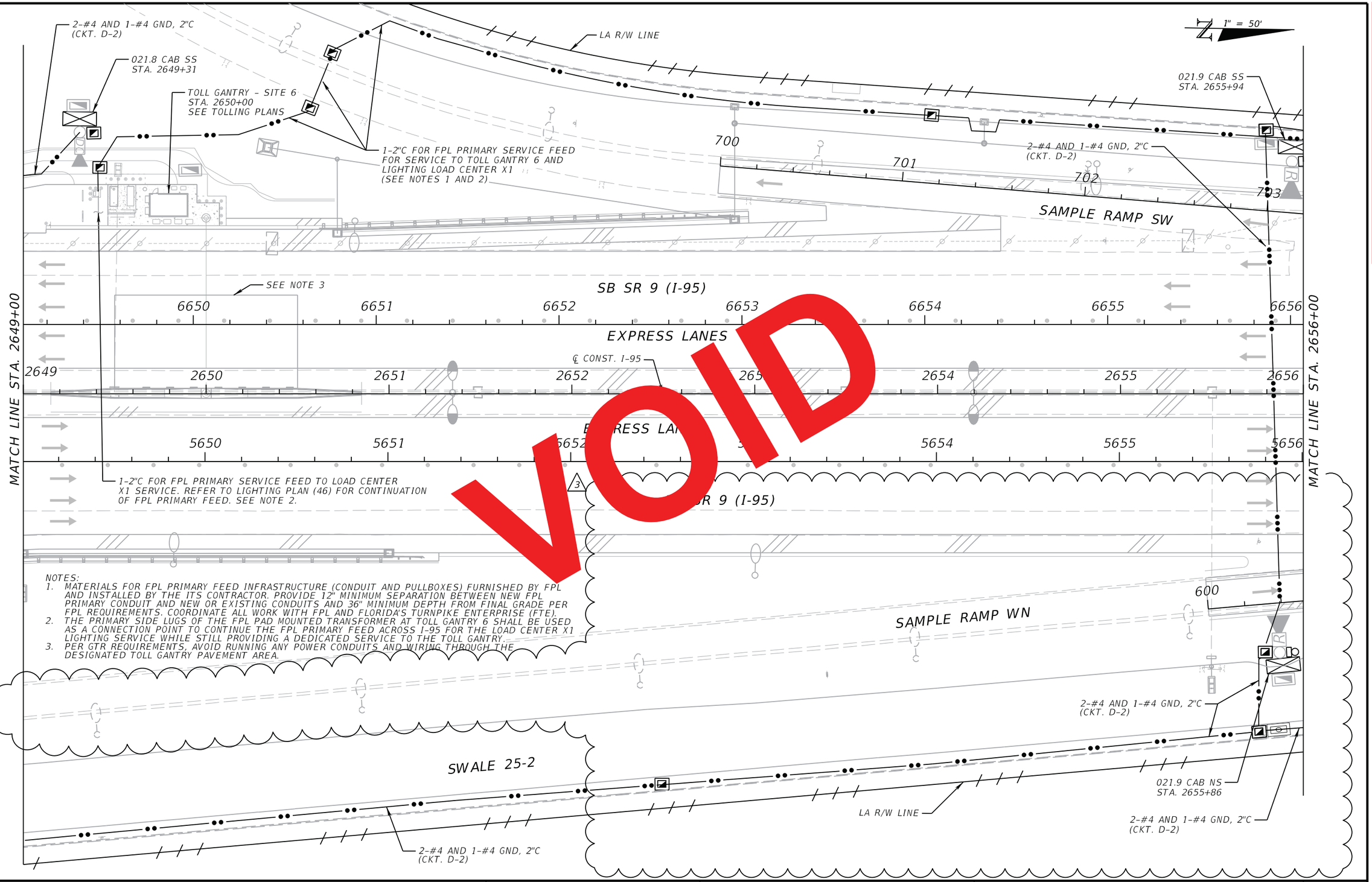

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).
2. THE PRIMARY SIDE LUGS OF THE FPL PAD MOUNTED TRANSFORMER AT TOLL GANTRY 6 SHALL BE USED AS A CONNECTION POINT TO CONTINUE THE FPL PRIMARY FEED ACROSS I-95 FOR THE LOAD CENTER X1 LIGHTING SERVICE WHILE STILL PROVIDING A DEDICATED SERVICE TO THE TOLL GANTRY.
3. PER GTR REQUIREMENTS, AVOID RUNNING ANY POWER CONDUITS AND WIRING THROUGH THE DESIGNATED TOLL GANTRY PAVEMENT AREA.

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RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/19	3 RSS EQUIPMENT REMOVAL		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (48)

SHEET NO.
IT-343

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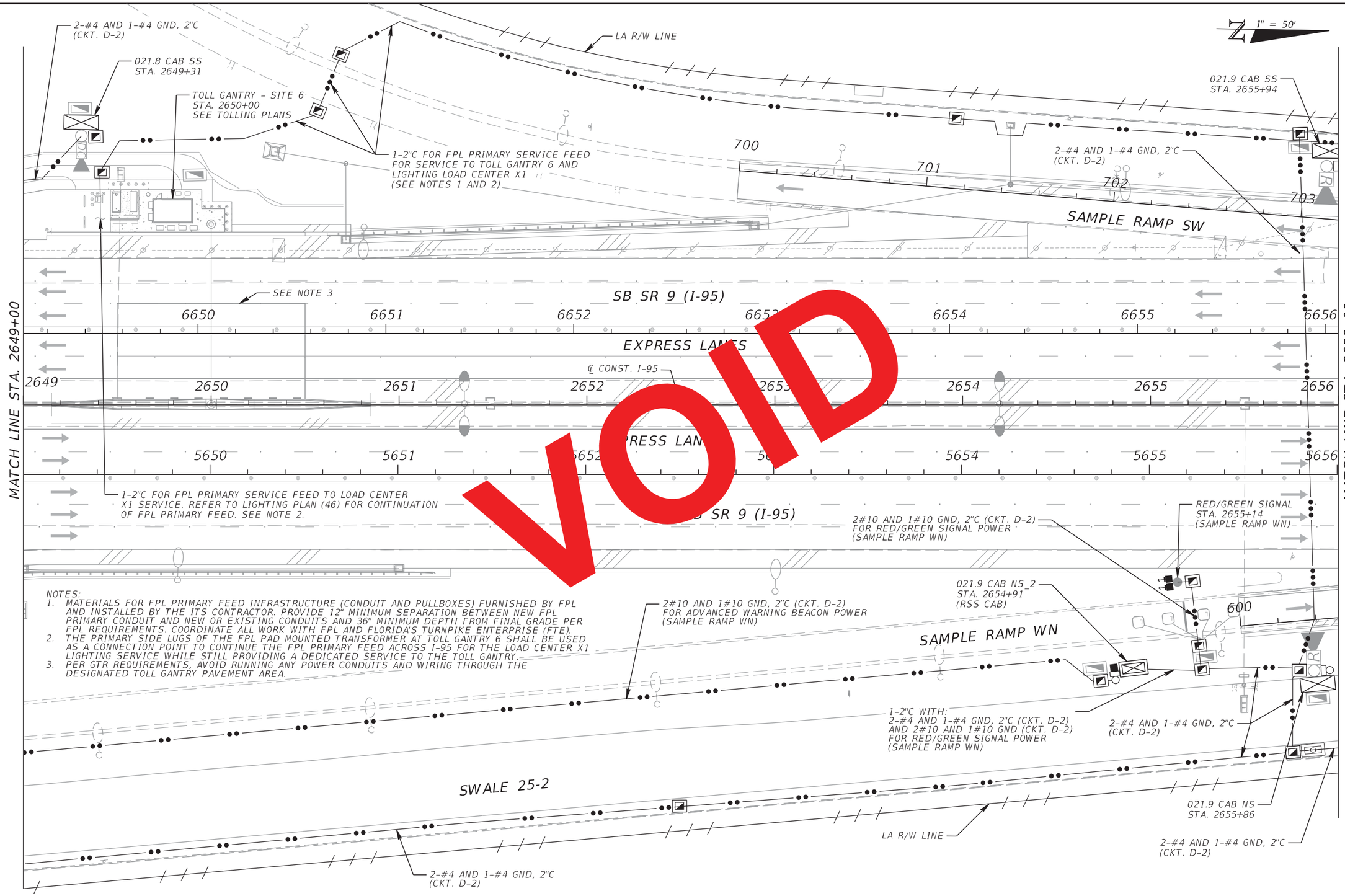

VOID

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).
2. THE PRIMARY SIDE LUGS OF THE FPL PAD MOUNTED TRANSFORMER AT TOLL GANTRY 6 SHALL BE USED AS A CONNECTION POINT TO CONTINUE THE FPL PRIMARY FEED ACROSS I-95 FOR THE LOAD CENTER X1 LIGHTING SERVICE WHILE STILL PROVIDING A DEDICATED SERVICE TO THE TOLL GANTRY.
3. PER GTR REQUIREMENTS, AVOID RUNNING ANY POWER CONDUITS AND WIRING THROUGH THE DESIGNATED TOLL GANTRY PAVEMENT AREA.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec) PE

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (48)

SHEET NO.
IT-343

1" = 50'

NEW FPL POLE AND FUSE

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 6 AND LIGHTING LOAD CENTER X1 (SEE NOTES 1 AND 2)

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).
2. THE PRIMARY SIDE LUGS OF THE FPL PAD MOUNTED TRANSFORMER AT TOLL GANTRY 6 SHALL BE USED AS A CONNECTION POINT TO CONTINUE THE FPL PRIMARY FEED ACROSS I-95 FOR THE LOAD CENTER X1 LIGHTING SERVICE WHILE STILL PROVIDING A DEDICATED SERVICE TO THE TOLL GANTRY.

NW 40 TH ST.
NW 40TH ST.

OE

LA R/W LINE

SAMPLE RAMP SW

SB SR 9 (I-95)

EXPRESS LANES

PGL LT

℄ CONST. I-95

MATCH LINE STA. 2656+00

MATCH LINE STA. 2663+00

NB SR 9 (I-95)

EXPRESS LANES

SAMPLE RAMP WN

SWALE 25-2

2-#4 AND 1-#4 GND, 2"C (CKT. D-2)

2-#4 AND 1-#4 GND, 2"C (CKT. D-2)

LA R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	CONDUIT TYPE CHANGE, PB'S ADDED AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (49)

SHEET NO.
IT-344

1" = 50'

NOTES:
1. MATERIALS FOR FPL PRIMARY FEED INFRASTRUCTURE (CONDUIT AND PULLBOXES) FURNISHED BY FPL AND INSTALLED BY THE ITS CONTRACTOR. PROVIDE 12" MINIMUM SEPARATION BETWEEN NEW FPL PRIMARY CONDUIT AND NEW OR EXISTING CONDUITS AND 36" MINIMUM DEPTH FROM FINAL GRADE PER FPL REQUIREMENTS. COORDINATE ALL WORK WITH FPL AND FLORIDA'S TURNPIKE ENTERPRISE (FTE).
2. THE PRIMARY SIDE LUGS OF THE FPL PAD MOUNTED TRANSFORMER AT TOLL GANTRY 6 SHALL BE USED AS A CONNECTION POINT TO CONTINUE THE FPL PRIMARY FEED ACROSS I-95 FOR THE LOAD CENTER X1 LIGHTING SERVICE WHILE STILL PROVIDING A DEDICATED SERVICE TO THE TOLL GANTRY.

NEW FPL POLE AND FUSE

1-2"C FOR FPL PRIMARY SERVICE FEED FOR SERVICE TO TOLL GANTRY 6 AND LIGHTING LOAD CENTER X1 (SEE NOTES 1 AND 2)

NW 40 TH ST.
NW 40TH ST.

OE

LA R/W LINE

SAMPLE RAMP SW

SB SR 9 (I-95)

EXPRESS LANES

PGL LT

MATCH LINE STA. 2656+00

MATCH LINE STA. 2663+00

EXPRESS LANES

NB SR 9 (I-95)

602 SAMPLE RAMP WN

SWALE 25-2

2-#4 AND 1-#4 GND, 2"C (CKT. D-2)

LA R/W LINE

2-#4 AND 1-#4 GND, 2"C (CKT. D-2)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (49)

SHEET NO.
IT-344

1" = 50'

LA R/W LINE

022.1 CAB SS
STA. 2669+26

SB SR 9 (I-95)

6664 6665 6666 6667 6668 6669 6670

EXPRESS LANE

MATCH LINE STA. 2663+00

MATCH LINE STA. 2670+00

℄ CONST. I-95

2663 2664 2665 2666 2667 2668 2669 2670

EXPRESS LANES

5664 5665 5666 5667 5668 5669 5670

NB SR 9 (I-95)

POND 25-2

LA R/W LINE

022.0 CAB NS
STA. 2663+60

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILT per RFI 348 & 497, CONDUIT TYPE CHANGE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (50)

SHEET NO.
IT-345

1" = 50'

LA R/W LINE

022.1 CAB SS
STA. 2669+26

SB SR 9 (I-95)

6664 6665 6666 6668 6669 6670

EXPRESS LANE

℄ CONST

2663 2664 2665 2667 2668 2669 2670

EXPRESS LANE

5664 5665 5666 5667 5668 5669 5670

MATCH LINE STA. 2663+00

MATCH LINE STA. 2670+00

NB SR 9 (I-95)

POND 25-2

022.0 CAB NS
STA. 2663+60

LA R/W LINE

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

2-#4 AND 1-#4 GND, 2"C
(CKT. D-2)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (50)

SHEET NO.
IT-345

1" = 50'

LA R/W LINE

SB SR 9 (I-95)

EXPRESS LANE

EXPRESS LANES

NB SR 9 (I-95)

POND 25-2

℄ CONST. I-95

PGL LT

PGL RT

LA R/W LINE

MATCH LINE STA. 2670+00

MATCH LINE STA. 2677+00

2670 2671 2672 2673 2674 2675 2676 2677

5671 5672 5673 5674 5675 5676

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (51)

SHEET NO.

IT-346

1" = 50'

LA R/W LINE

022.4 CAB SS
STA. 2681+70

2-#6 AND 1-#6 GND, 2"C
(CKT. E-1)

LA R/W LINE

POND 25-1
POND 25-1

SB SR 9 (I-95)

MATCH LINE STA. 2677+00

6678 6679 ℄ CONST. I-95 6680 6681 EXPRESS LANE 6682 6683 6684

2677 2678 2679 2680 2681 2682 2683 2684

EXPRESS LANES

PGL RT

5677 5678 5679 5680 5681 5682 5683

NB SR 9 (I-95)

MATCH LINE STA. 2684+00

2-#6 AND 1-#6 GND, 2"C
(CKT. E-1)

022.4 CAB NS
STA. 2681+98

POND 25-2

POND 25-2

LA R/W LINE

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

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FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) PE BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (52)

SHEET NO.

IT-347

C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV81\Documents\FL - Miami Projects\I-95 Phase 3A-2\lighting\eng_data\433108552O1_I95_Ph3A2LTG.tbl abreuk 7/26/2017 12:38:37 PM c:\projectwise\pb\projectwiseint\abreuk\d0137985\planit52_E.DGN

1" = 50'

R/W LINE

LA R/W LINE

FL D4 D0T 095 022.5 SB LS 1
STA. 2687+00
(1-LINE STATUS DMS)

C-1 CANAL

LA R/W LINE

4-#2/0 AWG, 2"C
(TO DMS SIGN)

POND 25-1

SB SR 9 (I-95)

6685 PGL LT 6686 6687 6688 6689 6690 6691

EXPRESS LANES

℄ CONST. I-95

MATCH LINE STA. 2684+00

2684 2685 2686 2687 2688 2689 2690 2691

MATCH LINE STA. 2691+00

EXPRESS LANES

5684 5685 PGL RT 5686 5687 5688 5689 5690

NB SR 9 (I-95)

POND 25-2B

STATIC SIGN

2-#6 AND 1-#6 GND, 2"C
(CKT. E-1)

2-#6 AND 1-#6 GND, 2"C
(CKT. E-1)

LA R/W LINE

2-#6 AND 1-#6 GND, 2"C
(CKT. E-1)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILT per RFI 433		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (53)

SHEET NO.

IT-348

1" = 50'

R/W LINE

LA R/W LINE

C-1 CANAL

FL D4 DOT 095 022.5 SB LS 1
STA. 2687+00
(1-LINE STATUS DMS)

2-#2/0, 1-#2/0 GND AND 2-#10, 2"C
(TO DMS SIGN)

LA R/W LINE

POND 25-1

SB SR 9 (I-95)

PGL LT

℄ CONST. I-95

EXPRESS LANES

MATCH LINE STA. 2684+00

6685 6686 6687 6688 6689 6690 6691

2684 2685 2686 2688 2689 2690 2691

EXPRESS LANES

PGL RT

5684 5685 5686 5688 5689 5690

MATCH LINE STA. 2691+00

(I-95)

POND 25-2

STATIC SIGN

2-#6 AND 1-#6 GND, 2"C
(CKT. E-1)

2-#6 AND 1-#6 GND, 2"C
(CKT. E-1)

LA R/W LINE

2-#6 AND 1-#6 GND, 2"C
(CKT. E-1)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4284 BY: (FDOT)
BY: (Stantec)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (53)

SHEET NO.
IT-348

MATCH LINE SEE ITS ELECTRICAL PLAN (54A)

(EXISTING WALK-IN DMS SIGN TO REMAIN)

R/W LINE

3-#2/0, 2"C (240/480V POWER STATION E SERVICE FEEDERS)

C-1 CANAL

022.6 CAB SS STA. 2694+02 (CKT. E-2)

4-#2/0 AWG, 2"C (TO DMS SIGN)

022.6 CAB SS_2 STA. 2693+85 (DMS CABINET) (CKT. E-1)

TELEMETERED TRAFFIC MONITORING SITE STA. 2693+46 (SOLAR POWERED)

LA R/W LINE

NW 48TH STREET

19

SB SR 9 (I-95)

2-2"C; 1-3#2/0, 2"C (240/480V POWER STATION E SERVICE FEEDERS); 1-2#6, 1-2#2 AND 1#2 GND, 2"C (CKTS. E-1, AND E-2)

6692 6693 PGL LT 6694 6695 6696 6697 6698

EXPRESS LANE

2691 2692 2693 2694 2695 2696 2697 2698

℄ CONST. I-95

PGL RT

EXPRESS LANES

5691 5692 5693 5694 5695 5696 5697

EXISTING WALK-IN DMS SIGN TO REMAIN STA. 2694+64

NB SR 9 (I-95)

2-#2 AND 1-#2 GND, 2"C (CKT. E-2) UP TO EXISTING TO REMAIN PULLBOX (SEE NOTE 1)

022.6 E-CAB NS STA. 2694+60 (EXISTING TO REMAIN DMS CABINET) (CKT. E-2) (SEE NOTE 2)

NW 48TH STREET

POND 25-3

TELEMETERED TRAFFIC MONITORING SITE STA. 2693+45 (SOLAR POWERED)

022.6 CAB NS STA. 2694+40 (CKT. E-2)

ITS SERVICE POINT/GENERATOR E STA. 2693+65

2-#2 AND 1-#2 GND, 2"C (CKT. E-2)

2-#6 AND 1-#6 GND, 2"C (CKT. E-1)

2-#6 AND 1-#6 GND, 2"C (CKT. E-1)

3-#2/0, 2"C (240/480V POWER STATION E SERVICE FEEDERS)

2-#6, 2-#2 AND 1-#2 GND, 2"C (CKTS. E-1, AND E-2)

R/W LINE

℄ SURVEY 48TH

R/W LINE

MATCH LINE STA. 2691+00

MATCH LINE STA. 2698+00

1" = 50'

NOTES:
1. INSTALL NEW CONDUIT AND CONDUCTORS AND STUB-UP CONDUIT INTO THE EXISTING TO REMAIN PULL BOX BESIDE THE EXISTING TO REMAIN DMS CABINET. EXISTING CONDUIT BETWEEN THE PULL BOX AND EXISTING DMS CABINET SHALL REMAIN. HOWEVER, THE POWER WIRING SHALL BE REPLACED WITH 2#2 AWG AND 1#2 GND UP TO THE TRANSFORMER AND 3#2 AWG AND 1#2 GND BETWEEN TRANSFORMER AND DMS CABINET.

2. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
9/13/19	AS-BUILT per RFI 433		

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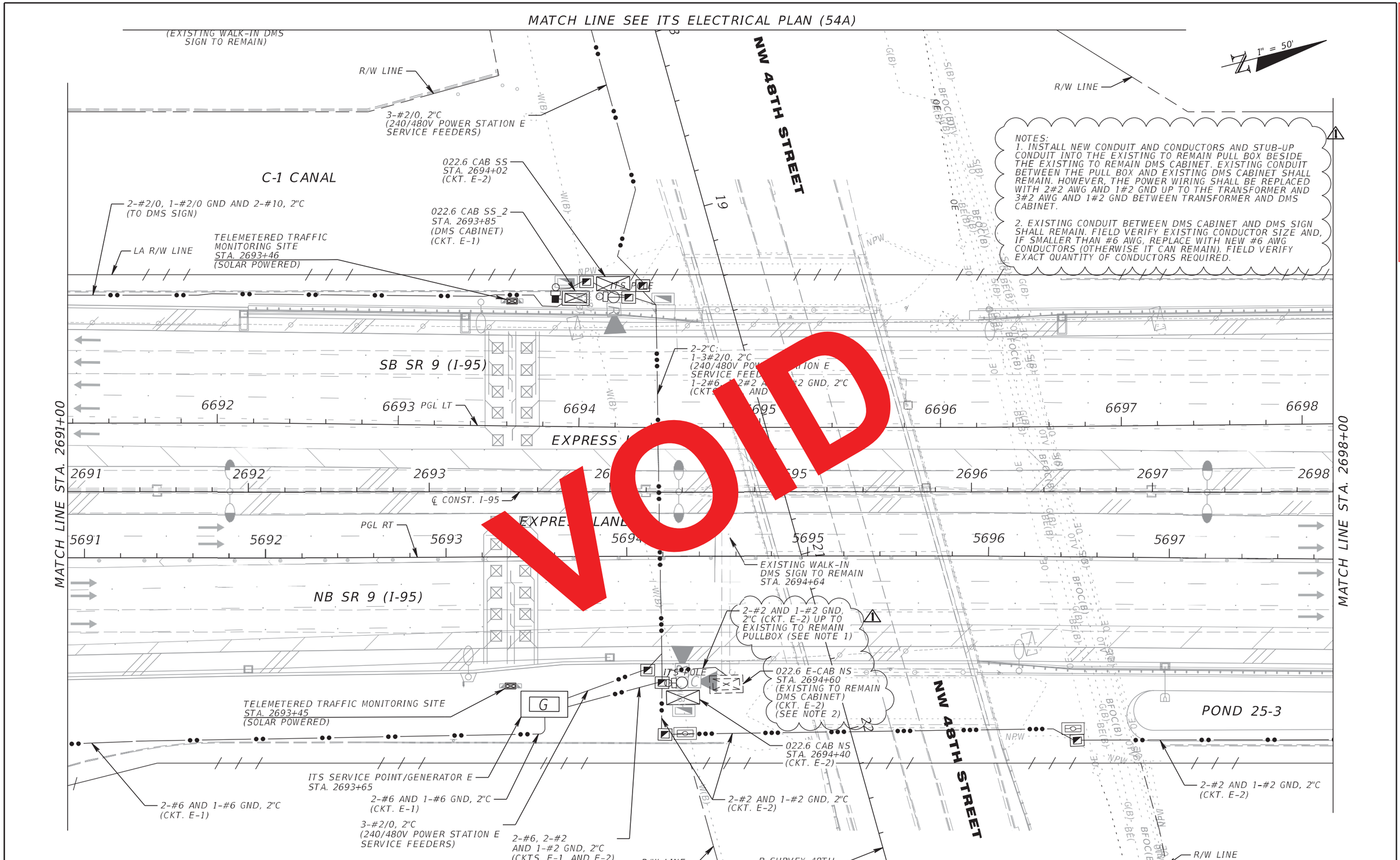
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (54)

SHEET NO.
IT-349



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	△1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (54)

SHEET NO. IT-349

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

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MATCH LINE SEE ITS ELECTRICAL PLAN (54A)

(EXISTING WALK-IN DMS SIGN TO REMAIN)

R/W LINE

3-#2/0, 2"C (240/480V POWER STATION E SERVICE FEEDERS)

C-1 CANAL

022.6 CAB SS STA. 2694+02 (CKT. E-2)

2-#2/0, 1-#2/0 GND AND 2-#10, 2"C (TO DMS SIGN)

022.6 CAB SS_2 STA. 2693+85 (DMS CABINET) (CKT. E-1)

LA R/W LINE

TELEMETERED TRAFFIC MONITORING SITE STA. 2693+46 (SOLAR POWERED)

NW 48TH STREET

1" = 50'

R/W LINE

SB SR 9 (I-95)

2-2"C; 1-3#2/0, (240/480V ... STA ... SERVICE FE... S); 1-2#... 1#2 ... C 1-1, A... 2)

6692 6693 PGL LT 6694 6695 6696 6697 6698

EX... SS ...E

2691 2692 2693 694 2695 2696 2697 2698

℄ CONST. I-95

EXT... ...NES

PGL RT

5691 5692 5693 5694 5695 5696 5697

MATCH LINE STA. 2691+00

MATCH LINE STA. 2698+00

EXISTING WALK-IN DMS SIGN TO REMAIN STA. 2694+64

NB SR 9 (I-95)

022.6 E-CAB NS STA. 2694+60 (EXISTING DMS CABINET) (CKT. E-2)

022.6 CAB NS STA. 2694+40 (CKT. E-2)

NW 48TH STREET

POND 25-3

TELEMETERED TRAFFIC MONITORING SITE STA. 2693+45 (SOLAR POWERED)

G

ITS SERVICE POINT/GENERATOR E STA. 2693+65

2-#6 AND 1-#6 GND, 2"C (CKT. E-1)

2-#6 AND 1-#6 GND, 2"C (CKT. E-1)

3-#2/0, 2"C (240/480V POWER STATION E SERVICE FEEDERS)

2-#6, 2-#2 AND 1-#2 GND, 2"C (CKTS. E-1, AND E-2)

2-#2 AND 1-#2 GND, 2"C (CKT. E-2)

2-#2 AND 1-#2 GND, 2"C (CKT. E-2)

R/W LINE

℄ SURVEY 48TH

R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

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REVISIONS			
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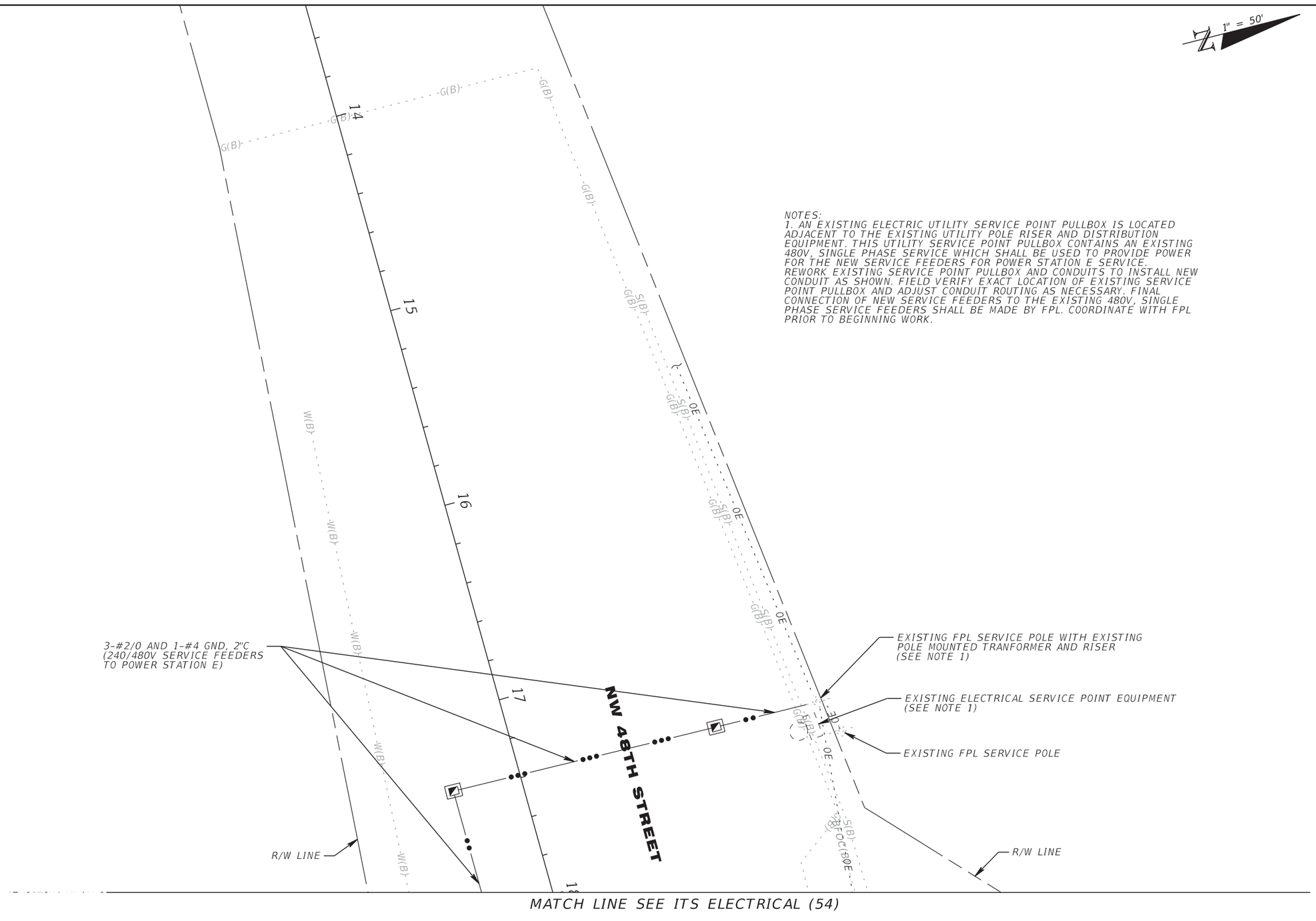
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (54)

SHEET NO. IT-349



NOTES:
1. AN EXISTING ELECTRIC UTILITY SERVICE POINT PULLBOX IS LOCATED ADJACENT TO THE EXISTING UTILITY POLE RISER AND DISTRIBUTION EQUIPMENT. THIS UTILITY SERVICE POINT PULLBOX CONTAINS AN EXISTING 480V, SINGLE PHASE SERVICE WHICH SHALL BE USED TO PROVIDE POWER FOR THE NEW SERVICE FEEDERS FOR POWER STATION E SERVICE. REWORK EXISTING SERVICE POINT PULLBOX AND CONDUITS TO INSTALL NEW CONDUIT AS SHOWN. FIELD VERIFY EXACT LOCATION OF EXISTING SERVICE POINT PULLBOX AND ADJUST CONDUIT ROUTING AS NECESSARY. FINAL CONNECTION OF NEW SERVICE FEEDERS TO THE EXISTING 480V, SINGLE PHASE SERVICE FEEDERS SHALL BE MADE BY FPL. COORDINATE WITH FPL PRIOR TO BEGINNING WORK.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (54A)

SHEET NO.
IT-350

1" = 50'

R/W LINE

FL D4 D0T 095 022.7 SB TR 1
(3-PANEL TOLL RATE DMS)
STA. 2698+50

C-1 CANAL

12-#4 AWG, 2"C
1-#4 GND, 2"C
(T0 DMS SIGN)

022.7 CAB SS
STA. 2700+11
(DMS CABINET)

2-#2 AND 1-#2 GND, 2"C
(CKT. E-2)

2-#2 AND 1-#2 GND, 2"C
(CKT. E-2)

LA R/W LINE

SB SR 9 (I-95)

6699 6700 6701 6702 PGL LT 6703 6704 6705

EXPRESS LANE

℄ CONST. I-95

2698 2699 2700 2701 2702 2703 2704 2705

MATCH LINE STA. 2698+00

EXPRESS LANES

5698 5699 5700 5701 5702 5703 5704

PGL RT

NB SR 9 (I-95)

POND 25-3

LA R/W LINE

2-#2 AND 1-#2 GND, 2"C
(CKT. E-2)

MATCH LINE STA. 2705+00

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILT per RFI 216 & 466		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (55)

SHEET NO.
IT-351

1" = 50'

R/W LINE

FL D4 D0T 095 022.7 SB TR 1
(3-PANEL TOLL RATE DMS)
STA. 2698+50

C-1 CANAL

6-#4, 6-#10, AND
1-#4 GND, 2"C
(TO DMS SIGN)

022.7 CAB SS
STA. 2700+11
(DMS CABINET)

2-#2 AND 1-#2 GND, 2"C
(CKT. E-2)

FED FROM
022.7 CAB SS
STA. 2700+11

2-#2 AND 1-#2 GND, 2"C
(CKT. E-2)

LA R/W LINE

SB SR 9 (I-95)

6699 6700 6701 6702 6703 6704 6705

EXPRESS LANES CONST. I-95

2698 2699 2700 2701 2702 2703 2704 2705

MATCH LINE STA. 2698+00

5698 5699 5700 5701 5702 5703 5704

EXPRESS LANES

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2705+00

POND 25-3

LA R/W LINE

2-#2 AND 1-#2 GND, 2"C
(CKT. E-2)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (55)

SHEET NO.
IT-351

NOTES:
1. INSTALL NEW CONDUIT AND CONDUCTORS AND STUB-UP CONDUIT INTO THE EXISTING TO REMAIN PULL BOX BESIDE THE EXISTING TO REMAIN DMS CABINET. EXISTING CONDUIT BETWEEN THE PULL BOX AND EXISTING DMS CABINET SHALL REMAIN. HOWEVER, THE POWER WIRING SHALL BE REPLACED WITH 2#2 AWG AND 1#2 GND UP TO THE TRANSFORMER AND 3#2 AWG AND 1#2 GND BETWEEN TRANSFORMER AND DMS CABINET. (1)

2. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

3. TWO FUTURE ITS CABINETS (INSTALLED IN PHASE 3B-1) TO BE CONNECTED TO CIRCUIT E-2 AT THIS PULLBOX. SEE 3B-1 SEGMENT 1 ITS PLANS FOR ADDITIONAL INFORMATION. (2)

1" = 50'

R/W LINE

022.8 E-CAB SS
(EXISTING TO REMAIN DMS CABINET)
STA. 2706+62
(SEE NOTE 2) (1)

C-1 CANAL

EXISTING ITS POWER STATION/ GENERATOR #9 (ZONE 9) TO BE REMOVED

2-#2 AND 1-#2 GND, 2"C (CKT. E-2)

2-#2 AND 1-#2 GND, 2"C (CKT. E-2) UP TO EXISTING TO REMAIN PULLBOX (SEE NOTE 1) (1)

2-#2 AND 1-#2 GND, 2"C (CKT. E-2)

022.9 CAB SS
STA. 2708+12
(MVDS FOR FREEWAY)

2-#2 AND 1-#2 GND, 2"C (CKT. E-2)

LA R/W LINE

END PROJECT
I-95 EXPRESS LANES
PHASE 3A-2
STA. 2711+20.00

2-#2 AND 1-#2 GND, 2"C (CKT. E-2) (2)

SB SR 9 (I-95)

EXISTING WALK-IN DMS SIGN TO REMAIN
STA. 2706+62

PGL LT

6706 6707 6708 6709 6710 6711

EXPRESS LANE

℄ CONST. I-95

2705 2706 2707 2708 2709 2710 2711

EXPRESS LANES

5705 5706 5707 5708 5709 5710 5711

PGL RT

NB SR 9 (I-95)

MATCH LINE STA. 2705+00

MATCH LINE STA. 2712+00

STATIC SIGN

2-#2 AND 1-#2 GND, 2"C (CKT. E-2)

POND 25-3

POND 25-3

2-#2 AND 1-#2 GND, 2"C (CKT. E-2)

LA R/W LINE

022.9 CAB NS
(MVDS FOR FREEWAY)
STA. 2708+02

(2)
FUTURE ITS CABINET (1) TO BE CONNECTED HERE (SEE NOTE 3)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	(1) UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
3/16/18	(2) ADDED NOTE FOR FUTURE ITS LOADS, REVISED WIRE SIZE		
9/13/19	AS-BUILT per RFI 216		

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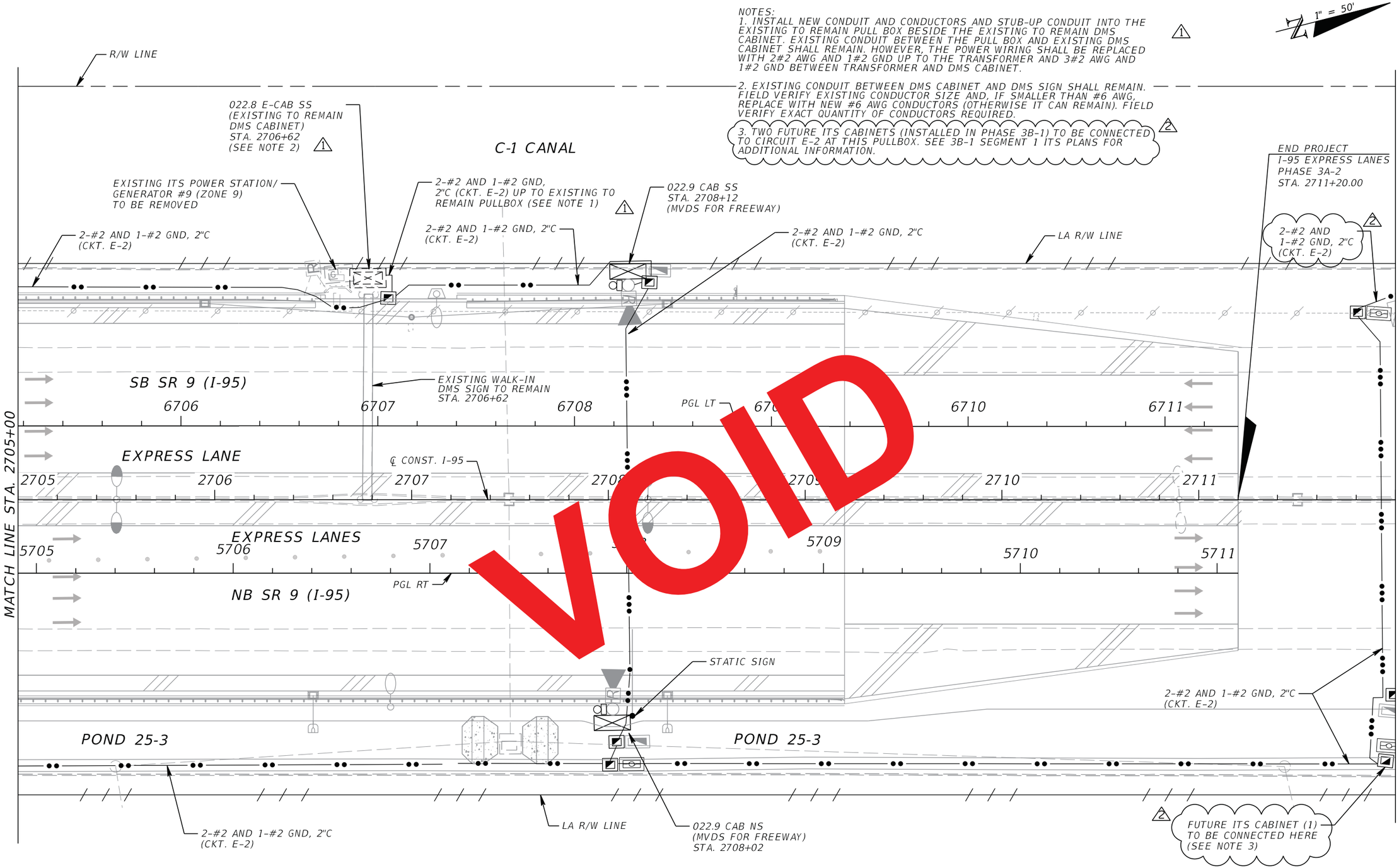
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (56)

SHEET NO.
IT-352

NOTES:
1. INSTALL NEW CONDUIT AND CONDUCTORS AND STUB-UP CONDUIT INTO THE EXISTING TO REMAIN PULL BOX BESIDE THE EXISTING TO REMAIN DMS CABINET. EXISTING CONDUIT BETWEEN THE PULL BOX AND EXISTING DMS CABINET SHALL REMAIN. HOWEVER, THE POWER WIRING SHALL BE REPLACED WITH 2#2 AWG AND 1#2 GND UP TO THE TRANSFORMER AND 3#2 AWG AND 1#2 GND BETWEEN TRANSFORMER AND DMS CABINET.
2. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.
3. TWO FUTURE ITS CABINETS (INSTALLED IN PHASE 3B-1) TO BE CONNECTED TO CIRCUIT E-2 AT THIS PULLBOX. SEE 3B-1 SEGMENT 1 ITS PLANS FOR ADDITIONAL INFORMATION.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
3/16/18	2 ADDED NOTE FOR FUTURE ITS LOADS, REVISED WIRE SIZE		

Parsons Brinckerhoff, Inc.
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EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (56)

SHEET NO. IT-352

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

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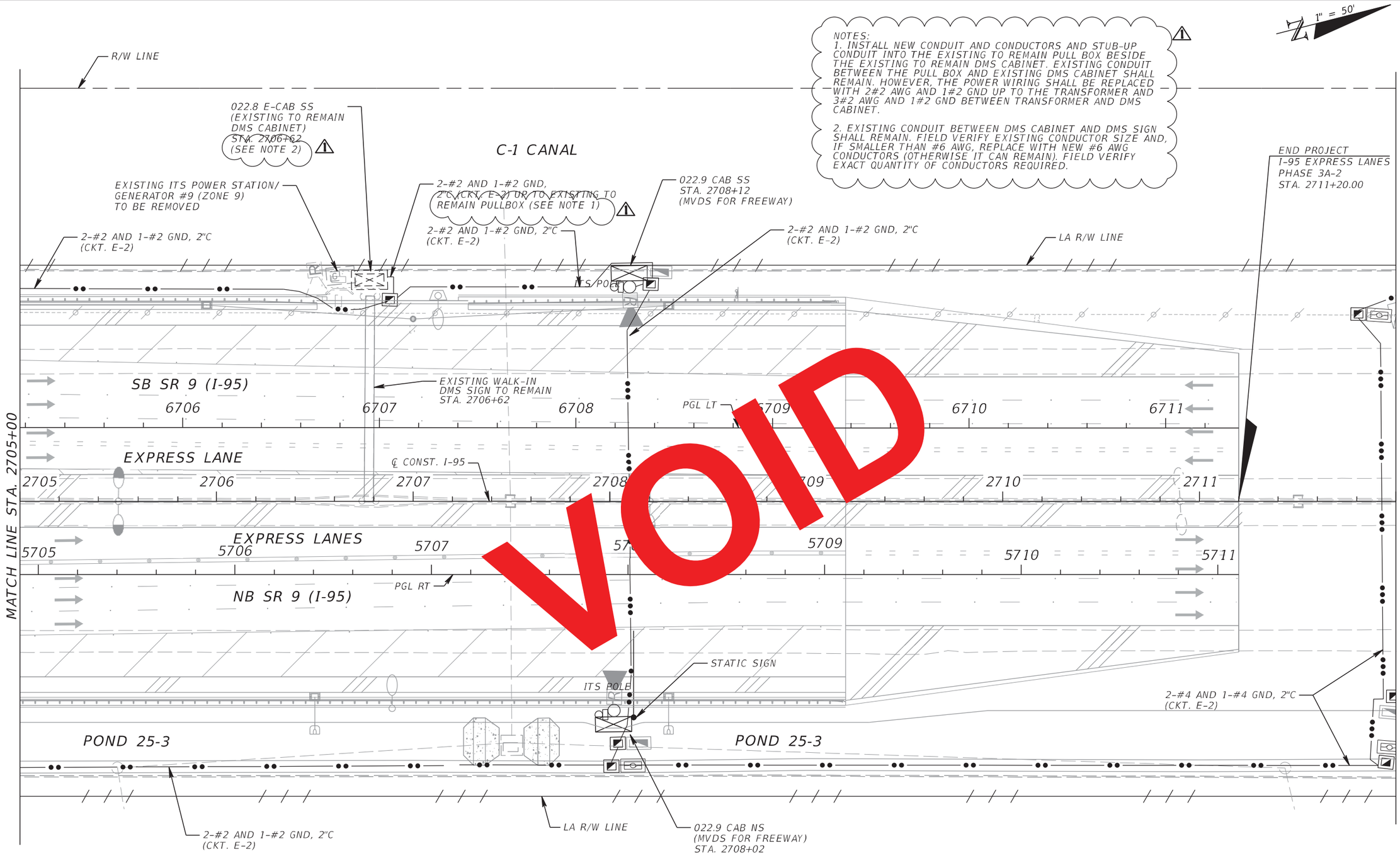

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of
project construction details and compliance with design, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 PL
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		

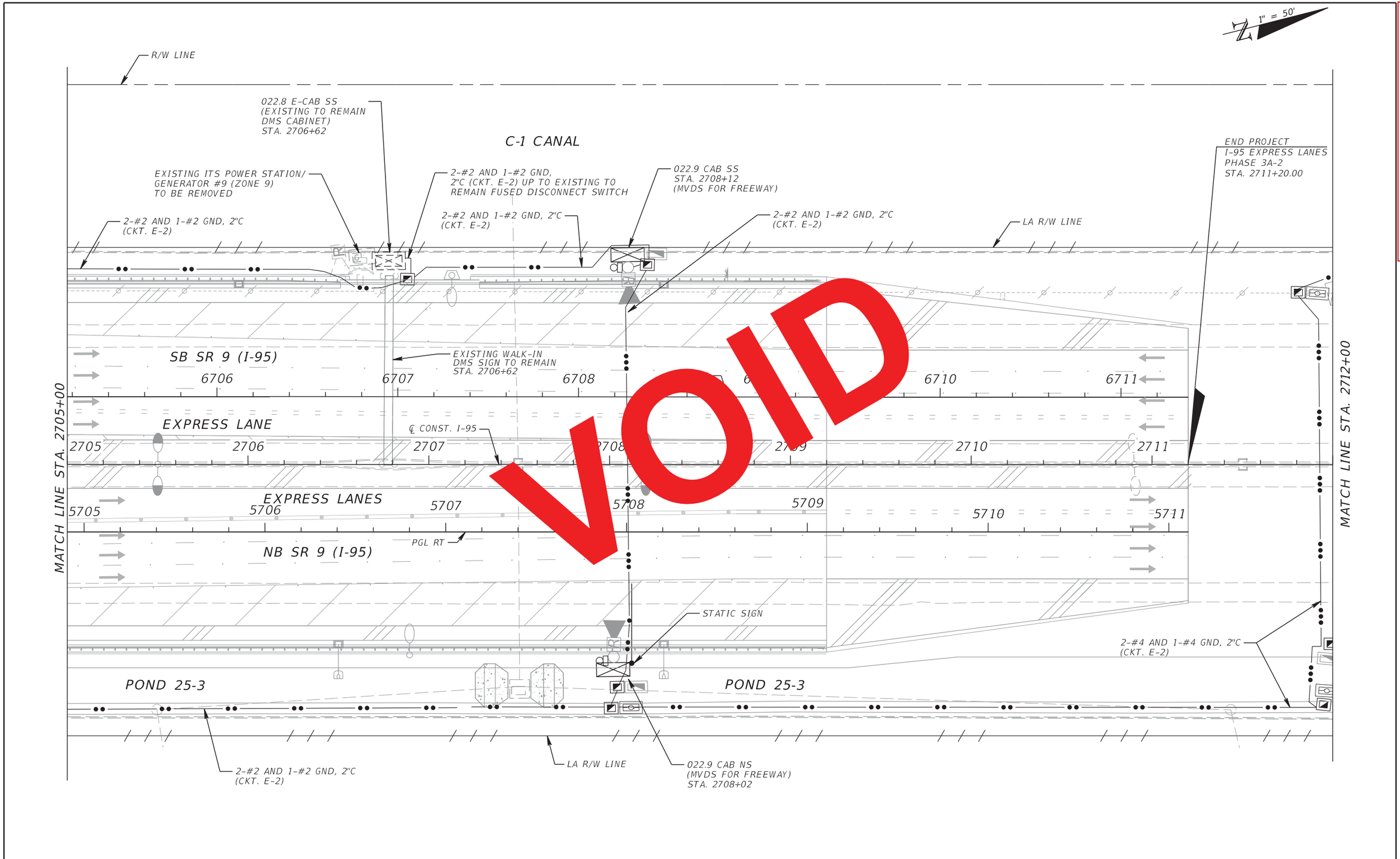
Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (56)

SHEET NO.
IT-352



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (56)

SHEET NO.
IT-352

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

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C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3A-2\lighting\eng_data\433108552OI_I95_Ph3A2LTG.tbl abreuk 7/26/2017 12:39:34 PM c:\projectwise\pb\projectwiseint\abreuk\d0137985\planit56_E.DGN

1" = 50'

R/W LINE

C-1 CANAL

2-2"C:
2-#2 AND 1-#2 GND, 2"C (CKT. E-2);
4-#4 AWG, 2"C (TO DMS SIGN)

2

2-#2 AND 1-#2 GND, 2"C
(CKT. E-2)

2

FL D4 D0T 095 023.0 SB LS 1
(1-LINE STATUS DMS)
STA. 2716+00

023.0 CAB SS
STA. 2717+60
(DMS CABINET)

2-#2 AND 1-#2 GND, 2"C
(CKT. E-2)

LA R/W LINE

SB SR 9 (I-95)

℄ CONST. I-95

2713 2714 2715 2716 2717 2718 27

MATCH LINE STA. 2712+00

MATCH LINE STA. 2719+00

NB SR 9 (I-95)

POND 25-3

LA R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZE		
9/13/19	AS-BUILT per RFI 466		

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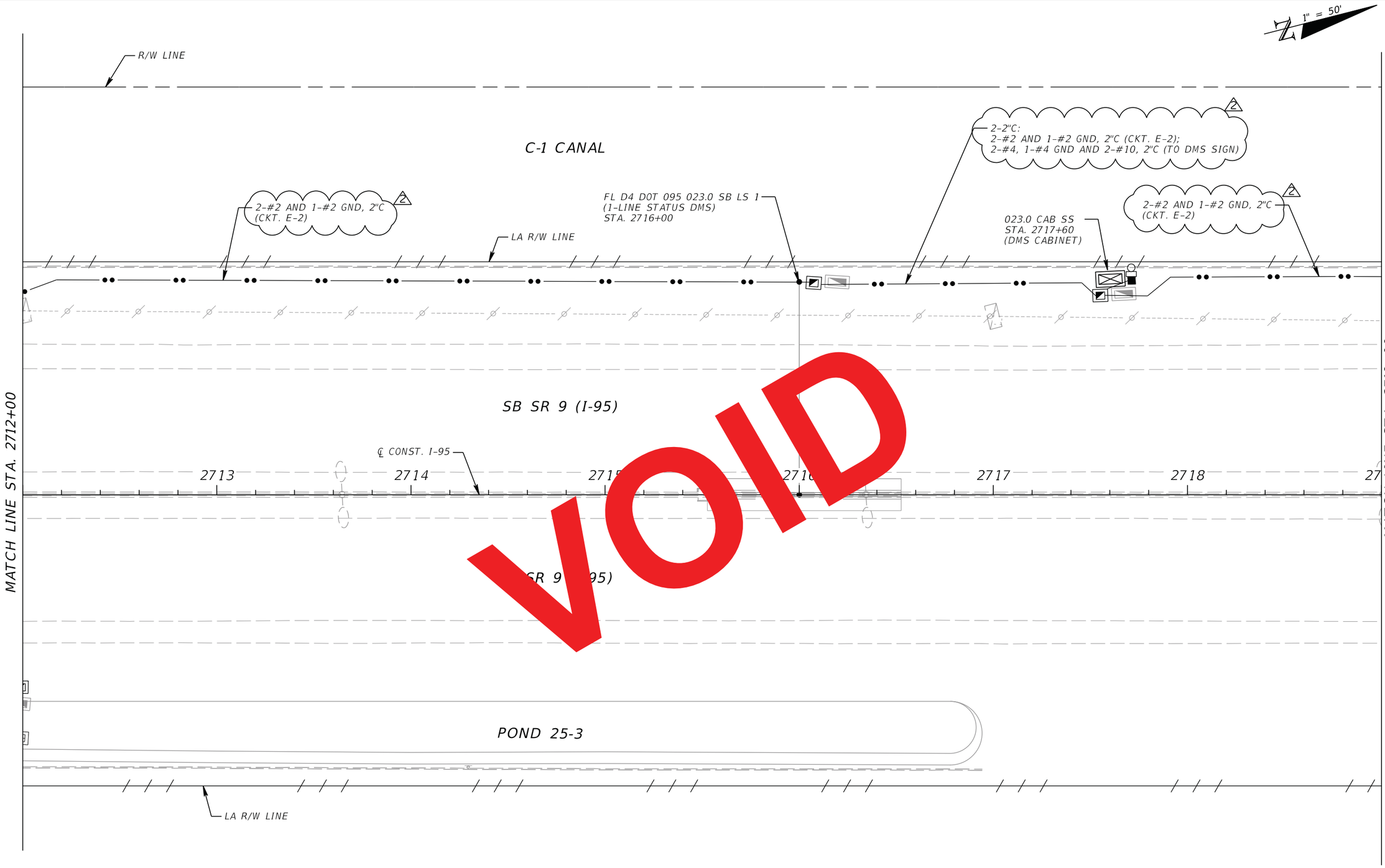
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (57)

SHEET NO.
IT-353



VOID

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of errors or omissions shall remain with the Contractor. Review does not authorize fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED WIRE SIZE		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (57)

SHEET NO.
IT-353

1" = 50'

R/W LINE

C-1 CANAL

2-2" C:
2-#4 AND 1-#4 GND, 2"C (CKT. E-2);
2-#4, 1-#4 GND AND 2-#10, 2"C (TO DMS SIGN)

2-#4 AND 1-#4 GND, 2"C
(CKT. E-2)

FL D4 D0T 095 023.0 SB LS 1
(1-LINE STATUS DMS)
STA. 2716+00

023.0 CAB SS
STA. 2717+60
(DMS CABINET)

2-#4 AND 1-#4 GND, 2"C
(CKT. E-2)

LA R/W LINE

SB SR 9 (I-95)

℄ CONST. I-95

2713 2714 2715 2716 2717 2718 27

MATCH LINE STA. 2712+00

MATCH LINE STA. 2719+00

NB SR 9

POND 25-3

LA R/W LINE

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84

BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (57)

SHEET NO.
IT-353

1" = 50'

2-#2 AND 1-#2 GND, 2"C (CKT. E-2); 12-#4 AWG, 2"C (TO DMS SIGN)

C-1 CANAL

2-#2 AND 1-#2 GND, 2"C (CKT. E-2)

FL D4 D0T 095 023.2 SB TR 1
(3-PANEL TOLL RATE DMS)
STA. 2725+00

2-#2 AND 1-#2 GND, 2"C (CKT. E-2)

EXISTING ITS CABINET TO REMAIN (023.1 E-CAB SS) STA. 2721+34

INTERCEPT THE EXISTING TO REMAIN ITS CABINET AT THE EXISTING ELECTRICAL PULLBOX TO TIE THE EXISTING ITS CABINET INTO THE NEW POWER CIRCUIT

SB SR 9 (I-95)

EXPRESS LANES ENTRANCE 3/4 MILE

ONLY

To Cypress Creek Rd
To Sunrise Blvd
To Broward Blvd
To Park-Ride

$ XXXX
$ XXXX
$ XXXX

95 PLUS TOLL FOR TOLL VIOLATION

19 2720 2721 2722 2723 2724 2725 27

MATCH LINE STA. 2719+00

MATCH LINE STA. 2726+00

NB SR 9 (I-95)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED CONNECTION OF EXISTING CABINET TO NEW ITS POWER CIRCUIT, REVISED WIRE SIZE		
9/13/19	AS-BUILT per RFI 466		

Parsons Brinckerhoff, Inc.
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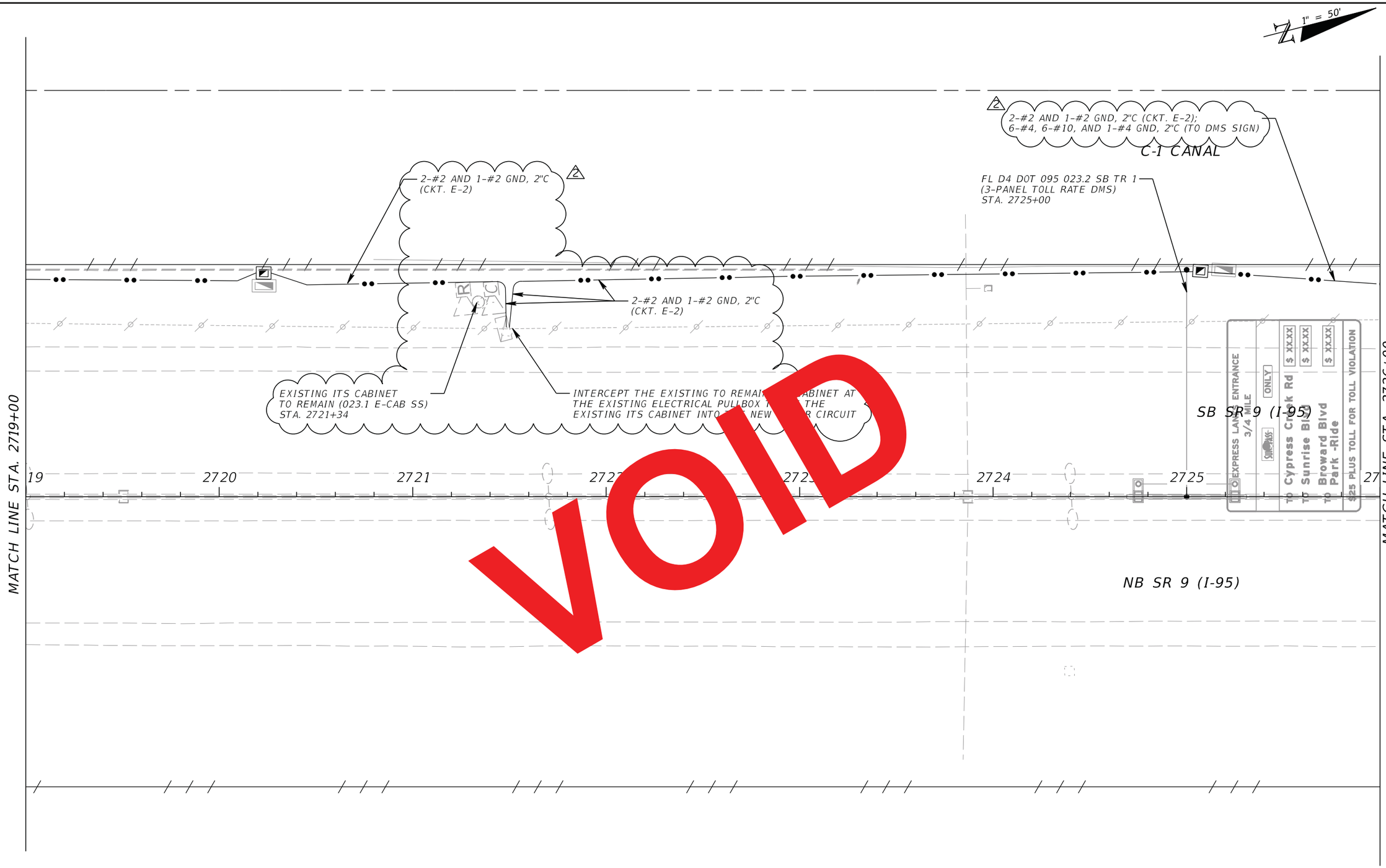
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (58)

SHEET NO.
IT-354



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED CONNECTION OF EXISTING CABINET TO NEW ITS POWER CIRCUIT, REVISED WIRE SIZE		

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2202 North West Shore Blvd, Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (58)

SHEET NO.
IT-354

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

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1" = 50'

2-#4 AND 1-#4 GND, 2"C (CKT. E-2);
6-#4, 6-#10, AND 1-#4 GND, 2"C (TO DMS SIGN)

C-1 CANAL

2-#4 AND 1-#4 GND, 2"C
(CKT. E-2)

FL D4 DOT 095 023.2 SB TR 1
(3-PANEL TOLL RATE DMS)
STA. 2725+00

MATCH LINE STA. 2719+00

19 2720 2721 2722 2723 2724 2725 27

MATCH LINE STA. 2726+00

SB SR 9 (I-95)

EXPRESS LANES ENTRANCE
3/4 MILE
ONLY
SUNPASS
TO Cypress Creek Rd $ XX.XX
TO Sunrise Blvd $ XX.XX
TO Broward Blvd $ XX.XX
TO Park -Ride
$25 PLUS TOLL FOR TOLL VIOLATION

NB SR 9 (I-95)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) FL BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (58)

SHEET NO.
IT-354

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM DMS CABINET 023.2 CAB SS (STA. 2726+61) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCATED D-CCTV. SEE ITS PLAN (59) FOR CONDUIT.

2. TWO FUTURE ITS CABINETS (INSTALLED IN PHASE 3B-1) TO BE CONNECTED TO CIRCUIT E-2 AT THIS PULLBOX. SEE 3B-1 SEGMENT 1 ITS PLANS FOR ADDITIONAL INFORMATION.

3. INTERCEPT EXISTING TO REMAIN #10 AWG WIRING AT THIS EXISTING TO REMAIN ELECTRICAL PULLBOX AND SPLICE WITH NEW CIRCUIT E-2 CONDUCTORS. THE EXISTING CONDUIT WITH #10'S FROM THIS PULLBOX GOING NORTH TO THE EXISTING TO REMAIN ITS CABINET AT STA. 2749+23 (AT SW 10TH STREET) SHALL BE MAINTAINED AND POWERED FROM 3A-2 CIRCUIT E-2 UNTIL THE FUTURE I-95 3B-1 PROJECT CAN ACCOMODATE AND POWER THIS ITS CABINET AT WHICH POINT THIS EXISTING CABINET WILL BE RECONNECTED TO THE 3B-1 ITS POWER SYSTEM.

1" = 50'

2-#2 AND 1-#2 GND, 2"C (CKT. E-2);
12-#4 AWG, 2"C (TO DMS SIGN)

023.2 CAB SS
STA. 2726+61
(DMS CABINET)
SEE NOTE 1

SEE NOTE 1

TWO FUTURE ITS CABINETS TO BE CONNECTED TO THE 3A-2 CIRCUIT E-2 AND THE WIRING SPLICED AT THIS ELECTRICAL PULLBOX. (SEE NOTE 2)

2-#2 & 1-#2 GND, 2"C;
SPLICE NEW #2'S TO EXISTING TO REMAIN #10'S AT THIS EXISTING ELECTRICAL PULLBOX (SEE NOTE 3)

MATCH LINE STA. 2726+00

26 2727 2728 2729 2730 2731 2732 27

W(B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED NOTE FOR FUTURE ITS LOADS, REVISED WIRE SIZE		
9/13/18	AS-BUILT per RFI 466, CONNECT EXIST. CABINET AT STA. 2749+23 SB (TEMPORARY POWER UNTIL 3B1 PROJECT)		

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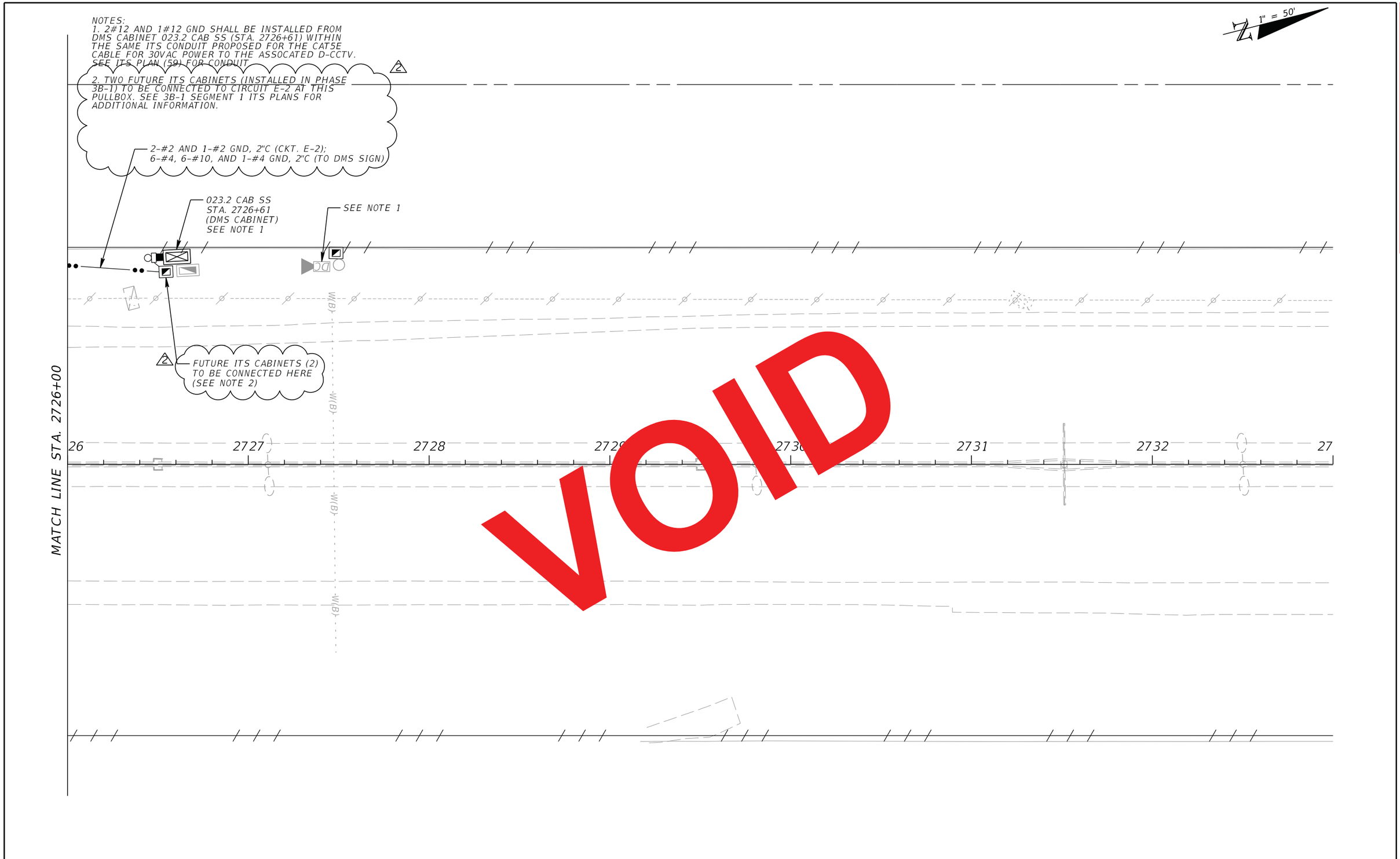
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (59)

SHEET NO.
IT-355



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED NOTE FOR FUTURE ITS LOADS, REVISED WIRE SIZE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (59)

SHEET NO.
IT-355

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT) 03

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg pw:\\prdpwint02.pbsvc.com:pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3A-2\lighting\eng_data\433108552OI_I95_Ph3A2LTG.tbl abreuk 8/7/2018 10:08:04 AM c:\projectwise\pb\projectwiseint\abreuk\d0137985\planit59_E.DGN

NOTES:
1. 2#12 AND 1#12 GND SHALL BE INSTALLED FROM DMS CABINET 023.2 CAB SS (STA. 2726+61) WITHIN THE SAME ITS CONDUIT PROPOSED FOR THE CAT5E CABLE FOR 30VAC POWER TO THE ASSOCATED D-CCTV. SEE ITS PLAN (59) FOR CONDUIT.

1" = 50'

2-#4 AND 1-#4 GND, 2"C (CKT. E-2);
6-#4, 6-#10, AND 1-#4 GND, 2"C (TO DMS SIGN)

023.2 CAB SS
STA. 2726+61
(DMS CABINET)
SEE NOTE 1

SEE NOTE 1

MATCH LINE STA. 2726+00

26 2727 2728 2729 2730 2731 2732 27

(WB)

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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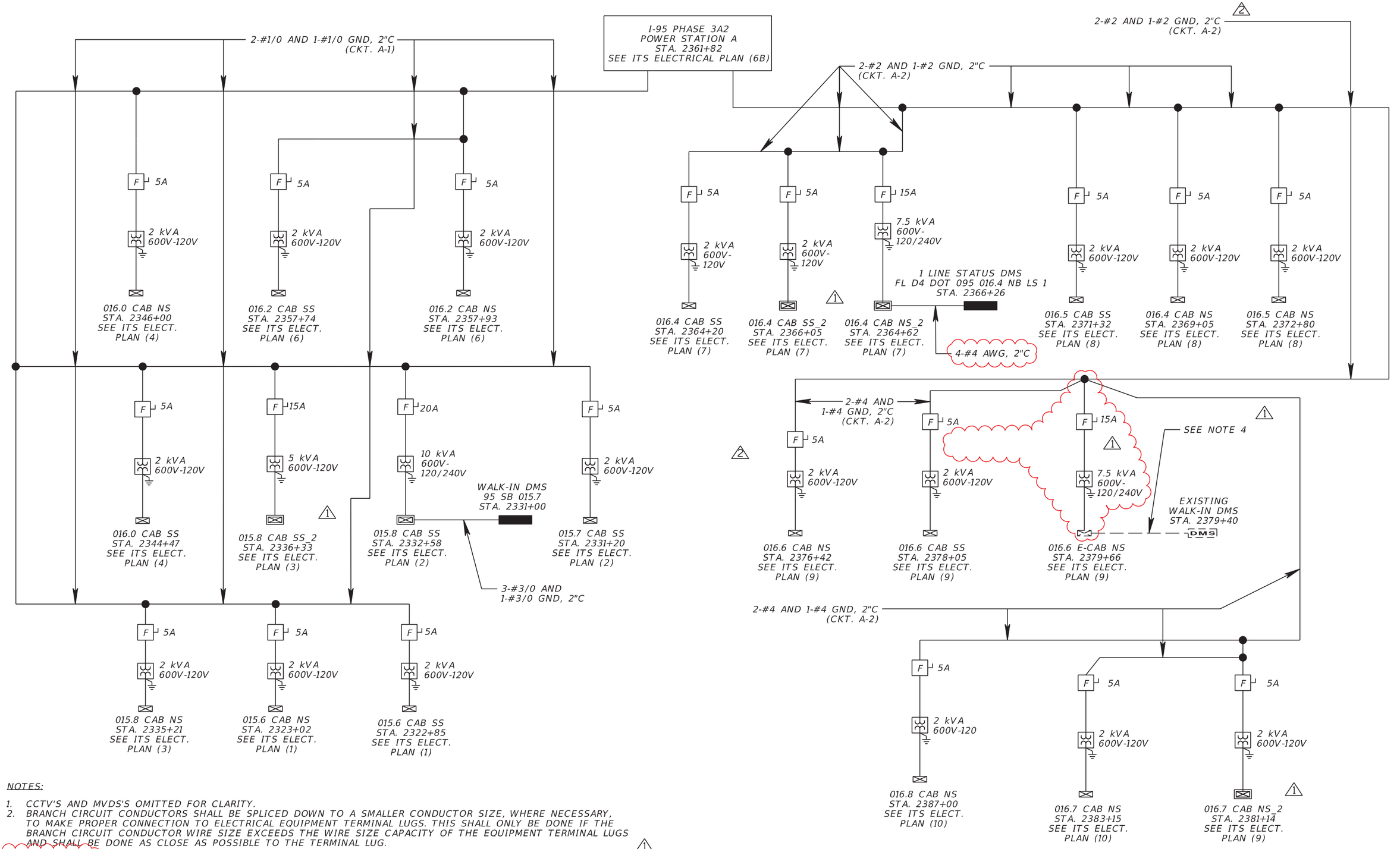
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL PLAN (59)

SHEET NO.
IT-355



NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. NOT USED.
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. REPLACE THE DMS SIGN WIRING WITH NEW #1 AWG CONDUCTORS. FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
3/16/18	2 REVISED WIRE SIZING, ADDED ITS CABINET		
9/13/19	AS BUILT CHANGES PER RFI 433, 466, RFM 026		

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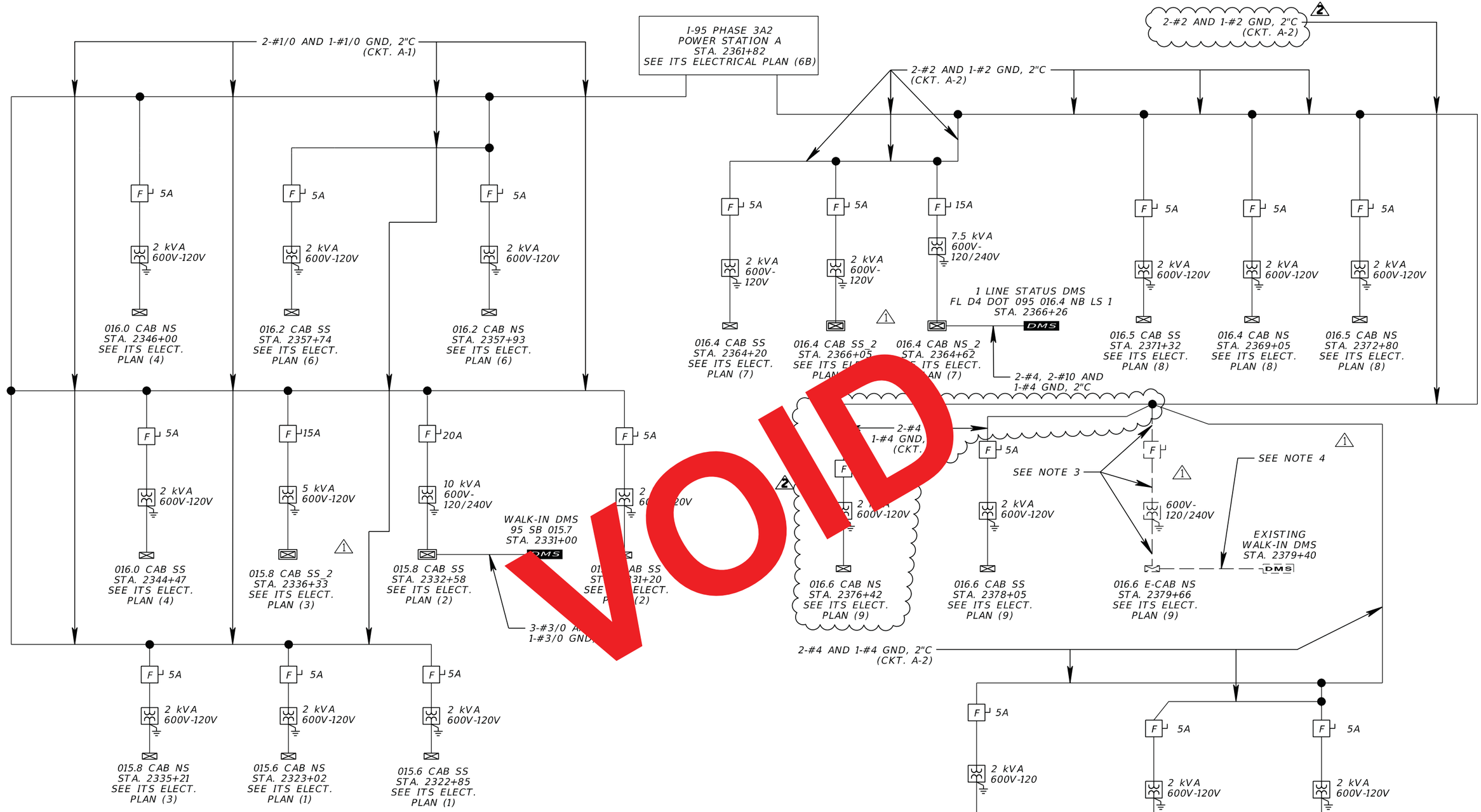
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (1)

SHEET NO. IT-356

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT TO REMAIN. REPLACE WIRING WITH 2-#4 AND 1-#4 GND UP TO TRANSFORMER AND 3#4 AND 1#4 AWG GND BETWEEN TRANSFORMER AND DMS CABINET (CKT. A-2).
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. REPLACE THE DMS SIGN WIRING WITH NEW #1 AWG CONDUCTORS. FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
3/16/18	2 REVISED WIRE SIZING, ADDED ITS CABINET		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (1)

SHEET NO.
IT-356

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) BY: (FDOT)

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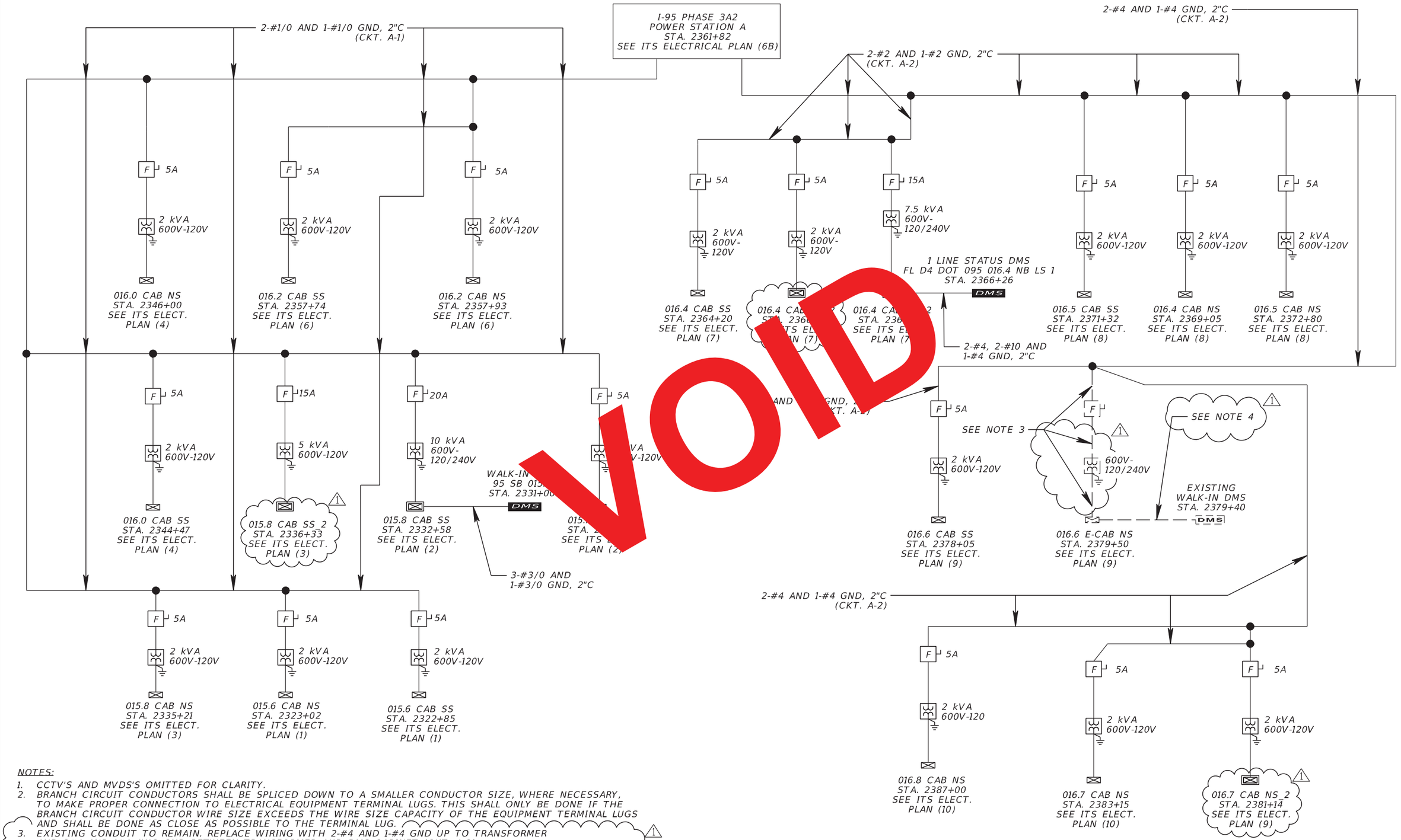

VOID

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT TO REMAIN. REPLACE WIRING WITH 2-#4 AND 1-#4 GND UP TO TRANSFORMER AND 3#4 AND 1#4 AWG GND BETWEEN TRANSFORMER AND DMS CABINET (CKT. A-2).
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. REPLACE THE DMS SIGN WIRING WITH NEW #1 AWG CONDUCTORS. FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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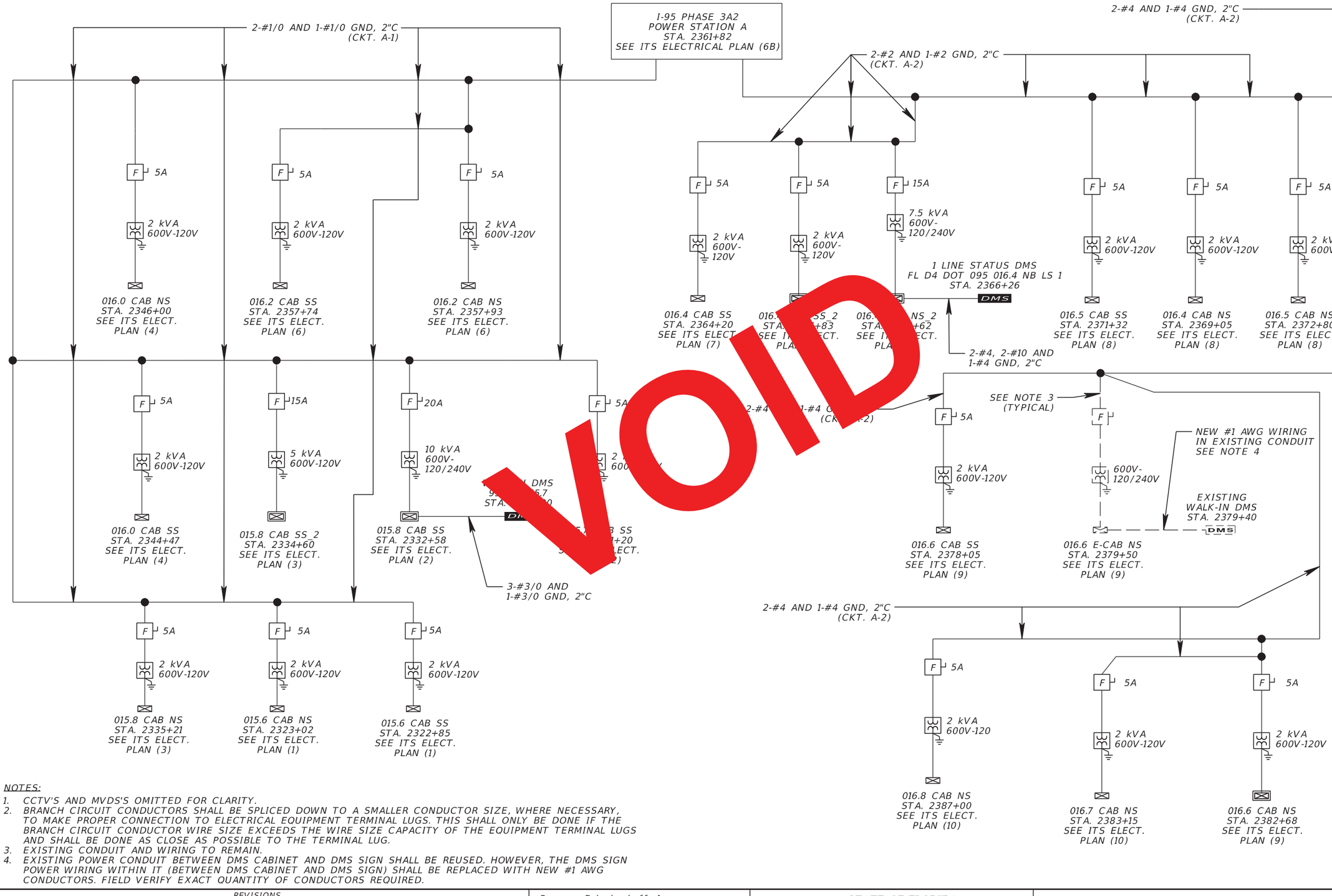
ITS ELECTRICAL ONE-LINE SCHEMATIC (1)

SHEET NO. IT-356

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design or detail remains with delegated engineer. Review of fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT AND WIRING TO REMAIN.
4. EXISTING POWER CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL BE REUSED. HOWEVER, THE DMS SIGN POWER WIRING WITHIN IT (BETWEEN DMS CABINET AND DMS SIGN) SHALL BE REPLACED WITH NEW #1 AWG CONDUCTORS. FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (1)

SHEET NO. IT-356

I-95 PHASE 3A2
POWER STATION B
STA. 2425+01
SEE ITS ELECTRICAL PLAN (15)

2-#4 AND 1-#4 GND, 2"C (CKT. B-1)

2-#2 AND 1-#2 GND, 2"C (CKT. B-1)

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

2-#3/0 AND 1-#3/0 GND, 2"C (CKT. B-2)

2-#1 AND 1-#1 GND, 2"C (CKT. B-2)

F 30A — 15 kVA 600V-120/240V — 017.3 CAB NS STA. 2414+29 SEE ITS ELECT. PLAN (14)

SEE NOTE 3

F 15A — 7.5 kVA 600V-120/240V — 1-PANEL TOLL RATE DMS FL D4 DOT 095 017.3 NB TR 1 STA. 2416+00 — EXISTING WALK-IN DMS STA. 2417+20 — 017.4 E-CAB SS STA. 2417+20 SEE ITS ELECT. PLAN (14)

4-#2 AWG, 2"C

SEE NOTE 4

F 5A — 2 kVA 600V-120V — 017.4 CAB SS STA. 2417+00 SEE ITS ELECT. PLAN (14)

F 5A — 2 kVA 600V-120V — 017.4 CAB NS STA. 2417+04 SEE ITS ELECT. PLAN (14)

F 15A — 7.5 kVA 600V-120/240V — 1-LINE STATUS DMS FL D4 DOT 095 017.5 NB LS 1 STA. 2424+00 — 017.5 CAB NS STA. 2422+28 SEE ITS ELECT. PLAN (15)

4-#2 AWG, 2"C

F 5A — 2 kVA 600V-120V — 017.6 CAB NS STA. 2430+06 SEE ITS ELECT. PLAN (16)

F 5A — 2 kVA 600V-120V — 017.6 CAB SS STA. 2430+10 SEE ITS ELECT. PLAN (16)

F 5A — 2 kVA 600V-120V — 017.9 CAB NS STA. 2443+22 SEE ITS ELECT. PLAN (18)

F 5A — 2 kVA 600V-120V — 017.9 CAB SS STA. 2443+54 SEE ITS ELECT. PLAN (18)

F 5A — 2 kVA 600V-120V — 018.1 CAB NS STA. 2454+91 SEE ITS ELECT. PLAN (20)

F 5A — 2 kVA 600V-120V — 018.2 CAB NS STA. 2461+21 SEE ITS ELECT. PLAN (21)

F 5A — 2 kVA 600V-120V — 017.2 CAB NS STA. 2409+00 SEE ITS ELECT. PLAN (13)

F 5A — 2 kVA 600V-120V — 017.1 CAB SS STA. 2404+00 SEE ITS ELECT. PLAN (13)

2-#4 AND 1-#4 GND, 2"C (CKT. B-1)

F 15A — 7.5 kVA 600V-120/240V — 1-LINE STATUS DMS FL D4 DOT 095 017.1 NB LS 1 STA. 2401+00 — 017.0 CAB NS STA. 2397+59 SEE ITS ELECT. PLAN (12)

4-#1 AWG, 2"C

F 30A — 15 kVA 600V-120/240V — 1-PANEL TOLL RATE DMS FL D4 DOT 095 016.9 NB TR 1 STA. 2393+00 — 016.9 CAB NS STA. 2394+00 SEE ITS ELECT. PLAN (11)

4-#2 AWG, 2"C

F 5A — 2 kVA 600V-120V — 016.9 CAB SS STA. 2390+65 SEE ITS ELECT. PLAN (11)

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

F 5A — 2 kVA 600V-120V — 018.4 CAB NS STA. 2472+78 SEE ITS ELECT. PLAN (22A)

F 5A — 2 kVA 600V-120V — 018.3 CAB NS_2 STA. 2468+02 SEE ITS ELECT. PLAN (22)

F 5A — 2 kVA 600V-120V — 018.3 CAB NS_3 STA. 2466+27 SEE ITS ELECT. PLAN (21A)

F 5A — 2 kVA 600V-120V — 018.1 CAB SS STA. 2454+95 SEE ITS ELECT. PLAN (20)

F 5A — 2 kVA 600V-120V — 018.1 CAB SS_2 STA. 2458+60 SEE ITS ELECT. PLAN (20)

F 30A — 15 kVA 600V-120/240V — 018.1 CAB SS_3 STA. 2458+77 SEE ITS ELECT. PLAN (20)

1-PANEL TOLL RATE DMS FL D4 DOT 095 018.1 SB TR 1 STA. 2457+00 (FUTURE SIGN BY OTHERS)

1-2" SPARE CONDUIT FOR FUTURE DMS POWER WIRING

F 5A — 2 kVA 600V-120V — 018.2 CAB SS STA. 2464+10 SEE ITS ELECT. PLAN (20A)

F 5A — 2 kVA 600V-120V — 018.3 CAB SS STA. 2468+99 SEE ITS ELECT. PLAN (22)

F 15A — 5 kVA 600V-120V — 018.3 CAB NS STA. 2465+66 SEE ITS ELECT. PLAN (21)

2-#2/0 AND 1-#2/0 GND, 2"C (CKT. B-2)

F 5A — 2 kVA 600V-120V — 018.5 CAB NS STA. 2476+96 SEE ITS ELECT. PLAN (23)

F 5A — 2 kVA 600V-120V — 018.6 CAB NS_2 STA. 2480+48 SEE ITS ELECT. PLAN (23)

F 5A — 2 kVA 600V-120V — 018.6 CAB NS STA. 2484+50 SEE ITS ELECT. PLAN (24)

F 5A — 2 kVA 600V-120V — 018.8 CAB SS STA. 2490+85 SEE ITS ELECT. PLAN (25)

F 30A — 15 kVA 600V-120/240V — 018.6 CAB SS STA. 2483+00 SEE ITS ELECT. PLAN (24)

1-PANEL TOLL RATE DMS FL D4 DOT 095 018.5 SB TR 1 STA. 2479+00 (FUTURE SIGN BY OTHERS)

1-2" SPARE CONDUIT FOR FUTURE DMS POWER WIRING

F 5A — 2 kVA 600V-120V — 018.5 CAB SS STA. 2477+68 SEE ITS ELECT. PLAN (23)

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. NOT USED.
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
3/16/18	2 ADDED ITS CABINETS, REVISED STATIONS AND WIRE SIZES		
9/13/19	AS BUILT CHANGES PER RFI 433, 466, RFM 026		

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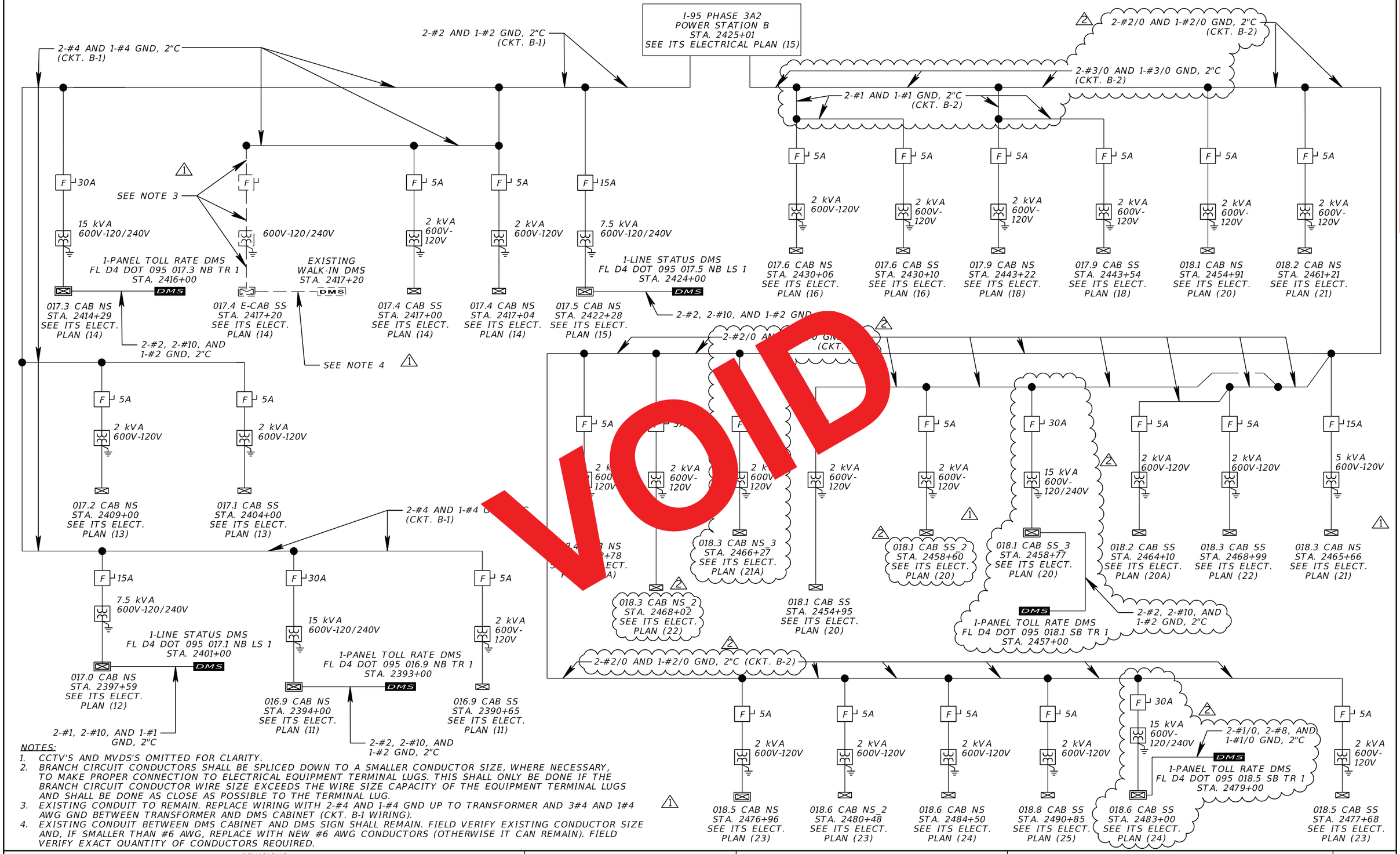
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (2)

SHEET NO. IT-357

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:

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3. EXISTING CONDUIT TO REMAIN. REPLACE WIRING WITH 2-#4 AND 1-#4 GND UP TO TRANSFORMER AND 3#4 AND 1#4 AWG GND BETWEEN TRANSFORMER AND DMS CABINET (CKT. B-1 WIRING).
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
3/16/18	2 ADDED ITS CABINETS, REVISED STATIONS AND WIRE SIZES		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL
ONE-LINE SCHEMATIC (2)

SHEET NO.
IT-357

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, details and quantities rests with fabricator. Approval does not relieve fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

1-95 PHASE 3A2
POWER STATION B
STA. 2425+01
SEE ITS ELECTRICAL PLAN (15)

2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)

2-#2 AND 1-#2 GND, 2"C
(CKT. B-1)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. B-2)

F 30A
15 kVA
600V-120/240V
SEE NOTE 3 ⚠1
F
600V-120/240V
1-PANEL TOLL RATE DMS
FL D4 DOT 095 017.3 NB TR 1
STA. 2416+00
DMS
017.3 CAB NS
STA. 2414+29
SEE ITS ELECT.
PLAN (14)
EXISTING
WALK-IN DMS
STA. 2417+20
DMS
017.4 E-CAB SS
STA. 2417+20
SEE ITS ELECT.
PLAN (14)
F 5A
2 kVA
600V-
120V
017.4 CAB SS
STA. 2417+00
SEE ITS ELECT.
PLAN (14)
F 5A
2 kVA
600V-120V
017.4 CAB NS
STA. 2417+04
SEE ITS ELECT.
PLAN (14)
F 15A
7.5 kVA
600V-120/240V
1-LINE STATUS DMS
FL D4 DOT 095 017.5 NB LS 1
STA. 2424+00
DMS
017.5 CAB NS
STA. 2422+28
SEE ITS ELECT.
PLAN (15)
2-#2, 2-#10, AND
1-#2 GND, 2"C
SEE NOTE 4 ⚠1
2-#2, 2-#10, AND
1-#2 GND, 2"C
F 5A
2 kVA
600V-120V
017.2 CAB NS
STA. 2409+00
SEE ITS ELECT.
PLAN (13)
F 5A
2 kVA
600V-120V
017.1 CAB SS
STA. 2404+00
SEE ITS ELECT.
PLAN (13)
2-#4 AND 1-#4 GND, 2"C
(CKT. B-1)
F 15A
7.5 kVA
600V-120/240V
1-LINE STATUS DMS
FL D4 DOT 095 017.1 NB LS 1
STA. 2401+00
DMS
017.0 CAB NS
STA. 2397+59
SEE ITS ELECT.
PLAN (12)
2-#1, 2-#10, AND 1-#1
GND, 2"C
F 30A
15 kVA
600V-120/240V
1-PANEL TOLL RATE DMS
FL D4 DOT 095 016.9 NB TR 1
STA. 2393+00
DMS
016.9 CAB NS
STA. 2394+00
SEE ITS ELECT.
PLAN (11)
2-#2, 2-#10, AND
1-#2 GND, 2"C
F 5A
2 kVA
600V-120V
016.9 CAB SS
STA. 2390+65
SEE ITS ELECT.
PLAN (11)
F 5A
2 kVA
600V-120V
017.6 CAB NS
STA. 2430+
SEE ITS
PL
F 5A
2 kVA
600V-
120V
017.6 CAB SS
STA. 2430+10
SEE ITS ELECT.
PLAN (16)
F 5A
2 kVA
600V-120V
017.9 CAB NS
STA. 2443+22
SEE ITS ELECT.
PLAN (18)
F 5A
2 kVA
600V-
120V
017.9 CAB SS
STA. 2443+54
SEE ITS ELECT.
PLAN (18)
F 5A
2 kVA
600V-
120V
018.1 CAB NS
STA. 2454+91
SEE ITS ELECT.
PLAN (20)
F 5A
2 kVA
600V-
120V
018.2 CAB NS
STA. 2461+21
SEE ITS ELECT.
PLAN (21)
F 5A
2 kVA
600V-120V
018.4 CAB NS
STA. 2472+78
SEE ITS ELECT.
PLAN (22A)
F 5A
2 kVA
600V-120V
018.3 CAB NS
STA. 2468+02
SEE ITS ELECT.
PLAN (22)
F 5A
2 kVA
600V-120V
018.1 CAB SS
STA. 2454+95
SEE ITS ELECT.
PLAN (20)
F 5A
2 kVA
600V-120V
018.1 CAB SS_2
STA. 2458+19
SEE ITS ELECT.
PLAN (20)
⚠1
F 5A
2 kVA
600V-120V
018.2 CAB SS
STA. 2464+10
SEE ITS ELECT.
PLAN (20A)
F 5A
2 kVA
600V-120V
018.3 CAB SS
STA. 2468+99
SEE ITS ELECT.
PLAN (22)
F 15A
5 kVA
600V-120V
018.3 CAB NS
STA. 2465+66
SEE ITS ELECT.
PLAN (21)
⚠1
F 5A
2 kVA
600V-120V
018.5 CAB NS
STA. 2476+96
SEE ITS ELECT.
PLAN (23)
F 5A
2 kVA
600V-120V
018.6 CAB NS_2
STA. 2480+48
SEE ITS ELECT.
PLAN (23)
F 5A
2 kVA
600V-120V
018.6 CAB NS
STA. 2484+50
SEE ITS ELECT.
PLAN (24)
F 5A
2 kVA
600V-120V
018.8 CAB SS
STA. 2490+85
SEE ITS ELECT.
PLAN (25)
F 5A
2 kVA
600V-120V
018.5 CAB SS
STA. 2477+68
SEE ITS ELECT.
PLAN (23)

VOID

NOTES:
1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT TO REMAIN. REPLACE WIRING WITH 2-#4 AND 1-#4 GND UP TO TRANSFORMER AND 3#4 AND 1#4 AWG GND BETWEEN TRANSFORMER AND DMS CABINET (CKT. B-1 WIRING). ⚠1
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities and satisfactory construction and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT) PL
BY: (Stantec) _____

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	⚠1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		

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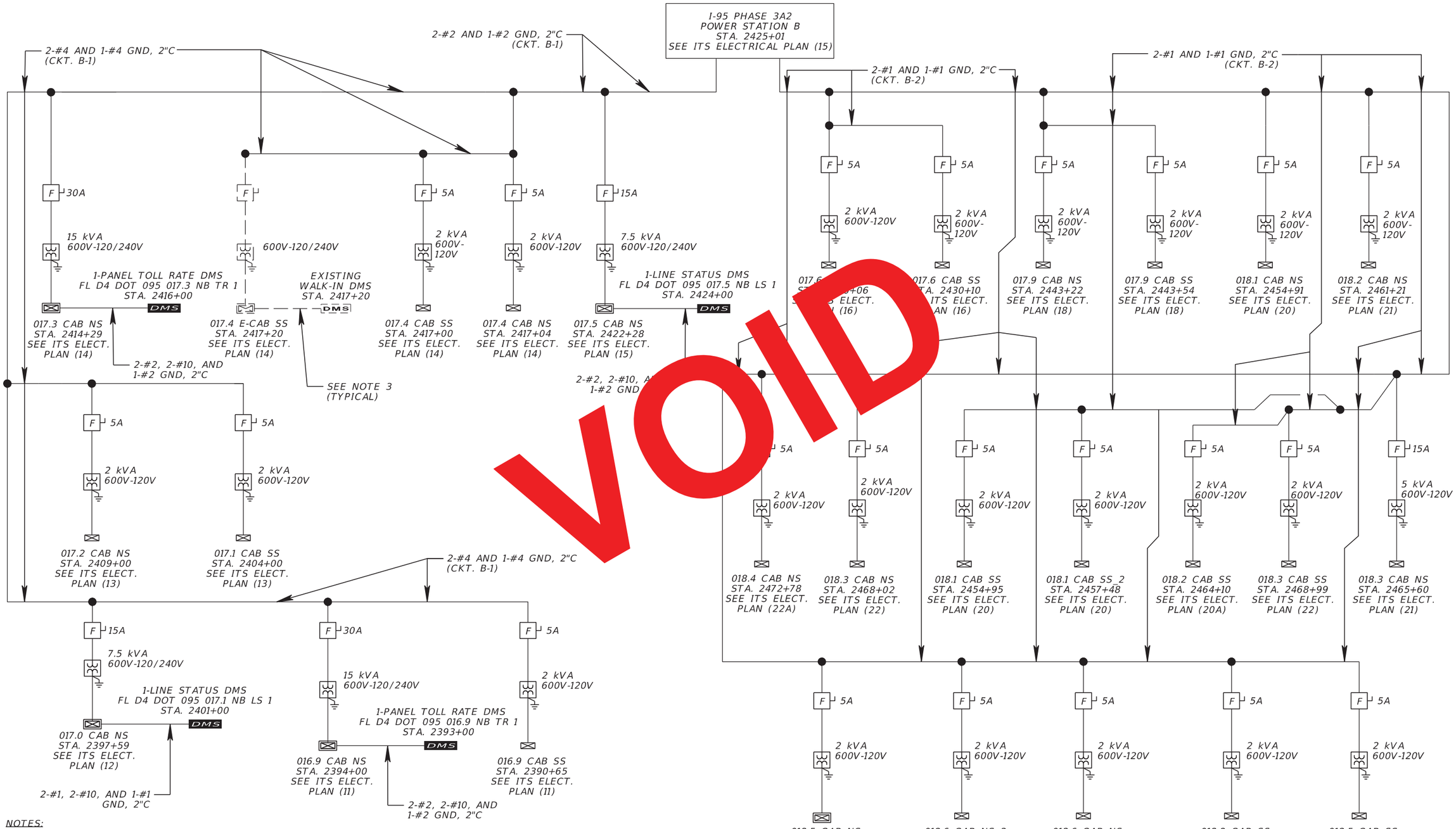
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (2)

SHEET NO. IT-357



VOID

NOTES:

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3. EXISTING CONDUIT AND #6 AWG WIRING TO REMAIN.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
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BY: (Stantec)

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9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (2)

SHEET NO. IT-357

I-95 PHASE 3A2
POWER STATION 'C'
STA. 2544+61
SEE ITS ELECTRICAL PLAN (33)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

F 5A — 2.0 kVA 600V-120V — 019.5 CAB SS
STA. 2528+12
SEE ITS ELECT.
PLAN (30)

F 5A — 2.0 kVA 600V-120V — 019.5 CAB NS
STA. 2530+00
SEE ITS ELECT.
PLAN (31)

F 5A — 2.0 kVA 600V-120V — 019.6 CAB NS
STA. 2537+00
SEE ITS ELECT.
PLAN (32)

F 5A — 2.0 kVA 600V-120V — 019.7 CAB SS
STA. 2541+55
SEE ITS ELECT.
PLAN (32)

F 5A — 2.0 kVA 600V-120V — 020.0 CAB NS
STA. 2554+46
SEE ITS ELECT.
PLAN (34)

F 5A — 2.0 kVA 600V-120V — 020.0 CAB SS
STA. 2555+03
SEE ITS ELECT.
PLAN (34)

F 5A — 2.0 kVA 600V-120V — 020.1 CAB SS
STA. 2561+14
SEE ITS ELECT.
PLAN (35)

1 PULL BOX NEAR
STA. 2575+60
(NB SIDE)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

F 20A — 10.0 kVA 600V-120/240V — FRONT ACCESS DMS
95 SB 019.2
STA. 2515+84

019.2 CAB SS_2
STA. 2516+27
SEE ITS ELECT.
PLAN (29)

3-#4 AND
1-#4 GND, 2"C

F 5A — 2.0 kVA 600V-120V — 019.2 CAB SS
STA. 2516+05
SEE ITS ELECT.
PLAN (29)

F 5A — 2.0 kVA 600V-120V — 019.2 CAB NS
STA. 2515+84
SEE ITS ELECT.
PLAN (28)

F 5A — 2.0 kVA 600V-120V — 019.0 CAB SS
STA. 2503+74
SEE ITS ELECT.
PLAN (27)

F 5A — 2.0 kVA 600V-120V — 019.0 CAB NS
STA. 2501+75
SEE ITS ELECT.
PLAN (26)

F 5A — 2.0 kVA 600V-120V — 020.3 CAB SS
STA. 2574+99
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.2 CAB NS
STA. 2565+04
SEE ITS ELECT.
PLAN (36)

2-#1 AND
1-#1 GND, 2"C
(CKT. C-2)

F 5A — 2.0 kVA 600V-120V — 020.4 CAB NS
STA. 2578+04
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.6 CAB NS
STA. 2585+99
SEE ITS ELECT.
PLAN (38)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB NS
STA. 2596+00
SEE ITS ELECT.
PLAN (40)

F 5A — 2.0 kVA 600V-120V — 020.5 CAB SS
STA. 2583+01
SEE ITS ELECT.
PLAN (38)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB SS
STA. 2594+19
SEE ITS ELECT.
PLAN (40)

2-#6 AND 1-#6 GND, 2"C
(CKT. C-3)

2-#6 AND 1-#6 GND, 2"C
(CKT. C-3)

F 15A — 1 — SEE NOTE 3 — 7.5 kVA 600V-120/240V — EXISTING
WALK-IN DMS
STA. 2544+27

1 019.8 E-CAB NS
STA. 2544+43
SEE ITS ELECT.
PLAN (33)

SEE NOTE 4

1

F 15A — SEE NOTE 3 — 7.5 kVA 600V-120/240V — EXISTING
WALK-IN DMS
STA. 2544+40

019.8 E-CAB SS
STA. 2544+27
SEE ITS ELECT.
PLAN (33)

SEE NOTE 4

1

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. NOT USED.
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #5 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

REVISIONS				
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING	9/13/19	AS BUILT CHANGES PER RFI 357, RFM 026
3/16/18	2 ADDED ITS CABINET		
2/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (3)

SHEET NO. IT-358

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

I-95 PHASE 3A2
POWER STATION 'C'
STA. 2544+61
SEE ITS ELECTRICAL PLAN (33)

2-#1 AND 1-#1 GND, 2"C (CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. C-2)

F 5A — 2.0 kVA 600V-120V — 019.5 CAB SS STA. 2528+12 SEE ITS ELECT. PLAN (30)

F 5A — 2.0 kVA 600V-120V — 019.5 CAB NS STA. 2530+00 SEE ITS ELECT. PLAN (31)

F 5A — 2.0 kVA 600V-120V — 019.6 CAB NS STA. 2537+00 SEE ITS ELECT. PLAN (32)

F 5A — 2.0 kVA 600V-120V — 019.7 CAB SS STA. 2541+55 SEE ITS ELECT. PLAN (32)

F 5A — 2.0 kVA 600V-120V — 020.0 CAB NS STA. 2554+46 SEE ITS ELECT. PLAN (34)

F 5A — 2.0 kVA 600V-120V — 020.0 CAB SS STA. 2555+03 SEE ITS ELECT. PLAN (34)

F 5A — 2.0 kVA 600V-120V — 020.1 CAB SS STA. 2561+14 SEE ITS ELECT. PLAN (35)

PULL BOX NEAR STA. 2575+60 (NB SIDE)

2-#1/0 AND 1-#1/0 GND, 2"C (CKT. C-2)

2-#1 AND 1-#1 GND, 2"C (CKT. C-1)

F 20A — 10.0 kVA 600V-120/240V — FRONT ACCESS DMS 95 SB 019.2 STA. 2515+84 — 019.2 CAB SS_2 STA. 2516+27 SEE ITS ELECT. PLAN (29)

3-#4 AND 1-#4 GND, 2"C

F 5A — 2.0 kVA 600V-120V — 019.2 CAB SS STA. 2516+05 SEE ITS ELECT. PLAN (29)

F 5A — 2.0 kVA 600V-120V — 019.2 CAB NS STA. 2515+84 SEE ITS ELECT. PLAN (28)

F 5A — 2.0 kVA 600V-120V — 019.0 CAB SS STA. 2503+62 SEE ITS ELECT. PLAN (27)

F 5A — 2.0 kVA 600V-120V — 019.0 CAB [illegible] STA. 2574+99 ITS ELECT. PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.2 CAB NS STA. 2565+04 SEE ITS ELECT. PLAN (36)

2-#1 AND 1-#1 GND, 2"C (CKT. C-2)

2-#6 AND 1-#6 GND, 2"C (CKT. C-3)

SEE NOTE 3 — F — 600V-120/240V — EXISTING WALK-IN DMS STA. 2544+27 — DMS — 019.8 E-CAB NS STA. 2544+43 SEE ITS ELECT. PLAN (33) — SEE NOTE 4

SEE NOTE 3 — F — 600V-120/240V — EXISTING WALK-IN DMS STA. 2544+40 — DMS — 019.8 E-CAB SS STA. 2544+27 SEE ITS ELECT. PLAN (33) — SEE NOTE 4

F 5A — 2.0 kVA 600V-120V — 020.4 CAB NS STA. 2578+04 SEE ITS ELECT. PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.6 CAB NS STA. 2585+99 SEE ITS ELECT. PLAN (38)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB NS STA. 2596+00 SEE ITS ELECT. PLAN (40)

F 5A — 2.0 kVA 600V-120V — 020.5 CAB SS STA. 2583+01 SEE ITS ELECT. PLAN (38)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB SS STA. 2594+19 SEE ITS ELECT. PLAN (40)

VOID

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT TO REMAIN. REPLACE WIRING WITH 2-#6 AND 1-#6 GND UP TO TRANSFORMER AND 3#6 AND 1#6 AWG GND BETWEEN TRANSFORMER AND DMS CABINET (CKT. C-1 WIRING)
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #5 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
3/16/18	2 ADDED ITS CABINET		
2/01/19	3 RSS REMOVAL CHANGES		

Parsons Brinckerhoff, Inc.
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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (3)

SHEET NO. IT-358

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of details, dimensions, and coordination rests with contractor. Fabrication and erection shall remain with the contractor.
FPID:433108-5-52-01 CONTRACT E4C64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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I-95 PHASE 3A2
POWER STATION 'C'
STA. 2544+61
SEE ITS ELECTRICAL PLAN (33)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

F 5A — 2.0 kVA 600V-120V — 019.5 CAB SS
STA. 2528+12
SEE ITS ELECT.
PLAN (30)

F 5A — 2.0 kVA 600V-120V — 019.5 CAB NS
STA. 2530+00
SEE ITS ELECT.
PLAN (31)

F 5A — 2.0 kVA 600V-120V — 019.6 CAB NS
STA. 2537+00
SEE ITS ELECT.
PLAN (32)

F 5A — 2.0 kVA 600V-120V — 019.7 CAB SS
STA. 2541+55
SEE ITS ELECT.
PLAN (32)

F 5A — 2.0 kVA 600V-120V — 020.0 CAB NS
STA. 2554+46
SEE ITS ELECT.
PLAN (34)

F 5A — 2.0 kVA 600V-120V — 020.0 CAB SS
STA. 2555+03
SEE ITS ELECT.
PLAN (34)

F 5A — 2.0 kVA 600V-120V — 020.1 CAB SS
STA. 2561+14
SEE ITS ELECT.
PLAN (35)

F 15A — 5.0 kVA 600V-120V — 020.1 CAB SS_2
STA. 2564+51
SEE ITS ELECT.
PLAN (35)

PULL BOX NEAR
STA. 2575+60
(NB SIDE)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

F 20A — 10.0 kVA 600V-120/240V — FRONT ACCESS DMS
95 SB 019.2
STA. 2515+84
DMS
019.2 CAB SS_2
STA. 2516+27
SEE ITS ELECT.
PLAN (29)
3-#4 AND
1-#4 GND, 2"C

F 5A — 2.0 kVA 600V-120V — 019.2 CAB SS
STA. 2516+05
SEE ITS ELECT.
PLAN (29)

F 5A — 2.0 kVA 600V-120V — 019.2 CAB NS
STA. 2515+84
SEE ITS ELECT.
PLAN (28)

F 5A — 2.0 kVA 600V-120V — 019.0 CAB SS
STA. 2503+62
SEE ITS ELECT.
PLAN (27)

F 5A — 2.0 kVA 600V-120V — 020.3 CAB SS
STA. 2574+99
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.2 CAB NS
STA. 2565+04
SEE ITS ELECT.
PLAN (36)

2-#1 AND
1-#1 GND, 2"C
(CKT. C-2)

2-#6 AND 1-#6 GND, 2"C
(CKT. C-3)

2-#6 AND 1-#6 GND, 2"C
(CKT. C-3)

SEE NOTE 3 — F — 600V-120/240V — EXISTING WALK-IN DMS
STA. 2544+27
DMS
019.8 E-CAB NS
STA. 2544+43
SEE ITS ELECT.
PLAN (33)
SEE NOTE 4

SEE NOTE 3 — F — 600V-120/240V — EXISTING WALK-IN DMS
STA. 2544+40
DMS
019.8 E-CAB SS
STA. 2544+27
SEE ITS ELECT.
PLAN (33)
SEE NOTE 4

F 15A — 5.0 kVA 600V-120V — 020.4 CAB NS_2
STA. 2575+79
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.4 CAB NS
STA. 2578+04
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.4 CAB NS_3
STA. 2580+09
SEE ITS ELECT.
PLAN (37B)

F 5A — 2.0 kVA 600V-120V — 020.6 CAB NS
STA. 2585+99
SEE ITS ELECT.
PLAN (38)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB NS_2
STA. 2593+09
SEE ITS ELECT.
PLAN (40)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB NS
STA. 2596+00
SEE ITS ELECT.
PLAN (40)

F 5A — 2.0 kVA 600V-120V — 020.5 CAB SS
STA. 2583+01
SEE ITS ELECT.
PLAN (38)

F 15A — 5.0 kVA 600V-120V — 020.5 CAB SS_2
STA. 2584+97
SEE ITS ELECT.
PLAN (38)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB SS
STA. 2594+19
SEE ITS ELECT.
PLAN (40)

VOID

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT TO REMAIN. REPLACE WIRING WITH 2-#6 AND 1-#6 GND UP TO TRANSFORMER AND 3#6 AND 1#6 AWG GND BETWEEN TRANSFORMER AND DMS CABINET (CKT. C-1 WIRING)
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #5 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
3/16/18	2 ADDED ITS CABINET		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (3)

SHEET NO. IT-358

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, quantities, and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84
BY: (FDOT) JB
BY: (Stantec)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

I-95 PHASE 3A2
POWER STATION 'C'
STA. 2544+61
SEE ITS ELECTRICAL PLAN (33)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-1)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

F 5A — 2.0 kVA 600V-120V — 019.5 CAB SS
STA. 2528+12
SEE ITS ELECT.
PLAN (30)

F 5A — 2.0 kVA 600V-120V — 019.5 CAB NS
STA. 2530+00
SEE ITS ELECT.
PLAN (31)

F 5A — 2.0 kVA 600V-120V — 019.6 CAB NS
STA. 2537+00
SEE ITS ELECT.
PLAN (32)

F 5A — 2.0 kVA 600V-120V — 019.7 CAB SS
STA. 2541+55
SEE ITS ELECT.
PLAN (32)

F 5A — 2.0 kVA 600V-120V — 020.0 CAB NS
STA. 2554+46
SEE ITS ELECT.
PLAN (34)

F 5A — 2.0 kVA 600V-120V — 020.0 CAB SS
STA. 2555+03
SEE ITS ELECT.
PLAN (34)

F 5A — 2.0 kVA 600V-120V — 020.1 CAB SS
STA. 2561+14
SEE ITS ELECT.
PLAN (35)

F 15A — 5.0 kVA 600V-120V — 020.1 CAB SS_2
STA. 2564+51
SEE ITS ELECT.
PLAN (35)

1 PULL BOX NEAR
STA. 2575+60
(NB SIDE)

1 2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

F 20A — 10.0 kVA 600V-120/240V — FRONT ACCESS DMS
95 SB 019.2
STA. 2515+84
DMS
019.2 CAB SS_2
STA. 2516+27
SEE ITS ELECT.
PLAN (29)
3-#4 AND
1-#4 GND, 2"C

F 5A — 2.0 kVA 600V-120V — 019.2 CAB SS
STA. 2516+05
SEE ITS ELECT.
PLAN (29)

F 5A — 2.0 kVA 600V-120V — 019.2 CAB NS
STA. 2515+84
SEE ITS ELECT.
PLAN (28)

F 5A — 2.0 kVA 600V-120V — 019.0 CAB SS
STA. 2503+62
SEE ITS ELECT.
PLAN (27)

F 5A — 2.0 kVA 600V-120V — 020.3 CAB SS
STA. 2574+99
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.2 CAB NS
STA. 2565+04
SEE ITS ELECT.
PLAN (36)

2-#1 AND
1-#1 GND, 2"C
(CKT. C-2)

F 15A — 5.0 kVA 600V-120V — 020.4 CAB NS_2
STA. 2575+79
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.4 CAB NS
STA. 2578+04
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.6 CAB NS
STA. 2585+99
SEE ITS ELECT.
PLAN (38)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB NS_2
STA. 2593+09
SEE ITS ELECT.
PLAN (40)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB NS
STA. 2596+00
SEE ITS ELECT.
PLAN (40)

F 5A — 2.0 kVA 600V-120V — 020.5 CAB SS
STA. 2583+01
SEE ITS ELECT.
PLAN (38)

F 15A — 5.0 kVA 600V-120V — 020.5 CAB SS_2
STA. 2584+97
SEE ITS ELECT.
PLAN (38)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB SS
STA. 2594+19
SEE ITS ELECT.
PLAN (40)

2-#6 AND 1-#6 GND, 2"C
(CKT. C-3)

2-#6 AND 1-#6 GND, 2"C
(CKT. C-3)

F — 1 SEE NOTE 3 — 600V-120/240V — EXISTING WALK-IN DMS
STA. 2544+27
DMS
1 019.8 E-CAB NS
STA. 2544+43
SEE ITS ELECT.
PLAN (33)
1 SEE NOTE 4

F — 1 SEE NOTE 3 — 600V-120/240V — EXISTING WALK-IN DMS
STA. 2544+40
DMS
019.8 E-CAB SS
STA. 2544+27
SEE ITS ELECT.
PLAN (33)
1 SEE NOTE 4

1 SEE NOTE 3

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT TO REMAIN. REPLACE WIRING WITH 2-#6 AND 1-#6 GND UP TO TRANSFORMER AND 3#6 AND 1#6 AWG GND BETWEEN TRANSFORMER AND DMS CABINET (CKT. C-1 WIRING)
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #5 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

VOID

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (3)

SHEET NO. IT-358

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, details and quantities rests with shop drawing fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) P.L.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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I-95 PHASE 3A2
POWER STATION 'C'
STA. 2544+61
SEE ITS ELECTRICAL PLAN (33)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

F 5A — 2.0 kVA 600V-120V — 019.5 CAB SS
STA. 2528+12
SEE ITS ELECT.
PLAN (30)

F 5A — 2.0 kVA 600V-120V — 019.5 CAB NS
STA. 2530+00
SEE ITS ELECT.
PLAN (31)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-1)

F 5A — 2.0 kVA 600V-120V — 019.6 CAB NS
STA. 2537+00
SEE ITS ELECT.
PLAN (32)

F 5A — 2.0 kVA 600V-120V — 019.7 CAB SS
STA. 2541+55
SEE ITS ELECT.
PLAN (32)

2-#1/0 AND 1-#1/0 GND, 2"C
(CKT. C-2)

F 5A — 2.0 kVA 600V-120V — 020.0 CAB NS
STA. 2554+46
SEE ITS ELECT.
PLAN (34)

F 5A — 2.0 kVA 600V-120V — 020.0 CAB SS
STA. 2555+03
SEE ITS ELECT.
PLAN (34)

F 5A — 2.0 kVA 600V-120V — 020.1 CAB SS
STA. 2561+14
SEE ITS ELECT.
PLAN (35)

F 15A — 5.0 kVA 600V-120V — 020.1 CAB SS_2
STA. 2564+51
SEE ITS ELECT.
PLAN (35)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-1)

F 20A — 10.0 kVA 600V-120/240V — FRONT ACCESS DMS
95 SB 019.2
STA. 2515+84 — DMS — 019.2 CAB SS_2
STA. 2516+27
SEE ITS ELECT.
PLAN (29)

3-#4 AND
1-#4 GND, 2"C

F 5A — 2.0 kVA 600V-120V — 019.2 CAB SS
STA. 2516+05
SEE ITS ELECT.
PLAN (29)

F 5A — 2.0 kVA 600V-120V — 019.2 CAB NS
STA. 2515+84
SEE ITS ELECT.
PLAN (28)

F 5A — 2.0 kVA 600V- — 019.0 CAB SS
STA. 2503+62
SEE ITS ELECT.
PLAN (27)

F 5 — 2.0 600V — [illegible] NS
[illegible]+75
SEE ITS ELECT.
PLAN (26)

2-#1 AND 1-#1 GND, 2"C
(CKT. C-2)

F 5A — 2.0 kVA 600V-120V — 020.3 CAB SS
STA. 2574+99
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.2 CAB NS
STA. 2565+04
SEE ITS ELECT.
PLAN (36)

2-#1 AND
1-#1 GND, 2"C
(CKT. C-2)

F 15A — 5.0 kVA 600V-120V — 020.4 CAB NS_2
STA. 2575+79
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.4 CAB NS
STA. 2578+04
SEE ITS ELECT.
PLAN (37)

F 5A — 2.0 kVA 600V-120V — 020.6 CAB NS
STA. 2585+99
SEE ITS ELECT.
PLAN (38)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB NS_2
STA. 2593+09
SEE ITS ELECT.
PLAN (40)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB NS
STA. 2596+00
SEE ITS ELECT.
PLAN (40)

2-#6 AND 1-#6 GND, 2"C
(CKT. C-3)

F — 600V-120/240V — EXISTING
WALK-IN DMS
STA. 2544+27 — DMS — 019.8 E-CAB NS
STA. 2544+43
SEE ITS ELECT.
PLAN (33)

SEE NOTE 3
(TYPICAL)

2-#6 AND 1-#6 GND, 2"C
(CKT. C-3)

F — 600V-120/240V — EXISTING
WALK-IN DMS
STA. 2544+40 — DMS — 019.8 E-CAB SS
STA. 2544+27
SEE ITS ELECT.
PLAN (33)

SEE NOTE 3
(TYPICAL)

F 5A — 2.0 kVA 600V-120V — 020.5 CAB SS
STA. 2583+01
SEE ITS ELECT.
PLAN (38)

F 15A — 5.0 kVA 600V-120V — 020.5 CAB SS_2
STA. 2584+97
SEE ITS ELECT.
PLAN (38)

F 5A — 2.0 kVA 600V-120V — 020.7 CAB SS
STA. 2594+19
SEE ITS ELECT.
PLAN (40)

VOID

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT AND #6 AWG WIRING TO REMAIN.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

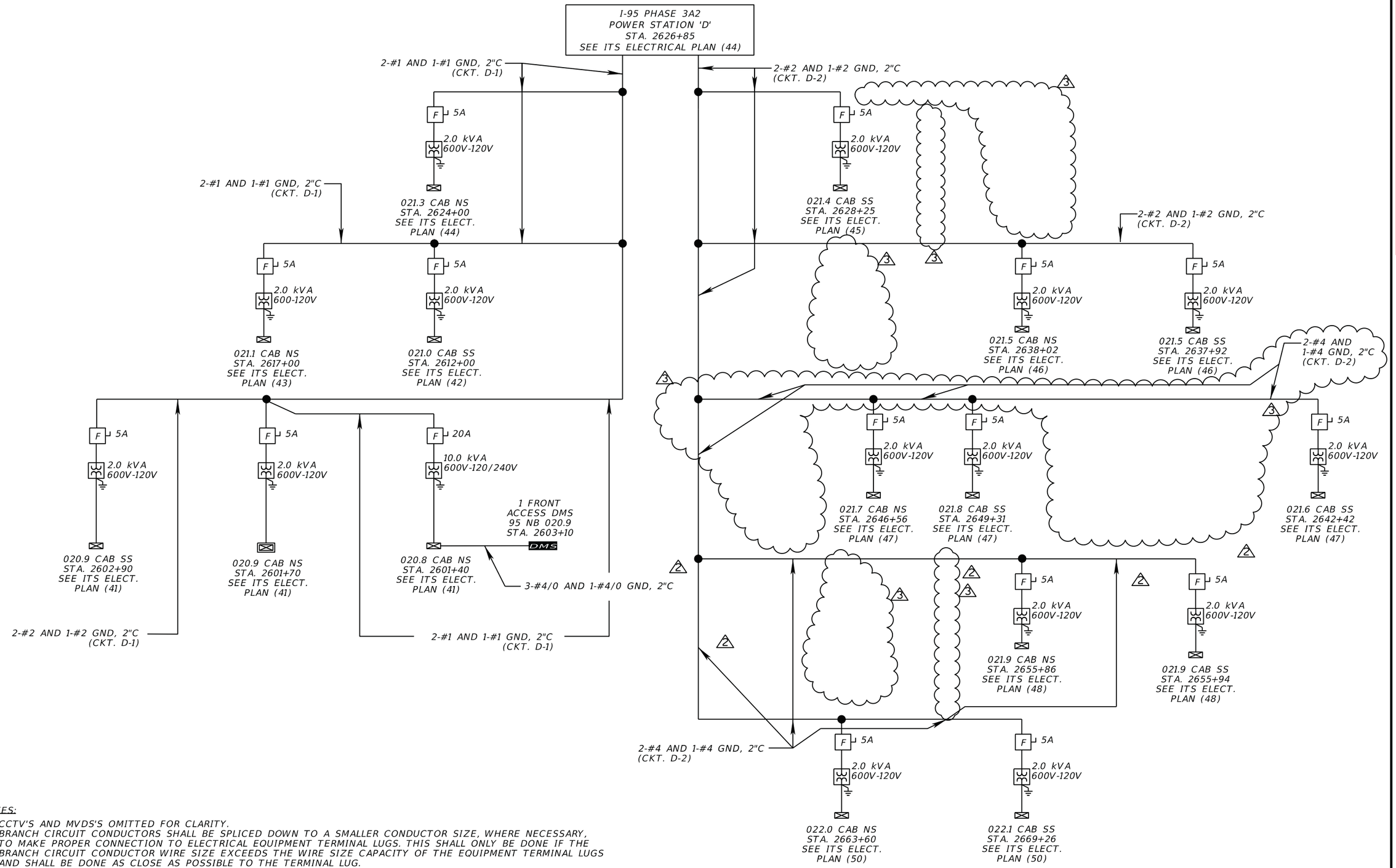
Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (3)

SHEET NO. IT-358



NOTES:

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2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED ITS EQUIPMENT, REVISED WIRE SIZES		
2/01/19	3 RSS REMOVAL CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (4)

SHEET NO. IT-359

RELEASED FOR CONSTRUCTION DATE: 04/15/2019
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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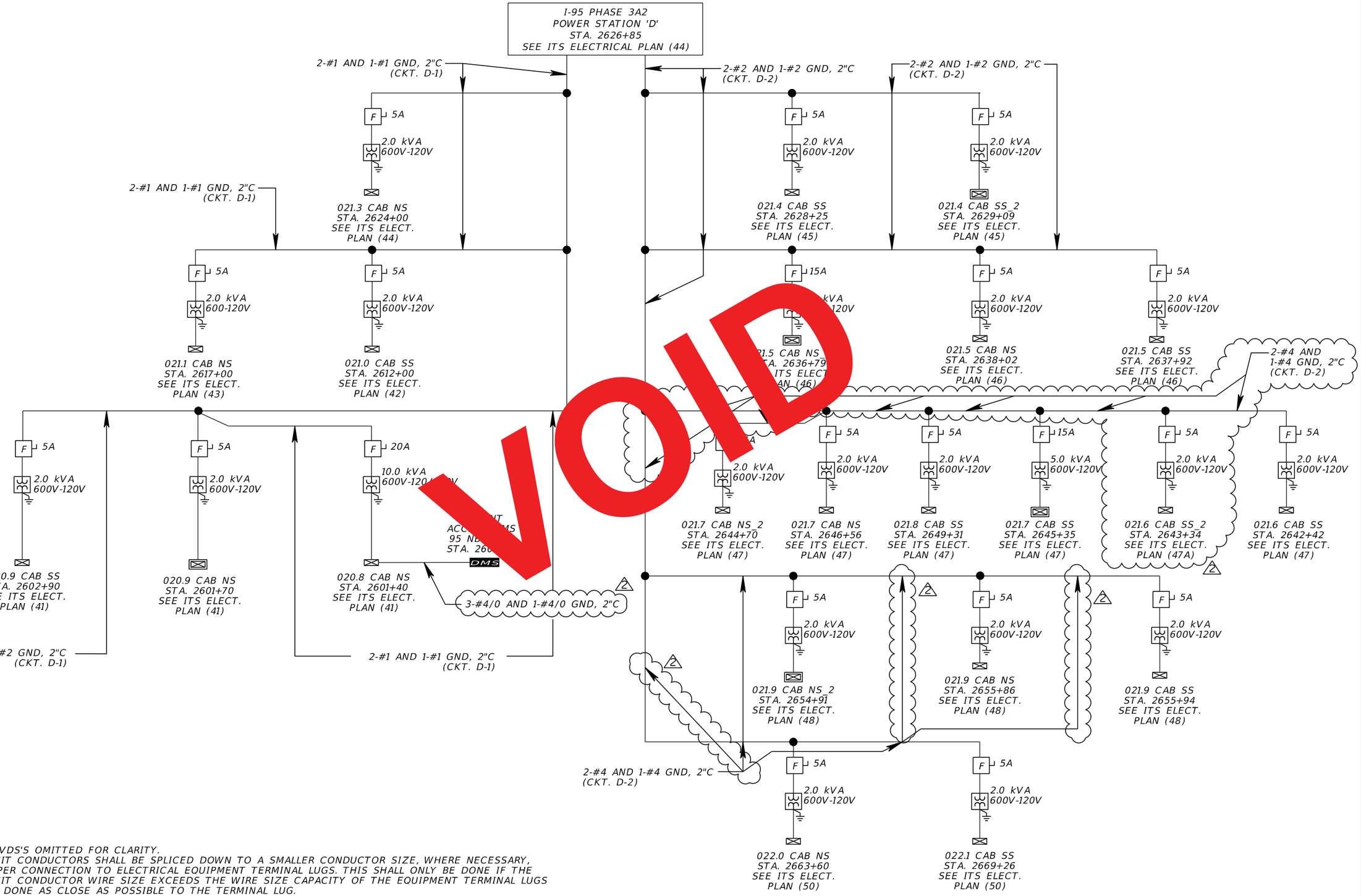

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 ADDED ITS EQUIPMENT, REVISED WIRE SIZES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

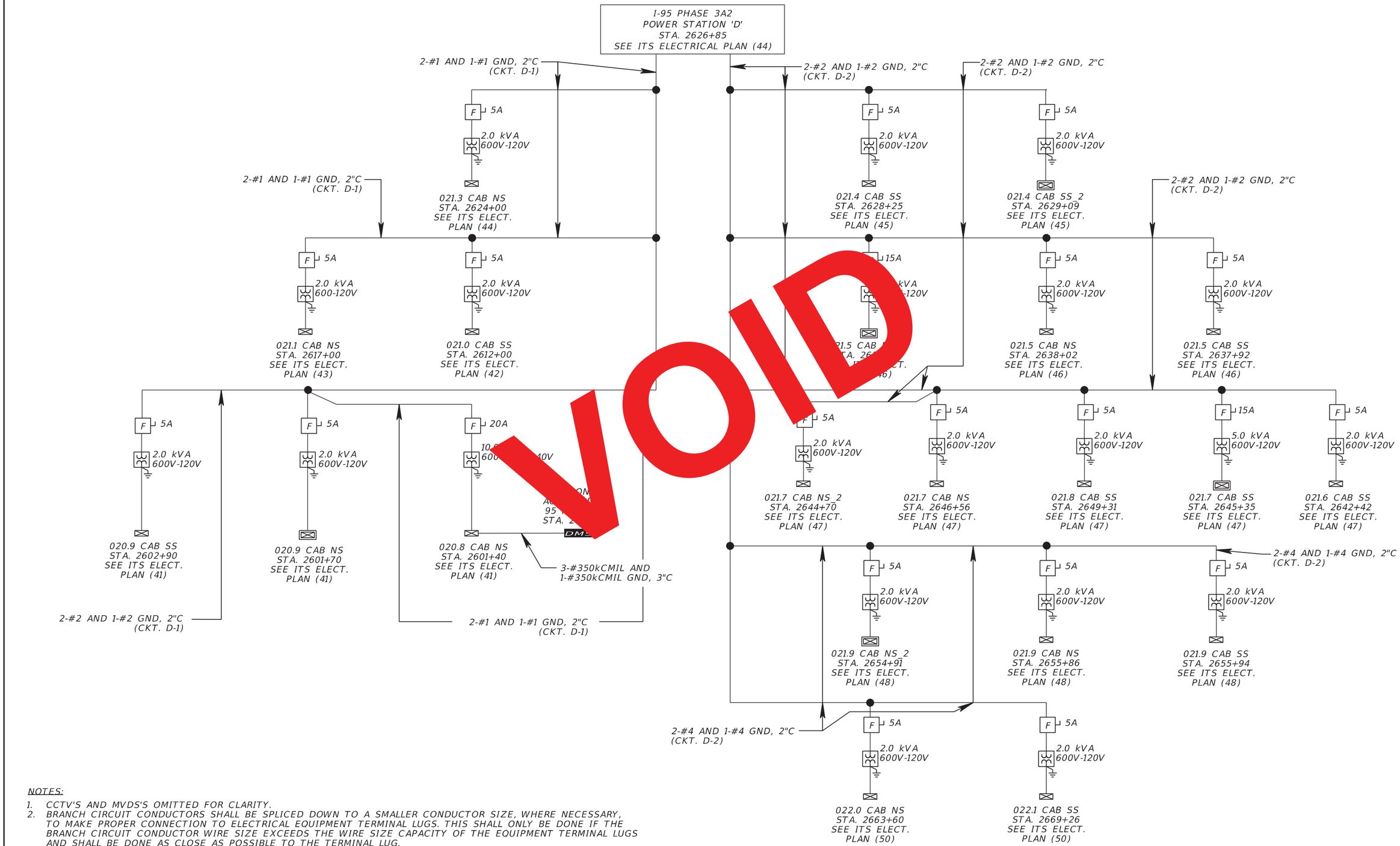
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (4)

SHEET NO. IT-359

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) JB BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84
BY: (Stantec) BY: (FDOT)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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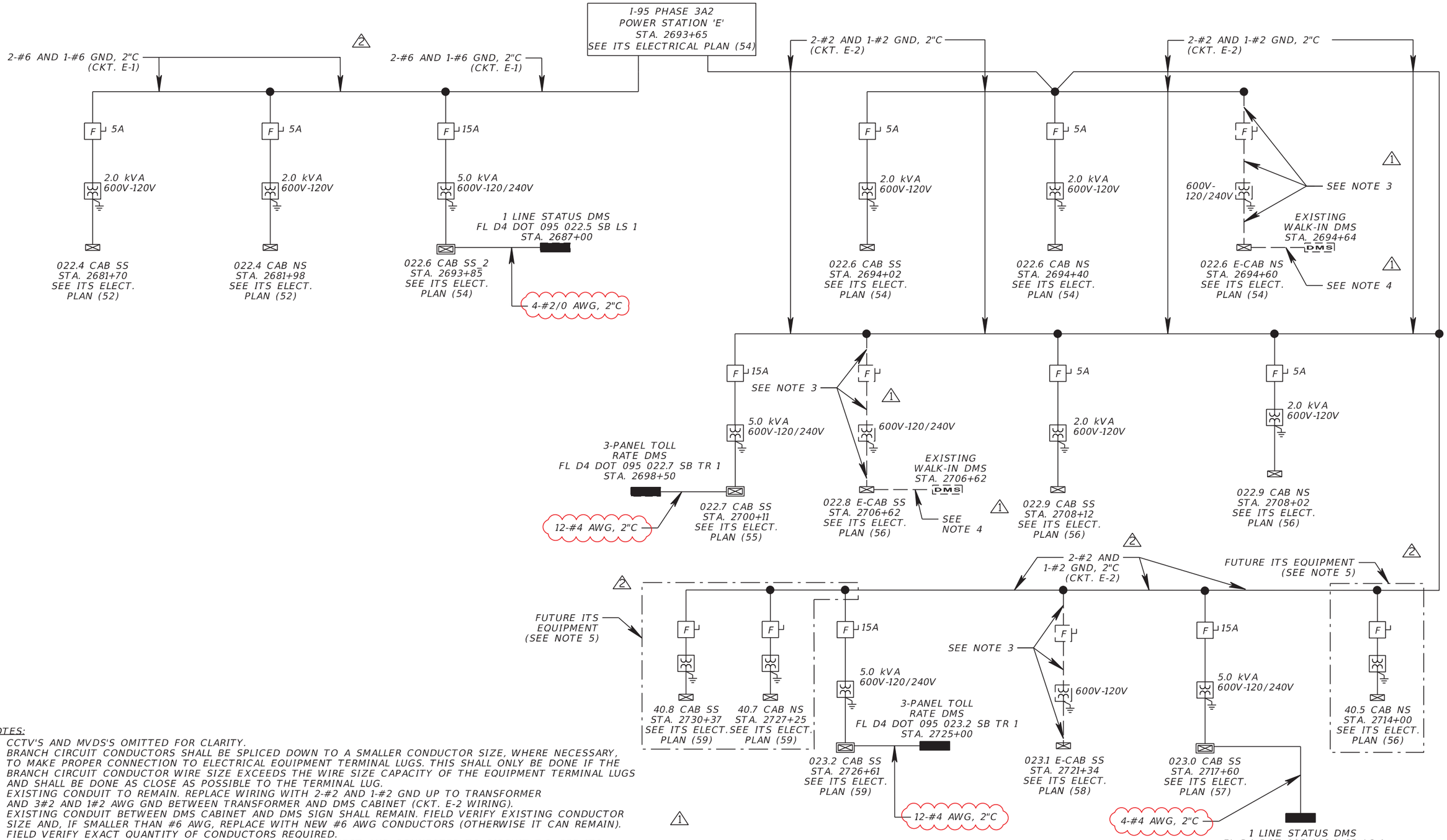
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (4)

SHEET NO. IT-359



NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT TO REMAIN. REPLACE WIRING WITH 2-#2 AND 1-#2 GND UP TO TRANSFORMER AND 3#2 AND 1#2 AWG GND BETWEEN TRANSFORMER AND DMS CABINET (CKT. E-2 WIRING).
4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.
5. FUTURE ITS CABINETS TO BE INSTALLED IN PHASE 3B-1 PROJECT AND CONNECTED TO CIRCUIT E-2. SEE ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
3/16/18	2 ADDED CONNECTION OF EXISTING AND FUTURE CABINETS TO CIRCUIT E-2, REVISED WIRE SIZE		
9/13/19	AS BUILT CHANGES PER RFI 433, 466		

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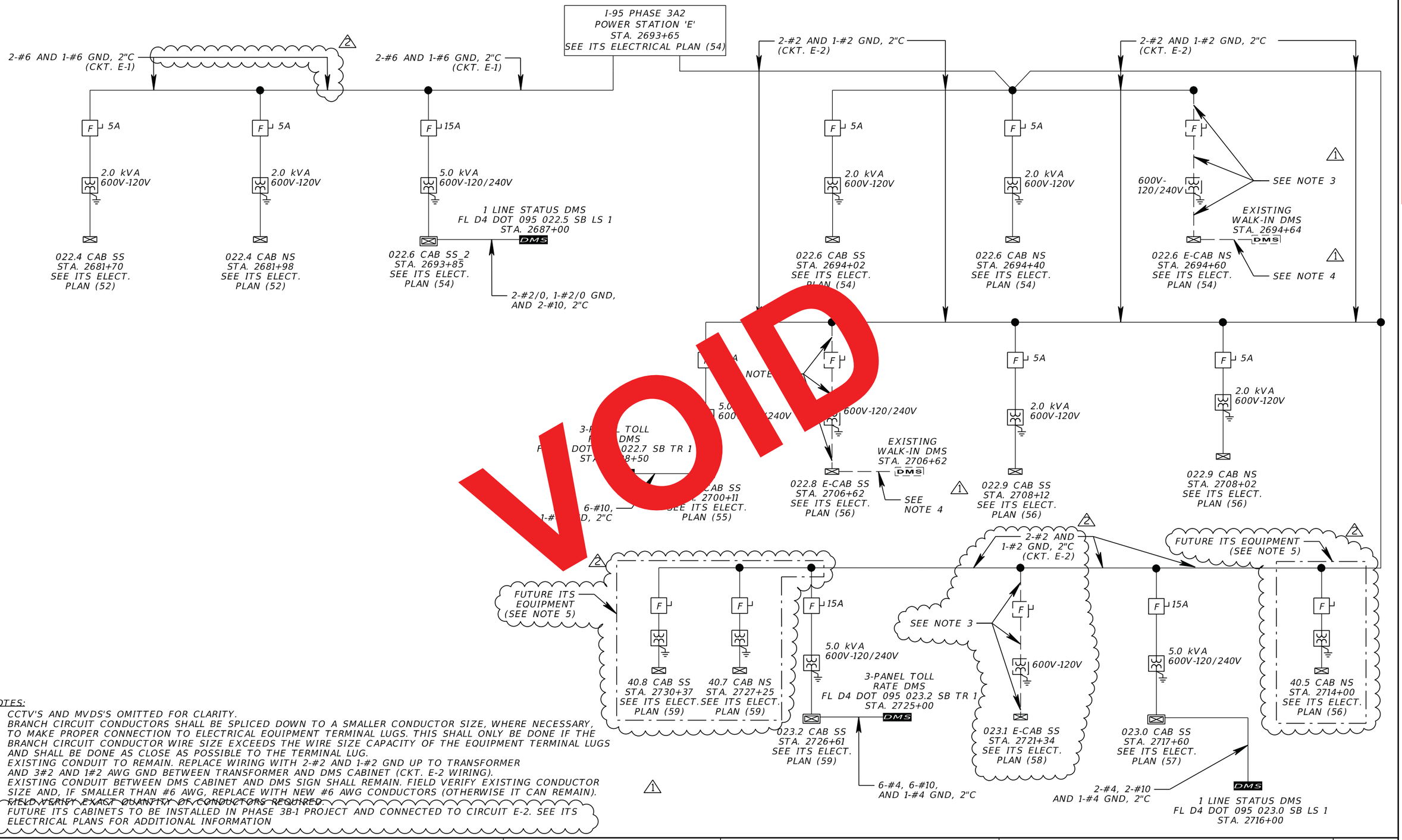
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (5)

SHEET NO.
IT-360

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

NOTES:

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2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
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5. FUTURE ITS CABINETS TO BE INSTALLED IN PHASE 3B-1 PROJECT AND CONNECTED TO CIRCUIT E-2. SEE ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		
3/16/18	2 ADDED CONNECTION OF EXISTING AND FUTURE CABINETS TO CIRCUIT E-2, REVISED WIRE SIZE		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

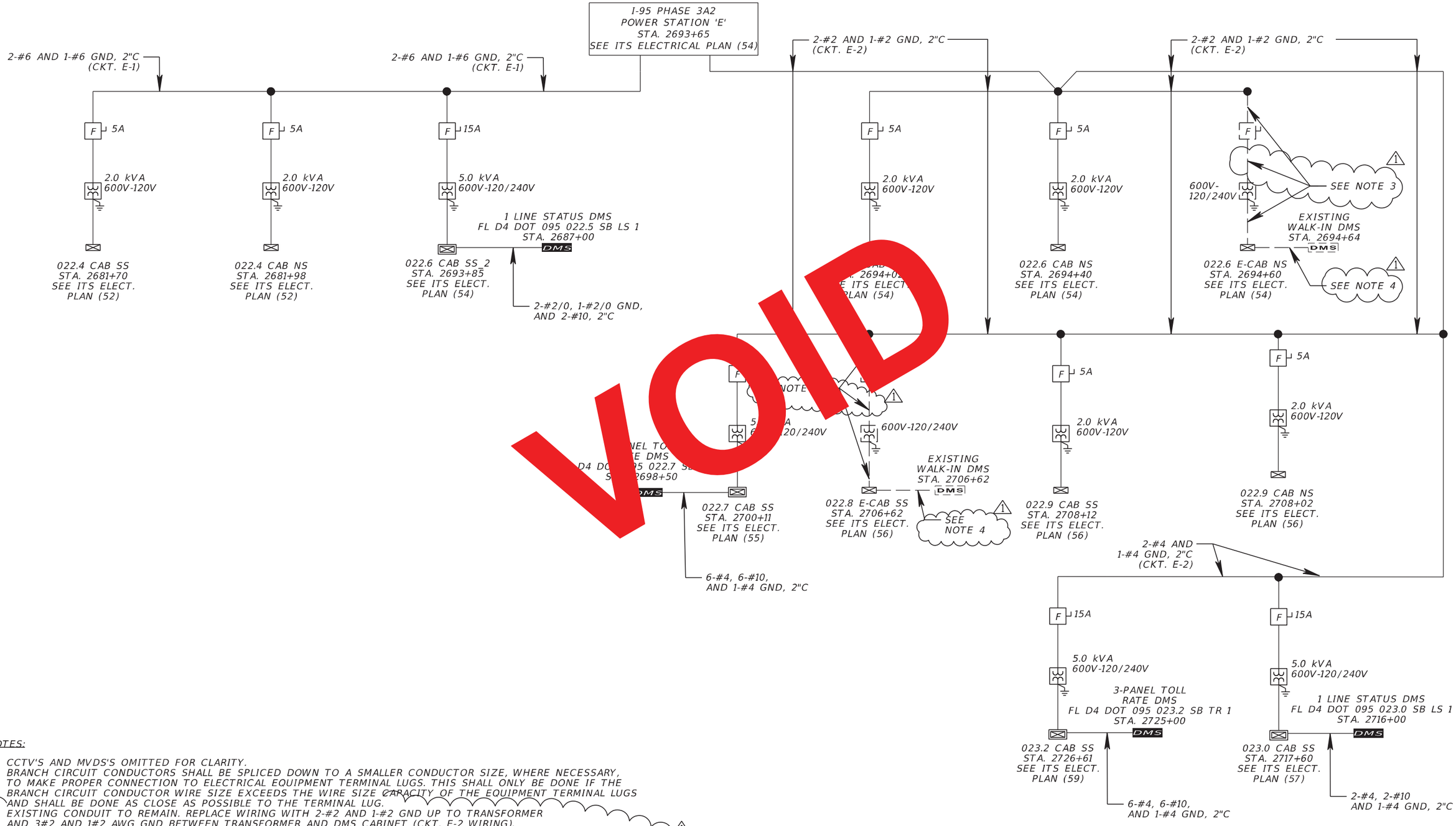
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (5)

SHEET NO. IT-360

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design, accuracy of dimensions and quantities, and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

NOTES:

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4. EXISTING CONDUIT BETWEEN DMS CABINET AND DMS SIGN SHALL REMAIN. FIELD VERIFY EXISTING CONDUCTOR SIZE AND, IF SMALLER THAN #6 AWG, REPLACE WITH NEW #6 AWG CONDUCTORS (OTHERWISE IT CAN REMAIN). FIELD VERIFY EXACT QUANTITY OF CONDUCTORS REQUIRED.

1

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 UPDATED CALLOUTS AND NOTES FOR EXISTING TO REMAIN DMS AND DMS CABINET WIRING		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

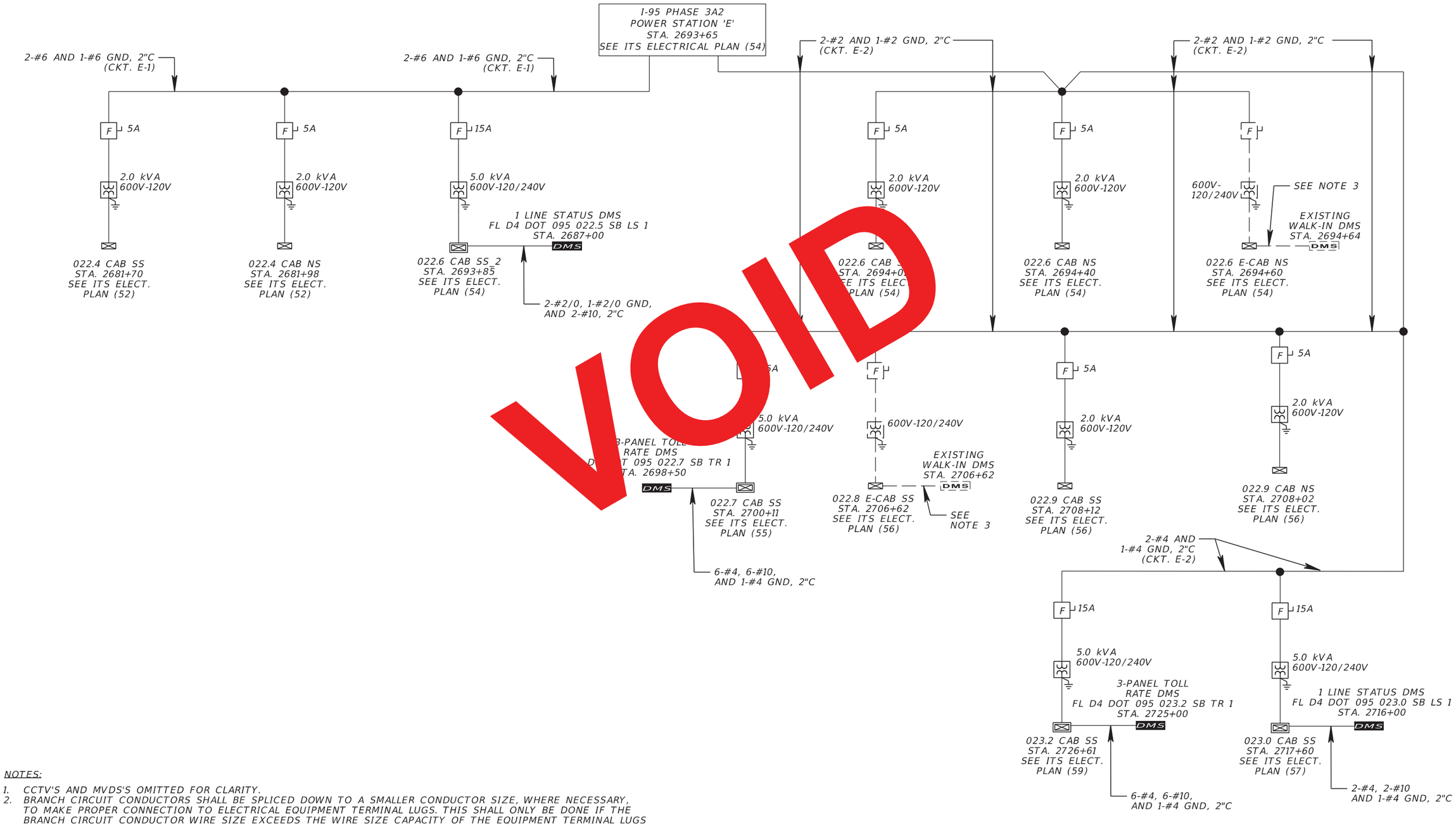
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (5)

SHEET NO. IT-360

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of information and detail sustained with shop drawings, fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec) P.L.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:

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2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT AND #6 AWG WIRING TO REMAIN.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017

Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)

BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

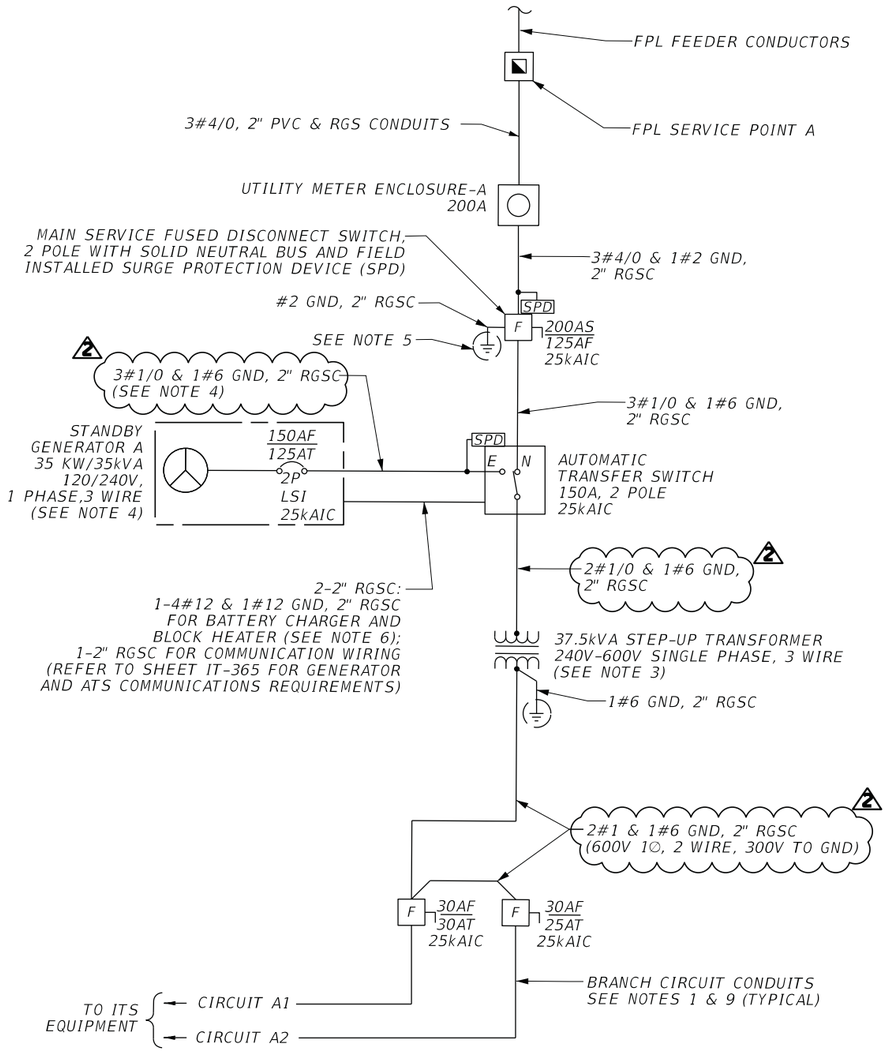
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (5)

SHEET NO. IT-360

SERVICE POINT A
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

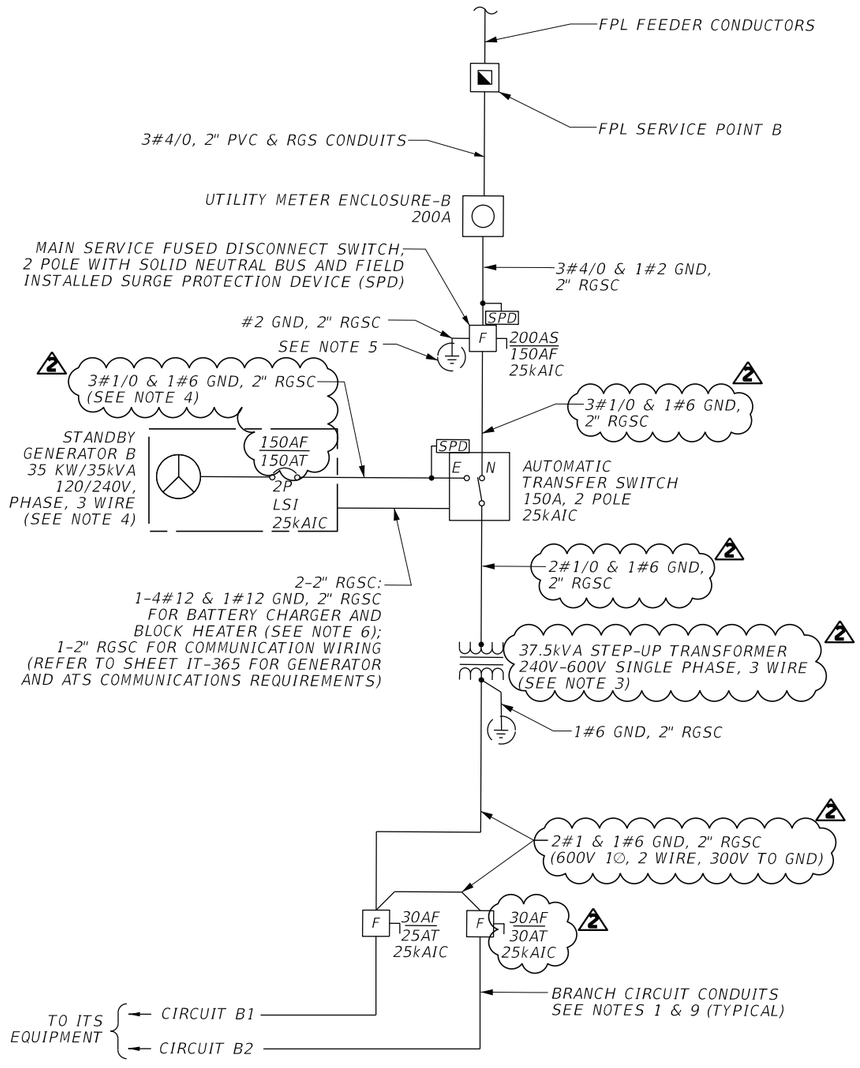
19,390 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 120/240V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'A'
SEE ITS ELECTRICAL PLAN (6B)

SERVICE POINT B
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

19,390 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 120/240V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'B'
SEE ITS ELECTRICAL PLAN (15)

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS).

2. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

3. ALL MAIN STEP-UP AND STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS. REFER TO THE STEP-UP TRANSFORMER WIRING DIAGRAM ON THE "ITS ELECTRICAL DETAILS (2)" SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

4. THE STANDBY AC POWER SOURCE (ON-SITE GENERATOR) SHALL NOT BE CONFIGURED AS A SEPARATELY DERIVED SYSTEM. THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE GENERATOR SHALL BE SOLIDLY INTERCONNECTED THROUGH THE AUTOMATIC TRANSFER SWITCH (ATS) TO THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE NORMAL UTILITY SERVICE FEED. THE ATS EQUIPMENT SHALL INCLUDE A SOLID (UNSWITCHED) NEUTRAL. IT IS NECESSARY TO RUN AN EQUIPMENT GROUNDING CONDUCTOR FROM THE TRANSFER SWITCH TO THE GENERATOR. THERE SHALL BE NO SYSTEM BONDING CONDUCTOR (NEUTRAL TO GROUND) CONNECTION MADE AT THE GENERATORS REFER TO NEC ARTICLE 250.30.

5. FURNISH AND INSTALL GROUND RODS, GROUND ROD ARRAY SYSTEM AND GROUNDING INSPECTION/TEST WELLS PER THE DETAILS ON ITS ELECTRICAL DETAILS SHEETS, FDOT SPECIFICATIONS, FDOT STANDARD INDEX DRAWINGS AND NEC REQUIREMENTS.

6. PROVIDE TWO 20A/1P 120V CIRCUIT BREAKERS FOR THE GENERATOR BATTERY CHARGER AND BLOCK HEATER. CIRCUIT BREAKERS SHALL BE INSTALLED WITHIN THE ATS ENCLOSURE OR WITHIN A NEMA 3R ENCLOSURE MOUNTED TO THE ATS. PROVIDE CONDUIT AND WIRING AS SHOWN.

7. RGS CONDUIT SHALL TRANSITION TO HDPE CONDUIT (UL LISTED FOR ELECTRICAL USE) AT THE FIRST ELECTRICAL PULL BOX DOWNSTREAM FROM THE 600V CIRCUIT FUSED DISCONNECT SWITCHES.

8. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANY, FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING: CHRIS ARTIS, OFFICE: (954) 321-2049.

9. CONDUIT TYPE SHALL TRANSITION FROM RGS TO HDPE BELOW GRADE USING AN APROVED COUPLING OR AT AN ADJACENT ELECTRICAL PULLBOX.

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design details, dimensions and quantities of items shown and fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/16/18	2 REVISED EQUIPMENT RATINGS AND WIRE SIZES		

Parsons Brinckerhoff, Inc.
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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

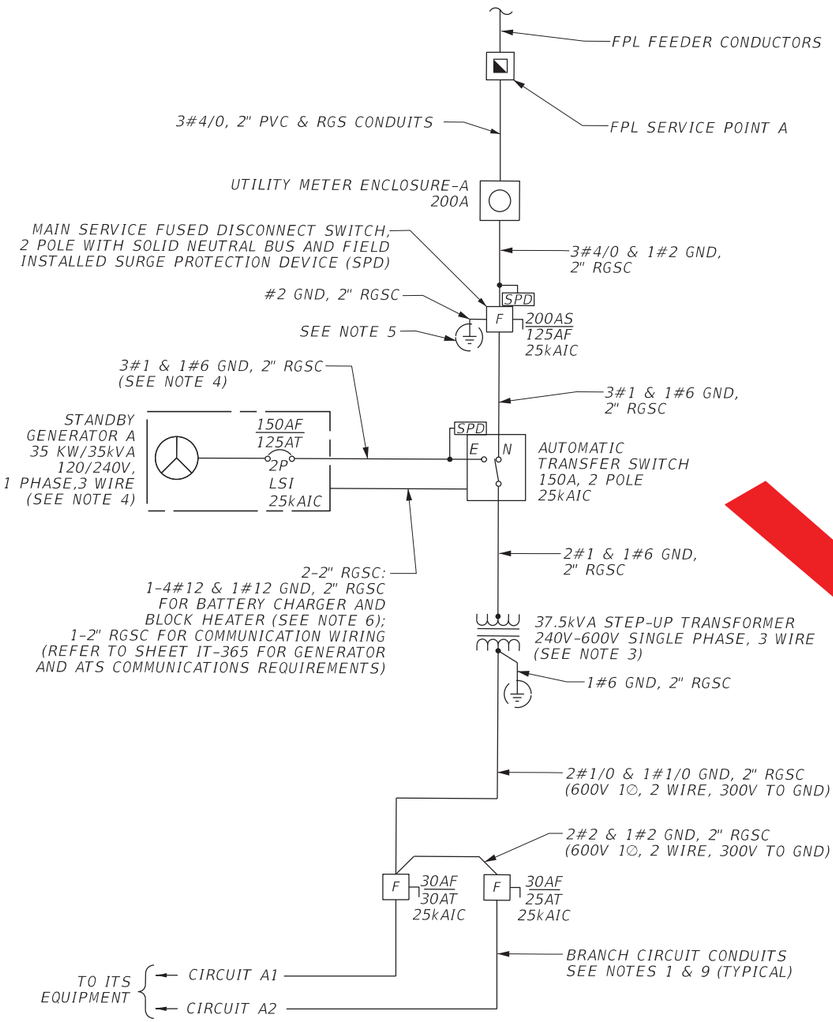
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SERVICE POINT A & B ONE-LINE SCHEMATIC

SHEET NO.
IT-361

SERVICE POINT A
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

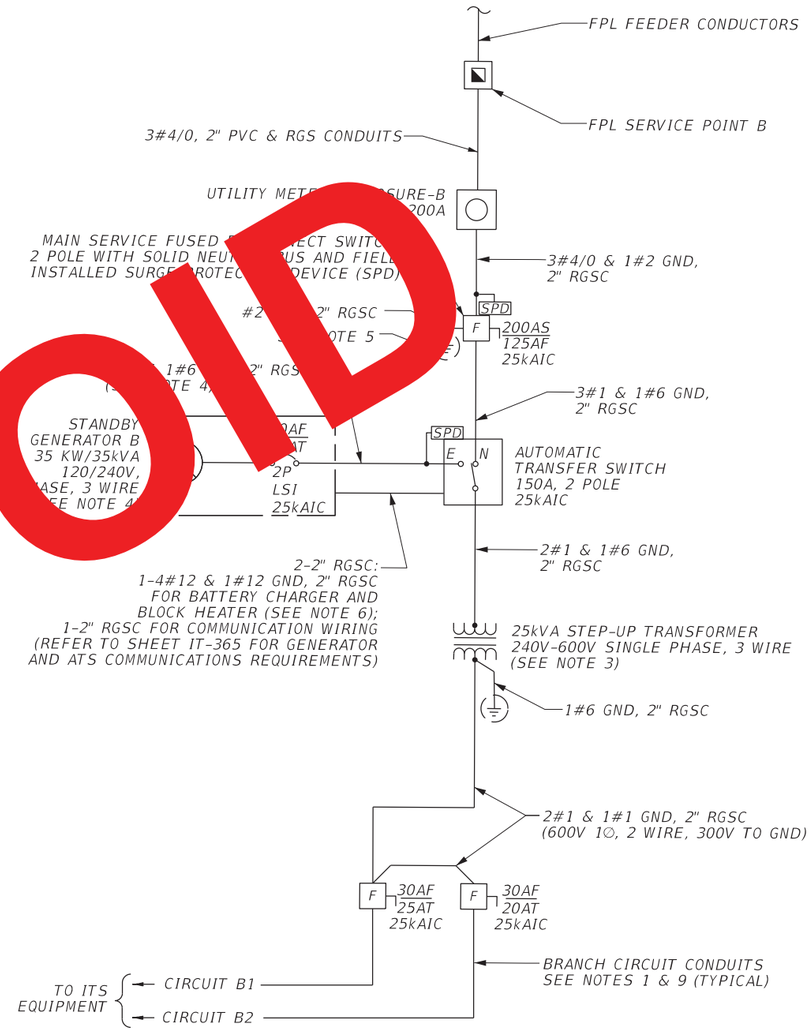
19,390 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 120/240V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'A'
SEE ITS ELECTRICAL PLAN (6B)

SERVICE POINT B
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

19,390 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 120/240V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'B'
SEE ITS ELECTRICAL PLAN (15)

VOID

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS).

2. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

3. ALL MAIN STEP-UP AND STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS. REFER TO THE STEP-UP TRANSFORMER WIRING DIAGRAM ON THE "ITS ELECTRICAL DETAILS (2)" SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

4. THE STANDBY AC POWER SOURCE (ON-SITE GENERATOR) SHALL NOT BE CONFIGURED AS A SEPARATELY DERIVED SYSTEM. THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE GENERATOR SHALL BE SOLIDLY INTERCONNECTED THROUGH THE AUTOMATIC TRANSFER SWITCH (ATS) TO THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE NORMAL UTILITY SERVICE FEED. THE ATS EQUIPMENT SHALL INCLUDE A SOLID (UNSWITCHED) NEUTRAL. IT IS NECESSARY TO RUN AN EQUIPMENT GROUNDING CONDUCTOR FROM THE TRANSFER SWITCH TO THE GENERATOR. THERE SHALL BE NO SYSTEM BONDING CONDUCTOR (NEUTRAL TO GROUND) CONNECTION MADE AT THE GENERATORS REFER TO NEC ARTICLE 250.30.

5. FURNISH AND INSTALL GROUND RODS, GROUND ROD ARRAY SYSTEM AND GROUNDING INSPECTION/TEST WELLS PER THE DETAILS ON ITS ELECTRICAL DETAILS SHEETS, FDOT SPECIFICATIONS, FDOT STANDARD INDEX DRAWINGS AND NEC REQUIREMENTS.

6. PROVIDE TWO 20A/1P 120V CIRCUIT BREAKERS FOR THE GENERATOR BATTERY CHARGER AND BLOCK HEATER. CIRCUIT BREAKERS SHALL BE INSTALLED WITHIN THE ATS ENCLOSURE OR WITHIN A NEMA 3R ENCLOSURE MOUNTED TO THE ATS. PROVIDE CONDUIT AND WIRING AS SHOWN.

7. RGS CONDUIT SHALL TRANSITION TO HDPE CONDUIT (UL LISTED FOR ELECTRICAL USE) AT THE FIRST ELECTRICAL PULL BOX DOWNSTREAM FROM THE 600V CIRCUIT FUSED DISCONNECT SWITCHES.

8. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANY, FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING: CHRIS ARTIS, OFFICE: (954) 321-2049.

9. CONDUIT TYPE SHALL TRANSITION FROM RGS TO HDPE BELOW GRADE USING AN APROVED COUPLING OR AT AN ADJACENT ELECTRICAL PULLBOX.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec) FPL

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

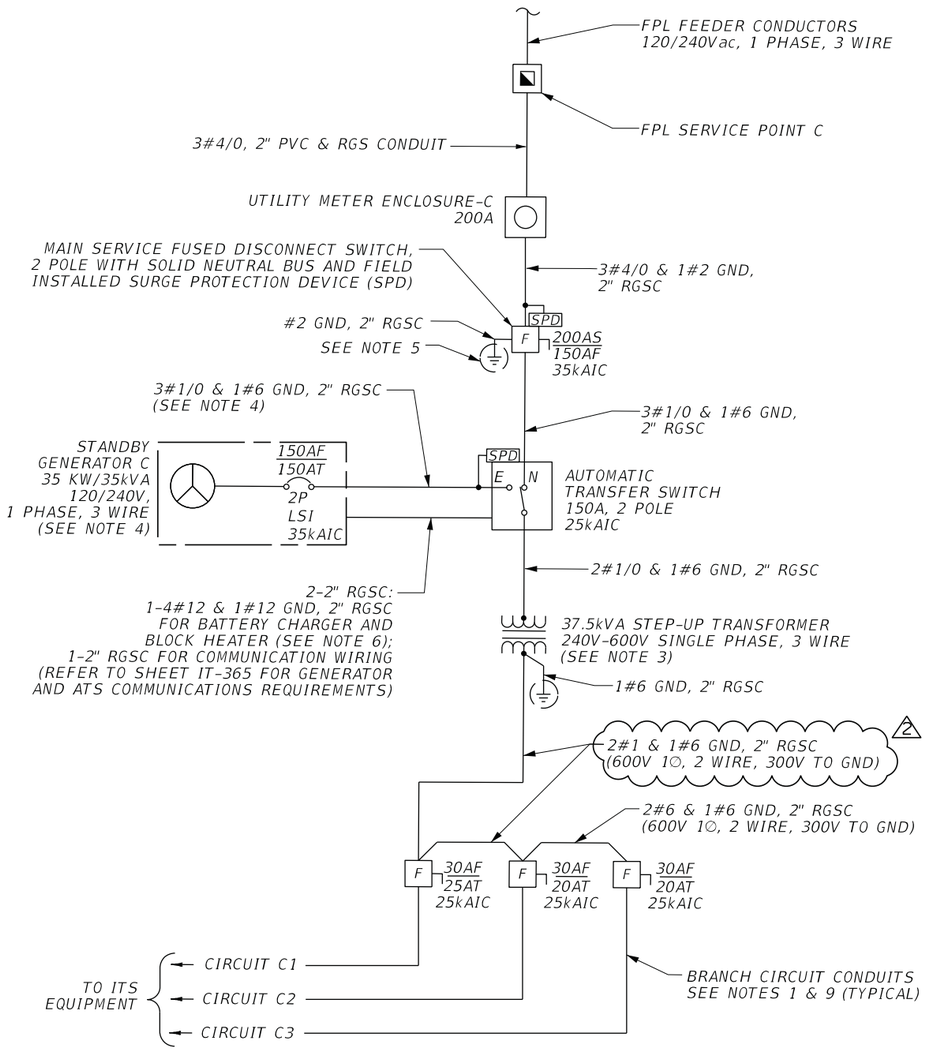
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SERVICE POINT A & B ONE-LINE SCHEMATIC

SHEET NO.
IT-361

SERVICE POINT C
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

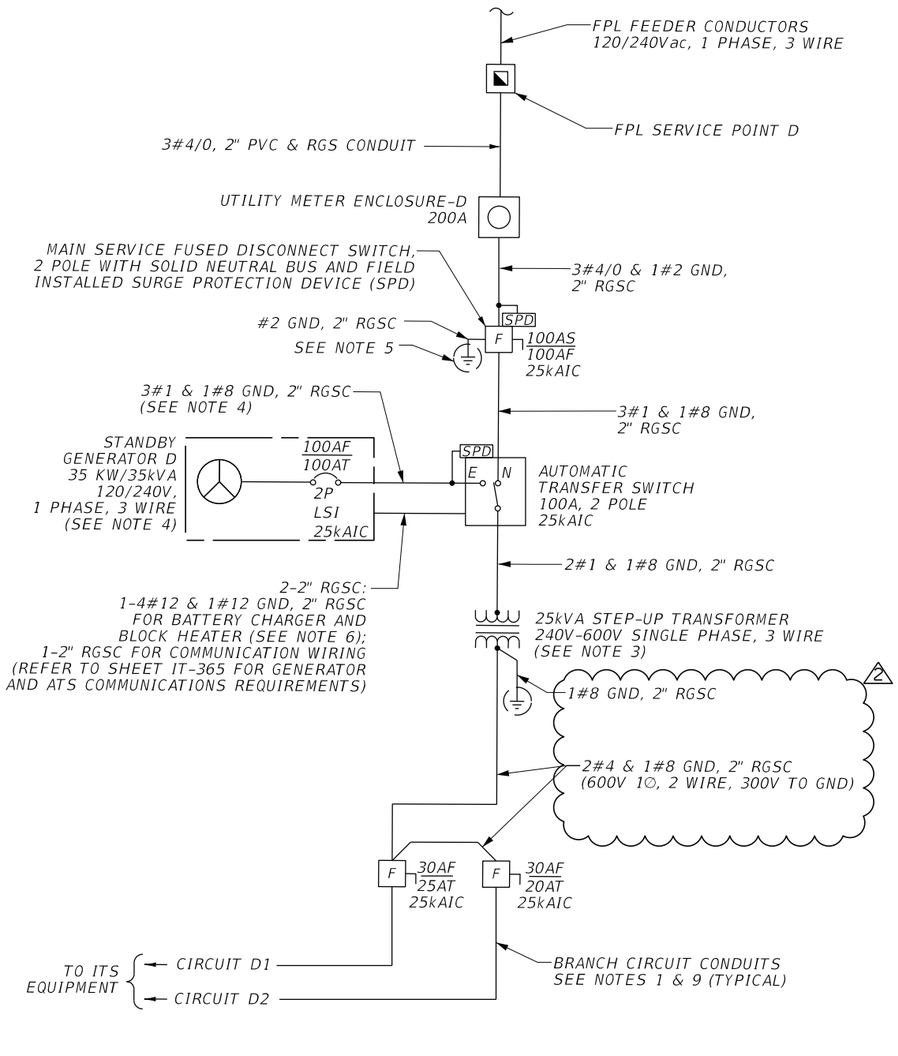
25,461 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 120/240V SECONDARY TERMINALS
OF 50kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'C'
SEE ITS ELECTRICAL PLAN (33)

SERVICE POINT D
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

19,390 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 120/240V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'D'
SEE ITS ELECTRICAL PLAN (44)

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS).

2. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

3. ALL MAIN STEP-UP AND STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS. REFER TO THE STEP-UP TRANSFORMER WIRING DIAGRAM ON THE "ITS ELECTRICAL DETAILS (2)" SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

4. THE STANDBY AC POWER SOURCE (ON-SITE GENERATOR) SHALL NOT BE CONFIGURED AS A SEPARATELY DERIVED SYSTEM. THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE GENERATOR SHALL BE SOLIDLY INTERCONNECTED THROUGH THE AUTOMATIC TRANSFER SWITCH (ATS) TO THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE NORMAL UTILITY SERVICE FEED. THE ATS EQUIPMENT SHALL INCLUDE A SOLID (UNSWITCHED) NEUTRAL. IT IS NECESSARY TO RUN AN EQUIPMENT GROUNDING CONDUCTOR FROM THE TRANSFER SWITCH TO THE GENERATOR. THERE SHALL BE NO SYSTEM BONDING CONDUCTOR (NEUTRAL TO GROUND) CONNECTION MADE AT THE GENERATORS REFER TO NEC ARTICLE 250.30.

5. FURNISH AND INSTALL GROUND RODS, GROUND ROD ARRAY SYSTEM AND GROUNDING INSPECTION/TEST WELLS PER THE DETAILS ON ITS ELECTRICAL DETAILS SHEETS, FDOT SPECIFICATIONS, FDOT STANDARD INDEX DRAWINGS AND NEC REQUIREMENTS.

6. PROVIDE TWO 20A/1P 120V CIRCUIT BREAKERS FOR THE GENERATOR BATTERY CHARGER AND BLOCK HEATER. CIRCUIT BREAKERS SHALL BE INSTALLED WITHIN THE ATS ENCLOSURE OR WITHIN A NEMA 3R ENCLOSURE MOUNTED TO THE ATS. PROVIDE CONDUIT AND WIRING AS SHOWN.

7. RGS CONDUIT SHALL TRANSITION TO HDPE CONDUIT (UL LISTED FOR ELECTRICAL USE) AT THE FIRST ELECTRICAL PULL BOX DOWNSTREAM FROM THE 600V CIRCUIT FUSED DISCONNECT SWITCHES.

8. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANY, FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING: CHRIS ARTIS, OFFICE: (954) 321-2049.

9. CONDUIT TYPE SHALL TRANSITION FROM RGS TO HDPE BELOW GRADE USING AN APROVED COUPLING OR AT AN ADJACENT ELECTRICAL PULLBOX.

RELEASED FOR CONSTRUCTION DATE: 08/22/2018
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FPID 433108-5-52-01 CONTRACT E4Q84 BY: (FDOT)
BY: (Stantec) JB

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License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

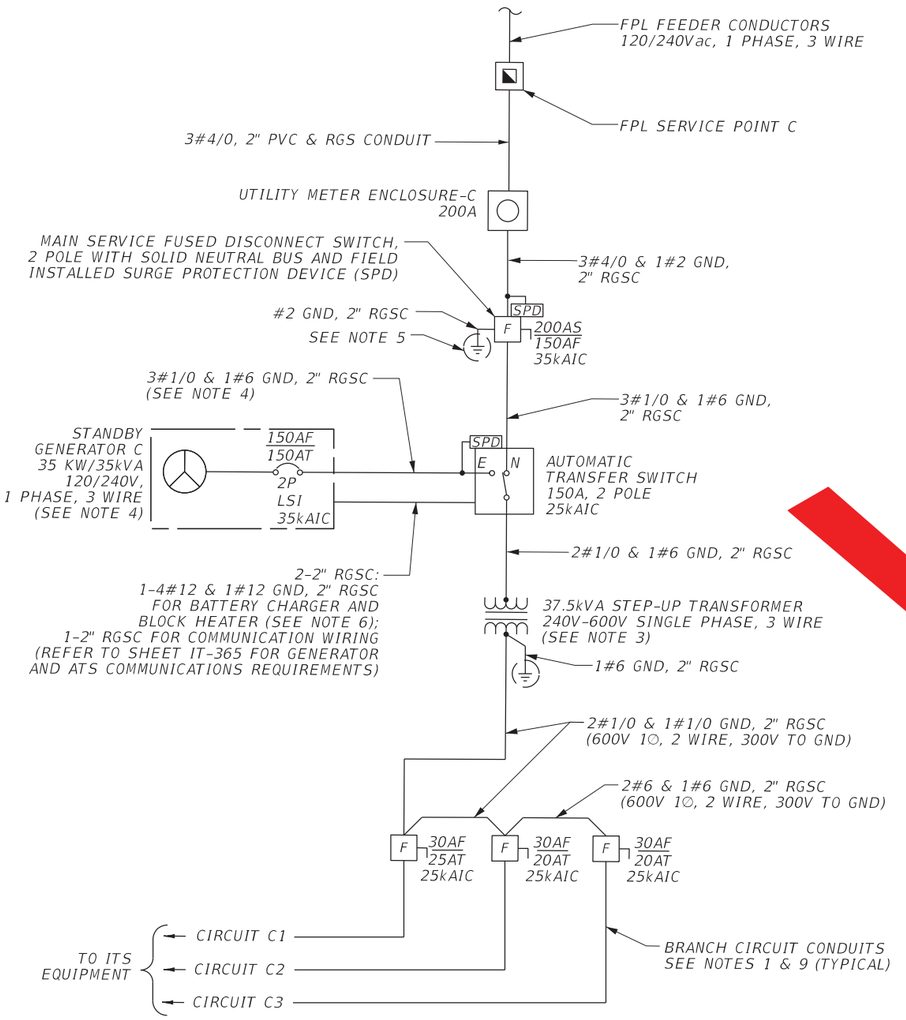
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SERVICE POINT C & D ONE LINE SCHEMATIC

SHEET NO.
IT-362

SERVICE POINT C
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

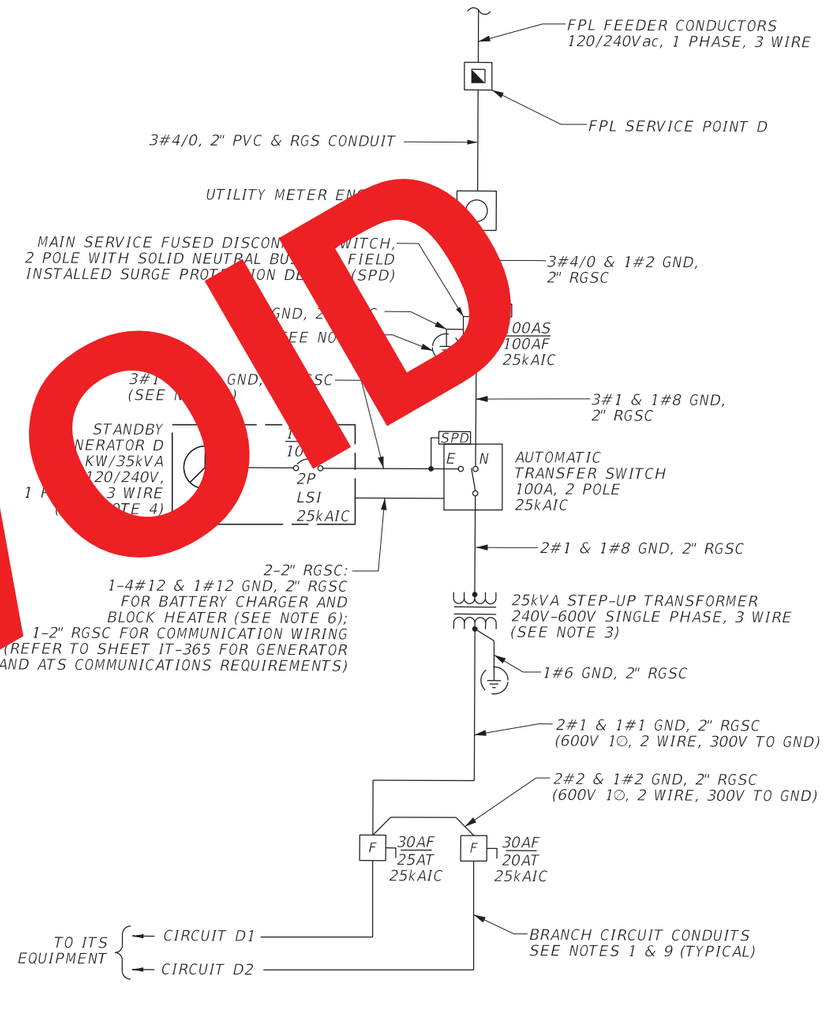
25,461 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 120/240V SECONDARY TERMINALS
OF 50kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'C'
SEE ITS ELECTRICAL PLAN (33)

SERVICE POINT D
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

19,390 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 120/240V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'D'
SEE ITS ELECTRICAL PLAN (44)

VOID

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS).

2. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

3. ALL MAIN STEP-UP AND STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS. REFER TO THE STEP-UP TRANSFORMER WIRING DIAGRAM ON THE "ITS ELECTRICAL DETAILS (2)" SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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5. FURNISH AND INSTALL GROUND RODS, GROUND ROD ARRAY SYSTEM AND GROUNDING INSPECTION/TEST WELLS PER THE DETAILS ON ITS ELECTRICAL DETAILS SHEETS, FDOT SPECIFICATIONS, FDOT STANDARD INDEX DRAWINGS AND NEC REQUIREMENTS.

6. PROVIDE TWO 20A/1P 120V CIRCUIT BREAKERS FOR THE GENERATOR BATTERY CHARGER AND BLOCK HEATER. CIRCUIT BREAKERS SHALL BE INSTALLED WITHIN THE ATS ENCLOSURE OR WITHIN A NEMA 3R ENCLOSURE MOUNTED TO THE ATS. PROVIDE CONDUIT AND WIRING AS SHOWN.

7. RGS CONDUIT SHALL TRANSITION TO HDPE CONDUIT (UL LISTED FOR ELECTRICAL USE) AT THE FIRST ELECTRICAL PULL BOX DOWNSTREAM FROM THE 600V CIRCUIT FUSED DISCONNECT SWITCHES.

8. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANY, FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING: CHRIS ARTIS, OFFICE: (954) 321-2049.

9. CONDUIT TYPE SHALL TRANSITION FROM RGS TO HDPE BELOW GRADE USING AN APROVED COUPLING OR AT AN ADJACENT ELECTRICAL PULLBOX.

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec) FPL

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License No: 78396

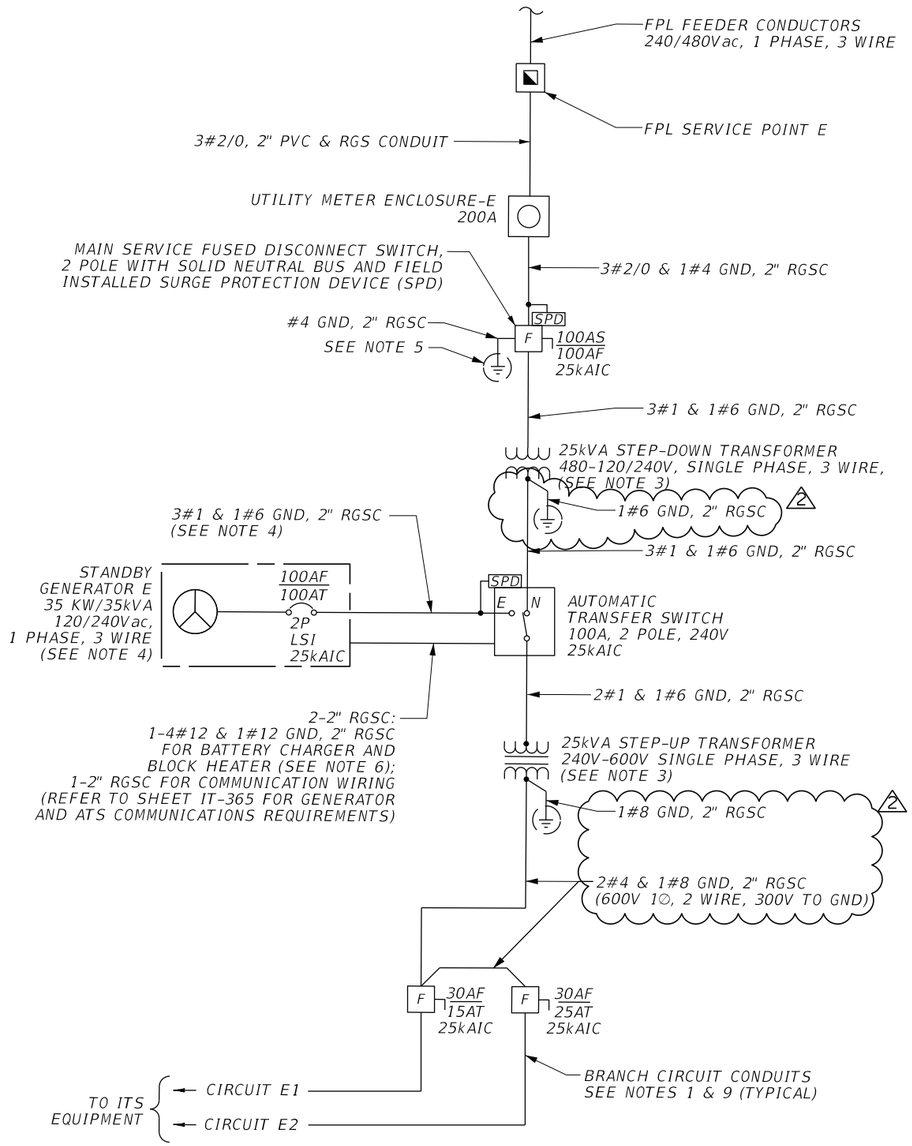
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SERVICE POINT C & D
ONE LINE SCHEMATIC

SHEET NO.
IT-362

SERVICE POINT E
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:
9,680 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 480V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'E'
SEE ITS ELECTRICAL PLAN (54)

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS).

2. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

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BY: (Stantec) JB

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

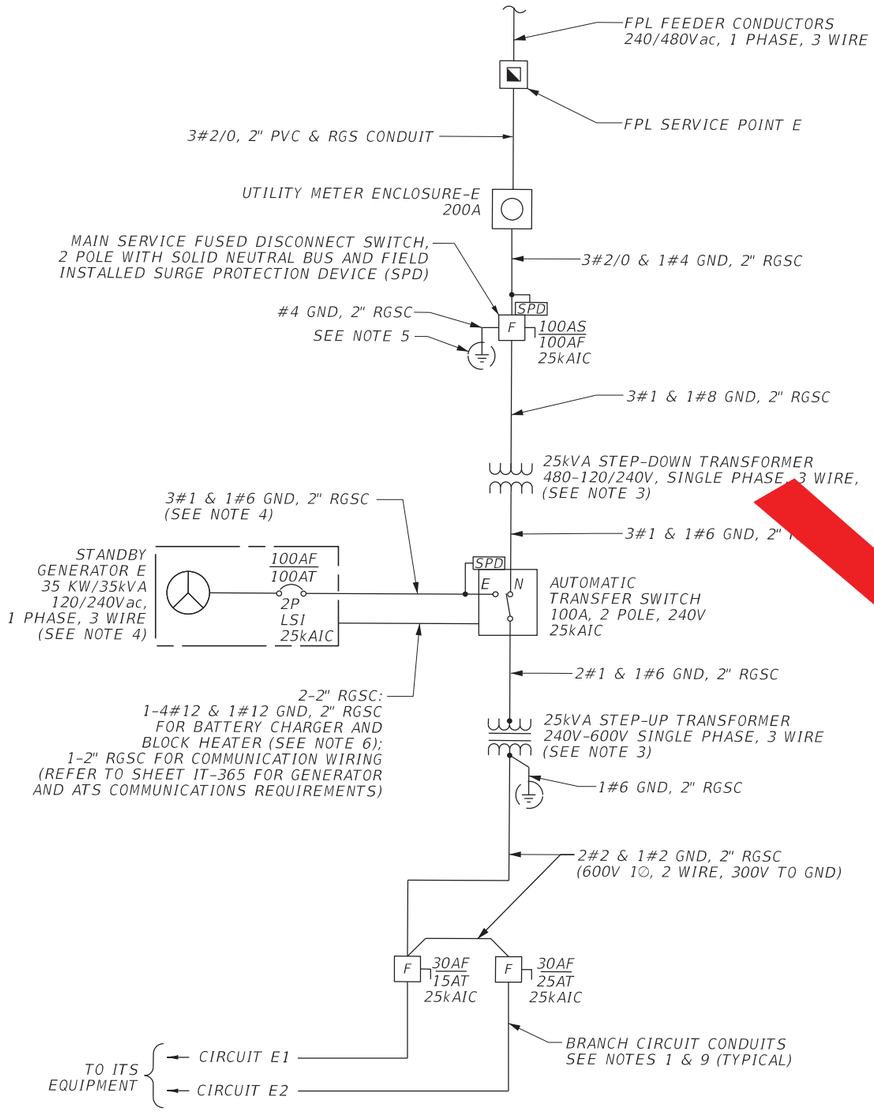
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SERVICE POINT E ONE-LINE SCHEMATIC

SHEET NO.
IT-363

SERVICE POINT E
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

9,680 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 480V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'E'
SEE ITS ELECTRICAL PLAN (54)

VOID

NOTES:

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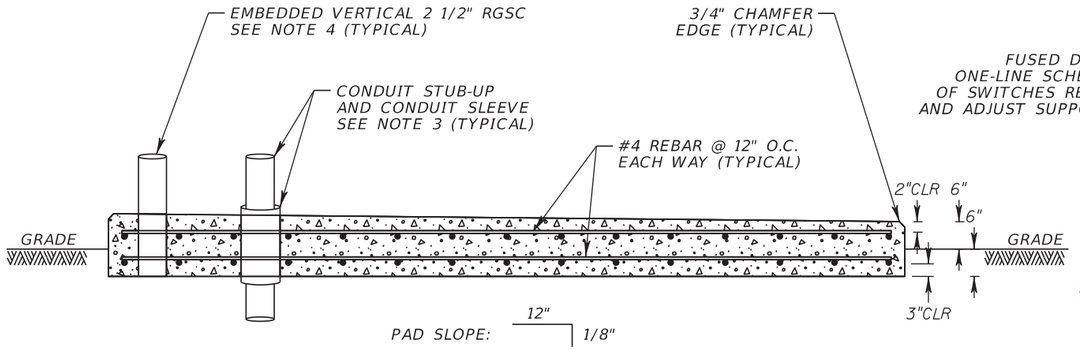
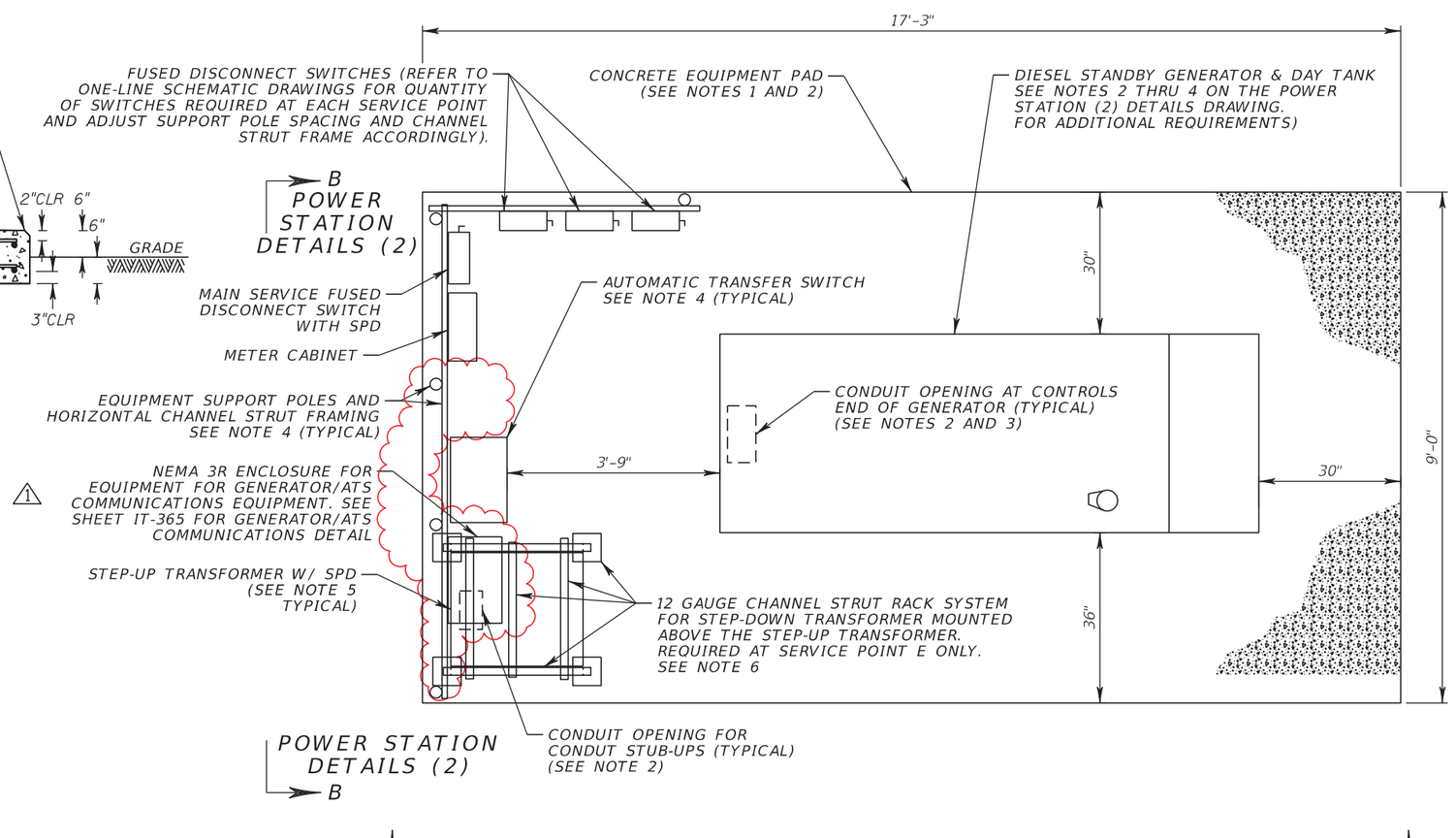
SERVICE POINT E ONE-LINE SCHEMATIC

SHEET NO. IT-363



TYPICAL SECTION OF CONCRETE PAD FOR POWER STATION EQUIPMENT

NTS



CONCRETE PAD FOR POWER STATION EQUIPMENT

SCALE: 3/8" = 1'-0"

NOTES:

1. THE EQUIPMENT PAD SHALL BE CLASS II (3.4 KPSI) AND A MINIMUM OF 6" THICK ABOVE GRADE. THE OUTSIDE EDGES OF THE SLAB SHALL BE CAST AGAINST FRAMEWORK. EQUIPMENT PAD INSTALLATION SHALL MEET APPLICABLE REQUIREMENTS OF FDOT STANDARD SPECIFICATION SECTION 522.

2. CONTRACTOR TO COORDINATE CONDUIT STUB-UP LOCATIONS AND EQUIPMENT PAD OPENING REQUIREMENTS WITHIN THE GENERATOR AND TRANSFORMER MANUFACTURER AND EQUIPMENT SHOP DRAWINGS AND ADJUST AS REQUIRED BEFORE POURING CONCRETE.

3. FOR ALL CONDUIT PENETRATIONS THROUGH EQUIPMENT PAD, INSTALL OVERSIZED RIGID PVC SCHEDULE 80 SLEEVE. RGS CONDUIT SHALL BE INSTALLED THROUGH THE SLEEVE AND WRAPPED IN 1/2" BITUMINOUS TAPE 12" ABOVE AND 12" BELOW CENTER OF PAD. INSTALL CONDUIT SLEEVES IN BETWEEN REBAR GRID WHERE POSSIBLE AND PULL BACK REBAR, IF REQUIRED, BASED ON PENETRATION LOCATION. CONDUIT PENETRATION LOCATION IS DIAGRAMATIC AND SHOULD BE ADJUSTED BASED ON EQUIPMENT LAYOUT AND EXACT EQUIPMENT STUB-UP LOCATION REQUIREMENTS.

4. EQUIPMENT SUPPORT FRAME SHALL CONSIST OF EMBEDDED VERTICAL 2 1/2" RGS CONDUITS, BACKFILLED WITH CONCRETE. CONDUIT SHALL BE WRAPPED IN 1/2" BITUMINOUS TAPE 12" ABOVE AND 12" BELOW TOP OF PAD. METERS, AUTOMATIC TRANSFER SWITCH, PANELBOARDS, AND DISCONNECT SWITCHES SHALL BE MOUNTED TO GALVANIZED STEEL 1-5/8"x1-5/8" 12 GAUGE CHANNEL STRUTS. CHANNEL STRUTS AND BRACED ANGLE BRACKETS SHALL HAVE A MINIMUM ALLOWABLE MOMENT OF 5,000 IN-LBS. INSTALL VERTICAL RGSC CONDUIT IN BETWEEN REBAR GRID WHERE POSSIBLE AND PULL BACK REBAR, IF REQUIRED, BASED ON PENETRATION LOCATIONS. ADJUST POLES AND SUPPORT FRAMING, AS REQUIRED, BASED ON THE NUMBER OF BRANCH CIRCUIT FUSED DISCONNECT SWITCHES AT EACH POWER STATION (REFER TO THE SERVICE POINT ONE-LINE SCHEMATIC DRAWINGS FOR QUANTITIES).

5. PROVIDE PROPER BOLT AND BOLT HOLE SPACING AND ARRANGEMENT PER MANUFACTURER RECOMMENDATIONS TO PROPERLY INSTALL THE GENERATOR AND TRANSFORMER ENCLOSURES TO THE EQUIPMENT PAD SLAB. COORDINATE SUPPORT AND CONDUIT STUB-UP REQUIREMENTS WITH THE EQUIPMENT MANUFACTURER PRIOR TO POURING THE PAD.

6. CONTRACTOR TO FIELD SIZE A CHANNEL STRUT TRANSFORMER RACK TO MOUNT THE STEP-DOWN TRANSFORMER ABOVE THE STEP-UP TRANSFORMER. ALLOW SUFFICIENT CLEARANCE FOR BOTTOM ENTRY OF CONDUIT INTO STEP-DOWN TRANSFORMER. STEP-DOWN TRANSFORMER, ASSOCIATED CONDUIT, AND RACK ARE FOR SERVICE POINT E ONLY. SEE POWER STATION DETAILS (2) SHEET FOR ADDITIONAL TRANSFORMER RACK SPECIFICATIONS AND REQUIREMENTS.

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 ENCLOSURE ADDED FOR COMMUNICATIONS EQUIPMENT		
9/13/19	AS-BUILTS per RFI 465		

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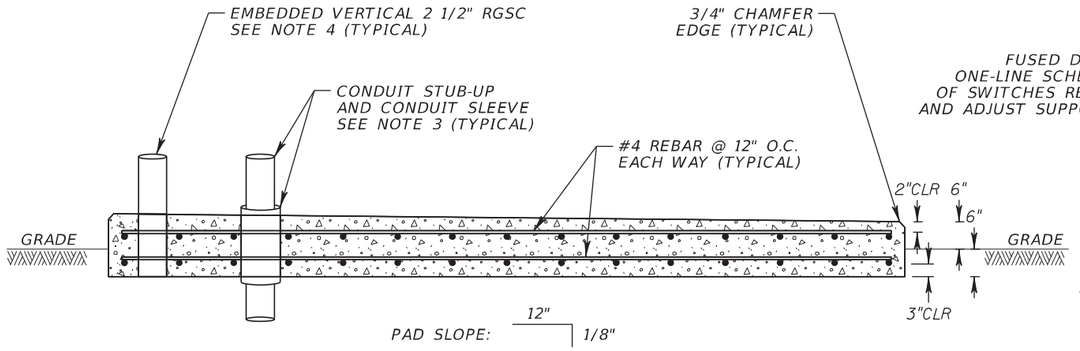
EOR: Kevin Walsh, P.E. 78396 (ELECT.)
EOR: Trevor Johnson, P.E. 65624 (STRUC.)

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

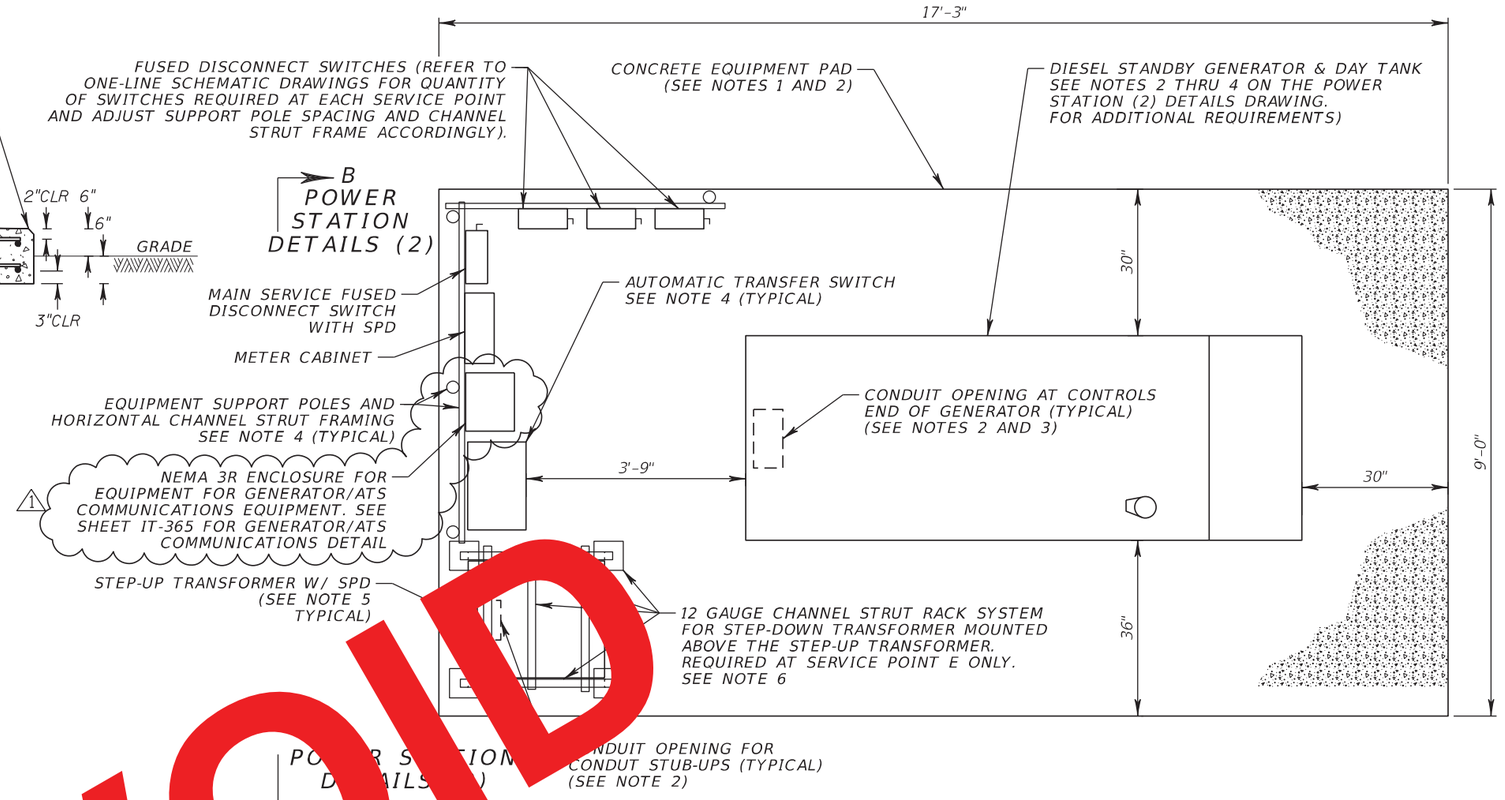
POWER STATION DETAILS (1)

SHEET NO.
IT-364



TYPICAL SECTION OF CONCRETE PAD FOR POWER STATION EQUIPMENT

NTS



CONCRETE PAD FOR POWER STATION EQUIPMENT

SCALE: 3/8" = 1'-0"

NOTES:

1. THE EQUIPMENT PAD SHALL BE CLASS II (3.4 KPSI) AND A MINIMUM OF 6" THICK ABOVE GRADE. THE OUTSIDE EDGES OF THE SLAB SHALL BE CAST AGAINST FRAMEWORK. EQUIPMENT PAD INSTALLATION SHALL MEET APPLICABLE REQUIREMENTS OF FDOT STANDARD SPECIFICATION SECTION 522.

2. CONTRACTOR TO COORDINATE CONDUIT STUB-UP LOCATIONS AND EQUIPMENT PAD OPENING REQUIREMENTS WITHIN THE GENERATOR AND TRANSFORMER MANUFACTURER AND EQUIPMENT SHOP DRAWINGS AND ADJUST AS REQUIRED BEFORE POURING CONCRETE.

3. FOR ALL CONDUIT PENETRATIONS THROUGH EQUIPMENT PAD, INSTALL OVERSIZED RIGID PVC SCHEDULE 80 SLEEVE. RGS CONDUIT SHALL BE INSTALLED THROUGH THE SLEEVE AND WRAPPED IN 1/2" BITUMINOUS TAPE 12" ABOVE AND 12" BELOW CENTER OF PAD. INSTALL CONDUIT SLEEVES IN BETWEEN REBAR GRID WHERE POSSIBLE AND PULL BACK REBAR, IF REQUIRED, BASED ON PENETRATION LOCATION. CONDUIT PENETRATION LOCATION IS DIAGRAMATIC AND SHOULD BE ADJUSTED BASED ON EQUIPMENT LAYOUT AND EXACT EQUIPMENT STUB-UP LOCATION REQUIREMENTS.

4. EQUIPMENT SUPPORT FRAME SHALL CONSIST OF EMBEDDED VERTICAL 2 1/2" RGS CONDUITS, BACKFILLED WITH CONCRETE. CONDUIT SHALL BE WRAPPED IN 1/2" BITUMINOUS TAPE 12" ABOVE AND 12" BELOW TOP OF PAD. METERS, AUTOMATIC TRANSFER SWITCH, PANELBOARDS, AND DISCONNECT SWITCHES SHALL BE MOUNTED TO GALVANIZED STEEL 1-5/8"x1-5/8" 12 GAUGE CHANNEL STRUTS. CHANNEL STRUTS AND BRACED ANGLE BRACKETS SHALL HAVE A MINIMUM ALLOWABLE MOMENT OF 5,000 IN-LBS. INSTALL VERTICAL RGSC CONDUIT IN BETWEEN REBAR GRID WHERE POSSIBLE AND PULL BACK REBAR, IF REQUIRED, BASED ON PENETRATION LOCATIONS. ADJUST POLES AND SUPPORT FRAMING, AS REQUIRED, BASED ON THE NUMBER OF BRANCH CIRCUIT FUSED DISCONNECT SWITCHES AT EACH POWER STATION (REFER TO THE SERVICE POINT ONE-LINE SCHEMATIC DRAWINGS FOR QUANTITIES).

5. PROVIDE PROPER BOLT AND BOLT HOLE SPACING AND ARRANGEMENT PER MANUFACTURER RECOMMENDATIONS TO PROPERLY INSTALL THE GENERATOR AND TRANSFORMER ENCLOSURES TO THE EQUIPMENT PAD SLAB. COORDINATE SUPPORT AND CONDUIT STUB-UP REQUIREMENTS WITH THE EQUIPMENT MANUFACTURER PRIOR TO POURING THE PAD.

6. CONTRACTOR TO FIELD SIZE A CHANNEL STRUT TRANSFORMER RACK TO MOUNT THE STEP-DOWN TRANSFORMER ABOVE THE STEP-UP TRANSFORMER. ALLOW SUFFICIENT CLEARANCE FOR BOTTOM ENTRY OF CONDUIT INTO STEP-DOWN TRANSFORMER. STEP-DOWN TRANSFORMER, ASSOCIATED CONDUIT, AND RACK ARE FOR SERVICE POINT E ONLY. SEE POWER STATION DETAILS (2) SHEET FOR ADDITIONAL TRANSFORMER RACK SPECIFICATIONS AND REQUIREMENTS.

VOID

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of professional design, detailing, and all dimensions shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64 BY: (FDOT) PL
BY: (Stantec)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 ENCLOSURE ADDED FOR COMMUNICATIONS EQUIPMENT		

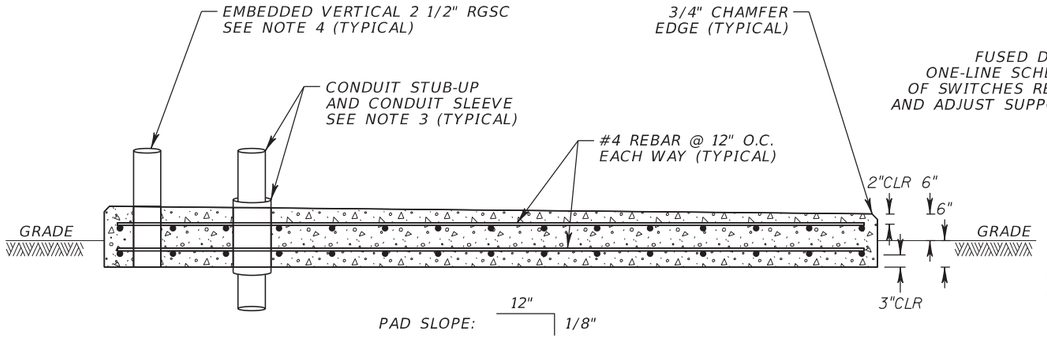
Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. 78396 (ELECT.)
EOR: Trevor Johnson, P.E. 65624 (STRUC.)

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

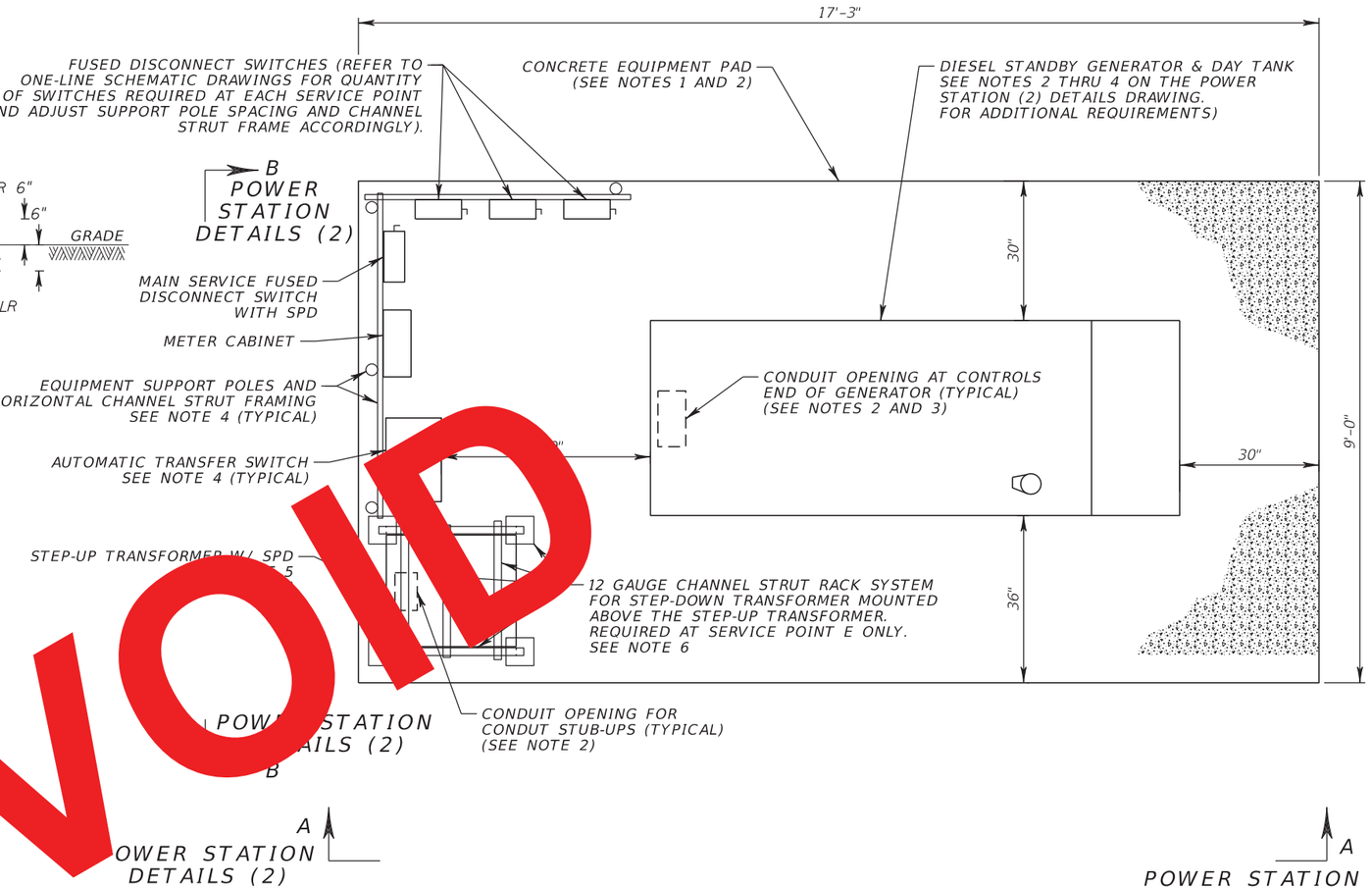
POWER STATION DETAILS (1)

SHEET NO.
IT-364



TYPICAL SECTION OF CONCRETE PAD FOR POWER STATION EQUIPMENT

NTS



CONCRETE PAD FOR POWER STATION EQUIPMENT

SCALE: 3/8" = 1'-0"

NOTES:

1. THE EQUIPMENT PAD SHALL BE CLASS II (3.4 KPSI) AND A MINIMUM OF 6" THICK ABOVE GRADE. THE OUTSIDE EDGES OF THE SLAB SHALL BE CAST AGAINST FRAMEWORK. EQUIPMENT PAD INSTALLATION SHALL MEET APPLICABLE REQUIREMENTS OF FDOT STANDARD SPECIFICATION SECTION 522.

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5. PROVIDE PROPER BOLT AND BOLT HOLE SPACING AND ARRANGEMENT PER MANUFACTURER RECOMMENDATIONS TO PROPERLY INSTALL THE GENERATOR AND TRANSFORMER ENCLOSURES TO THE EQUIPMENT PAD SLAB. COORDINATE SUPPORT AND CONDUIT STUB-UP REQUIREMENTS WITH THE EQUIPMENT MANUFACTURER PRIOR TO POURING THE PAD.

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/10/15			

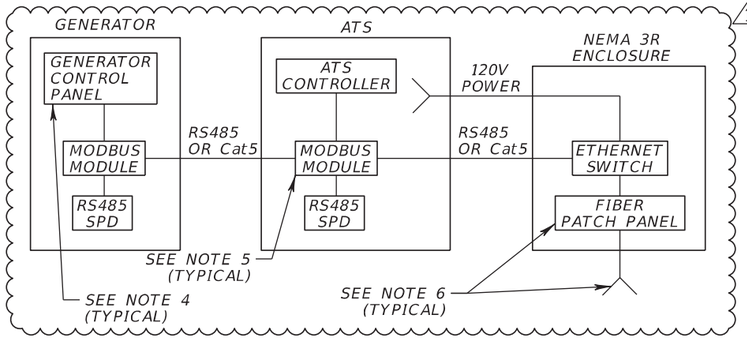
Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. 78396 (ELECT.)
EOR: Trevor Johnson, P.E. 65624 (STRUC.)

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

POWER STATION DETAILS (1)

SHEET NO.
IT-364



GENERATOR/ATS COMMUNICATIONS DETAIL

NTS

NOTES:

1. ALL ABOVE GROUND CONDUITS SHALL BE RIGID GALVANIZED STEEL (RGSC). CONDUITS SHALL TRANSITION TO HDPE CONDUIT BELOW GRADE AT AN APPROVED CONDUIT FITTING OR AT AN ADJACENT ELECTRICAL PULLBOX. ALL CONDUIT ROUTING FROM THE FPL TRANSFORMER TO THE POWER STATION AND BETWEEN THE POWER STATION ELECTRICAL EQUIPMENT SHALL BE FIELD ROUTED BY CONTRACTOR. FOR SIZES AND QUANTITIES OF ALL SERVICE POINT AND BRANCH CIRCUIT CONDUIT AND WIRING, REFER TO THE ONE-LINE SCHEMATIC DRAWINGS.

2. ALL GENERATORS SHALL BE PROVIDED WITH AN OUTDOOR, WEATHER PROTECTED, SOUND ATTENUATING ENCLOSURE AND SHALL BE CONSTRUCTED OF STAINLESS STEEL OR ALUMINUM. ENCLOSURE SHALL BE PAINTED (POWDER COATING IS ACCEPTABLE).

3. EACH GENERATOR SHALL BE PROVIDED WITH AN IN-SKID, DOUBLE WALLED, DIESEL FUEL TANK. THE TANK SHALL BE SIZED TO PROVIDE 48 AND 72 HOURS CONTINUOUS RUN TIME AT FULL AND HALF LOAD, RESPECTIVELY, ON A SINGLE TANK OF FUEL. EXACT FUEL TANK CAPACITY (GALLONS) SHALL BE DETERMINED BASED ON GENERATOR FUEL CONSUMPTION RATE WHEN FINAL EQUIPMENT SELECTIONS ARE MADE. EACH FUEL TANK SHALL BE PROVIDED WITH MONITORING/ALARM POINTS FOR A LEAK ALARM, LOW FUEL LEVEL AND FUEL LEVEL SENSOR, AND CONNECTED TO THE GENERATOR ANNUNCIATOR PANEL PER MANUFACTURER REQUIREMENTS.

4. EACH GENERATOR SHALL BE PROVIDED WITH A LOCAL ANNUNCIATOR CONTROL PANEL TO PROVIDE LOCAL MONITORING. COORDINATE WITH THE GENERATOR MANUFACTURER FOR THE EXACT MOUNTING LOCATION OF THE ANNUNCIATOR CONTROL PANEL. PROVIDE THE GENERATOR MANUFACTURER'S STANDARD ALARM PACKAGE FOR LOCAL ANNUNCIATION AND PROVIDE REMOTE ANNUNCIATION CAPABILITIES. LOCAL AND REMOTE ALARMS SHALL INCLUDE LOW FUEL LEVEL, FUEL LEAK, HIGH ENGINE TEMPERATURE, LOW BATTERY VOLTAGE, AND LOW OIL PRESSURE. SHOP DRAWING SUBMITTALS SHALL INCLUDE DETAILS OF THE ANNUNCIATOR WIRING AND ALARM CONFIGURATION AND OF THE COMMUNICATION DEVICES WIRING AND CONFIGURATION.

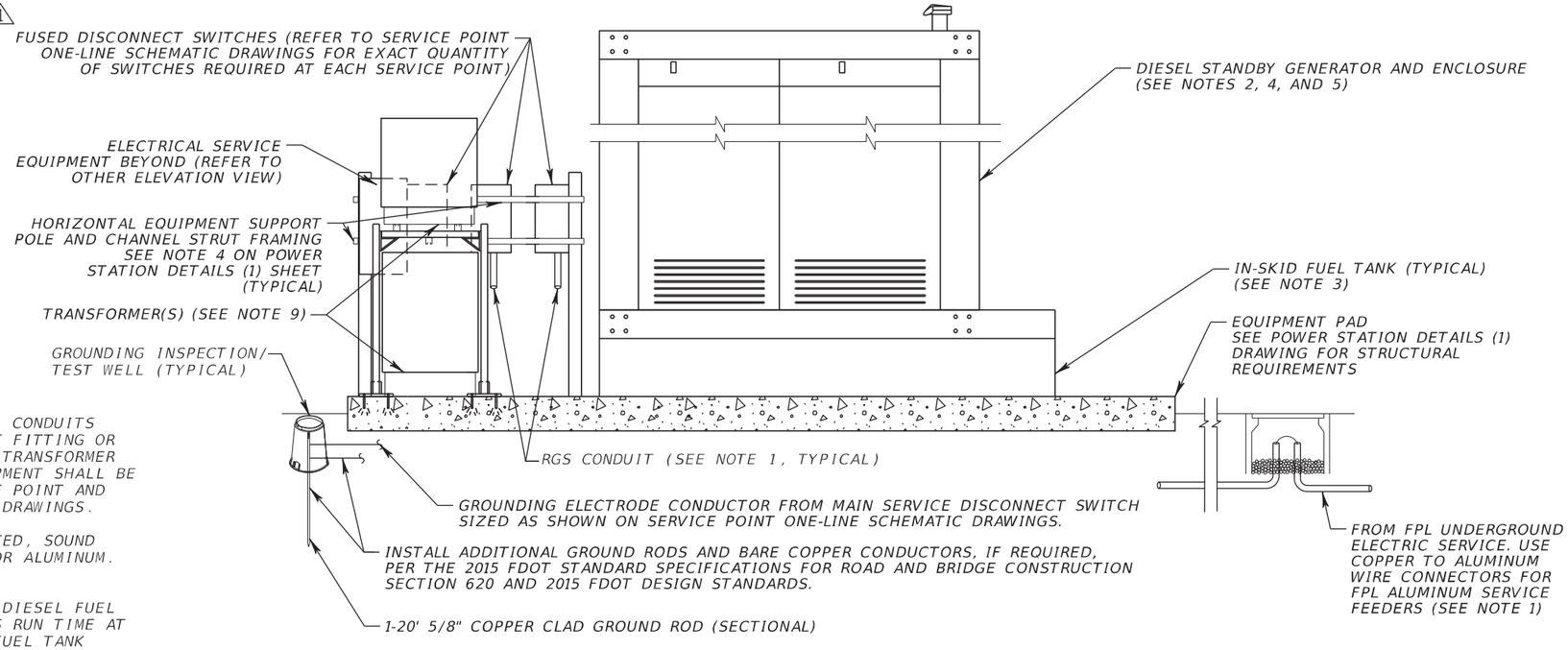
5. EACH GENERATOR AND AUTOMATIC TRANSFER SWITCH (ATS) INSTALLATION SHALL BE PROVIDED WITH AN IP ADDRESSABLE ETHERNET TO MODBUS COMMUNICATION GATEWAY MODULE. IF THE GENERATOR AND ATS REQUIRE SEPARATE MODULES, THEY SHALL BE PROVIDED. THE MODBUS MODULE SHALL BE FURNISHED AND INSTALLED BY THE GENERATOR AND ATS MANUFACTURER AND SHALL BE B&B VLINX MES901 MODEL OR APPROVED EQUAL. IN ADDITION TO THE MODBUS MODULE(S), THE GENERATOR AND ATS MANUFACTURER SHALL PROVIDE ANY OTHER NECESSARY ACCESSORIES TO PROVIDE THE CAPABILITY FOR REMOTE MONITORING AND CONTROL OF THE GENERATOR AND ATS FROM THE FDOT'S TRANSPORTATION MANAGEMENT CENTER (TMC). THE GENERATOR AND ATS SHALL BE TIED TOGETHER USING MANUFACTURER RECOMMENDED COMMUNICATION CABLING. ALL COMMUNICATIONS EQUIPMENT SHALL BE COMPATIBLE WITH THE FDOT COMMUNICATION PROGRAMS CURRENTLY USED BY THE TMC.

6. A FIBER OPTIC PATCH PANEL (FOPP) SHALL BE INSTALLED IN A NEMA 3R ENCLOSURE AT THE ITS POWER STATION. THE FOPP SHALL BE CONNECTED TO AN ADJACENT ITS EQUIPMENT CABINET (VIA FIBER OPTIC CABLE) TO TIE INTO THE ITS NETWORK AND PROVIDE REMOTE MONITORING/CONTROL FROM THE TRANSPORTATION MANAGEMENT CENTER (TMC). CONNECT FIBER OPTIC CABLE TO THE FOPP WITHIN THE NEAREST ITS CABINET TO EACH POWER STATION LOCATION. REFER TO ITS COMMUNICATION OVERVIEW SHEETS FOR DESIGNATION OF WHICH ITS CABINET WILL BE USED TO CONNECT EACH POWER STATION GENERATOR/ATS TO THE FIBER NETWORK. REFER TO ITS ELECTRICAL PLAN SHEETS FOR POWER STATION AND CABINET LOCATIONS.

7. TOP ENTRY OF CONDUIT INTO ELECTRICAL EQUIPMENT ENCLOSURES SHALL NOT BE USED FOR ANY CONDUIT INSTALLED BETWEEN ELECTRICAL EQUIPMENT. THREADED HUBS SHALL BE USED FOR ALL RACEWAY CONNECTIONS TO ELECTRICAL EQUIPMENT.

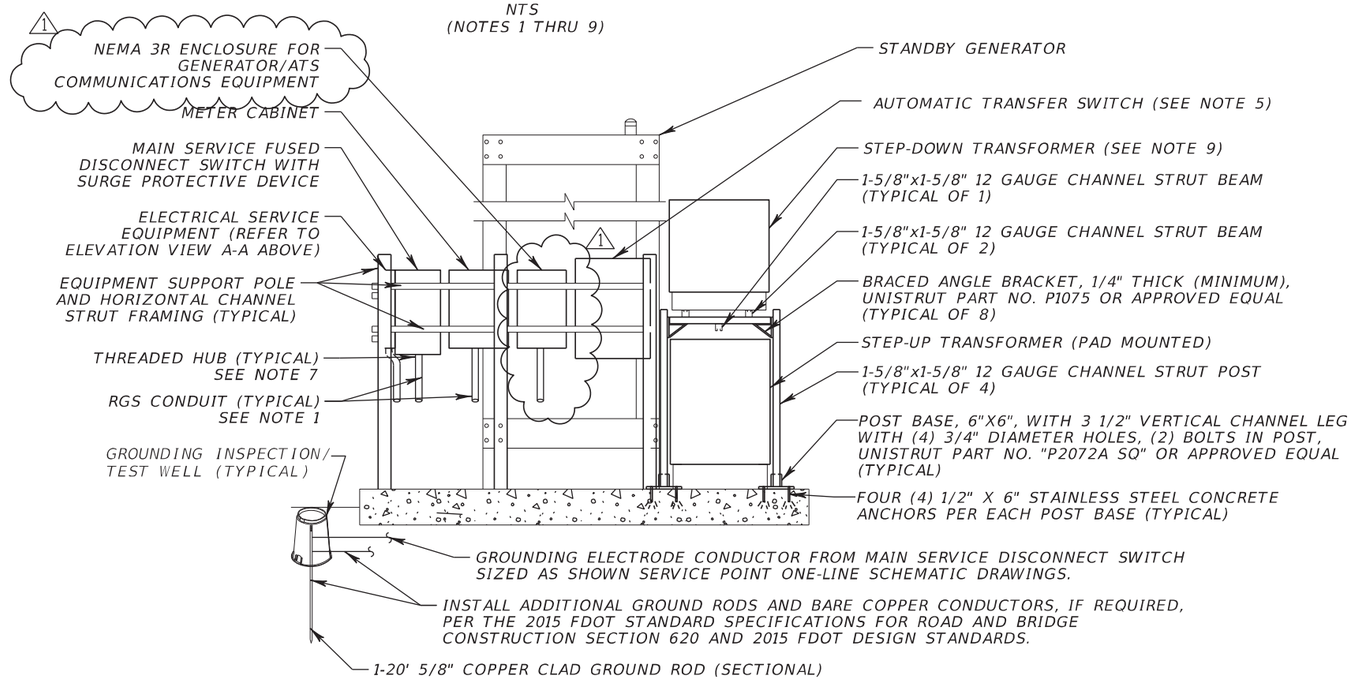
8. RGSC CONDUIT SHALL TRANSITION TO HDPE CONDUIT (UL LISTED FOR ELECTRICAL USE) AT THE FIRST ELECTRICAL PULL BOX DOWNSTREAM FROM THE 600V CIRCUIT FUSED DISCONNECT SWITCHES.

9. RACK MOUNTED STEP-DOWN TRANSFORMER, ASSOCIATED CONDUIT, AND CHANNEL STRUT RACK SYSTEM ARE REQUIRED AT POWER STATION/SERVICE POINT E ONLY.



ELEVATION A-A: POWER STATION DETAILS (1)

NTS
(NOTES 1 THRU 9)



ELEVATION B-B: POWER STATION DETAILS (1)

NTS
(NOTES 1 THRU 9)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/17	1 ENCLOSURE ADDED FOR COMMUNICATIONS EQUIPMENT		

Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. 78396 (ELECT.)
EOR: Trevor Johnson, P.E. 65624 (STRUC.)

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

POWER STATION DETAILS (2)

SHEET NO.
IT-365

RELEASED FOR CONSTRUCTION DATE: 03/22/2018
Review is for general compliance with contract documents. Sole responsibility for correctness of design and detail dimensions rests with Engineer of Record. Contractor is responsible for fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4G64 BY: (FDOT) PL
BY: (Stantec) _____

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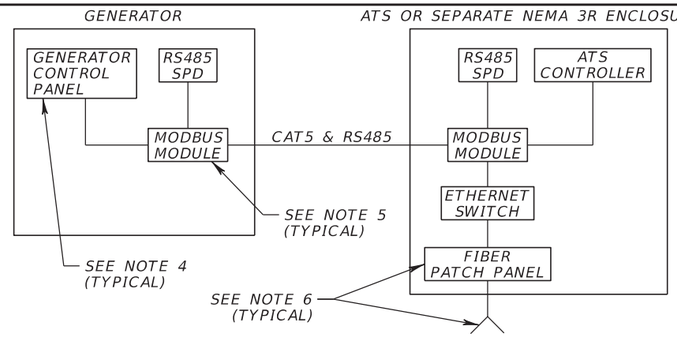

GENERATOR/ATS COMMUNICATIONS DETAIL

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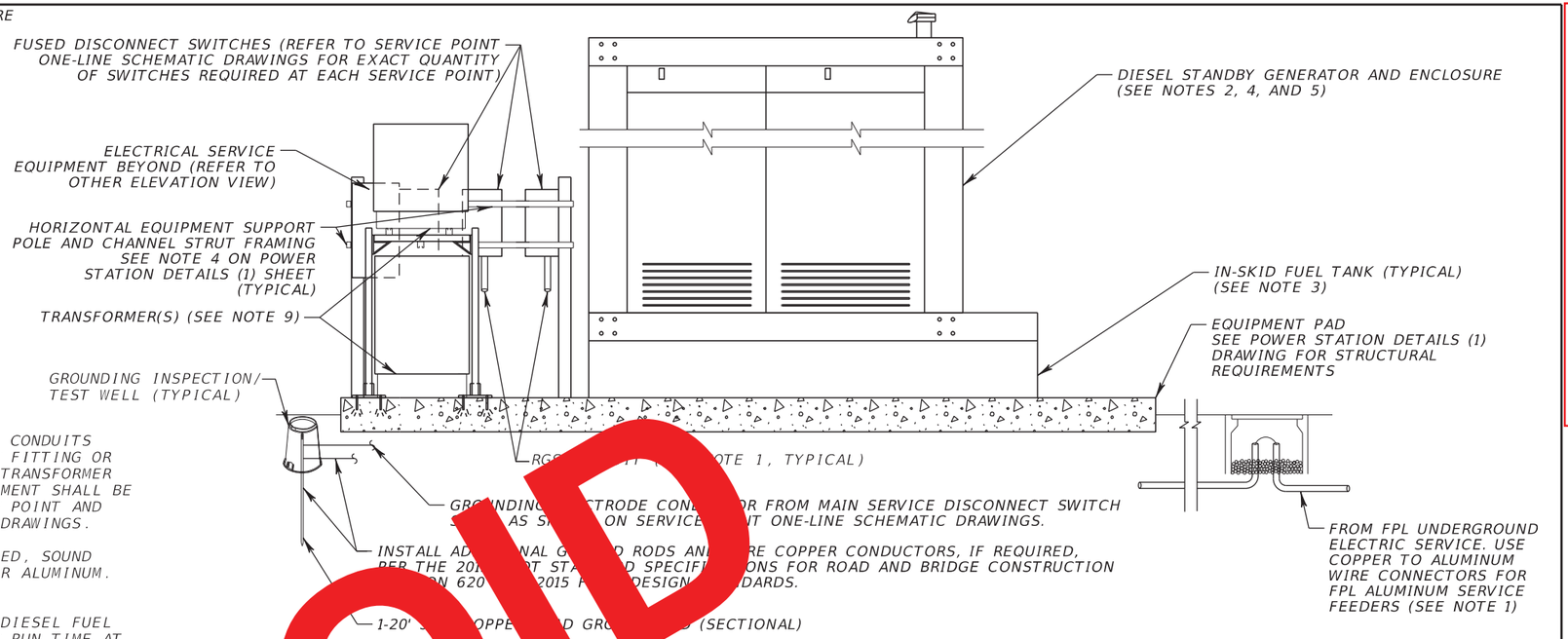
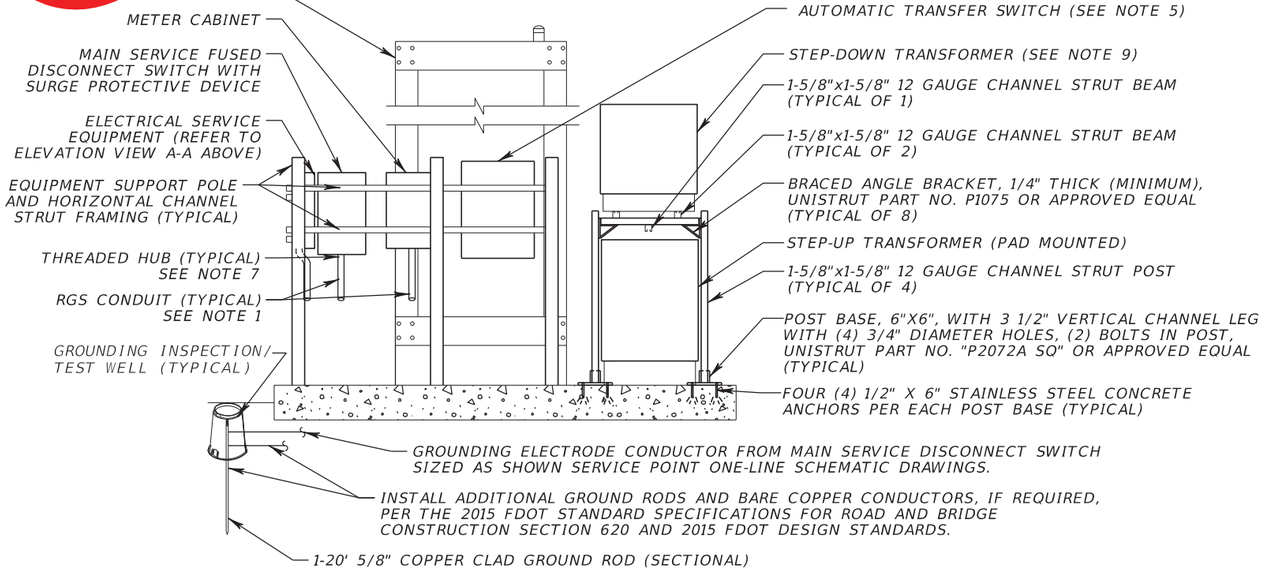


ELEVATION A-A: POWER STATION DETAILS (1)

NTS
(NOTES 1 THRU 9)



ELEVATION B-B: POWER STATION DETAILS (1)

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VOID

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BY: (Stantec)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

POWER STATION DETAILS (2)

SHEET NO.
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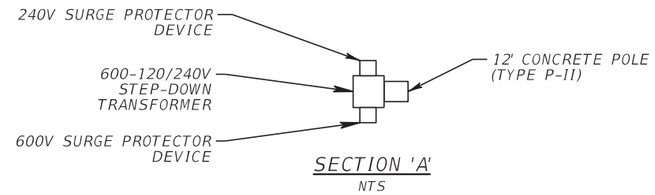
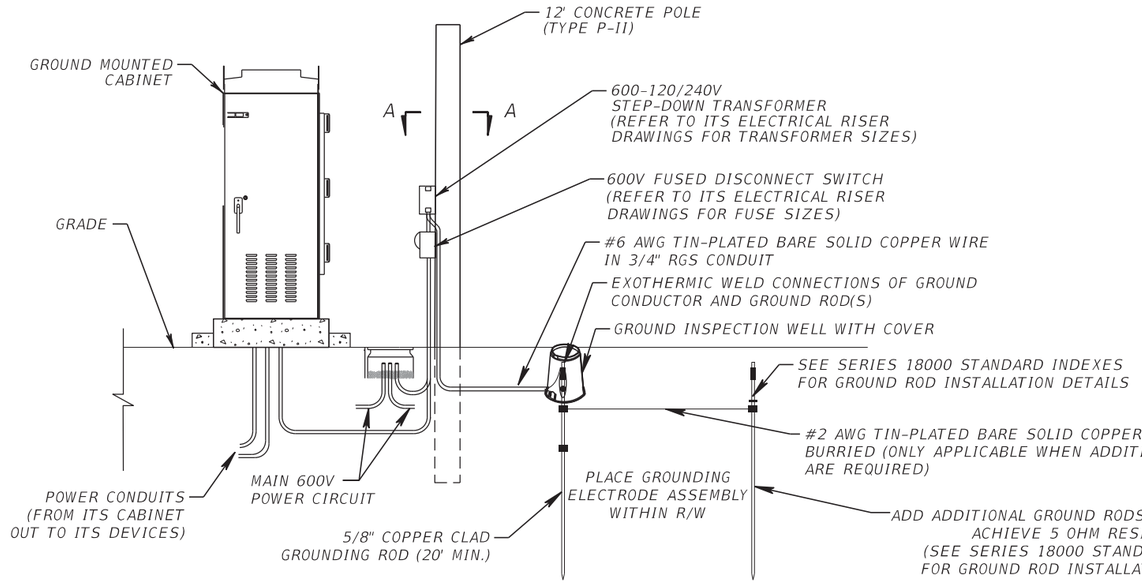
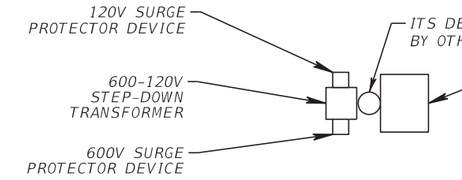


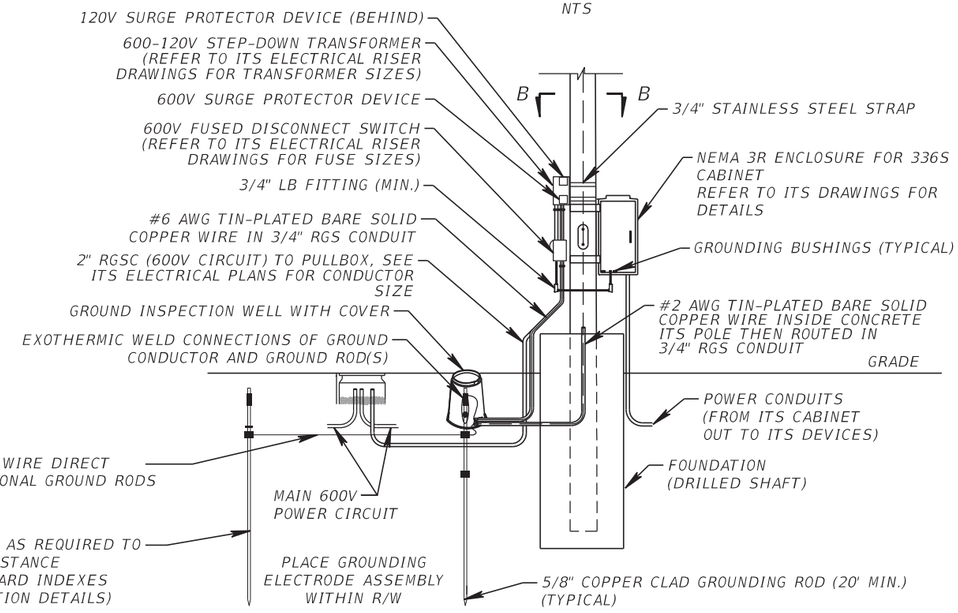
SECTION 'A'
NTS



TYPICAL GROUND MOUNTED CABINET-FDOT TYPE 334
POWER DETAIL
600V-120/240V POWER TO ITS EQUIPMENT
NTS



SECTION 'B'
NTS



TYPICAL POLE MOUNTED CABINET-FDOT TYPE 336S
POWER DETAIL
600-120V POWER TO ITS EQUIPMENT
NTS

NOTES:

1. ALL EXOTHERMIC WELDS SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.

2. THE CONTRACTOR SHALL USE EXOTHERMIC WELD MOLDS RECOMMENDED BY THE MANUFACTURER SPECIFIC TO EACH WELD APPLICATION. MOLDS SHALL BE APPROVED BY THE MANUFACTURER FOR #2 AWG AND #6 AWG TIN-PLATED SOLID COPPER CONDUCTOR WIRE.

3. ALL ITS DEVICE POLES SHALL BE CONNECTED TO THE GROUNDING ARRAY. GROUND MOUNTED CABINETS WHICH SUPPORT ITS DEVICES INSTALLED ON THE ITS DEVICE POLE SHALL ALSO BE GROUNDED TO THE COMMON GROUNDING ARRAY IF THE CABINETS ARE WITHIN 100 FEET OF THE ITS DEVICE POLE.

4. GROUND WIRE LEADS SHALL BE BONDED TO EQUIPMENT CABINETS WITH A COPPER GROUND BAR. BOND SHALL BE LOCATED ON THE INSIDE OF THE CABINET WITH THE GROUND WIRES TERMINATED IN CABLE LUGS, BOLTED TO THE GROUND BAR AND PROTECTED WITH NO-OX COMPOUND.

NOTES CONTINUED:

5. THE GROUNDING SYSTEM SHALL MEET THE REQUIREMENT OF 5 OHMS OR LESS AS MEASURED FROM THE POLE STRUCTURE USING THE THREE-POINT GROUND MEASUREMENT TECHNIQUE. REFER TO STANDARD SPEC. 620-3 FOR MORE DETAILS ON GROUNDING INSTALLATION REQUIREMENTS.

6. ALL GROUNDING MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 620 OF THE FDOT SPECIFICATIONS UNLESS OTHER WISE NOTED.

7. ALL BRANCH CIRCUIT BREAKERS (LOCATED WITHIN DMS CABINETS) WHICH DIRECTLY FEED THE DMS SIGNS SHALL BE THE LOCKABLE TYPE SUCH THAT THE BREAKERS CAN BE LOCKED IN THE OPEN POSITION. THESE BREAKERS MUST MEET THE REQUIEREMENTS OF THE NEC ARTICLE 110.25.

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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

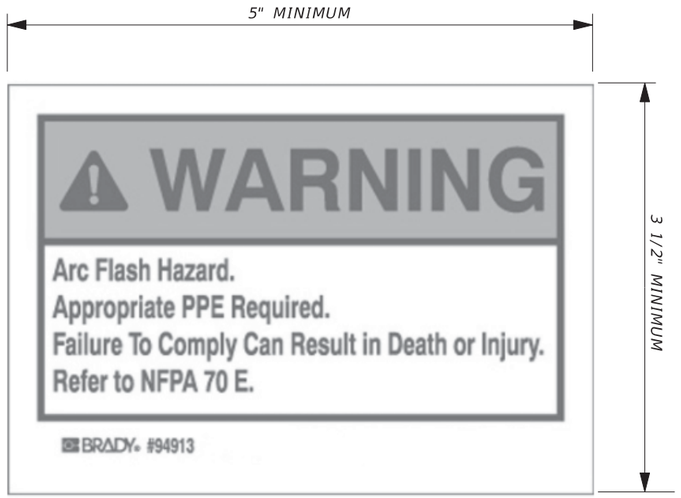
Parsons Brinckerhoff, Inc.
2202 North West Shore Blvd, Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E.
License No: 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL DETAILS (1)

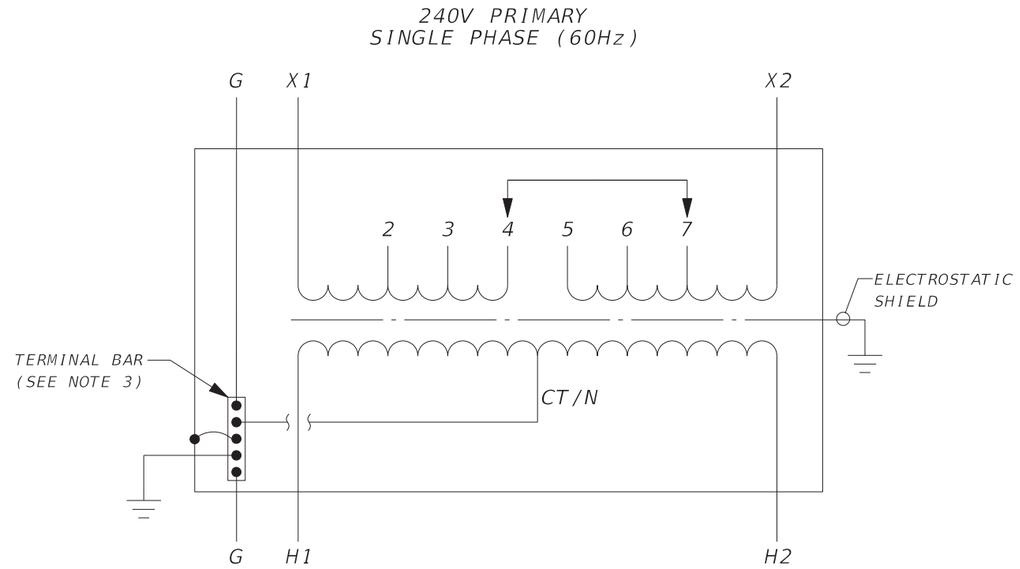
SHEET NO.
IT-366



TYPICAL ARC FLASH HAZARD WARNING LABEL

SCALE: 3/4" = 1"

1. THE LABEL SHOWN IN THIS DETAIL IS AN EXAMPLE OF A TYPICAL ARC FLASH HAZARD WARNING LABEL (FROM NEC 2014 EXHIBIT 110.8). THE LABEL MUST MEET THE REQUIREMENTS OF NEC 2014 ARTICLE 110.16 AND 110.21. IF THE LABEL USED DIFFERS FROM THE ONE SHOWN, THE WARNING LABEL FONT SIZE, WORDS, COLORS, SYMBOLS AND LOCATION SHALL MEET THE REQUIREMENTS OF ANSI Z535.4-2011.



STEP-UP TRANSFORMER WIRING DIAGRAM

NTS

1. NOT USED.

2. DESIGNED, MANUFACTURED, AND TESTED IN COMPLETE ACCORDANCE WITH CURRENT UL, NEMA, ANSI, AND IEEE STANDARDS INCLUDING ANSI C84.1

3. A GROUND TERMINAL BAR SHALL BE INSTALLED INSIDE EACH STEP-UP TRANSFORMER AND SECURED TO THE INSIDE OF THE ENCLOSURE. THE GROUNDING ELECTRODE CONDUCTOR (GEC) CONNECTION AND INSTALLATION OF THE SYSTEM BONDING JUMPER SHALL BE MADE WITHIN THE STEP-UP TRANSFORMER ENCLOSURE USING THE TERMINAL GROUND BAR AS SHOWN IN THE WIRING DETAIL ABOVE (UNLESS OTHERWISE APPROVED BY THE ENGINEER). A SYSTEM BONDING JUMPER SHALL BE INSTALLED BETWEEN THE TRANSFORMER ENCLOSURE AND THE GROUND TERMINAL BAR TO CONNECT THE GROUNDED CIRCUIT CONDUCTOR (NEUTRAL) TO THE EQUIPMENT GROUNDING CONDUCTOR(S). MAINTAIN ISOLATION OF THE GROUNDED CONDUCTOR (NEUTRAL) AND EQUIPMENT GROUNDING CONDUCTORS AT ALL POINTS DOWNSTREAM (LOAD SIDE) OF THE SYSTEM BONDING JUMPER EXCEPT WHERE ADDITIONAL SEPARATELY DERIVED SYSTEMS ARE INSTALLED FURTHER DOWNSTREAM.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9/13/19	AS-BUILT per RFI 249		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL DETAILS (2)

SHEET NO.
IT-367

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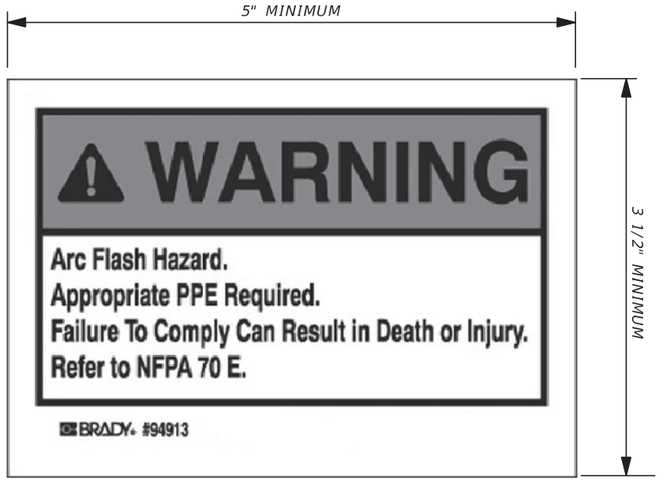

TYPICAL ARC FLASH HAZARD WARNING LABEL

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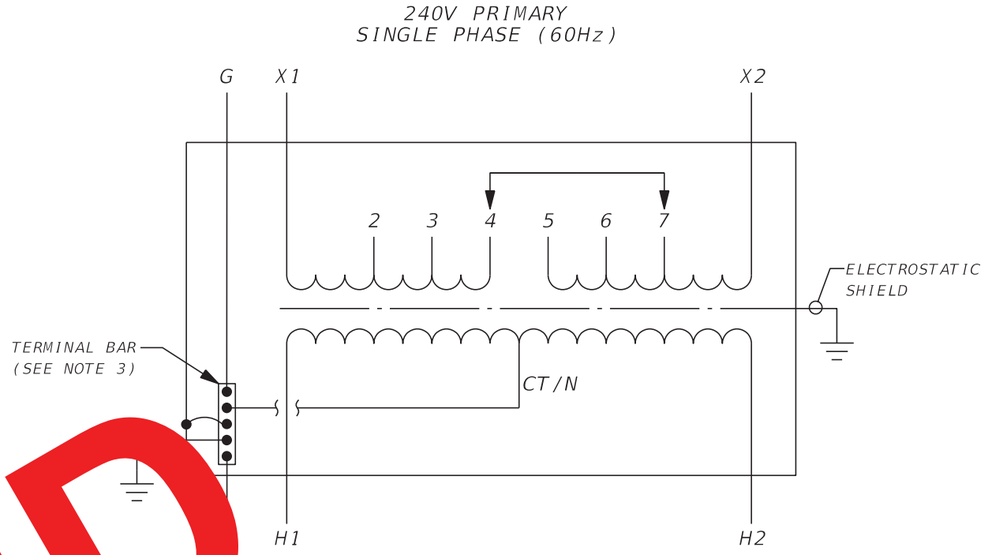

STEP-UP TRANSFORMER WIRING DIAGRAM

NTS

1. DRY TYPE STEP-UP TRANSFORMERS SHALL BE UL LISTED, NEMA TP-1 ENERGY EFFICIENT TYPE WITH ELECTROSTATIC SHIELDING, 220°C CLASS INSULATION WITH 150°C RATED TEMPERATURE RISE AND 3.8% IMPEDANCE MINIMUM. THE TRANSFORMER SHALL BE PROVIDED WITH 4-2.5% FULL CAPACITY ABOVE NORMAL (FCAN) AND 2-2.5% FULL CAPACITY BELOW NORMAL (FCBN) TAPS ON THE PRIMARY WINDING, AS A MINIMUM. THE TRANSFORMERS SHALL BE PROVIDED WITH A 12 GAUGE STEEL NEMA 3R ENCLOSURE PAINTED WITH COLD GALVANIZING COMPOUND PRIMERED AND THEN FINISH COATED WITH URETHANE PAINT-GREY. THE ENCLOSURE SHALL BE LOCKABLE WITH PENTABOLD LOCKING MECHANISM. THE TRANSFORMERS SHALL HAVE A MAXIMUM SOUND LEVEL OF 45dBA AT 1 METER.

2. DESIGNED, MANUFACTURED, AND TESTED IN COMPLETE ACCORDANCE WITH CURRENT UL, NEMA, ANSI, AND IEEE STANDARDS INCLUDING ANSI C84.1

3. A GROUND TERMINAL BAR SHALL BE INSTALLED INSIDE EACH STEP-UP TRANSFORMER AND SECURED TO THE INSIDE OF THE ENCLOSURE. THE GROUNDING ELECTRODE CONDUCTOR (GEC) CONNECTION AND INSTALLATION OF THE SYSTEM BONDING JUMPER SHALL BE MADE WITHIN THE STEP-UP TRANSFORMER ENCLOSURE USING THE TERMINAL GROUND BAR AS SHOWN IN THE WIRING DETAIL ABOVE (UNLESS OTHERWISE APPROVED BY THE ENGINEER). A SYSTEM BONDING JUMPER SHALL BE INSTALLED BETWEEN THE TRANSFORMER ENCLOSURE AND THE GROUND TERMINAL BAR TO CONNECT THE GROUNDED CIRCUIT CONDUCTOR (NEUTRAL) TO THE EQUIPMENT GROUNDING CONDUCTOR(S). MAINTAIN ISOLATION OF THE GROUNDED CONDUCTOR (NEUTRAL) AND EQUIPMENT GROUNDING CONDUCTORS AT ALL POINTS DOWNSTREAM (LOAD SIDE) OF THE SYSTEM BONDING JUMPER EXCEPT WHERE ADDITIONAL SEPARATELY DERIVED SYSTEMS ARE INSTALLED FURTHER DOWNSTREAM.

VOID

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
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FPID 433108-5-52-01 CONTRACT E4G84 BY: (FDOT)
BY: (Stantec)

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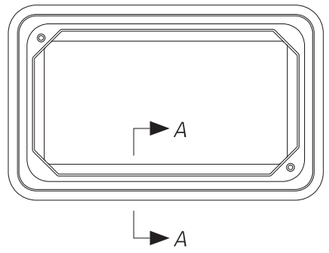
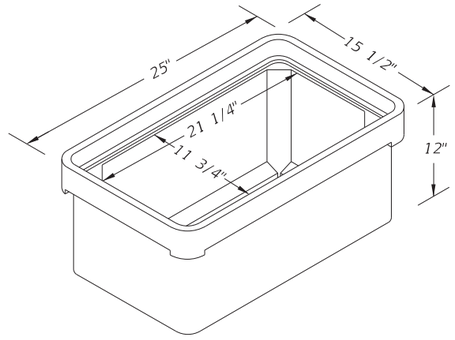
DEPARTMENT OF TRANSPORTATION

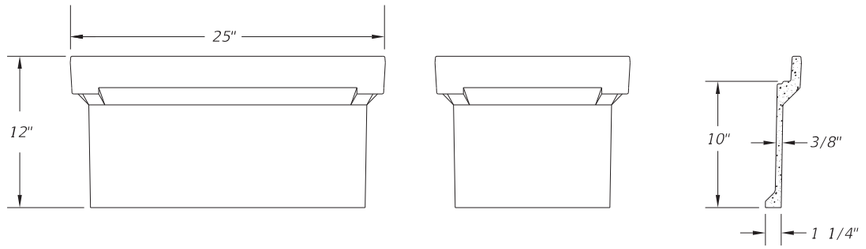
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL DETAILS (2)

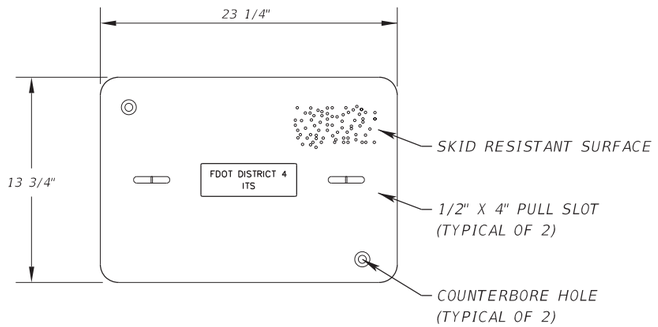
SHEET NO.
IT-367

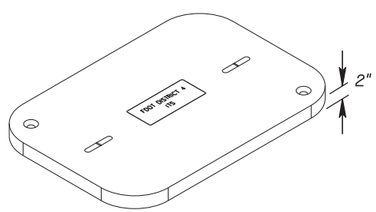






SECTION A-A





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BY: (Stantec) BY: (FDOT)

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS ELECTRICAL DETAILS (3)

SHEET NO.
IT-368

SUNGUIDE DMS DEVICES

Sign_Name	Center_ID	Protocol	Connection Type	Type	Manufacturer	Number of Lines	Number of Columns	Existing_DMS	Font	Sign_type	Sign_use	Location_Description		Roadway	Direction	Latitude	Longitude	Address
95SB033.0	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	96	416	N/A	18 23x15_3	FullMatrix	General	033.0CABSS_2	GEN-WALK-IN	I-95	SB	26.197330	-80.150170	10.176.163.24
FLD4D0T95033.7NB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	033.7CABNS	STATUS	I-95	NB	26.204400	-80.142790	10.176.171.40
E-DMS033.9NS	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	N/A	N/A		18 23x15_	FullMatrix	General	033.9CABNS_2	EXISTING	I-95	NB	26.207040	-80.140100	10.176.167.24
FLD4D0T95034.2NB-TR1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	034.2CABNS	TOLL	I-95	NB	26.209990	-80.137450	10.176.172.56
FLD4D0T95034.3NB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	034.3CABNS	STATUS	I-95	NB	26.212060	-80.136560	10.176.173.56
FLD4D0T95034.6NB-TR1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	034.6CABNS	TOLL	I-95	NB	26.216180	-80.136110	10.176.172.72
E-DMS034.7SS	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	N/A	N/A		18 23x15_	FullMatrix	General	034.7CABSS	EXISTING	I-95	SB	26.216540	-80.136490	10.176.164.40
FLD4D0T95034.7NB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	034.7CABNS	STATUS	I-95	NB	26.218400	-80.136130	10.176.173.72
95SB036.5	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	96	416	N/A	18 23x15_3	FullMatrix	General	036.5CABSS_2	GEN-FRONT	I-95	SB	26.243650	-80.136770	10.176.175.24
E-DMS037.1NS	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	N/A	N/A		18 23x15_	FullMatrix	General	037.1CABNS	EXISTING	I-95	NB	26.018170	-80.136510	10.176.162.72
E-DMS037.1SS	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	N/A	N/A		18 23x15_	FullMatrix	General	037.1CABSS	EXISTING	I-95	SB	26.018200	-80.136810	10.176.166.56
95NB038.1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	96	416	N/A	18 23x15_3	FullMatrix	General	038.1CABNS	GEN-FRONT	I-95	NB	26.26.5370	-80.128830	10.176.174.72
FLD4D0T95039.9SB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	039.9CABSS_2	STATUS	I-95	SB	26.287610	-80.124880	10.176.178.104
E-DMS039.9NS	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	N/A	N/A		18 23x15_	FullMatrix	General	039.9CABNS_2	EXISTING	I-95	NB	26.289550	-80.123810	10.176.164.72
FLD4D0T95040.0SB-TR1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A		FullMatrix	General	040.0CABSS	TR-TRIPLE	I-95	SB	26.290630	-80.123820	10.176.175.120
FLD4D0T95040.0SB-TR2														I-95				10.176.175.119
FLD4D0T95040.0SB-TR3														I-95				10.176.175.118
E-DMS040.1SS	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	N/A	N/A		18 23x15_	FullMatrix	General	040.1CABSS	EXISTING	I-95	SB	26.292870	-80.123120	10.176.165.72
FLD4D0T95040.3SB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	040.3CABSS	STATUS	I-95	SB	26.295280	-80.122480	10.176.178.120
FLD4D0T95040.5SB-TR1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	040.5CABSS	TR-TRIPLE	I-95	SB	26.297670	-80.121760	10.176.179.120
FLD4D0T95040.5SB-TR2																		10.176.179.119
FLD4D0T95040.5SB-TR3																		10.176.179.118

SUNGUIDE CCTV DEVICES

Camera_Name	Center_ID	Protocol	Poll_Process	Manufacturer	Serial No.	Location_Description	Roadway	Direction	Latitude	Longitude	Port_Server_IP	Port_Server_Port	Community_Name	Video_Device_IP_Address	Video_Device_Type	Manufacturer	Model
0329-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57927B	032.9CABNS	I-95	NB	26.195130	-80.150620	10.176.168.18	161	Cameras	231.212.95.32	CCTV	GOVCOMM	GC-IMPO-FIZDE
0332D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	Removed from scope	033.2CABSS	I-95	SB	26.198310	-80.149830	10.176.162.19	161	Cameras	232.212.95.33	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0333-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22717B	033.3CABSS	I-95	SB	26.200420	-80.147810	10.176.172.18	161	Cameras	231.212.94.33	CCTV	GOVCOMM	GC-IMPO-FIZDE
0335D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	66618B	033.5CABSS	I-95	SB	26.203030	-80.145010	10.176.169.35	161	Cameras	231.212.94.233	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0337D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57886B	033.7CABSS	I-95	SB	26.204740	-80.143380	10.176.165.19	161	Cameras	231.212.95.33	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0338D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	66603B	033.8CABSS	I-95	SB	26.205760	-80.142180	10.176.166.18	161	Cameras	231.212.95.233	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0338-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22678B	033.8CABNS	I-95	NB	26.205570	-80.141280	10.176.172.35	161	Cameras	231.212.96.33	CCTV	GOVCOMM	GC-IMPO-FIZDE
0339D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57935B	033.9CABNS	I-95	NB	26.205570	-80.141280	10.176.162.35	161	Cameras	231.212.96.233	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0340D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57927B	034.0CABNS_2	I-95	NB	26.207520	-80.138950	10.176.169.51	161	Cameras	231.212.94.34	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0341-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57962B	034.1CABSS	I-95	SB	26.209650	-80.138310	10.176.171.50	161	Cameras	231.212.94.234	CCTV	GOVCOMM	GC-IMPO-FIZDE
0342D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57930B	034.2CABNS	I-95	NB	26.209990	-80.137450	10.176.172.51	161	Cameras	231.212.95.34	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0345D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57916B	034.5CABNS	I-95	NB	26.214230	-80.136010	10.176.169.67	161	Cameras	231.212.95.234	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0346-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57896B	034.6CABNS_2	I-95	NB	26.216490	-80.135940	10.176.170.66	161	Cameras	231.212.96.34	CCTV	GOVCOMM	GC-IMPO-FIZDE
0349-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57969B	034.9CABSS	I-95	SB	26.220060	-80.136760	10.176.168.82	161	Cameras	231.212.96.234	CCTV	GOVCOMM	GC-IMPO-FIZDE
0354-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57884B	035.4CABNS	I-95	NB	26.226890	-80.136020	10.176.172.82	161	Cameras	231.212.94.235	CCTV	GOVCOMM	GC-IMPO-FIZDE
0354D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57884B	035.4CABSS_3	I-95	SB	26.227520	-80.137000	10.176.168.99	161	Cameras	231.212.94.35	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0355D-CCTV-1	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57878B	035.5CABNS	I-95	NB	26.228630	-80.136000	10.176.173.83	161	Cameras	231.212.95.35	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0355D-CCTV-2	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22687B	035.5CABSS	I-95	SB	26.229070	-80.137570	10.176.162.51	161	Cameras	231.212.95.235	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0356D-CCTV-1	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22669B	035.6CABNS_3	I-95	NB	26.229820	-80.136060	10.176.167.35	161	Cameras	231.212.96.35	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0356D-CCTV-2	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22738B	035.6CABNS_2	I-95	NB	26.229590	80.135630	10.176.163.51	161	Cameras	231.212.96.235	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0357D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57939B	035.7CABNS	I-95	NB	26.231650	-80.135610	10.176.165.51	161	Cameras	231.212.94.36	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0358-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22689B	035.8CABSS	I-95	SB	26.233140	-80.137030	10.176.173.98	161	Cameras	231.212.94.236	CCTV	GOVCOMM	GC-IMPO-FIZDE
0359D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	Removed from scope	035.9CABSS	I-95	SB	26.238010	-80.136880	10.176.170.115	161	Cameras	231.212.96.36	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0363-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22749B	036.3CABNS	I-95	NB	26.239780	-80.136190	10.176.172.114	161	Cameras	231.212.95.36	CCTV	GOVCOMM	GC-IMPO-FIZDE
0368-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57961B	036.8CABSS	I-95	SB	26.247040	-80.136960	10.176.176.18	161	Cameras	231.212.95.236	CCTV	GOVCOMM	GC-IMPO-FIZDE
0373-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57948B	037.3CABNS	I-95	NB	26.254250	-80.136300	10.176.175.34	161	Cameras	231.212.94.37	CCTV	GOVCOMM	GC-IMPO-FIZDE
0376-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22719B	037.6CABSS	I-95	SB	26.259550	-80.134510	10.176.178.34	161	Cameras	231.212.94.237	CCTV	GOVCOMM	GC-IMPO-FIZDE
0381-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22682B	038.1CABNS_2	I-95	NB	26.264920	-80.128840	10.176.178.50	161	Cameras	231.212.95.38	CCTV	GOVCOMM	GC-IMPO-FIZDE
0386-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57951B	038.6CABSS	I-95	SB	26.271520	-80.125760	10.176.177.66	161	Cameras	231.212.95.238	CCTV	GOVCOMM	GC-IMPO-FIZDE
0390-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57941B	039.0CABNS	I-95	NB	26.276480	-80.124720	10.176.176.82	161	Cameras		CCTV	GOVCOMM	GC-IMPO-FIZDE
0390D-CCTV-3	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22685B	039.0CABSS_2	I-95	SB	26.276480	-80.124720	10.176.177.83	161	Cameras	231.212.95.39	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0394-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	22711B	039.4CABSS	I-95	SB	26.282690	-80.125580	10.176.175.98	161	Cameras	231.212.95.239	CCTV	GOVCOMM	GC-IMPO-FIZDE
0399-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57935B	039.9CABNS	I-95	NB	26.289420	-80.123670	10.176.174.114	161	Cameras	231.212.96.39	CCTV	GOVCOMM	GC-IMPO-FIZDE
0402D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57904B	040.2CABSS	I-95	SB	26.293230	-80.123300	10.176.176.115	161	Cameras	231.212.95.40	D-CCTV	GOVCOMM	GC-IMPO-FIZDE
0405D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	57918B	040.5CABSS	I-95	SB	26.297670	-80.121760	10.176.179.115	161	Cameras	231.212.95.240	D-CCTV	GOVCOMM	GC-IMPO-FIZDE

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICES (1)

SHEET NO.
IT-369

SUNGUIDE TSS DETECTORS

Driver_Name	Roadway	Direction	Location_Description	Latitude	Longitude	Poll_Cycle	Type	Protocol	Serial No.	Address	Port_Server_IP	Port_Server_Port	STA.
RtmsDriver	I-95	SB	032.9CABSS	26.195300	-80.151340	20	RADAR	Wavetronix	AB0013176	13176	10.176.169.20	8000	2322+85
RtmsDriver	I-95	NB	032.9CABNS	26.195130	-80.150620	20	RADAR	Wavetronix	AB0013369	13369	10.176.168.20	8000	2323+02
RtmsDriver	I-95	SB	033.0CABSS	26.197440	-80.150310	20	RADAR	Wavetronix	AB0013400	13400	10.176.171.20	8000	2331+20
RtmsDriver	I-95	NB	033.1CABNS	26.198060	-80.149090	20	RADAR	Wavetronix	AB0013490	13490	10.176.170.20	8000	2335+21
RtmsDriver	I-95	SB	033.3CABSS	26.200420	-80.147810	20	RADAR	Wavetronix	AB0013489	13489	10.176.172.20	8000	2344+47
RtmsDriver	I-95	NB	033.3CABNS	26.200260	-80.146950	20	RADAR	Wavetronix	AB0013570	13570	10.176.173.20	8000	2346+00
RtmsDriver	I-95	SB	033.5CABSS	26.203030	-80.145010	20	RADAR	Wavetronix	AB0013386	13386	10.176.169.36	8000	2357+74
RtmsDriver	I-95	NB	033.5CABNS	26.202650	-80.144490	20	RADAR	Wavetronix	AB0013616	13616	10.176.168.36	8000	2357+93
RtmsDriver	I-95	SB	033.6CABSS	26.204310	-80.143640	20	RADAR	Wavetronix	AB0013397	13397	10.176.170.36	8000	2364+20
RtmsDriver	I-95	NB	033.7CABNS_2	26.204780	-80.142040	20	RADAR	Wavetronix	AB0013560	13560	10.176.173.36	8000	2369+05
RtmsDriver	I-95	SB	033.9CABSS	26.207090	-80.140710	20	RADAR	Wavetronix	AB0013305	13305	10.176.168.52	8000	2378+05
RtmsDriver	I-95	NB	034.0CABNS_2	26.207520	-80.138950	20	RADAR	Wavetronix	AB0013572	13572	10.176.169.52	8000	2383+15
RtmsDriver	I-95	NB	034.1CABNS	26.208500	-80.138290	20	RADAR	Wavetronix	AB0013561	13561	10.176.170.52	8000	2387+00
RtmsDriver	I-95	SB	034.1CABSS	26.209650	-80.138310	20	RADAR	Wavetronix	AB0013379	13379	10.176.171.52	8000	2390+65
RtmsDriver	I-95	SB	034.4CABSS	26.212990	-80.136890	20	RADAR	Wavetronix	AB0013541	13541	10.176.168.68	8000	2404+00
RtmsDriver	I-95	NB	034.5CABNS	26.214230	-80.136010	20	RADAR	Wavetronix	AB0013576	13576	10.176.169.68	8000	2409+00
RtmsDriver	I-95	SB	034.6CABSS	26.216460	-80.136720	20	RADAR	Wavetronix	AB0013617	13617	10.176.171.68	8000	2417+00
RtmsDriver	I-95	NB	034.6CABNS_2	26.216490	-80.135940	20	RADAR	Wavetronix	AB0013554	13554	10.176.170.68	8000	2417+04
RtmsDriver	I-95	NB	034.9CABNS	26.220070	-80.135970	20	RADAR	Wavetronix	AB0013565	13565	10.176.169.84	8000	2430+06
RtmsDriver	I-95	SB	034.9CABSS	26.220060	-80.136760	20	RADAR	Wavetronix	AB0013575	13575	10.176.168.84	8000	2430+10
RtmsDriver	I-95	NB	035.1CABNS	26.223680	-80.136010	20	RADAR	Wavetronix	AB0013571	13571	10.176.171.84	8000	2443+22
RtmsDriver	I-95	SB	035.1CABSS	26.223770	-80.136810	20	RADAR	Wavetronix	AB0013276	13276	10.176.170.84	8000	2443+54
RtmsDriver	I-95	NB	035.4CABNS	26.226890	-80.136020	20	RADAR	Wavetronix	AB0013555	13555	10.176.172.84	8000	2454+91
RtmsDriver	I-95	SB	035.4CABSS	26.226890	-80.136820	20	RADAR	Wavetronix	AB0013564	13564	10.176.169.100	8000	2454+95
RtmsDriver	I-95	NB	035.6CABNS	26.230490	-80.136050	20	RADAR	Wavetronix	AB0013393	13393	10.176.170.100	8000	2468+02
RtmsDriver	I-95	SB	035.6CABSS	26.230770	-80.136900	20	RADAR	Wavetronix	AB0013153	13153	10.176.171.100	8000	2468+99
RtmsDriver	I-95	SB	035.8CABSS	26.233140	-80.137030	20	RADAR	Wavetronix	AB0013390	13390	10.176.173.100	8000	2477+68
RtmsDriver	I-95	NB	035.8CABNS_2	26.233770	-80.136030	20	RADAR	Wavetronix	AB0013392	13392	10.176.172.100	8000	2479+98
RtmsDriver	I-95	NB	035.9CABNS	26.235040	-80.136090	20	RADAR	Wavetronix	AB0013363	13363	10.176.169.116	8000	2484+50
RtmsDriver	I-95	SB	036.0CABSS	26.236760	-80.136910	20	RADAR	Wavetronix	AB0013403	13403	10.176.168.116	8000	2490+85
RtmsDriver	I-95	NB	036.3CABNS	26.239780	-80.136190	20	RADAR	Wavetronix	AB0013563	13563	10.176.172.116	8000	2501+75
RtmsDriver	I-95	SB	036.3CABSS	26.240300	-80.136930	20	RADAR	Wavetronix	AB0013371	13371	10.176.171.116	8000	2503+62
RtmsDriver	I-95	NB	036.5CABNS	26.243650	-80.136130	20	RADAR	Wavetronix	AB0013142	13142	10.176.174.20	8000	2515+84
RtmsDriver	I-95	SB	036.5CABSS	26.243720	-80.137000	20	RADAR	Wavetronix	AB0013376	13376	10.176.173.116	8000	2516+05
RtmsDriver	I-95	SB	036.8CABSS	26.247040	-80.136960	20	RADAR	Wavetronix	AB0013523	13523	10.176.176.20	8000	2528+12
RtmsDriver	I-95	NB	036.8CABNS	26.247500	-80.136260	20	RADAR	Wavetronix	AB0013615	13615	10.176.177.20	8000	2530+00
RtmsDriver	I-95	NB	036.9CABNS	26.249450	-80.136280	20	RADAR	Wavetronix	AB0013558	13558	10.176.179.20	8000	2537+00
RtmsDriver	I-95	SB	037.0CABSS	26.250730	-80.137010	20	RADAR	Wavetronix	AB0013562	13562	10.176.178.20	8000	2541+55
RtmsDriver	I-95	NB	037.3CABNS	26.254250	-80.136300	20	RADAR	Wavetronix	AB0013568	13568	10.176.175.36	8000	2554+46
RtmsDriver	I-95	SB	037.3CABSS	26.254450	-80.137090	20	RADAR	Wavetronix	AB0013551	13551	10.176.174.36	8000	2555+03
RtmsDriver	I-95	SB	037.4CABSS	26.256190	-80.136740	20	RADAR	Wavetronix	AB0013153	13135	10.176.176.36	8000	2561+14
RtmsDriver	I-95	NB	037.5CABNS	26.256950	-80.135590	20	RADAR	Wavetronix	AB0013394	13394	10.176.177.36	8000	2565+04
RtmsDriver	I-95	SB	037.6CABSS	26.259550	-80.134510	20	RADAR	Wavetronix	AB0013381	13381	10.176.178.36	8000	2574+99
RtmsDriver	I-95	NB	037.7CABNS_2	26.259800	-80.133330	20	RADAR	Wavetronix	AB0013374	13374	10.176.179.36	8000	2578+04
RtmsDriver	I-95	SB	037.8CABSS	26.261270	-80.132970	20	RADAR	Wavetronix	AB0013341	13341	10.176.175.52	8000	2583+01
RtmsDriver	I-95	NB	037.8CABNS	26.261470	-80.131850	20	RADAR	Wavetronix	AB0013063	13063	10.176.174.52	8000	2585+99
RtmsDriver	I-95	SB	038.0CABSS	26.263710	-80.130870	20	RADAR	Wavetronix	AB0013573	13573	10.176.176.52	8000	2594+19
RtmsDriver	I-95	NB	038.0CABNS_2	26.263680	-80.129960	20	RADAR	Wavetronix	AB0013574	13574	10.176.177.52	8000	2596+00
RtmsDriver	I-95	NB	038.1CABNS_2	26.264920	-80.128840	20	RADAR	Wavetronix	AB0013550	13550	10.176.178.52	8000	2601+70
RtmsDriver	I-95	SB	038.2CABSS	26.265560	-80.129220	20	RADAR	Wavetronix	AB0013377	13377	10.176.179.52	8000	2602+90
RtmsDriver	I-95	SB	038.3CABSS	26.267550	-80.127540	20	RADAR	Wavetronix	AB0013613	13613	10.176.175.68	8000	2612+00
RtmsDriver	I-95	NB	038.4CABNS	26.268360	-80.126080	20	RADAR	Wavetronix	AB0013556	13556	10.176.176.68	8000	2617+00
RtmsDriver	I-95	NB	038.6CABNS_3	26.270200	-80.125220	20	RADAR	Wavetronix	AB0013610	13610	10.176.178.68	8000	2624+00
RtmsDriver	I-95	SB	038.6CABSS	26.271520	-80.125760	20	RADAR	Wavetronix	AB0013559	13559	10.176.177.68	8000	2628+25
RtmsDriver	I-95	SB	038.8CABSS	26.274030	-80.125430	20	RADAR	Wavetronix	AB0013395	13395	10.176.174.84	8000	2637+92
RtmsDriver	I-95	NB	038.8CABNS	26.274110	-80.124700	20	RADAR	Wavetronix	AB0013384	13384	10.176.179.68	8000	2638+02
RtmsDriver	I-95	SB	038.9CABSS	26.275320	-80.125480	20	RADAR	Wavetronix	AB0013557	13557	10.176.175.84	8000	2642+42
RtmsDriver	I-95	NB	039.0CABNS_2	26.276480	-80.124720	20	RADAR	Wavetronix	AB0013362	13362	10.176.176.84	8000	2646+56
RtmsDriver	I-95	NB	039.2CABNS	26.279030	-80.124700	20	RADAR	Wavetronix	AB0013362	13362	10.176.179.84	8000	2655+86
RtmsDriver	I-95	SB	039.2CABSS	26.279040	-80.125560	20	RADAR	Wavetronix	AB0013383	13383	10.176.178.84	8000	2655+94
RtmsDriver	I-95	NB	039.3CABNS	26.282690	-80.125580	20	RADAR	Wavetronix	AB0013548	13548	10.176.174.100	8000	2663+60
RtmsDriver	I-95	SB	039.4CABSS	26.282690	-80.125580	20	RADAR	Wavetronix	AB0013370	13370	10.176.175.100	8000	2669+26
RtmsDriver	I-95	SB	039.7CABSS	26.286260	-80.125350	20	RADAR	Wavetronix	AB0013569	13569	10.176.176.100	8000	2681+70
RtmsDriver	I-95	NB	039.7CABNS	26.286110	-80.124420	20	RADAR	Wavetronix	AB0013566	13566	10.176.177.100	8000	2681+98
RtmsDriver	I-95	SB	039.9CABSS	26.289470	-80.124350	20	RADAR	Wavetronix	AB0013010	13010	10.176.179.100	8000	2694+02
RtmsDriver	I-95	NB	039.9CABNS	26.289420	-80.123670	20	RADAR	Wavetronix	AB0013512	13512	10.176.174.116	8000	2694+40
RtmsDriver	I-95	NB	040.2CABNS	26.293040	-80.122580	20	RADAR	Wavetronix	AB0013364	13364	10.176.177.116	8000	2708+02
RtmsDriver	I-95	SB	040.2CABSS	26.293230	-80.123300	20	RADAR	Wavetronix	AB0013361	13361	10.176.176.116	8000	2708+12

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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EOR: TIMOTHY R. RAYNER, P.E.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS DEVICES (2)

SHEET NO.
IT-370

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095032.9SBSS-DS-GP	FLD4D0T095032.9SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2322+85	SB
FLD4D0T095032.9SBSS-DS-GP	FLD4D0T095032.9SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2322+85	SB
FLD4D0T095032.9SBSS-DS-GP	FLD4D0T095032.9SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2322+85	SB
FLD4D0T095032.9SBSS-DS-GP	FLD4D0T095032.9SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2322+85	SB
FLD4D0T095032.9SBSS-DS-GP	FLD4D0T095032.9SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2322+85	SB
FLD4D0T095032.9SBSS-DS-GP	FLD4D0T095032.9SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2322+85	SB
FLD4D0T095032.9NBNS-DS-GP	FLD4D0T095032.9NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2323+02	NB
FLD4D0T095032.9NBNS-DS-GP	FLD4D0T095032.9NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2323+02	NB
FLD4D0T095032.9NBNS-DS-GP	FLD4D0T095032.9NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2323+02	NB
FLD4D0T095032.9NBNS-DS-GP	FLD4D0T095032.9NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2323+02	NB
FLD4D0T095032.9NBNS-DS-GP	FLD4D0T095032.9NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2323+02	NB
FLD4D0T095032.9NBNS-DS-GP	FLD4D0T095032.9NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2323+02	NB
FLD4D0T095033.0SBSS-DS-GP	FLD4D0T095033.0SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2331+20	SB
FLD4D0T095033.0SBSS-DS-GP	FLD4D0T095033.0SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2331+20	SB
FLD4D0T095033.0SBSS-DS-GP	FLD4D0T095033.0SBSS-DS- GP-ON-LANE1	GP-ON-LANE1 SB	2	2331+20	SB
FLD4D0T095033.0SBSS-DS-GP	FLD4D0T095033.0SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2331+20	SB
FLD4D0T095033.0SBSS-DS-GP	FLD4D0T095033.0SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2331+20	SB
FLD4D0T095033.0SBSS-DS-GP	FLD4D0T095033.0SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2331+20	SB
FLD4D0T095033.1NBNS-DS-GP	FLD4D0T095033.1NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2335+21	NB
FLD4D0T095033.1NBNS-DS-GP	FLD4D0T095033.1NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2335+21	NB
FLD4D0T095033.1NBNS-DS-GP	FLD4D0T095033.1NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2335+21	NB
FLD4D0T095033.1NBNS-DS-GP	FLD4D0T095033.1NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2335+21	NB
FLD4D0T095033.1NBNS-DS-GP	FLD4D0T095033.1NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2335+21	NB
FLD4D0T095033.1NBNS-DS-GP	FLD4D0T095033.1NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2335+21	NB
FLD4D0T095033.3SBSS-DS-GP	FLD4D0T095033.3SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2344+47	SB
FLD4D0T095033.3SBSS-DS-GP	FLD4D0T095033.3SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2344+47	SB
FLD4D0T095033.3SBSS-DS-GP	FLD4D0T095033.3SBSS-DS- GP-ON-LANE1	GP-ON-LANE1 SB	2	2344+47	SB
FLD4D0T095033.3SBSS-DS-GP	FLD4D0T095033.3SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2344+47	SB
FLD4D0T095033.3SBSS-DS-GP	FLD4D0T095033.3SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2344+47	SB
FLD4D0T095033.3SBSS-DS-GP	FLD4D0T095033.3SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2344+47	SB
FLD4D0T095033.3NBNS-DS-GP	FLD4D0T095033.3NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2346+00	NB
FLD4D0T095033.3NBNS-DS-GP	FLD4D0T095033.3NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2346+00	NB
FLD4D0T095033.3NBNS-DS-GP	FLD4D0T095033.3NBNS-DS- GP-OFF-LANE1	GP-OFF-LANE1 NB	2	2346+00	NB
FLD4D0T095033.3NBNS-DS-GP	FLD4D0T095033.3NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2346+00	NB
FLD4D0T095033.3NBNS-DS-GP	FLD4D0T095033.3NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2346+00	NB
FLD4D0T095033.3NBNS-DS-GP	FLD4D0T095033.3NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2346+00	NB
FLD4D0T095033.5SBSS-DS-GP	FLD4D0T095033.5SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2357+74	SB

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095033.5SBSS-DS-GP	FLD4D0T095033.5SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2357+74	SB
FLD4D0T095033.5SBSS-DS-GP	FLD4D0T095033.5SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2357+74	SB
FLD4D0T095033.5SBSS-DS-GP	FLD4D0T095033.5SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2357+74	SB
FLD4D0T095033.5SBSS-DS-GP	FLD4D0T095033.5SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2357+74	SB
FLD4D0T095033.5SBSS-DS-GP	FLD4D0T095033.5SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2357+74	SB
FLD4D0T095033.5NBNS-DS-GP	FLD4D0T095033.5NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2357+93	NB
FLD4D0T095033.5NBNS-DS-GP	FLD4D0T095033.5NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2357+93	NB
FLD4D0T095033.5NBNS-DS-GP	FLD4D0T095033.5NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2357+93	NB
FLD4D0T095033.5NBNS-DS-GP	FLD4D0T095033.5NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2357+93	NB
FLD4D0T095033.5NBNS-DS-GP	FLD4D0T095033.5NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2357+93	NB
FLD4D0T095033.6SBSS-DS-GP	FLD4D0T095033.6SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2364+20	SB
FLD4D0T095033.6SBSS-DS-GP	FLD4D0T095033.6SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2364+20	SB
FLD4D0T095033.6SBSS-DS-GP	FLD4D0T095033.6SBSS-DS- GP-ON-LANE1	GP-ON-LANE1 SB	2	2364+20	SB
FLD4D0T095033.6SBSS-DS-GP	FLD4D0T095033.6SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2364+20	SB
FLD4D0T095033.6SBSS-DS-GP	FLD4D0T095033.6SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2364+20	SB
FLD4D0T095033.6SBSS-DS-GP	FLD4D0T095033.6SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2364+20	SB
FLD4D0T095033.7NBNS-DS-GP	FLD4D0T095033.7NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2369+05	NB
FLD4D0T095033.7NBNS-DS-GP	FLD4D0T095033.7NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2369+05	NB
FLD4D0T095033.7NBNS-DS-GP	FLD4D0T095033.7NBNS-DS- GP-OFF-LANE1	GP-OFF-LANE1 NB	2	2369+05	NB
FLD4D0T095033.7NBNS-DS-GP	FLD4D0T095033.7NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2369+05	NB
FLD4D0T095033.7NBNS-DS-GP	FLD4D0T095033.7NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2369+05	NB
FLD4D0T095033.7NBNS-DS-GP	FLD4D0T095033.7NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2369+05	NB
FLD4D0T095033.9SBSS-DS-GP	FLD4D0T095033.9SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2378+05	SB
FLD4D0T095033.9SBSS-DS-GP	FLD4D0T095033.9SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2378+05	SB
FLD4D0T095033.9SBSS-DS-GP	FLD4D0T095033.9SBSS-DS- GP-OFF-LANE1	GP-OFF-LANE1 SB	2	2378+05	SB
FLD4D0T095033.9SBSS-DS-GP	FLD4D0T095033.9SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2378+05	SB
FLD4D0T095033.9SBSS-DS-GP	FLD4D0T095033.9SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2378+05	SB
FLD4D0T095033.9SBSS-DS-GP	FLD4D0T095033.9SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2378+05	SB
FLD4D0T095033.9SBSS-DS-GP	FLD4D0T095033.9SBSS-DS GP-LANE5	GP-LANE5 SB	6	2378+05	SB
FLD4D0T095034.0NBNS-DS-GP	FLD4D0T095034.0NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2383+15	NB
FLD4D0T095034.0NBNS-DS-GP	FLD4D0T095034.0NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2383+15	NB
FLD4D0T095034.0NBNS-DS-GP	FLD4D0T095034.0NBNS-DS- GP-ON-LANE1	GP-ON-LANE1 NB	2	2383+15	NB
FLD4D0T095034.0NBNS-DS-GP	FLD4D0T095034.0NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2383+15	NB
FLD4D0T095034.0NBNS-DS-GP	FLD4D0T095034.0NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2383+15	NB
FLD4D0T095034.0NBNS-DS-GP	FLD4D0T095034.0NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2383+15	NB
FLD4D0T095034.1NBNS-DS-GP	FLD4D0T095034.1NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2387+00	NB
FLD4D0T095034.1NBNS-DS-GP	FLD4D0T095034.1NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2387+00	NB

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SUNGUIDE LANE ASSIGNMENT (1)

SHEET NO.
IT-371

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095034.1NBNS-DS-GP	FLD4D0T095034.1NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2387+00	NB
FLD4D0T095034.1NBNS-DS-GP	FLD4D0T095034.1NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2387+00	NB
FLD4D0T095034.1NBNS-DS-GP	FLD4D0T095034.1NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2387+00	NB
FLD4D0T095034.1NBNS-DS-GP	FLD4D0T095034.1NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2387+00	NB
FLD4D0T095034.1SBSS-DS-GP	FLD4D0T095034.1SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2390+65	SB
FLD4D0T095034.1SBSS-DS-GP	FLD4D0T095034.1SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2390+65	SB
FLD4D0T095034.1SBSS-DS-GP	FLD4D0T095034.1SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2390+65	SB
FLD4D0T095034.1SBSS-DS-GP	FLD4D0T095034.1SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2390+65	SB
FLD4D0T095034.1SBSS-DS-GP	FLD4D0T095034.1SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2390+65	SB
FLD4D0T095034.1SBSS-DS-GP	FLD4D0T095034.1SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2390+65	SB
FLD4D0T095034.4SBSS-DS-GP	FLD4D0T095034.4SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2404+00	SB
FLD4D0T095034.4SBSS-DS-GP	FLD4D0T095034.4SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2404+00	SB
FLD4D0T095034.4SBSS-DS-GP	FLD4D0T095034.4SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2404+00	SB
FLD4D0T095034.4SBSS-DS-GP	FLD4D0T095034.4SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2404+00	SB
FLD4D0T095034.4SBSS-DS-GP	FLD4D0T095034.4SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2404+00	SB
FLD4D0T095034.4SBSS-DS-GP	FLD4D0T095034.4SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2404+00	SB
FLD4D0T095034.5NBNS-DS-GP	FLD4D0T095034.5NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2409+00	NB
FLD4D0T095034.5NBNS-DS-GP	FLD4D0T095034.5NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2409+00	NB
FLD4D0T095034.5NBNS-DS-GP	FLD4D0T095034.5NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2409+00	NB
FLD4D0T095034.5NBNS-DS-GP	FLD4D0T095034.5NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2409+00	NB
FLD4D0T095034.5NBNS-DS-GP	FLD4D0T095034.5NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2409+00	NB
FLD4D0T095034.5NBNS-DS-GP	FLD4D0T095034.5NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2409+00	NB
FLD4D0T095034.6SBSS-DS-GP	FLD4D0T095034.6SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2417+00	SB
FLD4D0T095034.6SBSS-DS-GP	FLD4D0T095034.6SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2417+00	SB
FLD4D0T095034.6SBSS-DS-GP	FLD4D0T095034.6SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2417+00	SB
FLD4D0T095034.6SBSS-DS-GP	FLD4D0T095034.6SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2417+00	SB
FLD4D0T095034.6SBSS-DS-GP	FLD4D0T095034.6SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2417+00	SB
FLD4D0T095034.6SBSS-DS-GP	FLD4D0T095034.6SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2417+00	SB
FLD4D0T095034.6NBNS-DS-GP	FLD4D0T095034.6NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2417+04	NB
FLD4D0T095034.6NBNS-DS-GP	FLD4D0T095034.6NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2417+04	NB
FLD4D0T095034.6NBNS-DS-GP	FLD4D0T095034.6NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2417+04	NB
FLD4D0T095034.6NBNS-DS-GP	FLD4D0T095034.6NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2417+04	NB
FLD4D0T095034.6NBNS-DS-GP	FLD4D0T095034.6NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2417+04	NB
FLD4D0T095034.6NBNS-DS-GP	FLD4D0T095034.6NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2417+04	NB
FLD4D0T095034.9NBNS-DS-GP	FLD4D0T095034.9NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2430+06	NB
FLD4D0T095034.9NBNS-DS-GP	FLD4D0T095034.9NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2430+06	NB
FLD4D0T095034.9NBNS-DS-GP	FLD4D0T095034.9NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2430+06	NB

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095034.9NBNS-DS-GP	FLD4D0T095034.9NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2430+06	NB
FLD4D0T095034.9NBNS-DS-GP	FLD4D0T095034.9NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2430+06	NB
FLD4D0T095034.9NBNS-DS-GP	FLD4D0T095034.9NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2430+06	NB
FLD4D0T095034.9SBSS-DS-GP	FLD4D0T095034.9SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2430+10	SB
FLD4D0T095034.9SBSS-DS-GP	FLD4D0T095034.9SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2430+10	SB
FLD4D0T095034.9SBSS-DS-GP	FLD4D0T095034.9SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2430+10	SB
FLD4D0T095034.9SBSS-DS-GP	FLD4D0T095034.9SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2430+10	SB
FLD4D0T095034.9SBSS-DS-GP	FLD4D0T095034.9SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2430+10	SB
FLD4D0T095034.9SBSS-DS-GP	FLD4D0T095034.9SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2430+10	SB
FLD4D0T095034.9SBSS-DS-GP	FLD4D0T095034.9SBSS-DS GP-LANE5	GP-LANE5 SB	6	2430+10	SB
FLD4D0T095035.1NBNS-DS-GP	FLD4D0T095035.1NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2443+22	NB
FLD4D0T095035.1NBNS-DS-GP	FLD4D0T095035.1NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2443+22	NB
FLD4D0T095035.1NBNS-DS-GP	FLD4D0T095035.1NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2443+22	NB
FLD4D0T095035.1NBNS-DS-GP	FLD4D0T095035.1NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2443+22	NB
FLD4D0T095035.1NBNS-DS-GP	FLD4D0T095035.1NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2443+22	NB
FLD4D0T095035.1NBNS-DS-GP	FLD4D0T095035.1NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2443+22	NB
FLD4D0T095035.1SBSS-DS-GP	FLD4D0T095035.1SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2443+54	SB
FLD4D0T095035.1SBSS-DS-GP	FLD4D0T095035.1SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2443+54	SB
FLD4D0T095035.1SBSS-DS-GP	FLD4D0T095035.1SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2443+54	SB
FLD4D0T095035.1SBSS-DS-GP	FLD4D0T095035.1SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2443+54	SB
FLD4D0T095035.1SBSS-DS-GP	FLD4D0T095035.1SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2443+54	SB
FLD4D0T095035.1SBSS-DS-GP	FLD4D0T095035.1SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2443+54	SB
FLD4D0T095035.4NBNS-DS-GP	FLD4D0T095035.4NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2454+91	NB
FLD4D0T095035.4NBNS-DS-GP	FLD4D0T095035.4NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2454+91	NB
FLD4D0T095035.4NBNS-DS-GP	FLD4D0T095035.4NBNS-DS- GP-OFF-LANE1	GP-OFF-LANE1 NB	2	2454+91	NB
FLD4D0T095035.4NBNS-DS-GP	FLD4D0T095035.4NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2454+91	NB
FLD4D0T095035.4NBNS-DS-GP	FLD4D0T095035.4NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2454+91	NB
FLD4D0T095035.4NBNS-DS-GP	FLD4D0T095035.4NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2454+91	NB
FLD4D0T095035.4SBSS-DS-GP	FLD4D0T095035.4SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2454+95	SB
FLD4D0T095035.4SBSS-DS-GP	FLD4D0T095035.4SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2454+95	SB
FLD4D0T095035.4SBSS-DS-GP	FLD4D0T095035.4SBSS-DS- GP-ON-LANE1	GP-ON-LANE1 SB	2	2454+95	SB
FLD4D0T095035.4SBSS-DS-GP	FLD4D0T095035.4SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2454+95	SB
FLD4D0T095035.4SBSS-DS-GP	FLD4D0T095035.4SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2454+95	SB
FLD4D0T095035.4SBSS-DS-GP	FLD4D0T095035.4SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2454+95	SB
FLD4D0T095035.6NBNS-DS-GP	FLD4D0T095035.6NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2468+02	NB
FLD4D0T095035.6NBNS-DS-GP	FLD4D0T095035.6NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2468+02	NB
FLD4D0T095035.6NBNS-DS-GP	FLD4D0T095035.6NBNS-DS- GP-ON-LANE1	GP-ON-LANE1 NB	2	2468+02	NB

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SUNGUIDE LANE ASSIGNMENT (2)

SHEET NO.
IT-372

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095035.6NBNS-DS-GP	FLD4D0T095035.6NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2468+02	NB
FLD4D0T095035.6NBNS-DS-GP	FLD4D0T095035.6NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2468+02	NB
FLD4D0T095035.6NBNS-DS-GP	FLD4D0T095035.6NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2468+02	NB
FLD4D0T095035.6SBSS-DS-GP	FLD4D0T095035.6SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2468+99	SB
FLD4D0T095035.6SBSS-DS-GP	FLD4D0T095035.6SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2468+99	SB
FLD4D0T095035.6SBSS-DS-GP	FLD4D0T095035.6SBSS-DS-GP-OFF-LANE1	GP-OFF-LANE1 SB	2	2468+99	SB
FLD4D0T095035.6SBSS-DS-GP	FLD4D0T095035.6SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2468+99	SB
FLD4D0T095035.6SBSS-DS-GP	FLD4D0T095035.6SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2468+99	SB
FLD4D0T095035.6SBSS-DS-GP	FLD4D0T095035.6SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2468+99	SB
FLD4D0T095035.8SBSS-DS-GP	FLD4D0T095035.8SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2477+68	SB
FLD4D0T095035.8SBSS-DS-GP	FLD4D0T095035.8SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2477+68	SB
FLD4D0T095035.8SBSS-DS-GP	FLD4D0T095035.8SBSS-DS-GP-OFF-LANE1	GP-OFF-LANE1 SB	2	2477+68	SB
FLD4D0T095035.8SBSS-DS-GP	FLD4D0T095035.8SBSS-DS-GP-OFF-LANE2	GP-OFF-LANE2 SB	3	2477+68	SB
FLD4D0T095035.8SBSS-DS-GP	FLD4D0T095035.8SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2477+68	SB
FLD4D0T095035.8SBSS-DS-GP	FLD4D0T095035.8SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2477+68	SB
FLD4D0T095035.8SBSS-DS-GP	FLD4D0T095035.8SBSS-DS- GP-LANE5	GP-LANE5 SB	6	2477+68	SB
FLD4D0T095035.8NBNS-DS-GP	FLD4D0T095035.8NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2479+98	NB
FLD4D0T095035.8NBNS-DS-GP	FLD4D0T095035.8NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2479+98	NB
FLD4D0T095035.8NBNS-DS-GP	FLD4D0T095035.8NBNS-DS- GP-ON-LANE1	GP-ON-LANE1 NB	2	2479+98	NB
FLD4D0T095035.8NBNS-DS-GP	FLD4D0T095035.8NBNS-DS- GP-ON-LANE2	GP-ON-LANE2 NB	3	2479+98	NB
FLD4D0T095035.8NBNS-DS-GP	FLD4D0T095035.8NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2479+98	NB
FLD4D0T095035.8NBNS-DS-GP	FLD4D0T095035.8NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2479+98	NB
FLD4D0T095035.8NBNS-DS-GP	FLD4D0T095035.8NBNS-DS GP-LANE5	GP-LANE5 NB	6	2479+98	NB
FLD4D0T095035.9NBNS-DS-GP	FLD4D0T095035.9NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2484+50	NB
FLD4D0T095035.9NBNS-DS-GP	FLD4D0T095035.9NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2484+50	NB
FLD4D0T095035.9NBNS-DS-GP	FLD4D0T095035.9NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2484+50	NB
FLD4D0T095035.9NBNS-DS-GP	FLD4D0T095035.9NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2484+50	NB
FLD4D0T095035.9NBNS-DS-GP	FLD4D0T095035.9NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2484+50	NB
FLD4D0T095035.9NBNS-DS-GP	FLD4D0T095035.9NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2484+50	NB
FLD4D0T095035.9NBNS-DS-GP	FLD4D0T095035.9NBNS-DS- GP-LANE5	GP-LANE5 NB	6	2484+50	NB
FLD4D0T095036.0SBSS-DS-GP	FLD4D0T095036.0SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2490+85	SB
FLD4D0T095036.0SBSS-DS-GP	FLD4D0T095036.0SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2490+85	SB
FLD4D0T095036.0SBSS-DS-GP	FLD4D0T095036.0SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2490+85	SB
FLD4D0T095036.0SBSS-DS-GP	FLD4D0T095036.0SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2490+85	SB
FLD4D0T095036.0SBSS-DS-GP	FLD4D0T095036.0SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2490+85	SB
FLD4D0T095036.0SBSS-DS-GP	FLD4D0T095036.0SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2490+85	SB
FLD4D0T095036.0SBSS-DS-GP	FLD4D0T095036.0SBSS-DS GP-LANE5	GP-LANE5 SB	6	2490+85	SB

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095036.3NBNS-DS-GP	FLD4D0T095036.3NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2501+75	NB
FLD4D0T095036.3NBNS-DS-GP	FLD4D0T095036.3NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2501+75	NB
FLD4D0T095036.3NBNS-DS-GP	FLD4D0T095036.3NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2501+75	NB
FLD4D0T095036.3NBNS-DS-GP	FLD4D0T095036.3NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2501+75	NB
FLD4D0T095036.3NBNS-DS-GP	FLD4D0T095036.3NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2501+75	NB
FLD4D0T095036.3NBNS-DS-GP	FLD4D0T095036.3NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2501+75	NB
FLD4D0T095036.3SBSS-DS-GP	FLD4D0T095036.3SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2503+62	SB
FLD4D0T095036.3SBSS-DS-GP	FLD4D0T095036.3SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2503+62	SB
FLD4D0T095036.3SBSS-DS-GP	FLD4D0T095036.3SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2503+62	SB
FLD4D0T095036.3SBSS-DS-GP	FLD4D0T095036.3SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2503+62	SB
FLD4D0T095036.3SBSS-DS-GP	FLD4D0T095036.3SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2503+62	SB
FLD4D0T095036.3SBSS-DS-GP	FLD4D0T095036.3SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2503+62	SB
FLD4D0T095036.5NBNS-DS-GP	FLD4D0T095036.5NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2515+84	NB
FLD4D0T095036.5NBNS-DS-GP	FLD4D0T095036.5NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2515+84	NB
FLD4D0T095036.5NBNS-DS-GP	FLD4D0T095036.5NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2515+84	NB
FLD4D0T095036.5NBNS-DS-GP	FLD4D0T095036.5NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2515+84	NB
FLD4D0T095036.5NBNS-DS-GP	FLD4D0T095036.5NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2515+84	NB
FLD4D0T095036.5NBNS-DS-GP	FLD4D0T095036.5NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2515+84	NB
FLD4D0T095036.5SBSS-DS-GP	FLD4D0T095036.5SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2516+05	SB
FLD4D0T095036.5SBSS-DS-GP	FLD4D0T095036.5SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2516+05	SB
FLD4D0T095036.5SBSS-DS-GP	FLD4D0T095036.5SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2516+05	SB
FLD4D0T095036.5SBSS-DS-GP	FLD4D0T095036.5SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2516+05	SB
FLD4D0T095036.5SBSS-DS-GP	FLD4D0T095036.5SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2516+05	SB
FLD4D0T095036.5SBSS-DS-GP	FLD4D0T095036.5SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2516+05	SB
FLD4D0T095036.8SBSS-DS-GP	FLD4D0T095036.8SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2528+12	SB
FLD4D0T095036.8SBSS-DS-GP	FLD4D0T095036.8SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2528+12	SB
FLD4D0T095036.8SBSS-DS-GP	FLD4D0T095036.8SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2528+12	SB
FLD4D0T095036.8SBSS-DS-GP	FLD4D0T095036.8SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2528+12	SB
FLD4D0T095036.8SBSS-DS-GP	FLD4D0T095036.8SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2528+12	SB
FLD4D0T095036.8SBSS-DS-GP	FLD4D0T095036.8SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2528+12	SB
FLD4D0T095036.8NBNS-DS-GP	FLD4D0T095036.8NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2530+00	NB
FLD4D0T095036.8NBNS-DS-GP	FLD4D0T095036.8NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2530+00	NB
FLD4D0T095036.8NBNS-DS-GP	FLD4D0T095036.8NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2530+00	NB
FLD4D0T095036.8NBNS-DS-GP	FLD4D0T095036.8NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2530+00	NB
FLD4D0T095036.8NBNS-DS-GP	FLD4D0T095036.8NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2530+00	NB
FLD4D0T095036.8NBNS-DS-GP	FLD4D0T095036.8NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2530+00	NB
FLD4D0T095036.9NBNS-DS-GP	FLD4D0T095036.9NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2537+00	NB

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

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EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SUNGUIDE LANE ASSIGNMENT (3)

SHEET NO.
IT-373

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095036.9NBNS-DS-GP	FLD4D0T095036.9NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2537+00	NB
FLD4D0T095036.9NBNS-DS-GP	FLD4D0T095036.9NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2537+00	NB
FLD4D0T095036.9NBNS-DS-GP	FLD4D0T095036.9NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2537+00	NB
FLD4D0T095036.9NBNS-DS-GP	FLD4D0T095036.9NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2537+00	NB
FLD4D0T095036.9NBNS-DS-GP	FLD4D0T095036.9NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2537+00	NB
FLD4D0T095037.0SBSS-DS-GP	FLD4D0T095037.0SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2541+55	SB
FLD4D0T095037.0SBSS-DS-GP	FLD4D0T095037.0SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2541+55	SB
FLD4D0T095037.0SBSS-DS-GP	FLD4D0T095037.0SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2541+55	SB
FLD4D0T095037.0SBSS-DS-GP	FLD4D0T095037.0SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2541+55	SB
FLD4D0T095037.0SBSS-DS-GP	FLD4D0T095037.0SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2541+55	SB
FLD4D0T095037.0SBSS-DS-GP	FLD4D0T095037.0SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2541+55	SB
FLD4D0T095037.3NBNS-DS-GP	FLD4D0T095037.3NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2554+46	NB
FLD4D0T095037.3NBNS-DS-GP	FLD4D0T095037.3NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2554+46	NB
FLD4D0T095037.3NBNS-DS-GP	FLD4D0T095037.3NBNS-DS-GP-OFF-LANE1	GP-OFF-LANE1 NB	2	2554+46	NB
FLD4D0T095037.3NBNS-DS-GP	FLD4D0T095037.3NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2554+46	NB
FLD4D0T095037.3NBNS-DS-GP	FLD4D0T095037.3NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2554+46	NB
FLD4D0T095037.3NBNS-DS-GP	FLD4D0T095037.3NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2554+46	NB
FLD4D0T095037.3SBSS-DS-GP	FLD4D0T095037.3SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2555+03	SB
FLD4D0T095037.3SBSS-DS-GP	FLD4D0T095037.3SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2555+03	SB
FLD4D0T095037.3SBSS-DS-GP	FLD4D0T095037.3SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2555+03	SB
FLD4D0T095037.3SBSS-DS-GP	FLD4D0T095037.3SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2555+03	SB
FLD4D0T095037.3SBSS-DS-GP	FLD4D0T095037.3SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2555+03	SB
FLD4D0T095037.3SBSS-DS-GP	FLD4D0T095037.3SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2555+03	SB
FLD4D0T095037.4SBSS-DS-GP	FLD4D0T095037.4SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2561+14	SB
FLD4D0T095037.4SBSS-DS-GP	FLD4D0T095037.4SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2561+14	SB
FLD4D0T095037.4SBSS-DS-GP	FLD4D0T095037.4SBSS-DS- GP-ON-LANE1	GP-ON-LANE1 SB	2	2561+14	SB
FLD4D0T095037.4SBSS-DS-GP	FLD4D0T095037.4SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2561+14	SB
FLD4D0T095037.4SBSS-DS-GP	FLD4D0T095037.4SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2561+14	SB
FLD4D0T095037.4SBSS-DS-GP	FLD4D0T095037.4SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2561+14	SB
FLD4D0T095037.5NBNS-DS-GP	FLD4D0T095037.5NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2565+04	NB
FLD4D0T095037.5NBNS-DS-GP	FLD4D0T095037.5NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2565+04	NB
FLD4D0T095037.5NBNS-DS-GP	FLD4D0T095037.5NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2565+04	NB
FLD4D0T095037.5NBNS-DS-GP	FLD4D0T095037.5NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2565+04	NB
FLD4D0T095037.5NBNS-DS-GP	FLD4D0T095037.5NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2565+04	NB
FLD4D0T095037.6SBSS-DS-GP	FLD4D0T095037.6SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2574+99	SB
FLD4D0T095037.6SBSS-DS-GP	FLD4D0T095037.6SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2574+99	SB
FLD4D0T095037.6SBSS-DS-GP	FLD4D0T095037.6SBSS-DS-GP-OFF-LANE1	GP-OFF-LANE1 SB	2	2574+99	SB

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095037.6SBSS-DS-GP	FLD4D0T095037.6SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2574+99	SB
FLD4D0T095037.6SBSS-DS-GP	FLD4D0T095037.6SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2574+99	SB
FLD4D0T095037.6SBSS-DS-GP	FLD4D0T095037.6SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2574+99	SB
FLD4D0T095037.7NBNS-DS-GP	FLD4D0T095037.7NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2578+04	NB
FLD4D0T095037.7NBNS-DS-GP	FLD4D0T095037.7NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2578+04	NB
FLD4D0T095037.7NBNS-DS-GP	FLD4D0T095037.7NBNS-DS- GP-ON-LANE1	GP-ON-LANE1 NB	2	2578+04	NB
FLD4D0T095037.7NBNS-DS-GP	FLD4D0T095037.7NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2578+04	NB
FLD4D0T095037.7NBNS-DS-GP	FLD4D0T095037.7NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2578+04	NB
FLD4D0T095037.7NBNS-DS-GP	FLD4D0T095037.7NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2578+04	NB
FLD4D0T095037.8SBSS-DS-GP	FLD4D0T095037.8SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2583+01	SB
FLD4D0T095037.8SBSS-DS-GP	FLD4D0T095037.8SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2583+01	SB
FLD4D0T095037.8SBSS-DS-GP	FLD4D0T095037.8SBSS-DS- GP-ON-LANE1	GP-ON-LANE1 SB	2	2583+01	SB
FLD4D0T095037.8SBSS-DS-GP	FLD4D0T095037.8SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2583+01	SB
FLD4D0T095037.8SBSS-DS-GP	FLD4D0T095037.8SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2583+01	SB
FLD4D0T095037.8SBSS-DS-GP	FLD4D0T095037.8SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2583+01	SB
FLD4D0T095037.8NBNS-DS-GP	FLD4D0T095037.8NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2585+99	NB
FLD4D0T095037.8NBNS-DS-GP	FLD4D0T095037.8NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2585+99	NB
FLD4D0T095037.8NBNS-DS-GP	FLD4D0T095037.8NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2585+99	NB
FLD4D0T095037.8NBNS-DS-GP	FLD4D0T095037.8NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2585+99	NB
FLD4D0T095037.8NBNS-DS-GP	FLD4D0T095037.8NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2585+99	NB
FLD4D0T095037.8NBNS-DS-GP	FLD4D0T095037.8NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2585+99	NB
FLD4D0T095038.0SBSS-DS-GP	FLD4D0T095038.0SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2594+19	SB
FLD4D0T095038.0SBSS-DS-GP	FLD4D0T095038.0SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2594+19	SB
FLD4D0T095038.0SBSS-DS-GP	FLD4D0T095038.0SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2594+19	SB
FLD4D0T095038.0SBSS-DS-GP	FLD4D0T095038.0SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2594+19	SB
FLD4D0T095038.0SBSS-DS-GP	FLD4D0T095038.0SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2594+19	SB
FLD4D0T095038.0NBNS-DS-GP	FLD4D0T095038.0NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2596+00	NB
FLD4D0T095038.0NBNS-DS-GP	FLD4D0T095038.0NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2596+00	NB
FLD4D0T095038.0NBNS-DS-GP	FLD4D0T095038.0NBNS-DS- GP-ON-LANE1	GP-ON-LANE1 NB	2	2596+00	NB
FLD4D0T095038.0NBNS-DS-GP	FLD4D0T095038.0NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2596+00	NB
FLD4D0T095038.0NBNS-DS-GP	FLD4D0T095038.0NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2596+00	NB
FLD4D0T095038.0NBNS-DS-GP	FLD4D0T095038.0NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2596+00	NB
FLD4D0T095038.1NBNS-DS-GP	FLD4D0T095038.1NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2601+70	NB
FLD4D0T095038.1NBNS-DS-GP	FLD4D0T095038.1NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2601+70	NB
FLD4D0T095038.1NBNS-DS-GP	FLD4D0T095038.1NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2601+70	NB
FLD4D0T095038.1NBNS-DS-GP	FLD4D0T095038.1NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2601+70	NB
FLD4D0T095038.1NBNS-DS-GP	FLD4D0T095038.1NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2601+70	NB

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REVISIONS

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8-16-19	AS-BUILTS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SUNGUIDE LANE ASSIGNMENT (4)

SHEET NO.
IT-374

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095038.1NBNS-DS-GP	FLD4D0T095038.1NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2601+70	NB
FLD4D0T095038.2SBSS-DS-GP	FLD4D0T095038.2SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2602+90	SB
FLD4D0T095038.2SBSS-DS-GP	FLD4D0T095038.2SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2602+90	SB
FLD4D0T095038.2SBSS-DS-GP	FLD4D0T095038.2SBSS-DS- GP-OFF-LANE1	GP-OFF-LANE1 SB	2	2602+90	SB
FLD4D0T095038.2SBSS-DS-GP	FLD4D0T095038.2SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2602+90	SB
FLD4D0T095038.2SBSS-DS-GP	FLD4D0T095038.2SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2602+90	SB
FLD4D0T095038.2SBSS-DS-GP	FLD4D0T095038.2SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2602+90	SB
FLD4D0T095038.3SBSS-DS-GP	FLD4D0T095038.3SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2612+00	SB
FLD4D0T095038.3SBSS-DS-GP	FLD4D0T095038.3SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2612+00	SB
FLD4D0T095038.3SBSS-DS-GP	FLD4D0T095038.3SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2612+00	SB
FLD4D0T095038.3SBSS-DS-GP	FLD4D0T095038.3SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2612+00	SB
FLD4D0T095038.3SBSS-DS-GP	FLD4D0T095038.3SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2612+00	SB
FLD4D0T095038.3SBSS-DS-GP	FLD4D0T095038.3SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2612+00	SB
FLD4D0T095038.4NBNS-DS-GP	FLD4D0T095038.4NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2617+00	NB
FLD4D0T095038.4NBNS-DS-GP	FLD4D0T095038.4NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2617+00	NB
FLD4D0T095038.4NBNS-DS-GP	FLD4D0T095038.4NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2617+00	NB
FLD4D0T095038.4NBNS-DS-GP	FLD4D0T095038.4NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2617+00	NB
FLD4D0T095038.4NBNS-DS-GP	FLD4D0T095038.4NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2617+00	NB
FLD4D0T095038.4NBNS-DS-GP	FLD4D0T095038.4NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2617+00	NB
FLD4D0T095038.6NBNS-DS-GP	FLD4D0T095038.6NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2624+00	NB
FLD4D0T095038.6NBNS-DS-GP	FLD4D0T095038.6NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2624+00	NB
FLD4D0T095038.6NBNS-DS-GP	FLD4D0T095038.6NBNS-DS- GP-OFF-LANE1	GP-OFF-LANE1 NB	2	2624+00	NB
FLD4D0T095038.6NBNS-DS-GP	FLD4D0T095038.6NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2624+00	NB
FLD4D0T095038.6NBNS-DS-GP	FLD4D0T095038.6NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2624+00	NB
FLD4D0T095038.6NBNS-DS-GP	FLD4D0T095038.6NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2624+00	NB
FLD4D0T095038.6SBSS-DS-GP	FLD4D0T095038.6SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2628+25	SB
FLD4D0T095038.6SBSS-DS-GP	FLD4D0T095038.6SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2628+25	SB
FLD4D0T095038.6SBSS-DS-GP	FLD4D0T095038.6SBSS-DS- GP-ON-LANE1	GP-ON-LANE1 SB	2	2628+25	SB
FLD4D0T095038.6SBSS-DS-GP	FLD4D0T095038.6SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2628+25	SB
FLD4D0T095038.6SBSS-DS-GP	FLD4D0T095038.6SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2628+25	SB
FLD4D0T095038.6SBSS-DS-GP	FLD4D0T095038.6SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2628+25	SB
FLD4D0T095038.8SBSS-DS-GP	FLD4D0T095038.8SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2637+92	SB
FLD4D0T095038.8SBSS-DS-GP	FLD4D0T095038.8SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2637+92	SB
FLD4D0T095038.8SBSS-DS-GP	FLD4D0T095038.8SBSS-DS- GP-LANE1	GP-LANE1 SB	2	2637+92	SB
FLD4D0T095038.8SBSS-DS-GP	FLD4D0T095038.8SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2637+92	SB
FLD4D0T095038.8SBSS-DS-GP	FLD4D0T095038.8SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2637+92	SB
FLD4D0T095038.8SBSS-DS-GP	FLD4D0T095038.8SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2637+92	SB

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095038.8NBNS-DS-GP	FLD4D0T095038.8NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2638+02	NB
FLD4D0T095038.8NBNS-DS-GP	FLD4D0T095038.8NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2638+02	NB
FLD4D0T095038.8NBNS-DS-GP	FLD4D0T095038.8NBNS-DS- GP-ON-LANE1	GP-ON-LANE1 NB	2	2638+02	NB
FLD4D0T095038.8NBNS-DS-GP	FLD4D0T095038.8NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2638+02	NB
FLD4D0T095038.8NBNS-DS-GP	FLD4D0T095038.8NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2638+02	NB
FLD4D0T095038.8NBNS-DS-GP	FLD4D0T095038.8NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2638+02	NB
FLD4D0T095038.9SBSS-DS-GP	FLD4D0T095038.9SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2642+42	SB
FLD4D0T095038.9SBSS-DS-GP	FLD4D0T095038.9SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2642+42	SB
FLD4D0T095038.9SBSS-DS-GP	FLD4D0T095038.9SBSS-DS- GP-ON-LANE1	GP-ON-LANE1 SB	2	2642+42	SB
FLD4D0T095038.9SBSS-DS-GP	FLD4D0T095038.9SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2642+42	SB
FLD4D0T095038.9SBSS-DS-GP	FLD4D0T095038.9SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2642+42	SB
FLD4D0T095038.9SBSS-DS-GP	FLD4D0T095038.9SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2642+42	SB
FLD4D0T095039.0NBNS-DS-GP	FLD4D0T095039.0NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2646+56	NB
FLD4D0T095039.0NBNS-DS-GP	FLD4D0T095039.0NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2646+56	NB
FLD4D0T095039.0NBNS-DS-GP	FLD4D0T095039.0NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2646+56	NB
FLD4D0T095039.0NBNS-DS-GP	FLD4D0T095039.0NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2646+56	NB
FLD4D0T095039.0NBNS-DS-GP	FLD4D0T095039.0NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2646+56	NB
FLD4D0T095039.0NBNS-DS-GP	FLD4D0T095039.0NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2646+56	NB
FLD4D0T095039.2NBNS-DS-GP	FLD4D0T095039.2NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2655+86	NB
FLD4D0T095039.2NBNS-DS-GP	FLD4D0T095039.2NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2655+86	NB
FLD4D0T095039.2NBNS-DS-GP	FLD4D0T095039.2NBNS-DS- GP-ON-LANE1	GP-ON-LANE1 NB	2	2655+86	NB
FLD4D0T095039.2NBNS-DS-GP	FLD4D0T095039.2NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2655+86	NB
FLD4D0T095039.2NBNS-DS-GP	FLD4D0T095039.2NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2655+86	NB
FLD4D0T095039.2NBNS-DS-GP	FLD4D0T095039.2NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2655+86	NB
FLD4D0T095039.2SBSS-DS-GP	FLD4D0T095039.2SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2655+94	SB
FLD4D0T095039.2SBSS-DS-GP	FLD4D0T095039.2SBSS-DS- EL-LANE2	EL-LANE2 SB	1	2655+94	SB
FLD4D0T095039.2SBSS-DS-GP	FLD4D0T095039.2SBSS-DS- GP-OFF-LANE1	GP-OFF-LANE1 SB	2	2655+94	SB
FLD4D0T095039.2SBSS-DS-GP	FLD4D0T095039.2SBSS-DS- GP-LANE2	GP-LANE2 SB	3	2655+94	SB
FLD4D0T095039.2SBSS-DS-GP	FLD4D0T095039.2SBSS-DS- GP-LANE3	GP-LANE3 SB	4	2655+94	SB
FLD4D0T095039.2SBSS-DS-GP	FLD4D0T095039.2SBSS-DS- GP-LANE4	GP-LANE4 SB	5	2655+94	SB
FLD4D0T095039.3NBNS-DS-GP	FLD4D0T095039.3NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2663+60	NB
FLD4D0T095039.3NBNS-DS-GP	FLD4D0T095039.3NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2663+60	NB
FLD4D0T095039.3NBNS-DS-GP	FLD4D0T095039.3NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2663+60	NB
FLD4D0T095039.3NBNS-DS-GP	FLD4D0T095039.3NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2663+60	NB
FLD4D0T095039.3NBNS-DS-GP	FLD4D0T095039.3NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2663+60	NB
FLD4D0T095039.3NBNS-DS-GP	FLD4D0T095039.3NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2663+60	NB
FLD4D0T095039.4SBSS-DS-GP	FLD4D0T095039.4SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2669+26	SB
FLD4D0T095039.4SBSS-DS-GP	FLD4D0T095039.4SBSS-DS- GP-LANE1	GP-LANE1 SB	1	2669+26	SB

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SUNGUIDE LANE ASSIGNMENT (5)

SHEET NO.
IT-375

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

TSS LANES

Link-Name	LANE-Name	LANE-Description	LANE-Zone	STA.	Direction
FLD4D0T095039.4SBSS-DS-GP	FLD4D0T095039.4SBSS-DS- GP-LANE2	GP-LANE2 SB	2	2669+26	SB
FLD4D0T095039.4SBSS-DS-GP	FLD4D0T095039.4SBSS-DS- GP-LANE3	GP-LANE3 SB	3	2669+26	SB
FLD4D0T095039.4SBSS-DS-GP	FLD4D0T095039.4SBSS-DS- GP-LANE4	GP-LANE4 SB	4	2669+26	SB
FLD4D0T095039.7SBSS-DS-GP	FLD4D0T095039.7SBSS-DS- EL-LANE1	EL-LANE1 SB	0	2681+70	SB
FLD4D0T095039.7SBSS-DS-GP	FLD4D0T095039.7SBSS-DS- GP-LANE1	GP-LANE1 SB	1	2681+70	SB
FLD4D0T095039.7SBSS-DS-GP	FLD4D0T095039.7SBSS-DS- GP-LANE2	GP-LANE2 SB	2	2681+70	SB
FLD4D0T095039.7SBSS-DS-GP	FLD4D0T095039.7SBSS-DS- GP-LANE3	GP-LANE3 SB	3	2681+70	SB
FLD4D0T095039.7SBSS-DS-GP	FLD4D0T095039.7SBSS-DS- GP-LANE4	GP-LANE4 SB	4	2681+70	SB
FLD4D0T095039.7NBNS-DS-GP	FLD4D0T095039.7NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2681+98	NB
FLD4D0T095039.7NBNS-DS-GP	FLD4D0T095039.7NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2681+98	NB
FLD4D0T095039.7NBNS-DS-GP	FLD4D0T095039.7NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2681+98	NB
FLD4D0T095039.7NBNS-DS-GP	FLD4D0T095039.7NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2681+98	NB
FLD4D0T095039.7NBNS-DS-GP	FLD4D0T095039.7NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2681+98	NB
FLD4D0T095039.7NBNS-DS-GP	FLD4D0T095039.7NBNS-DS- GP-LANE4	GP-LANE4 NB	5	2681+98	NB
FLD4D0T095039.7NBNS-DS-GP	FLD4D0T095039.7NBNS-DS GP-LANE5	GP-LANE5 NB	6	2681+98	NB
FLD4D0T095039.9SBSS-DS-GP	FLD4D0T095039.9SBSS-DS- GP-LANE1	GP-LANE1 SB	0	2694+02	SB
FLD4D0T095039.9SBSS-DS-GP	FLD4D0T095039.9SBSS-DS- GP-LANE2	GP-LANE2 SB	1	2694+02	SB
FLD4D0T095039.9SBSS-DS-GP	FLD4D0T095039.9SBSS-DS- GP-LANE3	GP-LANE3 SB	2	2694+02	SB
FLD4D0T095039.9SBSS-DS-GP	FLD4D0T095039.9SBSS-DS- GP-LANE4	GP-LANE4 SB	3	2694+02	SB
FLD4D0T095039.9SBSS-DS-GP	FLD4D0T095039.9SBSS-DS- GP-LANE5	GP-LANE5 SB	4	2694+02	SB
FLD4D0T095039.9NBNS-DS-GP	FLD4D0T095039.9NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2694+40	NB
FLD4D0T095039.9NBNS-DS-GP	FLD4D0T095039.9NBNS-DS- EL-LANE2	EL-LANE2 NB	1	2694+40	NB
FLD4D0T095039.9NBNS-DS-GP	FLD4D0T095039.9NBNS-DS- GP-LANE1	GP-LANE1 NB	2	2694+40	NB
FLD4D0T095039.9NBNS-DS-GP	FLD4D0T095039.9NBNS-DS- GP-LANE2	GP-LANE2 NB	3	2694+40	NB
FLD4D0T095039.9NBNS-DS-GP	FLD4D0T095039.9NBNS-DS- GP-LANE3	GP-LANE3 NB	4	2694+40	NB
FLD4D0T095040.2NBNS-DS-GP	FLD4D0T095040.2NBNS-DS- EL-LANE1	EL-LANE1 NB	0	2708+02	NB
FLD4D0T095040.2NBNS-DS-GP	FLD4D0T095040.2NBNS-DS- GP-LANE1	GP-LANE1 NB	1	2708+02	NB
FLD4D0T095040.2NBNS-DS-GP	FLD4D0T095040.2NBNS-DS- GP-LANE2	GP-LANE2 NB	2	2708+02	NB
FLD4D0T095040.2NBNS-DS-GP	FLD4D0T095040.2NBNS-DS- GP-LANE3	GP-LANE3 NB	3	2708+02	NB
FLD4D0T095040.2SBSS-DS-GP	FLD4D0T095040.2SBSS-DS- GP-LANE1	GP-LANE1 SB	0	2708+12	SB
FLD4D0T095040.2SBSS-DS-GP	FLD4D0T095040.2SBSS-DS- GP-LANE2	GP-LANE2 SB	1	2708+12	SB
FLD4D0T095040.2SBSS-DS-GP	FLD4D0T095040.2SBSS-DS- GP-LANE3	GP-LANE3 SB	2	2708+12	SB
FLD4D0T095040.2SBSS-DS-GP	FLD4D0T095040.2SBSS-DS- GP-LANE4	GP-LANE4 SB	3	2708+12	SB

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SUNGUIDE LANE ASSIGNMENT (6)

SHEET NO.
IT-376

ITS REEL 1

Project	IT Page:	PCS Box Number	SV / PB:	Cable Ft. In:	Cable Ft. out:	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation:	Fiber Accumulation:
3A1	IT-201	HUB	HUB	37,876	37,994	18	118	118	118
3A1	IT-201	51141	SV	37,638	37,858	144	220	338	356
3A1	IT-201	51140	SV	37,274	37,494	416	220	558	720
3A1	IT-201	51139	SV	36,638	36,858	414	220	778	1,356
3A1	IT-201	51138	SV	36,004	36,224	524	220	998	1,990
3A1	IT-201	51137	PB	35,430	35,480	112	50	1,048	2,564
3A1	IT-201	51136	SV	35,098	35,318	408	220	1,268	2,896
3A1	IT-202	51135	SV	34,470	34,690	548	220	1,488	3,524
3A1	IT-202	51134	SV	33,702	33,922	280	220	1,708	4,292
3A1	IT-202	51133	SV	33,202	33,422	178	220	1,928	4,792
3A1	IT-202	51132	PB	32,974	33,024	378	50	1,978	5,020
3A1	IT-202	51131	PB	32,546	32,596	516	50	2,028	5,448
3A1/3A2	IT-20	51130	SV	31,810	32,030	206	220	2,248	6,184
3A2	IT-20	51129	SV	31,384	31,604	1,192	220	2,468	6,610
3A2	IT-22	51128	SV	29,972	30,192	434	220	2,688	8,022
3A2	IT-22	51127	SV	29,318	29,538	242	220	2,908	8,676
3A2	IT-27	51126	PB	29,026	29,076	406	50	2,958	8,968
3A2	IT-27	51125	SV	28,400	28,620	1,180	220	3,178	9,594
3A2	IT-31	51124	SV	27,000	27,220	434	220	3,398	10,994
3A2	IT-34	51123	PB	26,516	26,566	308	50	3,448	11,478
3A2	IT-32	51122	PB	26,158	26,208	242	50	3,498	11,836
3A2	IT-32	51121	SV	25,696	25,916	196	220	3,718	12,298
3A2	IT-37	51120	SV	25,280	25,500	192	220	3,938	12,714
3A2	IT-37	51119	PB	25,038	25,088	196	50	3,988	12,956
3A2	IT-37	51118	PB	24,792	24,842	670	50	4,038	13,202
3A2	IT-39	51117	SV	23,902	24,122	102	220	4,258	14,092
3A2	IT-39	51116	PB	23,750	23,800	330	50	4,308	14,244
3A2	IT-40	51115	SV	23,200	23,420	440	220	4,528	14,794
3A2	IT-40	51114	SV	22,540	22,760	472	220	4,748	15,454
3A2	IT-41	51113	PB	22,018	22,068	178	50	4,798	15,976
3A2	IT-41	51112	SV	21,620	21,840	128	220	5,018	16,374
3A2	IT-41	51111	PB	21,440	21,492	152	52	5,070	16,554
3A2	IT-41	51142	PB	21,238	21,288	200	50	5,120	16,756
3A2	IT-42	51143	SV	20,818	21,038	230	220	5,340	17,176
3A2	IT-42	51144	PB	20,538	20,588	742	50	5,390	17,456
3A2	IT-43	51145	SV	19,576	19,796	284	220	5,610	18,418
3A2	IT-43	51146	PB	19,242	19,292	250	50	5,660	18,752
3A2	IT-44	51147	PB	18,942	18,992	320	50	5,710	19,052
3A2	IT-44	51148	PB	18,572	18,622	228	50	5,760	19,422
3A2	IT-44	51149	PB	18,294	18,344	78	50	5,810	19,700
3A2	IT-44	51150	SV	17,996	18,216	526	220	6,030	19,998
3A2	IT-45	51151	SV	17,250	17,470	768	220	6,250	20,744
3A2	IT-46	51152	SV	16,262	16,482	554	220	6,470	21,732
3A2	IT-47	51153	PB	15,658	15,708	776	50	6,520	22,336
3A2	IT-48	51154	SV	14,662	14,882	940	220	6,740	23,332
3A2	IT-49	51155	PB	13,672	13,722	240	50	6,790	24,322
3A2	IT-50	51156	SV	13,212	13,432	476	220	7,010	24,782
3A2	IT-50	51157	PB	12,686	12,736	108	50	7,060	25,308
3A2	IT-50	51158	PB	12,528	12,578	92	50	7,110	25,466
3A2	IT-54	51159	SV	12,216	12,436	472	220	7,330	25,778
3A2	IT-54	51160	SV	11,524	11,744	124	220	7,550	26,470
3A2	IT-54	51161	SV	11,180	11,400	200	220	7,770	26,814
3A2	IT-56	51162	PB	10,930	10,980	134	50	7,820	27,064
3A2	IT-56	51163	PB	10,746	10,796	184	50	7,870	27,248
3A2	IT-57	51164	PB	10,512	10,562	190	50	7,920	27,482
3A2	IT-57	51165	SV	10,100	10,322	72	222	8,142	27,894
3A2	IT-57	51166	PB	9,978	10,028	428	50	8,192	28,016
3A2	IT-59	51167	SV	9,320	9,550	268	230	8,422	28,674
3A2	IT-59	51168	SV	8,832	9,052	274	220	8,642	29,162

ITS REEL 1

Project	IT Page:	PCS Box Number	SV / PB:	Cable Ft. In:	Cable Ft. out:	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation:	Fiber Accumulation:
3A2	IT-60	51169	PB	8,508	8,558	212	50	8,692	29,486
3A2	IT-60	51170	SV	8,076	8,296	626	220	8,912	29,918
3A2	IT-61	51171	SV	7,230	7,450	660	220	9,132	30,764
3A2	IT-62	51172	PB	6,520	6,570	440	50	9,182	31,474
3A2	IT-62	51173	PB	6,030	6,080	202	50	9,232	31,964
3A2	IT-63	51174	SV	5,608	5,828	1,224	220	9,452	32,386
3A2	IT-64	51175	SV	4,164	4,384	674	220	9,672	33,830
3A2	IT-65	51176	PB	3,440	3,490	234	50	9,722	34,554
3A2	IT-66	51177	PB	3,156	3,206	412	50	9,772	34,838
3A2	IT-66	51178	SV	2,524	2,744	1,330	220	9,992	35,470
3A2	IT-68	51179	SV	962	1,194	274	232	10,004	37,032
3A2	IT-69	51180	SV	568	688	0	120	10,112	37,426
					Total Fiber Length	Actual Linear Footage		Actual Slack Footage	
					37,426 ft	27,082ft	10,344ft	10,344ft	

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SEQUENTIAL CABLE LENGTH (1)

SHEET NO.
IT-377

ITS REEL 2									
Project	IT Page:	PCS Box Number	SV / PB:	Cable Ft. In:	Cable Ft. out:	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation:	Fiber Accumulation:
3A2	IT-69	51180	SV	8,630	8,510	712	120	120	120
3A2	IT-70	51181	PB	9,392	9,342	352	50	170	882
3A2	IT-70	51182	SV	9,964	9,744	76	220	390	1,454
3A2	IT-70	51183	PB	10,090	10,040	902	50	440	1,580
3A2	IT-71	51184	PB	11,042	10,992	136	50	490	2,532
3A2	IT-72	51185	SV	11,398	11,178	1,018	220	710	2,888
3A2	IT-75	51186	SV	12,636	12,416	102	220	930	4,126
3A2	IT-75	51187	SV	12,958	12,738	178	220	1,150	4,448
3A2	IT-75	51188	PB	13,186	13,136	286	50	1,200	4,676
3A2	IT-78	51189	PB	13,522	13,472	266	50	1,250	5,012
3A2	IT-78	51190	PB	13,838	13,788	284	50	1,300	5,328
3A2	IT-78	51191	SV	14,342	14,122	104	220	1,520	5,832
3A2	IT-82	51192	PB	14,496	14,446	104	50	1,570	5,986
3A2	IT-82	51193	PB	14,650	14,600	822	50	1,620	6,140
3A2	IT-83	51194	SV	15,692	15,472	172	220	1,840	7,182
3A2	IT-83	51195	PB	15,914	15,864	108	50	1,890	7,404
3A2	IT-83	51196	PB	16,072	16,022	84	50	1,940	7,562
3A2	IT-83	51197	PB	16,206	16,156	278	50	1,990	7,696
3A2	IT-84	51198	SV	16,704	16,484	1,004	220	2,210	8,194
3A2	IT-85	51199	SV	17,928	17,708	554	220	2,430	9,418
3A2	IT-86	51200	SV	18,702	18,482	956	220	2,650	10,192
3A2	IT-87	51201	SV	19,878	19,658	46	220	2,870	11,368
3A2	IT-87	51202	PB	19,974	19,924	76	50	2,920	11,464
3A2	IT-87	51203	PB	20,100	20,050	824	50	2,970	11,590
3A2	IT-88	51204	PB	20,974	20,924	312	50	3,020	12,464
3A2	IT-91	51205	PB	21,336	21,286	102	50	3,070	12,826
3A2	IT-91	51206	PB	21,488	21,438	376	50	3,120	12,978
3A2	IT-91	51207	SV	22,084	21,864	178	220	3,340	13,574
3A2	IT-91	51208	PB	22,312	22,262	580	50	3,390	13,802
3A2	IT-92	51209	SV	23,112	22,892	72	220	3,610	14,602
3A2	IT-92	51210	PB	23,234	23,184	46	50	3,660	14,724
3A2	IT-92	51211	PB	23,330	23,280	842	50	3,710	14,820
3A2	IT-95	51217	SV	24,392	24,172	614	220	3,930	15,882
3A2	IT-96	51212	PB	25,056	25,006	442	50	3,980	16,546
3A2	IT-97	51213	SV	25,728	25,498	302	230	4,210	17,218
3A2	IT-97	51214	SV	26,250	26,030	666	220	4,430	17,740
3A2	IT-98	51215	PB	26,966	26,916	584	50	4,480	18,456
3A2	IT-99	51216	SV	27,770	27,550	570	220	4,700	19,260
3A2	IT-100	51218	PB	28,390	28,340	678	50	4,750	19,880
3A2	IT-101	51219	SV	29,288	29,068	266	220	4,970	20,778
3A2	IT-101	51220	SV	29,774	29,554	522	220	5,190	21,264
3A2	IT-102	51221	PB	30,346	30,296	590	50	5,240	21,836
3A2	IT-103	51222	SV	31,156	30,936	384	220	5,460	22,646
3A2	IT-103	51223	SV	31,760	31,540	238	220	5,680	23,250
3A2	IT-103	51224	SV	32,130	31,998	0	132	5,812	23,620
					Total Fiber Length	Actual Linear Footage	Actual Slack Footage		
					23,620 ft	17,808ft	5,812ft		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SEQUENTIAL CABLE LENGTH (2)

SHEET NO.
IT-378

Broward Co. 144 Fiber Backbone-TSM&O Reel 1										
	IT Page:	PCS Box Number	SV / PB:	STA #:	Cable Ft. In:	Cable Ft. out:	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation:	Fiber Accumulation:
3A1	IT-201	Ex HUB	SV	2295+50	37,790	37,994	80	204	204	204
3A1	IT-201	51141	SV	2295+70	37,490	37,710	144	220	424	504
3A1	IT-201	51140	SV	2296+30	37,296	37,346	416	50	474	698
3A1	IT-201	51139	SV	2292+40	36,660	36,880	414	220	694	1,334
3A1	IT-201	51138	SV	2293+80	36,026	36,246	524	220	914	1,968
3A1	IT-201	51137	PB	2298+50	35,452	35,502	112	50	964	2,542
3A1	IT-201	51136	SV	2298+50	35,120	35,340	408	220	1,184	2,874
3A1	IT-202	51135	SV	2303+00	34,492	34,712	552	220	1,404	3,502
3A1	IT-202	51134	SV	2307+90	33,720	33,940	290	220	1,624	4,274
3A1	IT-202	51133	SV	2310+90	33,210	33,430	182	220	1,844	4,784
3A1	IT-202	51132	SV	2312+90	32,978	33,028	378	50	1,894	5,016
3A1	IT-202	51131	PB	2315+85	32,550	32,600	518	50	1,944	5,444
3A1/3A2	IT-20	51130	SV	2321+00	31,812	32,032	208	220	2,164	6,182
3A2	IT-20	51129	SV	2323+02	31,384	31,604	1,198	220	2,384	6,610
3A2	IT-22	51128	SV	2335+21	29,966	30,186	438	220	2,604	8,028
3A2	IT-22	51127	SV	2340+20	29,308	29,528	242	220	2,824	8,686
3A2	IT-27	51126	PB	2342+00	29,016	29,066	410	50	2,874	8,978
3A2	IT-27	51125	SV	2346+00	28,386	28,606	1,186	220	3,094	9,608
3A2	IT-31	51124	SV	2357+93	26,980	27,200	434	220	3,314	11,014
3A2	IT-34	51123	PB	2361+50	26,496	26,546	312	50	3,364	11,498
3A2	IT-32	51122	PB	2364+60	26,134	26,184	244	50	3,414	11,860
3A2	IT-32	51121	SV	2367+20	25,670	25,890	196	220	3,634	12,324
3A2	IT-37	51120	SV	2369+00	25,254	25,474	192	220	3,854	12,740
3A2	IT-37	51119	PB	2371+00	25,012	25,062	200	50	3,904	12,982
3A2	IT-37	51118	PB	2372+80	24,762	24,812	674	50	3,954	13,232
3A2	IT-39	51117	SV	2379+60	23,868	24,088	102	220	4,174	14,126
3A2	IT-39	51116	PB	2379+60	23,716	23,766	332	50	4,224	14,278
3A2	IT-40	51115	SV	2383+20	23,164	23,384	444	220	4,444	14,830
3A2	IT-40	51114	SV	2387+40	22,500	22,720	480	220	4,664	15,494
3A2	IT-41	51113	PB	2390+50	21,970	22,020	180	50	4,714	16,024
3A2	IT-41	51112	SV	2393+00	21,570	21,790	128	220	4,934	16,424
3A2	IT-41	51111	PB	2394+00	21,392	21,442	152	50	4,984	16,602
3A2	IT-41	51142	PB	2395+60	21,190	21,240	202	50	5,034	16,804
3A2	IT-42	51143	SV	2397+59	20,768	20,988	234	220	5,254	17,226
3A2	IT-42	51144	PB	2399+50	20,184	20,534	746	350	5,604	17,810
3A2	IT-43	51145	SV	2406+20	19,218	19,438	288	220	5,824	18,776
3A2	IT-43	51146	PB	2409+00	18,880	18,930	250	50	5,874	19,114
3A2	IT-44	51147	PB	2411+40	18,580	18,630	322	50	5,924	19,414
3A2	IT-44	51148	PB	2414+30	18,208	18,258	230	50	5,974	19,786
3A2	IT-44	51149	PB	2416+60	17,928	17,978	76	50	6,024	20,066
3A2	IT-44	51150	SV	2417+00	17,632	17,852	530	220	6,244	20,362
3A2	IT-45	51151	SV	2422+20	16,882	17,102	772	220	6,464	21,112
3A2	IT-46	51152	SV	2430+20	15,890	16,110	556	220	6,684	22,104
3A2	IT-47	51153	PB	2435+50	15,284	15,334	782	50	6,734	22,710
3A2	IT-48	51154	SV	2443+20	14,282	14,502	946	220	6,954	23,712
3A2	IT-49	51155	PB	2452+60	13,286	13,336	240	50	7,004	24,708
3A2	IT-50	51156	SV	2454+90	12,826	13,046	480	220	7,224	25,168
3A2	IT-50	51157	PB	2459+60	12,296	12,346	110	50	7,274	25,698
3A2	IT-50	51158	PB	2460+00	12,136	12,186	92	50	7,324	25,858
3A2	IT-54	51159	SV	2460+80	11,824	12,044	474	220	7,544	26,170
3A2	IT-54	51160	SV	2465+40	11,130	11,350	126	220	7,764	26,864
3A2	IT-54	51161	PB	2466+00	10,784	11,004	200	220	7,984	27,210
3A2	IT-56	51162	PB	2468+00	10,534	10,584	134	50	8,034	27,460
3A2	IT-56	51163	PB	2469+40	10,350	10,400	186	50	8,084	27,644
3A2	IT-57	51164	PB	2471+00	10,114	10,164	188	50	8,134	27,880
3A2	IT-57	51165	SV	2472+80	9,706	9,926	76	220	8,354	28,288
3A2	IT-57	51166	PB	2473+20	9,580	9,630	428	50	8,404	28,414
3A2	IT-59	51167	PB	2475+80	8,932	9,152	272	220	8,624	29,062

Broward Co. 144 Fiber Backbone-TSM&O Reel 1										
	IT Page:	PCS Box Number	SV / PB:	STA #:	Cable Ft. In:	Cable Ft. out:	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation:	Fiber Accumulation:
3A2	IT-59	51168	SV	2479+80	8,440	8,660	276	220	8,844	29,554
3A2	IT-60	51169	PB	2482+40	8,114	8,164	214	50	8,894	29,880
3A2	IT-60	51170	SV	2484+50	7,680	7,900	628	220	9,114	30,314
3A2	IT-61	51171	SV	2490+80	6,832	7,052	662	220	9,334	31,162
3A2	IT-62	51172	PB	2497+50	6,120	6,170	444	50	9,384	31,874
3A2	IT-62	51173	PB	2501+60	5,626	5,676	206	50	9,434	32,368
3A2	IT-63	51174	SV	2503+80	5,200	5,420	1,224	220	9,654	32,794
3A2	IT-64	51175	SV	2515+84	3,756	3,976	682	220	9,874	34,238
3A2	IT-65	51176	PB	2522+20	3,024	3,074	234	50	9,924	34,970
3A2	IT-66	51177	PB	2524+40	2,740	2,790	396	50	9,974	35,254
3A2	IT-66	51178	SV	2528+12	2,124	2,344	1,336	220	10,194	35,870
3A2	IT-68	51179	SV	2541+55	568	788	306	220	10,414	37,426
3A2	IT-69	51180	SV	2544+50	142	262	0	120	10,534	37,852
Plan Estimated						Total Fiber Lengt	Actual Linear Footage	Actual Slack Footage		
TOTAL						37,852ft	27,318ft	10,534ft		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SEQUENTIAL CABLE LENGTH (3)

SHEET NO.
IT-379

Broward Co 144 Fiber Backbone TSM&O REEL 2

IT Page:	PCS Number	SV / PB:	STA #:	Cable Ft. In:	Cable Ft. out:	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation:	Fiber Accumulation:
IT-69	51180	SV	2544+50	8,492	8,372	712	120	120	120
IT-70	51181	PB	2551+60	9,254	9,204	352	50	170	882
IT-70	51182	SV	2554+46	9,826	9,606	78	220	390	1,454
IT-70	51183	PB	2555+00	9,954	9,904	902	50	440	1,582
IT-71	51184	PB	2565+00	10,906	10,856	136	50	490	2,534
IT-72	51185	SV	2565+00	11,262	11,042	1,018	220	710	2,890
IT-75	51186	SV	2575+60	12,500	12,280	110	220	930	4,128
IT-75	51187	SV	2576+00	12,830	12,610	180	220	1,150	4,458
IT-75	51188	PB	2577+80	13,060	13,010	290	50	1,200	4,688
IT-78	51189	PB	2580+60	13,400	13,350	264	50	1,250	5,028
IT-78	51190	PB	2583+00	13,714	13,664	274	50	1,300	5,342
IT-78	51191	SV	2586+00	14,208	13,988	104	220	1,520	5,836
IT-82	51192	PB	2587+20	14,362	14,312	104	50	1,570	5,990
IT-82	51193	PB	2588+00	14,516	14,466	826	50	1,620	6,144
IT-83	51194	SV	2596+00	15,562	15,342	172	220	1,840	7,190
IT-83	51195	PB	2597+60	15,784	15,734	108	50	1,890	7,412
IT-83	51196	PB	2598+60	15,942	15,892	86	50	1,940	7,570
IT-83	51197	PB	2599+20	16,078	16,028	278	50	1,990	7,706
IT-84	51198	SV	2601+70	16,576	16,356	1,004	220	2,210	8,204
IT-85	51199	SV	2611+80	17,800	17,580	554	220	2,430	9,428
IT-86	51200	SV	2617+00	18,574	18,354	962	220	2,650	10,202
IT-87	51201	SV	2626+00	19,756	19,536	46	220	2,870	11,384
IT-87	51202	PB	2626+00	19,852	19,802	76	50	2,920	11,480
IT-87	51203	PB	2626+00	19,978	19,928	420	50	2,970	11,606
IT-88	51225	PB	2631+00	20,448	20,398	412	50	2,970	11,606
IT-88	51204	PB	2633+00	20,910	20,860	314	50	3,020	12,076
IT-91	51205	PB	2635+60	21,274	21,224	102	50	3,070	12,440
IT-91	51206	PB	2636+40	21,426	21,376	378	50	3,120	12,592
IT-91	51207	SV	2640+00	22,024	21,804	178	220	3,340	13,190
IT-91	51208	PB	2642+00	22,252	22,202	580	50	3,390	13,418
IT-92	51209	SV	2647+40	23,052	22,832	72	220	3,610	14,218
IT-92	51210	PB	2647+40	23,174	23,124	46	50	3,660	14,340
IT-92	51211	PB	2647+40	23,270	23,220	842	50	3,710	14,436
IT-95	51217	SV	2655+86	24,332	24,112	616	220	3,930	15,498
IT-96	51212	PB	2661+40	24,998	24,948	222	50	3,980	16,164
IT-97	51213	SV	2663+60	25,440	25,220	534	220	4,200	16,606
IT-97	51214	SV	2669+26	26,194	25,974	668	220	4,420	17,360
IT-98	51215	PB	2676+00	26,912	26,862	586	50	4,470	18,078
IT-99	51216	SV	2681+98	27,718	27,498	572	220	4,690	18,884
IT-100	51218	PB	2687+80	28,340	28,290	680	50	4,740	19,506
IT-101	51219	SV	2694+40	29,240	29,020	264	220	4,960	20,406
IT-101	51220	SV	2696+60	29,724	29,504	524	220	5,180	20,890
IT-102	51221	PB	2702+20	30,298	30,248	592	50	5,230	21,464
IT-103	51222	SV	2708+02	31,110	30,890	384	220	5,450	22,276
IT-103	51223	SV	2712+00	31,734	31,494	238	240	5,690	22,900
IT-103	51224	SV	2712+00	32,184	31,972	0	212	5,902	23,350
					Total Fiber Lengt	Actual Linear Footage	Actual Slack Footage		
					23,812ft	17,860ft	5,952ft		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

SEQUENTIAL CABLE LENGTH (4)

SHEET NO.
IT-380

ITS MARKERS

FIBER MARKERS	Latitude	Longitude
1	26.19528	-80.1513
2	26.19512	-80.15062
3	26.19509	-80.15048
4	26.19675	-80.1498
5	26.19745	-80.15028
6	26.19875	-80.14961
7	26.19866	-80.14947
8	26.19806	-80.14908
9	26.19801	-80.14898
10	26.19957	-80.14867
11	26.19909	-80.1481
12	26.19942	-80.14775
13	26.20006	-80.14821
14	26.20043	-80.14781
15	26.20026	-80.14697
16	26.20012	-80.14681
17	26.20303	-80.14497
18	26.20265	-80.14448
19	26.20384	-80.14499
20	26.20237	-80.14416
21	26.20431	-80.1436
22	26.20479	-80.14335
23	26.20469	-80.14322
24	26.20495	-80.14294
25	26.20388	-80.14292
26	26.204	-80.14304
27	26.2045	-80.14243
28	26.20446	-80.14237
29	26.20317	-80.14318
30	26.20393	-80.1407
31	26.20482	-80.14195
32	26.20511	-80.14151
33	26.20558	-80.14128
34	26.20576	-80.14214
35	26.20708	-80.14071
36	26.20736	-80.14037
37	26.20687	-80.1398
38	26.20673	-80.13961
39	26.20744	-80.13895
40	26.20856	-80.13814
41	26.20981	-80.13817
42	26.2095	-80.13759
43	26.20993	-80.13733
44	26.20976	-80.13695
45	26.21006	-80.13681
46	26.21041	-80.13662
47	26.211	-80.13657
48	26.21094	-80.1364
49	26.21202	-80.1364
50	26.21153	-80.13627
51	26.21354	-80.13573
52	26.21425	-80.13576
53	26.21424	-80.13598
54	26.21305	-80.13688
55	26.21364	-80.13676
56	26.21498	-80.13577
57	26.21572	-80.13584
58	26.21642	-80.13587
59	26.21647	-80.1357
60	26.21651	-80.13667
61	26.21791	-80.13572
62	26.21797	-80.1359
63	26.22007	-80.13671
64	26.22008	-80.13578
65	26.22162	-80.13582
66	26.22376	-80.13675
67	26.22367	-80.13579
68	26.22631	-80.1359
69	26.22688	-80.13596
70	26.22695	-80.13676
71	26.22787	-80.13676
72	26.22824	-80.13585
73	26.22829	-80.13607
74	26.22942	-80.13781
75	26.22863	-80.13599
76	26.22979	-80.1368
77	26.22979	-80.13609
78	26.22999	-80.13588
79	26.23004	-80.13428
80	26.23053	-80.13593
81	26.23086	-80.1359
82	26.23129	-80.13559
83	26.23181	-80.13561
84	26.23195	-80.1355
85	26.23302	-80.13606
86	26.23305	-80.13584
87	26.23384	-80.13594
88	26.23447	-80.13598
89	26.23505	-80.13599
90	26.2368	-80.13613
91	26.23864	-80.13617
92	26.23979	-80.13618
93	26.24038	-80.13617
94	26.2437	-80.13615
95	26.24548	-80.13617
96	26.24601	-80.13619
97	26.24708	-80.13623
98	26.24949	-80.13626
99	26.25078	-80.13625
100	26.25159	-80.13626
101	26.25445	-80.13627
102	26.25445	-80.13606
103	26.25364	-80.13629
104	26.25364	-80.13607
105	26.25693	-80.13556
106	26.25681	-80.13523
107	26.25969	-80.13434
108	26.25926	-80.13376
109	26.25926	-80.13351
110	26.25965	-80.13316
111	26.26027	-80.1327
112	26.26083	-80.13224
113	26.26143	-80.1317
114	26.26164	-80.13138
115	26.26172	-80.13122
116	26.26354	-80.12978
117	26.26396	-80.12943
118	26.26423	-80.12943
119	26.26425	-80.12918
120	26.26479	-80.1287
121	26.26701	-80.12679
122	26.26826	-80.12591
123	26.27068	-80.12482
124	26.27074	-80.12492
125	26.27084	-80.1251
126	26.27209	-80.12444
127	26.27408	-80.12461
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135	26.27903	-80.12457
136	26.28065	-80.12466
137	26.28121	-80.12468
138	26.28276	-80.12475
139	26.28454	-80.1247
140	26.28614	-80.12444
141	26.28626	-80.12528
142	26.28764	-80.12405
143	26.28942	-80.12359
144	26.28999	-80.12343
145	26.29149	-80.12298
146	26.29304	-80.12253
147	26.29409	-80.12224
148	26.29424	-80.12288

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
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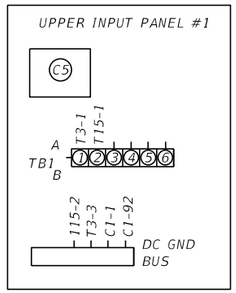
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

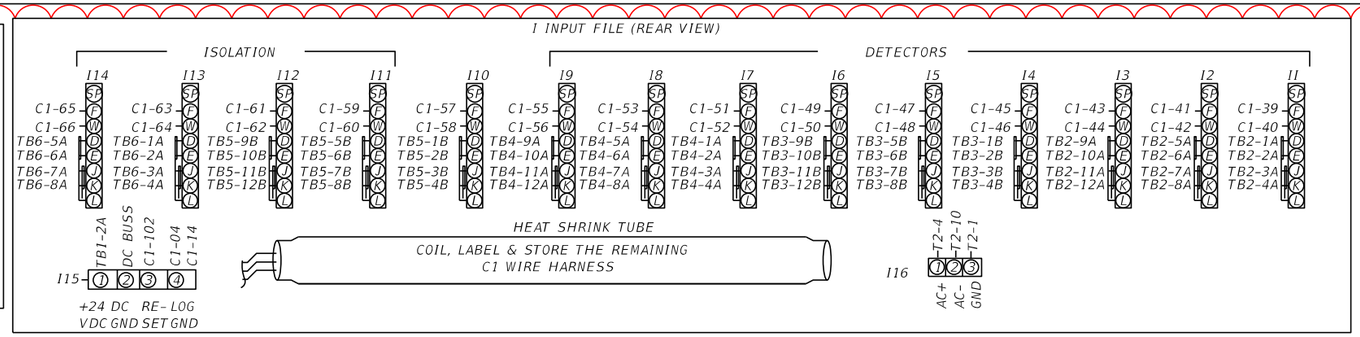
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

ITS - FIBER MARKERS

SHEET NO.
IT-381





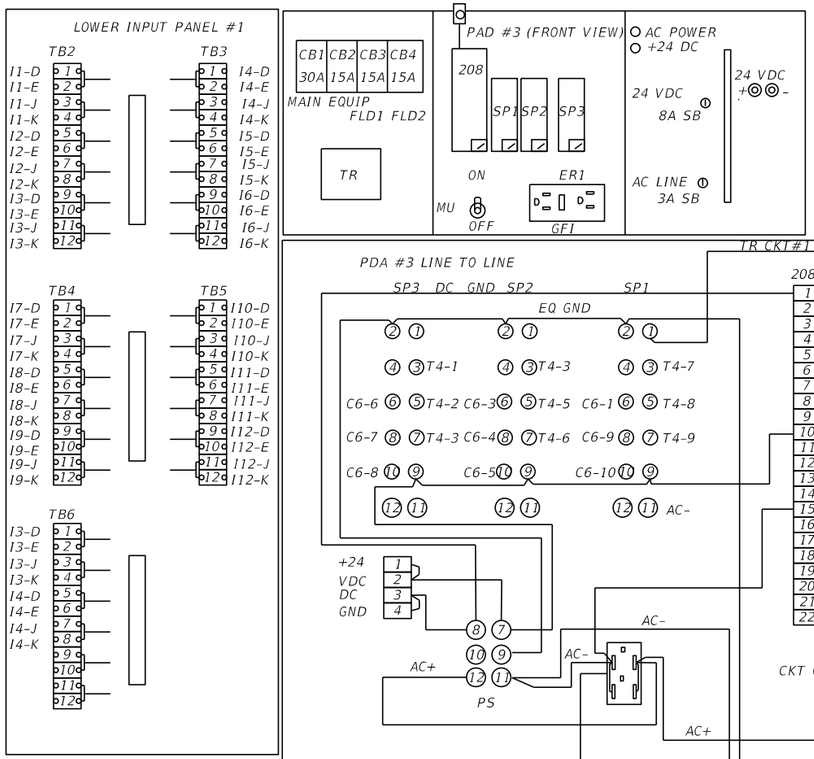
170 CONTROLLER C1 ASSIGNMENT

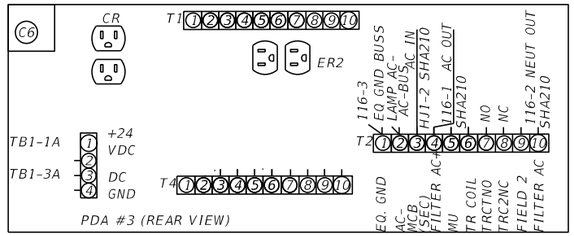
PIN NO	FROM	CONN TO
1	C1-1	DC BUS
2	C1-2	SP 1-RED
3	C1-3	SP 1-GRN
4	C1-4	SP 2-RED
5	C1-5	SP 2-YEL
6	C1-6	SP 2-GRN
7	C1-7	SP 3-RED
8	C1-8	SP 3-YEL
9	C1-9	SP 3-GRN
10	C1-10	C&S
11	C1-11	C&S
12	C1-12	C&S
13	C1-13	C&S
14	C1-14	I15-4
15	C1-15	C&S
16	C1-16	C&S
17	C1-17	C&S
18	C1-18	C&S
19	C1-19	C&S
20	C1-20	C&S
21	C1-21	C&S
22	C1-22	C&S
23	C1-23	C&S
24	C1-24	C&S
25	C1-25	C&S
26	C1-26	C&S

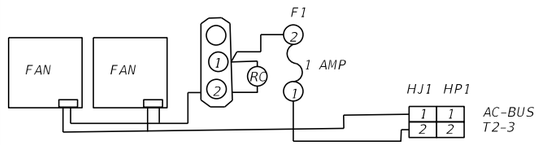
PIN NO	FROM	CONN TO
27	C1-27	C&S
28	C1-28	C&S
29	C1-29	C&S
30	C1-30	C&S
31	C1-31	C&S
32	C1-32	C&S
33	C1-33	C&S
34	C1-34	C&S
35	C1-35	C&S
36	C1-36	C&S
37	C1-37	SP 3-YEL
38	C1-38	C&S
39	C1-39	I11-F
40	C1-40	I11-W
41	C1-41	I12-F
42	C1-42	I12-W
43	C1-43	I13-F
44	C1-44	I13-W
45	C1-45	I14-F
46	C1-46	I14-W
47	C1-47	I15-F
48	C1-48	I15-W
49	C1-49	I6-F
50	C1-50	I6-W
51	C1-51	I7-F
52	C1-52	I7-W

PIN NO	FROM	CONN TO
53	C1-53	I8-F
54	C1-54	I8-W
55	C1-55	I9-F
56	C1-56	I9-W
57	C1-57	I10-F
58	C1-58	I10-W
59	C1-59	I11-F
60	C1-60	I11-W
61	C1-61	I12-F
62	C1-62	I12-W
63	C1-63	I13-F
64	C1-64	I13-W
65	C1-65	I14-F
66	C1-66	I14-W
67	C1-67	C&S
68	C1-68	C&S
69	C1-69	C&S
70	C1-70	C&S
71	C1-71	C&S
72	C1-72	C&S
73	C1-73	C&S
74	C1-74	C&S
75	C1-75	C&S
76	C1-76	C&S
77	C1-77	C&S
78	C1-78	C&S

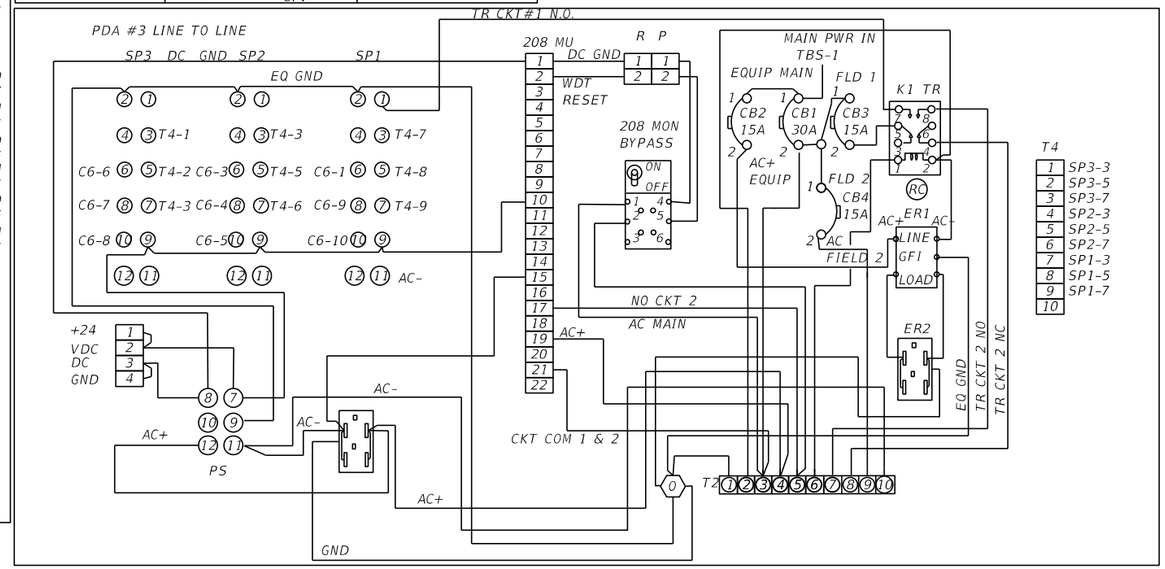
PIN NO	FROM	CONN TO
79	C1-79	C&S
80	C1-80	C&S
81	C1-81	C&S
82	C1-82	C&S
83	C1-83	C&S
84	C1-84	C&S
85	C1-85	C&S
86	C1-86	C&S
87	C1-87	C&S
88	C1-88	C&S
89	C1-89	C&S
90	C1-90	C&S
91	C1-91	C&S
92	C1-92	DC GND
93	C1-93	C&S
94	C1-94	C&S
95	C1-95	C&S
96	C1-96	C&S
97	C1-97	C&S
98	C1-98	C&S
99	C1-99	C&S
100	C1-100	C&S
101	C1-101	C&S
102	C1-102	I15-3
103	C1-103	WDT/C6-10
104	C1-104	I15-4





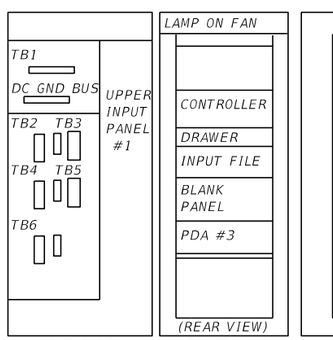


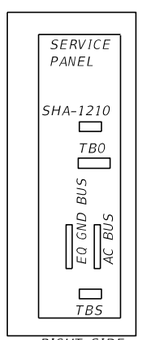
HARNESS PLUG/JACK NO. 1

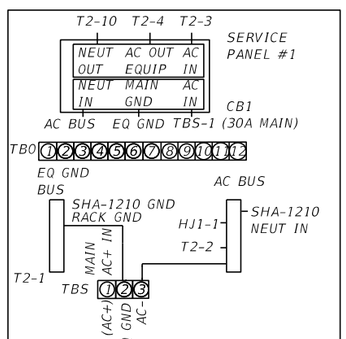


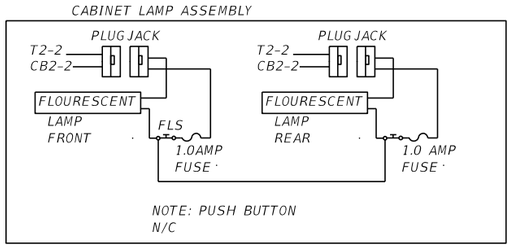
C6 CONN

CONN TO	C6 S
C1-2	1
C1-3	2
C1-4	3
C1-5	4
C1-6	5
C1-7	6
C1-8	7
C1-9	8
C1-37	9
C1-103	10
	11
	12
	13
	14
	15
	16
	17
	18
	19
	20
	21
	22
	23
	24









SHEET DEFINITIONS

FLD#1	FIELD #1 CIRCUIT BREAKER
FLD#2	FIELD #2 CIRCUIT BREAKER
PSS	POWER SUPPLY CONNECTOR
SP	SWITCH PACK
EQ GND	EQUIPMENT GROUND
ER1, ER2	GROUND FAULT PROTECTED RECEPTICAL
CUR	MODEL 170 RECEPTICAL
HJ1/HP1	HARNESS JACK/HARNESS PLUG #1
DC GND	D.C. GROUND
RC	RESISTOR CAPACITOR NETWORK
208 MON	208 MONITOR
TR	TRANSFER RELAY

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8-16-19	AS-BUILTS		

Parsons Brinckerhoff, Inc.
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-5-52-01

RSS CABINET WIRING DIAGRAM

SHEET NO. IT-382

STRUCTURES DESIGN CALCULATIONS

SPECIAL OVERHEAD SIGN STRUCTURES CANTILEVER

ITS SUBMITTAL

I-95 EXPRESS LANES – PHASE 3A-2

Miscellaneous Structures

Prepared For

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction 2017.08.28 09:46:36-04'00'

Patrick C Leung
Corridor Design Consultant (Stantec) - This serves as confirmation that the comments have been satisfactorily resolved 2017.08.25 18:29:56-04'00'

Florida Department of Transportation

Prepared By

MORGAN VILLANUEVA LICENSE No 60292 STATE OF FLORIDA PROFESSIONAL ENGINEER

Morgan Villanueva 2017.06.08 10:29:24 -04'00'

PRINCE PARSONS BRINCKERHOFF

CAP ENGINEERING, INC.

2202 North West Shore Blvd. Suite 300
Tampa, Florida 33607

FBPR Certificate of Authorization No. 1462

June 09, 2017

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

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TITLE REVISED CALCULATIONS FOR DMS CATWALK

PROJECT NAME I-95 Express Lanes - Phase 3A-2 PROJECT # _____ SHEET 1 OF 17

BY A.R. CHECKED BY: M.V. DATE 11/10/2016

I. DESIGN LOADS

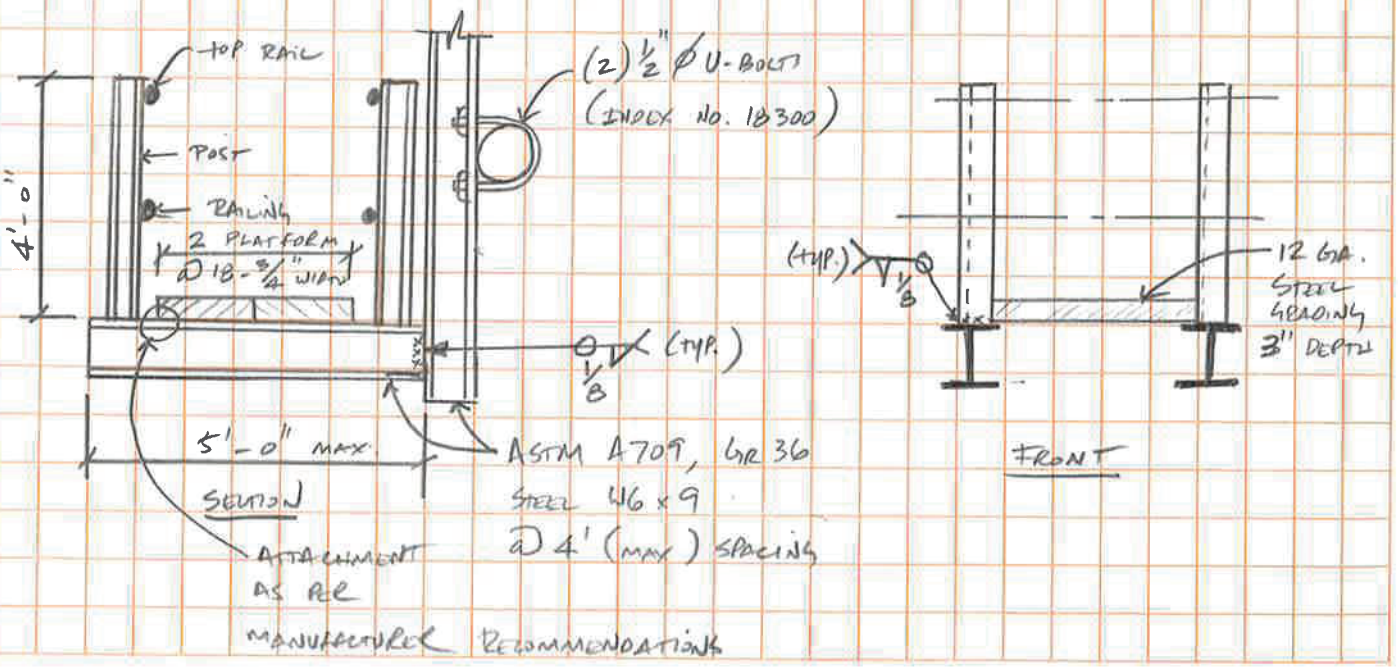
1. SINGLE LOAD OF 500 LB, DISTRIBUTED OVER 2.0 ft TRANSVERSELY TO THE MEMBER SHALL BE USED FOR DESIGNING MEMBERS FOR WALKWAYS AND SERVICE PLATFORMS.

[STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS 3.6]

2. RAILINGS SHALL BE TAKEN AS $W = 0.050$ KLF, BOTH TRANSVERSELY AND VERTICALLY, ACTING SIMULTANEOUSLY. IN ADDITION, A CONCENTRATED LOAD OF 0.20 KIPS, WHICH ACT SIMULTANEOUSLY WITH THE ABOVE LOADS AT ANY POINT AT ANY DIRECTION.
[LRFD 13.8.2]

3. POSTS, CONCENTRATED LOAD $P_{LL} = 0.20 + 0.050\,L$ APPLIED TRANSVERSELY. [LRFD 13.8.2]

II. CALCULATIONS (ASD)



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TITLE CALCULATIONS FOR RAILING POST (CATWALK)

PROJECT NAME I-95 Express Lanes - Phase 3A-2 PROJECT # _____ SHEET 2 OF 17

BY A.R. CHECKED BY: M.V. DATE 11/10/2016

A. CHECK HANDRAIL (1½" Ø STD. PIPE)



$$F_R = \sqrt{w^2 + w^2}\,(4) + 0.20 \text{ KIPS} \quad \text{(4 = SPAN)}$$

$$F_R = \sqrt{(0.050)^2 + (0.050)^2}\,(4) + 0.20 \text{ KIPS}$$

$$F_R = 0.483 \text{ KIPS}$$

$$V_u = 0.482 \text{ KIPS}/2 = 0.241 \text{ KIPS}$$

$$M_u = \frac{PL}{4} = \frac{(0.482)(4)}{4} = 0.484 \text{ KIP-FT}$$

FLEXURAL

$$\frac{M_n}{\Omega_b} = 0.736 \text{ KIP-FT} > M_u \quad \text{..... OK} \quad \text{[AISC 14TH EDITION TABLE 3-15]}$$

SHEAR

$$F_{cr} = 0.6 F_y = 0.6(35) = 21 \text{ KSI}$$

$$V_n = F_{cr} A_s/2 = \frac{(21)(0.749)}{2} = 7.86 \text{ KIPS}$$

$$\Omega_v = 1.67$$

$$\frac{V_n}{\Omega_v} = \frac{7.86}{1.67} = 4.71 \text{ KIPS} >> V_u \quad \text{..... OK}$$

COMBINED

$$\frac{0.484}{0.736} + \left(\frac{0.241}{4.71}\right)^2 \le 1 \quad \text{.... } 0.66 \text{ .... OK}$$

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TITLE CALCULATIONS FOR RAILING POST (CATWALK)

PROJECT NAME I-95 Express Lanes - Phase 3A-2 PROJECT # _____ SHEET 3 OF 17

BY A.R. CHECKED BY: M.V. DATE 11/10/2016

DEFLECTION

Δ_{MAX} @ POINT LOAD: $\frac{PL^3}{48EI} = \frac{0.483(4\times12)^3}{48(29{,}000)(0.293)} = 0.131$ in

$L/150 = 48/150 = 0.32$ in $> \Delta_{max}$ ..... OK

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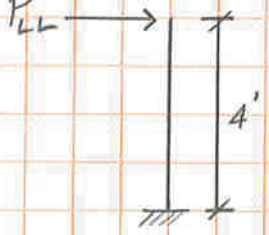
TITLE CALCULATIONS FOR RAILING POST (CATWALK)

PROJECT NAME I-95 Express Lanes - Phase 3A-2 PROJECT # _____ SHEET 4 OF 17

BY A.R. CHECKED BY: M.V. DATE 11/10/2016

B. CHECK POST (MC 3 x 7.1) , ASTM A36, F_y = 36 KSI



$P_{LL} = 0.20 + 0.05 L$ L = POST SPACING

$P_{LL} = 0.20 + 0.05(4)$

$P_{LL} = 0.4$ KIPS

$V_u = 0.4$ KIPS

$M_u = 0.4(4) = 1.6$ KIPS-FT

YIELDING

$M_n = M_p = F_y Z_x = (36)(0.998) = 35.928$ K-in

$M_n = 2.994$ K-FT

$\frac{M_n}{\Omega_b} = \frac{2.994}{1.67} = 1.79$ K-FT $> M_u$ ..... OK

LATERAL-TORSIONAL BUCKLING

$L_b = 4$ $L_p = 2.34$ $L_r > L_b > L_p$ ... $L_r = 25.7$

$$\frac{M_n}{\Omega_b} = C_b\left[\frac{M_{px}}{\Omega_b} - \frac{BF}{\Omega_b}(L_b - L_p)\right] \leq \frac{M_{px}}{\Omega_b}$$

[FROM TABLE 3-9, AISC 14TH EDITION]

$$\frac{M_n}{\Omega_b} = 1\left[4.02 - 0.0745(4 - 2.34)\right] = 3.89 \leq 4.02$$

$\frac{M_n}{\Omega_b} = 3.89$ K-FT $> M_u$ ..... OK

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TITLE CALCULATIONS FOR RAILING POST (CONT'D)

PROJECT NAME I-95 Express Lanes - Phase 3A-2 PROJECT # _____ SHEET 5 OF 17

BY AR CHECKED BY: M.V. DATE 11/10/2016

SHEAR

$$V_n = 0.6 F_y A_w C_v$$

$$\frac{h}{t_w} = \frac{3}{0.312} = 9.615 < 1.10\sqrt{\frac{K_v E}{F_y}}, \quad C_v = 1.0$$

$$1.37\sqrt{\frac{K_v E}{F_y}} = 1.37\sqrt{\frac{(5)(29{,}000)}{36}} = 36.95$$

$$1.10\sqrt{\frac{K_v E}{F_y}} = 1.10\sqrt{\frac{(5)(29{,}000)}{36}} = 69.81$$

$$A_w = d t_w = 3(0.312) = 0.936 \text{ in}^2$$

$$V_n = 0.6(36)(0.936)(1) = \frac{20.22 \text{ KIPS}}{\Omega_v} = \frac{20.22 \text{ KIPS}}{1.67}$$

$$\frac{V_n}{\Omega_v} = 12.11 \text{ KIPS} >> V_u \quad \text{OK}$$

COMPRESSION



$$P_{LL} = 0.20 + 0.050(4) = 0.4 \text{ KIPS}$$

$$P_u = (2)(0.4) = 0.8 \text{ KIPS}$$

$$\Omega_c = 1.67$$

$$P_n = F_{CR} A_g$$

$$A_g = 2.11 \text{ in}^2$$

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TITLE CALCULATIONS FOR RAILING POSTS (CONTD)

PROJECT NAME I-95 Express Lanes - Phase 3A-2 PROJECT # _____ SHEET 6 OF 17

BY A.R CHECKED BY: M.V. DATE 11/10/2016

$$b/t = \frac{1.94 in}{0.351} = 5.527$$

$$\lambda_r = 0.56\sqrt{\frac{E}{F_y}} = 0.56\sqrt{\frac{(29,000)}{(36)}} = 15.894$$

$b/t < \lambda_r$, NON-SLENDER ELEMENT

$$\frac{KL}{r} = \frac{(2.10)(48)}{0.562} = 179.36$$

$$4.71\sqrt{\frac{E}{F_y}} = 4.71\sqrt{\frac{29,000}{36}} = 133.68$$

$\frac{KL}{r} > 4.71\sqrt{\frac{E}{F_y}}$, USE $F_{cr} = 0.877 F_e$

$$F_e = \frac{\pi^2 E}{\left(\frac{KL}{r}\right)^2} = \frac{\pi^2(29,000)}{(179.36)^2} = 8.90 \text{ KSI}$$

$$F_{cr} = 0.877(8.90) = 7.81 \text{ KSI}$$

$$P_n = F_{cr} A_g = (7.81)(2.11) = \frac{16.47 \text{ kips}}{\Omega_c} = 9.86 \text{ kips}$$

$\frac{P_n}{\Omega_c} >> P_u$ ---- OK

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TITLE CALCULATIONS FOR RAILING POST (CONT'D)

PROJECT NAME I-95 Express Lanes - Phase 3A-2 PROJECT # _____ SHEET 7 OF 17

BY BY: A.R. CHECKED BY: M.V. DATE 11/10/2016

TENSION

YIELD

$P_n = F_y A_g$ $\quad \Omega_T = 1.67$

$P_n = (36)(2.11) = \frac{75.96}{1.67}$ KIPS

$\frac{P_n}{\Omega_T} = 45.48$ KIPS $>>> P_u$ ..... OK

RUPTURE

$P_n = F_u A_e$ $\quad \Omega_t = 2.00$, $F_{u_{TENSILE}} = 58$ KSI

$A_e = A_n U$

$A_n = A_g - (d_h + \frac{1}{16})t$

$A_g - (\frac{1}{4} + \frac{1}{16})(0.351)$

$(2.11) - (\frac{1}{4} + \frac{1}{16})(0.351)$

$A_n = 2 \text{ in}^2$

$U_1 = \frac{b_f t_f}{A_g} = \frac{(1.94)(0.351)}{2.11} = 0.328$

$U_2 = 1 - \frac{\bar{x}}{l}$ $\quad l = \frac{1}{4} + 1.5'' = 1.75''$ CONSERVATIVE

$\bar{x}$



$I_x \approx 0.434$ in

$U_2 = 1 - \frac{0.434 \text{ in}}{1.75}$

$U_2 = 0.752$

SEE NEXT PAGE

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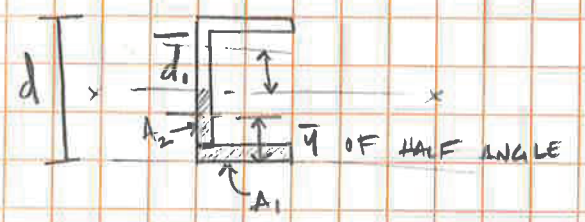
TITLE: CALCULATIONS FOR RAILING POSTS (CONT'D)

PROJECT NAME: I-95 Express Lanes - Phase 3A-2 PROJECT #: SHEET 8 OF 17

BY: By: A.R. CHECKED BY: M.V. DATE: 11/10/2016



$$\bar{y} = \frac{b_f(t_f)(y_{c_1}) + A_1(y_{c_2})}{A_{total}} \qquad \left(\frac{d}{2} - t_f\right)(t_w)$$

$d_1 = 3 - 2(0.351)$

$d_1 = 2.298$ in

$$\bar{y} = \frac{(1.94)(0.351)(0.351/2) + \left(\frac{3}{2} - 0.351\right)(0.312)\left(0.351 + \frac{2.298}{4}\right)}{(1.94)(0.351) + \left(\frac{2.298}{2}\right)(0.312)}$$

$$\bar{y} = \frac{0.45129}{1.039423} = 0.434 \text{ in}$$

CONSERVATIVE U

$$A_e = (2)(0.328) = 0.656 \text{ in}^2$$

$$P_n = (58)(0.656) = \frac{38.048}{\Omega_T}$$

$$\frac{P_n}{\Omega_T} = 19.02 \text{ KIPS} \gg P_{u_{TENSION}} \text{ - - - - - - } \underline{\underline{OK}}$$

COMBINED

$$\frac{P_r}{P_c} + \frac{M_r}{M_c} + \left(\frac{V_r}{V_c}\right)^2 \leq 1$$

$$\left(\frac{0.4}{9.86}\right) + \left(\frac{1.6}{1.79}\right) + \left(\frac{0.4}{12.11}\right)^2 = 0.94 \leq 1 \text{ - - - - - - } \underline{\underline{OK}}$$

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TITLE CHECK SUPPORT BEAM

PROJECT NAME I-95 Express Lanes - Phase 3A-2 PROJECT # _____ SHEET 9 OF 17

BY A.R CHECKED BY: M.V. DATE 11/10/2016

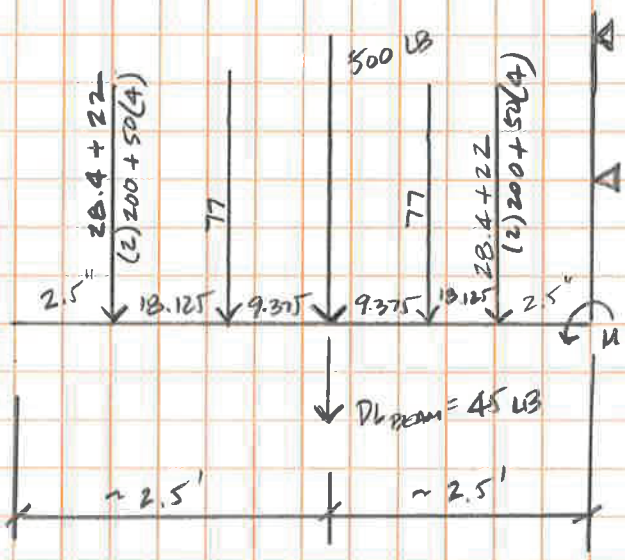
a. DL: W6 x 9 = 5 (9 LB/FT) = 45 LB

MC x 7.1 = 4 (7.1 LB/FT) = 28.4 LB (POSTS)

1½" ø STD. PIPE = (2)(4)(2.72 LB/FT) = 22 LB (RAILING)

12 GA. 3" HEIGHT GRATING = (2)(4)(9.6) = 77 LB

C. CHECK SUPPORT BEAM (W6 x 9)



$V_u = (28.4 + 22 + [(2)(200) + 50(4)]) + 77 + 500 + 77 + 45 + (28.4 + 22 + [(2)(200) + 50(4)])$

$V_u = 850.4 \text{ LB} + 77 + 500 + 77 + 45 + 850.4 \text{ LB}$

$V_u = 2{,}400 \text{ LB}$

- $V_{u\,MAX} = 2.4 \text{ KIPS}$

$+\circlearrowleft M = (850.4)\left(\frac{2.5}{12}\right) + (77)\left(\frac{30}{12}\right) + (545)(2.5') + (77)\left(\frac{39.375}{2}\right) + (850.4)\left(\frac{57.5}{12}\right)$

$M_{MAX} = 7{,}322.9 \text{ LB-FT}$

$M_{u\,MAX} = 7.32 \text{ KIPS-FT}$

YIELDING

$M_p = F_y Z_x = (36)(6.23) = 224.28 \text{ KIPS-IN}$

$\frac{M_p}{\Omega_b} = \frac{18.69 \text{ KIPS-FT}}{1.67} = 11.19 \text{ KIPS-FT} > M_u \ldots\ldots \underline{\text{OK}}$

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TITLE CHECK SUPPORT BEAM

PROJECT NAME I-95 Express Lanes - Phase 3A-2 PROJECT # SHEET 10 OF 17

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LATERAL - TORSIONAL BUCKLING

$L_b = 5' = 60$ in

$$L_p = 1.76\, r_y \sqrt{\frac{E}{F_y}} = 1.76(2.47)\sqrt{\frac{29{,}000}{36}} = 123.38 \text{ in}$$

$L_b \leq L_p$ LIMIT STATE OF LATERAL - TORSION N/A ... OK

DEFLECTION (SIMPLIFIED CALCULATION)

$\frac{7.32 \text{ KIP-FT}}{5 \text{ FT SPAN}} = 1.464$ KIPS, POINT LOAD



$$\Delta_{MAX} = \frac{PL^3}{3EI} = \frac{1.464(5\times12)^3}{3(29{,}000)(16.4)} = 0.22 \text{ in}$$

$$L/_{150} = 60/_{150} = 0.4 \text{ in} > \Delta_{MAX} \quad \text{OK}$$

SHEAR

$$V_n = 0.6\, F_y\, A_w\, C_v$$

$F_y = 36$ KSI

$A_w = d\, T_w = (5.90)(0.170) = 1 \text{ in}^2$

$$h/_{T_w} = \frac{5.90}{0.170} = 34.706 \qquad 1.10\sqrt{\frac{K_v E}{F_y}} = 1.10\sqrt{\frac{5(29{,}000)}{36}} = 69.811$$

$h/_{T_w} \leq 69.811 \quad C_v = 1.0$

$V_n = 0.6(36)(1)(1) = 21.6/\Omega_v = 21.6/_{1.67} = 12.93 \text{ KIP} > V_u$ ... OK

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TITLE CATWALK FOR DMS CALCULATIONS

PROJECT NAME I-95 Express Lanes - Phase 3A-2 PROJECT # _____ SHEET 11 OF 17

BY A.R. CHECKED BY: M.V. DATE 11/10/2016

D. CHECK WELD (CRITICAL CONNECTION):

$R_n = F_{nw} A_{we}$

$F_{nw} = (0.60)(F_{exx})$, $F_{exx} = 70$ KSI

$R_n = (0.60)(70)(3/16 / \sqrt{2}) = 3.71$ KIPS/in

$L_{WELD\ REQUIRED} = \frac{V_u \Omega}{R_n} = \frac{2.4(2.00)}{3.71} = 1.29$ in ... OK

* ALL MEMBERS SHALL BE WELDED COMPLETELY AROUND (CONSERVATIVE) FOR SECONDARY STABILITY. 1/8" FILLET WELD.



HSS2.375-
HSS1.660

Table 1-13 (continued)
Round HSS
Dimensions and Properties

Shape	Design Wall Thickness, t	Nominal Wt.	Area, A	D/t	I	S	r	Z	Torsion	
									J	C
	in.	lb/ft	in.^{2}		in.^{4}	in.^{3}	in.	in.^{3}	in.^{4}	in.^{3}
HSS2.375×0.250	0.233	5.68	1.57	10.2	0.910	0.766	0.762	1.07	1.82	1.53
×0.218	0.203	5.03	1.39	11.7	0.824	0.694	0.771	0.960	1.65	1.39
×0.188	0.174	4.40	1.20	13.6	0.733	0.617	0.781	0.845	1.47	1.23
×0.154	0.143	3.66	1.00	16.6	0.627	0.528	0.791	0.713	1.25	1.06
×0.125	0.116	3.01	0.823	20.5	0.527	0.443	0.800	0.592	1.05	0.887
HSS1.900×0.188	0.174	3.44	0.943	10.9	0.355	0.374	0.613	0.520	0.710	0.747
×0.145	0.135	2.72	0.749	14.1	0.293	0.309	0.626	0.421	0.586	0.617
×0.120	0.111	2.28	0.624	17.1	0.251	0.264	0.634	0.356	0.501	0.527
HSS1.660×0.140	0.130	2.27	0.625	12.8	0.184	0.222	0.543	0.305	0.368	0.444

Table 1-14
Pipe
Dimensions and Properties



PIPE

Shape	Nominal Wt.	Dimensions		Nominal Wall Thickness	Design Wall Thickness	Area	D/t	I	S	r	J	Z
		Outside Diameter	Inside Diameter									
	lb/ft	in.	in.	in.	in.	in.^{2}		in.^{4}	in.^{3}	in.	in.^{4}	in.^{3}
Standard Weight (Std.)												
Pipe 12 Std.	49.6	12.8	12.0	0.375	0.349	13.7	36.5	262	41.0	4.39	523	53.7
Pipe 10 Std.	40.5	10.8	10.0	0.365	0.340	11.5	31.6	151	28.1	3.68	302	36.9
Pipe 8 Std.	28.6	8.63	7.98	0.322	0.300	7.85	28.8	68.1	15.8	2.95	136	20.8
Pipe 6 Std.	19.0	6.63	6.07	0.280	0.261	5.20	25.4	26.5	7.99	2.25	52.9	10.6
Pipe 5 Std.	14.6	5.56	5.05	0.258	0.241	4.01	23.1	14.3	5.14	1.88	28.6	6.83
Pipe 4 Std.	10.8	4.50	4.03	0.237	0.221	2.96	20.4	6.82	3.03	1.51	13.6	4.05
Pipe 3 1/2 Std.	9.12	4.00	3.55	0.226	0.211	2.50	19.0	4.52	2.26	1.34	9.04	3.03
Pipe 3 Std.	7.58	3.50	3.07	0.216	0.201	2.07	17.4	2.85	1.63	1.17	5.69	2.19
Pipe 2 1/2 Std.	5.80	2.88	2.47	0.203	0.189	1.61	15.2	1.45	1.01	0.952	2.89	1.37
Pipe 2 Std.	3.66	2.38	2.07	0.154	0.143	1.02	16.6	0.627	0.528	0.791	1.25	0.713
Pipe 1 1/2 Std.	2.72	1.90	1.61	0.145	0.135	0.749	14.1	0.293	0.309	0.626	0.586	0.421
Pipe 1 1/4 Std.	2.27	1.66	1.38	0.140	0.130	0.625	12.8	0.184	0.222	0.543	0.368	0.305
Pipe 1 Std.	1.68	1.32	1.05	0.133	0.124	0.469	10.6	0.0830	0.126	0.423	0.166	0.177
Pipe 3/4 Std.	1.13	1.05	0.824	0.113	0.105	0.312	10.0	0.0350	0.0671	0.336	0.0700	0.0942
Pipe 1/2 Std.	0.850	0.840	0.622	0.109	0.101	0.234	8.32	0.0160	0.0388	0.264	0.0320	0.0555
Extra Strong (x-Strong)												
Pipe 12 x-Strong	65.5	12.8	11.8	0.500	0.465	17.5	27.4	339	53.2	4.35	678	70.2
Pipe 10 x-Strong	54.8	10.8	9.75	0.500	0.465	15.1	23.1	199	37.0	3.64	398	49.2
Pipe 8 x-Strong	43.4	8.63	7.63	0.500	0.465	11.9	18.5	100	23.1	2.89	199	31.0
Pipe 6 x-Strong	28.6	6.63	5.76	0.432	0.403	7.83	16.4	38.3	11.6	2.20	76.6	15.6
Pipe 5 x-Strong	20.8	5.56	4.81	0.375	0.349	5.73	15.9	19.5	7.02	1.85	39.0	9.50
Pipe 4 x-Strong	15.0	4.50	3.83	0.337	0.315	4.14	14.3	9.12	4.05	1.48	18.2	5.53
Pipe 3 1/2 x-Strong	12.5	4.00	3.36	0.318	0.296	3.43	13.5	5.94	2.97	1.31	11.9	4.07
Pipe 3 x-Strong	10.3	3.50	2.90	0.300	0.280	2.83	12.5	3.70	2.11	1.14	7.40	2.91
Pipe 2 1/2 x-Strong	7.67	2.88	2.32	0.276	0.257	2.10	11.2	1.83	1.27	0.930	3.66	1.77
Pipe 2 x-Strong	5.03	2.38	1.94	0.218	0.204	1.40	11.7	0.827	0.696	0.771	1.65	0.964
Pipe 1 1/2 x-Strong	3.63	1.90	1.50	0.200	0.186	1.00	10.2	0.372	0.392	0.610	0.744	0.549
Pipe 1 1/4 x-Strong	3.00	1.66	1.28	0.191	0.178	0.837	9.33	0.231	0.278	0.528	0.462	0.393
Pipe 1 x-Strong	2.17	1.32	0.957	0.179	0.166	0.602	7.92	0.101	0.154	0.410	0.202	0.221
Pipe 3/4 x-Strong	1.48	1.05	0.742	0.154	0.143	0.407	7.34	0.0430	0.0818	0.325	0.0860	0.119
Pipe 1/2 x-Strong	1.09	0.840	0.546	0.147	0.137	0.303	6.13	0.0190	0.0462	0.253	0.0380	0.0686
Double-Extra Strong (xx-Strong)												
Pipe 8 xx-Strong	72.5	8.63	6.88	0.875	0.816	20.0	10.6	154	35.8	2.78	308	49.9
Pipe 6 xx-Strong	53.2	6.63	4.90	0.864	0.805	14.7	8.23	63.5	19.2	2.08	127	27.4
Pipe 5 xx-Strong	38.6	5.56	4.06	0.750	0.699	10.7	7.96	32.2	11.6	1.74	64.4	16.7
Pipe 4 xx-Strong	27.6	4.50	3.15	0.674	0.628	7.66	7.17	14.7	6.53	1.39	29.4	9.50
Pipe 3 xx-Strong	18.6	3.50	2.30	0.600	0.559	5.17	6.26	5.79	3.31	1.06	11.6	4.89
Pipe 2 1/2 xx-Strong	13.7	2.88	1.77	0.552	0.514	3.83	5.59	2.78	1.94	0.854	5.56	2.91
Pipe 2 xx-Strong	9.04	2.38	1.50	0.436	0.406	2.51	5.85	1.27	1.07	0.711	2.54	1.60

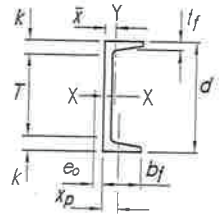


Table 1-6 (continued)
MC-Shapes
Dimensions

Shape	Area, A	Depth, d		Web Thickness, t_w		$\frac{t_w}{2}$	Flange Width, b_f		Flange Average Thickness, t_f		Distance k	Distance T	Distance Workable Gage	r_{ts}	h_o
	in.^{2}	in.		in.		in.	in.		in.		in.	in.	in.	in.	in.
MC7×22.7	6.67	7.00	7	0.503	1/2	1/4	3.60	3 5/8	0.500	1/2	1 1/8	4 3/4	2[9]	1.23	6.50
×19.1	5.61	7.00	7	0.352	3/8	3/16	3.45	3 1/2	0.500	1/2	1 1/8	4 3/4	2[9]	1.19	6.50
MC6×18	5.29	6.00	6	0.379	3/8	3/16	3.50	3 1/2	0.475	1/2	1 1/16	3 7/8	2[9]	1.20	5.53
×15.3	4.49	6.00	6	0.340	5/16	3/16	3.50	3 1/2	0.385	3/8	7/8	4 1/4	2[9]	1.20	5.62
MC6×16.3	4.79	6.00	6	0.375	3/8	3/16	3.00	3	0.475	1/2	1 1/16	3 7/8	1 3/4[9]	1.03	5.53
×15.1	4.44	6.00	6	0.316	5/16	3/16	2.94	3	0.475	1/2	1 1/16	3 7/8	1 3/4[9]	1.01	5.53
MC6×12	3.53	6.00	6	0.310	5/16	3/16	2.50	2 1/2	0.375	3/8	7/8	4 1/4	1 1/2[9]	0.856	5.63
MC6×7	2.09	6.00	6	0.179	3/16	1/8	1.88	1 7/8	0.291	5/16	3/4	4 1/2	—	0.638	5.71
×6.5	1.95	6.00	6	0.155	1/8	1/16	1.85	1 7/8	0.291	5/16	3/4	4 1/2	—	0.631	5.71
MC4×13.8	4.03	4.00	4	0.500	1/2	1/4	2.50	2 1/2	0.500	1/2	1	2	—	0.851	3.50
MC3×7.1	2.11	3.00	3	0.312	5/16	3/16	1.94	2	0.351	3/8	13/16	1 3/8	—	0.657	2.65

[9] The actual size, combination and orientation of fastener components should be compared with the geometry of the cross section to ensure compatibility.
— Indicates flange is too narrow to establish a workable gage.

Table 1-6 (continued)
MC-Shapes
Properties



MC7-MC3

Nominal Wt.	Shear Ctr, e_o	Axis X-X I	Axis X-X S	Axis X-X r	Axis X-X Z	Axis Y-Y I	Axis Y-Y S	Axis Y-Y r	Axis Y-Y $\bar{x}$	Axis Y-Y Z	Axis Y-Y x_p	Torsional Properties J	Torsional Properties C_w	Torsional Properties $\bar{r}_o$	Torsional Properties H
lb/ft	in.	in.^{4}	in.^{3}	in.	in.^{3}	in.^{4}	in.^{3}	in.	in.	in.^{3}	in.	in.^{4}	in.^{6}	in.	
22.7	1.01	47.4	13.5	2.67	16.4	7.24	2.83	1.04	1.04	5.38	0.477	0.625	58.3	3.53	0.6
19.1	1.15	43.1	12.3	2.77	14.5	6.06	2.55	1.04	1.08	4.85	0.579	0.407	49.3	3.70	0.6
18	1.17	29.7	9.89	2.37	11.7	5.88	2.47	1.05	1.12	4.68	0.644	0.379	34.6	3.46	0.5
15.3	1.16	25.3	8.44	2.38	9.91	4.91	2.01	1.05	1.05	3.85	0.511	0.223	30.0	3.41	0.5
16.3	0.930	26.0	8.66	2.33	10.4	3.77	1.82	0.887	0.927	3.47	0.465	0.336	22.1	3.11	0.6
15.1	0.982	24.9	8.30	2.37	9.83	3.46	1.73	0.883	0.940	3.30	0.543	0.285	20.5	3.18	0.6
12	0.725	18.7	6.24	2.30	7.47	1.85	1.03	0.724	0.704	1.97	0.294	0.155	11.3	2.80	0.7
7	0.583	11.4	3.81	2.34	4.50	0.603	0.439	0.537	0.501	0.865	0.174	0.0464	4.00	2.63	0.8
6.5	0.612	11.0	3.66	2.38	4.28	0.565	0.422	0.539	0.513	0.836	0.191	0.0412	3.75	2.68	0.8
13.8	0.643	8.85	4.43	1.48	5.53	2.13	1.29	0.727	0.849	2.40	0.508	0.373	4.84	2.23	0.5
7.1	0.574	2.72	1.81	1.14	2.24	0.666	0.518	0.562	0.653	0.998	0.414	0.0928	0.915	1.76	0.5

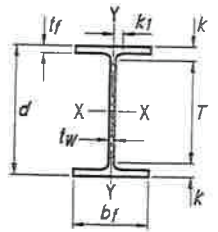


Table 1-1 (continued)
W-Shapes
Dimensions

Shape	Area, A	Depth, d	Web			Flange				Distance				
			Thickness, t_w		$\frac{t_w}{2}$	Width, b_f		Thickness, t_f		k		k_1	T	Work-able Gage
										k_{des}	k_{det}			
	in.^{2}	in.	in.		in.	in.		in.		in.	in.	in.	in.	in.
W8×67	19.7	9.00	0.570	9/16	5/16	8.28	8 1/4	0.935	15/16	1.33	1 5/8	15/16	5 3/4	5 1/2
×58	17.1	8.75	0.510	1/2	1/4	8.22	8 1/4	0.810	13/16	1.20	1 1/2	7/8		
×48	14.1	8.50	0.400	3/8	3/16	8.11	8 1/8	0.685	11/16	1.08	1 3/8	13/16		
×40	11.7	8.25	0.360	3/8	3/16	8.07	8 1/8	0.560	9/16	0.954	1 1/4	13/16		
×35	10.3	8.12	0.310	5/16	3/16	8.02	8	0.495	1/2	0.889	1 3/16	13/16		
×31[f]	9.13	8.00	0.285	5/16	3/16	8.00	8	0.435	7/16	0.829	1 1/8	3/4		
W8×28	8.25	8.06	0.285	5/16	3/16	6.54	6 1/2	0.465	7/16	0.859	15/16	5/8	6 1/8	4
×24	7.08	7.93	7 7/8	0.245	1/4	7/8	6.50	6 1/2	0.400	3/8	0.794	7/8	9/16	6 1/8	4
W8×21	6.16	8.28	8 1/4	0.250	1/4	1/8	5.27	5 1/4	0.400	3/8	0.700	7/8	9/16	6 1/2	2 3/4[g]
×18	5.26	8.14	8 1/8	0.230	1/4	1/8	5.25	5 1/4	0.330	5/16	0.630	13/16	9/16	6 1/2	2 3/4[g]
W8×15	4.44	8.11	8 1/8	0.245	1/4	1/8	4.02	4	0.315	5/16	0.615	13/16	9/16	6 1/2	2 1/4[g]
×13	3.84	7.99	8	0.230	1/4	1/8	4.00	4	0.255	1/4	0.555	3/4	9/16		
×10[c,f]	2.96	7.89	7 7/8	0.170	3/16	1/8	3.94	4	0.205	3/16	0.505	11/16	1/2		
W6×25	7.34	6.38	6 3/8	0.320	5/16	3/16	6.08	6 1/8	0.455	7/16	0.705	15/16	9/16	4 1/2	3 1/2
×20	5.87	6.20	6 1/4	0.260	1/4	1/8	6.02	6	0.365	3/8	0.615	7/8	9/16		
×15[f]	4.43	5.99	6	0.230	1/4	1/8	5.99	6	0.260	1/4	0.510	3/4	9/16		
W6×16	4.74	6.28	6 1/4	0.260	1/4	1/8	4.03	4	0.405	3/8	0.655	7/8	9/16	4 1/2	2 1/4[g]
×12	3.55	6.03	6	0.230	1/4	1/8	4.00	4	0.280	1/4	0.530	3/4	9/16		
×9[f]	2.68	5.90	5 7/8	0.170	3/16	1/8	3.94	4	0.215	3/16	0.465	11/16	1/2		
×8.5[f]	2.52	5.83	5 7/8	0.170	3/16	1/8	3.94	4	0.195	3/16	0.445	11/16	1/2		
W5×19	5.56	5.15	5 1/8	0.270	1/4	1/8	5.03	5	0.430	7/16	0.730	13/16	7/16	3 1/2	2 3/4[g]
×16	4.71	5.01	5	0.240	1/4	1/8	5.00	5	0.360	3/8	0.660	3/4	7/16	3 1/2	2 3/4[g]
W4×13	3.83	4.16	4 1/8	0.280	1/4	1/8	4.06	4	0.345	3/8	0.595	3/4	1/2	2 5/8	2 1/4[g]

[c] Shape is slender for compression with $F_y = 50$ ksi.
[f] Shape exceeds compact limit for flexure with $F_y = 50$ ksi.
[g] The actual size, combination and orientation of fastener components should be compared with the geometry of the cross section to ensure compatibility.

Table 1-1 (continued)
W-Shapes
Properties

Nominal Wt.	Compact Section Criteria		Axis X-X				Axis Y-Y				r_{ts}	h_o	J
	$\frac{b_f}{2t_f}$	$\frac{h}{t_w}$	I	S	r	Z	I	S	r	Z			
lb/ft			in.^{4}	in.^{3}	in.	in.^{3}	in.^{4}	in.^{3}	in.	in.^{3}	in.	in.	in.^{4}
67	4.43	11.1	272	60.4	3.72	70.1	88.6	21.4	2.12	32.7	2.43	8.07	5.05
58	5.07	12.4	228	52.0	3.65	59.8	75.1	18.3	2.10	27.9	2.39	7.94	3.33
48	5.92	15.9	184	43.2	3.61	49.0	60.9	15.0	2.08	22.9	2.35	7.82	1.96
40	7.21	17.6	146	35.5	3.53	39.8	49.1	12.2	2.04	18.5	2.31	7.69	1.12
35	8.10	20.5	127	31.2	3.51	34.7	42.6	10.6	2.03	16.1	2.28	7.63	0.76
31	9.19	22.3	110	27.5	3.47	30.4	37.1	9.27	2.02	14.1	2.26	7.57	0.53
28	7.03	22.3	98.0	24.3	3.45	27.2	21.7	6.63	1.62	10.1	1.84	7.60	0.53
24	8.12	25.9	82.7	20.9	3.42	23.1	18.3	5.63	1.61	8.57	1.81	7.53	0.34
21	6.59	27.5	75.3	18.2	3.49	20.4	9.77	3.71	1.26	5.69	1.46	7.88	0.28
18	7.95	29.9	61.9	15.2	3.43	17.0	7.97	3.04	1.23	4.66	1.43	7.81	0.17
15	6.37	28.1	48.0	11.8	3.29	13.6	3.41	1.70	0.876	2.67	1.06	7.80	0.13
13	7.84	29.9	39.6	9.91	3.21	11.4	2.73	1.37	0.843	2.15	1.03	7.74	0.087
10	9.61	40.5	30.8	7.81	3.22	8.87	2.09	1.06	0.841	1.66	1.01	7.69	0.042
25	6.68	15.5	53.4	16.7	2.70	18.9	17.1	5.61	1.52	8.56	1.74	5.93	0.467
20	8.25	19.1	41.4	13.4	2.66	14.9	13.3	4.41	1.50	6.72	1.70	5.84	0.240
15	11.5	21.6	29.1	9.72	2.56	10.8	9.32	3.11	1.45	4.75	1.66	5.73	0.101
16	4.98	19.1	32.1	10.2	2.60	11.7	4.43	2.20	0.967	3.39	1.13	5.88	0.223
12	7.14	21.6	22.1	7.31	2.49	8.30	2.99	1.50	0.918	2.32	1.08	5.75	0.090
9	9.16	29.2	16.4	5.56	2.47	6.23	2.20	1.11	0.905	1.72	1.06	5.69	0.040
8.5	10.1	29.1	14.9	5.10	2.43	5.73	1.99	1.01	0.890	1.56	1.05	5.64	0.033
19	5.85	13.7	26.3	10.2	2.17	11.6	9.13	3.63	1.28	5.53	1.45	4.72	0.316
16	6.94	15.4	21.4	8.55	2.13	9.63	7.51	3.00	1.26	4.58	1.43	4.65	0.192
13	5.88	10.6	11.3	5.46	1.72	6.28	3.86	1.90	1.00	2.92	1.16	3.82	0.151

Table 3-15
Pipe
Available Flexural Strength, kip-ft

F_y = 35 ksi



Shape	M_n/Ω_b ASD	$\phi_b M_n$ LRFD	Shape	M_n/Ω_b ASD	$\phi_b M_n$ LRFD
Pipe 12 x-Strong	123	184	Pipe 2½ xx-Strong	5.08	7.64
Pipe 12 Std.	93.8	141	Pipe 2½ x-Strong	3.09	4.64
Pipe 10 x-Strong	86.0	129	Pipe 2½ Std.	2.39	3.59
Pipe 10 Std.	64.4	96.8	Pipe 2 xx-Strong	2.79	4.19
Pipe 8 xx-Strong	87.2	131	Pipe 2 x-Strong	1.68	2.53
Pipe 8 x-Strong	54.1	81.4	Pipe 2 Std.	1.25	1.87
Pipe 8 Std.	36.3	54.6	Pipe 1½ x-Strong	0.958	1.44
Pipe 6 xx-Strong	47.9	72.0	Pipe 1½ Std.	0.736	1.11
Pipe 6 x-Strong	27.3	41.0	Pipe 1¼ x-Strong	0.686	1.03
Pipe 6 Std.	18.5	27.8	Pipe 1¼ Std.	0.533	0.801
Pipe 5 xx-Strong	29.1	43.7	Pipe 1 x-Strong	0.385	0.579
Pipe 5 x-Strong	16.6	24.9	Pipe 1 Std.	0.308	0.463
Pipe 5 Std.	11.9	17.9	Pipe ¾ x-Strong	0.207	0.311
Pipe 4 xx-Strong	16.6	24.9	Pipe ¾ Std.	0.164	0.247
Pipe 4 x-Strong	9.65	14.5	Pipe ½ x-Strong	0.120	0.180
Pipe 4 Std.	7.07	10.6	Pipe ½ Std.	0.0969	0.146
Pipe 3½ x-Strong	7.11	10.7			
Pipe 3½ Std.	5.30	7.96			
Pipe 3 xx-Strong	8.55	12.8			
Pipe 3 x-Strong	5.08	7.64			
Pipe 3 Std.	3.83	5.75			

ASD | LRFD

MC7-MC6

Table 3-9 (continued)
Maximum Total Uniform Load, kips
MC-Shapes

F_y = 36 ksi

Shape		MC7×		MC6×							
		19.1		18		15.3		16.3		15.1	
Design		ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD
Span, ft	2			58.8	88.4	52.8	79.3	58.2	87.5	49.0	73.7
	3	63.7	95.8	56.0	84.2	47.5	71.4	49.8	74.9	47.1	70.8
	4	52.1	78.3	42.0	63.2	35.6	53.5	37.4	56.2	35.3	53.1
	5	41.7	62.6	33.6	50.5	28.5	42.8	29.9	44.9	28.3	42.5
	6	34.7	52.2	28.0	42.1	23.7	35.7	24.9	37.4	23.5	35.4
	7	29.8	44.7	24.0	36.1	20.3	30.6	21.4	32.1	20.2	30.3
	8	26.0	39.2	21.0	31.6	17.8	26.8	18.7	28.1	17.7	26.5
	9	23.2	34.8	18.7	28.1	15.8	23.8	16.6	25.0	15.7	23.6
	10	20.8	31.3	16.8	25.3	14.2	21.4	14.9	22.5	14.1	21.2
	11	18.9	28.5	15.3	23.0	12.9	19.5	13.6	20.4	12.8	19.3
	12	17.4	26.1	14.0	21.1	11.9	17.8	12.5	18.7	11.8	17.7
	13	16.0	24.1	12.9	19.4	11.0	16.5	11.5	17.3	10.9	16.3
	14	14.9	22.4	12.0	18.1	10.2	15.3	10.7	16.0	10.1	15.2
	15	13.9	20.9	11.2	16.8	9.49	14.3	9.96	15.0	9.42	14.2
	16	13.0	19.6								
	17	12.3	18.4								
Beam Properties											
W_c/Ω_b	$\phi_b W_c$, kip-ft	208	313	168	253	142	214	149	225	141	212
M_p/Ω_b	$\phi_b M_p$, kip-ft	26.0	39.2	21.0	31.6	17.8	26.8	18.7	28.1	17.7	26.5
M_r/Ω_b	$\phi_b M_r$, kip-ft	15.5	23.2	12.4	18.7	10.6	16.0	10.9	16.4	10.4	15.7
BF/Ω_b	$\phi_b BF$, kips	0.523	0.797	0.356	0.535	0.372	0.559	0.373	0.560	0.384	0.568
V_n/Ω_v	$\phi_v V_n$, kips	31.9	47.9	29.4	44.2	26.4	39.7	29.1	43.7	24.5	36.9
Z_x, in.^{3}		14.5		11.7		9.91		10.4		9.83	
L_p, ft		4.33		4.37		4.37		3.69		3.68	
L_r, ft		24.4		28.5		23.7		24.6		22.7	

ASD	LRFD
Ω_b = 1.67	ϕ_b = 0.90
Ω_v = 1.67	ϕ_v = 0.90

Note: For beams laterally unsupported, see Table 3-11.
Available strength tabulated above heavy line is limited by available shear strength.

F_y = 36 ksi

Table 3-9 (continued)
Maximum Total Uniform Load, kips
MC-Shapes

MC6-MC3

Shape		MC6×						MC4×		MC3×	
		12		7		6.5		13.8		7.1	
Design		ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD
Span, ft	2	48.1	72.3	27.8	41.8	24.1	36.2	39.7	59.7	16.1	24.2
	3	35.8	53.8	21.6	32.4	20.5	30.8	26.5	39.8	10.7	16.1
	4	26.8	40.3	16.2	24.3	15.4	23.1	19.9	29.9	8.05	12.1
	5	21.5	32.3	12.9	19.4	12.3	18.5	15.9	23.9	6.44	9.68
	6	17.9	26.9	10.8	16.2	10.3	15.4	13.2	19.9	5.37	8.06
	7	15.3	23.1	9.24	13.9	8.79	13.2	11.4	17.1	4.60	6.91
	8	13.4	20.2	8.08	12.2	7.69	11.6	9.93	14.9		
	9	11.9	17.9	7.19	10.8	6.83	10.3	8.83	13.3		
	10	10.7	16.1	6.47	9.72	6.15	9.24	7.95	11.9		
	11	9.76	14.7	5.88	8.84	5.59	8.40				
	12	8.95	13.4	5.39	8.10	5.13	7.70				
	13	8.26	12.4	4.97	7.48	4.73	7.11				
	14	7.67	11.5	4.62	6.94	4.39	6.60				
	15	7.16	10.8	4.31	6.48	4.10	6.16				
Beam Properties											
W_c/Ω_b	$\phi_b W_c$, kip-ft	107	161	64.7	97.2	61.5	92.4	79.5	119	32.2	48.4
M_p/Ω_b	$\phi_b M_p$, kip-ft	13.4	20.2	8.08	12.2	7.69	11.6	9.93	14.9	4.02	6.05
M_r/Ω_b	$\phi_b M_r$, kip-ft	7.85	11.8	4.79	7.20	4.60	6.92	5.57	8.37	2.28	3.42
BF/Ω_b	$\phi_b BF$, kips	0.414	0.627	0.490	0.744	0.485	0.735	0.126	0.189	0.0745	0.113
V_n/Ω_v	$\phi_v V_n$, kips	24.1	36.2	13.9	20.9	12.0	18.1	25.9	38.9	12.1	18.2
Z_x, in.^{3}		7.47		4.50		4.23		5.53		2.24	
L_p, ft		3.01		2.24		2.24		3.03		2.34	
L_r, ft		16.4		8.96		8.61		37.6		25.7	

ASD	LRFD
Ω_b = 1.67	ϕ_b = 0.90
Ω_v = 1.67	ϕ_v = 0.90

Note: For beams laterally unsupported, see Table 3-11.
Available strength tabulated above heavy line is limited by available shear strength.

Plank or walkways—we have it!

GRIP STRUT® 8-DIAMOND PLANK (18-3/4" WIDTH) — Plank — LOAD TABLE

Material	Height in. (mm)	#/LF (Kg/m)	Catalog Number		Clear Span 2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
	1-1/2 (38.1)	6.1 (9.1)	81514	U	337	217	151	112	86	69	56	47									
				D	0.33	0.27	0.26	0.29	0.33	0.38	0.45	0.55									
				C	263	211	178	153	135	121	110	101									
				D	0.16	0.15	0.15	0.16	0.17	0.19	0.22	0.25									
STEEL 14 ga.	2 (50.8)	6.3 (9.4)	82014	U	540	358	250	184	142	113	92	76	65	55	48	42					
				D	0.48	0.37	0.34	0.32	0.34	0.38	0.43	0.50	0.58	0.66	0.77	0.87					
				C	437	349	292	251	220	198	179	164	152	141	132	124					
				D	0.24	0.21	0.20	0.19	0.20	0.21	0.23	0.26	0.29	0.32	0.36	0.40					
	2-1/2 (63.5)	6.6 (9.8)	82514	U	540	411	286	211	162	129	105	87	74	63	55	48	43				
				D	0.46	0.39	0.35	0.28	0.27	0.28	0.31	0.35	0.39	0.44	0.50	0.57	0.64				
				C	450	402	335	287	252	225	205	188	173	161	151	142	134				
				D	0.24	0.22	0.20	0.19	0.19	0.19	0.20	0.21	0.23	0.24	0.27	0.29	0.32				
	1-1/2 (38.1)	8.5 (12.6)	81512	U	446	287	201	148	115	91	75	63	53	46	40						
				D	0.27	0.22	0.22	0.26	0.32	0.39	0.47	0.56	0.67	0.80	0.92						
				C	359	280	235	203	179	161	146	135	125	117	110						
				D	0.12	0.12	0.12	0.14	0.16	0.19	0.22	0.26	0.30	0.35	0.40						
	2 (50.8)	8.9 (13.2)	82012	U	710	456	318	235	181	144	117	98	83	71	62	54	48				
				D	0.31	0.25	0.23	0.25	0.28	0.31	0.37	0.44	0.51	0.60	0.68	0.79	0.90				
				C	554	444	371	319	282	253	229	210	194	181	169	160	151				
STEEL 12 ga.				D	0.17	0.15	0.14	0.15	0.16	0.17	0.19	0.22	0.25	0.28	0.32	0.36	0.40				
	2-1/2 (63.5)	9.2 (13.7)	82512	U	810	680	473	348	267	212	172	143	120	103	89	78	69	55	45		
				D	0.33	0.31	0.27	0.26	0.27	0.29	0.32	0.37	0.42	0.49	0.55	0.63	0.72	0.90	1.12		
				C	800	663	553	475	416	371	334	307	282	262	244	229	216	194	177		
				D	0.23	0.20	0.18	0.18	0.18	0.18	0.19	0.21	0.23	0.25	0.28	0.31	0.34	0.41	0.50		
→	3 (76.2)	9.6 (14.3)	83012	U	810	810	598	440	337	267	217	180	152	130	112	98	87	69	57	47	40
				D	0.32	0.35	0.30	0.27	0.26	0.28	0.31	0.34	0.39	0.43	0.49	0.56	0.62	0.78	0.96	1.17	1.40
				C	800	800	699	600	526	468	422	385	353	327	307	288	271	243	221	203	189
				D	0.22	0.23	0.22	0.20	0.20	0.20	0.20	0.21	0.22	0.24	0.26	0.28	0.31	0.37	0.44	0.52	0.61
	1-1/2* (38.1)	2.11 (3.13)	81512-A	U	253	162	112	83													
				D	0.49	0.40	0.39	0.44													
				C	198	158	132	113													
				D	0.24	0.22	0.22	0.24													
	2* (50.8)	2.20 (3.27)	82012-A	U	308	237	165	121	93	73	59	49									
				D	0.54	0.50	0.44	0.44	0.47	0.53	0.61	0.71									
				C	290	232	193	166	145	129	116	106									
ALUM. ALLOY 5052 12 ga. .080"				D	0.32	0.28	0.27	0.27	0.28	0.30	0.32	0.36									
	2-1/2* (63.5)	2.29 (3.40)	82512-A	U	308	308	248	182	139	110	89	74	62	53							
				D	0.51	0.57	0.54	0.49	0.50	0.52	0.57	0.65	0.73	0.83							
				C	350	348	290	249	218	194	174	158	145	134							
				D	.037	0.39	0.35	0.33	0.33	0.34	0.35	0.37	0.40	0.43							
	3* (76.2)	2.39 (3.55)	83012-A	U	308	308	308	223	171	135	109	90	76	65	56	49					
				D	0.50	0.54	0.62	0.54	0.52	0.52	0.56	0.61	0.68	0.76	0.86	0.96					
				C	350	350	350	306	268	238	214	195	178	165	153	143					
				D	0.37	0.38	0.41	0.38	0.37	0.37	0.37	0.39	0.40	0.43	0.46	0.50					
	1-1/2* (38.1)	2.68 (3.98)	81510-A	U	288	184	128	94	72	57											
				D	0.41	0.36	0.36	0.40	0.47	0.56											
				C	225	180	150	129	113	100											
				D	0.18	0.18	0.19	0.21	0.23	0.27											
	2 (50.8)	2.79 (4.15)	82010-A	U	457	332	231	170	130	103	83	69	58	49							
				D	0.59	0.51	0.46	0.47	0.52	0.57	0.67	0.78	0.89	1.03							
				C	406	325	271	232	203	181	163	148	135	125							
ALUM. ALLOY 5052 10 ga. .100"				D	0.29	0.26	0.25	0.26	0.28	0.30	0.33	0.37	0.42	0.47							
	2-1/2* (63.5)	2.91 (4.33)	82510-A	U	457	457	317	233	179	141	114	94	79	68	58	51	45				
				D	0.55	0.62	0.51	0.48	0.48	0.52	0.58	0.64	0.73	0.84	0.94	1.07	1.20				
				C	550	447	372	319	279	248	223	203	186	172	160	149	140				
				D	0.37	0.32	0.30	0.29	0.29	0.30	0.32	0.35	0.38	0.41	0.46	0.52	0.55				
	3* (76.2)	3.02 (4.50)	83010-A	U	457	457	410	301	231	182	148	122	102	87	75	66	58				
				D	0.53	0.57	0.58	0.51	0.48	0.48	0.51	0.56	0.61	0.69	0.76	0.85	0.95				
				C	550	550	481	412	360	320	288	262	240	222	206	192	180				
				D	0.37	0.39	0.37	0.35	0.34	0.34	0.36	0.38	0.41	0.44	0.48	0.52	0.57				

Load Table Symbols:
U-uniform load (lbs./SF)
C-concentrated load (lb.)
D-deflection (inches)

Chart Notes:
1) Spans in colored area produce deflection of 1/4" or less under uniform load of 100 lbs/ft²
2) *Indicates items available by special order



GRIP STRUT® enhances worker safety on this elevated railroad trestle.

STRUCTURES DESIGN CALCULATIONS

SPECIAL OVERHEAD SIGN STRUCTURES CANTILEVER

ITS SUBMITTAL

I-95 EXPRESS LANES – PHASE 3A-2

Miscellaneous Structures

Prepared For

Patrick C Leung
Corridor Design Consultant (Stantec) - This serves as confirmation that the comments have been satisfactorily resolved
2017.08.25 18:31:30-04'00'

Florida Department of Transportation

Prepared By

Morgan Villanueva
2017.06.08 10:30:40
-04'00'

PRINCE

MORGAN VILLANUEVA LICENSE No 60292 STATE OF FLORIDA PROFESSIONAL ENGINEER

PARSONS BRINCKERHOFF

CAP ENGINEERING, INC.

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction
2017.08.28 09:44:56-04'00'

2202 North West Shore Blvd. Suite 300
Tampa, Florida 33607

FBPR Certificate of Authorization No. 1462

June 09, 2017

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64
BY: (Stantec) PL BY: (FDOT)

STA. 2603+10.00 - DMS

DMS Cantilever, front Access (29'-6"W x 7'-10"H + 1'-4"O)

℄ truss elev = 17.35' + 19.5' + 3.92' = 40.77'

Truss Height = 40.77' - 20.76' = 20.01'

Wind Height = 40.77' - 16.05' = 24.72'

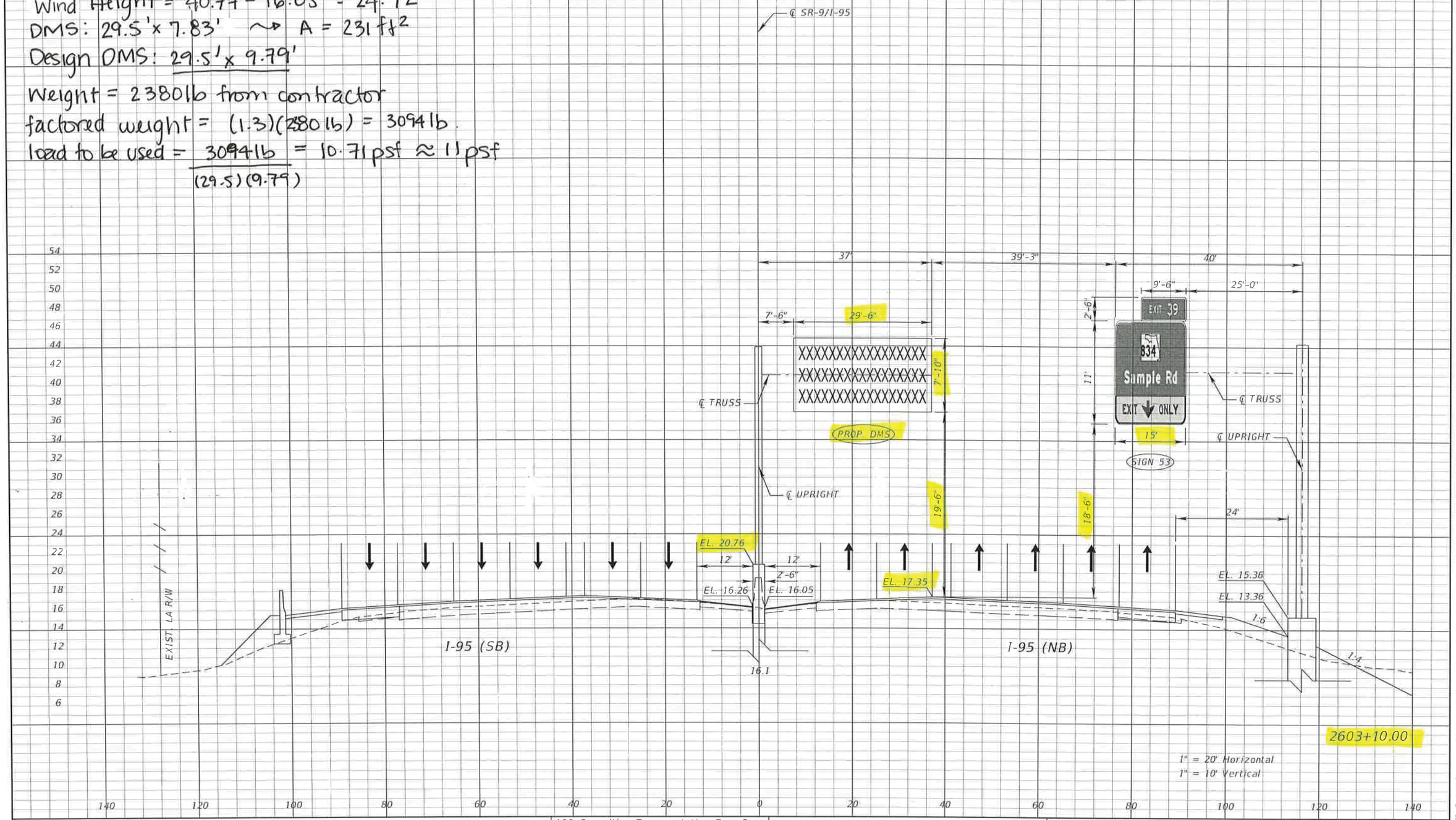
DMS: 29.5' x 7.83' ⇝ A = 231 ft²

Design DMS: 29.5' x 9.79'

Weight = 23801b from contractor

factored weight = (1.3)(23801b) = 30941b.

load to be used = $\frac{30941b}{(29.5)(9.79)}$ = 10.71psf ≈ 11psf



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

A&P Consulting Transportation Eng. Corp.
10305 N.W. 41 Street
Suite 115
Miami, FL 33178
(305) 592-7283
Cert. of Auth. No. EB-0007797
EOR: Eithel M. Sierra, P.E.
License No: 55401

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

SIGNING AND PAVEMENT MARKING CROSS SECTIONS

SHEET NO. S-129

minastrilla 2/22/2017 10:59:12 AM P:\-I3310855201 I-95 Express Lanes\signing\rdxssp200_01.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Cantilever Overhead Sign Program v6.1

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Florida Department of Transportation
Structures Design Office **http://www.dot.state.fl.us/structures**

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User Manual

Data Files Folder Change Folder

E:\PROJECTS\2016\I-95 Express Lanes, Phase 3A-2 DB\43310855201_I95_Ph3A2\struct\signstruct\cantilevers\CantileverV6.1\Data\

Open Existing Data File (optional)

Refresh List

Open File

- Sign 08 (Sta. 2353+49).dat
- Sign 07 (Sta. 2374+00).dat
- DMS (Sta. 2603+10.00).dat
- Sign 09 (Sta. 2378+87).dat
- Sign 10 (Sta. 2398+00).dat
- Signs 19 (Sta. 2470+10) - rev 1.dat
- Sign 11 (Sta. 2434+52).dat
- Sign 16 (Sta. 2452+54).dat
- Signs 25 (Sta. 2493+50) - rev 1.dat

Project Data

Project Name	I-95 Express Lanes, Phase 3A-2		
Project No.	433108-5-52-01		
Designed by	JR	Date	02 / 24 / 2017
Checked by	MV	Date	02 / 24 / 2017

Sign Structure Data

Sign Name	DMS Front Access
Station/Offset	2603+10.00

Material Properties Data

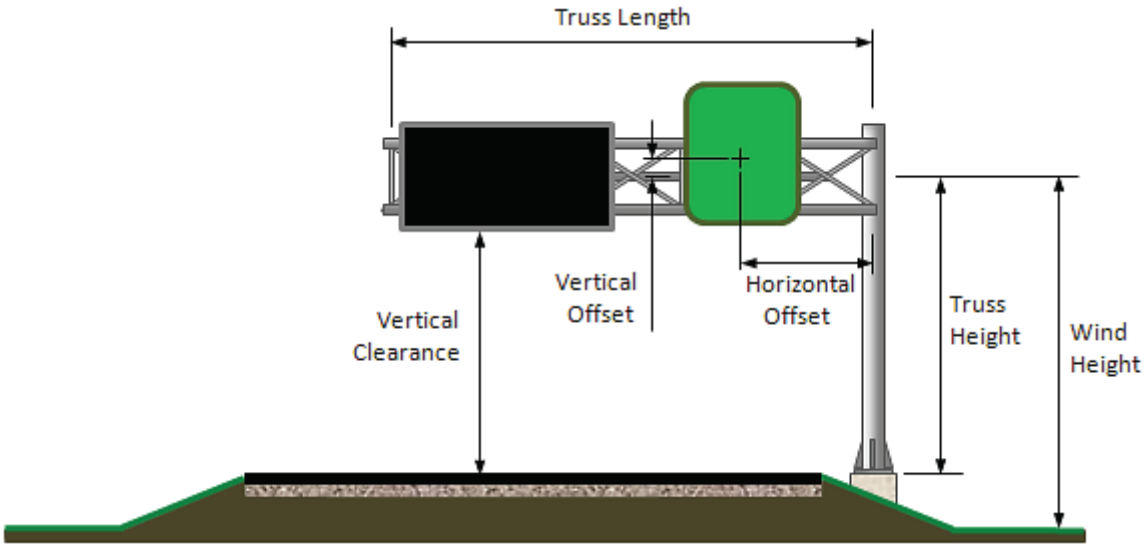
Fy of Upright	42	ksi
Fy of Web	36	ksi
Fy of Chord	42	ksi

Truss Data

Truss Length	37	ft
Truss Height	20.01	ft
Vertical Clearance	19.5	ft
No. of Truss Panels	4	
Vert. Truss Depth	8	ft

Wind Load Data

Wind Height	24.72	ft
Design Wind Speed	150	mph



Load Data

Reset Load Data

Sign Panels

Show Panels 11-20

Sign Panel Number	Panel Length (ft)	Panel Height (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Back-side Mounted?	Panel Weight (psf)
1					☐	
2					☐	
3					☐	
4					☐	
5					☐	
6					☐	
7					☐	
8					☐	
9					☐	
10					☐	

DMS Panels

DMS Panel Number	Panel Length (ft)	Panel Height (ft)	Panel Depth (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Panel Weight (psf)
1	29.5	9.79	1.33333	22.25	0	11
2						
3						

Walkways

Walkway Number	Walkway Length (ft)	Walkway Width (ft)	Number of Hangers	Horizontal Offset (ft)	Vertical Offset* (ft)	Walkway Weight (plf)
1						
2						

Attachments

Attachment Number	Projected Area (sq. ft)	Drag Coeff., C_d	Attached to Which Chord Member? (Top / Bottom / Back)	Horizontal Offset (ft)	Attachment Weight (lb)
1					
2					
3					

** Vertical offsets are input as negative values when element centroid is below the truss centerline.*

Member Data

Member Properties

Chord Size

- 3.50" O.D. Pipe, 0.216" Wall
- 4.00" O.D. Pipe, 0.226" Wall
- 4.50" O.D. Pipe, 0.237" Wall
- 4.50" O.D. Pipe, 0.337" Wall
- 5.563" O.D. Pipe, 0.258" Wall
- 5.563" O.D. Pipe, 0.375" Wall
- **6.625" O.D. Pipe, 0.432" Wall**
- 8.625" O.D. Pipe, 0.500" Wall
- CUSTOM

Design Properties

Outside Diameter (D)	6.63	in
Wall Thickness (t)	0.402	in
Area (A)	7.86	in^2
Moment of Inertia (I)	38.2	in^4
Radius of Gyration (r)	2.2	in
Torsional Constant (J)	76.4	in^4
Nominal Weight	28.6	plf

Web Size

- Angle 2-1/2" x 2-1/2" x 1/4"
- Angle 3" x 3" x 1/4"
- Angle 3" x 3" x 5/16"
- Angle 3-1/2" x 3-1/2" x 5/16"
- Angle 3-1/2" x 3-1/2" x 3/8"
- Angle 4" x 4" x 3/8"
- **Angle 4" x 4" x 1/2"**
- Angle 5" x 5" x 1/2"
- CUSTOM

Design Properties

Leg Length (b)	4	in
Leg Thickness (t)	0.5	in
Area (A)	3.75	in^2
Dist. to Centroid ($\bar{x}$)	1.18	in
X Moment of Inertia (I_x)	5.52	in^4
X Rad. of Gyration (r_x)	1.21	in
Z Rad. of Gyration (r_z)	0.776	in
Nominal Weight	12.8	plf

Upright Size

- 24" O.D. Pipe, 0.375" Wall
- 24" O.D. Pipe, 0.562" Wall
- 24" O.D. Pipe, 0.750" Wall
- 30" O.D. Pipe, 0.500" Wall
- 30" O.D. Pipe, 0.625" Wall
- **30" O.D. Pipe, 0.750" Wall**
- 36" O.D. Pipe, 0.500" Wall
- 36" O.D. Pipe, 0.625" Wall
- 36" O.D. Pipe, 0.750" Wall
- CUSTOM

Design Properties

Outside Diameter (D)	30	in
Wall Thickness (t)	0.75	in
Area (A)	68.9	in^2
Moment of Inertia (I)	7375	in^4
Radius of Gyration (r)	10.34	in
Torsional Constant (J)	14751	in^4
Nominal Weight	234.5	plf

Connection Data

Gusset Plates

Min. Gusset Bolt Diameter: 5/8", **3/4"**, 7/8", 1", 1-1/4"

Min. Gusset Plate Thickness: 3/8", **1/2"**, 5/8", 3/4", 7/8", 1"

Truss Connections

Min. Truss Bolt Diameter: **7/8"**, 1"

Min. Horizontal Plate Thickness: **1/2"**, 5/8", 3/4", 7/8", 1"

Min. Vertical Plate Thickness: **1/2"**, 5/8", 3/4", 7/8", 1"

Base Connection

Anchor Bolt Diameter: 2", 2-1/4", **2-1/2"**, 2-3/4", 3"

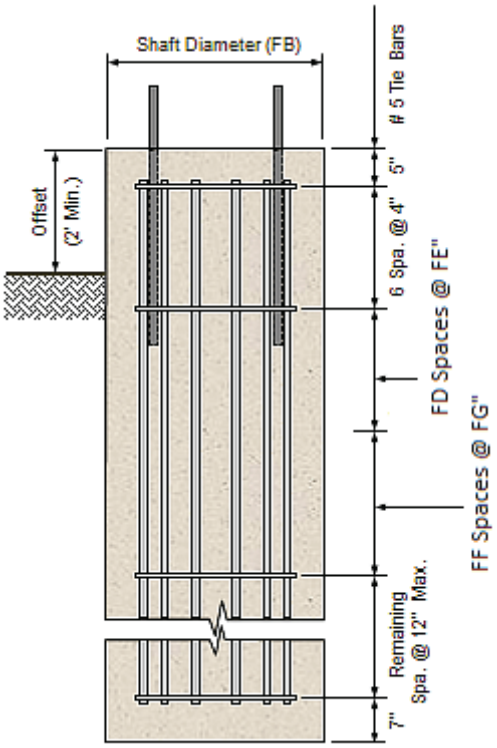
Number of Anchor Bolts: 10, **12**, 16

Min. Base Plate Thickness: 3/4", 1", **1-1/4"**, 1-1/2", 1-3/4", 2"

Min. Stiffener Plate Thickness: 3/8", **1/2"**, 5/8", 3/4", 7/8", 1"

Foundation Data

Foundation Type: Drilled Shaft | Spread Footing | None



Drilled Shaft Data

Soil Type: Sand | Clay

Soil Density, γ_{soil}	47.6	pcf
Friction Angle, ϕ	30	deg
SPT Number (N_{blows})	8	
Shear Strength, *c*		ksf
Safety Factor against Overturning	2	
Safety Factor against Torsion	1.3	
Shaft Diameter (FB)	5.5	ft
Ground to Top of Shaft Offset	4.71	ft

First Set Stirrups:

Number of Stirrup Spaces (FD)	120	
Stirrup Spacing (FE)	4	in

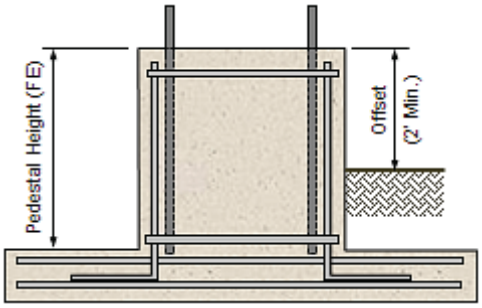
Second Set Stirrups:

Number of Stirrup Spaces (FF)	5	
Stirrup Spacing (FG)	6	in

Stirrup Bar Size: #5 Stirrup | #6 Stirrup

Spread Footing Data

Bearing Pressure Not to Exceed		psf
Soil Density		pcf
Coeff. of Passive Pressure		
Factor of Safety for Overturning		
Factor of Safety for Twisting		
Coeff. Friction between Slab and Soil		
Pedestal Height (FE)		ft



☐ Cross Slope Present run/rise

Save Data

Save Data File (optional)

Use current input file

File Name DMS (STA 2603+10.00).dat Save Data

Note: Select an output folder by using the "Change Folder" option above.

Data Initialization

Geometry Check Calculations

Preliminary Geometry Checks

$CheckL_{TrussPanel}$ = "OK"

$CheckClr_{Web}$ = "OK"

$CheckClr_{GusPlate}$ = "OK"

$CheckLayout_{Sign}$ = "OK"

$CheckOverlap_{Panel}$ = "OK"

$Check_{DMS}$ = "OK"

3D Model Data

Wireframe Diagram

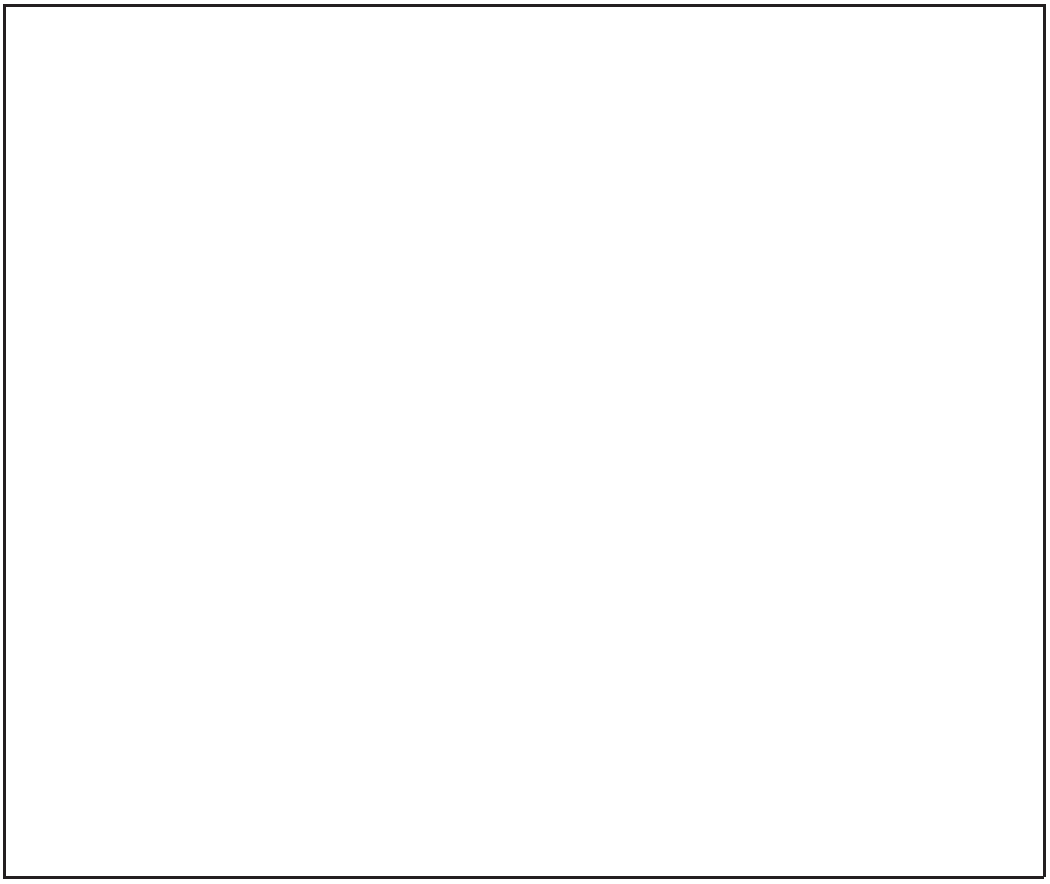
Design Forces

Fatigue Forces

Total Forces

Truss Diagram Data

Truss Diagram



Note: Use your mouse and keyboard to zoom in, zoom out or rotate the 3D plot above.
(See "Rotating, Spinning, or Zooming a 3D Plot" in Mathcad Help for instructions.)

3D Structural Analysis

Run Analysis

Note: A new analysis MUST be run after any change in program input.

PC-SAP Output Data

Design Check Calculations

Maximum Reactions

Results Output

Results

Sign Structure Geometry

(A) $H_{Truss} = 20.01\,ft$

(B) Number_of_Truss_Panels = "4 @ 9' 3" (Total_Length = 37 ft.)"

(C) $Vertical\_Truss\_Depth = 96 \cdot in$

$Horizontal\_Truss\_Depth = 83.138 \cdot in$

Sign Structure Members

(D) ChordMember = "6.625" O.D. Pipe, 0.432" Wall"

(E) WebMember = "Angle 4" x 4" x 1/2""

(F) UprightMember = "30" O.D. Pipe, 0.750" Wall"

CSR_{Chord} = "0.508 OK"

CSR_{Web} = "0.825 OK"

$CSR_{Upright}$ = "0.749 OK"

Additional Design Checks

$CheckSlenderness_{Web}$ = "OK"

$CheckSlenderness_{Chord}$ = "OK"

$Check_{Chord}$ = "OK"

$Check_{Sign.Hangers}$ = "OK"

$CheckRotation_{Upright}$ = "OK"

Max. Reactions at Base of Upright

$M_{Long} = 673.167 \cdot kip \cdot ft$

$V_{Long} = 33.190 \cdot kip$

$M_{Trans} = 319.500 \cdot kip \cdot ft$

$V_{Trans} = 6.638 \cdot kip$

$Axial = 16.560 \cdot kip$

$Torq = 687.167 \cdot kip \cdot ft$

(G) $BackRake = 2.7076 \cdot in$

Splice Calculations

Gusset Plate Calculations

Truss Connection Calculations

Base Plate Calculations and Anchor Bolt Design

Connection Output

Connection Values

Note: All truss bolted connections use A325 bolts, and upright anchor bolts are ASTM F1554. All welds are sized assuming E70xx electrodes.

Splice Connection

(SA) $Size_{Angle}$ = "No Splice Needed"

(SB) $\#Bolts_{Reqd.in.Splice}$ = "n/a"

(SC) $d_{BoltReqd.for.Splice}$ = "n/a"

(SD) $N_{Panel.Where.1st.Splice.Allowed}$ = "n/a"

Gusset Plates

(GA) t_{Gus} = "1/2""

(GB) $d_{Bolt.Gus}$ = "7/8" Dia."

(GC) $L_{Back.Chord.Gus}$ = "1' 3-1/2""

(GD) $H_{Back.Chord.Gus}$ = "7-3/4""

(GE) $L_{Front.Chord.Gus}$ = "1' 1""

(GF) $H_{Front.Chord.Gus}$ = "6-1/2""

(GG) $L_{Back.Truss.End.Plate}$ = "1' 0""

(GH) $H_{Back.Truss.End.Plate}$ = "7-1/2""

(GJ) $L_{Front.Truss.End.Plate}$ = "10-1/4""

(GK) $Weld_{Gusset.to.Chord}$ = "3/16""

$CheckWeldSizeLimit_{Gusset}$ = "OK"

Truss Connections

(TA) $d_{Required}$ = "7/8" Dia."

(TB) $\#Bolts_{Reqd.Back.Chord.Connection}$ = "8"

(TC) $\#Bolts_{Reqd.Front.Chord.Connection}$ = "6"

(TD) $t_{Horz.Connec.Plate}$ = "3/4""

(TE) $t_{Vert.Connec.Plate}$ = "5/8""

(TF) $Weld_{Horz.PL.to.Upright}$ = "5/16""

(TG) $Weld_{Vert.PL.to.Upright}$ = "1/4""

(TH) $Weld_{Chord.to.Connec.PL}$ = "3/16""

(TJ) $Weld_{Vert.PL.to.Horz.PL}$ = "3/16""

Additional Truss Connection Checks

$CheckWeldSizeLimit_{Horz.Plate}$ = "OK"

$CheckWeldSizeLimit_{Vert.Plate}$ = "OK"

$CheckWeldSizeLimit_{Connec.Plate}$ = "OK"

$CheckWeldSizeLimit_{Horz.Vert}$ = "OK"

$CheckStress_{Horz.Plate}$ = "OK"

$CheckStress_{Vert.Plate}$ = "OK"

$CheckBending_{Upright}$ = "OK"

Base Connection

(BA) D_{Anchor} = "2-1/2" Dia."

(BB) #AnchorBoltsReqd = "12"

(BC) $t_{Base.Plate}$ = "1-3/4""

(BD) $t_{Stiffener.Plate}$ = "1/2""

(BE) $H_{Stiffener.Plate}$ = "2' 10-1/2""

(BF) $Weld_{Inside.Base.PL}$ = "5/16""

(BG) $Weld_{Outside.Base.PL}$ = "5/16""

(BH) $Weld_{Stiffener.to.Base}$ = "5/16""

(BJ) $Weld_{Stiffener.to.Upright}$ = "3/16""

Additional Base Connection Check

$CheckThickenss_{Stiffener}$ = "OK"

$CheckWeldSizeLimit_{BaseUpright.in}$ = "OK"

$CheckWeldSizeLimit_{BaseUpright.out}$ = "OK"

$CheckWeldSizeLimit_{StiffBase}$ = "OK"

$CheckWeldSizeLimit_{StiffUpright}$ = "OK"

Fatigue Calculations

Fatigue Design Checks

Base Connection

$CheckFatigue_{Upright}$ = "OK (1.54 ksi < 7 ksi)"

$CheckFatigue_{Base}$ = "OK (1.02 ksi < 10 ksi)"

$CheckFatigue_{Anchor.Bolt}$ = "OK (0.12 ksi < 7 ksi)"

Chord Member Connections

$CheckFatigue_{Chord.Splice}$ = "n/a"

$CheckFatigue_{Chord.Slot}$ = "OK (1.21 ksi < 2.6 ksi)"

$CheckFatigue_{Half.Chord}$ = "OK (0.88 ksi < 2.6 ksi)"

$CheckFatigue_{Truss.Bolts}$ = "OK (0.78 ksi < 7 ksi)"

Gusset Plates

$CheckFatigue_{Back.Plates}$ = "OK (0.19 ksi < 1.2 ksi)"

$CheckFatigue_{Back.End.Plates}$ = "OK (0.27 ksi < 1.2 ksi)"

$CheckFatigue_{Front.Plates}$ = "OK (0.2 ksi < 1.2 ksi)"

$CheckFatigue_{Front.End.Plates}$ = "OK (0.25 ksi < 1.2 ksi)"

$CheckFatigue_{Top.Center.Plates}$ = "OK (0.42 ksi < 1.2 ksi)"

Web Members

$CheckFatigue_{Web}$ = "OK (0.59 ksi < 7 ksi)"

Drilled Shaft Calculations

Spread Footing Calculations

Anchor Bolt Embedment and Breakout Strength

Drilled Shaft Design

Drilled Shaft Design Checks

$Check_{MassConcrete}$ = "OK"

$Check_{Long.Reinf.Spacing}$ = "OK"

$Check_{Capacity.Long.Reinf}$ = "OK"

$Check_{Comb.Shear.Torsion}$ = "OK"

$Check_{Max.Stirrup.Spacing}$ = "OK"

$Check_{StirupSpacing}$ = "OK"

Drilled Shaft Dimensions/Reinforcing

(FA) $L_{Drilled.Shaft} = 36.8\,ft$

(FB) $D_{Drilled.Shaft} = 5.5\,ft$

(FC) LongitudinalReinforcement = "16 No. 14 bars evenly spaced"

(FD) $\#Spaces_{Stirrup} = 101$

(FE) $Spacing_{Shear.Stirrup} = 4.00 \cdot in$

(FF) $\#Spaces_{Stirrupb} = 0$

(FG) $Spacing_{Shear.Stirrupb} = 6.00 \cdot in$

$Size_{Stirup}$ = "5"

Spread Footing Design

Spread Footing Design Checks

$Check_{Footing.Design}$ = "n/a"

$Check_{Pedestal.Height}$ = "n/a"

Spread Footing Dimensions/Reinforcing

(FA) L_{Slab} = "n/a"

(FB) W_{Slab} = "n/a"

(FC) t_{Slab} = "n/a"

(FD) $D_{Pedestal}$ = "n/a"

(FE) $H_{Pedestal}$ = "n/a"

(FF) $LongitudinalRebar_{Bot}$ = "n/a"

(FG) $TransverseRebarar_{Bot}$ = "n/a"

(FH) $LongitudinalRebar_{Top}$ = "n/a"

(FJ) $TransverselRebar_{Top}$ = "n/a"

(FK) StirrupBars = "n/a"

(FL) VerticalBars = "n/a"

Anchor Bolt Design

Anchor Bolt Length

(BK) $L_{Anchor.Bolt.Embed} = 50 \cdot in$

Additional Anchor Bolt Checks

$Check_{Anchor.Bolt.Capacity} = "OK"$

$Check_{Concrete.Breakout} = "OK"$

$Spacing_{Clear} = 3.432 \cdot in$

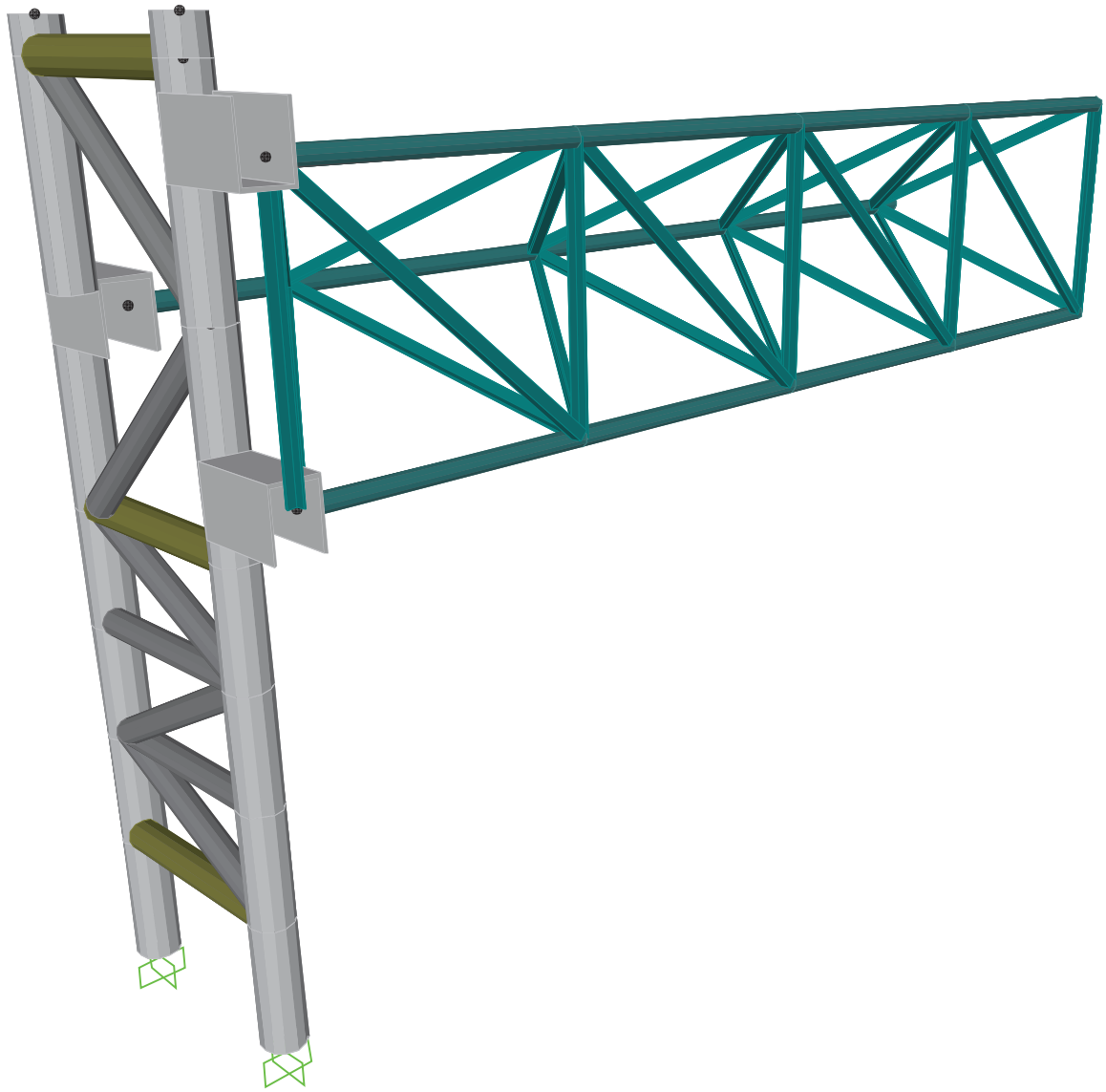
MicroStation Data

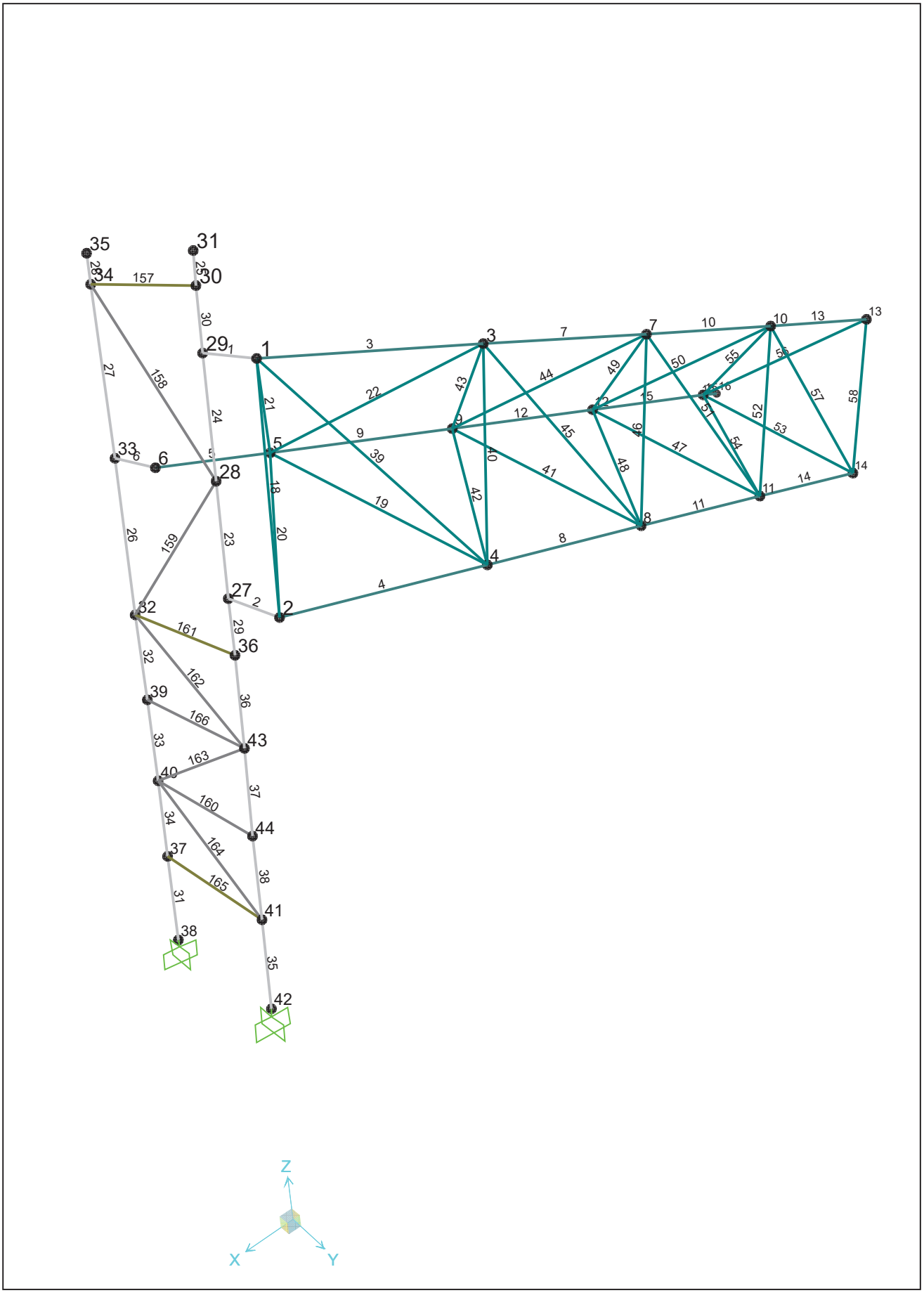
Create MicroStation Text File

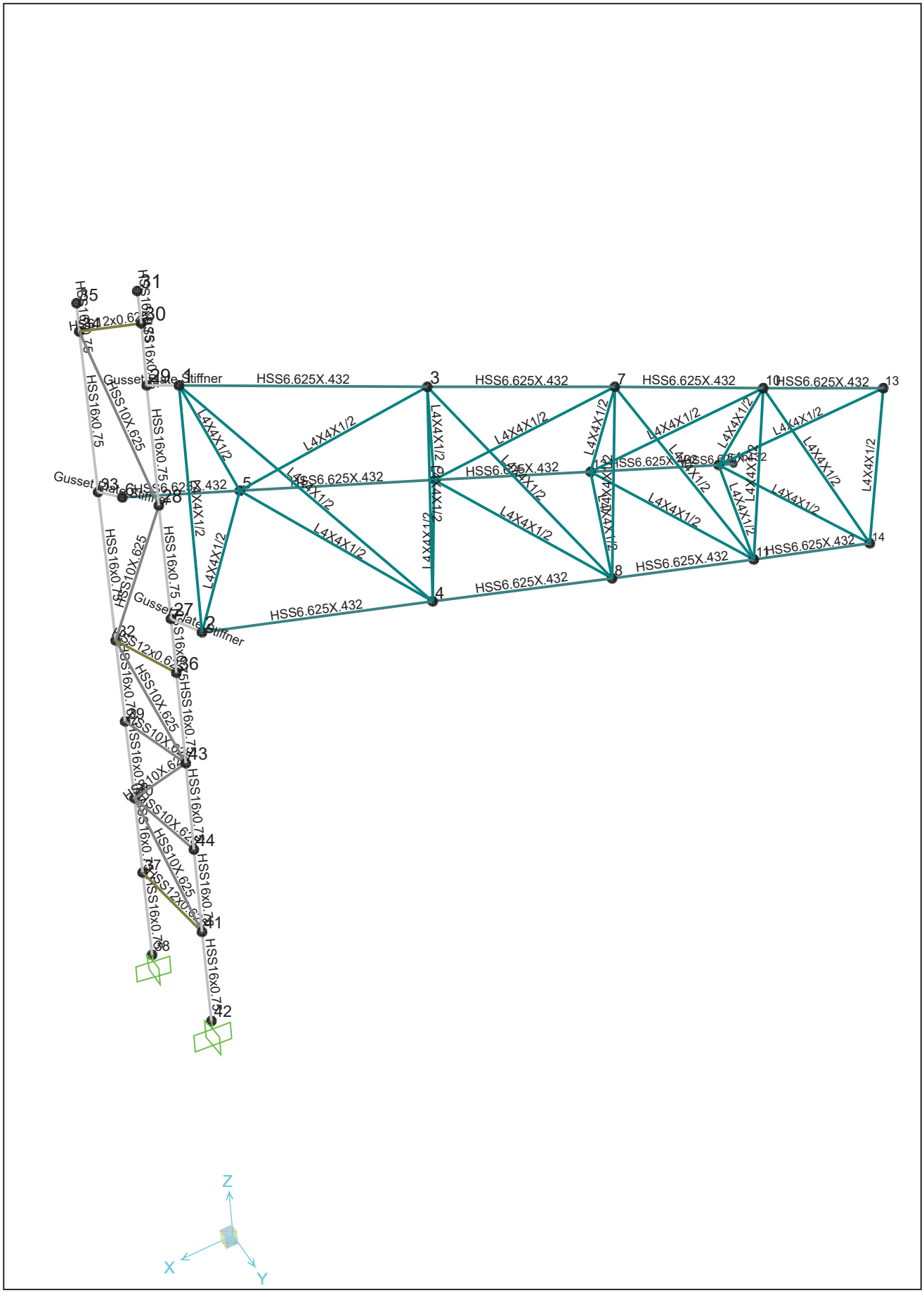
☑ Use same name as current data file

File Name DMS (STA 2603+10.00).txt

Create MicroStation File


Z


35
31
34
30
29
1
3
7
10
13
5
9
12
15
33
6
28
14
11
8
4
2
27
32
36
39
43
40
44
37
41
38
42
Z
X
Y


HSS6.625X.432
L4X4X1/2
HSS16X0.75
HSS10X.625
HSS12X0.625
Gusset Plate Stiffner
Z
X
Y

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	

Sign Panel (1) Pressure

Kz =	1	**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cd =	1.19	**Table [3.8.6-1]**	
Lsign =	29.5		
Wsign =	9.8		
Lsign / Wsign =	3.01		
Pz =	78.14 (psf)		

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd		(psf)	**[3.8.1]**	
V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	

Upright

Kz =	1		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*
d =	16	(in)		*Upright diameter*
Cv*V*d	200.0	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	29.55			
Force on Member =	0.039	(kip/ft)		

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd		(psf)	**[3.8.1]**	
V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	

Upright Web 1

Kz =	1.00		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*
d =	12	(in)		*Web diameter*
Cv*V*d	150.0	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	29.55			
Force on Member =	0.030	(kip/ft)		

cap engineering

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	

Upright Web 2

Kz =	1.00		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*
d =	10	(in)		*Web diameter*
Cv*V*d	125.0	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	29.55			
Force on Member =	0.025	(kip/ft)		

cap engineering

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd		(psf)	**[3.8.1]**	
V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Exposed Chord				
Kz =	1.00		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*
d =	6.625	(in)		*Chord diameter*
Cv*V*d	82.8	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	29.55			
Force on Member =	0.016	(kip/ft)		

cap engineering

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd		(psf)	**[3.8.1]**	
V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Truss Web (Angle)				
Kz =	1.00		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cd =	1.70		**Table [3.8.6-1]**	
Pz =	111.63			
Angle Size =	4.00	(in)		
Force on Member =	0.037	(kip/ft)		

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343 ALMERIA AVENUE
CORAL GABLES, FLORIDA 33134
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www.capfla.com

BROWARD
3265 MERIDIAN PARKWAY • SUITE 100
WESTON, FLORIDA 33331
(954) 888-9882 • FAX (954) 888-9860

TITLE 2603+10 DMS - WIND PRESSURES FOR SAP MODEL

PROJECT NAME I-95, PHASE 3A-2 PROJECT # SHEET 1 OF 2

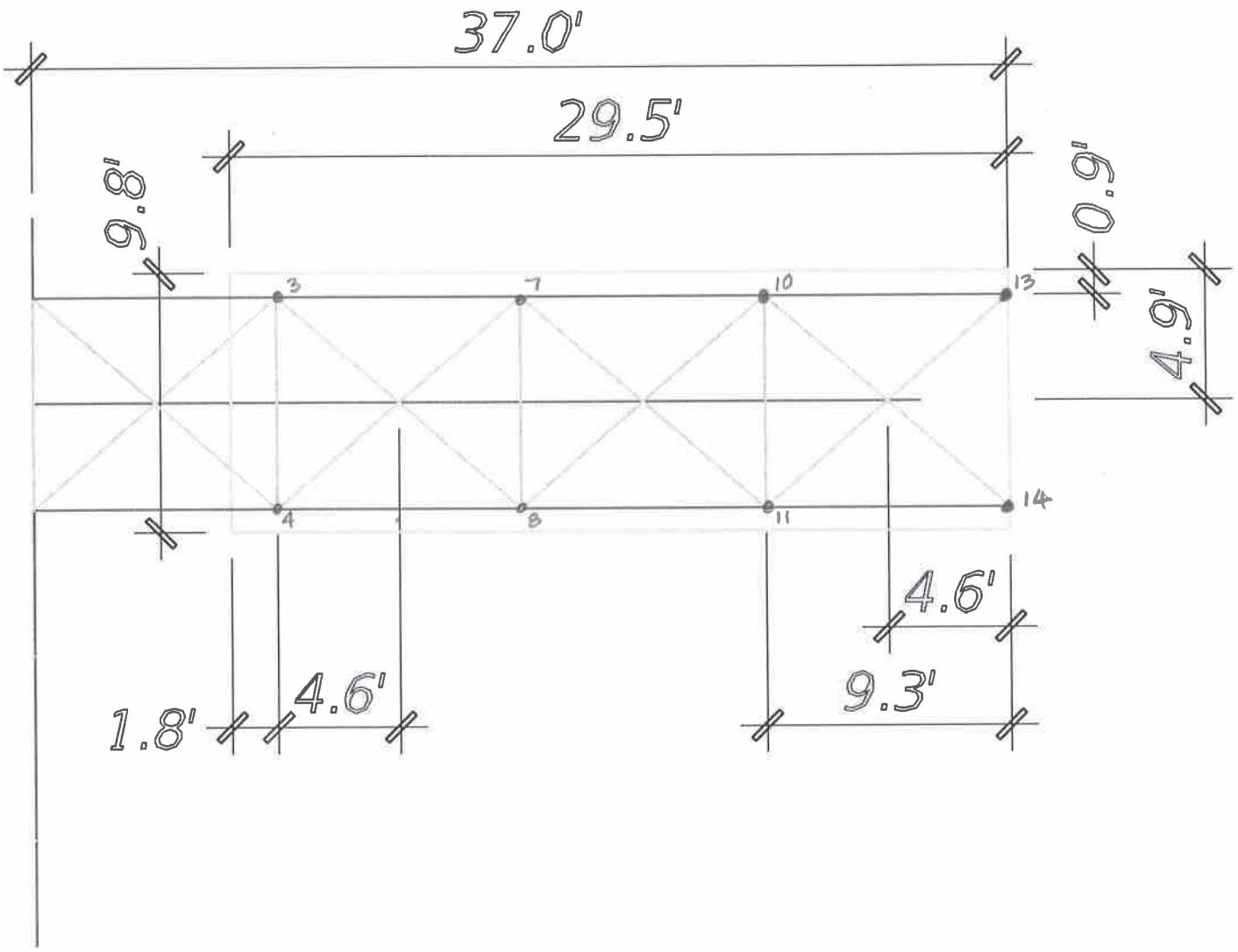
BY A.R. CHECKED BY: M.V. DATE 10/21/2016

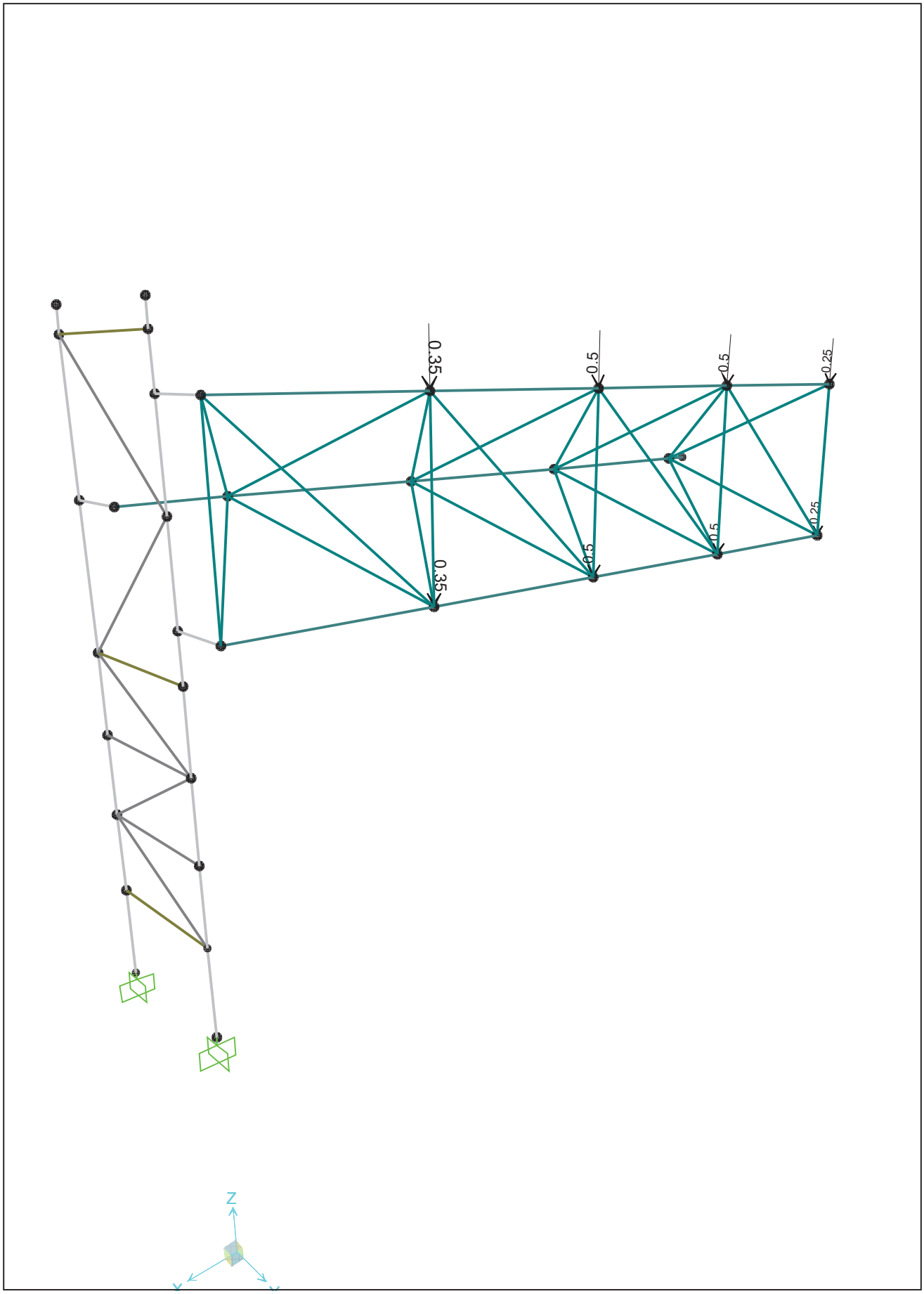
P_z = 78.14 PSF

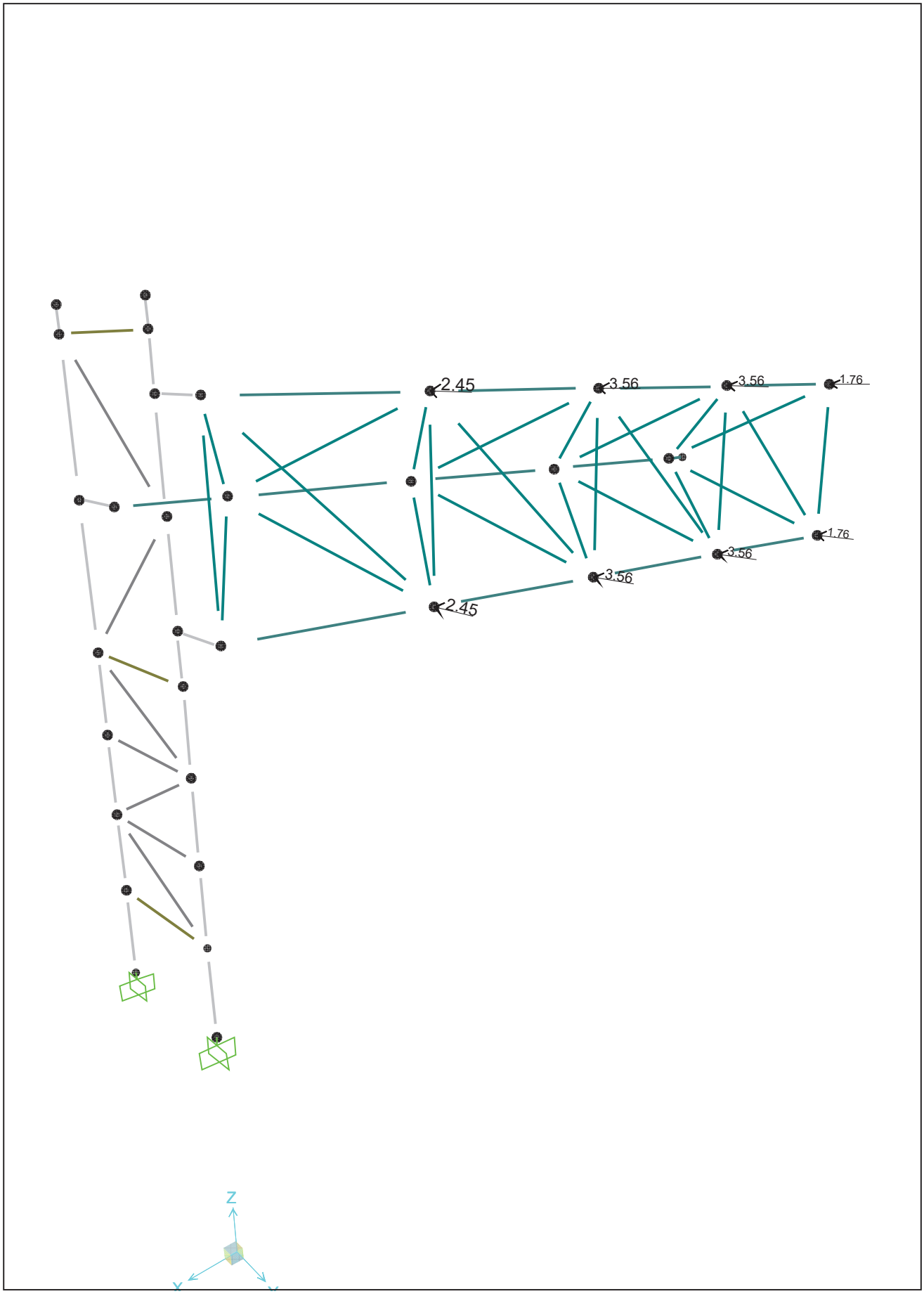
NODE (13) = (14) => W_L = (4.9)(4.6)(78.14) = 1.76 KIPS
D_L = (4.9)(4.6)(11 PSF) = 0.25 KIPS

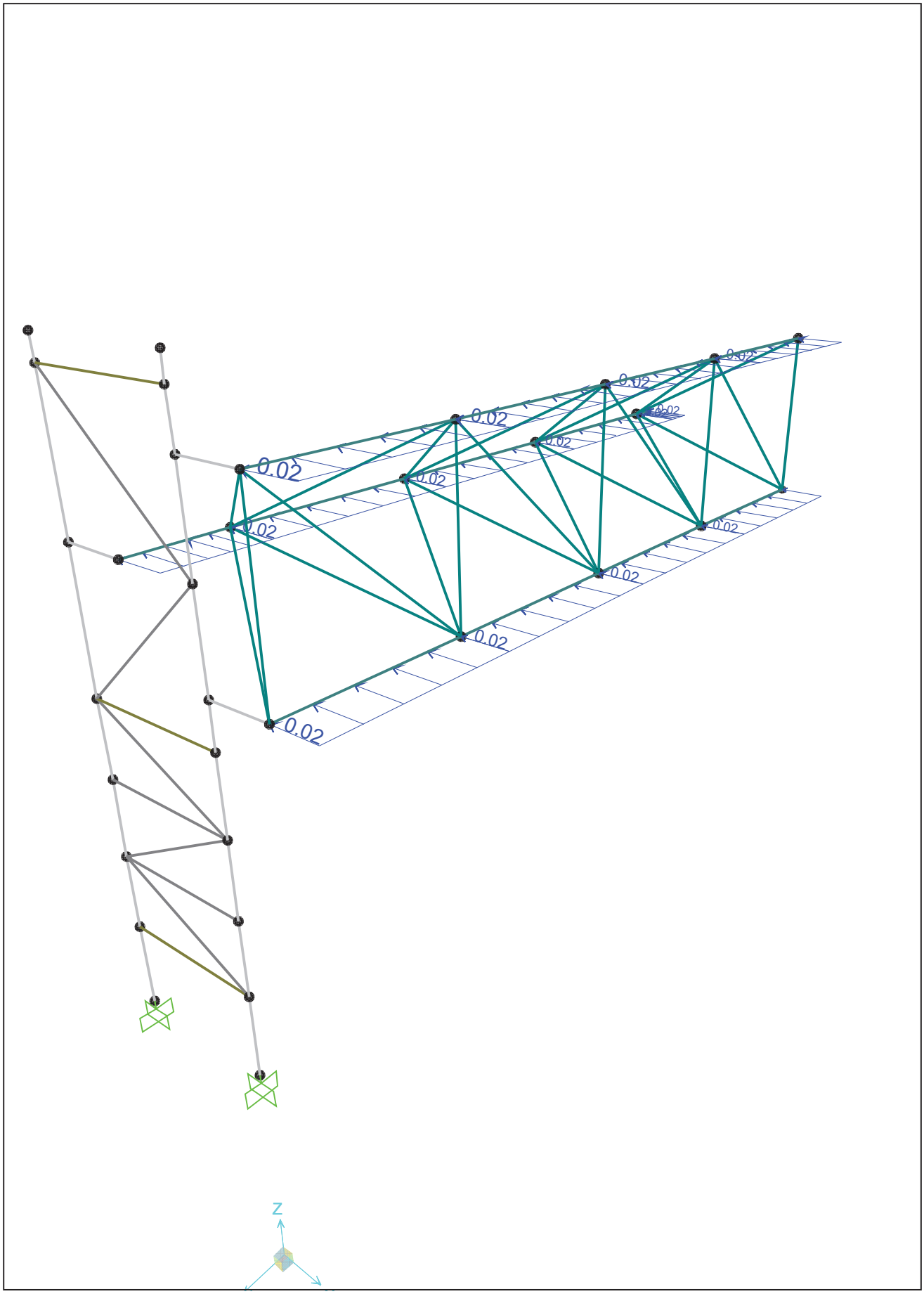
NODE (10) = (11) = (7) = (8) => W_L = (9.3)(4.9)(78.14) = 3.56 KIPS
D_L = (9.3)(4.9)(11 PSF) = 0.5 KIPS

NODE (3) = (4) => W_L = (1.8+4.6)(4.9)(78.14) = 2.45 KIPS
D_L = (1.8+4.6)(4.9)(11 PSF) = 0.35 KIPS


37.0'
29.5'
9.8'
0.9'
4.9'
3
7
10
13
4
8
11
14
4.6'
1.8'
4.6'
9.3'


0.35
0.5
0.5
0.25
0.25
0.5
0.5
0.35
Z
Y


2.45
3.56
3.56
1.76
1.76
3.56
3.56
2.45
Z
X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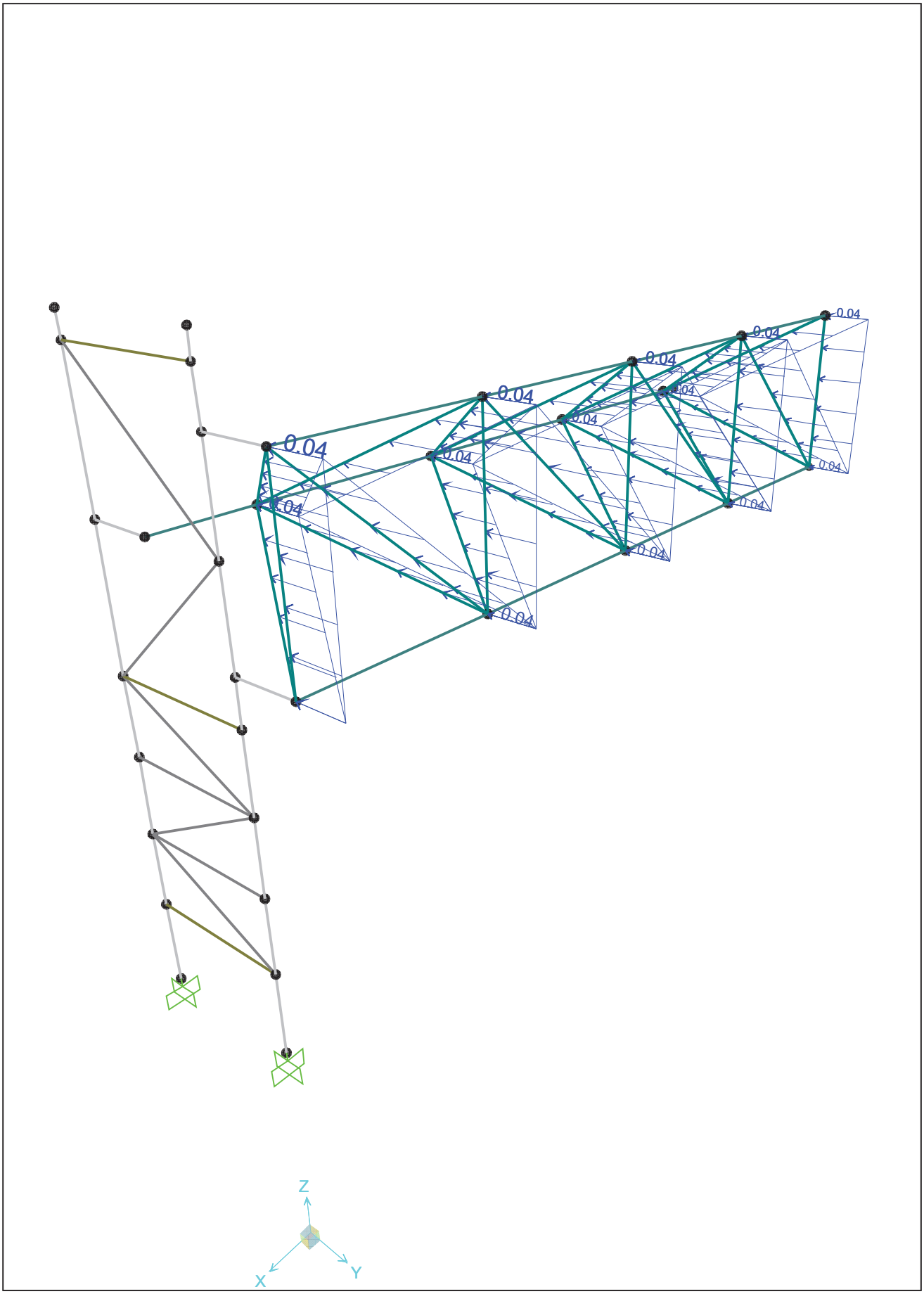
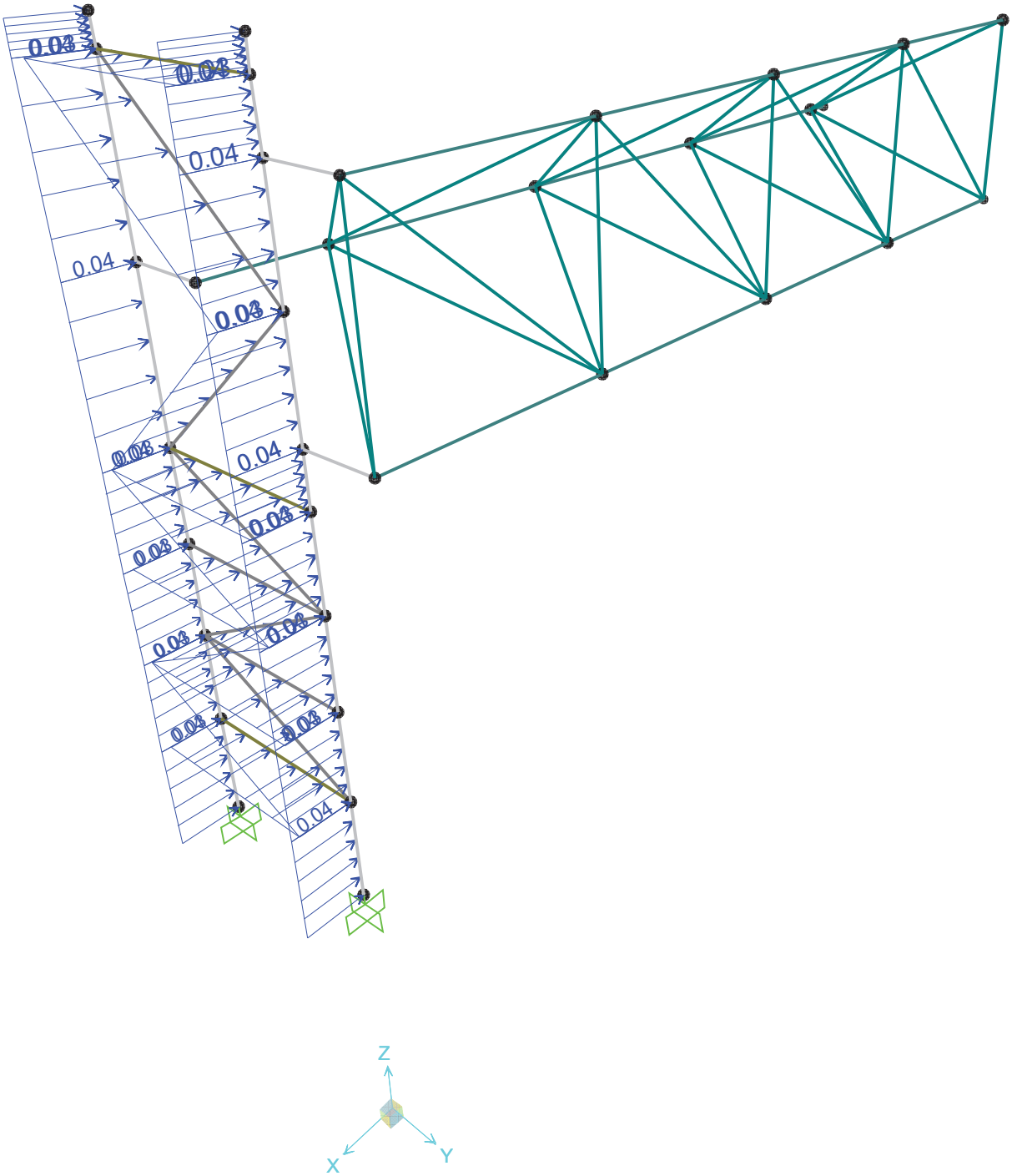
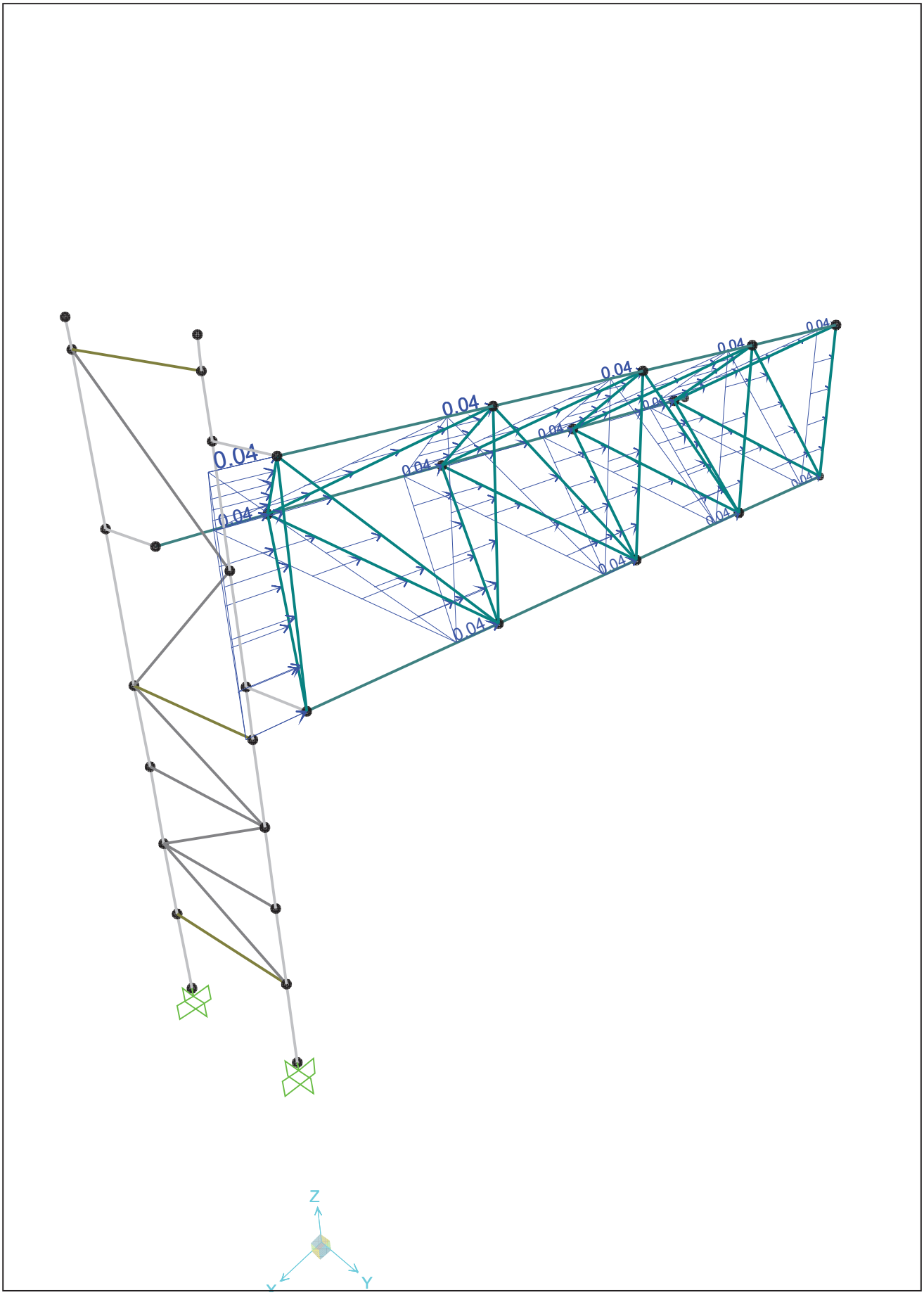
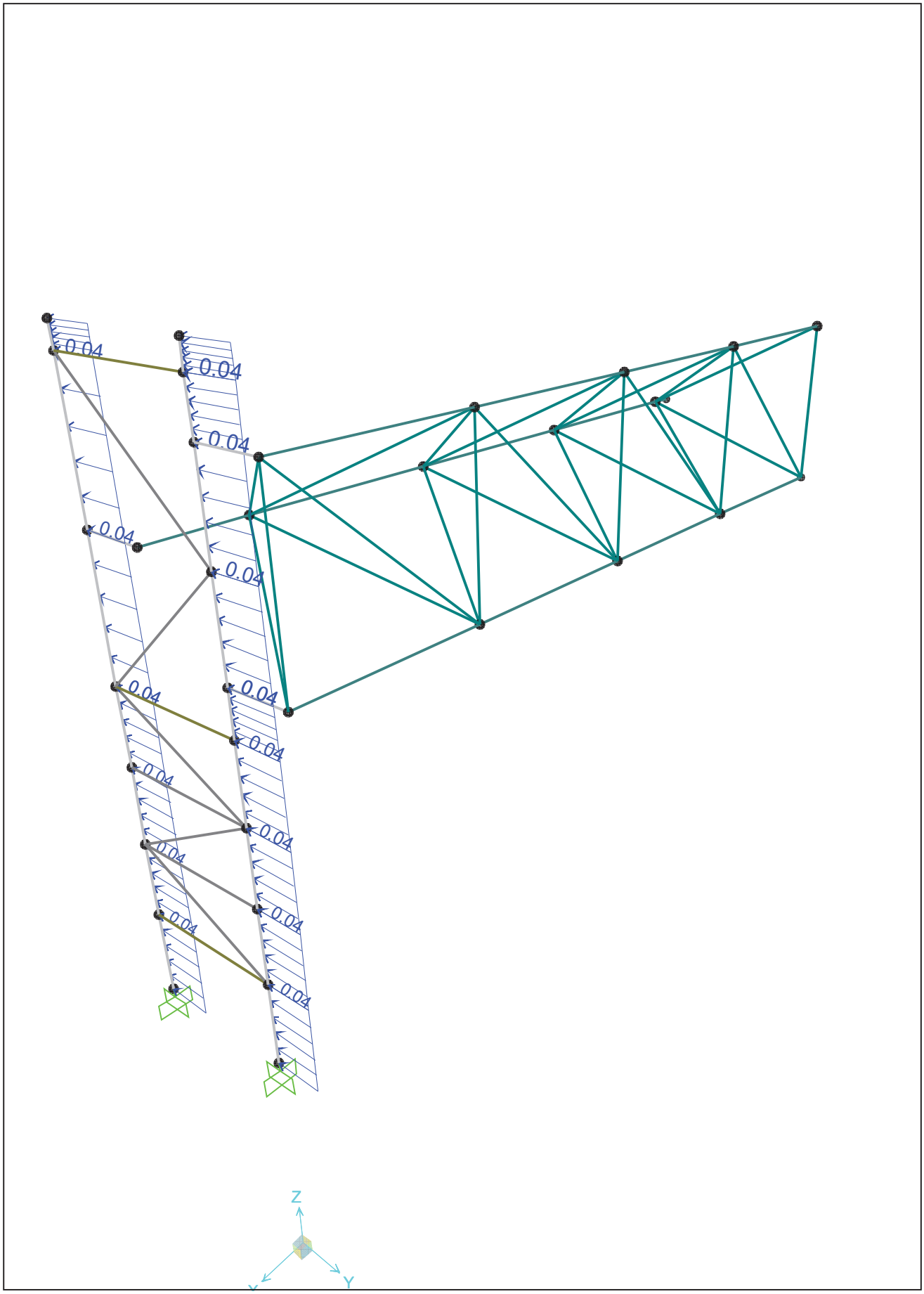
0.02
0.02
0.02
0.02
0.02
0.02
0.02
0.02
0.02
Z


0.04
0.04
0.04
0.04
0.04
0.04
0.04
0.04
0.04
0.04
0.04
0.04
0.04
Z
X
Y


0.04
0.04
0.04
0.04
0.04
Z
X
Y


0.04
Z
Y


0.04
Z
Y

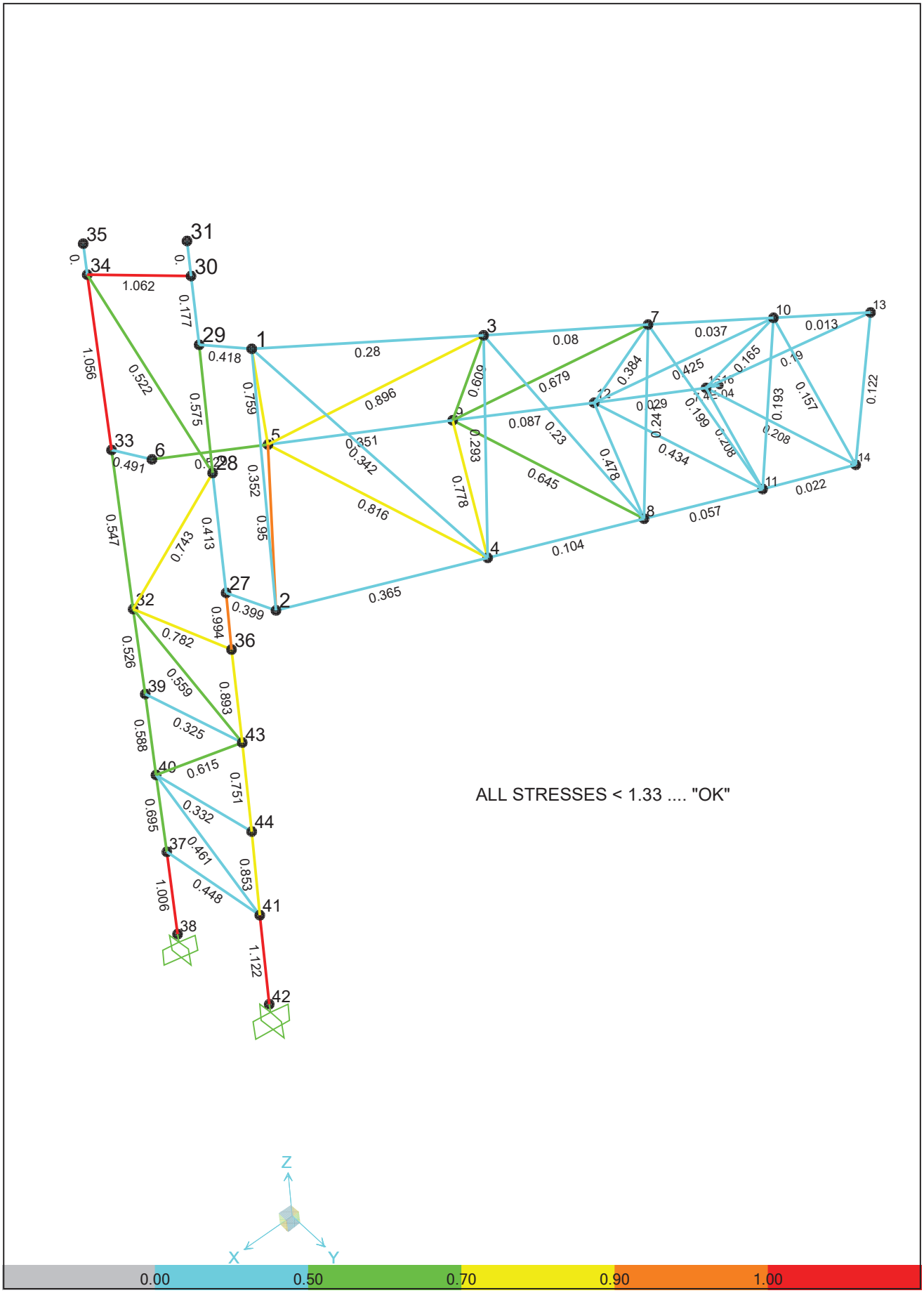

ALL STRESSES < 1.33 .... "OK"
Z
X
Y
0.00
0.50
0.70
0.90
1.00

TABLE: Element Forces - Frames

Frame	Station	OutputCase	CaseType	P	V2	V3	T	M2	M3	FrameElem
Text	ft	Text	Text	Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft	Text
1	0	DL + WL (FRONT) + (-X)	Combination	-18.064	-73.302	8.722	-110.7138	25.0498	-220.0202	1-1
1	1.5	DL + WL (FRONT) + (-X)	Combination	-18.064	-73.302	8.375	-110.7138	12.2264	-110.0669	1-1
1	3	DL + WL (FRONT) + (-X)	Combination	-18.064	-73.302	8.028	-110.7138	-0.0764	-0.1135	1-1
1	0	DL + WL (SIDE)	Combination	-1.577	-25.375	6.054	-38.3476	17.1218	-76.1268	1-1
1	1.5	DL + WL (SIDE)	Combination	-1.577	-25.375	5.707	-38.3476	8.3012	-38.0643	1-1
1	3	DL + WL (SIDE)	Combination	-1.577	-25.375	5.36	-38.3476	0.0012	-0.0018	1-1
1	0	DL + WL (BACK) + (-X)	Combination	14.904	27.372	3.384	41.2991	9.1966	82.2283	1-1
1	1.5	DL + WL (BACK) + (-X)	Combination	14.904	27.372	3.037	41.2991	4.3807	41.1704	1-1
1	3	DL + WL (BACK) + (-X)	Combination	14.904	27.372	2.69	41.2991	0.0855	0.1125	1-1
1	0	DEAD + DL (SIGN PANEL	Combination	-1.581	-22.363	6.053	-33.7973	17.1235	-67.0882	1-1
1	1.5	DEAD + DL (SIGN PANEL	Combination	-1.581	-22.363	5.706	-33.7973	8.3041	-33.5442	1-1
1	3	DEAD + DL (SIGN PANEL	Combination	-1.581	-22.363	5.359	-33.7973	0.0053	-0.0002103	1-1
2	0	DL + WL (FRONT) + (-X)	Combination	-15.042	28.579	-1.704	43.1123	-3.7917	85.8362	2-1
2	1.5	DL + WL (FRONT) + (-X)	Combination	-15.042	28.579	-1.357	43.1123	-1.4959	42.9679	2-1
2	3	DL + WL (FRONT) + (-X)	Combination	-15.042	28.579	-1.01	43.1123	0.2793	0.0996	2-1
2	0	DL + WL (SIDE)	Combination	1.577	-19.35	-4.373	-29.2492	-12.0649	-58.0465	2-1
2	1.5	DL + WL (SIDE)	Combination	1.577	-19.35	-4.026	-29.2492	-5.7663	-29.0211	2-1
2	3	DL + WL (SIDE)	Combination	1.577	-19.35	-3.678	-29.2492	0.0117	0.0042	2-1
2	0	DL + WL (BACK) + (-X)	Combination	18.202	-72.099	-7.042	-108.8908	-20.3483	-216.3961	2-1
2	1.5	DL + WL (BACK) + (-X)	Combination	18.202	-72.099	-6.695	-108.8908	-10.0449	-108.2472	2-1
2	3	DL + WL (BACK) + (-X)	Combination	18.202	-72.099	-6.348	-108.8908	-0.2622	-0.0984	2-1
2	0	DEAD + DL (SIGN PANEL	Combination	1.581	-22.363	-4.373	-33.7992	-12.0712	-67.0883	2-1
2	1.5	DEAD + DL (SIGN PANEL	Combination	1.581	-22.363	-4.026	-33.7992	-5.7714	-33.5443	2-1
2	3	DEAD + DL (SIGN PANEL	Combination	1.581	-22.363	-3.679	-33.7992	0.0077	-0.0003045	2-1
6	0	DL + WL (FRONT) + (-X)	Combination	-0.037	-100.129	-0.756	-151.4271	-1.3262	-300.3865	6-1
6	1.5	DL + WL (FRONT) + (-X)	Combination	-0.037	-100.129	-0.409	-151.4271	-0.4525	-150.1933	6-1
6	3	DL + WL (FRONT) + (-X)	Combination	-0.037	-100.129	-0.062	-151.4271	-0.0994	2.026E-11	6-1
6	0	DL + WL (SIDE)	Combination	5.65E-14	2.737	-0.756	4.1385	-1.515	8.2096	6-1
6	1.5	DL + WL (SIDE)	Combination	5.54E-14	2.737	-0.409	4.1385	-0.6413	4.1048	6-1
6	3	DL + WL (SIDE)	Combination	5.43E-14	2.737	-0.062	4.1385	-0.2882	3.169E-12	6-1
6	0	DL + WL (BACK) + (-X)	Combination	0.037	101.223	-0.756	153.0825	-1.7319	303.6703	6-1
6	1.5	DL + WL (BACK) + (-X)	Combination	0.037	101.223	-0.409	153.0825	-0.8582	151.8352	6-1
6	3	DL + WL (BACK) + (-X)	Combination	0.037	101.223	-0.062	153.0825	-0.5051	-1.778E-11	6-1
6	0	DEAD + DL (SIGN PANEL	Combination	5.68E-14	-0.0000136	-0.756	-0.00002057	-1.5326	-0.00004081	6-1
6	1.5	DEAD + DL (SIGN PANEL	Combination	5.58E-14	-0.0000136	-0.409	-0.00002057	-0.6588	-0.00002041	6-1
6	3	DEAD + DL (SIGN PANEL	Combination	5.47E-14	-0.0000136	-0.062	-0.00002057	-0.3058	7.578E-13	6-1

TRUSS TO UPRIGHT CONNECTION

Truss Connection Calculations

Design Truss-to-Upright Connections

Connection Output

Get Design Forces for the Truss-to-Upright Connection Elements

Design forces for the truss-to-upright connection elements are obtained from the SAP output data computed during the 3D frame analysis.

Conn_Horz_Shear := 101.22kip

Conn_Vert_Shear := 8.72kip

Conn_Axial_Force := 18.2kip

Upright_Diameter := 16in

Upright_Thickness := 0.75in

Fy_Upright := 60ksi

Vert_Depth := 8ft

Chord_Diameter := 6.625in

E := 29000·ksi

Gs := 11200·ksi

Determine Required Bolt Size and Number of Bolts for Connection Plates

The truss-to-upright bolted connections are designed in accordance with AASHTO Standard Specifications for Highway Bridges, 17th Edition (2002). Bolts used will be 7/8" diameter or 1" diameter, as required. Bolt spacing is 3.5" per FDOT Design Standards.

$$\text{Truss\_Bolt\_Data} := \begin{pmatrix} \text{"Bolt Type"} & \text{"Diameter (in)"} & \text{"Area (in^2)"} \\ 1 & 1.000 & 0.7854 \\ 2 & 1.250 & 1.2272 \end{pmatrix}$$

[AISC Table I-D]

Min_Truss_Bolt_Type := 2

Bolt_Props :=

HorzShear ← Conn_Horz_Shear

VertShear ← Conn_Vert_Shear

AxialForce ← Conn_Axial_Force

ConnLen ← 0·in

MaxConnLen ← Upright_Diameter + 2·in

$F_v \leftarrow (19 \cdot ksi)$ [AASHTO Bridge Table 10.32.3B; AASHTO Table 3.4-1]

$F_t \leftarrow (38 \cdot ksi)$

if Min_Truss_Bolt_Type = 1

"Design Connection Using 7/8" Diameter Bolts"

BoltType ← 1

$A_{bolt} \leftarrow Truss\_Bolt\_Data_{BoltType,2} \cdot in^2$

$F_{v\_bolt} \leftarrow A_{bolt} \cdot F_v$

"Design for Shear"

$MaxShearForce \leftarrow \sqrt{HorzShear^2 + AxialForce^2}$

$NumBolts \leftarrow \frac{MaxShearForce}{F_{v\_bolt}}$

$NumBolts \leftarrow Ceil(round(NumBolts, 5), 2)$ *use even number of bolts*

"Check Tension"

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$$ [AASHTO Bridge Eq. 10-16]

while $f_t > F'_t$ [AASHTO Bridge Eq. 10-17]

NumBolts ← NumBolts + 2

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$$

"Set Minimum Number of Bolts"

NumBolts ← 4 if NumBolts < 4

ConnLen ← NumBolts·(1.75·in)

ConnLen ← NumBolts·(1.75·in)

if Min_Truss_Bolt_Type = 2 ∨ ConnLen > MaxConnLen

"Design Connection Using 1" Diameter Bolts"

BoltType ← 2

$A_{bolt} \leftarrow Truss\_Bolt\_Data_{BoltType,2} \cdot in^2$

$F_{v\_bolt} \leftarrow A_{bolt} \cdot F_v$

"Design for Shear"

$MaxShearForce \leftarrow \sqrt{HorzShear^2 + AxialForce^2}$

$NumBolts \leftarrow \frac{MaxShearForce}{F_{v\_bolt}}$

$NumBolts \leftarrow Ceil(round(NumBolts, 5), 2)$

"Check Tension"

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$

while $f_t > F'_t$

$NumBolts \leftarrow NumBolts + 2$

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$

"Set Minimum Number of Bolts"

NumBolts ← 4 if NumBolts < 4

"Return Error if Connection Design Exceeds Geometric Constraints"

ConnLen ← NumBolts·(1.75·in)

if ConnLen > MaxConnLen

$BoltData_0 \leftarrow -1$

$BoltData_1 \leftarrow 0$

return BoltData

$BoltData_0 \leftarrow BoltType$

$\text{BoltData}_1 \leftarrow \text{NumBolts}$

return BoltData

$\text{Truss\_Bolt\_Type} := \text{Bolt\_Props}_0$

$$\text{Truss\_Bolt\_Diameter} := \begin{cases} \text{Truss\_Bolt\_Data}_{\text{Truss\_Bolt\_Type},1} \cdot \text{in} & \text{if Truss\_Bolt\_Type} \neq -1 \\ 0 \cdot \text{in} & \text{otherwise} \end{cases}$$

$\text{Num\_Bolts} := \text{Bolt\_Props}_1$

$\text{Truss\_Bolt\_Type} = 2$

$\text{Truss\_Bolt\_Diameter} = 1.25 \cdot \text{in}$

$\text{Num\_Bolts} = 6$

Compute the Required Thickness for the Horizontal Connection Plates (TD)

The buckling of the horizontal plates is investigated using Formula 12 on page 544 of the 5th edition of the book "Formulas for Stress and Strain" by Raymond Roark and Warren Young.

$\text{Min\_Horz\_Plate\_Thickness} := 2\text{in}$

$\text{Horz\_Depth} := \text{Vert\_Depth} \cdot \sin(60 \cdot \text{deg})$

Horz_Plate_Thickness :=

HorzShear ← Conn_Horz_Shear

FOS ← 2.0 *factor of safety*

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Min\_Horz\_Plate\_Thickness$

$b_{plate} \leftarrow Upright\_Diameter + 2 \cdot in$

$P_{crit} \leftarrow \frac{0.669 \cdot t_{plate}^{3} \cdot b_{plate} \cdot \sqrt{\left(1 - 0.63 \cdot \frac{t_{plate}}{b_{plate}}\right) \cdot E \cdot Gs}}{L_{plate}^{2}}$

while $P_{crit} < FOS \cdot HorzShear$

$t_{plate} \leftarrow t_{plate} + \frac{1}{8} \cdot in$

"Return Error if Calculated Plate Thickness Exceeds Program Limit"

if $t_{plate} > 1.0001 \cdot in$

$t_{plate} \leftarrow -1 \cdot in$

return t_{plate}

$P_{crit} \leftarrow \frac{0.669 \cdot t_{plate}^{3} \cdot b_{plate} \cdot \sqrt{\left(1 - 0.63 \cdot \frac{t_{plate}}{b_{plate}}\right) \cdot E \cdot Gs}}{L_{plate}^{2}}$

return t_{plate}

$Horz\_Plate\_Thickness = 2 \cdot in$

Compute the Required Thicknesses for the Vertical Connection Plates (TE)

The buckling of the vertical plates is investigated using the discussion on pages 752 through 765 in the 2nd edition of the book "Steel Structures" by Charles Salmon and John Johnson

$Min\_Vert\_Plate\_Thickness := 0.625 in$

Vert_Plate_Thickness :=

$F_{y\_plate} \leftarrow 36 \cdot ksi$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow L_{plate} \cdot \frac{\sqrt{\frac{F_{y\_plate}}{ksi}}}{250}$ [Salmon Eq. 13.5.5a]

if $t_{plate} < Min\_Vert\_Plate\_Thickness$

"Apply User-Specified Minimum Plate Thickness"

$t_{plate} \leftarrow Min\_Vert\_Plate\_Thickness$

return t_{plate}

$Vert\_Plate\_Thickness = 0.8057 \cdot in$

Design Welds for Truss to Upright Connection Plates (TF, TG, TH, TJ)

$F_u := 70ksi$

$F_{weld} := 0.60 \cdot 0.75 \cdot F_u = 31.5 \cdot ksi$

Horz_PL_to_Upright_Weld :=

$HorzShear \leftarrow Conn\_Horz\_Shear$

$AxialForce \leftarrow Conn\_Axial\_Force$

$D_{upright} \leftarrow Upright\_Diameter$

$t_{upright} \leftarrow Upright\_Thickness$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Horz\_Plate\_Thickness$

$MomArm \leftarrow L_{plate} + 0.36338 \cdot \frac{D_{upright}}{2}$

$WeldInertia \leftarrow 1.86835 \cdot \left(\frac{D_{upright}}{2}\right)^3$

$WeldForceX \leftarrow \frac{HorzShear \cdot MomArm \cdot \left(0.63662 \cdot \frac{D_{upright}}{2}\right)}{WeldInertia} + \frac{2 \cdot HorzShear}{\pi \cdot D_{upright}}$

$WeldForceY \leftarrow \frac{HorzShear \cdot MomArm \cdot \left(\frac{D_{upright}}{2}\right)}{WeldInertia} + \frac{2 \cdot AxialForce}{\pi \cdot D_{upright}}$

$WeldForce \leftarrow \frac{\sqrt{WeldForceX^2 + WeldForceY^2}}{2}$

$WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right)$

$WeldSize \leftarrow \frac{3}{16} \cdot in \quad if \quad WeldSize < \frac{3}{16} \cdot in$

$WeldSize \leftarrow \frac{1}{\ldots} \cdot \ldots if \ldots \frac{1}{\ldots} \cdot \ldots WeldSize \ldots \frac{1}{\ldots} \cdot \ldots$

$$\begin{aligned}
&\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if } t_{upright} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in} \\
&\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if } t_{plate} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in} \\
&\text{WeldSize} \leftarrow \frac{5}{16}\cdot\text{in} \quad \text{if } t_{plate} > \frac{3}{4}\cdot\text{in} \wedge \text{WeldSize} < \frac{5}{16}\cdot\text{in} \\
&\text{return WeldSize}
\end{aligned}$$

$\text{Horz\_PL\_to\_Upright\_Weld} = 0.6875\cdot\text{in}$

Compute Allowable Shear Stress for Fillet Welds

Note: The allowable weld stress computed here is used to design all welds computed by the program.

$F_{weld} :=$

$F_u \leftarrow 70\text{ksi}$ [E70xx Electrode]

$F_v \leftarrow 0.27\cdot F_u$ [AASHTO Bridge Eq. 10-12]

$F_{weld} \leftarrow 0.707\cdot F_v$

$F_{weld} \leftarrow F_{weld}\cdot 1.33$ *apply "group load" factor* [AASHTO Table 3.4-1]

return F_{weld}

$F_{weld} = 17.772\cdot\text{ksi}$

$$\text{Vert\_PL\_to\_Upright\_Weld} := \left| \begin{array}{l} \text{VertShear} \leftarrow \text{Conn\_Vert\_Shear} \\ \text{AxialForce} \leftarrow \text{Conn\_Axial\_Force} \\ D_{upright} \leftarrow \text{Upright\_Diameter} \\ t_{upright} \leftarrow \text{Upright\_Thickness} \\ L_{plate} \leftarrow \frac{\text{Horz\_Depth}}{2} - \frac{\text{Upright\_Diameter}}{2} \\ t_{plate} \leftarrow \text{Horz\_Plate\_Thickness} \\ Spa_{vertplate} \leftarrow \begin{cases} 3\cdot(3.5\cdot\text{in}) & \text{if } \operatorname{mod}(\text{Num\_Bolts},4) > 0 \\ 2\cdot(3.5\cdot\text{in}) & \text{otherwise} \end{cases} \\ \theta \leftarrow \operatorname{asin}\left(\frac{Spa_{vertplate}}{D_{upright}}\right) \\ \text{MomArm} \leftarrow L_{plate} + \frac{D_{upright}}{2}\cdot(1-\cos(\theta)) \\ \text{WeldForceX} \leftarrow \frac{\text{VertShear}}{4\cdot\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)} \\ \text{WeldForceY} \leftarrow \frac{\text{AxialForce}}{4\cdot\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)} \ldots \\ \qquad + \frac{\text{VertShear}\cdot\text{MomArm}}{4\cdot\left[\frac{\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)^2}{6}\right]} \\ \text{WeldForce} \leftarrow \sqrt{\text{WeldForceX}^2 + \text{WeldForceY}^2} \\ \text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16}\cdot\text{in}, \frac{1}{16}\cdot\text{in}\right) \\ \text{WeldSize} \leftarrow \frac{3}{16}\cdot\text{in} \quad \text{if } \text{WeldSize} < \frac{3}{16}\cdot\text{in} \\ \text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if } t_{upright} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in} \\ \text{WeldSize} \leftarrow \frac{5}{16}\cdot\text{in} \quad \text{if } t_{upright} > \frac{3}{4}\cdot\text{in} \wedge \text{WeldSize} < \frac{5}{16}\cdot\text{in} \\ \text{return } \text{WeldSize} \end{array} \right.$$

$$\text{Vert\_PL\_to\_Upright\_Weld} = 0.25\cdot\text{in}$$

$$\text{Conn\_PL\_to\_Chord\_Weld} := \left| \begin{array}{l} \text{HorzShear} \leftarrow \text{Conn\_Horz\_Shear} \\ \text{WeldForce} \leftarrow 0.9\cdot\frac{\text{HorzShear}}{4\cdot(1.5\cdot\text{Chord\_Diameter})} \\ \text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16}\cdot\text{in}, \frac{1}{16}\cdot\text{in}\right) \\ \text{WeldSize} \leftarrow \frac{3}{16}\cdot\text{in} \quad \text{if } \text{WeldSize} < \frac{3}{16}\cdot\text{in} \\ \text{return } \text{WeldSize} \end{array} \right.$$

$\text{Conn\_PL\_to\_Chord\_Weld} = 0.1875 \cdot \text{in}$

$\text{Horz\_PL\_to\_Vert\_PL\_Weld} :=$

$\text{VertShear} \leftarrow \text{Conn\_Vert\_Shear}$

$L_{plate} \leftarrow \frac{\text{Horz\_Depth}}{2} - \frac{\text{Upright\_Diameter}}{2}$

$t_{plate} \leftarrow \text{Horz\_Plate\_Thickness}$

$\text{WeldForce} \leftarrow \frac{\text{VertShear}}{4 \cdot \left(L_{plate} - 0.75 \cdot \text{in} - t_{plate}\right)}$

$\text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16} \cdot \text{in}, \frac{1}{16} \cdot \text{in}\right)$

$\text{WeldSize} \leftarrow \frac{3}{16} \cdot \text{in} \quad \text{if} \quad \text{WeldSize} < \frac{3}{16} \cdot \text{in}$

$\text{WeldSize} \leftarrow \frac{1}{4} \cdot \text{in} \quad \text{if} \quad t_{plate} > \frac{1}{2} \cdot \text{in} \wedge \text{WeldSize} < \frac{1}{4} \cdot \text{in}$

$\text{WeldSize} \leftarrow \frac{5}{16} \cdot \text{in} \quad \text{if} \quad t_{plate} > \frac{3}{4} \cdot \text{in} \wedge \text{WeldSize} < \frac{5}{16} \cdot \text{in}$

return WeldSize

$\text{Horz\_PL\_to\_Vert\_PL\_Weld} = 0.3125 \cdot \text{in}$

Check Stresses in Horizontal Connection Plates

$\text{Horz\_Plate\_Stress\_Check} :=$

$\text{HorzShear} \leftarrow \text{Conn\_Horz\_Shear}$

$F_{y\_plate} \leftarrow 36 \cdot \text{ksi}$

$D_{upright} \leftarrow \text{Upright\_Diameter}$

$L_{plate} \leftarrow \frac{\text{Horz\_Depth}}{2} - \frac{\text{Upright\_Diameter}}{2}$

$t_{plate} \leftarrow \text{Horz\_Plate\_Thickness}$

$b_{plate} \leftarrow \text{Upright\_Diameter} + 2 \cdot \text{in}$

$L_{vertplate} \leftarrow L_{plate}$

$t_{vertplate} \leftarrow \text{Vert\_Plate\_Thickness}$

$\text{Spa}_{vertplate} \leftarrow \begin{cases} 3 \cdot (3.5 \cdot \text{in}) & \text{if } \text{mod}(\text{Num\_Bolts}, 4) > 0 \\ 2 \cdot (3.5 \cdot \text{in}) & \text{otherwise} \end{cases}$

$S_y \leftarrow \frac{\frac{t_{plate} \cdot b_{plate}^{3}}{12} + \frac{\left(L_{vertplate} - t_{plate} - 0.75 \cdot \text{in}\right) \cdot t_{vertplate} \cdot \text{Spa}_{vertplate}^{2}}{2}}{\frac{b_{plate}}{2}}$

$d_{mom} \leftarrow L_{plate} + 0.36338 \cdot \frac{D_{upright}}{2}$

$f_b \leftarrow \frac{\text{HorzShear} \cdot d_{mom}}{S_y}$

$F_b \leftarrow \left(0.66 \cdot F_{y\_plate}\right) \cdot 1.33$

$\text{Msg} \leftarrow \begin{cases} \text{"OK"} & \text{if } \frac{f_b}{F_b} \le 1.0 \end{cases}$

"N.G. Design connection to upright by hand." otherwise

return Msg

Horz_Plate_Stress_Check = "OK"

Check Stresses in Vertical Connection Plates

Vert_Plate_Stress_Check :=

VertShear ← Conn_Vert_Shear

$F_{y\_plate} \leftarrow 36 \cdot ksi$

$D_{upright} \leftarrow Upright\_Diameter$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Horz\_Plate\_Thickness$

$b_{plate} \leftarrow Upright\_Diameter + 2 \cdot in$

$L_{vertplate} \leftarrow L_{plate}$

$t_{vertplate} \leftarrow Vert\_Plate\_Thickness$

$Spa_{vertplate} \leftarrow \begin{cases} 3 \cdot (3.5 \cdot in) & \text{if } mod(Num\_Bolts, 4) > 0 \\ 2 \cdot (3.5 \cdot in) & \text{otherwise} \end{cases}$

$C_x \leftarrow \frac{t_{plate} \cdot b_{plate} \cdot \left(L_{vertplate} - \frac{t_{plate}}{2}\right) + \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right)^2 \cdot t_{vertplate}}{t_{plate} \cdot b_{plate} + 2 \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right) \cdot t_{vertplate}}$

$R_x \leftarrow \frac{2 \cdot t_{vertplate} \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right)^3}{12} + t_{plate} \cdot b_{plate} \cdot \left(L_{vertplate} - \frac{t_{plate}}{2} - C_x\right)^2 \ldots$

$+ 2 \cdot t_{vertplate} \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right) \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in - C_x\right)^2$

$S_x \leftarrow \min\left(\frac{R_x}{C_x}, \frac{R_x}{\left|L_{vertplate} - C_x\right|}\right)$

$\theta \leftarrow \operatorname{asin}\left(\frac{Spa_{vertplate}}{D_{upright}}\right)$

$d_{mom} \leftarrow L_{plate} + \frac{D_{upright}}{2} \cdot (1 - \cos(\theta))$

$f_b \leftarrow \frac{VertShear \cdot d_{mom}}{S_x}$

$F_b \leftarrow \left(0.66 \cdot F_{y\_plate}\right) \cdot 1.33$

$Msg \leftarrow \begin{cases} \text{"OK"} & \text{if } \frac{f_b}{F_b} \le 1.0 \\ \text{"N.G. Design connection to upright by hand."} & \text{otherwise} \end{cases}$

return Msg

Vert_Plate_Stress_Check = "OK"

Check Yielding of Uprights due to Vertical Plate Loads

Upright_Yielding_Check :=

VertShear ← Conn_Vert_Shear

FOS ← 1.5 *factor of safety*

$t_{upright} \leftarrow$ Upright_Thickness

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$L_{vertplate} \leftarrow L_{plate}$

$VertMom \leftarrow VertShear \cdot L_{plate}$

$VertCap \leftarrow \left(\pi \cdot t_{upright}^{2} \cdot L_{vertplate}\right) \cdot Fy\_Upright$

Msg ← "OK" if $VertMom \cdot FOS \le VertCap$

"N.G. Design connection to upright by hand." otherwise

return Msg

Upright_Yielding_Check = "OK"

Truss Connection Calculations

Connection Output

Truss Connections

(TA) Bolt_Size_Required = "1-1/4" Dia."

(TB) Number_of_Bolts_Reqd_at_Chord_Connection = "6"

(TD) Thickness_of_Horizontal_Connection_Plate = "2""

(TE) Thickness_of_Vertical_Connection_Plate = "3/4""

(TF) Fillet_Weld_Size_for_Horz_PL_to_Upright = "11/16""

(TG) Fillet_Weld_Size_for_Vert_PL_to_Upright = "1/4""

(TH) Fillet_Weld_Size_for_Chord_to_Connection_PL = "3/16""

(TJ) Fillet_Weld_Size_for_Vert_PL_to_Horz_PL = "5/16""

Additional Truss Connection Checks

Horz_Plate_Stress_Check = "OK"

Vert_Plate_Stress_Check = "OK"

Upright_Yielding_Check = "OK"

TABLE: Joint Reactions

Joint	OutputCase	CaseType	F1	F2	F3	M1	M2	M3
Text	Text	Text	Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
38	DL + WL (FRONT) + (-X)	Combination	-52.842	15.645	90.546	-49.6197	-158.9974	-145.4422
38	DL + WL (SIDE)	Combination	4.042	0.074	4.012	0.2077	192.8955	-11.5944
38	DL + WL (BACK) + (-X)	Combination	54.952	-15.497	-82.523	50.0351	378.3612	136.7612
38	DEAD + DL (SIGN PANEL	Combination	0.308	0.074	4.012	0.2077	88.8785	-2.5271
42	DL + WL (FRONT) + (-X)	Combination	55.463	19.479	-67.811	-56.7442	385.6165	-184.7145
42	DL + WL (SIDE)	Combination	9.063	-0.074	18.723	0.4068	224.7653	-8.6914
42	DL + WL (BACK) + (-X)	Combination	-52.331	-19.627	105.258	57.5578	-151.742	181.8654
42	DEAD + DL (SIGN PANEL	Combination	-0.308	-0.074	18.723	0.4068	89.9802	0.3921

Pedestal Calculations for Sign & Signal Structures

SUBJECT I-95 EXPRESS LANES, PHASE 3A-2

STA. 2603+10

DESIGNED BY AR DATE 10/21/2016

CHECKED BY MV DATE 10/21/2016

Input

$b_{concrete} := 2.50 \cdot ft$

Applied Loads

$M_x := 57.6 \cdot kip \cdot ft$ $V_x := 55.5 \cdot kip$ $Torsion := 184.71 \cdot kip \cdot ft$

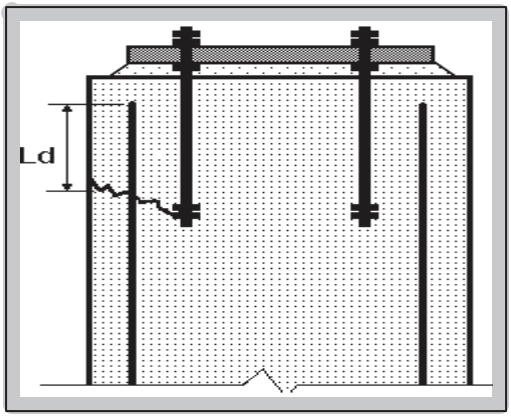
$M_z := 385.62 \cdot kip \cdot ft$ $V_z := 19.63 \cdot kip$ $Axial := 105.3 \cdot kip$

$f_c := 8.5 \cdot ksi$ *concrete strength pedestal*

$cover := 2 \cdot in$ *cover*

$d_{v.bar} := 0.625 in$

Anchor Bolt Embedment



$Num_{anchor} := 8$ *number of anchor bolts*

$d_{anchor} := 2.75 \cdot in$ *anchor bolt diameter* ***[ASTM F1554-04]***

$Upright_{diameter} := 16 in$ $Upright\_Thickness := 0.75 in$

$Diameter_{boltcircle.anchor} := \left(Upright_{diameter} + 6 in\right) = 22 \cdot in$

Check clearance between anchor bolts and DrilledShaft reinforcement

$$EdgeAnchorBolt := \frac{Diameter_{boltcircle.anchor}}{2} + \frac{d_{anchor}}{2} = 12.4 \cdot in$$

$Edge_{baseplate} := Upright_{diameter} + 16 in = 32 \cdot in$

$$EdgeReinforcement := \frac{b_{concrete}}{2} - \left(cover + d_{v.bar}\right) = 12.4 \cdot in$$

$Check_{clearance.anchor} := if(EdgeReinforcement \geq EdgeAnchorBolt, "OK", "No Good")$ $Check_{clearance.anchor} = "OK"$

$F_{t.anchor} := 106.3 \cdot kip$ *anchor bolt tensile load (see F.t.anchor calc below)*

F.t.anchor calculation (double click gray line below)

FTanchor

$M_{anchor} := \sqrt{M_x^2 + M_z^2} = 389.9 \cdot kip \cdot ft$

Input appropriate applied loads M.x and M.y on page 1.

$$n := \begin{cases} 8 & \text{if } d_{anchor} = 1.0 \cdot in \\ 6 & \text{if } d_{anchor} = 1.5 \cdot in \\ 5 & \text{if } d_{anchor} = 1.75 \cdot in \\ 4.5 & \text{if } 2 \cdot in \le d_{anchor} \le 2.25 \cdot in \\ 4 & \text{if } d_{anchor} \ge 2.5 \cdot in \end{cases}$$

threads per inch

ASTM F1554

$n = 4$

$$A_{net.anchor} := \frac{\pi}{4} \cdot \left(d_{anchor} - \frac{0.9743}{\frac{n}{in}} \right)^2 = 4.93 \cdot in^2$$

AASHTO Eqn 5.17.4.2-4

$$I_{anchor} := \frac{Diameter_{boltcircle.anchor}^2}{8} \cdot A_{net.anchor} \cdot Num_{anchor} = 2.4 \times 10^3 \cdot in^4$$

$$S_{anchor} := \frac{I_{anchor}}{\frac{Diameter_{boltcircle.anchor}}{2}} = 217.1 \cdot in^3$$

$$f_{t.anchor} := \frac{M_{anchor}}{S_{anchor}} = 21.6 \cdot ksi$$

$F_{t.anchor.calc} := f_{t.anchor} \cdot A_{net.anchor} = 106.3 \cdot kip$

Copy F.t.anchor.calc result into F.t.anchor input above.

$V_{csr.pole} := \sqrt{(V_x)^2 + (V_z)^2} = 58.9 \cdot kip$

$$V_{u.rod} := \frac{V_{csr.pole}}{Num_{anchor}} + \frac{Torsion}{\left(\frac{Diameter_{boltcircle.anchor}}{2} \right) \cdot Num_{anchor}} = 32.5 \cdot kip$$

$f_{v.rod} := \frac{V_{u.rod}}{A_{net.anchor}} = 6.6 \cdot ksi$

$F_{y.rod} := 55 \cdot ksi$

$F_{t.rod} := 0.5 \cdot F_{y.rod} = 27.5 \cdot ksi$

AASHTO Eqn 5.17.4.2-1

$F_{v.rod} := 0.3 \cdot F_{y.rod} = 16.5 \cdot ksi$ AASHTO Eqn 5.17.4.2-3

$CSR_{rod} := \left(\frac{f_{t.anchor}}{F_{t.rod}}\right)^2 + \left(\frac{f_{v.rod}}{F_{v.rod}}\right)^2$ AASHTO Eqn 5.17.4.2-5

$CSR_{rod} = 0.774$

Use the AISC LRFD Code, 2nd Edition, for Design of Elements Where Possible

Design of bolts based on "Design Guide for Steel to Concrete Connections by Cook, Doerr & Klingne Research Report 1126-4F by the Bureau of Engineering Research at the Univ. of Texas at Austin

$T_{u.rod.old} := 1.3 \cdot F_{t.anchor} = 138.2 \cdot kip$

$V_{u.rod.old} := 1.3 \cdot V_{u.rod} = 42.3 \cdot kip$

(use a 1.3 load factor since loads are a mix of wind load and dead load)

$A_{net.rod.old} := 0.75 \cdot \pi \cdot \left(\frac{d_{anchor}}{2}\right)^2 = 4.45 \cdot in^2$

$F_{u.rod} := 75 \cdot ksi$

$T_{s.rod} := A_{net.rod.old} \cdot F_{u.rod} = 334.1 \cdot kip$

$\gamma := 0.5$ *(property of embedded rods)*

$T_{n.rod} := \sqrt{T_{s.rod}^2 - \left(\frac{V_{u.rod}}{\gamma}\right)^2}$

$0.75 \cdot T_{n.rod} = 245.8 \cdot kip$ ***(if greater than actual rod tension, bolts are OK)***

$PR_{rod} := \frac{T_{u.rod.old}}{0.75 \cdot T_{n.rod}}$

$PR_{rod} = 0.562$

$Anchor\_Bolt\_Capacity\_Check := \begin{cases} \text{"OK"} & \text{if } CSR_{rod} \le 1 \wedge PR_{rod} \le 1 \\ \text{"No Good"} & \text{otherwise} \end{cases}$

Anchor_Bolt_Capacity_Check = "OK"

FTanchor

$L_{embedment.anchor} := 20.d_{anchor} + 12in = 67 \cdot in$

$LF_{shr} := 1.3$ *Shear Load Factor*

$LF_{tor} := 1.3$ *Torsion Load Factor*

1.3 is a reasonable Load Factor for combined WL + DL on sign and signal structures

$V_u := LF_{shr} \cdot \sqrt{V_x^2 + V_z^2} = 76.5 \cdot kip$

$T_u := LF_{tor} \cdot Torsion = 240.1 \cdot kip \cdot ft$

Anchor Bolt Shear Break-Out Strength

References:
ACI 318-05 Appendix D.
FDOT/University of Florida Report BD545 RPWO #54, Anchor Embedment Requirements for Signal/Sign Structures, July 2007.

$r_b := \frac{Diameter_{boltcircle.anchor}}{2}$ $r_b = 11 \cdot in$

$r := \frac{b_{concrete}}{2}$ $r = 15 \cdot in$

$c_{a1} := \frac{\sqrt{r_b^2 + 3.25 \cdot \left(r^2 - r_b^2\right)} - r_b}{3.25}$ $c_{a1} = 3.21 \cdot in$ *adjusted cover*

UF Report Eqn 3-2

$L_e := \min\left(8 \cdot d_{anchor}, L_{embedment.anchor}\right)$ $L_e = 22 \cdot in$ *load bearing length of anchor for shear*

ACI D.6.2.2

$V_b := 13 \cdot \left(\frac{L_e}{d_{anchor}}\right)^{0.2} \cdot \sqrt{\frac{d_{anchor}}{in}} \cdot \sqrt{\frac{f_c}{psi}} \left(\frac{c_{a1}}{in}\right)^{1.5} \cdot lbf$

$V_b = 17.3 \cdot kip$ *shear break-out strength (single anchor)*

UF Report Eqn 2-11

$A := \frac{(360 \cdot deg)}{Num_{anchor}}$ $A = 45 \cdot deg$ *UF Report Fig 3-7*

$\alpha := 2 \operatorname{asin}\left[\frac{\left(1.5 \cdot c_{a1}\right)}{r}\right]$ $\alpha = 37.4 \cdot deg$

OverlapTest := if(A ≤ α, "Overlap of Failure Cones" , "No Overlap of Failure Cones")

OverlapTest = "No Overlap of Failure Cones"

$chord := 2 \cdot r \cdot \sin\left(\frac{A}{2}\right)$ $chord = 11.5 \cdot in$ *UF Report Fig 3-7*

$A_{Vco} := 4.5 \cdot c_{a1}^2$ $A_{Vco} = 46.3 \cdot in^2$ *projected concrete failure area (single anchor)*

ACI Eqn D-23

$A_{Vc} := chord \cdot 1.5 \cdot c_{a1}$ $A_{Vc} = 55.2 \cdot in^2$ *projected concrete failure area (group)*

ACI D.6.2.1

$A_{Vc} := if\left(A_{Vc} > A_{Vco}, A_{Vco}, A_{Vc}\right)$ $A_{Vc} = 46.3 \cdot in^2$

$\psi_{ecV} := 1.0$ *eccentric load modifier* *ACI D.6.2.5*

$\psi_{edV} := 1.0$ *edge effect modifier* *ACI D.6.2.6*

$\psi_{cV} := 1.4$ *cracked section modifier* *ACI D.6.2.7* *(stirrup spacing <= 4")*

$\psi_{hV} := 1.0$ *member thickness modifier* *ACI D.6.2.8*

$\phi_{breakout} := 0.75$ *strength reduction factor* *ACI D.4.4.c.i* *(shear breakout, condition A)*

$V_{cbg} := Num_{anchor} \cdot \left(\frac{A_{Vc}}{A_{Vco}} \right) \cdot \left(\psi_{ecV} \cdot \psi_{edV} \cdot \psi_{cV} \cdot \psi_{hV} \right) \cdot V_b$ $V_{cbg} = 193.8 \cdot kip$ *concrete breakout strength - shear*

ACI Eqn D-22 *Shear force ⊥ to edge*

$V_{cbg\_parallel} := 2 \cdot V_{cbg}$ $V_{cbg\_parallel} = 387.6 \cdot kip$ *ACI D.6.2.1.c* *Shear force || to edge*

$T_{n.breakout} := V_{cbg\_parallel} \cdot r_b$ $T_{n.breakout} = 355.3 \cdot kip \cdot ft$ *concrete breakout strength - torsion*

$\phi_{breakout} \cdot T_{n.breakout} = 266.5 \cdot kip \cdot ft$

$T_u = 240.1 \cdot kip \cdot ft$

$BreakoutTest := if\left(\phi_{breakout} \cdot T_{n.breakout} \geq T_u, "OK", "No Good" \right)$ BreakoutTest = "OK"

$OverlapDesign := if(A \leq \alpha, "Based on Overlap of Failure Cones", "Based on No Overlap of Failure Cones")$

OverlapDesign = "Based on No Overlap of Failure Cones"

References

LRFD = AASHTO LRFD Bridge Design Specifications

LTS = AASHTO Luminaire, Traffic Signal, and Sign Structure Specifications.

SM = FDOT Structures Manual

SDG = FDOT Structures Design Guidelines

Spec = FDOT Standard Specifications

ACI = ACI 318 Structural Concrete Building Code

Check Anchor Bolt Stress and Minimum Spacing

$$BoltStress := \frac{F_{t.anchor.calc}}{A_{net.anchor}} = 21.6 \cdot ksi$$

$$MaxShear := \sqrt{V_x^{\,2} + V_z^{\,2}} = 58.9 \cdot kip$$

$$BoltShear := \left(\frac{MaxShear}{Num_{anchor}} + \frac{|Torsion|}{Num_{anchor} \cdot r_b} \right) = 32.5 \cdot kip$$

$$AllowStress := \left[\begin{array}{l} 0 \cdot ksi \quad \text{if} \quad \frac{1.3 \cdot BoltShear}{0.5} \geq 0.75 \cdot (75 \cdot ksi) \cdot A_{net.anchor} \\ \frac{\left(\frac{0.75}{1.3}\right) \cdot \sqrt{\left[0.75 \cdot (75 \cdot ksi) \cdot A_{net.anchor}\right]^2 - \left(\frac{1.3 \cdot BoltShear}{0.5}\right)^2}}{A_{net.anchor}} \quad \text{otherwise} \end{array} \right]$$

return $AllowStress = 30.9 \cdot ksi$

$BoltStressCheck := if(AllowStress \geq BoltStress, "OK", "No Good")$ $BoltStressCheck = "OK"$

$$\theta_{bolts} := \frac{360deg}{Num_{anchor}} = 45 \cdot deg$$

$$Distance\_Between\_Bolts := 2 \cdot r_b \cdot \sin\left(\frac{\theta_{bolts}}{2}\right) = 8.42 \cdot in$$

$$Minimum\_Spacing := 3 \cdot d_{anchor} = 8.3 \cdot in$$

$Bolt\_Minimum\_Spacing\_Check := if(Distance\_Between\_Bolts \geq Minimum\_Spacing, "OK", "No Good")$

$Bolt\_Minimum\_Spacing\_Check = "OK"$

Base Plate Calculations

Compute Base Plate Thickness

Minimum base plate thicknesses are determined using the formula on page 410 of the 5th edition of Roark's "Formulas for Stress and Strain" by Raymond Roark and Warren Young.

Anchor_Bolt_Tension := $F_{t.anchor.calc}$

Min_Base_Plate_Thickness := 2.75in

Base_PL_Thickness :=

W ← Anchor_Bolt_Tension

FOS ← 2.12 *factor of safety* *[AASHTO Bridge Table 10.32.1A]*

$W_u \leftarrow W \cdot FOS$

$F_{y\_plate} \leftarrow 36 \cdot ksi$

$\sigma_y \leftarrow F_{y\_plate}$

$\sigma_y \leftarrow \sigma_y$ *apply "group load" factor* *[AASHTO Table 3.4-1]*

$t_{plate} \leftarrow \sqrt{\frac{2 \cdot W_u}{\pi \cdot \sigma_y}}$ *[Roark (Ref.45)]*

$t_{plate} \leftarrow Min\_Base\_Plate\_Thickness$ if $t_{plate} < Min\_Base\_Plate\_Thickness$

return t_{plate}

$Base\_PL\_Thickness = 2.750 \cdot in$

Compute Stiffener Plate Thickness

The buckling of the vertical plates is investigated using the discussion on pages 752 through 765 in the 2nd edition of the book "Steel Structures" by Charles Salmon and John Johnson

Min_Stiffener_Thickness := 0.625in

Stiffener_Thickness :=

P ← Anchor_Bolt_Tension

FOS ← 2.0 *factor of safety*

$F_{y\_stiff} \leftarrow 36 \cdot ksi$

$b_{stiff} \leftarrow 6.in$

$t_{stiff} \leftarrow \frac{P \cdot FOS}{0.90 \cdot F_{y\_stiff} \cdot (b_{stiff}) \cdot 2}$ *[Salmon Eq. 13.4.4]*

$t_{stiff} \leftarrow Min\_Stiffener\_Thickness$ if $t_{stiff} < Min\_Stiffener\_Thickness$

return t_{stiff}

$Stiffener\_Thickness = 0.625 \cdot in$

Compute Stiffener Plate Height

In accordance with AASHTO LTS-6 Article 5.14.4, "only tapered stiffeners having a termination angle of 15 degrees on the tube at the tip of the stiffener shall be used."

Stiffener_Height :=
StiffWidth ← 8in
$\theta_{stiff} \leftarrow 15 \cdot deg$
$StiffHeight \leftarrow \frac{StiffWidth - 1 \cdot in}{\tan(\theta_{stiff})} + 1 \cdot in$
return StiffHeight

$Stiffener\_Height = 27.124 \cdot in$

Compute Allowable Shear Stress for Fillet Welds

Note: The allowable weld stress computed here is used to design all welds computed by the program.

F_{weld} :=
$F_u \leftarrow 70ksi$ *[E70xx Electrode]*
$F_v \leftarrow 0.27 \cdot F_u$ *[AASHTO Bridge Eq. 10-12]*
$F_{weld} \leftarrow 0.707 \cdot F_v$
$F_{weld} \leftarrow F_{weld}$ ***apply "group load" factor*** *[AASHTO Table 3.4-1]*
return F_{weld}

$F_{weld} = 13.362 \cdot ksi$

Design Base Plate to Upright Welds

Base_PL_to_Upright_Welds :=
$WeldRadius \leftarrow \frac{Upright_{diameter}}{2}$
$WeldForce \leftarrow \frac{MaxShear + \frac{Torsion}{WeldRadius}}{2 \cdot \pi \cdot WeldRadius}$
$Weld_{req} \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right)$
$Weld_{in} \leftarrow Floor\left(Upright\_Thickness, \frac{1}{16} \cdot in\right) - \frac{1}{16} \cdot in$
$Weld_{out} \leftarrow Weld_{req} - Weld_{in}$
$Weld_{out} \leftarrow \frac{5}{16} \cdot in \text{ if } Weld_{out} < \frac{5}{16} \cdot in$
$Weld_{in} \leftarrow \frac{5}{16} \cdot in \text{ if } Weld_{req} - Weld_{out} < Weld_{in} \wedge Weld_{req} - Weld_{out} < \frac{5}{16} \cdot in$
$Diff \leftarrow Weld_{req} - (Weld_{in} + Weld_{out})$
$Weld_{in} \leftarrow Weld_{in} - Diff \text{ if } Diff \geq \frac{1}{16} \cdot in$
$Weld_{in} \leftarrow \frac{5}{16} \cdot in \text{ if } Weld_{in} < \frac{5}{16} \cdot in$
$Welds_0 \leftarrow Weld_{in}$
$Welds_1 \leftarrow Weld_{out}$
return Welds

$$Base\_PL\_Inside\_Weld := Base\_PL\_to\_Upright\_Welds_0 \qquad Base\_PL\_Inside\_Weld = 0.3125 \cdot in$$

$$Base\_PL\_Outside\_Weld := Base\_PL\_to\_Upright\_Welds_1 \qquad Base\_PL\_Outside\_Weld = 0.3125 \cdot in$$

Design Stiffener Plate to Base Plate Weld

$$\begin{aligned} Stiff\_PL\_to\_Base\_PL\_Weld := \; & WeldForce \leftarrow \frac{Anchor\_Bolt\_Tension}{2 \cdot (6.in - 0.75 \cdot in)} \\ & WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right) \\ & WeldSize \leftarrow \frac{5}{16} \cdot in \quad if \quad WeldSize < \frac{5}{16} \cdot in \\ & return \quad WeldSize \end{aligned}$$

$$Stiff\_PL\_to\_Base\_PL\_Weld = 0.8125 \cdot in$$

Design Stiffener Plate to Upright Weld

$$\begin{aligned} Stiff\_PL\_to\_Upright\_Weld := \; & BoltTension \leftarrow Anchor\_Bolt\_Tension \\ & StiffHt \leftarrow Stiffener\_Height \\ & WeldForce \leftarrow \frac{\sqrt{\left[\frac{(18 \cdot in) \cdot BoltTension}{(StiffHt - 0.75 \cdot in)^2}\right]^2 + \left(\frac{BoltTension}{StiffHt - 0.75 \cdot in}\right)^2}}{2} \\ & WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right) \\ & WeldSize \leftarrow \frac{3}{16} \cdot in \quad if \quad WeldSize < \frac{3}{16} \cdot in \\ & return \quad WeldSize \end{aligned}$$

$$Stiff\_PL\_to\_Upright\_Weld = 0.1875 \cdot in$$

Check Stiffener Thickness to Upright Wall Thickness Ratio

In accordance with AASHTO LTS-6 Article 5.14.4, "the ratio of the stiffener thickness to the tube wall thicknesses shall not exceed 1.25".

$$\text{Stiffener\_to\_Upright\_Thickness\_Check} := \begin{cases} \text{"OK"} & \text{if } \frac{\text{Stiffener\_Thickness}}{\text{Upright\_Thickness}} \le 1.25 \\ \text{"N.G. Select an upright member with thicker walls."} & \text{otherwise} \end{cases}$$

Additional Base Connection Check

Stiffener_to_Upright_Thickness_Check = "OK"

Base Plate Calculations

Connection Output

Connection Values

Base Connection

Note: All truss bolted connections use A325 bolts, and upright anchor bolts are ASTM F1554. All welds are sized assuming E70xx electrodes.

(BA) Anchor_Bolt_Size = 2.75·in

(BB) Number_of_Anchor_Bolts_Reqd = 8

(BC) Base_Plate_Thickness = 2.75·in

(BD) $\text{Stiffener\_Plate\_Thickness} = \frac{5}{8}\cdot\text{in}$

(BE) Stiffener_Plate_Height = 27·in

(BF) $\text{Inside\_Base\_Plate\_Fillet\_Weld} = \frac{5}{16}\cdot\text{in}$

(BG) $\text{Outside\_Base\_Plate\_Fillet\_Weld} = \frac{5}{16}\cdot\text{in}$

(BH) $\text{Stiffener\_PL\_to\_Base\_PL\_Fillet\_Weld} = \frac{13}{16}\cdot\text{in}$

(BJ) $\text{Stiffener\_PL\_to\_Upright\_Fillet\_Weld} = \frac{3}{16}\cdot\text{in}$

Anchor Bolt Lengths

(BK) $\text{Anchor\_Bolt\_Embed\_Length} := L_{embedment.anchor} = 67\cdot\text{in}$

$\text{Pedestal\_Minimum\_Width} := b_{concrete} = 2.5\,\text{ft}$

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*                                                                       *
*       The University of Florida, Florida Department                   *
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*       Cliff Hays, Mark Williams, Petros Christou, and                 *
*                        Jae H. Chung                                   *
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```

```
Analysis Start       = 10:14am
Analysis End         = 10:15am
Analysis Duration    = 7 second(s)

Input Data File Name = 2603+10.in
Analysis Date        = 10-21-2016
License ID Number    = 432722304


* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*      OUTPUT STAGE 1 OF 2: INTERPRETATION OF INPUT FILE      *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

*************************************************************
*                        PROJECT DATA                       *
*************************************************************

Project client      = PB
Project name        = I-95 Express Lanes, Phase 3A-2
Project manager     = Morgan Villanueva, P.E., S.I.
Computed by         = Adrian Robaina
Project description = 2603+10


*************************************************************
*               SELECTIVE PRINT OUTPUT CONTROL              *
*************************************************************

Print Flag                                                State
Pile displacements                                          On
Pile element forces                                         On
Pile ID numbers                                            Off
Pile cap stresses                                           On
Pile and pier coordinates                                   On
Pile and pier interaction diagrams                          On
Pile and pier material stress-strain curves                 On
Pile and pier material properties                           On
Pier columns and pier cap displacements                     On
Pier columns and pier cap forces                            On
Soil response forces                                        On
Soil data per layer                                         On
Soil curve data per pile node                               On
Soil graph per pile node                                    On
Bridge span properties                                     Off
Bridge span temperature data                               Off
Bridge span displacements                                  Off
```

Bridge span element forces	Off
Discrete spring forces	On
Out of balance forces	On
XML output	On
Eigenvectors	Off

****
* ANALYSIS CONTROL INFORMATION *
****

Type of analysis = Static

Soil stiffness = Nonlinear
Pile stiffness = Nonlinear

Units = English (kips & ft; lbs & in)

Number of piers = 1

Max. number of iterations = 240
Convergence tolerance = 1.0 kips

****
* SOIL BEHAVIOR *
****

Springs are defined at the following DOF for embedded nodes:
X-TRANSLATION Y-TRANSLATION Z-TRANSLATION
Z-ROTATION

****
* LOAD FACTORS FOR SELF WEIGHT AND BUOYANCY *
****

LOAD CASE NO.	SELF WEIGHT FACTOR	BUOYANCY FACTOR
1	1.30	1.30

****
* PILE CAP DATA *
****

NOTE: Xp-Grid: Distance between axes along Xp axis
Yp-Grid: Distance between axes along Yp axis

Number of Grid Points in Xp direction (NPX) = 3
Number of Grid Points in Yp direction (NPY) = 6

Grid Spacing in the Xp direction (in):
18.00 18.00

Grid Spacing in the Yp direction (in):
27.00 30.00 30.00 30.00 27.00

****
* INPUT SOIL DATA - GIVEN BY LAYER *
****

NOTE : The following data are used to define springs for each soil layer

LAYERED P-Y CURVES

- SOIL SET # 1 -

SET	LAYER	MODEL	PHI deg	RK lbs/in^3	GAMMA pcf
1	1	1	0.3000E+02	0.3000E+02	0.1050E+03
			0.3000E+02	0.3000E+02	0.1050E+03

LAYERED T-Z CURVES

- SOIL SET # 1 -

SET	LAYER	MODEL	GAMMA pcf	ELEVATION ft	PIEZOMETRIC ELEVATION
1	1	2	0.1050E+03	0.0000E+00	0.0000E+00
			0.1050E+03	-0.5000E+02	0.0000E+00

LAYERED T-THETA CURVES

- SOIL SET # 1 -

SET	LAYER	MODEL	SHEAR M. ksi	TAU MAX psf
1	1	1	0.6000E+00	0.5000E+03
			0.6000E+00	0.5000E+03

PILE TIP SOIL PARAMETERS

- SOIL SET # 1 -

Drilled Shaft Tip on Sand
N(SPT) at Tip = 14.0

****
* PILE SEGMENT DATA *
****

NOTE: Pile sets consist of pile segments based on user input. The program groups all segments from every pile set and assigns a reference number to each segment.

The reference number for each segment together with the user input pile set/segment number is listed below. The input section properties for each section and segment are also provided below.

Number of segments found among all piles = 1

- SECTION DATA FOR SECTION/SEGMENT : 1 -

Input Pile Set Number = 1
Input Pile Set Segment = 1

Section Length (L) = 35.000000 ft

Nonlinear Section/Segment Material Properties

- Concrete Stress Strain Properties -

```
  Concrete Strength    (FPC)               = 0.4000E+01     ksi
  Modulus of Elasticity (EC)               = 0.3280E+04     ksi

  No. Gauss Integ. points in the concrete  =    60

------------------------------------------------------------------
- Steel Stress Strain Properties                                 -
------------------------------------------------------------------

  Mild Steel Yield Stress  (FY)            = 0.6000E+02     ksi
  Modulus of Elasticity    (ES)            = 0.2900E+05     ksi
```

Default Stress Strain Curves for Current Section

- Concrete Stress Strain Curve   -

Stress ksi	Strain
-0.28900E+01	-0.38000E-02
-0.34000E+01	-0.20732E-02
-0.33306E+01	-0.17770E-02
-0.31224E+01	-0.14808E-02
-0.27755E+01	-0.11847E-02
-0.22898E+01	-0.88850E-03
-0.16653E+01	-0.59233E-03
-0.97143E+00	-0.29617E-03
0.00000E+00	0.00000E+00
0.43158E+00	0.13158E-03
0.21579E+00	0.30000E-03
0.00000E+00	0.20000E-02
0.00000E+00	0.50000E-02

- Mild Steel Stress Strain Curve   -

Stress ksi	Strain
-0.60000E+02	-0.99990E-01
-0.60000E+02	-0.20690E-02
0.60000E+02	0.20690E-02
0.60000E+02	0.99990E-01

- Shape of Section : CIRCULAR

- Steel and Confinement Data

  Number of Steel Layers = 1
  Section/Segment Diameter = 30.0000 in
  Tied/Spiral Reinforcement Flag = 1
  (Spiral = 1, Tied = 2)
  Confinement Flag = 0
  (None = 0, Confined - Tied/Spiral = 1,
  Confined - Tied/Spiral and Casing = 2)

- Total Area of Steel Reinforcement = 8.0000 in^2

  WARNING : The number of bars is changed to a multiple of 4.
  This is to ensure a symmetric section for the
  analysis. The area is changed to result in the
  same total area of steel.

Layer	# Bars/Strands	Area in^2	Layer Dia. in	Prestressing ksi
1	8	1.00	18.00	0.00

****
* INPUT SOIL DATA PER NODE ALONG THE PILE *
****

DATA USED TO GENERATE P-Y CURVES

NODE	PHI	K	GAMMA	CU	E50	E100	qu
	deg	lbs/in^3	lb/ft^3	psf	ft/ft	ft/ft	ksi
2	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
3	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
4	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
5	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
6	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

8	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
9	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
10	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
11	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
12	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
13	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
14	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
15	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
16	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
17	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						

DATA USED TO GENERATE T-Z CURVES

NODE	PHI	GAMMA
	deg	pcf
2	0.3000E+02	0.6076E-04
3	0.3000E+02	0.6076E-04
4	0.3000E+02	0.6076E-04
5	0.3000E+02	0.6076E-04
6	0.3000E+02	0.6076E-04
7	0.3000E+02	0.6076E-04
8	0.3000E+02	0.6076E-04
9	0.3000E+02	0.6076E-04
10	0.3000E+02	0.6076E-04
11	0.3000E+02	0.6076E-04
12	0.3000E+02	0.6076E-04
13	0.3000E+02	0.6076E-04
14	0.3000E+02	0.6076E-04
15	0.3000E+02	0.6076E-04
16	0.3000E+02	0.6076E-04
17	0.3000E+02	0.6076E-04

DATA USED TO GENERATE T-THETA CURVES

NODE	Gi	TAU MAX
	ksi	psf

2	0.6000E+00	0.5000E+03
3	0.6000E+00	0.5000E+03
4	0.6000E+00	0.5000E+03
5	0.6000E+00	0.5000E+03
6	0.6000E+00	0.5000E+03
7	0.6000E+00	0.5000E+03
8	0.6000E+00	0.5000E+03
9	0.6000E+00	0.5000E+03
10	0.6000E+00	0.5000E+03
11	0.6000E+00	0.5000E+03
12	0.6000E+00	0.5000E+03
13	0.6000E+00	0.5000E+03
14	0.6000E+00	0.5000E+03
15	0.6000E+00	0.5000E+03
16	0.6000E+00	0.5000E+03
17	0.6000E+00	0.5000E+03

****
* SOIL RESISTANCE CURVES (P-y, T-z, T-theta, Q-z) *
****

Listed below are the soil curves (P-y, T-z, T-theta) for each depth correspondng to a pile node. Q-z curves are additionally listed for pile tips.

- P-Y Plots for Soil Set 1

P-Multipliers are used in the analysis, if specified by the user. The original (unscaled) P-Y curves are listed below.

- Depth below ground surface = 0.00 in -

---

y	P
in	kip/in
0.0000	0.0000
0.0947	0.0000
0.1895	0.0000
0.2842	0.0000
0.3789	0.0000
0.4737	0.0000
0.5684	0.0000
0.6632	0.0000
0.7579	0.0000
0.8526	0.0000
0.9474	0.0000

1.0421	0.0000
1.1368	0.0000
1.2316	0.0000
1.3263	0.0000
1.4211	0.0000
1.5158	0.0000
1.6105	0.0000
1.7053	0.0000
1.8000	0.0000

- Depth below ground surface = 24.80 in -

---

y in	P kip/in
0.0000	0.0000
0.0947	0.0682
0.1895	0.1245
0.2842	0.1641
0.3789	0.1889
0.4737	0.2034
0.5684	0.2114
0.6632	0.2158
0.7579	0.2181
0.8526	0.2194
0.9474	0.2200
1.0421	0.2204
1.1368	0.2206
1.2316	0.2207
1.3263	0.2207
1.4211	0.2207
1.5158	0.2208
1.6105	0.2208
1.7053	0.2208
1.8000	0.2208

- Depth below ground surface = 49.60 in -

---

y in	P kip/in
0.0000	0.0000
0.0947	0.1369
0.1895	0.2523
0.2842	0.3364
0.3789	0.3914
0.4737	0.4249
0.5684	0.4444

0.6632	0.4555
0.7579	0.4617
0.8526	0.4651
0.9474	0.4670
1.0421	0.4680
1.1368	0.4686
1.2316	0.4689
1.3263	0.4691
1.4211	0.4692
1.5158	0.4692
1.6105	0.4692
1.7053	0.4693
1.8000	0.4693

- Depth below ground surface = 74.40 in -

---

y in	P kip/in
0.0000	0.0000
0.0947	0.2021
0.1895	0.3584
0.2842	0.4568
0.3789	0.5111
0.4737	0.5389
0.5684	0.5525
0.6632	0.5591
0.7579	0.5622
0.8526	0.5637
0.9474	0.5644
1.0421	0.5647
1.1368	0.5649
1.2316	0.5650
1.3263	0.5650
1.4211	0.5650
1.5158	0.5650
1.6105	0.5650
1.7053	0.5650
1.8000	0.5650

- Depth below ground surface = 99.20 in -

---

y in	P kip/in
0.0000	0.0000
0.0947	0.2716
0.1895	0.4908

0.2842	0.6391
0.3789	0.7278
0.4737	0.7770
0.5684	0.8032
0.6632	0.8168
0.7579	0.8238
0.8526	0.8274
0.9474	0.8292
1.0421	0.8301
1.1368	0.8306
1.2316	0.8309
1.3263	0.8310
1.4211	0.8310
1.5158	0.8311
1.6105	0.8311
1.7053	0.8311
1.8000	0.8311

- Depth below ground surface = 124.00 in -

y	P
in	kip/in
0.0000	0.0000
0.0947	0.3433
0.1895	0.6379
0.2842	0.8595
0.3789	1.0101
0.4737	1.1055
0.5684	1.1633
0.6632	1.1974
0.7579	1.2172
0.8526	1.2285
0.9474	1.2350
1.0421	1.2387
1.1368	1.2408
1.2316	1.2420
1.3263	1.2427
1.4211	1.2431
1.5158	1.2433
1.6105	1.2434
1.7053	1.2435
1.8000	1.2435

- Depth below ground surface = 148.80 in -

y	P

y	P
in	kip/in
0.0000	0.0000
0.0947	0.4148
0.1895	0.7848
0.2842	1.0829
0.3789	1.3037
0.4737	1.4576
0.5684	1.5601
0.6632	1.6264
0.7579	1.6685
0.8526	1.6949
0.9474	1.7114
1.0421	1.7215
1.1368	1.7278
1.2316	1.7317
1.3263	1.7341
1.4211	1.7356
1.5158	1.7365
1.6105	1.7370
1.7053	1.7374
1.8000	1.7376

- Depth below ground surface = 173.60 in -

y	P
in	kip/in
0.0000	0.0000
0.0947	0.4860
0.1895	0.9310
0.2842	1.3067
0.3789	1.6026
0.4737	1.8235
0.5684	1.9816
0.6632	2.0915
0.7579	2.1663
0.8526	2.2165
0.9474	2.2499
1.0421	2.2720
1.1368	2.2866
1.2316	2.2961
1.3263	2.3023
1.4211	2.3064
1.5158	2.3091
1.6105	2.3108
1.7053	2.3120
1.8000	2.3127

- Depth below ground surface = 198.40 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.5572
0.1895	1.0766
0.2842	1.5299
0.3789	1.9034
0.4737	2.1969
0.5684	2.4189
0.6632	2.5822
0.7579	2.6997
0.8526	2.7830
0.9474	2.8414
1.0421	2.8821
1.1368	2.9103
1.2316	2.9297
1.3263	2.9431
1.4211	2.9522
1.5158	2.9585
1.6105	2.9629
1.7053	2.9658
1.8000	2.9678

- Depth below ground surface = 223.20 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.6283
0.1895	1.2215
0.2842	1.7522
0.3789	2.2044
0.4737	2.5739
0.5684	2.8659
0.6632	3.0904
0.7579	3.2594
0.8526	3.3847
0.9474	3.4765
1.0421	3.5432
1.1368	3.5913
1.2316	3.6259
1.3263	3.6507
1.4211	3.6684
1.5158	3.6810

1.6105	3.6900
1.7053	3.6964
1.8000	3.7010

- Depth below ground surface = 248.00 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.6992
0.1895	1.3660
0.2842	1.9735
0.3789	2.5046
0.4737	2.9523
0.5684	3.3183
0.6632	3.6101
0.7579	3.8380
0.8526	4.0133
0.9474	4.1465
1.0421	4.2468
1.1368	4.3218
1.2316	4.3775
1.3263	4.4188
1.4211	4.4493
1.5158	4.4718
1.6105	4.4884
1.7053	4.5005
1.8000	4.5095

- Depth below ground surface = 272.80 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.7701
0.1895	1.5099
0.2842	2.1938
0.3789	2.8037
0.4737	3.3306
0.5684	3.7734
0.6632	4.1370
0.7579	4.4298
0.8526	4.6621
0.9474	4.8440
1.0421	4.9852
1.1368	5.0939

1.2316	5.1772
1.3263	5.2407
1.4211	5.2889
1.5158	5.3255
1.6105	5.3531
1.7053	5.3740
1.8000	5.3898

- Depth below ground surface = 297.60 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.8410
0.1895	1.6536
0.2842	2.4132
0.3789	3.1016
0.4737	3.7081
0.5684	4.2294
0.6632	4.6680
0.7579	5.0304
0.8526	5.3253
0.9474	5.5625
1.0421	5.7514
1.1368	5.9007
1.2316	6.0179
1.3263	6.1095
1.4211	6.1808
1.5158	6.2361
1.6105	6.2790
1.7053	6.3121
1.8000	6.3377

- Depth below ground surface = 322.40 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.9110
0.1895	1.7914
0.2842	2.6144
0.3789	3.3603
0.4737	4.0175
0.5684	4.5825
0.6632	5.0578
0.7579	5.4506

0.8526	5.7704
0.9474	6.0276
1.0421	6.2325
1.1368	6.3943
1.2316	6.5215
1.3263	6.6208
1.4211	6.6982
1.5158	6.7583
1.6105	6.8048
1.7053	6.8408
1.8000	6.8685

- Depth below ground surface = 347.20 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.9811
0.1895	1.9292
0.2842	2.8155
0.3789	3.6188
0.4737	4.3266
0.5684	4.9350
0.6632	5.4469
0.7579	5.8699
0.8526	6.2143
0.9474	6.4913
1.0421	6.7119
1.1368	6.8862
1.2316	7.0231
1.3263	7.1301
1.4211	7.2135
1.5158	7.2781
1.6105	7.3282
1.7053	7.3670
1.8000	7.3969

- Depth below ground surface = 372.00 in -

y in	P kip/in
0.0000	0.0000
0.0947	1.0512
0.1895	2.0670
0.2842	3.0166
0.3789	3.8773

0.4737	4.6356
0.5684	5.2875
0.6632	5.8360
0.7579	6.2892
0.8526	6.6582
0.9474	6.9549
1.0421	7.1913
1.1368	7.3781
1.2316	7.5248
1.3263	7.6394
1.4211	7.7287
1.5158	7.7980
1.6105	7.8517
1.7053	7.8932
1.8000	7.9252

- T-Z Plots for Soil Set 1

Coefficient of axial group efficiency = 1.000
The scaled T-Z curves are listed below.

- Depth below ground surface = 0.00 in -

---

z in	T ksi
0.0000	0.0000
0.0947	0.0000
0.1895	0.0000
0.2842	0.0000
0.3789	0.0000
0.4737	0.0000
0.5684	0.0000
0.6632	0.0000
0.7579	0.0000
0.8526	0.0000
0.9474	0.0000
1.0421	0.0000
1.1368	0.0000
1.2316	0.0000
1.3263	0.0000
1.4211	0.0000
1.5158	0.0000
1.6105	0.0000
1.7053	0.0000
1.8000	0.0000

- Depth below ground surface = 24.80 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0006
0.1895	0.0007
0.2842	0.0007
0.3789	0.0007
0.4737	0.0007
0.5684	0.0007
0.6632	0.0007
0.7579	0.0007
0.8526	0.0007
0.9474	0.0007
1.0421	0.0007
1.1368	0.0007
1.2316	0.0007
1.3263	0.0007
1.4211	0.0007
1.5158	0.0007
1.6105	0.0007
1.7053	0.0007
1.8000	0.0007

- Depth below ground surface = 49.60 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0011
0.1895	0.0014
0.2842	0.0014
0.3789	0.0014
0.4737	0.0014
0.5684	0.0014
0.6632	0.0014
0.7579	0.0014
0.8526	0.0014
0.9474	0.0014
1.0421	0.0014
1.1368	0.0014
1.2316	0.0014
1.3263	0.0014
1.4211	0.0014
1.5158	0.0014

1.6105	0.0014
1.7053	0.0014
1.8000	0.0014

- Depth below ground surface = 74.40 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0016
0.1895	0.0020
0.2842	0.0021
0.3789	0.0021
0.4737	0.0021
0.5684	0.0021
0.6632	0.0021
0.7579	0.0021
0.8526	0.0021
0.9474	0.0021
1.0421	0.0021
1.1368	0.0021
1.2316	0.0021
1.3263	0.0021
1.4211	0.0021
1.5158	0.0021
1.6105	0.0021
1.7053	0.0021
1.8000	0.0021

- Depth below ground surface = 99.20 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0021
0.1895	0.0026
0.2842	0.0027
0.3789	0.0027
0.4737	0.0027
0.5684	0.0027
0.6632	0.0027
0.7579	0.0027
0.8526	0.0027
0.9474	0.0027
1.0421	0.0027
1.1368	0.0027

1.2316	0.0027
1.3263	0.0027
1.4211	0.0027
1.5158	0.0027
1.6105	0.0027
1.7053	0.0027
1.8000	0.0027

- Depth below ground surface = 124.00 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0025
0.1895	0.0031
0.2842	0.0032
0.3789	0.0032
0.4737	0.0032
0.5684	0.0032
0.6632	0.0032
0.7579	0.0032
0.8526	0.0032
0.9474	0.0032
1.0421	0.0032
1.1368	0.0032
1.2316	0.0032
1.3263	0.0032
1.4211	0.0032
1.5158	0.0032
1.6105	0.0032
1.7053	0.0032
1.8000	0.0032

- Depth below ground surface = 148.80 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0028
0.1895	0.0035
0.2842	0.0037
0.3789	0.0037
0.4737	0.0037
0.5684	0.0037
0.6632	0.0037
0.7579	0.0037

0.8526	0.0037
0.9474	0.0037
1.0421	0.0037
1.1368	0.0037
1.2316	0.0037
1.3263	0.0037
1.4211	0.0037
1.5158	0.0037
1.6105	0.0037
1.7053	0.0037
1.8000	0.0037

- Depth below ground surface = 173.60 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0032
0.1895	0.0040
0.2842	0.0041
0.3789	0.0041
0.4737	0.0041
0.5684	0.0041
0.6632	0.0041
0.7579	0.0041
0.8526	0.0041
0.9474	0.0041
1.0421	0.0041
1.1368	0.0041
1.2316	0.0041
1.3263	0.0041
1.4211	0.0041
1.5158	0.0041
1.6105	0.0041
1.7053	0.0041
1.8000	0.0041

- Depth below ground surface = 198.40 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0035
0.1895	0.0044
0.2842	0.0045
0.3789	0.0045

0.4737	0.0045
0.5684	0.0045
0.6632	0.0045
0.7579	0.0045
0.8526	0.0045
0.9474	0.0045
1.0421	0.0045
1.1368	0.0045
1.2316	0.0045
1.3263	0.0045
1.4211	0.0045
1.5158	0.0045
1.6105	0.0045
1.7053	0.0045
1.8000	0.0045

- Depth below ground surface = 223.20 in -

z	T
in	ksi
0.0000	0.0000
0.0947	0.0038
0.1895	0.0047
0.2842	0.0049
0.3789	0.0049
0.4737	0.0049
0.5684	0.0049
0.6632	0.0049
0.7579	0.0049
0.8526	0.0049
0.9474	0.0049
1.0421	0.0049
1.1368	0.0049
1.2316	0.0049
1.3263	0.0049
1.4211	0.0049
1.5158	0.0049
1.6105	0.0049
1.7053	0.0049
1.8000	0.0049

- Depth below ground surface = 248.00 in -

z	T
in	ksi
0.0000	0.0000

0.0947	0.0041
0.1895	0.0051
0.2842	0.0053
0.3789	0.0053
0.4737	0.0053
0.5684	0.0053
0.6632	0.0053
0.7579	0.0053
0.8526	0.0053
0.9474	0.0053
1.0421	0.0053
1.1368	0.0053
1.2316	0.0053
1.3263	0.0053
1.4211	0.0053
1.5158	0.0053
1.6105	0.0053
1.7053	0.0053
1.8000	0.0053

- Depth below ground surface = 272.80 in -

z	T
in	ksi
0.0000	0.0000
0.0947	0.0043
0.1895	0.0054
0.2842	0.0056
0.3789	0.0056
0.4737	0.0056
0.5684	0.0056
0.6632	0.0056
0.7579	0.0056
0.8526	0.0056
0.9474	0.0056
1.0421	0.0056
1.1368	0.0056
1.2316	0.0056
1.3263	0.0056
1.4211	0.0056
1.5158	0.0056
1.6105	0.0056
1.7053	0.0056
1.8000	0.0056

- Depth below ground surface = 297.60 in -

z	T
in	ksi
0.0000	0.0000
0.0947	0.0046
0.1895	0.0057
0.2842	0.0059
0.3789	0.0059
0.4737	0.0059
0.5684	0.0059
0.6632	0.0059
0.7579	0.0059
0.8526	0.0059
0.9474	0.0059
1.0421	0.0059
1.1368	0.0059
1.2316	0.0059
1.3263	0.0059
1.4211	0.0059
1.5158	0.0059
1.6105	0.0059
1.7053	0.0059
1.8000	0.0059

- Depth below ground surface = 322.40 in -

z	T
in	ksi
0.0000	0.0000
0.0947	0.0048
0.1895	0.0060
0.2842	0.0062
0.3789	0.0062
0.4737	0.0062
0.5684	0.0062
0.6632	0.0062
0.7579	0.0062
0.8526	0.0062
0.9474	0.0062
1.0421	0.0062
1.1368	0.0062
1.2316	0.0062
1.3263	0.0062
1.4211	0.0062
1.5158	0.0062
1.6105	0.0062
1.7053	0.0062

1.8000	0.0062

- Depth below ground surface = 347.20 in -

z	T
in	ksi
0.0000	0.0000
0.0947	0.0050
0.1895	0.0062
0.2842	0.0065
0.3789	0.0065
0.4737	0.0065
0.5684	0.0065
0.6632	0.0065
0.7579	0.0065
0.8526	0.0065
0.9474	0.0065
1.0421	0.0065
1.1368	0.0065
1.2316	0.0065
1.3263	0.0065
1.4211	0.0065
1.5158	0.0065
1.6105	0.0065
1.7053	0.0065
1.8000	0.0065

- Depth below ground surface = 372.00 in -

z	T
in	ksi
0.0000	0.0000
0.0947	0.0052
0.1895	0.0064
0.2842	0.0067
0.3789	0.0067
0.4737	0.0067
0.5684	0.0067
0.6632	0.0067
0.7579	0.0067
0.8526	0.0067
0.9474	0.0067
1.0421	0.0067
1.1368	0.0067
1.2316	0.0067
1.3263	0.0067

1.4211	0.0067
1.5158	0.0067
1.6105	0.0067
1.7053	0.0067
1.8000	0.0067

- T-THETA Plots for Soil Set 1

- Depth below ground surface = 0.00 in -

---

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 24.80 in -

---

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334

0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 49.60 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 74.40 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318

0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 99.20 in -

theta	T
rad	ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 124.00 in -

theta	T
rad	ksi

0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 148.80 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 173.60 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 198.40 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342

0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 223.20 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 248.00 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340

0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 272.80 in -

---

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 297.60 in -

---

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337

0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 322.40 in -

theta	T
rad	ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 347.20 in -

theta	T
rad	ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329

0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 372.00 in -

theta	T
rad	ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Q-Z (tip) Plot for Soil Set 1

Coefficient of axial group efficiency = 1.000
The scaled Q-Z curves are listed below.

z	Q

in	kips
0.0000	0.0000
0.1579	14.1547
0.3158	26.4938
0.4737	37.2495
0.6316	46.6379
0.7895	54.8583
0.9474	62.0940
1.1053	68.5116
1.2632	74.2614
1.4211	79.4774
1.5789	84.2772
1.7368	88.7616
1.8947	93.0156
2.0526	97.1075
2.2105	101.0890
2.3684	104.9957
2.5263	108.8468
2.6842	112.6449
2.8421	116.3764
3.0000	120.0111

****
* PILE SET DATA *
****

NOTE : Piles are organized into pile sets. Each pile set is
composed of pile segments, as specified by the User.

List of Pile Sets and Piles

Pile Set	Piles Assigned to the Pile Set
1	1, 2

Total length for each Pile Set

Pile Set	Length in
1	420.00

****
* NODAL INFORMATION *
****

NOTE : This section provides nodal DOF and coordinate data,
where A = "Active" and N = "Not Active"

Nodal Coordinates for Pile # 1

Z coordinate of soil surface = 0.000 ft

NODE	BOUNDARY CONDITION CODES						NODAL COORDINATES (units are: in)		
NUM.	X	Y	Z	RXX	RYY	RZZ	X	Y	Z
1	A	A	A	A	A	A	18.000	117.000	-48.000
56	A	A	A	A	A	A	18.000	117.000	0.000
57	A	A	A	A	A	A	18.000	117.000	24.800
58	A	A	A	A	A	A	18.000	117.000	49.600
59	A	A	A	A	A	A	18.000	117.000	74.400
60	A	A	A	A	A	A	18.000	117.000	99.200
61	A	A	A	A	A	A	18.000	117.000	124.000
62	A	A	A	A	A	A	18.000	117.000	148.800
63	A	A	A	A	A	A	18.000	117.000	173.600
64	A	A	A	A	A	A	18.000	117.000	198.400
65	A	A	A	A	A	A	18.000	117.000	223.200
66	A	A	A	A	A	A	18.000	117.000	248.000
67	A	A	A	A	A	A	18.000	117.000	272.800
68	A	A	A	A	A	A	18.000	117.000	297.600
69	A	A	A	A	A	A	18.000	117.000	322.400
70	A	A	A	A	A	A	18.000	117.000	347.200
71	A	A	A	A	A	A	18.000	117.000	372.000

Nodal Coordinates for Pile # 2

Z coordinate of soil surface = 0.000 ft

NODE	BOUNDARY CONDITION CODES						NODAL COORDINATES (units are: in)		
NUM.	X	Y	Z	RXX	RYY	RZZ	X	Y	Z
2	A	A	A	A	A	A	18.000	27.000	-48.000
72	A	A	A	A	A	A	18.000	27.000	0.000
73	A	A	A	A	A	A	18.000	27.000	24.800
74	A	A	A	A	A	A	18.000	27.000	49.600
75	A	A	A	A	A	A	18.000	27.000	74.400
76	A	A	A	A	A	A	18.000	27.000	99.200
77	A	A	A	A	A	A	18.000	27.000	124.000
78	A	A	A	A	A	A	18.000	27.000	148.800
79	A	A	A	A	A	A	18.000	27.000	173.600
80	A	A	A	A	A	A	18.000	27.000	198.400

81	A	A	A	A	A	A	18.000	27.000	223.200
82	A	A	A	A	A	A	18.000	27.000	248.000
83	A	A	A	A	A	A	18.000	27.000	272.800
84	A	A	A	A	A	A	18.000	27.000	297.600
85	A	A	A	A	A	A	18.000	27.000	322.400
86	A	A	A	A	A	A	18.000	27.000	347.200
87	A	A	A	A	A	A	18.000	27.000	372.000

Nodal Coordinates for Pile Cap

NODE	BOUNDARY CONDITION CODES						NODAL COORDINATES (units are: in)		
NUM.	X	Y	Z	RXX	RYY	RZZ	X	Y	Z
3	A	A	A	A	A	A	0.000	144.000	-48.000
4	A	A	A	A	A	A	18.000	144.000	-48.000
5	A	A	A	A	A	A	36.000	144.000	-48.000
6	A	A	A	A	A	A	0.000	117.000	-48.000
7	A	A	A	A	A	A	36.000	117.000	-48.000
8	A	A	A	A	A	A	0.000	87.000	-48.000
9	A	A	A	A	A	A	18.000	87.000	-48.000
10	A	A	A	A	A	A	36.000	87.000	-48.000
11	A	A	A	A	A	A	0.000	57.000	-48.000
12	A	A	A	A	A	A	18.000	57.000	-48.000
13	A	A	A	A	A	A	36.000	57.000	-48.000
14	A	A	A	A	A	A	0.000	27.000	-48.000
15	A	A	A	A	A	A	36.000	27.000	-48.000
16	A	A	A	A	A	A	0.000	0.000	-48.000
17	A	A	A	A	A	A	18.000	0.000	-48.000
18	A	A	A	A	A	A	36.000	0.000	-48.000
19	A	A	A	A	A	N	9.000	144.000	-48.000
20	A	A	A	A	A	N	27.000	144.000	-48.000
21	A	A	A	A	A	N	0.000	130.500	-48.000
22	A	A	A	A	A	N	9.000	130.500	-48.000
23	A	A	A	A	A	N	18.000	130.500	-48.000
24	A	A	A	A	A	N	27.000	130.500	-48.000
25	A	A	A	A	A	N	36.000	130.500	-48.000
26	A	A	A	A	A	N	9.000	117.000	-48.000
27	A	A	A	A	A	N	27.000	117.000	-48.000
28	A	A	A	A	A	N	0.000	102.000	-48.000
29	A	A	A	A	A	N	9.000	102.000	-48.000
30	A	A	A	A	A	N	18.000	102.000	-48.000
31	A	A	A	A	A	N	27.000	102.000	-48.000
32	A	A	A	A	A	N	36.000	102.000	-48.000
33	A	A	A	A	A	N	9.000	87.000	-48.000
34	A	A	A	A	A	N	27.000	87.000	-48.000
35	A	A	A	A	A	N	0.000	72.000	-48.000
36	A	A	A	A	A	N	9.000	72.000	-48.000

37	A	A	A	A	A	N	18.000	72.000	-48.000
38	A	A	A	A	A	N	27.000	72.000	-48.000
39	A	A	A	A	A	N	36.000	72.000	-48.000
40	A	A	A	A	A	N	9.000	57.000	-48.000
41	A	A	A	A	A	N	27.000	57.000	-48.000
42	A	A	A	A	A	N	0.000	42.000	-48.000
43	A	A	A	A	A	N	9.000	42.000	-48.000
44	A	A	A	A	A	N	18.000	42.000	-48.000
45	A	A	A	A	A	N	27.000	42.000	-48.000
46	A	A	A	A	A	N	36.000	42.000	-48.000
47	A	A	A	A	A	N	9.000	27.000	-48.000
48	A	A	A	A	A	N	27.000	27.000	-48.000
49	A	A	A	A	A	N	0.000	13.500	-48.000
50	A	A	A	A	A	N	9.000	13.500	-48.000
51	A	A	A	A	A	N	18.000	13.500	-48.000
52	A	A	A	A	A	N	27.000	13.500	-48.000
53	A	A	A	A	A	N	36.000	13.500	-48.000
54	A	A	A	A	A	N	9.000	0.000	-48.000
55	A	A	A	A	A	N	27.000	0.000	-48.000

****
* PILE CAP PROPERTIES - USING SHELL ELEMENTS *
****

Modulus of Elasticity = 0.3846E+04 ksi
Poisson's Ratio = 0.2000
Shear Modulus = 0.1602E+04 ksi
Self Weight = 150.0000 pcf
Thickness = 0.8000E+01 ft

****
* PILE CAP ELEMENT CONNECTIVITY *
****

EL #	MAT	N1	N2	N3	N4	N5	N6	N7	N8	N9	THICK
											ft
1	1	3	19	4	21	22	23	6	26	1	8.00
2	1	4	20	5	23	24	25	1	27	7	8.00
3	1	6	26	1	28	29	30	8	33	9	8.00
4	1	1	27	7	30	31	32	9	34	10	8.00
5	1	8	33	9	35	36	37	11	40	12	8.00
6	1	9	34	10	37	38	39	12	41	13	8.00
7	1	11	40	12	42	43	44	14	47	2	8.00
8	1	12	41	13	44	45	46	2	48	15	8.00
9	1	14	47	2	49	50	51	16	54	17	8.00
10	1	2	48	15	51	52	53	17	55	18	8.00

```
************************************************************
*                      PIER LOAD DATA                      *
************************************************************

------------------------------------------------------------
-                         PIER #  1                        -
------------------------------------------------------------
```

NODE	CASE	FXp	FYp	FZp	MXp	MYp	MZp
		kips	kips	kips	kip-ft	kip-ft	kip-ft
1	1	55.00	-15.65	-90.55	50.04	378.40	145.44
2	1	-55.50	-19.63	105.30	57.60	-385.62	184.71

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*           OUTPUT STAGE 2 OF 2:  ANALYSIS RESULTS          *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *


************************************************************
*                   RESULTS FOR LOAD CASE   1              *
************************************************************


************************************************************
*                      CONVERGENCE REPORT                  *
************************************************************

The solution converged in  10 iterations

____________________________________________________________
Summary of Maximum Out-Of-Balance Forces (Absolute Values)

FZ  =        0.035  kips
FX  =        0.171  kips
FY  =        0.001  kips
MXX =        0.057  kip-ft
MYY =        0.000  kip-ft
MZZ =        0.685  kip-ft


____________________________________________________________
Print of Out of Balance Forces (kips and kip-ft)


------------------------------------------------------------
```

- Pile Number 1 -

NODE	FXp	FYp	FZp	MXp	MYp	MZp
1	0.0000	-0.0004	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
57	0.0170	0.0660	0.0295	-0.0327	0.0088	0.0001
58	-0.0165	0.0629	0.2175	0.0265	0.0271	0.0001
59	0.0126	-0.1707	0.8654	0.6855	0.0004	0.0000
60	-0.0352	-0.0748	-0.2485	-0.0500	-0.0072	0.0000
61	0.0316	-0.0146	-0.5875	-0.2581	0.0574	0.0000
62	-0.0136	0.0988	-0.2583	-0.0567	-0.0523	0.0000
63	0.0041	0.0378	-0.0341	0.0061	-0.0057	0.0000
64	0.0000	0.0000	-0.0041	0.0000	0.0000	0.0000
65	0.0000	0.0000	-0.0043	0.0000	0.0000	0.0000
66	0.0000	0.0000	-0.0046	0.0000	0.0000	0.0000
67	0.0000	0.0000	-0.0048	0.0000	0.0000	0.0000
68	0.0000	0.0000	-0.0050	0.0000	0.0000	0.0000
69	0.0000	0.0000	-0.0052	0.0000	0.0000	0.0000
70	0.0000	0.0000	-0.0054	0.0000	0.0000	0.0000
71	0.0000	0.0000	-0.0030	0.0000	0.0000	0.0000

- Pile Number 2 -

NODE	FXp	FYp	FZp	MXp	MYp	MZp
2	0.0000	0.0004	0.0000	0.0000	0.0000	

0.0000					
72	0.0170	0.0660	0.0295	-0.0327	0.0088
0.0001					
73	-0.0165	0.0629	0.2175	0.0265	0.0271
0.0001					
74	0.0126	-0.1707	0.8654	0.6855	0.0004
0.0000					
75	-0.0352	-0.0748	-0.2485	-0.0500	-0.0072
0.0000					
76	0.0316	-0.0146	-0.5875	-0.2581	0.0574
0.0000					
77	-0.0136	0.0988	-0.2583	-0.0567	-0.0523
0.0000					
78	0.0041	0.0378	-0.0341	0.0061	-0.0057
0.0000					
79	0.0000	0.0000	-0.0041	0.0000	0.0000
0.0000					
80	0.0000	0.0000	-0.0043	0.0000	0.0000
0.0000					
81	0.0000	0.0000	-0.0046	0.0000	0.0000
0.0000					
82	0.0000	0.0000	-0.0048	0.0000	0.0000
0.0000					
83	0.0000	0.0000	-0.0050	0.0000	0.0000
0.0000					
84	0.0000	0.0000	-0.0052	0.0000	0.0000
0.0000					
85	0.0000	0.0000	-0.0054	0.0000	0.0000
0.0000					
86	0.0000	0.0000	-0.0030	0.0000	0.0000
0.0000					
87	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000					

Summary of Displacements at Pile Heads

NODE	X	Y	Z
	in	in	in
1	0.3581E-01	-.3609E+00	-.2769E-01
2	-.3382E-01	-.3609E+00	0.1708E+00

Final Displacements

- Pile Number 1 -

NODE	X	Y	Z	RXX	RYY	RZZ
	in	in	in	rad	rad	rad
1	0.3581E-01	-.3609E+00	-.2769E-01	-.2203E-02	0.7291E-04	-.7472E-03
56	0.3458E-01	-.2546E+00	-.2662E-01	-.2190E-02	-.1117E-03	-.6471E-03
57	0.3107E-01	-.2017E+00	-.2607E-01	-.2067E-02	-.1675E-03	-.5979E-03
58	0.2651E-01	-.1527E+00	-.2554E-01	-.1872E-02	-.1976E-03	-.5535E-03
59	0.2148E-01	-.1094E+00	-.2498E-01	-.1613E-02	-.2056E-03	-.5135E-03
60	0.1649E-01	-.7321E-01	-.2435E-01	-.1304E-02	-.1943E-03	-.4777E-03
61	0.1197E-01	-.4478E-01	-.2373E-01	-.9901E-03	-.1690E-03	-.4458E-03
62	0.8144E-02	-.2374E-01	-.2324E-01	-.7124E-03	-.1392E-03	-.4177E-03
63	0.5072E-02	-.9005E-02	-.2284E-01	-.4818E-03	-.1086E-03	-.3930E-03
64	0.2741E-02	0.5711E-03	-.2249E-01	-.2959E-03	-.7973E-04	-.3717E-03
65	0.1082E-02	0.6082E-02	-.2218E-01	-.1540E-03	-.5459E-04	-.3535E-03
66	-.1404E-04	0.8593E-02	-.2192E-01	-.5341E-04	-.3451E-04	-.3384E-03
67	-.6800E-03	0.9062E-02	-.2170E-01	0.1160E-04	-.1988E-04	-.3262E-03
68	-.1048E-02	0.8276E-02	-.2152E-01	0.4881E-04	-.1038E-04	-.3168E-03
69	-.1235E-02	0.6822E-02	-.2140E-01	0.6652E-04	-.5185E-05	-.3101E-03
70	-.1334E-02	0.5085E-02	-.2132E-01	0.7255E-04	-.3091E-05	-.3061E-03
71	-.1404E-02	0.3270E-02	-.2129E-01	0.7357E-04	-.2652E-05	-.3048E-03

- Pile Number 2 -

NODE	X	Y	Z	RXX	RYY	RZZ
	in	in	in	rad	rad	rad
2	-.3382E-01	-.3609E+00	0.1708E+00	-.2201E-02	-.1272E-03	-.7330E-03
72	-.3453E-01	-.2549E+00	0.1684E+00	-.2181E-02	0.8379E-04	-.6346E-03
73	-.3159E-01	-.2022E+00	0.1671E+00	-.2051E-02	0.1498E-03	-.5863E-03
74	-.2736E-01	-.1538E+00	0.1659E+00	-.1848E-02	0.1877E-03	-.5426E-03
75	-.2251E-01	-.1111E+00	0.1646E+00	-.1591E-02	0.2011E-03	-.5033E-03
76	-.1757E-01	-.7516E-01	0.1634E+00	-.1304E-02	0.1951E-03	-.4682E-03
77	-.1296E-01	-.4644E-01	0.1623E+00	-.1014E-02	0.1753E-03	-.4369E-03
78	-.8950E-02	-.2472E-01	0.1612E+00	-.7415E-03	0.1476E-03	-.4093E-03
79	-.5671E-02	-.9341E-02	0.1601E+00	-.5037E-03	0.1167E-03	-.3851E-03
80	-.3153E-02	0.6671E-03	0.1592E+00	-.3092E-03	0.8666E-04	-.3642E-03
81	-.1340E-02	0.6422E-02	0.1583E+00	-.1606E-03	0.6015E-04	-.3463E-03
82	-.1226E-03	0.9036E-02	0.1575E+00	-.5535E-04	0.3874E-04	-.3315E-03
83	0.6342E-03	0.9513E-02	0.1569E+00	0.1269E-04	0.2301E-04	-.3195E-03
84	0.1069E-02	0.8677E-02	0.1563E+00	0.5162E-04	0.1271E-04	-.3103E-03
85	0.1308E-02	0.7143E-02	0.1559E+00	0.7013E-04	0.7034E-05	-.3037E-03
86	0.1449E-02	0.5313E-02	0.1555E+00	0.7643E-04	0.4727E-05	-.2998E-03
87	0.1559E-02	0.3401E-02	0.1553E+00	0.7749E-04	0.4240E-05	-.2985E-03

Pile Cap Displacements (Excluding Pile Heads)

NODE	X	Y	Z	RXX	RYY	RZZ
	in	in	in	rad	rad	rad
3	0.5613E-01	-.3473E+00	-.8590E-01	-.2213E-02	0.8091E-04	-.7547E-03
4	0.5613E-01	-.3609E+00	-.8711E-01	-.2203E-02	0.8801E-04	-.7546E-03
5	0.5612E-01	-.3745E+00	-.8827E-01	-.2193E-02	0.8103E-04	-.7547E-03
6	0.3571E-01	-.3473E+00	-.2661E-01	-.2223E-02	0.6133E-04	-.7570E-03
7	0.3570E-01	-.3745E+00	-.2854E-01	-.2184E-02	0.6139E-04	-.7571E-03
8	0.1258E-01	-.3469E+00	0.3870E-01	-.2234E-02	0.4448E-05	-.7786E-03
9	0.1263E-01	-.3609E+00	0.3864E-01	-.2204E-02	0.6950E-05	-.7800E-03
10	0.1257E-01	-.3749E+00	0.3860E-01	-.2173E-02	0.4369E-05	-.7786E-03
11	-.1082E-01	-.3470E+00	0.1038E+00	-.2233E-02	-.5853E-04	-.7745E-03
12	-.1089E-01	-.3609E+00	0.1048E+00	-.2203E-02	-.6129E-04	-.7759E-03
13	-.1082E-01	-.3749E+00	0.1058E+00	-.2172E-02	-.5896E-04	-.7745E-03
14	-.3371E-01	-.3476E+00	0.1689E+00	-.2222E-02	-.1156E-03	-.7453E-03
15	-.3371E-01	-.3743E+00	0.1728E+00	-.2182E-02	-.1158E-03	-.7452E-03
16	-.5381E-01	-.3476E+00	0.2282E+00	-.2212E-02	-.1354E-03	-.7429E-03
17	-.5381E-01	-.3609E+00	0.2304E+00	-.2202E-02	-.1423E-03	-.7428E-03
18	-.5381E-01	-.3743E+00	0.2325E+00	-.2192E-02	-.1352E-03	-.7428E-03
19	0.5612E-01	-.3541E+00	-.8635E-01	-.2213E-02	0.7871E-04	0.0000E+00
20	0.5612E-01	-.3677E+00	-.8744E-01	-.2196E-02	0.7879E-04	0.0000E+00
21	0.4593E-01	-.3473E+00	-.5597E-01	-.2219E-02	0.7253E-04	0.0000E+00
22	0.4593E-01	-.3541E+00	-.5668E-01	-.2211E-02	0.7395E-04	0.0000E+00
23	0.4592E-01	-.3609E+00	-.5715E-01	-.2204E-02	0.6907E-04	0.0000E+00
24	0.4593E-01	-.3677E+00	-.5782E-01	-.2197E-02	0.7375E-04	0.0000E+00
25	0.4593E-01	-.3745E+00	-.5833E-01	-.2190E-02	0.7232E-04	0.0000E+00
26	0.3573E-01	-.3541E+00	-.2694E-01	-.2213E-02	0.6089E-04	0.0000E+00
27	0.3574E-01	-.3678E+00	-.2787E-01	-.2196E-02	0.6076E-04	0.0000E+00
28	0.2426E-01	-.3471E+00	0.6271E-02	-.2230E-02	0.3487E-04	0.0000E+00
29	0.2427E-01	-.3540E+00	0.5884E-02	-.2216E-02	0.3599E-04	0.0000E+00
30	0.2424E-01	-.3609E+00	0.5713E-02	-.2205E-02	0.3274E-04	0.0000E+00
31	0.2427E-01	-.3678E+00	0.5347E-02	-.2192E-02	0.3600E-04	0.0000E+00
32	0.2427E-01	-.3748E+00	0.5144E-02	-.2180E-02	0.3478E-04	0.0000E+00
33	0.1259E-01	-.3540E+00	0.3884E-01	-.2216E-02	0.3660E-05	0.0000E+00
34	0.1259E-01	-.3679E+00	0.3880E-01	-.2193E-02	0.3599E-05	0.0000E+00
35	0.8598E-03	-.3469E+00	0.7141E-01	-.2232E-02	-.2709E-04	0.0000E+00
36	0.8585E-03	-.3539E+00	0.7158E-01	-.2217E-02	-.2712E-04	0.0000E+00
37	0.8591E-03	-.3609E+00	0.7190E-01	-.2204E-02	-.2717E-04	0.0000E+00
38	0.8576E-03	-.3679E+00	0.7207E-01	-.2190E-02	-.2722E-04	0.0000E+00
39	0.8616E-03	-.3749E+00	0.7239E-01	-.2176E-02	-.2725E-04	0.0000E+00
40	-.1084E-01	-.3540E+00	0.1045E+00	-.2215E-02	-.5790E-04	0.0000E+00
41	-.1084E-01	-.3678E+00	0.1055E+00	-.2192E-02	-.5803E-04	0.0000E+00
42	-.2243E-01	-.3472E+00	0.1365E+00	-.2229E-02	-.8903E-04	0.0000E+00
43	-.2243E-01	-.3541E+00	0.1372E+00	-.2215E-02	-.9020E-04	0.0000E+00

44	-.2240E-01	-.3609E+00	0.1380E+00	-.2203E-02	-.8707E-04	0.0000E+00
45	-.2243E-01	-.3678E+00	0.1387E+00	-.2191E-02	-.9046E-04	0.0000E+00
46	-.2242E-01	-.3746E+00	0.1395E+00	-.2178E-02	-.8929E-04	0.0000E+00
47	-.3374E-01	-.3542E+00	0.1701E+00	-.2212E-02	-.1151E-03	0.0000E+00
48	-.3374E-01	-.3677E+00	0.1720E+00	-.2194E-02	-.1152E-03	0.0000E+00
49	-.4377E-01	-.3475E+00	0.1986E+00	-.2217E-02	-.1267E-03	0.0000E+00
50	-.4377E-01	-.3542E+00	0.1996E+00	-.2209E-02	-.1282E-03	0.0000E+00
51	-.4377E-01	-.3609E+00	0.2008E+00	-.2203E-02	-.1234E-03	0.0000E+00
52	-.4377E-01	-.3676E+00	0.2018E+00	-.2195E-02	-.1282E-03	0.0000E+00
53	-.4377E-01	-.3743E+00	0.2029E+00	-.2189E-02	-.1268E-03	0.0000E+00
54	-.5381E-01	-.3542E+00	0.2295E+00	-.2212E-02	-.1331E-03	0.0000E+00
55	-.5381E-01	-.3676E+00	0.2316E+00	-.2195E-02	-.1331E-03	0.0000E+00

Maximum/minimum Strains in the Piles

Concrete Strains for Section No. 1
Maximum = 0.1953E-03 at Element No. 6
Minimum = -0.2029E-03 at Element No. 6

WARNING : The Concrete in this section has cracked

Steel Strains for Section No. 1
Steel type = 1 (mild longitudinal bars)
Maximum = 0.1346E-03 at Element No. 6
Minimum = -0.1474E-03 at Element No. 5

Sum of Total Soil Spring Forces

Xp Direction	=	-0.5000	kips
Yp Direction	=	-35.2652	kips
Zp Direction	=	105.0539	kips
Sum of Tip Forces	=	13.9390	kips

Near Field Soil Resistance (kips & kip-ft)

NOTES:

1. The force shown in the last pile node includes
   the force from the bearing spring. The force in
   the bearing spring is also printed separately
   at the end of the section.

2. The soil spring forces in the Xp, Yp, and Zp directions

represent the components of the soil resistance in the pier-local coordinates.

3. The axial force represents the soil resistance developed along the local orientation of the pile axis.

- Pile Number 1 -

NODE	FXp	FYp	FZp	Axial	MZp
1	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	-0.927
57	0.571	-3.237	-0.530	-0.530	-1.737
58	0.976	-5.233	-1.042	-1.042	-1.629
59	1.186	-5.706	-1.487	-1.487	-1.529
60	1.216	-5.283	-1.853	-1.853	-1.437
61	1.104	-4.107	-2.173	-2.173	-1.354
62	0.901	-2.625	-2.461	-2.461	-1.280
63	0.655	-1.163	-2.723	-2.723	-1.213
64	0.405	0.084	-2.961	-2.961	-1.155
65	0.180	1.010	-3.176	-3.176	-1.105
66	-0.003	1.585	-3.373	-3.373	-1.062
67	-0.138	1.839	-3.553	-3.553	-1.028
68	-0.232	1.832	-3.720	-3.720	-1.001
69	-0.296	1.636	-3.877	-3.877	-0.982
70	-0.345	1.314	-4.024	-4.024	-0.971
71	-0.194	0.453	-2.082	-2.082	-0.483

Pile Tip Spring Force = 0.000

- Pile Number 2 -

NODE	FXp	FYp	FZp	Axial	MZp
2	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.002	0.002	-0.912
73	-0.581	-3.244	1.568	1.568	-1.709
74	-1.007	-5.264	3.130	3.130	-1.602
75	-1.243	-5.782	4.546	4.546	-1.503
76	-1.295	-5.417	5.781	5.781	-1.413
77	-1.195	-4.257	6.917	6.917	-1.331
78	-0.991	-2.733	7.966	7.966	-1.257
79	-0.732	-1.206	8.934	8.934	-1.192
80	-0.465	0.098	9.830	9.830	-1.134
81	-0.223	1.066	10.657	10.657	-1.084

82	-0.023	1.667	11.422	11.422	-1.043
83	0.129	1.931	12.127	12.127	-1.009
84	0.237	1.921	12.776	12.776	-0.982
85	0.314	1.713	13.372	13.372	-0.964
86	0.374	1.372	13.918	13.918	-0.952
87	0.216	0.471	21.145	21.145	-0.474

Pile Tip Spring Force = 13.939

Summary of Pile Forces for Load CASE 1

1. Axial Force (kips)

Pile #	Maximum Force	Minimum Force
1	0.56312E+02	0.20795E+01
2	-0.20046E+02	-0.12879E+03

2. Pile Shear Force in 2 Direction (kips)

Pile #	Maximum Shear	Minimum Shear
1	0.59857E+01	-0.12076E+01
2	0.12694E+01	-0.64857E+01

3. Pile Shear Force in 3 Direction (kips)

Pile #	Maximum Shear	Minimum Shear
1	0.17607E+02	-0.97534E+01
2	0.17673E+02	-0.10240E+02

4. Bending Moment About 2 Axis (kip-ft and ft)

Pile	Node	Depth Below Cap	Maximum Moment	Node	Depth Below Cap	Minimum Moment
1	60	0.12267E+02	0.1284E+03	1	0.0000E+00	-0.31860E+02
2	76	0.12267E+02	0.1348E+03	2	0.0000E+00	-0.31132E+02

5. Bending Moment About 3 Axis (kip-ft and ft)

Pile	Node	Depth Below Cap	Maximum Moment	Node	Depth Below Cap	Minimum Moment
1	1	0.00000E+00	0.5561E+02	63	0.1847E+02	-0.13860E+02
2	79	0.18467E+02	0.1431E+02	2	0.0000E+00	-0.62834E+02

- Analytical Force Results for each Pile

NOTE : Forces are oriented along the local axes (1-2-3)

- Pile Number 1 -

ELEM NO.	PROP NO.	NODE NO.	LOAD CASE	FAX kips	F22 kips	F33 kips	M22 kip-ft	M33 kip-ft	TORQUE kip-ft	D/C Ratio
1	1	1	1	56.31	5.99	17.61	31.86	-55.61	18.89	0.29
	1	56	1	-56.31	-5.99	-17.61	38.07	31.68	-18.89	0.25
2	1	56	1	56.31	5.99	17.60	-38.07	-31.68	17.97	0.25
	1	57	1	-55.16	-5.99	-17.60	74.20	19.32	-17.97	0.32
3	1	57	1	54.60	5.43	14.30	-74.24	-19.33	16.23	0.32
	1	58	1	-53.44	-5.43	-14.30	103.57	8.13	-16.23	0.39
4	1	58	1	52.18	4.44	9.01	-103.55	-8.16	14.60	0.39
	1	59	1	-51.03	-4.44	-9.01	121.97	-1.00	-14.60	0.43
5	1	59	1	48.67	3.27	3.47	-121.29	1.00	13.07	0.43
	1	60	1	-47.52	-3.27	-3.47	128.32	-7.72	-13.07	0.44
6	1	60	1	45.91	2.01	-1.74	-128.37	7.73	11.63	0.44
	1	61	1	-44.76	-2.01	1.74	124.67	-11.88	-11.63	0.43
7	1	61	1	43.17	0.94	-5.83	-124.93	11.82	10.28	0.42

	1	62	1	-42.02	-0.94	5.83	112.81	-13.76	-10.28	0.39
8	1	62	1	39.82	0.03	-8.55	-112.86	13.81	9.00	0.39
	1	63	1	-38.66	-0.03	8.55	95.14	-13.85	-9.00	0.34
9	1	63	1	35.97	-0.62	-9.75	-95.13	13.86	7.79	0.33
	1	64	1	-34.82	0.62	9.75	74.95	-12.57	-7.79	0.28
10	1	64	1	31.86	-1.03	-9.67	-74.95	12.57	6.63	0.27
	1	65	1	-30.70	1.03	9.67	54.95	-10.44	-6.63	0.21
11	1	65	1	27.53	-1.21	-8.66	-54.95	10.44	5.53	0.21
	1	66	1	-26.38	1.21	8.66	37.05	-7.94	-5.53	0.16
12	1	66	1	23.01	-1.21	-7.07	-37.05	7.94	4.46	0.15
	1	67	1	-21.85	1.21	7.07	22.43	-5.45	-4.46	0.11
13	1	67	1	18.31	-1.07	-5.23	-22.43	5.45	3.44	0.10
	1	68	1	-17.15	1.07	5.23	11.61	-3.24	-3.44	0.07
14	1	68	1	13.44	-0.84	-3.40	-11.61	3.24	2.44	0.06
	1	69	1	-12.28	0.84	3.40	4.58	-1.52	-2.44	0.04
15	1	69	1	8.41	-0.54	-1.77	-4.58	1.52	1.45	0.03
	1	70	1	-7.25	0.54	1.77	0.93	-0.40	-1.45	0.02
16	1	70	1	3.23	-0.19	-0.45	-0.93	0.40	0.48	0.01
	1	71	1	-2.08	0.19	0.45	0.00	0.00	-0.48	0.00

- Pile Number 2 -

ELEM NO.	PROP NO.	NODE NO.	LOAD CASE	FAX kips	F22 kips	F33 kips	M22 kip-ft	M33 kip-ft	TORQUE kip-ft	D/C Ratio
17	1	2	1	-127.63	-6.49	17.67	31.13	62.83		

```
 18.56       0.13
        1    72     1        127.63       6.49     -17.67      40.69     -36.90
-18.56       0.11
   18   1    72     1       -127.63      -6.49      17.67     -40.69      36.90
 17.65       0.11
        1    73     1        128.79       6.49     -17.67      77.77     -23.46
-17.65       0.15
   19   1    73     1       -127.21      -5.90      14.42     -77.77      23.46
 15.94       0.15
        1    74     1        128.36       5.90     -14.42     108.10     -11.22
-15.94       0.21
   20   1    74     1       -125.21      -4.90       9.16    -108.10      11.22
 14.34       0.21
        1    75     1        126.37       4.90      -9.16     127.47      -1.04
-14.34       0.24
   21   1    75     1       -121.79      -3.65       3.37    -127.47       1.04
 12.84       0.24
        1    76     1        122.95       3.65      -3.37     134.81       6.56
-12.84       0.26
   22   1    76     1       -117.13      -2.36      -2.04    -134.81      -6.56
 11.42       0.26
        1    77     1        118.28       2.36       2.04     130.87      11.48
-11.42       0.25
   23   1    77     1       -111.32      -1.16      -6.30    -130.87     -11.48
 10.09       0.25
        1    78     1        112.48       1.16       6.30     118.05      13.92
-10.09       0.23
   24   1    78     1       -104.46      -0.17      -9.03    -118.05     -13.92
  8.83       0.23
        1    79     1        105.61       0.17       9.03      99.51      14.31
 -8.83       0.19
   25   1    79     1        -96.62       0.56     -10.24     -99.51     -14.31
  7.64       0.19
        1    80     1         97.78      -0.56      10.24      78.43      13.18
 -7.64       0.15
   26   1    80     1        -87.88       1.02     -10.14     -78.43     -13.18
  6.51       0.15
        1    81     1         89.04      -1.02      10.14      57.52      11.07
 -6.51       0.11
   27   1    81     1        -78.31       1.25      -9.08     -57.52     -11.07
  5.42       0.11
        1    82     1         79.46      -1.25       9.08      38.78       8.51
 -5.42       0.08
   28   1    82     1        -67.97       1.27      -7.41     -38.78      -8.51
  4.38       0.08
        1    83     1         69.12      -1.27       7.41      23.47       5.89
 -4.38       0.05
   29   1    83     1        -56.91       1.14      -5.48     -23.47      -5.89
```

```
 3.37       0.05
       1    84     1         58.07      -1.14       5.48      12.15       3.53
-3.37       0.04
  30   1    84     1        -45.21       0.90      -3.56     -12.15      -3.53
 2.39       0.03
       1    85     1         46.36      -0.90       3.56       4.79       1.67
-2.39       0.03
  31   1    85     1        -32.90       0.59      -1.84      -4.79      -1.67
 1.43       0.02
       1    86     1         34.06      -0.59       1.84       0.98       0.45
-1.43       0.02
  32   1    86     1        -20.05       0.22      -0.47      -0.98      -0.45
 0.47       0.01
       1    87     1         21.20      -0.22       0.47       0.00       0.00
-0.47       0.01


*************************************************************
*                PILE CAP - SHELL STRESS RESULTS             *
*************************************************************

In Plane Stress (S1, S2, S12) units are  ksi
Out of Plane Shear (S13, S23) units are  kip per in
Moment (M1, M2, M12) units are  kip-in per in


  EL#  LD#  PNT#      S1          S2          S12
                      M1          M2          M12          S13          S23
 ------------------------------------------------------------------------
   1    1    3  -0.1289E-02 -0.8179E-02  0.9499E-02
             4  -0.8712E-02  0.1994E-01 -0.6206E-02
             1   0.1717E-01 -0.2564E-01  0.2200E-01
             6   0.7032E-02  0.8341E-02 -0.1839E-01
             3   0.1192E+02  0.1635E+02 -0.2873E+02 -0.4484E+00  0.6001E+00
             4   0.1497E+02 -0.6721E+02  0.3144E+02 -0.2837E+01 -0.5059E+00
             1  -0.7565E+02 -0.1592E+02 -0.1087E+03 -0.2319E+00  0.1097E+01
             6  -0.3455E+01  0.1411E+03  0.3420E+02 -0.3735E+00  0.4940E+01
   2    1    4   0.8823E-02 -0.1967E-01 -0.6393E-02
             5   0.1493E-02  0.8401E-02  0.9646E-02
             7  -0.7724E-02 -0.8406E-02 -0.1910E-01
             1  -0.1718E-01  0.2521E-01  0.2284E-01
             4  -0.1468E+02  0.6554E+02  0.2878E+02 -0.2381E+01 -0.6269E+00
             5  -0.9318E+01 -0.1166E+02 -0.2570E+02 -0.2750E+00  0.1055E+00
             7  -0.2655E+01 -0.1266E+03  0.2822E+02 -0.7403E-01 -0.5887E+01
             1   0.8751E+02  0.8664E+01 -0.9451E+02 -0.2466E+01  0.1472E+01
   3    1    6  -0.5714E-02 -0.6853E-01 -0.1394E-01
             1   0.1197E-01  0.2106E-01  0.1802E-02
             9  -0.1289E-01  0.4619E-03 -0.1832E-01
```

```
          8   0.6351E-03 -0.2937E-01  0.7192E-02
          6   0.7536E+02  0.1465E+03 -0.1266E+02 -0.7203E+00  0.5584E+01
          1  -0.2241E+03 -0.6193E-02  0.1629E+03 -0.4536E+00 -0.1613E+01
          9   0.1772E+03 -0.2945E+02  0.6812E+02 -0.7364E+00 -0.1050E+00
          8  -0.7080E+02  0.2186E+02  0.4523E+02  0.1763E+00  0.7818E+01
4    1     1  -0.1190E-01 -0.1956E-01  0.3094E-02
          7   0.6202E-02  0.6962E-01 -0.1481E-01
         10  -0.1126E-02  0.3035E-01  0.7730E-02
          9   0.1297E-01  0.5732E-03 -0.1920E-01
          1   0.2360E+03  0.3867E+02  0.1762E+03 -0.3481E+01 -0.1600E+01
          7  -0.7903E+02 -0.1431E+03 -0.1806E+02  0.3150E+00 -0.5383E+01
         10   0.7597E+02 -0.2829E+02  0.4673E+02 -0.3929E+00 -0.9121E+01
          9  -0.1837E+03  0.8827E+01  0.6376E+02  0.7045E+00  0.4407E+00
5    1     8   0.4926E-03 -0.2499E-02  0.8204E-03
          9   0.2145E-01 -0.1245E-01 -0.1646E-01
         12  -0.2174E-01  0.1290E-01 -0.1603E-01
         11  -0.6024E-03  0.2184E-01  0.7171E-03
          8   0.8708E+02 -0.8730E+00  0.5888E+01 -0.2816E+00  0.7878E+01
          9  -0.1600E+03  0.3530E+02  0.1122E+03 -0.1994E-01 -0.6999E+00
         12   0.1601E+03 -0.5110E+02  0.1095E+03  0.5045E+00  0.3751E-01
         11  -0.8760E+02 -0.1559E+02  0.8698E+01 -0.8828E-01  0.8100E+01
6    1     9  -0.2142E-01  0.1362E-01 -0.1565E-01
         10  -0.5681E-03  0.3629E-02  0.3789E-03
         13   0.5269E-03 -0.2071E-01  0.1159E-02
         12   0.2177E-01 -0.1174E-01 -0.1684E-01
          9   0.1628E+03 -0.4211E+02  0.1128E+03 -0.9151E+00 -0.3836E+00
         10  -0.9296E+02 -0.9984E+01  0.5979E+01  0.4409E+00 -0.8421E+01
         13   0.9244E+02 -0.6484E+01  0.3169E+01 -0.7099E-01 -0.8199E+01
         12  -0.1627E+03  0.2631E+02  0.1156E+03  0.4305E+00  0.3538E+00
7    1    11  -0.1282E-02  0.4677E-01  0.9486E-02
         12   0.1145E-01  0.4461E-02 -0.2004E-01
          2  -0.9547E-02 -0.2682E-01  0.7785E-02
         14   0.7530E-02  0.8977E-01 -0.1863E-01
         11   0.7428E+02 -0.3574E+02  0.4223E+02  0.7928E-01  0.8653E+01
         12  -0.1787E+03  0.1171E+02  0.7119E+02 -0.2385E+00 -0.6120E+00
          2   0.2332E+03  0.3187E+01  0.1572E+03  0.2834E+01  0.9042E+00
         14  -0.8055E+02 -0.1433E+03 -0.1041E+02 -0.3574E-01  0.5383E+01
8    1    12  -0.1138E-01 -0.3426E-02 -0.1916E-01
         13   0.7920E-03 -0.4579E-01  0.8948E-02
         15  -0.7042E-02 -0.8869E-01 -0.1776E-01
          2   0.9614E-02  0.2832E-01  0.6493E-02
         12   0.1822E+03 -0.2657E+02  0.6068E+02  0.2703E+00 -0.6630E-01
         13  -0.7249E+02  0.1441E+02  0.4973E+02  0.1373E+00 -0.8286E+01
         15   0.7383E+02  0.1462E+03 -0.2030E+02  0.4411E+00 -0.5583E+01
          2  -0.2269E+03 -0.3549E+02  0.1818E+03  0.1101E+01  0.9179E+00
9    1    14  -0.9169E-02 -0.1077E-01 -0.2279E-01
          2  -0.1982E-01  0.3294E-01  0.2740E-01
         17   0.1083E-01 -0.2331E-01 -0.6841E-02
```

```
            16   0.1625E-02  0.1010E-01  0.1107E-01
            14   0.2141E+01 -0.1398E+03  0.3382E+02  0.3545E-01  0.5658E+01
             2   0.8598E+02  0.2884E+02 -0.1101E+03  0.2186E+01 -0.1203E+01
            17  -0.1824E+02  0.5946E+02  0.3126E+02  0.2453E+01  0.4506E+00
            16  -0.1142E+02 -0.1214E+02 -0.2773E+02  0.3201E+00  0.3010E-01
  10    1    2   0.1981E-01 -0.3338E-01  0.2656E-01
            15   0.8478E-02  0.1071E-01 -0.2208E-01
            18  -0.1420E-02 -0.9880E-02  0.1092E-01
            17  -0.1072E-01  0.2357E-01 -0.6654E-02
             2  -0.7718E+02  0.4251E+01 -0.9309E+02  0.5125E+00 -0.8273E+00
            15   0.1342E+01  0.1279E+03  0.2860E+02  0.4121E+00 -0.5168E+01
            18   0.9818E+01  0.1586E+02 -0.2669E+02  0.4034E+00 -0.4644E+00
            17   0.1140E+02 -0.7329E+02  0.2896E+02  0.2765E+01  0.3296E+00


**************************************************************
*                   UNIAXIAL INTERACTION DIAGRAM             *
**************************************************************

NOTE : 1. The tables below list the values on the Interaction
          Diagrams for each section, which correspond to the
          section capacity.
       2. The numbering of the SECTIONS/SEGMENTS was listed
          previously in the output file.

---------------------------------------------------------------
- Pile Cross Section Number   1                               -
---------------------------------------------------------------


_____________________________________________________________
Diagram Data

Maximum Tension Force                       =  0.4320E+03  kips
Local 2 Axis Shift for Plastic Centroid     =  0.6028E-16  in
Local 3 Axis Shift for Plastic Centroid     = -0.4225E-10  in
_____________________________________________________________
Recommended Phi Values

Concrete, Rectangular members           Phi =  0.70
Concrete, Circular members with Ties    Phi =  0.70
Concrete, Circular members with Spirals Phi =  0.75
_____________________________________________________________
Phi Factors Used

Phi Factor for Concrete Control             =  0.7500
Phi Factor for Steel in Compression         =  0.9000
Phi Factor for Steel in Tension             =  0.9500
Phi Factor for Steel in Bending             =  1.0000
```

Transition Phi Factor according to AASHTO

Units for Axial Force : kips, Units for Moment : kip-ft

Axial	Moment(+3)	Moment(-2)	Moment(-3)	Moment(+2)
0.4320E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.2051E+03	0.2121E+03	0.2121E+03	0.2121E+03	0.2121E+03
0.2005E+03	0.2157E+03	0.2157E+03	0.2157E+03	0.2157E+03
0.1911E+03	0.2230E+03	0.2230E+03	0.2230E+03	0.2230E+03
0.1800E+03	0.2317E+03	0.2317E+03	0.2317E+03	0.2317E+03
0.1676E+03	0.2415E+03	0.2415E+03	0.2415E+03	0.2415E+03
0.1536E+03	0.2525E+03	0.2525E+03	0.2525E+03	0.2525E+03
0.1376E+03	0.2651E+03	0.2651E+03	0.2651E+03	0.2651E+03
0.1179E+03	0.2805E+03	0.2805E+03	0.2805E+03	0.2805E+03
0.7882E+02	0.3109E+03	0.3109E+03	0.3109E+03	0.3109E+03
0.4015E+02	0.3370E+03	0.3370E+03	0.3370E+03	0.3370E+03
0.3697E+00	0.3602E+03	0.3602E+03	0.3602E+03	0.3602E+03
-0.9549E+02	0.4165E+03	0.4165E+03	0.4165E+03	0.4165E+03
-0.1912E+03	0.4718E+03	0.4718E+03	0.4718E+03	0.4718E+03
-0.2871E+03	0.5236E+03	0.5236E+03	0.5236E+03	0.5236E+03
-0.3562E+03	0.5210E+03	0.5210E+03	0.5210E+03	0.5210E+03
-0.4281E+03	0.5231E+03	0.5231E+03	0.5231E+03	0.5231E+03
-0.4958E+03	0.5256E+03	0.5256E+03	0.5256E+03	0.5256E+03
-0.5655E+03	0.5223E+03	0.5223E+03	0.5223E+03	0.5223E+03
-0.6734E+03	0.5288E+03	0.5288E+03	0.5288E+03	0.5288E+03
-0.7873E+03	0.5328E+03	0.5328E+03	0.5328E+03	0.5328E+03
-0.9027E+03	0.5292E+03	0.5292E+03	0.5292E+03	0.5292E+03
-0.1028E+04	0.5141E+03	0.5141E+03	0.5141E+03	0.5141E+03
-0.1124E+04	0.4984E+03	0.4984E+03	0.4984E+03	0.4984E+03
-0.1235E+04	0.4746E+03	0.4746E+03	0.4746E+03	0.4746E+03
-0.1361E+04	0.4345E+03	0.4345E+03	0.4345E+03	0.4345E+03
-0.1477E+04	0.3815E+03	0.3815E+03	0.3815E+03	0.3815E+03
-0.1591E+04	0.3236E+03	0.3236E+03	0.3236E+03	0.3236E+03
-0.1711E+04	0.2507E+03	0.2507E+03	0.2507E+03	0.2507E+03
-0.1836E+04	0.1746E+03	0.1746E+03	0.1746E+03	0.1746E+03

****
*   PIER 1 MAX/MIN RESPONSE QUANTITIES FOR ALL LOAD CASES   *
****

Pile demands

Demand type	Value	Unit	Load case	Load comb.	Pile
Max axial force (tension is +)	0.5631E+02	kip	1	0	1
Min axial force	-0.1288E+03	kip	1	0	2
Max shear in 2 direction	0.5986E+01	kip	1	0	1

Min shear in 2 direction	-0.6486E+01	kip	1	0	2
Max shear in 3 direction	0.1767E+02	kip	1	0	2
Min shear in 3 direction	-0.1024E+02	kip	1	0	2
Max moment about 2 axis	0.1348E+03	kip-ft	1	0	2
Min moment about 2 axis	-0.3186E+02	kip-ft	1	0	1
Max moment about 3 axis	0.5561E+02	kip-ft	1	0	1
Min moment about 3 axis	-0.6283E+02	kip-ft	1	0	2
Max torsional force	0.1889E+02	kip-ft	1	0	1
Min torsional force	0.4743E+00	kip-ft	1	0	2
Max demand/capacity ratio	0.4446E+00		1	0	1

Soil demands

Demand type	Value	Unit	Load case	Load comb.	Pile
Max Zp soil force	0.1394E+02	kip	1	0	2
Min Zp soil force	-0.4025E+01	kip	1	0	1
Max Xp soil force	0.1216E+01	kip	1	0	1
Min Xp soil force	-0.1295E+01	kip	1	0	2
Max Yp soil force	0.1931E+01	kip	1	0	2
Min Yp soil force	-0.5782E+01	kip	1	0	2
Max torsional soil force	-0.4743E+00	kip-ft	1	0	2

Pile displacements

Displacement type	Value	Unit	Load case	Load comb.	Pile
Max Z displacement	0.1708E+00	in	1	0	2
Min Z displacement	-0.2769E-01	in	1	0	1
Max X displacement	0.3581E-01	in	1	0	1
Min X displacement	-0.3453E-01	in	1	0	2
Max Y displacement	0.9513E-02	in	1	0	2
Min Y displacement	-0.3609E+00	in	1	0	2

SPECIAL FOUNDATION DESIGN
Pile Cap Calculations (Reinforcement)

DESIGNED BY AR DATE 10/21/2016
CHECKED BY MV DATE 10/21/2016

Description

This section provides the criteria for the pile cap design.

Section

A **Input Variables**

B **Moment Design**

- B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]
- B2. Limits for Reinforcement [LRFD 5.7.3.3]
- B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]
- B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]
- B5. Mass Concrete Provisions [SDG 3.9]

C **Shear and Torsion Design [LRFD 5.8]**

- C1. Check if Torsion Design is Required
- C2. Determine Nominal Shear Resistance
- C3. Transverse Reinforcement

D **Summary of Reinforcement Provided**

A. Input Variables

Material Properties

Unit weight of concrete..... $\gamma_{conc} := 150 \cdot pcf$

Modulus of elasticity for reinforcing steel..... $E_s := 29000 \cdot ksi$

Yield strength of reinforcing steel..... $f_y := 60 \cdot ksi$

Note: Epoxy coated reinforcing not allowed on FDOT projects. **[SDG 4.1]**

Design Parameters [LRFD 5.5.4.2]

Resistance Factor for Flexure and tension of reinforced concrete..... $\phi := 0.9$

Resistance Factor for Shear and torsion of normal weight concrete..... $\phi_v := 0.90$

Florida DOT Concrete & Environment [SDG 1.4]

The environment can be classified as either "Slightly", "Moderately" or "Extremely" aggressive. Per 1.02 General Notes:

Environmental classification for substructure..... $Environment_{sub} \equiv "Moderately"$

Concrete cover for substructure not in contact with water..... $cover_{sub} := \begin{cases} 4 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 3 \cdot in & \text{otherwise} \end{cases} = 3 \cdot in$

Concrete cover for substructure cast against earth or in contact with water..... $cover_{sub.earth} := \begin{cases} 4.5 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 4 \cdot in & \text{otherwise} \end{cases} = 4 \cdot in$

Minimum 28-day compressive strength of concrete components..... $f_{c.sub} := 8.5 \cdot ksi$ (Class VI)

Correction factor for Florida lime rock coarse aggregate..... $K_1 := 0.9$

Unit Weight of Florida lime rock concrete (kcf)..... $w_{c.limerock} := .145 \frac{kip}{ft^3}$

Modulus of elasticity for substructure..... $E_{c.sub} := 33000 \cdot K_1 \cdot \left(\frac{w_{c.limerock}}{\frac{kip}{ft^3}} \right)^{1.5} \sqrt{f_{c.sub} \cdot ksi} = 4781 \cdot ksi$

Pile Cap Geometry

Height of pier cap..... $h_{Cap} := 8ft$

Width of pier cap..... $b_{Cap} := 2.5ft$

Length of pier cap..... $L_{Cap} := 12.5ft$

Design Loads - Moments, Shears and Torques

"Service Loads for the footing, utilized only to check for crack control"

"Maximum loads are obtained from FDOT Cantilever Program and FB-Multipier"

"1.3 Load Factor (Strength1) included since loads are a mix of wind load and dead load"

Moment (M) - Service..... $M_{Service1.pos} := 385.62ft \cdot kip$

$M_{Strength1.pos} := 1.3 \cdot M_{Service1.pos} = 501.3 \cdot ft \cdot kip$

Axial (V) - Service ..... $V_{Service.neg} := 128.8kip$

$V_{Strength1.neg} := 1.3 \cdot V_{Service.neg} = 167.4 \cdot kip$

Torsion (Trans Moment) - Service ..... $T_{Service.neg} := 134.8 \cdot ft \cdot kip$

$T_{Strength1.neg} := 1.3 \cdot T_{Service.neg} = 175.2\ ft \cdot kip$

B. Moment Design

A few recommendations on bar size and spacing are available to minimize problems during construction.

- Use the same size and spacing of reinforcing for both the negative and positive moment regions. This prevents field errors whereas the top steel is mistakenly placed at the bottom or vice versa.
- If this arrangement is not possible, give preference to maintaining the same spacing between the top and bottom reinforcement. Same grid pattern allows the concrete vibrator to be more effective in reaching the full depth of the cap.

The design procedure consists of calculating the reinforcement required to satisfy the design moment, then checking this reinforcement against criteria for crack control, minimum reinforcement, maximum reinforcement, shrinkage and temperature reinforcement, and distribution of reinforcement. The procedure is the same for both positive and negative moment regions.

$$M_r := M_{Strength1.pos} = 501 \cdot ft \cdot kip$$

Factored resistance

$$M_r = \phi \cdot M_n$$

Nominal flexural resistance

$$M_n = A_{ps} \cdot f_{ps} \cdot \left(d_p - \frac{a}{2} \right) + A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right) - A'_s \cdot f'_s \cdot \left(d'_s - \frac{a}{2} \right) + 0.85 \cdot f'_c \cdot \left(b - b_w \right) \cdot h_f \cdot \left(\frac{a}{2} - \frac{h_f}{2} \right)$$

For a rectangular, non-prestressed section,

$$M_n = A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right)$$

$$a = \frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b}$$

Assume $f_s := f_y$ [LRFD 5.7.2.1]

B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]

Using variables defined in above.....

$$M_r = \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b} \right) \right]$$

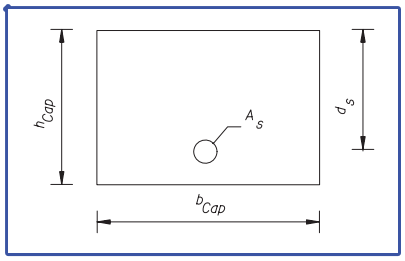
where $f_{c.sub} = 8.5 \cdot ksi$

$f_y = 60 \cdot ksi$

$\phi = 0.9$

$h_{Cap} = 96 \cdot in$

$b_{Cap} = 30 \cdot in$



Initial assumption for area of steel required

Number of bars..... $n_{bar} := 6$

Size of bar..... $bar := "5"$

Note: if bar spacing is "-1", the spacing is less than 3", and a bigger bar size should be selected.

Bar area..... $A_{bar} = 0.310 \cdot in^2$

Bar diameter..... $dia = 0.625 \cdot in$

Equivalent bar spacing..... $bar_{spa} = 4.6 \cdot in$

Area of steel provided..... $A_{s.pos} := n_{bar} \cdot A_{bar} = 1.86 \cdot in^2$

Distance from extreme compressive fiber to centroid of reinforcing steel (assuming a #6 stirrup)..... $d_s := h_{Cap} - cover_{sub} - \frac{dia}{2} - \frac{3}{4} in = 91.9 \cdot in$

Stress block factor..... $\beta_1 := \min\left[\max\left[0.85 - 0.05 \cdot \left(\frac{f_{c.sub} - 4ksi}{ksi} \right), 0.65 \right], 0.85 \right] = 0.65$

Distance between the neutral axis and compressive face..... $c := \frac{A_{s.pos} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot \beta_1 \cdot b_{Cap}} = 0.79 \cdot in$

Initial assumption for the area of steel required, this process is iterative..... $A_{sreq} := A_{s.pos} = 1.86 \cdot in^2$

Solve the quadratic equation for the area of steel required..... Given $M_r = \phi \cdot A_{sreq} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{sreq} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right]$

Area of steel required..... $A_{s.required} := \text{Find}(A_{sreq}) = 1.21 \cdot in^2$

The area of steel provided, $A_{s.pos} = 1.86 \cdot in^2$, should be greater than the area of steel required, $A_{s.required} = 1.21 \cdot in^2$. If not, decrease the spacing of the reinforcement. Once $A_{s.pos}$ is greater than $A_{s.reqd}$, the proposed reinforcing is adequate for the applied moments.

Moment capacity provided..... $M_{r.pos} := \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right] = 767.4 \cdot kip \cdot ft$

Check assumption that $f_s = f_y$..... $Check\_f_s := if\left(\frac{c}{d_s} < 0.6, "OK", "Not OK" \right)$ $Check\_f_s = "OK"$

B2. Limits for Reinforcement [LRFD 5.7.3.3]

Minimum Reinforcement

The minimum reinforcement requirements ensure the moment capacity provided is at least equal to the lesser of the cracking moment and 1.33 times the factored moment required by the applicable strength load combinations.

Modulus of Rupture..... $f_r := -0.24 \cdot \sqrt{f_{c.sub} \cdot ksi} = -699.7\ psi$ [SDG 1.4.1.B]

Section modulus of cap..... $S := \frac{b_{Cap} \cdot h_{Cap}^2}{6} = 46080 \cdot in^3$

Flexural cracking variability factor..... $\gamma_1 := 1.6$

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement..... $\gamma_3 := 0.67$ (for ASTM A615, Grade 60 reinforcing steel, per SDG 1.4.1.C)

Cracking moment..... $M_{cr} := \gamma_3 \cdot \gamma_1 \cdot f_r \cdot S = -2880.4 \cdot kip \cdot ft$

Required flexural resistance..... $M_{r.reqd} := \min\left(\left| M_{cr} \right|, 133 \cdot \% \cdot M_r \right) = 666.7 \cdot kip \cdot ft$

Check that the capacity provided, $M_{r.pos} = 767.4\,ft \cdot kip$, exceeds minimum requirements, $M_{r.reqd} = 666.7\,ft \cdot kip$.

$$LRFD_{5.7.3.3.2} := \begin{cases} "OK, minimum\ reinforcement\ for\ positive\ moment\ is\ satisfied" & if\ M_{r.pos} \geq M_{r.reqd} \\ "NG, reinforcement\ for\ positive\ moment\ is\ less\ than\ minimum" & otherwise \end{cases}$$

$LRFD_{5.7.3.3.2} = "OK, minimum\ reinforcement\ for\ positive\ moment\ is\ satisfied"$

B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]

Concrete is subjected to cracking. Limiting the width of expected cracks under service conditions increases the longevity of the structure. Potential cracks can be minimized through proper placement of the reinforcement. The check for crack control requires that the actual stress in the reinforcement should not exceed the service limit state stress (LRFD 5.7.3.4). The stress equations emphasize bar spacing rather than crack widths.

The maximum spacing of the mild steel reinforcement for control of cracking at the service limit state shall satisfy.....

$$s \le \frac{700 \cdot \gamma_e}{\beta_s \cdot f_{ss}} - 2 \cdot d_c$$

where

$$\beta_s = 1 + \frac{d_c}{0.7\left(h - d_c\right)}$$

Exposure factor for Class 1 exposure condition.....

$$\gamma_e := 1.00$$ **[SDG 3.15.8]**

Overall thickness or depth of the component.....

$$h_{Cap} = 8\ ft$$

Distance from extreme tension fiber to center of closest bar.....

$$d_c := cover_{sub} + \frac{dia}{2} + \frac{3}{4}in = 4.06 \cdot in$$

$$\beta_s := 1 + \frac{d_c}{0.7\left(h_{Cap} - d_c\right)} = 1.06$$

The neutral axis of the section must be determined to determine the actual stress in the reinforcement. This process is iterative, so an initial assumption of the neutral axis must be made.

Guess value $x := 36 \cdot in$

Given

$$\frac{1}{2} \cdot b_{Cap} \cdot x^2 = \frac{E_s}{E_{c.sub}} \cdot A_{s.pos} \cdot \left(d_s - x\right)$$

$$x_{na} := Find(x) = 7.95 \cdot in$$

Tensile force in the reinforcing steel due to service limit state moment.....

$$T_s := \frac{M_{Service1.pos}}{d_s - \frac{x_{na}}{3}} = 51.8 \cdot kip$$

Actual stress in the reinforcing steel due to service limit state moment..... $f_{s.actual} := \frac{T_s}{A_{s.pos}} = 27.86 \cdot ksi$

Required reinforcement spacing..... $s_{required} := \frac{700 \cdot \gamma_e \cdot \frac{kip}{in}}{\beta_s \cdot f_{s.actual}} - 2 \cdot d_c = 15.51 \cdot in$

Provided reinforcement spacing..... $bar_{spa} = 4.55 \cdot in$

The required spacing of mild steel reinforcement in the layer closest to the tension face shall not be less than the reinforcement spacing provided due to the service limit state moment.

$$LRFD_{5.7.3.4} := \begin{cases} \text{"OK, crack control for M is satisfied"} & \text{if } s_{required} \geq bar_{spa} \\ \text{"NG, crack control for M not satisfied, provide more reinforcement"} & \text{otherwise} \end{cases}$$

$LRFD_{5.7.3.4} = \text{"OK, crack control for M is satisfied"}$

B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]

Initial assumption for area of steel required

Size of bar..... $bar_{st} := "5"$

Spacing of bar..... $bar_{spa.st} := 8 \cdot in$

Bar area..... $A_{bar} = 0.31 \cdot in^2$

Bar diameter..... $dia = 0.625 \cdot in$

Minimum area of shrinkage and temperature reinforcement.....

$$A_{shrink.temp} := \min\left[\left[\max\left[\left[\begin{matrix}\left(0.60 \frac{in^2}{ft}\right) \\ \left(0.11 \frac{in^2}{ft}\right) \\ \left[\frac{1.3 \cdot b_{Cap} \cdot h_{Cap} \cdot \frac{kip}{in \cdot ft}}{2\left(b_{Cap} + h_{Cap}\right) \cdot f_y}\right]\end{matrix}\right]\right]\right] = 0.25 \cdot \frac{in^2}{ft}$$

Maximum spacing of shrinkage and temperature reinforcement

$$spacing_{shrink.temp} := \begin{cases} \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 12 \cdot in\right) & \text{if } \left(b_{Cap} > 36in\right) \cdot \left(h_{Cap} > 36in\right) \\ \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 3 \cdot b_{Cap}, 3 \cdot h_{Cap}, 18in\right) & \text{otherwise} \end{cases} = 15.02 \cdot in$$

The bar spacing should be less than the maximum spacing for shrinkage and temperature reinforcement

$$LRFD_{5.7.10.8} := \begin{cases} "OK, minimum shrinkage and temperature requirements" & \text{if } bar_{spa.st} \le spacing_{shrink.temp} \\ "NG, minimum shrinkage and temperature requirements" & \text{otherwise} \end{cases}$$

$LRFD_{5.7.10.8} = "OK, minimum shrinkage and temperature requirements"$

B5. Mass Concrete Provisions [SDG 3.9]

Surface area of pier cap..... $Surface_{cap} := 2 \cdot b_{Cap} \cdot h_{Cap} + \left(2b_{Cap} + 2h_{Cap}\right) \cdot L_{Cap} = 302.5\ ft^2$

Volume of pier cap..... $Volume_{cap} := b_{Cap} \cdot h_{Cap} \cdot L_{Cap} = 250 \cdot ft^3$

Mass concrete provisions apply if the volume to surface area ratio, $\frac{Volume_{cap}}{Surface_{cap}} = 0.83 ft$, exceeds 1 ft and the minimum dimension exceeds 3 feet

$$SDG_{3.9} := \begin{cases} \text{"Use mass concrete provisions"} & \text{if } \frac{Volume_{cap}}{Surface_{cap}} > 1.0 \cdot ft \wedge b_{Cap} > 3 ft \wedge h_{Cap} > 3 ft \\ \text{"Use regular concrete provisions"} & \text{otherwise} \end{cases}$$

$SDG_{3.9} = \text{"Use regular concrete provisions"}$

C. Shear and Torsion Design [LRFD 5.8]

C1. Check if Torsion Design is Required

$T_u := |T_{Strength1.neg}|$ $V_u := |V_{Strength1.neg}|$

For normal weight concrete, torsional effects shall be investigated if..... $T_u > 0.25 \cdot \phi_v \cdot T_{cr}$

and..... $T_{cr} = 0.125 \cdot \sqrt{f_c} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_c}}}$

Total area enclosed by outside perimeter of concrete cross section..... $A_{cp} := h_{Cap} \cdot b_{Cap} = 20\,ft^2$

Length of outside perimeter of cross section..... $p_c := 2 \cdot (h_{Cap} + b_{Cap}) = 21\,ft$

Compressive stress in concrete after prestress losses have occured..... $f_{pc} := 0 \cdot psi$

Torsional cracking moment..... $T_{cr} := 0.125 \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_{c.sub} \cdot ksi}}} = 999.6 \cdot kip \cdot ft$

$LRFD_{5.8.2} := \begin{cases} \text{"OK, torsion can be neglected"} & \text{if } 0.25 \cdot \phi_v \cdot T_{cr} \geq T_u \\ \text{"NG, torsion shall be investigated..."} & \text{otherwise} \end{cases}$

$LRFD_{5.8.2} = \text{"OK, torsion can be neglected"}$

C2. Determine Nominal Shear Resistance

Effective width of the section..... $b_v := b_{Cap} = 30 \cdot in$

Effective shear depth..... $a := \frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} = 0.51 \cdot in$

$d_v := \max\left(d_s - \frac{a}{2}, 0.9 \cdot d_s, 0.72 \cdot h_{Cap}\right) = 91.68 \cdot in$

Determination of β and θ **(LRFD 5.8.3.4)**

The pier cap is a non-prestressed concrete section not subjected to axial tension. Assuming it has at least the amount of transverse reinforcement specified in **LRFD 5.8.2.5** or an overall depth of less than 16 in, the Simplified Procedure for determining Shear Resistance per LRFD 5.8.3.4.1 may be used.

$\beta := 2$ $\theta := 45 \cdot deg$

Nominal shear resistance of concrete section..... $V_c := 0.0316 \cdot \beta \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot b_v \cdot d_v = 506.8 \cdot kip$

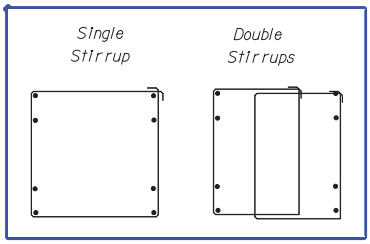
C3. Transverse Reinforcement

Because the overall depth is greater than 16 in, transverse reinforcement shall be provided in the pier cap according to **LRFD 5.8.2.5.**

$$A_v \geq .0316 \cdot \sqrt{f'_c} \cdot \frac{b_v \cdot s}{f_y}$$

The pier cap has no prestressing. $V_p := 0 \cdot kip$

Stirrups



Size of stirrup bar ("4" "5" "6" "7")... bar := "5"

Number of stirrup bars ("single" "double")..... n_{bars} := "single"

Area of shear reinforcement..... $A_v = 0.620 \cdot in^2$

Diameter of shear reinforcement..... $dia = 0.625 \cdot in$

Nominal shear strength provided by shear reinforcement

$$V_n = V_c + V_p + V_s$$

where..... $V_n := \min\left(\frac{V_u}{\phi_v}, 0.25 \cdot f_{c.sub} \cdot b_v \cdot d_v + V_p\right) = 186.04 \cdot kip$

and..... $V_s := V_n - V_c - V_p = -320.74 \cdot kip$

Spacing of stirrups

Minimum transverse reinforcement..... $s_{min} := \frac{A_v \cdot f_y}{0.0316 \cdot b_v \cdot \sqrt{f_{c.sub} \cdot ksi}} = 13.46 \cdot in$

Transverse reinforcement required..... $s_{req} := if\left(V_s \le 0, s_{min}, \frac{A_v \cdot f_y \cdot d_v \cdot \cot(\theta)}{V_s}\right) = 13.46 \cdot in$

Minimum transverse reinforcement required..... $s := \min\left(s_{min}, s_{req}\right) = 13.46 \cdot in$

Maximum transverse reinforcement spacing

$$s_{max} := if\left[\frac{V_u - \phi_v \cdot V_p}{\phi_v \cdot \left(b_v \cdot d_v\right)} < 0.125 \cdot f_{c.sub}, \min\left(\begin{pmatrix} 0.8 \cdot d_v \\ 24 \cdot in \end{pmatrix}\right), \min\left(\begin{pmatrix} 0.4 \cdot d_v \\ 12 \cdot in \end{pmatrix}\right)\right] = 24 \cdot in$$

Spacing of transverse reinforcement cannot exceed the following spacing..... $spacing := floor\left(\frac{if\left(s_{max} > s, s, s_{max}\right)}{in}\right) \cdot in = 13 \cdot in$

LRFD 5.8.3.5 is applicable at the end bearing support areas. Therefore, this check is ignored.

D. Summary of Reinforcement Provided

Moment Reinforcement (Top and Bottom)

Bar size..... $bar_{posM} = "5"$

Number of bars..... $n_{bar.posM} = 6$

Bar spacing..... $bar_{spa.posM} = 4.6 \cdot in$

Transverse reinforcement

Bar size..... $bar = "5"$

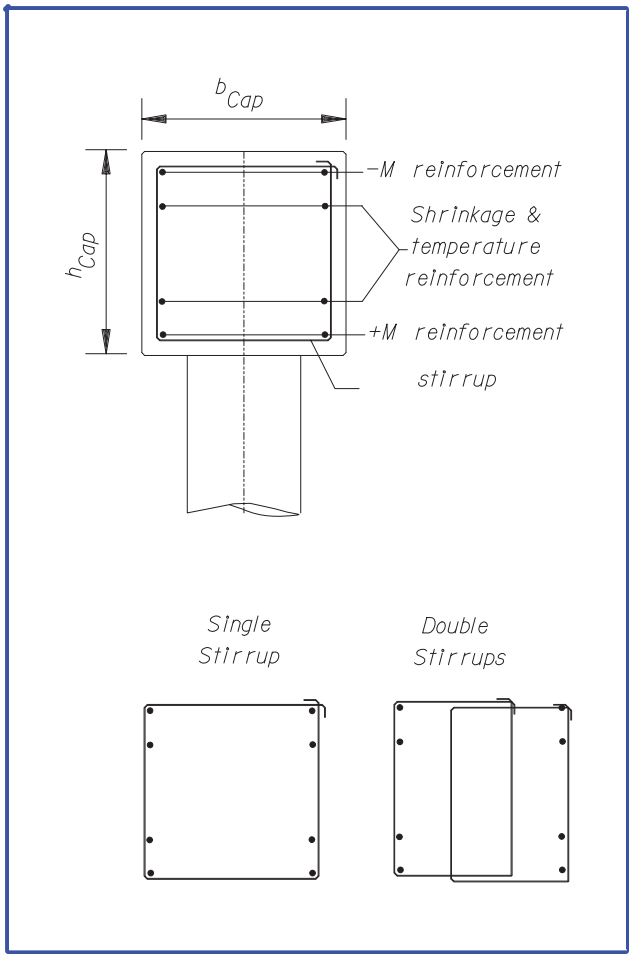
Bar spacing..... $spacing = 13.0 \cdot in$

Type of stirrups..... $n_{bar} = "single"$

Temperature and Shrinkage

Bar size..... $bar_{shrink.temp} = "5"$

Bar spacing..... $bar_{spa.st} = 8 \cdot in$



SPECIAL FOUNDATION DESIGN
Pile Cap Calculations (Reinforcement)

DESIGNED BY AR DATE 10/21/2016
CHECKED BY MV DATE 10/21/2016

Description

This section provides the criteria for the pile cap design.

Section

A **Input Variables**

B **Moment Design**

- B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]
- B2. Limits for Reinforcement [LRFD 5.7.3.3]
- B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]
- B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]
- B5. Mass Concrete Provisions [SDG 3.9]

C **Shear and Torsion Design [LRFD 5.8]**

- C1. Check if Torsion Design is Required
- C2. Determine Nominal Shear Resistance
- C3. Transverse Reinforcement

D **Summary of Reinforcement Provided**

A. Input Variables

Material Properties

Unit weight of concrete..... $\gamma_{conc} := 150 \cdot pcf$

Modulus of elasticity for reinforcing steel..... $E_s := 29000 \cdot ksi$

Yield strength of reinforcing steel..... $f_y := 60 \cdot ksi$

Note: Epoxy coated reinforcing not allowed on FDOT projects. **[SDG 4.1]**

Design Parameters [LRFD 5.5.4.2]

Resistance Factor for Flexure and tension of reinforced concrete..... $\phi := 0.9$

Resistance Factor for Shear and torsion of normal weight concrete..... $\phi_v := 0.90$

Florida DOT Concrete & Environment [SDG 1.4]

The environment can be classified as either "Slightly", "Moderately" or "Extremely" aggressive. Per 1.02 General Notes:

Environmental classification for substructure..... $Environment_{sub} \equiv "Moderately"$

Concrete cover for substructure not in contact with water..... $cover_{sub} := \begin{cases} 4 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 3 \cdot in & \text{otherwise} \end{cases} = 3 \cdot in$

Concrete cover for substructure cast against earth or in contact with water..... $cover_{sub.earth} := \begin{cases} 4.5 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 4 \cdot in & \text{otherwise} \end{cases} = 4 \cdot in$

Minimum 28-day compressive strength of concrete components..... $f_{c.sub} := 8.5 \cdot ksi$

(Class VI, Cast-in-place Substructure)

Correction factor for Florida lime rock coarse aggregate..... $K_1 := 0.9$

Unit Weight of Florida lime rock concrete (kcf)..... $w_{c.limerock} := .145 \frac{kip}{ft^3}$

Modulus of elasticity for substructure..... $E_{c.sub} := 33000 \cdot K_1 \cdot \left(\frac{w_{c.limerock}}{\frac{kip}{ft^3}} \right)^{1.5} \sqrt{f_{c.sub} \cdot ksi} = 4781 \cdot ksi$

Pile Cap Geometry

Height of pier cap..... $h_{Cap} := 2.50ft$

Width of pier cap..... $b_{Cap} := 8ft$

Length of pier cap..... $L_{Cap} := 12.5ft$

Design Loads - Moments, Shears and Torques

"Service Loads for the footing, utilized only to check for crack control"

"Maximum loads are obtained from FDOT Cantilever Program and FB-Multipier"

"1.3 Load Factor (Strength1) included since loads are a mix of wind load and dead load"

Moment (M) - Service..... $M_{Service1.pos} := 184.72ft \cdot kip$

$M_{Strength1.pos} := 1.3 \cdot M_{Service1.pos} = 240.1 \cdot ft \cdot kip$

Axial (V) - Service ..... $V_{Service.neg} := 55kip$

$V_{Strength1.neg} := 1.3 \cdot V_{Service.neg} = 71.5 \cdot kip$

Torsion (Trans Moment) - Service ..... $T_{Service.neg} := 134.8 \cdot ft \cdot kip$

$T_{Strength1.neg} := 1.3 \cdot T_{Service.neg} = 175.2\ ft \cdot kip$

B. Moment Design

A few recommendations on bar size and spacing are available to minimize problems during construction.

- Use the same size and spacing of reinforcing for both the negative and positive moment regions. This prevents field errors whereas the top steel is mistakenly placed at the bottom or vice versa.
- If this arrangement is not possible, give preference to maintaining the same spacing between the top and bottom reinforcement. Same grid pattern allows the concrete vibrator to be more effective in reaching the full depth of the cap.

The design procedure consists of calculating the reinforcement required to satisfy the design moment, then checking this reinforcement against criteria for crack control, minimum reinforcement, maximum reinforcement, shrinkage and temperature reinforcement, and distribution of reinforcement. The procedure is the same for both positive and negative moment regions.

$$M_r := M_{Strength1.pos} = 240 \cdot ft \cdot kip$$

Factored resistance

$$M_r = \phi \cdot M_n$$

Nominal flexural resistance

$$M_n = A_{ps} \cdot f_{ps} \cdot \left(d_p - \frac{a}{2} \right) + A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right) - A'_s \cdot f'_s \cdot \left(d'_s - \frac{a}{2} \right) + 0.85 \cdot f'_c \cdot \left(b - b_w \right) \cdot h_f \cdot \left(\frac{a}{2} - \frac{h_f}{2} \right)$$

For a rectangular, non-prestressed section,

$$M_n = A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right)$$

$$a = \frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b}$$

Assume $f_s := f_y$ [LRFD 5.7.2.1]

B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]

Using variables defined in above.....

$$M_r = \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b} \right) \right]$$

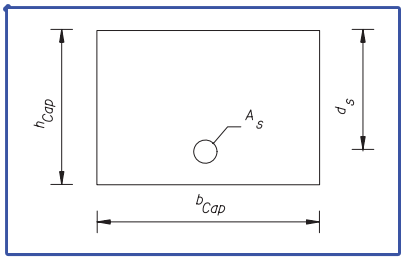
where $f_{c.sub} = 8.5 \cdot ksi$

$f_y = 60 \cdot ksi$

$\phi = 0.9$

$h_{Cap} = 30 \cdot in$

$b_{Cap} = 96 \cdot in$



Initial assumption for area of steel required

Number of bars..... $n_{bar} := 12$

Size of bar..... $bar := "5"$

Note: if bar spacing is "-1", the spacing is less than 3", and a bigger bar size should be selected.

Bar area..... $A_{bar} = 0.310 \cdot in^2$

Bar diameter..... $dia = 0.625 \cdot in$

Equivalent bar spacing..... $bar_{spa} = 8.1 \cdot in$

Area of steel provided..... $A_{s.pos} := n_{bar} \cdot A_{bar} = 3.72 \cdot in^2$

Distance from extreme compressive fiber to centroid of reinforcing steel (assuming a #6 stirrup)..... $d_s := h_{Cap} - cover_{sub} - \frac{dia}{2} - \frac{3}{4} in = 25.9 \cdot in$

Stress block factor..... $\beta_1 := \min\left[\max\left[0.85 - 0.05 \cdot \left(\frac{f_{c.sub} - 4ksi}{ksi} \right), 0.65 \right], 0.85 \right] = 0.65$

Distance between the neutral axis and compressive face..... $c := \frac{A_{s.pos} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot \beta_1 \cdot b_{Cap}} = 0.5 \cdot in$

Initial assumption for the area of steel required, this process is iterative..... $A_{sreq} := A_{s.pos} = 3.72 \cdot in^2$

Solve the quadratic equation for the area of steel required..... Given $M_r = \phi \cdot A_{sreq} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{sreq} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right]$

Area of steel required..... $A_{s.required} := \text{Find}(A_{sreq}) = 2.06 \cdot in^2$

The area of steel provided, $A_{s.pos} = 3.72 \cdot in^2$, should be greater than the area of steel required, $A_{s.required} = 2.06 \cdot in^2$. If not, decrease the spacing of the reinforcement. Once $A_{s.pos}$ is greater than $A_{s.reqd}$, the proposed reinforcing is adequate for the applied moments.

Moment capacity provided..... $M_{r.pos} := \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right] = 431.5 \cdot kip \cdot ft$

Check assumption that $f_s = f_y$..... $Check\_f_s := if\left(\frac{c}{d_s} < 0.6, "OK", "Not OK" \right)$ $Check\_f_s = "OK"$

B2. Limits for Reinforcement [LRFD 5.7.3.3]

Minimum Reinforcement

The minimum reinforcement requirements ensure the moment capacity provided is at least equal to the lesser of the cracking moment and 1.33 times the factored moment required by the applicable strength load combinations.

Modulus of Rupture..... $f_r := -0.24 \cdot \sqrt{f_{c.sub} \cdot ksi} = -699.7\ psi$ [SDG 1.4.1.B]

Section modulus of cap..... $S := \frac{b_{Cap} \cdot h_{Cap}^2}{6} = 14400 \cdot in^3$

Flexural cracking variability factor..... $\gamma_1 := 1.6$

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement..... $\gamma_3 := 0.67$ (for ASTM A615, Grade 60 reinforcing steel, per SDG 1.4.1.C)

Cracking moment..... $M_{cr} := \gamma_3 \cdot \gamma_1 \cdot f_r \cdot S = -900.1 \cdot kip \cdot ft$

Required flexural resistance..... $M_{r.reqd} := \min\left(\left| M_{cr} \right|, 133 \cdot \% \cdot M_r \right) = 319.4 \cdot kip \cdot ft$

Check that the capacity provided, $M_{r.pos} = 431.5 \cdot ft \cdot kip$, exceeds minimum requirements, $M_{r.reqd} = 319.4 \cdot ft \cdot kip$.

$$LRFD_{5.7.3.3.2} := \begin{cases} "OK, minimum\ reinforcement\ for\ positive\ moment\ is\ satisfied" & \text{if } M_{r.pos} \geq M_{r.reqd} \\ "NG, reinforcement\ for\ positive\ moment\ is\ less\ than\ minimum" & \text{otherwise} \end{cases}$$

$LRFD_{5.7.3.3.2} = "OK, minimum\ reinforcement\ for\ positive\ moment\ is\ satisfied"$

B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]

Concrete is subjected to cracking. Limiting the width of expected cracks under service conditions increases the longevity of the structure. Potential cracks can be minimized through proper placement of the reinforcement. The check for crack control requires that the actual stress in the reinforcement should not exceed the service limit state stress (LRFD 5.7.3.4). The stress equations emphasize bar spacing rather than crack widths.

The maximum spacing of the mild steel reinforcement for control of cracking at the service limit state shall satisfy.....

$$s \le \frac{700 \cdot \gamma_e}{\beta_s \cdot f_{ss}} - 2 \cdot d_c$$

where

$$\beta_s = 1 + \frac{d_c}{0.7\left(h - d_c\right)}$$

Exposure factor for Class 1 exposure condition.....

$\gamma_e := 1.00$ **[SDG 3.15.8]**

Overall thickness or depth of the component.....

$h_{Cap} = 2.5\,ft$

Distance from extreme tension fiber to center of closest bar.....

$$d_c := cover_{sub} + \frac{dia}{2} + \frac{3}{4}in = 4.06 \cdot in$$

$$\beta_s := 1 + \frac{d_c}{0.7\left(h_{Cap} - d_c\right)} = 1.22$$

The neutral axis of the section must be determined to determine the actual stress in the reinforcement. This process is iterative, so an initial assumption of the neutral axis must be made.

Guess value $x := 36 \cdot in$

Given

$$\frac{1}{2} \cdot b_{Cap} \cdot x^2 = \frac{E_s}{E_{c.sub}} \cdot A_{s.pos} \cdot \left(d_s - x\right)$$

$$x_{na} := Find(x) = 3.26 \cdot in$$

Tensile force in the reinforcing steel due to service limit state moment.....

$$T_s := \frac{M_{Service1.pos}}{d_s - \frac{x_{na}}{3}} = 89.2 \cdot kip$$

Actual stress in the reinforcing steel due to service limit state moment..... $f_{s.actual} := \frac{T_s}{A_{s.pos}} = 23.98 \cdot ksi$

Required reinforcement spacing..... $s_{required} := \frac{700 \cdot \gamma_e \cdot \frac{kip}{in}}{\beta_s \cdot f_{s.actual}} - 2 \cdot d_c = 15.73 \cdot in$

Provided reinforcement spacing..... $bar_{spa} = 8.07 \cdot in$

The required spacing of mild steel reinforcement in the layer closest to the tension face shall not be less than the reinforcement spacing provided due to the service limit state moment.

$$LRFD_{5.7.3.4} := \begin{cases} \text{"OK, crack control for M is satisfied"} & \text{if } s_{required} \geq bar_{spa} \\ \text{"NG, crack control for M not satisfied, provide more reinforcement"} & \text{otherwise} \end{cases}$$

$LRFD_{5.7.3.4} = \text{"OK, crack control for M is satisfied"}$

B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]

Initial assumption for area of steel required

Size of bar..... $bar_{st} := "5"$

Spacing of bar..... $bar_{spa.st} := 8 \cdot in$

Bar area..... $A_{bar} = 0.31 \cdot in^2$

Bar diameter..... $dia = 0.625 \cdot in$

Minimum area of shrinkage and temperature reinforcement.....

$$A_{shrink.temp} := \min\left[\left[\max\left[\left[\begin{matrix}\left(0.60 \frac{in^2}{ft}\right) \\ \left(0.11 \frac{in^2}{ft}\right) \\ \left[\frac{1.3 \cdot b_{Cap} \cdot h_{Cap} \cdot \frac{kip}{in \cdot ft}}{2\left(b_{Cap} + h_{Cap}\right) \cdot f_y}\right]\end{matrix}\right]\right]\right] = 0.25 \cdot \frac{in^2}{ft}$$

Maximum spacing of shrinkage and temperature reinforcement

$$spacing_{shrink.temp} := \begin{cases} \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 12 \cdot in\right) & \text{if } \left(b_{Cap} > 36in\right) \cdot \left(h_{Cap} > 36in\right) \\ \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 3 \cdot b_{Cap}, 3 \cdot h_{Cap}, 18in\right) & \text{otherwise} \end{cases} = 15.02 \cdot in$$

The bar spacing should be less than the maximum spacing for shrinkage and temperature reinforcement

$$LRFD_{5.7.10.8} := \begin{cases} "OK, minimum shrinkage and temperature requirements" & \text{if } bar_{spa.st} \le spacing_{shrink.temp} \\ "NG, minimum shrinkage and temperature requirements" & \text{otherwise} \end{cases}$$

$LRFD_{5.7.10.8} = "OK, minimum shrinkage and temperature requirements"$

B5. Mass Concrete Provisions [SDG 3.9]

Surface area of pier cap..... $Surface_{cap} := 2 \cdot b_{Cap} \cdot h_{Cap} + \left(2b_{Cap} + 2h_{Cap}\right) \cdot L_{Cap} = 302.5\ ft^2$

Volume of pier cap..... $Volume_{cap} := b_{Cap} \cdot h_{Cap} \cdot L_{Cap} = 250 \cdot ft^3$

Mass concrete provisions apply if the volume to surface area ratio, $\frac{Volume_{cap}}{Surface_{cap}} = 0.83 ft$, exceeds 1 ft and the minimum dimension exceeds 3 feet

$$SDG_{3.9} := \begin{cases} \text{"Use mass concrete provisions"} & \text{if } \frac{Volume_{cap}}{Surface_{cap}} > 1.0 \cdot ft \wedge b_{Cap} > 3 ft \wedge h_{Cap} > 3 ft \\ \text{"Use regular concrete provisions"} & \text{otherwise} \end{cases}$$

$SDG_{3.9} = \text{"Use regular concrete provisions"}$

C. Shear and Torsion Design [LRFD 5.8]

C1. Check if Torsion Design is Required

$T_u := |T_{Strength1.neg}|$ $V_u := |V_{Strength1.neg}|$

For normal weight concrete, torsional effects shall be investigated if..... $T_u > 0.25 \cdot \phi_v \cdot T_{cr}$

and..... $T_{cr} = 0.125 \cdot \sqrt{f_c} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_c}}}$

Total area enclosed by outside perimeter of concrete cross section..... $A_{cp} := h_{Cap} \cdot b_{Cap} = 20\,ft^2$

Length of outside perimeter of cross section..... $p_c := 2 \cdot (h_{Cap} + b_{Cap}) = 21\,ft$

Compressive stress in concrete after prestress losses have occured..... $f_{pc} := 0 \cdot psi$

Torsional cracking moment..... $T_{cr} := 0.125 \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_{c.sub} \cdot ksi}}} = 999.6 \cdot kip \cdot ft$

$LRFD_{5.8.2} := \begin{cases} \text{"OK, torsion can be neglected"} & \text{if } 0.25 \cdot \phi_v \cdot T_{cr} \geq T_u \\ \text{"NG, torsion shall be investigated..."} & \text{otherwise} \end{cases}$

$LRFD_{5.8.2} = \text{"OK, torsion can be neglected"}$

C2. Determine Nominal Shear Resistance

Effective width of the section..... $b_v := b_{Cap} = 96 \cdot in$

Effective shear depth..... $a := \frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} = 0.32 \cdot in$

$d_v := \max\left(d_s - \frac{a}{2}, 0.9 \cdot d_s, 0.72 \cdot h_{Cap}\right) = 25.78 \cdot in$

Determination of β and θ **(LRFD 5.8.3.4)**

The pier cap is a non-prestressed concrete section not subjected to axial tension. Assuming it has at least the amount of transverse reinforcement specified in **LRFD 5.8.2.5** or an overall depth of less than 16 in, the Simplified Procedure for determining Shear Resistance per LRFD 5.8.3.4.1 may be used.

$\beta := 2$ $\theta := 45 \cdot deg$

Nominal shear resistance of concrete section..... $V_c := 0.0316 \cdot \beta \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot b_v \cdot d_v = 456 \cdot kip$

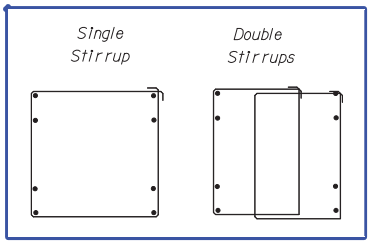
C3. Transverse Reinforcement

Because the overall depth is greater than 16 in, transverse reinforcement shall be provided in the pier cap according to **LRFD 5.8.2.5.**

$$A_v \geq .0316 \cdot \sqrt{f'_c} \cdot \frac{b_v \cdot s}{f_y}$$

The pier cap has no prestressing. $V_p := 0 \cdot kip$

Stirrups



Size of stirrup bar ("4" "5" "6" "7")... bar := "5"

Number of stirrup bars ("single" "double")..... n_{bars} := "single"

Area of shear reinforcement..... $A_v = 0.620 \cdot in^2$

Diameter of shear reinforcement..... $dia = 0.625 \cdot in$

Nominal shear strength provided by shear reinforcement

$$V_n = V_c + V_p + V_s$$

where..... $V_n := \min\left(\frac{V_u}{\phi_v}, 0.25 \cdot f_{c.sub} \cdot b_v \cdot d_v + V_p\right) = 79.44 \cdot kip$

and..... $V_s := V_n - V_c - V_p = -376.51 \cdot kip$

Spacing of stirrups

Minimum transverse reinforcement..... $s_{min} := \frac{A_v \cdot f_y}{0.0316 \cdot b_v \cdot \sqrt{f_{c.sub} \cdot ksi}} = 4.21 \cdot in$

Transverse reinforcement required..... $s_{req} := if\left(V_s \le 0, s_{min}, \frac{A_v \cdot f_y \cdot d_v \cdot \cot(\theta)}{V_s}\right) = 4.21 \cdot in$

Minimum transverse reinforcement required..... $s_w := \min\left(s_{min}, s_{req}\right) = 4.21 \cdot in$

Maximum transverse reinforcement spacing

$$s_{max} := if\left[\frac{V_u - \phi_v \cdot V_p}{\phi_v \cdot \left(b_v \cdot d_v\right)} < 0.125 \cdot f_{c.sub}, \min\left(\begin{pmatrix} 0.8 \cdot d_v \\ 24 \cdot in \end{pmatrix}\right), \min\left(\begin{pmatrix} 0.4 \cdot d_v \\ 12 \cdot in \end{pmatrix}\right)\right] = 20.62 \cdot in$$

Spacing of transverse reinforcement cannot exceed the following spacing..... $spacing := floor\left(\frac{if\left(s_{max} > s, s, s_{max}\right)}{in}\right) \cdot in = 4 \cdot in$

LRFD 5.8.3.5 is applicable at the end bearing support areas. Therefore, this check is ignored.

D. Summary of Reinforcement Provided

Moment Reinforcement (Top and Bottom)

Bar size..... $bar_{posM} = "5"$

Number of bars..... $n_{bar.posM} = 12$

Bar spacing..... $bar_{spa.posM} = 8.1 \cdot in$

Transverse reinforcement

Bar size..... $bar = "5"$

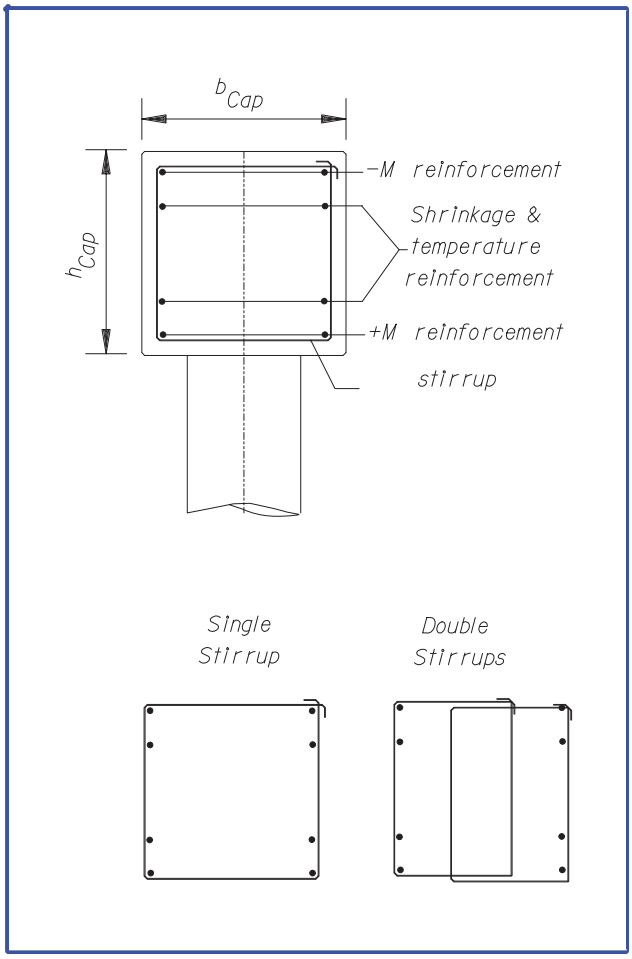
Bar spacing..... $spacing = 4.0 \cdot in$

Type of stirrups..... $n_{bar} = "single"$

Temperature and Shrinkage

Bar size..... $bar_{shrink.temp} = "5"$

Bar spacing..... $bar_{spa.st} = 8 \cdot in$



Drilled Shaft Foundation for Sign & Signal Structures

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SUBJECT I-95 EXPRESS LANES, PHASE 3A-2

DESIGNED BY AR DATE 10/21/2016

CHECKED BY MV DATE 10/21/2016

Input

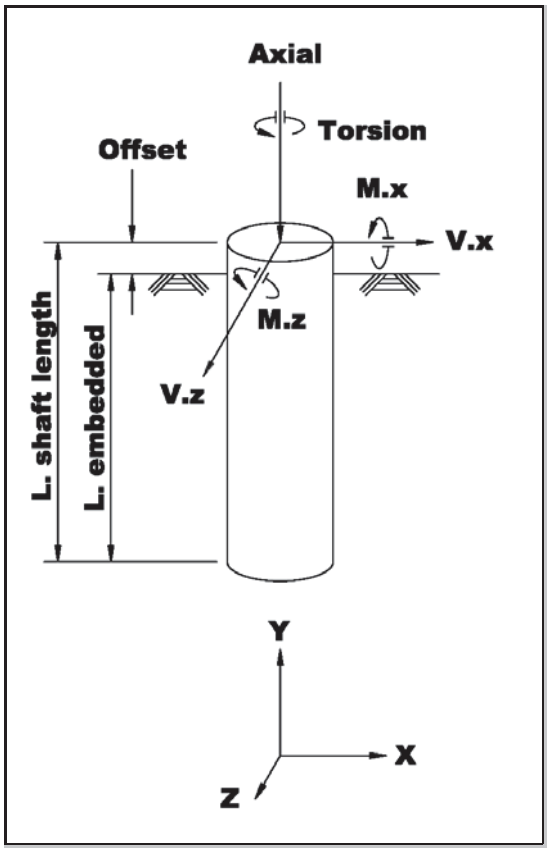
SoilType := Sand / Clay

WaterElevation := Below Bottom of Shaft / Above Top of Shaft

$\gamma_{soil.dry} := 105 \cdot pcf$ *dry soil density*

$\gamma_{water} := 62.4 \cdot pcf$ *water density*

$\gamma_{soil} := \gamma_{soil.dry} - if(WaterElevation = "Above Top of Shaft", \gamma_{water}, 0 \cdot pcf) = 42.6 \cdot pcf$



$b := 2.50 \cdot ft$ *shaft diameter*

$Offset := 8 \cdot ft$ *groundline to top of foundation*

$\phi_{soil} := 30 \cdot deg$ *soil friction angle (sand)*

$c_{soil} := 2.0 \cdot \frac{kip}{ft^2}$ *soil shear strength (clay)*

Applied Loads

$M_x := 134.8 \cdot kip \cdot ft$ $V_x := 17.7 \cdot kip$ $Torsion := 18.9 \cdot kip \cdot ft$

$M_z := 62.83 \cdot kip \cdot ft$ $V_z := 6.5 \cdot kip$ $Axial := 128.8 \cdot kip$

Shaft Depth Required to Resist Overturning

$SF_{ot} := 2$ *Safety Factor against Overturning* *SM Vol-9 13.6*

$M_{total} := (SF_{ot}) \cdot \sqrt{M_x^2 + M_z^2} = 297.4 \cdot kip \cdot ft$

$P_{total} := (SF_{ot}) \cdot \sqrt{V_x^2 + V_z^2} = 37.7 \cdot kip$

*short free-head pile in **cohesionless soil** using Broms method*

$K_p := \tan\left(45 \cdot deg + \frac{\phi_{soil}}{2}\right)^2 = 3$ $e_{sand} := Offset = 8\ ft$

Guess value $L_{otSand} := 30 \cdot ft$

Given $\frac{\gamma_{soil} \cdot b \cdot L_{otSand}^3 \cdot K_p}{2} - P_{total} \cdot (e_{sand} + L_{otSand}) - M_{total} = 0 \cdot kip \cdot ft$

$L_{otSand} := Find(L_{otSand}) = 20.5\ ft$

$L_{otSand} := ceil\left(\frac{L_{otSand}}{ft}\right) \cdot ft = 21\ ft$ *(round up to next foot)*

*short free-head pile in **cohesive soil** using Modified Broms method for L < 3b (see reference file for derivation)*

$c_{soil} := \text{if}\left(c_{soil} = 0\cdot ksf, 0.1\cdot ksf, c_{soil}\right) = 2\cdot ksf$ $\quad$ $Slope := 8\cdot\frac{c_{soil}}{3\cdot b} = 2.1\cdot\frac{kip}{ft^3}$ $\quad$ $e_{clay} := \frac{M_{total}}{P_{total}} + Offset = 15.9\ ft$

$nforce(M,N) := \left[Slope\cdot(2\cdot M + N) + 2\cdot c_{soil}\right]\cdot N\cdot\frac{b}{2}$ $\quad$ $mforce(M) := \left(2\cdot c_{soil} + M\cdot Slope\right)\cdot M\cdot\frac{b}{2}$

$$m\_arm(M) := e_{clay} + \frac{M}{3}\cdot\frac{2\cdot\left(M\cdot Slope + c_{soil}\right) + c_{soil}}{M\cdot Slope + 2\cdot c_{soil}}$$

$$n\_arm(M,N) := e_{clay} + M + \frac{N}{3}\cdot\frac{2\cdot\left(N\cdot Slope + M\cdot Slope + c_{soil}\right) + \left(M\cdot Slope + c_{soil}\right)}{Slope\cdot(2\cdot M + N) + 2\cdot c_{soil}}$$

Guess value $\quad$ $M := 4.0\cdot ft$ $\quad$ $N := 4.0\cdot ft$

Given $\quad$ $P_{total} + nforce(M,N) = mforce(M)$ $\quad$ $mforce(M)\cdot m\_arm(M) = nforce(M,N)\cdot n\_arm(M,N)$

$\begin{pmatrix} M \\ N \end{pmatrix} := Find(M,N)$ $\quad$ $L_{ot1Clay} := M + N = 11.1\ ft$

$L_{ot1Clay} := ceil\left(\frac{L_{ot1Clay}}{ft}\right)\cdot ft = 12\ ft$ $\quad$ *(round up to next foot)*

*short free-head pile in **cohesive soil** using Regular Broms method for L > 3b*

$f_{clay} := \frac{P_{total}}{9\cdot c_{soil}\cdot b} = 0.8\ ft$ $\quad$ $M_{maxtemp} := P_{total}\cdot\left(e_{clay} + 1.5\cdot b + 0.5\cdot f_{clay}\right) = 756.4\cdot kip\cdot ft$ $\quad$ $g := \sqrt{\frac{M_{maxtemp}}{2.25\cdot c_{soil}\cdot b}} = 8.2\ ft$

$L_{ot2Clay} := \left(1.5\cdot b + f_{clay} + g\right) = 12.8\ ft$

$L_{ot2Clay} := ceil\left(\frac{L_{ot2Clay}}{ft}\right)\cdot ft = 13\ ft$ $\quad$ *(round up to next foot)*

$L_{otClay} := \text{if}\left(L_{ot1Clay} < 3\cdot b, L_{ot1Clay}, L_{ot2Clay}\right) = 4$ $\quad$ *(If $L_{ot} < 3b$, use Modified Broms method)*

$L_{reqdOT} := \text{if}\left(SoilType = \text{"Sand"}, L_{otSand}, L_{otClay}\right) = 6.4$

Shaft Depth Required to Resist Torsion

NOTE: ω_{fdot} and μ are based upon concrete soil interaction. This torsion methodology is not to be used with permanent casing.

$SF_{tor} := 1.3$ *Safety Factor against Torsion*
1.0 for Mast Arm signal structures
1.3 for Overhead Cantilever sign structures
SM Vol-9 13.6

$N_{blows} := 7$ *Number of blows per foot. If N< 5, contact the district geotech Engineer*

$\omega_{fdot} := if\left(N_{blows} < 5, 0, if\left(N_{blows} \geq 15, 1.5, 1.5 \cdot \frac{N_{blows}}{15}\right)\right) = 0.7$

load transfer ratio, If 5<N<15, ω_{fdot} is reduced by a factor of $\frac{N_{blows}}{15}$

SM Vol-9 13.6

$\mu := \tan(\phi_{soil}) = 0.6$ *coefficient of friction between concrete shaft and soil*

$\gamma_{concrete} := if(\text{WaterElevation} = \text{"Above Top of Shaft"}, 150 \cdot pcf - \gamma_{water}, 150 \cdot pcf) = 87.6 \cdot pcf$

$CohesionFactor := 0.55$

$f_{se} := CohesionFactor \cdot c_{soil} = 1.1 \cdot ksf$

*short free-head pile in **cohesionless soil***

Guess value $L_{torSand} := L_{reqdOT} = 21\ ft$

Given

$$Torsion = \frac{\left[\pi \cdot b \cdot (L_{torSand}) \cdot \gamma_{soil} \cdot \left(\frac{L_{torSand}}{2}\right) \cdot (\omega_{fdot}) \cdot \frac{b}{2} + \pi \cdot \left(\frac{b}{2}\right)^2 \cdot L_{torSand} \cdot (\gamma_{concrete}) \cdot \frac{b}{3} \cdot \mu\right]}{SF_{tor}}$$

$L_{torSand} := Find(L_{torSand}) = 12.3\ ft$

$L_{torSand} := ceil\left(\frac{L_{torSand}}{ft}\right) \cdot ft = 13\ ft$ *(round up to next foot)*

*short free-head pile in **cohesive soil***

Guess value $L_{torClay} := L_{reqdOT}$

Given $\left[f_{se} \cdot (\pi \cdot b) \cdot (L_{torClay} - 1.5 \cdot ft) \cdot \frac{b}{2}\right] + \left[f_{se} \cdot \pi \cdot \left(\frac{b}{2}\right)^2 \cdot \left(\frac{b}{3}\right)\right] = Torsion \cdot SF_{tor}$

$L_{torClay} := Find(L_{torClay}) = 3.4\ ft$

$L_{torClay} := ceil\left(\frac{L_{torClay}}{ft}\right) \cdot ft = 4\ ft$ *(round up to next foot)*

$L_{reqdTor} := \text{if}\left(SoilType = \text{"Sand"}, L_{torSand}, L_{torClay}\right) = 4$

$L_{embedded} := \text{if}\left(L_{reqdTor} > L_{reqdOT}, L_{reqdTor}, L_{reqdOT}\right) = 6.4$

$L_{shaft.length} := L_{embedded} + Offset = 29\,ft$

Unfactored Maximum Moment in Shaft

*short free-head pile in **cohesionless soil** using Broms method*

$$f_{sand} := \sqrt{\frac{2 \cdot \frac{P_{total}}{SF_{ot}}}{3 \cdot \gamma_{soil} \cdot b \cdot K_p}} = 6.3\,ft$$

$$M_{maxSand} := \frac{P_{total}}{SF_{ot}} \cdot \left(e_{sand} + f_{sand}\right) - \frac{\frac{P_{total}}{SF_{ot}} \cdot f_{sand}}{3} + \frac{M_{total}}{SF_{ot}} = 378.4 \cdot kip \cdot ft$$

*short free-head pile in **cohesive soil** using Modified Broms method for L < 3b (see reference file for derivation)*

Guess value $f_{mod} := 4.0 \cdot ft$

Given $\frac{P_{total}}{SF_{ot}} = \frac{f_{mod} \cdot b}{2} \cdot \left(2 \cdot c_{soil} + f_{mod} \cdot Slope\right)$

$f_{mod} := \text{Find}\left(f_{mod}\right) = 1.9\,ft$

$$M_{modBroms} := \frac{P_{total}}{SF_{ot}} \cdot \left(e_{clay} + f_{mod}\right) - \frac{c_{soil} \cdot b \cdot f_{mod}^{2}}{2} - \frac{b \cdot f_{mod}^{3} \cdot Slope}{6} = 320.3 \cdot kip \cdot ft$$

*short free-head pile in **cohesive soil** using Regular Broms method for L > 3b*

$$M_{Broms} := \frac{P_{total}}{SF_{ot}} \cdot \left(e_{clay} + 1.5 \cdot b + 0.5 \cdot f_{clay}\right) = 378.2 \cdot kip \cdot ft$$

$M_{maxClay} := \text{if}\left(L_{ot1Clay} < 3 \cdot b, M_{modBroms}, M_{Broms}\right) = 378.2 \cdot kip \cdot ft$ *(If $L_{ot} < 3b$, use Modified Broms method)*

$M_{max} := \text{if}\left(SoilType = \text{"Sand"}, M_{maxSand}, M_{maxClay}\right) = 378.4 \cdot kip \cdot ft$ *(Service moment)*

Minimum Reinforcing and Spacing

$F_{y.rebar} := 60 \cdot ksi$ *reinforcing yield strength*

$f_c := 4.0 \cdot ksi$ *concrete strength* Spec 346-3

$cover := 6 \cdot in$ *cover* SDG Table 1.4.2-1

$A_{bar} := 1.00 \cdot in^2$ *longitudinal bar area*

$d_{bar} := 1.128 \cdot in$ *longitudinal bar diameter*

$A_{v.bar} := 0.31 \cdot in^2$ *stirrup area* SM Vol-9 13.6.2

$d_{v.bar} := 0.625 \cdot in$ *stirrup diameter*

$s_{v1} := 4 \cdot in$ *stirrup spacing, depth = 0 ft-2 ft* SM Vol-9 13.6.2

$s_{v2} := 6in$ *stirrup spacing, depth = 2 ft-depth.stir*

$s_{v3} := 6 \cdot in$ *stirrup spacing, depth > depth.stir*

$depth_{stir} := 30 \cdot ft$ *stirrup depth, see s.v2 and s.v3 above*

$b = 2.5\,ft$ *shaft diameter*

$$Num_{bar_1} := \frac{0.01}{A_{bar}} \cdot \frac{\pi \cdot b^2}{4} = 7.1$$ LRFD 5.7.4.2

$$Num_{bar_2} := \frac{0.135}{A_{bar} \cdot F_{y.rebar}} \cdot \left(\frac{\pi \cdot b^2}{4} \cdot f_c \right) = 6.4$$

$Num_{bar} := ceil\left(max\left(Num_{bar_1}, Num_{bar_2}\right)\right) = 8$ *number of longitudinal bars*

$Num_{bar} := 8$ *Same number of Anchor Bolts to avoid layout conflict*

$$ReinfClearSpacing := \left[b - 2 \cdot \left(cover + d_{v.bar} + \frac{d_{bar}}{2} \right) \right] \cdot \frac{\pi}{Num_{bar}} - d_{bar} = 5.01 \cdot in$$ SAY "OK"

$CheckReinfClearSpacing := if(ReinfClearSpacing \geq 6in, "OK", "No Good")$ CheckReinfClearSpacing = "No Good"

SDG 3.6.10

Check Shear and Torsion

$LF_{shr} := 1.3$ *Shear Load Factor* *1.3 is a reasonable Load Factor for combined WL + DL on sign and signal structures*

$LF_{tor} := 1.3$ *Torsion Load Factor*

$\phi_{shr} := 0.90$ *Shear Resistance Factor* LRFD 5.5.4.2.1

$\phi_{tor} := 0.90$ *Torsion Resistance Factor* LRFD 5.5.4.2.1

$V_u := LF_{shr} \cdot \sqrt{V_x^2 + V_z^2} = 24.5 \cdot kip$

$T_u := LF_{tor} \cdot Torsion = 24.6 \cdot kip \cdot ft$

Area and perimeter of concrete cross-section

$A_{cp} := \pi \cdot \left(\frac{b}{2}\right)^2 = 706.9 \cdot in^2$ $p_{cp} := 2 \cdot \pi \cdot \left(\frac{b}{2}\right) = 94.2 \cdot in$

Diameter, perimeter and area enclosed by the centerline of the outermost closed transverse torsion reinforcement

$d_{oh} := b - 2 \cdot \left(cover + \frac{d_{v.bar}}{2}\right) = 17.4 \cdot in$ $p_h := \pi \cdot d_{oh} = 54.6 \cdot in$

$A_{oh} := \pi \left(\frac{d_{oh}}{2}\right)^2 = 237.1 \cdot in^2$ $A_o := 0.85 \cdot A_{oh} = 201.5 \cdot in^2$

$0.8 \cdot b = 2\,ft$

Effective shear depth

$D_r := b - 2 \cdot \left(cover + d_{v.bar} + \frac{d_{bar}}{2}\right) = 1.3\,ft$ $d_e := \frac{b}{2} + \frac{D_r}{\pi} = 1.7\,ft$

LRFD C5.8.2.1

$d_v := \max\left(0.9 \cdot d_e, 0.72 \cdot b\right) = 1.8\,ft$

Check Shear Strength

$V_c := 0.0316 \cdot (2.0) \cdot \sqrt{\frac{f_c}{ksi}} \cdot \left(\frac{b}{in}\right) \cdot \left(\frac{d_v}{in}\right) \cdot kip = 81.9 \cdot kip$ LRFD Eqn 5.8.3.3-3 LRFD 5.8.3.4.1 ACI 11.3.3

$V_s := \frac{A_{v.bar} \cdot F_{y.rebar} \cdot d_v}{\max\left(s_{v1}, s_{v2}, s_{v3}\right)} = 67 \cdot kip$ LRFD Eqn 5.8.3.3-4

$\phi_{shr} = 0.9$ $V_u = 24.5 \cdot kip$

$ShearRatio := \frac{V_u - \phi_{shr} \cdot V_c}{\phi_{shr} \cdot V_s} = -0.8$

$ShearRatio := if(ShearRatio \le 0, 0, ShearRatio) = 0$

Check Torsion Strength

$T_{n1} := \frac{2 \cdot A_o \cdot A_{v.bar} \cdot F_{y.rebar}}{s_{v1}} = 156.2 \cdot kip \cdot ft$ *LRFD Eqn 5.8.3.6.2-1*

LRFD 5.8.3.4.1

$T_{n2} := \frac{2 \cdot A_o \cdot A_{v.bar} \cdot F_{y.rebar}}{s_{v2}} = 104.1 \cdot kip \cdot ft$

$T_{n3} := \frac{2 \cdot A_o \cdot A_{v.bar} \cdot F_{y.rebar}}{s_{v3}} = 104.1 \cdot kip \cdot ft$

$\phi_{tor} = 0.9$ $T_u = 24.6 \cdot kip \cdot ft$ $L_{reqdTor} = 13\ ft$

$Tor2_{sand} := T_u - \max\left[\left[\pi \cdot b \cdot (2 \cdot ft - Offset) \cdot \gamma_{soil} \cdot \left(\frac{2 \cdot ft - Offset}{2}\right) \cdot (\omega_{fdot}) \cdot \frac{b}{2}\right], 0 \cdot kip \cdot ft\right] = 19.3 \cdot kip \cdot ft$

$Tor3_{sand} := T_u - \max\left[\left[\pi \cdot b \cdot (depth_{stir} - Offset) \cdot \gamma_{soil} \cdot \left(\frac{depth_{stir} - Offset}{2}\right) \cdot (\omega_{fdot}) \cdot \frac{b}{2}\right], 0 \cdot kip \cdot ft\right] = -46.3 \cdot kip \cdot ft$

$Tor2_{clay} := T_u - \max\left[\left[f_{se} \cdot (\pi \cdot b) \cdot (2.0 \cdot ft - Offset - 1.5 \cdot ft) \cdot \frac{b}{2}\right], 0 \cdot kip \cdot ft\right] = 24.6 \cdot kip \cdot ft$

$Tor3_{clay} := T_u - \max\left[\left[f_{se} \cdot (\pi \cdot b) \cdot (depth_{stir} - Offset - 1.5 \cdot ft) \cdot \frac{b}{2}\right], 0 \cdot kip \cdot ft\right] = -196.8 \cdot kip \cdot ft$

$Tor2 := if(SoilType = "Sand", Tor2_{sand}, Tor2_{clay}) = 19.3 \cdot kip \cdot ft$

$Tor3 := if(SoilType = "Sand", Tor3_{sand}, Tor3_{clay}) = -46.3 \cdot kip \cdot ft$

$TorsionRatio_{n1} := \frac{T_u}{\phi_{tor} \cdot T_{n1}} = 0.17$

$TorsionRatio_{n2} := \frac{Tor2}{\phi_{tor} \cdot T_{n2}} = 0.21$

$TorsionRatio_{n3} := \frac{Tor3}{\phi_{tor} \cdot T_{n3}} = -0.49$

$TorsionRatio := \max(TorsionRatio_{n1}, TorsionRatio_{n2}, TorsionRatio_{n3}) = 0.21$

$T_{cr} := 0.125 \sqrt{\frac{f_c}{ksi}} \cdot \left(\frac{A_{cp}^2}{p_{cp} \cdot in^3}\right) \cdot kip \cdot in = 110.4 \cdot kip \cdot ft$ *LRFD Eqn 5.8.2.1-4*

$TorsionRatio := if(T_u \le 0.25 \cdot \phi_{tor} \cdot T_{cr}, 0, TorsionRatio) = 0$ *LRFD Eqn 5.8.2.1-3*

$ShearRatio = 0$

$CheckShearTorsion := if(ShearRatio + TorsionRatio \le 1, "OK", "No Good")$ $CheckShearTorsion = "OK"$

Check Maximum Spacing Transverse Reinforcement

$vu := \frac{V_u}{\phi_{shr} \cdot b \cdot (0.8 \cdot b)} = 0.037828 \cdot ksi$ $\quad 0.125 \cdot f_c = 0.5 \cdot ksi$ LRFD Eqn 5.8.2.9-1

$s_{max1} := if\left(0.8 \cdot d_v < 24 \cdot in, 0.8 d_v, 24 \cdot in\right) = 17.3 \cdot in$ LRFD Eqn 5.8.2.7-1

$s_{max2} := if\left(0.4 \cdot d_v < 12 \cdot in, 0.4 d_v, 12 \cdot in\right) = 8.6 \cdot in$ LRFD Eqn 5.8.2.7-2

$s_{max} := if\left(vu < 0.125 \cdot f_c, s_{max1}, s_{max2}\right) = 17.3 \cdot in$

$\max\left(s_{v1}, s_{v2}, s_{v3}\right) = 6 \cdot in$

$CheckMaxSpacingTransvReinf := if\left(\max\left(s_{v1}, s_{v2}, s_{v3}\right) \le s_{max}, "OK", "No Good"\right)$ $\quad CheckMaxSpacingTransvReinf = "OK"$

Check Longitudinal Reinforcement for Combined Shear and Torsion LRFD Eqn 5.8.3.6.3-1 LRFD 5.8.3.4.1

$M_u := LF_{tor} \cdot \sqrt{M_x^2 + M_z^2} = 193.3 \cdot kip \cdot ft$

$V_{temp} := if\left(\frac{V_u}{\phi_{shr}} - 0.5 \cdot V_s > 0 \cdot kip, \frac{V_u}{\phi_{shr}} - 0.5 \cdot V_s, 0 \cdot kip\right) = 0 \cdot kip$

$LongReinf_{shr.tor} := \frac{\frac{M_u}{\phi_{tor} \cdot (0.8 \cdot b)} + \sqrt{\left(\frac{V_{temp}}{kip}\right)^2 + \left(\frac{0.45 \cdot p_h \cdot T_u}{2 \cdot A_o \cdot \phi_{tor} \cdot kip}\right)^2} \cdot kip}{F_{y.rebar}} = 2.1 \cdot in^2$

$Num_{bar} \cdot A_{bar} = 8 \cdot in^2$

$CheckLongReinf_{shr.tor} := if\left(Num_{bar} \cdot A_{bar} \ge LongReinf_{shr.tor}, "OK", "No Good"\right)$ $\quad CheckLongReinf_{shr.tor} = "OK"$

Drilled Shaft Dimensions/Reinforcing

(FA) $Drilled\_Shaft\_Length := L_{shaft.length} = 29.0\ ft$

(FB) $Drilled\_Shaft\_Diameter := b = 2.5\ ft$

(FC) $Longitudinal\_Reinforcement := Num_{bar} = 8$ See longitudinal bar diameter for size of bars

(FD) $Num\_Stirrup\_Spaces := \frac{\left(depth_{stir} - 5.in - 24in - 7in\right)}{s_{v2}} = 54$

(FE) $Shear\_Stirrup\_Spacing := s_{v2} = 6.00 \cdot in$

STRUCTURES DESIGN CALCULATIONS

SPECIAL OVERHEAD SIGN STRUCTURES SPAN

ITS SUBMITTAL

I-95 EXPRESS LANES – PHASE 3A-2

Miscellaneous Structures

Prepared For

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction
2017.08.28 09:50:24-04'00'

Patrick C Leung
Corridor Design Consultant (Stantec) - This serves as confirmation that the comments have been satisfactorily resolved
2017.08.25 18:32:48-04'00'

Florida Department of Transportation

MORGAN VILLANUEVA LICENSE No 60292 STATE OF FLORIDA PROFESSIONAL ENGINEER

Prepared By

Morgan Villanueva
2017.06.08 10:31:39 -04'00'

PRINCE PARSONS BRINCKERHOFF

CAP ENGINEERING, INC.

2202 North West Shore Blvd. Suite 300
Tampa, Florida 33607

FBPR Certificate of Authorization No. 1462

June 09, 2017

RELEASED FOR CONSTRUCTION DATE: 08/28/2017
Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, detail, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-5-52-01 CONTRACT E4Q64 BY: (FDOT)
BY: (Stantec)

STA. 2331+00 - WALK-IN DMS

NOTES TO REVIEWER:

THE EXISTING MEDIAN WIDTH FOR THE SPECIAL DUAL UPRIGHTS IS APPROXIMATELY 2'-6" WIDE, BASED ON THIS CONSTRAIN THE PROPOSED DUAL 12" DIAMETER UPRIGHTS WERE CHECKED FOR THE WORST LOADING AS PER THE PROPOSED SIGN CONFIGURATION.

BASED ON THIS SIGN CONFIGURATION (STA. 2331+00), THE PROPOSED DUAL 12" DIAMETER UPRIGHT AND FOUNDATION ARE ADEQUATE. REFER TO ATTACHED CALCULATIONS FOR STRUCTURE AT STA. 2687+00, WHICH REACTIONS FROM ALL DIRETIONS ARE GREATER, CONSERVATIVE APPROACH.

SPECIAL SIGN STRUCTURE

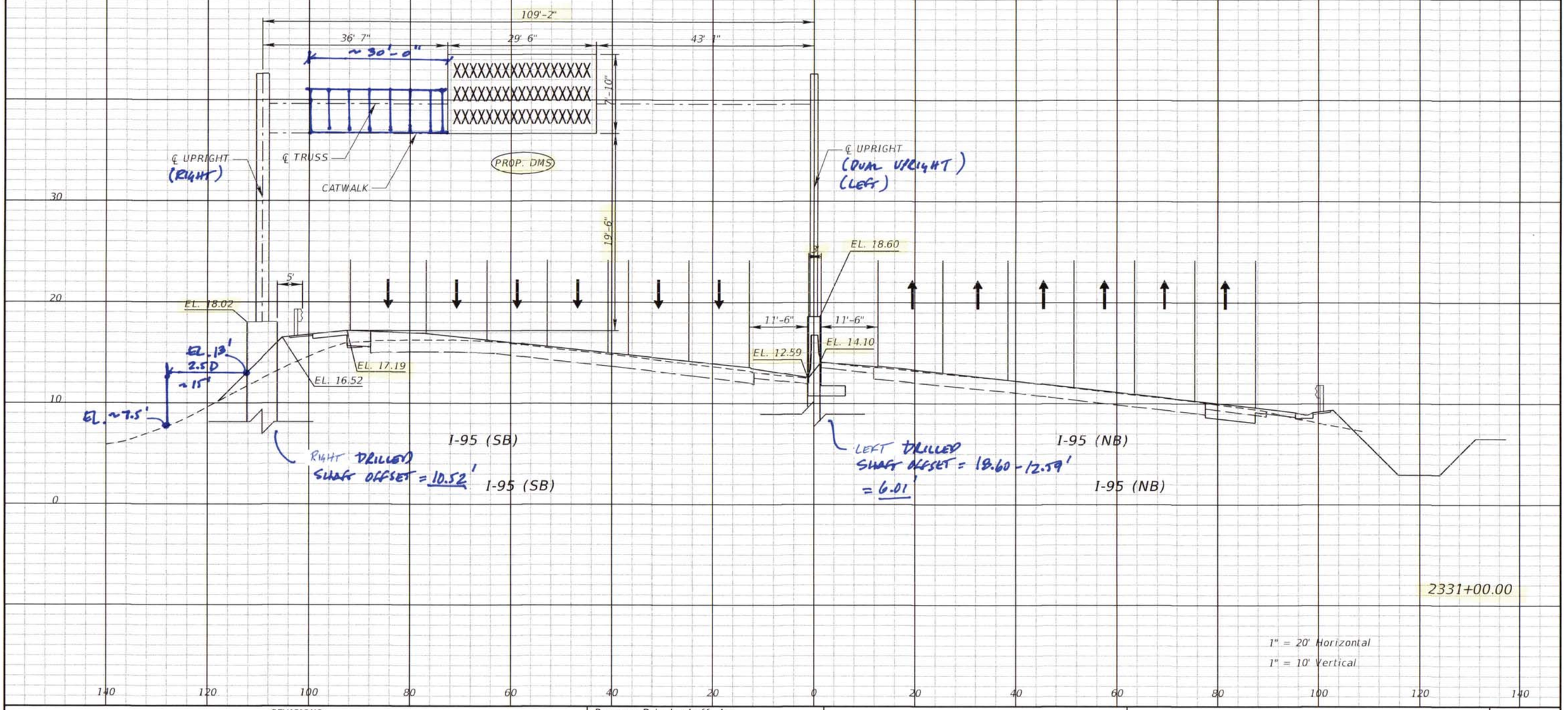
℄ TRUSS EL. = 19.5' + 17.19' + $\frac{7.83'}{2}$ = 40.61'

LEFT TRUSS HEIGHT = 40.61' − 18.60' = 22.01'

RIGHT TRUSS HEIGHT = 40.61' − 18.02' = 22.59'

WIND HEIGHT = 40.61' − 5' = 35.61'

AREA FOR DESIGN WITH 25% = 289 SF / 29.5'W = 9.8'H



2331+00.00

1" = 20' Horizontal
1" = 10' Vertical

30

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Parsons Brinckerhoff, Inc.
277 Bendix Road, Suite 300
Virginia Beach, VA 23452
(757) 466-1732
Cert. of Auth. No. 01462
EOR: TIMOTHY R. RAYNER, P.E.
License No: 80987

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-5-52-01

CROSS SECTIONS
SR 9 (I-95)

SHEET NO. IT-115

Span Overhead Sign Program v6.1

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Florida Department of Transportation
Structures Design Office **http://www.dot.state.fl.us/structures**

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User Manual

Data Files Folder

Change Folder

E:\PROJECTS\2016\I-95 Express Lanes, Phase 3A-2 DB\43310855201_I95_Ph3A2\struct\sign struct\span\SpanV6.1\Data\

Open Existing Data File (optional)

Refresh List

Open File

- Sta. 2424+00 - Sign 59, 70, 64, 13.dat
- Sta. 2515+84.00 - Sign 24 +DMS FA.dat
- Sta. 2515+84.00 sign 24 + Dms FA.dat
- Sta. 2687+00 - Sign 56, 59, 70, 61.dat
- Sta. 2716+00 - Sign 59, 70, 63B, 55.dat
- Sta. 2725+00 - Sign 67.dat
- Sta. 2698+50 - Sign 65.dat
- Sta. 2331+00 - Walk-In DMS with Walkway.dat

Project Data

Project Name	I-95 Express Lanes, Phase 3A-2		
Project No.	433108-5-52-01		
Designed by	AR	Date	11 / 03 / 2016
Checked by	MV	Date	11 / 03 / 2016

Sign Structure Data

Sign Number	DMS Walk-in
Station	2331+00.000

Material Properties Data

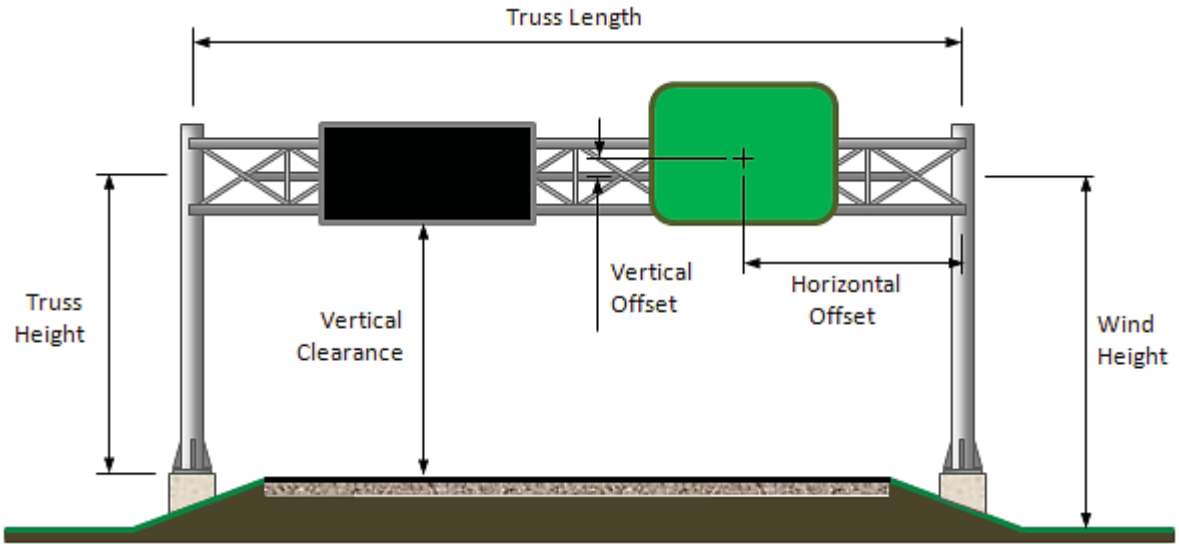
Fy of Upright	42	ksi
Fy of Web	36	ksi
Fy of Chord	42	ksi

Truss Data

Truss Length	109.1667	ft
Left Truss Height	22.02	ft
Right Truss Height	22.59	ft
Vertical Clearance	19.6	ft
No. of Truss Panels	14	
Vert. Truss Depth	6	ft

Wind Load Data

Wind Height	35.61	ft
Design Wind Speed	150	mph



Load Data

Reset Load Data

Sign Panels

Show Panels 11-20

Sign Panel Number	Panel Length (ft)	Panel Height (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Back-side Mounted?	Panel Weight (psf)
1					☐	
2					☐	
3					☐	
4					☐	
5					☐	
6					☐	
7					☐	
8					☐	
9					☐	
10					☐	

DMS Panels

DMS Panel Number	Panel Length (ft)	Panel Height (ft)	Panel Depth (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Panel Weight (psf)
1	29.5	9.8	4.0	51.333	0	15.07
2						
3						

Walkways

Walkway Number	Walkway Length (ft)	Walkway Width (ft)	Number of Hangers	Horizontal Offset (ft)	Vertical Offset* (ft)	Walkway Weight (plf)
1	30	4	9	21.5	-3.9167	100
2						

Attachments

Attachment Number	Projected Area (sq. ft)	Drag Coeff., C_d	Attached to Which Chord Member? (Top / Bottom / Back)	Horizontal Offset (ft)	Attachment Weight (lb)
1					
2					
3					

** Vertical offsets are input as negative values when element centroid is below the truss centerline.*

Member Data

Member Properties

Chord Size

- 3.50" O.D. Pipe, 0.216" Wall
- 4.00" O.D. Pipe, 0.226" Wall
- 4.50" O.D. Pipe, 0.237" Wall
- 4.50" O.D. Pipe, 0.337" Wall
- 5.563" O.D. Pipe, 0.258" Wall
- 5.563" O.D. Pipe, 0.375" Wall
- **6.625" O.D. Pipe, 0.432" Wall**
- 8.625" O.D. Pipe, 0.500" Wall
- CUSTOM

Design Properties

Outside Diameter (D)	6.63	in
Wall Thickness (t)	0.402	in
Area (A)	7.86	in^2
Moment of Inertia (I)	38.2	in^4
Radius of Gyration (r)	2.2	in
Torsional Constant (J)	76.4	in^4
Nominal Weight	28.6	plf

Web Size

- Angle 2-1/2" x 2-1/2" x 1/4"
- Angle 3" x 3" x 1/4"
- Angle 3" x 3" x 5/16"
- Angle 3-1/2" x 3-1/2" x 5/16"
- Angle 3-1/2" x 3-1/2" x 3/8"
- **Angle 4" x 4" x 3/8"**
- Angle 4" x 4" x 1/2"
- Angle 5" x 5" x 1/2"
- CUSTOM

Design Properties

Leg Length (b)	4	in
Leg Thickness (t)	0.375	in
Area (A)	2.86	in^2
Dist. to Centroid ($\bar{x}$)	1.13	in
X Moment of Inertia (I_x)	4.32	in^4
X Rad. of Gyration (r_x)	1.23	in
Z Rad. of Gyration (r_z)	0.779	in
Nominal Weight	9.8	plf

Left Upright Size

- 12.75" O.D. Pipe, 0.375" Wall
- 14" O.D. Pipe, 0.375" Wall
- 16" O.D. Pipe, 0.375" Wall
- 18" O.D. Pipe, 0.438" Wall
- 20" O.D. Pipe, 0.500" Wall
- 24" O.D. Pipe, 0.375" Wall
- **24" O.D. Pipe, 0.562" Wall**
- 24" O.D. Pipe, 0.750" Wall
- 30" O.D. Pipe, 0.500" Wall
- 30" O.D. Pipe, 0.625" Wall
- 30" O.D. Pipe, 0.750" Wall

Design Properties

Outside Diameter (D)	24	in
Wall Thickness (t)	0.562	in
Area (A)	41.4	in^2
Moment of Inertia (I)	2843	in^4
Radius of Gyration (r)	8.29	in
Torsional Constant (J)	5686	in^4
Nominal Weight	140.8	plf

Right Upright Size

- 12.75" O.D. Pipe, 0.375" Wall
- 14" O.D. Pipe, 0.375" Wall
- 16" O.D. Pipe, 0.375" Wall
- 18" O.D. Pipe, 0.438" Wall
- 20" O.D. Pipe, 0.500" Wall
- 24" O.D. Pipe, 0.375" Wall
- 24" O.D. Pipe, 0.562" Wall
- **24" O.D. Pipe, 0.750" Wall**
- 30" O.D. Pipe, 0.500" Wall
- 30" O.D. Pipe, 0.625" Wall
- 30" O.D. Pipe, 0.750" Wall

Design Properties

Outside Diameter (D)	24	in
Wall Thickness (t)	0.75	in
Area (A)	54.8	in^2
Moment of Inertia (I)	3705	in^4
Radius of Gyration (r)	8.22	in
Torsional Constant (J)	7411	in^4
Nominal Weight	186.4	plf

Connection Data

Gusset Plates

Min. Gusset Bolt Diameter: 5/8", **3/4"**, 7/8", 1", 1-1/4"

Min. Gusset Plate Thickness: 3/8", **1/2"**, 5/8", 3/4", 7/8", 1"

Truss Connections

Min. Truss Bolt Diameter: **7/8"**, 1"

Min. Horizontal Plate Thickness: **1/2"**, 5/8", 3/4", 7/8", 1"

Min. Vertical Plate Thickness: **1/2"**, 5/8", 3/4", 7/8", 1"

Base Connection

Left Anchor Bolt Diameter: 1", 1-1/2", 1-3/4", 2", **2-1/4"**, 2-1/2"

Left Number of Anchor Bolts: 8, 10, **12**

Right Anchor Bolts Diameter: 1", 1-1/2", 1-3/4", 2", **2-1/4"**, 2-1/2"

Right Number of Anchor Bolts: 8, 10, **12**

Min. Base Plate Thickness: 3/4", 1", 1-1/4", **1-1/2"**, 1-3/4", 2"

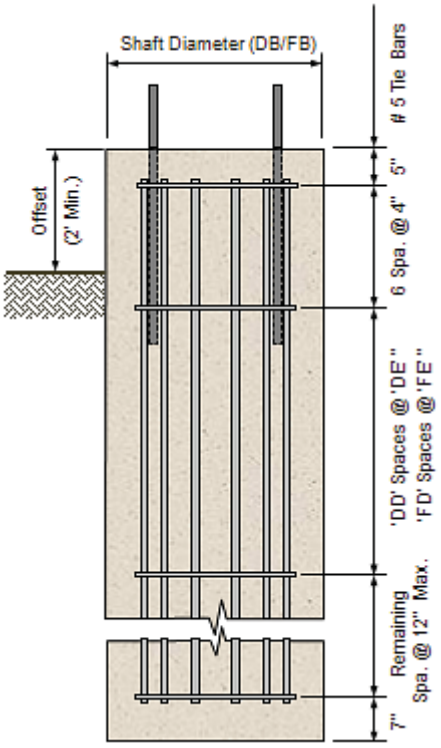
Min. Stiffener Plate Thickness: 3/8", **1/2"**, 5/8", 3/4", 7/8", 1"

Foundation Data

Foundation Type	Drilled Shafts

Left Drilled Shaft Data

Soil Type	Sand	
Soil Density, γ_{soil}	45.6	pcf
Friction Angle, ϕ	30	deg
SPT Number (N_{blows})	7	
Shear Strength, *c*		ksf
Safety Factor against Overturning	2	
Safety Factor against Torsion	1.3	
Shaft Diameter (DB)	5.5	ft
Ground to Top of Shaft Offset	6.01	ft
Number of Stirrup Spaces (DD)	40	
Stirrup Spacing (DE)	6	in



Right Drilled Shaft Data

Soil Type	Sand	
Soil Density, γ_{soil}	45.6	pcf
Friction Angle, ϕ	30	deg
SPT Number (N_{blows})	7	
Shear Strength, *c*		ksf
Safety Factor against Overturning	2	
Safety Factor against Torsion	1.3	
Shaft Diameter (FB)	5.5	ft
Ground to Top of Shaft Offset	10.52	ft
Number of Stirrup Spaces (FD)	40	
Stirrup Spacing (FE)	6	in

Save Data

Save Data File (optional)

☑ Use current input file

File Name: Sta. 2331+00 - Walk-In DMS with Walkway.dat [Save Data]

Note: Select an output folder by using the "Change Folder" option above.

Data Initialization

Geometry Check Calculations

Preliminary Geometry Checks

$CheckLengt_{TrussPanel}$ = "OK"

$CheckClearance_{Wed}$ = "OK"

$CheckLayout_{SignPanel\_}$ = "OK"

$CheckOverlap_{Panel}$ = "OK"

$Check_{DMS}$ = "OK"

3D Model Data

Wireframe Diagram

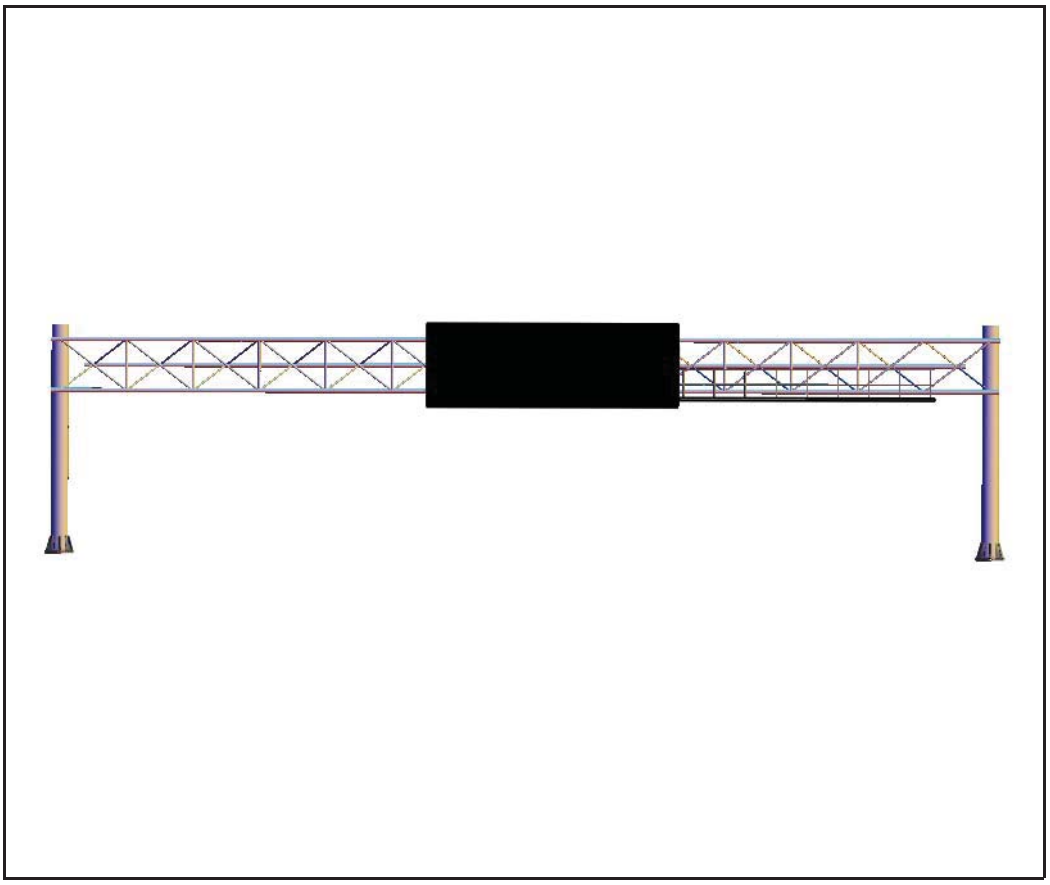
Design Forces

Fatigue Forces

Total Forces

Truss Diagram Data

Truss Diagram



Note: Use your mouse and keyboard to zoom in, zoom out or rotate the 3D plot above.
(See "Rotating, Spinning, or Zooming a 3D Plot" in Mathcad Help for instructions.)

3D Structural Analysis

Run Analysis

Note: A new analysis MUST be run after any change in program input.

PC-SAP Output Data

Design Check Calculations
Maximum Reactions
Results Output

Results

Sign Structure Geometry

(A) $L_{Truss} = 109.167\,ft$

(B) $H_{Left.Truss} = 22.02\,ft$

(C) $H_{Right.Truss} = 22.59\,ft$

(D) #TrussPanels = "14 @ 7' 9-1/2" (Total_Length = 109.167 ft.)"

(E) $D_{VerticalTruss} = 72 \cdot in$

$D_{HorzTruss} = 62.3538 \cdot in$

Sign Structure Members

(F) ChordMember = "6.625" O.D. Pipe, 0.432" Wall"

(G) WebMember = "Angle 4" x 4" x 3/8""

(H) $UprightMember_{Left}$ = "24" O.D. Pipe, 0.562" Wall"

(J) $UprightMember_{Right}$ = "24" O.D. Pipe, 0.750" Wall"

(K) Camber = "2-3/4""

CSR_{Chord} = "0.917 OK"

CSR_{Web} = "0.778 OK"

$CSR_{LeftUpright}$ = "0.725 OK"

$CSR_{RightUpright}$ = "0.673 OK"

Additional Design Checks

$Check_{WebSlenderness}$ = "OK"

$Check_{ChordSlenderness}$ = "OK"

$Check_{ChordElements}$ = "OK"

$Check_{SignHangers}$ = "OK"

$Check_{TrussDeflection}$ = "OK"

Max. Reactions at Base of Left Upright

$LongMom_{Lt} = 480.000 \cdot kip \cdot ft$

$LongShear_{Lt} = 21.790 \cdot kip$

$TransMom_{Lt} = 169.750 \cdot kip \cdot ft$

$TransShear_{Lt} = 16.780 \cdot kip$

$Axial_{Lt} = 15.550 \cdot kip$

$Torque_{Lt} = 26.225 \cdot kip \cdot ft$

Max. Reactions at Base of Right Upright

$LongMom_{Rt} = 592.500 \cdot kip \cdot ft$

$LongShear_{Rt} = 25.900 \cdot kip$

$TransMom_{Rt} = 173.833 \cdot kip \cdot ft$

$TransShear_{Rt} = 17.200 \cdot kip$

$Axial_{Rt} = 19.330 \cdot kip$

$Torque_{Rt} = 26.250 \cdot kip \cdot ft$

Splice Calculations

Gusset Plate Calculations

Truss Connection Calculations

Base Plate Calculations

Connection Output

Connection Values

Note: All truss bolted connections use A325 bolts, and upright anchor bolts are ASTM F1554. All welds are sized assuming E70xx electrodes.

Splice Connection

(SA) $Size_{Angle}$ = "Angle 6" x 6" x 1/2""

(SB) $\#Bolts_{Reqd.in.Splice}$ = "10"

(SC) $d_{BoltReqd.for.Splice}$ = "1" Dia."

CheckSpacing = "OK"

Alternate Flange Splice Connection

(PA) t_{Flange} = "1-1/2""

(PB) $Offset_{Bolt}$ = "2""

(PC) $Weld_{Inside}$ = "3/8""

(PD) $Weld_{Outside}$ = "7/16""

(PE) d_{Bolt} = "1""

(PF) #Bolts = "12"

Gusset Plates

(GA) t_{Gus} = "1/2""

(GB) $d_{GusBolt}$ = "1" Dia."

(GC) $L_{BackChordGus}$ = "1' 6-1/4""

(GD) $H_{BackChordGus}$ = "8-3/4""

(GE) $L_{FrontChordGus}$ = "1' 5-1/2""

(GF) $H_{FrontChordGus}$ = "7-1/2""

(GG) $L_{CenterFrontGus}$ = "2' 5""

(GH) $L_{BackTrussEnd}$ = "1' 1-1/4""

(GJ) $H_{BackTrussEnd}$ = "10""

(GK) $L_{FrontTrussEnd}$ = "1' 4-3/4""

(GL) $Weld_{Gusset.To.Chord}$ = "3/16""

$CheckThickness_{Gusset}$ = "OK"

Left Truss Connection

(LA) $d_{LtBolt.Reqd}$ = "7/8" Dia."

(LB) $\#Bolts_{LtReqd}$ = "4"

(LC) $t_{LtHorzConnPL}$ = "1/2""

(LD) $t_{LtVertConnPL}$ = "1/2""

(LE) $Weld_{LtHorzPLtoUpright}$ = "3/16""

(LF) $Weld_{LtVertPLtoUpright}$ = "3/16""

(LG) $Weld_{LtConnPLtoChord}$ = "3/16""

(LH) $Weld_{LtVertPLtoHorzPL}$ = "3/16""

Additional Left Truss Connection Checks

$CheckThickness_{LtHorz.Plate}$ = "OK"

$CheckThickness_{LtVert.Plate}$ = "OK"

$CheckThickness_{LtConn.Plate}$ = "OK"

$CheckThickness_{LtHorz.Vert}$ = "OK"

$Check_{LtHorzPL}$ = "OK"

$Check_{LtVertPL}$ = "OK"

$Check_{LtUpright}$ = "OK"

Right Truss Connection

(RA) $d_{RtBolt.Reqd}$ = "7/8" Dia."

(RB) $\#Bolts_{RtReqd}$ = "4"

(RC) $t_{RtHorzConnPL}$ = "1/2""

(RD) $t_{RtVertConnPL}$ = "1/2""

(RE) $Weld_{RtHorzPLtoUpright}$ = "3/16""

(RF) $Weld_{RtVertPLtoUpright}$ = "3/16""

(RG) $Weld_{RtConnPLtoChord}$ = "3/16""

(RH) $Weld_{RtVertPLtoHorzPL}$ = "3/16""

Additional Right Truss Connection Checks

$CheckThickness_{RtHorz.Plate}$ = "OK"

$CheckThickness_{RtVert.Plate}$ = "OK"

$CheckThickness_{RtConn.Plate}$ = "OK"

$CheckThickness_{RtHorz.Vert}$ = "OK"

$Check_{RtHorzPL}$ = "OK"

$Check_{RtVertPL}$ = "OK"

$Check_{RtUpright} = \text{"OK"}$

Left Base Connection

(BA) $d_{LtAnchor}$ = "2-1/4" Dia."

(BB) #AnchorLt = 12

(BC) t_{LtBase} = "1-1/2""

(BD) $t_{LtStiff}$ = "1/2""

(BE) $H_{LtStiff}$ = "2' 5-3/4""

(BF) $Weld_{LtBaseInside}$ = "5/16""

(BG) $Weld_{LtBaseOutside}$ = "5/16""

(BH) $Weld_{LtStifftoBase}$ = "5/16""

(BJ) $Weld_{LtStifftoUpright}$ = "3/16""

Right Base Connection

(CA) $d_{RtAnchor}$ = "2-1/4" Dia."

(CB) #AnchorRt = 12

(CC) t_{RtBase} = "1-1/2""

(CD) $t_{RtStiff}$ = "1/2""

(CE) $H_{RtStiff}$ = "2' 5-3/4""

(CF) $Weld_{RtBaseInside}$ = "5/16""

(CG) $Weld_{RtBaseOutside}$ = "5/16""

(CH) $Weld_{RtStifftoBase}$ = "5/16""

(CJ) $Weld_{RtStifftoUpright}$ = "1/4""

Additional Base Connection Checks

$CheckThicknessRatio_{LtStiff.to.Upright}$ = "OK"

$CheckThicknessRatio_{RtStiff.to.Upright}$ = "OK"

$CheckWeldSizeLimit_{LtBaseUpright.in}$ = "OK"

$CheckWeldSizeLimit_{LtBaseUpright.out}$ = "OK"

$CheckWeldSizeLimit_{RtBaseUpright.in}$ = "OK"

$CheckWeldSizeLimit_{RtBaseUpright.out}$ = "OK"

$CheckWeldSizeLimit_{LtStiffBase}$ = "OK"

$CheckWeldSizeLimit_{RtStiffBase}$ = "OK"

$CheckWeldSizeLimit_{LtStiffUpright}$ = "OK"

$CheckWeldSizeLimit_{RtStiffUpright}$ = "OK"

Fatigue Calculations

Fatigue Design Checks

Left Base Connection

CheckFatigue$_{LtUpright}$ = "OK (2.42 ksi < 7 ksi)"

CheckFatigue$_{LtBase}$ = "OK (1.25 ksi < 10 ksi)"

CheckFatigue$_{LtAnchor}$ = "OK (1.9 ksi < 7 ksi)"

Right Base Connection

CheckFatigue$_{RtUpright}$ = "OK (2.04 ksi < 7 ksi)"

CheckFatigue$_{RtBase}$ = "OK (1.16 ksi < 3.3 ksi)"

CheckFatigue$_{RtAnchor}$ = "OK (1.9 ksi < 7 ksi)"

Chord Member Connections

CheckFatigue$_{ChordSplice}$ = "OK (2.49 ksi < 7 ksi)"

CheckFatigue$_{ChordSlot}$ = "OK (0.38 ksi < 2.6 ksi)"

CheckFatigue$_{HalfChord}$ = "OK (0.32 ksi < 2.6 ksi)"

CheckFatigue$_{LtTrussBolt}$ = "OK (0.12 ksi < 7 ksi)"

CheckFatigue$_{RtTrussBolt}$ = "OK (0.15 ksi < 7 ksi)"

Gusset Plates

CheckFatigue$_{BackPlate}$ = "OK (0.07 ksi < 1.2 ksi)"

CheckFatigue$_{BackEndPlate}$ = "OK (0.21 ksi < 1.2 ksi)"

CheckFatigue$_{FrontPlate}$ = "OK (0.04 ksi < 1.2 ksi)"

CheckFatigue$_{FrontEndPlate}$ = "OK (0.16 ksi < 1.2 ksi)"

CheckFatigue$_{TopCenterPlate}$ = "OK (0.27 ksi < 1.2 ksi)"

CheckFatigue$_{BotCenterPlate}$ = "OK (0.06 ksi < 1.2 ksi)"

Web Members

CheckFatigue$_{Web}$ = "OK (0.92 ksi < 7 ksi)"

Drilled Shaft Calculations

Anchor Bolt Calculations

Drilled Shaft Design

Left Drilled Shaft Design Checks

$Check_{LtMassConcrete}$ = "OK"

$CheckSpacing_{LtLongReinf}$ = "Say OK (5.921 in)"

$CheckCapacity_{LtLongReinf}$ = "OK"

$CheckShearTorsionComb_{Lt}$ = "OK"

$CheckMaxSpacing_{LtStirrup}$ = "OK"

Left Drilled Shaft Dimensions/Reinforcing

(DA) $L_{LtShaft} = 25.0\,ft$

(DB) $D_{LtShaft} = 5.5\,ft$

(DC) $d_{LtLongReinf}$ = "22 No. 11 bars evenly spaced"

(DD) $\#Spaces_{LtStirrup} = 40$

(DE) $Spacing_{LtShearStirrup} = 6.00 \cdot in$

Right Drilled Shaft Design Checks

$Check_{RtMassConcrete}$ = "OK"

$CheckSpacing_{RtLongReinf}$ = "Say OK (5.921 in)"

$CheckCapacity_{RtLongReinf}$ = "OK"

$CheckShearTorsionComb_{Rt}$ = "OK"

$CheckMaxSpacing_{RtStirrup}$ = "OK"

Right Drilled Shaft Dimensions/Reinforcing

(FA) $L_{RtShaft} = 31.5\,ft$

(FB) $D_{RtShaft} = 5.5\,ft$

(FC) $d_{RtLongReinf}$ = "22 No. 11 bars evenly spaced"

(FD) $\#Spaces_{RtStirrup} = 40$

(FE) $Spacing_{RtShearStirrup} = 6.00 \cdot in$

Anchor Bolt Design

Anchor Bolt Lengths

(DF) $L_{LtAnchorEmbed} = 45 \cdot in$

(FF) $L_{RtAnchorEmbed} = 45 \cdot in$

Additional Anchor Bolt Checks

$CheckCapacity_{LtAnchor} = "OK"$

$CheckBreakout_{LtAnchor} = "OK"$

$CheckCapacity_{RtAnchor} = "OK"$

$CheckBreakout_{RtAnchor} = "OK"$

$Spacing_{ClearLt} = 7.34 \cdot in$

$Spacing_{ClearRt} = 7.34 \cdot in$

MicroStation Data

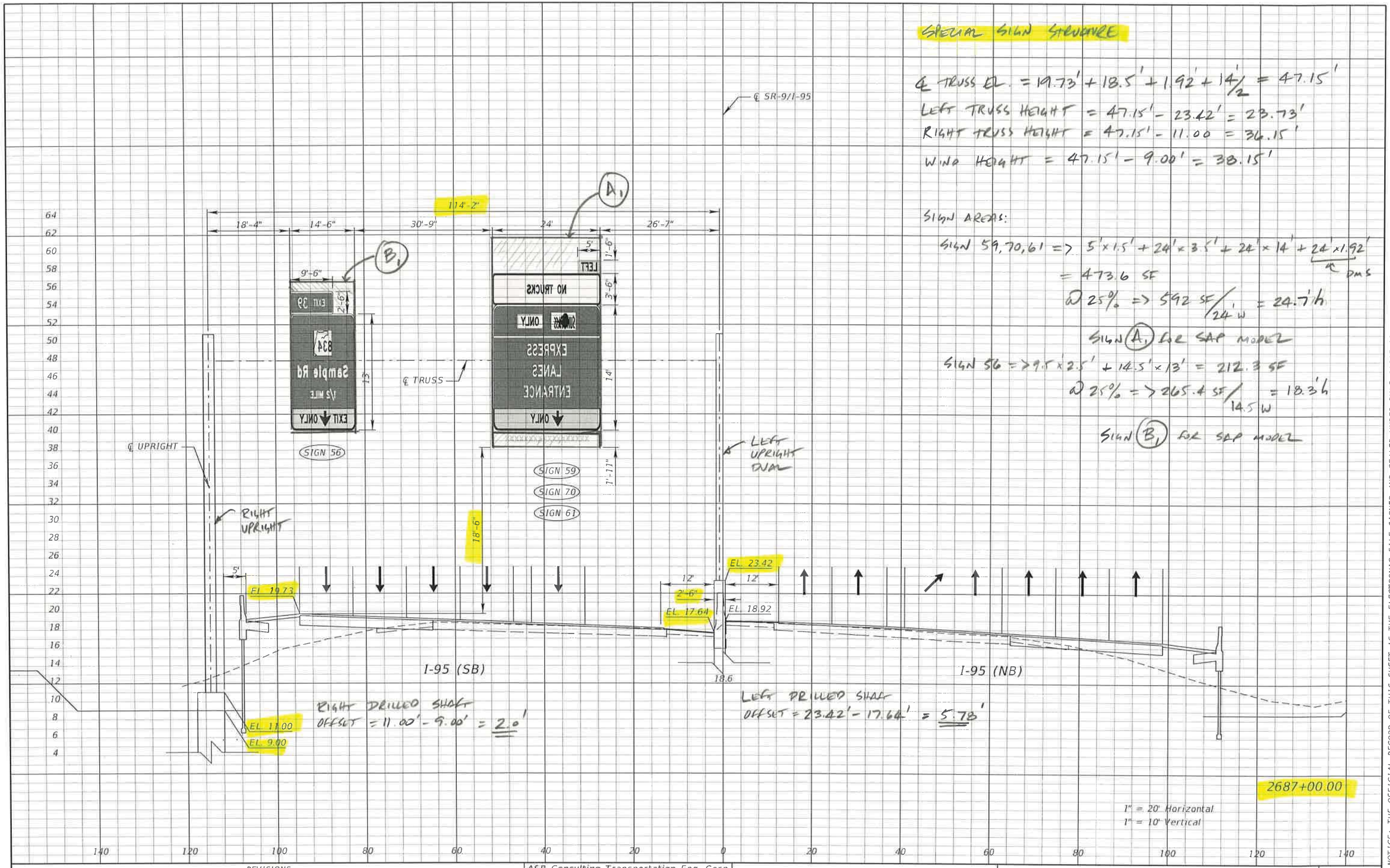
Create MicroStation Text File

☑ Use same name as current data file

File Name Sta. 2331+00 - Walk-In DMS with Walkway.txt

Create MicroStation File

Sta. 2687+00.00 - SIGN 56, 59, 70,



SPECIAL SIGN STRUCTURE

℄ TRUSS EL. = 19.73' + 18.5' + 1.92' + 14'/2 = 47.15'

LEFT TRUSS HEIGHT = 47.15' - 23.42' = 23.73'

RIGHT TRUSS HEIGHT = 47.15' - 11.00 = 36.15'

WIND HEIGHT = 47.15' - 9.00' = 38.15'

SIGN AREAS:

SIGN 59, 70, 61 => 5' x 1.5' + 24' x 3.5' + 24' x 14' + 24' x 1.92' (DMS)

= 473.6 SF

@ 25% => 592 SF / 24' W = 24.7' h

SIGN (A1) FOR SAP MODEL

SIGN 56 => 9.5' x 2.5' + 14.5' x 13' = 212.3 SF

@ 25% => 265.4 SF / 14.5' W = 18.3' h

SIGN (B1) FOR SAP MODEL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

A&P Consulting Transportation Eng. Corp.
10305 N.W. 41 Street
Suite 115
Miami, FL 33178
(305) 592-7283
Cert. of Auth. No. EB-0007797
EOR: Eithel M. Sierra, P.E.
License No: 55401

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	MONROE	433108-5-52-01

SIGNING AND PAVEMENT MARKING CROSS SECTIONS

SHEET NO. S-136

minastrillo 8/12/2016 4:20:36 PM P:\43310855201 I-95 Express Lanes\signing\rdxssp200_01.dgn

Span Overhead Sign Program v6.1

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Florida Department of Transportation
Structures Design Office **http://www.dot.state.fl.us/structures**

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User Manual

Data Files Folder

Change Folder

E:\PROJECTS\2016\I-95 Express Lanes, Phase 3A-2 DB\43310855201_I95_Ph3A2\struct\sign struct\span\SpanV6.1\Data\

Open Existing Data File (optional)

Refresh List

Open File

- Sta. 2416+00.00 - Sign 71.dat
- Sta. 2416+00 - Sign 71.dat
- Sta. 2603+10 - Sign 53, DMS.dat
- Sta. 2393+00 - Sign 71.dat
- Sta. 2424+00 - Sign 59, 70, 64, 13.dat
- Sta. 2515+84.00 - Sign 24 +DMS FA.dat
- Sta. 2515+84.00 sign 24 + Dms FA.dat
- Sta. 2687+00 - Sign 56, 59, 70, 61.dat

Project Data

Project Name	I-95 Express Lanes, Phase 3A-2		
Project No.	433108-5-52-01		
Designed by	A.R.	Date	09 / 08 / 2016
Checked by	M.V.	Date	09 / 08 / 2016

Sign Structure Data

Sign Number	59, 70, 61, 56
Station	2687+00

Material Properties Data

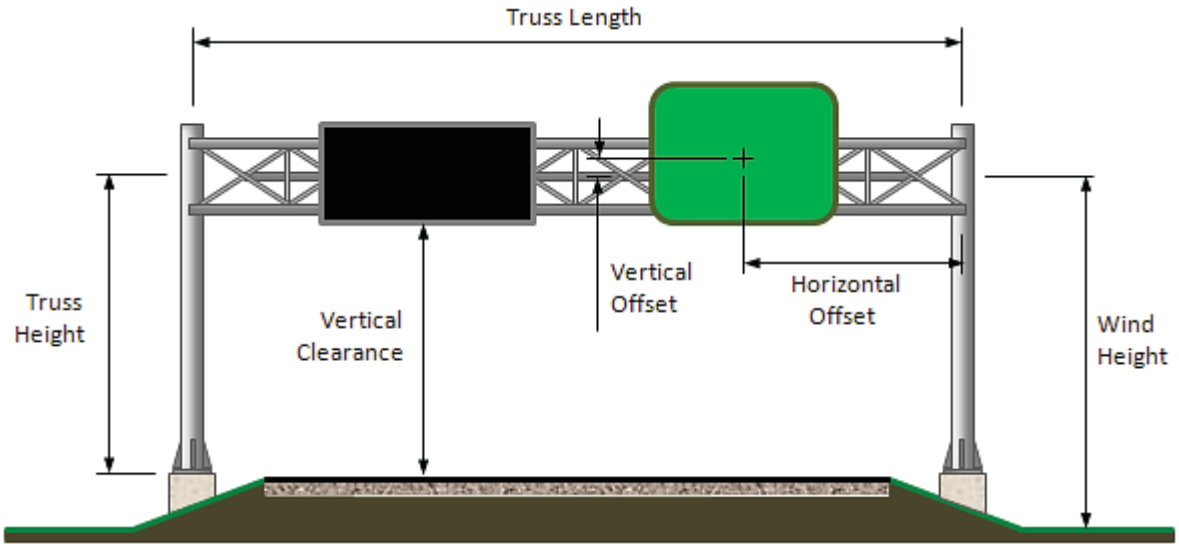
Fy of Upright	42	ksi
Fy of Web	36	ksi
Fy of Chord	42	ksi

Truss Data

Truss Length	114.2	ft
Left Truss Height	23.73	ft
Right Truss Height	36.15	ft
Vertical Clearance	18.5	ft
No. of Truss Panels	10	
Vert. Truss Depth	8	ft

Wind Load Data

Wind Height	38.15	ft
Design Wind Speed	150	mph



Load Data

Reset Load Data

Sign Panels

Show Panels 11-20

Sign Panel Number	Panel Length (ft)	Panel Height (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Back-side Mounted?	Panel Weight (psf)
1	24	15.78	75.617	7.89	☐	5
2	24	8.92	75.617	-4.46	☐	5
3	14.5	18.3	25.583	2.65	☐	5
4					☐	
5					☐	
6					☐	
7					☐	
8					☐	
9					☐	
10					☐	

DMS Panels

DMS Panel Number	Panel Length (ft)	Panel Height (ft)	Panel Depth (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Panel Weight (psf)
1						
2						
3						

Walkways

Walkway Number	Walkway Length (ft)	Walkway Width (ft)	Number of Hangers	Horizontal Offset (ft)	Vertical Offset* (ft)	Walkway Weight (plf)
1						
2						

Attachments

Attachment Number	Projected Area (sq. ft)	Drag Coeff., C_d	Attached to Which Chord Member? (Top / Bottom / Back)	Horizontal Offset (ft)	Attachment Weight (lb)
1					
2					
3					

** Vertical offsets are input as negative values when element centroid is below the truss centerline.*

Member Data

Member Properties

Chord Size

- 3.50" O.D. Pipe, 0.216" Wall
- 4.00" O.D. Pipe, 0.226" Wall
- 4.50" O.D. Pipe, 0.237" Wall
- 4.50" O.D. Pipe, 0.337" Wall
- 5.563" O.D. Pipe, 0.258" Wall
- 5.563" O.D. Pipe, 0.375" Wall
- 6.625" O.D. Pipe, 0.432" Wall
- **8.625" O.D. Pipe, 0.500" Wall**
- CUSTOM

Design Properties

Outside Diameter (D)	8.63	in
Wall Thickness (t)	0.465	in
Area (A)	11.9	in^2
Moment of Inertia (I)	100	in^4
Radius of Gyration (r)	2.89	in
Torsional Constant (J)	199	in^4
Nominal Weight	43.43	plf

Web Size

- Angle 2-1/2" x 2-1/2" x 1/4"
- Angle 3" x 3" x 1/4"
- Angle 3" x 3" x 5/16"
- Angle 3-1/2" x 3-1/2" x 5/16"
- Angle 3-1/2" x 3-1/2" x 3/8"
- Angle 4" x 4" x 3/8"
- Angle 4" x 4" x 1/2"
- Angle 5" x 5" x 1/2"
- **CUSTOM**

Design Properties

Leg Length (b)	6	in
Leg Thickness (t)	0.625	in
Area (A)	7.13	in^2
Dist. to Centroid ($\bar{x}$)	1.72	in
X Moment of Inertia (I_x)	24.1	in^4
X Rad. of Gyration (r_x)	1.84	in
Z Rad. of Gyration (r_z)	1.17	in
Nominal Weight	24.2	plf

Left Upright Size

- 24" O.D. Pipe, 0.375" Wall
- 24" O.D. Pipe, 0.562" Wall
- 24" O.D. Pipe, 0.750" Wall
- 30" O.D. Pipe, 0.500" Wall
- 30" O.D. Pipe, 0.625" Wall
- 30" O.D. Pipe, 0.750" Wall
- 36" O.D. Pipe, 0.500" Wall
- 36" O.D. Pipe, 0.625" Wall
- 36" O.D. Pipe, 0.750" Wall
- **CUSTOM**

Design Properties

Outside Diameter (D)	42	in
Wall Thickness (t)	0.75	in
Area (A)	89.229	in^2
Moment of Inertia (I)	19041	in^4
Radius of Gyration (r)	14.608	in
Torsional Constant (J)	38082	in^4
Nominal Weight	303.625	plf

Right Upright Size

- 24" O.D. Pipe, 0.375" Wall
- 24" O.D. Pipe, 0.562" Wall
- 24" O.D. Pipe, 0.750" Wall
- 30" O.D. Pipe, 0.500" Wall
- 30" O.D. Pipe, 0.625" Wall
- 30" O.D. Pipe, 0.750" Wall
- 36" O.D. Pipe, 0.500" Wall
- 36" O.D. Pipe, 0.625" Wall
- 36" O.D. Pipe, 0.750" Wall
- **CUSTOM**

Design Properties

Outside Diameter (D)	42	in
Wall Thickness (t)	0.75	in
Area (A)	89.229	in^2
Moment of Inertia (I)	19041	in^4
Radius of Gyration (r)	14.608	in
Torsional Constant (J)	38082	in^4
Nominal Weight	303.625	plf

Connection Data

Gusset Plates

Min. Gusset Bolt Diameter: 5/8", 3/4", 7/8", **1"**, 1-1/4"

Min. Gusset Plate Thickness: 1/2", 5/8", 3/4", 7/8", **1"**

Truss Connections

Min. Truss Bolt Diameter: **7/8"**, 1"

Min. Horizontal Plate Thickness: **1/2"**, 5/8", 3/4", 7/8", 1"

Min. Vertical Plate Thickness: 1/2", 5/8", 3/4", **7/8"**, 1"

Base Connection

Left Anchor Bolt Diameter: 1-1/2", 1-3/4", 2", 2-1/4", **2-1/2"**

Left Number of Anchor Bolts: 8, 10, **12**

Right Anchor Bolts Diameter: 1-1/2", 1-3/4", 2", 2-1/4", **2-1/2"**

Right Number of Anchor Bolts: 8, 10, **12**

Min. Base Plate Thickness: **1"**, 1-1/4", 1-1/2", 1-3/4", 2"

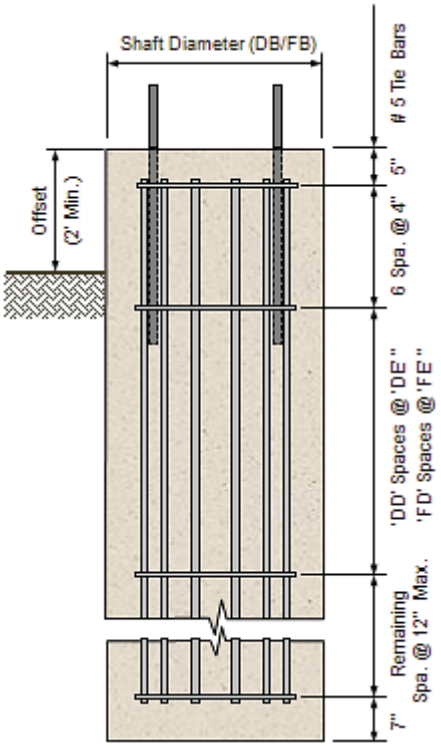
Min. Stiffener Plate Thickness: 3/8", **1/2"**, 5/8", 3/4", 7/8", 1"

Foundation Data

Foundation Type	Drilled Shafts

Left Drilled Shaft Data

Soil Type	Sand	
Soil Density, γ_{soil}	48.6	pcf
Friction Angle, ϕ	32	deg
SPT Number (N_{blows})	12	
Shear Strength, *c*		ksf
Safety Factor against Overturning	2	
Safety Factor against Torsion	1.3	
Shaft Diameter (DB)	6	ft
Ground to Top of Shaft Offset	5.78	ft
Number of Stirrup Spaces (DD)	40	
Stirrup Spacing (DE)	6	in



Right Drilled Shaft Data

Soil Type	Sand	
Soil Density, γ_{soil}	48.6	pcf
Friction Angle, ϕ	32	deg
SPT Number (N_{blows})	12	
Shear Strength, *c*		ksf
Safety Factor against Overturning	2	
Safety Factor against Torsion	1.3	
Shaft Diameter (FB)	6	ft
Ground to Top of Shaft Offset	5.78	ft
Number of Stirrup Spaces (FD)	40	
Stirrup Spacing (FE)	6	in

Save Data

Save Data File (optional)

☑ Use current input file

File Name: Sta. 2687+00 - Sign 56, 59, 70, 61.dat [Save Data]

Note: Select an output folder by using the "Change Folder" option above.

Data Initialization

Geometry Check Calculations

Preliminary Geometry Checks

$CheckLengt_{TrussPanel}$ = "OK"

$CheckClearance_{Wed}$ = "OK"

$CheckLayout_{SignPanel\_}$ = "OK"

$CheckOverlap_{Panel}$ = "OK"

$Check_{DMS}$ = "n/a"

3D Model Data

Wireframe Diagram

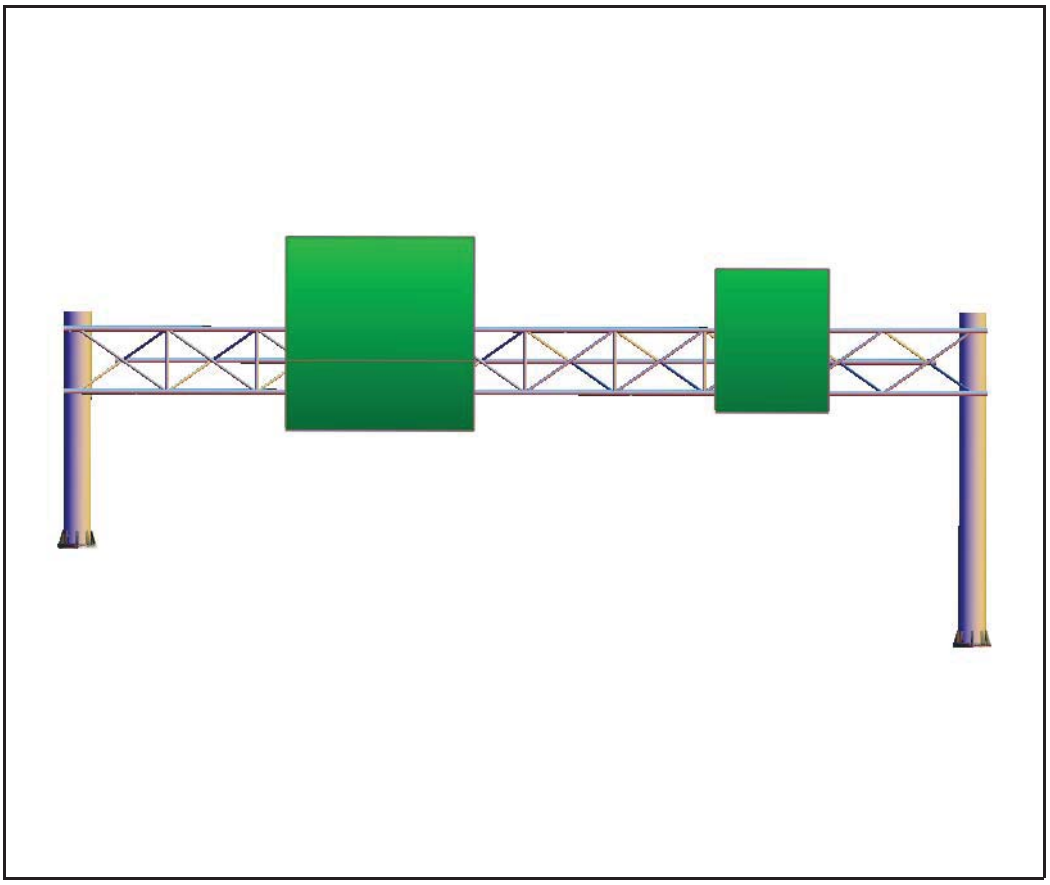
Design Forces

Fatigue Forces

Total Forces

Truss Diagram Data

Truss Diagram



Note: Use your mouse and keyboard to zoom in, zoom out or rotate the 3D plot above.
(See "Rotating, Spinning, or Zooming a 3D Plot" in Mathcad Help for instructions.)

3D Structural Analysis

Run Analysis

Note: A new analysis MUST be run after any change in program input.

PC-SAP Output Data

Design Check Calculations
Maximum Reactions
Results Output

Results

Sign Structure Geometry

(A) $L_{Truss} = 114.2\,ft$

(B) $H_{Left.Truss} = 23.73\,ft$

(C) $H_{Right.Truss} = 36.15\,ft$

(D) #TrussPanels = "10 @ 11' 5" (Total_Length = 114.2 ft.)"

(E) $D_{VerticalTruss} = 96 \cdot in$

$D_{HorzTruss} = 83.1384 \cdot in$

Sign Structure Members

(F) ChordMember = "8.625" O.D. Pipe, 0.500" Wall"

(G) WebMember = "Angle 6" x 6" x 5/8""

(H) $UprightMember_{Left}$ = "42" O.D. Pipe, 0.75" Wall"

(J) $UprightMember_{Right}$ = "42" O.D. Pipe, 0.75" Wall"

(K) Camber = "2-1/4""

CSR_{Chord} = "0.677 OK"

CSR_{Web} = "0.809 OK"

$CSR_{LeftUpright}$ = "0.44 OK"

$CSR_{RightUpright}$ = "0.563 OK"

Additional Design Checks

$Check_{WebSlenderness}$ = "OK"

$Check_{ChordSlenderness}$ = "OK"

$Check_{ChordElements}$ = "OK"

$Check_{SignHangers}$ = "Warning: Sign panel(s) may require additional vertical hangers."

$Check_{TrussDeflection}$ = "OK"

Max. Reactions at Base of Left Upright

$LongMom_{Lt} = 1140.000 \cdot kip \cdot ft$

$LongShear_{Lt} = 41.750 \cdot kip$

$TransMom_{Lt} = 291.833 \cdot kip \cdot ft$

$TransShear_{Lt} = 25.760 \cdot kip$

$Axial_{Lt} = 29.290 \cdot kip$

$Torque_{Lt} = 57.575 \cdot kip \cdot ft$

Max. Reactions at Base of Right Upright

$LongMom_{Rt} = 1477.500 \cdot kip \cdot ft$

$LongShear_{Rt} = 40.090 \cdot kip$

$TransMom_{Rt} = 342.333 \cdot kip \cdot ft$

$TransShear_{Rt} = 19.100 \cdot kip$

$Axial_{Rt} = 33.490 \cdot kip$

$Torque_{Rt} = 57.575 \cdot kip \cdot ft$

Splice Calculations

Gusset Plate Calculations

Truss Connection Calculations

Base Plate Calculations

Connection Output

Connection Values

Note: All truss bolted connections use A325 bolts, and upright anchor bolts are ASTM F1554. All welds are sized assuming E70xx electrodes.

Splice Connection

(SA) $Size_{Angle}$ = "Angle 8" x 8" x 1/2""

(SB) $\#Bolts_{Reqd.in.Splice}$ = "10"

(SC) $d_{BoltReqd.for.Splice}$ = "1" Dia."

CheckSpacing = "OK"

Alternate Flange Splice Connection

(PA) t_{Flange} = "2""

(PB) $Offset_{Bolt}$ = "3-1/4""

(PC) $Weld_{Inside}$ = "7/16""

(PD) $Weld_{Outside}$ = "1/2""

(PE) d_{Bolt} = "1-1/4""

(PF) #Bolts = "14"

Gusset Plates

(GA) t_{Gus} = "1""

(GB) $d_{GusBolt}$ = "1-1/2" Dia."

(GC) $L_{BackChordGus}$ = "2' 4-3/4""

(GD) $H_{BackChordGus}$ = "1' 1-1/2""

(GE) $L_{FrontChordGus}$ = "2' 3-1/2""

(GF) $H_{FrontChordGus}$ = "11-1/2""

(GG) $L_{CenterFrontGus}$ = "3' 9""

(GH) $L_{BackTrussEnd}$ = "3' 6""

(GJ) $H_{BackTrussEnd}$ = "1' 3-1/2""

(GK) $L_{FrontTrussEnd}$ = "2' 11-1/4""

(GL) $Weld_{Gusset.To.Chord}$ = "3/16""

$CheckThickness_{Gusset}$ = "OK"

Left Truss Connection

(LA) $d_{LtBolt.Reqd}$ = "7/8" Dia."

(LB) $\#Bolts_{LtReqd}$ = "6"

(LC) $t_{LtHorzConnPL}$ = "1/2""

(LD) $t_{LtVertConnPL}$ = "7/8""

(LE) $Weld_{LtHorzPLtoUpright}$ = "3/16""

(LF) $Weld_{LtVertPLtoUpright}$ = "1/4""

(LG) $Weld_{LtConnPLtoChord}$ = "3/16""

(LH) $Weld_{LtVertPLtoHorzPL}$ = "3/16""

Additional Left Truss Connection Checks

$CheckThickness_{LtHorz.Plate}$ = "OK"

$CheckThickness_{LtVert.Plate}$ = "OK"

$CheckThickness_{LtConn.Plate}$ = "OK"

$CheckThickness_{LtHorz.Vert}$ = "OK"

$Check_{LtHorzPL}$ = "OK"

$Check_{LtVertPL}$ = "OK"

$Check_{LtUpright}$ = "OK"

Right Truss Connection

(RA) $d_{RtBolt.Reqd}$ = "7/8" Dia."

(RB) $\#Bolts_{RtReqd}$ = "4"

(RC) $t_{RtHorzConnPL}$ = "1/2""

(RD) $t_{RtVertConnPL}$ = "7/8""

(RE) $Weld_{RtHorzPLtoUpright}$ = "3/16""

(RF) $Weld_{RtVertPLtoUpright}$ = "1/4""

(RG) $Weld_{RtConnPLtoChord}$ = "3/16""

(RH) $Weld_{RtVertPLtoHorzPL}$ = "3/16""

Additional Right Truss Connection Checks

$CheckThickness_{RtHorz.Plate}$ = "OK"

$CheckThickness_{RtVert.Plate}$ = "OK"

$CheckThickness_{RtConn.Plate}$ = "OK"

$CheckThickness_{RtHorz.Vert}$ = "OK"

$Check_{RtHorzPL}$ = "OK"

$Check_{RtVertPL}$ = "OK"

$Check_{RtUpright} = \text{"OK"}$

Left Base Connection

(BA) $d_{LtAnchor}$ = "2-1/2" Dia."

(BB) #AnchorLt = 12

(BC) t_{LtBase} = "1-1/2""

(BD) $t_{LtStiff}$ = "5/8""

(BE) $H_{LtStiff}$ = "2' 9-1/2""

(BF) $Weld_{LtBaseInside}$ = "5/16""

(BG) $Weld_{LtBaseOutside}$ = "5/16""

(BH) $Weld_{LtStifftoBase}$ = "5/16""

(BJ) $Weld_{LtStifftoUpright}$ = "1/4""

Right Base Connection

(CA) $d_{RtAnchor}$ = "2-1/2" Dia."

(CB) #AnchorRt = 12

(CC) t_{RtBase} = "1-3/4""

(CD) $t_{RtStiff}$ = "3/4""

(CE) $H_{RtStiff}$ = "2' 9-1/2""

(CF) $Weld_{RtBaseInside}$ = "5/16""

(CG) $Weld_{RtBaseOutside}$ = "5/16""

(CH) $Weld_{RtStifftoBase}$ = "3/8""

(CJ) $Weld_{RtStifftoUpright}$ = "1/4""

Additional Base Connection Checks

$CheckThicknessRatio_{LtStiff.to.Upright}$ = "OK"

$CheckThicknessRatio_{RtStiff.to.Upright}$ = "OK"

$CheckWeldSizeLimit_{LtBaseUpright.in}$ = "OK"

$CheckWeldSizeLimit_{LtBaseUpright.out}$ = "OK"

$CheckWeldSizeLimit_{RtBaseUpright.in}$ = "OK"

$CheckWeldSizeLimit_{RtBaseUpright.out}$ = "OK"

$CheckWeldSizeLimit_{LtStiffBase}$ = "OK"

$CheckWeldSizeLimit_{RtStiffBase}$ = "OK"

$CheckWeldSizeLimit_{LtStiffUpright}$ = "OK"

$CheckWeldSizeLimit_{RtStiffUpright}$ = "OK"

Fatigue Calculations

Fatigue Design Checks

Left Base Connection

CheckFatigue$_{LtUpright}$ = "OK (1.09 ksi < 7 ksi)"

CheckFatigue$_{LtBase}$ = "OK (0.75 ksi < 3.03 ksi)"

CheckFatigue$_{LtAnchor}$ = "OK (1.66 ksi < 7 ksi)"

Right Base Connection

CheckFatigue$_{RtUpright}$ = "OK (1.46 ksi < 7 ksi)"

CheckFatigue$_{RtBase}$ = "OK (0.9 ksi < 2.69 ksi)"

CheckFatigue$_{RtAnchor}$ = "OK (1.66 ksi < 7 ksi)"

Chord Member Connections

CheckFatigue$_{ChordSplice}$ = "OK (1.29 ksi < 7 ksi)"

CheckFatigue$_{ChordSlot}$ = "OK (0.15 ksi < 2.6 ksi)"

CheckFatigue$_{HalfChord}$ = "OK (0.13 ksi < 2.6 ksi)"

CheckFatigue$_{LtTrussBolt}$ = "OK (0.11 ksi < 7 ksi)"

CheckFatigue$_{RtTrussBolt}$ = "OK (0.1 ksi < 7 ksi)"

Gusset Plates

CheckFatigue$_{BackPlate}$ = "OK (0.05 ksi < 1.2 ksi)"

CheckFatigue$_{BackEndPlate}$ = "OK (0.07 ksi < 1.2 ksi)"

CheckFatigue$_{FrontPlate}$ = "OK (0.03 ksi < 1.2 ksi)"

CheckFatigue$_{FrontEndPlate}$ = "OK (0.04 ksi < 1.2 ksi)"

CheckFatigue$_{TopCenterPlate}$ = "OK (0.02 ksi < 1.2 ksi)"

CheckFatigue$_{BotCenterPlate}$ = "OK (0.01 ksi < 1.2 ksi)"

Web Members

CheckFatigue$_{Web}$ = "OK (0.59 ksi < 7 ksi)"

Drilled Shaft Calculations

Anchor Bolt Calculations

Drilled Shaft Design

Left Drilled Shaft Design Checks

$Check_{LtMassConcrete}$ = "OK"

$CheckSpacing_{LtLongReinf}$ = "OK"

$CheckCapacity_{LtLongReinf}$ = "OK"

$CheckShearTorsionComb_{Lt}$ = "OK"

$CheckMaxSpacing_{LtStirrup}$ = "OK"

Left Drilled Shaft Dimensions/Reinforcing

(DA) $L_{LtShaft} = 28.8\,ft$

(DB) $D_{LtShaft} = 6.0\,ft$

(DC) $d_{LtLongReinf}$ = "19 No. 14 bars evenly spaced"

(DD) $\#Spaces_{LtStirrup} = 40$

(DE) $Spacing_{LtShearStirrup} = 6.00 \cdot in$

Right Drilled Shaft Design Checks

$Check_{RtMassConcrete}$ = "OK"

$CheckSpacing_{RtLongReinf}$ = "OK"

$CheckCapacity_{RtLongReinf}$ = "OK"

$CheckShearTorsionComb_{Rt}$ = "OK"

$CheckMaxSpacing_{RtStirrup}$ = "OK"

Right Drilled Shaft Dimensions/Reinforcing

(FA) $L_{RtShaft} = 28.8\,ft$

(FB) $D_{RtShaft} = 6.0\,ft$

(FC) $d_{RtLongReinf}$ = "19 No. 14 bars evenly spaced"

(FD) $\#Spaces_{RtStirrup} = 40$

(FE) $Spacing_{RtShearStirrup} = 6.00 \cdot in$

Anchor Bolt Design

Anchor Bolt Lengths

(DF) $L_{LtAnchorEmbed} = 50 \cdot in$

(FF) $L_{RtAnchorEmbed} = 50 \cdot in$

Additional Anchor Bolt Checks

$CheckCapacity_{LtAnchor}$ = "OK"

$CheckBreakout_{LtAnchor} = "OK"$

$CheckCapacity_{RtAnchor} = "OK"$

$CheckBreakout_{RtAnchor} = "OK"$

$Spacing_{ClearLt} = 0.432 \cdot in$

$Spacing_{ClearRt} = 0.432 \cdot in$

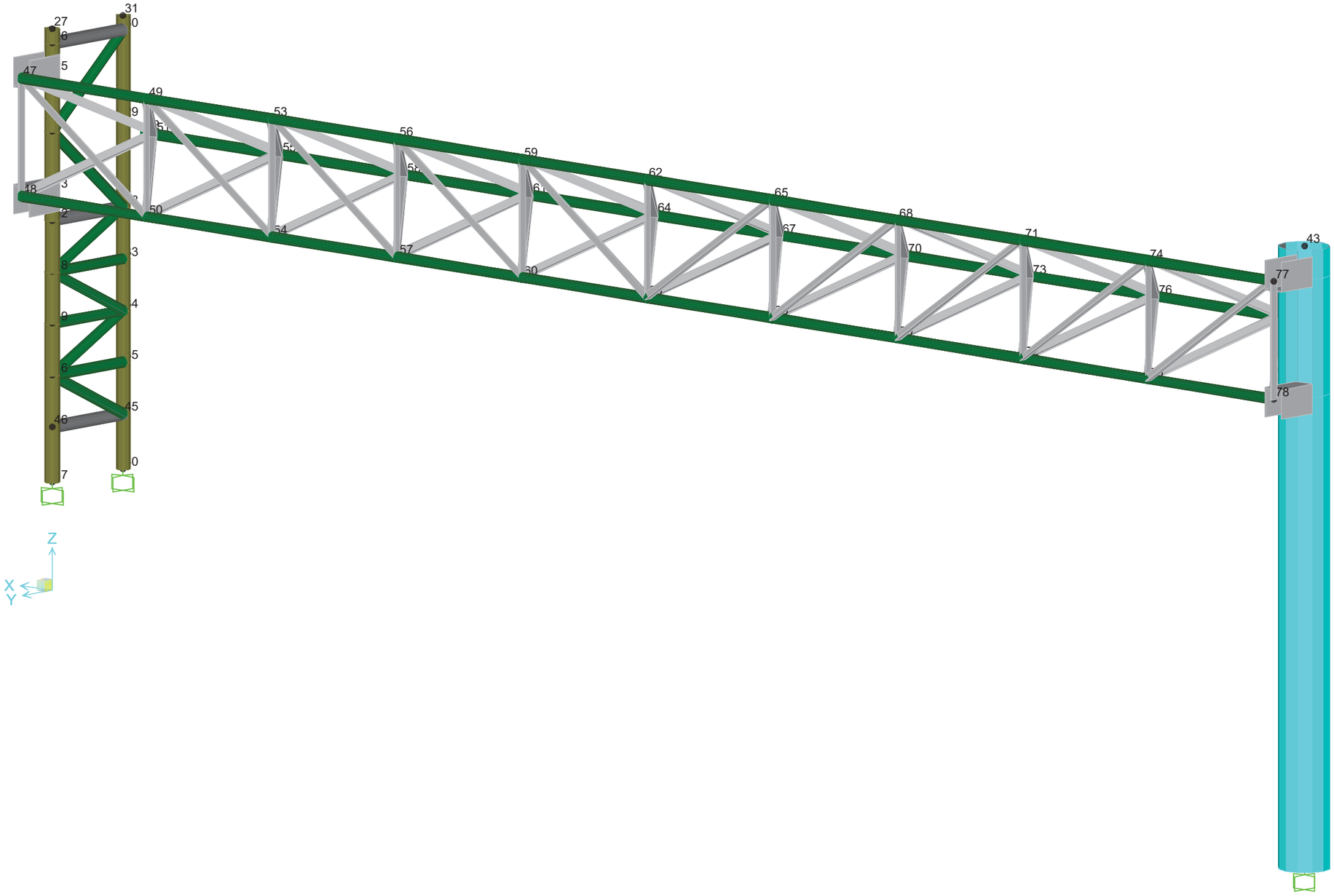
MicroStation Data

Create MicroStation Text File

☑ Use same name as current data file

File Name Sta. 2687+00 - Sign 56, 59, 70, 61.txt

Create MicroStation File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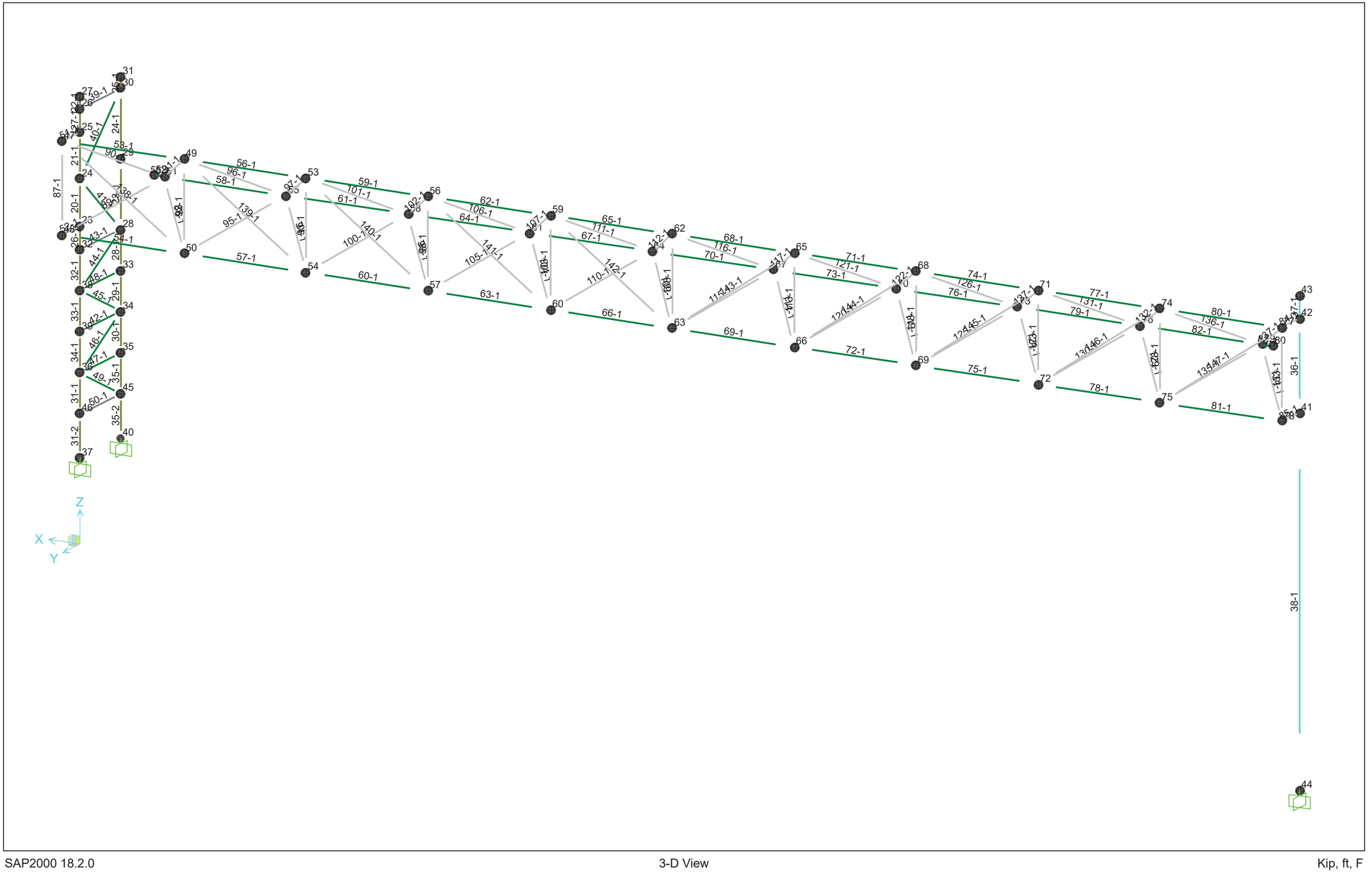
Y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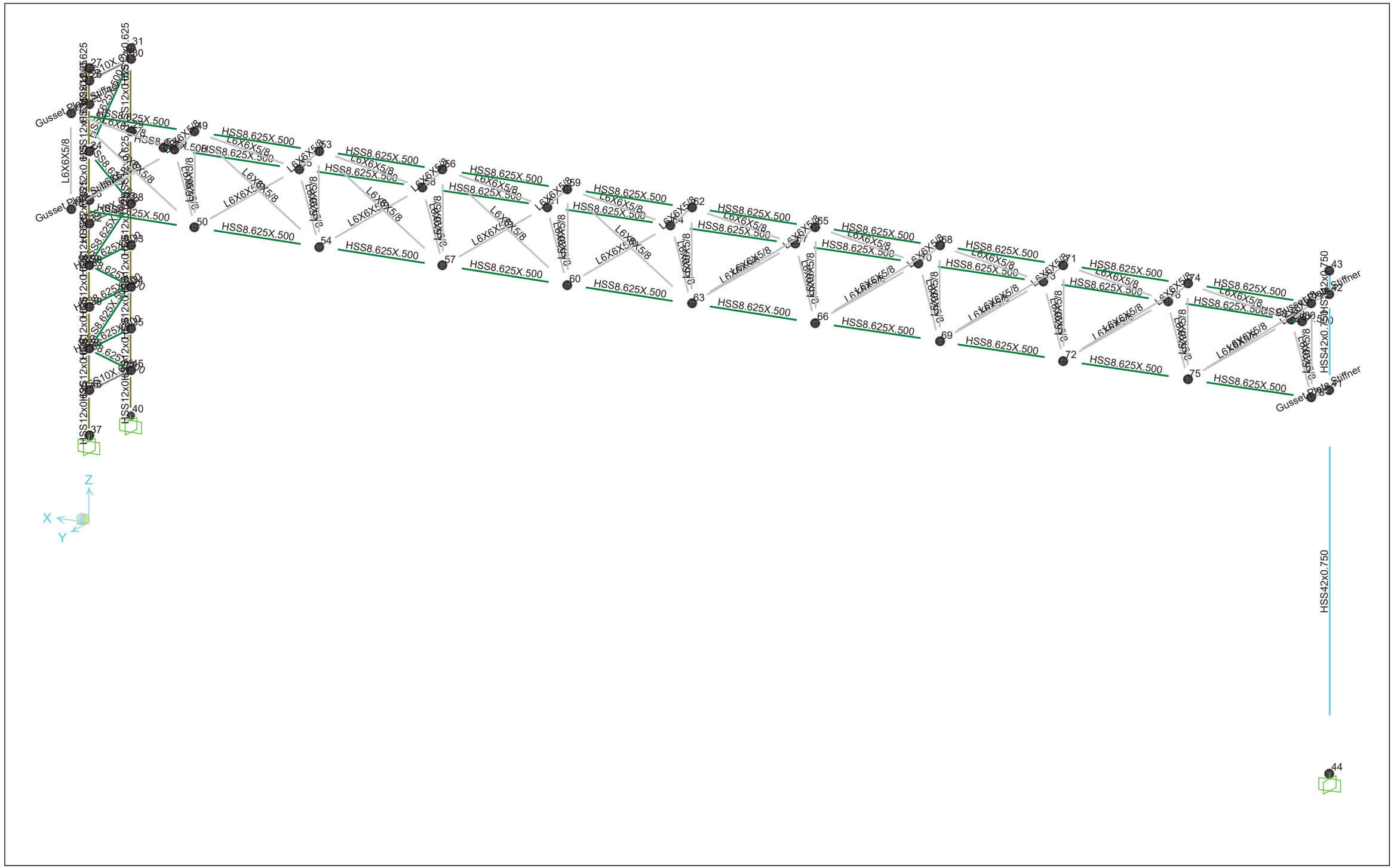
HSS8.625X.500
L6X6X5/8
HSS42x0.750
Gusset Plate Stiffner
Z
X
Y

cap engineering

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	

Sign Panel (1) Pressure

Kz =	1.09	**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cd =	1.12	**Table [3.8.6-1]**	
Lsign =	24		
Wsign =	24.7		
Lsign / Wsign =	0.97		
Pz =	80.16 (psf)		

cap engineering

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	

Sign Panel (2) Pressure

Kz =	1.09	**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cd =	1.12	**Table [3.8.6-1]**	
Lsign =	14.5		
Wsign =	18.3		
Lsign / Wsign =	0.8		
Pz =	80.16 (psf)		

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd		(psf)	**[3.8.1]**	
V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Upright				
Kz =	1.09		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*
d =	12	(in)		*Upright diameter*
Cv*V*d	150.0	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	32.21			
Force on Member =	0.032	(kip/ft)		

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd		(psf)	**[3.8.1]**	
V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Upright				
Kz =	1.09		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*
d =	42	(in)		*Upright diameter*
Cv*V*d	525.0	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	32.21			
Force on Member =	0.113	(kip/ft)		

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd		(psf)	**[3.8.1]**	
V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	

Upright Web 1

Kz =	1.09		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*
d =	10	(in)		*Web diameter*
Cv*V*d	125.0	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	32.21			
Force on Member =	0.027	(kip/ft)		

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Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd		(psf)	**[3.8.1]**	
V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	

Upright Web 2

Kz =	1.09		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*
d =	8.625	(in)		*Web diameter*
Cv*V*d	107.8	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	32.21			
Force on Member =	0.023	(kip/ft)		

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Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd		(psf)	**[3.8.1]**	
V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Exposed Chord				
Kz =	1.09		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*
d =	8.625	(in)		*Chord diameter*
Cv*V*d	107.8	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	32.21			
Force on Member =	0.023	(kip/ft)		

cap engineering

Calculated By: A.R.
Checked By: M.V.

Wind Load Calculations

I. References

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals, 6th Edition

II. Calculations

Pz = 0.00256 Kz G V^2 Ir Cd		(psf)	**[3.8.1]**	
V =	150	(mph)		
Ir =	1.00		**Table [3.8.3-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Truss Web (Angle)				
Kz =	1.09		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cd =	1.70		**Table [3.8.6-1]**	
Pz =	121.68			
Angle Size =	6.00	(in)		
Force on Member =	0.061	(kip/ft)		

CORPORATE
343 ALMERIA AVENUE
CORAL GABLES, FLORIDA 33134
(305) 448-1711 • FAX (305) 448-1712

cap engineering
www.capfla.com

BROWARD
3265 MERIDIAN PARKWAY • SUITE 100
WESTON, FLORIDA 33331
(954) 888-9882 • FAX (954) 888-9860

TITLE SPECIAL SIGN STRUCTURE - SIGNS 56, 59, 70, 61, STA. 2687+00. - WIND PRESSURES FOR SAP 2000

PROJECT NAME I-95 EXPRESS LANES, PHASE 3A-2 PROJECT # _____ SHEET 1 OF 2

BY A.R. CHECKED By: M.V. DATE 9/8/2016

PANEL (A1) = 80.16 (PSF)

WL = NODE (53) = (15.8')(2.0')(80.16) = 2.53 KIPS
DL = (15.8')(2.0')(5 PSF) = 0.16 KIPS

(54) = (8.9)(2.0)(80.16) = 1.43 KIPS
DL = 0.09 KIPS

(56) = (15.8)(5.7 + 11.4/2)(80.16) = 14.44 KIPS
DL = 0.9 KIPS

(57) = (8.9)(5.7 + 11.4/2)(80.16) = 8.13 KIPS

DL = 0.51 KIPS

(59) = (15.8)(11.4/2 + 4.9)(80.16) = 13.43 KIPS

DL = 0.84 KIPS

(60) = (8.9)(11.4/2 + 4.9)(80.16) = 7.6 KIPS

DL = 0.47 KIPS

PANEL (B1) = 80.16 (PSF)

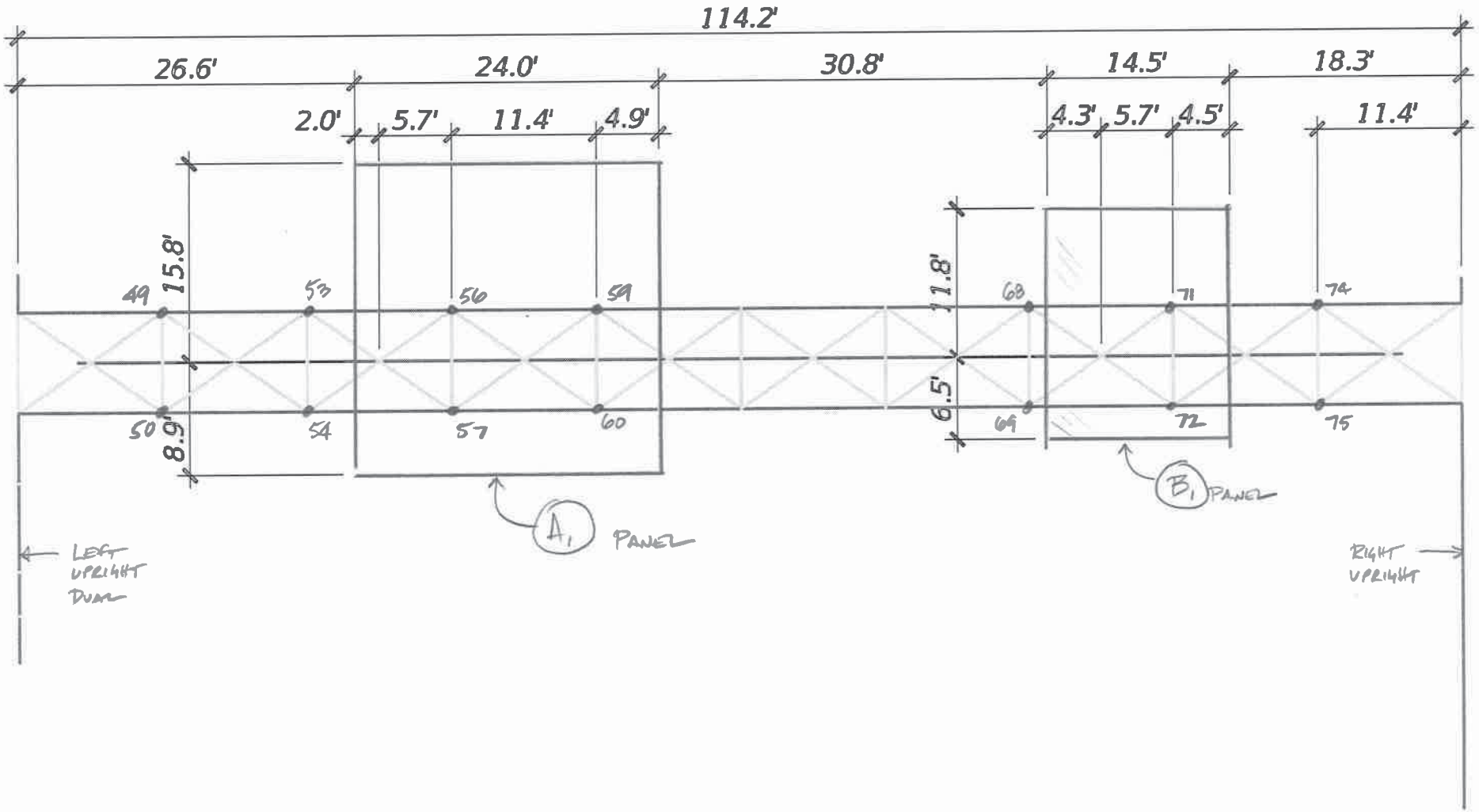
(68) = (4.3)(11.8)(80.16) = 4.07 KIPS

DL = 0.25 KIPS

(69) = (6.5)(4.3)(80.16) = 2.24 KIPS
DL = 0.14 KIPS

(71) = (5.7 + 4.5)(11.8)(80.16) = 9.65 KIPS
DL: 0.6 KIPS

(72) = (6.5)(5.7 + 4.5)(80.16) = 5.31 KIPS
DL: 0.33 KIPS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4.3'
5.7'
4.5'
11.4'
15.8'
8.9'
11.8'
6.5'
49
50
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56
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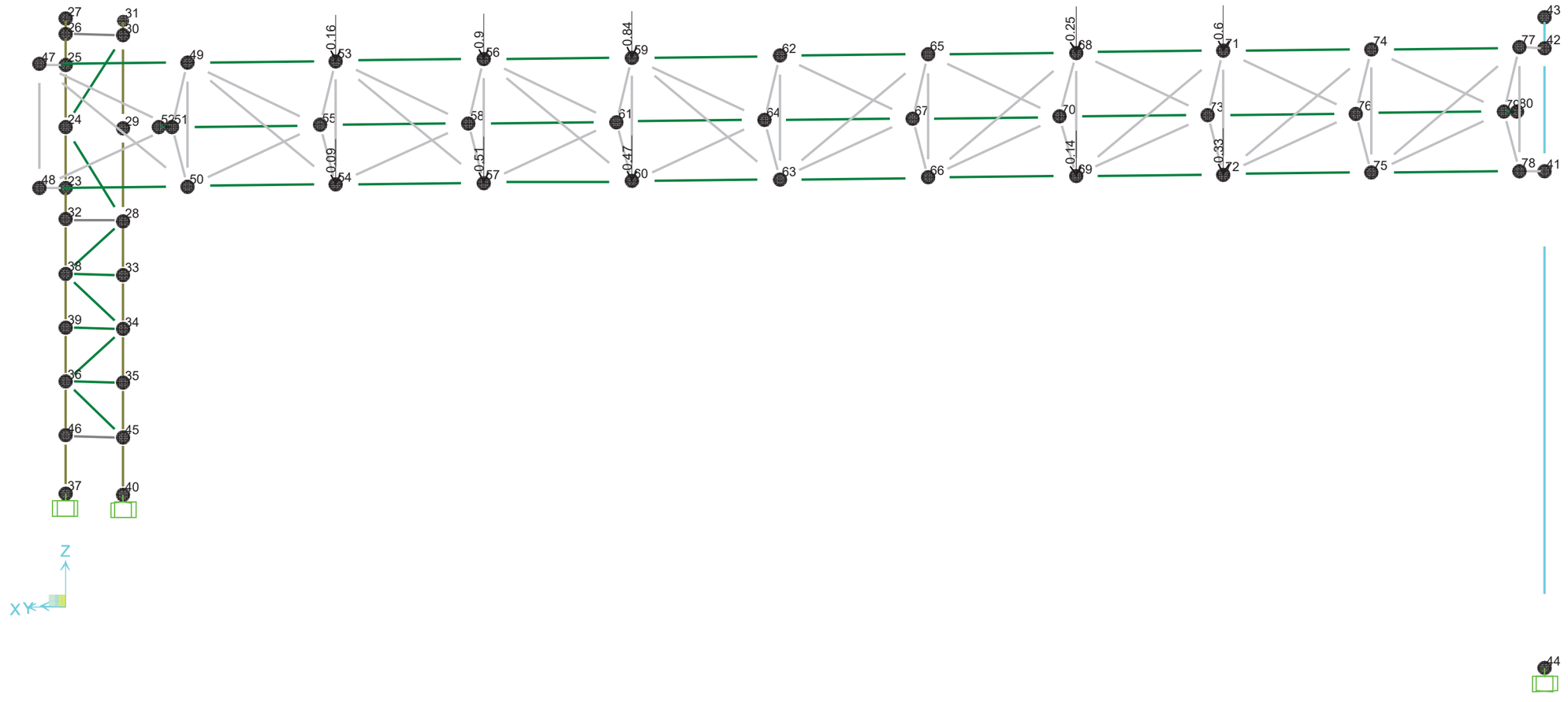
74
75
A1 PANEL
B1 PANEL
LEFT UPRIGHT DUAL
RIGHT UPRIGHT

2/2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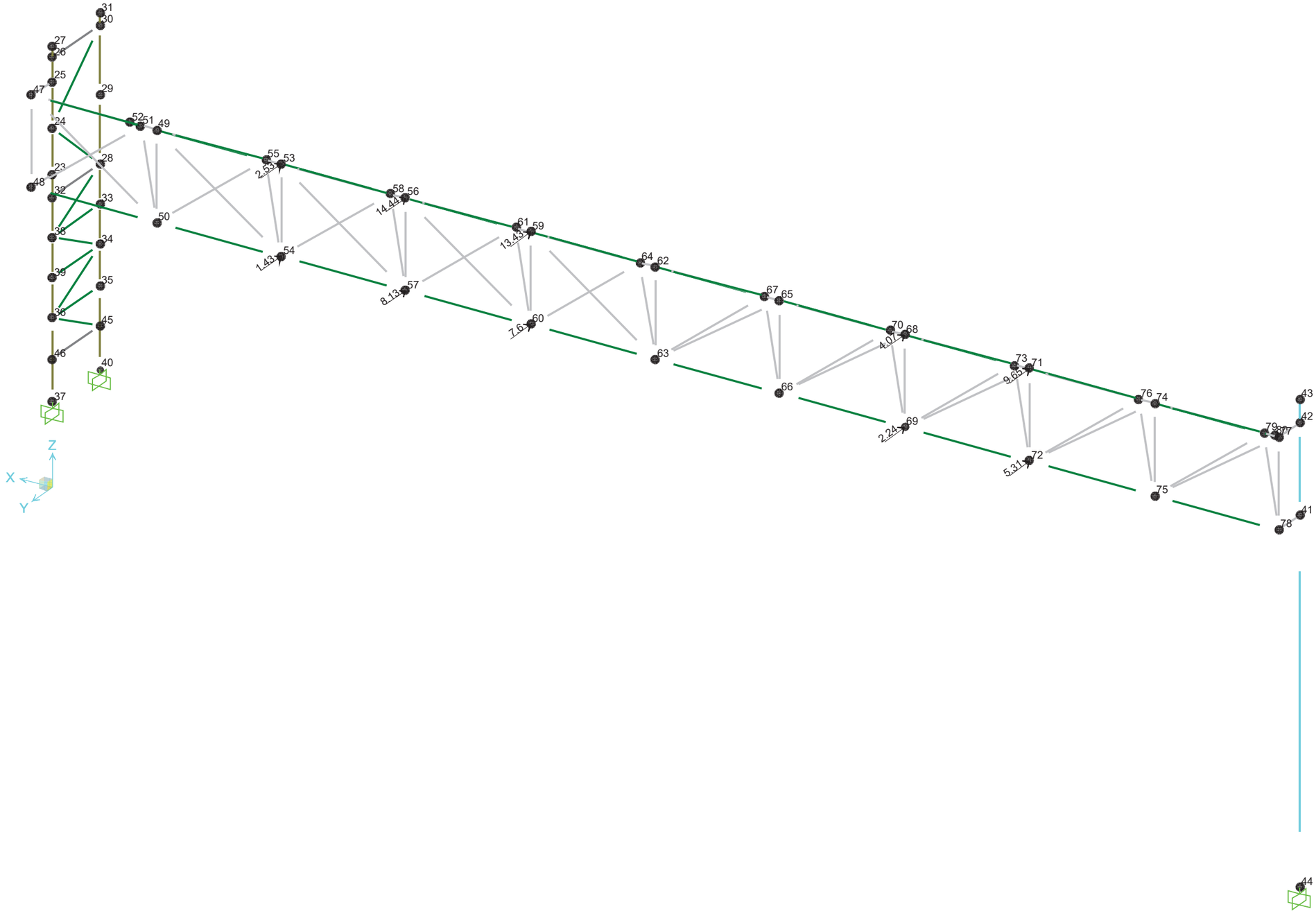
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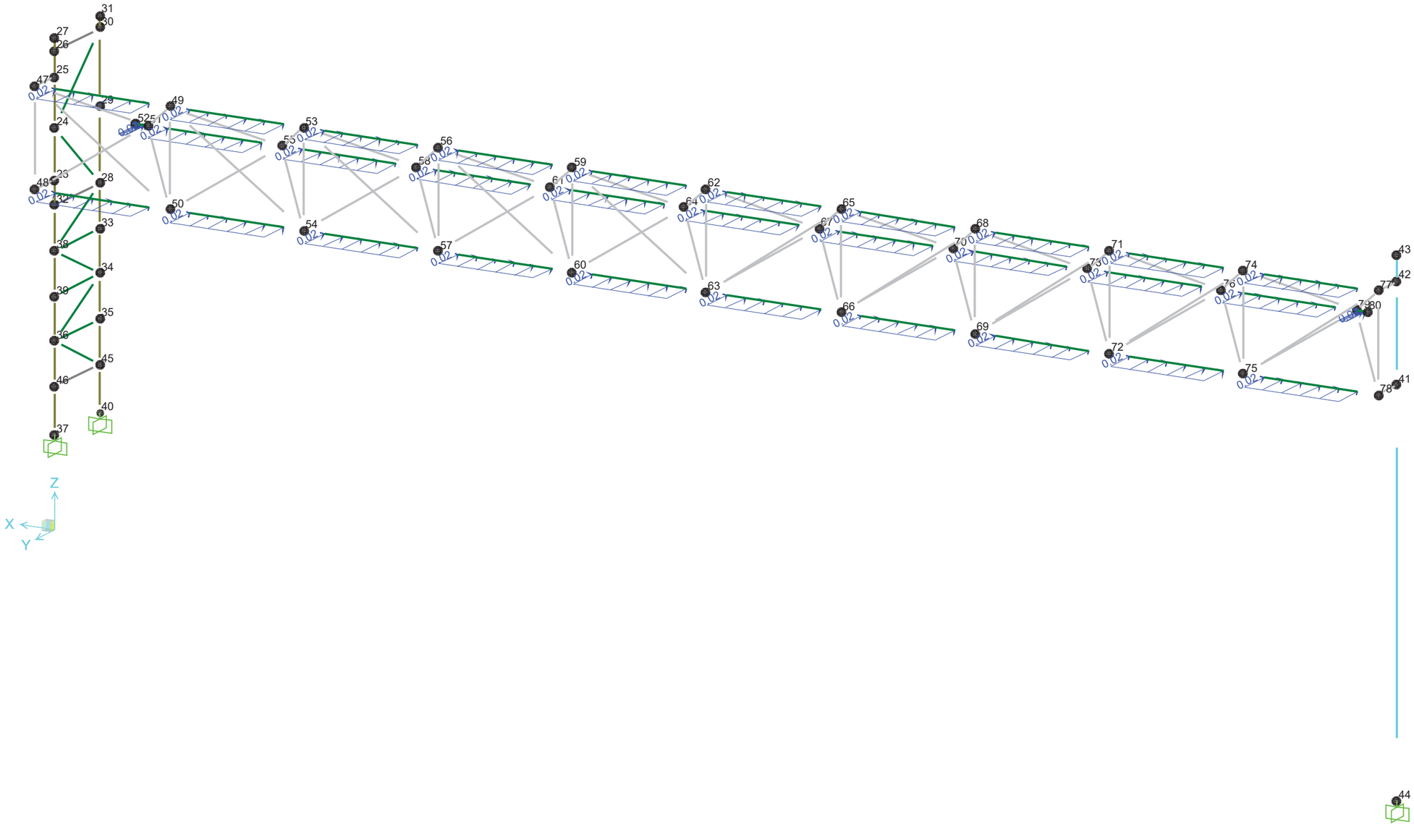
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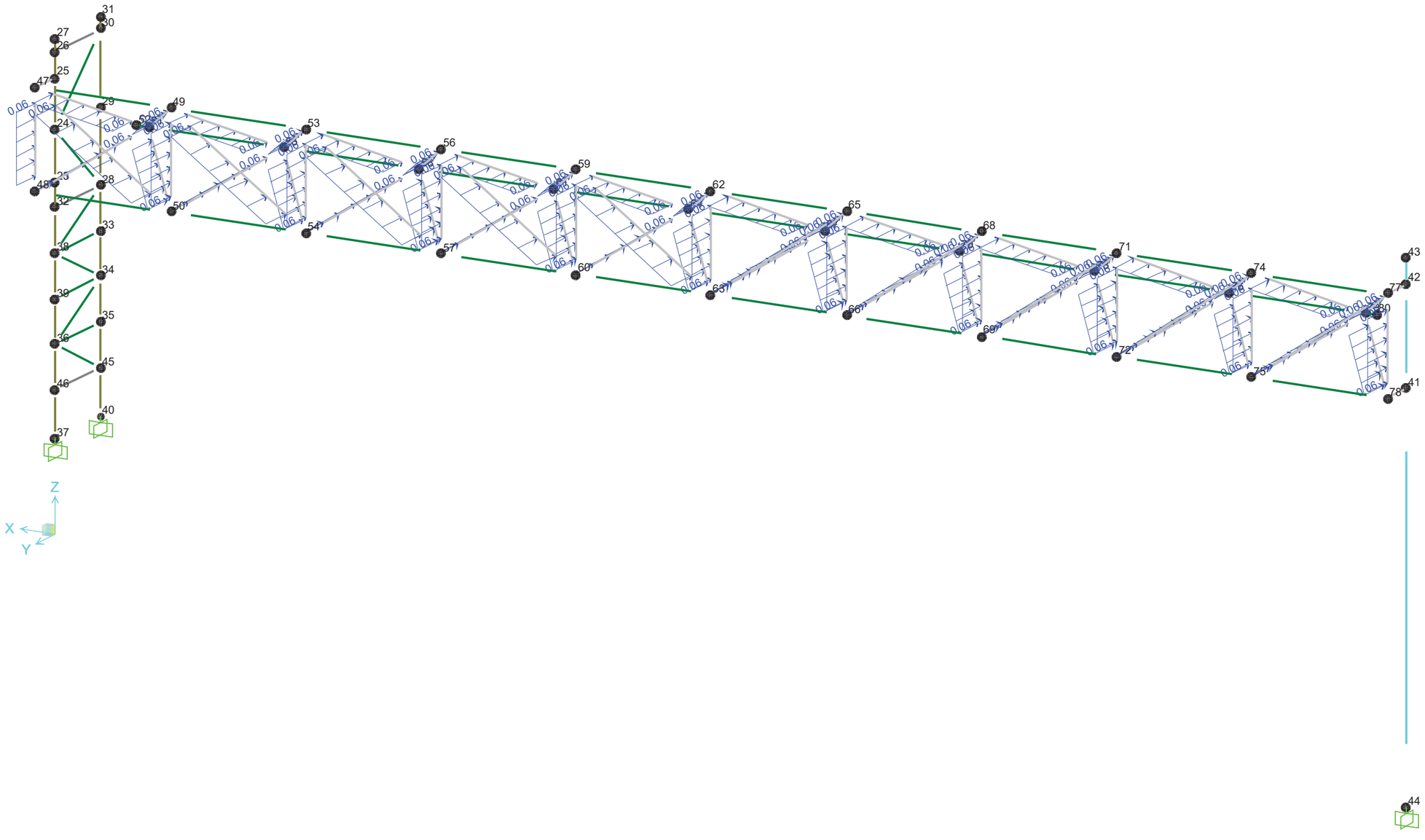
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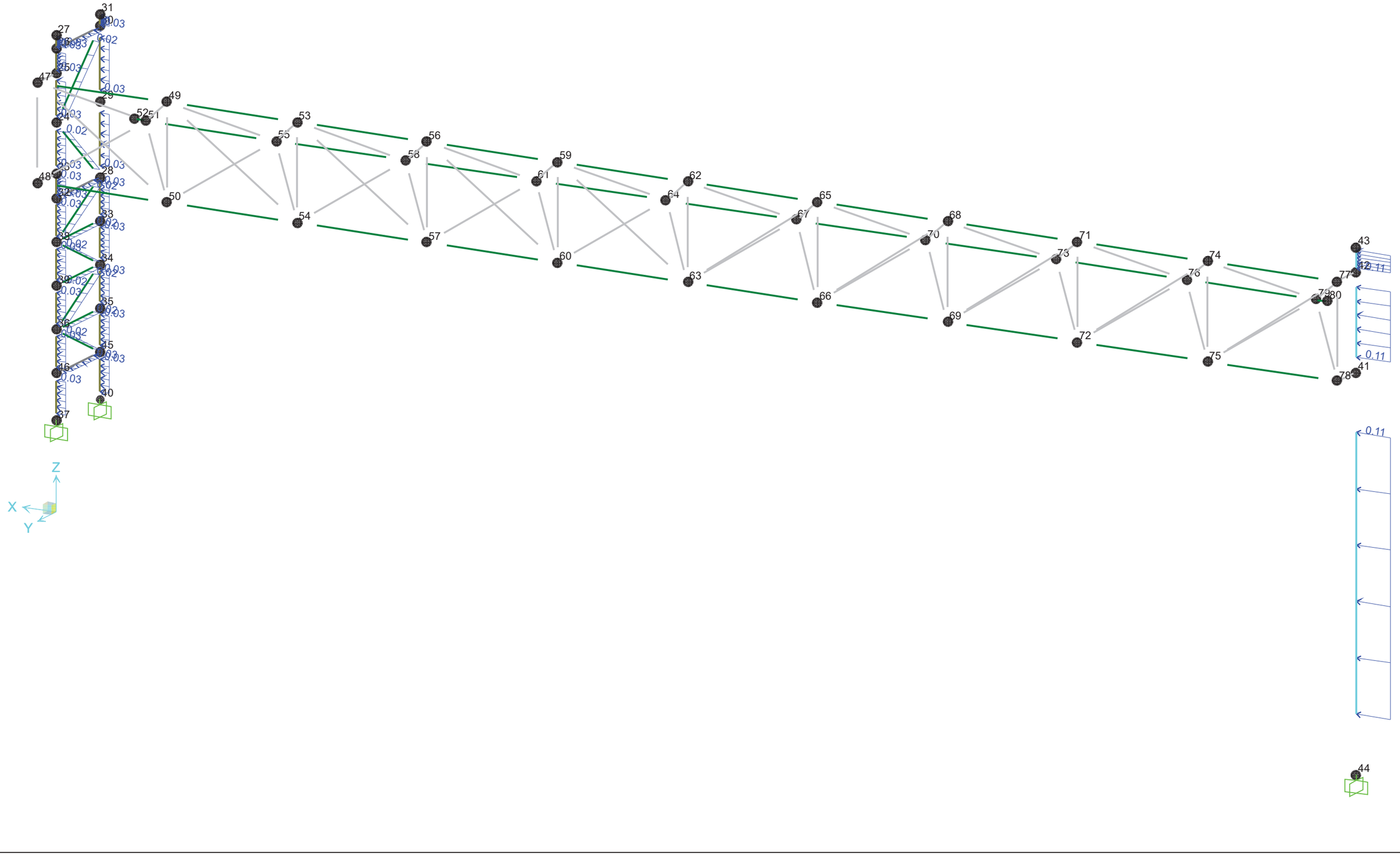
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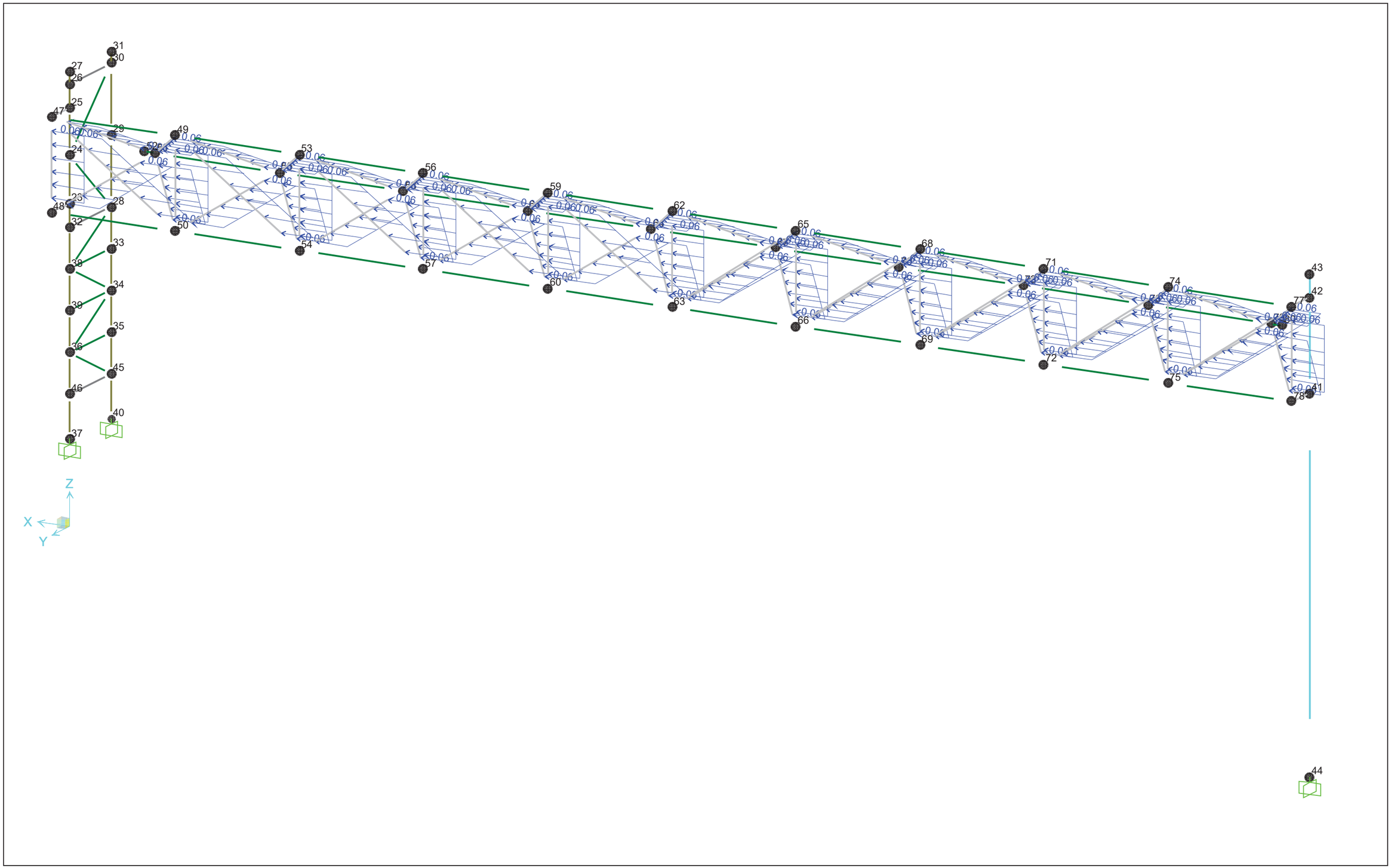
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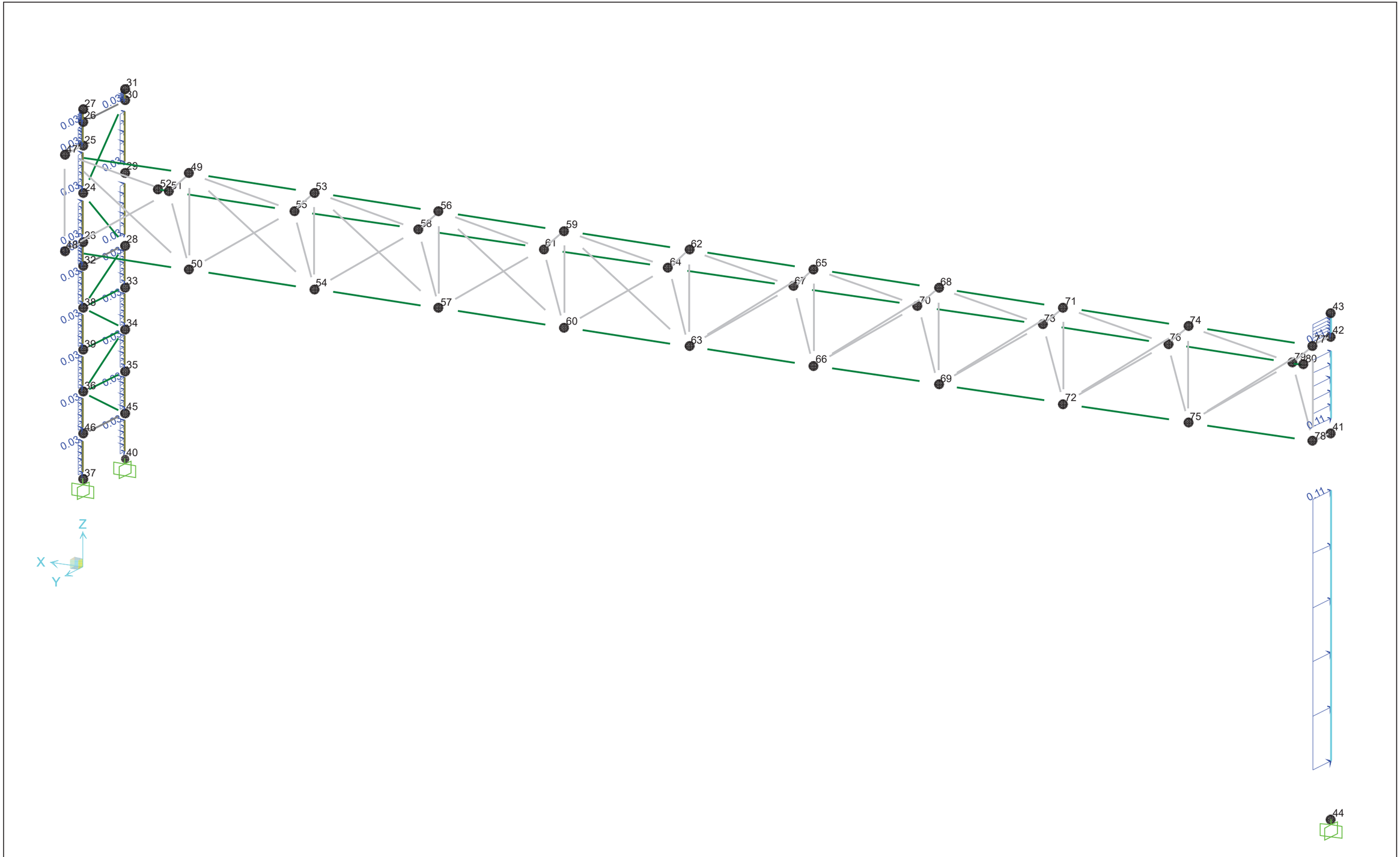
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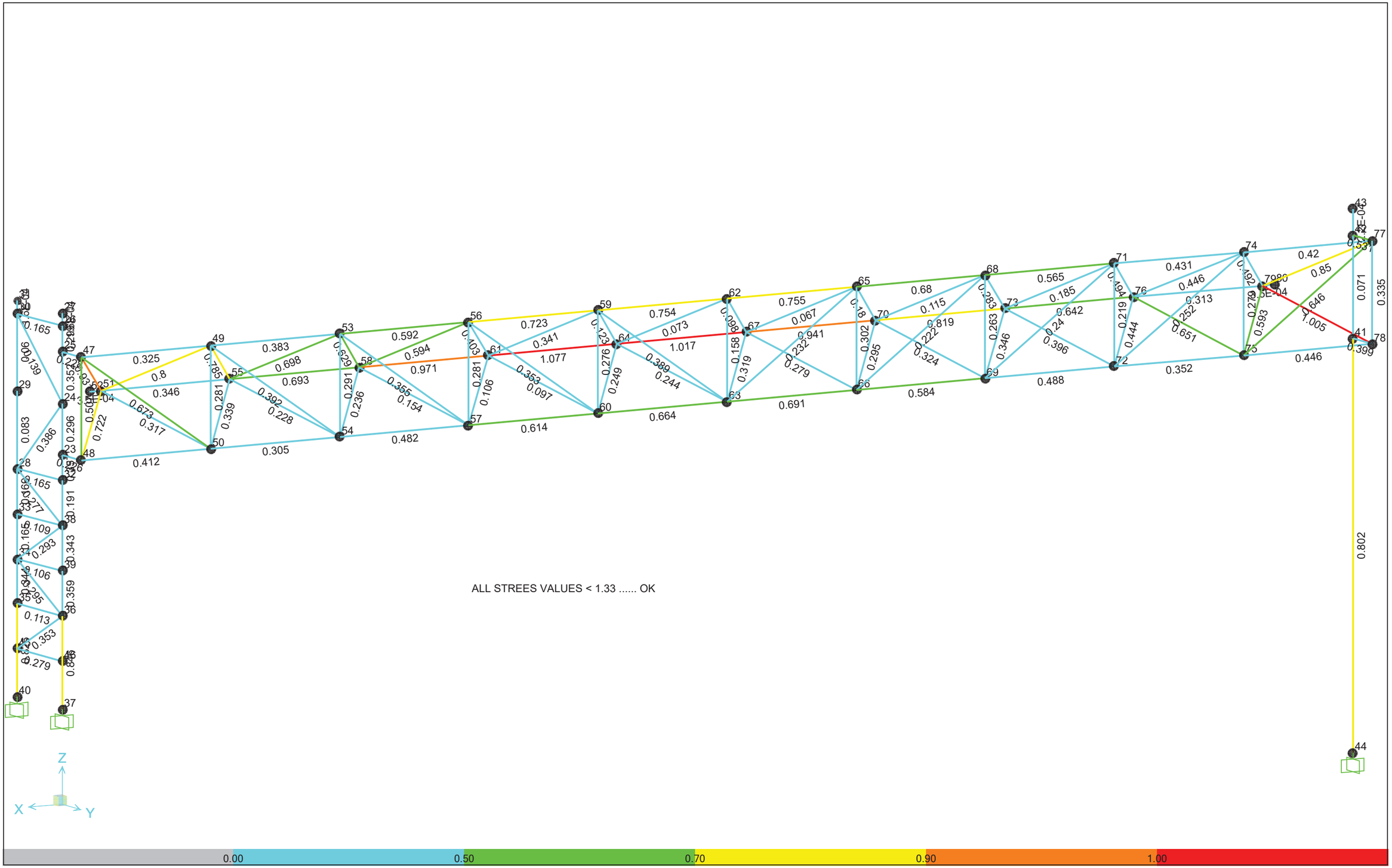
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Z
X
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0.90
1.00

TABLE: Element Joint Forces - Frames

Frame	Joint	OutputCase	CaseType	F1	F2	F3	M1	M2	M3	FrameElem
Text	Text	Text	Text	Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft	Text
51	25	DEAD	LinStatic	2.429	2.969	7.709	18.9408	-3.2189	-5.1366	51-1
51	47	DEAD	LinStatic	-2.429	-2.969	-7.173	3.3811	3.2189	-2.1512	51-1
51	25	UPRIGHT (FRONT)	LinStatic	0.005495	0.322	-0.02	-0.1069	-0.0082	-0.2319	51-1
51	47	UPRIGHT (FRONT)	LinStatic	-0.005495	-0.322	0.02	0.0456	0.0082	0.2154	51-1
51	25	CHORD (FRONT)	LinStatic	-0.061	2.348	-0.072	-0.1889	0.0954	-1.2185	51-1
51	47	CHORD (FRONT)	LinStatic	0.061	-2.348	0.072	-0.0269	-0.0954	1.402	51-1
51	25	TRUSS WEB (FRONT)	LinStatic	-0.32	11.806	-0.695	-0.4488	0.5003	-5.9451	51-1
51	47	TRUSS WEB (FRONT)	LinStatic	0.32	-11.806	0.695	-1.6366	-0.5003	6.904	51-1
51	25	SIGN PANEL (FRONT)	LinStatic	-0.659	28.068	-0.883	-2.8284	0.9885	-13.2882	51-1
51	47	SIGN PANEL (FRONT)	LinStatic	0.659	-28.068	0.883	0.18	-0.9885	15.2651	51-1
51	25	DEAD SIGN PANEL	LinStatic	0.461	-0.124	1.179	3.1783	-0.6125	-0.9093	51-1
51	47	DEAD SIGN PANEL	LinStatic	-0.461	0.124	-1.179	0.3589	0.6125	-0.4723	51-1
51	25	UPRIGHT (-X)	LinStatic	2.022	-0.067	0.263	-0.3427	-2.7845	-1.6805	51-1
51	47	UPRIGHT (-X)	LinStatic	-2.022	0.067	-0.263	1.1308	2.7845	-4.3848	51-1
51	25	TRUSS WEB (-X)	LinStatic	9.112	0.545	1.355	0.7555	-12.274	-25.3146	51-1
51	47	TRUSS WEB (-X)	LinStatic	-9.112	-0.545	-1.355	3.3082	12.274	-2.0212	51-1
51	25	DL + WL (FRONT) + (-X)	Combination	4.082	45.484	7.541	18.6286	-5.267	-32.1285	51-1
51	47	DL + WL (FRONT) + (-X)	Combination	-4.082	-45.484	-7.005	3.1899	5.267	19.8817	51-1
51	25	DL + WL (SIDE)	Combination	14.024	3.323	10.505	22.5318	-18.8898	-33.041	51-1
51	47	DL + WL (SIDE)	Combination	-14.024	-3.323	-9.969	8.179	18.8898	-9.0295	51-1
51	25	DL + WL (BACK) + (-X)	Combination	6.151	-39.602	10.881	25.7746	-8.4191	9.2387	51-1
51	47	DL + WL (BACK) + (-X)	Combination	-6.151	39.602	-10.345	6.0657	8.4191	-27.6912	51-1
51	25	DEAD + DL (SIGN PANEL)	Combination	2.89	2.845	8.888	22.1191	-3.8314	-6.0459	51-1
51	47	DEAD + DL (SIGN PANEL)	Combination	-2.89	-2.845	-8.352	3.74	3.8314	-2.6235	51-1
52	23	DEAD	LinStatic	-3.469	-2.974	7.355	18.8916	-4.5807	6.0122	52-1
52	48	DEAD	LinStatic	3.469	2.974	-6.819	2.3691	4.5807	4.3945	52-1
52	23	UPRIGHT (FRONT)	LinStatic	-0.013	-0.311	0.022	0.0154	-0.0203	-0.1305	52-1
52	48	UPRIGHT (FRONT)	LinStatic	0.013	0.311	-0.022	0.0513	0.0203	0.169	52-1
52	23	CHORD (FRONT)	LinStatic	0.072	1.305	0.07	0.1707	0.0945	-1.6898	52-1
52	48	CHORD (FRONT)	LinStatic	-0.072	-1.305	-0.07	0.0391	-0.0945	1.4744	52-1
52	23	TRUSS WEB (FRONT)	LinStatic	0.385	6.452	0.685	0.9269	0.5057	-7.836	52-1
52	48	TRUSS WEB (FRONT)	LinStatic	-0.385	-6.452	-0.685	1.1287	-0.5057	6.6825	52-1
52	23	SIGN PANEL (FRONT)	LinStatic	0.796	8.286	0.842	1.3599	0.9976	-16.6919	52-1
52	48	SIGN PANEL (FRONT)	LinStatic	-0.796	-8.286	-0.842	1.1653	-0.9976	14.3032	52-1
52	23	DEAD SIGN PANEL	LinStatic	-0.653	0.122	1.047	2.9293	-0.8643	1.0375	52-1
52	48	DEAD SIGN PANEL	LinStatic	0.653	-0.122	-1.047	0.2112	0.8643	0.9225	52-1
52	23	UPRIGHT (-X)	LinStatic	-0.768	0.029	-0.038	-0.3563	-0.939	3.358	52-1
52	48	UPRIGHT (-X)	LinStatic	0.768	-0.029	0.038	0.2419	0.939	-1.0545	52-1
52	23	TRUSS WEB (-X)	LinStatic	-16.256	-0.915	0.62	0.599	-22.0292	28.7933	52-1
52	48	TRUSS WEB (-X)	LinStatic	16.256	0.915	-0.62	1.2619	22.0292	19.974	52-1
52	23	DL + WL (FRONT) + (-X)	Combination	-6.287	12.704	10.137	24.3424	-8.4612	-12.8682	52-1
52	48	DL + WL (FRONT) + (-X)	Combination	6.287	-12.704	-9.601	5.2654	8.4612	31.7299	52-1
52	23	DL + WL (SIDE)	Combination	-21.146	-3.737	8.984	22.0636	-28.4133	39.201	52-1
52	48	DL + WL (SIDE)	Combination	21.146	3.737	-8.448	4.084	28.4133	24.2365	52-1
52	23	DL + WL (BACK) + (-X)	Combination	-8.767	-18.762	6.899	19.3966	-11.6162	39.8281	52-1
52	48	DL + WL (BACK) + (-X)	Combination	8.767	18.762	-6.363	0.4965	11.6162	-13.5281	52-1
52	23	DEAD + DL (SIGN PANEL)	Combination	-4.122	-2.851	8.402	21.8209	-5.445	7.0497	52-1
52	48	DEAD + DL (SIGN PANEL)	Combination	4.122	2.851	-7.866	2.5802	5.445	5.317	52-1
84	42	DEAD	LinStatic	-8.665	4.956	9.266	30.1218	12.0999	25.5337	84-1
84	77	DEAD	LinStatic	8.665	-4.956	-8.73	-3.1282	-12.0999	0.4601	84-1
84	42	UPRIGHT (FRONT)	LinStatic	0.037	-0.333	0.142	0.3965	-0.057	-0.6219	84-1
84	77	UPRIGHT (FRONT)	LinStatic	-0.037	0.333	-0.142	0.0309	0.057	0.5119	84-1
84	42	CHORD (FRONT)	LinStatic	0.016	1.375	0.723	2.5469	-0.022	2.0053	84-1
84	77	CHORD (FRONT)	LinStatic	-0.016	-1.375	-0.723	-0.3777	0.022	-2.0528	84-1
84	42	TRUSS WEB (FRONT)	LinStatic	0.094	6.928	3.379	13.467	-0.1303	9.4112	84-1
84	77	TRUSS WEB (FRONT)	LinStatic	-0.094	-6.928	-3.379	-3.331	0.1303	-9.6918	84-1
84	42	SIGN PANEL (FRONT)	LinStatic	-0.267	16.363	6.551	23.2634	0.4395	22.9992	84-1
84	77	SIGN PANEL (FRONT)	LinStatic	0.267	-16.363	-6.551	-3.6095	-0.4395	-22.1982	84-1

84	42	DEAD SIGN PANEL	LinStatic	-1.578	0.239	1.276	4.537	2.2094	4.6246	84-1
84	77	DEAD SIGN PANEL	LinStatic	1.578	-0.239	-1.276	-0.7086	-2.2094	0.1095	84-1
84	42	UPRIGHT (-X)	LinStatic	2.889	-0.419	-0.316	-2.0306	-4.0664	-8.6391	84-1
84	77	UPRIGHT (-X)	LinStatic	-2.889	0.419	0.316	1.0821	4.0664	-0.0287	84-1
84	42	TRUSS WEB (-X)	LinStatic	15.847	-3.955	-3.509	-18.4666	-21.9937	-51.4112	84-1
84	77	TRUSS WEB (-X)	LinStatic	-15.847	3.955	3.509	7.941	21.9937	3.8698	84-1
84	42	DL + WL (FRONT) + (-X)	Combination	-6.616	28.654	20.573	70.2332	9.3275	51.942	84-1
84	77	DL + WL (FRONT) + (-X)	Combination	6.616	-28.654	-20.037	-9.3196	-9.3275	-32.0932	84-1
84	42	DL + WL (SIDE)	Combination	8.494	0.821	6.717	14.1616	-11.7507	-29.8921	84-1
84	77	DL + WL (SIDE)	Combination	-8.494	-0.821	-6.181	5.1863	11.7507	4.4106	84-1
84	42	DL + WL (BACK) + (-X)	Combination	-6.374	-20.013	-1.019	-9.1145	8.8671	-15.6457	84-1
84	77	DL + WL (BACK) + (-X)	Combination	6.374	20.013	1.554	5.255	-8.8671	34.7687	84-1
84	42	DEAD + DL (SIGN PANEL)	Combination	-10.243	5.195	10.542	34.6588	14.3093	30.1582	84-1
84	77	DEAD + DL (SIGN PANEL)	Combination	10.243	-5.195	-10.006	-3.8369	-14.3093	0.5696	84-1
85	41	DEAD	LinStatic	9.704	-4.952	6.358	21.8524	13.5882	-25.8896	85-1
85	78	DEAD	LinStatic	-9.704	4.952	-5.822	-3.582	-13.5882	-3.2231	85-1
85	41	UPRIGHT (FRONT)	LinStatic	-0.029	0.322	-0.144	-0.3928	-0.0468	-0.254	85-1
85	78	UPRIGHT (FRONT)	LinStatic	0.029	-0.322	0.144	-0.0401	0.0468	0.3421	85-1
85	41	CHORD (FRONT)	LinStatic	-0.026	2.301	-0.721	-2.0635	-0.0325	2.1865	85-1
85	78	CHORD (FRONT)	LinStatic	0.026	-2.301	0.721	-0.0997	0.0325	-2.1071	85-1
85	41	TRUSS WEB (FRONT)	LinStatic	-0.158	11.427	-3.369	-10.5278	-0.2039	9.9236	85-1
85	78	TRUSS WEB (FRONT)	LinStatic	0.158	-11.427	3.369	0.4216	0.2039	-9.4484	85-1
85	41	SIGN PANEL (FRONT)	LinStatic	0.13	16.112	-6.51	-19.3023	0.2949	20.1515	85-1
85	78	SIGN PANEL (FRONT)	LinStatic	-0.13	-16.112	6.51	-0.2285	-0.2949	-20.5406	85-1
85	41	DEAD SIGN PANEL	LinStatic	1.771	-0.237	0.788	3.1428	2.4852	-4.5847	85-1
85	78	DEAD SIGN PANEL	LinStatic	-1.771	0.237	-0.788	-0.7788	-2.4852	-0.7277	85-1
85	41	UPRIGHT (-X)	LinStatic	-4.143	0.457	0.092	-1.1626	-5.8623	11.2932	85-1
85	78	UPRIGHT (-X)	LinStatic	4.143	-0.457	-0.092	1.4375	5.8623	1.1364	85-1
85	41	TRUSS WEB (-X)	LinStatic	-45.317	4.325	1.534	-10.1665	-64.3674	119.6998	85-1
85	78	TRUSS WEB (-X)	LinStatic	45.317	-4.325	-1.534	14.7675	64.3674	16.2506	85-1
85	41	DL + WL (FRONT) + (-X)	Combination	1.499	25.929	-3.273	-9.5569	2.0391	27.7319	85-1
85	78	DL + WL (FRONT) + (-X)	Combination	-1.499	-25.929	3.809	-1.0664	-2.0391	-32.2275	85-1
85	41	DL + WL (SIDE)	Combination	-37.985	-0.407	8.771	13.6661	-54.1564	100.5187	85-1
85	78	DL + WL (SIDE)	Combination	37.985	0.407	-8.235	11.8442	54.1564	13.4363	85-1
85	41	DL + WL (BACK) + (-X)	Combination	1.668	-34.394	18.216	55.0157	2.0157	-36.2833	85-1
85	78	DL + WL (BACK) + (-X)	Combination	-1.668	34.394	-17.68	-1.1731	-2.0157	31.2808	85-1
85	41	DEAD + DL (SIGN PANEL)	Combination	11.475	-5.189	7.146	24.9952	16.0734	-30.4743	85-1
85	78	DEAD + DL (SIGN PANEL)	Combination	-11.475	5.189	-6.61	-4.3607	-16.0734	-3.9507	85-1

TRUSS TO UPRIGHT CONNECTION

Truss Connection Calculations

Design Truss-to-Upright Connections

Connection Output

Get Design Forces for the Truss-to-Upright Connection Elements

Design forces for the truss-to-upright connection elements are obtained from the SAP output data computed during the 3D frame analysis.

Conn_Horz_Shear := 45.317kip

Conn_Vert_Shear := 20.573kip

Conn_Axial_Force := 45.484kip

Upright_Diameter := 12in

Upright_Thickness := 0.625in

Fy_Upright := 42ksi

Vert_Depth := 8ft

Chord_Diameter := 8.625in

E := 29000·ksi

Gs := 11200·ksi

Determine Required Bolt Size and Number of Bolts for Connection Plates

The truss-to-upright bolted connections are designed in accordance with AASHTO Standard Specifications for Highway Bridges, 17th Edition (2002). Bolts used will be 7/8" diameter or 1" diameter, as required. Bolt spacing is 3.5" per FDOT Design Standards.

$$\text{Truss\_Bolt\_Data} := \begin{pmatrix} \text{"Bolt Type"} & \text{"Diameter (in)"} & \text{"Area (in^2)"} \\ 1 & 1.000 & 0.7854 \\ 2 & 1.250 & 1.2272 \end{pmatrix}$$

[AISC Table I-D]

Min_Truss_Bolt_Type := 1

Bolt_Props :=

HorzShear ← Conn_Horz_Shear

VertShear ← Conn_Vert_Shear

AxialForce ← Conn_Axial_Force

ConnLen ← 0·in

MaxConnLen ← Upright_Diameter + 2·in

$F_v \leftarrow (19 \cdot ksi)$ [AASHTO Bridge Table 10.32.3B; AASHTO Table 3.4-1]

$F_t \leftarrow (38 \cdot ksi)$

if Min_Truss_Bolt_Type = 1

"Design Connection Using 7/8" Diameter Bolts"

BoltType ← 1

$A_{bolt} \leftarrow Truss\_Bolt\_Data_{BoltType,2} \cdot in^2$

$F_{v\_bolt} \leftarrow A_{bolt} \cdot F_v$

"Design for Shear"

$MaxShearForce \leftarrow \sqrt{HorzShear^2 + AxialForce^2}$

$NumBolts \leftarrow \frac{MaxShearForce}{F_{v\_bolt}}$

$NumBolts \leftarrow Ceil(round(NumBolts, 5), 2)$

"Check Tension" *use even number of bolts*

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$$ [AASHTO Bridge Eq. 10-16]

while $f_t > F'_t$ [AASHTO Bridge Eq. 10-17]

NumBolts ← NumBolts + 2

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$$

"Set Minimum Number of Bolts"

NumBolts ← 4 if NumBolts < 4

ConnLen ← NumBolts·(1.75·in)

if Min_Truss_Bolt_Type = 2 ∨ ConnLen > MaxConnLen

"Design Connection Using 1" Diameter Bolts"

BoltType ← 2

$A_{bolt} \leftarrow Truss\_Bolt\_Data_{BoltType,2} \cdot in^2$

$F_{v\_bolt} \leftarrow A_{bolt} \cdot F_v$

"Design for Shear"

$MaxShearForce \leftarrow \sqrt{HorzShear^2 + AxialForce^2}$

$NumBolts \leftarrow \frac{MaxShearForce}{F_{v\_bolt}}$

$NumBolts \leftarrow Ceil(round(NumBolts, 5), 2)$

"Check Tension"

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$$

while $f_t > F'_t$

$NumBolts \leftarrow NumBolts + 2$

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$$

"Set Minimum Number of Bolts"

$NumBolts \leftarrow 4 \text{ if } NumBolts < 4$

"Return Error if Connection Design Exceeds Geometric Constraints"

$ConnLen \leftarrow NumBolts \cdot (1.75 \cdot in)$

if ConnLen > MaxConnLen

$BoltData_0 \leftarrow -1$

$BoltData_1 \leftarrow 0$

return BoltData

$BoltData_0 \leftarrow BoltType$

$\text{BoltData}_1 \leftarrow \text{NumBolts}$

return BoltData

$\text{Truss\_Bolt\_Type} := \text{Bolt\_Props}_0$

$$\text{Truss\_Bolt\_Diameter} := \begin{cases} \text{Truss\_Bolt\_Data}_{\text{Truss\_Bolt\_Type},1} \cdot \text{in} & \text{if Truss\_Bolt\_Type} \neq -1 \\ 0 \cdot \text{in} & \text{otherwise} \end{cases}$$

$\text{Num\_Bolts} := \text{Bolt\_Props}_1$

$\text{Truss\_Bolt\_Type} = 1$

$\text{Truss\_Bolt\_Diameter} = 1 \cdot \text{in}$

$\text{Num\_Bolts} = 6$

Compute the Required Thickness for the Horizontal Connection Plates (TD)

The buckling of the horizontal plates is investigated using Formula 12 on page 544 of the 5th edition of the book "Formulas for Stress and Strain" by Raymond Roark and Warren Young.

$\text{Min\_Horz\_Plate\_Thickness} := 1.25\text{in}$

$\text{Horz\_Depth} := \text{Vert\_Depth} \cdot \sin(60 \cdot \text{deg})$

Horz_Plate_Thickness :=

HorzShear ← Conn_Horz_Shear

FOS ← 2.0 *factor of safety*

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Min\_Horz\_Plate\_Thickness$

$b_{plate} \leftarrow Upright\_Diameter + 2 \cdot in$

$P_{crit} \leftarrow \frac{0.669 \cdot t_{plate}^{3} \cdot b_{plate} \cdot \sqrt{\left(1 - 0.63 \cdot \frac{t_{plate}}{b_{plate}}\right) \cdot E \cdot Gs}}{L_{plate}^{2}}$

while $P_{crit} < FOS \cdot HorzShear$

$t_{plate} \leftarrow t_{plate} + \frac{1}{8} \cdot in$

"Return Error if Calculated Plate Thickness Exceeds Program Limit"

if $t_{plate} > 1.0001 \cdot in$

$t_{plate} \leftarrow -1 \cdot in$

return t_{plate}

$P_{crit} \leftarrow \frac{0.669 \cdot t_{plate}^{3} \cdot b_{plate} \cdot \sqrt{\left(1 - 0.63 \cdot \frac{t_{plate}}{b_{plate}}\right) \cdot E \cdot Gs}}{L_{plate}^{2}}$

return t_{plate}

$Horz\_Plate\_Thickness = 1.25 \cdot in$

Compute the Required Thicknesses for the Vertical Connection Plates (TE)

The buckling of the vertical plates is investigated using the discussion on pages 752 through 765 in the 2nd edition of the book "Steel Structures" by Charles Salmon and John Johnson

$Min\_Vert\_Plate\_Thickness := 0.625 in$

Vert_Plate_Thickness :=

$F_{y\_plate} \leftarrow 36 \cdot ksi$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow L_{plate} \cdot \frac{\sqrt{\frac{F_{y\_plate}}{ksi}}}{250}$ [Salmon Eq. 13.5.5a]

if $t_{plate} < Min\_Vert\_Plate\_Thickness$

"Apply User-Specified Minimum Plate Thickness"

$t_{plate} \leftarrow Min\_Vert\_Plate\_Thickness$

return t_{plate}

$Vert\_Plate\_Thickness = 0.8537 \cdot in$

Design Welds for Truss to Upright Connection Plates (TF, TG, TH, TJ)

$F_u := 70ksi$

$F_{weld} := 0.60 \cdot 0.75 \cdot F_u = 31.5 \cdot ksi$

Horz_PL_to_Upright_Weld :=

$HorzShear \leftarrow Conn\_Horz\_Shear$

$AxialForce \leftarrow Conn\_Axial\_Force$

$D_{upright} \leftarrow Upright\_Diameter$

$t_{upright} \leftarrow Upright\_Thickness$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Horz\_Plate\_Thickness$

$MomArm \leftarrow L_{plate} + 0.36338 \cdot \frac{D_{upright}}{2}$

$WeldInertia \leftarrow 1.86835 \cdot \left(\frac{D_{upright}}{2}\right)^3$

$WeldForceX \leftarrow \frac{HorzShear \cdot MomArm \cdot \left(0.63662 \cdot \frac{D_{upright}}{2}\right)}{WeldInertia} + \frac{2 \cdot HorzShear}{\pi \cdot D_{upright}}$ ...

$WeldForceY \leftarrow \frac{HorzShear \cdot MomArm \cdot \left(\frac{D_{upright}}{2}\right)}{WeldInertia} + \frac{2 \cdot AxialForce}{\pi \cdot D_{upright}}$ ...

$WeldForce \leftarrow \frac{\sqrt{WeldForceX^2 + WeldForceY^2}}{2}$

$WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right)$

$WeldSize \leftarrow \frac{3}{16} \cdot in \quad if \quad WeldSize < \frac{3}{16} \cdot in$

$WeldSize \leftarrow \frac{1}{\ldots} \cdot \ldots if \ldots \frac{1}{\ldots} \cdot \ldots WeldSize \ldots \frac{1}{\ldots} \cdot$

$$\begin{aligned}
&\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if } t_{upright} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in} \\
&\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if } t_{plate} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in} \\
&\text{WeldSize} \leftarrow \frac{5}{16}\cdot\text{in} \quad \text{if } t_{plate} > \frac{3}{4}\cdot\text{in} \wedge \text{WeldSize} < \frac{5}{16}\cdot\text{in} \\
&\text{return WeldSize}
\end{aligned}$$

$\text{Horz\_PL\_to\_Upright\_Weld} = 0.5625\cdot\text{in}$

Compute Allowable Shear Stress for Fillet Welds

Note: The allowable weld stress computed here is used to design all welds computed by the program.

$F_{weld} :=$

$F_u \leftarrow 70\text{ksi}$ [E70xx Electrode]

$F_v \leftarrow 0.27\cdot F_u$ [AASHTO Bridge Eq. 10-12]

$F_{weld} \leftarrow 0.707\cdot F_v$

$F_{weld} \leftarrow F_{weld}\cdot 1.33$ *apply "group load" factor* [AASHTO Table 3.4-1]

return F_{weld}

$F_{weld} = 17.772\cdot\text{ksi}$

$$\text{Vert_PL_to_Upright_Weld} := \left|\begin{array}{l}
\text{VertShear} \leftarrow \text{Conn_Vert_Shear} \\
\text{AxialForce} \leftarrow \text{Conn_Axial_Force} \\
D_{upright} \leftarrow \text{Upright_Diameter} \\
t_{upright} \leftarrow \text{Upright_Thickness} \\
L_{plate} \leftarrow \frac{\text{Horz_Depth}}{2} - \frac{\text{Upright_Diameter}}{2} \\
t_{plate} \leftarrow \text{Horz_Plate_Thickness} \\
Spa_{vertplate} \leftarrow \begin{cases} 3\cdot(3.5\cdot\text{in}) & \text{if } \operatorname{mod}(\text{Num_Bolts},4) > 0 \\ 2\cdot(3.5\cdot\text{in}) & \text{otherwise} \end{cases} \\
\theta \leftarrow \operatorname{asin}\left(\frac{Spa_{vertplate}}{D_{upright}}\right) \\
\text{MomArm} \leftarrow L_{plate} + \frac{D_{upright}}{2}\cdot(1-\cos(\theta)) \\
\text{WeldForceX} \leftarrow \frac{\text{VertShear}}{4\cdot\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)} \\
\text{WeldForceY} \leftarrow \frac{\text{AxialForce}}{4\cdot\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)} \ldots \\
\qquad + \frac{\text{VertShear}\cdot\text{MomArm}}{4\cdot\left[\frac{\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)^2}{6}\right]} \\
\text{WeldForce} \leftarrow \sqrt{\text{WeldForceX}^2 + \text{WeldForceY}^2} \\
\text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16}\cdot\text{in}, \frac{1}{16}\cdot\text{in}\right) \\
\text{WeldSize} \leftarrow \frac{3}{16}\cdot\text{in} \quad \text{if } \text{WeldSize} < \frac{3}{16}\cdot\text{in} \\
\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if } t_{upright} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in} \\
\text{WeldSize} \leftarrow \frac{5}{16}\cdot\text{in} \quad \text{if } t_{upright} > \frac{3}{4}\cdot\text{in} \wedge \text{WeldSize} < \frac{5}{16}\cdot\text{in} \\
\text{return } \text{WeldSize}
\end{array}\right.$$

$$\text{Vert\_PL\_to\_Upright\_Weld} = 0.25\cdot\text{in}$$

$$\text{Conn_PL_to_Chord_Weld} := \left|\begin{array}{l}
\text{HorzShear} \leftarrow \text{Conn_Horz_Shear} \\
\text{WeldForce} \leftarrow 0.9\cdot\frac{\text{HorzShear}}{4\cdot(1.5\cdot\text{Chord_Diameter})} \\
\text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16}\cdot\text{in}, \frac{1}{16}\cdot\text{in}\right) \\
\text{WeldSize} \leftarrow \frac{3}{16}\cdot\text{in} \quad \text{if } \text{WeldSize} < \frac{3}{16}\cdot\text{in} \\
\text{return } \text{WeldSize}
\end{array}\right.$$

Conn_PL_to_Chord_Weld = 0.1875·in

Horz_PL_to_Vert_PL_Weld :=

VertShear ← Conn_Vert_Shear

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Horz\_Plate\_Thickness$

$WeldForce \leftarrow \frac{VertShear}{4 \cdot \left(L_{plate} - 0.75 \cdot in - t_{plate}\right)}$

$WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right)$

$WeldSize \leftarrow \frac{3}{16} \cdot in \quad if \quad WeldSize < \frac{3}{16} \cdot in$

$WeldSize \leftarrow \frac{1}{4} \cdot in \quad if \quad t_{plate} > \frac{1}{2} \cdot in \wedge WeldSize < \frac{1}{4} \cdot in$

$WeldSize \leftarrow \frac{5}{16} \cdot in \quad if \quad t_{plate} > \frac{3}{4} \cdot in \wedge WeldSize < \frac{5}{16} \cdot in$

return WeldSize

Horz_PL_to_Vert_PL_Weld = 0.3125·in

Check Stresses in Horizontal Connection Plates

Horz_Plate_Stress_Check :=

HorzShear ← Conn_Horz_Shear

$F_{y\_plate} \leftarrow 36 \cdot ksi$

$D_{upright} \leftarrow Upright\_Diameter$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Horz\_Plate\_Thickness$

$b_{plate} \leftarrow Upright\_Diameter + 2 \cdot in$

$L_{vertplate} \leftarrow L_{plate}$

$t_{vertplate} \leftarrow Vert\_Plate\_Thickness$

$Spa_{vertplate} \leftarrow \begin{cases} 3 \cdot (3.5 \cdot in) & \text{if } mod(Num\_Bolts, 4) > 0 \\ 2 \cdot (3.5 \cdot in) & \text{otherwise} \end{cases}$

$S_y \leftarrow \frac{\frac{t_{plate} \cdot b_{plate}^{3}}{12} + \frac{\left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right) \cdot t_{vertplate} \cdot Spa_{vertplate}^{2}}{2}}{\frac{b_{plate}}{2}}$

$d_{mom} \leftarrow L_{plate} + 0.36338 \cdot \frac{D_{upright}}{2}$

$f_b \leftarrow \frac{HorzShear \cdot d_{mom}}{S_y}$

$F_b \leftarrow \left(0.66 \cdot F_{y\_plate}\right) \cdot 1.33$

$Msg \leftarrow \begin{cases} \text{"OK"} & \text{if } \frac{f_b}{F_b} \le 1.0 \end{cases}$

"N.G. Design connection to upright by hand." otherwise

return Msg

Horz_Plate_Stress_Check = "OK"

Check Stresses in Vertical Connection Plates

Vert_Plate_Stress_Check :=

VertShear ← Conn_Vert_Shear

$F_{y\_plate} \leftarrow 36 \cdot ksi$

$D_{upright} \leftarrow Upright\_Diameter$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Horz\_Plate\_Thickness$

$b_{plate} \leftarrow Upright\_Diameter + 2 \cdot in$

$L_{vertplate} \leftarrow L_{plate}$

$t_{vertplate} \leftarrow Vert\_Plate\_Thickness$

$Spa_{vertplate} \leftarrow \begin{cases} 3 \cdot (3.5 \cdot in) & \text{if } mod(Num\_Bolts, 4) > 0 \\ 2 \cdot (3.5 \cdot in) & \text{otherwise} \end{cases}$

$$C_x \leftarrow \frac{t_{plate} \cdot b_{plate} \cdot \left(L_{vertplate} - \frac{t_{plate}}{2}\right) + \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right)^2 \cdot t_{vertplate}}{t_{plate} \cdot b_{plate} + 2 \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right) \cdot t_{vertplate}}$$

$$R_x \leftarrow \frac{2 \cdot t_{vertplate} \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right)^3}{12} + t_{plate} \cdot b_{plate} \cdot \left(L_{vertplate} - \frac{t_{plate}}{2} - C_x\right)^2 \ldots$$
$$+ 2 \cdot t_{vertplate} \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right) \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in - C_x\right)^2$$

$$S_x \leftarrow \min\left(\frac{R_x}{C_x}, \frac{R_x}{\left|L_{vertplate} - C_x\right|}\right)$$

$$\theta \leftarrow \operatorname{asin}\left(\frac{Spa_{vertplate}}{D_{upright}}\right)$$

$$d_{mom} \leftarrow L_{plate} + \frac{D_{upright}}{2} \cdot (1 - \cos(\theta))$$

$$f_b \leftarrow \frac{VertShear \cdot d_{mom}}{S_x}$$

$$F_b \leftarrow \left(0.66 \cdot F_{y\_plate}\right) \cdot 1.33$$

$$Msg \leftarrow \begin{cases} \text{"OK"} & \text{if } \frac{f_b}{F_b} \le 1.0 \\ \text{"N.G. Design connection to upright by hand."} & \text{otherwise} \end{cases}$$

return Msg

Vert_Plate_Stress_Check = "OK"

Check Yielding of Uprights due to Vertical Plate Loads

Upright_Yielding_Check :=

VertShear ← Conn_Vert_Shear

FOS ← 1.5 *factor of safety*

$t_{upright} \leftarrow$ Upright_Thickness

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$L_{vertplate} \leftarrow L_{plate}$

$VertMom \leftarrow VertShear \cdot L_{plate}$

$VertCap \leftarrow \left(\pi \cdot t_{upright}^{2} \cdot L_{vertplate}\right) \cdot Fy\_Upright$

Msg ← "OK" if $VertMom \cdot FOS \le VertCap$

"N.G. Design connection to upright by hand." otherwise

return Msg

Upright_Yielding_Check = "OK"

Truss Connection Calculations

Connection Output

Truss Connections

(TA) Bolt_Size_Required = "1" Dia."

(TB) Number_of_Bolts_Reqd_at_Chord_Connection = "6"

(TD) Thickness_of_Horizontal_Connection_Plate = "1-1/4""

(TE) Thickness_of_Vertical_Connection_Plate = "7/8""

(TF) Fillet_Weld_Size_for_Horz_PL_to_Upright = "9/16""

(TG) Fillet_Weld_Size_for_Vert_PL_to_Upright = "1/4""

(TH) Fillet_Weld_Size_for_Chord_to_Connection_PL = "3/16""

(TJ) Fillet_Weld_Size_for_Vert_PL_to_Horz_PL = "5/16""

Additional Truss Connection Checks

Horz_Plate_Stress_Check = "OK"

Vert_Plate_Stress_Check = "OK"

Upright_Yielding_Check = "OK"

TABLE: Joint Reactions

Joint	OutputCase	CaseType	F1	F2	F3	M1	M2	M3
Text	Text	Text	Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
37	DEAD	LinStatic	-0.924	-0.063	21.354	0.4895	-6.1013	0.855
37	UPRIGHT (FRONT)	LinStatic	0.026	0.887	-3.974	-2.1779	0.0632	-0.066
37	CHORD (FRONT)	LinStatic	0.268	1.661	-11.744	-4.4677	1.0684	-0.5749
37	TRUSS WEB (FRONT)	LinStatic	1.282	8.303	-58.701	-22.332	5.1563	-2.7319
37	SIGN PANEL (FRONT)	LinStatic	2.786	16.535	-122.466	-44.6515	11.218	-5.9385
37	DEAD SIGN PANEL	LinStatic	-0.168	-0.00218	3.232	0.0819	-1.0939	0.1518
37	UPRIGHT (-X)	LinStatic	-1.14	-0.017	0.294	0.0494	-10.4661	-0.6669
37	TRUSS WEB (-X)	LinStatic	-6.173	-0.169	2.453	0.4711	-61.3263	5.1018
37	DL + WL (FRONT) + (-X)	Combination	1.808	27.283	-171.75	-72.9536	-4.0477	-7.4174
37	DL + WL (SIDE)	Combination	-8.404	-0.252	27.332	1.0919	-78.9876	5.4417
37	DL + WL (BACK) + (-X)	Combination	-6.916	-27.488	222.019	74.3045	-39.0597	11.2051
37	DEAD + DL (SIGN PANEL)	Combination	-1.092	-0.066	24.585	0.5714	-7.1952	1.0068
40	DEAD	LinStatic	-0.116	0.059	2.441	0.3402	-2.7761	0.8246
40	UPRIGHT (FRONT)	LinStatic	-0.034	1.029	3.976	-2.4239	-0.1925	-0.0634
40	CHORD (FRONT)	LinStatic	-0.257	1.992	11.742	-5.0293	-1.1575	-0.5494
40	TRUSS WEB (FRONT)	LinStatic	-1.217	9.955	58.691	-25.1392	-5.4275	-2.6145
40	SIGN PANEL (FRONT)	LinStatic	-2.648	19.82	122.425	-50.2378	-11.7956	-5.6878
40	DEAD SIGN PANEL	LinStatic	-0.025	0.0007084	-1.006	0.0771	-0.5024	0.1472
40	UPRIGHT (-X)	LinStatic	-1.596	-0.021	-0.07	0.0548	-12.6508	-0.4178
40	TRUSS WEB (-X)	LinStatic	-0.971	-0.201	-0.478	0.5245	-41.0288	5.1052
40	DL + WL (FRONT) + (-X)	Combination	-4.811	32.811	198.159	-82.2972	-32.5875	-7.0058
40	DL + WL (SIDE)	Combination	-2.708	-0.162	0.887	0.9966	-56.958	5.6592
40	DL + WL (BACK) + (-X)	Combination	3.503	-32.781	-195.507	83.3634	4.5588	10.8244
40	DEAD + DL (SIGN PANEL)	Combination	-0.141	0.06	1.435	0.4172	-3.2784	0.9718
44	DEAD	LinStatic	1.04	0.004552	29.564	12.1763	-10.2045	-0.3559
44	UPRIGHT (FRONT)	LinStatic	0.00734	4.752	-0.001797	-97.3657	0.4256	-0.8759
44	CHORD (FRONT)	LinStatic	-0.011	3.675	0.00199	-128.6693	-0.2705	4.1919
44	TRUSS WEB (FRONT)	LinStatic	-0.065	18.355	0.00996	-642.6109	-1.6716	19.3349
44	SIGN PANEL (FRONT)	LinStatic	-0.137	32.475	0.041	-1171.0283	-5.8144	43.1507
44	DEAD SIGN PANEL	LinStatic	0.193	0.001472	2.064	5.7236	-1.7311	0.0398
44	UPRIGHT (-X)	LinStatic	-6.017	0.038	-0.225	-1.0599	-127.507	2.654
44	TRUSS WEB (-X)	LinStatic	-29.47	0.371	-1.975	-8.9094	-907.0338	68.2886
44	DL + WL (FRONT) + (-X)	Combination	-6.07	59.346	31.239	-2023.7682	-226.1746	79.6739
44	DL + WL (SIDE)	Combination	-34.254	0.414	29.429	7.9306	-1046.4763	70.6265
44	DL + WL (BACK) + (-X)	Combination	-5.659	-59.17	31.137	2055.5802	-211.5129	-51.929
44	DEAD + DL (SIGN PANEL)	Combination	1.232	0.006024	31.628	17.8999	-11.9356	-0.3161

Drilled Shaft Foundation for Sign & Signal Structures

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SUBJECT I-95 EXPRESS LANES, PHASE 3A-2

DESIGNED BY AR DATE 09/13/2016

CHECKED BY MV DATE 09/13//2016

Input

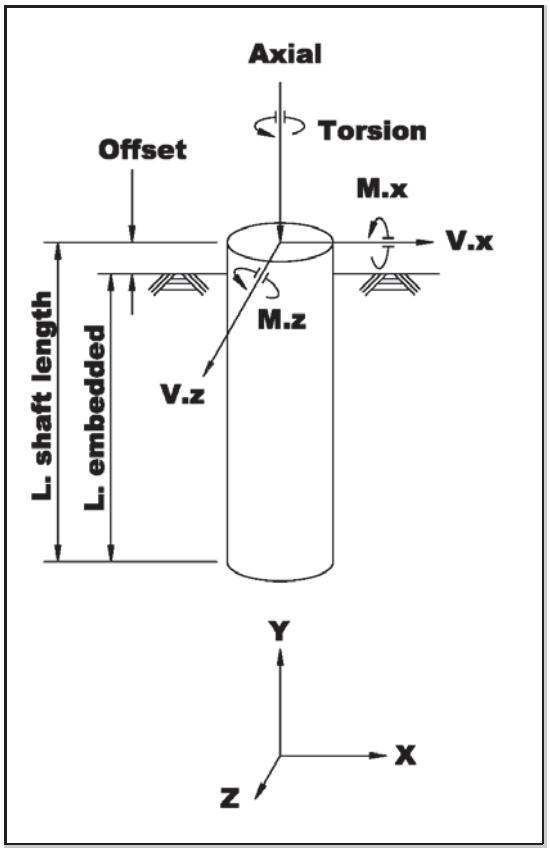
SoilType := Sand / Clay

WaterElevation := Below Bottom of Shaft / Above Top of Shaft

$\gamma_{soil.dry} := 105 \cdot pcf$ *dry soil density*

$\gamma_{water} := 62.4 \cdot pcf$ *water density*

$\gamma_{soil} := \gamma_{soil.dry} - if(WaterElevation = "Above Top of Shaft", \gamma_{water}, 0 \cdot pcf) = 42.6 \cdot pcf$



$b := 2.50 \cdot ft$ *shaft diameter*

$Offset := 5.78 \cdot ft$ *groundline to top of foundation*

$\phi_{soil} := 30 \cdot deg$ *soil friction angle (sand)*

$c_{soil} := 2.0 \cdot \frac{kip}{ft^2}$ *soil shear strength (clay)*

Applied Loads

$M_x := 83.4 \cdot kip \cdot ft$ $V_x := 32.81 \cdot kip$ $Torsion := 11.2 \cdot kip \cdot ft$

$M_z := 79.0 \cdot kip \cdot ft$ $V_z := 8.40 \cdot kip$ $Axial := 236 \cdot kip$

Shaft Depth Required to Resist Overturning

$SF_{ot} := 2$ *Safety Factor against Overturning* *SM Vol-9 13.6*

$M_{total} := (SF_{ot}) \cdot \sqrt{M_x^2 + M_z^2} = 229.8 \cdot kip \cdot ft$

$P_{total} := (SF_{ot}) \cdot \sqrt{V_x^2 + V_z^2} = 67.7 \cdot kip$

*short free-head pile in **cohesionless soil** using Broms method*

$K_p := \tan\left(45 \cdot deg + \frac{\phi_{soil}}{2}\right)^2 = 3$ $e_{sand} := Offset = 5.8\ ft$

Guess value $L_{otSand} := 30 \cdot ft$

Given $\frac{\gamma_{soil} \cdot b \cdot L_{otSand}^3 \cdot K_p}{2} - P_{total} \cdot (e_{sand} + L_{otSand}) - M_{total} = 0 \cdot kip \cdot ft$

$L_{otSand} := Find(L_{otSand}) = 24.2\ ft$

$L_{otSand} := ceil\left(\frac{L_{otSand}}{ft}\right) \cdot ft = 25\ ft$ *(round up to next foot)*

*short free-head pile in **cohesive soil** using Modified Broms method for L < 3b (see reference file for derivation)*

$c_{soil} := if(c_{soil} = 0 \cdot ksf, 0.1 \cdot ksf, c_{soil}) = 2 \cdot ksf$ $\quad Slope := 8 \cdot \frac{c_{soil}}{3 \cdot b} = 2.1 \cdot \frac{kip}{ft^3}$ $\quad e_{clay} := \frac{M_{total}}{P_{total}} + Offset = 9.2\,ft$

$nforce(M, N) := \left[Slope \cdot (2 \cdot M + N) + 2 \cdot c_{soil}\right] \cdot N \cdot \frac{b}{2}$ $\quad mforce(M) := \left(2 \cdot c_{soil} + M \cdot Slope\right) \cdot M \cdot \frac{b}{2}$

$m\_arm(M) := e_{clay} + \frac{M}{3} \cdot \frac{2 \cdot \left(M \cdot Slope + c_{soil}\right) + c_{soil}}{M \cdot Slope + 2 \cdot c_{soil}}$

$n\_arm(M, N) := e_{clay} + M + \frac{N}{3} \cdot \frac{2 \cdot \left(N \cdot Slope + M \cdot Slope + c_{soil}\right) + \left(M \cdot Slope + c_{soil}\right)}{Slope \cdot (2 \cdot M + N) + 2 \cdot c_{soil}}$

Guess value $\quad M := 4.0 \cdot ft$ $\quad N := 4.0 \cdot ft$

Given $\quad P_{total} + nforce(M, N) = mforce(M)$ $\quad mforce(M) \cdot m\_arm(M) = nforce(M, N) \cdot n\_arm(M, N)$

$\begin{pmatrix} M \\ N \end{pmatrix} := Find(M, N)$ $\quad L_{ot1Clay} := M + N = 3.5\,ft$

$L_{ot1Clay} := ceil\left(\frac{L_{ot1Clay}}{ft}\right) \cdot ft = 4\,ft$ $\quad$ *(round up to next foot)*

*short free-head pile in **cohesive soil** using Regular Broms method for L > 3b*

$f_{clay} := \frac{P_{total}}{9 \cdot c_{soil} \cdot b} = 1.5\,ft$ $\quad M_{maxtemp} := P_{total} \cdot \left(e_{clay} + 1.5 \cdot b + 0.5 \cdot f_{clay}\right) = 926.3 \cdot kip \cdot ft$ $\quad g := \sqrt{\frac{M_{maxtemp}}{2.25 \cdot c_{soil} \cdot b}} = 9.1\,ft$

$L_{ot2Clay} := \left(1.5 \cdot b + f_{clay} + g\right) = 14.3\,ft$

$L_{ot2Clay} := ceil\left(\frac{L_{ot2Clay}}{ft}\right) \cdot ft = 15\,ft$ $\quad$ *(round up to next foot)*

$L_{otClay} := if\left(L_{ot1Clay} < 3 \cdot b, L_{ot1Clay}, L_{ot2Clay}\right) = 1.2$ $\quad$ *(If $L_{ot} < 3b$, use Modified Broms method)*

$L_{reqdOT} := if\left(SoilType = \text{"Sand"}, L_{otSand}, L_{otClay}\right) = 7.6$

Shaft Depth Required to Resist Torsion

NOTE: ω_{fdot} and μ are based upon concrete soil interaction. This torsion methodology is not to be used with permanent casing.

$SF_{tor} := 1.3$ *Safety Factor against Torsion*
1.0 for Mast Arm signal structures
1.3 for Overhead Cantilever sign structures
SM Vol-9 13.6

$N_{blows} := 7$ *Number of blows per foot. If N< 5, contact the district geotech Engineer*

$\omega_{fdot} := if\left(N_{blows} < 5, 0, if\left(N_{blows} \geq 15, 1.5, 1.5 \cdot \frac{N_{blows}}{15}\right)\right) = 0.7$

load transfer ratio, If 5<N<15, ω_{fdot} is reduced by a factor of $\frac{N_{blows}}{15}$

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$\mu := \tan(\phi_{soil}) = 0.6$ *coefficient of friction between concrete shaft and soil*

$\gamma_{concrete} := if(\text{WaterElevation} = \text{"Above Top of Shaft"}, 150 \cdot pcf - \gamma_{water}, 150 \cdot pcf) = 87.6 \cdot pcf$

$CohesionFactor := 0.55$

$f_{se} := CohesionFactor \cdot c_{soil} = 1.1 \cdot ksf$

*short free-head pile in **cohesionless soil***

Guess value $L_{torSand} := L_{reqdOT} = 25\,ft$

Given

$$Torsion = \frac{\left[\pi \cdot b \cdot (L_{torSand}) \cdot \gamma_{soil} \cdot \left(\frac{L_{torSand}}{2}\right) \cdot (\omega_{fdot}) \cdot \frac{b}{2} + \pi \cdot \left(\frac{b}{2}\right)^2 \cdot L_{torSand} \cdot (\gamma_{concrete}) \cdot \frac{b}{3} \cdot \mu\right]}{SF_{tor}}$$

$L_{torSand} := Find(L_{torSand}) = 9.3\,ft$

$L_{torSand} := ceil\left(\frac{L_{torSand}}{ft}\right) \cdot ft = 10\,ft$ *(round up to next foot)*

*short free-head pile in **cohesive soil***

Guess value $L_{torClay} := L_{reqdOT}$

Given $\left[f_{se} \cdot (\pi \cdot b) \cdot (L_{torClay} - 1.5 \cdot ft) \cdot \frac{b}{2}\right] + \left[f_{se} \cdot \pi \cdot \left(\frac{b}{2}\right)^2 \cdot \left(\frac{b}{3}\right)\right] = Torsion \cdot SF_{tor}$

$L_{torClay} := Find(L_{torClay}) = 2.4\,ft$

$L_{torClay} := ceil\left(\frac{L_{torClay}}{ft}\right) \cdot ft = 3\,ft$ *(round up to next foot)*

$L_{reqdTor} := \text{if}\left(SoilType = \text{"Sand"}, L_{torSand}, L_{torClay}\right) = 3$

$L_{embedded} := \text{if}\left(L_{reqdTor} > L_{reqdOT}, L_{reqdTor}, L_{reqdOT}\right) = 7.6$

$L_{shaft.length} := L_{embedded} + Offset = 30.8\,ft$

Unfactored Maximum Moment in Shaft

*short free-head pile in **cohesionless soil** using Broms method*

$$f_{sand} := \sqrt{\frac{2 \cdot \frac{P_{total}}{SF_{ot}}}{3 \cdot \gamma_{soil} \cdot b \cdot K_p}} = 8.4\,ft$$

$$M_{maxSand} := \frac{P_{total}}{SF_{ot}} \cdot \left(e_{sand} + f_{sand}\right) - \frac{\frac{P_{total}}{SF_{ot}} \cdot f_{sand}}{3} + \frac{M_{total}}{SF_{ot}} = 500.4 \cdot kip \cdot ft$$

*short free-head pile in **cohesive soil** using Modified Broms method for L < 3b (see reference file for derivation)*

Guess value $f_{mod} := 4.0 \cdot ft$

Given $\frac{P_{total}}{SF_{ot}} = \frac{f_{mod} \cdot b}{2} \cdot \left(2 \cdot c_{soil} + f_{mod} \cdot Slope\right)$

$f_{mod} := \text{Find}\left(f_{mod}\right) = 2.7\,ft$

$$M_{modBroms} := \frac{P_{total}}{SF_{ot}} \cdot \left(e_{clay} + f_{mod}\right) - \frac{c_{soil} \cdot b \cdot f_{mod}^{2}}{2} - \frac{b \cdot f_{mod}^{3} \cdot Slope}{6} = 366.4 \cdot kip \cdot ft$$

*short free-head pile in **cohesive soil** using Regular Broms method for L > 3b*

$$M_{Broms} := \frac{P_{total}}{SF_{ot}} \cdot \left(e_{clay} + 1.5 \cdot b + 0.5 \cdot f_{clay}\right) = 463.1 \cdot kip \cdot ft$$

$M_{maxClay} := \text{if}\left(L_{ot1Clay} < 3 \cdot b, M_{modBroms}, M_{Broms}\right) = 366.4 \cdot kip \cdot ft$ *(If $L_{ot} < 3b$, use Modified Broms method)*

$M_{max} := \text{if}\left(SoilType = \text{"Sand"}, M_{maxSand}, M_{maxClay}\right) = 500.4 \cdot kip \cdot ft$ *(Service moment)*

Minimum Reinforcing and Spacing

$F_{y.rebar} := 60 \cdot ksi$ *reinforcing yield strength*

$f_c := 4.0 \cdot ksi$ *concrete strength* Spec 346-3

$cover := 6 \cdot in$ *cover* SDG Table 1.4.2-1

$A_{bar} := 1.00 \cdot in^2$ *longitudinal bar area*

$d_{bar} := 1.128 \cdot in$ *longitudinal bar diameter*

$A_{v.bar} := 0.31 \cdot in^2$ *stirrup area* SM Vol-9 13.6.2

$d_{v.bar} := 0.625 \cdot in$ *stirrup diameter*

$s_{v1} := 4 \cdot in$ *stirrup spacing, depth = 0 ft-2 ft* SM Vol-9 13.6.2

$s_{v2} := 6in$ *stirrup spacing, depth = 2 ft-depth.stir*

$s_{v3} := 6 \cdot in$ *stirrup spacing, depth > depth.stir*

$depth_{stir} := 30 \cdot ft$ *stirrup depth, see s.v2 and s.v3 above*

$b = 2.5\,ft$ *shaft diameter*

$$Num_{bar_1} := \frac{0.01}{A_{bar}} \cdot \frac{\pi \cdot b^2}{4} = 7.1$$ LRFD 5.7.4.2

$$Num_{bar_2} := \frac{0.135}{A_{bar} \cdot F_{y.rebar}} \cdot \left(\frac{\pi \cdot b^2}{4} \cdot f_c \right) = 6.4$$

$Num_{bar} := ceil\left(max\left(Num_{bar_1}, Num_{bar_2}\right)\right) = 8$ *number of longitudinal bars*

$Num_{bar} := 8$ *Same number of Anchor Bolts to avoid layout conflict*

$$ReinfClearSpacing := \left[b - 2 \cdot \left(cover + d_{v.bar} + \frac{d_{bar}}{2} \right) \right] \cdot \frac{\pi}{Num_{bar}} - d_{bar} = 5.01 \cdot in$$

$CheckReinfClearSpacing := if(ReinfClearSpacing \geq 6in, "OK", "No Good")$ CheckReinfClearSpacing = "No Good"

SDG 3.6.10

Check Shear and Torsion

$LF_{shr} := 1.3$	*Shear Load Factor*	*1.3 is a reasonable Load Factor for combined WL + DL on sign and signal structures*
$LF_{tor} := 1.3$	*Torsion Load Factor*	
$\phi_{shr} := 0.90$	*Shear Resistance Factor*	*LRFD 5.5.4.2.1*
$\phi_{tor} := 0.90$	*Torsion Resistance Factor*	*LRFD 5.5.4.2.1*

$$V_u := LF_{shr}\cdot\sqrt{V_x^2 + V_z^2} = 44\cdot kip$$

$$T_u := LF_{tor}\cdot Torsion = 14.6\cdot kip\cdot ft$$

Area and perimeter of concrete cross-section

$$A_{cp} := \pi\cdot\left(\frac{b}{2}\right)^2 = 706.9\cdot in^2 \qquad p_{cp} := 2\cdot\pi\cdot\left(\frac{b}{2}\right) = 94.2\cdot in$$

Diameter, perimeter and area enclosed by the centerline of the outermost closed transverse torsion reinforcement

$$d_{oh} := b - 2\cdot\left(cover + \frac{d_{v.bar}}{2}\right) = 17.4\cdot in \qquad p_h := \pi\cdot d_{oh} = 54.6\cdot in$$

$$A_{oh} := \pi\left(\frac{d_{oh}}{2}\right)^2 = 237.1\cdot in^2 \qquad A_o := 0.85\cdot A_{oh} = 201.5\cdot in^2$$

$0.8\cdot b = 2\ ft$

Effective shear depth

$$D_r := b - 2\cdot\left(cover + d_{v.bar} + \frac{d_{bar}}{2}\right) = 1.3\ ft \qquad d_e := \frac{b}{2} + \frac{D_r}{\pi} = 1.7\ ft$$

LRFD C5.8.2.1

$$d_v := \max\left(0.9\cdot d_e, 0.72\cdot b\right) = 1.8\ ft$$

Check Shear Strength

$$V_c := 0.0316\cdot(2.0)\cdot\sqrt{\frac{f_c}{ksi}}\cdot\left(\frac{b}{in}\right)\cdot\left(\frac{d_v}{in}\right)\cdot kip = 81.9\cdot kip$$

LRFD Eqn 5.8.3.3-3 *LRFD 5.8.3.4.1* *ACI 11.3.3*

$$V_s := \frac{A_{v.bar}\cdot F_{y.rebar}\cdot d_v}{\max\left(s_{v1}, s_{v2}, s_{v3}\right)} = 67\cdot kip$$

LRFD Eqn 5.8.3.3-4

$\phi_{shr} = 0.9$ $\qquad V_u = 44\cdot kip$

$$ShearRatio := \frac{V_u - \phi_{shr}\cdot V_c}{\phi_{shr}\cdot V_s} = -0.5$$

$$ShearRatio := if(ShearRatio \le 0, 0, ShearRatio) = 0$$

Check Torsion Strength

$$T_{n1} := \frac{2 \cdot A_o \cdot A_{v.bar} \cdot F_{y.rebar}}{s_{v1}} = 156.2 \cdot kip \cdot ft$$ *LRFD Eqn 5.8.3.6.2-1*

LRFD 5.8.3.4.1

$$T_{n2} := \frac{2 \cdot A_o \cdot A_{v.bar} \cdot F_{y.rebar}}{s_{v2}} = 104.1 \cdot kip \cdot ft$$

$$T_{n3} := \frac{2 \cdot A_o \cdot A_{v.bar} \cdot F_{y.rebar}}{s_{v3}} = 104.1 \cdot kip \cdot ft$$

$\phi_{tor} = 0.9$ $T_u = 14.6 \cdot kip \cdot ft$ $L_{reqdTor} = 10\,ft$

$$Tor2_{sand} := T_u - \max\left[\left[\pi \cdot b \cdot (2 \cdot ft - Offset) \cdot \gamma_{soil} \cdot \left(\frac{2 \cdot ft - Offset}{2}\right) \cdot (\omega_{fdot}) \cdot \frac{b}{2}\right], 0 \cdot kip \cdot ft\right] = 12.5 \cdot kip \cdot ft$$

$$Tor3_{sand} := T_u - \max\left[\left[\pi \cdot b \cdot (depth_{stir} - Offset) \cdot \gamma_{soil} \cdot \left(\frac{depth_{stir} - Offset}{2}\right) \cdot (\omega_{fdot}) \cdot \frac{b}{2}\right], 0 \cdot kip \cdot ft\right] = -71.3 \cdot kip \cdot ft$$

$$Tor2_{clay} := T_u - \max\left[\left[f_{se} \cdot (\pi \cdot b) \cdot (2.0 \cdot ft - Offset - 1.5 \cdot ft) \cdot \frac{b}{2}\right], 0 \cdot kip \cdot ft\right] = 14.6 \cdot kip \cdot ft$$

$$Tor3_{clay} := T_u - \max\left[\left[f_{se} \cdot (\pi \cdot b) \cdot (depth_{stir} - Offset - 1.5 \cdot ft) \cdot \frac{b}{2}\right], 0 \cdot kip \cdot ft\right] = -230.8 \cdot kip \cdot ft$$

$$Tor2 := if(SoilType = "Sand", Tor2_{sand}, Tor2_{clay}) = 12.5 \cdot kip \cdot ft$$

$$Tor3 := if(SoilType = "Sand", Tor3_{sand}, Tor3_{clay}) = -71.3 \cdot kip \cdot ft$$

$$TorsionRatio_{n1} := \frac{T_u}{\phi_{tor} \cdot T_{n1}} = 0.1$$

$$TorsionRatio_{n2} := \frac{Tor2}{\phi_{tor} \cdot T_{n2}} = 0.13$$

$$TorsionRatio_{n3} := \frac{Tor3}{\phi_{tor} \cdot T_{n3}} = -0.76$$

$$TorsionRatio := \max(TorsionRatio_{n1}, TorsionRatio_{n2}, TorsionRatio_{n3}) = 0.13$$

$$T_{cr} := 0.125 \sqrt{\frac{f_c}{ksi}} \cdot \left(\frac{A_{cp}^2}{p_{cp} \cdot in^3}\right) \cdot kip \cdot in = 110.4 \cdot kip \cdot ft$$ *LRFD Eqn 5.8.2.1-4*

$$TorsionRatio := if(T_u \le 0.25 \cdot \phi_{tor} \cdot T_{cr}, 0, TorsionRatio) = 0$$ *LRFD Eqn 5.8.2.1-3*

$ShearRatio = 0$

$CheckShearTorsion := if(ShearRatio + TorsionRatio \le 1, "OK", "No Good")$ $CheckShearTorsion = "OK"$

Check Maximum Spacing Transverse Reinforcement

$$vu := \frac{V_u}{\phi_{shr} \cdot b \cdot (0.8 \cdot b)} = 0.067945 \cdot ksi \qquad 0.125 \cdot f_c = 0.5 \cdot ksi$$

LRFD Eqn 5.8.2.9-1

$$s_{max1} := if\left(0.8 \cdot d_v < 24 \cdot in, 0.8 d_v, 24 \cdot in\right) = 17.3 \cdot in$$

LRFD Eqn 5.8.2.7-1

$$s_{max2} := if\left(0.4 \cdot d_v < 12 \cdot in, 0.4 d_v, 12 \cdot in\right) = 8.6 \cdot in$$

LRFD Eqn 5.8.2.7-2

$$s_{max} := if\left(vu < 0.125 \cdot f_c, s_{max1}, s_{max2}\right) = 17.3 \cdot in$$

$$\max\left(s_{v1}, s_{v2}, s_{v3}\right) = 6 \cdot in$$

$$CheckMaxSpacingTransvReinf := if\left(\max\left(s_{v1}, s_{v2}, s_{v3}\right) \le s_{max}, "OK", "No Good"\right)$$

CheckMaxSpacingTransvReinf = "OK"

Check Longitudinal Reinforcement for Combined Shear and Torsion

LRFD Eqn 5.8.3.6.3-1

LRFD 5.8.3.4.1

$$M_u := LF_{tor} \cdot \sqrt{M_x^2 + M_z^2} = 149.3 \cdot kip \cdot ft$$

$$V_{temp} := if\left(\frac{V_u}{\phi_{shr}} - 0.5 \cdot V_s > 0 \cdot kip, \frac{V_u}{\phi_{shr}} - 0.5 \cdot V_s, 0 \cdot kip\right) = 15.4 \cdot kip$$

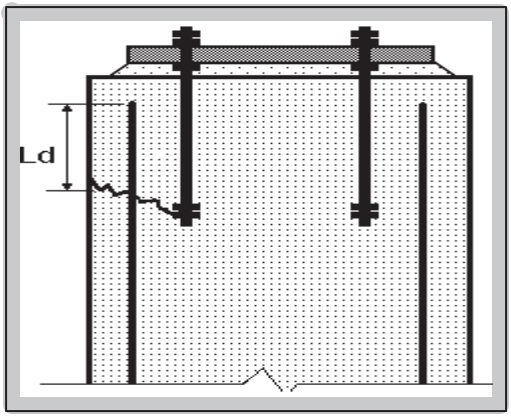
$$LongReinf_{shr.tor} := \frac{\frac{M_u}{\phi_{tor} \cdot (0.8 \cdot b)} + \sqrt{\left(\frac{V_{temp}}{kip}\right)^2 + \left(\frac{0.45 \cdot p_h \cdot T_u}{2 \cdot A_o \cdot \phi_{tor} \cdot kip}\right)^2} \cdot kip}{F_{y.rebar}} = 1.7 \cdot in^2$$

$$Num_{bar} \cdot A_{bar} = 8 \cdot in^2$$

$$CheckLongReinf_{shr.tor} := if\left(Num_{bar} \cdot A_{bar} \ge LongReinf_{shr.tor}, "OK", "No Good"\right)$$

CheckLongReinf$_{shr.tor}$ = "OK"

Anchor Bolt Embedment



$Num_{anchor} := 8$ *number of anchor bolts*

$d_{anchor} := 2 \cdot in$ *anchor bolt diameter* ***[ASTM F1554-04]***

$Upright_{diameter} := 12in$ $Upright\_Thickness := 0.625in$

$Diameter_{boltcircle.anchor} := \left(Upright_{diameter} + 6.in\right) = 18 \cdot in$

Check clearance between anchor bolts and DrilledShaft reinforcement

$$EdgeAnchorBolt := \frac{Diameter_{boltcircle.anchor}}{2} + \frac{d_{anchor}}{2} = 10 \cdot in$$

$Edge_{baseplate} := Upright_{diameter} + 12in = 24 \cdot in$

$Tolerance_{min} := 0in$ *Minimum allowed clearance between edge of anchor bolt and edge of drilled shaft reinforcement*

$CSL_{tube} := 0in$ *Diameter of CSL Tube*

$$EdgeReinforcement := \frac{b}{2} - \left(cover + d_{v.bar} + CSL_{tube} + Tolerance_{min}\right) = 8.4 \cdot in$$

$Check_{clearance.anchor} := if(EdgeReinforcement \geq EdgeAnchorBolt, "OK", "No Good")$ $Check_{clearance.anchor} = "No Good"$

$F_{t.anchor} := 38.3 \cdot kip$ *anchor bolt tensile load (see F.t.anchor calc below)*

$$Gap_{shaft} := \frac{b - 2 \cdot cover - 2 \cdot d_{v.bar} - Diameter_{boltcircle.anchor} - d_{bar}}{2} \quad Gap_{shaft} = -1.19 \cdot in$$

$Diameter_{bar.circle} := b - 2 \cdot cover - d_{bar} - 2 \cdot d_{v.bar}$ $Diameter_{bar.circle} = 15.6 \cdot in$

F.t.anchor calculation (double click gray line below)

FTanchor

$M_{anchor} := \sqrt{M_x^2 + M_z^2} = 114.9 \cdot kip \cdot ft$ *Input appropriate applied loads M.x and M.y on page 1.*

$$n := \begin{cases} 8 & \text{if } d_{anchor} = 1.0 \cdot in \\ 6 & \text{if } d_{anchor} = 1.5 \cdot in \\ 5 & \text{if } d_{anchor} = 1.75 \cdot in \\ 4.5 & \text{if } 2 \cdot in \leq d_{anchor} \leq 2.25 \cdot in \\ 4 & \text{if } d_{anchor} \geq 2.5 \cdot in \end{cases}$$ *threads per inch* ***ASTM F1554***

$n = 4.5$

$$A_{net.anchor} := \frac{\pi}{4} \cdot \left(d_{anchor} - \frac{0.9743}{\frac{n}{in}}\right)^2 = 2.50 \cdot in^2$$ *AASHTO Eqn 5.17.4.2-4*

$$I_{anchor} := \frac{Diameter_{boltcircle.anchor}^{2}}{8} \cdot A_{net.anchor} \cdot Num_{anchor} = 809.4 \cdot in^4$$

$$S_{anchor} := \frac{I_{anchor}}{\frac{Diameter_{boltcircle.anchor}}{2}} = 89.9 \cdot in^3$$

$$f_{t.anchor} := \frac{M_{anchor}}{S_{anchor}} = 15.3 \cdot ksi$$

$F_{t.anchor.calc} := f_{t.anchor} \cdot A_{net.anchor} = 38.3 \cdot kip$ *Copy F.t.anchor.calc result into F.t.anchor input above.*

$$V_{csr.pole} := \sqrt{(V_x)^2 + (V_z)^2} = 33.9 \cdot kip$$

$$V_{u.rod} := \frac{V_{csr.pole}}{Num_{anchor}} + \frac{Torsion}{\left(\frac{Diameter_{boltcircle.anchor}}{2}\right) \cdot Num_{anchor}} = 6.1 \cdot kip$$

$$f_{v.rod} := \frac{V_{u.rod}}{A_{net.anchor}} = 2.4 \cdot ksi$$

$F_{y.rod} := 55 \cdot ksi$

$F_{t.rod} := 0.5 \cdot F_{y.rod} = 27.5 \cdot ksi$ AASHTO Eqn 5.17.4.2-1

$F_{v.rod} := 0.3 \cdot F_{y.rod} = 16.5 \cdot ksi$ AASHTO Eqn 5.17.4.2-3

$$CSR_{rod} := \left(\frac{f_{t.anchor}}{1.33 \cdot F_{t.rod}}\right)^2 + \left(\frac{f_{v.rod}}{1.33 \cdot F_{v.rod}}\right)^2$$ AASHTO Eqn 5.17.4.2-5

$CSR_{rod} = 0.188$

Use the AISC LRFD Code, 2nd Edition, for Design of Elements Where Possible

Design of bolts based on "Design Guide for Steel to Concrete Connections by Cook, Doerr & Klingne Research Report 1126-4F by the Bureau of Engineering Research at the Univ. of Texas at Austin

$T_{u.rod.old} := 1.3 \cdot F_{t.anchor} = 49.8 \cdot kip$

$V_{u.rod.old} := 1.3 \cdot V_{u.rod} = 7.9 \cdot kip$

(use a 1.3 load factor since loads are a mix of wind load and dead load)

$$A_{net.rod.old} := 0.75 \cdot \pi \cdot \left(\frac{d_{anchor}}{2}\right)^2 = 2.36 \cdot in^2$$

$F_{u.rod} := 75 \cdot ksi$

$T_{s.rod} := A_{net.rod.old} \cdot F_{u.rod} = 176.7 \cdot kip$

$\gamma := 0.5$ *(property of embedded rods)*

$$T_{n.rod} := \sqrt{T_{s.rod}^{2} - \left(\frac{V_{u.rod}}{\gamma}\right)^{2}}$$

$0.75 \cdot T_{n.rod} = 132.2 \cdot kip$ ***(if greater than actual rod tension, bolts are OK)***

$$PR_{rod} := \frac{T_{u.rod.old}}{0.75 \cdot T_{n.rod}}$$

$PR_{rod} = 0.377$

$$Anchor\_Bolt\_Capacity\_Check := \begin{cases} \text{"OK"} & \text{if } CSR_{rod} \le 1 \wedge PR_{rod} \le 1 \\ \text{"No Good"} & \text{otherwise} \end{cases}$$

Anchor_Bolt_Capacity_Check = "OK"

FTanchor

$$Num_{bars.per.anchor} := \min\left(\begin{pmatrix} \frac{Num_{bar}}{Num_{anchor}} \\ 3 \end{pmatrix}\right)$$

Use a maximum of three rebar per anchor bolt (conservative)

$Num_{bars.per.anchor} = 1$

$\phi := 0.9$ $$Num_{bars.reqd.per.anchor} := \frac{F_{t.anchor}}{A_{bar} \cdot (\phi \cdot F_{y.rebar})} \cdot \frac{Diameter_{boltcircle.anchor}}{Diameter_{bar.circle}}$$

$Num_{bars.reqd.per.anchor} = 0.82$

$$AreaRatio := \frac{Num_{bars.reqd.per.anchor}}{Num_{bars.per.anchor}}$$

$AreaRatio := if(AreaRatio < 1, AreaRatio, 1)$ $AreaRatio = 0.82$

LRFD 5.11.2.1.1

$$L_{d.bar} := \max\left[\frac{1.25 \cdot (A_{bar}) \cdot F_{y.rebar}}{\sqrt{f_c \cdot ksi} \cdot in}, \frac{0.4 \cdot (d_{bar}) \cdot F_{y.rebar}}{ksi}\right]$$

longitudinal bar development length

$$L_{d.bar} := if\left(A_{bar} = 2.25 \cdot in^{2}, \frac{2.70 \cdot in^{2} \cdot F_{y.rebar}}{\sqrt{f_c \cdot ksi} \cdot in}, L_{d.bar}\right)$$

$L_{d.bar} = 37.5 \cdot in$

$$SpacingFactor := \max\left(\begin{pmatrix} Num_{bars.per.anchor} \cdot 0.5 - 0.5 \\ 0.5 \end{pmatrix}\right)$$

$SpacingFactor = 0.5$

$$L_{embedment.added} := \sqrt{(ReinfClearSpacing \cdot SpacingFactor)^{2} + Gap_{shaft}^{2}}$$

$L_{embedment.added} = 2.8 \cdot in$

$$L_{embedment.anchor} := \max\left[\begin{bmatrix} L_{d.bar} \cdot (AreaRatio) + 12 \cdot in + L_{embedment.added} \\ 20 \cdot d_{anchor} \end{bmatrix}\right]$$

$L_{embedment.anchor} := Ceil(L_{embedment.anchor}, in)$ $L_{embedment.anchor} = 46 \cdot in$

Anchor Bolt Shear Break-Out Strength

References:
ACI 318-05 Appendix D.
FDOT/University of Florida Report BD545 RPWO #54, Anchor Embedment Requirements for Signal/Sign Structures, July 2007.

$r_b := \frac{Diameter_{boltcircle.anchor}}{2}$ $r_b = 9 \cdot in$

$r := \frac{b}{2}$ $r = 15 \cdot in$

$c_{a1} := \frac{\sqrt{r_b^2 + 3.25 \cdot \left(r^2 - r_b^2\right)} - r_b}{3.25}$ $c_{a1} = 4.44 \cdot in$ *adjusted cover*

UF Report Eqn 3-2

$L_e := \min\left(8 \cdot d_{anchor}, L_{embedment.anchor}\right)$ $L_e = 16 \cdot in$ *load bearing length of anchor for shear*

ACI D.6.2.2

$V_b := 13 \cdot \left(\frac{L_e}{d_{anchor}}\right)^{0.2} \cdot \sqrt{\frac{d_{anchor}}{in}} \cdot \sqrt{\frac{f_c}{psi}} \left(\frac{c_{a1}}{in}\right)^{1.5} \cdot lbf$

$V_b = 16.5 \cdot kip$ *shear break-out strength (single anchor)*

UF Report Eqn 2-11

$A := \frac{(360 \cdot deg)}{Num_{anchor}}$ $A = 45 \cdot deg$ *UF Report Fig 3-7*

$\alpha := 2 \operatorname{asin}\left[\frac{(1.5 \cdot c_{a1})}{r}\right]$ $\alpha = 52.7 \cdot deg$

$OverlapTest := if(A \le \alpha, "Overlap of Failure Cones", "No Overlap of Failure Cones")$

$OverlapTest = "Overlap of Failure Cones"$

$chord := 2 \cdot r \cdot \sin\left(\frac{A}{2}\right)$ $chord = 11.5 \cdot in$ *UF Report Fig 3-7*

$A_{Vco} := 4.5 \cdot c_{a1}^2$ $A_{Vco} = 88.7 \cdot in^2$ *projected concrete failure area (single anchor)*

ACI Eqn D-23

$A_{Vc} := chord \cdot 1.5 \cdot c_{a1}$ $A_{Vc} = 76.5 \cdot in^2$ *projected concrete failure area (group)*

ACI D.6.2.1

$A_{Vc} := \text{if}\left(A_{Vc} > A_{Vco}, A_{Vco}, A_{Vc}\right)$ $A_{Vc} = 76.5 \cdot in^2$

$\psi_{ecV} := 1.0$	*eccentric load modifier*	*ACI D.6.2.5*	
$\psi_{edV} := 1.0$	*edge effect modifier*	*ACI D.6.2.6*	
$\psi_{cV} := 1.4$	*cracked section modifier*	*ACI D.6.2.7*	*(stirrup spacing <= 4")*
$\psi_{hV} := 1.0$	*member thickness modifier*	*ACI D.6.2.8*	
$\phi_{breakout} := 0.75$	*strength reduction factor*	*ACI D.4.4.c.i*	*(shear breakout, condition A)*

$V_{cbg} := Num_{anchor} \cdot \left(\frac{A_{Vc}}{A_{Vco}}\right) \cdot \left(\psi_{ecV} \cdot \psi_{edV} \cdot \psi_{cV} \cdot \psi_{hV}\right) \cdot V_b$ $V_{cbg} = 159.2 \cdot kip$ *concrete breakout strength - shear*

ACI Eqn D-22 *Shear force ⊥ to edge*

$V_{cbg\_parallel} := 2 \cdot V_{cbg}$ $V_{cbg\_parallel} = 318.3 \cdot kip$ *ACI D.6.2.1.c* *Shear force || to edge*

$T_{n.breakout} := V_{cbg\_parallel} \cdot r_b$ $T_{n.breakout} = 238.8 \cdot kip \cdot ft$ *concrete breakout strength - torsion*

$\phi_{breakout} \cdot T_{n.breakout} = 179.1 \cdot kip \cdot ft$

$T_u = 14.6 \cdot kip \cdot ft$

$\text{BreakoutTest} := \text{if}\left(\phi_{breakout} \cdot T_{n.breakout} \geq T_u, \text{"OK"}, \text{"No Good"}\right)$ BreakoutTest = "OK"

$\text{OverlapDesign} := \text{if}(A \leq \alpha, \text{"Based on Overlap of Failure Cones"}, \text{"Based on No Overlap of Failure Cones"})$

OverlapDesign = "Based on Overlap of Failure Cones"

References

LRFD = AASHTO LRFD Bridge Design Specifications

LTS = AASHTO Luminaire, Traffic Signal, and Sign Structure Specifications.

SM = FDOT Structures Manual

SDG = FDOT Structures Design Guidelines

Spec = FDOT Standard Specifications

ACI = ACI 318 Structural Concrete Building Code

Check Anchor Bolt Stress and Minimum Spacing

$$\text{BoltStress} := \frac{F_{t.anchor.calc}}{A_{net.anchor}} = 15.3 \cdot \text{ksi}$$

$$\text{MaxShear} := \sqrt{V_x^{\,2} + V_z^{\,2}} = 33.9 \cdot \text{kip}$$

$$\text{BoltShear} := \left(\frac{\text{MaxShear}}{\text{Num}_{anchor}} + \frac{|\text{Torsion}|}{\text{Num}_{anchor} \cdot r_b} \right) = 6.1 \cdot \text{kip}$$

$$\text{AllowStress} := \left[\begin{array}{l} 0 \cdot \text{ksi} \quad \text{if} \quad \frac{1.3 \cdot \text{BoltShear}}{0.5} \geq 0.75 \cdot (75 \cdot \text{ksi}) \cdot A_{net.anchor} \\ \frac{\left(\frac{0.75}{1.3}\right) \cdot \sqrt{\left[0.75 \cdot (75 \cdot \text{ksi}) \cdot A_{net.anchor}\right]^2 - \left(\frac{1.3 \cdot \text{BoltShear}}{0.5}\right)^2}}{A_{net.anchor}} \quad \text{otherwise} \end{array} \right]$$

return $\text{AllowStress} = 32.2 \cdot \text{ksi}$

$\text{BoltStressCheck} := \text{if}(\text{AllowStress} \geq \text{BoltStress}, \text{"OK"}, \text{"No Good"})$ $\text{BoltStressCheck} = \text{"OK"}$

$$\theta_{bolts} := \frac{360\text{deg}}{\text{Num}_{anchor}} = 45 \cdot \text{deg}$$

$$\text{Distance\_Between\_Bolts} := 2 \cdot r_b \cdot \sin\left(\frac{\theta_{bolts}}{2}\right) = 6.89 \cdot \text{in}$$

$$\text{Minimum\_Spacing} := 3 \cdot d_{anchor} = 6 \cdot \text{in}$$

$\text{Bolt\_Minimum\_Spacing\_Check} := \text{if}(\text{Distance\_Between\_Bolts} \geq \text{Minimum\_Spacing}, \text{"OK"}, \text{"No Good"})$

$\text{Bolt\_Minimum\_Spacing\_Check} = \text{"OK"}$

Base Plate Calculations

Compute Base Plate Thickness

Minimum base plate thicknesses are determined using the formula on page 410 of the 5th edition of Roark's "Formulas for Stress and Strain" by Raymond Roark and Warren Young.

Anchor_Bolt_Tension := $F_{t.anchor.calc}$

Min_Base_Plate_Thickness := 2in

Base_PL_Thickness :=
- W ← Anchor_Bolt_Tension
- FOS ← 2.12 *factor of safety* **[AASHTO Bridge Table 10.32.1A]**
- $W_u \leftarrow W \cdot FOS$
- $F_{y\_plate} \leftarrow 36 \cdot ksi$
- $\sigma_y \leftarrow F_{y\_plate}$
- $\sigma_y \leftarrow \sigma_y \cdot 1.33$ *apply "group load" factor* **[AASHTO Table 3.4-1]**
- $t_{plate} \leftarrow \sqrt{\frac{2 \cdot W_u}{\pi \cdot \sigma_y}}$ **[Roark (Ref.45)]**
- $t_{plate} \leftarrow Min\_Base\_Plate\_Thickness$ if $t_{plate} < Min\_Base\_Plate\_Thickness$
- return t_{plate}

$Base\_PL\_Thickness = 2.000 \cdot in$

Compute Stiffener Plate Thickness

The buckling of the vertical plates is investigated using the discussion on pages 752 through 765 in the 2nd edition of the book "Steel Structures" by Charles Salmon and John Johnson

Min_Stiffener_Thickness := 0.625in

Stiffener_Thickness :=
- P ← Anchor_Bolt_Tension
- FOS ← 2.0 *factor of safety*
- $F_{y\_stiff} \leftarrow 36 \cdot ksi$
- $b_{stiff} \leftarrow 6.in$
- $t_{stiff} \leftarrow \frac{P \cdot FOS}{0.90 \cdot F_{y\_stiff} \cdot (b_{stiff}) \cdot 2}$ **[Salmon Eq. 13.4.4]**
- $t_{stiff} \leftarrow Min\_Stiffener\_Thickness$ if $t_{stiff} < Min\_Stiffener\_Thickness$
- return t_{stiff}

$Stiffener\_Thickness = 0.625 \cdot in$

Compute Stiffener Plate Height

In accordance with AASHTO LTS-6 Article 5.14.4, "only tapered stiffeners having a

termination angle of 15 degrees on the tube at the tip of the stiffener shall be used."

$$\text{Stiffener\_Height} := \left| \begin{array}{l} \text{StiffWidth} \leftarrow 6.\text{in} \\ \theta_{stiff} \leftarrow 15 \cdot \text{deg} \\ \text{StiffHeight} \leftarrow \dfrac{\text{StiffWidth} - 1 \cdot \text{in}}{\tan(\theta_{stiff})} + 1 \cdot \text{in} \\ \text{return StiffHeight} \end{array} \right.$$

$$\text{Stiffener\_Height} = 19.660 \cdot \text{in}$$

Compute Allowable Shear Stress for Fillet Welds

Note: The allowable weld stress computed here is used to design all welds computed by the program.

$$F_{weld} := \left| \begin{array}{l} F_u \leftarrow 70\text{ksi} \\ F_v \leftarrow 0.27 \cdot F_u \\ F_{weld} \leftarrow 0.707 \cdot F_v \\ F_{weld} \leftarrow F_{weld} \cdot 1.33 \\ \text{return } F_{weld} \end{array} \right.$$

[E70xx Electrode]

[AASHTO Bridge Eq. 10-12]

apply "group load" factor ***[AASHTO Table 3.4-1]***

$$F_{weld} = 17.772 \cdot \text{ksi}$$

Design Base Plate to Upright Welds

$$\text{Base\_PL\_to\_Upright\_Welds} := \left| \begin{array}{l} \text{WeldRadius} \leftarrow \dfrac{\text{Upright}_{diameter}}{2} \\ \text{WeldForce} \leftarrow \dfrac{\text{MaxShear} + \dfrac{\text{Torsion}}{\text{WeldRadius}}}{2 \cdot \pi \cdot \text{WeldRadius}} \\ \text{Weld}_{req} \leftarrow \text{Round}\left(\dfrac{\text{WeldForce}}{F_{weld}} + \dfrac{0.499}{16} \cdot \text{in}, \dfrac{1}{16} \cdot \text{in} \right) \\ \text{Weld}_{in} \leftarrow \text{Floor}\left(\text{Upright\_Thickness}, \dfrac{1}{16} \cdot \text{in} \right) - \dfrac{1}{16} \cdot \text{in} \\ \text{Weld}_{out} \leftarrow \text{Weld}_{req} - \text{Weld}_{in} \\ \text{Weld}_{out} \leftarrow \dfrac{5}{16} \cdot \text{in} \quad \text{if} \quad \text{Weld}_{out} < \dfrac{5}{16} \cdot \text{in} \\ \text{Weld}_{in} \leftarrow \dfrac{5}{16} \cdot \text{in} \quad \text{if} \quad \text{Weld}_{req} - \text{Weld}_{out} < \text{Weld}_{in} \wedge \text{Weld}_{req} - \text{Weld}_{out} < \dfrac{5}{16} \cdot \text{in} \\ \text{Diff} \leftarrow \text{Weld}_{req} - (\text{Weld}_{in} + \text{Weld}_{out}) \\ \text{Weld}_{in} \leftarrow \text{Weld}_{in} - \text{Diff} \quad \text{if} \quad \text{Diff} \geq \dfrac{1}{16} \cdot \text{in} \\ \text{Weld}_{in} \leftarrow \dfrac{5}{16} \cdot \text{in} \quad \text{if} \quad \text{Weld}_{in} < \dfrac{5}{16} \cdot \text{in} \\ \text{Welds}_0 \leftarrow \text{Weld}_{in} \\ \text{Welds}_1 \leftarrow \text{Weld}_{out} \\ \text{return Welds} \end{array} \right.$$

return Welds

$Base\_PL\_Inside\_Weld := Base\_PL\_to\_Upright\_Welds_0$ $Base\_PL\_Inside\_Weld = 0.3125 \cdot in$

$Base\_PL\_Outside\_Weld := Base\_PL\_to\_Upright\_Welds_1$ $Base\_PL\_Outside\_Weld = 0.3125 \cdot in$

Design Stiffener Plate to Base Plate Weld

$$Stiff\_PL\_to\_Base\_PL\_Weld := \left| \begin{array}{l} WeldForce \leftarrow \frac{Anchor\_Bolt\_Tension}{2 \cdot (6.in - 0.75 \cdot in)} \\ WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in \right) \\ WeldSize \leftarrow \frac{5}{16} \cdot in \text{ if } WeldSize < \frac{5}{16} \cdot in \\ \text{return } WeldSize \end{array} \right.$$

$Stiff\_PL\_to\_Base\_PL\_Weld = 0.3125 \cdot in$

Design Stiffener Plate to Upright Weld

$$Stiff\_PL\_to\_Upright\_Weld := \left| \begin{array}{l} BoltTension \leftarrow Anchor\_Bolt\_Tension \\ StiffHt \leftarrow Stiffener\_Height \\ WeldForce \leftarrow \frac{\sqrt{\left[\frac{(18 \cdot in) \cdot BoltTension}{(StiffHt - 0.75 \cdot in)^2} \right]^2 + \left(\frac{BoltTension}{StiffHt - 0.75 \cdot in} \right)^2}}{2} \\ WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in \right) \\ WeldSize \leftarrow \frac{3}{16} \cdot in \text{ if } WeldSize < \frac{3}{16} \cdot in \\ \text{return } WeldSize \end{array} \right.$$

$Stiff\_PL\_to\_Upright\_Weld = 0.1875 \cdot in$

Check Stiffener Thickness to Upright Wall Thickness Ratio

In accordance with AASHTO LTS-6 Article 5.14.4, "the ratio of the stiffener thickness to the tube wall thicknesses shall not exceed 1.25".

$$Stiffener\_to\_Upright\_Thickness\_Check := \left| \begin{array}{l} \text{"OK"} \quad \text{if } \frac{Stiffener\_Thickness}{Upright\_Thickness} \le 1.25 \\ \text{"N.G. Select an upright member with thicker walls."} \quad \text{otherwise} \end{array} \right.$$

Additional Base Connection Check $Stiffener\_to\_Upright\_Thickness\_Check = \text{"OK"}$

Base Plate Calculations

Connection Output

Connection Values

Base Connection

Note: All truss bolted connections use A325 bolts, and upright anchor bolts are ASTM F1554. All welds are sized assuming E70xx electrodes.

(BA) Anchor_Bolt_Size = 2.00·in

(BB) Number_of_Anchor_Bolts_Reqd = 8

(BC) Base_Plate_Thickness = 2·in

(BD) Stiffener_Plate_Thickness = $\frac{5}{8}$·in

(BE) Stiffener_Plate_Height = 20·in

(BF) Inside_Base_Plate_Fillet_Weld = $\frac{5}{16}$·in

(BG) Outside_Base_Plate_Fillet_Weld = $\frac{5}{16}$·in

(BH) Stiffener_PL_to_Base_PL_Fillet_Weld = $\frac{5}{16}$·in

(BJ) Stiffener_PL_to_Upright_Fillet_Weld = $\frac{3}{16}$·in

Drilled Shaft Dimensions/Reinforcing

(FA) Drilled_Shaft_Length := $L_{shaft.length}$ = 30.8 ft

(FB) Drilled_Shaft_Diameter := b = 2.5 ft

(FC) Longitudinal_Reinforcement := Num_{bar} = 8 See longitudinal bar diameter for size of bars

(FD) Num_Stirrup_Spaces := $\frac{(depth_{stir} - 5.in - 24in - 7in)}{s_{v2}}$ = 54

(FE) Shear_Stirrup_Spacing := s_{v2} = 6.00·in

Anchor Bolt Lengths

(BK) Anchor_Bolt_Embed_Length := $L_{embedment.anchor}$ = 46·in

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*                                                                       *
*       The University of Florida, Florida Department                   *
*       of Transportation, Drs. Marc Hoit, Mike McVay,                  *
*       Cliff Hays, Mark Williams, Petros Christou, and                 *
*                        Jae H. Chung                                   *
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```

```
Analysis Start       = 9:47am
Analysis End         = 9:47am
Analysis Duration    = 8 second(s)

Input Data File Name = 2687+00.in
Analysis Date        =  9-12-2016
License ID Number    = 432722304


* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*      OUTPUT STAGE 1 OF 2: INTERPRETATION OF INPUT FILE      *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

************************************************************
*                        PROJECT DATA                      *
************************************************************

Project client      = PB
Project name        = I-95 Express Lanes, Phase 3A-2
Project manager     = Morgan Villanueva, P.E., S.I.
Computed by         = Adrian Robaina
Project description = 2687+00


************************************************************
*               SELECTIVE PRINT OUTPUT CONTROL             *
************************************************************

Print Flag                                              State
Pile displacements                                        On
Pile element forces                                       On
Pile ID numbers                                          Off
Pile cap stresses                                         On
Pile and pier coordinates                                 On
Pile and pier interaction diagrams                        On
Pile and pier material stress-strain curves               On
Pile and pier material properties                         On
Pier columns and pier cap displacements                   On
Pier columns and pier cap forces                          On
Soil response forces                                      On
Soil data per layer                                       On
Soil curve data per pile node                             On
Soil graph per pile node                                  On
Bridge span properties                                   Off
Bridge span temperature data                             Off
Bridge span displacements                                Off
```

Bridge span element forces	Off
Discrete spring forces	On
Out of balance forces	On
XML output	On
Eigenvectors	Off

****
* ANALYSIS CONTROL INFORMATION *
****

Type of analysis = Static

Soil stiffness = Nonlinear
Pile stiffness = Nonlinear

Units = English (kips & ft; lbs & in)

Number of piers = 1

Max. number of iterations = 240
Convergence tolerance = 1.0 kips

****
* SOIL BEHAVIOR *
****

Springs are defined at the following DOF for embedded nodes:
X-TRANSLATION Y-TRANSLATION Z-TRANSLATION
Z-ROTATION

****
* LOAD FACTORS FOR SELF WEIGHT AND BUOYANCY *
****

LOAD CASE NO.	SELF WEIGHT FACTOR	BUOYANCY FACTOR
1	1.30	1.30

****
* PILE CAP DATA *
****

NOTE: Xp-Grid: Distance between axes along Xp axis
Yp-Grid: Distance between axes along Yp axis

Number of Grid Points in Xp direction (NPX) = 3
Number of Grid Points in Yp direction (NPY) = 6

Grid Spacing in the Xp direction (in):
15.00 15.00

Grid Spacing in the Yp direction (in):
27.00 30.00 30.00 30.00 27.00

****
* INPUT SOIL DATA - GIVEN BY LAYER *
****

NOTE : The following data are used to define springs for each soil layer

LAYERED P-Y CURVES

- SOIL SET # 1 -

SET	LAYER	MODEL	PHI deg	RK lbs/in^3	GAMMA pcf
1	1	1	0.3000E+02	0.3000E+02	0.1050E+03
			0.3000E+02	0.3000E+02	0.1050E+03

LAYERED T-Z CURVES

- SOIL SET # 1 -

SET	LAYER	MODEL	GAMMA pcf	ELEVATION ft	PIEZOMETRIC ELEVATION
1	1	2	0.1050E+03	0.0000E+00	0.0000E+00
			0.1050E+03	-0.5000E+02	0.0000E+00

LAYERED T-THETA CURVES

- SOIL SET # 1 -

SET	LAYER	MODEL	SHEAR M. ksi	TAU MAX psf
1	1	1	0.6000E+00	0.5000E+03
			0.6000E+00	0.5000E+03

PILE TIP SOIL PARAMETERS

- SOIL SET # 1 -

Drilled Shaft Tip on Sand
N(SPT) at Tip = 14.0

****
* PILE SEGMENT DATA *
****

NOTE: Pile sets consist of pile segments based on user input. The program groups all segments from every pile set and assigns a reference number to each segment.

The reference number for each segment together with the user input pile set/segment number is listed below. The input section properties for each section and segment are also provided below.

Number of segments found among all piles = 1

- SECTION DATA FOR SECTION/SEGMENT : 1 -

Input Pile Set Number = 1
Input Pile Set Segment = 1

Section Length (L) = 35.000000 ft

Nonlinear Section/Segment Material Properties

- Concrete Stress Strain Properties -

```
  Concrete Strength    (FPC)               = 0.4000E+01     ksi
  Modulus of Elasticity (EC)               = 0.3280E+04     ksi

  No. Gauss Integ. points in the concrete  =    60

-----------------------------------------------------------------
- Steel Stress Strain Properties                                -
-----------------------------------------------------------------

  Mild Steel Yield Stress  (FY)            = 0.6000E+02     ksi
  Modulus of Elasticity    (ES)            = 0.2900E+05     ksi
```

Default Stress Strain Curves for Current Section

- Concrete Stress Strain Curve -

Stress ksi	Strain
-0.28900E+01	-0.38000E-02
-0.34000E+01	-0.20732E-02
-0.33306E+01	-0.17770E-02
-0.31224E+01	-0.14808E-02
-0.27755E+01	-0.11847E-02
-0.22898E+01	-0.88850E-03
-0.16653E+01	-0.59233E-03
-0.97143E+00	-0.29617E-03
0.00000E+00	0.00000E+00
0.43158E+00	0.13158E-03
0.21579E+00	0.30000E-03
0.00000E+00	0.20000E-02
0.00000E+00	0.50000E-02

- Mild Steel Stress Strain Curve -

Stress ksi	Strain
-0.60000E+02	-0.99990E-01
-0.60000E+02	-0.20690E-02
0.60000E+02	0.20690E-02
0.60000E+02	0.99990E-01

- Shape of Section : CIRCULAR

- Steel and Confinement Data

  Number of Steel Layers = 1
  Section/Segment Diameter = 30.0000 in
  Tied/Spiral Reinforcement Flag = 1
  (Spiral = 1, Tied = 2)
  Confinement Flag = 0
  (None = 0, Confined - Tied/Spiral = 1,
  Confined - Tied/Spiral and Casing = 2)

- Total Area of Steel Reinforcement = 8.0000 in^2

  WARNING : The number of bars is changed to a multiple of 4.
  This is to ensure a symmetric section for the
  analysis. The area is changed to result in the
  same total area of steel.

Layer	# Bars/Strands	Area in^2	Layer Dia. in	Prestressing ksi
1	8	1.00	18.00	0.00

****
* INPUT SOIL DATA PER NODE ALONG THE PILE *
****

DATA USED TO GENERATE P-Y CURVES

NODE	PHI deg	K lbs/in^3	GAMMA lb/ft^3	CU psf	E50 ft/ft	E100 ft/ft	qu ksi
2	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
3	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
4	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
5	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
6	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

8	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
9	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
10	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
11	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
12	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
13	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
14	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
15	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
16	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						
17	0.3000E+02	0.3000E+02	0.1050E+03	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00						

DATA USED TO GENERATE T-Z CURVES

NODE	PHI	GAMMA
	deg	pcf
2	0.3000E+02	0.6076E-04
3	0.3000E+02	0.6076E-04
4	0.3000E+02	0.6076E-04
5	0.3000E+02	0.6076E-04
6	0.3000E+02	0.6076E-04
7	0.3000E+02	0.6076E-04
8	0.3000E+02	0.6076E-04
9	0.3000E+02	0.6076E-04
10	0.3000E+02	0.6076E-04
11	0.3000E+02	0.6076E-04
12	0.3000E+02	0.6076E-04
13	0.3000E+02	0.6076E-04
14	0.3000E+02	0.6076E-04
15	0.3000E+02	0.6076E-04
16	0.3000E+02	0.6076E-04
17	0.3000E+02	0.6076E-04

DATA USED TO GENERATE T-THETA CURVES

NODE	Gi	TAU MAX
	ksi	psf

2	0.6000E+00	0.5000E+03
3	0.6000E+00	0.5000E+03
4	0.6000E+00	0.5000E+03
5	0.6000E+00	0.5000E+03
6	0.6000E+00	0.5000E+03
7	0.6000E+00	0.5000E+03
8	0.6000E+00	0.5000E+03
9	0.6000E+00	0.5000E+03
10	0.6000E+00	0.5000E+03
11	0.6000E+00	0.5000E+03
12	0.6000E+00	0.5000E+03
13	0.6000E+00	0.5000E+03
14	0.6000E+00	0.5000E+03
15	0.6000E+00	0.5000E+03
16	0.6000E+00	0.5000E+03
17	0.6000E+00	0.5000E+03

****
* SOIL RESISTANCE CURVES (P-y, T-z, T-theta, Q-z) *
****

Listed below are the soil curves (P-y, T-z, T-theta) for each depth correspondng to a pile node. Q-z curves are additionally listed for pile tips.

- P-Y Plots for Soil Set 1

P-Multipliers are used in the analysis, if specified by the user. The original (unscaled) P-Y curves are listed below.

- Depth below ground surface = 0.00 in -

---

y	P
in	kip/in
0.0000	0.0000
0.0947	0.0000
0.1895	0.0000
0.2842	0.0000
0.3789	0.0000
0.4737	0.0000
0.5684	0.0000
0.6632	0.0000
0.7579	0.0000
0.8526	0.0000
0.9474	0.0000

1.0421	0.0000
1.1368	0.0000
1.2316	0.0000
1.3263	0.0000
1.4211	0.0000
1.5158	0.0000
1.6105	0.0000
1.7053	0.0000
1.8000	0.0000

- Depth below ground surface = 24.80 in -

---

y in	P kip/in
0.0000	0.0000
0.0947	0.0682
0.1895	0.1245
0.2842	0.1641
0.3789	0.1889
0.4737	0.2034
0.5684	0.2114
0.6632	0.2158
0.7579	0.2181
0.8526	0.2194
0.9474	0.2200
1.0421	0.2204
1.1368	0.2206
1.2316	0.2207
1.3263	0.2207
1.4211	0.2207
1.5158	0.2208
1.6105	0.2208
1.7053	0.2208
1.8000	0.2208

- Depth below ground surface = 49.60 in -

---

y in	P kip/in
0.0000	0.0000
0.0947	0.1369
0.1895	0.2523
0.2842	0.3364
0.3789	0.3914
0.4737	0.4249
0.5684	0.4444

0.6632	0.4555
0.7579	0.4617
0.8526	0.4651
0.9474	0.4670
1.0421	0.4680
1.1368	0.4686
1.2316	0.4689
1.3263	0.4691
1.4211	0.4692
1.5158	0.4692
1.6105	0.4692
1.7053	0.4693
1.8000	0.4693

- Depth below ground surface = 74.40 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.2021
0.1895	0.3584
0.2842	0.4568
0.3789	0.5111
0.4737	0.5389
0.5684	0.5525
0.6632	0.5591
0.7579	0.5622
0.8526	0.5637
0.9474	0.5644
1.0421	0.5647
1.1368	0.5649
1.2316	0.5650
1.3263	0.5650
1.4211	0.5650
1.5158	0.5650
1.6105	0.5650
1.7053	0.5650
1.8000	0.5650

- Depth below ground surface = 99.20 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.2716
0.1895	0.4908

0.2842	0.6391
0.3789	0.7278
0.4737	0.7770
0.5684	0.8032
0.6632	0.8168
0.7579	0.8238
0.8526	0.8274
0.9474	0.8292
1.0421	0.8301
1.1368	0.8306
1.2316	0.8309
1.3263	0.8310
1.4211	0.8310
1.5158	0.8311
1.6105	0.8311
1.7053	0.8311
1.8000	0.8311

- Depth below ground surface = 124.00 in -

y	P
in	kip/in
0.0000	0.0000
0.0947	0.3433
0.1895	0.6379
0.2842	0.8595
0.3789	1.0101
0.4737	1.1055
0.5684	1.1633
0.6632	1.1974
0.7579	1.2172
0.8526	1.2285
0.9474	1.2350
1.0421	1.2387
1.1368	1.2408
1.2316	1.2420
1.3263	1.2427
1.4211	1.2431
1.5158	1.2433
1.6105	1.2434
1.7053	1.2435
1.8000	1.2435

- Depth below ground surface = 148.80 in -

y	P

y	P
in	kip/in
0.0000	0.0000
0.0947	0.4148
0.1895	0.7848
0.2842	1.0829
0.3789	1.3037
0.4737	1.4576
0.5684	1.5601
0.6632	1.6264
0.7579	1.6685
0.8526	1.6949
0.9474	1.7114
1.0421	1.7215
1.1368	1.7278
1.2316	1.7317
1.3263	1.7341
1.4211	1.7356
1.5158	1.7365
1.6105	1.7370
1.7053	1.7374
1.8000	1.7376

- Depth below ground surface = 173.60 in -

y	P
in	kip/in
0.0000	0.0000
0.0947	0.4860
0.1895	0.9310
0.2842	1.3067
0.3789	1.6026
0.4737	1.8235
0.5684	1.9816
0.6632	2.0915
0.7579	2.1663
0.8526	2.2165
0.9474	2.2499
1.0421	2.2720
1.1368	2.2866
1.2316	2.2961
1.3263	2.3023
1.4211	2.3064
1.5158	2.3091
1.6105	2.3108
1.7053	2.3120
1.8000	2.3127

- Depth below ground surface = 198.40 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.5572
0.1895	1.0766
0.2842	1.5299
0.3789	1.9034
0.4737	2.1969
0.5684	2.4189
0.6632	2.5822
0.7579	2.6997
0.8526	2.7830
0.9474	2.8414
1.0421	2.8821
1.1368	2.9103
1.2316	2.9297
1.3263	2.9431
1.4211	2.9522
1.5158	2.9585
1.6105	2.9629
1.7053	2.9658
1.8000	2.9678

- Depth below ground surface = 223.20 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.6283
0.1895	1.2215
0.2842	1.7522
0.3789	2.2044
0.4737	2.5739
0.5684	2.8659
0.6632	3.0904
0.7579	3.2594
0.8526	3.3847
0.9474	3.4765
1.0421	3.5432
1.1368	3.5913
1.2316	3.6259
1.3263	3.6507
1.4211	3.6684
1.5158	3.6810

1.6105	3.6900
1.7053	3.6964
1.8000	3.7010

- Depth below ground surface = 248.00 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.6992
0.1895	1.3660
0.2842	1.9735
0.3789	2.5046
0.4737	2.9523
0.5684	3.3183
0.6632	3.6101
0.7579	3.8380
0.8526	4.0133
0.9474	4.1465
1.0421	4.2468
1.1368	4.3218
1.2316	4.3775
1.3263	4.4188
1.4211	4.4493
1.5158	4.4718
1.6105	4.4884
1.7053	4.5005
1.8000	4.5095

- Depth below ground surface = 272.80 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.7701
0.1895	1.5099
0.2842	2.1938
0.3789	2.8037
0.4737	3.3306
0.5684	3.7734
0.6632	4.1370
0.7579	4.4298
0.8526	4.6621
0.9474	4.8440
1.0421	4.9852
1.1368	5.0939

1.2316	5.1772
1.3263	5.2407
1.4211	5.2889
1.5158	5.3255
1.6105	5.3531
1.7053	5.3740
1.8000	5.3898

- Depth below ground surface = 297.60 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.8410
0.1895	1.6536
0.2842	2.4132
0.3789	3.1016
0.4737	3.7081
0.5684	4.2294
0.6632	4.6680
0.7579	5.0304
0.8526	5.3253
0.9474	5.5625
1.0421	5.7514
1.1368	5.9007
1.2316	6.0179
1.3263	6.1095
1.4211	6.1808
1.5158	6.2361
1.6105	6.2790
1.7053	6.3121
1.8000	6.3377

- Depth below ground surface = 322.40 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.9110
0.1895	1.7914
0.2842	2.6144
0.3789	3.3603
0.4737	4.0175
0.5684	4.5825
0.6632	5.0578
0.7579	5.4506

0.8526	5.7704
0.9474	6.0276
1.0421	6.2325
1.1368	6.3943
1.2316	6.5215
1.3263	6.6208
1.4211	6.6982
1.5158	6.7583
1.6105	6.8048
1.7053	6.8408
1.8000	6.8685

- Depth below ground surface = 347.20 in -

y in	P kip/in
0.0000	0.0000
0.0947	0.9811
0.1895	1.9292
0.2842	2.8155
0.3789	3.6188
0.4737	4.3266
0.5684	4.9350
0.6632	5.4469
0.7579	5.8699
0.8526	6.2143
0.9474	6.4913
1.0421	6.7119
1.1368	6.8862
1.2316	7.0231
1.3263	7.1301
1.4211	7.2135
1.5158	7.2781
1.6105	7.3282
1.7053	7.3670
1.8000	7.3969

- Depth below ground surface = 372.00 in -

y in	P kip/in
0.0000	0.0000
0.0947	1.0512
0.1895	2.0670
0.2842	3.0166
0.3789	3.8773

0.4737	4.6356
0.5684	5.2875
0.6632	5.8360
0.7579	6.2892
0.8526	6.6582
0.9474	6.9549
1.0421	7.1913
1.1368	7.3781
1.2316	7.5248
1.3263	7.6394
1.4211	7.7287
1.5158	7.7980
1.6105	7.8517
1.7053	7.8932
1.8000	7.9252

- T-Z Plots for Soil Set 1

Coefficient of axial group efficiency = 1.000
The scaled T-Z curves are listed below.

- Depth below ground surface = 0.00 in -

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z in	T ksi
0.0000	0.0000
0.0947	0.0000
0.1895	0.0000
0.2842	0.0000
0.3789	0.0000
0.4737	0.0000
0.5684	0.0000
0.6632	0.0000
0.7579	0.0000
0.8526	0.0000
0.9474	0.0000
1.0421	0.0000
1.1368	0.0000
1.2316	0.0000
1.3263	0.0000
1.4211	0.0000
1.5158	0.0000
1.6105	0.0000
1.7053	0.0000
1.8000	0.0000

- Depth below ground surface = 24.80 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0006
0.1895	0.0007
0.2842	0.0007
0.3789	0.0007
0.4737	0.0007
0.5684	0.0007
0.6632	0.0007
0.7579	0.0007
0.8526	0.0007
0.9474	0.0007
1.0421	0.0007
1.1368	0.0007
1.2316	0.0007
1.3263	0.0007
1.4211	0.0007
1.5158	0.0007
1.6105	0.0007
1.7053	0.0007
1.8000	0.0007

- Depth below ground surface = 49.60 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0011
0.1895	0.0014
0.2842	0.0014
0.3789	0.0014
0.4737	0.0014
0.5684	0.0014
0.6632	0.0014
0.7579	0.0014
0.8526	0.0014
0.9474	0.0014
1.0421	0.0014
1.1368	0.0014
1.2316	0.0014
1.3263	0.0014
1.4211	0.0014
1.5158	0.0014

1.6105	0.0014
1.7053	0.0014
1.8000	0.0014

- Depth below ground surface = 74.40 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0016
0.1895	0.0020
0.2842	0.0021
0.3789	0.0021
0.4737	0.0021
0.5684	0.0021
0.6632	0.0021
0.7579	0.0021
0.8526	0.0021
0.9474	0.0021
1.0421	0.0021
1.1368	0.0021
1.2316	0.0021
1.3263	0.0021
1.4211	0.0021
1.5158	0.0021
1.6105	0.0021
1.7053	0.0021
1.8000	0.0021

- Depth below ground surface = 99.20 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0021
0.1895	0.0026
0.2842	0.0027
0.3789	0.0027
0.4737	0.0027
0.5684	0.0027
0.6632	0.0027
0.7579	0.0027
0.8526	0.0027
0.9474	0.0027
1.0421	0.0027
1.1368	0.0027

1.2316	0.0027
1.3263	0.0027
1.4211	0.0027
1.5158	0.0027
1.6105	0.0027
1.7053	0.0027
1.8000	0.0027

- Depth below ground surface = 124.00 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0025
0.1895	0.0031
0.2842	0.0032
0.3789	0.0032
0.4737	0.0032
0.5684	0.0032
0.6632	0.0032
0.7579	0.0032
0.8526	0.0032
0.9474	0.0032
1.0421	0.0032
1.1368	0.0032
1.2316	0.0032
1.3263	0.0032
1.4211	0.0032
1.5158	0.0032
1.6105	0.0032
1.7053	0.0032
1.8000	0.0032

- Depth below ground surface = 148.80 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0028
0.1895	0.0035
0.2842	0.0037
0.3789	0.0037
0.4737	0.0037
0.5684	0.0037
0.6632	0.0037
0.7579	0.0037

0.8526	0.0037
0.9474	0.0037
1.0421	0.0037
1.1368	0.0037
1.2316	0.0037
1.3263	0.0037
1.4211	0.0037
1.5158	0.0037
1.6105	0.0037
1.7053	0.0037
1.8000	0.0037

- Depth below ground surface = 173.60 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0032
0.1895	0.0040
0.2842	0.0041
0.3789	0.0041
0.4737	0.0041
0.5684	0.0041
0.6632	0.0041
0.7579	0.0041
0.8526	0.0041
0.9474	0.0041
1.0421	0.0041
1.1368	0.0041
1.2316	0.0041
1.3263	0.0041
1.4211	0.0041
1.5158	0.0041
1.6105	0.0041
1.7053	0.0041
1.8000	0.0041

- Depth below ground surface = 198.40 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0035
0.1895	0.0044
0.2842	0.0045
0.3789	0.0045

0.4737	0.0045
0.5684	0.0045
0.6632	0.0045
0.7579	0.0045
0.8526	0.0045
0.9474	0.0045
1.0421	0.0045
1.1368	0.0045
1.2316	0.0045
1.3263	0.0045
1.4211	0.0045
1.5158	0.0045
1.6105	0.0045
1.7053	0.0045
1.8000	0.0045

- Depth below ground surface = 223.20 in -

z	T
in	ksi
0.0000	0.0000
0.0947	0.0038
0.1895	0.0047
0.2842	0.0049
0.3789	0.0049
0.4737	0.0049
0.5684	0.0049
0.6632	0.0049
0.7579	0.0049
0.8526	0.0049
0.9474	0.0049
1.0421	0.0049
1.1368	0.0049
1.2316	0.0049
1.3263	0.0049
1.4211	0.0049
1.5158	0.0049
1.6105	0.0049
1.7053	0.0049
1.8000	0.0049

- Depth below ground surface = 248.00 in -

z	T
in	ksi
0.0000	0.0000

0.0947	0.0041
0.1895	0.0051
0.2842	0.0053
0.3789	0.0053
0.4737	0.0053
0.5684	0.0053
0.6632	0.0053
0.7579	0.0053
0.8526	0.0053
0.9474	0.0053
1.0421	0.0053
1.1368	0.0053
1.2316	0.0053
1.3263	0.0053
1.4211	0.0053
1.5158	0.0053
1.6105	0.0053
1.7053	0.0053
1.8000	0.0053

- Depth below ground surface = 272.80 in -

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z	T
in	ksi
0.0000	0.0000
0.0947	0.0043
0.1895	0.0054
0.2842	0.0056
0.3789	0.0056
0.4737	0.0056
0.5684	0.0056
0.6632	0.0056
0.7579	0.0056
0.8526	0.0056
0.9474	0.0056
1.0421	0.0056
1.1368	0.0056
1.2316	0.0056
1.3263	0.0056
1.4211	0.0056
1.5158	0.0056
1.6105	0.0056
1.7053	0.0056
1.8000	0.0056

- Depth below ground surface = 297.60 in -

z	T
in	ksi
0.0000	0.0000
0.0947	0.0046
0.1895	0.0057
0.2842	0.0059
0.3789	0.0059
0.4737	0.0059
0.5684	0.0059
0.6632	0.0059
0.7579	0.0059
0.8526	0.0059
0.9474	0.0059
1.0421	0.0059
1.1368	0.0059
1.2316	0.0059
1.3263	0.0059
1.4211	0.0059
1.5158	0.0059
1.6105	0.0059
1.7053	0.0059
1.8000	0.0059

- Depth below ground surface = 322.40 in -

z	T
in	ksi
0.0000	0.0000
0.0947	0.0048
0.1895	0.0060
0.2842	0.0062
0.3789	0.0062
0.4737	0.0062
0.5684	0.0062
0.6632	0.0062
0.7579	0.0062
0.8526	0.0062
0.9474	0.0062
1.0421	0.0062
1.1368	0.0062
1.2316	0.0062
1.3263	0.0062
1.4211	0.0062
1.5158	0.0062
1.6105	0.0062
1.7053	0.0062

1.8000	0.0062

- Depth below ground surface = 347.20 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0050
0.1895	0.0062
0.2842	0.0065
0.3789	0.0065
0.4737	0.0065
0.5684	0.0065
0.6632	0.0065
0.7579	0.0065
0.8526	0.0065
0.9474	0.0065
1.0421	0.0065
1.1368	0.0065
1.2316	0.0065
1.3263	0.0065
1.4211	0.0065
1.5158	0.0065
1.6105	0.0065
1.7053	0.0065
1.8000	0.0065

- Depth below ground surface = 372.00 in -

z in	T ksi
0.0000	0.0000
0.0947	0.0052
0.1895	0.0064
0.2842	0.0067
0.3789	0.0067
0.4737	0.0067
0.5684	0.0067
0.6632	0.0067
0.7579	0.0067
0.8526	0.0067
0.9474	0.0067
1.0421	0.0067
1.1368	0.0067
1.2316	0.0067
1.3263	0.0067

1.4211	0.0067
1.5158	0.0067
1.6105	0.0067
1.7053	0.0067
1.8000	0.0067

- T-THETA Plots for Soil Set 1

- Depth below ground surface = 0.00 in -

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theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 24.80 in -

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theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334

0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 49.60 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 74.40 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318

0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 99.20 in -

theta	T
rad	ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 124.00 in -

theta	T
rad	ksi

0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 148.80 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 173.60 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 198.40 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342

0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 223.20 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 248.00 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340

0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 272.80 in -

---

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 297.60 in -

---

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337

0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 322.40 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 347.20 in -

theta rad	T ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329

0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Depth below ground surface = 372.00 in -

---

theta	T
rad	ksi
0.00000	0.00000
0.01033	0.00271
0.02067	0.00305
0.03100	0.00318
0.04134	0.00325
0.05167	0.00329
0.06201	0.00332
0.07234	0.00334
0.08267	0.00335
0.09301	0.00337
0.10334	0.00338
0.11368	0.00339
0.12401	0.00339
0.13434	0.00340
0.14468	0.00340
0.15501	0.00341
0.16535	0.00341
0.17568	0.00342
0.18602	0.00342
0.19635	0.00342

- Q-Z (tip) Plot for Soil Set 1

Coefficient of axial group efficiency = 1.000
The scaled Q-Z curves are listed below.

z	Q

in	kips
0.0000	0.0000
0.1579	14.1547
0.3158	26.4938
0.4737	37.2495
0.6316	46.6379
0.7895	54.8583
0.9474	62.0940
1.1053	68.5116
1.2632	74.2614
1.4211	79.4774
1.5789	84.2772
1.7368	88.7616
1.8947	93.0156
2.0526	97.1075
2.2105	101.0890
2.3684	104.9957
2.5263	108.8468
2.6842	112.6449
2.8421	116.3764
3.0000	120.0111

****
* PILE SET DATA *
****

NOTE : Piles are organized into pile sets. Each pile set is
composed of pile segments, as specified by the User.

List of Pile Sets and Piles

Pile Set	Piles Assigned to the Pile Set
1	1, 2

Total length for each Pile Set

Pile Set	Length in
1	420.00

****
* NODAL INFORMATION *
****

NOTE : This section provides nodal DOF and coordinate data,
where A = "Active" and N = "Not Active"

Nodal Coordinates for Pile # 1

Z coordinate of soil surface = 0.000 ft

NODE	BOUNDARY CONDITION CODES						NODAL COORDINATES (units are: in)		
NUM.	X	Y	Z	RXX	RYY	RZZ	X	Y	Z
1	A	A	A	A	A	A	15.000	117.000	-48.000
56	A	A	A	A	A	A	15.000	117.000	0.000
57	A	A	A	A	A	A	15.000	117.000	24.800
58	A	A	A	A	A	A	15.000	117.000	49.600
59	A	A	A	A	A	A	15.000	117.000	74.400
60	A	A	A	A	A	A	15.000	117.000	99.200
61	A	A	A	A	A	A	15.000	117.000	124.000
62	A	A	A	A	A	A	15.000	117.000	148.800
63	A	A	A	A	A	A	15.000	117.000	173.600
64	A	A	A	A	A	A	15.000	117.000	198.400
65	A	A	A	A	A	A	15.000	117.000	223.200
66	A	A	A	A	A	A	15.000	117.000	248.000
67	A	A	A	A	A	A	15.000	117.000	272.800
68	A	A	A	A	A	A	15.000	117.000	297.600
69	A	A	A	A	A	A	15.000	117.000	322.400
70	A	A	A	A	A	A	15.000	117.000	347.200
71	A	A	A	A	A	A	15.000	117.000	372.000

Nodal Coordinates for Pile # 2

Z coordinate of soil surface = 0.000 ft

NODE	BOUNDARY CONDITION CODES						NODAL COORDINATES (units are: in)		
NUM.	X	Y	Z	RXX	RYY	RZZ	X	Y	Z
2	A	A	A	A	A	A	15.000	27.000	-48.000
72	A	A	A	A	A	A	15.000	27.000	0.000
73	A	A	A	A	A	A	15.000	27.000	24.800
74	A	A	A	A	A	A	15.000	27.000	49.600
75	A	A	A	A	A	A	15.000	27.000	74.400
76	A	A	A	A	A	A	15.000	27.000	99.200
77	A	A	A	A	A	A	15.000	27.000	124.000
78	A	A	A	A	A	A	15.000	27.000	148.800
79	A	A	A	A	A	A	15.000	27.000	173.600
80	A	A	A	A	A	A	15.000	27.000	198.400

81	A	A	A	A	A	A	15.000	27.000	223.200
82	A	A	A	A	A	A	15.000	27.000	248.000
83	A	A	A	A	A	A	15.000	27.000	272.800
84	A	A	A	A	A	A	15.000	27.000	297.600
85	A	A	A	A	A	A	15.000	27.000	322.400
86	A	A	A	A	A	A	15.000	27.000	347.200
87	A	A	A	A	A	A	15.000	27.000	372.000

Nodal Coordinates for Pile Cap

NODE	BOUNDARY CONDITION CODES						NODAL COORDINATES (units are: in)		
NUM.	X	Y	Z	RXX	RYY	RZZ	X	Y	Z
3	A	A	A	A	A	A	0.000	144.000	-48.000
4	A	A	A	A	A	A	15.000	144.000	-48.000
5	A	A	A	A	A	A	30.000	144.000	-48.000
6	A	A	A	A	A	A	0.000	117.000	-48.000
7	A	A	A	A	A	A	30.000	117.000	-48.000
8	A	A	A	A	A	A	0.000	87.000	-48.000
9	A	A	A	A	A	A	15.000	87.000	-48.000
10	A	A	A	A	A	A	30.000	87.000	-48.000
11	A	A	A	A	A	A	0.000	57.000	-48.000
12	A	A	A	A	A	A	15.000	57.000	-48.000
13	A	A	A	A	A	A	30.000	57.000	-48.000
14	A	A	A	A	A	A	0.000	27.000	-48.000
15	A	A	A	A	A	A	30.000	27.000	-48.000
16	A	A	A	A	A	A	0.000	0.000	-48.000
17	A	A	A	A	A	A	15.000	0.000	-48.000
18	A	A	A	A	A	A	30.000	0.000	-48.000
19	A	A	A	A	A	N	7.500	144.000	-48.000
20	A	A	A	A	A	N	22.500	144.000	-48.000
21	A	A	A	A	A	N	0.000	130.500	-48.000
22	A	A	A	A	A	N	7.500	130.500	-48.000
23	A	A	A	A	A	N	15.000	130.500	-48.000
24	A	A	A	A	A	N	22.500	130.500	-48.000
25	A	A	A	A	A	N	30.000	130.500	-48.000
26	A	A	A	A	A	N	7.500	117.000	-48.000
27	A	A	A	A	A	N	22.500	117.000	-48.000
28	A	A	A	A	A	N	0.000	102.000	-48.000
29	A	A	A	A	A	N	7.500	102.000	-48.000
30	A	A	A	A	A	N	15.000	102.000	-48.000
31	A	A	A	A	A	N	22.500	102.000	-48.000
32	A	A	A	A	A	N	30.000	102.000	-48.000
33	A	A	A	A	A	N	7.500	87.000	-48.000
34	A	A	A	A	A	N	22.500	87.000	-48.000
35	A	A	A	A	A	N	0.000	72.000	-48.000
36	A	A	A	A	A	N	7.500	72.000	-48.000

37	A	A	A	A	A	N	15.000	72.000	-48.000
38	A	A	A	A	A	N	22.500	72.000	-48.000
39	A	A	A	A	A	N	30.000	72.000	-48.000
40	A	A	A	A	A	N	7.500	57.000	-48.000
41	A	A	A	A	A	N	22.500	57.000	-48.000
42	A	A	A	A	A	N	0.000	42.000	-48.000
43	A	A	A	A	A	N	7.500	42.000	-48.000
44	A	A	A	A	A	N	15.000	42.000	-48.000
45	A	A	A	A	A	N	22.500	42.000	-48.000
46	A	A	A	A	A	N	30.000	42.000	-48.000
47	A	A	A	A	A	N	7.500	27.000	-48.000
48	A	A	A	A	A	N	22.500	27.000	-48.000
49	A	A	A	A	A	N	0.000	13.500	-48.000
50	A	A	A	A	A	N	7.500	13.500	-48.000
51	A	A	A	A	A	N	15.000	13.500	-48.000
52	A	A	A	A	A	N	22.500	13.500	-48.000
53	A	A	A	A	A	N	30.000	13.500	-48.000
54	A	A	A	A	A	N	7.500	0.000	-48.000
55	A	A	A	A	A	N	22.500	0.000	-48.000

****
* PILE CAP PROPERTIES - USING SHELL ELEMENTS *
****

Modulus of Elasticity = 0.3846E+04 ksi
Poisson's Ratio = 0.2000
Shear Modulus = 0.1602E+04 ksi
Self Weight = 150.0000 pcf
Thickness = 0.8000E+01 ft

****
* PILE CAP ELEMENT CONNECTIVITY *
****

EL #	MAT	N1	N2	N3	N4	N5	N6	N7	N8	N9	THICK
											ft
1	1	3	19	4	21	22	23	6	26	1	8.00
2	1	4	20	5	23	24	25	1	27	7	8.00
3	1	6	26	1	28	29	30	8	33	9	8.00
4	1	1	27	7	30	31	32	9	34	10	8.00
5	1	8	33	9	35	36	37	11	40	12	8.00
6	1	9	34	10	37	38	39	12	41	13	8.00
7	1	11	40	12	42	43	44	14	47	2	8.00
8	1	12	41	13	44	45	46	2	48	15	8.00
9	1	14	47	2	49	50	51	16	54	17	8.00
10	1	2	48	15	51	52	53	17	55	18	8.00

```
************************************************************
*                      PIER LOAD DATA                      *
************************************************************

------------------------------------------------------------
-                         PIER #  1                        -
------------------------------------------------------------
```

NODE	CASE	FXp	FYp	FZp	MXp	MYp	MZp
		kips	kips	kips	kip-ft	kip-ft	kip-ft
1	1	-8.41	-27.50	222.02	74.30	-79.00	11.21
2	1	-4.81	32.81	198.20	-83.40	-41.03	10.82

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*           OUTPUT STAGE 2 OF 2:  ANALYSIS RESULTS          *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *


************************************************************
*                   RESULTS FOR LOAD CASE   1              *
************************************************************


************************************************************
*                      CONVERGENCE REPORT                  *
************************************************************

The solution converged in  16 iterations

____________________________________________________________
Summary of Maximum Out-Of-Balance Forces (Absolute Values)

FZ  =        0.000  kips
FX  =        0.000  kips
FY  =        0.000  kips
MXX =        0.000  kip-ft
MYY =        0.000  kip-ft
MZZ =        0.000  kip-ft


____________________________________________________________
Print of Out of Balance Forces (kips and kip-ft)


------------------------------------------------------------
```

- Pile Number 1 -

NODE	FXp	FYp	FZp	MXp	MYp	MZp
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
57	0.0000	0.0000	-0.0260	0.0000	0.0000	0.0000
58	0.0000	0.0000	-0.0521	0.0000	0.0000	0.0000
59	0.0000	0.0000	-0.0758	0.0000	0.0000	0.0000
60	0.0000	0.0000	-0.0967	0.0000	0.0000	0.0000
61	0.0000	0.0000	-0.1160	0.0000	0.0000	0.0000
62	0.0000	0.0000	-0.1339	0.0000	0.0000	0.0000
63	0.0000	0.0000	-0.1505	0.0000	0.0000	0.0000
64	0.0000	0.0000	-0.1659	0.0000	0.0000	0.0000
65	0.0000	0.0000	-0.1803	0.0000	0.0000	0.0000
66	0.0000	0.0000	-0.1935	0.0000	0.0000	0.0000
67	0.0000	0.0000	-0.2058	0.0000	0.0000	0.0000
68	0.0000	0.0000	-0.2171	0.0000	0.0000	0.0000
69	0.0000	0.0000	-0.2275	0.0000	0.0000	0.0000
70	0.0000	0.0000	-0.2370	0.0000	0.0000	0.0000
71	0.0000	0.0000	-0.8695	0.0000	0.0000	0.0000

- Pile Number 2 -

NODE	FXp	FYp	FZp	MXp	MYp	MZp
2	0.0000	0.0000	0.0000	0.0000	0.0000	

0.0000					
72	0.0000	0.0000	-0.0260	0.0000	0.0000
0.0000					
73	0.0000	0.0000	-0.0521	0.0000	0.0000
0.0000					
74	0.0000	0.0000	-0.0758	0.0000	0.0000
0.0000					
75	0.0000	0.0000	-0.0967	0.0000	0.0000
0.0000					
76	0.0000	0.0000	-0.1160	0.0000	0.0000
0.0000					
77	0.0000	0.0000	-0.1339	0.0000	0.0000
0.0000					
78	0.0000	0.0000	-0.1505	0.0000	0.0000
0.0000					
79	0.0000	0.0000	-0.1659	0.0000	0.0000
0.0000					
80	0.0000	0.0000	-0.1803	0.0000	0.0000
0.0000					
81	0.0000	0.0000	-0.1935	0.0000	0.0000
0.0000					
82	0.0000	0.0000	-0.2058	0.0000	0.0000
0.0000					
83	0.0000	0.0000	-0.2171	0.0000	0.0000
0.0000					
84	0.0000	0.0000	-0.2275	0.0000	0.0000
0.0000					
85	0.0000	0.0000	-0.2370	0.0000	0.0000
0.0000					
86	0.0000	0.0000	-0.8695	0.0000	0.0000
0.0000					
87	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000					

Summary of Displacements at Pile Heads

NODE	X	Y	Z
	in	in	in
1	-.5839E-01	0.1284E+00	0.2578E+01
2	-.2616E-01	0.1288E+00	0.2482E+01

Final Displacements

- Pile Number 1 -

NODE	X	Y	Z	RXX	RYY	RZZ
	in	in	in	rad	rad	rad
1	-.5839E-01	0.1284E+00	0.2578E+01	0.1065E-02	-.5551E-04	0.3586E-03
56	-.5437E-01	0.8150E-01	0.2574E+01	0.8827E-03	0.2044E-03	0.3084E-03
57	-.4830E-01	0.6098E-01	0.2571E+01	0.7705E-03	0.2799E-03	0.2838E-03
58	-.4084E-01	0.4338E-01	0.2569E+01	0.6486E-03	0.3173E-03	0.2617E-03
59	-.3287E-01	0.2885E-01	0.2567E+01	0.5232E-03	0.3218E-03	0.2419E-03
60	-.2511E-01	0.1739E-01	0.2564E+01	0.4018E-03	0.3010E-03	0.2242E-03
61	-.1809E-01	0.8821E-02	0.2562E+01	0.2908E-03	0.2632E-03	0.2086E-03
62	-.1214E-01	0.2821E-02	0.2560E+01	0.1952E-03	0.2162E-03	0.1948E-03
63	-.7389E-02	-.1029E-02	0.2558E+01	0.1176E-03	0.1671E-03	0.1827E-03
64	-.3825E-02	-.3184E-02	0.2556E+01	0.5847E-04	0.1210E-03	0.1723E-03
65	-.1328E-02	-.4089E-02	0.2554E+01	0.1652E-04	0.8139E-04	0.1635E-03
66	0.2888E-03	-.4139E-02	0.2552E+01	-.1080E-04	0.5011E-04	0.1561E-03
67	0.1239E-02	-.3659E-02	0.2551E+01	-.2674E-04	0.2756E-04	0.1502E-03
68	0.1731E-02	-.2887E-02	0.2549E+01	-.3469E-04	0.1307E-04	0.1456E-03
69	0.1948E-02	-.1983E-02	0.2548E+01	-.3776E-04	0.5215E-05	0.1424E-03
70	0.2033E-02	-.1036E-02	0.2547E+01	-.3847E-04	0.2085E-05	0.1405E-03
71	0.2075E-02	-.8139E-04	0.2545E+01	-.3851E-04	0.1437E-05	0.1398E-03

- Pile Number 2 -

NODE	X	Y	Z	RXX	RYY	RZZ
	in	in	in	rad	rad	rad
2	-.2616E-01	0.1288E+00	0.2482E+01	0.1049E-02	-.5559E-04	0.3584E-03
72	-.2534E-01	0.8235E-01	0.2478E+01	0.8783E-03	0.8047E-04	0.3082E-03
73	-.2281E-01	0.6189E-01	0.2476E+01	0.7702E-03	0.1215E-03	0.2836E-03
74	-.1949E-01	0.4425E-01	0.2473E+01	0.6512E-03	0.1435E-03	0.2615E-03
75	-.1584E-01	0.2963E-01	0.2471E+01	0.5277E-03	0.1490E-03	0.2417E-03
76	-.1222E-01	0.1805E-01	0.2469E+01	0.4071E-03	0.1416E-03	0.2241E-03
77	-.8900E-02	0.9348E-02	0.2467E+01	0.2963E-03	0.1253E-03	0.2084E-03
78	-.6051E-02	0.3216E-02	0.2465E+01	0.2003E-03	0.1041E-03	0.1946E-03
79	-.3752E-02	-.7515E-03	0.2463E+01	0.1220E-03	0.8128E-04	0.1826E-03
80	-.2010E-02	-.3005E-02	0.2461E+01	0.6200E-04	0.5952E-04	0.1722E-03
81	-.7735E-03	-.3987E-02	0.2459E+01	0.1920E-04	0.4062E-04	0.1634E-03
82	0.4055E-04	-.4094E-02	0.2457E+01	-.8872E-05	0.2554E-04	0.1560E-03
83	0.5316E-03	-.3654E-02	0.2455E+01	-.2540E-04	0.1458E-04	0.1501E-03
84	0.7994E-03	-.2910E-02	0.2454E+01	-.3376E-04	0.7470E-05	0.1455E-03
85	0.9321E-03	-.2026E-02	0.2452E+01	-.3707E-04	0.3588E-05	0.1423E-03
86	0.9990E-03	-.1095E-02	0.2451E+01	-.3788E-04	0.2028E-05	0.1404E-03
87	0.1044E-02	-.1545E-03	0.2450E+01	-.3794E-04	0.1702E-05	0.1397E-03

Pile Cap Displacements (Excluding Pile Heads)

NODE	X	Y	Z	RXX	RYY	RZZ
	in	in	in	rad	rad	rad
3	-.6809E-01	0.1230E+00	0.2606E+01	0.1065E-02	-.5664E-04	0.3584E-03
4	-.6807E-01	0.1284E+00	0.2607E+01	0.1065E-02	-.5550E-04	0.3585E-03
5	-.6805E-01	0.1338E+00	0.2608E+01	0.1065E-02	-.5437E-04	0.3586E-03
6	-.5842E-01	0.1230E+00	0.2577E+01	0.1064E-02	-.5685E-04	0.3576E-03
7	-.5835E-01	0.1338E+00	0.2579E+01	0.1064E-02	-.5417E-04	0.3594E-03
8	-.4769E-01	0.1231E+00	0.2545E+01	0.1061E-02	-.5732E-04	0.3580E-03
9	-.4764E-01	0.1285E+00	0.2546E+01	0.1061E-02	-.5553E-04	0.3580E-03
10	-.4759E-01	0.1339E+00	0.2547E+01	0.1061E-02	-.5375E-04	0.3581E-03
11	-.3695E-01	0.1233E+00	0.2513E+01	0.1057E-02	-.5757E-04	0.3580E-03
12	-.3690E-01	0.1286E+00	0.2514E+01	0.1057E-02	-.5556E-04	0.3580E-03
13	-.3685E-01	0.1340E+00	0.2515E+01	0.1057E-02	-.5355E-04	0.3580E-03
14	-.2620E-01	0.1234E+00	0.2482E+01	0.1053E-02	-.5717E-04	0.3592E-03
15	-.2612E-01	0.1341E+00	0.2483E+01	0.1053E-02	-.5400E-04	0.3574E-03
16	-.1651E-01	0.1234E+00	0.2453E+01	0.1050E-02	-.5685E-04	0.3584E-03
17	-.1649E-01	0.1288E+00	0.2454E+01	0.1051E-02	-.5560E-04	0.3583E-03
18	-.1646E-01	0.1341E+00	0.2455E+01	0.1050E-02	-.5434E-04	0.3582E-03
19	-.6806E-01	0.1258E+00	0.2607E+01	0.1063E-02	-.5535E-04	0.0000E+00
20	-.6807E-01	0.1312E+00	0.2607E+01	0.1063E-02	-.5565E-04	0.0000E+00
21	-.6322E-01	0.1231E+00	0.2592E+01	0.1063E-02	-.5488E-04	0.0000E+00
22	-.6323E-01	0.1257E+00	0.2592E+01	0.1064E-02	-.5552E-04	0.0000E+00
23	-.6323E-01	0.1285E+00	0.2593E+01	0.1063E-02	-.5551E-04	0.0000E+00
24	-.6323E-01	0.1311E+00	0.2593E+01	0.1064E-02	-.5549E-04	0.0000E+00
25	-.6324E-01	0.1339E+00	0.2593E+01	0.1063E-02	-.5613E-04	0.0000E+00
26	-.5839E-01	0.1258E+00	0.2578E+01	0.1063E-02	-.5530E-04	0.0000E+00
27	-.5839E-01	0.1312E+00	0.2579E+01	0.1063E-02	-.5572E-04	0.0000E+00
28	-.5300E-01	0.1231E+00	0.2561E+01	0.1062E-02	-.5505E-04	0.0000E+00
29	-.5302E-01	0.1258E+00	0.2562E+01	0.1063E-02	-.5580E-04	0.0000E+00
30	-.5301E-01	0.1285E+00	0.2562E+01	0.1062E-02	-.5552E-04	0.0000E+00
31	-.5301E-01	0.1312E+00	0.2563E+01	0.1063E-02	-.5524E-04	0.0000E+00
32	-.5302E-01	0.1339E+00	0.2563E+01	0.1062E-02	-.5600E-04	0.0000E+00
33	-.4764E-01	0.1259E+00	0.2546E+01	0.1062E-02	-.5538E-04	0.0000E+00
34	-.4764E-01	0.1312E+00	0.2547E+01	0.1062E-02	-.5568E-04	0.0000E+00
35	-.4226E-01	0.1232E+00	0.2530E+01	0.1061E-02	-.5492E-04	0.0000E+00
36	-.4228E-01	0.1259E+00	0.2530E+01	0.1060E-02	-.5578E-04	0.0000E+00
37	-.4227E-01	0.1286E+00	0.2530E+01	0.1061E-02	-.5555E-04	0.0000E+00
38	-.4227E-01	0.1313E+00	0.2531E+01	0.1060E-02	-.5531E-04	0.0000E+00
39	-.4228E-01	0.1339E+00	0.2531E+01	0.1061E-02	-.5618E-04	0.0000E+00
40	-.3690E-01	0.1259E+00	0.2514E+01	0.1060E-02	-.5543E-04	0.0000E+00
41	-.3690E-01	0.1313E+00	0.2515E+01	0.1060E-02	-.5570E-04	0.0000E+00
42	-.3152E-01	0.1233E+00	0.2498E+01	0.1059E-02	-.5534E-04	0.0000E+00
43	-.3154E-01	0.1260E+00	0.2498E+01	0.1056E-02	-.5611E-04	0.0000E+00

44	-.3153E-01	0.1286E+00	0.2499E+01	0.1059E-02	-.5557E-04	0.0000E+00
45	-.3153E-01	0.1313E+00	0.2499E+01	0.1056E-02	-.5504E-04	0.0000E+00
46	-.3154E-01	0.1340E+00	0.2499E+01	0.1059E-02	-.5581E-04	0.0000E+00
47	-.2616E-01	0.1260E+00	0.2482E+01	0.1057E-02	-.5545E-04	0.0000E+00
48	-.2616E-01	0.1313E+00	0.2483E+01	0.1057E-02	-.5572E-04	0.0000E+00
49	-.2131E-01	0.1233E+00	0.2468E+01	0.1057E-02	-.5477E-04	0.0000E+00
50	-.2133E-01	0.1260E+00	0.2468E+01	0.1054E-02	-.5536E-04	0.0000E+00
51	-.2132E-01	0.1287E+00	0.2468E+01	0.1056E-02	-.5559E-04	0.0000E+00
52	-.2132E-01	0.1314E+00	0.2469E+01	0.1054E-02	-.5582E-04	0.0000E+00
53	-.2133E-01	0.1340E+00	0.2469E+01	0.1057E-02	-.5641E-04	0.0000E+00
54	-.1648E-01	0.1260E+00	0.2454E+01	0.1057E-02	-.5564E-04	0.0000E+00
55	-.1649E-01	0.1313E+00	0.2455E+01	0.1057E-02	-.5555E-04	0.0000E+00

Maximum/minimum Strains in the Piles

Concrete Strains for Section No. 1
Maximum = 0.1733E-06 at Element No. 1
Minimum = -0.1862E-03 at Element No. 1

Steel Strains for Section No. 1
Steel type = 1 (mild longitudinal bars)
Maximum = -0.2927E-04 at Element No. 1
Minimum = -0.1568E-03 at Element No. 1

Sum of Total Soil Spring Forces

Xp Direction	=	-13.2199	kips
Yp Direction	=	5.3110	kips
Zp Direction	=	496.0100	kips
Sum of Tip Forces	=	216.2999	kips

Near Field Soil Resistance (kips & kip-ft)

NOTES:

1. The force shown in the last pile node includes
   the force from the bearing spring. The force in
   the bearing spring is also printed separately
   at the end of the section.

2. The soil spring forces in the Xp, Yp, and Zp directions
   represent the components of the soil resistance in
   the pier-local coordinates.

3. The axial force represents the soil resistance
   developed along the local orientation of the pile
   axis.

- Pile Number 1 -

NODE	FXp	FYp	FZp	Axial	MZp
1	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.002	0.002	0.489
57	-0.883	1.110	1.668	1.668	0.906
58	-1.499	1.591	3.335	3.335	0.841
59	-1.809	1.590	4.852	4.852	0.783
60	-1.848	1.282	6.180	6.180	0.730
61	-1.668	0.814	7.407	7.407	0.682
62	-1.344	0.312	8.543	8.543	0.640
63	-0.954	-0.133	9.597	9.597	0.603
64	-0.565	-0.470	10.573	10.573	0.570
65	-0.221	-0.679	11.478	11.478	0.542
66	0.053	-0.764	12.316	12.316	0.519
67	0.251	-0.743	13.090	13.090	0.501
68	0.383	-0.639	13.802	13.802	0.486
69	0.467	-0.476	14.457	14.457	0.476
70	0.525	-0.268	15.055	15.055	0.470
71	0.287	-0.011	116.828	116.828	0.234

Pile Tip Spring Force = 109.308

- Pile Number 2 -

NODE	FXp	FYp	FZp	Axial	MZp
2	0.000	0.000	0.000	0.000	0.000
72	0.000	0.000	0.002	0.002	0.488
73	-0.420	1.126	1.667	1.667	0.906
74	-0.718	1.622	3.334	3.334	0.841
75	-0.876	1.633	4.851	4.851	0.782
76	-0.901	1.330	6.179	6.179	0.729
77	-0.821	0.862	7.405	7.405	0.682
78	-0.670	0.356	8.541	8.541	0.639
79	-0.485	-0.097	9.594	9.594	0.602
80	-0.297	-0.444	10.571	10.571	0.570
81	-0.128	-0.662	11.476	11.476	0.542
82	0.007	-0.755	12.313	12.313	0.519
83	0.108	-0.742	13.087	13.087	0.500

84	0.177	-0.644	13.799	13.799	0.486
85	0.224	-0.486	14.453	14.453	0.476
86	0.258	-0.283	15.051	15.051	0.469
87	0.144	-0.021	114.502	114.502	0.234

Pile Tip Spring Force = 106.992

Summary of Pile Forces for Load CASE 1

1. Axial Force (kips)

Pile #	Maximum Force	Minimum Force
1	-0.11654E+03	-0.23596E+03
2	-0.11424E+03	-0.23371E+03

2. Pile Shear Force in 2 Direction (kips)

Pile #	Maximum Shear	Minimum Shear
1	0.19676E+01	-0.88226E+01
2	0.91852E+00	-0.43974E+01

3. Pile Shear Force in 3 Direction (kips)

Pile #	Maximum Shear	Minimum Shear
1	0.41821E+01	-0.25156E+01
2	0.41342E+01	-0.27954E+01

4. Bending Moment About 2 Axis (kip-ft and ft)

Pile	Node	Depth Below Cap	Maximum Moment	Node	Depth Below Cap	Minimum Moment
1	71	0.35000E+02	0.3863E-08	58	0.8133E+01	-0.57382E+02
2	87	0.35000E+02	0.6289E-08	75	0.1020E+02	-0.56686E+02

5. Bending Moment About 3 Axis (kip-ft and ft)

Pile	Node	Depth Below Cap	Maximum Moment	Node	Depth Below Cap

Minimum Moment
1 62 0.16400E+02 0.2267E+02 1 0.0000E+00
-0.79085E+02
2 79 0.18467E+02 0.1044E+02 2 0.0000E+00
-0.40945E+02

- Analytical Force Results for each Pile

NOTE : Forces are oriented along the local axes (1-2-3)

- Pile Number 1 -

ELEM NO.	PROP NO.	NODE NO.	LOAD CASE	FAX kips	F22 kips	F33 kips	M22 kip-ft	M33 kip-ft	TORQUE kip-ft	D/C Ratio
1	1	1	1	-234.80	-8.82	-2.52	37.55	79.09	-9.47	0.19
	1	56	1	234.80	8.82	2.52	-48.53	-43.72	9.47	0.16
2	1	56	1	-234.80	-8.82	-2.52	48.53	43.72	-8.98	0.16
	1	57	1	235.96	8.82	2.52	-54.13	-25.36	8.98	0.16
3	1	57	1	-234.26	-7.94	-1.41	54.13	25.36	-8.08	0.16
	1	58	1	235.42	7.94	1.41	-57.38	-8.81	8.08	0.16
4	1	58	1	-232.03	-6.44	0.18	57.38	8.81	-7.23	0.16
	1	59	1	233.19	6.44	-0.18	-57.28	4.65	7.23	0.16
5	1	59	1	-228.26	-4.63	1.77	57.28	-4.65	-6.45	0.15
	1	60	1	229.41	4.63	-1.77	-53.83	14.37	6.45	0.15
6	1	60	1	-223.14	-2.78	3.06	53.83	-14.37	-5.72	0.15
	1	61	1	224.29	2.78	-3.06	-47.68	20.26	5.72	0.15
7	1	61	1	-216.77	-1.12	3.87	47.68	-20.26	-5.04	0.14
	1	62	1	217.92	1.12	-3.87	-39.79	22.67	5.04	0.14

8	1	62	1	-209.25	0.23	4.18	39.79	-22.67	-4.40	0.13
	1	63	1	210.40	-0.23	-4.18	-31.21	22.28	4.40	0.13
9	1	63	1	-200.65	1.18	4.05	31.21	-22.28	-3.80	0.12
	1	64	1	201.81	-1.18	-4.05	-22.88	19.90	3.80	0.12
10	1	64	1	-191.07	1.75	3.58	22.88	-19.90	-3.23	0.11
	1	65	1	192.23	-1.75	-3.58	-15.50	16.33	3.23	0.11
11	1	65	1	-180.57	1.97	2.90	15.50	-16.33	-2.69	0.10
	1	66	1	181.72	-1.97	-2.90	-9.50	12.29	2.69	0.10
12	1	66	1	-169.21	1.91	2.14	9.50	-12.29	-2.17	0.09
	1	67	1	170.37	-1.91	-2.14	-5.08	8.34	2.17	0.09
13	1	67	1	-157.07	1.66	1.39	5.08	-8.34	-1.67	0.09
	1	68	1	158.23	-1.66	-1.39	-2.19	4.91	1.67	0.09
14	1	68	1	-144.21	1.28	0.75	2.19	-4.91	-1.18	0.08
	1	69	1	145.36	-1.28	-0.75	-0.62	2.27	1.18	0.08
15	1	69	1	-130.68	0.81	0.28	0.62	-2.27	-0.70	0.07
	1	70	1	131.83	-0.81	-0.28	-0.03	0.59	0.70	0.06
16	1	70	1	-116.54	0.29	0.01	0.03	-0.59	-0.23	0.06
	1	71	1	117.70	-0.29	-0.01	0.00	0.00	0.23	0.06

- Pile Number 2 -

ELEM NO.	PROP NO.	NODE NO.	LOAD CASE	FAX kips	F22 kips	F33 kips	M22 kip-ft	M33 kip-ft	TORQUE kip-ft	D/C Ratio
17	1	2	1	-232.56	-4.40	-2.80	34.26	40.94	-9.46	0.15
	1	72	1	232.56	4.40	2.80	-46.34	-23.34		

```
 9.46       0.15
  18   1     72     1       -232.56       -4.40       -2.80       46.34       23.34
-8.98       0.15
       1     73     1        233.71        4.40        2.80      -52.52      -14.20
 8.98       0.15
  19   1     73     1       -232.02       -3.98       -1.67       52.52       14.20
-8.07       0.15
       1     74     1        233.17        3.98        1.67      -56.31       -5.92
 8.07       0.15
  20   1     74     1       -229.78       -3.26       -0.05       56.31        5.92
-7.23       0.15
       1     75     1        230.94        3.26        0.05      -56.69        0.89
 7.23       0.15
  21   1     75     1       -226.01       -2.38        1.59       56.69       -0.89
-6.45       0.15
       1     76     1        227.17        2.38       -1.59      -53.63        5.88
 6.45       0.15
  22   1     76     1       -220.89       -1.48        2.92       53.63       -5.88
-5.72       0.15
       1     77     1        222.04        1.48       -2.92      -47.76        9.01
 5.72       0.14
  23   1     77     1       -214.51       -0.66        3.78       47.76       -9.01
-5.04       0.14
       1     78     1        215.67        0.66       -3.78      -40.06       10.42
 5.04       0.13
  24   1     78     1       -206.99        0.01        4.13       40.06      -10.42
-4.40       0.13
       1     79     1        208.14       -0.01       -4.13      -31.59       10.44
 4.40       0.12
  25   1     79     1       -198.39        0.49        4.04       31.59      -10.44
-3.80       0.12
       1     80     1        199.55       -0.49       -4.04      -23.28        9.45
 3.80       0.11
  26   1     80     1       -188.81        0.79        3.59       23.28       -9.45
-3.23       0.11
       1     81     1        189.96       -0.79       -3.59      -15.87        7.84
 3.23       0.10
  27   1     81     1       -178.30        0.92        2.93       15.87       -7.84
-2.68       0.10
       1     82     1        179.45       -0.92       -2.93       -9.81        5.95
 2.68       0.10
  28   1     82     1       -166.94        0.91        2.18        9.81       -5.95
-2.16       0.09
       1     83     1        168.09       -0.91       -2.18       -5.31        4.08
 2.16       0.09
  29   1     83     1       -154.79        0.80        1.43        5.31       -4.08
-1.66       0.08
       1     84     1        155.95       -0.80       -1.43       -2.34        2.42
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 1.66       0.08
  30   1    84     1       -141.92       0.63       0.79       2.34      -2.42
-1.18       0.08
       1    85     1        143.08      -0.63      -0.79      -0.69       1.13
 1.18       0.08
  31   1    85     1       -128.39       0.40       0.30       0.69      -1.13
-0.70       0.07
       1    86     1        129.54      -0.40      -0.30      -0.05       0.30
 0.70       0.07
  32   1    86     1       -114.24       0.14       0.02       0.05      -0.30
-0.23       0.06
       1    87     1        115.40      -0.14      -0.02       0.00       0.00
 0.23       0.06


************************************************************
*                PILE CAP - SHELL STRESS RESULTS           *
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In Plane Stress (S1, S2, S12) units are  ksi
Out of Plane Shear (S13, S23) units are  kip per in
Moment (M1, M2, M12) units are  kip-in per in


  EL#  LD#  PNT#      S1          S2         S12
                      M1          M2         M12         S13         S23
 ------------------------------------------------------------------------
   1    1    3  -0.1131E-02 -0.1686E-02  0.1153E-02
             4  -0.1001E-02 -0.1470E-02 -0.9822E-03
             1   0.6269E-03  0.2240E-02  0.5991E-02
             6   0.4982E-02  0.9365E-03 -0.5677E-02
             3   0.1584E+01 -0.1085E+01 -0.1741E+01 -0.3677E-01  0.1570E+00
             4   0.1576E+01  0.3924E+01  0.1285E+01 -0.1024E+00 -0.2743E+00
             1   0.6093E+01 -0.1329E+02 -0.1056E+02  0.5632E+00  0.6831E+00
             6  -0.1098E+02  0.1586E+02  0.3744E+01 -0.1904E+00  0.2975E-01
   2    1    4  -0.8211E-03 -0.2065E-02  0.8107E-03
             5  -0.1120E-02 -0.1465E-02 -0.8878E-03
             7   0.4814E-02  0.6963E-03  0.5171E-02
             1   0.2714E-03  0.2989E-02 -0.5389E-02
             4   0.1570E+01  0.3961E+01 -0.1272E+01  0.1005E+00 -0.2743E+00
             5   0.1580E+01 -0.1088E+01  0.1728E+01  0.3650E-01  0.1567E+00
             7  -0.1099E+02  0.1576E+02 -0.3731E+01  0.1903E+00  0.2555E-01
             1   0.6134E+01 -0.1328E+02  0.1051E+02 -0.5638E+00  0.6832E+00
   3    1    6  -0.3188E-02 -0.1156E-01 -0.7866E-02
             1  -0.9817E-03 -0.1227E-01  0.1085E-01
             9  -0.4503E-03 -0.9938E-02 -0.8038E-02
             8   0.3595E-02 -0.9829E-02  0.5086E-02
             6   0.6050E+01  0.3098E+01  0.7297E+01 -0.3676E-01  0.2147E+00
```

```
          1   0.3122E+00  0.3377E+02 -0.2117E+02  0.4438E+00 -0.5902E+00
          9   0.8323E+00  0.1457E+02  0.1724E+02  0.2526E-01  0.4705E+00
          8  -0.1109E+02  0.2284E+02 -0.9346E+01 -0.1965E+00  0.3864E-01
4    1    1  -0.1196E-02 -0.1290E-01 -0.1065E-01
          7  -0.3053E-02 -0.9299E-02  0.7402E-02
         10   0.3589E-02 -0.8745E-02 -0.4836E-02
          9  -0.1887E-03 -0.9742E-02  0.7538E-02
          1   0.4412E+00  0.3379E+02  0.2127E+02 -0.4450E+00 -0.5902E+00
          7   0.6014E+01  0.2983E+01 -0.7302E+01  0.3662E-01  0.2106E+00
         10  -0.1106E+02  0.2282E+02  0.9371E+01  0.1965E+00  0.3229E-01
          9   0.7293E+00  0.1458E+02 -0.1719E+02 -0.2529E-01  0.4706E+00
5    1    8   0.7008E-03 -0.1073E-01 -0.4360E-02
          9  -0.1304E-03 -0.1071E-01  0.7284E-02
         12  -0.5559E-03 -0.1056E-01 -0.7609E-02
         11   0.6694E-03 -0.1031E-01  0.4347E-02
          8   0.1828E+01  0.1724E+02  0.1047E+02  0.1580E+00  0.2667E+00
          9  -0.8746E+00  0.1665E+02 -0.1773E+02 -0.1801E+00  0.8756E-02
         12   0.5842E+01  0.3498E+02  0.2454E+02  0.6152E+00  0.7524E+00
         11  -0.7071E+01  0.2909E+02 -0.1623E+02 -0.4777E+00  0.4257E+00
6    1    9  -0.5586E-03 -0.1057E-01 -0.7607E-02
         10   0.6700E-03 -0.1005E-01  0.4344E-02
         13   0.7014E-03 -0.1047E-01 -0.4357E-02
         12  -0.1332E-03 -0.1072E-01  0.7282E-02
          9  -0.7794E+00  0.1663E+02  0.1780E+02  0.1798E+00  0.8835E-02
         10   0.1788E+01  0.1723E+02 -0.1047E+02 -0.1580E+00  0.2605E+00
         13  -0.7031E+01  0.2910E+02  0.1624E+02  0.4777E+00  0.4196E+00
         12   0.5747E+01  0.3500E+02 -0.2447E+02 -0.6149E+00  0.7525E+00
7    1   11   0.3593E-02 -0.8982E-02 -0.4864E-02
         12  -0.1728E-03 -0.9793E-02  0.7556E-02
          2  -0.1221E-02 -0.1281E-01 -0.1071E-01
         14  -0.3071E-02 -0.9581E-02  0.7453E-02
         11  -0.7979E+01  0.4238E+02  0.1652E+02  0.3477E+00  0.1003E+01
         12  -0.8391E+01  0.7035E+01 -0.3144E+02 -0.8824E+00 -0.1013E+00
          2   0.4183E+01  0.1074E+03  0.5807E+02  0.1674E+01  0.2005E+01
         14   0.7931E+01  0.4532E+01 -0.2093E+02 -0.5245E+00 -0.1344E+00
8    1   12  -0.4663E-03 -0.9887E-02 -0.8020E-02
         13   0.3592E-02 -0.9591E-02  0.5059E-02
         15  -0.3171E-02 -0.1128E-01 -0.7815E-02
          2  -0.9562E-03 -0.1235E-01  0.1079E-01
         12  -0.8288E+01  0.7026E+01  0.3149E+02  0.8825E+00 -0.1011E+00
         13  -0.8012E+01  0.4240E+02 -0.1650E+02 -0.3477E+00  0.9968E+00
         15   0.7967E+01  0.4647E+01  0.2092E+02  0.5247E+00 -0.1386E+00
          2   0.4054E+01  0.1074E+03 -0.5797E+02 -0.1672E+01  0.2005E+01
9    1   14   0.4831E-02  0.7268E-03  0.5224E-02
          2   0.2998E-03  0.2890E-02 -0.5452E-02
         17  -0.8404E-03 -0.2005E-02  0.8234E-03
         16  -0.1120E-02 -0.1488E-02 -0.9124E-03
         14  -0.1816E+02  0.4454E+02 -0.1352E+02 -0.1006E+00  0.4601E+00
```

```
             2   0.1105E+02 -0.5430E+02  0.3985E+02  0.1077E+01 -0.1233E+01
            17   0.5308E+01  0.1701E+02 -0.5712E+01 -0.2312E+00  0.6558E+00
            16   0.4870E+01 -0.2483E+01  0.3982E+01 -0.1316E+00 -0.4738E+00
  10    1   2   0.5985E-03  0.2338E-02  0.5927E-02
            15   0.4965E-02  0.9059E-03 -0.5624E-02
            18  -0.1131E-02 -0.1663E-02  0.1128E-02
            17  -0.9812E-03 -0.1529E-02 -0.9694E-03
             2   0.1101E+02 -0.5430E+02 -0.3991E+02 -0.1076E+01 -0.1233E+01
            15  -0.1816E+02  0.4465E+02  0.1353E+02  0.1007E+00  0.4559E+00
            18   0.4874E+01 -0.2480E+01 -0.3995E+01  0.1319E+00 -0.4741E+00
            17   0.5313E+01  0.1697E+02  0.5724E+01  0.2330E+00  0.6557E+00


**************************************************************
*                  UNIAXIAL INTERACTION DIAGRAM              *
**************************************************************

NOTE : 1. The tables below list the values on the Interaction
          Diagrams for each section, which correspond to the
          section capacity.
       2. The numbering of the SECTIONS/SEGMENTS was listed
          previously in the output file.

---------------------------------------------------------------
- Pile Cross Section Number   1                               -
---------------------------------------------------------------


_____________________________________________________________
Diagram Data

Maximum Tension Force                        =  0.4320E+03  kips
Local 2 Axis Shift for Plastic Centroid      =  0.6028E-16  in
Local 3 Axis Shift for Plastic Centroid      = -0.4225E-10  in
_____________________________________________________________
Recommended Phi Values

Concrete, Rectangular members           Phi =  0.70
Concrete, Circular members with Ties    Phi =  0.70
Concrete, Circular members with Spirals Phi =  0.75
_____________________________________________________________
Phi Factors Used

Phi Factor for Concrete Control              =  0.7500
Phi Factor for Steel in Compression          =  0.9000
Phi Factor for Steel in Tension              =  0.9500
Phi Factor for Steel in Bending              =  1.0000
Transition Phi Factor according to AASHTO
```

Units for Axial Force : kips, Units for Moment : kip-ft

Axial	Moment(+3)	Moment(-2)	Moment(-3)	Moment(+2)
0.4320E+03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.2051E+03	0.2121E+03	0.2121E+03	0.2121E+03	0.2121E+03
0.2005E+03	0.2157E+03	0.2157E+03	0.2157E+03	0.2157E+03
0.1911E+03	0.2230E+03	0.2230E+03	0.2230E+03	0.2230E+03
0.1800E+03	0.2317E+03	0.2317E+03	0.2317E+03	0.2317E+03
0.1676E+03	0.2415E+03	0.2415E+03	0.2415E+03	0.2415E+03
0.1536E+03	0.2525E+03	0.2525E+03	0.2525E+03	0.2525E+03
0.1376E+03	0.2651E+03	0.2651E+03	0.2651E+03	0.2651E+03
0.1179E+03	0.2805E+03	0.2805E+03	0.2805E+03	0.2805E+03
0.7882E+02	0.3109E+03	0.3109E+03	0.3109E+03	0.3109E+03
0.4015E+02	0.3370E+03	0.3370E+03	0.3370E+03	0.3370E+03
0.3697E+00	0.3602E+03	0.3602E+03	0.3602E+03	0.3602E+03
-0.9549E+02	0.4165E+03	0.4165E+03	0.4165E+03	0.4165E+03
-0.1912E+03	0.4718E+03	0.4718E+03	0.4718E+03	0.4718E+03
-0.2871E+03	0.5236E+03	0.5236E+03	0.5236E+03	0.5236E+03
-0.3562E+03	0.5210E+03	0.5210E+03	0.5210E+03	0.5210E+03
-0.4281E+03	0.5231E+03	0.5231E+03	0.5231E+03	0.5231E+03
-0.4958E+03	0.5256E+03	0.5256E+03	0.5256E+03	0.5256E+03
-0.5655E+03	0.5223E+03	0.5223E+03	0.5223E+03	0.5223E+03
-0.6734E+03	0.5288E+03	0.5288E+03	0.5288E+03	0.5288E+03
-0.7873E+03	0.5328E+03	0.5328E+03	0.5328E+03	0.5328E+03
-0.9027E+03	0.5292E+03	0.5292E+03	0.5292E+03	0.5292E+03
-0.1028E+04	0.5141E+03	0.5141E+03	0.5141E+03	0.5141E+03
-0.1124E+04	0.4984E+03	0.4984E+03	0.4984E+03	0.4984E+03
-0.1235E+04	0.4746E+03	0.4746E+03	0.4746E+03	0.4746E+03
-0.1361E+04	0.4345E+03	0.4345E+03	0.4345E+03	0.4345E+03
-0.1477E+04	0.3815E+03	0.3815E+03	0.3815E+03	0.3815E+03
-0.1591E+04	0.3236E+03	0.3236E+03	0.3236E+03	0.3236E+03
-0.1711E+04	0.2507E+03	0.2507E+03	0.2507E+03	0.2507E+03
-0.1836E+04	0.1746E+03	0.1746E+03	0.1746E+03	0.1746E+03

****
*   PIER 1 MAX/MIN RESPONSE QUANTITIES FOR ALL LOAD CASES   *
****

Pile demands

Demand type	Value	Unit	Load case	Load comb.	Pile
Max axial force (tension is +)	-0.1142E+03	kip	1	0	2
Min axial force	-0.2360E+03	kip	1	0	1
Max shear in 2 direction	0.1968E+01	kip	1	0	1
Min shear in 2 direction	-0.8823E+01	kip	1	0	1
Max shear in 3 direction	0.4182E+01	kip	1	0	1

Min shear in 3 direction	-0.2795E+01	kip	1	0	2
Max moment about 2 axis	0.6289E-08	kip-ft	1	0	2
Min moment about 2 axis	-0.5738E+02	kip-ft	1	0	1
Max moment about 3 axis	0.2267E+02	kip-ft	1	0	1
Min moment about 3 axis	-0.7909E+02	kip-ft	1	0	1
Max torsional force	-0.2337E+00	kip-ft	1	0	2
Min torsional force	-0.9471E+01	kip-ft	1	0	1
Max demand/capacity ratio	0.1863E+00		1	0	1

Soil demands

Demand type	Value	Unit	Load case	Load comb.	Pile
Max Zp soil force	0.1514E+02	kip	1	0	1
Min Zp soil force	0.0000E+00	kip	1	0	1
Max Xp soil force	0.5252E+00	kip	1	0	1
Min Xp soil force	-0.1848E+01	kip	1	0	1
Max Yp soil force	0.1633E+01	kip	1	0	2
Min Yp soil force	-0.7638E+00	kip	1	0	1
Max torsional soil force	0.9062E+00	kip-ft	1	0	1

Pile displacements

Displacement type	Value	Unit	Load case	Load comb.	Pile
Max Z displacement	0.2578E+01	in	1	0	1
Min Z displacement	0.2450E+01	in	1	0	2
Max X displacement	0.2075E-02	in	1	0	1
Min X displacement	-0.5839E-01	in	1	0	1
Max Y displacement	0.1288E+00	in	1	0	2
Min Y displacement	-0.4139E-02	in	1	0	1

Pile Cap Calculations (Reinforcement)

Description

This section provides the criteria for the pile cap design.

Section

A **Input Variables**

B **Moment Design**

- B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]
- B2. Limits for Reinforcement [LRFD 5.7.3.3]
- B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]
- B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]
- B5. Mass Concrete Provisions [SDG 3.9]

C **Shear and Torsion Design [LRFD 5.8]**

- C1. Check if Torsion Design is Required
- C2. Determine Nominal Shear Resistance
- C3. Transverse Reinforcement

D **Summary of Reinforcement Provided**

A. Input Variables

Material Properties

Unit weight of concrete..... $\gamma_{conc} := 150 \cdot pcf$

Modulus of elasticity for reinforcing steel..... $E_s := 29000 \cdot ksi$

Yield strength of reinforcing steel..... $f_y := 60 \cdot ksi$

Note: Epoxy coated reinforcing not allowed on FDOT projects. **[SDG 4.1]**

Design Parameters [LRFD 5.5.4.2]

Resistance Factor for Flexure and tension of reinforced concrete..... $\phi := 0.9$

Resistance Factor for Shear and torsion of normal weight concrete..... $\phi_v := 0.90$

Florida DOT Concrete & Environment [SDG 1.4]

The environment can be classified as either "Slightly", "Moderately" or "Extremely" aggressive. Per 1.02 General Notes:

Environmental classification for substructure..... $Environment_{sub} \equiv "Moderately"$

Concrete cover for substructure not in contact with water..... $cover_{sub} := \begin{cases} 4 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 3 \cdot in & \text{otherwise} \end{cases} = 3 \cdot in$

Concrete cover for substructure cast against earth or in contact with water..... $cover_{sub.earth} := \begin{cases} 4.5 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 4 \cdot in & \text{otherwise} \end{cases} = 4 \cdot in$

Minimum 28-day compressive strength of concrete components..... $f_{c.sub} := 5.5 \cdot ksi$

(Class IV, Cast-in-place Substructure)

Correction factor for Florida lime rock coarse aggregate..... $K_1 := 0.9$

Unit Weight of Florida lime rock concrete (kcf)..... $w_{c.limerock} := .145 \frac{kip}{ft^3}$

Modulus of elasticity for substructure..... $E_{c.sub} := 33000 \cdot K_1 \cdot \left(\frac{w_{c.limerock}}{\frac{kip}{ft^3}} \right)^{1.5} \sqrt{f_{c.sub} \cdot ksi} = 3846 \cdot ksi$

Pile Cap Geometry

Height of pier cap..... $h_{Cap} := 8ft$

Width of pier cap..... $b_{Cap} := 2.50ft$

Length of pier cap..... $L_{Cap} := 12ft$

Design Loads - Moments, Shears and Torques

"Service Loads for the footing, utilized only to check for crack control"

"Maximum loads are obtained from FDOT Cantilever Program and FB-Multipier"

"1.3 Load Factor (Strength1) included since loads are a mix of wind load and dead load"

Moment (M) - Service..... $M_{Service1.pos} := 83.4ft \cdot kip$

$M_{Strength1.pos} := 1.3 \cdot M_{Service1.pos} = 108.4 \cdot ft \cdot kip$

Axial (V) - Service ..... $V_{Service.neg} := 236kip$

$V_{Strength1.neg} := 1.3 \cdot V_{Service.neg} = 306.8 \cdot kip$

Torsion (Trans Moment) - Service ..... $T_{Service.neg} := 79 \cdot ft \cdot kip$

$T_{Strength1.neg} := 1.3 \cdot T_{Service.neg} = 102.7\ ft \cdot kip$

B. Moment Design

A few recommendations on bar size and spacing are available to minimize problems during construction.

- Use the same size and spacing of reinforcing for both the negative and positive moment regions. This prevents field errors whereas the top steel is mistakenly placed at the bottom or vice versa.
- If this arrangement is not possible, give preference to maintaining the same spacing between the top and bottom reinforcement. Same grid pattern allows the concrete vibrator to be more effective in reaching the full depth of the cap.

The design procedure consists of calculating the reinforcement required to satisfy the design moment, then checking this reinforcement against criteria for crack control, minimum reinforcement, maximum reinforcement, shrinkage and temperature reinforcement, and distribution of reinforcement. The procedure is the same for both positive and negative moment regions.

$$M_r := M_{Strength1.pos} = 108 \cdot ft \cdot kip$$

Factored resistance

$$M_r = \phi \cdot M_n$$

Nominal flexural resistance

$$M_n = A_{ps} \cdot f_{ps} \cdot \left(d_p - \frac{a}{2} \right) + A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right) - A'_s \cdot f'_s \cdot \left(d'_s - \frac{a}{2} \right) + 0.85 \cdot f'_c \cdot \left(b - b_w \right) \cdot h_f \cdot \left(\frac{a}{2} - \frac{h_f}{2} \right)$$

For a rectangular, non-prestressed section,

$$M_n = A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right)$$

$$a = \frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b}$$

Assume $f_s := f_y$ [LRFD 5.7.2.1]

B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]

Using variables defined in above.....

$$M_r = \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b} \right) \right]$$

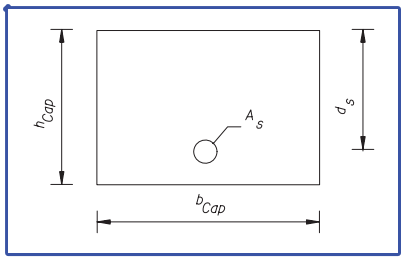
where $f_{c.sub} = 5.5 \cdot ksi$

$f_y = 60 \cdot ksi$

$\phi = 0.9$

$h_{Cap} = 96 \cdot in$

$b_{Cap} = 30 \cdot in$



Initial assumption for area of steel required

Number of bars..... $n_{bar} := 5$

Size of bar..... $bar := "5"$

Note: if bar spacing is "-1", the spacing is less than 3", and a bigger bar size should be selected.

Bar area..... $A_{bar} = 0.310 \cdot in^2$

Bar diameter..... $dia = 0.625 \cdot in$

Equivalent bar spacing..... $bar_{spa} = 5.7 \cdot in$

Area of steel provided..... $A_{s.pos} := n_{bar} \cdot A_{bar} = 1.55 \cdot in^2$

Distance from extreme compressive fiber to centroid of reinforcing steel (assuming a #6 stirrup)..... $d_s := h_{Cap} - cover_{sub} - \frac{dia}{2} - \frac{3}{4} in = 91.9 \cdot in$

Stress block factor..... $\beta_1 := \min\left[\max\left[0.85 - 0.05 \cdot \left(\frac{f_{c.sub} - 4ksi}{ksi} \right), 0.65 \right], 0.85 \right] = 0.78$

Distance between the neutral axis and compressive face..... $c := \frac{A_{s.pos} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot \beta_1 \cdot b_{Cap}} = 0.86 \cdot in$

Initial assumption for the area of steel required, this process is iterative..... $A_{sreq} := A_{s.pos} = 1.55 \cdot in^2$

Solve the quadratic equation for the area of steel required..... Given $M_r = \phi \cdot A_{sreq} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{sreq} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right]$

Area of steel required..... $A_{s.required} := \text{Find}(A_{sreq}) = 0.26 \cdot in^2$

The area of steel provided, $A_{s.pos} = 1.55 \cdot in^2$, should be greater than the area of steel required, $A_{s.required} = 0.26 \cdot in^2$. If not, decrease the spacing of the reinforcement. Once $A_{s.pos}$ is greater than $A_{s.reqd}$, the proposed reinforcing is adequate for the applied moments.

Moment capacity provided..... $M_{r.pos} := \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right] = 639 \cdot kip \cdot ft$

Check assumption that $f_s = f_y$..... $Check\_f_s := if\left(\frac{c}{d_s} < 0.6, "OK", "Not OK" \right)$ $Check\_f_s = "OK"$

B2. Limits for Reinforcement [LRFD 5.7.3.3]

Minimum Reinforcement

The minimum reinforcement requirements ensure the moment capacity provided is at least equal to the lesser of the cracking moment and 1.33 times the factored moment required by the applicable strength load combinations.

Modulus of Rupture..... $f_r := -0.24 \cdot \sqrt{f_{c.sub} \cdot ksi} = -562.8\ psi$ [SDG 1.4.1.B]

Section modulus of cap..... $S := \frac{b_{Cap} \cdot h_{Cap}^2}{6} = 46080 \cdot in^3$

Flexural cracking variability factor..... $\gamma_1 := 1.6$

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement..... $\gamma_3 := 0.67$ (for ASTM A615, Grade 60 reinforcing steel, per SDG 1.4.1.C)

Cracking moment..... $M_{cr} := \gamma_3 \cdot \gamma_1 \cdot f_r \cdot S = -2317 \cdot kip \cdot ft$

Required flexural resistance..... $M_{r.reqd} := \min\left(\left| M_{cr} \right|, 133 \cdot \% \cdot M_r \right) = 144.2 \cdot kip \cdot ft$

Check that the capacity provided, $M_{r.pos} = 639 \cdot ft \cdot kip$, exceeds minimum requirements, $M_{r.reqd} = 144.2 \cdot ft \cdot kip$.

$$LRFD_{5.7.3.3.2} := \begin{cases} "OK, minimum\ reinforcement\ for\ positive\ moment\ is\ satisfied" & if\ M_{r.pos} \geq M_{r.reqd} \\ "NG, reinforcement\ for\ positive\ moment\ is\ less\ than\ minimum" & otherwise \end{cases}$$

$LRFD_{5.7.3.3.2} = "OK, minimum\ reinforcement\ for\ positive\ moment\ is\ satisfied"$

B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]

Concrete is subjected to cracking. Limiting the width of expected cracks under service conditions increases the longevity of the structure. Potential cracks can be minimized through proper placement of the reinforcement. The check for crack control requires that the actual stress in the reinforcement should not exceed the service limit state stress (LRFD 5.7.3.4). The stress equations emphasize bar spacing rather than crack widths.

The maximum spacing of the mild steel reinforcement for control of cracking at the service limit state shall satisfy.....

$$s \le \frac{700 \cdot \gamma_e}{\beta_s \cdot f_{ss}} - 2 \cdot d_c$$

where

$$\beta_s = 1 + \frac{d_c}{0.7\left(h - d_c\right)}$$

Exposure factor for Class 1 exposure condition.....

$$\gamma_e := 1.00$$ **[SDG 3.15.8]**

Overall thickness or depth of the component.....

$$h_{Cap} = 8\ ft$$

Distance from extreme tension fiber to center of closest bar.....

$$d_c := cover_{sub} + \frac{dia}{2} + \frac{3}{4}in = 4.06 \cdot in$$

$$\beta_s := 1 + \frac{d_c}{0.7\left(h_{Cap} - d_c\right)} = 1.06$$

The neutral axis of the section must be determined to determine the actual stress in the reinforcement. This process is iterative, so an initial assumption of the neutral axis must be made.

Guess value $x := 36 \cdot in$

Given

$$\frac{1}{2} \cdot b_{Cap} \cdot x^2 = \frac{E_s}{E_{c.sub}} \cdot A_{s.pos} \cdot \left(d_s - x\right)$$

$$x_{na} := Find(x) = 8.08 \cdot in$$

Tensile force in the reinforcing steel due to service limit state moment.....

$$T_s := \frac{M_{Service1.pos}}{d_s - \frac{x_{na}}{3}} = 11.2 \cdot kip$$

Actual stress in the reinforcing steel due to service limit state moment..... $f_{s.actual} := \frac{T_s}{A_{s.pos}} = 7.24 \cdot ksi$

Required reinforcement spacing..... $s_{required} := \frac{700 \cdot \gamma_e \cdot \frac{kip}{in}}{\beta_s \cdot f_{s.actual}} - 2 \cdot d_c = 82.88 \cdot in$

Provided reinforcement spacing..... $bar_{spa} = 5.69 \cdot in$

The required spacing of mild steel reinforcement in the layer closest to the tension face shall not be less than the reinforcement spacing provided due to the service limit state moment.

$$LRFD_{5.7.3.4} := \begin{cases} \text{"OK, crack control for M is satisfied"} & \text{if } s_{required} \geq bar_{spa} \\ \text{"NG, crack control for M not satisfied, provide more reinforcement"} & \text{otherwise} \end{cases}$$

$LRFD_{5.7.3.4} = \text{"OK, crack control for M is satisfied"}$

B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]

Initial assumption for area of steel required

Size of bar..... $bar_{st} := "5"$

Spacing of bar..... $bar_{spa.st} := 8 \cdot in$

Bar area..... $A_{bar} = 0.31 \cdot in^2$

Bar diameter..... $dia = 0.625 \cdot in$

Minimum area of shrinkage and temperature reinforcement.....

$$A_{shrink.temp} := \min\left[\left[\max\left[\left[\begin{matrix}\left(0.60 \frac{in^2}{ft}\right) \\ \left(0.11 \frac{in^2}{ft}\right) \\ \left[\frac{1.3 \cdot b_{Cap} \cdot h_{Cap} \cdot \frac{kip}{in \cdot ft}}{2\left(b_{Cap} + h_{Cap}\right) \cdot f_y}\right]\end{matrix}\right]\right]\right] = 0.25 \cdot \frac{in^2}{ft}$$

Maximum spacing of shrinkage and temperature reinforcement

$$spacing_{shrink.temp} := \begin{cases} \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 12 \cdot in\right) & \text{if } \left(b_{Cap} > 36in\right) \cdot \left(h_{Cap} > 36in\right) \\ \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 3 \cdot b_{Cap}, 3 \cdot h_{Cap}, 18in\right) & \text{otherwise} \end{cases} = 15.02 \cdot in$$

The bar spacing should be less than the maximum spacing for shrinkage and temperature reinforcement

$$LRFD_{5.7.10.8} := \begin{cases} "OK, minimum shrinkage and temperature requirements" & \text{if } bar_{spa.st} \le spacing_{shrink.temp} \\ "NG, minimum shrinkage and temperature requirements" & \text{otherwise} \end{cases}$$

$LRFD_{5.7.10.8} = "OK, minimum shrinkage and temperature requirements"$

B5. Mass Concrete Provisions [SDG 3.9]

Surface area of pier cap..... $Surface_{cap} := 2 \cdot b_{Cap} \cdot h_{Cap} + \left(2b_{Cap} + 2h_{Cap}\right) \cdot L_{Cap} = 292\ ft^2$

Volume of pier cap..... $Volume_{cap} := b_{Cap} \cdot h_{Cap} \cdot L_{Cap} = 240 \cdot ft^3$

Mass concrete provisions apply if the volume to surface area ratio, $\frac{Volume_{cap}}{Surface_{cap}} = 0.82ft$, exceeds 1 ft and the minimum dimension exceeds 3 feet

$$SDG_{3.9} := \begin{cases} \text{"Use mass concrete provisions"} & \text{if } \frac{Volume_{cap}}{Surface_{cap}} > 1.0 \cdot ft \wedge b_{Cap} > 3ft \wedge h_{Cap} > 3ft \\ \text{"Use regular concrete provisions"} & \text{otherwise} \end{cases}$$

$SDG_{3.9} = \text{"Use regular concrete provisions"}$

C. Shear and Torsion Design [LRFD 5.8]

C1. Check if Torsion Design is Required

$T_u := |T_{Strength1.neg}|$ $V_u := |V_{Strength1.neg}|$

For normal weight concrete, torsional effects shall be investigated if..... $T_u > 0.25 \cdot \phi_v \cdot T_{cr}$

and..... $T_{cr} = 0.125 \cdot \sqrt{f_c} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_c}}}$

Total area enclosed by outside perimeter of concrete cross section..... $A_{cp} := h_{Cap} \cdot b_{Cap} = 20\,ft^2$

Length of outside perimeter of cross section..... $p_c := 2 \cdot (h_{Cap} + b_{Cap}) = 21\,ft$

Compressive stress in concrete after prestress losses have occured..... $f_{pc} := 0 \cdot psi$

Torsional cracking moment..... $T_{cr} := 0.125 \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_{c.sub} \cdot ksi}}} = 804.1 \cdot kip \cdot ft$

$LRFD_{5.8.2} := \begin{cases} \text{"OK, torsion can be neglected"} & \text{if } 0.25 \cdot \phi_v \cdot T_{cr} \geq T_u \\ \text{"NG, torsion shall be investigated..."} & \text{otherwise} \end{cases}$

$LRFD_{5.8.2} = \text{"OK, torsion can be neglected"}$

C2. Determine Nominal Shear Resistance

Effective width of the section..... $b_v := b_{Cap} = 30 \cdot in$

Effective shear depth..... $a := \frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} = 0.66 \cdot in$

$d_v := \max\left(d_s - \frac{a}{2}, 0.9 \cdot d_s, 0.72 \cdot h_{Cap}\right) = 91.61 \cdot in$

Determination of β and θ **(LRFD 5.8.3.4)**

The pier cap is a non-prestressed concrete section not subjected to axial tension. Assuming it has at least the amount of transverse reinforcement specified in **LRFD 5.8.2.5** or an overall depth of less than 16 in, the Simplified Procedure for determining Shear Resistance per LRFD 5.8.3.4.1 may be used.

$\beta := 2$ $\theta := 45 \cdot deg$

Nominal shear resistance of concrete section..... $V_c := 0.0316 \cdot \beta \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot b_v \cdot d_v = 407.3 \cdot kip$

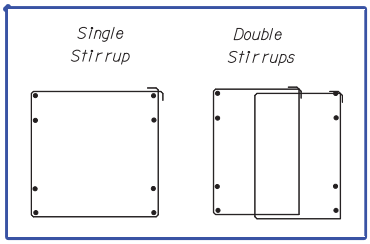
C3. Transverse Reinforcement

Because the overall depth is greater than 16 in, transverse reinforcement shall be provided in the pier cap according to **LRFD 5.8.2.5.**

$$A_v \geq .0316 \cdot \sqrt{f'_c} \cdot \frac{b_v \cdot s}{f_y}$$

The pier cap has no prestressing. $V_p := 0 \cdot kip$

Stirrups



Size of stirrup bar ("4" "5" "6" "7")... bar := "5"

Number of stirrup bars ("single" "double")..... n_{bars} := "single"

Area of shear reinforcement..... $A_v = 0.620 \cdot in^2$

Diameter of shear reinforcement..... $dia = 0.625 \cdot in$

Nominal shear strength provided by shear reinforcement

$$V_n = V_c + V_p + V_s$$

where..... $V_n := \min\left(\frac{V_u}{\phi_v}, 0.25 \cdot f_{c.sub} \cdot b_v \cdot d_v + V_p\right) = 340.89 \cdot kip$

and..... $V_s := V_n - V_c - V_p = -66.44 \cdot kip$

Spacing of stirrups

Minimum transverse reinforcement..... $s_{min} := \frac{A_v \cdot f_y}{0.0316 \cdot b_v \cdot \sqrt{f_{c.sub} \cdot ksi}} = 16.73 \cdot in$

Transverse reinforcement required..... $s_{req} := if\left(V_s \le 0, s_{min}, \frac{A_v \cdot f_y \cdot d_v \cdot \cot(\theta)}{V_s}\right) = 16.73 \cdot in$

Minimum transverse reinforcement required..... $s := \min\left(s_{min}, s_{req}\right) = 16.73 \cdot in$

Maximum transverse reinforcement spacing

$$s_{max} := if\left[\frac{V_u - \phi_v \cdot V_p}{\phi_v \cdot \left(b_v \cdot d_v\right)} < 0.125 \cdot f_{c.sub}, \min\left(\begin{pmatrix} 0.8 \cdot d_v \\ 24 \cdot in \end{pmatrix}\right), \min\left(\begin{pmatrix} 0.4 \cdot d_v \\ 12 \cdot in \end{pmatrix}\right)\right] = 24 \cdot in$$

Spacing of transverse reinforcement cannot exceed the following spacing..... $spacing := floor\left(\frac{if\left(s_{max} > s, s, s_{max}\right)}{in}\right) \cdot in = 16 \cdot in$

LRFD 5.8.3.5 is applicable at the end bearing support areas. Therefore, this check is ignored.

D. Summary of Reinforcement Provided

Moment Reinforcement (Top and Bottom)

Bar size..... $bar_{posM} = "5"$

Number of bars..... $n_{bar.posM} = 5$

Bar spacing..... $bar_{spa.posM} = 5.7 \cdot in$

Transverse reinforcement

Bar size..... $bar = "5"$

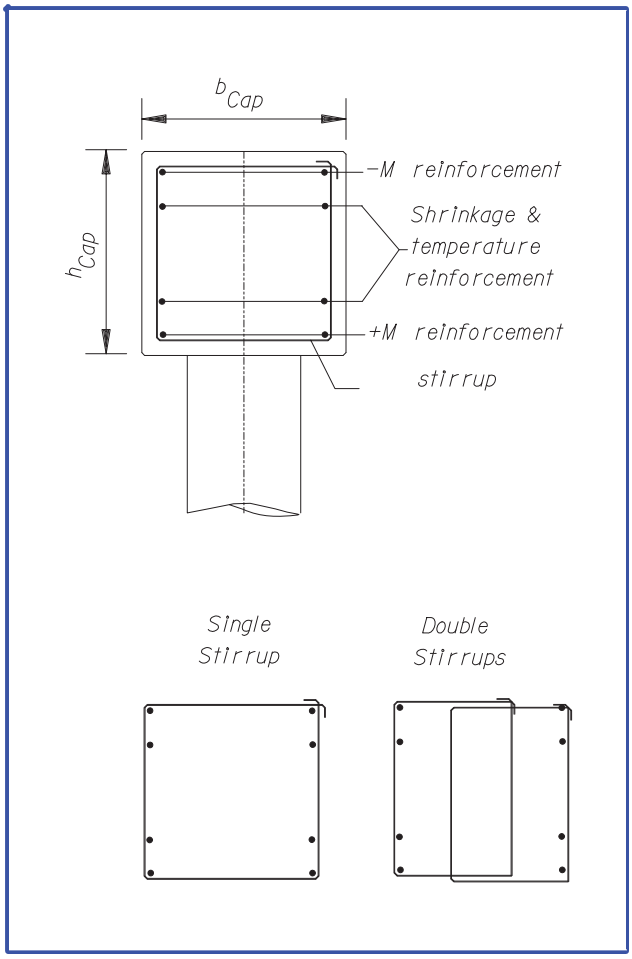
Bar spacing..... $spacing = 16.0 \cdot in$

Type of stirrups..... $n_{bar} = "single"$

Temperature and Shrinkage

Bar size..... $bar_{shrink.temp} = "5"$

Bar spacing..... $bar_{spa.st} = 8 \cdot in$



SPECIAL FOUNDATION DESIGN

Pile Cap Calculations (Reinforcement)

DESIGNED BY AR DATE 09/14/2016
CHECKED BY MV DATE 09/14/2016

Description

This section provides the criteria for the pile cap design.

Section

A **Input Variables**

B **Moment Design**

- B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]
- B2. Limits for Reinforcement [LRFD 5.7.3.3]
- B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]
- B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]
- B5. Mass Concrete Provisions [SDG 3.9]

C **Shear and Torsion Design [LRFD 5.8]**

- C1. Check if Torsion Design is Required
- C2. Determine Nominal Shear Resistance
- C3. Transverse Reinforcement

D **Summary of Reinforcement Provided**

A. Input Variables

Material Properties

Unit weight of concrete..... $\gamma_{conc} := 150 \cdot pcf$

Modulus of elasticity for reinforcing steel..... $E_s := 29000 \cdot ksi$

Yield strength of reinforcing steel..... $f_y := 60 \cdot ksi$

Note: Epoxy coated reinforcing not allowed on FDOT projects. **[SDG 4.1]**

Design Parameters [LRFD 5.5.4.2]

Resistance Factor for Flexure and tension of reinforced concrete..... $\phi := 0.9$

Resistance Factor for Shear and torsion of normal weight concrete..... $\phi_v := 0.90$

Florida DOT Concrete & Environment [SDG 1.4]

The environment can be classified as either "Slightly", "Moderately" or "Extremely" aggressive. Per 1.02 General Notes:

Environmental classification for substructure..... $Environment_{sub} \equiv "Moderately"$

Concrete cover for substructure not in contact with water..... $cover_{sub} := \begin{cases} 4 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 3 \cdot in & \text{otherwise} \end{cases} = 3 \cdot in$

Concrete cover for substructure cast against earth or in contact with water..... $cover_{sub.earth} := \begin{cases} 4.5 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 4 \cdot in & \text{otherwise} \end{cases} = 4 \cdot in$

Minimum 28-day compressive strength of concrete components..... $f_{c.sub} := 5.5 \cdot ksi$

(Class IV, Cast-in-place Substructure)

Correction factor for Florida lime rock coarse aggregate..... $K_1 := 0.9$

Unit Weight of Florida lime rock concrete (kcf)..... $w_{c.limerock} := .145 \frac{kip}{ft^3}$

Modulus of elasticity for substructure..... $E_{c.sub} := 33000 \cdot K_1 \cdot \left(\frac{w_{c.limerock}}{\frac{kip}{ft^3}} \right)^{1.5} \sqrt{f_{c.sub} \cdot ksi} = 3846 \cdot ksi$

Pile Cap Geometry

Height of pier cap..... $h_{Cap} := 2.50ft$

Width of pier cap..... $b_{Cap} := 8ft$

Length of pier cap..... $L_{Cap} := 12ft$

Design Loads - Moments, Shears and Torques

"Service Loads for the footing, utilized only to check for crack control"

"Maximum loads are obtained from FDOT Cantilever Program and FB-Multipier"

"1.3 Load Factor (Strength1) included since loads are a mix of wind load and dead load"

Moment (M) - Service..... $M_{Service1.pos} := 11.2ft \cdot kip$

$M_{Strength1.pos} := 1.3 \cdot M_{Service1.pos} = 14.6 \cdot ft \cdot kip$

Axial (V) - Service ..... $V_{Service.neg} := 32.81kip$

$V_{Strength1.neg} := 1.3 \cdot V_{Service.neg} = 42.7 \cdot kip$

Torsion (Trans Moment) - Service ..... $T_{Service.neg} := 83.4 \cdot ft \cdot kip$

$T_{Strength1.neg} := 1.3 \cdot T_{Service.neg} = 108.4\ ft \cdot kip$

B. Moment Design

A few recommendations on bar size and spacing are available to minimize problems during construction.

- Use the same size and spacing of reinforcing for both the negative and positive moment regions. This prevents field errors whereas the top steel is mistakenly placed at the bottom or vice versa.
- If this arrangement is not possible, give preference to maintaining the same spacing between the top and bottom reinforcement. Same grid pattern allows the concrete vibrator to be more effective in reaching the full depth of the cap.

The design procedure consists of calculating the reinforcement required to satisfy the design moment, then checking this reinforcement against criteria for crack control, minimum reinforcement, maximum reinforcement, shrinkage and temperature reinforcement, and distribution of reinforcement. The procedure is the same for both positive and negative moment regions.

$$M_r := M_{Strength1.pos} = 15 \cdot ft \cdot kip$$

Factored resistance

$$M_r = \phi \cdot M_n$$

Nominal flexural resistance

$$M_n = A_{ps} \cdot f_{ps} \cdot \left(d_p - \frac{a}{2} \right) + A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right) - A'_s \cdot f'_s \cdot \left(d'_s - \frac{a}{2} \right) + 0.85 \cdot f'_c \cdot \left(b - b_w \right) \cdot h_f \cdot \left(\frac{a}{2} - \frac{h_f}{2} \right)$$

For a rectangular, non-prestressed section,

$$M_n = A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right)$$

$$a = \frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b}$$

Assume $f_s := f_y$ [LRFD 5.7.2.1]

B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]

Using variables defined in above.....

$$M_r = \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b} \right) \right]$$

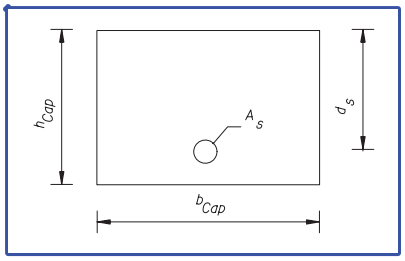
where $f_{c.sub} = 5.5 \cdot ksi$

$f_y = 60 \cdot ksi$

$\phi = 0.9$

$h_{Cap} = 30 \cdot in$

$b_{Cap} = 96 \cdot in$



Initial assumption for area of steel required

Number of bars..... $n_{bar} := 12$

Size of bar..... $bar := "5"$

Note: if bar spacing is "-1", the spacing is less than 3", and a bigger bar size should be selected.

Bar area..... $A_{bar} = 0.310 \cdot in^2$

Bar diameter..... $dia = 0.625 \cdot in$

Equivalent bar spacing..... $bar_{spa} = 8.1 \cdot in$

Area of steel provided..... $A_{s.pos} := n_{bar} \cdot A_{bar} = 3.72 \cdot in^2$

Distance from extreme compressive fiber to centroid of reinforcing steel (assuming a #6 stirrup)..... $d_s := h_{Cap} - cover_{sub} - \frac{dia}{2} - \frac{3}{4} in = 25.9 \cdot in$

Stress block factor..... $\beta_1 := \min\left[\max\left[0.85 - 0.05 \cdot \left(\frac{f_{c.sub} - 4ksi}{ksi} \right), 0.65 \right], 0.85 \right] = 0.78$

Distance between the neutral axis and compressive face..... $c := \frac{A_{s.pos} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot \beta_1 \cdot b_{Cap}} = 0.64 \cdot in$

Initial assumption for the area of steel required, this process is iterative..... $A_{sreq} := A_{s.pos} = 3.72 \cdot in^2$

Solve the quadratic equation for the area of steel required..... Given $M_r = \phi \cdot A_{sreq} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{sreq} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right]$

Area of steel required..... $A_{s.required} := \text{Find}(A_{sreq}) = 0.12 \cdot in^2$

The area of steel provided, $A_{s.pos} = 3.72 \cdot in^2$, should be greater than the area of steel required, $A_{s.required} = 0.12 \cdot in^2$. If not, decrease the spacing of the reinforcement. Once $A_{s.pos}$ is greater than $A_{s.reqd}$, the proposed reinforcing is adequate for the applied moments.

Moment capacity provided..... $M_{r.pos} := \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right] = 430 \cdot kip \cdot ft$

Check assumption that $f_s = f_y$..... $Check\_f_s := if\left(\frac{c}{d_s} < 0.6, "OK", "Not OK" \right)$ $Check\_f_s = "OK"$

B2. Limits for Reinforcement [LRFD 5.7.3.3]

Minimum Reinforcement

The minimum reinforcement requirements ensure the moment capacity provided is at least equal to the lesser of the cracking moment and 1.33 times the factored moment required by the applicable strength load combinations.

Modulus of Rupture..... $f_r := -0.24 \cdot \sqrt{f_{c.sub} \cdot ksi} = -562.8\ psi$ [SDG 1.4.1.B]

Section modulus of cap..... $S := \frac{b_{Cap} \cdot h_{Cap}^2}{6} = 14400 \cdot in^3$

Flexural cracking variability factor..... $\gamma_1 := 1.6$

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement..... $\gamma_3 := 0.67$ (for ASTM A615, Grade 60 reinforcing steel, per SDG 1.4.1.C)

Cracking moment..... $M_{cr} := \gamma_3 \cdot \gamma_1 \cdot f_r \cdot S = -724.1 \cdot kip \cdot ft$

Required flexural resistance..... $M_{r.reqd} := \min\left(\left| M_{cr} \right|, 133 \cdot \% \cdot M_r \right) = 19.4 \cdot kip \cdot ft$

Check that the capacity provided, $M_{r.pos} = 430 \cdot ft \cdot kip$, exceeds minimum requirements, $M_{r.reqd} = 19.4 \cdot ft \cdot kip$.

$$LRFD_{5.7.3.3.2} := \begin{cases} "OK, minimum\ reinforcement\ for\ positive\ moment\ is\ satisfied" & \text{if } M_{r.pos} \geq M_{r.reqd} \\ "NG, reinforcement\ for\ positive\ moment\ is\ less\ than\ minimum" & \text{otherwise} \end{cases}$$

$LRFD_{5.7.3.3.2} = "OK, minimum\ reinforcement\ for\ positive\ moment\ is\ satisfied"$

B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]

Concrete is subjected to cracking. Limiting the width of expected cracks under service conditions increases the longevity of the structure. Potential cracks can be minimized through proper placement of the reinforcement. The check for crack control requires that the actual stress in the reinforcement should not exceed the service limit state stress (LRFD 5.7.3.4). The stress equations emphasize bar spacing rather than crack widths.

The maximum spacing of the mild steel reinforcement for control of cracking at the service limit state shall satisfy.....

$$s \le \frac{700 \cdot \gamma_e}{\beta_s \cdot f_{ss}} - 2 \cdot d_c$$

where

$$\beta_s = 1 + \frac{d_c}{0.7\left(h - d_c\right)}$$

Exposure factor for Class 1 exposure condition.....

$\gamma_e := 1.00$ **[SDG 3.15.8]**

Overall thickness or depth of the component.....

$h_{Cap} = 2.5\,ft$

Distance from extreme tension fiber to center of closest bar.....

$$d_c := cover_{sub} + \frac{dia}{2} + \frac{3}{4}in = 4.06 \cdot in$$

$$\beta_s := 1 + \frac{d_c}{0.7\left(h_{Cap} - d_c\right)} = 1.22$$

The neutral axis of the section must be determined to determine the actual stress in the reinforcement. This process is iterative, so an initial assumption of the neutral axis must be made.

Guess value $x := 36 \cdot in$

Given

$$\frac{1}{2} \cdot b_{Cap} \cdot x^2 = \frac{E_s}{E_{c.sub}} \cdot A_{s.pos} \cdot \left(d_s - x\right)$$

$$x_{na} := Find(x) = 3.61 \cdot in$$

Tensile force in the reinforcing steel due to service limit state moment.....

$$T_s := \frac{M_{Service1.pos}}{d_s - \frac{x_{na}}{3}} = 5.4 \cdot kip$$

Actual stress in the reinforcing steel due to service limit state moment..... $f_{s.actual} := \frac{T_s}{A_{s.pos}} = 1.46 \cdot ksi$

Required reinforcement spacing..... $s_{required} := \frac{700 \cdot \gamma_e \cdot \frac{kip}{in}}{\beta_s \cdot f_{s.actual}} - 2 \cdot d_c = 383.47 \cdot in$

Provided reinforcement spacing..... $bar_{spa} = 8.07 \cdot in$

The required spacing of mild steel reinforcement in the layer closest to the tension face shall not be less than the reinforcement spacing provided due to the service limit state moment.

$$LRFD_{5.7.3.4} := \begin{cases} \text{"OK, crack control for M is satisfied"} & \text{if } s_{required} \geq bar_{spa} \\ \text{"NG, crack control for M not satisfied, provide more reinforcement"} & \text{otherwise} \end{cases}$$

$LRFD_{5.7.3.4} = \text{"OK, crack control for M is satisfied"}$

B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]

Initial assumption for area of steel required

Size of bar..... $bar_{st} := "5"$

Spacing of bar..... $bar_{spa.st} := 8 \cdot in$

Bar area..... $A_{bar} = 0.31 \cdot in^2$

Bar diameter..... $dia = 0.625 \cdot in$

Minimum area of shrinkage and temperature reinforcement.....

$$A_{shrink.temp} := \min\left[\left[\max\left[\left[\begin{matrix}\left(0.60 \frac{in^2}{ft}\right) \\ \left(0.11 \frac{in^2}{ft}\right) \\ \left[\frac{1.3 \cdot b_{Cap} \cdot h_{Cap} \cdot \frac{kip}{in \cdot ft}}{2\left(b_{Cap} + h_{Cap}\right) \cdot f_y}\right]\end{matrix}\right]\right]\right] = 0.25 \cdot \frac{in^2}{ft}$$

Maximum spacing of shrinkage and temperature reinforcement

$$spacing_{shrink.temp} := \begin{cases} \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 12 \cdot in\right) & \text{if } \left(b_{Cap} > 36in\right) \cdot \left(h_{Cap} > 36in\right) \\ \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 3 \cdot b_{Cap}, 3 \cdot h_{Cap}, 18in\right) & \text{otherwise} \end{cases} = 15.02 \cdot in$$

The bar spacing should be less than the maximum spacing for shrinkage and temperature reinforcement

$$LRFD_{5.7.10.8} := \begin{cases} "OK, minimum shrinkage and temperature requirements" & \text{if } bar_{spa.st} \le spacing_{shrink.temp} \\ "NG, minimum shrinkage and temperature requirements" & \text{otherwise} \end{cases}$$

$LRFD_{5.7.10.8} = "OK, minimum shrinkage and temperature requirements"$

B5. Mass Concrete Provisions [SDG 3.9]

Surface area of pier cap..... $Surface_{cap} := 2 \cdot b_{Cap} \cdot h_{Cap} + \left(2b_{Cap} + 2h_{Cap}\right) \cdot L_{Cap} = 292\ ft^2$

Volume of pier cap..... $Volume_{cap} := b_{Cap} \cdot h_{Cap} \cdot L_{Cap} = 240 \cdot ft^3$

Mass concrete provisions apply if the volume to surface area ratio, $\frac{Volume_{cap}}{Surface_{cap}} = 0.82ft$, exceeds 1 ft and the minimum dimension exceeds 3 feet

$$SDG_{3.9} := \begin{cases} \text{"Use mass concrete provisions"} & \text{if } \frac{Volume_{cap}}{Surface_{cap}} > 1.0 \cdot ft \wedge b_{Cap} > 3ft \wedge h_{Cap} > 3ft \\ \text{"Use regular concrete provisions"} & \text{otherwise} \end{cases}$$

$SDG_{3.9} = \text{"Use regular concrete provisions"}$

C. Shear and Torsion Design [LRFD 5.8]

C1. Check if Torsion Design is Required

$T_u := |T_{Strength1.neg}|$ $V_u := |V_{Strength1.neg}|$

For normal weight concrete, torsional effects shall be investigated if..... $T_u > 0.25 \cdot \phi_v \cdot T_{cr}$

and..... $T_{cr} = 0.125 \cdot \sqrt{f_c} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_c}}}$

Total area enclosed by outside perimeter of concrete cross section..... $A_{cp} := h_{Cap} \cdot b_{Cap} = 20\,ft^2$

Length of outside perimeter of cross section..... $p_c := 2 \cdot (h_{Cap} + b_{Cap}) = 21\,ft$

Compressive stress in concrete after prestress losses have occured..... $f_{pc} := 0 \cdot psi$

Torsional cracking moment..... $T_{cr} := 0.125 \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_{c.sub} \cdot ksi}}} = 804.1 \cdot kip \cdot ft$

$LRFD_{5.8.2} := \begin{cases} \text{"OK, torsion can be neglected"} & \text{if } 0.25 \cdot \phi_v \cdot T_{cr} \geq T_u \\ \text{"NG, torsion shall be investigated..."} & \text{otherwise} \end{cases}$

$LRFD_{5.8.2} = \text{"OK, torsion can be neglected"}$

C2. Determine Nominal Shear Resistance

Effective width of the section..... $b_v := b_{Cap} = 96 \cdot in$

Effective shear depth..... $a := \frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} = 0.5 \cdot in$

$d_v := \max\left(d_s - \frac{a}{2}, 0.9 \cdot d_s, 0.72 \cdot h_{Cap}\right) = 25.69 \cdot in$

Determination of β and θ **(LRFD 5.8.3.4)**

The pier cap is a non-prestressed concrete section not subjected to axial tension. Assuming it has at least the amount of transverse reinforcement specified in **LRFD 5.8.2.5** or an overall depth of less than 16 in, the Simplified Procedure for determining Shear Resistance per LRFD 5.8.3.4.1 may be used.

$\beta := 2$ $\theta := 45 \cdot deg$

Nominal shear resistance of concrete section..... $V_c := 0.0316 \cdot \beta \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot b_v \cdot d_v = 365.5 \cdot kip$

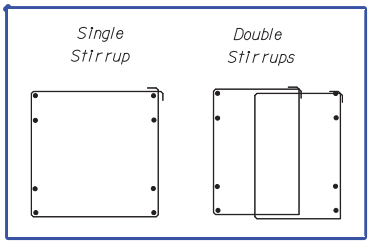
C3. Transverse Reinforcement

Because the overall depth is greater than 16 in, transverse reinforcement shall be provided in the pier cap according to **LRFD 5.8.2.5.**

$$A_v \geq .0316 \cdot \sqrt{f'_c} \cdot \frac{b_v \cdot s}{f_y}$$

The pier cap has no prestressing. $V_p := 0 \cdot kip$

Stirrups



Size of stirrup bar ("4" "5" "6" "7")... bar := "5"

Number of stirrup bars ("single" "double")..... n_{bars} := "single"

Area of shear reinforcement..... $A_v = 0.620 \cdot in^2$

Diameter of shear reinforcement..... $dia = 0.625 \cdot in$

Nominal shear strength provided by shear reinforcement

$$V_n = V_c + V_p + V_s$$

where..... $V_n := \min\left(\frac{V_u}{\phi_v}, 0.25 \cdot f_{c.sub} \cdot b_v \cdot d_v + V_p\right) = 47.39 \cdot kip$

and..... $V_s := V_n - V_c - V_p = -318.13 \cdot kip$

Spacing of stirrups

Minimum transverse reinforcement..... $s_{min} := \frac{A_v \cdot f_y}{0.0316 \cdot b_v \cdot \sqrt{f_{c.sub} \cdot ksi}} = 5.23 \cdot in$

Transverse reinforcement required..... $s_{req} := if\left(V_s \le 0, s_{min}, \frac{A_v \cdot f_y \cdot d_v \cdot \cot(\theta)}{V_s}\right) = 5.23 \cdot in$

Minimum transverse reinforcement required..... $s := \min\left(s_{min}, s_{req}\right) = 5.23 \cdot in$

Maximum transverse reinforcement spacing

$$s_{max} := if\left[\frac{V_u - \phi_v \cdot V_p}{\phi_v \cdot \left(b_v \cdot d_v\right)} < 0.125 \cdot f_{c.sub}, \min\left(\begin{pmatrix} 0.8 \cdot d_v \\ 24 \cdot in \end{pmatrix}\right), \min\left(\begin{pmatrix} 0.4 \cdot d_v \\ 12 \cdot in \end{pmatrix}\right)\right] = 20.55 \cdot in$$

Spacing of transverse reinforcement cannot exceed the following spacing..... $spacing := floor\left(\frac{if\left(s_{max} > s, s, s_{max}\right)}{in}\right) \cdot in = 5 \cdot in$

LRFD 5.8.3.5 is applicable at the end bearing support areas. Therefore, this check is ignored.

D. Summary of Reinforcement Provided

Moment Reinforcement (Top and Bottom)

Bar size..... $bar_{posM} = "5"$

Number of bars..... $n_{bar.posM} = 12$

Bar spacing..... $bar_{spa.posM} = 8.1 \cdot in$

Transverse reinforcement

Bar size..... $bar = "5"$

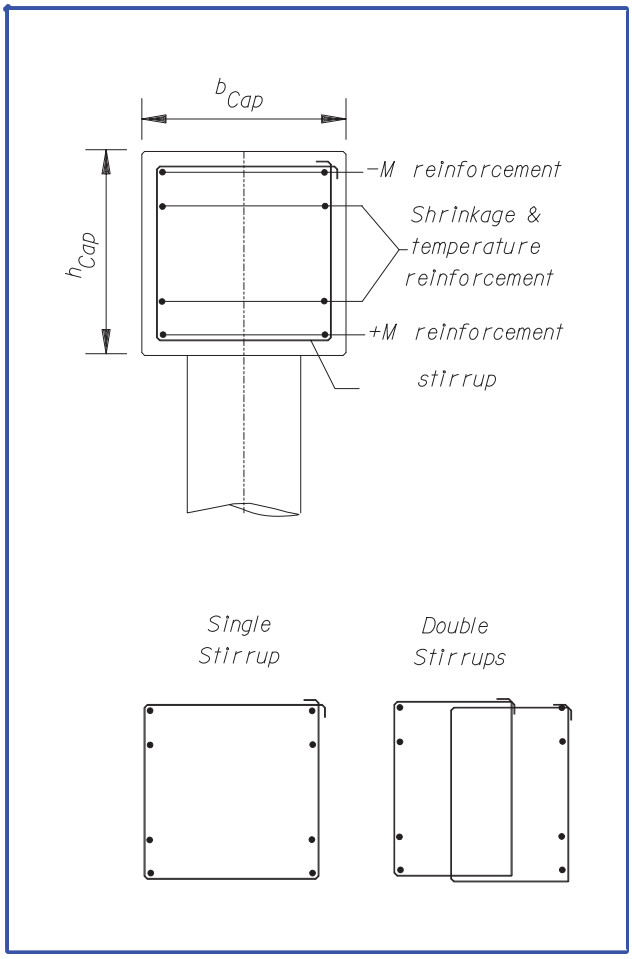
Bar spacing..... $spacing = 5.0 \cdot in$

Type of stirrups..... $n_{bar} = "single"$

Temperature and Shrinkage

Bar size..... $bar_{shrink.temp} = "5"$

Bar spacing..... $bar_{spa.st} = 8 \cdot in$



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FINAL AS-BUILT PLANS

~~CONTRACT PLANS~~

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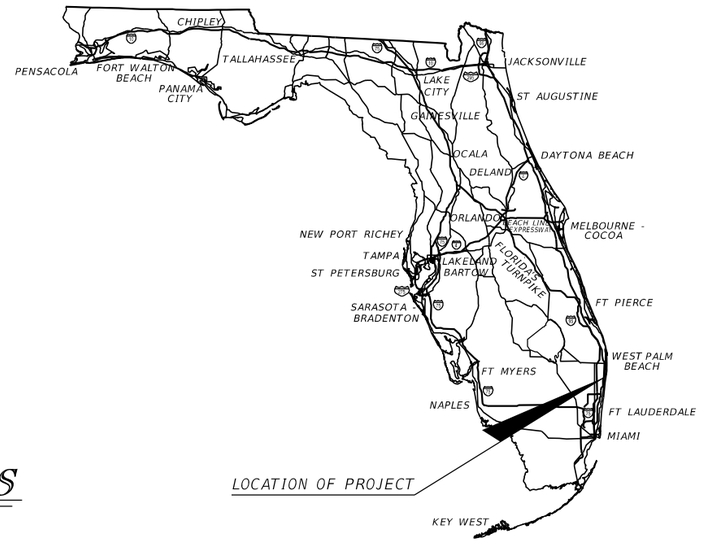

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AS-BUILT PLANS
SR 9 (I-95)
OCTOBER 2021

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 1 PLANS ENGINEER OF RECORD:

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520 4444
CONTRACT No.: E4R96
VENDOR No. F111531569
CERTIFICATE OF AUTHORIZATION No.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

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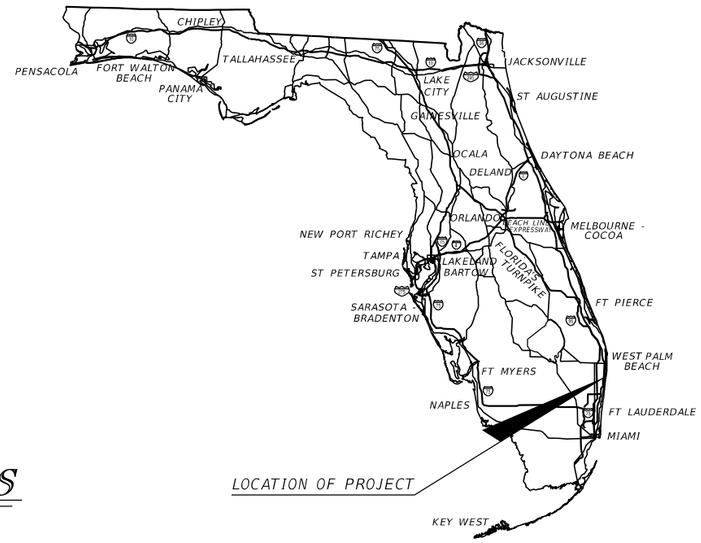

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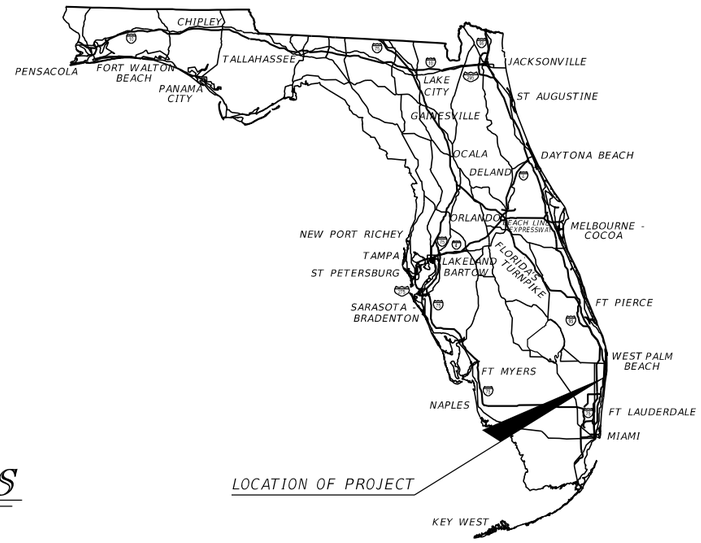

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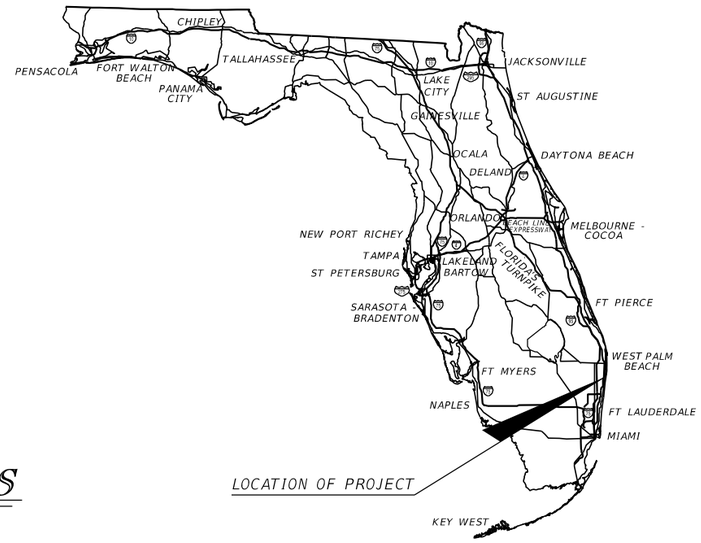

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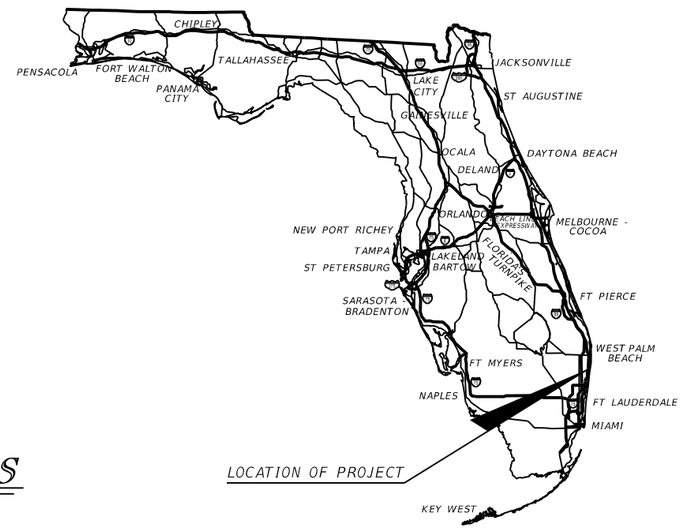
FROM SOUTH OF SW 10TH STREET (SR 869) TO
SOUTH GLADES ROAD

INTELLIGENT TRANSPORTATION SYSTEMS

SEGMENT 1 PLANS

FROM SOUTH OF SW 10TH STREET (SR 869) TO
NORTH OF GLADES ROAD



VOID

INDEX OF ITS SEGMENT 1 PLANS

SHEET NO.	SHEET DESCRIPTION
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IT-2 - IT-2A (△8)	SIGNATURE SHEET
IT-3 - IT-4	GENERAL NOTES
IT-5 - IT-9	PROJECT LAYOUT
IT-10 - IT-14	COMMUNICATION OVERVIEW
IT-15 - IT-16	ITS DEVICE SUMMARY SHEET
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IT-109 - IT-141	ITS ELECTRICAL PLANS
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REVISIONS:

△8 REVISED ITS SHEETS: IT-1 AND IT-15 (REVISED 2/1/2019)
ADDED ITS SHEETS: IT-2A (ADDED 2/1/2019)

KEY SHEET REVISIONS	
DATE	DESCRIPTION
2/1/2019	△8 REVISED INDEX

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 1 PLANS ENGINEER OF RECORD:

DERRICK A. LUE, P.E. No. 44730
WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520 4444
CONTRACT No.: E4R96
VENDOR No. F111531569
CERTIFICATE OF AUTHORIZATION No.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4R96	17	IT-1

BY:PJOTI VS Date: 02/18/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-6-52-01 & 433109-4-52-01

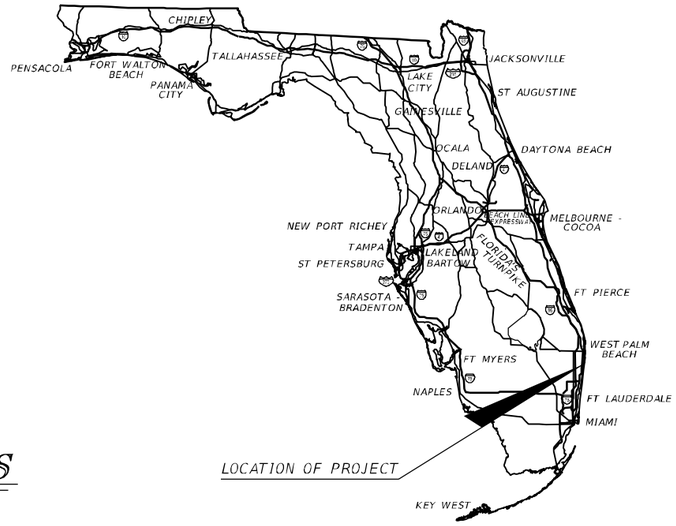
(FEDERAL FUNDS)

BROWARD COUNTY (86070)
PALM BEACH COUNTY (93220)

STATE ROAD NO. SR 9 (I-95)
FROM SOUTH OF SW 10TH STREET (SR 869) TO
SOUTH GLADES ROAD

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 1 PLANS

FROM SOUTH OF SW 10TH STREET (SR 869) TO
NORTH OF HOLLYWOOD BLVD



INDEX OF ITS SEGMENT 1 PLANS

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IT-50	TRAFFIC MONITORING SITE DETAIL
IT-51 - IT-57	SPLICING DIAGRAMS
IT-58	MFES PORT ALLOCATION DETAIL
IT-59 - IT-90	ITS CROSS SECTIONS
IT-91	RSS AND D-CCTV TYPE 334 CABINET DETAILS
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IT-104 - IT-108	ITS ELECTRICAL LAYOUT PLANS
IT-109 - IT-141	ITS ELECTRICAL PLANS
IT-142 - IT-144	ITS ELECTRICAL DETAILS

VOID

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 1 PLANS ENGINEER OF RECORD:

DERRICK A. LUE, P.E. No. 44730
WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520 4444
CONTRACT No.: E4R96
VENDOR No. F111531569
CERTIFICATE OF AUTHORIZATION No.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4R96	17	IT-1

BY/FDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

KEVIN WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

Kevin W Walsh
2018.10.12 09:53:33 -04'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: KEVIN WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-102	ITS ELECTRICAL LEGEND AND ABBREVIATIONS
IT-103	ITS ELECTRICAL GENERAL NOTES
IT-104 - IT-108	ITS ELECTRICAL LAYOUT PLANS
IT-109 - IT-141	ITS ELECTRICAL PLANS
IT-142 - IT-144	ITS ELECTRICAL DETAILS

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that all comments have been satisfactorily resolved
2018.10.29 11:07:12-04'00'

DERRICK A. LUE
LICENSE
No 44730
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Derrick A Lue
2018.10.12 10:24:55 -04'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: DERRICK A. LUE, P.E. NO. 44730

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEY SHEET
IT-2	SIGNATURE SHEET
IT-3 - IT-4	GENERAL NOTES
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IT-58	MFES PORT ALLOCATION DETAIL
IT-59 - IT-90	ITS CROSS SECTIONS
IT-91	RSS AND D-CCTV TYPE 334 CABINET DETAILS
IT-92	DMS TYPE 334 CABINET DETAILS
IT-93	CCTV, D-CCTV, MVDS & WAP TYPE 336S CABINET DETAIL
IT-94	DIRECTIONAL BORE DETAIL
IT-95	ITS UNDERGROUND CONDUIT TRANSITION DETAILS
IT-96	CABLE ROUTE MARKER DETAILS
IT-97	CCTV LOWERING DEVICE DETAILS
IT-98 - IT-101	WIRING DIAGRAMS

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction
2018.10.30 12:16:18-04'00'

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
BY:FDOT VS Date: 10/30/2018

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

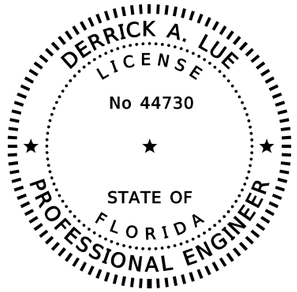
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-2



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Derrick A Lue
2019.02.04 15:55:25 -05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: DERRICK A. LUE, P.E. NO. 44730

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	*SHEET DESCRIPTION*
IT-1	*KEY SHEET*
IT-2A	*SIGNATURE SHEET*
IT-15	*ITS DEVICE SUMMARY SHEET*

William Leidy
Corridor Design Consultant (HDR)
- This serves as confirmation that all comments have been satisfactorily resolved
2019.02.18 07:42:18-05'00'

Vanita Saini, FDOT Design PM -
This serves as concurrence to release for construction
2019.02.18 09:07:03-05'00'

RELEASED FOR CONSTRUCTION
BY:PROTI VS Date: 02/18/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4K16

REVISIONS			
DATE	*DESCRIPTION*	*DATE*	*DESCRIPTION*
2/01/2019	*6 ADDED SHEET*		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	*COUNTY*	*FINANCIAL PROJECT ID*
9	*BROWARD* *PALM BEACH*	*433108-6-52-01* *433109-4-52-01*

SIGNATURE SHEET

SHEET NO.
IT-2A

DERRICK A. LUE
LICENSE
No 44730
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Derrick A Lue
2019.03.07 17:13:13
-05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: DERRICK A. LUE, P.E. NO. 44730

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEY SHEET
IT-2B	SIGNATURE SHEET
IT-15	ITS DEVICE SUMMARY SHEET
IT-35, IT-37	ITS PLANS
IT-75, IT-77	ITS CROSS SECTIONS

Vanita Saini, FDOT Design PM - This serves as concurrence to release for construction
2019.03.15 10:19:38-04'00'

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that all comments have been satisfactorily resolved
2019.03.15 09:18:51-04'00'

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 03/15/2019

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
3/7/2019	1 ADDED SHEET		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-2B

GUANGWEI ZHOU
LICENSE
No 67536
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Guangwei Zhou 2020.05.13 17:41:14-04'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
301 E. PINE ST, SUITE 1020
ORLANDO, FL 32801
(407)587-7800
CERT. OF AUTH. NO. 01462
EOR: GUANGWEI ZHOU, PE NO.67536

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

ALSO, THE ABOVE NAMED PROFESSIONAL ENGINEER IS SIGNING FOR REVISION 36 ONLY, WHICH INCLUDES THE SHEETS LISTED BELOW.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEY SHEET
IT-2C	SIGNATURE SHEET
IT-12- IT-14	COMMUNICATION OVERVIEW
IT-15- IT-16	ITS DEVISE SUMMARY SHEET
IT-35- IT-49	ITS PLANS
IT-55- IT-57	SPLICING DIAGRAMS
IT-73- IT-78	ITS CROSS SECTIONS

William Leidy
Corridor Design Consultant (HDR)
- This serves as confirmation that all comments have been satisfactorily resolved
2020.05.26 17:07:37-04'00'

KEVIN WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

Kevin W Walsh
2020.05.13 16:32:57 -04'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: KEVIN WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2C	SIGNATURE SHEET
IT-127 - IT-141	ITS ELECTRICAL PLANS
IT-142	ITS ELECTRICAL DETAILS

Vanita Saini, P.E., FDOT Design PM -
This serves as concurrence to release for construction
2020.05.27 09:01:06-04'00'

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 ADDED SHEET		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SIGNATURE SHEET

SHEET NO. IT-2C

GUANGWEI ZHOU
LICENSE
No 67536
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Guangwei Zhou
2021.02.01
15:15:58-05'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

WSP USA INC.
301 E. PINE ST, SUITE 1020
ORLANDO, FL 32801
(407)587-7800
CERT. OF AUTH. NO. 01462
EOR: GUANGWEI ZHOU, PE NO.67536

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

ALSO, THE ABOVE NAMED PROFESSIONAL ENGINEER IS SIGNING FOR REVISION 45 ONLY, WHICH INCLUDES THE SHEETS LISTED BELOW.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEYSHEET
IT-2D	SIGNATURE SHEET
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IT-9	PROJECT LAYOUT
IT-12 - IT-14	COMMUNICATION OVERVIEW
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IT-55 - IT-57B	SPLICING DIAGRAM
IT-90A	CROSS SECTION
IT-92A	WWDS TYPE 334 CABINET DETAIL
IT-93A	WWDS DETAILS
IT-101A - IT-101B	WIRING DIAGRAM

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that all comments have been satisfactorily resolved
2021.02.15 14:43:22-05'00'

KEVIN WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

Kevin W Walsh
2021.02.01
16:02:14 -05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: KEVIN WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2D	SIGNATURE SHEET
IT-102	ITS ELECTRICAL LEGEND AND ABBREVIATIONS
IT-108	ITS ELECTRICAL PROJECT LAYOUT
IT-131 - IT-134	ITS ELECTRICAL PLANS
IT-137 - IT-138B	
IT-140 - IT-141A	

Vanita Saini, P.E., FDOT Design PM - This serves as concurrence to release for construction
2021.02.16 15:28:49-05'00'

HUGO E. SOTO
LICENSE
No 36440
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Hugo E Soto
Digitally signed by Hugo E Soto
Date: 2021.02.01 17:06:44 -05'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

TERRACON
5371 NW 33RD AVENUE, SUITE 201
FOR LAUDERDALE, FLORIDA 33309
CERT. OF AUTH. NO.
EOR: HUGO E. SOTO, P.E. NO. 36440

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2D	SIGNATURE SHEET
IT-145	REPORT OF CORE BORINGS FOR SIGN

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, and coordination of all construction, fabrication and erection shall remain with the contractor.
BY:(FDOT) VS Date: 2/16/2021
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5696

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	45 ADDED SHEET		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-2D

ROBERT W SKAGGS
LICENSE
No 56377
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

WSP USA INC.
2202 NORTH WEST SHORE BLVD, SUITE 300
TAMPA, FL 33607
CERTIFICATE OF AUTHORIZATION 01462
ROBERT W SKAGGS, P.E. NO. 56377

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING CHANGES, INDICATED IN REDLINE REVISION, IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD.

THE ENGINEER HAS RELIED ON AS-BUILT INFORMATION PROVIDED BY OTHERS AND TO THE BEST OF OUR KNOWLEDGE, REFLECTS AS-CONSTRUCTED CONDITIONS.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEY SHEET
IT-2E	SIGNATURE SHEET
IT-30 - IT-32, IT-36, IT-38, IT-40 - IT-43 IT-46, IT-47, IT-49	ITS PLANS
IT-146	ITS DEVICES
IT-147	SUNGUIDE LANE ASSIGNMENT
IT-148	SEQUENTIAL CABLE LENGTH
IT-149	ITS - FIBER MARKERS

KEVIN WILLIAM WALSH
LICENSE
No 78396
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

WSP USA INC.
2202 NORTH WEST SHORE BLVD, SUITE 300
TAMPA, FL 33607
CERTIFICATE OF AUTHORIZATION 01462
KEVIN W. WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING CHANGES, INDICATED IN REDLINE REVISION, IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD.

THE ENGINEER HAS RELIED ON AS-BUILT INFORMATION PROVIDED BY OTHERS AND TO THE BEST OF OUR KNOWLEDGE, REFLECTS AS-CONSTRUCTED CONDITIONS.

SHEET NO.	SHEET DESCRIPTION
IT-2E	SIGNATURE SHEET
IT-122 - IT-124 IT-128, IT-130, IT-132 - IT-135, IT-138, IT-139, IT-141	ITS ELECTRICAL PLANS
IT-144	ITS ELECTRICAL DETAILS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/21	ADDED FINAL AS-BUILT SIGNATURE SHEET		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Robert W Skaggs, P.E. NO. 56377

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

FINAL AS-BUILT SIGNATURE SHEET

SHEET NO.
IT-2E

ITS EQUIPMENT ABBREVIATIONS

AG:	ABOVE GROUND
AMS:	ARTERIAL MANAGEMENT SYSTEM
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
BCTED:	BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
C:	CONDUIT
CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRUIT BREAKER
CCTV:	CLOSED-CIRCUIT TELEVISION
CKT	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CMSS:	CHANGEABLE MESSAGE SIGN - TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN - TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
DVE:	DIGITAL VIDEO ENCODER
EB:	EAST BOUND
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (PROJECT ELEC UTILITY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD	MOUNTED
MVDS:	MICROWAVE VEHICLE DETECTION SYSTEM
NB:	NORTH BOUND
N.E.C.	NATIONAL ELECTRIC CODE
N.E.S.C.	NATIONAL ELECTRIC SAFETY CODE
PB:	PULLBOX
POA:	ITS POLE WITH CLD (CAMERA LOWERING DEVICE)
POB:	ITS POLE WITHOUT CLD (CAMERA LOWERING DEVICE)
PNL:	PANEL
PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W	RIGHT OF WAY
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SB:	SOUTH BOUND
SW:	SWITCH
SPD:	SURGE PROTECTION DEVICE
STP:	SHIELDED TWISTED PAIR
TMS:	TRANSPORTATION MANAGEMENT SYSTEM
TSM&O:	TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS
TTMS:	TELEMETERED TRAFFIC MONITORING SITE
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
VCB:	VANGUARD CONTROL BOARD
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
XFMR:	TRANSFORMER

LEGEND

- SPLICE BOX
- EXISTING SPLICE BOX
- ITS CABINET (POLE MOUNTED)
- ITS CABINET (GROUND MOUNTED)
- DEDICATED CCTV CAMERA
- CCTV CAMERA
- EXISTING CCTV CAMERA
- MVDS
- EXISTING MVDS
- MVDS DETECTION ZONE
- ITS POWER STATION
- 13"x24" ELECTRICAL PULL BOX OR JUNCTION BOX
- ITS PULL BOX
- RAMP METERING CONTROL SIGNAL
- RAMP METERING LOOP DETECT[illegible]SOR
- PORTABLE TRAFFIC MO[illegible]RING [illegible] (PTMS)
- TE[illegible]TERED TR[illegible]MON[illegible]G SI[illegible]S)
- D[illegible] [illegible]MIC MESSAGE S[illegible](DMS)
- EL-D[illegible] EX[illegible]LANE DMS
- S-DM[illegible] STATU[illegible]
- [illegible]DMS TOLL DMS

- ITS EQUIPMENT POLE
- EXISTING ITS EQUIPMENT POLE
- UG ITS CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- HORIZONTAL DIRECTIONAL BORE CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- SURFACE MOUNTED AND ABOVE GROUND CONDUIT. CONDUIT SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE NOTED.
- EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)
- EXISTING UG FOC MAIN COMMUNICATION CONDUIT
- EXISTING JACKED/BORE CONDUIT
- EXISTING R/W
- EXISTING LA R/W

VOID

CONDUIT COLOR CODING SCHEDULE

CONDUIT	COLOR OF CONDUIT
BACKBONE RUN / DROP RUN	
FIBER OPTIC: CABLE (FDOT 144SM FOC)	ORANGE
FIBER OPTIC: CABLE (AMS/BCTED 144SM FOC)	ORANGE WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #1	BLACK
FIBER OPTIC SPARE: FOC SPARE #2	BLACK WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #3	BLACK WITH GREEN STRIPE
FIBER OPTIC: CABLE (24SM FOC)	ORANGE
FIBER OPTIC: CABLE (6MM FOC)	ORANGE
ELECTRICAL: SERVICE WIRE	RED
MISCELLANEOUS CONDUIT	
COMPOSITE: ETHERNET CAT5 / 6 CABLING	WHITE
RAMP SIGNAL	
SIGNAL CABLE: SIGNAL / DETECTOR / LOOP LEAD-IN)	WHITE WITH RED STRIPE
TONE WIRE	GREY
BROWARD / PALM BEACH COUNTY ARTERIAL	
FIBER OPTIC: CABLE (24SM FOC)	GREY WITH WHITE STRIPE

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/PDT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

GENERAL NOTES (1)

SHEET NO. IT-3

ITS EQUIPMENT ABBREVIATIONS

AG:	ABOVE GROUND
AMS:	ARTERIAL MANAGEMENT SYSTEM
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
BCTED:	BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
C:	CONDUIT
CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRCUIT BREAKER
CCTV:	CLOSED-CIRCUIT TELEVISION
CKT	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CMSS:	CHANGEABLE MESSAGE SIGN - TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN - TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
DVE:	DIGITAL VIDEO ENCODER
EB:	EAST BOUND
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (PROJECT ELEC UTILITY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD	MOUNTED
MVDS:	MICROWAVE VEHICLE DETECTION SYSTEM
NB:	NORTH BOUND
N.E.C.	NATIONAL ELECTRIC CODE
N.E.S.C.	NATIONAL ELECTRIC SAFETY CODE
PB:	PULLBOX
POA:	ITS POLE WITH CLD (CAMERA LOWERING DEVICE)
POB:	ITS POLE WITHOUT CLD (CAMERA LOWERING DEVICE)
PNL:	PANEL
PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W	RIGHT OF WAY
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SB:	SOUTH BOUND
SW:	SWITCH
SPD:	SURGE PROTECTION DEVICE
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TMS:	TRANSPORTATION MANAGEMENT SYSTEM
TSM&O:	TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS
TTMS:	TELEMETERED TRAFFIC MONITORING SITE
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
VCB:	VANGUARD CONTROL BOARD
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
WWDS	WRONG WAY DRIVING SYSTEM (45)
XFMR:	TRANSFORMER

LEGEND

- SPLICE BOX
- EXISTING SPLICE BOX
- ITS CABINET (POLE MOUNTED)
- ITS CABINET (GROUND MOUNTED)
- DEDICATED CCTV CAMERA
- CCTV CAMERA
- EXISTING CCTV CAMERA
- MVDS
- EXISTING MVDS
- MVDS DETECTION ZONE
- ITS POWER STATION
- 13"x24" ELECTRICAL PULL BOX OR JUNCTION BOX
- ITS PULL BOX
- RAMP METERING CONTROL SIGNAL
- RAMP METERING LOOP DETECTOR SENSOR
- PORTABLE TRAFFIC MONITORING SITES (PTMS)
- TELEMETERED TRAFFIC MONITORING SITES (TTMS)
- DMS — DYNAMIC MESSAGE SIGN (DMS)
- EL-DMS — EXPRESS LANE DMS
- S-DMS — STATUS DMS
- T-DMS — TOLL DMS
- LED HIGHLIGHTED WWDS SIGN
- STATIC WWDS SIGN (45)

(45) WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

- ITS EQUIPMENT POLE
- EXISTING ITS EQUIPMENT POLE
- UG ITS CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- HORIZONTAL DIRECTIONAL BORE CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- SURFACE MOUNTED AND ABOVE GROUND CONDUIT. CONDUIT SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE NOTED.
- EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)
- EXISTING UG FOC MAIN COMMUNICATION CONDUIT
- EXISTING JACKED/BORE CONDUIT
- EXISTING R/W
- EXISTING LA R/W (SP)

CONDUIT COLOR CODING SCHEDULE

CONDUIT	COLOR OF CONDUIT
BACKBONE RUN* / DROP RUN	
FIBER OPTIC: CABLE (FDOT 144SM FOC)	ORANGE
FIBER OPTIC: CABLE (AMS/BCTED 144SM FOC)	ORANGE WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #1	BLACK
FIBER OPTIC SPARE: FOC SPARE #2	BLACK WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #3	BLACK WITH GREEN STRIPE
FIBER OPTIC: CABLE (24SM FOC)	ORANGE
FIBER OPTIC: CABLE (6MM FOC)	ORANGE
ELECTRICAL: SERVICE WIRE	RED
MISCELLANEOUS CONDUIT	
COMPOSITE: ETHERNET CAT5 / 6 CABLING	WHITE
RAMP SIGNAL	
SIGNAL CABLE: SIGNAL / DETECTOR / LOOP LEAD-IN)	WHITE WITH RED STRIPE
TONE WIRE	GREY
BROWARD / PALM BEACH COUNTY ARTERIAL	
FIBER OPTIC: CABLE (24SM FOC)	GREY WITH WHITE STRIPE

* IN SOME AREAS AS PLANS SHOW, A MIXTURE OF EXISTING BACKBONE CONDUITS (GREY COLOR) AND NEW CONDUITS IS UTILIZED TO FORM A COMPLETE BACKBONE CONDUIT INSTALLATION. FOR THESE CASES, THE USAGE OF THE NEW CONDUITS AND THEIR COLORS SHALL FOLLOW THE ABOVE LIST (I.E. USE THE NEW CONDUITS FOR THE TWO 144 SM FOC FIRST)

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, accuracy and adequacy of construction, fabrication and erection shall remain with the contractor.
BY:(INDOT) VS Date: 2/16/2021
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5696

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	(30) REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	(45) REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

GENERAL NOTES (1)

SHEET NO. IT-3

ITS NOTES

GENERAL

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OR THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS, NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.

2. IN ORDER TO MINIMIZE IMPACT TO LANDSCAPING MATERIAL, EXERCISE CAUTION THROUGH LANDSCAPING LIMITS DURING ALL PHASES OF CONSTRUCTION ACTIVITY. CONTRACTOR SHALL REPAIR / REPLACE ANY DAMAGED LANDSCAPING AND PLANT BEDS CAUSED BY THEIR CONSTRUCTION ACTIVITY

3. FOR ALL OVERHEAD SIGN STRUCTURES, EXERCISE ALL APPROPRIATE SAFETY MEASURES WHEN WORKING IN OR AROUND THESE AREAS. CAUTION SHALL BE TAKEN WITH RESPECT TO MAINTAINING THE POWER FEED AND GROUNDING CIRCUITRY.

4. HAND DIG THE FIRST 4' AT EACH POLE INSTALLATION LOCATION.

5. AVOID AND/OR PROTECT ALL TREES AND ROOTS BY HAND DIGGING AS NECESSARY.

6. IF WIRES, PVC CONDUIT AND/OR CABINETS TO PTMS LOCATIONS ARE DAMAGED DUE TO PROJECT, THESE SITES NEED TO BE REPAIRED OR REPLACED AS IN THE FIELD. "CALL THE PLANNING DEPARTMENT IF THE INDUCTIVE LOOPS AND/OR PIEZOS ARE CUT, IN ORDER TO PERFORM AN INSPECTION. CONTACT KARA SCHWARTZ 954-777-4364 AND E-MAIL KARA.SCHWARTZ@DOT.STATE.FL .US"

7. ALL TRAFFIC CONTROL DEVICES MAINTAINED BY BROWARD COUNTY / PALM BEACH COUNTY, THAT ARE REMOVED OR DAMAGED BY CONSTRUCTION SHALL BE REPLACED USING CURRENT BROWARD COUNTY / PALM BEACH COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS.

8. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE A COPY OF THE REQUEST TO THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC). THE CONTRACTOR SHALL PROVIDE THE DCIC WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE, AND PROVIDE A DESCRIPTION OF THE SPECIFIC MANNER IN WHICH THE MATERIAL WILL BE USED. THE PROJECT ENGINEER SHALL COORDINATE WITH THE DCIC PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AS HAZARDOUS MATERIALS, SUCH PRODUCTS DO NOT REQUIRE AN MSDS SUBMITTAL. ALL BULK PETROLEUM PRODUCTS STORED ON SITE SHALL REQUIRE PROPER STORAGE WHICH INCLUDES SECONDARY CONTAINMENT.

9. IF SUSPECT CONTAMINATED OR HAZARDOUS MATERIAL IS FOUND ON THE PROJECT OR ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC) AT PHONE NUMBER (954) 777-4286.

10. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING OR STOCKPILING AREAS WITH THE DISTRICT CONSTRUCTION ENVIRONMENTAL COORDINATOR AT (954) 777-4665.

11. BLACK AND RED BUFFER TUBES OF FDOT 144 SMFO ARE ALLOCATED FOR TOLL COMMUNICATIONS.

CONDUIT

1. CONDUIT RUN SHALL NOT EXCEED 270° OF BENDS BETWEEN PULL BOXES.

2. ALL HDPE CONDUIT CONNECTIONS SHALL BE JOINED WITH A MECHANICAL COUPLE OR APPROVED EQUAL.

3. JACK AND BORE OPERATIONS IF USED SHALL MEET THE REQUIREMENTS OF FDOT'S UTILITY ACCOMMODATION MANUAL (LATEST EDITION).

4. CONDUIT INSTALLATION MUST MEET THE CONDUIT INSTALLATION REQUIREMENTS OF THE 2017 UTILITY ACCOMMODATION MANUAL AT A MINIMUM.

5. TRACER WIRE SHALL BE INSTALLED FOR ALL FIBER BACKBONE, FIBER LATERAL, AND MULTI-CONDUCTOR COMMUNICATION CABLE RUNS. THE TRACER WIRE SHALL BE PLACED ALONG THE CENTERLINE OF THE TOP OUTER SURFACE OF INSTALLED CONDUIT RUN DURING TRENCH OPERATION AND INSTALL THE TRACER WIRE IN AN ENCASEMENT FOR A BORING OPERATION.

PULL BOXES

1. POWER AND COMMUNICATIONS CABLE MUST BE IN SEPARATE PULL BOXES.

2. FOR I-95 RAMP FIBER OPTIC EXTENSIONS ONLY, STORE 100 FEET OF SLACK FIBER OPTIC CABLE IN THE PULL BOXES.

CABINETS

SLACK CABLE STORE A TOTAL OF 20 FEET OF SPARE FIBER OPTIC CABLE IN CABINETS.

ITS

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING AND PROPOSED ROADWAY LIGHTING PRIOR TO INSTALLATION OF DMS, CONDUIT, PULL BOXES AND FOUNDATIONS.

VEGETATION SHALL BE REMOVED OR CUT BACK AS DIRECTED BY THE ENGINEER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR ALL DEVICE LOCATIONS.

3. GROUNDING FOR ALL COMPONENTS SHALL BE PER THE PLANS AND SPECIFICATIONS.

4. ALL DIMENSIONS SHOWN FOR THE PURPOSE OF DEVICE POLE LOCATIONS ARE MADE FROM THE REFERENCE POINT SHOWN TO THE FACE OF THE POLE NEAREST THE ROADWAY.

5. WHEN RUNNING CABLES INSIDE THE STRAIN POLE, ENSURE THAT WATER DOES NOT ENTER THE CABINET BY RUNNING DOWN THE CABLE.

6. AT LOCATIONS WHERE UNDERGROUND UTILITIES OR STORM ARE WITHIN TWO FEET OF THE ITS POLE FOUNDATIONS OR CONDUIT RUN, THE CONTRACTOR WILL HAND DIG THE FIRST FOUR FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.

7. CONTRACTOR SHALL INSTALL MVDS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

8. REUSABLE ITS EQUIPMENT TO BE RETURNED TO FDOT ITS MAINTENANCE.

9. INSTALL CABINET OPENINGS SO THAT MAINTENANCE TECHNICIAN NEVER HAVE THEIR BACK TO TRAFFIC WHEN OPENING EITHER OF THE CABINET DOORS.

10. CABINET COMPONENTS (I.E. PATCH PANELS, PDU, MFES, ETC.) SHALL BE INSTALLED WITHIN THE CABINET SO THAT THE PRIMARY ACCESS TO THE COMPONENTS IS ON THE FAR SIDE OF THE CABINET FROM THE ROADWAY.

11. EQUIPMENTS (I.E. UPS, MFES, ETC.) INSTALLED IN 3A-1 AND 3A-2 REMOTE SITES SHALL BE UPGRADED TO MEET 3B-1 RFP REQUIREMENTS.

VOID

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BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

GENERAL NOTES (2)

SHEET NO. IT-4

ITS NOTES

GENERAL

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OR THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS, NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.

2. IN ORDER TO MINIMIZE IMPACT TO LANDSCAPING MATERIAL, EXERCISE CAUTION THROUGH LANDSCAPING LIMITS DURING ALL PHASES OF CONSTRUCTION ACTIVITY. CONTRACTOR SHALL REPAIR / REPLACE ANY DAMAGED LANDSCAPING AND PLANT BEDS CAUSED BY THEIR CONSTRUCTION ACTIVITY. WHERE CONDUIT RUNS BY EXISTING TREES, NO TRENCHING OR DISTURBANCE WILL OCCUR WITHIN THE EXISTING TREE DRIP LINE.

3. FOR ALL OVERHEAD SIGN STRUCTURES, EXERCISE ALL APPROPRIATE SAFETY MEASURES WHEN WORKING IN OR AROUND THESE AREAS. CAUTION SHALL BE TAKEN WITH RESPECT TO MAINTAINING THE POWER FEED AND GROUNDING CIRCUITRY.

4. HAND DIG THE FIRST 4' AT EACH POLE INSTALLATION LOCATION.

5. AVOID AND/OR PROTECT ALL TREES AND ROOTS BY HAND DIGGING AS NECESSARY.

6. IF WIRES, PVC CONDUIT AND/OR CABINETS TO PTMS LOCATIONS ARE DAMAGED DURING CONSTRUCTION, THESE SITES NEED TO BE REPAIRED OR REPLACED BEFORE THE NEW PTMS IS UP AND RUNNING. "CALL THE PLANNING DEPARTMENT IF THE INDUCTIVE LOOPS AND/OR PIEZOS ARE CUT, IN ORDER TO PERFORM AN INSPECTION. CONTACT KARA SCHWARTZ 954-777-4364 AND E-MAIL KARA.SCHWARTZ@DOT.STATE.FL .US"

7. ALL TRAFFIC CONTROL DEVICES MAINTAINED BY BROWARD COUNTY / PALM BEACH COUNTY, THAT ARE REMOVED OR DAMAGED BY CONSTRUCTION SHALL BE REPLACED USING CURRENT BROWARD COUNTY / PALM BEACH COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS.

8. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE A COPY OF THE REQUEST TO THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC). THE CONTRACTOR SHALL PROVIDE THE DCIC WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE, AND PROVIDE A DESCRIPTION OF THE SPECIFIC MANNER IN WHICH THE MATERIAL WILL BE USED. THE PROJECT ENGINEER SHALL COORDINATE WITH THE DCIC PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AS HAZARDOUS MATERIALS, SUCH PRODUCTS DO NOT REQUIRE AN MSDS SUBMITTAL. ALL BULK PETROLEUM PRODUCTS STORED ON SITE SHALL REQUIRE PROPER STORAGE WHICH INCLUDES SECONDARY CONTAINMENT.

9. IF SUSPECT CONTAMINATED OR HAZARDOUS MATERIAL IS FOUND ON THE PROJECT, OR ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC) AT PHONE NUMBER (954) 777-4286.

10. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING OR STOCKPILING AREAS WITH THE DISTRICT CONSTRUCTION ENVIRONMENTAL COORDINATOR AT (954) 777-4665.

11. BLACK AND RED BUFFER TUBES OF FDOT 144 SMFO ARE ALLOCATED FOR TOLL COMMUNICATIONS.

12. THE DETECTION ZONE OF WRONG WAY DETECTION SYSTEM (WWDS) SHALL COVER THE SHOULDERS ON BOTH SIDES IN ADDITION TO THE TRAVEL LANES.

13. COORDINATE WITH THE MANUFACTURER OR REPRESENTATIVE TO FIELD ADJUST AND TEST THE INSTALLATION OF DETECTION POLES AND CAMERAS FOR MAXIMUM ACCURACY.

△5

△5 WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

CONDUIT

1. CONDUIT RUN SHALL NOT EXCEED 270° OF BENDS BETWEEN PULL BOXES.

2. ALL HDPE CONDUIT CONNECTIONS SHALL BE JOINED WITH A MECHANICAL COUPLE OR APPROVED EQUAL.

3. JACK AND BORE OPERATIONS IF USED SHALL MEET THE REQUIREMENTS OF FDOT'S UTILITY ACCOMMODATION MANUAL (LATEST EDITION).

4. CONDUIT INSTALLATION MUST MEET THE CONDUIT INSTALLATION REQUIREMENTS OF THE 2017 UTILITY ACCOMMODATION MANUAL AT A MINIMUM.

5. TRACER WIRE SHALL BE INSTALLED FOR ALL FIBER BACKBONE, FIBER LATERAL, AND MULTI-CONDUCTOR COMMUNICATION CABLE RUNS. THE TRACER WIRE SHALL BE PLACED ALONG THE CENTERLINE OF THE TOP OUTER SURFACE OF INSTALLED CONDUIT RUN DURING TRENCH OPERATION.

6. WHEN A MIXTURE OF EXISTING CONDUITS AND NEW CONDUITS IS USED, THE EXISTING CONDUITS SHALL BE TERMINATED IN THE PROPOSED PULL BOXES WITH THE PROPOSED CONDUITS.

△6

PULL BOXES

1. POWER AND COMMUNICATIONS CABLE MUST BE IN SEPARATE PULL BOXES.

2. FOR I-95 RAMP FIBER OPTIC EXTENSIONS ONLY, STORE 100 FEET OF SLACK FIBER OPTIC CABLE IN THE PULL BOXES.

3. AT LOCATIONS WHERE PULL BOXES ARE INSTALLED ON ROADWAY SHOULDERS, LOAD RATED OR TRAFFIC BEARING PULL BOXES ARE REQUIRED.

4. STORE 100 FEET OF SLACK FOR EACH FIBER OPTIC DROP CABLE IN THE SPLICE BOX UNLESS SPECIFIED IN PLANS.

ITS CABINETS

1. SLACK CABLE STORAGE: STORE A TOTAL OF 20 FEET OF SPARE FIBER OPTIC CABLE IN ITS CABINETS.

ITS

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING AND PROPOSED ROADWAY LIGHTING PRIOR TO INSTALLATION OF DMS, CONDUIT, PULL BOXES, AND POLE FOUNDATIONS.

2. VEGETATION SHALL BE REMOVED OR CUT BACK AS DIRECTED BY THE ENGINEER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR ALL DEVICE LOCATIONS.

3. ALL DIMENSIONS SHOWN FOR THE PURPOSE OF DEVICE POLE LOCATIONS ARE MADE FROM THE REFERENCE POINT SHOWN TO THE FACE OF THE POLE NEAREST THE ROADWAY.

4. WHEN RUNNING CABLES INSIDE THE STRAIN POLE, ENSURE THAT WATER DOES NOT ENTER THE CABINET BY RUNNING DOWN THE CABLE.

5. AT LOCATIONS WHERE UNDERGROUND UTILITIES OR STORM ARE WITHIN TWO FEET OF THE ITS POLE FOUNDATIONS OR CONDUIT RUN, THE CONTRACTOR WILL HAND DIG THE FIRST FOUR FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.

6. CONTRACTOR SHALL INSTALL MVDS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

7. REUSABLE ITS EQUIPMENT TO BE RETURNED TO FDOT ITS MAINTENANCE.

8. INSTALL CABINET OPENINGS SO THAT MAINTENANCE TECHNICIAN NEVER HAVE THEIR BACK TO TRAFFIC WHEN OPENING EITHER OF THE CABINET DOORS.

9. CABINET COMPONENTS (I.E. PATCH PANELS, PDU, MFES, ETC.) SHALL BE INSTALLED WITHIN THE CABINET SO THAT THE PRIMARY ACCESS TO THE COMPONENTS IS ON THE FAR SIDE OF THE CABINET FROM THE ROADWAY.

10. INSTALL WIRE GROUNDING UNIT (WGU) IN EVERY SPLICE BOX ALONG THE PROJECT LENGTH FOR THE LOCATE WIRE OF THE FIBER OPTIC BACKBONE.

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FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5696
BY:(FDOT) VS Date: 2/16/2021

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	△6 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	△5 REVISED FOR WRONG WAY DETECTION REVISION.		

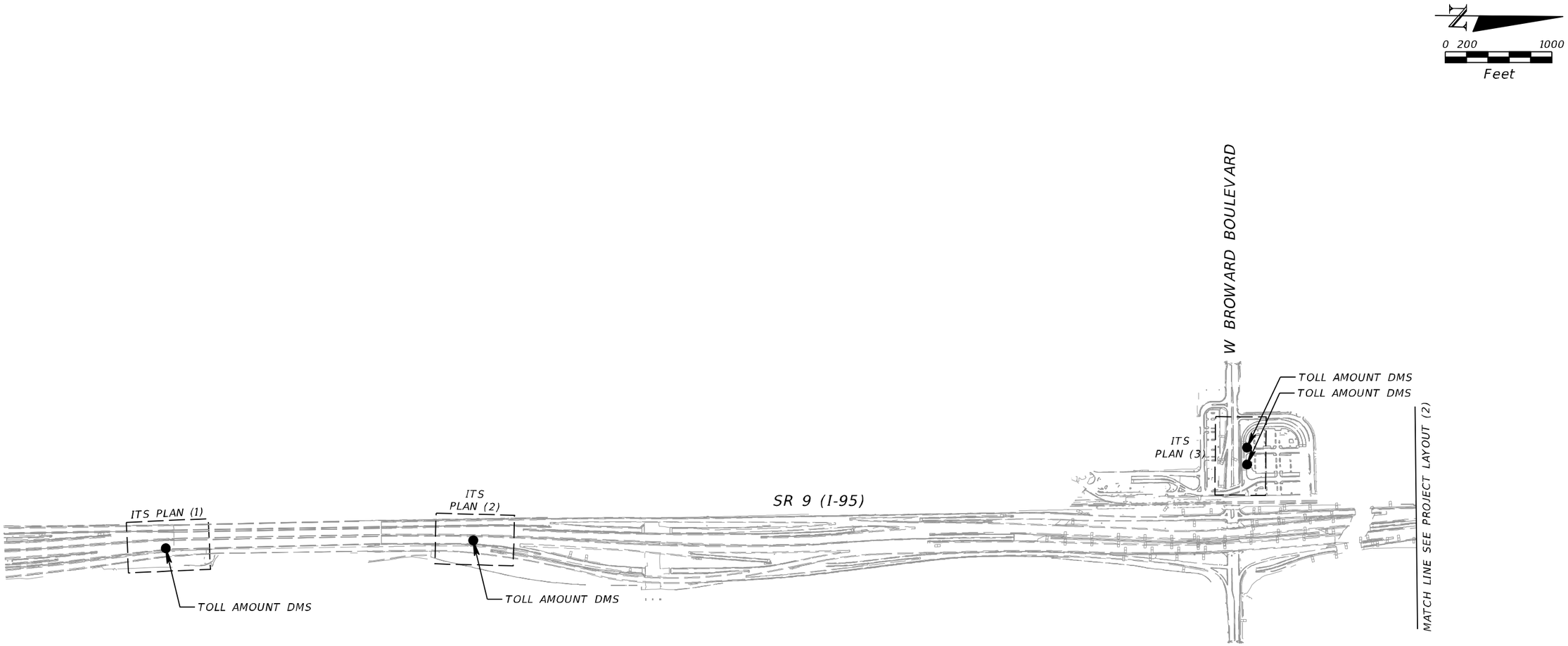
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

GENERAL NOTES (2)

SHEET NO. IT-4



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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT (1)

SHEET NO.
IT-5

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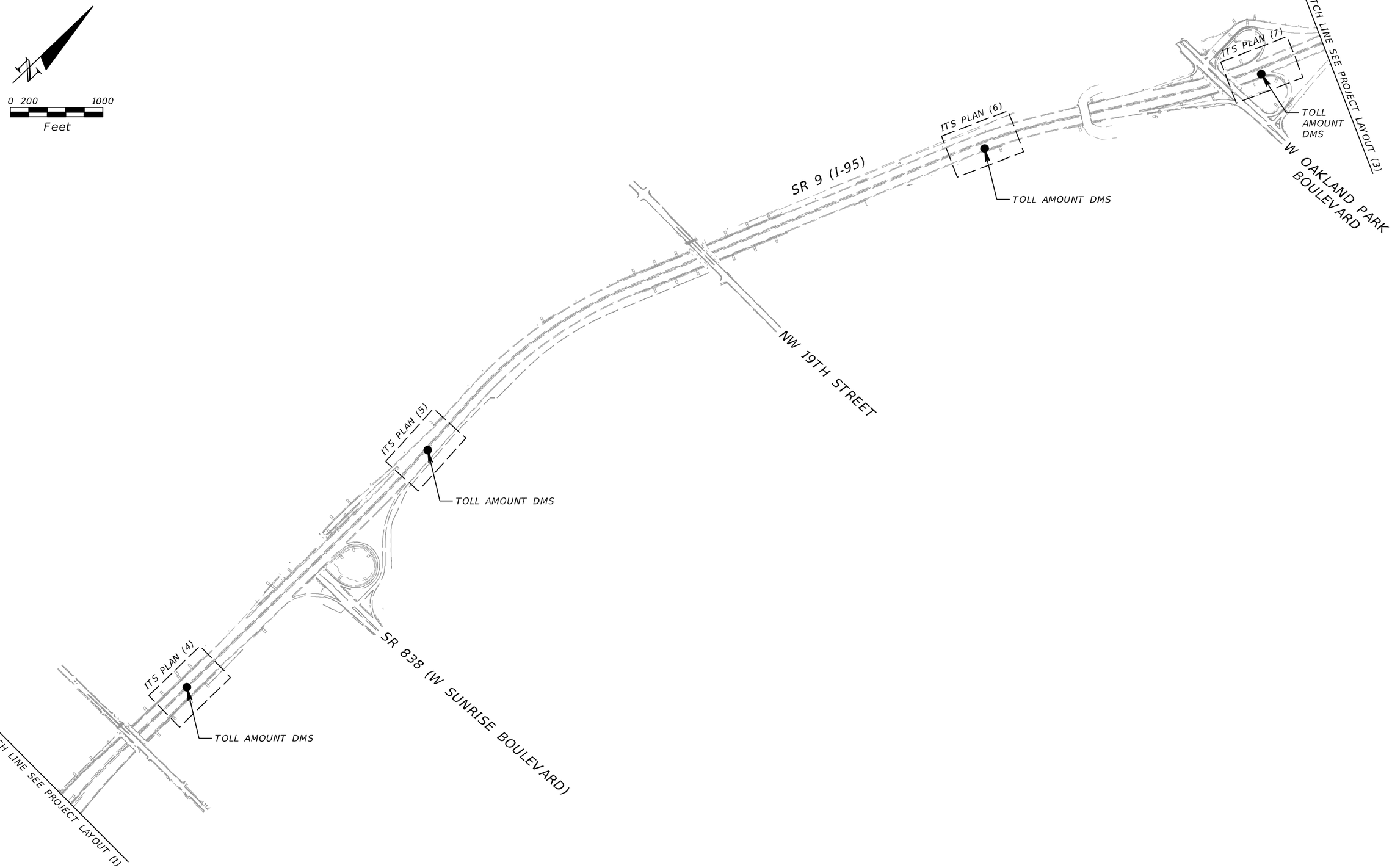

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BY/FDOT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
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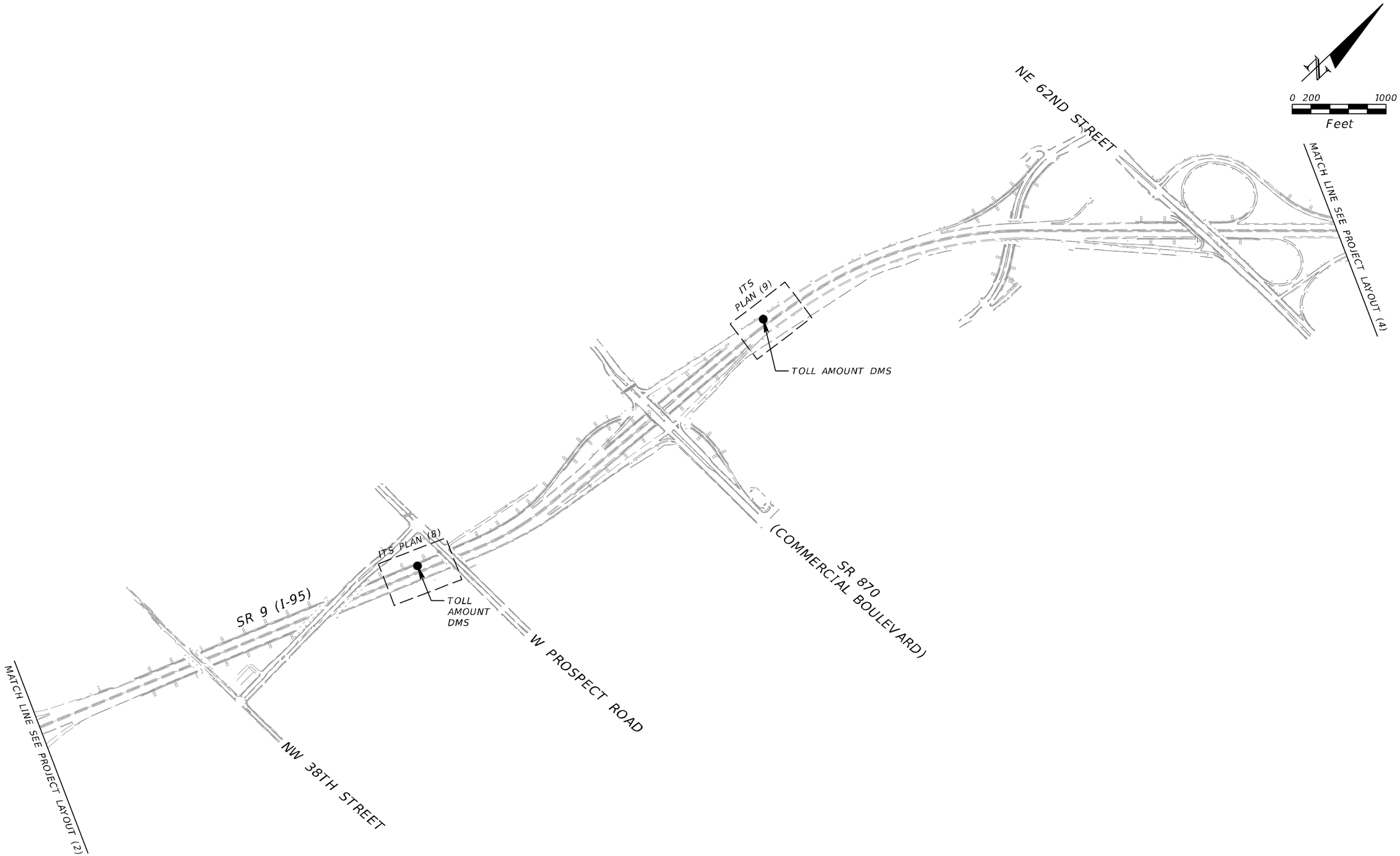
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT (2)

SHEET NO.
IT-6



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PROJECT LAYOUT (3)

SHEET NO.
IT-7

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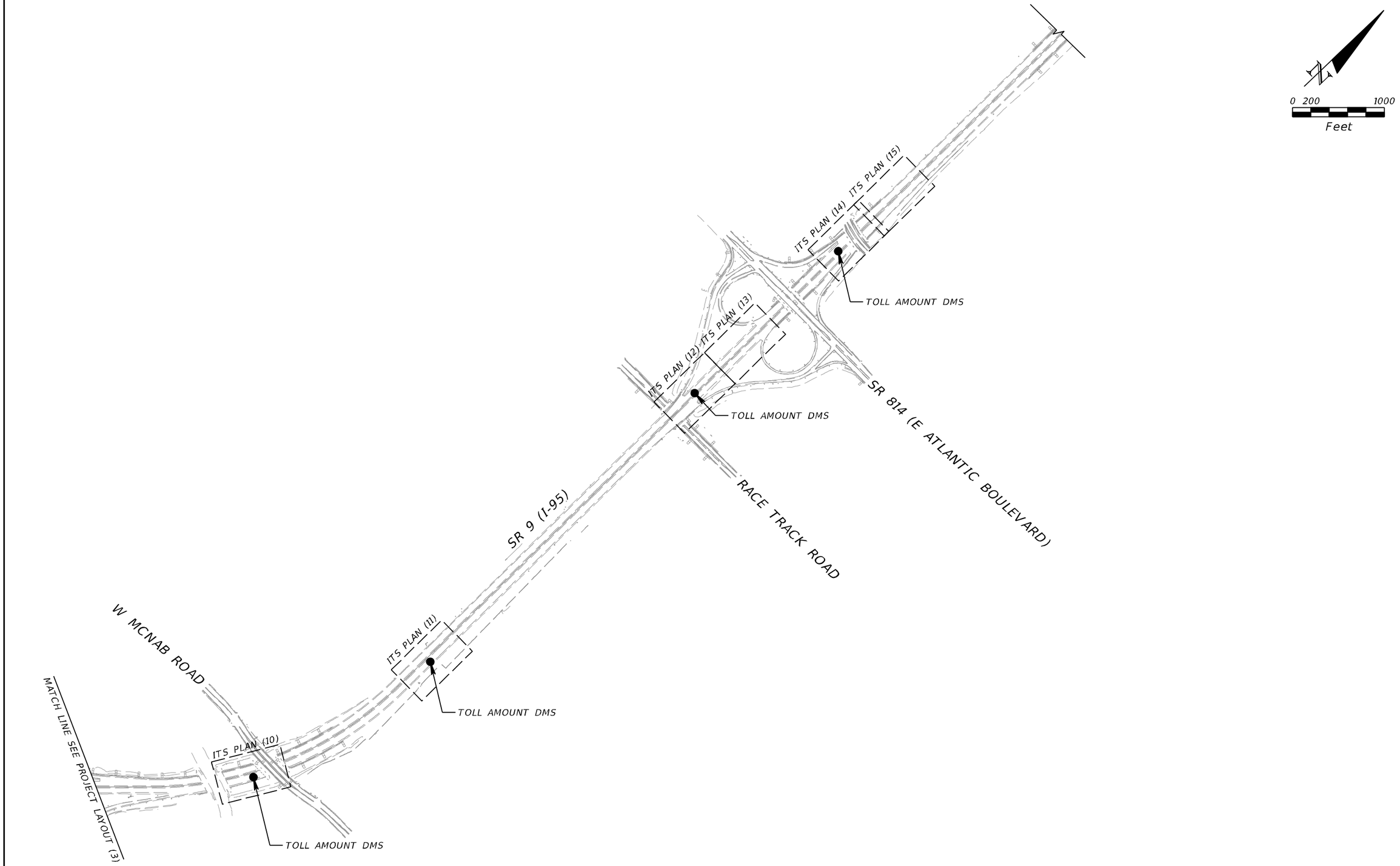
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4X96

REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT (4)

SHEET NO.
IT-8

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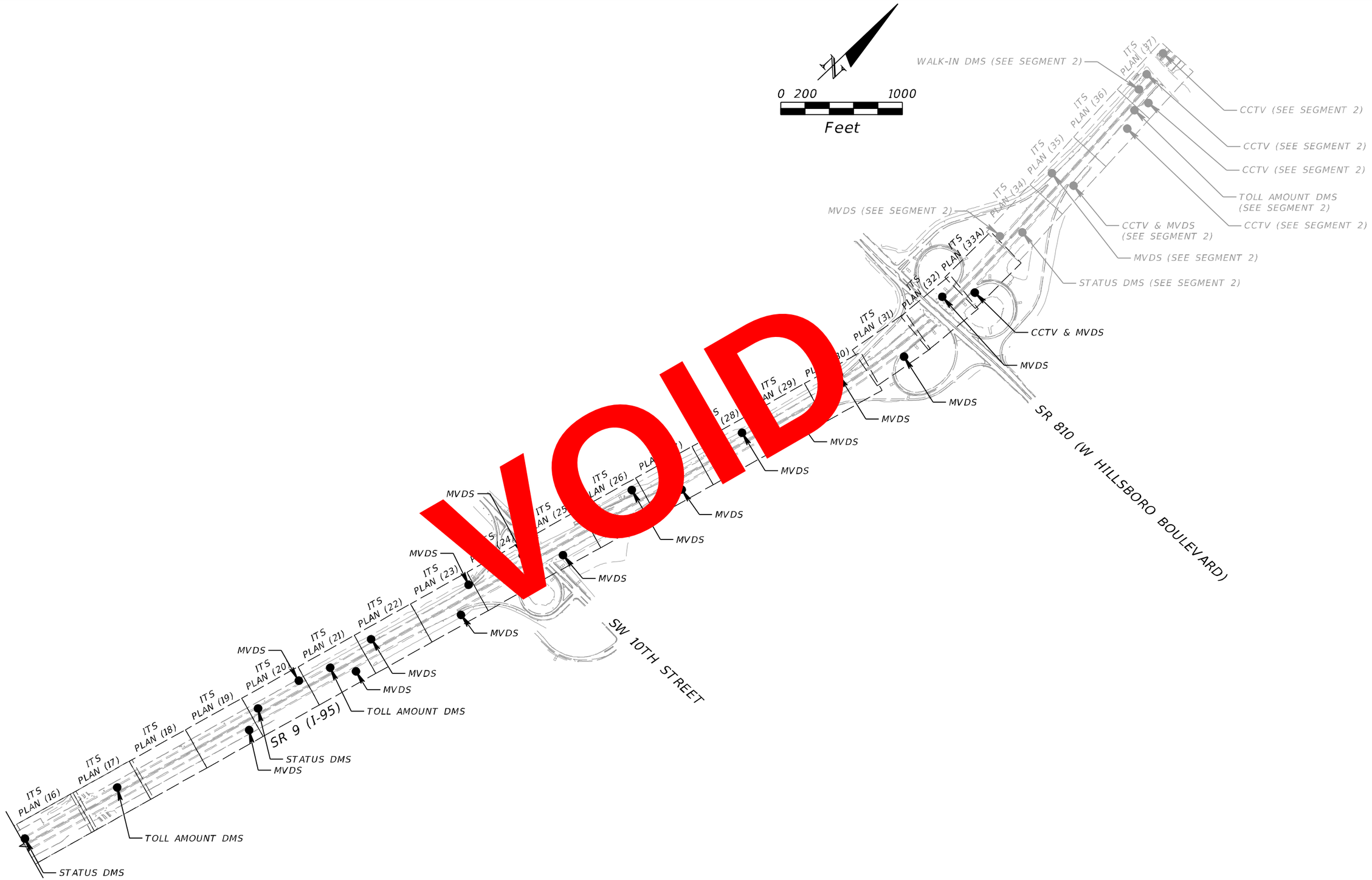

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT (5A)

SHEET NO.
IT-9

BY/FDOT VS Date: 10/30/2018
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
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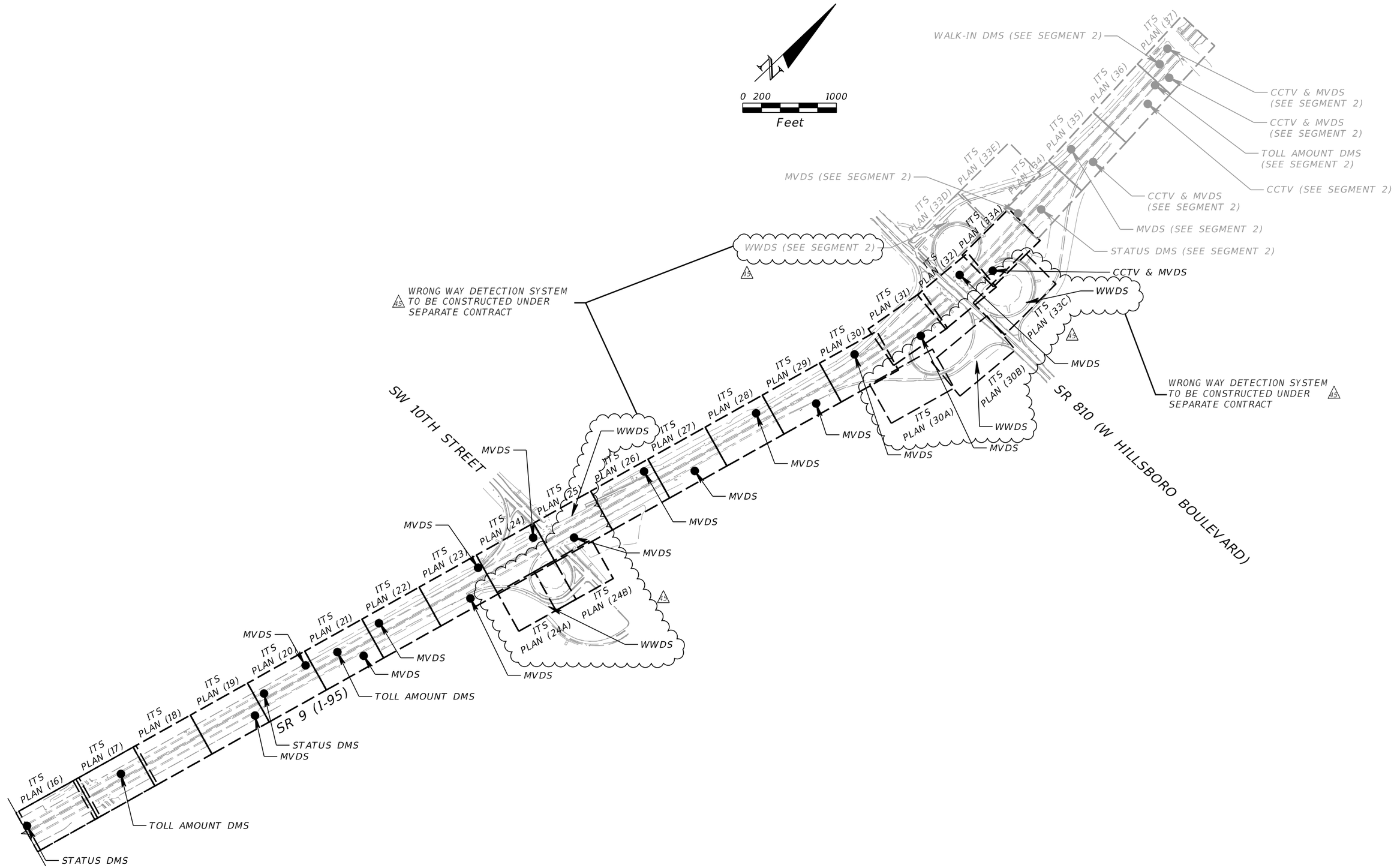

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT (5A)

SHEET NO.
IT-9

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 2/16/2021

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EXISTING 144 FOC INSTALLED IN 3A-1

EXISTING 3A-1
144-COUNT SM
TRUNK CABLE

STA. 2076+00
EXISTING SV IN 3A-1

STA. 2115+60
EXISTING SV IN 3A-1

STA. 2269+20
EXISTING SV IN 3A-1

STA. 2315+90
EXISTING SV IN 3A-1

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

BLU/ORG
GRN/BRN
SLT/WHT
RED/BLK
YLW/VIO
ROS/AQU

MFES
DEVICE SERVER
D-CCTV 95-28.10 NB
MVDS 95-28.10 NB
MVDS 95-28.10 SB
T-DMS 95-28.15 NB
T-DMS
STA. 2076+00 NB SIDE
STA. 2076+00 SB SIDE
STA. 2078+50 NB SIDE

MVDS 95-28.85 SB
STA. 2115+60 SB SIDE

T-DMS 95-28.84 NB
STA. 2115+15 NB SIDE

T-DMS 95-31.72 SB
STA. 2267+00 SB SIDE

EXISTING WAP
EXISTING CCTV CAMERA
EXISTING MVDS
EXISTING VOIP
WAP
CCTV
MVDS
VOIP
STA. 2269+40 SB SIDE

T-DMS 95-32.58 SB
STA. 2312+85 SB SIDE

EXISTING CCTV CAMERA
EXISTING MVDS
CCTV
MVDS
STA. 2315+90 SB SIDE

EXISTING 144 FOC INSTALLED IN 3A-1
BRANCH CABLE TO FSB 95-28.82 NB

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (1)

SHEET NO.
IT-10

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EXISTING 144 FOC INSTALLED IN 3A-2

EXISTING 3A-2
144-COUNT SM
TRUNK CABLE

STA. 2465+40 NB
EXISTING SV-19 IN 3A-2

STA. 2490+90 NB
EXISTING SV-21 IN 3A-2

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

BLU/ORG
GRN/BRN
SLT/WHT
RED/BLK
YLW/VIO
ROS/AQU

MFES
DEVICE SERVER
UNIVLK SERVER

FL D4 DOT 095 018.1 SB TR 1
018.3 CCTV GP 1
FL D4 095 018.1 SB SS DS EL-GP-ON 6
FL D4 095 018.3 NB WS DS EL-GP-ON 6
FL D4 095 018.3 SB SS DS EL-GP-OF 6
018.3 CCTV GP 2
FL D4 095 018.5 SB SS DS EL-GP-OF 7
018.5 CCTV EI-GP 1
018.5 CCTV GP 1
FL D4 095 018.8 SB SS DS EL-GP-OF 6
FL D4 095 018.6 NB WS DS EL-GP-ON 6
FL D4 DOT 095 018.5 SB TR 1

T-DMS
RAMP
D-CCTV
MVDS
CCTV
EX. WI RADIO

STA. 2457+00 SB SIDE
STA. 2479+00 SB SIDE

LEGEND

- PROPOSED BUFFER CAP AND COIL
- PROPOSED FIBER PAIR CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- EXISTING FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- EXISTING FOUR SPLICES
- SEGMENT 2 PROPOSED FOUR SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED BUFFER TO BUFFER SPLICES
- PROPOSED TWO SPLICES

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (2)

SHEET NO.
IT-11

EXISTING 144 FOC INSTALLED IN 3A-2

EXISTING 144 FOC INSTALLED BEFORE 3A-2 & EXISTING 48 INSTALLED BEFORE 3A-2

STATION NUMBERS ARE APPROXIMATE ONLY

EXISTING 3A-2 144-COUNT SM TRUNK CABLE

STA. 2711+90 NB SIDE
EXISTING SV-42 IN 3A-2

STA. 2711+90 SB SIDE
EXISTING SV-43 IN 3A-2

STA. 2721+40 SB SIDE
EXISTING SV

STA. 2742+10 SB SIDE
NEW SV-1 IN 3B-1

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

BLU/ORG
GRN/BRN
SLT/WHT
RED/BLK
YLW/VIO
ROS/AQU

MATCH LINE 1

NE 48TH STREET

EXISTING 48-COUNT SM TRUNK CABLE

LEGEND

- PROPOSED BUFFER CAP AND COIL
- PROPOSED FIBER PAIR CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- EXISTING FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- EXISTING FOUR SPLICES
- SEGMENT 2 PROPOSED FOUR SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED BUFFER TO BUFFER SPLICES
- PROPOSED TWO SPLICES

MFES
FL D4 DOT 095 0230 SB IS 1
S-DMS
STA. 2716+00

MFES
FL D4 DOT 095 0232 SB TR 1
T-DMS
T-DMS
T-DMS
STA. 2725+00

MFES
023.2 CCTV EL 1
D-CCTV
STA. 2727+50

MFES
DEVICE SERVER
FLD4095040.5NBIVSDSGP
MVDS
STA. 2714+00 NB SIDE

MFES
DEVICE SERVER
EXISTING CAMERA 0406CCTV (OLD C90-43)
CCTV
STA. 2721+34 SB SIDE

MFES
DEVICE SERVER
FLD4095040.6SBSSDSGP
MVDS
STA. 2722+25 NB SIDE

MFES
DEVICE SERVER
FLD4095040.7NBIVSDSGP
MVDS

MFES
DEVICE SERVER
FLD4095040.8SBSSDSGP
MVDS
STA. 2730+37 SB SIDE

MFES
DEVICE SERVER
FLD4095041.0NBIVSDSGP
MVDS
STA. 2740+19 NB SIDE

MFES
DEVICE SERVER
FLD4095041.1SBSSDSGN
MVDS
STA. 2742+40 SB SIDE

VOID

RELEASED FOR CONSTRUCTION
BY/PDT VS Date: 10/30/2018
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (3)

SHEET NO.
IT-12

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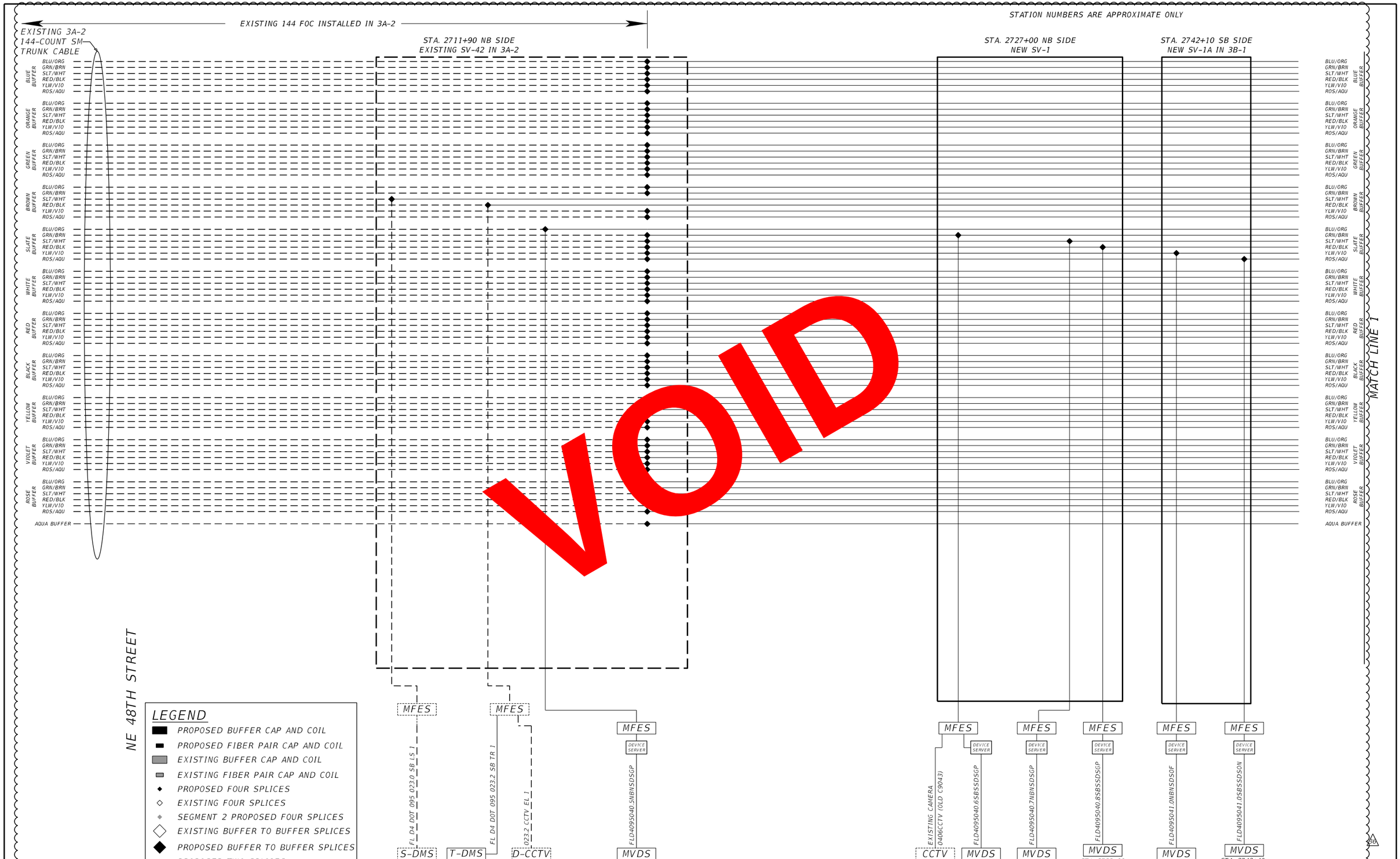

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 5/27/2020

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (3)

SHEET NO.
IT-12

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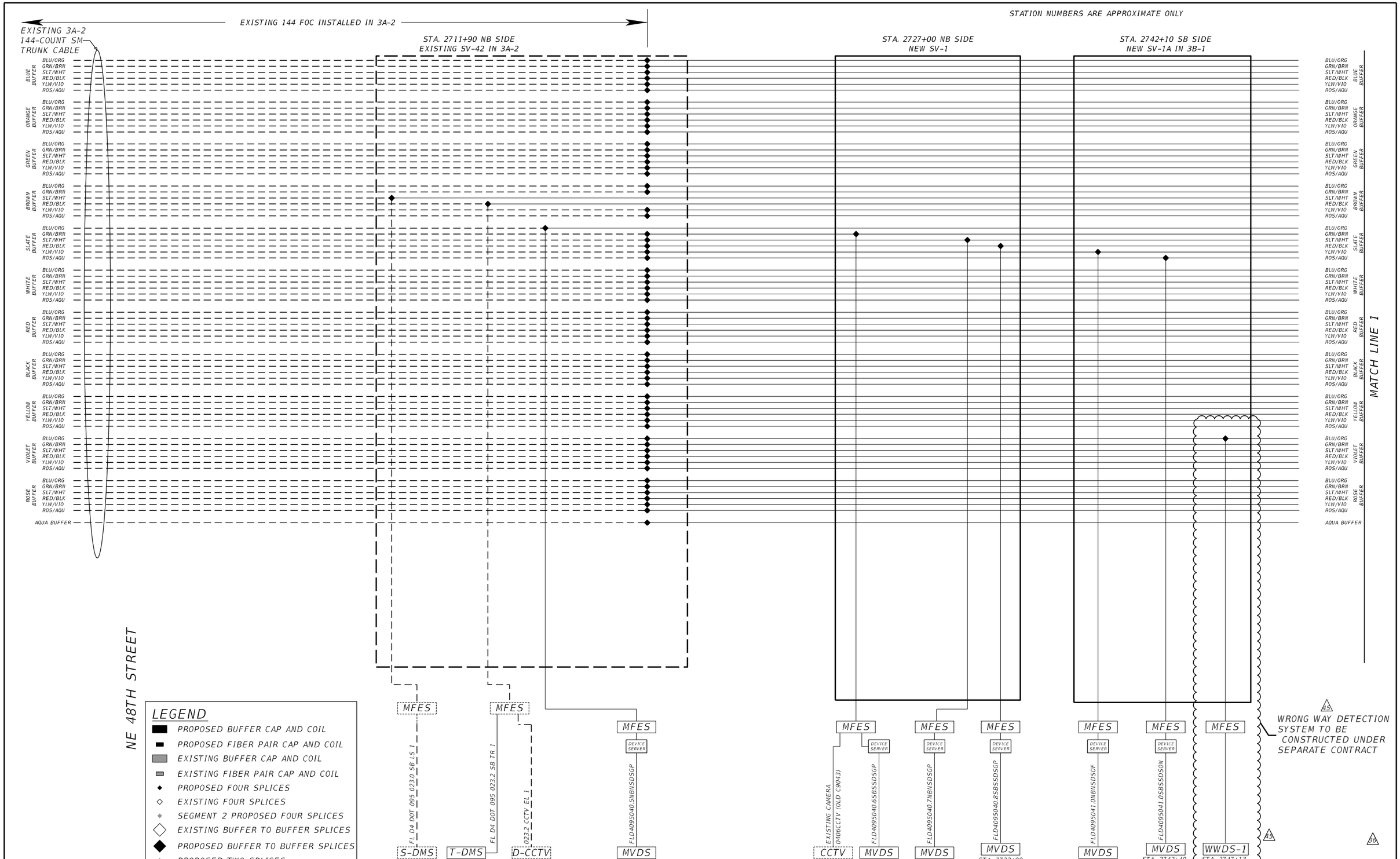

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BY:(FDOT) VS Date: 2/16/2021

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

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2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (3)

SHEET NO.
IT-12

EXISTING 144 FOC INSTALLED BEFORE 3A-2
&
EXISTING 48 INSTALLED BEFORE 3A-2

STATION NUMBERS ARE APPROXIMATE ONLY

EXISTING 144-COUNT SM TRUNK CABLE

STA. 2749+40 SB SIDE
EXISTING PULL BOX
WITH SPLICE

STA. 2751+68 SB SIDE
NEW SV-2 IN 3B-1

STA. 2760+10 SB SIDE
NEW SV-3 IN 3B-1

STA. 3000+85 SB SIDE
EXISTING SPLICE VAULT

STA. 3015+28 SB SIDE
NEW SV-4 IN 3B-1

STA. 3020+85 SB SIDE
NEW SV-5 IN 3B-1

STA. 3028+20 SB SIDE
EXISTING SPLICE VAULT

MATCH LINE 1

MATCH LINE 2

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

BLU/ORG
GRN/BRN
SLT/WHT
RED/BLK
YLW/VIO
ROS/AQU

EXISTING 48-COUNT SM TRUNK CABLE

EXISTING UNKNOWN 48-COUNT

SW 10TH ST.

MFES
DEVICE SERVER

EXISTING CAMERA
041JCCTV (OLD C9044)

FLD4095041.15BSSDSGP
FLD4095041.2NBNSDSGP
FLD4095041.45BSSDSGF
FLD4095041.5NBNSDSGP
FLD4095041.75BSSDSGP
FLD4095041.8NBNSDSGF
FLD4095041.95BSSDSGN
FLD4095042.0NBNSDSGN

CCTV
MVDS

STA. 2749+23 SB SIDE
STA. 2753+00 NB SIDE
STA. 2763+00 SB SIDE
STA. 2767+80 NB SIDE
STA. 3002+25 SB SIDE
STA. 3008+41 NB SIDE
STA. 3014+61 SB SIDE
STA. 3021+52 NB SIDE

LEGEND

- PROPOSED BUFFER CAP AND COIL
- PROPOSED FIBER PAIR CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- EXISTING FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- EXISTING FOUR SPLICES
- SEGMENT 2 PROPOSED FOUR SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED BUFFER TO BUFFER SPLICES
- PROPOSED TWO SPLICES

VOID

BY/PDT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

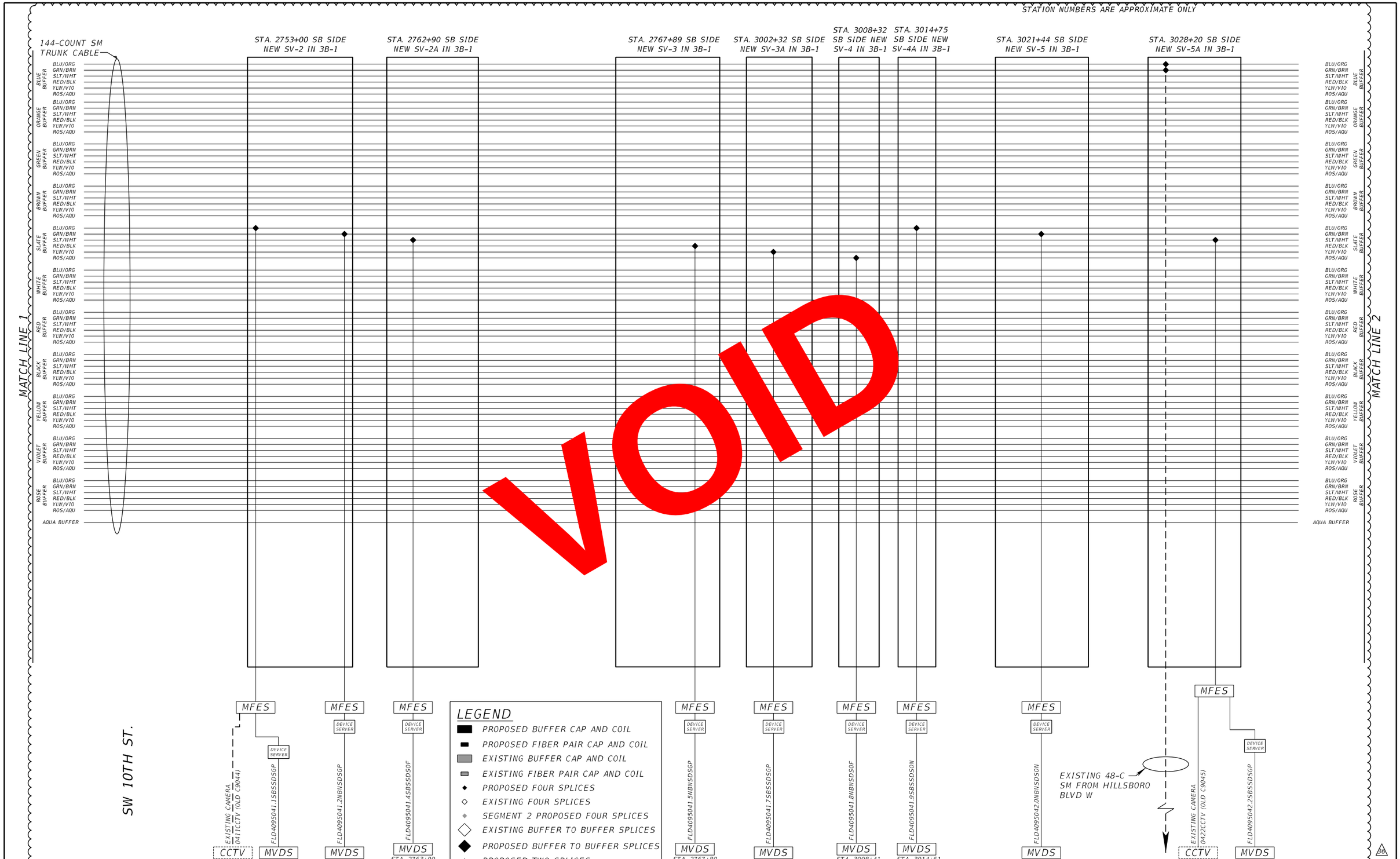
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (4)

SHEET NO.
IT-13

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 10/11/2018 1:46:58 PM c:\projectwise\pb\projectwiseint\barco\d0264783\NWDTIT01.dgn



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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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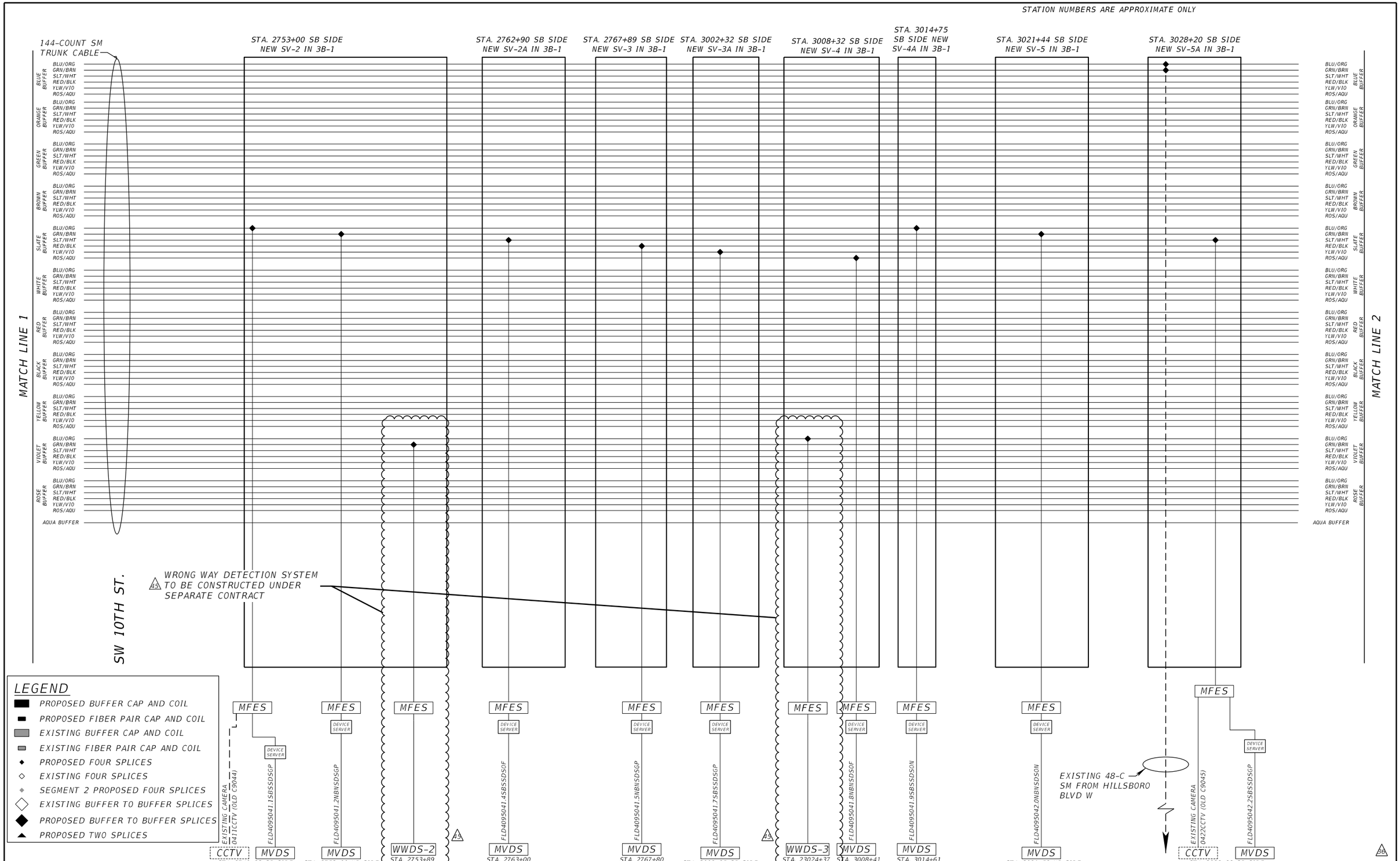
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (4)

SHEET NO. IT-13

PLOT DRIVER = C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg PEN TABLE = C:\Program Files (x86)\Bentley_v8iSS4\PowerGEOPAK\FDOT_GrayExisting.tbl MODEL NAME =Default USMW189428 5/11/2020 10:39:50 AM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0264783\NWDTIT01.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (4)

SHEET NO. IT-13

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/16/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

PLOT DRIVER = C:\FDOTSS10\RESOURCES\plot\FDOTPDF.pltcfg PEN TABLE = C:\Program Files (x86)\Bentley\PowerGEOPAK_SS10\PowerGEOPAK\FDOT_GrayExistingMODEL NAME =Default USMW189428 1/29/2021 2:23:03 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0264783\NWDTIT01.dgn

EXISTING 144 FOC INSTALLED BEFORE 3A-2 & EXISTING 48 INSTALLED BEFORE 3A-2

PROPOSED 144 FOC TO BE INSTALLED IN 3B-1

STATION NUMBERS ARE APPROXIMATE ONLY

EXISTING 144-COUNT SM TRUNK CABLE

STA. 3032+50 SB SIDE
NEW SV-6 IN 3B-1

STA. 3047+72 SB SIDE
NEW SV-7 IN 3B-1
(SEE SEGMENT 2)

STA. 3061+40 SB SIDE
NEW SV-8 IN 3B-1
(SEE SEGMENT 2)

MATCH LINE 2

BLUE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
SLATE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
WHITE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
YELLOW BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
VIOLET BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
ROSE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
AQUA BUFFER

BLUE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
ORANGE BUFFER
GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SEE SEGMENT 2

SEE SEGMENT 2

EXISTING HUB (HUB 95-42)
STA 3061+75 SB SIDE

EXISTING 48-COUNT SM TRUNK CABLE

MFES — DEVICE SERVER — FLD4095042.2SBSSDSGP — MVDS
EXISTING CAMERA — 0422CCTV (OLD C9045) — CCTV
STA. 3028+88 SB SIDE

MFES — FLD4095042.2NBNSDSOF — MVDS
0422DCCTV — D-CCTV
STA. 3032+40 NB SIDE

MFES — FLD4DOT09542.4NBLS1 — S-DMS
STA. 3040+00 NB SIDE

MFES — DEVICE SERVER — FLD4095042.3SBSSDSGP — MVDS
STA. 3038+00 SB SIDE

MFES — DEVICE SERVER — FLD4095042.5SBSSDSOF — MVDS
STA. 3048+00 SB SIDE

MFES — DEVICE SERVER — FLD4095042.5NBNSDSOM — MVDS
0425CCTV — CCTV
STA. 3047+01 NB SIDE

MFES — FLD4DOT09542.7NBTR1 — T-DMS
0427DCCTV-1 — D-CCTV
STA. 3056+00 NB SIDE
STA. 3058+00 NB SIDE

MFES — FLD4095042.7NBNSDSGP — MVDS
0427DCCTV-2 — D-CCTV
0427CCTV — CCTV
STA. 3058+90 NB SIDE

MFES — DEVICE SERVER — FLD4DOT09542.9SBSD42 (OLD GUL DMS 95SD42) — WALK-IN DMS
EXISTING DMS
STA. 3060+00 SB SIDE

MFES — DEVICE SERVER — FLD4095042.8SBSSDSGP — MVDS
0427DCCTV-3 — D-CCTV
STA. 3061+18 SB SIDE

MFES — GENERATOR 95-42 EXISTING — GENERATOR
STA. 3060+50 SB SIDE

LEGEND

- PROPOSED BUFFER CAP AND COIL
- PROPOSED FIBER PAIR CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- EXISTING FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- EXISTING FOUR SPLICES
- SEGMENT 2 PROPOSED FOUR SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED BUFFER TO BUFFER SPLICES
- PROPOSED TWO SPLICES

VOID

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BY/PDT VS Date: 10/30/2018
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (5A)

SHEET NO. IT-14

STATION NUMBERS ARE APPROXIMATE ONLY

144-COUNT SM TRUNK CABLE

STA. 3032+50 SB SIDE
NEW SV-6 IN 3B-1

STA. 3047+72 SB SIDE
NEW SV-7 IN 3B-1
(SEE SEGMENT 2)

STA. 3061+40 SB SIDE
NEW SV-8 IN 3B-1
(SEE SEGMENT 2)

MATCH LINE 2

BLUE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
SLATE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
WHITE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
YELLOW BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
VIOLET BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
ROSE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
AQUA BUFFER

SEE SEGMENT 2

SEE SEGMENT 2

EXISTING HUB (HUB 95-42) (TO BE REMOVED)
STA 3061+75 SB SIDE

MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES
DEVICE SERVER		DEVICE SERVER	DEVICE SERVER	DEVICE SERVER		DEVICE SERVER		DEVICE SERVER		DEVICE SERVER		
0422DCCTV	FLD4095042.2NBWSDSOF	FLD4D0T09542.4NBLS1	FLD4095042.3SBSSDSGP	FLD4095042.5SBSSDSOF	0425CCTV	FLD4095042.5NBWSDSON	0427DCCTV-1	FLD4D0T09542.7NBTR1	0427DCCTV-2	0427CCTV	FLD4095042.7NBWSDSGP	EXISTING DMS FLD4D0T09542.7 (OLD GUL DMS 955B42)	FLD4095042.8SBSSDSGP	0427DCCTV-3	GENERATOR 95-42 EXISTING
D-CCTV	MVDS	S-DMS	MVDS	MVDS	CCTV	MVDS	D-CCTV	T-DMS	D-CCTV	CCTV	MVDS	WALK-IN DMS	MVDS	D-CCTV	GENERATOR
STA. 3032+40 NB SIDE		STA. 3040+00 NB SIDE	STA. 3038+00 SB SIDE	STA. 3048+00 SB SIDE	STA. 3047+01 NB SIDE		STA. 3056+00 NB SIDE	STA. 3058+00 NB SIDE	STA. 3058+90 NB SIDE			STA. 3060+00 SB SIDE	STA. 3061+78 SB SIDE		STA. 3060+50 SB SIDE

3B

LEGEND

- PROPOSED BUFFER CAP AND COIL
- PROPOSED FIBER PAIR CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- EXISTING FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- EXISTING FOUR SPLICES
- SEGMENT 2 PROPOSED FOUR SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED BUFFER TO BUFFER SPLICES
- PROPOSED TWO SPLICES

VOID

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	3B REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (5A)

SHEET NO. IT-14

BY:RDOTA VS Date: 5/27/2020

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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PLOT DRIVER = C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg PEN TABLE = C:\Program Files (x86)\Bentley_v8iSS4\PowerGEOPAK\FDOT_GrayExisting.tbl MODEL NAME =Default USMW189428 5/11/2020 10:39:51 AM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0264783\NWDTIT01.dgn

STATION NUMBERS ARE APPROXIMATE ONLY

144-COUNT SM TRUNK CABLE

STA. 3032+50 SB SIDE
NEW SV-6 IN 3B-1

STA. 3047+72 SB SIDE
NEW SV-7 IN 3B-1
(SEE SEGMENT 2)

STA. 3061+40 SB SIDE
NEW SV-8 IN 3B-1
(SEE SEGMENT 2)

MATCH LINE 2

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

BLU/ORG
GRN/BRN
SLT/WHT
RED/BLK
YLW/VIO
ROS/AQU

SEE SEGMENT 2

EXISTING HUB (HUB 95-42) (TO BE REMOVED)
STA 3061+75 SB SIDE

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT
(4) (5)

| | | |

ITS POLE DATA

ITS PLAN SHEET	ITS CROSS SECTION SHEET	STATION	OFFSET	MVDS NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	POLE MOUNTED CABINET DEVICE NAME	POLE TYPE	TOTAL POLE LENGTH	BURIAL DEPTH
19	17	2714+00	101.3' RT.	FLD4095040.5NBNSDSGP	-	-	40.5CABNS	TYPE P-III	47'	11'
20	18	2721+34	100.7' LT.	FLD4095040.6SBSSDSGP	0406CCTV	-	40.6CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE
21	19	2727+25	99.3' RT.	FLD4095040.7NBNSDSGP	-	-	40.7CABNS	TYPE P-III	47'	11'
22	20	2730+37	110.8' LT.	FLD4095040.8SBSSDSGP	-	-	40.8CABSS	TYPE P-III	48'	11'
23	21	2740+19	138.4' RT.	FLD4095041.0NBNSDSOF	-	-	41.0CABNS	TYPE P-III	49'	11'
23	22	2742+40	110.6' LT.	FLD4095041.0SBSSDSON	-	-	1.0CABSS	TYPE P-III	40'	10'
24	23	2749+23	103.8' LT.	FLD4095041.1SBSSDSGP	0411CCTV	-	1CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE
25	24	2753+00	113.7' RT.	FLD4095041.2NBNSDSGP	-	-	CABNS	TYPE P-III	49'	11'
26	25	2763+00	115.8' LT.	FLD4095041.4SBSSDSOF	-	-	CABSS	TYPE P-III	45'	11'
27	26	2767+80	113.7' RT.	FLD4095041.5NBNSDSGP	-	-	CABNS	TYPE P-III	51'	11'
28	27	3002+25	99.6' LT.	FLD4095041.7SBSSDSGP	-	-	7CABSS	TYPE P-III	41'	10'
29	28	3008+41	114.1' RT.	FLD4095041.8NBNSDSOF	-	-	1.8CABNS	TYPE P-III	40'	10'
30	29	3014+61	124.1 LT.	FLD4095041.9SBSSDS	-	-	41.9CABSS	TYPE P-III	43'	10'
31	30	3021+52	114.0' RT.	FLD4095042 NBNSD	-	-	42.0CABNS	TYPE P-III	41'	10'
32	31	3028+88	96.7' LT.	FLD40950 SBSSD	042	-	42.2CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE
33A	32	3032+40	127.8' RT.	FLD40950 BNSD		0422DCCTV	42.2CABNS	CONC. SPUN	54'	13'

VOID

CCTV DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME	VIEWING RAMP IF D-CCTV
0406CCTV	2721+34, LT.	20	18	40.6CABSS	
0411CCTV	2749+23, LT.	24	23	41.1CABSS	
0422CCTV	3028+88, LT.	32	31	42.2CABSS	
0422DCCTV	3032+40, RT.	33A	32	42.2CABNS	

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BY:FDOT VS Date: 10/30/2018
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (1)

SHEET NO.
IT-15

ITS POLE DATA

ITS PLAN SHEET	ITS CROSS SECTION SHEET	STATION	OFFSET	MVDS NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	POLE MOUNTED CABINET DEVICE NAME	POLE TYPE	TOTAL POLE LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	FOUNDATION DESIGN ASSUMPTIONS	
												EFFECTIVE SOIL UNIT WT. (PCF)	ANGLE OF INTERNAL FRICT. (DEG.)
19	17	2714+00	101.3' RT.	FLD4095040.5NBNSDSGP	-	-	40.5CABNS	TYPE P-III	46'	11'	3.5'	45	31
20	18	2721+34	100.7' LT.	FLD4095040.6SBSSDSGP	0406CCTV	-	40.6CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
21	19	2727+25	99.3' RT.	FLD4095040.7NBNSDSGP	-	-	40.7CABNS	TYPE P-III	46'	11'	3.5'	45	31
22	20	2730+37	110.8' LT.	FLD4095040.8SBSSDSGP	-	-	40.8CABSS	TYPE P-III	46'	11'	3.5'	45	31
23	21	2740+19	138.4' RT.	FLD4095041.0NBNSDSOF	-	-	41.0CABNS	TYPE P-III	48'	11'	3.5'	45	31
23	22	2742+40	110.6' LT.	FLD4095041.0SBSSDSON	-	-	41.0CABSS	TYPE P-III	46'	10'	3.5'	45	31
24	23	2749+23	103.8' LT.	FLD4095041.1SBSSDSGP	0411CCTV	-	41.1CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
25	24	2753+00	113.7' RT.	FLD4095041.2NBNSDSGP	-	-	41.2CABNS	TYPE P-III	48'	11'	3.5'	45	31
26	25	2763+00	115.8' LT.	FLD4095041.4SBSSDSOF	-	-	41.4CABSS	TYPE P-III	44'	11'	3.5'	45	31
27	26	2767+80	113.7' RT.	FLD4095041.5NBNSDSGP	-	-	41.5CABNS	TYPE P-III	50'	11'	3.5'	45	31
28	27	3002+25	99.6' LT.	FLD4095041.7SBSSDSGP	-	-	41.7CABSS	TYPE P-III	41'	10'	3.5'	45	31
29	28	3008+41	114.1' RT.	FLD4095041.8NBNSDSOF	-	-	41.8CABNS	TYPE P-III	40'	10'	3.5'	45	31
30	29	3014+61	124.1 LT.	FLD4095041.9SBSSDSON	-	-	41.9CABSS	TYPE P-III	43'	10'	3.5'	45	31
31	30	3021+52	114.0' RT.	FLD4095042.0NBNSDSON	-	-	42.0CABNS	TYPE P-III	41'	10'	3.5'	45	31
32	31	3028+88	96.7' LT.	FLD4095042.2SBSSDSGP	0422CCTV	-	42.2CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
33A	32	3032+40	127.8' RT.	FLD4095042.2NBNSDSOF	-	0422DCCTV	42.2CABNS	CONC. SPUN	54'	13'	4.0'	108	32

VOID

CCTV DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME	VIEWING RAMP IF D-CCTV
0406CCTV	2721+34, LT.	20	18	40.6CABSS	
0411CCTV	2749+23, LT.	24	23	41.1CABSS	
0422CCTV	3028+88, LT.	32	31	42.2CABSS	
0422DCCTV	3032+40, RT.	33A	32	42.2CABNS	

NOTES:

- FOR TYPE P-III POLES, WORK WITH INDEX 17725.
- FOR CONCRETE SPUN POLES, WORK WITH INDEX 18113.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/2019	8 ADDED "FOUNDATION DESIGN ASSUMPTIONS" COLUMNS, REVISED BURIAL DEPTH TO FOUNDATION DEPTH & NOTES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (1)

SHEET NO. IT-15

BY:PROTI VS Date: 02/18/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R18
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS POLE DATA

ITS PLAN SHEET	ITS CROSS SECTION SHEET	STATION	OFFSET	MVDS NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	POLE MOUNTED CABINET DEVICE NAME	POLE TYPE	TOTAL POLE LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	FOUNDATION DESIGN ASSUMPTIONS	
												EFFECTIVE SOIL UNIT WT. (PCF)	ANGLE OF INTERNAL FRICT. (DEG.)
19	17	2714+00	101.3' RT.	FLD4095040.5NBNSDSGP	-	-	40.5CABNS	TYPE P-III	46'	11'	3.5'	45	31
20	18	2721+34	100.7' LT.	FLD4095040.6SBSSDSGP	0406CCTV	-	40.6CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
21	19	2727+25	101.8' RT. (1)	FLD4095040.7NBNSDSGP	-	-	40.7CABNS	TYPE P-III	46'	11'	3.5'	45	31
22	20	2730+37	110.8' LT.	FLD4095040.8SBSSDSGP	-	-	40.8CABSS	TYPE P-III	47'	11'	3.5'	45	31
23	21	2740+19	138.4' RT.	FLD4095041.0NBNSDSOF	-	-	41.0CABNS	TYPE P-III	48'	11'	3.5'	45	31
23	22	2742+40	110.6' LT.	FLD4095041.0SBSSDSON	-	-	41.0CABSS	TYPE P-III	40'	10'	3.5'	45	31
24	23	2749+23	103.8' LT.	FLD4095041.1SBSSDSGP	0411CCTV	-	41.1CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
25	24	2753+00	113.7' RT.	FLD4095041.2NBNSDSGP	-	-	41.2CABNS	TYPE P-III	48'	11'	3.5'	45	31
26	25	2763+00	115.8' LT.	FLD4095041.4SBSSDSOF	-	-	41.4CABSS	TYPE P-III	44'	11'	3.5'	45	31
27	26	2767+80	113.7' RT.	FLD4095041.5NBNSDSGP	-	-	41.5CABNS	TYPE P-III	50'	11'	3.5'	45	31
28	27	3002+25	99.6' LT.	FLD4095041.7SBSSDSGP	-	-	41.7CABSS	TYPE P-III	41'	10'	3.5'	45	31
29	28	3008+41	114.1' RT.	FLD4095041.8NBNSDSOF	-	-	41.8CABNS	TYPE P-III	40'	10'	3.5'	45	31
30	29	3014+61	124.1 LT.	FLD4095041.9SBSSDSON	-	-	41.9CABSS	TYPE P-III	43'	10'	3.5'	45	31
31	30	3021+52	114.0' RT.	FLD4095042.0NBNSDSON	-	-	42.0CABNS	TYPE P-III	41'	10'	3.5'	45	31
32	31	3028+88	96.7' LT.	FLD4095042.2SBSSDSGP	0422CCTV	-	42.2CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
33A	32	3032+40	127.8' RT.	FLD4095042.2NBNSDSOF	-	0422DCCTV	42.2CABNS	CONC. SPUN	54'	13'	4.0'	108	32

VOID

CCTV DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME	VIEWING RAMP IF D-CCTV
0406CCTV	2721+34, LT.	20	18	40.6CABSS	
0411CCTV	2749+23, LT.	24	23	41.1CABSS	
0422CCTV	3028+88, LT.	32	31	42.2CABSS	
0422DCCTV	3032+40, RT.	33A	32	42.2CABNS	

NOTES:

- FOR TYPE P-III POLES, WORK WITH INDEX 17725.
- FOR CONCRETE SPUN POLES, WORK WITH INDEX 18113.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/2019	(2) ADDED "FOUNDATION DESIGN ASSUMPTIONS" COLUMNS, REVISED BURIAL DEPTH TO FOUNDATION DEPTH & NOTES		
3/7/2019	(1) REVISED OFFSET		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (1)

SHEET NO. IT-15

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
BY:(FDOT) VS Date: 03/15/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

ITS POLE DATA

ITS PLAN SHEET	ITS CROSS SECTION SHEET	STATION	OFFSET	MVDS NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	POLE MOUNTED CABINET DEVICE NAME	POLE TYPE	TOTAL POLE LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	FOUNDATION DESIGN ASSUMPTIONS	
												EFFECTIVE SOIL UNIT WT. (PCF)	ANGLE OF INTERNAL FRICT. (DEG.)
19	17	2714+00	101.3' RT.	FLD4095040.5NBNSDSGP	-	-	40.5CABNS	TYPE P-III	46'	11'	3.5'	45	31
20	18	2721+34	100.7' LT.	FLD4095040.6SBSSDSGP	0406CCTV	-	40.6CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
21	19	2727+25	101.8' RT.	FLD4095040.7NBNSDSGP	-	-	40.7CABNS	TYPE P-III	46'	11'	3.5'	45	31
22	20	2732+00	110.8' LT.	FLD4095040.8SBSSDSGP	-	-	40.8CABSS	TYPE P-III	47'	11'	3.5'	45	31
23	21	2740+19	138.4' RT.	FLD4095041.0NBNSDSOF	-	-	41.0CABNS	TYPE P-III	48'	11'	3.5'	45	31
23	22	2742+40	110.6' LT.	FLD4095041.0SBSSDSON	-	-	41.0CABSS	TYPE P-III	40'	10'	3.5'	45	31
24	23	2749+23	103.8' LT.	FLD4095041.1SBSSDSGP	0411CCTV	-	41.1CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
25	24	2753+00	113.7' RT.	FLD4095041.2NBNSDSGP	-	-	41.2CABNS	TYPE P-III	48'	11'	3.5'	45	31
26	25	2763+00	115.8' LT.	FLD4095041.4SBSSDSOF	-	-	41.4CABSS	TYPE P-III	44'	11'	3.5'	45	31
27	26	2767+80	113.7' RT.	FLD4095041.5NBNSDSGP	-	-	41.5CABNS	TYPE P-III	50'	11'	3.5'	45	31
28	27	3002+25	99.6' LT.	FLD4095041.7SBSSDSGP	-	-	41.7CABSS	TYPE P-III	41'	10'	3.5'	45	31
29	28	3008+41	114.1' RT.	FLD4095041.8NBNSDSOF	-	-	41.8CABNS	TYPE P-III	40'	10'	3.5'	45	31
30	29	3014+61	124.1 LT.	FLD4095041.9SBSSDSON	-	-	41.9CABSS	TYPE P-III	43'	10'	3.5'	45	31
31	30	3021+52	114.0' RT.	FLD4095042.0NBNSDSON	-	-	42.0CABNS	TYPE P-III	41'	10'	3.5'	45	31
32	31	3028+88	96.7' LT.	FLD4095042.2SBSSDSGP	0422CCTV	-	42.2CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
33A	32	3032+40	127.8' RT.	FLD4095042.2NBNSDSOF	-	0422DCCTV	42.2CABNS	CONC. SPUN	54'	13'	4.0'	108	32

VOID

CCTV DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME	VIEWING RAMP IF D-CCTV
0406CCTV	2721+34, LT.	20	18	40.6CABSS	
0411CCTV	2749+23, LT.	24	23	41.1CABSS	
0422CCTV	3028+88, LT.	32	31	42.2CABSS	
0422DCCTV	3032+40, RT.	33A	32	42.2CABNS	

NOTES:

- FOR TYPE P-III POLES, WORK WITH INDEX 17725.
- FOR CONCRETE SPUN POLES, WORK WITH INDEX 18113.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/2019	② ADDED "FOUNDATION DESIGN ASSUMPTIONS" COLUMNS, REVISED BURIAL DEPTH TO FOUNDATION DEPTH & NOTES		
3/7/2019	① REVISED OFFSET		
5/8/2020	③ REVISED DESIGN FOR AUXILIARY LANE REVISION.		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (1)

SHEET NO. IT-15

RELEASED FOR CONSTRUCTION
BY (PDOT)_____ Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS POLE DATA

ITS PLAN SHEET	ITS CROSS SECTION SHEET	STATION	OFFSET	MVDS NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	POLE MOUNTED CABINET DEVICE NAME	POLE TYPE	TOTAL POLE LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	FOUNDATION DESIGN ASSUMPTIONS	
												EFFECTIVE SOIL UNIT WT. (PCF)	ANGLE OF INTERNAL FRICT. (DEG.)
19	17	2714+00	101.3' RT.	FLD4095040.5NBNSDSGP	-	-	40.5CABNS	TYPE P-III	46'	11'	3.5'	45	31
20	18	2721+34	100.7' LT.	FLD4095040.6SBSSDSGP	0406CCTV	-	40.6CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
21	19	2727+25	101.8' RT.	FLD4095040.7NBNSDSGP	-	-	40.7CABNS	TYPE P-III	46'	11'	3.5'	45	31
22	20	2732+00	110.8' LT.	FLD4095040.8SBSSDSGP	-	-	40.8CABSS	TYPE P-III	47'	11'	3.5'	45	31
23	21	2740+19	138.4' RT.	FLD4095041.0NBNSDSOF	-	-	41.0CABNS	TYPE P-III	48'	11'	3.5'	45	31
23	22	2742+40	110.6' LT.	FLD4095041.0SBSSDSON	-	-	41.0CABSS	TYPE P-III	40'	10'	3.5'	45	31
24	23	2749+23	103.8' LT.	FLD4095041.1SBSSDSGP	0411CCTV	-	41.1CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
25	24	2753+00	113.7' RT.	FLD4095041.2NBNSDSGP	-	-	41.2CABNS	TYPE P-III	48'	11'	3.5'	45	31
25	32A	2753+89	100.4' LT.	-	-	-	-	TYPE P-III	51'	11'	3.5'	48	33
26	25	2763+00	115.8' LT.	FLD4095041.4SBSSDSOF	-	-	41.4CABSS	TYPE P-III	44'	11'	3.5'	45	31
27	26	2767+80	113.7' RT.	FLD4095041.5NBNSDSGP	-	-	41.5CABNS	TYPE P-III	50'	11'	3.5'	45	31
28	27	3002+25	99.6' LT.	FLD4095041.7SBSSDSGP	-	-	41.7CABSS	TYPE P-III	41'	10'	3.5'	45	31
29	28	3008+41	114.1' RT.	FLD4095041.8NBNSDSOF	-	-	41.8CABNS	TYPE P-III	40'	10'	3.5'	45	31
30	29	3014+61	124.1 LT.	FLD4095041.9SBSSDSON	-	-	41.9CABSS	TYPE P-III	43'	10'	3.5'	45	31
31	30	3021+52	114.0' RT.	FLD4095042.0NBNSDSON	-	-	42.0CABNS	TYPE P-III	41'	10'	3.5'	45	31
32	31	3028+88	96.7' LT.	FLD4095042.2SBSSDSGP	0422CCTV	-	42.2CABSS	EXIST. POLE	EXIST. POLE	EXIST. POLE	-	-	-
33A	32	3032+40	127.8' RT.	FLD4095042.2NBNSDSOF	-	0422DCCTV	42.2CABNS	CONC. SPUN	54'	13'	4.0'	108	32

△8

△45 WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

CCTV DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME	VIEWING RAMP IF D-CCTV
0406CCTV	2721+34, LT.	20	18	40.6CABSS	
0411CCTV	2749+23, LT.	24	23	41.1CABSS	
0422CCTV	3028+88, LT.	32	31	42.2CABSS	
0422DCCTV	3032+40, RT.	33A	32	42.2CABNS	

WWDS DEVICE NAME	RAMP NAME	STATION	OFFSET	ITS PLAN SHEET	CABINET DEVICE NAME	WW DETECTION POLE TYPE	HIGHLIGHTED LED SIGN
WWDS 1	SW 10TH RAMP A	2747+13	611.0 RT	24A	41.1CABNS	20' (AG) ALUMINUM POLE	4 SETS
WWDS 2	SW 10TH RAMP B	2753+89	100.4' LT	25	41.2CABSS	40' (AG) CONCRETE POLE	4 SETS
WWDS 3	HILLSBORO BLVD RAMP A	3024+37	705.2 RT	30B	42.1CABNS	20' (AG) ALUMINUM POLE	4 SETS
WWDS 4	HILLSBORO BLVD RAMP F	3031+76	609.7 RT	33C	42.2CABNS (2)	20' (AG) ALUMINUM POLE	4 SETS

AG: ABOVE GROUND

△45

△8

NOTES:

- FOR TYPE P-III POLES, WORK WITH INDEX 17725.
- FOR CONCRETE SPUN POLES, WORK WITH INDEX 18113.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/01/2019	△8 ADDED "FOUNDATION DESIGN ASSUMPTIONS" COLUMNS, REVISED BURIAL DEPTH TO FOUNDATION DEPTH & NOTES	1/29/2021	△45 REVISED FOR WRONG WAY DETECTION REVISION.
3/7/2019	△1 REVISED OFFSET		
5/8/2020	△28 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (1)

SHEET NO. IT-15

BY:(ROOT)_____ VS _____ Date:_ 2/16/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness and completeness of shop drawings, coordination of trades, fabrication and erection shall remain with the contractor.
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E5F66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TYPE 336S CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT TYPE
40.5CABNS	P1	2714+00, RT.	19	POLE MOUNT
40.6CABSS	P1	2721+34, LT.	20	POLE MOUNT
40.7CABNS	P1	2727+25, RT.	21	POLE MOUNT
40.8CABSS	P1	2730+37, LT.	22	POLE MOUNT
41.0CABNS	P1	2740+19, RT.	23	POLE MOUNT
41.0CABSS	P1	2742+40, LT.	23	POLE MOUNT
41.1CABSS	*	2749+23, LT.	24	POLE MOUNT
41.2CABNS	P1	2753+00, RT'	25	POLE MOUNT
41.4CABSS	P1	2763+00, LT.	26	POLE MOUNT
41.5CABNS	P1	2767+80, RT.	27	POLE MOUNT
41.7CABSS	P1	3002+25, LT.	28	POLE MOUNT
41.8CABNS	P1	3008+41, RT.	29	POLE MOUNT
41.9CABSS	P1	3014+61, LT.	30	POLE MOUNT
42.0CABNS	P1	3021+52, RT.	31	POLE MOUNT
42.2CABSS	*	3028+88, LT.	32	POLE MOUNT
42.2CABNS	P2	3032+40, RT.	33A	POLE MOUNT

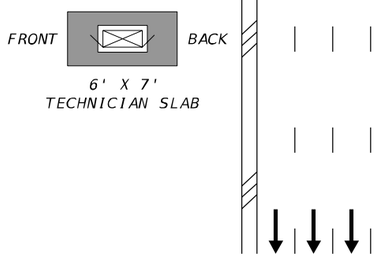
* MATCH EXISTING CABINET ORIENTATION.

MVDS DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME
FLD4095040.5NBNSDSGP	2714+00 RT.	19	17	40.5CABNS
FLD4095040.6SBSSDSGP	2721+34 LT.	20	18	40.6CABSS
FLD4095040.7NBNSDSGP	2727+25 RT.	21	19	40.7CABNS
FLD4095040.8SBSSDSGP	2730+37 LT.	22	20	40.8CABSS
FLD4095041.0NBNSDSOF	2740+19 RT.	23	21	41.0CABNS
FLD4095041.0SBSSDSON	2742+40 LT.	23	22	41.0CABSS
FLD4095041.1SBSSDSGP	2749+23 LT.	24	23	41.1CABSS
FLD4095041.2NBNSDSGP	2753+00 RT.	25	24	41.2CABNS
FLD4095041.4SBSSDSOF	2763+00 LT.	26	25	41.4CABSS
FLD4095041.5NBNSDSGP	2767+80 RT.	27	26	41.5CABNS
FLD4095041.7SBSSDSGP	3002+25 LT.	28	27	41.7CABSS
FLD4095041.8NBNSDSOF	3008+41 RT.	29	28	41.8CABNS
FLD4095041.9SBSSDSON	3014+61 LT.	30	29	41.9CABSS
FLD4095042.0NBNSDSON	3021+52 RT.	31	30	42.0CABNS
FLD4095042.2SBSSDSGP	3028+88 LT.	32	31	42.2CABSS
FLD4095042.2NBNSDSOF	3032+40 RT.	33A	32	42.2CABNS

TYPE 334 CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT TYPE
LHUB 95-28.12 NB	G1	207[illegible] RT.	4	[illegible]ROUND MOUNT
LHUB 95-28.83 SB	G[illegible]	2113+[illegible] LT.	[illegible]5	GROUND MOUNT

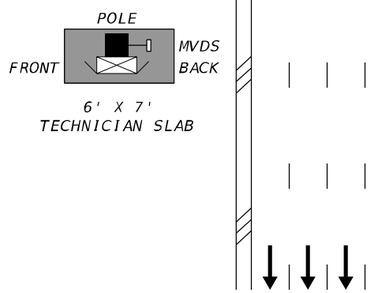
VOID

DIRECTION OF TRAFFIC
REVERSE AS NEEDED



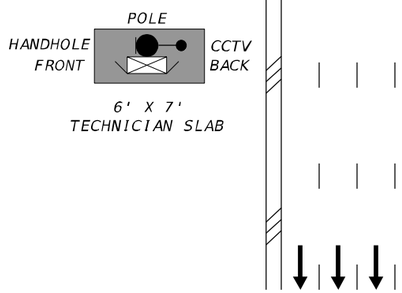
CABINET ORIENTATION 'G1'
(GROUND MOUNT DMS CABINET)
NTS

DIRECTION OF TRAFFIC
REVERSE AS NEEDED



CABINET ORIENTATION 'P1'
(POLE MOUNT MVDS / OR POLE MOUNTED GENERATOR CABINET)
NTS

DIRECTION OF TRAFFIC
REVERSE AS NEEDED



CABINET ORIENTATION 'P2'
(POLE MOUNT CCTV CABINET)
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (2)

SHEET NO.
IT-16

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, qualities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
BY:FDOT VS Date: 10/30/2018

TYPE 336S CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT TYPE
40.5CABNS	P1	2714+00, RT.	19	POLE MOUNT
40.6CABSS	P1	2721+34, LT.	20	POLE MOUNT
40.7CABNS	P1	2727+25, RT.	21	POLE MOUNT
40.8CABSS	P1	2732+00, LT.	22	POLE MOUNT
41.0CABNS	P1	2740+19, RT.	23	POLE MOUNT
41.0CABSS	P1	2742+40, LT.	23	POLE MOUNT
41.1CABSS	*	2749+23, LT.	24	POLE MOUNT
41.2CABNS	P1	2753+00, RT'	25	POLE MOUNT
41.4CABSS	P1	2763+00, LT.	26	POLE MOUNT
41.5CABNS	P1	2767+80, RT.	27	POLE MOUNT
41.7CABSS	P1	3002+25, LT.	28	POLE MOUNT
41.8CABNS	P1	3008+41, RT.	29	POLE MOUNT
41.9CABSS	P1	3014+61, LT.	30	POLE MOUNT
42.0CABNS	P1	3021+52, RT.	31	POLE MOUNT
42.2CABSS	*	3028+88, LT.	32	POLE MOUNT
42.2CABNS	P2	3032+40, RT.	33A	POLE MOUNT

(6) 2732+00, LT.

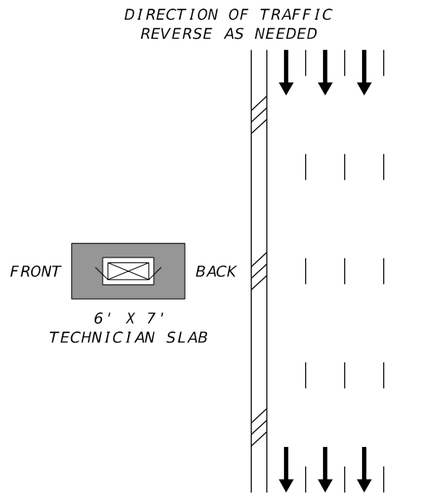
* MATCH EXISTING CABINET ORIENTATION.

MVDS DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME
FLD4095040.5NBNSDSGP	2714+00 RT.	19	17	40.5CABNS
FLD4095040.6SBSSDSGP	2721+34 LT.	20	18	40.6CABSS
FLD4095040.7NBNSDSGP	2727+25 RT.	21	19	40.7CABNS
FLD4095040.8SBSSDSGP	2732+00 LT.	22	20	40.8CABSS
FLD4095041.0NBNSDSOF	2740+19 RT.	23	21	41.0CABNS
FLD4095041.0SBSSDSON	2742+40 LT.	23	22	41.0CABSS
FLD4095041.1SBSSDSGP	2749+23 LT.	24	23	41.1CABSS
FLD4095041.2NBNSDSGP	2753+00 RT.	25	24	41.2CABNS
FLD4095041.4SBSSDSOF	2763+00 LT.	26	25	41.4CABSS
FLD4095041.5NBNSDSGP	2767+80 RT.	27	26	41.5CABNS
FLD4095041.7SBSSDSGP	3002+25 LT.	28	27	41.7CABSS
FLD4095041.8NBNSDSOF	3008+41 RT.	29	28	41.8CABNS
FLD4095041.9SBSSDSON	3014+61 LT.	30	29	41.9CABSS
FLD4095042.0NBNSDSON	3021+52 RT.	31	30	42.0CABNS
FLD4095042.2SBSSDSGP	3028+88 LT.	32	31	42.2CABSS
FLD4095042.2NBNSDSOF	3032+40 RT.	33A	32	42.2CABNS

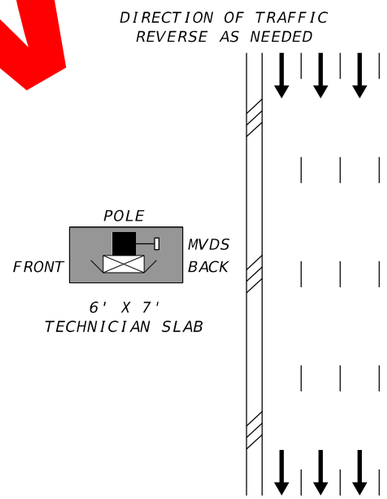
(6) 2732+00 LT.

TYPE 334 CABINET DEVICE	CABINET ORIENTATION	STAT	PLAN	T TYPE
LHUB 95-28.12 NB	G1	+85,		OUND MOUNT
LHUB 95-28.83 SB	G1	0, L	5	GROUND MOUNT

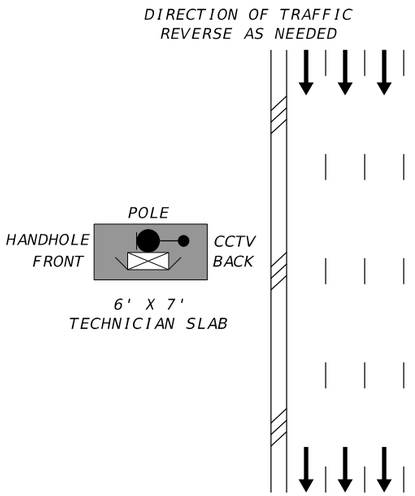
VOID



CABINET ORIENTATION 'G1'
(GROUND MOUNT DMS CABINET)
NTS



CABINET ORIENTATION 'P1'
(POLE MOUNT MVDS / OR POLE MOUNTED GENERATOR CABINET)
NTS



CABINET ORIENTATION 'P2'
(POLE MOUNT CCTV CABINET)
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	(6) REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (2)

SHEET NO.
IT-16

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
BY RDOT... Date: 5/27/2020 VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

TYPE 336S CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT TYPE
40.5CABNS	P1	2714+00, RT.	19	POLE MOUNT
40.6CABSS	P1	2721+34, LT.	20	POLE MOUNT
40.7CABNS	P1	2727+25, RT.	21	POLE MOUNT
40.8CABSS	P1 (3G)	2732+00, LT.	22	POLE MOUNT
41.0CABNS	P1	2740+19, RT.	23	POLE MOUNT
41.0CABSS	P1	2742+40, LT.	23	POLE MOUNT
41.1CABSS	*	2749+23, LT.	24	POLE MOUNT
41.2CABNS	P1	2753+00, RT'	25	POLE MOUNT
41.4CABSS	P1	2763+00, LT.	26	POLE MOUNT
41.5CABNS	P1	2767+80, RT.	27	POLE MOUNT
41.7CABSS	P1	3002+25, LT.	28	POLE MOUNT
41.8CABNS	P1	3008+41, RT.	29	POLE MOUNT
41.9CABSS	P1	3014+61, LT.	30	POLE MOUNT
42.0CABNS	P1	3021+52, RT.	31	POLE MOUNT
42.2CABSS	*	3028+88, LT.	32	POLE MOUNT
42.2CABNS	P2	3032+40, RT.	33A	POLE MOUNT

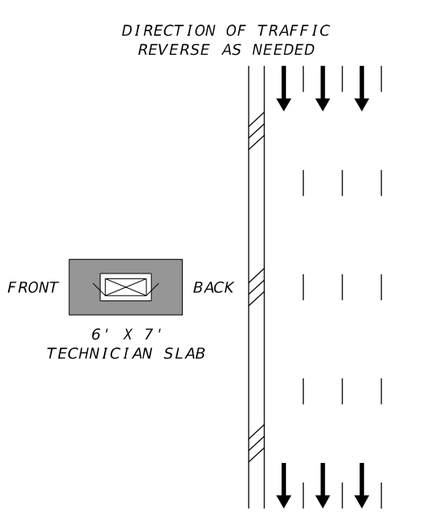
* MATCH EXISTING CABINET ORIENTATION.

MVDS DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME
FLD4095040.5NBNSDSGP	2714+00 RT.	19	17	40.5CABNS
FLD4095040.6SBSSDSGP	2721+34 LT.	20	18	40.6CABSS
FLD4095040.7NBNSDSGP	2727+25 RT.	21	19	40.7CABNS
FLD4095040.8SBSSDSGP (3G)	2732+00 LT.	22	20	40.8CABSS
FLD4095041.0NBNSDSOF	2740+19 RT.	23	21	41.0CABNS
FLD4095041.0SBSSDSON	2742+40 LT.	23	22	41.0CABSS
FLD4095041.1SBSSDSGP	2749+23 LT.	24	23	41.1CABSS
FLD4095041.2NBNSDSGP	2753+00 RT.	25	24	41.2CABNS
FLD4095041.4SBSSDSOF	2763+00 LT.	26	25	41.4CABSS
FLD4095041.5NBNSDSGP	2767+80 RT.	27	26	41.5CABNS
FLD4095041.7SBSSDSGP	3002+25 LT.	28	27	41.7CABSS
FLD4095041.8NBNSDSOF	3008+41 RT.	29	28	41.8CABNS
FLD4095041.9SBSSDSON	3014+61 LT.	30	29	41.9CABSS
FLD4095042.0NBNSDSON	3021+52 RT.	31	30	42.0CABNS
FLD4095042.2SBSSDSGP	3028+88 LT.	32	31	42.2CABSS
FLD4095042.2NBNSDSOF	3032+40 RT.	33A	32	42.2CABNS

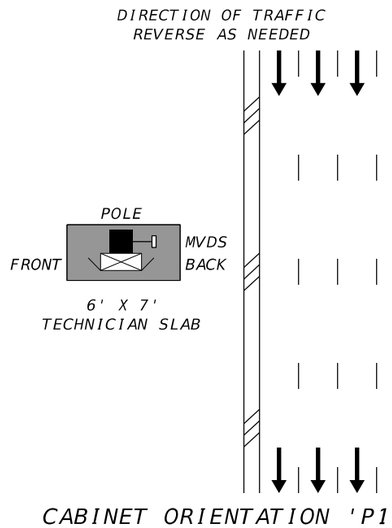
(4S) WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

TYPE 334 CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT TYPE
LHUB 95-28.12 NB	G1	2076+85, RT.	4	GROUND MOUNT
LHUB 95-28.83 SB	G1	2113+50, LT	5	GROUND MOUNT
LHUB 95-41.1CABNS	G2	2747+13, RT	24A	GROUND MOUNT
LHUB 95-41.2CABSS	G2	2753+89, LT	25	GROUND MOUNT
LHUB 95-42.1CABNS	G2	3024+37, RT	30B	GROUND MOUNT
LHUB 95-42.2CABNS (2)	G2	3031+76, RT	33C	GROUND MOUNT

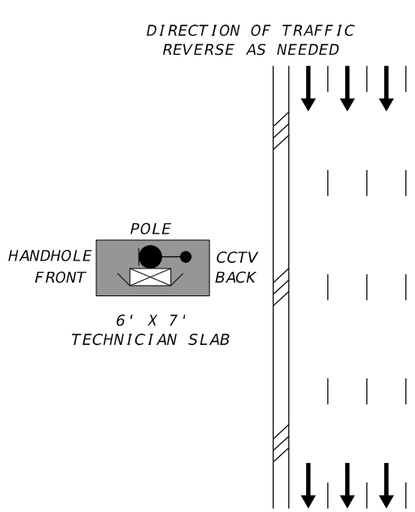
(4S)



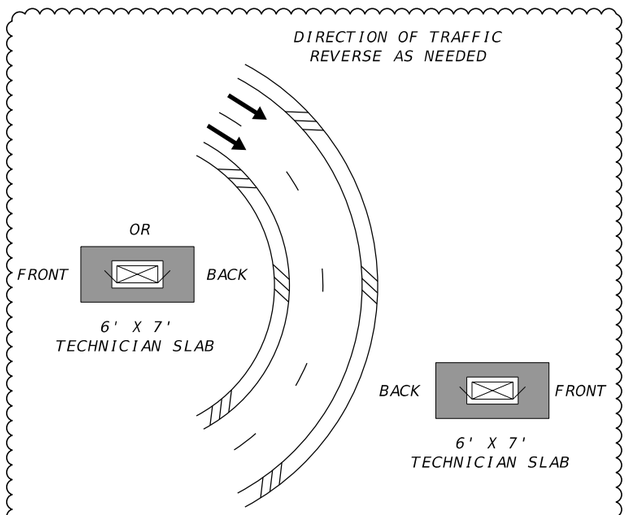
CABINET ORIENTATION 'G1'
(GROUND MOUNT DMS CABINET)
NTS



CABINET ORIENTATION 'P1'
(POLE MOUNT MVDS / OR POLE MOUNTED GENERATOR CABINET)
NTS



CABINET ORIENTATION 'P2'
(POLE MOUNT CCTV CABINET)
NTS



(4S)

WWDS CCTV AND CABINET ORIENTATION 'G2'
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	(3G) REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	(4S) REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (2)

SHEET NO.
IT-16

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
BY:(RDOT) VS Date: 2/16/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, and field construction and safety precautions, fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5696

LA R/W LINE

BEGIN ITS SEGMENT 1
I-95
PHASE 3B-1
STA. 1197+30 ℄ CONST. I-95

SB SR 9 (I-95)

1194 1195 1196 1197 1198 1199 1200 1201

SWDP

NB SR 9 (I-95)

EXISTING FO CABLE IN EXISTING CONDUIT

EXISTING SPLICE VAULT
(FSB 95-25.58 NB)

EXISTING FO AND ELECTRICAL CABLES FOR THE
TOP DMS TO REMAIN IN EXISTING CONDUITS

F&I POWER SERVICE DISCONNECT

EXISTING FO AND ELECTRICAL CABLES FOR THE
TOP DMS TO REMAIN IN EXISTING CONDUITS

REMOVE TOLL DMS CONTROLLER AND ASSOCIATED
CABLING FROM CABINET TO THE SIGN PANEL FOR
THE REMOVED TOLL DMS

EXISTING T-DMS 95-25.58.NB

LA R/W LINE

$25 PLUS TOLL FOR TOLL VIOLATION
TO Oakland Park Blvd
$ XXX
ONLY
EXPRESS LANES ENTRANCE
$25 PLUS TOLL FOR TOLL VIOLATION
TO SW 10th St
$XX.XX
ONLY
TO Oakland Park Blvd
$XX.XX
ONLY
EXPRESS LANES ENTRANCE
3/4 MILE

OVERLAY SW 10TH STREET LEGEND & REMOVE
ACCOMPANYING TOLL AMOUNT DMS.
OVERLAY CAVITY OPENING.

0 10 50
Feet

BY/PDOT VS Date 10/30/2018

RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (1)

SHEET NO.
IT-17

LA R/W LINE

0 10 50
Feet

SB SR 9 (I-95)

1223 1224 1225 1226 1227 1228 1229 1230

NB SR 9 (I-95)

T-DMS

EXISTING T-DMS 95-26.13 NB

$25 PLUS TOLL FOR TOLL VIOLATION
TO Oakland Park Blvd $ XX.XX ONLY
EXPRESS LANES ENTRANCE 1/4 MILE
$25 PLUS TOLL FOR TOLL VIOLATION
TO SW 10th St $XX.XX
TO Oakland Park Blvd $XX.XX ONLY
EXPRESS LANES ENTRANCE 1/4 MILE

OVERLAY SW 10TH STREET LEGEND & REMOVE ACCOMPANYING TOLL AMOUNT DMS. OVERLAY CAVITY OPENING.

F&I POWER SERVICE DISCONNECT

EXISTING FO AND ELECTRICAL CABLES FOR THE TOP DMS TO REMAIN IN EXISTING CONDUITS

C-D NB

REMOVE TOLL DMS CONTROLLER AND ASSOCIATED CABLING FROM CABINET TO THE SIGN PANEL FOR THE REMOVED TOLL DMS

EXISTING ITS CABINET (LHUB 95-26.09 NB)

LA R/W LINE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (2)

SHEET NO.
IT-18

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Default BarcoJ 10/11/2018 1:47:25 PM c:\projectwise\pb\projectwiseint\barco\d0264783\PLANIT02.dgn

BY/PDOT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, qualities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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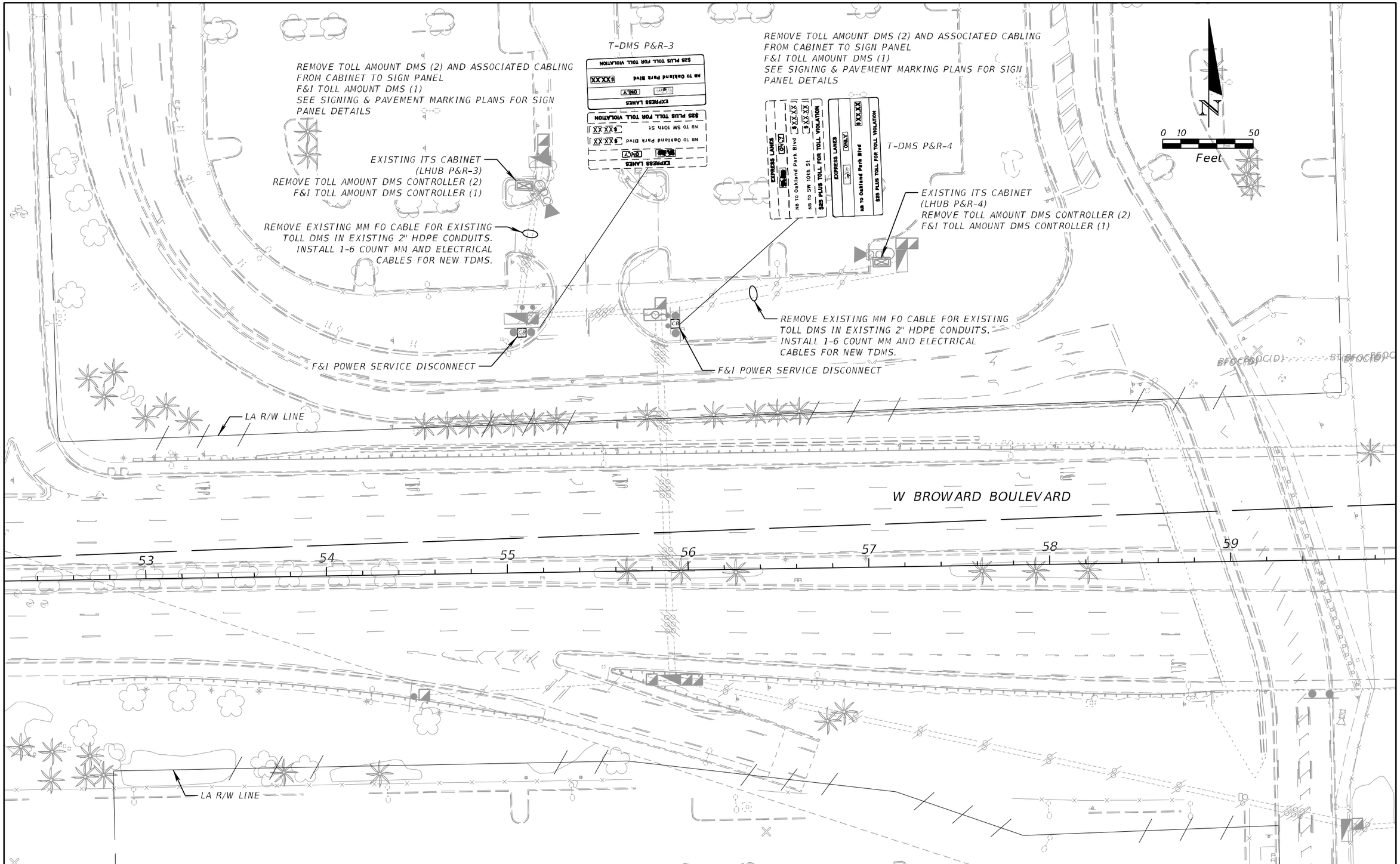

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY/FOOT VS Date: 10/30/2018

Reviewis for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FRD 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (3)

SHEET NO.
IT-19

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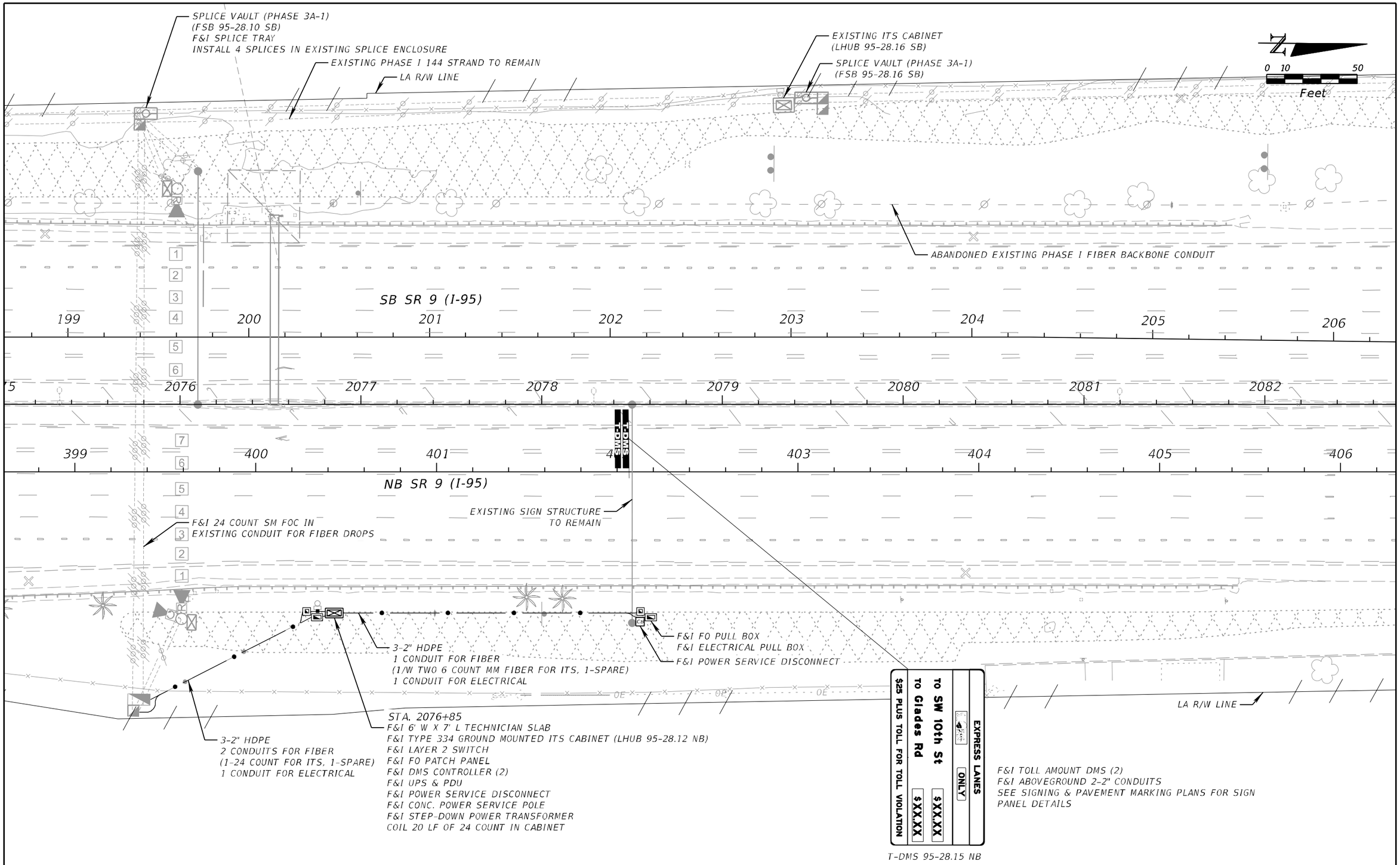

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RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

BY(FDOT) VS Date: 10/30/2018

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (4)

SHEET NO.
IT-20

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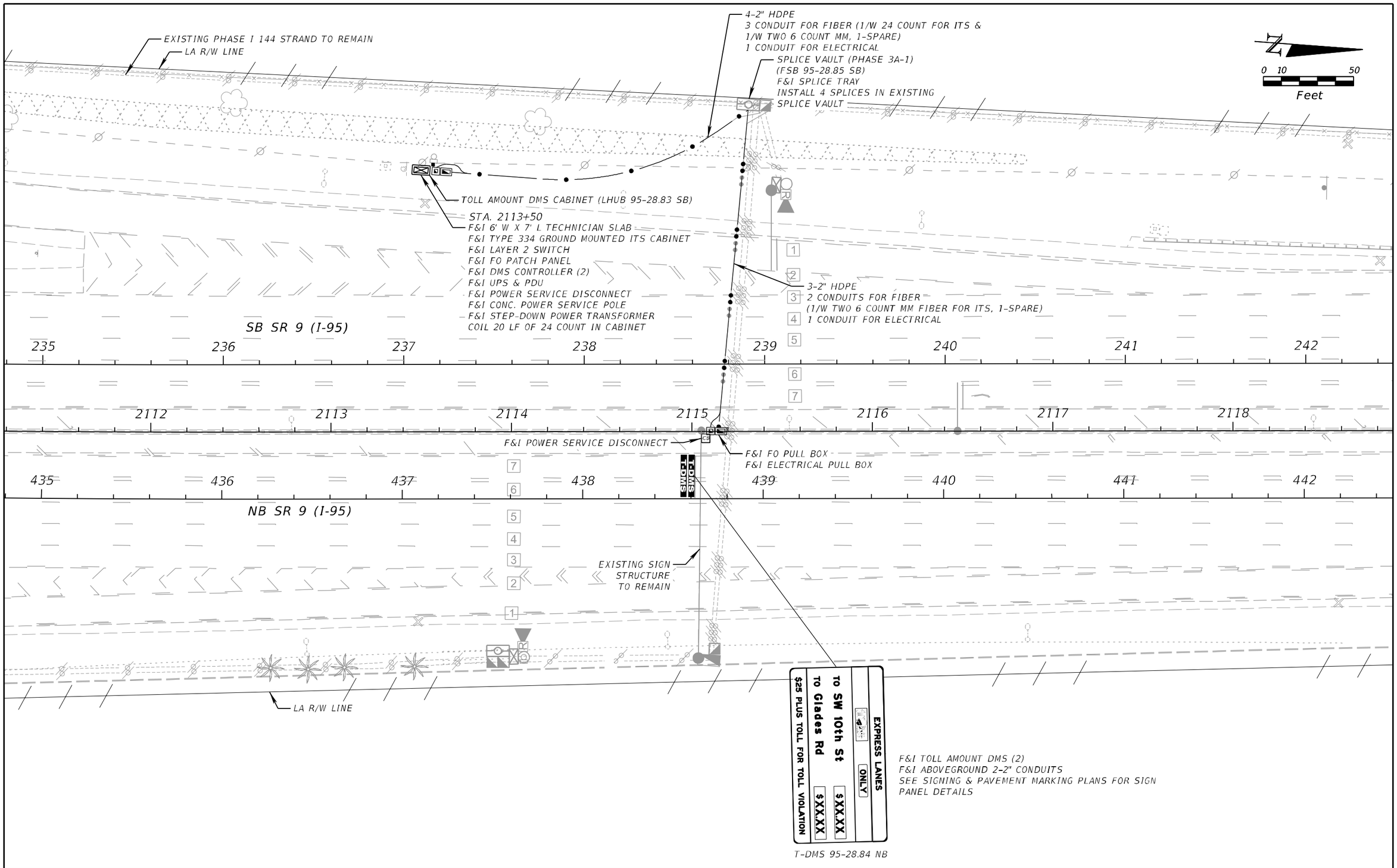

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RELEASED FOR CONSTRUCTION
Date: 10/30/2018
BY/FDOT: VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (5)

SHEET NO.
IT-21

EXISTING PHASE I 144 STRAND TO REMAIN

LA R/W LINE

0 10 50

Feet

SB SR 9 (I-95)

181 182 183 184 185 186 187 188

2181 2182 2183 2184 2185 2186 2187 2188

381 382 383 384 385 386 387 388

NB SR 9 (I-95)

CDMS

TO SW 10th St
TO Glades Rd
$28 PLUS TOLL FOR TOLL VIOLATION
CDMS
$ XX.XX
EXPRESS LANES
ONLY

$25 PLUS TOLL FOR TOLL VIOLATION
TO SW 10th St
$XX.XX
EXPRESS LANES
ONLY

EXISTING SIGN STRUCTURE TO REMAIN

F&I POWER SERVICE DISCONNECT

F&I TWO 6 COUNT MM FOC IN EXISTING CONDUIT
F&I ELECTRICAL CONDUCTORS IN EXISTING CONDUIT

CB

T-DMS 95-30.16 NB

EXISTING ITS CABINET
(LHUB 95-30.12 NB)

EXISTING SPLICE VAULT
(FSB 95-30.11 NB)

REMOVE TOLL DMS CONTROLLER (1)
F&I TOLL AMOUNT DMS CONTROLLER (2) IN EXISTING
TOLL AMOUNT DMS CABINET

REMOVE TOLL AMOUNT DMS (1) AND ASSOCIATED CABLING
F&I TOLL AMOUNT DMS (2)
F&I ABOVEGROUND 2-2" CONDUITS
SEE SIGNING & PAVEMENT MARKING PLANS FOR SIGN
PANEL DETAILS

LA R/W LINE

BY/PDOT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (6)

SHEET NO.
IT-22

SB SR 9 (I-95)

NB SR 9 (I-95)

RAMP P-2

RAMP O-2

W OAKLAND PARK BLVD.

312 313 314 315 316

213 214 215 216 217 218 219

2213 2214 2215 2216 2217 2218 2219

413 414 415 416 417 418 419

243 244

0 10 50
Feet

EXISTING SIGN STRUCTURE TO REMAIN

F&I POWER SERVICE DISCONNECT

F&I TWO 6 COUNT MM FOC IN EXISTING CONDUIT
F&I NEW ELECTRICAL CONDUCTORS IN EXISTING CONDUIT

F&I TWO 6 COUNT MM FOC IN EXISTING CONDUIT
F&I NEW ELECTRICAL CONDUCTORS IN EXISTING CONDUIT

EXISTING ITS CABINET
(LHUB 95-30.70 NB)
REMOVE TOLL DMS CONTROLLER (1)
F&I TOLL AMOUNT DMS CONTROLLER (2) IN EXISTING
TOLL AMOUNT DMS CABINET
EXISTING SPLICE VAULT
(FSB 95-30.70 NB)

T-DMS 95-30.73 NB

TO SW 10th St
TO Glades Rd
$ XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION
EXPRESS LANES
ONLY

REMOVE TOLL AMOUNT DMS (1) AND ASSOCIATED CABLING
F&I TOLL AMOUNT DMS (2)
F&I ABOVEGROUND 2-2" CONDUITS
SEE SIGNING & PAVEMENT MARKING PLANS FOR SIGN PANEL DETAILS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (7)

SHEET NO.
IT-23

BY/PDT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, qualities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

T-DMS 95-31.72 SB

F&I TOLL AMOUNT DMS (1)
F&I ABOVEGROUND 2-2" CONDUITS
SEE SIGNING & PAVEMENT MARKING PLANS FOR SIGN PANEL DETAILS

EXISTING SPLICE VAULT (FSB 95-31.76 SB)
INSTALL 4 SPLICES

F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
ALL OTHER EQUIPMENT PROVIDED BY 3A-1

EXPRESS LANES ONLY
Broward Blvd to Park-Ride
$XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

LA R/W LINE

F&I POWER SERVICE DISCONNECT

EXISTING ITS CABINET (LHUB 95-31.76B SB)

EXISTING SIGN STRUCTURE TO REMAIN

F&I ONE 6 COUNT MM FOC IN EXISTING CONDUIT
F&I NEW ELECTRICAL CONDUCTORS IN EXISTING CONDUIT

W PROSPECT RD.

F&I TOLL AMOUNT DMS CONTROLLER IN EXISTING CABINET

EXISTING DROP CABLE IN EXISTING CONDUIT TO REMAIN

SB SR 9 (I-95)

NB SR 9 (I-95)

EXISTING FO DROP TO REMAIN

EXISTING FO BACKBONE TO REMAIN

LA R/W LINE

0 10 50
Feet

BY/PDT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B68

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (8)

SHEET NO.
IT-24

F&I TOLL AMOUNT DMS (1)
F&I ABOVEGROUND 2-2" CONDUITS
SEE SIGNING & PAVEMENT MARKING PLANS FOR SIGN PANEL DETAILS

F&I ONE 6 COUNT MM FOC IN EXISTING CONDUIT
F&I NEW ELECTRICAL CONDUCTORS IN EXISTING CONDUIT

F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I DMS CONTROLLER
ALL OTHER EQUIPMENT PROVIDED BY 3A-1
(LHUB 95-32.62 SB)

EXISTING DROP CABLE IN
EXISTING CONDUIT TO REMAIN

EXISTING SPLICE VAULT
(FSB 95-32.64 SB)
INSTALL 4 SPLICES

0 10 50
Feet

LA R/W LINE

T-DMS 95-32.58 SB

EXPRESS LANES ONLY
To Broward Blvd Park-Ride
$XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

F&I POWER SERVICE DISCONNECT

EXISTING SIGN STRUCTURE
TO REMAIN

SB SR 9 (I-95)

4310 4311 4312 4313 4314 4315 4316 4317

2310 2311 2312 2313 2314 2315 2316 2317

3310 3311 3312 3313 3314 3315 3316 3317

NB SR 9 (I-95)

LA R/W LINE

1 2 3 4 5 6

6 5 4 3 2 1

BY/PDOT VS Date 10/30/2018

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (9)

SHEET NO.
IT-25

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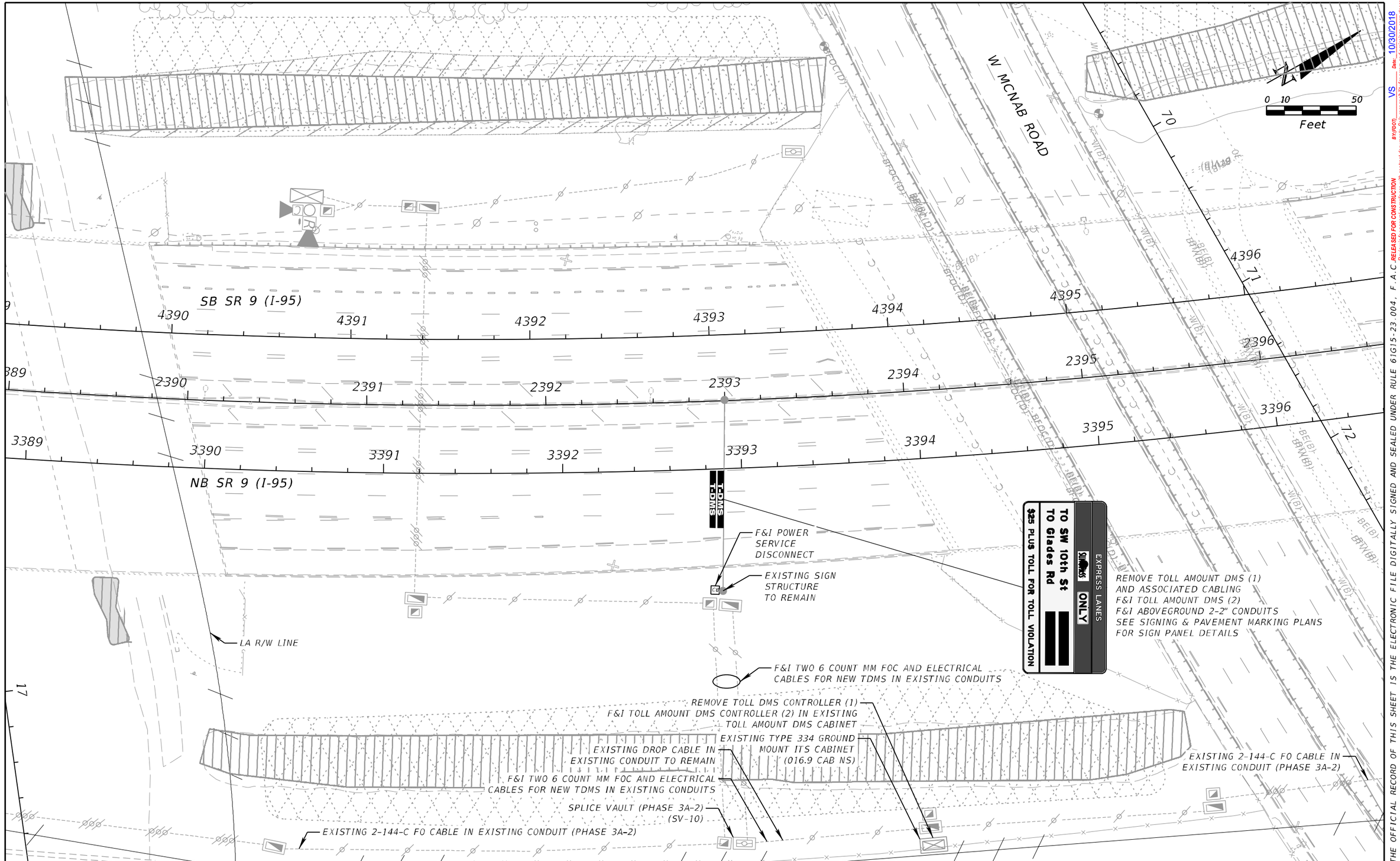

BY/PDT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (10)

SHEET NO.
IT-26

LA R/W LINE

SB SR 9 (I-95)

4413 4414 4415 4416 4417 4418 4419

2413 2414 2415 2416 2417 2418 2419 2420

3413 3414 3415 3416 3417 3418 3419 3420

NB SR 9 (I-95)

W(B)

REMOVE TOLL DMS CONTROLLER (1)
F&I TOLL AMOUNT DMS CONTROLLER (2) IN EXISTING
TOLL AMOUNT DMS CABINET

EXISTING TYPE 334 GROUND
MOUNT ITS CABINET
(017.3 CAB NS)

F&I POWER SERVICE
DISCONNECT

EXISTING SIGN
STRUCTURE
TO REMAIN

TOLL DMS

TO SW 10th St
TO Glades Rd
$25 PLUS TOLL FOR TOLL VIOLATION
EXPRESS LANES
ONLY

REMOVE TOLL AMOUNT DMS (1) AND ASSOCIATED CABLING
F&I TOLL AMOUNT DMS (2)
F&I ABOVEGROUND 2-2" CONDUITS
SEE SIGNING & PAVEMENT MARKING PLANS FOR SIGN
PANEL DETAILS

F&I TWO 6 COUNT MM FOC IN EXISTING CONDUIT
F&I NEW ELECTRICAL CONDUCTORS IN EXISTING CONDUIT

EXISTING DROP CABLE IN
EXISTING CONDUIT TO REMAIN

LA R/W LINE

EXISTING 2-144-C FO CABLE IN EXISTING CONDUIT (PHASE 3A-2)

SPLICE VAULT (PHASE 3A-2)
(SV-13)

EXISTING 2-144-C FO CABLE IN
EXISTING CONDUIT (PHASE 3A-2)

0 10 50
Feet

BY/PDOT VS Date: 10/30/2018

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (11)

SHEET NO.
IT-27

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RACE TRACK ROAD

F&I (1) TOLL AMOUNT DMS ON
EXISTING SUPPORT STRUCTURE
F&I ABOVEGROUND 2-2" CONDUITS
SEE SIGNING & PAVEMENT MARKING
PLANS FOR SIGN PANEL DETAILS

EXPRESS LANES
ONLY
$XX.XX
to Sunrise Blvd
$25 PLUS TOLL FOR TOLL VIOLATION

LA R/W LINE

ATLANTIC RAMP A

EXISTING DMS CABINET AND EQUIPMENT
PROVIDED BY 3A-2
F&I DMS CONTROLLER

1-2" HDPE EXISTING ITS SPARE
F&I 1-24 COUNT FOR ITS
EXISTING ELECTRICAL CONDUCTORS TO REMAIN.

EXISTING TOLL AMOUNT DMS MM FOC, 12 #4 (24 VDC),
AND 6 #8 (24 VDC) ALONG WITH SLACK PROVIDED BY
3B-1 IN CONDUITS IN INSTALLED IN 3A-2 BETWEEN
EXISTING TOLL AMOUNT DMS STRUCTURE AND EXISTING
TOLL AMOUNT CABINET.

SB SR 9 (I-95)

TODMS

F&I POWER SERVICE DISCONNECT

EXISTING SIGN STRUCTURE TO REMAIN

NB SR 9 (I-95)

ATLANTIC RAMP B

LA R/W LINE

SPLICE VAULT (PHASE 3A-2)
(SV-17)

MATCH LINE STA. 2460+53.00

0 10 50
Feet

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (12)

SHEET NO.
IT-28

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Default Barco1 10/11/2018 1:48:52 PM c:\projectwise\pb\projectwiseint\barco\d0264783\PLANIT12.dgn

MATCH LINE STA. 2460+53.00

1-2" HDPE EXISTING ITS SPARE
F&I 1-24 COUNT FOR ITS
EXISTING ELECTRICAL CONDUCTORS TO REMAIN.

789 790 791

0 10 50
Feet

4461 4462 4463 4464 4465 4466 4467

EXISTING ELECTRICAL CONDUCTORS TO REMAIN.

SB SR 9 (I-95)

2461 2462 2463 2464 2465 2466 2467

3461 3462 3463 3464 3465 3466 3467

NB SR 9 (I-95)

1-2" HDPE EXISTING ITS SPARE
F&I 1-24 COUNT FOR ITS

EXISTING SPLICE VAULT
F&I SPLICE TRAY
INSTALL 4 SPLICES
(PHASE 3A-2) (SV-19)

491 490 489

208

BY/PDOT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (13)

SHEET NO.
IT-29

LA R/W LINE

EXPRESS LANES ONLY $XX.XX to Sunrise Blvd $25 PLUS TOLL FOR TOLL VIOLATION

F&I (1) TOLL AMOUNT DMS ON EXISTING SUPPORT STRUCTURE
F&I ABOVEGROUND 2-2" CONDUITS
SEE SIGNING & PAVEMENT MARKING PLANS FOR SIGN PANEL DETAILS

ATLANTIC RAMP E

SB SR 9 (I-95)

NW 3RD ST

EXISTING TOLL AMOUNT DMS CABINET (018.6 CAB SS)
STA. 2483+00
F&I DMS CONTROLLER

1-2" HDPE EXISTING ITS SPARE
F&I 1-24 COUNT FOR ITS

F&I 6 COUNT MM FOC IN EXISTING ITS SPARE CONDUIT
F&I NEW ELECTRICAL CONDUCTORS IN EXISTING CONDUIT

EXISTING ELECTRICAL CONDUCTORS TO REMAIN.

TS DMS

F&I POWER SERVICE DISCONNECT

EXISTING [illegible] STRUCTURE TO REMAIN

NB SR 9 (I-95)

ATLANTIC RAMP F

EXISTING SPLICE VAULT
(PHASE 3A-2) (SV-20)

LA R/W LINE

MATCH LINE STA. 2484+10.00

0 10 50
Feet

VOID

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B68

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (14)

SHEET NO.
IT-30

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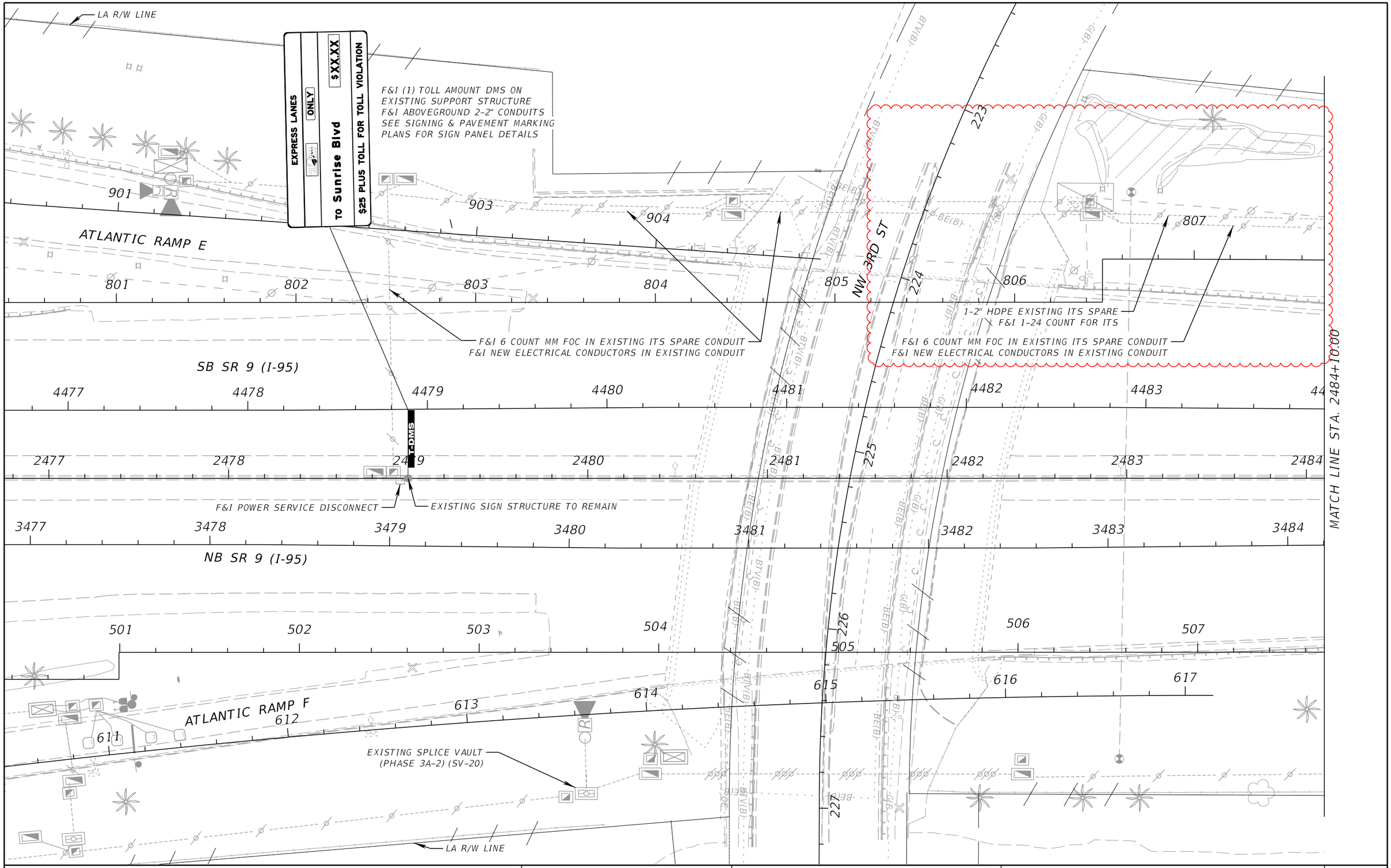

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DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

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STATE OF FLORIDA
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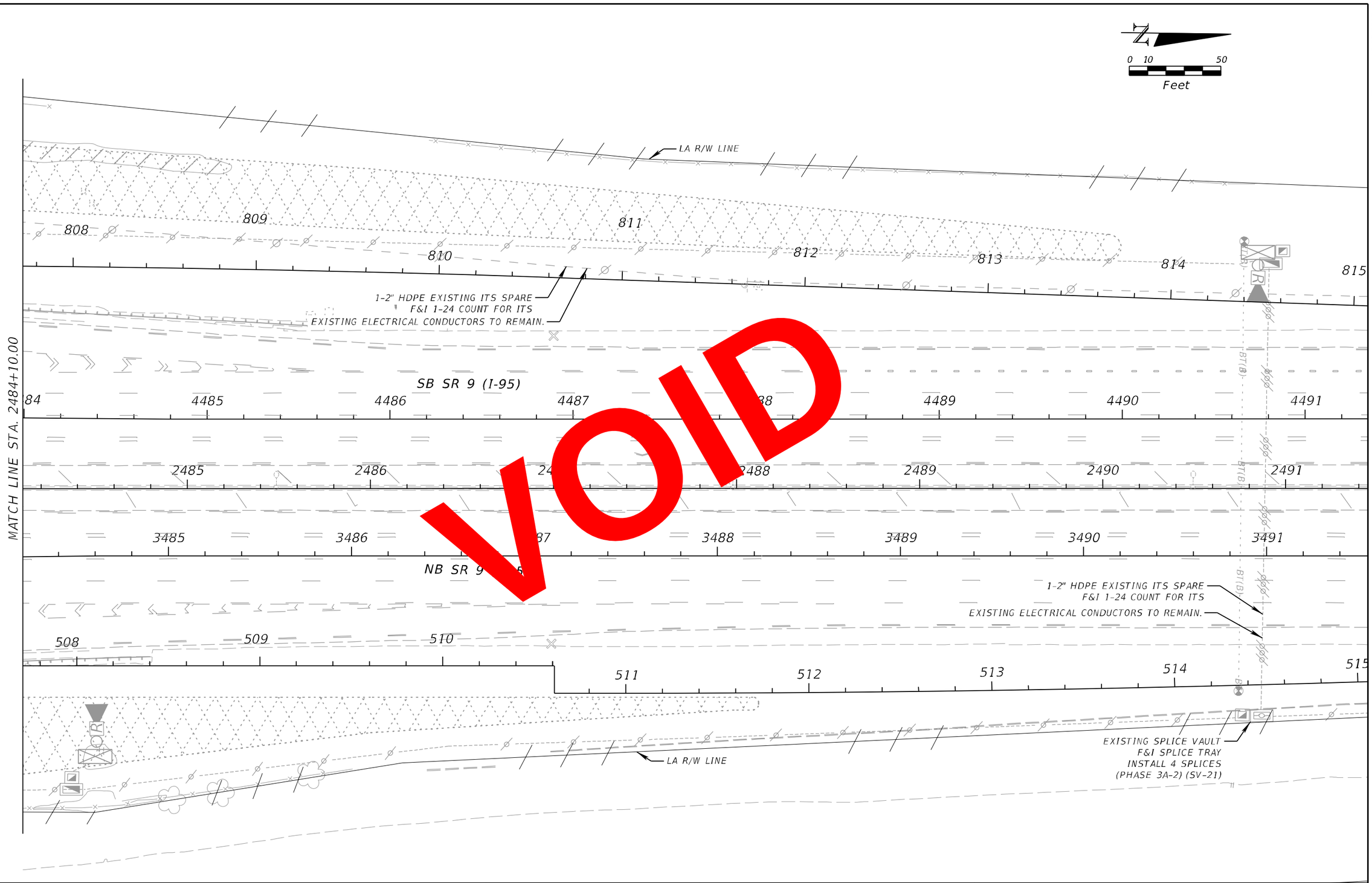
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (14)

SHEET NO.
IT-30



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BY/PDOT VS Date: 10/30/2018

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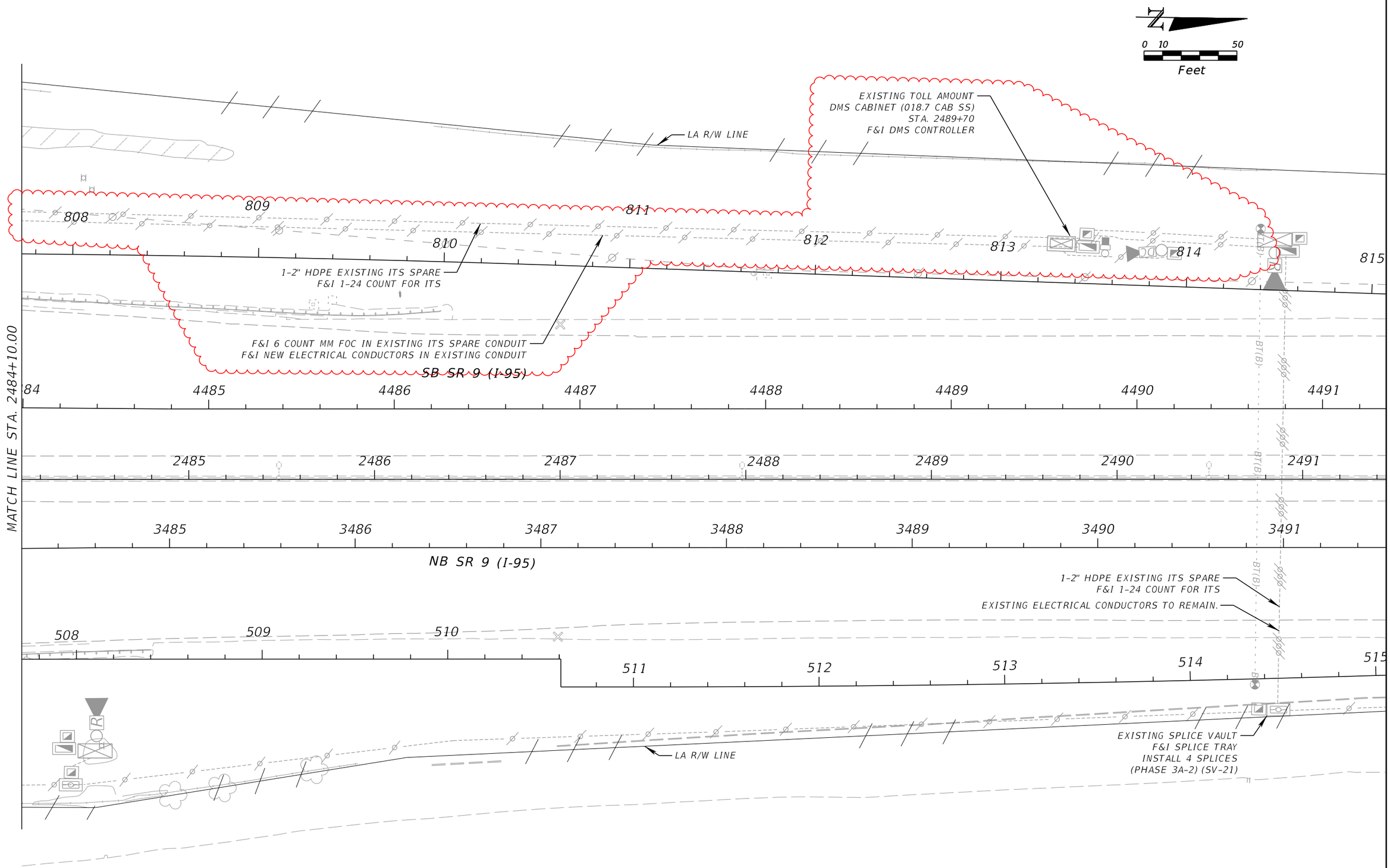
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (15)

SHEET NO.
IT-31



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10/4/2021	ASBUILT		

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (15)

SHEET NO.
IT-31

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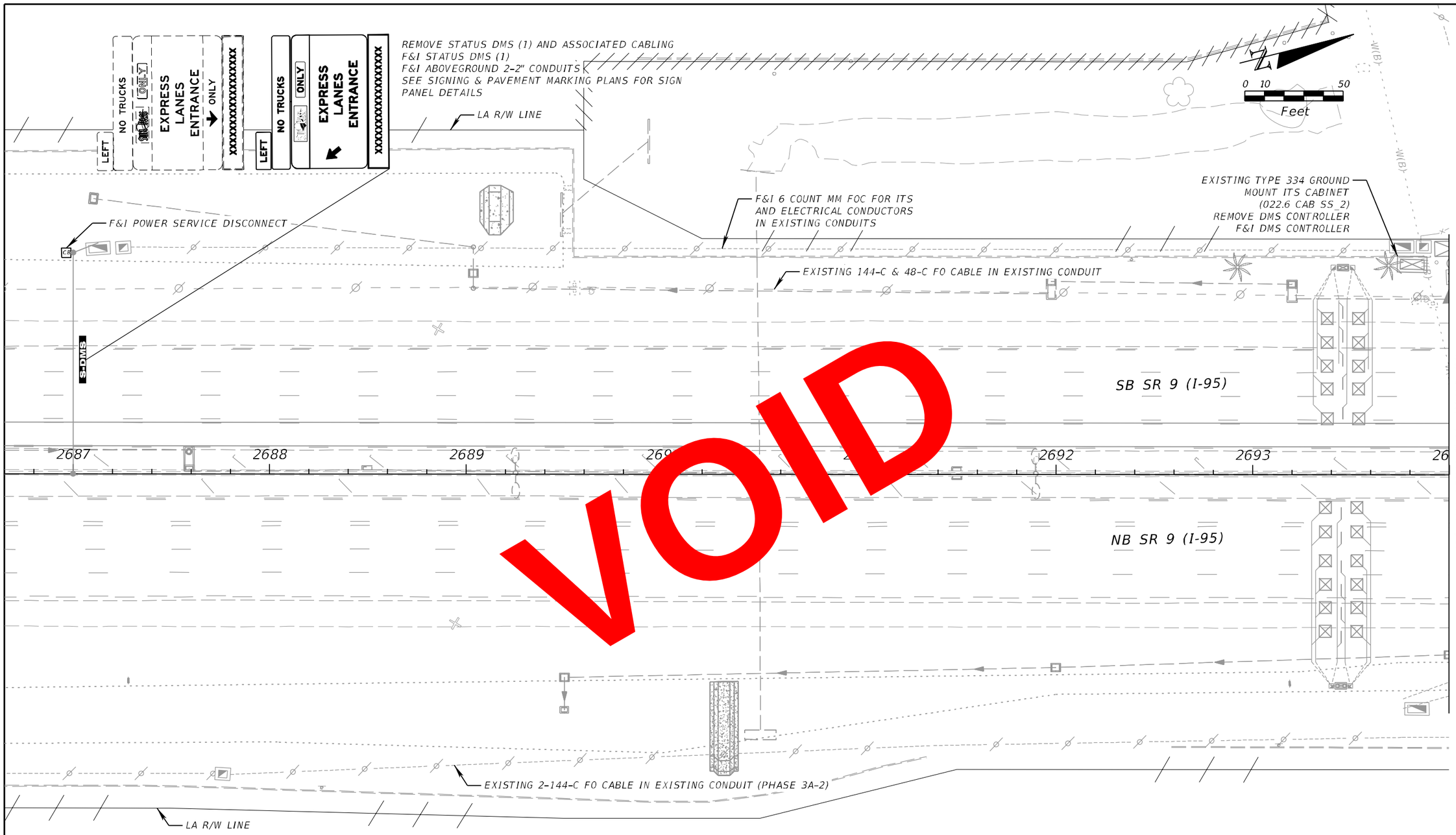

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (16)

SHEET NO.
IT-32

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BY/FDOT VS Date: 10/30/2018
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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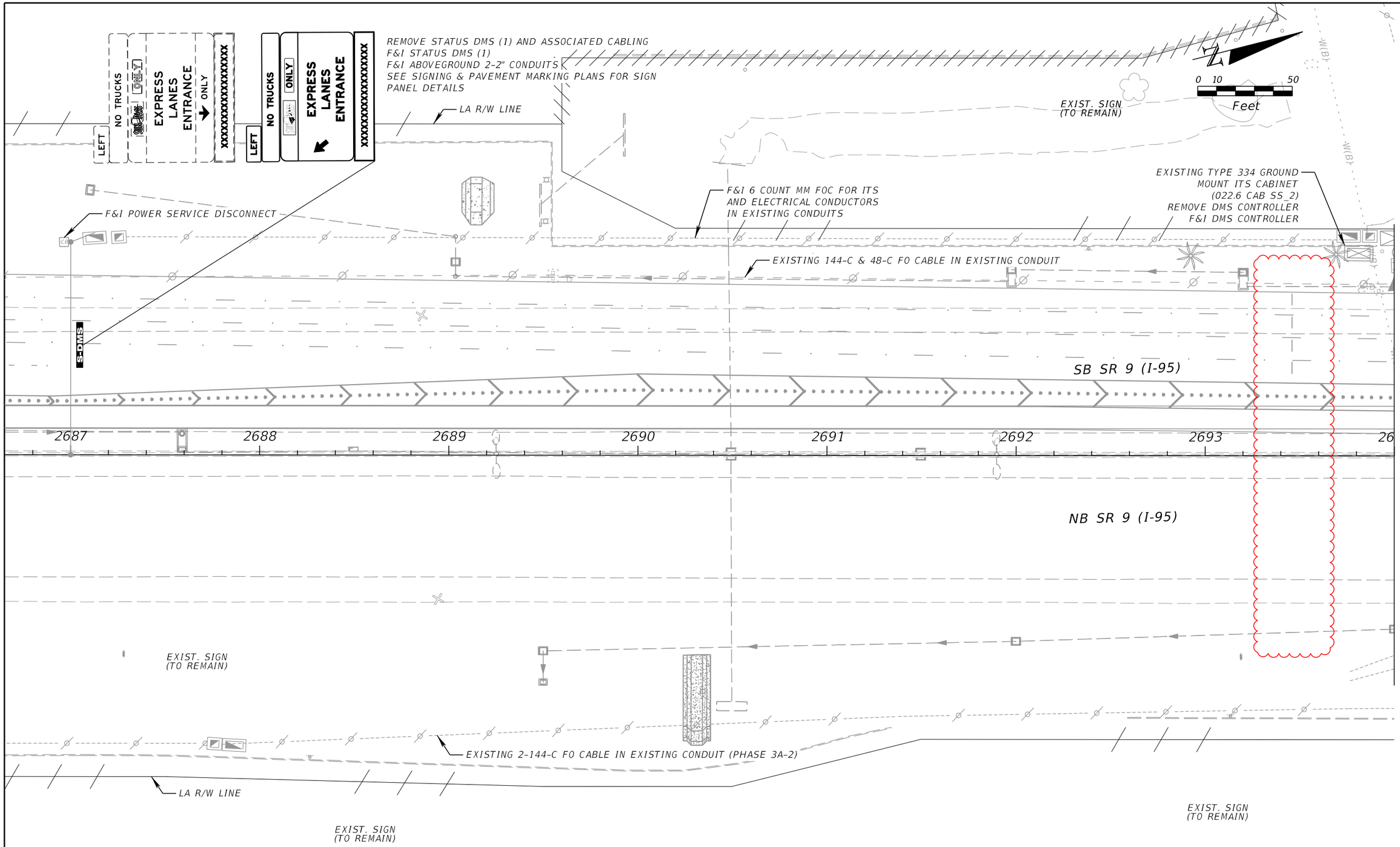

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT: TTMS REMOVED		

WSP USA INC.
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (16)

SHEET NO.
IT-32

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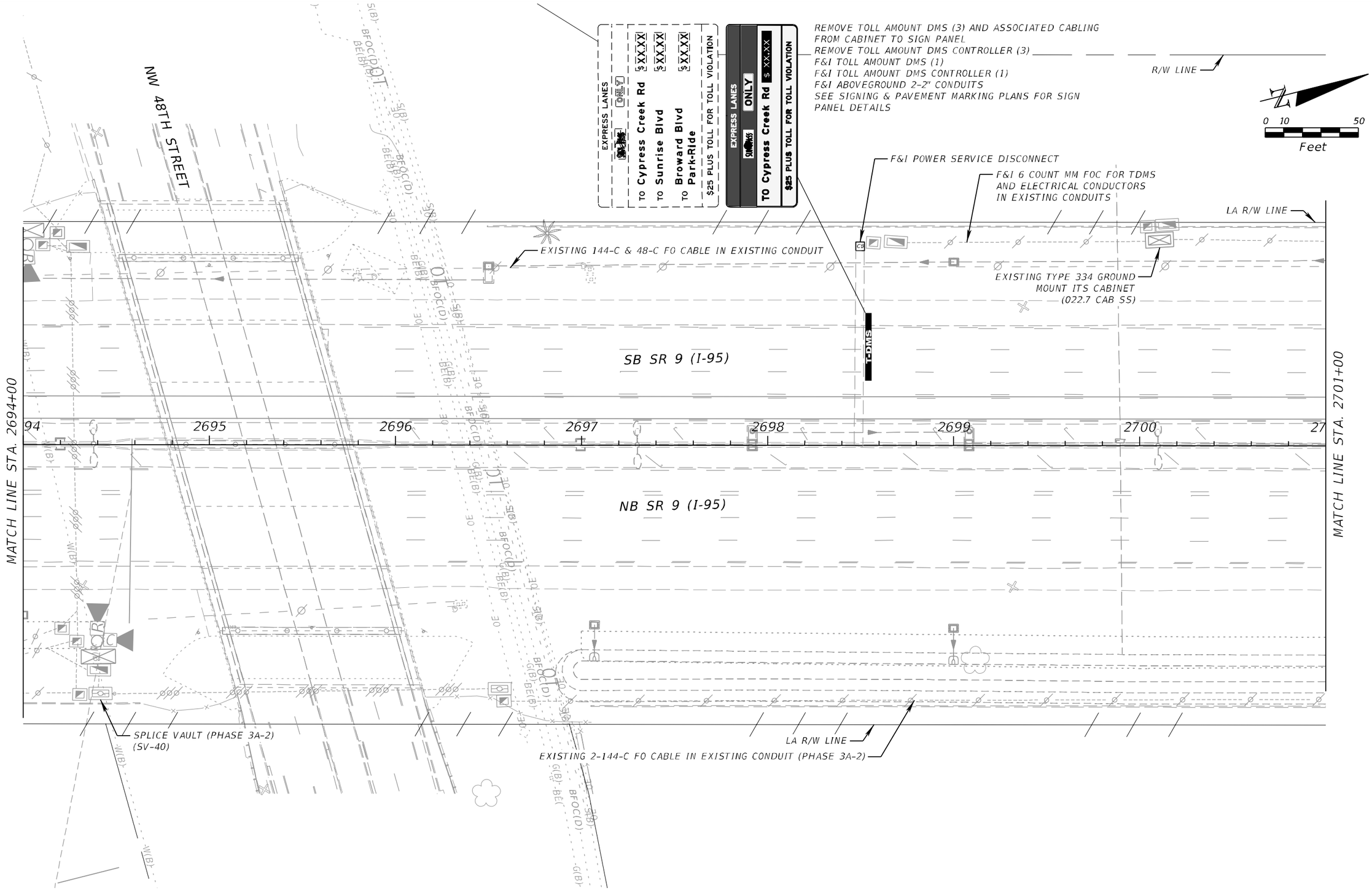

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (17)

SHEET NO.
IT-33

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Default BarcoJ 10/11/2018 1:49:35 PM c:\projectwise\pb\projectwiseint\barco\d0264783\PLANIT17.dgn

BY/FDOT VS Date 10/30/2018

RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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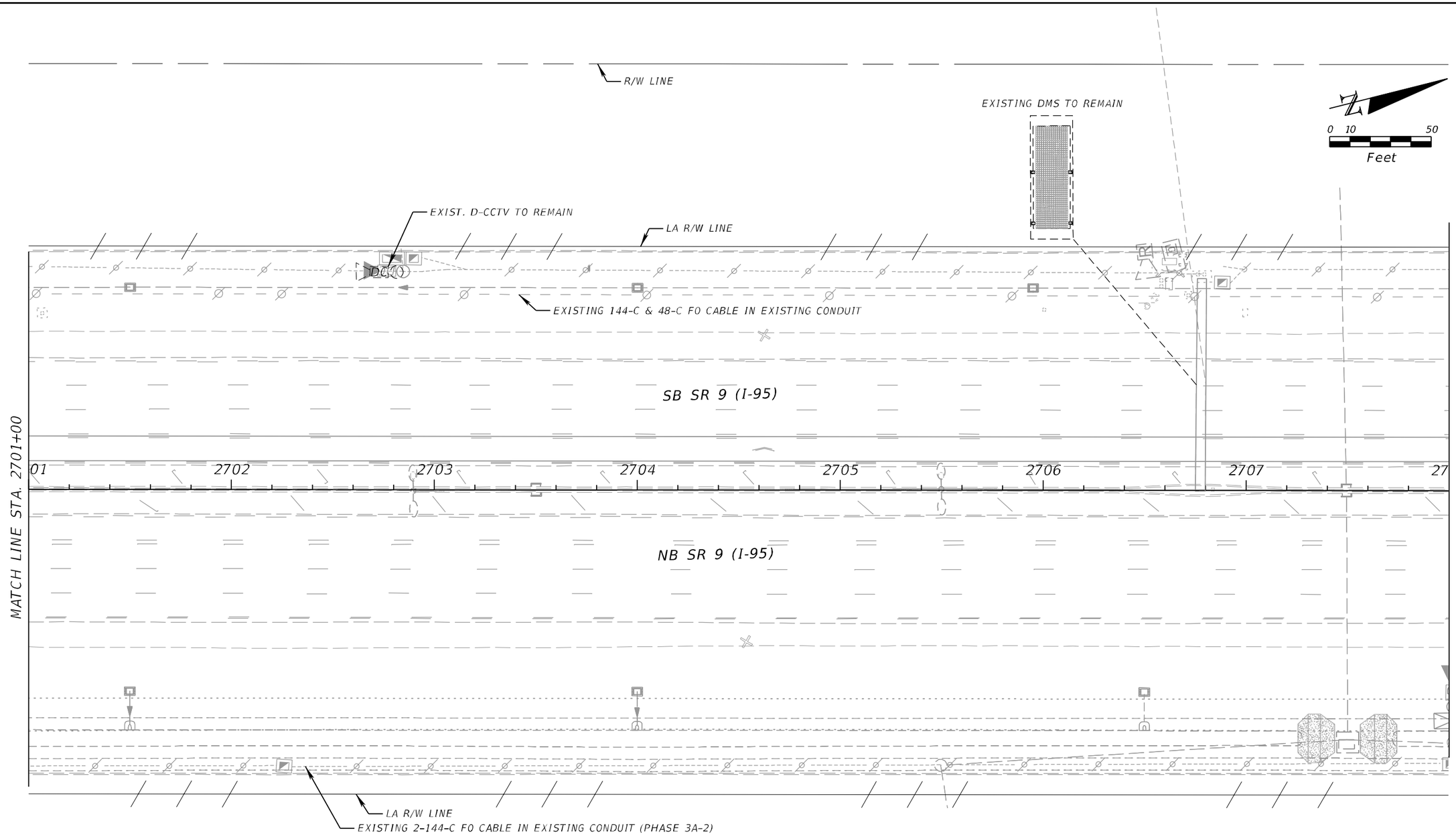

THIS SHEET IS PROVIDED FOR CONTINUITY AND INFORMATION PURPOSES ONLY

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EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (18)

SHEET NO.
IT-34

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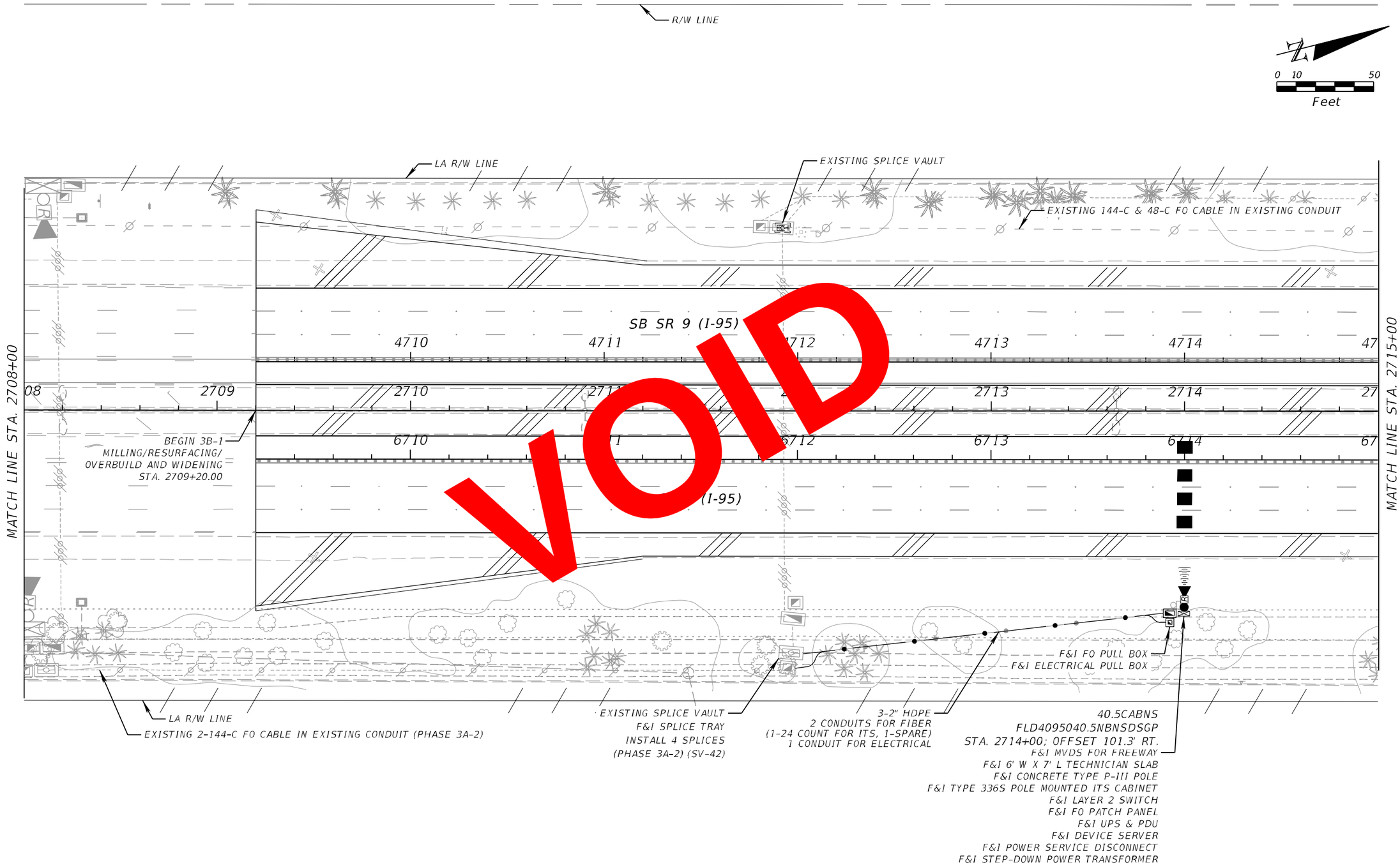
BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (19)

SHEET NO.
IT-35

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

R/W LINE

0 10 50
Feet

LA R/W LINE

EXISTING SPLICE VAULT

EXISTING 144-C & 48-C FO CABLE IN EXISTING CONDUIT

MATCH LINE STA. 2708+00

SB SR 9 (I-95

4710 4711 4713 4714

2709 2710 2713 2714

6710 6712 6713 6714

NB SR 9 (I-95)

MATCH LINE STA. 2715+00

BEGIN 3B-1
MILLING/RESURFACING/
OVERBUILD AND WIDENING
STA. 2709+20.00

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

LA R/W LINE
EXISTING 2-144-C FO CABLE IN EXISTING CONDUIT (PHASE 3A-2)

EXISTING SPLICE VAULT
F&I SPLICE TRAY
INSTALL 4 SPLICES
(PHASE 3A-2) (SV-42)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

40.5CABNS
FLD4095040.5NBNSDSGP
STA. 2714+00; OFFSET 101.3' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/7/2019	1 ADDED MVDS DETECTION ZONE FOR AUXILIARY LANE.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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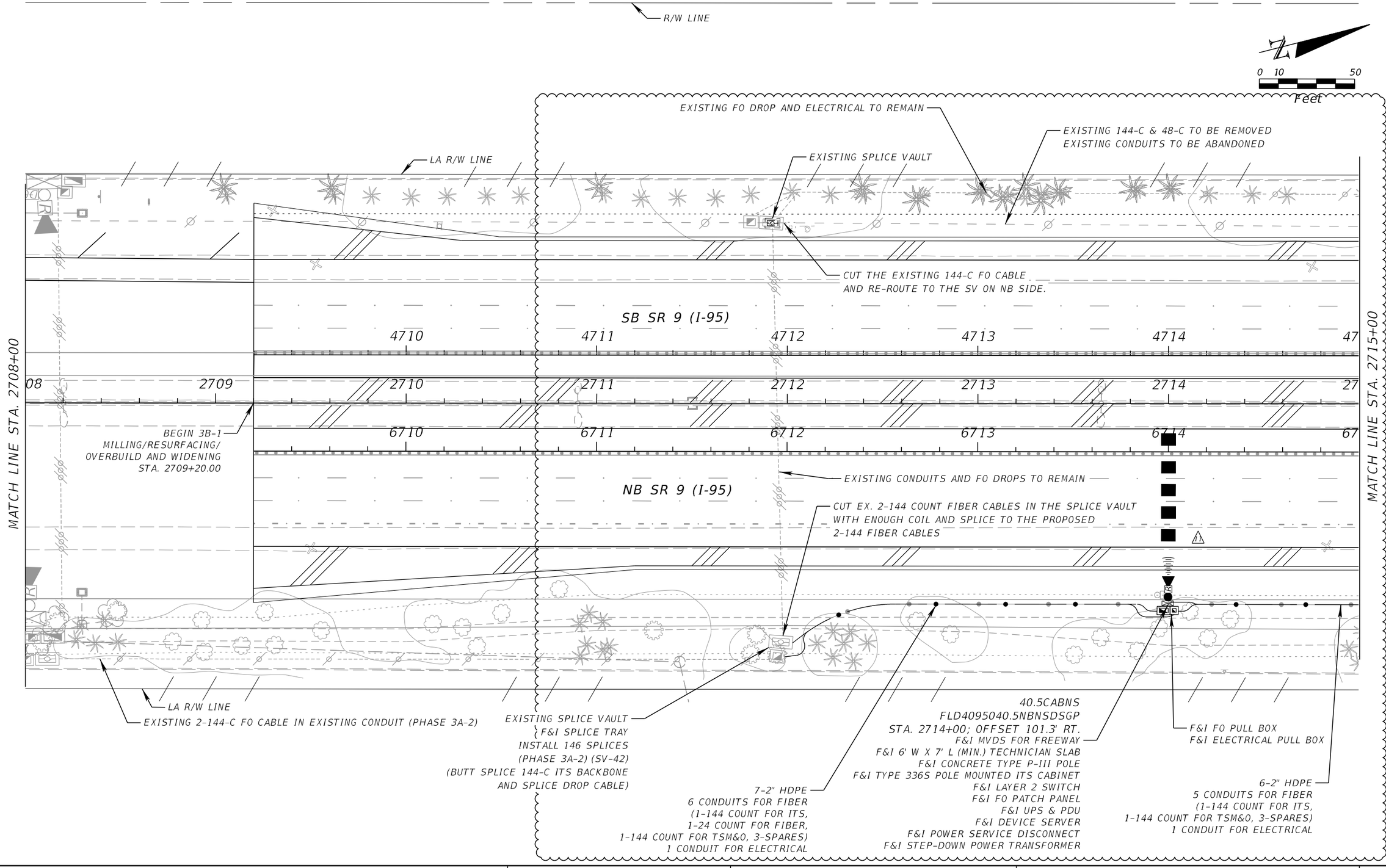
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (19)

SHEET NO.
IT-35

BY:(FDOT) VS Date: 03/15/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4F96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/7/2019	1 ADDED MVDS DETECTION ZONE FOR AUXILIARY LANE.		
5/8/2020	2 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (19)

SHEET NO.
IT-35

RELEASED FOR CONSTRUCTION
BY (PRINT)_____ Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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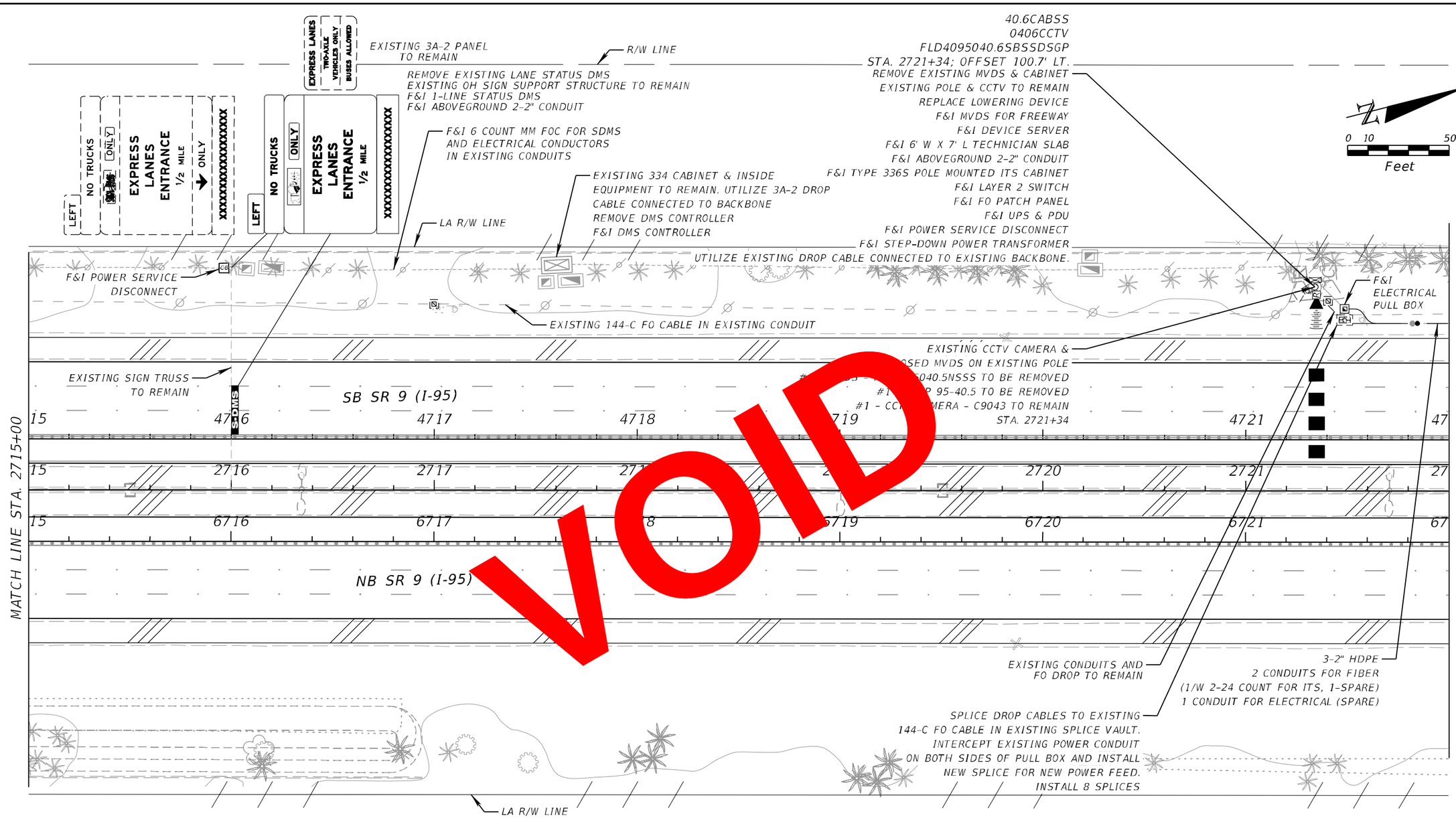

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (20)

SHEET NO.
IT-36

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BY/PDT VS Date: 10/30/2018
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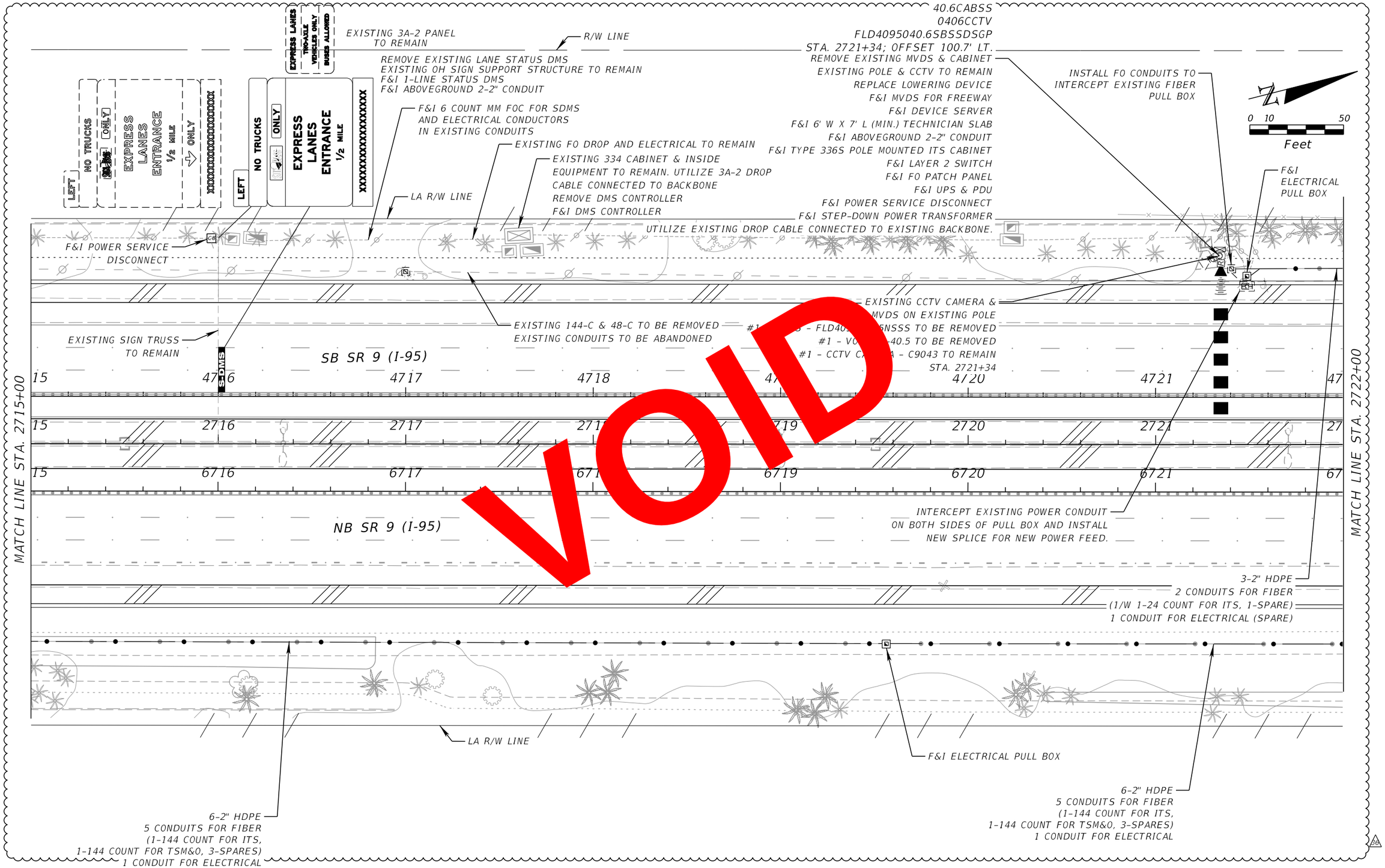
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B68



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
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Cert. of Auth. No. 01462
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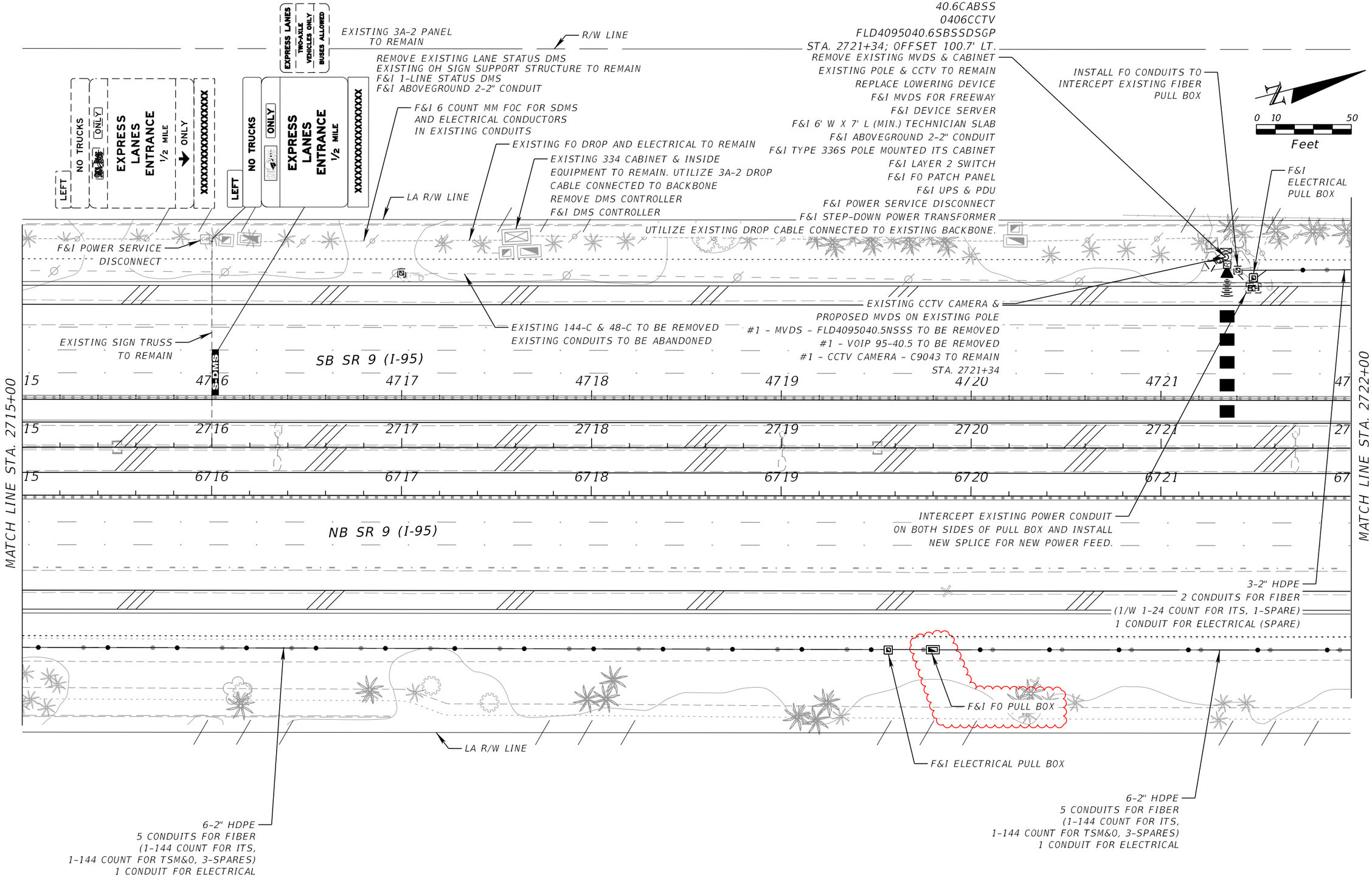
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (20)

SHEET NO.
IT-36



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	20 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (20)

SHEET NO.
IT-36

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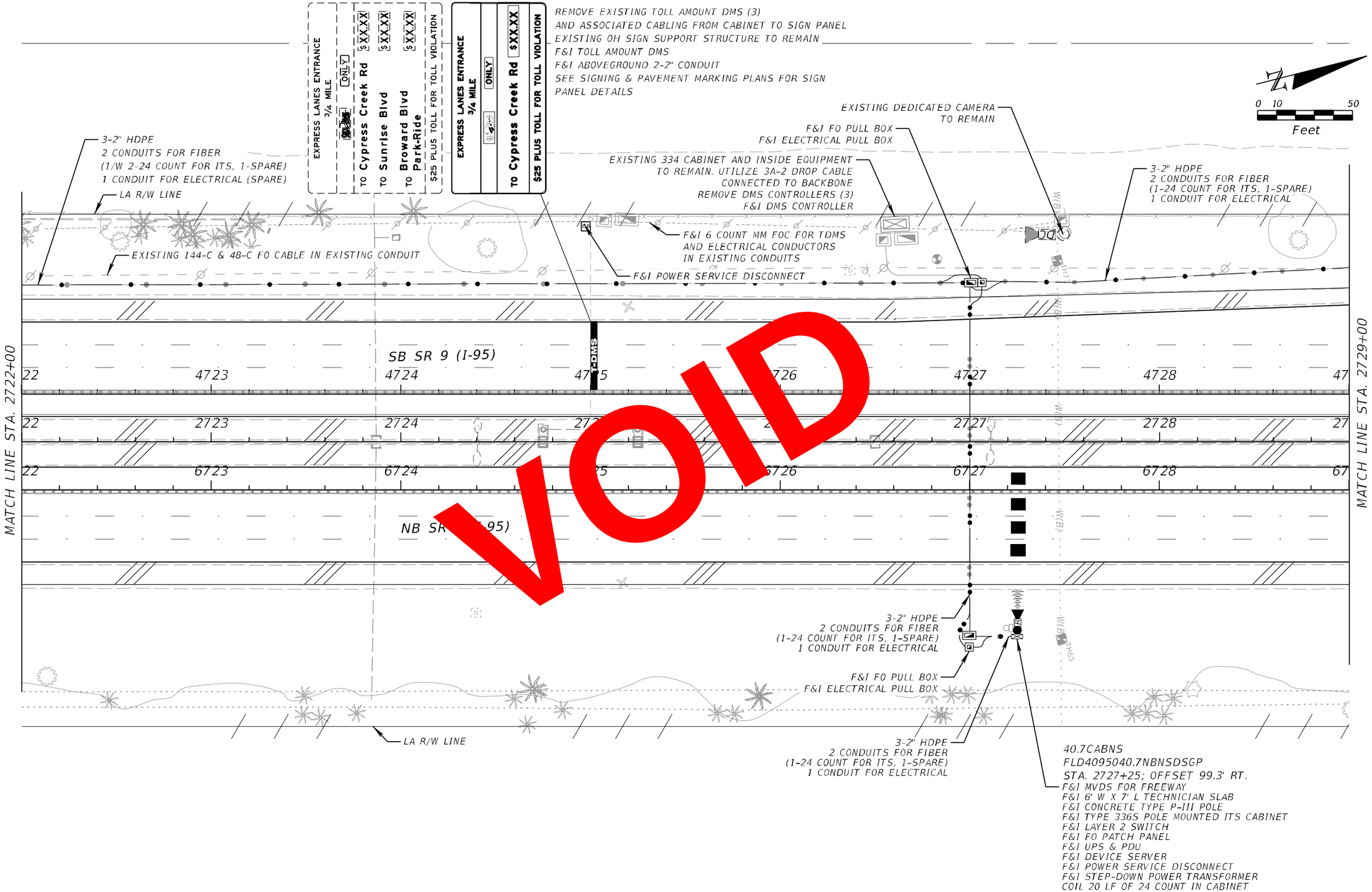

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BY/FDOT VS Date: 10/30/2018
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

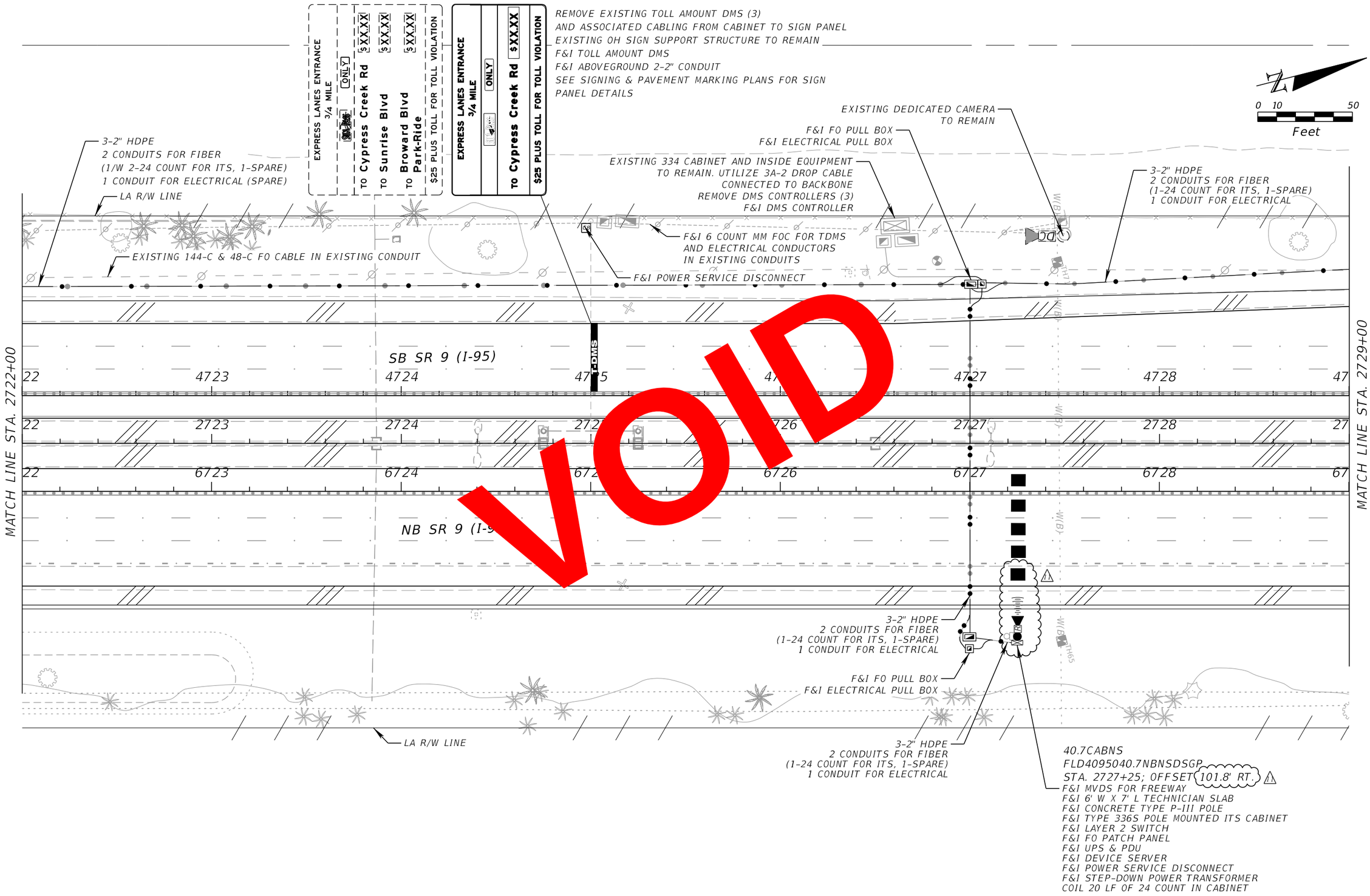
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (21)

SHEET NO.
IT-37



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/7/2019	1 ADDED MVDS DETECTION ZONE FOR AUXILIARY LANE.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (21)

SHEET NO.
IT-37

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BY:FDOT VS Date: 03/15/2019
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FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96

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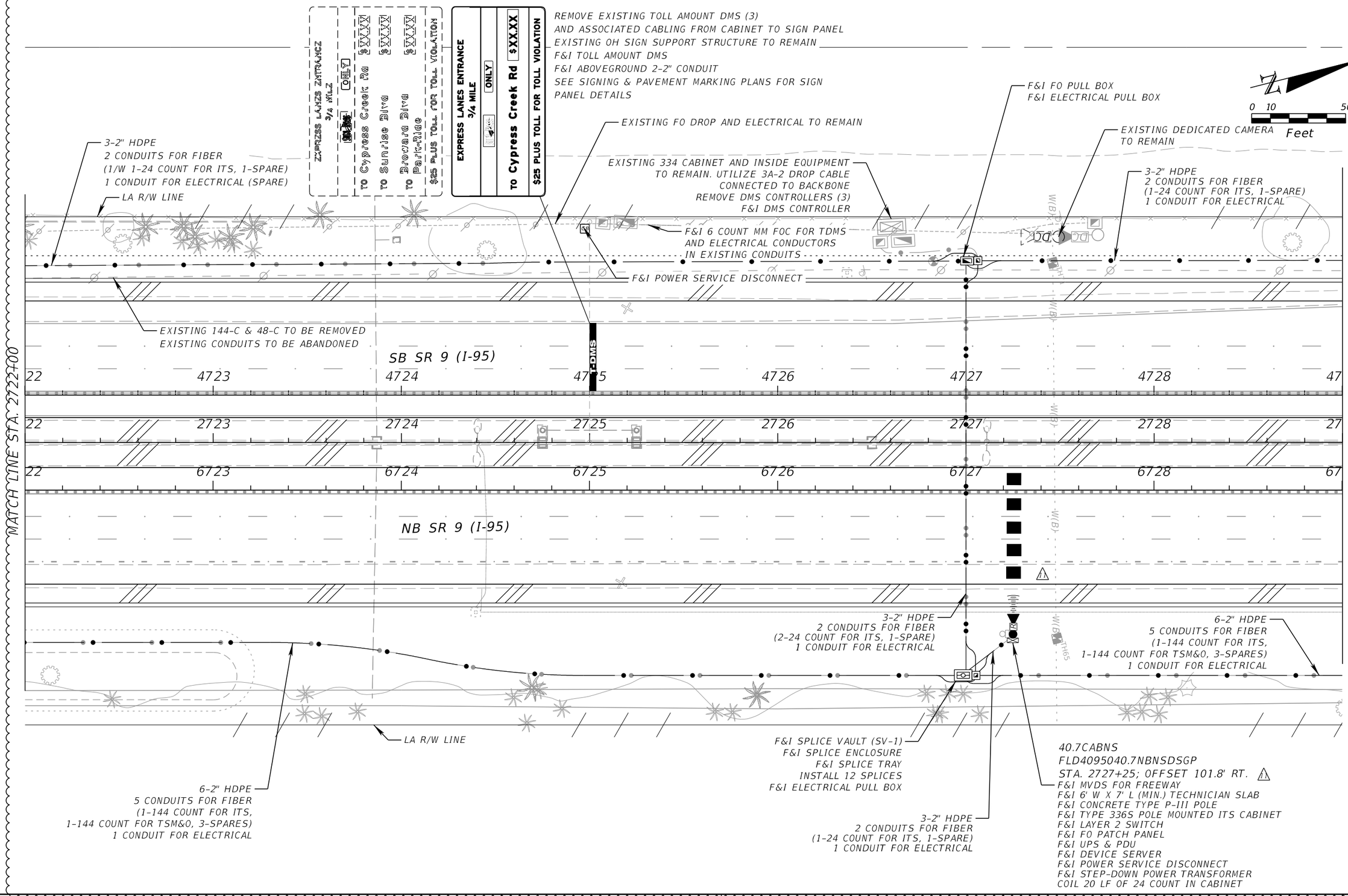

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
3/7/2019	11 ADDED MVDS DETECTION ZONE FOR AUXILIARY LANE.		
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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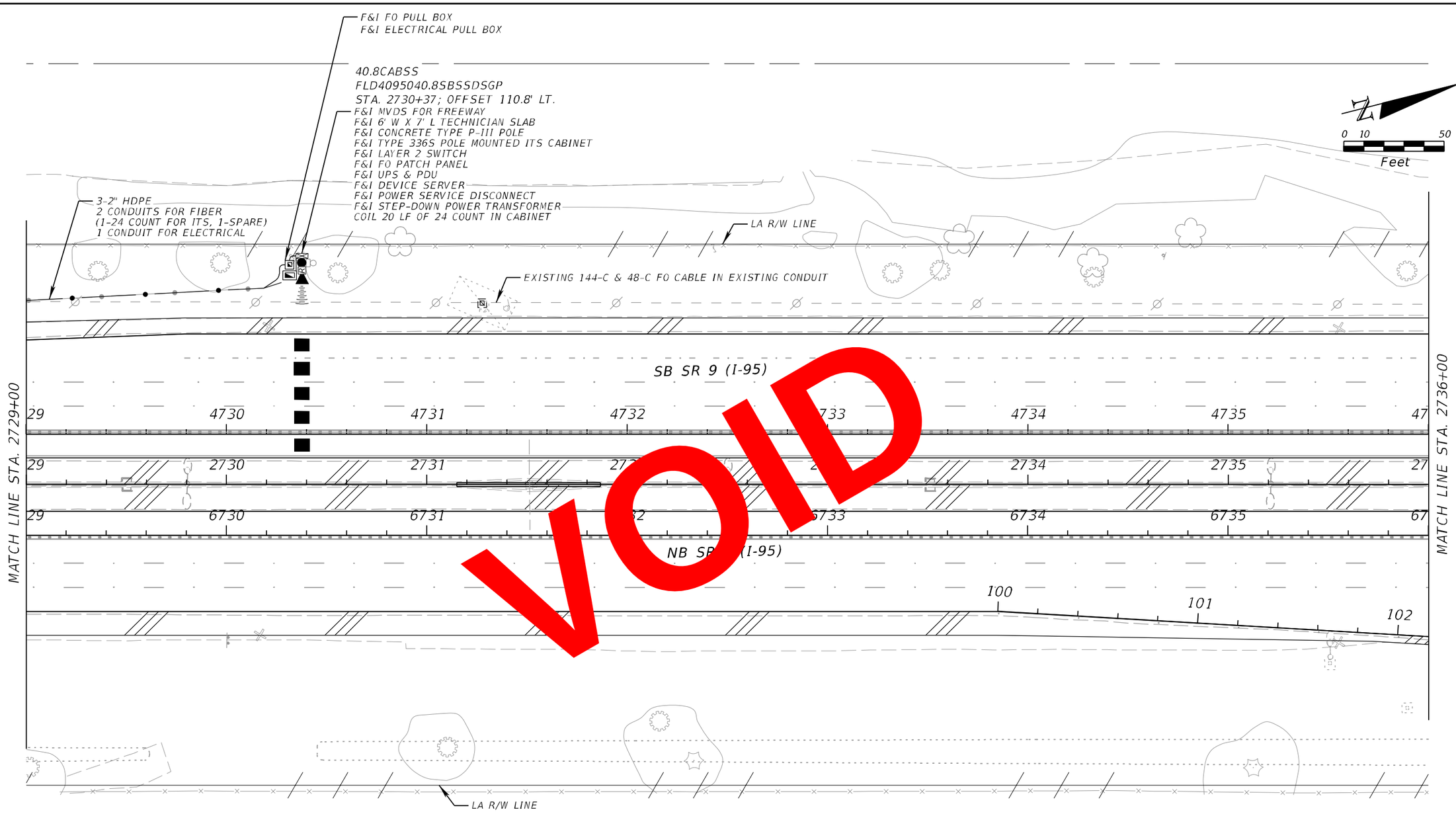
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (21)

SHEET NO.
IT-37



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (22)

SHEET NO.
IT-38

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BY/PDT VS Date: 10/30/2018
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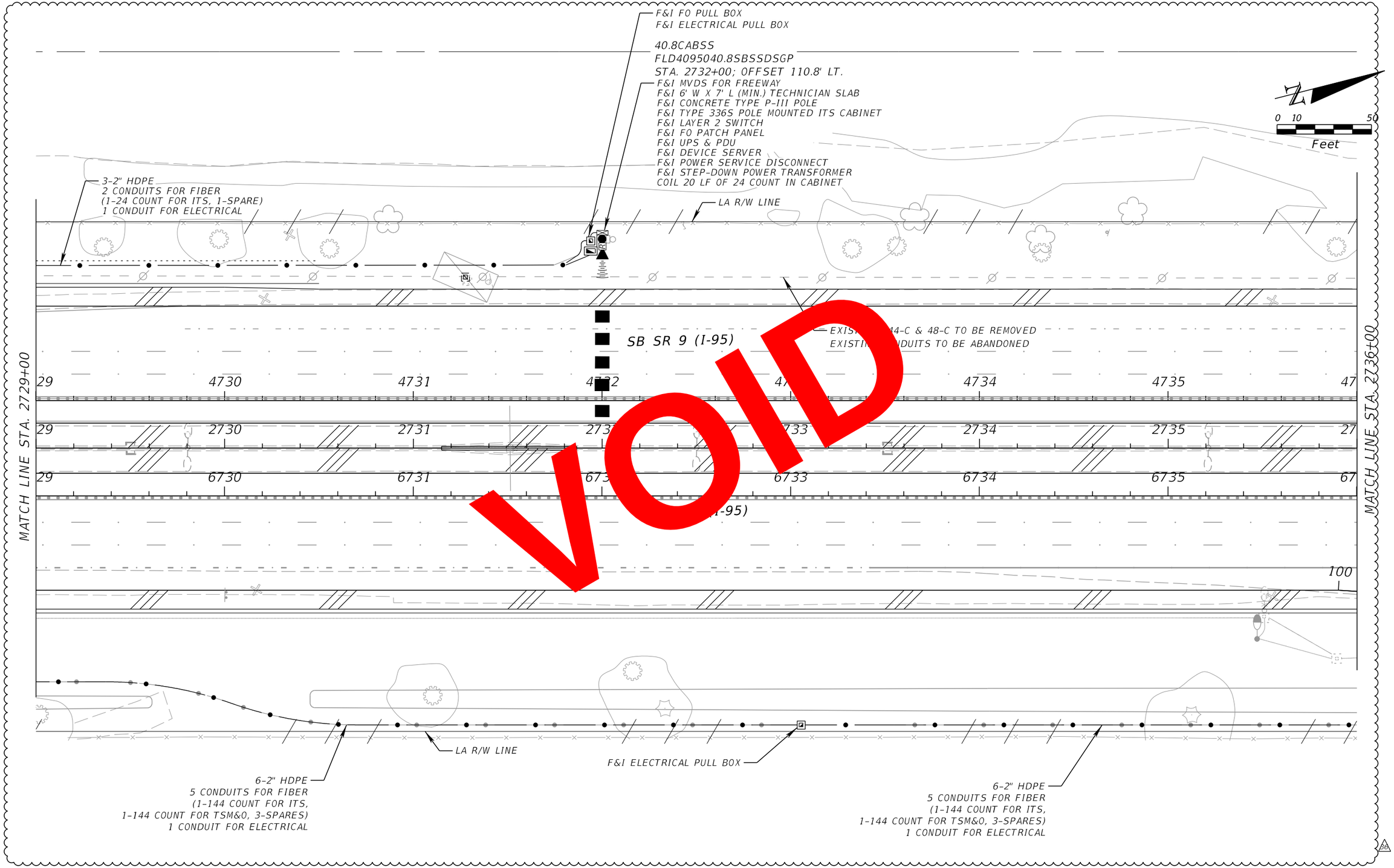
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	60 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (22)

SHEET NO.
IT-38

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BY (PRINT) VS Date: 5/27/2020

RELEASED FOR CONSTRUCTION
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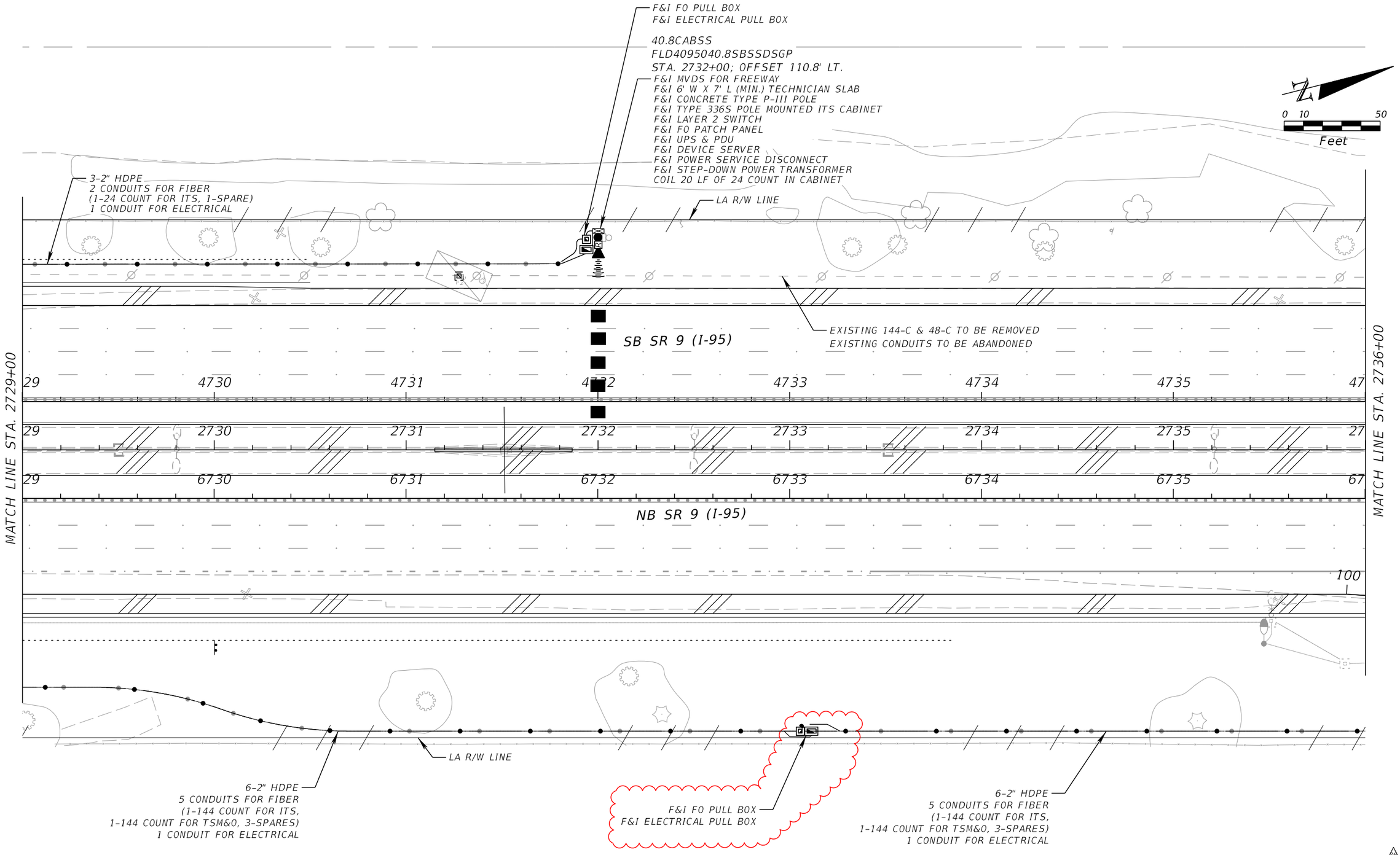
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	⚠ REVISED DESIGN FOR AUXILIARY LANE REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (22)

SHEET NO.
IT-38

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41.0CABSS
FLD4095041.0SBSSDSON
STA. 2742+40; OFFSET 110.6' LT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

REPLACE EXISTING FO PULL BOX WITH NEW FO SPLICE BOX.
SPLICE DROP CABLE TO EXISTING 144-C FO CABLE IN NEW
SPLICE ENCLOSURE.

F&I SPLICE VAULT (SV-1)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 8 SPLICES
F&I ELECTRICAL PULL BOX

LA R/W LINE

EXISTING 144-C & 48-C FO CABLE IN EXISTING CONDUIT

SB SR 9 (I-95)

SW 10TH RAMP C

SW 10TH RAMP A

MATCH LINE STA. 2736+00

MATCH LINE STA. 2743+00

0 10 50
Feet

VOID

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BY/PDT VS Date 10/30/2018
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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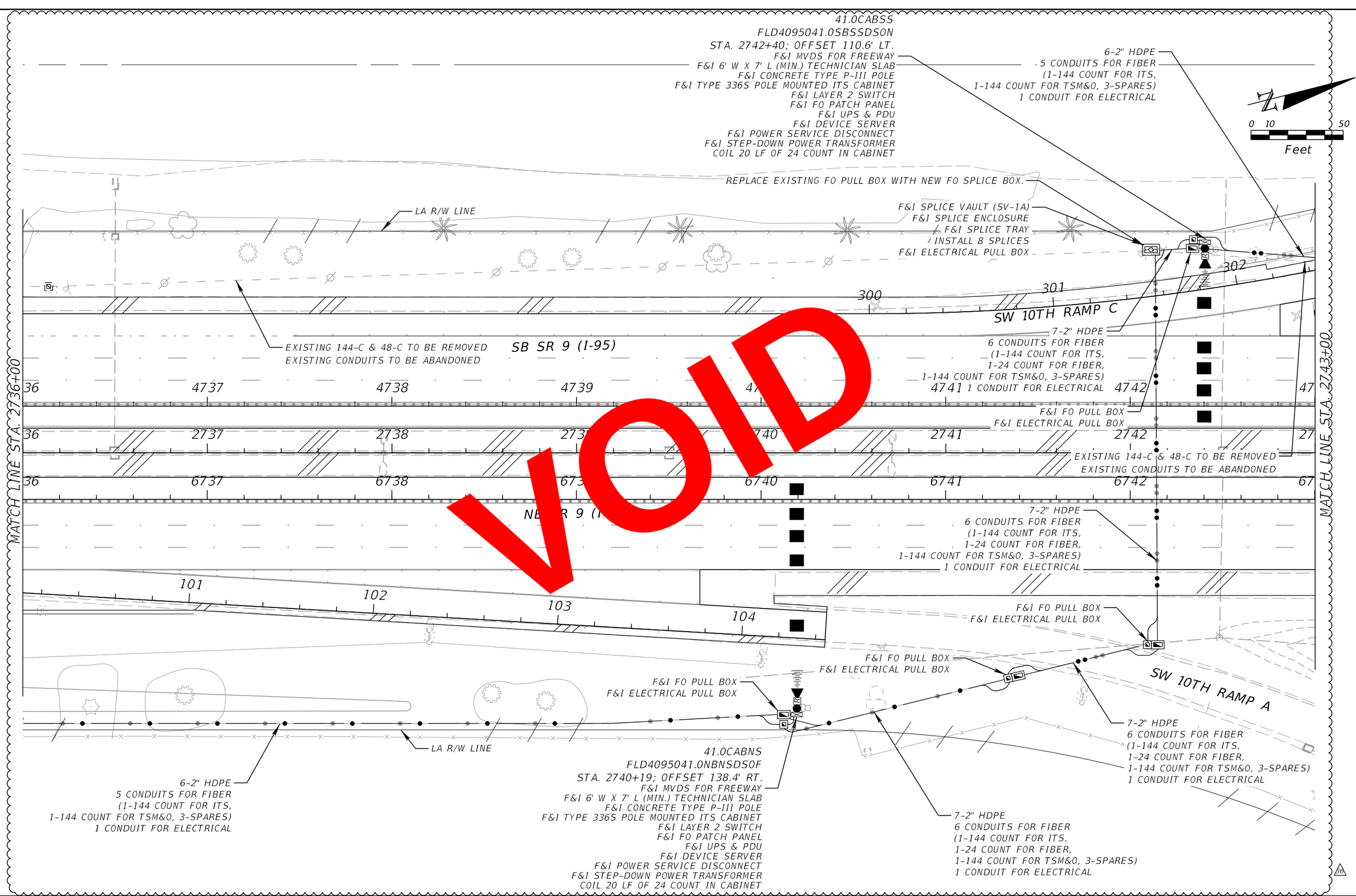
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (23)

SHEET NO.
IT-39



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	5B REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (23)

SHEET NO.
IT-39

RELEASED FOR CONSTRUCTION
BY (PRINT) VS DATE: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default USMW189428 5/11/2020 10:40:42 AM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0264783\PLANIT23.dgn

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FLD4095041.0SBSSDS0N
STA. 2742+40; 0FFSET 110.6' LT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

N

0 10 50
Feet

REPLACE EXISTING FO PULL BOX WITH NEW FO SPLICE BOX.

F&I SPLICE VAULT (SV-1A)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 12 SPLICES
F&I ELECTRICAL PULL BOX

LA R/W LINE

EXISTING 144-C & 48-C TO BE REMOVED
EXISTING CONDUITS TO BE ABANDONED

SB SR 9 (I-95)

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-24 COUNT FOR FIBER,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SW 10TH RAMP C

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

EXISTING 144-C & 48-C TO BE REMOVED
EXISTING CONDUITS TO BE ABANDONED

MATCH LINE STA. 2736+00

MATCH LINE STA. 2743+00

NB SR 9 (I-95)

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1W/ 2-24 COUNT FOR FIBER,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

SW 10TH RAMP A

8-2" HDPE
7 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
2-24 COUNT FOR FIBER,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

41.0CABNS
FLD4095041.0NBNSDS0F
STA. 2740+19; 0FFSET 138.4' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-24 COUNT FOR FIBER,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	43 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (23)

SHEET NO.
IT-39

BY:(RDOT) VS Date: 2/16/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, and compliance with all codes, standards and regulations for fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96

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3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
41.1CABSS
0411CCTV
FLD4095041.1SBSSDSGP
STA. 2749+23; OFFSET 103.8' LT.
REMOVE EXISTING MVDS (2), & CABINET
EXISTING POLE & CCTV TO REMAIN
F&I MVDS FOR FREEWAY
REPLACE LOWERING DEVICE
F&I 6' W X 7' L TECHNICIAN SLAB
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
REMOVE EXISTING DROP CABLE
CONNECTED TO 48 COUNT BACKBONE
INSTALL 2 SPLICES
EXISTING CCTV CAMERA &
PROPOSED MVDS ON EXISTING POLE
#2 - MVDS - FLD4095041.0NBSS TO BE REMOVED
#3 - MVDS - FLD4095041.0SBSS TO BE REMOVED
#2 - VOIP 95-41.0 TO BE REMOVED
#2 - CCTV CAMERA - C9044 TO REMAIN
STA. 2749+25

LA R/W LINE
SW 10TH RAMP C
304
303
EXISTING 144-C & 48-C FO CABLE IN EXISTING CONDUIT
SB SR 9 (I-95)
NB SR
SW 10TH RAMP A
SW 10TH RAMP D
400
401
402
0 10 50
Feet

MATCH LINE STA. 2743+00
MATCH LINE STA. 2750+00

VOID

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BY/PDT VS Date 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, qualities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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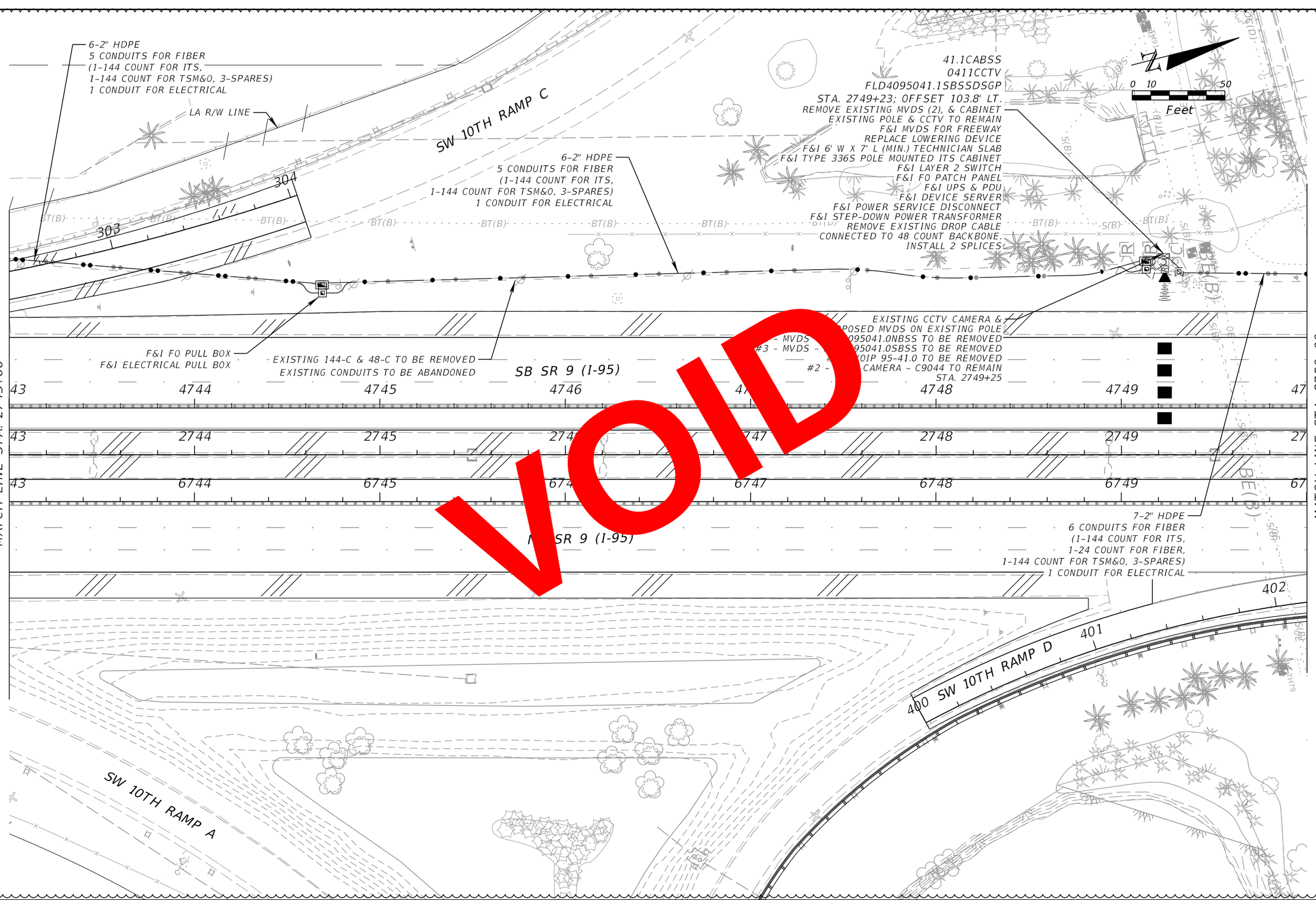
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (24)

SHEET NO.
IT-40



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	5B REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (24)

SHEET NO.
IT-40

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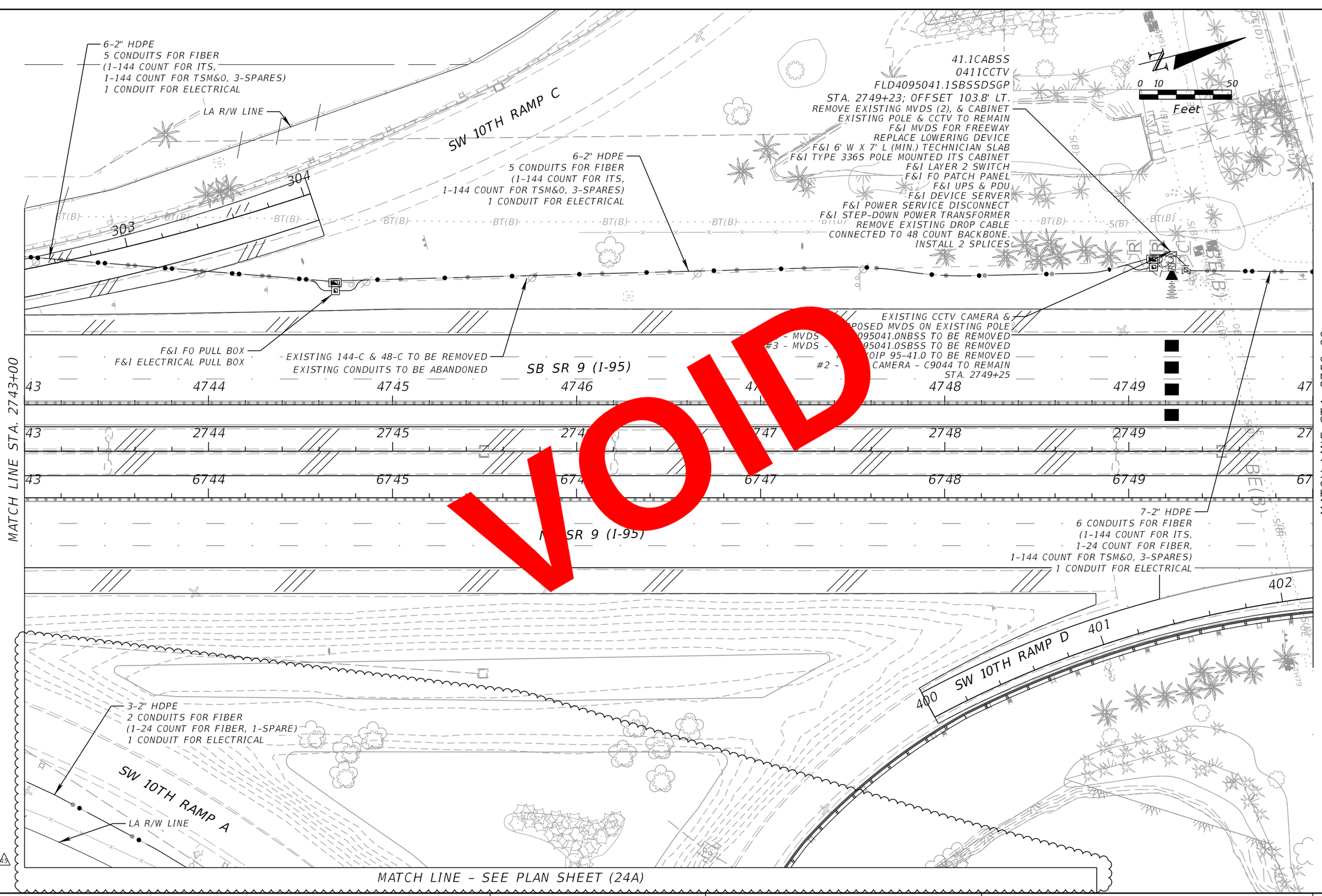
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY:RDOT VS Date: 5/27/2020

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/16/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
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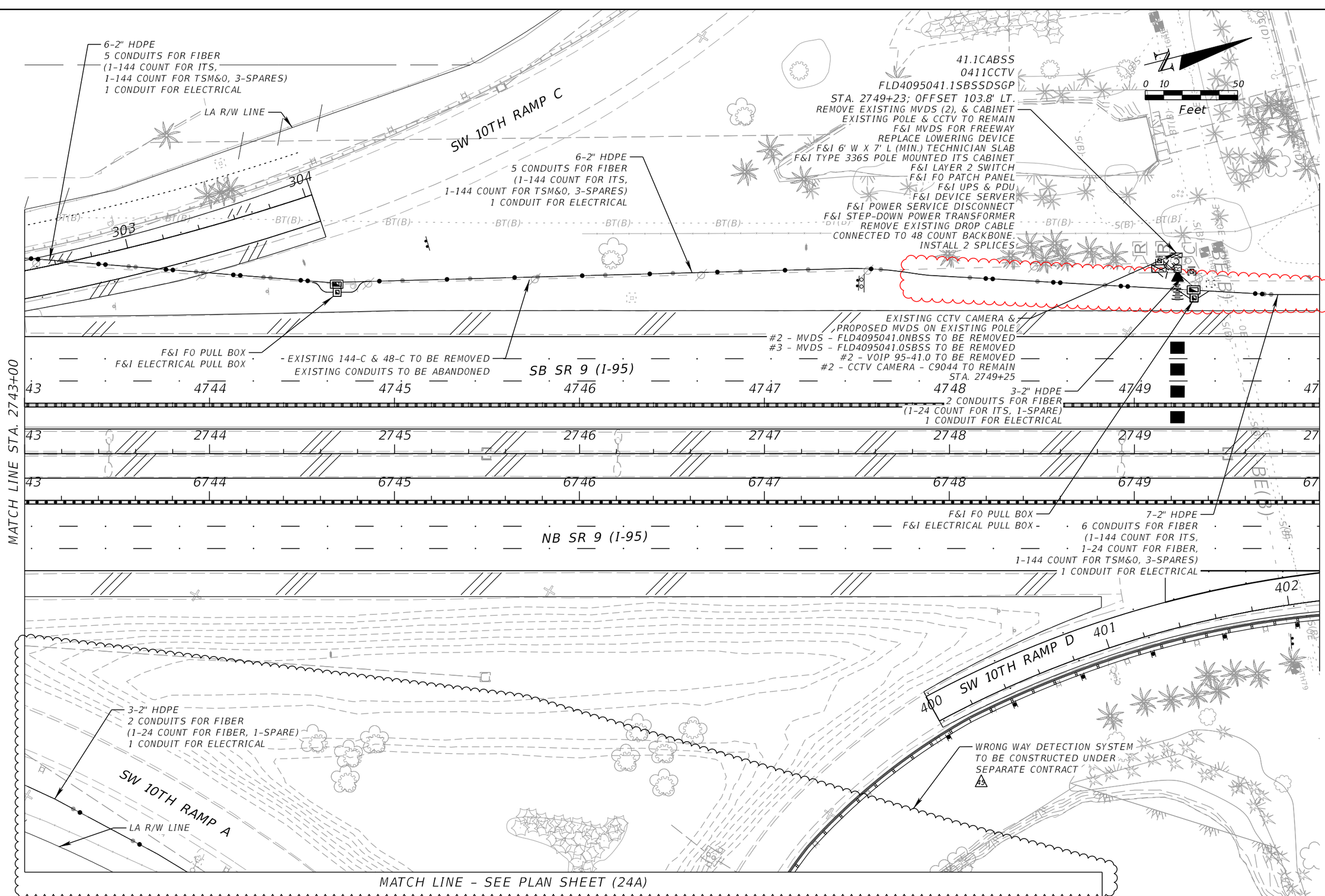
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (24)

SHEET NO.
IT-40



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (24)

SHEET NO.
IT-40

MATCH LINE – SEE PLAN SHEET (24)

3–2" HDPE
2 CONDUITS FOR FIBER
(1–24 COUNT FOR FIBER, 1–SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 2744+91; OFFSET 295.7' RT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN (R5–1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

STA. 2745+18; OFFSET 266.5' RT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN (R5–1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

REMOVE EXISTING WRONG WAY SIGN

STA. 2746+51; OFFSET 432.9' RT.
F&I WRONG WAY SIGN (R5–1A)

STA. 2746+19; OFFSET 453.5' RT.
F&I WRONG WAY SIGN (R5–1A)

SW 10TH RAMP A

LA R/W LINE

WWDS 1
41.1CABNS
STA. 2747+13; OFFSET 611.0' RT.
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I FO PULL BOX
2– F&I ELECTRICAL PULL BOX
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
WW CONTROL PANEL ASSEMBLY
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP–DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

4–2" HDPE
2–DEVICE CABLES; 1–120VAC POWER
1–SPARE

STA. 2747+37; OFFSET 613.2' RT.
F&I 20' ALUMINUM POLE
F&I WRONG WAY SIGN (R5–1A) W/ LEDs
F&I DUAL DETECTION SENSORS
F&I DUAL VERIFICATION CAMERAS
F&I WIRELESS RADIO

STA. 2747+71; OFFSET 571.8' RT.
F&I 13' ALUMINUM POLE
(ON MEDIAN BARRIER WALL)
F&I WRONG WAY SIGN (R5–1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

MATCH LINE – SEE SHEET (24B)

△15 WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

0 10 50
Feet

△13

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RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, coordination and clash detection, fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5696
BY:(FDOT) VS Date: 2/16/2021

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	△16 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	△15 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
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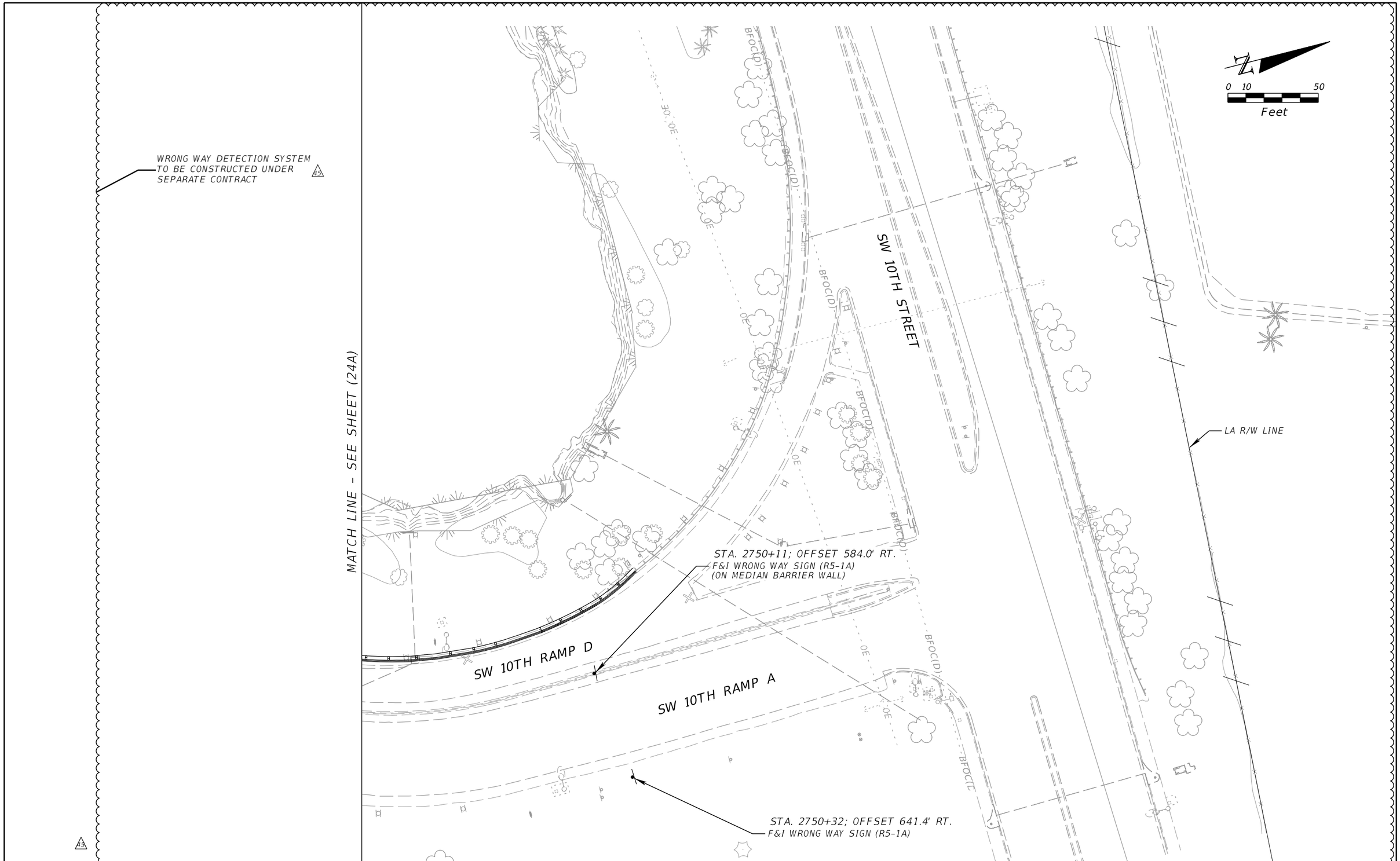
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (24A)

SHEET NO.
IT–40A



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (24B)

SHEET NO.
IT-40B

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RELEASED FOR CONSTRUCTION
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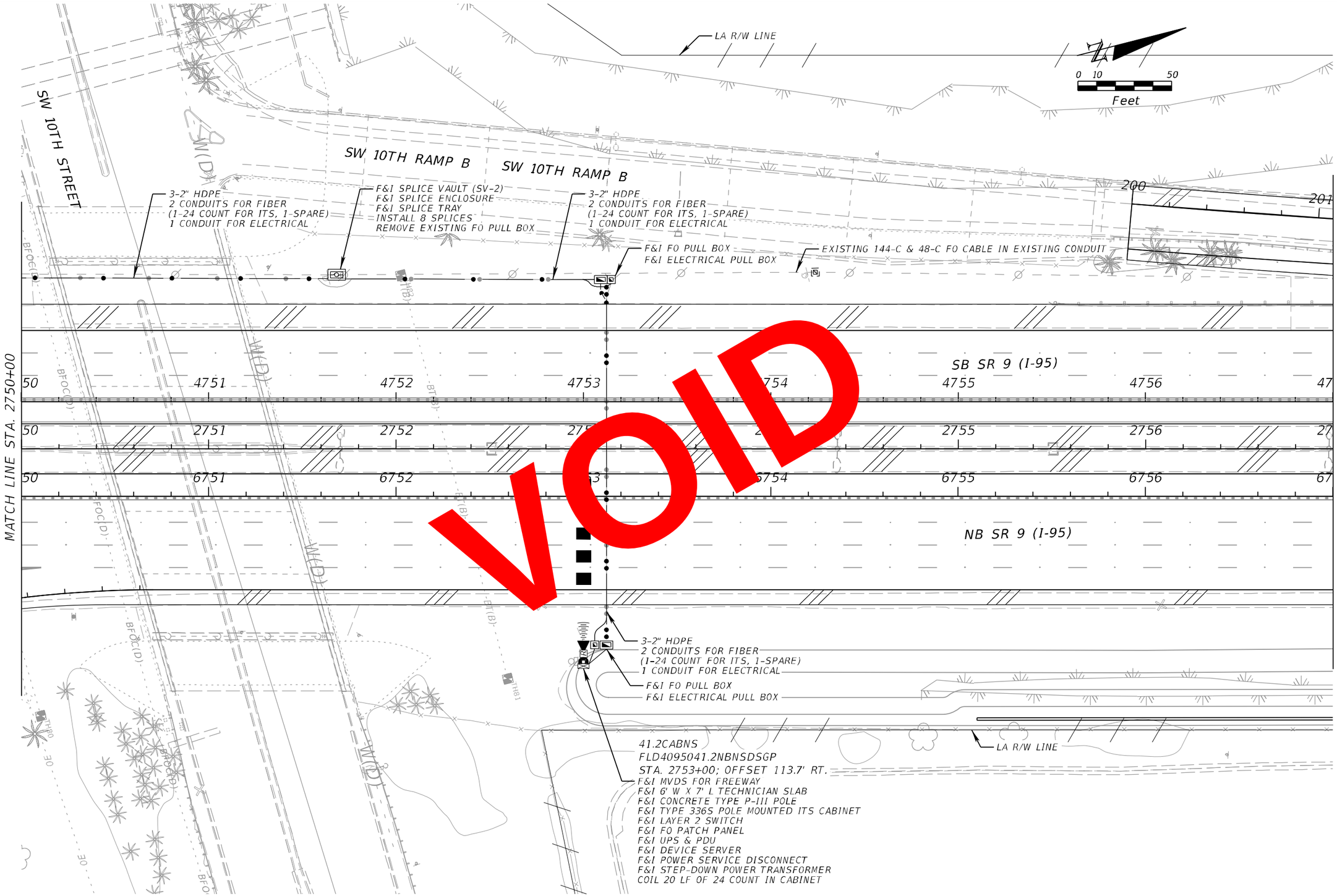
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 2/16/2021



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (25)

SHEET NO.
IT-41

BY/PDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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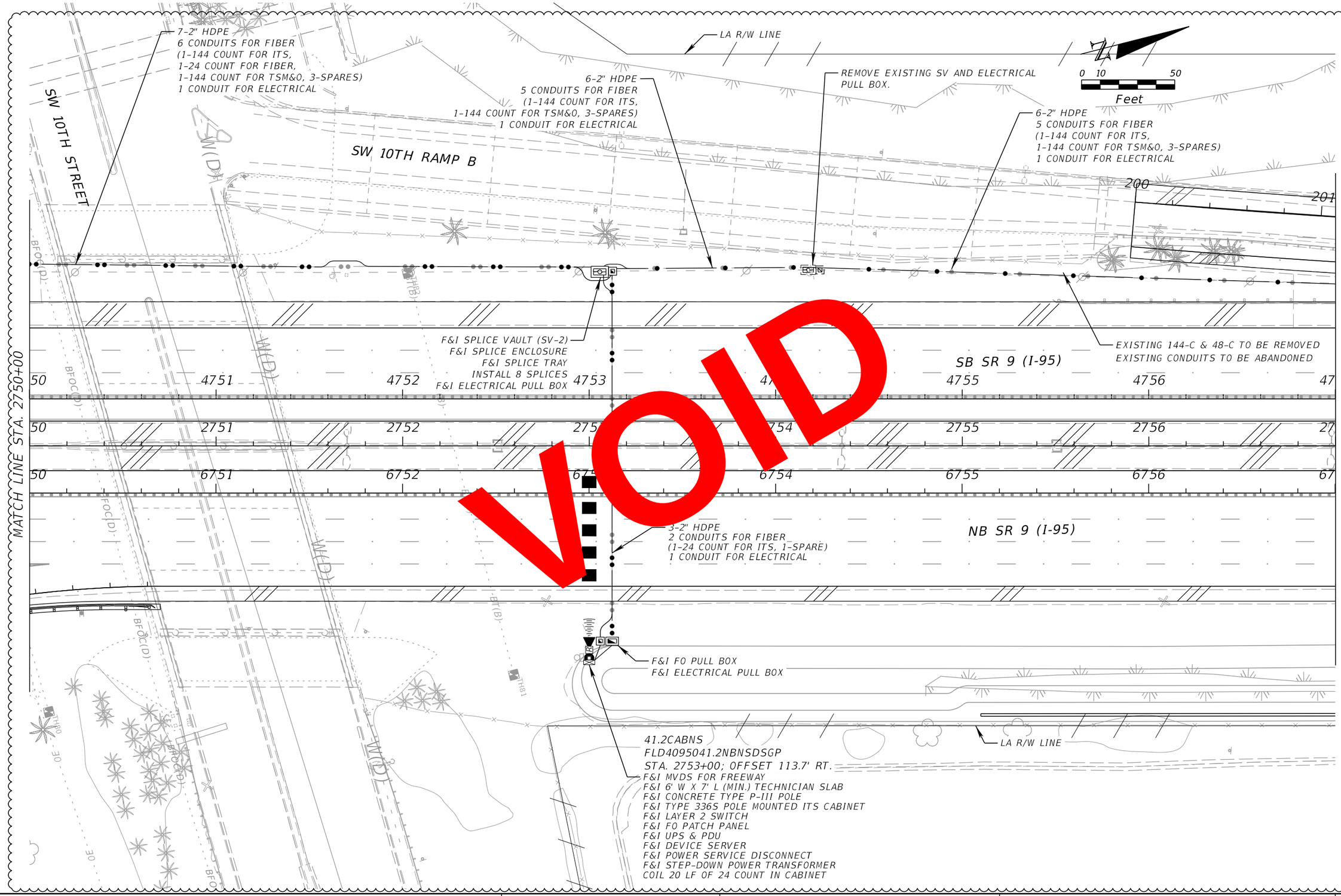

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	26 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (25)

SHEET NO.
IT-41

RELEASED FOR CONSTRUCTION
BY (PDOT)_____ Date: 5/27/2020
VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-24 COUNT FOR FIBER,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 2751+83; OFFSET 179.4' LT.
F&I WRONG WAY SIGN (R5-1A)
(SIDE MOUNTED ON BARRIER WALL)

STA. 2753+75; OFFSET 163.9' LT.
F&I ALUMINUM POLE
(SIDE MOUNTED ON BARRIER WALL)
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

LA R/W LINE

4-2" HDPE
2-DEVICE CABLES; 1-120VAC POWER
1-SPARE

0 10 50
Feet

WWDS 2
41.2CABSS
STA. 2753+89; OFFSET 100.4' LT.
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I FO PULL BOX
2- F&I ELECTRICAL PULL BOX
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I WW CONTROL PANEL ASSEMBLY
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

STA. 2755+76; OFFSET 145.1' LT.
F&I WRONG WAY SIGN (R5-1A)
(SIDE MOUNTED ON BARRIER WALL)

SW 10TH STREET

SW 10TH RAMP B

REMOVE EXISTING WRONG WAY SIGN

REMOVE EXISTING SV AND ELECTRICAL
[illegible] PULL BOX.

STA. 2753+72; OF[illegible] 102.2' LT.
[illegible]" AG CONCRETE [illegible]E
F[illegible]ONG WAY SIGN[illegible]1A) W/ LEDs
F&[illegible] DETECTION[illegible]SORS
F&I [illegible] VERIFICAT[illegible]AMERAS
F&I [illegible]ESS RAD[illegible]

SB SR 9 (I-95)

STA. 2755+72; OFFSET 100.0' LT.
F&I WRONG WAY SIGN (R5-1A)
(SIDE MOUNTED ON BARRIER WALL)

STA. 2751+76; OFFSET 121.9' LT.
F&I WRONG WAY SIGN (R5-1A)
(SIDE MOUNTED ON BARRIER WALL)

EXISTING 144-C & 48-C TO BE REMOVED
EXISTING CONDUITS TO BE ABANDONED

F&I SPLICE VAULT (SV-2)
F&I SPLICE ENCLOSURE
F&I SPLICE
INSTALL 12 SPLI
F&I ELECTRICAL PULL BO

6-2" HD
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

NB SR 9 (I-95)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

41.2CABNS
FLD4095041.2NBNSDSGP / /
STA. 2753+00; OFFSET 113.7' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

LA R/W LINE

MATCH LINE STA. 2750+00

MATCH LINE STA. 2757+00

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	15 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (25)

SHEET NO.
IT-41

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions and compliance with contract documents, shall remain with the contractor. Shop drawing review shall not relieve fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5696
BY:(FDOT) VS Date: 2/16/2021

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7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-24 COUNT FOR FIBER,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

STA. 2751+83; OFFSET 179.4' LT.
F&I WRONG WAY SIGN (R5-1A)
(SIDE MOUNTED ON BARRIER WALL)

LA R/W LINE

STA. 2753+75; OFFSET 163.9' LT.
F&I ALUMINUM POLE
(SIDE MOUNTED ON BARRIER WALL)
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

4-2" HDPE
2-DEVICE CABLES; 1-120VAC POWER
1-SPARE

0 10 50
Feet

SW 10TH STREET

SW 10TH RAMP B

WWDS 2
41.2CABSS
STA. 2753+89; OFFSET 100.4' LT.
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I FO PULL BOX
2- F&I ELECTRICAL PULL BOX
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I WW CONTROL PANEL ASSEMBLY
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

STA. 2755+76; OFFSET 145.1' LT.
F&I WRONG WAY SIGN (R5-1A)
(SIDE MOUNTED ON BARRIER WALL)

REMOVE EXISTING WRONG WAY SIGN

REMOVE EXISTING SV AND ELECTRICAL PULL BOX.

STA. 2751+76; OFFSET 121.9' LT.
F&I WRONG WAY SIGN (R5-1A)
(SIDE MOUNTED ON BARRIER WALL)

STA. 2753+72; OFFSET 102.2' LT.
F&I 40' AG CONCRETE POLE
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I DUAL DETECTION SENSORS
F&I DUAL VERIFICATION CAMERAS
F&I WIRELESS RADIO

SB SR 9 (I-95)

STA. 2755+72; OFFSET 100.0' LT.
F&I WRONG WAY SIGN (R5-1A)
(SIDE MOUNTED ON BARRIER WALL)

EXISTING 144-C & 48-C TO BE REMOVED
EXISTING CONDUITS TO BE ABANDONED

F&I SPLICE VAULT (SV-2)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 12 SPLICES
F&I ELECTRICAL PULL BOX

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

NB SR 9 (I-95)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT (3)

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

41.2CABNS
FLD4095041.2NBNSDSGP / /
STA. 2753+00; OFFSET 113.7' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

LA R/W LINE

MATCH LINE STA. 2750+00

MATCH LINE STA. 2757+00

(3)

(6)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	(6) REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	(3) REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (25)

SHEET NO.
IT-41

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41.4CABSS
FLD4095041.4SBSSDS0F
STA. 2763+00; OFFSET 115.8' LT.

F&I MVDS FOR FREEWAY
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

PROPOSED MVDS
PHASE 3B-1
SEE INSET

REPLACE EXISTING FO PULL BOX WITH NEW FO SPLICE BOX.
SPLICE DROP CABLE TO EXISTING 144-C FO CABLE IN NEW
SPLICE ENCLOSURE.
INTERCEPT EXISTING POWER CONDUIT ON BOTH SIDES OF
PULL BOX AND INSTALL NEW SPLICE FOR NEW POWER FEED.

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-3)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 4 SPLICES
F&I ELECTRICAL PULL BOX

EXISTING 144-C & 48-C FO CABLE IN EXISTING CONDUIT

LA R/W LINE

SW 10TH RAMP B

SB SR 9 (I-95)

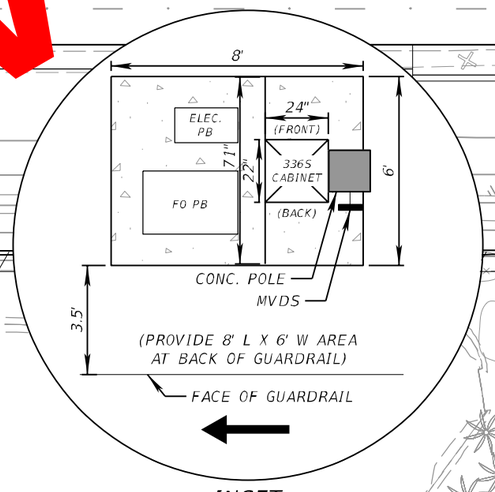
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

NOTE TO REVIEWER:
WIDENING DESIGN / CONSTRUCTION ONGOING BY OTHERS.
RELOCATION OF EXISTING ITS INFRASTRUCTURE TO BE
UPDATED BASED ON WORK BY OTHERS.

MATCH LINE STA. 2757+00

MATCH LINE STA. 2764+00

0 10 50
Feet



INSET
NTS

VOID

BY/PDT VS Date 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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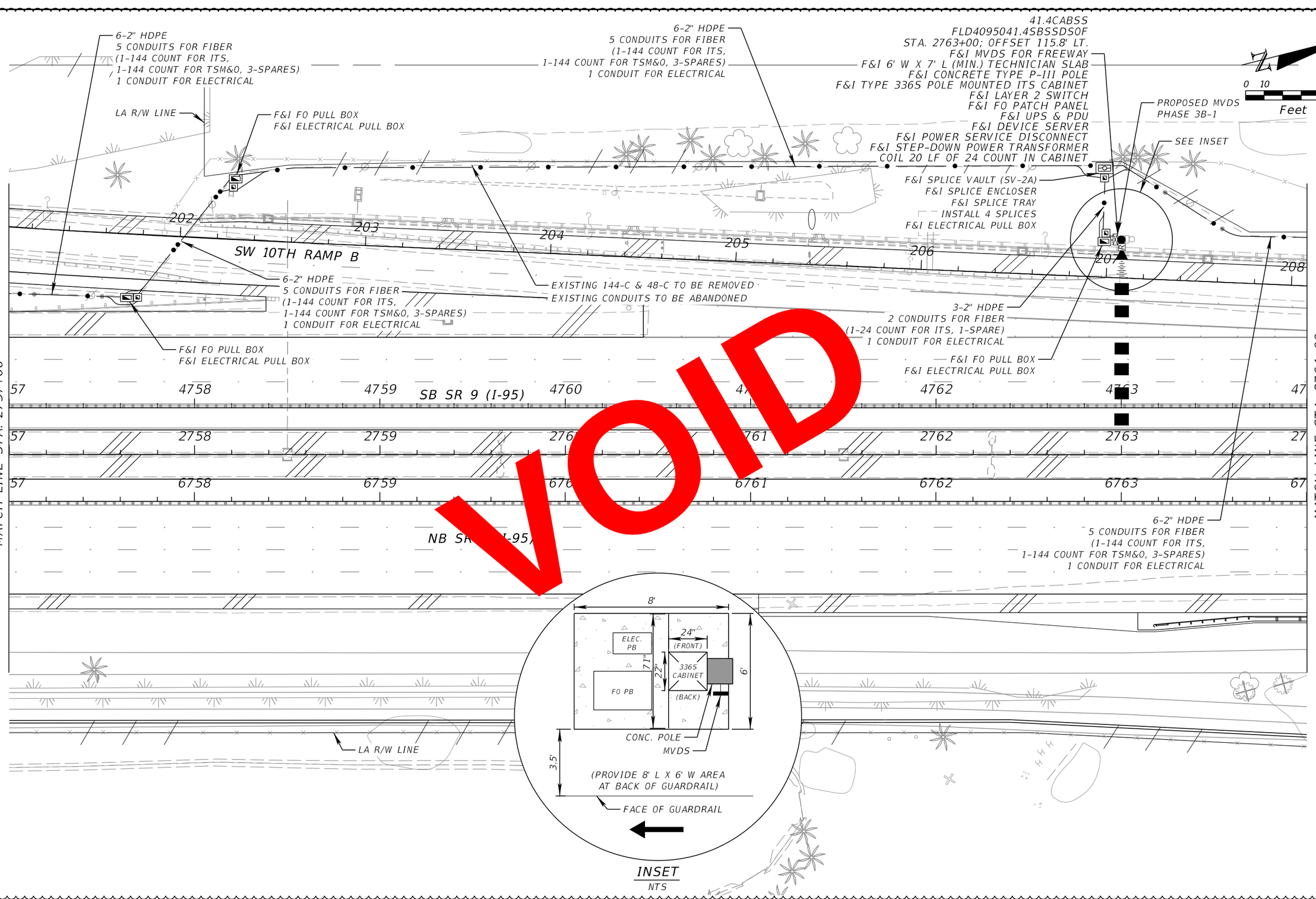
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (26)

SHEET NO.
IT-42



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	26 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (26)

SHEET NO.
IT-42

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
VS 5/27/2020
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96

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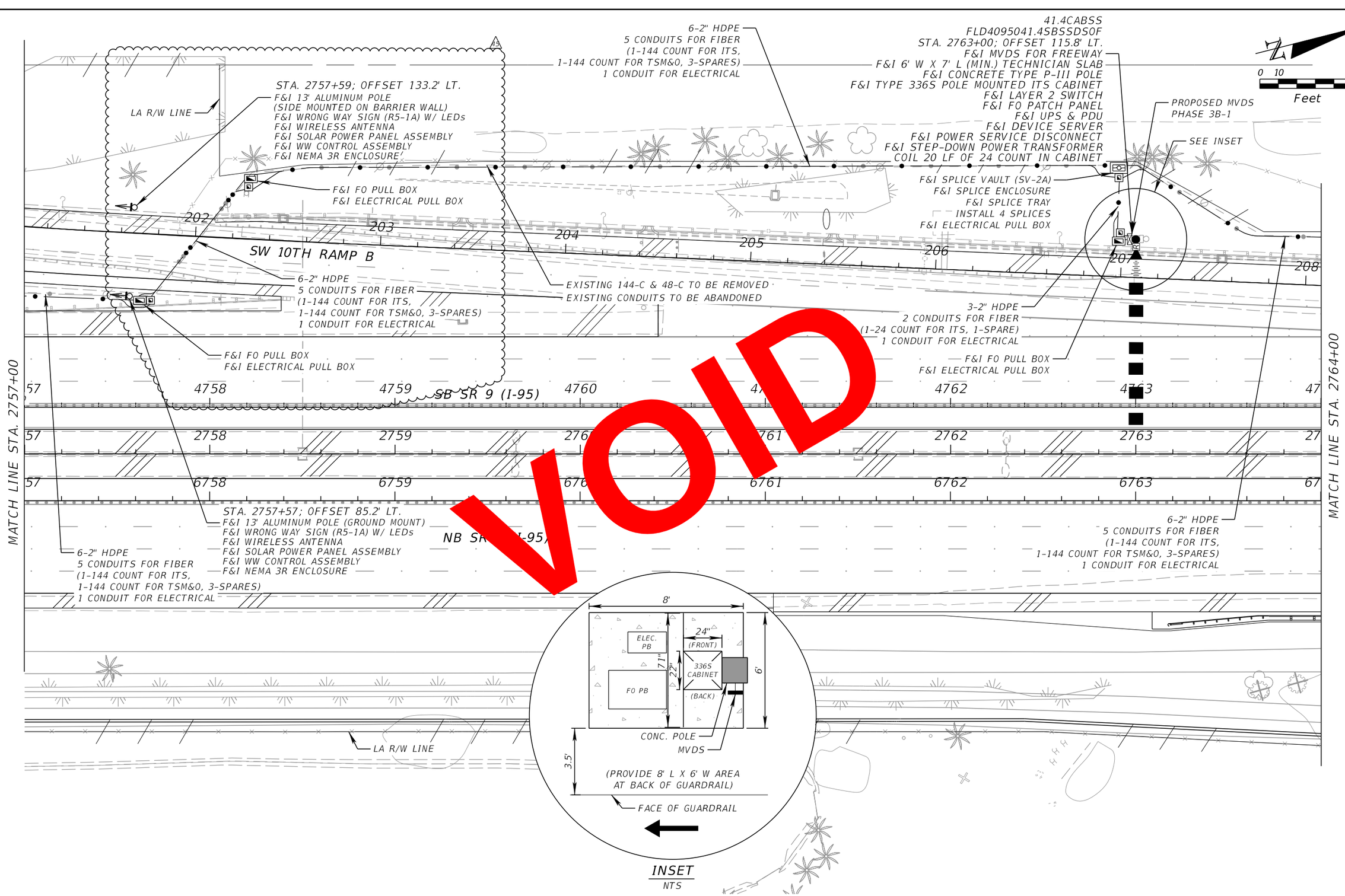

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	26 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	15 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
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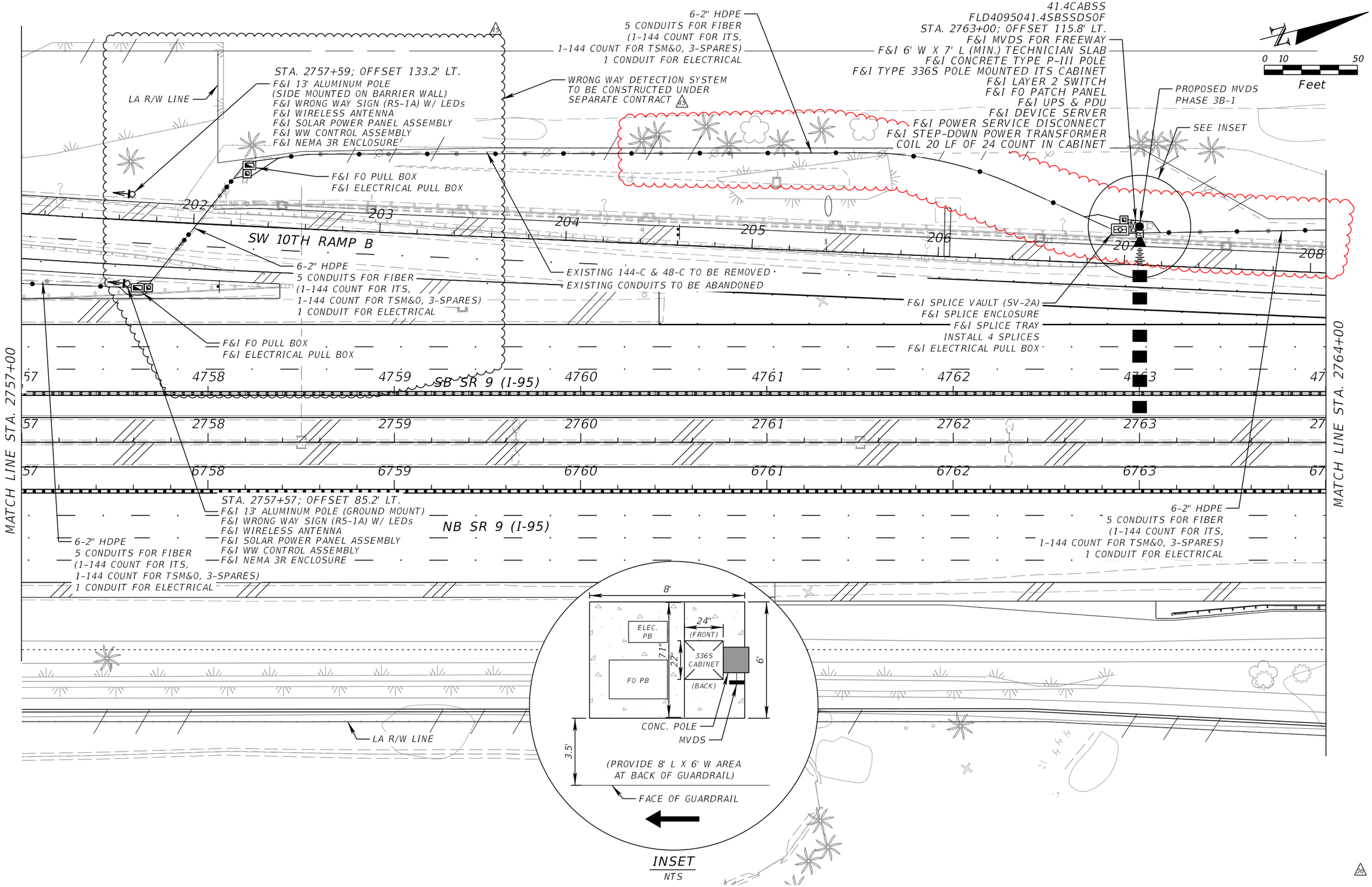
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (26)

SHEET NO.
IT-42

BY:(RDOT) VS Date: 2/16/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, and compliance with all codes, standards, and regulations for construction, fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	20 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	15 REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (26)

SHEET NO.
IT-42

PLOT DRIVER = c:\projectwise\pb\projectwiseint\wsp__michael.west\d0173361\As-Built_FDOT_Default.cfg pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase3B\Design\Roadway\ITS\Plans\ITS_Plan_Sheet.tbl USMW189428 11/17/2021 7:51:45 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0264783\PLANIT26_as-built.dgn

R/W LINE

0 10 50
Feet

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE
EXISTING 144-C & 48-C FO CABLE IN EXISTING CONDUIT

209 210 211

SB EXIT RAMP

NOTE TO REVIEWER:
WIDENING DESIGN / CONSTRUCTION ONGOING BY OTHERS.
RELOCATION OF EXISTING ITS INFRASTRUCTURE TO BE
UPDATED BASED ON WORK BY OTHERS.

SB SR 9 (I-95)

64 4765 4766 4767 4768 4769 4770 47
64 2765 2766 27 2769 2770 27
64 6765 6766 67 6768 6769 6770 67

MATCH LINE STA. 2765+00

MATCH LINE STA. 2771+00

NB SR 9 (I-95)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING PTMS CABINET AND
EQUIPMENT TO BE REMOVED

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

41.5CABNS
FLD4095041.5NBNSDSGP
STA. 2767+80; OFFSET 113.7' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

LA R/W LINE

VOID

BY/FDOT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

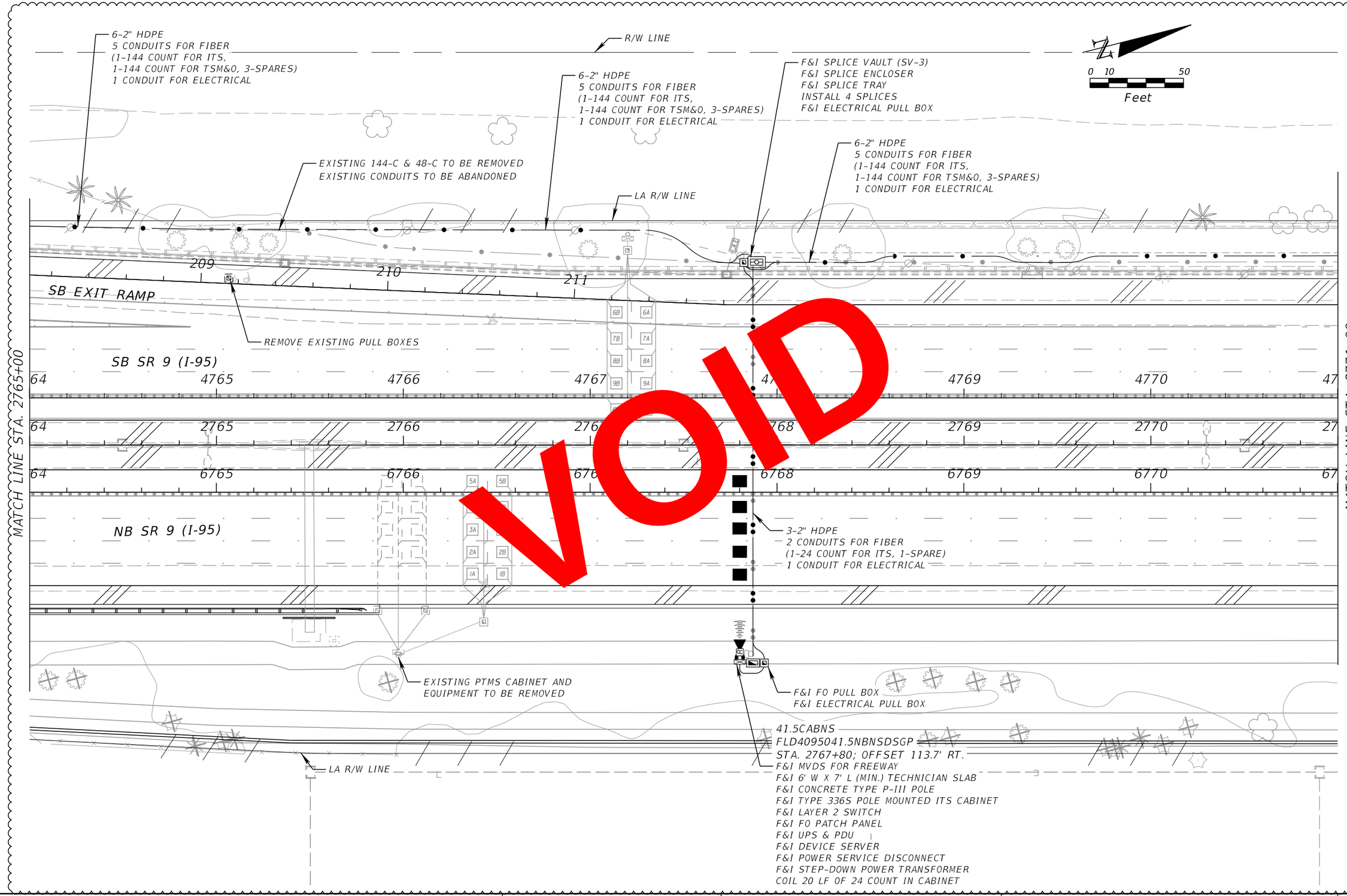
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (27)

SHEET NO.
IT-43



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

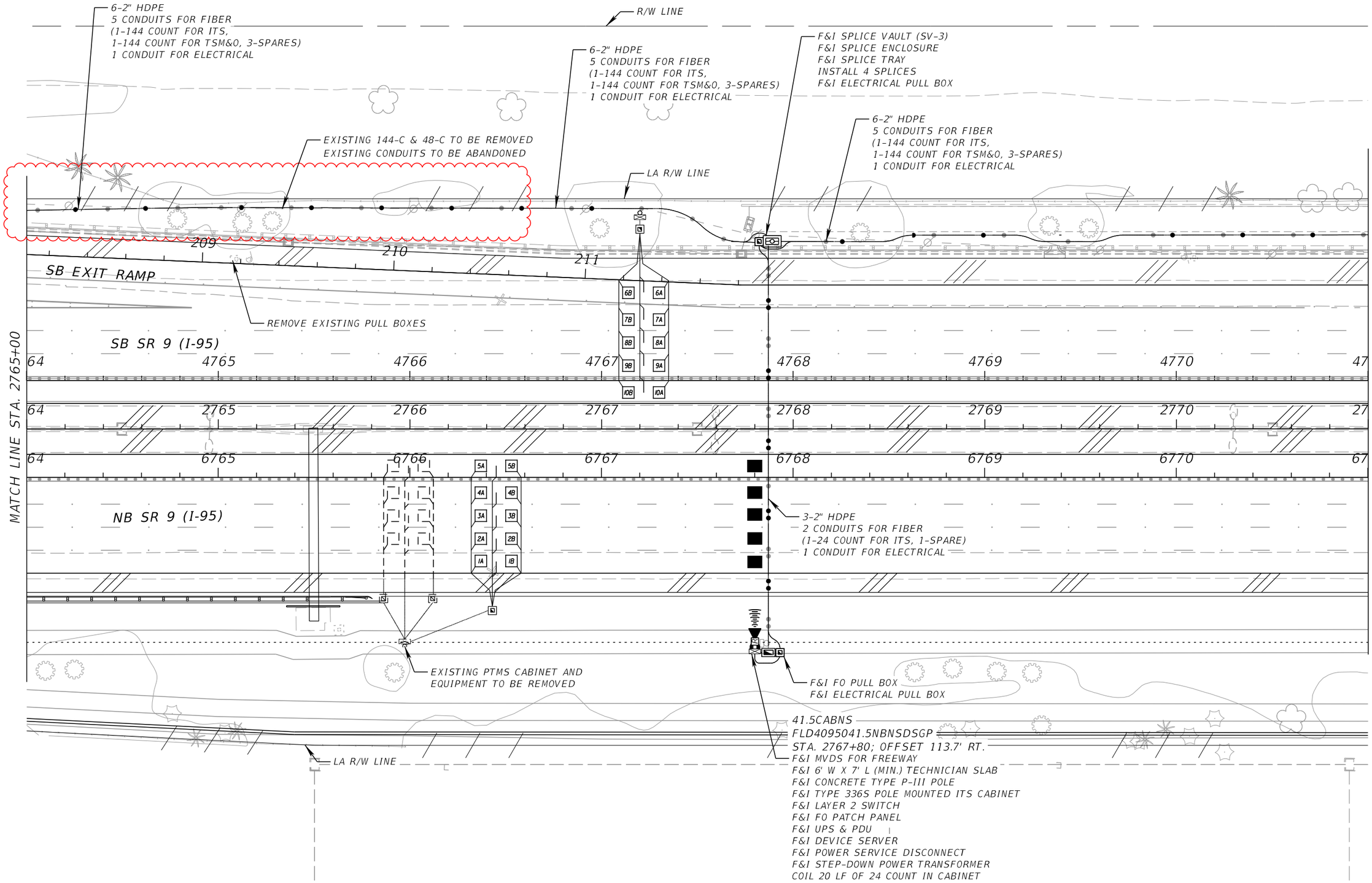
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (27)

SHEET NO.
IT-43

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (27)

SHEET NO.
IT-43

41.7CABSS
FLD4095041.7SBSSDSGP
STA. 3002+25; OFFSET 99.6' LT.
REMOVE EXISTING MVDS, CABINET & POWER ASSEMBLY
— EXISTING POLE TO REMAIN
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER

0 10 50
Feet

R/W LINE

EXISTING PTMS CABINET AND EQUIPMENT TO BE REMOVED

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING 144-C & 48-C FO CABLE IN EXISTING CONDUIT

LA R/W LINE

RECONNECT EXISTING ELECTRICAL POWER WIRING TO NEW ITS CABINET.
INTERCEPT EXISTING POWER CIRCUIT AT EXISTING ELECTRICAL PULL BOX
AND INSTALL NEW SPLICE FOR NEW POWER FEED TO OTHER ITS DEVICES
TO THE SOUTH.

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

EQUATION:
Sta 2774+20.12 BK =
Sta 3000+00.00 AH

SPLICE DROP CABLE TO EXISTING 144-C FO CABLE IN
EXISTING SPLICE VAULT
F&I SPLICE TRAY
INSTALL 8 SPLICES

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

100' (MIN.) FROM EXISTING CANTILEVER UPRIGHT POLE TO NEW MVDS CONCRETE POLE

NOTE TO REVIEWER:
WIDENING DESIGN / CONSTRUCTION ONGOING BY OTHERS.
RELOCATION OF EXISTING ITS INFRASTRUCTURE TO BE
UPDATED BASED ON WORK BY OTHERS.

EXISTING MVDS

EXISTING CANTILEVER UPRIGHT POLE
#4 - MVDS
FLD4095041.5NSSS
TO BE REMOVED
STA. 3002+10.30

71 4772 4773 4774 5000 5001 5002 5003
SB SR 9 (I-95)
71 2772 2773 27 30 3002 3003
71 6772 6773 74 7000 7001 7002 7003
NB SR 9 (I-95)

EQUATION
STA. 3000+00.00 AH.
STA. 2774+20.12 BK. =

MATCH LINE STA. 2771+00

MATCH LINE STA. 3004+00

LA R/W LINE

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (28)

SHEET NO.
IT-44

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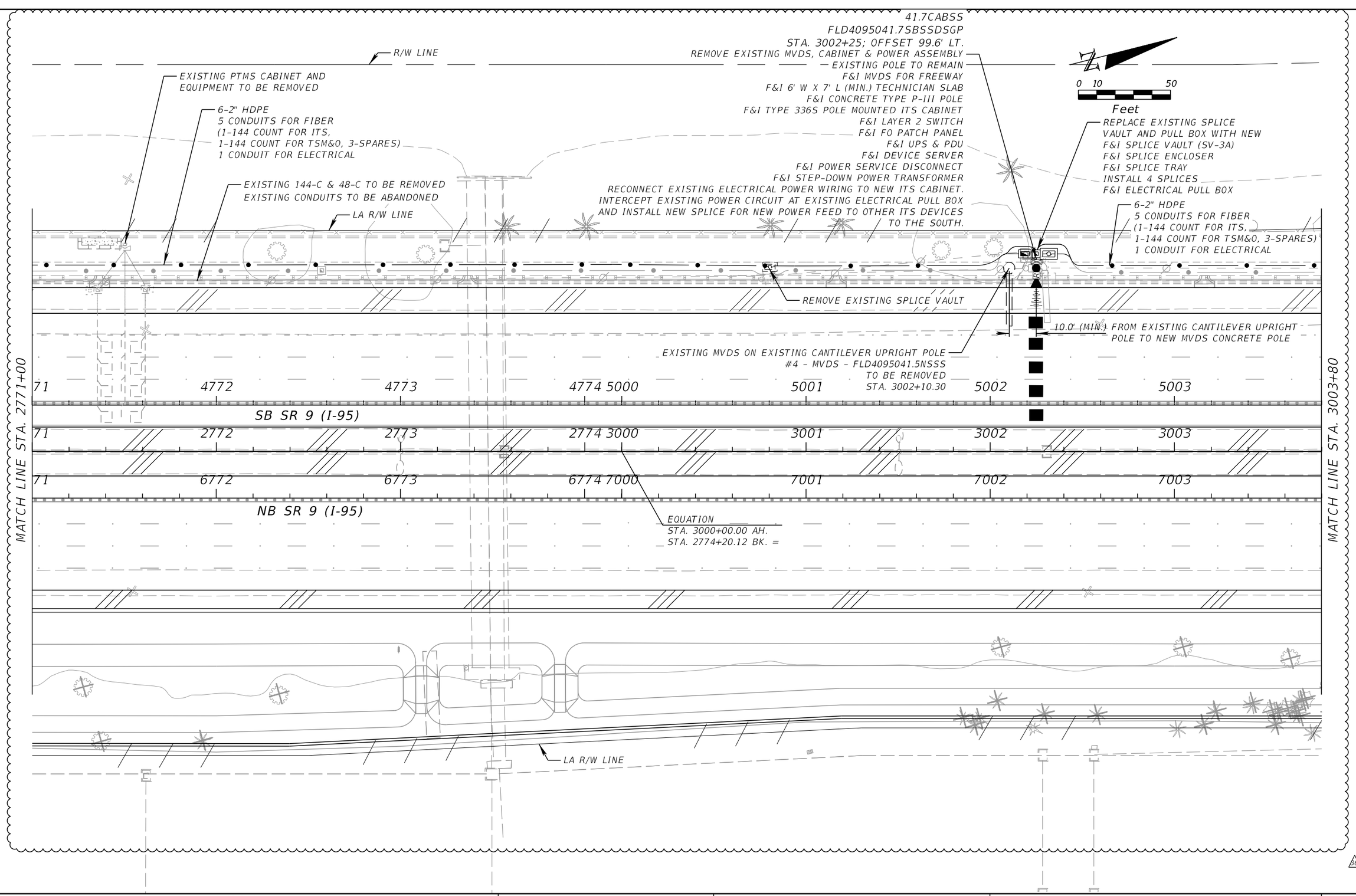
BY/PDO VS Date 10/30/2018

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	3D REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

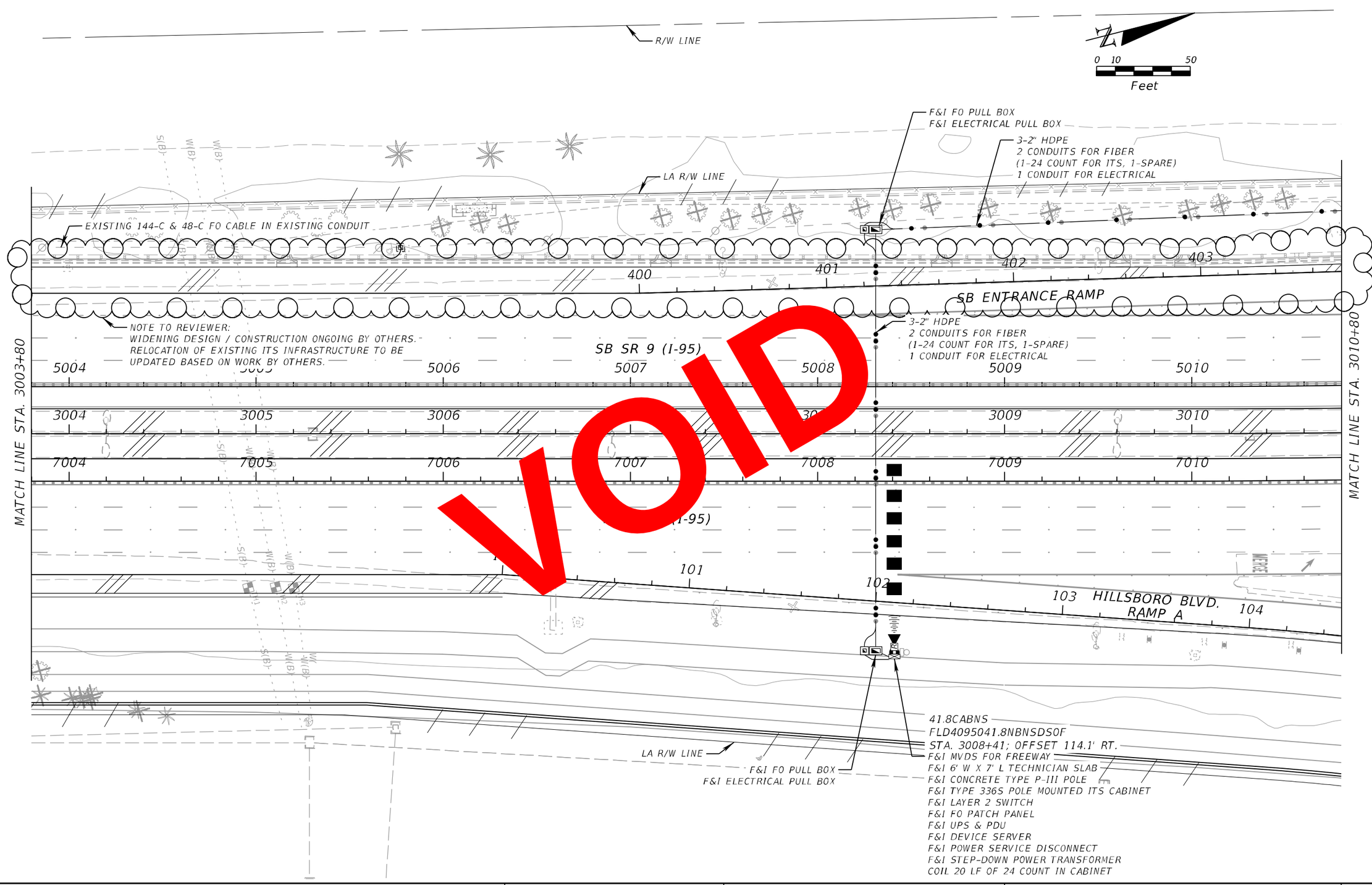
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (28)

SHEET NO.
IT-44

RELEASED FOR CONSTRUCTION
BY (PDOT)_____ Date: 5/27/2020 VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

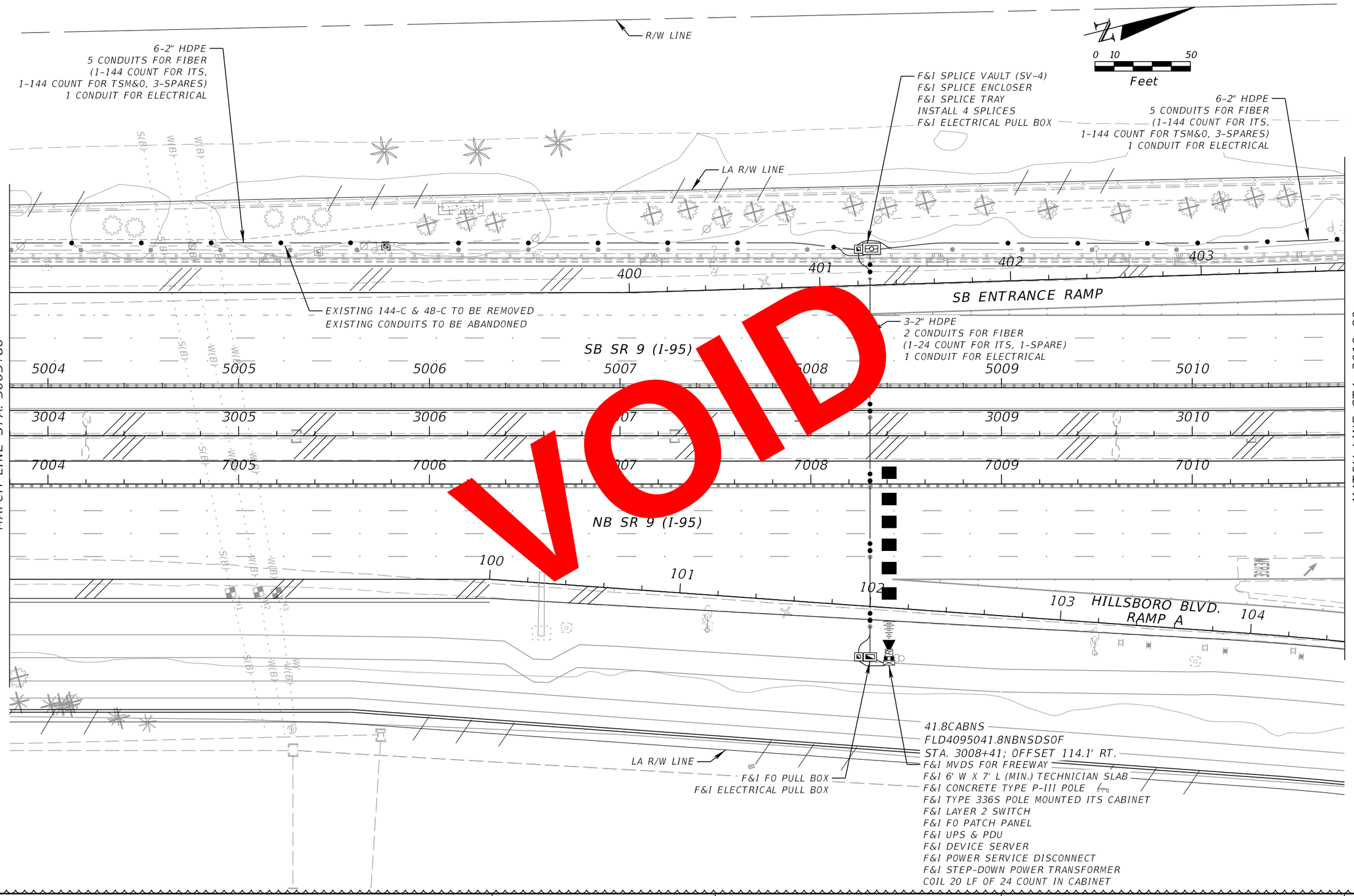
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (29)

SHEET NO.
IT-45

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Default BarcoJ 10/11/2018 1:51:18 PM c:\projectwise\pb\projectwiseint\barco\d0264783\PLANIT29.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66


R/W LINE
6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL
F&I SPLICE VAULT (SV-4)
F&I SPLICE ENCLOSER
F&I SPLICE TRAY
INSTALL 4 SPLICES
F&I ELECTRICAL PULL BOX
6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL
0 10 50
Feet
LA R/W LINE
EXISTING 144-C & 48-C TO BE REMOVED
EXISTING CONDUITS TO BE ABANDONED
SB ENTRANCE RAMP
3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
SB SR 9 (I-95)
NB SR 9 (I-95)
MATCH LINE STA. 3003+80
MATCH LINE STA. 3010+80
400
401
402
403
100
101
102
103
104
5004
5005
5006
5007
5008
5009
5010
3004
3005
3006
3009
3010
7004
7005
7006
7008
7009
7010
HILLSBORO BLVD.
RAMP A
41.8CABNS
FLD4095041.8NBNSDS0F
STA. 3008+41; OFFSET 114.1' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET
LA R/W LINE
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
S(B)
W(B)
W(B)
W(B)
S(B)
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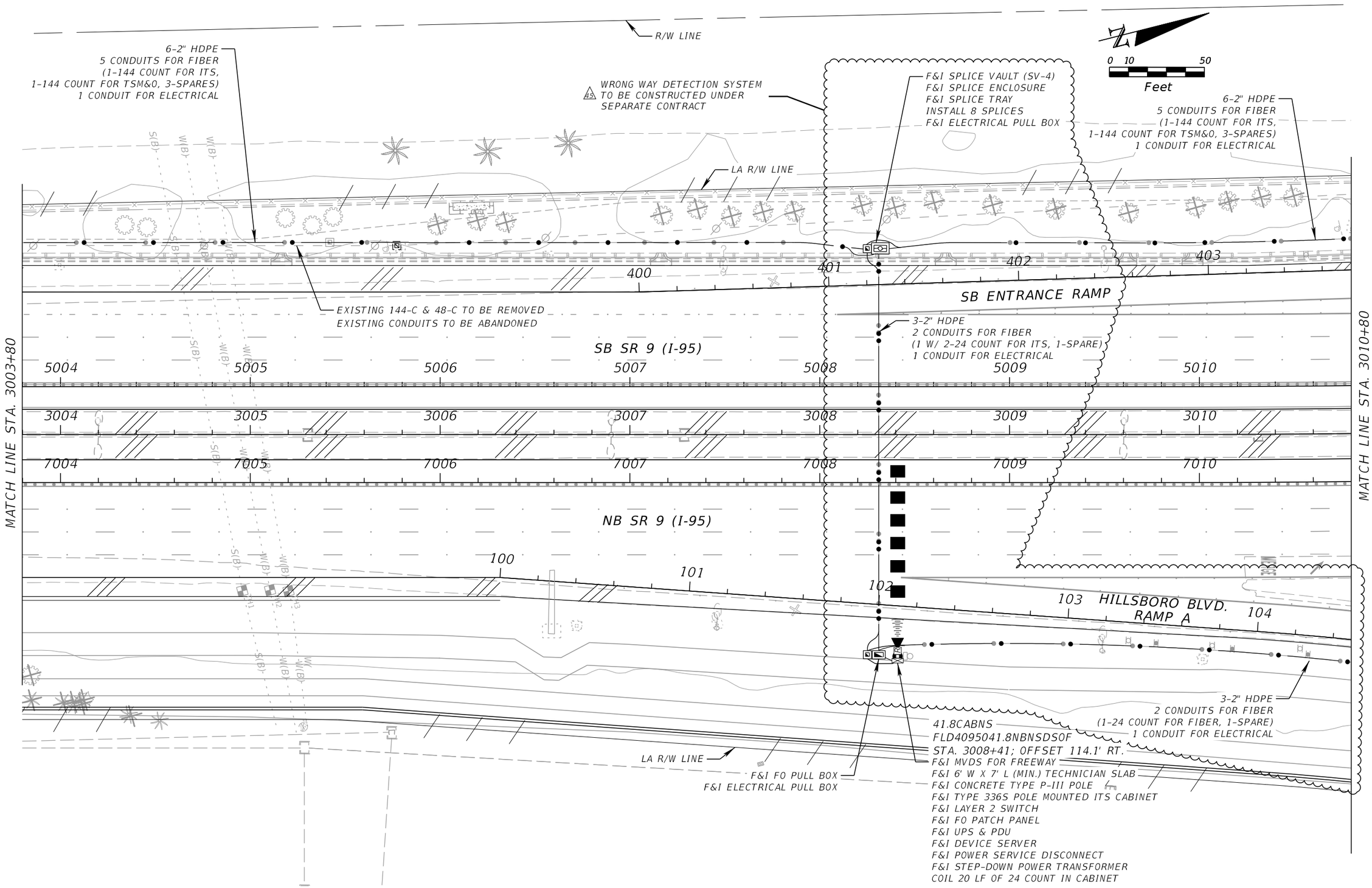

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (29)

SHEET NO.
IT-45

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/16/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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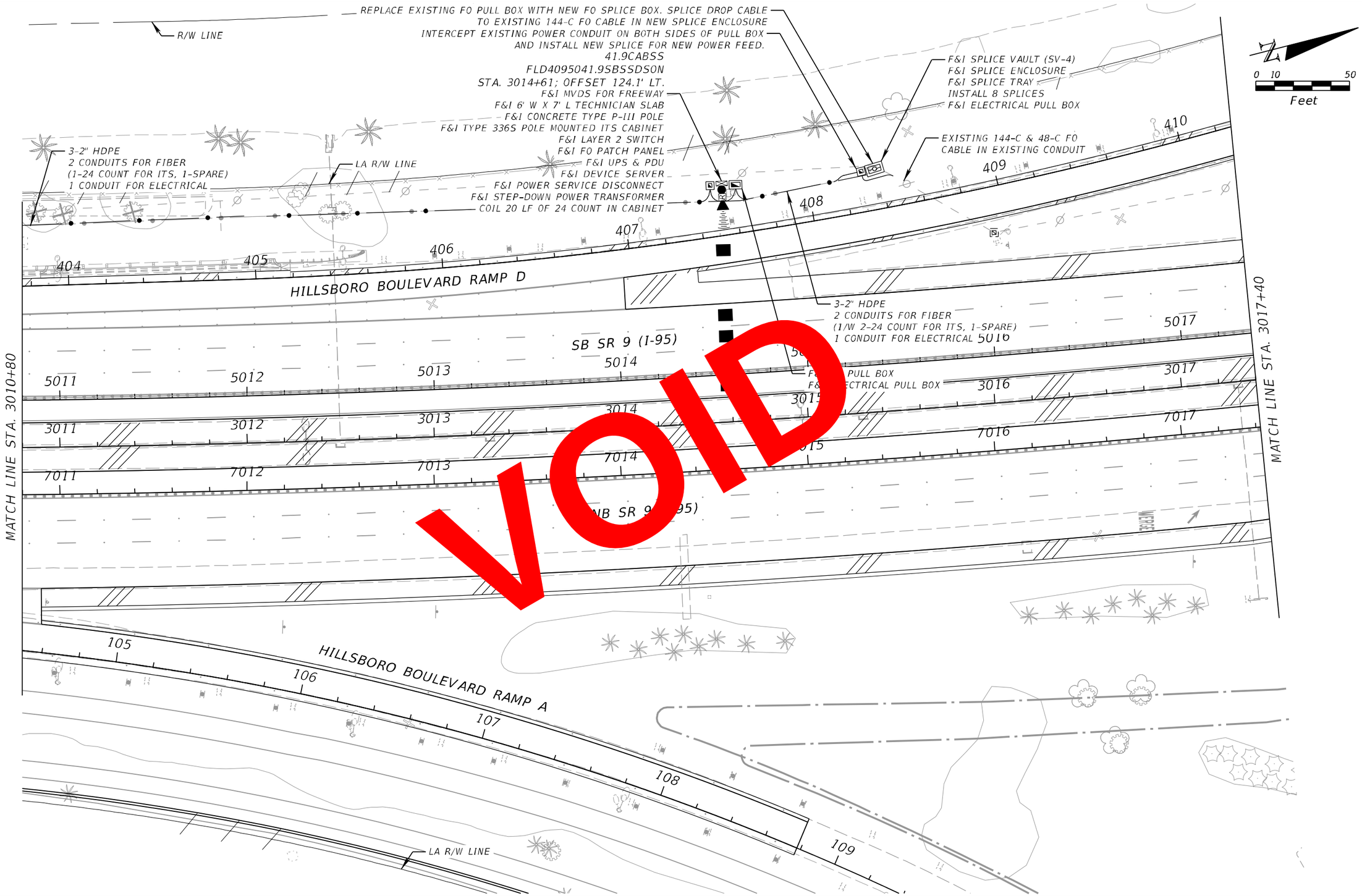

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (30)

SHEET NO.
IT-46

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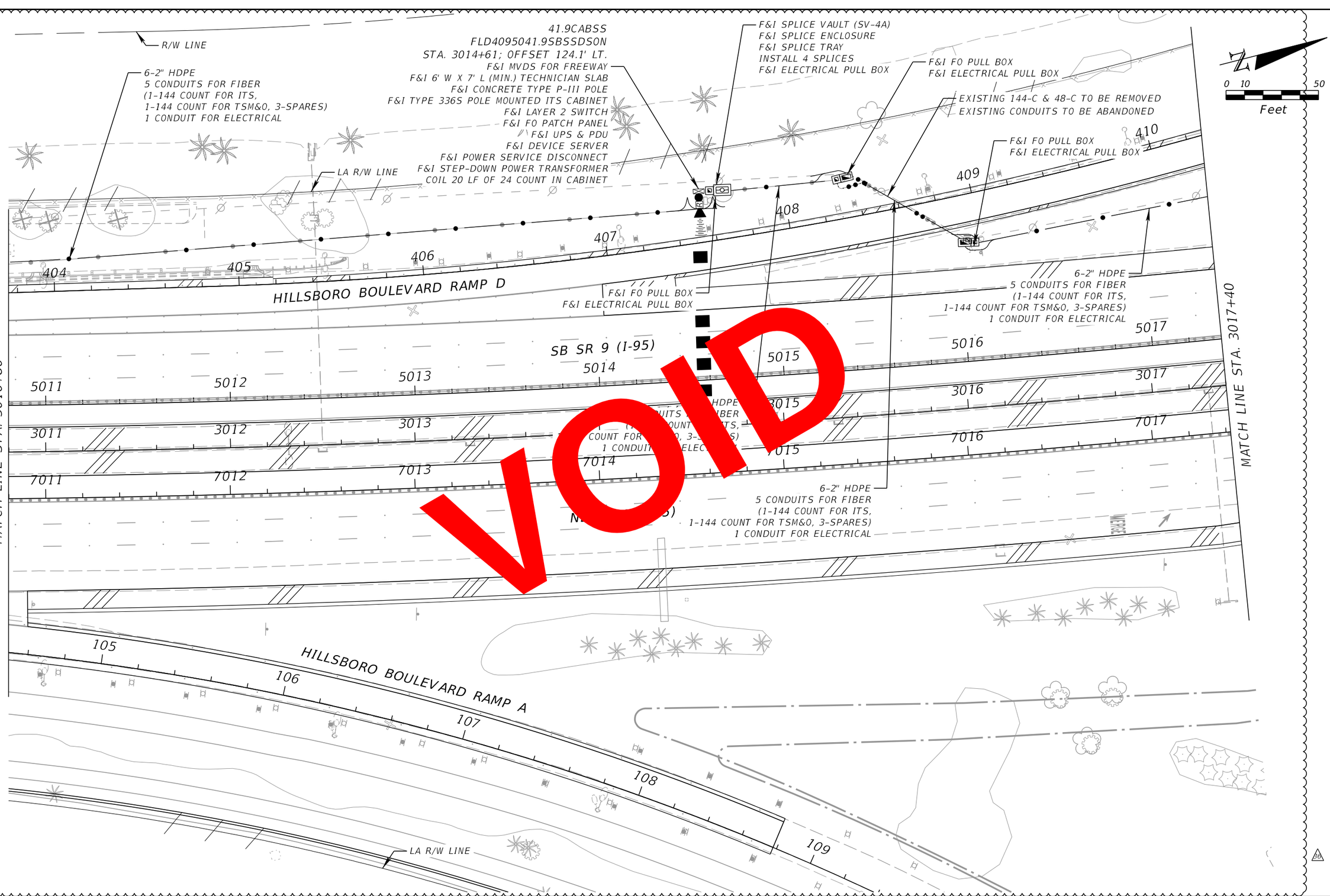
BY/FDOT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B68

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	BD REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (30)

SHEET NO.
IT-46

BY VS DATE 5/27/2020

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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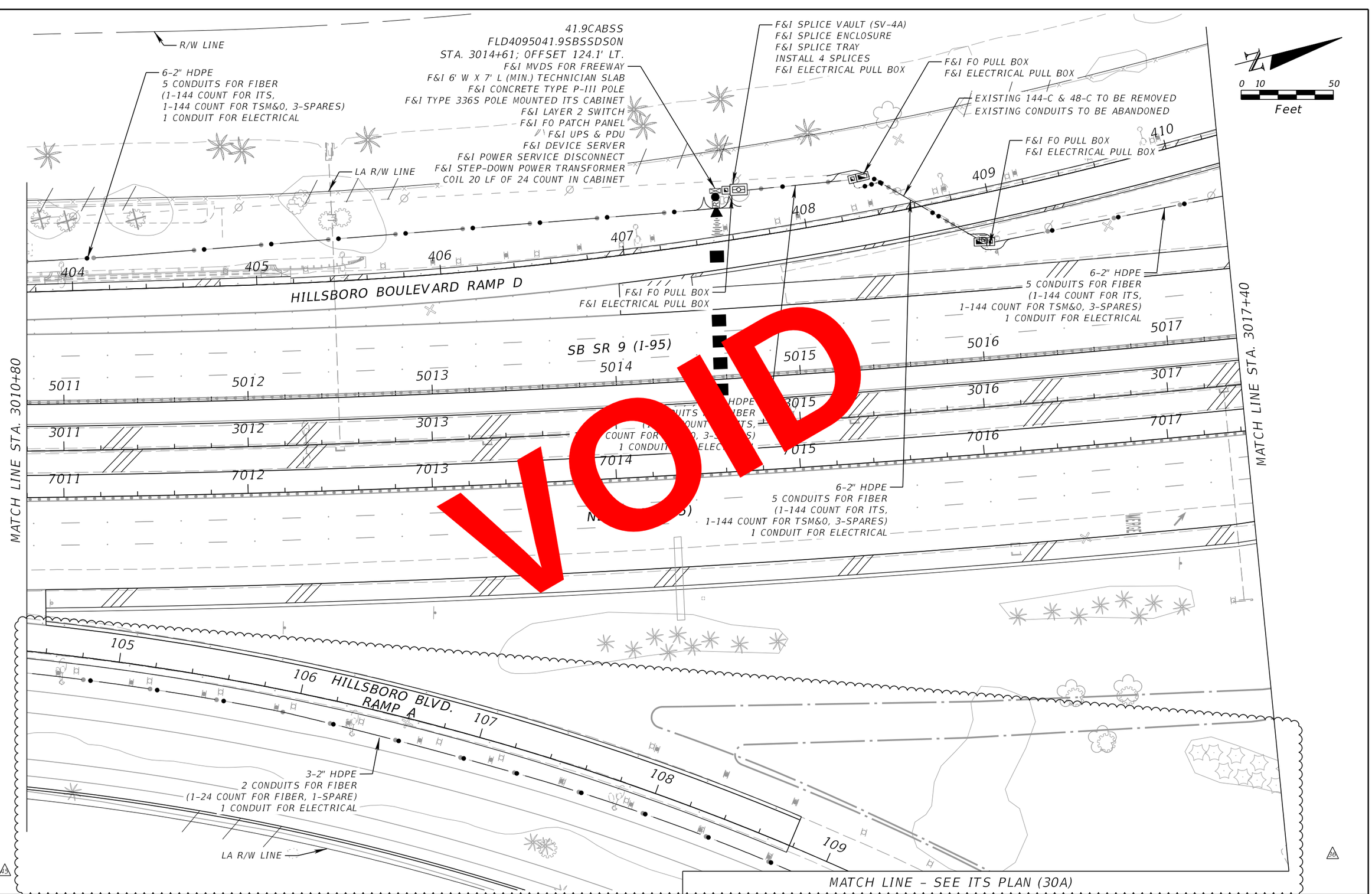

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, quantities, and details shown on shop drawings and details of construction, fabrication and erection shall remain with the contractor.
BY:(FDOT) VS Date: 2/16/2021
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	30 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (30)

SHEET NO.
IT-46

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R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

41.9CABSS
FLD4095041.9SBSSDSON
STA. 3014+61; OFFSET 124.1' LT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

F&I SPLICE VAULT (SV-4A)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 4 SPLICES
F&I ELECTRICAL PULL BOX

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
EXISTING 144-C & 48-C TO BE REMOVED
EXISTING CONDUITS TO BE ABANDONED

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

LA R/W LINE

HILLSBORO BOULEVARD RAMP D

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

NB SR 9 (I-95)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MERGE

MATCH LINE STA. 3010+80

MATCH LINE STA. 3017+40

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT 4b

HILLSBORO BLVD.
RAMP A

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

4b

3b

MATCH LINE - SEE ITS PLAN (30A)

0 10 50
Feet

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	3b REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	4b REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (30)

SHEET NO.
IT-46

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MATCH LINE – SEE ITS PLAN (30)

110

111

112

113

114

115

116

HILLSBORO BOULEVARD RAMP A

HILLSBORO BOULEVARD RAMP E

506

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT
△5

LA R/W LINE

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 3020+94; OFFSET 615.0' RT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

STA. 3020+83; OFFSET 648.1' RT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

△5

0 10 50
Feet

BY:(RDOT) VS Date: 2/16/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, compliance with codes and standards, and field construction, fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5496

MATCH LINE – SEE ITS PLAN (30B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	△6 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	△5 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
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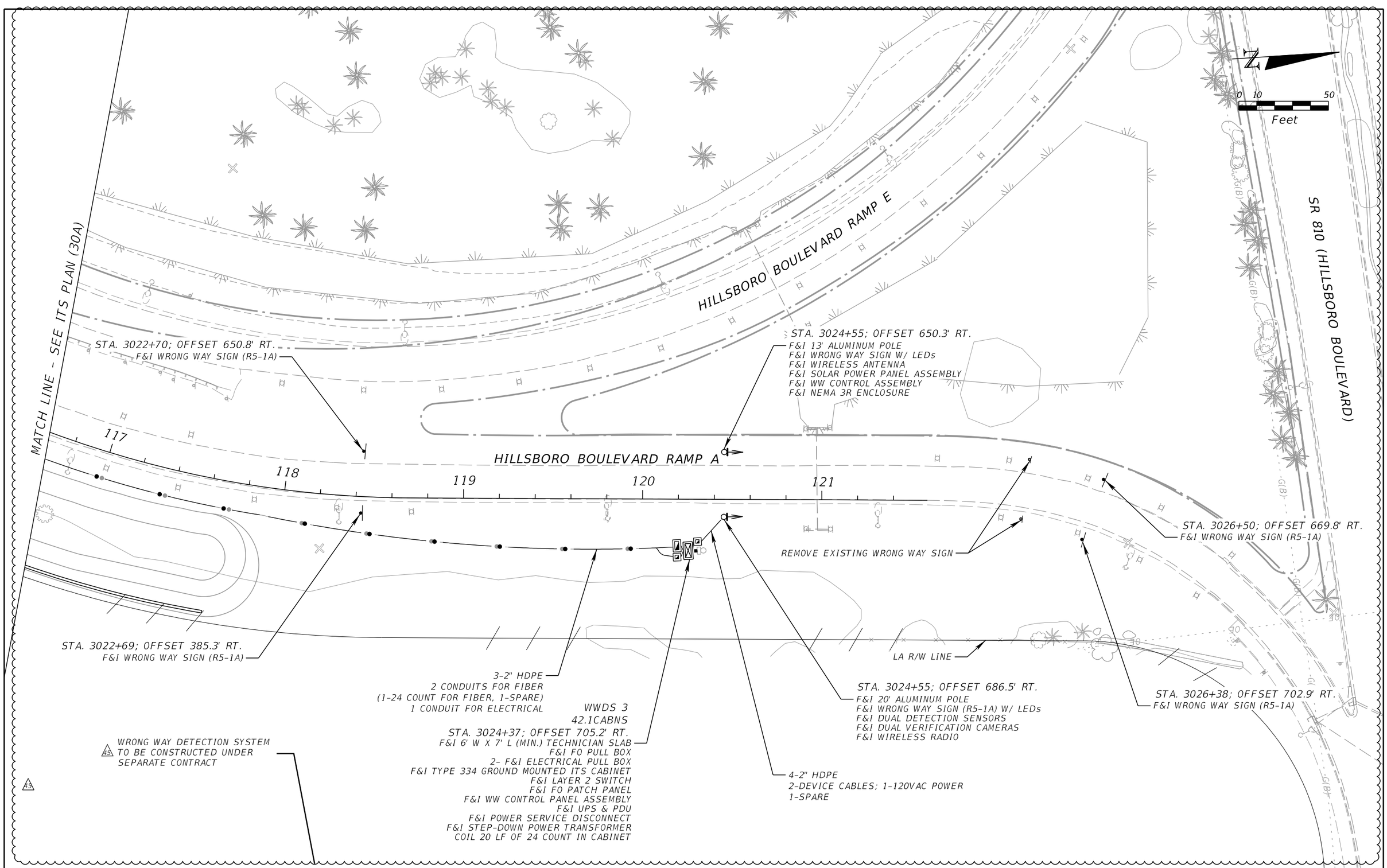
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (30A)

SHEET NO.
IT-46A



BY:(FDOT) VS Date: 2/16/2021

RELEASED FOR CONSTRUCTION

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, construction and safety of construction means, methods, techniques, fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	30 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (30B)

SHEET NO.
IT-46B

F&I ELECTRICAL PULL BOX
INTERCEPT EXISTING POWER CONDUIT ON BOTH SIDES OF PULL BOX
AND INSTALL NEW SPLICE FOR NEW POWER FEED.

F&I FO SPLICE BOX
REPLACE EXISTING FO PULL BOX WITH NEW FO SPLICE BOX. SPLICE DROP CABLE TO
EXISTING 144-C FO CABLE IN NEW SPLICE ENCLOSURE

LA R/W LINE

HILLSBORO BOULEVARD RAMP D

411 412 413 414 415

0 10 50
Feet

F&I SPLICE VAULT (SV-5)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 4 SPLICES
F&I ELECTRICAL PULL BOX

EXISTING 144-C & 48-C FO
CABLE IN EXISTING CONDUIT

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

MATCH LINE STA. 3017+40

SB SR 9 (I-95)

5018 5019 5020 5021 5022 5023

3018 3019 3020 3021 3022 3023

7018 7019 7020 7021 7022 7023

NB SR 9 (I-95)

MATCH LINE STA. 3024+00

HILLSBORO BOULEVARD RAMP E

501 502 503 504

42.0CABNS
FLD4095042.0NBNSDSON
STA. 3021+52; OFFSET 114.0' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (31)

SHEET NO.
IT-47

BY/PDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, qualities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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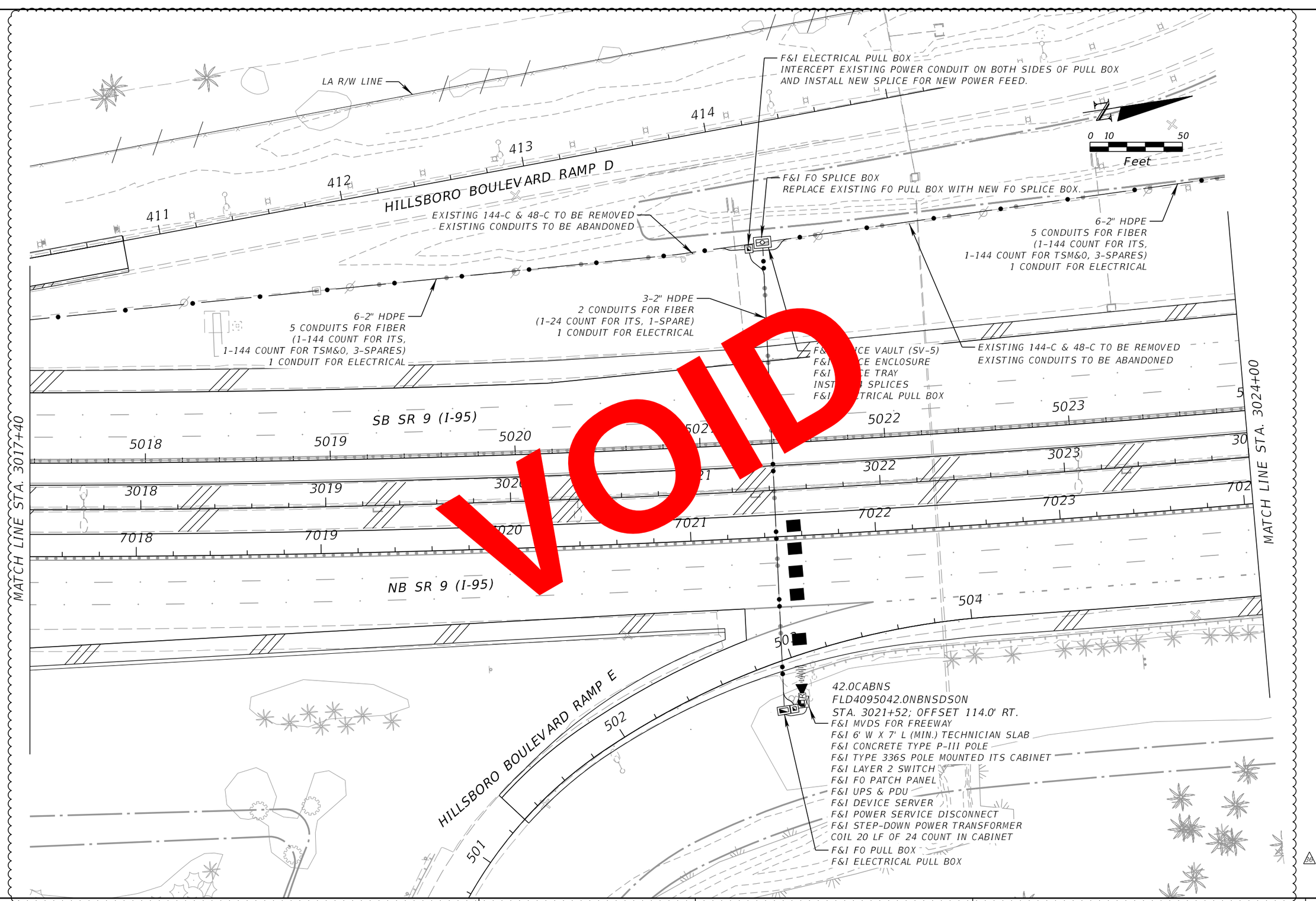

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (31)

SHEET NO.
IT-47

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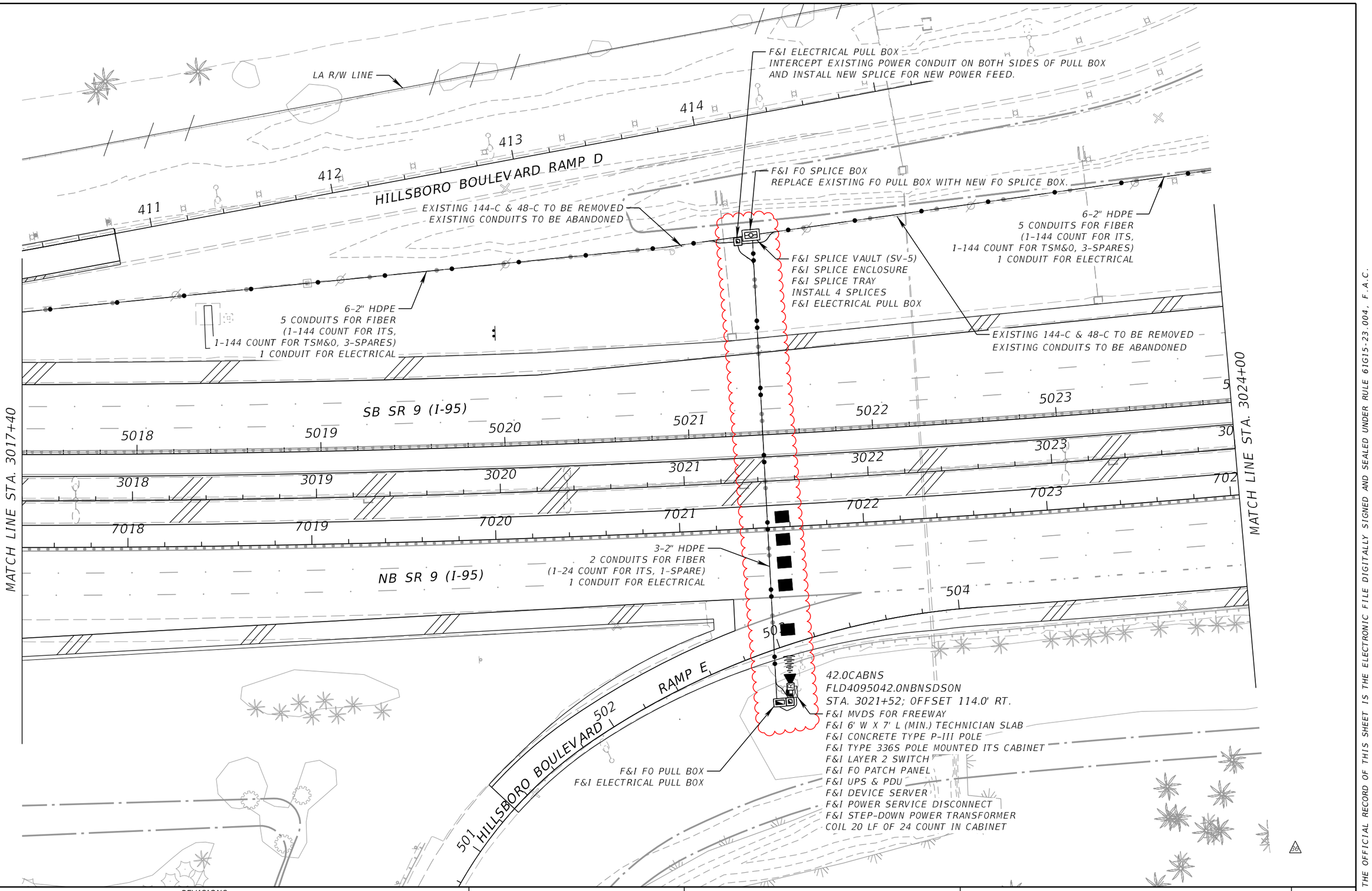

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (31)

SHEET NO.
IT-47

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USMW189428 10/22/2021 4:37:43 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0264783\PLANIT31_As-Built.dgn

EXISTING 6 SM FOC BETWEEN EXISTING SV AND CABINET TO BE REMOVED

42.2CABSS
0422CCTV
FLD4095042.2SBSSDSGP
STA. 3028+88; OFFSET 96.7' LT.
REMOVE EXISTING MVDS, VOIP & CABINET
EXISTING POLE, CCTV & WAP EQUIPMENT TO REMAIN
F&I MVDS FOR FREEWAY
REPLACE LOWERING DEVICE
F&I 6' W X 7' L TECHNICIAN SLAB
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER

EXISTING SPLICE VAULT WHERE 48 SM N & S IS SPLICED TO 48 SM UNKNOWN AND 6 SM DROP TO CABINET. REMOVE 6 SM DROP CABLE AND SPLICE BACK THE PAIR. SPLICE 48 SM UNKNOWN TO 144 SM N & S AND SPLICE BACK THE PAIRS.
INSTALL 12 SPLICES

EXISTING CCTV CAMERA, WAP & PROPOSED MVDS ON EXISTING POLE
#5 - MVDS - FLD4095042.0NBSS TO BE REMOVED
#6 - MVDS - FLD4095042.0SBSS TO BE REMOVED
#3 - CCTV CAMERA - C9045 TO REMAIN
#3 - VOIP 95-42.0 TO BE REMOVED
#1 - WAP 95-42.0 TO REMAIN
STA. 3028+88

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING 144-C & 48-C FO CABLE IN EXISTING CONDUIT

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

HILLSBORO BOULEVARD RAMP G

SB SR 9 (I-95)

NB SR 9 (I-95)

SR 810 (HILLSBORO BOULEVARD)

MATCH LINE STA. 3024+00

MATCH LINE STA. 3030+60

0 10 50
Feet

VOID

BY/PDT VS Date 10/30/2018

RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

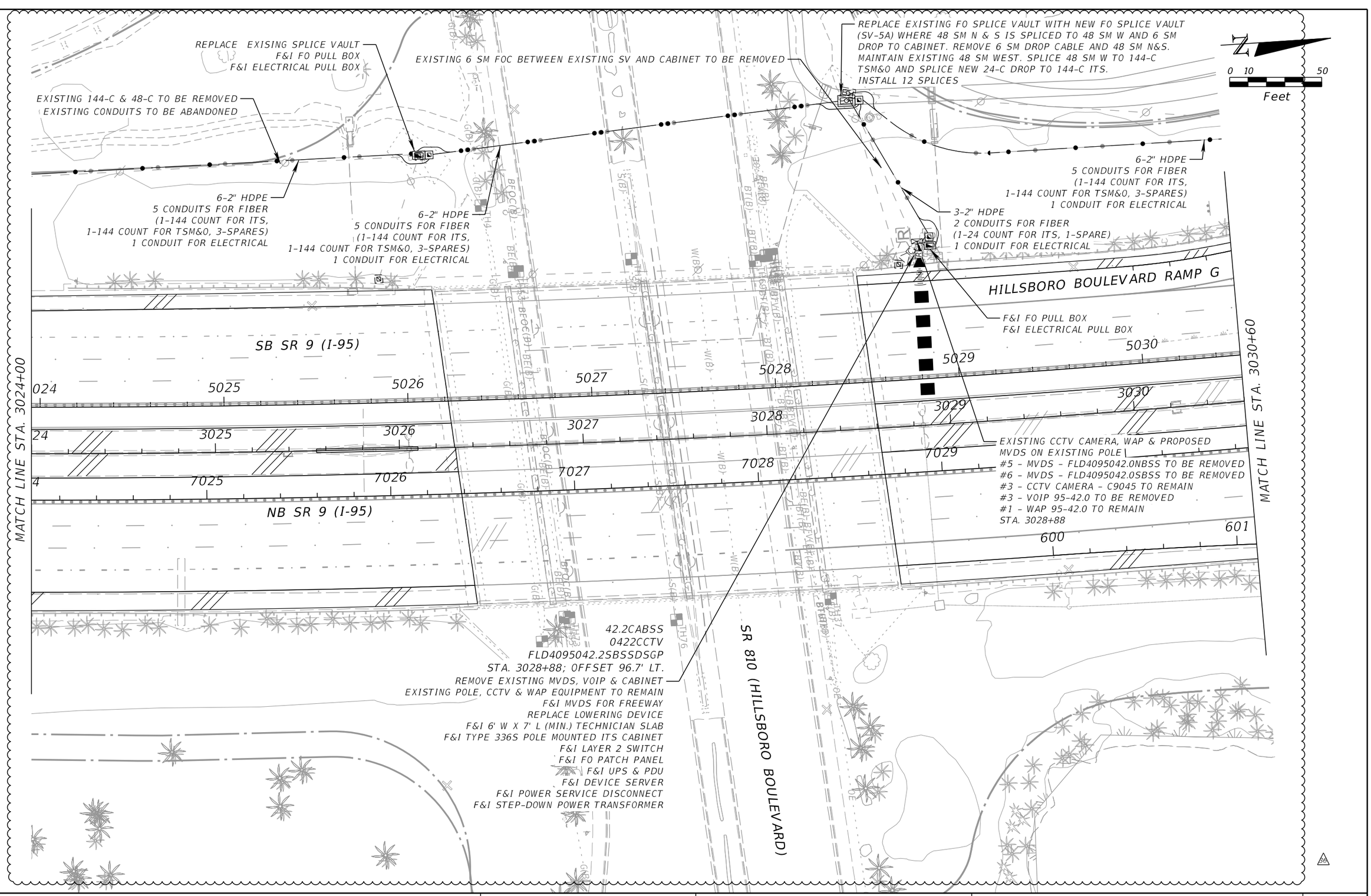
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (32)

SHEET NO.
IT-48



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RELEASED FOR CONSTRUCTION BY:FDOT VS Date: 5/27/2020
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (32)

SHEET NO.
IT-48

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
F&I SPLICE VAULT (SV-6)
F&I SPLICE ENCLOSURE
F&I 4 SPLICE TRAYS
INSTALL 152 SPLICES
F&I ELECTRICAL PULL BOX

EXISTING 144-C & 48-C FO CABLE IN EXISTING CONDUIT
3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

REPLACE EXISTING FO PULL BOX WITH NEW FO SPLICE BOX.
SPLICE DROP CABLE TO EXISTING 144-C FO CABLE IN NEW
SPLICE ENCLOSURE. SPLICE EXISTING 144-C FO CABLE TO
PROPOSED FO BACKBONE.
REWORK EXISTING WIRING AT PULL BOX AND INSTALL NEW SPLICE TO
EXTEND THE EXISTING CIRCUIT AND INSTALL NEW POWER FEED.

EXISTING 144-C & 48-C FO CABLE IN EXISTING CONDUIT TO BE ABANDONED AND CAPPED
ON BOTH ENDS. REMOVE EXISTING FIBER AND EXISTING SERVICE WIRE

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-24 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

42.2CABNS
0422DCCTV
FLD4095042.2NBNSDSOF
STA. 3032+40; OFFSET 127.8' RT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR STATUS DMS
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

END ITS SEGMENT 1
BEGIN ITS SEGMENT 2
I-95
PHASE 3B-1
STA. 3034+00 ℄ CONST. I-95

HILLSBORO BOULEVARD RAMP G
HILLSBORO BOULEVARD RAMP F
NB SR 9 (I-95)
MATCH LINE STA. 3030+60
0 10 50
Feet

VOID

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BY/PDT VS Date 10/30/2018
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS			
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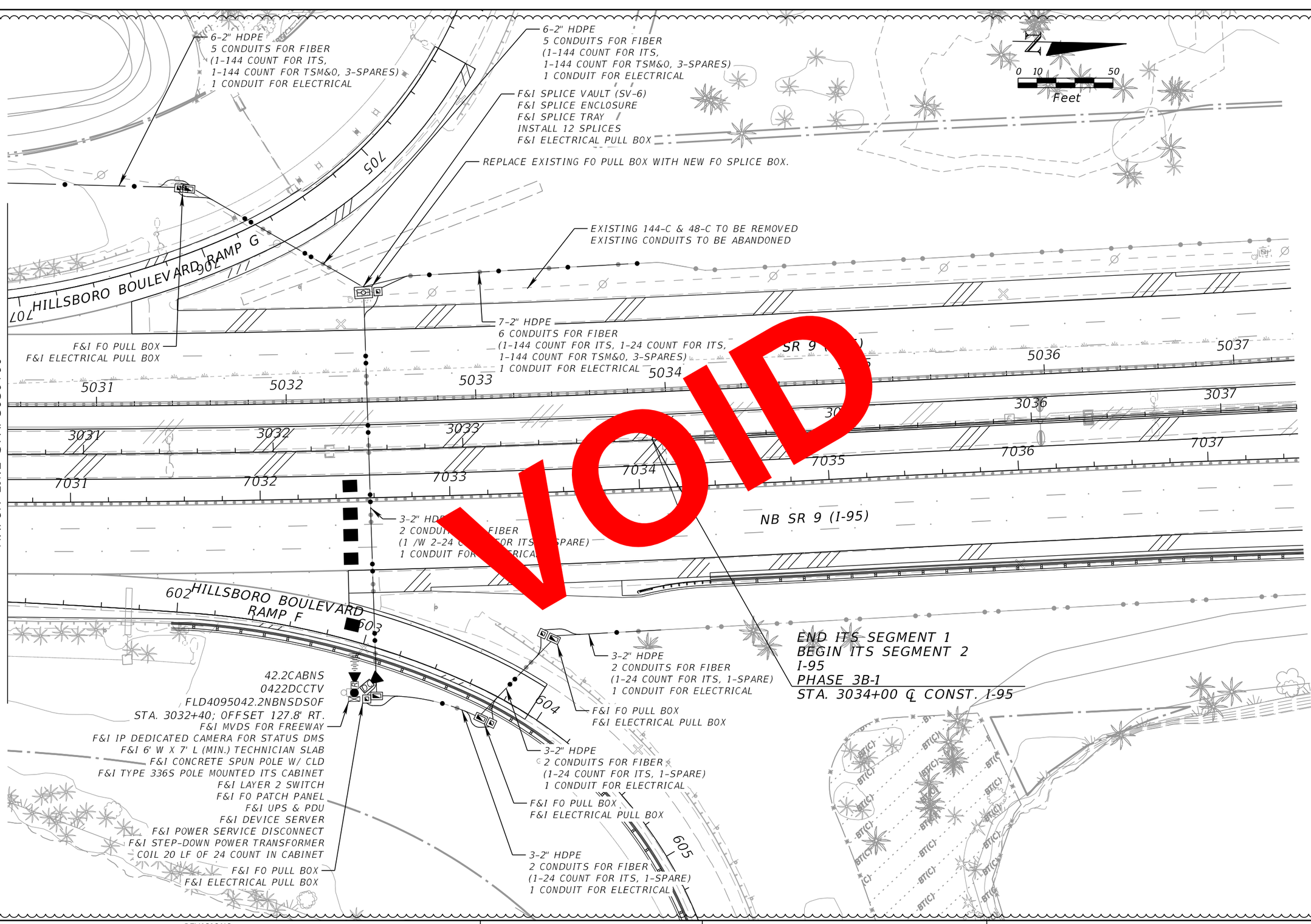
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (33A)

SHEET NO.
IT-49



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (33A)

SHEET NO.
IT-49

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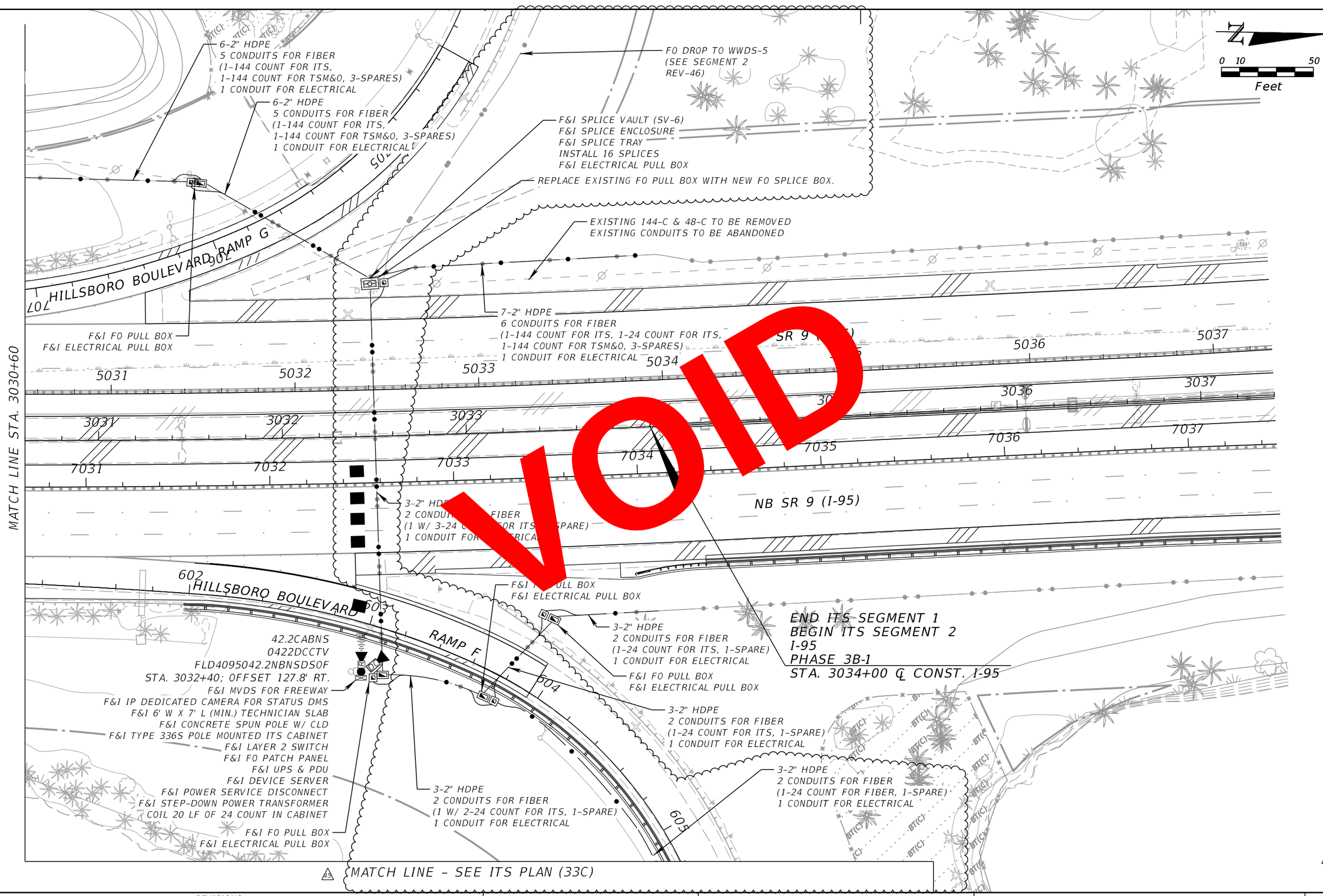
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (33A)

SHEET NO.
IT-49

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/16/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

FO DROP TO WWDS-5
(SEE SEGMENT 2
REV-46)

F&I SPLICE VAULT (SV-6)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 16 SPLICES
F&I ELECTRICAL PULL BOX

REPLACE EXISTING FO PULL BOX WITH NEW FO SPLICE BOX.

EXISTING 144-C & 48-C TO BE REMOVED
EXISTING CONDUITS TO BE ABANDONED

HILLSBORO BOULEVARD RAMP G

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-24 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

SB SR 9 (I-95)

NB SR 9 (I-95)

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/ 3-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

602 HILLSBORO BOULEVARD

RAMP F

42.2CABNS
0422DCCTV
FLD4095042.2NBNSDSOF
STA. 3032+40; OFFSET 127.8' RT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR STATUS DMS
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

END ITS SEGMENT 1
BEGIN ITS SEGMENT 2
I-95
PHASE 3B-1
STA. 3034+00 ℄ CONST. I-95

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT A3

MATCH LINE - SEE ITS PLAN (33C)

MATCH LINE STA. 3030+60

0 10 50
Feet

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	A2 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	A3 REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
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Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (33A)

SHEET NO.
IT-49

PLOT DRIVER = c:\projectwise\pb\projectwiseint\wsp__michael.west\d0173361\As-Built_FDOT_ITS.tbl PENTABLE = pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase3B-1 Hollywood\As-Built\Default.tbl USMW189428 11/17/2021 7:56:29 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0264783\PLANIT33a_AS-BUILT.dgn

MATCH LINE – SEE ITS PLAN (33A)

SR 810 (HILLSBORO BOULEVARD)

N

0 10 50
Feet

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT
(2)

STA. 3034+57; OFFSET 341.3' RT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

STA. 3034+14; OFFSET 339.3' RT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

609

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

WWDS 4
42.2CABNS (2)
STA. 3031+76; OFFSET 609.7' RT.
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I FO PULL BOX
2- F&I ELECTRICAL PULL BOX
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I WW CONTROL PANEL ASSEMBLY
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET
BUILD UP 1:2 SLOPE TO FORM A FLAT AREA
FOR THE TECHNICIAN SLAB. MAINTAIN MIN 5'
FROM FACE OF GUARDRAIL TO FACE OF CABINET.

STA. 3033+30; OFFSET 527.5' RT.
F&I WRONG WAY SIGN (R5-1A)

STA. 3029+98; OFFSET 583.7' RT.
F&I WRONG WAY SIGN (R5-1A)

STA. 3029+81; OFFSET 618.5' RT.
F&I WRONG WAY SIGN (R5-1A)

4-2" HDPE
2-DEVICE CABLES; 1-120VAC POWER
1-SPARE

HILLSBORO BOULEVARD RAMP F

STA. 3033+64; OFFSET 558.9' RT.
F&I WRONG WAY SIGN (R5-1A)

STA. 3031+72; OFFSET 616.4' RT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I DUAL DETECTION SENSORS
F&I DUAL VERIFICATION CAMERAS
F&I WIRELESS RADIO

STA. 3031+78; OFFSET 655.2' RT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

(2)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(2) REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (33C)

SHEET NO.
IT-49A

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BY:(FDOT) VS Date: 2/16/2021
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Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness and dimensions rests with the Engineer of Record. Shop drawing fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5R96

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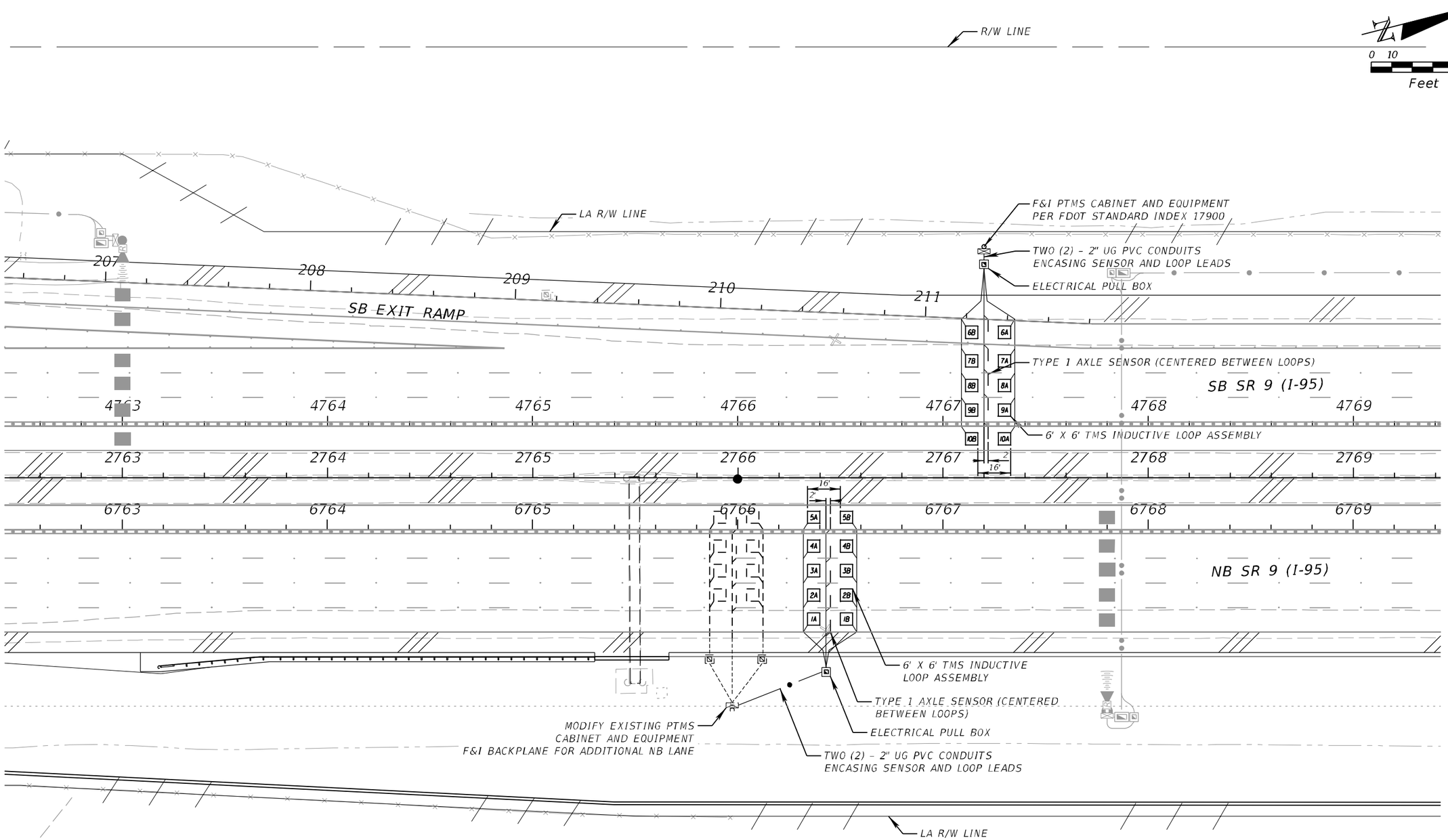

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

TRAFFIC MONITORING SITE DETAIL (1)

SHEET NO.
IT-50

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Default BarcoJ 10/11/2018 1:51:59 PM c:\projectwise\pb\projectwiseint\barco\d0264783\VHDTIT01.dgn

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

EXISTING FSB 95-28.10 (PHASE 3A-1)
SOUTHBOUND STA. 2076+00

EXISTING FSB 95-28.85 (PHASE 3A-1)
SOUTHBOUND STA. 2115+60

EXISTING 3A-1 144 COUNT SM TRUNK CABLE

BLUE BUFFER | ORANGE BUFFER | GREEN BUFFER | BROWN BUFFER | SLATE BUFFER | WHITE BUFFER | RED BUFFER | BLACK BUFFER | YELLOW BUFFER | VIOLET BUFFER | ROSE BUFFER | AQUA BUFFER

CAP & COIL

DEVICE SERVER

18 RX TX RX TX 17

DMS CLK

T-DMS

LEGEND

- PROPOSED BUFFER CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- PROPOSED FIBER CAP AND COIL
- EXISTING FIBER CAP AND COIL
- PROPOSED SPLICE
- EXISTING SPLICE
- PROPOSED BUFFER TO BUFFER SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED FIBER
- EXISTING FIBER

* SPLICE INFORMATION IS TAKEN FROM THE 3A-1 RFC PLAN SET.

EXISTING MVDS & D-CCTV LHUB 95-28.10 NB ITS CABINET STA. 2076+00

EXISTING MVDS LHUB 95-28.10 SB ITS CABINET STA. 2076+00

TOLL DMS STA. 2078+50 NB SIDE

EXISTING MVDS LHUB 95-28.85 SB ITS CABINET STA. 2115+60

EXISTING 3A-1 144 COUNT SM TRUNK CABLE BRANCH CABLE TO FSB 95-28.82 NB

TOLL DMS STA. 2115+15 NB SIDE

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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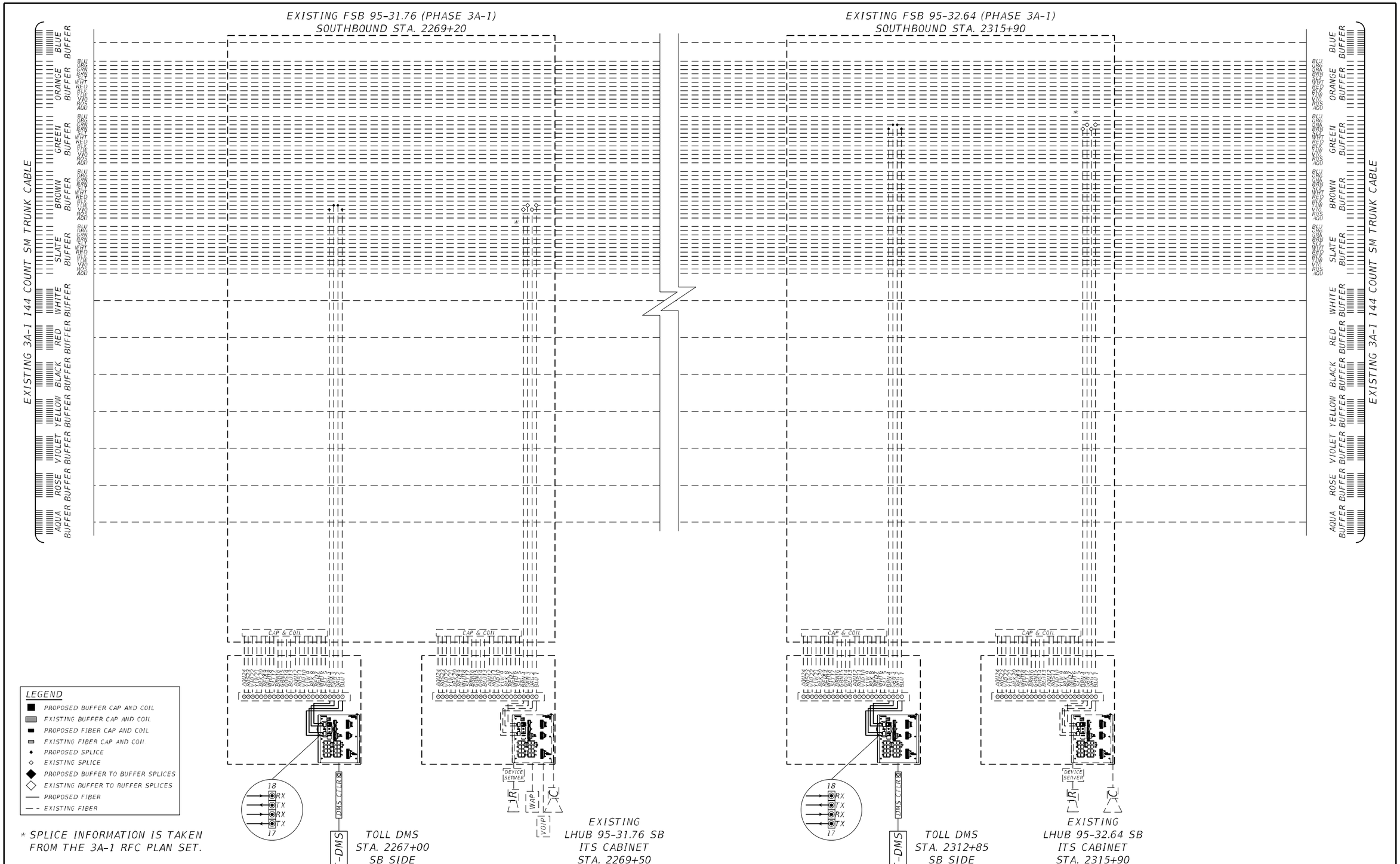
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (1)

SHEET NO.
IT-51



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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (2)

SHEET NO.
IT-52

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 10/11/2018 1:52:05 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SPDTIT01.dgn

EXISTING SV-19 (PHASE 3A-2)
NORTHBOUND STA. 2465+40

EXISTING 3A-2 144 COUNT SM TRUNK CABLE

SM TRUNK CABLE (SEE SPLICING DIAGRAM (3))

EXISTING 3A-2 144 COUNT

BLUE BUFFER | ORANGE BUFFER | GREEN BUFFER | BROWN BUFFER | SLATE BUFFER | WHITE BUFFER | RED BUFFER | BLACK BUFFER | YELLOW BUFFER | VIOLET BUFFER | ROSE BUFFER | AQUA BUFFER

CAP & COIL

2070

D-CCTV

MVDS

DEVICE SERVER

T-DMS

DMS CTRL

18 RX TX RX TX 17

TOLL DMS
STA. 2457+00
SB SIDE

* SPLICE INFORMATION IS TAKEN FROM THE 3A-2 RFC PLAN SET.

NOTES:
1. SEE SPLICING DIAGRAM (1), (3), (5) OR (6) FOR LEGEND.
2. PLEASE NOTE THAT THE 3A-2 BUFFER ORDER IS REVERSED FROM THE 3B-1 BUFFER ORDER IN SPLICING DIAGRAMS (2) & (3).

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

SEALED UNDER RULE 61G15-23.004, F.A.C. **RELEASED FOR CONSTRUCTION** BY(FDOT) VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (3)

SHEET NO.
IT-53

EXISTING SV-21 (PHASE 3A-2)
NORTHBOUND STA. 2490+90

EXISTING 3A-2 144 COUNT SM TRUNK CABLE

SM TRUNK CABLE (SEE SPLICING DIAGRAM (2))
EXISTING 3A-2 144 COUNT

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

CAP & COIL

EX. W/ RADIO
EX. W/ RADIO
MVDS
CCTV
D-CCTV
MVDS
MVDS
MVDS
DEVICE SERVER

TOLL DMS
STA. 2479+00
SB SIDE

T-DMS
DMS CTLR

LEGEND
- PROPOSED BUFFER CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- PROPOSED FIBER CAP AND COIL
- EXISTING FIBER CAP AND COIL
- PROPOSED SPLICE
- EXISTING SPLICE
- PROPOSED BUFFER TO BUFFER SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED FIBER
- EXISTING FIBER

* SPLICE INFORMATION IS TAKEN FROM THE 3A-2 RFC PLAN SET.

NOTE:
1. PLEASE NOTE THAT THE 3A-2 BUFFER ORDER IS REVERSED FROM THE 3B-1 BUFFER ORDER IN SPLICING DIAGRAMS (2) & (3).

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (4)

SHEET NO.
IT-54

SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date: 10/30/2018
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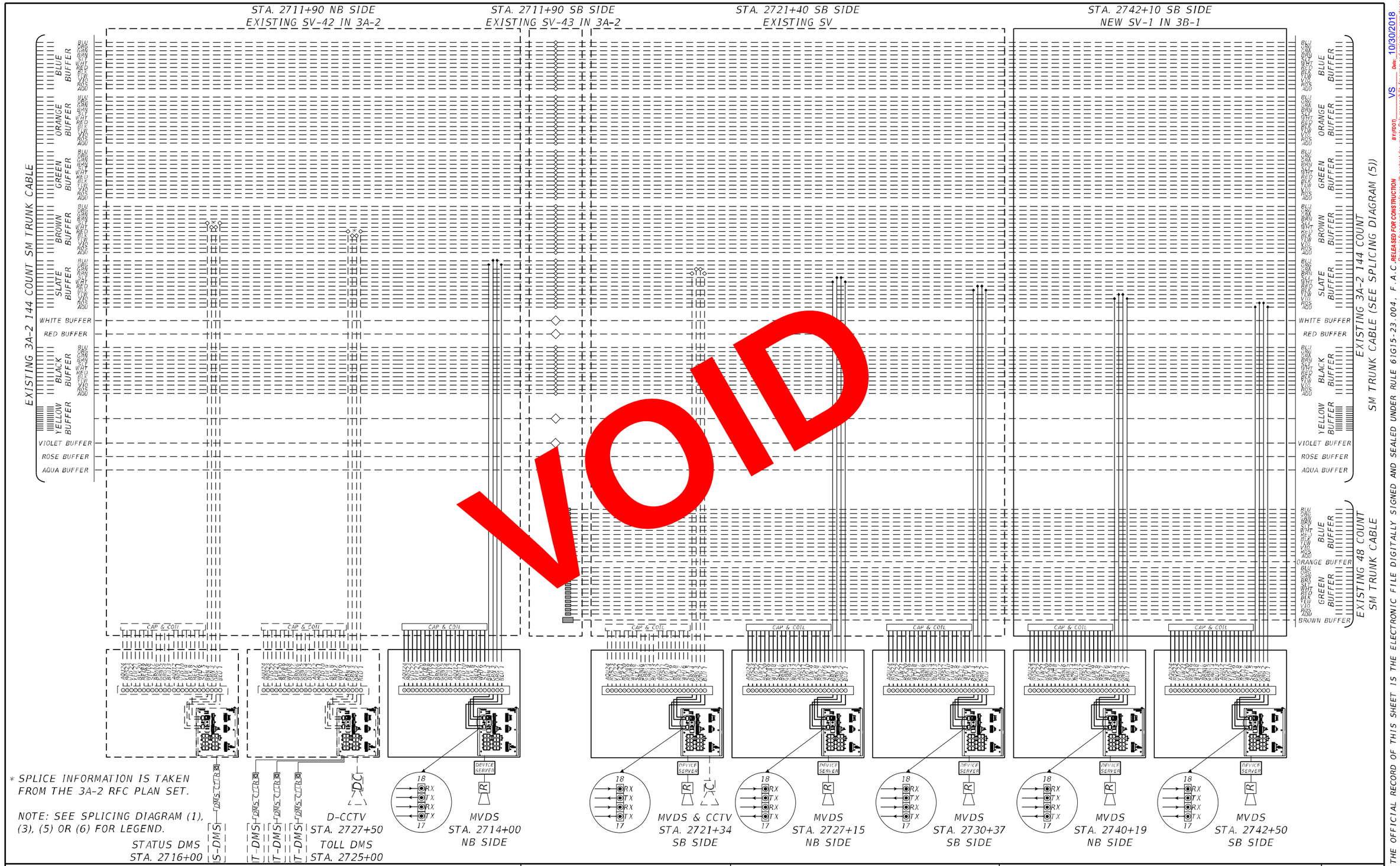
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED



VOID

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (5)

SHEET NO.
IT-55

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
BY/PDT VS Date: 10/30/2018
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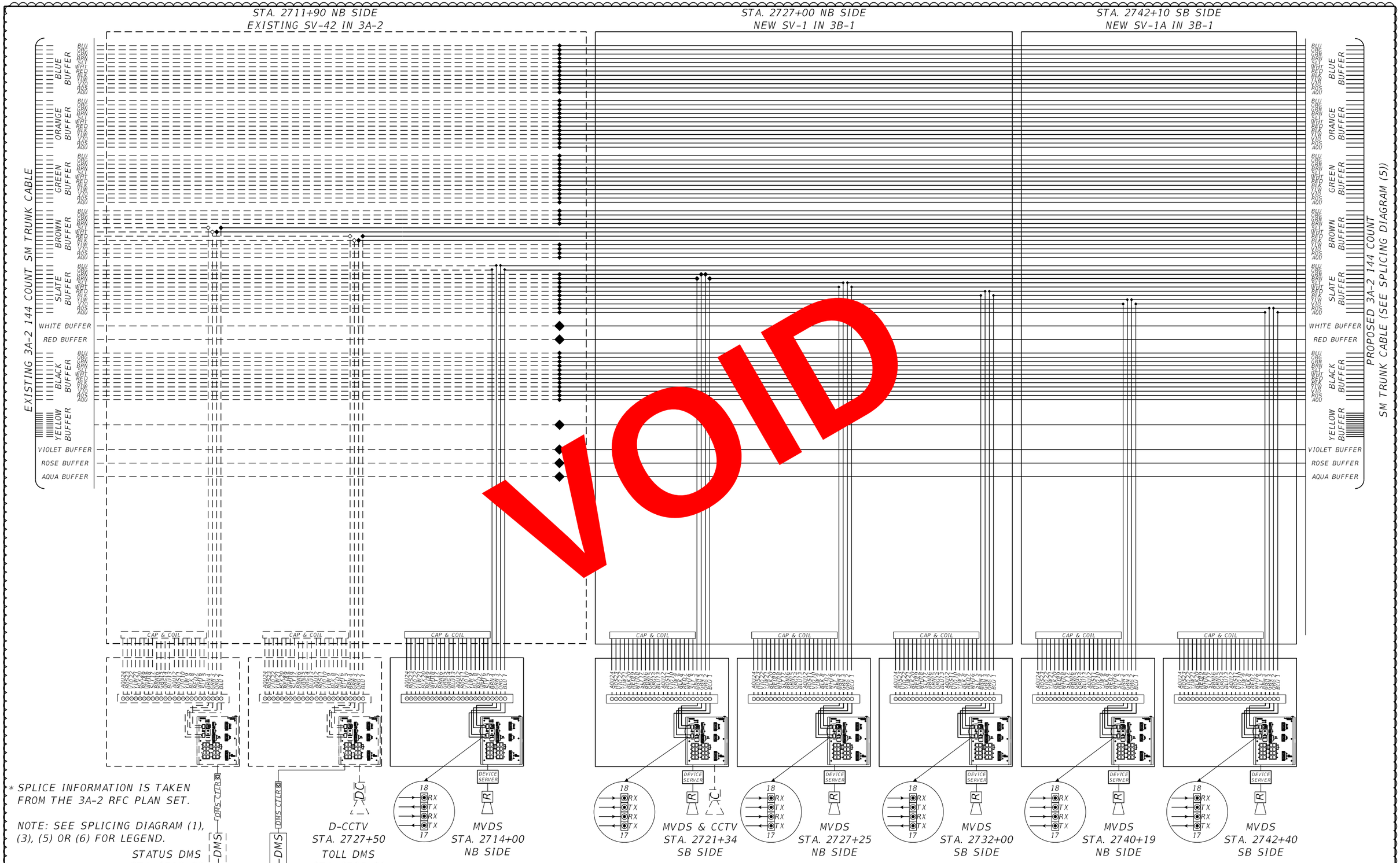
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



* SPLICE INFORMATION IS TAKEN FROM THE 3A-2 RFC PLAN SET.

NOTE: SEE SPLICING DIAGRAM (1), (3), (5) OR (6) FOR LEGEND.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

36

SPLICING DIAGRAM (5)

SHEET NO.
IT-55

STA. 2711+90 NB SIDE
EXISTING SV-42 IN 3A-2

STA. 2727+00 NB SIDE
NEW SV-1 IN 3B-1

STA. 2742+10 SB SIDE
NEW SV-1A IN 3B-1

EXISTING 3A-2 144 COUNT SM TRUNK CABLE

PROPOSED 3A-2 144 COUNT
SM TRUNK CABLE (SEE SPLICING DIAGRAM (5))

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

MATCHLINE SEE SHEET IT-57B

WRONG WAY (15) DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

CAP & COIL

DEVICE SERVER

18 TX RX RX TX 17

* SPLICE INFORMATION IS TAKEN FROM THE 3A-2 RFC PLAN SET.

NOTE: SEE SPLICING DIAGRAM (1), (3), (5) OR (6) FOR LEGEND.

S-DMS — STATUS DMS STA. 2716+00 — DMS CTR

T-DMS — TOLL DMS STA. 2725+00 — DMS CTR

D-CCTV STA. 2727+50

MVDS STA. 2714+00 NB SIDE

MVDS & CCTV STA. 2721+34 SB SIDE

MVDS STA. 2727+25 NB SIDE

MVDS STA. 2732+00 SB SIDE

MVDS STA. 2740+19 NB SIDE

MVDS STA. 2742+40 SB SIDE

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	(36) REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	(15) REVISED FOR WRONG WAY DETECTION REVISION.		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

(36) SPLICING DIAGRAM (5)

SHEET NO. IT-55

BY:(ROOT) VS Date: 2/16/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, and coordination of all trades remains with the contractor. Approval does not relieve contractor of responsibility for fabrication and erection. Shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STA. 2749+40 SB SIDE
EXISTING PULL BOX WITH SPLICE

STA. 2751+68 SB SIDE
NEW SV-2 IN 3B-1

STA. 2760+10 SB SIDE
NEW SV-3 IN 3B-1

STA. 3000+85 SB SIDE
EXISTING SPLICE VAULT

STA. 3015+28 SB SIDE
NEW SV-4 IN 3B-1

EXISTING 3A-2 144 COUNT
SM TRUNK CABLE (SEE SPLICING DIAGRAM (4))

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
BLACK BUFFER
YELLOW BUFFER
WHITE BUFFER
RED BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

EXISTING 48 COUNT
SM TRUNK CABLE

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER

EXISTING 3A-2 144 COUNT
SM TRUNK CABLE (SEE SPLICING DIAGRAM (6))

CAP & COIL

DEVICE SERVER

MVDS & CCTV
STA. 2749+23
SB SIDE

MVDS
STA. 2753+00
NB SIDE

MVDS
STA. 2763+00
SB SIDE

MVDS
STA. 2767+80
NB SIDE

MVDS
STA. 3002+25
SB SIDE

MVDS
STA. 3008+41
NB SIDE

MVDS
STA. 3014+61
SB SIDE

LEGEND

- PROPOSED BUFFER CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- PROPOSED FIBER CAP AND COIL
- EXISTING FIBER CAP AND COIL
- PROPOSED SPLICE
- EXISTING SPLICE
- PROPOSED BUFFER TO BUFFER SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED FIBER
- EXISTING FIBER

NOTE:

UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

VOID

REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (6)

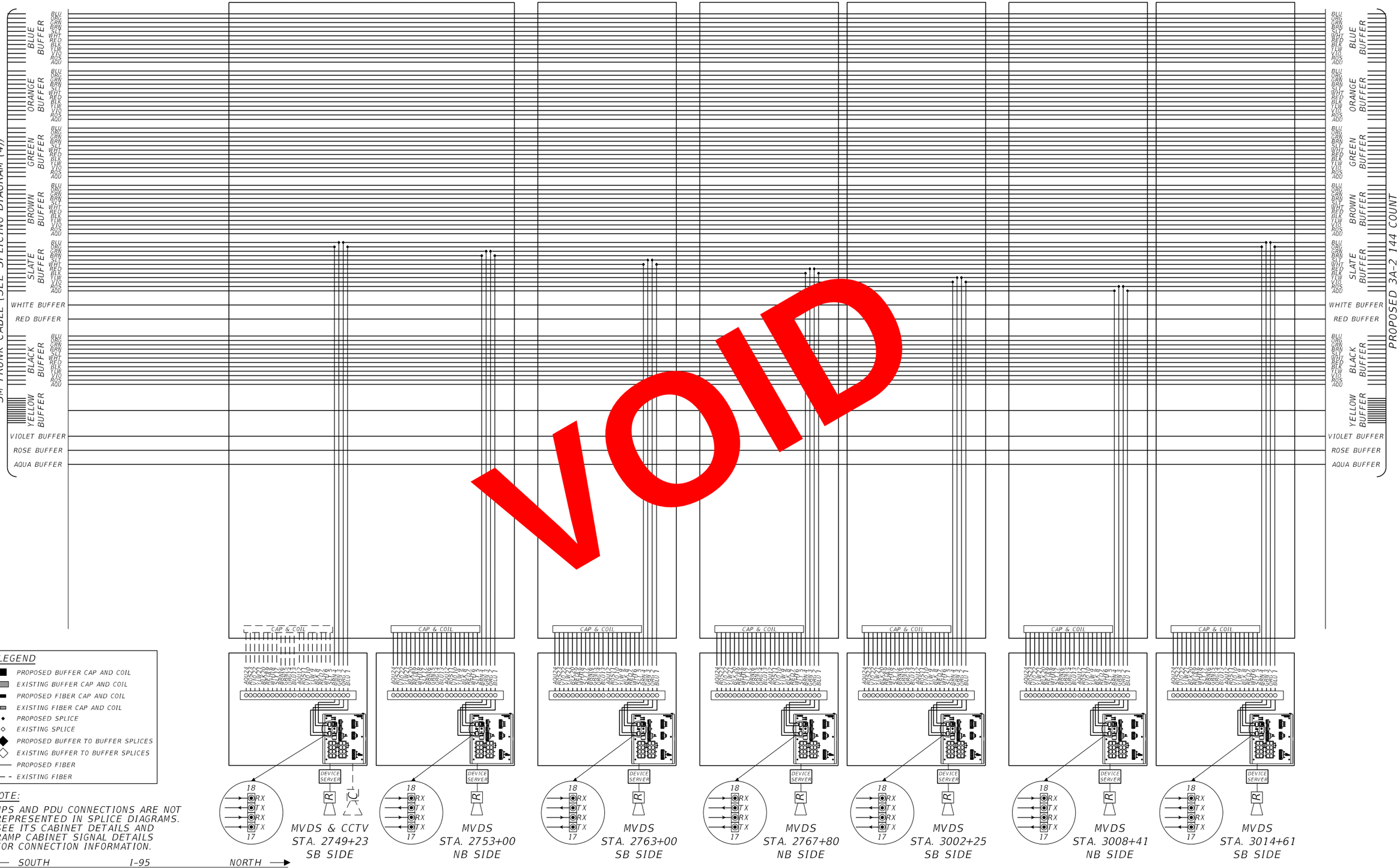
SHEET NO.
IT-56

BY/PDT VS Date: 10/30/2018

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default Barco J 10/11/2018 1:52:08 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SPDTIT01.dgn



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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

36

SPLICING DIAGRAM (6)

SHEET NO.
IT-56

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STA. 2753+00 SB SIDE
NEW SV-2 IN 3B-1

STA. 2762+90 SB SIDE
NEW SV-2A IN 3B-1

STA. 2767+89 SB SIDE
NEW SV-3 IN 3B-1

STA. 3002+32 SB SIDE
NEW SV-3A IN 3B-1

STA. 3008+32 SB SIDE
NEW SV-4 IN 3B-1

STA. 3014+75 SB SIDE
NEW SV-4A IN 3B-1

PROPOSED 3A-2 144 COUNT
SM TRUNK CABLE (SEE SPLICING DIAGRAM (4))

PROPOSED 3A-2 144 COUNT
SM TRUNK CABLE (SEE SPLICING DIAGRAM (6))

BLU ORG GRN BRN SLT WHT RED BLK YLW VIO ROS AQU

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

MATCHLINE SEE SHEET IT-57B

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

CAP & COIL

DEVICE SERVER

18 RX TX RX TX 17

MVDS & CCTV
STA. 2749+23
SB SIDE

MVDS
STA. 2753+00
NB SIDE

MVDS
STA. 2763+00
SB SIDE

MVDS
STA. 2767+80
NB SIDE

MVDS
STA. 3002+25
SB SIDE

MVDS
STA. 3008+41
NB SIDE

MVDS
STA. 3014+61
SB SIDE

LEGEND

- PROPOSED BUFFER CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- PROPOSED FIBER CAP AND COIL
- EXISTING FIBER CAP AND COIL
- PROPOSED SPLICE
- EXISTING SPLICE
- PROPOSED BUFFER TO BUFFER SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED FIBER
- EXISTING FIBER

NOTE:

UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	3A REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	15 REVISED FOR WRONG WAY DETECTION REVISION.		

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EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

3A

SPLICING DIAGRAM (6)

SHEET NO.
IT-56

BY:(ROOT) VS Date: 2/16/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, and construction methods and techniques of fabrication and erection shall remain with the contractor.
PID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96

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STA. 3020+85 SB SIDE
NEW SV-5 IN 3B-1

STA. 3028+20 SB SIDE
EXIST. SV

STA. 3032+50 SB SIDE
NEW SV-6 IN 3B-1

EXISTING 3A-2 144 COUNT
SM TRUNK CABLE (SEE SPLICING DIAGRAM (5))

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

PROPOSED 3A-2 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (5) IN SEGMENT 2)

EXISTING 48 COUNT
SM TRUNK CABLE

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER

CAP & COIL

DEVICE SERVER

MVDS
STA. 3021+52
NB SIDE

EXISTING UNKNOWN 48 COUNT

MVDS & CCTV
STA. 3028+88
SB SIDE

MVDS & D-CCTV
STA. 3032+40
NB SIDE

SEE SEGMENT 2

D-DMS

STA. 3040+00
NB SIDE

MVDS
STA. 3038+00
SB SIDE

LEGEND

- PROPOSED BUFFER CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- PROPOSED FIBER CAP AND COIL
- EXISTING FIBER CAP AND COIL
- PROPOSED SPLICE
- EXISTING SPLICE
- PROPOSED BUFFER TO BUFFER SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED FIBER
- EXISTING FIBER

NOTE:
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SOUTH ← I-95 → NORTH

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (7A)

SHEET NO.
IT-57

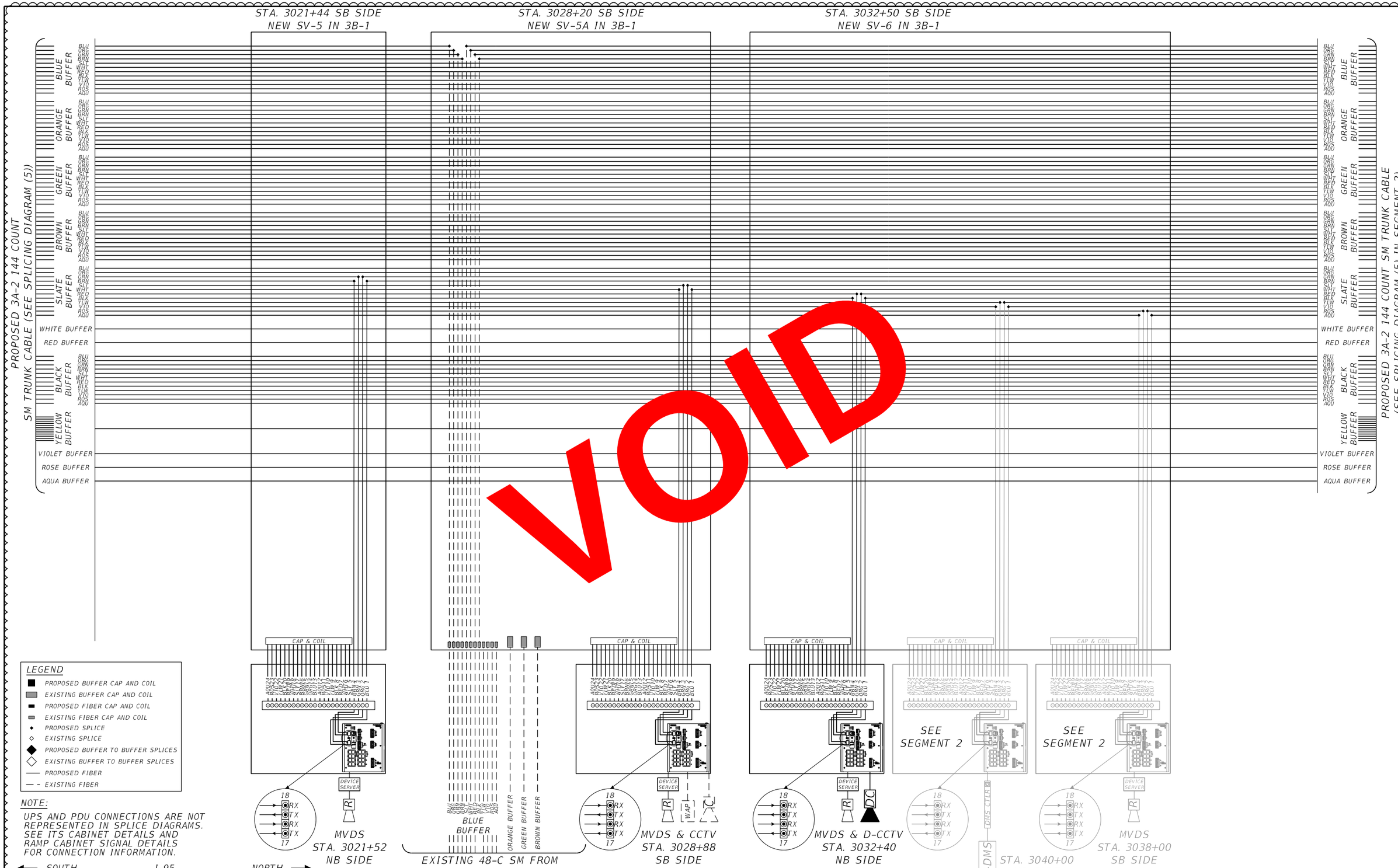
BY/PDO1 VS Date: 10/30/2018

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION

PLOT DRIVER = $PLTDRVL$ | PEN TABLE = $PENTBLL$ | MODEL NAME =Default | BarcoJ | 10/11/2018 1:52:08 PM | c:\projectwise\pb\projectwiseint\barco\d0264783\SPDTIT01.dgn



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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

BY:(FDOT) VS Date: 5/27/2020

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

36

SPLICING DIAGRAM (7A)

SHEET NO.
IT-57

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STA. 3021+44 SB SIDE
NEW SV-5 IN 3B-1

STA. 3028+20 SB SIDE
NEW SV-5A IN 3B-1

STA. 3032+50 SB SIDE
NEW SV-6 IN 3B-1

PROPOSED 3A-2 144 COUNT
SM TRUNK CABLE (SEE SPLICING DIAGRAM (5))

PROPOSED 3A-2 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (5) IN SEGMENT 2)

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

MATCHLINE SEE SHEET IT-57B

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

CAP & COIL

DEVICE SERVER

MVDS
STA. 3021+52
NB SIDE

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
EXISTING 48-C SM FROM HILLSBORO BLVD W

MVDS & CCTV
STA. 3028+88
SB SIDE

MVDS & D-CCTV
STA. 3032+40
NB SIDE

SEE SEGMENT 2

DMS CLUSTER

S-DMS
STA. 3040+00
NB SIDE

SEE SEGMENT 2

MVDS
STA. 3038+00
SB SIDE

LEGEND
- PROPOSED BUFFER CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- PROPOSED FIBER CAP AND COIL
- EXISTING FIBER CAP AND COIL
- PROPOSED SPLICE
- EXISTING SPLICE
- PROPOSED BUFFER TO BUFFER SPLICES
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED FIBER
- EXISTING FIBER

NOTE:
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SOUTH ← I-95 → NORTH

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BY:(ROOT) VS Date: 2/16/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, and compliance with all applicable codes, rules and regulations for fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5696

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	2B REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	1B REVISED FOR WRONG WAY DETECTION REVISION.		

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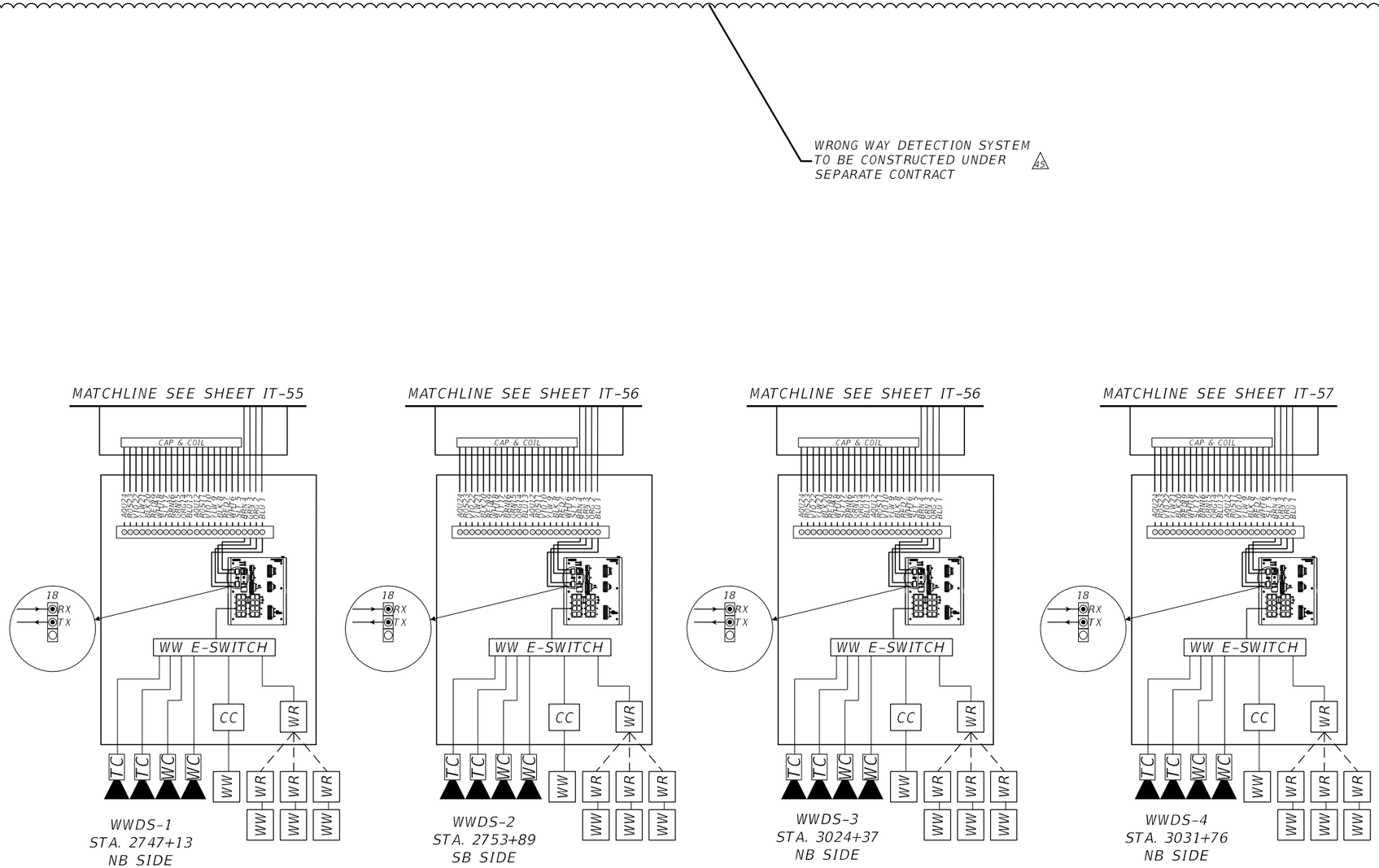
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

2B SPLICING DIAGRAM (7A)

SHEET NO.
IT-57



WR : WIRELESS RADIO

WC : WRONG-WAY VERIFICATION CCTV

CC : CONTACT CLOSURE

TC : THERMAL DETECTION CCTV

— — : WIRELESS LINK

WW : WRONG-WAY HIGHLIGHTED LED

45

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (8A)

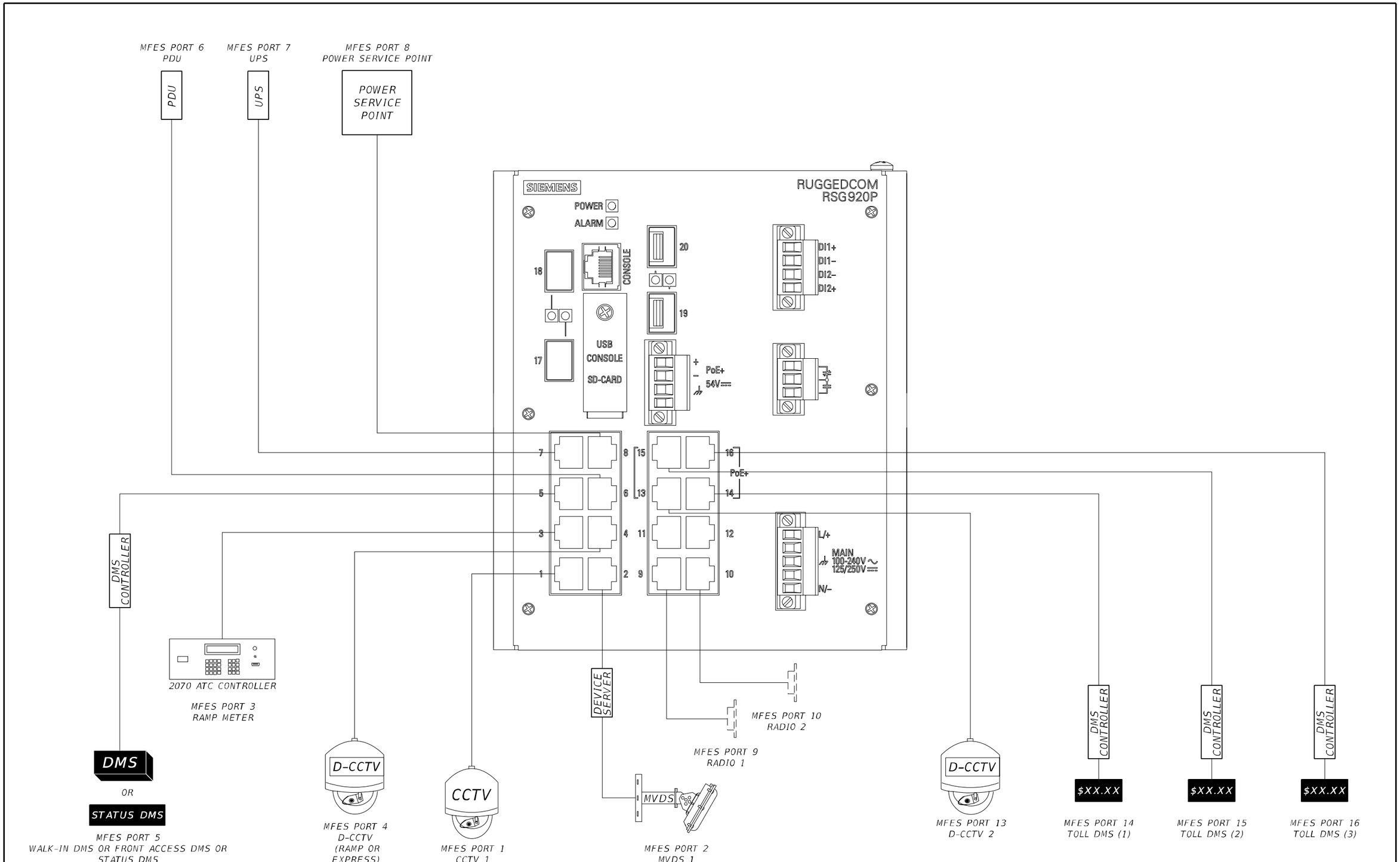
SHEET NO.

IT-57B

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

BY:(FDOT) VS Date: 2/16/2021



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY/FROM VS Date: 10/30/2018

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

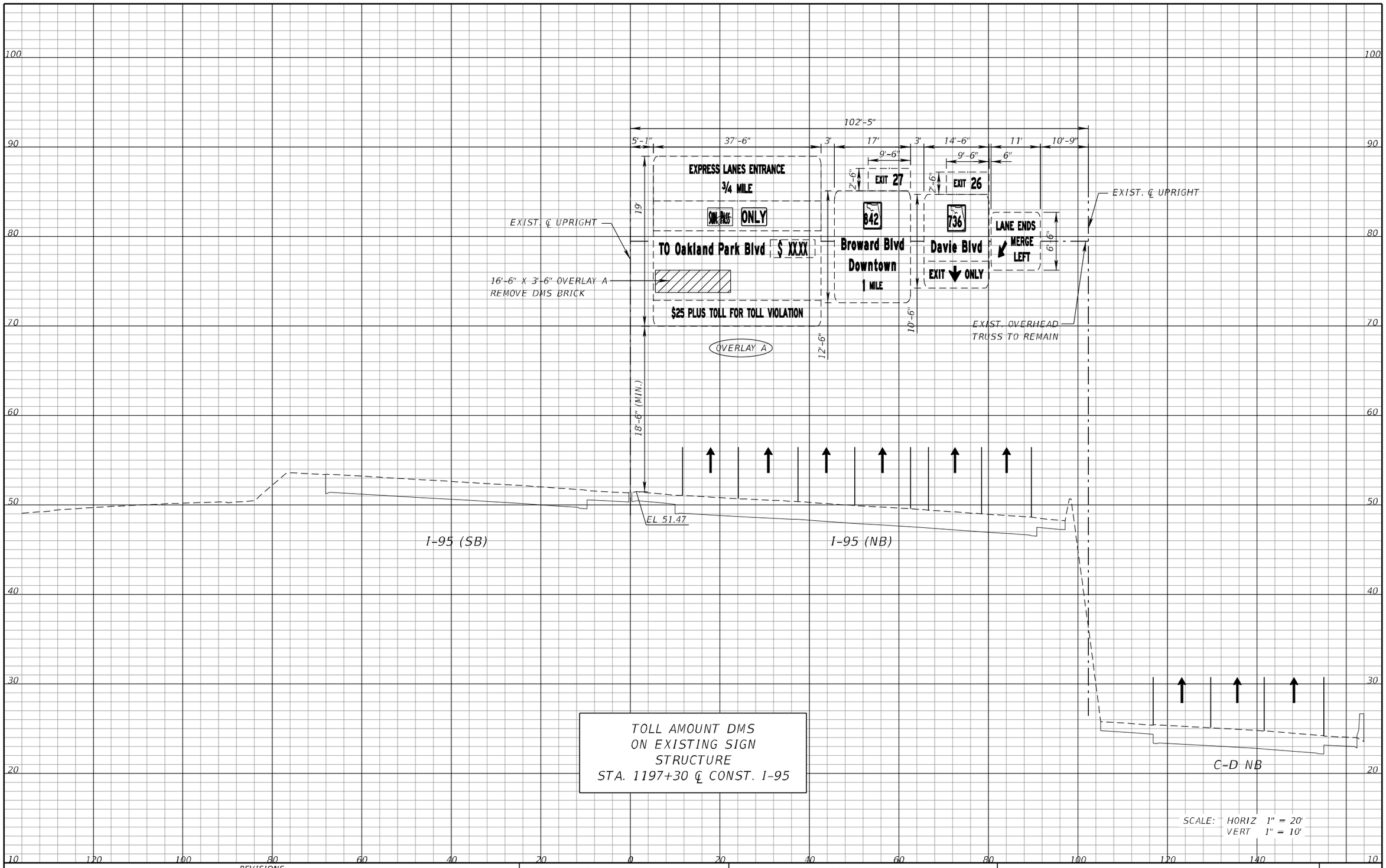
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

MFES PORT ALLOCATION DETAIL

SHEET NO.
IT-58

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 10/11/2018 1:52:13 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSDTIT100.dgn



TOLL AMOUNT DMS
ON EXISTING SIGN
STRUCTURE
STA. 1197+30 ℄ CONST. I-95

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (1)

SHEET NO.
IT-59

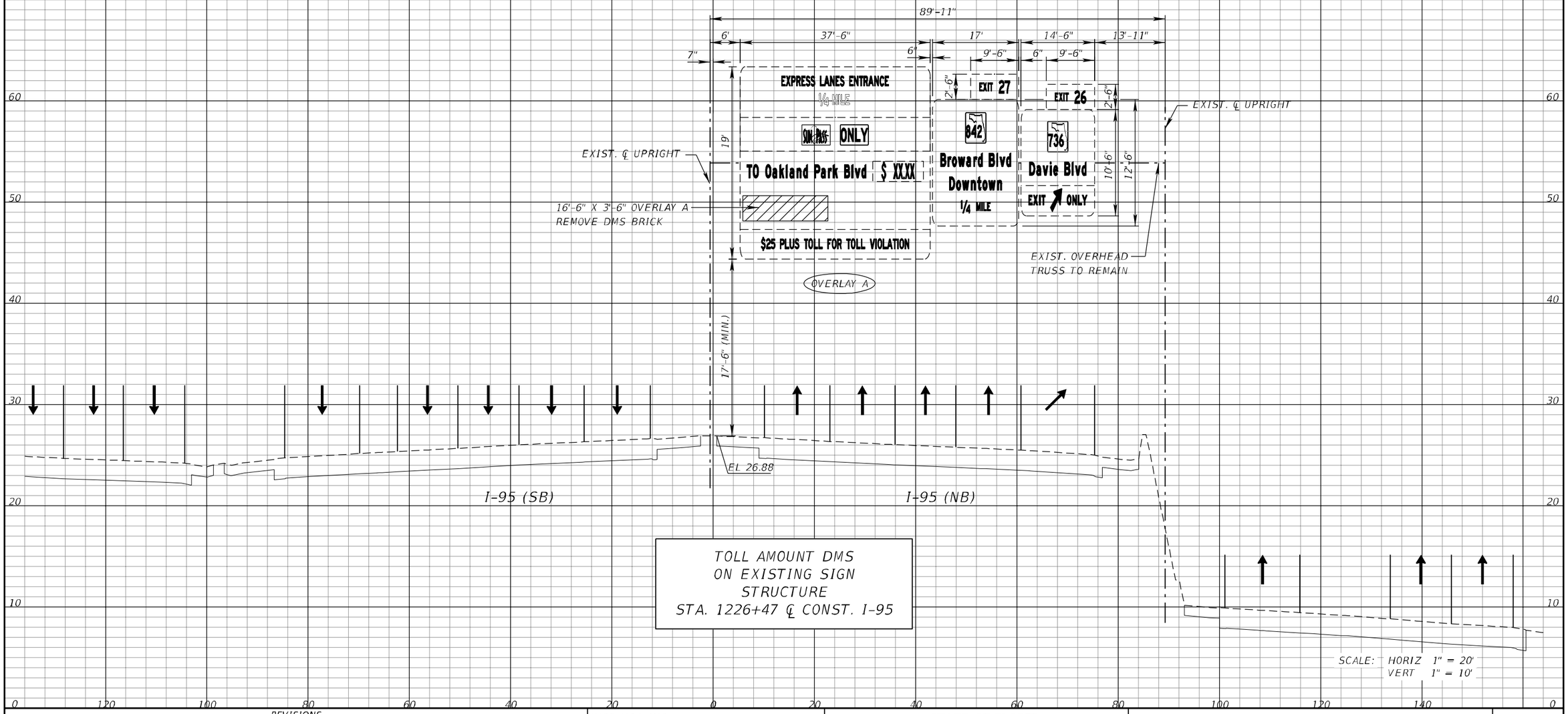
PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:52:30 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION

BY/PDT VS Date: 10/30/2018

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (2)

SHEET NO.
IT-60

BY/FDOT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION

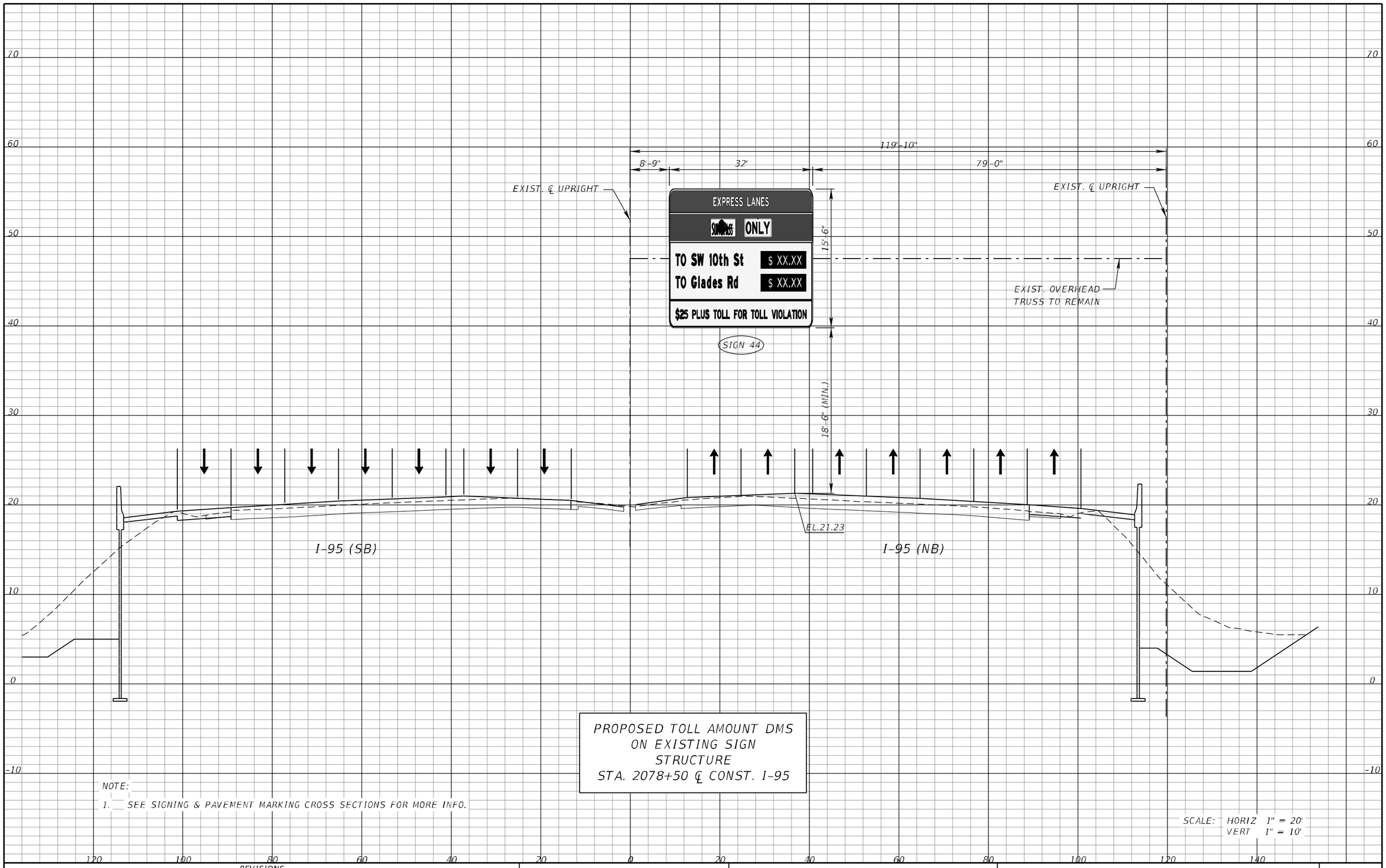
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

SEALED UNDER RULE 61G15-23.004, F.A.C.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:52:40 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSX\SIT100.dgn



PROPOSED TOLL AMOUNT DMS
ON EXISTING SIGN
STRUCTURE
STA. 2078+50 ℄ CONST. I-95

NOTE:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (3)

SHEET NO.
IT-61

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:52:50 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn

BY/PDOT VS Date: 10/30/2018

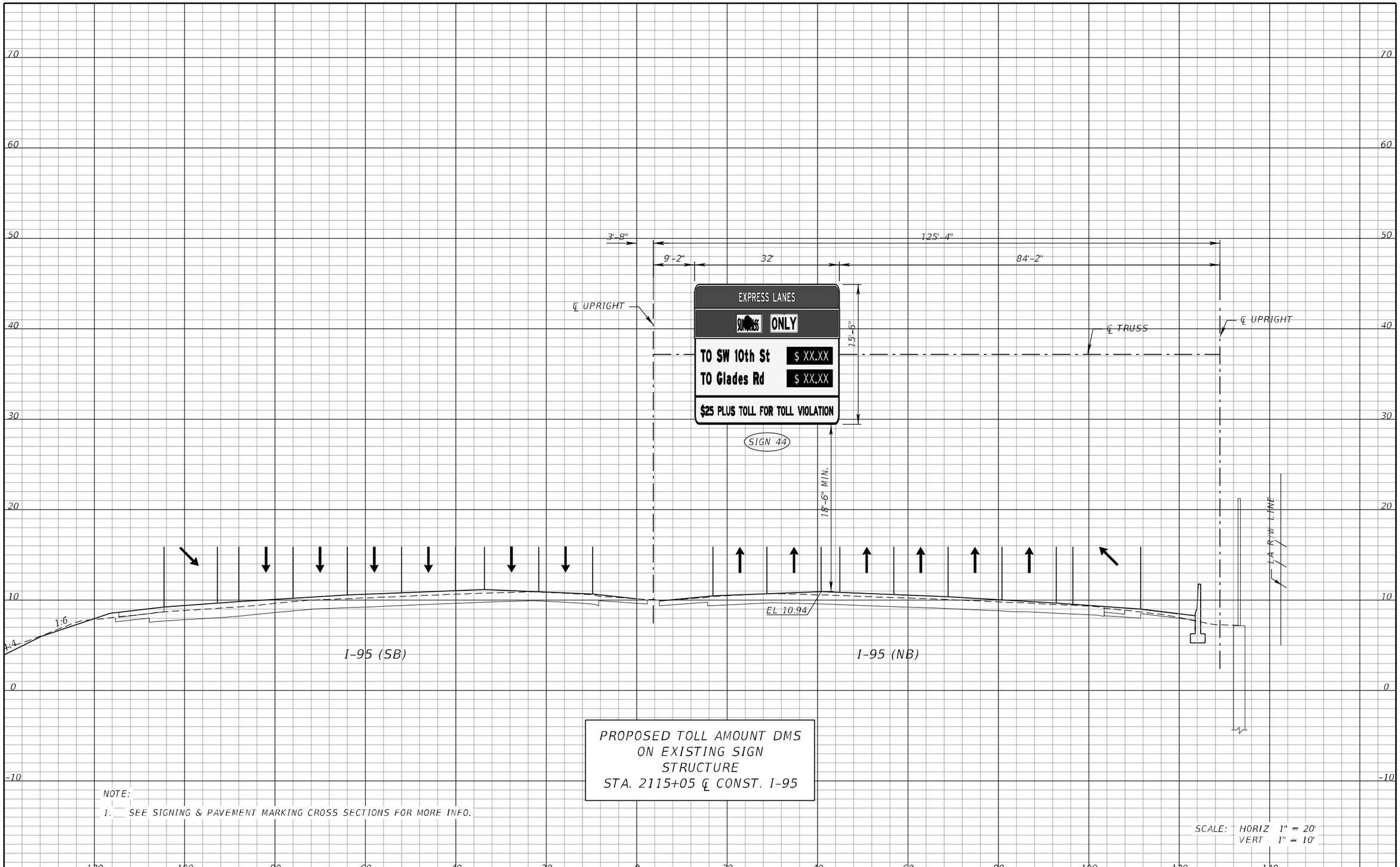
RELEASED FOR CONSTRUCTION

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

SEALED UNDER RULE 61G15-23.004, F.A.C.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED



PROPOSED TOLL AMOUNT DMS
ON EXISTING SIGN
STRUCTURE
STA. 2115+05 ℄ CONST. I-95

NOTE:
1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

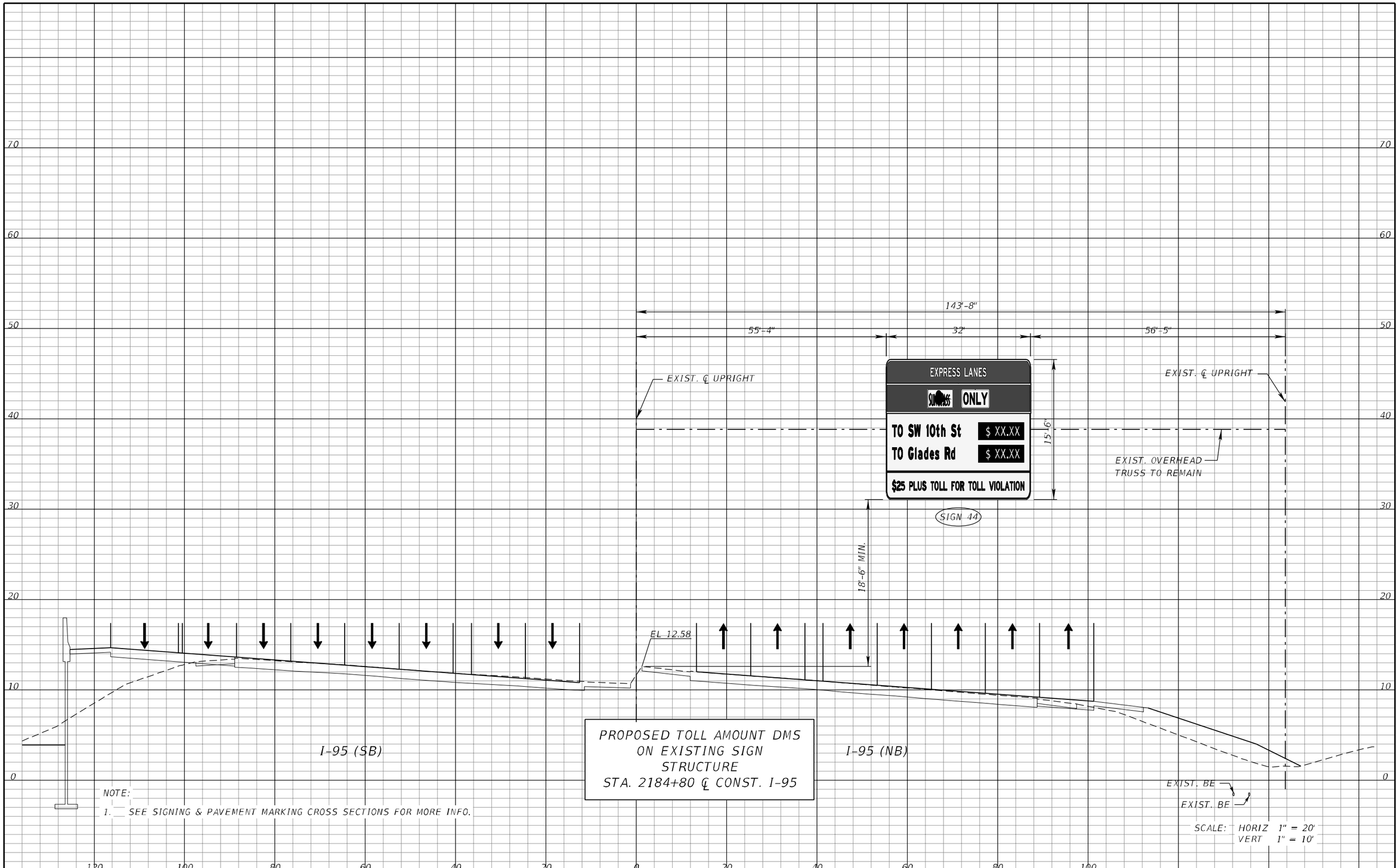
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (4)

SHEET NO.
IT-62

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



NOTE:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

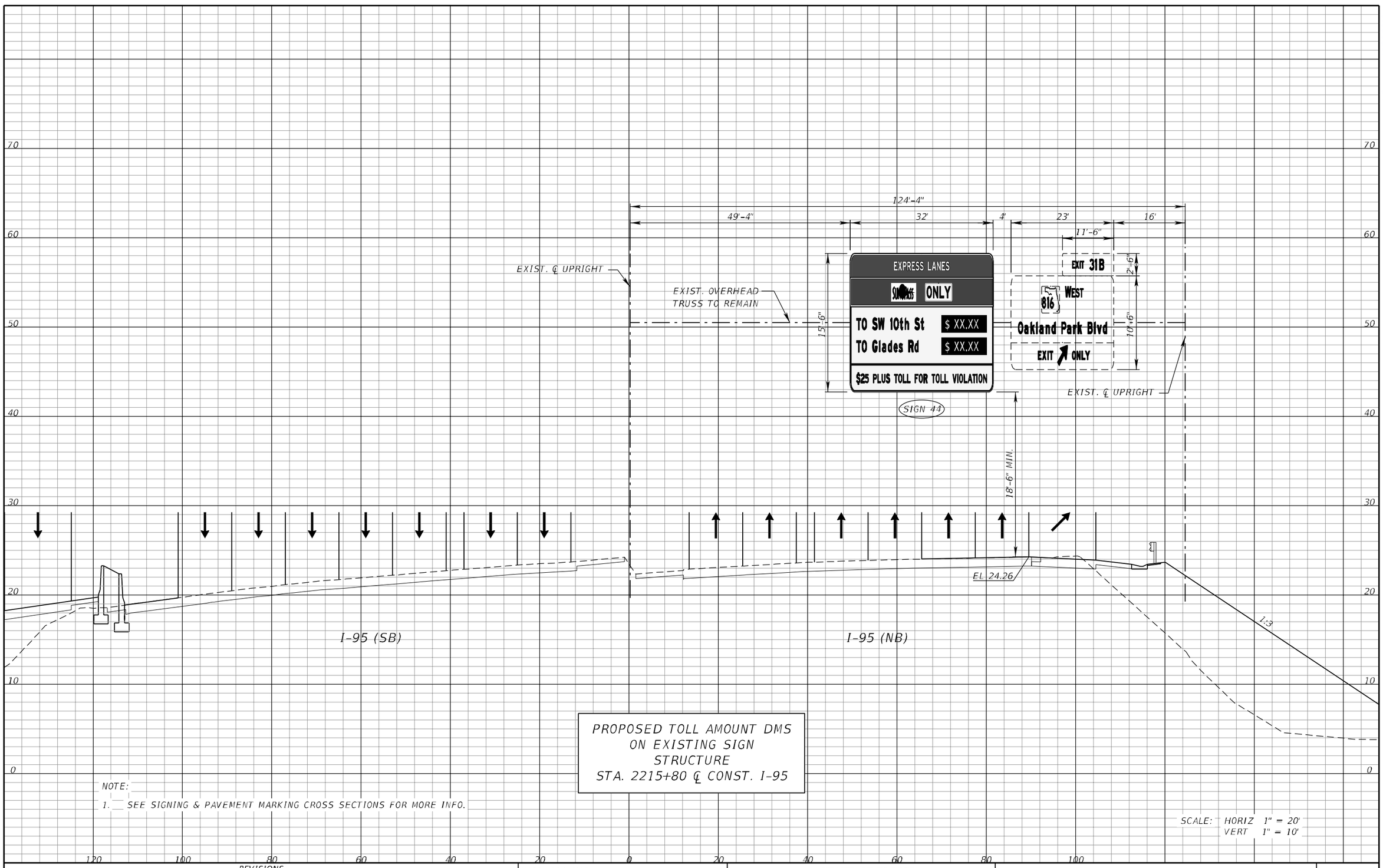
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (5)

SHEET NO.
IT-63

BY/FDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:53:09 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSX\SIT100.dgn



PROPOSED TOLL AMOUNT DMS ON EXISTING SIGN STRUCTURE STA. 2215+80 ℄ CONST. I-95

NOTE:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

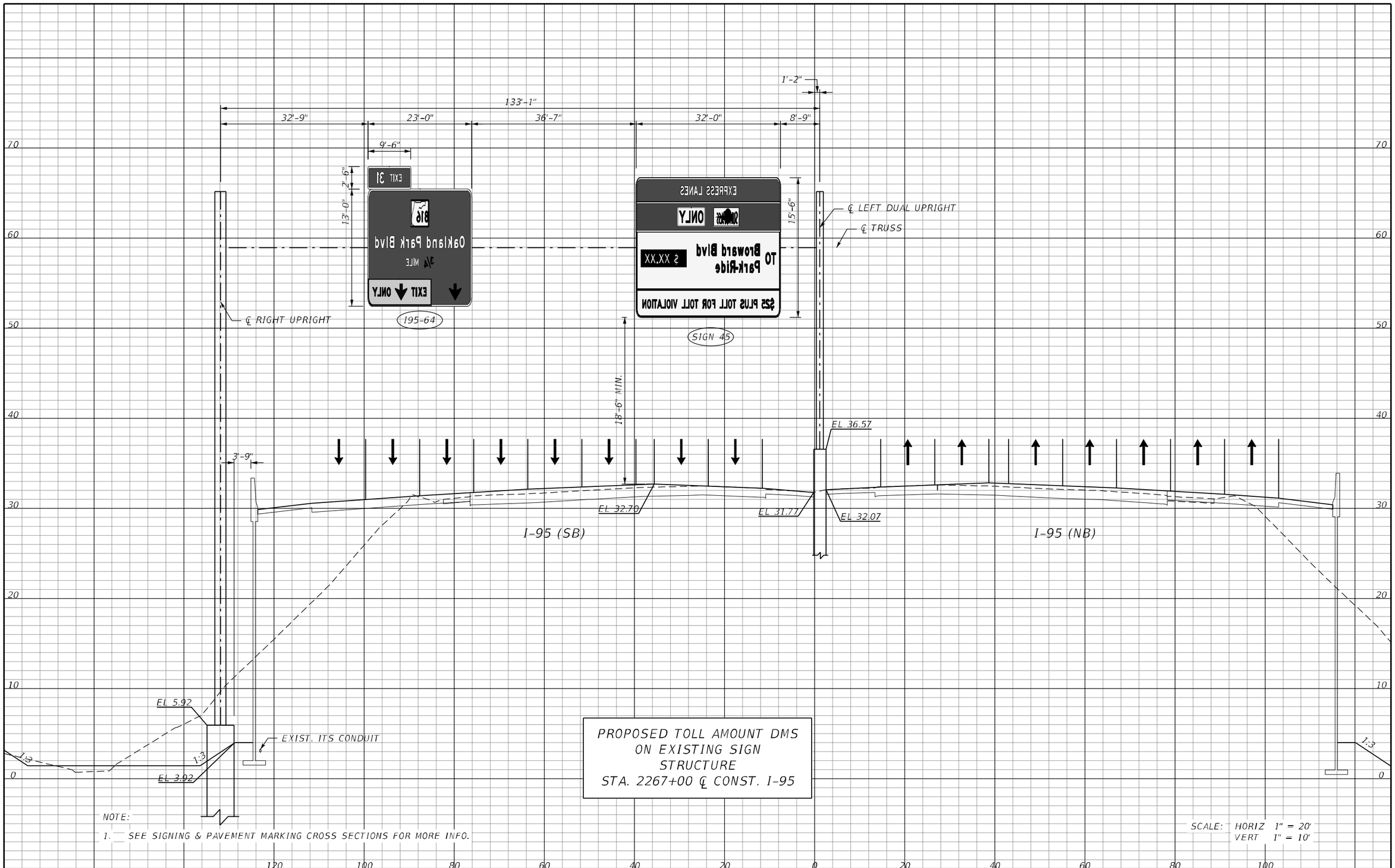
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (6)

SHEET NO.
IT-64

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:53:20 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, qualities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



PROPOSED TOLL AMOUNT DMS
ON EXISTING SIGN
STRUCTURE
STA. 2267+00 ℄ CONST. I-95

NOTE:
1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (7)

SHEET NO.
IT-65

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/PDO1 VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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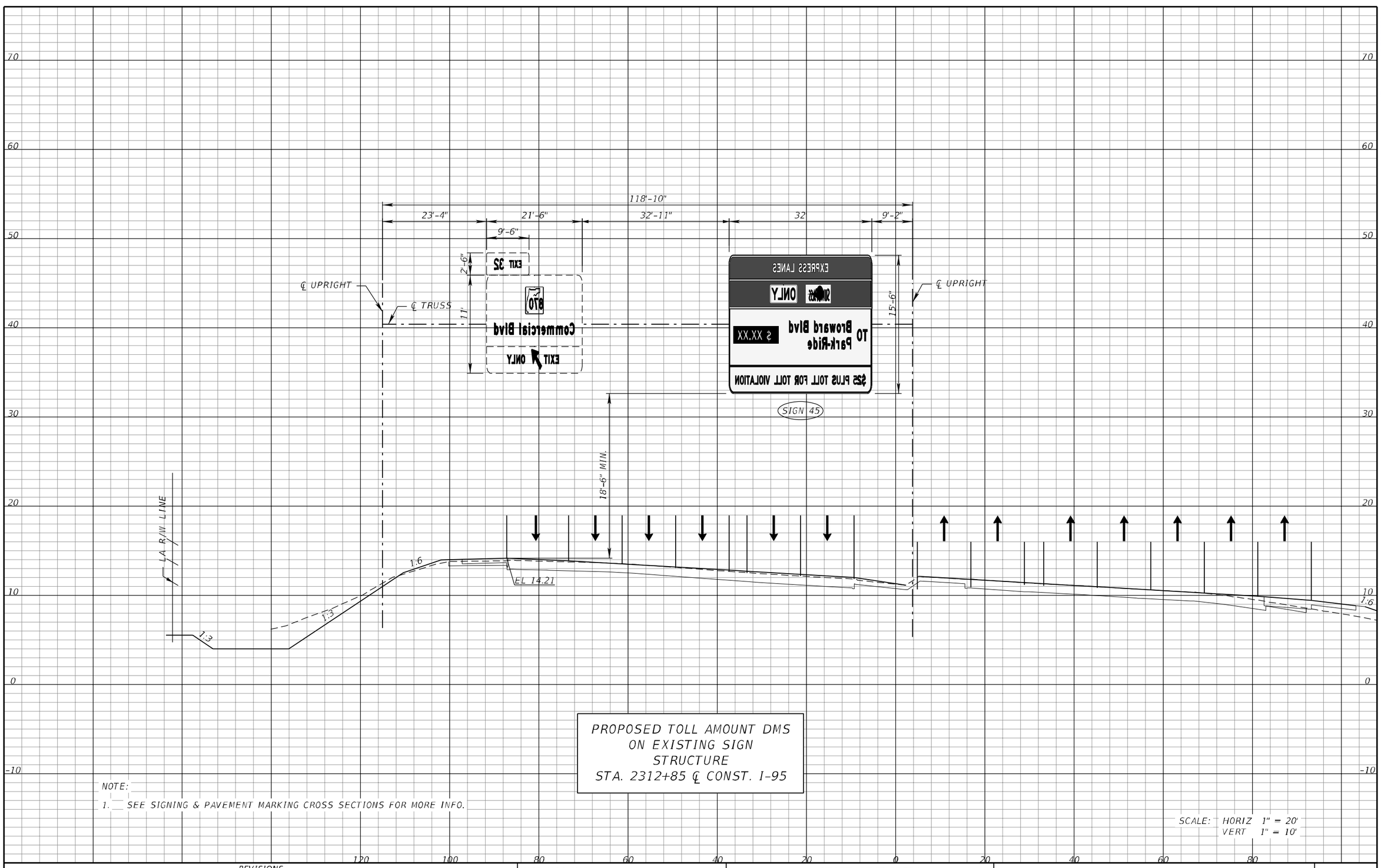


NOTE:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

PROPOSED TOLL AMOUNT DMS
ON EXISTING SIGN
STRUCTURE
STA. 2312+85 ℄ CONST. I-95

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (8)

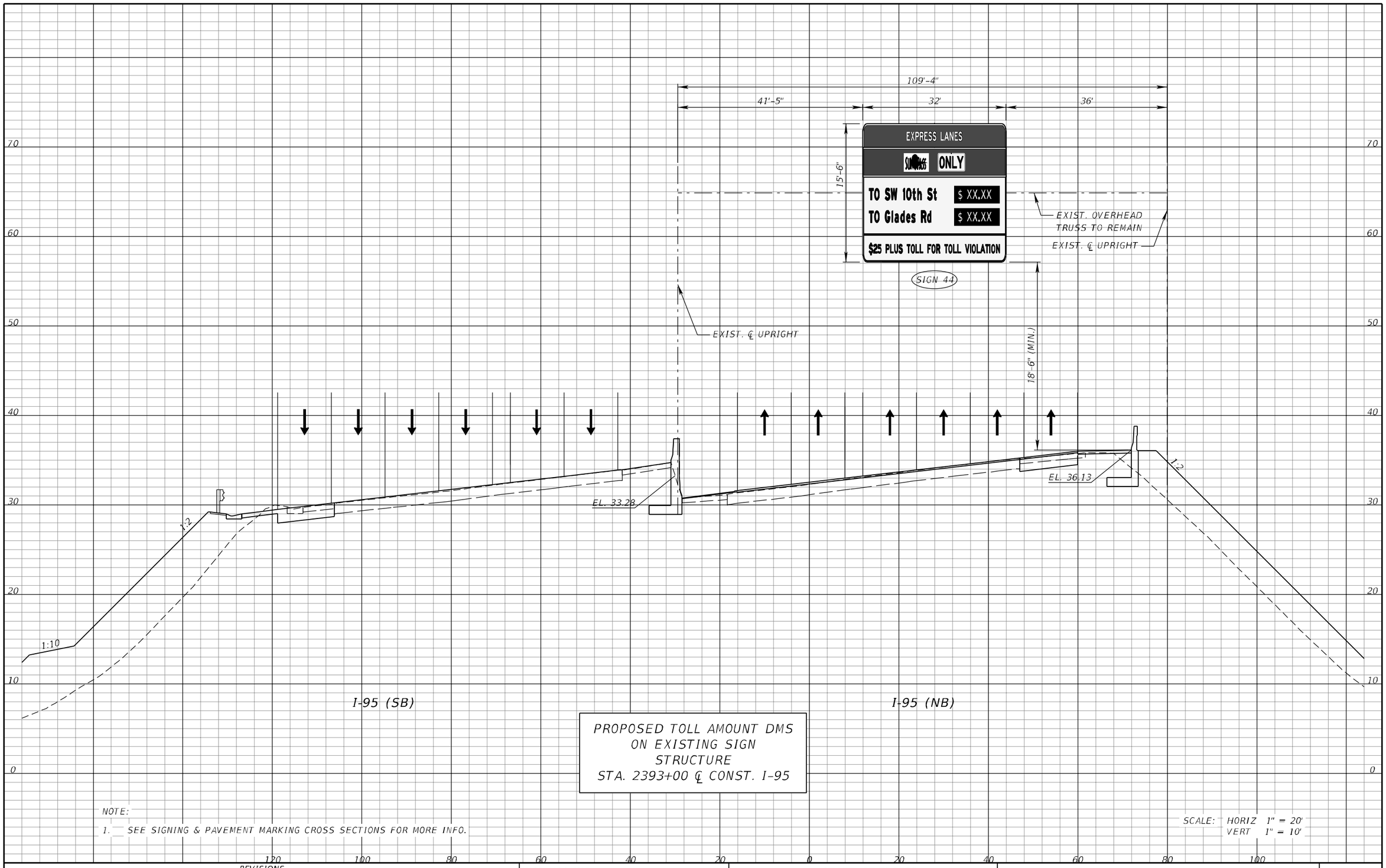
SHEET NO.
IT-66

BY/FDOT VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:53:39 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn



PROPOSED TOLL AMOUNT DMS ON EXISTING SIGN STRUCTURE
STA. 2393+00 ℄ CONST. I-95

NOTE:
1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (9)

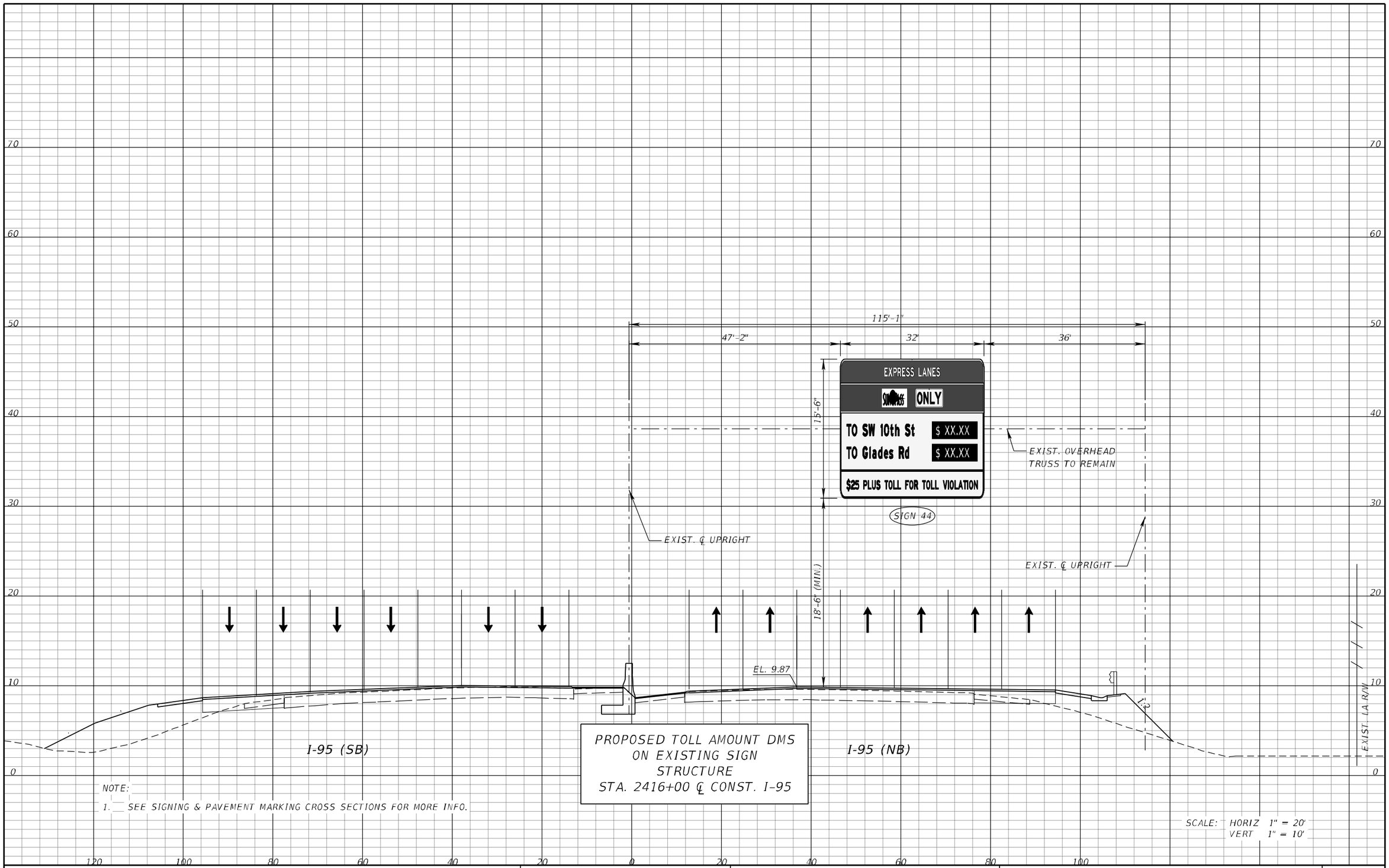
SHEET NO.
IT-67

BY/PDO VS Date: 10/30/2018

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4J66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:53:49 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSX\SIT100.dgn



NOTE:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (10)

SHEET NO.
IT-68

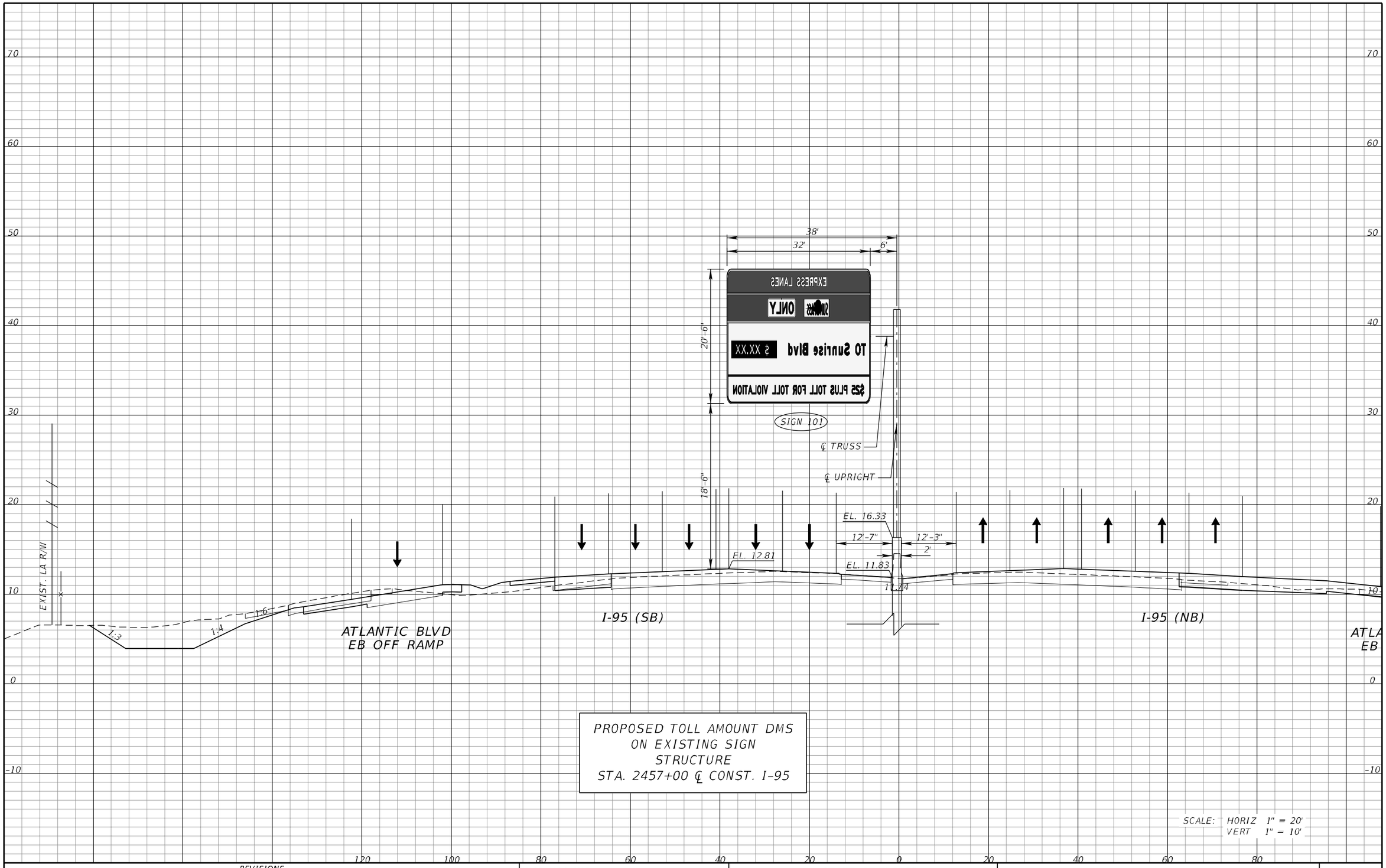
PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:53:59 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION

BY/FDOT VS Date: 10/30/2018

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



PROPOSED TOLL AMOUNT DMS
ON EXISTING SIGN
STRUCTURE
STA. 2457+00 ℄ CONST. I-95

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

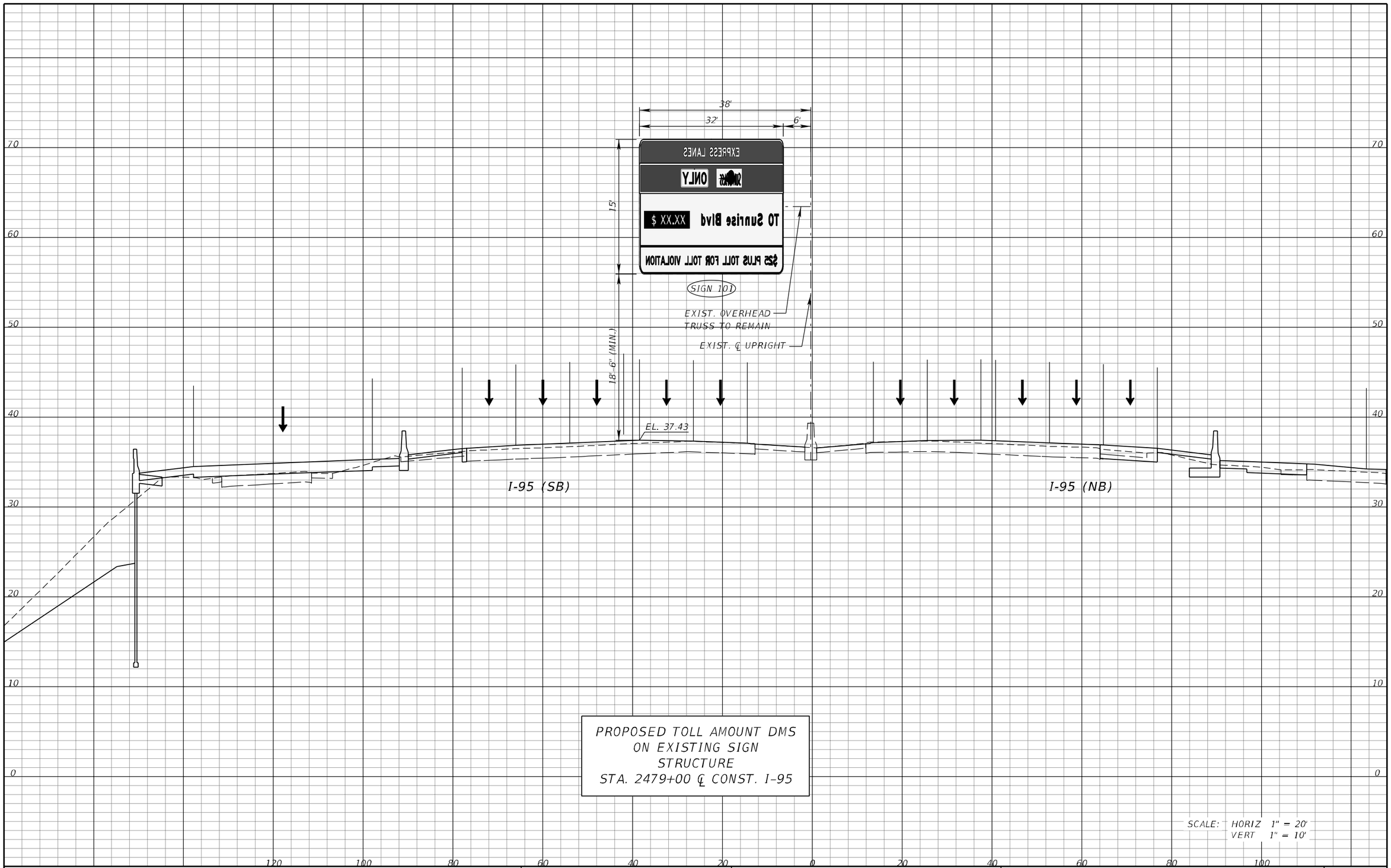
ITS CROSS SECTION (11)

SHEET NO.
IT-69

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:54:08 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn

SEALED UNDER RULE 61G15-23.004, F.A.C. **RELEASED FOR CONSTRUCTION** BY/PDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

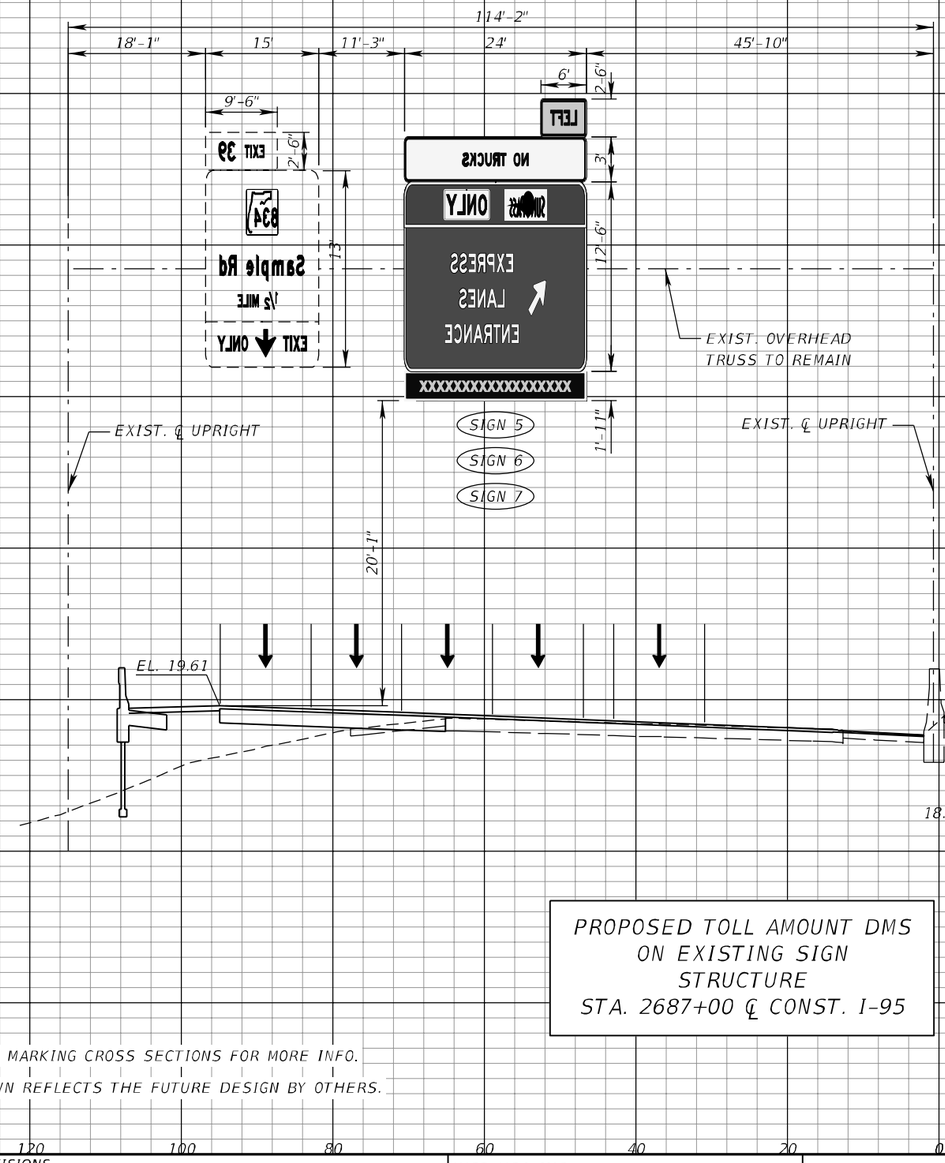
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (12)

SHEET NO.
IT-70

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:54:18 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSX\SIT100.dgn



PROPOSED TOLL AMOUNT DMS
ON EXISTING SIGN
STRUCTURE
STA. 2687+00 ℄ CONST. I-95

NOTE:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. THE CROSS SECTION SHOWN REFLECTS THE FUTURE DESIGN BY OTHERS.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (13)

SHEET NO.
IT-71

BY/FDOT VS Date: 10/30/2018

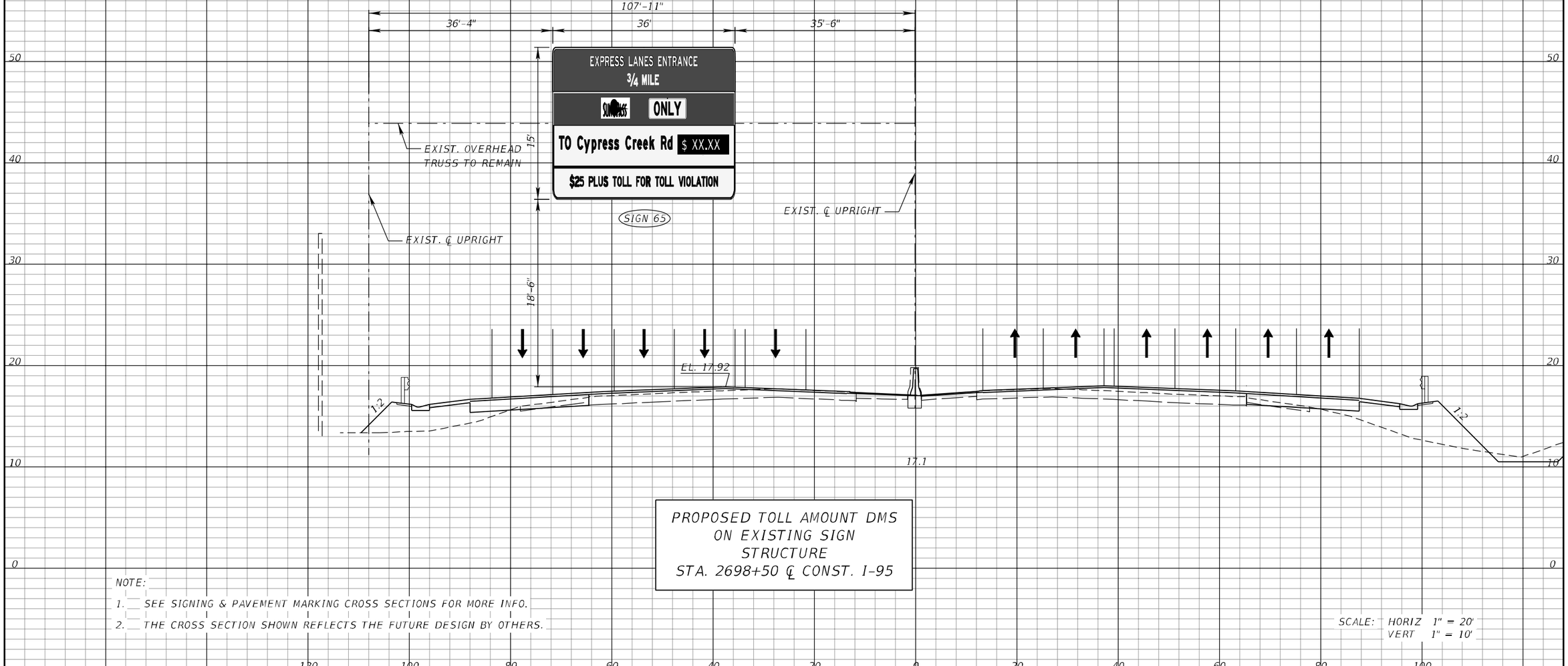
RELEASED FOR CONSTRUCTION

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:54:29 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn



PROPOSED TOLL AMOUNT DMS
ON EXISTING SIGN
STRUCTURE
STA. 2698+50 ℄ CONST. I-95

NOTE:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. THE CROSS SECTION SHOWN REFLECTS THE FUTURE DESIGN BY OTHERS.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

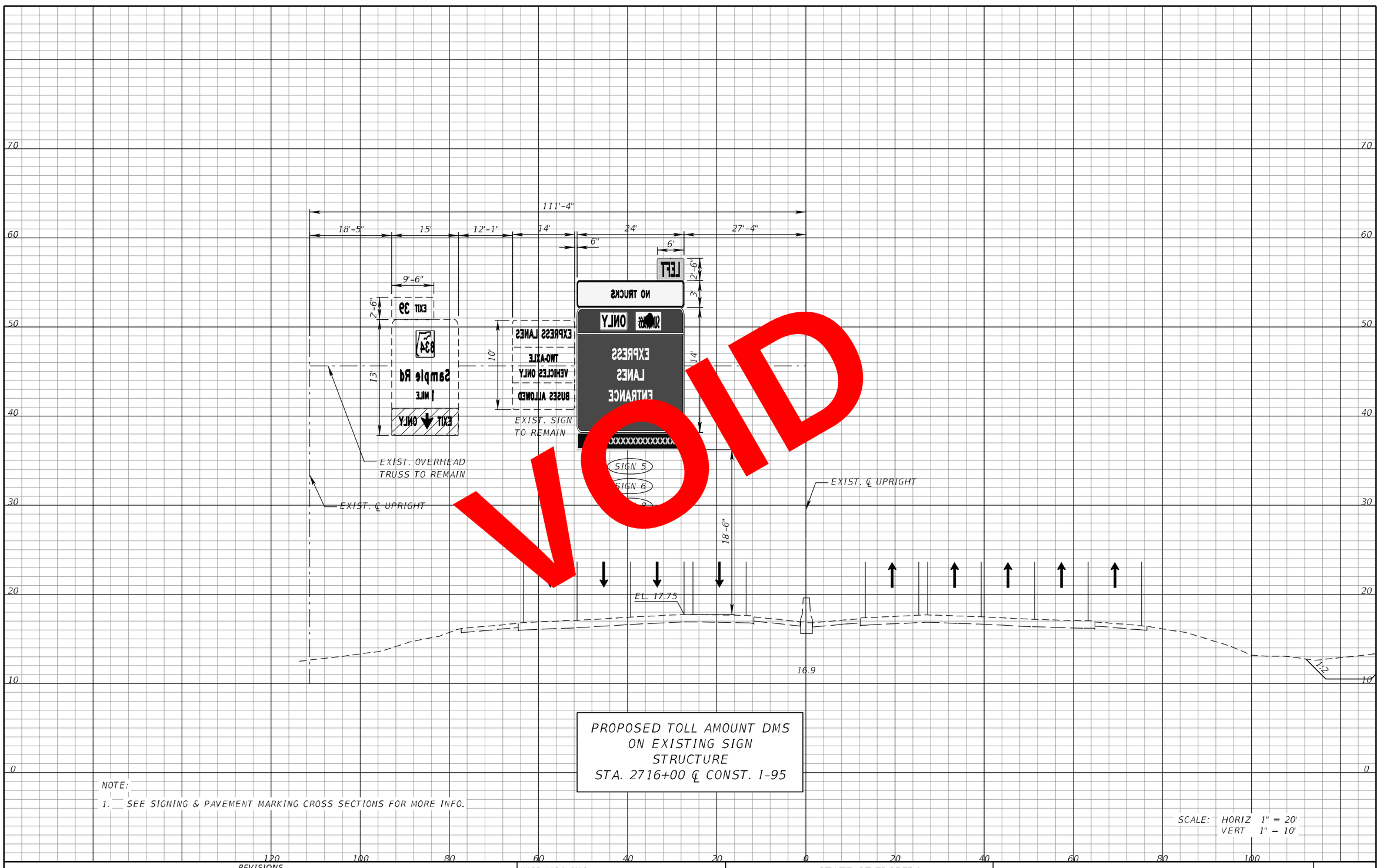
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (14)

SHEET NO.
IT-72

BY/FDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:54:39 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSX\SIT100.dgn



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

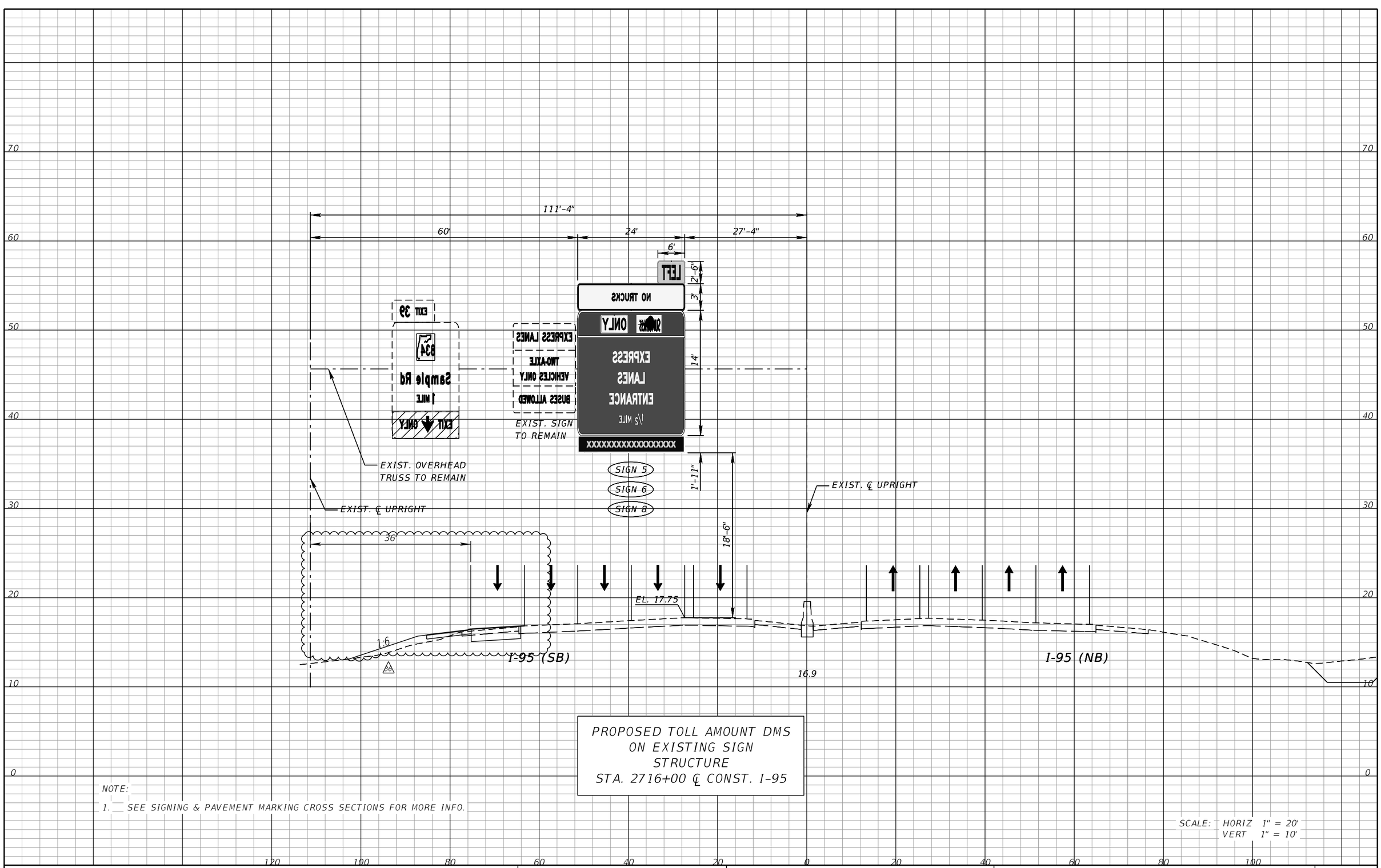
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (15)

SHEET NO.
IT-73

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:54:48 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SS\SIT100.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



NOTE:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

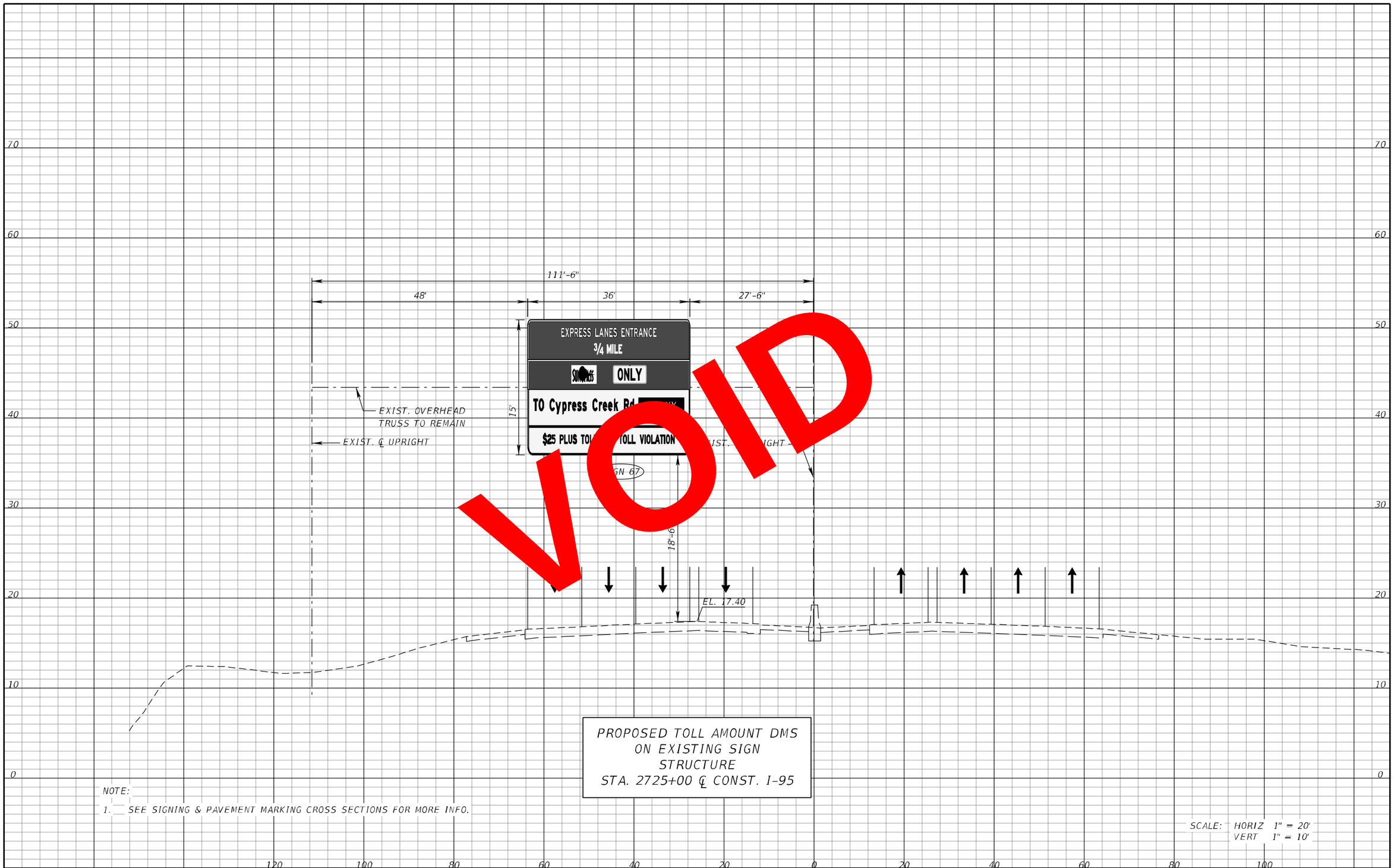
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (15)

SHEET NO.
IT-73

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



PROPOSED TOLL AMOUNT DMS
ON EXISTING SIGN
STRUCTURE
STA. 2725+00 ℄ CONST. I-95

NOTE:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (16)

SHEET NO.
IT-74

BY/FDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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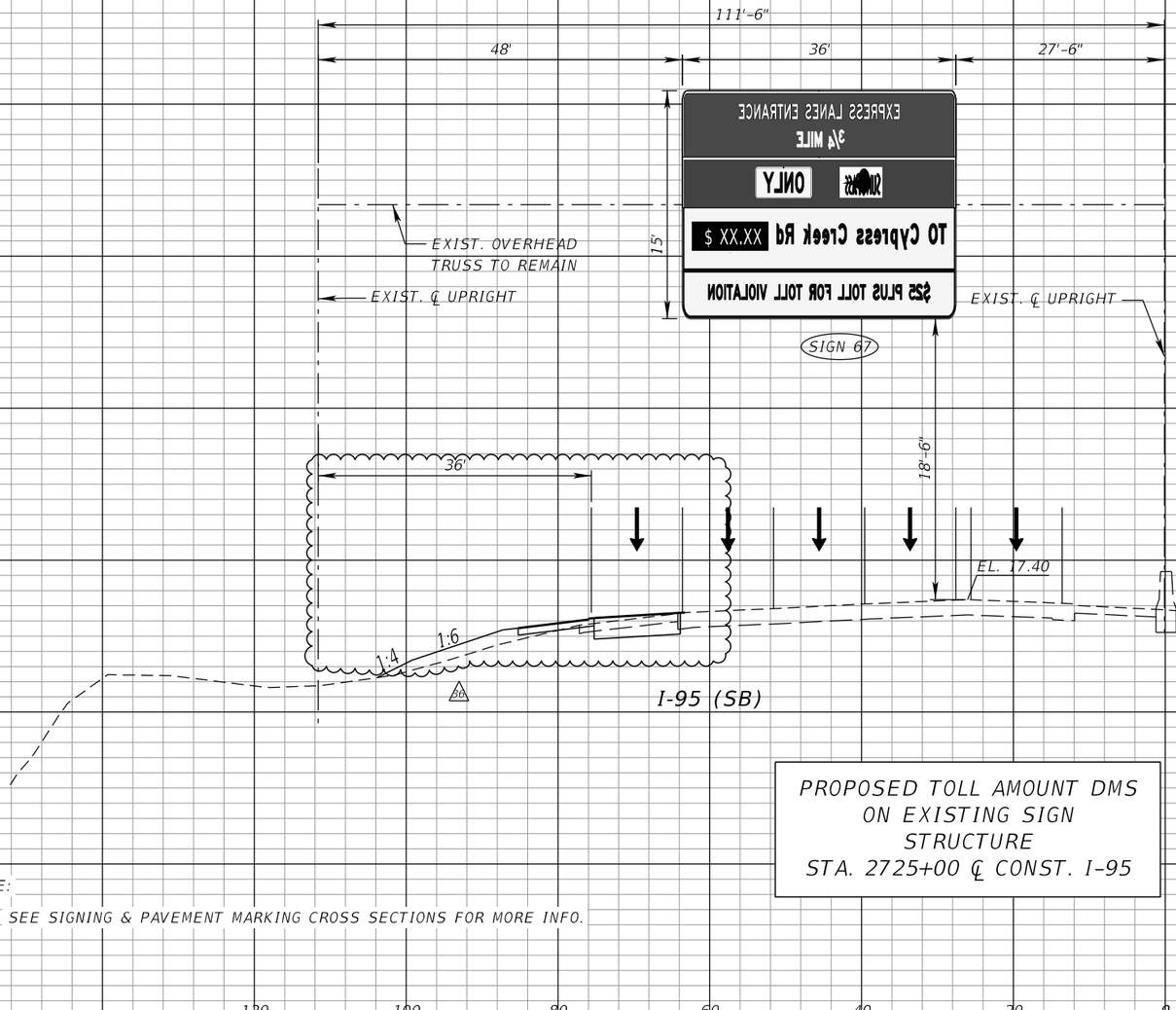

PROPOSED TOLL AMOUNT DMS
ON EXISTING SIGN
STRUCTURE
STA. 2725+00 ℄ CONST. I-95

NOTE:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.

SCALE: HORIZ 1" = 20'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	6 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (16)

SHEET NO.
IT-74

RELEASED FOR CONSTRUCTION
BY (PRINT) VS Date: 5/27/2020
Review is for general conformance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED

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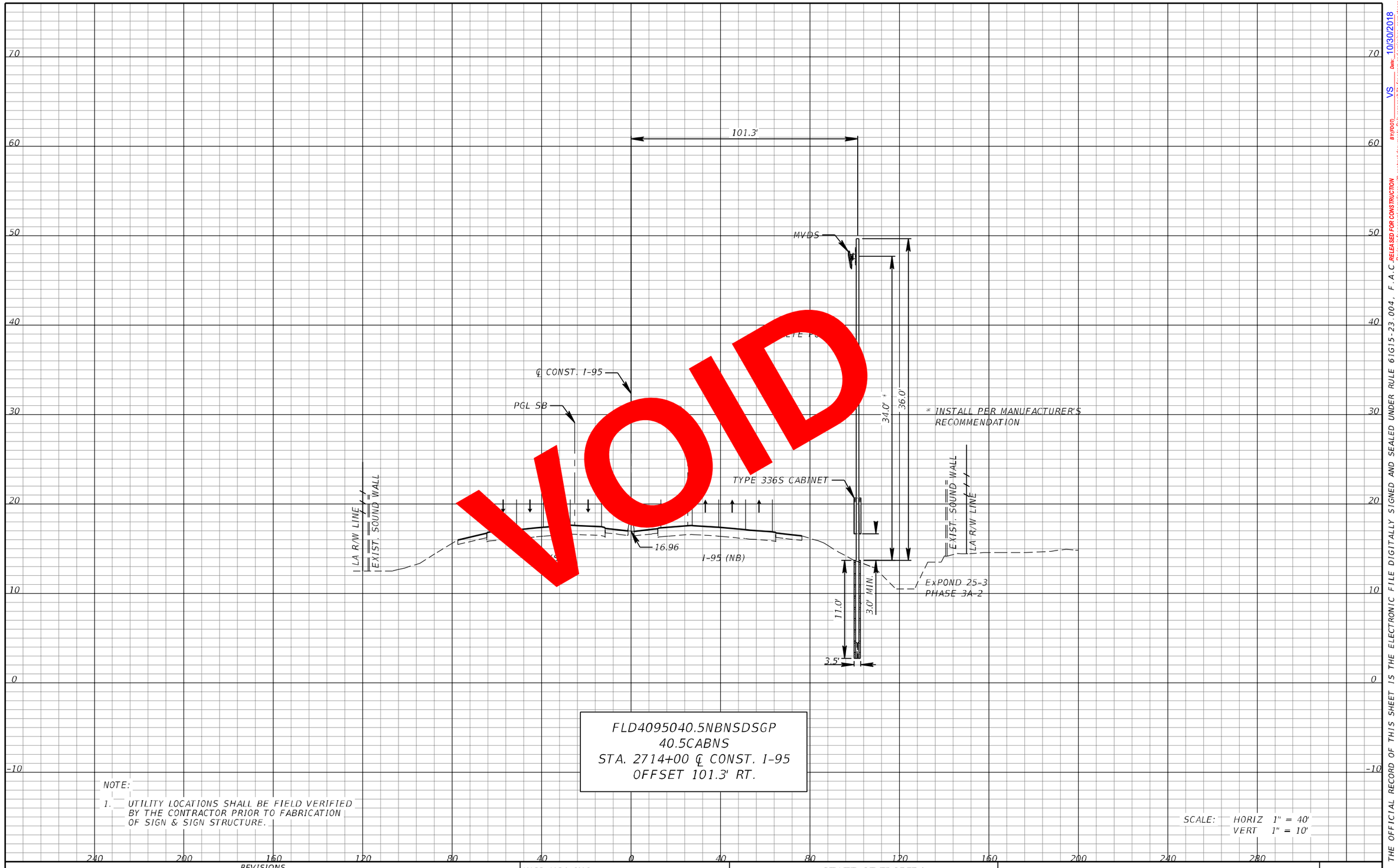


FLD4095040.5NBNSDSGP
40.5CABNS
STA. 2714+00 ℄ CONST. I-95
OFFSET 101.3' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

VOID

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B68

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

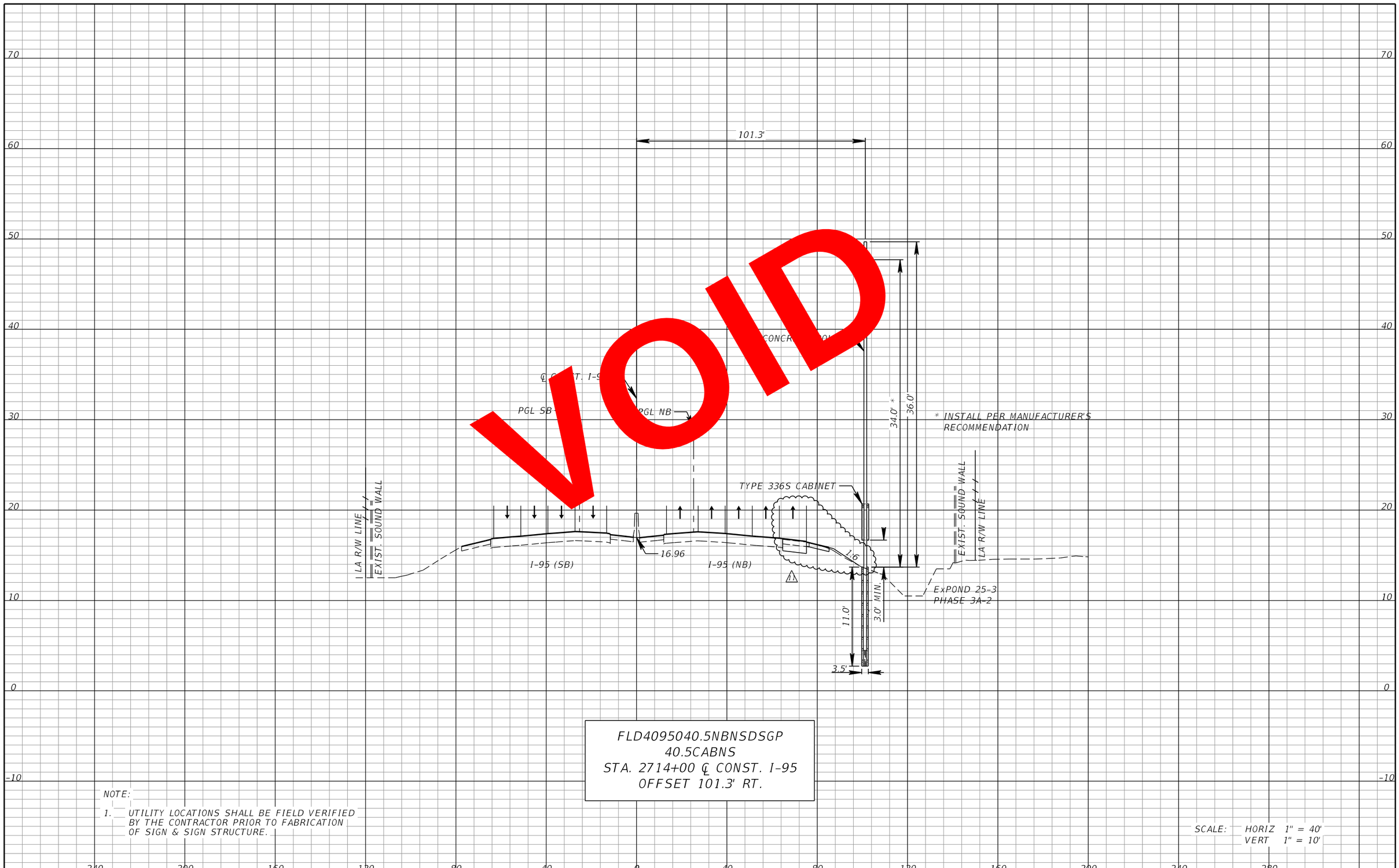
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (17)

SHEET NO.
IT-75



VOID

FLD4095040.5NBNSDSGP
40.5CABNS
STA. 2714+00 ℄ CONST. I-95
OFFSET 101.3' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/7/2019	1 ADDED AUXILIARY LANE.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

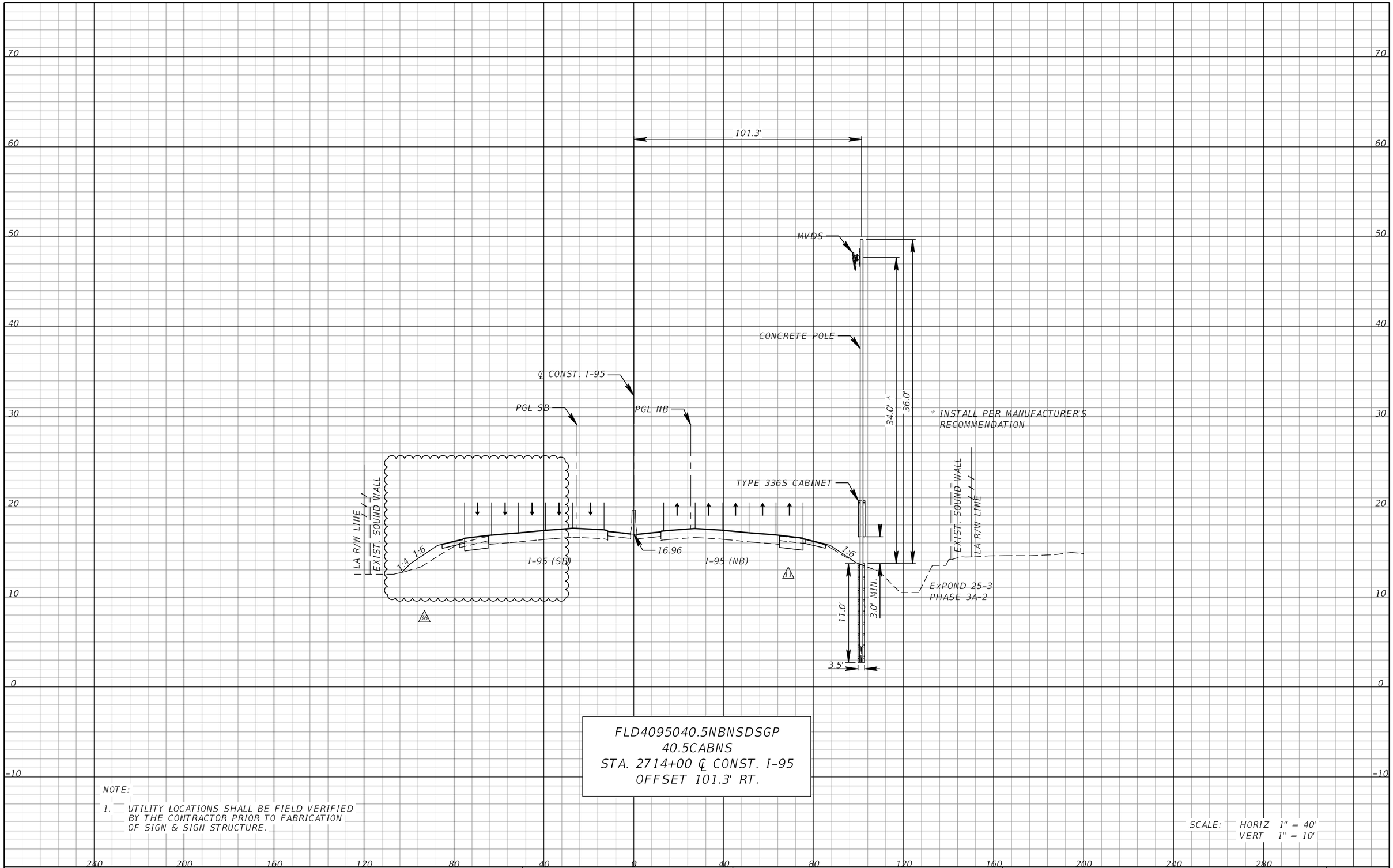
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (17)

SHEET NO.
IT-75

RELEASED FOR CONSTRUCTION
BY:FDOT VS Date: 03/15/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/7/2019	11 ADDED AUXILIARY LANE.		
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (17)

SHEET NO.
IT-75

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
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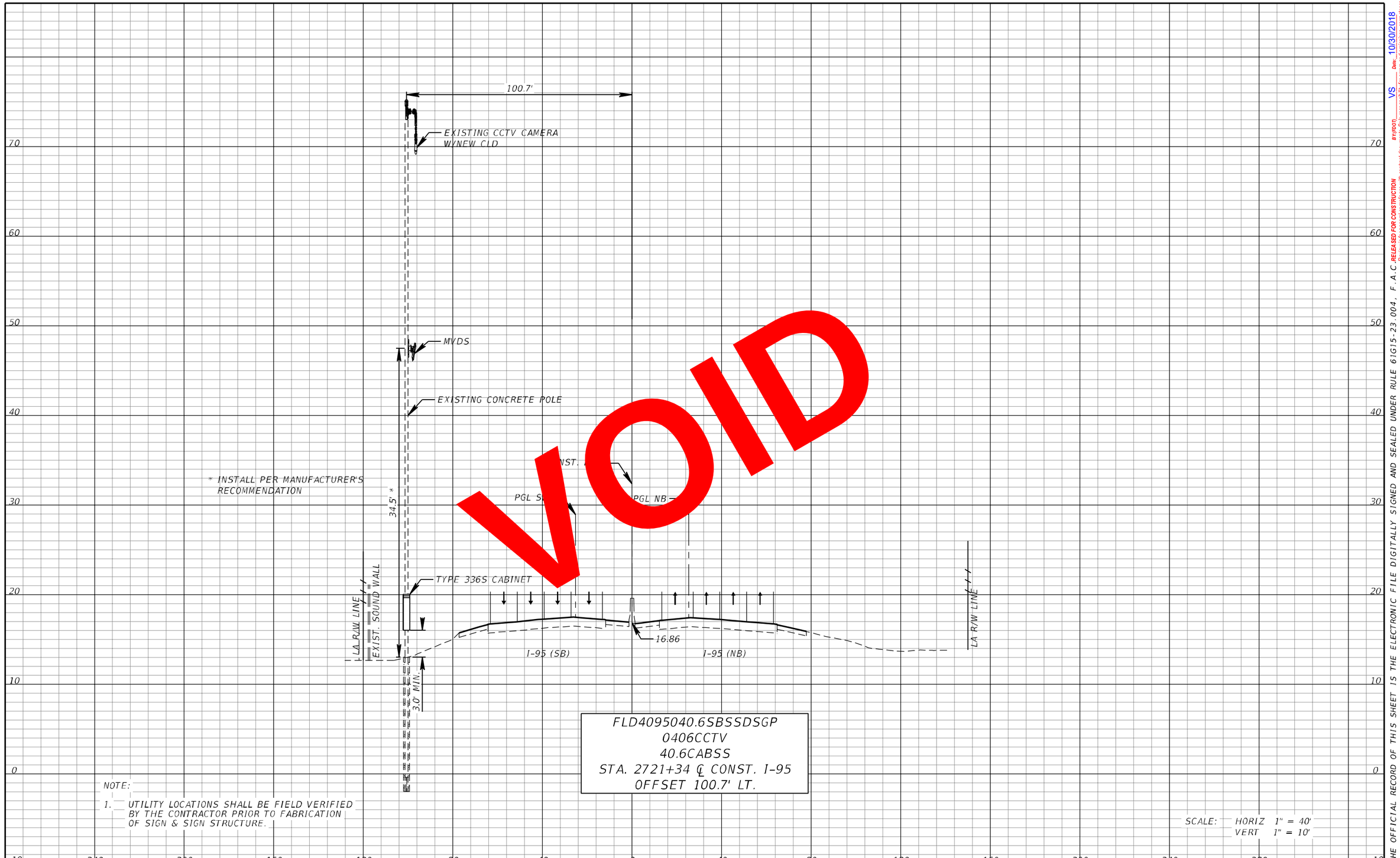
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



VOID

FLD4095040.6SBSSDSGP
0406CCTV
40.6CABSS
STA. 2721+34 ℄ CONST. I-95
OFFSET 100.7' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (18)

SHEET NO.
IT-76

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

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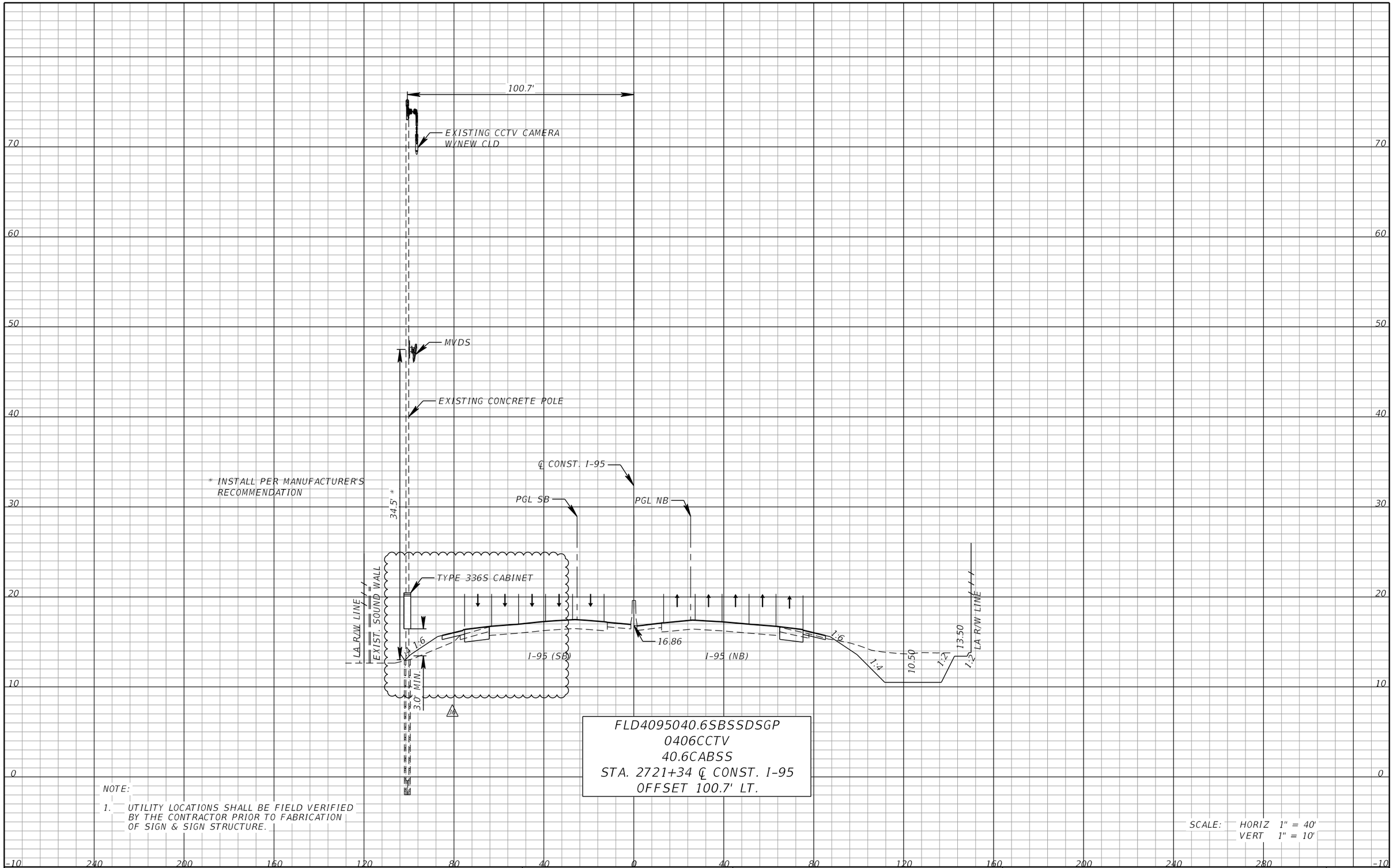

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (18)

SHEET NO.
IT-76

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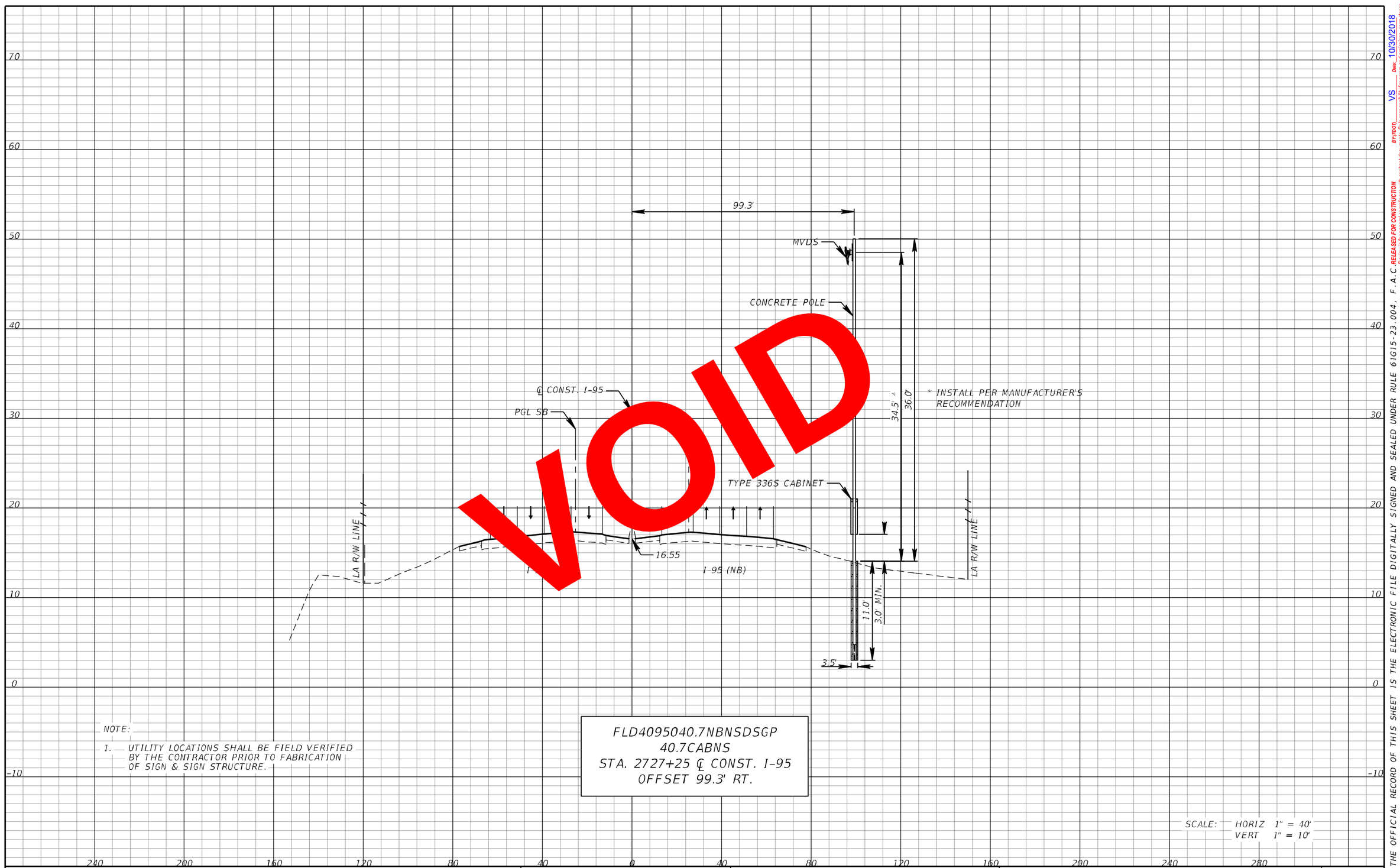


VOID

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

FLD4095040.7NBNSDSGP
40.7CABNS
STA. 2727+25 ℄ CONST. I-95
OFFSET 99.3' RT.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

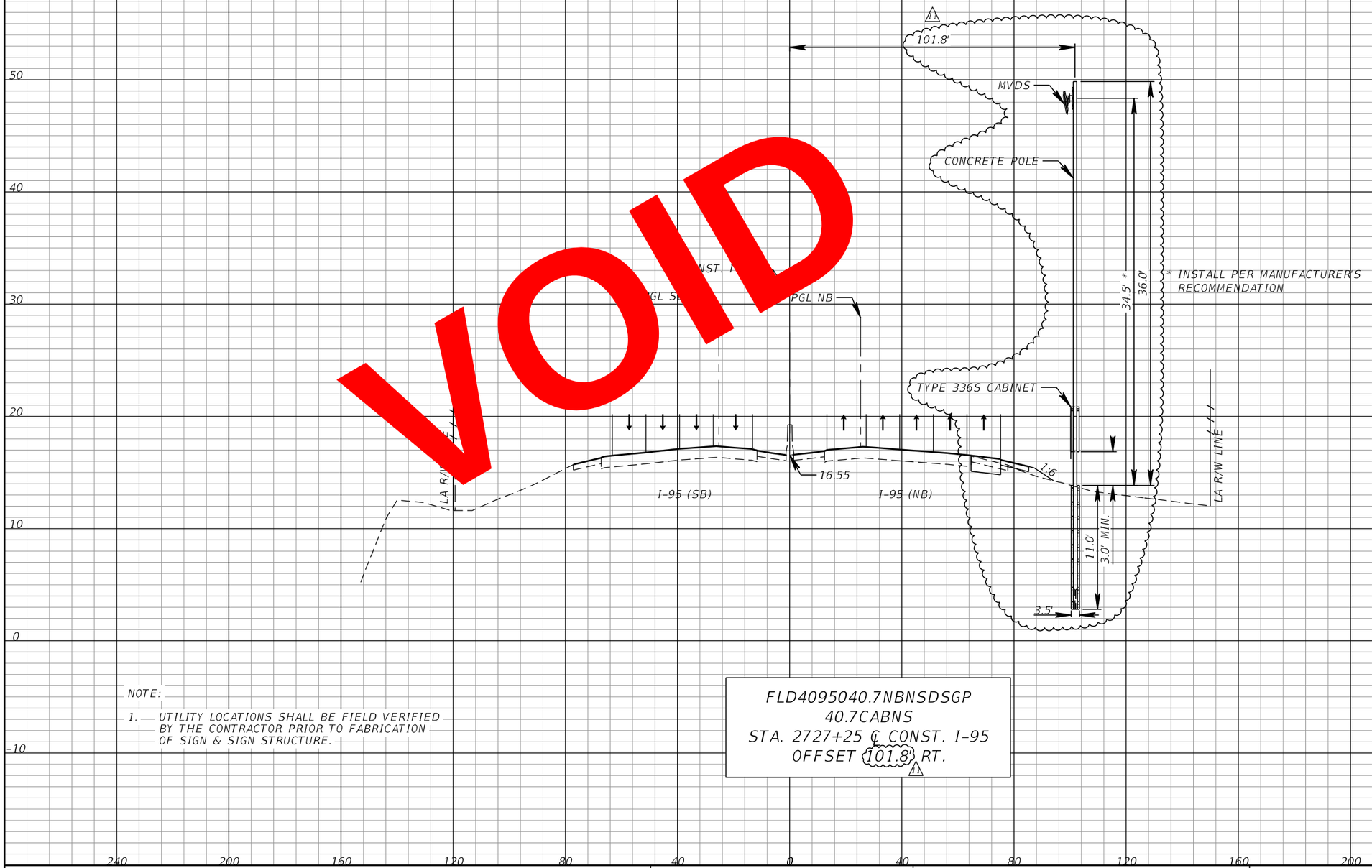
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (19)

SHEET NO.
IT-77

BY/PDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/7/2019	1 ADDED AUXILIARY LANE AND REVISED OFFSET.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

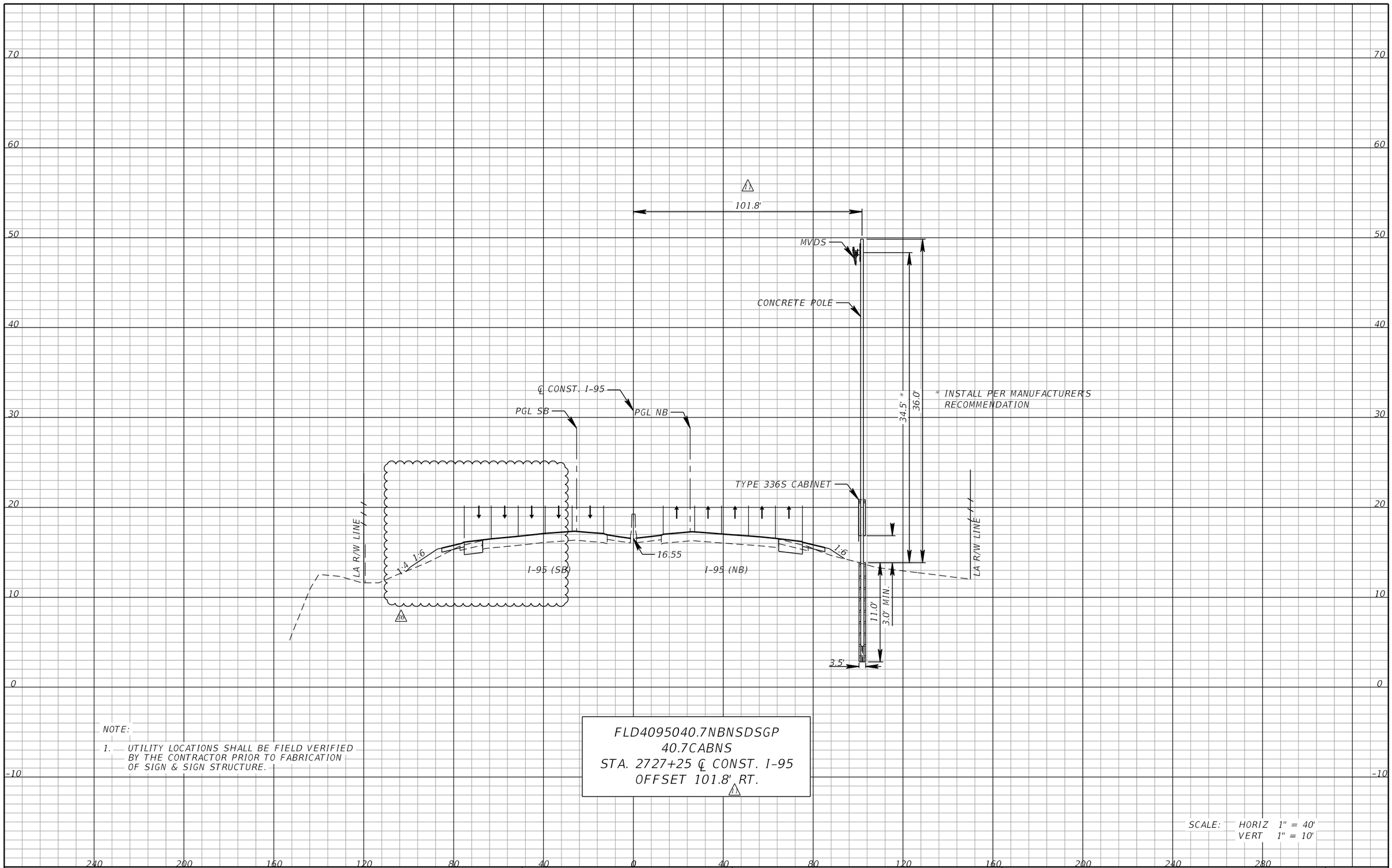
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (19)

SHEET NO.
IT-77

BY:(FDOT) VS Date: 03/15/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erections shall remain with the contractor.
FPID 433108-6-52-01 and 433108-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

FLD4095040.7NBNSDSGP
40.7CABNS
STA. 2727+25 ℄ CONST. I-95
OFFSET 101.8' RT.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
3/7/2019	11 ADDED AUXILIARY LANE AND REVISED OFFSET.		
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

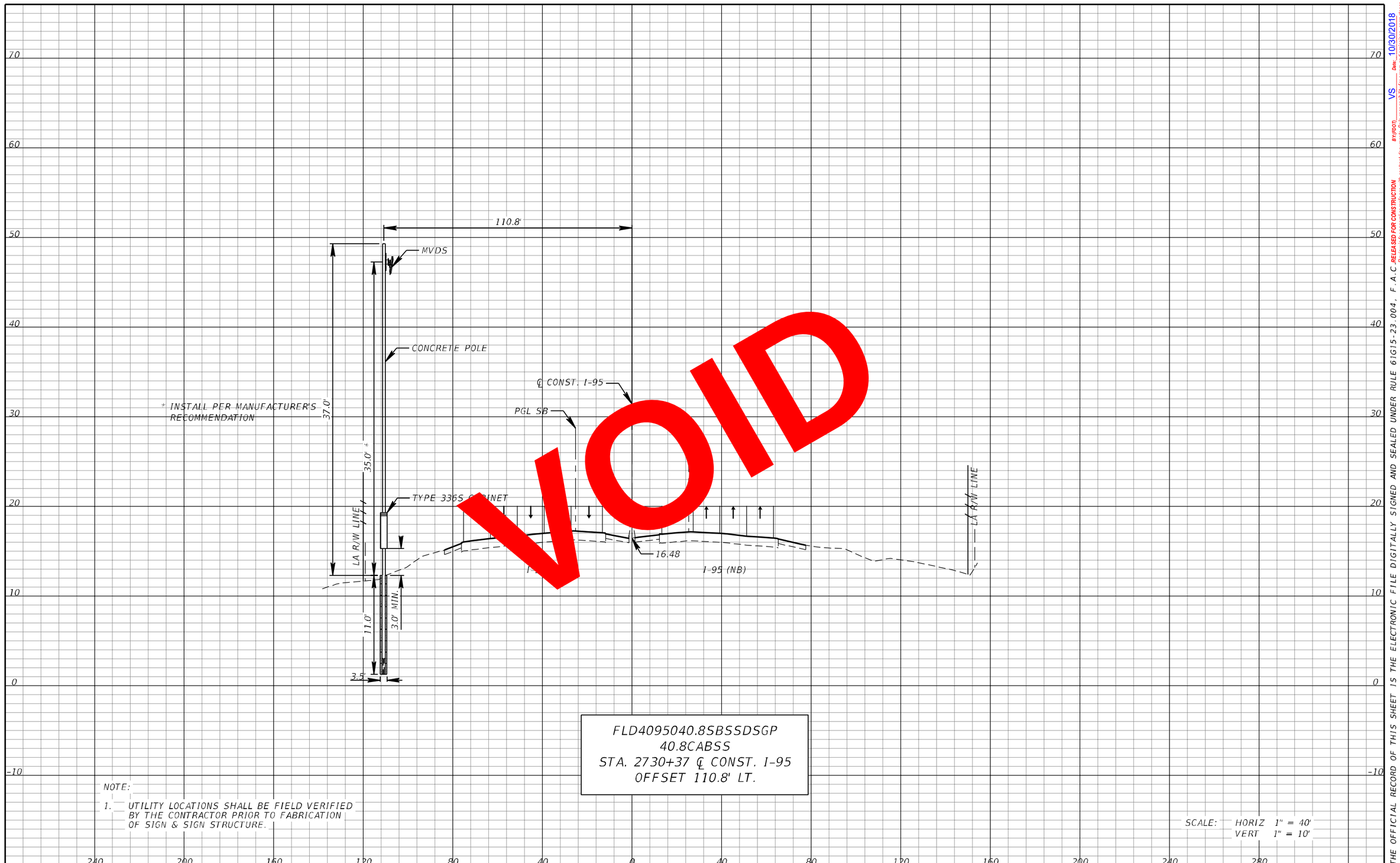
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (19)

SHEET NO.
IT-77

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



VOID

FLD4095040.8SBSSDSGP
40.8CABSS
STA. 2730+37 ℄ CONST. I-95
OFFSET 110.8' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

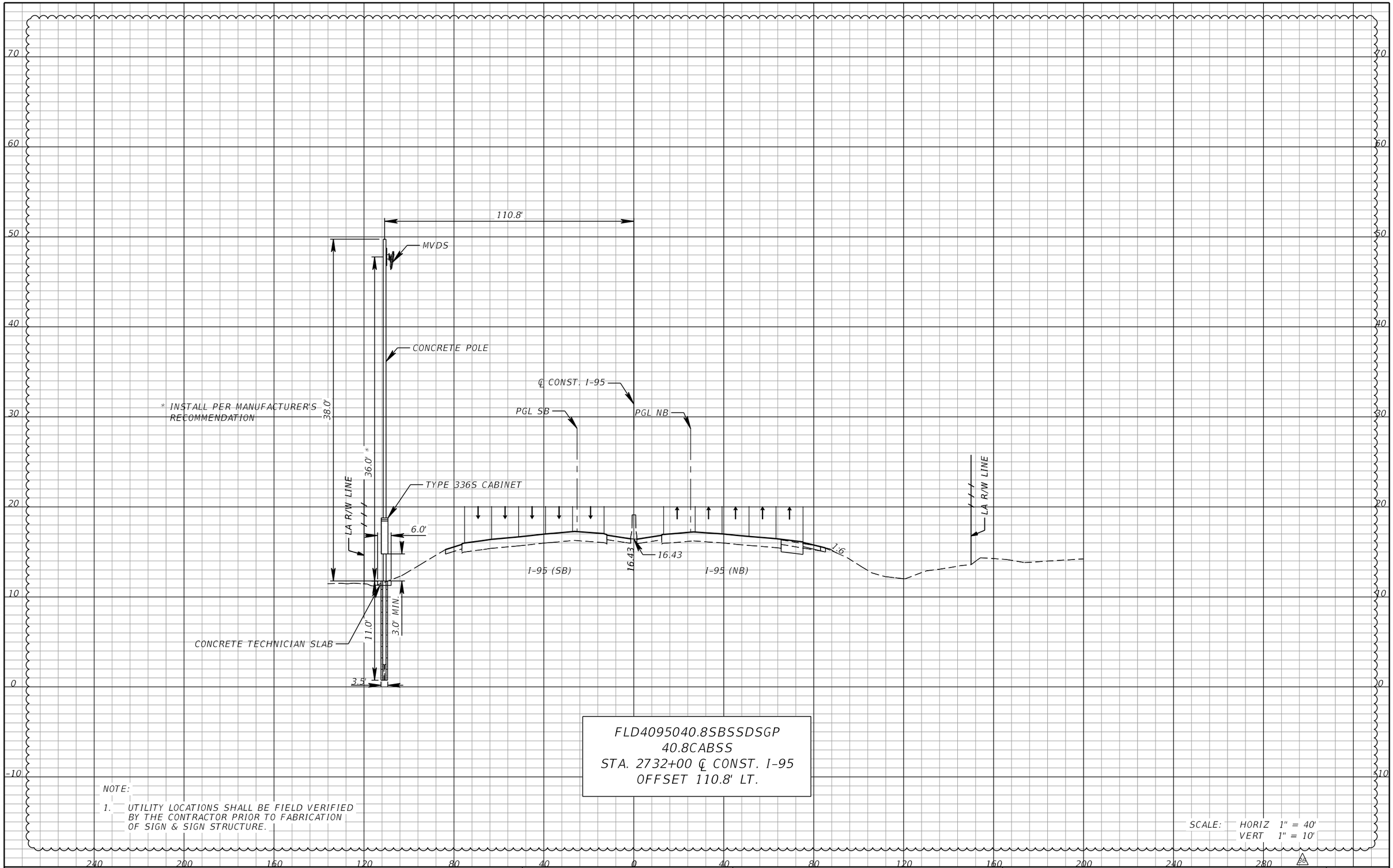
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (20)

SHEET NO.
IT-78

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:55:37 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SS\SIT100.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/PDT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



FLD4095040.8SBSSDSGP
40.8CABSS
STA. 2732+00 ℄ CONST. I-95
OFFSET 110.8' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	36 REVISED DESIGN FOR AUXILIARY LANE REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

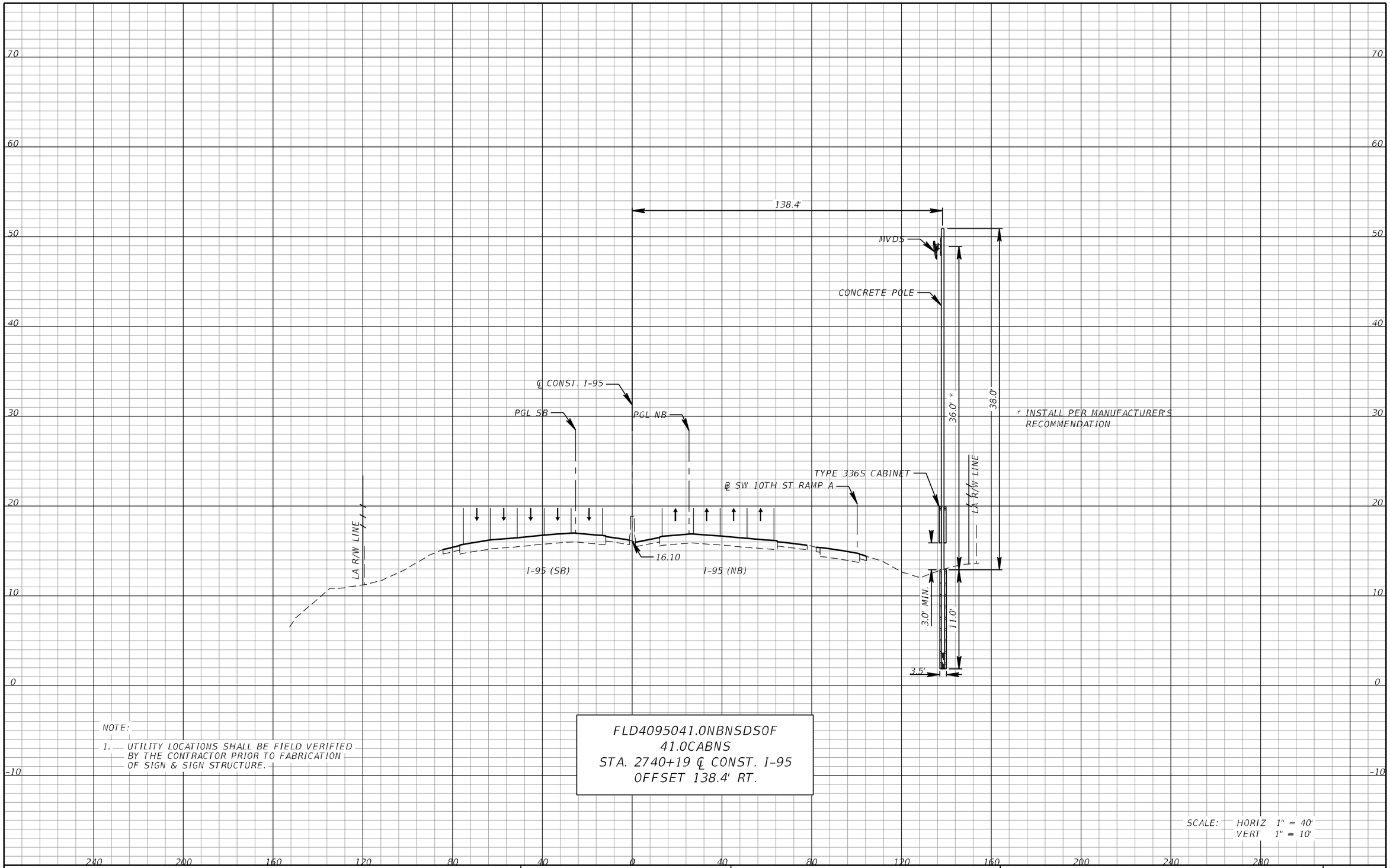
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (20)

SHEET NO.
IT-78

PLOT DRIVER = C:\FDOTSS4\RESOURCES\plot\FDOTPDF.pltcfg PEN TABLE = C:\Program Files (x86)\Bentley_v8iSS4\PowerGEOPAK\FDOT_GrayExisting.tbl MODEL NAME =Rdxsrd_shg USMW189428 5/11/2020 10:45:24 AM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0264783\SSXSIT100.dgn



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

FLD4095041.0NBNSDS0F
41.0CABNS
STA. 2740+19 ℄ CONST. I-95
OFFSET 138.4' RT.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

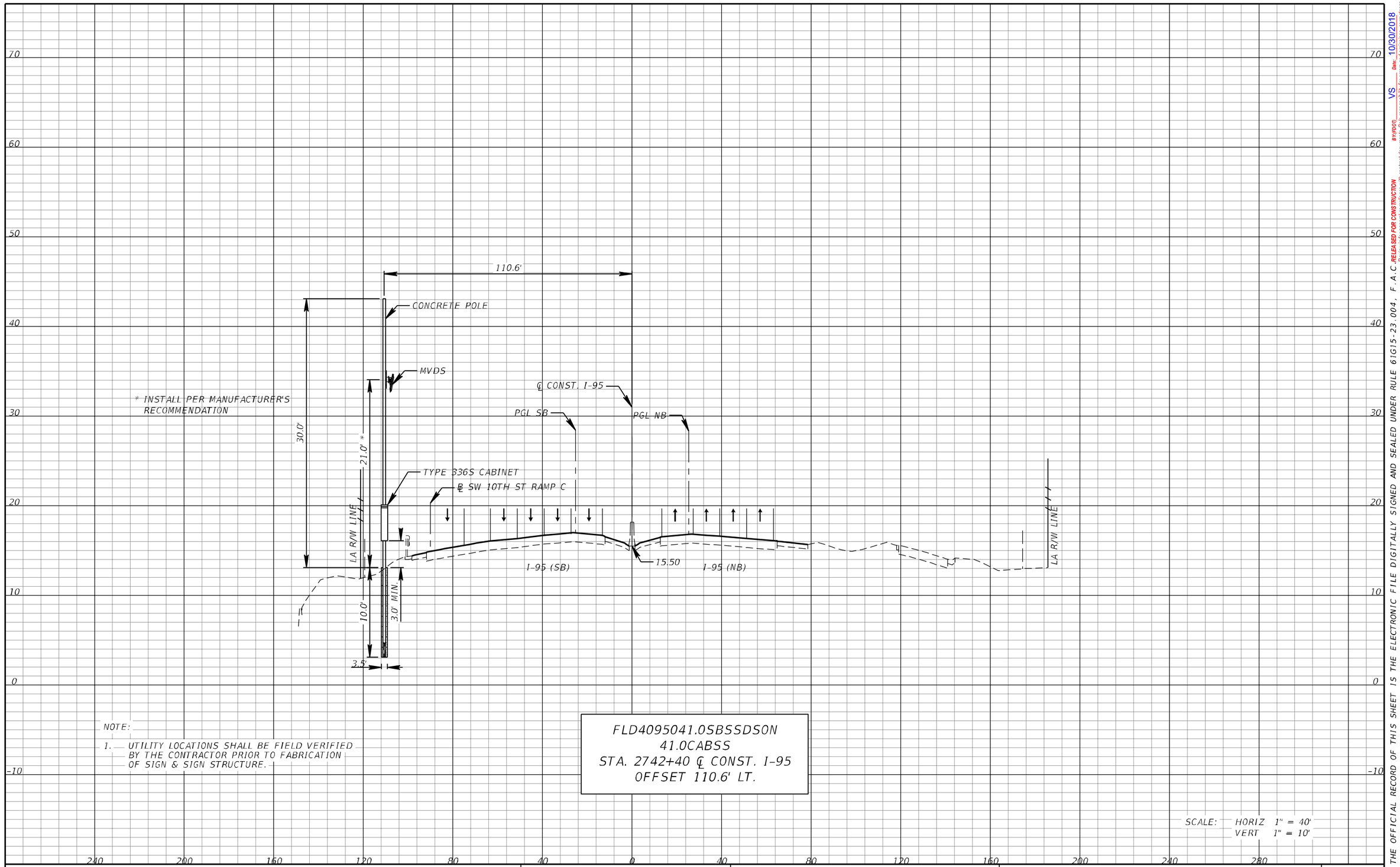
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (21)

SHEET NO.
IT-79

BY/PDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
SEALED UNDER RULE 61G15-23.004, F.A.C.
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:55:47 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSX\SIT100.dgn



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

FLD4095041.0SBSSDSON
41.0CABSS
STA. 2742+40 ℄ CONST. I-95
OFFSET 110.6' LT.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

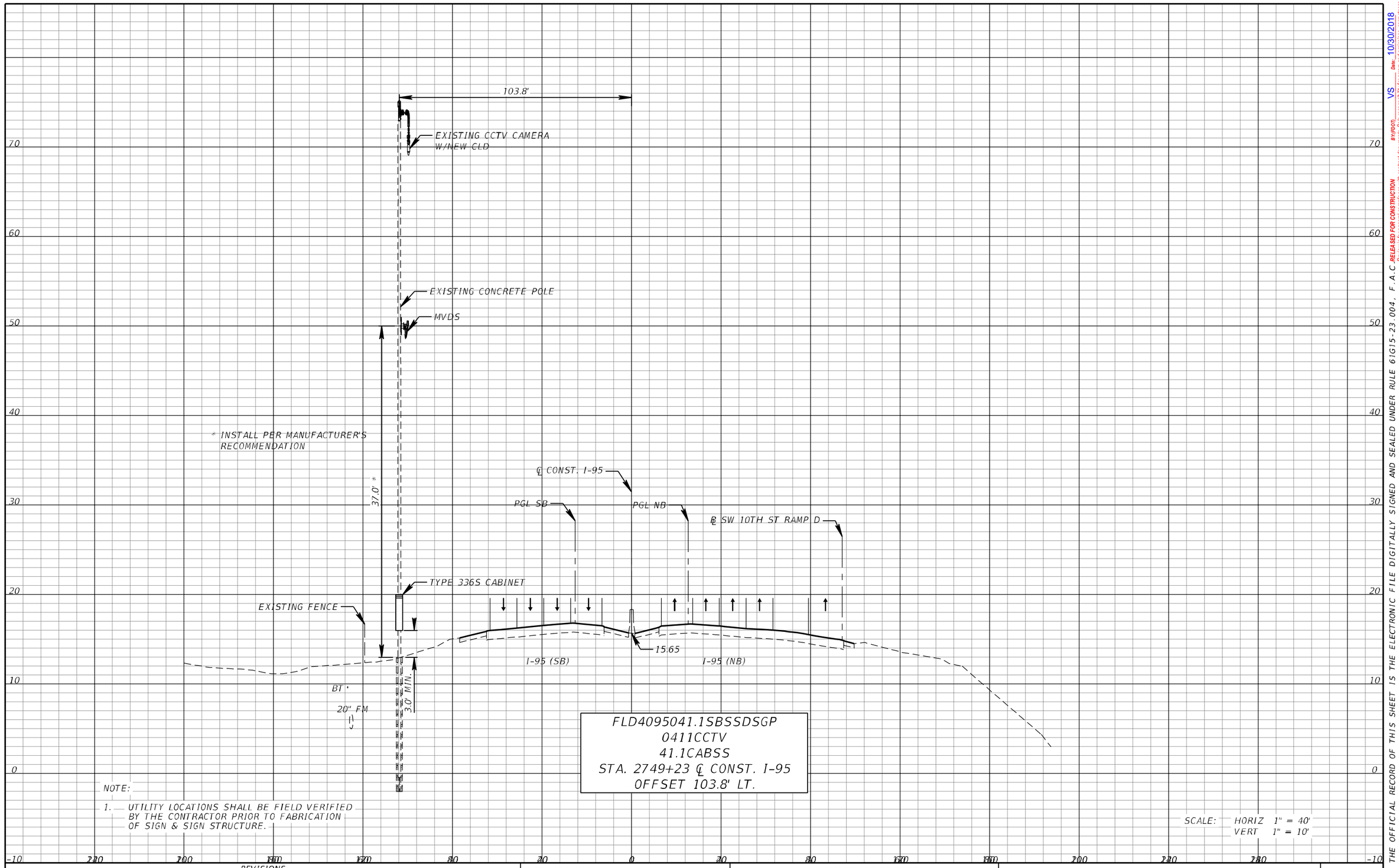
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (22)

SHEET NO. IT-80

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:55:57 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (23)

SHEET NO.
IT-81

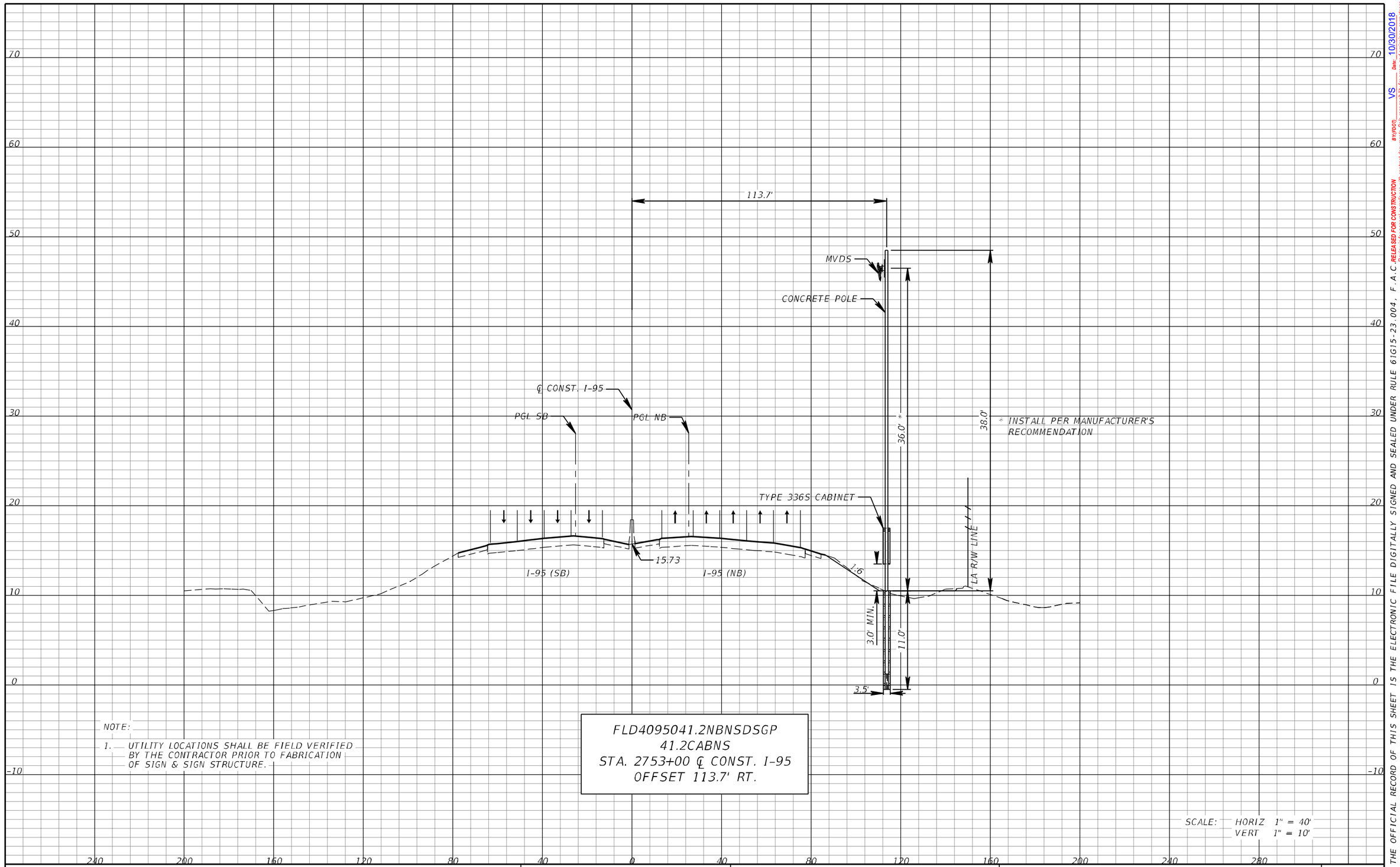
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION

BY/FDOT VS Date: 10/30/2018

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:56:07 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

FLD4095041.2NBNSDSGP
41.2CABNS
STA. 2753+00 ℄ CONST. I-95
OFFSET 113.7' RT.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

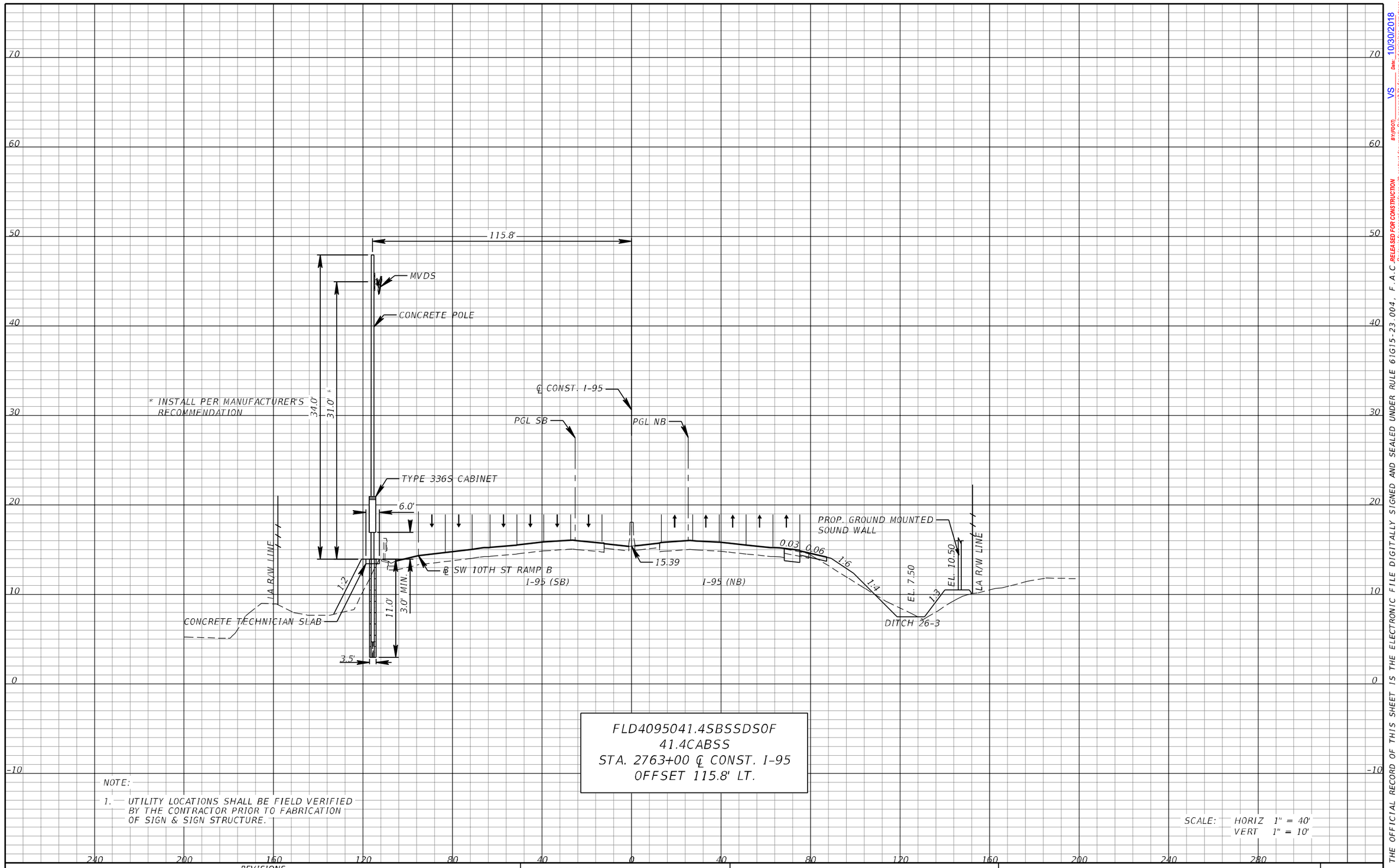
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (24)

SHEET NO. IT-82

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:56:17 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSX\SIT100.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



FLD4095041.4SBSSDS0F
41.4CABSS
STA. 2763+00 ℄ CONST. I-95
OFFSET 115.8' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

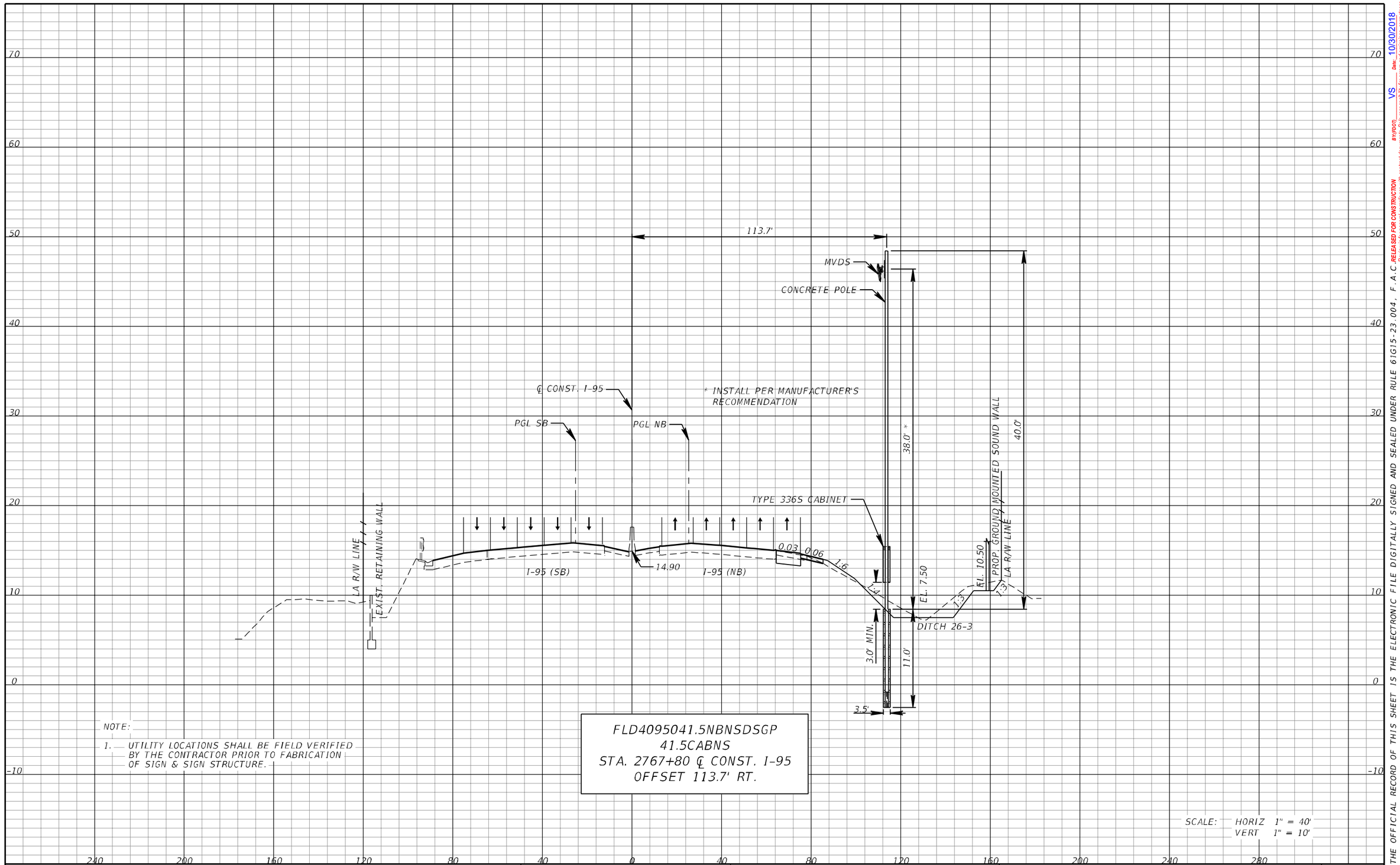
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (25)

SHEET NO.
IT-83

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/FDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:56:27 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

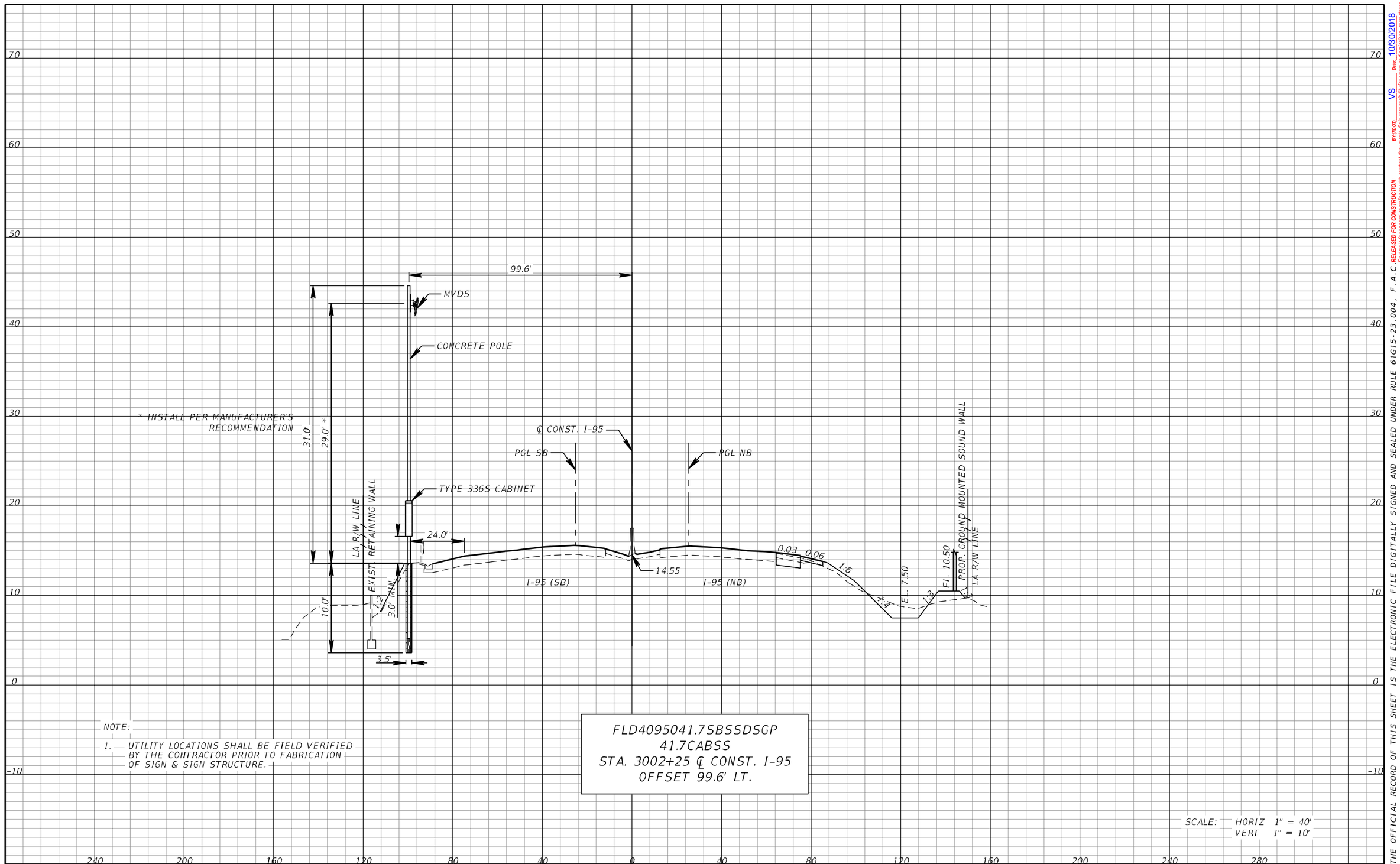
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (26)

SHEET NO.
IT-84

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/PDT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:56:36 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

FLD4095041.7SBSSDSGP
41.7CABSS
STA. 3002+25 ℄ CONST. I-95
OFFSET 99.6' LT.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

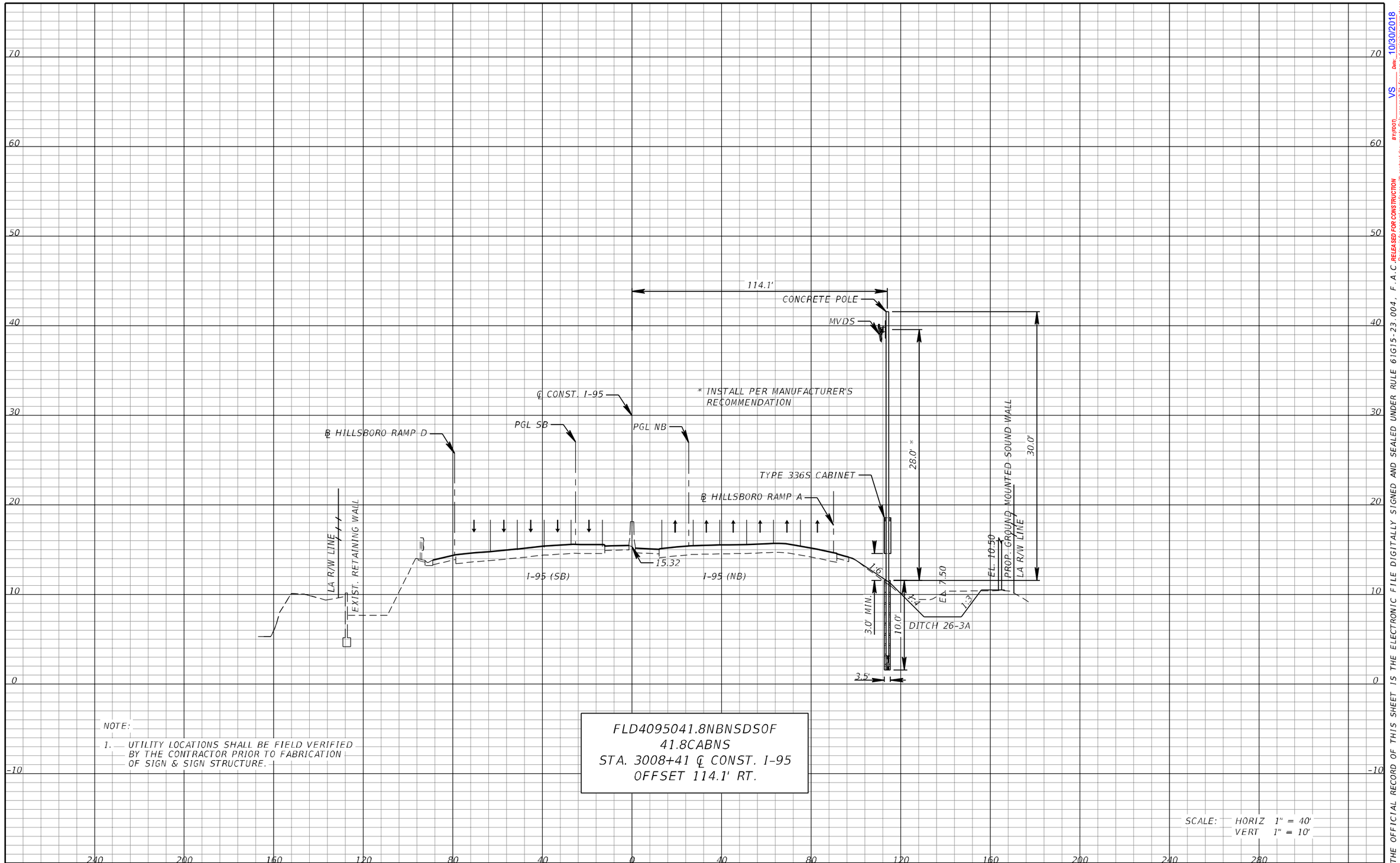
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (27)

SHEET NO.
IT-85

BY:FDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:56:46 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SS\SIT100.dgn



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

FLD4095041.8NBNSDSOF
41.8CABNS
STA. 3008+41 ℄ CONST. I-95
OFFSET 114.1' RT.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

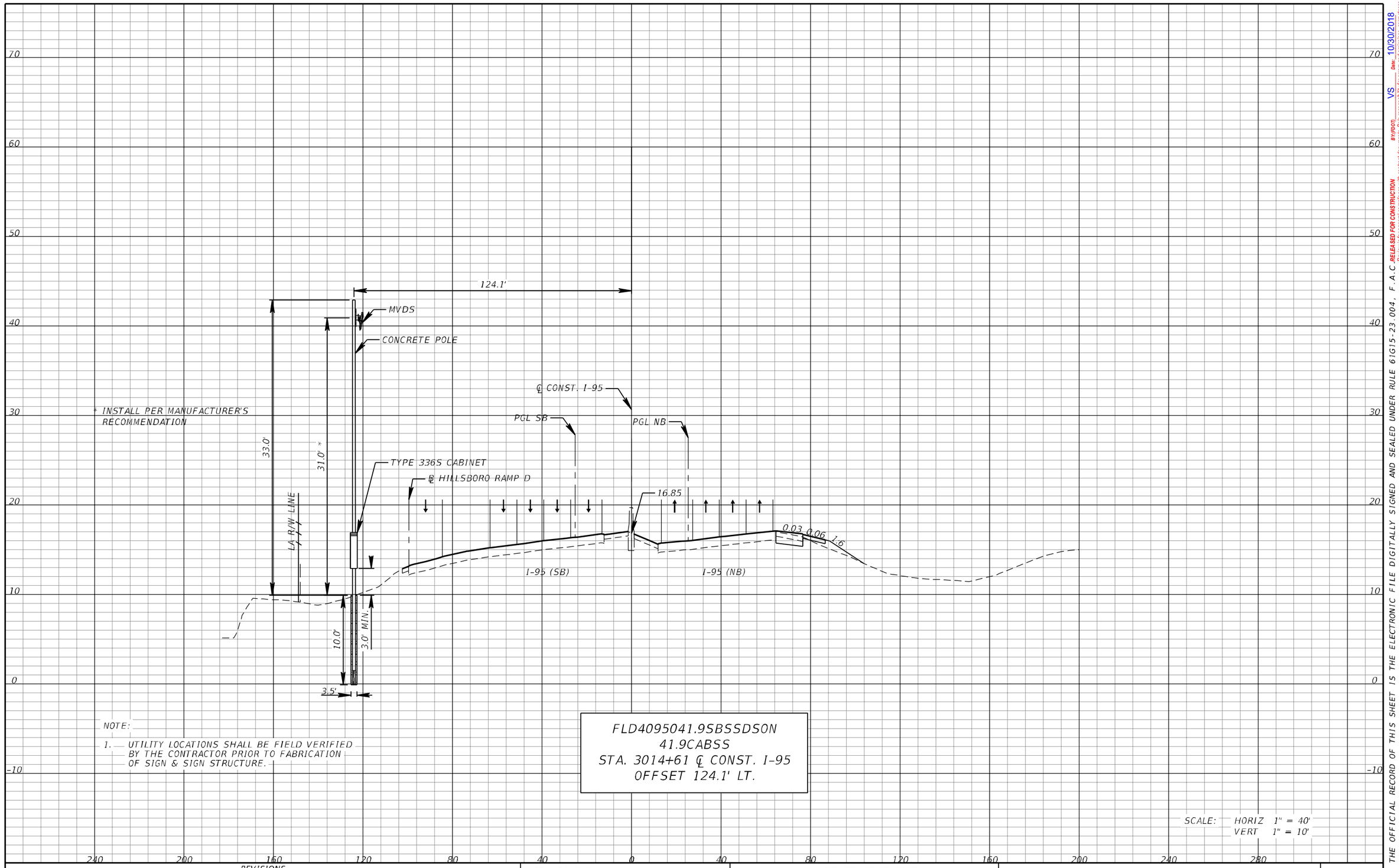
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (28)

SHEET NO.
IT-86

BY/PDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

FLD4095041.9SBSSDSON
41.9CABSS
STA. 3014+61 ℄ CONST. I-95
OFFSET 124.1' LT.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (29)

SHEET NO. IT-87

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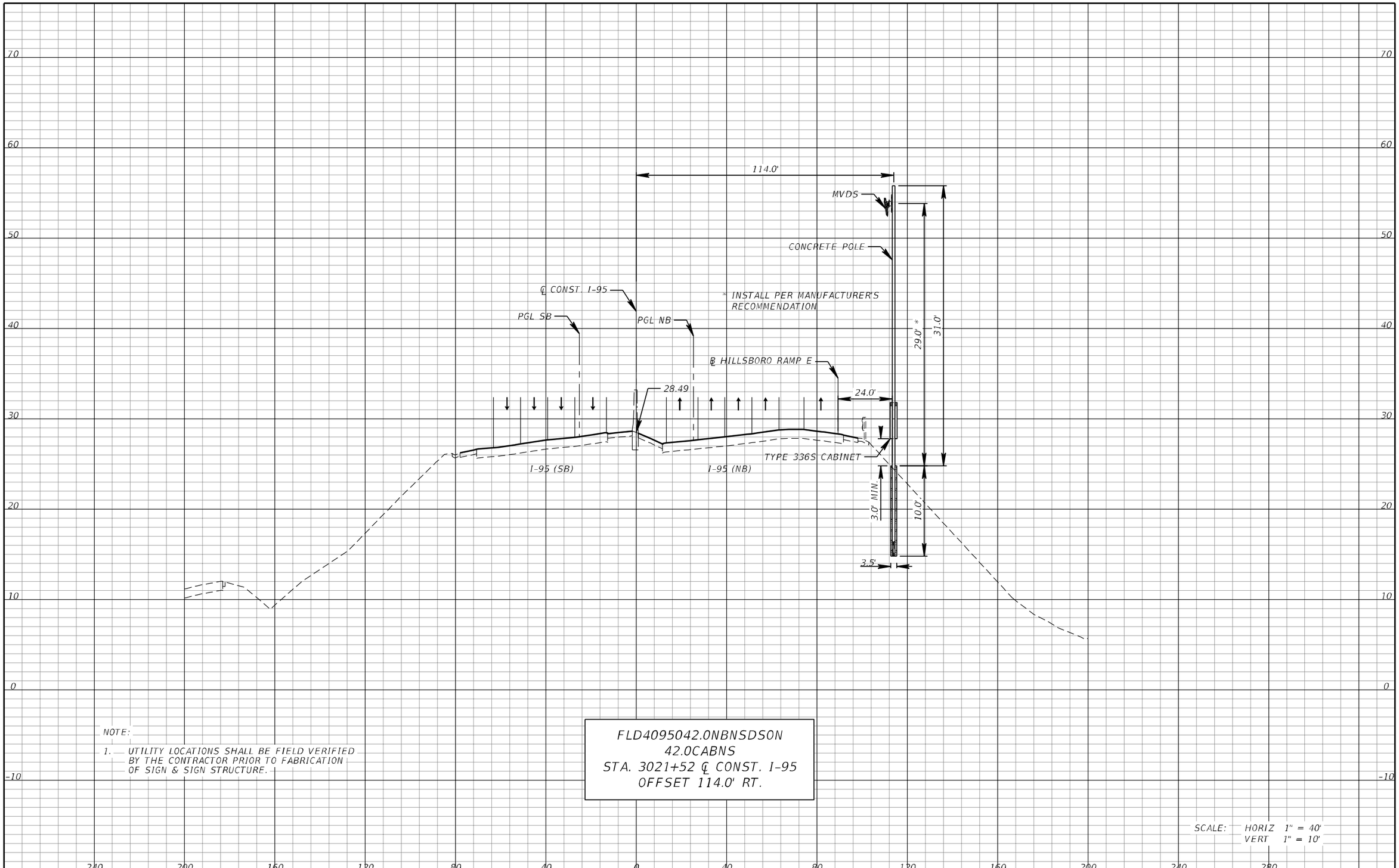
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/PDOT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

FLD4095042.0NBNSDSON
42.0CABNS
STA. 3021+52 ℄ CONST. I-95
OFFSET 114.0' RT.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

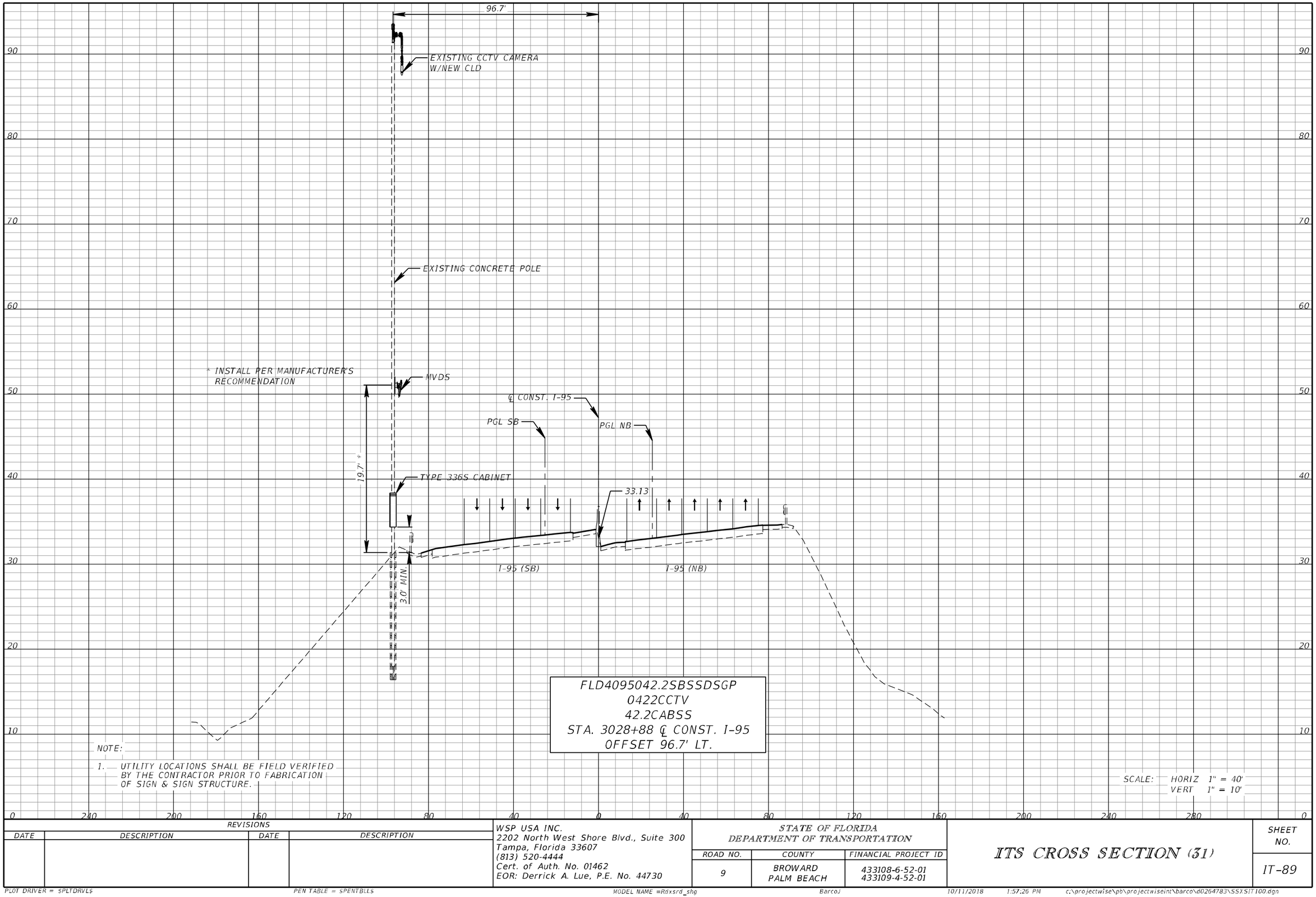
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (30)

SHEET NO.
IT-88

BY/FDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:57:16 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SS\SIT100.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

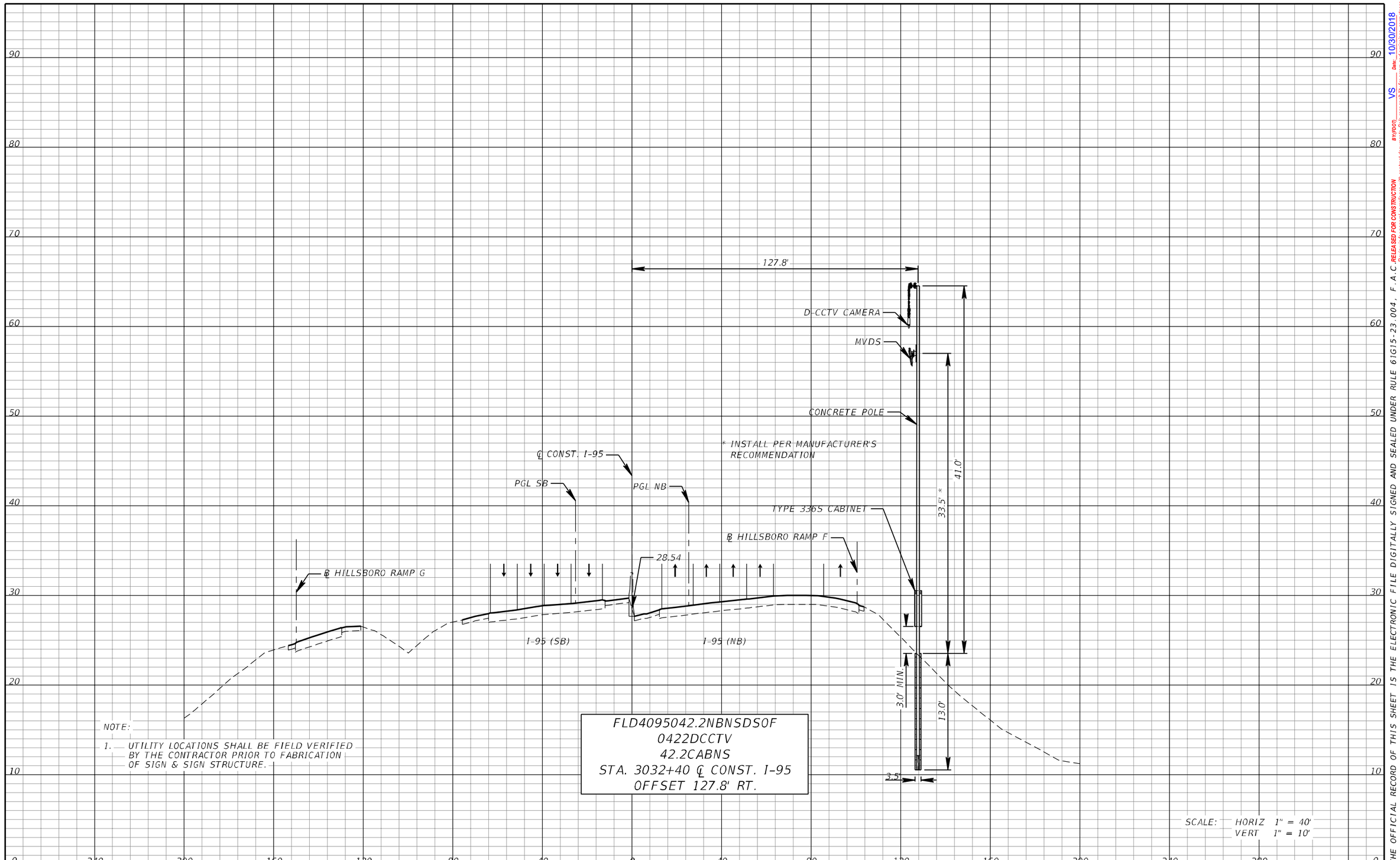
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (31)

SHEET NO.
IT-89

BY/PDOT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION

BY/FDOT VS Date: 10/30/2018

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

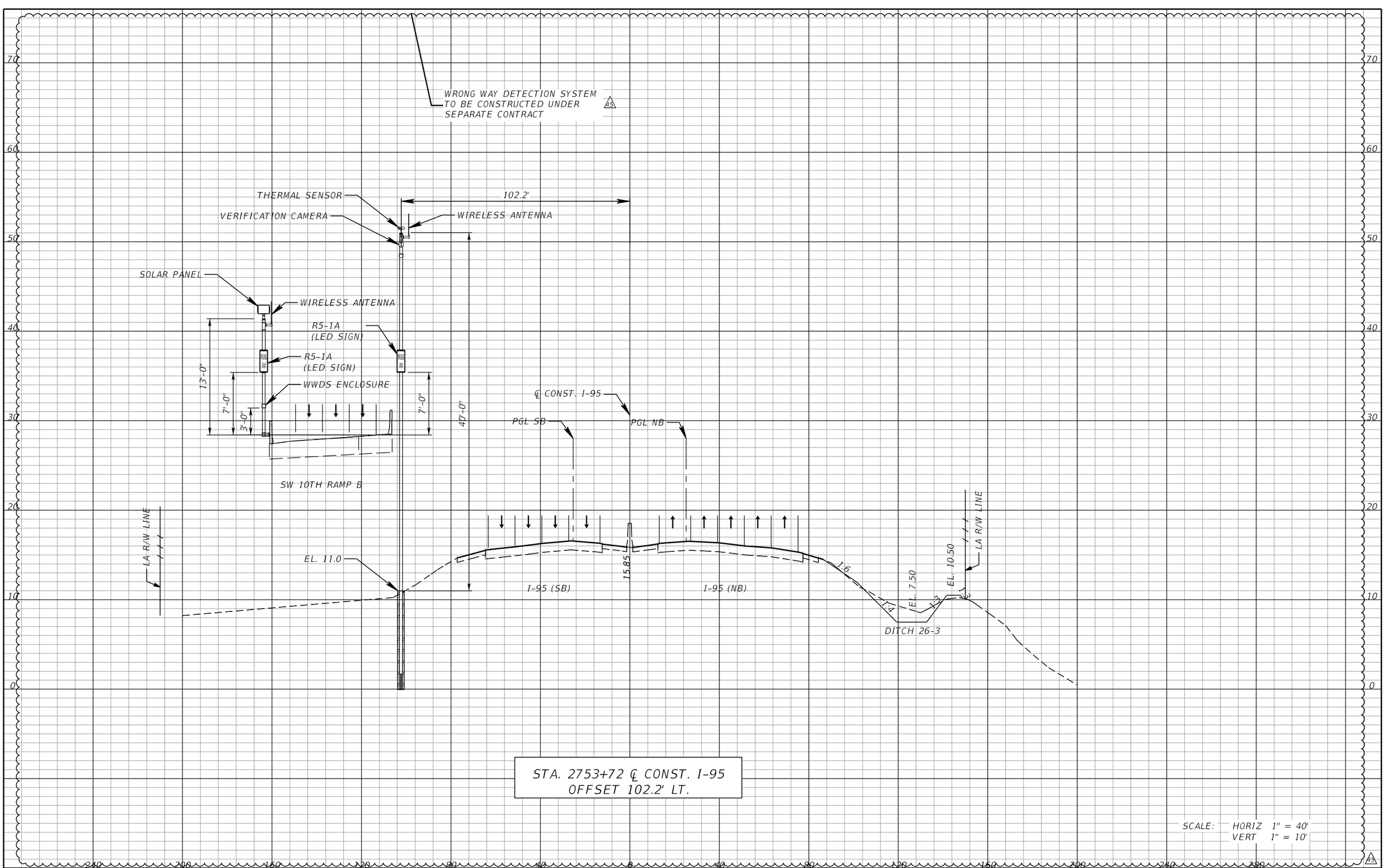
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (32)

SHEET NO.
IT-90

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Rdxsrd_shg BarcoJ 10/11/2018 1:57:36 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSXSIT100.dgn



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	45 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
301 E. PINE ST, SUITE 1020
ORLANDO, FLORIDA 32801
(407) 587-7800
CERT. OF AUTH. NO. 01462
EOR: GUANGWEI ZHOU, P.E. NO. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (32A)

SHEET NO.
IT-90A

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RELEASED FOR CONSTRUCTION
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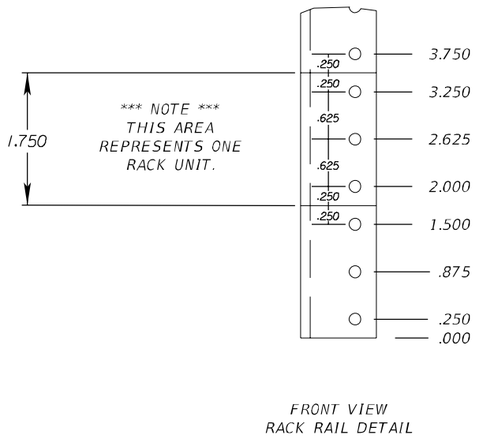
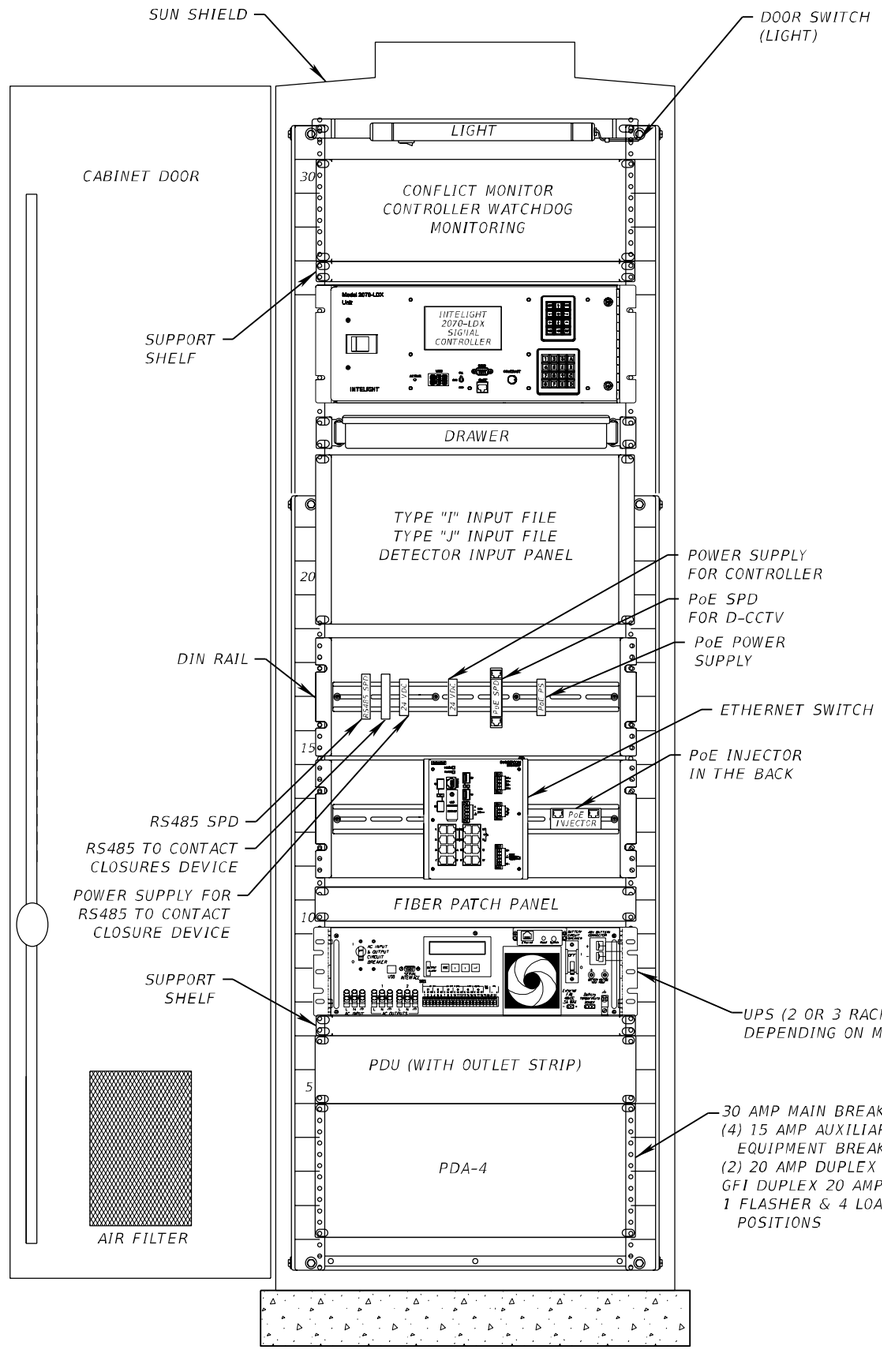
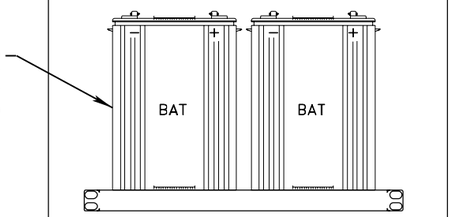
BY:(EOR) VS Date: 2/16/2021
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496



FRONT VIEW
RACK RAIL DETAIL



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR RSS / D-CCTV - FRONT VIEW



BACK VIEW

NOTES:

1. LABEL ALL ELECTRICAL RECEPTACLES EXCEPT GFCI AS "ELECTRONIC EQUIPMENT ONLY". LABEL GFCI RECEPTACLES AS "CONVENIENCE RECEPTACLES"
2. ALL DIN RAILS SHALL BE GROUNDED AS PART OF THE CABINET GROUNDING SYSTEM.
3. POWER DISTRIBUTION ASSEMBLY COMPONENT LAYOUT, ORIENTATION AND LOCATION MAY VARY.
4. TECH DRAWER WILL SLIDE OUT ON PRIMARY SIDE OF CABINET.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

RSS AND D-CCTV TYPE 334 CABINET DETAILS

SHEET NO.
IT-91

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
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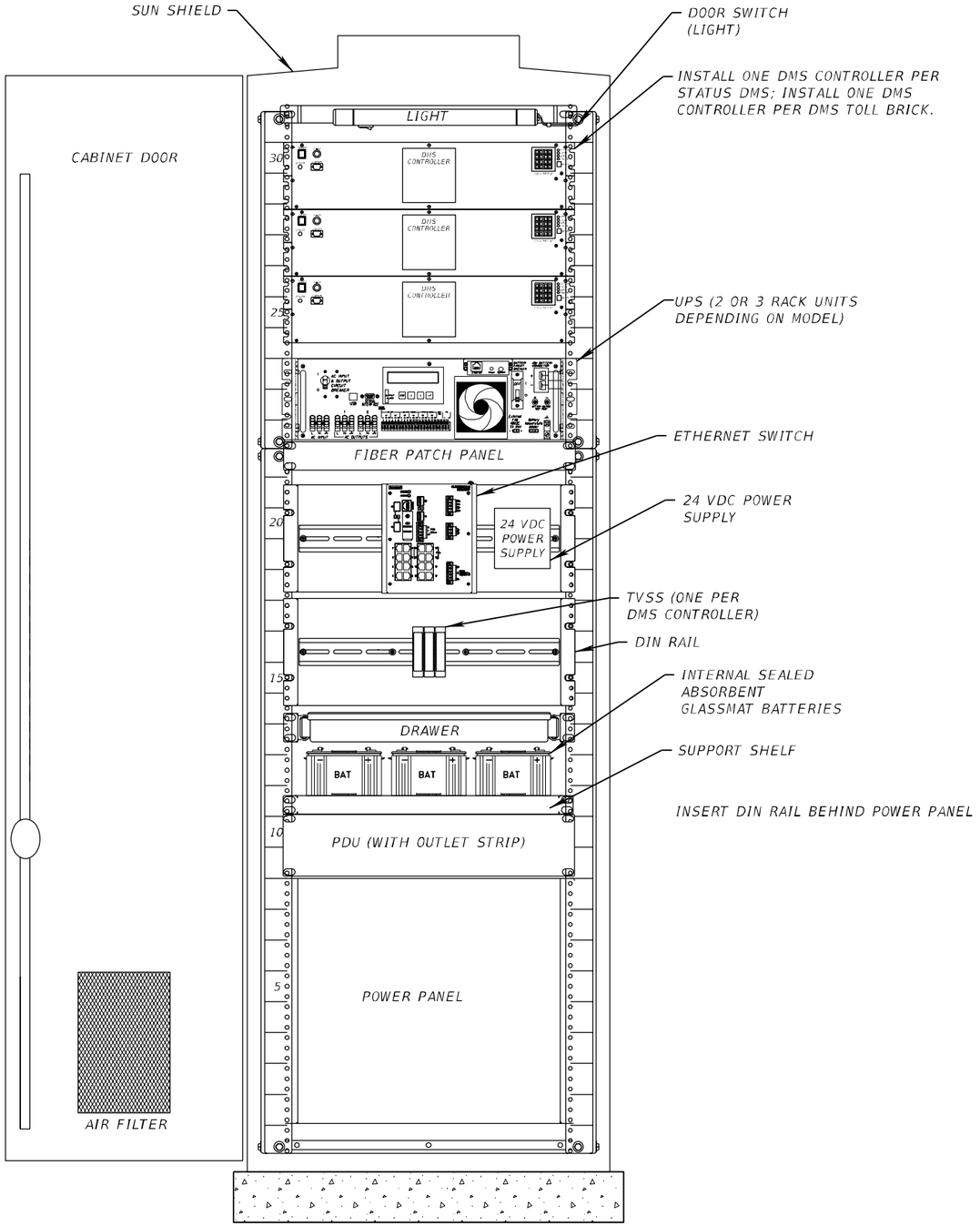
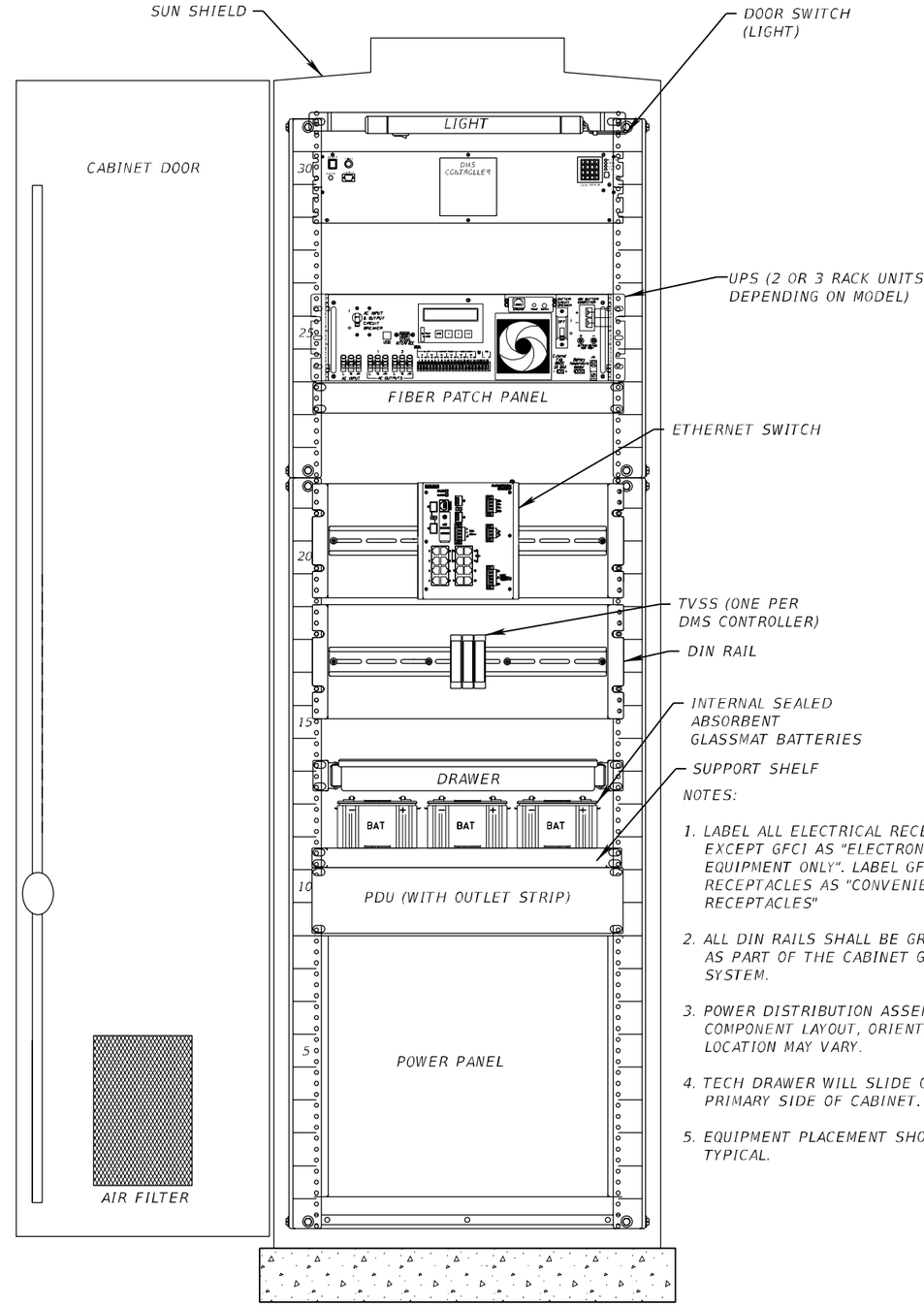
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 10/11/2018 1:57:41 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSDT\IT101.dgn



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR T-DMS OR S-DMS



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR FREEWAY DMS

NOTES:

1. LABEL ALL ELECTRICAL RECEPTACLES EXCEPT GFCI AS "ELECTRONIC EQUIPMENT ONLY". LABEL GFCI RECEPTACLES AS "CONVENIENCE RECEPTACLES"
2. ALL DIN RAILS SHALL BE GROUNDED AS PART OF THE CABINET GROUNDING SYSTEM.
3. POWER DISTRIBUTION ASSEMBLY COMPONENT LAYOUT, ORIENTATION AND LOCATION MAY VARY.
4. TECH DRAWER WILL SLIDE OUT ON PRIMARY SIDE OF CABINET.
5. EQUIPMENT PLACEMENT SHOWN IS TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

DMS
TYPE 334 CABINET DETAILS

SHEET NO.
IT-92

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
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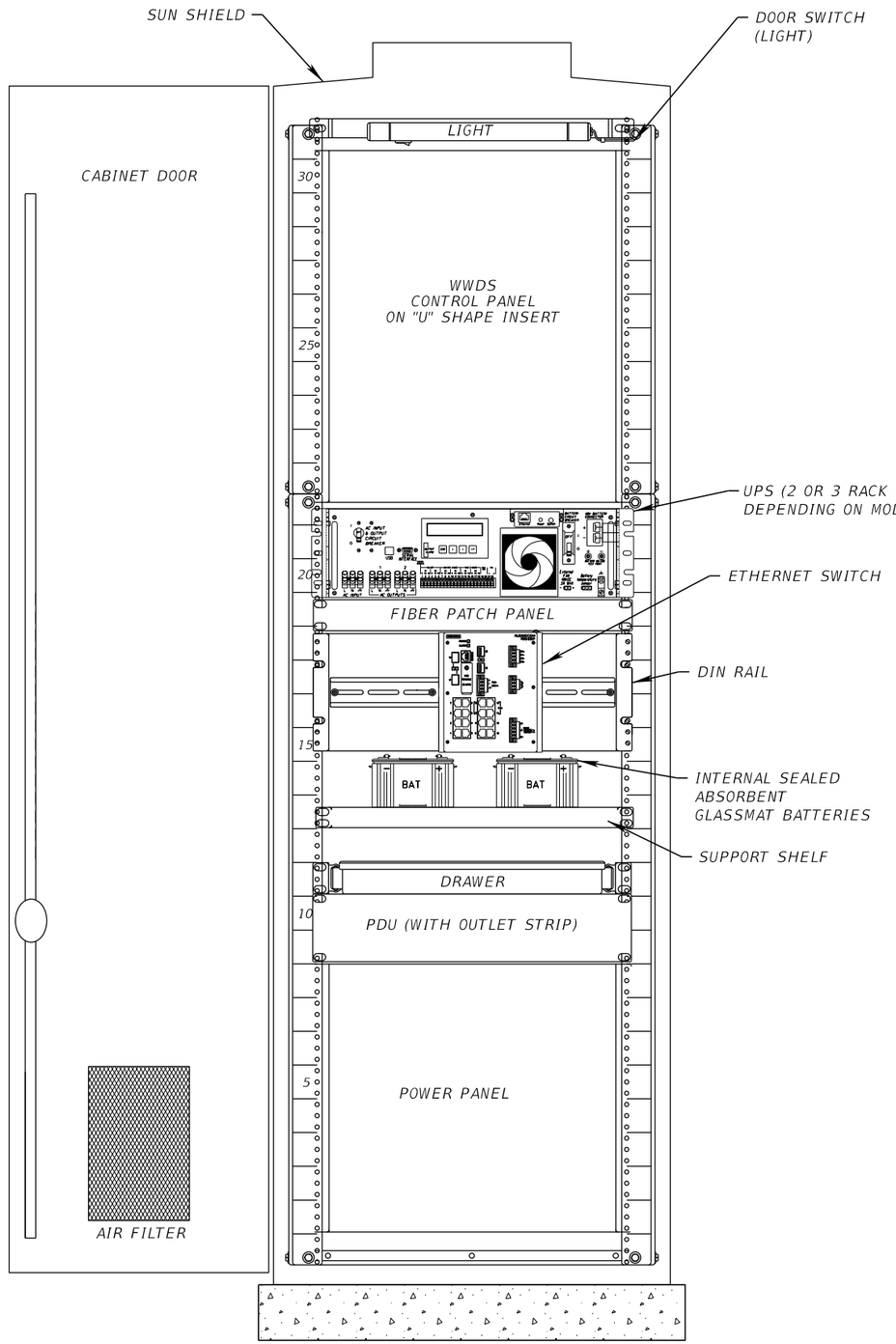
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 10/11/2018 1:57:41 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSDTIT101.dgn

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT △5



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR WWDS

△5

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	△5 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
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EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

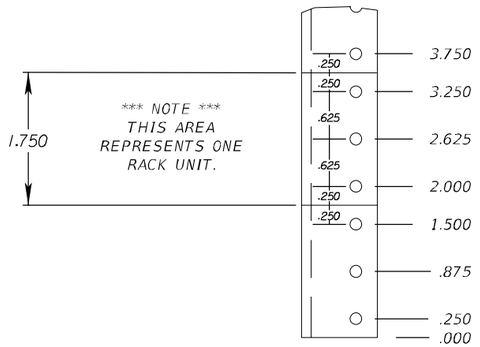
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WWDS
TYPE 334 CABINET DETAIL

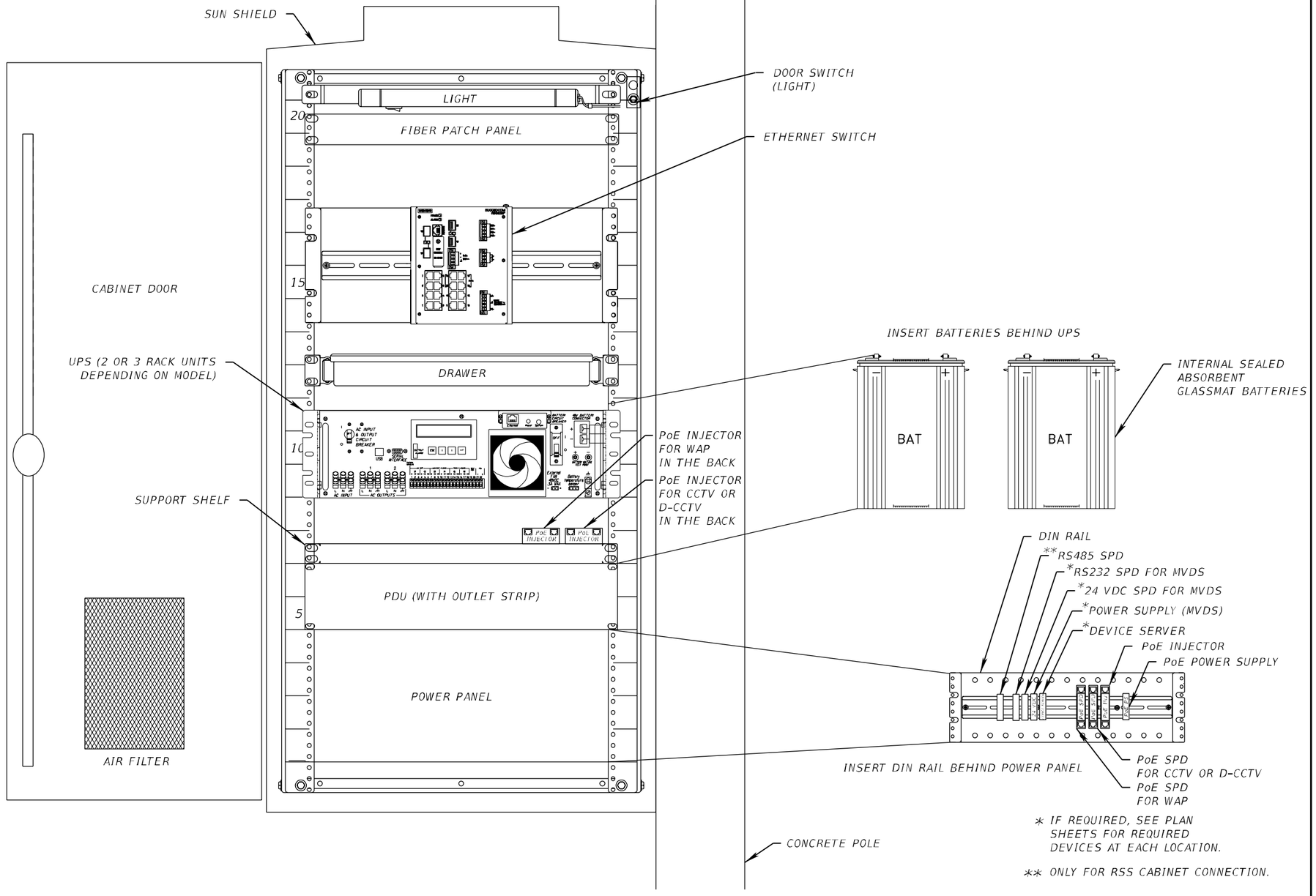
SHEET NO. IT-92A

BY:(FDOT) VS Date: 2/16/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions and details rests with the EOR. Verify all dimensions in the field. Fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



FRONT VIEW
RACK RAIL DETAIL



NOTES:

1. LABEL ALL ELECTRICAL RECEPTACLES EXCEPT GFCI AS "ELECTRONIC EQUIPMENT ONLY". LABEL GFCI RECEPTACLES AS "CONVENIENCE RECEPTACLES"
2. ALL DIN RAILS SHALL BE GROUNDED AS PART OF THE CABINET GROUNDING SYSTEM.
3. POWER DISTRIBUTION ASSEMBLY COMPONENT LAYOUT, ORIENTATION AND LOCATION MAY VARY.
4. EQUIPMENT PLACEMENT SHOWN IS TYPICAL.

* IF REQUIRED, SEE PLAN SHEETS FOR REQUIRED DEVICES AT EACH LOCATION.

** ONLY FOR RSS CABINET CONNECTION.

POLE MOUNTED FIELD EQUIPMENT CABINET FOR CCTV OR D-CCTV / MVDS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

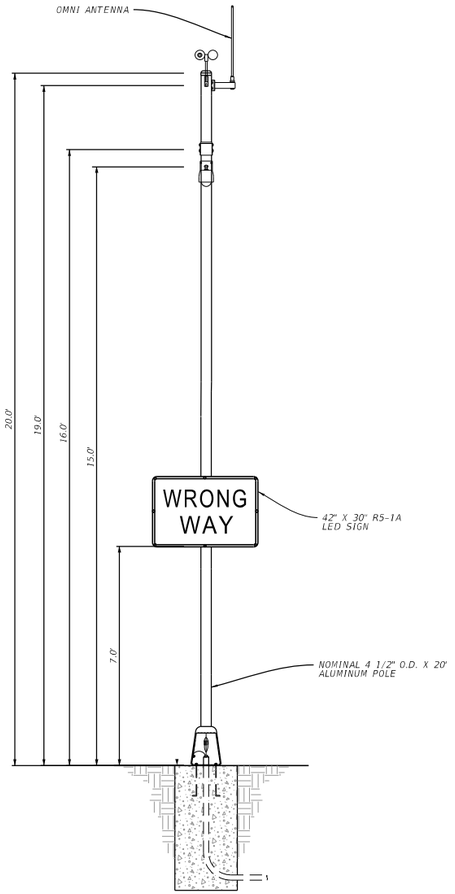
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

CCTV, D-CCTV, MVDS & WAP TYPE 336S CABINET DETAIL

SHEET NO. IT-93

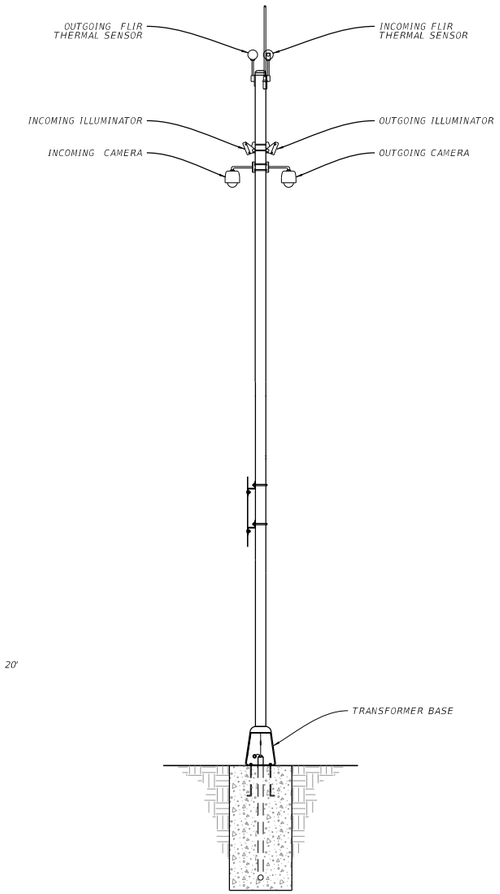
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/PDO1 VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT (45)



GROUND MOUNT WWDS DETECTION POLE

FRONT VIEW
NTS

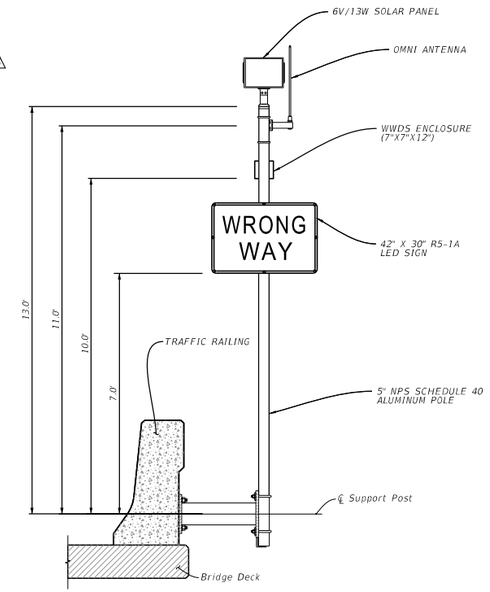


GROUND MOUNT WWDS DETECTION POLE

SIDE VIEW
NTS

GENERAL NOTES:

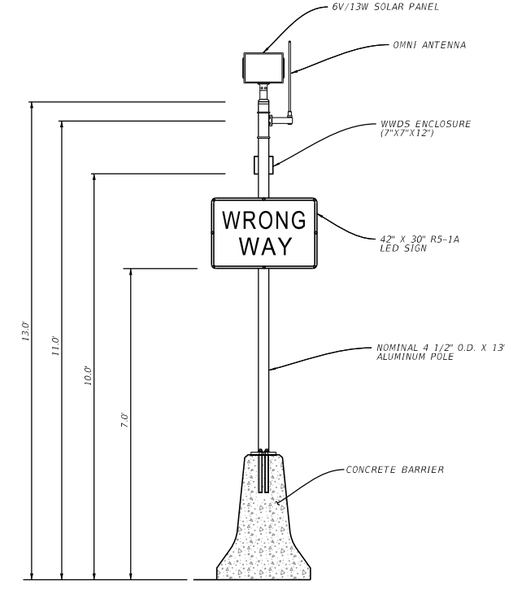
1. INSTALL SIGN PANEL AND WIND BEAM IN ACCORDANCE WITH INDEX 700-010 AND SPECIFICATION 700.
2. ENGAGE ALL THREADS ON THE TRANSFORMER BASE AND POST UNLESS THE ALUMINUM POST IS FULLY SEATED INTO BASE.
3. MEET THE REQUIREMENTS OF SPECIFICATION 646 FOR ALUMINUM POLES AND TRANSFORMER BASES.
4. INSTALL A CONCRETE SLAB AROUND ALL ROADSIDE ASSEMBLIES ON SLOPES 6:1 OR GREATER. BUILD UP A FLAT PLATFORM WITH A MINIMUM DIMENSION OF 6'WX7'L ON STEEPER SLOPE.
5. WHEN WIRE ENTRY HOLES ARE DRILLED IN THE SIGN COLUMN, USE A BUSHING OR RUBBER GROMMET TO PROTECT CONDUCTORS.
6. ORIENT SOLAR PANEL TO FACE SOUTH FOR OPTIMAL EXPOSURE TO SUNLIGHT.
7. THE CONTROLLER AND THE SOLAR BATTERIES ARE LOCATED IN THE SAME NEAM 3R WW ENCLOSURE.



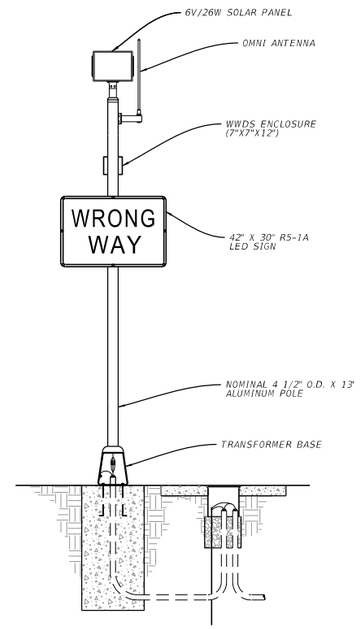
NOTE:
REFER TO STANDARD INDEX 11870 FOR BRIDGE MOUNTED SIGN DETAIL.

BARRIER WALL MOUNT WWDS WARNING SIGN WITH LED

FRONT VIEW
NTS

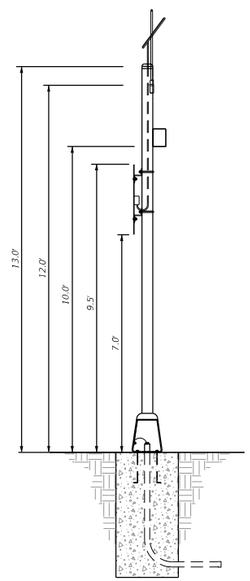


NOTE:
REFER TO STANDARD INDEX 11871 FOR MEDIAN BARRIER MOUNTED SIGN DETAIL.



GROUND MOUNT WWDS WARNING SIGN WITH LED

FRONT VIEW
NTS



GROUND MOUNT WWDS WARNING SIGN WITH LED

SIDE VIEW
NTS

(45)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(45) REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WWDS DETAILS

SHEET NO.
IT-93A

BY:(ROOT) VS Date: 2/16/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, detail connections and fabrication and erection shall remain with the contractor.
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5696
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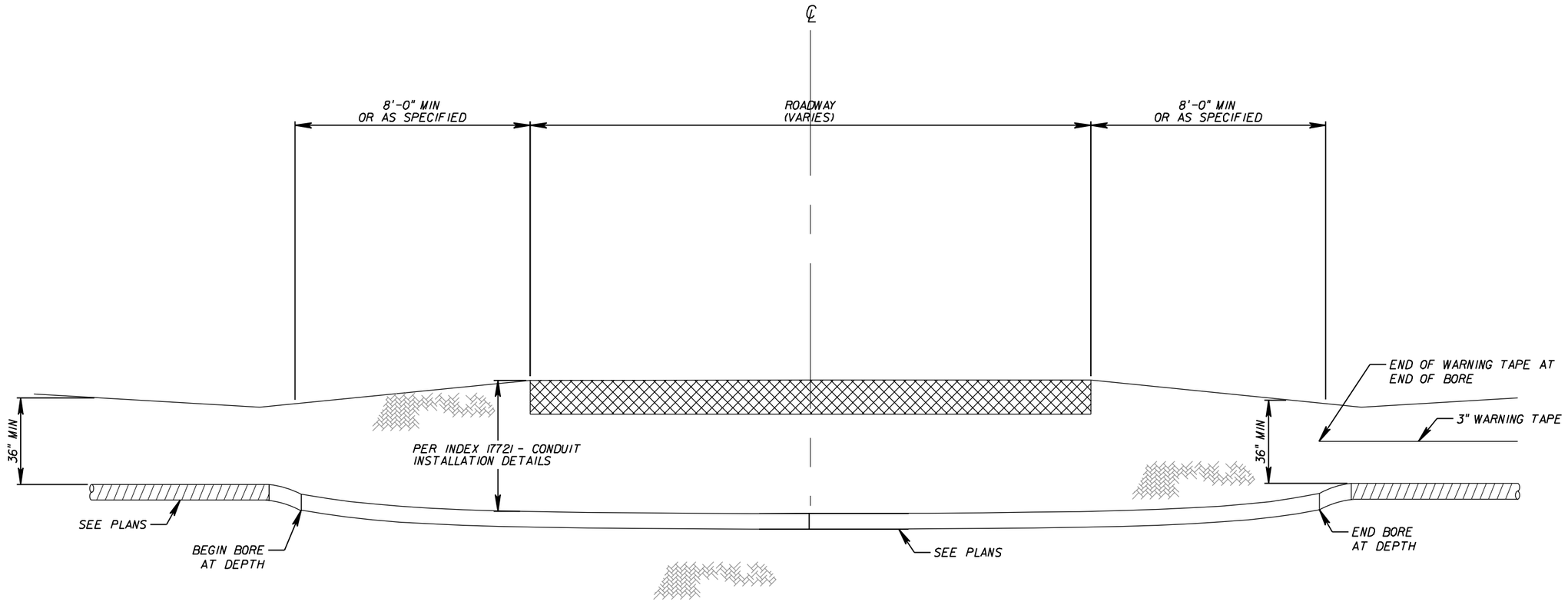

TYPICAL DIRECTIONAL BORE
NTS

NOTES:

1. UTILITY IN THE PATH OF THE BORE SHALL BE LOCATED AND THE DEPTH OF THE BORE CROSSING SHALL BE DELINEATED TO CROSS UNDER OR OVER UTILITY WITH 12" MINIMUM SEPARATION.
2. DEPTH SHALL BE IN ACCORDANCE WITH INDEX 17721 - CONDUIT INSTALLATION DETAILS.
3. PULL BOXES SHALL BE INSTALLED AT THE BEGINNING AND END OF BORE AS NECESSARY. SEE PLAN SHEETS FOR PULL BOX LOCATIONS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
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EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

DIRECTIONAL BORE DETAIL

SHEET NO.
IT-94

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BY:FDOT VS Date: 10/30/2018
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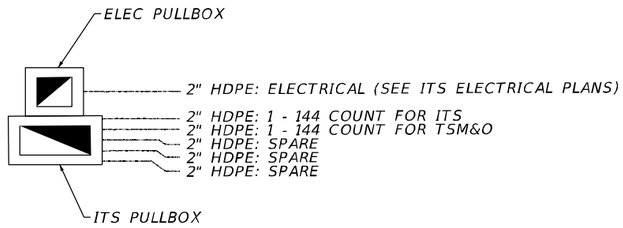
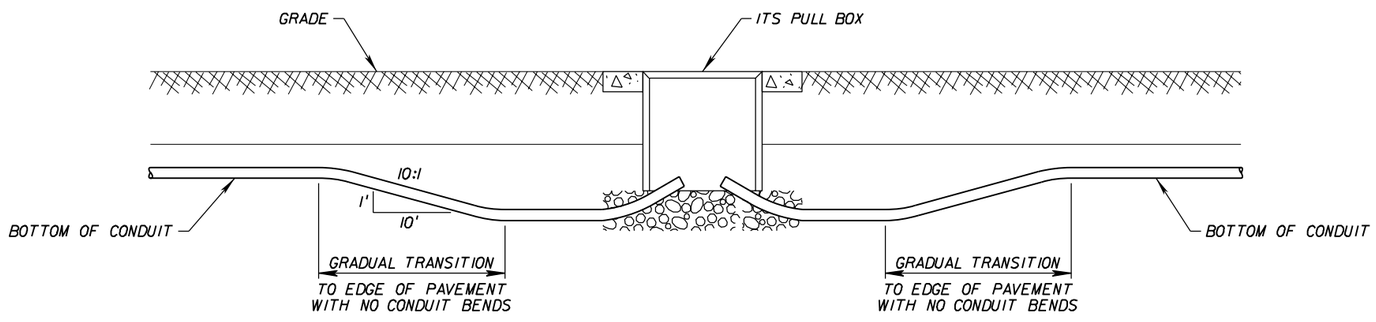
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66



PLAN VIEW
CONDUIT LAYOUT AT ITS AND ELEC PULLBOXES
(SINGLE OPEN TRENCH)



ELEVATION OF CONDUIT TRENCH AND FIBER OPTIC PULL BOX

NOTE:

BACKFILL THE TRENCH WITHIN THE SAME DAY.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS UNDERGROUND CONDUIT TRANSITION DETAILS

SHEET NO.
IT-95

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RELEASED FOR CONSTRUCTION
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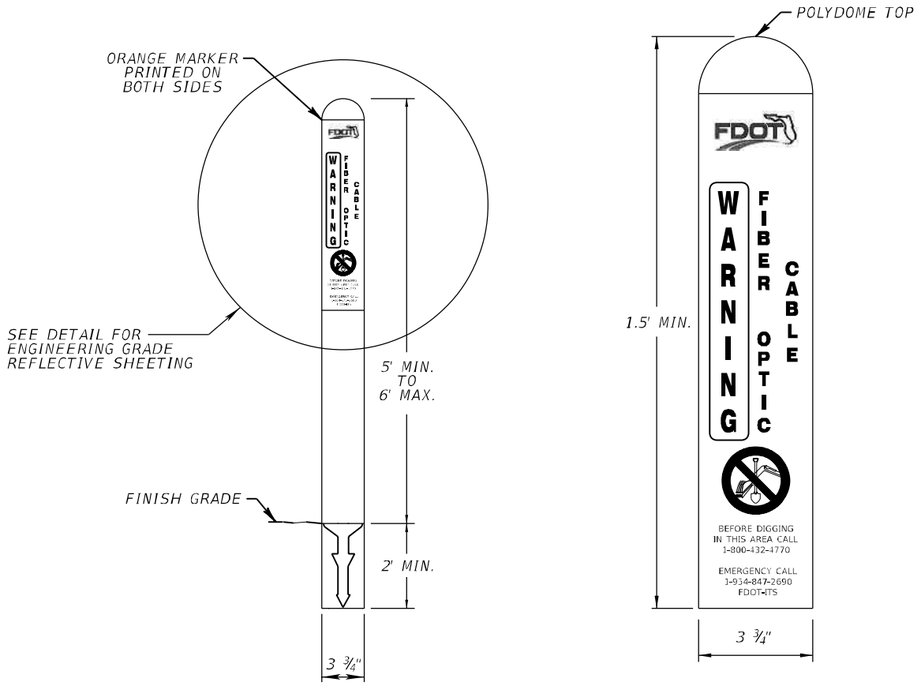
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

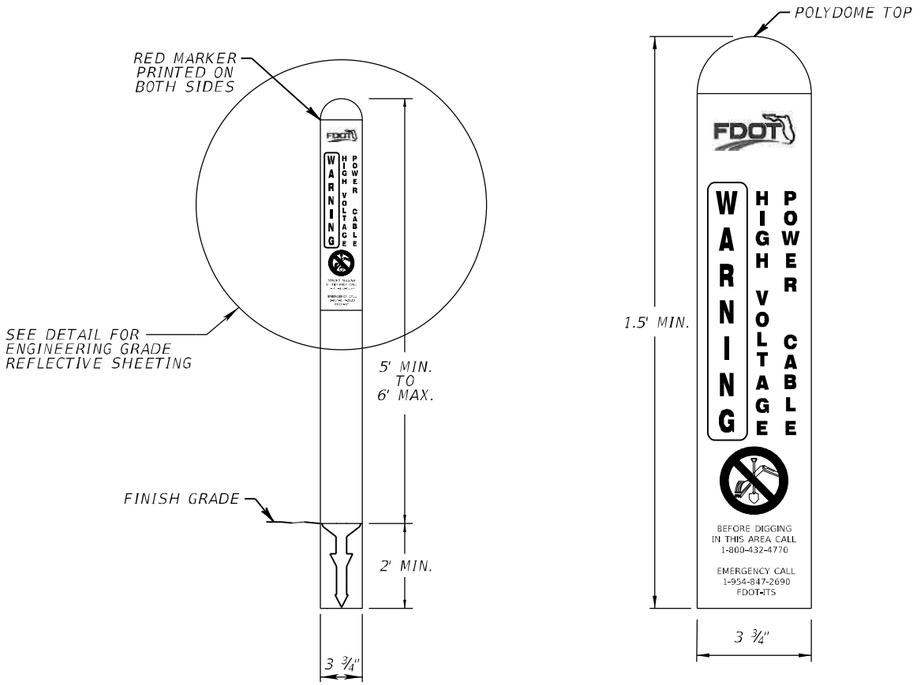
FIBER OPTIC CABLE ROUTE MARKER



FRONT VIEW
NTS

SHEETING
NTS

ELECTRICAL CABLE ROUTE MARKER



FRONT VIEW
NTS

SHEETING
NTS

NOTES:

1. FOR TRENCH LINES WITH BOTH FIBER OPTIC CABLE AND POWER SERVICE WIRE, INSTALL POWER MARKER ALTERNATING WITH FIBER MARKER.
2. INSTALL FIBER OPTIC CABLE MARKER AT EVERY FIBER PULL BOX AND EVERY CHANGE IN DIRECTION NOT TO EXCEED 500 FEET.
3. TUBULAR MARKER TO BE PLACED OVER A V-CHANNEL METALLIC FENCE POST.
4. A POLYDOME TOP SHALL BE INSTALLED ON EACH MARKER ORANGE, FOR FIBER AND RED FOR POWER.
5. ALL ROUTE MARKERS SHALL MEET SECTION 630 OF STANDARD SPECIFICATIONS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

CABLE ROUTE MARKER DETAILS

SHEET NO.
IT-96

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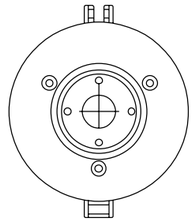
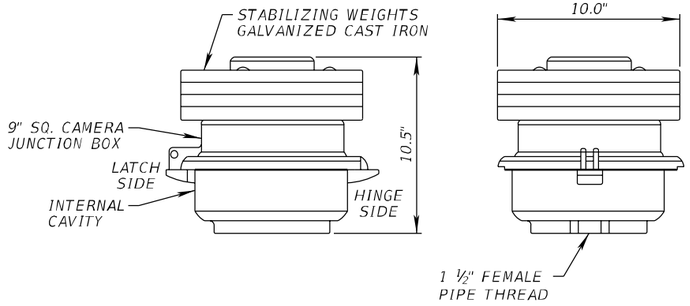
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

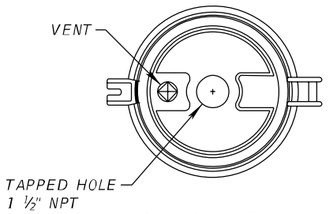
SINGLE ARM CAMERA LOWERING SYSTEM

NTS



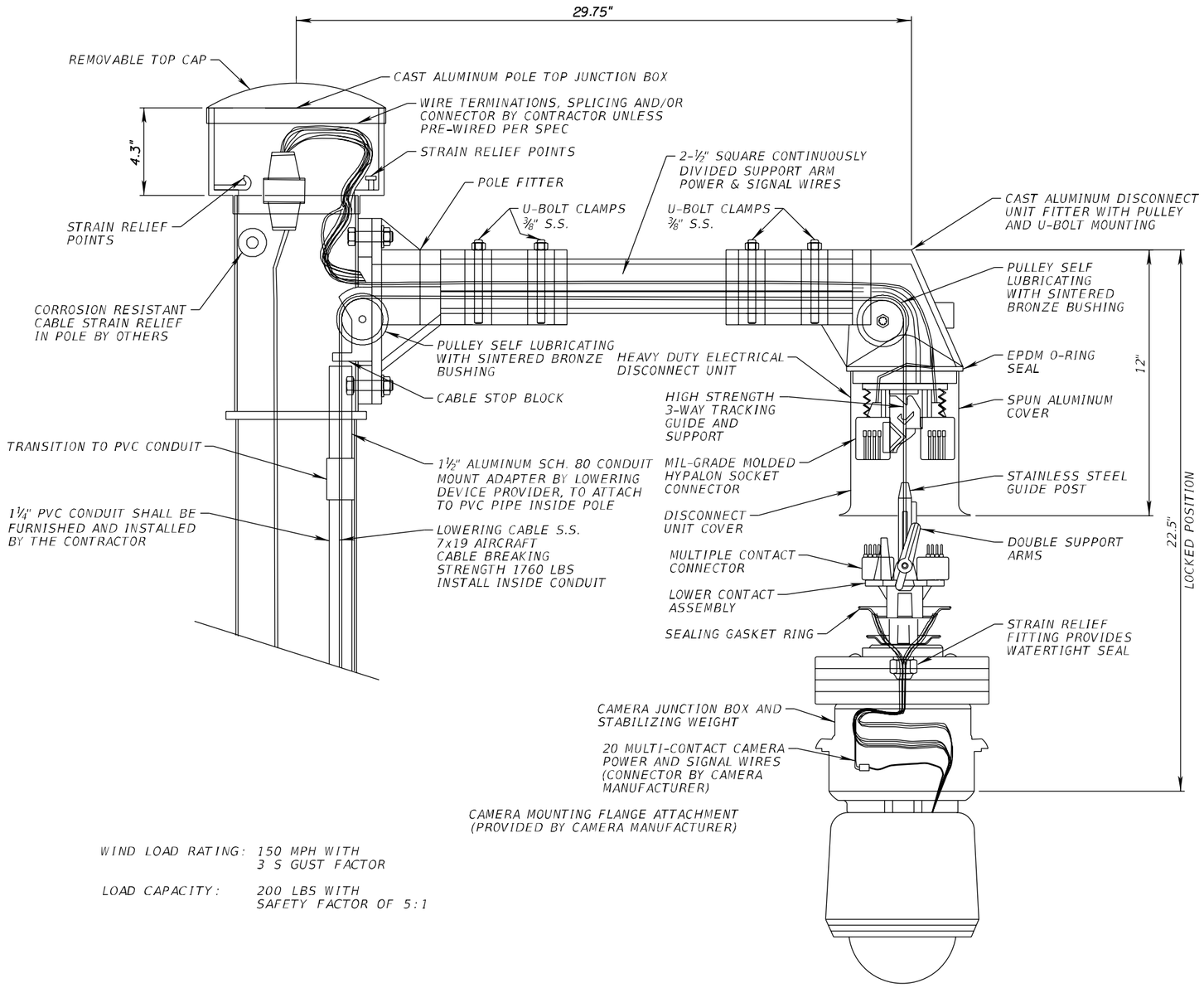
TOP VIEW





BOTTOM VIEW

TWO PIECE CAMERA JUNCTION BOX



WIND LOAD RATING: 150 MPH WITH 3 S GUST FACTOR

LOAD CAPACITY: 200 LBS WITH SAFETY FACTOR OF 5:1

NOTES:

1. INTERNAL CAMERA SUPPLY CABLES RUN THROUGH THE INSIDE OF THE POLE SHALL BE INSTALLED THROUGH EYE HOOKS TO PREVENT INTERFERENCE WITH LOWERING MECHANISM CABLE, UNLESS OTHERWISE NOTED.
2. CAMERA LOWERING DEVICE DETAILS ARE REPRESENTATIVE AND DO NOT REFLECT ACTUAL ENGINEERING DESIGN.
3. LOWERING ARM SHALL BE MOUNTED PERPENDICULAR TO THE ROADWAY OR AS SHOWN IN THE PLANS OR AS DIRECTED BY THE DEPARTMENT. THE CCTV POLE SHALL BE POSITIONED SO THAT THE DOME ENCLOSURE CAN BE SAFELY LOWERED ON THE OPPOSITE SIDE OF THE HAND CRANK.
4. CAMERA LOWERING SYSTEM, TO INCLUDE POLE TOP J-BOX, MOUNTING HARDWARE, LOWERING CABLE, MOLDED HYPALON CONTACT BLOCK, CAMERA J-BOX, HOUSING, CUSTOM 100'.
5. CAMERA LOWERING DEVICE TO BE SHIPPED READY FOR POLE ATTACHMENT TO INCLUDE 100 FT. OF COMPOSITE POWER AND SIGNAL CABLE PRE WIRED TO LOWERING DEVICE AT THE FACTORY.
6. THIS ENSURES THE PRODUCT IS ASSEMBLED CORRECTLY AND MORE IMPORTANTLY ALL NECESSARY PERSONS ARE TRAINED IN THE PROPER SAFE OPERATION OF THE SYSTEM. PRIOR TO ERECTING THE FIRST POLE THE CONTRACTOR MUST CONTACT THE LOWERING DEVICE SUPPLIER AND SCHEDULE FOR A FACTORY REPRESENTATIVE TO BE ON SITE.

REVISIONS			
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

CCTV LOWERING DEVICE DETAILS (SINGLE ARM)

SHEET NO. IT-97

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Default BarcoJ 10/11/2018 1:57:59 PM c:\projectwise\pb\projectwiseint\barco\d0264783\SSDTIT105.DGN

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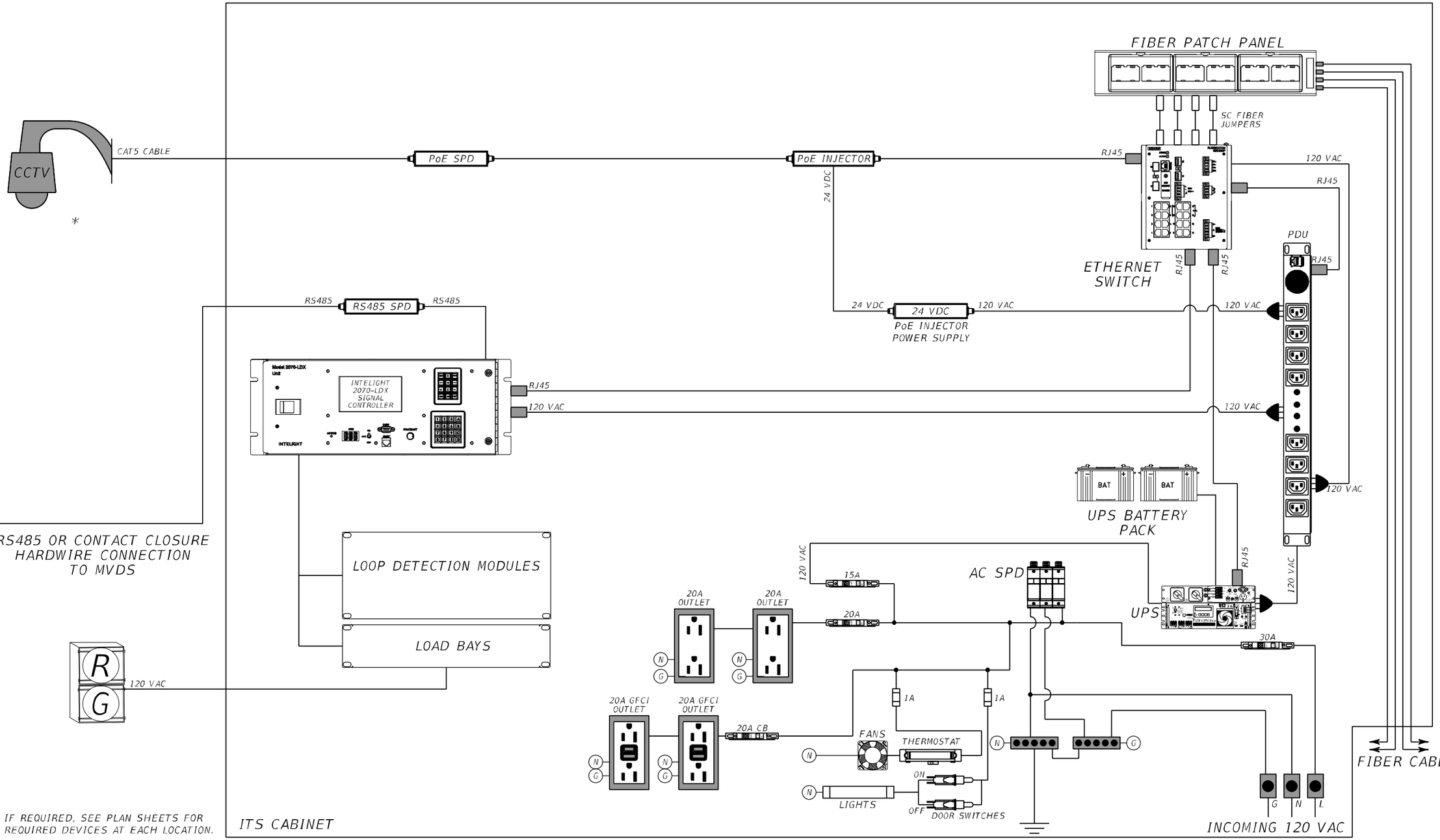
BY/PDT VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

TYPICAL RSS AND D-CCTV CONNECTION DIAGRAM

334 GROUND MOUNTED CABINET



* IF REQUIRED, SEE PLAN SHEETS FOR REQUIRED DEVICES AT EACH LOCATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (1)

SHEET NO. IT-98

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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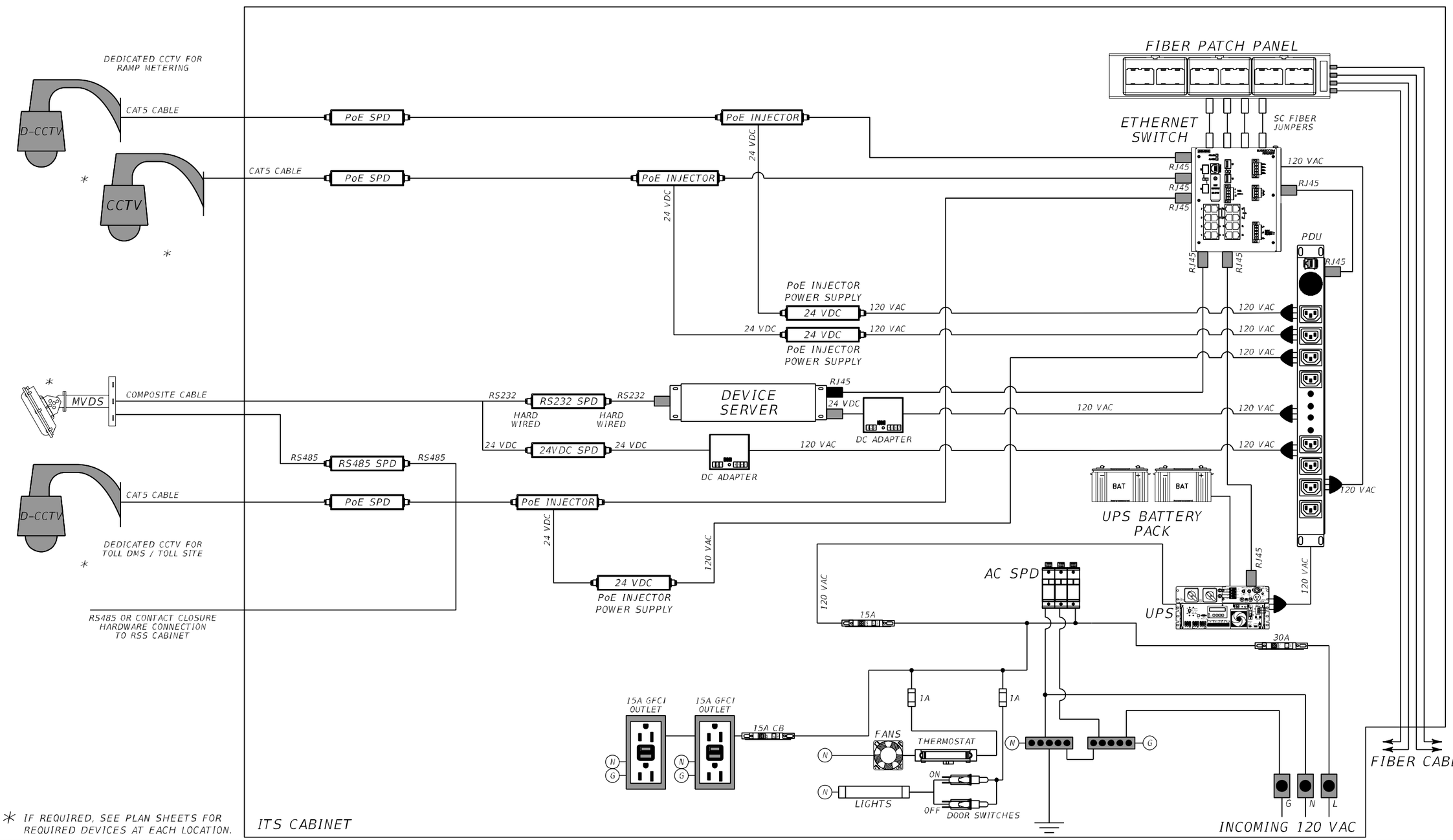
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

TYPICAL CCTV, D-CCTV AND MVDS CONNECTION DIAGRAM

336 POLE MOUNTED CABINET



* IF REQUIRED, SEE PLAN SHEETS FOR REQUIRED DEVICES AT EACH LOCATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (2)

SHEET NO. IT-99

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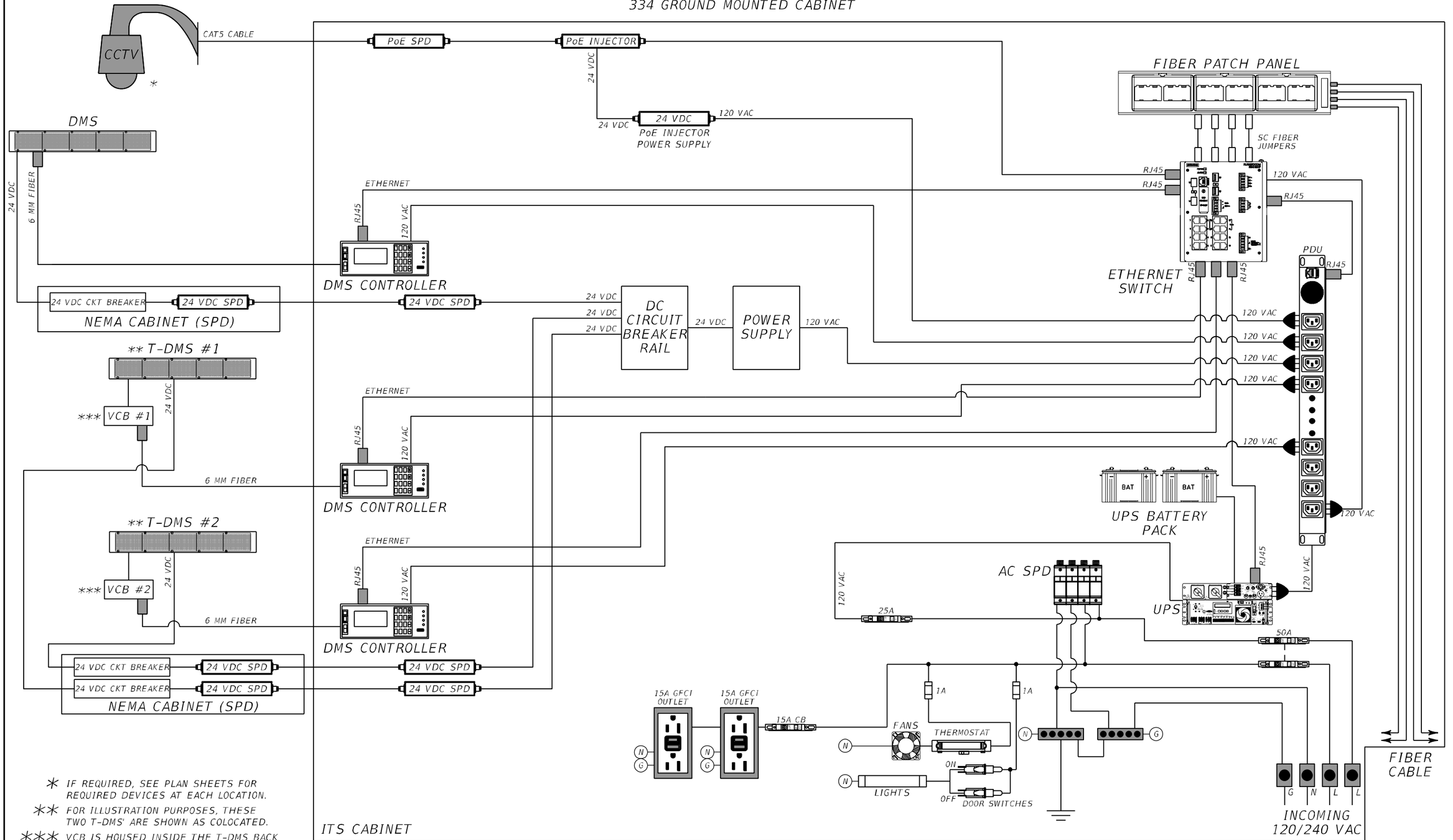
RELEASED FOR CONSTRUCTION
Reviews is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

BY/FOD VS Date: 10/30/2018

TYPICAL STATUS AND TOLL DMS CONNECTION DIAGRAM

334 GROUND MOUNTED CABINET



* IF REQUIRED, SEE PLAN SHEETS FOR REQUIRED DEVICES AT EACH LOCATION.

** FOR ILLUSTRATION PURPOSES, THESE TWO T-DMS' ARE SHOWN AS COLOCATED.

*** VCB IS HOUSED INSIDE THE T-DMS BACK AND POWERED FROM THE T-DMS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

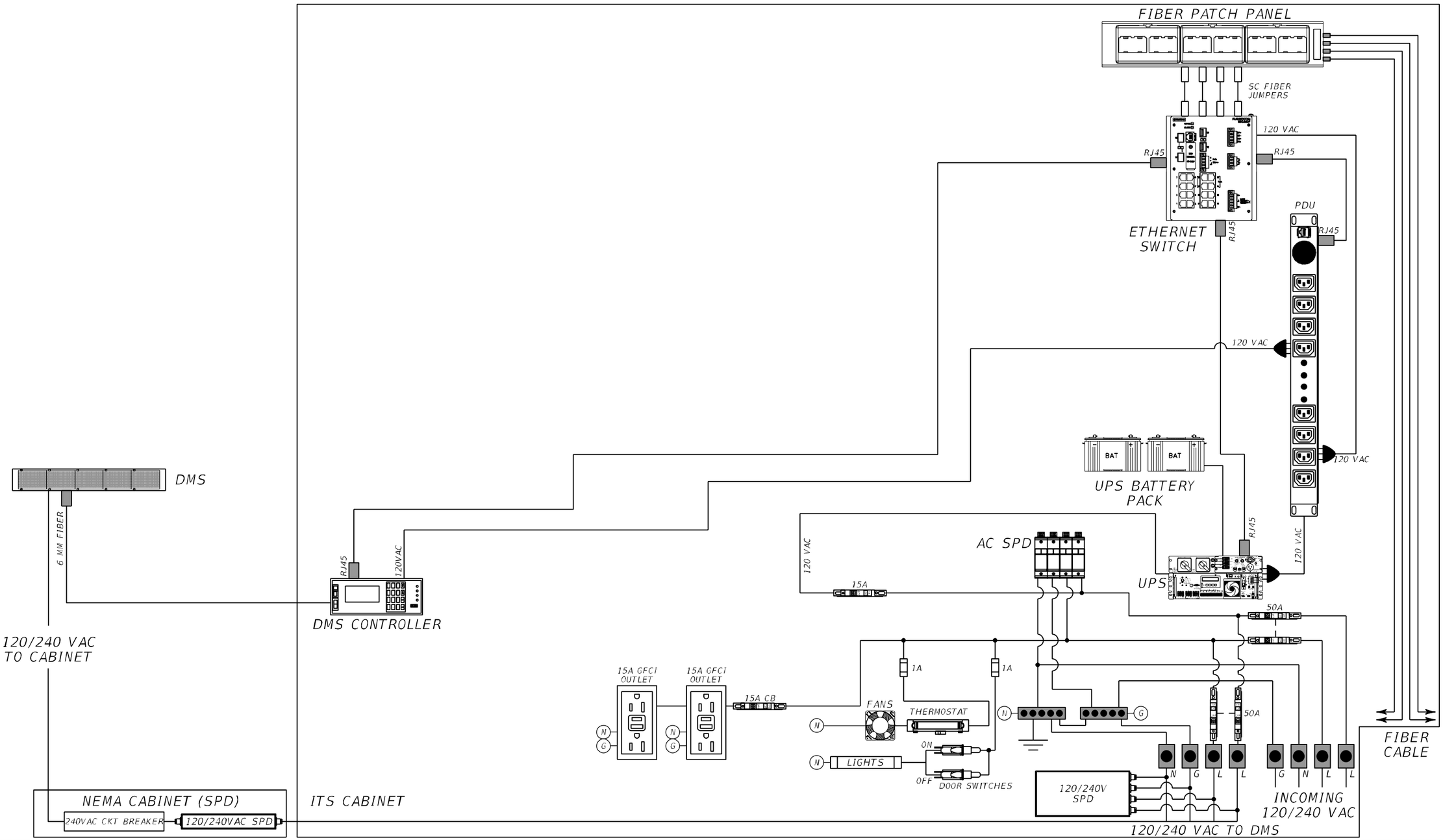
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (3)

SHEET NO.
IT-100

BY/PDT VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TYPICAL FREEWAY DMS CONNECTION DIAGRAM



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (4)

SHEET NO.
IT-101

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Default BarcoJ 10/11/2018 1:58:20 PM c:\projectwise\pb\projectwiseint\barco\d0264783\NWLYIT01.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY/PDT VS Date: 10/30/2018
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B66

WWDS CONNECTION DIAGRAM

334 GROUND MOUNT CABINET

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT △3

CCTV

CCTV

THERMAL DETECTOR

THERMAL DETECTOR

WIRELESS RADIO

WW CONTROL PANEL ASSEMBLY

RADIO CONTROL

SWITCH

RELAY

RELAY

AC/DC

5A

G
N
L

HIGHLIGHTED LED SIGN

WRONG WAY

HIGHLIGHTED LED SIGN

WRONG WAY

2/C - #12 AWG (12VDC PWR)

FIBER PATCH PANEL

SC

SC

SC

SC

SC-LC FIBER JUMPERS

ETHERNET SWITCH

LC

LC

LC

LC

120 VAC

RJ45

RJ45

RJ45

PDU

RJ45

120 VAC

120 VAC

BAT

BAT

UPS BATTERY PACK

RJ45

120 VAC

AC SPD

120 VAC

15A

UPS

30A

15A GFCI OUTLET

15A GFCI OUTLET

15A CB

1A

1A

FANS

THERMOSTAT

ON

LIGHTS

N

G

334 GM CABINET

FIBER CABLE

G N L

INCOMING 120 VAC

△5

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RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, coordination, and all means, methods, fabrication and erection shall remain with the contractor.
BY:(FDOT) VS Date: 2/16/2021
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	△5 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

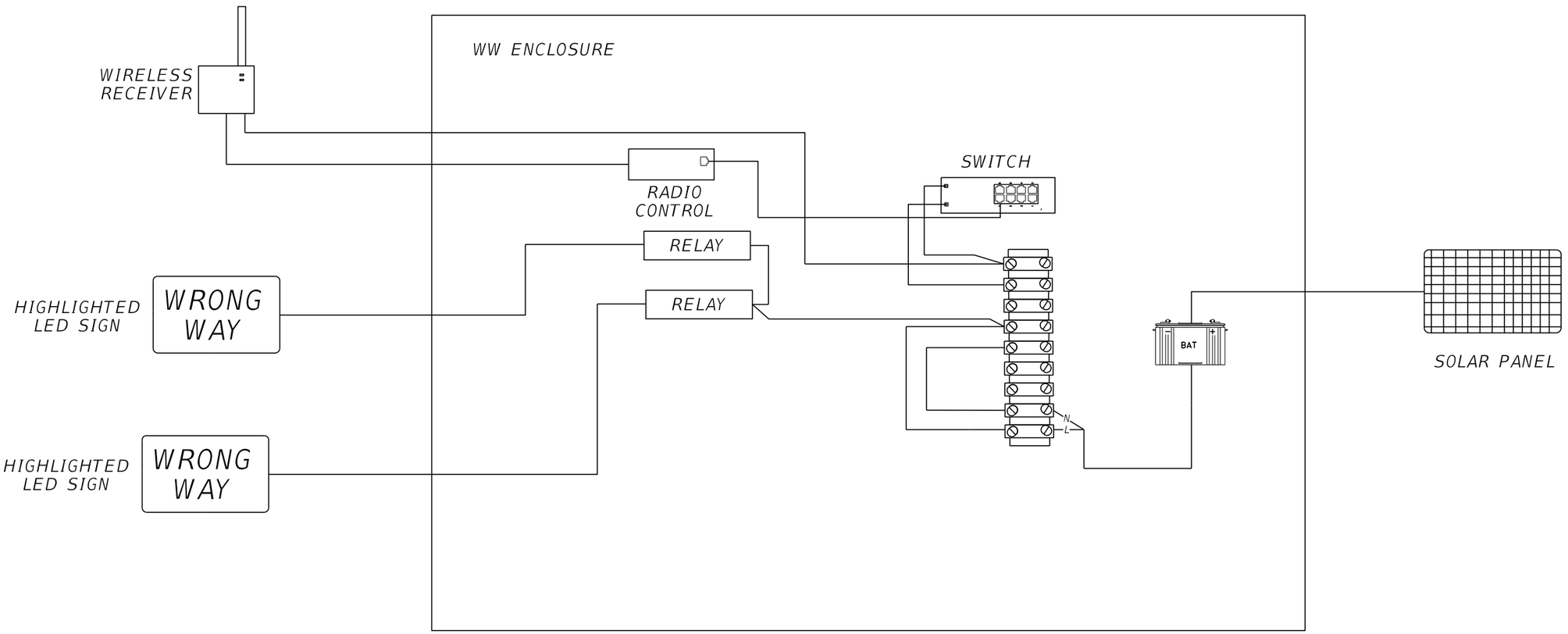
WIRING DIAGRAM (4A)

SHEET NO.
IT-101A

WWDS CONNECTION DIAGRAM

WRONG-WAY REMOTE CABINET

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	13 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (4B)

SHEET NO.
IT-101B

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496
BY:(FDOT) VS Date: 2/16/2021

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ITS EQUIPMENT ABBREVIATIONS AND SYMBOLS

AC	ALTERNATING CURRENT
AF:	AMPS FRAME (FRAME RATING OF CIRCUIT BREAKER) OR AMPS FUSED (FUSE RATING)
AG:	ABOVE GROUND
AS:	AMPS SWITCH (AMP RATING OF A FUSED DISCONNECT SWITCH)
AT:	AMPS TRIP (TRIP RATING OF CIRCUIT BREAKER)
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
C:	CONDUIT
CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRCUIT BREAKER
CCTV:	CLOSED CIRCUIT TELEVISION
CKT:	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CLR:	CENTERLINE OF REBAR
CMSS:	CHANGEABLE MESSAGE SIGN - TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN - TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
EB:	EAST BOUND
ELEC:	ELECTRICAL
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (ELECTRIC UTILITY COMPANY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (CIRCUIT BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD:	MOUNTED
MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
NB	NORTHBOUND
NEC:	NATIONAL ELECTRICAL CODE
OCPD:	OVERCURRENT PROTECTION DEVICE
PB:	PULLBOX
POA:	ITS POLE WITH CLD (CAMERA LOWERING DEVICE)
POB:	ITS POLE WITHOUT CLD (CAMERA LOWERING DEVICE)
PNL:	PANEL
PP:	POWER PANELBOARD OR PATCH PANEL
PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W:	RIGHT OF WAY
SB	SOUTHBOUND
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SW:	SWITCH
SPD:	SURGE PROTECTION DEVICE
STP:	SHIELDED TWISTED PAIR
TMS:	TRANSPORTATION MANAGEMENT SYSTEM
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
Vac:	VOLTS ALTERNATING CURRENT
Vdc:	VOLTS DIRECT CURRENT
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
XFMR:	TRANSFORMER

LEGEND

- SPLICE BOX
- EXISTING SPLICE BOX
- NEW ITS CABINET (POLE MOUNTED)
- EXISTING ITS CABINET (POLE MOUNTED)
- NEW ITS CABINET (GROUND MOUNTED)
- EXISTING ITS CABINET (GROUND MOUNTED)
- CCTV CAMERA
- EXISTING CCTV CAMERA
- DEDICATED CCTV CAMERA
- MVDS
- EXISTING MVDS
- AWB — ADVANCED WARNING BEACON
- DMS — DMS (DYNAMIC MESSAGE SIGN)
- DMS — EXISTING DMS (DYNAMIC MESSAGE SIGN)
- RAMP METERING CONTROL SIGNAL
- RAMP METERING LOOP DETECTOR SENSOR
- PORTABLE TRAFFIC MONITORING SITES (PTMS)
- TELEMETERED TRAFFIC MONITORING SITES (T
- ELECTRICAL PULL BOX, 13" X 24" … OTHER … NOTE … PLANS) SECTION 635 OF THE 2015 FD… SPEC… TIONS … ROAD… BRIDGE CONSTRUCTION AND 2017 F… DESIGN… DARD … EX NO…
- EXISTING ELECTRICAL PU… OX
- TRANSFORMER … AND … TAGE RATING A… OWN ON PLANS). ALL TRANSFORMERS SHALL BE EQUI… WIT… 2.5% AND +/-… VOLTAGE TAPS ABOVE AND BELOW NOMINAL VOLTA… ADDI… LLY, ALL TR… ORMERS SHALL BE PROVIDED WITH …RNAL SURG… OTECT… VICES (…) AS CLOSE AS POSSIBLE TO BOTH THE …FORMER P… RY AND … DING TERMINALS. SPD'S SHALL BE MOUNTED AS … MENDE… THE TRA… MANUFACTURER.
- DP — 120/240V … E … SE DISTRIBUTION PANEL
- F #AS / #AT — DISCONNECT S… 600Vac, 2 POLE, 10kAIC, UNLESS OTHERWISE NOTED.
  F - INDICATES FU… SWITCH. IF OMMITED, SWITCH SHALL BE NON-FUSED.
  #AS - AMP RATING OF DISCONNECT SWITCH. IF OMITTED FROM PLANS, SWITCH SHALL BE 30 AMP RATED, UNLESS OTHERWISE NOTED.
  #AT - AMP RATING OF FUSES (IF APPLICABLE), AS INDICATED ON PLANS.
- CB — MOLDED CASE CIRCUIT BREAKER(S) SERVING AS A LOCAL DISCONNECTING MEANS FOR THE DMS SIGN POWER. CIRCUIT BREAKER(S) INSTALLED IN A NEMA 3R ENCLOSURE LOCATED AT THE DMS SIGN STRUCTURE (SAME ENCLOSURE USED TO HOUSE THE SPD'S FOR DMS POWER/DATA FEEDS, WHERE APPLICABLE. BREAKER RATINGS LISTED BELOW SHALL BE COORDINATED WITH THE DMS MANUFACTURER AND ADJUSTED AS NECESSARY BASED ON MANUFACTURER RECOMMENDATIONS.
  1. WALK-IN DMS (FREEWAY): 40 AMP, 2 POLE, 240Vac
  2. FRONT ACCESS DMS (EXPRESS LANES): 30 AMP, 2 POLE, 240Vac
  3. LANE STATUS DMS: 20 AMP, 1 POLE, 24Vdc
  4. TOLL RATE DMS: 20 AMP, 1 POLE, 24Vdc
- SPD — SURGE PROTECTION DEVICE (SPD), UL 1449 THIRD EDITION LISTED. THE SPD AT EACH MAIN SERVICE DISCONNECTING MEANS SHALL BE A 'TYPE 1' SPD WITH A MINIMUM SURGE CAPACITY OF 80kA PER PHASE. ALL OTHER SPD'S SHALL BE 'TYPE 2' SPD'S WITH A MINIMUM SURGE CAPACITY OF 20kA PER PHASE. ALL SPD'S SHALL HAVE 25% MORE CAPACITY FOR THE RATING OF THE NOMINAL OPERATING SINGLE PHASE VOLTAGE(S) AND MAXIMUM CONTINUOUS OPERATING VOLTAGES PER ATTACHMENT L, SECTION 11, OF THE RFP. ALL SPD'S SHALL HAVE A MINIMUM SHORT CIRCUIT CURRENT INTERRUPT RATING (SCCR) OF 100kAIC. ALL SPD'S SHALL BE PROVIDED WITH FORM C DRY CONTACT FOR REMOTE STATUS MONITORING.

- GROUND ROD, 5/8" DIAMETER, COPPER CLAD, AND A MINIMUM OF 8 FT IN LENGTH. GROUND RODS SHALL BE UL 467 LISTED. GROUND ROD ASSEMBLIES SHALL CONSIST OF TWO OR MORE GROUND RODS COUPLED TOGETHER AND INSTALLED PER JANUARY 2017 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FDOT SPEC HEREIN) SECTION 620-2.2. GROUND ROD ARRAYS SHALL CONSIST OF TWO OR MORE GROUND ROD ASSEMBLIES AND BE INSTALLED PER FDOT SPEC SECTION 620-2.3. GROUND RODS, GROUND ROD ASSEMBLIES, AND GROUND ROD ARRAYS SHALL BE INSTALLED AS REQUIRED PER THE PLANS AND CONTRACT DOCUMENTS AND PER 2017 FDOT STANDARD SPECIFICATION SECTION 620. DASHED CIRCLE INDICATES THE GROUND ROD IS INSTALLED IN AN GROUND INSPECTION/TEST WELL.
- STANDBY GENERATOR, 120/240V, SINGLE PHASE
- G — ITS POWER STATION. SEE ITS POWER STATION DETAIL SHEETS FOR ADDITIONAL INFORMATION.
- SECONDARY ELECTRICAL POWER (INCLUDES FUSED DISCONNECT SWITCH, STEP-DOWN TRANSFORMER AND SPD'S) (REFER TO ONE LINE SCHEMATIC DIAGRAM FOR TRANSFORMER AND FUSE SIZES)
- POWER SERVICE POLE TYPE PII, UNDERGROUND SERVICE
- ITS EQUIPMENT POLE
- UTILITY POWER DROP POLE
- EXISTING UTILITY POWER DROP POLE
- #AF / #AT / 2P / LSI — ENCLOSED CIRCUIT BREAKER, NEMA 3R ENCLOSURE
  AF= AMP FRAME
  AT= AMP TRIP
  2P = 2 POLE
  LSI = LONG TIME, SHORT TIME, AND INSTANTANEOUS TRIP (CIRCUIT BREAKER ADJUSTABLE TRIP SETTINGS/FUNCTIONS)
- E N — AUTOMATIC TRANSFER SWITCH (RATING AND CONFIGURATION AS SHOWN ON PLANS).
- UG ITS ELECTRICAL CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- HORIZONTAL DIRECTIONAL DRILLING CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- HORIZONTAL JACK AND BORE CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)
- EXISTING UNDERGROUND ITS CONDUIT
- EXISTING JACKED/BORE ITS CONDUIT
- EQUIPMENT OUTLINES AND ENCLOSURES
- EXISTING R/W
- EXISTING L/A R/W

VOID

RELEASED FOR CONSTRUCTION — BY/PSD/ VS Date: 10/30/2018
Plans are released for construction with contract documents. Contractor responsible for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection; shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4F06

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL LEGEND AND ABBREVIATIONS

SHEET NO. IT-102

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ITS EQUIPMENT ABBREVIATIONS AND SYMBOLS

AC	ALTERNATING CURRENT
AF:	AMPS FRAME (FRAME RATING OF CIRCUIT BREAKER) OR AMPS FUSED (FUSE RATING)
AG:	ABOVE GROUND
AS:	AMPS SWITCH (AMP RATING OF A FUSED DISCONNECT SWITCH)
AT:	AMPS TRIP (TRIP RATING OF CIRCUIT BREAKER)
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
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CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRCUIT BREAKER
CCTV:	CLOSED CIRCUIT TELEVISION
CKT:	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CLR:	CENTERLINE OF REBAR
CMSS:	CHANGEABLE MESSAGE SIGN - TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN - TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
EB:	EAST BOUND
ELEC:	ELECTRICAL
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (ELECTRIC UTILITY COMPANY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (CIRCUIT BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD:	MOUNTED
MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
NB	NORTHBOUND
NEC:	NATIONAL ELECTRICAL CODE
OCPD:	OVERCURRENT PROTECTION DEVICE
PB:	PULLBOX
POA:	ITS POLE WITH CLD (CAMERA LOWERING DEVICE)
POB:	ITS POLE WITHOUT CLD (CAMERA LOWERING DEVICE)
PNL:	PANEL
PP:	POWER PANELBOARD OR PATCH PANEL
PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W:	RIGHT OF WAY
SB	SOUTHBOUND
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SW:	SWITCH
SPD:	SURGE PROTECTION DEVICE
STP:	SHIELDED TWISTED PAIR
TMS:	TRANSPORTATION MANAGEMENT SYSTEM
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
Vac:	VOLTS ALTERNATING CURRENT
Vdc:	VOLTS DIRECT CURRENT
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
WWDS:	WRONG WAY DETECTION SYSTEM (1)
XFMR:	TRANSFORMER

LEGEND

- SPLICE BOX
- EXISTING SPLICE BOX
- NEW ITS CABINET (POLE MOUNTED)
- EXISTING ITS CABINET (POLE MOUNTED)
- NEW ITS CABINET (GROUND MOUNTED)
- EXISTING ITS CABINET (GROUND MOUNTED)
- CCTV CAMERA
- EXISTING CCTV CAMERA
- DEDICATED CCTV CAMERA
- MVDS
- EXISTING MVDS
- AWB — ADVANCED WARNING BEACON
- DMS — DMS (DYNAMIC MESSAGE SIGN)
- DMS — EXISTING DMS (DYNAMIC MESSAGE SIGN)
- RAMP METERING CONTROL SIGNAL
- RAMP METERING LOOP DETECTOR SENSOR
- LED HIGHLIGHTED SIGN (1)
- STATIC WWDS SIGN (1)

  WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT (5)
- PORTABLE TRAFFIC MONITORING SITES (PTMS)
- TELEMETERED TRAFFIC MONITORING SITES (TTMS)
- ELECTRICAL PULL BOX, 13" X 24" (UNLESS OTHERWISE NOTED ON PLANS). SEE SECTION 635 OF THE JANUARY 2017 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND 2017 FDOT DESIGN STANDARDS INDEX NO. 17500.
- EXISTING ELECTRICAL PULL BOX
- TRANSFORMER (kVA AND VOLTAGE RATING AS SHOWN ON PLANS). ALL TRANSFORMERS SHALL BE EQUIPPED WITH +/- 2.5% AND +/- 5.0% VOLTAGE TAPS ABOVE AND BELOW NOMINAL VOLTAGE. ADDITIONALLY, ALL TRANSFORMERS SHALL BE PROVIDED WITH EXTERNAL SURGE PROTECTION DEVICES (SPD'S) AS CLOSE AS POSSIBLE TO BOTH THE TRANSFORMER PRIMARY AND SECONDARY WINDING TERMINALS. SPD'S SHALL BE MOUNTED AS RECOMMENDED BY THE TRANSFORMER MANUFACTURER.
- DP — 120/240V, SINGLE PHASE DISTRIBUTION PANEL
- F, #AS / #AT — DISCONNECT SWITCH, 600Vac, 2 POLE, 10kAIC, UNLESS OTHERWISE NOTED.
  F - INDICATES FUSED SWITCH. IF OMMITED, SWITCH SHALL BE NON-FUSED.
  #AS - AMP RATING OF DISCONNECT SWITCH. IF OMITTED FROM PLANS, SWITCH SHALL BE 30 AMP RATED, UNLESS OTHERWISE NOTED.
  #AT - AMP RATING OF FUSES (IF APPLICABLE), AS INDICATED ON PLANS.
- CB — MOLDED CASE CIRCUIT BREAKER(S) SERVING AS A LOCAL DISCONNECTING MEANS FOR THE DMS SIGN POWER. CIRCUIT BREAKER(S) INSTALLED IN A NEMA 3R ENCLOSURE LOCATED AT THE DMS SIGN STRUCTURE (SAME ENCLOSURE USED TO HOUSE THE SPD'S FOR DMS POWER/DATA FEEDS, WHERE APPLICABLE. BREAKER RATINGS LISTED BELOW SHALL BE COORDINATED WITH THE DMS MANUFACTURER AND ADJUSTED AS NECESSARY BASED ON MANUFACTURER RECOMMENDATIONS.

  1. WALK-IN DMS (FREEWAY): 40 AMP, 2 POLE, 240Vac
  2. FRONT ACCESS DMS (EXPRESS LANES): 30 AMP, 2 POLE, 240Vac
  3. LANE STATUS DMS: 20 AMP, 1 POLE, 24Vdc
  4. TOLL RATE DMS: 20 AMP, 1 POLE, 24Vdc
- SPD — SURGE PROTECTION DEVICE (SPD), UL 1449 THIRD EDITION LISTED. THE SPD AT EACH MAIN SERVICE DISCONNECTING MEANS SHALL BE A 'TYPE 1' SPD WITH A MINIMUM SURGE CAPACITY OF 80kA PER PHASE. ALL OTHER SPD'S SHALL BE 'TYPE 2' SPD'S WITH A MINIMUM SURGE CAPACITY OF 20kA PER PHASE. ALL SPD'S SHALL HAVE 25% MORE CAPACITY FOR THE RATING OF THE NOMINAL OPERATING SINGLE PHASE VOLTAGE(S) AND MAXIMUM CONTINUOUS OPERATING VOLTAGES PER ATTACHMENT L, SECTION 11, OF THE RFP. ALL SPD'S SHALL HAVE A MINIMUM SHORT CIRCUIT CURRENT INTERRUPT RATING (SCCR) OF 100kAIC. ALL SPD'S SHALL BE PROVIDED WITH FORM C DRY CONTACT FOR REMOTE STATUS MONITORING.
- GROUND ROD, 5/8" DIAMETER, COPPER CLAD, AND A MINIMUM OF 8 FT IN LENGTH. GROUND RODS SHALL BE UL 467 LISTED. GROUND ROD ASSEMBLIES SHALL CONSIST OF TWO OR MORE GROUND RODS COUPLED TOGETHER AND INSTALLED PER JANUARY 2017 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FDOT SPEC HEREIN) SECTION 620-2.2. GROUND ROD ARRAYS SHALL CONSIST OF TWO OR MORE GROUND ROD ASSEMBLIES AND BE INSTALLED PER FDOT SPEC SECTION 620-2.3. GROUND RODS, GROUND ROD ASSEMBLIES, AND GROUND ROD ARRAYS SHALL BE INSTALLED AS REQUIRED PER THE PLANS AND CONTRACT DOCUMENTS AND PER 2017 FDOT STANDARD SPECIFICATION SECTION 620. DASHED CIRCLE INDICATES THE GROUND ROD IS INSTALLED IN AN GROUND INSPECTION/TEST WELL.
- G — STANDBY GENERATOR, 120/240V, SINGLE PHASE
- ITS POWER STATION. SEE ITS POWER STATION DETAIL SHEETS FOR ADDITIONAL INFORMATION.
- SECONDARY ELECTRICAL POWER (INCLUDES FUSED DISCONNECT SWITCH, STEP-DOWN TRANSFORMER AND SPD'S) (REFER TO ONE LINE SCHEMATIC DIAGRAM FOR TRANSFORMER AND FUSE SIZES)
- POWER SERVICE POLE TYPE PII, UNDERGROUND SERVICE
- ITS EQUIPMENT POLE
- UTILITY POWER DROP POLE
- EXISTING UTILITY POWER DROP POLE
- #AF / #AT / 2P / LSI — ENCLOSED CIRCUIT BREAKER, NEMA 3R ENCLOSURE
  AF= AMP FRAME
  AT= AMP TRIP
  2P = 2 POLE
  LSI = LONG TIME, SHORT TIME, AND INSTANTANEOUS TRIP (CIRCUIT BREAKER ADJUSTABLE TRIP SETTINGS/FUNCTIONS)
- E N — AUTOMATIC TRANSFER SWITCH (RATING AND CONFIGURATION AS SHOWN ON PLANS).
- UG ITS ELECTRICAL CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- HORIZONTAL DIRECTIONAL DRILLING CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- HORIZONTAL JACK AND BORE CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)
- EXISTING UNDERGROUND ITS CONDUIT
- EXISTING JACKED/BORE ITS CONDUIT
- EQUIPMENT OUTLINES AND ENCLOSURES
- EXISTING R/W
- EXISTING L/A R/W

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions remains with the contractor of record for all dimensions, details, quantities, and safety during fabrication and erection. Shop drawings shall remain with the contractor.
BY:PDON Date: 2/16/2021 VS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(1) WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL LEGEND AND ABBREVIATIONS

SHEET NO. IT-102

ITS ELECTRICAL NOTES

1. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT FOR EOR APPROVAL EQUIPMENT SPECIFICATION AND DESIGN DATA FOR ALL MATERIAL PROPOSED FOR THE PROJECT.

2. THE CONTRACTOR SHALL STAKE ALL SERVICE POLE LOCATIONS AND REQUEST UTILITY COMPANIES TO LOCATE AND STAKE UNDERGROUND UTILITIES PRIOR TO EXCAVATING.

3. THE CONTRACTOR SHALL BE AWARE OF ALL EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PROJECT PLANS. THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES ARE APPROXIMATE AND BASED ON THE INFORMATION FURNISHED TO THE ENGINEER BY THE UTILITY OWNER(S) AND ARE SHOWN AS NOTICE TO THE CONTRACTOR THAT UNDERGROUND UTILITIES EXIST. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OWNER(S) FOR LOCATION AND STAKING OF UNDERGROUND FACILITIES BEFORE EXCAVATING.

4. THE LOCATION OF THE CONDUCTORS, CONDUITS, JUNCTION BOXES AND SERVICE POLES ARE DIAGRAMMATIC ONLY AND MAY BE SHIFTED FOLLOWING PRE-APPROVAL BY THE ENGINEER TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITY LOCATIONS.

5. ELECTRICAL WORK SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 70) NATIONAL ELECTRICAL CODE (NEC), NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE, THE NATIONAL ELECTRICAL SAFETY CODE (NESC), AND THE STANDARD PRACTICE OF GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION, NECA-1-2010. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER THE NATIONAL ELECTRICAL CODE REQUIREMENTS.

6. LOCAL DISCONNECTING MEANS FOR DMS SIGNS MAY CONSIST OF EITHER NON-FUSED DISCONNECT SWITCH OR CIRCUIT BREAKERS IN A LOCKABLE NEMA 3R ENCLOSURE.

7. PROVIDE IDENTIFICATION FOR EACH BRANCH CIRCUIT IN A PANELBOARD. PROVIDE NAMEPLATES FOR ALL EQUIPMENT AND DEVICES. PROVIDE WIRE LABELS ON EACH CONDUCTOR IN PULL BOXES AND JUNCTION BOXES.

8. THE CONTRACTOR SHALL NOTIFY FP&L AT LEAST 48 HOURS PRIOR TO ANY INSTALLATION THAT IS WITHIN 10 FEET OF ENERGIZED ELECTRICAL CONDUCTORS. FP&L, AT ITS OPTION, SHALL ASSIST THE F.D.O.T. CONTRACTOR, COVER ENERGIZED CONDUCTORS AT INSTALLATION SITE, OR TAKE OTHER SAFETY PRECAUTIONS AS NECESSARY. EXTREME CAUTION SHALL BE EXERCISED AT ALL TIMES IN PERFORMANCE OF WORK AROUND THE PRIMARY MEDIUM AND HIGH VOLTAGE COMPONENTS.

9. PULLING INSTRUCTIONS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURER'S REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS.

10. ALL CONDUITS UNDER ROADWAY SHALL BE INSTALLED PRIOR TO INSTALLATION OF ROADWAY BASE AND SURFACE (OR CONCRETE), EXCEPT WHERE OTHERWISE SPECIFIED IN THE PLANS.

11. THE CONTRACTOR SHALL PROVIDE NOTICE TO THE UTILITY OWNER(S) PER FLORIDA STATUTE 553.851 (2004) AND 556 (2012). THESE STATUTES REQUIRE THAT BEFORE EXCAVATING, NOTICE BE GIVEN TO THE UTILITY OWNER A MINIMUM OF TWO (2) DAYS AND A MAXIMUM OF FIVE (5) FULL BUSINESS DAYS, EXCLUDING SATURDAY, SUNDAY AND LEGAL HOLIDAYS. NOT ALL UTILITY COMPANIES ARE MEMBERS OF "SUNSHINE 811".

Always call 811 two full business days before you dig

Sunshine811.com

ITS ELECTRICAL NOTES (CONTINUED)

12. DIRECTIONAL DRILLING BORE OPERATIONS IF USED SHALL MEET THE REQUIREMENTS OF F.D.O.T.'S UTILITY ACCOMMODATION GUIDE MANUAL (LATEST EDITION).

13. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE WITHIN TWO FEET OF THE ITS POLE FOUNDATIONS OR CONDUIT RUN, AS DETERMINED BY THE CONTRACTOR, THE CONTRACTOR WILL HAND DIG THE FIRST 4 FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.

14. ALL EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.

15. THE CONTRACTOR SHALL CONTACT FP&L TO DETERMINE IF A SERVICE PROCESSING FEE IS REQUIRED AND VERIFY THE PROPER METERING ENCLOSURE AND ANY ADDITIONAL DISCONNECT DEVICE REQUIREMENTS.

16. ALL SPLICES SHALL BE MADE IN PULLBOXES ONLY WITH COMPRESSION SLEEVES PROPERLY INSULATED FOR 600V, WATERPROOFED, ENCAPSULATED AND RATED FOR SUBMERSIBLE SERVICE.

17. ALL INFORMATION SHOWN ON THE ITS ELECTRICAL DRAWINGS REGARDING EXISTING ELECTRICAL EQUIPMENT (INCLUDING EQUIPMENT RATINGS, CONDUIT AND WIRING) ARE SHOWN FOR INFORMATION PURPOSES ONLY AND ARE BASED ON INFORMATION FROM AS-BUILT AND CONSTRUCTION DRAWINGS PROVIDED BY THE DEPARTMENT. NOTIFY THE EOR IF CONTRARY FIELD CONDITIONS ARE FOUND BY THE CONTRACTOR.

18. ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

19. ALL ELECTRICAL PULL BOX COVERS FOR THE I-95 EXPRESS LANES SERVICE ITS SHALL INCLUDE THE WORDS "FDOT DISTRICT 4 ITS" PERMANENTLY CAST INTO THEIR TOP SURFACE.

20. CONDUIT RUN SHALL NOT EXCEED 270° OF BENDS BETWEEN PULL BOXES UNLESS APPROVED BY THE ENGINEER OF RECORD (EOR).

21. THE MAXIMUM SPACING BETWEEN ADJACENT ELECTRICAL PULL BOXES SHALL BE LESS THAN 900 FEET.

22. ALL UNINTERRUPTIBLE POWER SUPPLY (UPS) UNITS SHALL BE PROVIDED WITH A SIMPLE NETWORK MANAGEMENT PROTOCOL (SNMP) ETHERNET COMMUNICATION CARD FOR REMOTE MONITORING OF THE UPS FROM THE TRANSPORTATION MANAGEMENT CENTER (TMC). THE UPS UNITS SHALL BE CONFIGURED TO EMAIL STATUS AND ALARM NOTIFICATIONS THROUGH THE ITS ETHERNET NETWORK.

23. TOP ENTRY CONDUIT SHALL NOT BE USED FOR ANY CONDUIT INSTALLED BETWEEN ELECTRICAL EQUIPMENT. NEMA 3R THREADED HUBS SHALL BE USED FOR ALL RACEWAY CONNECTIONS BETWEEN ELECTRICAL ENCLOSURES.

24. ELECTRICAL ROUTE MARKERS AND BURIED WARNING TAPE SHALL BE INSTALLED ABOVE ALL BURIED ELECTRICAL CONDUITS PER THE POWER CABLE ROUTE MARKER DETAILS WITHIN THE ITS PACKAGE.

25. OVERCURRENT PROTECTION DEVICE SIZING SHALL BE BASED ON AN 80% RATING FOR DEVICES UP TO AND INCLUDING 250 AMPS AND BASED ON A 100% RATING FOR DEVICE ABOVE 250 AMPS.

26. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANY, FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING:

(BROWARD COUNTY)	MR. BYRON SAMPLE	OFFICE: (954) 321-2056
(PALM BEACH COUNTY)	MRS. APRIL MADISON	OFFICE: (561) 742-2003

27. CONDUCTORS CAN BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE A PROPER CONNECTION TO THE ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE WHERE THE CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS IT IS CONNECTED TO. THIS DOWN SPLICE SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.

28. ANY NEW PULL BOXES INSTALLED WITHIN THE ROADWAY SHOULDERS SHALL HAVE AN AASHTO HS-20 LOAD RATING OR GREATER.

BY/POST VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Released for construction. Contractor shall review all contract documents for responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection. Shall remain with the contractor.
FPID 433084-5-52-01 and 433109-4-52-01 CONTRACT E4V86

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

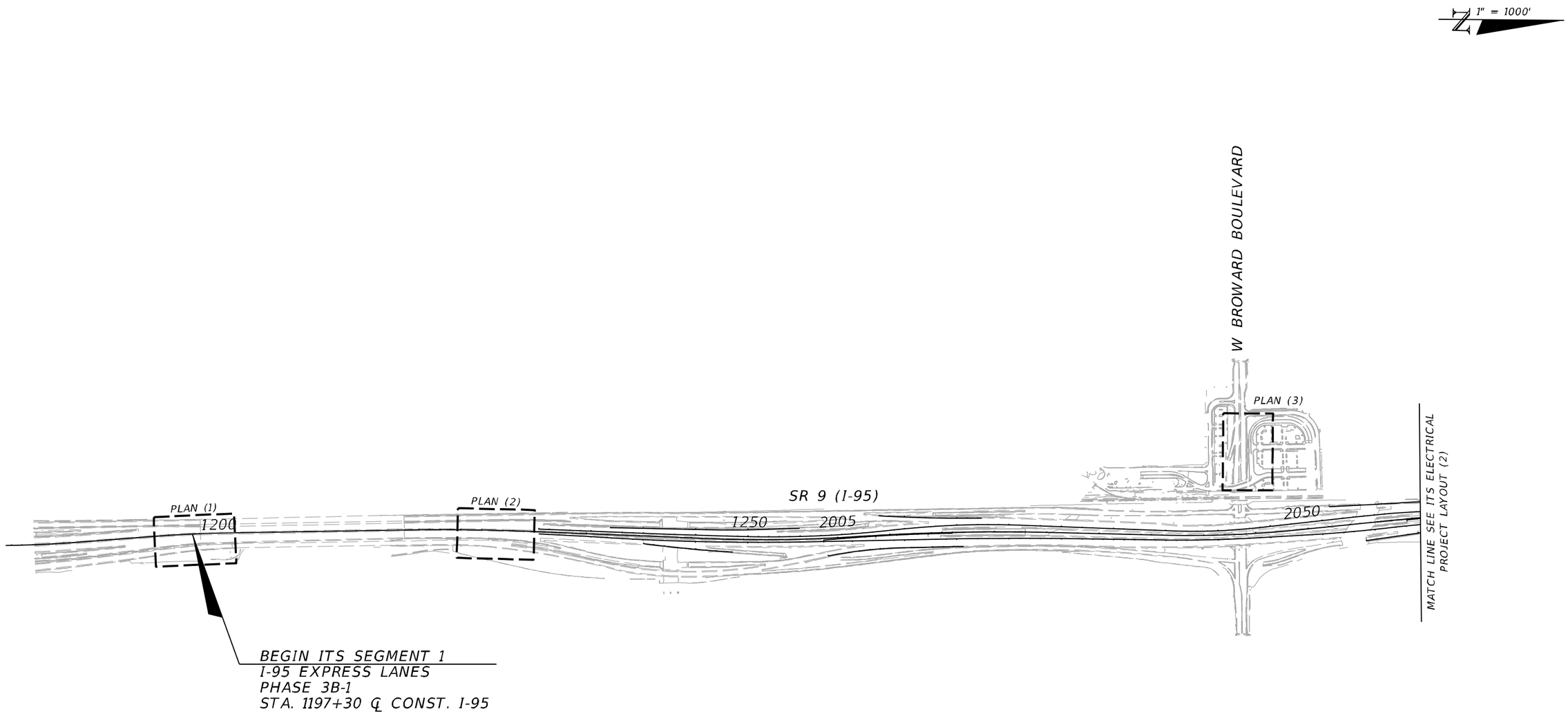
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

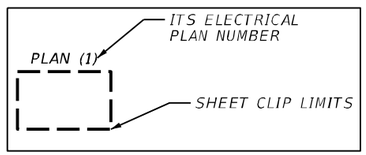
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL GENERAL NOTES

SHEET NO. IT-103



LEGEND



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (1)

SHEET NO.
IT-104

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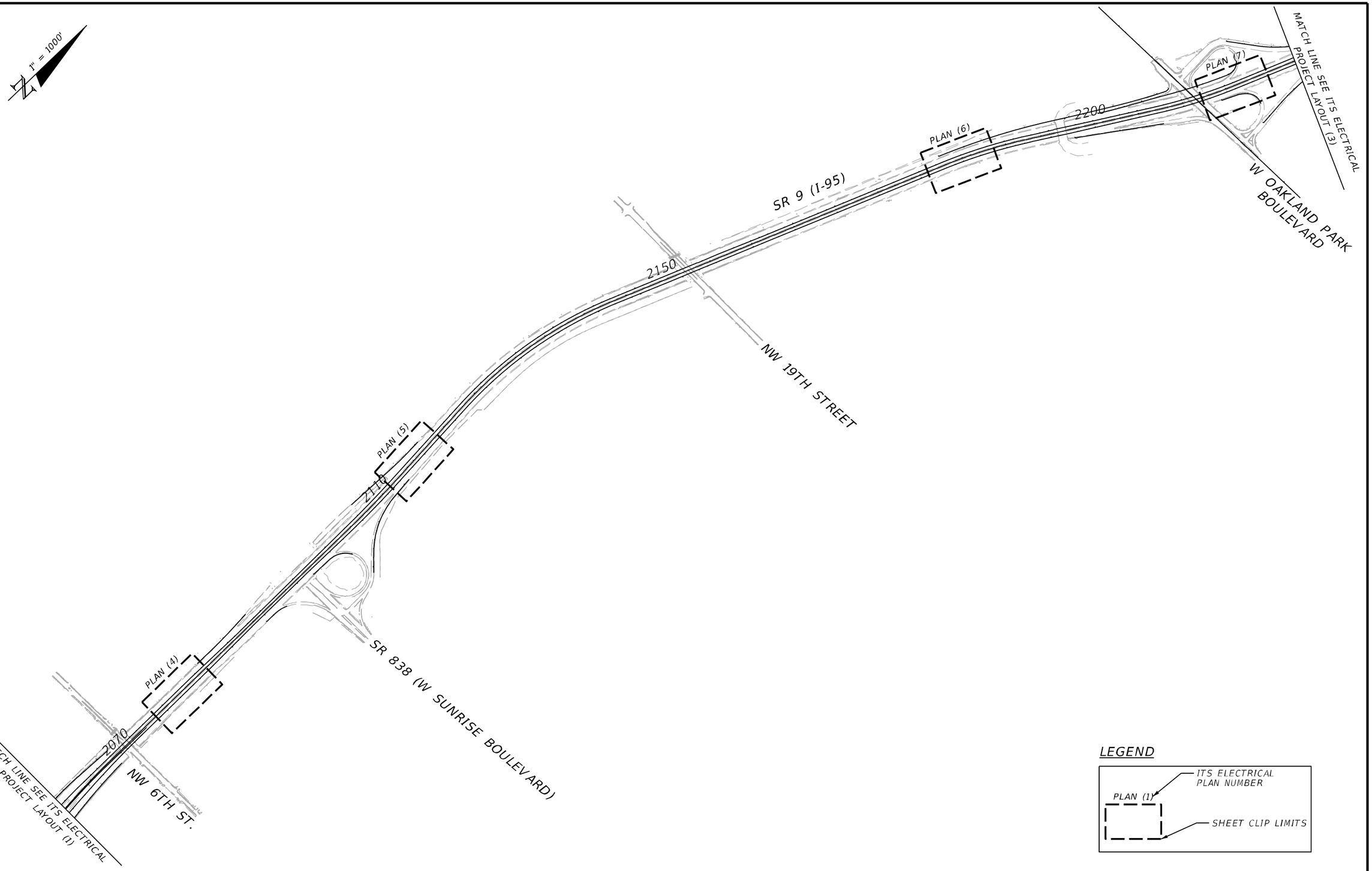
RELEASED FOR CONSTRUCTION
Reviewed for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 10/30/2018



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (2)

SHEET NO.
IT-105

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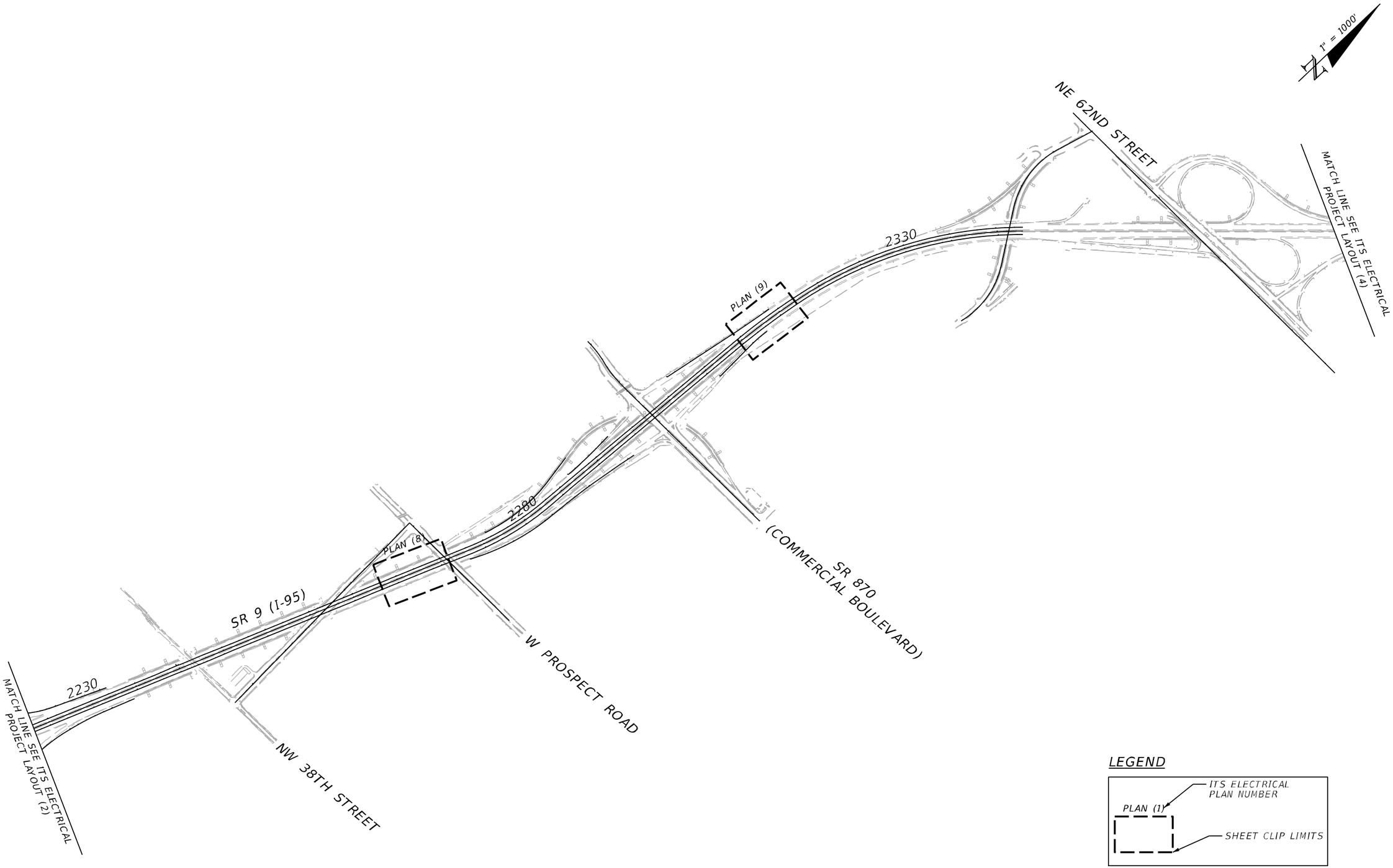
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (3)

SHEET NO.
IT-106

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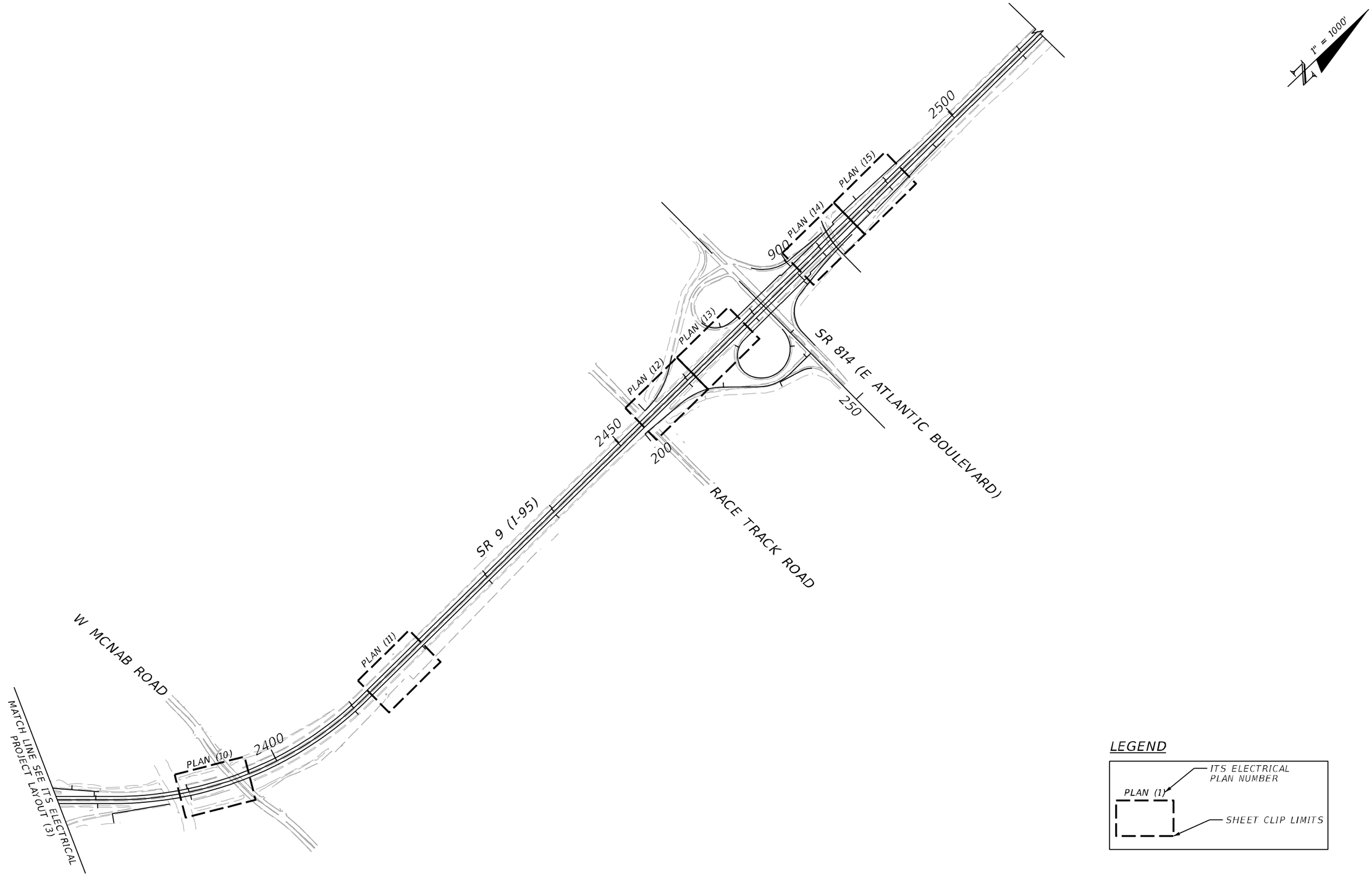
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (4)

SHEET NO.
IT-107

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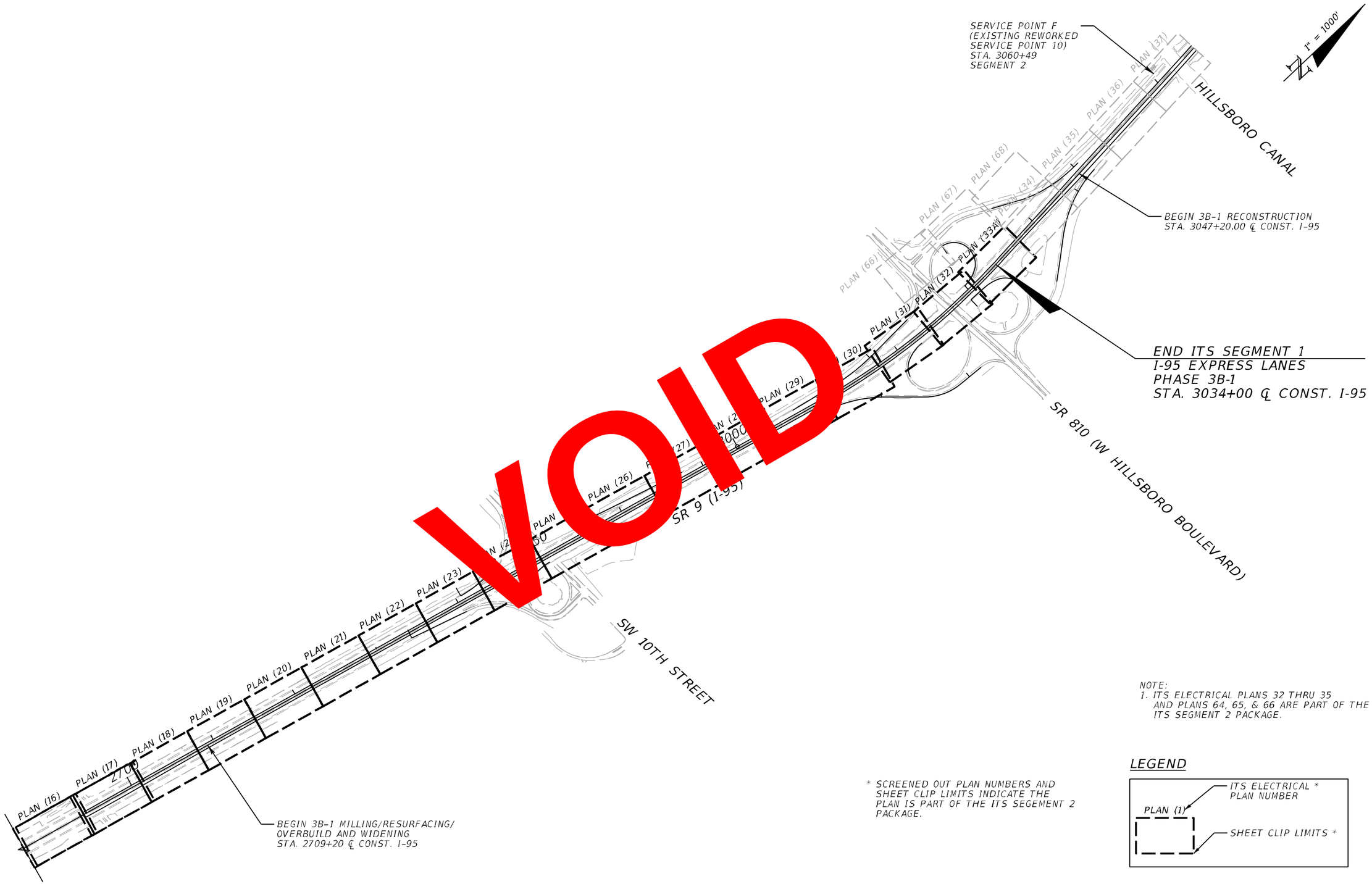
RELEASED FOR CONSTRUCTION BY(FDOT) VS Date: 10/30/2018
Review is for general compliance with contract documents. See responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



NOTE:
1. ITS ELECTRICAL PLANS 32 THRU 35 AND PLANS 64, 65, & 66 ARE PART OF THE ITS SEGMENT 2 PACKAGE.

* SCREENED OUT PLAN NUMBERS AND SHEET CLIP LIMITS INDICATE THE PLAN IS PART OF THE ITS SEGEMENT 2 PACKAGE.

LEGEND

PLAN (1) — ITS ELECTRICAL * PLAN NUMBER; SHEET CLIP LIMITS *

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (5A)

SHEET NO. IT-108

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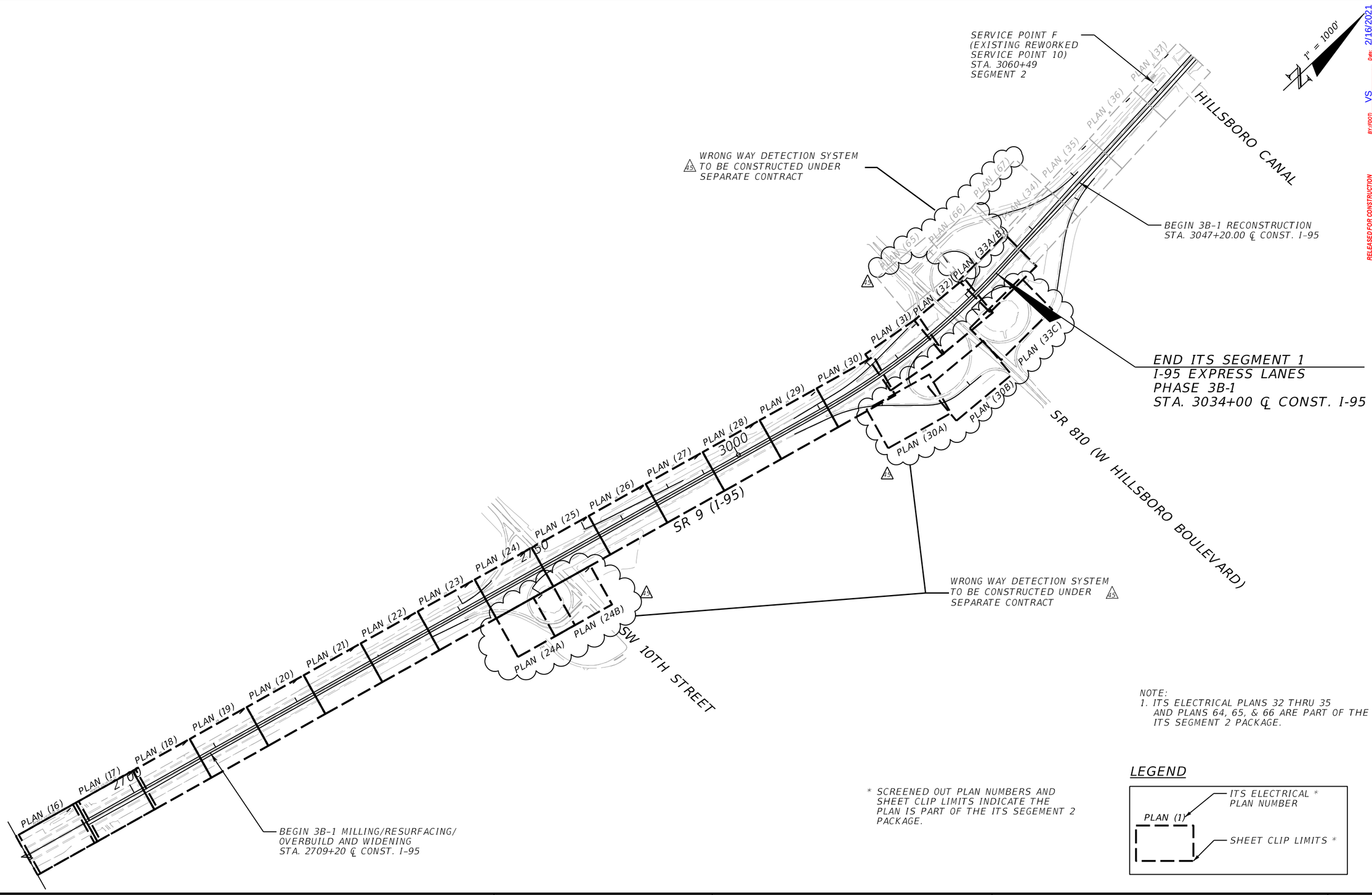
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



NOTE:
1. ITS ELECTRICAL PLANS 32 THRU 35 AND PLANS 64, 65, & 66 ARE PART OF THE ITS SEGMENT 2 PACKAGE.

* SCREENED OUT PLAN NUMBERS AND SHEET CLIP LIMITS INDICATE THE PLAN IS PART OF THE ITS SEGEMENT 2 PACKAGE.

LEGEND

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	15 ADDED SHEETS FOR WRONG WAY DETECTION SYSTEM		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (5A)

SHEET NO.
IT-108

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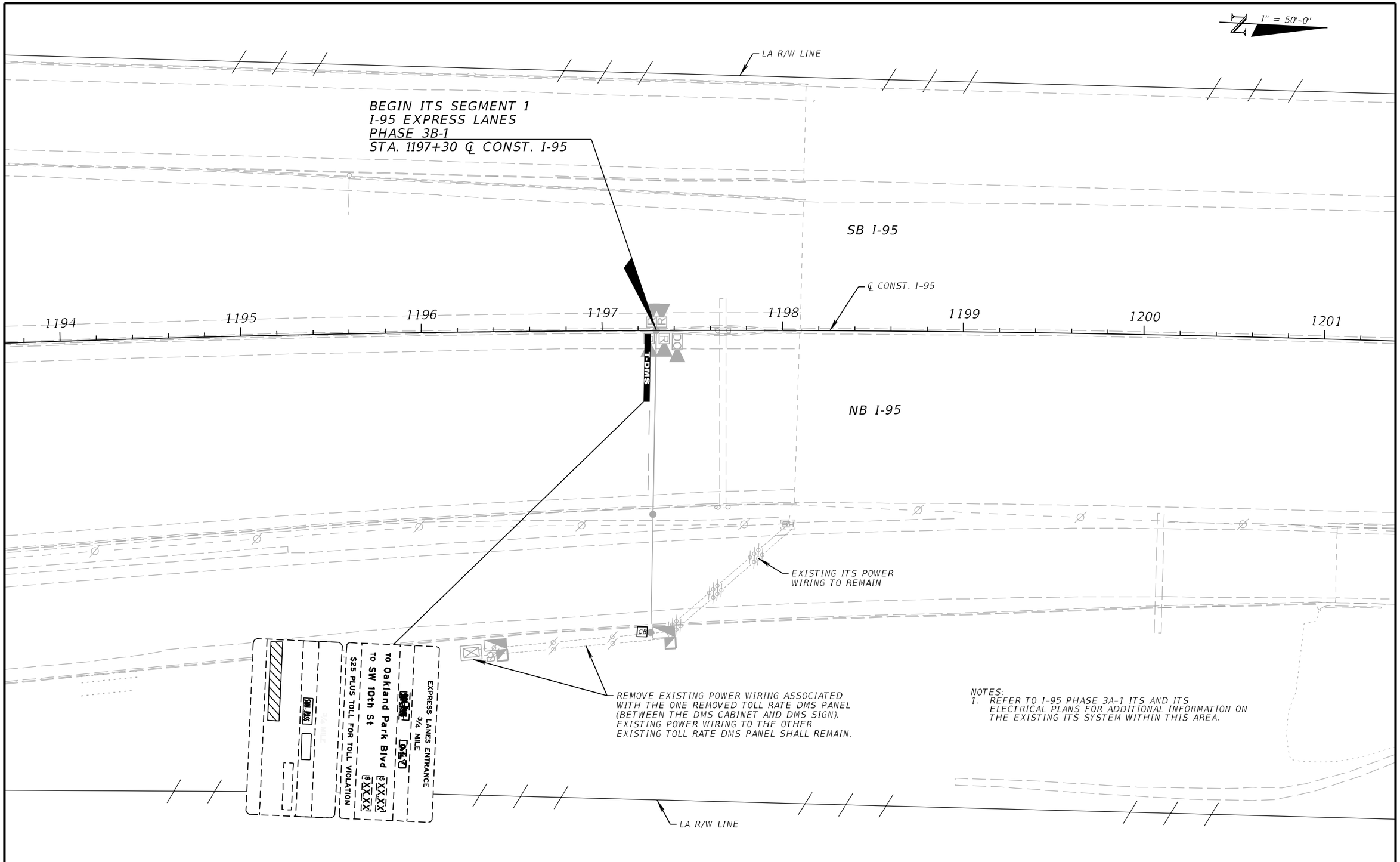
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:PSON VS Date: 2/16/2021
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. REFER TO I-95 PHASE 3A-1 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (1)

SHEET NO.
IT-109

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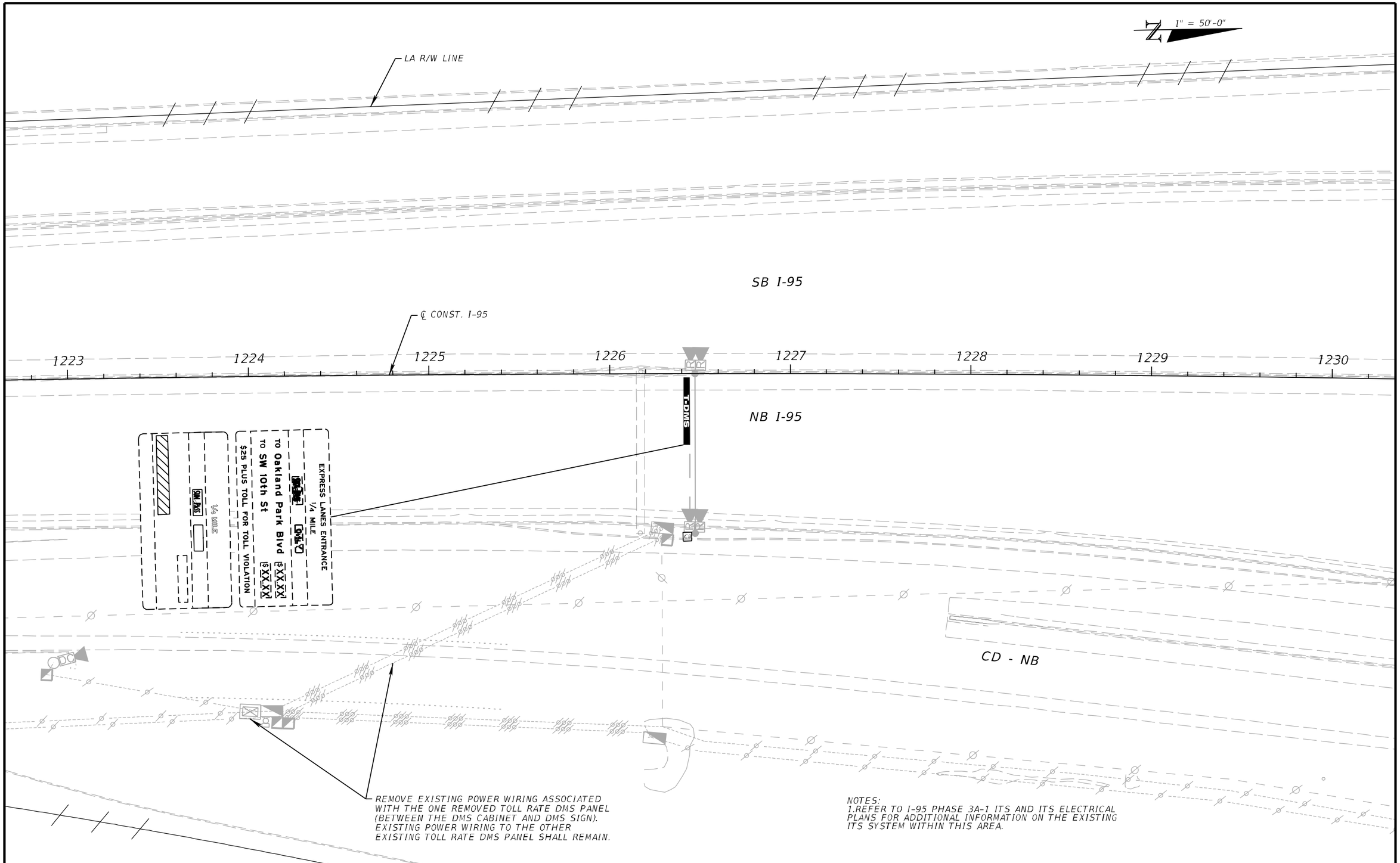
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R66



NOTES:
1.REFER TO I-95 PHASE 3A-1 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (2)

SHEET NO.
IT-110

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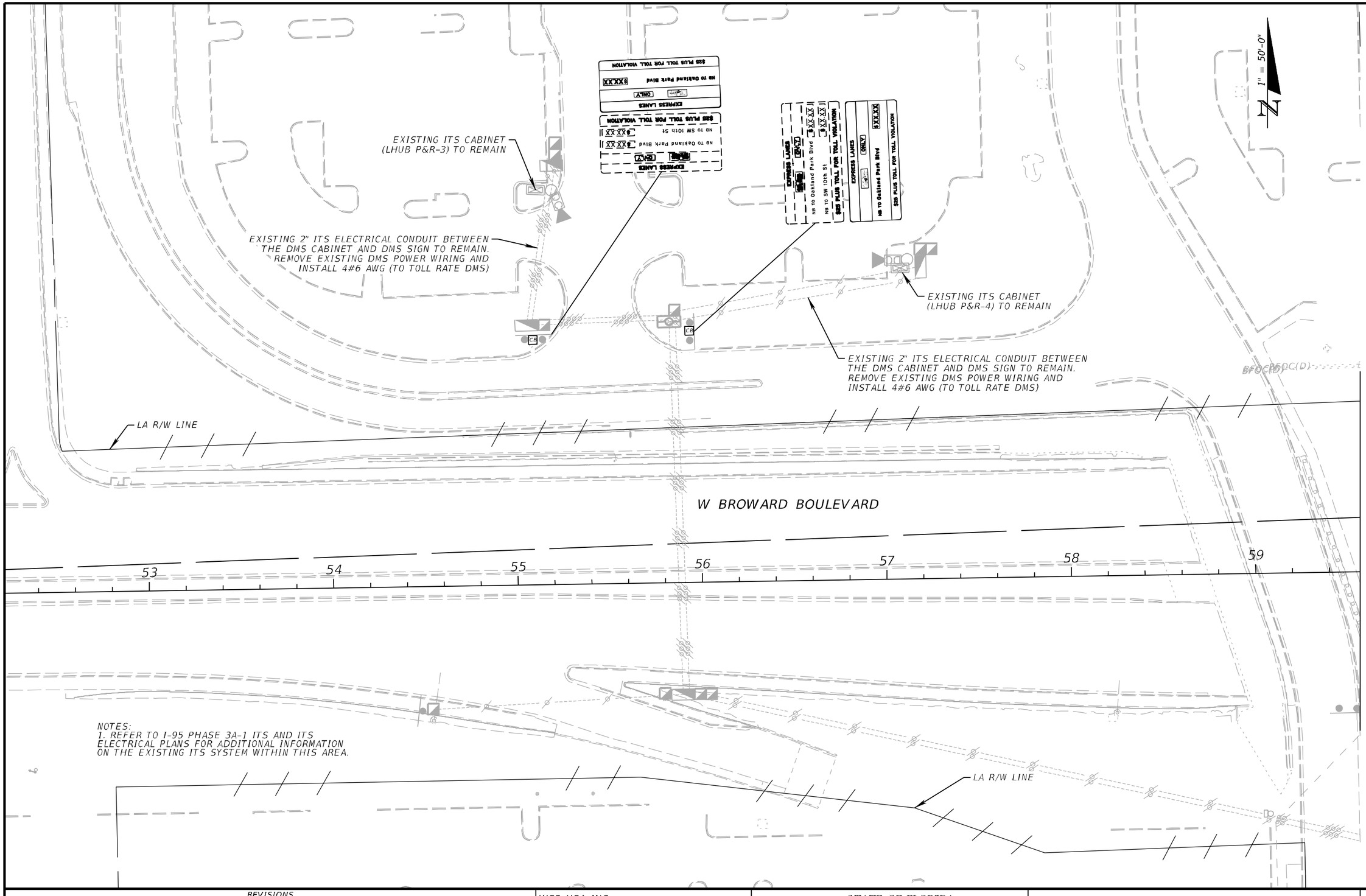
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



NOTES:
1. REFER TO I-95 PHASE 3A-1 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Tampa, Florida 33607
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EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (3)

SHEET NO.
IT-111

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PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

LA R/W LINE

EXISTING FREEWAY
DMS SIGN TO REMAIN

EXISTING ITS CABINET
(LHUB 95-28.16 SB)
TO REMAIN

1" = 50'-0"

199 200 201 202 SB I-95 203 204 205 206

75 2076 2077 2078 2079 2080 2081 2082

℄ CONST. I-95

399 400 401 402 NB I-95 403 404 405 406

NEW DMS CABINET
LHUB 95-28.12 NB
STA. 2076+85

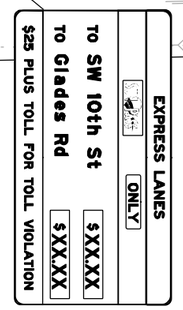
2#2 AWG AND 1#2 GND, 2"C
(INTERCEPT EXISTING 3A-1
CKT. "7.5-NORTH LEG")

8#6 AWG, 2"C
(TO TOLL RATE DMS)

EXISTING SIGN
STRUCTURE TO REMAIN

OE

LA R/W LINE



NOTES:
1. REFER TO I-95 PHASE 3A-1 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (4)

SHEET NO.
IT-112

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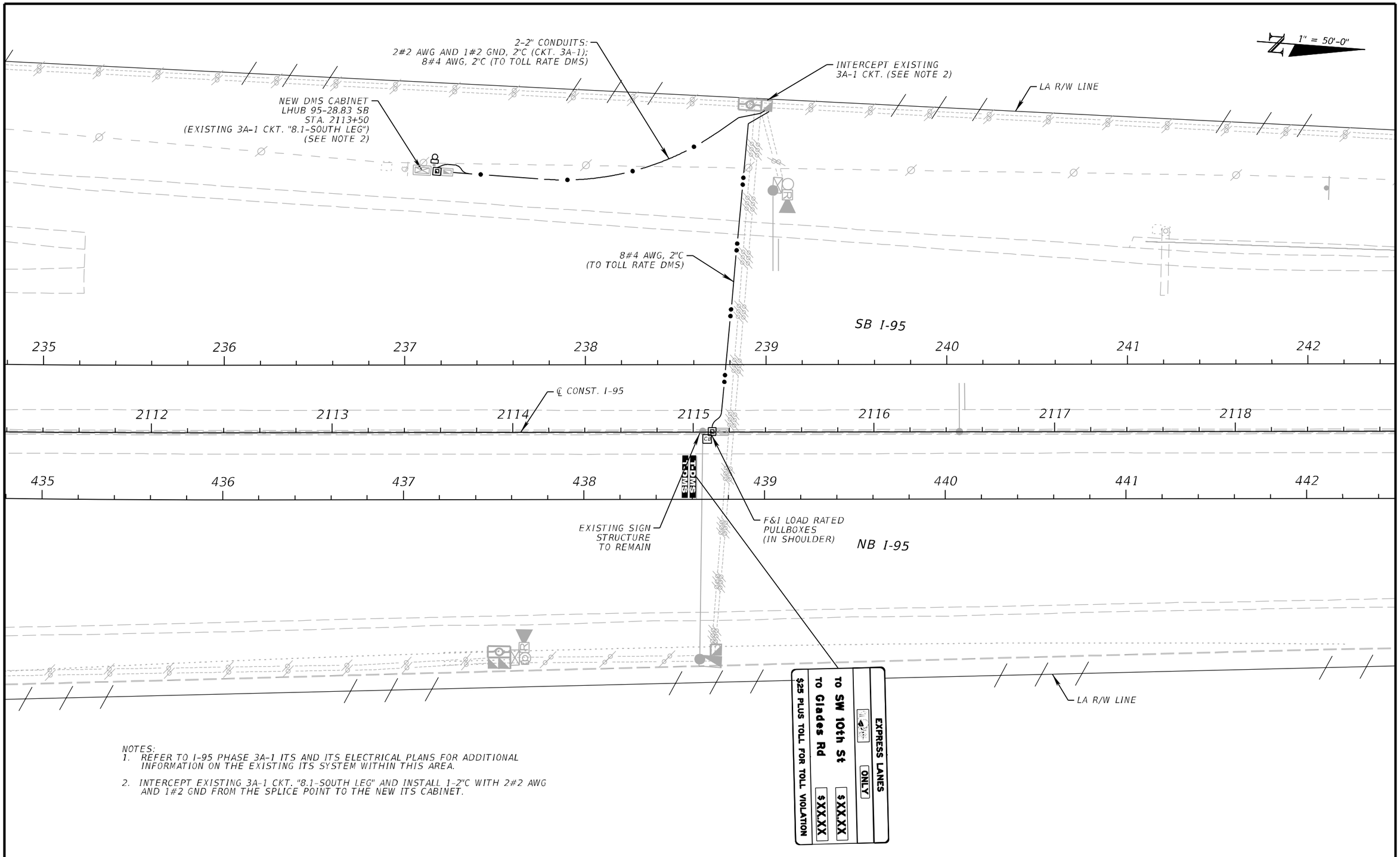
BY/PSO VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Released for construction with control documents. Not responsible for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection. Shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. REFER TO I-95 PHASE 3A-1 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.
2. INTERCEPT EXISTING 3A-1 CKT. "8.1-SOUTH LEG" AND INSTALL 1-2"C WITH 2#2 AWG AND 1#2 GND FROM THE SPLICE POINT TO THE NEW ITS CABINET.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (5)

SHEET NO.
IT-113

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Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

1" = 50'-0"

LA R/W LINE

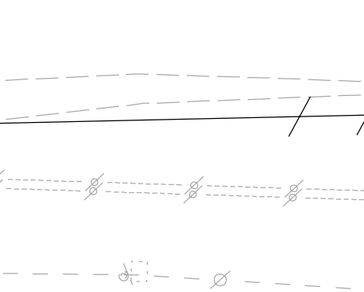
181 182 183 184 185 SB I-95 186 187 188

℄ CONST. I-95

2181 2182 2183 2184 2185 2186 2187 2188

381 382 383 384 385 386 387 388

NB I-95



EXISTING 2" ITS ELECTRICAL CONDUIT BETWEEN THE DMS CABINET AND DMS SIGN TO REMAIN: REMOVE EXISTING DMS POWER WIRING AND INSTALL 8#4 AWG (TO TOLL RATE DMS)

EXISTING SIGN STRUCTURE TO REMAIN

EXISTING ITS CABINET (LHUB 95-30.12 NB) STA. 2182+70

LA R/W LINE

NOTES:
1. REFER TO I-95 PHASE 3A-1 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

RELEASED FOR CONSTRUCTION
As noted on this cover sheet, the electronic file of this contract document is approved and released for construction. All persons accessing this electronic file are obligated to comply with the requirements contained in the Department's Publication, Electronic Review Comments (ERC) Procedure No. 025-030-002. The Department shall not be responsible for any unauthorized changes made to this document, and the Department makes no warranty as to the completeness or accuracy of any electronic file after it has been released for construction. In the event of a conflict between the Plans and the electronic file, the Plans govern. Specifically, but without limitation, the Engineer of Record shall be responsible for the accuracy of all dimensions, details, quantities, and safety during fabrication and erection. Shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY/PROD VS Date 10/30/2018

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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(813) 520-4444
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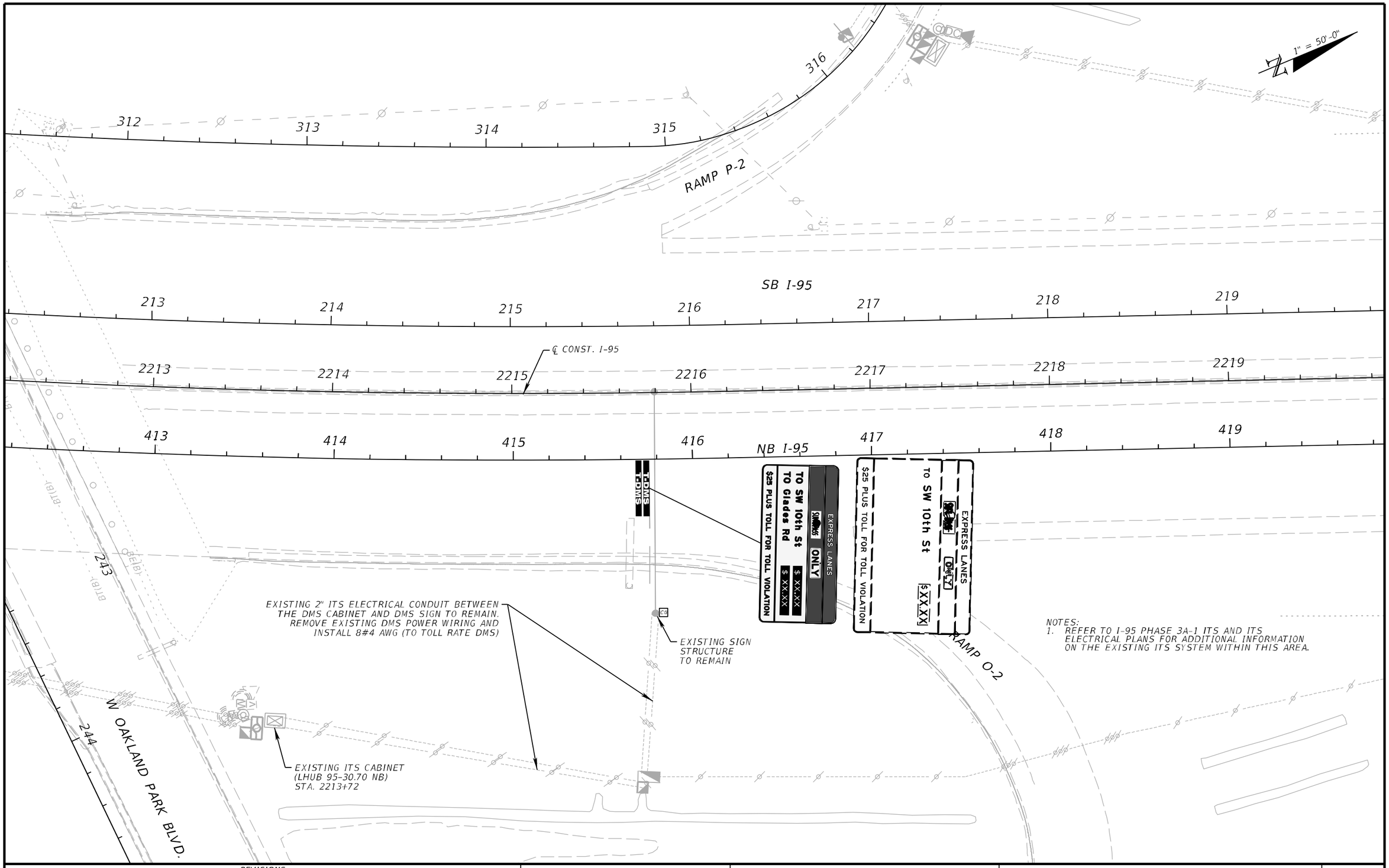
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (6)

SHEET NO. IT-114



NOTES:
1. REFER TO I-95 PHASE 3A-1 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (7)

SHEET NO. IT-115

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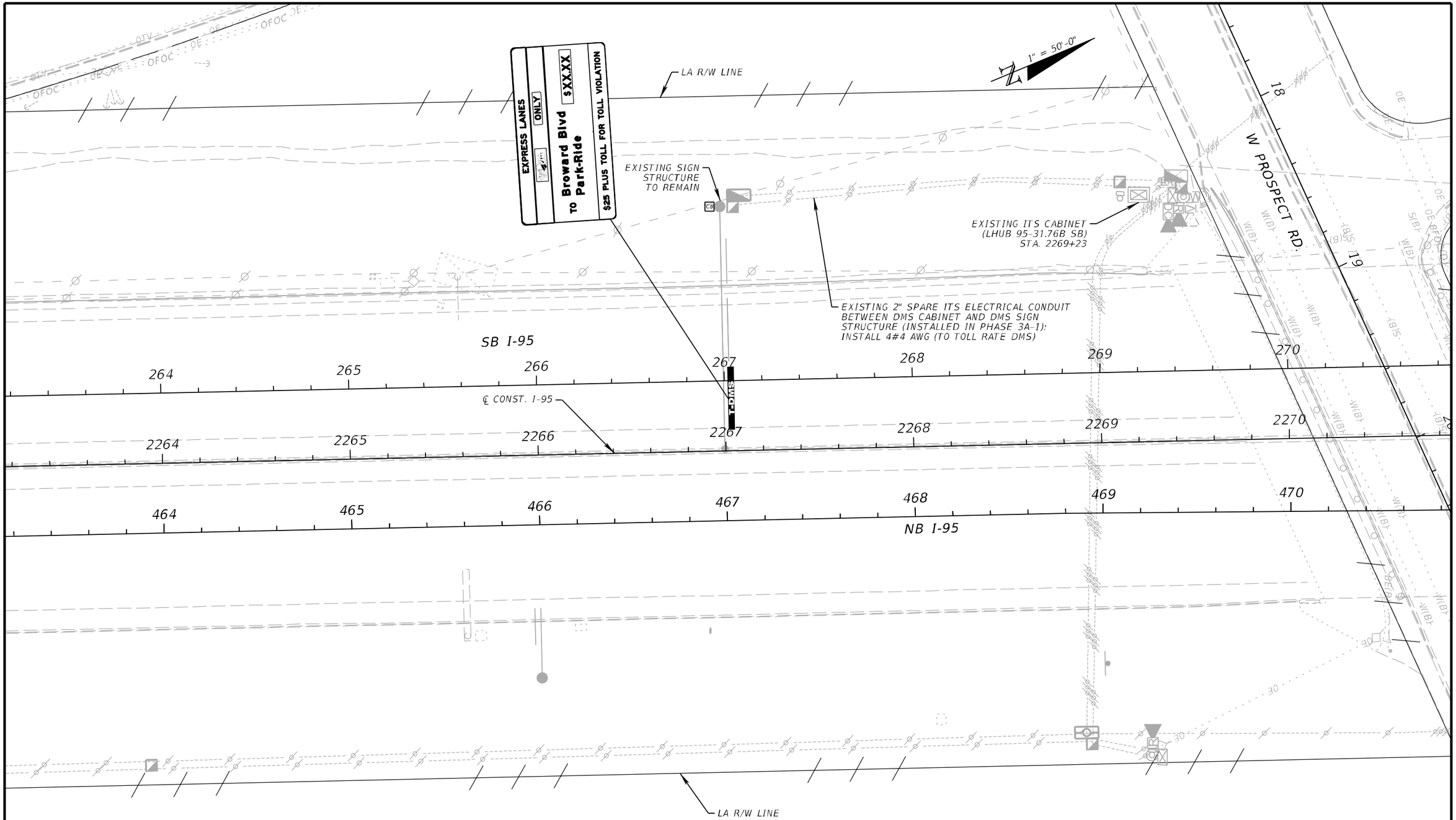

NOTES:
1. REFER TO I-95 PHASE 3A-1 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (8)

SHEET NO.
IT-116

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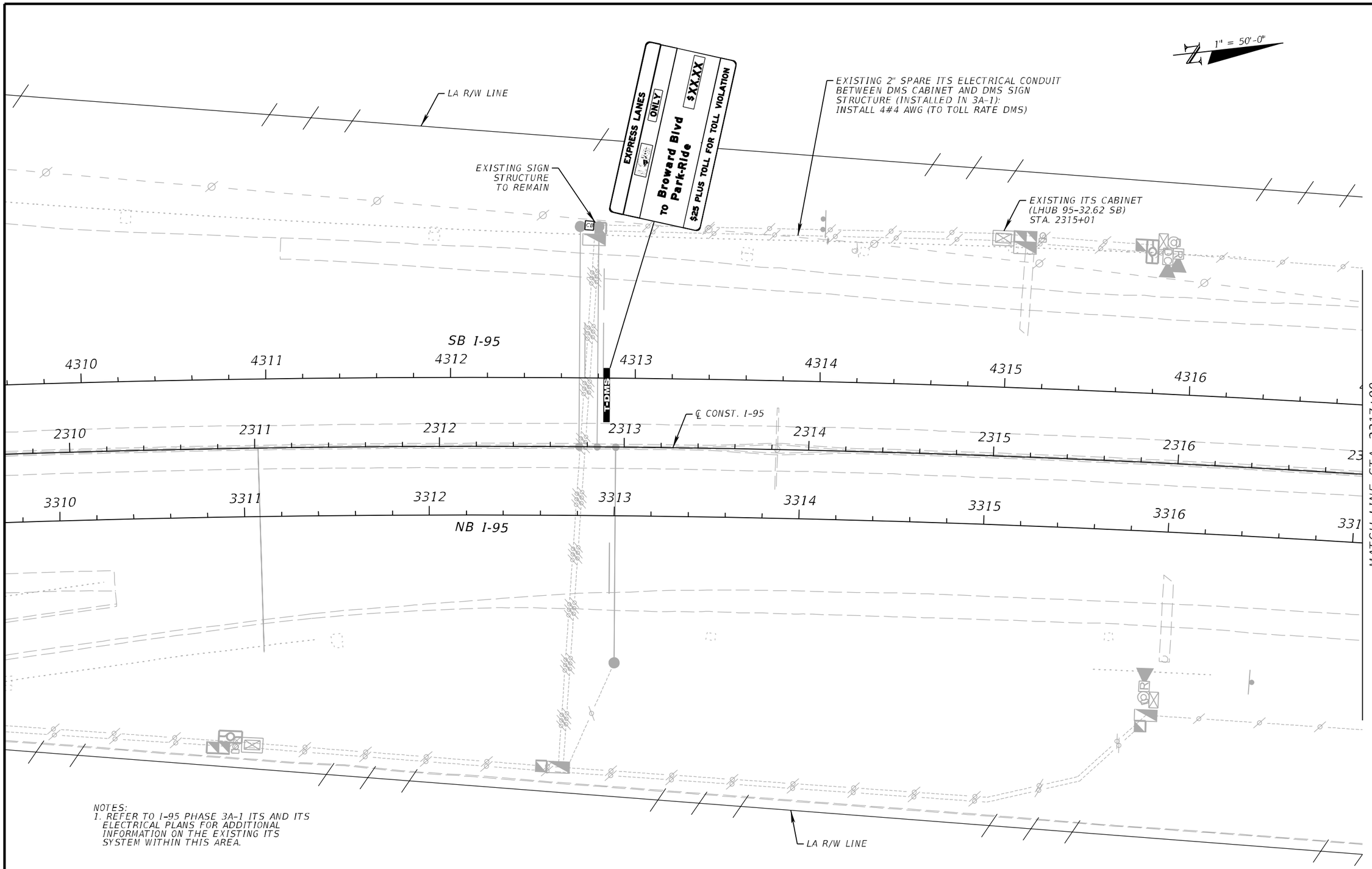
BY/PSD VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
All information, general notes, and contract documents shall be reviewed for errors and omissions, and conformance of dimensions, details, quantities, and safety during fabrication and erection. It shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4F66

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. REFER TO I-95 PHASE 3A-1 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (9)

SHEET NO.
IT-117

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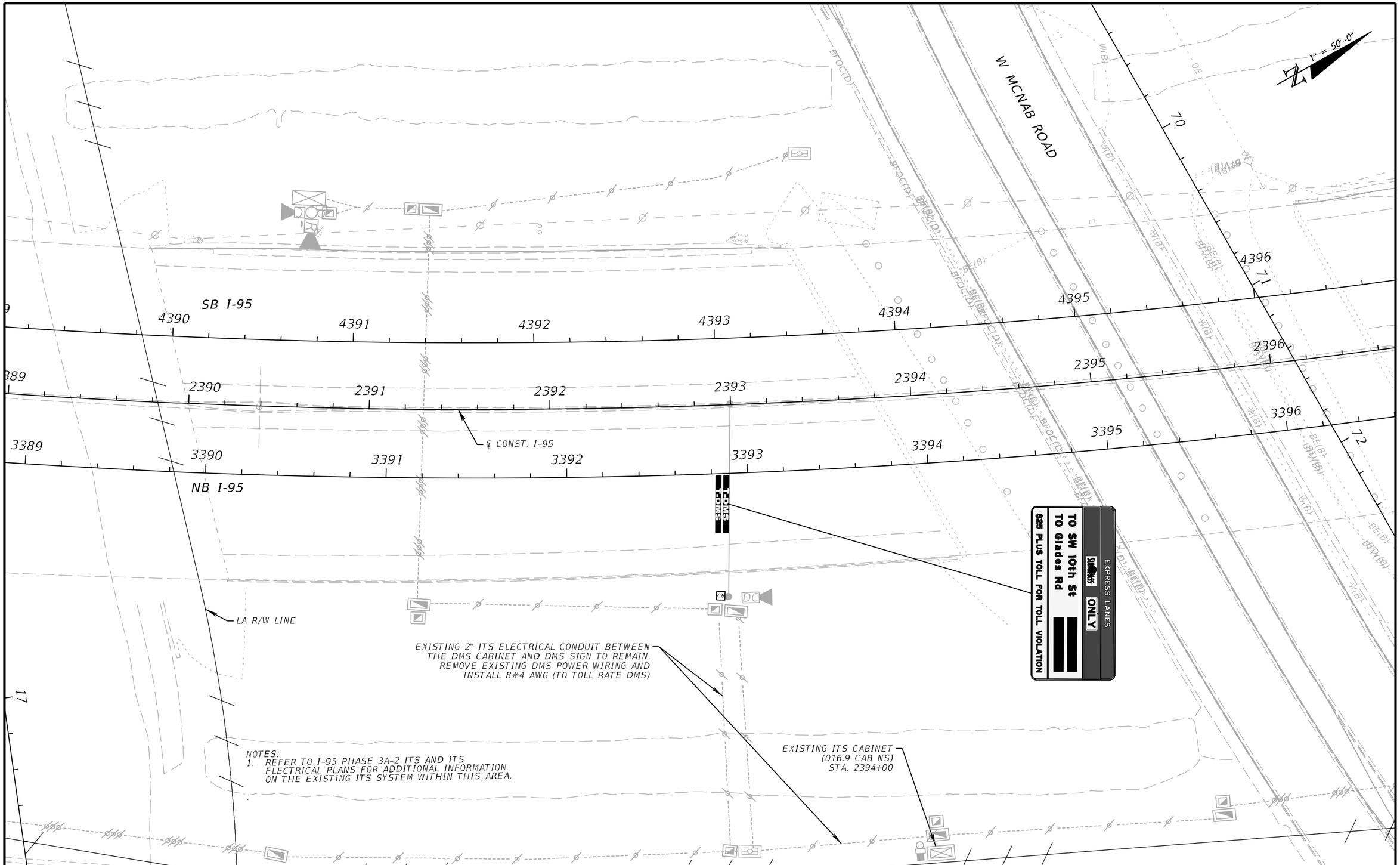
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. See responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 10/30/2018



NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (10)

SHEET NO. IT-118

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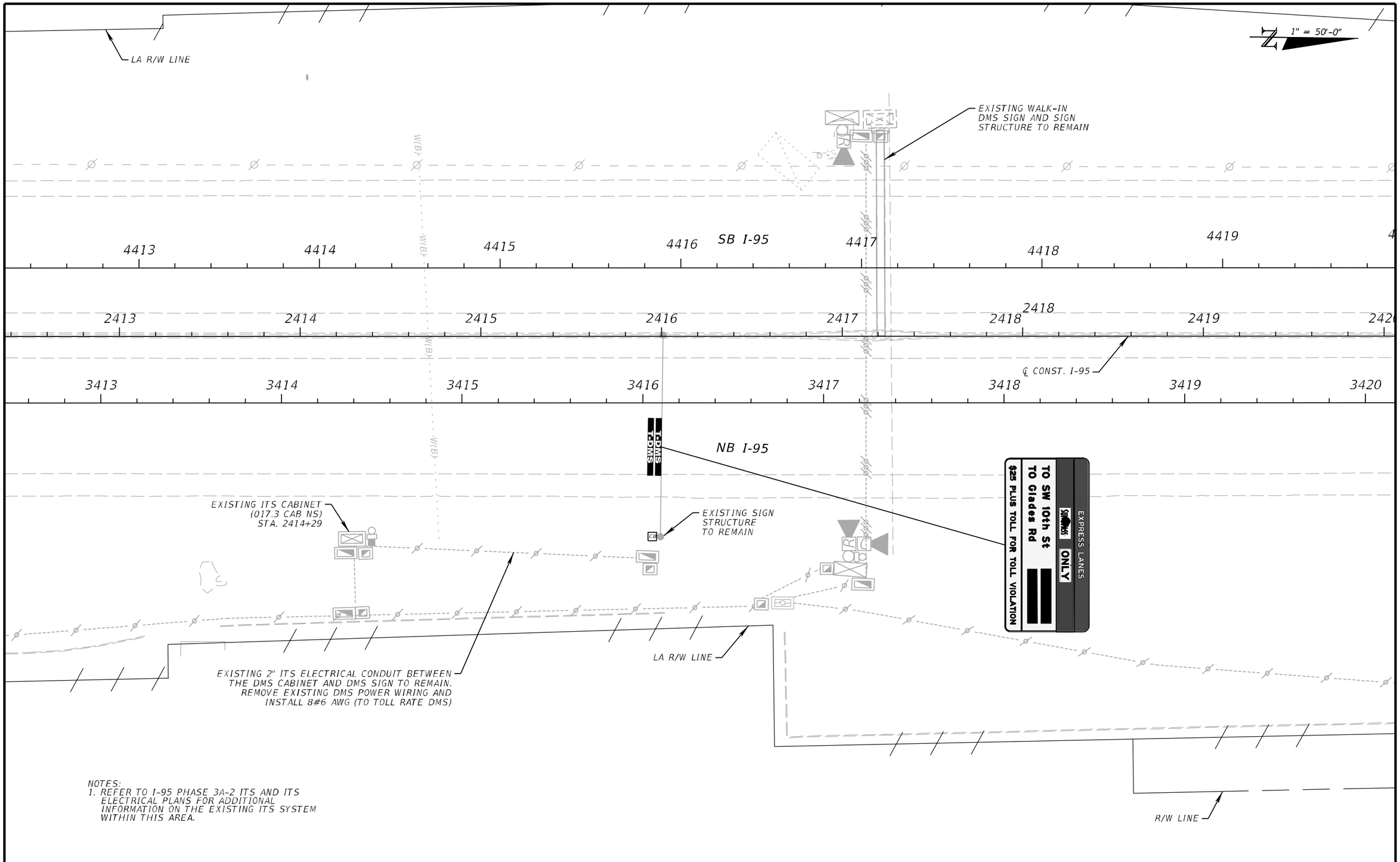
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

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PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (11)

SHEET NO.
IT-119

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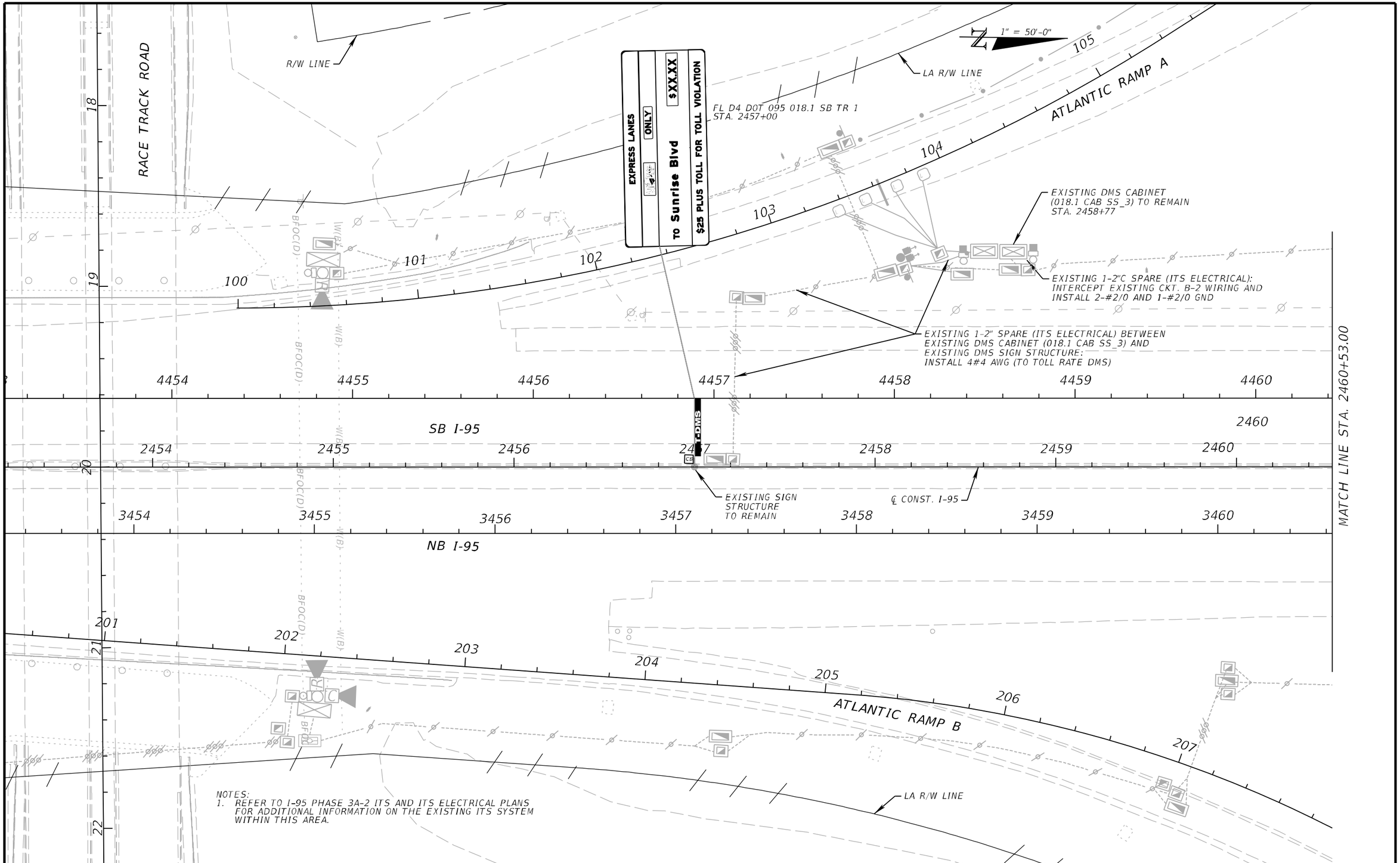

NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (12)

SHEET NO.
IT-120

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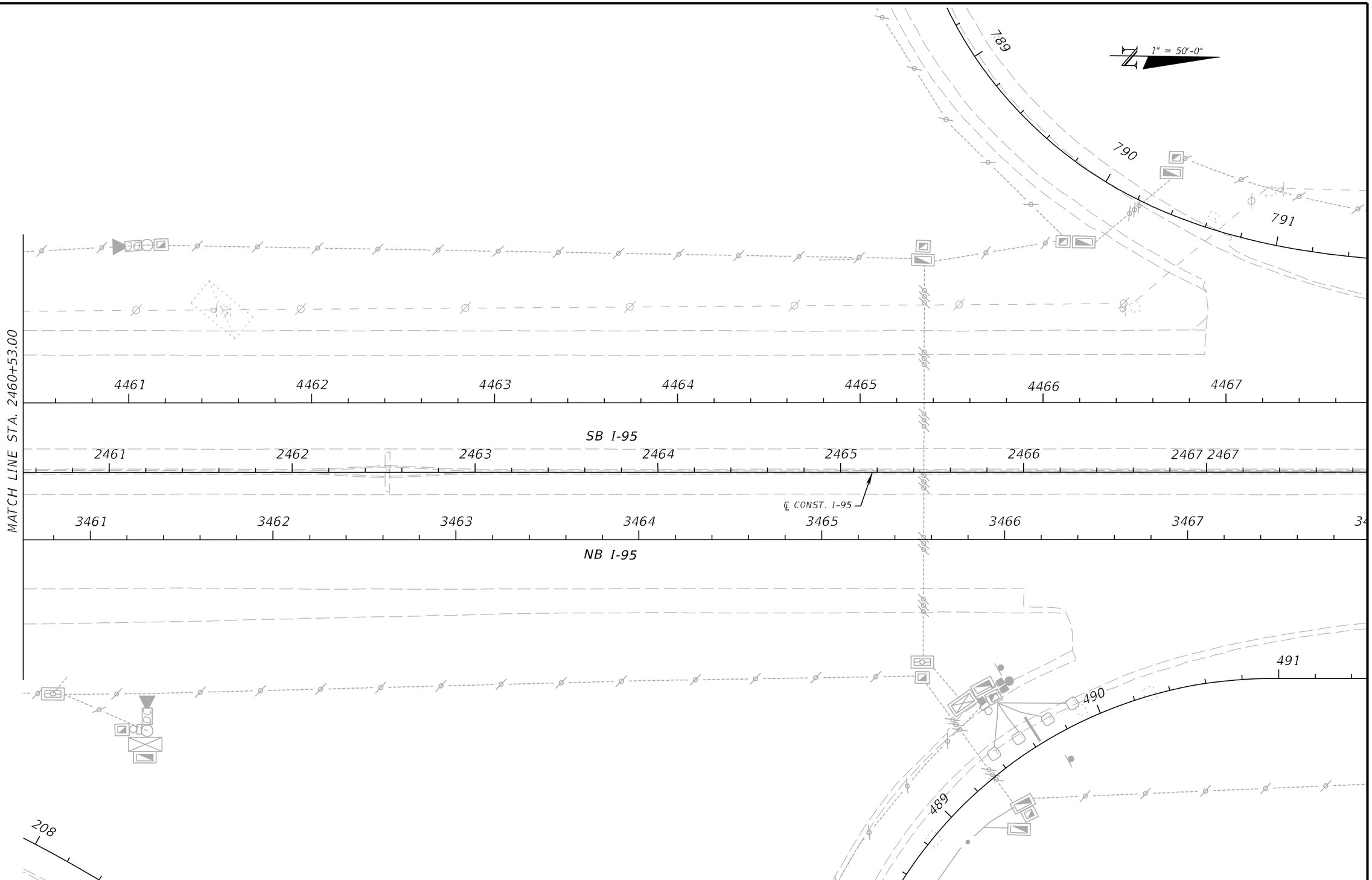
RELEASED FOR CONSTRUCTION BY:{FDOT} VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (13)

SHEET NO.
IT-121

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
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PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

EXPRESS LANES ONLY $XX.XX to Sunrise Blvd $25 PLUS TOLL FOR TOLL VIOLATION

LA R/W LINE

FL D4 DOT 095 018.5 SB TR 1
STA. 2479+00

EXISTING DMS CABINET (018.6 CAB SS) TO REMAIN
STA. 2483+00
INSTALL 2-#2/0 AND 1-#2/0 GND (CKT. B-2) IN EXISTING 2" SPARE ITS ELECTRICAL CONDUIT (INSTALLED IN 3A-2) BETWEEN ELECTRICAL PULL BOX AND EXISTING DMS CABINET. SPLICE TO EXISTING CKT. B-2 WIRING IN PULL BOX.

R/W LINE

N

1" = 50'-0"

NW 3RD ST

EXISTING 2" SPARE ITS ELECTRICAL CONDUIT (INSTALLED IN PHASE 3A-2) BETWEEN DMS CABINET AND DMS SIGN STRUCTURE: INSTALL 4#2 AWG (TO TOLL RATE DMS)

SB I-95

DMS

℄ CONST. I-95

EXISTING SIGN STRUCTURE TO REMAIN

ATLANTIC RAMP E

ATLANTIC RAMP F

VOID

RELEASED FOR CONSTRUCTION
BY/PSO/ VS Date: 10/30/2018
Acceptance of signed and sealed contract documents does not relieve the Contractor of responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection; shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (14)

SHEET NO.
IT-122

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NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

1" = 50'-0"

EXPRESS LANES ONLY $XX.XX $25 PLUS TOLL FOR TOLL VIOLATION TO Sunrise Blvd

FL D4 DOT 095 018.5 SB TR 1
STA. 2479+00

LA R/W LINE

R/W LINE

NW 3RD ST

TIC RAMP E

ATLANTIC RAMP F

EXISTING 2" SPARE ITS ELECTRICAL CONDUIT (INSTALLED IN PHASE 3A-2) BETWEEN DMS CABINET AND DMS SIGN STRUCTURE: INSTALL 4#1/0 AWG (TO TOLL RATE DMS)

SB I-95

NB I-95

SWCT

℄ CONST. I-95

EXISTING SIGN STRUCTURE TO REMAIN

LA R/W LINE

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	AS-BUILTS PER RFI 353		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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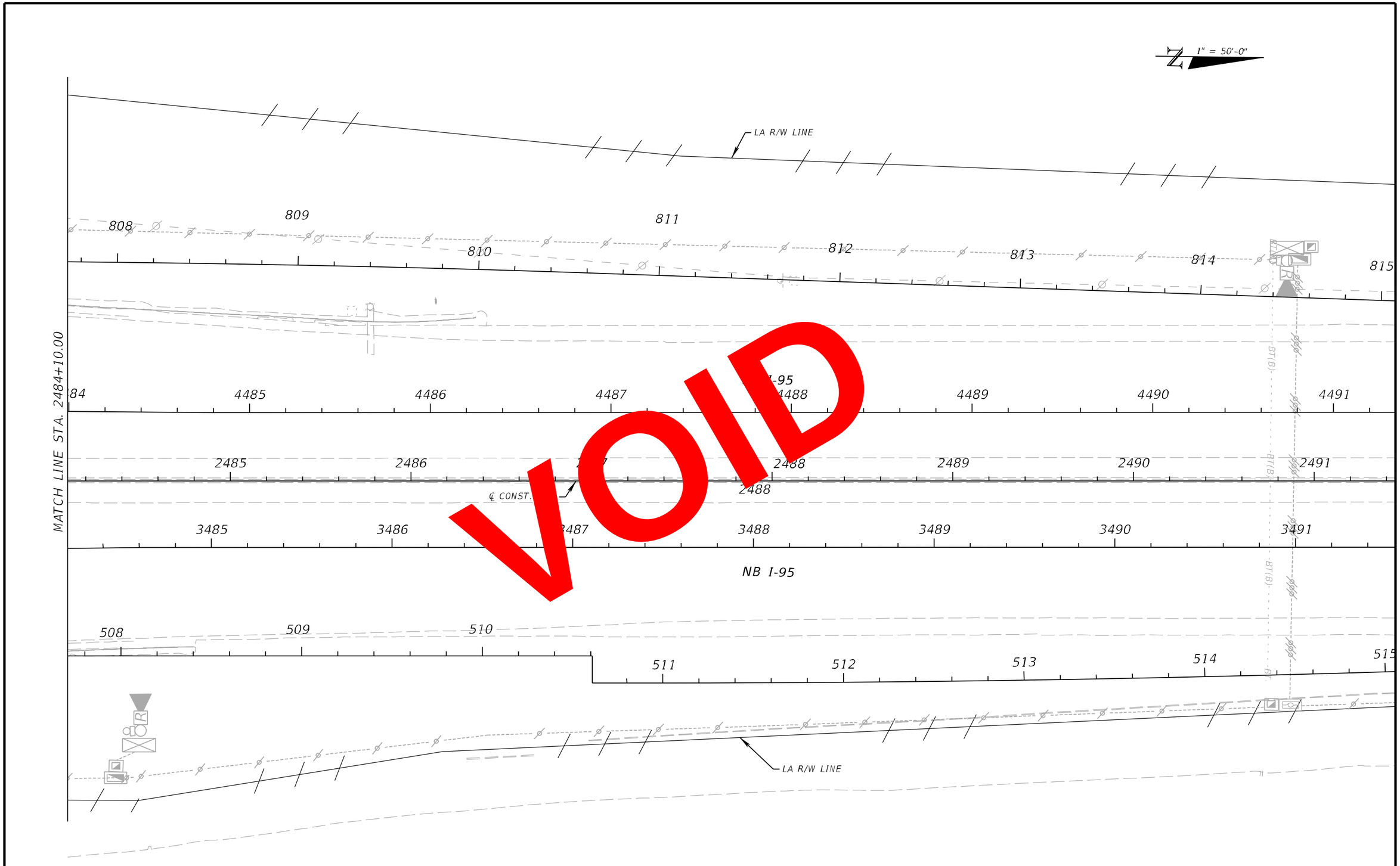
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (14)

SHEET NO.
IT-122



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (15)

SHEET NO.
IT-123

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RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 10/30/2018

EXISTING 2" SPARE ITS ELECTRICAL CONDUIT (INSTALLED IN PHASE 3A-2) BETWEEN DMS CABINET AND DMS SIGN STRUCTURE: INSTALL 4#1/0 AWG (TO TOLL RATE DMS)

EXISTING DMS CABINET (018.6 CAB SS) TO REMAIN
STA. 2489+70
INSTALL 2-#2/0 AND 1-#2/0 GND (CKT. B-2) IN EXISTING 2" SPARE ITS ELECTRICAL CONDUIT (INSTALLED IN 3A-2) BETWEEN ELECTRICAL PULL BOX AND EXISTING DMS CABINET. SPLICE TO EXISTING CKT. B-2 WIRING IN PULL BOX.

1" = 50'-0"

LA R/W LINE

808 809 810 811 812 813 814 815

SB I-95

MATCH LINE STA. 2484+10.00

84 4485 4486 4487 4488 4489 4490 4491

2485 2486 2487 2488 2489 2490 2491

℄ CONST. I-95

2488

3485 3486 3487 3488 3489 3490 3491

NB I-95

508 509 510 511 512 513 514 515

LA R/W LINE

BT(B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	AS-BUILTS PER RFI 353		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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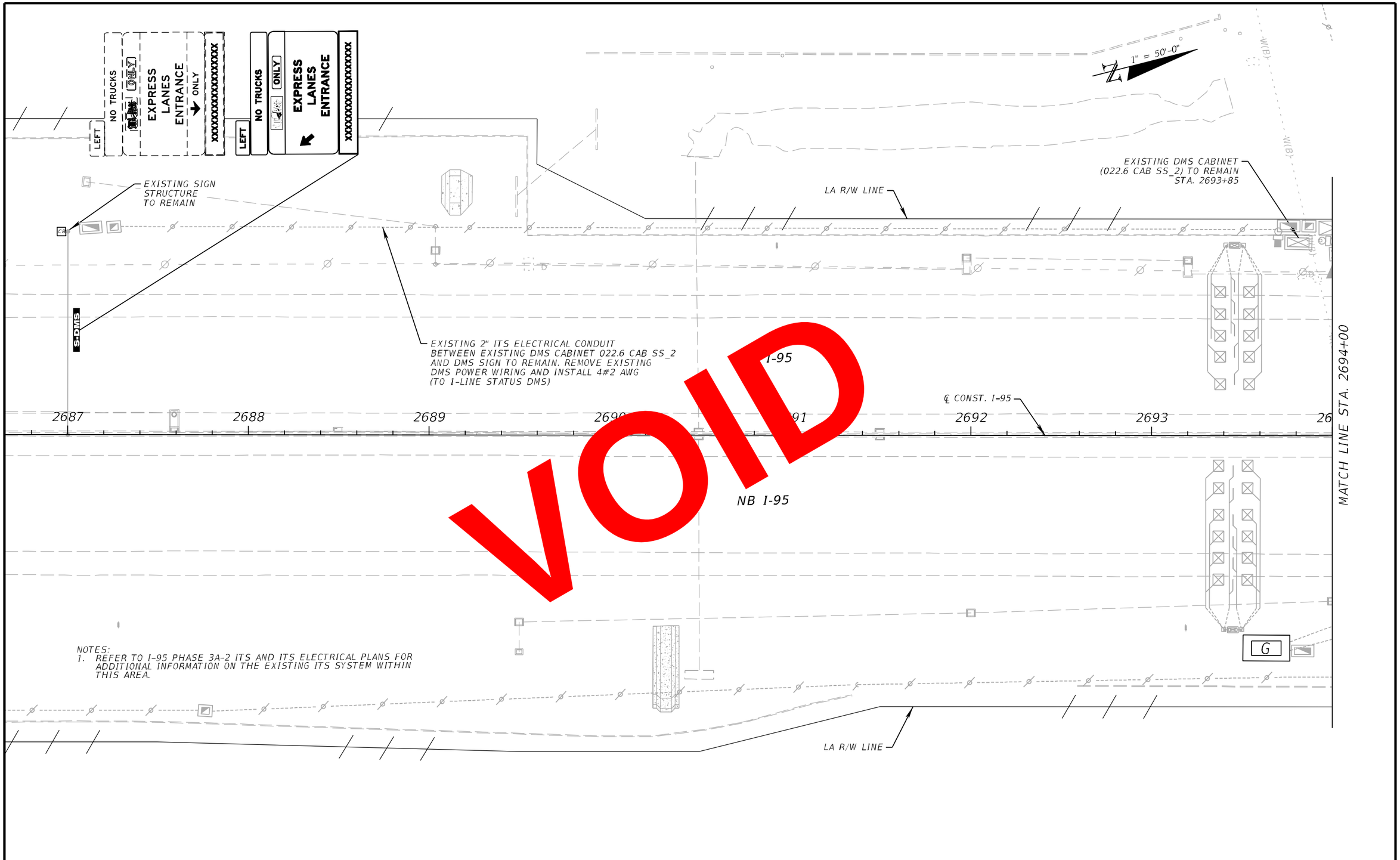
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (15)

SHEET NO.
IT-123



NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (16)

SHEET NO.
IT-124

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RELEASED FOR CONSTRUCTION
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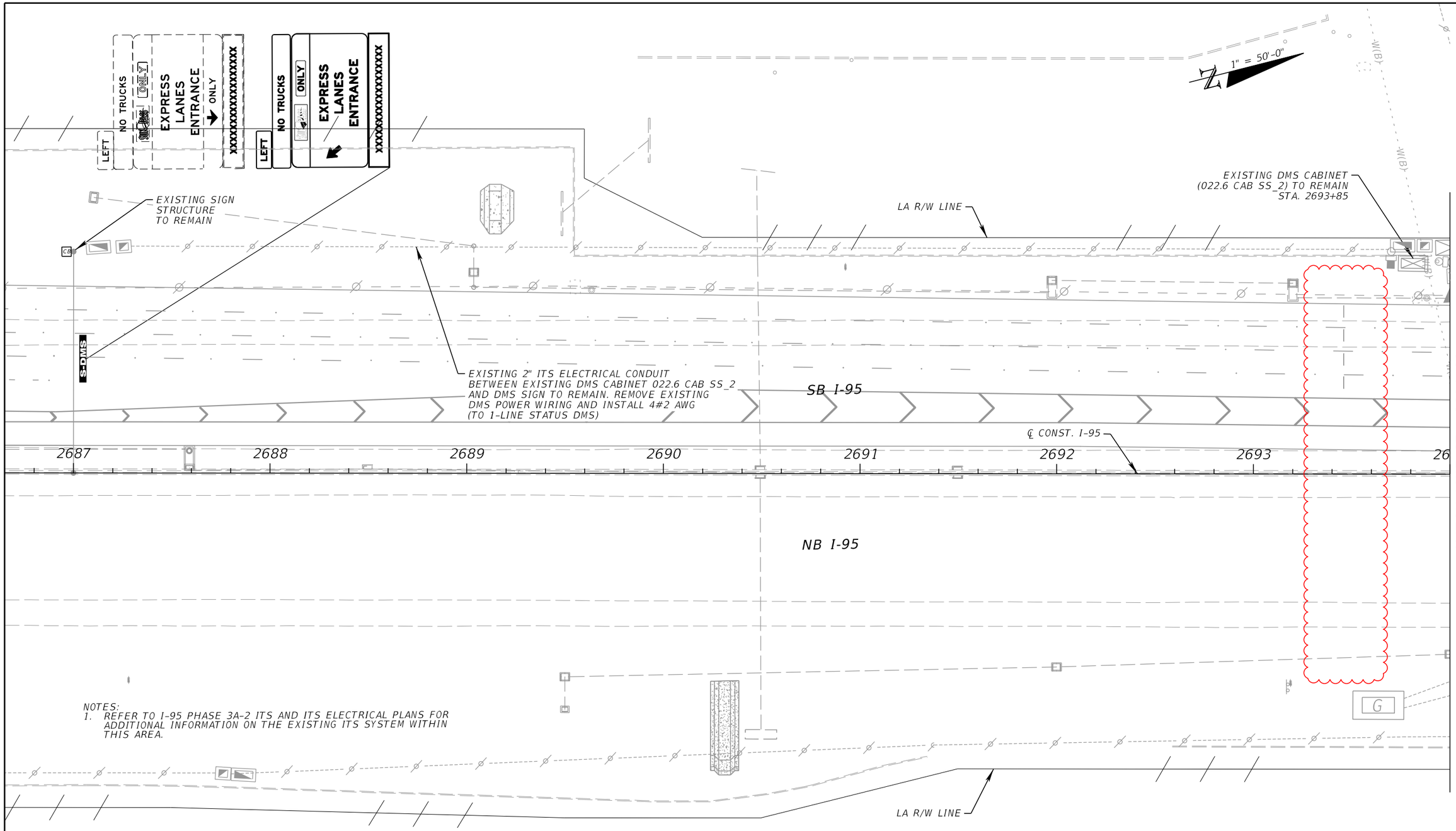
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 10/30/2018



NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	AS-BUILTS: TTMS REMOVED		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

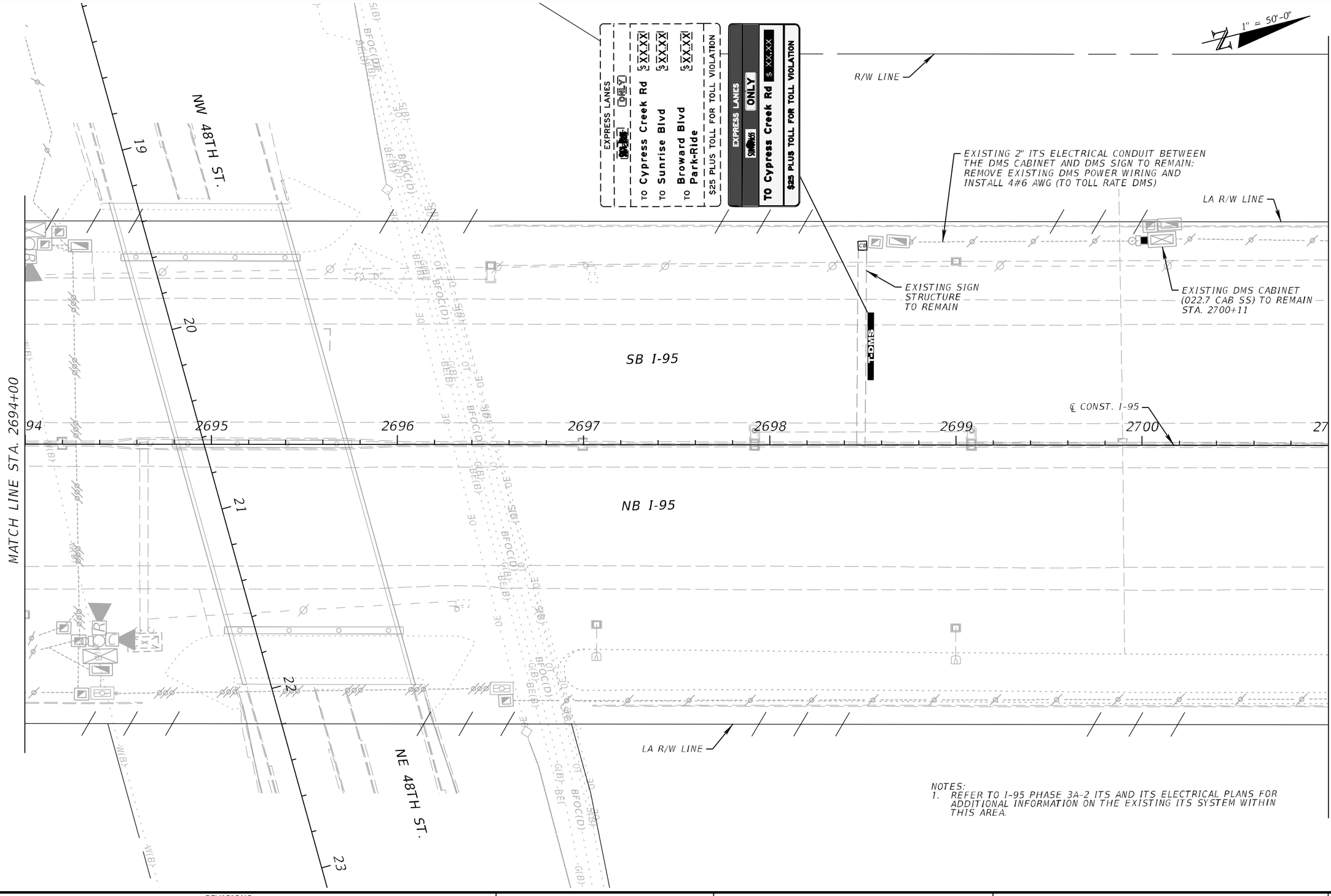
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (16)

SHEET NO.
IT-124

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (17)

SHEET NO.
IT-125

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RELEASED FOR CONSTRUCTION
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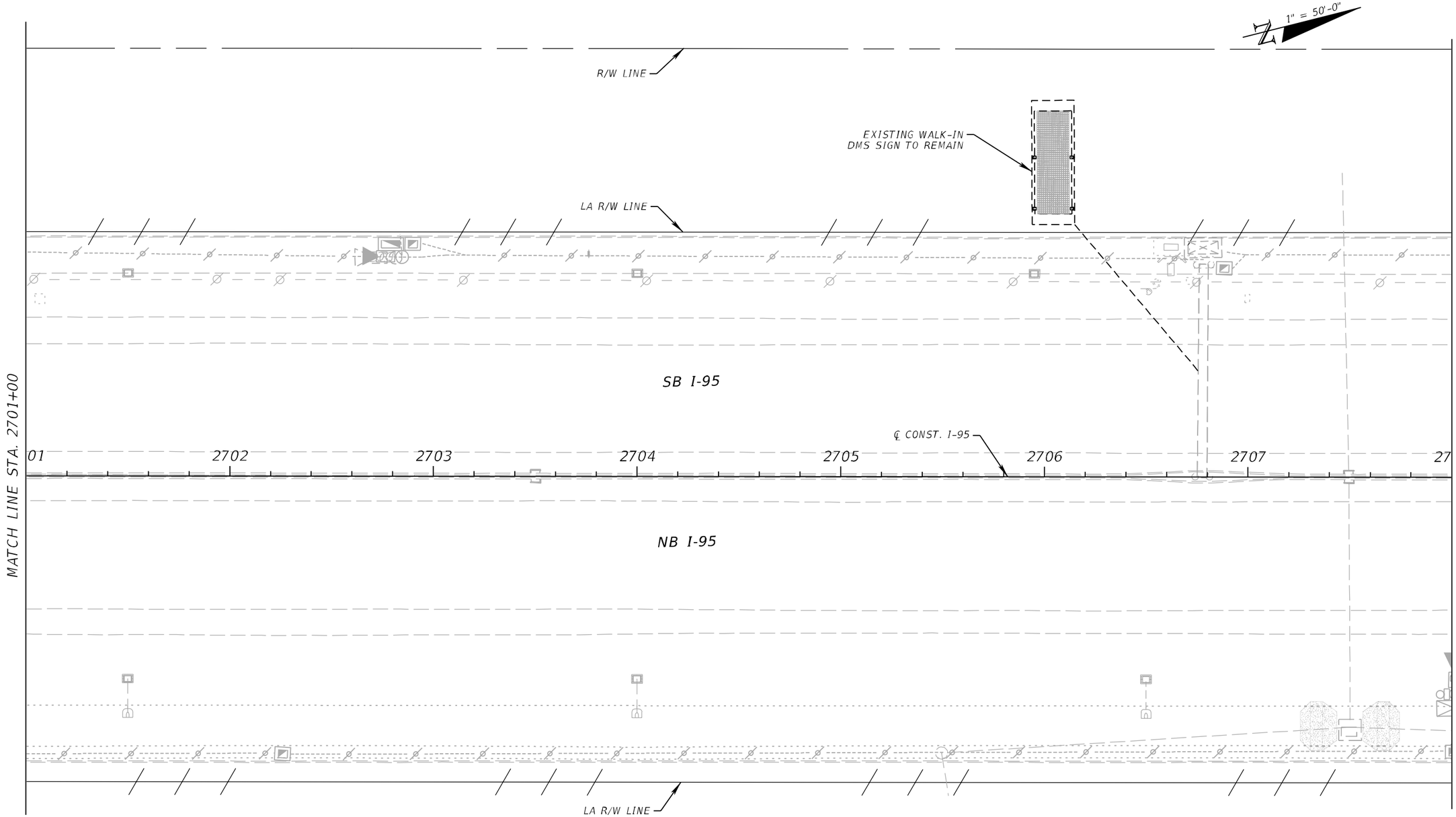
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 10/30/2018



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (18)

SHEET NO.
IT-126

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
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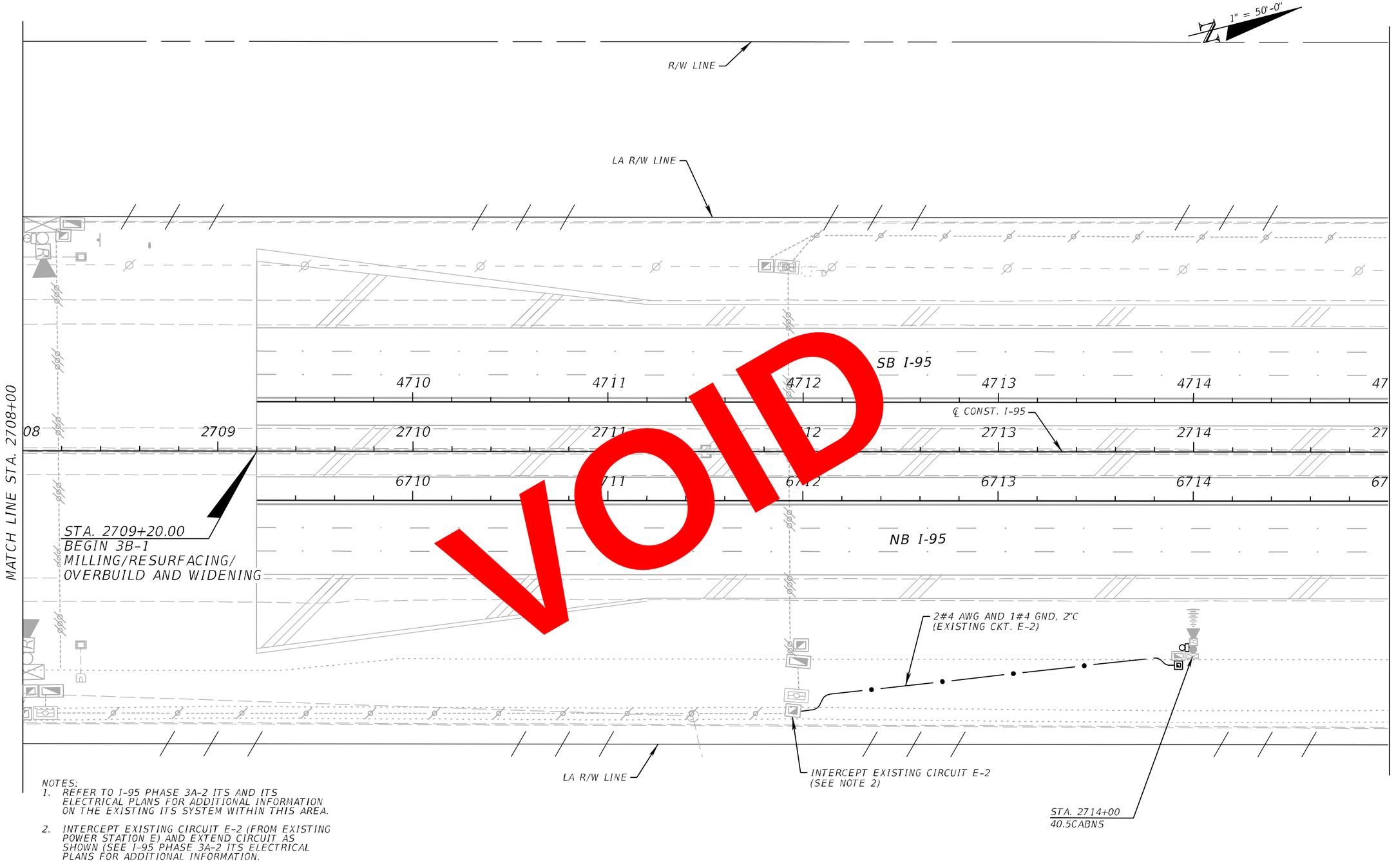
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.
2. INTERCEPT EXISTING CIRCUIT E-2 (FROM EXISTING POWER STATION E) AND EXTEND CIRCUIT AS SHOWN (SEE I-95 PHASE 3A-2 ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (19)

SHEET NO.
IT-127

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RELEASED FOR CONSTRUCTION
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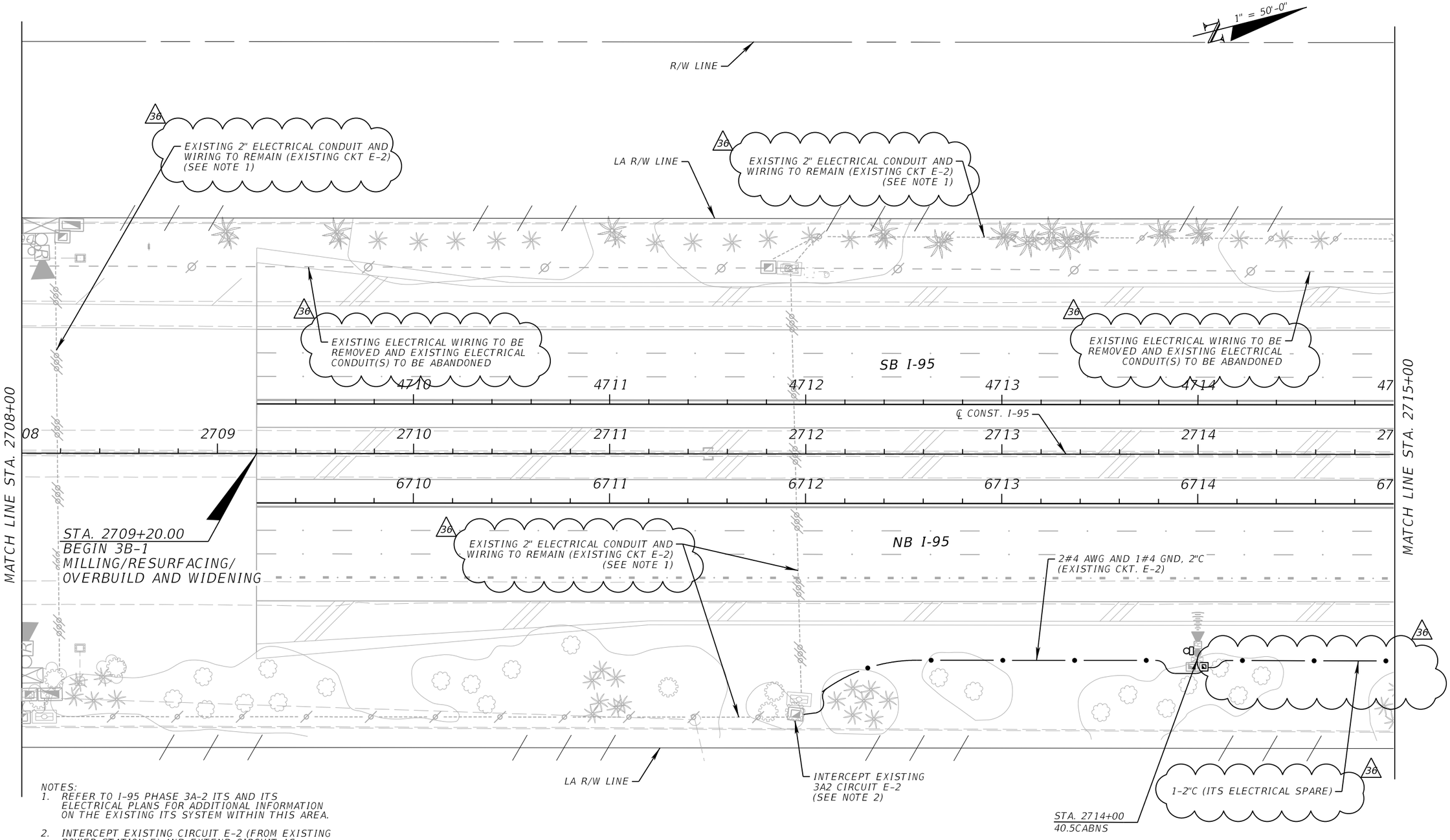
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 10/30/2018



NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.
2. INTERCEPT EXISTING CIRCUIT E-2 (FROM EXISTING POWER STATION E) AND EXTEND CIRCUIT AS SHOWN (SEE I-95 PHASE 3A-2 ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 AUXILIARY LANE REVISIONS		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (19)

SHEET NO.
IT-127

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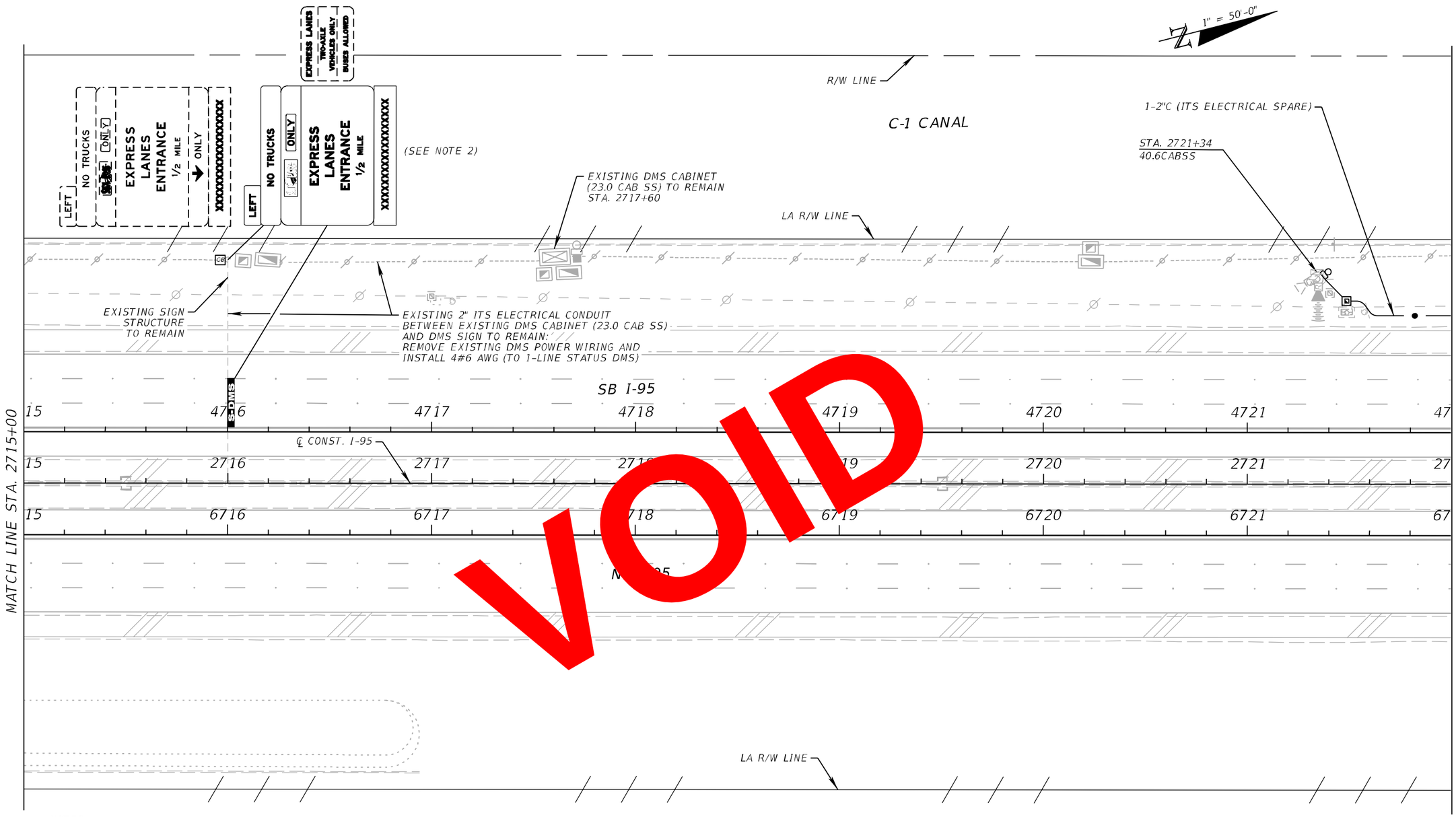
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FOO) VS Date: 5/27/2020



VOID

NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.
2. ITS CABINET 40.6CABSS AT STA. 2721+34 IS A NEW CABINET. RECONNECT EXISTING PHASE 3A-2 CIRCUIT E-2 TO NEW CABINET. A NEW ITS POWER CONDUIT IS SHOWN TO THIS CABINET BECAUSE THE RFP REQUIRES 3 ITS CONDUITS FOR ALL LATERAL ITS CONDUIT RUNS. THEREFORE, THE ITS POWER CONDUIT IS A SPARE.

RELEASED FOR CONSTRUCTION
BY/PSOT) VS Date: 10/30/2018
Released for construction, signed, sealed and dated. Contractor is responsible for project and construction means, methods, techniques, sequences, procedures, safety precautions and programs, coordination of all portions of the work and compliance with all applicable laws, ordinances, rules, regulations and codes. Contractor is responsible for reporting any discrepancies, conflicts, errors or omissions discovered in the contract documents to the Engineer of Record prior to commencing any affected work. Contractor is responsible for coordinating all trades, subcontractors and suppliers and shall be responsible for all dimensions and conditions at the jobsite. Contractor is responsible for the means, methods, techniques, sequences and procedures of construction, including safety precautions and programs, incident to the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for the safety of persons and property in connection with the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for compliance with all applicable laws, ordinances, rules, regulations and codes of any public body having jurisdiction over the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for obtaining all permits required for the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for the quality of the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for the timely completion of the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for the payment of all taxes, fees and charges incurred in connection with the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for the payment of all wages and benefits to its employees and the employees of its subcontractors and suppliers. Contractor is responsible for the payment of all insurance premiums and bonds required for the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for the payment of all liens and claims arising out of the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for the payment of all damages and losses incurred by the Engineer of Record or the Owner as a result of the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for the payment of all attorneys' fees and costs incurred by the Engineer of Record or the Owner as a result of the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for the payment of all interest and penalties incurred by the Engineer of Record or the Owner as a result of the work performed by Contractor and its subcontractors and suppliers. Contractor is responsible for the payment of all other costs and expenses incurred by the Engineer of Record or the Owner as a result of the work performed by Contractor and its subcontractors and suppliers.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4F66

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (20)

SHEET NO.
IT-128

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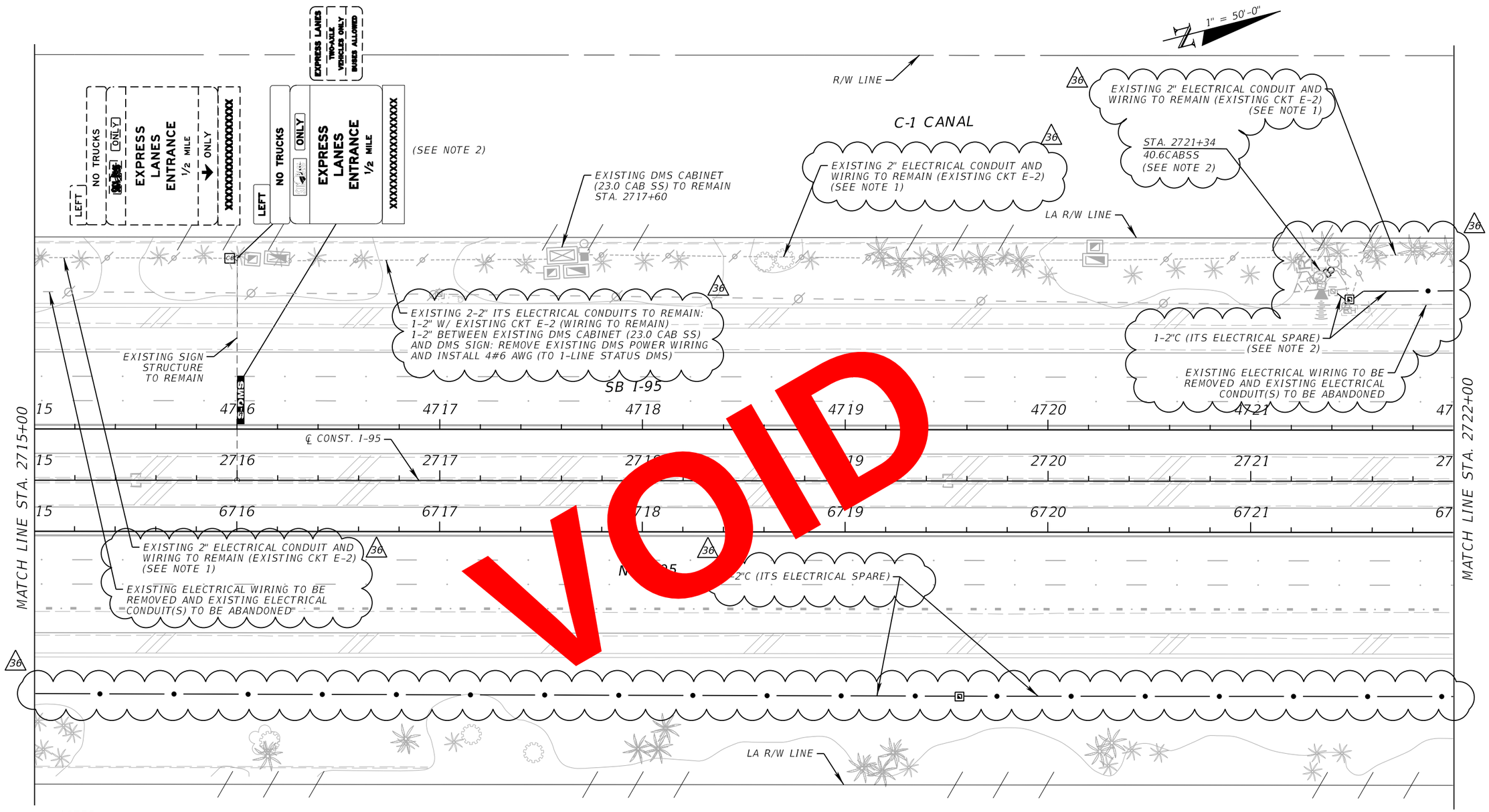

VOID

NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.
2. ITS CABINET 40.6CABSS AT STA. 2721+34 IS A NEW CABINET. RECONNECT EXISTING PHASE 3A-2 CIRCUIT E-2 TO NEW CABINET. A NEW ITS POWER CONDUIT IS SHOWN TO THIS CABINET BECAUSE THE RFP REQUIRES 3 ITS CONDUITS FOR ALL LATERAL ITS CONDUIT RUNS. THEREFORE, THE ITS POWER CONDUIT IS A SPARE.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 AUXILIARY LANE REVISIONS		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (20)

SHEET NO.
IT-128

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RELEASED FOR CONSTRUCTION
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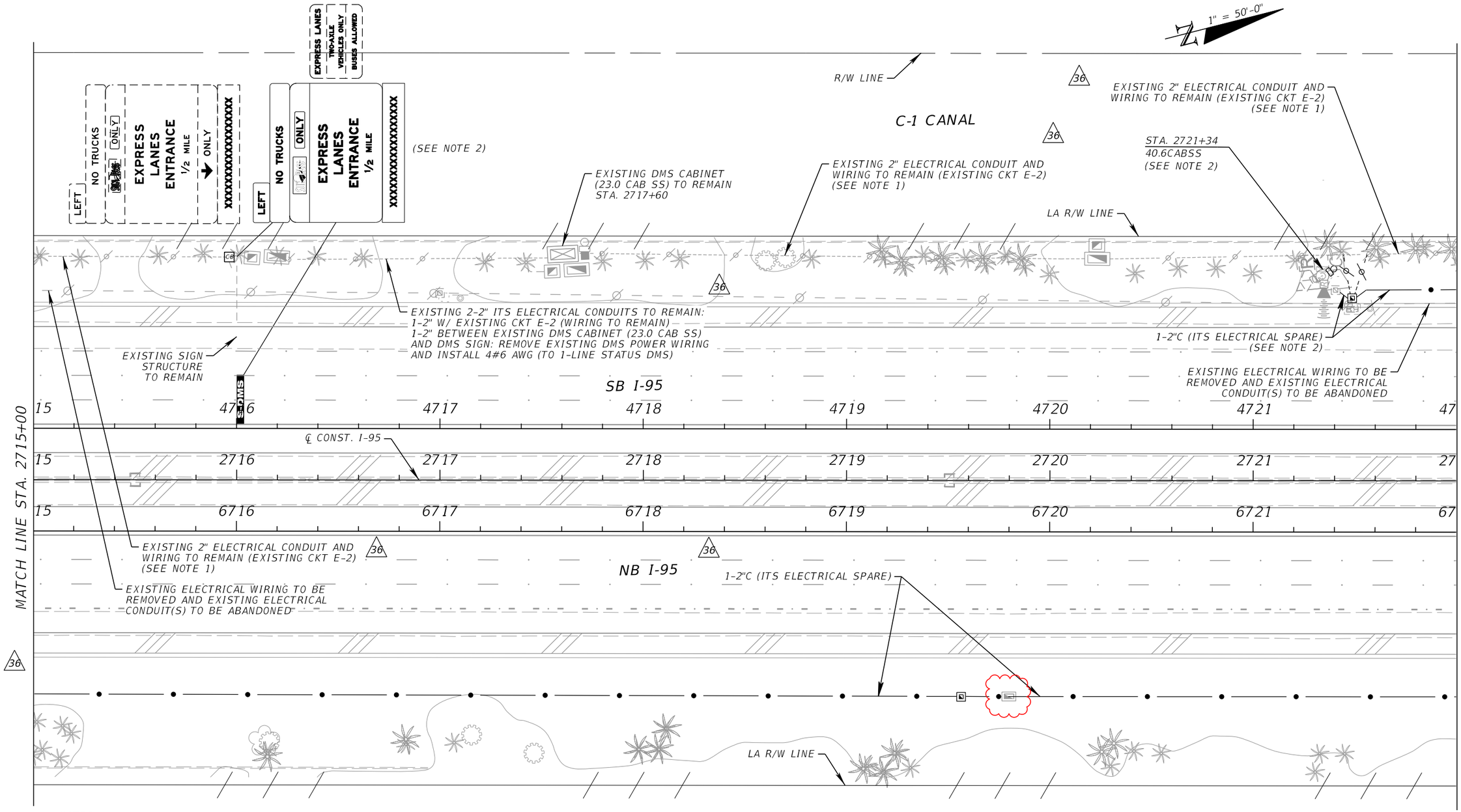
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY/PDDN VS Date: 5/27/2020



NOTES:

1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.
2. ITS CABINET 40.6CABSS AT STA. 2721+34 IS A NEW CABINET. RECONNECT EXISTING PHASE 3A-2 CIRCUIT E-2 TO NEW CABINET. A NEW ITS POWER CONDUIT IS SHOWN TO THIS CABINET BECAUSE THE RFP REQUIRES 3 ITS CONDUITS FOR ALL LATERAL ITS CONDUIT RUNS. THEREFORE, THE ITS POWER CONDUIT IS A SPARE.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 AUXILIARY LANE REVISIONS		
10/4/2021	AS-BUILTS: FIBER PULLBOX ADDED		

WSP USA INC.
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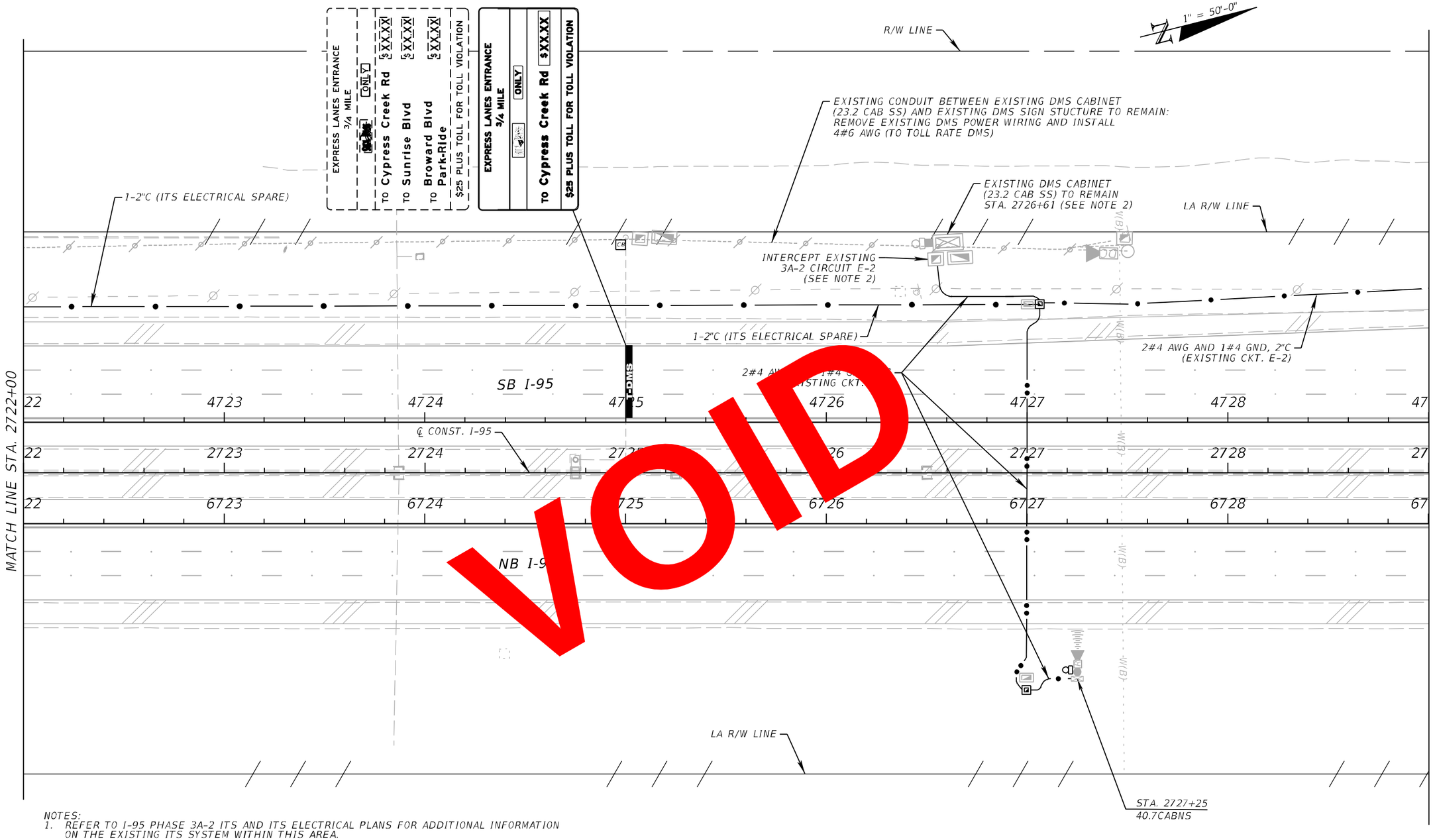
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (20)

SHEET NO.
IT-128

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:

1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.
2. INTERCEPT EXISTING CIRCUIT E-2 (FROM EXISTING POWER STATION E) AND EXTEND CIRCUIT AS SHOWN (SEE I-95 PHASE 3A-2 ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
3. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (21)

SHEET NO.
IT-129

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
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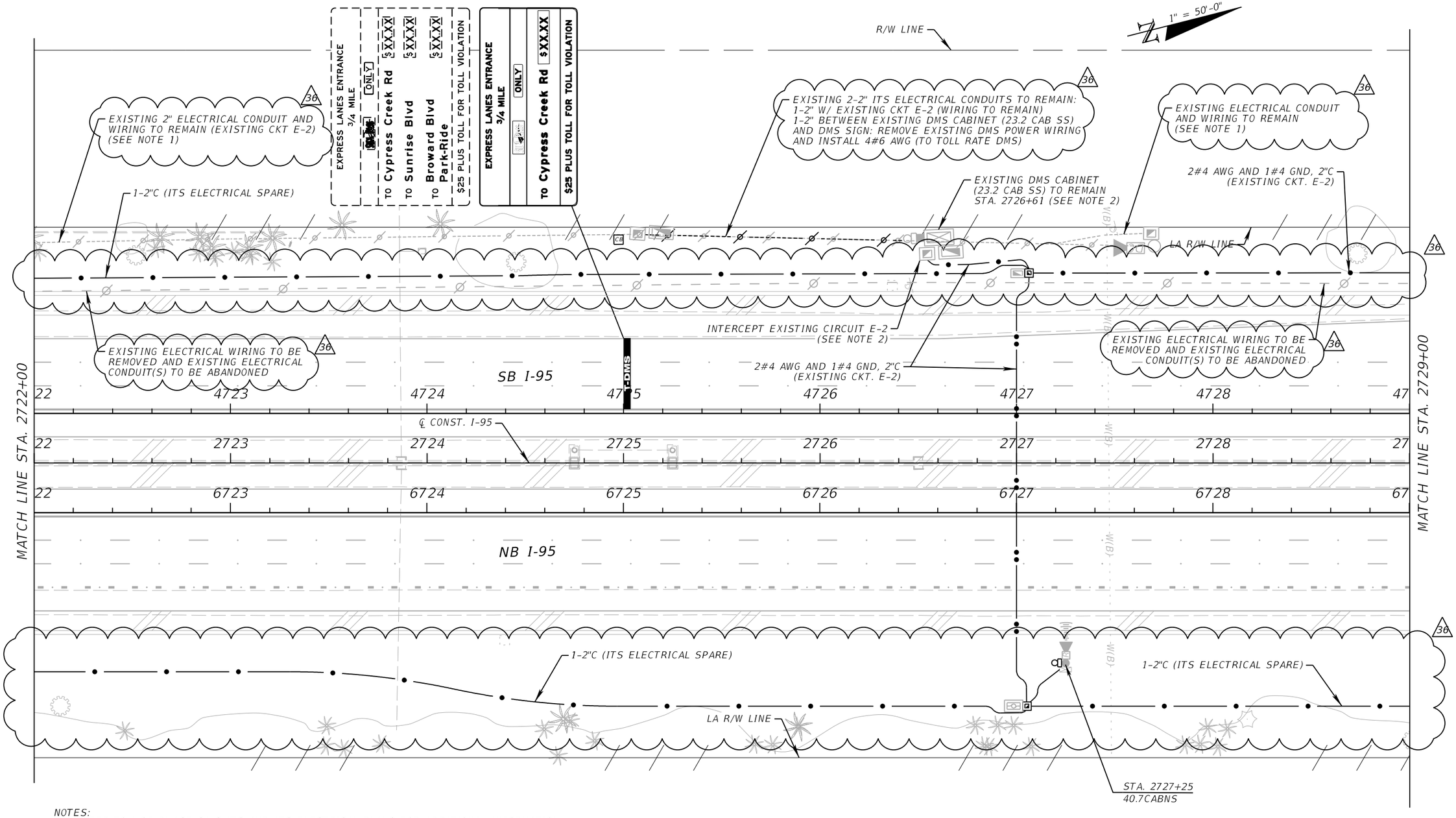
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.
2. INTERCEPT EXISTING CIRCUIT E-2 (FROM EXISTING POWER STATION E) AND EXTEND CIRCUIT AS SHOWN (SEE I-95 PHASE 3A-2 ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.

36

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 AUXILIARY LANE REVISIONS		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (21)

SHEET NO.
IT-129

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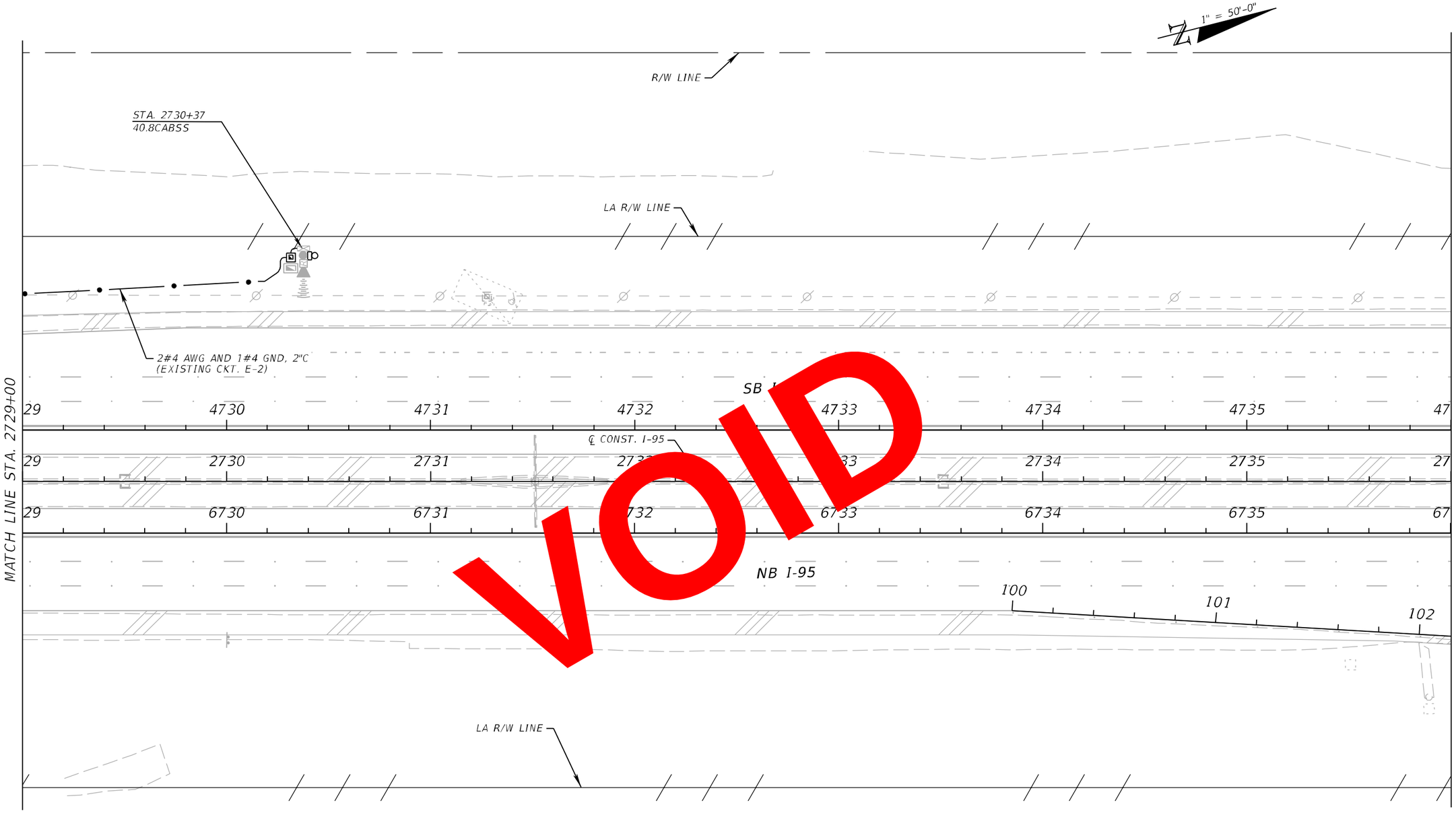
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B96
BY/PDDN VS Date: 5/27/2020



NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.
2. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (22)

SHEET NO.
IT-130

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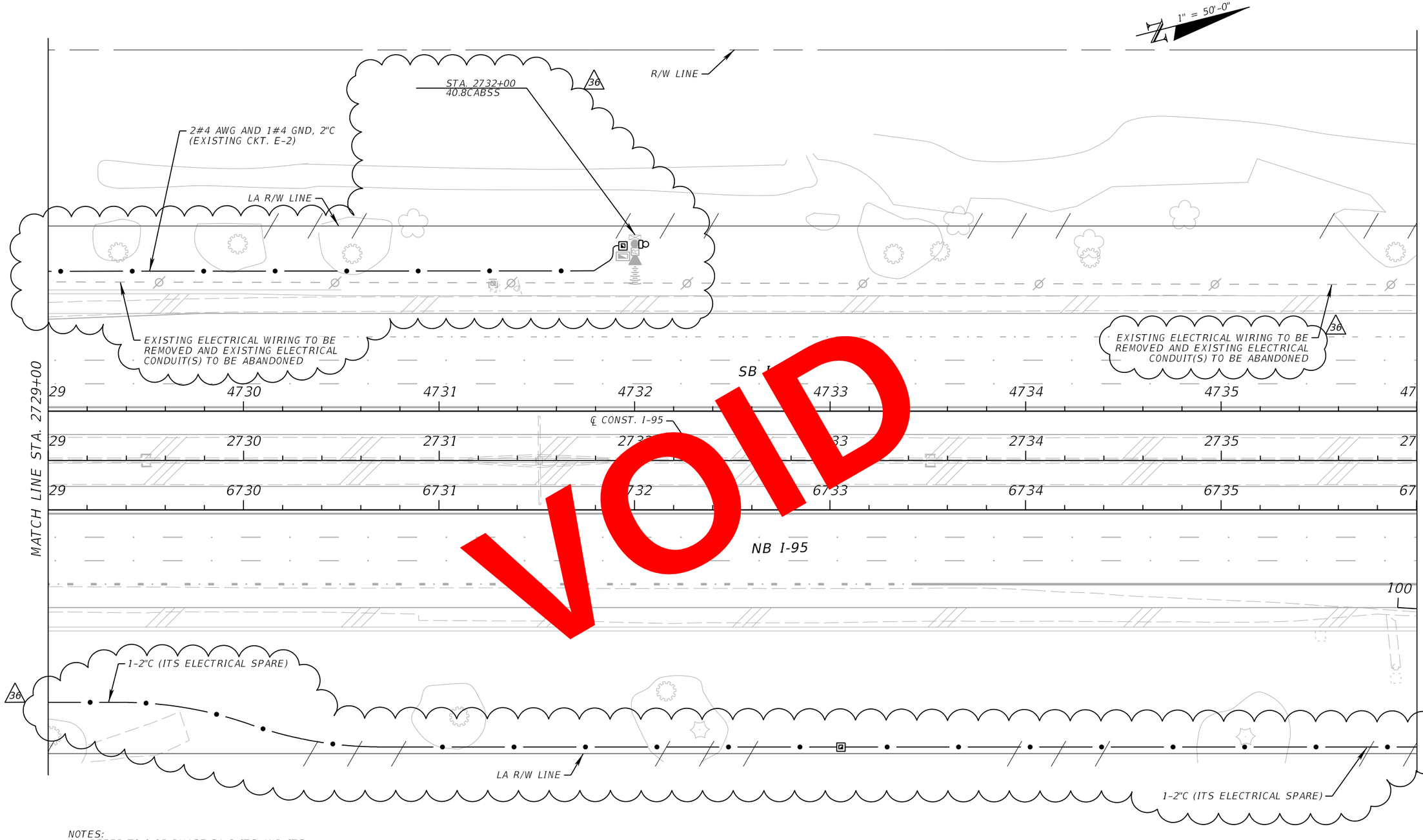
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
Review is for general compliance with contract documents. See responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



VOID

NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

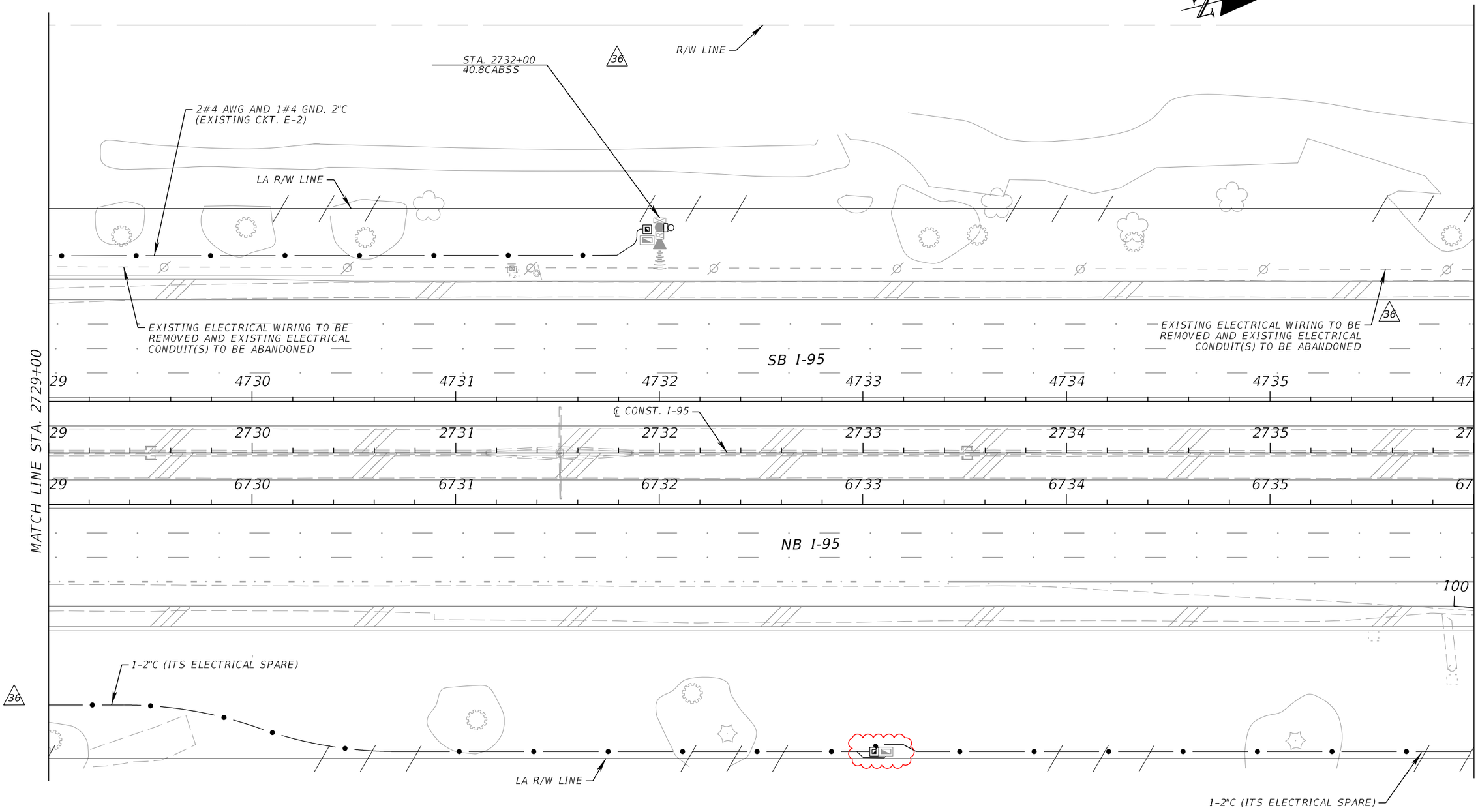
ITS ELECTRICAL PLAN (22)

SHEET NO.
IT-130

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 5/27/2020

1" = 50'-0"



NOTES:
1. REFER TO I-95 PHASE 3A-2 ITS AND ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON THE EXISTING ITS SYSTEM WITHIN THIS AREA. 36

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		
10/4/2021	AS-BUILTS: FIBER PULLBOX ADDED		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

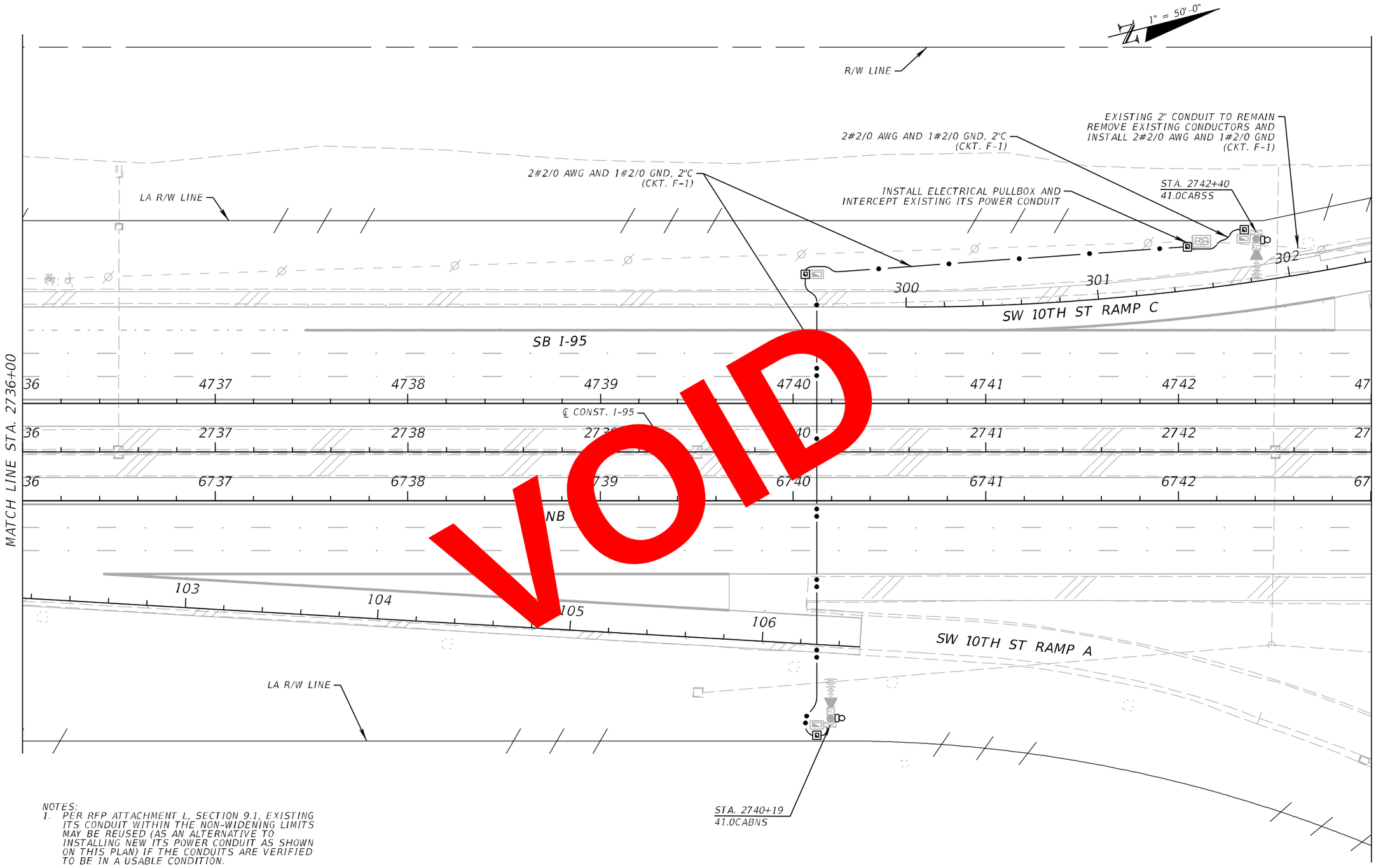
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (22)

SHEET NO.
IT-130

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (23)

SHEET NO.
IT-131

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1" = 50'-0"

R/W LINE

36

EXISTING ELECTRICAL WIRING TO BE REMOVED AND EXISTING ELECTRICAL CONDUIT(S) TO BE ABANDONED

STA. 2742+40
41.0CABSS

LA R/W LINE

EXISTING ELECTRICAL WIRING TO BE REMOVED AND EXISTING ELECTRICAL CONDUIT(S) TO BE ABANDONED

SB I-95

SW 10TH ST RAMP C

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

MATCH LINE STA. 2736+00

MATCH LINE STA. 2743+00

℄ CONST. I-95

NB I-95

SW 10TH ST RAMP A

1-2"C (ITS ELECTRICAL SPARE)

LA R/W LINE

STA. 2740+19
41.0CABNS

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

VOID

RELEASED FOR CONSTRUCTION
Released for general construction with contract documents. Sole responsibility for errors and omissions. Correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: PDOT, VS Date: 5/27/2020
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4F96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

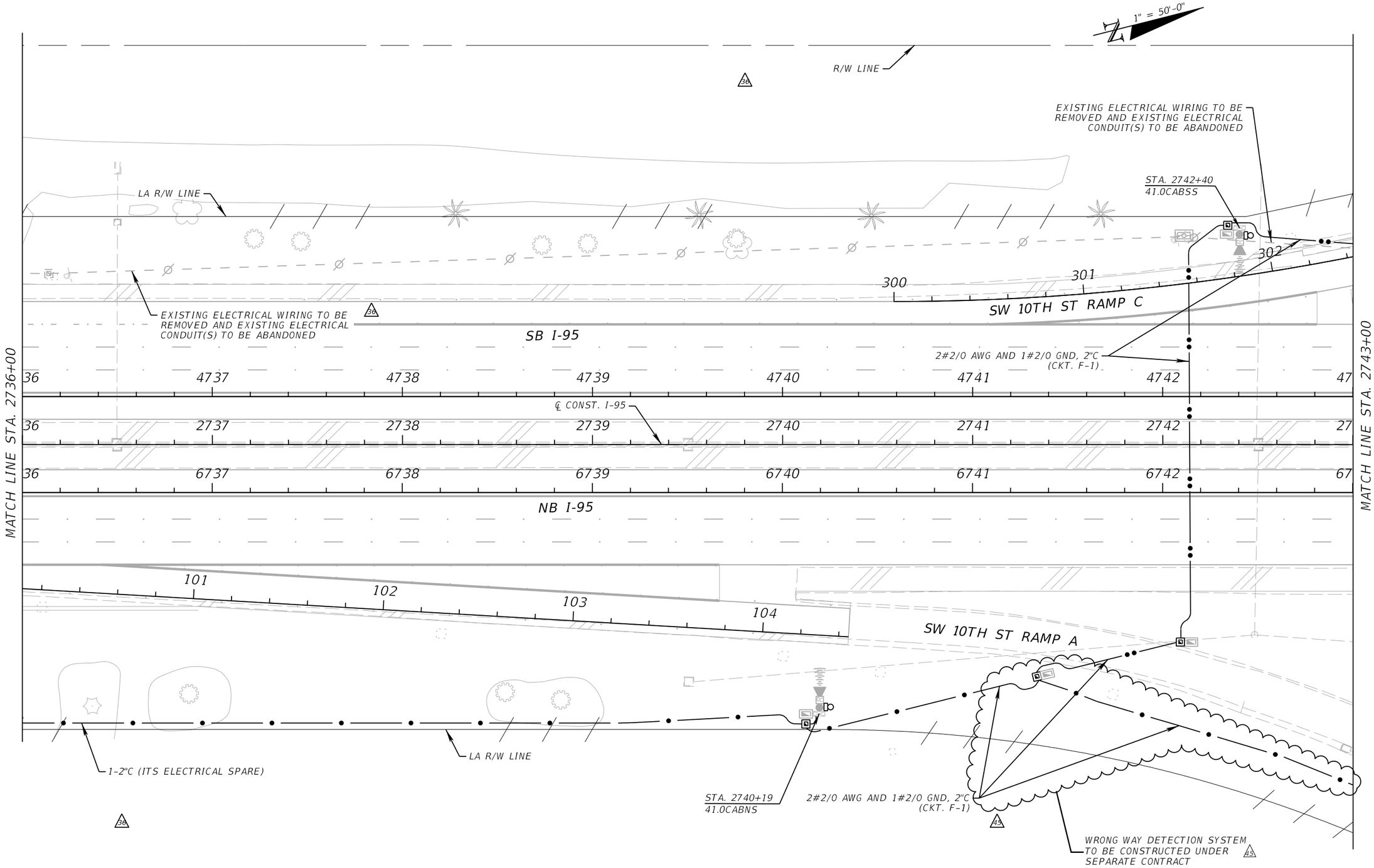
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (23)

SHEET NO.
IT-131



RELEASED FOR CONSTRUCTION BY:FOD VS DATE: 2/16/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E1G04

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (23)

SHEET NO.
IT-131

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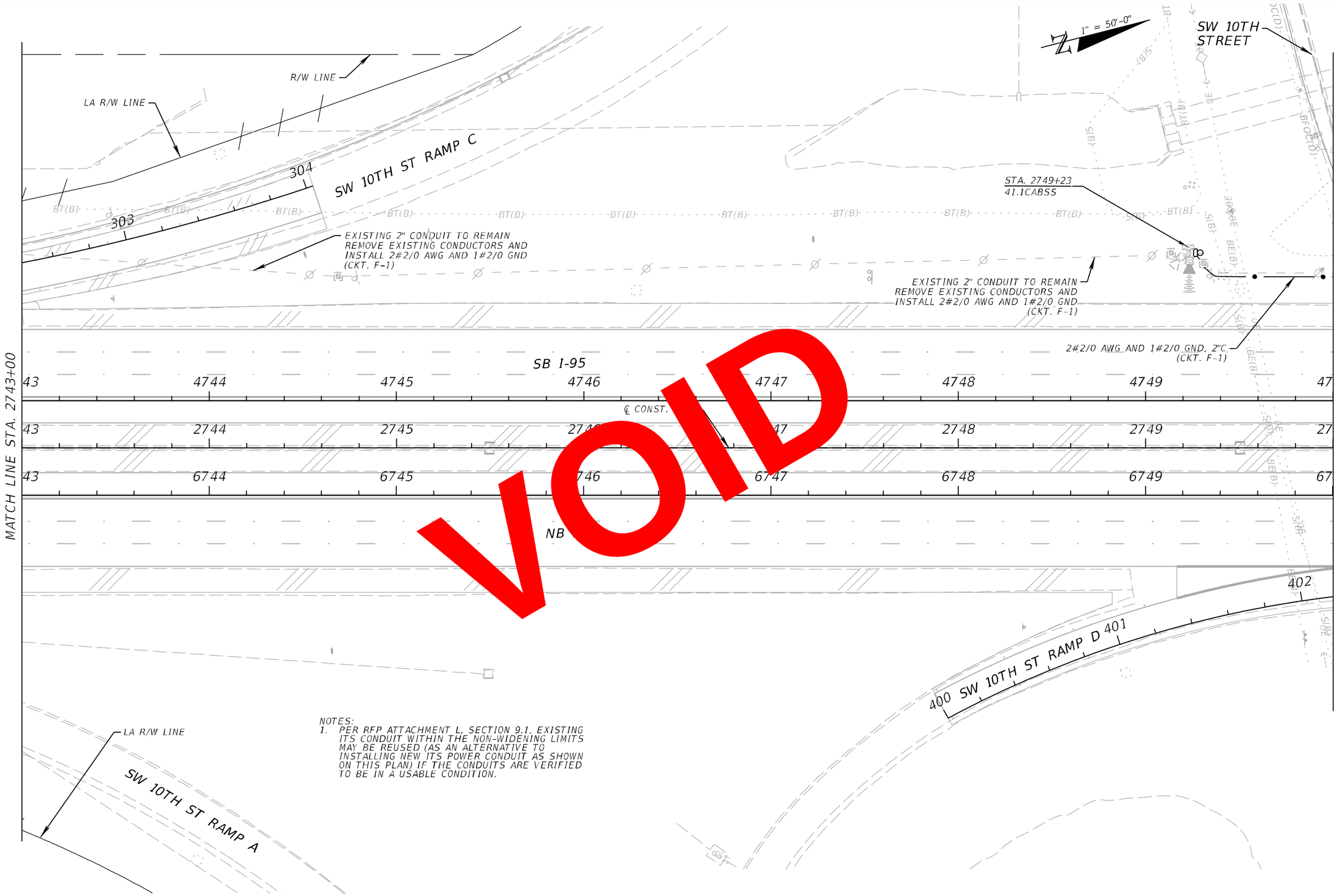

NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (24)

SHEET NO.
IT-132

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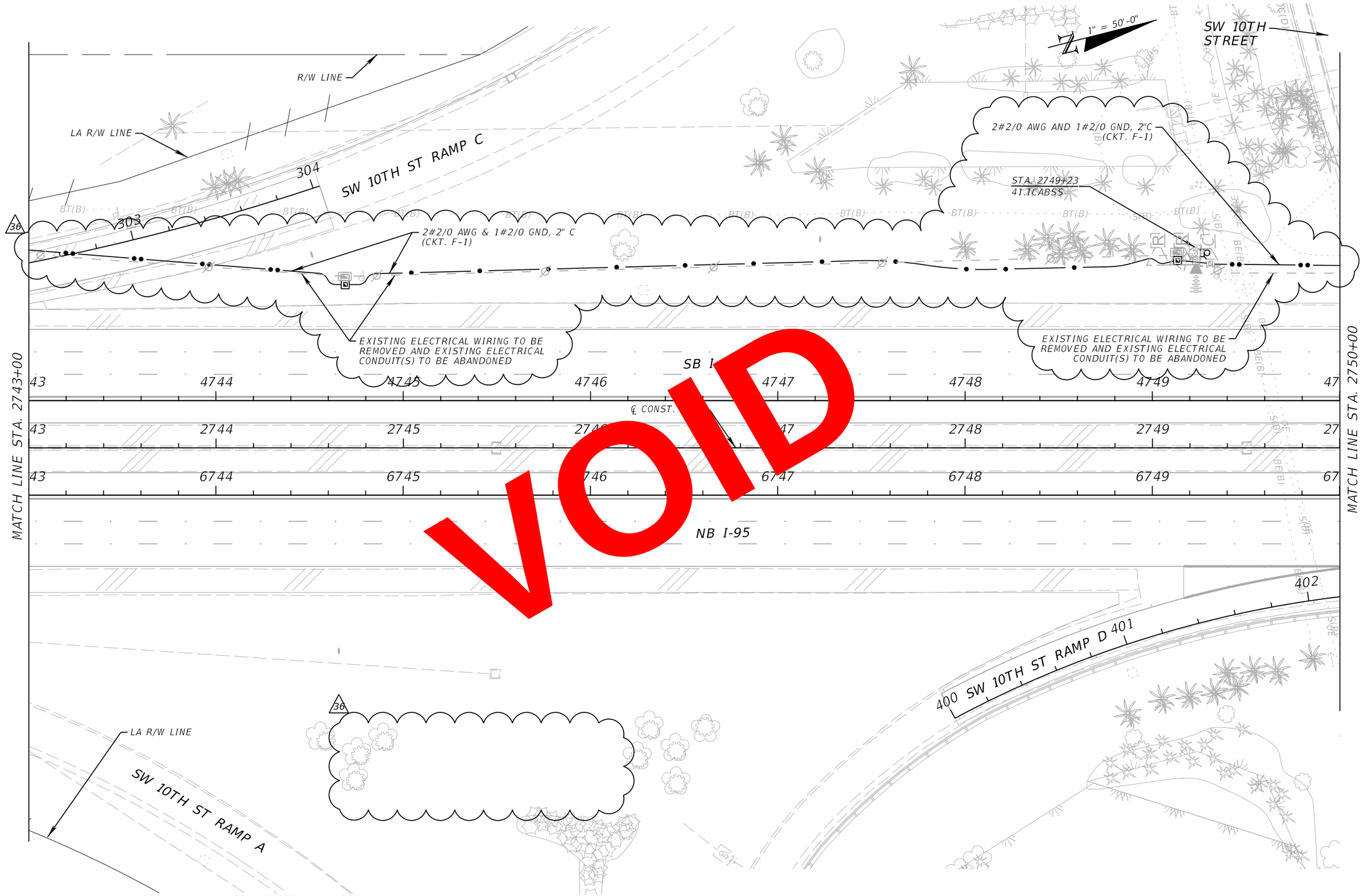
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 10/30/2018



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (24)

SHEET NO.
IT-132

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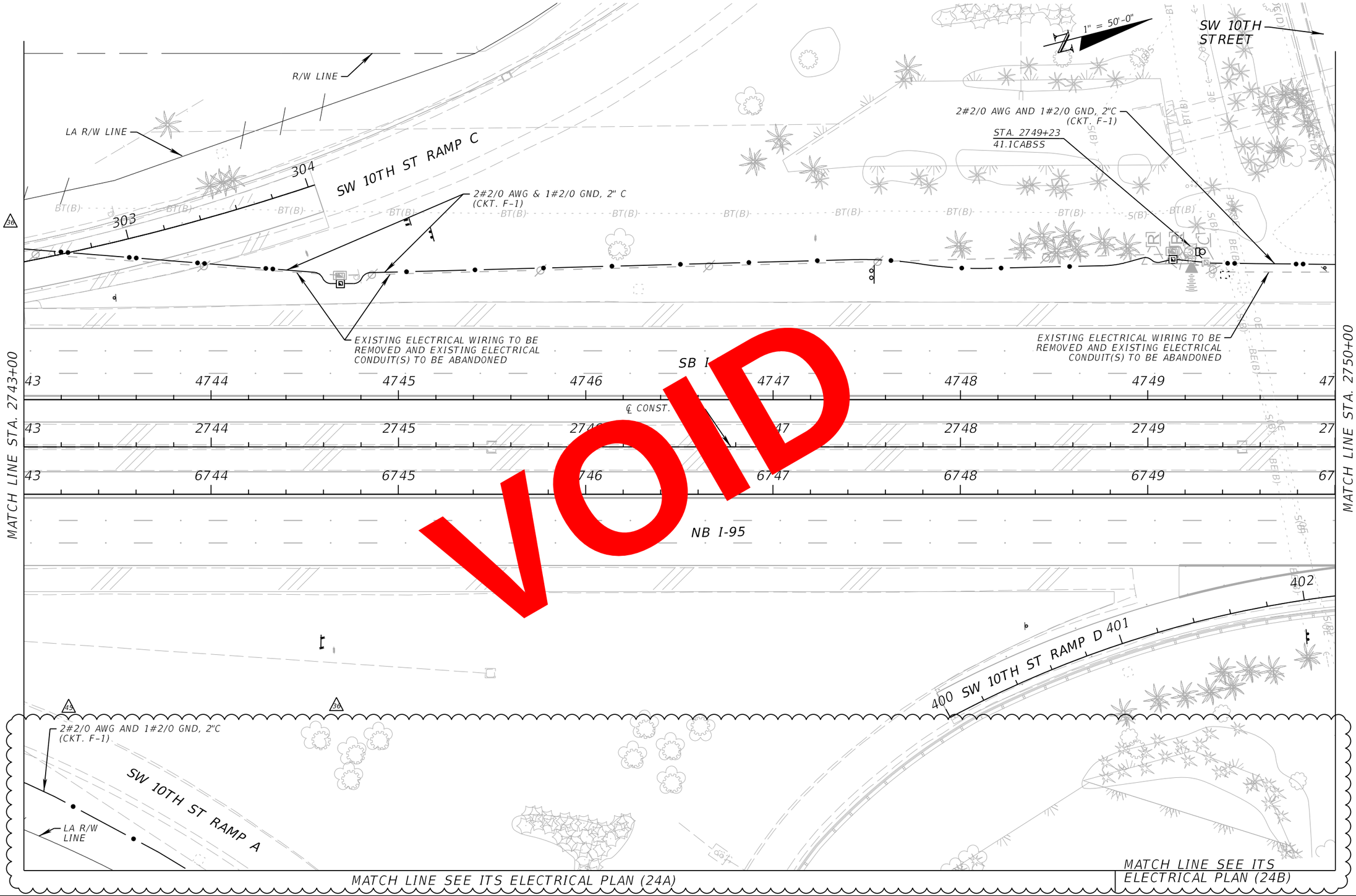
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 5/27/2020



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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/16/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (24)

SHEET NO. IT-132

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1" = 50'-0"

R/W LINE

LA R/W LINE

SW 10TH ST RAMP C

304

303

SW 10TH STREET

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

STA. 2749+23
41.1CABSS

2#2/0 AWG & 1#2/0 GND, 2" C (CKT. F-1)

EXISTING ELECTRICAL WIRING TO BE REMOVED AND EXISTING ELECTRICAL CONDUIT(S) TO BE ABANDONED

EXISTING ELECTRICAL WIRING TO BE REMOVED AND EXISTING ELECTRICAL CONDUIT(S) TO BE ABANDONED

SB I-95

MATCH LINE STA. 2743+00

43 4744 4745 4746 4747 4748 4749 47

℄ CONST. I-95

43 2744 2745 2746 2747 2748 2749 27

43 6744 6745 6746 6747 6748 6749 67

MATCH LINE STA. 2750+00

NB I-95

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 45

402

400 SW 10TH ST RAMP D 401

45

36

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

SW 10TH ST RAMP A

LA R/W LINE

MATCH LINE SEE ITS ELECTRICAL PLAN (24A)

MATCH LINE SEE ITS ELECTRICAL PLAN (24B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION REVISION		
10/4/2021	AS-BUILTS: INFRASTRUCTURE CHANGES		

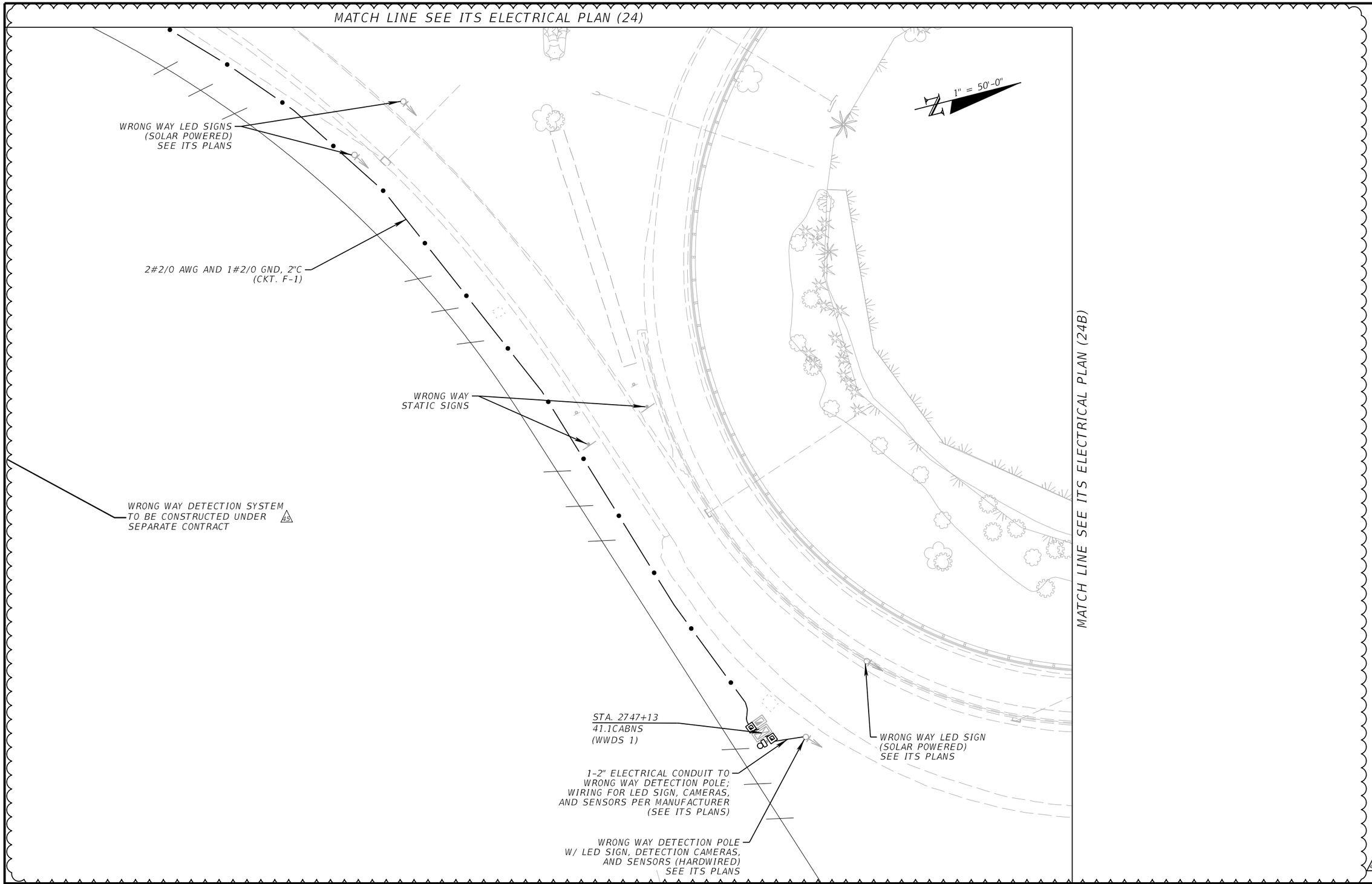
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (24)

SHEET NO.
IT-132



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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/16/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R94

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	45 ADDED SHEET FOR WRONG WAY DETECTION SYSTEM		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (24A)

SHEET NO.
IT-132A

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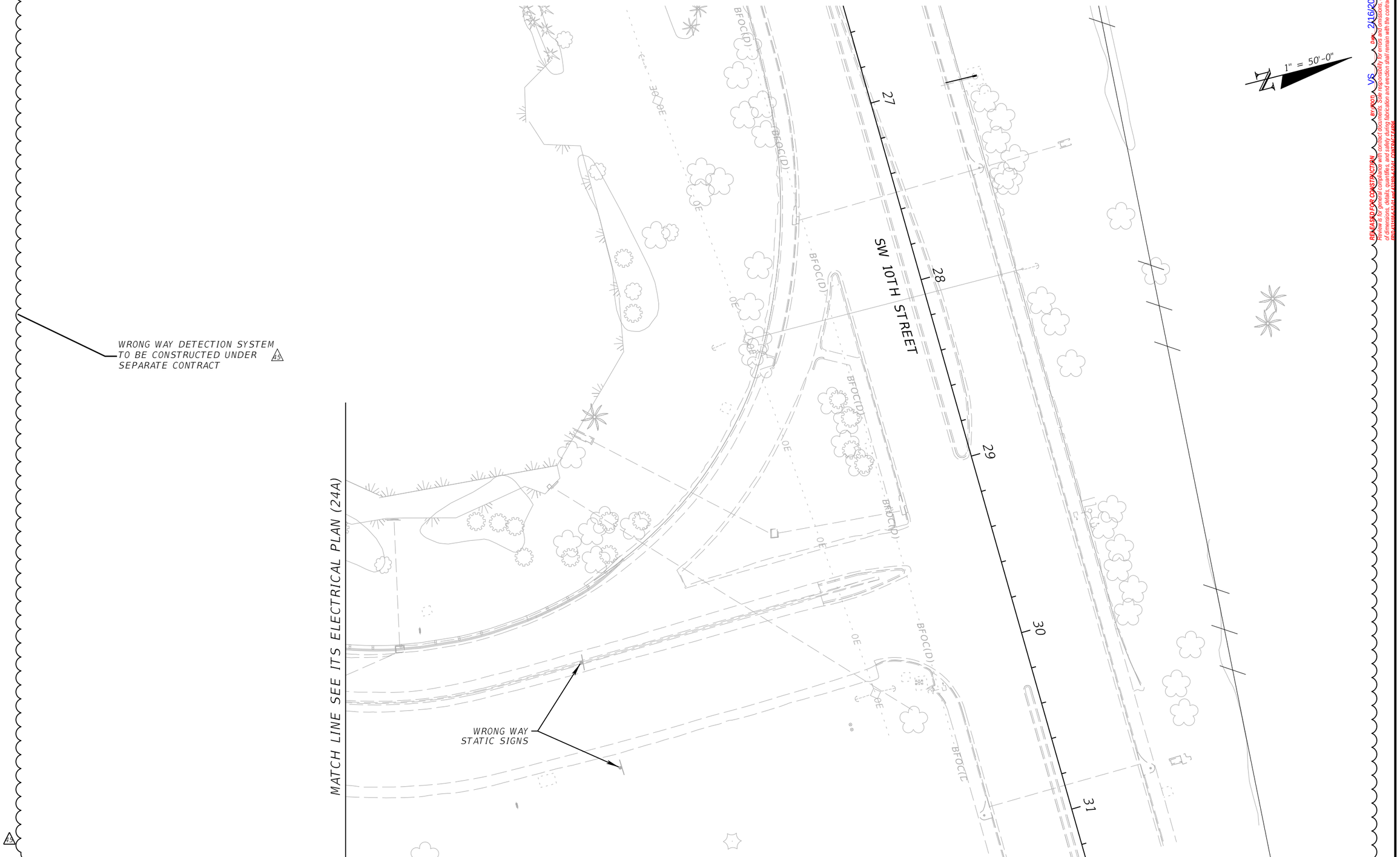

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	3 ADDED SHEET FOR WRONG WAY DETECTION SYSTEM		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (24B)

SHEET NO.
IT-132B

RELEASED FOR CONSTRUCTION
BY VSD ON 2/16/2021
Review is for general compliance with contract documents. Shall not specially relieve any omissions or errors of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
REVIEWED BY WSP USA INC. FOR CONSTRUCTION

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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2/1/2021
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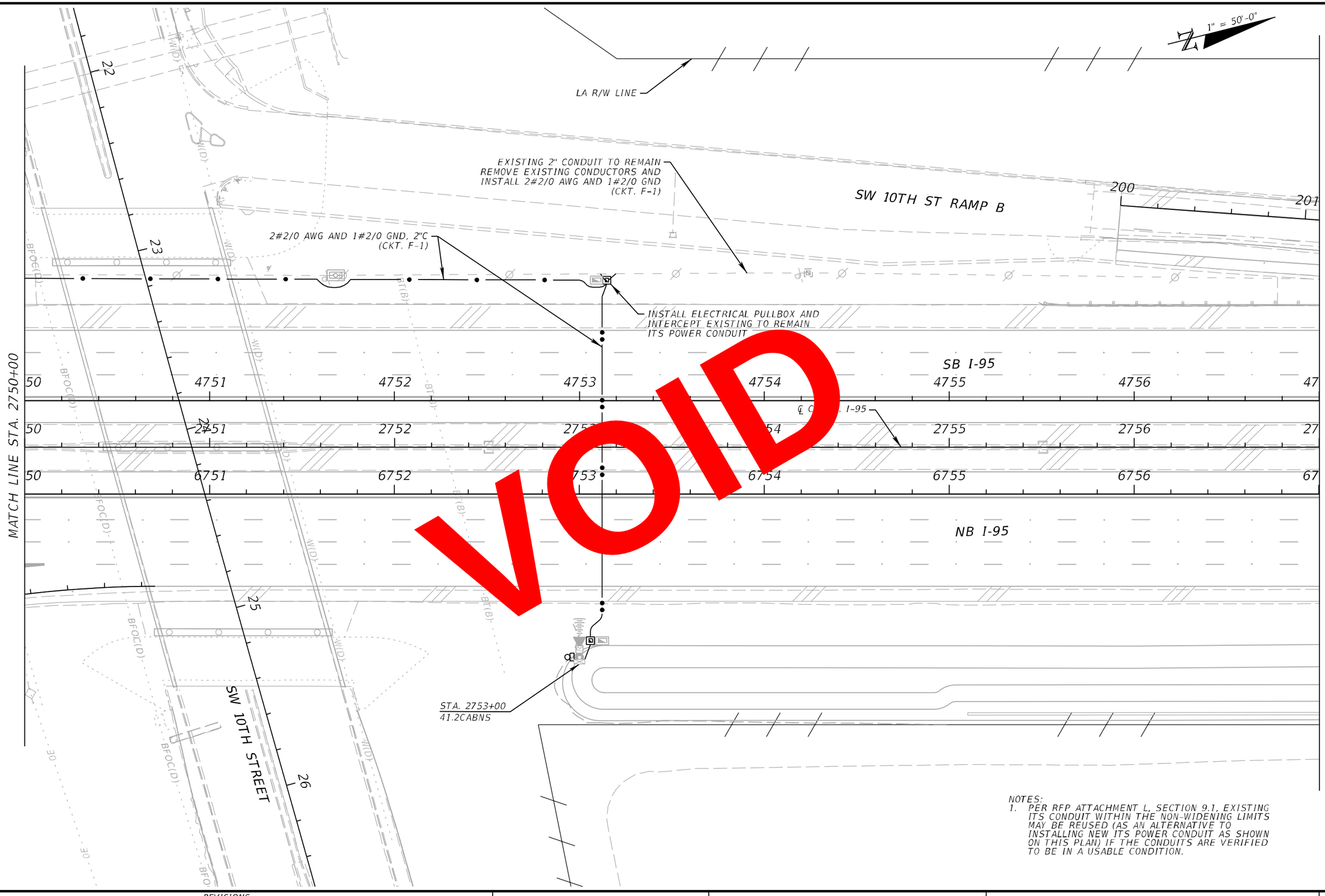

NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (25)

SHEET NO.
IT-133

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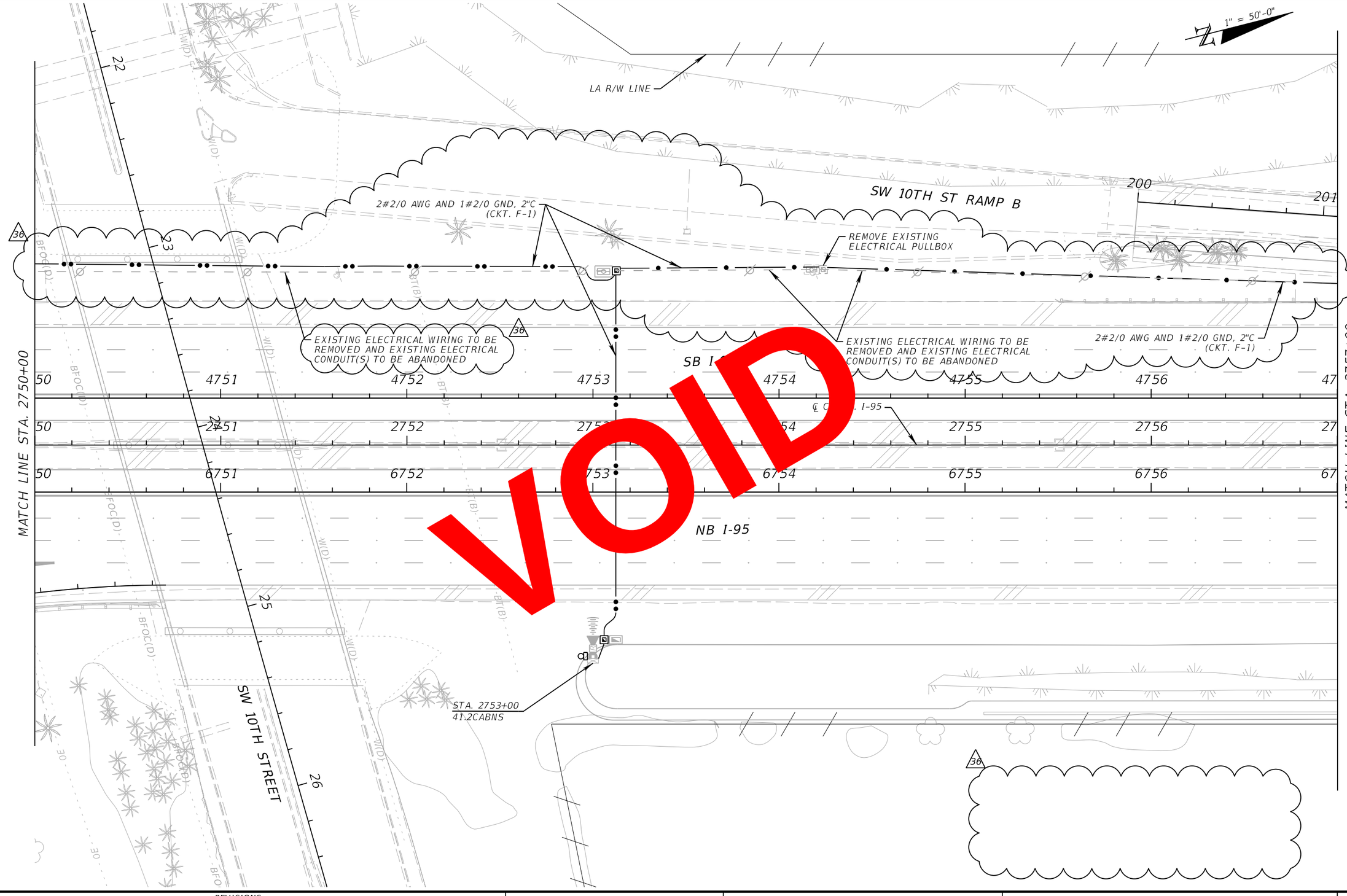
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 10/30/2018



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (25)

SHEET NO.
IT-133

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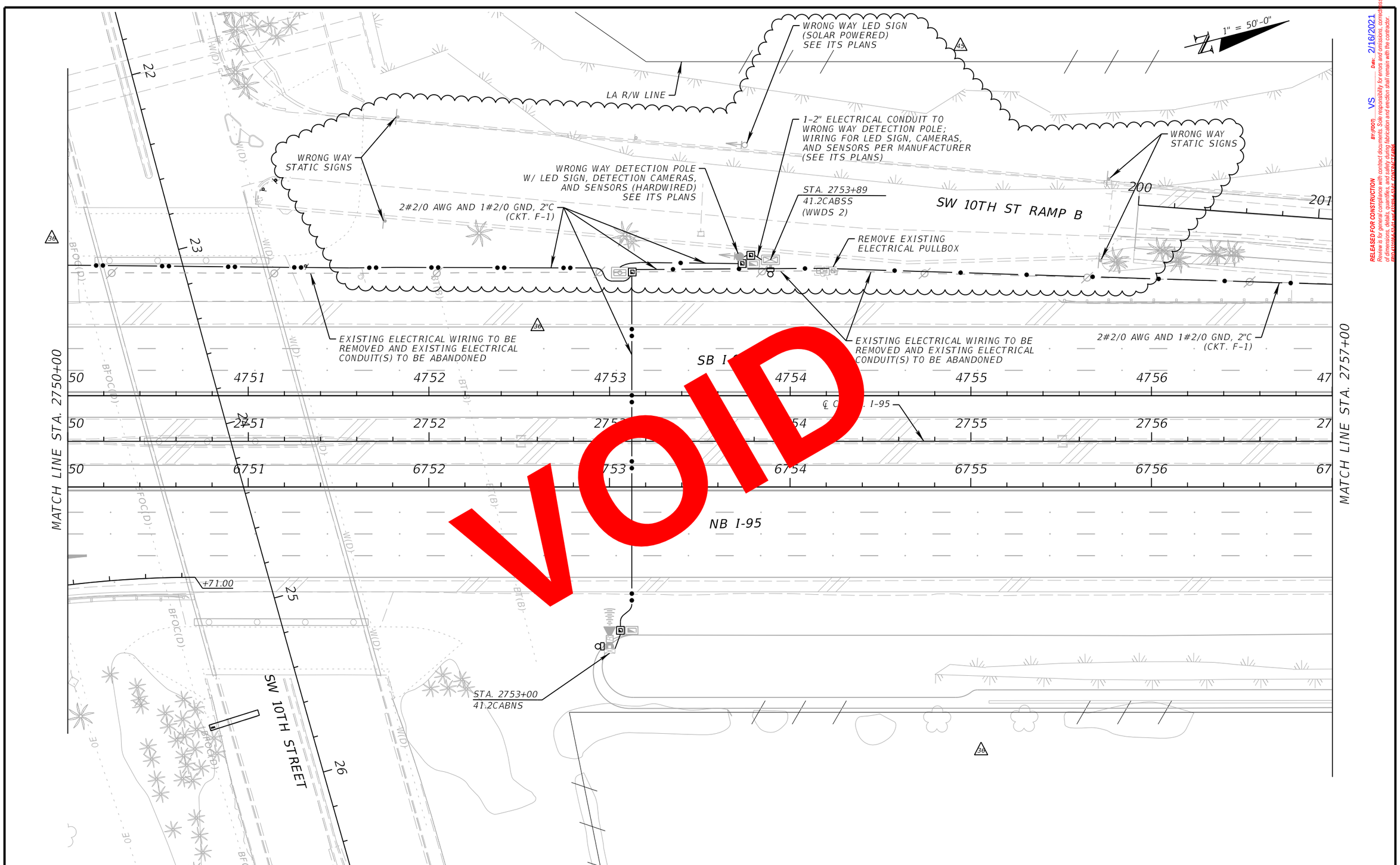
BY: VS Date: 5/27/2020

RELEASED FOR CONSTRUCTION
Reviewed for general conformance with contract documents. Shop responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4E96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/2020	36 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (25)

SHEET NO.
IT-133

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RELEASED FOR CONSTRUCTION BY:FDOT VS Date: 2/16/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 & 433109-4-52-01 CONTRACT 21-0-04

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 35

WRONG WAY LED SIGN (SOLAR POWERED) SEE ITS PLANS 45

LA R/W LINE

1" = 50'-0"

WRONG WAY STATIC SIGNS

WRONG WAY DETECTION POLE W/ LED SIGN, DETECTION CAMERAS, AND SENSORS (HARDWIRED) SEE ITS PLANS

1-2" ELECTRICAL CONDUIT TO WRONG WAY DETECTION POLE; WIRING FOR LED SIGN, CAMERAS, AND SENSORS PER MANUFACTURER (SEE ITS PLANS)

WRONG WAY STATIC SIGNS

STA. 2753+89
41.2CABSS
(WWDS 2)

SW 10TH ST RAMP B

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

REMOVE EXISTING ELECTRICAL PULLBOX

EXISTING ELECTRICAL WIRING TO BE REMOVED AND EXISTING ELECTRICAL CONDUIT(S) TO BE ABANDONED

SB I-95

EXISTING ELECTRICAL WIRING TO BE REMOVED AND EXISTING ELECTRICAL CONDUIT(S) TO BE ABANDONED

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

℄ CONST. I-95

NB I-95

STA. 2753+00
41.2CABNS

SW 10TH STREET

MATCH LINE STA. 2750+00

MATCH LINE STA. 2757+00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/2020	36 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION SYSTEM REVISION		
10/4/2021	AS-BUILTS: INFRASTRUCTURE CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

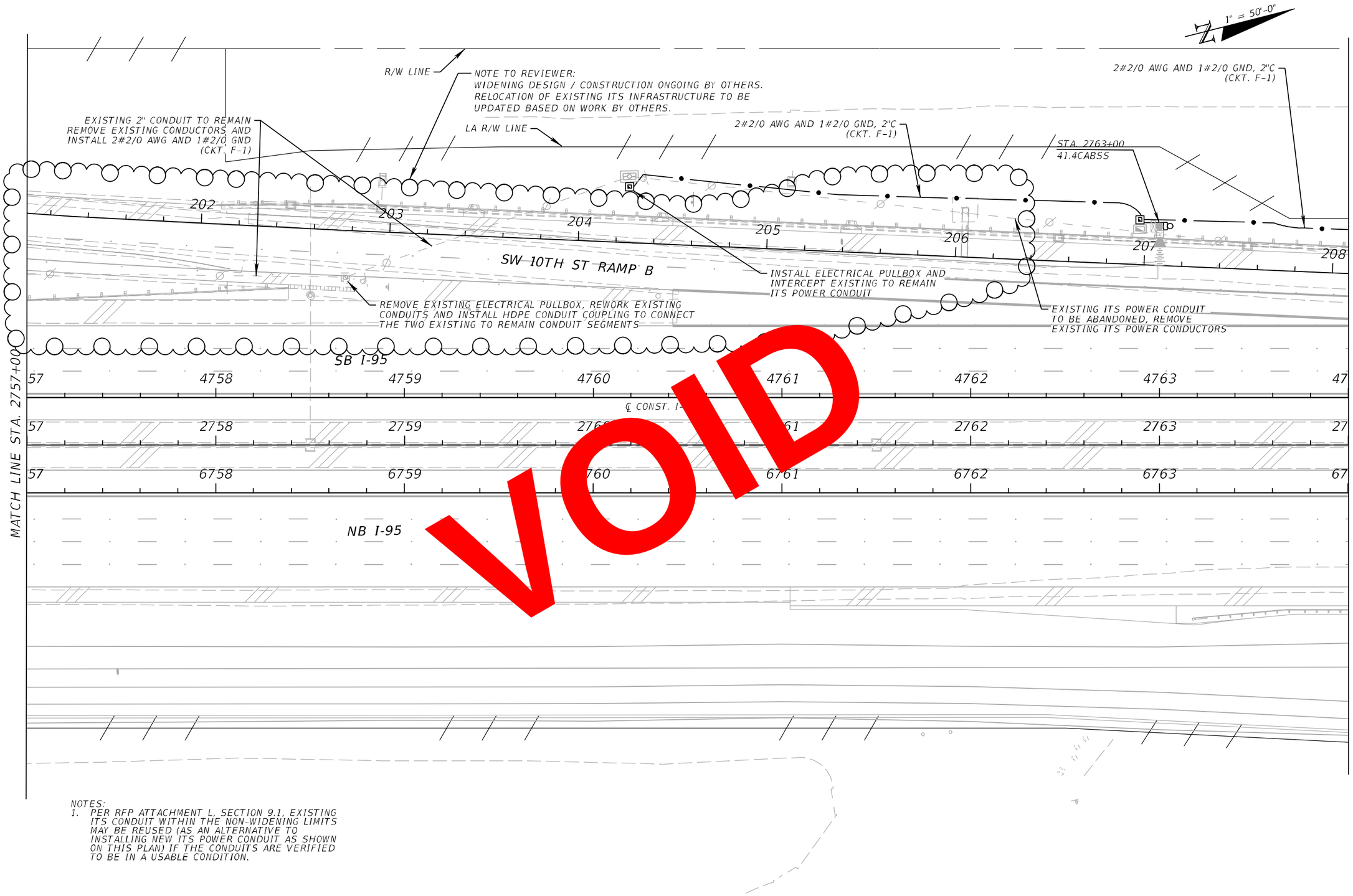
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (25)

SHEET NO.
IT-133

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (26)

SHEET NO.
IT-134

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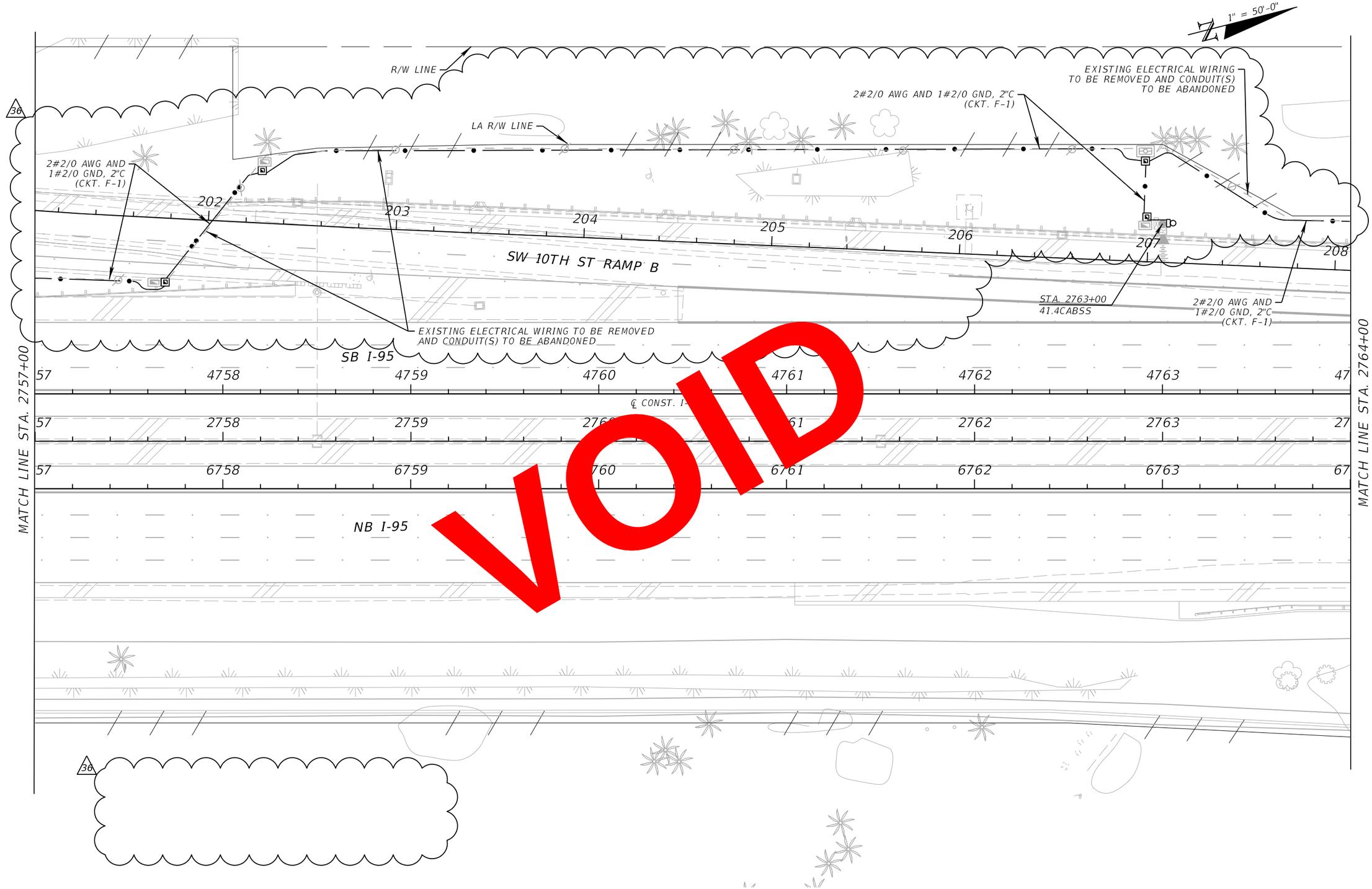
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (26)

SHEET NO. IT-134

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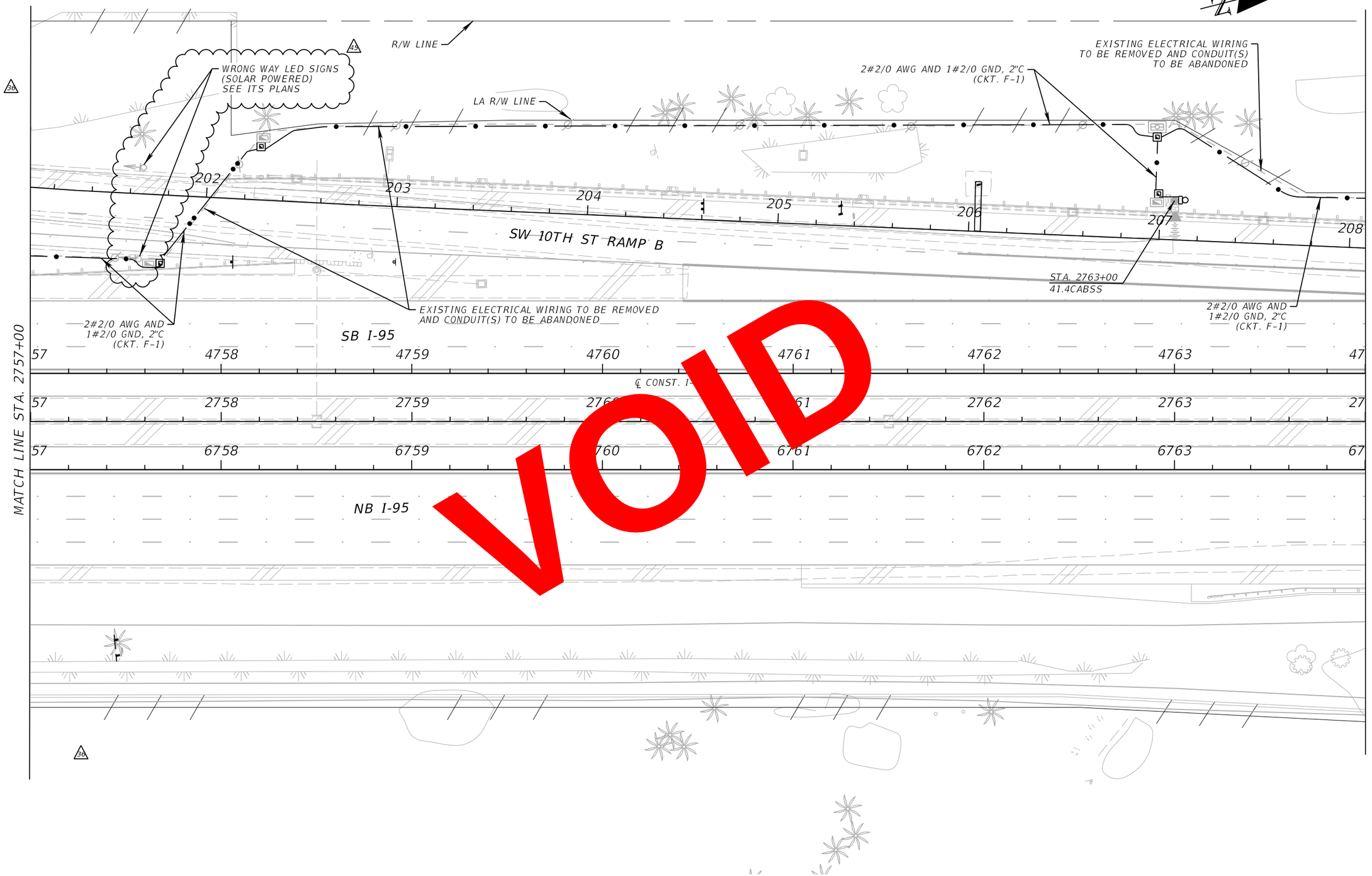
BY: PEREZR VS Date: 5/27/2020

RELEASED FOR CONSTRUCTION
Released for general construction with contract documents. Sole responsibility for correct dimensions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4E96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/2020	36 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (26)

SHEET NO.
IT-134

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RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY:PSON VS DATE: 2/16/2021
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

1" = 50'-0"

R/W LINE

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 45

WRONG WAY LED SIGNS (SOLAR POWERED) SEE ITS PLANS 45

LA R/W LINE

EXISTING ELECTRICAL WIRING TO BE REMOVED AND CONDUIT(S) TO BE ABANDONED

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

202 203 204 205 206 207 208

SW 10TH ST RAMP B

STA. 2763+00
41.4CABSS

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

EXISTING ELECTRICAL WIRING TO BE REMOVED AND CONDUIT(S) TO BE ABANDONED

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

SB I-95

57 4758 4759 4760 4761 4762 4763 47

℄ CONST. I-95

57 2758 2759 2760 2761 2762 2763 27

57 6758 6759 6760 6761 6762 6763 67

NB I-95

MATCH LINE STA. 2757+00

MATCH LINE STA. 2764+00

30

45

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/2020	30 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION SYSTEM REVISION		
10/4/2021	AS-BUILTS: INFRASTRUCTURE CHANGES		

WSP USA INC.
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (26)

SHEET NO.
IT-134

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

1" = 50'-0"

R/W LINE

NOTE TO REVIEWER:
WIDENING DESIGN / CONSTRUCTION ONGOING BY OTHERS.
RELOCATION OF EXISTING ITS INFRASTRUCTURE TO BE
UPDATED BASED ON WORK BY OTHERS.

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

EXISTING ITS POWER CONDUIT
TO BE ABANDONED, REMOVE
EXISTING ITS POWER CONDUCTORS

LA R/W LINE

209 210 211

SW 10TH ST RAMP B

EXISTING ITS POWER CONDUIT
TO BE ABANDONED, REMOVE
EXISTING ITS POWER CONDUCTORS

SB I-95

64 4765 4766 4767 4768 4769 4770 47

64 2765 2766 276 68 2769 2770 27

64 6765 6766 767 6768 6769 6770 67

CONST. I-9

B I-95

MATCH LINE STA. 2764+00

MATCH LINE STA. 2771+00

STA. 2767+80
41.5CABNS

NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (27)

SHEET NO.
IT-135

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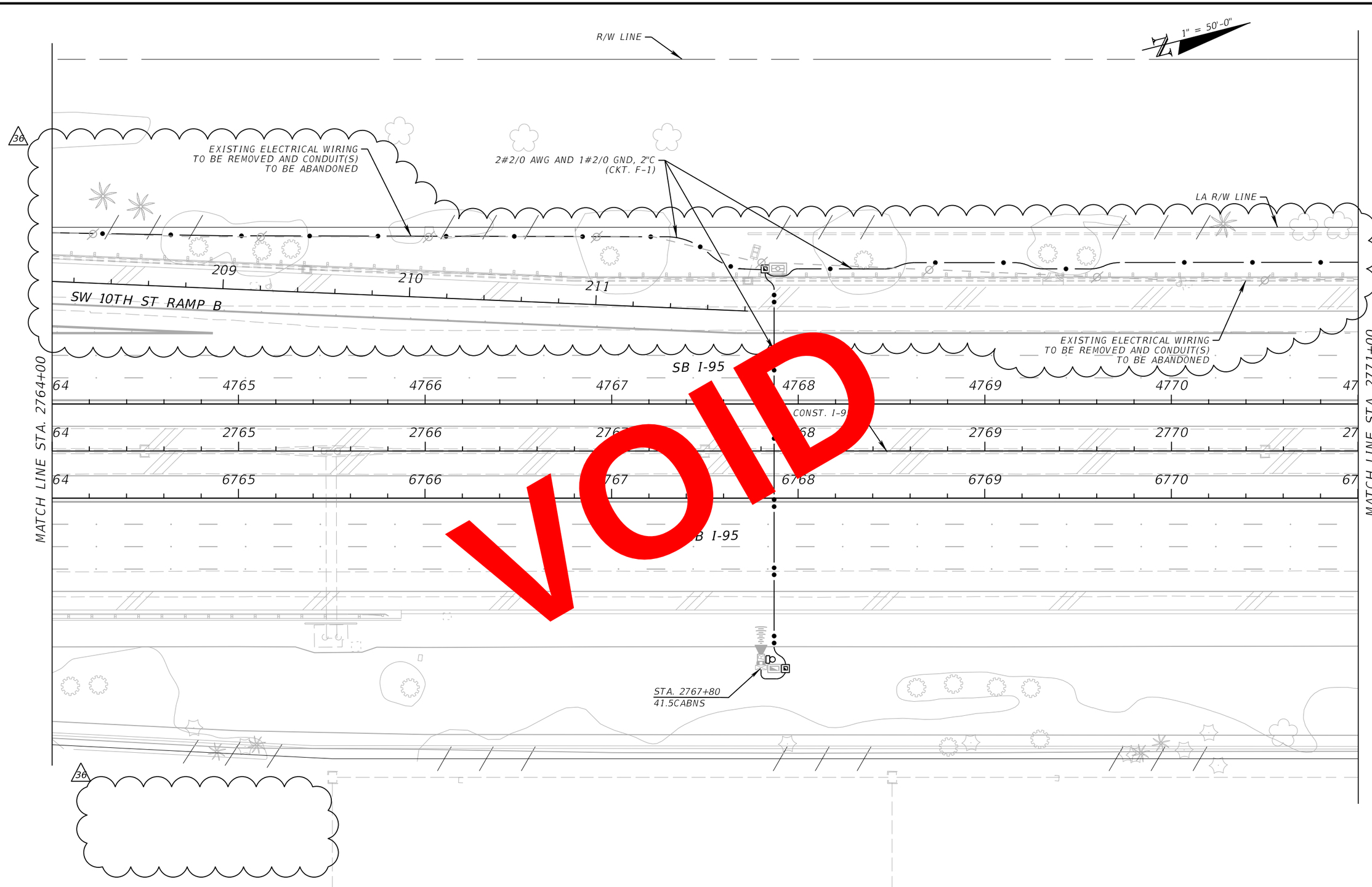
BY/PSD/ VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Released for construction. Shop drawings and contract documents shall be reviewed by the engineer of record prior to fabrication. The engineer of record is responsible for errors and omissions on the shop drawings, dimensions, details, quantities, and safety during fabrication and erection. It shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (27)

SHEET NO.
IT-135

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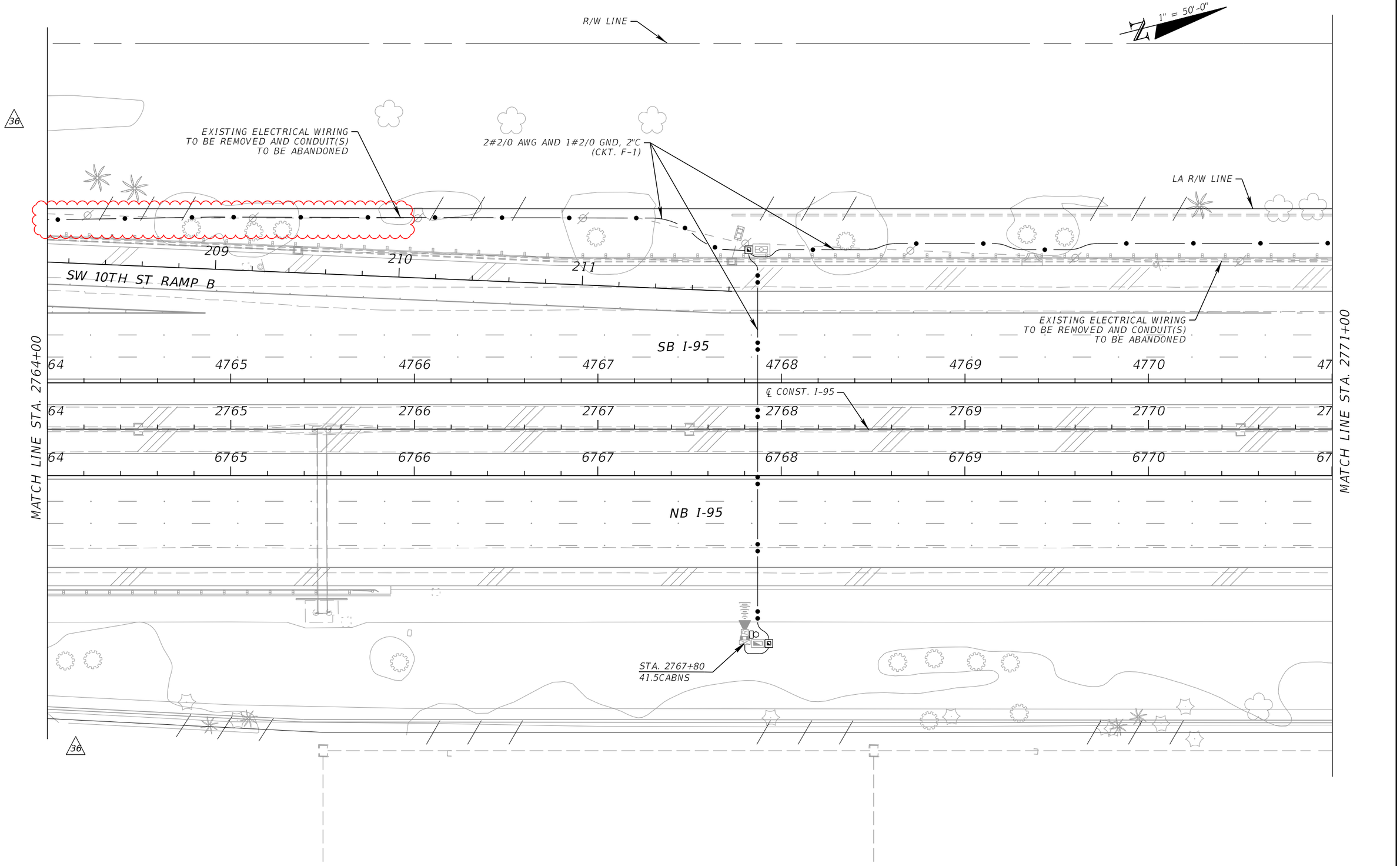
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		
10/4/2021	AS-BUILTS: INFRASTRUCTURE CHANGES		

WSP USA INC.
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (27)

SHEET NO.
IT-135

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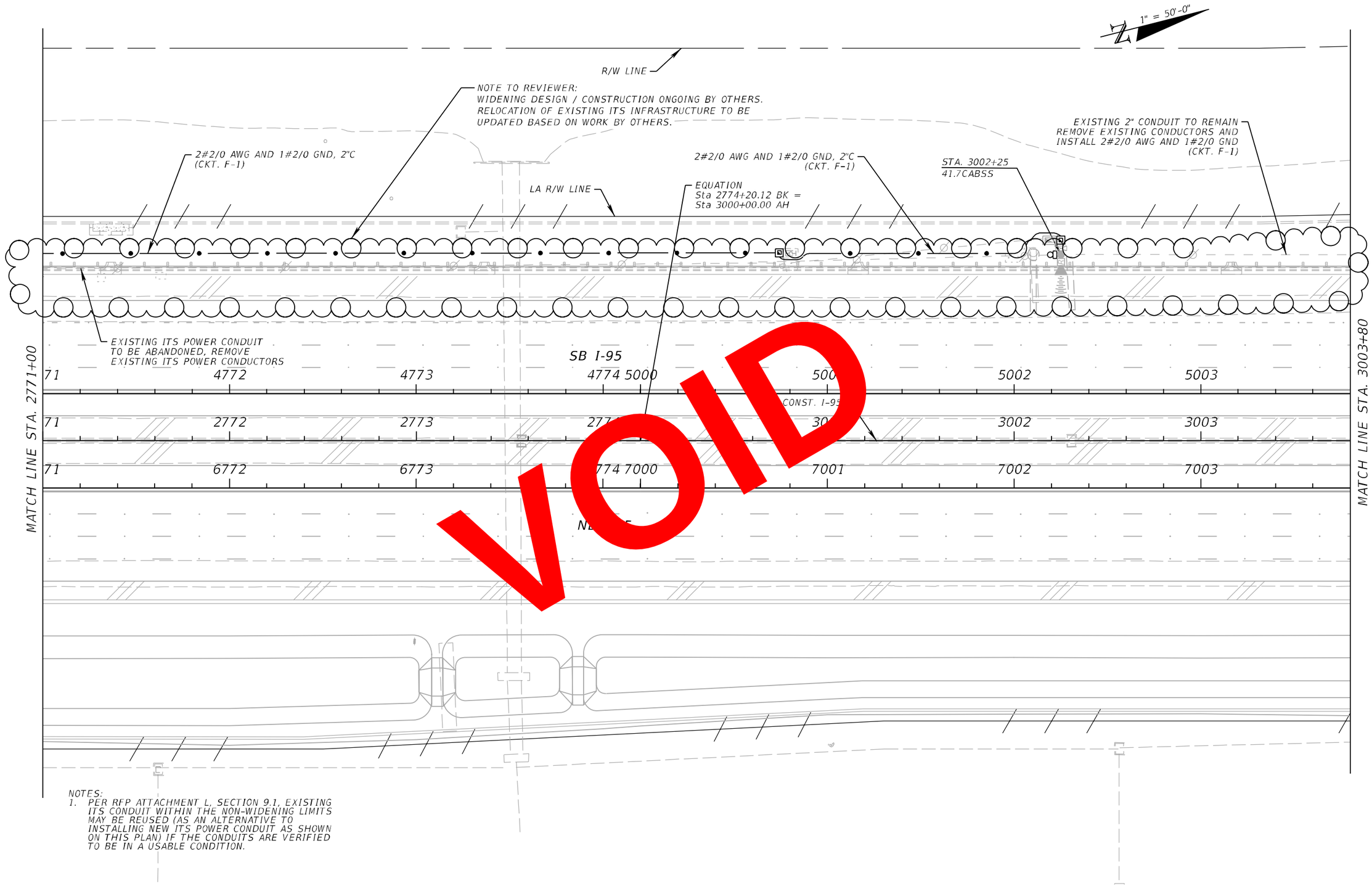
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (28)

SHEET NO.
IT-136

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RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. See responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 10/30/2018

1" = 50'-0"

R/W LINE

36

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

LA R/W LINE

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

STA. 3002+25
41.7CABSS

36

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

EXISTING ELECTRICAL WIRING
TO BE REMOVED AND CONDUIT(S)
TO BE ABANDONED

EXISTING ELECTRICAL WIRING
TO BE REMOVED AND CONDUIT(S)
TO BE ABANDONED

SB I-95

71 4772 4773 4774 5000 5001 5002 5003

℄ CONST. I-95

71 2772 2773 2774 3000 3001 3002 3003

71 6772 6773 6774 7000 7001 7002 7003

MATCH LINE STA. 2771+00

MATCH LINE STA. 3003+80

NB I-95

36

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BY: VS Date: 5/27/2020

RELEASED FOR CONSTRUCTION

Released for general construction with contract documents. Shop responsibility for errors and omissions. Correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4E96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

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STATE OF FLORIDA
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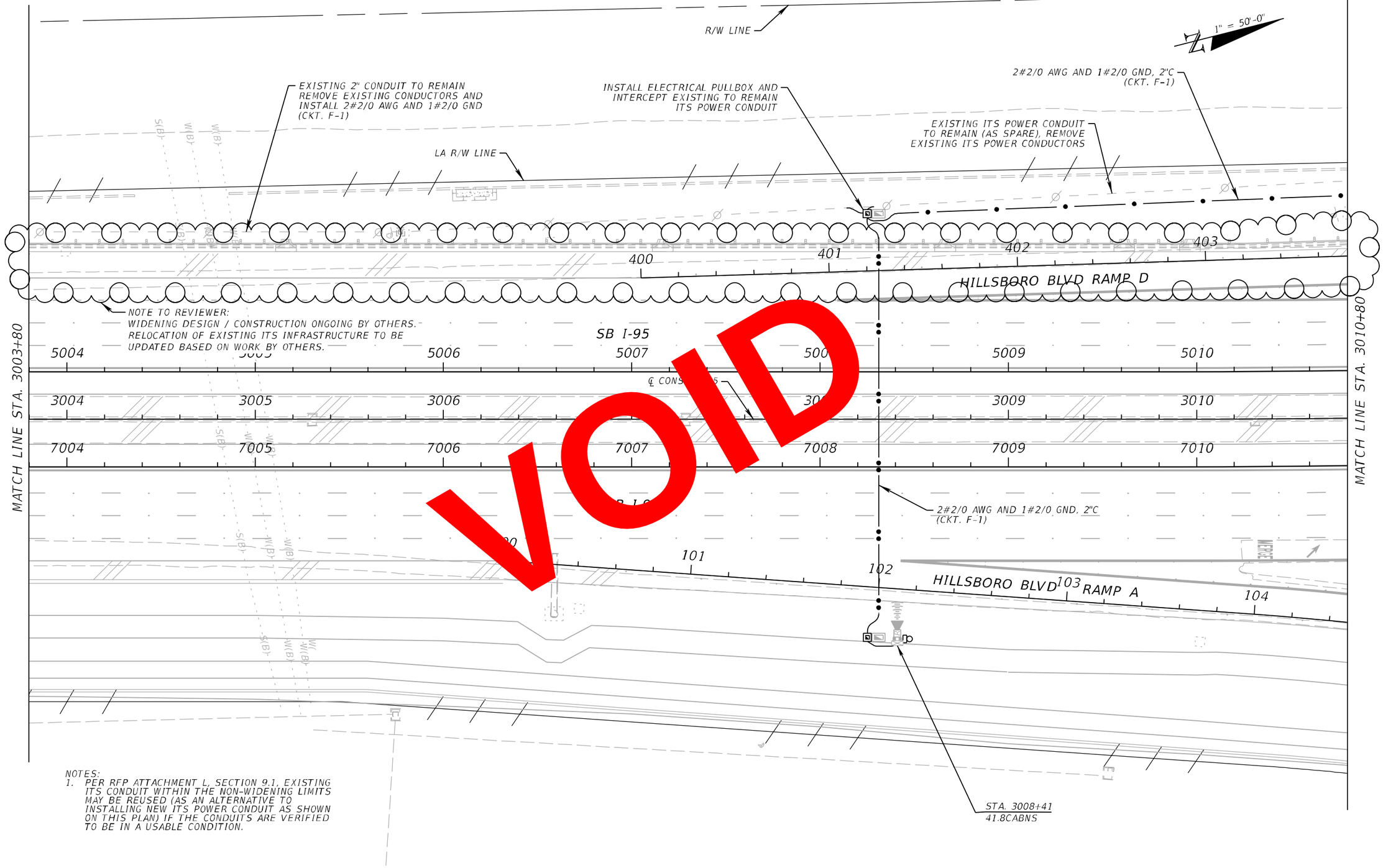
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (28)

SHEET NO.
IT-136



NOTES:
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (29)

SHEET NO.
IT-137

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
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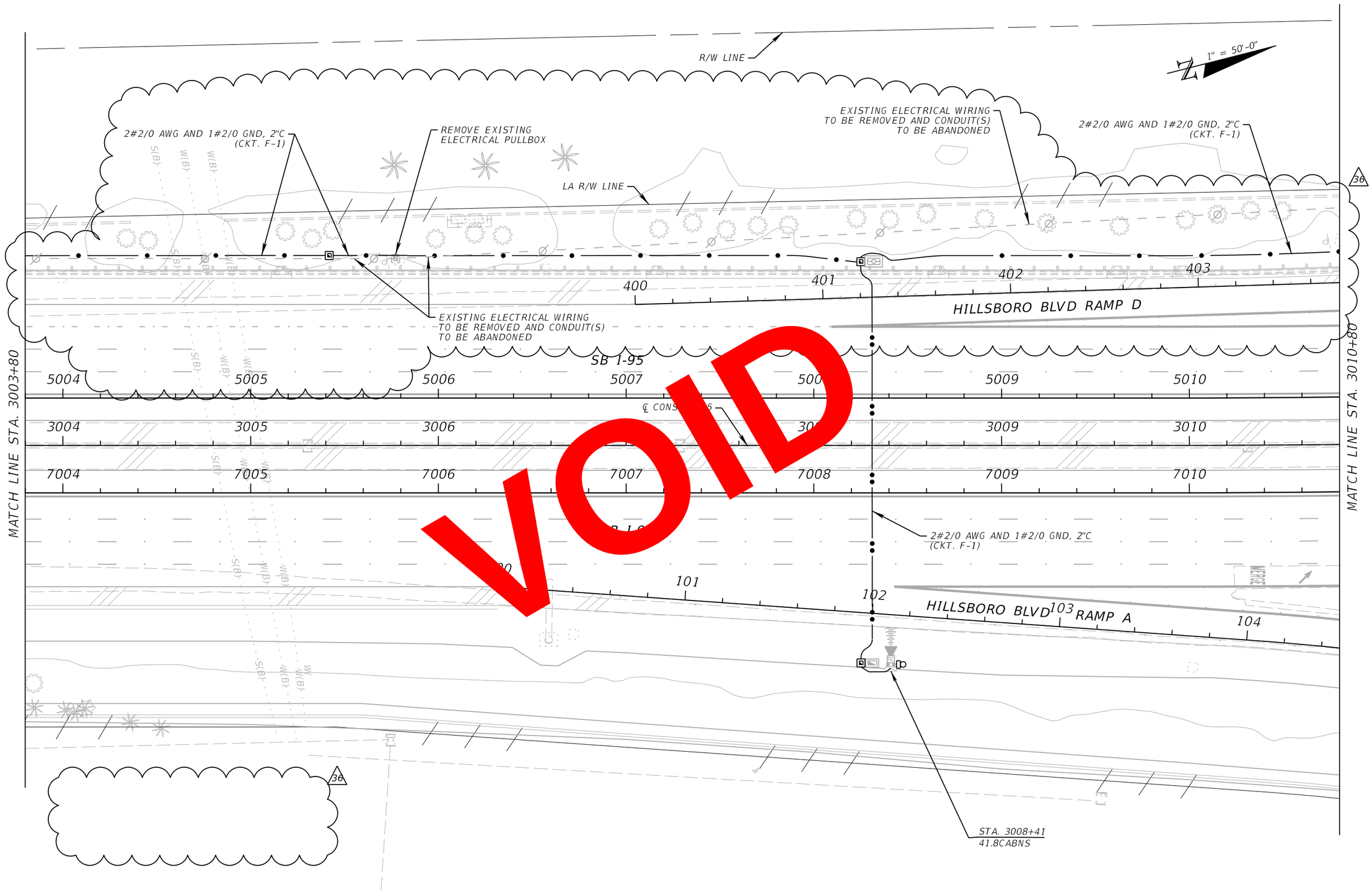
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

WSP USA INC.
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (29)

SHEET NO.
IT-137

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 5/27/2020
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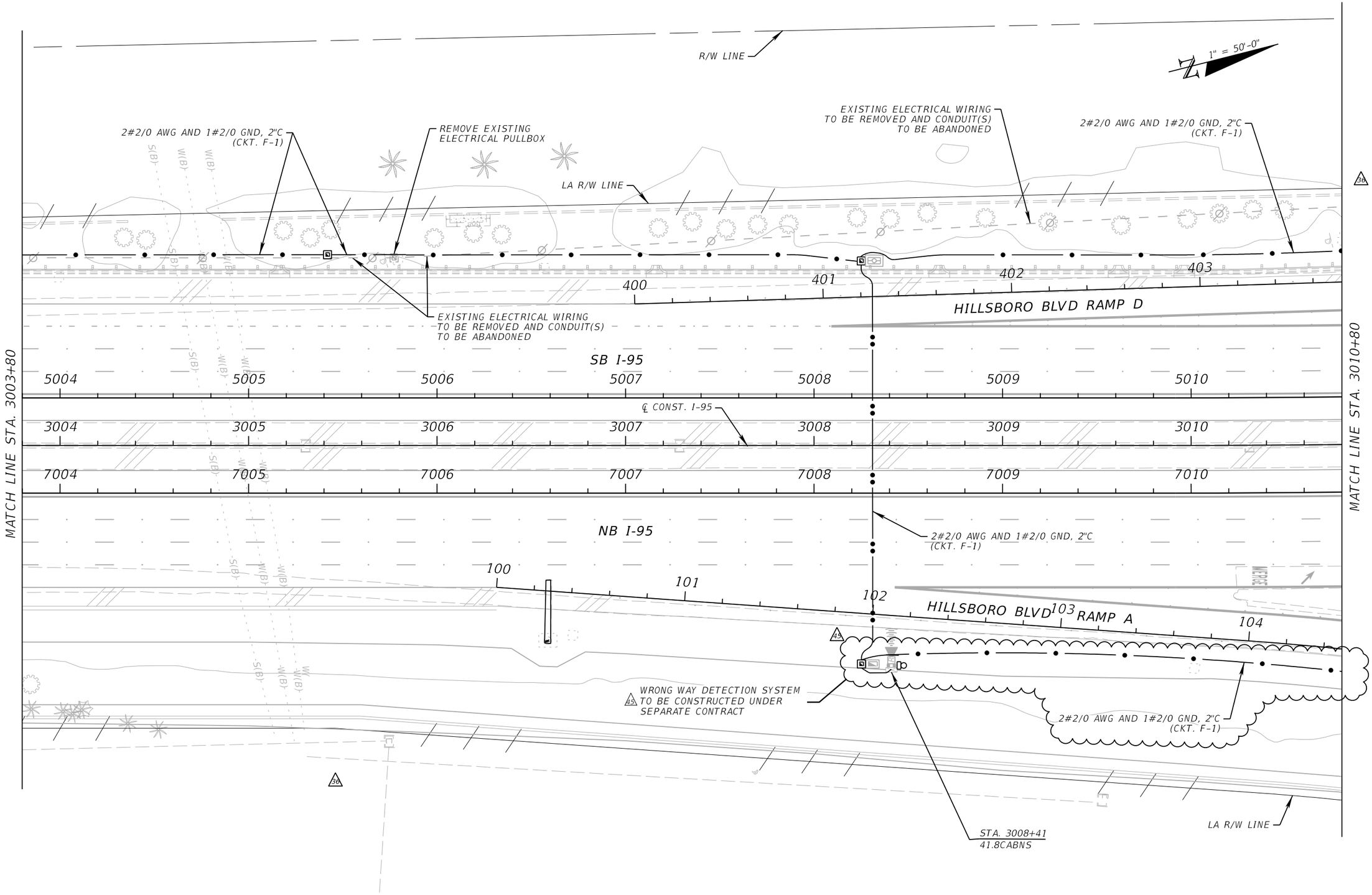
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/2020	39 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (29)

SHEET NO.
IT-137

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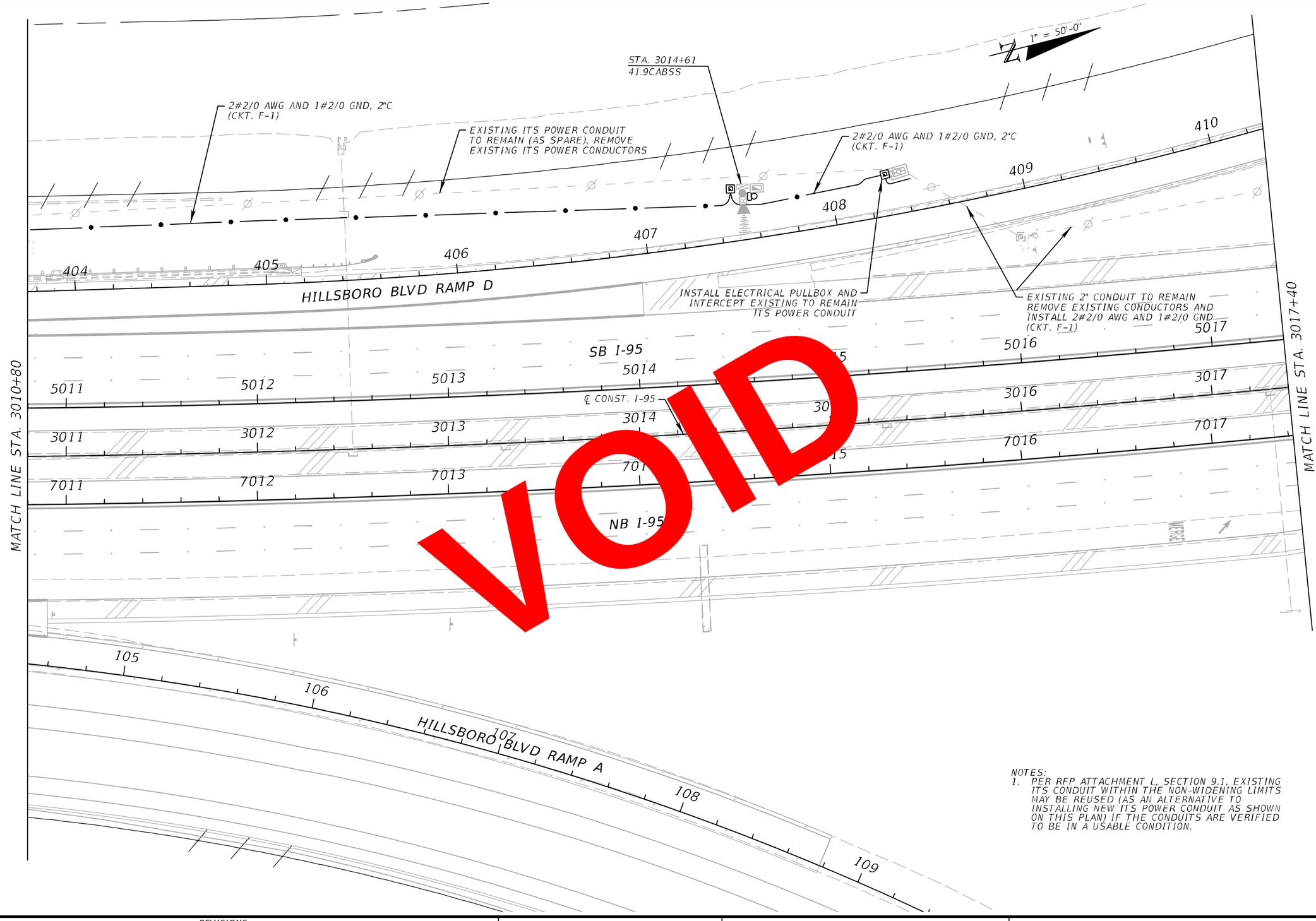
BY/PSM VS DATE 2/16/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PER FAR 14.01 and 14.02 and 14.04 CONTRACTUAL TERMS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (30)

SHEET NO.
IT-138

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
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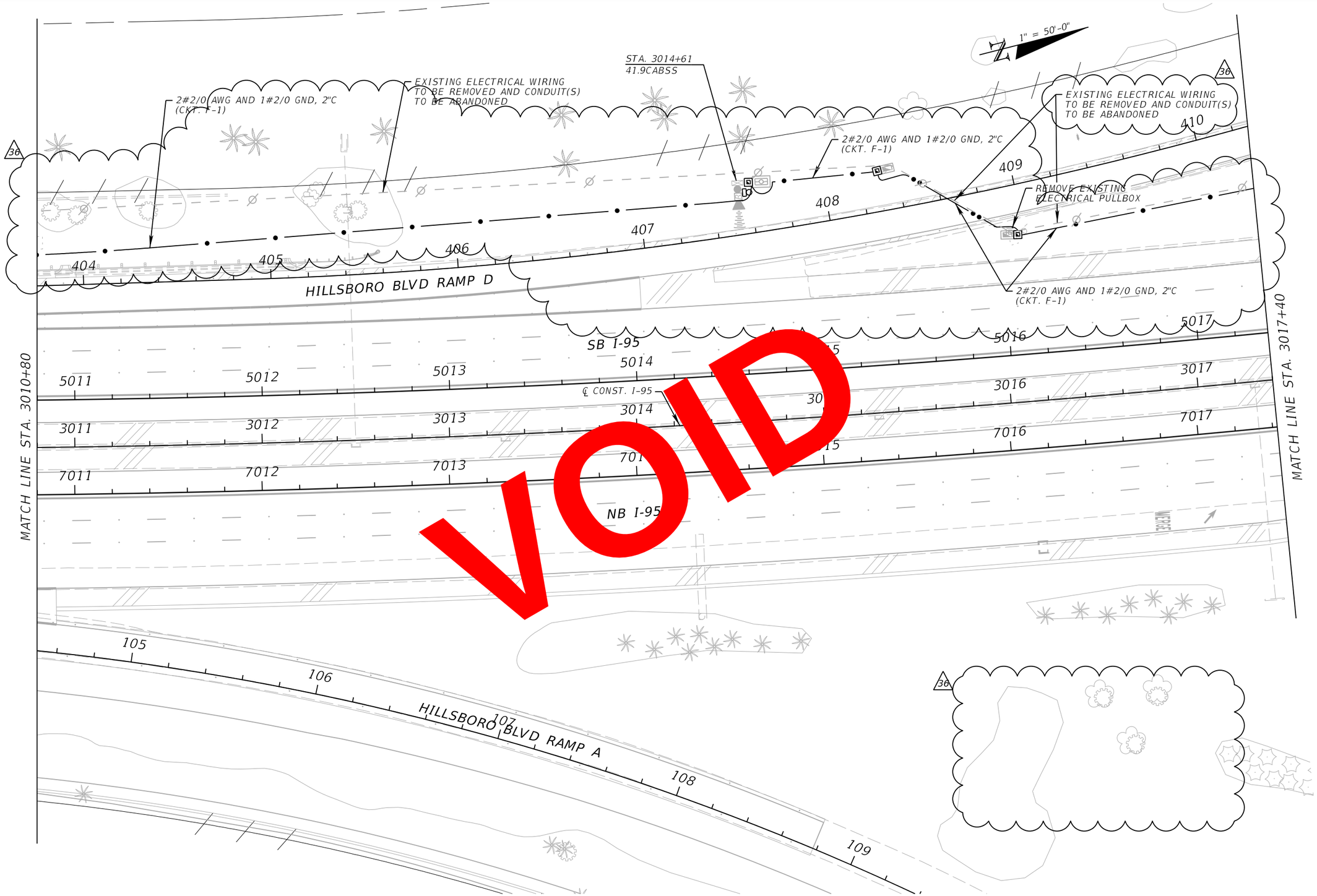
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R66



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (30)

SHEET NO.
IT-138

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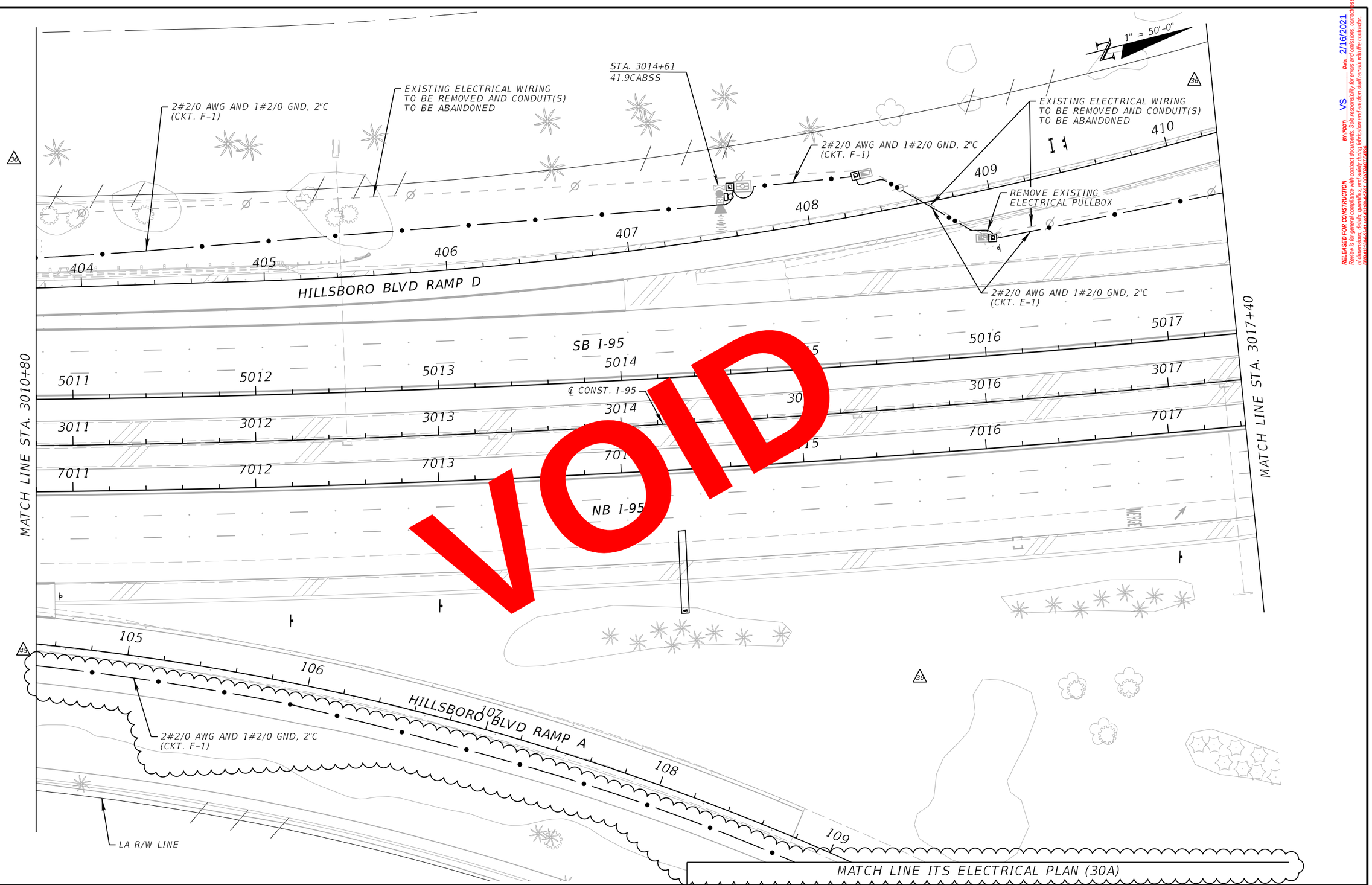
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 5/27/2020



VOID

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BY/PSM VS Date: 2/16/2021

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	30 SB AUXILIARY LANE REVISION		
1/29/2021	43 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (30)

SHEET NO.
IT-138

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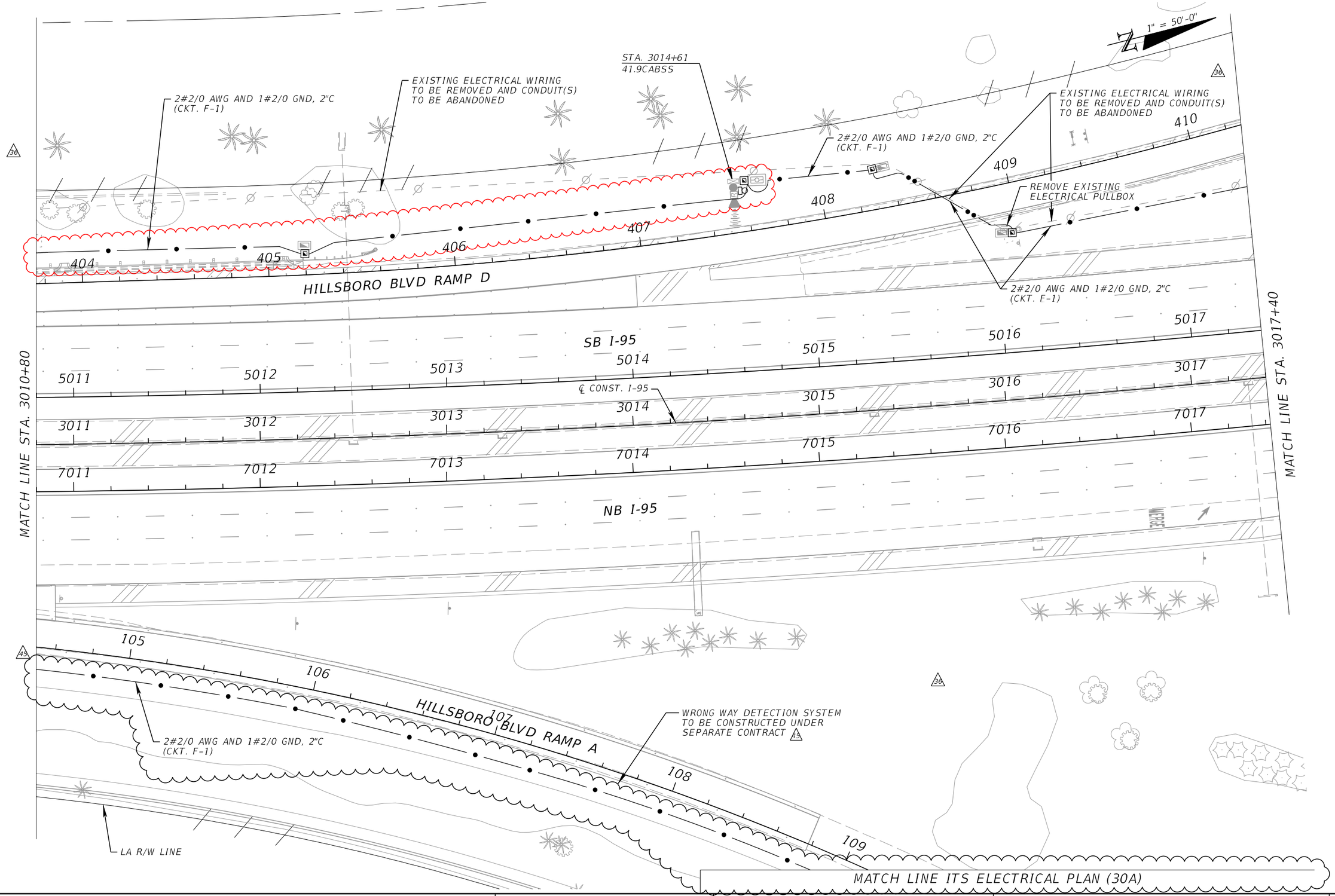

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	30 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION SYSTEM REVISION		
10/4/2021	AS-BUILTS: INFRASTRUCTURE CHANGES		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (30)

SHEET NO.
IT-138

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MATCH LINE SEE ITS ELECTRICAL PLAN (30)

1" = 50'-0"

110

111

112

113

114

115

116

HILLSBORO BLVD RAMP A1

HILLSBORO BLVD RAMP E

LA R/W LINE

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

#5

#5

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

WRONG WAY LED SIGN (SOLAR POWERED) SEE ITS PLANS

MATCH LINE SEE ITS ELECTRICAL PLAN (30B)

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BY/PSM: VS Date: 2/16/2021

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	#6 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	#5 SHEET ADDED FOR WRONG WAY DETECTION SYSTEM		

WSP USA INC.
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (30A)

SHEET NO.
IT-138A

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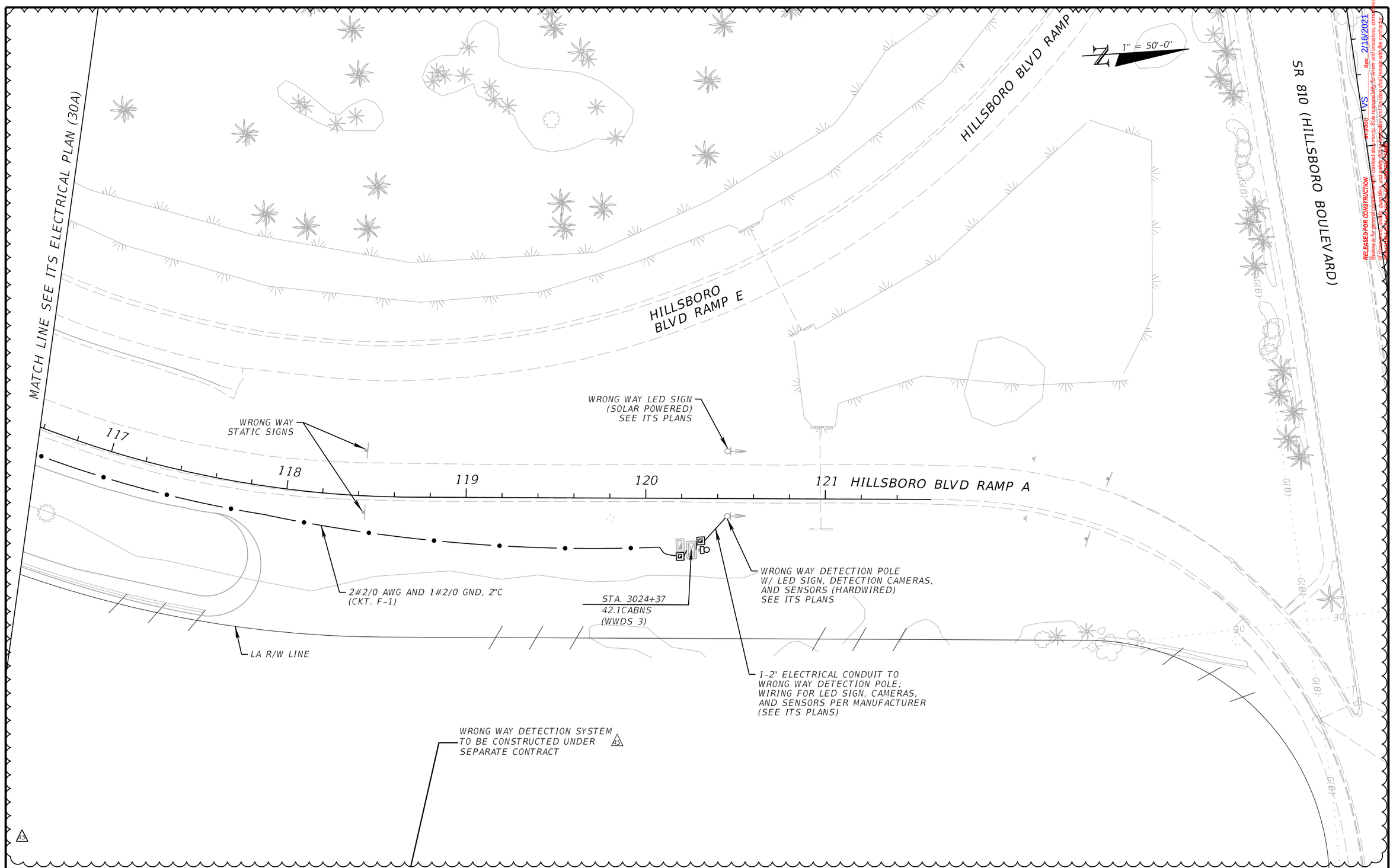

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, quantities, drawings, and safety during construction and erection shall remain with the contractor.
Date: 2/16/2021
By: VS

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	A4 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	A5 SHEET ADDED FOR WRONG WAY DETECTION SYSTEM		

WSP USA INC.
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EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (30B)

SHEET NO.
IT-138B

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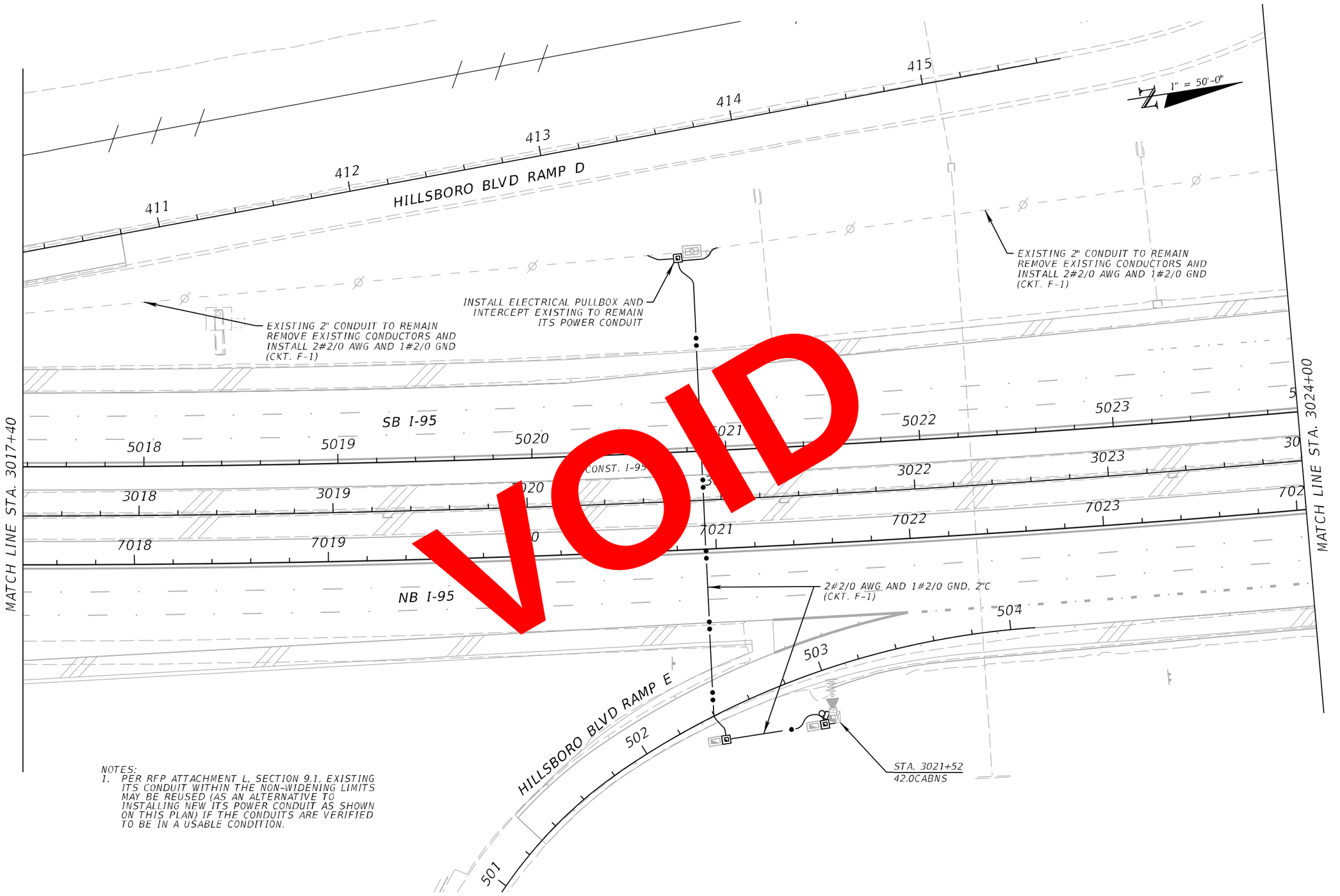

VOID

NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (31)

SHEET NO.
IT-139

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RELEASED FOR CONSTRUCTION
BY/PSO VS Date: 10/30/2018
Released for construction. Shall be used with contract documents. Contractor responsible for verifying and reporting any discrepancies, conflicts, or omissions of dimensions, details, quantities, and safety during fabrication and/or erection; shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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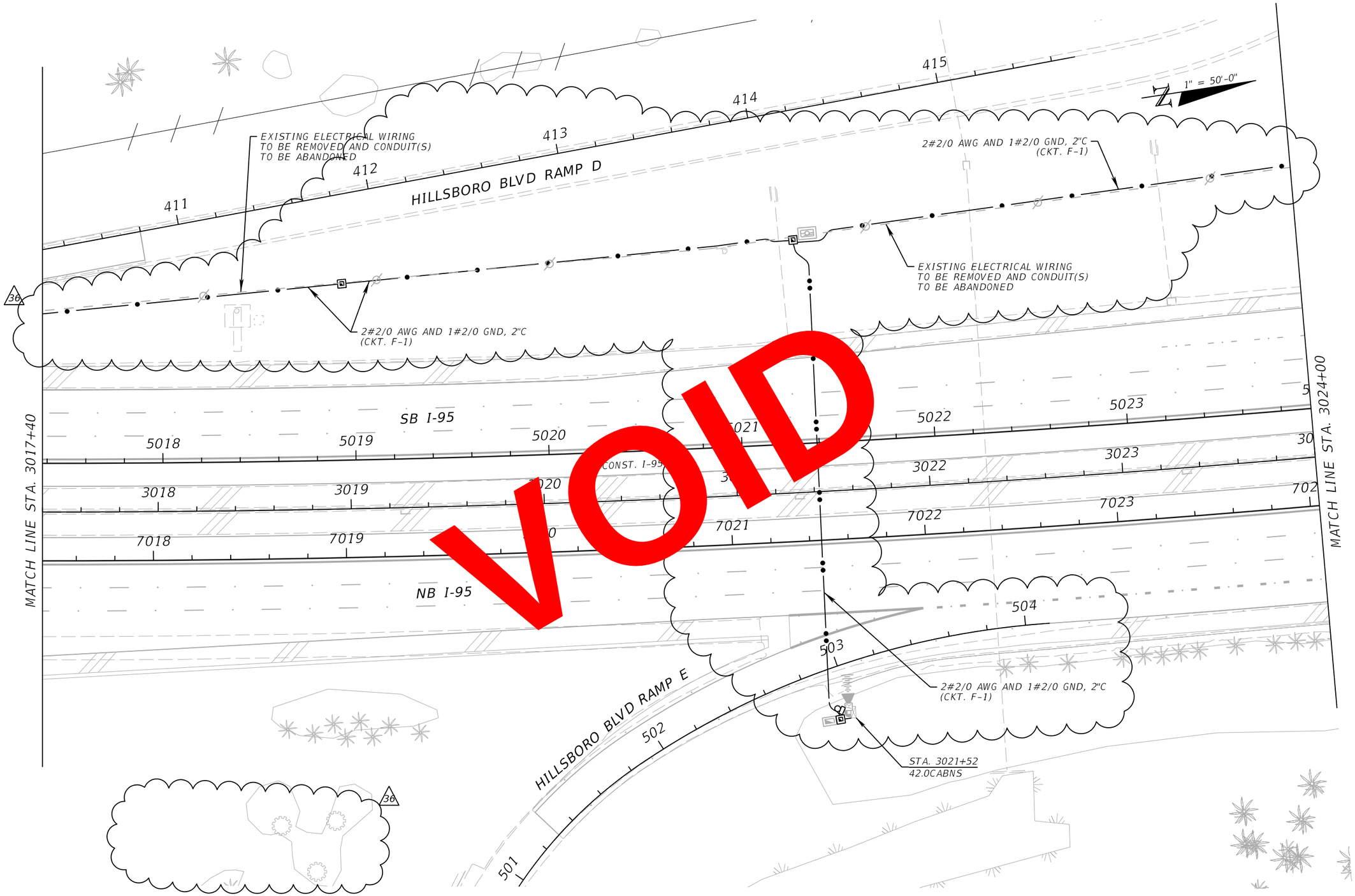

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (31)

SHEET NO.
IT-139

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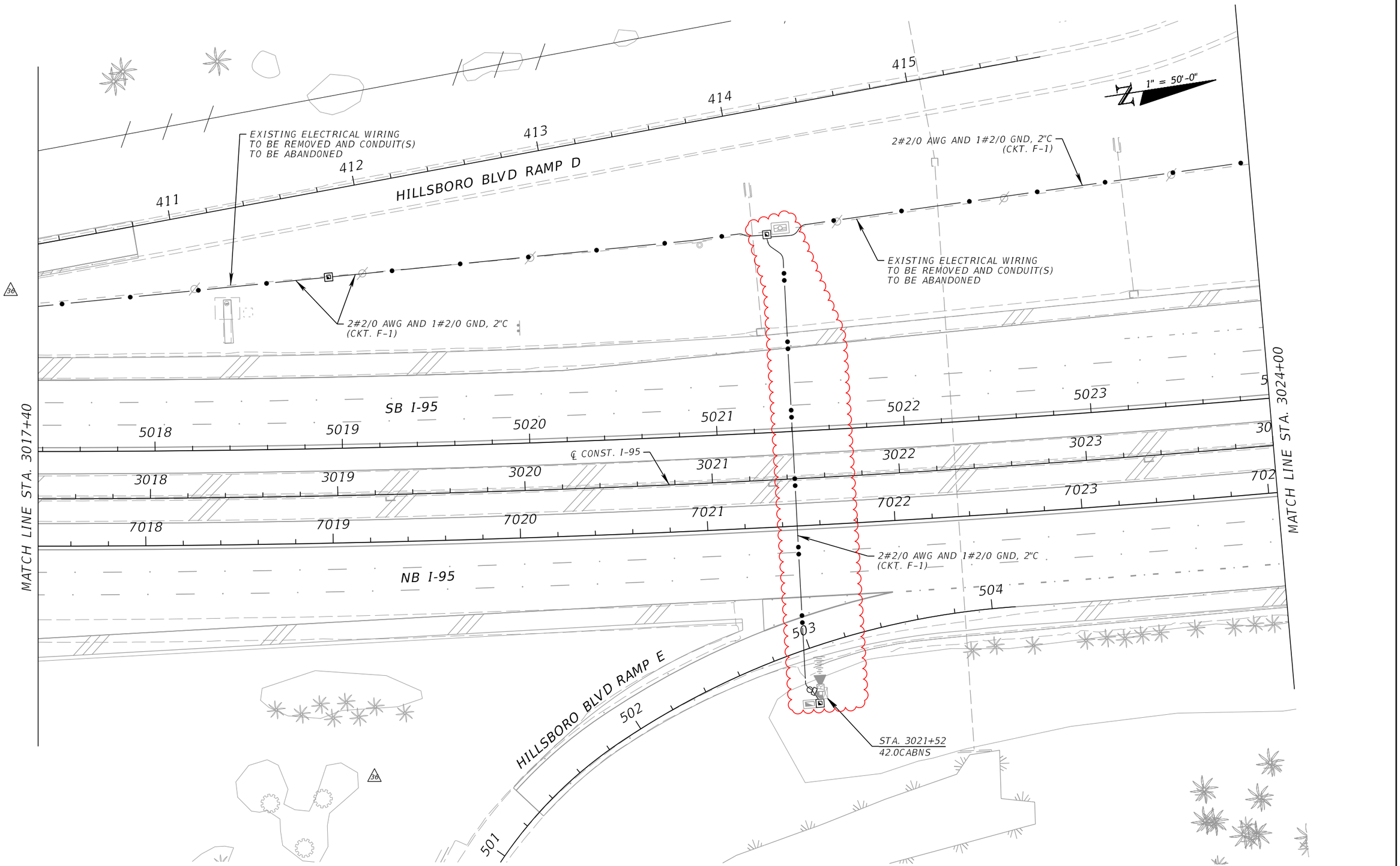
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/2020	36 SB AUXILIARY LANE REVISION		
10/4/2021	AS-BUILTS: INFRASTRUCTURE CHANGES		

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (31)

SHEET NO.
IT-139

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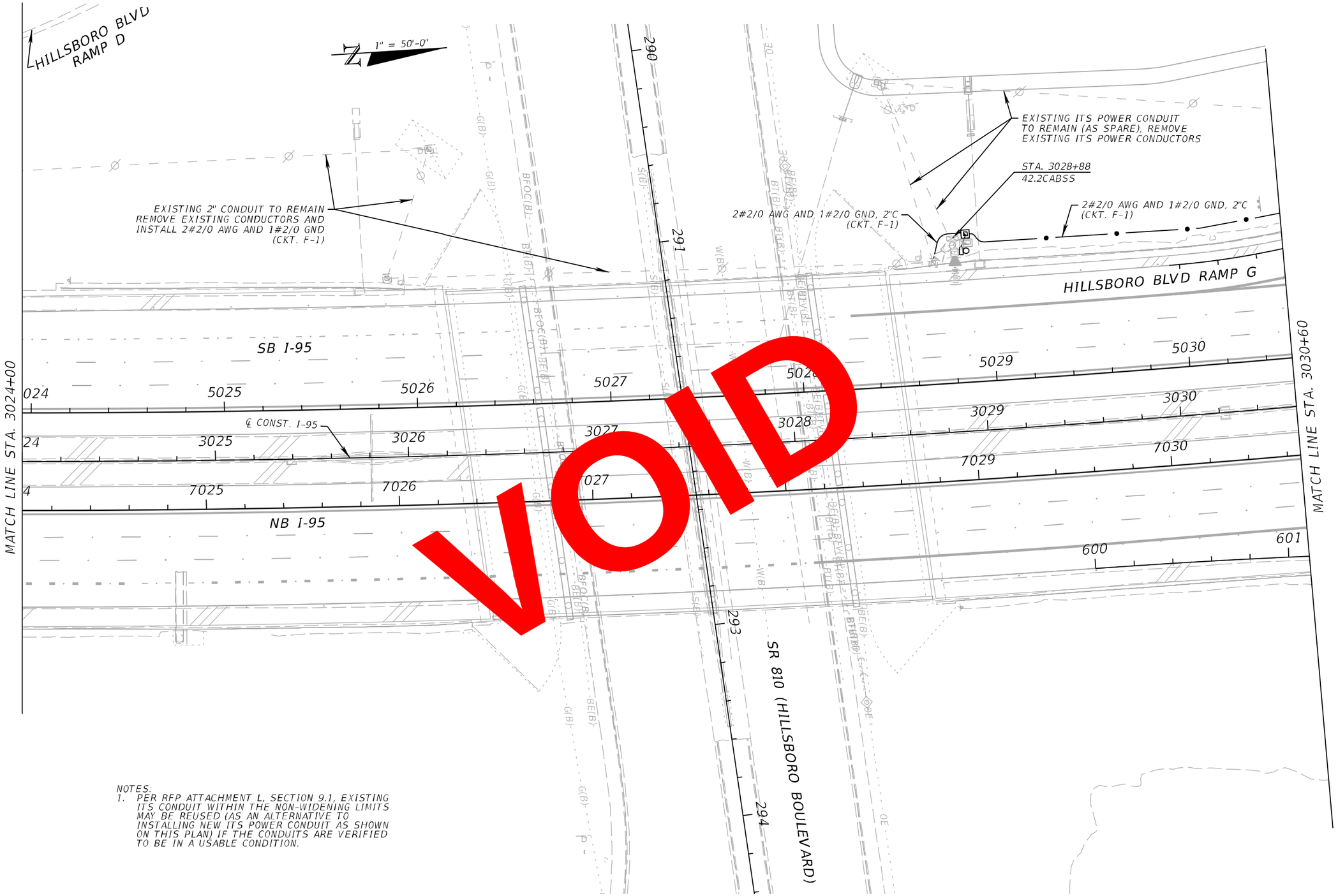

NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (32)

SHEET NO.
IT-140

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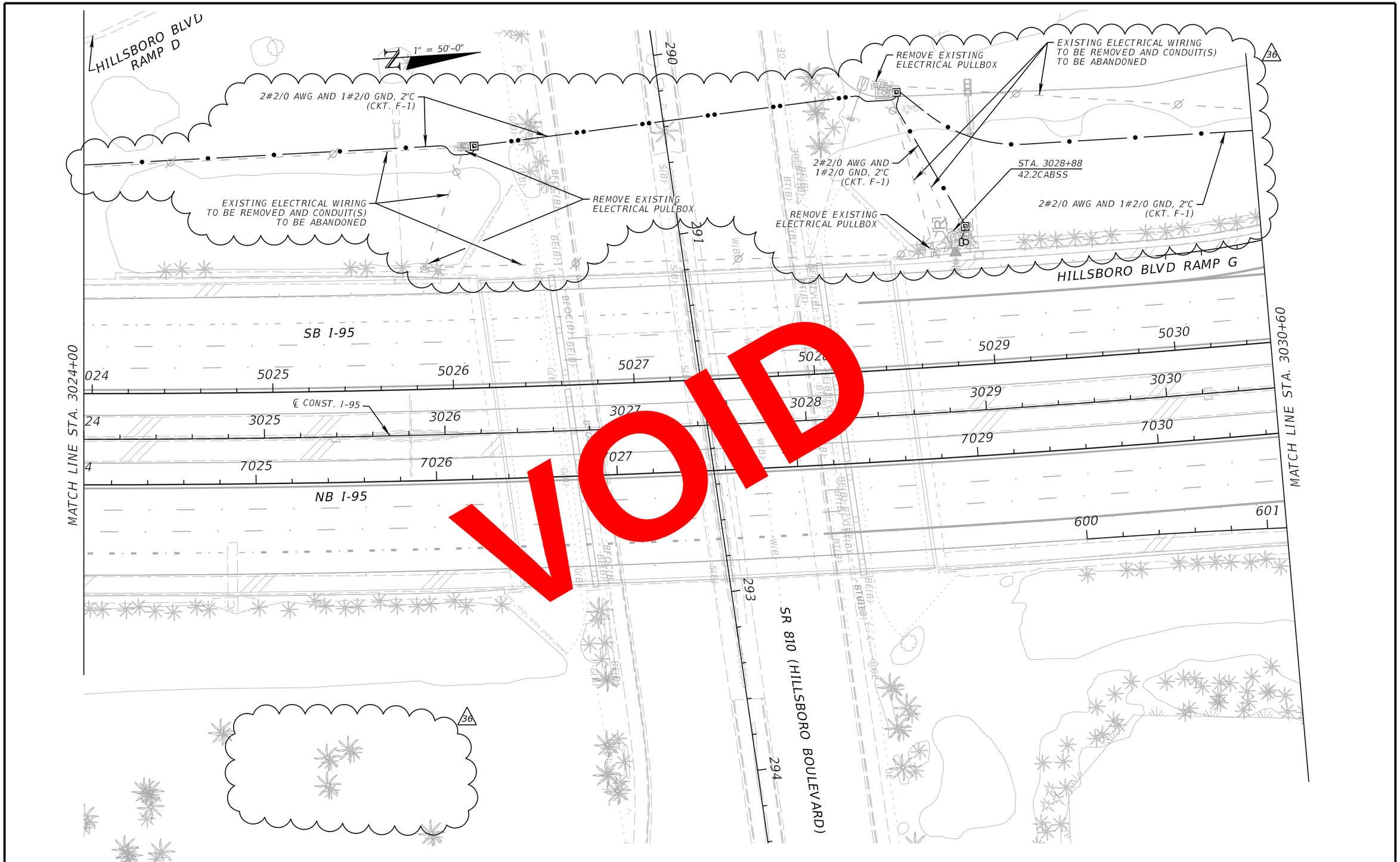
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (32)

SHEET NO. IT-140

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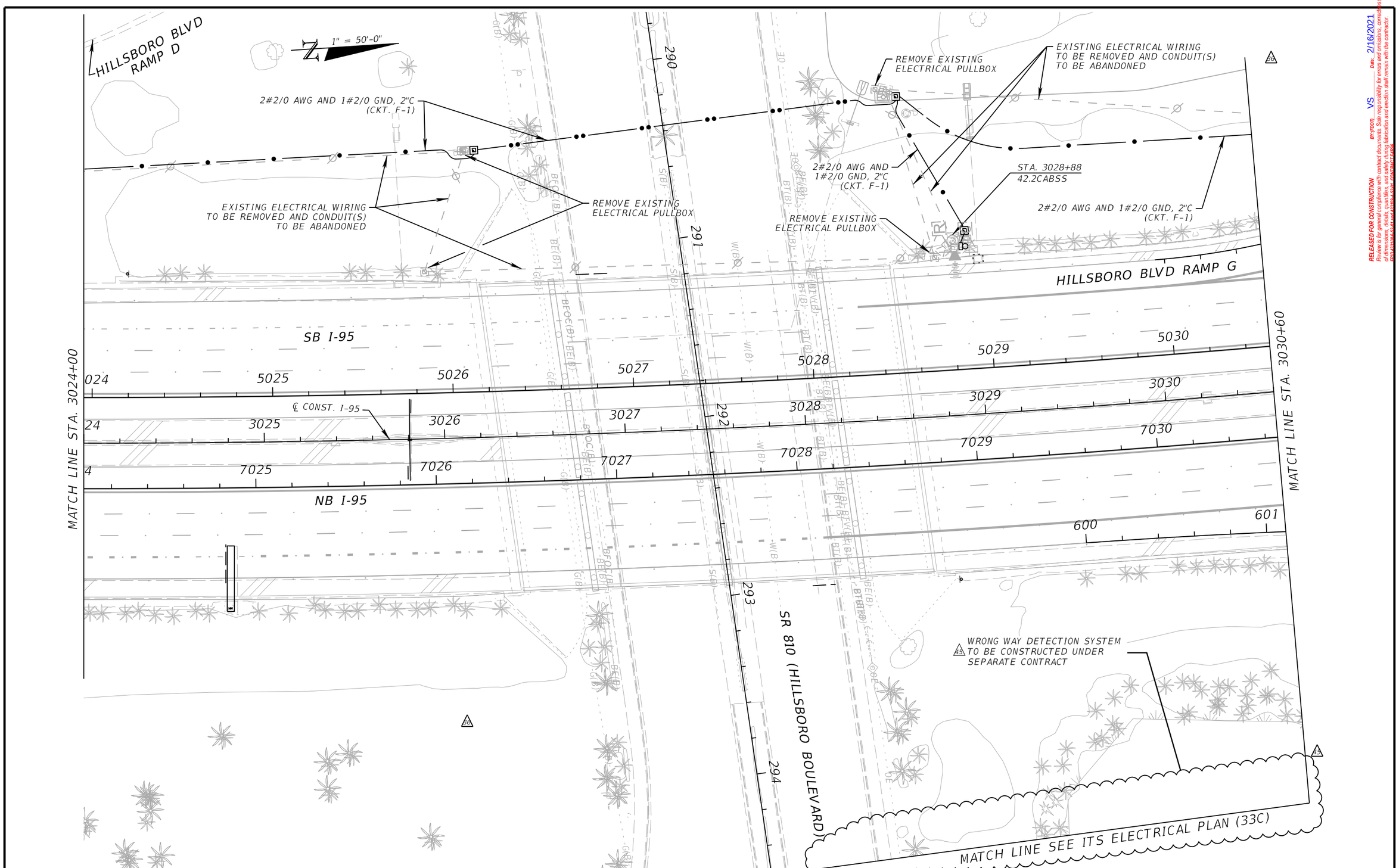
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



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BY:(FDOT) VS Date: 2/16/2021

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/2020	36 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION SYSTEM REVISION		

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (32)

SHEET NO.
IT-140

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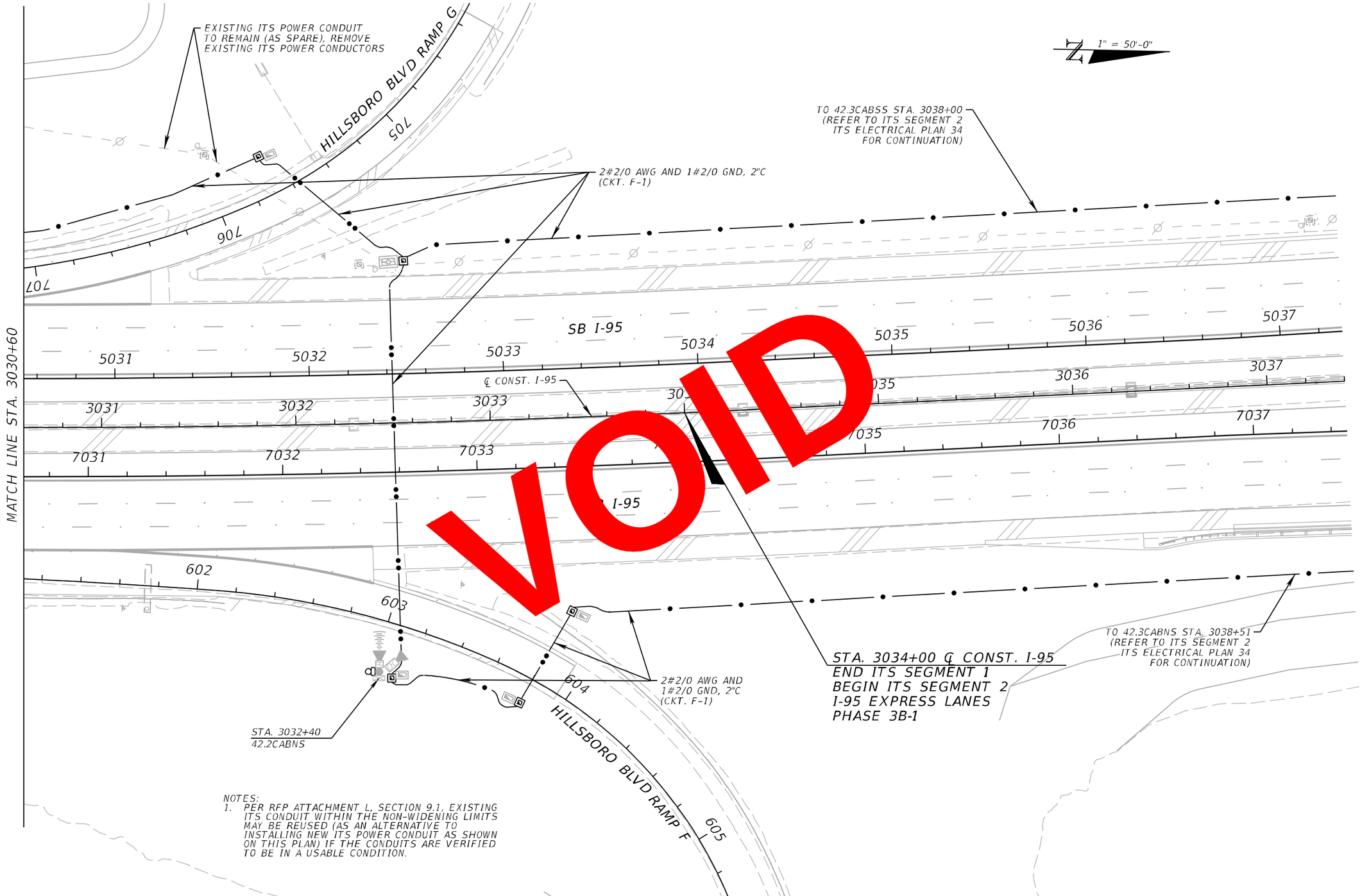

NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (33A)

SHEET NO.
IT-141

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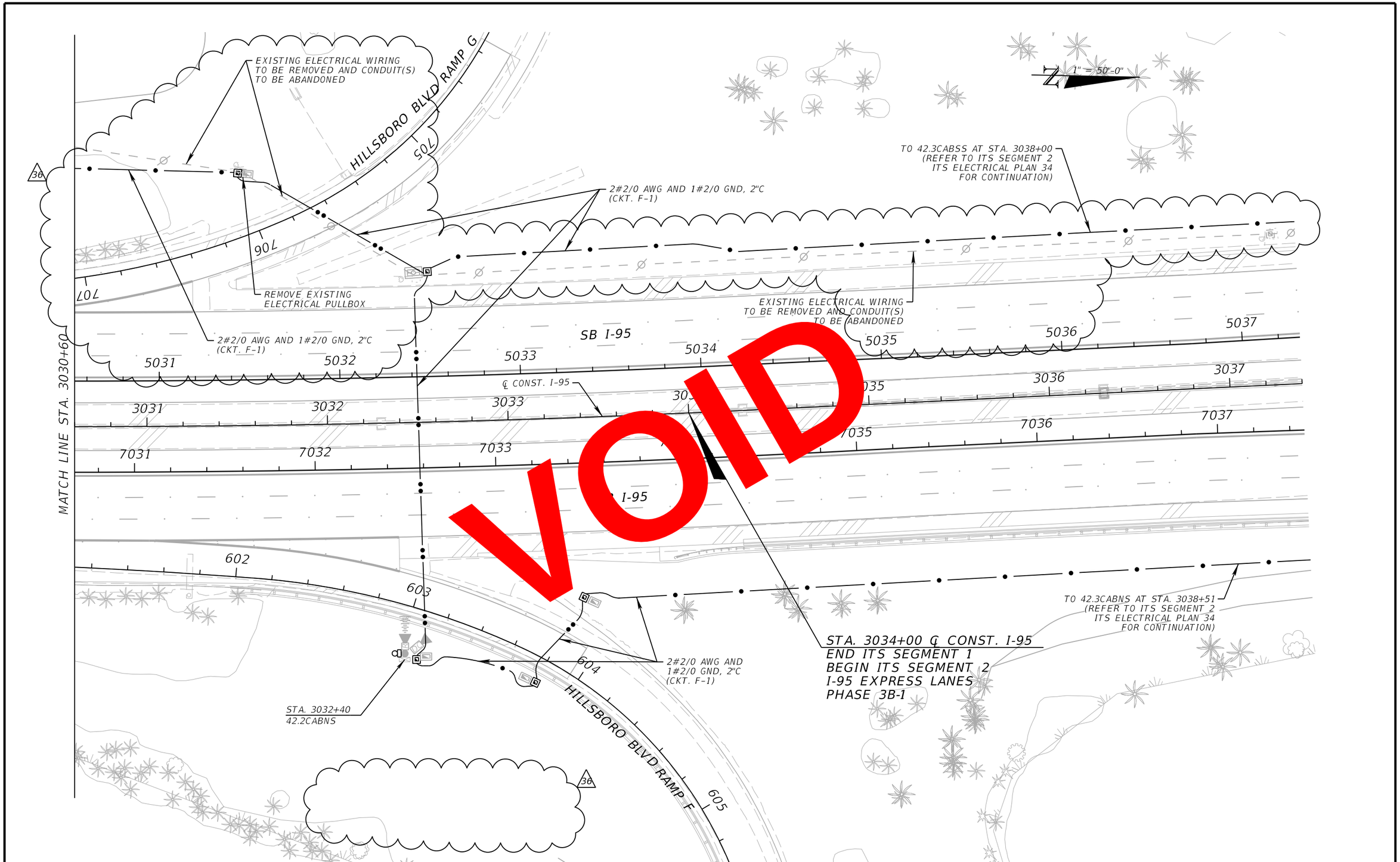
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	36 SB AUXILIARY LANE REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (33A)

SHEET NO.
IT-141

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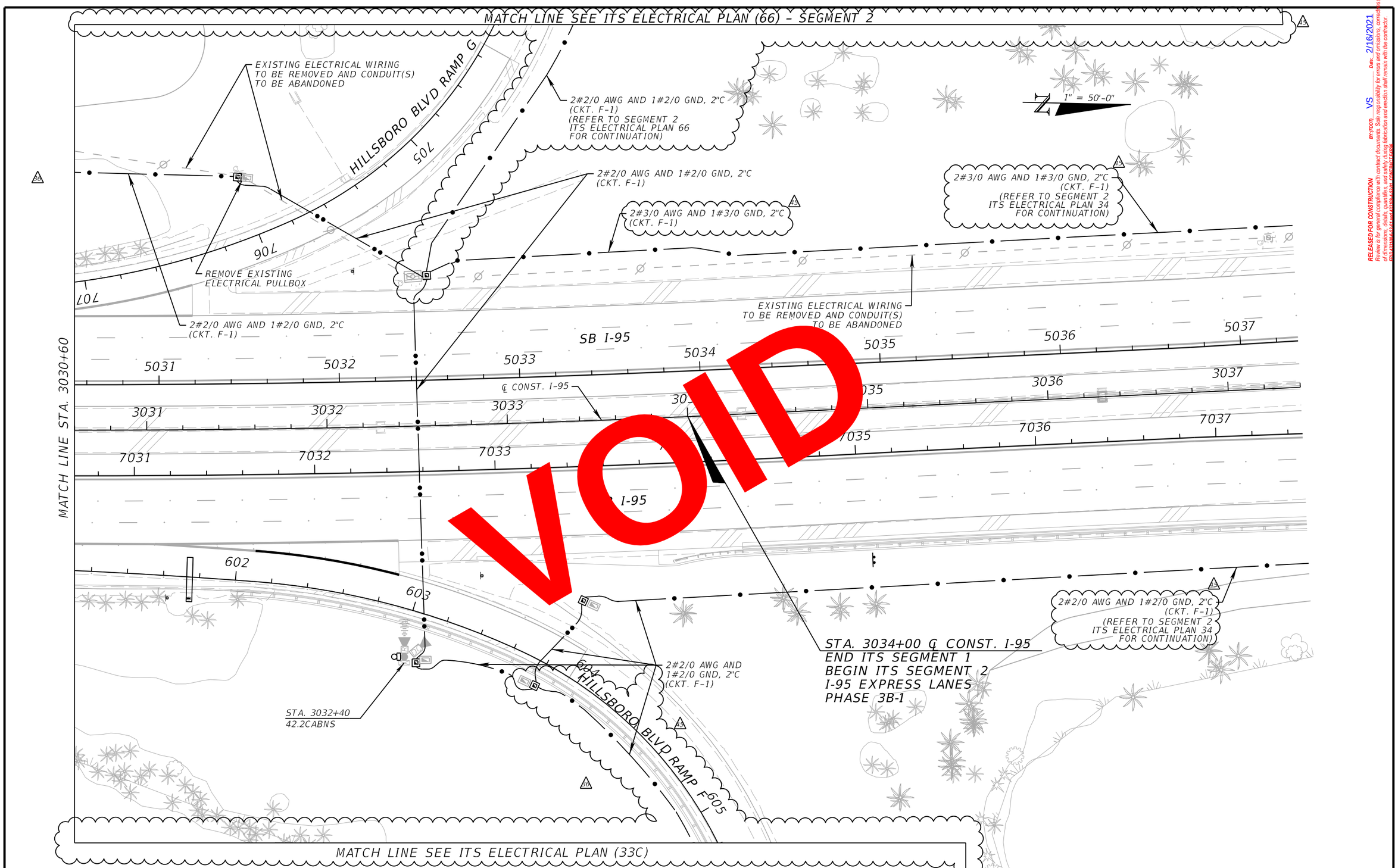
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/2020	36 SB AUXILIARY LANE REVISION		
1/29/2021	45 WRONG WAY DETECTION SYSTEM REVISION		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (33A)

SHEET NO.
IT-141

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E1G04
BY:FDOT VS Date: 2/16/2021

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MATCH LINE SEE ITS ELECTRICAL PLAN (66) – SEGMENT 2

EXISTING ELECTRICAL WIRING TO BE REMOVED AND CONDUIT(S) TO BE ABANDONED

HILLSBORO BLVD RAMP G

705

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1) (REFER TO SEGMENT 2 ITS ELECTRICAL PLAN 66 FOR CONTINUATION)

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 4S

1" = 50'-0"

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

2#3/0 AWG AND 1#3/0 GND, 2"C (CKT. F-1) 4S

2#3/0 AWG AND 1#3/0 GND, 2"C (CKT. F-1) (REFER TO SEGMENT 2 ITS ELECTRICAL PLAN 34 FOR CONTINUATION) 4S

706

REMOVE EXISTING ELECTRICAL PULLBOX

707

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

EXISTING ELECTRICAL WIRING TO BE REMOVED AND CONDUIT(S) TO BE ABANDONED

SB I-95

5031 5032 5033 5034 5035 5036 5037

℄ CONST. I-95

3031 3032 3033 3034 3035 3036 3037

7031 7032 7033 7034 7035 7036 7037

NB I-95

602

603

604

HILLSBORO BLVD RAMP F 605

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

STA. 3032+40
42.2CABNS

STA. 3034+00 ℄ CONST. I-95
END ITS SEGMENT 1
BEGIN ITS SEGMENT 2
I-95 EXPRESS LANES
PHASE 3B-1

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1) (REFER TO SEGMENT 2 ITS ELECTRICAL PLAN 34 FOR CONTINUATION) 4S

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 4S

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 4S

MATCH LINE SEE ITS ELECTRICAL PLAN (33C)

MATCH LINE STA. 3030+60

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/2020	3B SB AUXILIARY LANE REVISION		
1/29/2021	4S WRONG WAY DETECTION SYSTEM REVISION		
10/4/2021	AS-BUILTS: INFRASTRUCTURE CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (33A)

SHEET NO. IT-141

PerezR 11/17/2021 6:38:08 PM c:\projectwise\pb\projectwiseint\perezr\d0233607\PLANIT33A_E_As-Built.dgn

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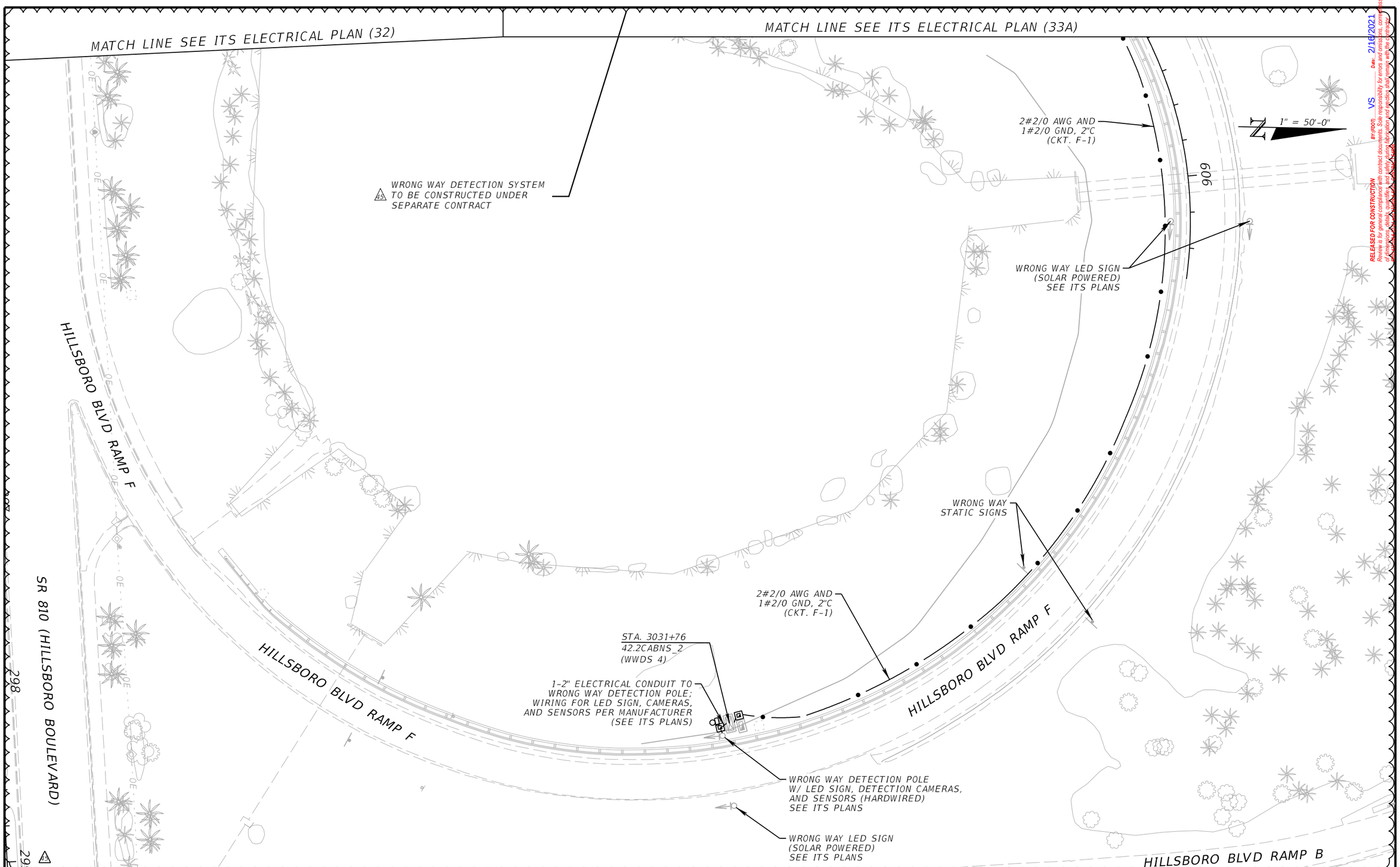

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Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	15 SHEET ADDED FOR WRONG WAY DETECTION SYSTEM		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (33C)

SHEET NO.
IT-141A

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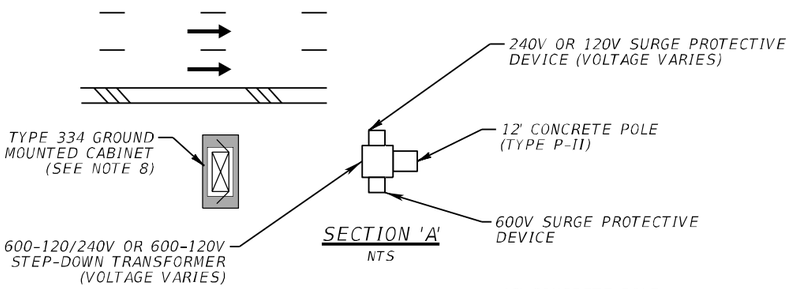
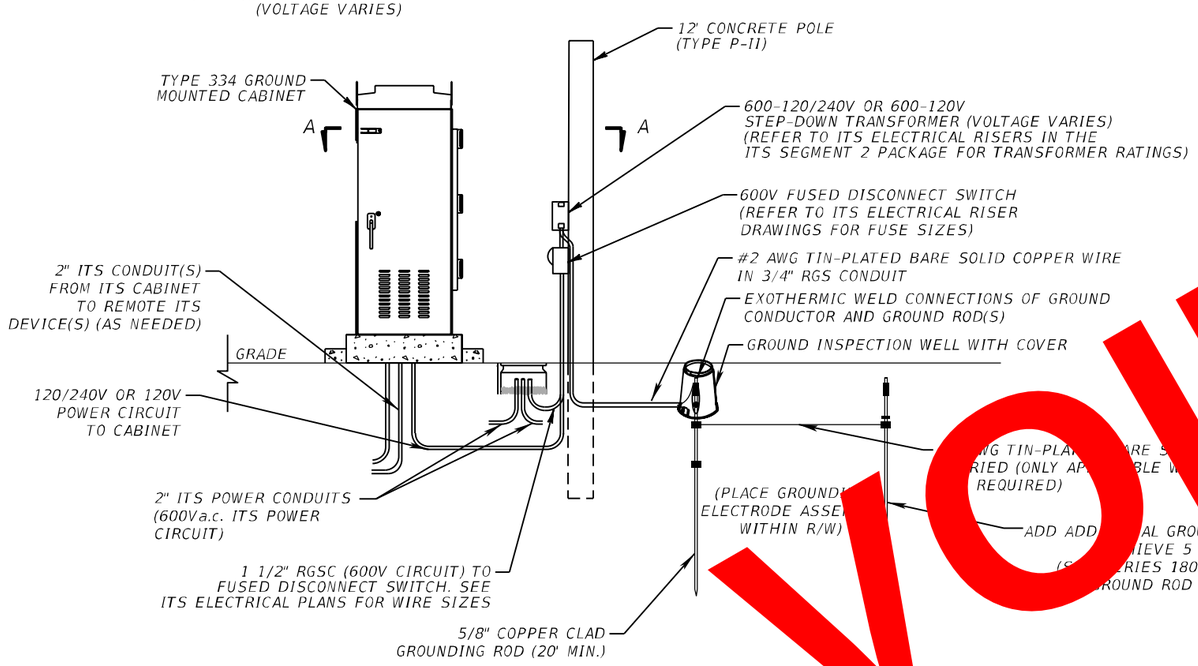
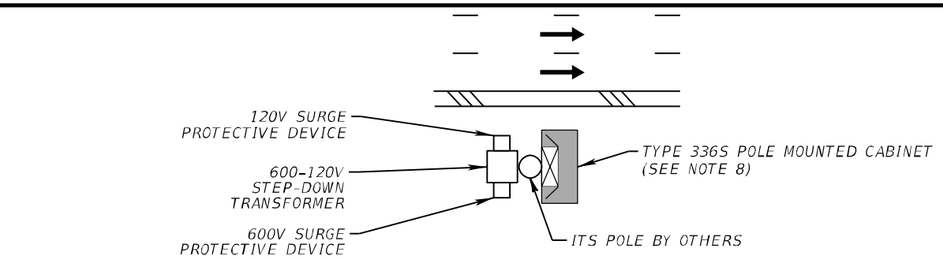


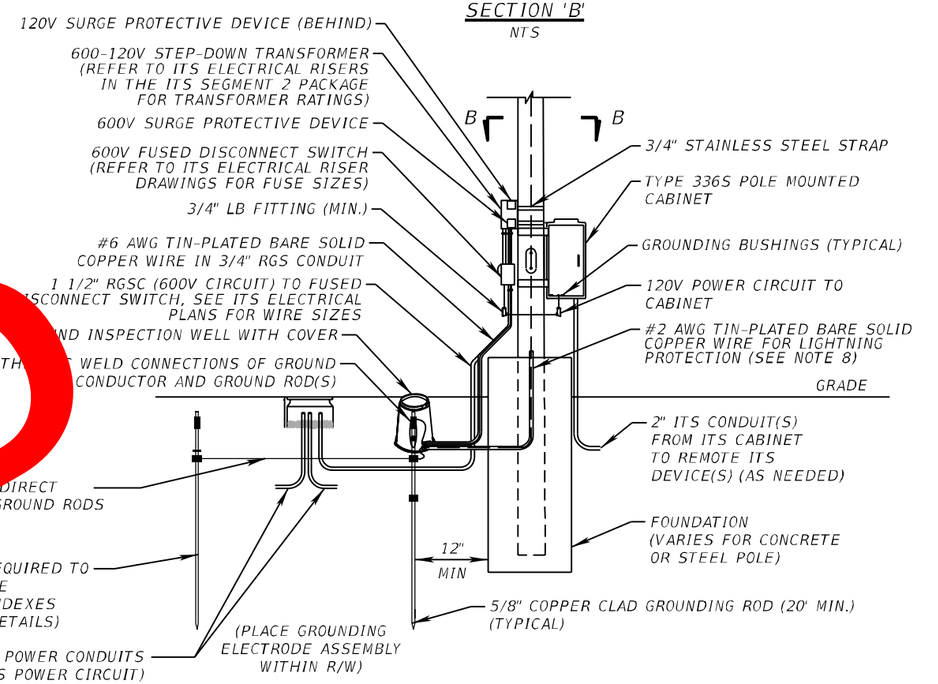
SECTION 'A'
NTS



TYPICAL GROUND MOUNTED CABINET-FDOT TYPE 334 CABINET
POWER DETAIL
600V-120/240V OR 600V-120V POWER TO ITS EQUIPMENT
NTS



SECTION 'B'
NTS



TYPICAL POLE MOUNTED CABINET-FDOT TYPE 336S CABINET
POWER DETAIL
600-120V POWER TO ITS EQUIPMENT
NTS

NOTES:

1. ALL EXOTHERMIC WELDS SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.

2. THE CONTRACTOR SHALL USE EXOTHERMIC WELD MOLDS RECOMMENDED BY THE MANUFACTURER SPECIFIC TO EACH WELD APPLICATION. MOLDS SHALL BE APPROVED BY THE MANUFACTURER FOR #2 AWG AND #6 AWG TIN-PLATED SOLID COPPER CONDUCTOR WIRE.

3. ALL ITS DEVICE POLES SHALL BE CONNECTED TO THE GROUNDING ARRAY. GROUND MOUNTED CABINETS WHICH SUPPORT ITS DEVICES INSTALLED ON THE ITS DEVICE POLE SHALL ALSO BE GROUNDED TO THE COMMON GROUNDING ARRAY IF THE CABINETS ARE WITHIN 100 FEET OF THE ITS DEVICE POLE.

4. GROUND WIRE LEADS SHALL BE BONDED TO EQUIPMENT CABINETS WITH A COPPER GROUND BAR. BOND SHALL BE LOCATED ON THE INSIDE OF THE CABINET WITH THE GROUND WIRES TERMINATED IN CABLE LUGS, BOLTED TO THE GROUND BAR AND PROTECTED WITH AN ANTI-CORROSION COMPOUND (NO-OX OR SIMILAR).

NOTES CONTINUED:

5. THE GROUNDING SYSTEM SHALL MEET THE REQUIREMENT OF 5 OHMS OR LESS AS MEASURED FROM THE POLE STRUCTURE USING THE THREE-POINT GROUND MEASUREMENT TECHNIQUE. REFER TO STANDARD SPEC. 620-3 FOR MORE DETAILS ON GROUNDING INSTALLATION REQUIREMENTS.

6. ALL GROUNDING MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 620 OF THE FDOT SPECIFICATIONS UNLESS OTHERWISE NOTED.

7. REFER TO THE ITS CABINET CONFIGURATION DETAILS FOR ADDITIONAL INFORMATION ON HOW THE ITS CABINET SHOULD BE INSTALLED AND THE CABINET'S ORIENTATION RELATIVE TO THE ROADWAY AND THE DIRECTION OF TRAFFIC.

8. REFER TO INDEX 18102 FOR REQUIREMENTS FOR THE #2 AWG LIGHTNING PROTECTION CONDUCTOR AND ASSOCIATED CONDUIT FOR STEEL POLE VS CONCRETE POLE INSTALLATIONS.

VOID

BY(PSO) VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Released for construction with contract documents. Not responsible for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection; shall remain with the contractor.
FPID 433084-53-04 and 433109-4-52-01 CONTRACT E4F66
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

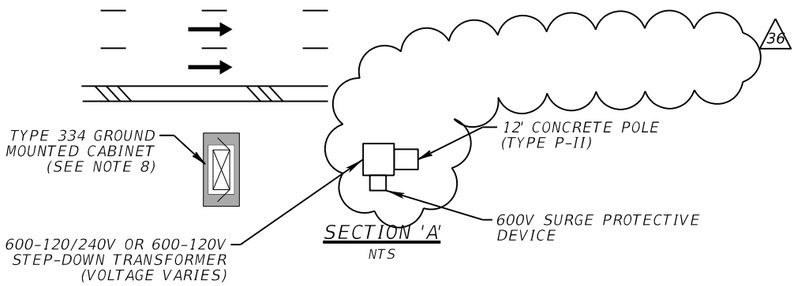
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

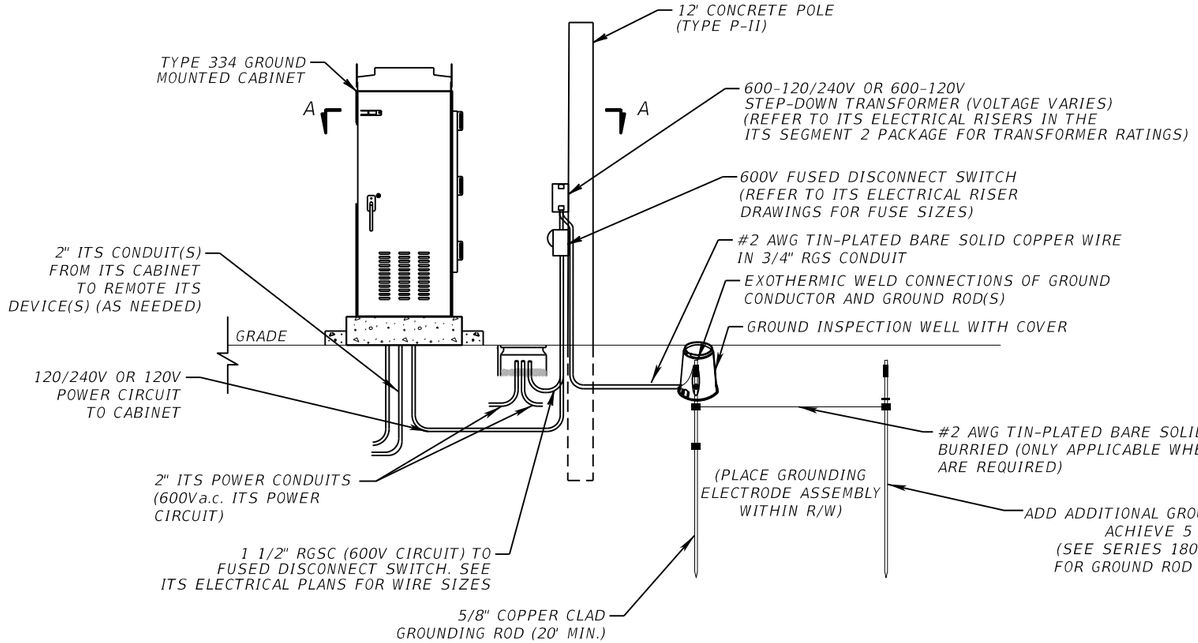
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL DETAILS (1)

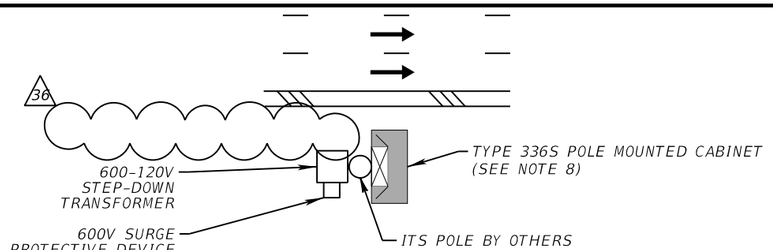
SHEET NO.
IT-142



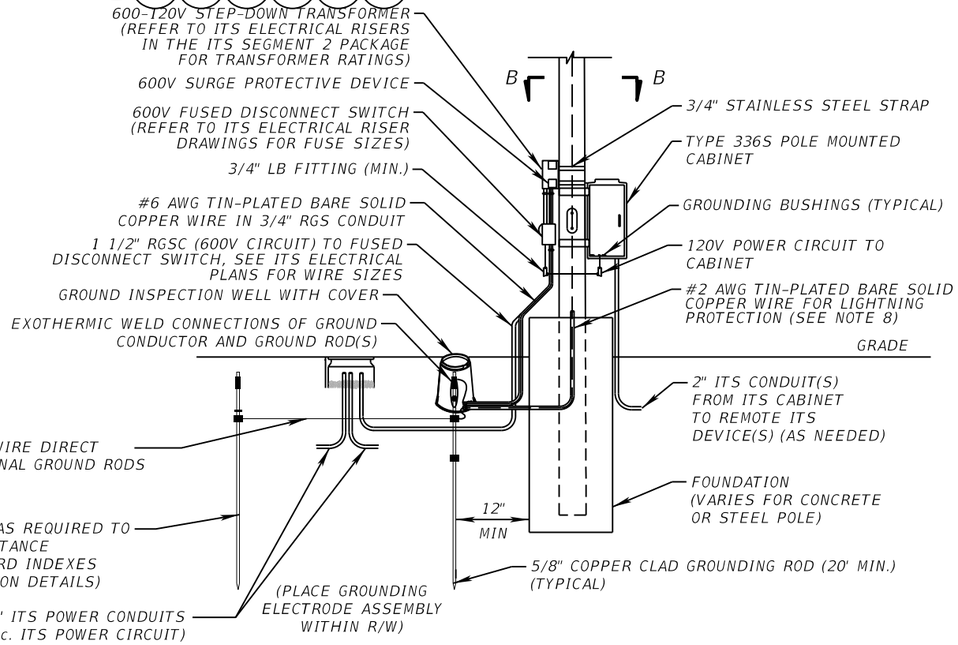
SECTION 'A'
NTS



TYPICAL GROUND MOUNTED CABINET-FDOT TYPE 334 CABINET POWER DETAIL
600V-120/240V OR 600V-120V POWER TO ITS EQUIPMENT
NTS



SECTION 'B'
NTS



TYPICAL POLE MOUNTED CABINET-FDOT TYPE 336S CABINET POWER DETAIL
600-120V POWER TO ITS EQUIPMENT
NTS

NOTES:

1. ALL EXOTHERMIC WELDS SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.

2. THE CONTRACTOR SHALL USE EXOTHERMIC WELD MOLDS RECOMMENDED BY THE MANUFACTURER SPECIFIC TO EACH WELD APPLICATION. MOLDS SHALL BE APPROVED BY THE MANUFACTURER FOR #2 AWG AND #6 AWG TIN-PLATED SOLID COPPER CONDUCTOR WIRE.

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NOTES CONTINUED:

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8. REFER TO INDEX 18102 FOR REQUIREMENTS FOR THE #2 AWG LIGHTNING PROTECTION CONDUCTOR AND ASSOCIATED CONDUIT FOR STEEL POLE VS CONCRETE POLE INSTALLATIONS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
03/27/20	30 RFI 126 CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

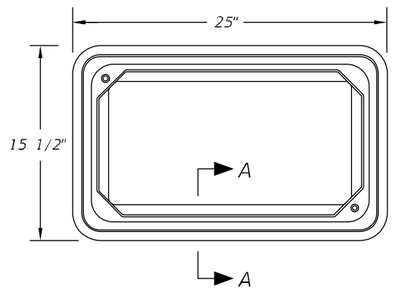
ITS ELECTRICAL DETAILS (1)

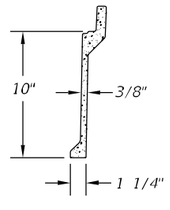
SHEET NO.
IT-142

PerezR 5/13/2020 3:21:46 PM c:\projectwise\pb\projectwiseint\perezr\d0233607\SSDTIT01.DGN

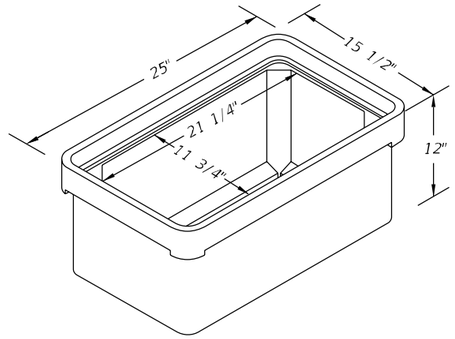
BY:PDOT VS Date: 5/27/2020
RELEASED FOR CONSTRUCTION
Released for general construction with contract documents. Sole responsibility for correct and complete dimensions, correctness of, dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4E96

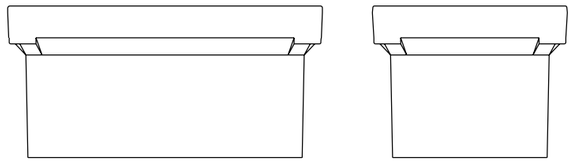
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

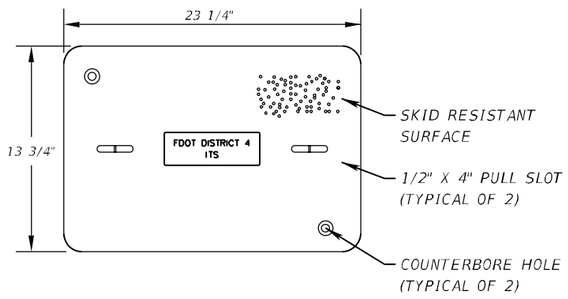


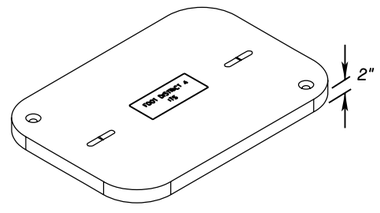


SECTION A-A









NOTES:

1. PER RFP ATTACHMENT L (ITS DEPLOYMENT REQUIREMENTS), ALL ITS ELECTRICAL PULLBOXES SHALL HAVE A MINIMUM AASHTO TIER 22 LOAD RATING, UNLESS OTHERWISE NOTED ON THE PLANS.

2. ANY PULLBOXES INSTALLED IN THE ROADWAY SHOULDERS SHALL HAVE A MINIMUM AASHTO HS-20 LOAD RATING.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

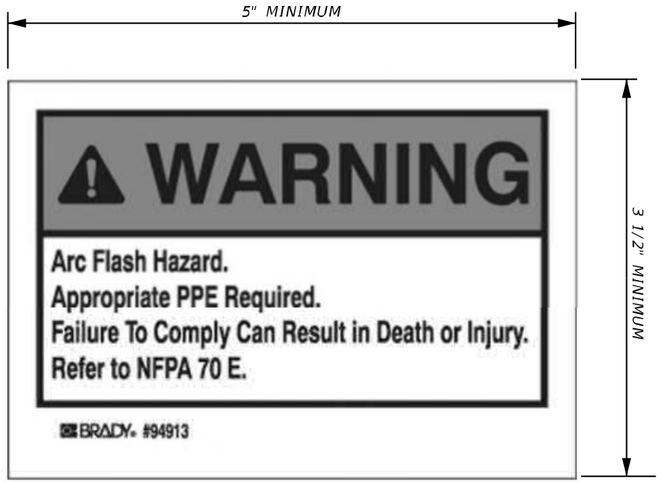
ITS ELECTRICAL DETAILS (2)

SHEET NO.
IT-143

abreuk 10/11/2018 1:56:09 PM c:\projectwise\pb\projectwiseint\abreuk\d0233607\SSDTIT02.DGN

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 10/30/2018
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

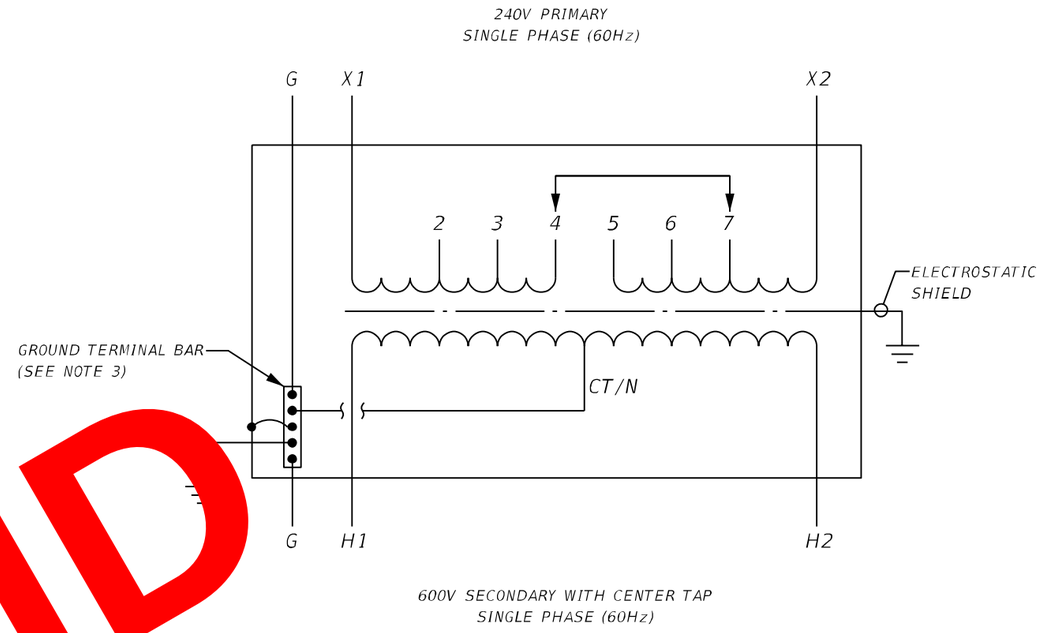


TYPICAL ARC FLASH HAZARD WARNING LABEL

SCALE: 3/4" = 1"

1. THE LABEL SHOWN IN THIS DETAIL IS AN EXAMPLE OF A TYPICAL ARC FLASH HAZARD WARNING LABEL (FROM NEC 2014 EXHIBIT 110.8). THE LABEL MUST MEET THE REQUIREMENT OF NEC 2014 ARTICLE 110.16 AND 110.21(B). IF THE LABEL USED DIFFERS FROM THE ONE SHOWN ON THIS SHEET, THE WARNING LABEL SHALL HAVE FONT SIZE, WORDS, COLORS, SYMBOLS AND LOCATION THAT MEET THE REQUIREMENTS OF ANSI Z535.4-2011 (PRODUCT SAFETY SIGNS AND LABELS).

2. PER NEC 110.16, THIS ARC FLASH HAZZARD WARNING LABEL SHALL BE INSTALLED ON ALL ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMIMITED TO: SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, MOTOR CONTROL CENTERS, DISCONNECT SWITCHES, AND ANY OTHER ELECTRICAL DISTRIBUTION EQUIPMENT LIKELY TO REQUIRE EXAMINATION OR MAINTENACE WHILE ENERGIZED.



STEP-UP TRANSFORMER WIRING DIAGRAM

NTS

1. DRY TYPE STEP-UP TRANSFORMERS SHALL BE UL LISTED, NEMA TP-1 ENERGY EFFICIENT TYPE. PER THE REQUIREMENTS OF ATTACHMENT J OF THE RFP, THE TRANSFORMERS SHALL BE PROVIDED WITH THE FOLLOWING TAPS: 2.5% AND 5% FULL CAPACITY ABOVE NORMAL (FCAN) AND 2.5% AND 5% FULL CAPACITY BELOW NORMAL (FCBN) TAPS ON THE PRIMARY WINDING, AS A MINIMUM. REFER TO THE RFP AND JANUARY 2017 FDOT STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

2. DESIGNED, MANUFACTURED, AND TESTED IN COMPLETE ACCORDANCE WITH CURRENT UL, NEMA, ANSI, AND IEEE STANDARDS INCLUDING ANSI C84.1

3. A GROUND TERMINAL BAR SHALL BE INSTALLED INSIDE EACH STEP-UP TRANSFORMER AND SECURED TO THE INSIDE OF THE ENCLOSURE. THE GROUNDING ELECTRODE CONDUCTOR (GEC) CONNECTION AND INSTALLATION OF THE SYSTEM BONDING JUMPER SHALL BE MADE WITHIN THE STEP-UP TRANSFORMER ENCLOSURE USING THE TERMINAL GROUND BAR AS SHOWN IN THE WIRING DETAIL ABOVE (UNLESS OTHERWISE APPROVED BY THE ENGINEER). A SYSTEM BONDING JUMPER SHALL BE INSTALLED BETWEEN THE TRANSFORMER ENCLOSURE AND THE GROUND TERMINAL BAR TO CONNECT THE GROUNDED CIRCUIT CONDUCTOR (NEUTRAL) TO THE EQUIPMENT GROUNDING CONDUCTOR(S). MAINTAIN ISOLATION OF THE GROUNDED CONDUCTOR (NEUTRAL) AND EQUIPMENT GROUNDING CONDUCTORS AT ALL POINTS DOWNSTREAM (LOAD SIDE) OF THE SYSTEM BONDING JUMPER EXCEPT WHERE ADDITIONAL SEPARATELY DERIVED SYSTEMS ARE INSTALLED FURTHER DOWNSTREAM.

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

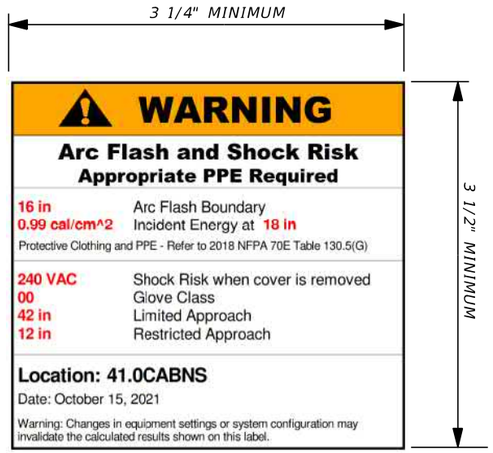
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL DETAILS (3)

SHEET NO.
IT-144

abreuk 10/11/2018 1:56:16 PM c:\projectwise\pb\projectwiseint\abreuk\d0233607\SSDTIT03.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
BY/PSO/ VS Date: 10/30/2018
RELEASED FOR CONSTRUCTION
Released for construction with control documents. Not responsible for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection. Shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

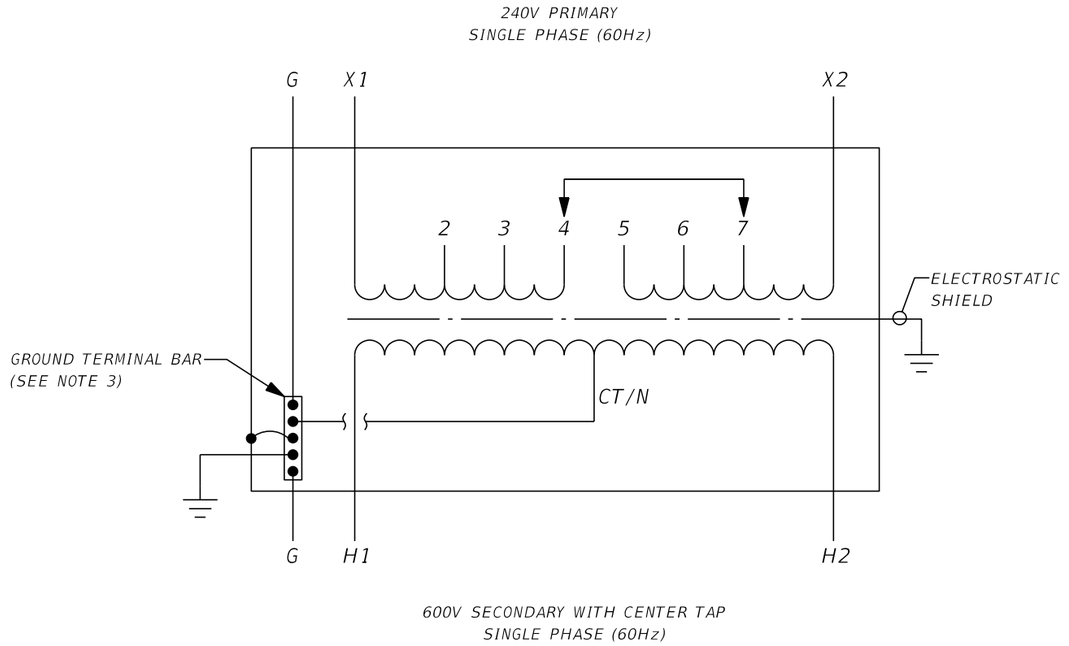


TYPICAL ARC FLASH HAZARD WARNING LABEL

SCALE: N.T.S.

1. THE ARC FLASH WARNING LABEL SHOWN IN THIS DETAIL IS A TYPICAL EXAMPLE AND IS ONLY SHOWN FOR ILLUSTRATIVE PURPOSES. REFER TO THE AS-BUILT ITS POWER REPORT FOR THE ARC FLASH RISK ASSESSMENT RESULTS AND ACTUAL ARC FLASH WARNING LABELS THAT WILL BE INSTALLED ON THE ITS POWER EQUIPMENT.

2. PER RFP ATTACHMENT L, SECTION 9, AN ARC FLASH RISK ASSESSMENT WAS PERFORMED FOR EACH NEW ITS ELECTRICAL SYSTEM. PER NEC ARTICLE 110.16, ARC FLASH WARNING LABELS WILL BE INSTALLED ON ALL ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMIMITED TO: SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, MOTOR CONTROL CENTERS, DISCONNECT SWITCHES, AND ANY OTHER ELECTRICAL DISTRIBUTION EQUIPMENT LIKELY TO REQUIRE EXAMINATION OR MAINTENACE WHILE ENERGIZED.



STEP-UP TRANSFORMER WIRING DIAGRAM

NTS

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2. DESIGNED, MANUFACTURED, AND TESTED IN COMPLETE ACCORDANCE WITH CURRENT UL, NEMA, ANSI, AND IEEE STANDARDS INCLUDING ANSI C84.1

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	AS-BUILTS: ARC FLASH WARNING LABEL CHANGES		

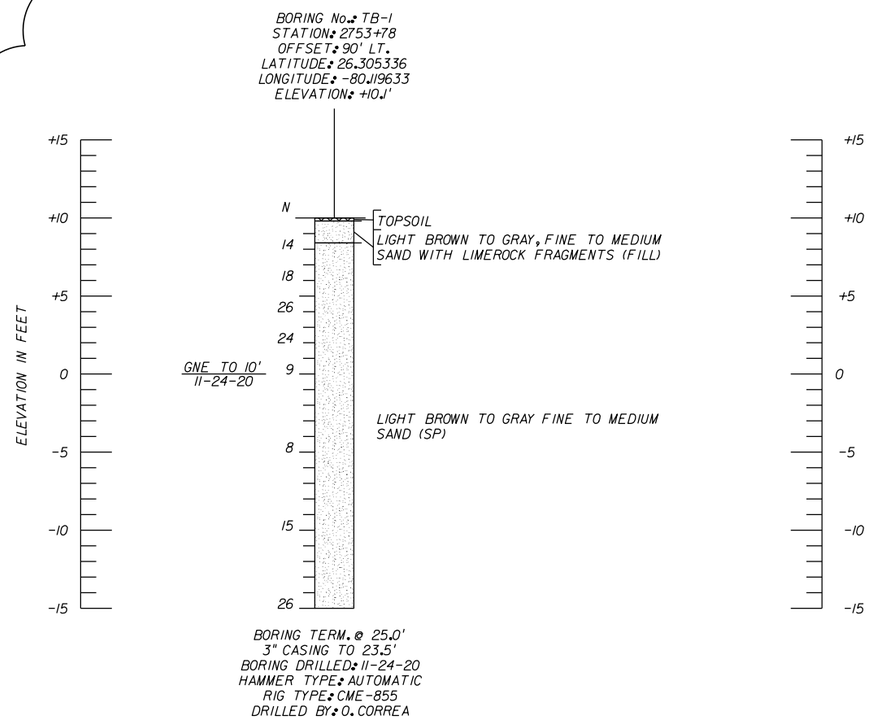
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL DETAILS (3)

SHEET NO.
IT-144



WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 45

LEGEND

	TOPSOIL
	SAND
(SP)	UNIFIED SOIL CLASSIFICATION GROUP SYMBOL
GNE TO 10'	GROUNDWATER NOT ENCOUNTERED TO THE DEPTH OF 10 FEET
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT UNLESS OTHERWISE NOTED

AUTOMATIC HAMMER

STANDARD PENETRATION TEST DATA

SPOON INSIDE DIA.	1 3/8 in.
SPOON OUTSIDE DIA.	2 in.
ASTM STANDARD DROP AUTOMATIC HAMMER	
AVG. HAMMER DROP	30 in.
HAMMER WEIGHT	140 lbs.

GRANULAR MATERIALS

RELATIVE DENSITY	SPT (BLOWS/FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40

SILTS AND CLAYS

CONSISTENCY	SPT (BLOWS/FOOT)
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTES:

1) LAYER BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL LAYERS AT EACH TEST HOLE LOCATION ONLY. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED.

2) LATITUDE AND LONGITUDE AT BORING LOCATIONS IS BASED ON HANDHELD GPS DEVICE.

1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/16/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
12-18-20	MG	1 REV-45			

HUGO E. SOTO, P.E.
P.E. LICENSE NUMBER 36440
TERRACON
16200 NW 59th. AVENUE – SUITE 106
MIAMI, FLORIDA 33014
CERTIFICATE OF AUTHORIZATION No. 8830

DRAWN BY: MG 12-18-20
CHECKED BY: RN 12-18-20
DESIGNED BY:
CHECKED BY:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

SHEET TITLE: REPORT OF CORE BORINGS FOR SIGN

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1 ITS SEGMENT 1

REF. DWG. NO.

SHEET NO. IT-145

TERRACON Project No.: 3419P157

mgarcia 12/18/2020 10:43:43 AM N:\CADD\FDOT-Projects\433108-6\geotech\Signs\sngeo056.dgn

SUNGUIDE DMS DEVICES

Sign Name	Center ID	Protocol	Connection Type	Type	Manufacturer	Number of Lines	Number of Columns	Existing DMS	Font	Sign type	Sign use	Cabinet Description	Location_Description	DMS Type	Roadway	Direction	Latitude	Longitude
FLD4DOT95034.2NB-TR1	District 3	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	17 23x15_3	FullMatrix	General	034.2CABNS	I-95NB @ McNab Rd	TR-DOUBLE	I-95	NB	26.20994	-80.13733
FLD4DOT95034.2NB-TR2	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	034.2CABNS	I-95NB @ McNab Rd	TR-DOUBLE	I-95	NB	26.20994	-80.13733
FLD4DOT95034.6NB-TR1	District 3	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	17 23x15_3	FullMatrix	General	034.6CABNS	I-95 NB 1700ft N of McNab Rd	TR-DOUBLE	I-95	NB	26.21621	-80.13598
FLD4DOT95034.6NB-TR2	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	034.6CABNS	I-95 NB 1700ft N of McNab Rd	TR-DOUBLE	I-95	NB	26.21621	-80.13598
FLD4DOT95035.4SB-TR1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	035.4CABSS_3	I-95 SB S of MLK Blvd	TOLL	I-95	SB	26.22749	-80.13641
FLD4DOT095035.9SB-TR1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	035.9CABSS	I-95 SB @ MLK Blvd	TOLL	I-95	SB	26.23354	-80.13647
FLD4DOT95039.9SB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	039.9CABSS_2	I-95 SB S of NW 48th St	STATUS	I-95	SB	26.28764	-80.12487
FLD4DOT95040.0SB-TR1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	040.0CABSS	I-95 SB N of NW 48th St	TOLL	I-95	SB	26.29069	-80.12397
FLD4DOT95040.3SB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	040.3CABSS	I-95 SB 2300ft N of NW 48th St	STATUS	I-95	SB	26.29535	-80.12262
FLD4DOT95040.5SB-TR1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	040.5CABSS	I-95 SB 2500ft S of SW 10th St	TOLL	I-95	SB	26.29775	-80.12195

SUNGUIDE CCTV DEVICES

Camera Name	Center ID	Protocol	Poll Process	Manufacturer	Cabinet Description	Location_Description	Roadway	Direction	Latitude	Longitude	Port_Server_IP	Port Server Port	Community Name	Video Device IP Address	Video Device Type	Manufacturer2	Model	S/N
0354D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	35.4CABSS_3	I-95 SB @ Atlantic Ave On Ramp	I-95	SB	26.22865	-80.1368	10.176.168.99	161	write	231.212.94.235	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	201705418CCWR743757901B
0359D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	35.9CABSS	I-95 SB @ Atlantic Ave Off Ramp	I-95	SB	26.23475	-80.13691	10.176.170.115	161	write	231.212.98.35	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR214128753B
0405D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	040.5CABNS	I-95 SB S of NW 48th St	I-95	SB	26.29841	-80.12173	10.176.179.115	161	write	232.212.95.240	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	PART OF 3A2
0406-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	040.6CABSS	I-95 SB N of NW 48th St	I-95	SB	26.29677	-80.12218	10.176.82.114	161	write	232.212.195.240	CCTV	GOVCOMM	GC-IMPO-FIZDE	EXISTING
0411-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	041.1CABSS	I-95 SB @ SW 10th St	I-95	SB	26.30419	-80.12003	10.176.81.34	161	write	232.212.195.41	CCTV	GOVCOMM	GC-IMPO-FIZDE	EXISTING
0422D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	042.2CABNS	I-95 NB @ Hillsboro Blvd EB Off Ramp	I-95	NB	26.31954	-80.11589	10.176.84.51	161	write	232.212.195.242	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	EXISTING
0422-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	042.2CABSS	I-95 SB @ Hillsboro Blvd EB On Ramp	I-95	SB	26.31856	-80.11656	10.176.83.50	161	write	232.212.195.42	CCTV	GOVCOMM	GC-IMPO-FIZDE	EXISTING

SUNGUIDE TSS DETECTORS

Detector Name	Driver Name	Roadway	Direction	Cabinet Description	Location Description	Latitude	Longitude	Poll Cycle	Type	Protocol	Port Server IP	Port Server Port	Station	Serial Number
FLD4095040.5NBNS-DS-GP	RtmsDriver	I-95	NB	040.5CABNS	I-95 NB N of NW 48h St	26.29467	-80.12215	20	RADAR	Wavetronix	10.176.81.20	8000	2714+00	1010416AB0015699
FLD4095040.6SBSS-DS-GP	RtmsDriver	I-95	SB	040.6CABSS	I-95 SB N of NW 48th St	26.29677	-80.12218	20	RADAR	Wavetronix	10.176.82.113	8000	2721+34	1010416A0015327
FLD4095040.7NBNS-DS-GP	RtmsDriver	I-95	NB	040.7CABNS	I-95 NB S of SW 10th St	26.2982	-80.12113	20	RADAR	Wavetronix	10.176.83.20	8000	2727+25	1010416AB0015702
FLD4095040.8SBSS-DS-GP	RtmsDriver	I-95	SB	040.8CABSS	I-95 SB S of SW 10th St	26.29918	-80.12151	20	RADAR	Wavetronix	10.176.84.20	8000	2730+37	1010416AB0015677
FLD4095041.0NBNS-DS-GP	RtmsDriver	I-95	NB	041.0CABNS	I-95 NB @ SW 10th St WB Off Ramp	26.30162	-80.12002	20	RADAR	Wavetronix	10.176.85.20	8000	2740+19	1010416AB0015692
FLD4095041.0SBSS-DS-GP	RtmsDriver	I-95	SB	041.0CABSS	I-95 SB @ SW 10th St WB On Ramp	26.30238	-80.12058	20	RADAR	Wavetronix	10.176.86.20	8000	2742+40	1010416AB0015598
FLD4095041.1SBSS-DS-GP	RtmsDriver	I-95	SB	041.1CABSS	I-95 SB @ SW 10th St	26.30419	-80.12003	20	RADAR	Wavetronix	10.176.81.36	8000	2749+23	1010416A0015335
FLD4095041.2NBNS-DS-GP	RtmsDriver	I-95	NB	041.2CABNS	I-95 NB @ SW 10th St	26.30504	-80.1191	20	RADAR	Wavetronix	10.176.82.20	8000	2753+00	1010416AB0015693
FLD4095041.4SBSS-DS-GP	RtmsDriver	I-95	SB	041.4CABSS	I-95 SB @ SW 10th St EB Off Ramp	26.30786	-80.119	20	RADAR	Wavetronix	10.176.83.36	8000	2763+00	1010416AB0015326
FLD4095041.5NBNS-DS-GP	RtmsDriver	I-95	NB	041.5CABNS	I-95 NB N of SW 10 St	26.30898	-80.11795	20	RADAR	Wavetronix	10.176.84.36	8000	2767+80	1010416AB0015597
FLD4095041.7SBSS-DS-GP	RtmsDriver	I-95	SB	041.7CABSS	I-95 SB N of SW 10 St	26.31143	-80.11791	20	RADAR	Wavetronix	10.176.85.36	8000	3002+28	1010416AB0015100
FLD4095041.8NBNS-DS-GP	RtmsDriver	I-95	NB	041.8CABNS	I-95 NB @ Hillsboro Blvd WB Off Ramp	26.31292	-80.1168	20	RADAR	Wavetronix	10.176.86.36	8000	3008+41	1010416AB0015706
FLD4095041.9SBSS-DS-GP	RtmsDriver	I-95	SB	041.9CABSS	I-95 SB @ Hillsboro Blvd WB On Ramp	26.31473	-80.11708	20	RADAR	Wavetronix	10.176.81.52	8000	3014+61	1010416AB0015302
FLD4095042.0NBNS-DS-GP	RtmsDriver	I-95	NB	042.0CABNS	I-95 NB @ Hillsboro Blvd WB On Ramp	26.31651	-80.11604	20	RADAR	Wavetronix	10.176.82.36	8000	3021+52	1010416AB0015664
FLD4095042.2NBNS-DS-GP	RtmsDriver	I-95	NB	042.2CABNS	I-95 NB @ Hillsboro Blvd EB Off Ramp	26.31954	-80.11589	20	RADAR	Wavetronix	10.176.84.52	8000	3032+40	1010416AB0015324
FLD4095042.2SBSS-DS-GP	RtmsDriver	I-95	SB	042.2CABSS	I-95 SB @ Hillsboro Blvd EB On Ramp	26.31856	-80.11656	20	RADAR	Wavetronix	10.176.83.52	8000	3028+88	1010416A0015700

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICES

SHEET NO.
IT-146

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SUNGUIDE TSS LANES

Link Name	Lane Name	Lane Description	Lane Zone	Direction	Sta
FLD4095040.5NBNS-DS-GP	FLD4095040.5NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	2714+00
FLD4095040.5NBNS-DS-GP	FLD4095040.5NBNS-DS-GP-LANE1	GP-LANE1 NB	1		
FLD4095040.5NBNS-DS-GP	FLD4095040.5NBNS-DS-GP-LANE2	GP-LANE2 NB	2		
FLD4095040.5NBNS-DS-GP	FLD4095040.5NBNS-DS-GP-LANE3	GP-LANE3 NB	3		
FLD4095040.6SBSS-DS-GP	FLD4095040.6SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	2721+34
FLD4095040.6SBSS-DS-GP	FLD4095040.6SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095040.6SBSS-DS-GP	FLD4095040.6SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095040.6SBSS-DS-GP	FLD4095040.6SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095040.7NBNS-DS-GP	FLD4095040.7NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	2727+25
FLD4095040.7NBNS-DS-GP	FLD4095040.7NBNS-DS-GP-LANE1	GP-LANE1 NB	1		
FLD4095040.7NBNS-DS-GP	FLD4095040.7NBNS-DS-GP-LANE2	GP-LANE2 NB	2		
FLD4095040.7NBNS-DS-GP	FLD4095040.7NBNS-DS-GP-LANE3	GP-LANE3 NB	3		
FLD4095040.7NBNS-DS-GP	FLD4095040.7NBNS-DS-OFF-LANE4	OFF-LANE4 NB	4		
FLD4095040.8SBSS-DS-GP	FLD4095040.8SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	2730+37
FLD4095040.8SBSS-DS-GP	FLD4095040.8SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095040.8SBSS-DS-GP	FLD4095040.8SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095040.8SBSS-DS-GP	FLD4095040.8SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095041.0NBNS-DS-GP	FLD4095041.0NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	2740+19
FLD4095041.0NBNS-DS-GP	FLD4095041.0NBNS-DS-GP-LANE1	GP-LANE1 NB	1		
FLD4095041.0NBNS-DS-GP	FLD4095041.0NBNS-DS-GP-LANE2	GP-LANE2 NB	2		
FLD4095041.0NBNS-DS-GP	FLD4095041.0NBNS-DS-GP-LANE3	GP-LANE3 NB	3		
FLD4095041.0NBNS-DS-GP	FLD4095041.0NBNS-DS-OFF-LANE4	OFF-LANE4 NB	4		
FLD4095041.0SBSS-DS-GP	FLD4095041.0SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	2742+40
FLD4095041.0SBSS-DS-GP	FLD4095041.0SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095041.0SBSS-DS-GP	FLD4095041.0SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095041.0SBSS-DS-GP	FLD4095041.0SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095041.0SBSS-DS-GP	FLD4095041.0SBSS-DS-ON-LANE4	ON-LANE4 SB	4		
FLD4095041.1SBSS-DS-GP	FLD4095041.1SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	2749+23
FLD4095041.1SBSS-DS-GP	FLD4095041.1SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095041.1SBSS-DS-GP	FLD4095041.1SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095041.1SBSS-DS-GP	FLD4095041.1SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095041.2NBNS-DS-GP	FLD4095041.2NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	2753+00
FLD4095041.2NBNS-DS-GP	FLD4095041.2NBNS-DS-GP-LANE1	GP-LANE1 NB	1		
FLD4095041.2NBNS-DS-GP	FLD4095041.2NBNS-DS-GP-LANE2	GP-LANE2 NB	2		
FLD4095041.2NBNS-DS-GP	FLD4095041.2NBNS-DS-GP-LANE3	GP-LANE3 NB	3		
FLD4095041.2NBNS-DS-GP	FLD4095041.2NBNS-DS-GP-LANE4	GP-LANE4 NB	4		
FLD4095041.4SBSS-DS-GP	FLD4095041.4SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	2763+00
FLD4095041.4SBSS-DS-GP	FLD4095041.4SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095041.4SBSS-DS-GP	FLD4095041.4SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095041.4SBSS-DS-GP	FLD4095041.4SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095041.4SBSS-DS-GP	FLD4095041.4SBSS-DS-OFF-LANE4	OFF-LANE4 SB	4		
FLD4095041.4SBSS-DS-GP	FLD4095041.4SBSS-DS-OFF-LANE5	OFF-LANE5 SB	5		
FLD4095041.5NBNS-DS-GP	FLD4095041.5NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	2767+80
FLD4095041.5NBNS-DS-GP	FLD4095041.5NBNS-DS-GP-LANE1	GP-LANE1 NB	1		
FLD4095041.5NBNS-DS-GP	FLD4095041.5NBNS-DS-GP-LANE2	GP-LANE2 NB	2		
FLD4095041.5NBNS-DS-GP	FLD4095041.5NBNS-DS-GP-LANE3	GP-LANE3 NB	3		
FLD4095041.5NBNS-DS-GP	FLD4095041.5NBNS-DS-GP-LANE4	GP-LANE4 NB	4		
FLD4095041.7SBSS-DS-GP	FLD4095041.7SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3002+28
FLD4095041.7SBSS-DS-GP	FLD4095041.7SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095041.7SBSS-DS-GP	FLD4095041.7SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095041.7SBSS-DS-GP	FLD4095041.7SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095041.7SBSS-DS-GP	FLD4095041.7SBSS-DS-GP-LANE4	GP-LANE4 SB	4		

Link Name	Lane Name	Lane Description	Lane Zone	Direction	Sta
FLD4095041.8NBNS-DS-GP	FLD4095041.8NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3008+41
FLD4095041.8NBNS-DS-GP	FLD4095041.8NBNS-DS-GP-LANE1	GP-LANE1 NB	1		
FLD4095041.8NBNS-DS-GP	FLD4095041.8NBNS-DS-GP-LANE2	GP-LANE2 NB	2		
FLD4095041.8NBNS-DS-GP	FLD4095041.8NBNS-DS-GP-LANE3	GP-LANE3 NB	3		
FLD4095041.8NBNS-DS-GP	FLD4095041.8NBNS-DS-GP-LANE4	GP-LANE4 NB	4		
FLD4095041.8NBNS-DS-GP	FLD4095041.8NBNS-DS-OFF-LANE5	OFF-LANE5 NB	5		
FLD4095041.9SBSS-DS-GP	FLD4095041.9SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3014+61
FLD4095041.9SBSS-DS-GP	FLD4095041.9SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095041.9SBSS-DS-GP	FLD4095041.9SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095041.9SBSS-DS-GP	FLD4095041.9SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095041.9SBSS-DS-GP	FLD4095041.9SBSS-DS-ON-LANE4	ON-LANE4 SB	4		
FLD4095042.0NBNS-DS-GP	FLD4095042.0NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3021+52
FLD4095042.0NBNS-DS-GP	FLD4095042.0NBNS-DS-GP-LANE1	GP-LANE1 NB	1		
FLD4095042.0NBNS-DS-GP	FLD4095042.0NBNS-DS-GP-LANE2	GP-LANE2 NB	2		
FLD4095042.0NBNS-DS-GP	FLD4095042.0NBNS-DS-GP-LANE3	GP-LANE3 NB	3		
FLD4095042.0NBNS-DS-GP	FLD4095042.0NBNS-DS-ON-LANE4	ON-LANE4 NB	4		
FLD4095042.2SBSS-DS-GP	FLD4095042.2SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3028+88
FLD4095042.2SBSS-DS-GP	FLD4095042.2SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095042.2SBSS-DS-GP	FLD4095042.2SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095042.2SBSS-DS-GP	FLD4095042.2SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095042.2SBSS-DS-GP	FLD4095042.2SBSS-DS-ON-LANE4	ON-LANE4 SB	4		
FLD4095042.2NBNS-DS-GP	FLD4095042.2NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3032+40
FLD4095042.2NBNS-DS-GP	FLD4095042.2NBNS-DS-GP-LANE1	GP-LANE1 NB	1		
FLD4095042.2NBNS-DS-GP	FLD4095042.2NBNS-DS-GP-LANE2	GP-LANE2 NB	2		
FLD4095042.2NBNS-DS-GP	FLD4095042.2NBNS-DS-GP-LANE3	GP-LANE3 NB	3		
FLD4095042.2NBNS-DS-GP	FLD4095042.2NBNS-DS-OFF-LANE4	OFF-LANE4 NB	4		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SUNGUIDE LANE ASSIGNMENT

SHEET NO.
IT-147

PLOT DRIVER = c:\projectwise\pb\projectwiseint\wsp__michael.west\d0173361\As-Built_FDOT_DEFAULT.tbl PENTABLE = pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase4D\Level_1\ITS\As-Built.tbl USMW189428 10/22/2021 4:15:41 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0264783\TABQITS1_As-Built.dgn

ITS REEL 1

Project	IT Page	PCS Box Number	SV / PB	Cable Ft. In:	Cable Ft. Out	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation	Fiber Accumulation
3B1	19	46151	SV	174	394	214	220	220	220
3B1	19	46150	PB	608	658	576	50	270	484
3B1	20	46149	PB	1234	1284	748	50	320	1110
3B1	21	46148	SV	2032	2232	616	200	520	2058
3B1	22	46147	PB	2848	2898	702	50	570	2724
3B1	23	46146	PB	3600	3650	122	50	620	3476
3B1	23	46145	PB	3772	3822	28	50	670	3648
3B1	23	46144	PB	3850	3900	298	50	720	3726
3B1	23	46143	SV	4198	4398	262	200	920	4224
3B1	24	46142	PB	4660	4710	470	50	970	4536
3B1	24	46141	PB	5180	5230	354	50	1020	5056
3B1	25	46140	SV	5584	5784	454	200	1220	5610
3B1	26	46139	PB	6238	6288	152	50	1270	6114
3B1	26	46138	PB	6440	6490	452	50	1320	6316
3B1	26	46137	SV	6942	7142	510	200	1520	6968
3B1	27	46136	SV	7652	7852	874	200	1720	7678
3B1	28	46135	SV	8726	8926	610	200	1920	8752
3B1	29	46134	SV	9536	9736	392	200	2120	9562
3B1	30	46133	PB	10128	10178	228	50	2170	10004
3B1	30	46132	SV	10406	10606	82	200	2370	10432
3B1	30	46131	PB	10688	10738	102	50	2420	10564
3B1	30	46130	PB	10840	10890	530	50	2470	10716
3B1	31	46129	SV	11420	11620	464	200	2670	11446
3B1	32	46128	PB	12084	12134	248	50	2720	11960
3B1	32	46127	SV	12382	12582	312	200	2920	12408
3B1	33	46126	PB	12894	12944	120	50	2970	12770
3B1	33	46481	SV	13064	13314	0	250	250	13140
					Total Fiber Length	Actual Linear Footage	Actual Slack Footage		
					190,400 ft	9,920 ft	3,220 ft		

Broward/Palm Beach Co. 144 Fiber Backbone –TSM&O Reel 1

Project	IT Page	PCS Box Number	SV / PB	Cable Ft. In:	Cable Ft. Out	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation	Fiber Accumulation
3B1	19	46151	SV	3932	4174	226	242	242	242
3B1	19	46150	PB	4400	4450	578	50	292	518
3B1	20	46149	PB	5028	5078	748	50	342	1146
3B1	21	46148	SV	5826	6046	614	220	562	2114
3B1	22	46147	PB	6660	6710	702	50	612	2778
3B1	23	46146	PB	7412	7462	118	50	662	3530
3B1	23	46145	PB	7580	7630	128	50	712	3698
3B1	23	46144	PB	7758	7808	200	50	762	3876
3B1	23	46143	SV	8008	8238	266	230	992	4306
3B1	24	46142	PB	8504	8554	472	50	1042	4622
3B1	24	46141	PB	9026	9076	356	50	1092	5144
3B1	25	46140	SV	9432	9652	456	220	1312	5720
3B1	26	46139	PB	10108	10158	154	50	1362	6226
3B1	26	46138	PB	10312	10362	452	50	1412	6430
3B1	26	46137	SV	10814	11034	512	220	1632	7102
3B1	27	46136	SV	11546	11766	872	220	1852	7834
3B1	28	46135	SV	12638	12858	610	220	2072	8926
3B1	29	46134	SV	13468	13688	394	220	2292	9756
3B1	30	46133	PB	14082	14132	226	50	2342	10200
3B1	30	46132	SV	14358	14578	90	220	2562	10646
3B1	30	46131	PB	14668	14718	100	50	2612	10786
3B1	30	46130	PB	14818	14868	528	50	2662	10936
3B1	31	46129	SV	15396	15616	476	220	2882	11684
3B1	32	46128	PB	16092	16142	246	50	2932	12210
3B1	32	46127	SV	16388	16608	314	220	3152	12676
3B1	33	46126	PB	16922	16972	118	50	3202	13040
3B1	33	461481	SV	17090	17300	0	210	3412	13368
					Total Fiber Length	Actual Linear Footage	Actual Slack Footage		
					295,678 ft	9,956 ft	3,412 ft		

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SEQUENTIAL CABLE LENGTH (1)

SHEET NO.
IT-148

ITS MARKERS

FIBER MARKERS	LATITUDE	LONGITUDE
1	26.29412	-80.12224
2	26.29466	-80.12216
3	26.29615	-80.12171
4	26.29678	-80.12218
5	26.29811	-80.12108
6	26.29827	-80.12173
7	26.2996	-80.12139
8	26.29971	-80.12054
9	26.3016	-80.12001
10	26.30195	-80.11998
11	26.30215	-80.11997
12	26.30231	-80.1206
13	26.30297	-80.12035
14	26.30417	-80.12004
15	26.30521	-80.1197
16	26.30508	-80.11912
17	26.30642	-80.11932
18	26.30662	-80.11947
19	26.30787	-80.11912
20	26.30784	-80.11901
21	26.30914	-80.11857
22	26.309	-80.11794
23	26.31022	-80.11827
24	26.31141	-80.11794
25	26.31238	-80.11764
26	26.31305	-80.11744
27	26.3129	-80.11681
28	26.31388	-80.11722
29	26.31476	-80.11708
30	26.31495	-80.11705
31	26.3151	-80.11689
32	26.31655	-80.1168
33	26.31649	-80.11603
34	26.31784	-80.11677
35	26.31847	-80.11681
36	26.31858	-80.11656
37	26.31929	-80.1167
38	26.31955	-80.11653
39	26.31956	-80.11589
40	26.31982	-80.11599

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ITS - FIBER MARKERS

SHEET NO.
IT-149

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

FINAL AS-BUILT PLANS

~~CONTRACT PLANS~~

FINANCIAL PROJECT ID 433108-6-52-01 & 433109-4-52-01

(FEDERAL FUNDS)

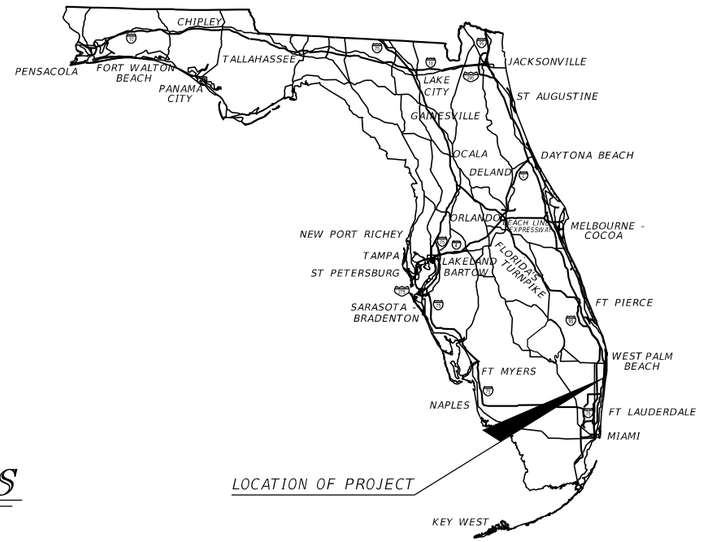
BROWARD COUNTY (86070)
PALM BEACH COUNTY (93220)

STATE ROAD NO. SR 9 (I-95)
FROM SOUTH OF SW 10TH STREET (SR 869) TO
SOUTH GLADES ROAD

INTELLIGENT TRANSPORTATION SYSTEMS

SEGMENT 2 PLANS

FROM NORTH OF HILLSBORO BLVD. TO
SOUTH GLADES ROAD



INDEX OF ITS SEGMENT 2 PLANS

SHEET NO.	SHEET DESCRIPTION
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IT-2 - IT-2E	SIGNATURE SHEET
IT-3 - IT-4	GENERAL NOTES
IT-5 - IT-7	PROJECT LAYOUT
IT-8 - IT-15	COMMUNICATION OVERVIEW
IT-16 - IT-18	ITS DEVICE SUMMARY SHEET
IT-19 - IT-49	ITS PLANS
IT-50 (46)	TRAFFIC MONITORING SITE DETAIL
IT-51 - IT-61A	SPLICING DIAGRAMS
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IT-63 - IT-116C	ITS CROSS SECTIONS
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IT-118A	CCTV TYPE 334 CABINET DETAILS
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IT-119	CCTV, D-CCTV AND MVDS TYPE 336S CABINET DETAILS
IT-119A	NEMA 3R CABINET DETAILS
IT-120 - IT-121	ITS DEVICE ORIENTATION DETAILS
(46) IT-121A	WWDS DETAILS
IT-122	DIRECTIONAL BORE DETAIL
IT-123	ITS UNDERGROUND CONDUIT TRANSITION DETAILS
IT-124	CABLE ROUTE MARKER DETAILS
IT-125	CCTV LOWERING DEVICE DETAILS
IT-125A (46)	DMS AIR TERMINAL INSTALLATION DETAILS
(17) IT-126 - IT-129C	WIRING DIAGRAMS
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IT-133	ITS ELECTRICAL LEGEND AND ABBREVIATIONS
IT-134	ITS ELECTRICAL GENERAL NOTES
IT-135 - IT-137	ITS ELECTRICAL PROJECT LAYOUT PLANS
IT-138 - IT-172	ITS ELECTRICAL PLANS (46)
IT-173 - IT-175	ITS ELECTRICAL ONE-LINE SCHEMATIC
IT-176 - IT-178	ITS ELECTRICAL SERVICE POINT DETAILS
IT-179 - IT-180	POWER STATION DETAILS
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IT-184 - IT-187A	SPECIAL CANTILEVER SIGN STRUCTURE DETAILS
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IT-193	CATWALK DETAILS FOR DYNAMIC MESSAGE SIGN WALK-IN
(46) IT-193A	MAST ARM ASSEMBLIES DATA TABLE
(17) IT-194 - IT-196A	REPORT OF CORE BORINGS
IT-197 - IT-198 (46)	HUB BUILDING PLAN AND ELEVATION
IT-199 - IT-201	HUB BUILDING STRUCTURE
IT-202	HUB BUILDING DETAILS
IT-203	HUB BUILDING FOUNDATION
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IT-207 - IT-208	SUNGUIDE LANE ASSIGNMENT
IT-209 - IT-210	SEQUENTIAL CABLE LENGTH
IT-211	ITS - FIBER MARKERS

AS-BUILT PLANS
SR 9 (I-95)
OCTOBER 2021

REVISIONS:

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(REVISED 9-13-19)

(19) REVISED SHEETS: IT-1, IT-176 THRU IT-178
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(31) REVISED SHEETS: IT-1, IT-37, IT-111, IT-156
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(REVISED 1-27-2020)

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KEY SHEET REVISIONS

DATE	DESCRIPTION
9-13-19	REVISED INDEX
7-2-19	REVISED INDEX
	REVISED INDEX
2-14-20	REVISED INDEX
1-29-21	REVISED INDEX
10-4-2021	REVISED INDEX

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 2 PLANS ENGINEER OF RECORD:

DERRICK A. LUE, P.E. No. 44730
WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520 4444
CONTRACT No.: E4R96
VENDOR No. F111531569
CERTIFICATE OF AUTHORIZATION No.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4R96	17	IT-1

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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-6-52-01 & 433109-4-52-01

(FEDERAL FUNDS)

BROWARD COUNTY (86070)
PALM BEACH COUNTY (93220)

STATE ROAD NO. SR 9 (I-95)
FROM SOUTH OF SW 10TH STREET (SR 869) TO
SOUTH GLADES ROAD

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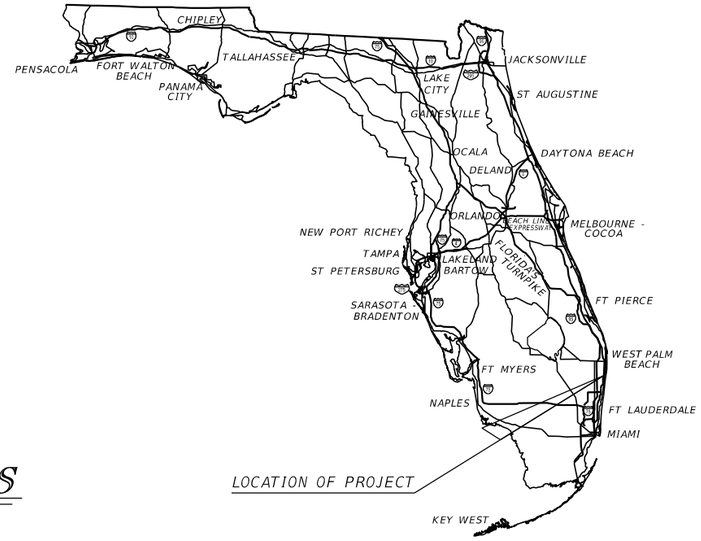

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VOID

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1-29-21	REVISED INDEX

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 2 PLANS ENGINEER OF RECORD:

DERRICK A. LUE, P.E. No. 44730
WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520 4444
CONTRACT No.: E4R96
VENDOR No. F111531569
CERTIFICATE OF AUTHORIZATION No.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4R96	17	IT-1

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions and details, and coordination of field fabrication and erection shall remain with the contractor.
BY:(FDOT) VS Date: 2/25/2021
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

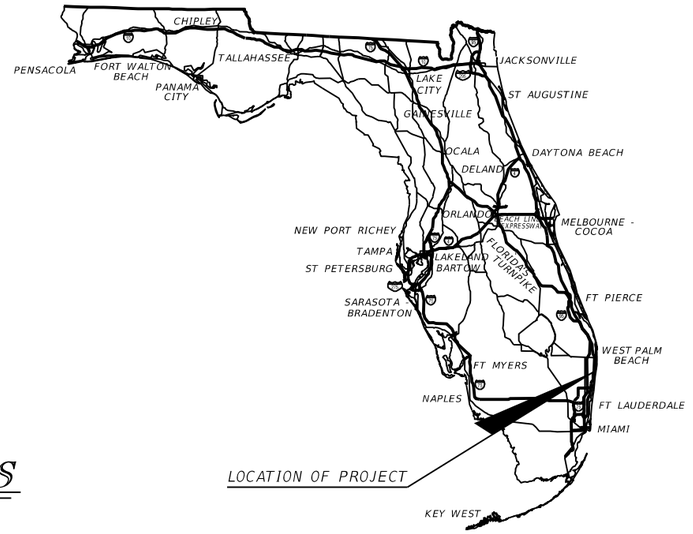
CONTRACT PLANS

FINANCIAL PROJECT ID 433108-6-52-01 & 433109-4-52-01

(FEDERAL FUNDS)

BROWARD COUNTY (86070)
PALM BEACH COUNTY (93220)

STATE ROAD NO. SR 9 (I-95)
FROM SOUTH OF SW 10TH STREET (SR 869) TO
SOUTH GLADES ROAD



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VOID

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 2 PLANS

FROM SOUTH OF [illegible] BLVD TO
SOUTH GLADES ROAD

REVISIONS:

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2-14-20	ADDED SHEET 2D, IT-131A

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BY FDOT VS Date 03/04/2020
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STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

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(FEDERAL FUNDS)

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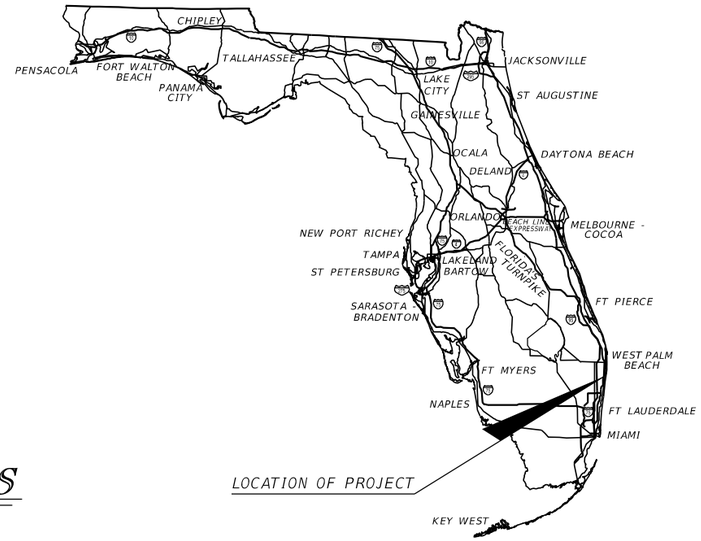
FROM NORTH OF HILLSBORO BLVD TO
SOUTH GLADES ROAD



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IT-204	HUB BUILDING ELECTRICAL PLAN

VOID

REVISIONS:

FINANCIAL PROJECT ID: 433108-6-52-01

17 REVISED SHEETS: IT-1, IT-124, IT-131, IT-132
ADDED SHEETS: IT-2A, IT-197 THRU IT-204
(REVISED 9-13-19)

19 REVISED SHEETS: IT-1, IT-176 THRU IT-178
ADDED SHEET: IT-2B
(REVISED 7-2-19)

31 REVISED SHEETS: IT-1, IT-37, IT-111, IT-156
ADDED SHEET: IT-2C
(REVISED 1-27-2020)

KEY SHEET REVISIONS

DATE	DESCRIPTION
9-13-19	ADDED SHEETS IT-2A, IT-131 THRU IT-132, IT-197 THRU IT-204
7-2-19	ADDED SHEET 2B
1-27-20	ADDED SHEET 2C

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 2 PLANS ENGINEER OF RECORD:

DERRICK A. LUE, P.E. No. 44730
WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520 4444
CONTRACT No.: E4R96
VENDOR No. F111531569
CERTIFICATE OF AUTHORIZATION No.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4R96	17	IT-1

RELEASED FOR CONSTRUCTION
BY (PRINT) VS Date: 6/4/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-6-52-01 & 433109-4-52-01

(FEDERAL FUNDS)

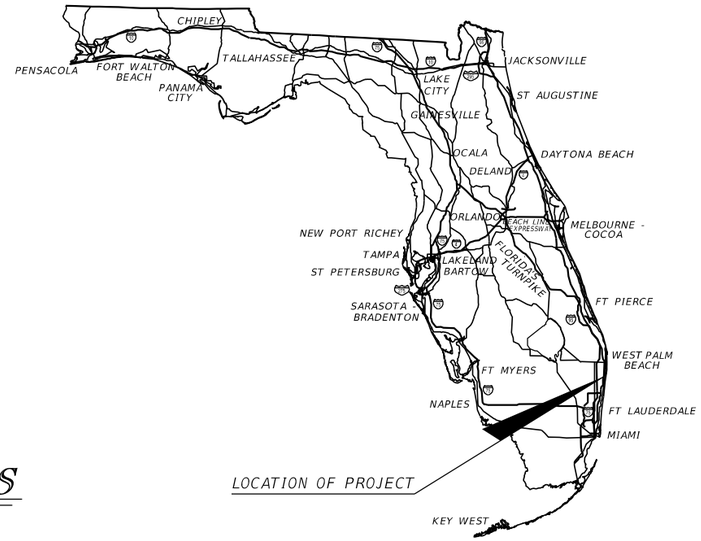
BROWARD COUNTY (86070)
PALM BEACH COUNTY (93220)

STATE ROAD NO. SR 9 (I-95)
FROM SOUTH OF SW 10TH STREET (SR 869) TO
SOUTH GLADES ROAD

INTELLIGENT TRANSPORTATION SYSTEMS

SEGMENT 2 PLANS

FROM NORTH OF HILLSBORO BLVD TO
SOUTH GLADES ROAD



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VOID

REVISIONS:

FINANCIAL PROJECT ID: 433108-6-52-01

17 REVISED SHEETS: IT-1, IT-124, IT-131, IT-132
ADDED SHEETS: IT-2A, IT-197 THRU IT-204
(REVISED 5-23-19)

19 REVISED SHEETS: IT-1, IT-176 THRU IT-178
ADDED SHEET: IT-2B
(REVISED 7-2-19)

KEY SHEET REVISIONS

DATE	DESCRIPTION
5-23-19	ADDED SHEETS 2A, IT-131 THRU IT-132, IT-197 THRU IT-204
7-2-19	ADDED SHEET 2B

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 2 PLANS ENGINEER OF RECORD:

DERRICK A. LUE, P.E. No. 44730
WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520 4444
CONTRACT No.: E4R96
VENDOR No. F111531569
CERTIFICATE OF AUTHORIZATION No.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4R96	17	IT-1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
BY:RPOTI VS Date: 9/19/2019
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FPID-433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-6-52-01 & 433109-4-52-01

(FEDERAL FUNDS)

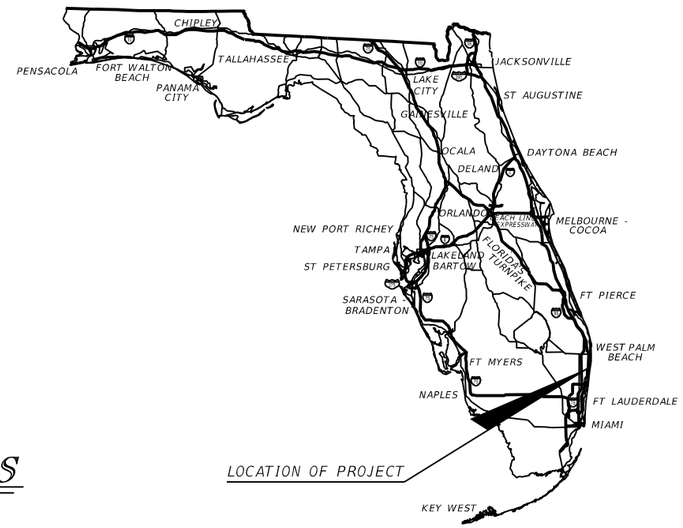
BROWARD COUNTY (86070)
PALM BEACH COUNTY (93220)

STATE ROAD NO. SR 9 (I-95)
FROM SOUTH OF SW 10TH STREET (SR 869) TO
SOUTH GLADES ROAD

INTELLIGENT TRANSPORTATION SYSTEMS

SEGMENT 2 PLANS

FROM N[illegible] OF HILLSBORO BLVD
SOUTH GLADES ROAD



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REVISIONS:

FINANCIAL PROJECT ID: 433108-6-52-01

17 REVISED SHEETS: IT-1, IT-124, IT-131, IT-132
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(REVISED 11-19-19)

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11-19-19	ADDED SHEETS IT-2A, IT-131 THRU IT-132, IT-197 THRU IT-204

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 2 PLANS ENGINEER OF RECORD:

GAUNGWEI ZHOU, P.E. No. 67536
WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520 4444
CONTRACT No.: E4R96
VENDOR No. F111531569
CERTIFICATE OF AUTHORIZATION No.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4R96	17	IT-1

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BY:FDOT VS Date: 12/10/2019

RELEASED FOR CONSTRUCTION
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PPID 433108-4-58-01 and 433104-4-54-01 CONTRACT E4R96

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-6-52-01 & 433109-4-52-01

(FEDERAL FUNDS)

BROWARD COUNTY (86070)
PALM BEACH COUNTY (93220)

STATE ROAD NO. SR 9 (I-95)
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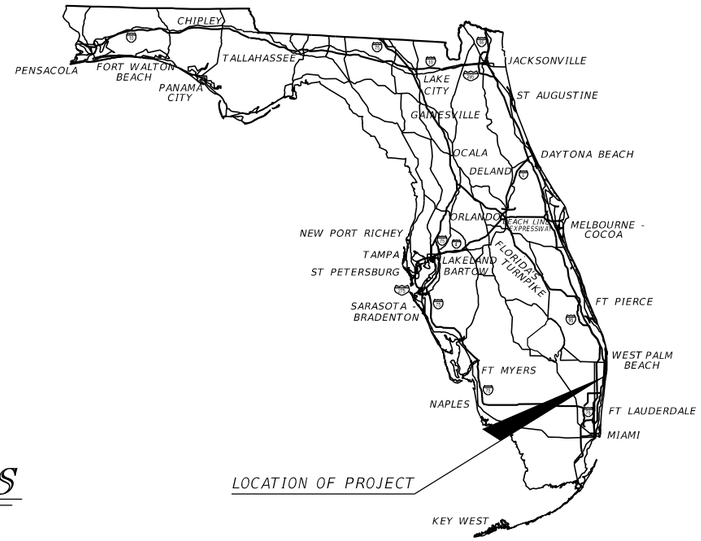

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IT-193	CATWALK DETAILS FOR DYNAMIC MESSAGE SIGN WALK-IN
IT-194 - IT-196	REPORT OF CORE BORINGS

INTELLIGENT TRANSPORTATION SYSTEMS SEGMENT 2 PLANS ENGINEER OF RECORD:

DERRICK A. LUE, P.E. No. 44730
WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FL 33607
(813) 520 4444
CONTRACT No.: E4R96
VENDOR No. F111531569
CERTIFICATE OF AUTHORIZATION No.: 01462

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4R96	17	IT-1

BY:FDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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KEVIN WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Kevin W Walsh
2019.04.22 10:25:11 -04'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: KEVIN WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-133	ITS ELECTRICAL LEGEND AND ABBREVIATIONS
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IT-181 - IT-183	ITS ELECTRICAL DETAILS

William Leidy
Corridor Design Consultant (HDR)
serves as confirmation that all c
have been satisfactorily resolvec
2019.05.20 10:29:44-04'00'

Vanita Saini, P.E., FDOT Design PM
- This serves as concurrence to release for construction
2019.05.21 10:56:51-04'00'

DERRICK A. LUE
LICENSE
No 44730
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Derrick A Lue
2019.04.22 14:04:26 -04'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: DERRICK A. LUE, P.E. NO. 44730

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
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IT-130	ITS CABINET DETAIL (HUB SHELTER)
IT-131	HUB SHELTER DETAILS
IT-132	MASTER HUB BUILDING GRADING PLAN

MORGAN VILLANUEVA
LICENSE
No 60292
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Morgan Villanueva
Digitally signed by Morgan Villanueva
DN: c=US, o=CAP Engineering Inc., ou=CAP Engineering Inc., cn=Morgan Villanueva, 0.9.2342.19200300.100.1.1=A01097C00000155E988547A00010DB8
Date: 2019.04.23 07:24:29 -04'00'

ON THE DATE ADJACENT TO THE SEAL

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CAP ENGINEERING, INC.
343 ALMERIA AVENUE
CORAL GABLES, FL 33134
(305) 448-1711 EXT. 3412
CERT. OF AUTH. NO. 27052
EOR: MORGAN VILLANUEVA, P.E. NO. 60292

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-184 - IT-187	SPECIAL CANTILEVER SIGN STRUCTURE DETAILS
IT-188 - IT-192	SPECIAL SPAN SIGN STRUCTURE DETAILS
IT-193	CATWALK DETAILS FOR DYNAMIC MESSAGE SIGN WALK-IN

HUGO E. SOTO
LICENSE
No 36440
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Hugo E Soto
Digitally signed by Hugo E Soto
DN: c=US, o=Terracon Consultant Inc., ou=A01427D00000169A0DE97F700002501, cn=Hugo E Soto
Date: 2019.04.22 15:39:45 -04'00'

ON THE DATE ADJACENT TO THE SEAL

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TERRACON
5371 NW 33RD AVENUE, SUITE 201
FOR LAUDERDALE, FLORIDA 33309
CERT. OF AUTH. NO.
EOR: HUGO E. SOTO, P.E. NO. 36440

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-194 - IT-196	REPORT OF CORE BORINGS

BY: RDOT VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
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FPID 4331084-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-2

KEVIN WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Kevin W Walsh
2019.11.27 17:44:34
-05'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: KEVIN WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2A	SIGNATURE SHEET
IT-204	HUB BUILDING ELECTRICAL PLAN

William Leidy
Corridor Design Consultant (HDR) -
This serves as confirmation that all comments have been satisfactorily resolved
2019.12.09 16:25:13-05'00'

GUANGWEI ZHOU
LICENSE
No 67536
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Guangwei Zhou
2019.12.02
09:05:53-05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: GUANGWEI ZHOU, P.E. NO. 67536

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEYSHEET
IT-2A	SIGNATURE SHEET
IT-124	CABLE ROUTE MARKER DETAILS
IT-131	HUB SHELTER DETAILS
IT-132	MASTER HUB BUILDING GRADING PLAN

Vanita Saini, P.E., FDOT Design PM -
This serves as concurrence to release for construction
2019.12.10 10:29:19-05'00'

TODD MITCHELL
LICENSE
No 60188
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Digitally signed by Joseph T Mitchell
Date: 2019.12.02 09:33:06 -05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: TODD MITCHELL, P.E. NO. 60188

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2A	SIGNATURE SHEET
IT-197	HUB BUILDING PLAN
IT-198	HUB BUILDING ELEVATIONS
IT-199 - IT-201	HUB BUILDING STRUCTURE DETAILS
IT-202	HUB BUILDING DETAILS
IT-203	HUB BUILDING FOUNDATION

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4H98
BY: FDOT VS Date: 12/10/2019

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/19/19	17 ADDED SHEETS		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-2A

KEVIN WALSH
LICENSE
No 78396
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Kevin W Walsh
2019.07.02
17:20:03-04'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: KEVIN WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2B	SIGNATURE SHEET
IT-176 - IT-178	ITS ELECTRICAL SERVICE POINT DETAILS

William Leidy
Corridor Design Consultant (HDR)
serves as confirmation that all
have been satisfactorily resolve
2019.09.16 11:51:27-04'00'

DERRICK A. LUE
LICENSE
No 44730
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Derrick A Lue
2019.07.03 07:41:53
-04'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: DERRICK A. LUE, P.E. NO. 44730

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEYSHEET
IT-2B	SIGNATURE SHEET

Vanita Saini, P.E., FDOT Design PM
- This serves as concurrence to release for construction
2019.09.17 08:36:46-04'00'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 9/19/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4K96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/23/19	17 ADDED SHEETS		
7/2/19	19 RFI 179 ELECTRICAL CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-2B

KEVIN WALSH
LICENSE
No 78396
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Kevin W Walsh
2020.05.20 16:28:49 -04'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: KEVIN WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2C	SIGNATURE SHEET
IT-156	ITS ELECTRICAL PLAN

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that all comments have been satisfactorily resolved
2020.06.01 13:43:26-04'00'

GUANGWEI ZHOU
LICENSE
No 67536
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Guangwei Zhou 2020.05.20 21:05:16-04'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
301 E. PINE ST, SUITE 1020
ORLANDO, FL 32801
(407)587-7800
CERT. OF AUTH. NO. 01462
EOR: GUANGWEI ZHOU, PE NO.67536

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEYSHEET
IT-2C	SIGNATURE SHEET
IT-37	ITS PLAN SHEET
IT-111	ITS CROSS SECTION

Vanita Saini, P.E., FDOT Design PM - This serves as concurrence to release for construction
2020.06.01 15:54:37-04'00'

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 6/4/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/27/20	31 ADDED SHEET		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-2C

DERRICK A. LUE
LICENSE
No 44730
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Derrick A Lue
Derrick A Lue
2020.03.03
17:23:48 -05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: DERRICK A. LUE, P.E. NO. 44730

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEYSHEET
IT-2D	SIGNATURE SHEET
IT-49	ITS PLAN
IT-131	HUB SHELTER DETAILS (1)
IT-132	MASTER HUB BUILDING GRADING PLAN

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that all comments have been satisfactorily resolved
2020.03.04 09:39:40-05'00'

TODD MITCHELL
LICENSE
No 60188
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Digitally signed by Joseph T Mitchell
Date: 2020.03.03 07:08:23 -05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: TODD MITCHELL, P.E. NO. 60188

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2D	SIGNATURE SHEET
IT-198	HUB BUILDING ELEVATIONS
IT-203	HUB BUILDING FOUNDATION

Vanita Saini, P.E., FDOT Design PM - This serves as concurrence to release for construction
2020.03.04 11:45:08-05'00'

KEVIN WALSH
LICENSE
No 78396
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Kevin W Walsh
2020.03.02 16:48:17
-05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: KEVIN WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2D	SIGNATURE SHEET
IT-131A	HUB SHELTER DETAIL (2)

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BY PERSON VS Date 03/04/2020

RELEASED FOR CONSTRUCTION
Review is for general conformance with contract documents. Shop responsibility for correct and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4W96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2/14/20	35 ADDED SHEET		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-2D

PLOT DRIVER = c:\projectwise\pb\projectwiseint\walshkw\d0173361\43310865201_I95_Phase3B-1_Milling_Paving.plt.prdpwint02.pbsvc.com;pwiseV8i\Documents\FL - Miami Projects\I-95 Phase 3B-1\433108-5-52-01_I-95_Ph3b1-ltg.tbl
GEN_FIELD_PLOT.prg
MODEL NAME = Default
walshkw
3/2/2020 4:40:43 PM
c:\projectwise\pb\projectwiseint\walshkw\d0230493\SIGNIT02D.DGN

GUANGWEI ZHOU
LICENSE
No 67536
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Guangwei Zhou
2021.02.04
16:34:58-05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
301 E. PINE ST, SUITE 1020
ORLANDO, FL 32801
(407)587-7800
CERT. OF AUTH. NO. 01462
EOR: GUANGWEI ZHOU, PE NO.67536

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

ALSO, THE ABOVE NAMED PROFESSIONAL ENGINEER IS SIGNING FOR REVISION 46 ONLY, WHICH INCLUDES THE SHEETS LISTED BELOW.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEYSHEET
IT-2E	SIGNATURE SHEET
IT-3, IT-4	GENERAL NOTES
IT-5, IT-6	PROJECT LAYOUT
IT-8, IT-11, IT-12	COMMUNICATION OVERVIEW
IT-16, IT-17	ITS DEVISE SUMMARY SHEET
IT-19, IT-19A, IT-19B, IT-34 - IT-35	ITS PLAN
IT-46 THRU IT-49	
IT-51, IT-57, IT-59, IT-61A	SPLICING DIAGRAMS
IT-116A THRU IT-116C	CROSS SECTIONS
IT-118B	WWDS TYPE 334 CABINET DETAIL
IT-121A	WWDS DETAILS
IT-129B, IT-129C	WIRING DIAGRAM

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that all comments have been satisfactorily resolved
2021.02.19 15:35:05-05'00'

KEVIN WALSH
LICENSE
No 78396
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Kevin W Walsh
2021.02.04
16:46:22-05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: KEVIN WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2E	SIGNATURE SHEET
IT-133	ITS ELECTRICAL LEGEND AND ABBREVIATIONS
IT-135, IT-136	ITS ELECTRICAL PROJECT LAYOUT
IT-138 - IT-142, IT-151, IT-153 - IT-154, IT-165 - IT-168, IT-170 - IT-172	ITS ELECTRICAL PLANS
IT-173, IT-174	ITS ELECTRICAL ONE-LINE SCHEMATIC
IT-176, IT-177	ITS ELECTRICAL SERVICE POINT DETAILS

Vanita Saini, P.E., FDOT Design PM - This serves as concurrence to release for construction
2021.02.25 10:06:14-05'00'

THOMAS P. ROMANOWICH
LICENSE
No 62515
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Thomas P Romanowich
2021.02.04
16:49:55
-05'00'

ON THE DATE ADJACENT TO THE SEAL

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WSP USA INC.
2202 NORTH WEST SHORE BLVD., SUITE 300
TAMPA, FLORIDA 33607
(813) 520-4444
CERT. OF AUTH. NO. 1462
EOR: THOMAS P. ROMANOWICH, P.E. NO. 62515

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2E	SIGNATURE SHEET
IT-193A	MAST ARM ASSEMBLIES DATA TABLE

HUGO E. SOTO
LICENSE
No 36440
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Hugo E Soto
Digitally signed by Hugo E Soto
Date: 2021.02.05 08:43:00 -05'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

TERRACON
5371 NW 33RD AVENUE, SUITE 201
FOR LAUDERDALE, FLORIDA 33309
CERT. OF AUTH. NO.
EOR: HUGO E. SOTO, P.E. NO. 36440

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
IT-2E	SIGNATURE SHEET
IT-196A	REPORT OF CORE BORINGS FOR SIGN

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of shop drawings, and all means, methods, and details of fabrication and erection shall remain with the contractor.
BY:(FDOT) VS Date: 2/25/2021
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E5R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 ADDED SHEET		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SIGNATURE SHEET

SHEET NO.
IT-2E

ROBERT W SKAGGS
LICENSE
No 56377
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

WSP USA INC.
2202 NORTH WEST SHORE BLVD, SUITE 300
TAMPA, FL 33607
CERTIFICATE OF AUTHORIZATION 01462
ROBERT W SKAGGS, P.E. NO. 56377

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING CHANGES, INDICATED IN REDLINE REVISION, IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD.

THE ENGINEER HAS RELIED ON AS-BUILT INFORMATION PROVIDED BY OTHERS AND TO THE BEST OF OUR KNOWLEDGE, REFLECTS AS-CONSTRUCTED CONDITIONS.

SHEET NO.	SHEET DESCRIPTION
IT-1	KEYSHEET
IT-2F	FINAL AS-BUILT SIGNATURE SHEET
IT-12, IT-14	COMMUNICATION OVERVIEW
IT-17, IT-18	ITS DEVICE SUMMARY SHEET
IT-19 - 26	ITS PLANS
IT-28 - IT-47	ITS PLANS
IT-58, IT-59,	SPLICING DIAGRAM
IT-61	SPLICING DIAGRAM
IT-84	ITS CROSS SECTION
IT-103	ITS CROSS SECTION
IT-111	ITS CROSS SECTION
IT-115 - IT-116	ITS CROSS SECTION
IT-131	HUB SHELTER DETAILS
IT-132	MASTER HUB BUILDING GRADING PLAN
IT-205 - IT-206	ITS DEVISES
IT-207 - IT-208	SUNGUIDE LANE ASSIGNMENT
IT-209 - IT-210	SEQUENTIAL CABLE LENGTH
IT-211	ITS - FIBER MARKERS

KEVIN WILLIAM WALSH
LICENSE
No 78396
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

WSP USA INC.
2202 NORTH WEST SHORE BLVD, SUITE 300
TAMPA, FL 33607
CERTIFICATE OF AUTHORIZATION 01462
KEVIN W. WALSH, P.E. NO. 78396

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING CHANGES, INDICATED IN REDLINE REVISION, IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD.

THE ENGINEER HAS RELIED ON AS-BUILT INFORMATION PROVIDED BY OTHERS AND TO THE BEST OF OUR KNOWLEDGE, REFLECTS AS-CONSTRUCTED CONDITIONS.

SHEET NO.	SHEET DESCRIPTION
IT-2F	SIGNATURE SHEET
IT-138 - IT-145	ITS ELECTRICAL PLANS
IT-147	ITS ELECTRICAL PLANS
IT-149 - IT-166	ITS ELECTRICAL PLANS
IT-170	ITS ELECTRICAL PLANS
IT-174 - IT-175	ITS ELECTRICAL ONE-LINE SCHEMATIC
IT-181	ITS ELECTRICAL DETAILS
IT-183	ITS ELECTRICAL DETAILS
IT-204	HUB BUILDING ELECTRICAL PLAN

MORGAN VILLANUEVA
LICENSE
No 60292
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CAP ENGINEERING, INC.
343 ALMERIA AVENUE
CORAL GABLES, FL 33134
CERT. OF AUTH. NO. 27052
EOR: MORGAN VILLANUEVA, P.E. NO. 60292

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING CHANGES, INDICATED IN REDLINE REVISION, IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD.

THE ENGINEER HAS RELIED ON AS-BUILT INFORMATION PROVIDED BY OTHERS AND TO THE BEST OF OUR KNOWLEDGE, REFLECTS AS-CONSTRUCTED CONDITIONS.

SHEET NO.	SHEET DESCRIPTION
IT-2F	SIGNATURE SHEET
IT-184 - IT-187A	SPECIAL CANTILEVER SIGN STRUCTURE DETAILS
IT-188 - IT-191	SPECIAL SPAN SIGN STRUCTURE DETAILS

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/21	ADDED FINAL AS-BUILT SIGNATURE SHEET		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

FINAL AS-BUILT SIGNATURE SHEET

SHEET NO.
IT-2F

ITS EQUIPMENT ABBREVIATIONS

AG:	ABOVE GROUND
AMS:	ARTERIAL MANAGEMENT SYSTEM
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
BCTED:	BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
C:	CONDUIT
CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRUIT BREAKER
CCTV:	CLOSED-CIRCUIT TELEVISION
CKT	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CMSS:	CHANGEABLE MESSAGE SIGN - TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN - TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
DVE:	DIGITAL VIDEO ENCODER
EB:	EAST BOUND
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (PROJECT ELEC UTILITY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD	MOUNTED
MVDS:	MICROWAVE VEHICLE DETECTION SYSTEM
NB:	NORTH BOUND
N.E.C.	NATIONAL ELECTRIC CODE
N.E.S.C.	NATIONAL ELECTRIC SAFETY CODE
PB:	PULLBOX
POA:	ITS POLE WITH CLD (CAMERA LOWERING DEVICE)
POB:	ITS POLE WITHOUT CLD (CAMERA LOWERING DEVICE)
PNL:	PANEL
PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W	RIGHT OF WAY
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SB:	SOUTH BOUND
SW:	SWITCH
SPD:	SURGE PROTECTION DEVICE
STP:	SHIELDED TWISTED PAIR
TMS:	TRANSPORTATION MANAGEMENT SYSTEM
TSM&O:	TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS
TTMS:	TELEMETERED TRAFFIC MONITORING SITE
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
VCB:	VANGUARD CONTROL BOARD
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
XFMR:	TRANSFORMER

LEGEND

- SPLICE BOX
- EXISTING SPLICE BOX
- ITS CABINET (POLE MOUNTED)
- ITS CABINET (GROUND MOUNTED)
- DEDICATED CCTV CAMERA
- CCTV CAMERA
- EXISTING CCTV CAMERA
- MVDS
- EXISTING MVDS
- MVDS DETECTION ZONE
- ITS POWER STATION
- 13"x24" ELECTRICAL PULL BOX OR JUNCTION BOX
- ITS PULL BOX
- RAMP METERING CONTROL SIGNAL
- RAMP METERING LOOP DETECTOR SENSOR
- PORTABLE TRAFFIC MONITORING SITE (PTMS)
- TELEMETERED TRAFFIC MONITORING SITE (TTMS)
- DYNAMIC MESSAGE SIGN (DMS)
- EXISTING LANE D
- STATUS
- TOLL DMS

- ITS EQUIPMENT POLE
- EXISTING ITS EQUIPMENT POLE
- UG ITS CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- HORIZONTAL DIRECTIONAL BORE CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- SURFACE MOUNTED AND ABOVE GROUND CONDUIT. CONDUIT SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE NOTED.
- EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)
- EXISTING UG FOC MAIN COMMUNICATION CONDUIT
- EXISTING JACKED/BORE CONDUIT
- EXISTING R/W
- EXISTING LA R/W

VOID

CONDUIT COLOR CODING SCHEDULE

CONDUIT	COLOR OF CONDUIT
BACKBONE RUN / DROP RUN	
FIBER OPTIC: CABLE (FDOT 144SM FOC)	ORANGE
FIBER OPTIC: CABLE (AMS/BCTED 144SM FOC)	ORANGE WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #1	BLACK
FIBER OPTIC SPARE: FOC SPARE #2	BLACK WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #3	BLACK WITH GREEN STRIPE
FIBER OPTIC: CABLE (144SM RAMP EXTENSION)	ORANGE
FIBER OPTIC: CABLE (24SM FOC)	ORANGE
FIBER OPTIC: CABLE (6MM FOC)	ORANGE
ELECTRICAL: SERVICE WIRE	RED
MISCELLANEOUS CONDUIT	
COMPOSITE: ETHERNET CAT5 / 6 CABLING	WHITE
RAMP SIGNAL	
SIGNAL CABLE: SIGNAL / DETECTOR / LOOP LEAD-IN)	WHITE WITH RED STRIPE
RS485 CABLE (FROM FREEWAY RAMP MVDS TO RSS CABINET	WHITE
TONE WIRE	GREY
BROWARD / PALM BEACH COUNTY ARTERIAL	
FIBER OPTIC: CABLE (24SM FOC)	GREY WITH WHITE STRIPE

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: RPOTI VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

GENERAL NOTES (1)

SHEET NO. IT-3

ITS EQUIPMENT ABBREVIATIONS

AG:	ABOVE GROUND
AMS:	ARTERIAL MANAGEMENT SYSTEM
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
BCTED:	BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
C:	CONDUIT
CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRCUIT BREAKER
CCTV:	CLOSED-CIRCUIT TELEVISION
CKT	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CMSS:	CHANGEABLE MESSAGE SIGN - TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN - TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
DVE:	DIGITAL VIDEO ENCODER
EB:	EAST BOUND
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (PROJECT ELEC UTILITY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
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LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD	MOUNTED
MVDS:	MICROWAVE VEHICLE DETECTION SYSTEM
NB:	NORTH BOUND
N.E.C.	NATIONAL ELECTRIC CODE
N.E.S.C.	NATIONAL ELECTRIC SAFETY CODE
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PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W	RIGHT OF WAY
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SB:	SOUTH BOUND
SW:	SWITCH
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TTMS:	TELEMETERED TRAFFIC MONITORING SITE
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
VCB:	VANGUARD CONTROL BOARD
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
WWDS	WRONG WAY DRIVING SYSTEM (6)
XFMR:	TRANSFORMER

LEGEND

- SPLICE BOX
- EXISTING SPLICE BOX
- ITS CABINET (POLE MOUNTED)
- ITS CABINET (GROUND MOUNTED)
- DEDICATED CCTV CAMERA
- CCTV CAMERA
- EXISTING CCTV CAMERA
- MVDS
- EXISTING MVDS
- MVDS DETECTION ZONE
- ITS POWER STATION
- 13"x24" ELECTRICAL PULL BOX OR JUNCTION BOX
- ITS PULL BOX
- RAMP METERING CONTROL SIGNAL
- RAMP METERING LOOP DETECTOR SENSOR
- PORTABLE TRAFFIC MONITORING SITES (PTMS)
- TELEMETERED TRAFFIC MONITORING SITES (TTMS)
- DMS — DYNAMIC MESSAGE SIGN (DMS)
- EL-DMS — EXPRESS LANE DMS
- S-DMS — STATUS DMS
- T-DMS — TOLL DMS
- LED HIGHLIGHTED WWDS SIGN
- STATIC WWDS SIGN (6)

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT (6)

- ITS EQUIPMENT POLE
- EXISTING ITS EQUIPMENT POLE
- UG ITS CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- HORIZONTAL DIRECTIONAL BORE CONDUIT. CONDUIT SHALL BE 2" HDPE CONDUIT UNLESS OTHERWISE NOTED ON ITS DRAWINGS.
- SURFACE MOUNTED AND ABOVE GROUND CONDUIT. CONDUIT SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE NOTED.
- EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)
- EXISTING UG FOC MAIN COMMUNICATION CONDUIT
- EXISTING JACKED/BORE CONDUIT
- EXISTING R/W
- EXISTING LA R/W (5)

CONDUIT COLOR CODING SCHEDULE

CONDUIT	COLOR OF CONDUIT
BACKBONE RUN / DROP RUN	
FIBER OPTIC: CABLE (FDOT 144SM FOC)	ORANGE
FIBER OPTIC: CABLE (AMS/BCTED 144SM FOC)	ORANGE WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #1	BLACK
FIBER OPTIC SPARE: FOC SPARE #2	BLACK WITH WHITE STRIPE
FIBER OPTIC SPARE: FOC SPARE #3	BLACK WITH GREEN STRIPE
FIBER OPTIC: CABLE (144SM RAMP EXTENSION)	ORANGE
FIBER OPTIC: CABLE (24SM FOC)	ORANGE
FIBER OPTIC: CABLE (6MM FOC)	ORANGE
ELECTRICAL: SERVICE WIRE	RED
MISCELLANEOUS CONDUIT	
COMPOSITE: ETHERNET CAT5 / 6 CABLING	WHITE
RAMP SIGNAL	
SIGNAL CABLE: SIGNAL / DETECTOR / LOOP LEAD-IN)	WHITE WITH RED STRIPE
RS485 CABLE (FROM FREEWAY RAMP MVDS TO RSS CABINET	WHITE
TONE WIRE	GREY
BROWARD / PALM BEACH COUNTY ARTERIAL	
FIBER OPTIC: CABLE (24SM FOC)	GREY WITH WHITE STRIPE

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RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, and compliance with all codes and standards for fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5896
BY:(FDOT) VS Date: 2/25/2021

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	(5) REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	(6) REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

GENERAL NOTES (1)

SHEET NO. IT-3

ITS NOTES

GENERAL

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OR THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS, NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.

2. IN ORDER TO MINIMIZE IMPACT TO LANDSCAPING MATERIAL, EXERCISE CAUTION THROUGH LANDSCAPING LIMITS DURING ALL PHASES OF CONSTRUCTION ACTIVITY. CONTRACTOR SHALL REPAIR / REPLACE ANY DAMAGED LANDSCAPING AND PLANT BEDS CAUSED BY THEIR CONSTRUCTION ACTIVITY. WHERE CONDUIT RUNS BY EXISTING TREES, NO TRENCHING OR DISTURBANCE WILL OCCUR WITHIN THE EXISTING TREE DRIP LINE.

3. FOR ALL OVERHEAD SIGN STRUCTURES, EXERCISE ALL APPROPRIATE SAFETY MEASURES WHEN WORKING IN OR AROUND THESE AREAS. CAUTION SHALL BE TAKEN WITH RESPECT TO MAINTAINING THE POWER FEED AND GROUNDING CIRCUITRY.

4. HAND DIG THE FIRST 4' AT EACH POLE INSTALLATION LOCATION.

5. AVOID AND/OR PROTECT ALL TREES AND ROOTS BY HAND DIGGING AS NECESSARY.

6. IF WIRES, PVC CONDUIT AND/OR CABINETS TO PTMS LOCATIONS ARE DAMAGED DURING CONSTRUCTION, THESE SITES NEED TO BE REPAIRED OR REPLACED BEFORE THE NEW PTMS IS UP AND RUNNING. "CALL THE PLANNING DEPARTMENT IF THE INDUCTIVE LOOPS AND/OR PIEZOS ARE CUT, IN ORDER TO PERFORM AN INSPECTION. CONTACT KARA SCHWARTZ 954-777-4364 AND E-MAIL KARA.SCHWARTZ@DOT.STATE.FL .US"

7. ALL TRAFFIC CONTROL DEVICES MAINTAINED BY BROWARD COUNTY / PALM BEACH COUNTY, THAT ARE REMOVED OR DAMAGED BY CONSTRUCTION SHALL BE REPLACED USING CURRENT BROWARD COUNTY / PALM BEACH COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS.

8. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE A COPY OF THE REQUEST TO THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC). THE CONTRACTOR SHALL PROVIDE THE DCIC WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE, AND PROVIDE A DESCRIPTION OF THE SPECIFIC MANNER IN WHICH THE MATERIAL WILL BE USED. THE PROJECT ENGINEER SHALL COORDINATE WITH THE DCIC PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AS HAZARDOUS MATERIALS, SUCH PRODUCTS DO NOT REQUIRE AN MSDS SUBMITTAL. ALL BULK PETROLEUM PRODUCTS STORED ON SITE SHALL REQUIRE PROPER STORAGE WHICH INCLUDES SECONDARY CONTAINMENT.

9. IF SUSPECT CONTAMINATED OR HAZARDOUS MATERIAL IS FOUND ON THE PROJECT, OR ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC) AT PHONE NUMBER (954) 777-4286.

10. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING OR STOCKPILING AREAS WITH THE DISTRICT CONSTRUCTION ENVIRONMENTAL COORDINATOR AT (954) 777-4665.

11. BLACK AND RED BUFFER TUBES OF FDOT 144 SMFO ARE ALLOCATED FOR TOLL COMMUNICATIONS.

CONDUIT

1. CONDUIT RUN SHALL NOT EXCEED 270° OF BENDS BETWEEN PULL BOXES.

2. ALL HDPE CONDUIT CONNECTIONS SHALL BE JOINED WITH A MECHANICAL COUPLE OR APPROVED EQUAL.

3. JACK AND BORE OPERATIONS IF USED SHALL MEET THE REQUIREMENTS OF FDOT'S UTILITY ACCOMMODATION MANUAL (LATEST EDITION).

4. CONDUIT INSTALLATION MUST MEET THE CONDUIT INSTALLATION REQUIREMENTS OF THE 2017 UTILITY ACCOMMODATION MANUAL AT A MINIMUM.

5. TRACER WIRE SHALL BE INSTALLED FOR ALL FIBER BACKBONE, FIBER LATERAL, AND MULTI-CONDUCTOR COMMUNICATION CABLE RUNS. THE TRACER WIRE SHALL BE PLACED ALONG THE CENTERLINE OF THE TOP OUTER SURFACE OF INSTALLED CONDUIT RUN DURING TRENCH OPERATION.

PULL BOXES

1. POWER AND COMMUNICATIONS CABLE MUST BE IN SEPARATE PULL BOXES.

2. FOR I-95 RAMP FIBER OPTIC EXTENSIONS ONLY, STORE 100 FEET OF SLACK FIBER OPTIC CABLE IN THE PULL BOXES.

3. AT LOCATIONS WHERE PULL BOXES ARE INSTALLED ON ROADWAY SHOULDERS, HEAVY DUTY ROAD RATED OR TRAFFIC BEARING PULL BOXES ARE REQUIRED.

4. STORE 100 FEET OF SLACK FOR EACH FIBER OPTIC DROP CABLE IN THE SPLICE VAULT UNLESS SPECIFIED IN PLANS.

FIBER OPTIC CABLE SLACK STORAGE: STORE A TOTAL OF 20 FEET OF SPARE FIBER OPTIC CABLE IN ITS CABINETS.

ITS

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING AND PROPOSED ROADWAY LIGHTING PRIOR TO INSTALLATION OF DMS, CONDUIT, PULL BOXES, AND POLE FOUNDATIONS.

2. VEGETATION SHALL BE REMOVED OR CUT BACK AS DIRECTED BY THE ENGINEER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR ALL DEVICE LOCATIONS.

3. ALL DIMENSIONS SHOWN FOR THE PURPOSE OF DEVICE POLE LOCATIONS ARE MADE FROM THE REFERENCE POINT SHOWN TO THE FACE OF THE POLE NEAREST THE ROADWAY.

4. WHEN RUNNING CABLES INSIDE THE STRAIN POLE, ENSURE THAT WATER DOES NOT ENTER THE CABINET BY RUNNING DOWN THE CABLE.

5. AT LOCATIONS WHERE UNDERGROUND UTILITIES OR STORM ARE WITHIN TWO FEET OF THE ITS POLE FOUNDATIONS OR CONDUIT RUN, THE CONTRACTOR WILL HAND DIG THE FIRST FOUR FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.

6. CONTRACTOR SHALL INSTALL MVDS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

7. REUSABLE ITS EQUIPMENT TO BE RETURNED TO FDOT ITS MAINTENANCE.

8. INSTALL CABINET OPENINGS SO THAT MAINTENANCE TECHNICIAN NEVER HAVE THEIR BACK TO TRAFFIC WHEN OPENING EITHER OF THE CABINET DOORS.

9. CABINET COMPONENTS (I.E. PATCH PANELS, PDU, MFES, ETC.) SHALL BE INSTALLED WITHIN THE CABINET SO THAT THE PRIMARY ACCESS TO THE COMPONENTS IS ON THE FAR SIDE OF THE CABINET FROM THE ROADWAY.

10. INSTALL WIRE GROUNDING UNIT (WGU) IN EVERY SPLICE BOX ALONG THE PROJECT LENGTH FOR THE LOCATE WIRE OF THE FIBER OPTIC BACKBONE.

VOID

RELEASED FOR CONSTRUCTION
BY: RDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

GENERAL NOTES (2)

SHEET NO. IT-4

ITS NOTES

GENERAL

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OR THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS, NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.

2. IN ORDER TO MINIMIZE IMPACT TO LANDSCAPING MATERIAL, EXERCISE CAUTION THROUGH LANDSCAPING LIMITS DURING ALL PHASES OF CONSTRUCTION ACTIVITY. CONTRACTOR SHALL REPAIR / REPLACE ANY DAMAGED LANDSCAPING AND PLANT BEDS CAUSED BY THEIR CONSTRUCTION ACTIVITY. WHERE CONDUIT RUNS BY EXISTING TREES, NO TRENCHING OR DISTURBANCE WILL OCCUR WITHIN THE EXISTING TREE DRIP LINE.

3. FOR ALL OVERHEAD SIGN STRUCTURES, EXERCISE ALL APPROPRIATE SAFETY MEASURES WHEN WORKING IN OR AROUND THESE AREAS. CAUTION SHALL BE TAKEN WITH RESPECT TO MAINTAINING THE POWER FEED AND GROUNDING CIRCUITRY.

4. HAND DIG THE FIRST 4' AT EACH POLE INSTALLATION LOCATION.

5. AVOID AND/OR PROTECT ALL TREES AND ROOTS BY HAND DIGGING AS NECESSARY.

6. IF WIRES, PVC CONDUIT AND/OR CABINETS TO PTMS LOCATIONS ARE DAMAGED DURING CONSTRUCTION, THESE SITES NEED TO BE REPAIRED OR REPLACED BEFORE THE NEW PTMS IS UP AND RUNNING. "CALL THE PLANNING DEPARTMENT IF THE INDUCTIVE LOOPS AND/OR PIEZOS ARE CUT, IN ORDER TO PERFORM AN INSPECTION. CONTACT KARA SCHWARTZ 954-777-4364 AND E-MAIL KARA.SCHWARTZ@DOT.STATE.FL .US"

7. ALL TRAFFIC CONTROL DEVICES MAINTAINED BY BROWARD COUNTY / PALM BEACH COUNTY, THAT ARE REMOVED OR DAMAGED BY CONSTRUCTION SHALL BE REPLACED USING CURRENT BROWARD COUNTY / PALM BEACH COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS.

8. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE A COPY OF THE REQUEST TO THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC). THE CONTRACTOR SHALL PROVIDE THE DCIC WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE, AND PROVIDE A DESCRIPTION OF THE SPECIFIC MANNER IN WHICH THE MATERIAL WILL BE USED. THE PROJECT ENGINEER SHALL COORDINATE WITH THE DCIC PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AS HAZARDOUS MATERIALS, SUCH PRODUCTS DO NOT REQUIRE AN MSDS SUBMITTAL. ALL BULK PETROLEUM PRODUCTS STORED ON SITE SHALL REQUIRE PROPER STORAGE WHICH INCLUDES SECONDARY CONTAINMENT.

9. IF SUSPECT CONTAMINATED OR HAZARDOUS MATERIAL IS FOUND ON THE PROJECT, OR ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC) AT PHONE NUMBER (954) 777-4286.

10. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING OR STOCKPILING AREAS WITH THE DISTRICT CONSTRUCTION ENVIRONMENTAL COORDINATOR AT (954) 777-4665.

11. BLACK AND RED BUFFER TUBES OF FDOT 144 SMFO ARE ALLOCATED FOR TOLL COMMUNICATIONS.

12. THE DETECTION ZONE OF WRONG WAY DETECTION SYSTEM (WWDS) SHALL COVER THE SHOULDERS ON BOTH SIDES IN ADDITION TO THE TRAVEL LANES.

13. COORDINATE WITH THE MANUFACTURER OR REPRESENTATIVE TO FIELD ADJUST AND TEST THE INSTALLATION OF DETECTION POLES AND CAMERAS FOR MAXIMUM ACCURACY.

△6

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT △6

CONDUIT

1. CONDUIT RUN SHALL NOT EXCEED 270° OF BENDS BETWEEN PULL BOXES.

2. ALL HDPE CONDUIT CONNECTIONS SHALL BE JOINED WITH A MECHANICAL COUPLE OR APPROVED EQUAL.

3. JACK AND BORE OPERATIONS IF USED SHALL MEET THE REQUIREMENTS OF FDOT'S UTILITY ACCOMMODATION MANUAL (LATEST EDITION).

4. CONDUIT INSTALLATION MUST MEET THE CONDUIT INSTALLATION REQUIREMENTS OF THE 2017 UTILITY ACCOMMODATION MANUAL AT A MINIMUM.

5. TRACER WIRE SHALL BE INSTALLED FOR ALL FIBER BACKBONE, FIBER LATERAL, AND MULTI-CONDUCTOR COMMUNICATION CABLE RUNS. THE TRACER WIRE SHALL BE PLACED ALONG THE CENTERLINE OF THE TOP OUTER SURFACE OF INSTALLED CONDUIT RUN DURING TRENCH OPERATION.

6. WHEN A MIXTURE OF EXISTING CONDUITS AND NEW CONDUITS IS USED, THE EXISTING CONDUITS SHALL BE TERMINATED IN THE PROPOSED PULL BOXES WITH THE PROPOSED CONDUITS.

△6

PULL BOXES

1. POWER AND COMMUNICATIONS CABLE MUST BE IN SEPARATE PULL BOXES.

2. FOR I-95 RAMP FIBER OPTIC EXTENSIONS ONLY, STORE 100 FEET OF SLACK FIBER OPTIC CABLE IN THE PULL BOXES.

3. AT LOCATIONS WHERE PULL BOXES ARE INSTALLED ON ROADWAY SHOULDERS, LOAD RATED OR TRAFFIC BEARING PULL BOXES ARE REQUIRED.

4. STORE 100 FEET OF SLACK FOR EACH FIBER OPTIC DROP CABLE IN THE SPLICE BOX UNLESS SPECIFIED IN PLANS.

ITS CABINETS

1. SLACK CABLE STORAGE: STORE A TOTAL OF 20 FEET OF SPARE FIBER OPTIC CABLE IN ITS CABINETS.

ITS

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING AND PROPOSED ROADWAY LIGHTING PRIOR TO INSTALLATION OF DMS, CONDUIT, PULL BOXES, AND POLE FOUNDATIONS.

2. VEGETATION SHALL BE REMOVED OR CUT BACK AS DIRECTED BY THE ENGINEER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR ALL DEVICE LOCATIONS.

3. ALL DIMENSIONS SHOWN FOR THE PURPOSE OF DEVICE POLE LOCATIONS ARE MADE FROM THE REFERENCE POINT SHOWN TO THE FACE OF THE POLE NEAREST THE ROADWAY.

4. WHEN RUNNING CABLES INSIDE THE STRAIN POLE, ENSURE THAT WATER DOES NOT ENTER THE CABINET BY RUNNING DOWN THE CABLE.

5. AT LOCATIONS WHERE UNDERGROUND UTILITIES OR STORM ARE WITHIN TWO FEET OF THE ITS POLE FOUNDATIONS OR CONDUIT RUN, THE CONTRACTOR WILL HAND DIG THE FIRST FOUR FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.

6. CONTRACTOR SHALL INSTALL MVDS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

7. REUSABLE ITS EQUIPMENT TO BE RETURNED TO FDOT ITS MAINTENANCE.

8. INSTALL CABINET OPENINGS SO THAT MAINTENANCE TECHNICIAN NEVER HAVE THEIR BACK TO TRAFFIC WHEN OPENING EITHER OF THE CABINET DOORS.

9. CABINET COMPONENTS (I.E. PATCH PANELS, PDU, MFES, ETC.) SHALL BE INSTALLED WITHIN THE CABINET SO THAT THE PRIMARY ACCESS TO THE COMPONENTS IS ON THE FAR SIDE OF THE CABINET FROM THE ROADWAY.

10. INSTALL WIRE GROUNDING UNIT (WGU) IN EVERY SPLICE BOX ALONG THE PROJECT LENGTH FOR THE LOCATE WIRE OF THE FIBER OPTIC BACKBONE.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, signed, sealed and dated documents, and field fabrication and erection shall remain with the contractor.
BY:(FDOT) VS Date: 2/25/2021
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5696

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
5/8/2020	△5 REVISED DESIGN FOR AUXILIARY LANE REVISION.		
1/29/2021	△6 REVISED FOR WRONG WAY DETECTION REVISION.		

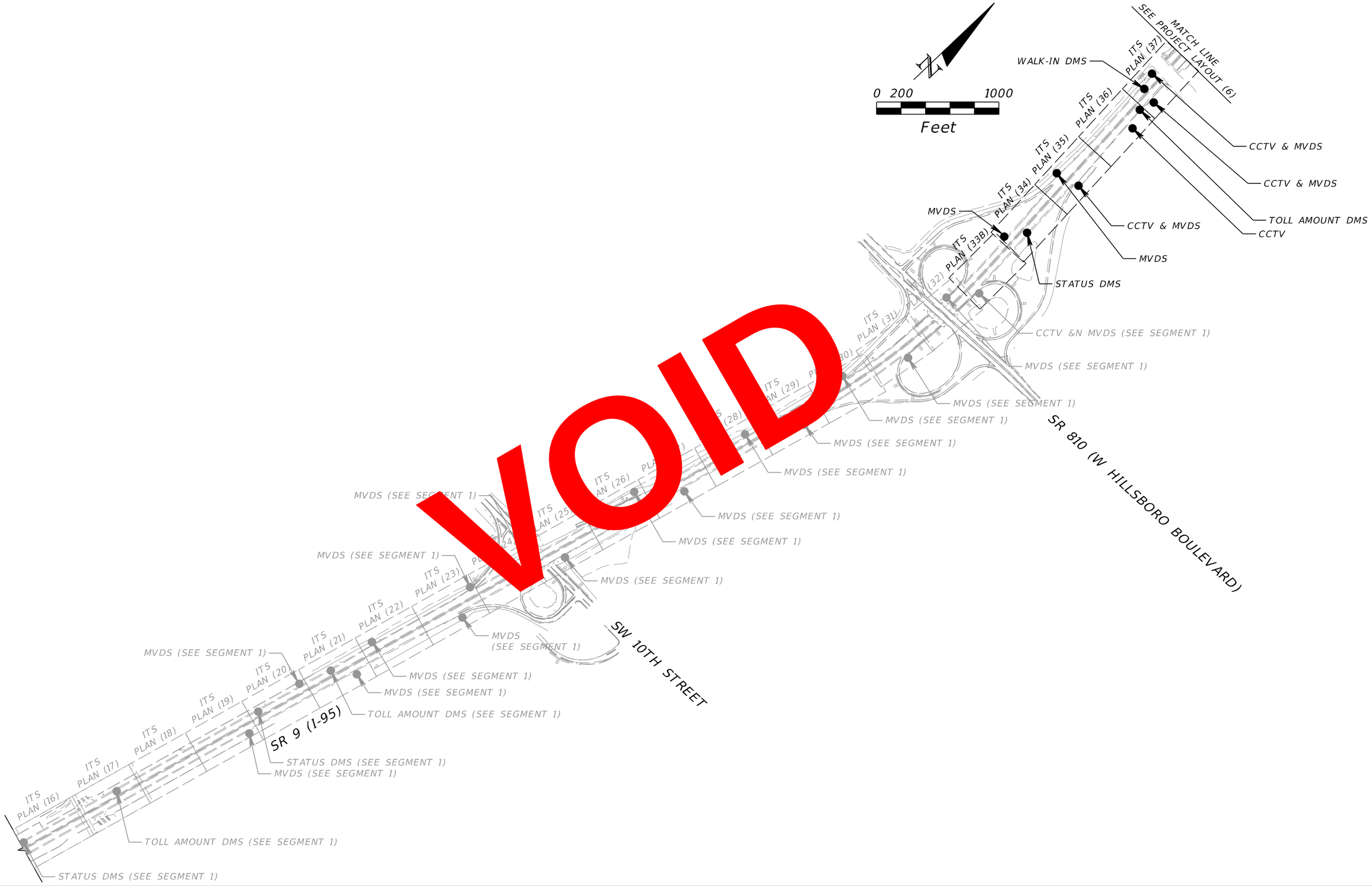
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

GENERAL NOTES (2)

SHEET NO. IT-4



VOID

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RELEASED FOR CONSTRUCTION
BY: FDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4Q66

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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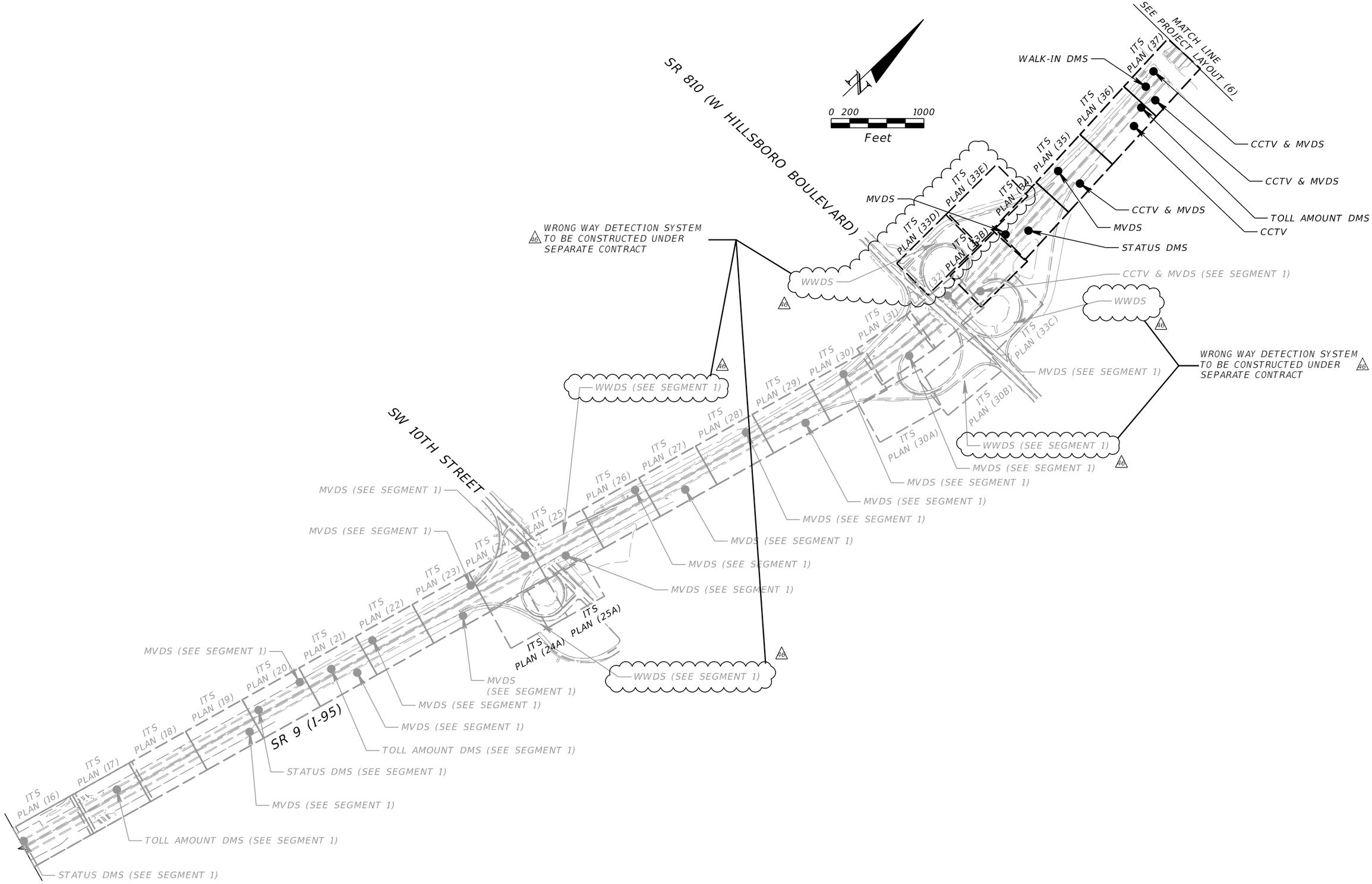
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT (5B)

SHEET NO.
IT-5



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT (5B)

SHEET NO. IT-5

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BY:(FDOT) VS Date: 2/25/2021

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496

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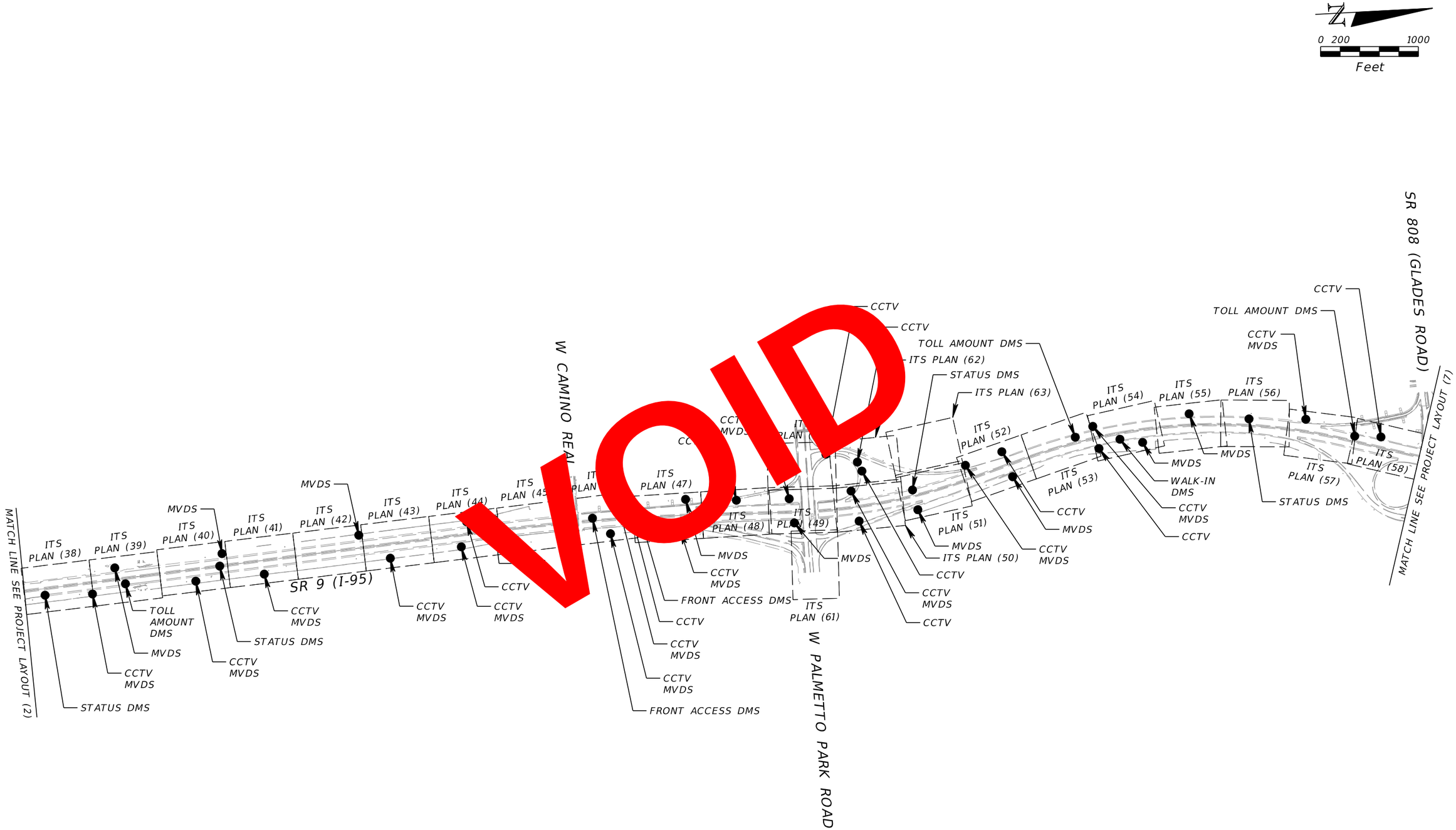

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Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
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STATE OF FLORIDA
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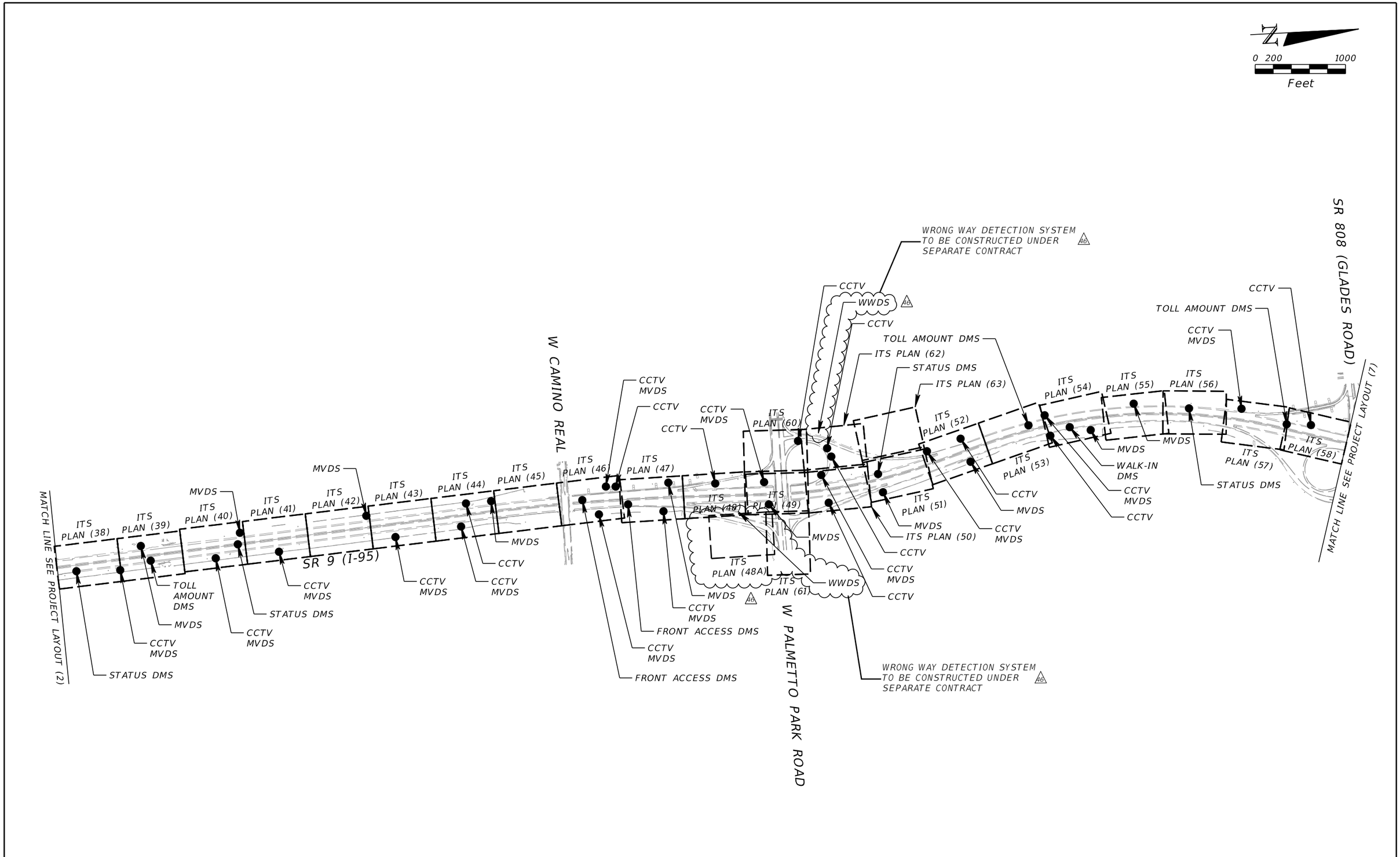
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT (6)

SHEET NO.
IT-6



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT (6)

SHEET NO.
IT-6

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RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 2/25/2021

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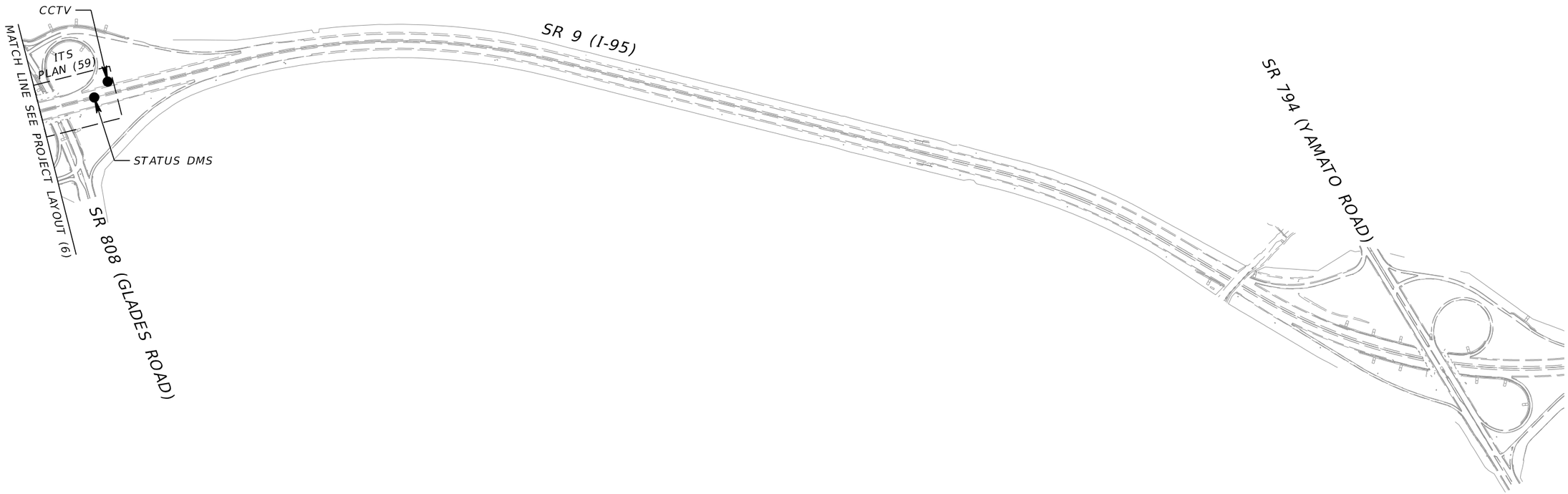

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Feet

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT (7)

SHEET NO.
IT-7

BY: FDOT VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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EXISTING 144 FOC INSTALLED BEFORE 3A-2
&
EXISTING 48 INSTALLED BEFORE 3A-2

PROPOSED 144 FOC TO BE INSTALLED IN 3B-1

STATION NUMBERS ARE APPROXIMATE ONLY

EXISTING
144-COUNT SM
TRUNK CABLE

STA. 3032+50 SB SIDE
NEW SV-6 IN 3B-1

STA. 3047+72 SB SIDE
NEW SV-7 IN 3B-1

STA. 3061+40 SB SIDE
NEW SV-8 IN 3B-1

MATCH LINE 2 (SEE COMMUNCATION OVERVIEW (3A) IN SEGMENT 1 PLANS)

MATCH LINE 3 (SEE COMMUNCATION OVERVIEW (4))

BLUE BUFFER — C2C
ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
SLATE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
WHITE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
YELLOW BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
VIOLET BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
ROSE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
AQUA BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SEE SEGMENT 1

SEE SEGMENT 1

BLUE BUFFER
ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU
GREEN BUFFER
BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

EXISTING
48-COUNT SM
TRUNK CABLE

EXISTING
HUB
(HUB 95-42)
(TO BE
REMOVED)
STA. 3061+75 SB SIDE

MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES
DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER
EXISTING CAMERA 0422CCTV (OLD C9045)	FLD4095042.25BSSDSGP	0422DCCTV	FLD4095042.2NBNSDSOF	FLD4D0T095542.4NBLS1	FLD4095042.3SBSSDSGP	0425CCTV	FLD4095042.5NBNSDSON	FLD4095042.5SBSSDSOF	0427DCCTV-1	FLD4D0T095542.7NBTR1	0427DCCTV-2	0427CCTV	FLD4095042.7NBNSDSGP	EXISTING DMS FLD4D0T095542.7 (OLD GUL DMS 955B42)	FLD4095042.8SBSSDSGP	0427DCCTV-3	
CCTV	MVDS	D-CCTV	MVDS	S-DMS	MVDS	CCTV	MVDS	MVDS	D-CCTV	T-DMS	D-CCTV	CCTV	MVDS	WALK-IN DMS	MVDS	D-CCTV	GENERATOR
STA. 3028+88 SB SIDE		STA. 3032+40 NB SIDE		STA. 3040+00 NB SIDE	STA. 3038+00 SB SIDE	STA. 3047+01 NB SIDE		STA. 3048+00 SB SIDE	STA. 3056+00 NB SIDE	STA. 3058+00 NB SIDE	STA. 3058+90 NB SIDE			STA. 3060+00 SB SIDE	STA. 3061+78 SB SIDE		STA. 3060+50 SB SIDE

LEGEND

- SEGMENT 1 PROPOSED BUFFER CAP AND COIL
- SEGMENT 1 PROPOSED FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED BUFFER TO BUFFER SPLICES

VOID

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (5B)

SHEET NO. IT-8

BY:RDOT VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-52-01 CONTRACT E4R96

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EXISTING 144 FOC INSTALLED BEFORE 3A-2
&
EXISTING 48 INSTALLED BEFORE 3A-2

PROPOSED 144 FOC TO BE INSTALLED IN 3B-1

STATION NUMBERS ARE APPROXIMATE ONLY

EXISTING
144-COUNT SM
TRUNK CABLE

STA. 3032+50 SB SIDE
NEW SV-6 IN 3B-1

STA. 3047+72 SB SIDE
NEW SV-7 IN 3B-1

STA. 3061+40 SB SIDE
NEW SV-8 IN 3B-1

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

BLU/ORG
GRN/BRN
SLT/WHT
RED/BLK
YLW/VIO
ROS/AQU

C2C

MATCH LINE 2 (SEE COMMUNICATION OVERVIEW (3A) IN SEGMENT 1 PLANS)

MATCH LINE 3 (SEE COMMUNICATION OVERVIEW (4))

SEE SEGMENT 1

SEE SEGMENT 1

EXISTING
48-COUNT SM
TRUNK CABLE

EXISTING
HUB
(HUB 95-42)
(TO BE
REMOVED)

STA. 3061+75 SB SIDE

MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES
DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER	DEVICE SERVER
EXISTING CAMERA 0422CCTV (OLD C9045)	FLD4095042.25BSSDSGP		0422DCCTV	FLD4095042.2NBNSDSOF	FLD4D0T09542.4NBLS1	FLD4095042.3SBSSDSGP	0425CCTV	FLD4095042.5NBNSDSON	FLD4095042.5SBSSDSOF	0427DCCTV-1	FLD4D0T09542.7NBTR1	0427DCCTV-2	0427CCTV	FLD4095042.7NBNSDSGP	EXISTING DMS FLD4D0T09542.7 (OLD GUL DMS 955B42)	FLD4095042.8SBSSDSGP	0427DCCTV-3		
CCTV	MVDS	WWDS-5	D-CCTV	MVDS	S-DMS	MVDS	CCTV	MVDS	MVDS	D-CCTV	T-DMS	D-CCTV	CCTV	MVDS	WALK-IN DMS	MVDS	D-CCTV	GENERATOR					
STA. 3028+88 SB SIDE		STA. 3031+87 SB SIDE	STA. 3032+40 NB SIDE		STA. 3040+00 NB SIDE	STA. 3038+00 SB SIDE	STA. 3047+01 NB SIDE		STA. 3048+00 SB SIDE	STA. 3056+00 NB SIDE	STA. 3058+00 NB SIDE	STA. 3058+90 NB SIDE			STA. 3060+00 SB SIDE	STA. 3061+78 SB SIDE		STA. 3060+50 SB SIDE					

VOID

LEGEND
- SEGMENT 1 PROPOSED BUFFER CAP AND COIL
- SEGMENT 1 PROPOSED FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED BUFFER TO BUFFER SPLICES

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	4b REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (5B)

SHEET NO. IT-8

BY:(FDOT) VS Date: 2/25/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, dimensions and quantities is with EOR. Fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5496

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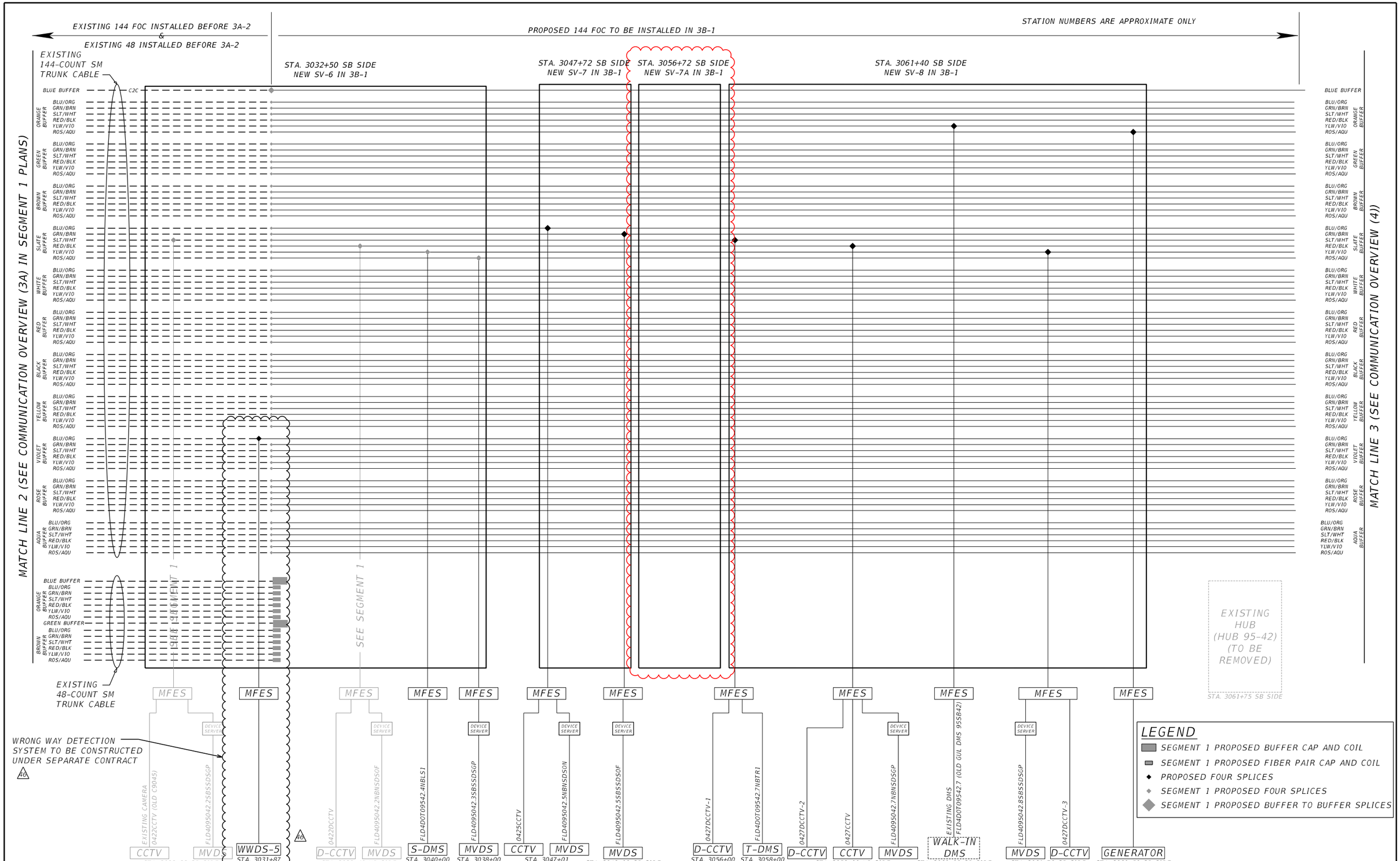

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (5B)

SHEET NO.
IT-8

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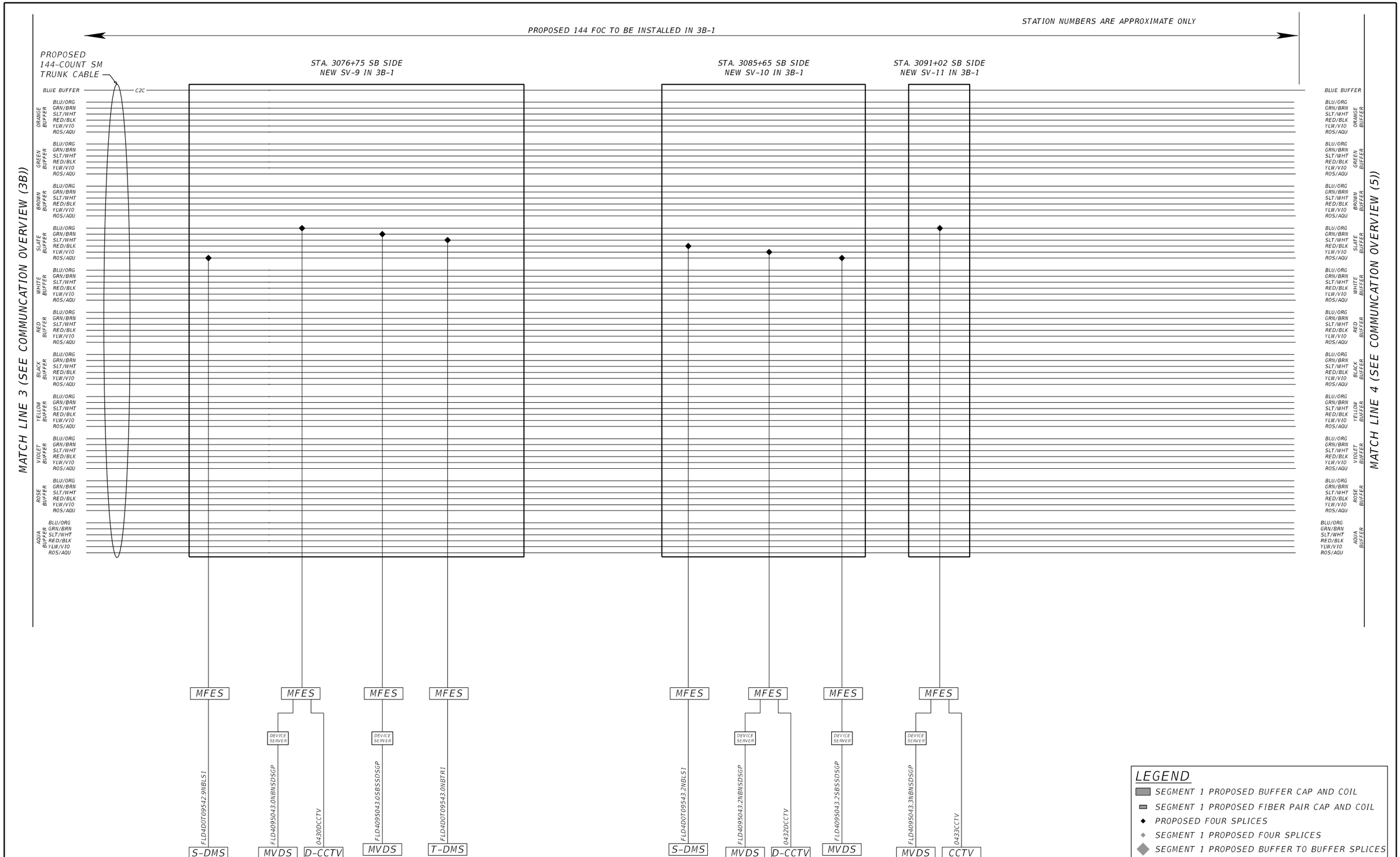

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RELEASED FOR CONSTRUCTION BY:(FOD) VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (6)

SHEET NO. IT-9

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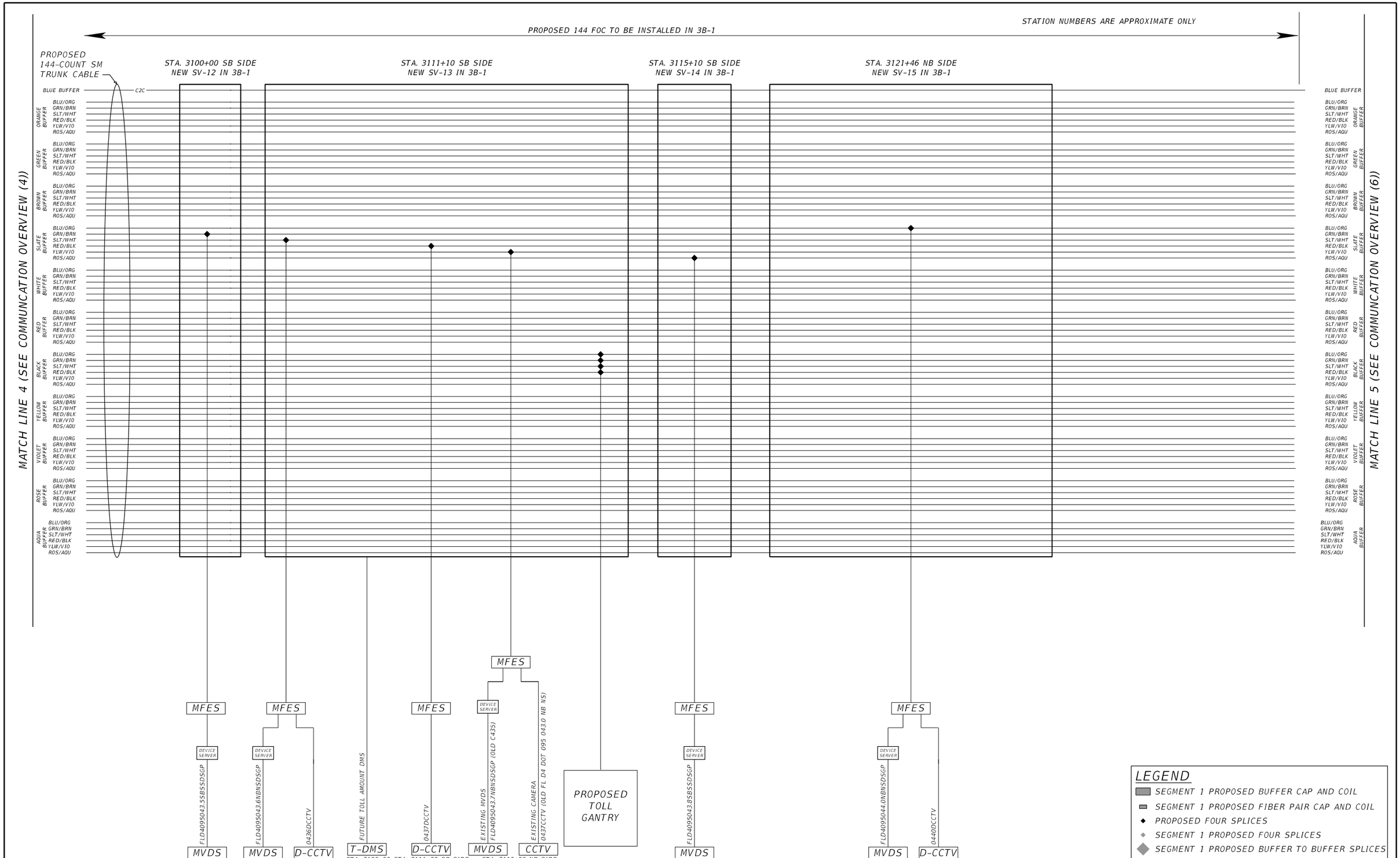

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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EOR: Derrick A. Lue, P.E. No. 44730

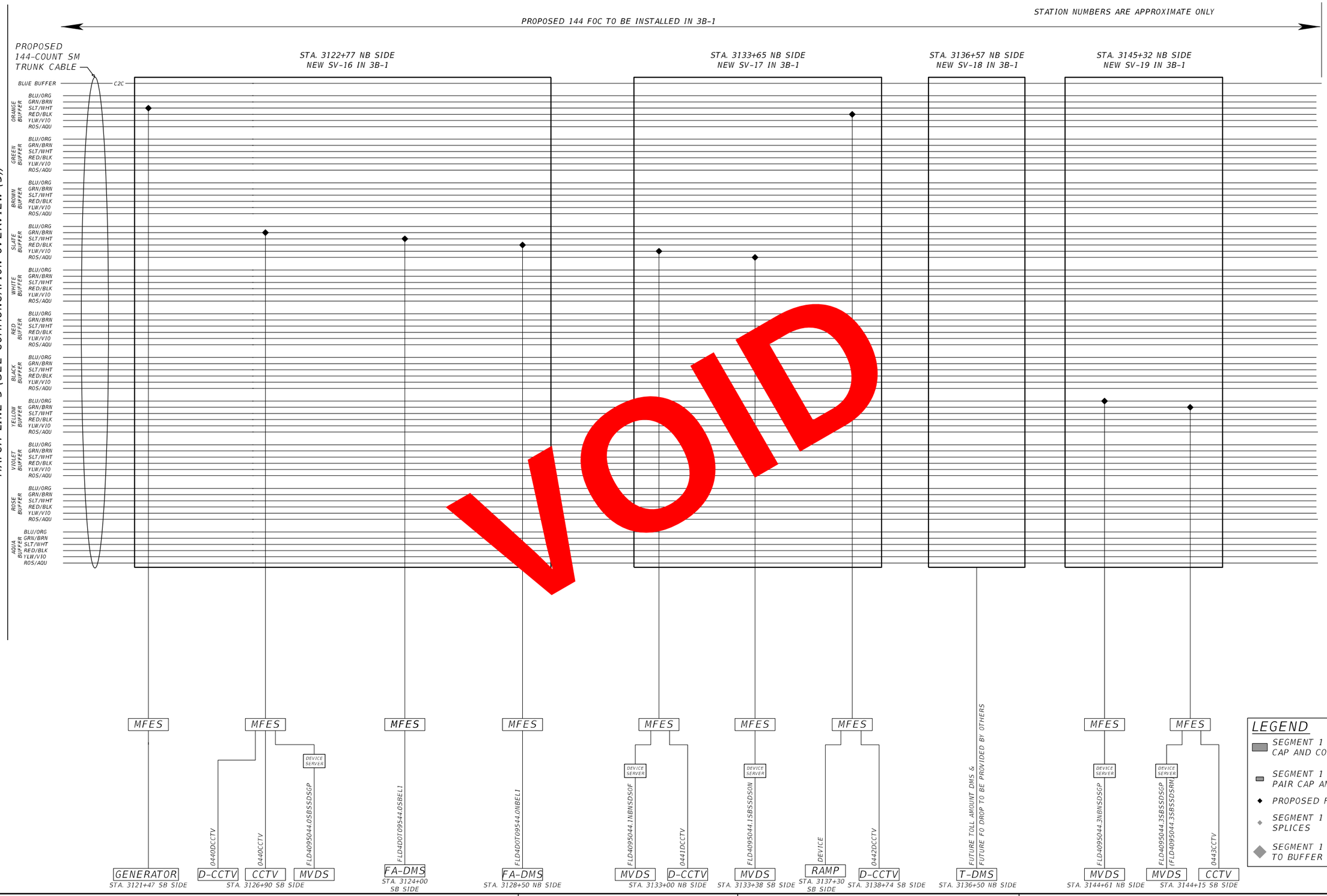
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (7)

SHEET NO. IT-10

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 4/18/2019 5:33:01 PM c:\projectwise\pb\projectwiseint\barco\d0230493\NWDTIT01.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (8)

SHEET NO.
IT-11

BY:RPOTI VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROPOSED 144 FOC TO BE INSTALLED IN 3B-1

STATION NUMBERS ARE APPROXIMATE ONLY

PROPOSED 144-COUNT SM TRUNK CABLE

STA. 3122+77 NB SIDE
NEW SV-16 IN 3B-1

STA. 3133+65 NB SIDE
NEW SV-17 IN 3B-1

STA. 3136+57 NB SIDE
NEW SV-18 IN 3B-1

STA. 3145+32 NB SIDE
NEW SV-19 IN 3B-1

MATCH LINE 5 (SEE COMMUNICATION OVERVIEW (5))

MATCH LINE 6 (SEE COMMUNICATION OVERVIEW (7))

BLUE BUFFER — C2C

ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

BLU/ORG
GRN/BRN
SLT/WHT
RED/BLK
YLW/VIO
ROS/AQU

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT (A6)

MFES	MFES			MFES	MFES	MFES		MFES	MFES	MFES			MFES	MFES		MFES	MFES						
		DEVICE SERVER					DEVICE SERVER											DEVICE SERVER	DEVICE SERVER				
GENERATOR	D-CCTV	CCTV	MVDS	FA-DMS	FA-DMS	MVDS	D-CCTV	MVDS	RAMP	D-CCTV	T-DMS	WWDS-6	MVDS	MVDS	CCTV
STA. 3121+47 SB SIDE	STA. 3126+90 SB SIDE			STA. 3124+00 SB SIDE	STA. 3128+50 NB SIDE	STA. 3133+00 NB SIDE		STA. 3133+38 SB SIDE	STA. 3137+30 SB SIDE	STA. 3138+74 SB SIDE	STA. 3136+50 NB SIDE	STA. 3141+19 NB SIDE	STA. 3144+61 NB SIDE	STA. 3144+15 SB SIDE	
	0440DCCTV	0440CCTV	FLD4095044.05BSSDSGP	FLD4D0T09544.05BEL1	FLD4D0T09544.0NBEL1	FLD4095044.1NBNSDSOF	0441DCCTV	FLD4095044.1SBSSDSON	DEVICE	0442DCCTV	FUTURE TOLL AMOUNT DMS & FUTURE FO DROP TO BE PROVIDED BY OTHERS		FLD4095044.3NBNSDSGP	FLD4095044.3SBSSDSGP (FLD4095044.3SBSSDSRM)	0443CCTV

LEGEND

- SEGMENT 1 PROPOSED BUFFER CAP AND COIL
- SEGMENT 1 PROPOSED FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED BUFFER TO BUFFER SPLICES

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(A6) REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (8)

SHEET NO. IT-11

BY:(FDOT) VS Date: 2/25/2021

RELEASED FOR CONSTRUCTION

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, and compliance with applicable codes for fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROPOSED 144 FOC TO BE INSTALLED IN 3B-1

STATION NUMBERS ARE APPROXIMATE ONLY

PROPOSED 144-COUNT SM TRUNK CABLE

STA. 3154+77 SB SIDE
NEW SV-20 IN 3B-1

STA. 3156+05 SB SIDE
NEW SV-21 IN 3B-1

STA. 3156+25 SB SIDE
NEW SV-22 IN 3B-1

MATCH LINE 6 (SEE COMMUNICATION OVERVIEW (6))

MATCH LINE 7 (SEE COMMUNICATION OVERVIEW (8))

BLUE BUFFER — C2C

ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

BLU/ORG
GRN/BRN
SLT/WHT
RED/BLK
YLW/VIO
ROS/AQU

VOID

MFES — 0444DCCTV — FOR RAMP — D-CCTV — STA. 3148+40 SB SIDE

MFES — DEVICE SERVER — FLD4095044.5SBSSDSON (FLD4095044.5SBSSDSRM) — MVDS — STA. 3150+68 SB SIDE
MFES — 0445DCCTV-1 — FOR HUB — D-CCTV — STA. 3150+68 SB SIDE

MFES — 0445CCTV — FOR RAMP — CCTV — STA. 3151+89 SB SIDE

MFES — 0445DCCTV-3 — FOR RAMP — D-CCTV — STA. 3151+89 SB SIDE
MFES — FOR RAMP — RAMP — STA. 3152+00 SB SIDE

MFES — 0445DCCTV-2 — FOR RAMP — D-CCTV — STA. 3151+08 NB SIDE
MFES — FOR RAMP — RAMP — STA. 3153+00 NB SIDE

MFES — DEVICE SERVER — FLD4095044.6NBNSDSON (FLD4095044.6NBNSDSRM) — MVDS — STA. 3157+05 NB SIDE

MFES — FLD4D0T09544.6SBLS1 — S-DMS — STA. 3157+00 SB SIDE

144 PORT PATCH PANEL #1
144 PORT PATCH PANEL #2
LAYER 3 HUB SWITCH
10/100/1000 MBPS, 10 GigE

NEW FDOT HUB
I-95 @ PALMETTO PARK RD
SOUTHBOUND OFF RAMP
STA. 3156+20 SB SIDE

LEGEND
- SEGMENT 1 PROPOSED BUFFER CAP AND COIL
- SEGMENT 1 PROPOSED FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED BUFFER TO BUFFER SPLICES

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (9)

SHEET NO.
IT-12

RELEASED FOR CONSTRUCTION
BY: RPOTI VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-52-01 CONTRACT E4R96

SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED

PROPOSED 144 FOC TO BE INSTALLED IN 3B-1

STATION NUMBERS ARE APPROXIMATE ONLY

MATCH LINE 6 (SEE COMMUNICATION OVERVIEW (6))

MATCH LINE 7 (SEE COMMUNICATION OVERVIEW (8))

PROPOSED 144-COUNT SM TRUNK CABLE

STA. 3154+77 SB SIDE
NEW SV-20 IN 3B-1

STA. 3156+05 SB SIDE
NEW SV-21 IN 3B-1

STA. 3156+25 SB SIDE
NEW SV-22 IN 3B-1

BLUE BUFFER — C2C

ORANGE BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

WHITE BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

RED BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

VIOLET BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

ROSE BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

AQUA BUFFER — BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

MFES	MFES	MFES	MFES	MFES	MFES	MFES	MFES
	DEVICE SERVER					DEVICE SERVER	
0444DCCTV	FLD4095044.5SBSSDSON (FLD4095044.5SBSSDSRM)	0445DCCTV-1	0445CCTV	0445DCCTV-3		FLD4095044.6NBNSDSON (FLD4095044.6NBNSDSRM)	FLD4D0T09544.6SBLS1
FOR RAMP	FOR HUB		FOR RAMP	FOR RAMP			
D-CCTV	MVDS	D-CCTV	CCTV	D-CCTV	RAMP	MVDS	S-DMS
STA. 3148+40 SB SIDE	STA. 3150+68 SB SIDE		STA. 3151+89 SB SIDE	STA. 3151+89 SB SIDE	STA. 3152+00 SB SIDE	STA. 3157+05 NB SIDE	STA. 3157+00 SB SIDE

D-CCTV	RAMP	MFES	MFES	MFES	MFES
0445DCCTV-2					
FOR RAMP					
STA. 3151+08 NB SIDE	STA. 3153+00 NB SIDE				

144 PORT PATCH PANEL #1

144 PORT PATCH PANEL #2

LAYER 3 HUB SWITCH

10/100/1000 MBPS, 10 GIGE

NEW FDOT HUB
I-95 @ PALMETTO PARK RD
SOUTHBOUND OFF RAMP

STA. 3156+20 SB SIDE

MFES — WWDS-7 — STA. 3150+96 SB SIDE — 4D

LEGEND

- SEGMENT 1 PROPOSED BUFFER CAP AND COIL
- SEGMENT 1 PROPOSED FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED BUFFER TO BUFFER SPLICES

VOID

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, details and dimensions rests with Contractor. Approval does not relieve Contractor of responsibility for fabrication and erection shall remain with the contractor.
BY:(RDOT) VS Date: 2/25/2021
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5096

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	4D REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (9)

SHEET NO. IT-12

PROPOSED 144 FOC TO BE INSTALLED IN 3B-1

STATION NUMBERS ARE APPROXIMATE ONLY

PROPOSED 144-COUNT SM TRUNK CABLE

STA. 3154+77 SB SIDE
NEW SV-20 IN 3B-1

STA. 3156+05 SB SIDE
NEW SV-21 IN 3B-1

STA. 3156+25 SB SIDE
NEW SV-22 IN 3B-1

MATCH LINE 6 (SEE COMMUNICATION OVERVIEW (6))

MATCH LINE 7 (SEE COMMUNICATION OVERVIEW (8))

BLUE BUFFER — C2C

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

WHITE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

VIOLET BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

ROSE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

AQUA BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT
A6

MFES

MFES — DEVICE SERVER — FLD40950446NBNSDS0N (FLD40950446NBNSDSRM) — 0445DCCTV-3 — FOR RAMP — D-CCTV — STA. 3151+89 SB SIDE
MFES — RAMP — STA. 3152+00 SB SIDE

MFES — 0445DCCTV-2 — FOR RAMP — D-CCTV — STA. 3151+08 NB SIDE
MFES — RAMP — STA. 3153+00 NB SIDE

MFES — FLD40950446NBNSDS0N (FLD40950446NBNSDSRM) — DEVICE SERVER — MVDS — STA. 3157+05 NB SIDE

MFES — FLD4D0T095446SBLS1 — S-DMS — STA. 3157+00 SB SIDE

MFES — 0444DCCTV — FOR RAMP — D-CCTV — STA. 3148+40 SB SIDE

MFES — FLD40950445SBSSDS0N (FLD40950445SBSSDSRM) — DEVICE SERVER — MVDS — STA. 3150+68 SB SIDE

MFES — 0445DCCTV-1 — FOR HUB — D-CCTV — STA. 3150+68 SB SIDE

MFES — 0445CCTV — FOR RAMP — CCTV — STA. 3151+89 SB SIDE

144 PORT PATCH PANEL #1

144 PORT PATCH PANEL #2

LAYER 3 HUB SWITCH

10/100/1000 MBPS, 10 GIG

NEW FDOT HUB
I-95 @ PALMETTO PARK RD
SOUTHBOUND OFF RAMP

STA. 3156+20 SB SIDE

MFES — WWDS-7 — STA. 3150+96 SB SIDE
A6

LEGEND

- SEGMENT 1 PROPOSED BUFFER CAP AND COIL
- SEGMENT 1 PROPOSED FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED BUFFER TO BUFFER SPLICES

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	A6 REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (9)

SHEET NO. IT-12

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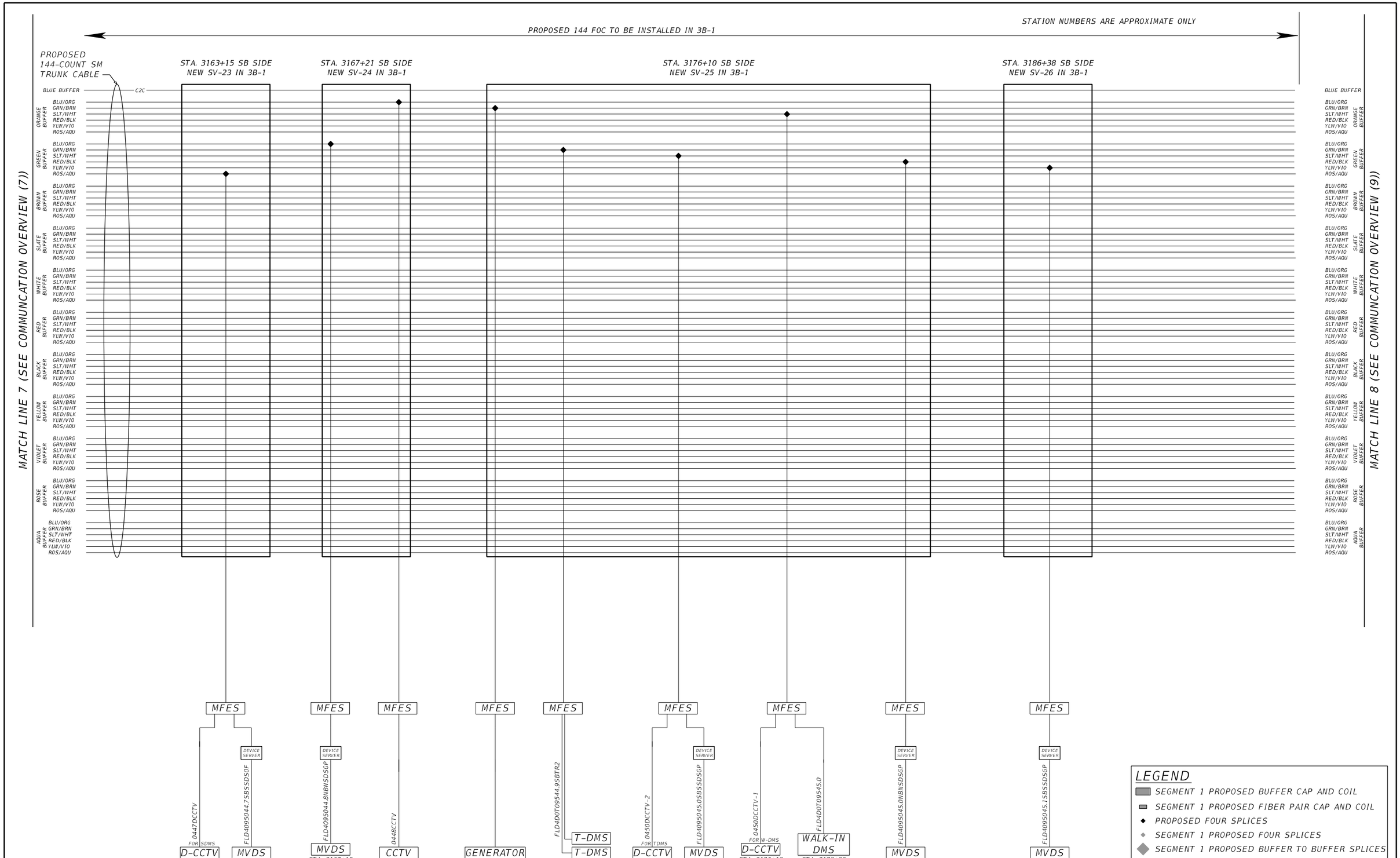


REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (10)

SHEET NO.
IT-13

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY:FDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

STATION NUMBERS ARE APPROXIMATE ONLY

PROPOSED 144-COUNT SM TRUNK CABLE

STA. 3194+15 SB SIDE
NEW SV-27 IN 3B-1

STA. 3194+33 NB SIDE
NEW SV-28 IN 3B-1

STA. 3209+80 NB SIDE
EXISTING SV

MATCH LINE 8 (SEE COMMUNICATION OVERVIEW (8))

BLUE BUFFER — C2C

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

WHITE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

VIOLET BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

ROSE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

AQUA BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

VOID

MFES — FLD4D0T09545.3S8LS1 — S-DMS — STA. 3192+30 SB SIDE

MFES — FOR S-DMS 0454DCCTV — D-CCTV — STA. 3197+60 SB SIDE

MFES — DEVICE SERVER — FLD4095045.4S8SSDSON — MVDS — STA. 3197+60 SB SIDE

MFES — DEVICE SERVER — FLD4D0T095045.0NBNS EXISTING — MVDS — STA. 3194+08 NB SIDE

MFES — C045D EXISTING — CCTV — STA. 3194+08 NB SIDE

MFES — DEVICE SERVER — FLD4095045.2NBNS EXISTING — MVDS — STA. 3209+40 NB SIDE

MFES — FLD4D0T09545.5S8TR2 — T-DMS — T-DMS — STA. 3203+00 SB SIDE

MFES — FOR T-DMS 0455DCCTV — D-CCTV — STA. 3205+74 SB SIDE

MFES — FLD4D0T09545.7SBLS1 — S-DMS — STA. 3212+63 SB SIDE

MFES — 0457DCCTV — FOR S-DMS D-CCTV — STA. 3216+99 SB SIDE

LEGEND

- SEGMENT 1 PROPOSED BUFFER CAP AND COIL
- SEGMENT 1 PROPOSED FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- EXISTING FOUR SPLICES
- SEGMENT 1 PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED BUFFER TO BUFFER SPLICES

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
BY/PDDT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 433109-4-52-01 CONTRACT E4096

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (11)

SHEET NO. IT-14

STATION NUMBERS ARE APPROXIMATE ONLY

PROPOSED 144-COUNT SM TRUNK CABLE

STA. 3194+15 SB SIDE
NEW SV-27 IN 3B-1

STA. 3194+33 NB SIDE
NEW SV-28 IN 3B-1

STA. 3209+80 NB SIDE
EXISTING SV

MATCH LINE 8 (SEE COMMUNICATION OVERVIEW (8))

BLUE BUFFER — C2C

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

WHITE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

VIOLET BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK

ROSE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

AQUA BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLUE BUFFER

ORANGE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

GREEN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BROWN BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

SLATE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

WHITE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

RED BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

BLACK BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

YELLOW BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

VIOLET BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK

ROSE BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

AQUA BUFFER: BLU/ORG, GRN/BRN, SLT/WHT, RED/BLK, YLW/VIO, ROS/AQU

MFES

FLD4D0T09545.3SBLS1

S-DMS
STA. 3192+30 SB SIDE

MFES

FLD4095045.4SBSSDSON

D-CCTV
FOR S-DMS
STA. 3197+60 SB SIDE

0454DCCTV

MVDS
STA. 3197+60 SB SIDE

MFES

DEVICE SERVER

FLD4D0T095045.0NBNS
EXISTING

MVDS
STA. 3194+08 NB SIDE

C0450
EXISTING

CCTV
STA. 3194+08 NB SIDE

MFES

DEVICE SERVER

FLD4095045.2NBNS
EXISTING

MVDS
STA. 3209+40 NB SIDE

MFES

T-DMS

FLD4D0T09545.5SBTR2

T-DMS
STA. 3203+00
SB SIDE

0455DCCTV

D-CCTV
FOR T-DMS
STA. 3205+74 SB SIDE

MFES

FLD4D0T09545.7SBLS1

S-DMS
STA. 3213+00
SB SIDE

0457DCCTV

D-CCTV
FOR S-DMS
STA. 3216+99
SB SIDE

LEGEND

- SEGMENT 1 PROPOSED BUFFER CAP AND COIL
- SEGMENT 1 PROPOSED FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- EXISTING FOUR SPLICES
- SEGMENT 1 PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED BUFFER TO BUFFER SPLICES

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

COMMUNICATION OVERVIEW (11)

SHEET NO.
IT-14

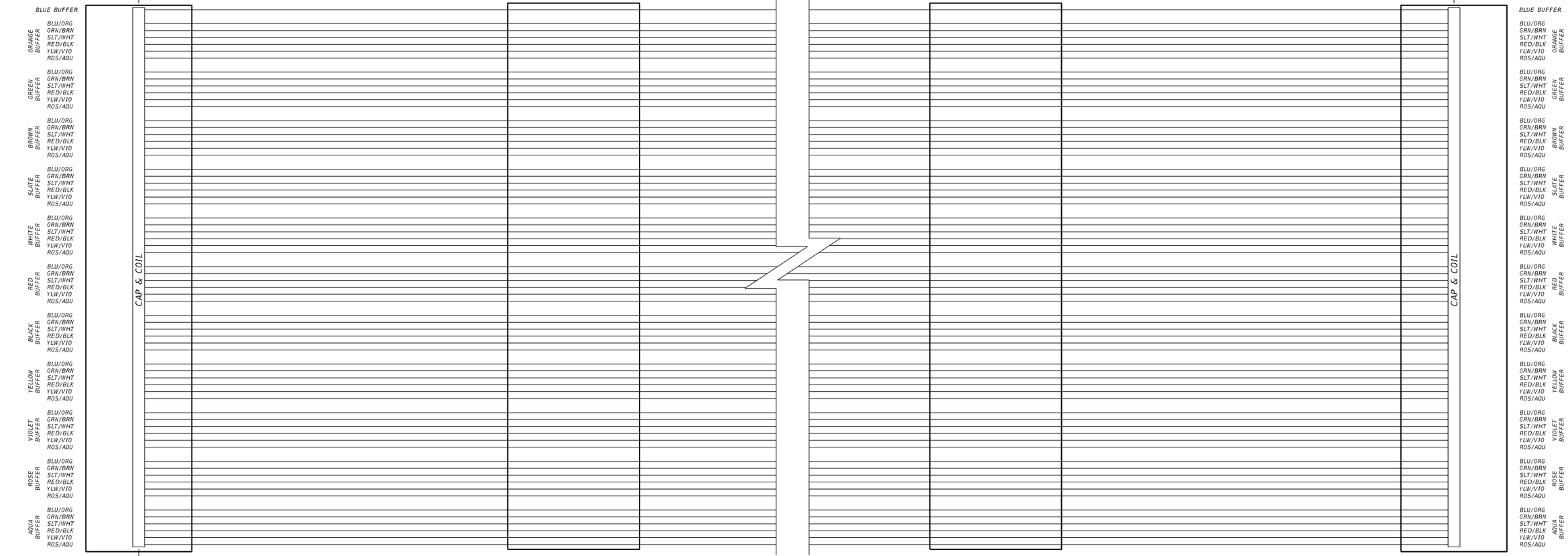
PROPOSED TSM&O 144 FOC TO BE INSTALLED IN 3B-1
(STATION NUMBERS ARE APPROXIMATE ONLY)

STA. 3032+50 SB SIDE
NEW SV-6 IN 3B-1

STA. 3047+72 SB SIDE
NEW SV-7 IN 3B-1

STA. 3186+50 SB SIDE
NEW SV-26 IN 3B-1

STA. 3194+25 NB SIDE
NEW SV-27 IN 3B-1



LEGEND

- SEGMENT 1 PROPOSED BUFFER CAP AND COIL
- SEGMENT 1 PROPOSED FIBER PAIR CAP AND COIL
- PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED FOUR SPLICES
- SEGMENT 1 PROPOSED BUFFER TO BUFFER SPLICES

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

I-95 3B-1 SEGMENT 2
TSM&O COMMUNICATIONS PLAN

SHEET NO.
IT-15

BY:RPOTI VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBL$ MODEL NAME =Default BarcoJ 4/18/2019 5:33:02 PM c:\projectwise\pb\projectwiseint\barco\d0230493\NWDTIT01.dgn

ITS POLE DATA

ITS PLAN SHEET	ITS CROSS SECTION SHEET	STATION	OFFSET	MVDS NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	POLE MOUNTED CABINET DEVICE NAME	POLE TYPE	TOTAL POLE LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	FOUNDATION DESIGN ASSUMPTIONS	
												EFFECTIVE SOIL UNIT WT. (PCF)	ANGLE OF INTERNAL FRICT. (DEG.)
34	1	3038+00	103.5' LT.	FLD4095042.3SBSSDSGP	-	-	42.3CABSS	TYPE P-III	51'	11'	3.5'	107	31
35	2	3047+01	126.2' RT.	FLD4095042.5NBNSDSON	0425CCTV	-	42.5CABNS	CONC. SPUN	102'	22'	4.0'	105	30
35	3	3048+00	115.0' LT.	FLD4095042.5SBSSDSOF	-	-	42.5CABSS	TYPE P-III	43'	10'	3.5'	107	31
36	4	3056+00	107.5' RT.	-	-	0427DCCTV-1	-	CONC. SPUN	48'	13'	4.0'	105	30
37	5	3058+90	107.5' RT.	FLD4095042.7NBNSDSGP	0427CCTV	0427DCCTV-2	42.7CABNS_2	CONC. SPUN	75'	15'	4.0'	105	30
37	6	3061+78	104.2' LT.	FLD4095042.8SBSSDSGP	-	0427DCCTV-3	42.8CABSS	CONC. SPUN	53'	13'	4.0'	107	31
38	7	3072+30	106.7' RT.	FLD4095043.0NBNSDSGP	-	0430DCCTV	43.0CABNS	CONC. SPUN	61'	13'	4.0'	107	31
39	8	3076+00	109.5' LT.	FLD4095043.0SBSSDSGP	-	-	43.0CABSS	TYPE P-V	34'	10'	3.5'	107	31
40	9	3083+23	113.7' RT.	FLD4095043.2NBNSDSGP		0432DCCTV	43.2CABNS	CONC. SPUN	58'	13'	4.0'	105	29
40	10	3085+71	119.7' LT.	FLD4095043.2SBSSDSGP	-	-	43.2CABSS	TYPE P-V	35'	10'	3.5'	107	31
41	11	3091+14	125.4' RT.	FLD4095043.3NBNSDSGP	0433CCTV	-	43.3CABNS	CONC. SPUN	98'	18'	4.0'	108	32
42	12	3100+10	126.2' LT.	FLD4095043.5SBSSDSGP	-	-	43.5CABSS	[illegible]III	39'	10'	3.5'	107	31
43	13	3103+00	125.2' RT.	FLD4095043.6NBNSDSGP	-	0436DCCTV	43.6CABNS	CONC. [illegible]	63'	13'	4.0'	105	29
44	14	3110+50	116.8' RT.	FLD4095043.7NBNSDSGP	0437CCTV	-	43.7CA[illegible]	CONC. [illegible]	96'	18'	4.0'	107	31
44	15	3111+20	114.7' LT.	-	-	0437DCCTV	[illegible].7CAB[illegible]	CONC. SP[illegible]	51'	13'	4.0'	105	29
44	16	3114+25	107.7' LT.	FLD4095043.8SBSSDSGP	-	-	[illegible]3CABSS	TYPE P-I[illegible]	30'	10'	3.5'	107	31
46	17	3121+62	113.0' RT.	FLD4095044.0NBNSDSGP	-	0440DCCTV	[illegible]ABNS	CONC. SP[illegible]	80'	15'	4.0'	112	34
46	18	3126+90	120.6' LT.	FLD4095044.0SBSSDSGP	0440CCTV	044[illegible]	44.[illegible]SS_2	CONC. [illegible]	80'	15'	4.0'	112	34
47	19	3133+00	117.8' RT.	FLD4095044.1NBNSDSOF	-	[illegible]CCTV	44.[illegible]S	[illegible]UN	48'	13'	4.0'	112	34
47	20	3133+38	125.7' LT.	FLD4095044.1SBSSDSON	-	-	44.1C[illegible]	[illegible] P-III	32'	10'	3.5'	107	31
48	21	3138+74	137.6' LT.	-	-	142DCCTV	-	CONC. SPUN	53'	13'	4.0'	112	34
49	22	3144+15	137.4' LT.	FLD4095044.3SBSSDSGP (FLD4095044.3SBSSDSRM)	0443C[illegible]	-	[illegible].3CABSS	CONC. SPUN	102'	22'	4.0'	114	36
49	23	3144+61	106.7' RT.	FLD4095044.3NBNSDSGP	-		44.3CABNS	TYPE P-V	34'	10'	3.5	107	31
50	24	3150+68	168.6' LT.	FLD4095044.5SBSSDSON (FLD4095044.5SBSSDSRM)	-	0445[illegible]	44.5CABSS	CONC. SPUN	73'	18'	4.0'	112	33
50	25	3151+08	157.6' RT.	-		0445DCCTV-2	-	CONC. SPUN	75'	15'	4.0'	113	35
51	26	3157+05	145.7' RT.	FLD4095044.6NBNSDSON (FLD4095044.6NBNSDSRM)		-	44.6CABNS	TYPE P-V	35'	10'	3.5'	107	31
52	27	3163+02	125.4' LT.	FLD4095044.7SBSSDSOF	-	0447DCCTV	44.7CABSS	CONC. SPUN	62'	17'	4.0'	108	32
52	28	3167+00	147.6' LT.	-	0448CCTV	-	44.8CABSS	CONC. SPUN	98'	18'	4.0'	108	32
52	29	3167+15	113.8' RT.	FLD4095044.8NBNSDSGP	-	-	44.8CABNS	TYPE P-III	30'	10'	3.5'	107	31
53	30	3176+10	108.8' RT'	-	-	0450DCCTV-1	-	CONC. SPUN	53'	13'	4.0'	106	30
54	31	3176+48	107.7' LT.	FLD4095045.0SBSSDSGP	-	0450DCCTV-2	45.0CABSS	CONC. SPUN	48'	13'	4.0'	109	33
54	32	3182+60	107.0' RT.	FLD4095045.0NBNSDSGP	-	-	45.0CABNS_2	TYPE P-III	32'	10'	3.5'	107	31
55	33	3186+22	107.3' LT.	FLD4095045.1SBSSDSGP	-	-	45.1CABSS	TYPE P-III	29'	10'	3.5'	107	31
57	34	3197+60	124.3' LT.	FLD4095045.4SBSSDSON	-	0454DCCTV	45.4CABSS	CONC. SPUN	61'	16'	4.0'	106	30
58	35	3205+74	106.7' LT.	-	-	0455DCCTV	-	CONC. SPUN	53'	13'	4.0'	106	30
59	36	3216+99	102.0' LT.	-	-	0457DCCTV	-	CONC. SPUN	53'	13'	4.0'	108	32
60	37	3148+40	571.5' LT.	-	-	0444DCCTV	44.4CABSS	CONC. SPUN	43'	13'	4.0'	108	32
62	38	3151+89	413.0' LT.	-	0445CCTV	0445DCCTV-3	-	CONC. SPUN	79'	19'	4.0'	108	32

VOID

NOTES:

- FOR TYPE P-III AND P-V POLES, WORK WITH INDEX 17725.
- FOR CONCRETE SPUN POLES, WORK WITH INDEX 18113.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (1)

SHEET NO.
IT-16

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: RPOTI VS Date: 05/21/2019
FPID 4331046-52-01 and 4331094-4-52-01 CONTRACT E4R96

ITS POLE DATA

ITS PLAN SHEET	ITS CROSS SECTION SHEET	STATION	OFFSET	MVDS NAME	CCTV DEVICE NAME	D-CCTV DEVICE NAME	POLE MOUNTED CABINET DEVICE NAME	POLE TYPE	TOTAL POLE LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	FOUNDATION DESIGN ASSUMPTIONS	
												EFFECTIVE SOIL UNIT WT. (PCF)	ANGLE OF INTERNAL FRICT. (DEG.)
34	1	3038+00	103.5' LT.	FLD4095042.3SBSSDSGP	-	-	42.3CABSS	TYPE P-III	51'	11'	3.5'	107	31
35	2	3047+01	126.2' RT.	FLD4095042.5NBNSDSON	0425CCTV	-	42.5CABNS	CONC. SPUN	102'	22'	4.0'	105	30
35	3	3048+00	115.0' LT.	FLD4095042.5SBSSDSOF	-	-	42.5CABSS	TYPE P-III	43'	10'	3.5'	107	31
36	4	3056+00	107.5' RT.	-	-	0427DCCTV-1	-	CONC. SPUN	48'	13'	4.0'	105	30
37	5	3058+90	107.5' RT.	FLD4095042.7NBNSDSGP	0427CCTV	0427DCCTV-2	42.7CABNS_2	CONC. SPUN	75'	15'	4.0'	105	30
37	6	3061+78	104.2' LT.	FLD4095042.8SBSSDSGP	-	0427DCCTV-3	42.8CABSS	CONC. SPUN	53'	13'	4.0'	107	31
38	7	3072+30	106.7' RT.	FLD4095043.0NBNSDSGP	-	0430DCCTV	43.0CABNS	CONC. SPUN	61'	13'	4.0'	107	31
39	8	3076+00	109.5' LT.	FLD4095043.0SBSSDSGP	-	-	43.0CABSS	TYPE P-V	34'	10'	3.5'	107	31
40	9	3083+23	113.7' RT.	FLD4095043.2NBNSDSGP		0432DCCTV	43.2CABNS	CONC. SPUN	58'	13'	4.0'	105	29
40	10	3085+71	119.7' LT.	FLD4095043.2SBSSDSGP	-	-	43.2CABSS	TYPE P-V	35'	10'	3.5'	107	31
41	11	3091+14	125.4' RT.	FLD4095043.3NBNSDSGP	0433CCTV	-	43.3CABNS	CONC. SPUN	98'	18'	4.0'	108	32
42	12	3100+10	126.2' LT.	FLD4095043.5SBSSDSGP	-	-	43.5CABSS	TYPE P-III	39'	10'	3.5'	107	31
43	13	3103+00	125.2' RT.	FLD4095043.6NBNSDSGP	-	0436DCCTV	43.6CABNS_2	CONC. SPUN	63'	13'	4.0'	105	29
44	14	3110+50	116.8' RT.	FLD4095043.7NBNSDSGP	0437CCTV	-	43.7CABNS	CONC. SPUN	96'	18'	4.0'	107	31
44	15	3111+20	114.7' LT.	-	-	0437DCCTV	43.7CABSS	CONC. SPUN	51'	13'	4.0'	105	29
44	16	3114+25	107.7' LT.	FLD4095043.8SBSSDSGP	-	-	43.8CABSS	TYPE P-III	30'	10'	3.5'	107	31
46	17	3121+62	113.0' RT.	FLD4095044.0NBNSDSGP	-	0440DCCTV	44.0CABNS	CONC. SPUN	80'	15'	4.0'	112	34
46	18	3126+90	120.6' LT.	FLD4095044.0SBSSDSGP	0440CCTV	0440DCCTV	44.0CABSS_2	CONC. SPUN	80'	15'	4.0'	112	34
47	19	3133+00	117.8' RT.	FLD4095044.1NBNSDSOF	-	0441DCCTV	44.1CABNS	CONC. SPUN	48'	13'	4.0'	112	34
47	20	3133+38	125.7' LT.	FLD4095044.1SBSSDSON	-	-	44.1CABSS	TYPE P-III	32'	10'	3.5'	107	31
48	21	3138+74	137.6' LT.	-	-	0442DCCTV	-	CONC. SPUN	53'	13'	4.0'	112	34
49	22	3144+15	137.4' LT.	FLD4095044.3SBSSDSGP (FLD4095044.3SBSSDSRM)	0443CCTV	-	44.3CABSS	CONC. SPUN	102'	22'	4.0'	114	36
49	23	3144+61	106.7' RT.	FLD4095044.3NBNSDSGP	-	-	44.3CABNS	TYPE P-V	34'	10'	3.5	107	31
50	24	3150+68	168.6' LT.	FLD4095044.5SBSSDSON (FLD4095044.5SBSSDSRM)	-	0445DCCTV-1	44.5CABSS	CONC. SPUN	73'	18'	4.0'	112	33
50	25	3151+08	157.6' RT.	-	-	0445DCCTV-2	-	CONC. SPUN	75'	15'	4.0'	113	35
51	26	3157+05	145.7' RT.	FLD4095044.6NBNSDSON (FLD4095044.6NBNSDSRM)	-	-	44.6CABNS	TYPE P-V	35'	10'	3.5'	107	31
52	27	3163+02	125.4' LT.	FLD4095044.7SBSSDSOF	-	0447DCCTV	44.7CABSS	CONC. SPUN	62'	17'	4.0'	108	32
52	28	3167+00	147.6' LT.	-	0448CCTV	-	44.8CABSS	CONC. SPUN	98'	18'	4.0'	108	32
52	29	3167+15	113.8' RT.	FLD4095044.8NBNSDSGP	-	-	44.8CABNS	TYPE P-III	30'	10'	3.5'	107	31
53	30	3176+10	108.8' RT'	-	-	0450DCCTV-1	-	CONC. SPUN	53'	13'	4.0'	106	30
54	31	3176+48	107.7' LT.	FLD4095045.0SBSSDSGP	-	0450DCCTV-2	45.0CABSS	CONC. SPUN	48'	13'	4.0'	109	33
54	32	3182+60	107.0' RT.	FLD4095045.0NBNSDSGP	-	-	45.0CABNS_2	TYPE P-III	32'	10'	3.5'	107	31
55	33	3186+22	107.3' LT.	FLD4095045.1SBSSDSGP	-	-	45.1CABSS	TYPE P-III	29'	10'	3.5'	107	31
57	34	3197+60	124.3' LT.	FLD4095045.4SBSSDSON	-	0454DCCTV	45.4CABSS	CONC. SPUN	61'	16'	4.0'	106	30
58	35	3205+74	106.7' LT.	-	-	0455DCCTV	-	CONC. SPUN	53'	13'	4.0'	106	30
59	36	3216+99	102.0' LT.	-	-	0457DCCTV	-	CONC. SPUN	53'	13'	4.0'	108	32
60	37	3148+40	571.5' LT.	-	-	0444DCCTV	44.4CABSS	CONC. SPUN	43'	13'	4.0'	108	32
62	38	3151+89	413.0' LT.	-	0445CCTV	0445DCCTV-3	-	CONC. SPUN	79'	19'	4.0'	108	32

NOTES:

- FOR TYPE P-III AND P-V POLES, WORK WITH INDEX 17725.
- FOR CONCRETE SPUN POLES, WORK WITH INDEX 18113.

WWDS DEVICE NAME	RAMP NAME	STATION	OFFSET	ITS PLAN SHEET	CABINET DEVICE NAME	WW DETECTION POLE TYPE	HIGHLIGHTED LED SIGN
WWDS 5	HILLSBORO BLVD RAMP A	3031+87	590.9', LT	33D	42.2CABSS	20' (AG) ALUMINUM	4 SETS
WWDS 6	PALMETTO PARK RD RAMP A	3141+19	266.3', RT	48A	44.3CABNS_2	23' (AG) STEEL MAST ARM	4 SETS
WWDS 7	PALMETTO PARK RD RAMP C	3150+96	626.1', LT	62	44.5CABSS_4	20' (AG) ALUMINUM	4 SETS

AG: ABOVE GROUND

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

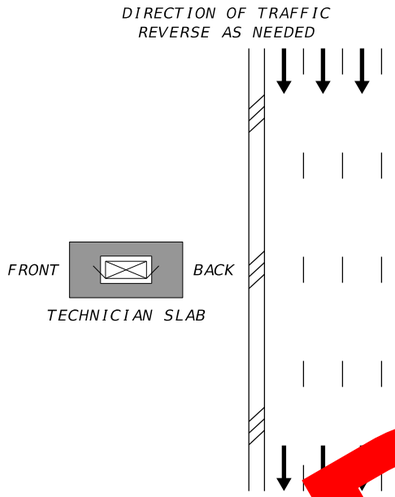
ITS DEVICE SUMMARY SHEET (1)

SHEET NO.
IT-16

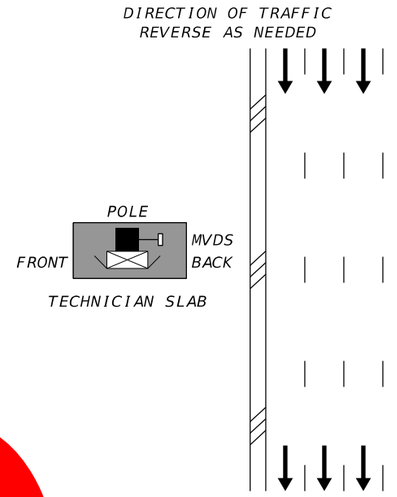
BY:(RDOT) VS Date: 2/25/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, quantities, and detailed design rests with the EOR. Shop drawing, fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5696
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TYPE 336S CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT TYPE
42.3CABSS	P1	3038+00	34	POLE MOUNT
42.5CABNS	P2	3047+01	35	POLE MOUNT
42.5CABSS	P1	3048+00	35	POLE MOUNT
42.8CABSS_3	P1	3060+50	37	POLE MOUNT
42.8CABSS	P2	3061+78	37	POLE MOUNT
43.0CABNS	P2	3072+30	38	POLE MOUNT
43.0CABSS	P1	3076+00	39	POLE MOUNT
43.2CABNS	P2	3083+23	40	POLE MOUNT
43.2CABSS	P1	3085+71	40	POLE MOUNT
43.3CABNS	P2	3091+14	41	POLE MOUNT
43.5CABSS	P1	3100+10	42	POLE MOUNT
43.6CABNS_2	P2	3103+00	43	POLE MOUNT
43.7CABNS	P2	3110+50	44	POLE MOUNT
43.7CABSS	P2	3111+20	44	POLE MOUNT
43.8CABSS	P1	3114+25	44	POLE MOUNT
43.9CABSS	P1	3121+47	46	POLE MOUNT
44.0CABNS	P2	3121+62	46	POLE MOUNT
44.1CABNS	P2	3133+00	47	POLE MOUNT
44.1CABSS	P1	3133+38	47	POLE MOUNT
44.3CABSS	P2	3144+15	49	POLE MOUNT
44.5CABSS	P2	3150+68	50	POLE MOUNT
44.6CABNS	P1	3157+05	51	POLE MOUNT
44.7CABSS	P2	3163+02	52	POLE MOUNT
44.8CABSS	P2	3167+00	52	POLE MOUNT
44.8CABNS	P1	3167+15	52	POLE MOUNT
44.9CABNS	P1	3175+70	53	POLE MOUNT
45.0CABSS	P2	3176+48	54	POLE MOUNT
45.0CABNS_2	P1	3182+60	54	POLE MOUNT
45.1CABSS	P1	3186+22	55	POLE MOU
45.4CABSS	P2	3197+60	57	POLE MOU
44.4CABSS	P3	3148+40	60	POLE MOUN

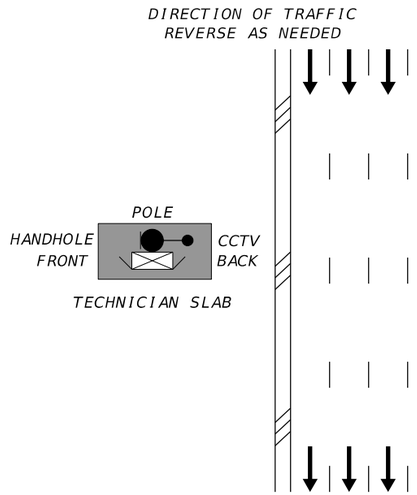
TYPE 334 CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT T	REMARK
42.3CABNS	G1	3038+51	34	G MO	-
42.7CABNS	G1	3056+10	36	GROU	-
42.7CABNS_2	G1	3058+90	37	GROUND	-
43.0CABNS_2	G1	3072+30	38	GROUND MOUNT	-
43.0CABNS_3	G1	3072+30	38	GROUND MOUNT	-
43.2CABNS_2	G1	3083+23	40	GROUND MOUNT	-
44.0CABSS_2	G1	3126+90	46	GROUND MOUNT	-
44.2CABNS	G1	3133+20	47	GROUND MOUNT	FUTURE
44.2CABSS	G1	3138+90	48	GROUND MOUNT	RSS
44.3CABNS	G1	3144+69	62	GROUND MOUNT	-
44.5CABSS_3	G2	3151+95	62	GROUND MOUNT	-
44.5CABSS_2	G1	3152+04	63	GROUND MOUNT	RSS
44.5CABNS	G1	3153+00	50	GROUND MOUNT	RSS
43.6CABNS	G1	3102+71	43	GROUND MOUNT	FUTURE
44.0CABSS	G1	3125+49	46	GROUND MOUNT	-
44.0CABNS_2	G1	3122+54	46	GROUND MOUNT	-
44.6CABSS	G1	3158+52	51	GROUND MOUNT	-
44.9CABSS	G1	3175+98	53	GROUND MOUNT	-
45.0CABNS	G1	3176+46	54	GROUND MOUNT	-
45.3CABSS	G1	3193+95	56	GROUND MOUNT	-
45.5CABSS	G1	3204+49	58	GROUND MOUNT	-
45.7CABSS	G1	3216+49	59	GROUND MOUNT	-



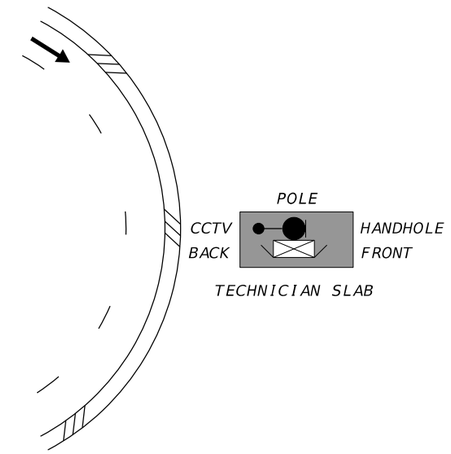
CABINET ORIENTATION 'P1'
(GROUND MOUNT CABINET)
NTS



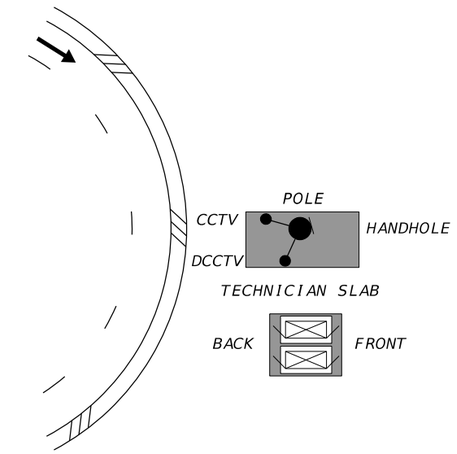
CABINET ORIENTATION 'P1'
(POLE MOUNT MVDS / OR
POLE MOUNTED GENERATOR CABINET)
NTS



CABINET ORIENTATION 'P2'
(POLE MOUNT CCTV CABINET)
NTS



CABINET ORIENTATION 'P3'
(POLE MOUNT CCTV CABINET)
NTS



CCTV AND CABINET ORIENTATION 'G2'
NTS

VOID

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: RDOT VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4Q86

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

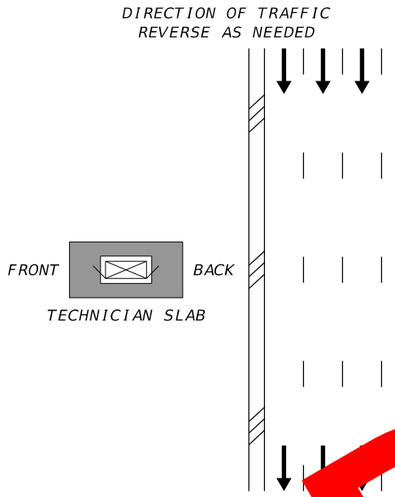
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (2)

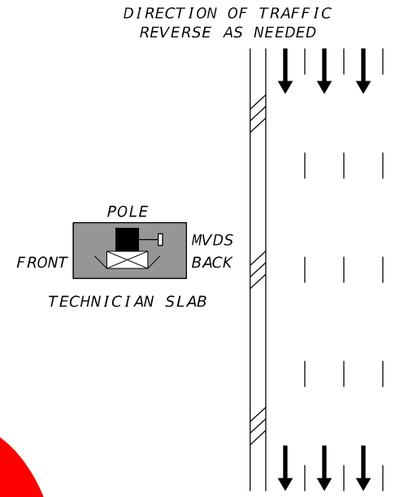
SHEET NO.
IT-17

TYPE 336S CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT TYPE
42.3CABSS	P1	3038+00	34	POLE MOUNT
42.5CABNS	P2	3047+01	35	POLE MOUNT
42.5CABSS	P1	3048+00	35	POLE MOUNT
42.8CABSS_3	P1	3060+50	37	POLE MOUNT
42.8CABSS	P2	3061+78	37	POLE MOUNT
43.0CABNS	P2	3072+30	38	POLE MOUNT
43.0CABSS	P1	3076+00	39	POLE MOUNT
43.2CABNS	P2	3083+23	40	POLE MOUNT
43.2CABSS	P1	3085+71	40	POLE MOUNT
43.3CABNS	P2	3091+14	41	POLE MOUNT
43.5CABSS	P1	3100+10	42	POLE MOUNT
43.6CABNS_2	P2	3103+00	43	POLE MOUNT
43.7CABNS	P2	3110+50	44	POLE MOUNT
43.7CABSS	P2	3111+20	44	POLE MOUNT
43.8CABSS	P1	3114+25	44	POLE MOUNT
43.9CABSS	P1	3121+47	46	POLE MOUNT
44.0CABNS	P2	3121+62	46	POLE MOUNT
44.1CABNS	P2	3133+00	47	POLE MOUNT
44.1CABSS	P1	3133+38	47	POLE MOUNT
44.3CABSS	P2	3144+15	49	POLE MOUNT
44.5CABSS	P2	3150+68	50	POLE MOUNT
44.6CABNS	P1	3157+05	51	POLE MOUNT
44.7CABSS	P2	3163+02	52	POLE MOUNT
44.8CABSS	P2	3167+00	52	POLE MOUNT
44.8CABNS	P1	3167+15	52	POLE MOUNT
44.9CABNS	P1	3175+70	53	POLE MOUNT
45.0CABSS	P2	3176+48	54	POLE MOUNT
45.0CABNS_2	P1	3182+60	54	POLE MOUNT
45.1CABSS	P1	3186+22	55	POLE MOUNT
45.4CABSS	P2	3197+60	57	POLE MOUNT
44.4CABSS	P3	3148+40	60	POLE MOUNT

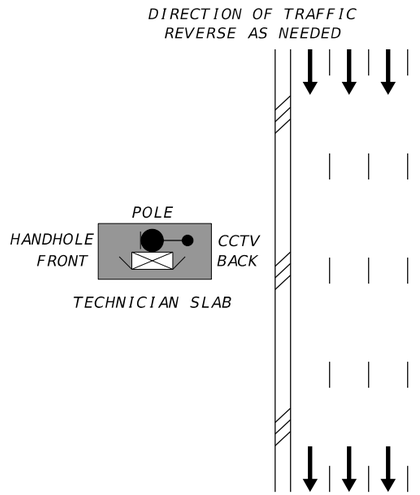
TYPE 334 CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT TYPE	REMARKS
42.2CABSS	G3	3031+87	33D	GROUND MOUNT	WWDS
42.3CABNS	G1	3038+51	34	GROUND MOUNT	-
42.7CABNS	G1	3056+10	36	GROUND MOUNT	-
42.7CABNS_2	G1	3058+90	37	GROUND MOUNT	-
43.0CABNS_2	G1	3072+30	38	GROUND MOUNT	-
43.0CABNS_3	G1	3072+30	38	GROUND MOUNT	-
43.2CABNS_2	G1	3083+23	40	GROUND MOUNT	-
44.0CABSS_2	G1	3126+90	46	GROUND MOUNT	-
44.2CABNS	G1	3133+20	47	GROUND MOUNT	FUTURE
44.2CABSS	G1	3138+90	48	GROUND MOUNT	RSS
44.3CABNS_2	G3	3141+19	48A	GROUND MOUNT	WWDS
44.3CABNS	G1	3144+69	62	GROUND MOUNT	-
44.5CABSS_4	G3	3150+96	62	GROUND MOUNT	WWDS
44.5CABSS_3	G2	3151+95	62	GROUND MOUNT	-
44.5CABSS_2	G1	3152+04	63	GROUND MOUNT	RSS
44.5CABNS	G1	3153+00	50	GROUND MOUNT	RSS
43.6CABNS	G1	3102+71	43	GROUND MOUNT	FUTURE
44.0CABSS	G1	3125+49	46	GROUND MOUNT	-
44.0CABNS_2	G1	3122+54	46	GROUND MOUNT	-
44.6CABSS	G1	3158+52	51	GROUND MOUNT	-
44.9CABSS	G1	3175+98	53	GROUND MOUNT	-
45.0CABNS	G1	3176+46	54	GROUND MOUNT	-
45.3CABSS	G1	3193+95	56	GROUND MOUNT	-
45.5CABSS	G1	3204+49	58	GROUND MOUNT	-
45.7CABSS	G1	3216+49	59	GROUND MOUNT	-



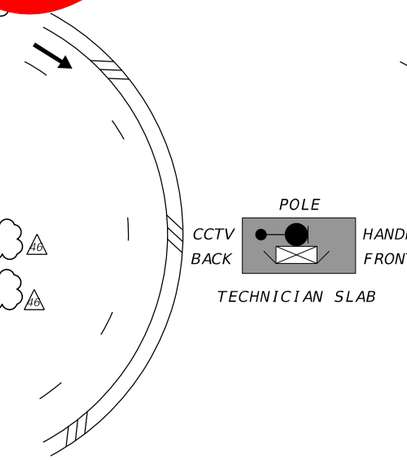
CABINET ORIENTATION 'P1'
(GROUND MOUNT [illegible] CABINET)
NTS



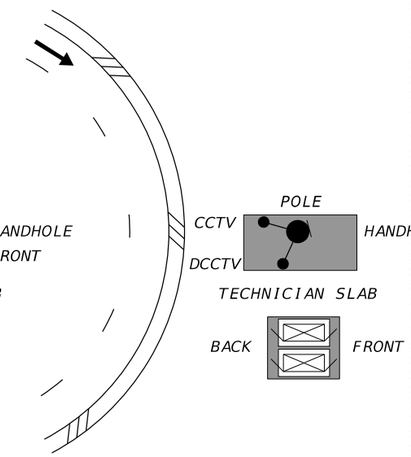
CABINET ORIENTATION 'P1'
(POLE MOUNT MVDS / OR
[illegible] MOUNTED GENERATOR CABINET)
NTS



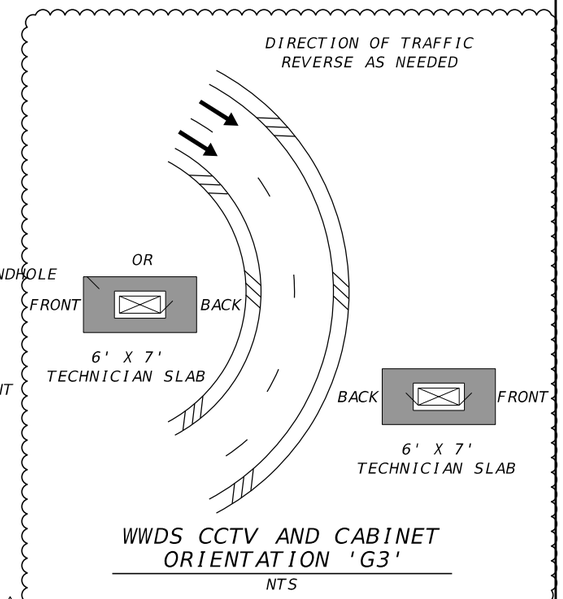
CABINET ORIENTATION 'P2'
(POLE MOUNT CCTV CABINET)
NTS



CABINET ORIENTATION 'P3'
(POLE MOUNT CCTV CABINET)
NTS



CCTV AND CABINET
ORIENTATION 'G2'
NTS



WWDS CCTV AND CABINET
ORIENTATION 'G3'
NTS

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	#6 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (2)

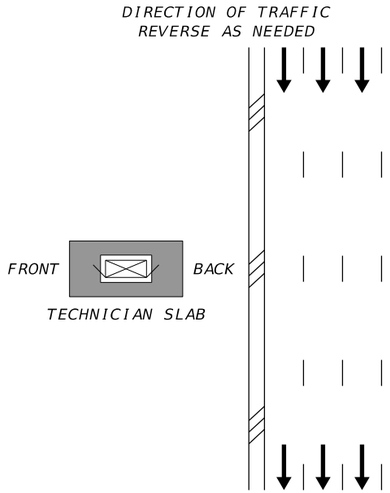
SHEET NO.
IT-17

BY:(FDOT) VS Date: 2/25/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of all dimensions, details, and related documents, and for coordination, fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496

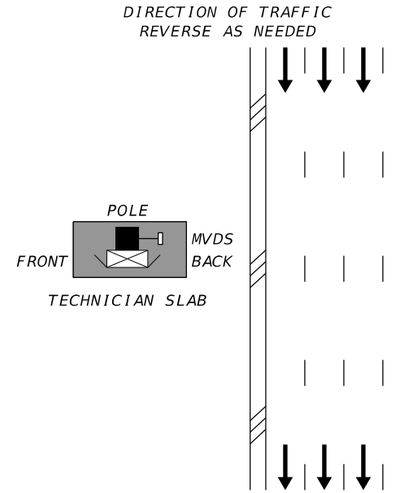
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TYPE 336S CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT TYPE
42.3CABSS	P1	3038+00	34	POLE MOUNT
42.5CABNS	P2	3047+01	35	POLE MOUNT
42.5CABSS	P1	3048+00	35	POLE MOUNT
42.8CABSS_3	P1	3060+50	37	POLE MOUNT
42.8CABSS	P2	3061+78	37	POLE MOUNT
43.0CABNS	P2	3072+30	38	POLE MOUNT
43.0CABSS	P1	3076+00	39	POLE MOUNT
43.2CABNS	P2	3083+23	40	POLE MOUNT
43.2CABSS	P1	3085+71	40	POLE MOUNT
43.3CABNS	P2	3091+14	41	POLE MOUNT
43.5CABSS	P1	3100+10	42	POLE MOUNT
43.6CABNS_2	P2	3103+00	43	POLE MOUNT
43.7CABNS	P2	3110+50	44	POLE MOUNT
43.7CABSS	P2	3111+20	44	POLE MOUNT
43.8CABSS	P1	3114+25	44	POLE MOUNT
43.9CABSS	P1	3121+47	46	POLE MOUNT
44.0CABNS	P2	3121+62	46	POLE MOUNT
44.1CABNS	P2	3133+00	47	POLE MOUNT
44.1CABSS	P1	3133+38	47	POLE MOUNT
44.3CABSS	P2	3144+15	49	POLE MOUNT
44.5CABSS	P2	3150+68	50	POLE MOUNT
44.6CABNS	P1	3157+05	51	POLE MOUNT
44.7CABSS	P2	3163+02	52	POLE MOUNT
44.8CABSS	P2	3167+00	52	POLE MOUNT
44.8CABNS	P1	3167+15	52	POLE MOUNT
44.9CABNS	P1	3175+70	53	POLE MOUNT
45.0CABSS	P2	3176+48	54	POLE MOUNT
45.0CABNS_2	P1	3182+60	54	POLE MOUNT
45.1CABSS	P1	3186+22	55	POLE MOUNT
45.4CABSS	P2	3197+60	57	POLE MOUNT
44.4CABSS	P3	3148+40	60	POLE MOUNT

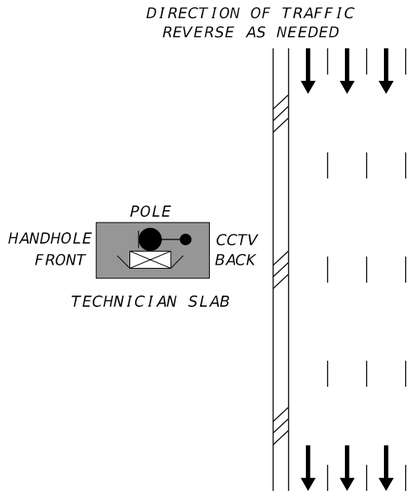
TYPE 334 CABINET DEVICE	CABINET ORIENTATION	STATION	ITS PLAN SHEET	MOUNT TYPE	REMARKS
42.2CABSS	G3	3031+87	33D	GROUND MOUNT	WWDS
42.3CABNS	G1	3038+51	34	GROUND MOUNT	-
42.7CABNS	G1	3056+10	36	GROUND MOUNT	-
42.7CABNS_2	G1	3058+90	37	GROUND MOUNT	-
43.0CABNS_2	G1	3072+30	38	GROUND MOUNT	-
43.0CABNS_3	G1	3072+30	38	GROUND MOUNT	-
43.2CABNS_2	G1	3083+23	40	GROUND MOUNT	-
44.0CABSS_2	G1	3126+90	46	GROUND MOUNT	-
44.2CABNS	G1	3133+20	47	GROUND MOUNT	FUTURE
44.2CABSS	G1	3138+90	48	GROUND MOUNT	RSS
44.3CABNS_2	G3	3141+19	48A	GROUND MOUNT	WWDS
44.3CABNS	G1	3144+69	62	GROUND MOUNT	-
44.5CABSS_4	G3	3150+96	62	GROUND MOUNT	WWDS
44.5CABSS_3	G2	3151+95	62	GROUND MOUNT	-
44.5CABSS_2	G1	3152+04	63	GROUND MOUNT	RSS
44.5CABNS	G1	3152+75	50	GROUND MOUNT	RSS
43.6CABNS	G1	3102+71	43	GROUND MOUNT	FUTURE
44.0CABSS	G1	3125+49	46	GROUND MOUNT	-
44.0CABNS_2	G1	3122+54	46	GROUND MOUNT	-
44.6CABSS	G1	3158+52	51	GROUND MOUNT	-
44.9CABSS	G1	3175+98	53	GROUND MOUNT	-
45.0CABNS	G1	3176+46	54	GROUND MOUNT	-
45.3CABSS	G1	3193+95	56	GROUND MOUNT	-
45.5CABSS	G1	3204+49	58	GROUND MOUNT	-
45.7CABSS	G1	3216+49	59	GROUND MOUNT	-



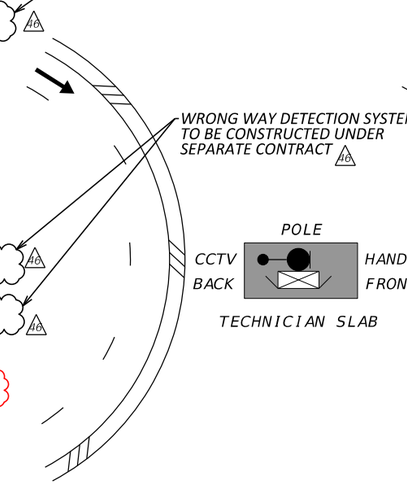
CABINET ORIENTATION 'G1'
(GROUND MOUNT DMS CABINET)
NTS



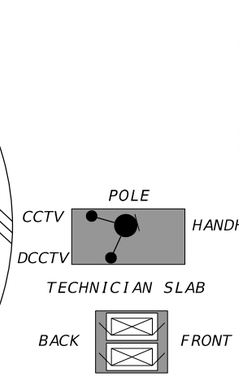
CABINET ORIENTATION 'P1'
(POLE MOUNT MVDS / OR
POLE MOUNTED GENERATOR CABINET)
NTS



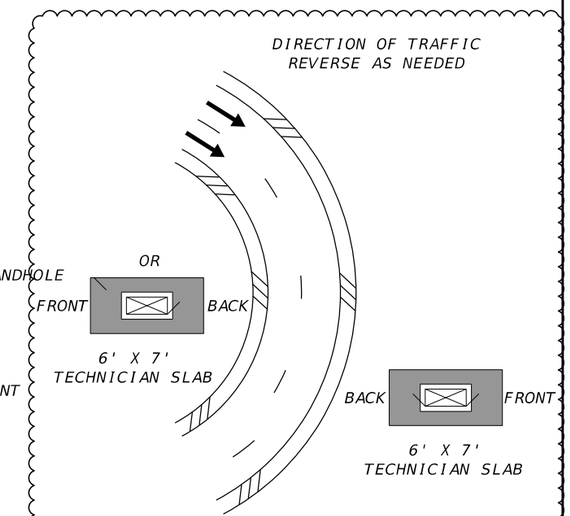
CABINET ORIENTATION 'P2'
(POLE MOUNT CCTV CABINET)
NTS



CABINET ORIENTATION 'P3'
(POLE MOUNT CCTV CABINET)
NTS



CCTV AND CABINET
ORIENTATION 'G2'
NTS



WWDS CCTV AND CABINET
ORIENTATION 'G3'
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	1 REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (2)

SHEET NO.
IT-17

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

CCTV DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME	VIEWING RAMP IF D-CCTV-RSS	VIEWING TOLL GANTRY IF D-CCTV
0425CCTV	3047+01	35	2	42.5CABNS		
0427DCCTV-1	3056+00	36	4	-		
0427DCCTV-2	3058+90	37	5	42.7CABNS_2		
0427DCCTV-3	3061+78	37	6	42.8CABSS		
0427CCTV	3058+90	37	5	42.7CABSS_2		
0430DCCTV	3072+30	38	7	43.0CABNS		
0432DCCTV	3083+23	40	9	43.2CABNS		
0433CCTV	3091+14	41	11	43.3CABNS		
0436DCCTV	3103+00	43	13	43.6CABNS_2		
0437CCTV	3110+50	44	14	43.7CABNS		
0437DCCTV	3111+20	44	15	43.7CABSS		TOLL GANTRY SITE
0440DCCTV	3121+62	46	17	44.0CABNS		
0440CCTV	3126+90	46	18	44.0CABSS_2		
0440DCCTV	3126+90	46	18	44.0CABSS_2		
0441DCCTV	3133+00	47	20	44.1CABNS		
0442DCCTV	3138+74	48	21	-	PALMETTO PARK RAMP D	
0443CCTV	3144+15	49	22	44.3CABSS		
0445DCCTV-1	3150+68	50	24	44.5CABSS		
0445DCCTV-2	3151+08	50	25	-	PALMETTO PARK RAMP B	
0447DCCTV	3163+02	52	27	44.7CABSS		
0448CCTV	3167+00	52	28	44.8CABSS		
0450DCCTV-1	3176+10	53	30	-		
0450DCCTV-2	3176+48	53	31	45.0CABSS		
0454DCCTV	3197+60	57	34	45.4CABSS		
0455DCCTV	3205+74	58	35	-		
0457DCCTV	3216+99	59	36	-		
0444DCCTV	3148+40	60	37	44.4CABSS	PA[illegible]TTO [illegible] RAMP E	
0445CCTV	3151+89	62	38	44.5CABSS_3		
0445DCCTV-3	3151+89	62	38	44.5CABSS_2	PA[illegible]TTO P[illegible]RAMP E	

MVDS DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME
FLD4095042.3SBSSDSGP	3038+00, LT.	34	1	42.3CABSS
FLD4095042.5NBNSDSON	3047+01, RT.	35	2	42.5CABNS
FLD4095042.5SBSSDSOF	3048+00, LT.	35	3	42.5CABSS
FLD4095042.7NBNSDSGP	3058+90, RT.	37	5	42.7CABNS_2
FLD4095042.8SBSSDSGP	3061+78, LT.	37	6	42.8CABSS
FLD4095043.0NBNSDSGP	3072+30, RT.	38	7	43.0CABNS
FLD4095043.0SBSSDSGP	3076+00, LT.	39	8	43.0CABSS
FLD4095043.2NBNSDSGP	3083+23, RT.	40	9	43.2CABNS
FLD4095043.2SBSSDSGP	3085+71, LT.	40	10	43.2CABSS
FLD4095043.3NBNSDSGP	3091+14, RT.	41	11	43.3CABNS
FLD4095043.5SBSSDSGP	3100+10, LT.	42	12	43.5CABSS
FLD4095043.6NBNSDSGP	3103+00, RT.	43	13	43.6CABNS_2
FLD4095043.7NBNSDSGP	3110+50, RT.	44	14	43.7CABNS
FLD4095043.8SBSSDSGP	3114+25, LT.	44	16	43.8CABSS
FLD4095044.0NBNSDSGP	3121+62, RT.	46	17	44.0CABNS
FLD4095044.0SBSSDSGP	3126+90, LT.	46	18	44.0CABSS_2
FLD4095044.1NBNSDSOF	3133+00, RT.	47	21	44.1CABNS
FLD4095044.1SBSSDSON	3133+38, LT.	47	20	44.1CABSS
FLD4095044.3SBSSDSGP (FLD4095044.3SBSSDSRM)	3144+15, LT.	49	22	44.3CABSS
FLD4095044.3NBNSDSGP	3144+61, RT.	49	23	44.3CABNS
FLD4095044.5SBSSDSON (FLD4095044.5SBSSDSRM)	3150+68, LT.	50	24	44.5CABSS
FLD4095044.6NBNSDSON (FLD4095044.6NBNSDSRM)	3157+05, RT.	51	26	44.6CABNS
FLD4095044.7SBSSDSOF	3163+02, LT.	52	27	44.7CABSS
FLD4095044.8NBNSDSGP	3167+15, RT.	52	29	44.8CABNS
FLD4095045.0SBSSDSGP	3176+48, LT.	54	31	45.0CABSS
FLD4095045.0NBNSDSGP	3182+60, RT.	54	32	45.0CABNS_2
FLD4095045.1SBSSDSGP	3186+22, LT.	55	33	45.1CABSS
FLD4095045.4SBSSDSON	3197+60, LT.	55	34	45.4CABSS

DMS DEVICE NAME	STATION	ITS PLAN SHEET	SEC[illegible] SHEE	CABINET DEVICE NAME
FLD4DOT09542.4NBLS1	3040+00, RT.	34	39	42.3CABNS
FLD4DOT09542.7NBTR1	3058+00, RT.	36	40	42.7CABNS
95SB042.7	3060+00, LT.	37	41	EXIST. CABINET
FLD4DOT09542.9NBLS1	3067+50, RT.	38	42	43.1CABNS_1
FLD4DOT09543.0NBTR1	3075+80, RT.	39	43	43.1CABNS_2
FLD4DOT09543.2NBLS1	3085+60, RT.	40	44	43.1CABNS_3
95SB044.0	3124+00, LT.	46	46	44.0CABSS
95NB044.0	3128+50, RT.	47	47	44.0CABNS_2
FLD4DOT09544.6SBLS1	3157+00, LT.	51	49	44.6CABSS
FLD4DOT09544.9SBTR2	3174+50, LT.	53	50	44.9CABSS
95NB045.0	3179+00, RT.	54	51	45.0CABNS
FLD4DOT09545.3SBLS1	3192+30, LT.	56	52	45.3CABSS
FLD4DOT09545.5SBTR2	3203+00, LT.	57	53	45.5CABSS
FLD4DOT09545.7SBLS1	3212+63, LT.	59	54	45.5CABSS

POWER SERVICE POINT NAME	STATION	ITS PLAN SHEET
F	3059+70, LT.	37
K	3112+81, LT. **	44
G	3121+47, LT.	46
J	302+16, LT. *	64
H	3175+70, RT.	53

* BASED OFF RAMP C AT PALMETTO INTERCHANGE.
** SEE TOLL SITE PLANS FOR DETAILS.

VOID

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (3)

SHEET NO. IT-18

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: RDOT VS Date: 05/21/2019
FPID 4331084-52-01 and 433109-4-52-01 CONTRACT E4W96

CCTV DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME	VIEWING RAMP IF D-CCTV-RSS	VIEWING TOLL GANTRY IF D-CCTV
0425CCTV	3047+01	35	2	42.5CABNS		
0427DCCTV-1	3056+00	36	4	-		
0427DCCTV-2	3058+90	37	5	42.7CABNS_2		
0427DCCTV-3	3061+78	37	6	42.8CABSS		
0427CCTV	3058+90	37	5	42.7CABSS_2		
0430DCCTV	3072+30	38	7	43.0CABNS		
0432DCCTV	3083+23	40	9	43.2CABNS		
0433CCTV	3091+14	41	11	43.3CABNS		
0436DCCTV	3103+00	43	13	43.6CABNS_2		
0437CCTV	3110+50	44	14	43.7CABNS		
0437DCCTV	3111+20	44	15	43.7CABSS		TOLL GANTRY SITE
0440DCCTV	3121+62	46	17	44.0CABNS		
0440CCTV	3126+90	46	18	44.0CABSS_2		
0440DCCTV	3126+90	46	18	44.0CABSS_2		
0441DCCTV	3133+00	47	20	44.1CABNS		
0442DCCTV	3138+74	48	21	-	PALMETTO PARK RAMP D	
0443CCTV	3144+15	49	22	44.3CABSS		
0445DCCTV-1	3150+68	50	24	44.5CABSS		
0445DCCTV-2	3151+08	50	25	-	PALMETTO PARK RAMP B	
0447DCCTV	3163+02	52	27	44.7CABSS		
0448CCTV	3167+00	52	28	44.8CABSS		
0450DCCTV-1	3176+10	53	30	-		
0450DCCTV-2	3176+48	53	31	45.0CABSS		
0454DCCTV	3197+60	57	34	45.4CABSS		
0455DCCTV	3205+74	58	35	-		
0457DCCTV	3216+99	59	36	-		
0444DCCTV	3148+40	60	37	44.4CABSS	PALMETTO PARK RAMP E	
0445CCTV	3151+89	62	38	44.5CABSS_3		
0445DCCTV-3	3151+89	62	38	44.5CABSS_2	PALMETTO PARK RAMP E	

MVDS DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME
FLD4095042.3SBSSDSGP	3038+00, LT.	34	1	42.3CABSS
FLD4095042.5NBNSDSON	3047+01, RT.	35	2	42.5CABNS
FLD4095042.5SBSSDSOF	3048+00, LT.	35	3	42.5CABSS
FLD4095042.7NBNSDSGP	3058+90, RT.	37	5	42.7CABNS_2
FLD4095042.8SBSSDSGP	3061+78, LT.	37	6	42.8CABSS
FLD4095043.0NBNSDSGP	3072+30, RT.	38	7	43.0CABNS
FLD4095043.0SBSSDSGP	3076+00, LT.	39	8	43.0CABSS
FLD4095043.2NBNSDSGP	3083+23, RT.	40	9	43.2CABNS
FLD4095043.2SBSSDSGP	3085+71, LT.	40	10	43.2CABSS
FLD4095043.3NBNSDSGP	3091+14, RT.	41	11	43.3CABNS
FLD4095043.5SBSSDSGP	3100+10, LT.	42	12	43.5CABSS
FLD4095043.6NBNSDSGP	3103+00, RT.	43	13	43.6CABNS_2
FLD4095043.7NBNSDSGP	3110+50, RT.	44	14	43.7CABNS
FLD4095043.8SBSSDSGP	3114+25, LT.	44	16	43.8CABSS
FLD4095044.0NBNSDSGP	3121+62, RT.	46	17	44.0CABNS
FLD4095044.0SBSSDSGP	3126+90, LT.	46	18	44.0CABSS_2
FLD4095044.1NBNSDSOF	3133+00, RT.	47	21	44.1CABNS
FLD4095044.1SBSSDSON	3133+38, LT.	47	20	44.1CABSS
FLD4095044.3SBSSDSGP (FLD4095044.3SBSSDSRM)	3144+15, LT.	49	22	44.3CABSS
FLD4095044.3NBNSDSGP	3144+61, RT.	49	23	44.3CABNS
FLD4095044.5SBSSDSON (FLD4095044.5SBSSDSRM)	3150+68, LT.	50	24	44.5CABSS
FLD4095044.6NBNSDSON (FLD4095044.6NBNSDSRM)	3157+05, RT.	51	26	44.6CABNS
FLD4095044.7SBSSDSOF	3163+02, LT.	52	27	44.7CABSS
FLD4095044.8NBNSDSGP	3167+15, RT.	52	29	44.8CABNS
FLD4095045.0SBSSDSGP	3176+48, LT.	54	31	45.0CABSS
FLD4095045.0NBNSDSGP	3182+60, RT.	54	32	45.0CABNS_2
FLD4095045.1SBSSDSGP	3186+22, LT.	55	33	45.1CABSS
FLD4095045.4SBSSDSON	3197+60, LT.	55	34	45.4CABSS

DMS DEVICE NAME	STATION	ITS PLAN SHEET	CROSS SECTION SHEET	CABINET DEVICE NAME
FLD4DOT09542.4NBLS1	3040+00, RT.	34	39	42.3CABNS
FLD4DOT09542.7NBTR1	3058+00, RT.	36	40	42.7CABNS
95SB042.7	3060+00, LT.	37	41	EXIST. CABINET
FLD4DOT09542.9NBLS1	3067+50, RT.	38	42	43.1CABNS_1
FLD4DOT09543.0NBTR1	3075+80, RT.	39	43	43.1CABNS_2
FLD4DOT09543.2NBLS1	3085+60, RT.	40	44	43.1CABNS_3
95SB044.0	3124+00, LT.	46	46	44.0CABSS
95NB044.0	3128+50, RT.	47	47	44.0CABNS_2
FLD4DOT09544.6SBLS1	3157+00, LT.	51	49	44.6CABSS
FLD4DOT09544.9SBTR2	3174+50, LT.	53	50	44.9CABSS
95NB045.0	3179+00, RT.	54	51	45.0CABNS
FLD4DOT09545.3SBLS1	3192+30, LT.	56	52	45.3CABSS
FLD4DOT09545.5SBTR2	3203+00, LT.	57	53	45.5CABSS
FLD4DOT09545.7SBLS1	3213+00, LT.	59	54	45.5CABSS

POWER SERVICE POINT NAME	STATION	ITS PLAN SHEET
F	3059+70, LT.	37
K	3112+81, LT. **	44
G	3121+47, LT.	46
J	302+16, LT. *	64
H	3175+70, RT.	53

* BASED OFF RAMP C AT PALMETTO INTERCHANGE.
** SEE TOLL SITE PLANS FOR DETAILS.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

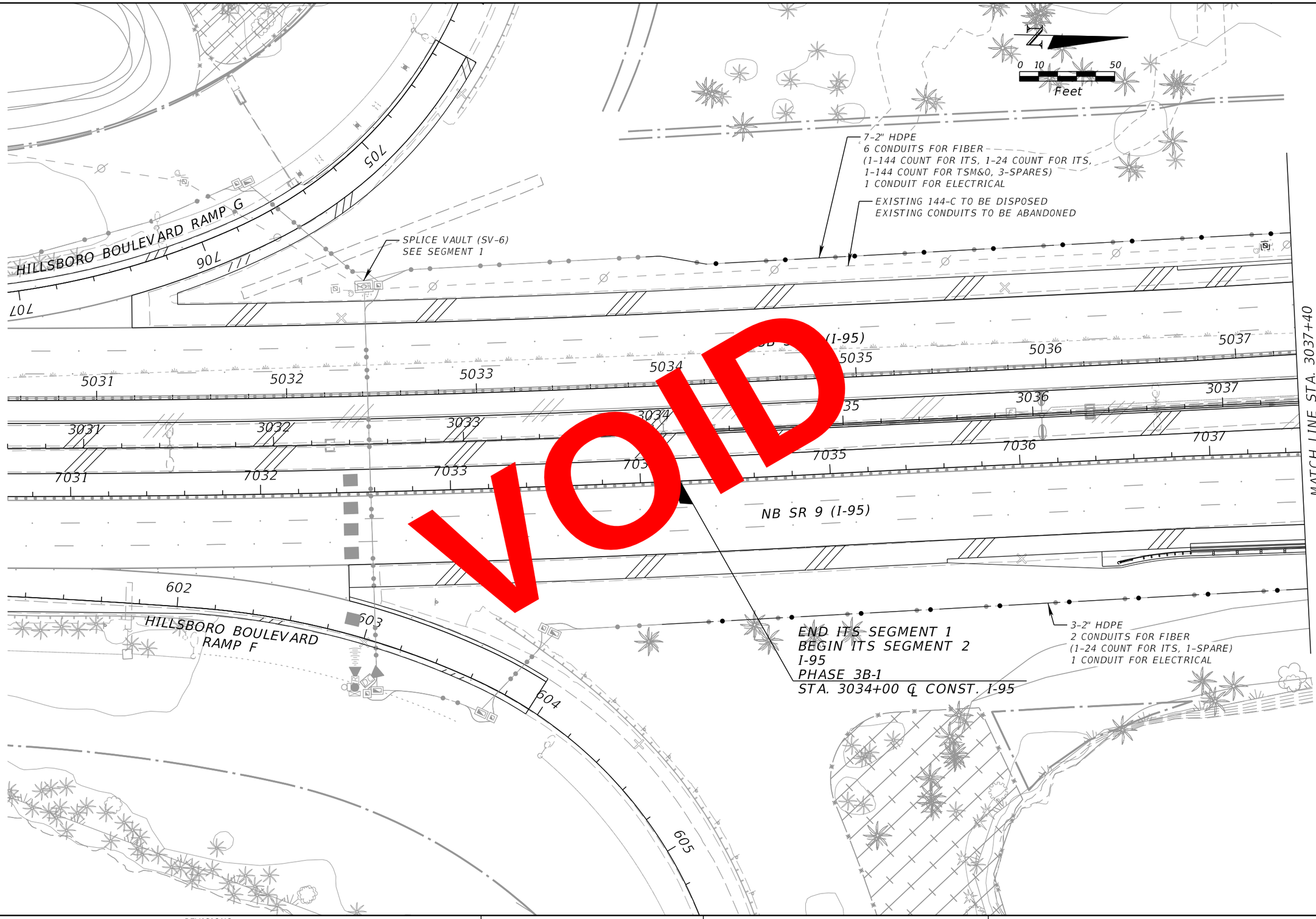
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE SUMMARY SHEET (3)

SHEET NO.
IT-18



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (33B)

SHEET NO.
IT-19

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C
RELEASED FOR CONSTRUCTION
BY: RPOTI VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 433109-4-52-01 CONTRACT E4R96

PLOT DRIVER = $PLTDRVLS PEN TABLE = $PENTBLLS MODEL NAME =Default BarcoJ 4/18/2019 5:33:26 PM c:\projectwise\pb\projectwiseint\barco\d0230493\PLANIT33b.dgn

MATCH LINE – SEE ITS PLAN (33D)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS, 1-24 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

EXISTING 144-C TO BE DISPOSED
EXISTING CONDUITS TO BE ABANDONED

SPLICE VAULT (SV-6)
SEE SEGMENT 1

HILLSBORO BOULEVARD RAMP G

NB SR 9 (I-95)

END ITS SEGMENT 1
BEGIN ITS SEGMENT 2
I-95
PHASE 3B-1
STA. 3034+00 ℄ CONST. I-95

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

HILLSBORO BOULEVARD
RAMP F

MATCH LINE STA. 3037+40

0 10 50
Feet

VOID

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, coordination with other contract documents, fabrication and erection shall remain with the contractor.
BY:(FDOT) VS Date: 2/25/2021
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	1 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (33B)

SHEET NO.
IT-19

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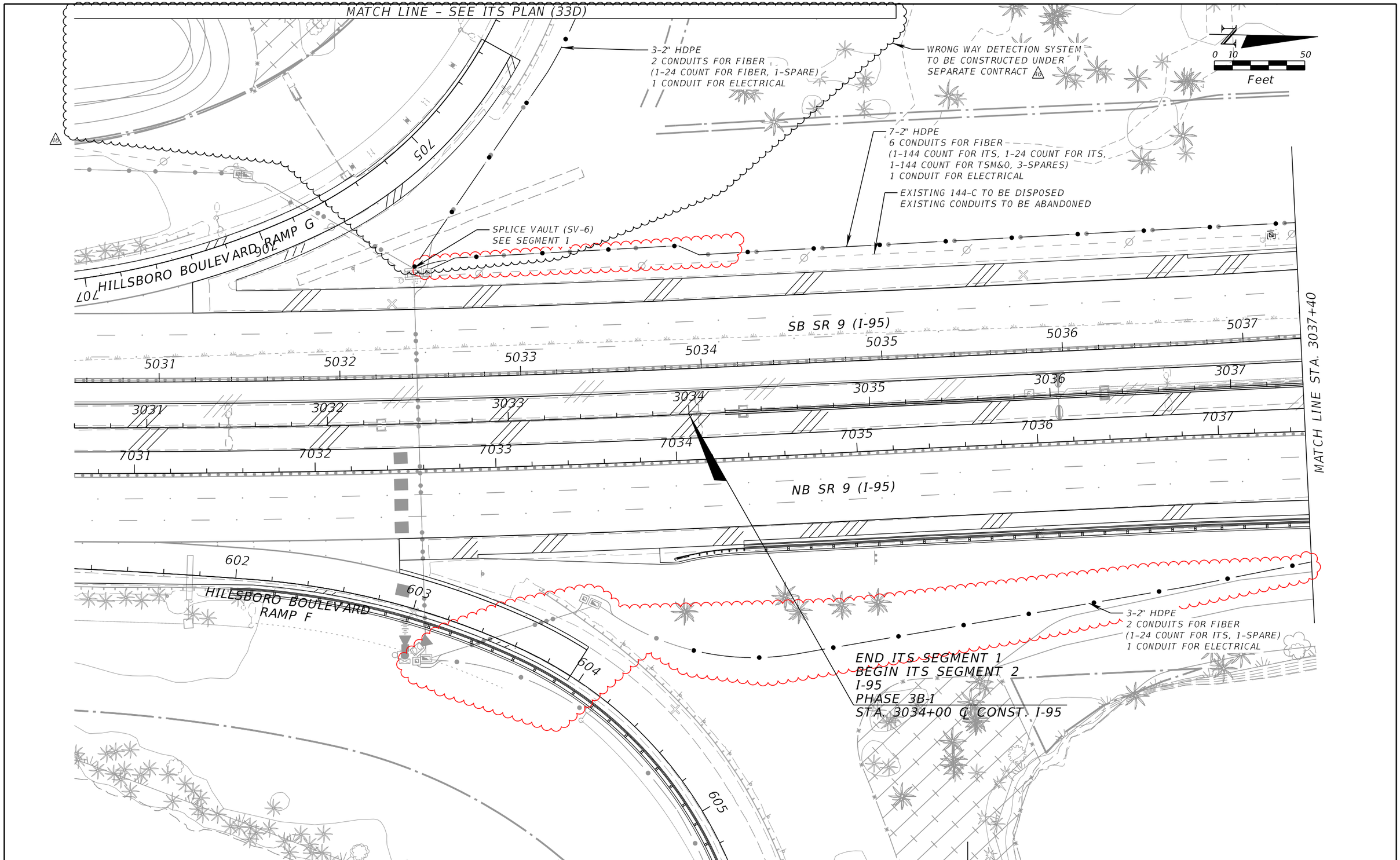

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (33B)

SHEET NO.
IT-19

PLOT DRIVER = c:\projectwise\pb\projectwiseint\wsp__michael.west\d0173361\As-Built_FDEN.pltcfg PEN TABLE = pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase3B-1\Mapping\As-Built USMW189428 11/17/2021 6:41:39 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\PLANIT33B_As-Built.dgn

STA. 3031+92; OFFSET 669.6' LT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

STA. 3029+82; OFFSET 678.7' LT.
F&I WRONG WAY SIGN (R5-1A)

REMOVE EXISTING WRONG WAY SIGN

HILLSBORO BOULEVARD RAMP C

STA. 3029+83; OFFSET 610.5' LT.
F&I WRONG WAY SIGN (R5-1A)

REMOVE EXISTING WRONG WAY SIGN

LA R/W LINE

0 10 50
Feet

STA. 3034+15; OFFSET 649.6' LT.
F&I WRONG WAY SIGN (R5-1A)

4-2" HDPE
2-DEVICE CABLES; 1-120VAC POWER; 1-SPARE

STA. 3031+90; OFFSET 614.3' LT.
F&I 20' ALUMINUM POLE
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I DUAL DETECTION SENSORS
F&I DUAL VERIFICATION CAMERAS
F&I WIRELESS RADIO

STA. 3034+08; OFFSET 607.9' LT.
F&I WRONG WAY SIGN (R5-1A)

SR 810 (HILLSBORO BOULEVARD)

HILLSBORO BOULEVARD RAMP G

700
701
702
703
704

WWDS 5
42.2CABSS
STA. 3031+87; OFFSET 590.9' LT.
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I FO PULL BOX
2- F&I ELECTRICAL PULL BOX
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I WW CONTROL PANEL ASSEMBLY
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

3-2" HDPE
2 CONDUITS FOR FIBER (1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

MATCH LINE - SEE ITS PLAN (33B)

MATCH LINE - SEE ITS PLAN (33E)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY:(FDOT) VS Date: 2/25/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, and compliance with all codes, fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5496

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (33D)

SHEET NO.
IT-19A

PLOT DRIVER = C:\FDOTSS10\RESOURCES\plot\FDOTPDF.pltcfg
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USMW189428
1/29/2021 2:37:20 PM
c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\PLANIT33D.dgn

MATCH LINE - SEE ITS PLAN (33D)

STA. 3035+95; OFFSET 577.4' LT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

STA. 3035+77; OFFSET 545.8' LT.
F&I 13' ALUMINUM POLE
F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT (6)

LA R/W LINE

HILLSBORO BOULEVARD RAMP C

300 301 302 303 304

(6)

0 10 50
Feet

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, quantities and details of design, fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496

BY:(FDOT) VS Date: 2/25/2021

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(6) REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (33E)

SHEET NO. IT-19B

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
42.3CABSS
FLD4095042.3SBSSDSGP
STA. 3038+00; OFFSET 103.5' LT.
F&I MVDS FOR FREEWAY
F&I 6' W X 8' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

EXISTING 144-C TO BE DISPOSED
EXISTING CONDUITS TO BE ABANDONED

HILLSBORO BOULEVARD
RAMP C

LA R/W LINE

305

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

0 10 50
Feet

MATCH LINE STA. 3037+40

5038 5039 5040 5041 5042 5043 5044

3038 3039 3040 3042 3043 3044

7038 7039 7040 7042 7043 7044

NB SR 9 (I-95)

MATCH LINE STA. 3044+40

F&I NEMA 3R ENCLOSURE W/ SPD AND
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

STATUS DMS CABINET

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUIT FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

42.3CABNS
STA. 3038+51; OFFSET 91.8' RT.
F&I 5' W X 9' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES

XXXXXXXXXXXXXXXX
EXPRESS LANES ENTRANCE
1 MILE
ONLY
NO TRUCKS
LEFT

FLD4D0T09542.4NBLS1
STA. 3040+00, RT.
F&I 1-LINE STATUS DMS
F&I OH MID-SPAN SIGN STRUCTURE
(SEE SIGNING & PAVEMENT MARKING PLANS FOR STRUCTURAL DESIGN)
F&I ABOVEGROUND 2-2" CONDUIT

HILLSBORO BOULEVARD RAMP B
208
207

VOID

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RELEASED FOR CONSTRUCTION
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BY: FDOT VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

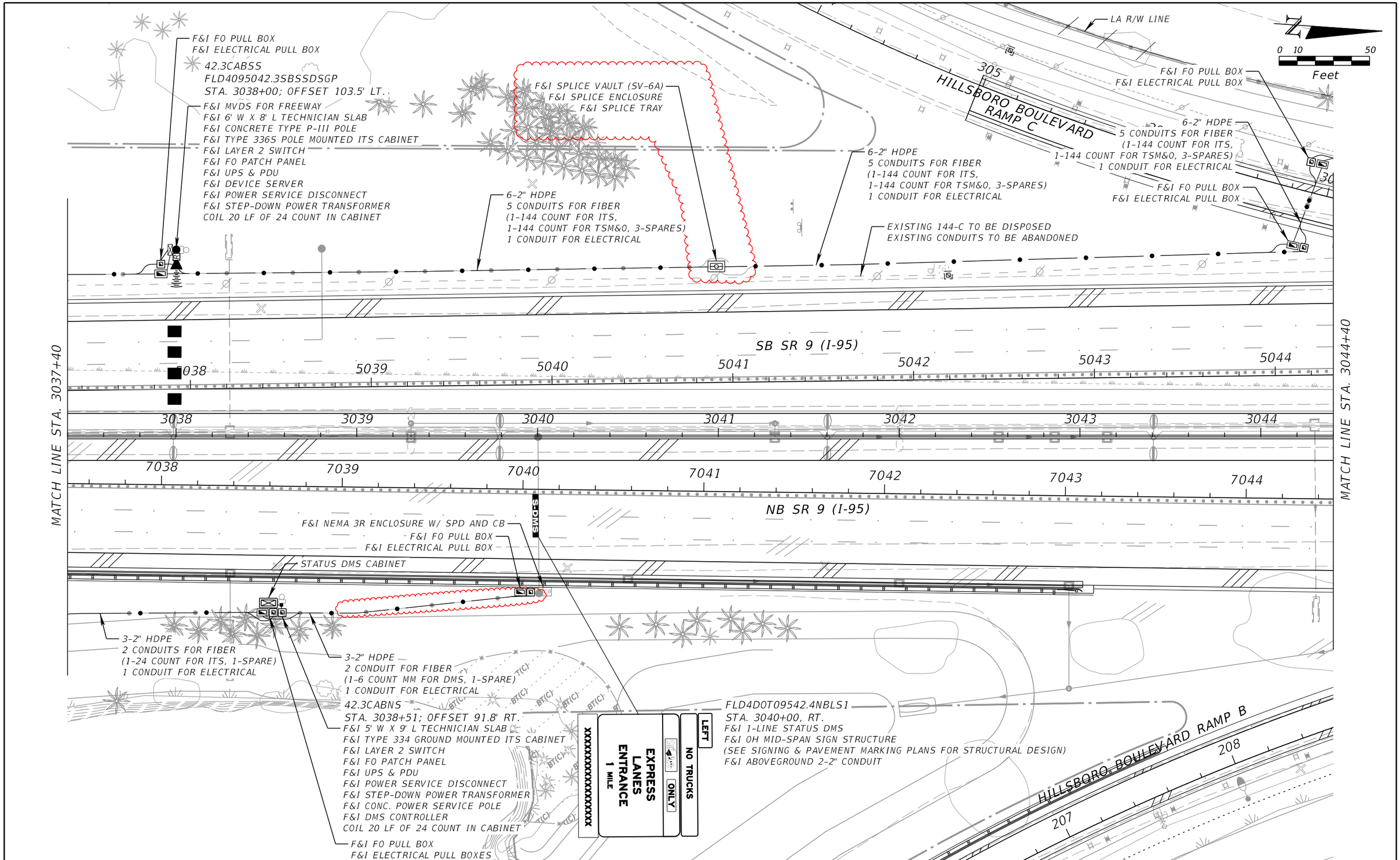
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (34)

SHEET NO.
IT-20



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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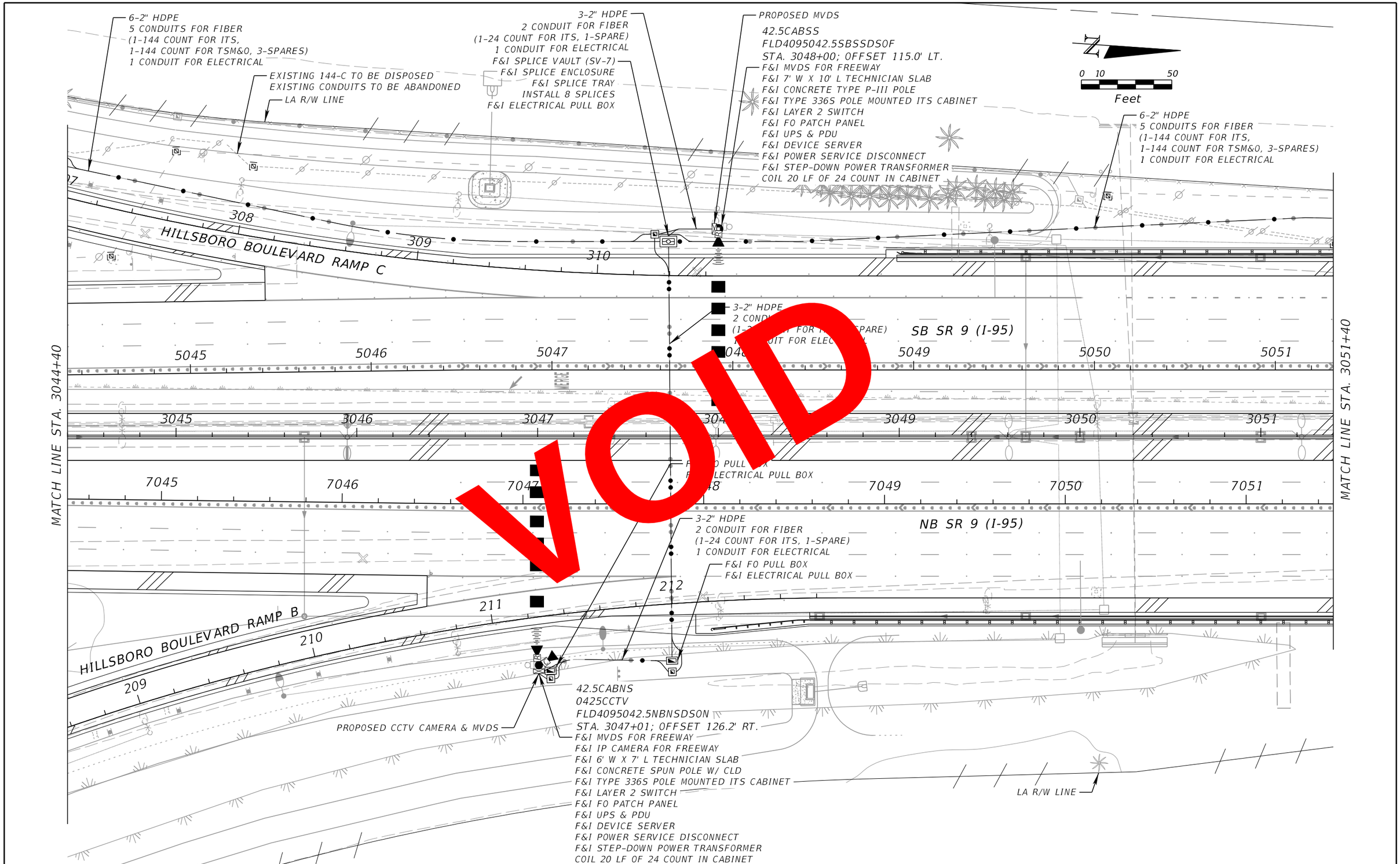
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (34)

SHEET NO.
IT-20

PLOT DRIVER = c:\projectwise\pb\projectwiseint\wsp__michael.west\d0173361\As-Built_FDOT_PLOT.pc pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase\ODBC\PLANS\As-Built USMW189428 10/22/2021 6:34:11 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\PLANIT34_As-Built.dgn



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (35)

SHEET NO.
IT-21

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

EXISTING 144-C TO BE DISPOSED
EXISTING CONDUITS TO BE ABANDONED

LA R/W LINE

3-2" HDPE
2 CONDUIT FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-7)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 8 SPLICES
F&I ELECTRICAL PULL BOX

PROPOSED MVDS
42.5CABSS
FLD4095042.5SBSSDS0F
STA. 3048+00; OFFSET 115.0' LT.
F&I MVDS FOR FREEWAY
F&I 7' W X 10' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

HILLSBORO BOULEVARD RAMP C

308 309 310

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

5045 5046 5047 5048 5049 5050 5051

3045 3046 3047 3048 3049 3050 3051

7045 7046 7047 7048 7049 7050 7051

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDPE
2 CONDUIT FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

NB SR 9 (I-95)

MATCH LINE STA. 3044+40

MATCH LINE STA. 3051+40

HILLSBORO BOULEVARD RAMP B

209 210 211 212

42.5CABNS
0425CCTV
FLD4095042.5NBNSDS0N
STA. 3047+01; OFFSET 126.2' RT.
F&I MVDS FOR FREEWAY
F&I IP CAMERA FOR FREEWAY
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

PROPOSED CCTV CAMERA & MVDS

LA R/W LINE

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WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (35)

SHEET NO.
IT-21

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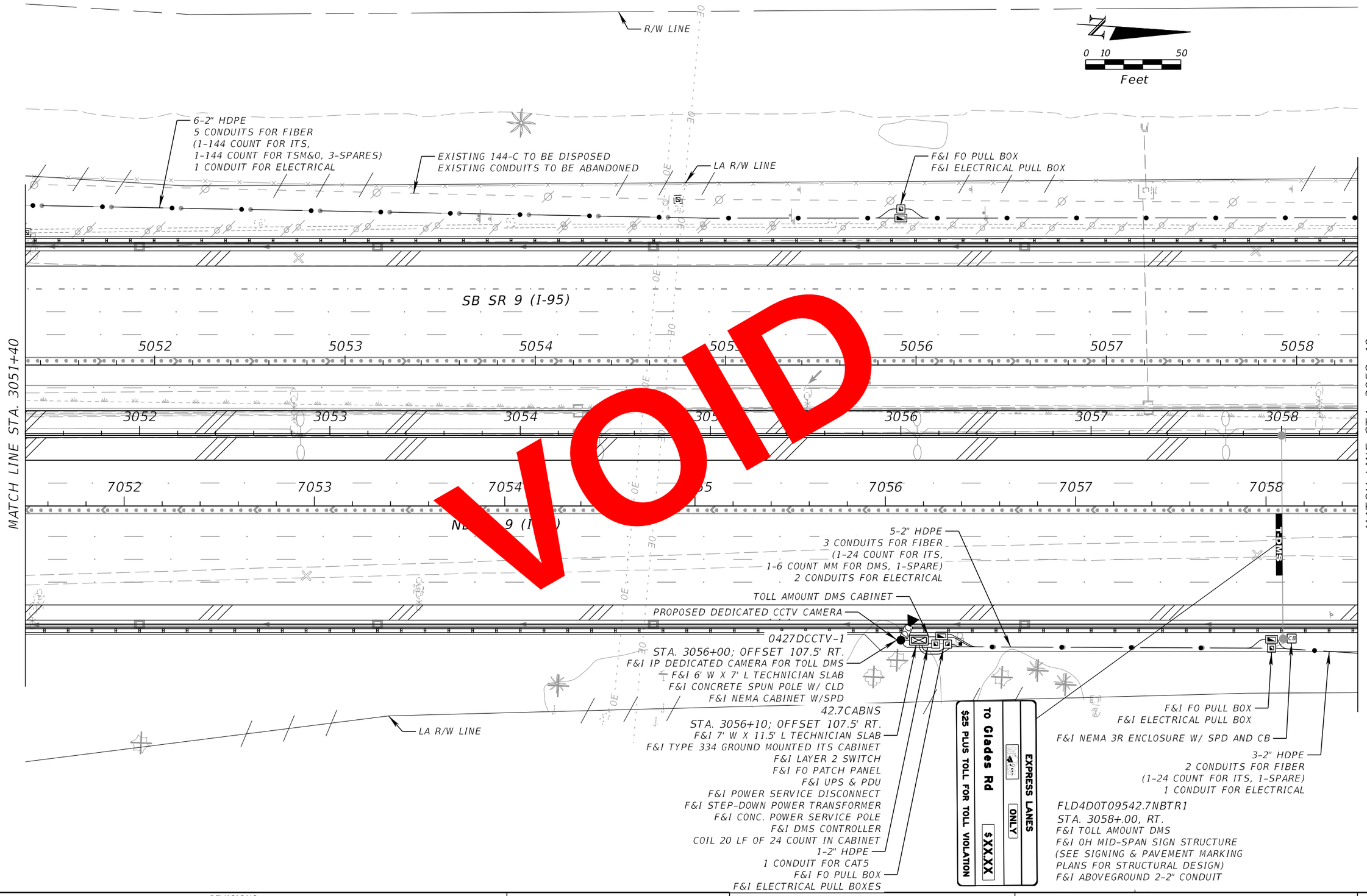

VOID

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (36)

SHEET NO.
IT-22

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
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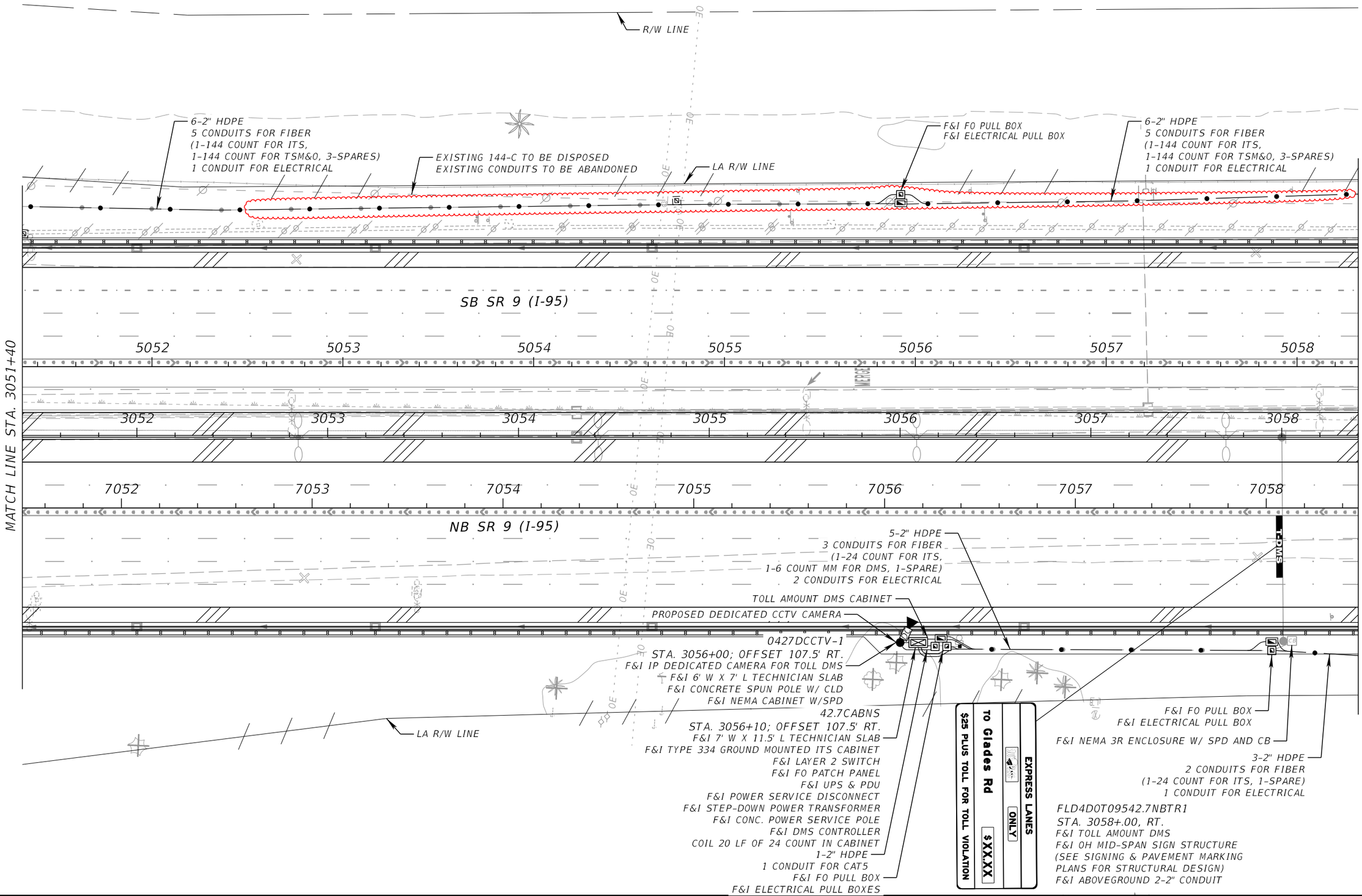

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (36)

SHEET NO.
IT-22

R/W LINE

EXISTING WALK-IN GUL DMS (95SB42) TO BE RELOCATED FROM STA. 3061+00 TO STA. 3060+00

F&I NEMA 3R ENCLOSURE W/ SPD AND CB

3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

EXISTING GENERATOR #10 (GENERATOR 95-42) AND POWER STATION ELECTRICAL DISTRIBUTION EQUIPMENT TO BE REMOVED

EXISTING DMS CABINET TO REMAIN

1-2" HDPE
FOR ELECTRICAL

F&I SPLICE VAULT (SV-8)
F&I SPLICE ENCLOSURE
F&I 2 SPLICE TRAYS
INSTALL 20 SPLICES
F&I ELECTRICAL PULL BOX
COIL 150 LF FOR EACH FO DROP
COIL 250 LF FOR EACH FO TRUNK

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING HUB (HUB 95-42)
TO REMAIN IN OPERATION
DURING CONSTRUCTION
STA. 3061+75

42.8CABSS
0427DCCTV-3
FLD4095042.8SBSSDSGP
STA. 3061+78; OFFSET 104.02' LT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR WALK-IN DMS
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER [illegible] CONNECT
F&I ST[illegible] TRANSFORMER
CO[illegible] OF 24 COU[illegible] CABINET

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

REMOVE EXISTING POLE & CABINET
MVDS ON EXISTING POLE
#8 - MVDS - FLD4095042.7NBSS
TO BE REMOVED
#4 - CCTV CAMERA - C9046
TO BE REMOVED
STA. 3064+30

EXISTING 144-C TO BE DISPOSED
EXISTING CONDUITS TO BE ABANDONED

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)

3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 3-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUIT FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

NB SR 9 (I-95)

2-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)

MVDS ON EXISTING TRUSS UPRIGHT
#7 - MVDS - FLD4095042.6SBSS
TO BE REMOVED
#4 - VOIP 95-42.6 TO BE REMOVED
STA. 3061+00

3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

PROPOSED MVDS

F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES

42.7CABNS_2
0427CCTV
0427DCCTV-2
FLD4095042.7NBNSDSGP
STA. 3058+90; OFFSET 107.5' RT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR STATUS DMS
F&I IP CAMERA FOR FREEWAY
F&I 7' W X 11.5' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
COIL 20 LF OF 24 COUNT IN CABINET

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

FLD4D0T09542.7
STA. 3060+.00, LT.
RELOCATE WALK-IN DMS
F&I OVERHEAD TRUSS SIGN STRUCTURE
F&I ABOVEGROUND 2-2" CONDUIT
F&I NEMA CABINET W/SPD
EXISTING GROUND MOUNTED DMS CABINET
& INSIDE EQUIPMENT TO REMAIN
EXISTING POWER SERVICE DISCONNECT TO BE RELOCATED
EXISTING STEP-DOWN POWER TRANSFORMER TO BE RELOCATED

A
PROPOSED POWER STATION/GENERATOR 'F'
STA. 3059+70
42.8CABSS_3
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I CONC. POWER SERVICE POLE
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

BROWARD COUNTY — PALM BEACH COUNTY

HILLSBORO CANAL

B-1 B-3 B-4

MATCH LINE STA. 3058+40

MATCH LINE STA. 3065+40

0 10 50
Feet

VOID

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BY: RPOTI VS Date: 05/21/2019

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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Tampa, Florida 33607
(813) 520-4444
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EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (37)

SHEET NO.
IT-23

EXISTING WALK-IN GUL DMS (95SB42) TO BE RELOCATED FROM STA. 3061+00 TO STA. 3060+00

R/W LINE

F&I NEMA 3R ENCLOSURE W/ SPD AND CB

F&I SPLICE VAULT (SV-8)
F&I SPLICE ENCLOSURE
F&I 2 SPLICE TRAYS
INSTALL 20 SPLICES
F&I ELECTRICAL PULL BOX
COIL 150 LF FOR EACH FO DROP
COIL 250 LF FOR EACH FO TRUNK

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDPE
2 CONDUIT FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

EXISTING GENERATOR #10 (GENERATOR 95-42) AND POWER STATION ELECTRICAL DISTRIBUTION EQUIPMENT TO BE REMOVED

EXISTING DMS CABINET TO REMAIN

1-2" HDPE
FOR ELECTRICAL

7-2" HDPE
6 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

MVDS ON EXISTING POLE
#8 - MVDS - FLD4095042.7NBSS
TO BE REMOVED
#4 - CCTV CAMERA - C9046
TO BE REMOVED
STA. 3064+30
REMOVE EXISTING POLE & CABINET

0 10 50
Feet

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

EXISTING HUB (HUB 95-42)
TO REMAIN IN OPERATION
DURING CONSTRUCTION
STA. 3061+75

42.8CABSS
0427DCCTV-3
FLD4095042.8SBSSDSGP
STA. 3061+78; OFFSET 104.02' LT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR WALK-IN DMS
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL
SB SR 9 (I-95)

EXISTING 144-C TO BE DISPOSED,
EXISTING CONDUITS TO BE ABANDONED

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

5059 5060 5061 5062 5063 5064 5065
3060 3061 3062 3063 3065
7059 7060 7061 7062 7063 7064 7065

MATCH LINE STA. 3058+40

3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

PROPOSED MVDS

F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES

NB SR 9 (I-95)

MVDS ON EXISTING TRUSS UPRIGHT
#7 - MVDS - FLD4095042.6SBSS
TO BE REMOVED
#4 - VOIP 95-42.6 TO BE REMOVED
STA. 3061+00

7-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1/W 2-24 COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

B-1 B-3

MATCH LINE STA. 3065+40

42.7CABNS_2
0427CCTV
0427DCCTV-2
FLD4095042.7NBNSDSGP
STA. 3058+90; OFFSET 107.5' RT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR STATUS DMS
F&I IP CAMERA FOR FREEWAY
F&I 7' W X 11.5' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
COIL 20 LF OF 24 COUNT IN CABINET

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

FLD4D0T09542.7
STA. 3060+.00, LT.
RELOCATE WALK-IN DMS
F&I OVERHEAD TRUSS SIGN STRUCTURE
F&I ABOVEGROUND 2-2" CONDUIT
F&I NEMA CABINET W/SPD
EXISTING GROUND MOUNTED DMS CABINET & INSIDE EQUIPMENT TO REMAIN
EXISTING POWER SERVICE DISCONNECT TO BE RELOCATED
EXISTING STEP-DOWN POWER TRANSFORMER TO BE RELOCATED

BROWARD COUNTY
PALM BEACH COUNTY
HILLSBORO CANAL

(A)
PROPOSED POWER STATION/GENERATOR 'F'
STA. 3059+70
42.8CABSS_3
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I CONC. POWER SERVICE POLE
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

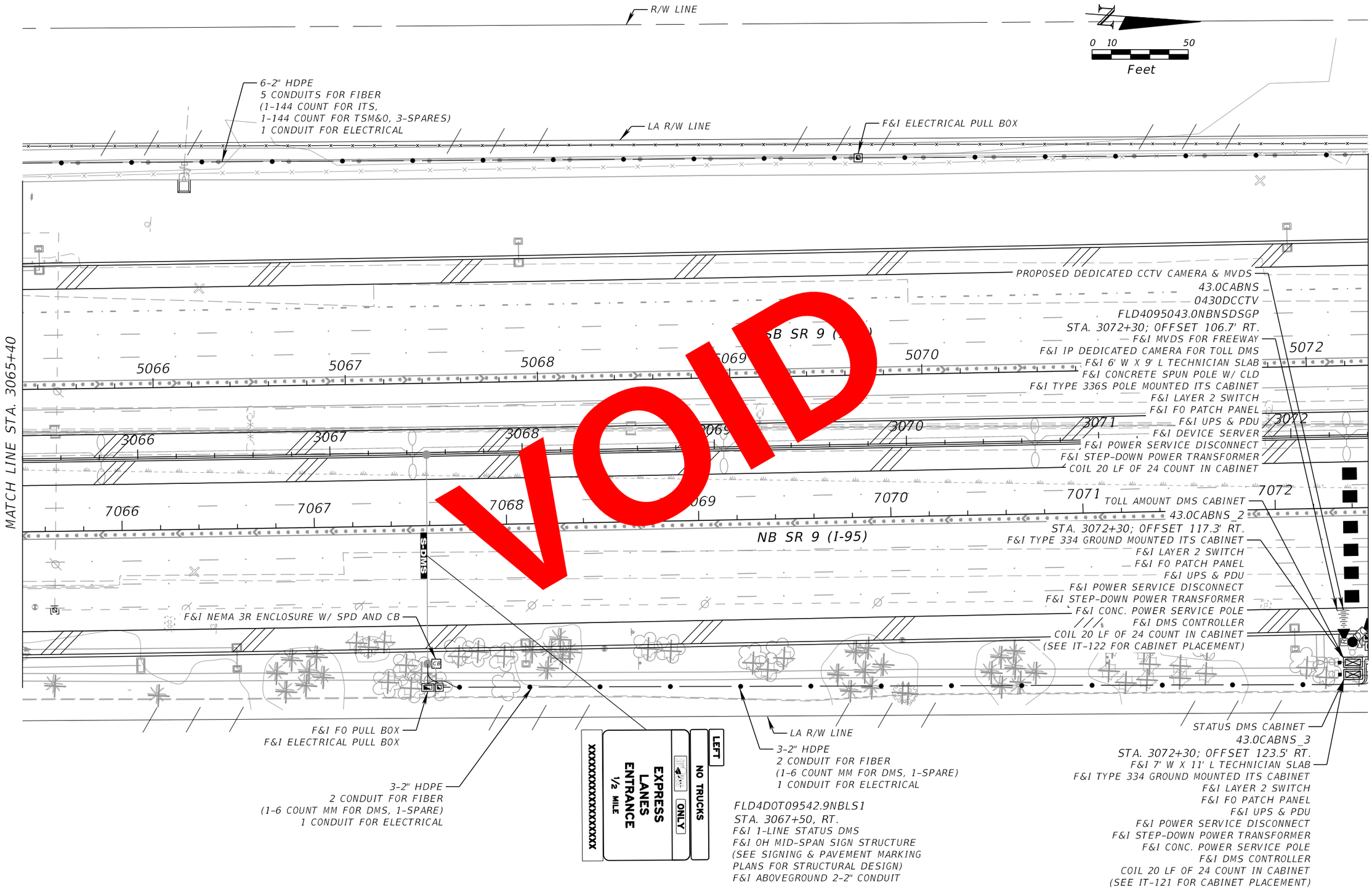
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (37)

SHEET NO.
IT-23



VOID

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
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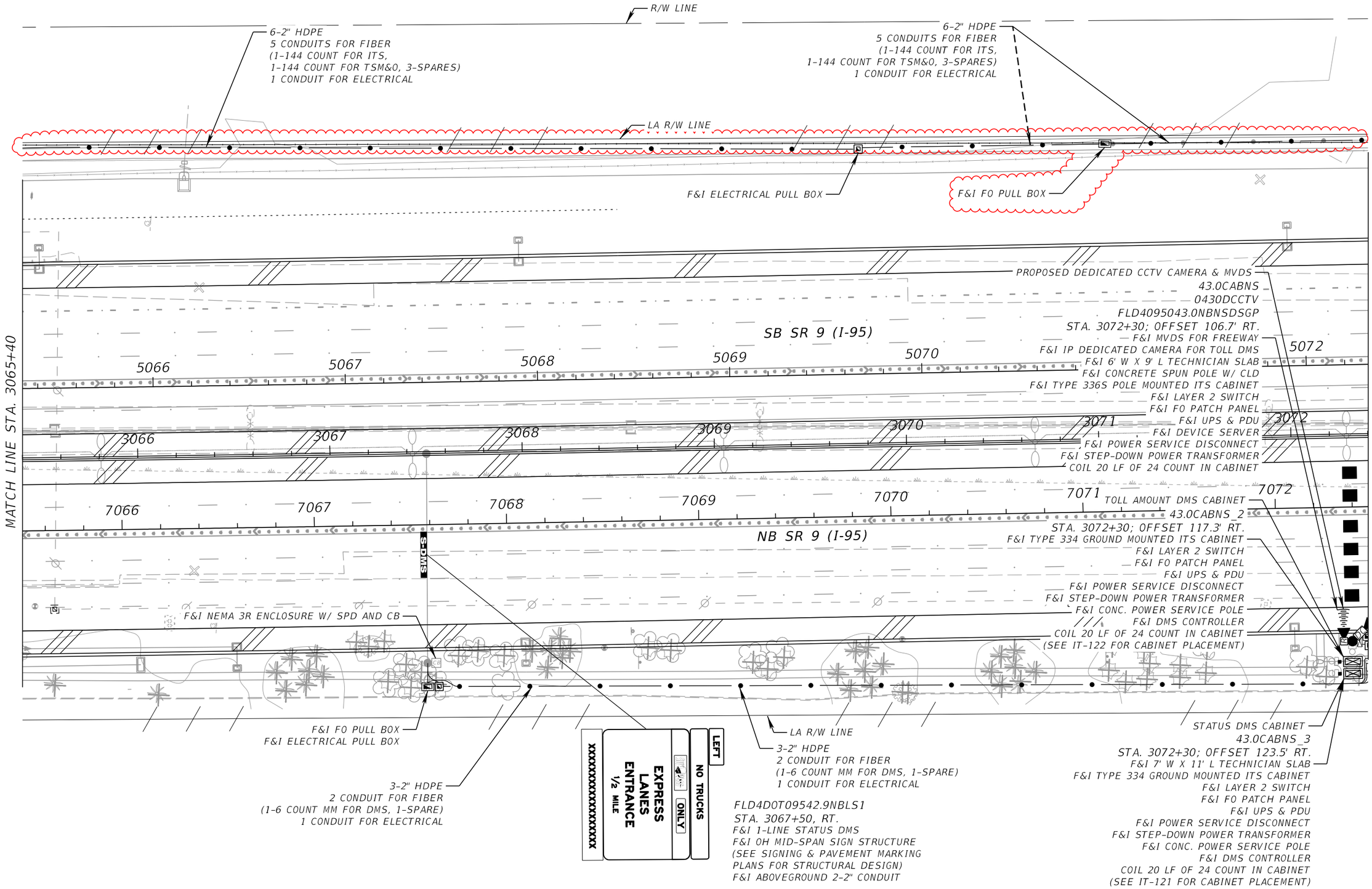
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (38)

SHEET NO.
IT-24



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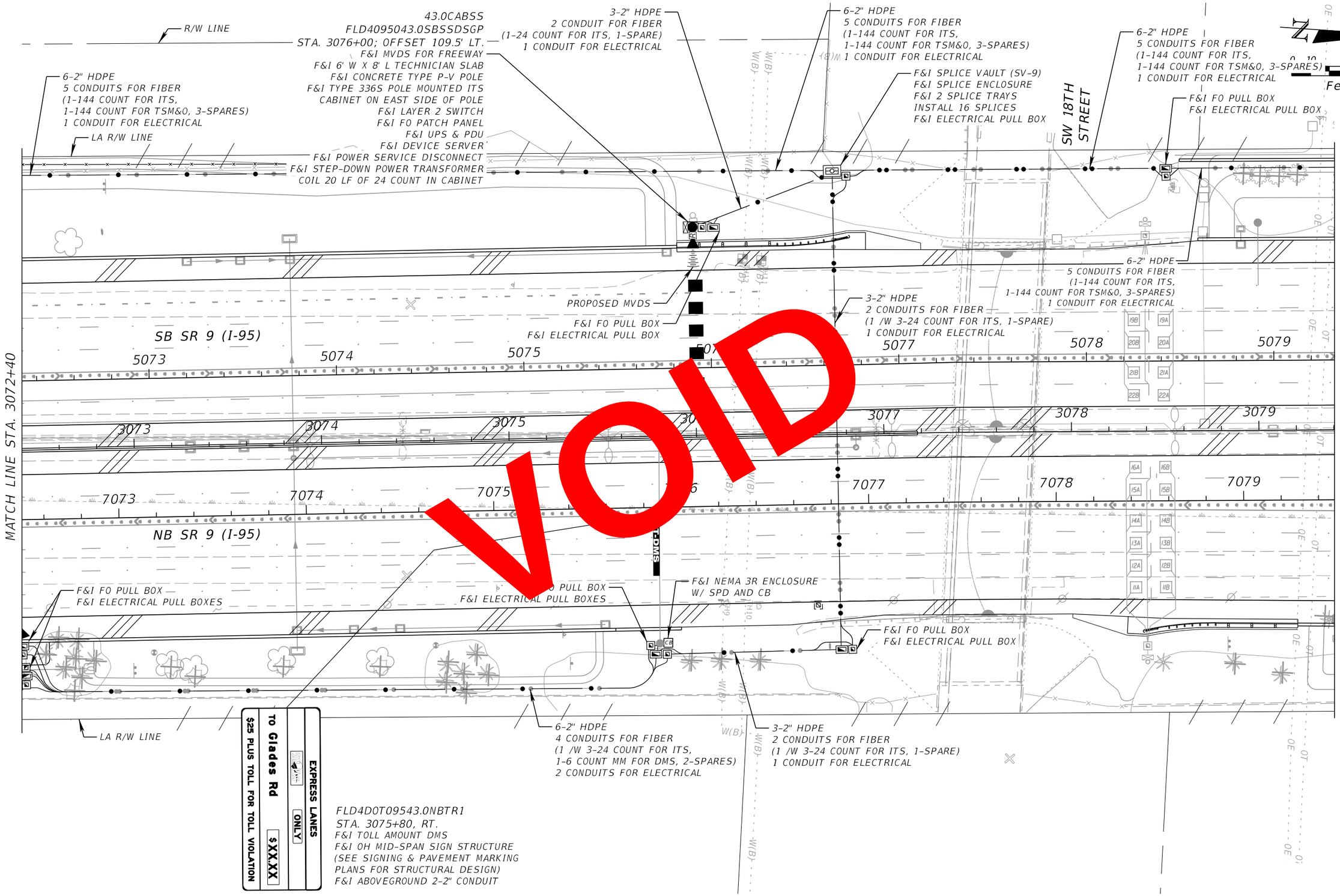
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (38)

SHEET NO.
IT-24



VOID

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (39)

SHEET NO.
IT-25

BY:RDOT VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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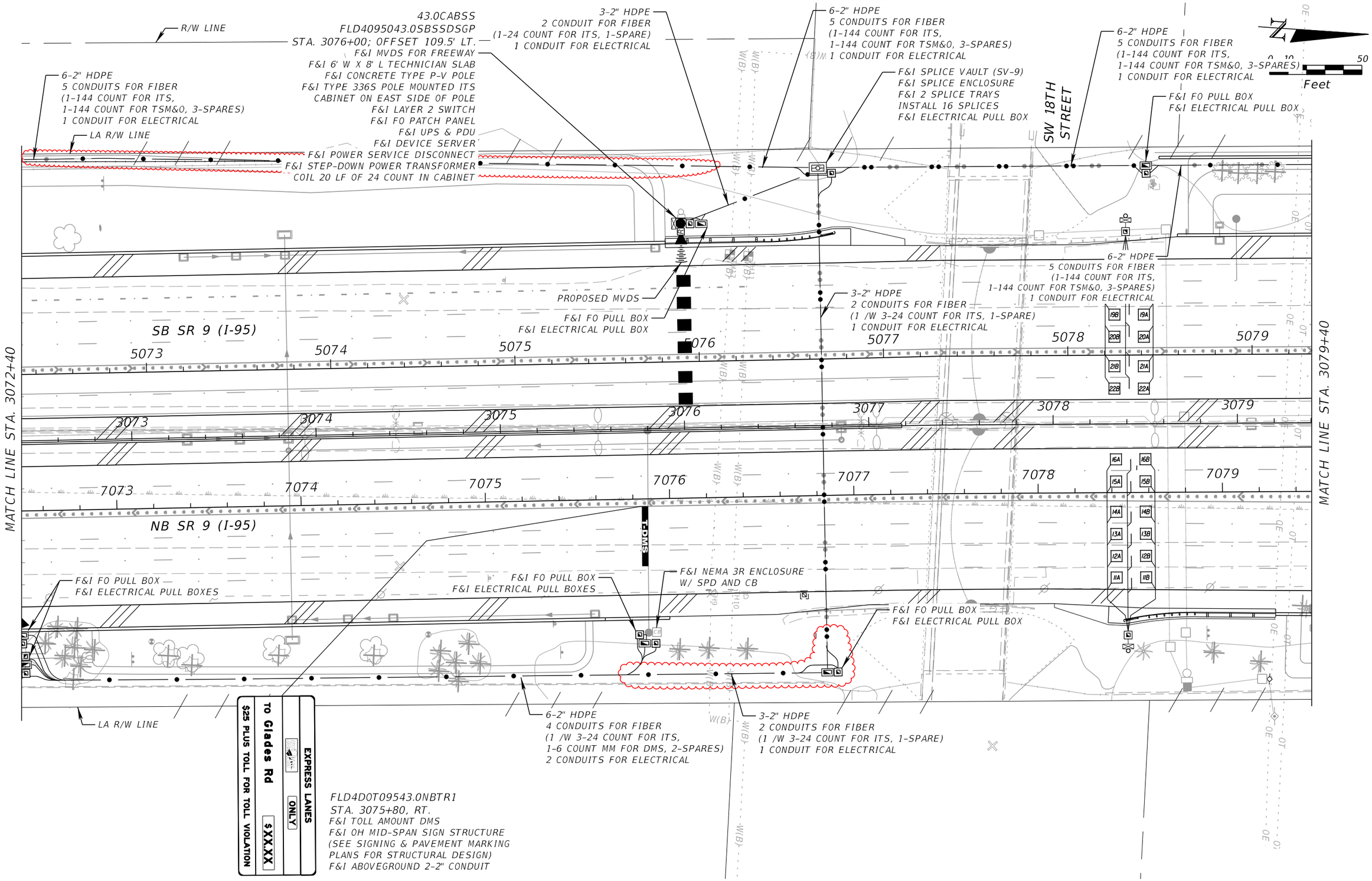

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (39)

SHEET NO.
IT-25

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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VOID

FLD4D0T09543.2NBLS1
STA. 3085+60, RT.
F&I 1-LINE STATUS DMS
F&I OH MID-SPAN SIGN STRUCTURE
(SEE SIGNING & PAVEMENT MARKING
PLANS FOR STRUCTURAL DESIGN)
F&I ABOVEGROUND 2-2" CONDUIT

XXXXXXXXXXXXXXXX
EXPRESS LANES ENTRANCE
ONLY
NO TRUCKS
LEFT

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-10)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 12 SPLICES
F&I ELECTRICAL PULL BOX

0 10 50
Feet

LA R/W LINE

PROPOSED MVDS

SB SR 9 (I-95)

5080 5081 5082 5083 5084 5086

3080 3081 3082 3083 3084 3085 3086

7080 7081 7082 7083 7084 7085 7086

43.2CABSS
FLD4095043.2SBSSDSGP
STA. 3085+71; OFFSET 119.7' LT.
F&I MVDS FOR FREEWAY
F&I 7' W X 10' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-V POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

MVDS ON EXISTING POLE
PHASE 3B-1
#9 - MVDS - FLD4095042.8NBNS TO BE REMOVED
STA. 3084+70
REMOVE EXISTING POLE & CABINET
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES

3-2" HDPE
2 CONDUITS FOR FIBER
(1 /W 2-24 COUNT FOR
ITS, 1-SPARE)
1 CONDUIT FOR
ELECTRICAL

NB SR 9 (I-95)

PROPOSED MVDS, DEDICATED CCTV AND POLE

LA R/W LINE

43.2CABNS
0432DCCTV
FLD4095043.2NBNSDSGP
STA. 3083+23; OFFSET 113.7' RT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR STATUS DMS
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

STATUS DMS CABINET
43.2CABNS_2
STA. 3083+23; OFFSET 141.4' RT.
F&I 5' W X 11' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

5-2" HDPE
3 CONDUITS FOR FIBER,
(1/W 2-24 COUNT FOR ITS,
1-6 COUNT MM FOR DMS,
1-SPARE)
2 CONDUITS FOR ELECTRICAL

3-2" HDPE
2 CONDUIT FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I NEMA 3R
ENCLOSURE
W/ SPD AND CB
F&I FO PULL BOX
F&I ELECTRICAL
PULL BOXES

MATCH LINE STA. 3079+40

MATCH LINE STA. 3086+40

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BY: RPOTI VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

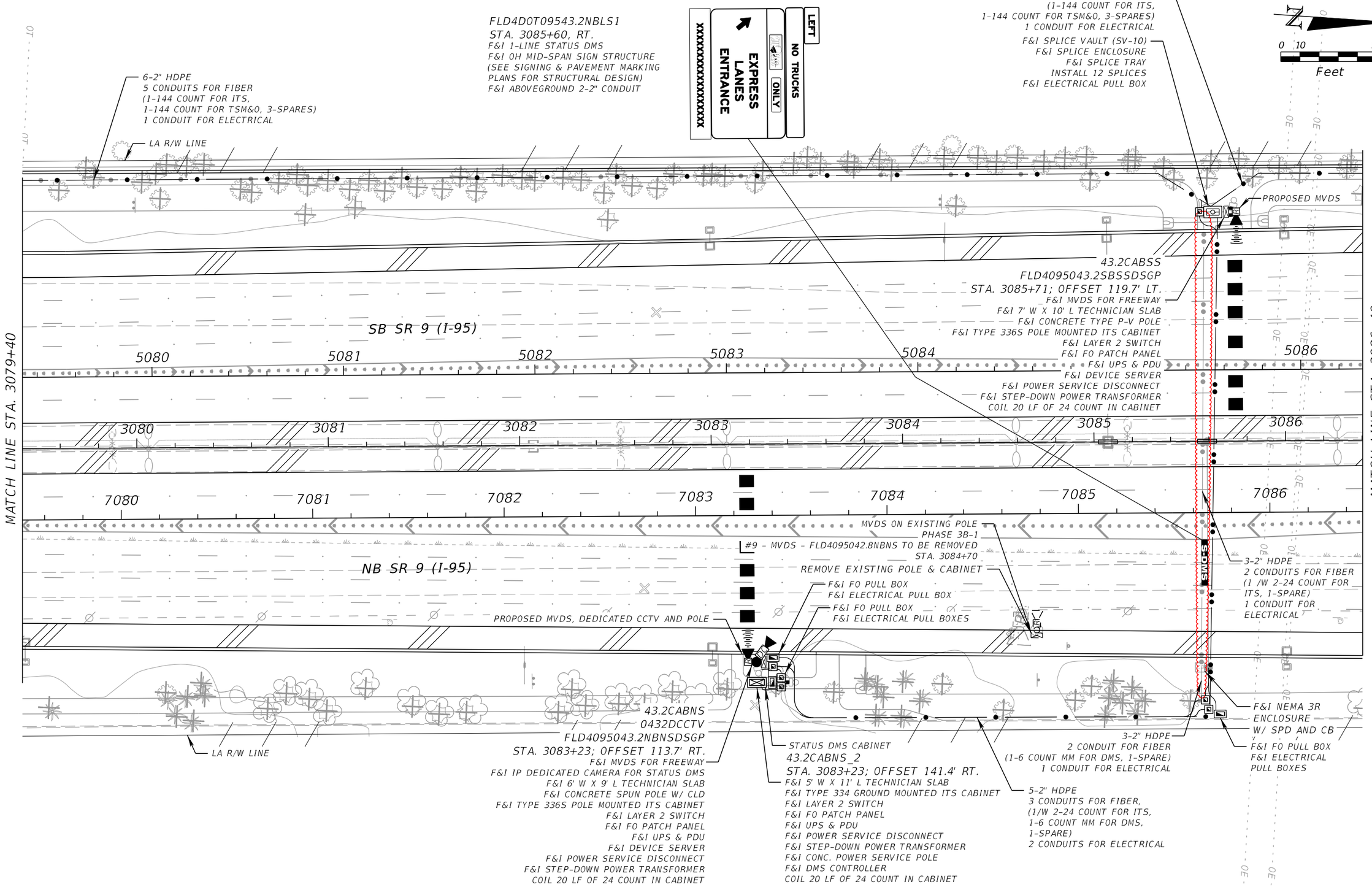
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (40)

SHEET NO.
IT-26



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (40)

SHEET NO.
IT-26

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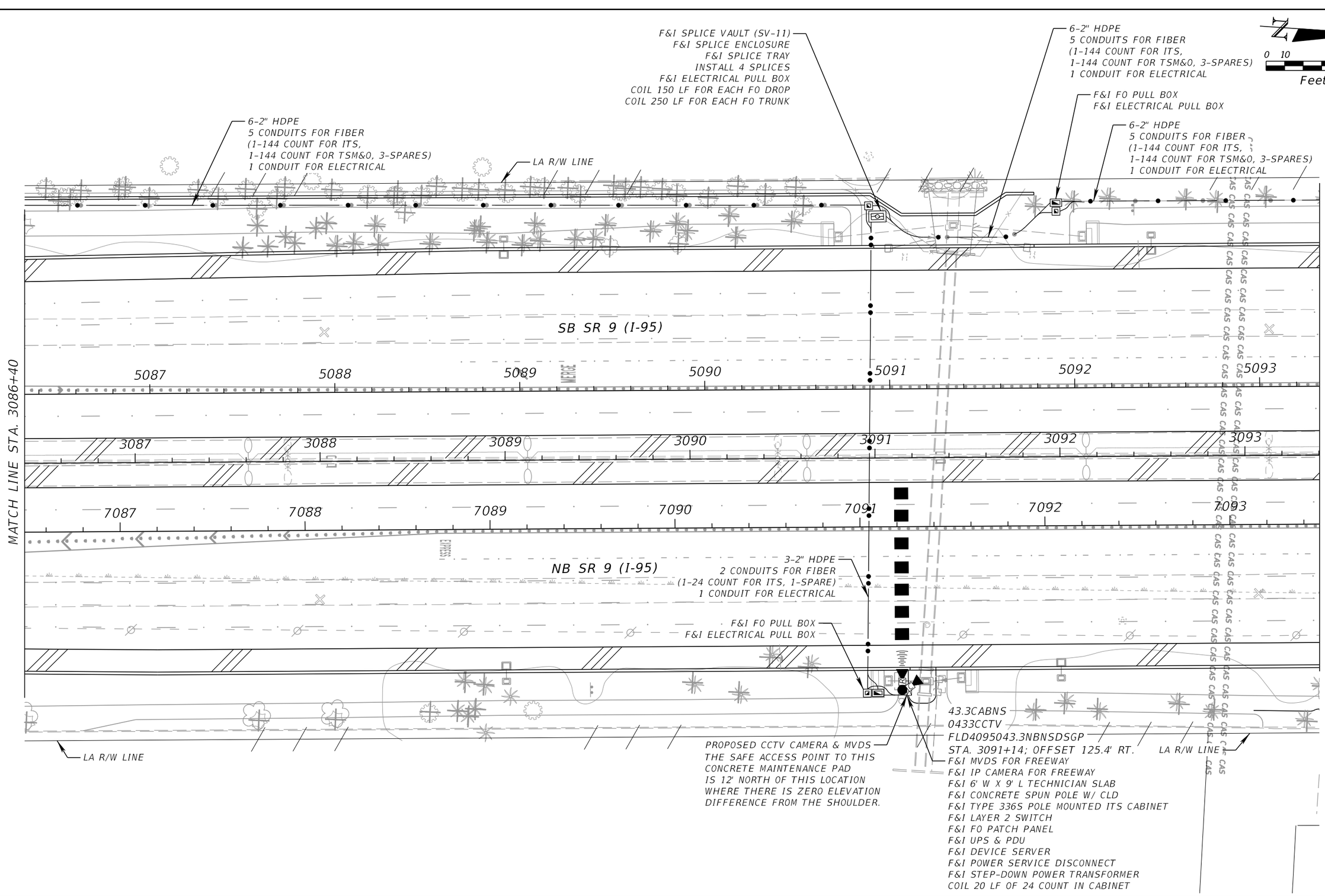

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (41)

SHEET NO.
IT-27

BY:FDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
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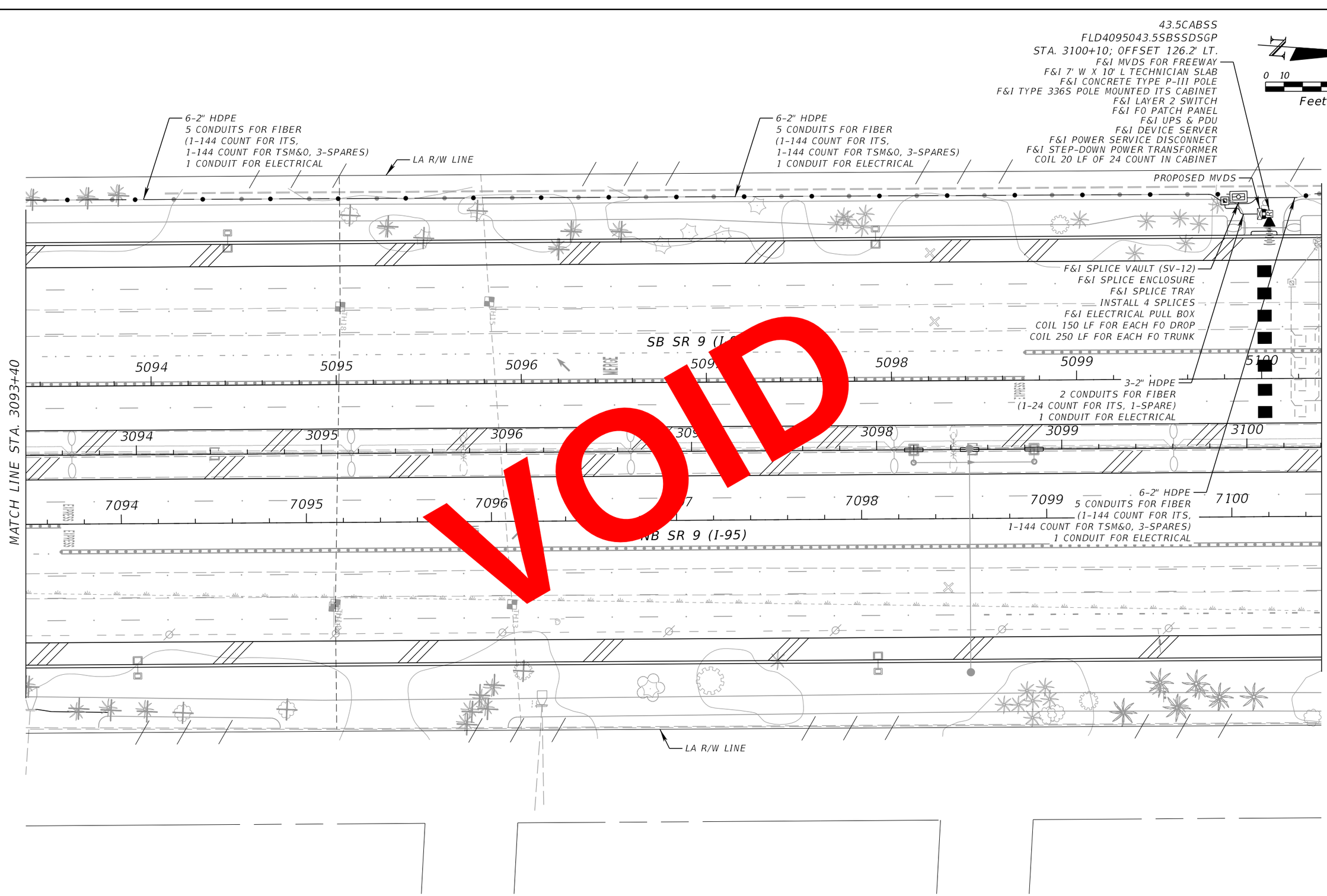

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2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (42)

SHEET NO.
IT-28

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BY:FDOT VS Date: 05/21/2019

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 4/18/2019 5:34:57 PM c:\projectwise\pb\projectwiseint\barco\d0230493\PLANIT42.dgn

43.5CABSS
FLD4095043.5SBSSDSGP
STA. 3100+10; OFFSET 126.2' LT.
F&I MVDS FOR FREEWAY
F&I 7' W X 10' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

N

0 10 50
Feet

F&I FO PULL BOX

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

PROPOSED MVDS

F&I SPLICE VAULT (SV-12)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 4 SPLICES
F&I ELECTRICAL PULL BOX
COIL 150 LF FOR EACH FO DROP
COIL 250 LF FOR EACH FO TRUNK

SB SR 9 (I-95)

5094 5095 5096 5097 5098 5099 5100

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3094 3095 3096 3097 3098 3099 3100

MATCH LINE STA. 3093+40

7094 7095 7096 7097 7098 7099 7100

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL (SPARE)

NB SR 9 (I-95)

LA R/W LINE

MATCH LINE STA. 3100+40

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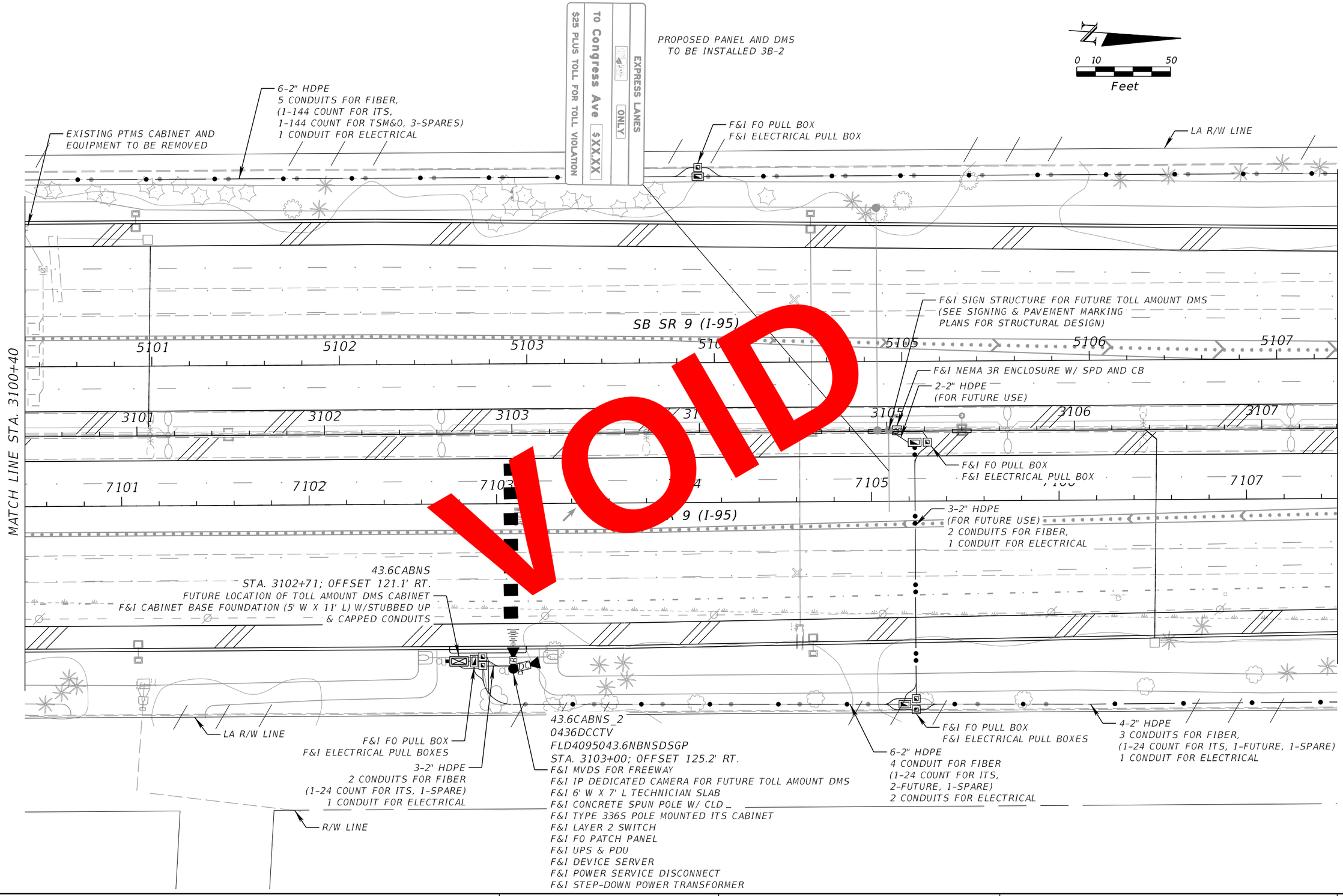
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (42)

SHEET NO.
IT-28



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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (43)

SHEET NO.
IT-29

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RELEASED FOR CONSTRUCTION BY:FDOT VS Date: 05/21/2019
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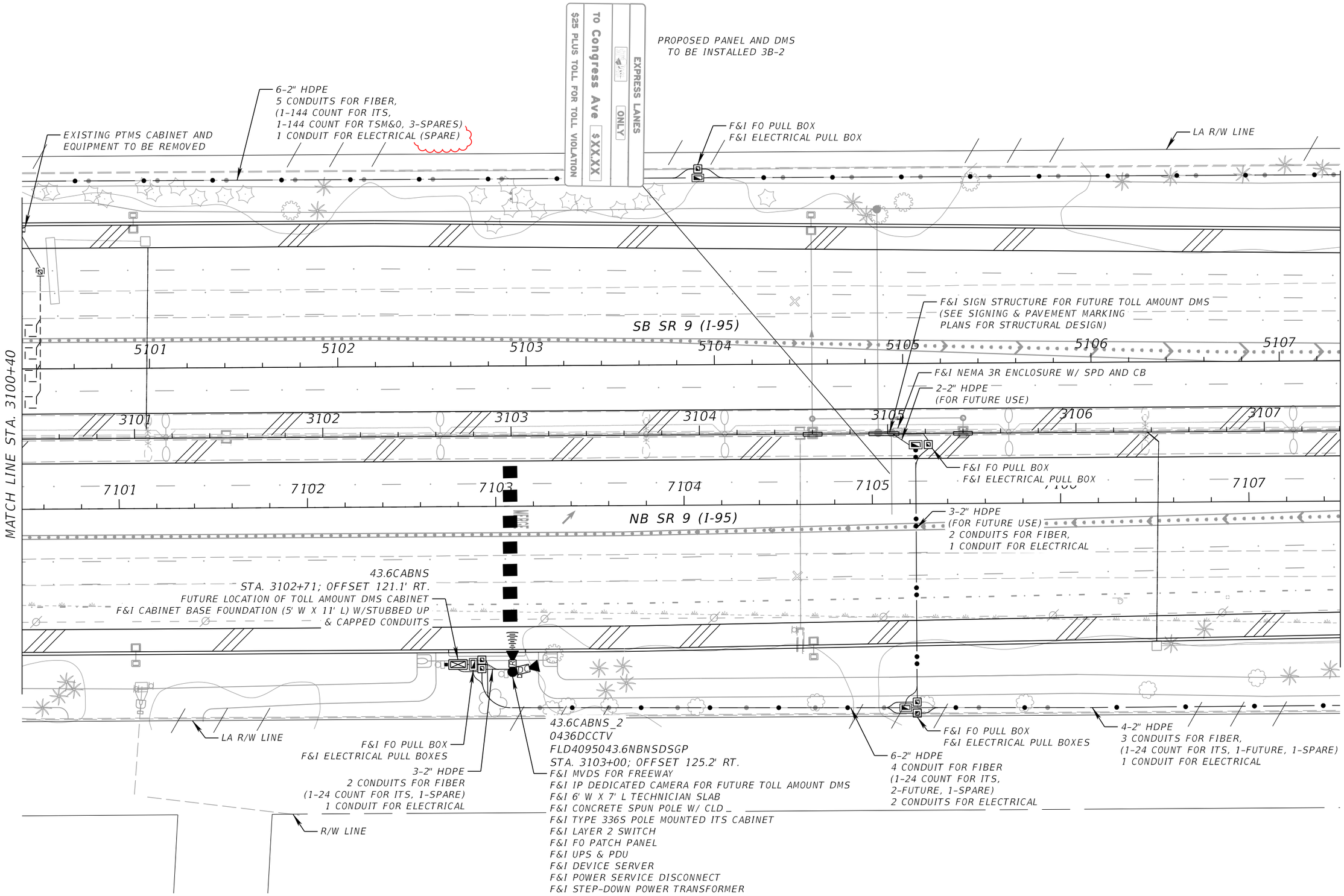
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



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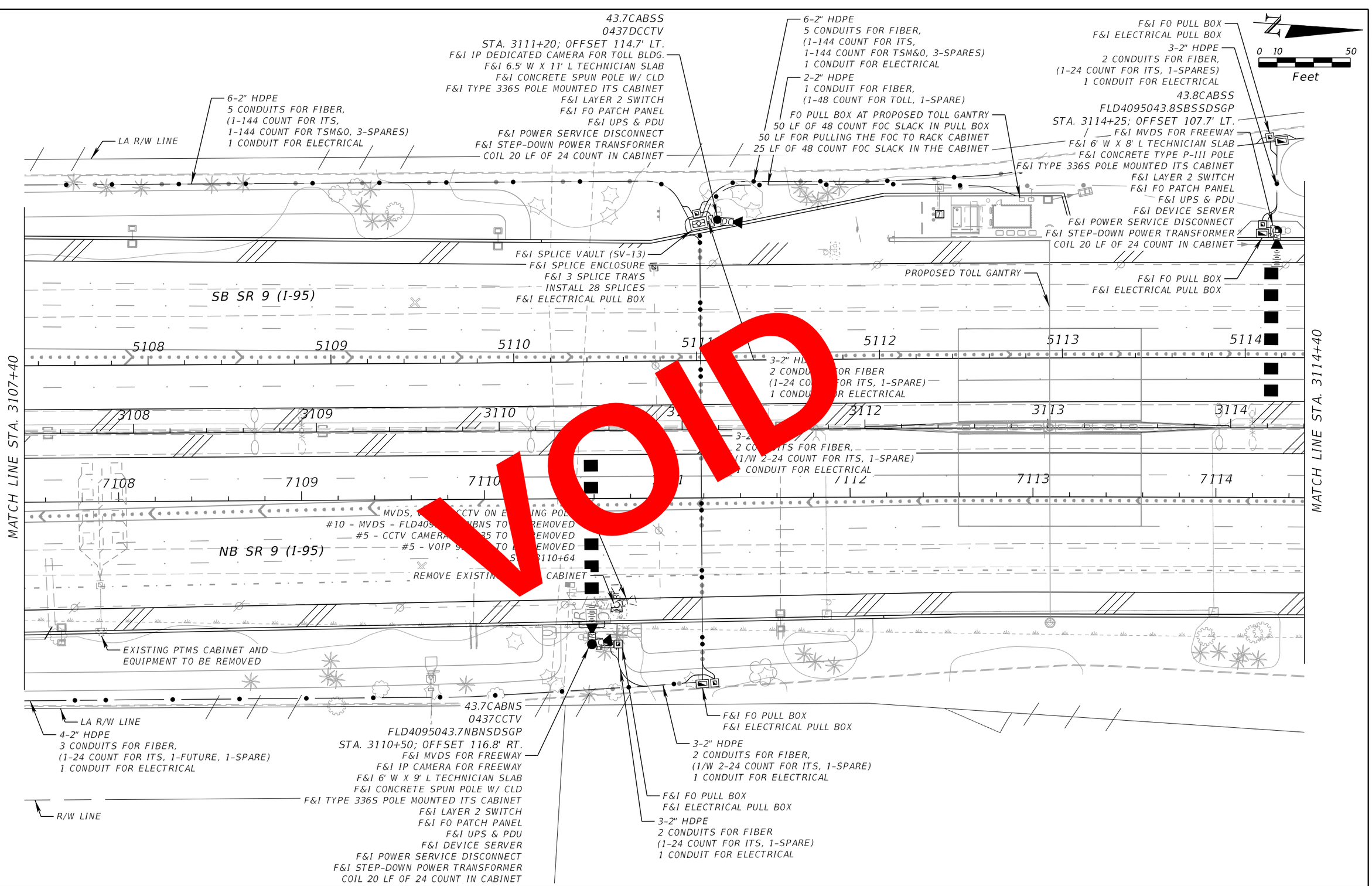
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (43)

SHEET NO.
IT-29



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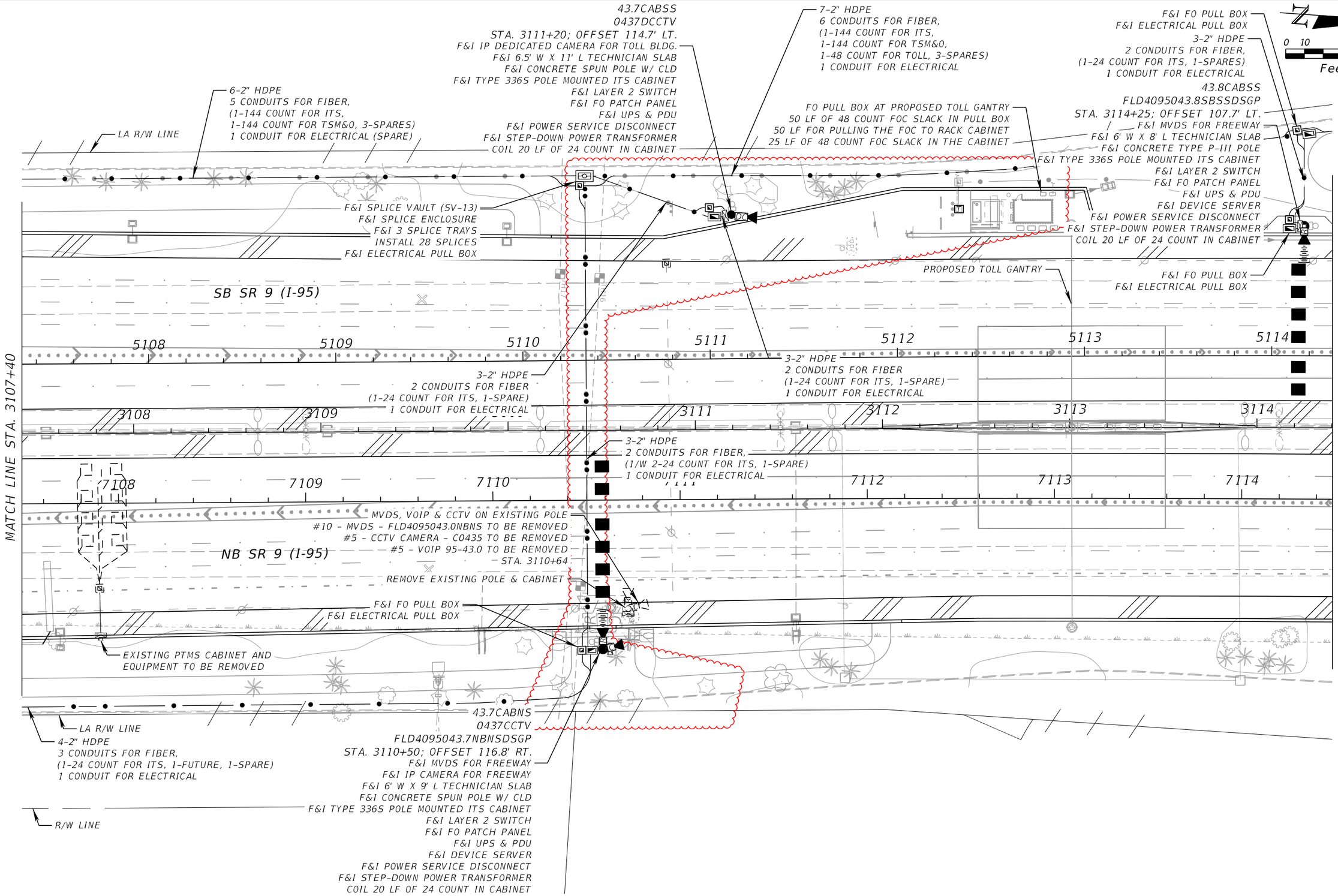
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (44)

SHEET NO.
IT-30

PLOT DRIVER = $PLTDRVLS PEN TABLE = $PENTBLLS MODEL NAME =Default BarcoJ 4/18/2019 5:35:16 PM c:\projectwise\pb\projectwiseint\barco\d0230493\PLANIT44.dgn



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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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ITS PLAN (44)

SHEET NO.
IT-30

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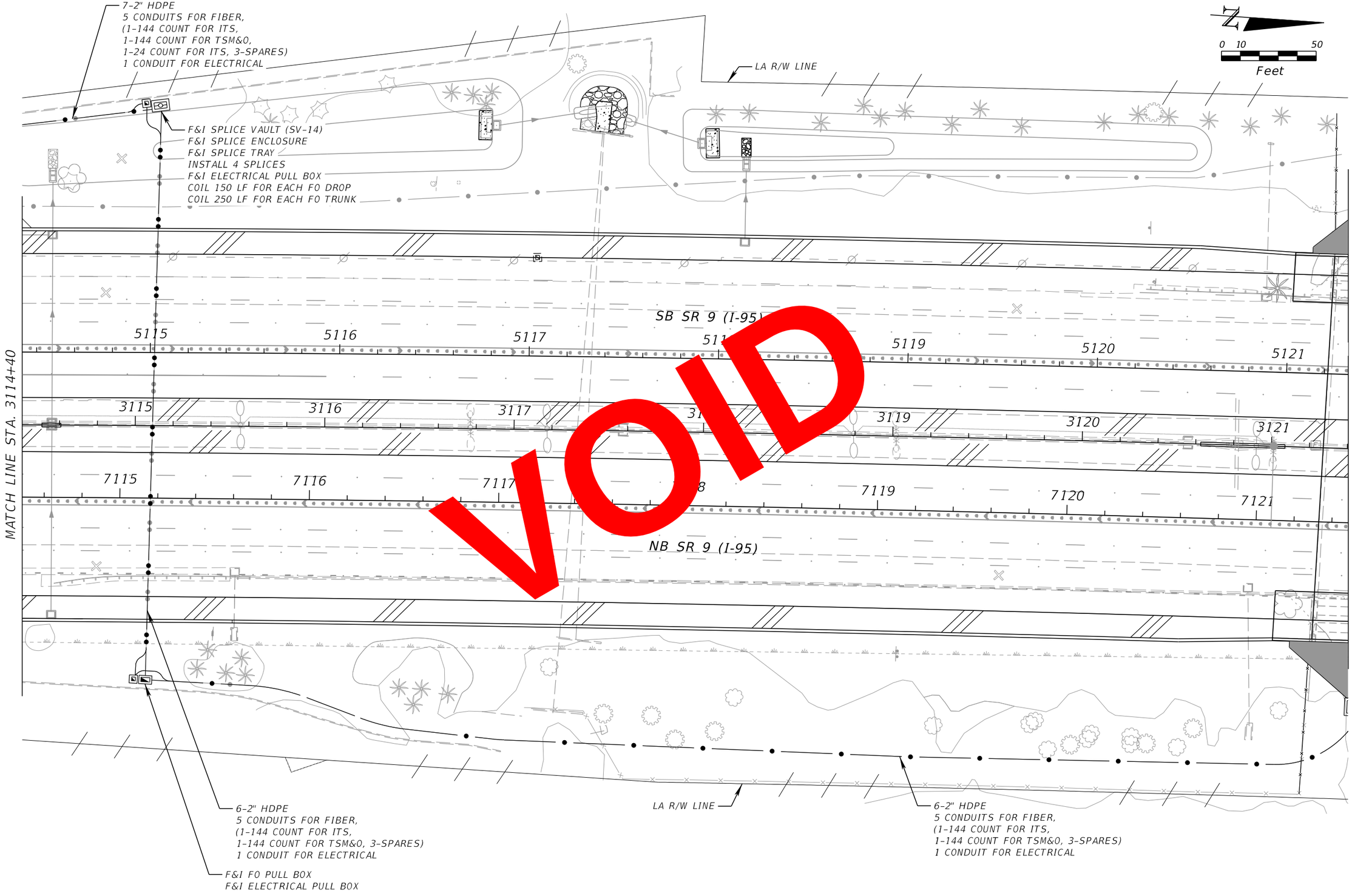

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (45)

SHEET NO.
IT-31

BY:RDOT VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4Q96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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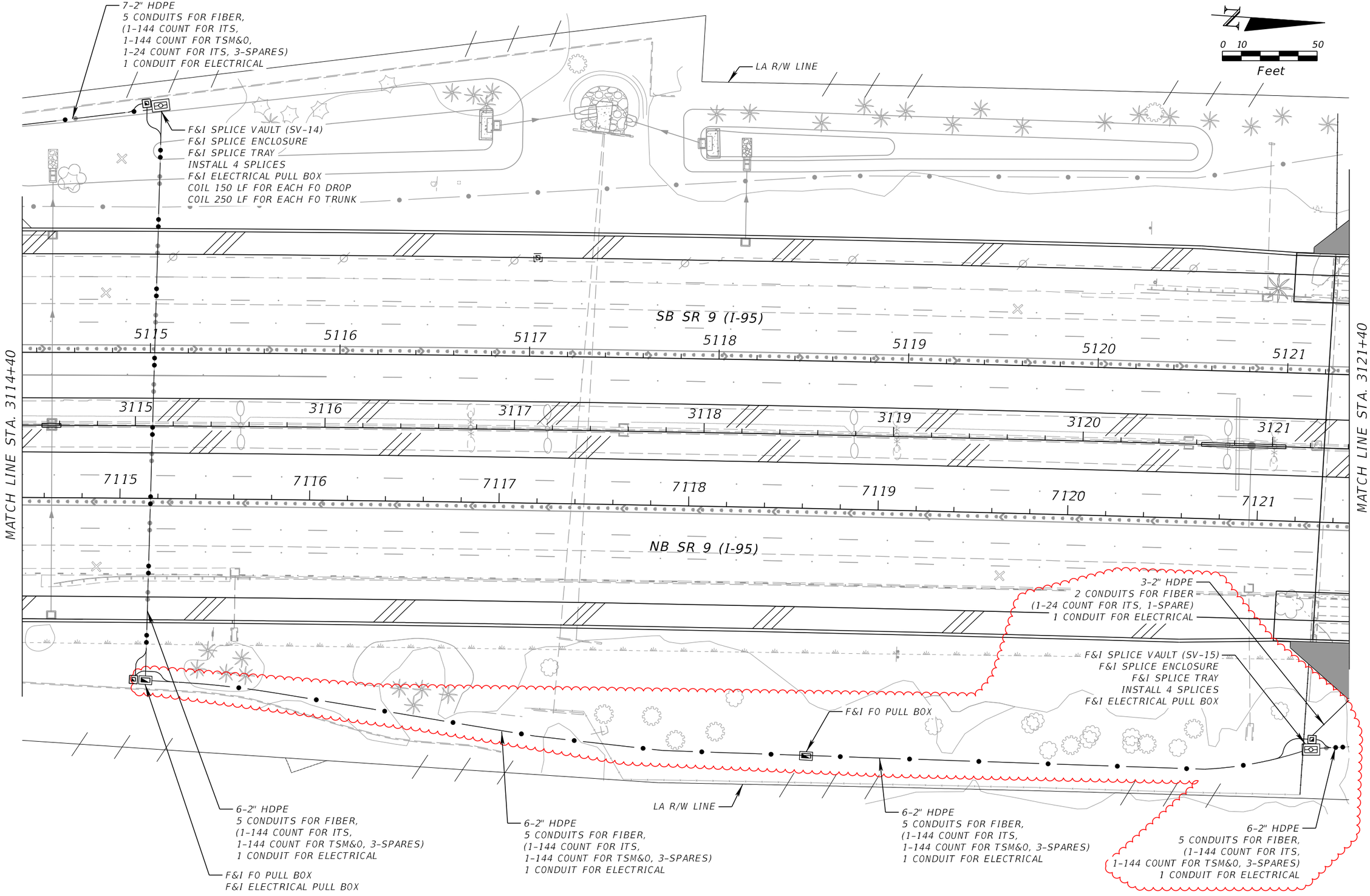

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (45)

SHEET NO.
IT-31

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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PROPOSED POWER STATION/GENERATOR
STA. 3121+47
43.9CABSS
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I CONC. POWER SERVICE POLE
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

FLD4D0T09544.0SBEL1
STA. 3124+00, LT.
F&I FRONT ACCESS DMS FOR EXPRESS LANES
F&I CANTILEVER SIGN STRUCTURE
F&I ABOVEGROUND 2-2" CONDUIT
F&I NEMA CABINET W/SPD

4-2" HDPE
2 CONDUITS FOR FIBER
(1/W 2-24 COUNT FOR ITS, 1-SPARE)
2 CONDUIT FOR ELECTRICAL

5-2" HDPE
3 CONDUIT FOR FIBER
(1/W 2-24 COUNT FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
44.0CABSS_2
0440CCTV
0440DCCTV
FLD4095044.0SBSSDSGP
STA. 3126+90; OFFSET 120.6' LT.
F&I MVDS FOR FREEWAY
F&I IP CAMERA FOR FREEWAY
F&I IP DEDICATED CAMERA FOR
FRONT ACCESS DMS
F&I 6.5' W X 11' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

0 10 50
Feet

W CAMINO REAL

LA R/W LINE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDPE
2 CONDUITS FOR FIBER,
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

44.0CABNS
0440DCCTV
FLD4095044.0NBNSDSGP
STA. 3121+62; OFFSET 113.0' RT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR EL DMS
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE WITH CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 3-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUIT FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

F&I NEMA CABINET ENCLOSURE W/SPD AND CB

44.0CABSS
STA. 3125+49; OFFSET 116.7' LT.
FRONT ACCESS DMS CABINET
F&I 5' W X 9' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

SB SR 9 (I-95)

MATCH LINE STA. 3121+40

MATCH LINE STA. 3128+20

44.0CABNS_2
STA. 3122+54; OFFSET 122.
FRONT ACCESS DMS CABINET
F&I 5' W X 9' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

NB SR 9 (I-95)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-15)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 4 SPLICES
F&I ELECTRICAL PULL BOX

F&I SPLICE VAULT (SV-16)
F&I SPLICE ENCLOSURE
F&I 2 SPLICE TRAYS
INSTALL 16 SPLICES
F&I ELECTRICAL PULL BOX

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUIT FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

VOID

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY: RPOTI VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (46)

SHEET NO.
IT-32

PROPOSED POWER STATION/GENERATOR
STA. 3121+47
43.9CABSS
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I CONC. POWER SERVICE POLE
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

FLD4D0T09544.0SBEL1
STA. 3124+00, LT.
F&I FRONT ACCESS DMS FOR EXPRESS LANES
F&I CANTILEVER SIGN STRUCTURE
F&I ABOVEGROUND 2-2" CONDUIT
F&I NEMA CABINET W/SPD

4-2" HDPE
2 CONDUITS FOR FIBER
(1/W 2-24 COUNT FOR ITS, 1-SPARE)
2 CONDUIT FOR ELECTRICAL

5-2" HDPE
3 CONDUIT FOR FIBER
(1/W 2-24 COUNT FOR ITS,
1-6 COUNT MM FOR DMS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
44.0CABSS_2
0440CCTV
0440DCCTV
FLD4095044.0SBSSDSGP
STA. 3126+90; OFFSET 120.6' LT.
F&I MVDS FOR FREEWAY
F&I IP CAMERA FOR FREEWAY
F&I IP DEDICATED CAMERA FOR
FRONT ACCESS DMS
F&I 6.5' W X 11' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

N
0 10 50
Feet

W CAMINO REAL

LA R/W LINE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 3-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

44.0CABNS
0440DCCTV
FLD4095044.0NBNSDSGP
STA. 3121+62; OFFSET 113.0' RT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR EL DMS
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE WITH CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

3-2" HDPE
2 CONDUIT FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

F&I NEMA 3R ENCLOSURE W/ SPD AND CB

44.0CABSS
STA. 3125+49; OFFSET 116.7' LT.
FRONT ACCESS DMS CABINET
F&I 5' W X 9' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

SB SR 9 (I-95)

MATCH LINE STA. 3121+40

MATCH LINE STA. 3128+20

44.0CABNS_2
STA. 3122+54; OFFSET 122.9' RT.
FRONT ACCESS DMS CABINET
F&I 5' W X 9' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

NB SR 9 (I-95)

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-16)
F&I SPLICE ENCLOSURE
F&I 2 SPLICE TRAYS
INSTALL 16 SPLICES
F&I ELECTRICAL PULL BOX

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUIT FOR FIBER
(1-6 COUNT MM FOR DMS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (46)

SHEET NO.
IT-32

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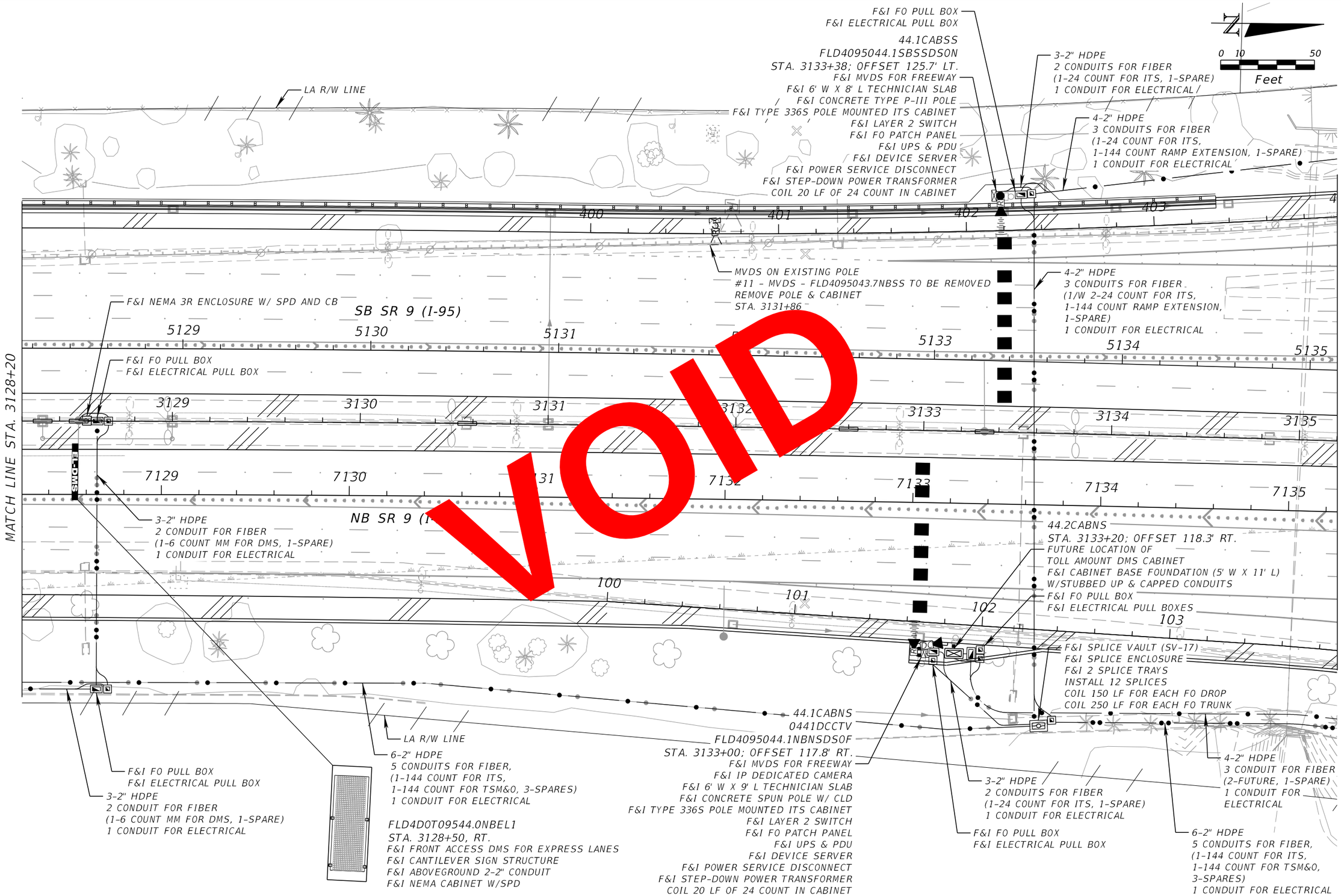

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (47)

SHEET NO.
IT-33

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: RDOT Date: 05/21/2019 VS
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4D86

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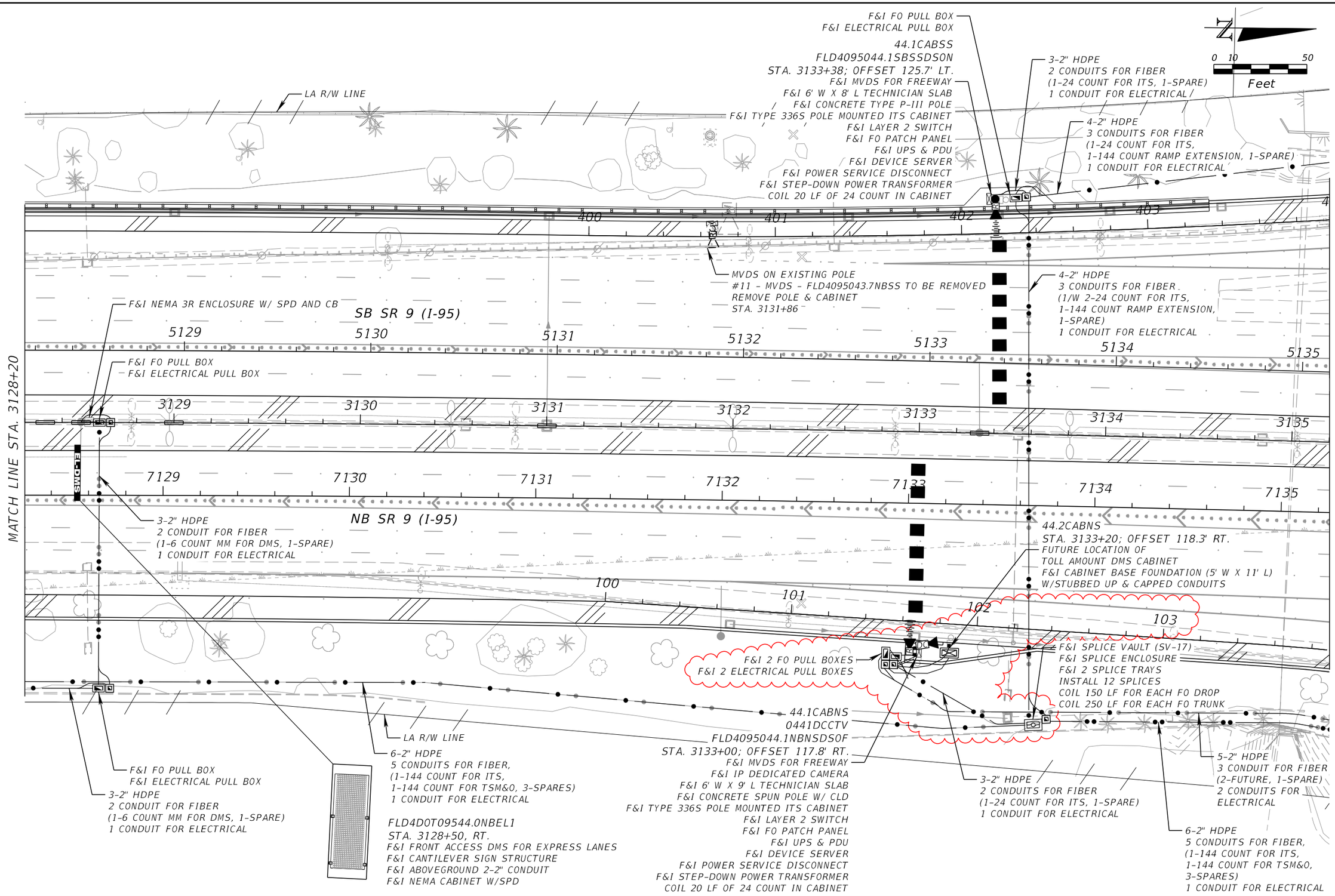

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
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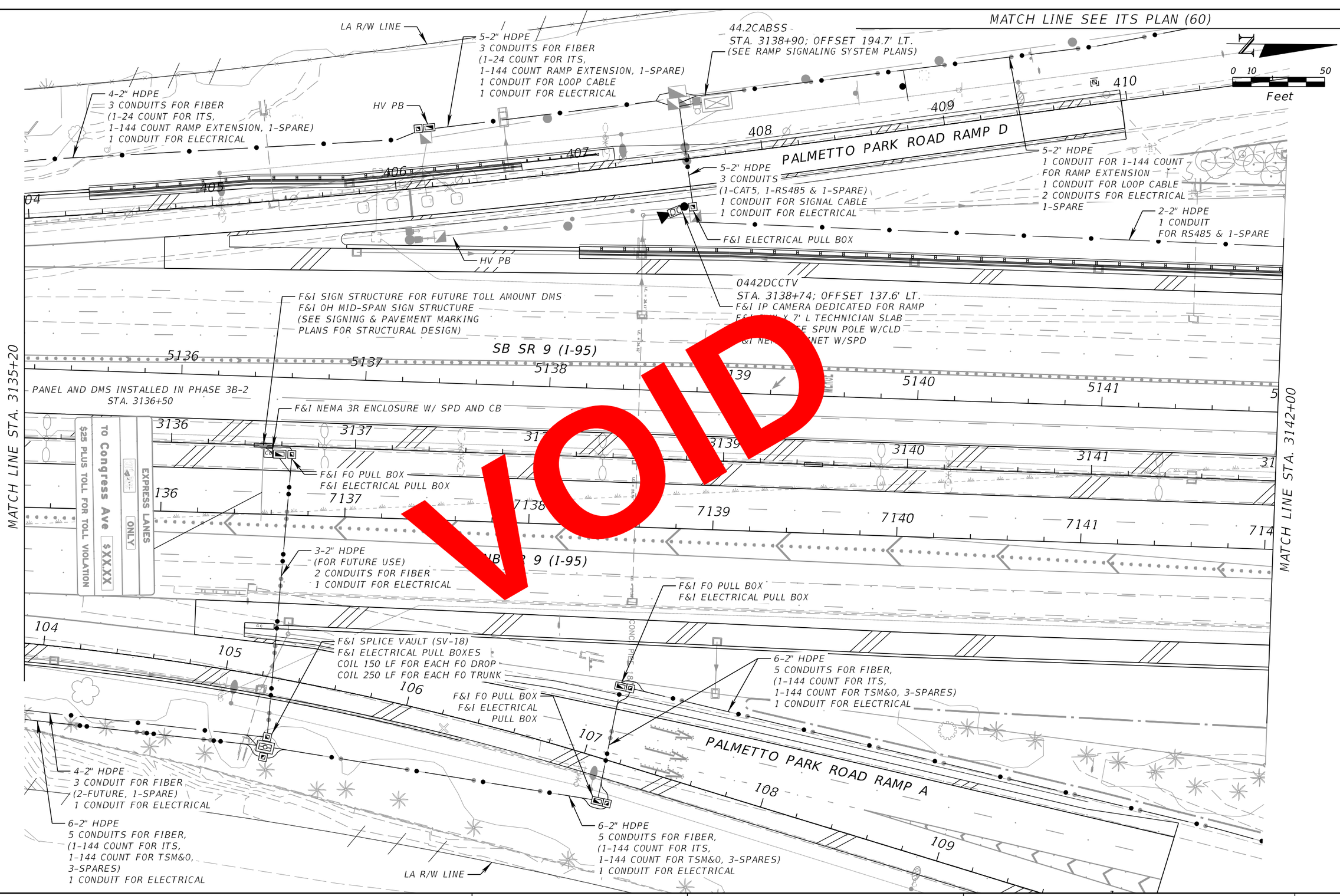
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (47)

SHEET NO.
IT-33

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (48)

SHEET NO.
IT-34

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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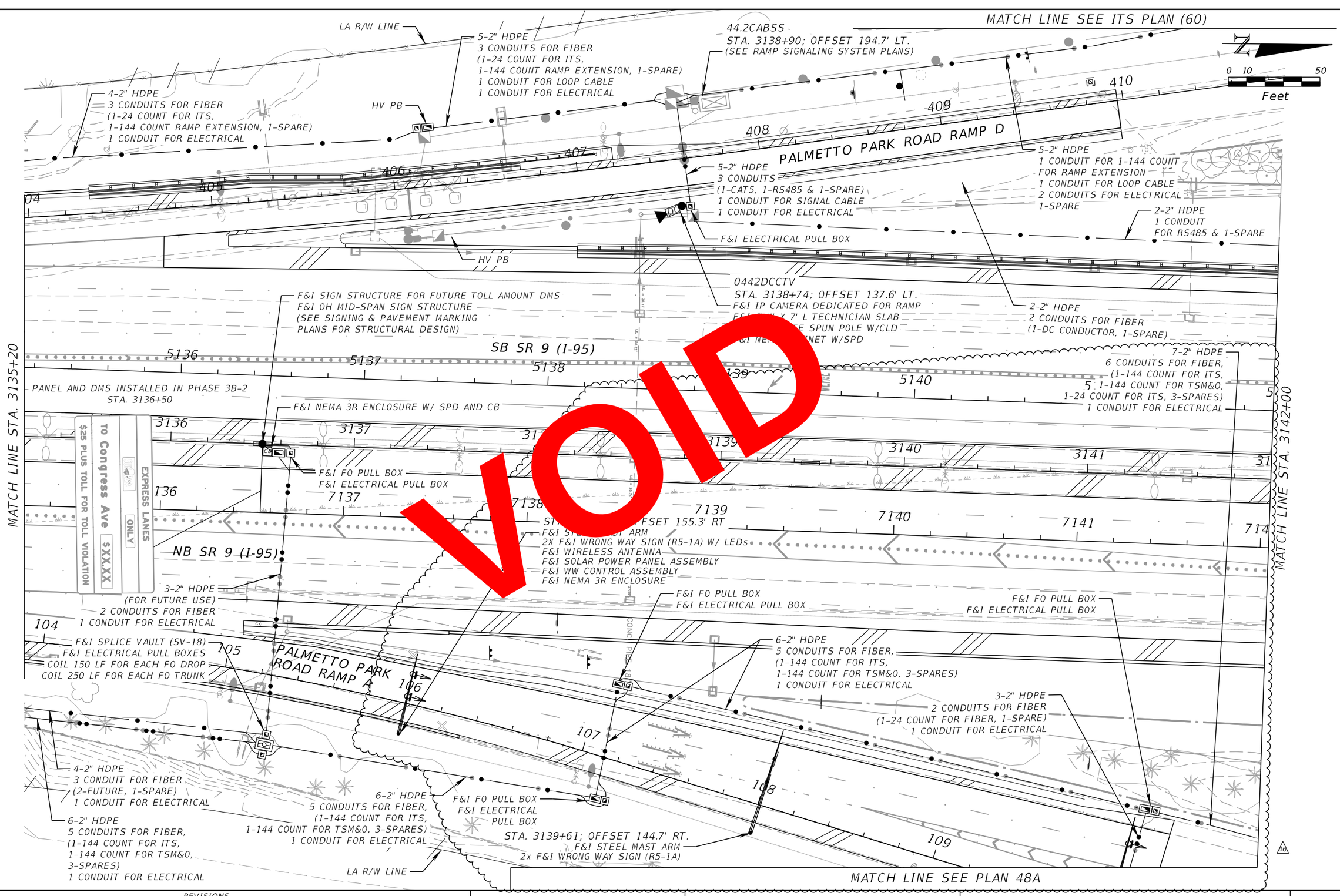

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (48)

SHEET NO.
IT-34

BY:(RDOT) VS Date: 2/25/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, dimensions, quantities, and coordination of trades, fabrication and erection shall remain with the contractor.
PPD 433108-6-52-01 and 433109-4-52-01 CONTRACT E5P56

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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MATCH LINE SEE ITS PLAN (60)

LA R/W LINE

5-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-144 COUNT RAMP EXTENSION, 1-SPARE)
1 CONDUIT FOR LOOP CABLE
1 CONDUIT FOR ELECTRICAL

44.2CABSS
STA. 3138+90; OFFSET 194.7' LT.
(SEE RAMP SIGNALING SYSTEM PLANS)

4-2" HDPE
3 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-144 COUNT RAMP EXTENSION, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

PALMETTO PARK ROAD RAMP D

5-2" HDPE
3 CONDUITS
(1-CAT5, 1-RS485 & 1-SPARE)
1 CONDUIT FOR SIGNAL CABLE
1 CONDUIT FOR ELECTRICAL

5-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
1 CONDUIT FOR LOOP CABLE
2 CONDUITS FOR ELECTRICAL
1-SPARE

2-2" HDPE
1 CONDUIT
FOR RS485 & 1-SPARE

F&I ELECTRICAL PULL BOX

0442DCCTV
STA. 3138+74; OFFSET 137.6' LT.
F&I IP CAMERA DEDICATED FOR RAMP
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/CLD
F&I NEMA CABINET W/SPD

F&I SIGN STRUCTURE FOR FUTURE TOLL AMOUNT DMS
F&I OH MID-SPAN SIGN STRUCTURE
(SEE SIGNING & PAVEMENT MARKING
PLANS FOR STRUCTURAL DESIGN)

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT (6)

SB SR 9 (I-95)

PANEL AND DMS INSTALLED
IN PHASE 3B-2
STA. 3136+50

7-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I NEMA 3R ENCLOSURE W/ SPD AND CB
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

$25 PLUS TOLL FOR TOLL VIOLATION
To Congress Ave $XXXX
EXPRESS LANES ONLY

NB SR 9 (I-95)

STA. 3137+30; OFFSET 155.3' RT
F&I STEEL MAST ARM
2X F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I WIRELESS ANTENNA
F&I SOLAR POWER PANEL ASSEMBLY
F&I WW CONTROL ASSEMBLY
F&I NEMA 3R ENCLOSURE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDPE
(FOR FUTURE USE)
2 CONDUITS FOR FIBER
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-18)
F&I ELECTRICAL PULL BOXES
COIL 150 LF FOR EACH FO DROP
COIL 250 LF FOR EACH FO TRUNK

PALMETTO PARK ROAD RAMP A

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
3 CONDUIT FOR FIBER
(2-FUTURE, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL
PULL BOX

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LI

STA. 3139+61; OFFSET 144.7' RT.

MATCH LINE SEE PLAN 48A

MATCH LINE STA. 3135+20

MATCH LINE STA. 3142+00

0 10 50
Feet

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(6) REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (48)

SHEET NO.
IT-34

PLOT DRIVER = c:\projectwise\pb\projectwiseint\perezr\d0173361\As-Built_FDOTPDF.pltcfg PEN TABLE = pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase3B-2 Managed Lanes\Roadway\Design\
PerezR 11/17/2021 3:18:46 PM c:\projectwise\pb\projectwiseint\perezr\d0230493\PLANIT48_As-Built.dgn

MATCH LINE SEE ITS PLAN (48)

REMOVE EXISTING WRONG WAY SIGN

PALMETTO PARK ROAD RAMP A

MATCH LINE SEE ITS PLAN (61)

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR FIBER, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

STA. 3141+16; OFFSET 254.6' RT.
F&I STEEL MAST ARM
2X F&I WRONG WAY SIGN (R5-1A) W/ LEDs
F&I DUAL DETECTION SENSORS
F&I DUAL VERIFICATION CAMERAS
F&I WIRELESS RADIO

4-2" HDPE
2-DEVICE CABLES; 1-120VAC POWER
1-SPARE

WWDS 6
44.3CABNS_2
STA. 3141+19; OFFSET 266.3' RT.
F&I 6' W X 7' L (MIN.) TECHNICIAN SLAB
F&I FO PULL BOX
2- F&I ELECTRICAL PULL BOX
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I WW CONTROL PANEL ASSEMBLY
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

STA. 3143+59; OFFSET 231.2' RT.
F&I WRONG WAY SIGN (R5-1A)

STA. 3143+23; OFFSET 308.5' RT.
F&I WRONG WAY SIGN (R5-1A)

7-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT (6)

0 10 50
Feet

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RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, quantities, and details of construction, fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5496
BY:(FDOT) VS Date: 2/25/2021

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(6) REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (48A)

SHEET NO.
IT-34A

PLOT DRIVER = C:\FDOTSS10\RESOURCES\plot\FDOTPDF.pltcfg PEN TABLE = pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase2B\Local Roads\Design\Existing.tbl USMW189428 1/29/2021 2:38:21 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\PLANIT48A.dgn

MATCH LINE SEE ITS PLAN (60)

411

44.3CABSS; 0443CCTV
FLD4095044.3SBSSDSGP (FLD4095044.3SBSSDSRM)
STA. 3144+15; OFFSET 137.4' LT.
F&I MVDS FOR FREEWAY
F&I IP CAMERA FOR FREEWAY
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET & REESTABLISH WIRELESS LINK TO ADMS PALM798EB9 & ADMS PALM798WB9

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
MVDS, VOIP, WAP & CCTV ON EXISTING POLE
REMOVE EXISTING POLE & CABINET
#12 - MVDS - FLD4095044.0SBSS TO BE REMOVED
#6 - CCTV CAMERA - C0440 TO BE REMOVED
#6 - VOIP 95-44.0 TO BE REMOVED
RELOCATE EXISTING #2 WAP 95-44.0 EQUIPMENT
TO ADJACENT NEW POLE & CABINET
STA. 3143+75
2-2" HDPE
1 CONDUIT
FOR RS485 & 1-SPARE

PALMETTO PARK ROAD

0 10 50
Feet

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
3-2" HDP
2 CONDU FOR FIBER
(-24 CO OR ITS, 1-SPA
ONDU ELECTRICAL

SB SR 9 (I-95)

142 5143 5144 5145 5146 5147 5148

MATCH LINE STA. 3142+00

42 3143 3144 45 3146 3147 3148

2 7143 7144 7145 7146 7147 7148

NB SR 9 (I-95)

MATCH LINE STA. 3148+80

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE
1 CONDUIT FOR ELECTRICAL

PROPOSED MVDS
FLD4095044.3NBNSDSGP
STA. 3144+61; OFFSET 106.7' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-V POLE
F&I NEMA CABINET W/SPD

2-2" HDPE
1 CONDUIT FOR COMPOSITE RS485 / POWER
1-SPARE

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
3-2" CONDUIT
2 CONDUITS FOR FIBER
(1 /W 1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

9-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION, 3-SPARES)
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE

VOID

MATCH LINE SEE ITS PLAN (61)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (49)

SHEET NO.
IT-35

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: RPOTI VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

PLOT DRIVER = $PLTDRVLS PEN TABLE = $PENTBLLS MODEL NAME =Default BarcoJ 4/18/2019 5:36:08 PM c:\projectwise\pb\projectwiseint\barco\d0230493\PLANIT49.dgn

MATCH LINE SEE ITS PLAN (60)

411

44.3CABSS; 0443CCTV
FLD4095044.3SBSSDSGP (FLD4095044.3SBSSDSRM)
STA. 3144+15; OFFSET 137.4' LT.
F&I MVDS FOR FREEWAY
F&I IP CAMERA FOR FREEWAY
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET & REESTABLISH WIRELESS LINK TO ADMS PALM798EB9 & ADMS PALM798WB9

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

MVDS, VOIP, WAP & CCTV ON EXISTING POLE
REMOVE EXISTING POLE & CABINET
#12 - MVDS - FLD4095044.0SBSS TO BE REMOVED
#6 - CCTV CAMERA - C0440 TO BE REMOVED
#6 - VOIP 95-44.0 TO BE REMOVED
RELOCATE EXISTING #2 WAP 95-44.0 EQUIPMENT
TO ADJACENT NEW POLE & CABINET
STA. 3143+75

2-2" HDPE
1 CONDUIT
FOR RS485 & 1-SPARE

PALMETTO PARK ROAD

N

0 10 50
Feet

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDP
2 CONDU FOR FIBER
(1-24 CO OR ITS, 1-SPA
1 CONDU ELECTRICAL

SB SR 9 (I-95)

142 5143 5144 5145 5146 5147 5148

MATCH LINE STA. 3142+00

42 3143 3144 145 3146 3147 3148

2 7143 7144 7145 7146 7147 7148

NB SR 9 (I-95)

MATCH LINE STA. 3148+80

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE
1 CONDUIT FOR ELECTRICAL

PROPOSED MVDS
FLD4095044.3NBNSDSGP
STA. 3144+61; OFFSET 106.7' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-V POLE
F&I NEMA CABINET W/SPD

7-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

2-2" HDPE
1 CONDUIT FOR COMPOSITE RS485 / POWER
1-SPARE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" CONDUIT
2 CONDUITS FOR FIBER
(1 /W 1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

9-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION, 3-SPARES)
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE

VOID

MATCH LINE SEE ITS PLAN (61)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

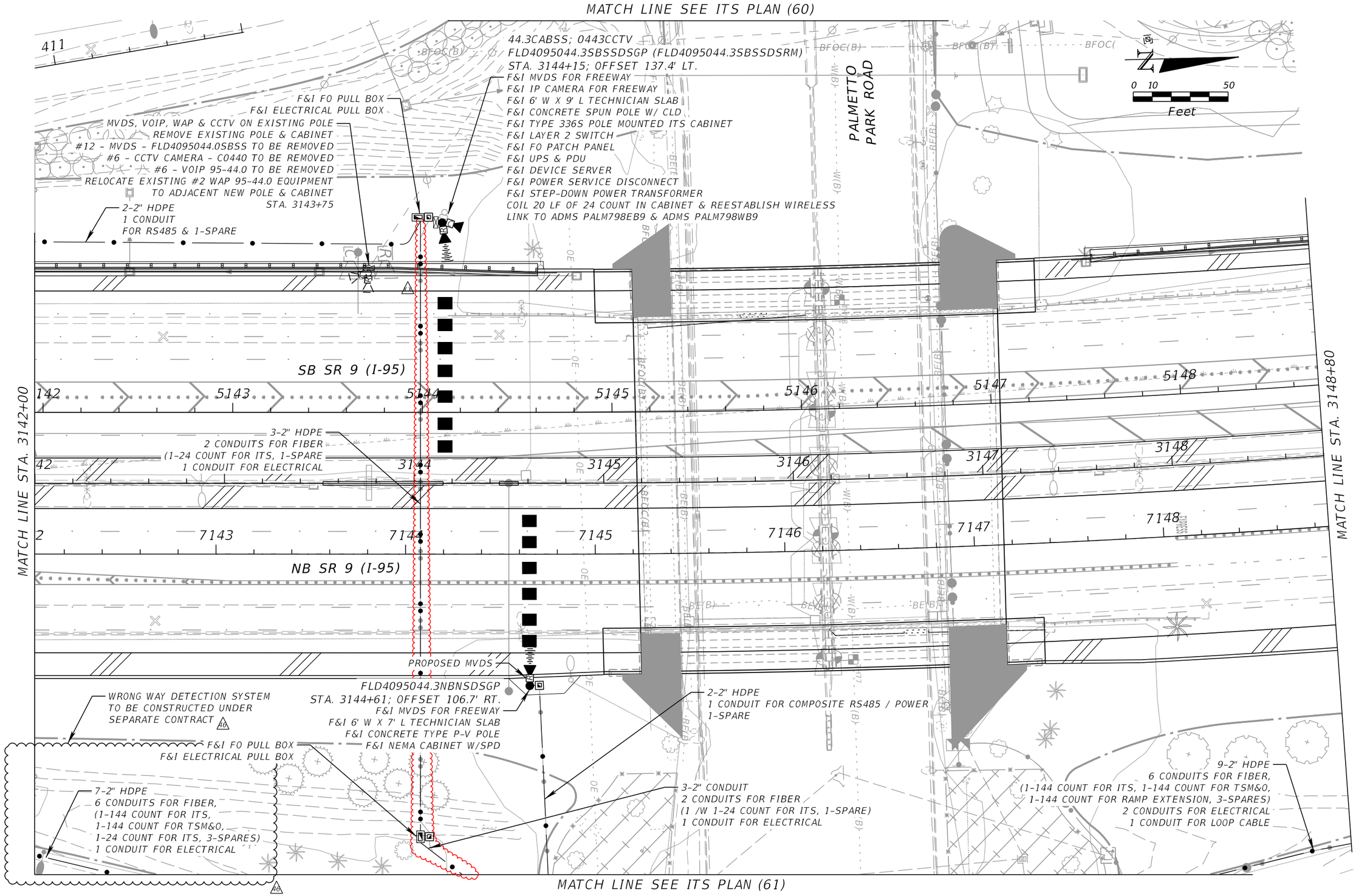
ITS PLAN (49)

SHEET NO. IT-35

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY:(FDOT) VS Date: 2/25/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, quantities and construction means and methods, fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5R96



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (49)

SHEET NO.
IT-35

MATCH LINE SEE ITS PLAN (62)

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
F&I ELECTRICAL PULL BOX (LOW VOLTAGE)

44.5CABSS
0445DCCTV-1
FLD4095044.5SBSSDSON
(FLD4095044.5SBSSDSRM)
STA. 3150+68; OFFSET 168.6' LT.
F&I MVDS FOR FREEWAY
F&I DEDICATED CCTV FOR HUB
F&I 6' W X 11' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET
PROPOSED MVDS & CCTV

PALMETTO PARK ROAD
RAMP E

7-2" CONDUIT
2 CONDUITS FOR FIBER
(1/W 3-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR RS485
1 CONDUIT FOR LOOP CABLE
1 CONDUIT FOR SIGNAL CABLE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

5-2" CONDUIT
3 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-144 COUNT FOR RAMP EXTENSION, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
1 CONDUIT FOR RS485

5-2" CONDUIT
4 CONDUITS FOR FIBER
(2/W 4-24 COUNT FOR ITS, 1-144 COUNT FOR
RAMP EXTENSION 1-SPARE)
1 CONDUIT FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

4-2" CONDUIT
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
1 CONDUIT FOR RS485

F&I SPLICE VAULT (SV-20)
F&I SPLICE ENCLOSURE
F&I 3 SPLICE TRAYS
INSTALL 28 SPLICES
F&I ELECTRICAL PULL BOX
COIL 150 LF FOR EACH FO DROP
COIL 250 LF FOR EACH FO TRUNK

3-2" HDPE
...DUITS FOR FIBER (1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

HAR-B SB44 TO BE REMOVED
REMOVAL SHALL INCLUDE ALL ITEMS
AS...ATED WITH THE DEVICE INCLUDING, BUT NOT
LIMITED TO: MOUNTING HARDWARE, ANCILLARY
CABINET EQUIPMENT, WIRING / CABLING, ETC.

10-2" HDPE
9 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION,
2-24 COUNT DROP CABLES, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
2 CONDUITS FOR FIBER,
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
1 CONDUIT FOR RS485

F&I FO PULL BOX
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
F&I ELECTRICAL PULL BOX (LOW VOLTAGE)

9-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION, 3-SPARES)
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE

0445DCCTV-2
STA. 3151+08; OFFSET 157.6' RT.
F&I IP DEDICATED CAMERA FOR RAMP
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/CLD
F&I NEMA CABINET W/SPD

10-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION, 3-SPARES)
1 CONDUIT FOR CAT5
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE

12-2" HDPE
7 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 1-24 COUNT FOR ITS
1-144 COUNT FOR RAMP EXTENSION, 3-SPARES)
1 CONDUIT FOR RS485
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE
1 CONDUIT FOR SIGNAL CABLE

44.5CABNS
STA. 3153+00; OFFSET 115.4' RT.
(SEE RAMP SIGNALING SYSTEM PLANS)

4-2" HDPE
3 CONDUITS FOR FIBER,
(1-24 COUNT FOR ITS,
1-RS485, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)
NB SR 9 (I-95)
PALMETTO PARK ROAD RAMP B
MATCH LINE STA. 3148+80
MATCH LINE STA. 3155+60
5149 5150 5151 5152 5155
3149 3150 3151 3153 3155
7149 7150 7151 7152 7153 7155
200 201 202 203 204 205
509 605

0 10 50
Feet

VOID

RELEASED FOR CONSTRUCTION
BY: RPOTI VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (50)

SHEET NO.
IT-36

MATCH LINE SEE ITS PLAN (62)

44.5CABSS
0445DCCTV-1
FLD4095044.5SBSSDSON
(FLD4095044.5SBSSDSRM)
FLD4095044.5SBSSDSON-1
STA. 3150+68; OFFSET 168.6' LT.
2 - F&I MVDS FOR FREEWAY
F&I DEDICATED CCTV FOR HUB
F&I 6' W X 11' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET
PROPOSED MVDS & CCTV

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
F&I ELECTRICAL PULL BOX
(LOW VOLTAGE)

7-2" CONDUIT
2 CONDUITS FOR FIBER
(1/W 3-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR RS485
1 CONDUIT FOR LOOP CABLE
1 CONDUIT FOR SIGNAL CABLE

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

5-2" CONDUIT
3 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS,
1-144 COUNT FOR RAMP EXTENSION, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
1 CONDUIT FOR RS485

5-2" CONDUIT
4 CONDUITS FOR FIBER
(2/W 4-24 COUNT FOR ITS, 1-144 COUNT FOR
RAMP EXTENSION 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-20)
F&I SPLICE ENCLOSURE
F&I 3 SPLICE TRAYS
INSTALL 28 SPLICES
F&I ELECTRICAL PULL BOX
COIL 150 LF FOR EACH FO DROP
COIL 250 LF FOR EACH FO TRUNK

4-2" CONDUIT
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
1 CONDUIT FOR RS485

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

HAR-B SB44 TO BE REMOVED
REMOVAL SHALL INCLUDE ALL ITEMS
ASSOCIATED WITH THE DEVICE INCLUDING, BUT NOT
LIMITED TO: MOUNTING HARDWARE, ANCILLARY
CABINET EQUIPMENT, WIRING / CABLING, ETC.

10-2" HDPE
9 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION,
2-24 COUNT DROP CABLES, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
2 CONDUITS FOR FIBER,
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
1 CONDUIT FOR RS485

F&I FO PULL BOX
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
F&I ELECTRICAL PULL BOX (LOW VOLTAGE)

9-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION, 3-SPARES)
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE

0445DCCTV-2
STA. 3151+08; OFFSET 157.6' RT.
F&I IP DEDICATED CAMERA FOR RAMP
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/CLD
F&I NEMA CABINET W/SPD

10-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION, 3-SPARES)
1 CONDUIT FOR CAT5
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE

12-2" HDPE
7 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 1-24 COUNT FOR ITS
1-144 COUNT FOR RAMP EXTENSION, 3-SPARES)
1 CONDUIT FOR RS485
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE
1 CONDUIT FOR SIGNAL CABLE

44.5CABNS
STA. 3152+75; OFFSET 119.1' RT.
(SEE RAMP SIGNALING SYSTEM PLANS)

4-2" HDPE
3 CONDUITS FOR FIBER,
(1-24 COUNT FOR ITS,
1-RS485, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

PALMETTO PARK ROAD
RAMP E

SB SR 9 (I-95)

NB SR 9 (I-95)

PALMETTO PARK ROAD RAMP B

MATCH LINE STA. 3148+80

MATCH LINE STA. 3155+60

0 10 50
Feet

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (50)

SHEET NO.
IT-36

PLOT DRIVER = c:\projectwise\pb\projectwiseint\wsp__michael.west\d0173361\As-Built_PLOTDRV.tbl PLOTTED BY = wsp:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase 2B\Level 4 - Detail\
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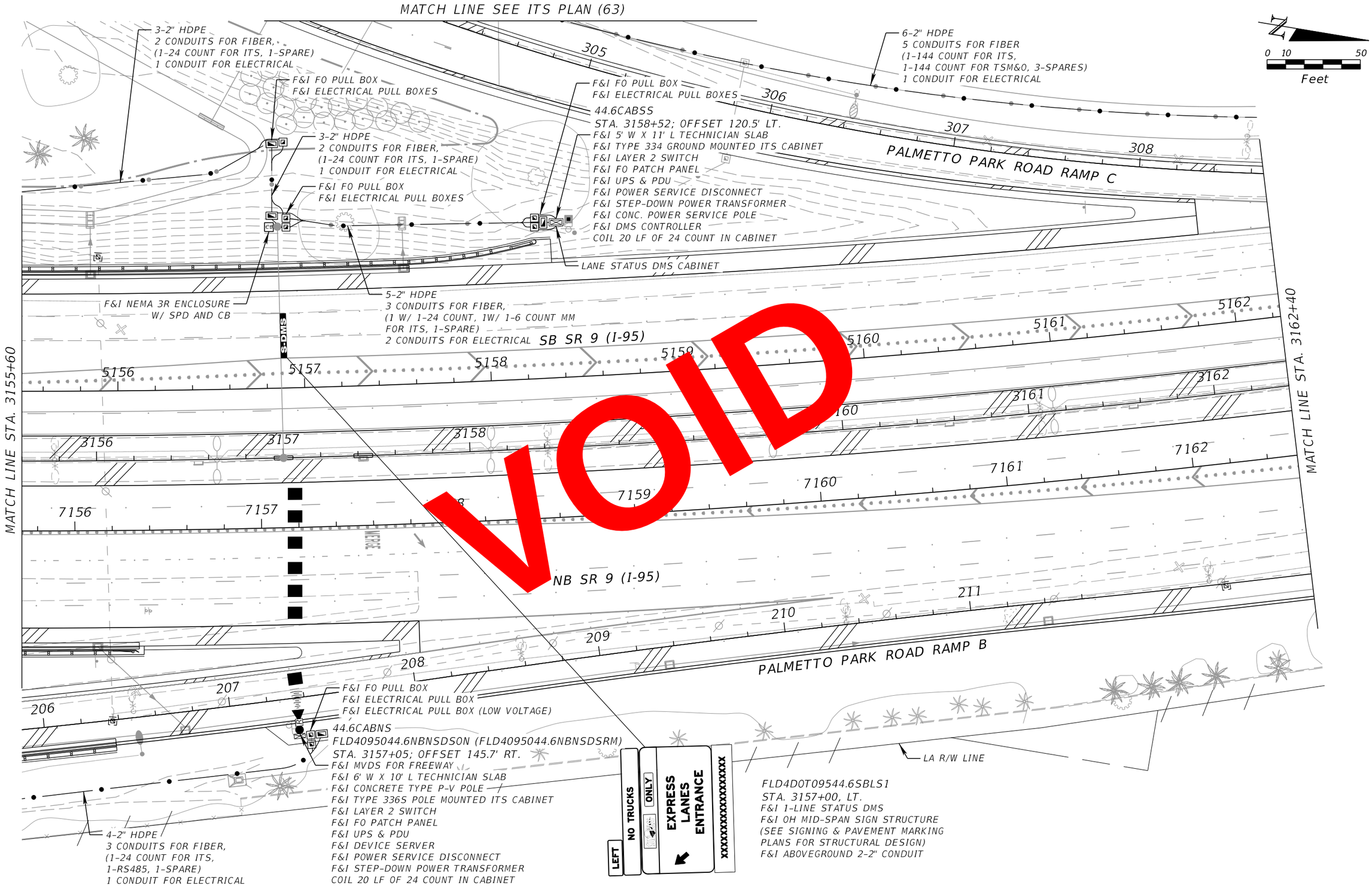


REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

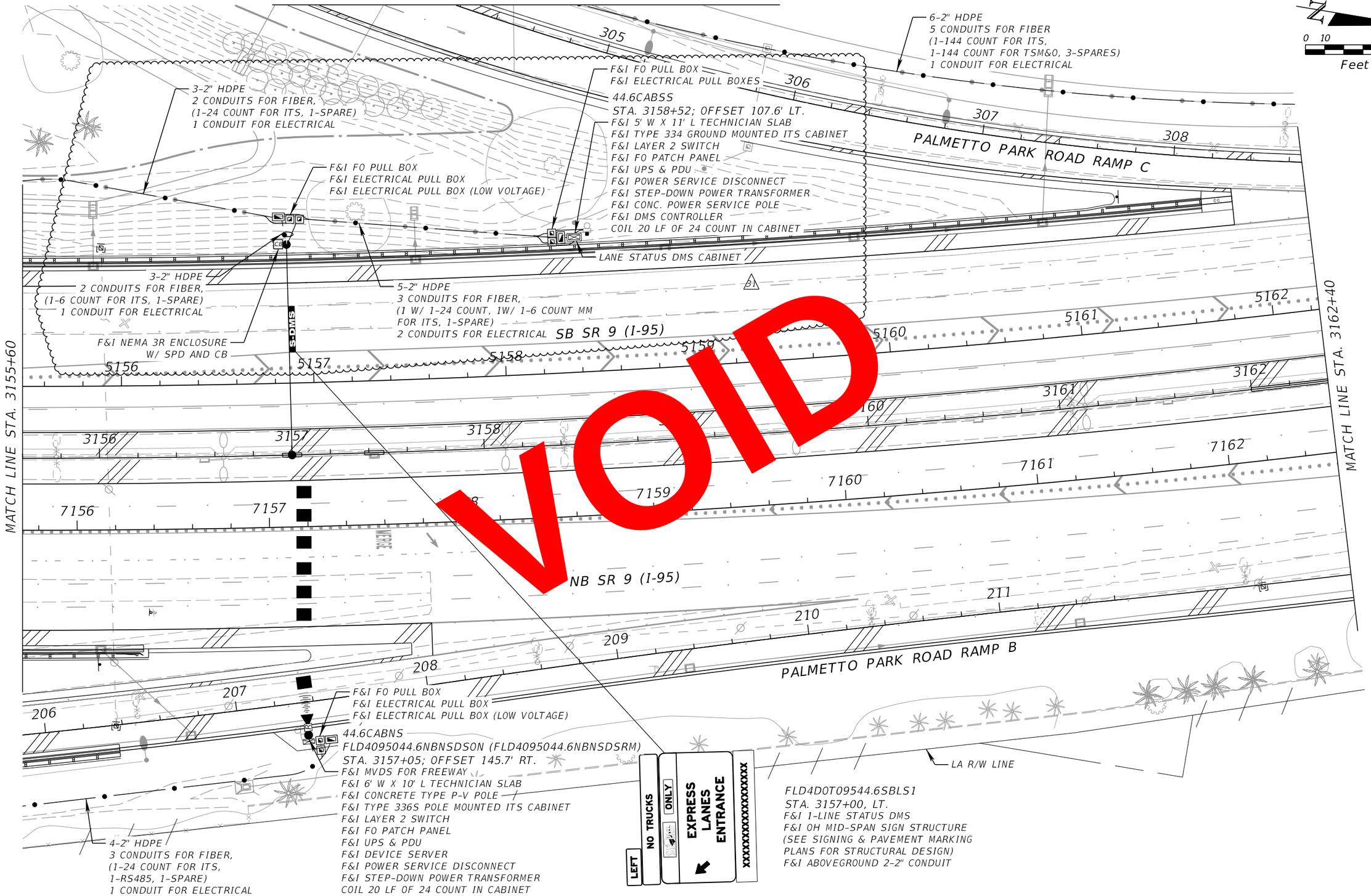
ITS PLAN (51)

SHEET NO.
IT-37

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:FDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 4/18/2019 5:36:29 PM c:\projectwise\pb\projectwiseint\barco\d0230493\PLANIT51.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/27/20	31 POLE OFFSET AND BOXES REVISED		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (51)

SHEET NO. IT-37

RELEASED FOR CONSTRUCTION
BY (PDO)_____ Date: 6/4/2020
VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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MATCH LINE SEE ITS PLAN (63)

N

0 10 50

Feet

3-2" HDPE
2 CONDUITS FOR FIBER,
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDPE
2 CONDUITS FOR FIBER,
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
F&I ELECTRICAL PULL BOX (LOW VOLTAGE)

3-2" HDPE
2 CONDUITS FOR FIBER,
(1-6 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I NEMA 3R ENCLOSURE
W/ SPD AND CB

5-2" HDPE
3 CONDUITS FOR FIBER,
(1 W/ 1-24 COUNT, 1W/ 1-6 COUNT MM
FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES
44.6CABSS
STA. 3158+52; OFFSET 107.6' LT.
F&I 5' W X 11' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

LANE STATUS DMS CABINET

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

PALMETTO PARK ROAD RAMP C

SB SR 9 (I-95)

NB SR 9 (I-95)

PALMETTO PARK ROAD RAMP B

LA R/W LINE

MATCH LINE STA. 3155+60

MATCH LINE STA. 3162+40

4-2" HDPE
3 CONDUITS FOR FIBER,
(1-24 COUNT FOR ITS,
1-RS485, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
F&I ELECTRICAL PULL BOX (LOW VOLTAGE)

44.6CABNS
FLD4095044.6NBNSDS0N (FLD4095044.6NBNSDSRM)
STA. 3157+05; OFFSET 145.7' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 10' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-V POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

LEFT
NO TRUCKS
ONLY
EXPRESS LANES ENTRANCE
XXXXXXXXXXXXXXXXXX

FLD4D0T09544.6SBLS1
STA. 3157+00, LT.
F&I 1-LINE STATUS DMS
F&I OH MID-SPAN SIGN STRUCTURE
(SEE SIGNING & PAVEMENT MARKING
PLANS FOR STRUCTURAL DESIGN)
F&I ABOVEGROUND 2-2" CONDUIT

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/27/20	3 POLE OFFSET AND BOXES REVISED		
10/4/2021	ASBUILT		

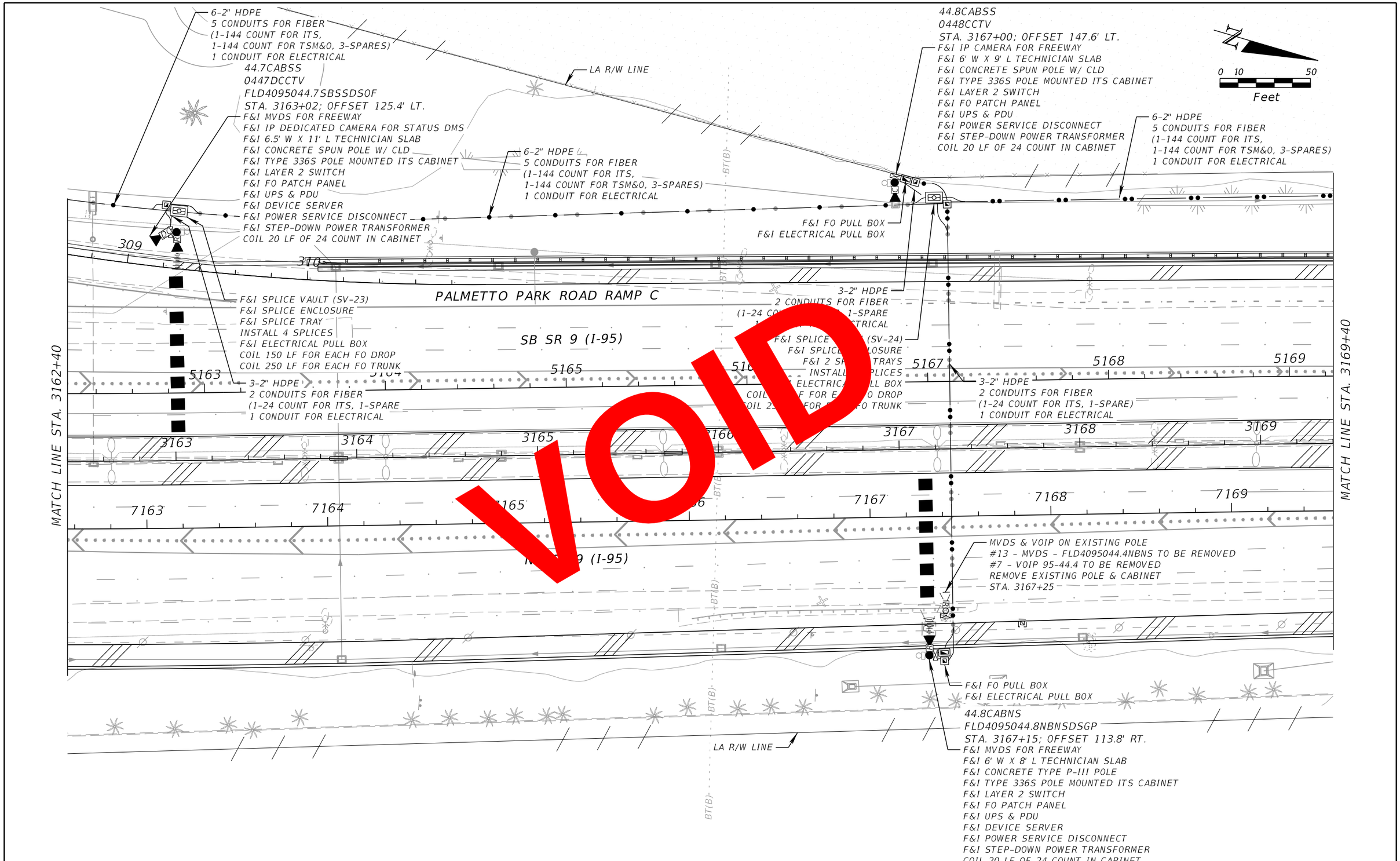
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (51)

SHEET NO.
IT-37



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FOO) VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (52)

SHEET NO.
IT-38

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 4/18/2019 5:36:40 PM c:\projectwise\pb\projectwiseint\barco\d0230493\PLANIT52.dgn

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

44.7CABSS
0447DCCTV
FLD4095044.7SBSSDS0F
STA. 3163+02; OFFSET 125.4' LT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR STATUS DMS
F&I 6.5' W X 11' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-23)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 4 SPLICES
F&I ELECTRICAL PULL BOX
COIL 150 LF FOR EACH FO DROP
COIL 250 LF FOR EACH FO TRUNK

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE
1 CONDUIT FOR ELECTRICAL

PALMETTO PARK ROAD RAMP C

SB SR 9 (I-95)

NB SR 9 (I-95)

44.8CABSS
0448CCTV
STA. 3167+00; OFFSET 147.6' LT.
F&I IP CAMERA FOR FREEWAY
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-24)
F&I SPLICE ENCLOSURE
F&I 2 SPLICE TRAYS
INSTALL 8 SPLICES
F&I ELECTRICAL PULL BOX
COIL 150 LF FOR EACH FO DROP
COIL 250 LF FOR EACH FO TRUNK

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

MVDS & VOIP ON EXISTING POLE
#13 - MVDS - FLD4095044.4NBNS TO BE REMOVED
#7 - VOIP 95-44.4 TO BE REMOVED
REMOVE EXISTING POLE & CABINET
STA. 3167+25

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

44.8CABNS
FLD4095044.8NBNSDSGP
STA. 3167+15; OFFSET 113.8' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 8' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

LA R/W LINE

0 10 50
Feet

MATCH LINE STA. 3162+40

MATCH LINE STA. 3169+40

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (52)

SHEET NO.
IT-38

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USMW189428
10/22/2021 6:37:31 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\PLANIT52_As-Built.dgn

FLD4D0T09544.9SBTR2
STA. 3174+50, LT.
F&I TOLL AMOUNT DMS (2)
F&I OH MID-SPAN SIGN STRUCTURE
(SEE SIGNING & PAVEMENT MARKING
PLANS FOR STRUCTURAL DESIGN)
F&I ABOVEGROUND 2-2" CONDUIT

FUTURE PANEL

EXPRESS LANES ONLY
TO Hillsboro Blvd
TO
TO Cypress Creek Rd
$XX.XX
$XX.XX
$XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

EXPRESS LANES ONLY
TO Hillsboro Blvd
TO Cypress Creek Rd
$XX.XX
$XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

F&I SPLICE VAULT (SV-25)
F&I SPLICE ENCLOSURE
F&I 2 SPLICE TRAYS
INSTALL 20 SPLICES
F&I ELECTRICAL PULL BOX
COIL 150 LF FOR EACH FO DROP
COIL 250 LF FOR EACH FO TRUNK
44.9CABSS
STA. 3175+98; OFFSET 121.0' LT.
F&I 5' W X 11' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET
F&I NEMA 3R ENCLOSURE W/ SPD AND CB
3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 2-MM 6 COUNT FIBER FOR
ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES
TOLL AMOUNT DMS CABINET
3-2" HDPE
2 CONDUIT FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 3-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
PROPOSED DEDICATED CCTV CAMERA
PHASE 3B-1
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL
PROPOSED POWER STATION/GENERATOR
STA. 3175+70
44.9CABnS
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I CONC. POWER SERVICE POLE
0450DCCTV-1
STA. 3176+10; OFFSET 108.8' RT.
F&I IP DEDICATED CAMERA FOR DMS
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/CLD
F&I NEMA CABINET W/SPD
1-2" HDPE
1 CONDUIT FOR CAT5
5-2" HDPE
2 CONDUITS FOR FIBER
(1/W 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR CAT5
2 CONDUITS FOR ELECTRICAL

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

SB SR 9 (I-95)

MATCH LINE STA. 3169+40

MATCH LINE STA. 3176+20

5170 5171 5172 5173 5174 5175 5176
3170 3171 3172 3173 3174 3175 3176
7170 7171 7172 7173 7174 7175 7176

HAR-B NB44 TO BE REMOVED
REMOVAL SHALL INCLUDE ALL ITEMS
ASSOCIATED WITH THE DEVICE INCLUDING, BUT NOT
LIMITED TO: MOUNTING HARDWARE, ANCILLARY
CABINET EQUIPMENT, WIRING / CABLING, ETC.

LA R/W LINE

0 10 50
Feet

VOID

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. RELEASED FOR CONSTRUCTION
BY: RDOI VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

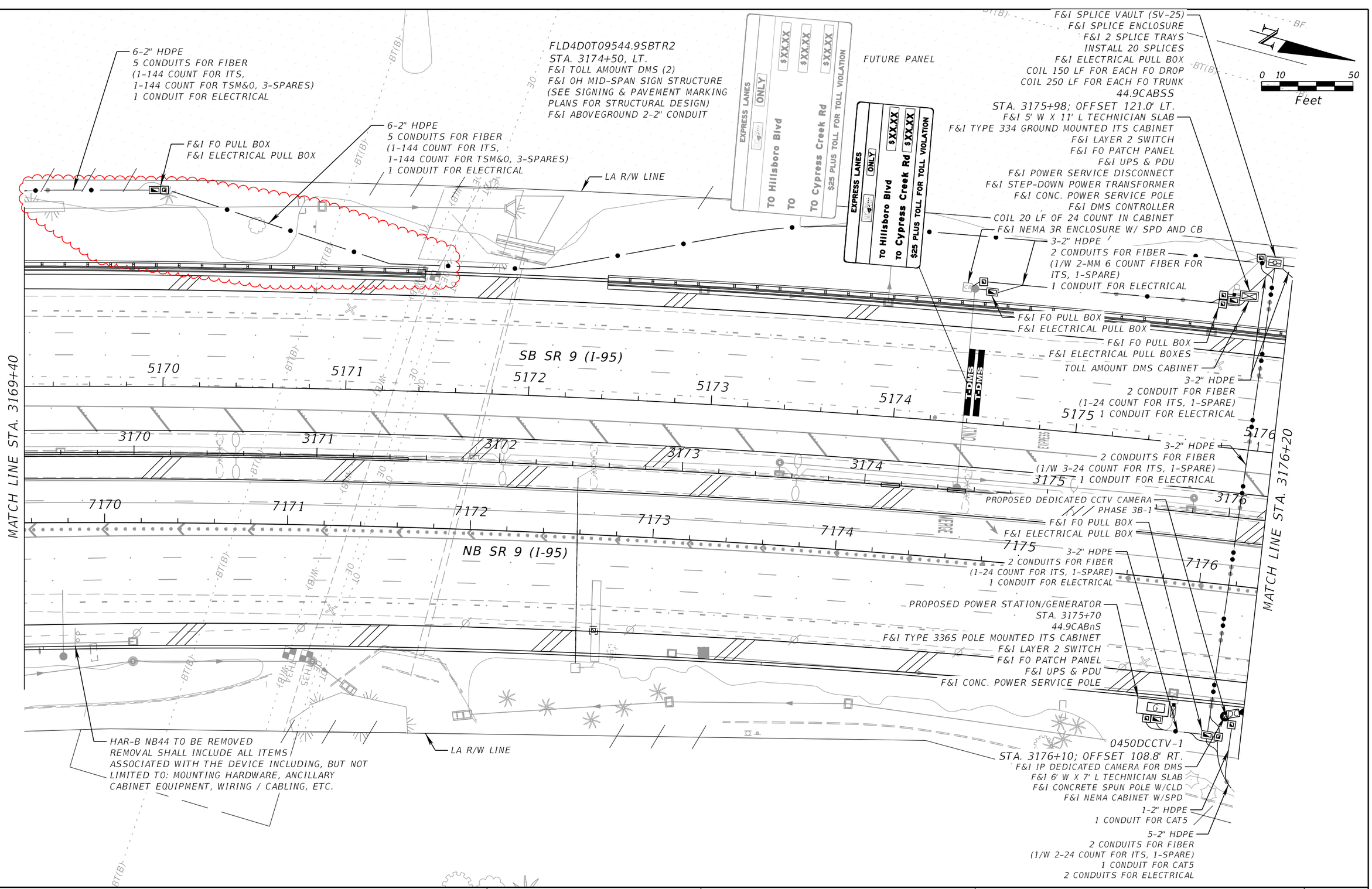
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (53)

SHEET NO.
IT-39



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (53)

SHEET NO.
IT-39

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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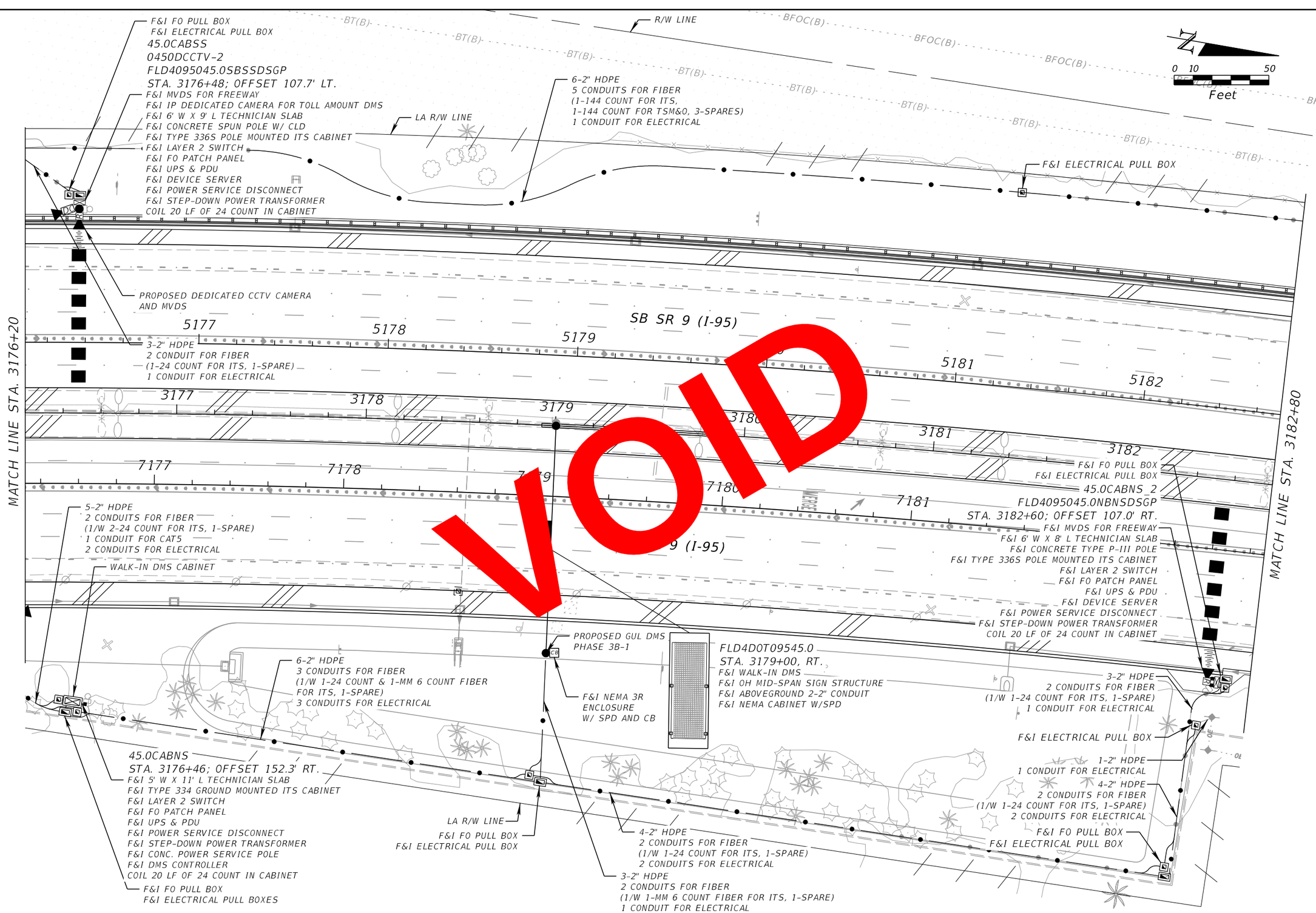

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (54)

SHEET NO.
IT-40

BY: RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4Q96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 4/18/2019 5:37:00 PM c:\projectwise\pb\projectwiseint\barco\d0230493\PLANIT54.dgn

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
45.0CABSS
0450DCCTV-2
FLD4095045.0SBSSDSGP
STA. 3176+48; OFFSET 107.7' LT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR TOLL AMOUNT DMS
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

R/W LINE

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX

F&I ELECTRICAL PULL BOX

PROPOSED DEDICATED CCTV CAMERA
AND MVDS

3-2" HDPE
2 CONDUIT FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

MATCH LINE STA. 3176+20

SB SR 9 (I-95)

NB SR 9 (I-95)

MATCH LINE STA. 3182+80

5-2" HDPE
2 CONDUITS FOR FIBER
(1/W 2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR CAT5
2 CONDUITS FOR ELECTRICAL

WALK-IN DMS CABINET

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

PROPOSED GUL DMS
PHASE 3B-1

FLD4D0T09545.0
STA. 3179+00, RT.
F&I WALK-IN DMS
F&I OH MID-SPAN SIGN STRUCTURE
F&I ABOVEGROUND 2-2" CONDUIT
F&I NEMA CABINET W/SPD

6-2" HDPE
3 CONDUITS FOR FIBER
(1/W 1-24 COUNT & 1-MM 6 COUNT FIBER
FOR ITS, 1-SPARE)
3 CONDUITS FOR ELECTRICAL

F&I NEMA 3R
ENCLOSURE
W/ SPD AND CB

45.0CABNS
STA. 3176+46; OFFSET 152.3' RT.
F&I 5' W X 11' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES

LA R/W LINE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

4-2" HDPE
2 CONDUITS FOR FIBER
(1/W 1-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 1-MM 6 COUNT FIBER FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
45.0CABNS_2
FLD4095045.0NBNSDSGP
STA. 3182+60; OFFSET 107.0' RT.
F&I MVDS FOR FREEWAY
F&I 6' W X 8' L TECHNICIAN SLAB
F&I CONCRETE TYPE P-III POLE
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

3-2" HDPE
2 CONDUITS FOR FIBER
(1/W 1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I ELECTRICAL PULL BOX

1-2" HDPE
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
2 CONDUITS FOR FIBER
(1/W 1-24 COUNT FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

TO FP&L TRANSFORMER

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

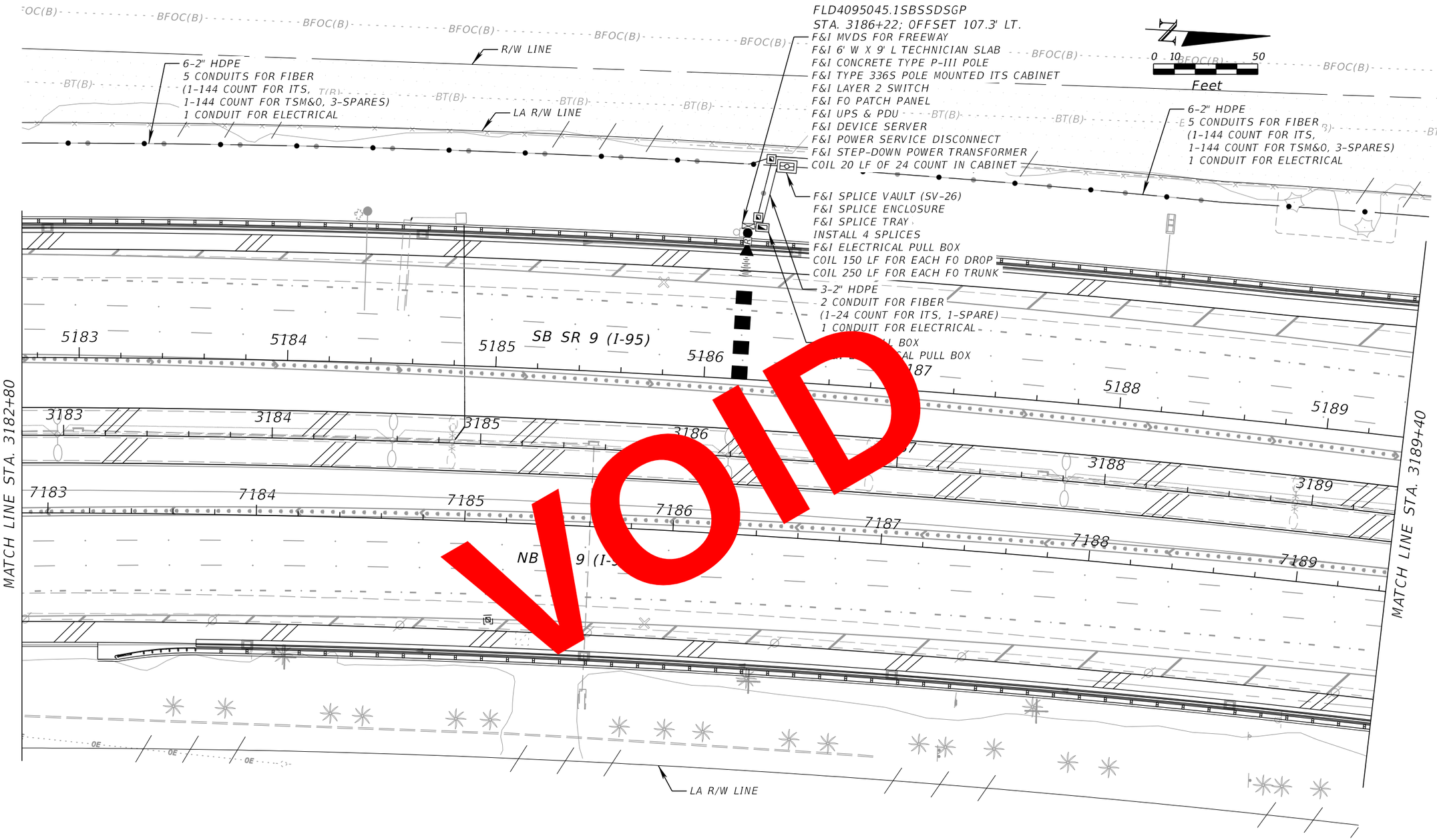
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (54)

SHEET NO.
IT-40



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (55)

SHEET NO.
IT-41

BY:RDOT VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4D96

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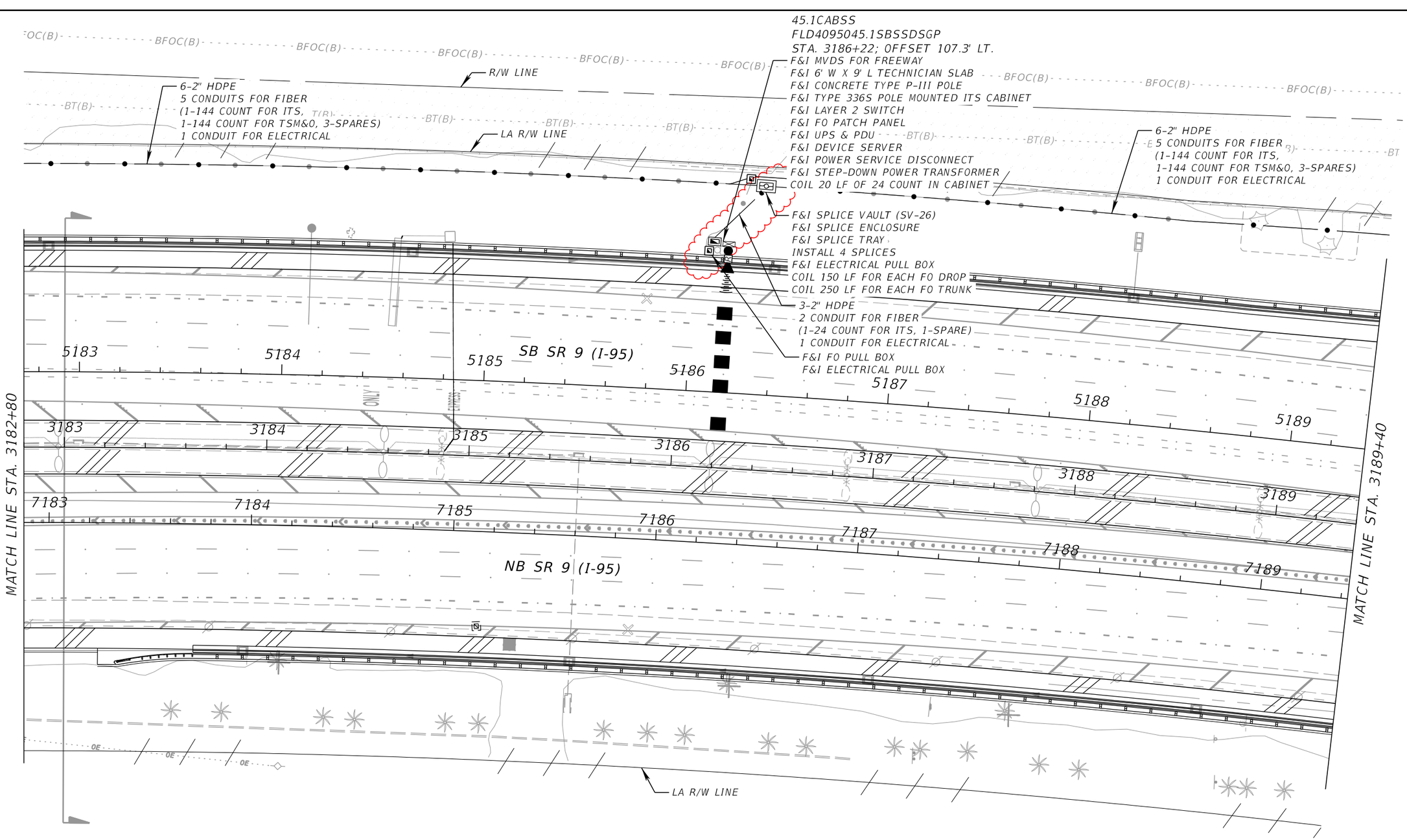

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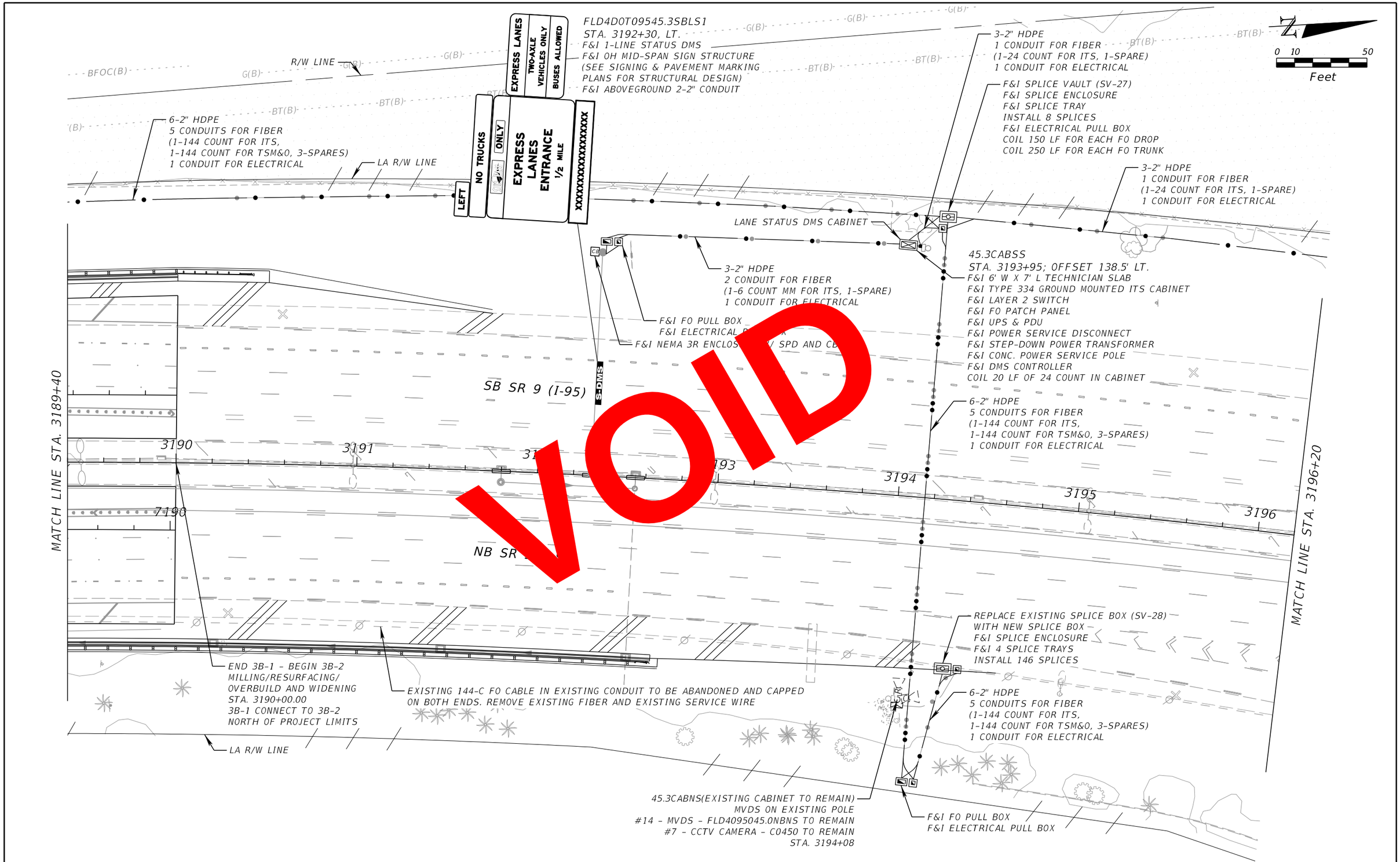
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (55)

SHEET NO.
IT-41

PLOT DRIVER = c:\projectwise\pb\projectwiseint\wsp__michael.west\d0173361\As-Built_FDOT.pltcfg PCTPDF.pltcfg pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase\ODD\ITS\As-Built USMW189428 10/22/2021 6:38:22 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\PLANIT55_As-Built.dgn



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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (56)

SHEET NO.
IT-42

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FLD4D0T09545.3SBLS1
STA. 3192+30, LT.
F&I 1-LINE STATUS DMS
F&I OH MID-SPAN SIGN STRUCTURE
(SEE SIGNING & PAVEMENT MARKING PLANS FOR STRUCTURAL DESIGN)
F&I ABOVEGROUND 2-2" CONDUIT

EXPRESS LANES
TWO-AXLE VEHICLES ONLY
BUSES ALLOWED

NO TRUCKS
ONLY
LEFT
EXPRESS LANES ENTRANCE ½ MILE
XXXXXXXXXXXXXXXX

R/W LINE
LA R/W LINE
BFOC(B)
G(B)
BT(B)

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I F0 PULL BOX

LANE STATUS DMS CABINET

3-2" HDPE
1 CONDUIT FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-27)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 8 SPLICES
F&I ELECTRICAL PULL BOX
COIL 150 LF FOR EACH F0 DROP
COIL 250 LF FOR EACH F0 TRUNK

3-2" HDPE
1 CONDUIT FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUIT FOR FIBER
(1-6 COUNT MM FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I F0 PULL BOX
F&I ELECTRICAL PULL BOX
F&I NEMA 3R ENCLOSURE W/ SPD AND CB

45.3CABSS
STA. 3194+00; OFFSET 108.0' LT.
F&I 6' W X 7' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I F0 PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

6-2" HDPE
5 CONDUITS FOR FIBER
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

REPLACE EXISTING SPLICE BOX (SV-28) AND ELECTRICAL PULLBOX WITH NEW SPLICE BOX AND ELECTRICAL PULLBOX (IN NEW LOCATION)
F&I SPLICE ENCLOSURE
F&I 4 SPLICE TRAYS
INSTALL 146 SPLICES
EXISTING ITS CONDUITS REWORKED AND ROUTED INTO NEW SPLICE VAULT AND PULLBOX.

45.3CABNS(EXISTING CABINET TO REMAIN)
MVDS ON EXISTING POLE
#14 - MVDS - FLD4095045.0NBNS TO REMAIN
#7 - CCTV CAMERA - C0450 TO REMAIN
STA. 3194+08

SB SR 9 (I-95)
NB SR 9 (I-95)
SDMS
EXPRESS
ONLY

3190 3191 3192 3193 3194 3195 3196

MATCH LINE STA. 3189+40

END 3B-1 - BEGIN 3B-2
MILLING/RESURFACING/
OVERBUILD AND WIDENING
STA. 3190+00.00
3B-1 CONNECT TO 3B-2
NORTH OF PROJECT LIMITS

EXISTING 144-C F0 CABLE IN EXISTING CONDUIT TO BE ABANDONED AND CAPPED ON BOTH ENDS. REMOVE EXISTING FIBER AND EXISTING SERVICE WIRE

LA R/W LINE

MATCH LINE STA. 3196+20

0 10 50
Feet

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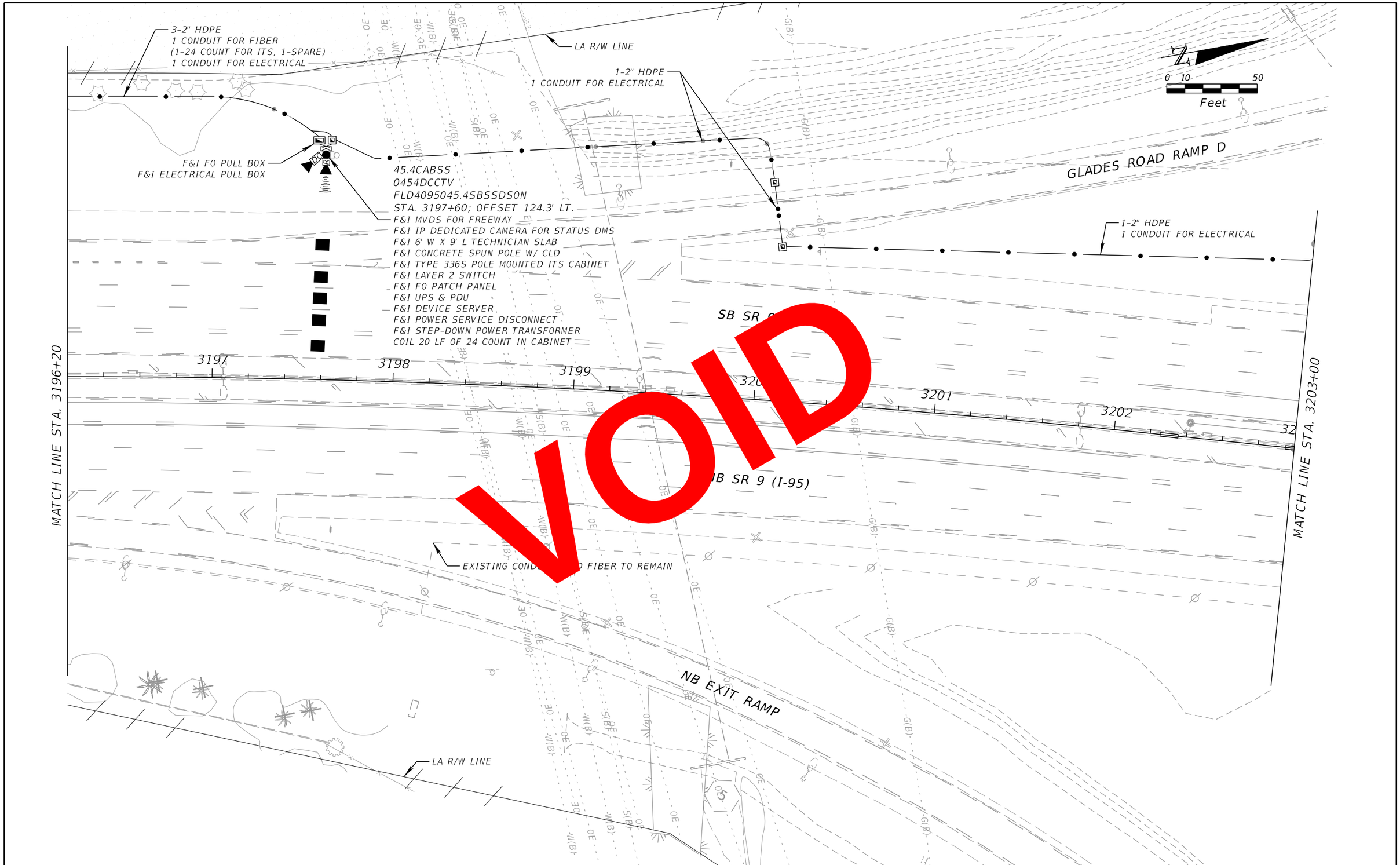
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (56)

SHEET NO.
IT-42



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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (57)

SHEET NO.
IT-43

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:FDOT VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

3-2" HDPE
1 CONDUIT FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

1-2" HDPE
1 CONDUIT FOR ELECTRICAL

0 10 50
Feet

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

45.4CABSS
0454DCCTV
FLD4095045.4SBSSDSON
STA. 3197+60; OFFSET 124.3' LT.
F&I MVDS FOR FREEWAY
F&I IP DEDICATED CAMERA FOR STATUS DMS
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

GLADES ROAD RAMP D

1-2" HDPE
1 CONDUIT FOR ELECTRICAL

SB SR 9 (I-95)

3197 3198 3199 3200 3201 3202

MATCH LINE STA. 3196+20

MATCH LINE STA. 3203+00

NB SR 9 (I-95)

EXISTING CONDUITS AND FIBER TO REMAIN

NB EXIT RAMP

LA R/W LINE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (57)

SHEET NO.
IT-43

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GLADES ROAD RAMP D

F&I NEMA 3R ENCLOSURE W/ SPD AND CB
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
4-2" HDPE
2 CONDUITS FOR FIBER
(1 W/2-6 COUNT MM FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES
1-2" HDPE
1 CONDUIT FOR CAT5

F&I ELECTRICAL PULL BOX
0455DCCTV
STA. 3205+74; OFFSET 106.7' LT.
F&I IP DEDICATED CAMERA FOR TOLL AMOUNT DMS
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/CLD
F&I NEMA CABINET W/SPD

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

TOLL AMOUNT DMS CABINET
45.5CABSS
STA. 3204+49; OFFSET 106.6' LT.
F&I 5' W X 11' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

FUTURE PANEL

SB SR 9 (I-95

NB SR 9 (I-95)

0 10 50
Feet

MATCH LINE STA. 3203+00

MATCH LINE STA. 3210+00

3203 3204 3205 3208 3209 32

EXPRESS LANES ONLY
TO Hillsboro Blvd
TO
TO Cypress Creek Rd
$XX.XX $XX.XX $XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

FLD4D0T09545.5SBTR2
STA. 3203+00, LT.
F&I TOLL AMOUNT DMS (2)
F&I OH MID-SPAN SIGN STRUCTURE
(SEE SIGNING & PAVEMENT MARKING
PLANS FOR STRUCTURAL DESIGN)
F&I ABOVEGROUND 2-2" CONDUIT

EXISTING CONDUITS AND FIBER TO REMAIN

NB ENTRANCE RAMP

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL (SPARE)

EXISTING MVDS TO REMAIN

EXISTING FO SPLICE BOX

F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 8 SPLICES

INSTALL NEW ELECTRICAL CONDUIT (SPARE) INTO
THE EXISTING TO REMAIN ELECTRICAL PULLBOX

VOID

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BY: RPOTI VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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Tampa, Florida 33607
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (58)

SHEET NO.
IT-44

GLADES ROAD RAMP D

F&I NEMA 3R ENCLOSURE W/ SPD AND CB
F&I FO PULL BOX
F&I ELECTRICAL PULL BOX
4-2" HDPE
2 CONDUITS FOR FIBER
(1 W/2-6 COUNT MM FOR ITS, 1-SPARE)
2 CONDUITS FOR ELECTRICAL

F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES
1-2" HDPE
1 CONDUIT FOR CAT5

F&I ELECTRICAL PULL BOX
0455DCCTV
STA. 3205+74; OFFSET 106.7' LT.
F&I IP DEDICATED CAMERA FOR TOLL AMOUNT DMS
F&I 6' W X 7' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/CLD
F&I NEMA CABINET W/SPD

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

3-2" HDPE
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL (SPARE)

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

TOLL AMOUNT DMS CABINET
45.5CABSS
STA. 3204+49; OFFSET 106.6' LT.
F&I 5' W X 11' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
F&I CONC. POWER SERVICE POLE
F&I DMS CONTROLLER
COIL 20 LF OF 24 COUNT IN CABINET

FUTURE PANEL

SB SR 9 (I-95)

NB SR 9 (I-95)

NB ENTRANCE RAMP

EXISTING CONDUITS AND FIBER TO REMAIN

FLD4D0T09545.5SBTR2
STA. 3203+00, LT.
F&I TOLL AMOUNT DMS (2)
F&I OH MID-SPAN SIGN STRUCTURE
(SEE SIGNING & PAVEMENT MARKING
PLANS FOR STRUCTURAL DESIGN)
F&I ABOVEGROUND 2-2" CONDUIT

EXPRESS LANES ONLY
TO Hillsboro Blvd
TO
TO Cypress Creek Rd
$XX.XX
$XX.XX
$XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

EXPRESS LANES ONLY
TO Hillsboro Blvd
TO
TO Cypress Creek Rd
$XX.XX
$XX.XX
$XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

3-2" HDPE
2 CONDUITS FOR FIBER
(1 W/2-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL (SPARE)

EXISTING MVDS TO REMAIN

EXISTING FO SPLICE BOX

F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 8 Ssplices

INSTALL NEW ELECTRICAL CONDUIT (SPARE) INTO
THE EXISTING TO REMAIN ELECTRICAL PULLBOX

0 10 50
Feet

MATCH LINE STA. 3203+00

MATCH LINE STA. 3210+00

03 3204 3205 3206 3207 3208 3209 32

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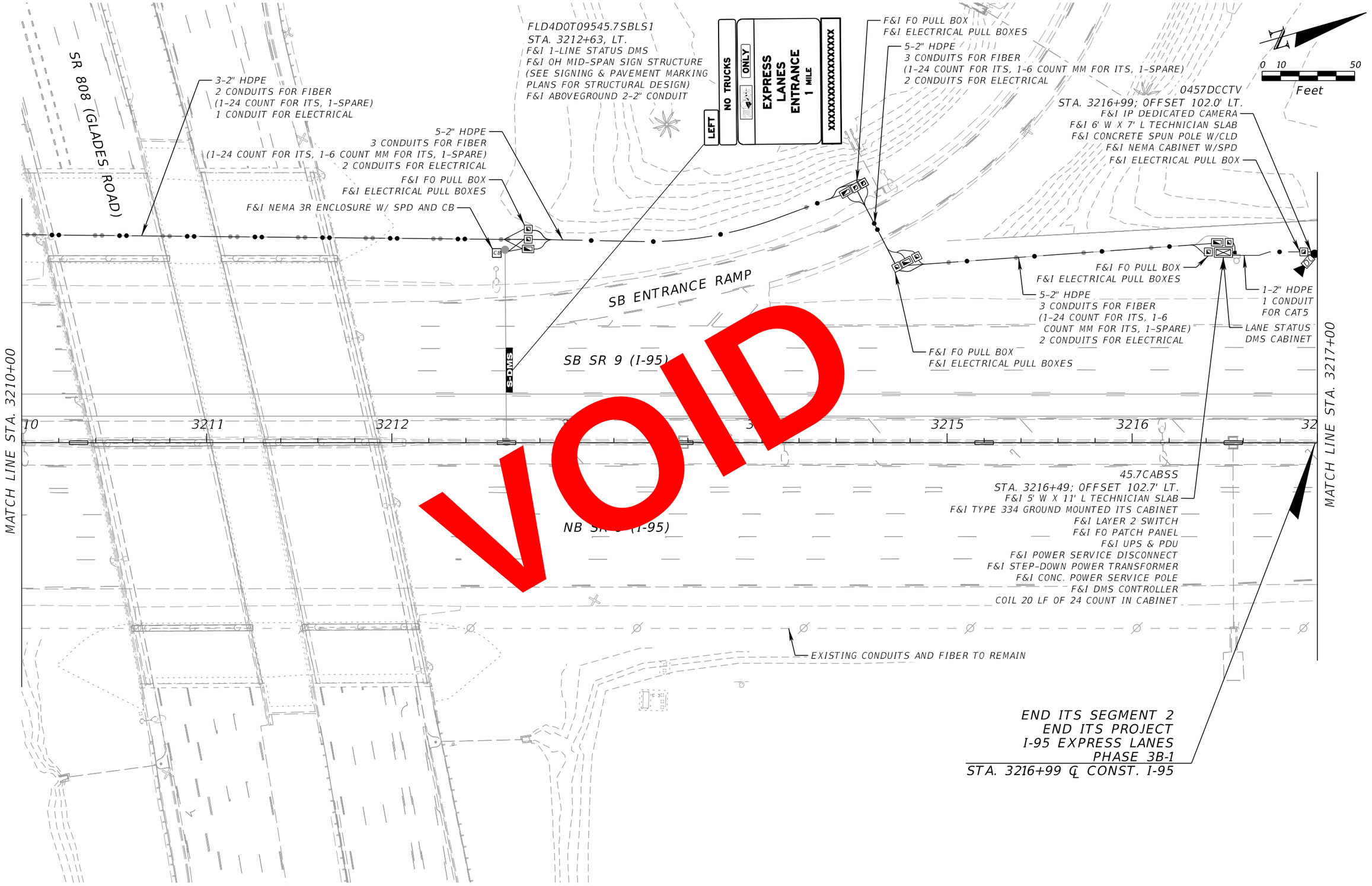
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (58)

SHEET NO.
IT-44



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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (59)

SHEET NO.
IT-45

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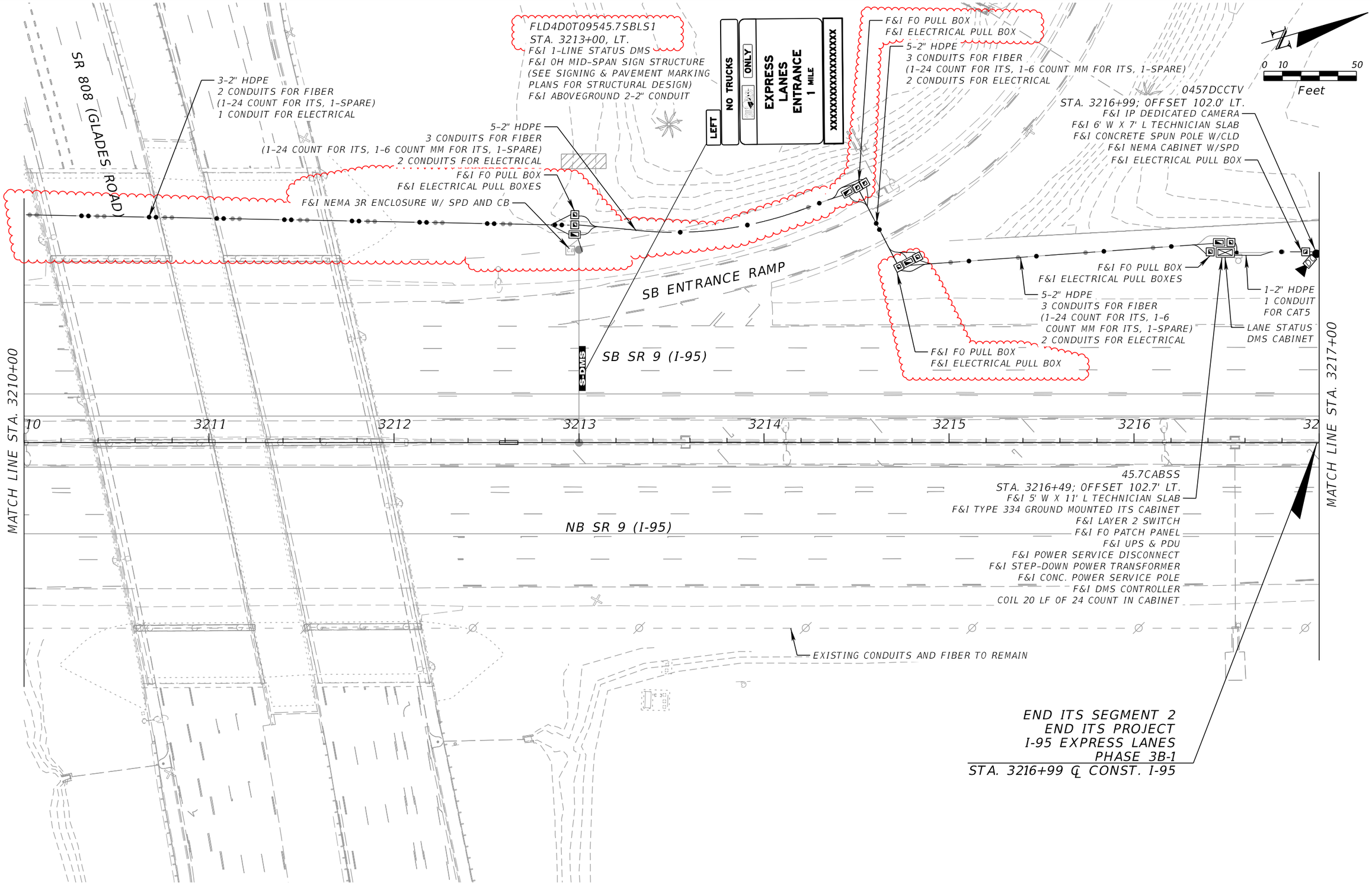
BY: FDOT VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



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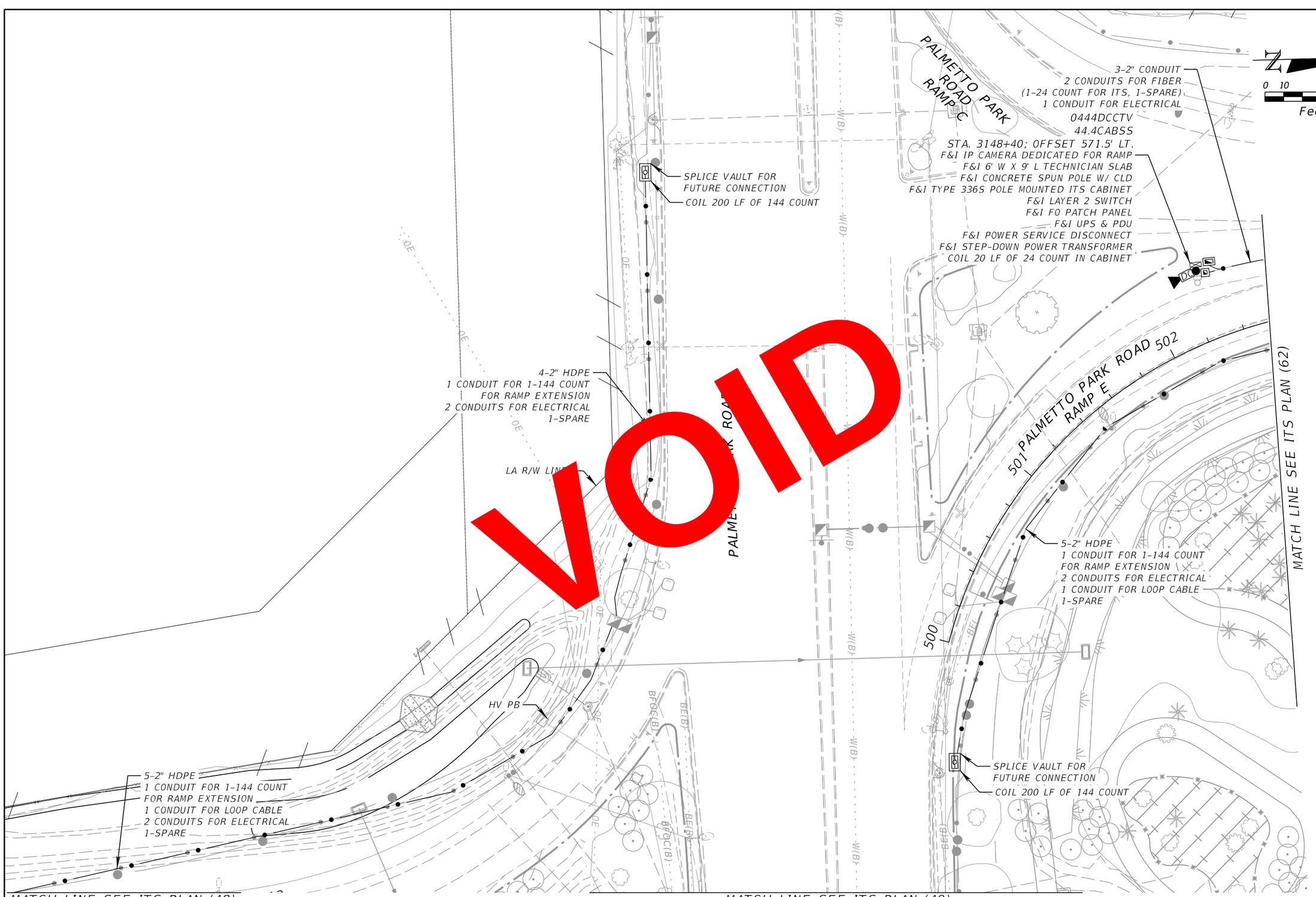
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (59)

SHEET NO.
IT-45



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

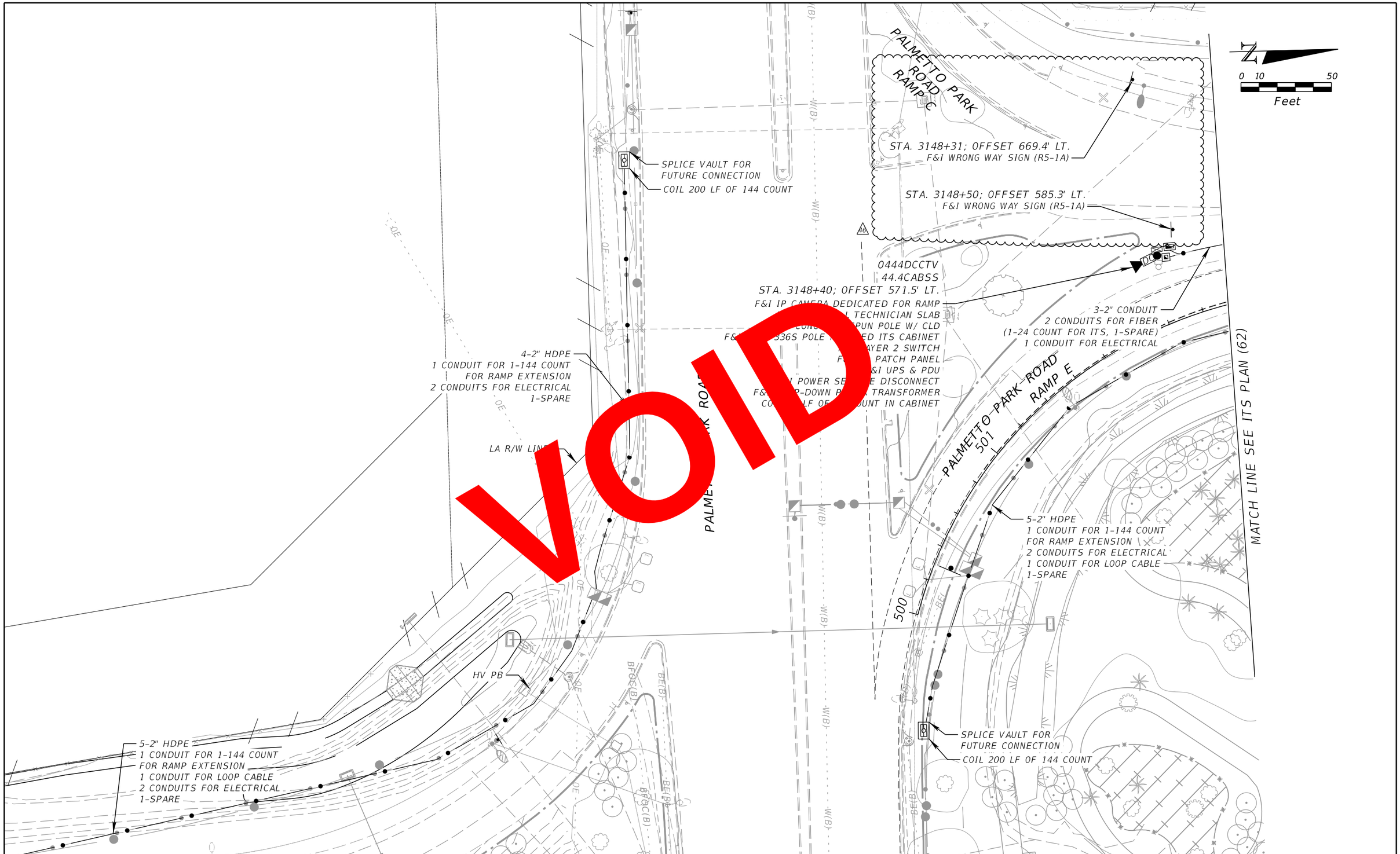
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (60)

SHEET NO.
IT-46

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C
RELEASED FOR CONSTRUCTION
BY: RDOI VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (60)

SHEET NO.
IT-46

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/25/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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N

0 10 50

Feet

PALMETTO PARK ROAD RAMP C

STA. 3148+31; OFFSET 669.4' LT.
F&I WRONG WAY SIGN (R5-1A)

STA. 3148+50; OFFSET 585.3' LT.
F&I WRONG WAY SIGN (R5-1A)

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT (6)

SPLICE VAULT FOR FUTURE CONNECTION
COIL 200 LF OF 144 COUNT

0444DCCTV
44.4CABSS
STA. 3148+40; OFFSET 571.5' LT.
F&I IP CAMERA DEDICATED FOR RAMP
F&I 6' W X 9' L TECHNICIAN SLAB
F&I CONCRETE SPUN POLE W/ CLD
F&I TYPE 336S POLE MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

3-2" CONDUIT
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
2 CONDUITS FOR ELECTRICAL
1-SPARE

LA R/W LINE

PALMETTO PARK ROAD

PALMETTO PARK ROAD RAMP E

501

500

5-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE
1-SPARE

SPLICE VAULT FOR FUTURE CONNECTION
COIL 200 LF OF 144 COUNT

5-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
1 CONDUIT FOR LOOP CABLE
2 CONDUITS FOR ELECTRICAL
1-SPARE

MATCH LINE SEE ITS PLAN (62)

MATCH LINE SEE ITS PLAN (48)

MATCH LINE SEE ITS PLAN (49)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(6) REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (60)

SHEET NO.
IT-46

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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PALMETTO PARK ROAD RAMP B

9-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION, 3-SPARES)
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

F&I FO PULL BOX

LA R/W LINE

4-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
2 CONDUITS FOR ELECTRICAL
1-SPARE

2-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
1 CONDUIT FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE
1-SPARE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

SPLICE VAULT FOR
FUTURE CONNECTION
COIL 200 LF OF 144 COUNT

5-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE
1-SPARE

MATCH LINE SEE ITS PLAN (49)

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

PALMETTO PARK ROAD

3-2" CONDUIT
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-19)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 8 SPLICES
F&I ELECTRICAL PULL BOX

2-2" HDPE
1 CONDUIT FOR COMPOSITE RS485 / POWER
1-SPARE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES

3-2" CONDUIT
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

LA R/W LINE

44.3CABNS
STA. 3144+69; OFFSET 249.5' RT.
F&I 5' W X 11' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

R/W LINE

PALMETTO PARK ROAD RAMP A

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

N

0 10 50
Feet

VOID

BY: RDOT VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (61)

SHEET NO.
IT-47

PALMETTO PARK ROAD RAMP B

9-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS, 1-144 COUNT FOR TSM&O,
1-144 COUNT FOR RAMP EXTENSION, 3-SPARES)
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

F&I FO PULL BOX

LA R/W LINE

4-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
2 CONDUITS FOR ELECTRICAL
1-SPARE

2-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
1 CONDUIT FOR ELECTRICAL

4-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
1 CONDUIT FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE
1-SPARE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOX

SPLICE VAULT FOR
FUTURE CONNECTION
COIL 200 LF OF 144 COUNT

5-2" HDPE
1 CONDUIT FOR 1-144 COUNT
FOR RAMP EXTENSION
2 CONDUITS FOR ELECTRICAL
1 CONDUIT FOR LOOP CABLE
1-SPARE

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

PALMETTO PARK ROAD

3-2" CONDUIT
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-19)
F&I SPLICE ENCLOSURE
F&I SPLICE TRAY
INSTALL 12 SPLICES
F&I ELECTRICAL PULL BOX

2-2" HDPE
1 CONDUIT FOR COMPOSITE RS485 / POWER
1-SPARE

F&I FO PULL BOX
F&I ELECTRICAL PULL BOXES

3-2" CONDUIT
2 CONDUITS FOR FIBER
(1-24 COUNT FOR ITS, 1-SPARE)
1 CONDUIT FOR ELECTRICAL

44.3CABNS
STA. 3144+69; OFFSET 249.5' RT.
F&I 5' W X 11' L TECHNICIAN SLAB
F&I TYPE 334 GROUND MOUNTED ITS CABINET
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I DEVICE SERVER
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN POWER TRANSFORMER
COIL 20 LF OF 24 COUNT IN CABINET

LA R/W LINE

R/W LINE

7-2" HDPE
6 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O,
1-24 COUNT FOR ITS, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

PALMETTO PARK ROAD RAMP A

MATCH LINE SEE ITS PLAN (49)

MATCH LINE SEE ITS PLAN (48A)

0 10 50
Feet

VOID

BY:(RDOT) VS Date: 2/25/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, quantities, and details remains with EOR. Means, methods, fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	4b REVISED FOR WRONG WAY DETECTION REVISION.		

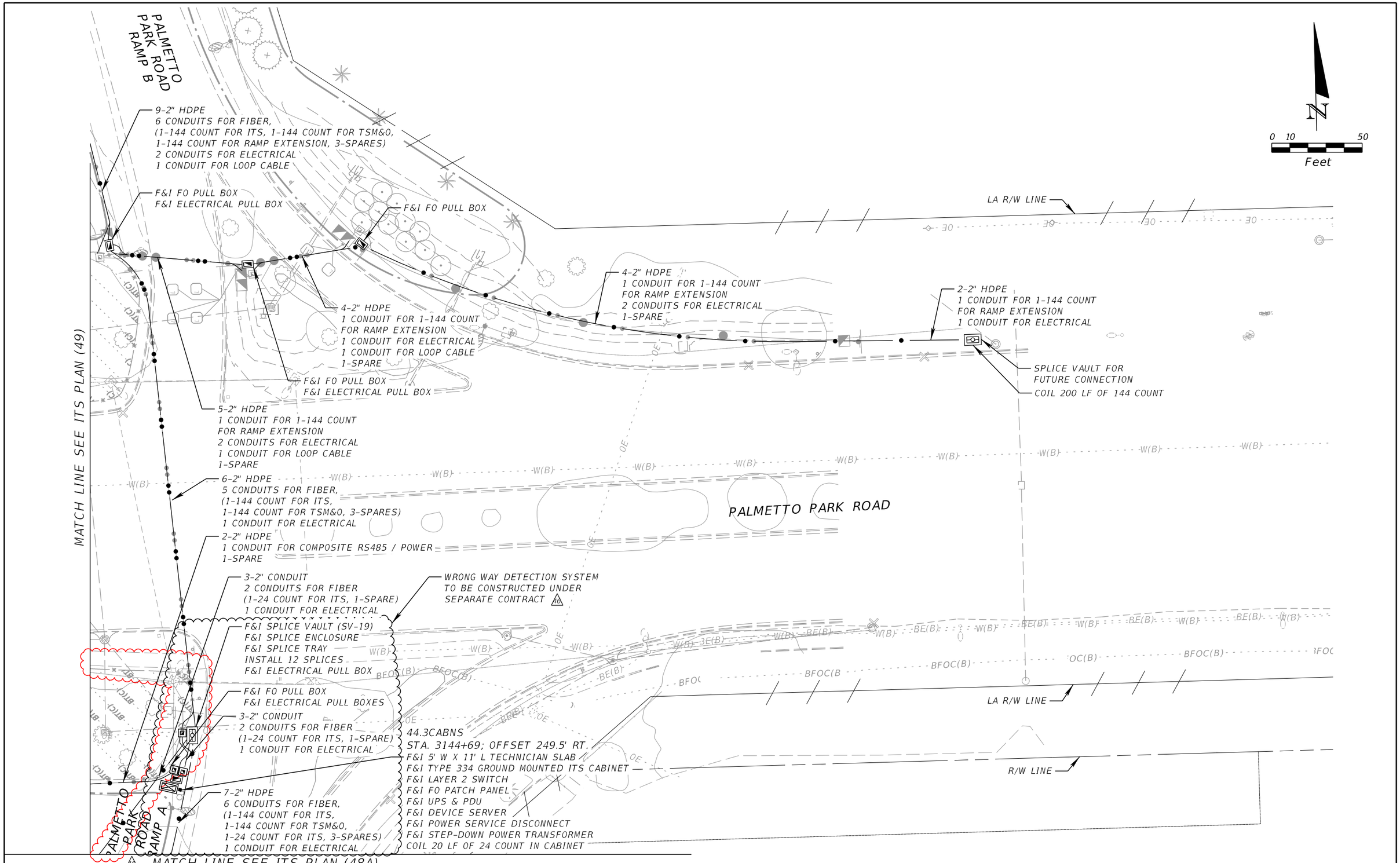
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (61)

SHEET NO.
IT-47



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

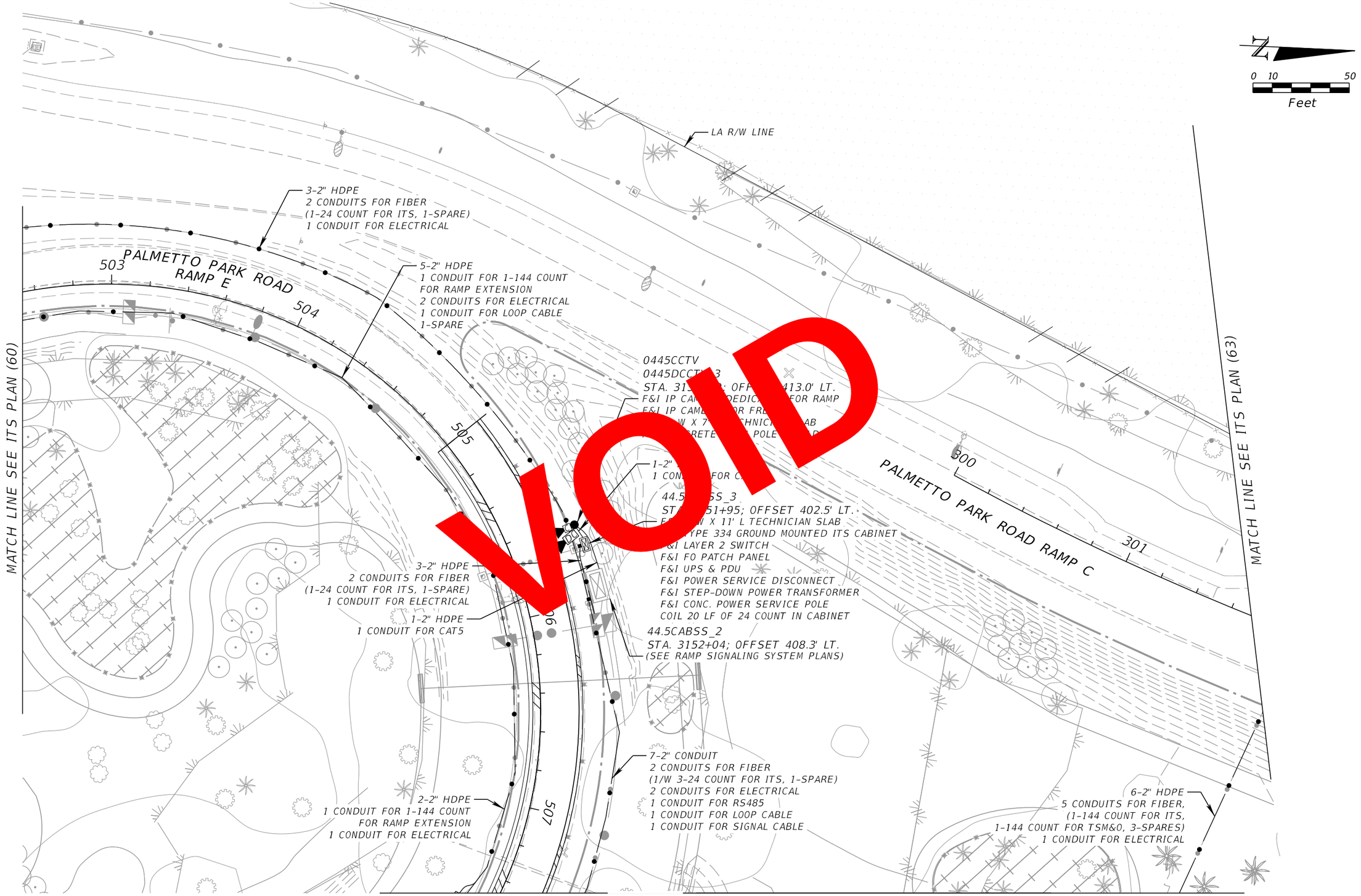
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (61)

SHEET NO.
IT-47



BY: FDOT VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4Q66

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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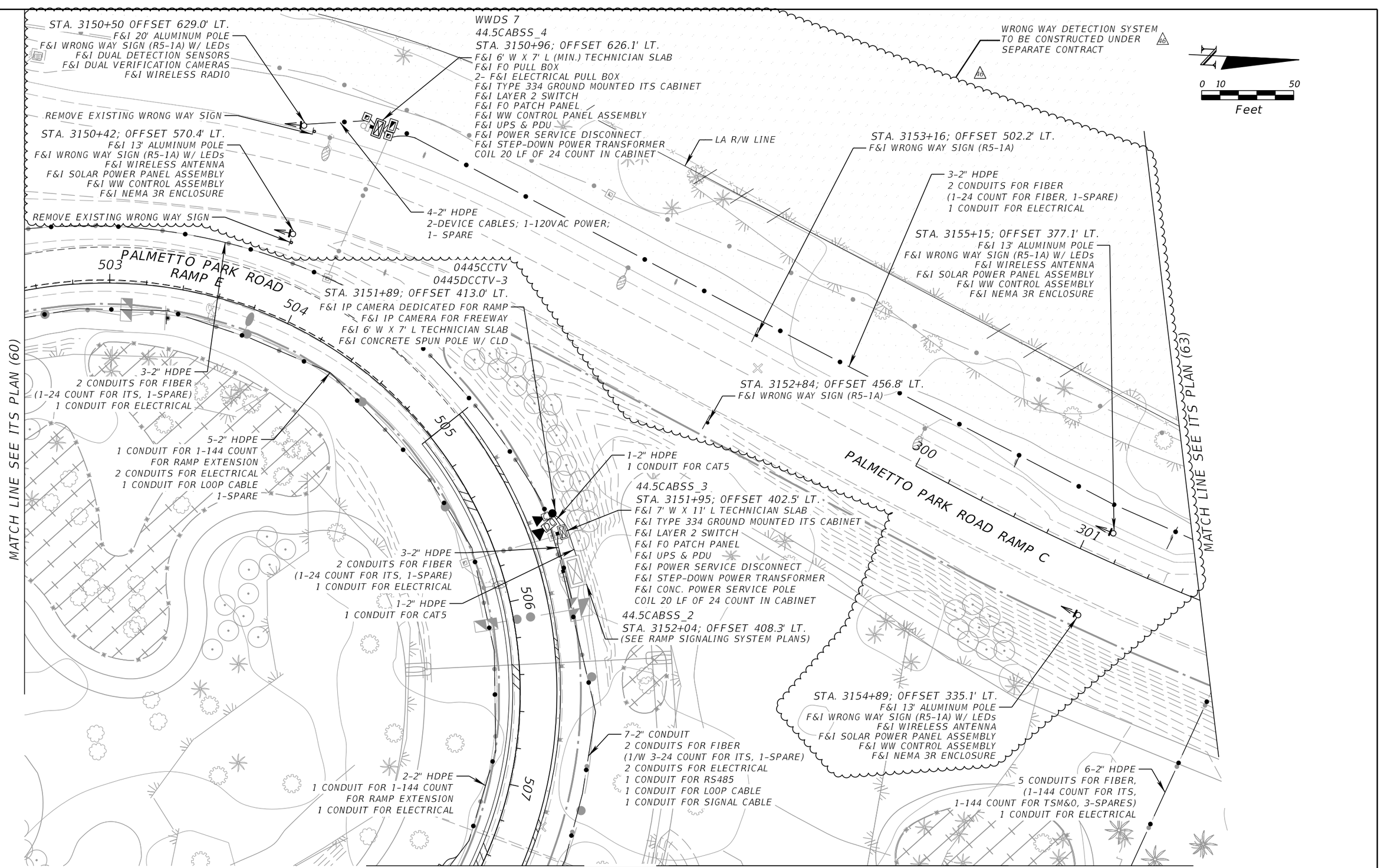
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (62)

SHEET NO.
IT-48



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RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, detail accuracy, and field construction, fabrication and erection shall remain with the contractor.
PPD 433108-4-52-01 and 433109-4-52-01 CONTRACT T5496
BY:(FDOT) VS Date: 2/25/2021

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (62)

SHEET NO. IT-48

VOID

MATCH LINE SEE ITS PLAN (62)

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

F&I SPLICE VAULT (SV-21)
F&I ELECTRICAL PULL BOX
F&I NEW HUB BUILDING
F&I SPLICE VAULT (SV-22)
F&I ELECTRICAL PULL BOX

LA R/W LINE

6-2" HDPE
5 CONDUITS FOR FIBER,
(1-144 COUNT FOR ITS,
1-144 COUNT FOR TSM&O, 3-SPARES)
1 CONDUIT FOR ELECTRICAL

302
303
304
PALMETTO PARK ROAD RAMP C

BFOC(B)

N

0 10 50
Feet

MATCH LINE SEE ITS PLAN (51)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

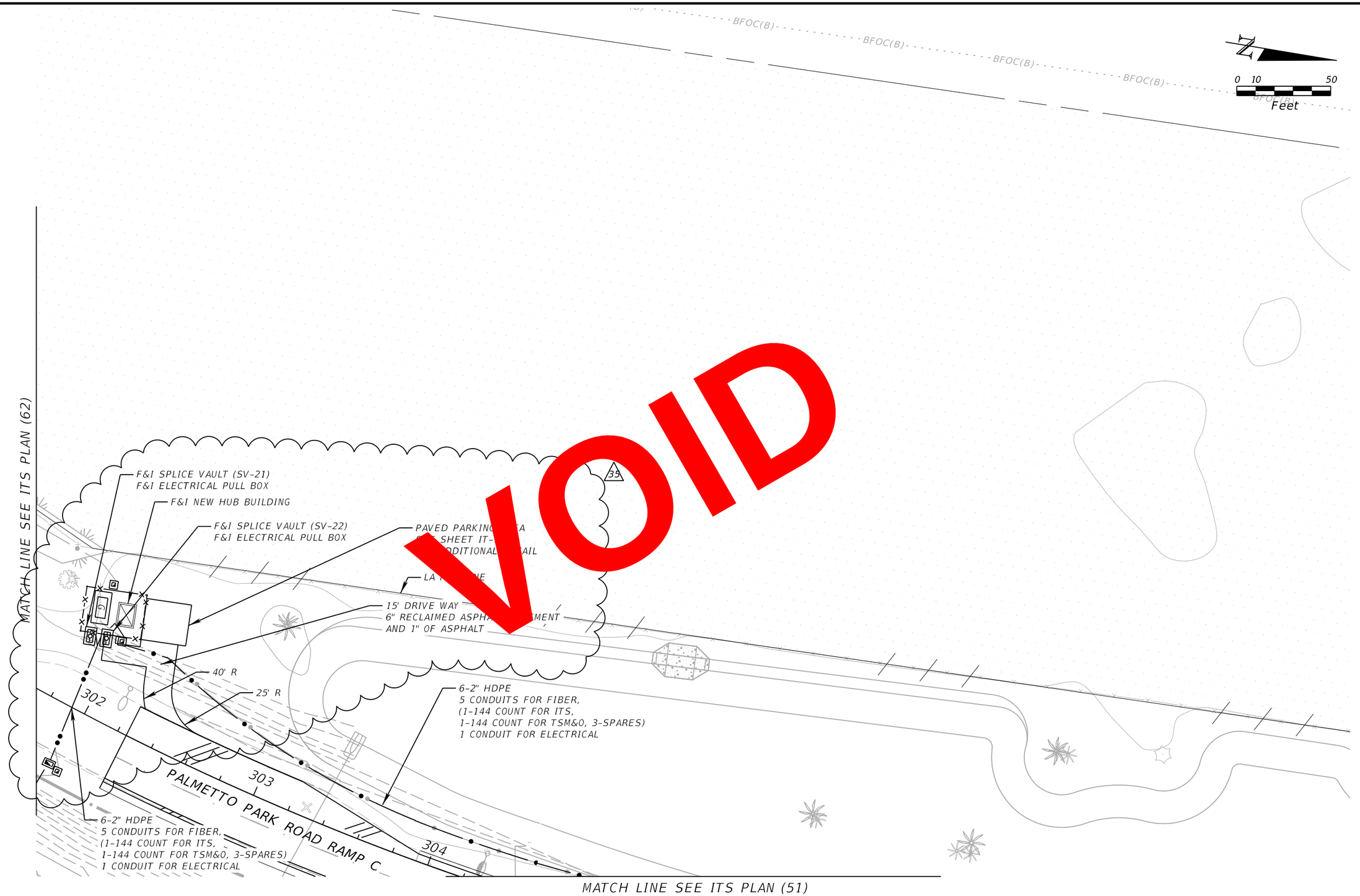
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (63)

SHEET NO.
IT-49

BY: RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4Q96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2-14-20	35 ADDED PARKING PAVEMENT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (63)

SHEET NO.
IT-49

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 03/04/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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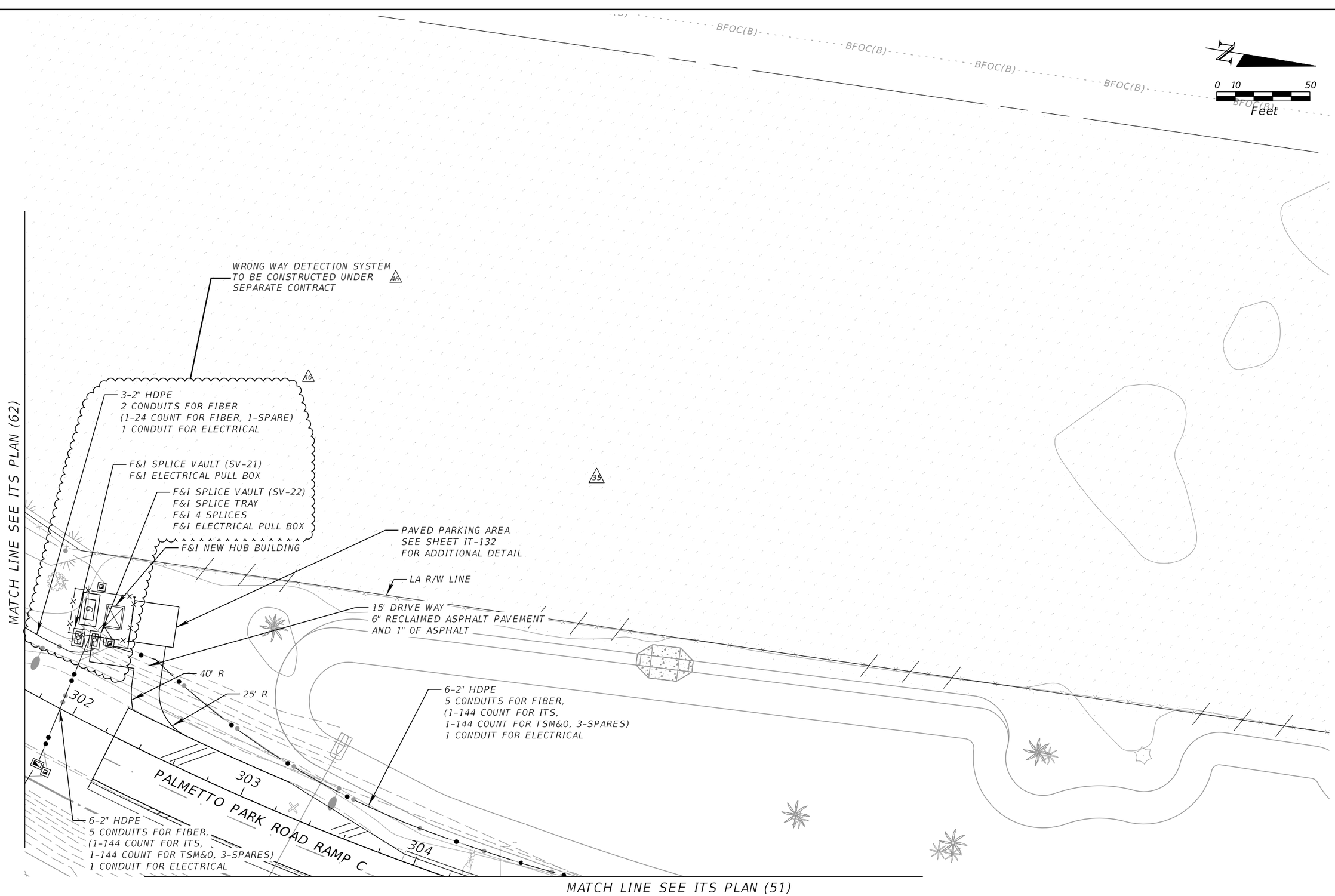

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
2-14-20	33 ADDED PARKING PAVEMENT		
1/29/2021	16 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS PLAN (63)

SHEET NO.
IT-49

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, coordination with other disciplines, and field fabrication and erection shall remain with the contractor.
BY:(FDOT) VS Date: 2/25/2021
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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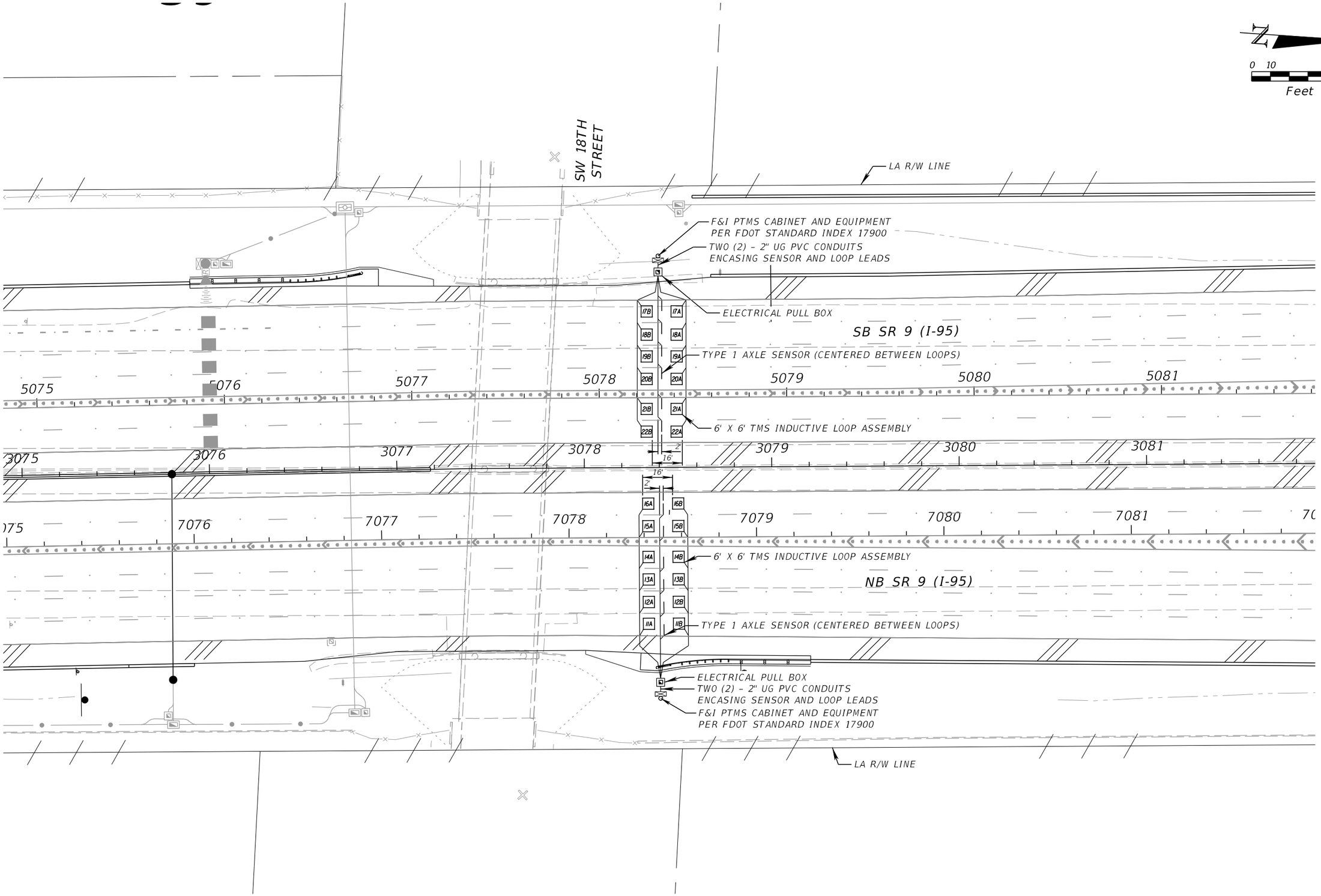

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

TRAFFIC MONITORING SITE DETAIL

SHEET NO.
IT-50

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
BY: FDOT VS Date: 05/21/2019
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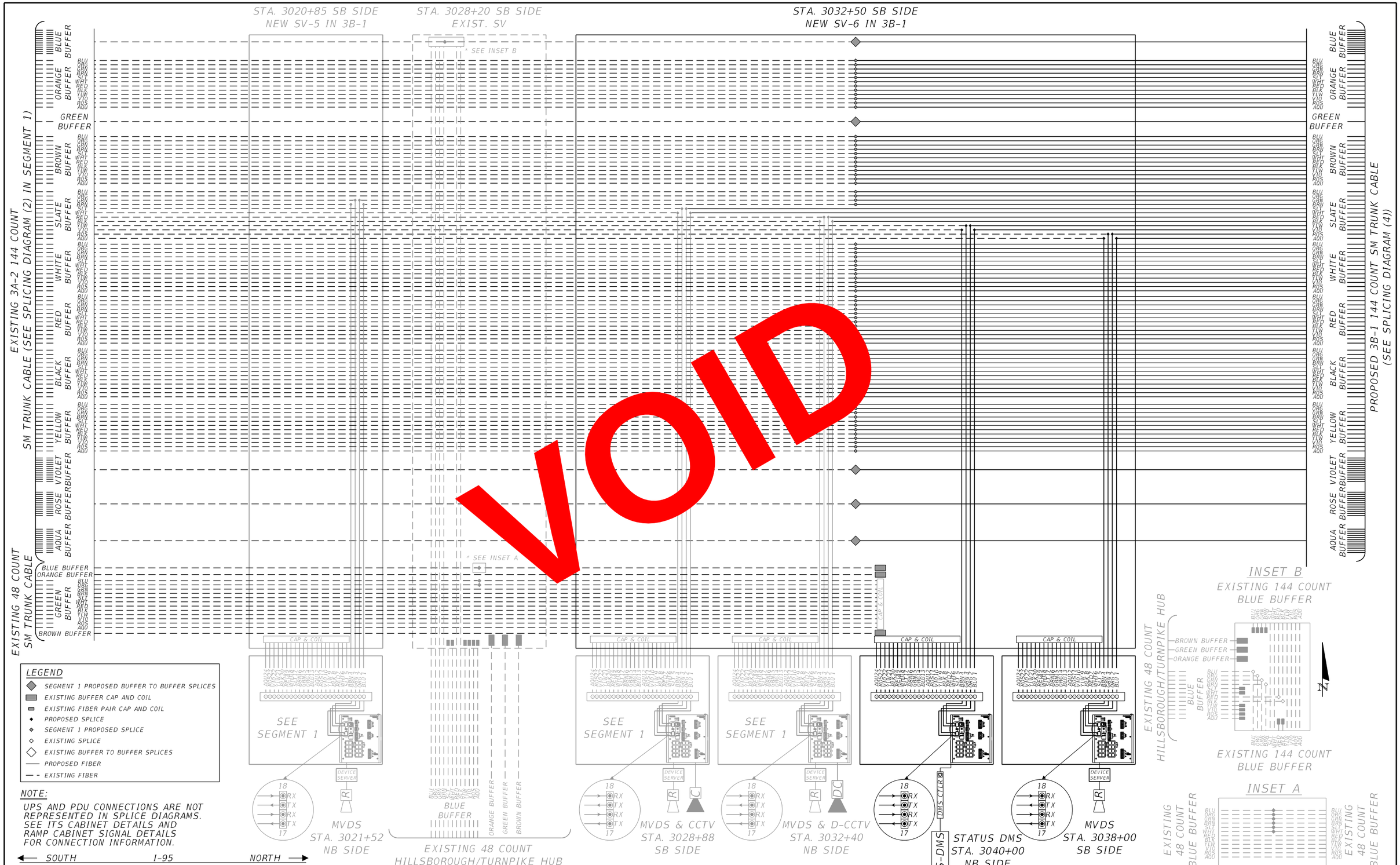
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

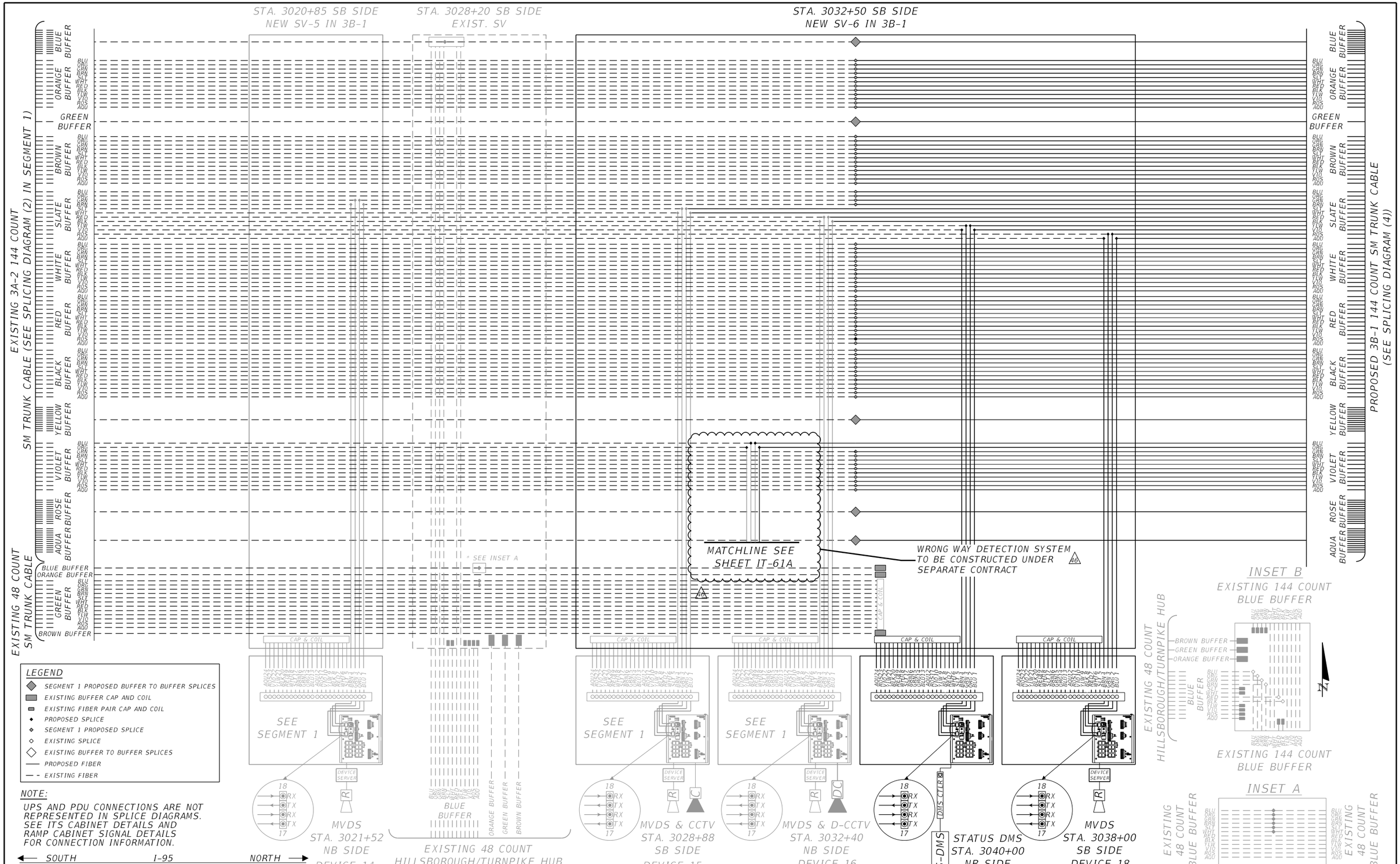
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (7B)

SHEET NO.
IT-51



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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 2/25/2021

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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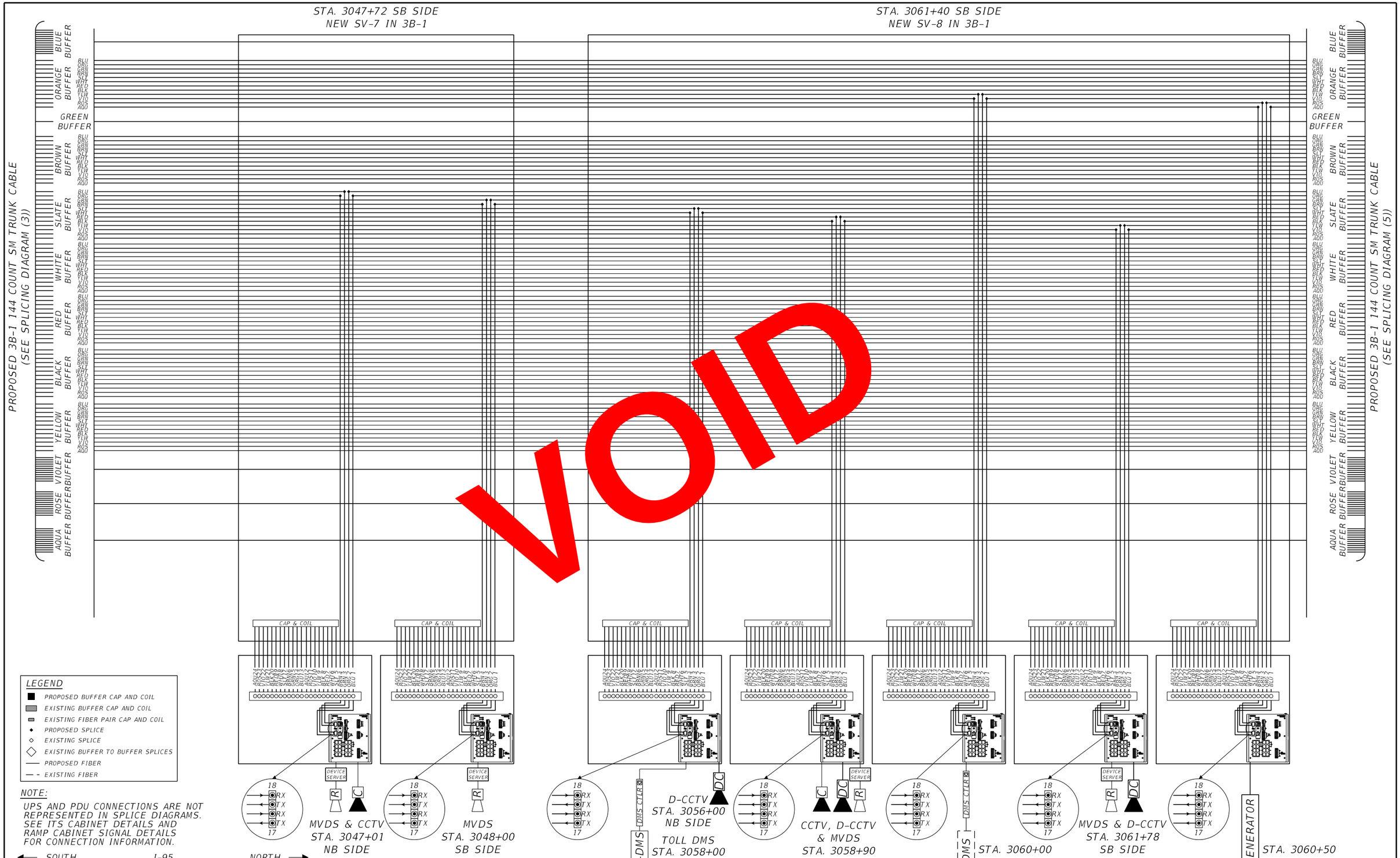
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (7B)

SHEET NO.
IT-51

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =$MODELNAME$ $USER$ $DATE$ $TIME$ $FILE$



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RELEASED FOR CONSTRUCTION BY: FDOT VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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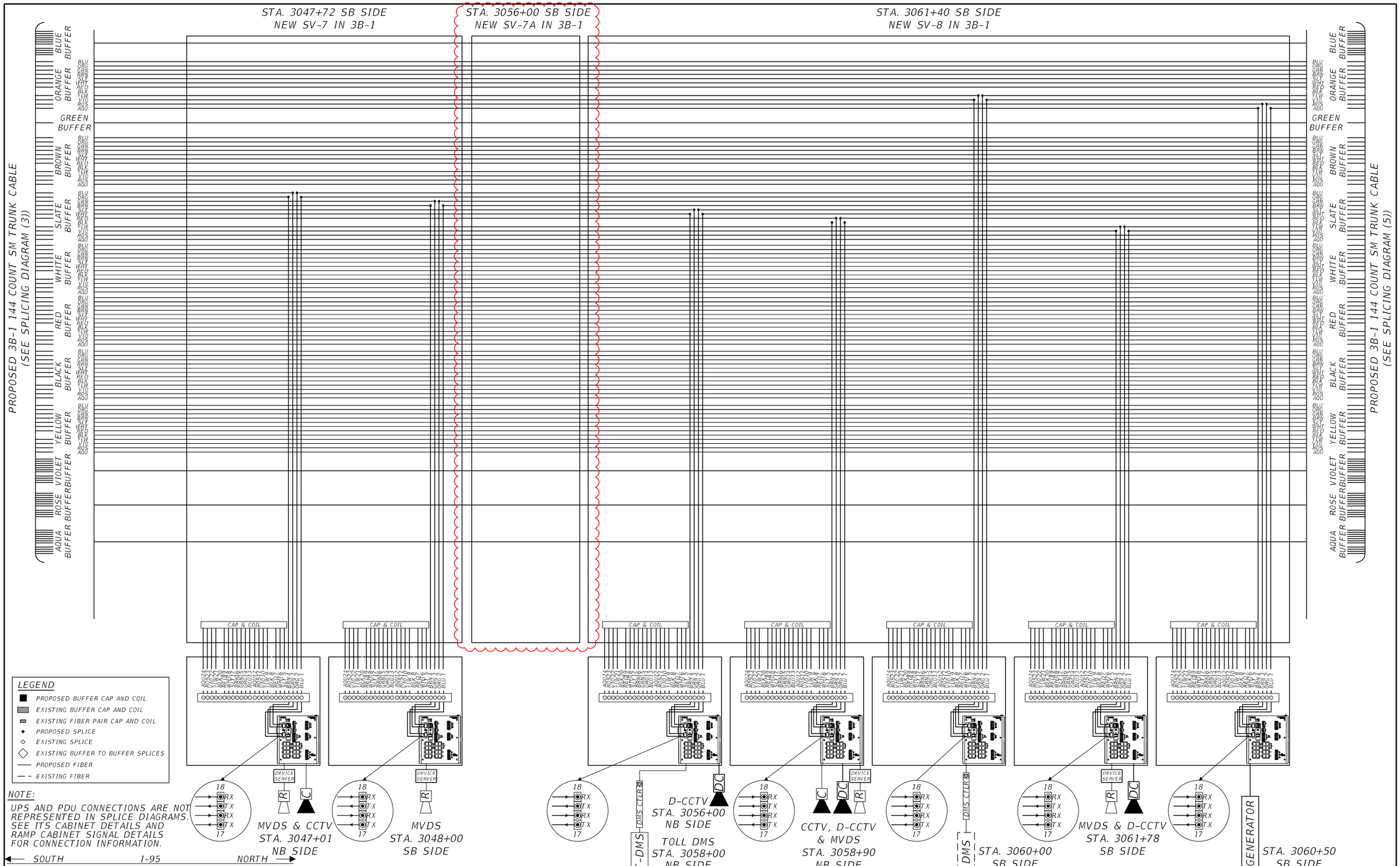
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (8)

SHEET NO.
IT-52



LEGEND

- PROPOSED BUFFER CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- EXISTING FIBER PAIR CAP AND COIL
- PROPOSED SPLICE
- EXISTING SPLICE
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED FIBER
- EXISTING FIBER

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (8)

SHEET NO.
IT-52

STA. 3076+75 SB SIDE
NEW SV-9 IN 3B-1

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (4))

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (6))

AQUA BUFFER
ROSE VIOLET BUFFER
BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER

CAP & COIL

LEGEND
- PROPOSED BUFFER CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- EXISTING FIBER PAIR CAP AND COIL
- PROPOSED SPLICE
- EXISTING SPLICE
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED FIBER
- EXISTING FIBER

NOTE:
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SOUTH ← I-95 → NORTH

STATUS DMS
STA. 3067+50
NB SIDE

S-DMS

MVDS & D-CCTV
STA. 3072+30
NB SIDE

DEVICE SERVER
R
DC

MVDS
STA. 3076+00
SB SIDE

DEVICE SERVER
R

T-DMS

TOLL DMS
STA. 3075+80
NB SIDE

18 RX TX RX TX 17

DMS CTLR

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (9)

SHEET NO.
IT-53

BY/PDDT: VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-4-52-01 CONTRACT E4R96

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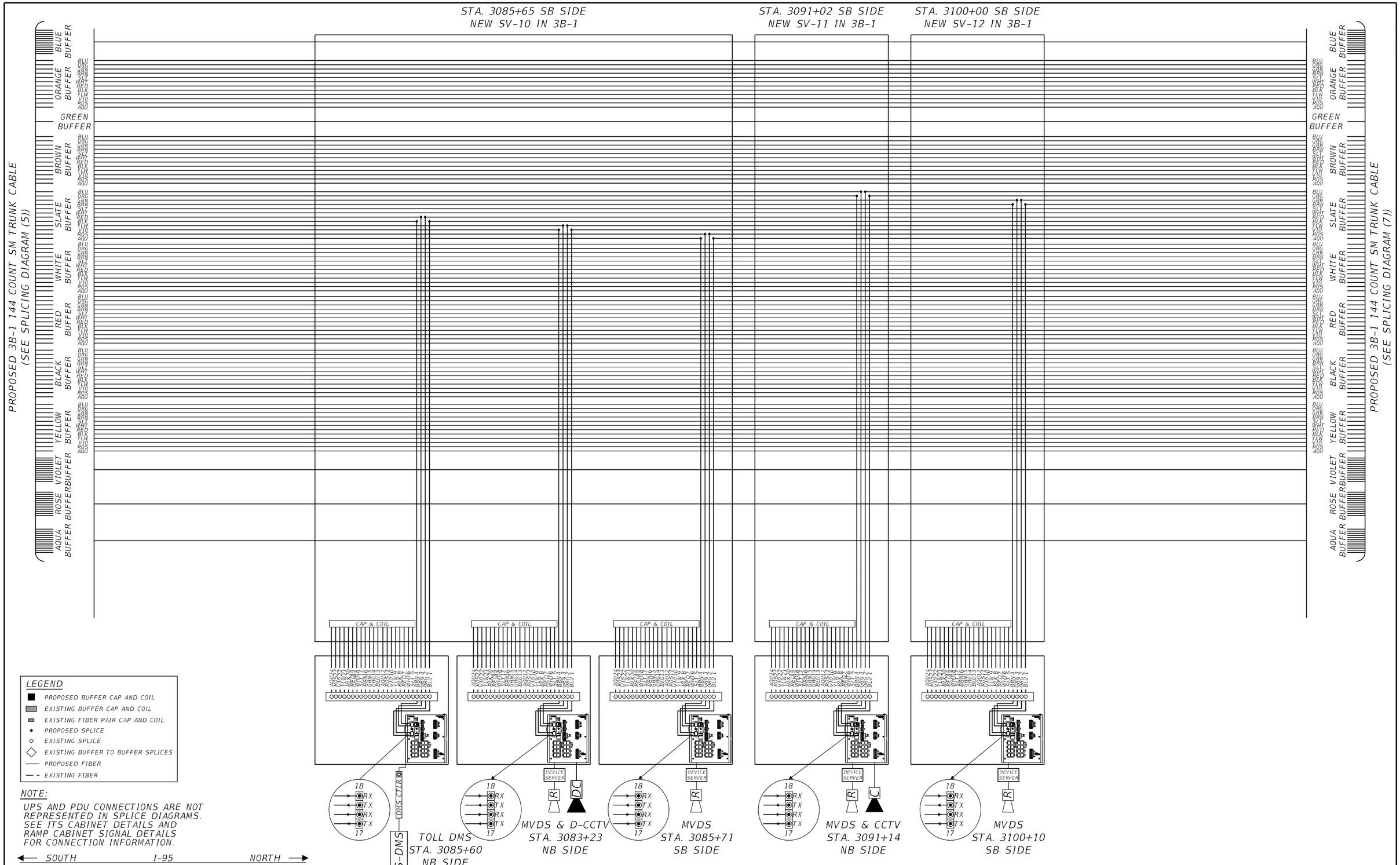

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
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STATE OF FLORIDA
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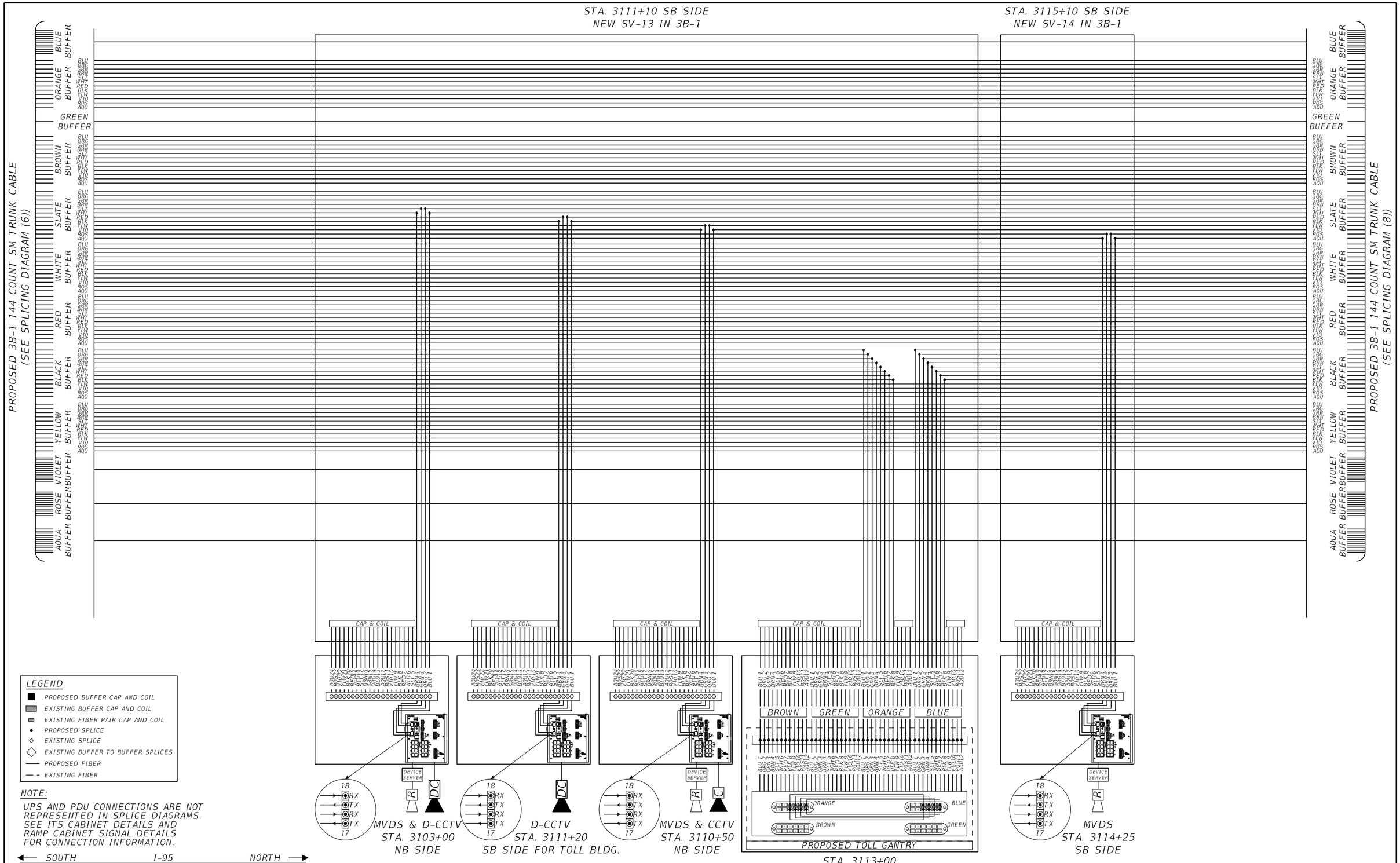
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (10)

SHEET NO.
IT-54



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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (11)

SHEET NO.
IT-55

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (7))

STA. 3121+46 NB SIDE
NEW SV-15 IN 3B-1

STA. 3122+77 NB SIDE
NEW SV-16 IN 3B-1

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (9))

AQUA ROSE VIOLET
BUFFER BUFFERBUFFER YELLOW BUFFER BLACK BUFFER RED BUFFER WHITE BUFFER SLATE BUFFER BROWN BUFFER GREEN BUFFER ORANGE BUFFER BLUE BUFFER

CAP & COIL

LEGEND
- PROPOSED BUFFER CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- EXISTING FIBER PAIR CAP AND COIL
- PROPOSED SPLICE
- EXISTING SPLICE
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED FIBER
- EXISTING FIBER

NOTE:
UPS AND PDU CONNECTIONS ARE NOT REPRESENTED IN SPLICE DIAGRAMS. SEE ITS CABINET DETAILS AND RAMP CABINET SIGNAL DETAILS FOR CONNECTION INFORMATION.

SOUTH ← I-95 → NORTH

MVDS & D-CCTV
STA. 3121+62
NB SIDE

GENERATOR
STA. 3121+47
SB SIDE

CCTV, D-CCTV & MVDS
STA. 3126+90
SB SIDE

FA-DMS
FRONT ACCESS DMS
STA. 3124+00
SB SIDE

FA-DMS
FRONT ACCESS DMS
STA. 3128+50
NB SIDE

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (12)

SHEET NO.
IT-56

BY:RDOI VS Date: 05/21/2019

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Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-52-01 CONTRACT E4R96

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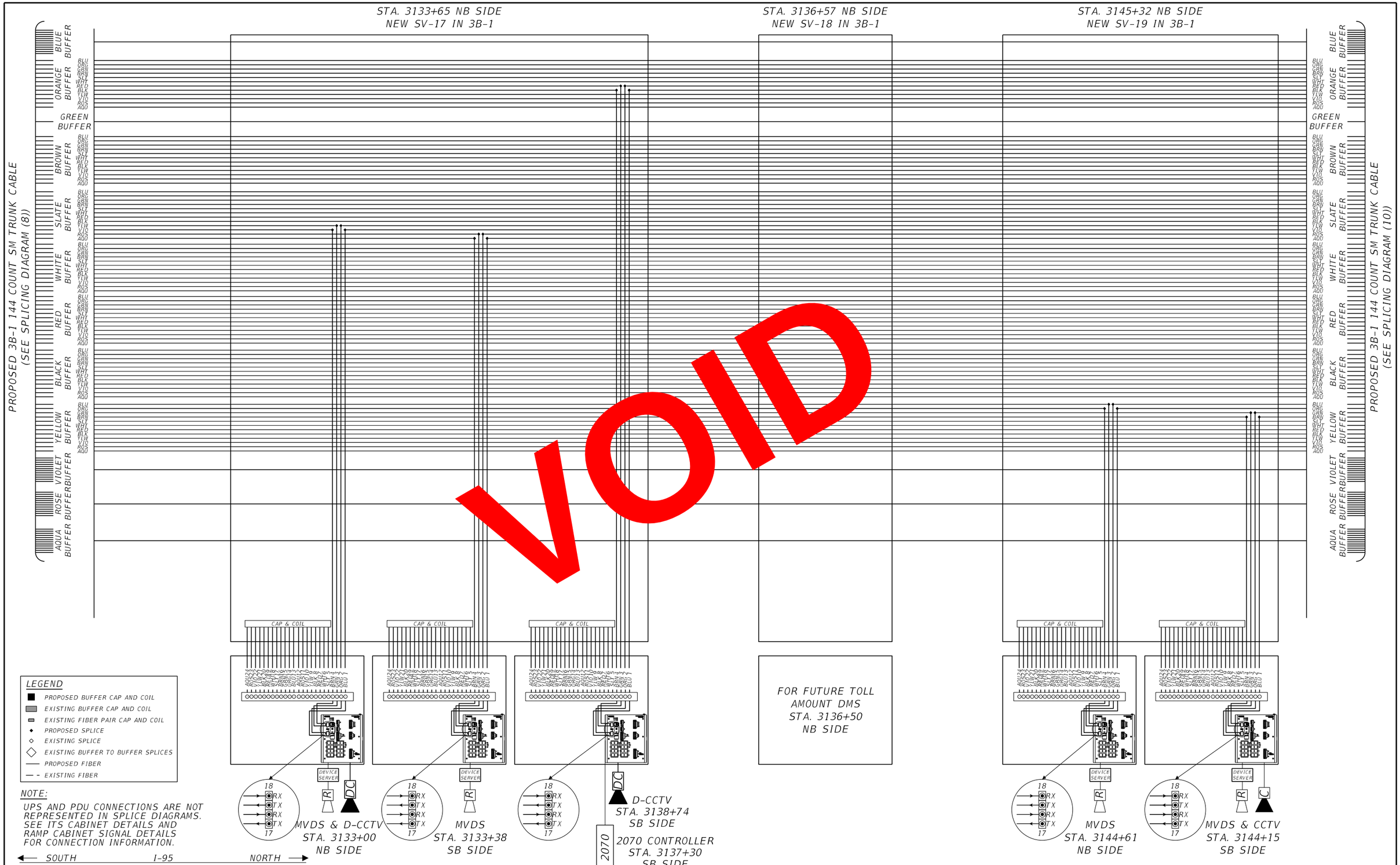

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (13)

SHEET NO.
IT-57

STA. 3133+65 NB SIDE
NEW SV-17 IN 3B-1

STA. 3136+57 NB SIDE
NEW SV-18 IN 3B-1

STA. 3145+32 NB SIDE
NEW SV-19 IN 3B-1

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (8))

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (10))

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

CAP & COIL

DEVICE SERVER

MVDS & D-CCTV
STA. 3133+00
NB SIDE

MVDS
STA. 3133+38
SB SIDE

D-CCTV
STA. 3138+74
SB SIDE

2070 CONTROLLER
STA. 3137+30
SB SIDE

FOR FUTURE TOLL
AMOUNT DMS
STA. 3136+50
NB SIDE

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

MATCHLINE SEE SHEET IT-61A

MVDS
STA. 3144+61
NB SIDE

MVDS & CCTV
STA. 3144+15
SB SIDE

LEGEND
- PROPOSED BUFFER CAP AND COIL
- EXISTING BUFFER CAP AND COIL
- EXISTING FIBER PAIR CAP AND COIL
- PROPOSED SPLICE
- EXISTING SPLICE
- EXISTING BUFFER TO BUFFER SPLICES
- PROPOSED FIBER
- EXISTING FIBER

NOTE:
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SOUTH ← I-95 → NORTH

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 REVISED FOR WRONG WAY DETECTION REVISION.		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (13)

SHEET NO.
IT-57

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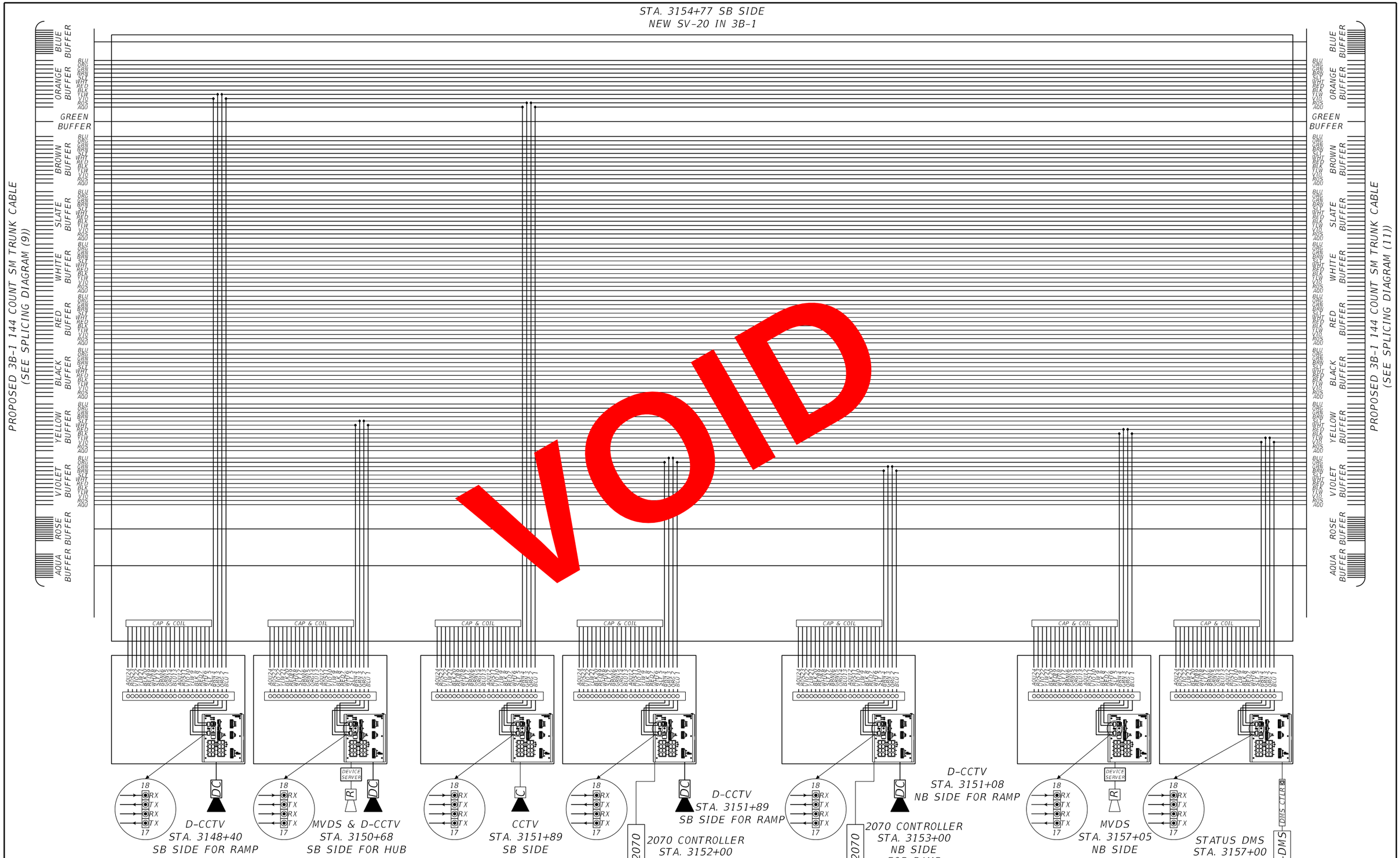
BY:(INIT) VS Date: 2/25/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions and coordination with other disciplines and trades rests with the fabrication and erection shall remain with the contractor.
PID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (14)

SHEET NO.
IT-58

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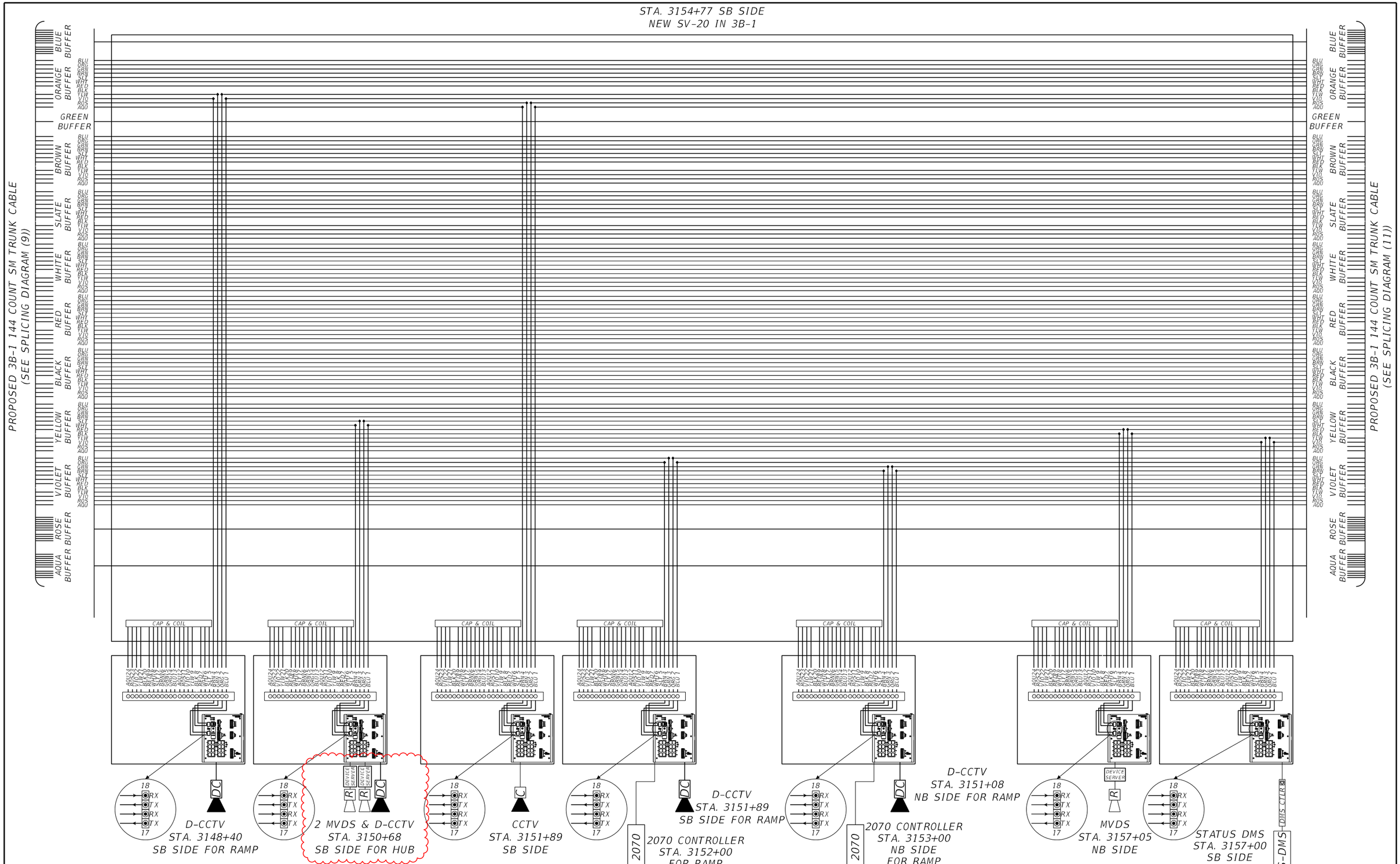
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 4/18/2019 5:38:51 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SPDTIT02.dgn



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

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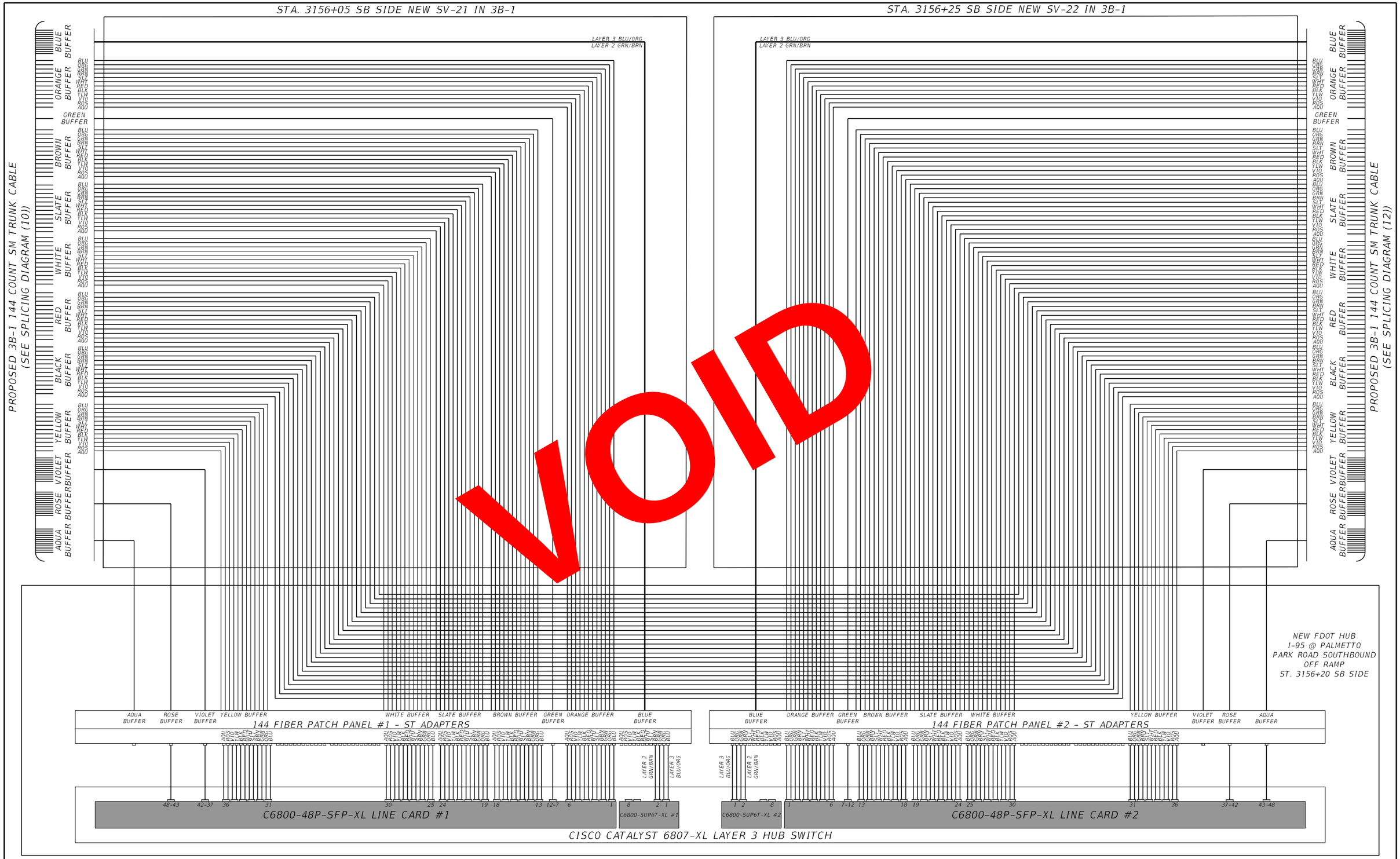
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (14)

SHEET NO.
IT-58



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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (15)

SHEET NO.
IT-59

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 4/18/2019 5:38:52 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SPDTIT02.dgn

STA. 3156+05 SB SIDE NEW SV-21 IN 3B-1

STA. 3156+25 SB SIDE NEW SV-22 IN 3B-1

MATCHLINE SEE SHEET IT-61A

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (10))

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (12))

LAYER 3 BLU/ORG
LAYER 2 GRN/BRN

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

144 FIBER PATCH PANEL #1 – ST ADAPTERS

144 FIBER PATCH PANEL #2 – ST ADAPTERS

C6800-48P-SFP-XL LINE CARD #1

C6800-SUP6T-XL #1

C6800-SUP6T-XL #2

C6800-48P-SFP-XL LINE CARD #2

CISCO CATALYST 6807-XL LAYER 3 HUB SWITCH

NEW FDOT HUB
I-95 @ PALMETTO
PARK ROAD SOUTHBOUND
OFF RAMP
ST. 3156+20 SB SIDE

VOID

BY:(FDOT) VS Date: 2/25/2021

RELEASED FOR CONSTRUCTION

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions and quantities shall remain with the fabrication and erection shall remain with the contractor.

FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT T5696

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	10 REVISED FOR WRONG WAY DETECTION REVISION.		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (15)

SHEET NO. IT-59

STA. 3156+05 SB SIDE NEW SV-21 IN 3B-1

STA. 3156+25 SB SIDE NEW SV-22 IN 3B-1

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

MATCHLINE SEE SHEET IT-61A

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE (SEE SPLICING DIAGRAM (10))

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE (SEE SPLICING DIAGRAM (12))

LAYER 3 BLU/ORG
LAYER 2 GRN/BRN

BLUE BUFFER
ORANGE BUFFER
GREEN BUFFER
BROWN BUFFER
SLATE BUFFER
WHITE BUFFER
RED BUFFER
BLACK BUFFER
YELLOW BUFFER
VIOLET BUFFER
ROSE BUFFER
AQUA BUFFER

144 FIBER PATCH PANEL #1 - ST ADAPTERS

144 FIBER PATCH PANEL #2 - ST ADAPTERS

C6800-48P-SFP-XL LINE CARD #1

C6800-48P-SFP-XL LINE CARD #2

C6800 SDRET-XL #1

C6800 SDRET-XL #2

CISCO CATALYST 6807-XL LAYER 3 HUB SWITCH

NEW FDOT HUB
I-95 @ PALMETTO
PARK ROAD SOUTHBOUND
OFF RAMP
ST. 3156+20 SB SIDE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	12 REVISED FOR WRONG WAY DETECTION REVISION.		
10/4/2021	ASBUILT		

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (15)

SHEET NO.
IT-59

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PROPOSED 3B-1 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (11))

STA. 3163+15 SB SIDE
NEW SV-23 IN 3B-1

STA. 3167+21 SB SIDE
NEW SV-24 IN 3B-1

STA. 3176+10 SB SIDE
NEW SV-25 IN 3B-1

BLUE BUFFER | ORANGE BUFFER | GREEN BUFFER | BROWN BUFFER | SLATE BUFFER | WHITE BUFFER | RED BUFFER | BLACK BUFFER | YELLOW BUFFER | VIOLET BUFFER | ROSE BUFFER | AQUA BUFFER

CAP & COIL

D-CCTV & MVDS
STA. 3163+02
SB SIDE

MVDS
STA. 3167+15
NB SIDE

CCTV
STA. 3167+00
SB SIDE

GENERATOR
STA. 3175+70
NB SIDE

TOLL DMS
STA. 3174+50
SB SIDE

D-CCTV & MVDS
STA. 3176+48
SB SIDE

D-CCTV
STA. 3176+10
NB SIDE
WALK-IN DMS
STA. 3179+00
NB SIDE

MVDS
STA. 3182+60
NB SIDE

PROPOSED 3B-1 144 COUNT SM TRUNK CABLE
(SEE SPLICING DIAGRAM (13))

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
BY/PDT: VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

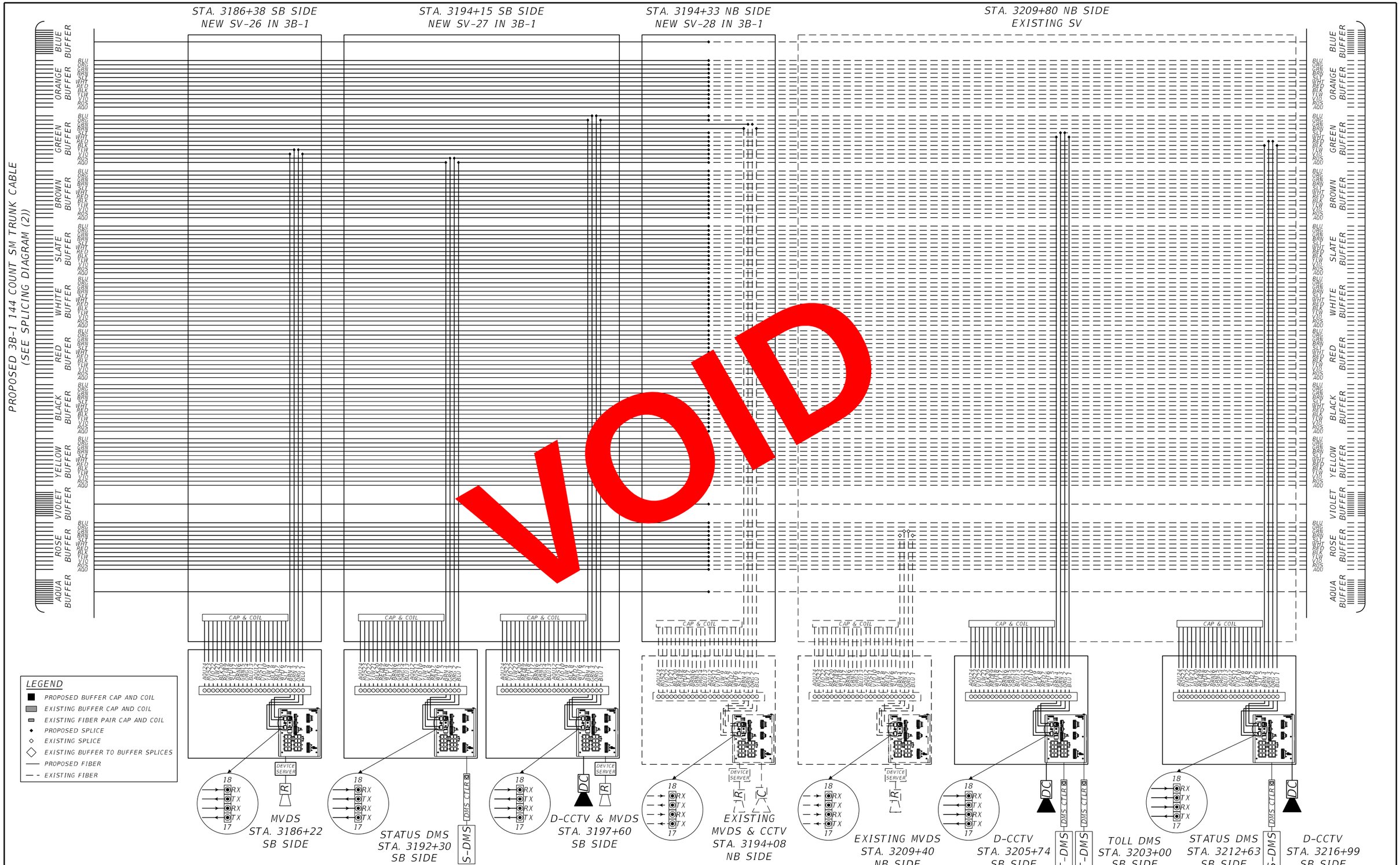
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (16)

SHEET NO.
IT-60



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (17)

SHEET NO.
IT-61

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:/FDOT: VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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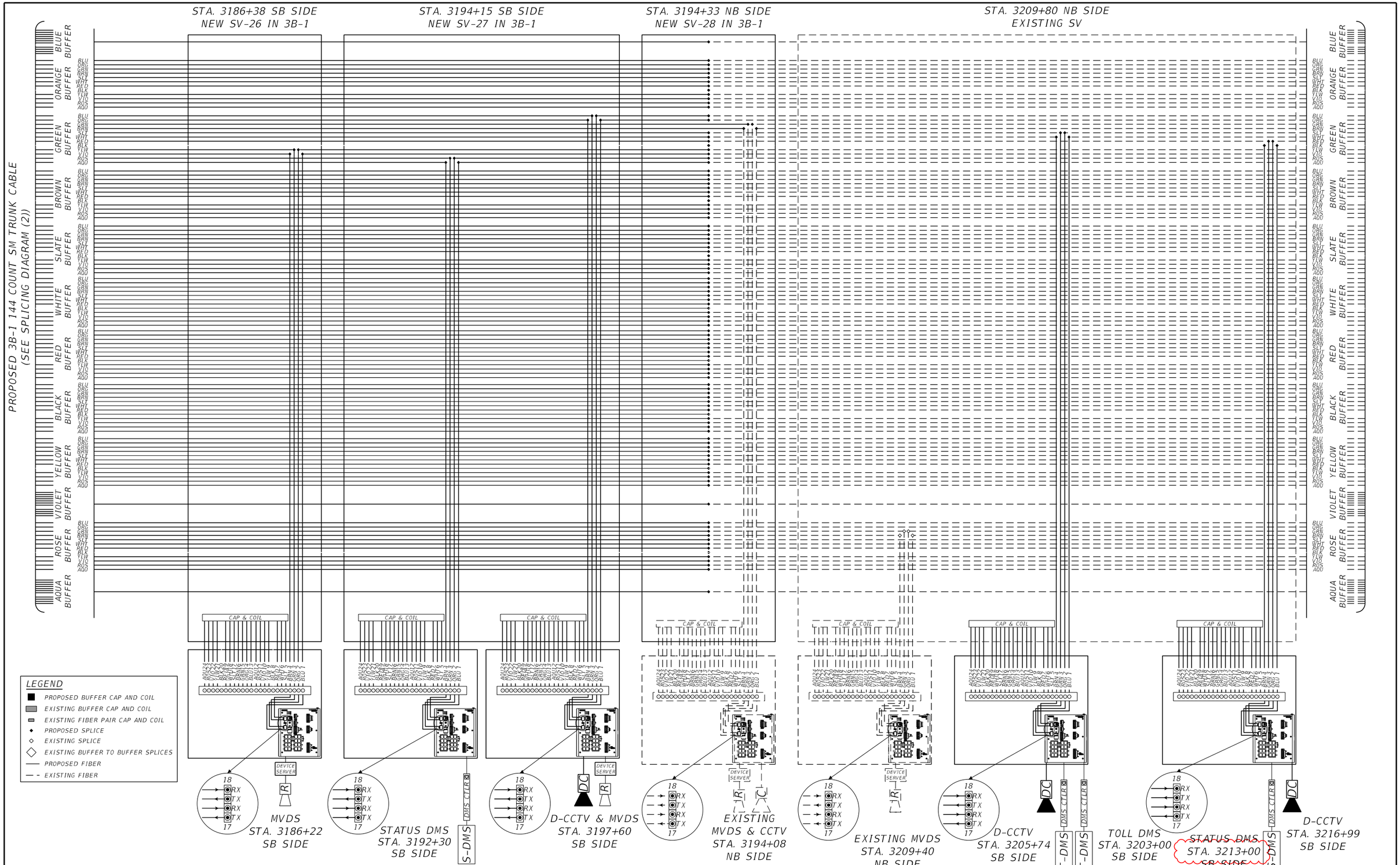


THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

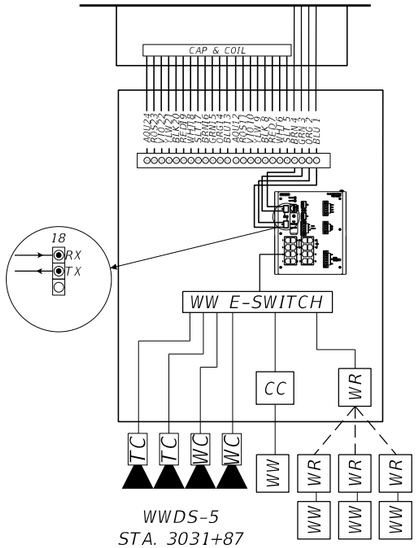
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (17)

SHEET NO.
IT-61

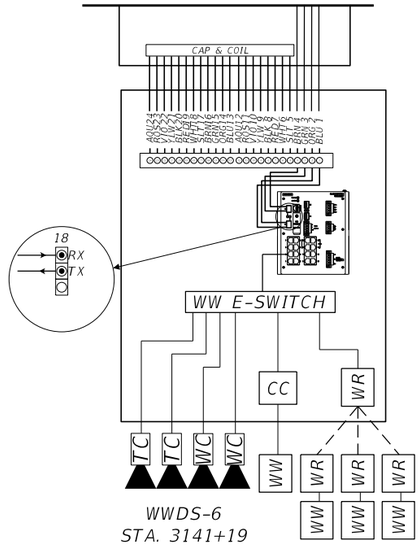
WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT 16

MATCHLINE SEE SHEET IT-51



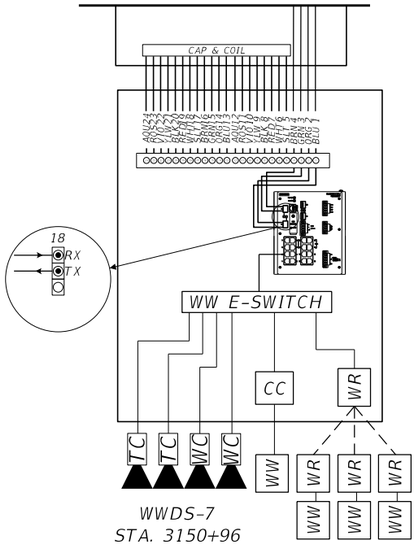
WWDS-5
STA. 3031+87
SB SIDE

MATCHLINE SEE SHEET IT-57



WWDS-6
STA. 3141+19
NB SIDE

MATCHLINE SEE SHEET IT-59



WWDS-7
STA. 3150+96
SB SIDE

WR : WIRELESS RADIO
WC : WRONG-WAY VERIFICATION CCTV
CC : CONTACT CLOSURE
TC : THERMAL DETECTION CCTV
— — : WIRELESS LINK
WW : WRONG-WAY HIGHLIGHTED LED

16

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

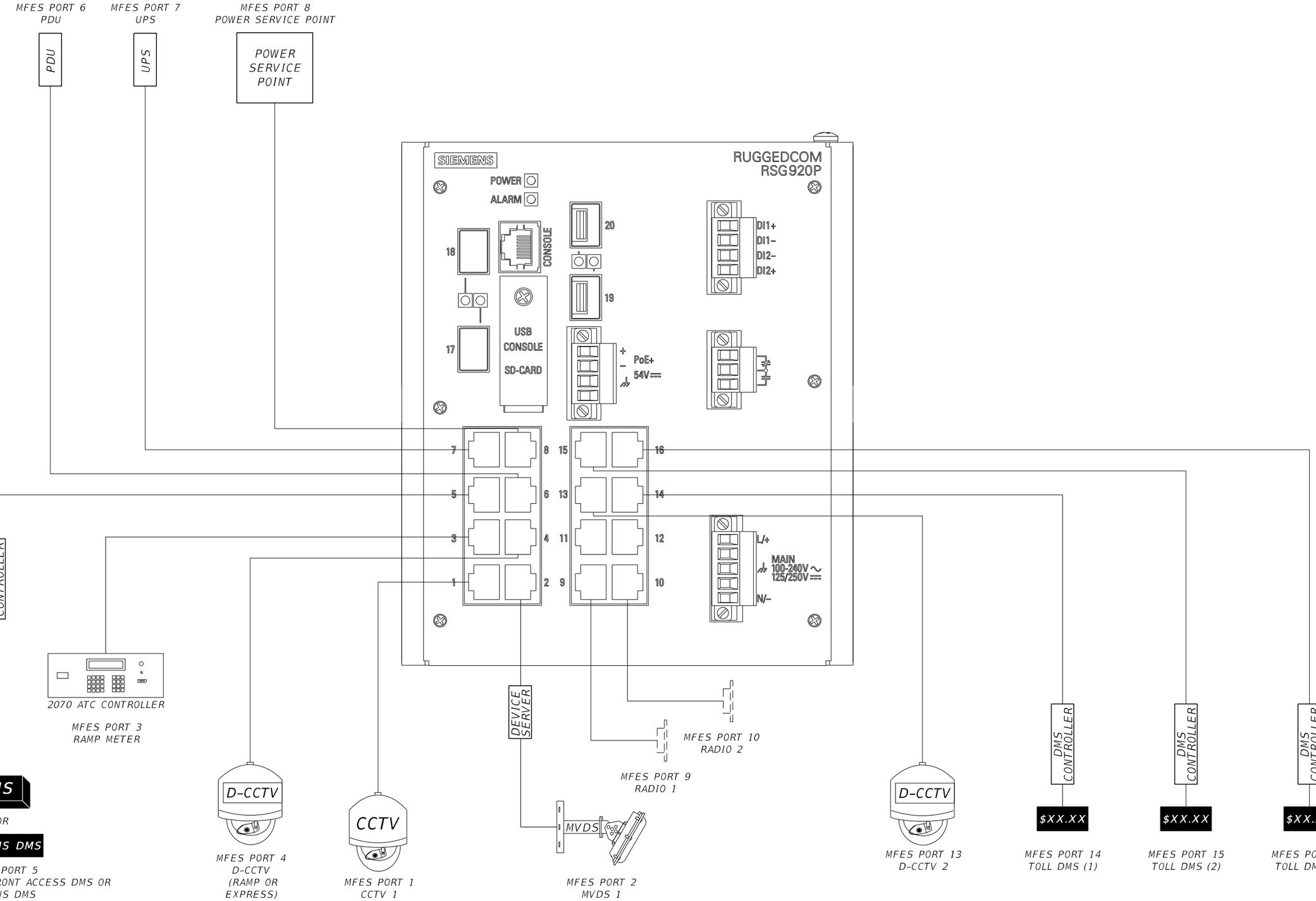
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SPLICING DIAGRAM (18)

SHEET NO.
IT-61A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, quantities and details remains with EOR of Record. Fabrication and erection shall remain with the contractor.
BY:(EOR) VS Date: 2/25/2021
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5496



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

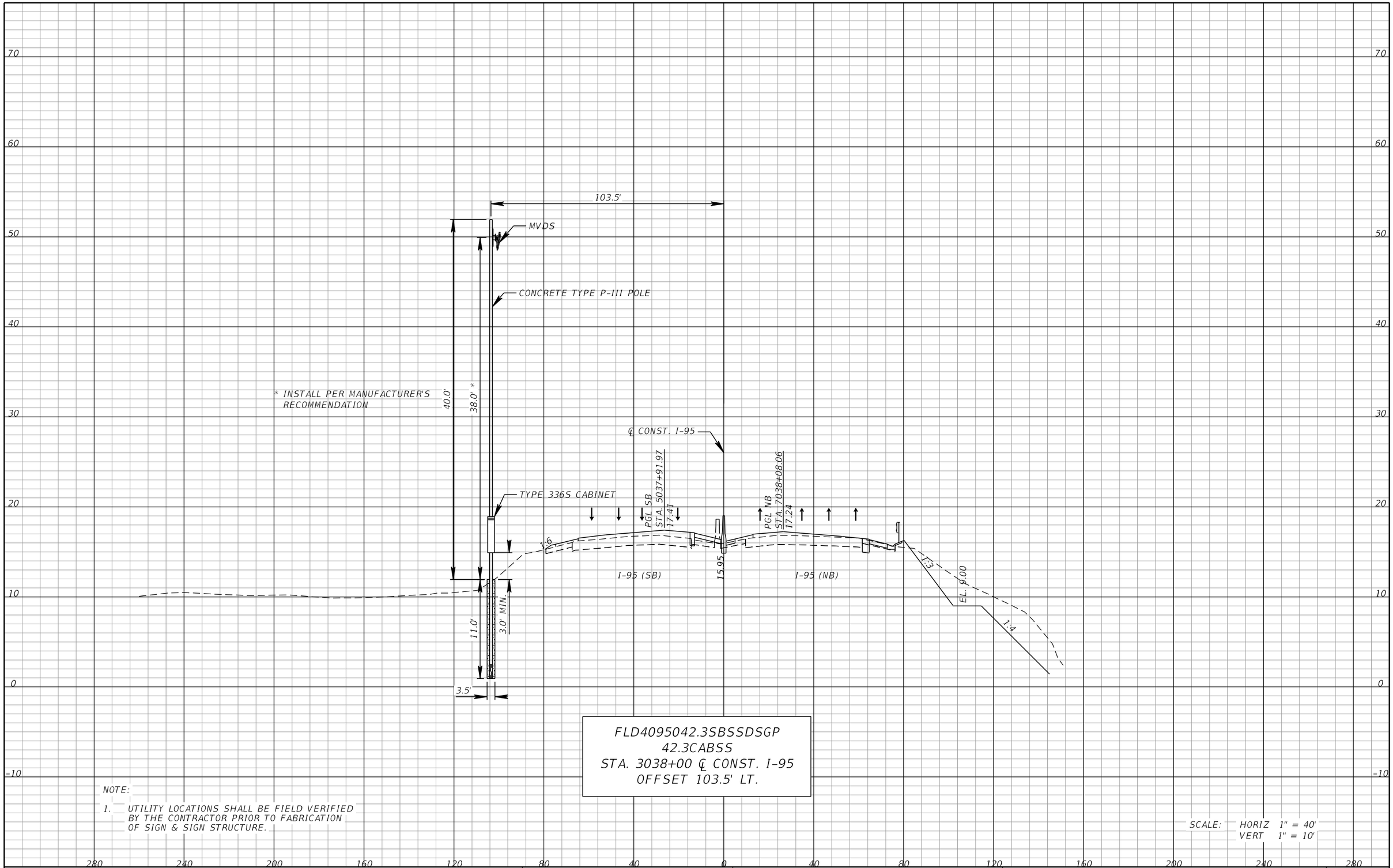
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

MFES PORT ALLOCATION DETAIL

SHEET NO. IT-62

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: RDOT VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C



FLD4095042.3SBSSDSGP
42.3CABSS
STA. 3038+00 ℄ CONST. I-95
OFFSET 103.5' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

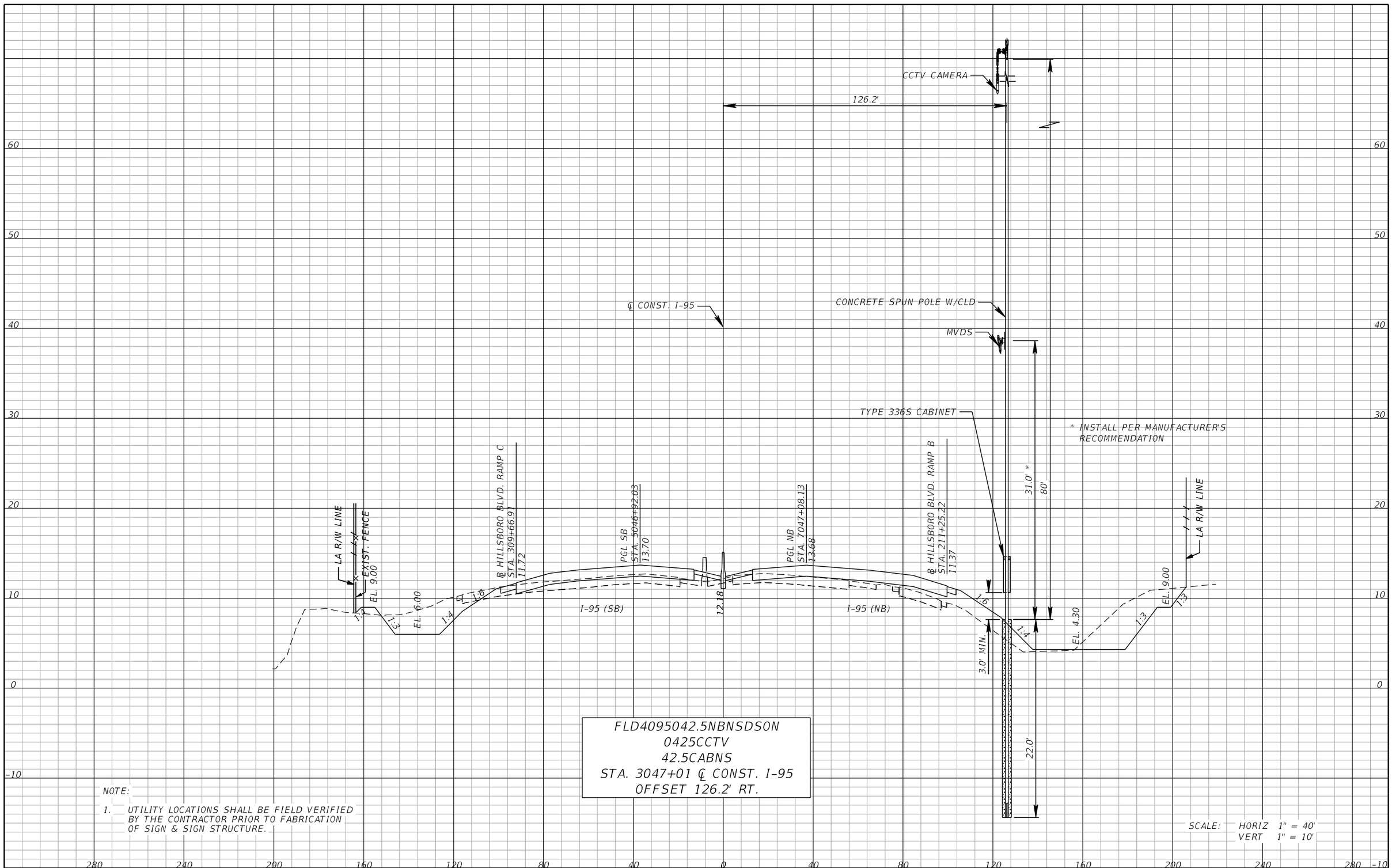
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (1)

SHEET NO.
IT-63

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331044-52-01 and 4331094-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:39:15 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



FLD4095042.5NBNSDSON
0425CCTV
42.5CABNS
STA. 3047+01 ℄ CONST. I-95
OFFSET 126.2' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

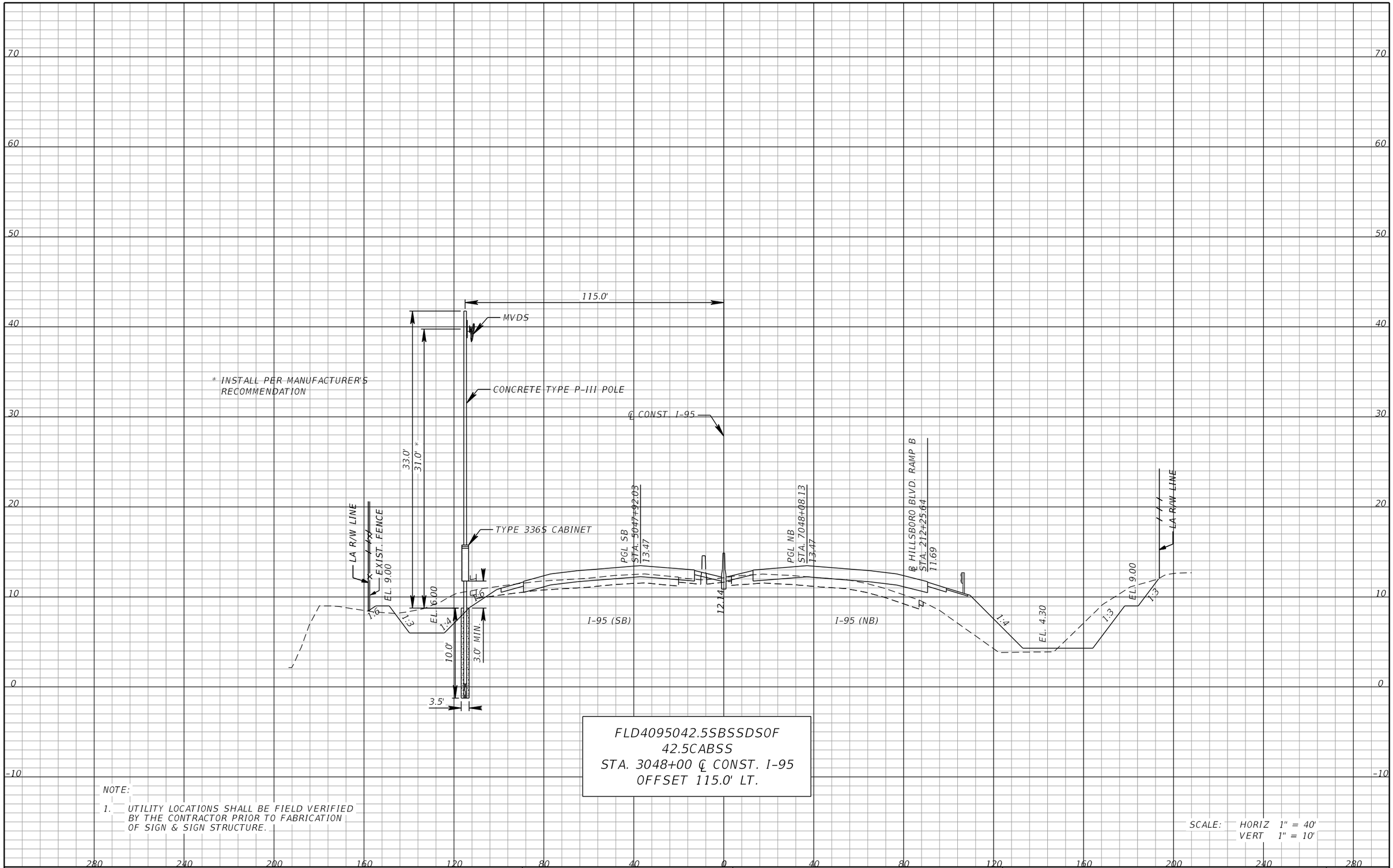
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (2)

SHEET NO.
IT-64



FLD4095042.5SBSSDS0F
42.5CABSS
STA. 3048+00 ℄ CONST. I-95
OFFSET 115.0' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (3)

SHEET NO.
IT-65

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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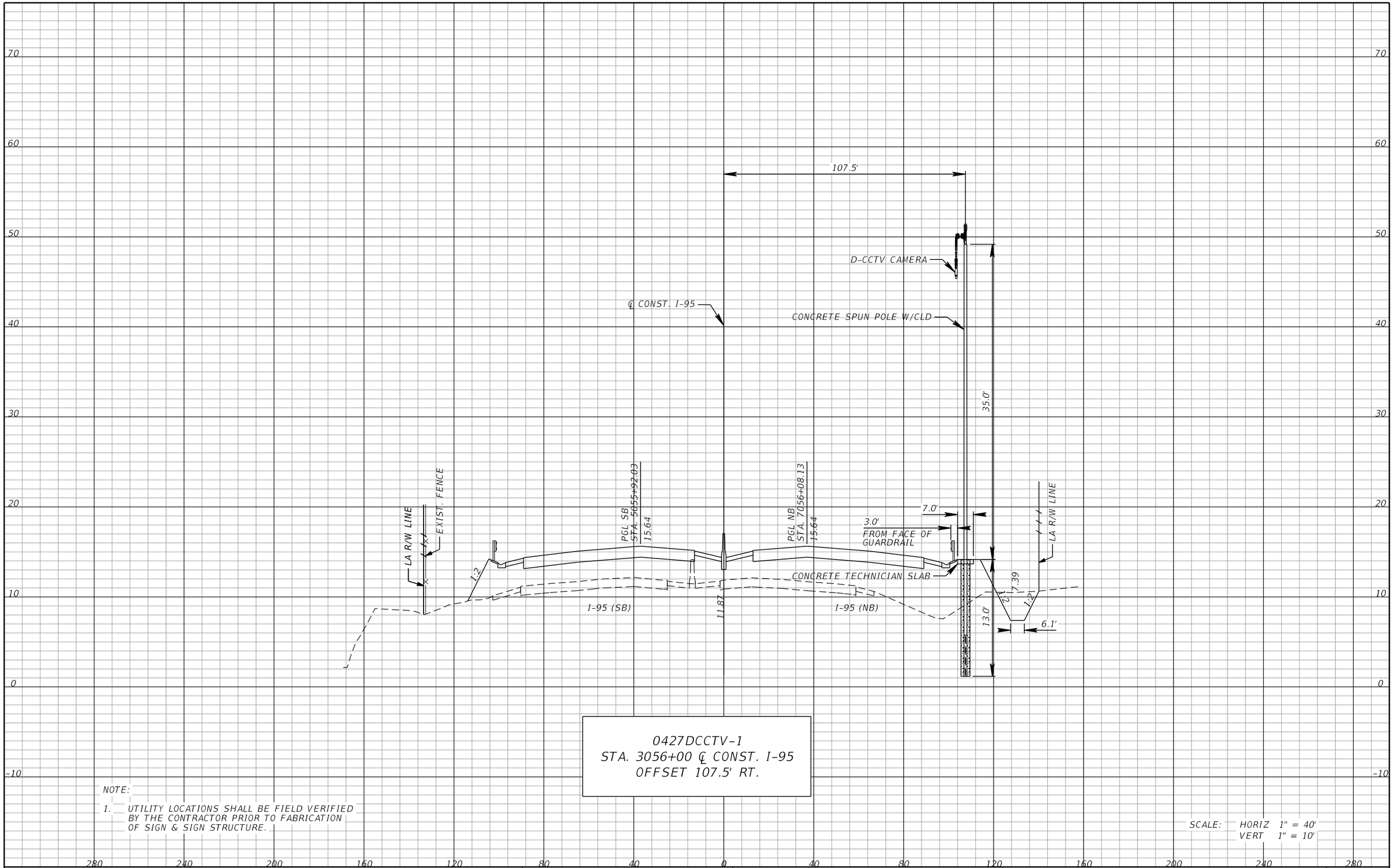


0427DCCTV-1
STA. 3056+00 ℄ CONST. I-95
OFFSET 107.5' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

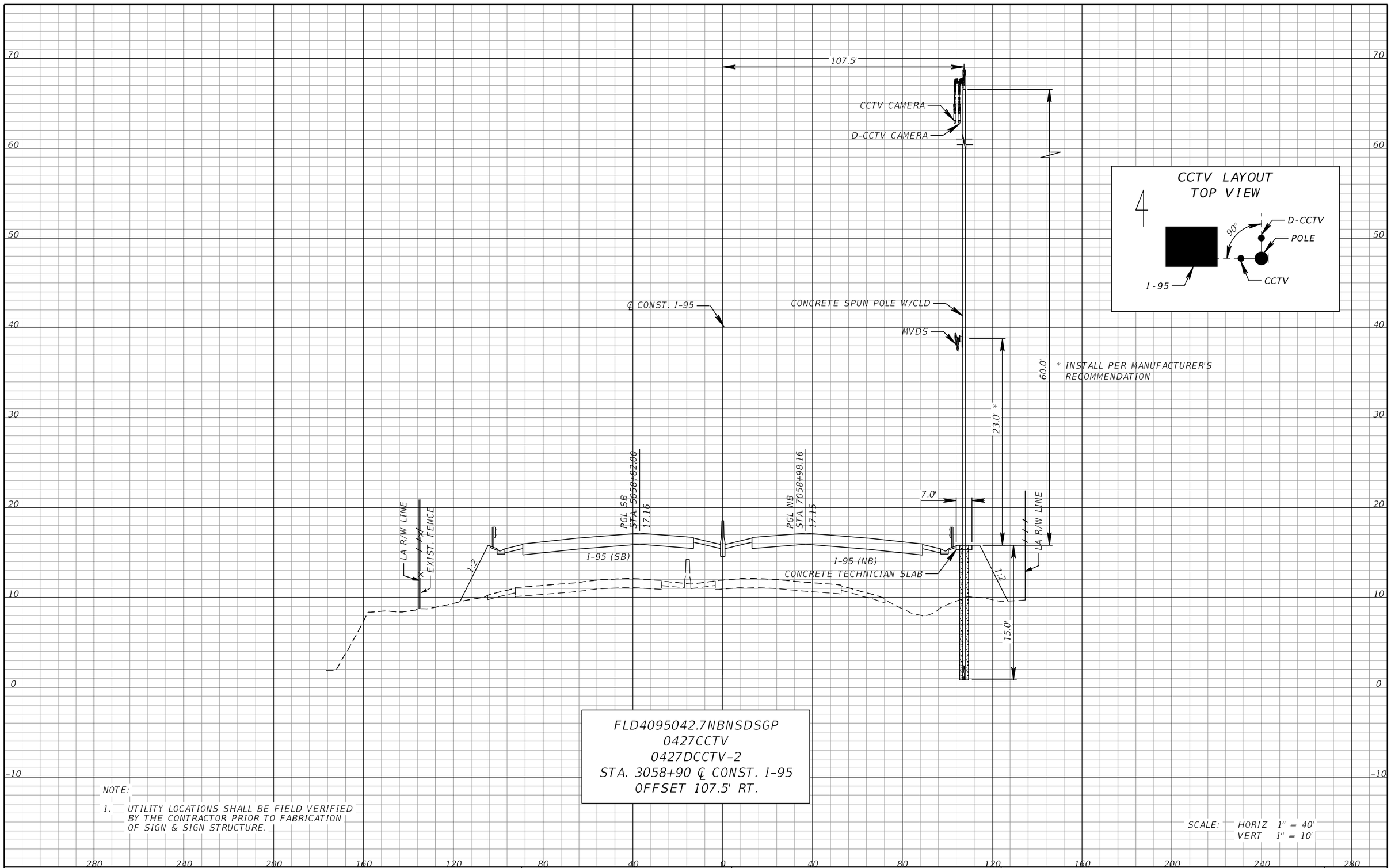
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (4)

SHEET NO.
IT-66

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



CCTV LAYOUT TOP VIEW

4

FLD4095042.7NBNSDSGP
0427CCTV
0427DCCTV-2
STA. 3058+90 ℄ CONST. I-95
OFFSET 107.5' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

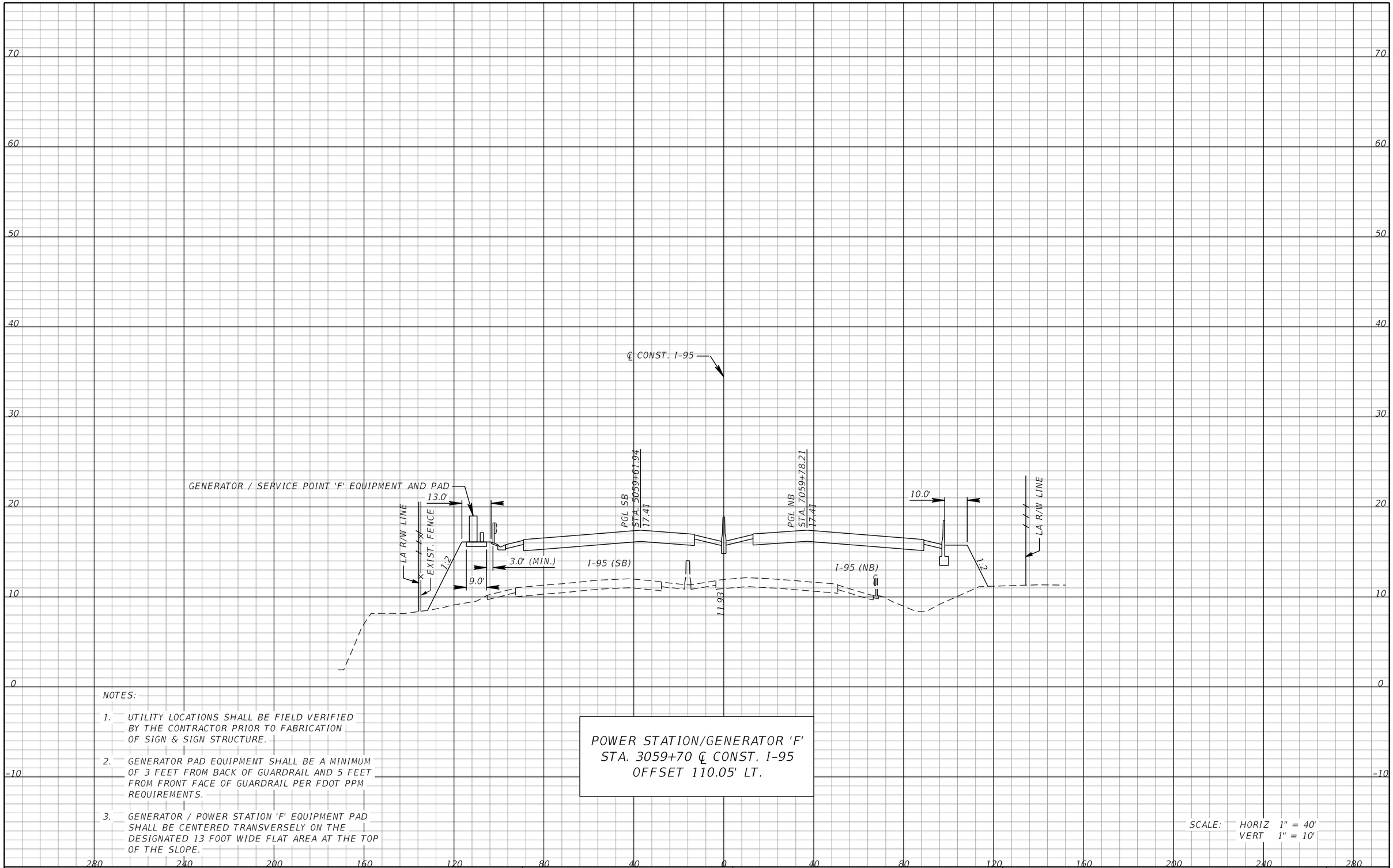
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (5)

SHEET NO.
IT-67

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:39:44 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



NOTES:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.
2. GENERATOR PAD EQUIPMENT SHALL BE A MINIMUM OF 3 FEET FROM BACK OF GUARDRAIL AND 5 FEET FROM FRONT FACE OF GUARDRAIL PER FDOT PPM REQUIREMENTS.
3. GENERATOR / POWER STATION 'F' EQUIPMENT PAD SHALL BE CENTERED TRANSVERSELY ON THE DESIGNATED 13 FOOT WIDE FLAT AREA AT THE TOP OF THE SLOPE.

POWER STATION/GENERATOR 'F'
STA. 3059+70 ℄ CONST. I-95
OFFSET 110.05' LT.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

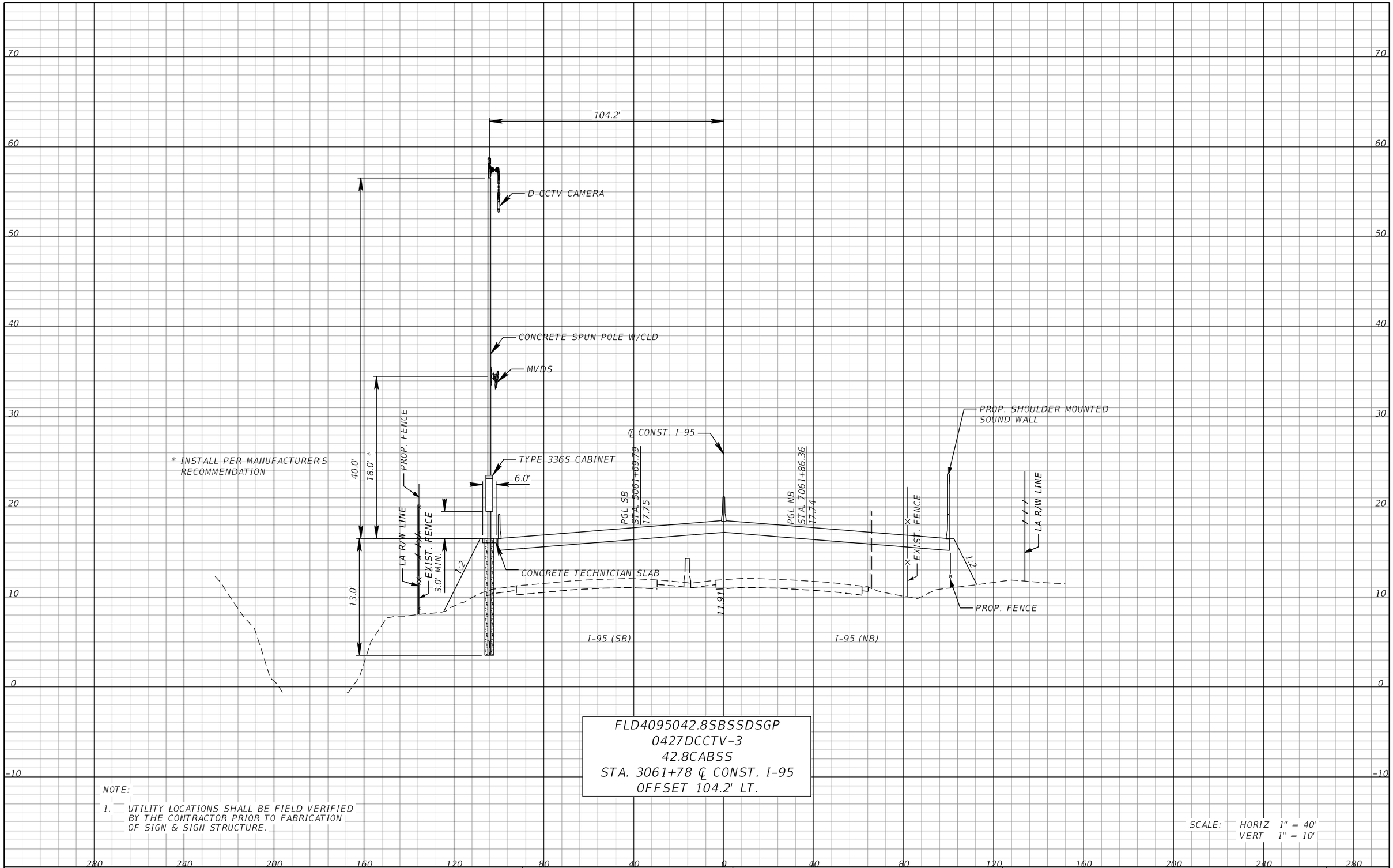
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (5A)

SHEET NO.
IT-67A



FLD4095042.8SBSSDSGP
0427DCCTV-3
42.8CABSS
STA. 3061+78 ℄ CONST. I-95
OFFSET 104.2' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

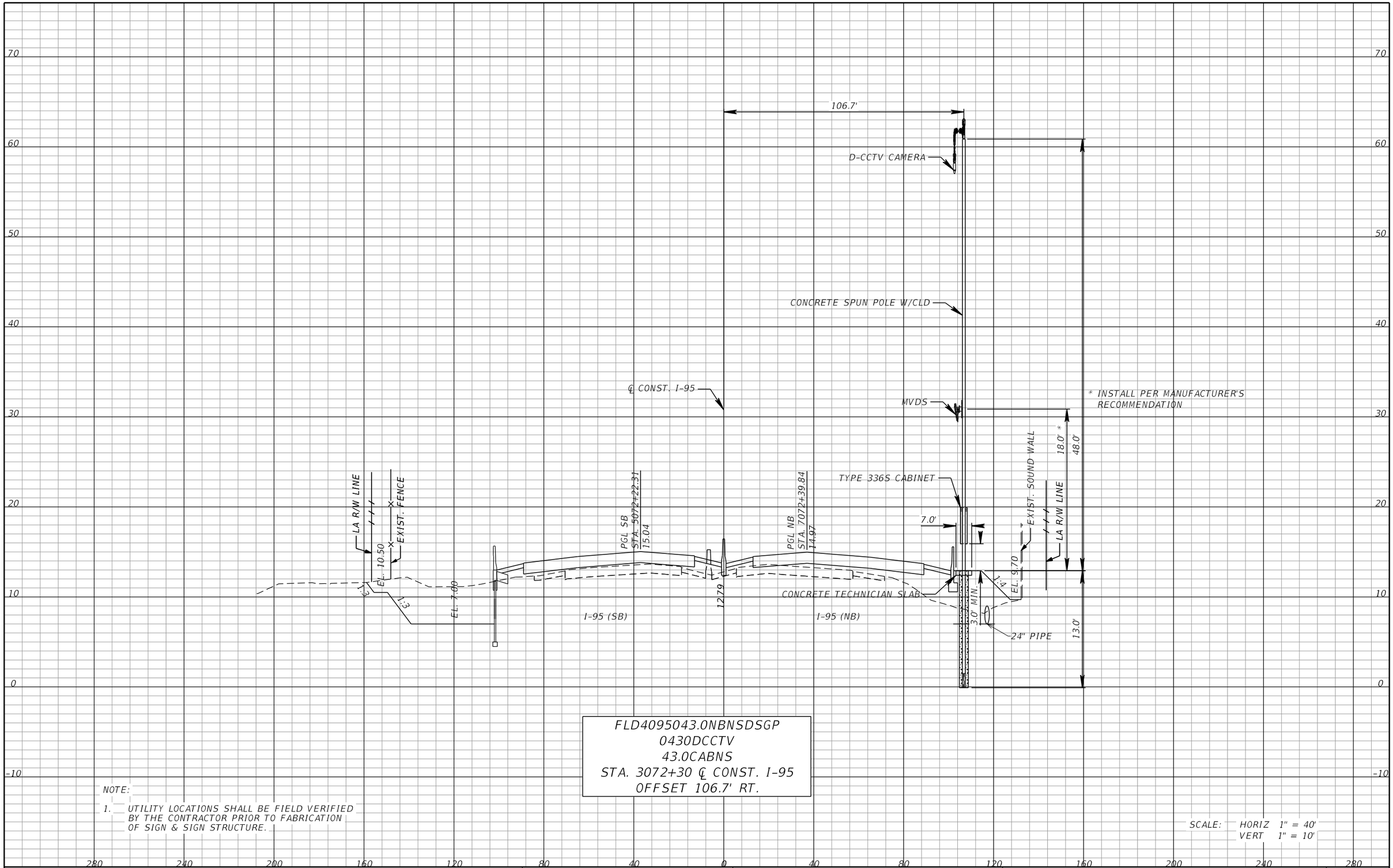
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (6)

SHEET NO.
IT-68

BY/PDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:39:58 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



FLD4095043.0NBNSDSGP
0430DCCTV
43.0CABNS
STA. 3072+30 ℄ CONST. I-95
OFFSET 106.7' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

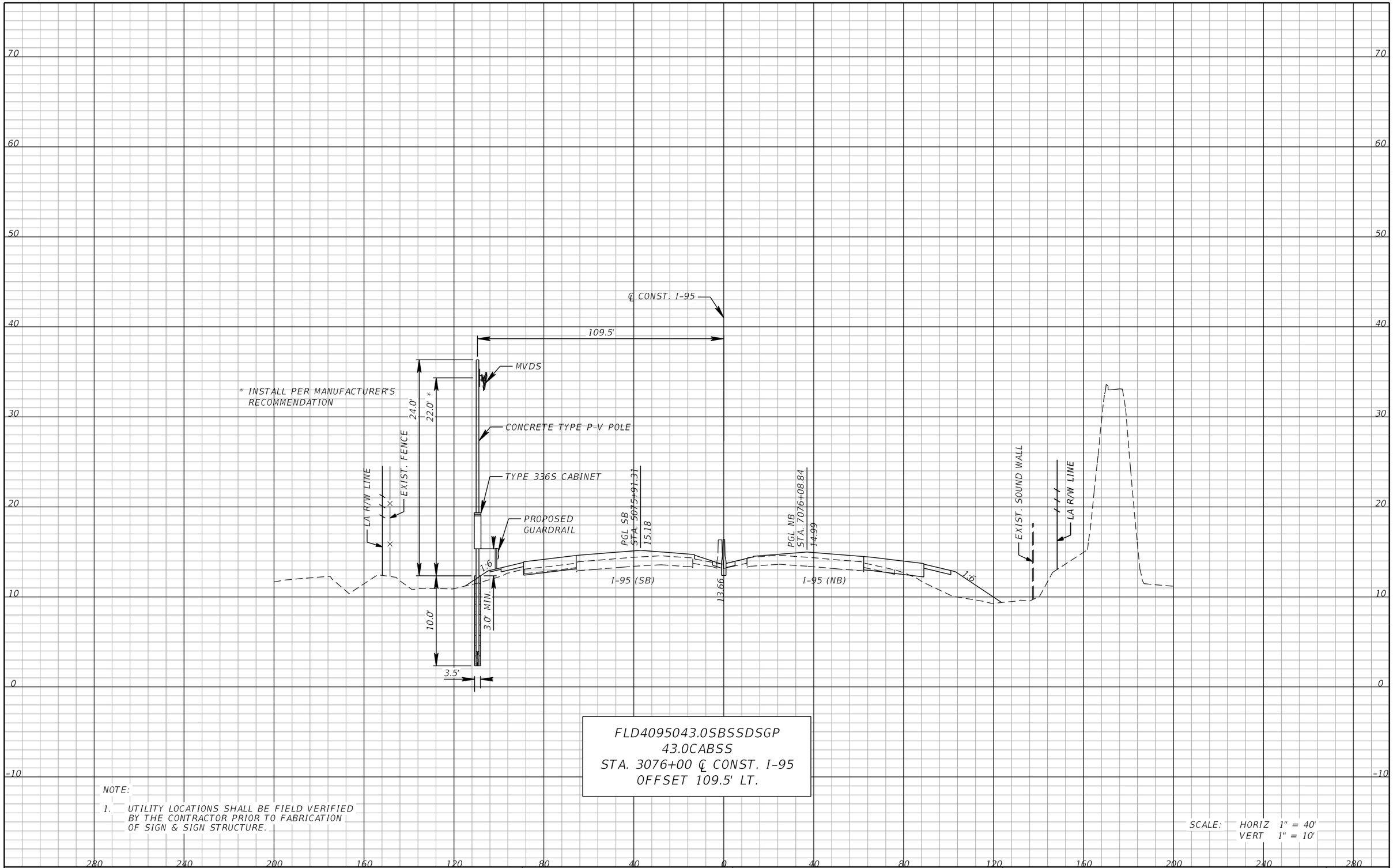
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (7)

SHEET NO.
IT-69

RELEASED FOR CONSTRUCTION
BY/PDDT: VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



FLD4095043.0SBSSDSGP
43.0CABSS
STA. 3076+00 ℄ CONST. I-95
OFFSET 109.5' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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(813) 520-4444
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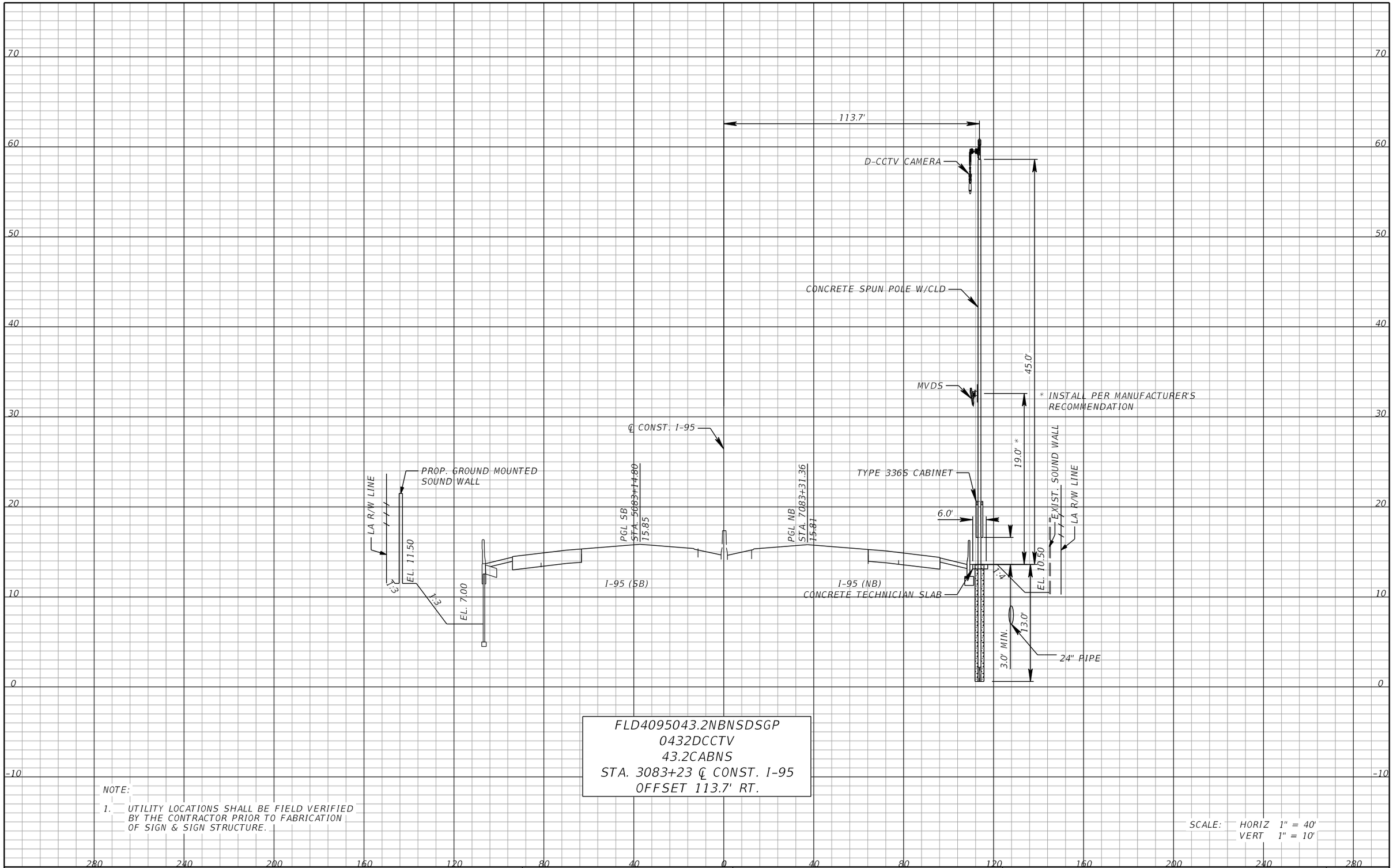
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (8)

SHEET NO.
IT-70

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

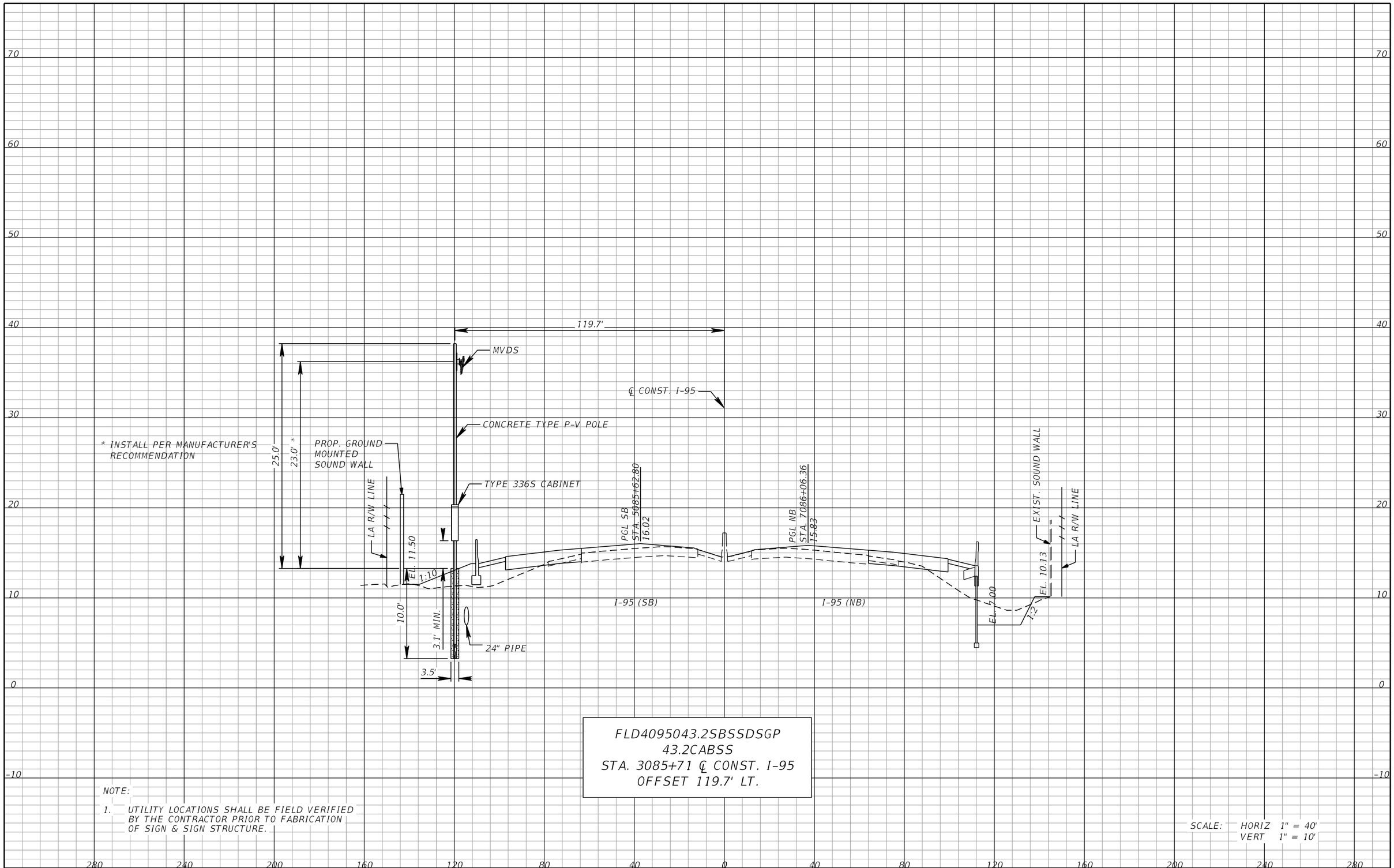
ITS CROSS SECTION (9)

SHEET NO. IT-71

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:40:20 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

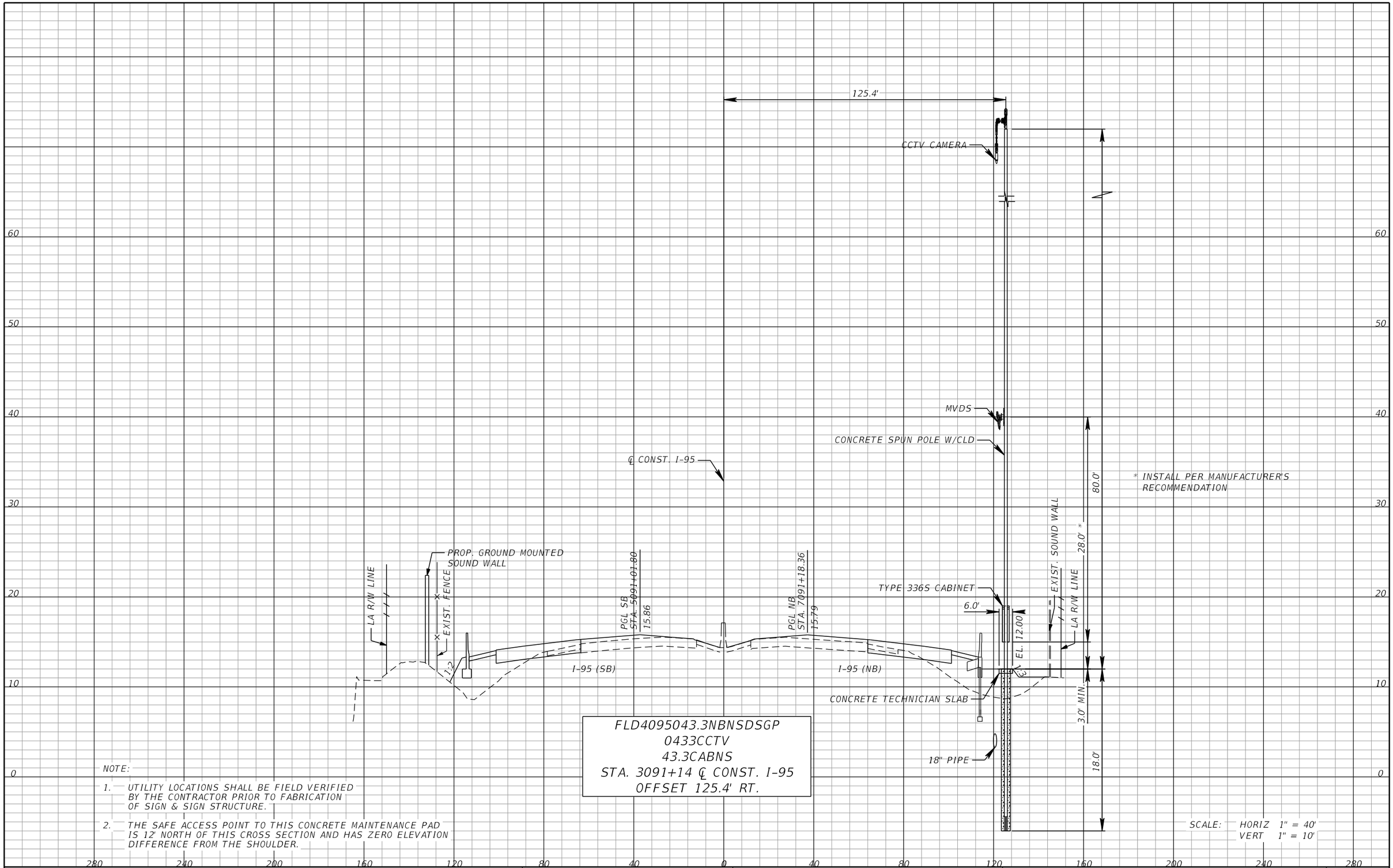
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (10)

SHEET NO.
IT-72

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



FLD4095043.3NBNSDSGP
0433CCTV
43.3CABNS
STA. 3091+14 ℄ CONST. I-95
OFFSET 125.4' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.
2. THE SAFE ACCESS POINT TO THIS CONCRETE MAINTENANCE PAD IS 12' NORTH OF THIS CROSS SECTION AND HAS ZERO ELEVATION DIFFERENCE FROM THE SHOULDER.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (11)

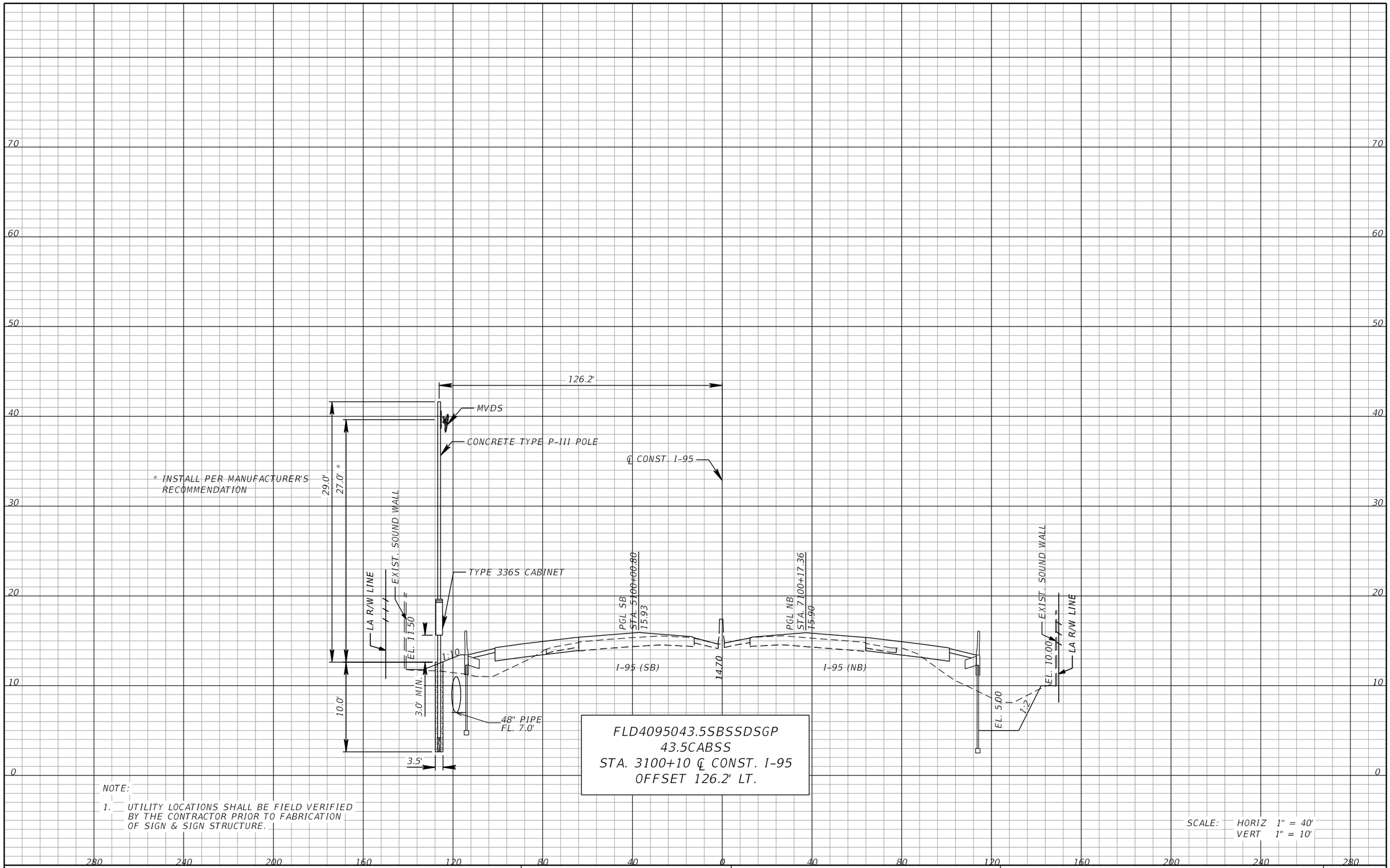
SHEET NO.
IT-73

BY:RDOT VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:40:34 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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EOR: Derrick A. Lue, P.E. No. 44730

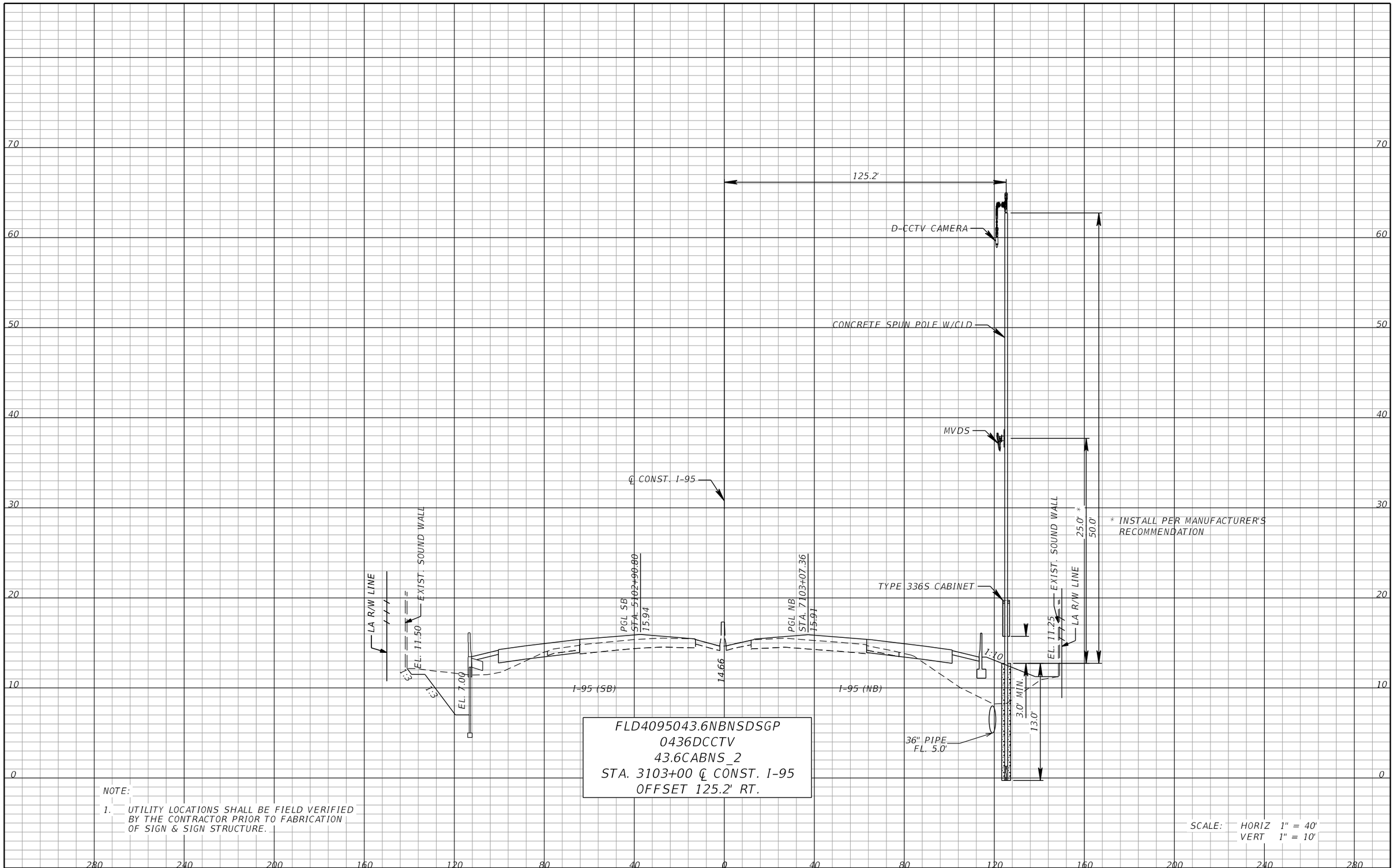
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (12)

SHEET NO.
IT-74

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4B96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



FLD4095043.6NBNSDSGP
0436DCCTV
43.6CABNS_2
STA. 3103+00 ℄ CONST. I-95
OFFSET 125.2' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

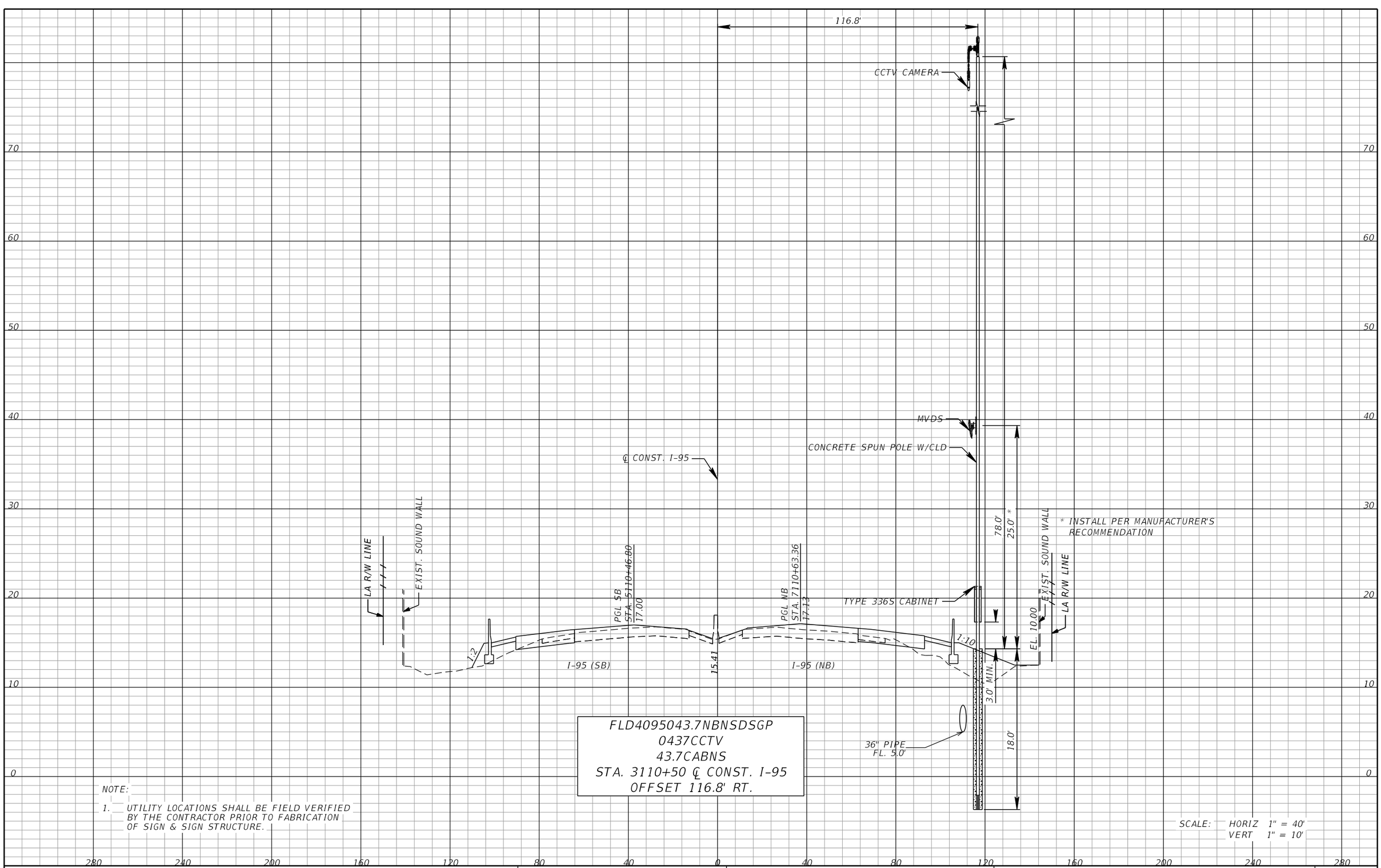
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (13)

SHEET NO.
IT-75

RELEASED FOR CONSTRUCTION
BY/PDDT: VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-52-01 CONTRACT E4096

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



FLD4095043.7NBNSDSGP
0437CCTV
43.7CABNS
STA. 3110+50 ℄ CONST. I-95
OFFSET 116.8' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

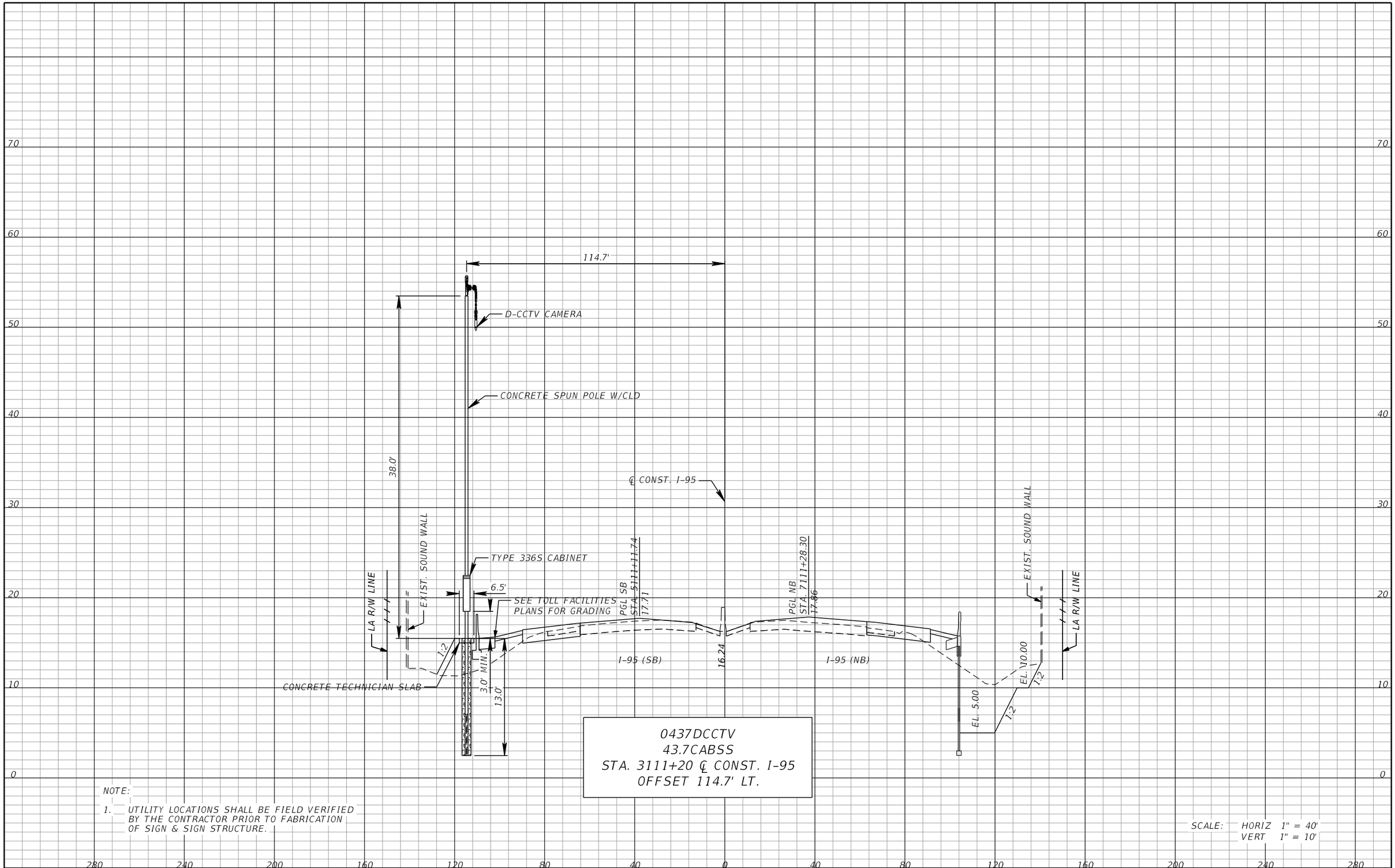
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (14)

SHEET NO.
IT-76

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY/PDOT: VS Date: 05/21/2019
FPID 4331084-53-01 and 4331094-53-01 CONTRACT E4096



0437DCCTV
43.7CABSS
STA. 3111+20 ℄ CONST. I-95
OFFSET 114.7' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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EOR: Derrick A. Lue, P.E. No. 44730

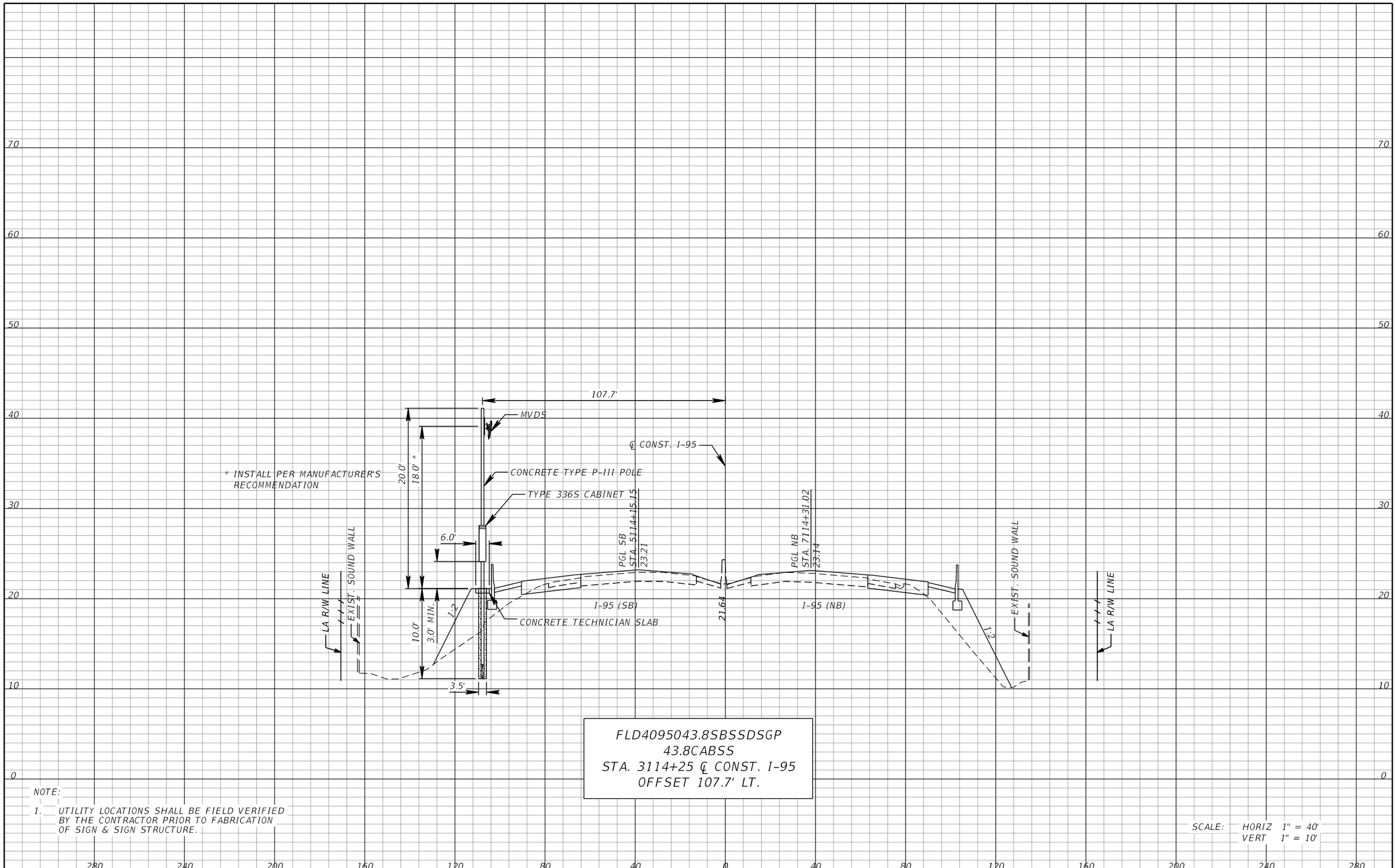
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (15)

SHEET NO.
IT-77

BY: RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



FLD4095043.8SBSSDSGP
43.8CABSS
STA. 3114+25 ℄ CONST. I-95
OFFSET 107.7' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

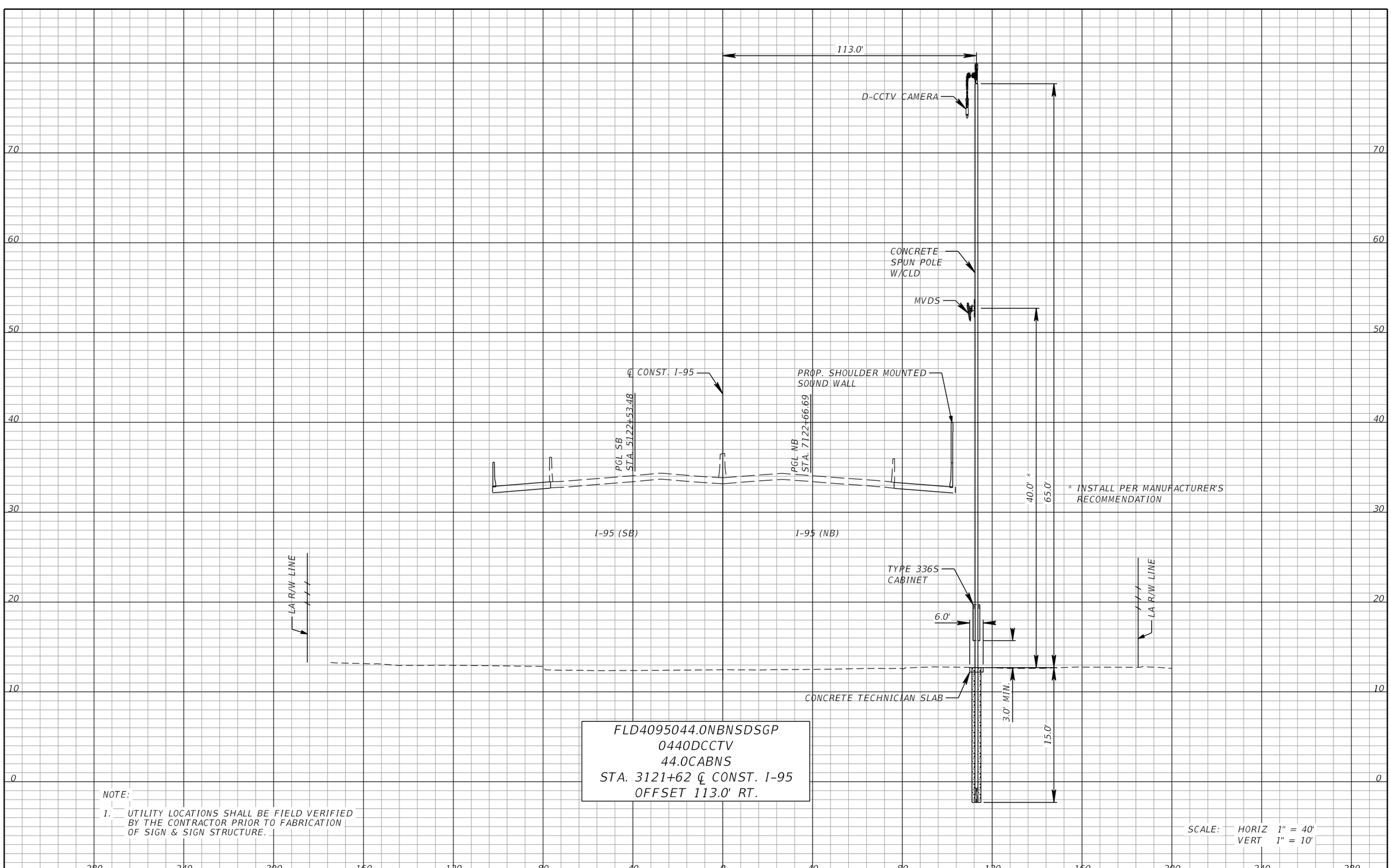
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (16)

SHEET NO.
IT-78

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY/FOOT: VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

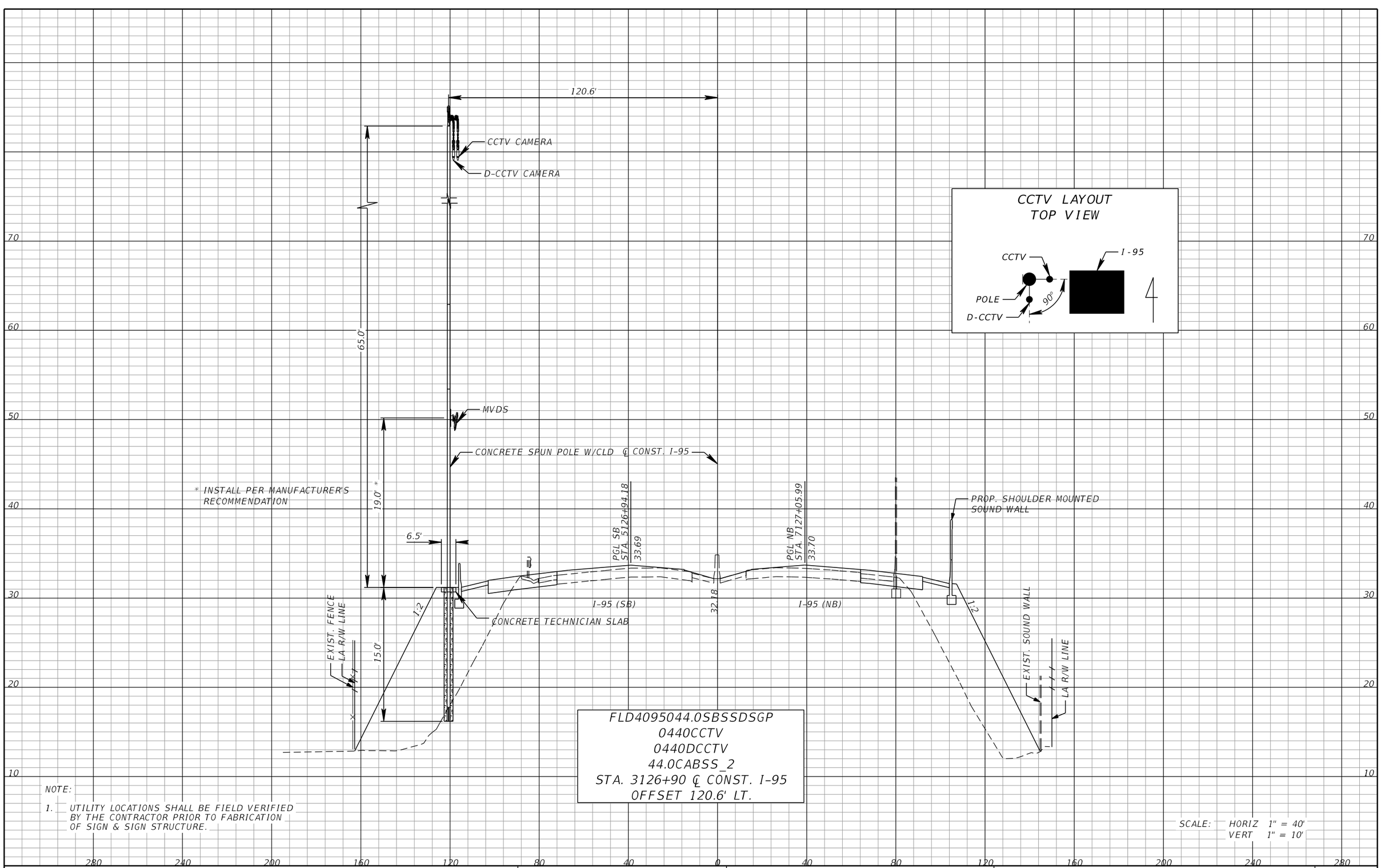
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (17)

SHEET NO. IT-79



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

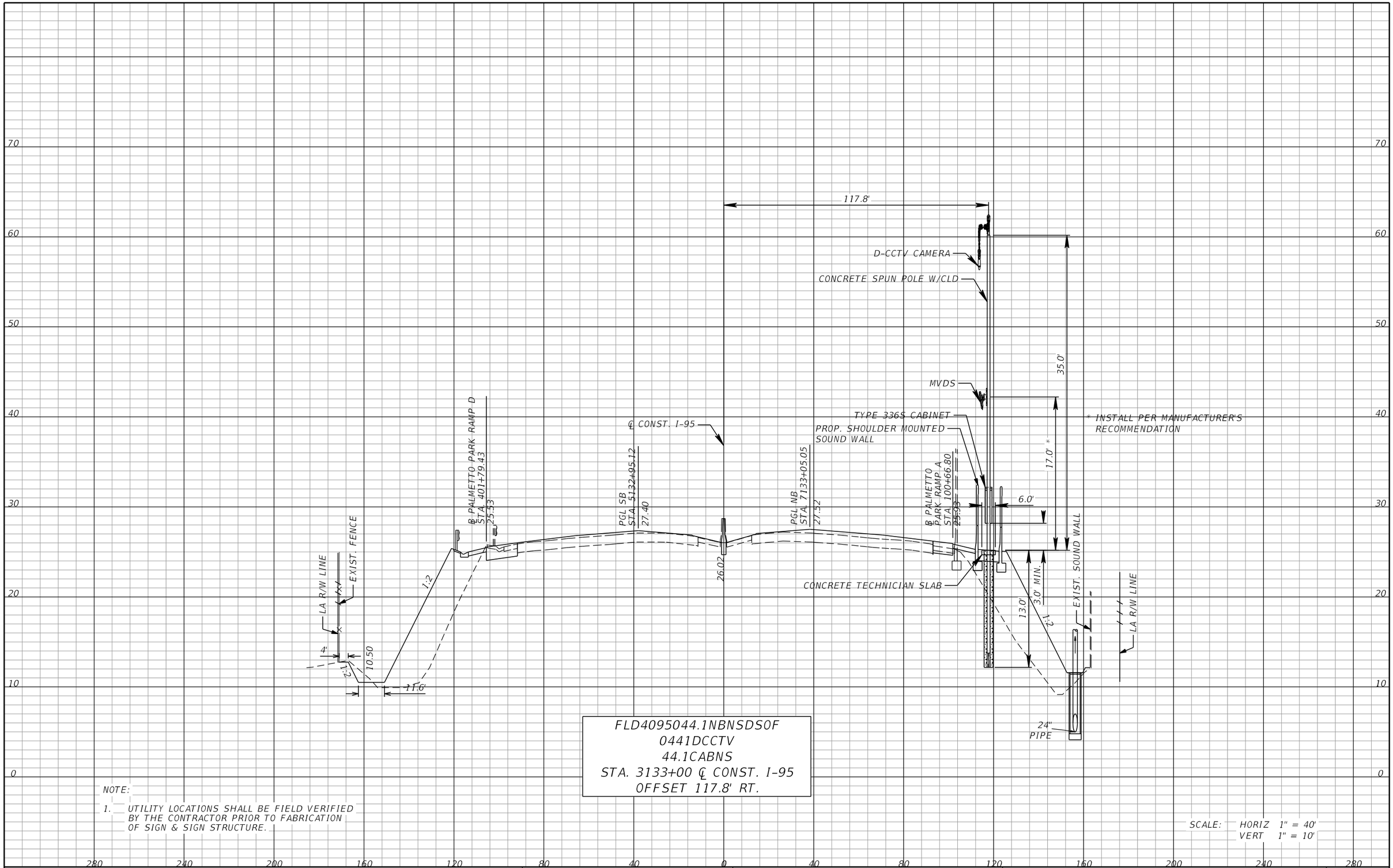
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (18)

SHEET NO.
IT-80

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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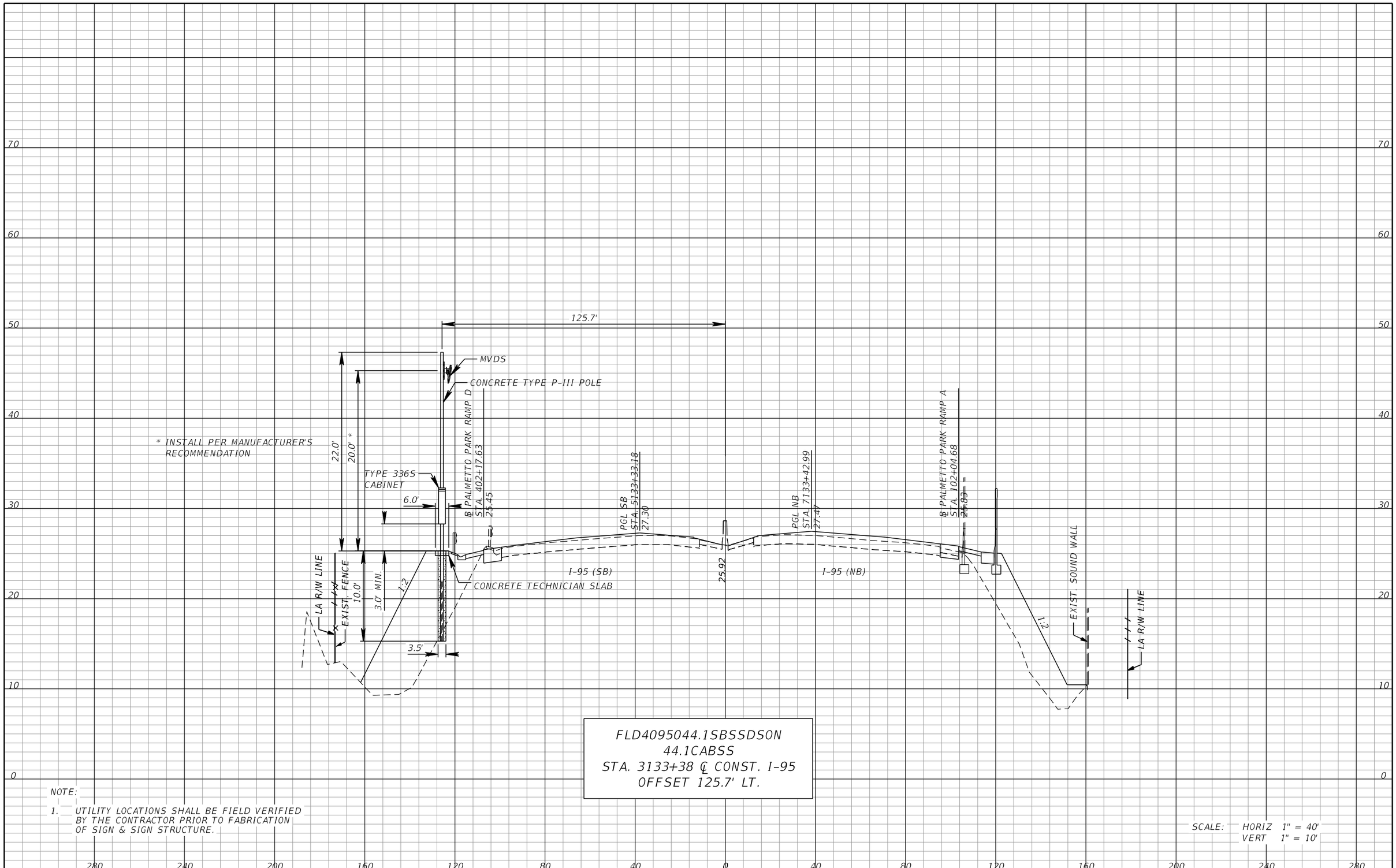
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (19)

SHEET NO.
IT-81



FLD4095044.1SBSSDSON
44.1CABSS
STA. 3133+38 ℄ CONST. I-95
OFFSET 125.7' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

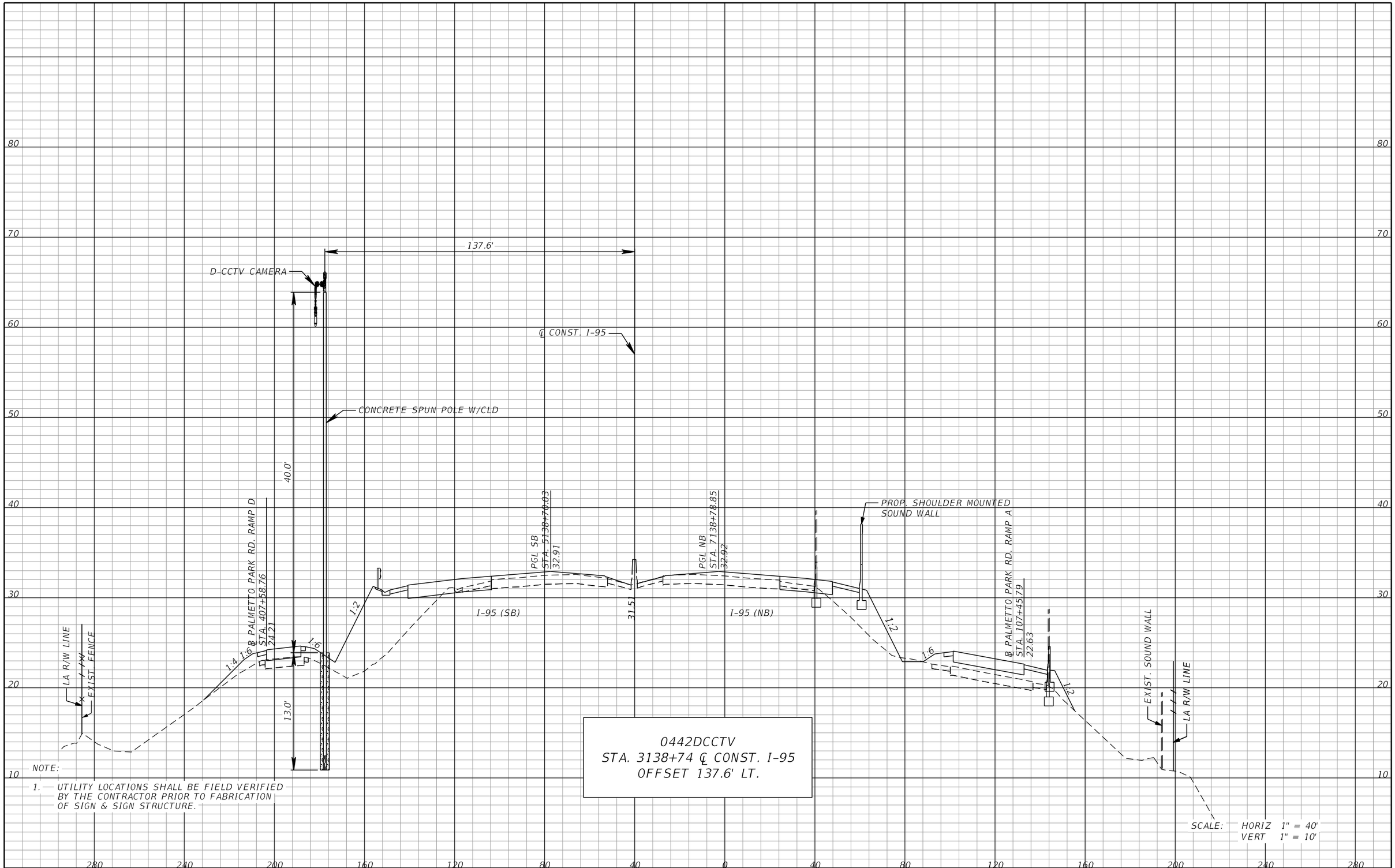
ITS CROSS SECTION (20)

SHEET NO.
IT-82

BY:RDOT VS Date: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331044-52-01 and 4331094-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



0442DCCTV
STA. 3138+74 ℄ CONST. I-95
OFFSET 137.6' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

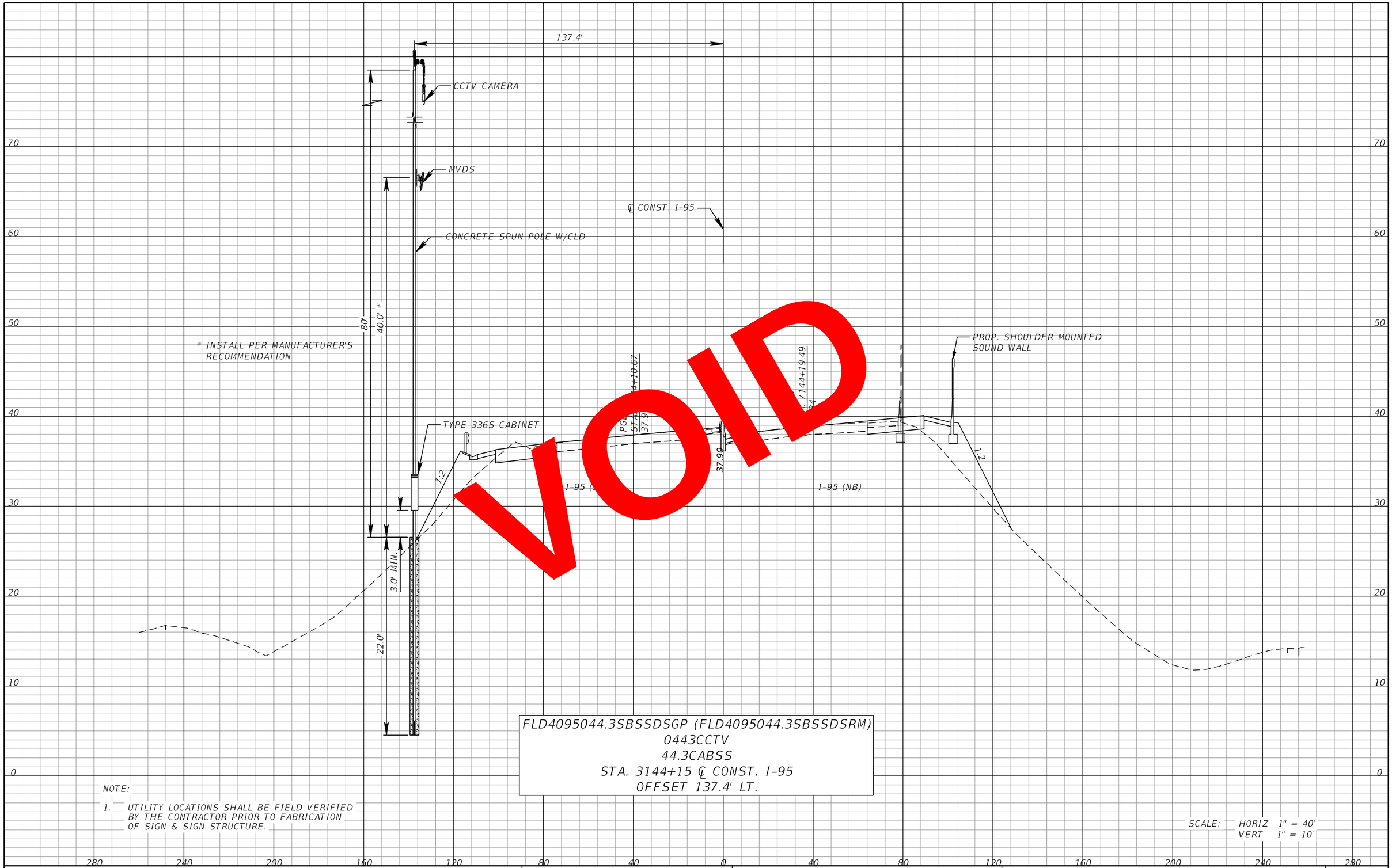
ITS CROSS SECTION (21)

SHEET NO.
IT-83

RELEASED FOR CONSTRUCTION
BY:RDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:41:46 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



VOID

FLD4095044.3SBSSDSGP (FLD4095044.3SBSSDSRM)
0443CCTV
44.3CABSS
STA. 3144+15 ℄ CONST. I-95
OFFSET 137.4' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

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RELEASED FOR CONSTRUCTION
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BY/PDP: VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
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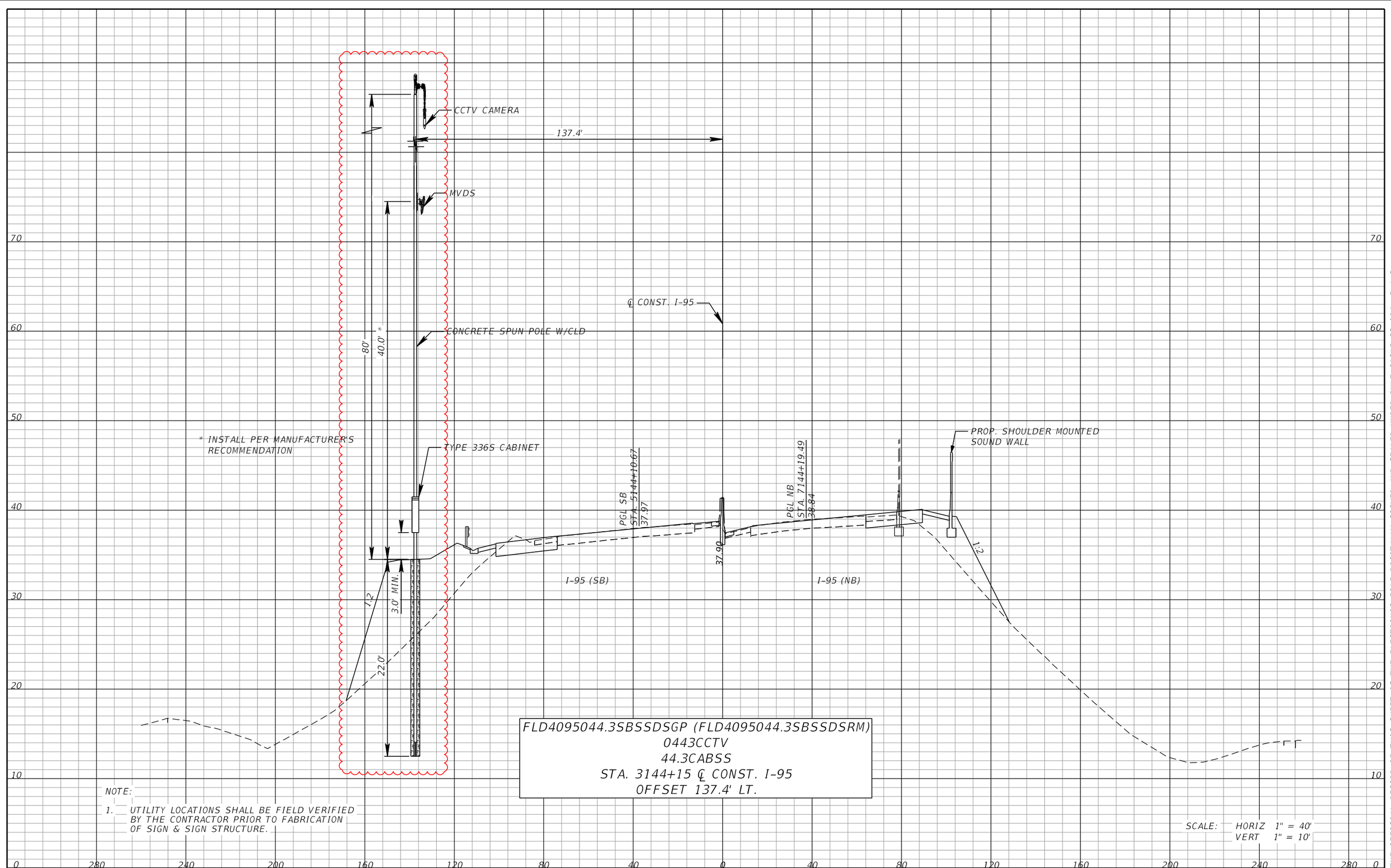
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (22)

SHEET NO.
IT-84



FLD4095044.3SBSSDSGP (FLD4095044.3SBSSDSRM)
0443CCTV
44.3CABSS
STA. 3144+15 ℄ CONST. I-95
OFFSET 137.4' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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EOR: Derrick A. Lue, P.E. No. 44730

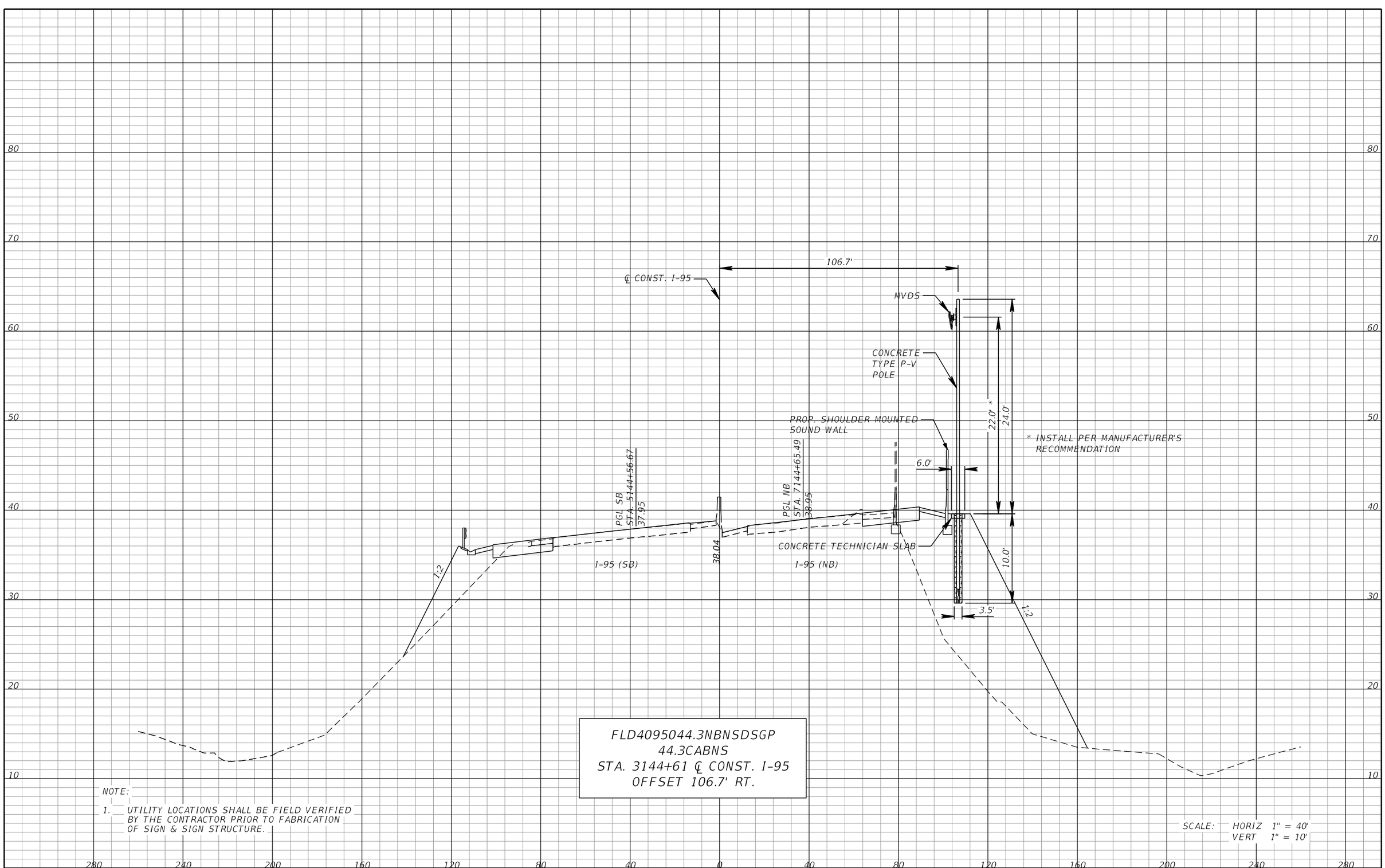
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (22)

SHEET NO.
IT-84

PLOT DRIVER = c:\projectwise\pb\projectwiseint\wsp__michael.west\d0173361\As-Built_FDOT_ctb.ctb PLOTTED BY = Michael West
PLOT DATE = pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase2B\Level_Naming_Rules\lshg
USMW189428
10/22/2021 6:42:04 PM
c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\SSXSIT200_AS-BUILT.dgn



FLD4095044.3NBNSDSGP
44.3CABNS
STA. 3144+61 ℄ CONST. I-95
OFFSET 106.7' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

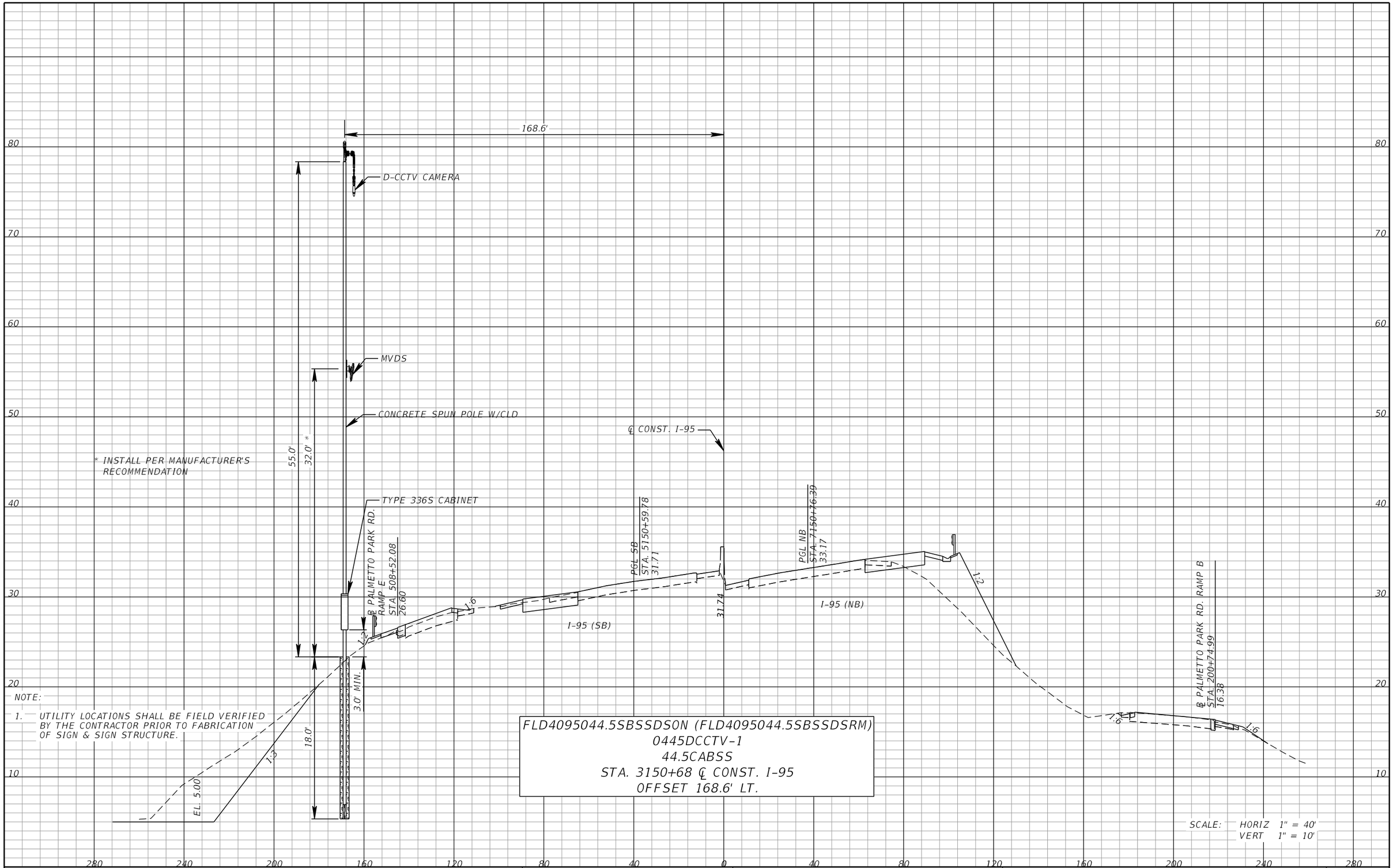
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (23)

SHEET NO.
IT-85



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

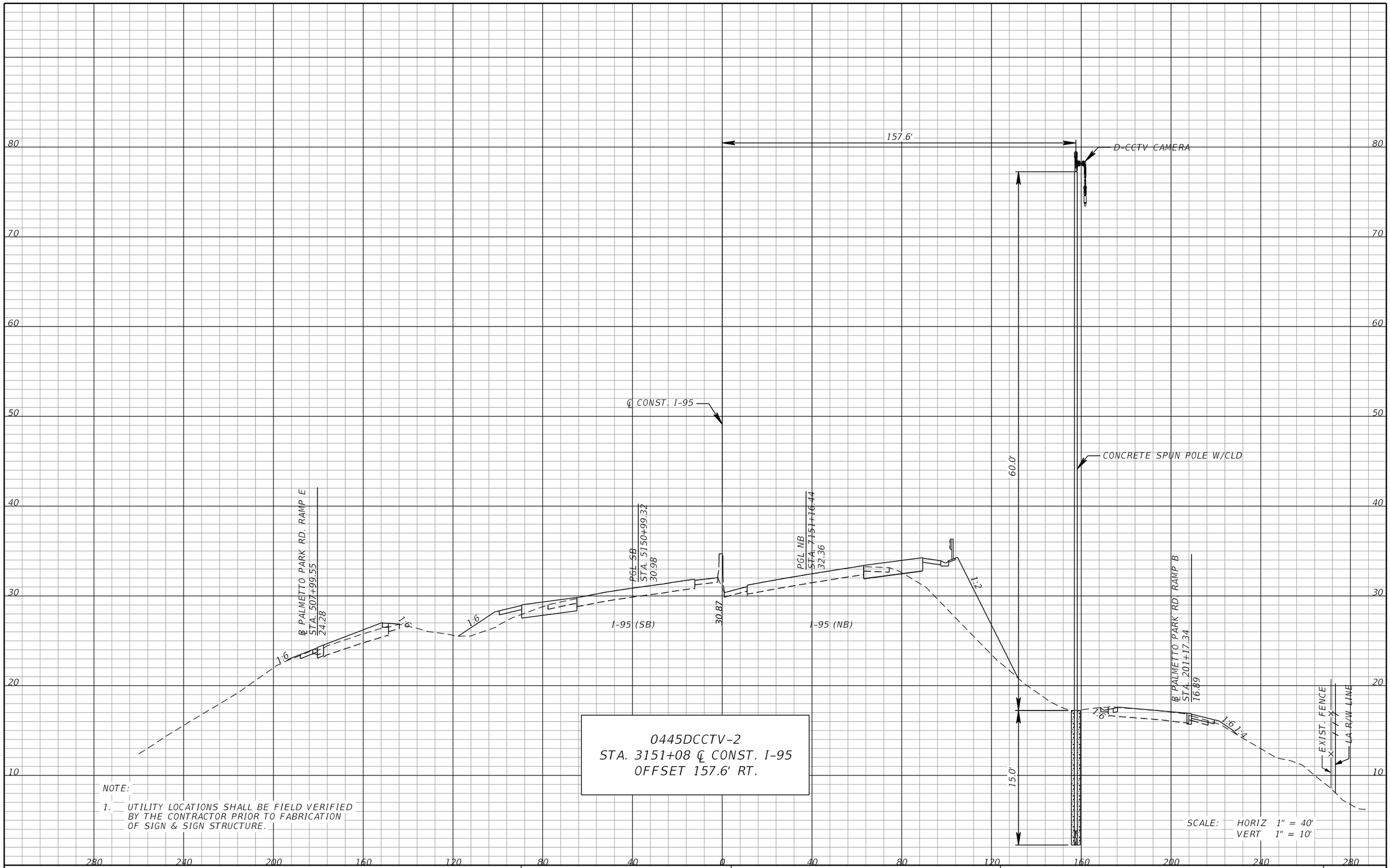
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (24)

SHEET NO.
IT-86

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:42:08 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



0445DCCTV-2
STA. 3151+08 ℄ CONST. I-95
OFFSET 157.6' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

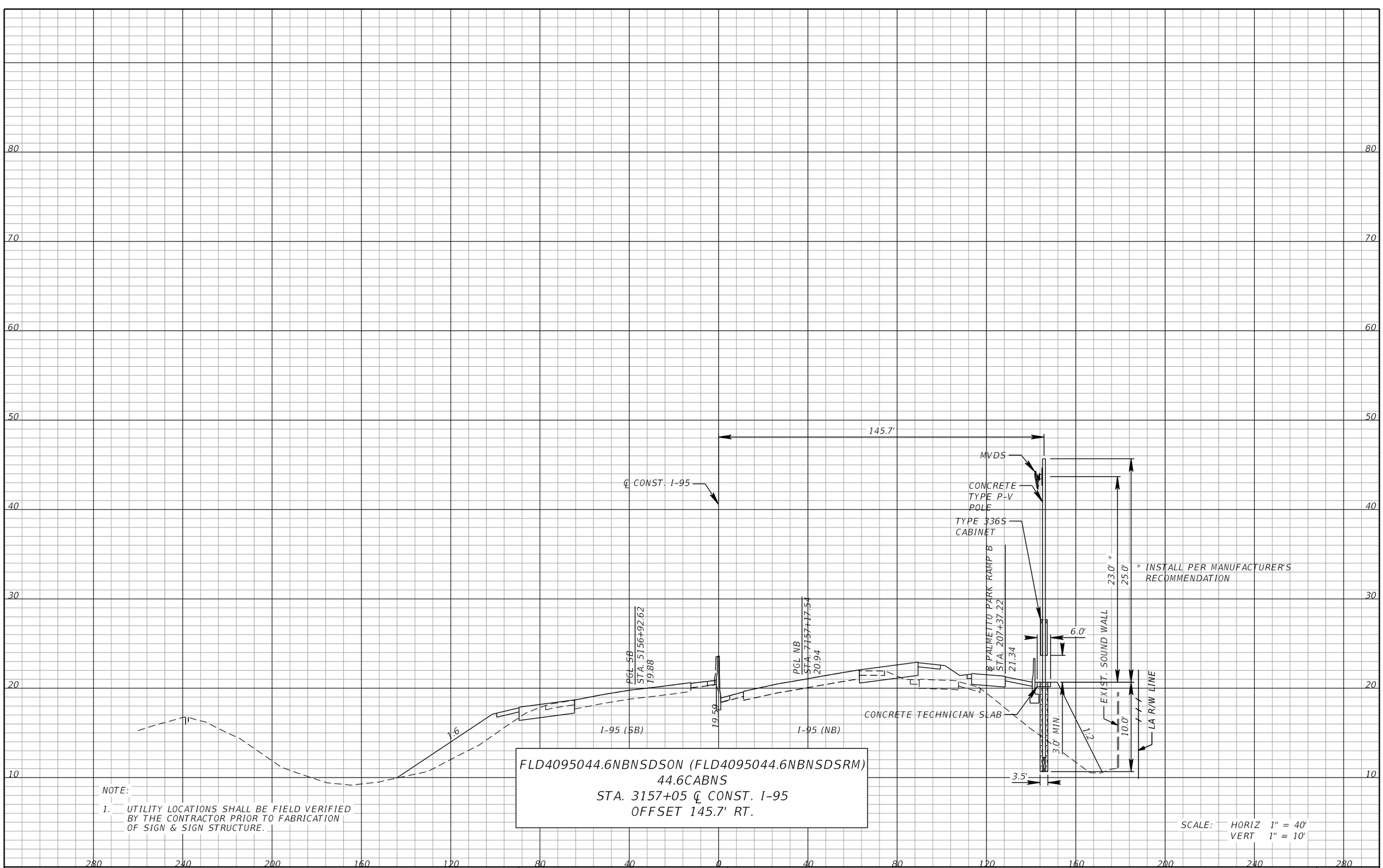
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (25)

SHEET NO.
IT-87

RELEASED FOR CONSTRUCTION
BY:FDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4D96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

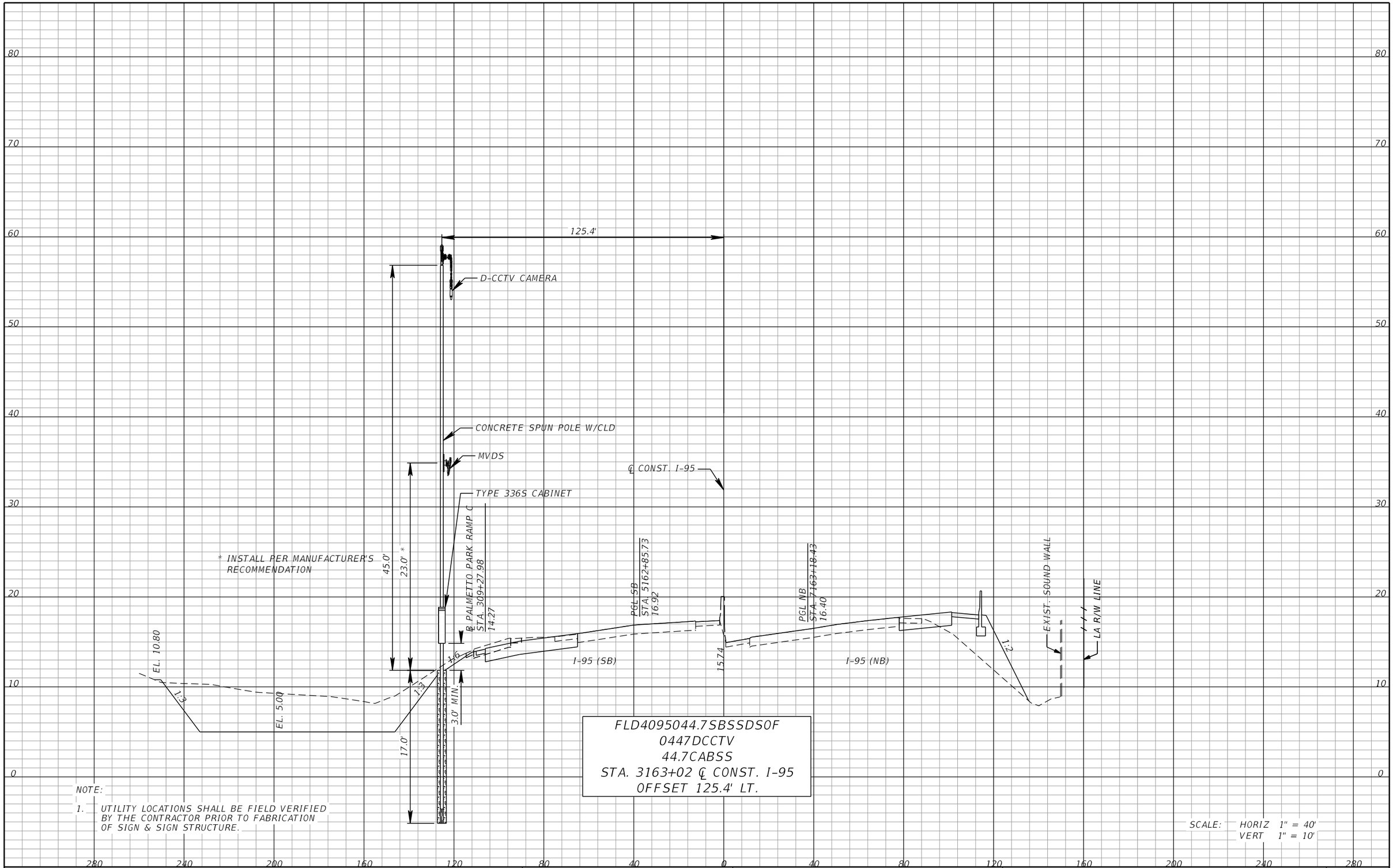
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (26)

SHEET NO. IT-88



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

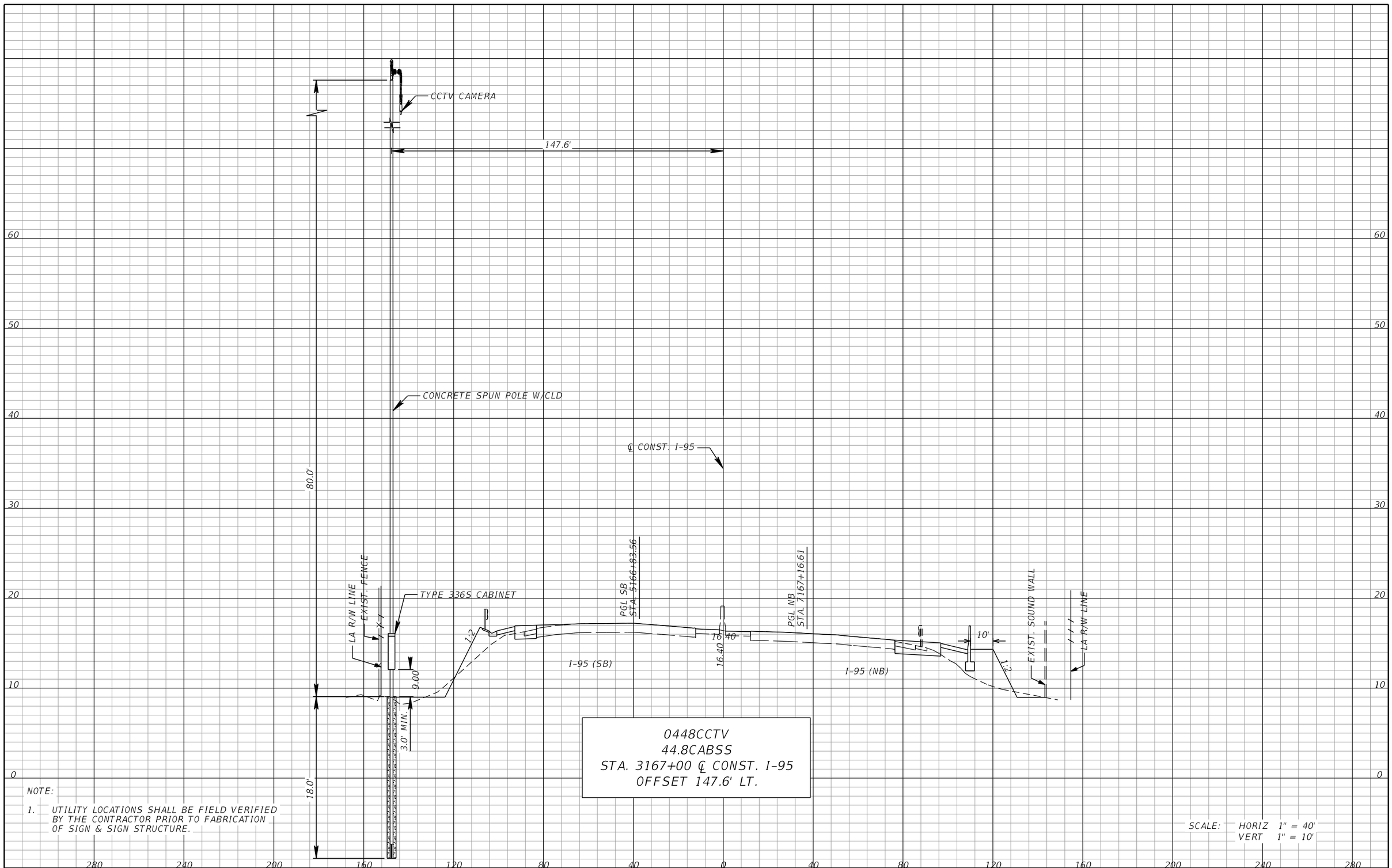
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (27)

SHEET NO.
IT-89

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED
SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:42:30 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



0448CCTV
44.8CABSS
STA. 3167+00 ℄ CONST. I-95
OFFSET 147.6' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

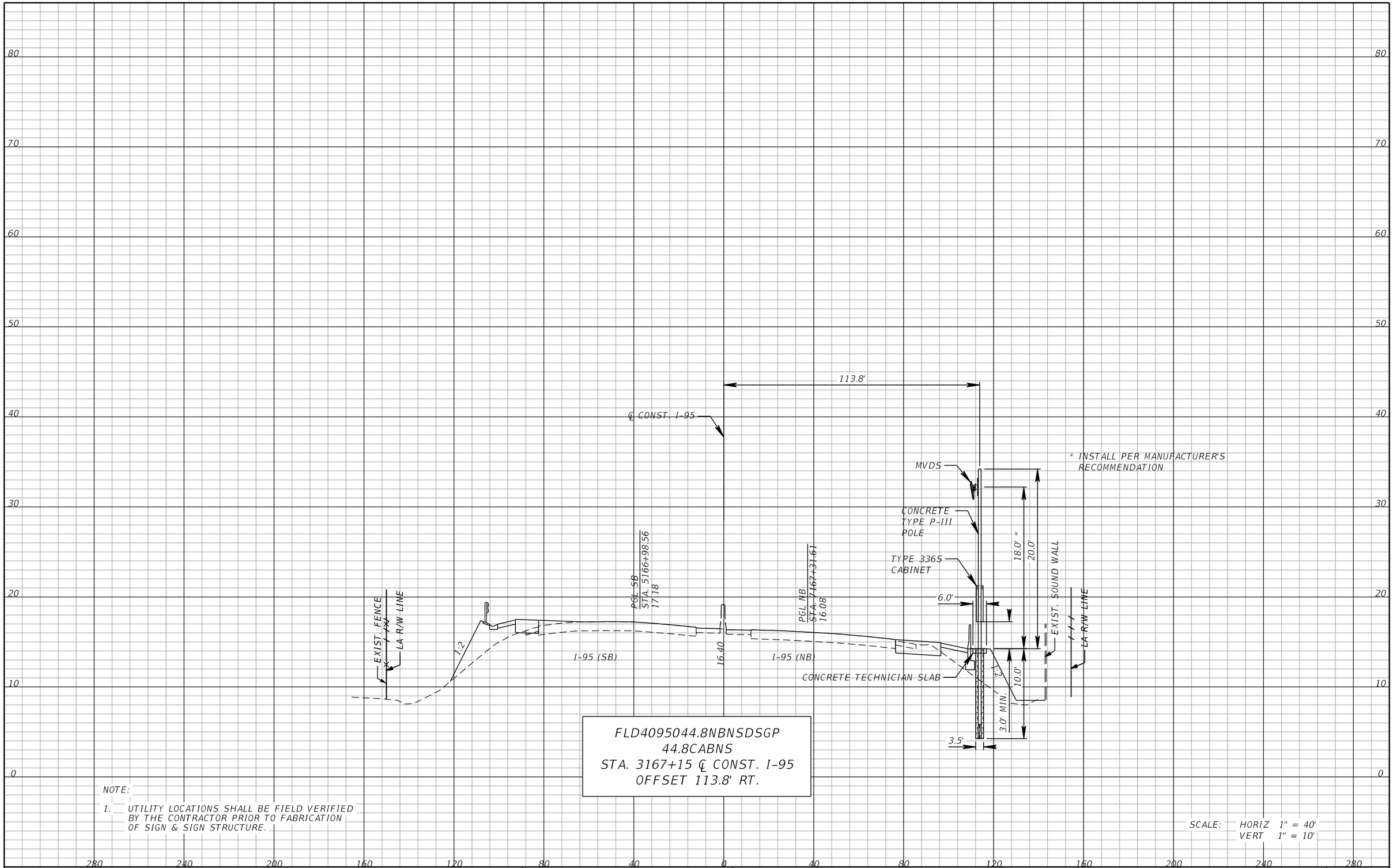
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (28)

SHEET NO.
IT-90

RELEASED FOR CONSTRUCTION
BY:RDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

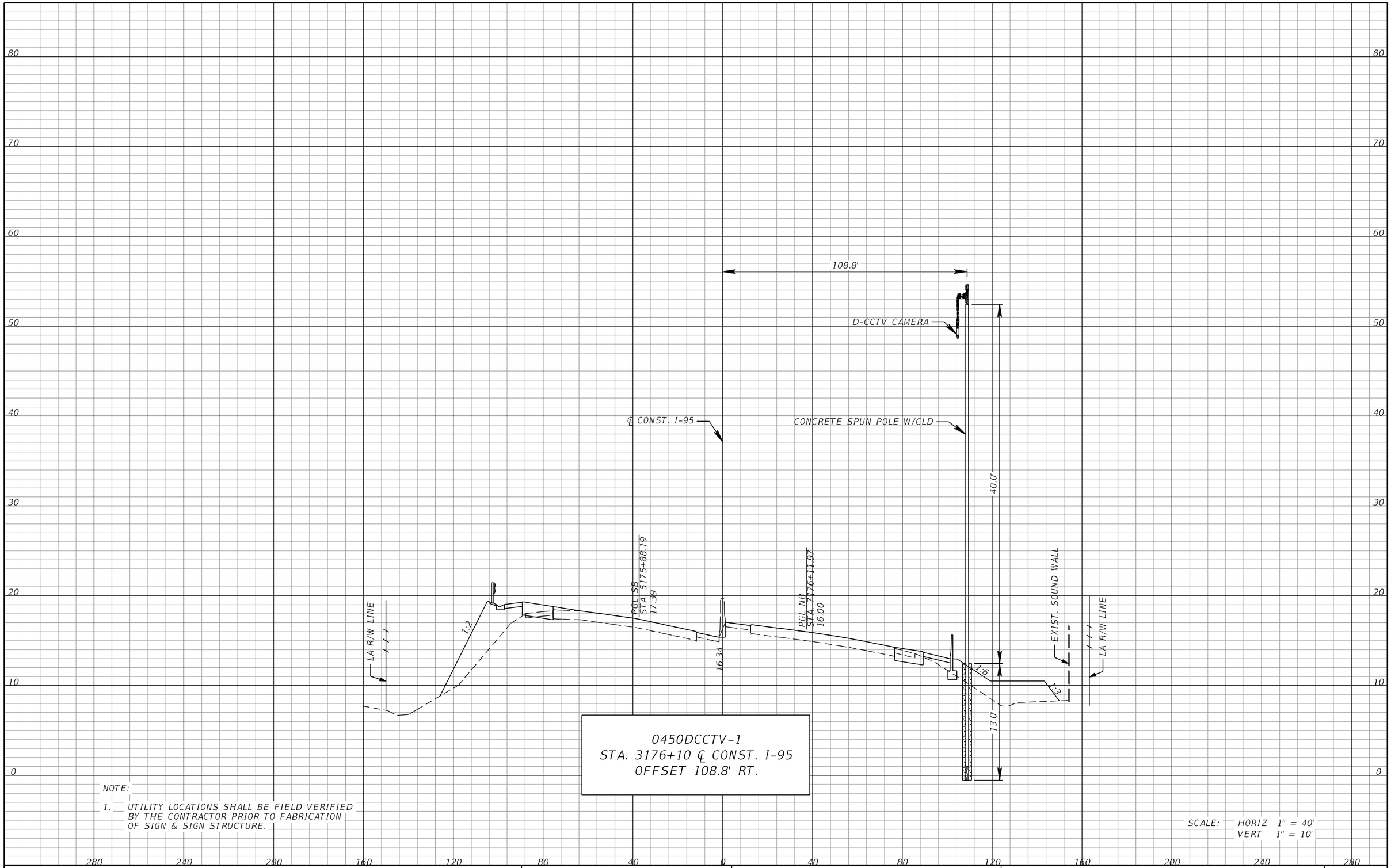
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (29)

SHEET NO.
IT-91



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

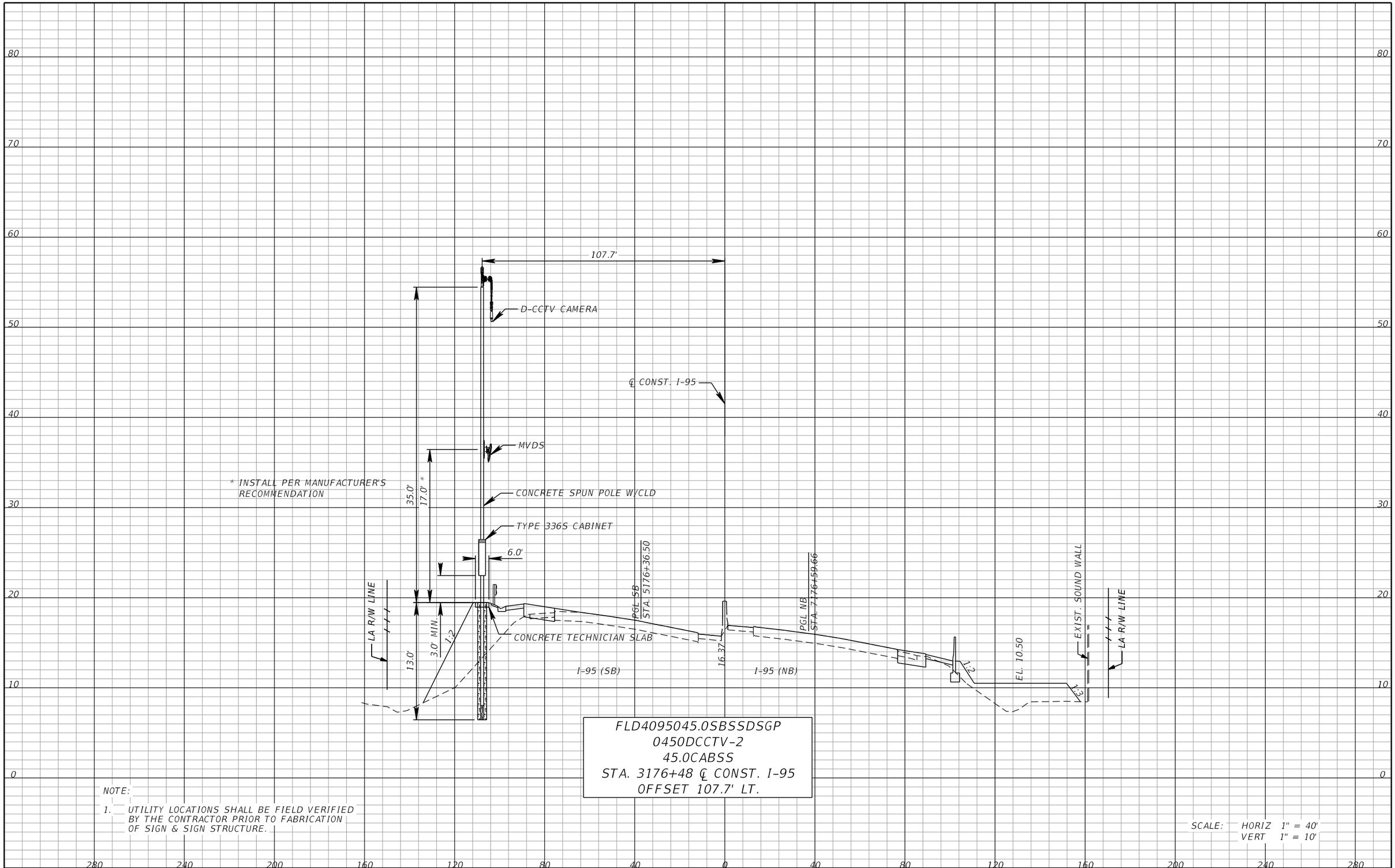
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (30)

SHEET NO.
IT-92

RELEASED FOR CONSTRUCTION
BY: RDOT Date: 05/21/2019 VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



FLD4095045.0SBSSDSGP
0450DCCTV-2
45.0CABSS
STA. 3176+48 ℄ CONST. I-95
OFFSET 107.7' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

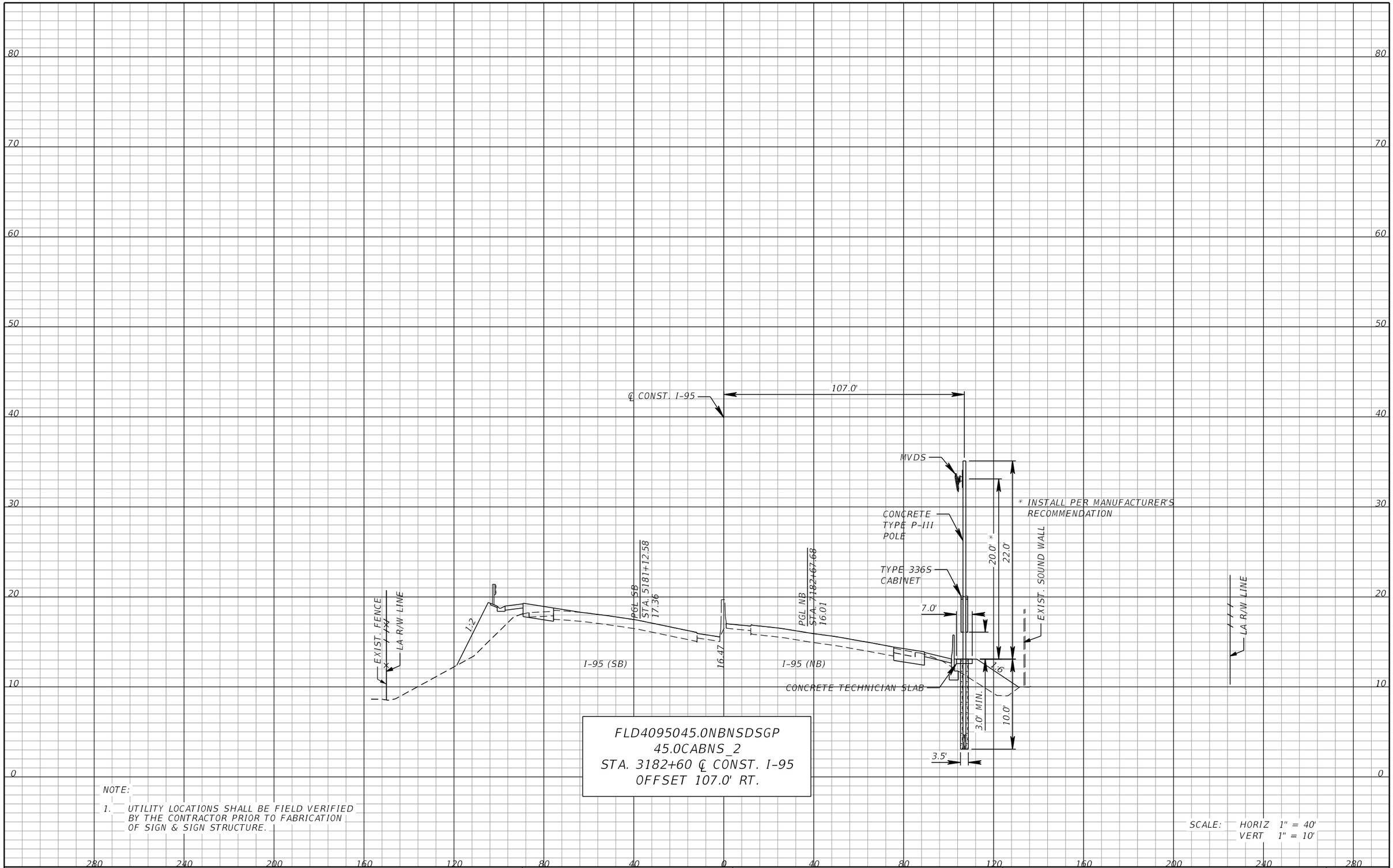
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (31)

SHEET NO.
IT-93

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



FLD4095045.0NBNSDSGP
45.0CABNS_2
STA. 3182+60 ℄ CONST. I-95
OFFSET 107.0' RT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

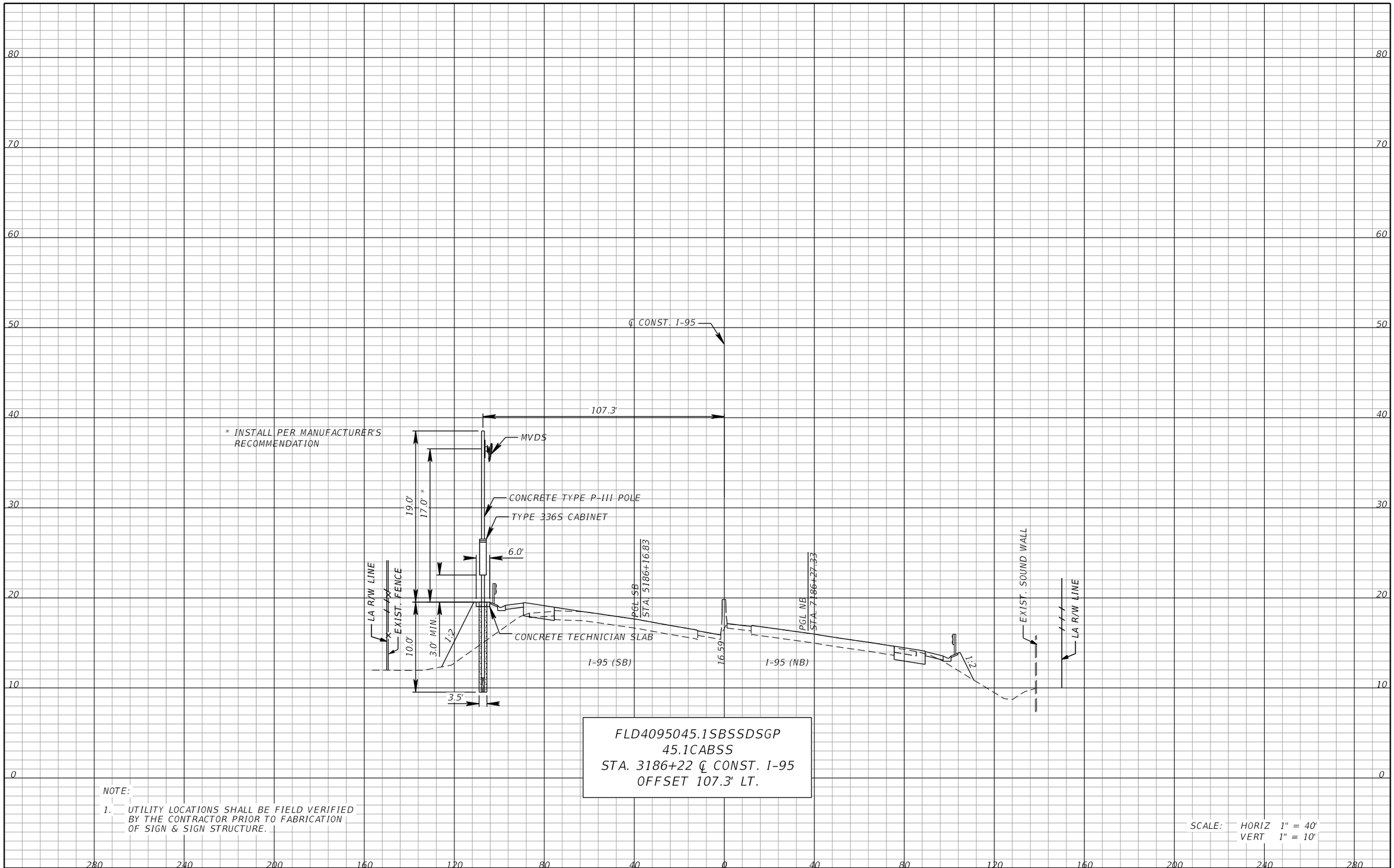
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (32)

SHEET NO.
IT-94

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
BY:FDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



NOTE:

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SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

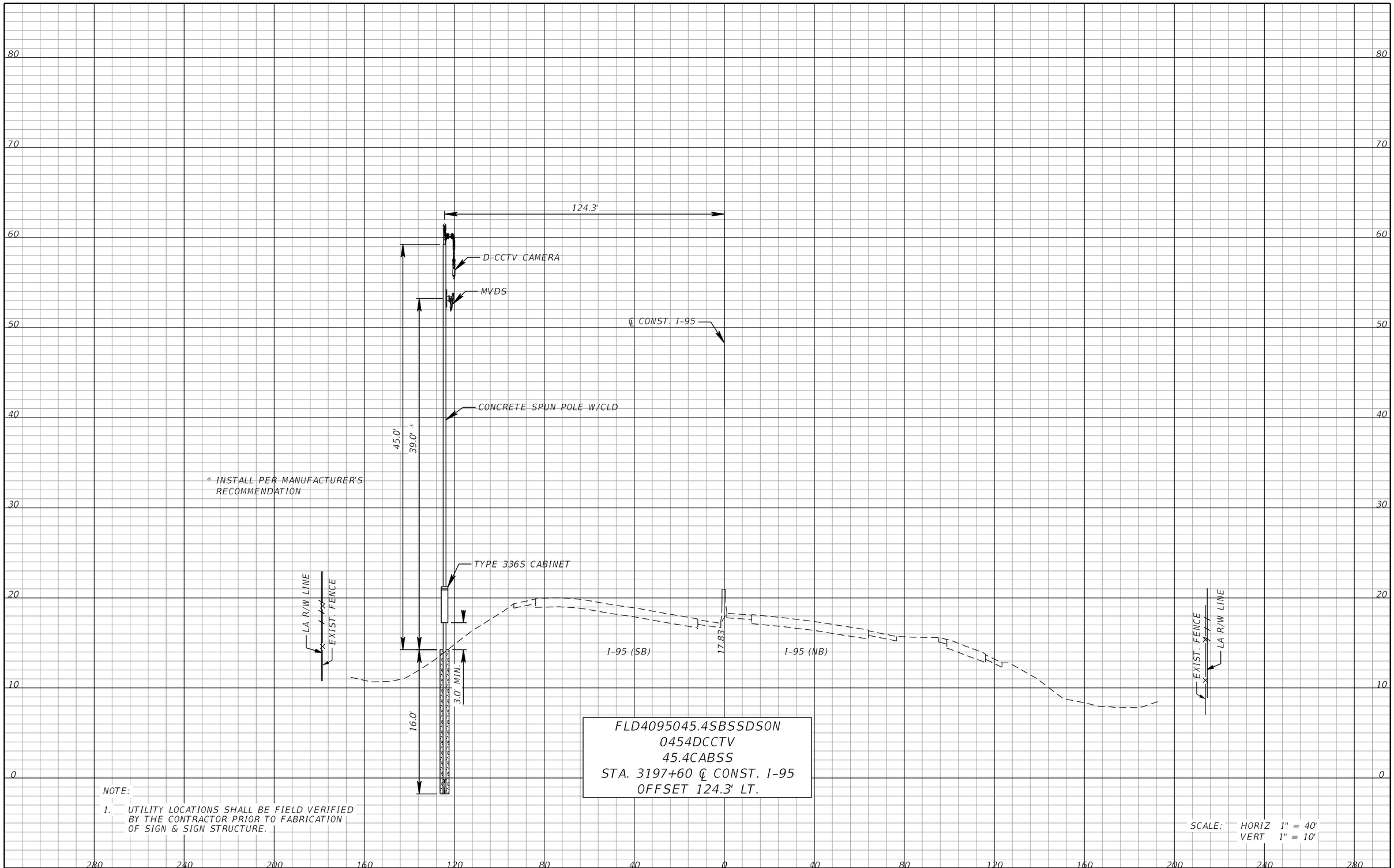
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (33)

SHEET NO.
IT-95

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

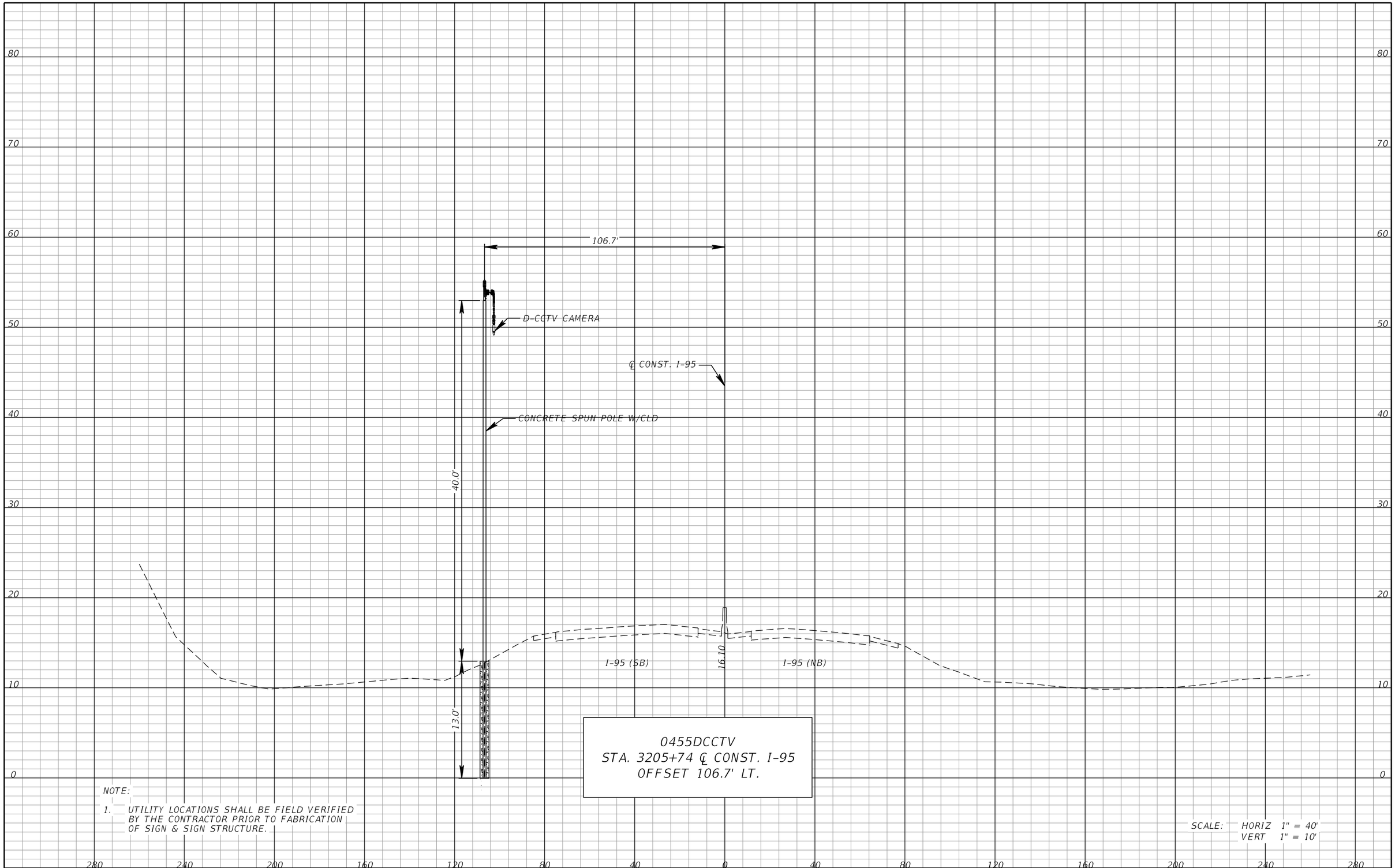
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (34)

SHEET NO.
IT-96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

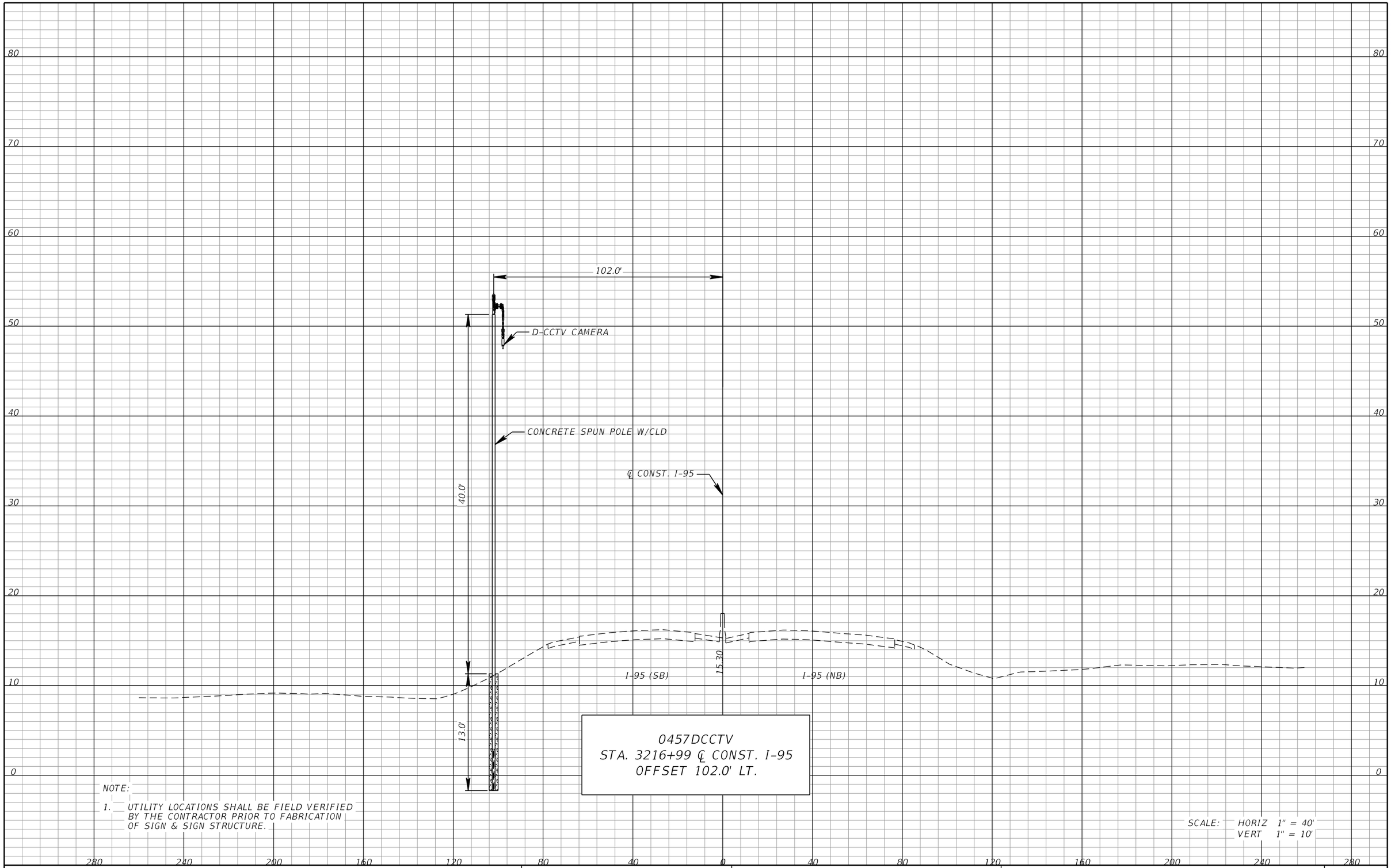
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (35)

SHEET NO.
IT-97

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



0457DCCTV
STA. 3216+99 ℄ CONST. I-95
OFFSET 102.0' LT.

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

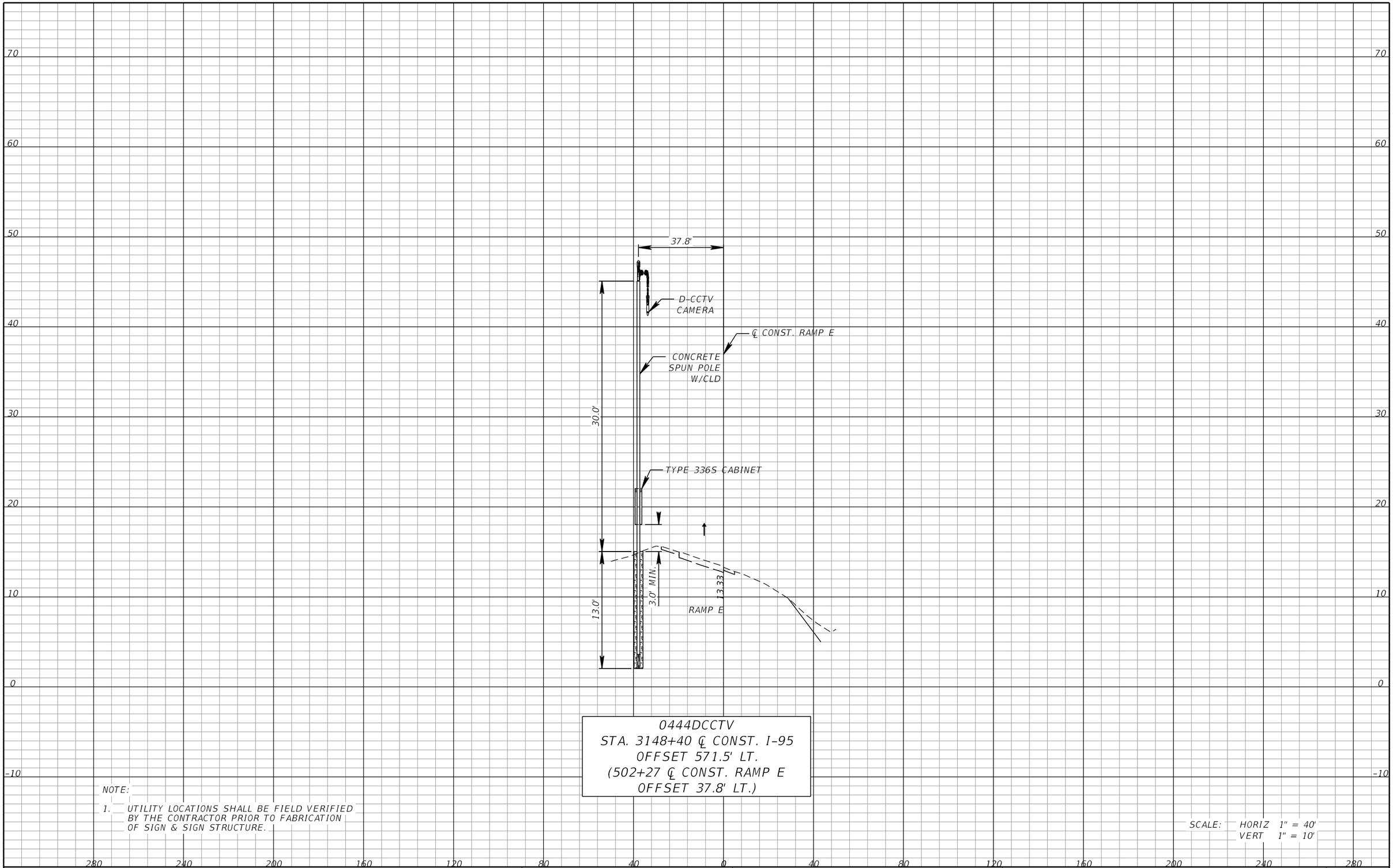
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (36)

SHEET NO.
IT-98

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:43:34 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



0444DCCTV
STA. 3148+40 ℄ CONST. I-95
OFFSET 571.5' LT.
(502+27 ℄ CONST. RAMP E
OFFSET 37.8' LT.)

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

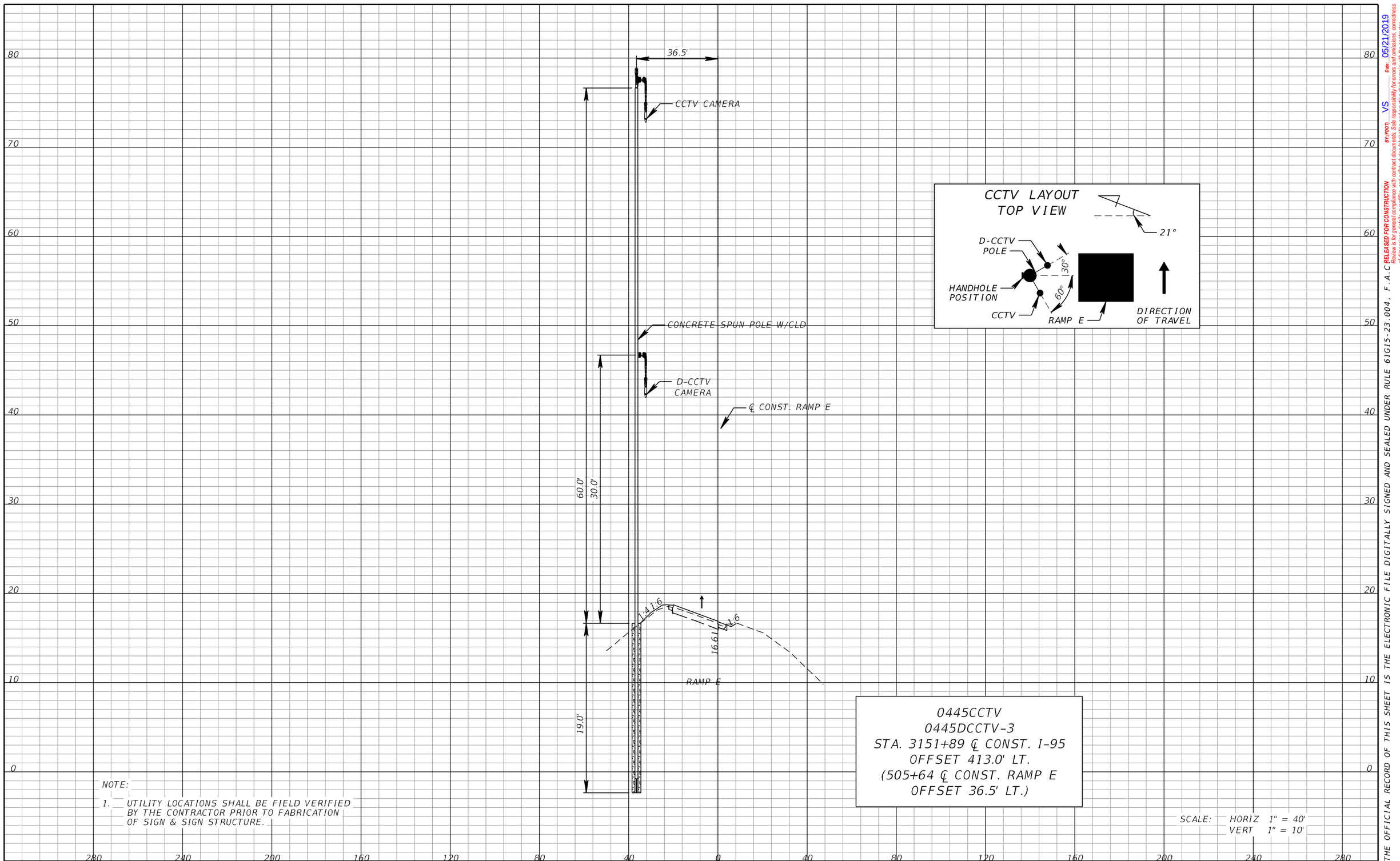
ITS CROSS SECTION (37)

SHEET NO.
IT-99

RELEASED FOR CONSTRUCTION
BY:RDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED BY VICTOR SOLIS, P.E. LICENSE NUMBER 61615-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:44:04 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



0445CCTV
0445DCCTV-3
STA. 3151+89 ℄ CONST. I-95
OFFSET 413.0' LT.
(505+64 ℄ CONST. RAMP E
OFFSET 36.5' LT.)

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

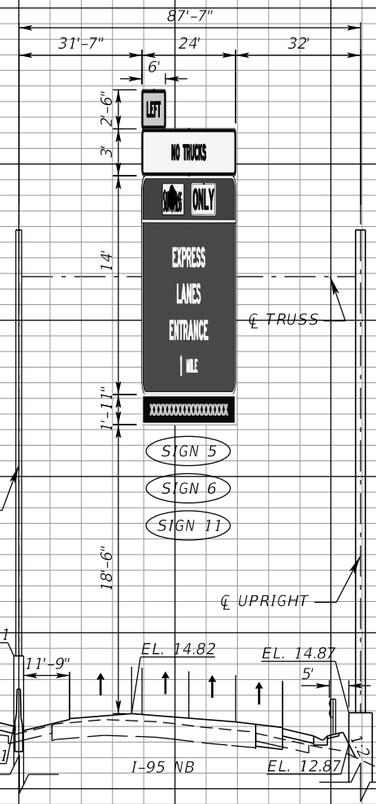
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (38)

SHEET NO.
IT-100

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-53-01 CONTRACT E4096
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.



FLD4D0T09542.4NBLS1
STA. 3040+00 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

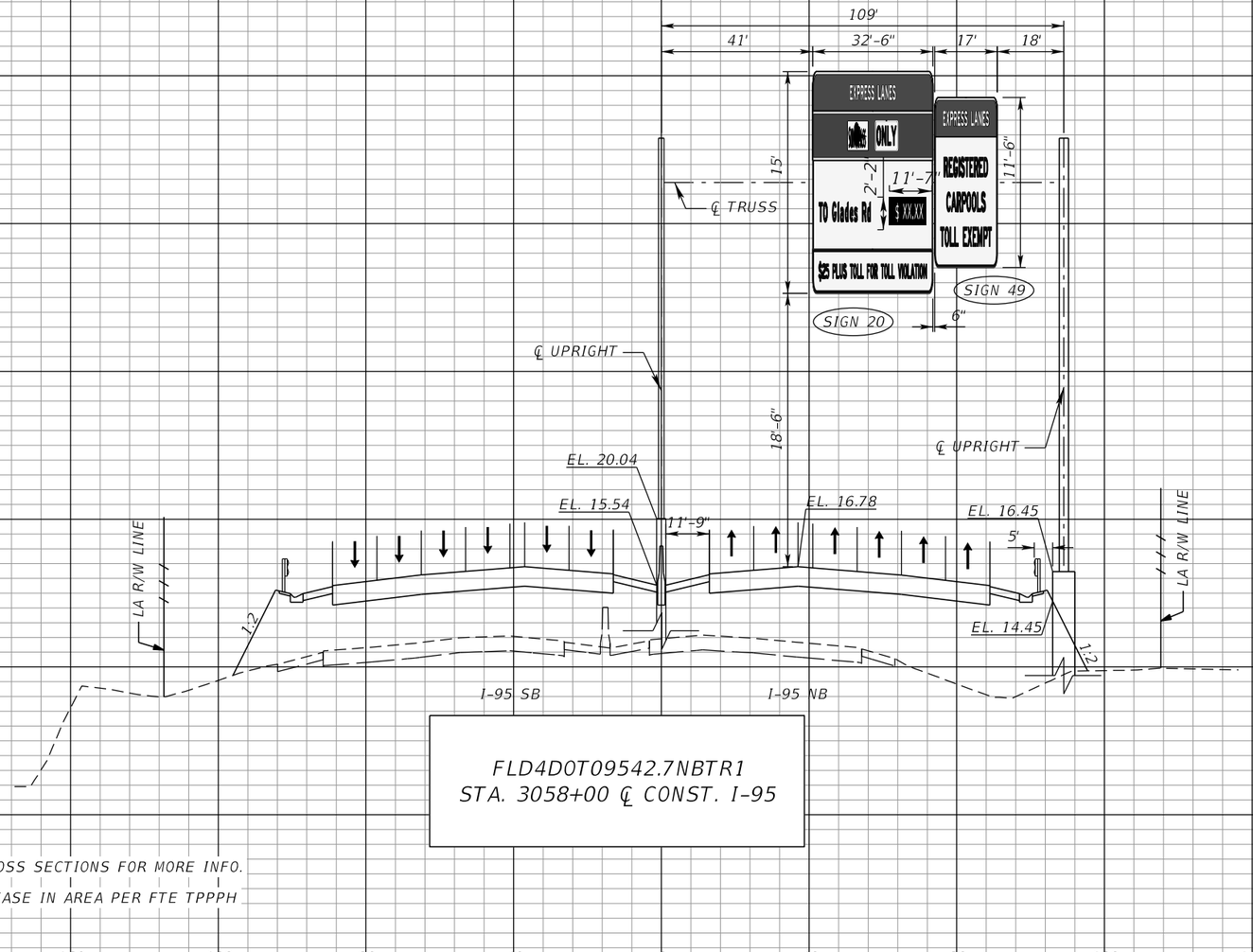
ITS CROSS SECTION (39)

SHEET NO.
IT-101

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY FDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:44:18 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.



FLD4D0T09542.7NBTR1
STA. 3058+00 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

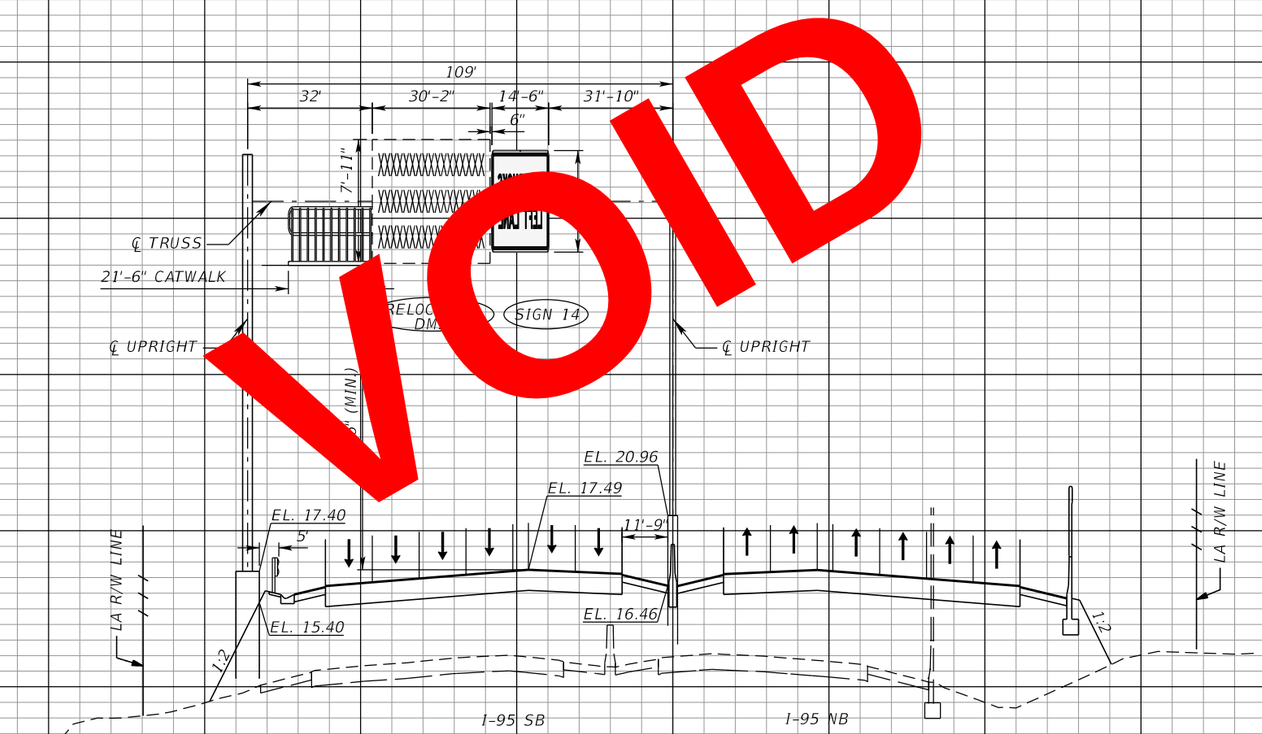
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (40)

SHEET NO.
IT-102

RELEASED FOR CONSTRUCTION
BY:RPOTI VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT
MARKING PLANS FOR
CONSTRUCTION DETAILS.



VOID

FLD4D0T09542.7
STA. 3060+00 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH - VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

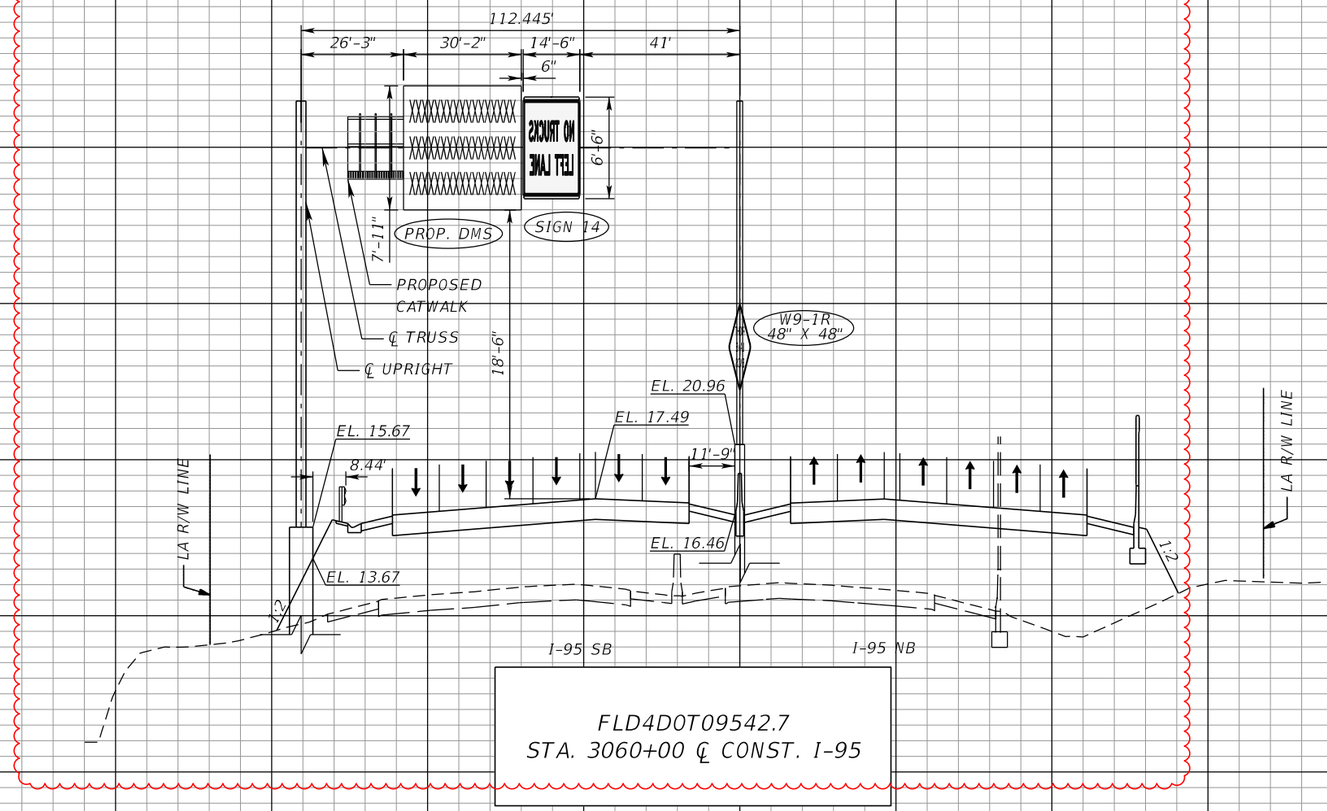
ITS CROSS SECTION (41)

SHEET NO.
IT-103

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.



FLD4D0T09542.7
STA. 3060+00 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (41)

SHEET NO.
IT-103

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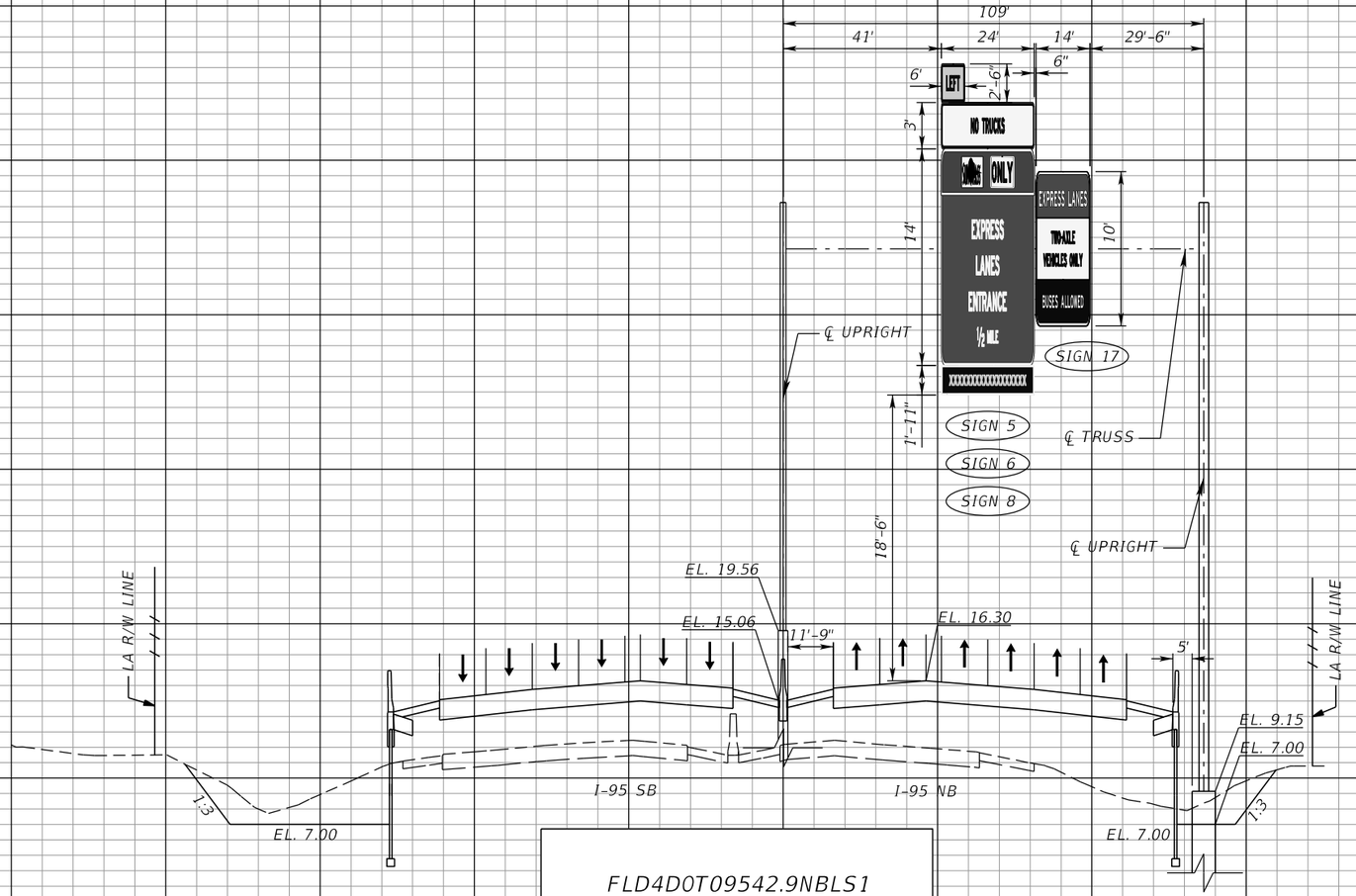
FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.



NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

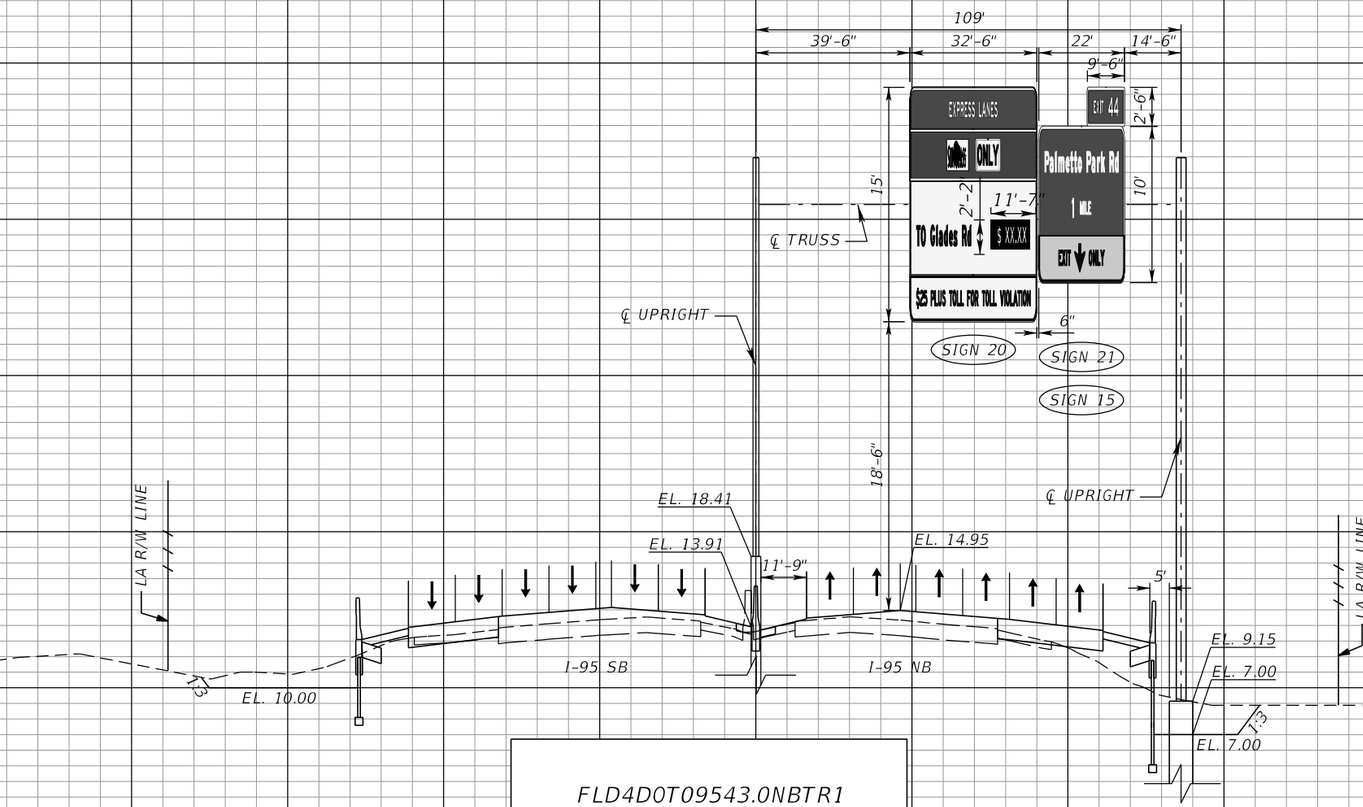
ITS CROSS SECTION (42)

SHEET NO.
IT-104

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-53-01 and 433109-4-53-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:44:38 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.



FLD4D0T09543.0NBTR1
STA. 3075+80 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (43)

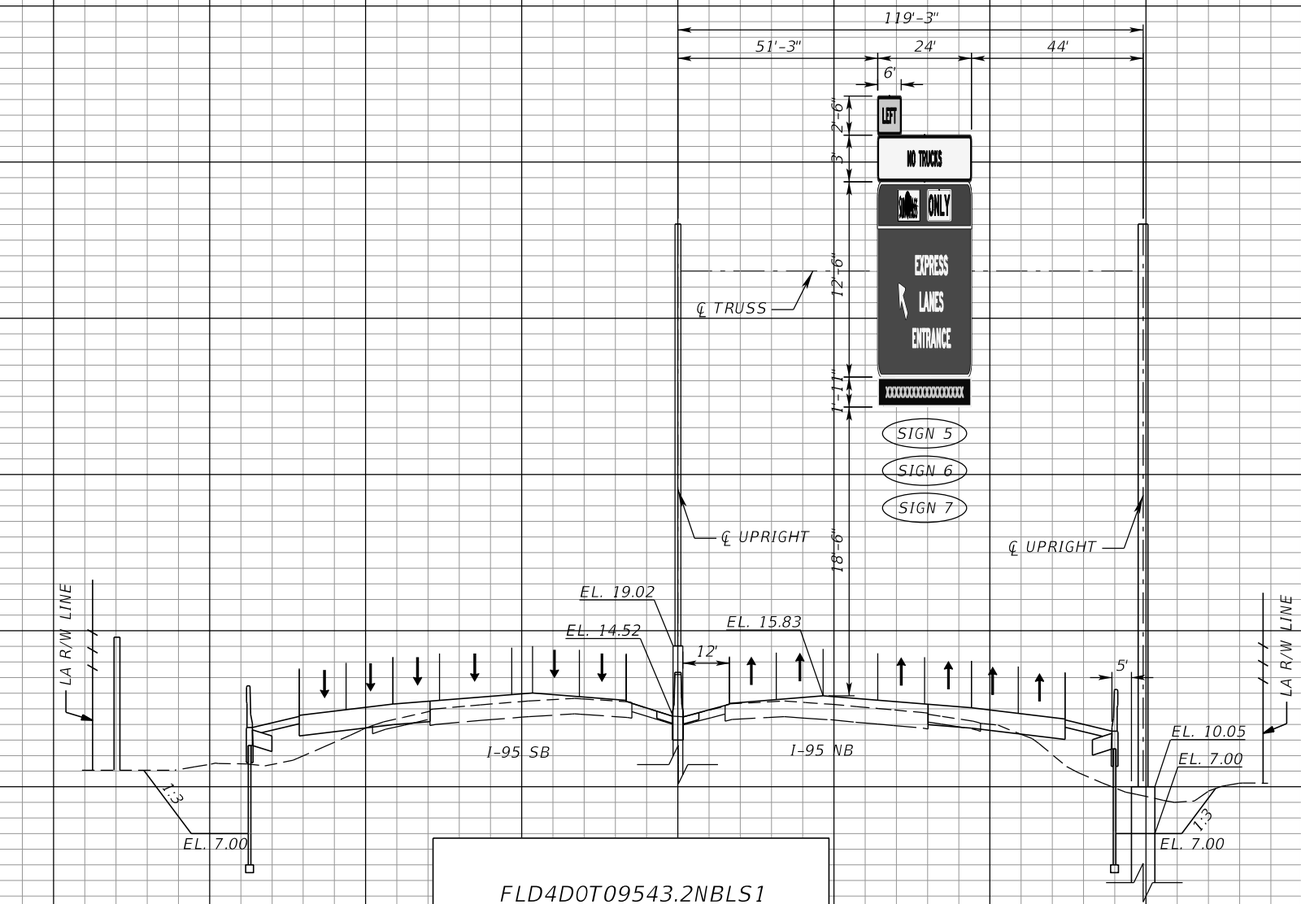
SHEET NO.
IT-105

RELEASED FOR CONSTRUCTION
BY:RDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:44:45 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.



FLD4D0T09543.2NBLS1
STA. 3085+60 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

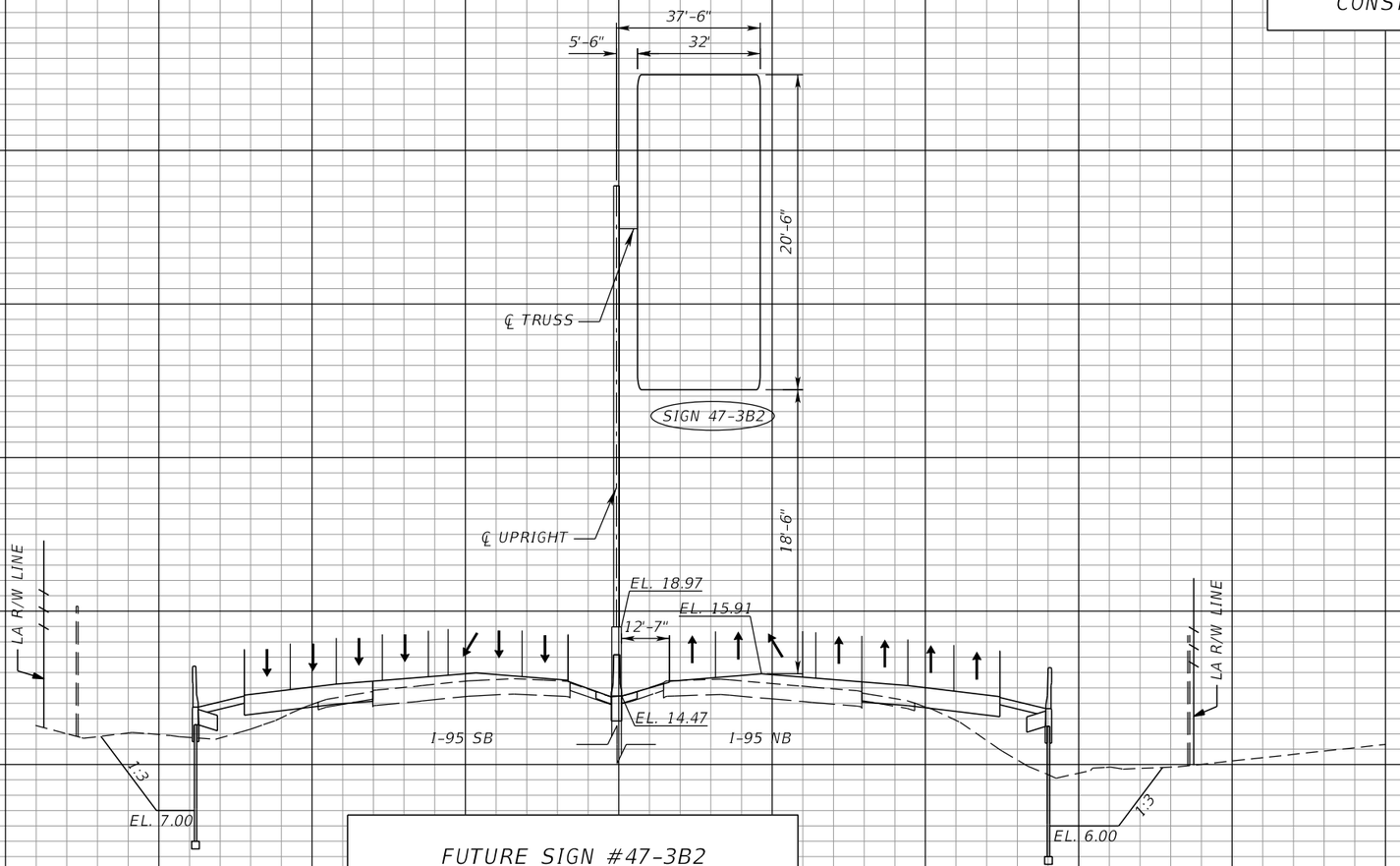
ITS CROSS SECTION (44)

SHEET NO.
IT-106

RELEASED FOR CONSTRUCTION
BY:FDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:44:52 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.



FUTURE SIGN #47-3B2
(TO BE INSTALLED IN PHASE 3B-2)
STA. 3105+00 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

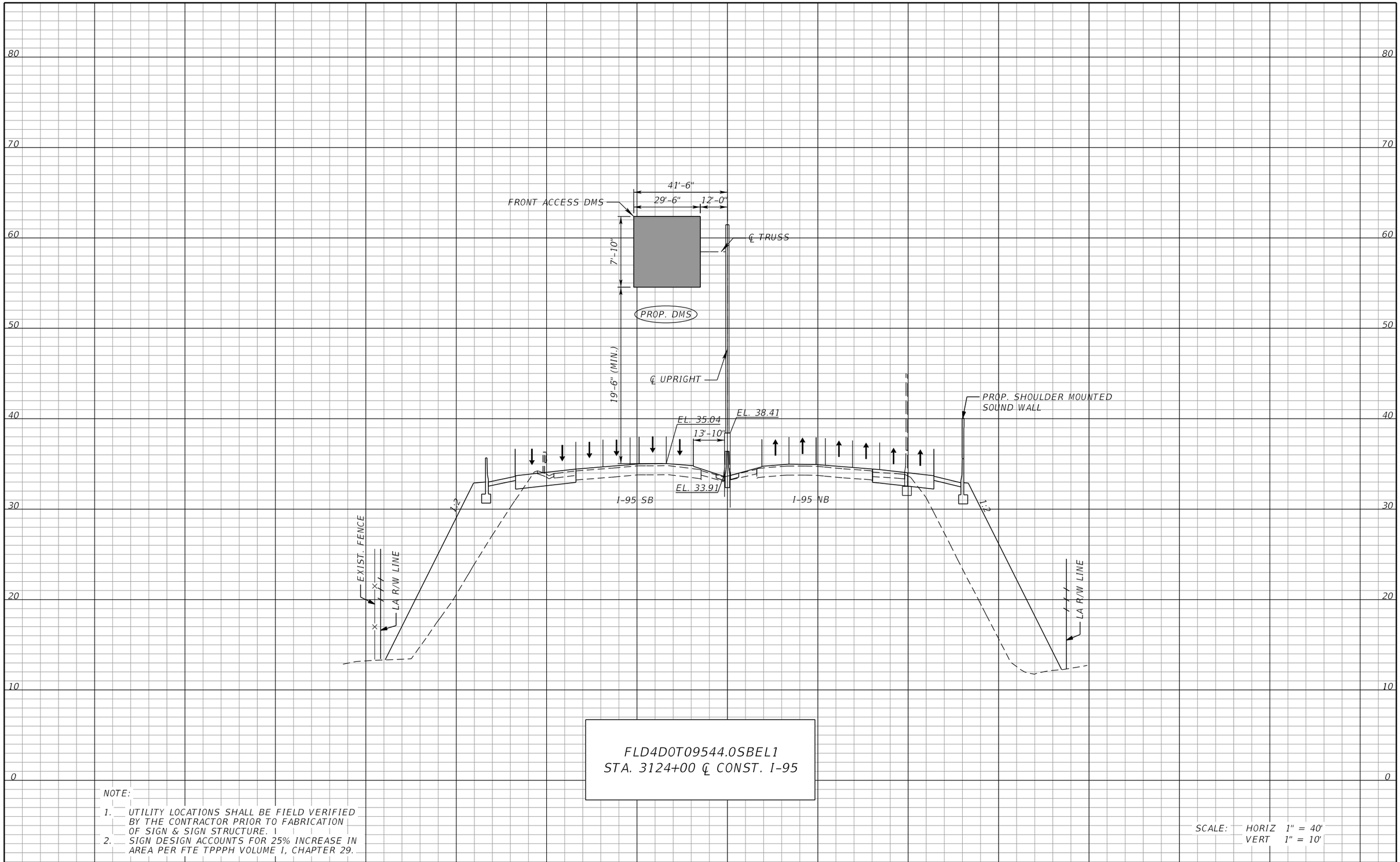
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (45)

SHEET NO.
IT-107

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

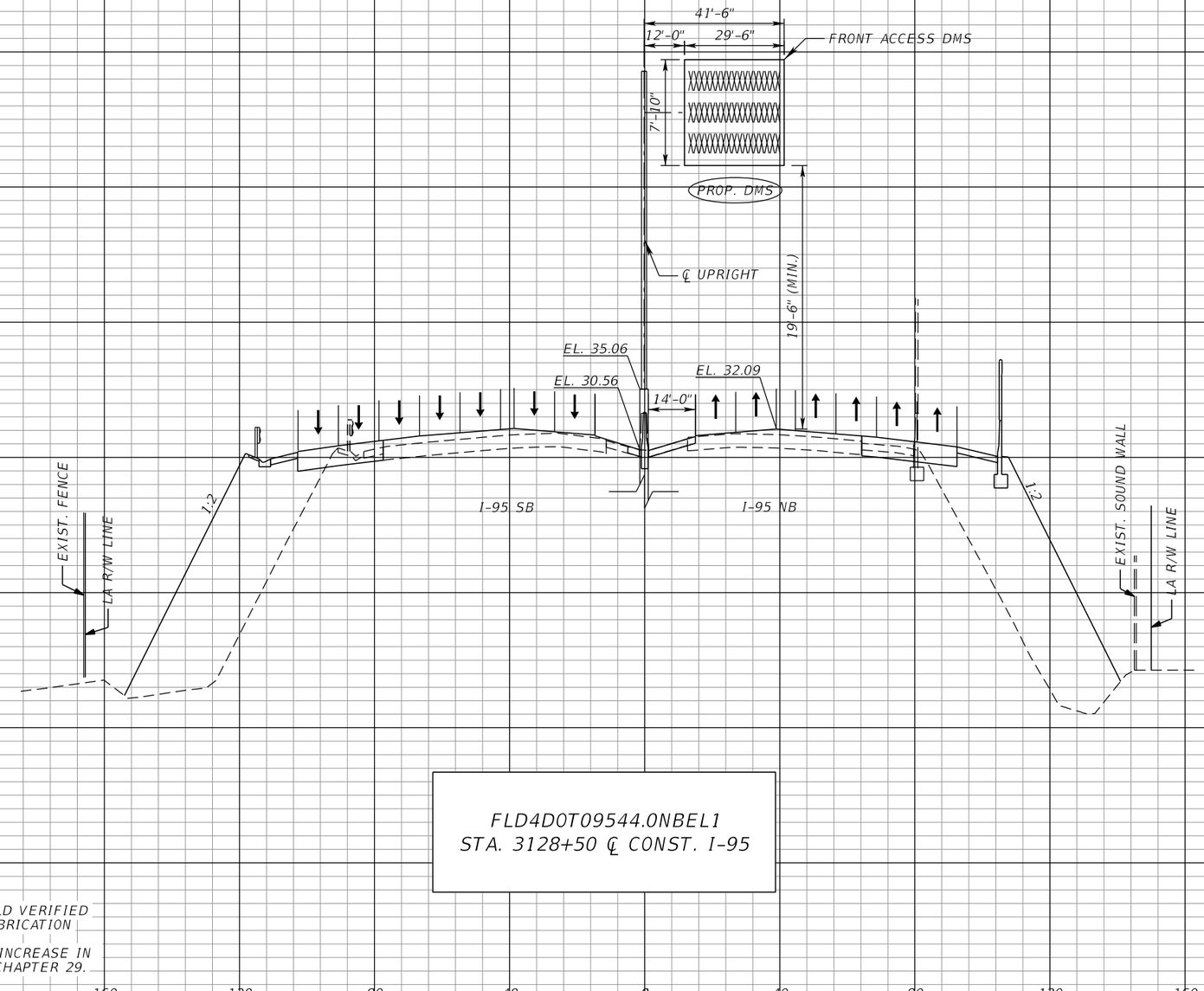
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (46)

SHEET NO.
IT-108

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



FLD4D0T09544.0NBEL1
STA. 3128+50 ℄ CONST. I-95

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

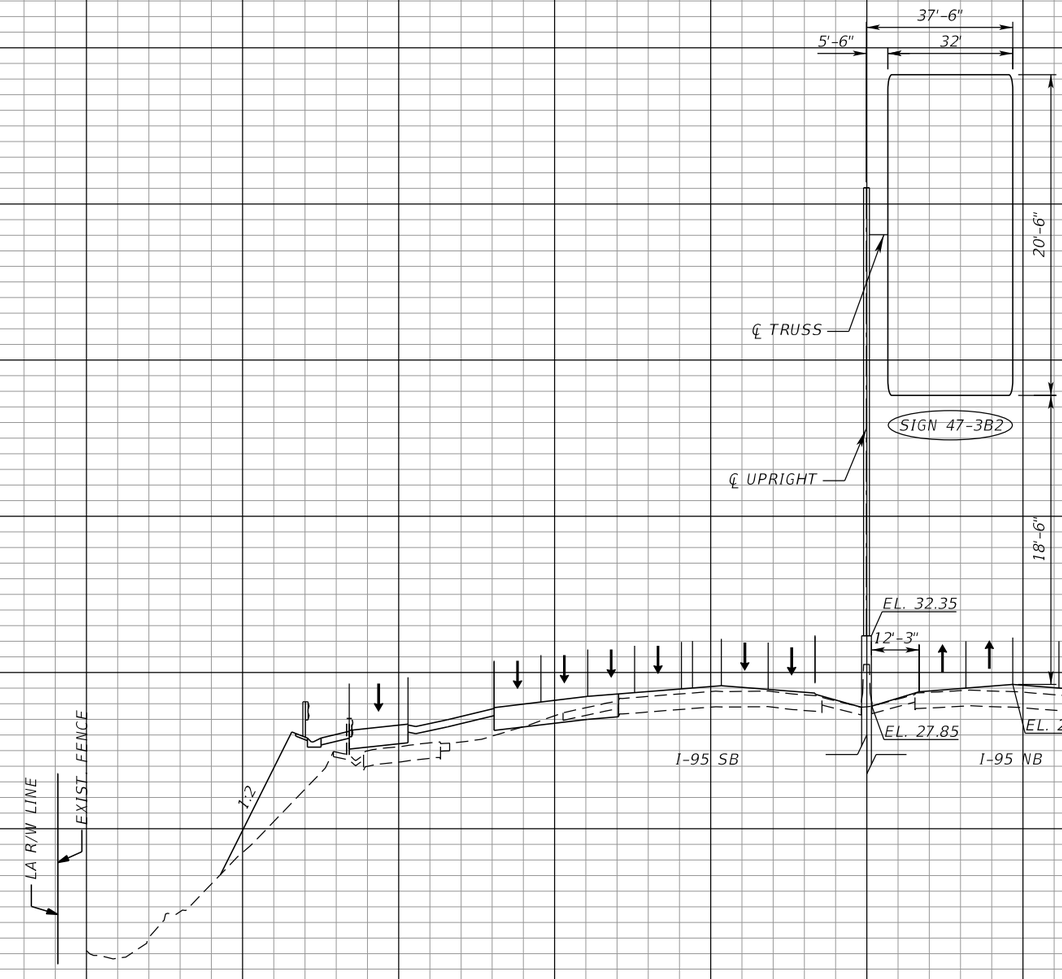
ITS CROSS SECTION (47)

SHEET NO.
IT-109

RELEASED FOR CONSTRUCTION
BY:RDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:45:12 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.

FUTURE SIGN
(TO BE INSTALLED IN PHASE 3B-2)
STA. 3136+50 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

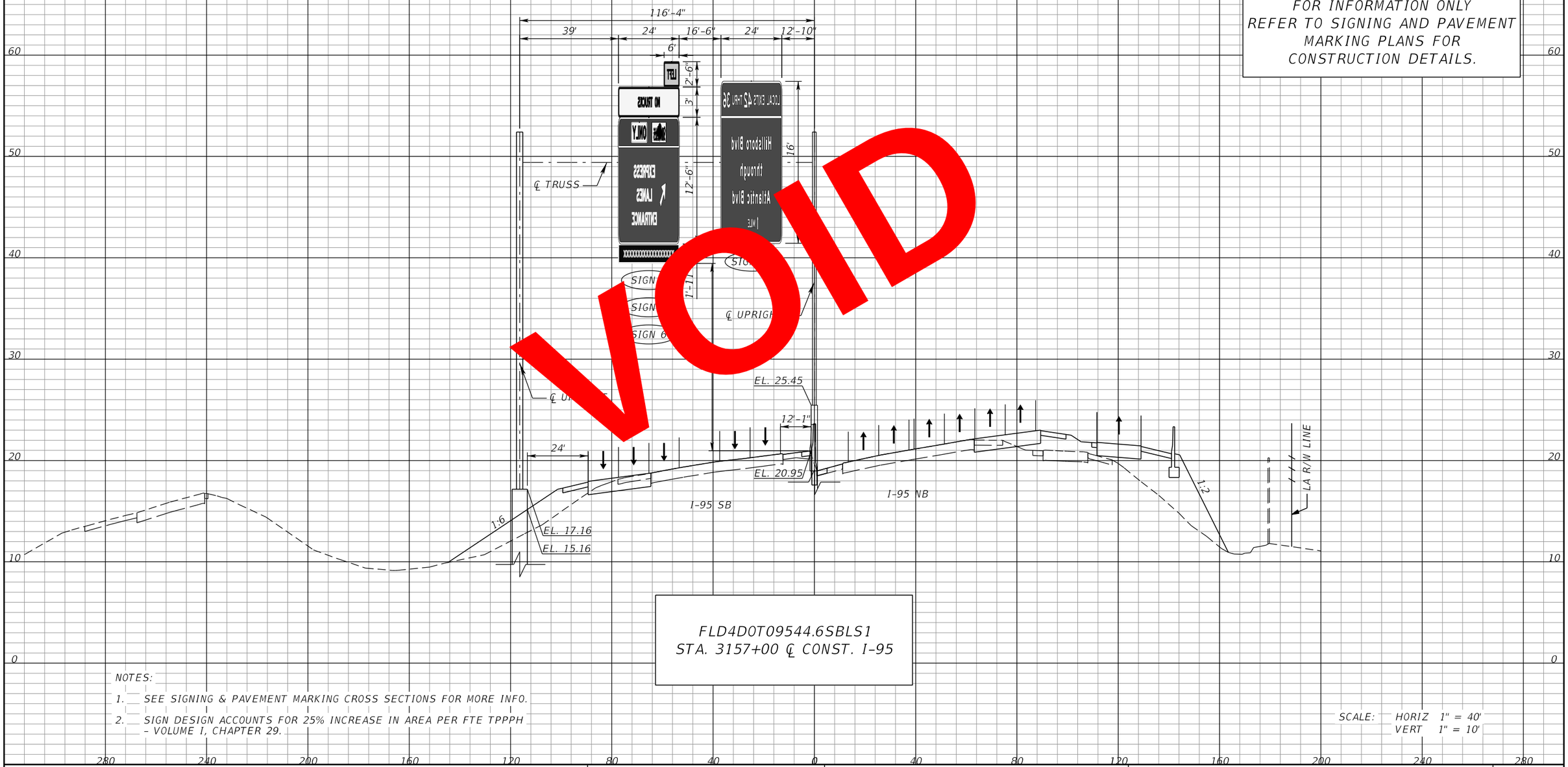
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (48)

SHEET NO.
IT-110

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
Date: 05/21/2019 BY/PDOT VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-53-01 CONTRACT E4B96

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.



VOID

FLD4D0T09544.6SBLS1
STA. 3157+00 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

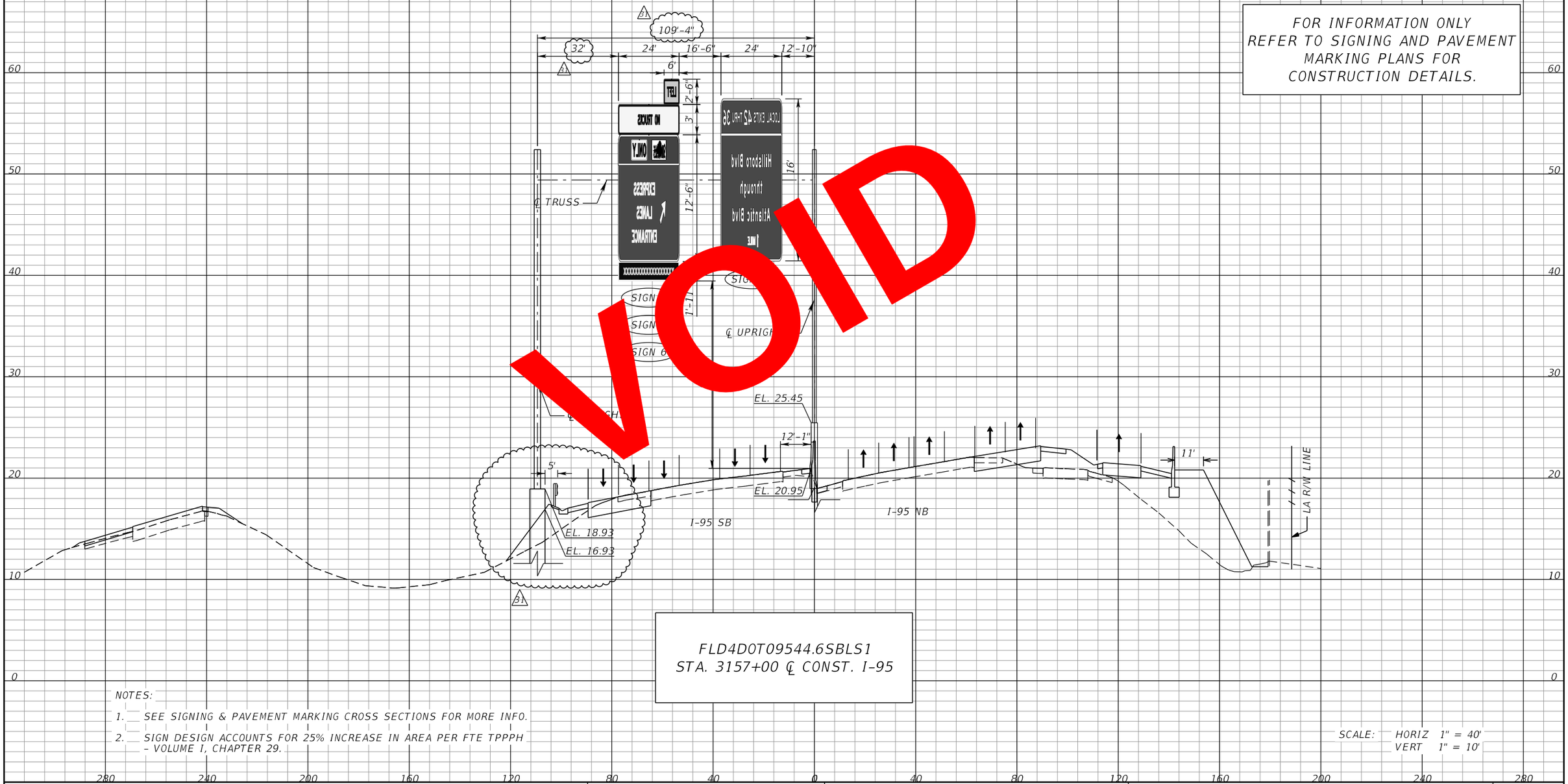
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (49)

SHEET NO.
IT-111

RELEASED FOR CONSTRUCTION
BY: FDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = $PLTDRVLS PEN TABLE = $PENTBLLS MODEL NAME =Rdxsrd_shg BarcoJ 4/18/2019 5:45:26 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn



VOID

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.

FLD4D0T09544.6SBLS1
STA. 3157+00 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/27/2020	31 POLE OFFSET AND ELEVATION REVISED		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (49)

SHEET NO.
IT-111

RELEASED FOR CONSTRUCTION
BY (PDOT)_____ Date: 6/4/2020
VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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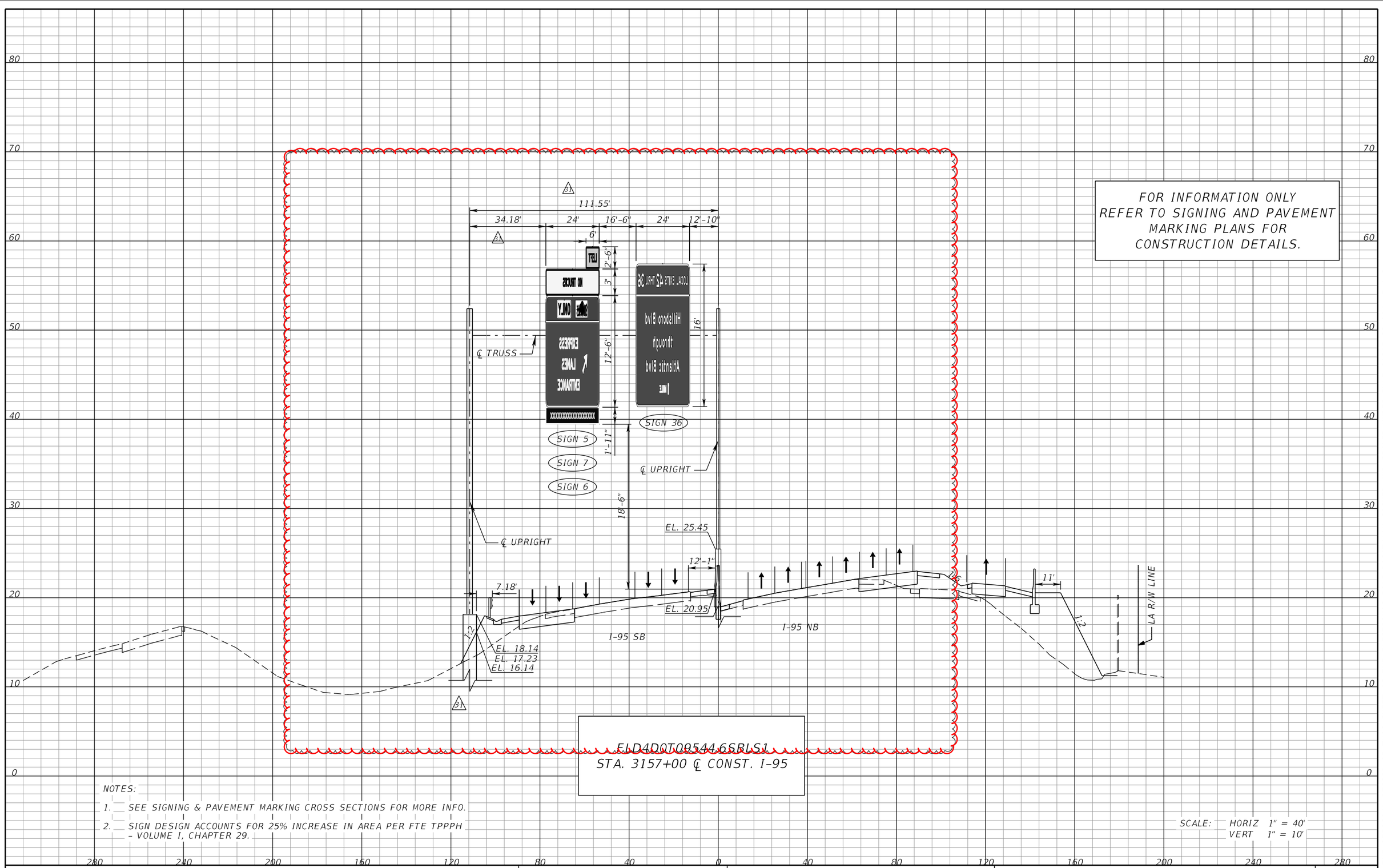

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/27/2020	1 POLE OFFSET AND ELEVATION REVISED		
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (49)

SHEET NO. IT-111

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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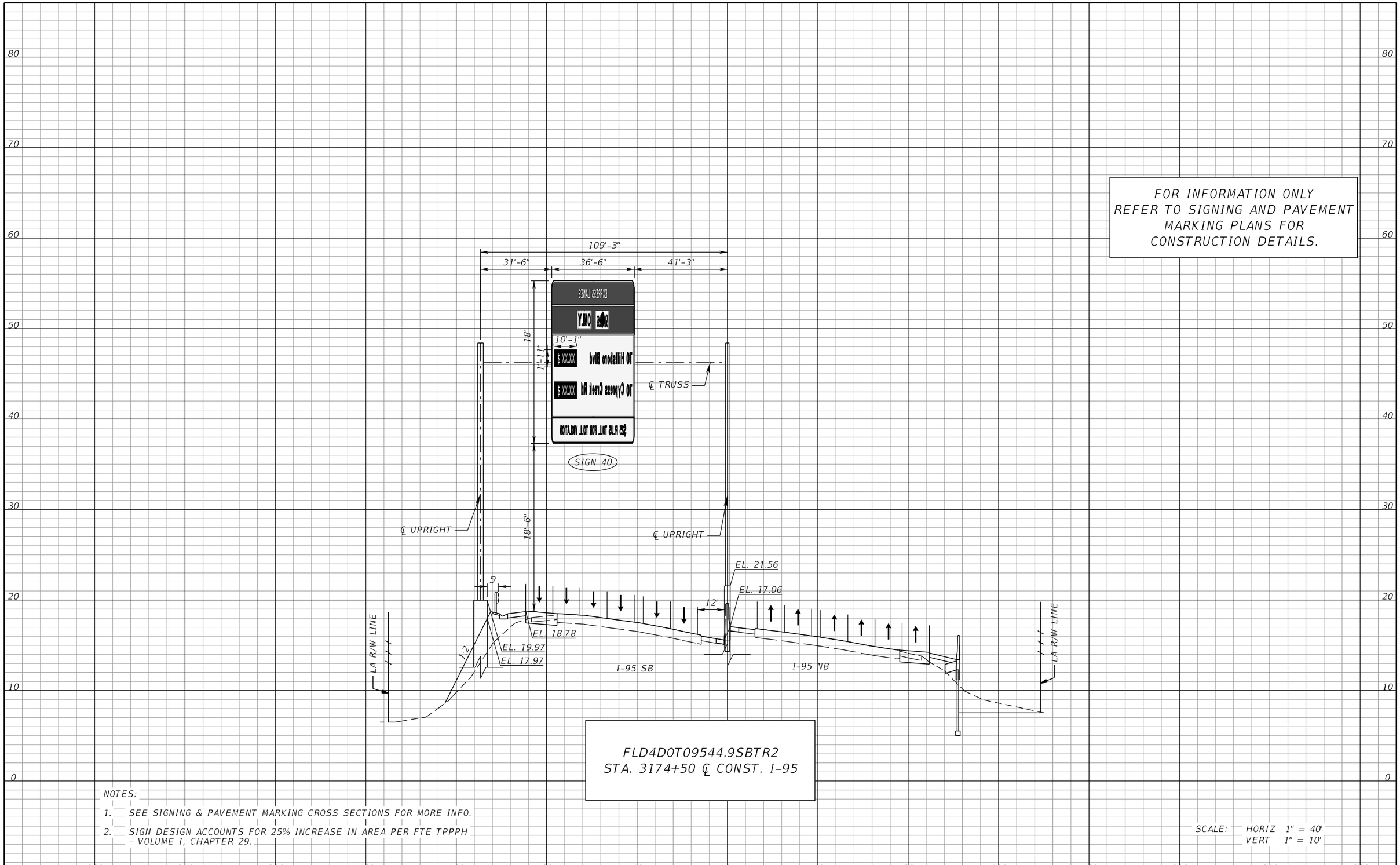

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH - VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (50)

SHEET NO.
IT-112

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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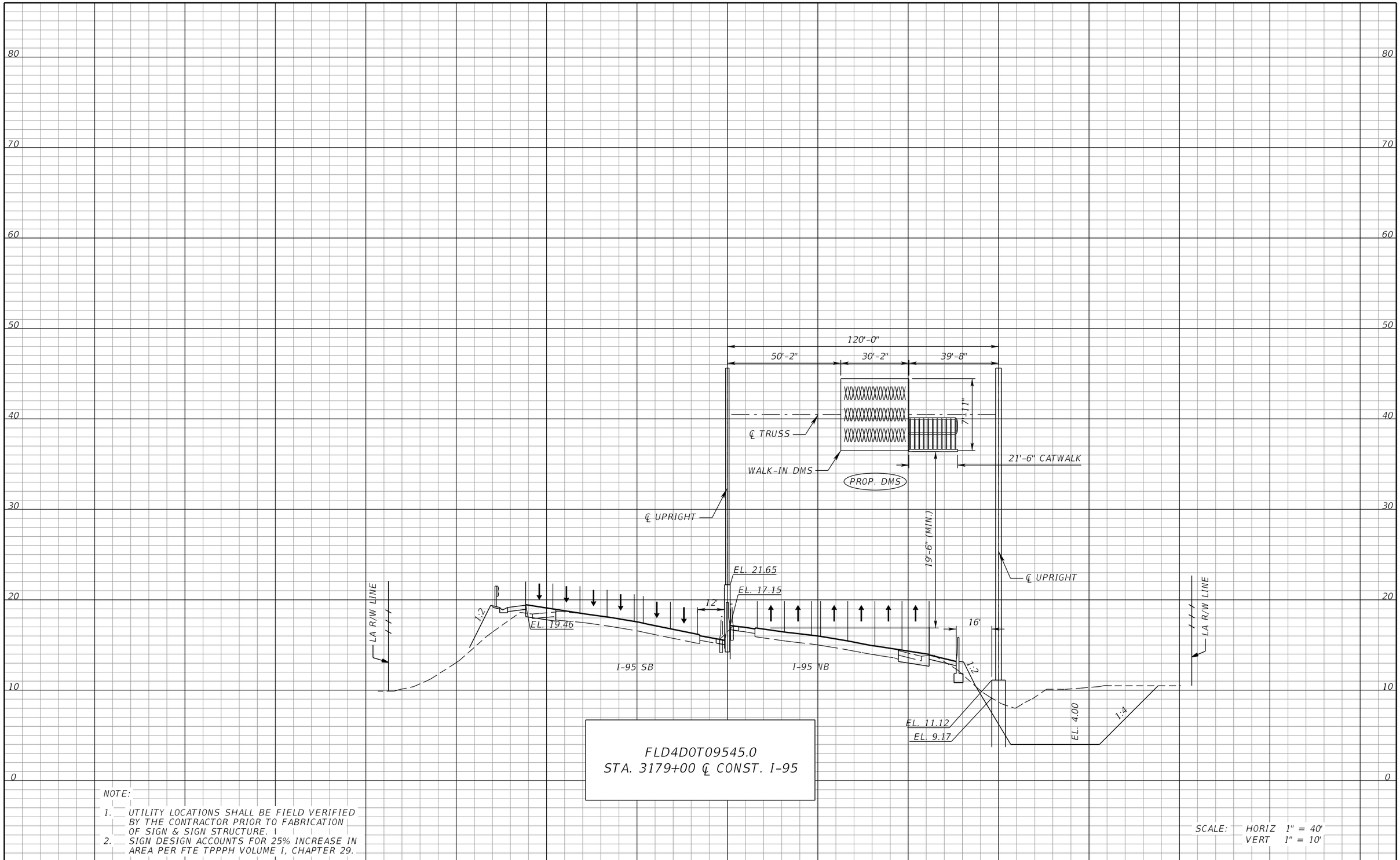


NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

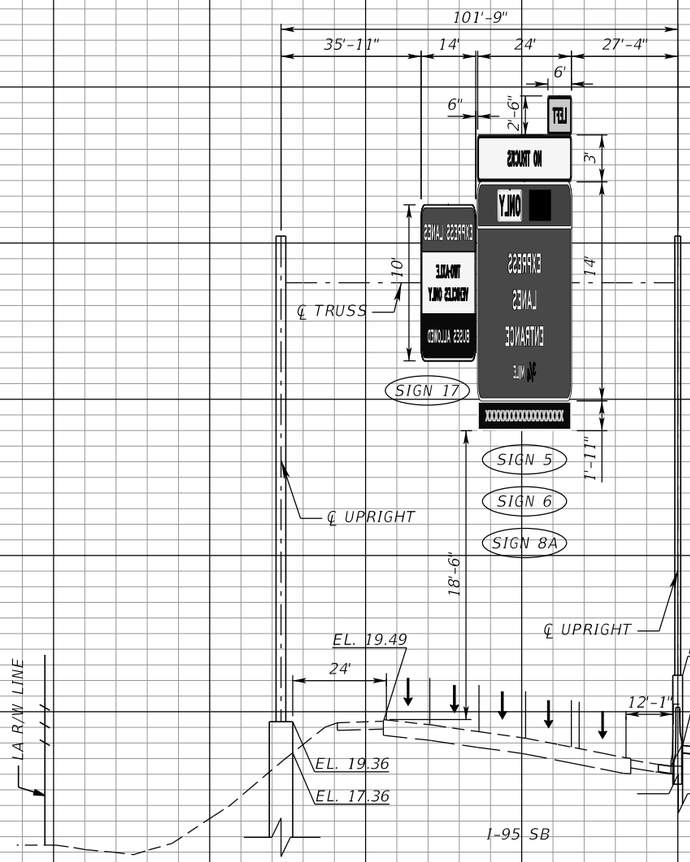
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (51)

SHEET NO.
IT-113



FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.

FLD4D0T09545.3SBLS1
STA. 3192+30 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

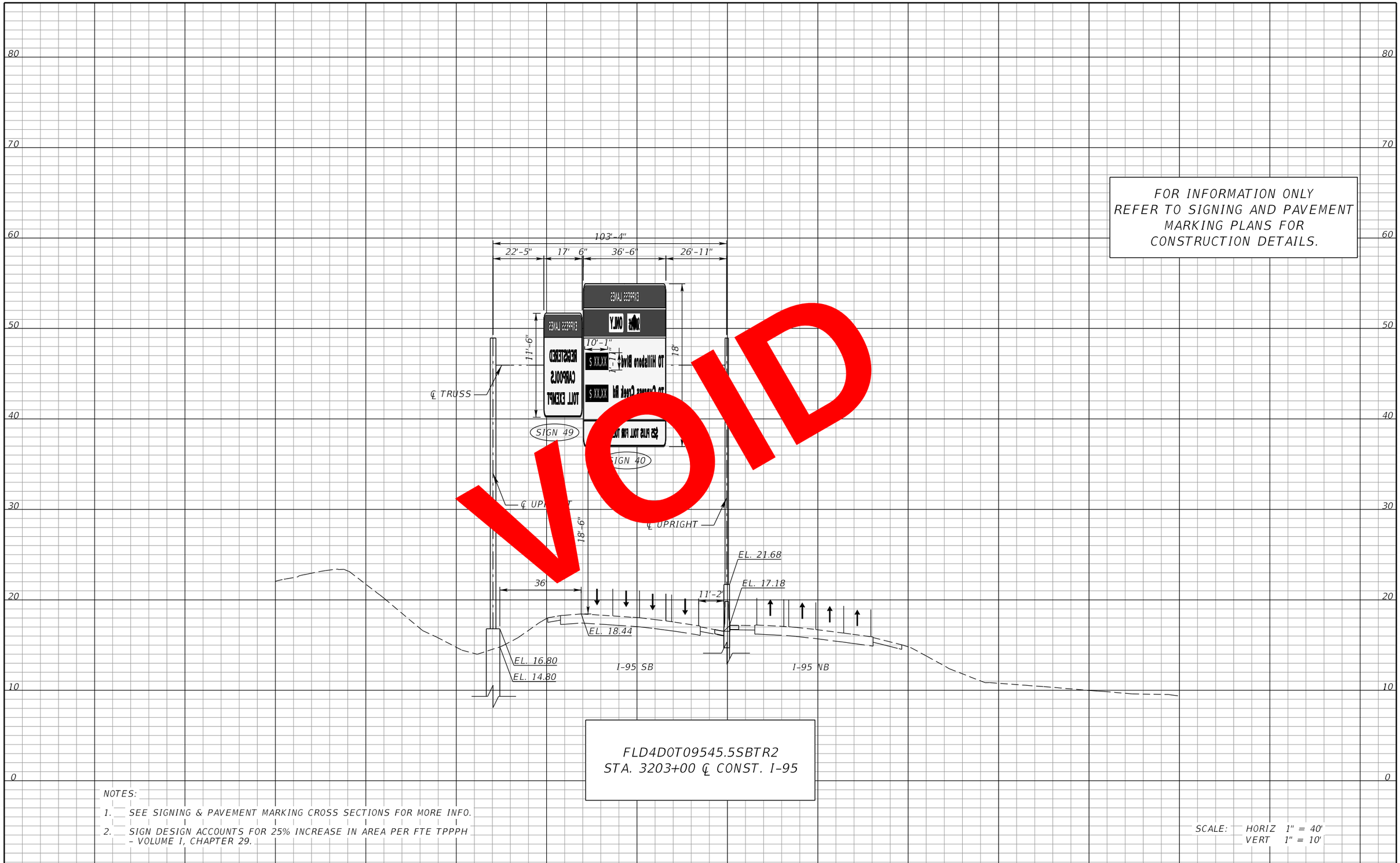
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (52)

SHEET NO.
IT-114

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
BY: RDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH - VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (53)

SHEET NO.
IT-115

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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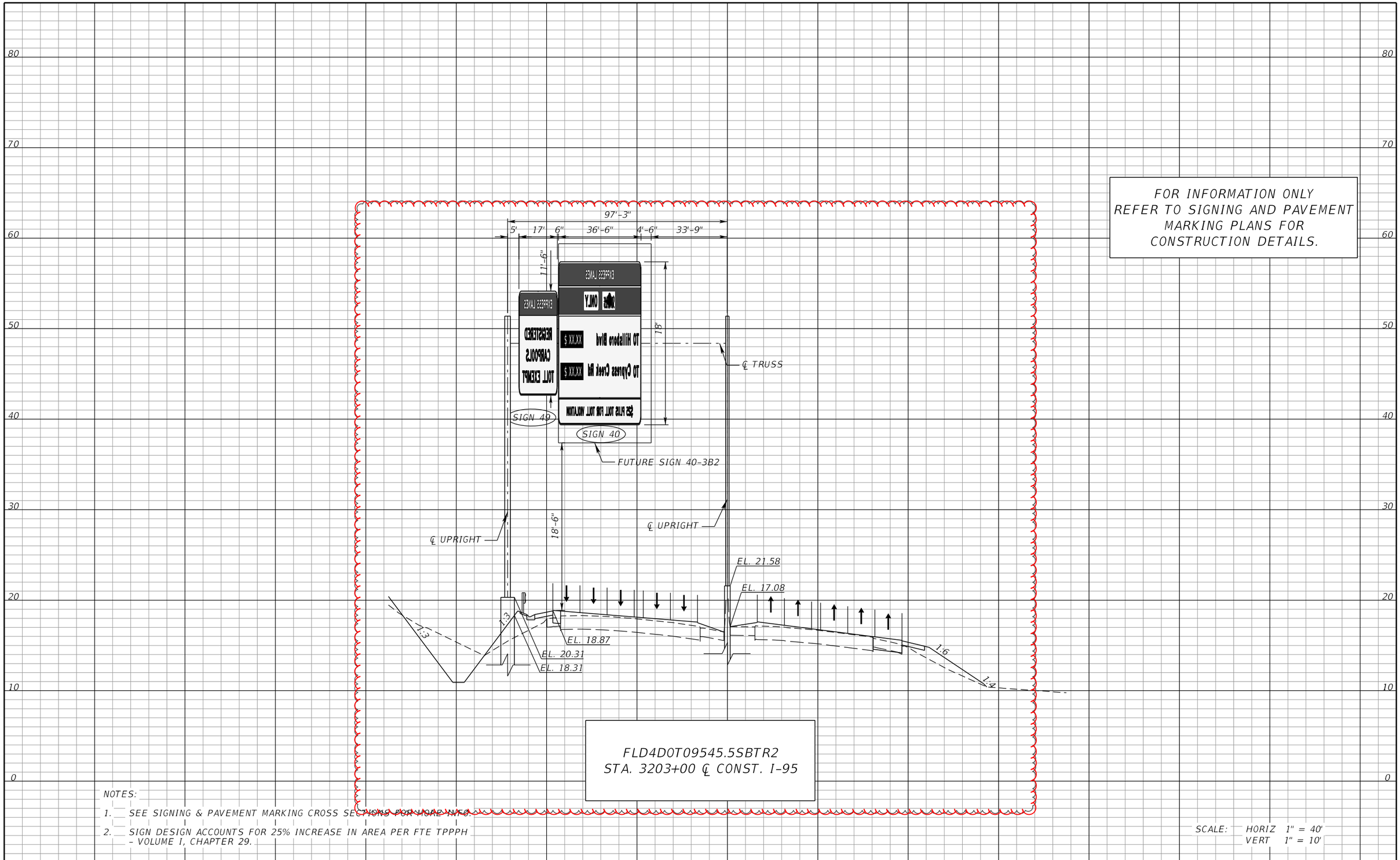

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH - VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (53)

SHEET NO.
IT-115

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT
MARKING PLANS FOR
CONSTRUCTION DETAILS.



VOID

FLD4D0T09545.7SBLS1
STA. 3212+63 ℄ CONST. I-95

NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH - VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

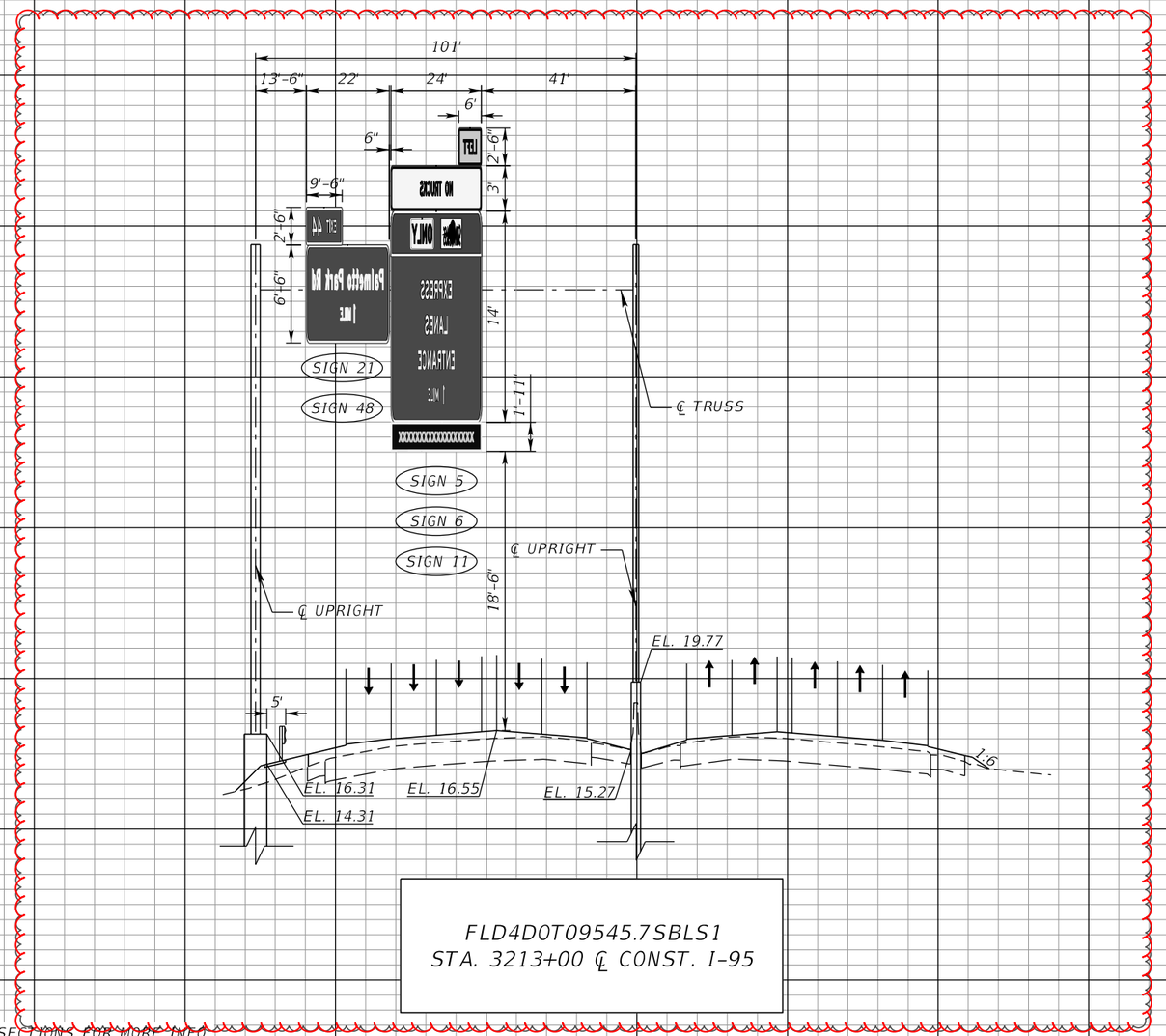
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (54)

SHEET NO.
IT-116

FOR INFORMATION ONLY
REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR CONSTRUCTION DETAILS.



NOTES:

1. SEE SIGNING & PAVEMENT MARKING CROSS SECTIONS FOR MORE INFO.
2. SIGN DESIGN ACCOUNTS FOR 25% INCREASE IN AREA PER FTE TPPPH – VOLUME I, CHAPTER 29.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (54)

SHEET NO. IT-116

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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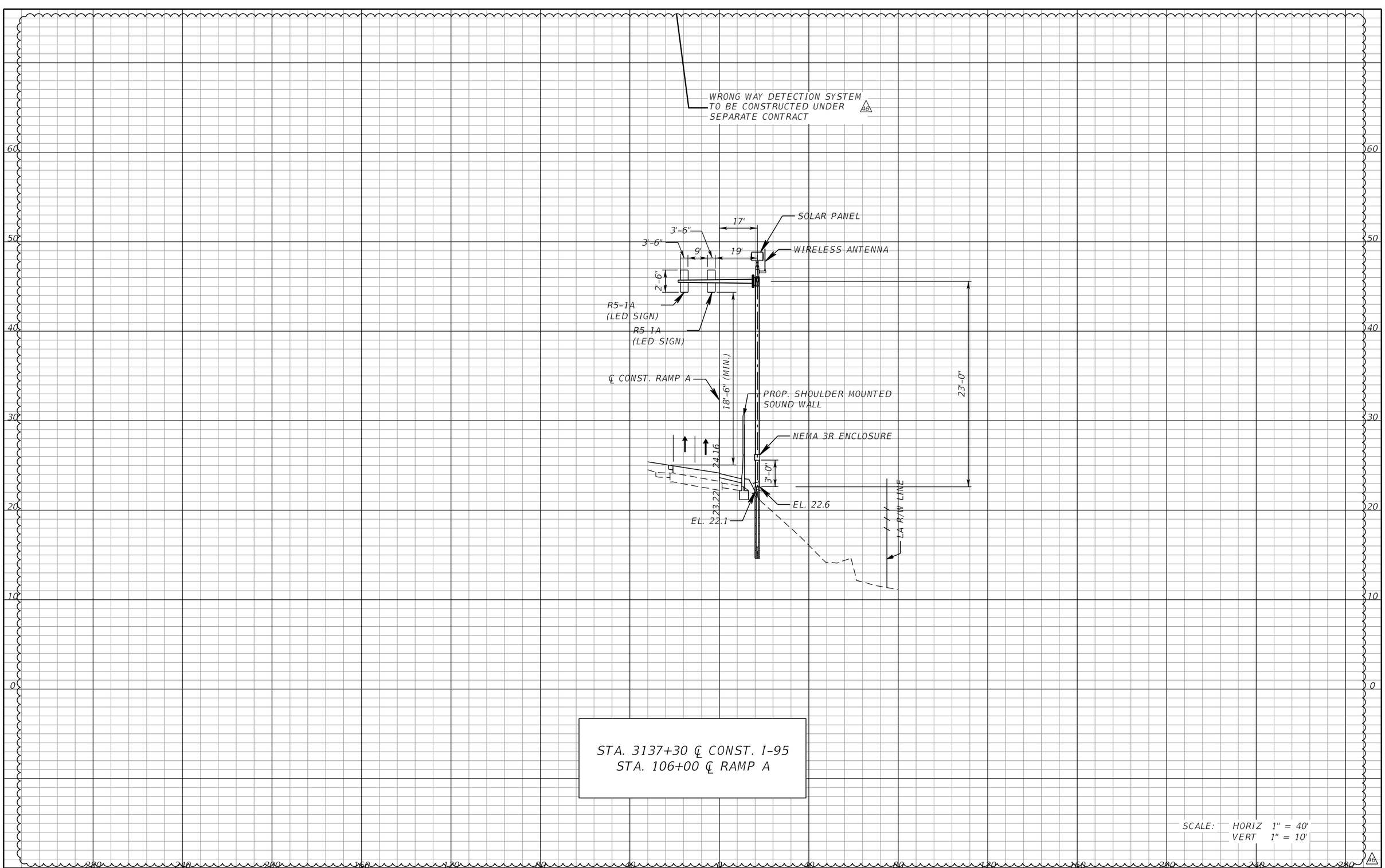

STA. 3137+30 ℄ CONST. I-95
STA. 106+00 ℄ RAMP A

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	#6 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
301 E. PINE ST, SUITE 1020
ORLANDO, FLORIDA 32801
(407) 587-7800
CERT. OF AUTH. NO. 01462
EOR: GUANGWEI ZHOU, P.E. NO. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (54A)

SHEET NO.
IT-116A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY:(PDOT) VS Date: 2/25/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, and coordination of all construction, fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5495

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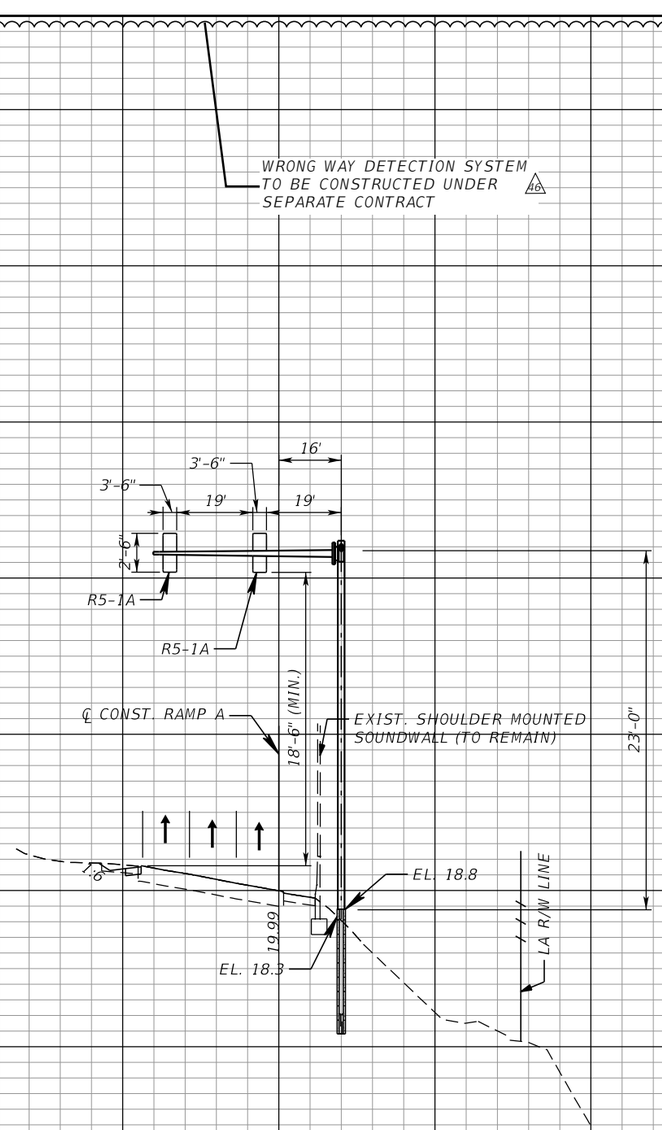
USMW189428 1/29/2021 2:40:37 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\SSXSIT200.dgn



STA. 3139+61 ℄ CONST. I-95
STA. 108+00 ℄ RAMP A

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
301 E. PINE ST, SUITE 1020
ORLANDO, FLORIDA 32801
(407) 587-7800
CERT. OF AUTH. NO. 01462
EOR: GUANGWEI ZHOU, P.E. NO. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (54B)

SHEET NO.
IT-116B

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, dimensions and quantities, and fabrication and erection shall remain with the contractor.
BY:(INDOT) VS Date: 2/25/2021
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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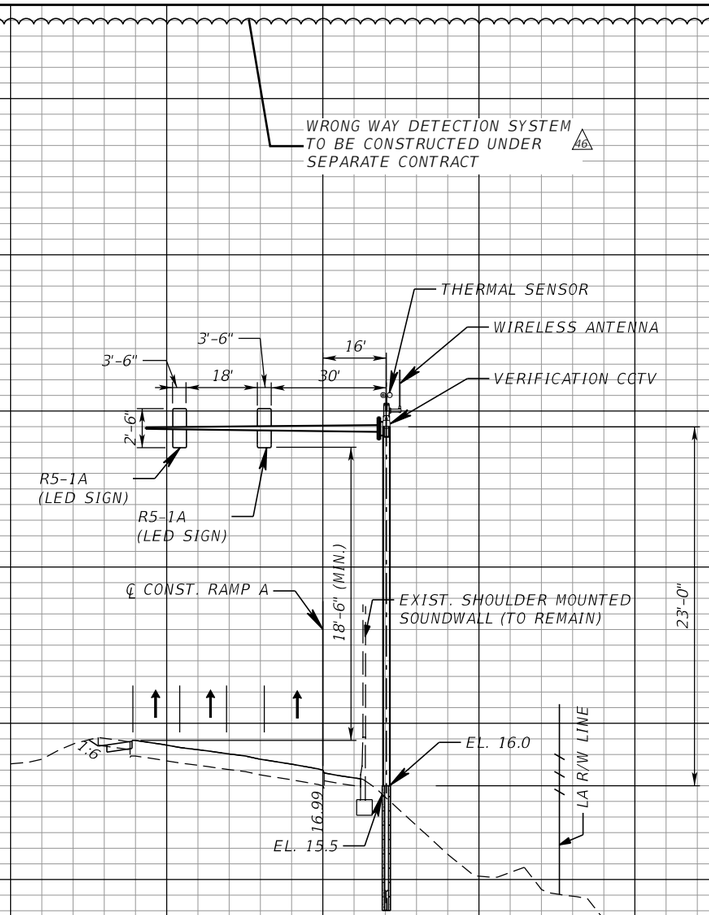


STA. 3141+16 ℄ CONST. I-95
STA. 110+00 ℄ RAMP A

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	4 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
301 E. PINE ST, SUITE 1020
ORLANDO, FLORIDA 32801
(407) 587-7800
CERT. OF AUTH. NO. 01462
EOR: GUANGWEI ZHOU, P.E. NO. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

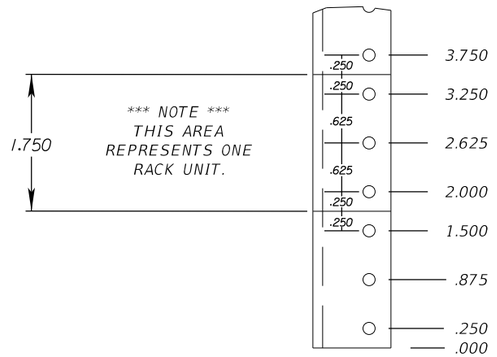
ITS CROSS SECTION (54C)

SHEET NO.
IT-116C

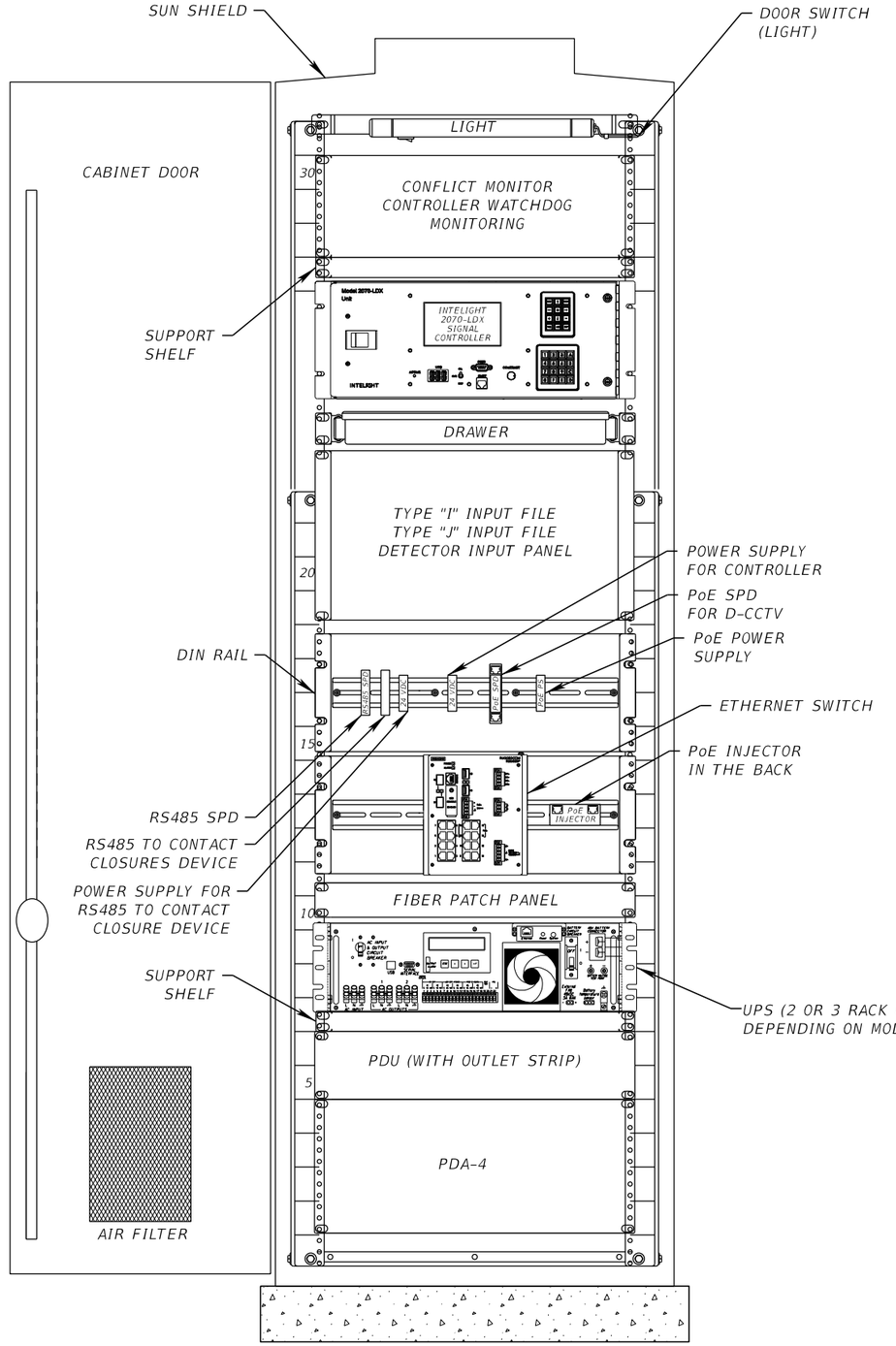
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, coordination with other disciplines, and field fabrication and erection shall remain with the contractor.
BY:(INIT) VS Date: 2/25/2021
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

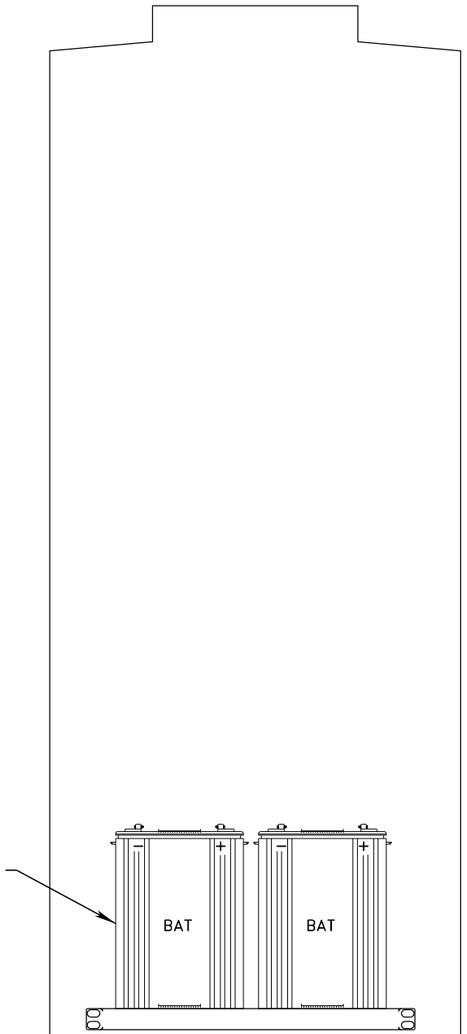
PLOT DRIVER = C:\FDOTSS10\RESOURCES\plot\FDOTPDF.pltcfg PEN TABLE = pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase4\Admin\FDOT_Drawing_Plotting.tbl USMW189428 1/29/2021 2:41:03 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\SSXSIT200.dgn



FRONT VIEW
RACK RAIL DETAIL



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR RSS / D-CCTV - FRONT VIEW



BACK VIEW

NOTES:

1. LABEL ALL ELECTRICAL RECEPTACLES EXCEPT GFCI AS "ELECTRONIC EQUIPMENT ONLY". LABEL GFCI RECEPTACLES AS "CONVENIENCE RECEPTACLES"
2. ALL DIN RAILS SHALL BE GROUNDED AS PART OF THE CABINET GROUNDING SYSTEM.
3. POWER DISTRIBUTION ASSEMBLY COMPONENT LAYOUT, ORIENTATION AND LOCATION MAY VARY.
4. TECH DRAWER WILL SLIDE OUT ON PRIMARY SIDE OF CABINET.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

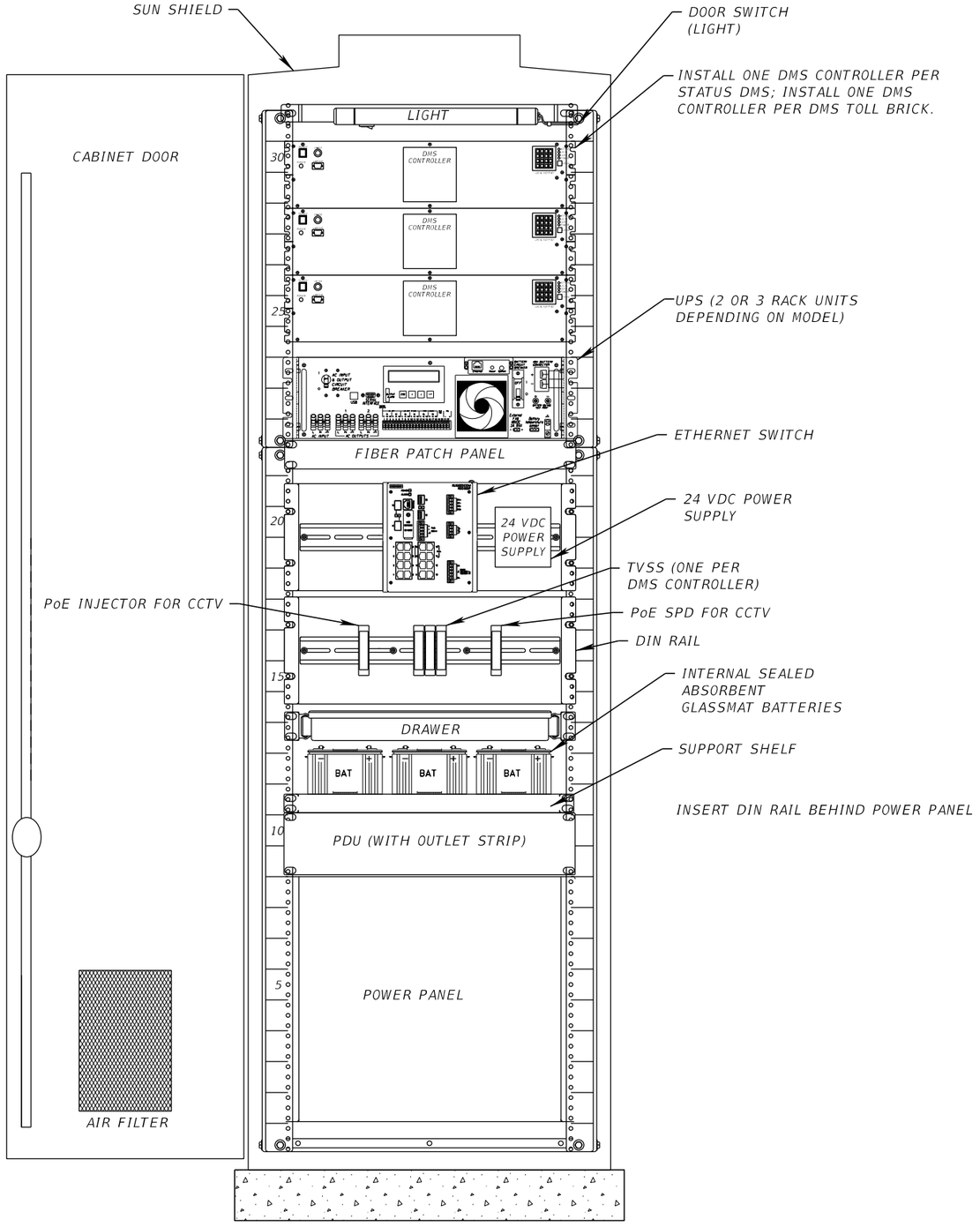
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

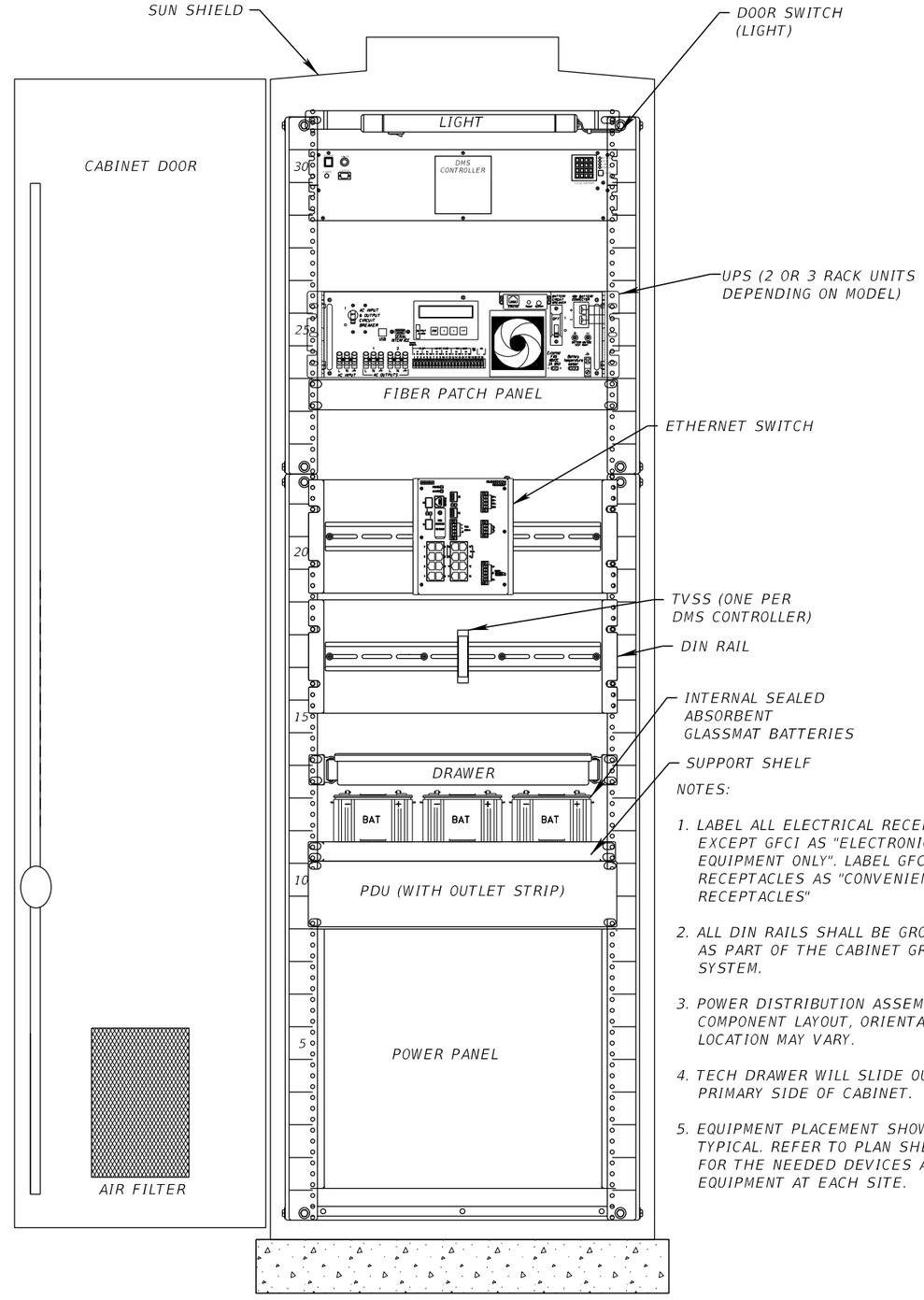
RSS AND D-CCTV TYPE 334 CABINET DETAILS

SHEET NO.
IT-117

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C
RELEASED FOR CONSTRUCTION
BY: RPOTI VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR T-DMS OR S-DMS OR CCTV



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR FREEWAY DMS

NOTES:

1. LABEL ALL ELECTRICAL RECEPTACLES EXCEPT GFCI AS "ELECTRONIC EQUIPMENT ONLY". LABEL GFCI RECEPTACLES AS "CONVENIENCE RECEPTACLES"
2. ALL DIN RAILS SHALL BE GROUNDED AS PART OF THE CABINET GROUNDING SYSTEM.
3. POWER DISTRIBUTION ASSEMBLY COMPONENT LAYOUT, ORIENTATION AND LOCATION MAY VARY.
4. TECH DRAWER WILL SLIDE OUT ON PRIMARY SIDE OF CABINET.
5. EQUIPMENT PLACEMENT SHOWN IS TYPICAL. REFER TO PLAN SHEETS FOR THE NEEDED DEVICES AND EQUIPMENT AT EACH SITE.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

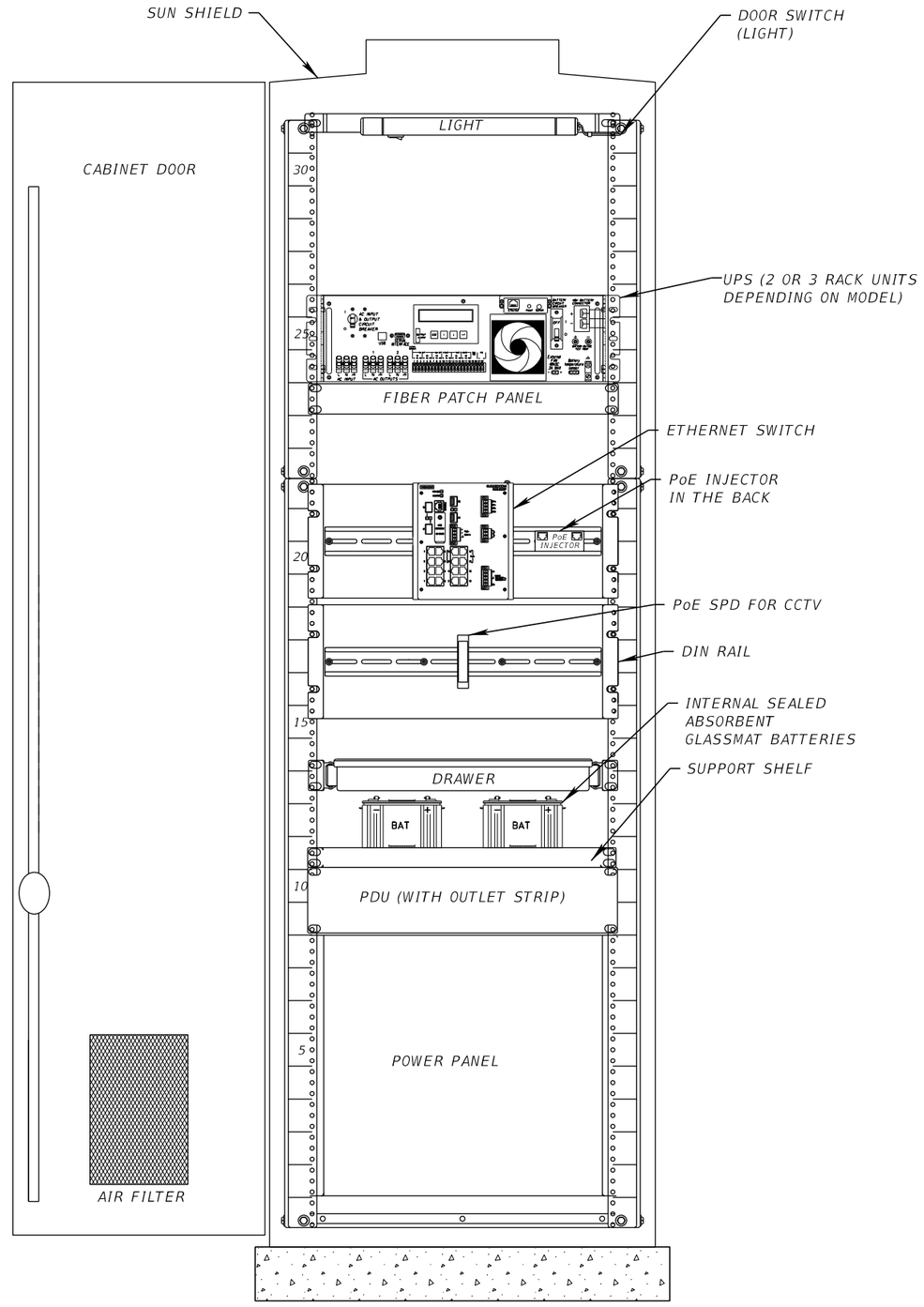
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

DMS/CCTV TYPE 334 CABINET DETAILS

SHEET NO. IT-118

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
BY: RPOTI VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 433109-4-52-01 CONTRACT E4R96



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR FREEWAY CCTV

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

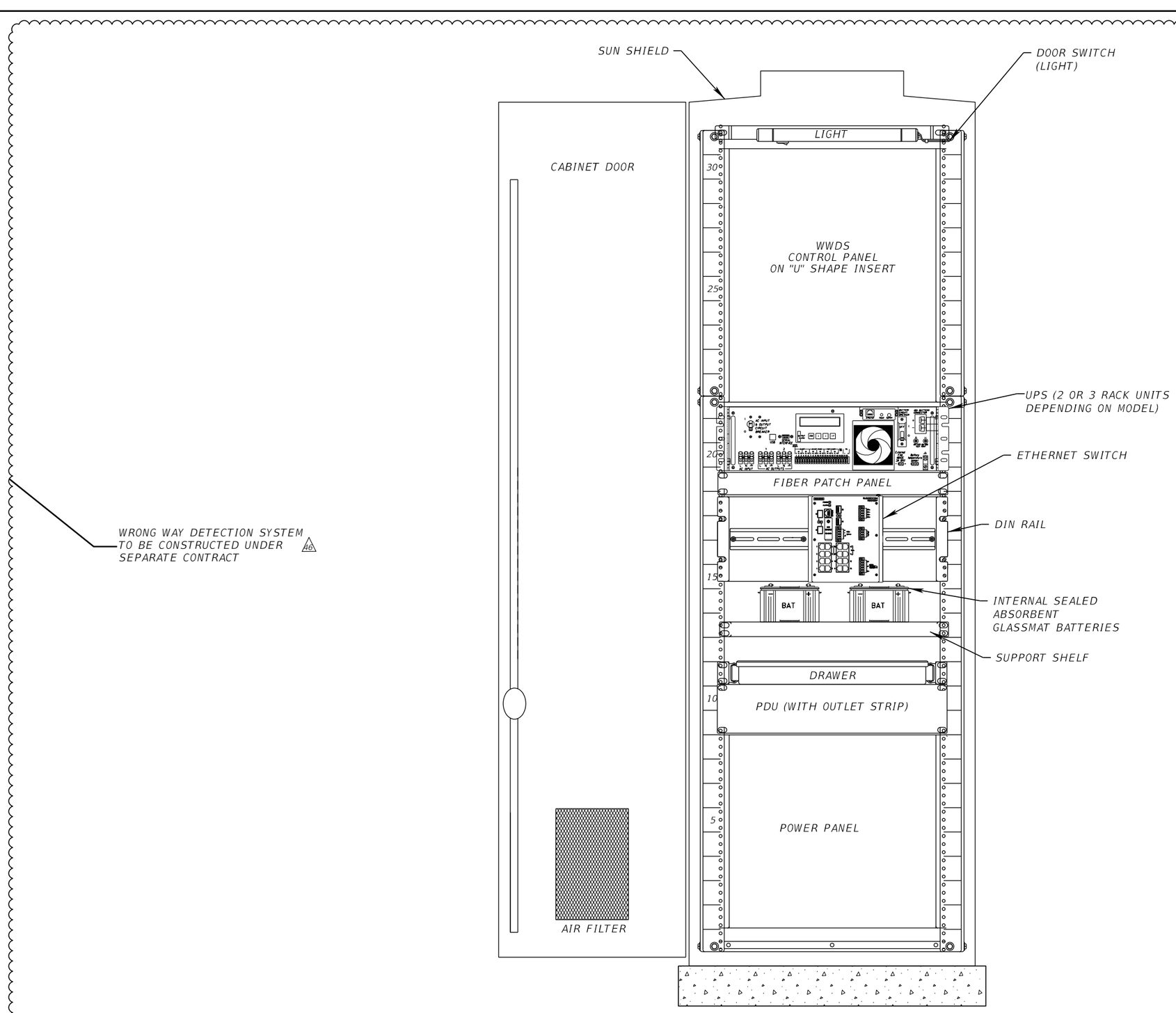
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

CCTV
TYPE 334 CABINET DETAILS

SHEET NO.
IT-118A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FOD): VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



GROUND MOUNTED FIELD EQUIPMENT CABINET FOR WWDS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WWDS
TYPE 334 CABINET DETAILS

SHEET NO.
IT-118B

BY:(FDOT) VS Date: 2/25/2021
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, and compliance with codes remains with the contractor. Review does not include fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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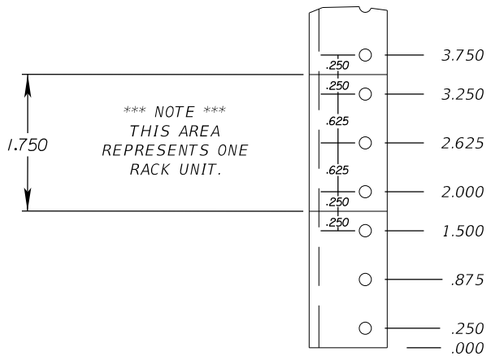
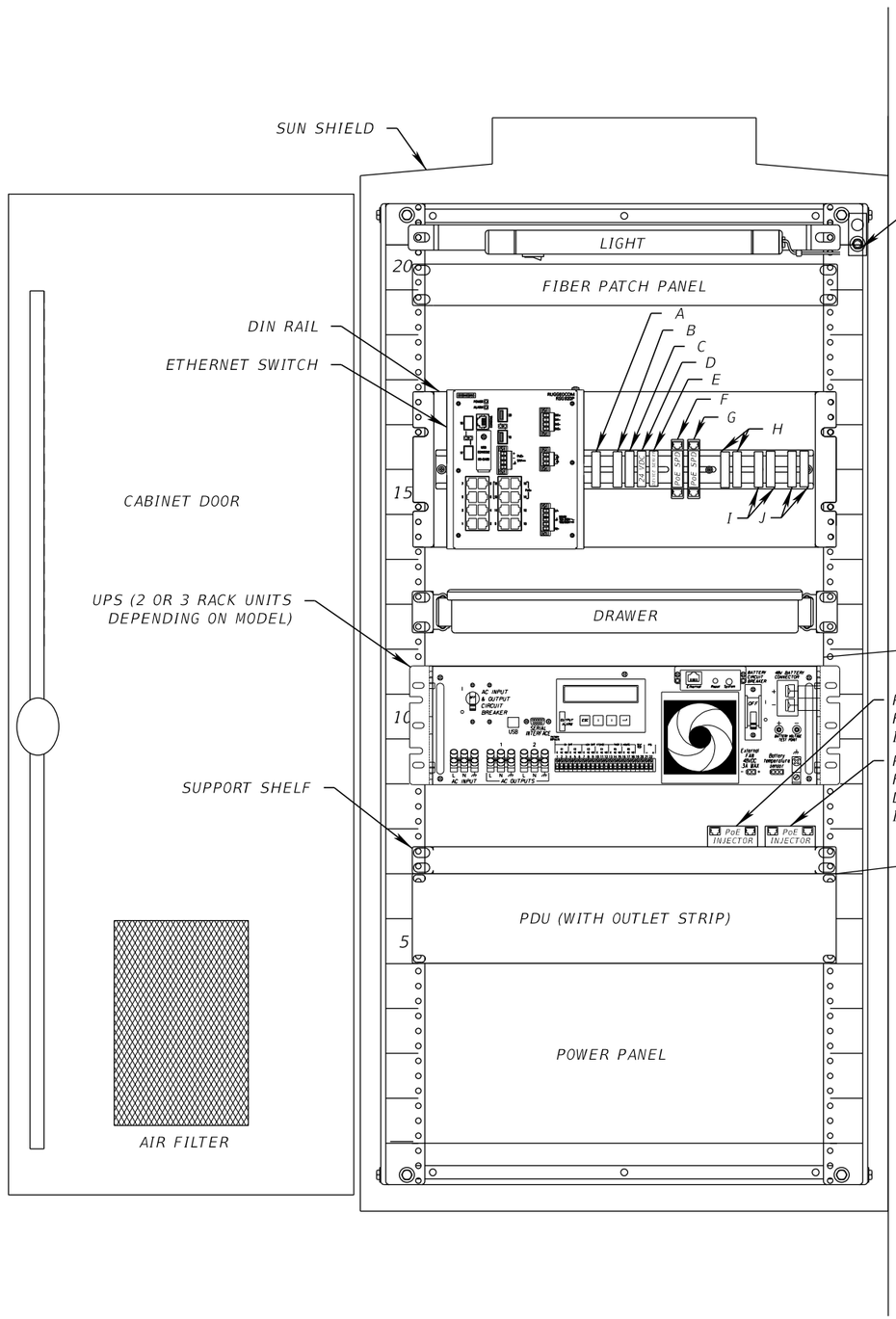


FRONT VIEW
RACK RAIL DETAIL

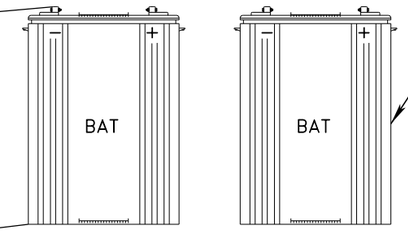


A - ** RS485 SPD
B - * RS232 SPD FOR MVDS
C - * 24 VDC SPD FOR MVDS
D - * POWER SUPPLY (MVDS)
E - * DEVICE SERVER
F - PoE SPD FOR CCTV OR D-CCTV
G - PoE SPD FOR WAP
H - MODBUS MODULE (AT GENERATOR CABINETS ONLY)
I - MODBUS SPD (AT GENERATOR CABINETS ONLY))
J - MODBUS POWER SUPPLY (AT GENERATOR CABINETS ONLY)

* IF REQUIRED, SEE PLAN SHEETS FOR REQUIRED DEVICES AT EACH LOCATION.

** ONLY FOR RSS CABINET CONNECTION.

INSERT BATTERIES BEHIND UPS



NOTES:

1. LABEL ALL ELECTRICAL RECEPTACLES EXCEPT GFCI AS "ELECTRONIC EQUIPMENT ONLY". LABEL GFCI RECEPTACLES AS "CONVENIENCE RECEPTACLES"
2. ALL DIN RAILS SHALL BE GROUNDED AS PART OF THE CABINET GROUNDING SYSTEM.
3. POWER DISTRIBUTION ASSEMBLY COMPONENT LAYOUT, ORIENTATION AND LOCATION MAY VARY.
4. EQUIPMENT PLACEMENT SHOWN IS TYPICAL.
5. THE ITS CABINET DEDICATED FOR THE GENERATOR / ATS SITES SHALL CONTAIN THE FOLLOWING EQUIPMENT (AT A MINIMUM): UPS & BATTERIES, PANEL SWITCH, ETHERNET SWITCH, POWER SUPPLIES, SURGE PROTECTIVE DEVICES, CIRCUIT BREAKERS, AND ADDITIONAL COMMUNICATIONS EQUIPMENT (TO BE CONFIRMED BY GENERATOR / ATS MANUFACTURERS) NECESSARY FOR THE INTEGRATION OF THE GENERATOR AND ATS IN THE ITS FIBER NETWORK. SEE DETAILS ON SHEET IT-180.

POLE MOUNTED FIELD EQUIPMENT CABINET FOR CCTV OR D-CCTV / MVDS OR GENERATOR

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

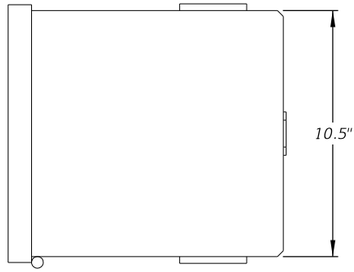
CCTV, D-CCTV AND MVDS TYPE 336S CABINET DETAIL

SHEET NO. IT-119

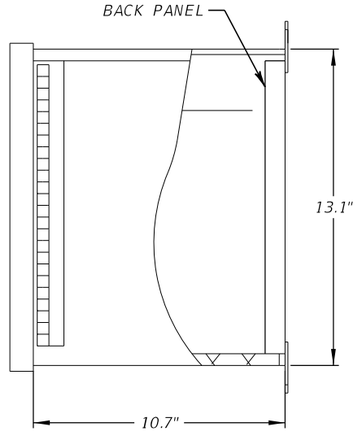
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY: RDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

NOTES:

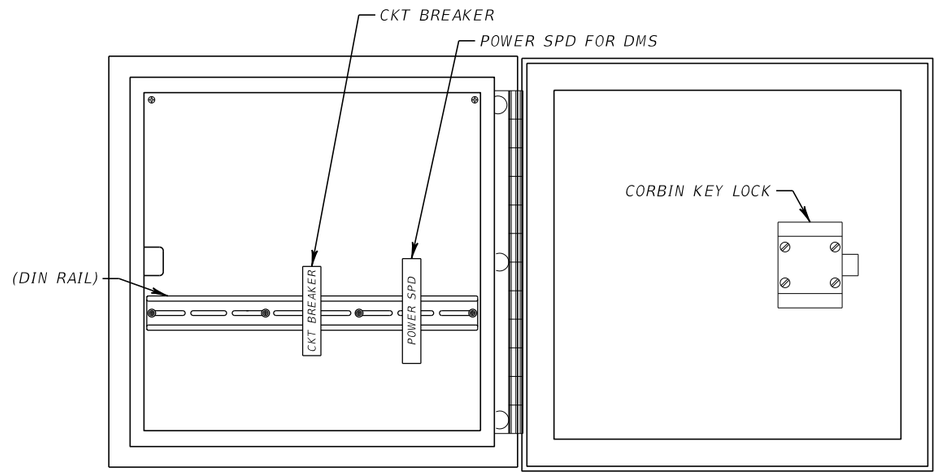
1. NEMA ENCLOSURE WITH POWER SPD, CKT BREAKER AND DIN RAIL TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
2. NEMA ENCLOSURE SHALL BE NEMA 3R AND SIZED TO FIT ALL COMPONENTS AND SHALL PROVIDE ADEQUATE CIRCULATION.
3. CABINET MATERIAL SHALL BE MADE OF 5052-H32 ALUMINUM .125"
4. INTERIOR CABINET DIMENSIONS ARE: 13"H X 10"W X 11"D
5. LOCK IS A #2 CORBIN
6. TABS ARE FOR POLE MOUNT

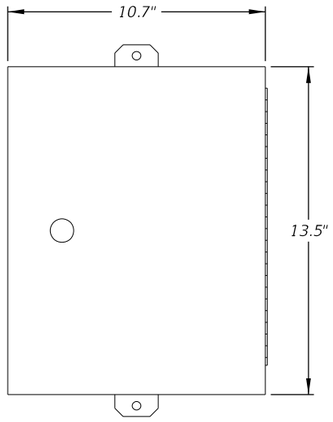


TOP VIEW

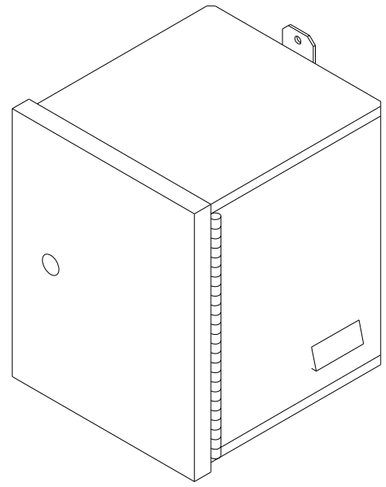


SIDE VIEW





FRONT VIEW



NEMA ENCLOSURE

NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

NEMA 3R CABINET DETAILS

SHEET NO.
IT-119A

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C
RELEASED FOR CONSTRUCTION
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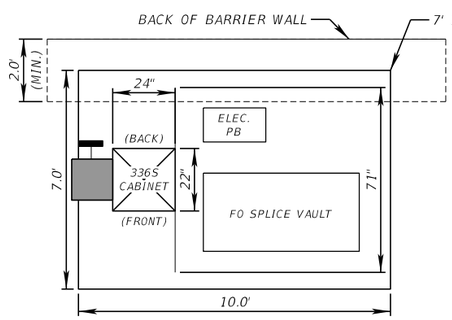
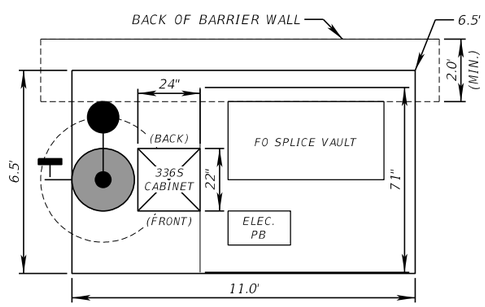
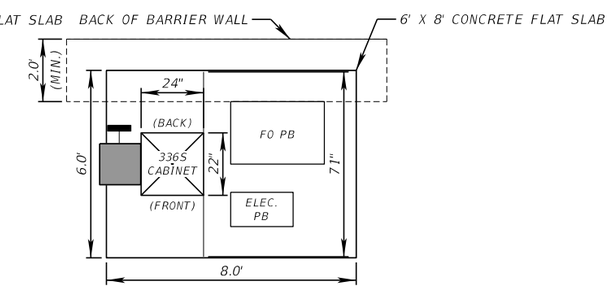
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY: RDOT VS Date: 05/21/2019



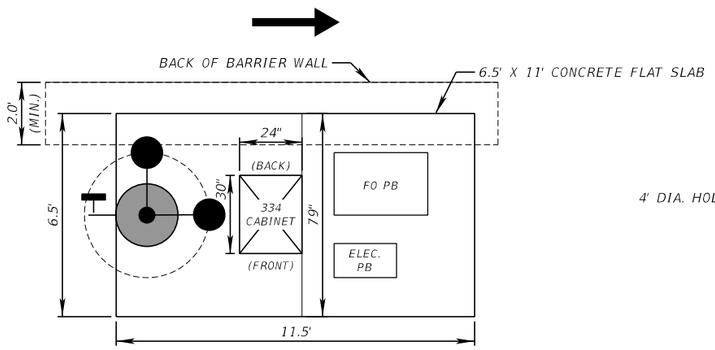
10' L X 8' W AREA
BY BARRIER WALL
NTS



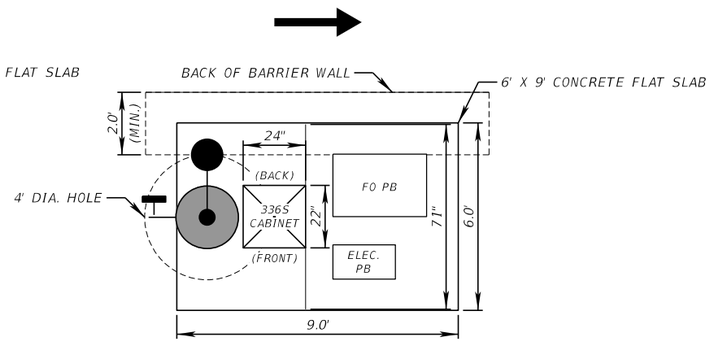
11' L X 7.5' W AREA
BY BARRIER WALL
NTS



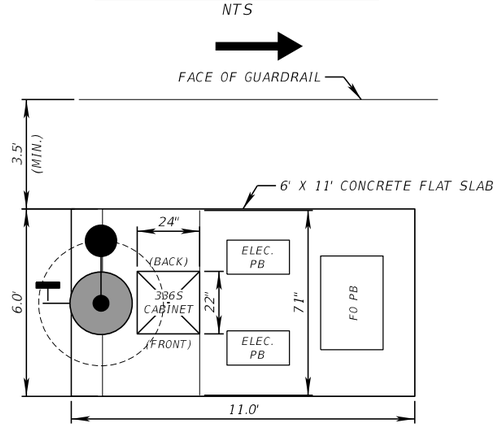
PROVIDE 8' L X 7' W AREA
AT BACK OF BARRIER WALL
NTS



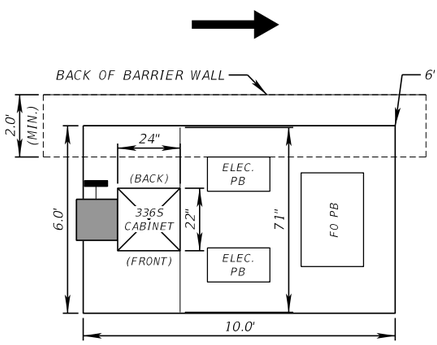
PROVIDE 11.5' L X 10' W AREA
BEHIND FACE OF GUARDRAIL
NTS



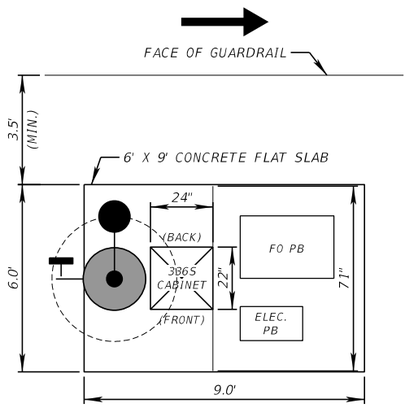
9' L X 7' W AREA
BY BARRIER WALL
NTS



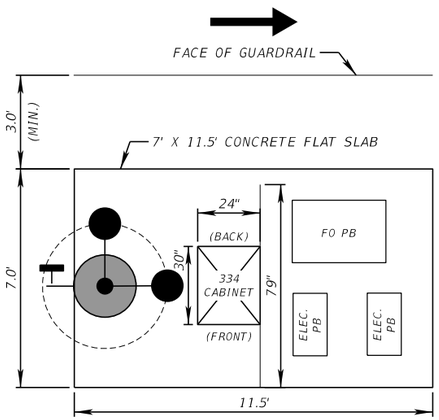
PROVIDE 11.5' L X 9.5' W AREA
BEHIND FACE OF GUARDRAIL
NTS



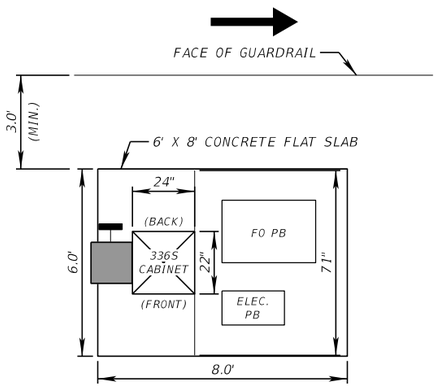
PROVIDE 10' L X 7' W AREA
AT BACK OF BARRIER WALL
NTS



PROVIDE 9' L X 9.5' W AREA
BEHIND FACE OF GUARDRAIL
NTS



PROVIDE 11.5' L X 10' W AREA
BEHIND FACE OF GUARDRAIL
NTS



PROVIDE 8' L X 9' W AREA
BEHIND FACE OF GUARDRAIL
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

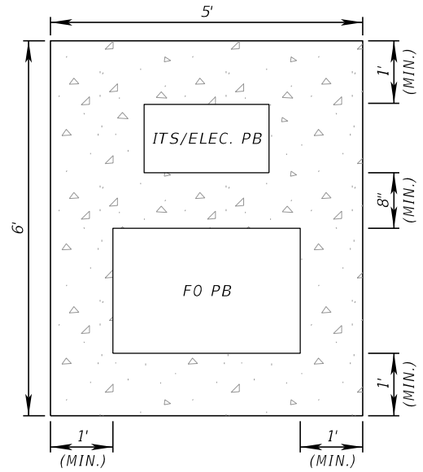
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

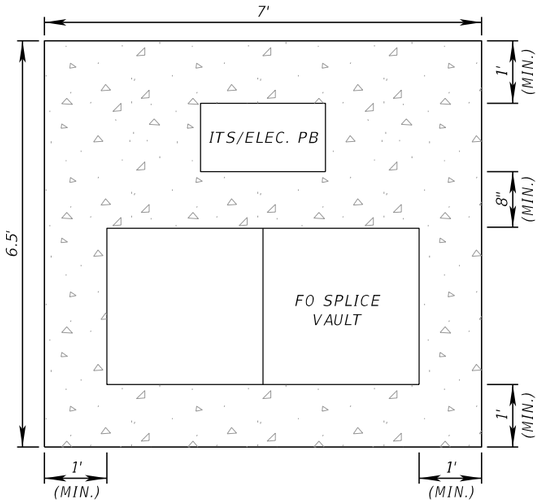
ITS DEVICE ORIENTATION DETAILS (1)

SHEET NO.
IT-120

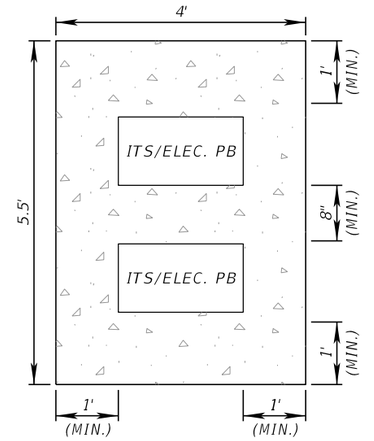
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C
RELEASED FOR CONSTRUCTION
BY:RDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 433109-4-52-01 CONTRACT E4R96



DETAIL 'A'
NTS



DETAIL 'B'
NTS

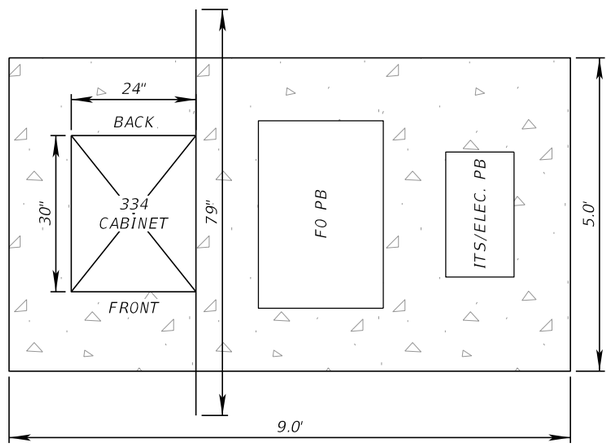


DETAIL 'C'
NTS

(DIRECTION OF TRAVEL)

(DIRECTION OF TRAVEL FOR STA. 3151+89, 413.0' LT.)

(DIRECTION OF TRAVEL)



DETAIL 'D'
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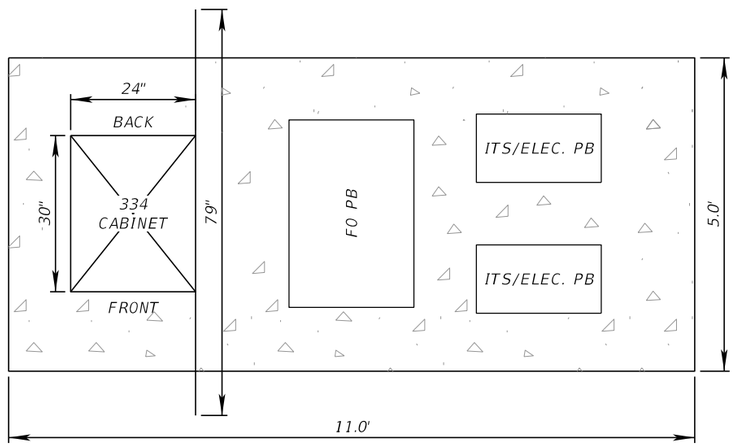
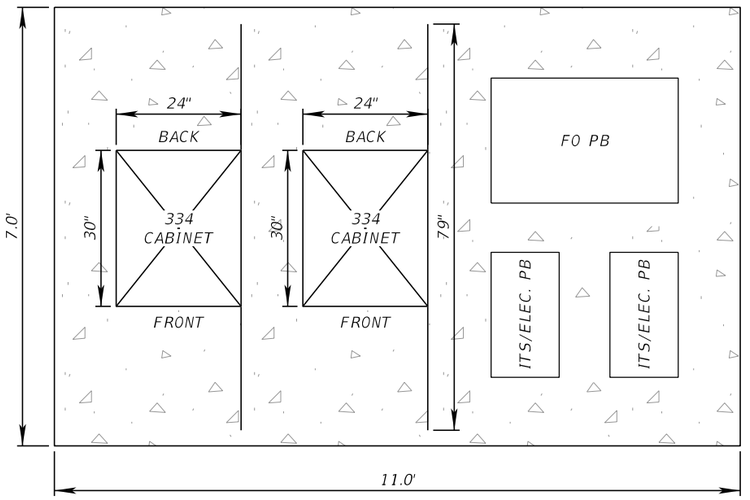
(DIRECTION OF TRAVEL)



DETAIL 'E'
NTS



DETAIL 'F'
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

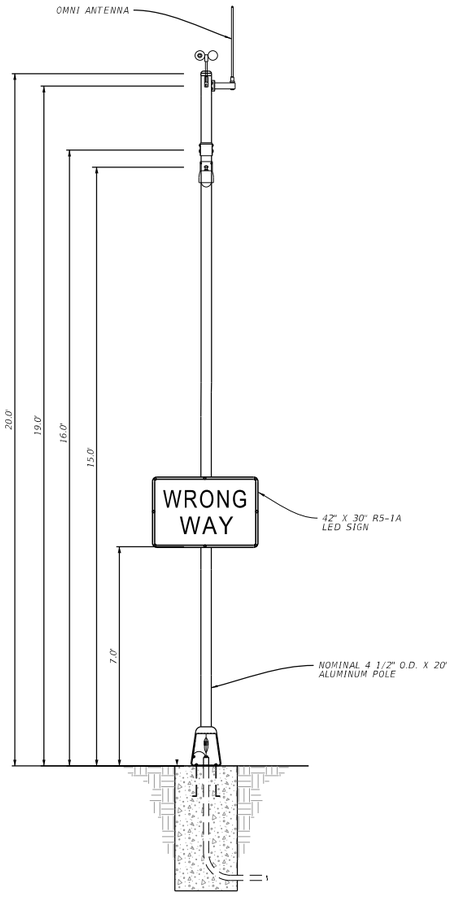
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICE ORIENTATION DETAILS (2)

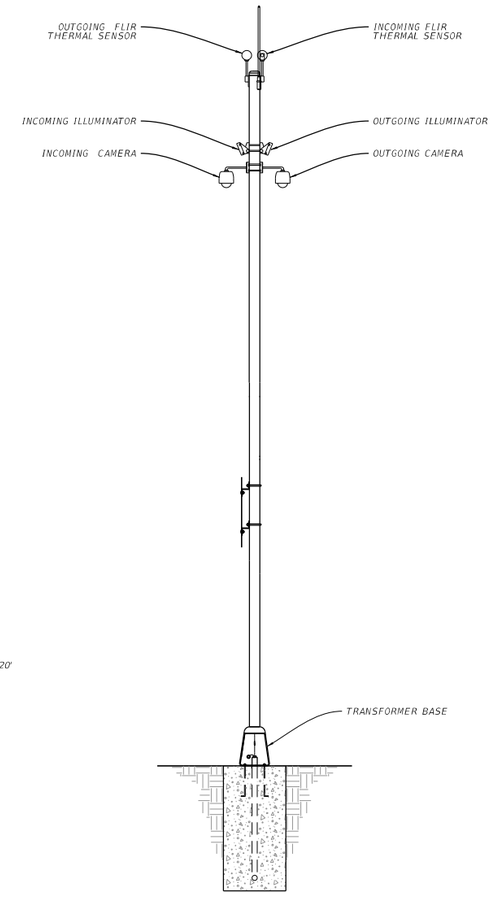
SHEET NO.
IT-121

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
BY: RDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 433109-4-52-01 CONTRACT E4R96



GROUND MOUNT WWDS DETECTION POLE

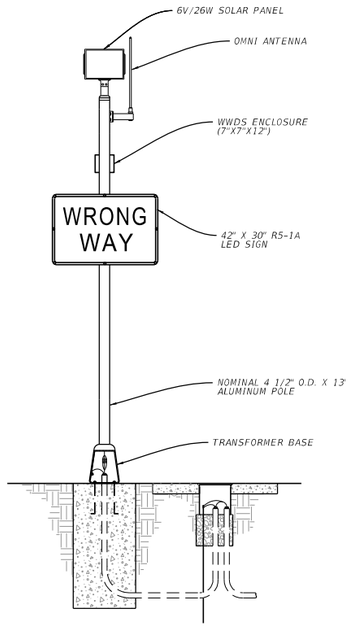
FRONT VIEW
NTS



GROUND MOUNT WWDS DETECTION POLE

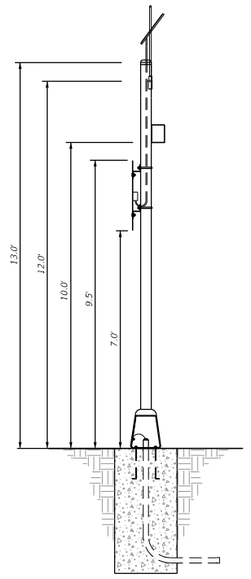
SIDE VIEW
NTS

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 16



GROUND MOUNT WWDS WARNING SIGN WITH LED

FRONT VIEW
NTS



GROUND MOUNT WWDS WARNING SIGN WITH LED

SIDE VIEW
NTS

GENERAL NOTES:

1. INSTALL SIGN PANEL AND WIND BEAM IN ACCORDANCE WITH INDEX 700-010 AND SPECIFICATION 700.
2. ENGAGE ALL THREADS ON THE TRANSFORMER BASE AND POST UNLESS THE ALUMINUM POST IS FULLY SEATED INTO BASE.
3. MEET THE REQUIREMENTS OF SPECIFICATION 646 FOR ALUMINUM POLES AND TRANSFORMER BASES.
4. INSTALL A CONCRETE SLAB AROUND ALL ROADSIDE ASSEMBLIES ON SLOPES 6:1 OR GREATER. BUILD UP A FLAT PLATFORM WITH A MINIMUM DIMENSION OF 6'WX7'L ON STEEPER SLOPE.
5. WHEN WIRE ENTRY HOLES ARE DRILLED IN THE SIGN COLUMN, USE A BUSHING OR RUBBER GROMMET TO PROTECT CONDUCTORS.
6. ORIENT SOLAR PANEL TO FACE SOUTH FOR OPTIMAL EXPOSURE TO SUNLIGHT.
7. THE CONTROLLER AND THE SOLAR BATTERIES ARE LOCATED IN THE SAME NEAM 3R WW ENCLOSURE.

16

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WWDS DETAILS

SHEET NO.
IT-121A

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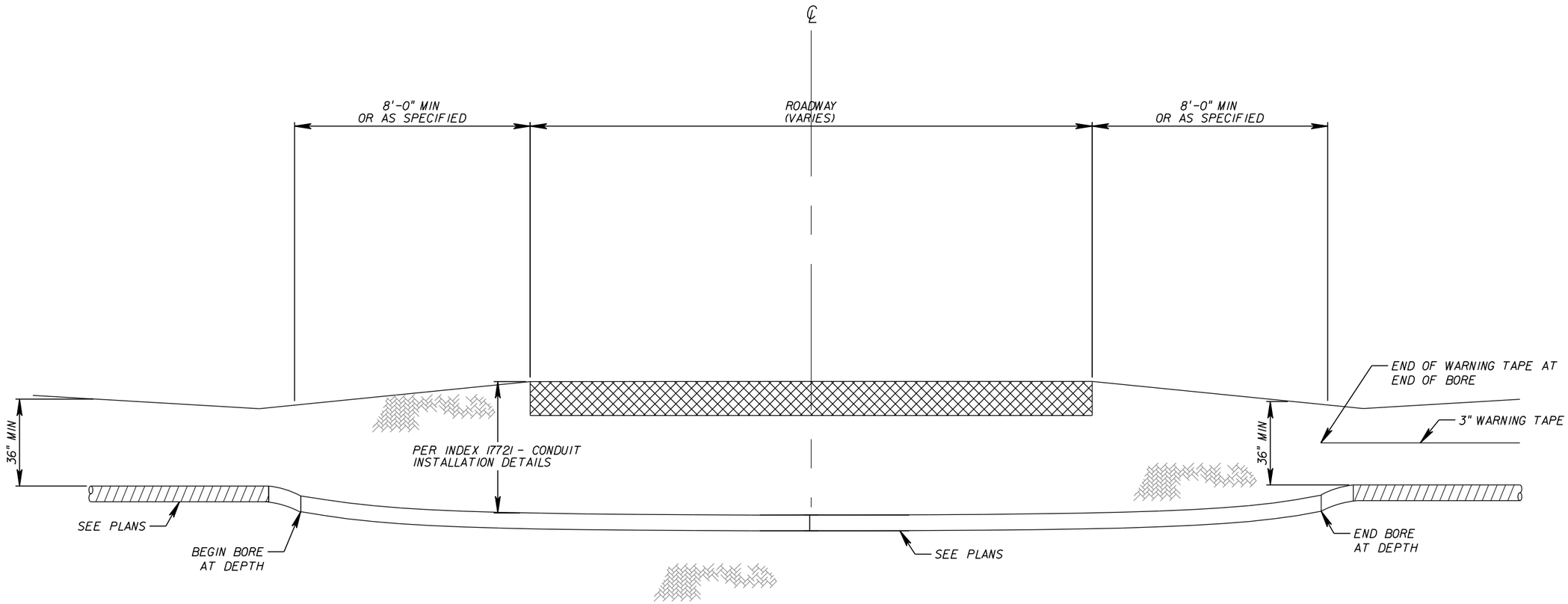
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 2/25/2021



TYPICAL DIRECTIONAL BORE

NTS

NOTES:

1. UTILITY IN THE PATH OF THE BORE SHALL BE LOCATED AND THE DEPTH OF THE BORE CROSSING SHALL BE DELINEATED TO CROSS UNDER OR OVER UTILITY WITH 12" MINIMUM SEPARATION.
2. DEPTH SHALL BE IN ACCORDANCE WITH INDEX 17721 - CONDUIT INSTALLATION DETAILS.
3. PULL BOXES SHALL BE INSTALLED AT THE BEGINNING AND END OF BORE AS NECESSARY. SEE PLAN SHEETS FOR PULL BOX LOCATIONS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

DIRECTIONAL BORE DETAIL

SHEET NO.
IT-122

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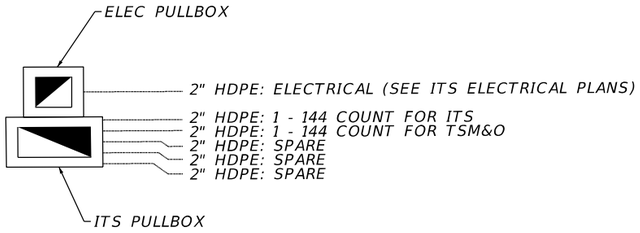
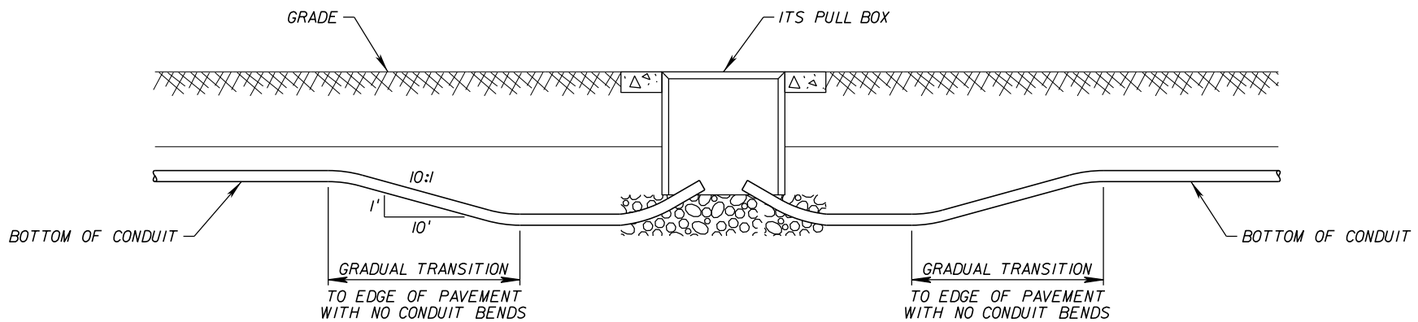
BY: FDOT VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



PLAN VIEW

CONDUIT LAYOUT AT ITS AND ELEC PULLBOXES

(SINGLE OPEN TRENCH)



ELEVATION OF CONDUIT TRENCH AND

FIBER OPTIC PULL BOX

NOTE:

BACKFILL THE TRENCH WITHIN THE SAME DAY.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS UNDERGROUND CONDUIT TRANSITION DETAILS

SHEET NO.

IT-123

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BY: RDOT VS Date: 05/21/2019
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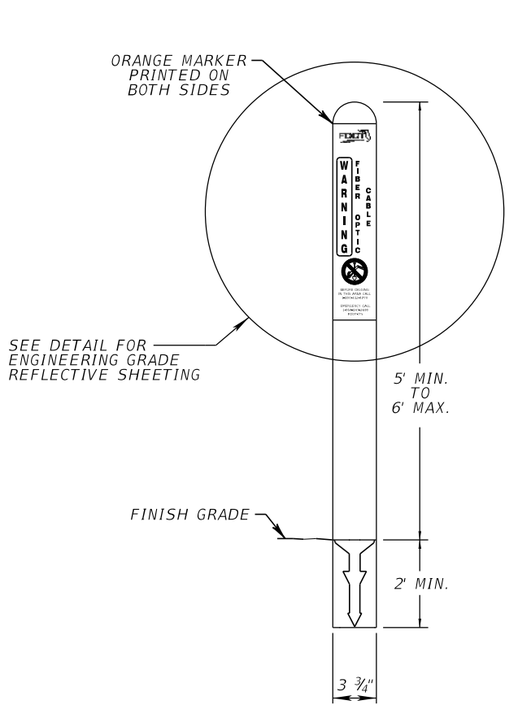
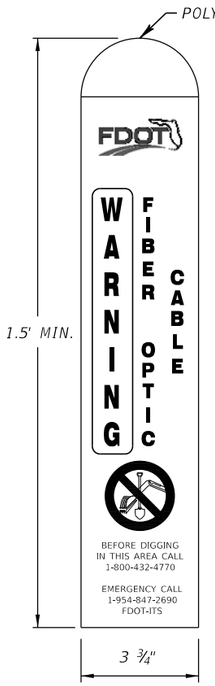
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

FIBER OPTIC CABLE ROUTE MARKER



FRONT VIEW
NTS

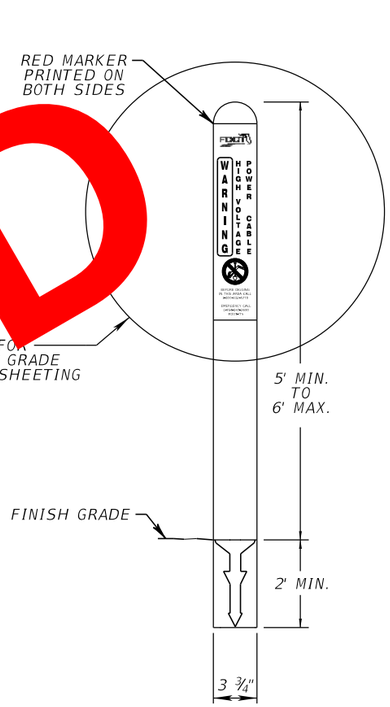


SHEETING
NTS

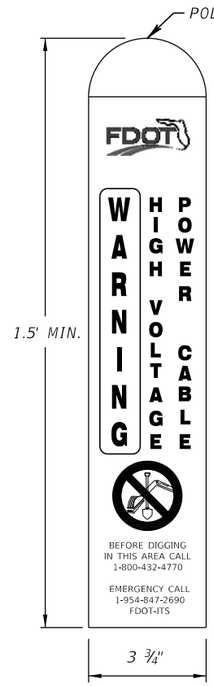


SHEETING (PALM BEACH COUNTY)
NTS

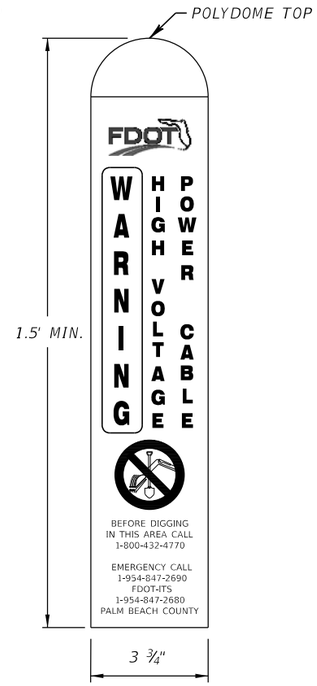
ELECTRICAL CABLE ROUTE MARKER



FRONT VIEW
NTS



SHEETING
NTS



SHEETING (PALM BEACH COUNTY)
NTS

VOID

NOTES:

1. FOR TRENCH LINES WITH BOTH FIBER OPTIC CABLE AND POWER SERVICE WIRE, INSTALL POWER MARKER ALTERNATING WITH FIBER MARKER.
2. INSTALL FIBER OPTIC CABLE MARKER AT EVERY FIBER PULL BOX AND EVERY CHANGE IN DIRECTION NOT TO EXCEED 500 FEET.
3. TUBULAR MARKER TO BE PLACED OVER A V-CHANNEL METALLIC FENCE POST.
4. A POLYDOME TOP SHALL BE INSTALLED ON EACH MARKER ORANGE, FOR FIBER AND RED FOR POWER.
5. ALL ROUTE MARKERS SHALL MEET SECTION 630 OF STANDARD SPECIFICATIONS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

CABLE ROUTE MARKER DETAILS

SHEET NO.
IT-124

RELEASED FOR CONSTRUCTION
BY: FDOT VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
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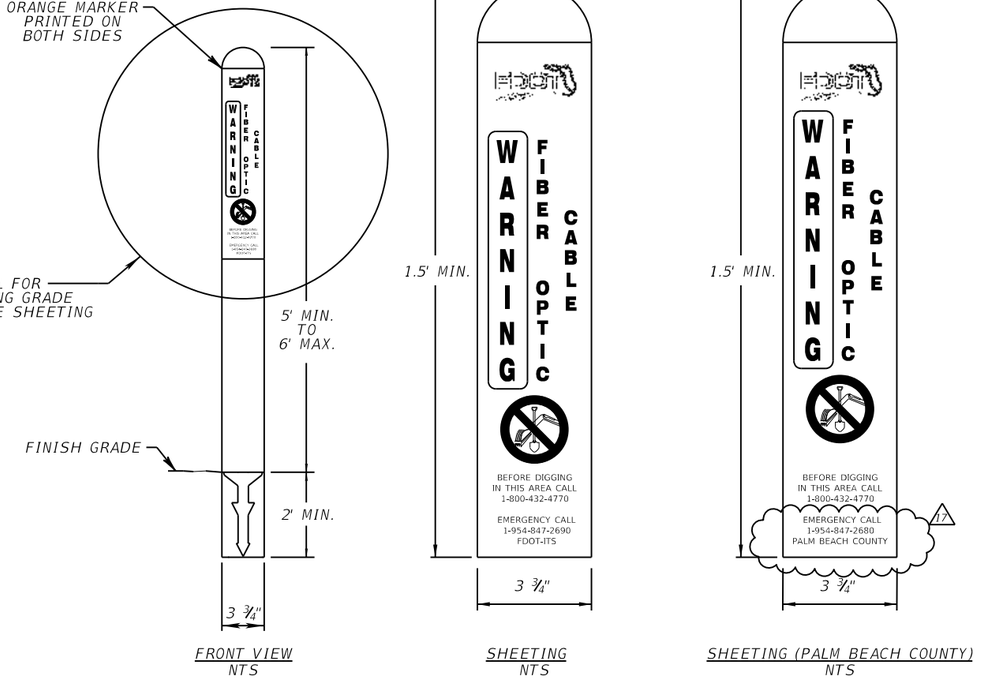
FIBER OPTIC CABLE ROUTE MARKER

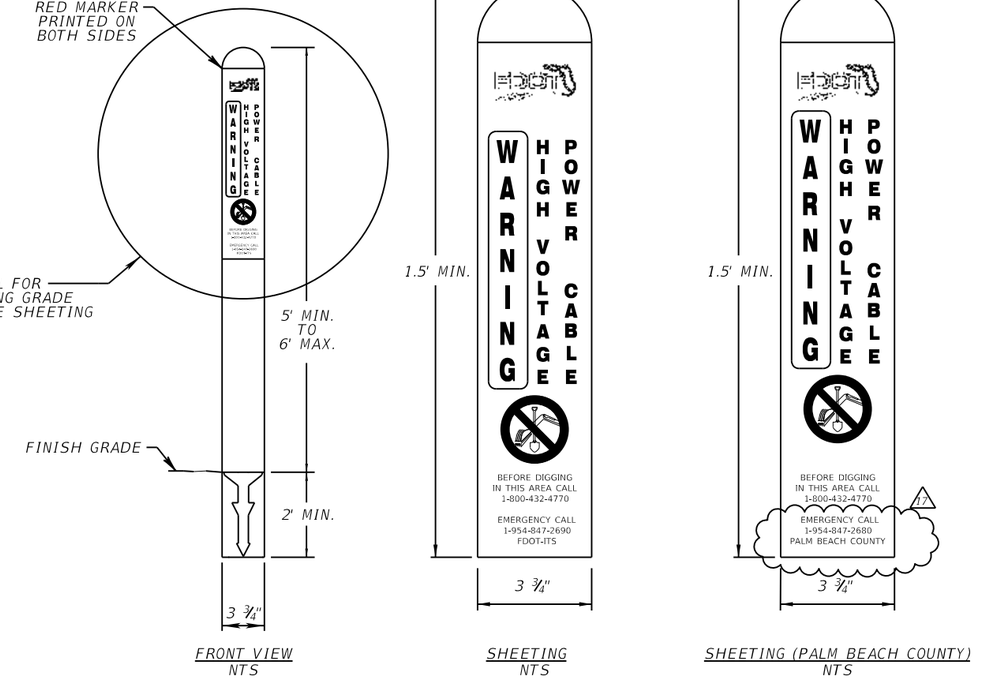


FRONT VIEW
NTS

SHEETING
NTS

SHEETING (PALM BEACH COUNTY)
NTS

ELECTRICAL CABLE ROUTE MARKER



FRONT VIEW
NTS

SHEETING
NTS

SHEETING (PALM BEACH COUNTY)
NTS

NOTES:

1. FOR TRENCH LINES WITH BOTH FIBER OPTIC CABLE AND POWER SERVICE WIRE, INSTALL POWER MARKER ALTERNATING WITH FIBER MARKER.
2. INSTALL FIBER OPTIC CABLE MARKER AT EVERY FIBER PULL BOX AND EVERY CHANGE IN DIRECTION NOT TO EXCEED 500 FEET.
3. TUBULAR MARKER TO BE PLACED OVER A V-CHANNEL METALLIC FENCE POST.
4. A POLYDOME TOP SHALL BE INSTALLED ON EACH MARKER ORANGE, FOR FIBER AND RED FOR POWER.
5. ALL ROUTE MARKERS SHALL MEET SECTION 630 OF STANDARD SPECIFICATIONS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/19/19	17 REVISED MARKER		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

CABLE ROUTE MARKER DETAILS

SHEET NO.
IT-124

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY:FDOT VS Date: 12/10/2019

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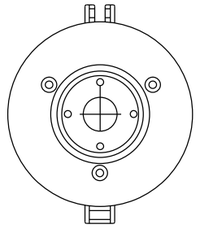
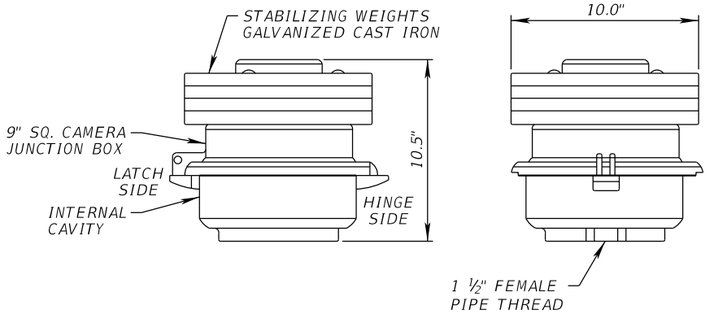
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4H56

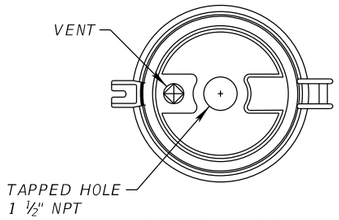
SINGLE ARM CAMERA LOWERING SYSTEM

NTS



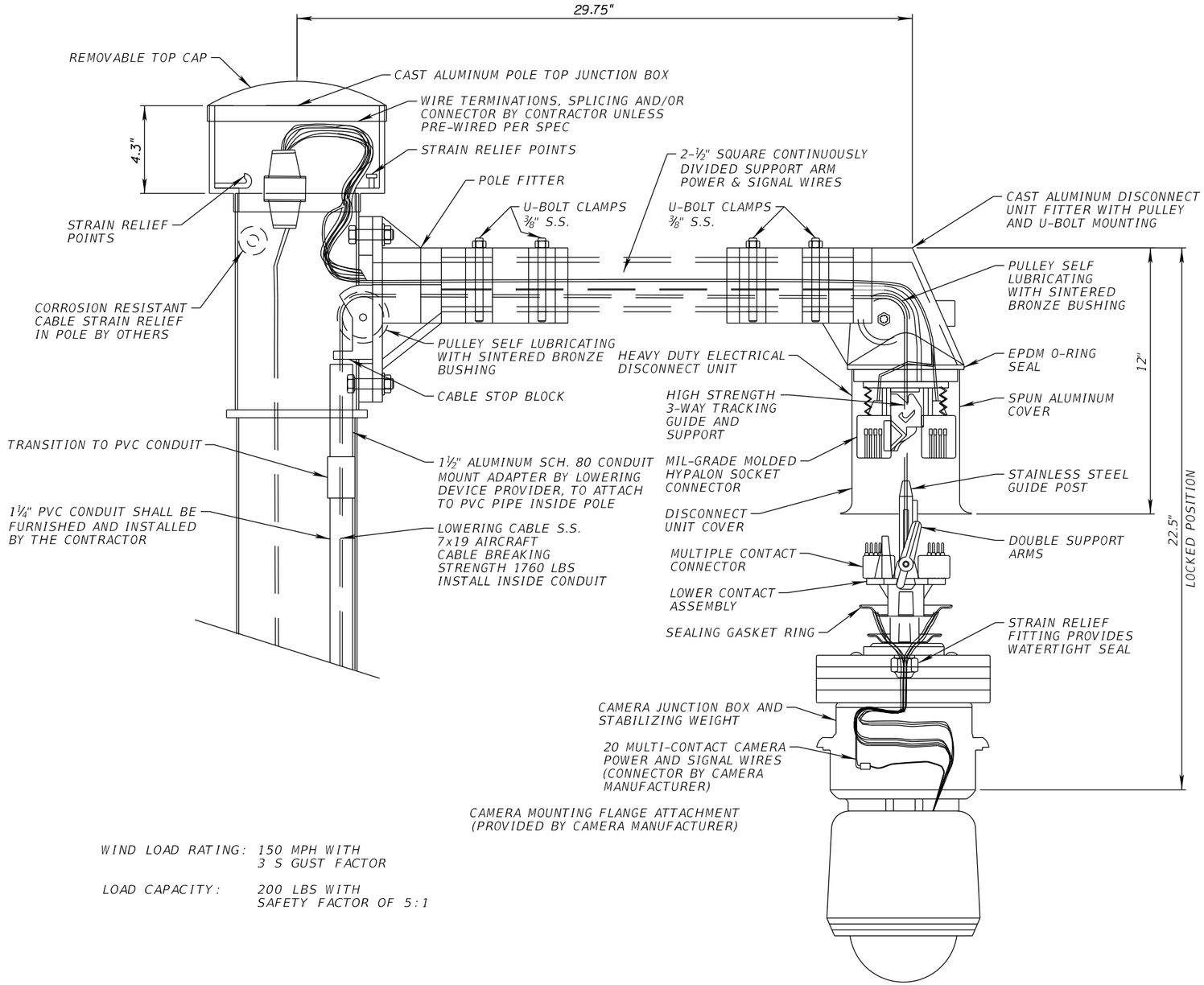
TOP VIEW





BOTTOM VIEW

TWO PIECE CAMERA JUNCTION BOX



WIND LOAD RATING: 150 MPH WITH
3 S GUST FACTOR

LOAD CAPACITY: 200 LBS WITH
SAFETY FACTOR OF 5:1

NOTES:

1. INTERNAL CAMERA SUPPLY CABLES RUN THROUGH THE INSIDE OF THE POLE SHALL BE INSTALLED THROUGH EYE HOOKS TO PREVENT INTERFERENCE WITH LOWERING MECHANISM CABLE, UNLESS OTHERWISE NOTED.
2. CAMERA LOWERING DEVICE DETAILS ARE REPRESENTATIVE AND DO NOT REFLECT ACTUAL ENGINEERING DESIGN.
3. LOWERING ARM SHALL BE MOUNTED PERPENDICULAR TO THE ROADWAY OR AS SHOWN IN THE PLANS OR AS DIRECTED BY THE DEPARTMENT. THE CCTV POLE SHALL BE POSITIONED SO THAT THE DOME ENCLOSURE CAN BE SAFELY LOWERED ON THE OPPOSITE SIDE OF THE HAND CRANK.
4. CAMERA LOWERING SYSTEM, TO INCLUDE POLE TOP J-BOX, MOUNTING HARDWARE, LOWERING CABLE, MOLDED HYPALON CONTACT BLOCK, CAMERA J-BOX, HOUSING, CUSTOM 100'.
5. CAMERA LOWERING DEVICE TO BE SHIPPED READY FOR POLE ATTACHMENT TO INCLUDE 100 FT. OF COMPOSITE POWER AND SIGNAL CABLE PRE WIRED TO LOWERING DEVICE AT THE FACTORY.
6. THIS ENSURES THE PRODUCT IS ASSEMBLED CORRECTLY AND MORE IMPORTANTLY ALL NECESSARY PERSONS ARE TRAINED IN THE PROPER SAFE OPERATION OF THE SYSTEM. PRIOR TO ERECTING THE FIRST POLE THE CONTRACTOR MUST CONTACT THE LOWERING DEVICE SUPPLIER AND SCHEDULE FOR A FACTORY REPRESENTATIVE TO BE ON SITE.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

CCTV LOWERING DEVICE DETAILS (SINGLE ARM)

SHEET NO. IT-125

BY:RDOT VS Date: 05/21/2019
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FPID 4331084-52-01 and 433109-4-52-01 CONTRACT E4W96

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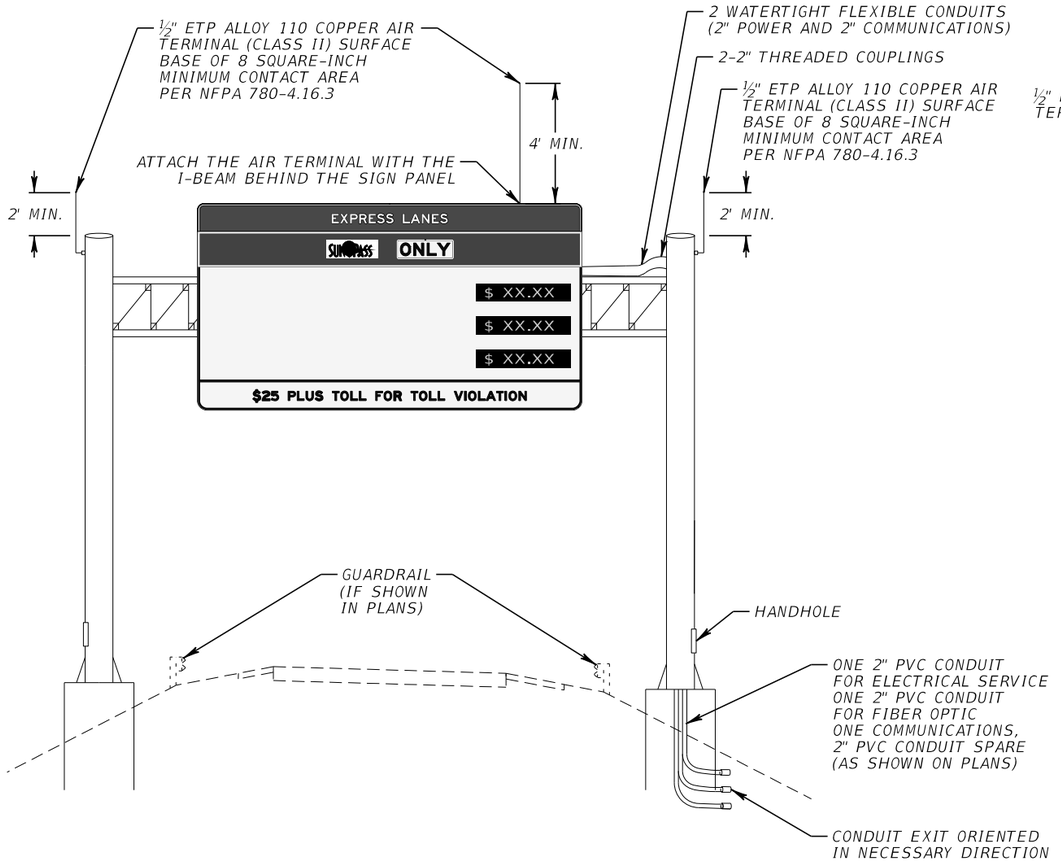
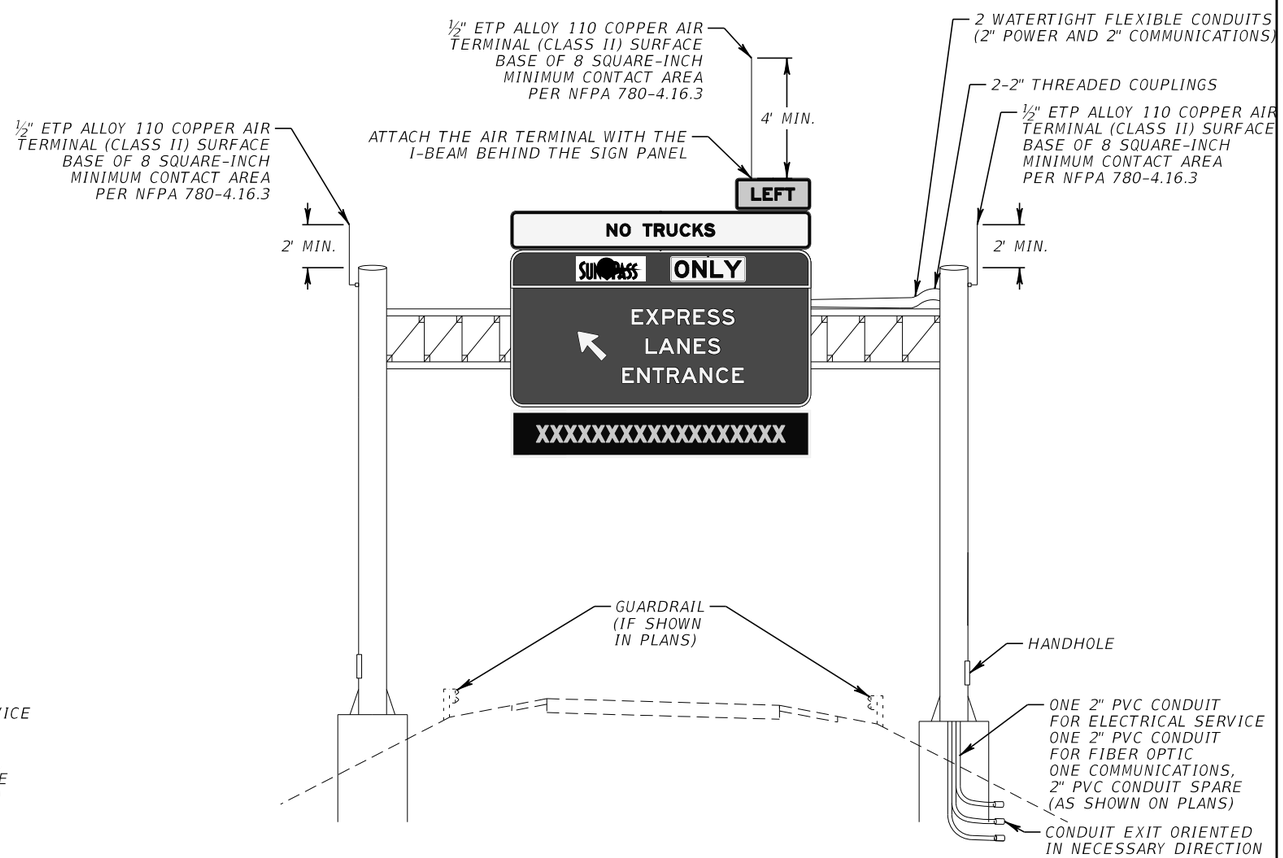


TYPICAL TOLL-AMOUNT DMS

NTS



TYPICAL STATUS DMS

NTS

NOTES:

1. REFER TO DESIGN STANDARDS INDEX 18300 FOR THE AIR TERMINAL INSTALLATION DETAILS FOR FREEWAY AND EXPRESS LANE DMS.
2. REFER TO DESIGN STANDARDS INDEX 18300 FOR OTHER INSTALLATION DETAILS ON CONDUITS, GROUNDING, ETC.
3. REFER TO PLAN SHEETS AND CROSS SECTION SHEETS FOR SPECIFIC SIGN OR STRUCTURE INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

DMS AIR TERMINAL INSTALLATION DETAILS

SHEET NO. IT-125A

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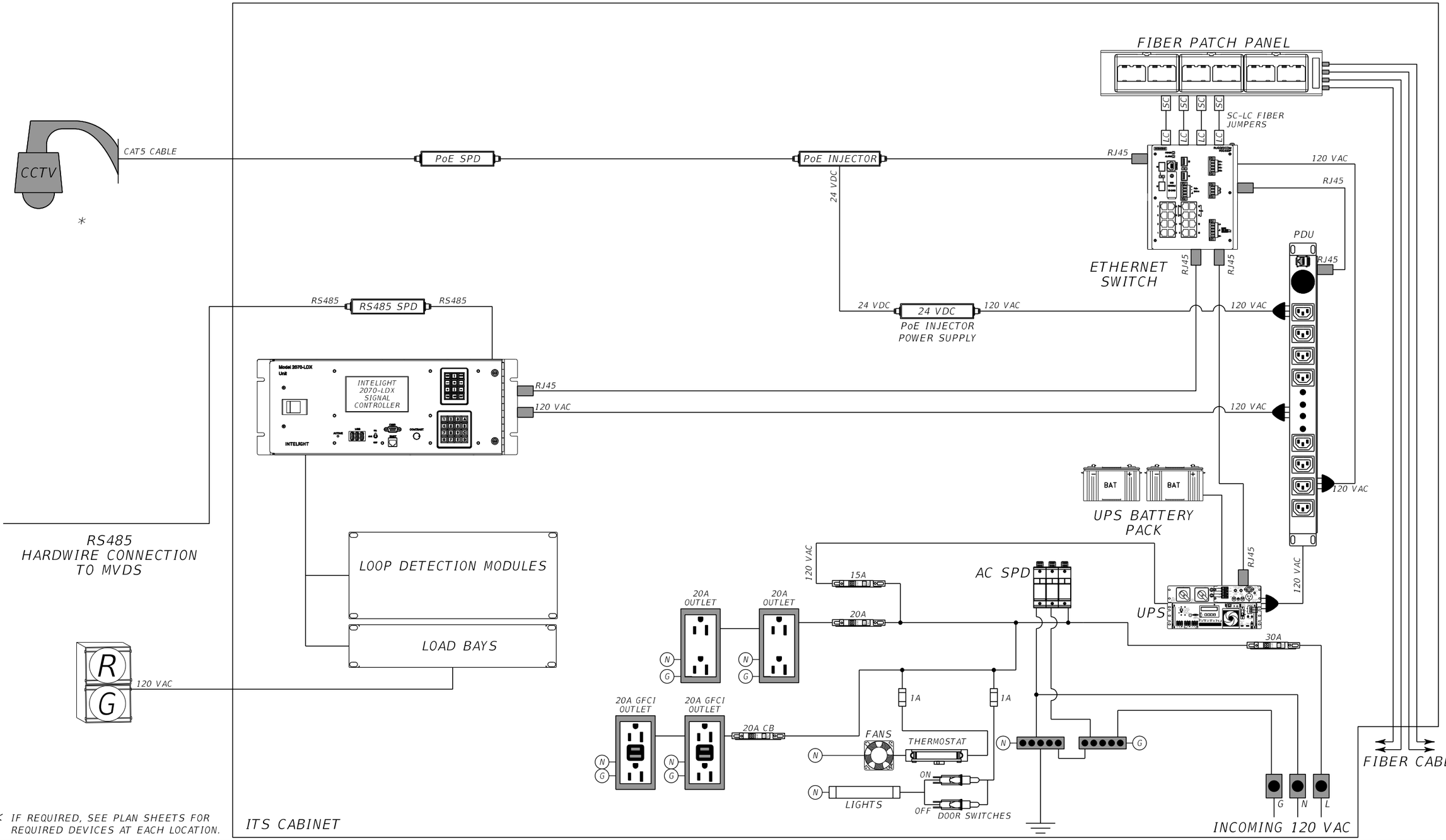
BY: RDOI VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

TYPICAL RSS AND D-CCTV CONNECTION DIAGRAM

334 GROUND MOUNTED CABINET



* IF REQUIRED, SEE PLAN SHEETS FOR REQUIRED DEVICES AT EACH LOCATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (1)

SHEET NO. IT-126

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:FDOT VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =Default BarcoJ 4/18/2019 5:46:45 PM c:\projectwise\pb\projectwiseint\barco\d0230493\NWLYIT02.dgn

TYPICAL CCTV, D-CCTV AND MVDS CONNECTION DIAGRAM

336 POLE MOUNTED CABINET

DEDICATED CCTV FOR RAMP METERING

D-CCTV

CAT5 CABLE

CCTV

CAT5 CABLE

PoE SPD

PoE SPD

PoE INJECTOR

24 VDC

PoE INJECTOR

24 VDC

FIBER PATCH PANEL

SC

LC

SC-LC FIBER JUMPERS

ETHERNET SWITCH

RJ45

120 VAC

PDU

PoE INJECTOR POWER SUPPLY

24 VDC

120 VAC

24 VDC

24 VDC

120 VAC

PoE INJECTOR POWER SUPPLY

MVDS

COMPOSITE CABLE

RS232

RS232 SPD

RS232

HARD WIRED

HARD WIRED

DEVICE SERVER

RJ45

24 VDC

DC ADAPTER

RS485

RS485 SPD

RS485

24 VDC

24VDC SPD

24 VDC

120 VAC

DC ADAPTER

BAT

BAT

UPS BATTERY PACK

D-CCTV

CAT5 CABLE

PoE SPD

PoE INJECTOR

24 VDC

120 VAC

DEDICATED CCTV FOR TOLL DMS / TOLL SITE

24 VDC

PoE INJECTOR POWER SUPPLY

AC SPD

120 VAC

15A

UPS

RJ45

30A

120 VAC

RS485 OR CONTACT CLOSURE HARDWARE CONNECTION TO RSS CABINET

15A GFCI OUTLET

15A GFCI OUTLET

15A CB

1A

1A

FANS

THERMOSTAT

ON

OFF

LIGHTS

DOOR SWITCHES

N

G

L

INCOMING 120 VAC

FIBER CABLE

* IF REQUIRED, SEE PLAN SHEETS FOR REQUIRED DEVICES AT EACH LOCATION.

ITS CABINET

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (2)

SHEET NO.

IT-127

BY:RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 4331084-52-01 and 4331094-4-52-01 CONTRACT E4R96

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TYPICAL STATUS AND TOLL DMS CONNECTION DIAGRAM

334 GROUND MOUNTED CABINET

CCTV
CAT5 CABLE
*
PoE SPD
PoE INJECTOR
24 VDC
24 VDC
120 VAC
PoE INJECTOR POWER SUPPLY

S-DMS
24 VDC
*** VCB
6 MM FIBER
ETHERNET
RJ45
120 VAC
DMS CONTROLLER

24 VDC CKT BREAKER
24 VDC SPD
NEMA CABINET (SPD)
24 VDC SPD

** T-DMS #1
*** VCB #1
24 VDC
6 MM FIBER
ETHERNET
RJ45
120 VAC
DMS CONTROLLER

** T-DMS #2
*** VCB #2
24 VDC
6 MM FIBER
ETHERNET
RJ45
120 VAC
DMS CONTROLLER

24 VDC CKT BREAKER
24 VDC SPD
24 VDC CKT BREAKER
24 VDC SPD
NEMA CABINET (SPD)
24 VDC SPD
24 VDC SPD

24 VDC
24 VDC
24 VDC
DC CIRCUIT BREAKER RAIL
24 VDC
POWER SUPPLY
120 VAC

ETHERNET

FIBER PATCH PANEL
SC
LC
SC-LC FIBER JUMPERS
RJ45
RJ45
120 VAC
RJ45
ETHERNET SWITCH
RJ45
RJ45
PDU
RJ45
120 VAC
120 VAC
120 VAC
120 VAC
120 VAC
120 VAC

BAT
BAT
UPS BATTERY PACK

120 VAC
AC SPD
25A
UPS
RJ45
120 VAC
50A

15A GFCI OUTLET
15A GFCI OUTLET
15A CB
N
G
N
G
1A
1A
FANS
THERMOSTAT
N
G
N
ON
LIGHTS
OFF
DOOR SWITCHES

G
N
L
L
INCOMING 120/240 VAC

FIBER CABLE

ITS CABINET

* IF REQUIRED, SEE PLAN SHEETS FOR REQUIRED DEVICES AT EACH LOCATION.

** FOR ILLUSTRATION PURPOSES, THESE TWO T-DMS' ARE SHOWN AS COLOCATED.

*** VCB IS HOUSED INSIDE THE T-DMS AND POWERED FROM THE T-DMS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

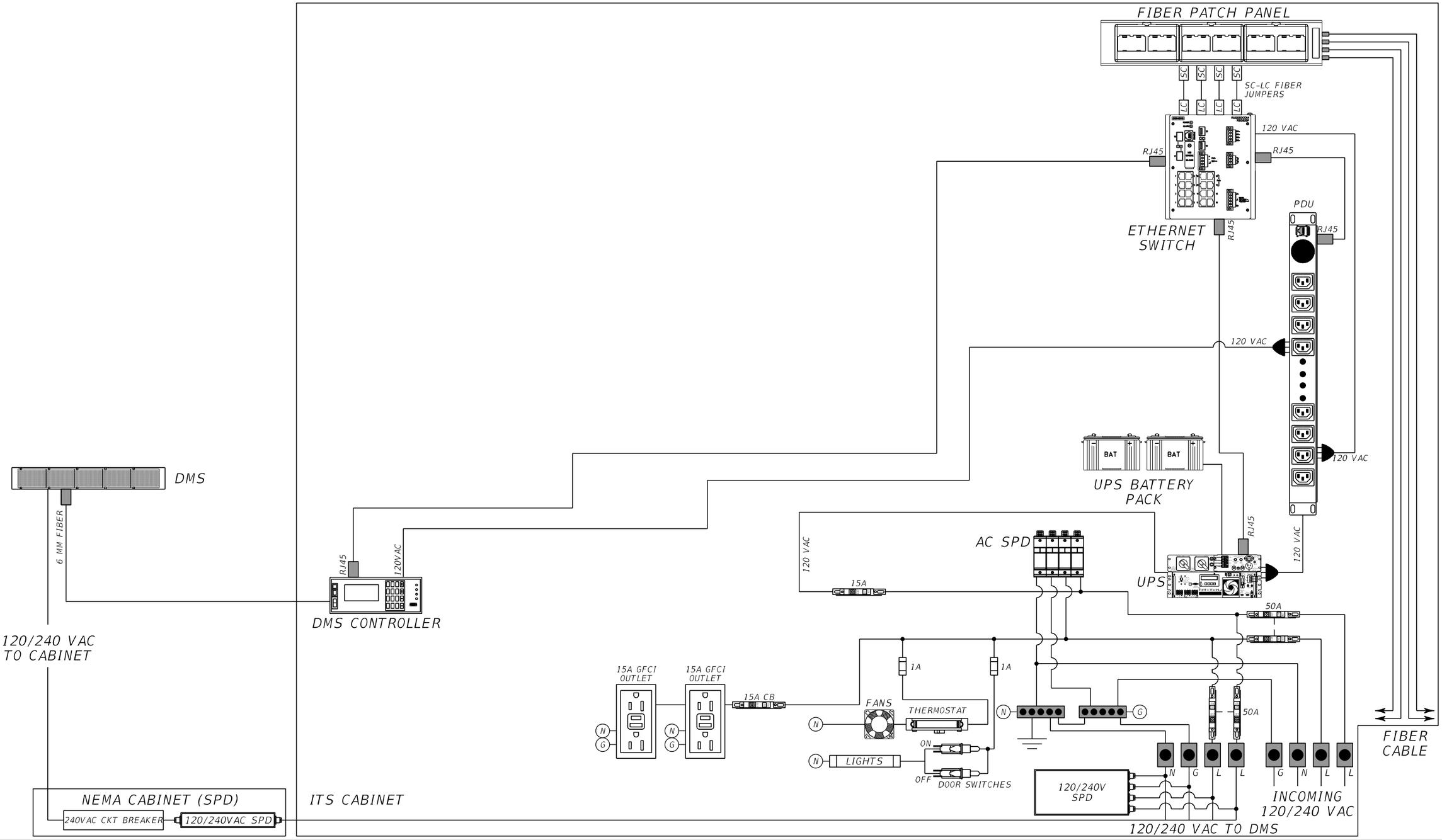
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (3)

SHEET NO.
IT-128

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
BY:RPOTI VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

TYPICAL FREEWAY DMS CONNECTION DIAGRAM



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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (4)

SHEET NO.
IT-129

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C
RELEASED FOR CONSTRUCTION
BY: RDOT VS Date: 05/21/2019
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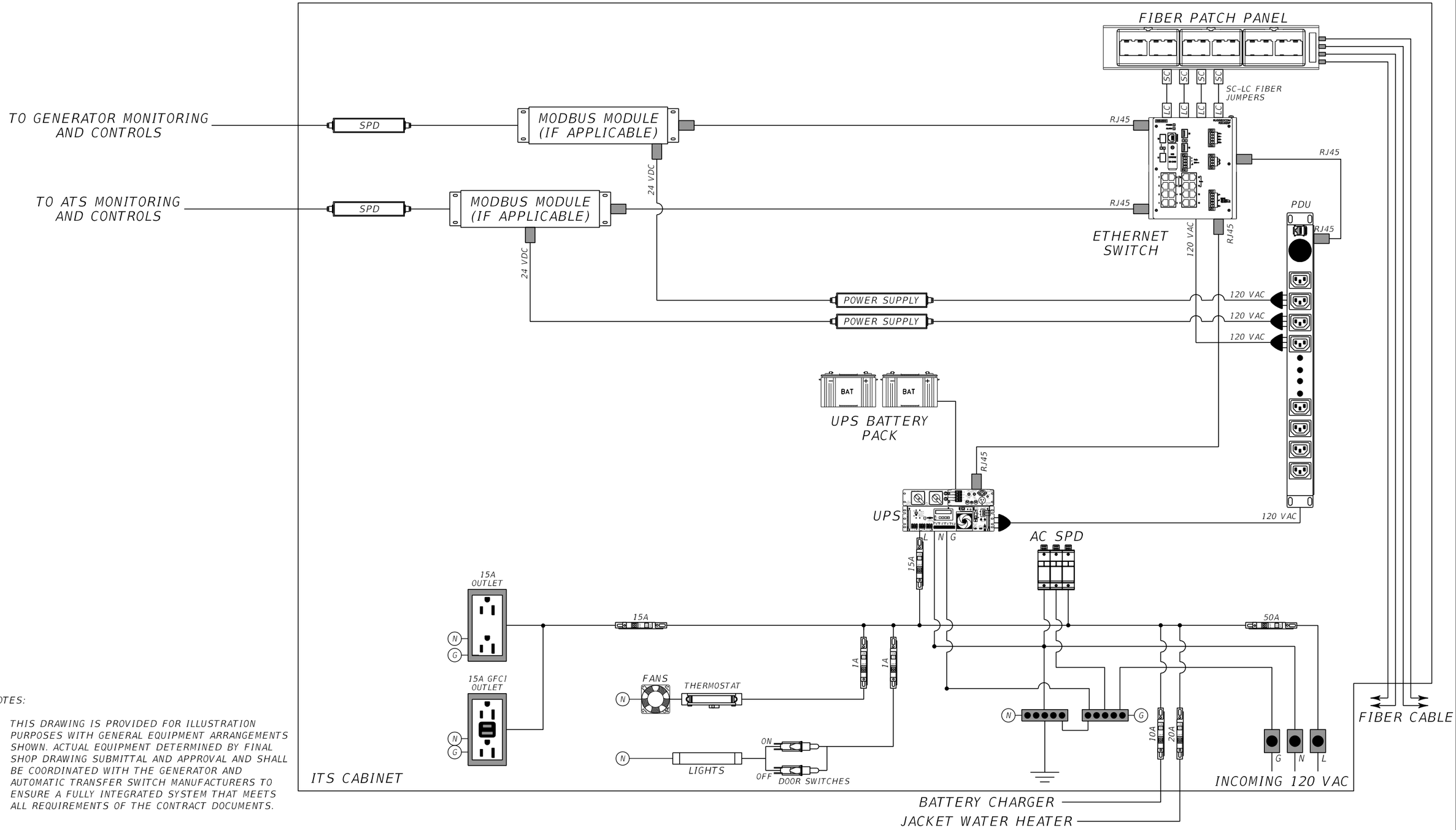
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

TYPICAL GENERATOR/ATS MONITORING EQUIPMENT CONNECTION DIAGRAM

336S CABINET MOUNTED TO TYPE P-II POLE



NOTES:

1. THIS DRAWING IS PROVIDED FOR ILLUSTRATION PURPOSES WITH GENERAL EQUIPMENT ARRANGEMENTS SHOWN. ACTUAL EQUIPMENT DETERMINED BY FINAL SHOP DRAWING SUBMITTAL AND APPROVAL AND SHALL BE COORDINATED WITH THE GENERATOR AND AUTOMATIC TRANSFER SWITCH MANUFACTURERS TO ENSURE A FULLY INTEGRATED SYSTEM THAT MEETS ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (5)

SHEET NO.
IT-129A

BY: RDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C

PLOT DRIVER = $PLTDRVLS PEN TABLE = $PENTBLLS MODEL NAME =Default BarcoJ 4/18/2019 5:46:47 PM c:\projectwise\pb\projectwiseint\barco\d0230493\NWLYIT02.dgn

WWDS CONNECTION DIAGRAM

334 GROUND MOUNT CABINET

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

CCTV

CCTV

THERMAL DETECTOR

THERMAL DETECTOR

FIBER PATCH PANEL

WIRELESS RADIO

ETHERNET SWITCH

SC-LC FIBER JUMPERS

WW CONTROL PANEL ASSEMBLY

RADIO CONTROL

SWITCH

120 VAC

RJ45

RJ45

RJ45

PDU

RJ45

RELAY

RELAY

HIGHLIGHTED LED SIGN

WRONG WAY

HIGHLIGHTED LED SIGN

WRONG WAY

AC/DC

5A

G

N

L

120 VAC

120 VAC

BAT

BAT

UPS BATTERY PACK

RJ45

AC SPD

120 VAC

UPS

120 VAC

15A

30A

15A GFCI OUTLET

15A GFCI OUTLET

15A CB

1A

1A

FANS

THERMOSTAT

ON

LIGHTS

N

G

FIBER CABLE

2/C - #12 AWG (12VDC PWR)

334 GM CABINET

G N L

INCOMING 120 VAC

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	4G REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (5A)

SHEET NO.
IT-129B

4G

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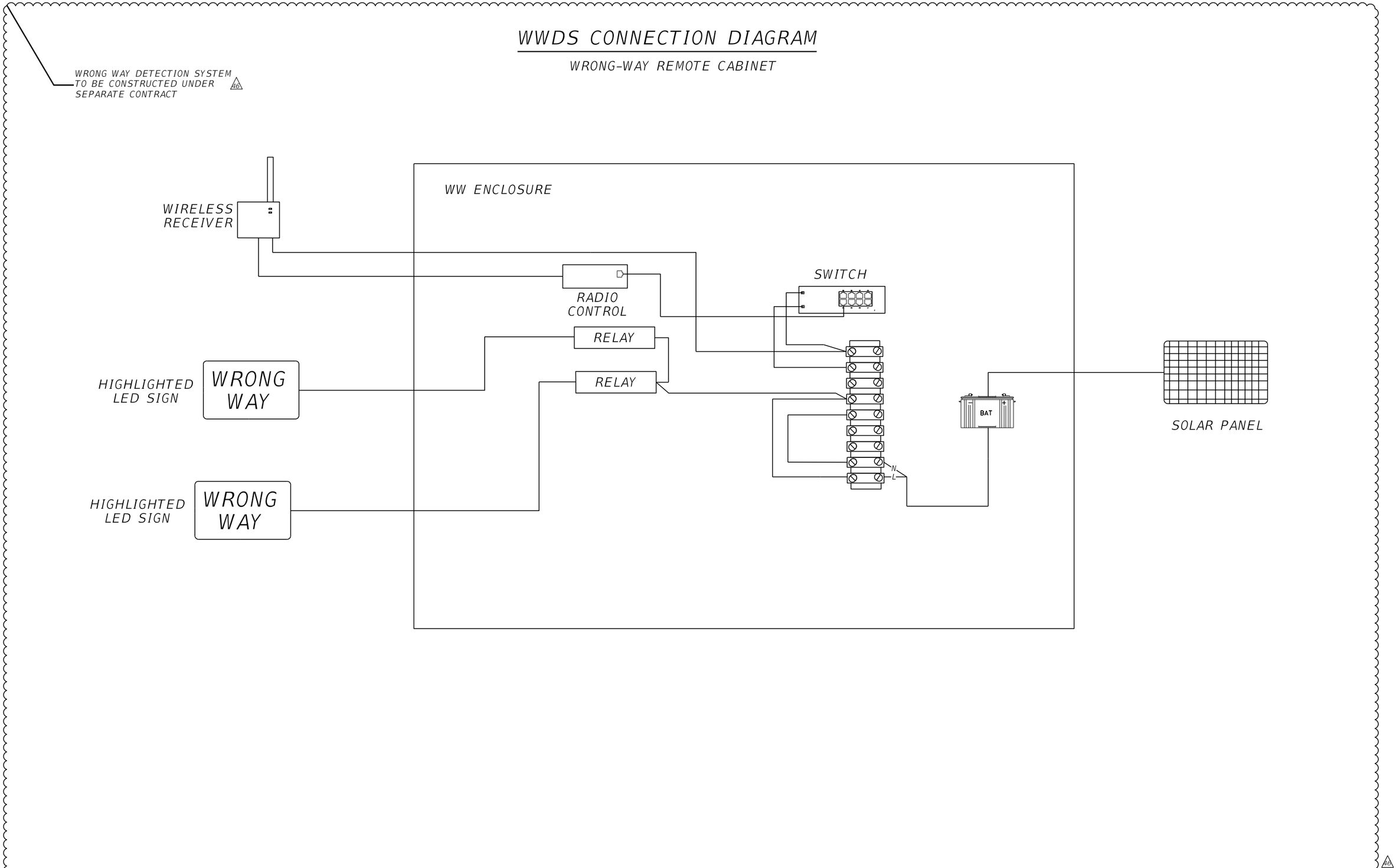
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, coordination and field fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5R96

BY:(RDOT) VS Date: 2/25/2021

WWDS CONNECTION DIAGRAM

WRONG-WAY REMOTE CABINET



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 REVISED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

WIRING DIAGRAM (5B)

SHEET NO.
IT-129C

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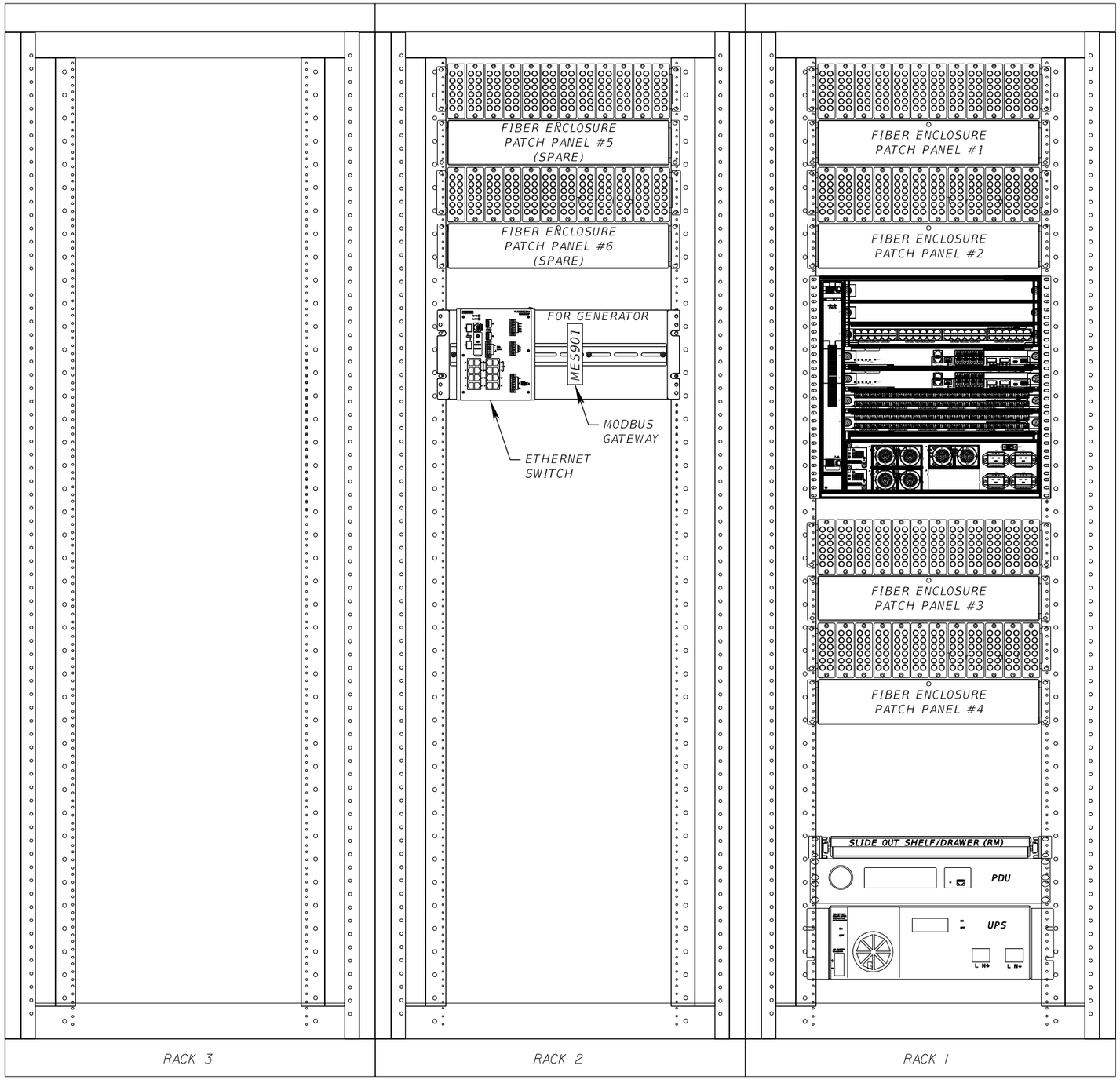
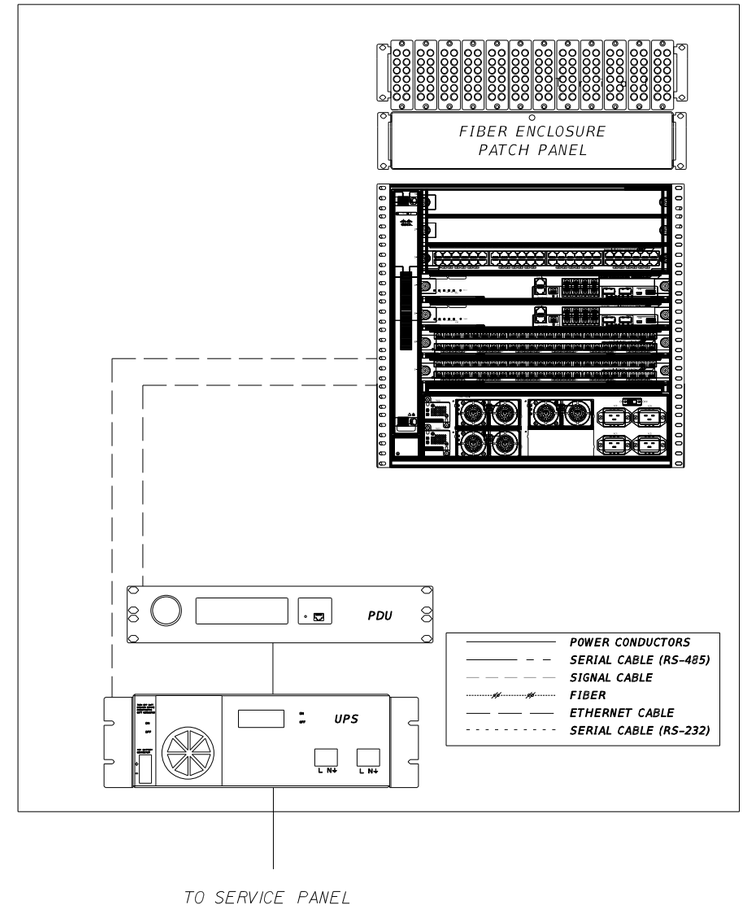
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 2/25/2021

PLOT DRIVER = $PLTDRVL$ PEN TABLE = $PENTBLL$ MODEL NAME =$MODELNAME$ $USER$ $DATE$ $TIME$ $FILE$

HUB SHELTER EQUIPMENT RACKS



POWER AND COMMUNICATIONS SCHEMATIC



NOTES:

1. THE CABINET SHALL PROVIDE FOR RACK MOUNTING AND SHELVING OF ALL EQUIPMENT.
2. CONTRACTOR SHALL SUBMIT A RACK LAYOUT FOR APPROVAL.
3. EQUIPMENT PLACEMENT ARE TYPICAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CABINET DETAILS (HUB SHELTER)

SHEET NO.
IT-130

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

SHEET INTENTIONALLY LEFT BLANK

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CABINET DETAILS (HUB SHELTER)

SHEET NO.
IT-131

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RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: FDOT VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

NTS

STEP DOWN TX 480VAC TO 120/240VAC

ELECTRICAL PULLBOX 480VAC

1 - 2" ELEC. CONDUIT

1 - 2" ELEC. CONDUIT

2 - 2" ELEC. CONDUIT

A/C WALL MOUNTED UNIT AND LOCAL DISCONNECT SWITCH (TYPICAL OF 2)

1 - 2" ELEC. CONDUIT

TYPE 'B' FENCE (SEE NOTE 2)

GENERATOR WITH TANK

4 FT. MINIMUM

2-2" ELECTRICAL CONDUITS (1-GEN CONTROL, 1-GEN COMM)

2-2" ELECTRICAL CONDUITS

(FRONT)

ELECTRIC UTILITY METER ENCLOSURE 240/480VAC

MAIN SERVICE DISCONNECT SWITCH (480VAC)

WALL PENETRATION FOR MAIN FUSE ALARM/MONITOR WIRING (SEE NOTE 3)

[illegible]FER [illegible]CH (120[illegible]AC)

[illegible]ALL PENETRAT[illegible] [illegible]R ATS COMMU[illegible]TION [illegible] NOTE 3)

MASTER HUB BUILDING

[illegible]NECT (1[illegible]0VAC) [illegible] SIDE[illegible]TS

MAN[illegible]FER SWITCH (120/[illegible]AC) LOCKABLE

[illegible]ALL PENETRATION FOR INCOMING POWER SERVICE (SEE NOTE 3)

1 - 2" ELEC. CONDUIT (SPARE)

PORTABLE GENERATOR CONNECTION BOX

COMMUNICATION CONDUITS DROP CONDUITS 5 - 2" TO ITS MASTER HUB

CONCRETE PAD 2'x4'x6" (FLUSH WITH GRADE)

ELECT. PULLBOX 120 / 240VAC

SPLICE BOX (FDOT)

ELECT. PULLBOX

COMMUNICATION CONDUITS 5 - 2" & 1 - 2" ELEC. CONDUIT (SPARE)

COMMUNICATION CONDUITS 5 - 2" & 1 - 2" ELEC. CONDUIT (SPARE)

ACCESS GATE (SEE NOTE 2)

VOID

NOTES:

1. THE FINAL TOP OF SLAB ELEVATION FOR THE HUB SHELTER SHALL BE SET A MINIMUM 2 FEET ABOVE FINAL GRADE.
2. FENCE AND GATE SYSTEM SHALL BE GROUNDED PER JULY 2017 FDOT STANDARD SPECIFICATION SECTION 620-3.6.4.
3. SEAL ALL PENETRATIONS THROUGH HUB SHELTER WALLS WITH WEATHER SEALED BOOTS PER JULY 2017 FDOT SPECIFICATION SECTION 677-3.6.4. COORDINATE SIZE, QUANTITY, AND LOCATION OF ALL CONDUIT PENETRATIONS THROUGH THE BUILDING WALL WITH THE BUILDING AND EQUIPMENT MANUFACTURER PRIOR TO MAKING PENETRATIONS AND ADJUST AS NECESSARY.
4. FOR DIMENSION DETAILS, SEE IT-132.
5. ALL OUTDOOR ELECTRICAL ENCLOSURES SHALL BE NEMA 3R RATED UNLESS OTHERWISE NOTED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/19/19	17 ADDED HUB SHELTER DETAILS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

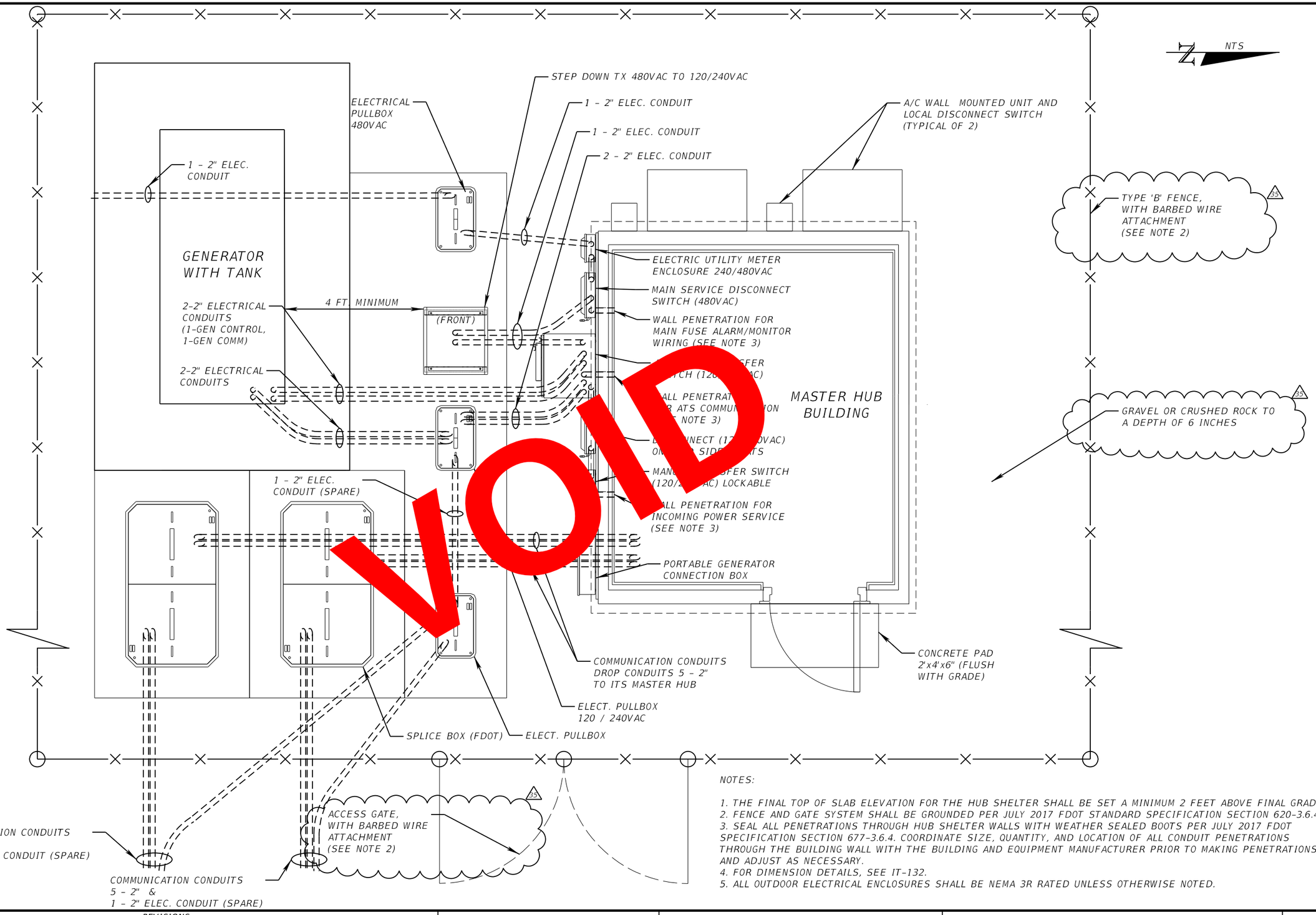
HUB SHELTER DETAILS

SHEET NO.
IT-131

RELEASED FOR CONSTRUCTION
BY/FDOT VS DATE 12/10/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4H58

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = C:\projects\devices\wsp\ctb\proxy.ctb | 433108620 | 95 | RENDERED | Mon Nov 04 12:52:00 2019 | C:\Users\WSP\Documents\FDOT_Miami_Project_I-95_Phase_3B_Vol_2_Hub_Shelter_Details_Rev_2019_11_19_WSP_Guangwei_Zhou.dgn | Layout: Layout1 | Plotted: 11/27/2019 - 10:21:19 PM | C:\Users\WSP\Documents\FDOT_Miami_Project_I-95_Phase_3B_Vol_2_Hub_Shelter_Details_Rev_2019_11_19_WSP_Guangwei_Zhou.dgn



VOID

NOTES:

1. THE FINAL TOP OF SLAB ELEVATION FOR THE HUB SHELTER SHALL BE SET A MINIMUM 2 FEET ABOVE FINAL GRADE.
2. FENCE AND GATE SYSTEM SHALL BE GROUNDED PER JULY 2017 FDOT STANDARD SPECIFICATION SECTION 620-3.6.4.
3. SEAL ALL PENETRATIONS THROUGH HUB SHELTER WALLS WITH WEATHER SEALED BOOTS PER JULY 2017 FDOT SPECIFICATION SECTION 677-3.6.4. COORDINATE SIZE, QUANTITY, AND LOCATION OF ALL CONDUIT PENETRATIONS THROUGH THE BUILDING WALL WITH THE BUILDING AND EQUIPMENT MANUFACTURER PRIOR TO MAKING PENETRATIONS AND ADJUST AS NECESSARY.
4. FOR DIMENSION DETAILS, SEE IT-132.
5. ALL OUTDOOR ELECTRICAL ENCLOSURES SHALL BE NEMA 3R RATED UNLESS OTHERWISE NOTED.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
11/19/19	17 ADDED HUB SHELTER DETAILS		
02/14/20	35 ADDED NOTES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

HUB SHELTER DETAILS (1)

SHEET NO.
IT-131

RELEASED FOR CONSTRUCTION
Review is for general conformance with contract documents. Shop responsibility for correct and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4D96
BY PSOTO Date 03/04/2020 VS

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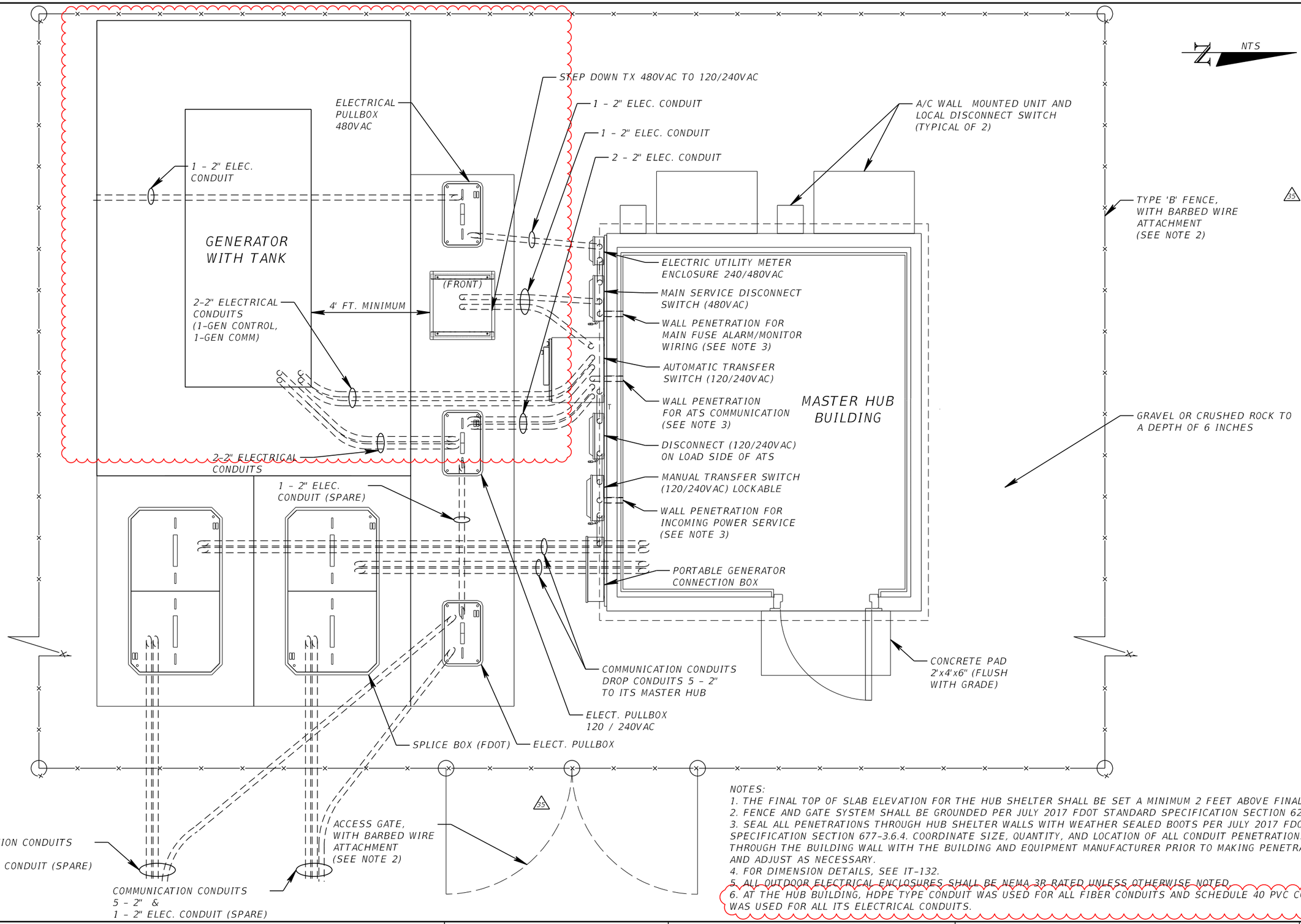

NOTES:
1. THE FINAL TOP OF SLAB ELEVATION FOR THE HUB SHELTER SHALL BE SET A MINIMUM 2 FEET ABOVE FINAL GRADE.
2. FENCE AND GATE SYSTEM SHALL BE GROUNDED PER JULY 2017 FDOT STANDARD SPECIFICATION SECTION 620-3.6.4.
3. SEAL ALL PENETRATIONS THROUGH HUB SHELTER WALLS WITH WEATHER SEALED BOOTS PER JULY 2017 FDOT SPECIFICATION SECTION 677-3.6.4. COORDINATE SIZE, QUANTITY, AND LOCATION OF ALL CONDUIT PENETRATIONS THROUGH THE BUILDING WALL WITH THE BUILDING AND EQUIPMENT MANUFACTURER PRIOR TO MAKING PENETRATIONS AND ADJUST AS NECESSARY.
4. FOR DIMENSION DETAILS, SEE IT-132.
5. ALL OUTDOOR ELECTRICAL ENCLOSURES SHALL BE NEMA 3R RATED UNLESS OTHERWISE NOTED.
6. AT THE HUB BUILDING, HDPE TYPE CONDUIT WAS USED FOR ALL FIBER CONDUITS AND SCHEDULE 40 PVC CONDUIT WAS USED FOR ALL ITS ELECTRICAL CONDUITS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/19/19	17 ADDED HUB SHELTER DETAILS		
02/14/20	35 ADDED NOTES		
10/4/2021	AS-BUILTS PER RFI 305, PAD DIMENSION & EQUIP. LOCATION CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

HUB SHELTER DETAILS (1)

SHEET NO.
IT-131

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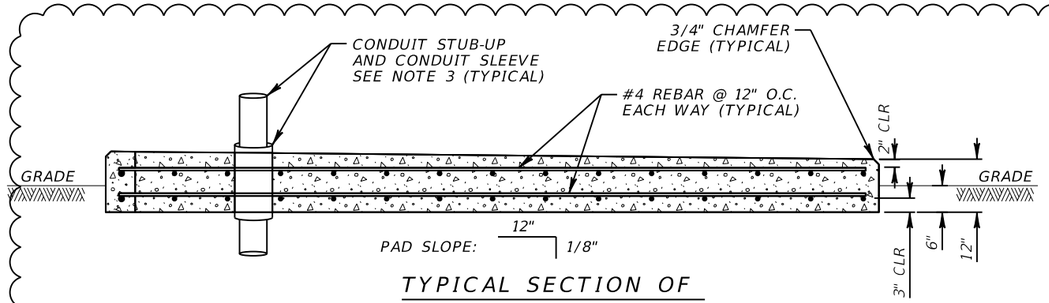


TYPICAL SECTION OF POWER STATION EQUIPMENT PAD

NTS

NOTES:

1. THE EQUIPMENT PAD SHALL BE CLASS II (3.4 KPSI) AND A MINIMUM OF 6" THICK ABOVE GRADE. THE OUTSIDE EDGES OF THE SLAB SHALL BE CAST AGAINST FRAMEWORK. EQUIPMENT PAD INSTALLATION SHALL MEET APPLICABLE REQUIREMENTS OF FDOT STANDARD SPECIFICATION SECTION 522.

2. CONDUIT PENETRATION LOCATION IS DIAGRAMMATIC AND SHOULD BE ADJUSTED BASED ON EQUIPMENT LAYOUT AND EXACT EQUIPMENT STUB-UP LOCATION REQUIREMENTS. CONTRACTOR TO COORDINATE CONDUIT STUB-UP LOCATIONS AND EQUIPMENT PAD OPENING REQUIREMENTS WITH THE GENERATOR AND EQUIPMENT SHOP DRAWINGS AND ADJUST AS REQUIRED BEFORE POURING CONCRETE.

3. FOR ALL CONDUIT PENETRATIONS THROUGH EQUIPMENT PAD, INSTALL OVERSIZED RIGID PVC SCHEDULE 80 SLEEVE. RGS CONDUIT SHALL BE INSTALLED THROUGH THE SLEEVE AND WRAPPED IN 1/2" BITUMINOUS TAPE 12" ABOVE AND 12" BELOW CENTER OF PAD. INSTALL CONDUIT SLEEVES IN BETWEEN REBAR GRID WHERE POSSIBLE AND PULL BACK REBAR, IF REQUIRED, BASED ON PENETRATION LOCATION.

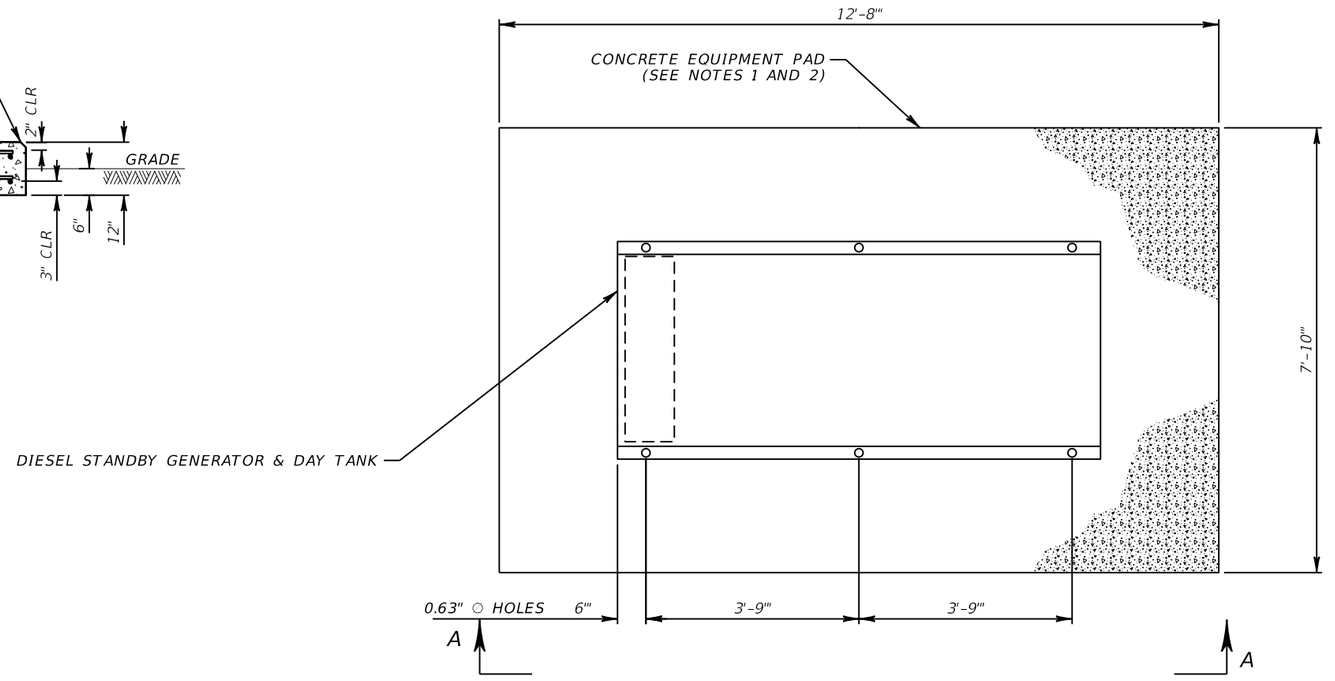
4. INSTALL ANCHOR BOLTS IN ACCORDANCE WITH FDOT SPECIFICATIONS 416 USING TYPE HSHV ADHESIVES WITH A 6" EMBEDMENT. ADJUST REBAR SPACING +1-1/2" TO AVOID CONFLICTS WITH ANCHOR BOLTS. FIELD TESTING CAN BE DONE NEAR THE CENTER OF THE SLAB JUST PRIOR TO PLACEMENT OF THE GENERATOR. TEST ANCHORS SHOULD BE CUT FLUSH WITH THE SLAB SURFACE AFTER TESTING. USE 5/8" ASTM A193 GRADE B8M ANCHORS WITH A194 GRADE 8M NUTS AND SS316 WASHERS WITH THE LARGEST DIAMETER POSSIBLE TO FIT THE PRE-DRILLED HOLES OF THE EQUIPMENT. BOLT HOLE SPACING AND ARRANGEMENT PER MANUFACTURER RECOMMENDATIONS TO PROPERLY INSTALL THE GENERATOR/ENCLOSURE TO THE EQUIPMENT PAD SLAB. PROVIDE 1/4" NEOPRENE PAD AT EACH ANCHOR LOCATION.

5. ALL ABOVE GROUND CONDUITS SHALL BE RIGID GALVANIZED STEEL (RGSC). CONDUITS SHALL TRANSITION TO HDPE CONDUIT BELOW GRADE AT AN APPROVED CONDUIT FITTING OR AT AN ADJACENT ELECTRICAL PULL BOX. ALL CONDUIT ROUTING FROM THE UTILITY TRANSFORMER TO THE HUB SHELTER AND BETWEEN THE HUB SHELTER ELECTRICAL EQUIPMENT SHALL BE FIELD ROUTED BY CONTRACTOR. FOR SIZES AND QUANTITIES OF ALL SERVICE POINT AND BRANCH CIRCUIT CONDUIT AND WIRING, REFER TO THE ONE-LINE SCHEMATIC DRAWINGS.

6. ALL GENERATORS SHALL BE PROVIDED WITH AN OUTDOOR, WEATHER PROTECTED ENCLOSURE AND SHALL BE CONSTRUCTED OF STAINLESS STEEL OR ALUMINUM. ENCLOSURE SHALL BE PAINTED (POWDER COATING IS ACCEPTABLE).

7. EACH GENERATOR SHALL BE PROVIDED WITH AN IN-SKID, DOUBLE WALLED, DIESEL FUEL TANK. THE TANK SHALL BE SIZED TO PROVIDE 48 AND 72 HOURS CONTINUOUS RUN TIME AT FULL AND HALF LOAD, RESPECTIVELY, ON A SINGLE TANK OF FUEL. EXACT FUEL TANK CAPACITY (GALLONS) SHALL BE DETERMINED BASED ON GENERATOR FUEL CONSUMPTION RATE WHEN FINAL EQUIPMENT SELECTIONS ARE MADE. EACH FUEL TANK SHALL BE PROVIDED WITH MONITORING/ALARM POINTS FOR A LEAK ALARM, LOW FUEL LEVEL AND FUEL LEVEL SENSOR, AND CONNECTED TO THE GENERATOR ANNUNCIATOR PANEL PER MANUFACTURER REQUIREMENTS.

8. EACH GENERATOR SHALL BE PROVIDED WITH A LOCAL CONTROL/ANNUNCIATOR PANEL TO PROVIDE LOCAL MONITORING, STATUS INDICATIONS AND ALARMS. COORDINATE WITH THE GENERATOR MANUFACTURER FOR THE EXACT MOUNTING LOCATION OF THE ANNUNCIATOR CONTROL PANEL IF SEPARATE FROM THE MAIN CONTROLLER. GENERATOR CONTROLLER SHALL BE CONFIGURED TO PROVIDE STATUS INDICATIONS AND ALARMS, AS DEFINED IN NFPA 110, FOR A LEVEL 1 SYSTEM. SHOP DRAWING SUBMITTALS SHALL INCLUDE DETAILS OF THE CONTROLER/ANNUNCIATOR WIRING, CONFIGURATION OF THE STATUS INDICATIONS AND ALARMS, AND DETAILS OF THE COMMUNICATION DEVICES AND THEIR INTEGRATION WITH THE AUTOMATIC TRANSFER SWITCH AND CONNECTION TO THE ITS FIBER NETWORK.



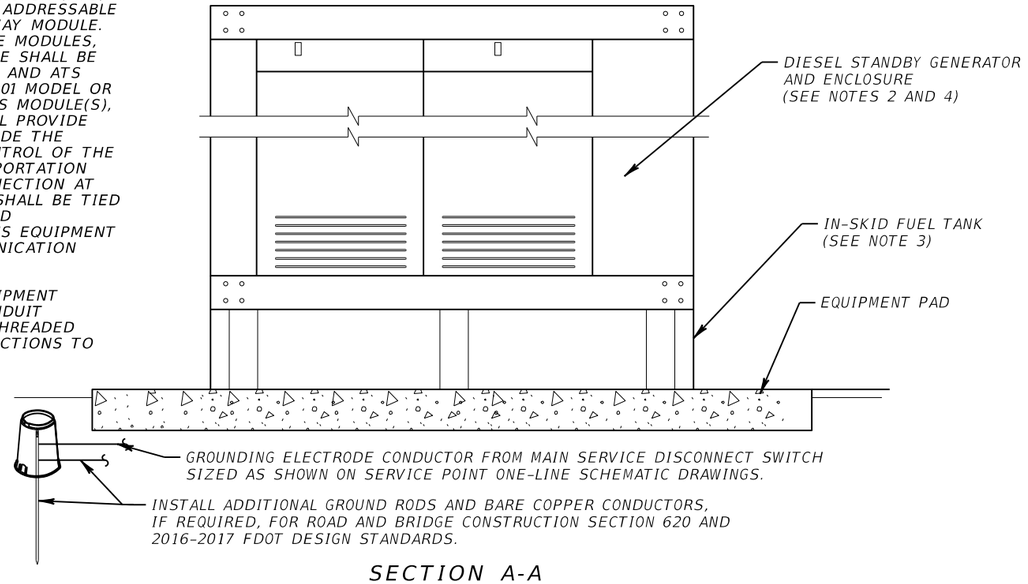
POWER STATION EQUIPMENT PAD

SCALE: 3/8" = 1'-0"

NOTES CONTINUED:

9. EACH GENERATOR AND AUTOMATIC TRANSFER SWITCH (ATS) INSTALLATION SHALL BE PROVIDED WITH AN IP ADDRESSABLE ETHERNET TO MODBUS COMMUNICATION GATEWAY MODULE. IF THE GENERATOR AND ATS REQUIRE SEPARATE MODULES, THEY SHALL BE PROVIDED. THE MODBUS MODULE SHALL BE FURNISHED AND INSTALLED BY THE GENERATOR AND ATS MANUFACTURER AND SHALL BE B&B VLINX MES901 MODEL OR APPROVED EQUAL. IN ADDITION TO THE MODBUS MODULE(S), THE GENERATOR AND ATS MANUFACTURER SHALL PROVIDE ANY OTHER NECESSARY ACCESSORIES TO PROVIDE THE CAPABILITY FOR REMOTE MONITORING AND CONTROL OF THE GENERATOR AND ATS FROM THE FDOT'S TRANSPORTATION MANAGEMENT CENTER (TMC) VIA MODBUS CONNECTION AT THE HUB SHELTER. THE GENERATOR AND ATS SHALL BE TIED TOGETHER USING MANUFACTURER RECOMMENDED COMMUNICATION CABLING. ALL COMMUNICATIONS EQUIPMENT SHALL BE COMPATIBLE WITH THE FDOT COMMUNICATION PROGRAMS CURRENTLY USED BY THE TMC.

10. TOP ENTRY OF CONDUIT INTO ELECTRICAL EQUIPMENT ENCLOSURES SHALL NOT BE USED FOR ANY CONDUIT INSTALLED BETWEEN ELECTRICAL EQUIPMENT. THREADED HUBS SHALL BE USED FOR ALL RACEWAY CONNECTIONS TO ELECTRICAL EQUIPMENT.



SECTION A-A

SCALE: 3/8" = 1'-0"

35

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02-14-20	35 ADDED SHEET		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

HUB SHELTER DETAILS (2)

SHEET NO.
IT-131A

PerezR 2/28/2020 3:38:04 PM c:\projectwise\pb\projectwiseint\perezr\d0230493\SRPTIT06.DGN

RELEASED FOR CONSTRUCTION
Date: 03/04/2020 BY: PEREZR, VS
Review is for general conformance with contract documents. Shop responsibility for correct and complete fabrication, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4W66

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SHEET INTENTIONALLY LEFT BLANK

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CABINET DETAILS (HUB SHELTER)

SHEET NO.
IT-132

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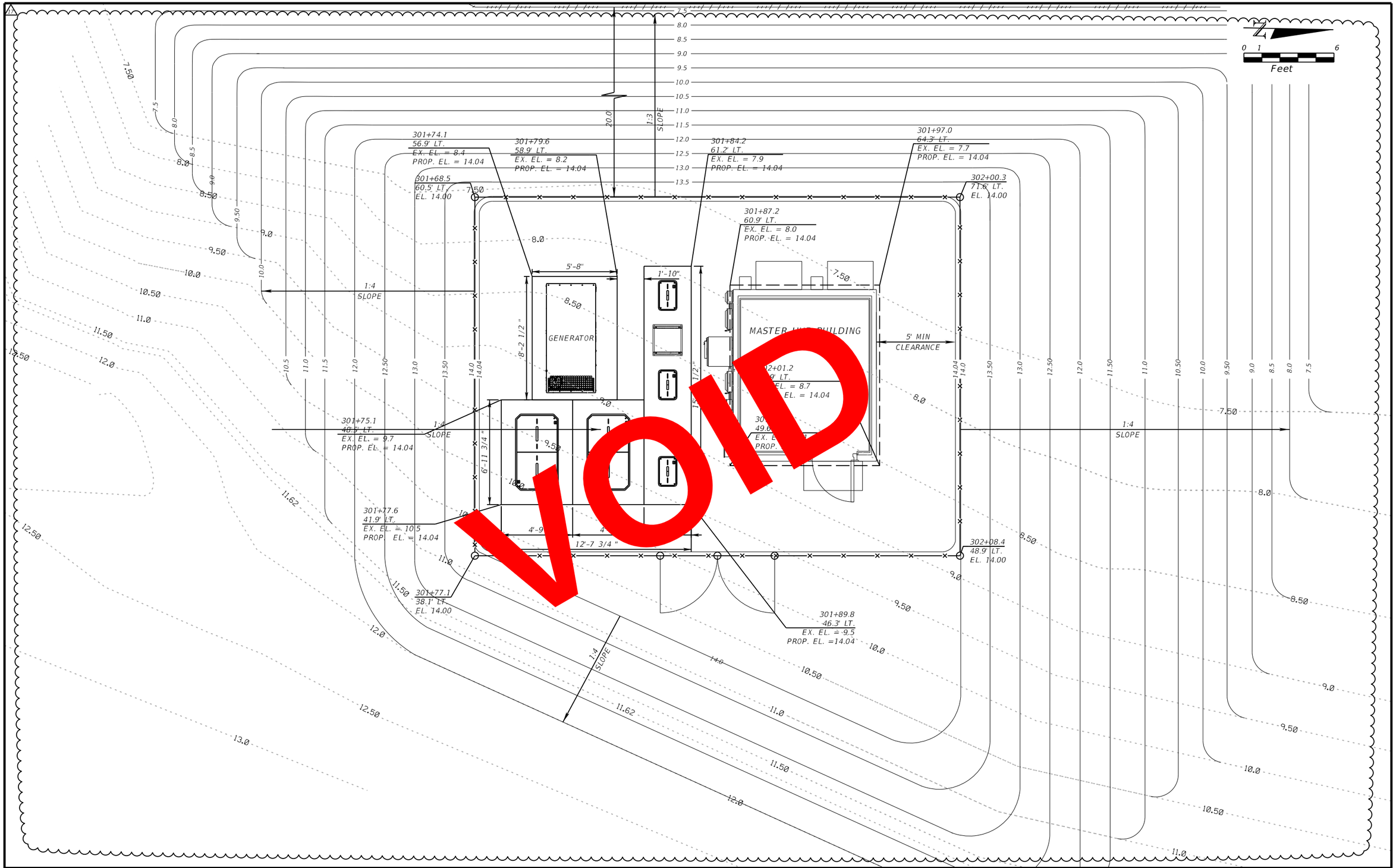
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: FDOT VS Date: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/19/19	17 ADDED MASTER HUB BUILDING GRADING PLAN		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Guangwei Zhou, P.E. No. 67536

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

MASTER HUB BUILDING GRADING PLAN

SHEET NO.
IT-132

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
BY:(FDOT) VS Date: 12/10/2019

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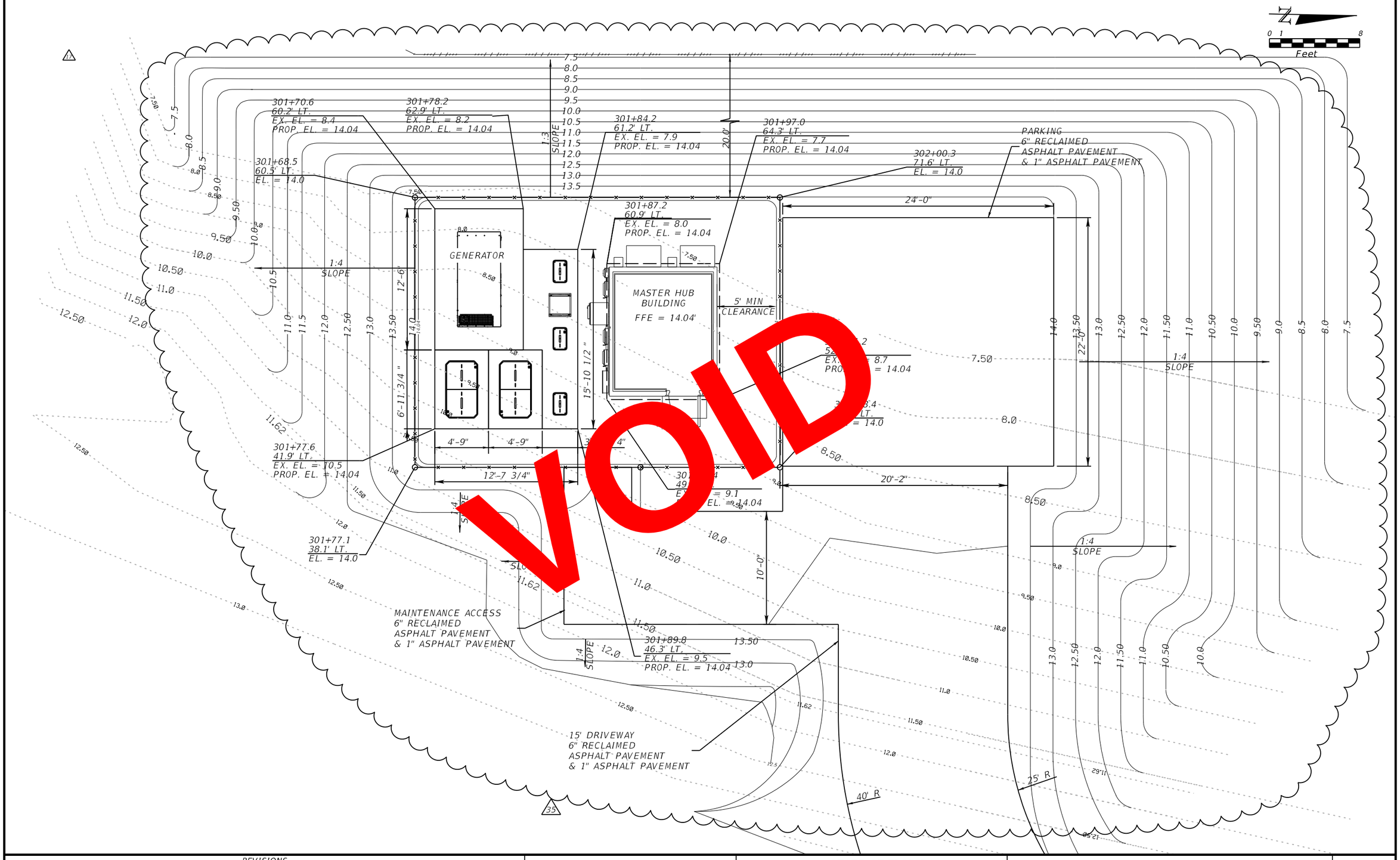

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/19/19	17 ADDED MASTER HUB BUILDING GRADING PLAN		
2/14/20	35 ADDED PARKING PAVEMENT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

MASTER HUB BUILDING GRADING PLAN

SHEET NO.
IT-132

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 03/04/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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N

0 1 8
Feet

301+70.3
60.9' LT.
EX. EL. = 8.4
PROP. EL. = 14.04

301+79.6
64.2' LT.
EX. EL. = 8.2
PROP. EL. = 14.04

301+84.2
61.2' LT.
EX. EL. = 7.9
PROP. EL. = 14.04

301+97.0
64.3' LT.
EX. EL. = 7.7
PROP. EL. = 14.04

301+68.5
60.5' LT.
EL. = 14.0

302+00.3
71.6' LT.
EL. = 14.0

PARKING
6" RECLAIMED
ASPHALT PAVEMENT
& 1" ASPHALT PAVEMENT

1:3 SLOPE

20.0'

24'-0"

301+87.2
60.9' LT.
EX. EL. = 8.0
PROP. EL. = 14.04

GENERATOR

2.68'

3'

2.5'

2.5'

1:4 SLOPE

MASTER HUB BUILDING

FINISHED FLOOR
ELEV = 14.62'

5' MIN CLEARANCE

302+01.2
52.9' LT.
EX. EL. = 8.7
PROP. EL. = 14.04

302+08.4
49.0' LT.
EL. = 14.0

6'-11 3/4"

15'-10 1/2"

4'-9"

4'-9"

3'-1 3/4"

12'-7 3/4"

22'-0"

20'-2"

10'-0"

301+77.6
41.9' LT.
EX. EL. = 10.5
PROP. EL. = 14.04

301+91.4
49.6' LT.
EX. EL. = 9.1
PROP. EL. = 14.04

301+77.1
38.1' LT.
EL. = 14.0

1:4 SLOPE

1:4 SLOPE

1:4 SLOPE

1:4 SLOPE

MAINTENANCE ACCESS
6" RECLAIMED
ASPHALT PAVEMENT
& 1" ASPHALT PAVEMENT

301+89.8
46.3' LT.
EX. EL. = 9.5
PROP. EL. = 14.04

15' DRIVEWAY
6" RECLAIMED
ASPHALT PAVEMENT
& 1" ASPHALT PAVEMENT

25' R

40' R

35

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
11/19/19	1 ADDED MASTER HUB BUILDING GRADING PLAN	10/4/21	ASBUILT
2/14/20	2 ADDED PARKING PAVEMENT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

MASTER HUB BUILDING GRADING PLAN

SHEET NO.
IT-132

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ITS EQUIPMENT ABBREVIATIONS AND SYMBOLS

AC	ALTERNATING CURRENT
AF:	AMPS FRAME (FRAME RATING OF CIRCUIT BREAKER) OR AMPS FUSED (FUSE RATING)
AG:	ABOVE GROUND
AS:	AMPS SWITCH (AMP RATING OF A FUSED DISCONNECT SWITCH)
AT:	AMPS TRIP (TRIP RATING OF CIRCUIT BREAKER)
ATS:	AUTOMATIC TRANSFER SWITCH
AWB:	ADVANCED WARNING BEACON
AWG:	AMERICAN WIRE GAUGE
C:	CONDUIT
CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRCUIT BREAKER
CCTV:	CLOSED CIRCUIT TELEVISION
CKT:	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CLR:	CENTERLINE OF REBAR
CMSS:	CHANGEABLE MESSAGE SIGN – TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN – TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
EB:	EAST BOUND
ELEC:	ELECTRICAL
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (ELECTRIC UTILITY COMPANY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (CIRCUIT BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD:	MOUNTED
MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
NB	NORTHBOUND
NEC:	NATIONAL ELECTRICAL CODE
OCPD:	OVERCURRENT PROTECTION DEVICE
PB:	PULLBOX
POA:	ITS POLE WITH CLD (CAMERA LOWERING DEVICE)
POB:	ITS POLE WITHOUT CLD (CAMERA LOWERING DEVICE)
PNL:	PANEL
PP:	POWER PANELBOARD OR PATCH PANEL
PTMS:	PORTABLE TRAFFIC MONITORING SITE
RGSC:	RIGID GALVANIZED STEEL CONDUIT
R/W:	RIGHT OF WAY
SB	SOUTHBOUND
SM FOC:	SINGLE MODE FIBER OPTIC CABLE
SW:	SWITCH
SPD:	SURGE PROTECTION DEVICE
STP:	SHIELDED TWISTED PAIR
TMS:	TRANSPORTATION MANAGEMENT SYSTEM
UG:	UNDERGROUND
UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
Vac:	VOLTS ALTERNATING CURRENT
Vdc:	VOLTS DIRECT CURRENT
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
XFMR:	TRANSFORMER

LEGEND

SPLICE BOX

EXISTING SPLICE BOX

NEW ITS CABINET (POLE MOUNTED)

EXISTING ITS CABINET (POLE MOUNTED)

NEW ITS CABINET (GROUND MOUNTED)

EXISTING ITS CABINET (GROUND MOUNTED)

CCTV CAMERA

EXISTING CCTV CAMERA

DEDICATED CCTV CAMERA

MVDS

EXISTING MVDS

AWB — ADVANCED WARNING BEACON

DMS — DMS (DYNAMIC MESSAGE SIGN)

DMS — EXISTING DMS (DYNAMIC MESSAGE SIGN)

RAMP METERING CONTROL SIGNAL

RAMP METERING LOOP DETECTOR SENSOR

PORTABLE TRAFFIC MONITORING SITES (PTMS)

TELEMETERED TRAFFIC MONITORING SITES (TTMS)

ELECTRICAL PULL BOX, 13" X 24" (UNLESS OTHERWISE NOTED ON PLANS). SEE SECTION 635 OF THE JANUARY 2019 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. DESIGN STANDARD INDEX 17500.

EXISTING ELECTRICAL PULL BOX

TRANSFORMER (kVA AND VOLTAGE RATING AS SHOWN ON PLANS). ALL TRANSFORMERS SHALL BE EQUIPPED WITH +/- 2.5% AND 5.0% VOLTAGE TAPS ABOVE AND BELOW NOMINAL VOLTAGE. ADDITIONALLY, ALL TRANSFORMERS SHALL BE PROVIDED WITH EXTERNAL SURGE PROTECTION DEVICES (SPD'S) AS CLOSE AS POSSIBLE TO BOTH THE TRANSFORMER PRIMARY AND SECONDARY WINDING TERMINALS. SPD'S SHALL BE MOUNTED AS RECOMMENDED BY THE TRANSFORMER MANUFACTURER.

DP — 120/240V, SINGLE PHASE DISTRIBUTION PANEL

F #AS / #AT

DISCONNECT SWITCH, 600Vac, 2 POLE, 10kAIC, UNLESS OTHERWISE NOTED.
F - INDICATES FUSED SWITCH. IF OMMITED, SWITCH SHALL BE NON-FUSED.
#AS - AMP RATING OF DISCONNECT SWITCH. IF OMITTED FROM PLANS, SWITCH SHALL BE 30 AMP RATED, UNLESS OTHERWISE NOTED.
#AT - AMP RATING OF FUSES (IF APPLICABLE), AS INDICATED ON PLANS.

CB

MOLDED CASE CIRCUIT BREAKER(S) SERVING AS A LOCAL DISCONNECTING MEANS FOR THE DMS SIGN POWER. CIRCUIT BREAKER(S) INSTALLED IN A NEMA 3R ENCLOSURE LOCATED AT THE DMS SIGN STRUCTURE (SAME ENCLOSURE USED TO HOUSE THE SPD'S FOR DMS POWER/DATA FEEDS, WHERE APPLICABLE. BREAKER RATINGS LISTED BELOW SHALL BE COORDINATED WITH THE DMS MANUFACTURER AND ADJUSTED AS NECESSARY BASED ON MANUFACTURER RECOMMENDATIONS.

1. WALK-IN DMS (FREEWAY): 40 AMP, 2 POLE, 240Vac
2. FRONT ACCESS DMS (EXPRESS LANES): 30 AMP, 2 POLE, 240Vac
3. LANE STATUS DMS: 20 AMP, 1 POLE, 24Vdc
4. TOLL RATE DMS: 20 AMP, 1 POLE, 24Vdc

SPD

SURGE PROTECTION DEVICE (SPD), UL 1449 THIRD EDITION LISTED. THE SPD AT EACH MAIN SERVICE DISCONNECTING MEANS SHALL BE A 'TYPE 1' SPD WITH A MINIMUM SURGE CAPACITY OF 80kA PER PHASE. ALL OTHER SPD'S SHALL BE 'TYPE 2' SPD'S WITH A MINIMUM SURGE CAPACITY OF 20kA PER PHASE. ALL SPD'S SHALL HAVE 25% MORE CAPACITY FOR THE RATING OF THE NOMINAL OPERATING SINGLE PHASE VOLTAGE(S) AND MAXIMUM CONTINUOUS OPERATING VOLTAGES PER ATTACHMENT L, SECTION 11, OF THE RFP. ALL SPD'S SHALL HAVE A MINIMUM SHORT CIRCUIT CURRENT INTERRUPT RATING (SCCR) OF 100kAIC. ALL SPD'S SHALL BE PROVIDED WITH FORM C DRY CONTACT FOR REMOTE STATUS MONITORING.

GROUND ROD, 5/8" DIAMETER, COPPER CLAD, AND A MINIMUM OF 8 FT IN LENGTH. GROUND RODS SHALL BE UL 467 LISTED. GROUND ROD ASSEMBLIES SHALL CONSIST OF TWO OR MORE GROUND RODS COUPLED TOGETHER AND INSTALLED PER JANUARY 2017 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FDOT SPEC HEREIN) SECTION 620-2.2. GROUND ROD ARRAYS SHALL CONSIST OF TWO OR MORE GROUND ROD ASSEMBLIES AND BE INSTALLED PER FDOT SPEC SECTION 620-2.3. GROUND RODS, GROUND ROD ASSEMBLIES, AND GROUND ROD ARRAYS SHALL BE INSTALLED AS REQUIRED PER THE PLANS AND CONTRACT DOCUMENTS AND PER 2017 FDOT STANDARD SPECIFICATION SECTION 620. DASHED CIRCLE INDICATES THE GROUND ROD IS INSTALLED IN AN GROUND INSPECTION/TEST WELL.

STANDBY GENERATOR, 120/240V, SINGLE PHASE

G — ITS POWER STATION. SEE ITS POWER STATION DETAIL SHEETS FOR ADDITIONAL INFORMATION.

SECONDARY ELECTRICAL POWER (INCLUDES FUSED DISCONNECT SWITCH, STEP-DOWN TRANSFORMER AND SPD'S) (REFER TO ONE LINE SCHEMATIC DIAGRAM FOR TRANSFORMER AND FUSE SIZES)

POWER SERVICE POLE TYPE PII, UNDERGROUND SERVICE

ITS EQUIPMENT POLE

UTILITY POWER DROP POLE

EXISTING UTILITY POWER DROP POLE

#AF / #AT / 2P / LSI

ENCLOSED CIRCUIT BREAKER, NEMA 3R ENCLOSURE
AF= AMP FRAME
AT= AMP TRIP
2P = 2 POLE
LSI = LONG TIME, SHORT TIME, AND INSTANTANEOUS TRIP (CIRCUIT BREAKER ADJUSTABLE TRIP SETTINGS/FUNCTIONS)

E N

AUTOMATIC TRANSFER SWITCH (RATING AND CONFIGURATION AS SHOWN ON PLANS).

UG ITS ELECTRICAL CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.

HORIZONTAL DIRECTIONAL DRILLING CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.

HORIZONTAL JACK AND BORE CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.

EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)

EXISTING UNDERGROUND ITS CONDUIT

EXISTING JACKED/BORE ITS CONDUIT

EQUIPMENT OUTLINES AND ENCLOSURES

EXISTING R/W

EXISTING L/A R/W

VOID

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BY: PDOT1 VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL LEGEND AND ABBREVIATIONS

SHEET NO. IT-133

ITS EQUIPMENT ABBREVIATIONS AND SYMBOLS

AC	ALTERNATING CURRENT
AF:	AMPS FRAME (FRAME RATING OF CIRCUIT BREAKER) OR AMPS FUSED (FUSE RATING)
AG:	ABOVE GROUND
AS:	AMPS SWITCH (AMP RATING OF A FUSED DISCONNECT SWITCH)
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CAB:	CABINETS GROUND MOUNTED OR POLE MOUNTED
CANT:	CANTILEVER
CB:	CIRCUIT BREAKER
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CKT:	CIRCUIT
CLD:	CAMERA LOWERING DEVICE
CLR:	CENTERLINE OF REBAR
CMSS:	CHANGEABLE MESSAGE SIGN - TOLL STATUS
CMST:	CHANGEABLE MESSAGE SIGN - TOLL RATE
DC:	DIRECT CURRENT
DISC:	DISCONNECT
DIST:	DISTRIBUTION
DMS:	DYNAMIC MESSAGE SIGN
EB:	EAST BOUND
ELEC:	ELECTRICAL
EOR:	ENGINEER OF RECORD
FP&L	FLORIDA POWER & LIGHT (ELECTRIC UTILITY COMPANY)
FO:	FIBER OPTIC
FOC:	FIBER OPTIC CABLE
FOSPL:	FIBER OPTIC SPLICE
FWY:	FREEWAY
HAR:	HIGHWAY ADVISORY RADIO SIGN
HD:	HIGH DEFINITION
HDD:	HORIZONTAL DIRECTIONAL DRILL
HDPE	HIGH DENSITY POLYETHYLENE
HDPEC:	HIGH DENSITY POLYETHYLENE CONDUIT
IP:	INTERNET PROTOCOL
LSI:	LONG TIME, SHORT TIME, INSTANTANEOUS (CIRCUIT BREAKER TRIP FUNCTIONS)
MB:	MAIN BREAKER
MM FOC:	MULTI MODE FIBER OPTIC CABLE
MNTD:	MOUNTED
MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
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SW:	SWITCH
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STP:	SHIELDED TWISTED PAIR
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UPS:	UNINTERRUPTED POWER SUPPLY
V:	VOLTS
Vac:	VOLTS ALTERNATING CURRENT
Vdc:	VOLTS DIRECT CURRENT
VOIP:	VOICE OVER INTERNET PROTOCOL
WB:	WEST BOUND
WWDS:	WRONG WAY DETECTION SYSTEM 4A
XFMR:	TRANSFORMER

LEGEND

- SPLICE BOX
- EXISTING SPLICE BOX
- NEW ITS CABINET (POLE MOUNTED)
- EXISTING ITS CABINET (POLE MOUNTED)
- NEW ITS CABINET (GROUND MOUNTED)
- EXISTING ITS CABINET (GROUND MOUNTED)
- CCTV CAMERA
- EXISTING CCTV CAMERA
- DEDICATED CCTV CAMERA
- MVDS
- EXISTING MVDS
- AWB — ADVANCED WARNING BEACON
- DMS — DMS (DYNAMIC MESSAGE SIGN)
- DMS — EXISTING DMS (DYNAMIC MESSAGE SIGN)
- RAMP METERING CONTROL SIGNAL
- RAMP METERING LOOP DETECTOR SENSOR
- LED HIGHLIGHTED SIGN
- STATIC WWDS SIGN

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 4C

- PORTABLE TRAFFIC MONITORING SITES (PTMS)
- TELEMETERED TRAFFIC MONITORING SITES (TTMS)
- ELECTRICAL PULL BOX, 13" X 24" (UNLESS OTHERWISE NOTED ON PLANS). SEE SECTION 635 OF THE JANUARY 2017 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND 2017 FDOT DESIGN STANDARDS INDEX NO. 17500.
- EXISTING ELECTRICAL PULL BOX
- TRANSFORMER (kVA AND VOLTAGE RATING AS SHOWN ON PLANS). ALL TRANSFORMERS SHALL BE EQUIPPED WITH +/- 2.5% AND +/- 5.0% VOLTAGE TAPS ABOVE AND BELOW NOMINAL VOLTAGE. ADDITIONALLY, ALL TRANSFORMERS SHALL BE PROVIDED WITH EXTERNAL SURGE PROTECTION DEVICES (SPD'S) AS CLOSE AS POSSIBLE TO BOTH THE TRANSFORMER PRIMARY AND SECONDARY WINDING TERMINALS. SPD'S SHALL BE MOUNTED AS RECOMMENDED BY THE TRANSFORMER MANUFACTURER.
- DP — 120/240V, SINGLE PHASE DISTRIBUTION PANEL
- F, #AS / #AT — DISCONNECT SWITCH, 600Vac, 2 POLE, 10kAIC, UNLESS OTHERWISE NOTED.
  F - INDICATES FUSED SWITCH. IF OMMITED, SWITCH SHALL BE NON-FUSED.
  #AS - AMP RATING OF DISCONNECT SWITCH. IF OMITTED FROM PLANS, SWITCH SHALL BE 30 AMP RATED, UNLESS OTHERWISE NOTED.
  #AT - AMP RATING OF FUSES (IF APPLICABLE), AS INDICATED ON PLANS.
- CB — MOLDED CASE CIRCUIT BREAKER(S) SERVING AS A LOCAL DISCONNECTING MEANS FOR THE DMS SIGN POWER. CIRCUIT BREAKER(S) INSTALLED IN A NEMA 3R ENCLOSURE LOCATED AT THE DMS SIGN STRUCTURE (SAME ENCLOSURE USED TO HOUSE THE SPD'S FOR DMS POWER/DATA FEEDS, WHERE APPLICABLE. BREAKER RATINGS LISTED BELOW SHALL BE COORDINATED WITH THE DMS MANUFACTURER AND ADJUSTED AS NECESSARY BASED ON MANUFACTURER RECOMMENDATIONS.
  1. WALK-IN DMS (FREEWAY): 40 AMP, 2 POLE, 240Vac
  2. FRONT ACCESS DMS (EXPRESS LANES): 30 AMP, 2 POLE, 240Vac
  3. LANE STATUS DMS: 20 AMP, 1 POLE, 24Vdc
  4. TOLL RATE DMS: 20 AMP, 1 POLE, 24Vdc
- SPD — SURGE PROTECTION DEVICE (SPD), UL 1449 THIRD EDITION LISTED. THE SPD AT EACH MAIN SERVICE DISCONNECTING MEANS SHALL BE A 'TYPE 1' SPD WITH A MINIMUM SURGE CAPACITY OF 80kA PER PHASE. ALL OTHER SPD'S SHALL BE 'TYPE 2' SPD'S WITH A MINIMUM SURGE CAPACITY OF 20kA PER PHASE. ALL SPD'S SHALL HAVE 25% MORE CAPACITY FOR THE RATING OF THE NOMINAL OPERATING SINGLE PHASE VOLTAGE(S) AND MAXIMUM CONTINUOUS OPERATING VOLTAGES PER ATTACHMENT L, SECTION 11, OF THE RFP. ALL SPD'S SHALL HAVE A MINIMUM SHORT CIRCUIT CURRENT INTERRUPT RATING (SCCR) OF 100kAIC. ALL SPD'S SHALL BE PROVIDED WITH FORM C DRY CONTACT FOR REMOTE STATUS MONITORING.
- GROUND ROD, 5/8" DIAMETER, COPPER CLAD, AND A MINIMUM OF 8 FT IN LENGTH. GROUND RODS SHALL BE UL 467 LISTED. GROUND ROD ASSEMBLIES SHALL CONSIST OF TWO OR MORE GROUND RODS COUPLED TOGETHER AND INSTALLED PER JANUARY 2017 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FDOT SPEC HEREIN) SECTION 620-2.2. GROUND ROD ARRAYS SHALL CONSIST OF TWO OR MORE GROUND ROD ASSEMBLIES AND BE INSTALLED PER FDOT SPEC SECTION 620-2.3. GROUND RODS, GROUND ROD ASSEMBLIES, AND GROUND ROD ARRAYS SHALL BE INSTALLED AS REQUIRED PER THE PLANS AND CONTRACT DOCUMENTS AND PER 2017 FDOT STANDARD SPECIFICATION SECTION 620. DASHED CIRCLE INDICATES THE GROUND ROD IS INSTALLED IN AN GROUND INSPECTION/TEST WELL.
- STANDBY GENERATOR, 120/240V, SINGLE PHASE
- G — ITS POWER STATION. SEE ITS POWER STATION DETAIL SHEETS FOR ADDITIONAL INFORMATION.
- SECONDARY ELECTRICAL POWER (INCLUDES FUSED DISCONNECT SWITCH, STEP-DOWN TRANSFORMER AND SPD'S) (REFER TO ONE LINE SCHEMATIC DIAGRAM FOR TRANSFORMER AND FUSE SIZES)
- POWER SERVICE POLE TYPE PII, UNDERGROUND SERVICE
- ITS EQUIPMENT POLE
- UTILITY POWER DROP POLE
- EXISTING UTILITY POWER DROP POLE
- #AF / #AT / 2P / LSI — ENCLOSED CIRCUIT BREAKER, NEMA 3R ENCLOSURE
  AF= AMP FRAME
  AT= AMP TRIP
  2P = 2 POLE
  LSI = LONG TIME, SHORT TIME, AND INSTANTANEOUS TRIP (CIRCUIT BREAKER ADJUSTABLE TRIP SETTINGS/FUNCTIONS)
- E N — AUTOMATIC TRANSFER SWITCH (RATING AND CONFIGURATION AS SHOWN ON PLANS).
- UG ITS ELECTRICAL CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- HORIZONTAL DIRECTIONAL DRILLING CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- HORIZONTAL JACK AND BORE CONDUIT. CONDUIT SHALL BE ONE (1) 2" HDPE SDR 11 TYPE CONDUIT UNLESS OTHERWISE NOTED ON ITS ELECTRICAL DRAWINGS.
- EXISTING ITS POWER CONDUIT AND WIRING (SYMBOL ONLY USED ON RISERS AND DETAIL DRAWINGS)
- EXISTING UNDERGROUND ITS CONDUIT
- EXISTING JACKED/BORE ITS CONDUIT
- EQUIPMENT OUTLINES AND ENCLOSURES
- EXISTING R/W
- EXISTING L/A R/W

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions remains with the consultant of record for all dimensions, details, quantities, and safety during fabrication and erection. Shop review shall not relieve the contractor from responsibility for deviations from the contract documents unless he has in writing called the attention of the engineer to such deviations at the time of submission and the engineer has approved them in writing.
BY: PERON Date: 2/25/2021 VS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2020	4A WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL LEGEND AND ABBREVIATIONS

SHEET NO. IT-133

ITS ELECTRICAL NOTES

1. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT FOR EOR APPROVAL EQUIPMENT SPECIFICATION AND DESIGN DATA FOR ALL MATERIAL PROPOSED FOR THE PROJECT.

2. THE CONTRACTOR SHALL STAKE ALL SERVICE POLE LOCATIONS AND REQUEST UTILITY COMPANIES TO LOCATE AND STAKE UNDERGROUND UTILITIES PRIOR TO EXCAVATING.

3. THE CONTRACTOR SHALL BE AWARE OF ALL EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PROJECT PLANS. THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES ARE APPROXIMATE AND BASED ON THE INFORMATION FURNISHED TO THE ENGINEER BY THE UTILITY OWNER(S) AND ARE SHOWN AS NOTICE TO THE CONTRACTOR THAT UNDERGROUND UTILITIES EXIST. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OWNER(S) FOR LOCATION AND STAKING OF UNDERGROUND FACILITIES BEFORE EXCAVATING.

4. THE LOCATION OF THE CONDUCTORS, CONDUITS, JUNCTION BOXES AND SERVICE POLES ARE DIAGRAMMATIC ONLY AND MAY BE SHIFTED FOLLOWING PRE-APPROVAL BY THE ENGINEER TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITY LOCATIONS.

5. ELECTRICAL WORK SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 70) NATIONAL ELECTRICAL CODE (NEC), NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE, THE NATIONAL ELECTRICAL SAFETY CODE (NESC), AND THE STANDARD PRACTICE OF GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION, NECA-1-2010. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER THE NATIONAL ELECTRICAL CODE REQUIREMENTS.

6. LOCAL DISCONNECTING MEANS FOR DMS SIGNS MAY CONSIST OF EITHER NON-FUSED DISCONNECT SWITCH OR CIRCUIT BREAKERS IN A LOCKABLE NEMA 3R ENCLOSURE.

7. PROVIDE IDENTIFICATION FOR EACH BRANCH CIRCUIT IN A PANELBOARD. PROVIDE NAMEPLATES FOR ALL EQUIPMENT AND DEVICES. PROVIDE WIRE LABELS ON EACH CONDUCTOR IN PULL BOXES AND JUNCTION BOXES.

8. THE CONTRACTOR SHALL NOTIFY FP&L AT LEAST 48 HOURS PRIOR TO ANY INSTALLATION THAT IS WITHIN 10 FEET OF ENERGIZED ELECTRICAL CONDUCTORS. FP&L, AT ITS OPTION, SHALL ASSIST THE F.D.O.T. CONTRACTOR, COVER ENERGIZED CONDUCTORS AT INSTALLATION SITE, OR TAKE OTHER SAFETY PRECAUTIONS AS NECESSARY. EXTREME CAUTION SHALL BE EXERCISED AT ALL TIMES IN PERFORMANCE OF WORK AROUND THE PRIMARY MEDIUM AND HIGH VOLTAGE COMPONENTS.

9. PULLING INSTRUCTIONS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURER'S REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS.

10. ALL CONDUITS UNDER ROADWAY SHALL BE INSTALLED PRIOR TO INSTALLATION OF ROADWAY BASE AND SURFACE (OR CONCRETE), EXCEPT WHERE OTHERWISE SPECIFIED IN THE PLANS.

11. THE CONTRACTOR SHALL PROVIDE NOTICE TO THE UTILITY OWNER(S) PER FLORIDA STATUTE 553.851 (2004) AND 556 (2012). THESE STATUTES REQUIRE THAT BEFORE EXCAVATING, NOTICE BE GIVEN TO THE UTILITY OWNER A MINIMUM OF TWO (2) DAYS AND A MAXIMUM OF FIVE (5) FULL BUSINESS DAYS, EXCLUDING SATURDAY, SUNDAY AND LEGAL HOLIDAYS. NOT ALL UTILITY COMPANIES ARE MEMBERS OF "SUNSHINE 811".

Always call 811 two full business days before you dig

Sunshine811.com

ITS ELECTRICAL NOTES (CONTINUED)

12. DIRECTIONAL DRILLING BORE OPERATIONS IF USED SHALL MEET THE REQUIREMENTS OF F.D.O.T.'S UTILITY ACCOMMODATION GUIDE MANUAL (LATEST EDITION).

13. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE WITHIN TWO FEET OF THE ITS POLE FOUNDATIONS OR CONDUIT RUN, AS DETERMINED BY THE CONTRACTOR, THE CONTRACTOR WILL HAND DIG THE FIRST 4 FEET OF THE HOLE FOR THE POLE FOUNDATION AND CONDUIT RUN.

14. ALL EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.

15. THE CONTRACTOR SHALL CONTACT FP&L TO DETERMINE IF A SERVICE PROCESSING FEE IS REQUIRED AND VERIFY THE PROPER METERING ENCLOSURE AND ANY ADDITIONAL DISCONNECT DEVICE REQUIREMENTS.

16. ALL SPLICES SHALL BE MADE IN PULLBOXES ONLY WITH COMPRESSION SLEEVES PROPERLY INSULATED FOR 600V, WATERPROOFED, ENCAPSULATED AND RATED FOR SUBMERSIBLE SERVICE.

17. ALL INFORMATION SHOWN ON THE ITS ELECTRICAL DRAWINGS REGARDING EXISTING ELECTRICAL EQUIPMENT (INCLUDING EQUIPMENT RATINGS, CONDUIT AND WIRING) ARE SHOWN FOR INFORMATION PURPOSES ONLY AND ARE BASED ON INFORMATION FROM AS-BUILT AND CONSTRUCTION DRAWINGS PROVIDED BY THE DEPARTMENT. NOTIFY THE EOR IF CONTRARY FIELD CONDITIONS ARE FOUND BY THE CONTRACTOR.

18. ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

19. ALL ELECTRICAL PULL BOX COVERS FOR THE I-95 EXPRESS LANES SERVICE ITS SHALL INCLUDE THE WORDS "FDOT DISTRICT 4 ITS" PERMANENTLY CAST INTO THEIR TOP SURFACE.

20. CONDUIT RUN SHALL NOT EXCEED 270° OF BENDS BETWEEN PULL BOXES UNLESS APPROVED BY THE ENGINEER OF RECORD (EOR).

21. THE MAXIMUM SPACING BETWEEN ADJACENT ELECTRICAL PULL BOXES SHALL BE LESS THAN 900 FEET.

22. ALL UNINTERRUPTIBLE POWER SUPPLY (UPS) UNITS SHALL BE PROVIDED WITH A SIMPLE NETWORK MANAGEMENT PROTOCOL (SNMP) ETHERNET COMMUNICATION CARD FOR REMOTE MONITORING OF THE UPS FROM THE TRANSPORTATION MANAGEMENT CENTER (TMC). THE UPS UNITS SHALL BE CONFIGURED TO EMAIL STATUS AND ALARM NOTIFICATIONS THROUGH THE ITS ETHERNET NETWORK.

23. TOP ENTRY CONDUIT SHALL NOT BE USED FOR ANY CONDUIT INSTALLED BETWEEN ELECTRICAL EQUIPMENT. NEMA 3R THREADED HUBS SHALL BE USED FOR ALL RACEWAY CONNECTIONS BETWEEN ELECTRICAL ENCLOSURES.

24. ELECTRICAL ROUTE MARKERS AND BURIED WARNING TAPE SHALL BE INSTALLED ABOVE ALL BURIED ELECTRICAL CONDUITS PER THE POWER CABLE ROUTE MARKER DETAILS WITHIN THE ITS PACKAGE.

25. OVERCURRENT PROTECTION DEVICE SIZING SHALL BE BASED ON AN 80% RATING FOR DEVICES UP TO AND INCLUDING 250 AMPS AND BASED ON A 100% RATING FOR DEVICE ABOVE 250 AMPS.

26. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANY, FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING:

(BROWARD COUNTY)	MR. BYRON SAMPLE	OFFICE: (954) 321-2056
(PALM BEACH COUNTY)	MR. LUCA FASANI	OFFICE: (561) 904-3320

27. CONDUCTORS CAN BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE A PROPER CONNECTION TO THE ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE WHERE THE CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS IT IS CONNECTED TO. THIS DOWN SPLICE SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.

28. ANY NEW PULL BOXES INSTALLED WITHIN THE ROADWAY SHOULDERS SHALL HAVE AN AASHTO HS-20 LOAD RATING OR GREATER.

BY:(FDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION

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FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

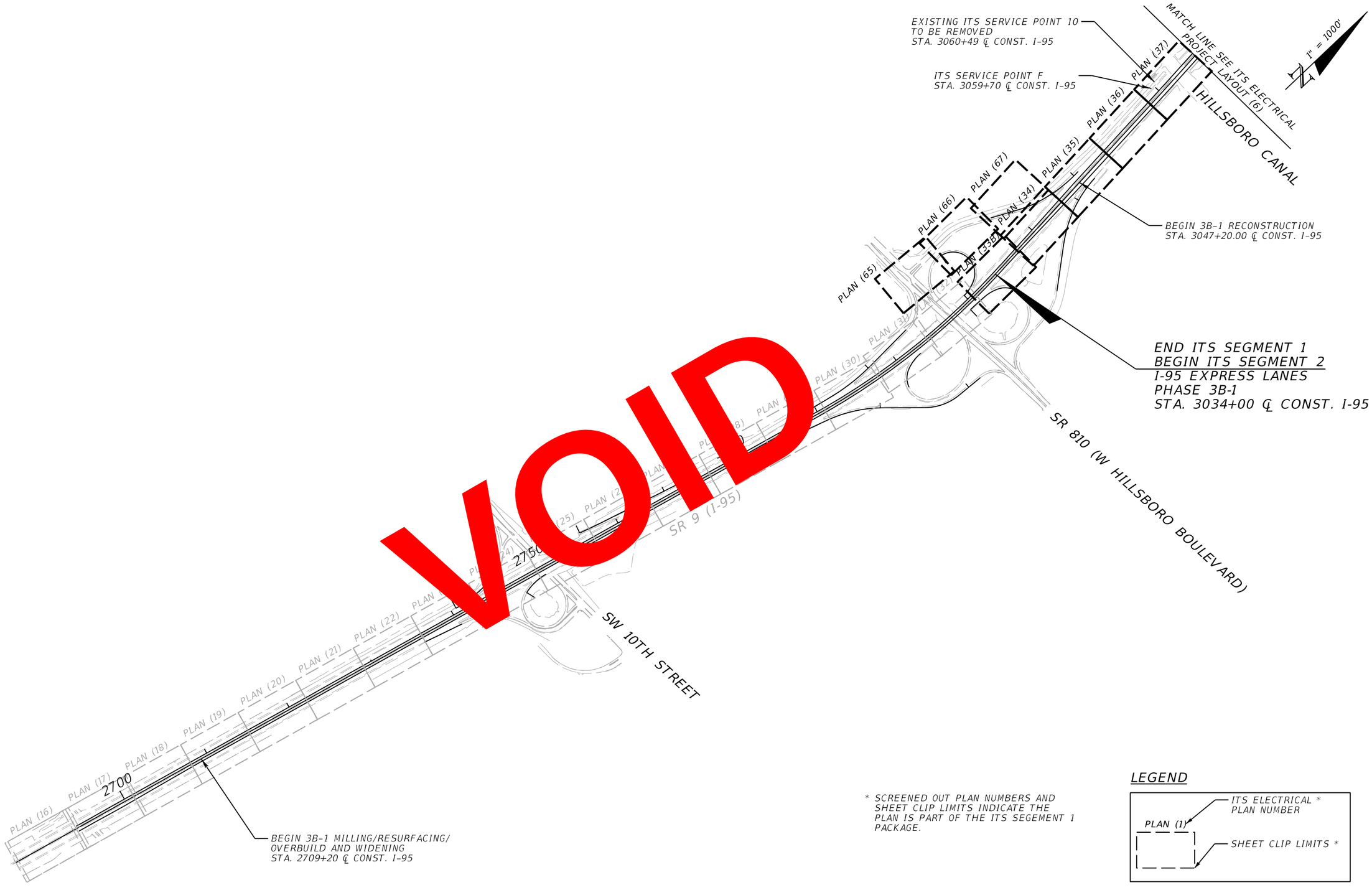
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL GENERAL NOTES

SHEET NO.
IT-134



VOID

* SCREENED OUT PLAN NUMBERS AND SHEET CLIP LIMITS INDICATE THE PLAN IS PART OF THE ITS SEGEMENT 1 PACKAGE.

LEGEND

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (5B)

SHEET NO.
IT-135

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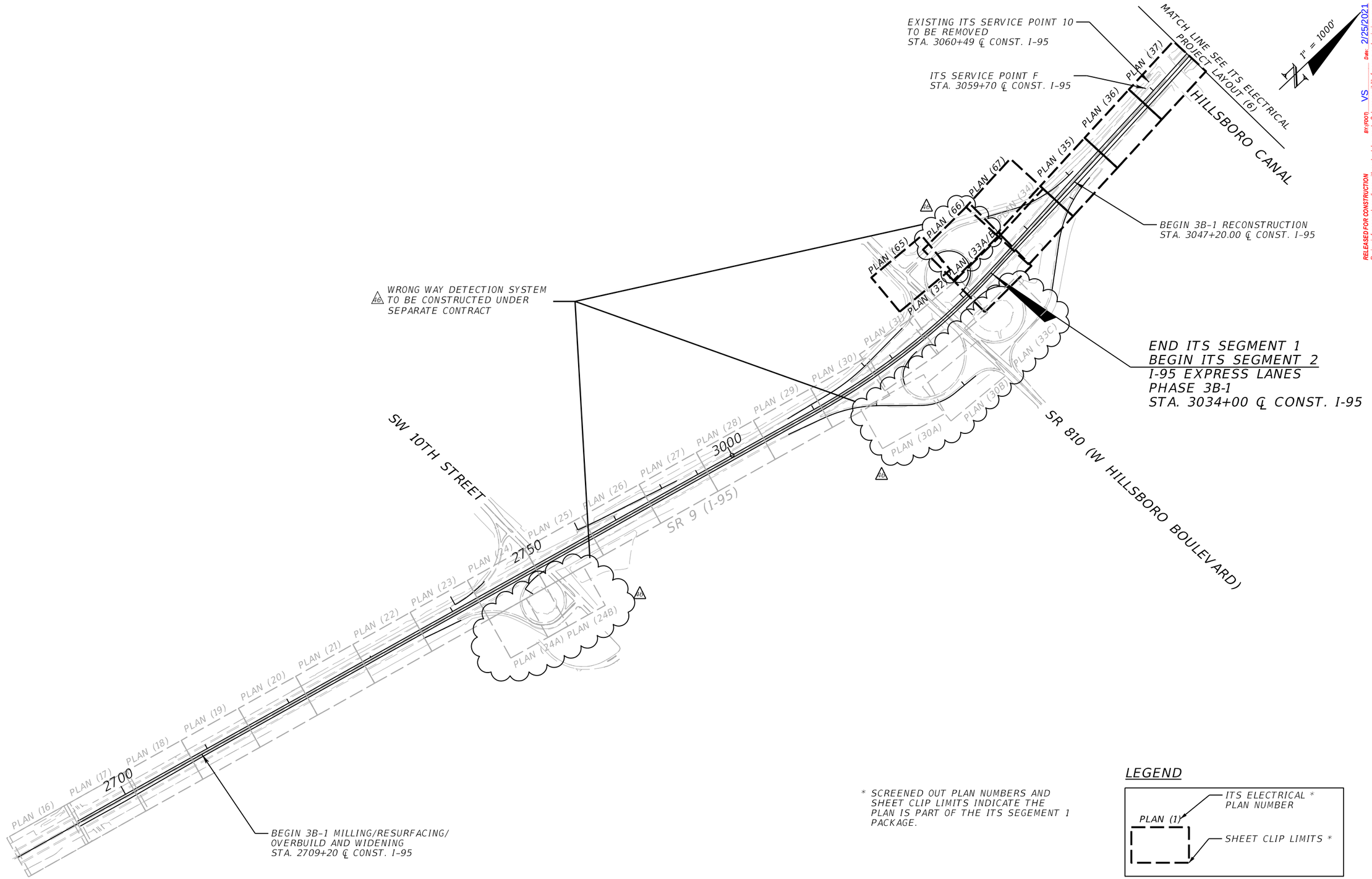
BY:(FDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96



* SCREENED OUT PLAN NUMBERS AND SHEET CLIP LIMITS INDICATE THE PLAN IS PART OF THE ITS SEGEMENT 1 PACKAGE.

LEGEND

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY/PSM: VS Date: 2/25/2021

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 SHEETS ADDED/REVISED FOR WRONG WAY DETECTION SYSTEM		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (5B)

SHEET NO.
IT-135

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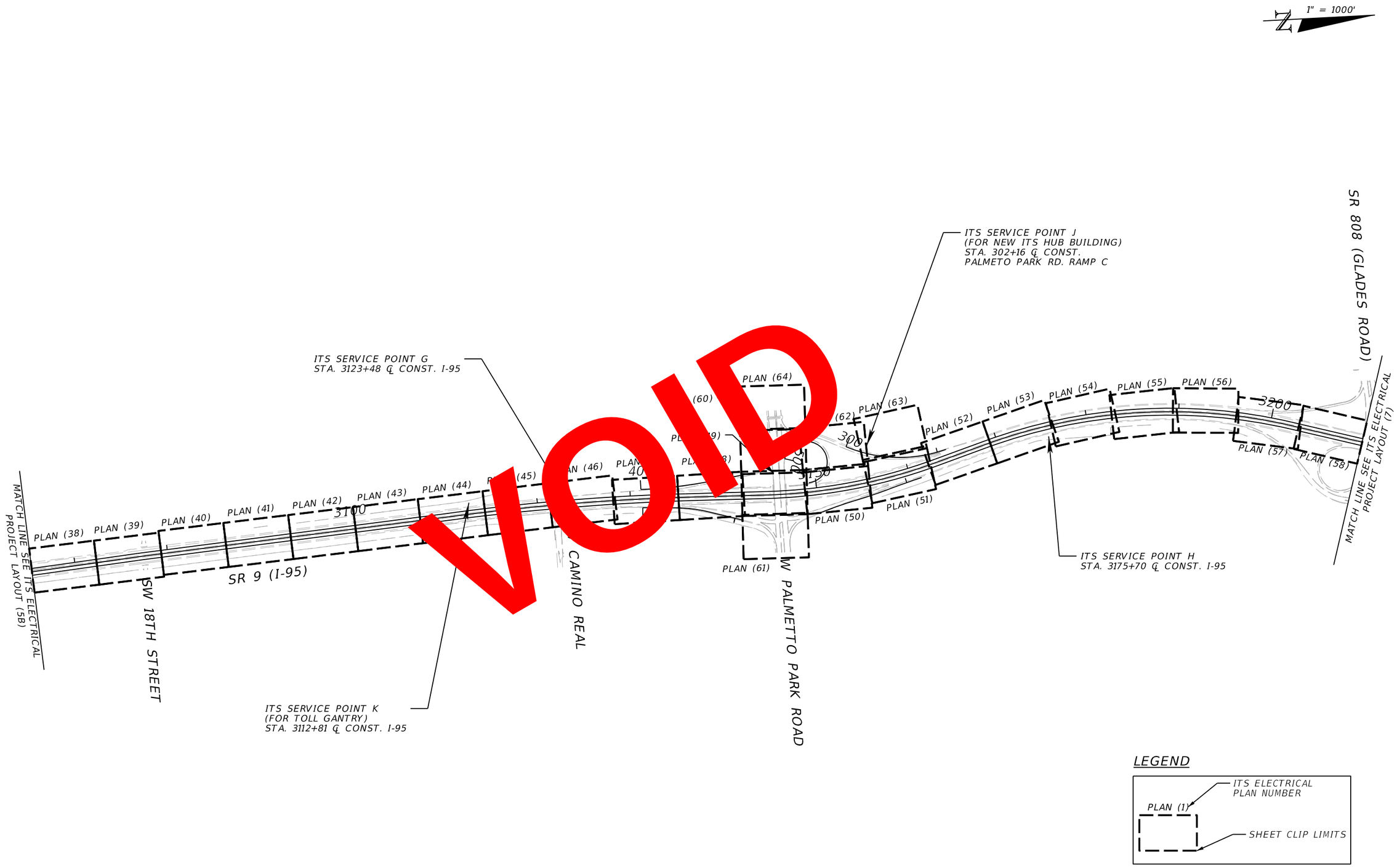

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (6)

SHEET NO.
IT-136

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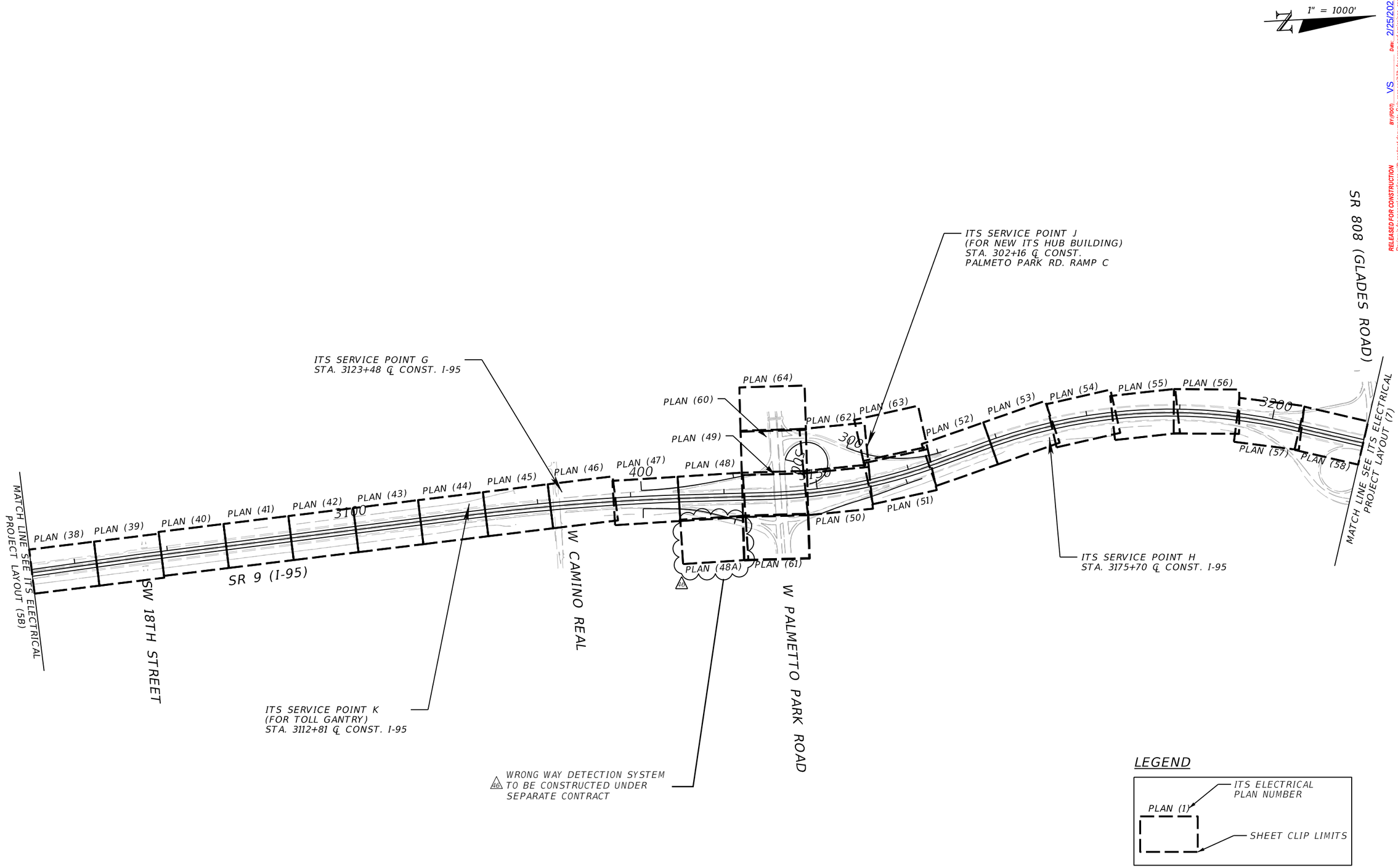

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RELEASED FOR CONSTRUCTION BY:FROM: VS DATE: 2/25/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FROM: 433108-6-52-01 FOR: 433109-4-52-01 CONTRACT: E4R84

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 ADDED SHEET FOR WRONG WAY DETECTION SYSTEM		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (6)

SHEET NO.
IT-136

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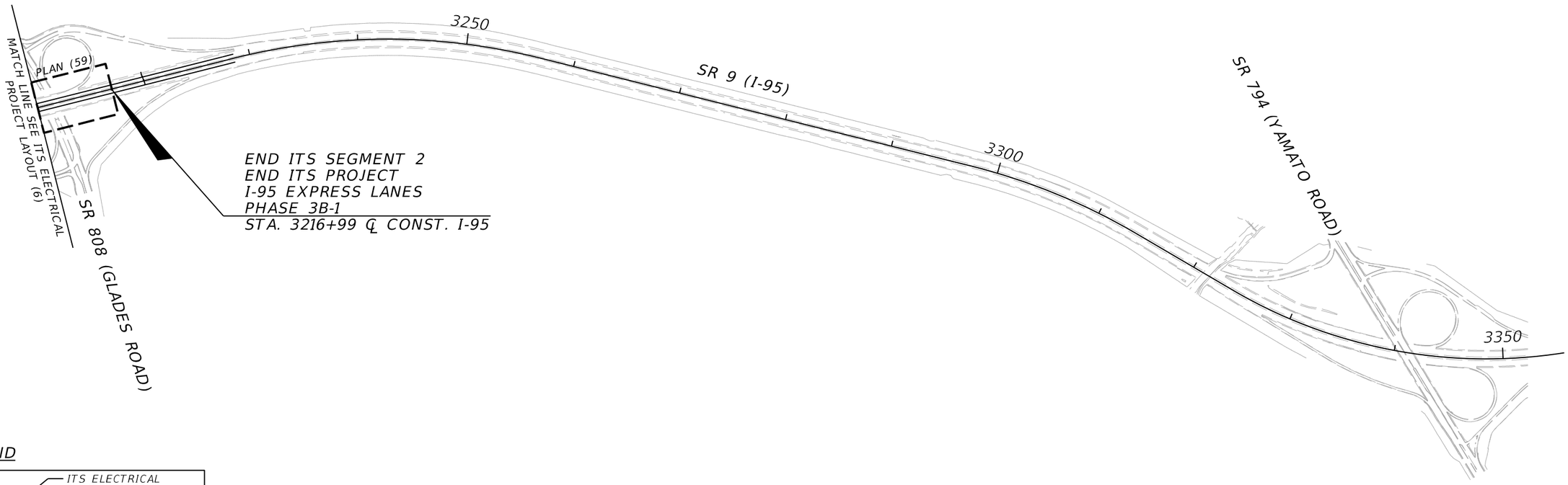
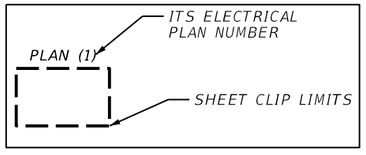


1" = 1000'

LEGEND



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WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PROJECT LAYOUT (7)

SHEET NO.
IT-137

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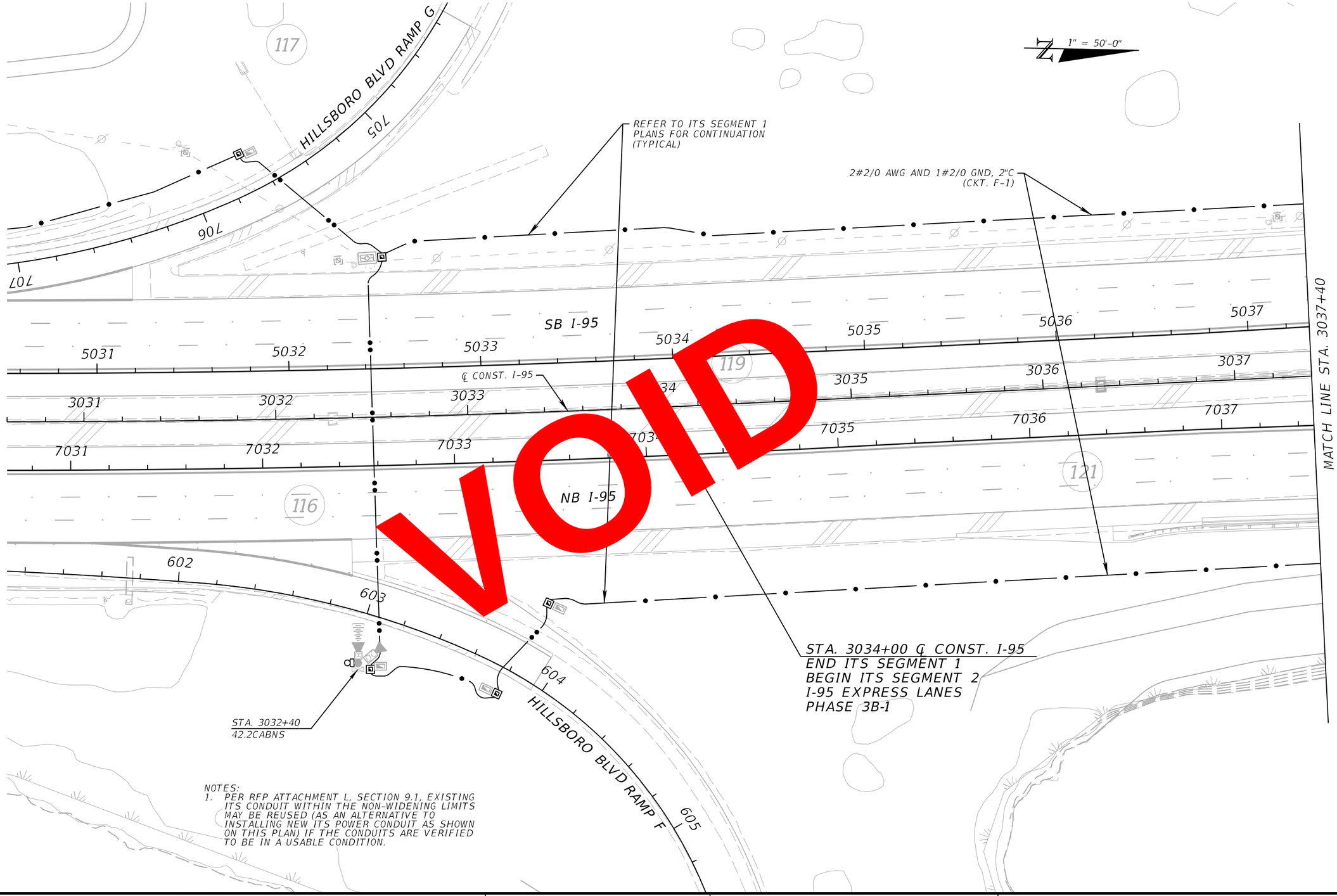
BY:(FDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (33B)

SHEET NO.
IT-138

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BY:(PSDT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

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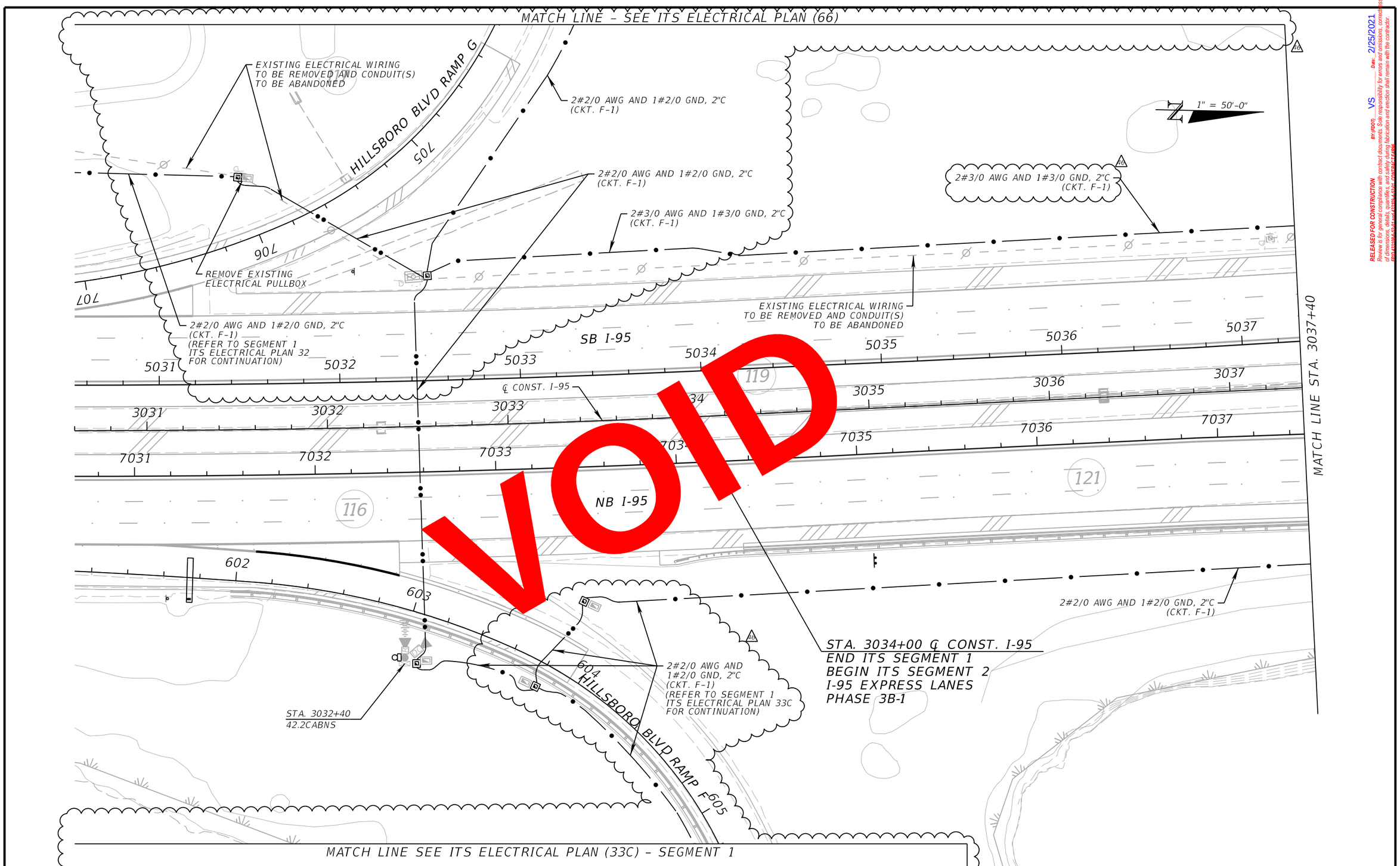

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (33B)

SHEET NO.
IT-138

$USER$ $DATE$ $TIME$ $FILE$

RELEASED FOR CONSTRUCTION By: FDOT VS Date: 2/25/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT 21-1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

MATCH LINE – SEE ITS ELECTRICAL PLAN (66)

EXISTING ELECTRICAL WIRING TO BE REMOVED AND CONDUIT(S) TO BE ABANDONED

HILLSBORO BLVD RAMP G

705

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

1" = 50'-0"

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 4G

2#3/0 AWG AND 1#3/0 GND, 2"C (CKT. F-1)

4G

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

2#3/0 AWG AND 1#3/0 GND, 2"C (CKT. F-1)

706

REMOVE EXISTING ELECTRICAL PULLBOX

707

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

EXISTING ELECTRICAL WIRING TO BE REMOVED AND CONDUIT(S) TO BE ABANDONED

SB I-95

5031 5032 5033 5034 5035 5036 5037

℄ CONST. I-95

3031 3032 3033 3034 3035 3036 3037

7031 7032 7033 7034 7035 7036 7037

NB I-95

MATCH LINE STA. 3037+40

602

603

604

HILLSBORO BLVD RAMP F 605

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

2#2/0 AWG AND 1#2/0 GND, 2"C (CKT. F-1)

STA. 3034+00 ℄ CONST. I-95
END ITS SEGMENT 1
BEGIN ITS SEGMENT 2
I-95 EXPRESS LANES
PHASE 3B-1

STA. 3032+40
42.2CABNS

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 4G

MATCH LINE SEE ITS ELECTRICAL PLAN (33C) – SEGMENT 1

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	4G WRONG WAY DETECTION SYSTEM REVISION		
10/04/2021	AS-BUILTS: ITS INFRASTRUCTURE CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (33B)

SHEET NO.
IT-138

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MATCH LINE SEE ITS ELECTRICAL PLAN (67)

1" = 50'-0"

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

STA. 3038+00
42.3CABSS

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

305

HILLSBORO BLVD RAMP C

306

2-2" CONDUITS EACH WITH:
2#3/0 AWG, 1#2 GND
(SERVICE POINT F - PARALLEL SETS)

EXISTING CONDUIT WITH 2#3/0 AWG, 1#4 GND
(SERVICE POINT F FEEDER) TO BE ABANDONED IN PLACE
AND CONDUCTORS REMOVED (SEE NOTE 2)

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

MATCH LINE STA. 3037+40

5038 5039 5040 5042 5043 5044

℄ CONST. I-95

3038 3039 3040 3042 3043 3044

7038 7039 7040 7042 7043 7044

NB I-95

MATCH LINE STA. 3044+40

SDMS

STA. 3038+51
42.3CABNS

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

4#6 AWG, 2"C
(TO 1-LINE STATUS DMS)

XXXXXXXXXXXXXXXX
EXPRESS LANES ENTRANCE 1 MILE
ONLY
NO TRUCKS
LEFT

FLD4D0T09542.4NBLS1
1-LINE STATUS DMS
STA. 3040+00, RT.

HILLSBORO BLVD RAMP B

208

207

NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

2. THIS SECTION OF EXISTING CONDUIT AND WIRING (SERVICE POINT F FEEDER) ARE IN CONFLICT WITH PROPOSED DRAINAGE. THE EXISTING CONDUIT NEEDS TO BE INTERCEPTED AND BYPASSED, AS SHOWN ON ITS ELECTRICAL PLAN 66. WHEN THE NEW PARALLEL FEEDER SETS OF SERVICE POINT F ARE INSTALLED AND READY FOR FINAL TIE-OVER CONNECTIONS, THE EXISTING CONDUCTORS SHALL BE REMOVED AND EXISTING CONDUIT ABANDONED IN PLACE.

VOID

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96
BY: PDOT VS DATE: 05/21/2019

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (34)

SHEET NO.
IT-139

MATCH LINE SEE ITS ELECTRICAL PLAN (67)

1" = 50'-0"

16 2#3/0 AWG AND 1#3/0 GND, 2"C (CKT. F-1)

STA. 3038+00
42.3CABSS

16 2#3/0 AWG AND 1#3/0 GND, 2"C (CKT. F-1)

16 2-2" CONDUITS EACH WITH:
2#4/0 AWG, 1#2 GND
(SERVICE POINT F - PARALLEL SETS)

EXISTING CONDUIT WITH 2#3/0 AWG, 1#4 GND
(SERVICE POINT F FEEDER) TO BE ABANDONED IN PLACE
AND CONDUCTORS REMOVED (SEE NOTE 2)

16 2#3/0 AWG AND 1#3/0 GND, 2"C (CKT. F-1)

EXISTING ELECTRICAL WIRING
TO BE REMOVED AND CONDUIT(S)
TO BE ABANDONED

305
306
HILLSBORO BLVD RAMP C

MATCH LINE STA. 3037+40

MATCH LINE STA. 3044+40

5038 5039 5040 5042 5043 5044

3038 3039 3040 3042 3043 3044

℄ CONST. I-95

7038 7039 7040 7042 7043 7044

NB I-95

SDMS

STA. 3038+51
42.3CABNS

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

4#6 AWG, 2"C
(TO 1-LINE STATUS DMS)

XXXXXXXXXXXXXXX
EXPRESS LANES ENTRANCE 1 MILE
ONLY
NO TRUCKS
LEFT

FLD4D0T09542.4NBLS1
1-LINE STATUS DMS
STA. 3040+00, RT.

HILLSBORO BLVD RAMP B
208
207

NOTES:
1. PER RFP ATTACHMENT L, SECTION 9.1, EXISTING ITS CONDUIT WITHIN THE NON-WIDENING LIMITS MAY BE REUSED (AS AN ALTERNATIVE TO INSTALLING NEW ITS POWER CONDUIT AS SHOWN ON THIS PLAN) IF THE CONDUITS ARE VERIFIED TO BE IN A USABLE CONDITION.

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VOID

RELEASED FOR CONSTRUCTION
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BY/PSM VS Date: 2/25/2021

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (34)

SHEET NO.
IT-139

MATCH LINE SEE ITS ELECTRICAL PLAN (67)

1" = 50'-0"

2#3/0 AWG AND 1#3/0 GND, 2"C
(CKT. F-1)

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT

STA. 3038+00
42.3CABSS

2#3/0 AWG AND 1#3/0 GND, 2"C
(CKT. F-1)

EXISTING ELECTRICAL WIRING
TO BE REMOVED AND CONDUIT(S)
TO BE ABANDONED

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT

2-2" CONDUITS EACH WITH:
2#4/0 AWG, 1#2 GND
(SERVICE POINT F - PARALLEL SETS)

EXISTING CONDUIT WITH 2#3/0 AWG, 1#4 GND
(SERVICE POINT F FEEDER) TO BE ABANDONED IN PLACE
AND CONDUCTORS REMOVED (SEE NOTE 2)

2#3/0 AWG AND 1#3/0 GND, 2"C
(CKT. F-1)

WRONG WAY DETECTION SYSTEM
TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT

HILLSBORO BLVD RAMP C

305

306

SB I-95

5038 5039 5040 5041 5042 5043 5044

℄ CONST. I-95

3038 3039 3040 3041 3042 3043 3044

7038 7039 7040 7041 7042 7043 7044

NB I-95

MATCH LINE STA. 3037+40

MATCH LINE STA. 3044+40

STA. 3038+51
42.3CABNS

2#2/0 AWG AND 1#2/0 GND, 2"C
(CKT. F-1)

4#6 AWG, 2"C
(TO 1-LINE STATUS DMS)

XXXXXXXXXXXXXXX
EXPRESS LANES ENTRANCE 1 MILE
NO TRUCKS
LEFT
ONLY

FLD4D0T09542.4NBLS1
1-LINE STATUS DMS
STA. 3040+00, RT.

HILLSBORO BLVD RAMP B

208

207

NOTES:
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	4θ WRONG WAY DETECTION SYSTEM REVISION		
10/04/2021	AS-BUILTS: ITS INFRASTRUCTURE CHANGES		

WSP USA INC.
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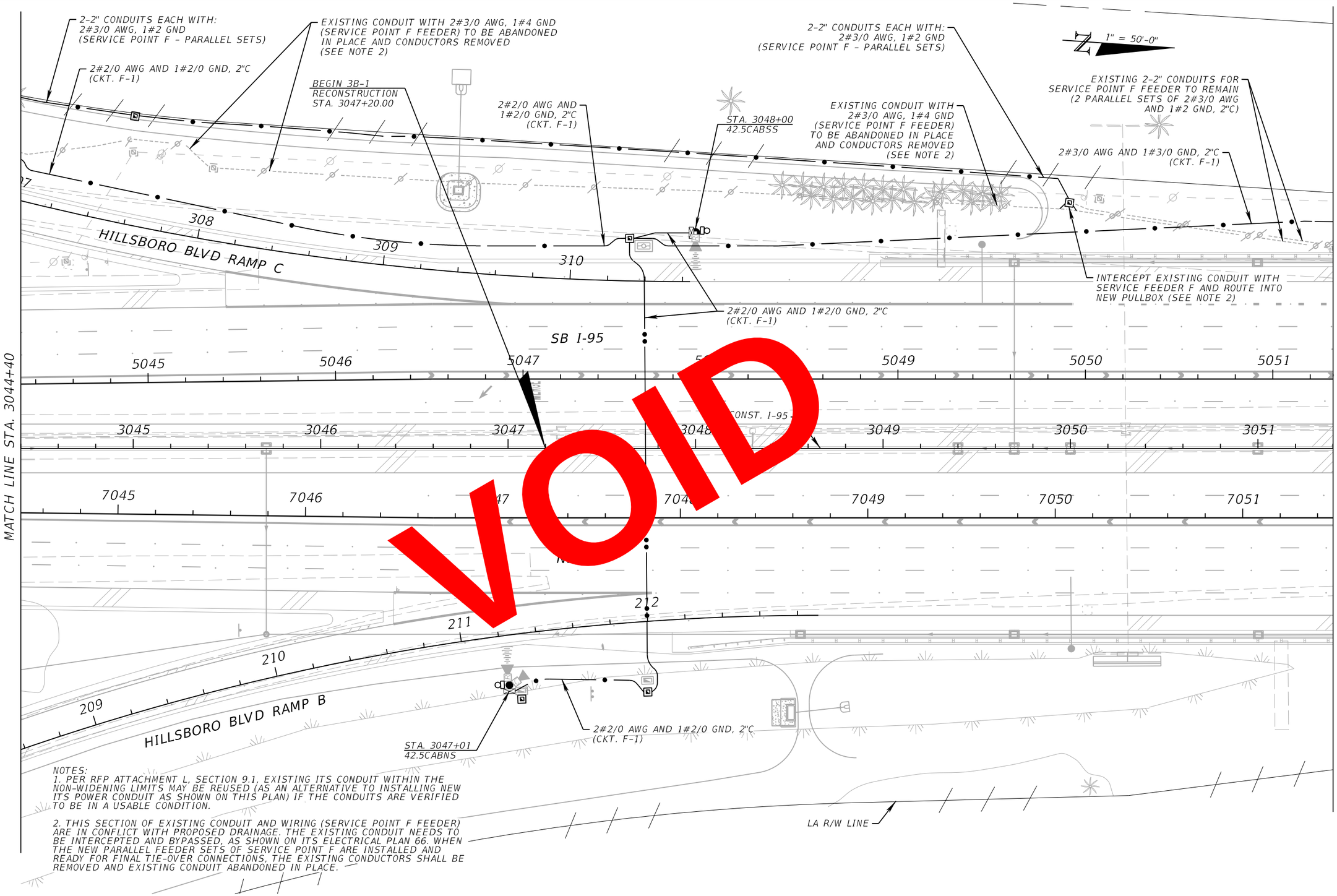
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (34)

SHEET NO.
IT-139



VOID

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (35)

SHEET NO.
IT-140

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BY:PDOT1 VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

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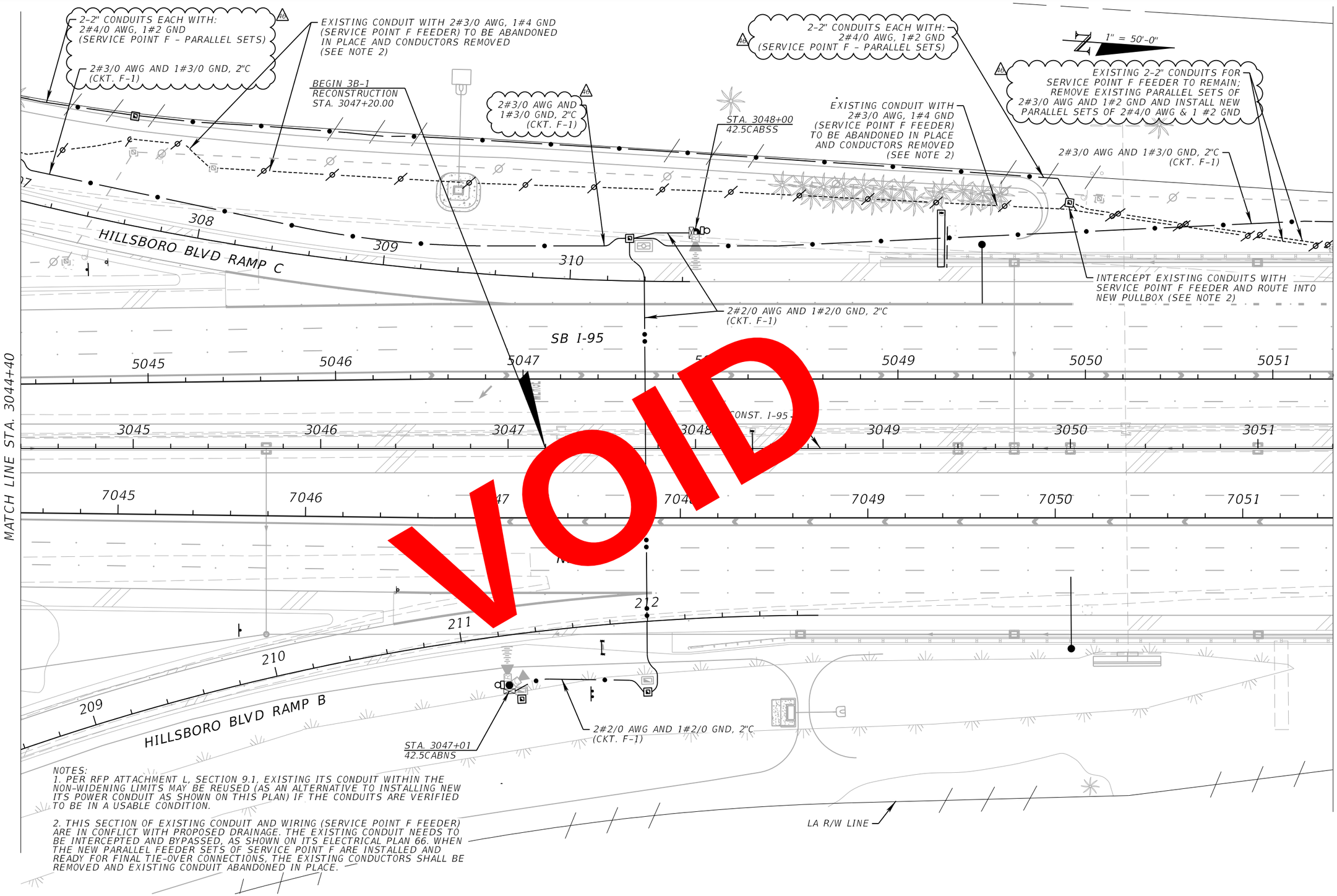

VOID

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(AD) WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (35)

SHEET NO.
IT-140

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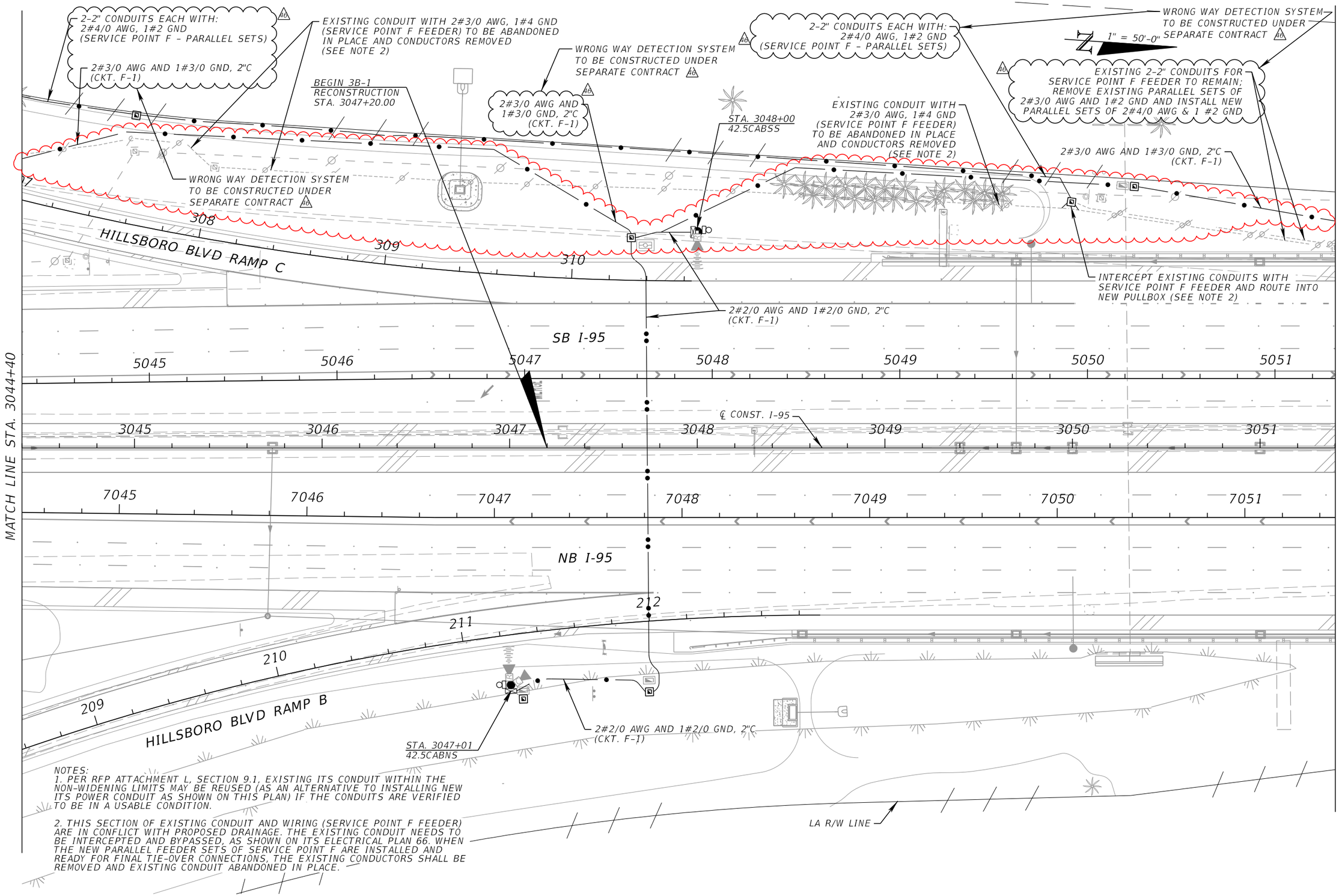
RELEASED FOR CONSTRUCTION
BY/PSDN VS Date: 2/25/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
REVIEWED AND RELEASED UNDER RULE 61G15-23.004, F.A.C.
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 WRONG WAY DETECTION SYSTEM REVISION		
10/04/2021	AS-BUILTS: ITS INFRASTRUCTURE CHANGES		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (35)

SHEET NO.
IT-140

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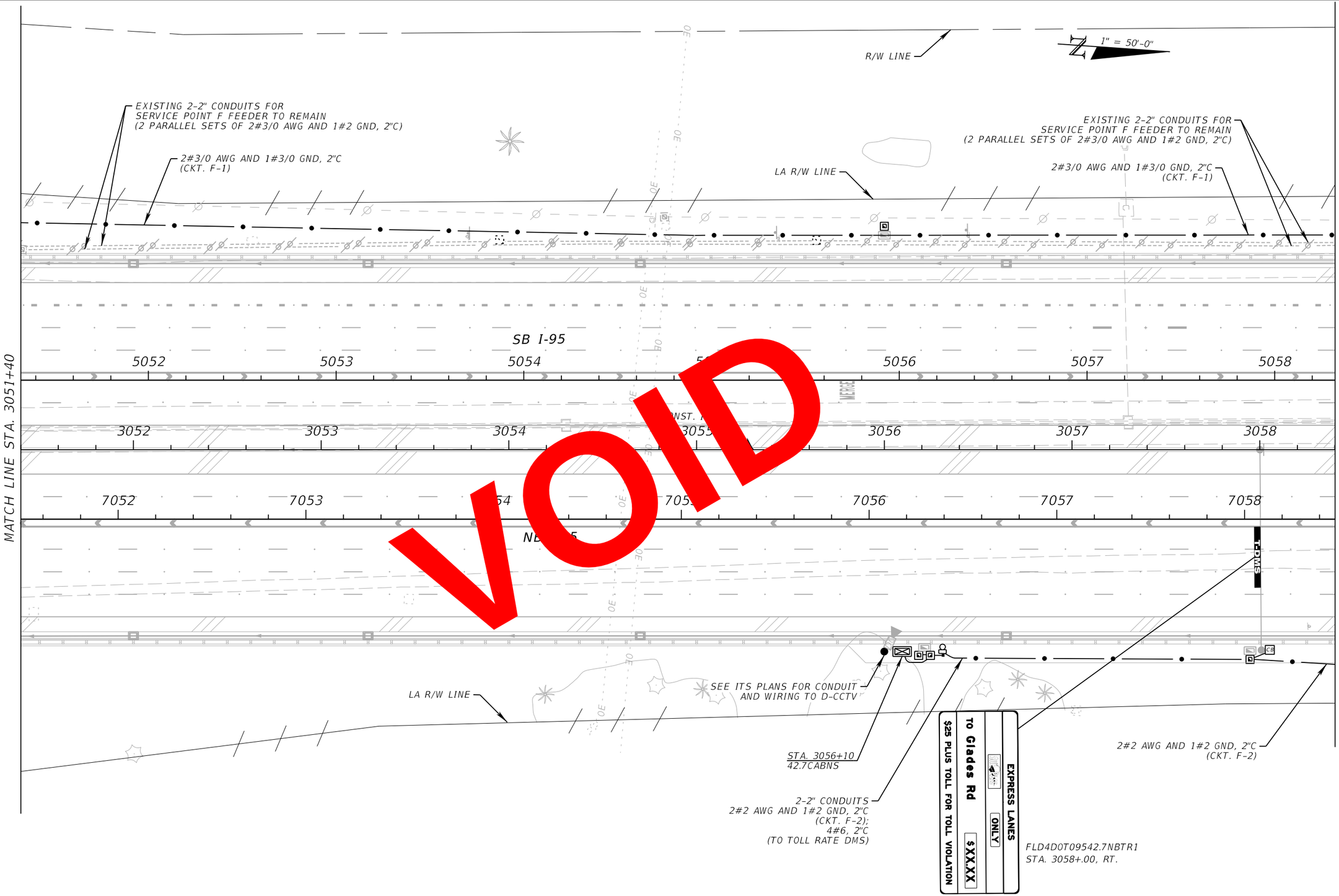

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (36)

SHEET NO.
IT-141

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BY:(FDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

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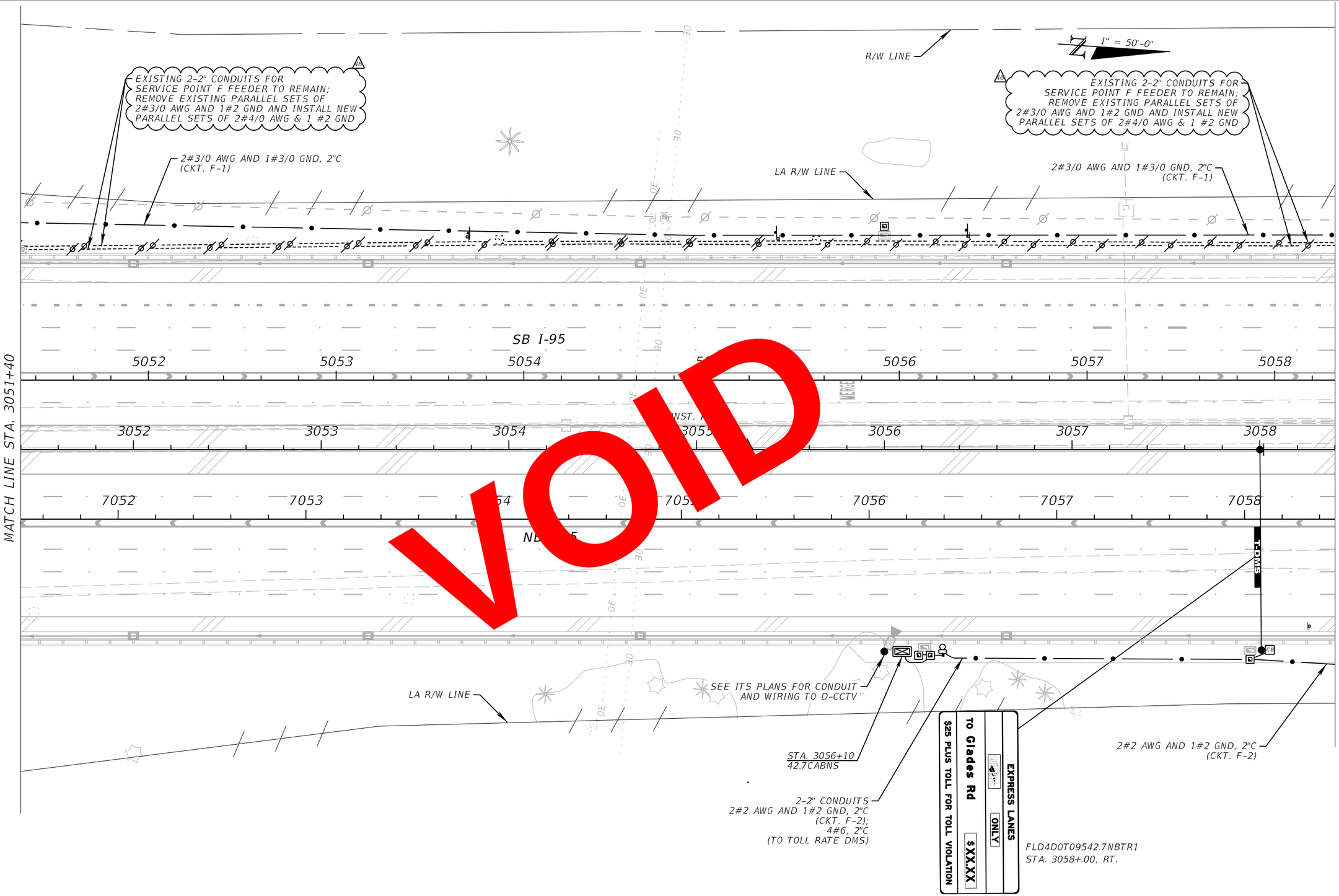

RELEASED FOR CONSTRUCTION BY:FDOT VS Date: 2/25/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FDOT 61G15-23.004 of 61G15-23.004 CONTRACT FORM

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	40 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (36)

SHEET NO.
IT-141

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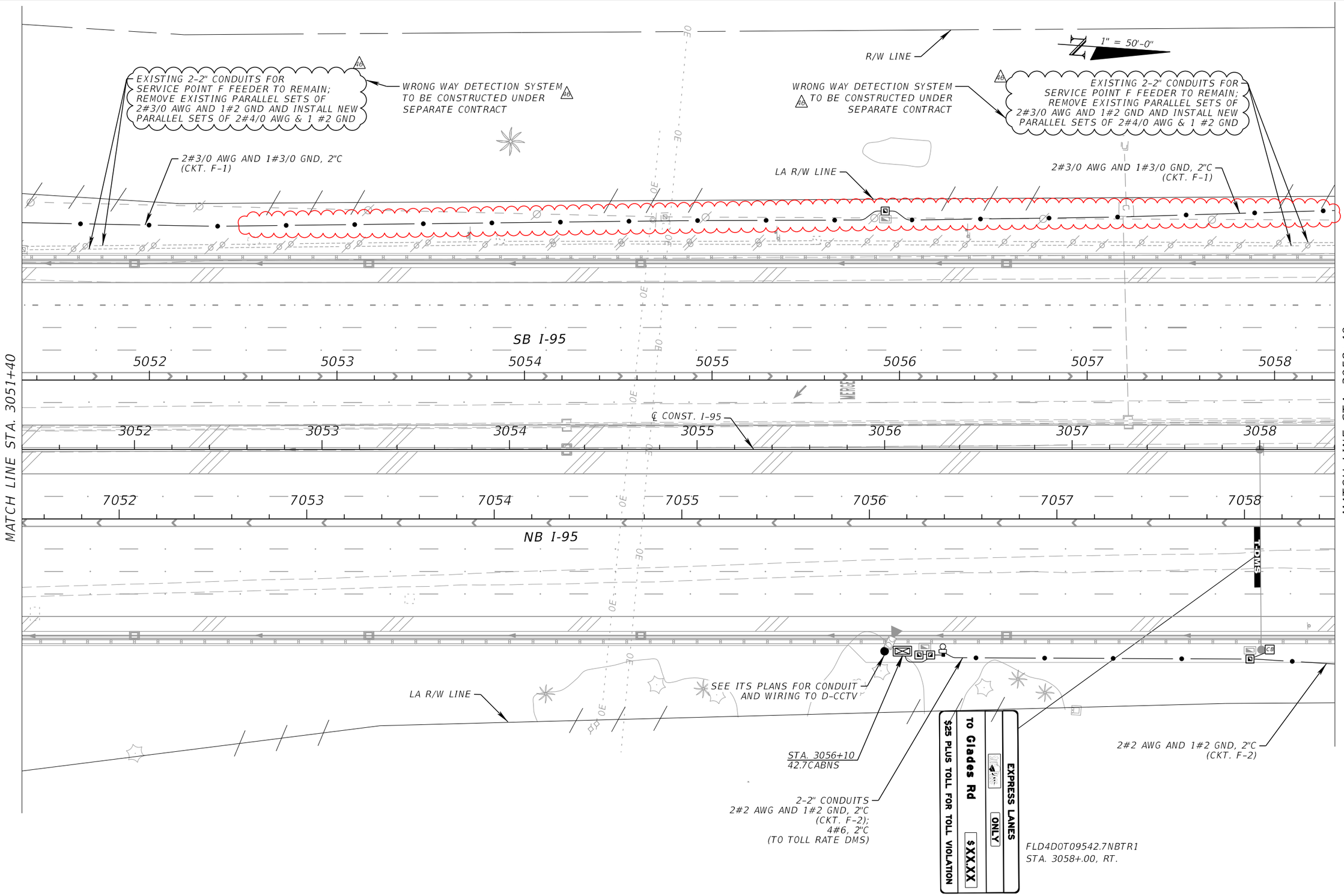

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 WRONG WAY DETECTION SYSTEM REVISION		
10/4/21	AS-BUILT CONDUIT ROUTING CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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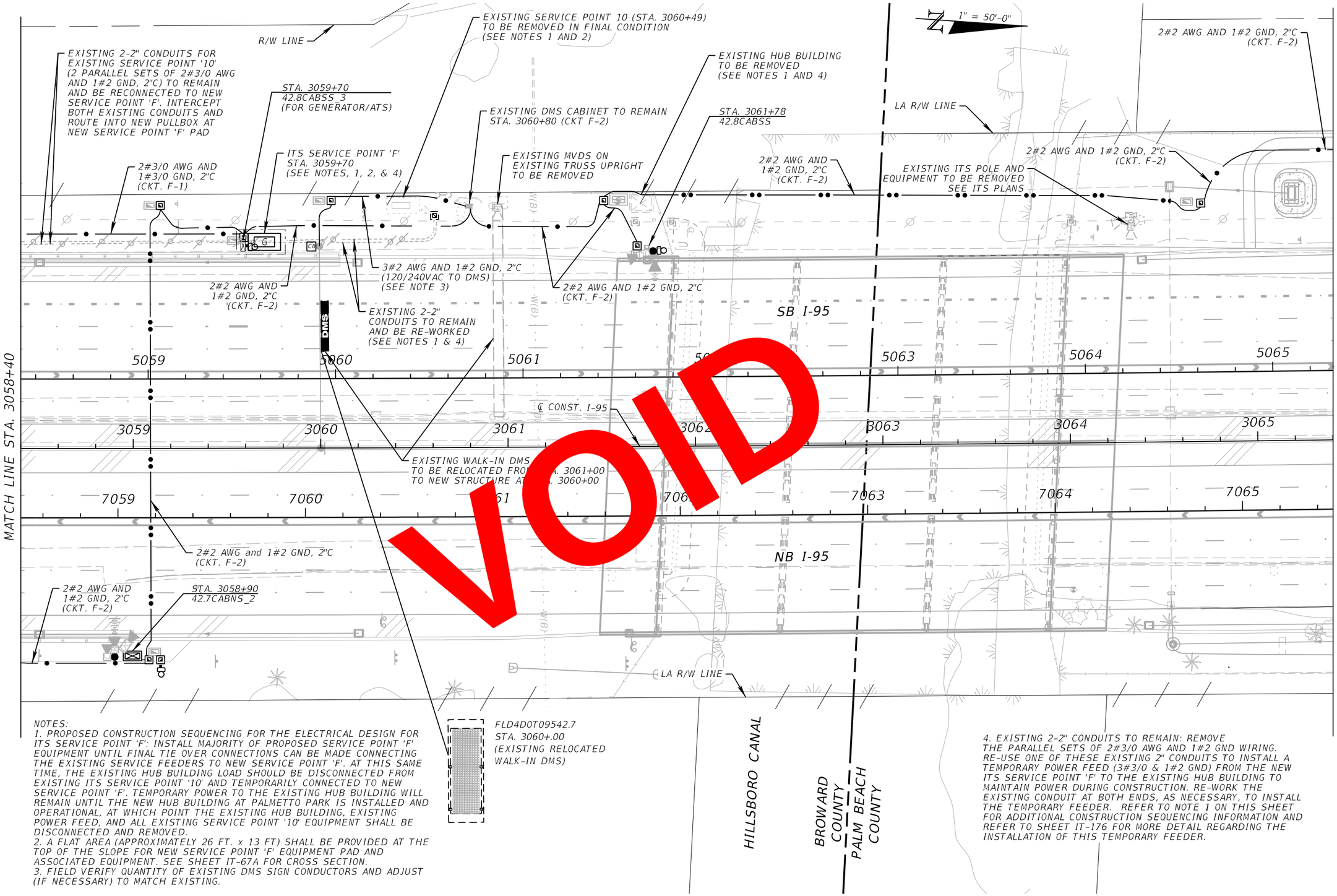
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (36)

SHEET NO.
IT-141



VOID

NOTES:
1. PROPOSED CONSTRUCTION SEQUENCING FOR THE ELECTRICAL DESIGN FOR ITS SERVICE POINT 'F': INSTALL MAJORITY OF PROPOSED SERVICE POINT 'F' EQUIPMENT UNTIL FINAL TIE OVER CONNECTIONS CAN BE MADE CONNECTING THE EXISTING SERVICE FEEDERS TO NEW SERVICE POINT 'F'. AT THIS SAME TIME, THE EXISTING HUB BUILDING LOAD SHOULD BE DISCONNECTED FROM EXISTING ITS SERVICE POINT '10' AND TEMPORARILY CONNECTED TO NEW SERVICE POINT 'F'. TEMPORARY POWER TO THE EXISTING HUB BUILDING WILL REMAIN UNTIL THE NEW HUB BUILDING AT PALMETTO PARK IS INSTALLED AND OPERATIONAL, AT WHICH POINT THE EXISTING HUB BUILDING, EXISTING POWER FEED, AND ALL EXISTING SERVICE POINT '10' EQUIPMENT SHALL BE DISCONNECTED AND REMOVED.
2. A FLAT AREA (APPROXIMATELY 26 FT. x 13 FT) SHALL BE PROVIDED AT THE TOP OF THE SLOPE FOR NEW SERVICE POINT 'F' EQUIPMENT PAD AND ASSOCIATED EQUIPMENT. SEE SHEET IT-67A FOR CROSS SECTION.
3. FIELD VERIFY QUANTITY OF EXISTING DMS SIGN CONDUCTORS AND ADJUST (IF NECESSARY) TO MATCH EXISTING.

4. EXISTING 2-2" CONDUITS TO REMAIN: REMOVE THE PARALLEL SETS OF 2#3/0 AWG AND 1#2 GND WIRING. RE-USE ONE OF THESE EXISTING 2" CONDUITS TO INSTALL A TEMPORARY POWER FEED (3#3/0 & 1#2 GND) FROM THE NEW ITS SERVICE POINT 'F' TO THE EXISTING HUB BUILDING TO MAINTAIN POWER DURING CONSTRUCTION. RE-WORK THE EXISTING CONDUIT AT BOTH ENDS, AS NECESSARY, TO INSTALL THE TEMPORARY FEEDER. REFER TO NOTE 1 ON THIS SHEET FOR ADDITIONAL CONSTRUCTION SEQUENCING INFORMATION AND REFER TO SHEET IT-176 FOR MORE DETAIL REGARDING THE INSTALLATION OF THIS TEMPORARY FEEDER.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

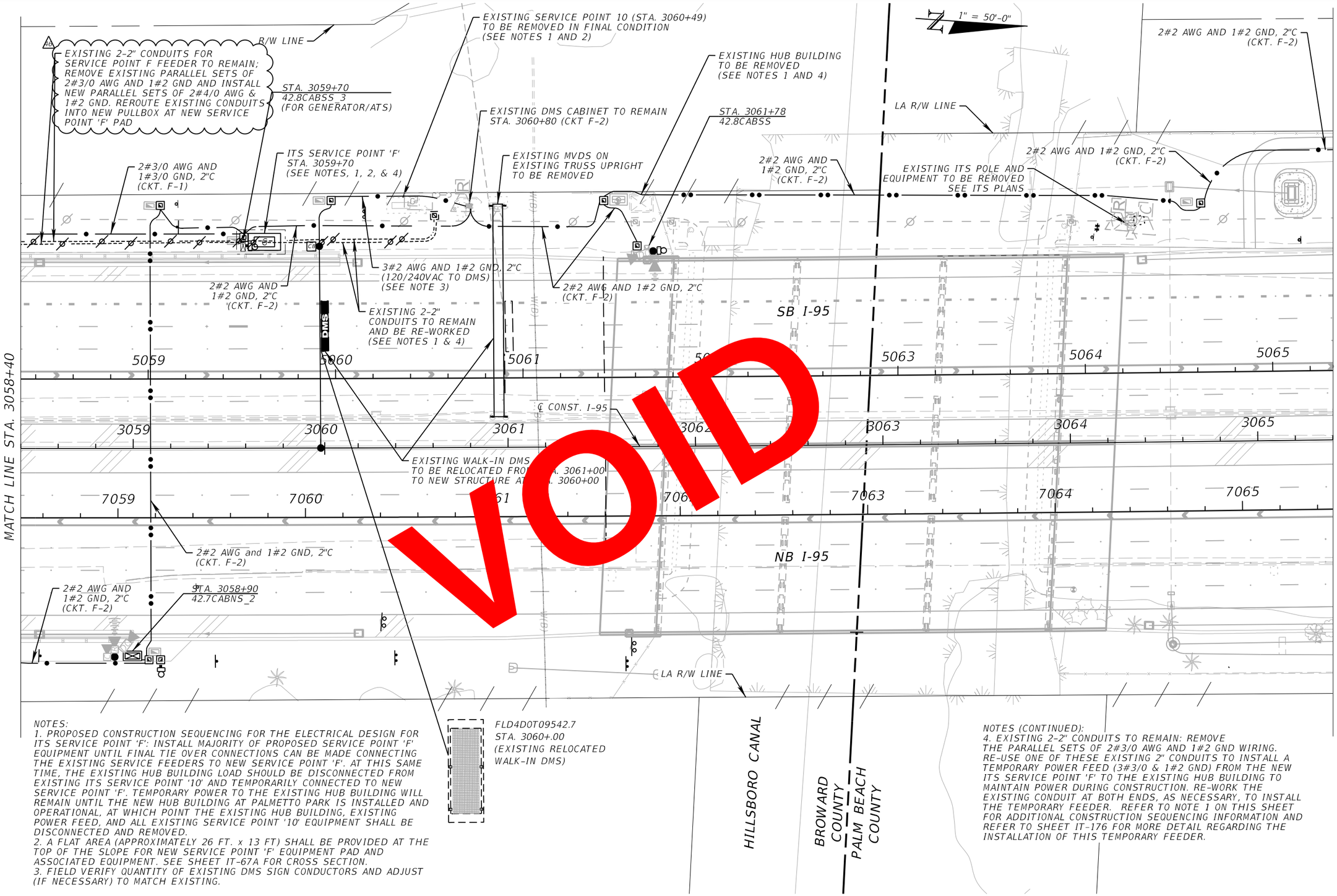
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (37)

SHEET NO.
IT-142

BY:(FDOT) VS DATE: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

NOTES:
1. PROPOSED CONSTRUCTION SEQUENCING FOR THE ELECTRICAL DESIGN FOR ITS SERVICE POINT 'F': INSTALL MAJORITY OF PROPOSED SERVICE POINT 'F' EQUIPMENT UNTIL FINAL TIE OVER CONNECTIONS CAN BE MADE CONNECTING THE EXISTING SERVICE FEEDERS TO NEW SERVICE POINT 'F'. AT THIS SAME TIME, THE EXISTING HUB BUILDING LOAD SHOULD BE DISCONNECTED FROM EXISTING ITS SERVICE POINT '10' AND TEMPORARILY CONNECTED TO NEW SERVICE POINT 'F'. TEMPORARY POWER TO THE EXISTING HUB BUILDING WILL REMAIN UNTIL THE NEW HUB BUILDING AT PALMETTO PARK IS INSTALLED AND OPERATIONAL, AT WHICH POINT THE EXISTING HUB BUILDING, EXISTING POWER FEED, AND ALL EXISTING SERVICE POINT '10' EQUIPMENT SHALL BE DISCONNECTED AND REMOVED.
2. A FLAT AREA (APPROXIMATELY 26 FT. x 13 FT) SHALL BE PROVIDED AT THE TOP OF THE SLOPE FOR NEW SERVICE POINT 'F' EQUIPMENT PAD AND ASSOCIATED EQUIPMENT. SEE SHEET IT-67A FOR CROSS SECTION.
3. FIELD VERIFY QUANTITY OF EXISTING DMS SIGN CONDUCTORS AND ADJUST (IF NECESSARY) TO MATCH EXISTING.

NOTES (CONTINUED):
4. EXISTING 2-2" CONDUITS TO REMAIN: REMOVE THE PARALLEL SETS OF 2#3/0 AWG AND 1#2 GND WIRING. RE-USE ONE OF THESE EXISTING 2" CONDUITS TO INSTALL A TEMPORARY POWER FEED (3#3/0 & 1#2 GND) FROM THE NEW ITS SERVICE POINT 'F' TO THE EXISTING HUB BUILDING TO MAINTAIN POWER DURING CONSTRUCTION. RE-WORK THE EXISTING CONDUIT AT BOTH ENDS, AS NECESSARY, TO INSTALL THE TEMPORARY FEEDER. REFER TO NOTE 1 ON THIS SHEET FOR ADDITIONAL CONSTRUCTION SEQUENCING INFORMATION AND REFER TO SHEET IT-176 FOR MORE DETAIL REGARDING THE INSTALLATION OF THIS TEMPORARY FEEDER.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	#6 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (37)

SHEET NO.
IT-142

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BY/PSM VS Date: 2/25/2021
RELEASED FOR CONSTRUCTION
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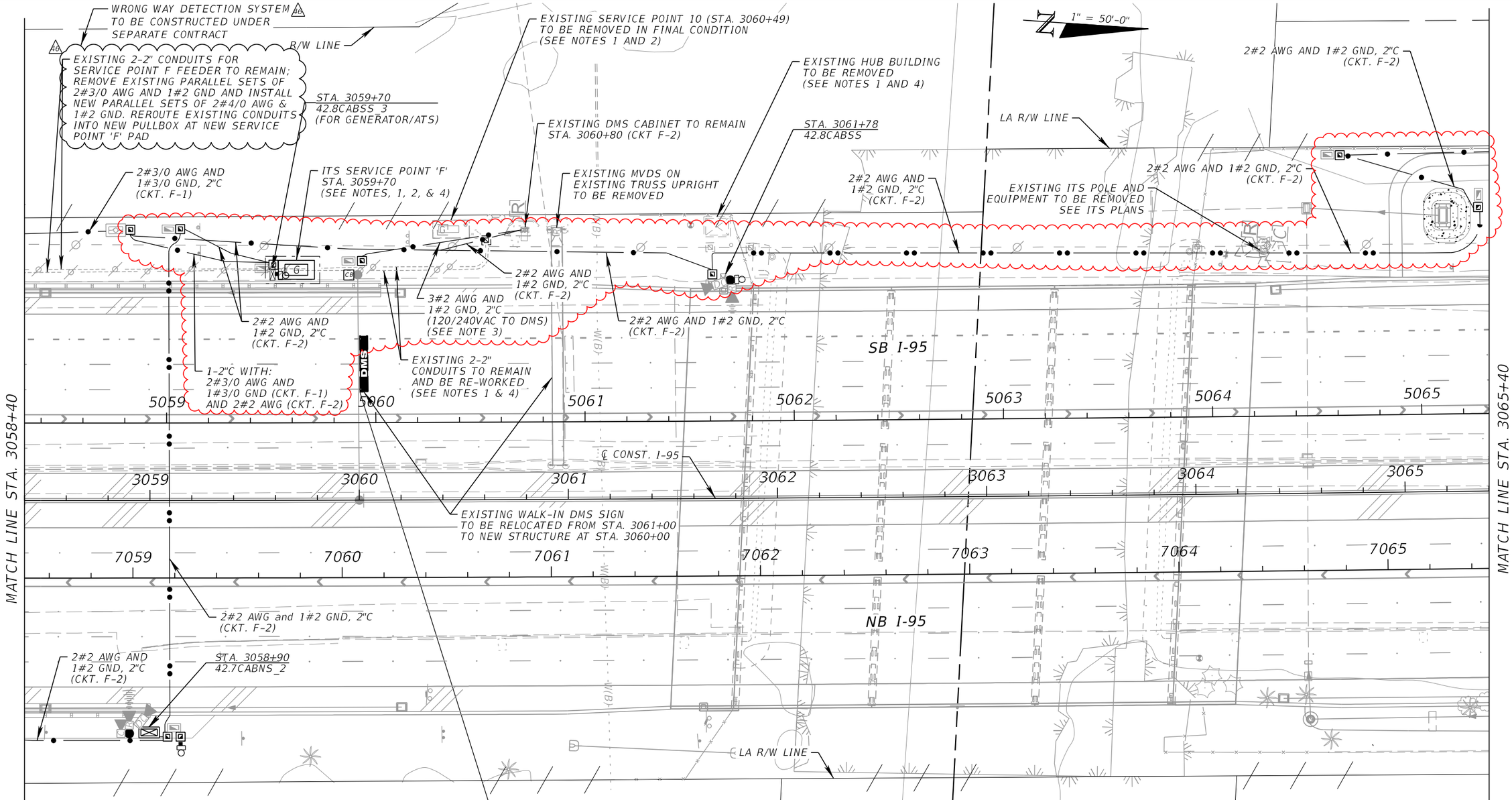
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. PROPOSED CONSTRUCTION SEQUENCING FOR THE ELECTRICAL DESIGN FOR ITS SERVICE POINT 'F': INSTALL MAJORITY OF PROPOSED SERVICE POINT 'F' EQUIPMENT UNTIL FINAL TIE OVER CONNECTIONS CAN BE MADE CONNECTING THE EXISTING SERVICE FEEDERS TO NEW SERVICE POINT 'F'. AT THIS SAME TIME, THE EXISTING HUB BUILDING LOAD SHOULD BE DISCONNECTED FROM EXISTING ITS SERVICE POINT '10' AND TEMPORARILY CONNECTED TO NEW SERVICE POINT 'F'. TEMPORARY POWER TO THE EXISTING HUB BUILDING WILL REMAIN UNTIL THE NEW HUB BUILDING AT PALMETTO PARK IS INSTALLED AND OPERATIONAL, AT WHICH POINT THE EXISTING HUB BUILDING, EXISTING POWER FEED, AND ALL EXISTING SERVICE POINT '10' EQUIPMENT SHALL BE DISCONNECTED AND REMOVED.
2. A FLAT AREA (APPROXIMATELY 26 FT. x 13 FT) SHALL BE PROVIDED AT THE TOP OF THE SLOPE FOR NEW SERVICE POINT 'F' EQUIPMENT PAD AND ASSOCIATED EQUIPMENT. SEE SHEET IT-67A FOR CROSS SECTION.
3. FIELD VERIFY QUANTITY OF EXISTING DMS SIGN CONDUCTORS AND ADJUST (IF NECESSARY) TO MATCH EXISTING.

FLD4D0T09542.7
STA. 3060+.00
(EXISTING RELOCATED WALK-IN DMS)

NOTES (CONTINUED):
4. EXISTING 2-2" CONDUITS TO REMAIN: REMOVE THE PARALLEL SETS OF 2#3/0 AWG AND 1#2 GND WIRING. RE-USE ONE OF THESE EXISTING 2" CONDUITS TO INSTALL A TEMPORARY POWER FEED (3#3/0 & 1#2 GND) FROM THE NEW ITS SERVICE POINT 'F' TO THE EXISTING HUB BUILDING TO MAINTAIN POWER DURING CONSTRUCTION. RE-WORK THE EXISTING CONDUIT AT BOTH ENDS, AS NECESSARY, TO INSTALL THE TEMPORARY FEEDER. REFER TO NOTE 1 ON THIS SHEET FOR ADDITIONAL CONSTRUCTION SEQUENCING INFORMATION AND REFER TO SHEET IT-176 FOR MORE DETAIL REGARDING THE INSTALLATION OF THIS TEMPORARY FEEDER.

HILLSBORO CANAL
BROWARD COUNTY
PALM BEACH COUNTY

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 WRONG WAY DETECTION SYSTEM REVISION		
10/4/21	AS-BUILT CONDUIT ROUTING CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (37)

SHEET NO.
IT-142

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

1" = 50'-0"

R/W LINE

2#2 AWG AND 1#2 GND, 2"C
(CKT. F-2)

LA R/W LINE

2#2 AWG AND 1#2 GND, 2"C
(CKT. F-2)

SB I-95

5066 5067 5068 5069 5070 5071 5072

℄ CONST. I-95

3066 3067 3068 3069 3070 3071 3072

7066 7067 7068 7069 7070 7071 7072

NB I-95

MATCH LINE STA. 3065+40

MATCH LINE STA. 3072+40

VOID

LA R/W LINE

4#2 AWG, 2"C
(TO 1-LINE STATUS DMS)

XXXXXXXXXXXXXXXX

EXPRESS LANES ENTRANCE
½ MILE

ONLY

NO TRUCKS

LEFT

FLD4D0T09542.9NBLS1
STA. 3067+50.00
1-LINE STATUS DMS

4#2 AWG, 2"C
(TO 1-LINE STATUS DMS)

STA. 3072+30
43.0CABNS

STA. 3072+30
43.0CABNS_2
(T-DMS CABINET)

STA. 3072+30
43.0CABNS_3
(S-DMS CABINET)

1-2" CONDUIT:
4#2 AWG, 2"C (TO 1-LINE STATUS DMS)

BY:(PSDT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (38)

SHEET NO.
IT-143

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1" = 50'-0"

R/W LINE

2#2 AWG AND 1#2 GND, 2"C
(CKT. F-2)

LA R/W LINE

2#2 AWG AND 1#2 GND, 2"C
(CKT. F-2)

SB I-95

5066 5067 5068 5069 5070 5071 5072

℄ CONST. I-95

3066 3067 3068 3069 3070 3071 3072

7066 7067 7068 7069 7070 7071 7072

MATCH LINE STA. 3065+40

MATCH LINE STA. 3072+40

S-DMS

NB I-95

LA R/W LINE

4#2 AWG, 2"C
(TO 1-LINE STATUS DMS)

XXXXXXXXXXXXXXX
EXPRESS LANES ENTRANCE
½ MILE
ONLY
NO TRUCKS
LEFT

FLD4D0T09542.9NBLS1
STA. 3067+50.00
1-LINE STATUS DMS

4#2 AWG, 2"C
(TO 1-LINE STATUS DMS)

STA. 3072+30
43.0CABNS

STA. 3072+30
43.0CABNS_2
(T-DMS CABINET)

STA. 3072+30
43.0CABNS_3
(S-DMS CABINET)

1-2" CONDUIT:
4#2 AWG, 2"C (TO 1-LINE STATUS DMS)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10-4-21	AS-BUILT CONDUIT ROUTING CHANGES		

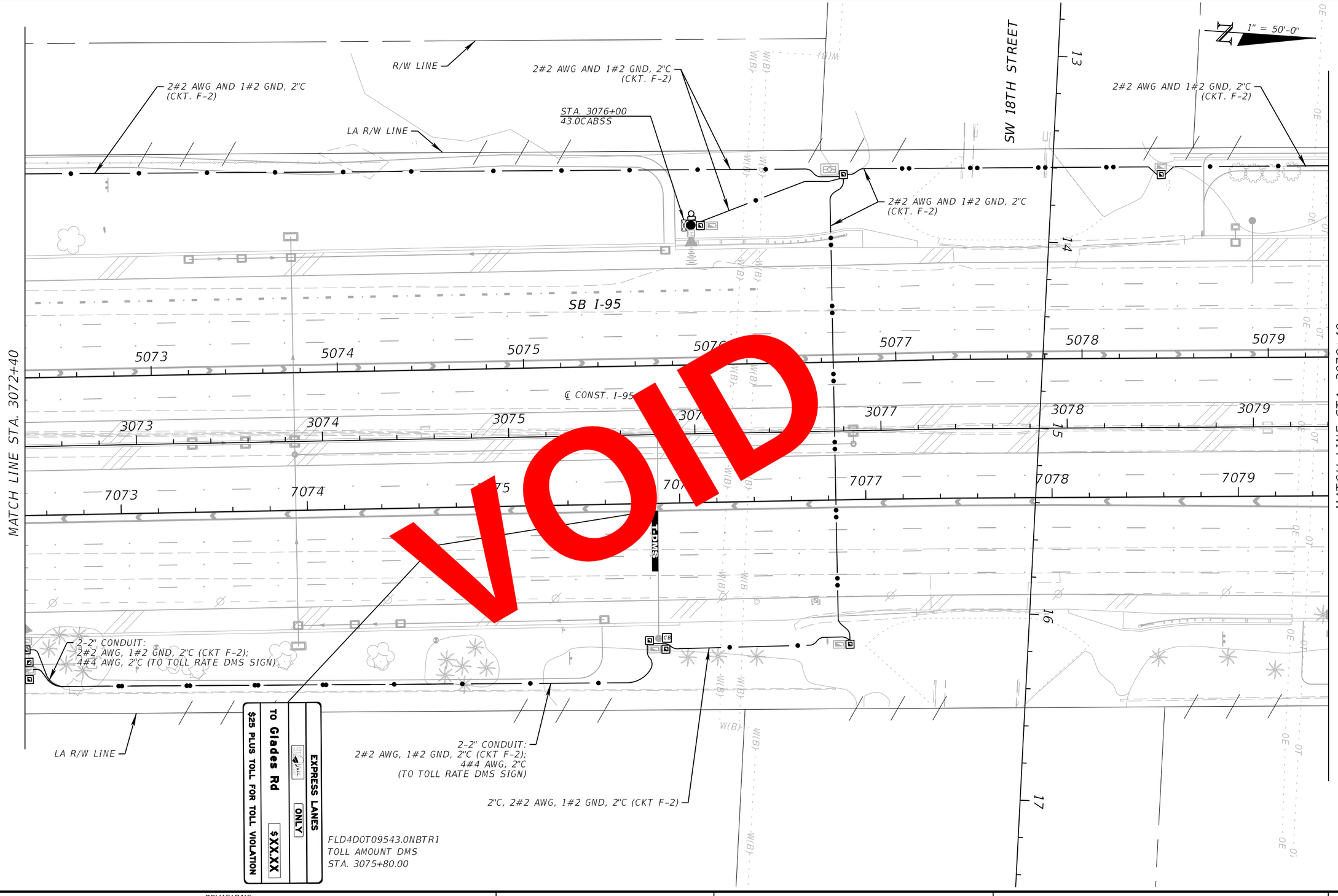
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (38)

SHEET NO.
IT-143



VOID

BY:(PDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
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FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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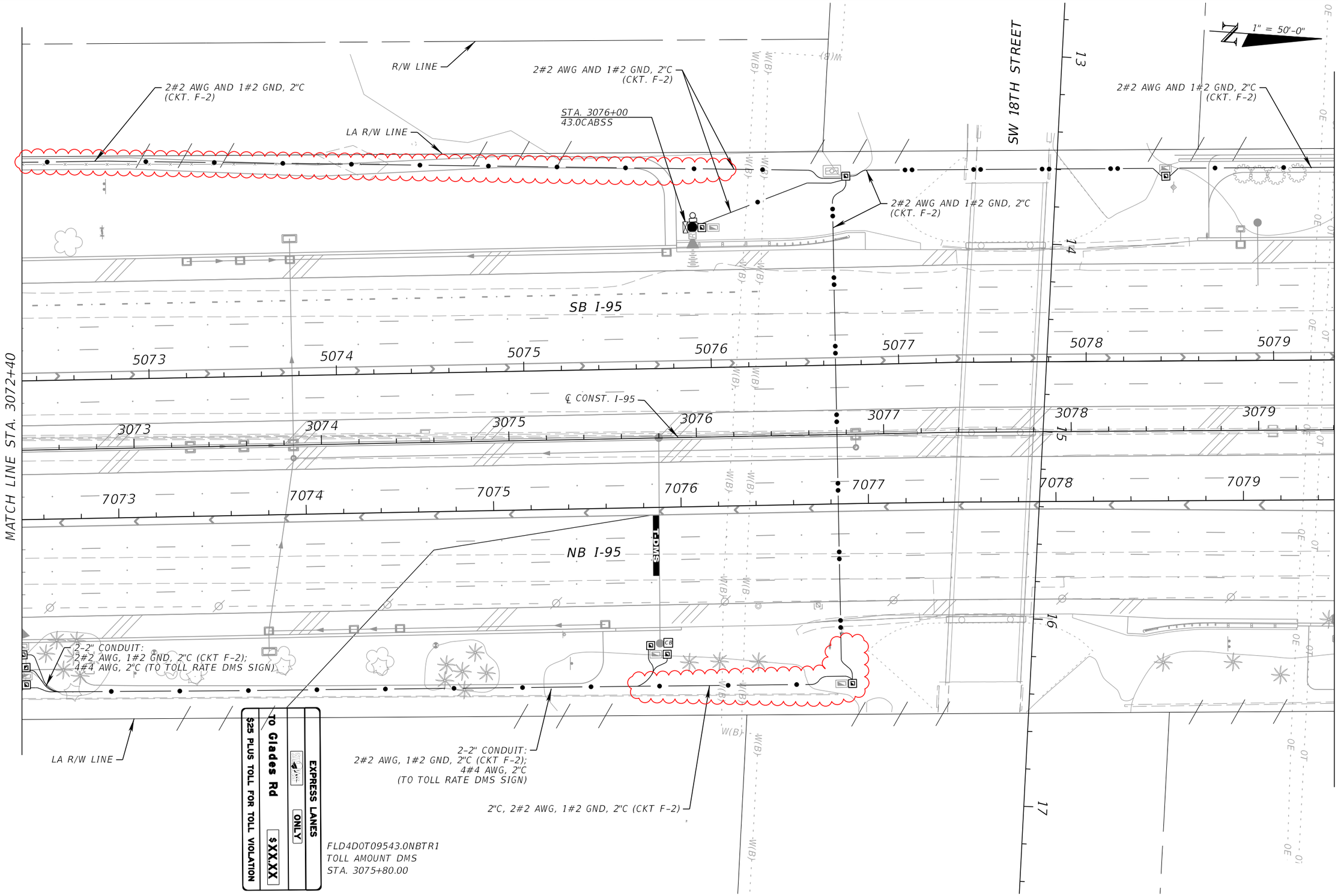
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (39)

SHEET NO.
IT-144



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/21	AS-BUILT CONDUIT ROUTING CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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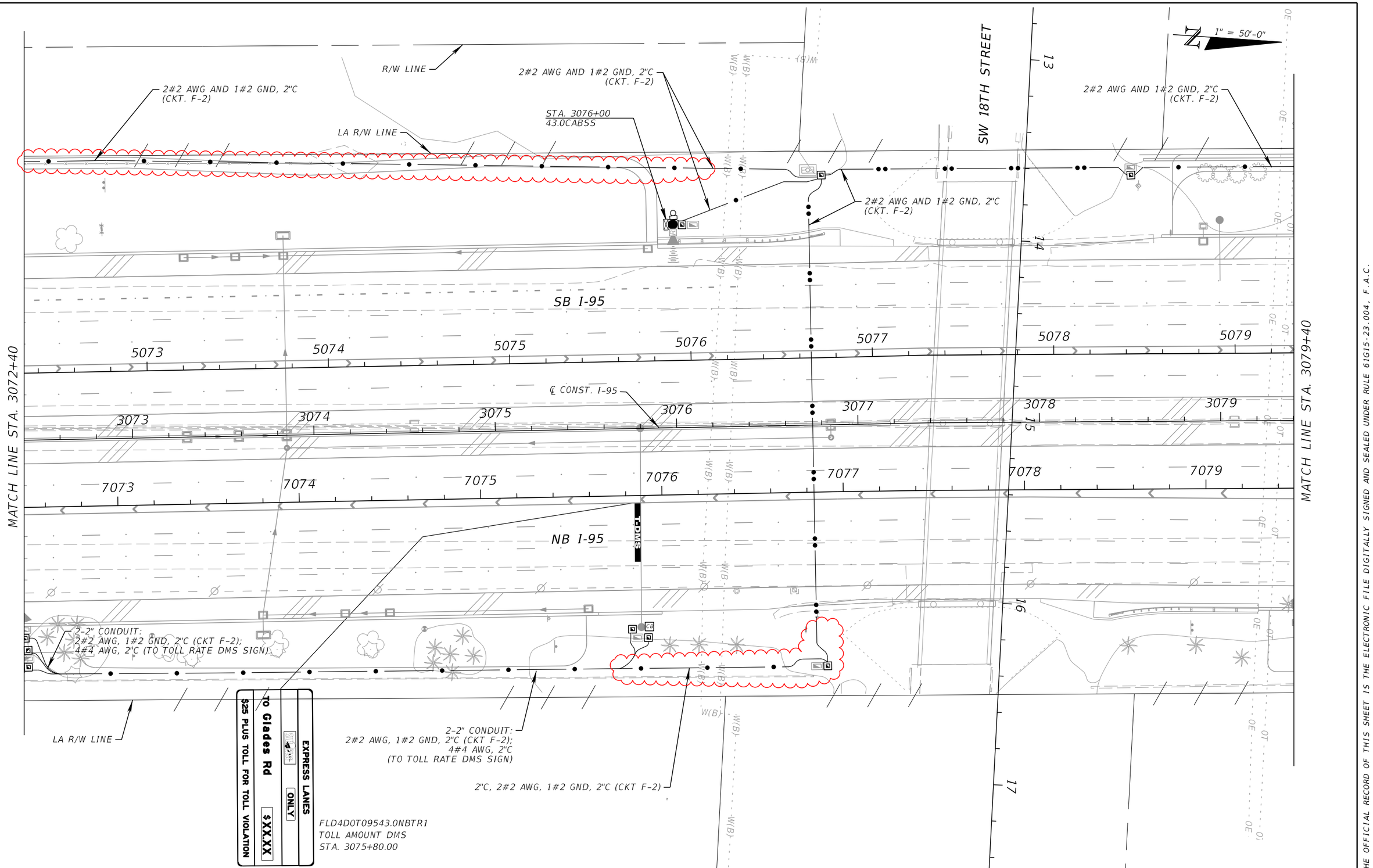
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (39)

SHEET NO.
IT-144

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/21	AS-BUILT CONDUIT ROUTING CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
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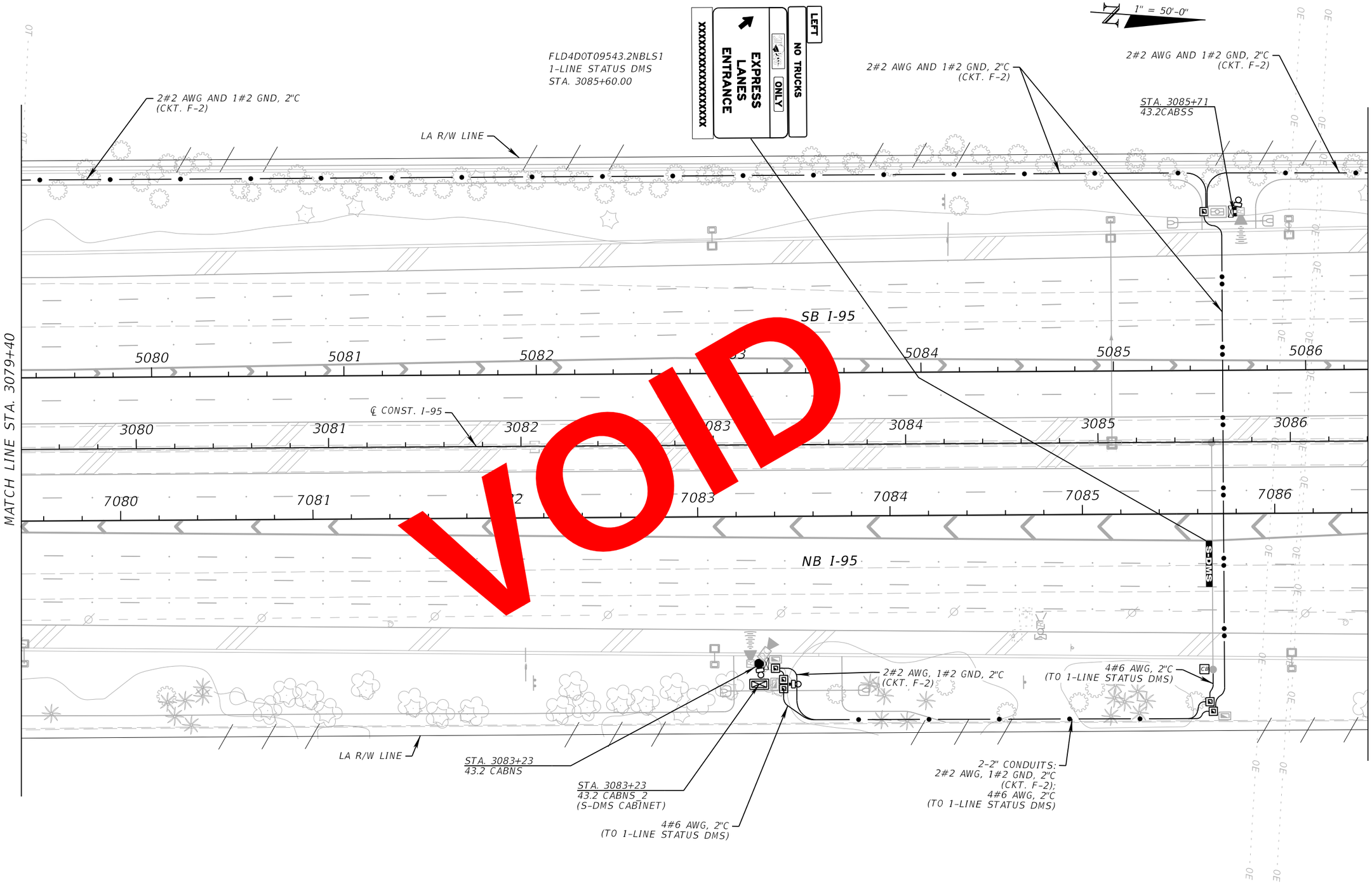
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (39)

SHEET NO.
IT-144

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



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RELEASED FOR CONSTRUCTION
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BY: PDOTI VS DATE: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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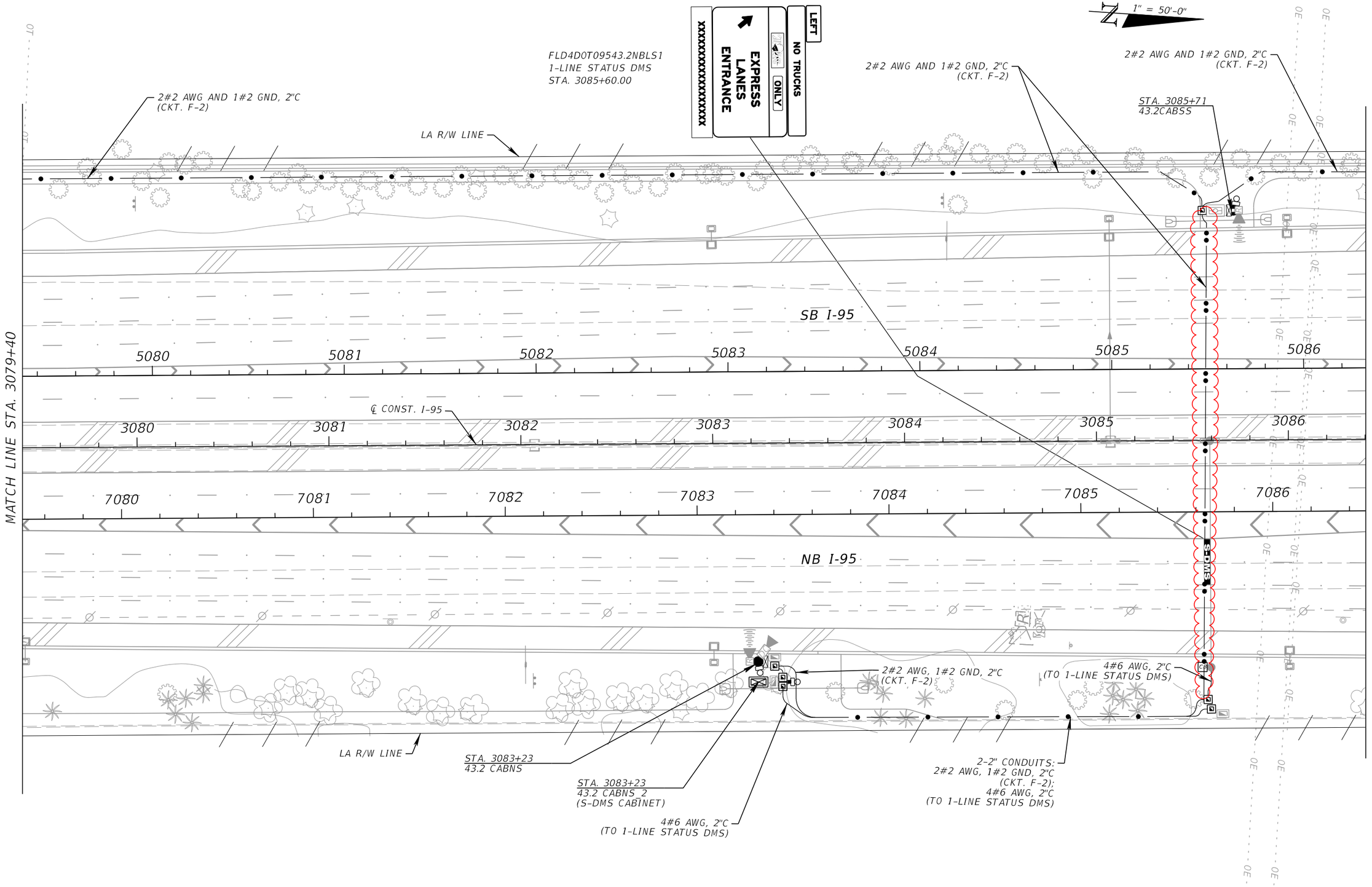
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (40)

SHEET NO.
IT-145



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/21	AS-BUILT CONDUIT ROUTING CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (40)

SHEET NO.
IT-145

1" = 50'-0"

2#2 AWG AND 1#2 GND, 2"C (CKT. F-2)

LA R/W LINE

2#2 AWG AND 1#2 GND, 2"C (CKT. F-2)

2#2 AWG AND 1#2 GND, 2"C (CKT. F-2)

SB I-95

MATCH LINE STA. 3086+40

5087 5088 5089 AVERAGE 5090 5091 5092 5093

℄ CONST. I-95

3087 3088 3089 3090 3091 3092 3093

7087 7088 7089 7090 7091 7092 7093

MATCH LINE STA. 3093+40

EXPRESS

NB I-95

LA R/W LINE

STA. 3091+14
43.3CABNS

CAS

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BY:(FDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E8A96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (41)

SHEET NO.
IT-146

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1" = 50'-0"

2" CONDUIT
(ITS ELECTRICAL
SPARE)

2#2 AWG AND 1#2 GND, 2"C
(CKT. F-2)

LA R/W LINE

2#2 AWG AND 1#2 GND, 2"C
(CKT. F-2)

STA. 3100+10
43.5CABSS

SB I-95

5094 5095 5096 5098 5099 5100

3094 3095 3096 3098 3099 3100

℄ CONST. I-95

7094 7095 7098 7099 7100

MERGE

EXPRESS

MATCH LINE STA. 3093+40

MATCH LINE STA. 3100+40

NB I-95

LA R/W LINE

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (42)

SHEET NO.
IT-147

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BY:(FDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

1" = 50'-0"

2" CONDUIT
(ITS ELECTRICAL
SPARE)

2#2 AWG AND 1#2 GND, 2"C
(CKT. F-2)

LA R/W LINE

2#2 AWG AND 1#2 GND, 2"C
(CKT. F-2)

STA. 3100+10
43.5CABSS

MATCH LINE STA. 3093+40

SB I-95

5094 5095 5096 5097 5098 5099 5100

℄ CONST. I-95

3094 3095 3096 3097 3098 3099 3100

7094 7095 7096 7097 7098 7099 7100

EXPRESS

EXPRESS

MERGE

NB I-95

LA R/W LINE

MATCH LINE STA. 3100+40

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/21	AS-BUILT CONDUIT ROUTING CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (42)

SHEET NO.
IT-147

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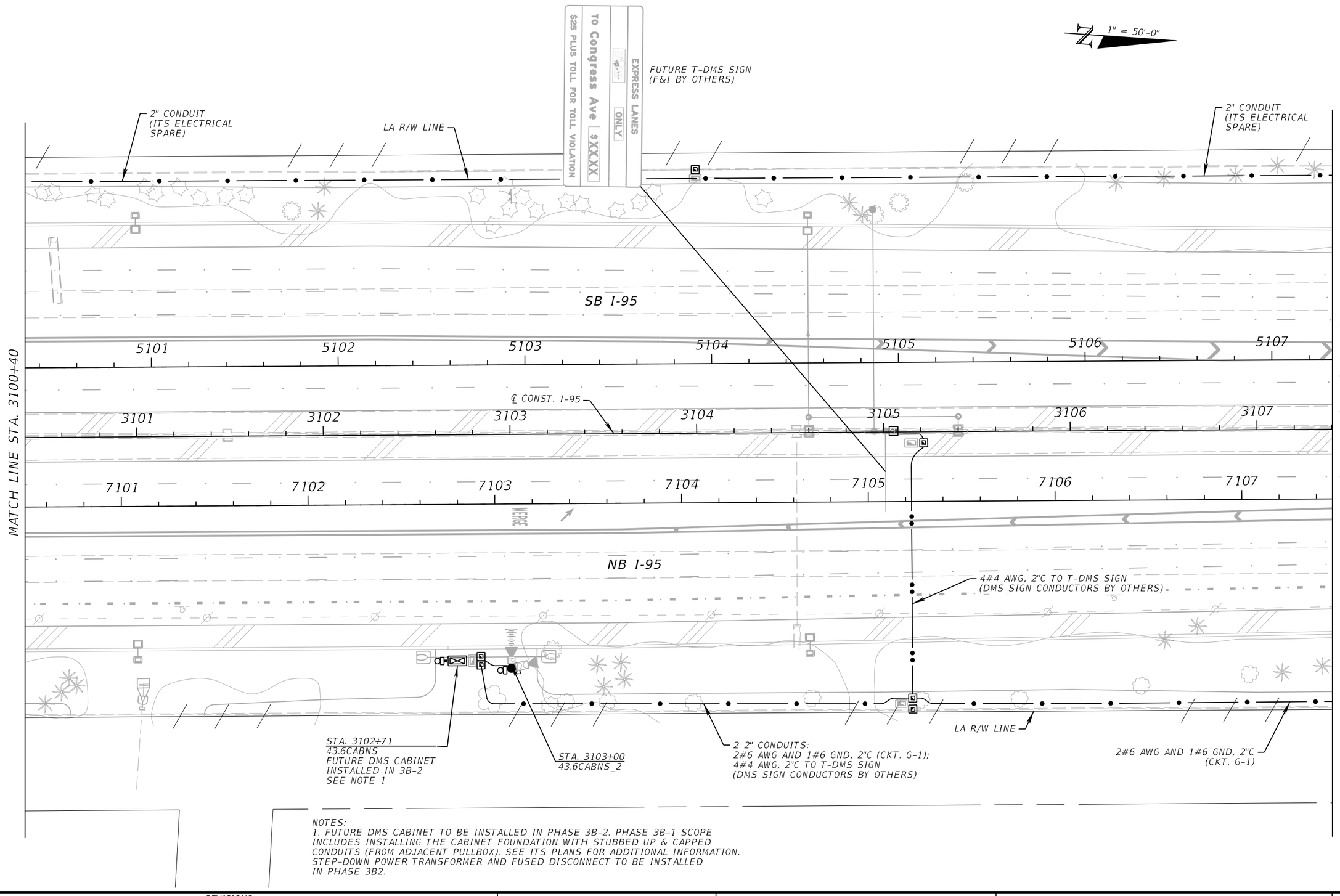


NOTES:
1. FUTURE DMS CABINET TO BE INSTALLED IN PHASE 3B-2. PHASE 3B-1 SCOPE INCLUDES INSTALLING THE CABINET FOUNDATION WITH STUBBED UP & CAPPED CONDUITS (FROM ADJACENT PULLBOX). SEE ITS PLANS FOR ADDITIONAL INFORMATION. STEP-DOWN POWER TRANSFORMER AND FUSED DISCONNECT TO BE INSTALLED IN PHASE 3B2.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (43)

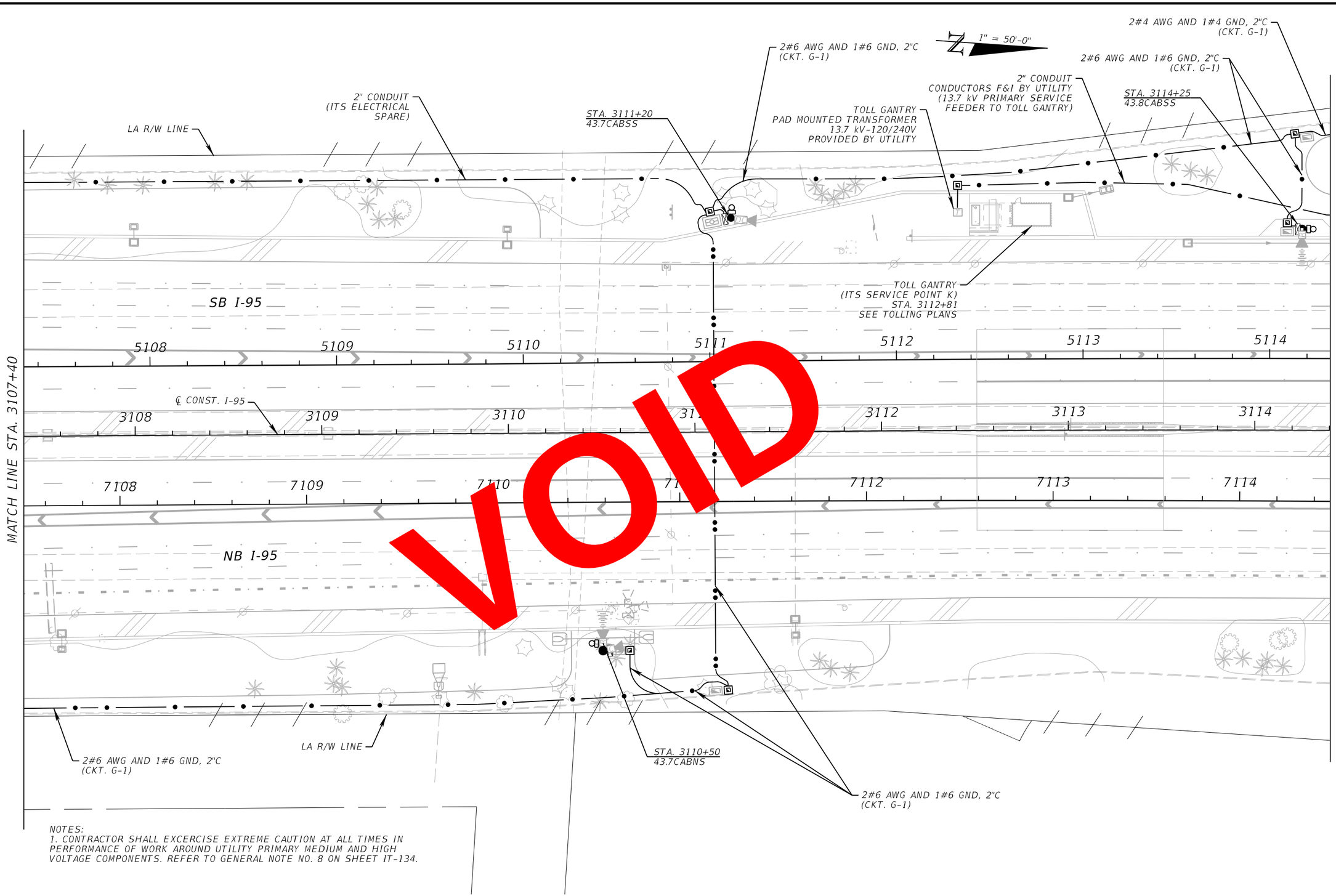
SHEET NO.
IT-148

PerezR 4/18/2019 3:31:53 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT43_E.dgn

BY:PEREZR VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

NOTES:
1. CONTRACTOR SHALL EXCERCISE EXTREME CAUTION AT ALL TIMES IN PERFORMANCE OF WORK AROUND UTILITY PRIMARY MEDIUM AND HIGH VOLTAGE COMPONENTS. REFER TO GENERAL NOTE NO. 8 ON SHEET IT-134.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (44)

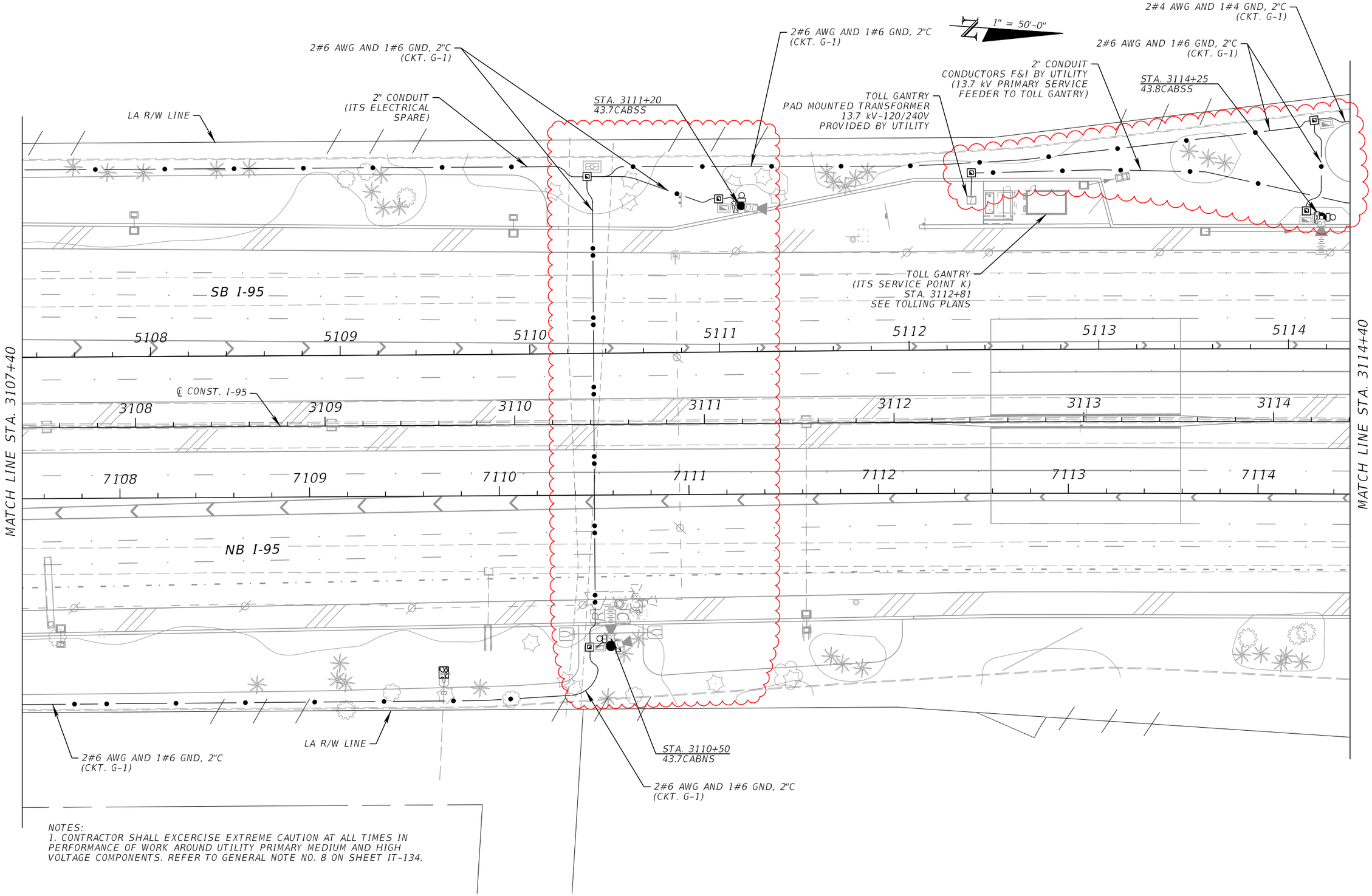
SHEET NO.
IT-149

PerezR 4/18/2019 3:32:08 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT44_E.dgn

BY:PDOT VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. CONTRACTOR SHALL EXCERCISE EXTREME CAUTION AT ALL TIMES IN PERFORMANCE OF WORK AROUND UTILITY PRIMARY MEDIUM AND HIGH VOLTAGE COMPONENTS. REFER TO GENERAL NOTE NO. 8 ON SHEET IT-134.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS PER RFI 115		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

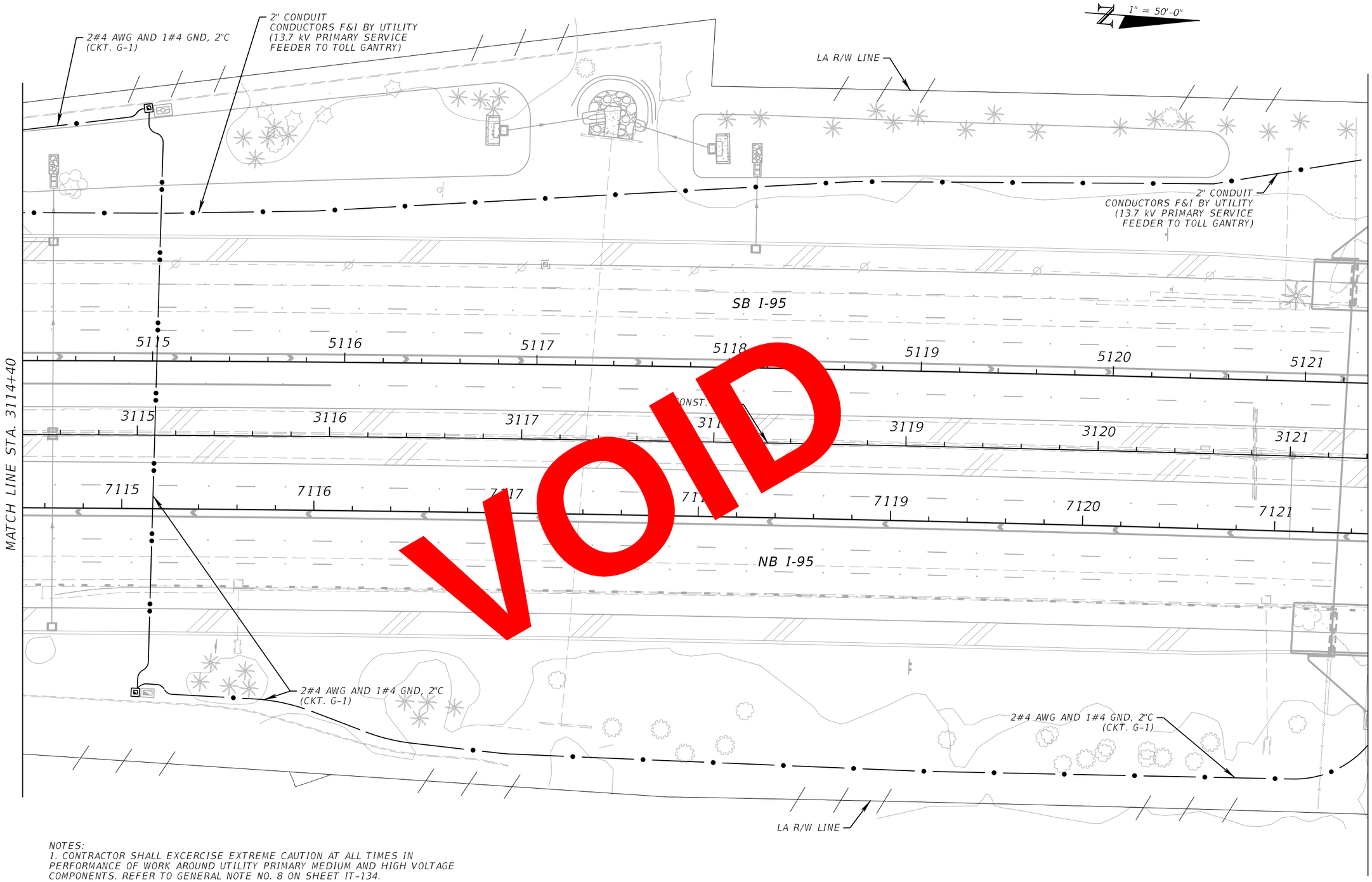
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (44)

SHEET NO.
IT-149

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

NOTES:
1. CONTRACTOR SHALL EXCERCISE EXTREME CAUTION AT ALL TIMES IN PERFORMANCE OF WORK AROUND UTILITY PRIMARY MEDIUM AND HIGH VOLTAGE COMPONENTS. REFER TO GENERAL NOTE NO. 8 ON SHEET IT-134.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (45)

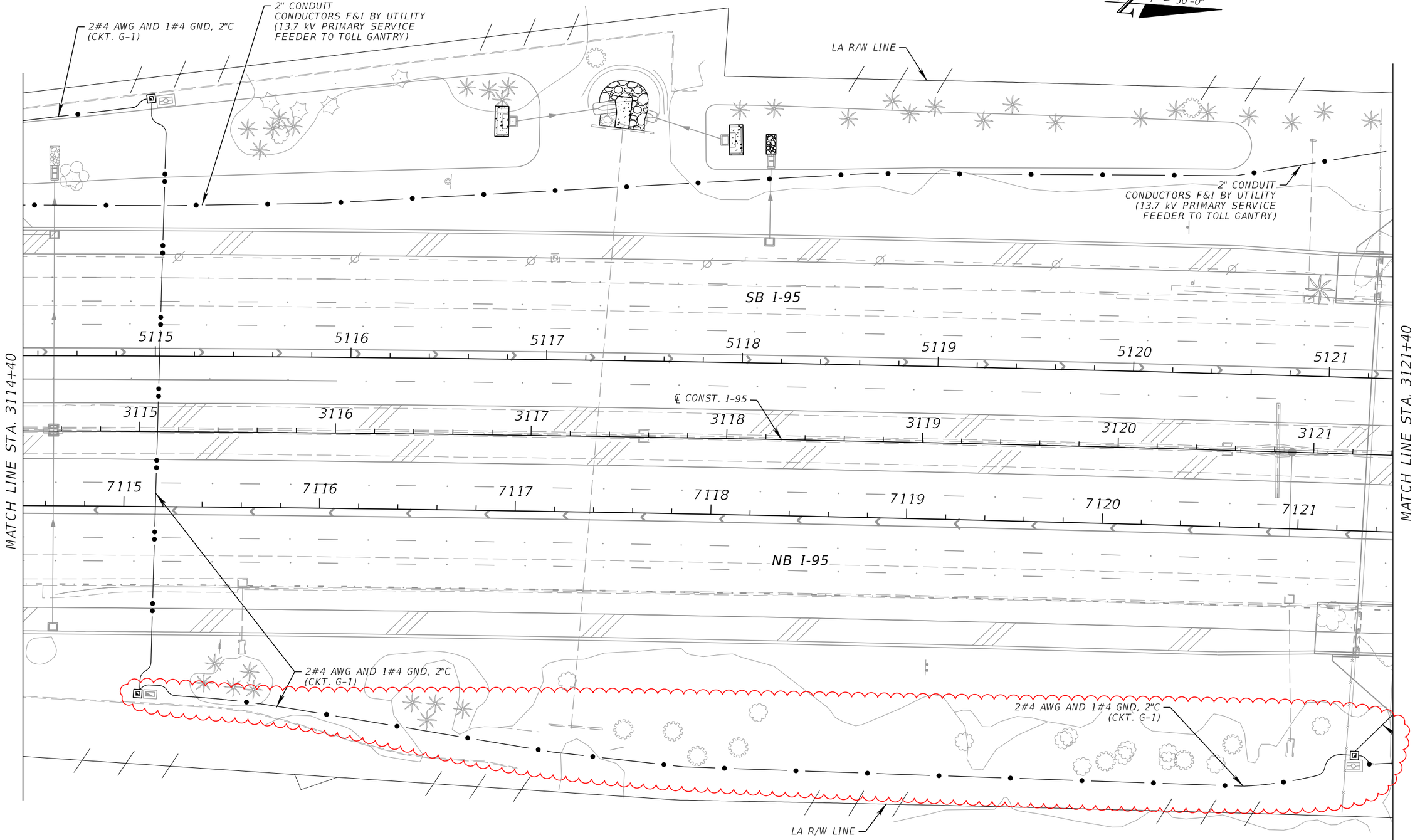
SHEET NO.
IT-150

PerezR 4/18/2019 3:32:22 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT45_E.dgn

BY:(FDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. CONTRACTOR SHALL EXCERCISE EXTREME CAUTION AT ALL TIMES IN PERFORMANCE OF WORK AROUND UTILITY PRIMARY MEDIUM AND HIGH VOLTAGE COMPONENTS. REFER TO GENERAL NOTE NO. 8 ON SHEET IT-134.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS: CONDUIT ROUTING CHANGE		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (45)

SHEET NO.
IT-150

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ITS SERVICE POINT G
STA 3121+47

1-2" CONDUIT WITH:
2#6 AWG, 1#6 GND (CKT. G-3)

STA. 3121+47
43.9CABSS FOR GENERATOR/ATS
(CKT. G-3)

NEW FPL PRIMARY OVERHEAD LINE INSTALLED FROM TO NEW FPL DISTRIBUTION POLE. PRIMARY RISER AND PULLBOX (SERVICE POINT) INSTALLED AT NEW FPL POLE (BY UTILITY) FOR PRIMARY SERVICE FEEDER TO TOLL GANTRY.

2-2" CONDUITS:
1-2"C WITH: 2#4 AWG (CKT. G-1),
2#2 AWG (CKT. G-2) AND 1#2 GND, AND
2#6 AWG, 1#6 GND (CKT. G-3);
1-2"C WITH: 2#3/0 AWG, 1#3/0 GND
(SERVICE FEEDERS TO SERVICE POINT G)

2#3/0 AWG, 1#3/0 GND, 2"C
(SERVICE FEEDERS TO
ITS SERVICE POINT G)

NEW FPL POLE MOUNTED TRANSFORMER WITH 240/480V SERVICE, RISER, AND HANDHOLE (SERVICE POINT CONNECTION) TO BE INSTALLED BY FPL

1" = 50'-0"

LA R/W LINE

STA. 3126+90
44.0CABSS_2

2#3/0 AWG, 1#3/0 GND, 2"C
(SERVICE FEEDERS TO
ITS SERVICE POINT G)

2" CONDUIT
CONDUCTORS F&I BY UTILITY
(13.7 kV PRIMARY SERVICE
FEEDER TO TOLL GANTRY)

2-2" CONDUITS:
2#6 AWG, 1#6 GND, 2"C (CKT. G-3);
3#2 AWG AND 1#2 GND, 2"C
(TO FRONT ACCESS DMS)

STA. 3125+49
44.0 CABSS

2#6 AWG AND 1#6 GND, 2"C
(CKT. G-3)

1-2" CONDUIT WITH:
2#4 AWG (CKT. G-1) AND
2#2 AWG, 1#2 GND (CKT. G-2)

3#2 AWG AND 1#2 GND, 2"C
(TO FRONT ACCESS DMS)

MATCH LINE STA. 3121+40

MATCH LINE STA. 3128+20

NB I-95

CAMINO REAL

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

STA. 3121+62
44.0CABNS
(CKT. G-1)

STA. 3122+54
44.0CABNS_2
(CKT. G-2)

3#1/0 AND 1#1/0 GND, 2"C
(TO FRONT ACCESS DMS)

LA R/W LINE

3#1/0 AND 1#1/0 GND, 2"C
(TO FRONT ACCESS DMS)

2#4 AWG AND 1#4 GND, 2"C
(CKT. G-1)

FLD4D0T09544.0SBEL1
FRONT ACCESS DMS
STA. 3124+.00, LT.

NOTES:
1. CONTRACTOR SHALL EXCERCISE EXTREME CAUTION AT ALL TIMES IN PERFORMANCE OF WORK AROUND UTILITY PRIMARY MEDIUM AND HIGH VOLTAGE COMPONENTS. REFER TO GENERAL NOTE NO. 8 ON SHEET IT-134.

VOID

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY: PDOT VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E8A96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (46)

SHEET NO.
IT-151

ITS SERVICE POINT G
STA 3121+47

1-2" CONDUIT WITH:
2#6 AWG, 1#6 GND (CKT. G-3)

STA. 3121+47
43.9CABSS FOR GENERATOR/ATS
(CKT. G-3)

NEW FPL PRIMARY OVERHEAD LINE INSTALLED FROM TO NEW FPL DISTRIBUTION POLE. PRIMARY RISER AND PULLBOX (SERVICE POINT) INSTALLED AT NEW FPL POLE (BY UTILITY) FOR PRIMARY SERVICE FEEDER TO TOLL GANTRY.

NEW FPL POLE MOUNTED TRANSFORMER WITH 240/480V SERVICE, RISER, AND HANDHOLE (SERVICE POINT CONNECTION) TO BE INSTALLED BY FPL

1" = 50'-0"

2-2" CONDUITS:
1-2"C WITH: 2#4 AWG (CKT. G-1), 2#2 AWG (CKT. G-2) AND 1#2 GND, AND 2#6 AWG, 1#6 GND (CKT. G-3);
1-2"C WITH: 2#4/0 AWG, 1#4/0 GND (SERVICE FEEDERS TO SERVICE POINT G)

2#4/0 AWG, 1#4/0 GND, 2"C (SERVICE FEEDERS TO ITS SERVICE POINT G)

2#4/0 AWG, 1#4/0 GND, 2"C (SERVICE FEEDERS TO ITS SERVICE POINT G)

LA R/W LINE

STA. 3126+90
44.0CABSS_2

STA. 3125+49
44.0 CABSS

2-2" CONDUITS:
2#6 AWG, 1#6 GND, 2"C (CKT. G-3);
3#2 AWG AND 1#2 GND, 2"C (TO FRONT ACCESS DMS)

2#6 AWG AND 1#6 GND, 2"C (CKT. G-3)

2" CONDUIT
CONDUCTORS F&I BY UTILITY (13.7 kV PRIMARY SERVICE FEEDER TO TOLL GANTRY)

1-2" CONDUIT WITH:
2#4 AWG (CKT. G-1) AND
2#2 AWG, 1#2 GND (CKT. G-2)

3#2 AWG AND 1#2 GND, 2"C (TO FRONT ACCESS DMS)

MATCH LINE STA. 3121+40

MATCH LINE STA. 3128+20

5122 5123 5124 5125 5126 5127 5128
3122 3123 3124 3125 3126 3127 3128
7122 7123 7124 7125 7126 7127 7128

305 306 307

DMS

℄ CONSTRUCTION

NB I-95

CAMINO REAL

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 3121+62
44.0CABNS
(CKT. G-1)

STA. 3122+54
44.0CABNS_2
(CKT. G-2)

3#1/0 AND 1#1/0 GND, 2"C (TO FRONT ACCESS DMS)

LA R/W LINE

3#1/0 AND 1#1/0 GND, 2"C (TO FRONT ACCESS DMS)

2#4 AWG AND 1#4 GND, 2"C (CKT. G-1)

FLD4D0T09544.0SBEL1
FRONT ACCESS DMS
STA. 3124+00, LT.

NOTES:
1. CONTRACTOR SHALL EXCERCISE EXTREME CAUTION AT ALL TIMES IN PERFORMANCE OF WORK AROUND UTILITY PRIMARY MEDIUM AND HIGH VOLTAGE COMPONENTS. REFER TO GENERAL NOTE NO. 8 ON SHEET IT-134.

VOID

RELEASED FOR CONSTRUCTION
BY:PDOT VS Date: 2/25/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omission, corrections of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PDOT APPROVES ONLY THE ITEMS SHOWN ON THIS SHEET

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (46)

SHEET NO.
IT-151

ITS SERVICE POINT G
STA 3121+47

1-2" CONDUIT WITH:
2#6 AWG, 1#6 GND (CKT. G-3)

STA. 3121+47
43.9CABSS FOR GENERATOR/ATS
(CKT. G-3)

NEW FPL PRIMARY OVERHEAD LINE INSTALLED FROM TO NEW FPL DISTRIBUTION POLE. PRIMARY RISER AND PULLBOX (SERVICE POINT) INSTALLED AT NEW FPL POLE (BY UTILITY) FOR PRIMARY SERVICE FEEDER TO TOLL GANTRY.

WRONG WAY DETECTION SYSTEM
(46) TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

NEW FPL POLE MOUNTED TRANSFORMER WITH 240/480V SERVICE, RISER, AND HANDHOLE (SERVICE POINT CONNECTION) TO BE INSTALLED BY FPL

1" = 50'-0"

2-2" CONDUITS:
1-2"C WITH: 2#4 AWG (CKT. G-1), 2#2 AWG (CKT. G-2) AND 1#2 GND, AND 2#6 AWG, 1#6 GND (CKT. G-3);
1-2"C WITH: 2#4/0 AWG, 1#4/0 GND (SERVICE FEEDERS TO SERVICE POINT G)

2#4/0 AWG, 1#4/0 GND, 2"C (SERVICE FEEDERS TO ITS SERVICE POINT G)

2" CONDUIT
CONDUCTORS F&I BY UTILITY (13.7 kV PRIMARY SERVICE FEEDER TO TOLL GANTRY)

STA. 3126+90
44.0CABSS_2

STA. 3125+49
44.0 CABSS

2-2" CONDUITS:
2#6 AWG, 1#6 GND, 2"C (CKT. G-3);
3#2 AWG AND 1#2 GND, 2"C
(TO FRONT ACCESS DMS)

2#6 AWG AND 1#6 GND, 2"C
(CKT. G-3)

3#2 AWG AND 1#2 GND, 2"C
(TO FRONT ACCESS DMS)

1-2" CONDUIT WITH:
2#4 AWG (CKT. G-1) AND
2#2 AWG, 1#2 GND (CKT. G-2)

SB I-95

℄ CONST. I-95

NB I-95

MATCH LINE STA. 3121+40

MATCH LINE STA. 3128+20

CAMINO REAL

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

STA. 3121+62
44.0CABNS
(CKT. G-1)

STA. 3122+54
44.0CABNS_2
(CKT. G-2)

3#1/0 AND 1#1/0 GND, 2"C
(TO FRONT ACCESS DMS)

LA R/W LINE

3#1/0 AND 1#1/0 GND, 2"C
(TO FRONT ACCESS DMS)

2#4 AWG AND 1#4 GND, 2"C
(CKT. G-1)

FLD4D0T09544.0SBEL1
FRONT ACCESS DMS
STA. 3124+.00, LT.

NOTES:
1. CONTRACTOR SHALL EXCERCISE EXTREME CAUTION AT ALL TIMES IN PERFORMANCE OF WORK AROUND UTILITY PRIMARY MEDIUM AND HIGH VOLTAGE COMPONENTS. REFER TO GENERAL NOTE NO. 8 ON SHEET IT-134.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(46) WRONG WAY DETECTION SYSTEM REVISION		
10/04/2021	AS-BUILTS: CONDUIT ROUTING CHANGE		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (46)

SHEET NO.
IT-151

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

1" = 50'-0"

LA R/W LINE

STA. 3133+38
44.1CABSS

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

400 401 402 403 4

PALMETTO PARK RD RAMP D

SB I-95

5129 5130 5131 5132 5133 5134 5135

℄ CONST. I-95

3129 3130 3131 132 3133 3134 3135

7129 7130 7132 7133 7134 7135

MATCH LINE STA. 3128+20

MATCH LINE STA. 3135+20

UB I-95

STA. 3133+20
44.2CABNS
FUTURE DMS CABINET
INSTALLED IN 3B-2
SEE NOTE 1

100 101 102 103

PALMETTO PARK RD RAMP A

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

STA. 3133+00
44.1CABNS

3#1/0 AND 1#1/0 GND, 2"C
(TO FRONT ACCESS DMS)

LA R/W LINE

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

FLD4D0T09544.0NBEL1
FRONT ACCESS DMS
STA. 3128+50.00

NOTES:
1. FUTURE DMS CABINET TO BE INSTALLED IN PHASE 3B-2. PHASE 3B-1 SCOPE INCLUDES INSTALLING THE CABINET FOUNDATION WITH STUBBED UP & CAPPED CONDUITS (FROM ADJACENT PULLBOX). SEE ITS PLANS FOR ADDITIONAL INFORMATION. STEP-DOWN POWER TRANSFORMER AND FUSED DISCONNECT TO BE INSTALLED IN PHASE 3B-2.

VOID

BY:(FDOT) VS DATE: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (47)

SHEET NO. IT-152

1" = 50'-0"

LA R/W LINE

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

STA. 3133+38
44.1CABSS

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

400 401 402 403 4

PALMETTO PARK RD RAMP D

SB I-95

5129 5130 5131 5132 5133 5134 5135

℄ CONST. I-95

3129 3130 3131 3132 3133 3134 3135

MATCH LINE STA. 3128+20

7129 7130 7131 7132 7133 7134 7135

MATCH LINE STA. 3135+20

NB I-95

STA. 3133+20
44.2CABNS
FUTURE DMS CABINET
INSTALLED IN 3B-2
SEE NOTE 1

100 101 102 103

PALMETTO PARK RD RAMP A

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

STA. 3133+00
44.1CABNS

3#1/0 AND 1#1/0 GND, 2"C
(TO FRONT ACCESS DMS)

LA R/W LINE

1-2" CONDUIT:
4#4 AWG, 2"C TO TOLL RATE DMS
(DMS SIGN CONDUCTORS BY OTHERS)

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

1-2" CONDUIT:
2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

1-2" CONDUIT:
4#4 AWG, 2"C TO TOLL RATE DMS
(DMS SIGN CONDUCTORS BY OTHERS)

2#2 AWG AND 1#2 GND, 2"C
(CKT. G-2)

FLD4D0T09544.0NBEL1
FRONT ACCESS DMS
STA. 3128+50.00

NOTES:
1. FUTURE DMS CABINET TO BE INSTALLED IN PHASE 3B-2. PHASE 3B-1 SCOPE INCLUDES INSTALLING THE CABINET FOUNDATION WITH STUBBED UP & CAPPED CONDUITS (FROM ADJACENT PULLBOX). SEE ITS PLANS FOR ADDITIONAL INFORMATION. STEP-DOWN POWER TRANSFORMER AND FUSED DISCONNECT TO BE INSTALLED IN PHASE 3B-2.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS PER RFI 285 & 316		

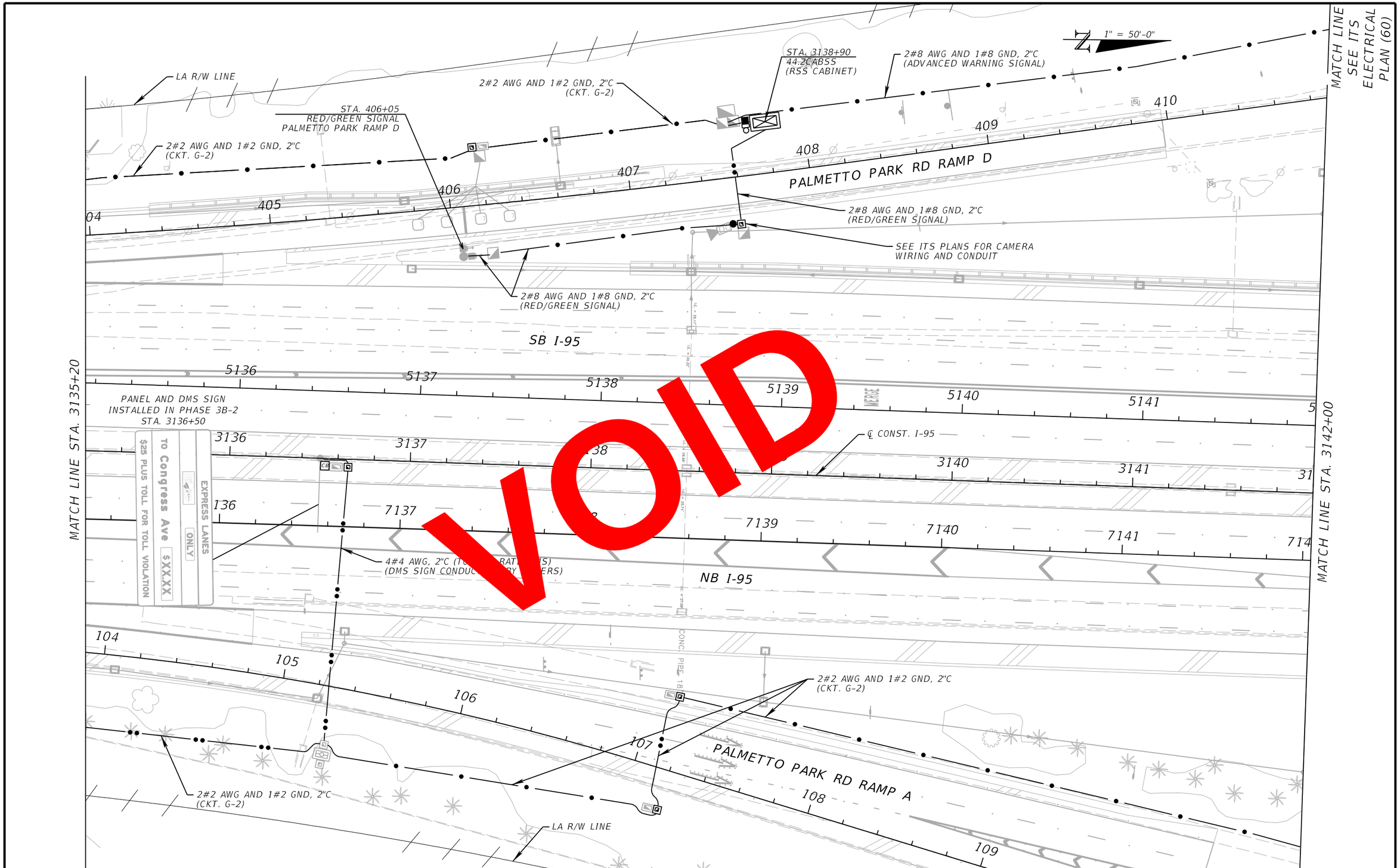
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (47)

SHEET NO.
IT-152



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (48)

SHEET NO. IT-153

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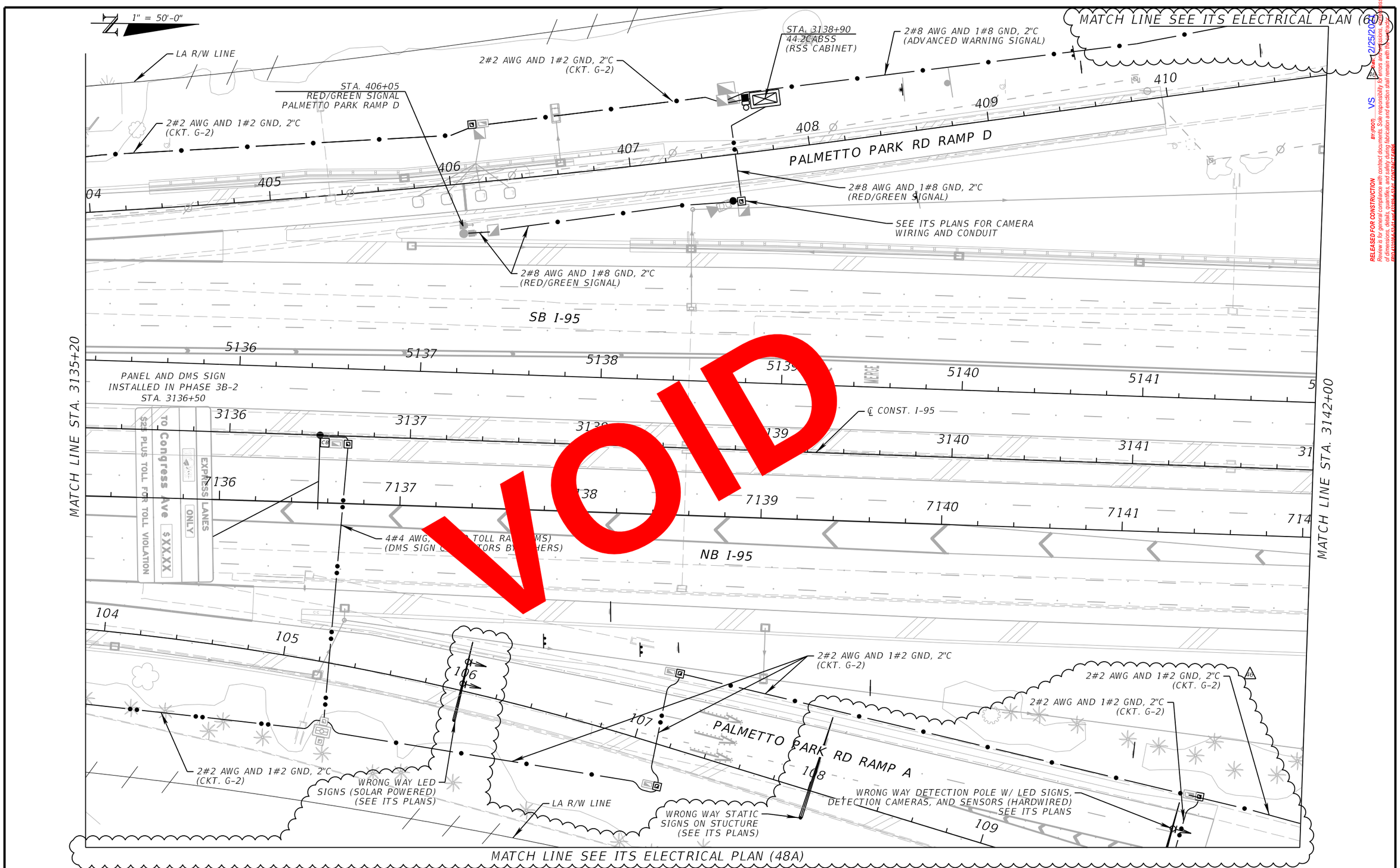
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (48)

SHEET NO.
IT-153

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1" = 50'-0"

MATCH LINE SEE ITS ELECTRICAL PLAN (60)

LA R/W LINE

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 406+05
RED/GREEN SIGNAL
PALMETTO PARK RAMP D

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 3138+90
44.2CABSS
(RSS CABINET)

2#8 AWG AND 1#8 GND, 2"C
(ADVANCED WARNING SIGNAL)

PALMETTO PARK RD RAMP D

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER 46 SEPARATE CONTRACT

2#8 AWG AND 1#8 GND, 2"C
(RED/GREEN SIGNAL)

SEE ITS PLANS FOR CAMERA WIRING AND CONDUIT

2#8 AWG AND 1#8 GND, 2"C
(RED/GREEN SIGNAL)

SB I-95

PANEL AND DMS SIGN
INSTALLED IN PHASE 3B-2
STA. 3136+50

℄ CONST. I-95

MATCH LINE STA. 3135+20

MATCH LINE STA. 3142+00

To Congress Ave
SEE PLUS TOLL FOR TOLL VIOLATION
$XXXX
EXPRESS LANES
ONLY

4#4 AWG, 2"C (TO TOLL RATE DMS)
(DMS SIGN CONDUCTORS BY OTHERS)

NB I-95

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER 46 SEPARATE CONTRACT

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

PALMETTO PARK RD RAMP A

1-2" CONDUIT:
2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

1-2" CONDUITS:
4#4 AWG, 2"C TO TOLL RATE DMS
(DMS SIGN CONDUCTORS BY OTHERS)

WRONG WAY LED SIGNS
(SOLAR POWERED)
(SEE ITS PLANS)

LA R/W LINE

WRONG WAY STATIC
SIGNS ON STUCTURE
(SEE ITS PLANS)

WRONG WAY DETECTION POLE W/ LED SIGNS, DETECTION CAMERAS, AND SENSORS (HARDWIRED) SEE ITS PLANS

MATCH LINE SEE ITS ELECTRICAL PLAN (48A)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/21	46 WRONG WAY DETECTION SYSTEM REVISION		
10/04/21	AS-BUILTS PER RFI 116 & 316, & MISC. RSS CHANGES		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (48)

SHEET NO.
IT-153

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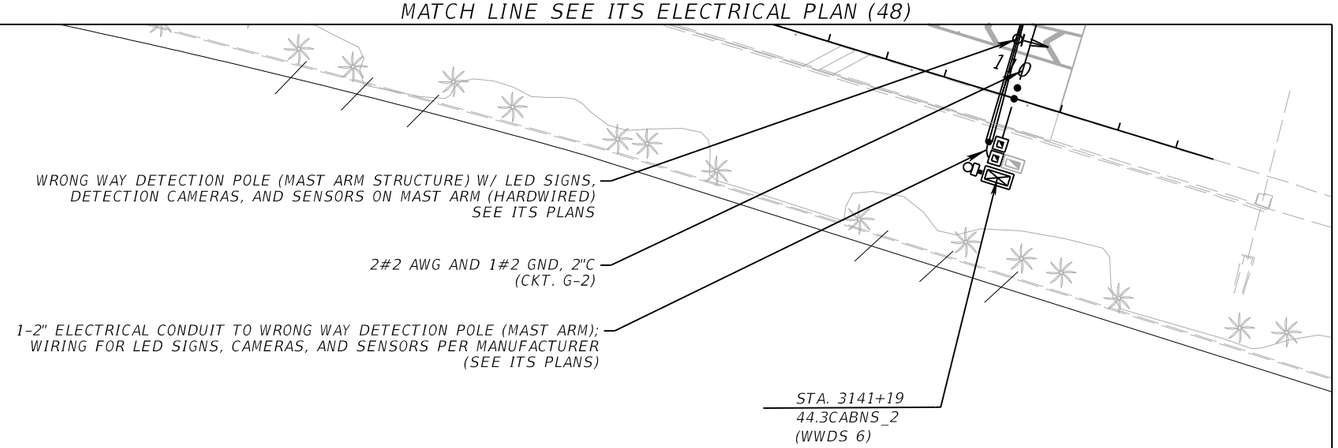
MATCH LINE SEE ITS ELECTRICAL PLAN (48)



WRONG WAY DETECTION POLE (MAST ARM STRUCTURE) W/ LED SIGNS, DETECTION CAMERAS, AND SENSORS ON MAST ARM (HARDWIRED) SEE ITS PLANS

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

1-2" ELECTRICAL CONDUIT TO WRONG WAY DETECTION POLE (MAST ARM); WIRING FOR LED SIGNS, CAMERAS, AND SENSORS PER MANUFACTURER (SEE ITS PLANS)

STA. 3141+19
44.3CABNS_2
(WWDS 6)

MATCH LINE SEE ITS ELECTRICAL PLAN (61)

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT (1)

(1) SHEET ADDED FOR WRONG WAY DETECTION REVISION

BY/PSON VS DATE 2/25/2021

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(1) SHEET ADDED FOR WRONG WAY DETECTION REVISION		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (48A)

SHEET NO.
IT-153A

MATCH LINE SEE ITS ELECTRICAL PLAN (60)

PALMETTO PARK RD RAMP D

PALMETTO PARK ROAD

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 3144+15
44.3CABSS

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP E);
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP B)

PALMETTO PARK RD RAMP E

SB I-95

NB I-95

SEE ITS PLANS FOR CONDUIT AND WIRING TO MVDS

PALMETTO PARK RD RAMP A

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 134+79
ADVANCED WARNING BEACON
PALMETTO PARK RAMP E

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP B)

2-2" CONDUITS:
2#4 AWG, 1#4 GND, 2"C (CKT. G-2);
2#6 AWG, 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

MATCH LINE STA. 3142+00

MATCH LINE STA. 3148+80

MATCH LINE SEE ITS ELECTRICAL PLAN (61)

VOID

1"=50'-0"

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BY:(FDOT) VS DATE: 05/21/2019

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E8496

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (49)

SHEET NO.
IT-154

MATCH LINE SEE ITS ELECTRICAL PLAN (60)

PALMETTO PARK RD RAMP D

411 412

PALMETTO PARK ROAD

1"=50'-0"

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 3144+15
44.3CABSS

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP E);
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP B)

PALMETTO PARK RD RAMP E

SB I-95

NB I-95

MATCH LINE STA. 3142+00

MATCH LINE STA. 3148+80

SEE ITS PLANS FOR CONDUIT AND WIRING TO MVDS

PALMETTO PARK RD RAMP A

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

2" CONDUIT FOR MVDS (SEE ITS PLANS)

STA. 134+79
ADVANCED WARNING BEACON
PALMETTO PARK RAMP E

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP B)

2-2" CONDUITS:
2#4 AWG, 1#4 GND, 2"C (CKT. G-2);
2#6 AWG, 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

MATCH LINE SEE ITS ELECTRICAL PLAN (61)

VOID

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY/PSDN: VS Date: 2/25/2021

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	1 CONDUIT CALLOUT CORRECTION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (49)

SHEET NO.
IT-154

MATCH LINE SEE ITS ELECTRICAL PLAN (60)

411 412 PALMETTO PARK RD RAMP D

1"=50'-0"

PALMETTO PARK ROAD

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 3144+15
44.3CABSS

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP E);
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP B)

PALMETTO PARK RD RAMP E

SB I-95

MATCH LINE STA. 3142+00

142 5143 5144 5145 5146 5147 5148

℄ CONST. I-95

42 3143 3144 3145 3146 3147 3148

2 7143 7144 7145 7146 7147 7148

MATCH LINE STA. 3148+80

NB I-95

1277 1278 1279 1280 131 132 133 134 135

BFOC(B) BE(B) OE W(B)

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

PALMETTO PARK RD RAMP A

SEE ITS PLANS FOR CONDUIT AND WIRING TO MVDS

2" CONDUIT FOR MVDS (SEE ITS PLANS)

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 134+79
ADVANCED WARNING BEACON
PALMETTO PARK RAMP E

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP B)

2-2" CONDUITS:
2#4 AWG, 1#4 GND, 2"C (CKT. G-2);
2#6 AWG, 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

MATCH LINE SEE ITS ELECTRICAL PLAN (61)

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 CONDUIT CALLOUT CORRECTION		
10/04/2021	AS-BUILTS: ITS INFRASTRUCTURE CHANGES		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (49)

SHEET NO. IT-154

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MATCH LINE SEE ITS ELECTRICAL PLAN (62)

2#4 AWG AND 1#4 GND, 2"C (CKT. G-2)

STA. 3150+68
44.5CABSS

509 PALMETTO PARK RD RAMP E

508

2-2" CONDUITS:
2#4 AWG, 1#4 GND (CKT. G-2);
2#8 AWG, 1#8 GND
(RED/GREEN SIGNAL)

2#8 AWG AND 1#8 GND, 2"C
(RED/GREEN SIGNAL)

RED/GREEN SIGNAL
STA. 507+88
PALMETTO PARK RAMP E

1" = 50'-0"

2" CONDUIT
(ITS ELECTRICAL SPARE)

1-2" CONDUIT
(ITS ELECTRICAL SPARE)

2#4 AWG AND 1#4 GND, 2"C
(CKT. G-2)

MATCH LINE STA. 3148+80

SB I-95

5149 5150 5151 5152 5153 5154 5155

℄ CONST. I-95

3149 3150 3151 3152 3153 3154 3155

7149 7150 7151 7152 7153 7154 7155

MATCH LINE STA. 3155+60

NB I-95

STA. 3153+00
44.5CABNS
(RSS CABINET)

2-2" CONDUITS:
2#4 AWG, 1#4 GND, 2"C (CKT. G-2);
2#6 AWG, 1#6 GND, AND
2#4 AWG, 1#4 GND, 2"C
(TO AWB AND RED/GREEN SIGNAL
FOR PALMETTO PARK RD. RAMP B)

2-2" CONDUITS:
2#4 AWG, 1#4 GND, 2"C (CKT. G-2);
2#6 AWG, 1#6 GND, 2"C (TO AWB
FOR PALMETTO PARK RD. RAMP B)

PALMETTO PARK RD RAMP B

200 201 202 203 204 205

2#6 AWG AND 1#6 GND, 2"C
(RED/GREEN SIGNAL)

2" CONDUIT
2#4 AWG, 1#4 GND (CKT. G-2)

2-2" CONDUIT
2#4 AWG, 1#4 GND, 2"C (CKT. G-2);
2#6 AWG, 1#6 GND, 2"C
(RED/GREEN SIGNAL)

2#4 AWG AND
1#4 GND, 2"C
(CKT. G-2)

SEE ITS PLANS FOR
CONDUIT AND WIRING
TO D-CCTV

RED/GREEN SIGNAL
STA. 205+19
PALMETTO PARK RAMP B

LA R/W LINE

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (50)

SHEET NO.
IT-155

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BY:PDOT VS DATE: 05/21/2019

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

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MATCH LINE SEE ITS ELECTRICAL PLAN (62)

1" = 50'-0"

2#4 AWG AND 1#4 GND, 2"C (CKT. G-2)

2-2" CONDUITS: 2#4 AWG, 1#4 GND (CKT. G-2); 2#8 AWG, 1#8 GND (RED/GREEN SIGNAL)

2" CONDUIT (ITS ELECTRICAL SPARE)

STA. 3150+68
44.5CABSS

2#8 AWG AND 1#8 GND, 2"C (RED/GREEN SIGNAL)

1-2" CONDUIT (ITS ELECTRICAL SPARE)

RED/GREEN SIGNAL
STA. 507+88
PALMETTO PARK RAMP E

2#4 AWG AND 1#4 GND, 2"C (CKT. G-2)

60S PALMETTO PARK RD RAMP E 50S

SB I-95

5149 5150 5151 5152 5153 5154 5155

℄ CONST. I-95

3149 3150 3151 3152 3153 3154 3155

7149 7150 7151 7152 7153 7154 7155

MATCH LINE STA. 3148+80

MATCH LINE STA. 3155+60

NB I-95

STA. 3153+25
44.5CABNS
(RSS CABINET)

2-2" CONDUITS: 2#4 AWG, 1#4 GND, 2"C (CKT. G-2); 2#6 AWG, 1#6 GND, AND 2#4 AWG, 1#4 GND, 2"C (TO AWB AND RED/GREEN SIGNAL FOR PALMETTO PARK RD. RAMP B)

2-2" CONDUITS: 2#4 AWG, 1#4 GND, 2"C (CKT. G-2); 2#6 AWG, 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

PALMETTO PARK RD RAMP B

200 201 202 203 204 205

2-2" CONDUIT 2#4 AWG, 1#4 GND, 2"C (CKT. G-2); 2#6 AWG, 1#6 GND, 2"C (RED/GREEN SIGNAL)

2" CONDUIT 2#4 AWG, 1#4 GND (CKT. G-2)

2#4 AWG AND 1#4 GND, 2"C (CKT. G-2)

SEE ITS PLANS FOR CONDUIT AND WIRING TO D-CCTV

LA R/W LINE

RED/GREEN SIGNAL
STA. 205+19
PALMETTO PARK RAMP B

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS PER RFI 301 & 419		

WSP USA INC.
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(813) 520-4444
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (50)

SHEET NO.
IT-155

MATCH LINE SEE ITS ELECTRICAL PLAN (63)

1" = 50'-0"

305 306 307 308

PALMETTO PARK RD RAMP C

2#6 AWG AND 1#6 GND, 2"C
(CKT. H-1)

4#6 AWG, 2"C
(TO 1-LINE STATUS DMS)

1-2" CONDUIT
(ITS ELECTRICAL
SPARE)

STA. 3158+52
44.6CABSS

1-2" CONDUIT
(ITS ELECTRICAL
SPARE)

2#6 AWG AND 1#6 GND, 2"C
(CKT. H-1)

SDMS

SB I-95

5156 5157 5158 5159 5160 5161 5162

3156 3157 3158 3160 3161 3162

7156 7157 7158 7160 7161 7162

NB I-95

206 207 208 209 210 211

PALMETTO PARK RD RAMP B

MATCH LINE STA. 3155+60

MATCH LINE STA. 3162+40

STA. 3157+05
44.6 CABNS

2#4 AWG AND 1#4 GND, 2"C
(CKT. G-2)

LEFT
NO TRUCKS
ONLY
EXPRESS
LANES
ENTRANCE
XXXXXXXXXXXXXXXX

FLD4D0T09544.6SBLS1
STA. 3157+00.00

VOID

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96
BY: (FDOT) VS DATE: 05/21/2019

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
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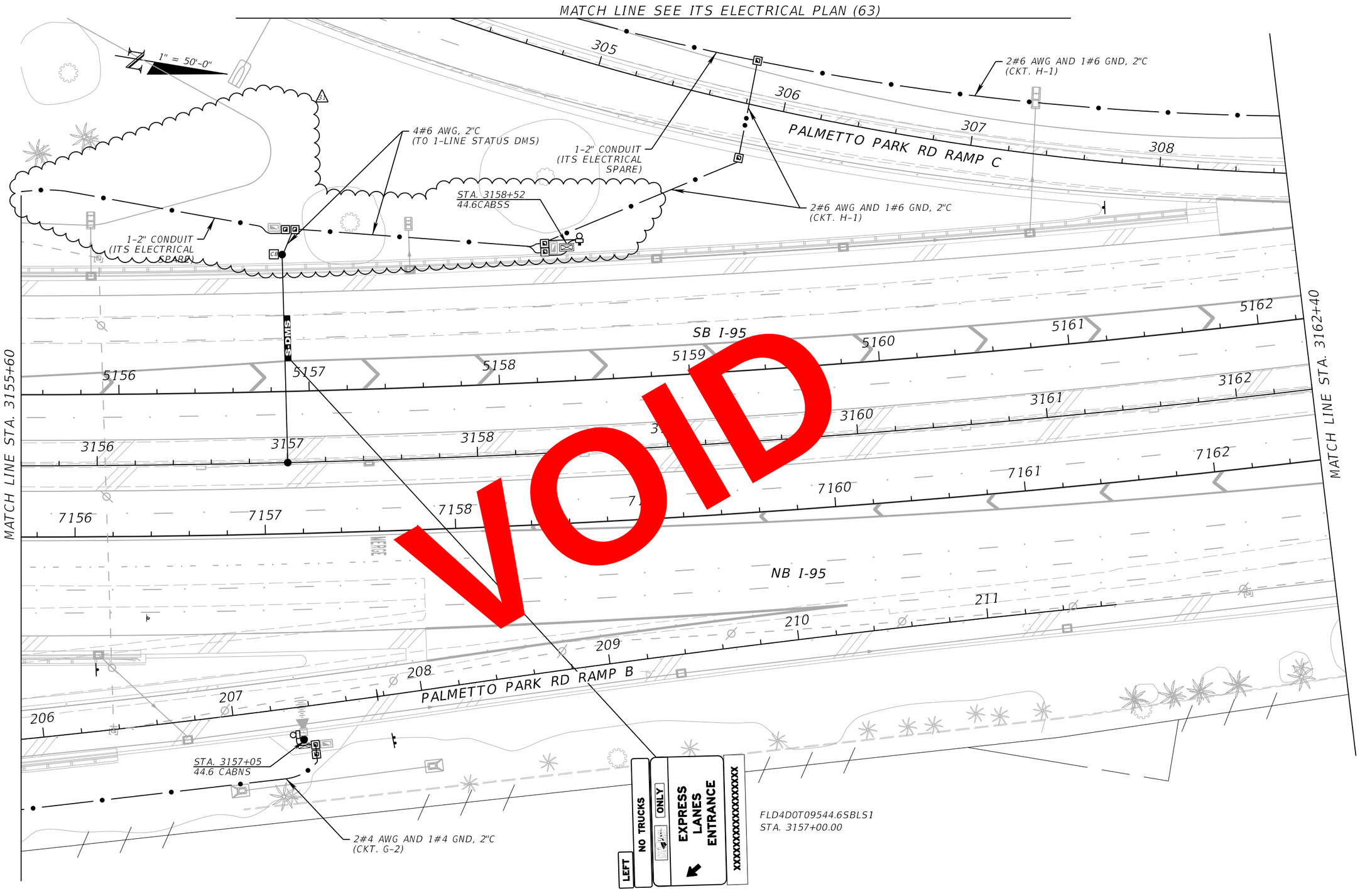
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (51)

SHEET NO.
IT-156



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/27/20	3 POLE OFFSET AND BOXES REVISED		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (51)

SHEET NO.
IT-156

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R86

MATCH LINE SEE ITS ELECTRICAL PLAN (63)

1" = 50'-0"

△1

305 306 307 308

PALMETTO PARK RD RAMP C

2#6 AWG AND 1#6 GND, 2"C
(CKT. H-1)

4#6 AWG, 2"C
(TO 1-LINE STATUS DMS)

1-2" CONDUIT
(ITS ELECTRICAL
SPARE)

STA. 3158+52
44.6CABSS

2#6 AWG AND 1#6 GND, 2"C
(CKT. H-1)

1-2" CONDUIT
(ITS ELECTRICAL
SPARE)

CB

SMGS

SB I-95

5156 5157 5158 5159 5160 5161 5162

ONLY

EXPRESS

3156 3157 3158 3159 3160 3161 3162

7156 7157 7158 7159 7160 7161 7162

MERGE

NB I-95

206 207 208 209 210 211

PALMETTO PARK RD RAMP B

MATCH LINE STA. 3155+60

MATCH LINE STA. 3162+40

STA. 3157+05
44.6 CABNS

2#4 AWG AND 1#4 GND, 2"C
(CKT. G-2)

LEFT
NO TRUCKS
ONLY
EXPRESS LANES ENTRANCE
XXXXXXXXXXXXXXXXX

FLD4D0T09544.6SBLS1
STA. 3157+00.00

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/27/20	△1 POLE OFFSET AND BOXES REVISED		
10/04/21	ASBUILT		

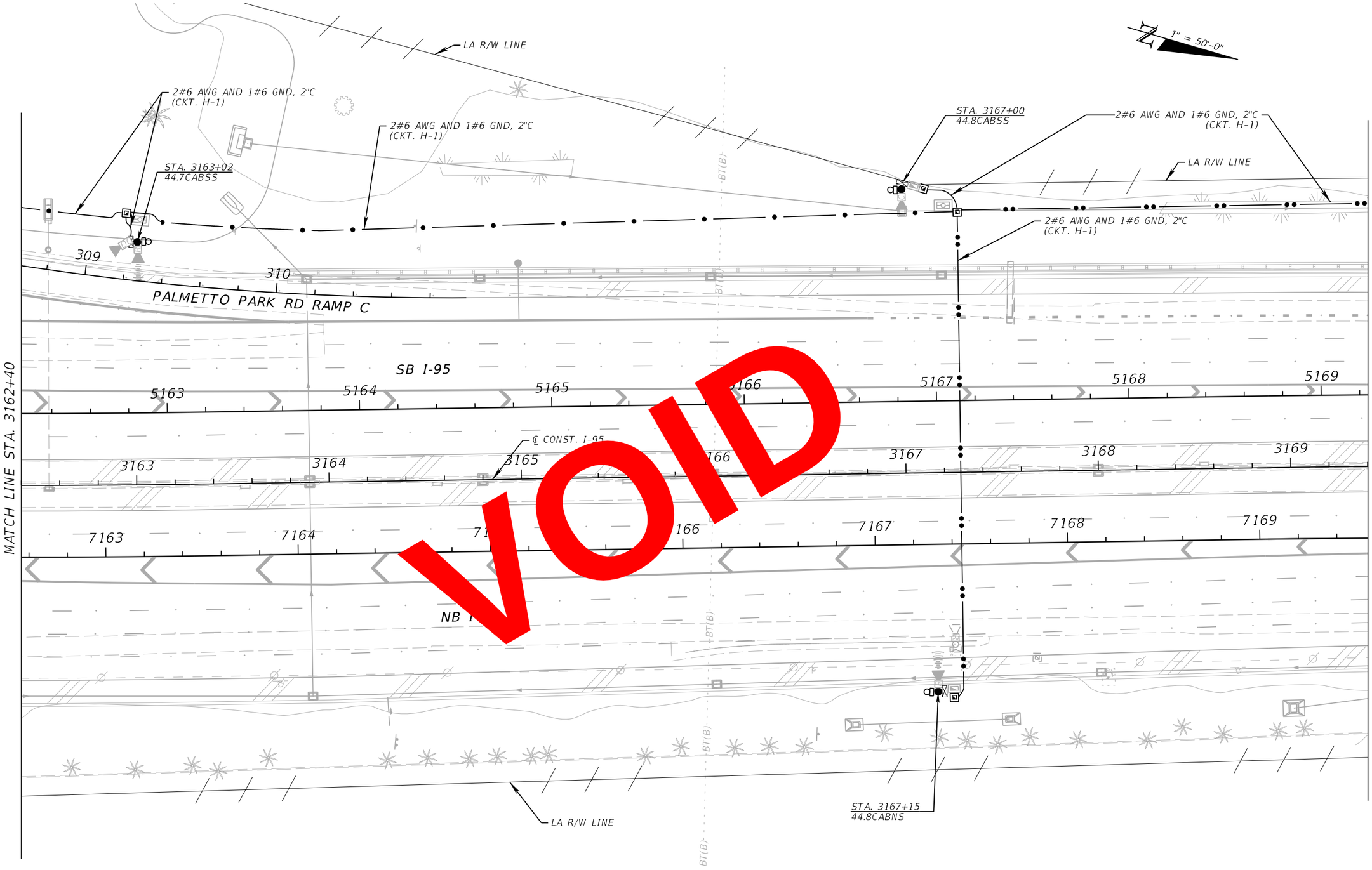
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (51)

SHEET NO.
IT-156



VOID

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96
BY:FDOT VS DATE: 05/21/2019

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

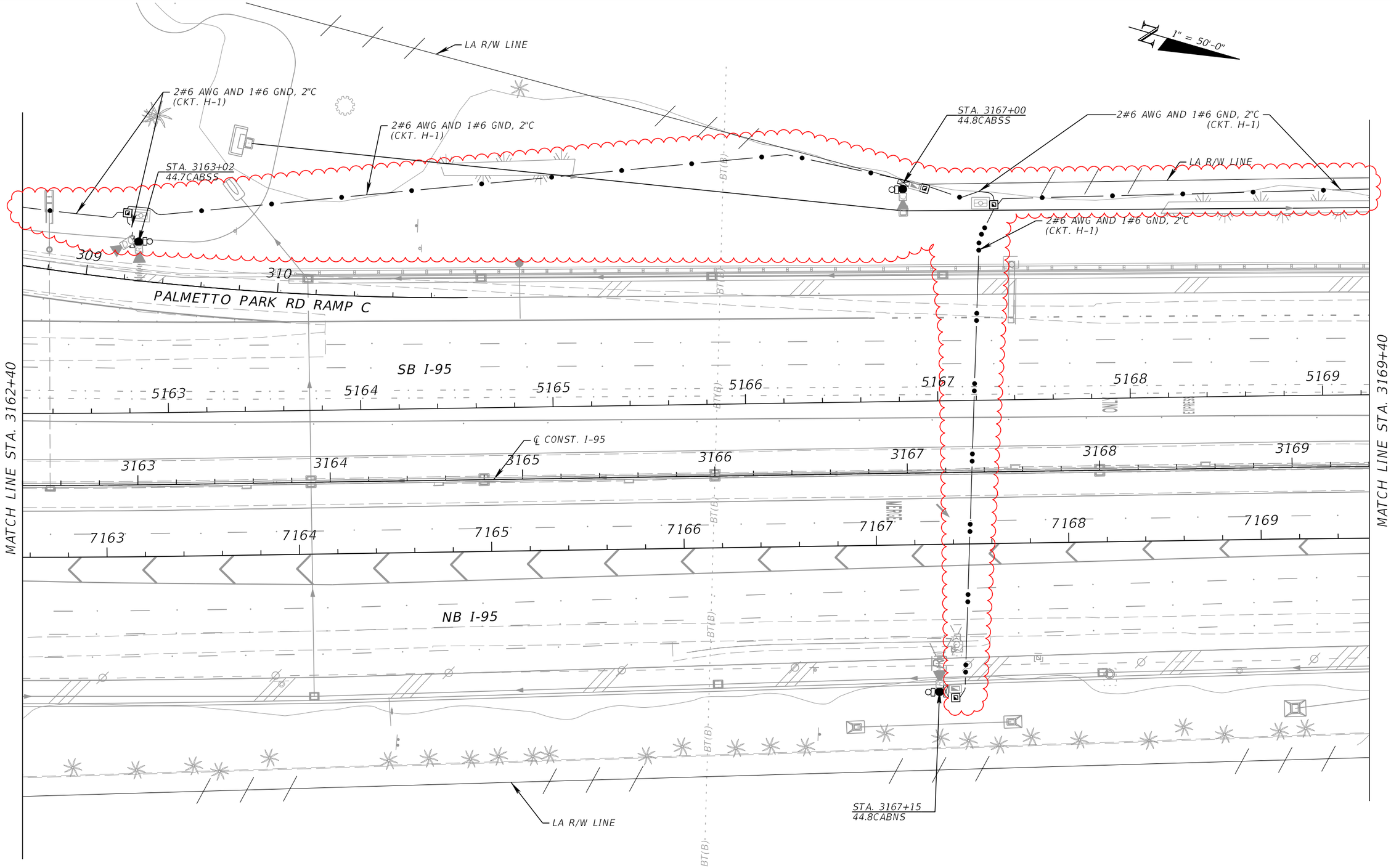
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (52)

SHEET NO.
IT-157

PerezR 4/18/2019 3:34:05 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT52_E.dgn



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS: ITS INFRASTRUCTURE CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (52)

SHEET NO.
IT-157

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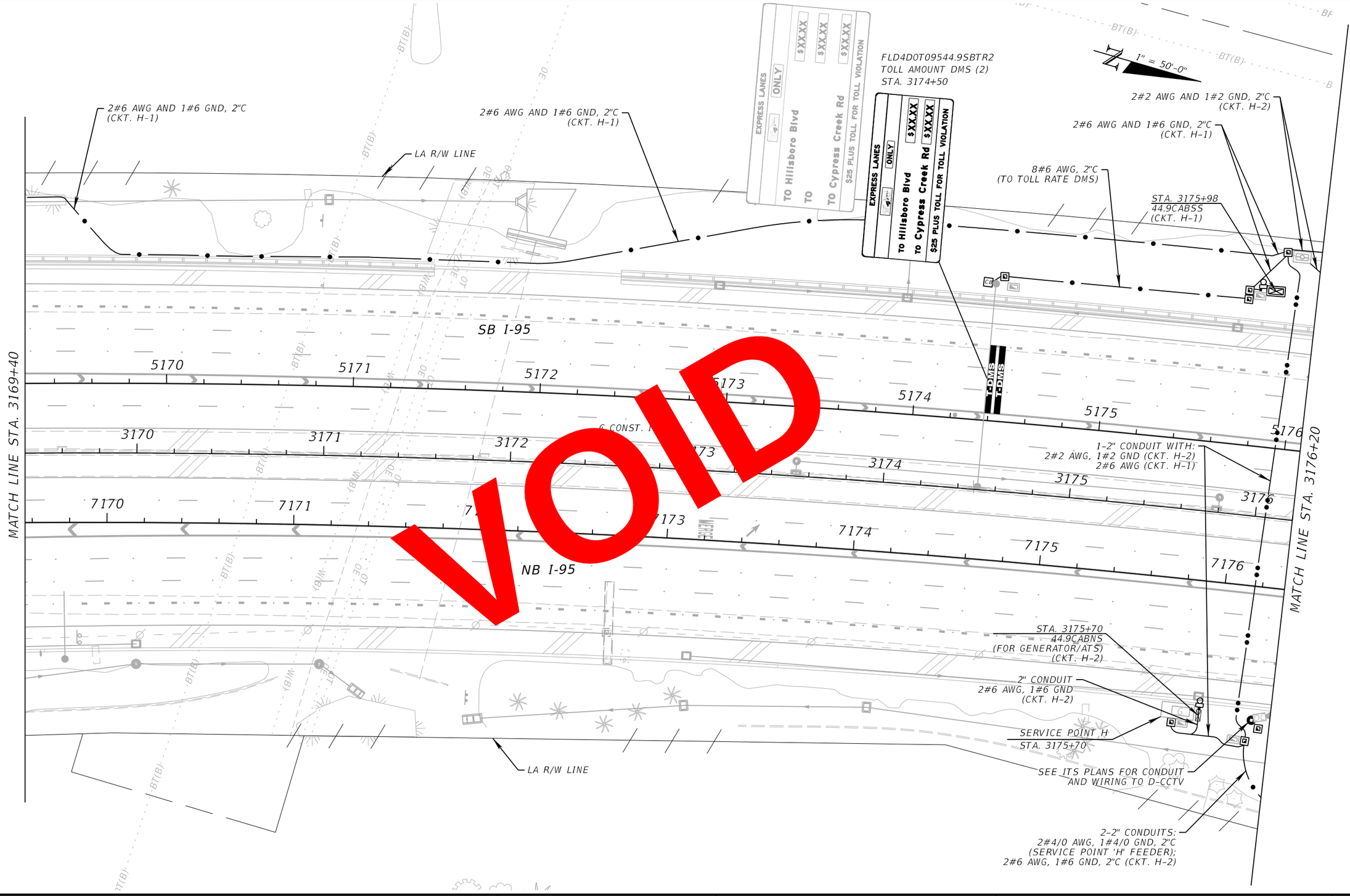

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (53)

SHEET NO.
IT-158

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY: PDOT VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
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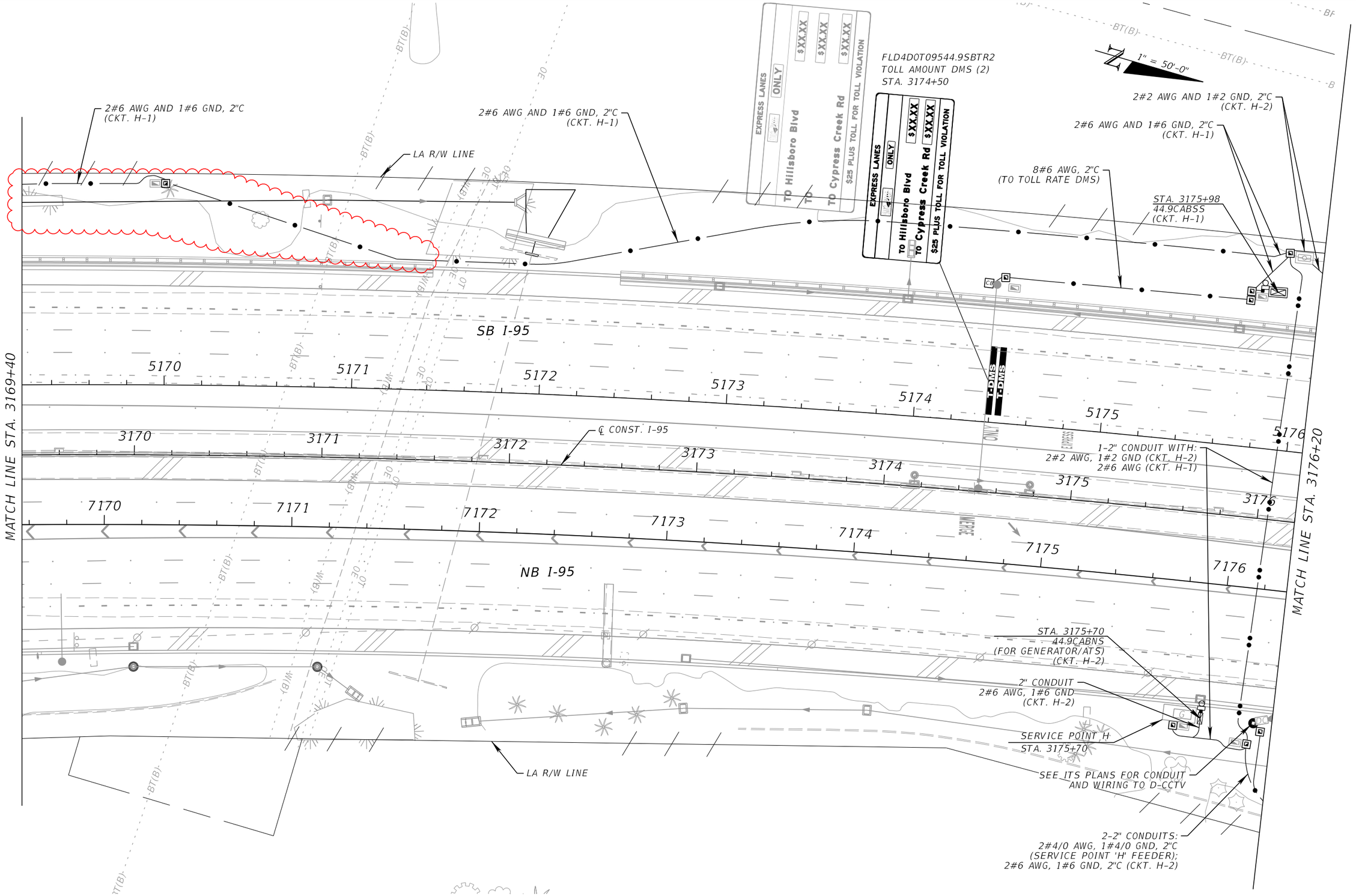
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS: ITS INFRASTRUCTURE CHANGES		

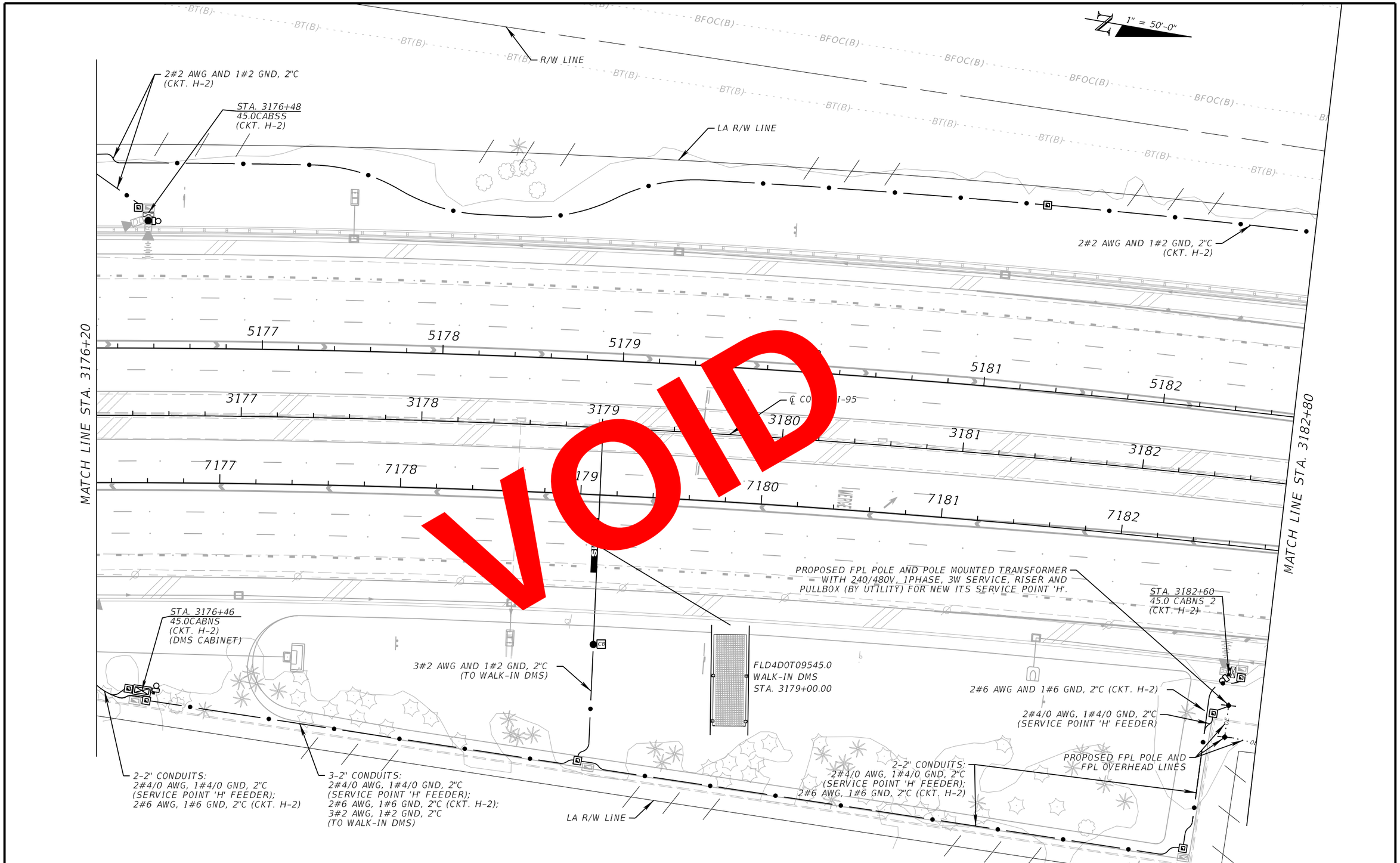
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (53)

SHEET NO.
IT-158



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

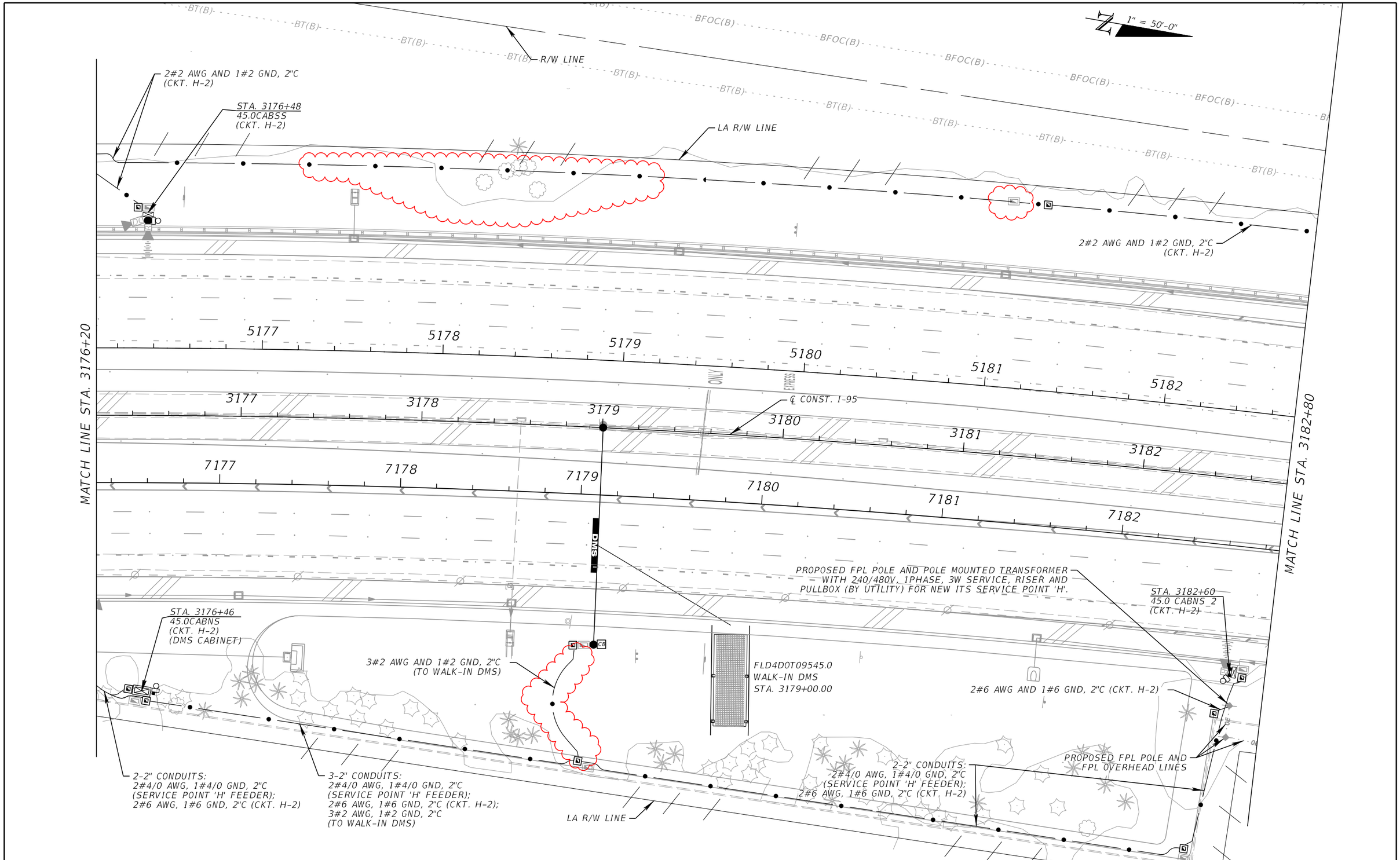
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (54)

SHEET NO.
IT-159

PerezR 4/18/2019 3:34:37 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT54_E.dgn



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS: ITS INFRASTRUCTURE CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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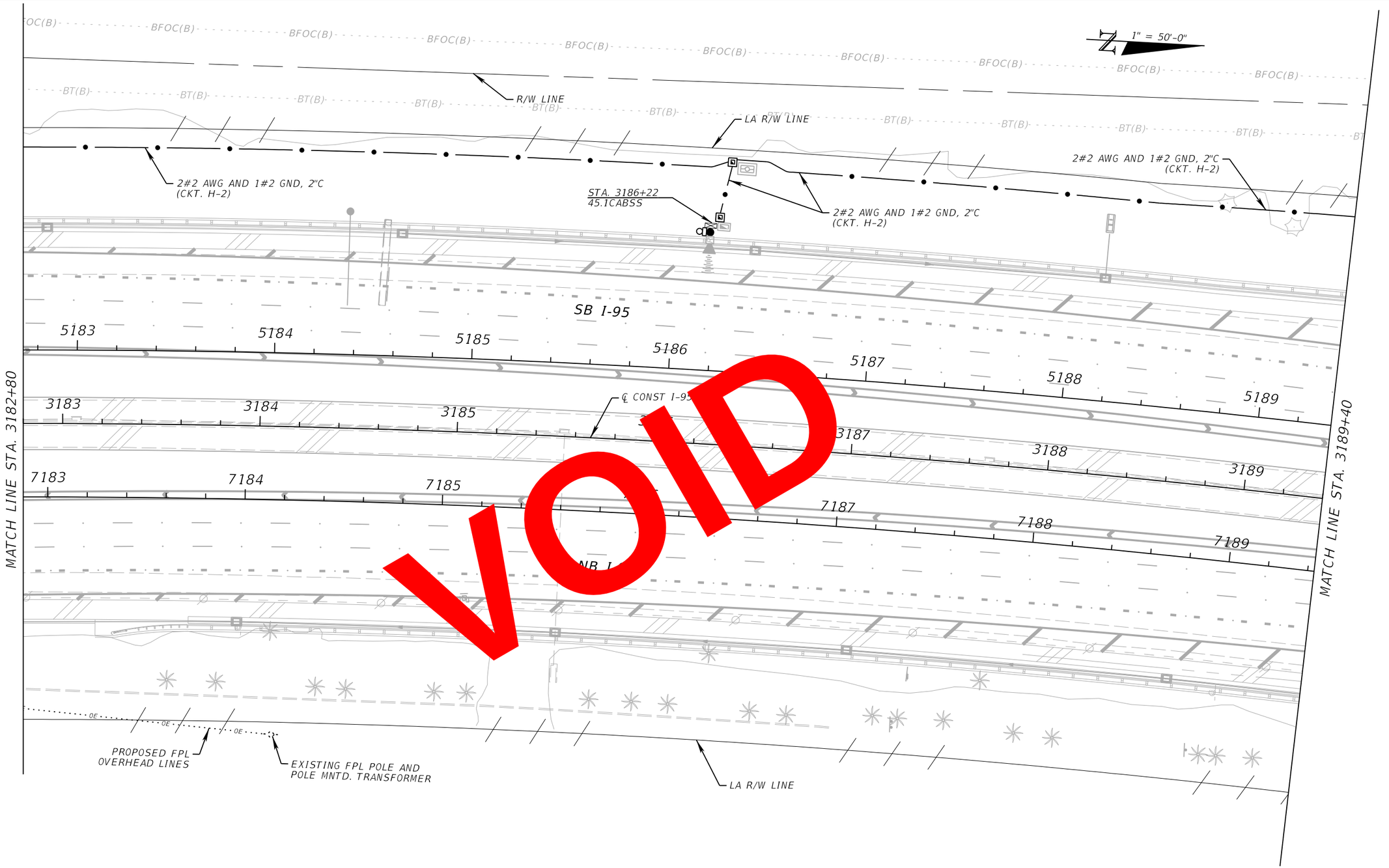
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (54)

SHEET NO.
IT-159



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (55)

SHEET NO.
IT-160

PerezR 4/18/2019 3:34:50 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT55_E.dgn

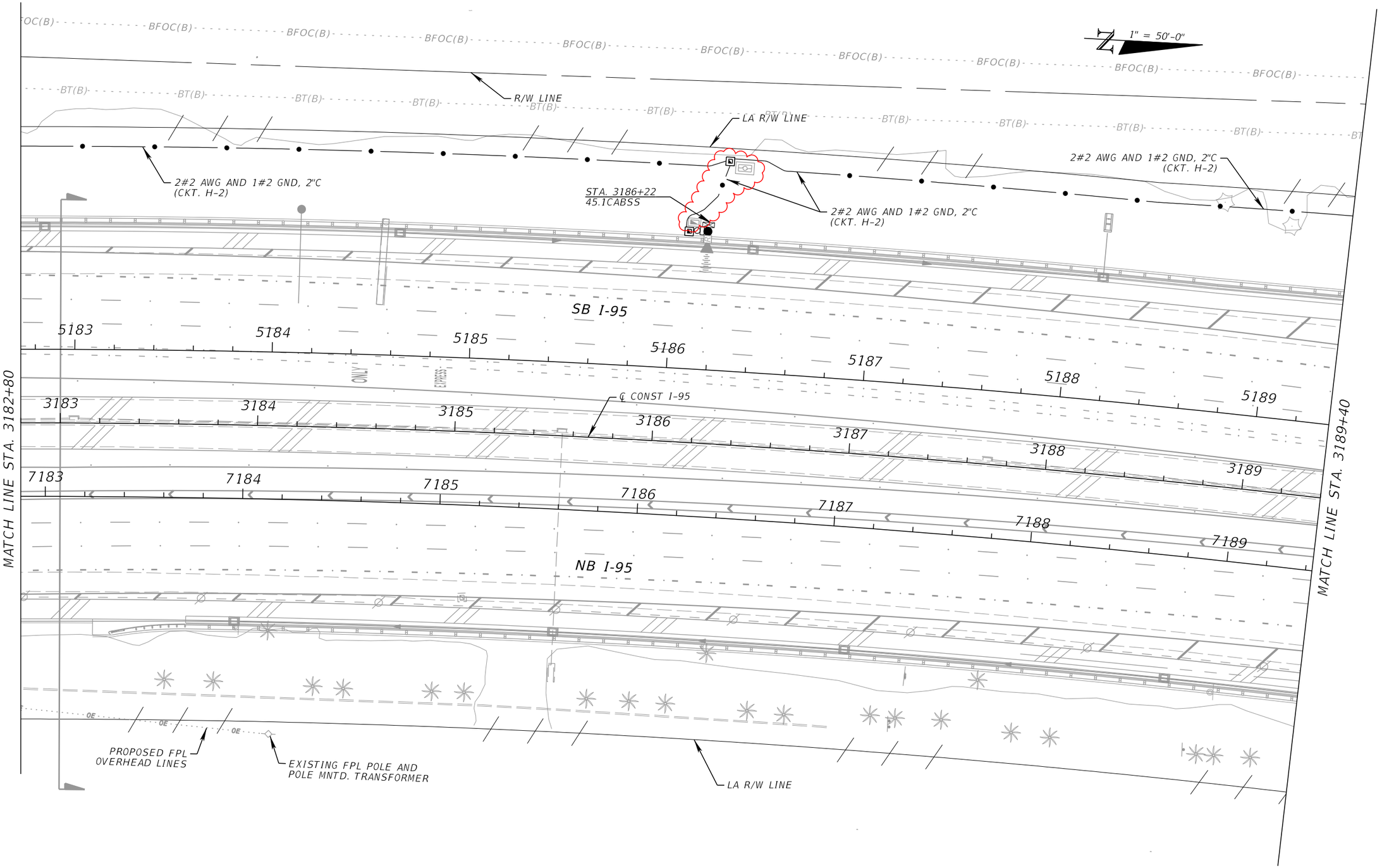
BY:(FDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS: ITS INFRASTRUCTURE CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

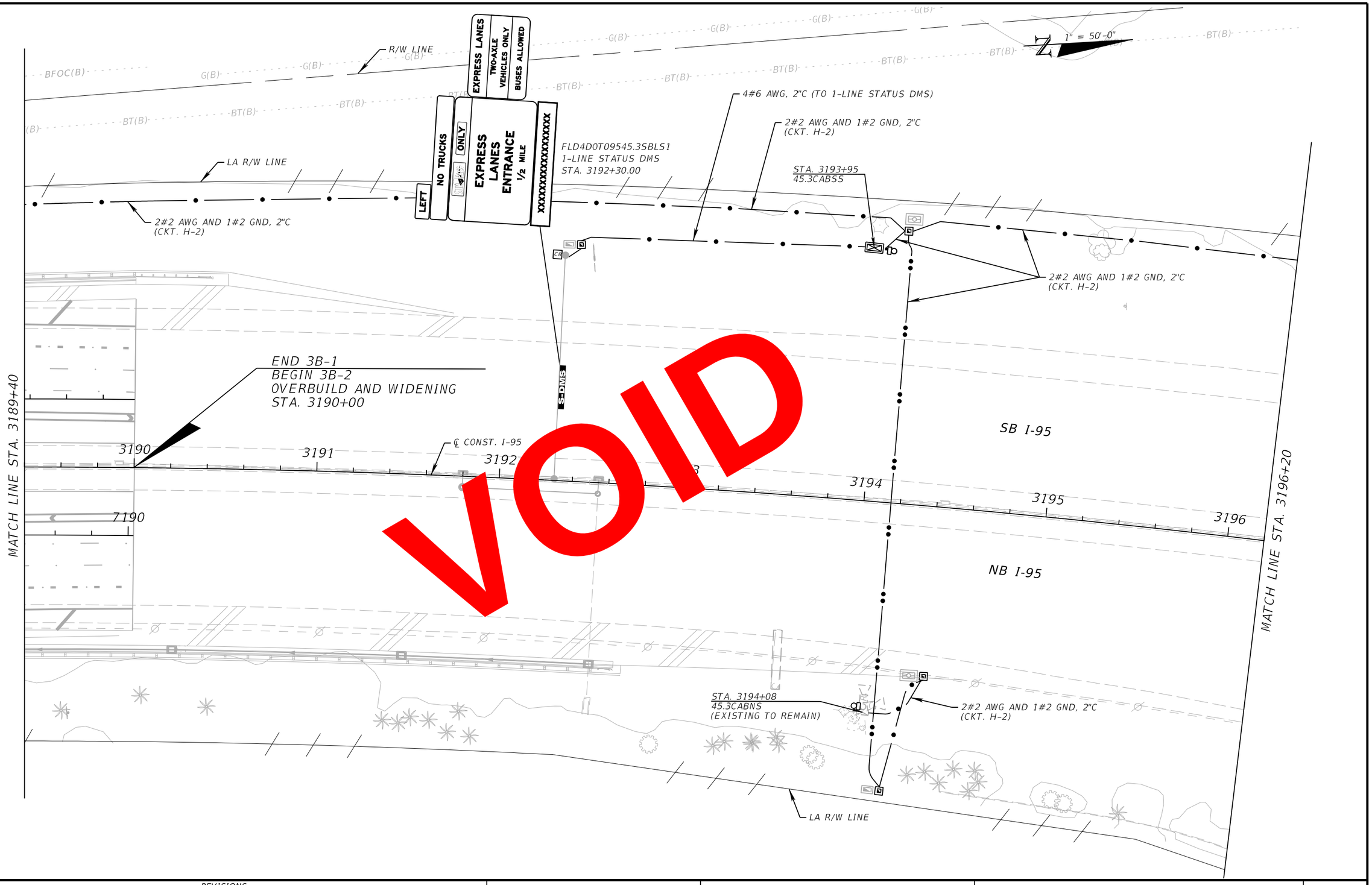
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (55)

SHEET NO.
IT-160

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (56)

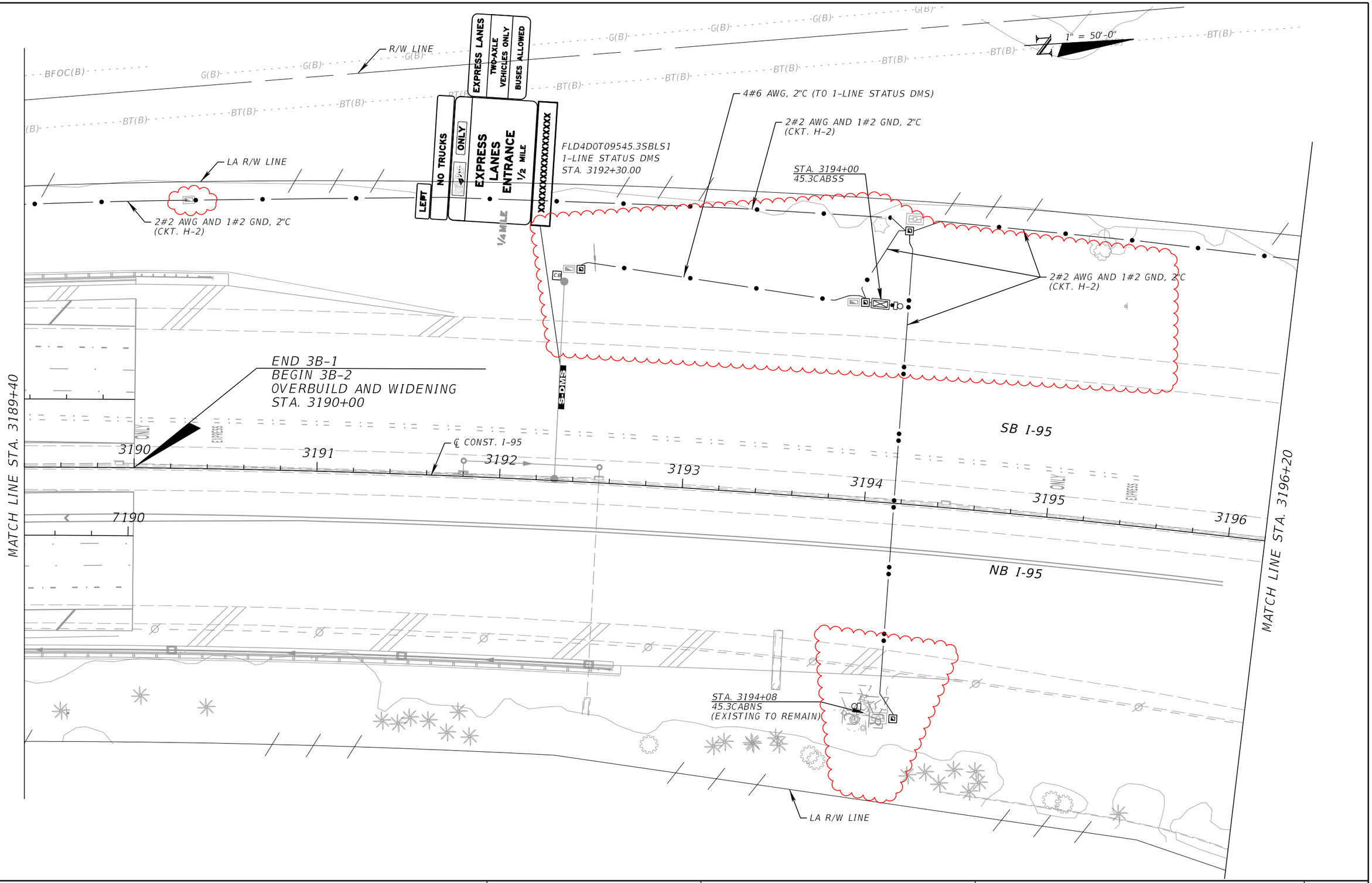
SHEET NO.
IT-161

PerezR 4/18/2019 3:35:03 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT56_E.dgn

BY:PEREZR VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS PER RFI 315 & 348		

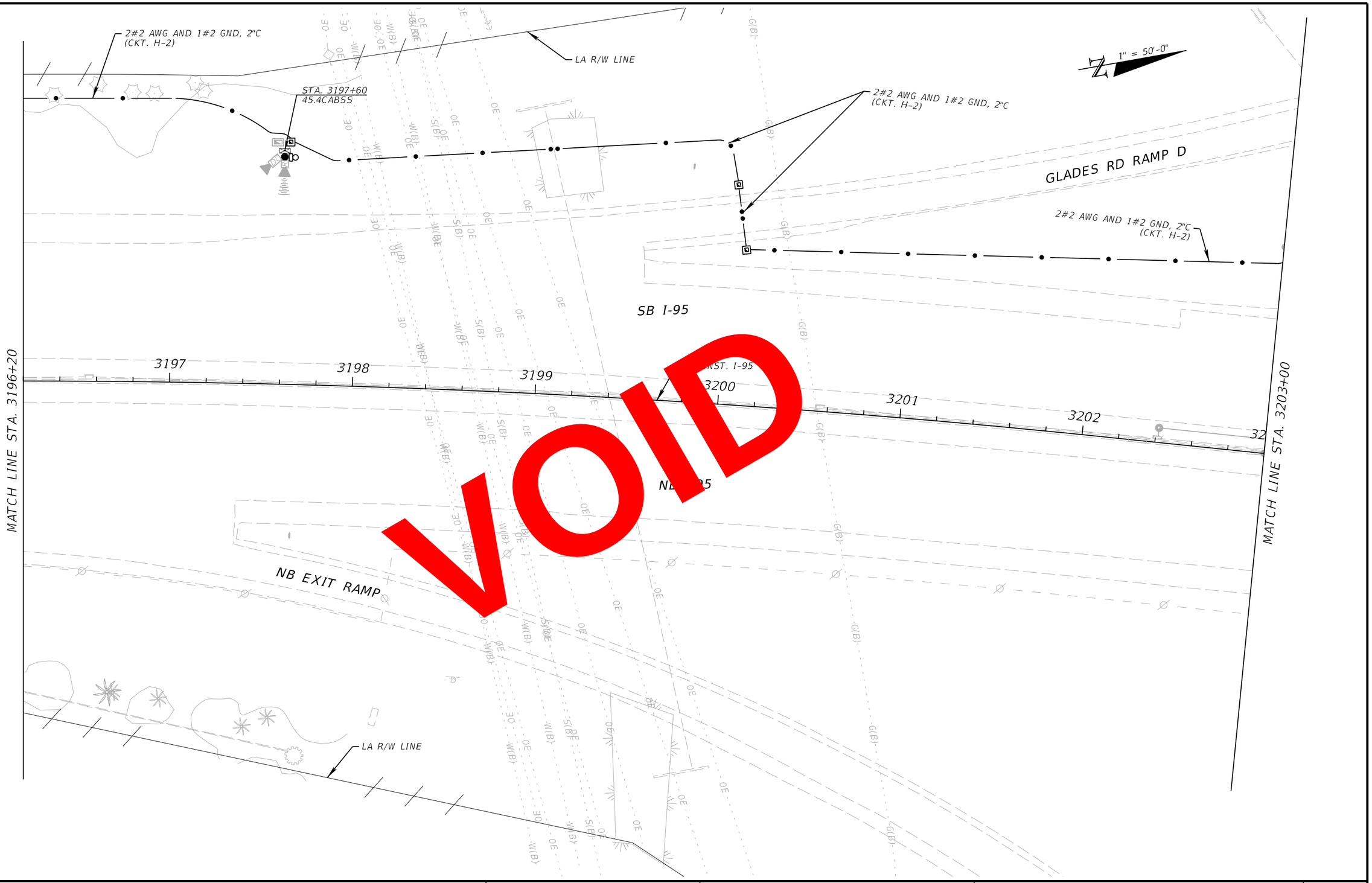
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (56)

SHEET NO.
IT-161



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (57)

SHEET NO.
IT-162

PerezR 4/18/2019 3:35:18 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT57_E.dgn

BY:PDOT1 VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6496

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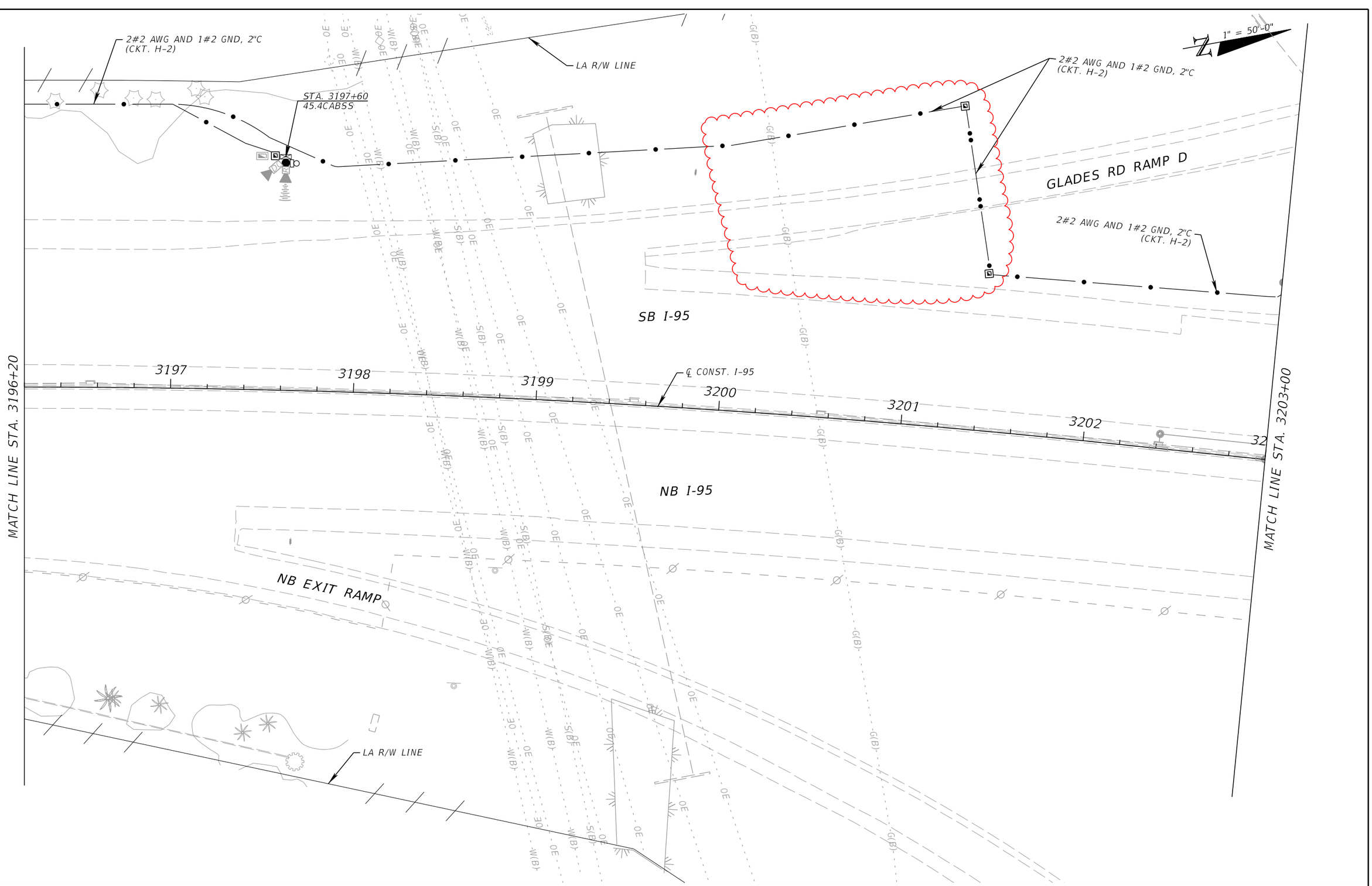

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (57)

SHEET NO.
IT-162

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GLADES RD RAMP D

2-2"C:
2#2 AWG AND 1#2 GND, 2"C
(CKT. H-2);
8#6 AWG, 2"C
(TO TOLL RATE DMS)

STA. 3204+49
45.5CABSS

2#2 AWG AND 1#2 GND, 2"C
(CKT. H-2)

1" = 50'-0"

SEE ITS PLANS FOR CONDUIT
AND WIRING TO D-CCTV

FLD4D0T09545.5SBTR2
TOLL AMOUNT DMS (2)
STA. 3203+00.00

SB I-95

I-95

NB I-95

NB ENTRANCE RAMP

MATCH LINE STA. 3203+00

MATCH LINE STA. 3210+00

3203 3204 3205 3207 3208 3209

EXPRESS LANES ONLY
TO Hillsboro Blvd $XX.XX
TO Cypress Creek Rd $XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

TDMS
TDMS

EXPRESS LANES ONLY
TO Hillsboro Blvd $XX.XX
TO Cypress Creek Rd $XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (58)

SHEET NO.
IT-163

PerezR 4/18/2019 3:35:31 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT58_E.dgn

BY:(PDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

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GLADES RD RAMP D

1" = 50'-0"

2-2"C:
2#2 AWG AND 1#2 GND, 2"C
(CKT. H-2);
8#6 AWG, 2"C
(TO TOLL RATE DMS)

STA. 3204+49
45.5CABSS

2#2 AWG AND 1#2 GND, 2"C
(CKT. H-2)

SEE ITS PLANS FOR CONDUIT
AND WIRING TO D-CCTV

MATCH LINE STA. 3203+00

TDMS
TDMS

EXPRESS LANES ONLY
TO Hillsboro Blvd
TO Cypress Creek Rd
$XX.XX
$XX.XX
$25 PLUS TOLL FOR TOLL VIOLATION

FLD4D0T09545.5SBTR2
TOLL AMOUNT DMS (2)
STA. 3203+00.00

SB I-95

℄ CONST. I-95

03 3204 3205 3206 3207 3208 3209 32

MATCH LINE STA. 3210+00

NB I-95

NB ENTRANCE RAMP

1-2" ELECTRICAL CONDUIT
(SPARE)

INSTALL NEW ELECTRICAL CONDUIT (SPARE)
INTO THE EXISTING TO REMAIN
ELECTRICAL PULL BOX

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS: ITS INFRASTRUCTURE CHANGES		

WSP USA INC.
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(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
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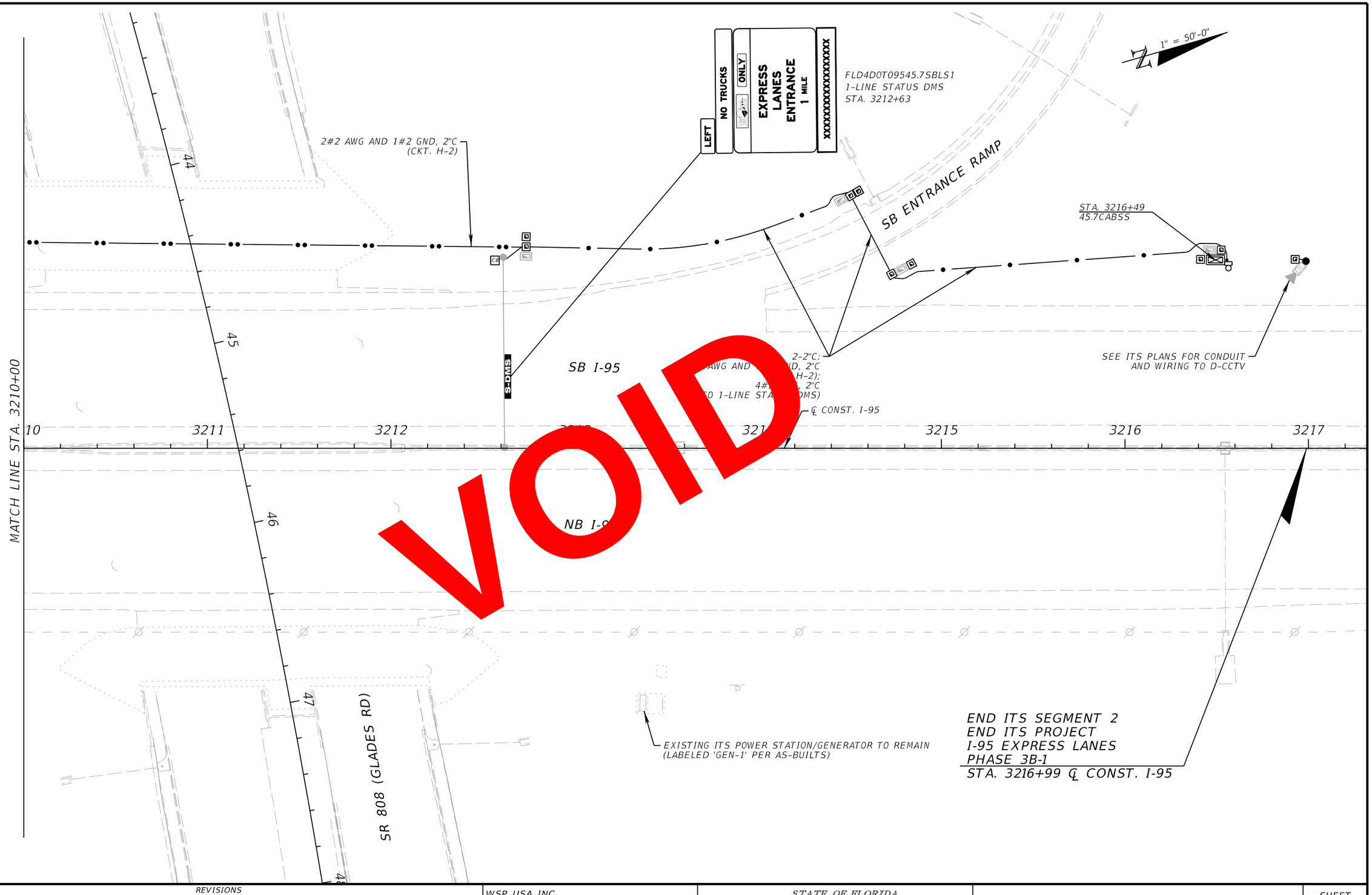
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (58)

SHEET NO.
IT-163



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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

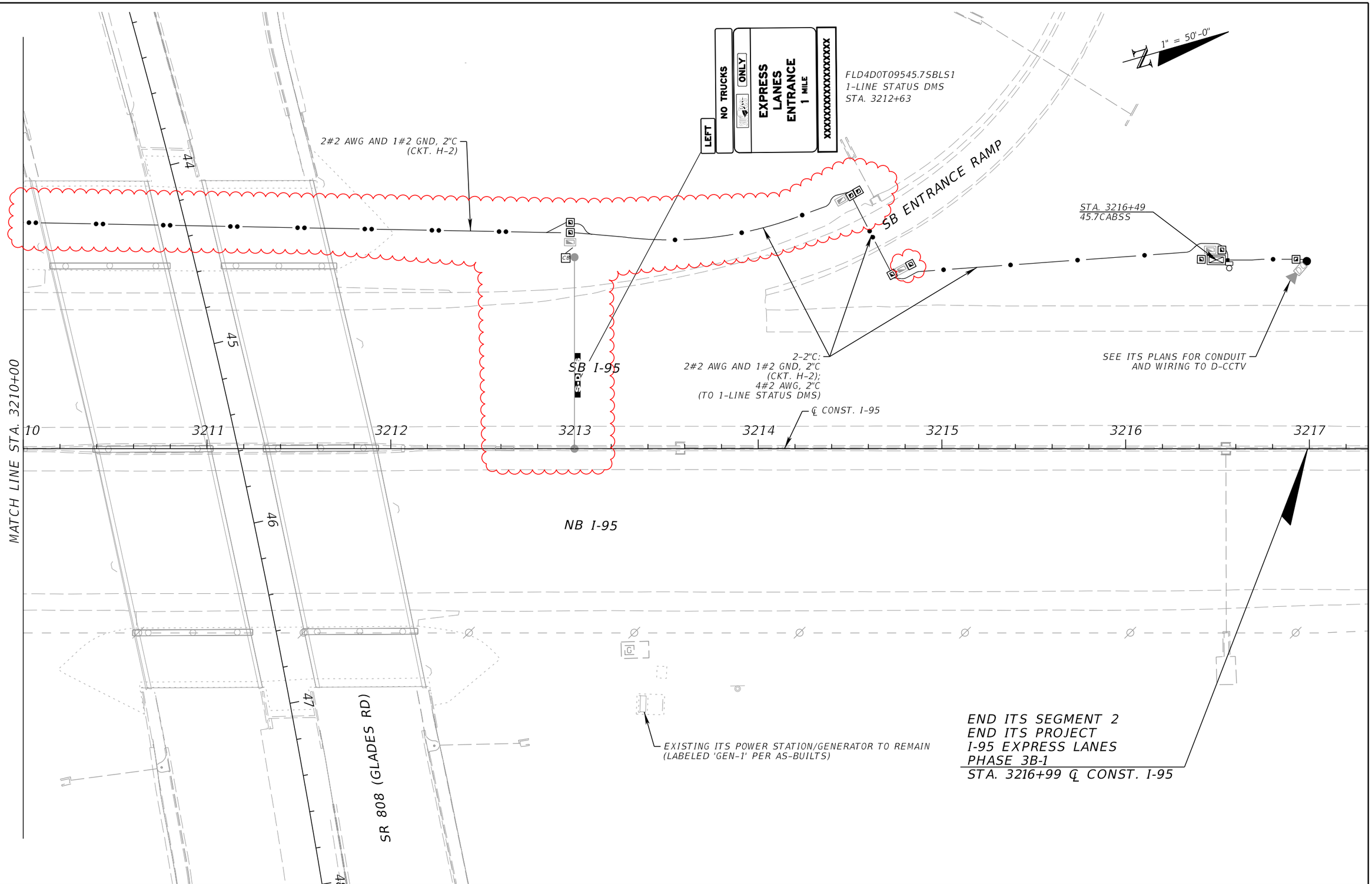
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (59)

SHEET NO.
IT-164

PerezR 4/18/2019 3:35:47 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT59_E.dgn



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/04/2021	AS-BUILTS: RFI 196 & DMS SIGN STRUCTURE RELOCATED		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (59)

SHEET NO.
IT-164

MATCH LINE SEE ITS ELECTRICAL PLAN (64)

1" = 50'-0"

2" CONDUIT
2#1/0 AWG (SERVICE FEEDER TO NEW HUB BUILDING SERVICE POINT J)

PALMETTO PARK RD RAMP C

2#4 AWG AND 1#4 GND, 2"C (CKT. G-2)

STA. 3148+40
44.4CABSS

STA. 128+92
ADVANCED WARNING BEACON
PALMETTO PARK ROAD RAMP B

2#8 AWG AND 1#8 GND, 2"C (ADVANCED WARNING SIGNAL)

PALMETTO PARK RD RAMP E

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP E)

LA R/W LINE

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP B)

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP E);
2#6 AWG, 1#6 GND (TO AWB FOR PALMETTO PARK RD. RAMP B)

2#8 AWG AND 1#8 GND, 2"C (ADVANCED WARNING SIGNAL)

PALMETTO PARK RD RAMP D

PALMETTO PARK ROAD

MATCH LINE SEE ITS ELECTRICAL PLAN (48)

MATCH LINE SEE ITS ELECTRICAL PLAN (62)

MATCH LINE SEE ITS ELECTRICAL PLAN (49)

VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (60)

SHEET NO.
IT-165

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BY:(FDOT) VS DATE: 05/21/2019

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

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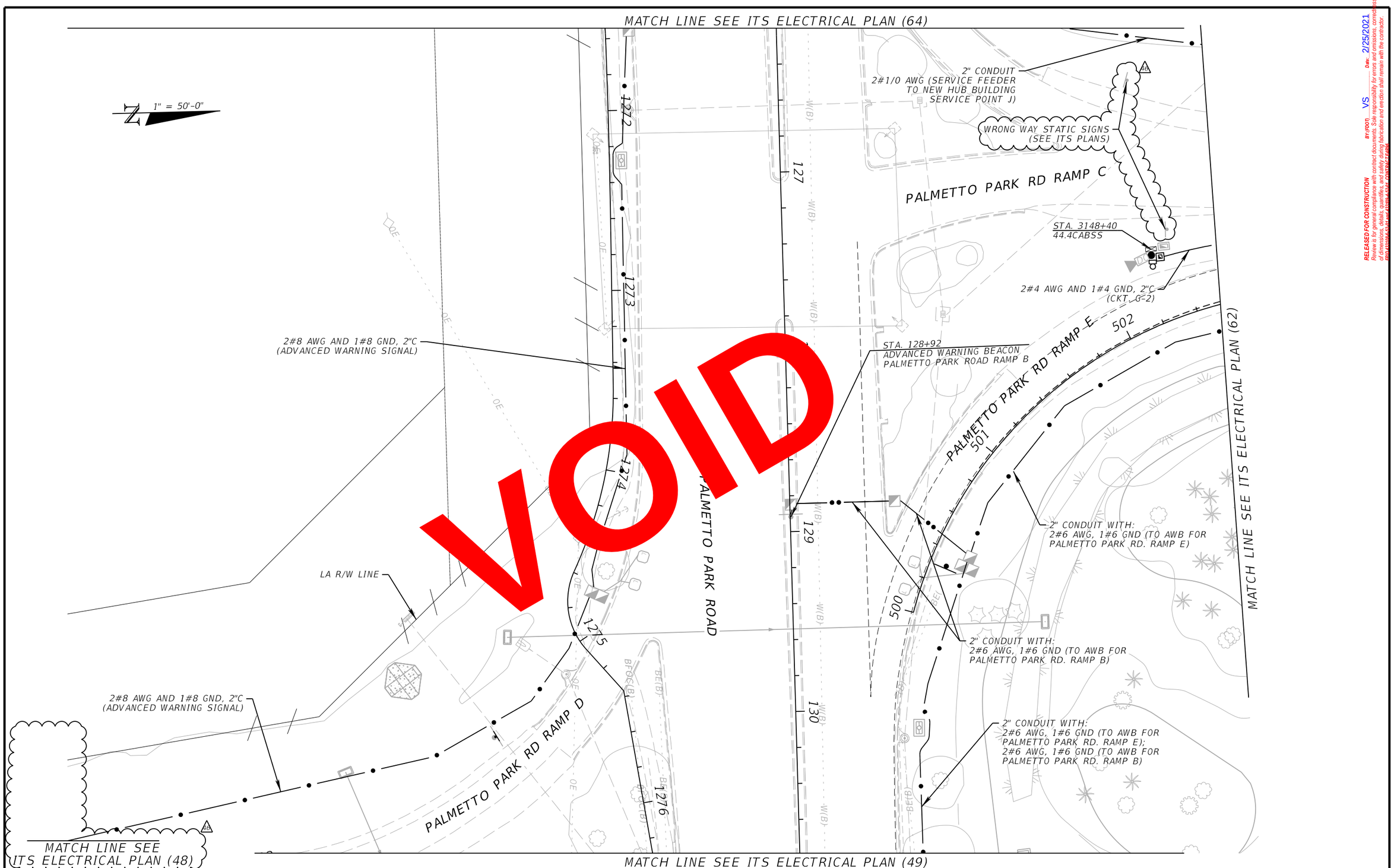

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 WRONG WAY DETECTION SYSTEM REVISION AND MATCHLINE CORRECTION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (60)

SHEET NO. IT-165

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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/25/2021
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R94

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MATCH LINE SEE ITS ELECTRICAL PLAN (64)

1" = 50'-0"

WRONG WAY DETECTION SYSTEM
⚠6 TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT

2" CONDUIT
2#1/0 AWG (SERVICE FEEDER
TO NEW HUB BUILDING
SERVICE POINT J)

WRONG WAY STATIC SIGNS
(SEE ITS PLANS)

PALMETTO PARK RD RAMP C

STA. 3148+40
44.4CABSS

2#4 AWG AND 1#4 GND, 2"C
(CKT. G-2)

2#8 AWG AND 1#8 GND, 2"C
(ADVANCED WARNING SIGNAL)

STA. 128+92
ADVANCED WARNING BEACON
PALMETTO PARK ROAD RAMP B

PALMETTO PARK RD RAMP E

LA R/W LINE

PALMETTO PARK ROAD

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR
PALMETTO PARK RD. RAMP E)

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR
PALMETTO PARK RD. RAMP B)

WRONG WAY DETECTION SYSTEM
⚠6 TO BE CONSTRUCTED UNDER
SEPARATE CONTRACT

2#8 AWG AND 1#8 GND, 2"C
(ADVANCED WARNING SIGNAL)

PALMETTO PARK RD RAMP D

2" CONDUIT WITH:
2#6 AWG, 1#6 GND (TO AWB FOR
PALMETTO PARK RD. RAMP E);
2#6 AWG, 1#6 GND (TO AWB FOR
PALMETTO PARK RD. RAMP B)

MATCH LINE SEE
ITS ELECTRICAL PLAN (48)

MATCH LINE SEE ITS ELECTRICAL PLAN (49)

MATCH LINE SEE ITS ELECTRICAL PLAN (62)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	⚠6 WRONG WAY DETECTION SYSTEM REVISION AND MATCHLINE CORRECTION		
10/04/2021	AS-BUILTS: RSS CONDUIT ROUTING CHANGES		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (60)

SHEET NO.
IT-165

MATCH LINE SEE ITS ELECTRICAL PLAN (49)

PALMETTO PARK RD RAMP A

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 3144+69
44.3CABNS

2#4 AWG AND 1#4 GND, 2"C (CKT. G-2)

1281

1282

1284

1285

136

137

138

139

140

PALMETTO PARK RD RAMP A

PALMETTO ROAD

PALMETTO PARK RD RAMP B

2-2" CONDUITS:
2#4 AWG, 1#4 GND, 2"C (CKT. G-2);
2#6 AWG, 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

2#6 AWG AND 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

STA. 136+15
ADVANCED WARNING BEACON
PALMETTO PARK RAMP B

PALMETTO PARK RD RAMP B

STA. 136+90
ADVANCED WARNING BEACON
PALMETTO PARK RAMP B

LA R/W LINE

STA. 139+62
ADVANCED WARNING BEACON
PALMETTO PARK RAMP B

LA R/W LINE

1" = 50'-0"

VOID

BY:(FDOT) VS DATE: 05/21/2019

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (61)

SHEET NO.
IT-166

MATCH LINE SEE ITS ELECTRICAL PLAN (49)

MATCH LINE SEE ITS ELECTRICAL PLAN (48A)

PALMETTO PARK RD RAMP A

2" CONDUIT FOR MVDS (SEE ITS PLANS)

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 3144+69
44.3CABNS

2#4 AWG, 1#4 GND, 2"C (CKT. G-2)

2#6 AWG AND 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

PALMETTO PARK RD RAMP B

2-2" CONDUITS:
2#4 AWG, 1#4 GND, 2"C (CKT. G-2);
2#6 AWG, 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

2#6 AWG AND 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

STA. 136+15
ADVANCED WARNING/BEACON
PALMETTO PARK RAMP B

WRONG WAY STATIC SIGNS (SEE ITS PLANS)

1" = 50'-0"

PALMETTO PARK ROAD

PALMETTO PARK RD RAMP B

STA. 136+90
ADVANCED WARNING BEACON
PALMETTO PARK RAMP B

LA R/W LINE

STA. 139+62
ADVANCED WARNING BEACON
PALMETTO PARK RAMP B

LA R/W LINE

1281 1282 1284 1285 136 137 138 139

OE WB BFOC(B) BE(B)

VOID

RELEASED FOR CONSTRUCTION
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BY/PSM VS Date 2/25/2021

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	12 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (61)

SHEET NO.
IT-166

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MATCH LINE SEE ITS ELECTRICAL PLAN (49)

MATCH LINE SEE ITS ELECTRICAL PLAN (48A)

PALMETTO PARK RD RAMP A

PALMETTO PARK ROAD

PALMETTO PARK RD RAMP B

2" CONDUIT FOR MVDS (SEE ITS PLANS)

2#2 AWG AND 1#2 GND, 2"C (CKT. G-2)

STA. 3144+69
44.3CABNS

2#4 AWG, 1#4 GND, 2"C (CKT. G-2)

2#6 AWG AND 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

2-2" CONDUITS:
2#4 AWG, 1#4 GND, 2"C (CKT. G-2);
2#6 AWG, 1#6 GND, 2"C (TO AWB FOR PALMETTO PARK RD. RAMP B)

WRONG WAY STATIC SIGNS (SEE ITS PLANS)

WRONG WAY DETECTION SYSTEM
(46) TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

STA. 136+15
ADVANCED WARNING BEACON
PALMETTO PARK RAMP B

STA. 136+90
ADVANCED WARNING BEACON
PALMETTO PARK RAMP B

LA R/W LINE

STA. 139+62
ADVANCED WARNING BEACON
PALMETTO PARK RAMP B

1" = 50'-0"

1281 1282 1283 1284 1285 136 137 138 139

OE W(B) BFOC(B) BE(B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	(46) WRONG WAY DETECTION SYSTEM REVISION		
10-04-21	AS-BUILT PER RFI 389		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (61)

SHEET NO.
IT-166

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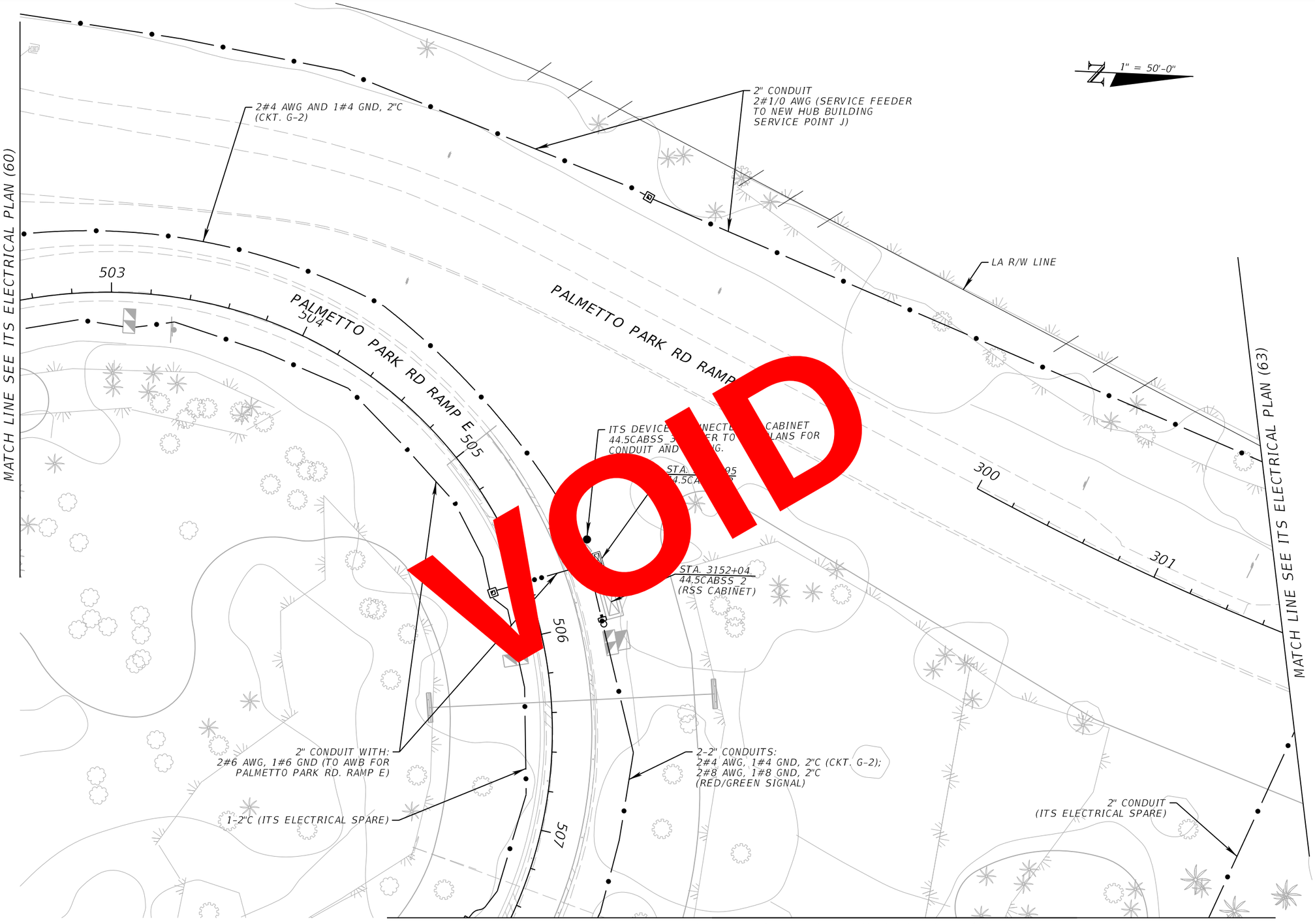

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (62)

SHEET NO.
IT-167

PerezR 4/18/2019 3:36:32 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT62_E.dgn

BY:(PSDT) VS DATE: 05/21/2019

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Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

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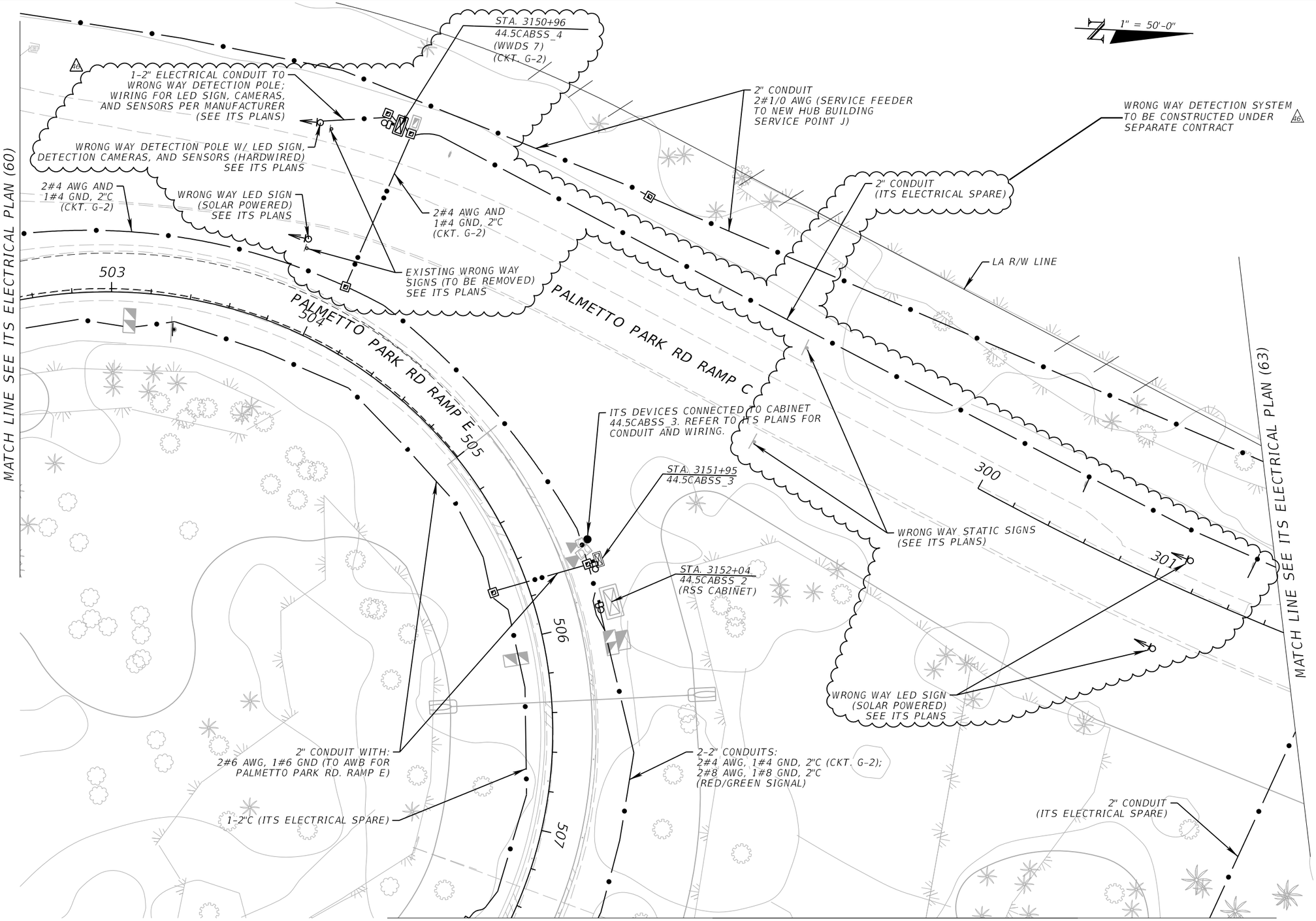

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (62)

SHEET NO. IT-167

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PSN 070033-1-52-01, 433108-6-52-01, 433109-4-52-01

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BFOC(B) BFOC(B) BFOC(B) BFOC(B) BFOC(B)

1" = 50'-0"

MATCH LINE SEE ITS PLAN (62)

2" CONDUIT
2#1/0 AWG (SERVICE FEEDER
TO NEW HUB BUILDING
SERVICE POINT J)

NEW ITS HUB BUILDING AND ITS
SERVICE POINT 'J' POWER STATION;
SEE HUB SHELTER DETAILS ON
IT-130 FOR ADDITIONAL INFORMATION

2" CONDUIT
(ITS ELECTRICAL SPARE)

LA R/W LINE

302

PALMETTO PARK RD RAMP C

303

304

2" CONDUIT
(ITS ELECTRICAL SPARE)

MATCH LINE SEE ITS PLAN (51)

VOID

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

BY: FDOT VS DATE: 05/21/2019

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (63)

SHEET NO.
IT-168

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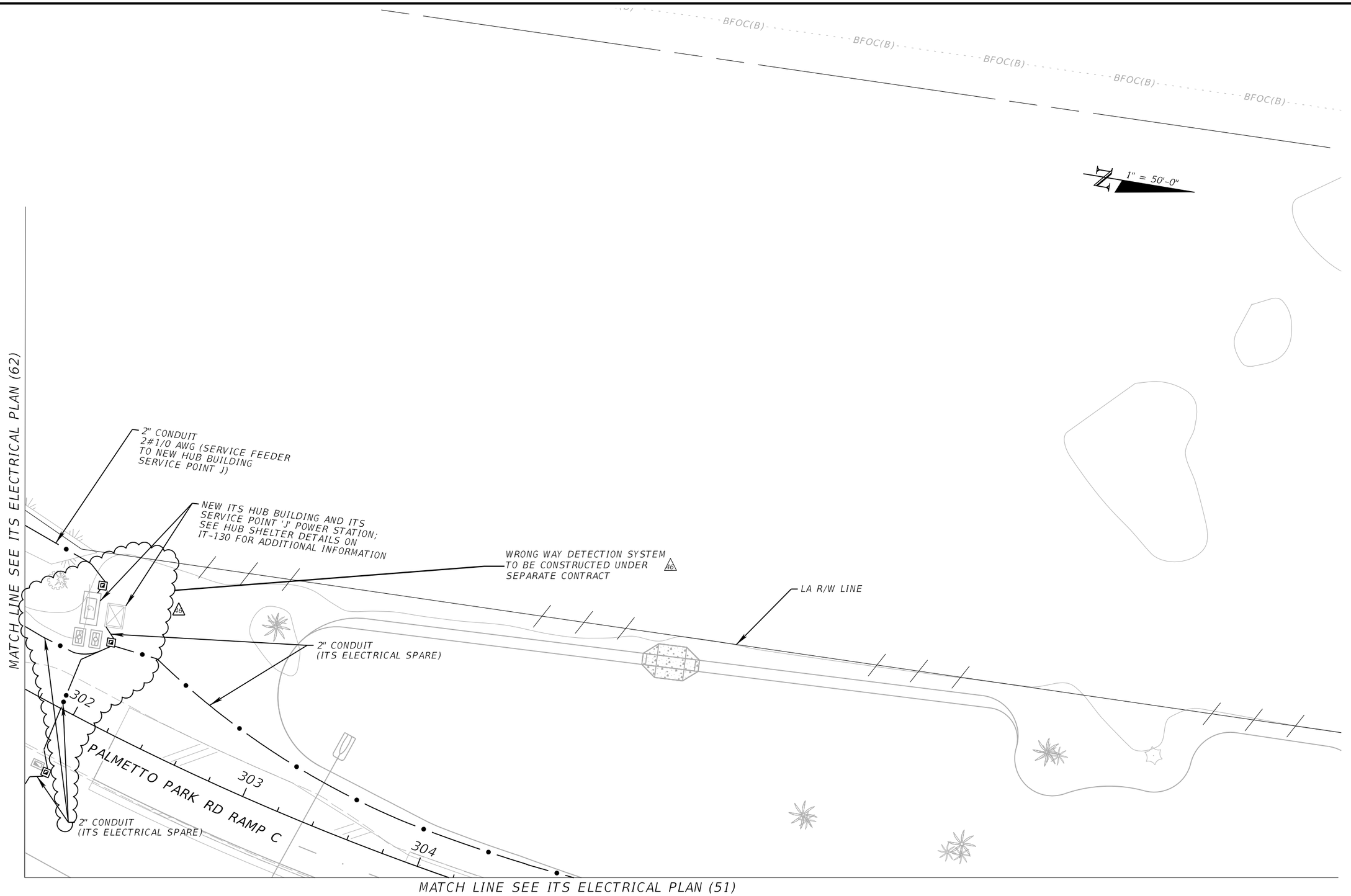

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (63)

SHEET NO.
IT-168

PerezR 2/4/2021 3:17:08 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT63_E.dgn

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/25/2021
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FPID 433108-6-52-01 CONTRACT FERSA

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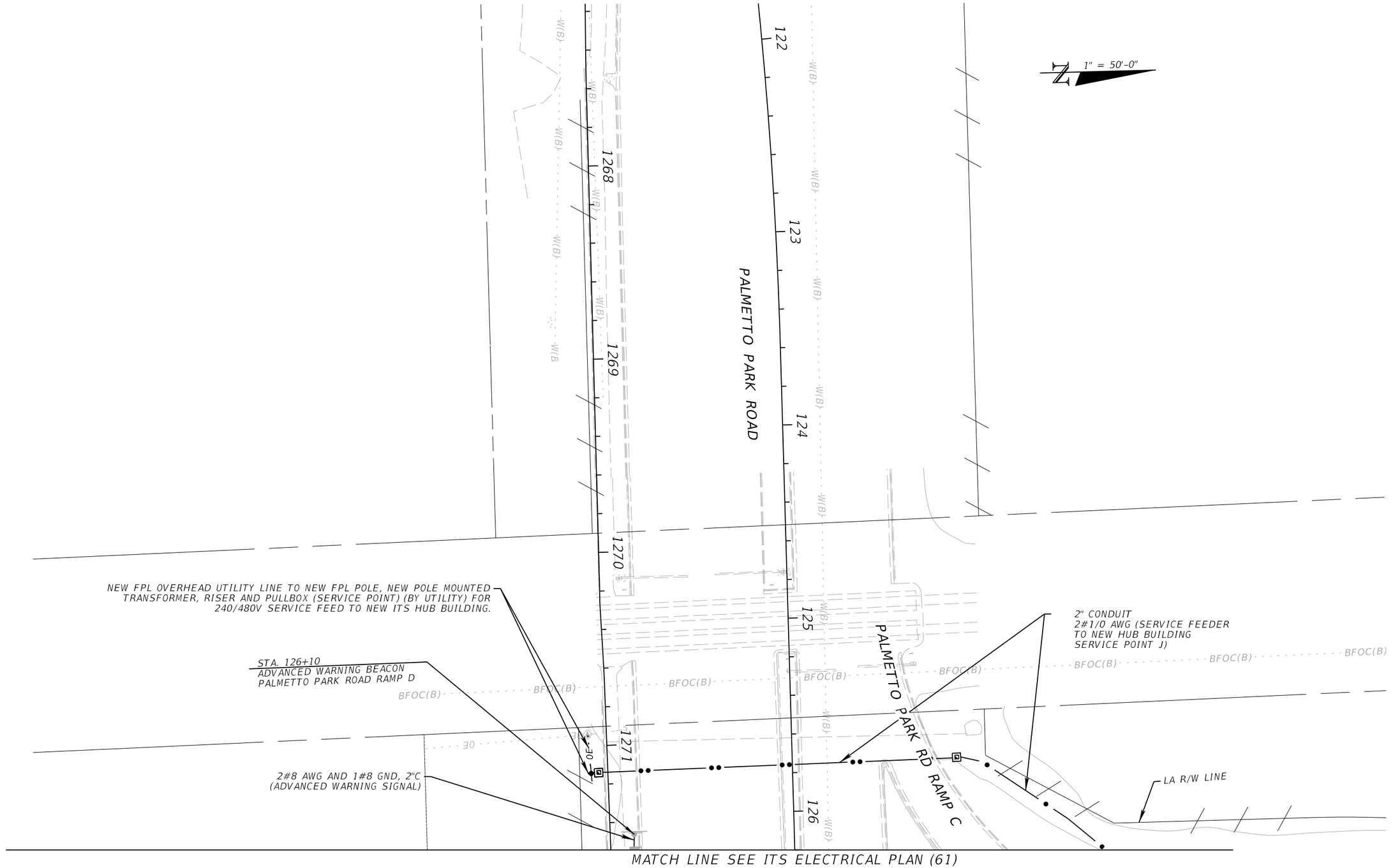

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (64)

SHEET NO.
IT-169

PerezR 4/18/2019 3:37:03 PM c:\projectwise\pb\projectwiseint\perezr\d0265714\PLANIT64_E.dgn

BY:PDOT1 VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

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LA R/W LINE

R/W LINE

LA R/W LINE

R/W LINE

EXISTING 240/480V SERVICE FEEDERS TO ITS SERVICE PONT '10' TO BE RECONNECTED TO NEW ITS SERVICE POINT 'F'
THE EXISTING METER ENCLOSURE AND 100A FUSED SERVICE DISCONNECT SWITCH TO REMAIN. REPLACE EXISTING 80A FUSES WITH NEW 100A FUSES.
REFER TO ITS ELECTRICAL PLAN (37).

NEW 37.5 kVA STEP-UP TRANSFORMER
480V-300/600V, 1 PH, 3W, (ON NEW P-II POLE)
(SEE NOTE 1)

EXISTING 2-2" CONDUITS FOR SERVICE POINT F FEEDER TO REMAIN
(2 PARALLEL SETS OF: 2#3/0 AWG AND 1#2 GND, 2"C)

1" = 50'-0"

284

285

286

287

288

HILLSBORO BLVD RAMP C

HILLSBORO BLVD RAMP D

HILLSBORO BLVD RAMP G

810 (HILLSBORO BOULEVARD)

MATCH LINE SEE ITS ELECTRICAL PLAN (66)

NOTES:
1. INTERCEPT EXISTING PARALLEL SERVICE FEEDERS AND INSTALL A NEW 37.5 kVA STEP-UP TRANSFORMER ON A NEW P-II POLE. IF NEW TRANSFORMER CAN FIT ON THE EXISTING H-FRAME ELECTRICAL SUPPORT RACK, THEN THE P-II POLE SHOWN ON THIS PLAN IS NOT NECESSARY AND CAN BE OMITTED.

VOID

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RELEASED FOR CONSTRUCTION
BY:(FDOT) VS DATE: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

REVISIONS			
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WSP USA INC.
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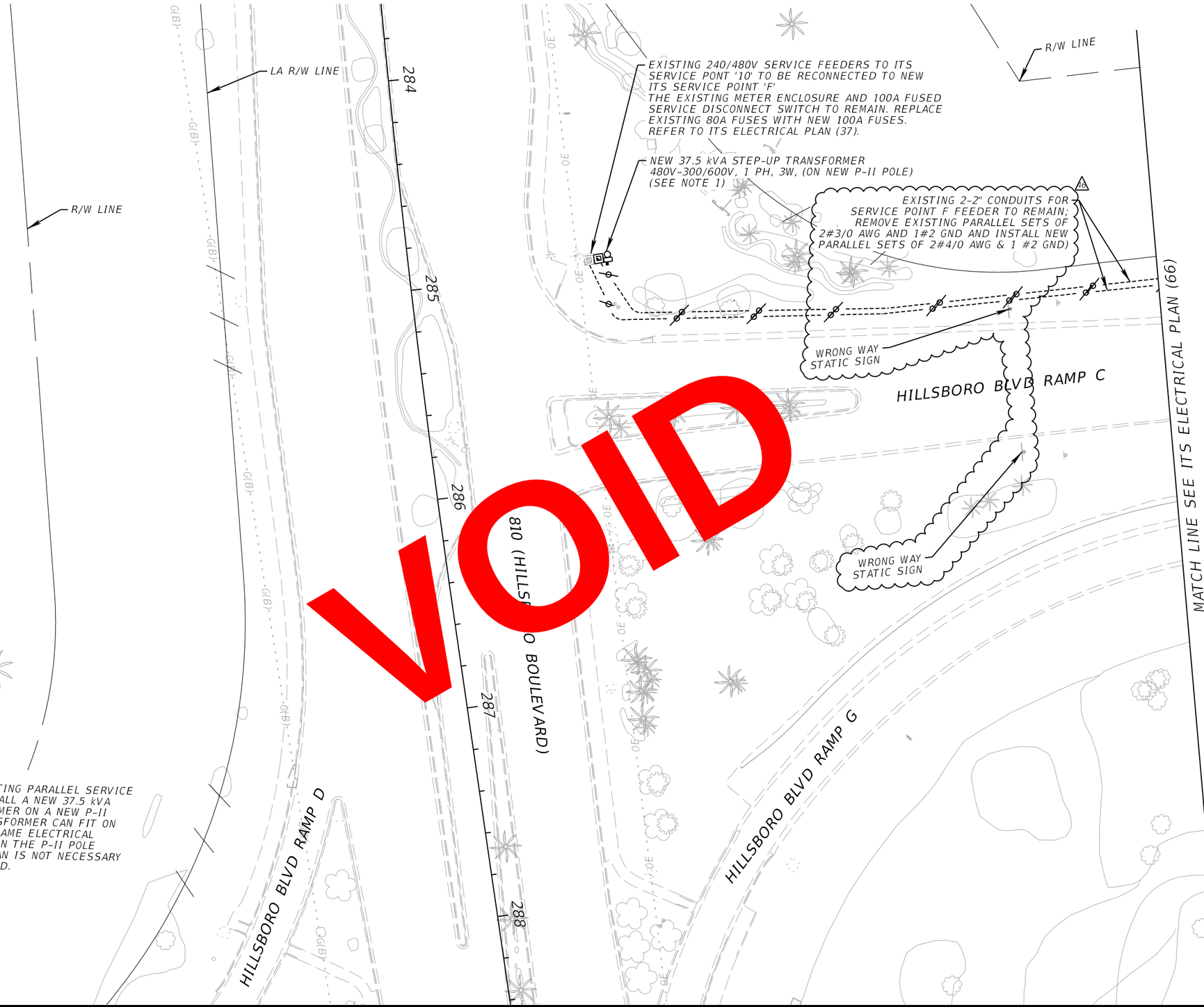
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (65)

SHEET NO.
IT-170



VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	10 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (65)

SHEET NO.
IT-170

$USERS $DATES $TIMES $FILES

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omission, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY/PSM VS Date: 2/25/2021

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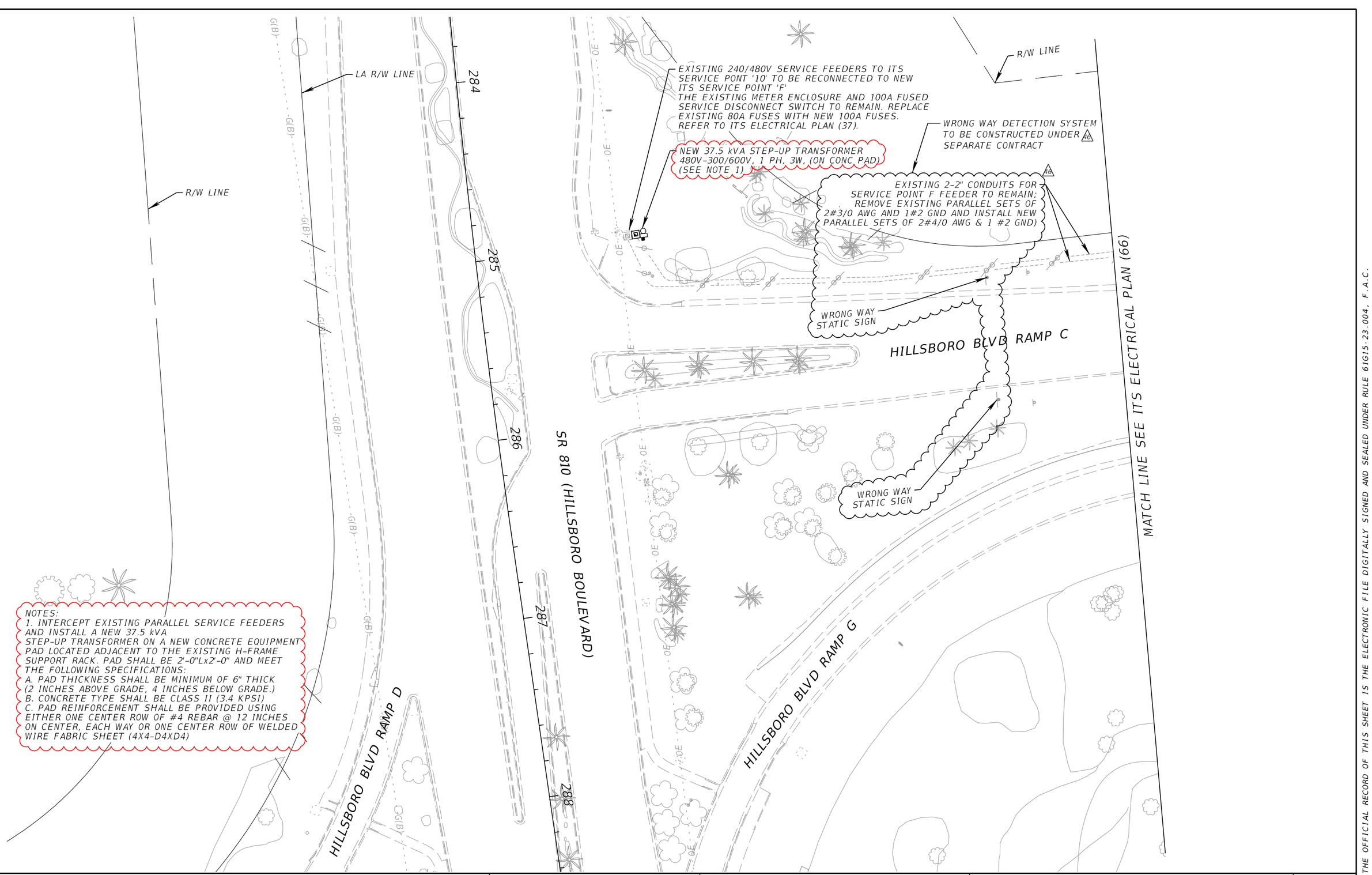

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 WRONG WAY DETECTION SYSTEM REVISION		
10/04/2021	AS-BUILTS PER RFI 390		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (65)

SHEET NO.
IT-170

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

MATCH LINE SEE ITS ELECTRICAL PLAN (65)

R/W LINE

1" = 50'-0"

LA R/W LINE

EXISTING 2-[illegible] CONDUIT[illegible] FOR SERVICE P[illegible] OF FEE[illegible] TO REMAIN
[illegible]2 PARA[illegible] SETS OF:
2#3[illegible]G AND [illegible]#2 GND, 2"C)

HILLSBORO BLVD RAMP C

HILLSBORO BLVD RAMP G

700

701

702

703

MATCH LINE ITS ELECTRICAL PLAN (67)

VOID

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BY:(FDOT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION

Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.

FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT: E4A96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (66)

SHEET NO.

IT-171

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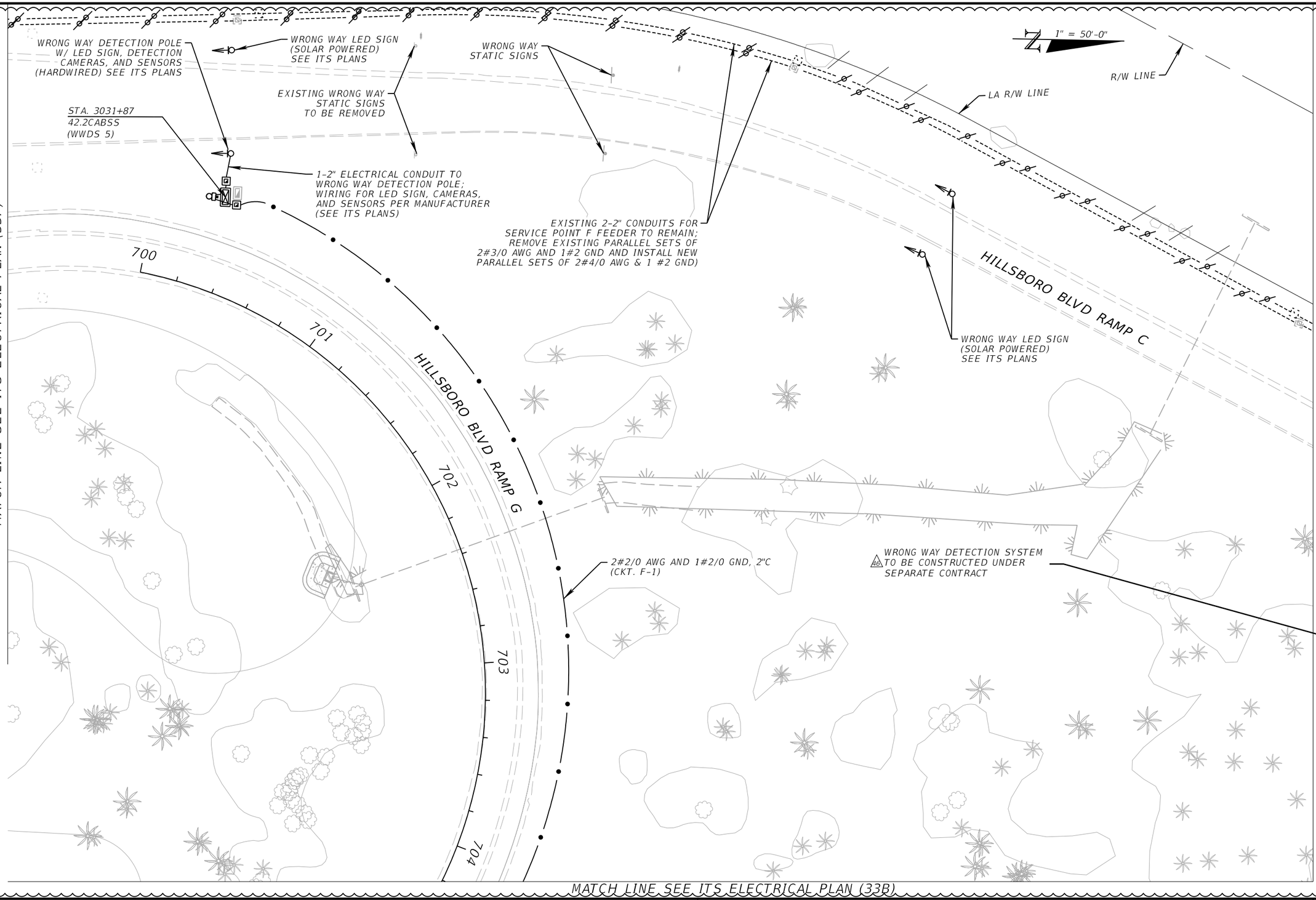

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BY/PSDN VS Date: 2/25/2021

RELEASED FOR CONSTRUCTION

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	1b WRONG WAY DETECTION SYSTEM REVISION AND PLAN CLIP AREA SHIFTED FOR NEW MATCHLINE TO PLAN 33B		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (66)

SHEET NO.
IT-171

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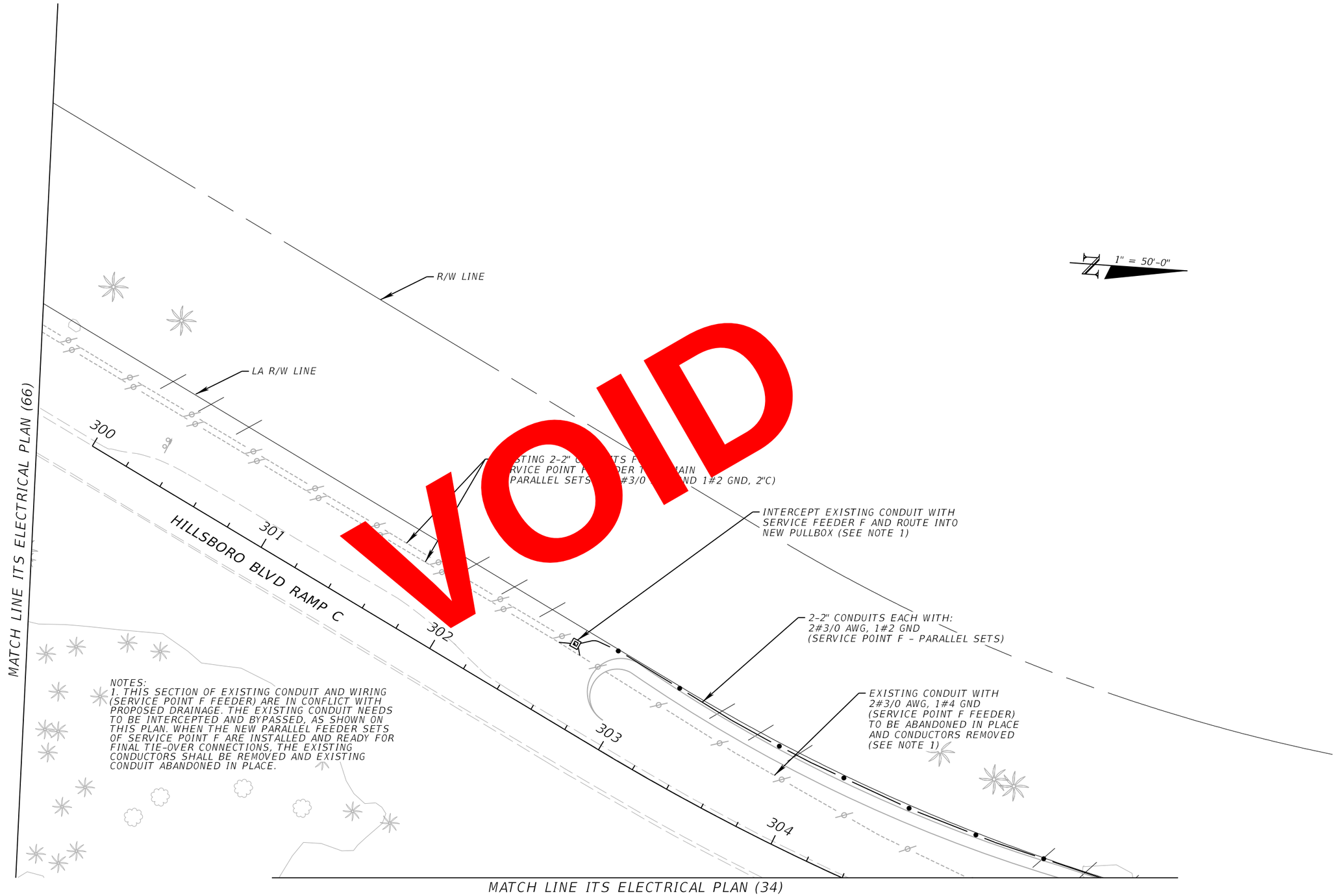

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (67)

SHEET NO.
IT-172

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RELEASED FOR CONSTRUCTION
BY: PDOT VS DATE: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

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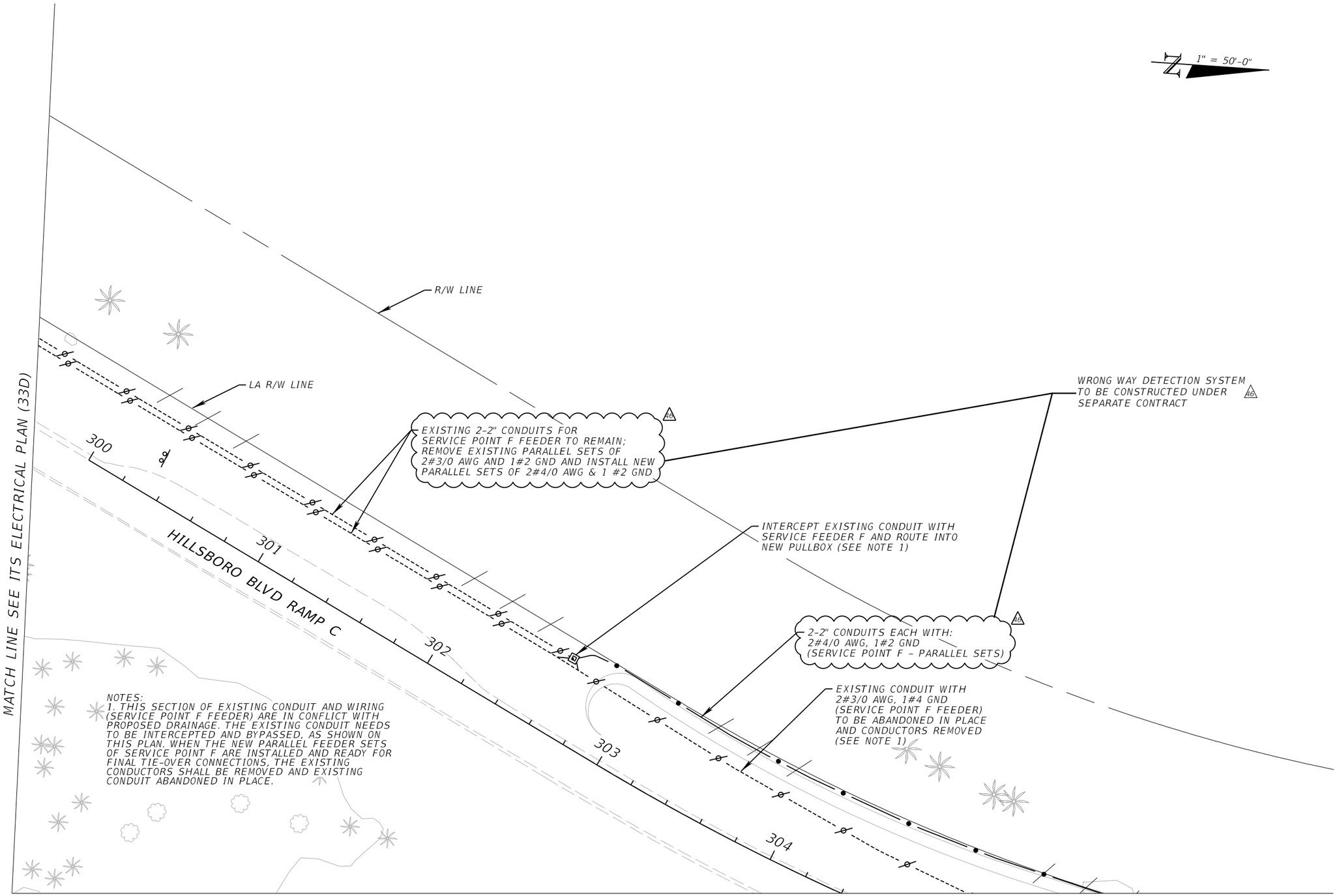

NOTES:
1. THIS SECTION OF EXISTING CONDUIT AND WIRING (SERVICE POINT F FEEDER) ARE IN CONFLICT WITH PROPOSED DRAINAGE. THE EXISTING CONDUIT NEEDS TO BE INTERCEPTED AND BYPASSED, AS SHOWN ON THIS PLAN. WHEN THE NEW PARALLEL FEEDER SETS OF SERVICE POINT F ARE INSTALLED AND READY FOR FINAL TIE-OVER CONNECTIONS, THE EXISTING CONDUCTORS SHALL BE REMOVED AND EXISTING CONDUIT ABANDONED IN PLACE.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL PLAN (67)

SHEET NO.
IT-172

$USER$ $DATE$ $TIME$ $FILE$

RELEASED FOR CONSTRUCTION By:RICH VS Date: 2/25/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT FORM

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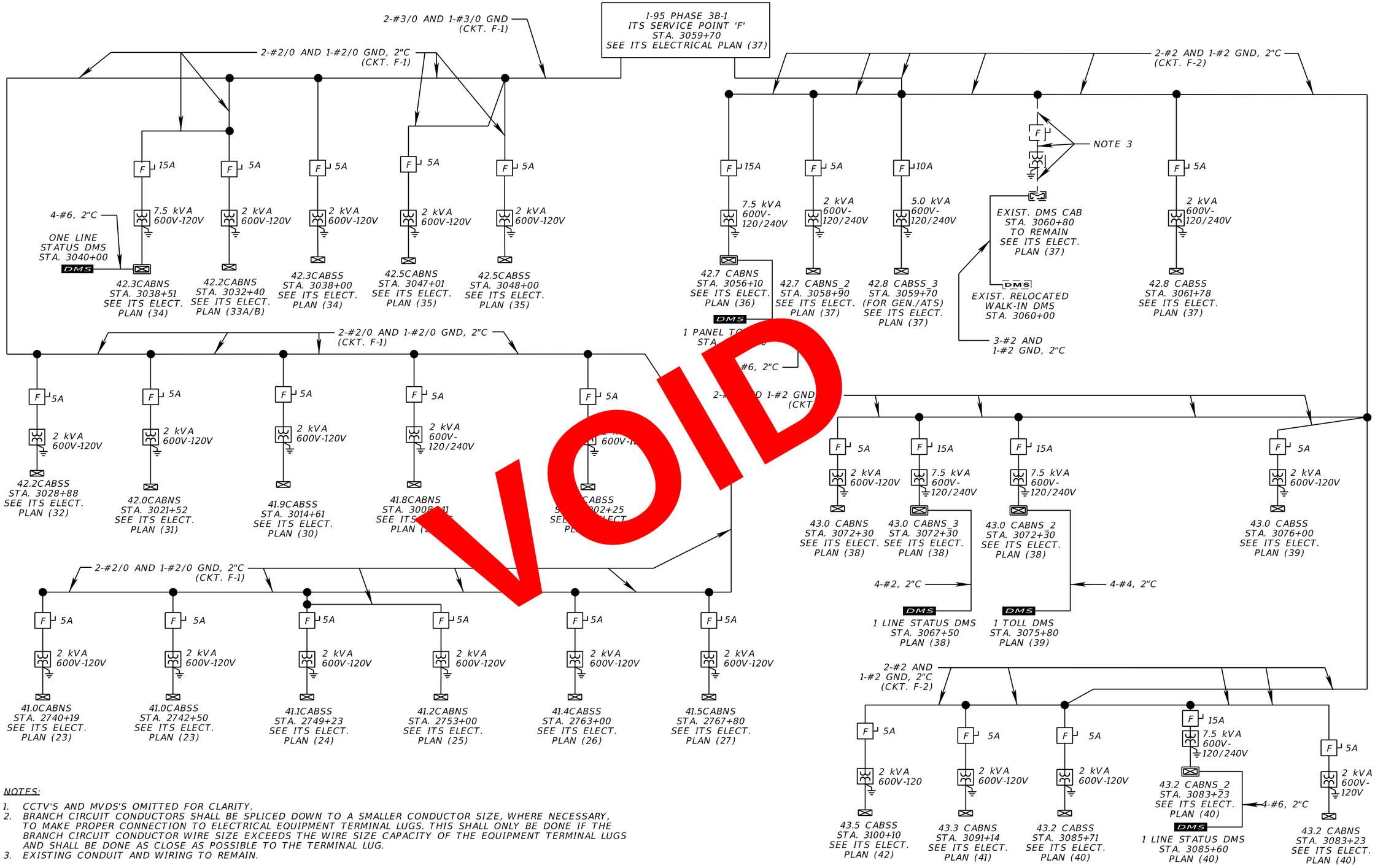

NOTES:

1. CCTV'S AND MVDS'S OMITTED FOR CLARITY.
2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT AND WIRING TO REMAIN.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (1)

SHEET NO. IT-173

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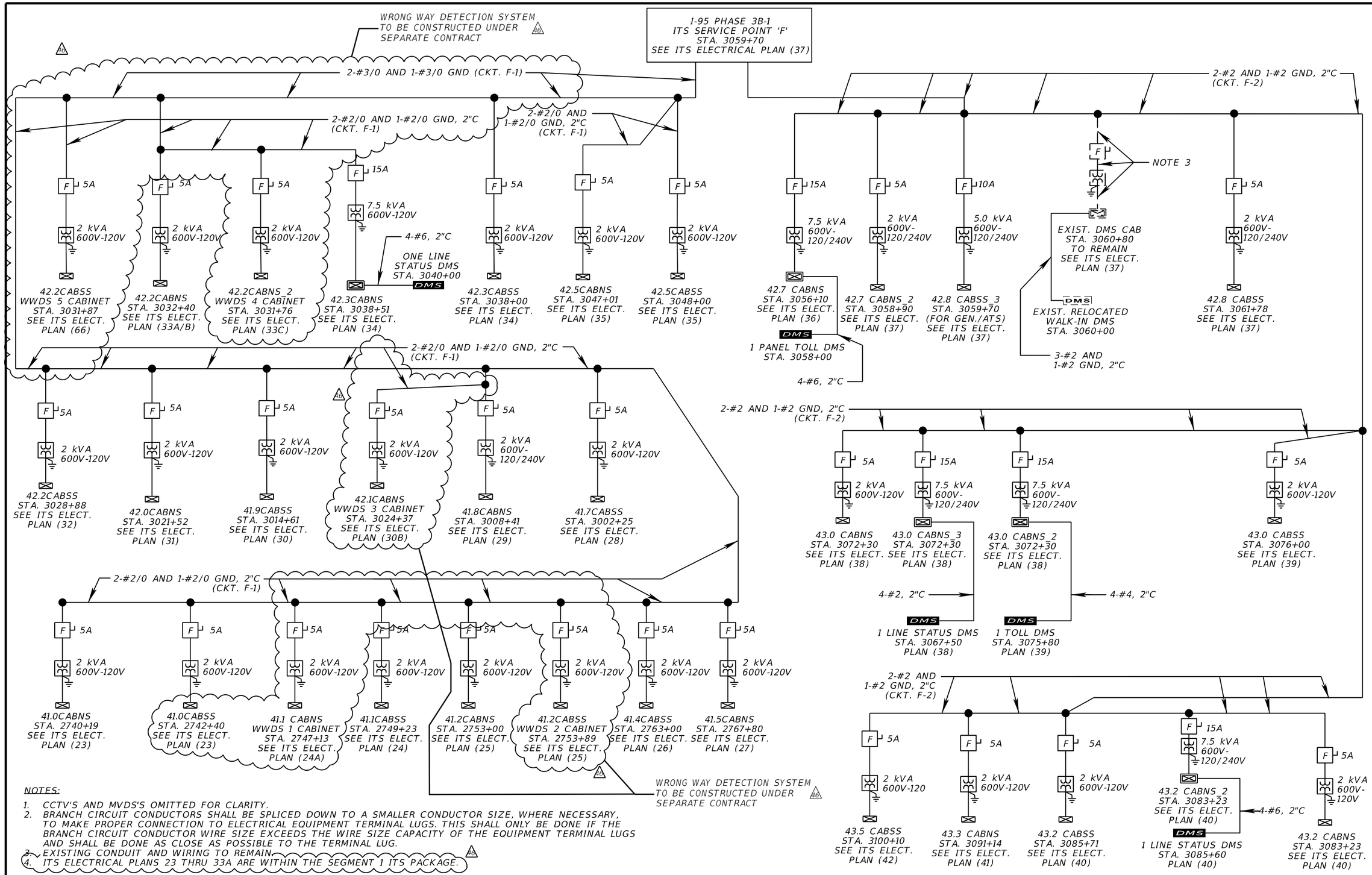
RELEASED FOR CONSTRUCTION
DATE: 05/21/2019 BY:(PSDT) VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96



NOTES:

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2. BRANCH CIRCUIT CONDUCTORS SHALL BE SPLICED DOWN TO A SMALLER CONDUCTOR SIZE, WHERE NECESSARY, TO MAKE PROPER CONNECTION TO ELECTRICAL EQUIPMENT TERMINAL LUGS. THIS SHALL ONLY BE DONE IF THE BRANCH CIRCUIT CONDUCTOR WIRE SIZE EXCEEDS THE WIRE SIZE CAPACITY OF THE EQUIPMENT TERMINAL LUGS AND SHALL BE DONE AS CLOSE AS POSSIBLE TO THE TERMINAL LUG.
3. EXISTING CONDUIT AND WIRING TO REMAIN. #6
4. ITS ELECTRICAL PLANS 23 THRU 33A ARE WITHIN THE SEGMENT 1 ITS PACKAGE.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	#6 WRONG WAY DETECTION SYSTEM REVISION, CABINET STATION & WIRING CORRECTIONS		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (1)

SHEET NO.
IT-173

$USERS $DATE$ $TIME$ $FILE$

BY/PDN VS Date 2/25/2021

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FDOT APPROVED FOR CONSTRUCTION

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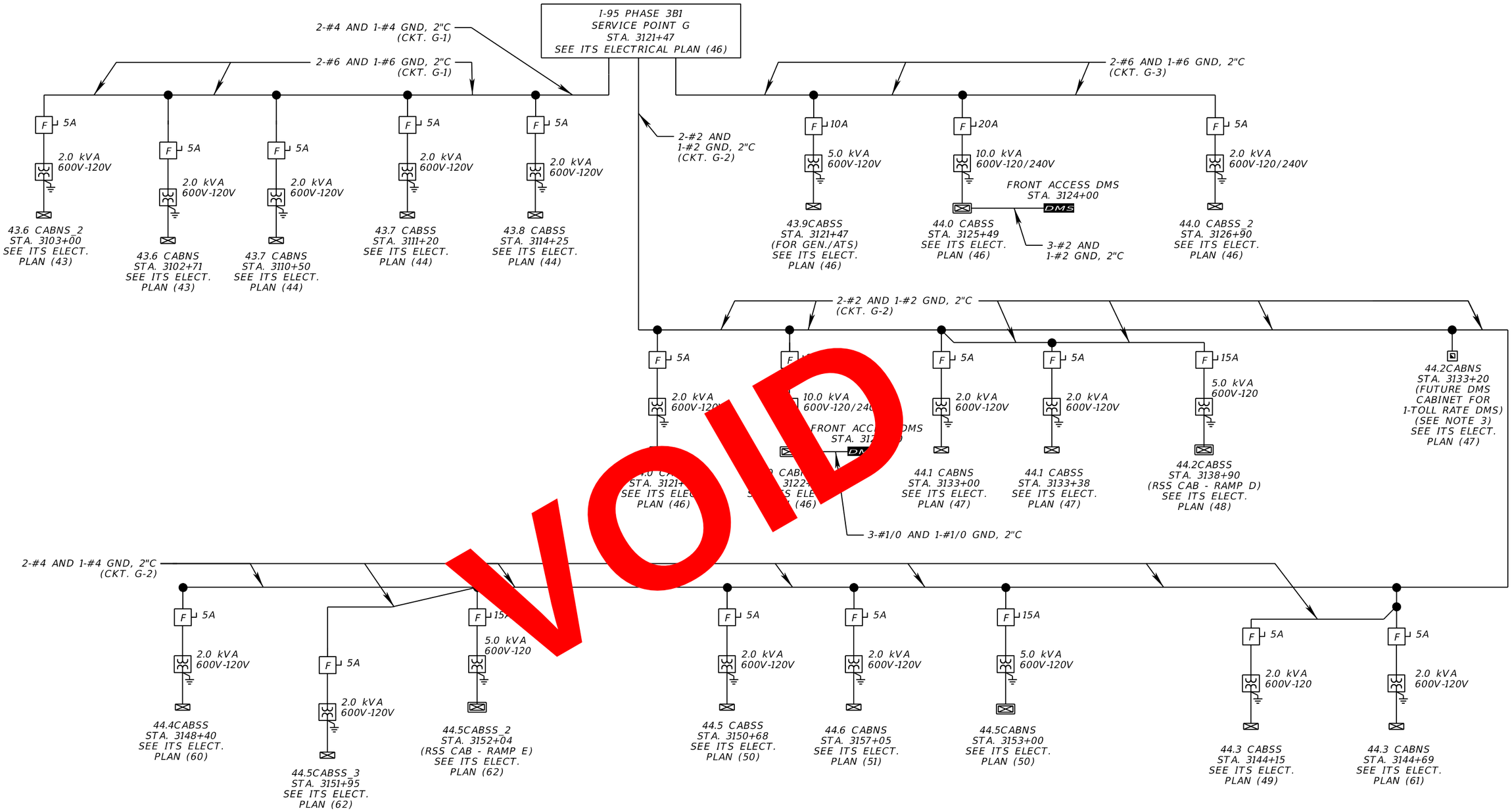

VOID

NOTES:
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3. FUTURE DMS CABINET FOR FUTURE 1-TOLL RATE DMS (BOTH INSTALLED IN PHASE 3B-2 PROJECT).
4. SEE ITS ELECTRICAL PLANS FOR BRANCH CIRCUIT WIRING FROM RSS CABINET TO ADVANCED WARNING BEACON SIGNS AND RED/GREEN SIGNALS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (2)

SHEET NO. IT-174

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RELEASED FOR CONSTRUCTION
BY:PDOT1 VS DATE: 05/21/2019
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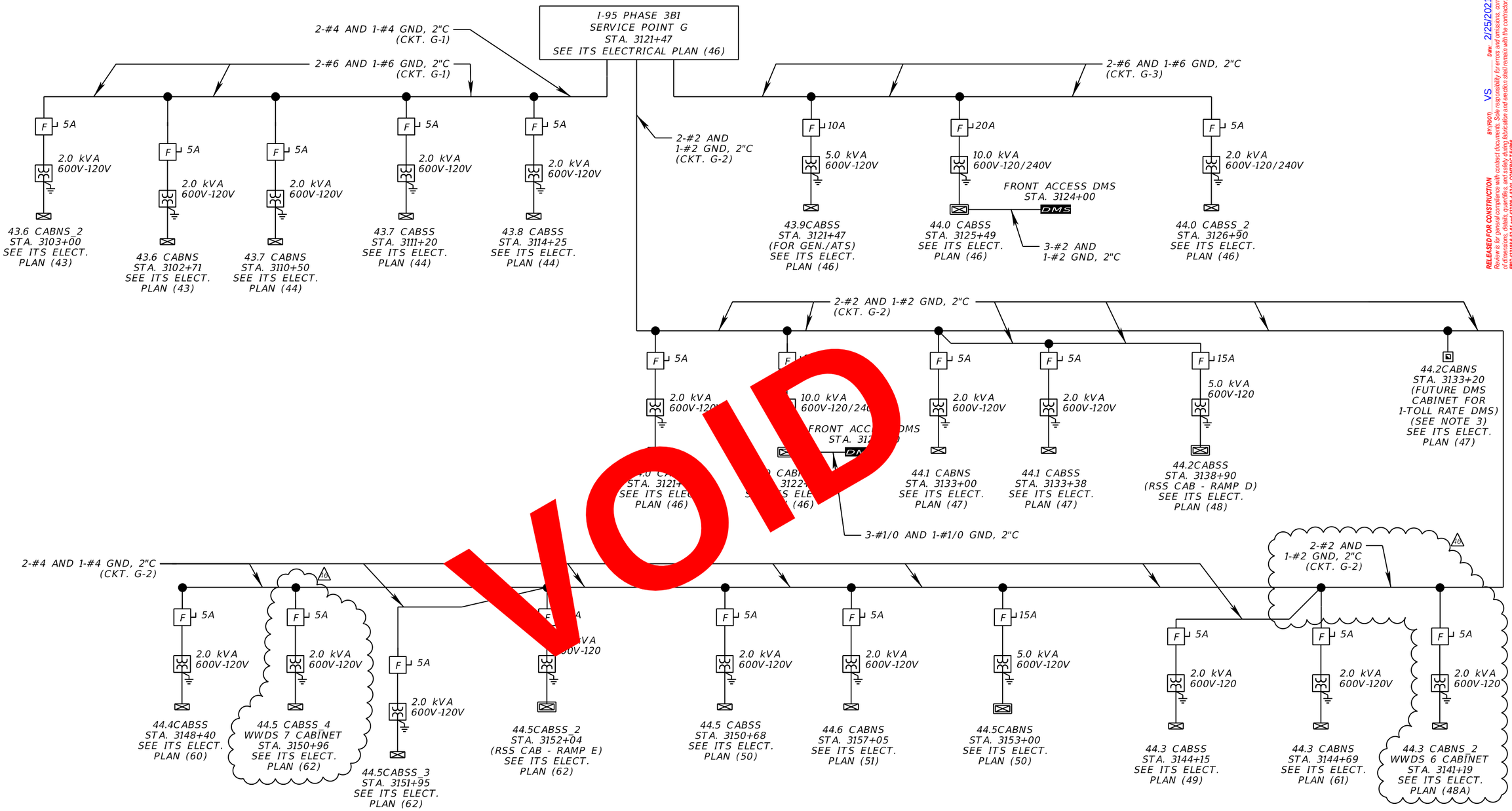
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6496

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



VOID

NOTES:
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3. FUTURE DMS CABINET FOR FUTURE 1-TOLL RATE DMS (BOTH INSTALLED IN PHASE 3B-2 PROJECT).
4. SEE ITS ELECTRICAL PLANS FOR BRANCH CIRCUIT WIRING FROM RSS CABINET TO ADVANCED WARNING BEACON SIGNS AND RED/GREEN SIGNALS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	16 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

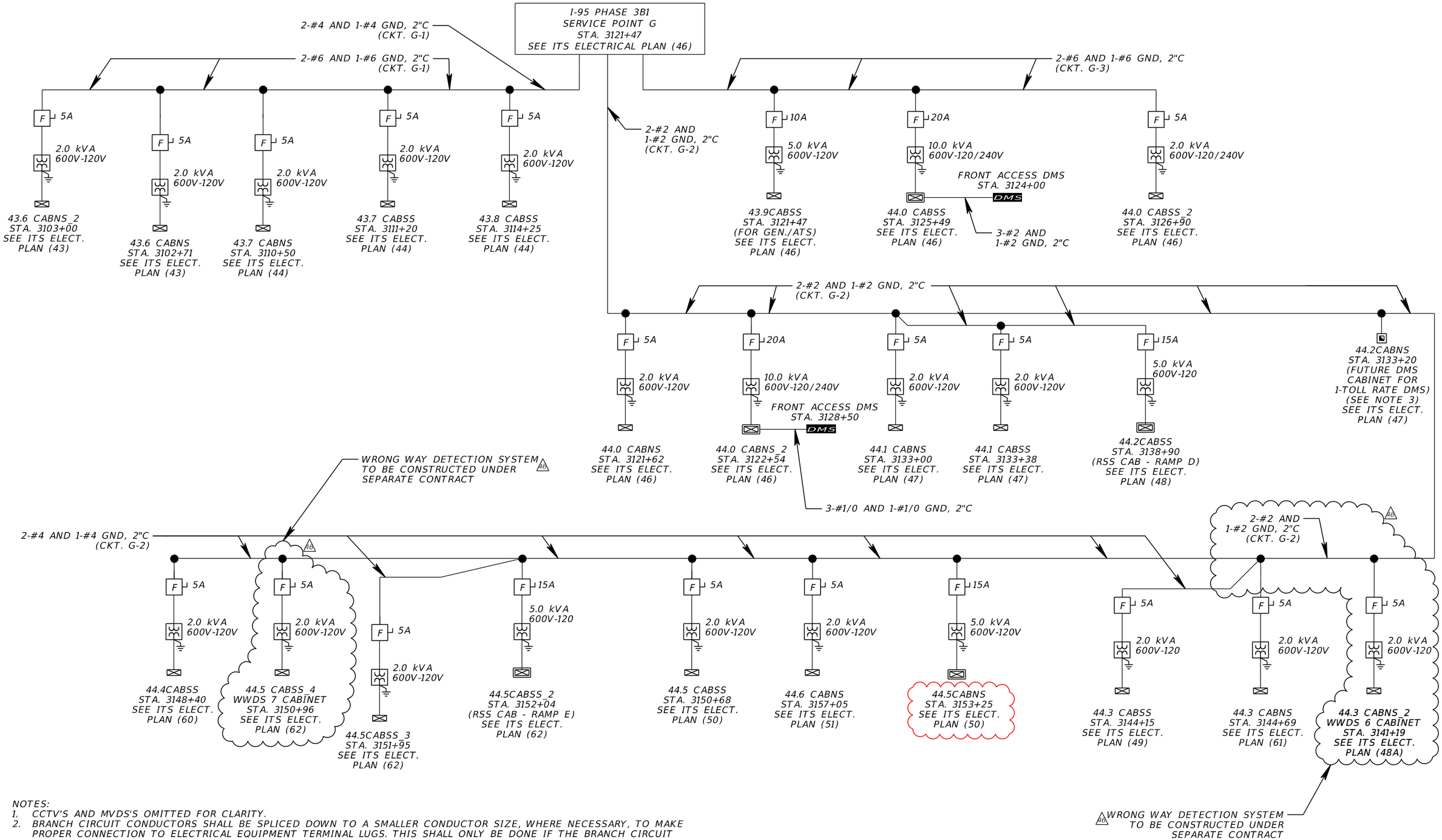
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (2)

SHEET NO. IT-174

$USERS $DATE$ $TIME$ $FILE$

RELEASED FOR CONSTRUCTION
BY:RPON DATE: 2/25/2021 VS
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PER FHWA 23 CFR 635.410, 23 USC 112(b)(2)(B) AND FDOT DESIGN MANUAL 105.8.1, SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED



NOTES:
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4. SEE ITS ELECTRICAL PLANS FOR BRANCH CIRCUIT WIRING FROM RSS CABINET TO ADVANCED WARNING BEACON SIGNS AND RED/GREEN SIGNALS.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	6 WRONG WAY DETECTION SYSTEM REVISION		
10/04/2021	AS-BUILTS: CABINET RELOCATION		

WSP USA INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (2)

SHEET NO. IT-174

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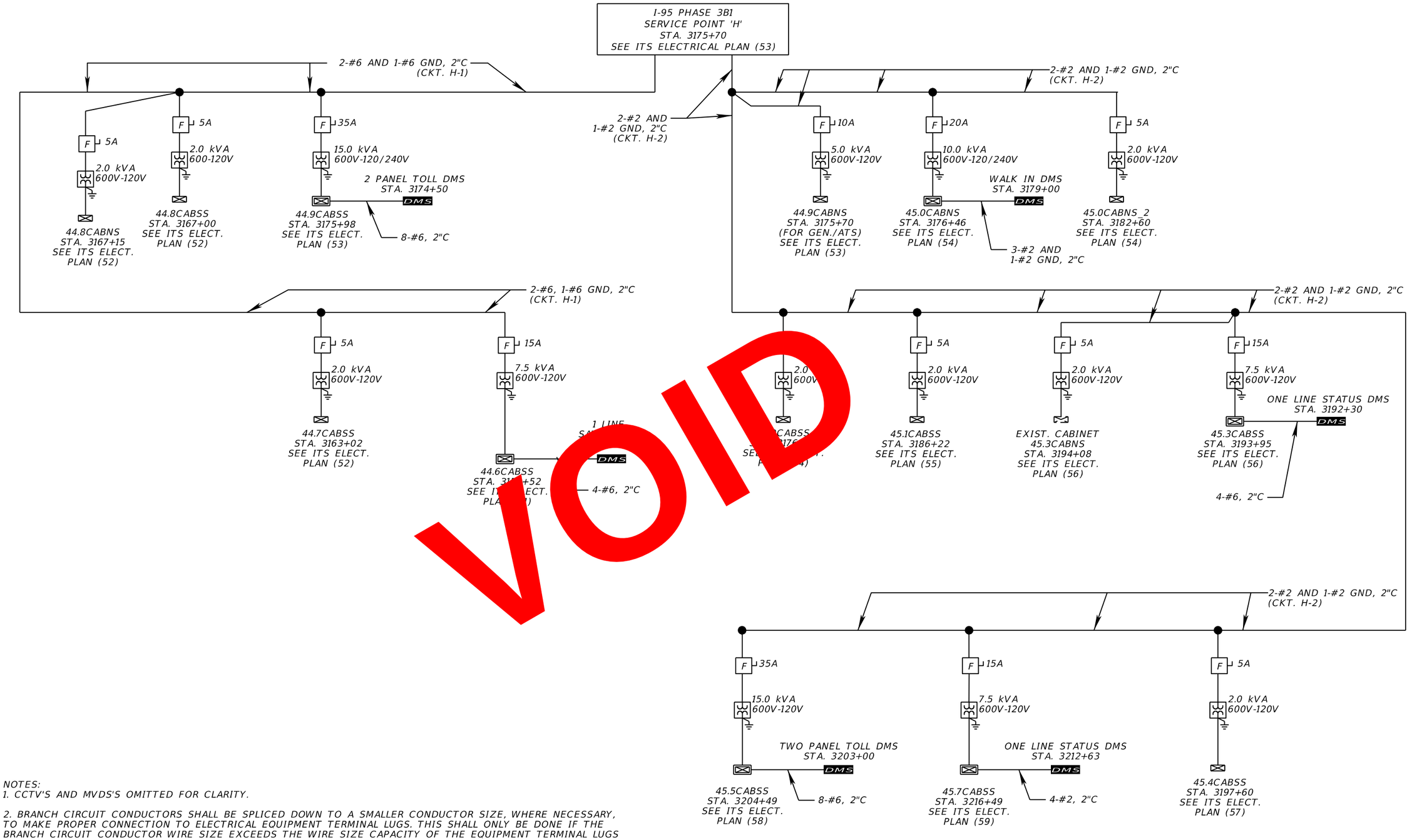

VOID

NOTES:
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3. CONDUCTOR SIZES SHALL MATCH EXISTING 600V ITS BRANCH CIRCUIT. SEE ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (3)

SHEET NO.
IT-175

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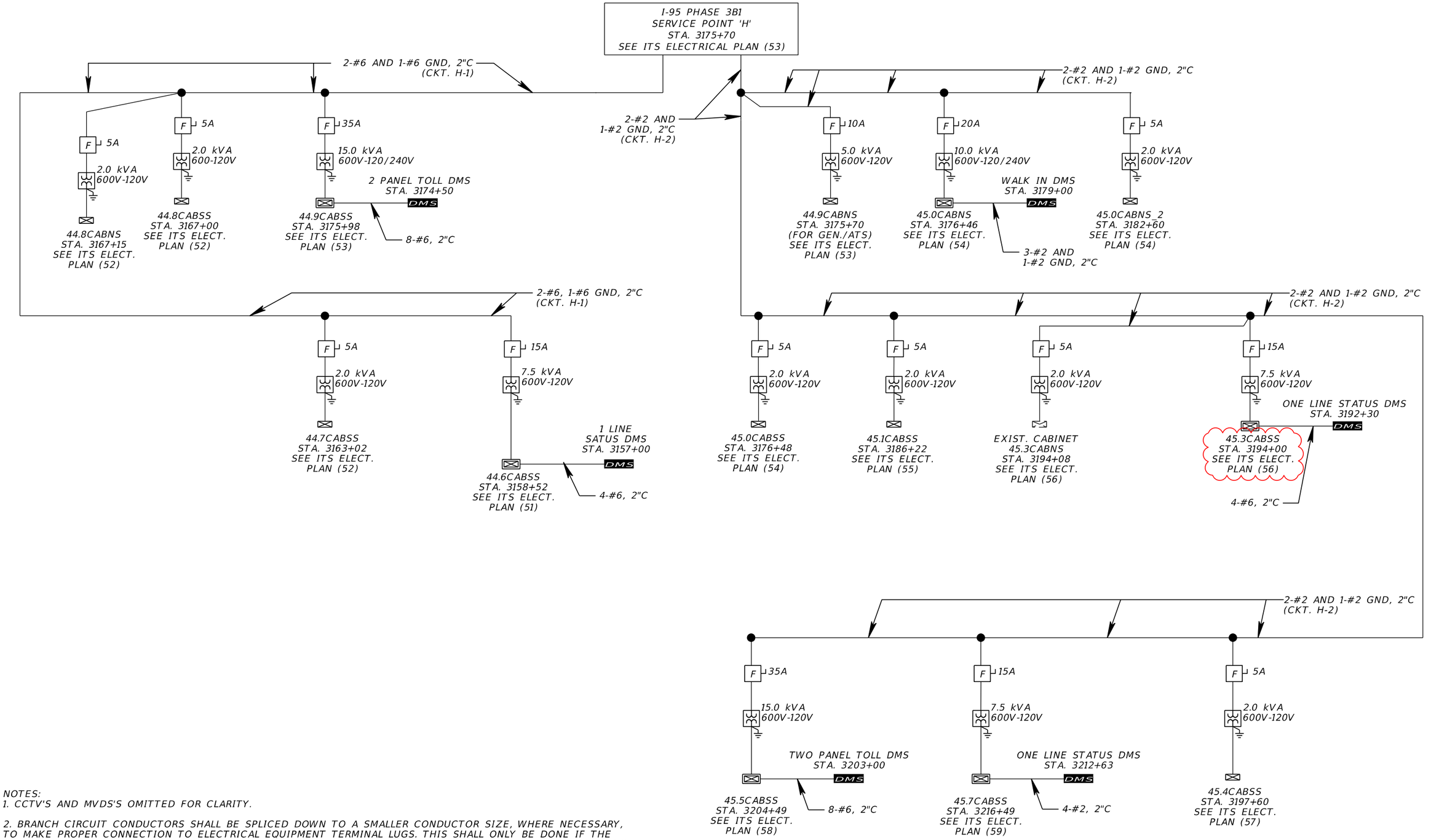
BY: PDOT1 VS DATE: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96



NOTES:
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3. CONDUCTOR SIZES SHALL MATCH EXISTING 600V ITS BRANCH CIRCUIT. SEE ITS ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
9-24-21 10/04/2021	2 REVISED FOR WRONG WAY DETECTION REV AS-BUILTS: CABINET RELOCATION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
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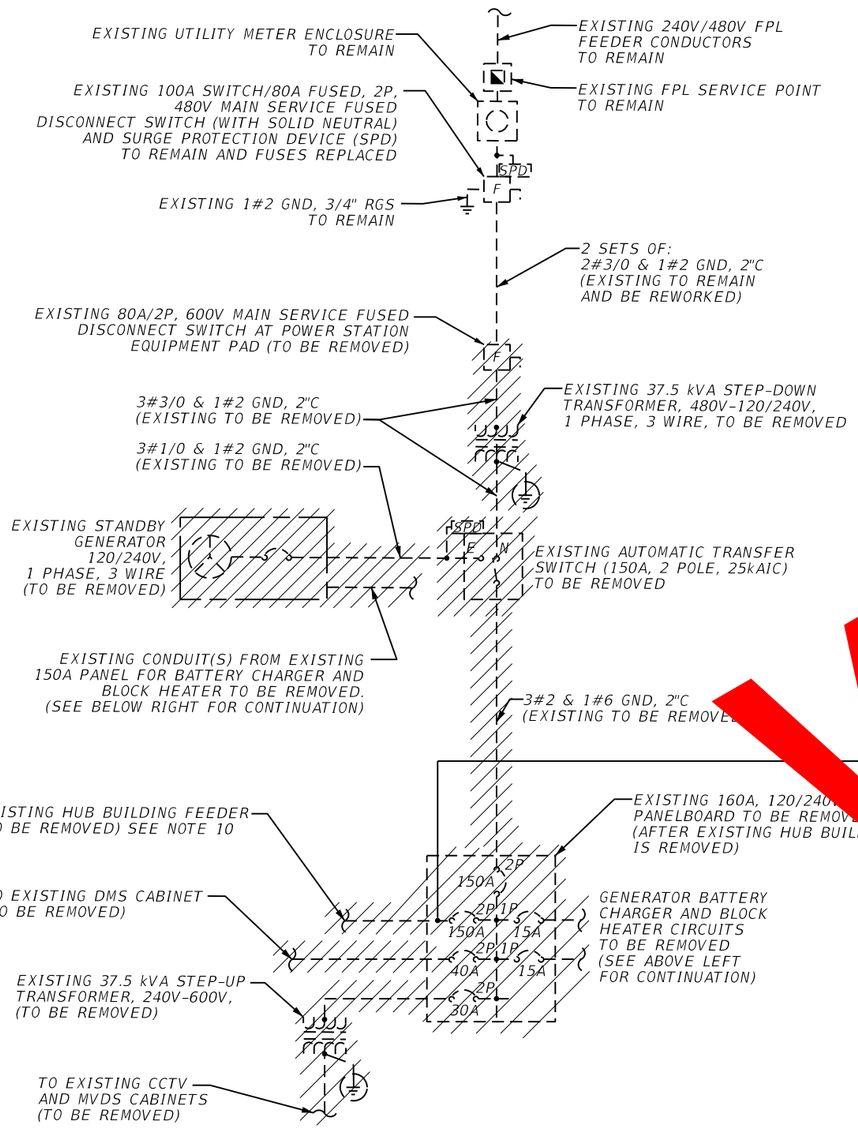
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL ONE-LINE SCHEMATIC (3)

SHEET NO.
IT-175

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

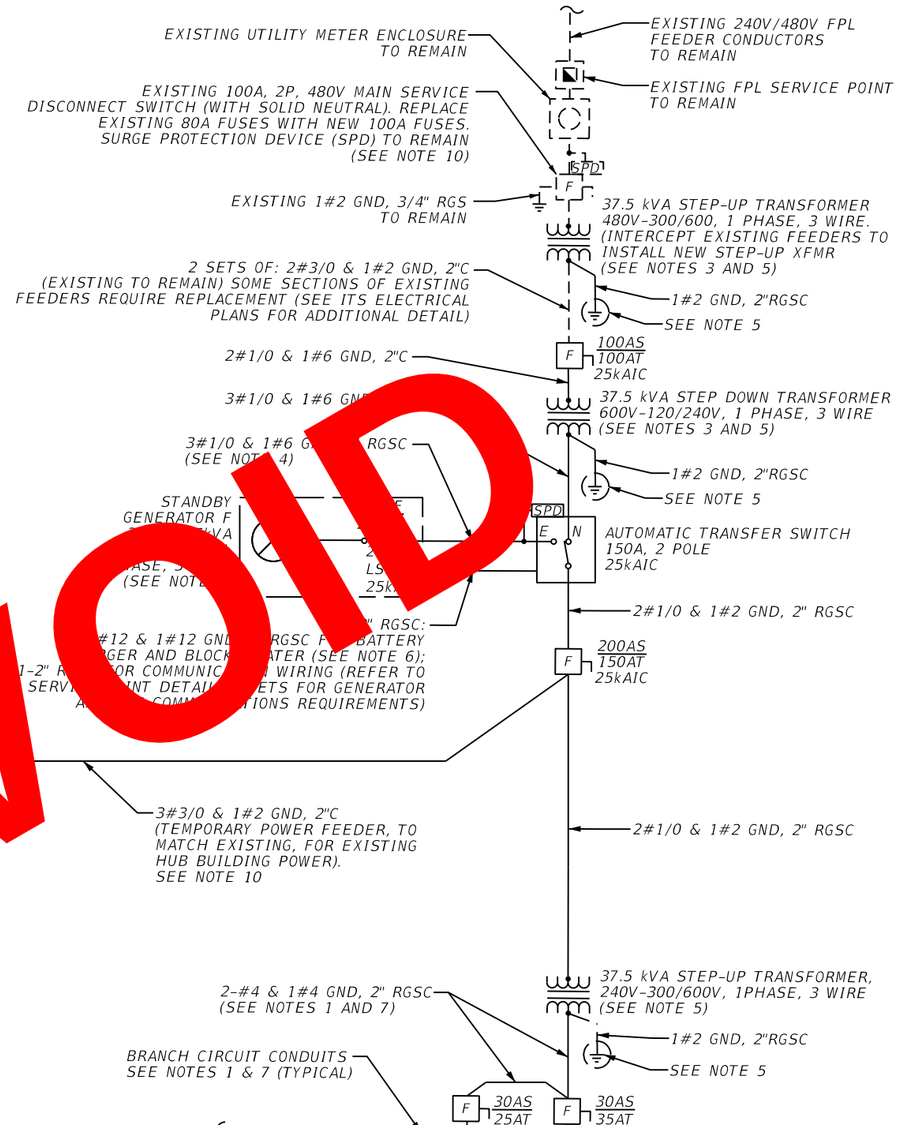


EXISTING ITS SERVICE POINT '10' DEMOLITION SCOPE

SEE ITS ELECTRICAL PLAN (35)

ITS SERVICE POINT 'F'
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

9,680 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 240/480V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'F'

SEE ITS ELECTRICAL PLAN (35)

VOID

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS). THE CONDUCTOR SIZES ARE TYPICALLY INCREASED, STARTING AT EITHER THE LOAD SIDE TERMINALS OF THESE BRANCH CIRCUIT FUSED DISCONNECT SWITCHES OR AT THE FIRST ELECTRICAL PULLBOX AT THE ITS POWER STATION EQUIPMENT PAD, TO COMPENSATE FOR VOLTAGE DROP.

2. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

3. ALL MAIN STEP-UP AND STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS. REFER TO THE STEP-UP TRANSFORMER WIRING DIAGRAM ON THE "ITS ELECTRICAL DETAILS (3)" SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

4. THE STANDBY AC POWER SOURCE (ON-SITE GENERATOR) SHALL NOT BE CONFIGURED AS A SEPARATELY DERIVED SYSTEM. THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE GENERATOR SHALL BE SOLIDLY INTERCONNECTED THROUGH THE AUTOMATIC TRANSFER SWITCH (ATS) TO THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE NORMAL UTILITY SERVICE FEED. THE ATS EQUIPMENT SHALL INCLUDE A SOLID (UNSWITCHED) NEUTRAL. IT IS NECESSARY TO RUN AN EQUIPMENT GROUNDING CONDUCTOR FROM THE TRANSFER SWITCH TO THE GENERATOR. THERE SHALL BE NO SYSTEM BONDING CONDUCTOR (NEUTRAL TO GROUND) CONNECTION MADE AT THE GENERATORS REFER TO NEC ARTICLE 250.30. REWORK THE EXISTING GROUNDING AT THE EXISTING TO REMAIN ATS (AS NECESSARY) TO PROVIDE THE GROUNDING SYSTEM NOTED ABOVE.

5. FURNISH AND INSTALL GROUND RODS, GROUND ROD ARRAY SYSTEM AND GROUNDING INSPECTION/TEST WELLS PER THE DETAILS ON ITS ELECTRICAL DETAILS SHEETS, FDOT SPECIFICATIONS, FDOT STANDARD INDEX DRAWINGS AND NEC REQUIREMENTS.

6. PROVIDE TWO 15A/1P 120V CIRCUIT BREAKERS FOR THE GENERATOR BATTERY CHARGER AND BLOCK HEATER. CIRCUIT BREAKERS SHALL BE INSTALLED WITHIN THE ATS ENCLOSURE OR WITHIN A NEMA 3R ENCLOSURE MOUNTED TO THE ATS. PROVIDE CONDUIT AND WIRING AS SHOWN. COORDINATE BREAKER AND WIRING REQUIREMENTS PER GENERATOR MANUFACTURER RECOMMENDATIONS AND ADJUST AS NECESSARY.

7. CONDUIT TYPE SHALL TRANSITION FROM RGS TO HDPE BELOW GRADE USING AN APROVED COUPLING OR AT AN ADJACENT ELECTRICAL PULLBOX. RGS CONDUIT SHALL TRANSITION TO HDPE CONDUIT AT THE FIRST ELECTRICAL PULL BOX DOWNSTREAM FROM THE 600V CIRCUIT FUSED DISCONNECT SWITCHES.

8. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING:
BYRON SAMPLE, FPL (BROWARD COUNTY): (954) 321-2056
LUCA FASANI, FPL (PALM BEACH COUNTY): (561) 904-3320.

9. REFER TO POWER STATIONS DETAILS FOR TRANSFORMER AND EQUIPMENT PAD DETAILS.

10. A TEMPORARY POWER FEED IS REQUIRED TO MAINTAIN POWER TO THE EXISTING HUB BUILDING UNTIL THE BUILDING IS REMOVED AT THE END OF THE PROJECT. INSTALL NEW TEMPORARY FEEDER (AS SHOWN) INTO THE EXISTING 150A PANELBOARD. INTERCEPT AND SPLICE WITH THE EXISTING BRANCH CIRCUIT WIRING FROM THIS PANEL GOING OUT TO THE EXISTING HUB BUILDING (USE PANEL AS TEMPORARY SPLICE ENCLOSURE). AFTER THE EXISTING HUB BUILDING IS REMOVED, REMOVE TEMPORARY POWER FEEDER, CAP AND ABANDON THE CONDUIT IN PLACE.

LEGEND

- EXISTING EQUIPMENT TO REMAIN (UNLESS OTHERWISE NOTED)
- NEW EQUIPMENT
- TO BE REMOVED, DEMOLITION

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL SERVICE POINT DETAILS (1)

SHEET NO. IT-176

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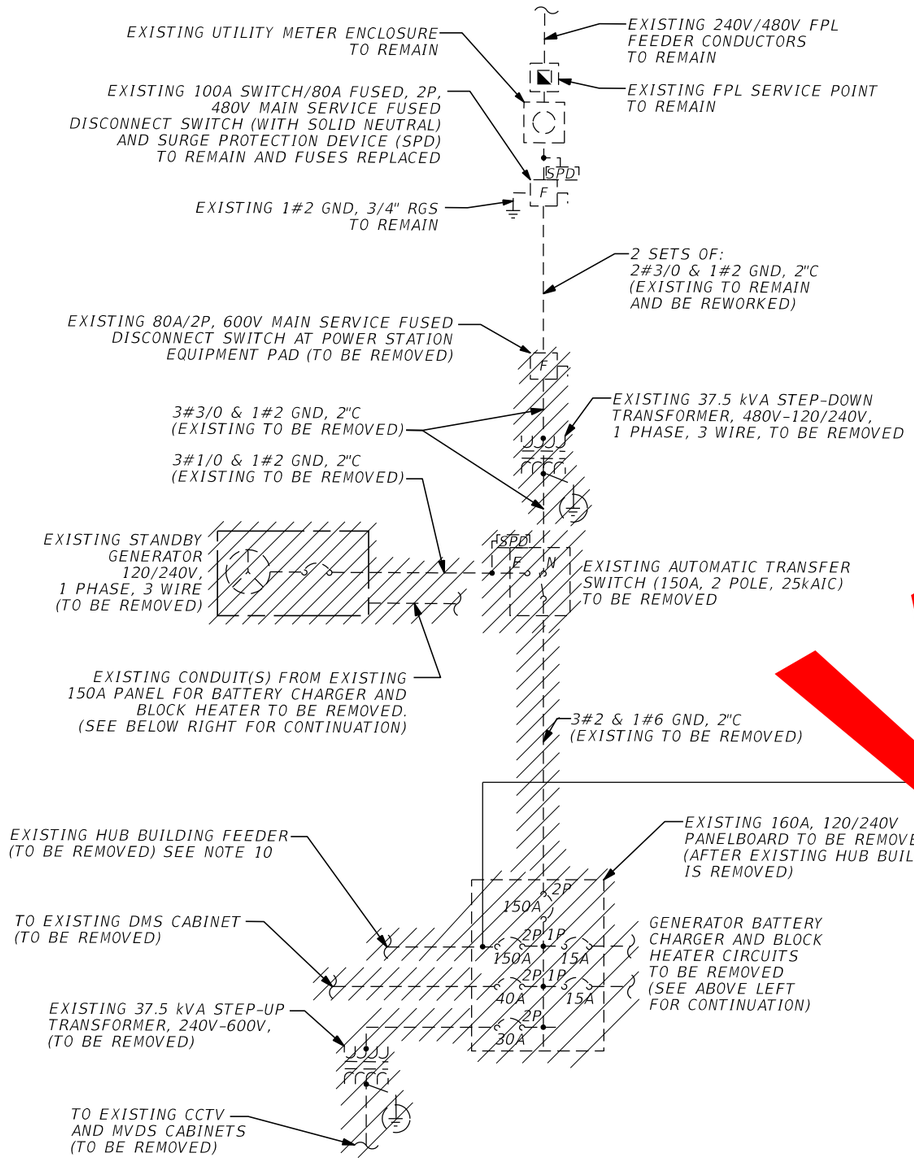
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY:PSOTI VS DATE: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

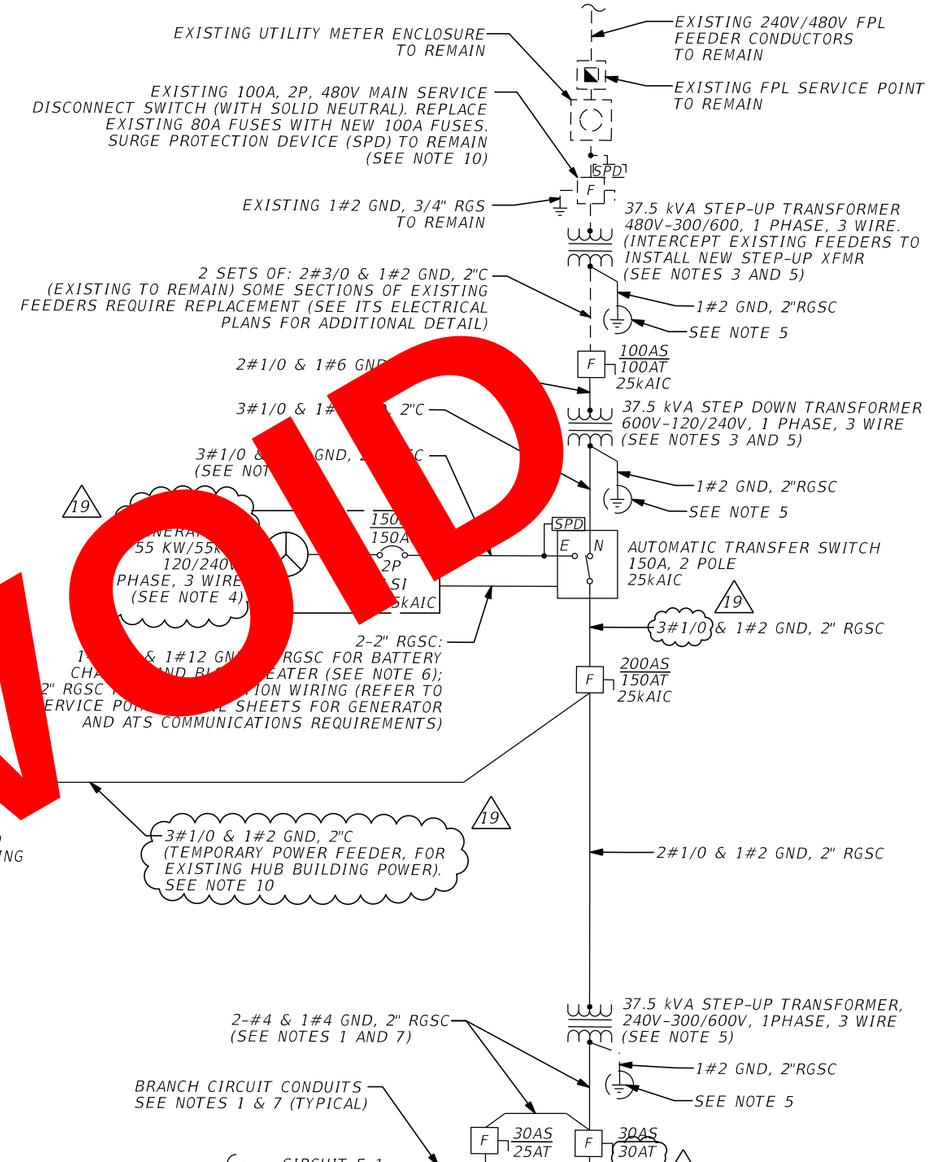


EXISTING ITS SERVICE POINT '10' DEMOLITION SCOPE

SEE ITS ELECTRICAL PLAN (35)

ITS SERVICE POINT 'F'
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

9,680 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 240/480V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'F'

SEE ITS ELECTRICAL PLAN (35)

VOID

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS). THE CONDUCTOR SIZES ARE TYPICALLY INCREASED, STARTING AT EITHER THE LOAD SIDE TERMINALS OF THESE BRANCH CIRCUIT FUSED DISCONNECT SWITCHES OR AT THE FIRST ELECTRICAL PULLBOX AT THE ITS POWER STATION EQUIPMENT PAD, TO COMPENSATE FOR VOLTAGE DROP.

2. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

3. ALL MAIN STEP-UP AND STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS. REFER TO THE STEP-UP TRANSFORMER WIRING DIAGRAM ON THE "ITS ELECTRICAL DETAILS (3)" SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

4. THE STANDBY AC POWER SOURCE (ON-SITE GENERATOR) SHALL NOT BE CONFIGURED AS A SEPARATELY DERIVED SYSTEM. THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE GENERATOR SHALL BE SOLIDLY INTERCONNECTED THROUGH THE AUTOMATIC TRANSFER SWITCH (ATS) TO THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE NORMAL UTILITY SERVICE FEED. THE ATS EQUIPMENT SHALL INCLUDE A SOLID (UNSWITCHED) NEUTRAL. IT IS NECESSARY TO RUN AN EQUIPMENT GROUNDING CONDUCTOR FROM THE TRANSFER SWITCH TO THE GENERATOR. THERE SHALL BE NO SYSTEM BONDING CONDUCTOR (NEUTRAL TO GROUND) CONNECTION MADE AT THE GENERATORS REFER TO NEC ARTICLE 250.30. REWORK THE EXISTING GROUNDING AT THE EXISTING TO REMAIN ATS (AS NECESSARY) TO PROVIDE THE GROUNDING SYSTEM NOTED ABOVE.

5. FURNISH AND INSTALL GROUND RODS, GROUND ROD ARRAY SYSTEM AND GROUNDING INSPECTION/TEST WELLS PER THE DETAILS ON ITS ELECTRICAL DETAILS SHEETS, FDOT SPECIFICATIONS, FDOT STANDARD INDEX DRAWINGS AND NEC REQUIREMENTS.

6. PROVIDE TWO 15A/1P 120V CIRCUIT BREAKERS FOR THE GENERATOR BATTERY CHARGER AND BLOCK HEATER. CIRCUIT BREAKERS SHALL BE INSTALLED WITHIN THE ATS ENCLOSURE OR WITHIN A NEMA 3R ENCLOSURE MOUNTED TO THE ATS. PROVIDE CONDUIT AND WIRING AS SHOWN. COORDINATE BREAKER AND WIRING REQUIREMENTS PER GENERATOR MANUFACTURER RECOMMENDATIONS AND ADJUST AS NECESSARY.

7. CONDUIT TYPE SHALL TRANSITION FROM RGS TO HDPE BELOW GRADE USING AN APROVED COUPLING OR AT AN ADJACENT ELECTRICAL PULLBOX. RGS CONDUIT SHALL TRANSITION TO HDPE CONDUIT AT THE FIRST ELECTRICAL PULL BOX DOWNSTREAM FROM THE 600V CIRCUIT FUSED DISCONNECT SWITCHES.

8. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING:
BYRON SAMPLE, FPL (BROWARD COUNTY): (954) 321-2056
LUCA FASANI, FPL (PALM BEACH COUNTY): (561) 904-3320.

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LEGEND

- EXISTING EQUIPMENT TO REMAIN (UNLESS OTHERWISE NOTED)
- NEW EQUIPMENT
- TO BE REMOVED, DEMOLITION

BY:RYDT VS Date: 9/19/2019
RELEASED FOR CONSTRUCTION
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FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E6R76
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7-01-19	19 RFI 179 CHANGES		

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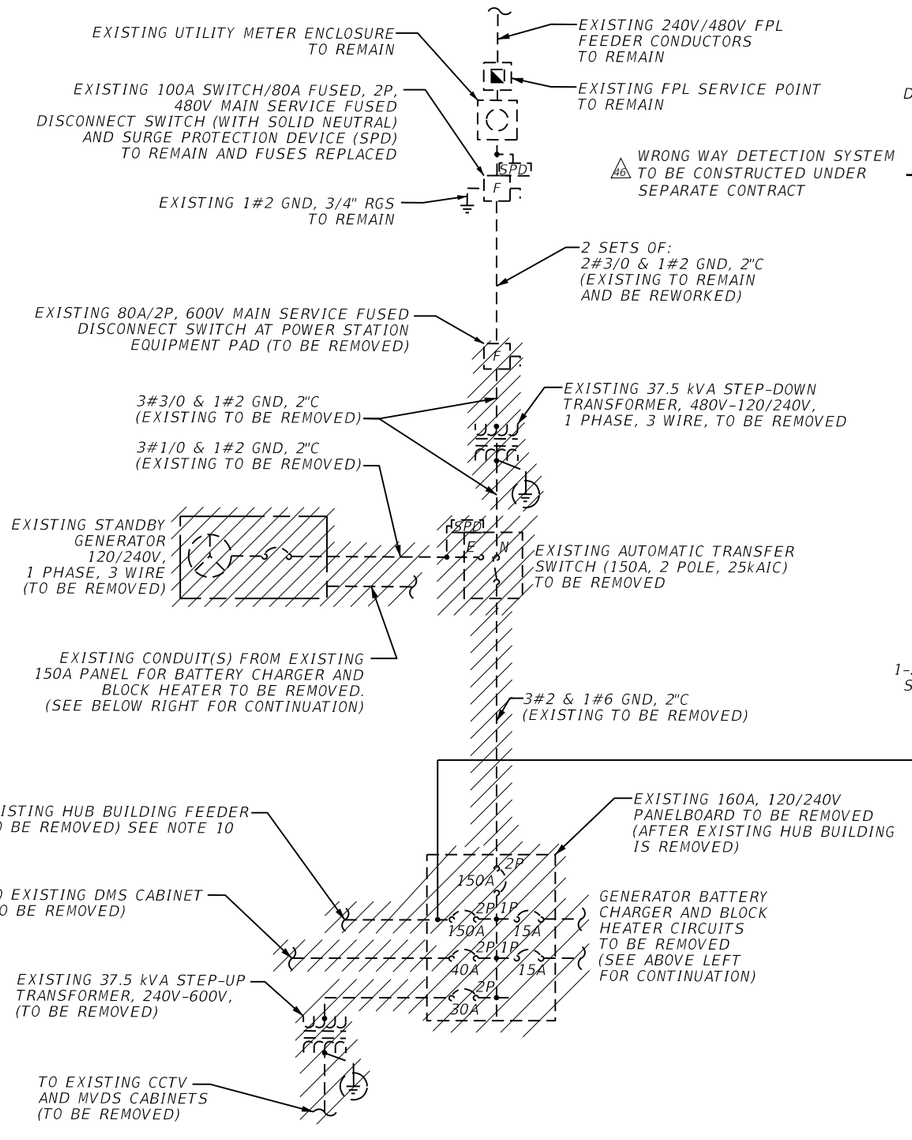
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL SERVICE POINT DETAILS (1)

SHEET NO. IT-176

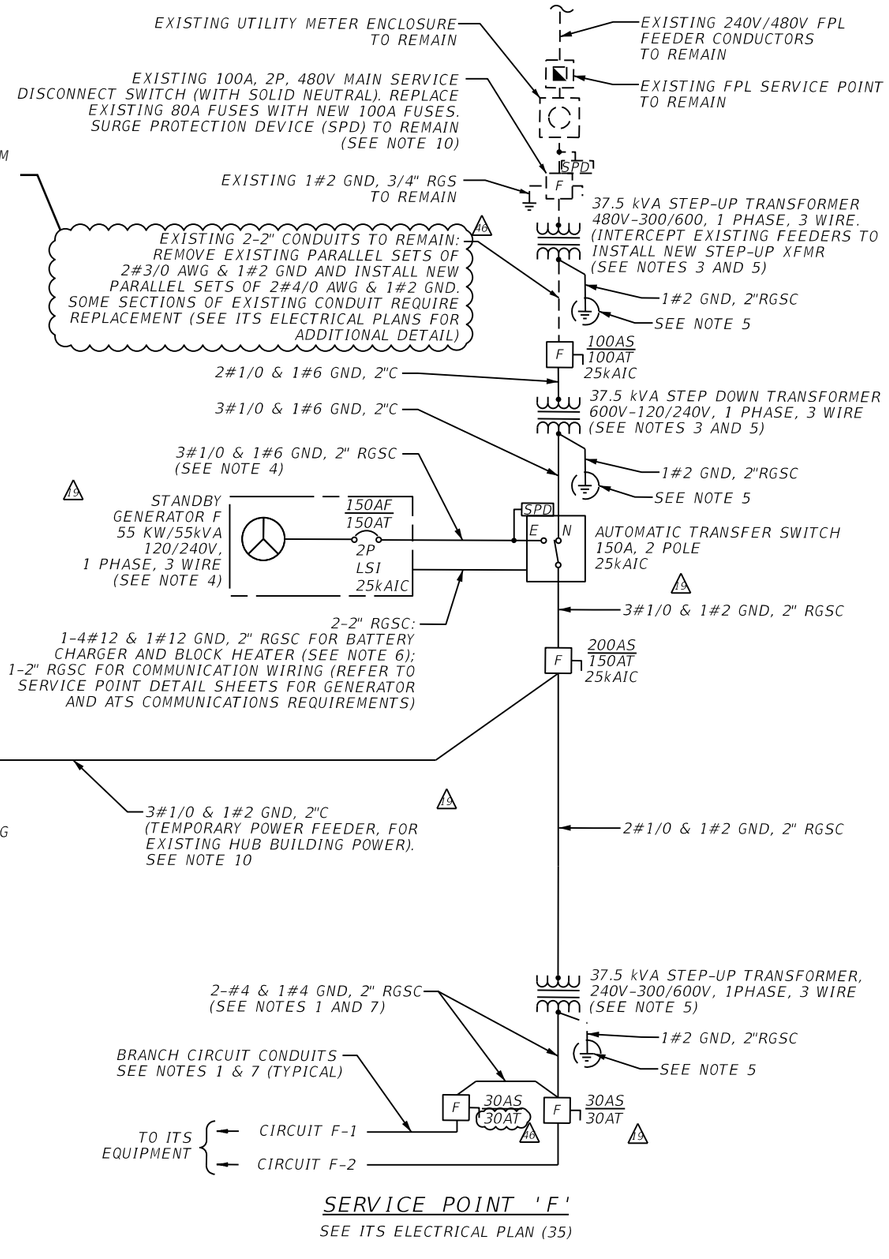


EXISTING ITS SERVICE POINT '10' DEMOLITION SCOPE

SEE ITS ELECTRICAL PLAN (35)

ITS SERVICE POINT 'F'
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

9,680 SYMMETRICAL AMPS (1.6% IMPEDANCE)
@ 240/480V SECONDARY TERMINALS
OF 25kVA FPL UTILITY TRANSFORMER



SERVICE POINT 'F'

SEE ITS ELECTRICAL PLAN (35)

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS). THE CONDUCTOR SIZES ARE TYPICALLY INCREASED, STARTING AT EITHER THE LOAD SIDE TERMINALS OF THESE BRANCH CIRCUIT FUSED DISCONNECT SWITCHES OR AT THE FIRST ELECTRICAL PULLBOX AT THE ITS POWER STATION EQUIPMENT PAD, TO COMPENSATE FOR VOLTAGE DROP.

2. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

3. ALL MAIN STEP-UP AND STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS. REFER TO THE STEP-UP TRANSFORMER WIRING DIAGRAM ON THE "ITS ELECTRICAL DETAILS (3)" SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

4. THE STANDBY AC POWER SOURCE (ON-SITE GENERATOR) SHALL NOT BE CONFIGURED AS A SEPARATELY DERIVED SYSTEM. THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE GENERATOR SHALL BE SOLIDLY INTERCONNECTED THROUGH THE AUTOMATIC TRANSFER SWITCH (ATS) TO THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE NORMAL UTILITY SERVICE FEED. THE ATS EQUIPMENT SHALL INCLUDE A SOLID (UNSWITCHED) NEUTRAL. IT IS NECESSARY TO RUN AN EQUIPMENT GROUNDING CONDUCTOR FROM THE TRANSFER SWITCH TO THE GENERATOR. THERE SHALL BE NO SYSTEM BONDING CONDUCTOR (NEUTRAL TO GROUND) CONNECTION MADE AT THE GENERATORS REFER TO NEC ARTICLE 250.30. REWORK THE EXISTING GROUNDING AT THE EXISTING TO REMAIN ATS (AS NECESSARY) TO PROVIDE THE GROUNDING SYSTEM NOTED ABOVE.

5. FURNISH AND INSTALL GROUND RODS, GROUND ROD ARRAY SYSTEM AND GROUNDING INSPECTION/TEST WELLS PER THE DETAILS ON ITS ELECTRICAL DETAILS SHEETS, FDOT SPECIFICATIONS, FDOT STANDARD INDEX DRAWINGS AND NEC REQUIREMENTS.

6. PROVIDE TWO 15A/1P 120V CIRCUIT BREAKERS FOR THE GENERATOR BATTERY CHARGER AND BLOCK HEATER. CIRCUIT BREAKERS SHALL BE INSTALLED WITHIN THE ATS ENCLOSURE OR WITHIN A NEMA 3R ENCLOSURE MOUNTED TO THE ATS. PROVIDE CONDUIT AND WIRING AS SHOWN. COORDINATE BREAKER AND WIRING REQUIREMENTS PER GENERATOR MANUFACTURER RECOMMENDATIONS AND ADJUST AS NECESSARY.

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LEGEND

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- NEW EQUIPMENT
- TO BE REMOVED, DEMOLITION

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
07/01/2019	13 RFI 179 CHANGES		
1/29/2021	16 WRONG WAY DETECTION SYSTEM REVISION		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

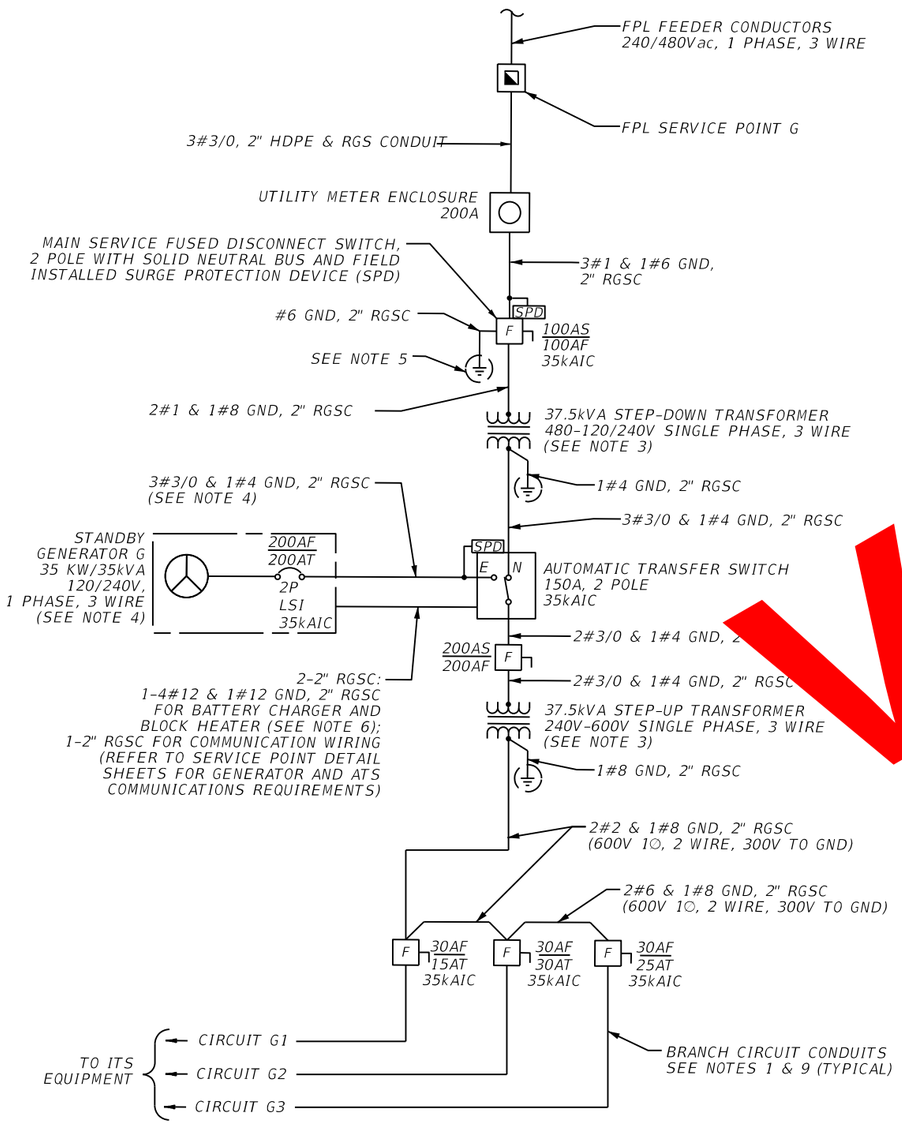
ITS ELECTRICAL SERVICE POINT DETAILS (1)

SHEET NO. IT-176

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
2/25/2021 E
BY/S
exyson, Inc. is not responsible for use of documents. Sole responsibility for compliance with these documents, and construction correctness (e.g. dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
CONSTRUCTION DOCUMENTS

SERVICE POINT G
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

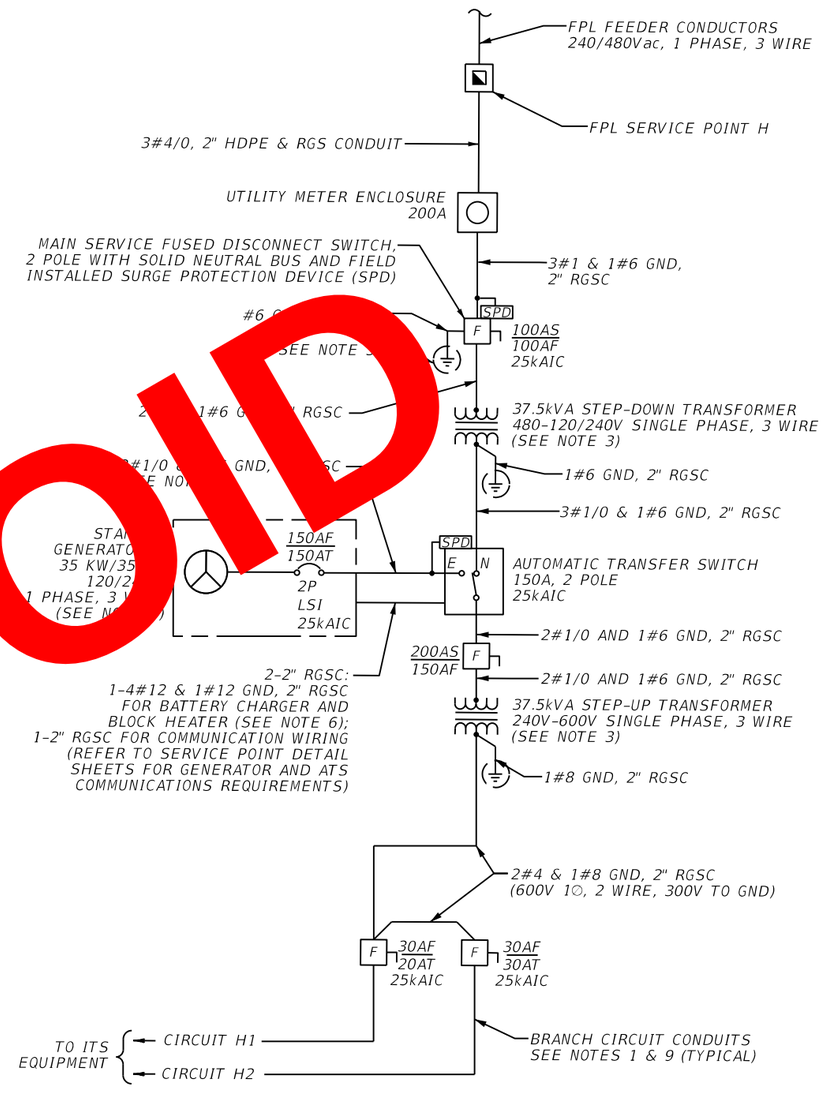
30,684 SYMMETRICAL AMPS
@ 240/480V SECONDARY TERMINALS
OF FPL UTILITY TRANSFORMER



SERVICE POINT 'G'
SEE ITS ELECTRICAL PLAN (46)

SERVICE POINT H
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

11,991 SYMMETRICAL AMPS
@ 240/480V SECONDARY TERMINALS
OF FPL UTILITY TRANSFORMER



SERVICE POINT 'H'
SEE ITS ELECTRICAL PLAN (53)

VOID

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS). THE CONDUCTOR SIZES ARE TYPICALLY INCREASED, STARTING AT EITHER THE LOAD SIDE TERMINALS OF THESE BRANCH CIRCUIT FUSED DISCONNECT SWITCHES OR AT THE FIRST ELECTRICAL PULLBOX AT THE ITS POWER STATION EQUIPMENT PAD, TO COMPENSATE FOR VOLTAGE DROP.

2. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

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7. RGS CONDUIT SHALL TRANSITION TO HDPE CONDUIT (UL LISTED FOR ELECTRICAL USE) AT THE FIRST ELECTRICAL PULL BOX DOWNSTREAM FROM THE 600V CIRCUIT FUSED DISCONNECT SWITCHES.

8. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANY, FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING:
BYRON SAMPLE, FPL (BROWARD COUNTY): (954) 321-2056
APRIL MADISON, FPL (PALM BEACH COUNTY): (561) 777-2671.

9. CONDUIT TYPE SHALL TRANSITION FROM RGS TO HDPE BELOW GRADE USING AN APROVED COUPLING OR AT AN ADJACENT ELECTRICAL PULLBOX.

BY:(FDOT) VS DATE: 05/21/2019
RELEASED FOR CONSTRUCTION
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FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

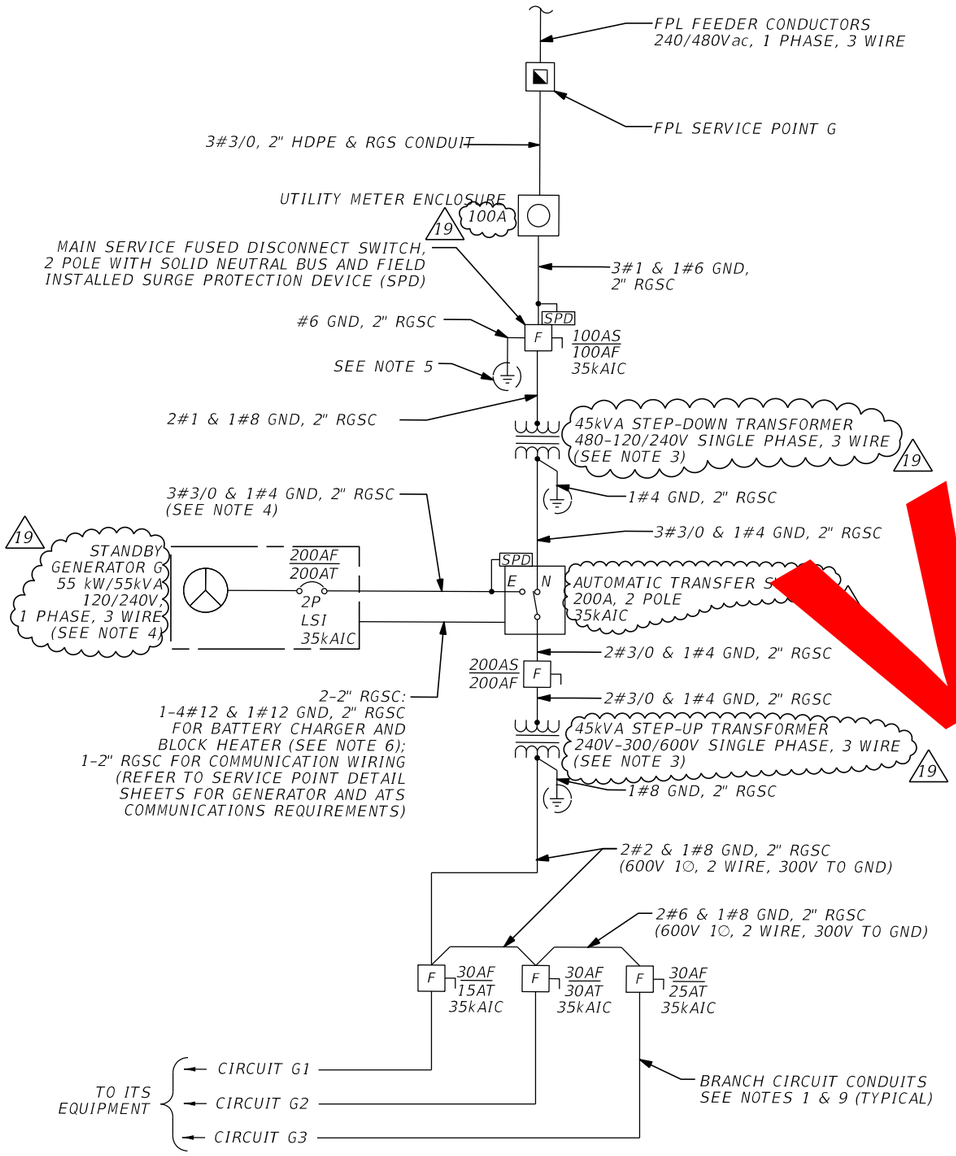
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL SERVICE POINT DETAILS (2)

SHEET NO. IT-177

SERVICE POINT G
MAXIMUM AVAILABLE FAULT
CURRENT INFORMATION:

30,684 SYMMETRICAL AMPS
@ 240/480V SECONDARY TERMINALS
OF FPL UTILITY TRANSFORMER



SERVICE POINT 'G'
SEE ITS ELECTRICAL PLAN (46)

SERVICE POINT H
MAXIMUM AVAILABLE FAULT
CURRENT INFORMATION:

11,991 SYMMETRICAL AMPS
@ 240/480V SECONDARY TERMINALS
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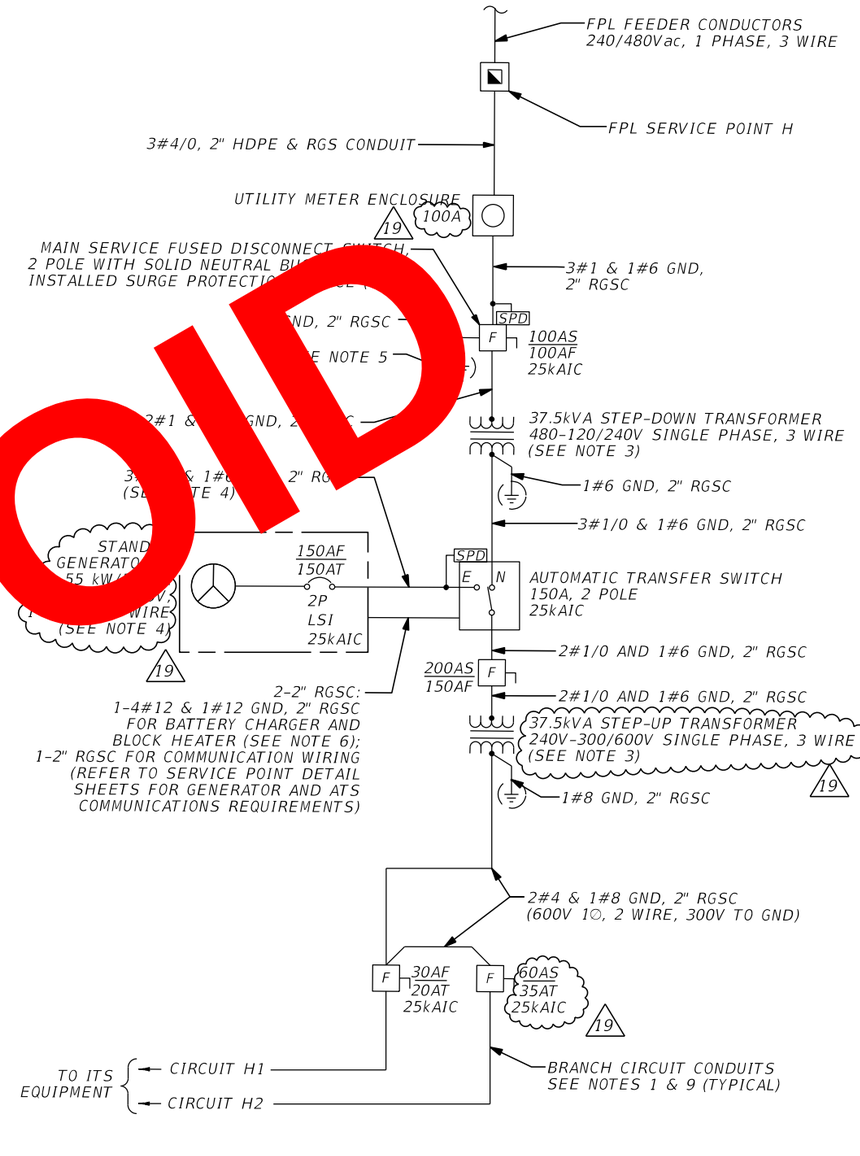

SERVICE POINT 'H'
SEE ITS ELECTRICAL PLAN (53)

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS). THE CONDUCTOR SIZES ARE TYPICALLY INCREASED, STARTING AT EITHER THE LOAD SIDE TERMINALS OF THESE BRANCH CIRCUIT FUSED DISCONNECT SWITCHES OR AT THE FIRST ELECTRICAL PULLBOX AT THE ITS POWER STATION EQUIPMENT PAD, TO COMPENSATE FOR VOLTAGE DROP.

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VOID

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7-01-19	19 RFI 179 CHANGES		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL SERVICE POINT DETAILS (2)

SHEET NO.
IT-177

BY:rjtoti VS Date: 9/19/2019
RELEASED FOR CONSTRUCTION
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SERVICE POINT G
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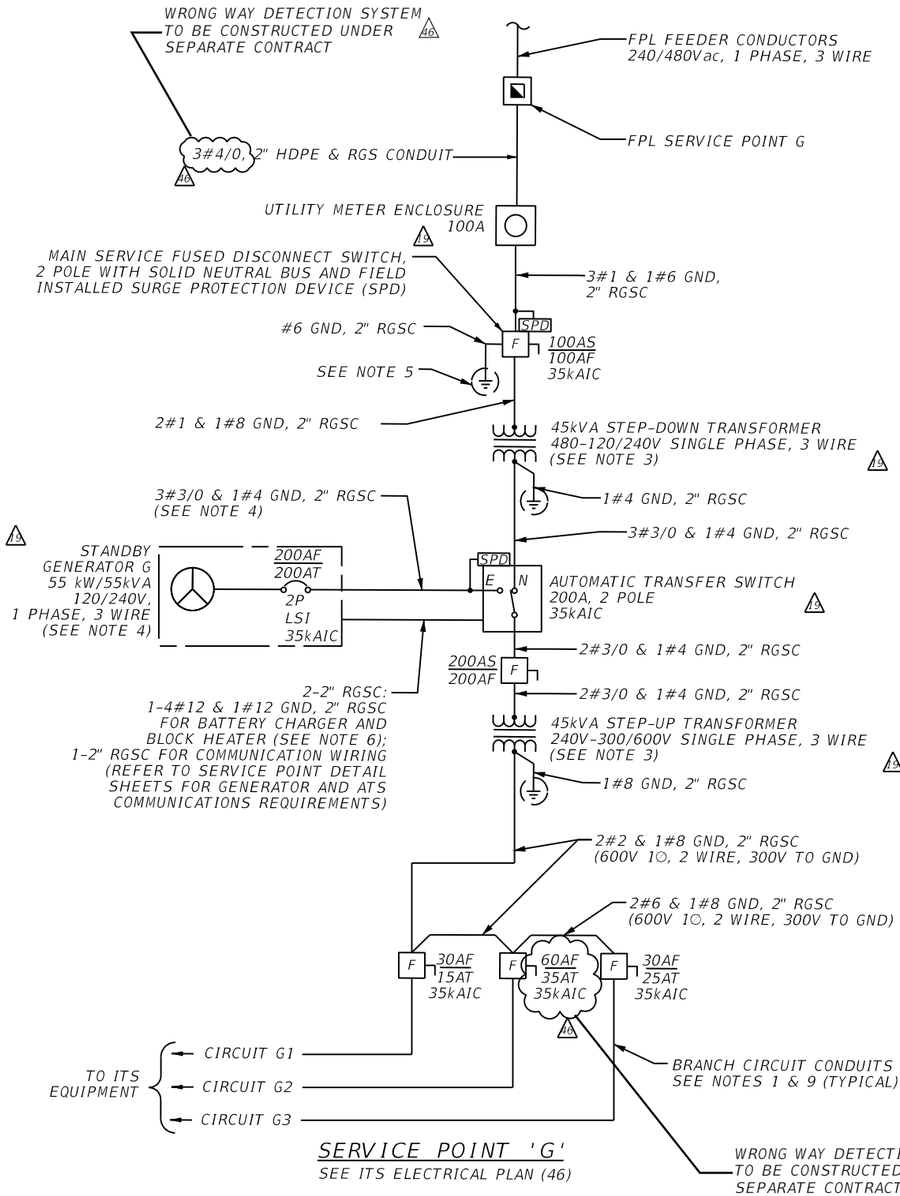
OF FPL UTILITY TRANSFORMER



SERVICE POINT 'G'
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SERVICE POINT H
MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:
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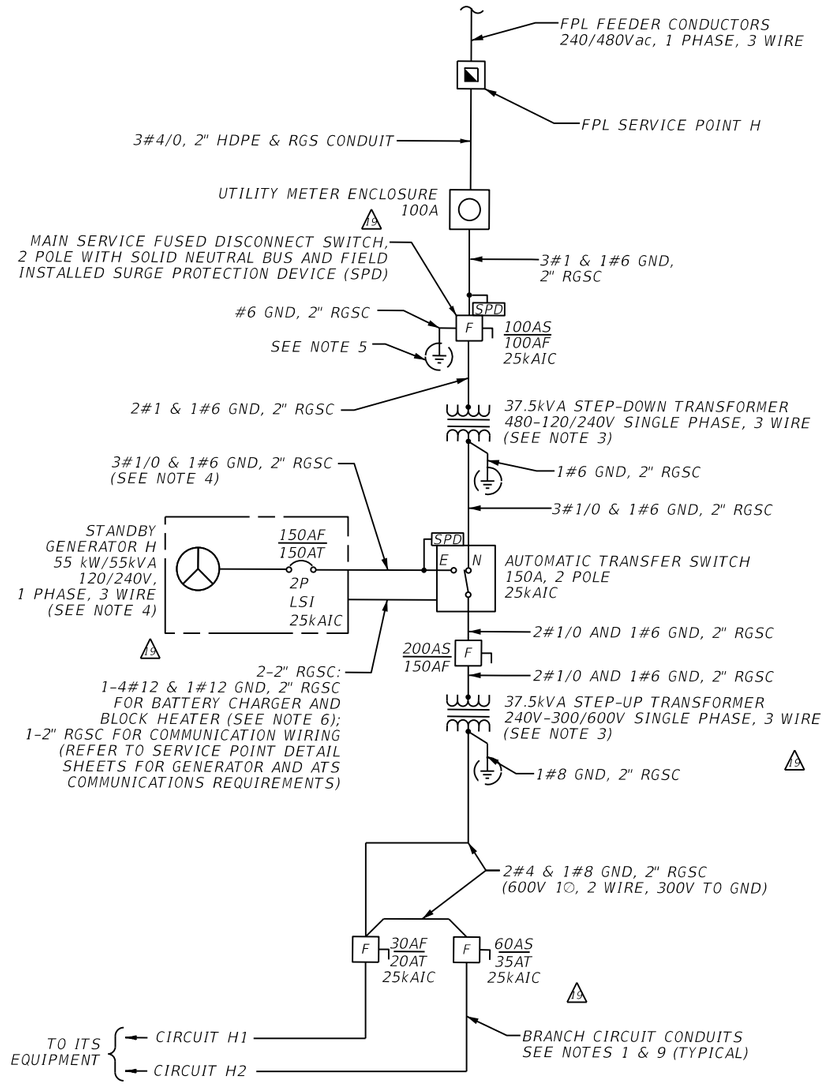


SERVICE POINT 'H'
SEE ITS ELECTRICAL PLAN (53)

NOTES:

1. REFER TO ITS ELECTRICAL ONE LINE SCHEMATICS FOR BRANCH CIRCUIT INFORMATION (TYPICAL FOR ALL BRANCH CIRCUITS). THE CONDUCTOR SIZES ARE TYPICALLY INCREASED, STARTING AT EITHER THE LOAD SIDE TERMINALS OF THESE BRANCH CIRCUIT FUSED DISCONNECT SWITCHES OR AT THE FIRST ELECTRICAL PULLBOX AT THE ITS POWER STATION EQUIPMENT PAD, TO COMPENSATE FOR VOLTAGE DROP.

2. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

3. ALL MAIN STEP-UP AND STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS. REFER TO THE STEP-UP TRANSFORMER WIRING DIAGRAM ON THE "ITS ELECTRICAL DETAILS (3)" SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

4. THE STANDBY AC POWER SOURCE (ON-SITE GENERATOR) SHALL NOT BE CONFIGURED AS A SEPARATELY DERIVED SYSTEM. THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE GENERATOR SHALL BE SOLIDLY INTERCONNECTED THROUGH THE AUTOMATIC TRANSFER SWITCH (ATS) TO THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE NORMAL UTILITY SERVICE FEED. THE ATS EQUIPMENT SHALL INCLUDE A SOLID (UNSWITCHED) NEUTRAL. IT IS NECESSARY TO RUN AN EQUIPMENT GROUNDING CONDUCTOR FROM THE TRANSFER SWITCH TO THE GENERATOR. THERE SHALL BE NO SYSTEM BONDING CONDUCTOR (NEUTRAL TO GROUND) CONNECTION MADE AT THE GENERATORS REFER TO NEC ARTICLE 250.30.

5. FURNISH AND INSTALL GROUND RODS, GROUND ROD ARRAY SYSTEM AND GROUNDING INSPECTION/TEST WELLS PER THE DETAILS ON ITS ELECTRICAL DETAILS SHEETS, FDOT SPECIFICATIONS, FDOT STANDARD INDEX DRAWINGS AND NEC REQUIREMENTS.

6. PROVIDE TWO 15A/1P 120V CIRCUIT BREAKERS FOR THE GENERATOR BATTERY CHARGER AND BLOCK HEATER. CIRCUIT BREAKERS SHALL BE INSTALLED WITHIN THE ATS ENCLOSURE OR WITHIN A NEMA 3R ENCLOSURE MOUNTED TO THE ATS. PROVIDE CONDUIT AND WIRING AS SHOWN.

7. RGS CONDUIT SHALL TRANSITION TO HDPE CONDUIT (UL LISTED FOR ELECTRICAL USE) AT THE FIRST ELECTRICAL PULL BOX DOWNSTREAM FROM THE 600V CIRCUIT FUSED DISCONNECT SWITCHES.

8. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANY, FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING: BYRON SAMPLE, FPL (BROWARD COUNTY): (954) 321-2056 APRIL MADISON, FPL (PALM BEACH COUNTY): (561) 777-2671.

9. CONDUIT TYPE SHALL TRANSITION FROM RGS TO HDPE BELOW GRADE USING AN APROVED COUPLING OR AT AN ADJACENT ELECTRICAL PULLBOX.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omission, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY/FDOT: VS Date: 2/25/2021
FDOT AUTHORIZATION TO USE DIGITAL SIGNATURES PER FDOT PPM VOLUME 1 CHAPTER 5
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
07/01/2019	13 RFI 179 CHANGES		
1/29/2021	46 WRONG WAY DETECTION SYSTEM REVISION, UPDATED FPL FAULT CURRENT PER FINAL PERMIT FOR SERVICE		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

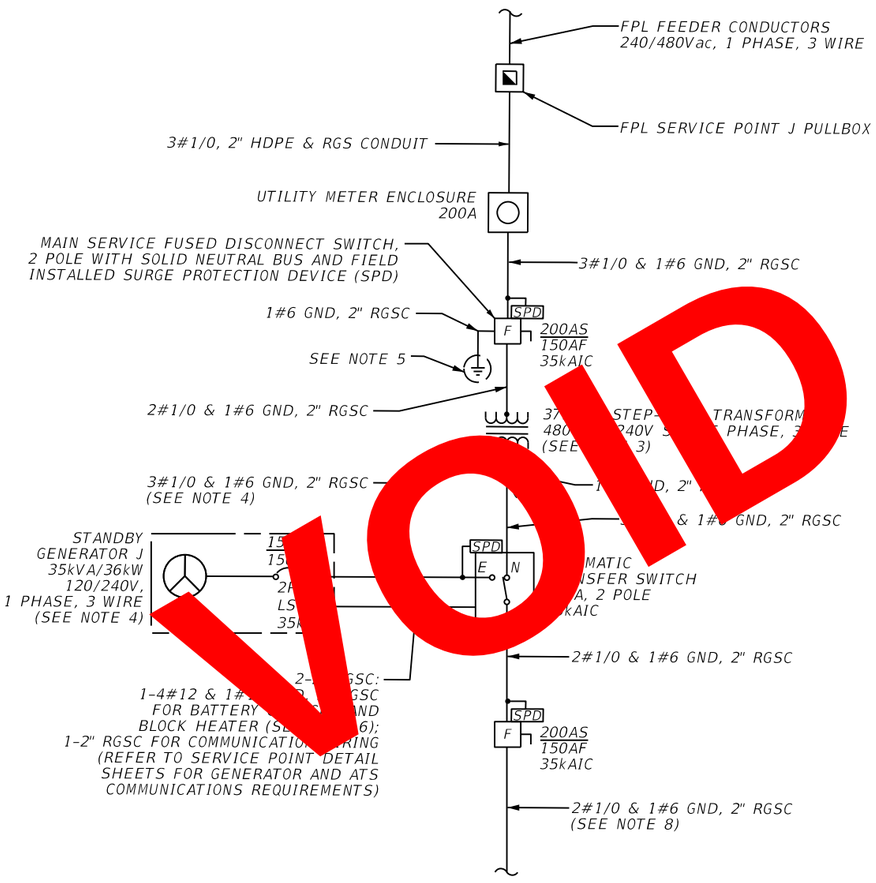
ITS ELECTRICAL SERVICE POINT DETAILS (2)

SHEET NO.
IT-177

$USERS $DATE$ $TIME$ $FILE$

SERVICE POINT J (HUB BUILDING) MAXIMUM AVAILABLE FAULT CURRENT INFORMATION:

21,110 SYMMETRICAL AMPS
@ 240/480V SECONDARY TERMINALS
OF FPL UTILITY TRANSFORMER



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SERVICE POINT 'J' (HUB BUILDING)
SEE ITS ELECTRICAL PLAN (63)

NOTES:

1. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

2. ALL STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS.

3. ALL MAIN STEP-UP AND STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS. REFER TO THE STEP-UP TRANSFORMER WIRING DIAGRAM ON THE "ITS ELECTRICAL DETAILS (3)" SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

4. THE STANDBY AC POWER SOURCE (ON-SITE GENERATOR) SHALL NOT BE CONFIGURED AS A SEPARATELY DERIVED SYSTEM. THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE GENERATOR SHALL BE SOLIDLY INTERCONNECTED THROUGH THE AUTOMATIC TRANSFER SWITCH (ATS) TO THE GROUNDED (NEUTRAL) CONDUCTOR FROM THE NORMAL UTILITY SERVICE FEED. THE ATS EQUIPMENT SHALL INCLUDE A SOLID (UNSWITCHED) NEUTRAL. IT IS NECESSARY TO RUN AN EQUIPMENT GROUNDING CONDUCTOR FROM THE TRANSFER SWITCH TO THE GENERATOR. THERE SHALL BE NO SYSTEM BONDING CONDUCTOR (NEUTRAL TO GROUND) CONNECTION MADE AT THE GENERATORS REFER TO NEC ARTICLE 250.30.

5. FURNISH AND INSTALL GROUND RODS, GROUND ROD ARRAY SYSTEM AND GROUNDING INSPECTION/TEST WELLS PER THE DETAILS ON ITS ELECTRICAL DETAILS SHEETS, FDOT SPECIFICATIONS, FDOT STANDARD INDEX DRAWINGS AND NEC REQUIREMENTS.

6. PROVIDE TWO 15A/1P 120V CIRCUIT BREAKERS FOR THE GENERATOR BATTERY CHARGER AND BLOCK HEATER. CIRCUIT BREAKERS SHALL BE INSTALLED WITHIN THE ATS ENCLOSURE OR WITHIN THE SEPARATE NEMA 3R ENCLOSURE MOUNTED ADJACENT TO THE ATS. PROVIDE CONDUIT AND WIRING AS SHOWN.

7. ALL CONSTRUCTION WORK ASSOCIATED WITH THE ELECTRIC UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANY, FLORIDA POWER AND LIGHT (FPL), PRIOR TO FURNISHING EQUIPMENT AND BEGINNING ANY WORK. THE FPL ELECTRIC UTILITY SERVICE REPRESENTATIVE'S CONTACT INFORMATION IS THE FOLLOWING:
BYRON SAMPLE, FPL (BROWARD COUNTY): (954) 321-2056
APRIL MADISON, FPL (PALM BEACH COUNTY): (561) 777-2671.

8. CONDUIT TYPE SHALL TRANSITION FROM RGS TO HDPE BELOW GRADE USING AN APPROVED COUPLING OR AT AN ADJACENT ELECTRICAL PULL BOX.

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BY:(FDOT) VS DATE: 05/21/2019
RELEASED FOR CONSTRUCTION
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FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

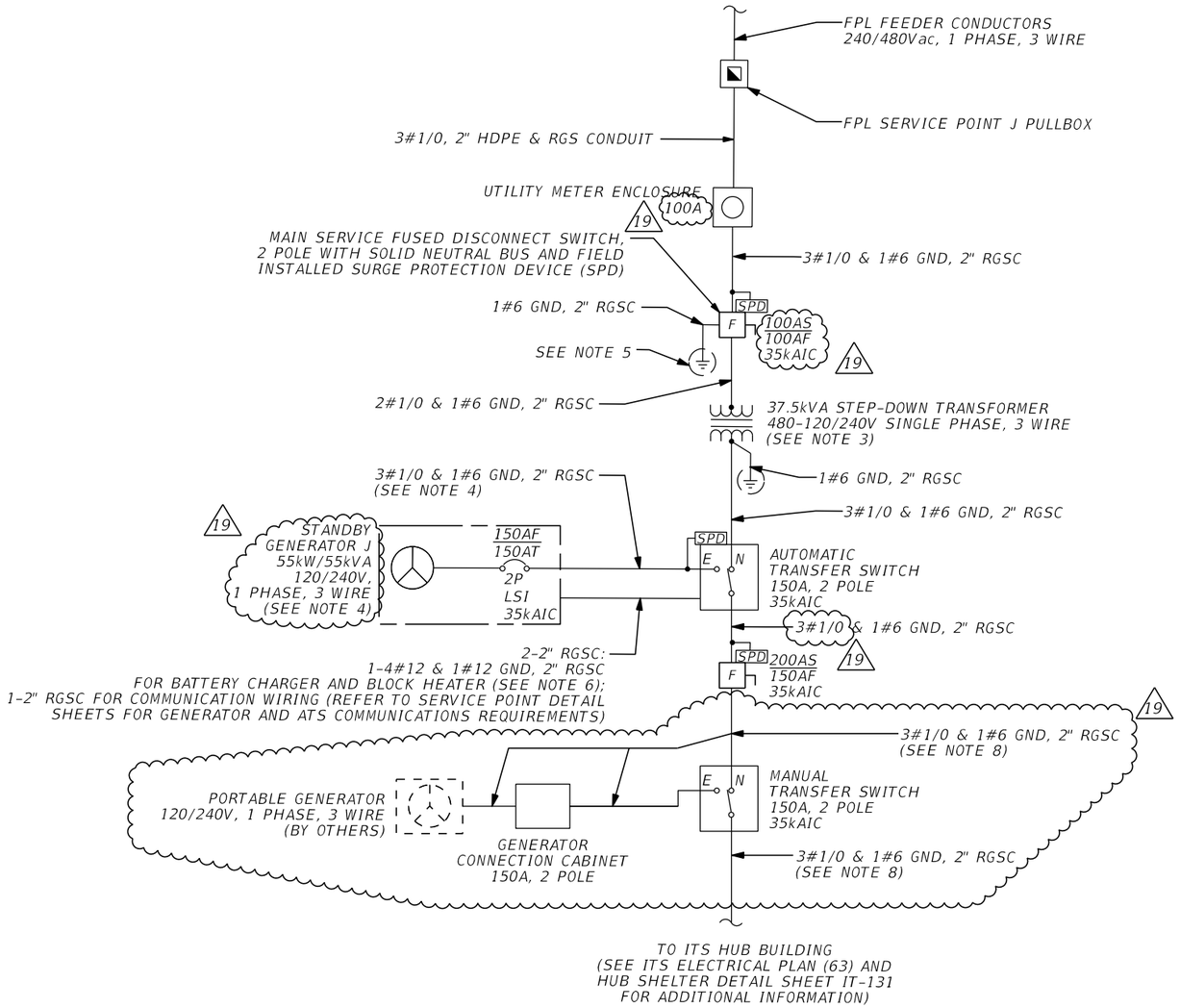
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL SERVICE POINT DETAILS (3)

SHEET NO.
IT-178

SERVICE POINT J (HUB BUILDING)
MAXIMUM AVAILABLE FAULT
CURRENT INFORMATION:

21,110 SYMMETRICAL AMPS
@ 240/480V SECONDARY TERMINALS
OF FPL UTILITY TRANSFORMER



SERVICE POINT 'J' (HUB BUILDING)
SEE ITS ELECTRICAL PLAN (63)

NOTES:

1. ALL POWER STATION ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH NEMA 3R RATED ENCLOSURES UNLESS OTHERWISE NOTED.

2. ALL STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS.

3. ALL MAIN STEP-UP AND STEP-DOWN TRANSFORMERS LOCATED AT THE POWER STATION EQUIPMENT PADS SHALL BE GROUNDED AS SEPARATELY DERIVED SYSTEMS. REFER TO THE STEP-UP TRANSFORMER WIRING DIAGRAM ON THE "ITS ELECTRICAL DETAILS (3)" SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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5. FURNISH AND INSTALL GROUND RODS, GROUND ROD ARRAY SYSTEM AND GROUNDING INSPECTION/TEST WELLS PER THE DETAILS ON ITS ELECTRICAL DETAILS SHEETS, FDOT SPECIFICATIONS, FDOT STANDARD INDEX DRAWINGS AND NEC REQUIREMENTS.

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8. CONDUIT TYPE SHALL TRANSITION FROM RGS TO HDPE BELOW GRADE USING AN APPROVED COUPLING OR AT AN ADJACENT ELECTRICAL PULL BOX.

BY:PDOT VS Date: 9/19/2019
RELEASED FOR CONSTRUCTION
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FPID:433108-6-52-01 and 433108-4-52-01 CONTRACT ERR'S
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7-01-19	19 RFI 179 CHANGES		

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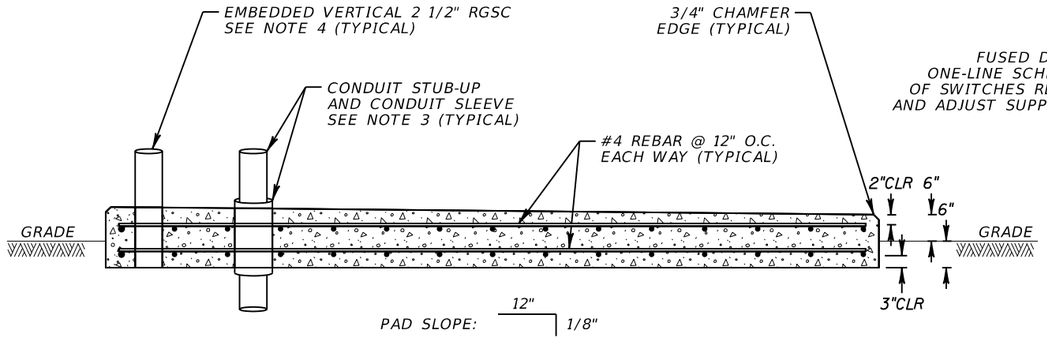
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

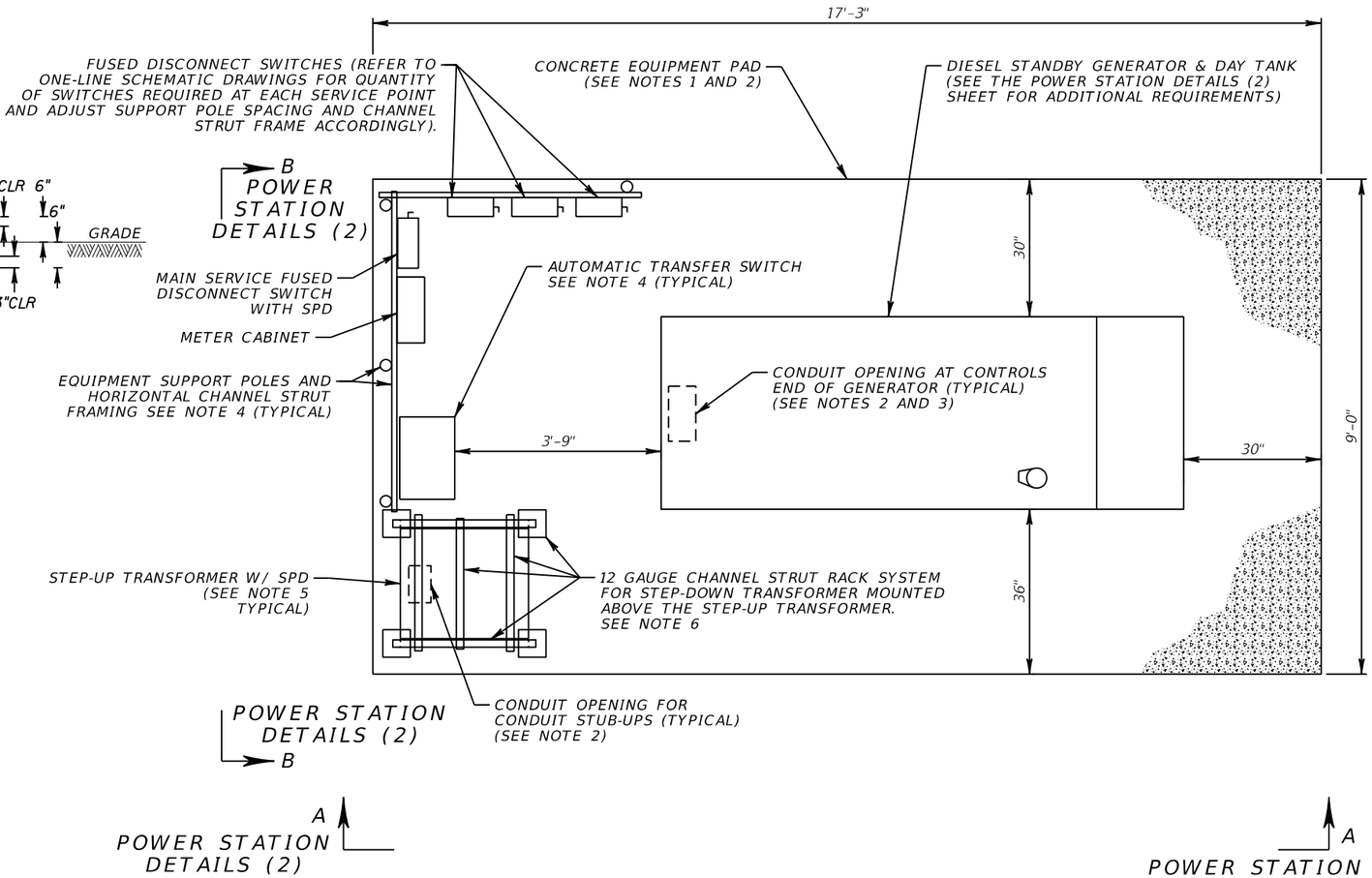
ITS ELECTRICAL SERVICE POINT DETAILS (3)

SHEET NO. IT-178



TYPICAL SECTION OF POWER STATION EQUIPMENT PAD

NTS



POWER STATION EQUIPMENT PAD

SCALE: 3/8" = 1'-0"

NOTES:

1. THE EQUIPMENT PAD SHALL BE CLASS II (3.4 KPSI) AND A MINIMUM OF 6" THICK ABOVE GRADE. THE OUTSIDE EDGES OF THE SLAB SHALL BE CAST AGAINST FRAMEWORK. EQUIPMENT PAD INSTALLATION SHALL MEET APPLICABLE REQUIREMENTS OF FDOT STANDARD SPECIFICATION SECTION 522.

2. CONTRACTOR TO COORDINATE CONDUIT STUB-UP LOCATIONS AND EQUIPMENT PAD OPENING REQUIREMENTS WITHIN THE GENERATOR AND TRANSFORMER MANUFACTURER AND EQUIPMENT SHOP DRAWINGS AND ADJUST AS REQUIRED BEFORE POURING CONCRETE.

3. FOR ALL CONDUIT PENETRATIONS THROUGH EQUIPMENT PAD, INSTALL OVERSIZED RIGID PVC SCHEDULE 80 SLEEVE. RGS CONDUIT SHALL BE INSTALLED THROUGH THE SLEEVE AND WRAPPED IN 1/2" BITUMINOUS TAPE 12" ABOVE AND 12" BELOW CENTER OF PAD. INSTALL CONDUIT SLEEVES IN BETWEEN REBAR GRID WHERE POSSIBLE AND PULL BACK REBAR, IF REQUIRED, BASED ON PENETRATION LOCATION. CONDUIT PENETRATION LOCATION IS DIAGRAMATIC AND SHOULD BE ADJUSTED BASED ON EQUIPMENT LAYOUT AND EXACT EQUIPMENT STUB-UP LOCATION REQUIREMENTS.

4. EQUIPMENT SUPPORT FRAME SHALL CONSIST OF EMBEDDED VERTICAL 2 1/2" RGS CONDUITS, BACKFILLED WITH CONCRETE. CONDUIT SHALL BE WRAPPED IN 1/2" BITUMINOUS TAPE 12" ABOVE AND 12" BELOW TOP OF PAD. METERS, AUTOMATIC TRANSFER SWITCH, PANELBOARDS, AND DISCONNECT SWITCHES SHALL BE MOUNTED TO GALVANIZED STEEL 1-5/8"x1-5/8" 12 GAUGE CHANNEL STRUTS. CHANNEL STRUTS AND BRACED ANGLE BRACKETS SHALL HAVE A MINIMUM ALLOWABLE MOMENT OF 5,000 IN-LBS. INSTALL VERTICAL RGSC CONDUIT IN BETWEEN REBAR GRID WHERE POSSIBLE AND PULL BACK REBAR, IF REQUIRED, BASED ON PENETRATION LOCATIONS. ADJUST POLES AND SUPPORT FRAMING, AS REQUIRED, BASED ON THE NUMBER OF BRANCH CIRCUIT FUSED DISCONNECT SWITCHES AT EACH POWER STATION (REFER TO THE SERVICE POINT ONE-LINE SCHEMATIC DRAWINGS FOR QUANTITIES).

5. PROVIDE PROPER BOLT AND BOLT HOLE SPACING AND ARRANGEMENT PER MANUFACTURER RECOMMENDATIONS TO PROPERLY INSTALL THE GENERATOR, TRANSFORMER, AND/OR TRANSFER SWITCH ENCLOSURES TO THE EQUIPMENT PAD SLAB. COORDINATE SUPPORT AND CONDUIT STUB-UP REQUIREMENTS WITH THE EQUIPMENT MANUFACTURERS PRIOR TO POURING THE PAD.

6. CONTRACTOR TO FIELD SIZE A CHANNEL STRUT TRANSFORMER RACK TO MOUNT THE STEP-DOWN TRANSFORMER ABOVE THE STEP-UP TRANSFORMER. ALLOW SUFFICIENT CLEARANCE FOR BOTTOM ENTRY OF CONDUIT INTO STEP-DOWN TRANSFORMER. STEP-DOWN TRANSFORMER, ASSOCIATED CONDUIT, AND RACK ARE REQUIRED ONLY FOR SERVICES WHERE THE UTILITY SERVICE POINT VOLTAGE PROVIDED TO THE POWER STATION PAD IS HIGHER THAN 120/240V. SEE SERVICE POINT DETAIL SHEETS TO DETERMINE WHICH SERVICES REQUIRE THIS ADDITIONAL EQUIPMENT. SEE POWER STATION DETAILS (2) SHEET FOR ADDITIONAL TRANSFORMER RACK SPECIFICATIONS AND REQUIREMENTS.

7. REFER TO THE POWER STATION DETAILS (2) SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

POWER STATION DETAILS (1)

SHEET NO.
IT-179

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BY:(PDT) VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6R96

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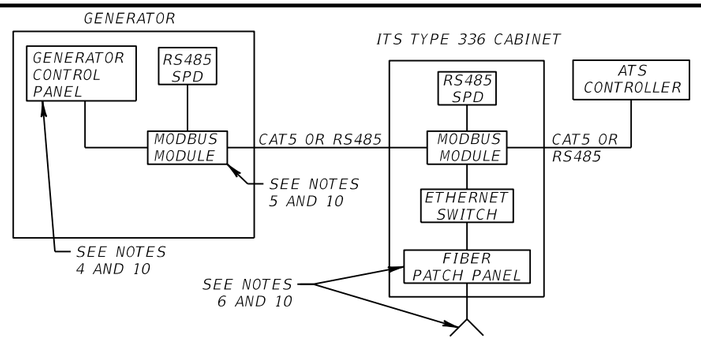


GENERATOR/ATS COMMUNICATIONS DETAIL

NTS

NOTES:

1.ALL ABOVE GROUND CONDUITS SHALL BE RIGID GALVANIZED STEEL (RGSC). CONDUITS SHALL TRANSITION TO HDPE CONDUIT BELOW GRADE AT AN APPROVED CONDUIT FITTING OR AT AN ADJACENT ELECTRICAL PULLBOX. ALL CONDUIT ROUTING FROM THE FPL TRANSFORMER TO THE POWER STATION ELECTRICAL EQUIPMENT SHALL BE FIELD ROUTED BY CONTRACTOR. FOR SIZES AND QUANTITIES OF ALL SERVICE POINT AND BRANCH CIRCUIT CONDUIT AND WIRING, REFER TO THE ONE-LINE SCHEMATIC DRAWINGS.

2.ALL GENERATORS SHALL BE PROVIDED WITH AN OUTDOOR, WEATHER PROTECTED ENCLOSURE AND SHALL BE CONSTRUCTED OF STAINLESS STEEL OR ALUMINUM. ENCLOSURE SHALL BE PAINTED (POWDER COATING IS ACCEPTABLE).

3.EACH GENERATOR SHALL BE PROVIDED WITH AN IN-SKID, DOUBLE WALLED, DIESEL FUEL TANK. THE TANK SHALL BE SIZED TO PROVIDE 48 AND 72 HOURS CONTINUOUS RUN TIME AT FULL AND HALF LOAD, RESPECTIVELY, ON A SINGLE TANK OF FUEL. EXACT FUEL TANK CAPACITY (GALLONS) SHALL BE DETERMINED BASED ON GENERATOR FUEL CONSUMPTION RATE WHEN FINAL EQUIPMENT SELECTIONS ARE MADE. EACH FUEL TANK SHALL BE PROVIDED WITH MONITORING/ALARM POINTS FOR A LEAK ALARM, LOW FUEL LEVEL AND FUEL LEVEL SENSOR, AND CONNECTED TO THE GENERATOR ANNUNCIATOR PANEL PER MANUFACTURER REQUIREMENTS.

4.EACH GENERATOR SHALL BE PROVIDED WITH A LOCAL CONTROL/ANNUNCIATOR PANEL TO PROVIDE LOCAL MONITORING, STATUS INDICATIONS AND ALARMS. COORDINATE WITH THE GENERATOR MANUFACTURER FOR THE EXACT MOUNTING LOCATION OF THE ANNUNCIATOR CONTROL PANEL IF SEPARATE FROM THE MAIN CONTROLLER. GENERATOR CONTROLLER SHALL BE CONFIGURED TO PROVIDE STATUS INDICATIONS AND ALARMS, AS DEFINED IN NFPA 110, FOR A LEVEL 1 SYSTEM. REFER TO RFP ATTACHMENT L, SECTION 9.3.1 FOR ADDITIONAL STATUS AND ALARM INDICATION REQUIREMENTS. SHOP DRAWING SUBMITTALS SHALL INCLUDE DETAILS OF THE CONTROLER/ANNUNCIATOR WIRING, CONFIGURATION OF THE STATUS INDICATIONS AND ALARMS, AND DETAILS OF THE COMMUNICATION DEVICES AND THEIR INTEGRATION WITH THE AUTOMATIC TRANSFER SWITCH AND CONNECTION TO THE ITS FIBER NETWORK.

5.EACH GENERATOR AND AUTOMATIC TRANSFER SWITCH (ATS) INSTALLATION SHALL BE PROVIDED WITH AN IP ADDRESSABLE ETHERNET TO MODBUS COMMUNICATION GATEWAY MODULE. IF THE GENERATOR AND ATS REQUIRE SEPARATE MODULES, THEY SHALL BE PROVIDED. THE MODBUS MODULE SHALL BE FURNISHED AND INSTALLED BY THE GENERATOR AND ATS MANUFACTURER AND SHALL BE B&B VLINX MES901 MODEL OR APPROVED EQUAL. IN ADDITION TO THE MODBUS MODULE(S), THE GENERATOR AND ATS MANUFACTURER SHALL PROVIDE ANY OTHER NECESSARY ACCESSORIES TO PROVIDE THE CAPABILITY FOR REMOTE MONITORING AND CONTROL OF THE GENERATOR AND ATS FROM THE FDOT'S TRANSPORTATION MANAGEMENT CENTER (TMC). THE GENERATOR AND ATS SHALL BE TIED TOGETHER USING MANUFACTURER RECOMMENDED COMMUNICATION CABLING. ALL COMMUNICATIONS EQUIPMENT SHALL BE COMPATIBLE WITH THE FDOT COMMUNICATION PROGRAMS CURRENTLY USED BY THE TMC.

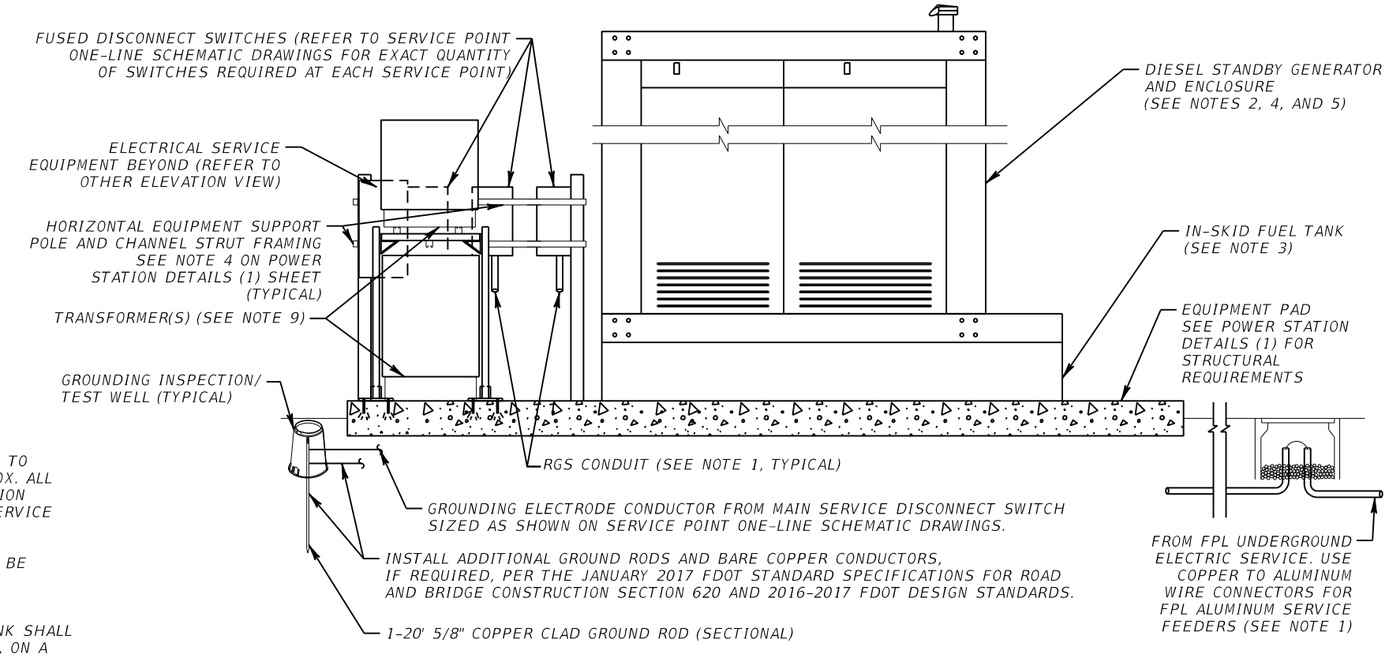
6.A FIBER OPTIC PATCH PANEL (FOPP) SHALL BE INSTALLED IN A NEMA 3R ENCLOSURE AT THE POWER STATION EQUIPMENT PAD. THIS FOPP SHALL BE CONNECTED TO THE FOPP LOCATED WITHIN THE NEAREST ASSOCIATED ITS EQUIPMENT CABINET OR NEAREST FIBER SPLICE VAULT TO TIE INTO THE ITS NETWORK AND PROVIDE REMOTE MONITORING/CONTROL FROM THE TRANSPORTATION MANAGEMENT CENTER (TMC). REFER TO THE ITS ELECTRICAL PLAN SHEETS, THE ITS PLAN SHEETS, AND ITS COMMUNICATION OVERVIEW SHEETS FOR DESIGNATION OF WHERE THE FOPP (LOCATED AT EACH POWER STATION GENERATOR/ATS SYSTEM) WILL BE CONNECTED INTO THE ITS FIBER NETWORK.

7.TOP ENTRY OF CONDUIT INTO ELECTRICAL EQUIPMENT ENCLOSURES SHALL NOT BE USED FOR ANY CONDUIT INSTALLED BETWEEN ELECTRICAL EQUIPMENT. THREADED HUBS SHALL BE USED FOR ALL RACEWAY CONNECTIONS TO ELECTRICAL EQUIPMENT.

8. RGSC CONDUIT SHALL TRANSITION TO HDPE CONDUIT (UL LISTED FOR ELECTRICAL USE) AT THE FIRST ELECTRICAL PULL BOX DOWNSTREAM FROM THE 600V CIRCUIT FUSED DISCONNECT SWITCHES.

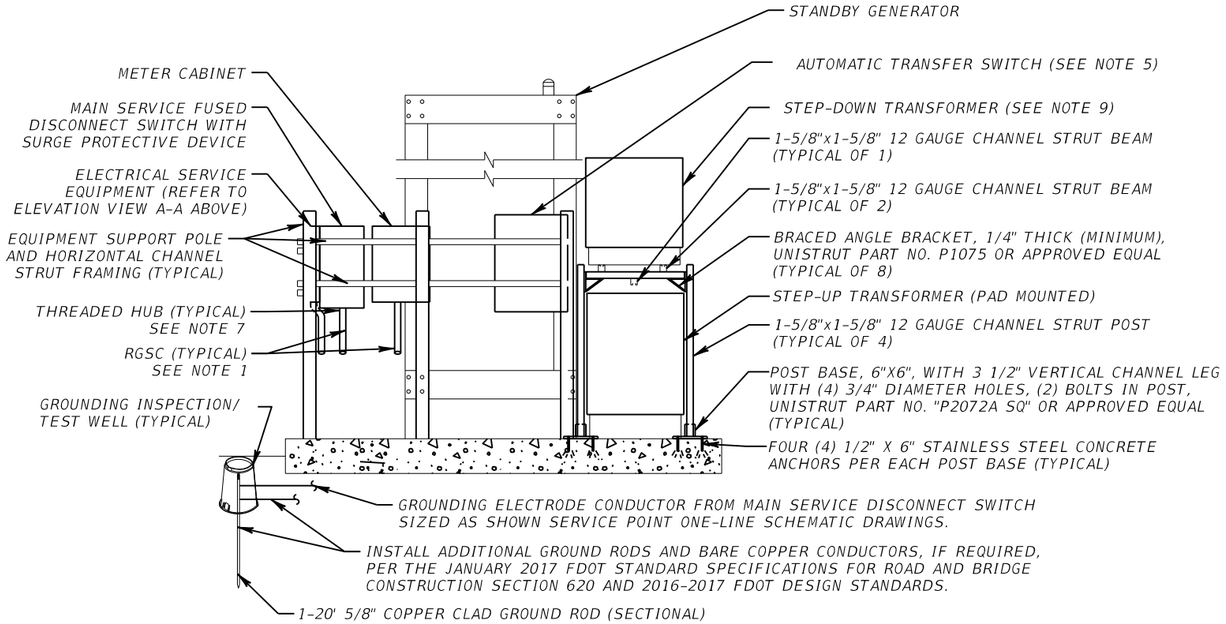
9. RACK MOUNTED STEP-DOWN TRANSFORMER, ASSOCIATED CONDUIT, AND CHANNEL STRUT RACK SYSTEM ARE REQUIRED AT POWER STATION/SERVICE POINT E ONLY.

10. REFER TO ITS CABINET DETAILS AND WIRING DIAGRAM ON SHEETS IT-119 AND IT-129A, RESPECTIVELY, FOR ADDITIONAL INFORMATION ON THE ITS CABINETS AT THE ITS POWER STATIONS FOR THE GENERATOR/ATS MONITORING EQUIPMENT.



ELEVATION A-A: POWER STATION DETAILS (1)

NTS
(NOTES 1 THRU 10)



ELEVATION B-B: POWER STATION DETAILS (1)

NTS
(NOTES 1 THRU 10)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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2202 North West Shore Blvd., Suite 300
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EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

POWER STATION DETAILS (2)

SHEET NO.
IT-180

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RELEASED FOR CONSTRUCTION
BY:(FDOT)_____ DATE: 05/21/2019
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FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96

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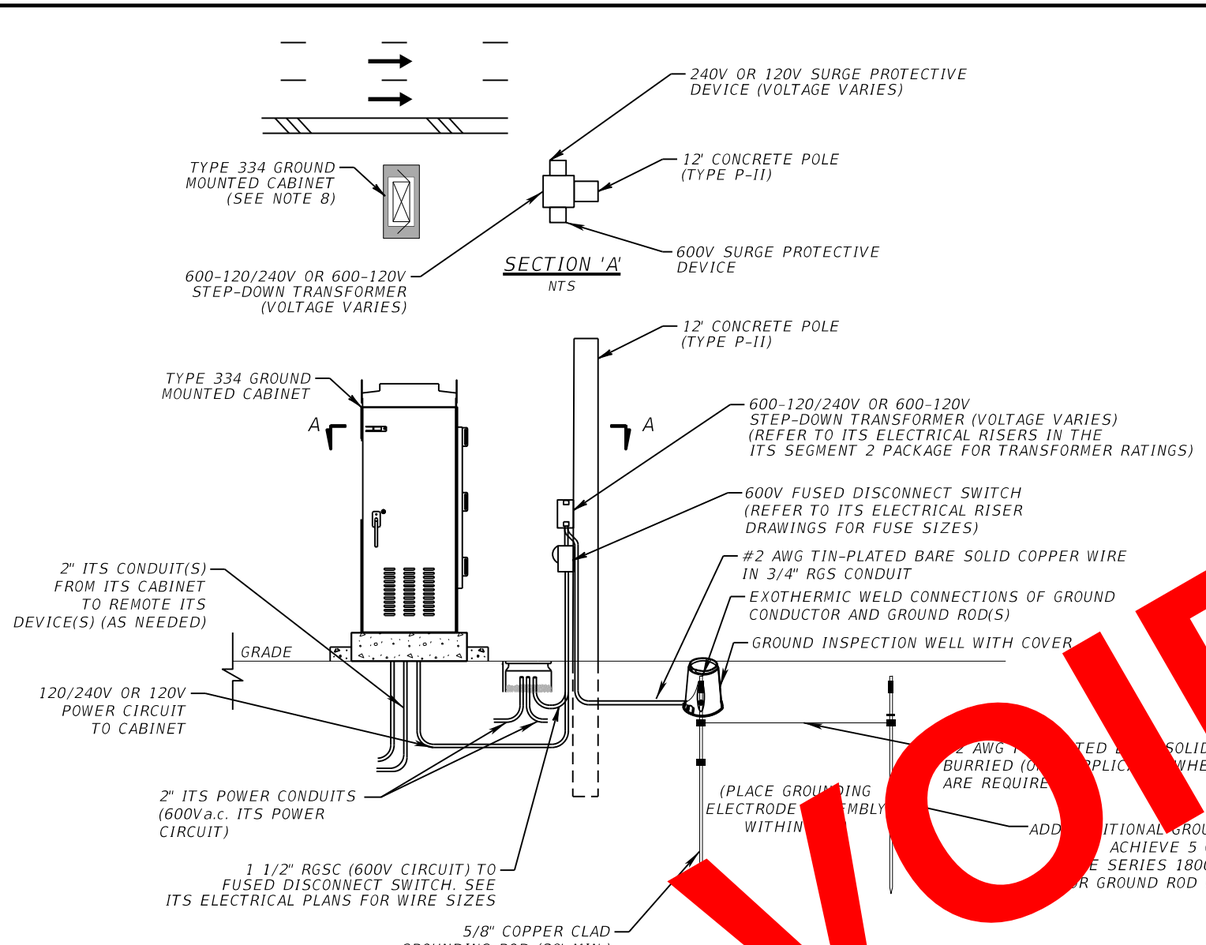

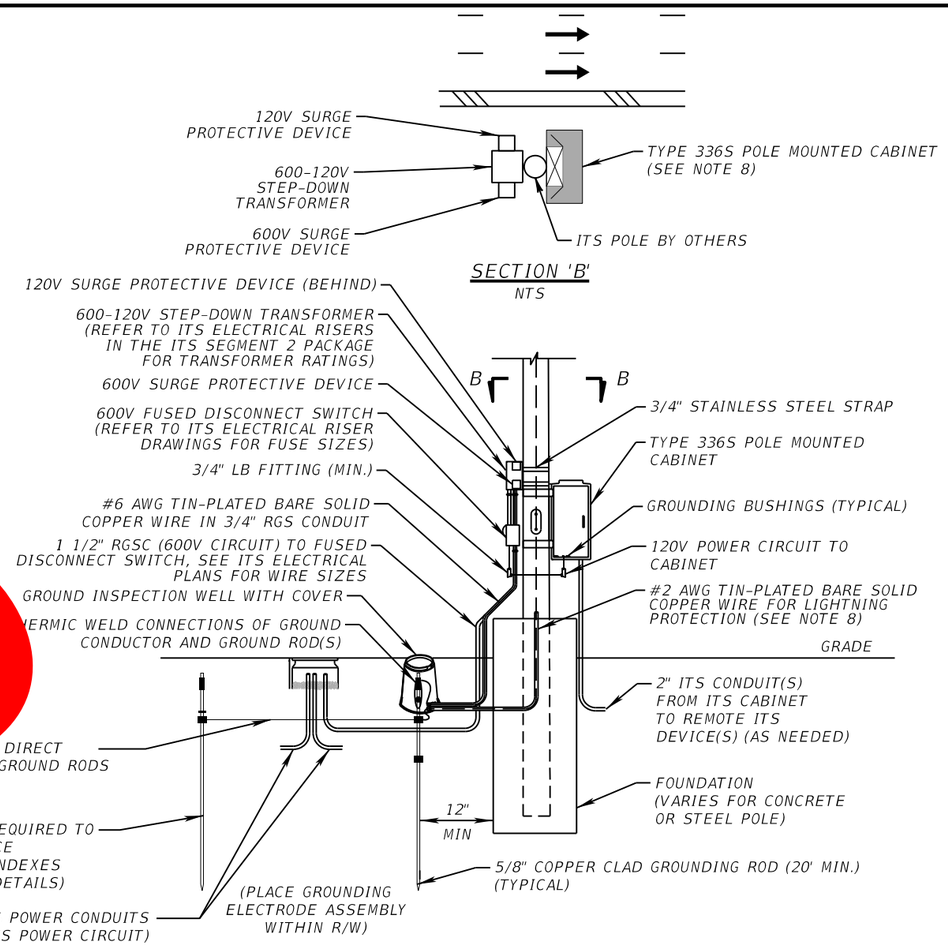

VOID

NOTES:

1. ALL EXOTHERMIC WELDS SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.

2. THE CONTRACTOR SHALL USE EXOTHERMIC WELD MOLDS RECOMMENDED BY THE MANUFACTURER SPECIFIC TO EACH WELD APPLICATION. MOLDS SHALL BE APPROVED BY THE MANUFACTURER FOR #2 AWG AND #6 AWG TIN-PLATED SOLID COPPER CONDUCTOR WIRE.

3. ALL ITS DEVICE POLES SHALL BE CONNECTED TO THE GROUNDING ARRAY. GROUND MOUNTED CABINETS WHICH SUPPORT ITS DEVICES INSTALLED ON THE ITS DEVICE POLE SHALL ALSO BE GROUNDED TO THE COMMON GROUNDING ARRAY IF THE CABINETS ARE WITHIN 100 FEET OF THE ITS DEVICE POLE.

4. GROUND WIRE LEADS SHALL BE BONDED TO EQUIPMENT CABINETS WITH A COPPER GROUND BAR. BOND SHALL BE LOCATED ON THE INSIDE OF THE CABINET WITH THE GROUND WIRES TERMINATED IN CABLE LUGS, BOLTED TO THE GROUND BAR AND PROTECTED WITH AN ANTI-CORROSION COMPOUND (NO-OX OR SIMILAR).

NOTES CONTINUED:

5. THE GROUNDING SYSTEM SHALL MEET THE REQUIREMENT OF 5 OHMS OR LESS AS MEASURED FROM THE POLE STRUCTURE USING THE THREE-POINT GROUND MEASUREMENT TECHNIQUE. REFER TO STANDARD SPEC. 620-3 FOR MORE DETAILS ON GROUNDING INSTALLATION REQUIREMENTS.

6. ALL GROUNDING MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 620 OF THE FDOT SPECIFICATIONS UNLESS OTHERWISE NOTED.

7. REFER TO THE ITS CABINET CONFIGURATION DETAILS FOR ADDITIONAL INFORMATION ON HOW THE ITS CABINET SHOULD BE INSTALLED AND THE CABINET'S ORIENTATION RELATIVE TO THE ROADWAY AND THE DIRECTION OF TRAFFIC.

8. REFER TO INDEX 18102 FOR REQUIREMENTS FOR THE #2 AWG LIGHTNING PROTECTION CONDUCTOR AND ASSOCIATED CONDUIT FOR STEEL POLE VS CONCRETE POLE INSTALLATIONS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL DETAILS (1)

SHEET NO.
IT-181

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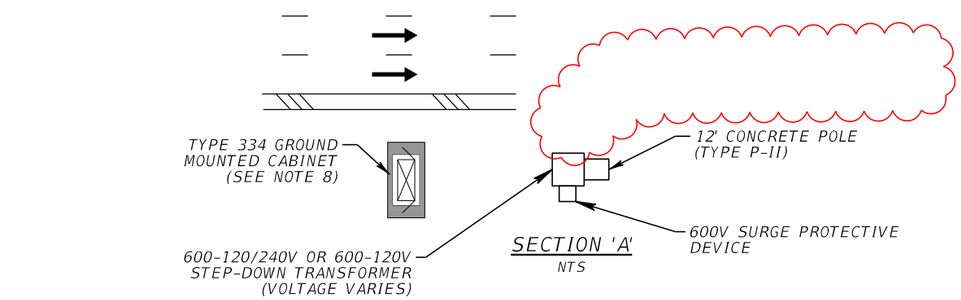
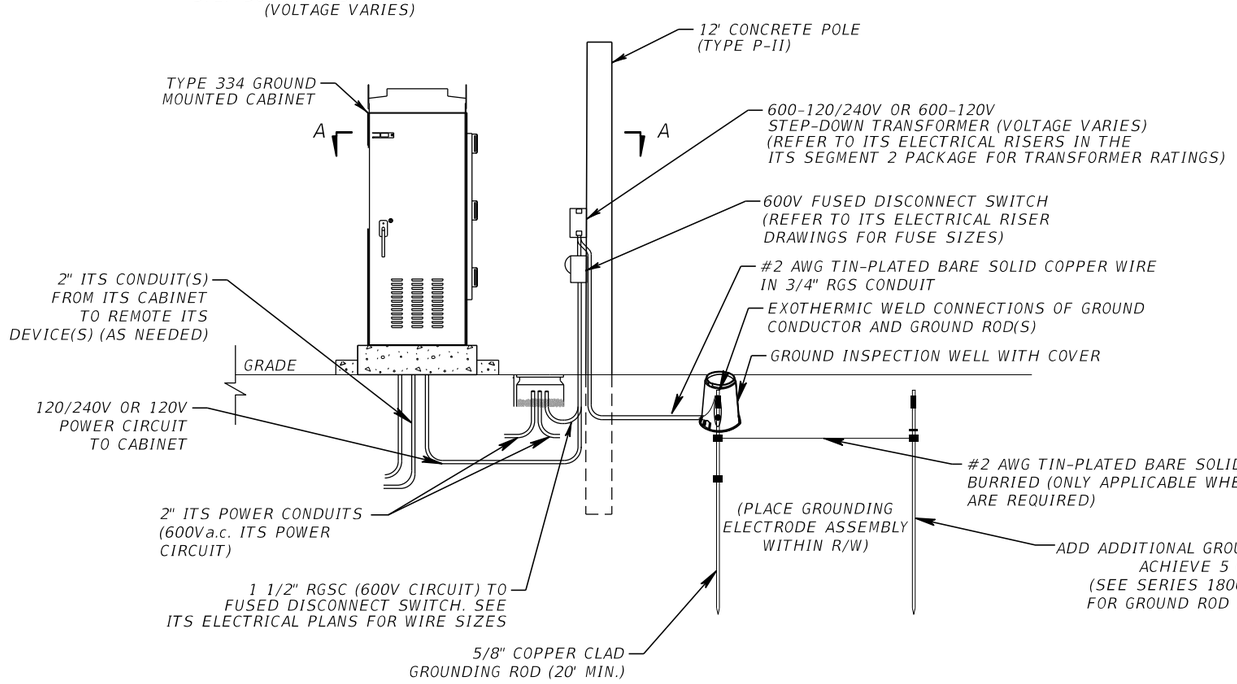
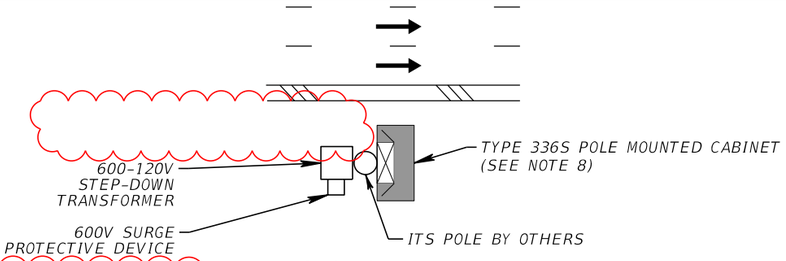
BY:(PSDT)_____ VS DATE: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



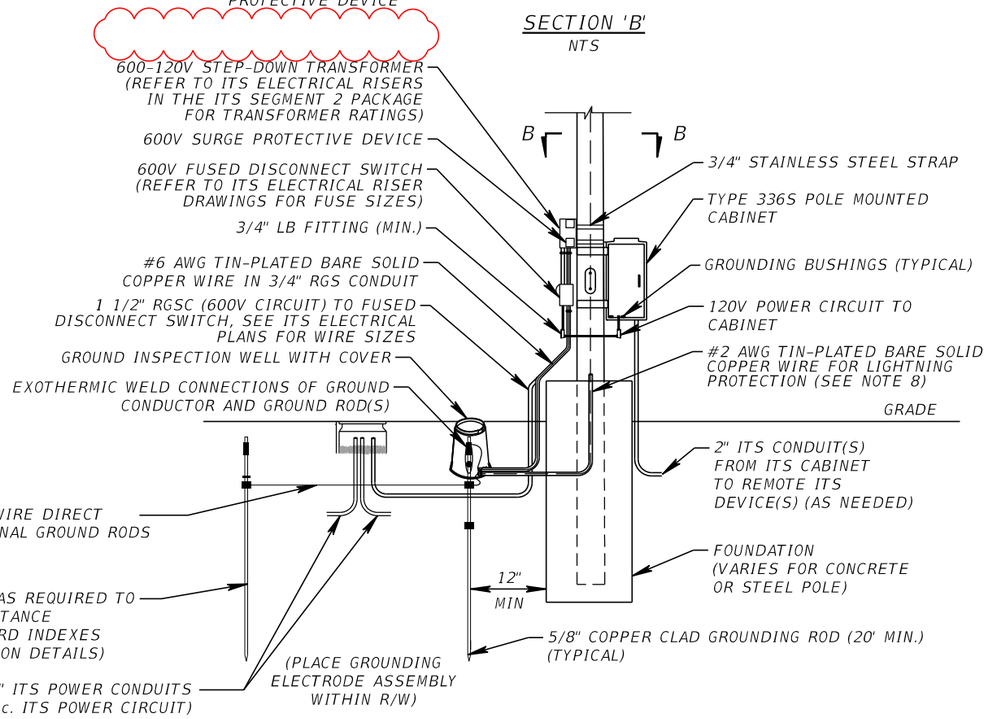
SECTION 'A'
NTS



TYPICAL GROUND MOUNTED CABINET-FDOT TYPE 334 CABINET POWER DETAIL
600V-120/240V OR 600V-120V POWER TO ITS EQUIPMENT
NTS



SECTION 'B'
NTS



TYPICAL POLE MOUNTED CABINET-FDOT TYPE 336S CABINET POWER DETAIL
600-120V POWER TO ITS EQUIPMENT
NTS

NOTES:

1. ALL EXOTHERMIC WELDS SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.

2. THE CONTRACTOR SHALL USE EXOTHERMIC WELD MOLDS RECOMMENDED BY THE MANUFACTURER SPECIFIC TO EACH WELD APPLICATION. MOLDS SHALL BE APPROVED BY THE MANUFACTURER FOR #2 AWG AND #6 AWG TIN-PLATED SOLID COPPER CONDUCTOR WIRE.

3. ALL ITS DEVICE POLES SHALL BE CONNECTED TO THE GROUNDING ARRAY. GROUND MOUNTED CABINETS WHICH SUPPORT ITS DEVICES INSTALLED ON THE ITS DEVICE POLE SHALL ALSO BE GROUNDED TO THE COMMON GROUNDING ARRAY IF THE CABINETS ARE WITHIN 100 FEET OF THE ITS DEVICE POLE.

4. GROUND WIRE LEADS SHALL BE BONDED TO EQUIPMENT CABINETS WITH A COPPER GROUND BAR. BOND SHALL BE LOCATED ON THE INSIDE OF THE CABINET WITH THE GROUND WIRES TERMINATED IN CABLE LUGS, BOLTED TO THE GROUND BAR AND PROTECTED WITH AN ANTI-CORROSION COMPOUND (NO-OX OR SIMILAR).

NOTES CONTINUED:

5. THE GROUNDING SYSTEM SHALL MEET THE REQUIREMENT OF 5 OHMS OR LESS AS MEASURED FROM THE POLE STRUCTURE USING THE THREE-POINT GROUND MEASUREMENT TECHNIQUE. REFER TO STANDARD SPEC. 620-3 FOR MORE DETAILS ON GROUNDING INSTALLATION REQUIREMENTS.

6. ALL GROUNDING MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 620 OF THE FDOT SPECIFICATIONS UNLESS OTHERWISE NOTED.

7. REFER TO THE ITS CABINET CONFIGURATION DETAILS FOR ADDITIONAL INFORMATION ON HOW THE ITS CABINET SHOULD BE INSTALLED AND THE CABINET'S ORIENTATION RELATIVE TO THE ROADWAY AND THE DIRECTION OF TRAFFIC.

8. REFER TO INDEX 18102 FOR REQUIREMENTS FOR THE #2 AWG LIGHTNING PROTECTION CONDUCTOR AND ASSOCIATED CONDUIT FOR STEEL POLE VS CONCRETE POLE INSTALLATIONS.

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	AS-BUILT PER RFI 126		

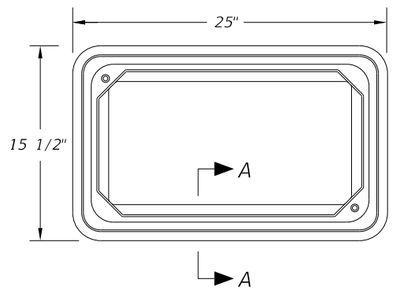
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

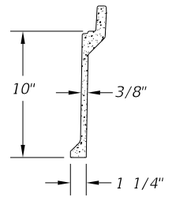
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

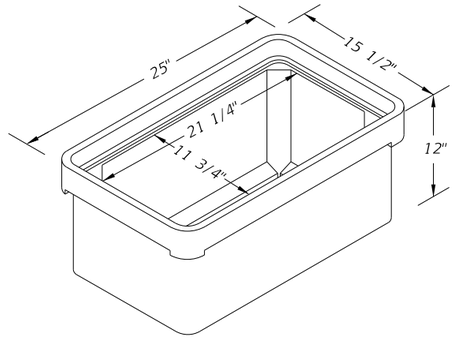
ITS ELECTRICAL DETAILS (1)

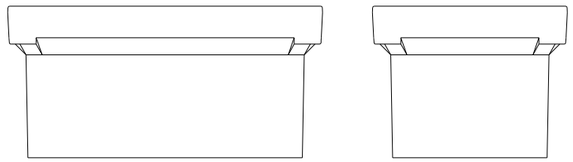
SHEET NO.
IT-181

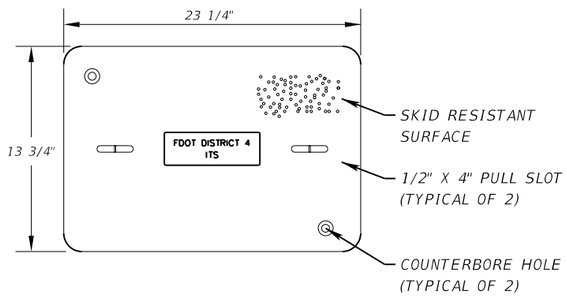


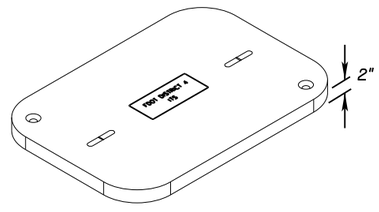


SECTION A-A









NOTES:

1. PER RFP ATTACHMENT L (ITS DEPLOYMENT REQUIREMENTS), ALL ITS ELECTRICAL PULLBOXES SHALL HAVE A MINIMUM AASHTO TIER 22 LOAD RATING, UNLESS OTHERWISE NOTED ON THE PLANS.

2. ANY PULLBOXES INSTALLED IN THE ROADWAY SHOULDERS SHALL HAVE A MINIMUM AASHTO HS-20 LOAD RATING.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL DETAILS (2)

SHEET NO.
IT-182

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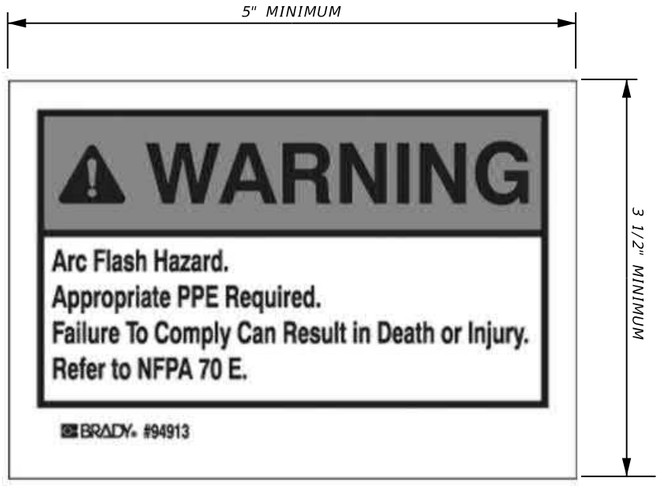
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E6A96
BY: (FDOT) VS DATE: 05/21/2019



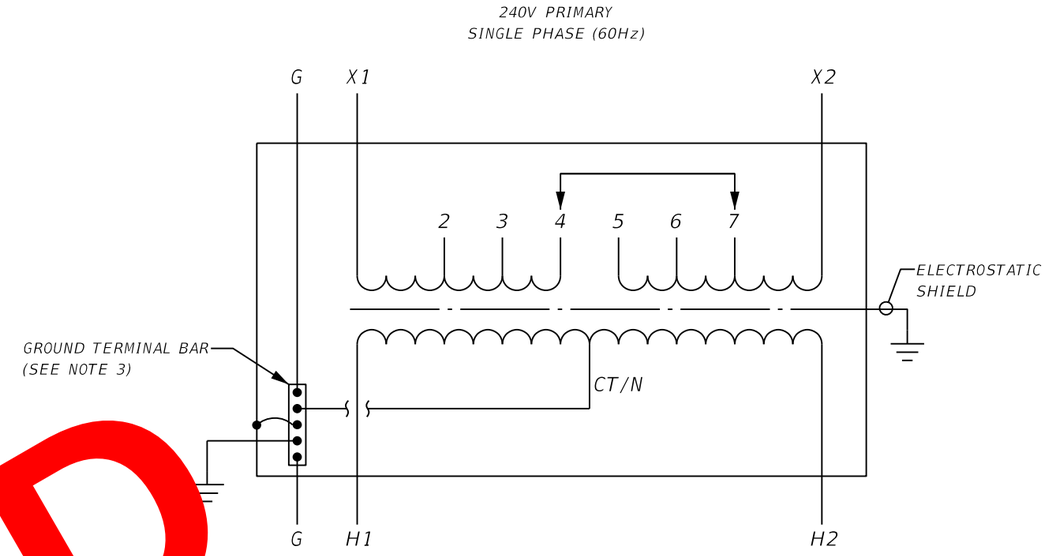
TYPICAL ARC FLASH HAZARD WARNING LABEL

SCALE: 3/4" = 1"

1. THE LABEL SHOWN IN THIS DETAIL IS AN EXAMPLE OF A TYPICAL/GENERIC ARC FLASH HAZARD WARNING LABEL (FROM NEC 2011 EXHIBIT 110.8). PER RFP ATTACHMENT L, SECTION 9, AN ARC FLASH RISK ASSESSMENT WAS PERFORMED FOR THE NEW ELECTRICAL DISTRIBUTION EQUIPMENT (PANELBOARDS, TRANSFORMERS, LOAD CENTERS, DISCONNECTS, ETC.). ADDITIONALLY, NEC ARTICLE 110.16 REQUIRES THE ARC FLASH WARNING LABELS TO BE INSTALLED ON ALL ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMIMITED TO: SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, MOTOR CONTROL CENTERS, DISCONNECT SWITCHES, AND ANY OTHER ELECTRICAL DISTRIBUTION EQUIPMENT LIKELY TO REQUIRE EXAMINATION OR MAINTENACE WHILE ENERGIZED.

2. REFER TO THE FINAL SEGMENT 2 ITS POWER REPORT FOR ARC FLASH RISK ASSESSMENT RESULTS AND ARC FLASH LABELS.

3. IF ARC FLASH LABELS ARE INSTALLED ON ANY ADDITIONAL ELECTRICAL EQUIPMENT NOT LISTED IN THE ARC FLASH RISK ASSESSMENT AND LIST OF PROVIDED ARC FLASH LABELS, THEN TYPICAL/GENERIC LABELS (AS SHOW IN THE DETAIL ABOVE) CAN BE PROVIDED. HOWEVER, THESE LABELS MUST MEET THE REQUIREMENTS OF NEC 2011 ARTICLE 110.16 AND 110.21(B). IF THE LABEL USED DIFFERS FROM THE ONE SHOWN ON THIS SHEET, THE WARNING LABEL SHALL HAVE FONT SIZE, WORDS, COLORS, SYMBOLS AND LOCATION THAT MEET THE REQUIREMENTS OF ANSI Z535.4-2011 (PRODUCT SAFETY SIGNS AND LABELS).



STEP-UP TRANSFORMER WIRING DIAGRAM

NTS

1. DRY TYPE STEP-UP TRANSFORMERS SHALL BE UL LISTED, NEMA TP-1 ENERGY EFFICIENT TYPE. PER THE REQUIREMENTS OF ATTACHMENT L OF THE RFP, THE TRANSFORMERS SHALL BE PROVIDED WITH THE FOLLOWING TAPS: 2.5% AND 5% FULL CAPACITY ABOVE NORMAL (FCAN) AND 2.5% AND 5% FULL CAPACITY BELOW NORMAL (FCBN) TAPS ON THE PRIMARY WINDING, AS A MINIMUM. REFER TO THE RFP AND JANUARY 2017 FDOT STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

2. DESIGNED, MANUFACTURED, AND TESTED IN COMPLETE ACCORDANCE WITH CURRENT UL, NEMA, ANSI, AND IEEE STANDARDS INCLUDING ANSI C84.1

3. A GROUND TERMINAL BAR SHALL BE INSTALLED INSIDE EACH STEP-UP TRANSFORMER AND SECURED TO THE INSIDE OF THE ENCLOSURE. THE GROUNDING ELECTRODE CONDUCTOR (GEC) CONNECTION AND INSTALLATION OF THE SYSTEM BONDING JUMPER SHALL BE MADE WITHIN THE STEP-UP TRANSFORMER ENCLOSURE USING THE TERMINAL GROUND BAR AS SHOWN IN THE WIRING DETAIL ABOVE (UNLESS OTHERWISE APPROVED BY THE ENGINEER). A SYSTEM BONDING JUMPER SHALL BE INSTALLED BETWEEN THE TRANSFORMER ENCLOSURE AND THE GROUND TERMINAL BAR TO CONNECT THE GROUNDED CIRCUIT CONDUCTOR (NEUTRAL) TO THE EQUIPMENT GROUNDING CONDUCTOR(S). MAINTAIN ISOLATION OF THE GROUNDED CONDUCTOR (NEUTRAL) AND EQUIPMENT GROUNDING CONDUCTORS AT ALL POINTS DOWNSTREAM (LOAD SIDE) OF THE SYSTEM BONDING JUMPER EXCEPT WHERE ADDITIONAL SEPARATELY DERIVED SYSTEMS ARE INSTALLED FURTHER DOWNSTREAM.

VOID

RELEASED FOR CONSTRUCTION
BY:PDOT1 VS DATE: 05/21/2019
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FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT:E4A96

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

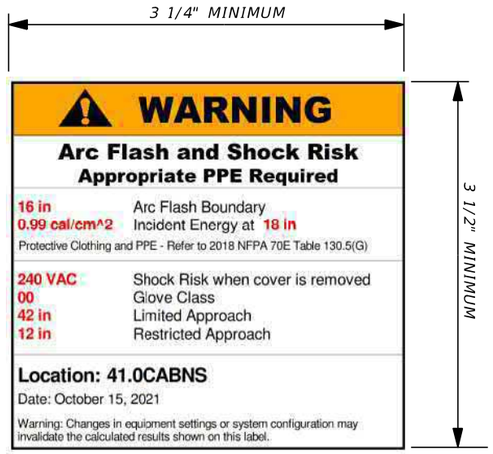
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL DETAILS (3)

SHEET NO.
IT-183

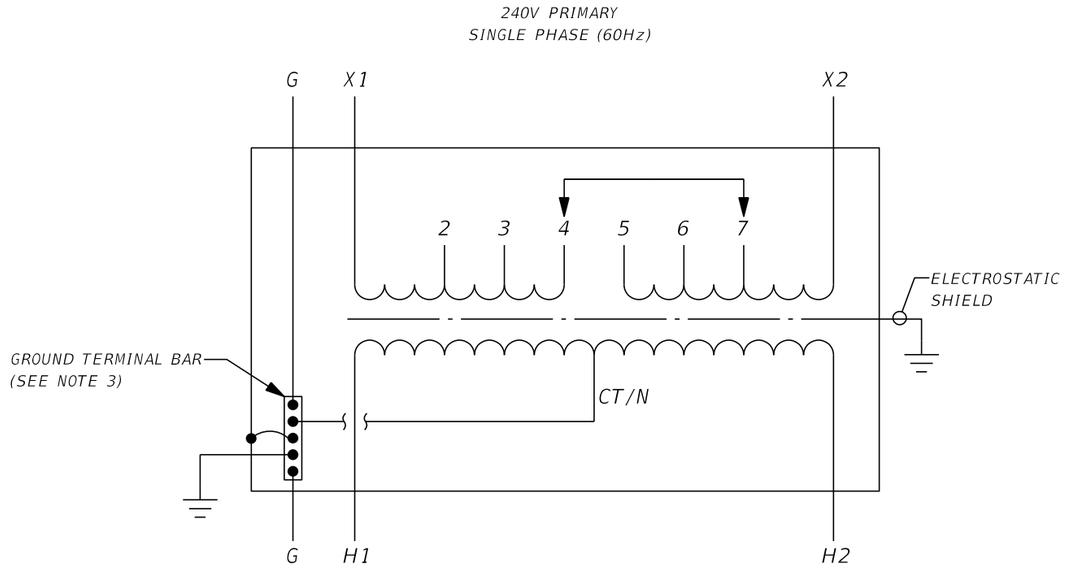


TYPICAL ARC FLASH HAZARD WARNING LABEL

SCALE: N.T.S.

1. THE ARC FLASH WARNING LABEL SHOWN IN THIS DETAIL IS A TYPICAL EXAMPLE AND IS ONLY SHOWN FOR ILLUSTRATIVE PURPOSES. REFER TO THE AS-BUILT ITS POWER REPORT FOR THE ARC FLASH RISK ASSESSMENT RESULTS AND ACTUAL ARC FLASH WARNING LABELS THAT WILL BE INSTALLED ON THE ITS POWER EQUIPMENT.

2. PER RFP ATTACHMENT L, SECTION 9, AN ARC FLASH RISK ASSESSMENT WAS PERFORMED FOR EACH NEW ITS ELECTRICAL SYSTEM. PER NEC ARTICLE 110.16, ARC FLASH WARNING LABELS WILL BE INSTALLED ON ALL ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMIMITED TO: SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, MOTOR CONTROL CENTERS, DISCONNECT SWITCHES, AND ANY OTHER ELECTRICAL DISTRIBUTION EQUIPMENT LIKELY TO REQUIRE EXAMINATION OR MAINTENACE WHILE ENERGIZED.



STEP-UP TRANSFORMER WIRING DIAGRAM

NTS

1. DRY TYPE STEP-UP TRANSFORMERS SHALL BE UL LISTED, NEMA TP-1 ENERGY EFFICIENT TYPE. PER THE REQUIREMENTS OF ATTACHMENT L OF THE RFP, THE TRANSFORMERS SHALL BE PROVIDED WITH THE FOLLOWING TAPS: 2.5% AND 5% FULL CAPACITY ABOVE NORMAL (FCAN) AND 2.5% AND 5% FULL CAPACITY BELOW NORMAL (FCBN) TAPS ON THE PRIMARY WINDING, AS A MINIMUM. REFER TO THE RFP AND JANUARY 2017 FDOT STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

2. DESIGNED, MANUFACTURED, AND TESTED IN COMPLETE ACCORDANCE WITH CURRENT UL, NEMA, ANSI, AND IEEE STANDARDS INCLUDING ANSI C84.1

3. A GROUND TERMINAL BAR SHALL BE INSTALLED INSIDE EACH STEP-UP TRANSFORMER AND SECURED TO THE INSIDE OF THE ENCLOSURE. THE GROUNDING ELECTRODE CONDUCTOR (GEC) CONNECTION AND INSTALLATION OF THE SYSTEM BONDING JUMPER SHALL BE MADE WITHIN THE STEP-UP TRANSFORMER ENCLOSURE USING THE TERMINAL GROUND BAR AS SHOWN IN THE WIRING DETAIL ABOVE (UNLESS OTHERWISE APPROVED BY THE ENGINEER). A SYSTEM BONDING JUMPER SHALL BE INSTALLED BETWEEN THE TRANSFORMER ENCLOSURE AND THE GROUND TERMINAL BAR TO CONNECT THE GROUNDED CIRCUIT CONDUCTOR (NEUTRAL) TO THE EQUIPMENT GROUNDING CONDUCTOR(S). MAINTAIN ISOLATION OF THE GROUNDED CONDUCTOR (NEUTRAL) AND EQUIPMENT GROUNDING CONDUCTORS AT ALL POINTS DOWNSTREAM (LOAD SIDE) OF THE SYSTEM BONDING JUMPER EXCEPT WHERE ADDITIONAL SEPARATELY DERIVED SYSTEMS ARE INSTALLED FURTHER DOWNSTREAM.

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	AS-BUILTS: ARC FLASH WARNING LABEL CHANGES		

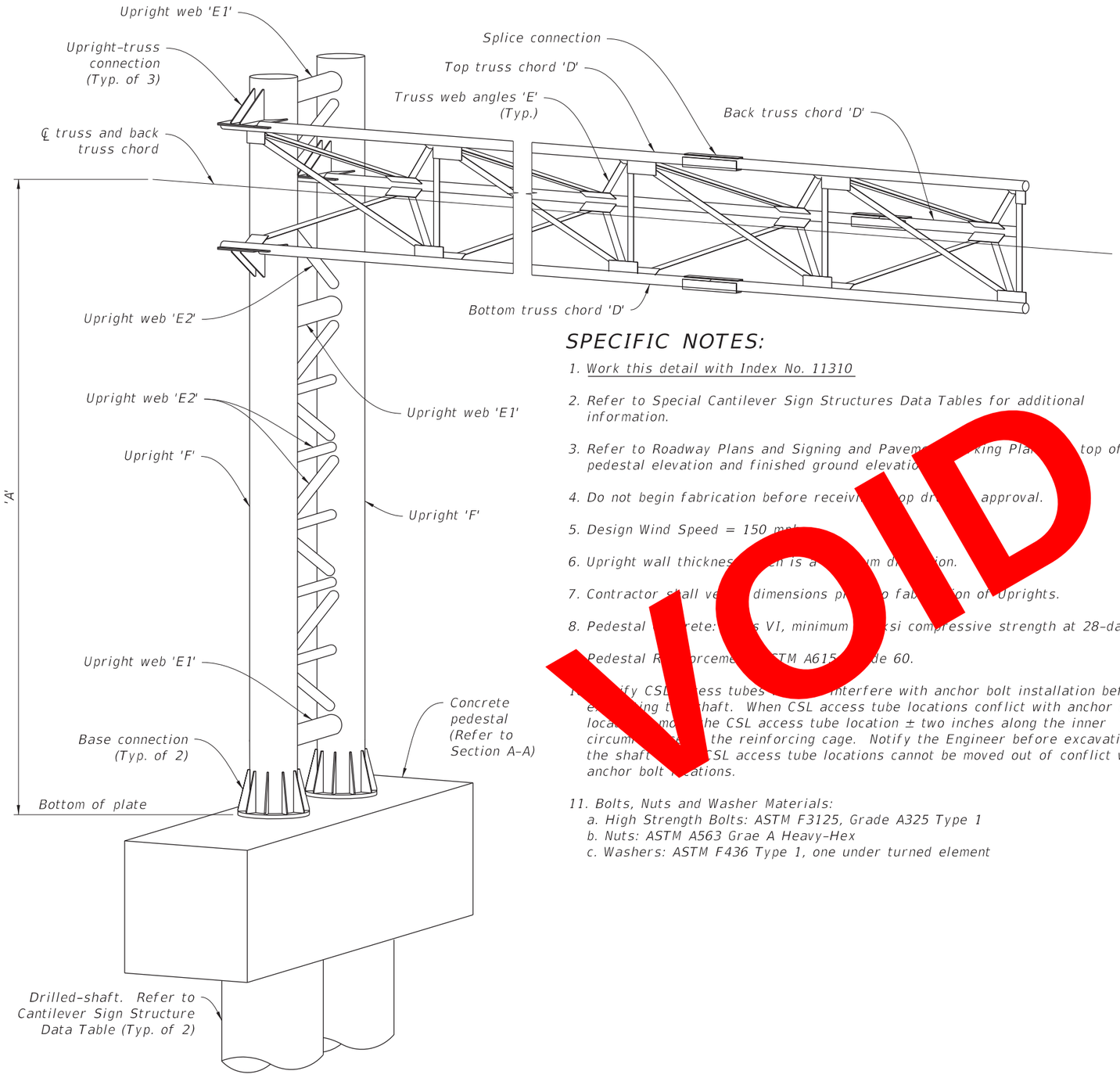
WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS ELECTRICAL DETAILS (3)

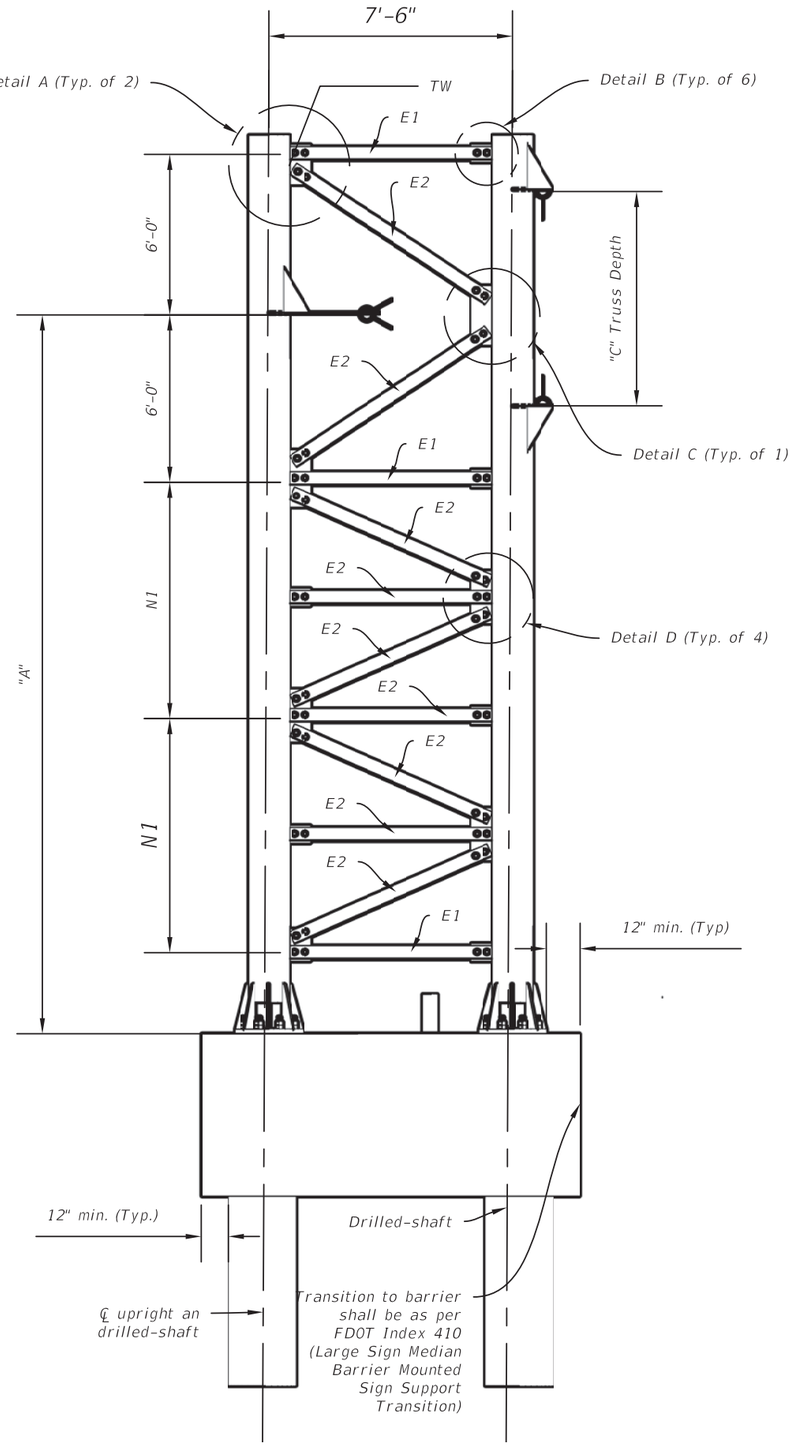
SHEET NO.
IT-183



ISOMETRIC VIEW

SPECIFIC NOTES:

1. Work this detail with Index No. 11310
2. Refer to Special Cantilever Sign Structures Data Tables for additional information.
3. Refer to Roadway Plans and Signing and Pavem[illegible]king Pla[illegible] top of pedestal elevation and finished ground elevatio[illegible]
4. Do not begin fabrication before receiv[illegible]op dr[illegible] approval.
5. Design Wind Speed = 150 m[illegible]
6. Upright wall thicknes[illegible]h is a [illegible]m d[illegible]ion.
7. Contractor [illegible]all ve[illegible] dimensions p[illegible]o fab[illegible]ion of Uprights.
8. Pedestal [illegible]rete: [illegible]s VI, minimum [illegible]ksi compressive strength at 28-days.
9. Pedestal R[illegible]orceme[illegible]TM A615[illegible]de 60.
10. [illegible]ify CSL[illegible]ess tubes [illegible]interfere with anchor bolt installation before e[illegible]ing t[illegible]haft. When CSL access tube locations conflict with anchor bolt loca[illegible]mo[illegible]he CSL access tube location ± two inches along the inner circum[illegible] the reinforcing cage. Notify the Engineer before excavating the shaft [illegible]CSL access tube locations cannot be moved out of conflict with anchor bolt [illegible]ations.
11. Bolts, Nuts and Washer Materials:
    a. High Strength Bolts: ASTM F3125, Grade A325 Type 1
    b. Nuts: ASTM A563 Grae A Heavy-Hex
    c. Washers: ASTM F436 Type 1, one under turned element



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RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CAP ENGINEERING, INC.
E.B. # 27051
343 Almeria Avenue
Coral Gables, FL 33134
Ph: (305) 448.1711, Fax: (305) 448.1712
Morgan Villanueva, P.E.,S.I.
FL Lic. No. 60292

DRAWN BY: J.R.
CHECKED BY: C.D.P.
DESIGNED BY: J.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

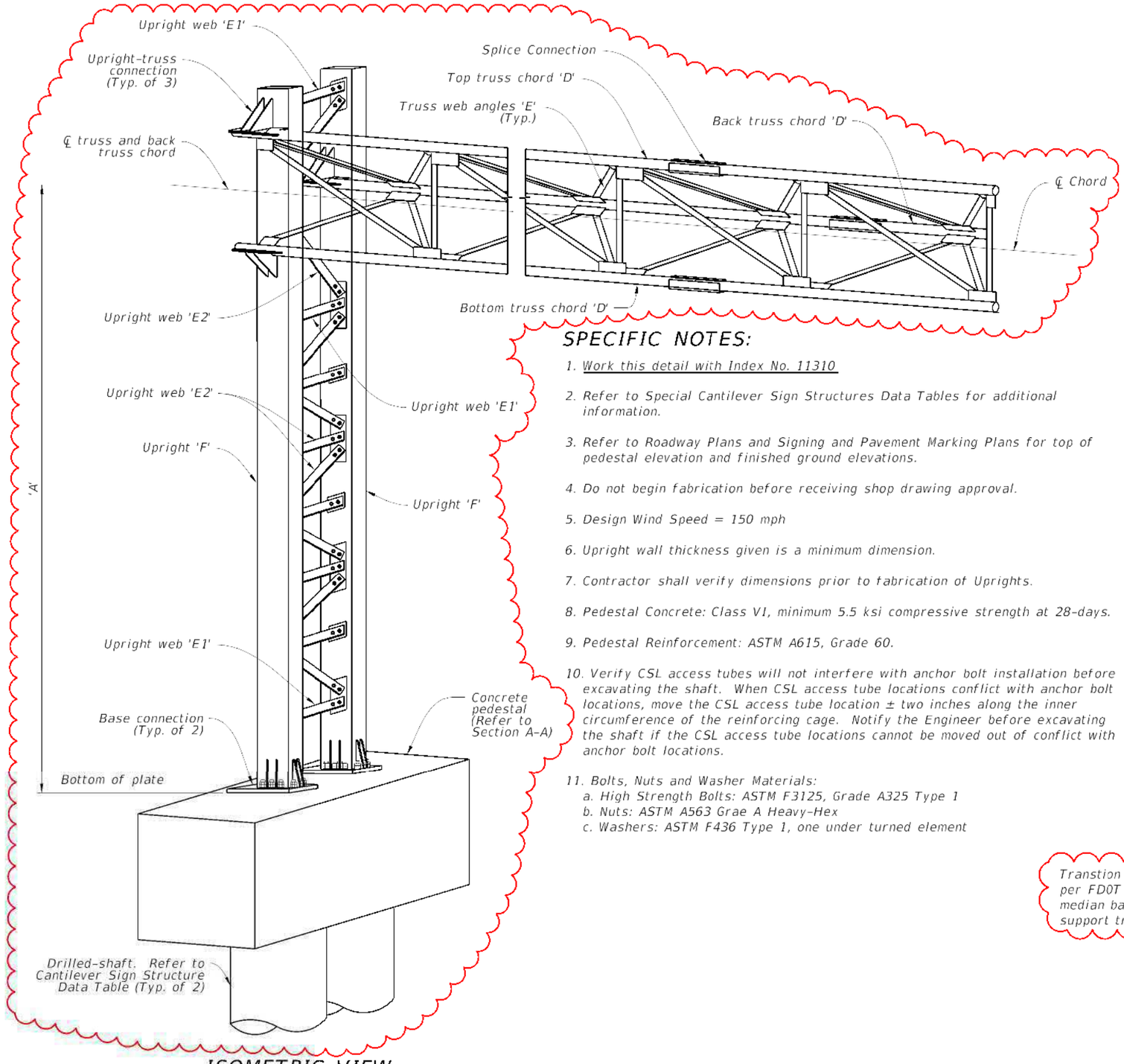
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAIL (1 OF 4)

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

REF. DWG. NO.

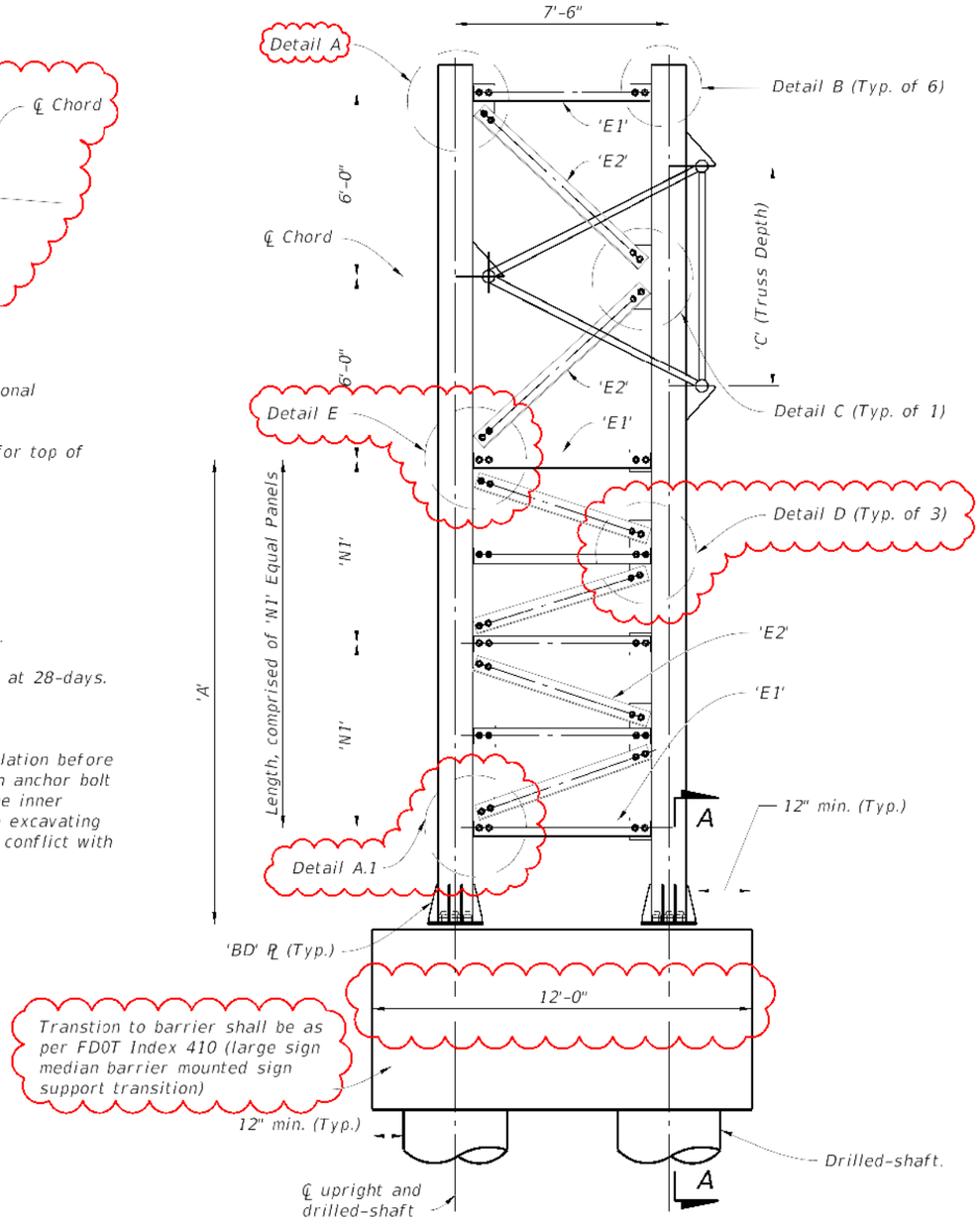
SHEET NO. IT-184



ISOMETRIC VIEW

SPECIFIC NOTES:

1. Work this detail with Index No. 11310
2. Refer to Special Cantilever Sign Structures Data Tables for additional information.
3. Refer to Roadway Plans and Signing and Pavement Marking Plans for top of pedestal elevation and finished ground elevations.
4. Do not begin fabrication before receiving shop drawing approval.
5. Design Wind Speed = 150 mph
6. Upright wall thickness given is a minimum dimension.
7. Contractor shall verify dimensions prior to fabrication of Uprights.
8. Pedestal Concrete: Class VI, minimum 5.5 ksi compressive strength at 28-days.
9. Pedestal Reinforcement: ASTM A615, Grade 60.
10. Verify CSL access tubes will not interfere with anchor bolt installation before excavating the shaft. When CSL access tube locations conflict with anchor bolt locations, move the CSL access tube location ± two inches along the inner circumference of the reinforcing cage. Notify the Engineer before excavating the shaft if the CSL access tube locations cannot be moved out of conflict with anchor bolt locations.
11. Bolts, Nuts and Washer Materials:
    a. High Strength Bolts: ASTM F3125, Grade A325 Type 1
    b. Nuts: ASTM A563 Grae A Heavy-Hex
    c. Washers: ASTM F436 Type 1, one under turned element



ELEVATION VIEW

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
09/09/21	M.V.	AS-BUILT REVISION			

CAP ENGINEERING, INC.
E.B. # 27051
343 Almeria Avenue
Coral Gables, FL 33134
Ph: (305) 448.1711, Fax: (305) 448.1712
Morgan Villanueva, P.E.,S.I.
FL Lic. No. 60292

DRAWN BY:	CHECKED BY:	DESIGNED BY:	CHECKED BY:
J.R.	C.D.P.	J.R.	M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAIL (1 OF 5)

REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO. IT-184

alvarezr 9/10/2021 2:40:22 PM Z:\Shared\ENG\PROJECTS\2018\I-95, 3B-1 Post Design\As-Built\As-Built CADD Files\ITS\

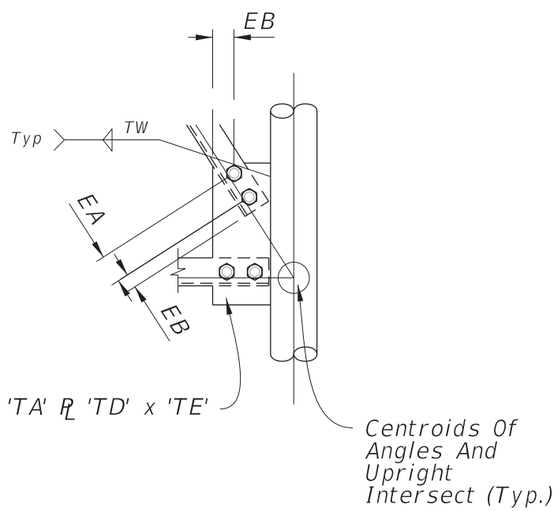
DATA TABLE (for values not shown in index)

SIGN NO.	STATION	SPECIAL MEMBER SIZES		TW	PANELS			TA	TB	TC		TD		TE		TF	
		E1 (DOUBLE ANGLE)	E2 (DOUBLE ANGLE)		N1												
		Angle (in)	Angle (in)	in	#	ft	in	in	in	ft	in	ft	in	ft	in	ft	in
DMS Front Access	3124+00.00	Fy=50ksi 2L8 x 8 x 1/2	Fy=50ksi 2L8 x 8 x 1/2	3/8	2	6	0	1/2	1	2	1-1/4	0	8-3/4	2	3/4	3	10-1/2
DMS Front Access	3128+50.00	Fy=50ksi 2L8 x 8 x 1/2	Fy=50ksi 2L8 x 8 x 1/2	3/8	2	6	0	1/2	1	2	1-1/4	0	8-3/4	2	3/4	3	10-1/2

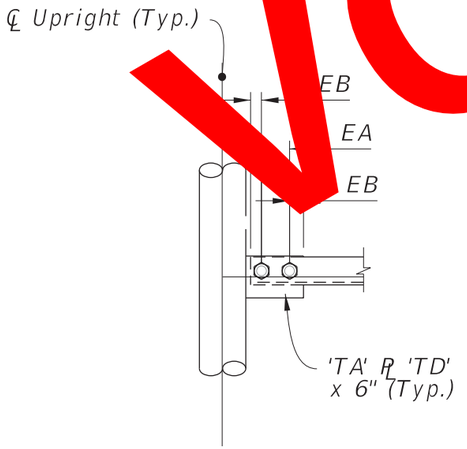
Bolt Diameter (in.)	Distance (in.)	
	EA	EB
1	3½	1¾

Note: min. edge distance from ℄ bolt to any edge shall be EB min.

VOID



DETAIL "A"



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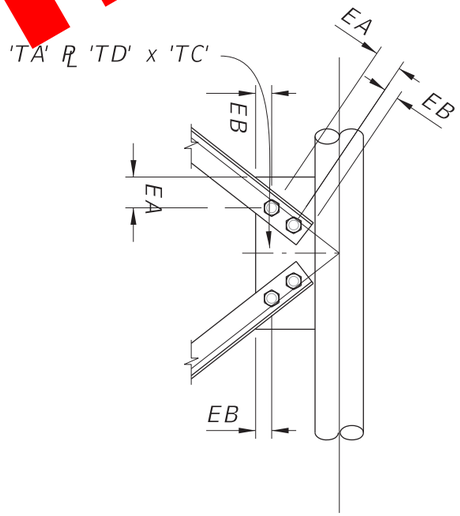

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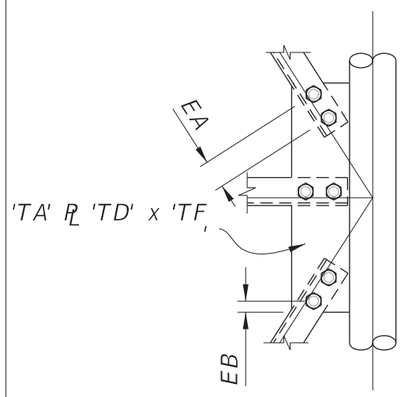

DETAIL "D"

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CAP ENGINEERING, INC.
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Morgan Villanueva, P.E.,S.I.
FL Lic. No. 60292

DRAWN BY: J.R.
CHECKED BY: C.D.P.
DESIGNED BY: J.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAILS (2 OF 4)

REF. DWG. NO.:

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO.: IT-185

RELEASED FOR CONSTRUCTION
BY:(FDOT) VS DATE: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID:433108-6-52-01 and 433109-4-52-01 CONTRACT: E4A96

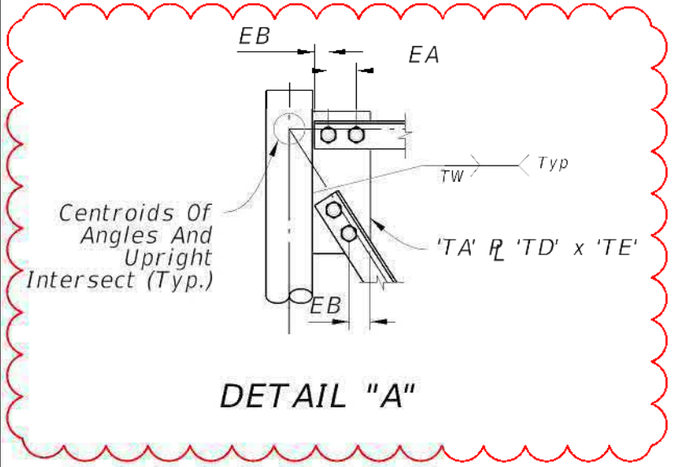
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

DATA TABLE (for values not shown in index)

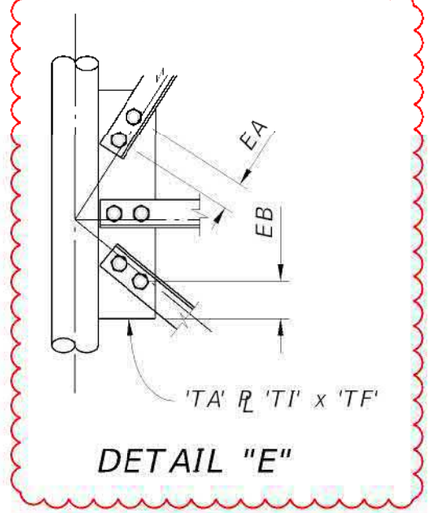
SIGN NO.	STATION	SPECIAL MEMBER SIZES		TW	PANELS			TA	TB	TC		TD		TE		TF		TG		TI	
		E1 (DOUBLE ANGLE)	E2 (DOUBLE ANGLE)		N1																
		Angle (in)	Angle (in)	in	#	ft	in	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in
DMS Front Access	3124+00.00	Fy=50ksi 2L8 x 8 x 1/2	Fy=50ksi 2L8 x 8 x 1/2	1/2	2	6	0	1/2	1	0	9-1/4	0	8-3/4	2	3/4	3	10-1/2	1	4-1/4	1	8
DMS Front Access	3128+50.00	Fy=50ksi 2L8 x 8 x 1/2	Fy=50ksi 2L8 x 8 x 1/2	1/2	2	6	0	1/2	1	0	9-1/4	0	8-3/4	2	5/4	3	10-1/2	1	4-1/4	1	8

Bolt Diameter (in.)	Distance (in.)	
	EA	EB
1	3 1/2	1 3/4

Note: min. edge distance from ℄ bolt to any edge shall be EB min.



DETAIL "A"



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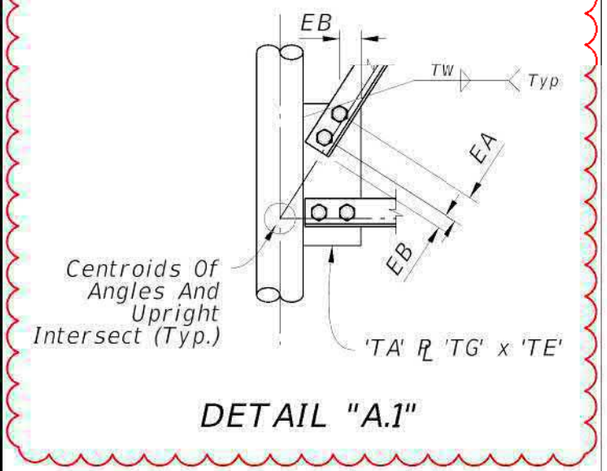

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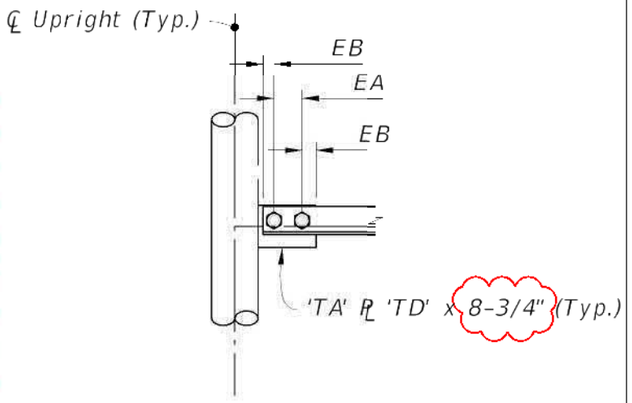
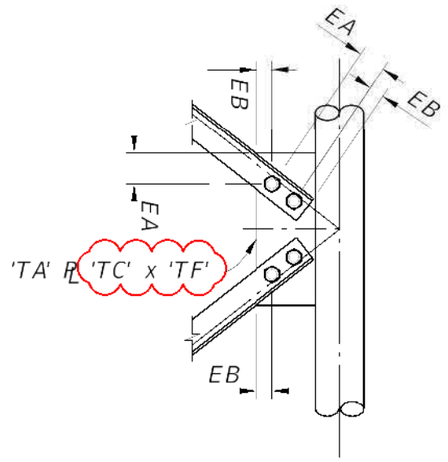


DETAIL "B"



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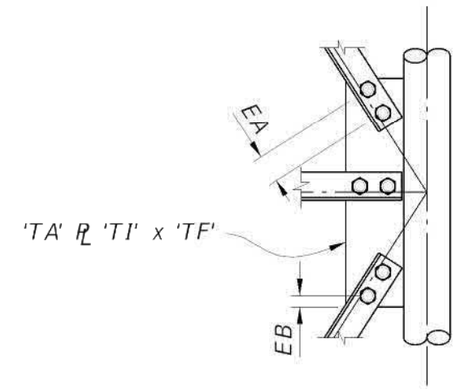

DETAIL "D"

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
09/09/21	M.V.	AS-BUILT REVISION			

CAP ENGINEERING, INC.
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Morgan Villanueva, P.E.,S.I.
FL Lic. No. 60292

DRAWN BY: J.R.
CHECKED BY: C.D.P.
DESIGNED BY: J.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAILS (2 OF 5)

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

REF. DWG. NO.

SHEET NO. IT-185

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CANTILEVER SIGN STRUCTURES DATA TABLE

Table Date 01-01-11

SIGN NO.	STATION / OFFSET	DIMENSIONS A (ft)	DIMENSIONS B (ft)	DIMENSIONS B (in)	DIMENSIONS C (in)	PANELS N (#)	MEMBER SIZES D (CHORD) O. D. x Wall Thk. (in)	MEMBER SIZES E (WEB) Angle (in)	MEMBER SIZES F (DUAL UPRIGHT) O. D. x Wall Thk. (in)	BACKRAKE G (in)
(DMS Front Access)	3124+00.00	20.0500	10	4 1/2	96	4	6.63 x 0.432	5 x 5 x 1/2	18 x 0.500	3.7485
(DMS Front Access)	3128+50.00	20.4500	10	4 1/2	96	4	6.63 x 0.432	5 x 5 x 1/2	18 x 0.500	2.2399

NOTES [Notes Date 02-04-19]:
1. Work these Data Tables with Index 11310.
2. Design Wind Speed = 150 mph.
3. Upright wall thickness given is a minimum dimension.
4. Area and Weight of DMS was obtained from Manufacturer, a 25% increase was included in the design as per SDM requirement

FOUNDATION NOTES [Notes Date 7-01-12]:
1. Design based on Borings taken by TERRACON CONSULTANTS, INC.

2. Assumptions and Values used in design:
   Soil Type Sand
   Soil Layer Thickness = Varies
   Soil Friction Angle = 30 deg. to 37 deg.
   Soil Weight = from 105 pcf to 123 pcf
   Design Water Table considered below bottom of shaft
   Saturated soil weight for design = 42.6 pcf to 60.6 pcf

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN NO.	GUSSET PLATES GA (in)	GB (in)	GC (ft)	GC (in)	GD (ft)	GD (in)	GE (ft)	GE (in)	GF (ft)	GF (in)	GG (ft)	GG (in)	GH (ft)	GH (in)	GJ (ft)	GJ (in)	GK (in)	TRUSS CONNECTION TB (#)	TC (#)	TE (in)	TF (in)	TG (in)	TH (in)	TJ (in)	SPLICE SA Angle (in)	SB (#)	SC (in)	SD (#)
(DMS Front Access)	1/2	7/8	1	5-3/4		8-1/2	1	2-3/4		7	1	4-1/4		8		11-1/4		1-	4	4		7/8	1/4	3/16	3/16	1/4	6x6x1/2	6	1	2
(DMS Front Access)	1/2	7/8	1	5-3/4		8-1/2	1	2-3/4		7	1	4		8		11-	3/	1-1/2		5/8	7/8	1/4	3/16	3/16	1/4	6x6x1/2	6	1	2

VOID

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 07-01-13

SIGN NO.	BASE CONNECTION BA (in)	BB (#)	BC (in)	BD (in)	BE (ft)	BE (in)	BF (in)	BG (in)	BH (in)	BJ (in)	ANCHOR BK (ft)	BK (in)	FOOTING - DRILLED SHAFT FA (ft)	FA (in)	FB (ft)	FB (in)	FC (# / Size)	FD (#)	FE (in)	
(DMS Front Access)	2-1/2	12	2-1/4	5/8	1	8	9/16	5/16	1/2	5/16	5	2	16	0	2	6	6 / 10	34	6	<--- #5 stirrup
(DMS Front Access)	2-1/2	12	2-1/4	5/8	1	8	9/16	5/16	1/2	5/16	5	2	16	0	2	6	6 / 10	34	6	<--- #5 stirrup

RELEASED FOR CONSTRUCTION
BY: JRODI, VS DATE: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CAP ENGINEERING, INC.
E.B. # 27051
343 Almeria Avenue
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Ph: (305) 448.1711, Fax: (305) 448.1712
Morgan Villanueva, P.E.,S.I.
FL Lic. No. 60292

DRAWN BY: J.R.
CHECKED BY: C.D.P.
DESIGNED BY: J.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAILS (3 OF 4)

REF. DWG. NO.:

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO.: IT-186

CANTILEVER SIGN STRUCTURES DATA TABLE

Table Date 01-01-11

SIGN NO.	STATION / OFFSET	DIMENSIONS A (ft)	DIMENSIONS B (ft)	DIMENSIONS B (in)	DIMENSIONS C (in)	PANELS N (#)	MEMBER SIZES D (CHORD) O. D. x Wall Thk. (in)	MEMBER SIZES E (WEB) Angle (in)	MEMBER SIZES F (DUAL UPRIGHT) O. D. x Wall Thk. (in)	BACKRAKE G (in)
(DMS Front Access)	3124+00.00	20.0500	10	4 1/2	96	4	6.63 x 0.432	5 x 5 x 1/2	18 x 0.562	3.7485
(DMS Front Access)	3128+50.00	20.4500	10	4 1/2	96	4	6.63 x 0.432	5 x 5 x 1/2	18 x 0.562	2.2399

NOTES [Notes Date 02-04-19]:
1. Work these Data Tables with Index 11310.
2. Design Wind Speed = 150 mph.
3. Upright wall thickness given is a minimum dimension.
4. Area and Weight of DMS was obtained from Manufacturer, a 25% increase was included in the design as per SDM requirement

FOUNDATION NOTES [Notes Date 7-01-12]:
1. Design based on Borings taken by TERRACON CONSULTANTS, INC.

2. Assumptions and Values used in design:
   Soil Type Sand
   Soil Layer Thickness = Varies
   Soil Friction Angle = 30 deg. to 37 deg.
   Soil Weight = from 105 pcf to 123 pcf
   Design Water Table considered at ground level.
   Effective soil weight for design = 42.6 pcf to 60.6 pcf

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN NO.	GUSSET PLATES GA (in)	GB (in)	GC ft	GC in	GD ft	GD in	GE ft	GE in	GF ft	GF in	GG ft	GG in	GH ft	GH in	GJ ft	GJ in	GK (in)	TRUSS CONNECTION TA (in)	TB (#)	TC (#)	TD (in)	TE (in)	TF (in)	TG (in)	TH (in)	TJ (in)	SPLICE SA Angle (in)	SB (#)	SC (in)	SD (#)
(DMS Front Access)	1/2	7/8	1	5-3/4		8-1/2	1	4-3/4		7	1	4-1/4		8		11-1/4	3/16	1-1/2	4	4	5/8	7/8	1/4	3/16	3/16	1/4	6x6x1/2	6	1	2
(DMS Front Access)	1/2	7/8	1	5-3/4		8-1/2	1	4-3/4		7	1	4		8		11-1/4	3/16	1-1/2	4	4	5/8	7/8	1/4	3/16	3/16	1/4	6x6x1/2	6	1	2

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 07-01-13

SIGN NO.	BASE CONNECTION BA (in)	BB (#)	BC (in)	BD (in)	BE ft	BE in	BF (in)	BG (in)	BH (in)	BJ (in)	ANCHOR BK ft	ANCHOR BK in	FOOTING - DRILLED SHAFT FA ft	FA in	FB ft	FB in	FC # / Size	FD (#)	FE (in)	
(DMS Front Access)	2-1/2	12	2-1/4	5/8	1	8	9/16	5/16	1/2	5/16	5	2	16	0	2	6	6 / 10	34	6	<--- #5 stirrup
(DMS Front Access)	2-1/2	12	2-1/4	5/8	1	8	9/16	5/16	1/2	5/16	5	2	16	0	2	6	6 / 10	34	6	<--- #5 stirrup

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
09/09/21	M.V.	AS-BUILT REVISION			

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Ph: (305) 448.1711, Fax: (305) 448.1712
Morgan Villanueva, P.E.,S.I.
FL Lic. No. 60292

DRAWN BY: J.R.
CHECKED BY: C.D.P.
DESIGNED BY: J.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAILS (3 OF 5)

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

REF. DWG. NO.

SHEET NO. IT-186

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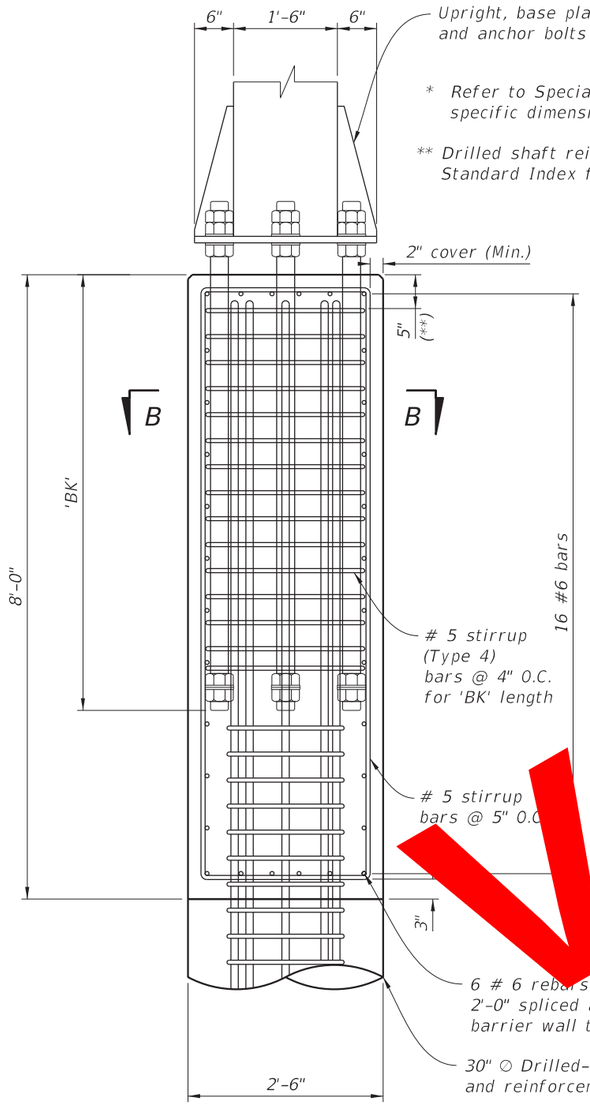
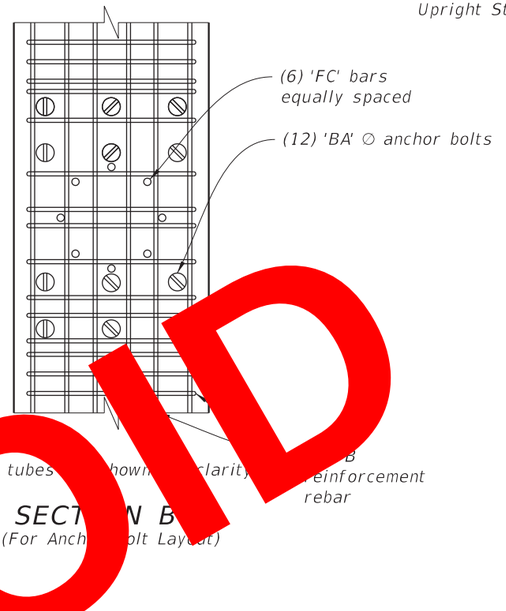


SECTION A-A



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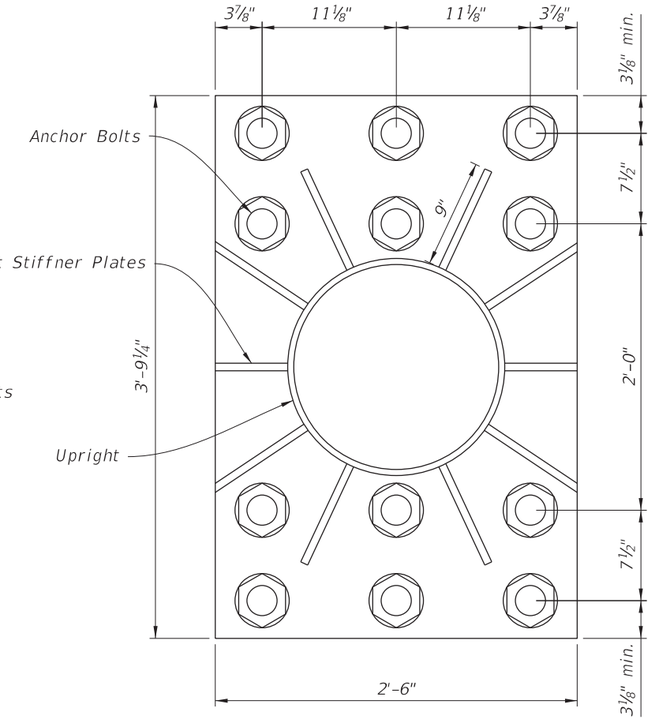

BASE PLATE DETAIL

VOID

SPECIAL CANTILEVER SIGN STRUCTURE:
STA 3124+00 (DMS, Front Access)
STA 3128+50 (DMS, Front Access)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CAP ENGINEERING, INC.
E.B. # 27051
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Coral Gables, FL 33134
Ph: (305) 448.1711, Fax: (305) 448.1712
Morgan Villanueva, P.E.,S.I.
FL Lic. No. 60292

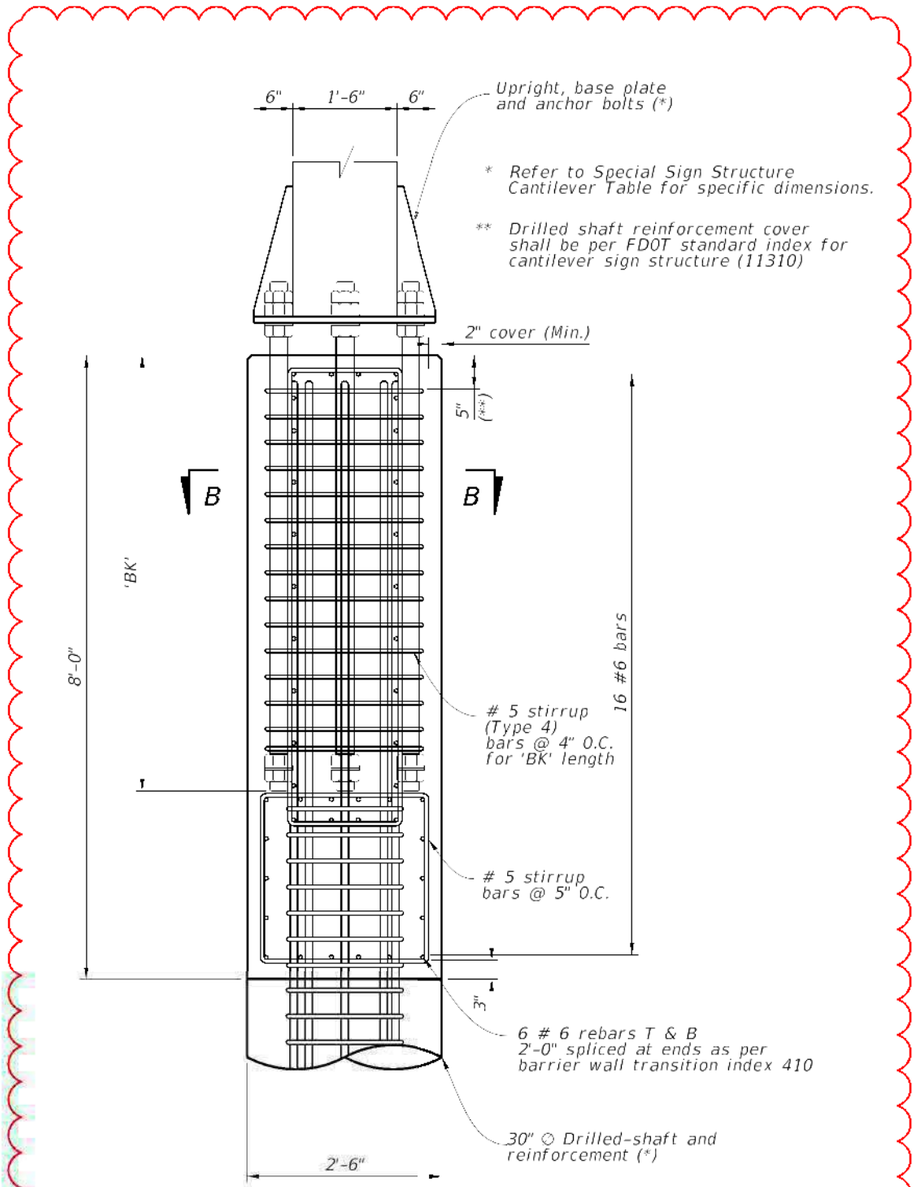
DRAWN BY: J.R.
CHECKED BY: C.D.P.
DESIGNED BY: J.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

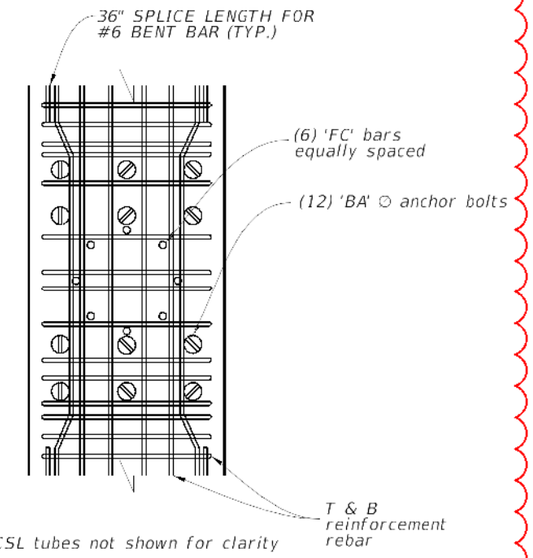
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAILS (4 OF 4)
REF. DWG. NO.:
PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1
SHEET NO.: IT-187

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
RELEASED FOR CONSTRUCTION
BY: FDOT VS DATE: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

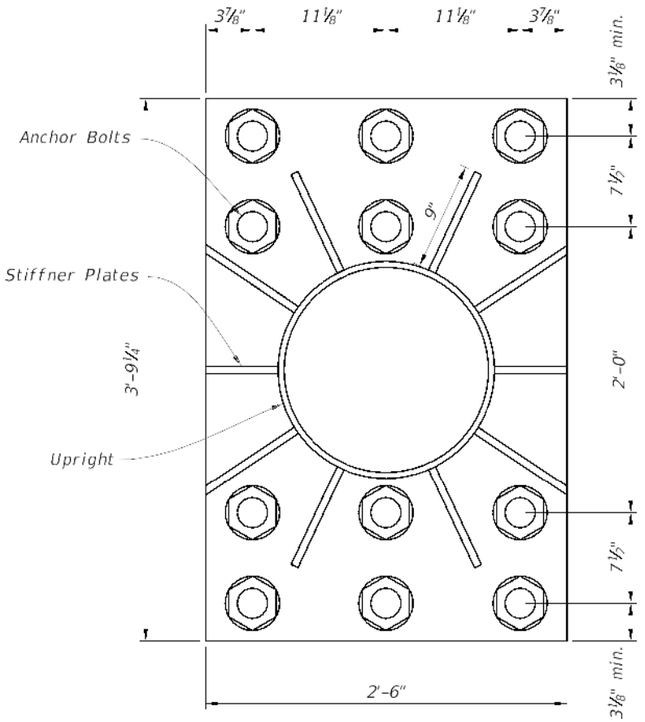


SECTION A-A



CSL tubes not shown for clarity

SECTION B-B
(For Anchor Bolt Layout)



BASE PLATE DETAIL

SPECIAL CANTILEVER SIGN STRUCTURE:
STA 3124+00 (DMS, Front Access)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
09/09/21	M.V.	AS-BUILT REVISION			

CAP ENGINEERING, INC.
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Morgan Villanueva, P.E.,S.I.
FL Lic. No. 60292

DRAWN BY:	CHECKED BY:	DESIGNED BY:	CHECKED BY:
J.R.	C.D.P.	J.R.	M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAILS (4 OF 5)

REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO. IT-187

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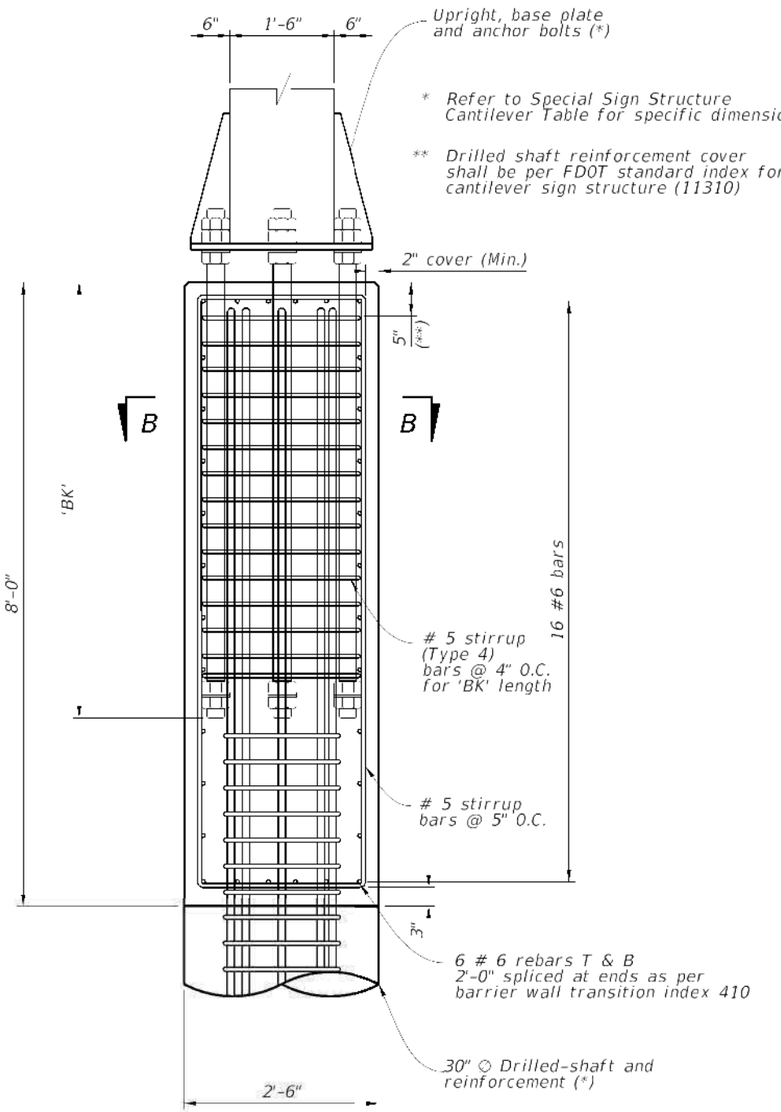
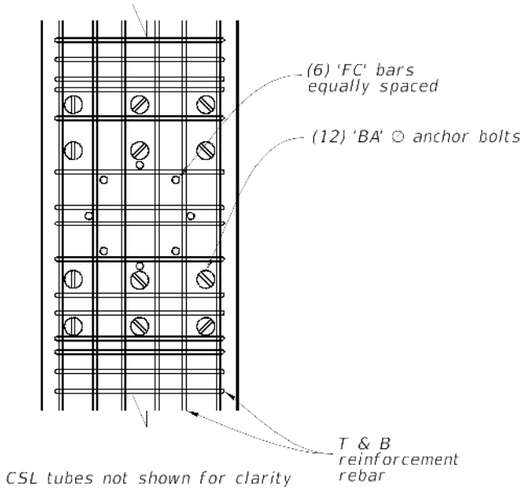


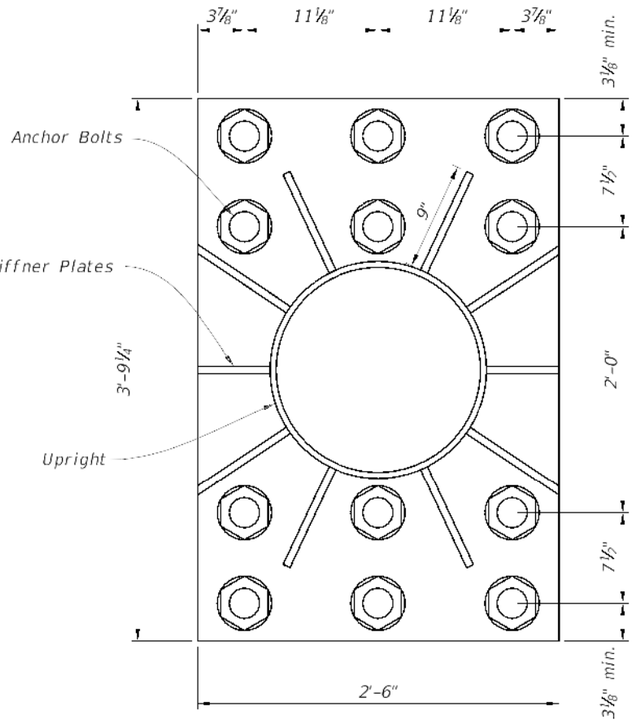
SECTION A-A



CSL tubes not shown for clarity

SECTION B-B

(For Anchor Bolt Layout)



BASE PLATE DETAIL

SPECIAL CANTILEVER SIGN STRUCTURE:
STA 3128+50 (DMS, Front Access)

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
09/09/21	M.V.	AS-BUILT REVISION			

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

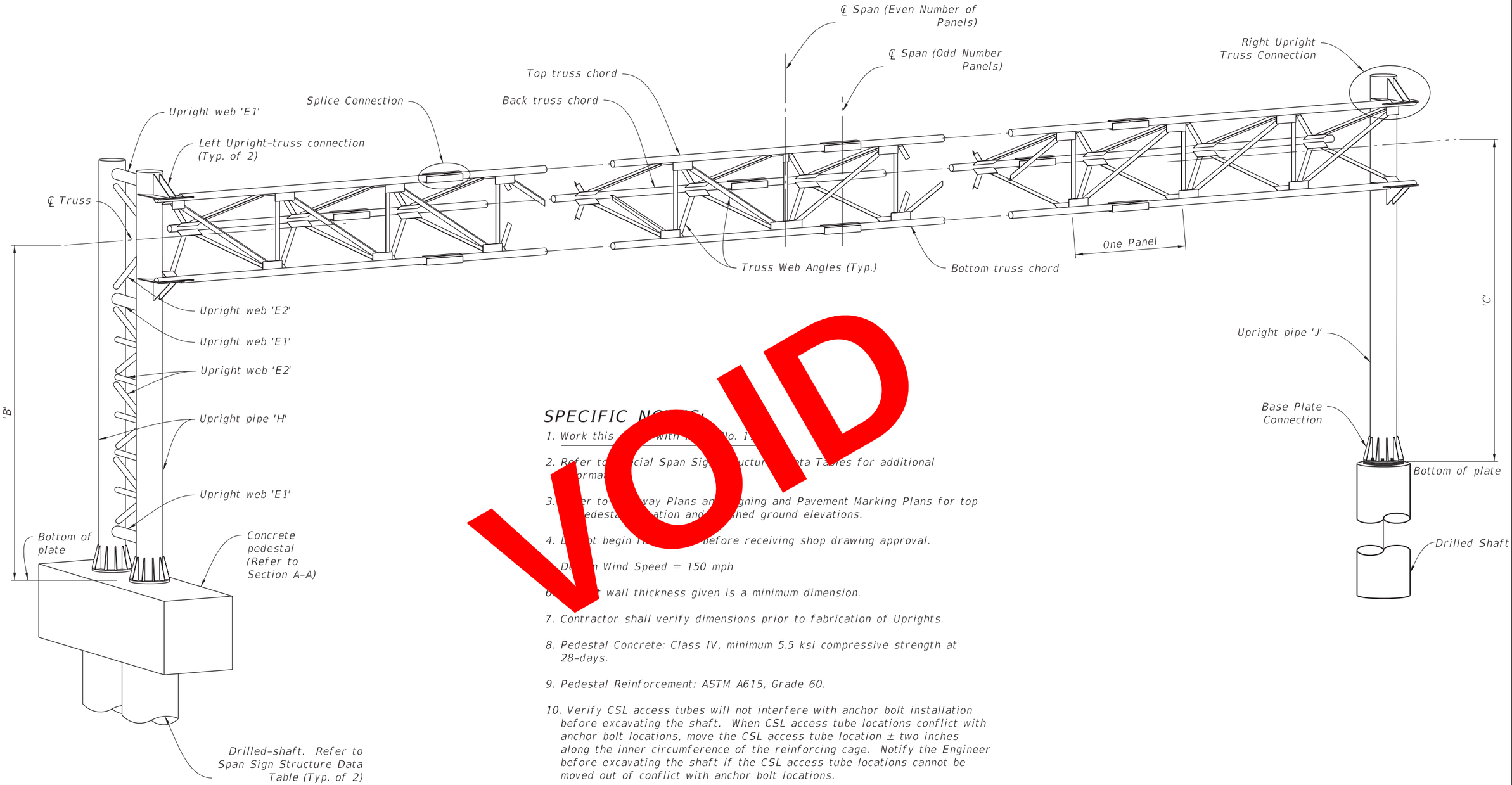
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL CANTILEVER SIGN STRUCTURE DETAILS (5 OF 5)

REF. DWG. NO.:

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO.: IT-187A



VOID

SPECIFIC NOTES:

1. Work this [illegible] with [illegible] No. 1.
2. Refer to [illegible]cial Span Sig[illegible]uctur[illegible]ata Tables for additional [illegible]orma[illegible]
3. [illegible]er to [illegible]way Plans an[illegible]gning and Pavement Marking Plans for top [illegible]edesta[illegible]ation and [illegible]shed ground elevations.
4. D[illegible]ot begin f[illegible] before receiving shop drawing approval.
   D[illegible]n Wind Speed = 150 mph
6. [illegible]t wall thickness given is a minimum dimension.
7. Contractor shall verify dimensions prior to fabrication of Uprights.
8. Pedestal Concrete: Class IV, minimum 5.5 ksi compressive strength at 28–days.
9. Pedestal Reinforcement: ASTM A615, Grade 60.
10. Verify CSL access tubes will not interfere with anchor bolt installation before excavating the shaft. When CSL access tube locations conflict with anchor bolt locations, move the CSL access tube location ± two inches along the inner circumference of the reinforcing cage. Notify the Engineer before excavating the shaft if the CSL access tube locations cannot be moved out of conflict with anchor bolt locations.
11. Bolts, Nutes and Washer Materials:
    a. High Strength Bolts: ASTM F3125, Grade A325 Type 1
    b. Nuts: ASTM A563 Grade DH Heavy–Hex
    c. Washers: ASTM F436 Type 1, one under turned element

RELEASED FOR CONSTRUCTION
BY:(FDOT) VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96
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REVISIONS

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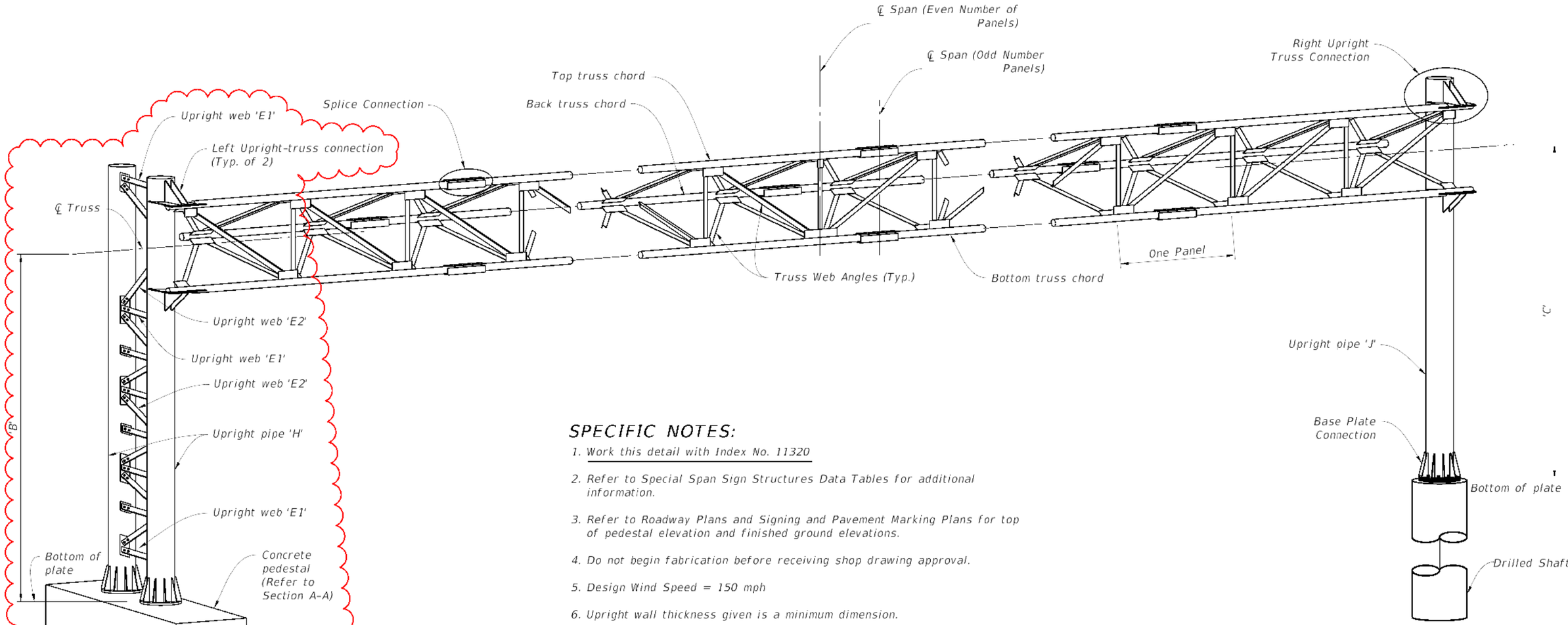
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS (1 OF 5)
REF. DWG. NO.
PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1
SHEET NO. IT-188



SPECIFIC NOTES:

1. Work this detail with Index No. 11320
2. Refer to Special Span Sign Structures Data Tables for additional information.
3. Refer to Roadway Plans and Signing and Pavement Marking Plans for top of pedestal elevation and finished ground elevations.
4. Do not begin fabrication before receiving shop drawing approval.
5. Design Wind Speed = 150 mph
6. Upright wall thickness given is a minimum dimension.
7. Contractor shall verify dimensions prior to fabrication of Uprights.
8. Pedestal Concrete: Class IV, minimum 5.5 ksi compressive strength at 28-days.
9. Pedestal Reinforcement: ASTM A615, Grade 60.
10. Verify CSL access tubes will not interfere with anchor bolt installation before excavating the shaft. When CSL access tube locations conflict with anchor bolt locations, move the CSL access tube location ± two inches along the inner circumference of the reinforcing cage. Notify the Engineer before excavating the shaft if the CSL access tube locations cannot be moved out of conflict with anchor bolt locations.
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    c. Washers: ASTM F436 Type 1, one under turned element

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS (1 OF 5)

REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO. 1T-188

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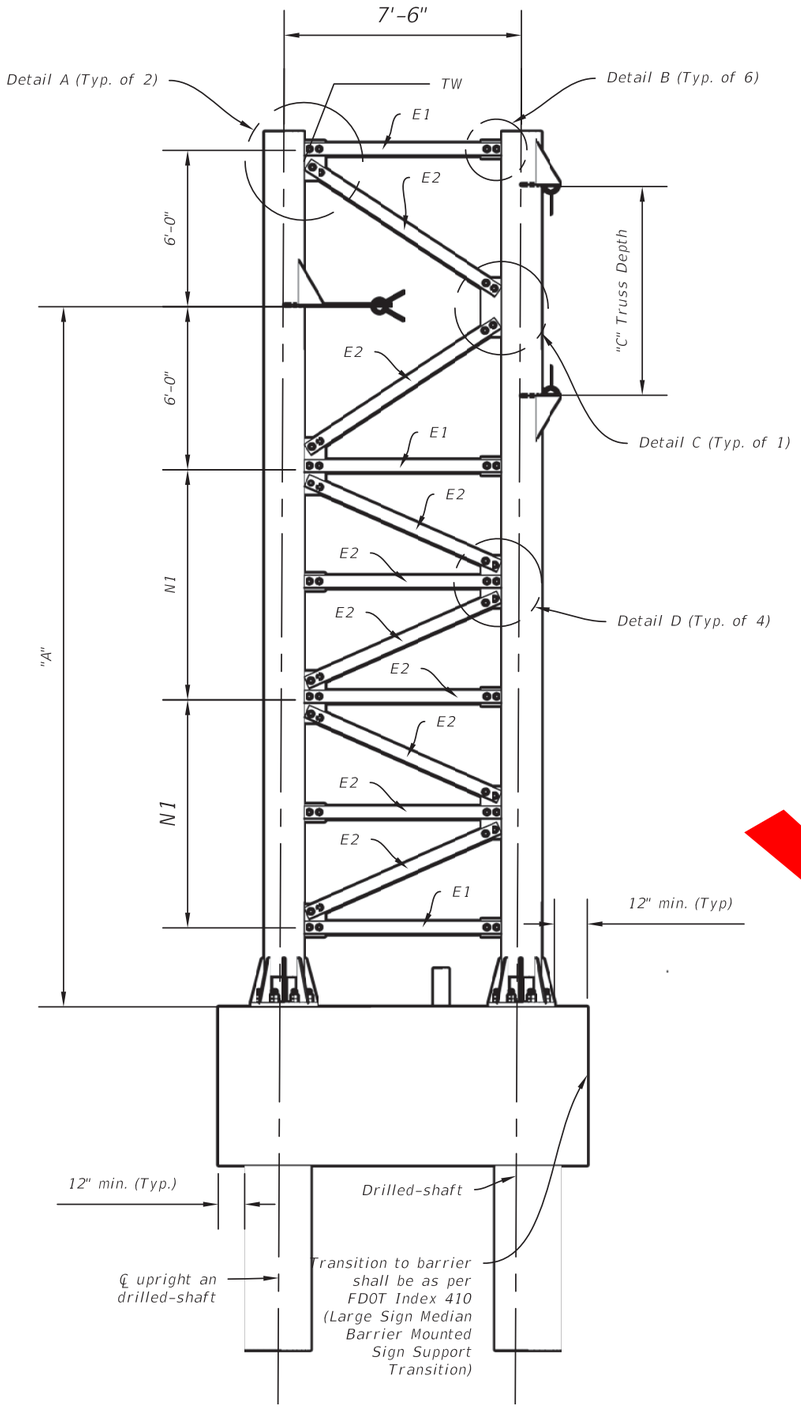

DATA TABLE (for values not shown in index)

SIGN NO.	STATION	SPECIAL MEMBER SIZES E1 (DOUBLE ANGLE) Angle (in)	SPECIAL MEMBER SIZES E2 (DOUBLE ANGLE) Angle (in)	TW in	PANELS N1 #	PANELS N1 ft	PANELS N1 in	TA in	TB in	TC ft	TC in	TD ft	TD in	TE ft	TE in	TF ft	TF in
Walk-in DMS	3179+00.00	2L5 x 5 x 1/2	2L5 x 5 x 1/2	3/8	2	5	0	1/2	7/8	1	11-1/2	0	6-1/2	1	10-3/4	3	7-1/2

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

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STATE OF FLORIDA
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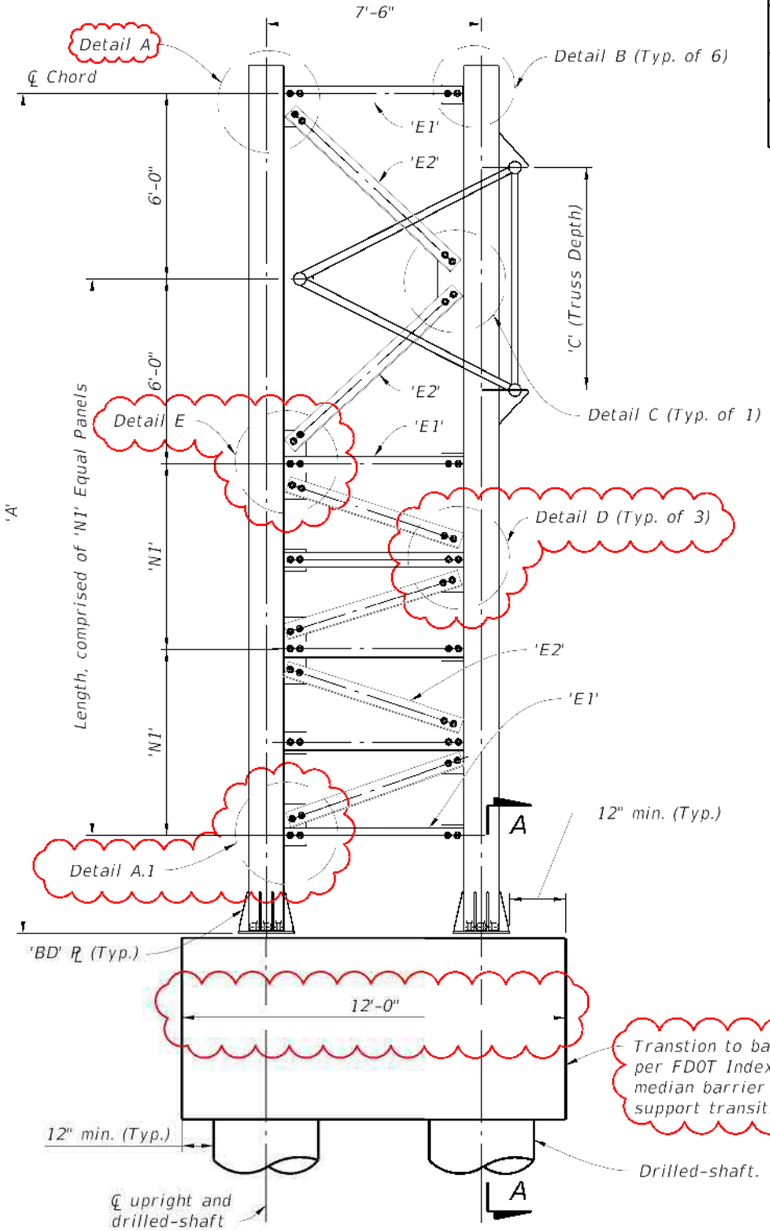
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS (2 OF 5)

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

REF. DWG. NO.

SHEET NO. IT-189



ELEVATION VIEW

DATA TABLE (for values not shown in index)

SIGN NO.	STATION	SPECIAL MEMBER SIZES		TW	PANELS			TA	TB	TC		TD		TE		TF		TG	
		E1 (DOUBLE ANGLE)	E2 (DOUBLE ANGLE)		N1														
		Angle (in)	Angle (in)	in	#	ft	in	in	in	ft	in	ft	in	ft	in	ft	in	ft	in
Walk-in DMS	3179+00.00	2L5 x 5 x 1/2	2L5 x 5 x 1/2	3/8	2	5	0	1/2	7/8	2	6-1/4	0	8-3/4	2	3/4	3	10	1	8

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09/09/21	M.V.	AS-BUILT REVISION			

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STATE OF FLORIDA
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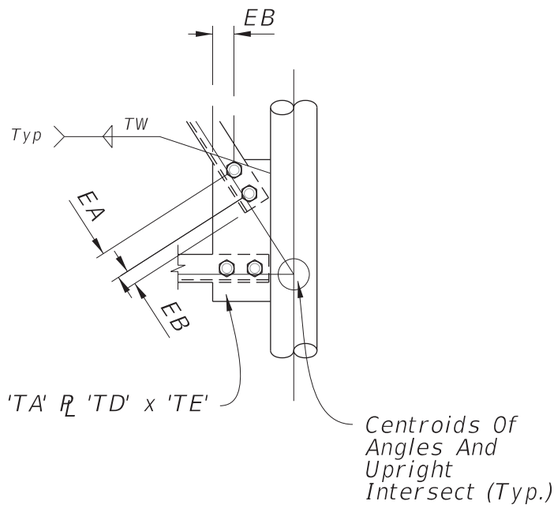
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS (2 OF 5)

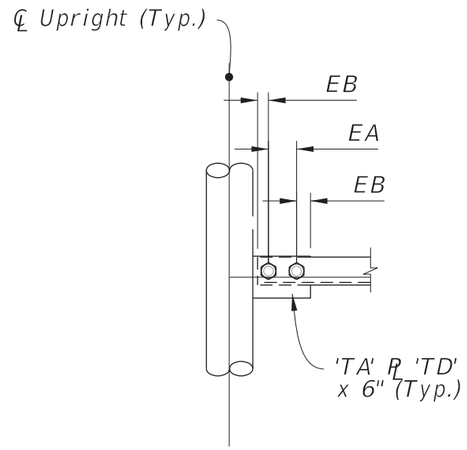
REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO. IT-189



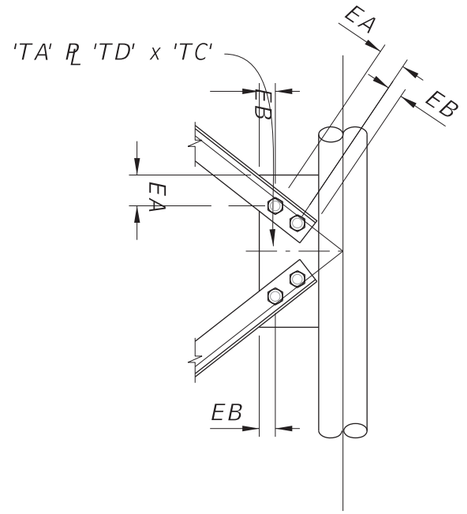
DETAIL "A"



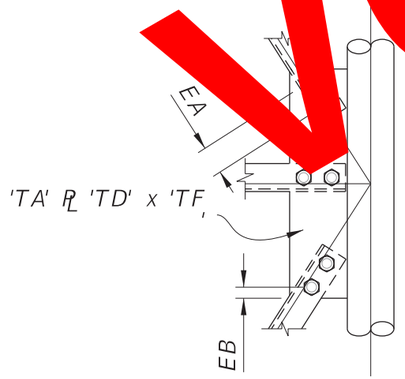
DETAIL "B"

Bolt Diameter (in.)	Distance (in.)	
	EA	EB
7/8	3	1½

Note: min. edge distance from ℄ bolt to any edge shall be EB min.



DETAIL "C"



DETAIL "D"

VOID

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BY:(FDOT) VS DATE: 05/21/2019
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

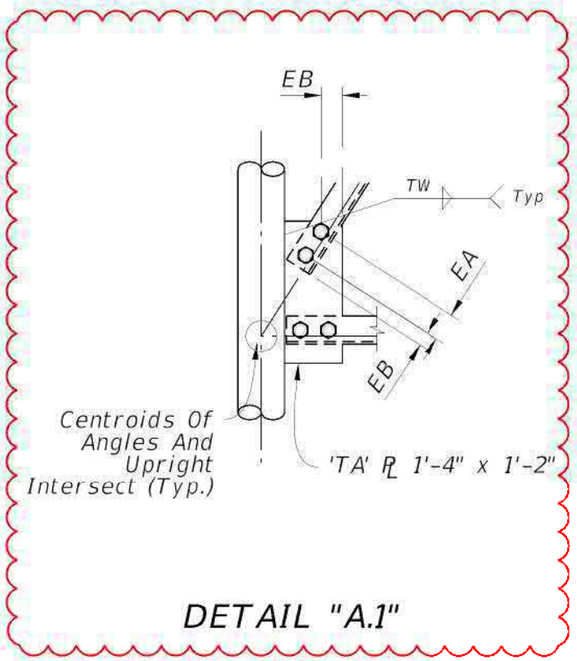
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS (3 OF 5)

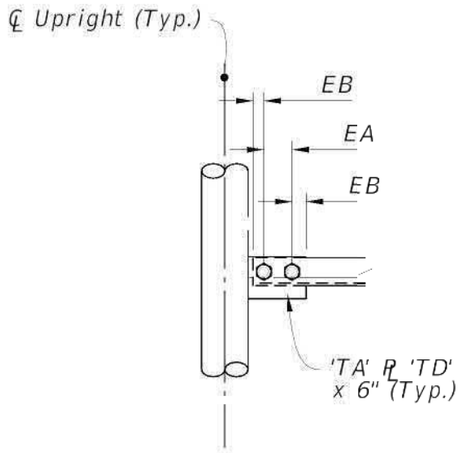
REF. DWG. NO.:

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO.: IT-190



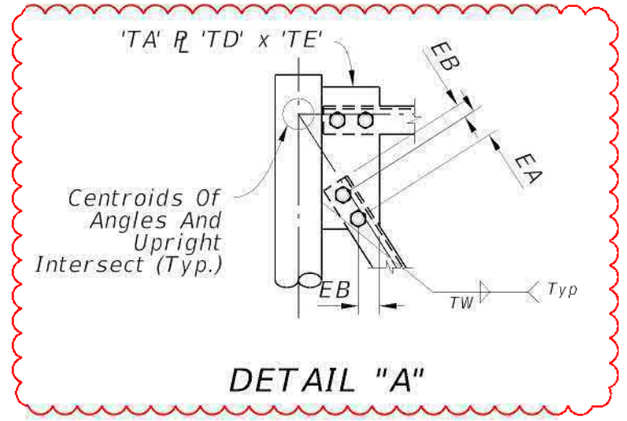
DETAIL "A.1"



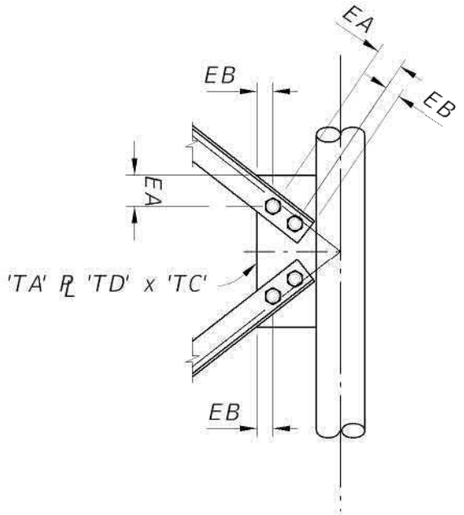
DETAIL "B"

Bolt Diameter (in.)	Distance (in.)	
	EA	EB
7/8	3	1½

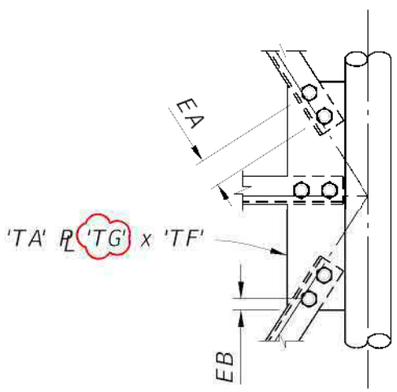
Note: min. edge distance from ℄ bolt to any edge shall be EB min.



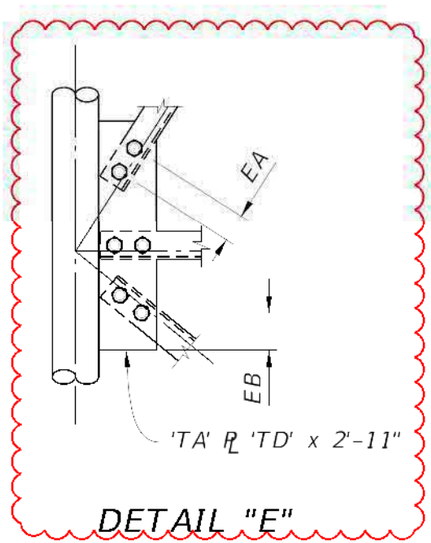
DETAIL "A"



DETAIL "C"



DETAIL "D"



DETAIL "E"

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REVISIONS

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS (3 OF 5)

REF. DWG. NO.:

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO.: IT-190

SPAN SIGN STRUCTURES DATA TABLE

Table Date 01-01-11

SIGN#	STATION	DIMENSIONS			PNLS	MEMBER SIZES					SPLICE		
		A	B	C	D	E	F (CHORD)	G (WEB)	H (LEFT DUAL PRIGHT)	J (RIGHT UPRIGHT)	K (CAMBER)	SA	SB	SC
		ft	ft	ft	#	in	O. D. x Wall Thk. (in)	Angle (in)	O. D. x Wall Thk. (in)	O. D. x Wall Thk. (in)	in	Angle (in)	#	in
Walk-in DMS	3179+00.00	120.0000	18.9600	29.4900	12	72	8.63 x 0.500	4 x 4 x 1/2	12.00 x 0.500	24.00 x 0.750	4	8 x 8 x 1/2	12	1

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN#	ALTERNATE SPLICE						GUSSET PLATES																	
	PA	PB	PC	PD	PE	PF	GA	GB	GC		GD		GE		GF		GG		GH		GJ		GK	GL
	in	in	in	in	in	#	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	in
Walk-in DMS	2	3 - 1/4	7/16	1/2	1 - 1/4	14	3/4	1 - 1/4	2	1 - 1/2		10	1	11 - 3/4		9 - 1/4	3	4 - 3/4	1	2 - 3/4		10	1	8 - 3/4	3/16

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date [illegible]-11

SIGN#	LEFT UPRIGHT CONNECTION								RIGHT UPRIGHT CONNECTION							
	LA	LB	LC	LD	LE	LF	LG	LH	RA	RB	RC	RD	[illegible]	[illegible]	[illegible]	R[illegible]
	in	#	in	in	in	in	in	in	in	#	in	in			in	in
Walk-in DMS	1 - 1/2	4	3/4	3/4	1/4	3/16	3/16	1/4	7/8	4	5/8	5/8	1/4	1/	3/1[illegible]	1/4

VOID

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN#	LEFT BASE CONNECTION												RIGHT BASE CONNECTION								
	BA	BB	BC	BD	BE		BF	BG	BH	BJ	CA	CB	CC	CD	CE		CF	CG	CH	CJ	
	in	#	in	in	ft	in	in	in	in	in	in	#	in	in	ft	in	in	in	in	in	
Walk-in DMS	2	8	1 - 1/2	1/2	1	8	5/16	5/16	5/16	3/16	2 - 1/2	10	1 - 3/4	3/4	2	9 - 1/2	5/16	5/16	3/8	1/4	

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 07-01-13

SIGN#	LEFT DRILLED SHAFT								RIGHT DRILLED SHAFT								
	DA		DB		DC	DD	DE	DF	FA		FB		FC	FD	FE	FF	
	ft	in	ft	in	# / size	#	in	in	ft	in	ft	in	# / size	#	in	in	
Walk-in DMS	8	0	2	6	6 / 10	34	6	52	24	2	6	0	19 / 14	28	9	50	<--- #5 stirrup

NOTES [Notes Date 7-26-18]:

1. Work these Data Tables with Index 11320.
2. Design Wind Speed = 150 mph
3. Upright wall thickness given is a minimum dimension.
4. Erection is the Contractor's responsibility. To facilitate erection, the Contractor should consider using two vertical lift points, each located near a panel point approximately 20 to 25% of the truss length from each end.
5. 'DC' and 'FC' shall include quantity and size of reinforcing steel.
6. Area and Weight of DMS were obtained from Manufacturer, a 25% increase was added as per SDM requirements

FOUNDATION NOTES [Notes Date 7-01-12]:

1.Design based on Borings taken by TERRACON CONSULTANTS, INC.
2.Assumptions and Values used in design:
Soil Type Sand
Soil Layer Thickness = Varies
Soil Friction Angle = 30 deg. to 37 deg.
Soil Weight = from 105 pcf to 123 pcf
Design Water Table considered above top of shaft
Saturated soil weight for design = 42.6 pcf to 60.6 pcf

RELEASED FOR CONSTRUCTION
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BY: JRQTL VS DATE: 05/21/2019
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

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343 Almeria Avenue
Coral Gables, FL 33134
Ph: (305) 448.1711, Fax: (305) 448.1712
Morgan Villanueva, P.E.,S.I.
FL Lic. No. 60292

DRAWN BY: J.R.
CHECKED BY: C.D.P.
DESIGNED BY: J.R.
CHECKED BY: M.V.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS (4 OF 5)

REF. DWG. NO.:

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO.: IT-191

SPAN SIGN STRUCTURES DATA TABLE

Table Date 01-01-11

SIGN#	STATION	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	PNLS D	MEMBER SIZES E	MEMBER SIZES F (CHORD)	MEMBER SIZES G (WEB)	MEMBER SIZES H (LEFT DUAL PRIGHT)	MEMBER SIZES J (RIGHT UPRIGHT)	MEMBER SIZES K (CAMBER)	SPLICE SA	SPLICE SB	SPLICE SC
		ft	ft	ft	#	in	O. D. x Wall Thk. (in)	Angle (in)	O. D. x Wall Thk. (in)	O. D. x Wall Thk. (in)	in	Angle (in)	#	in
Walk-in DMS	3179+00.00	120.0000	18.9600	29.4900	12	72	8.63 x 0.500	4 x 4 x 1/2	12.00 x 0.562	24.00 x 0.750	4	8 x 8 x 1/2	12	1

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN#	ALTERNATE SPLICE PA	PB	PC	PD	PE	PF	GUSSET PLATES GA	GB	GC ft	GC in	GD ft	GD in	GE ft	GE in	GF ft	GF in	GG ft	GG in	GH ft	GH in	GJ ft	GJ in	GK ft	GK in	GL
	in	in	in	in	in	#	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	in
Walk-in DMS	2	3 - 1/4	7/16	1/2	1 - 1/4	14	3/4	1 - 1/4	2	1 - 1/2		10	2	1 - 3/4		10	3	5 - 3/4	1	2 - 3/4		10	1	10 - 1/2	3/16

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN#	LEFT UPRIGHT CONNECTION LA	LB	LC	LD	LE	LF	LG	LH	RIGHT UPRIGHT CONNECTION RA	RB	RC	RD	RE	RF	RG	RH
	in	#	in	in	in	in	in	in	in	#	in	in	in	in	in	in
Walk-in DMS	1 - 1/2	4	5/8	5/8	1/4	1/4	3/16	1/4	7/8	4	5/8	5/8	1/4	1/4	3/16	1/4

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 01-01-11

SIGN#	LEFT BASE CONNECTION BA	BB	BC	BD	BE ft	BE in	BF	BG	BH	BJ	RIGHT BASE CONNECTION CA	CB	CC	CD	CE ft	CE in	CF	CG	CH	CJ
	in	#	in	in	ft	in	in	in	in	in	in	#	in	in	ft	in	in	in	in	in
Walk-in DMS	2	8	2	5/8	1	8	5/16	5/16	5/16	3/16	2 - 1/2	10	1 - 3/4	3/4	2	10 - 1/2	5/16	5/16	3/8	1/4

SPAN SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 07-01-13

SIGN#	LEFT DRILLED SHAFT DA ft	DA in	DB ft	DB in	DC # / size	DD #	DE in	DF in	RIGHT DRILLED SHAFT FA ft	FA in	FB ft	FB in	FC # / size	FD #	FE in	FF in
Walk-in DMS	8	0	2	6	6 / 10	34	6	52	24	2	6	0	19 / 14	28	9	50

<--- #5 stirrup

NOTES [Notes Date 7-26-18]:

1. Work these Data Tables with Index 11320.
2. Design Wind Speed = 150 mph
3. Upright wall thickness given is a minimum dimension.
4. Erection is the Contractor's responsibility. To facilitate erection, the Contractor should consider using two vertical lift points, each located near a panel point approximately 20 to 25% of the truss length from each end.
5. 'DC' and 'FC' shall include quantity and size of reinforcing steel.
6. Area and Weight of DMS were obtained from Manufacturer, a 25% increase was added as per SDM requirements

FOUNDATION NOTES [Notes Date 7-01-12]:

1.Design based on Borings taken by TERRACON CONSULTANTS, INC.
2.Assumptions and Values used in design:
Soil Type Sand
Soil Layer Thickness = Varies
Soil Friction Angle = 30 deg. to 37 deg.
Soil Weight = from 105 pcf to 123 pcf
Design Water Table considered at ground level.
Effective soil weight for design = 42.6 pcf to 60.6 pcf

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
09/09/21	M.V.	AS-BUILT REVISION			

CAP ENGINEERING, INC.
E.B. # 27051
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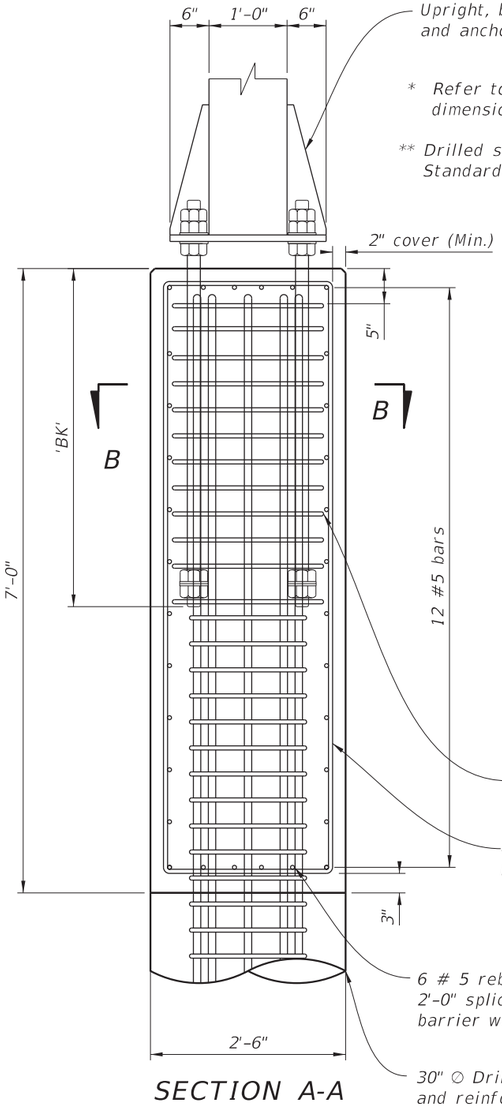
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

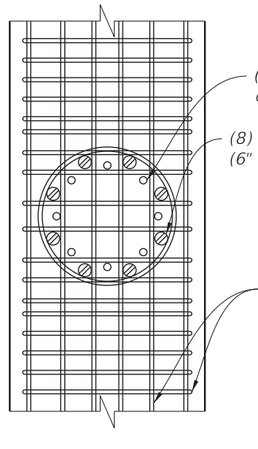
SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS (4 OF 5)
REF. DWG. NO.
PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1
SHEET NO. IT-191

alvarezr 9/10/2021 1:25:56 PM Z:\Shared\ENG\PROJECTS\2018\I-95, 3B-1 Post Design\As-Built\As-Built CADD Files\ITS\

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



SECTION A-A



CSL tubes not shown for clarity

SECTION B-B
(For Anchor Bolt Layout)

SPECIAL SPAN SIGN STRUCTURE:
3179 + 00.00 (Walk-in DMS)

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RELEASED FOR CONSTRUCTION
BY:(FDOT) VS DATE: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A96

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CAP ENGINEERING, INC.
E.B. # 27051
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Ph: (305) 448.1711, Fax: (305) 448.1712
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: SPECIAL SPAN SIGN STRUCTURE DETAILS (5 OF 5)

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

REF. DWG. NO.

SHEET NO. IT-192

GENERAL NOTES:

1. Design specification: FDOT Structures Manual (current edition) and AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.
2. Work this detail with Index No. 18300.
3. Catwalk and handrail design and installation shall comply with AISC, AASHTO, and OSHA requirements as applicable.
4. Shop drawings are required and fabrication shall not begin until these shop drawings are approved.
5. All steel items shall be galvanized as follows:

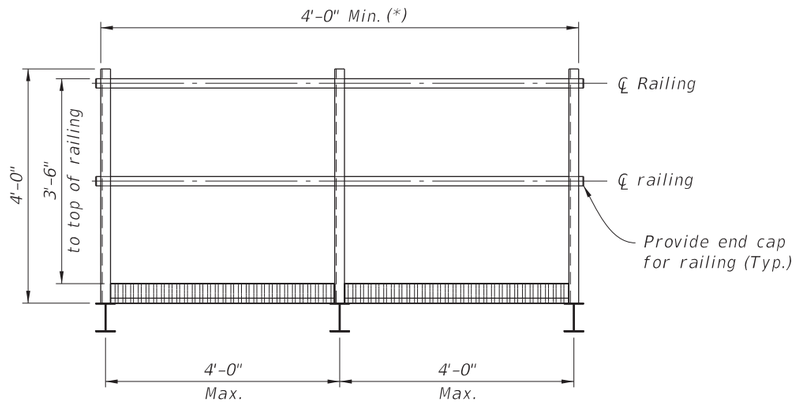
All nuts, bolts, and washers	ASTM F2329
All other steel items	ASTM A123

6. Bolts shall be ASTM A325 Type 1, (installed per specification Section 700) with single, self-locking nuts. install all nuts as per manufacturer's specifications.
7. All bolt holes shall be equal to the bolt diameter plus $\frac{1}{16}$", prior to galvanizing.
8. Weld metal: E70XX.
9. Welding shall conform to American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition).
10. Shop assemble the entire structure after galvanizing and prior to shipment. If necessary, disassemble and secure components for shipment.
11. Design Live Loads:

    Single load of 500 lb distributed over 2.0 ft transversely to the member.

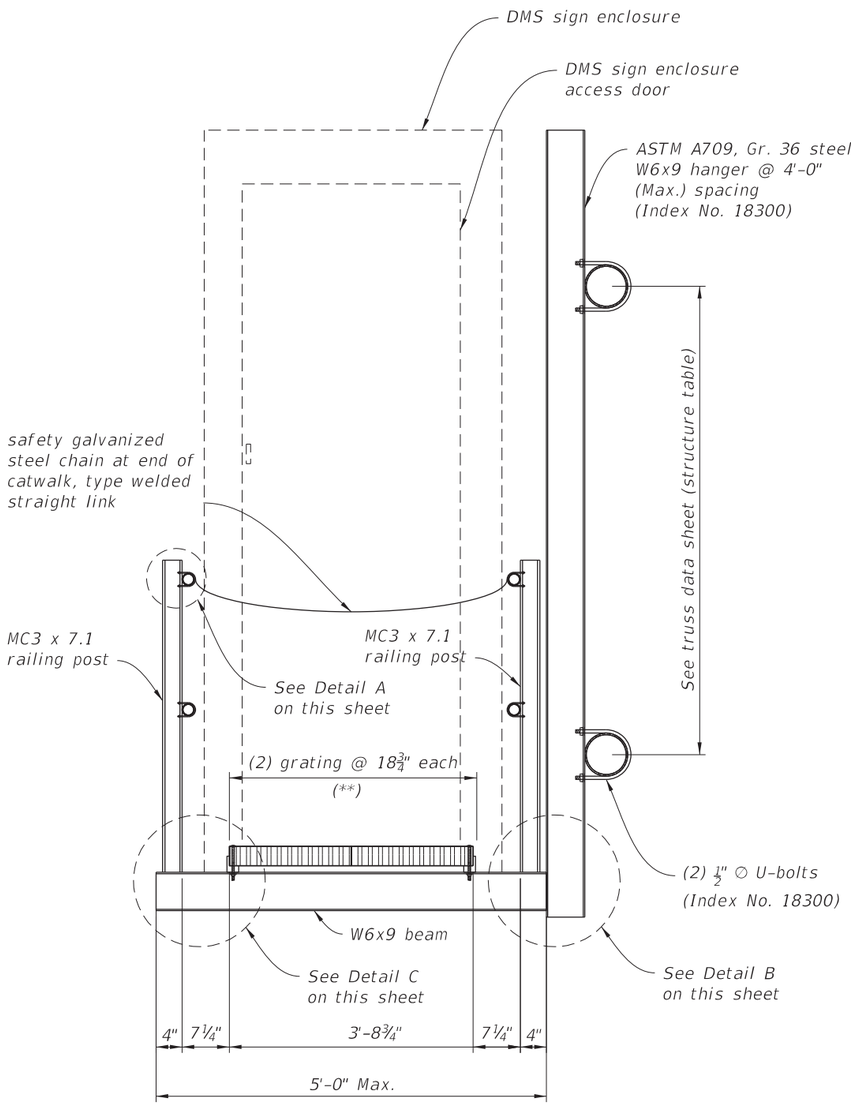
    Railings: 0.050 klf, both transversely and vertically, acting simultaneously. In addition, a concentrated load of 0.20 kips, which act simultaneously with the above loads at any point at any direction.

    Posts: concentrated load P = 0.20 kips + 0.050 klf x (post spacing) applied transversely.



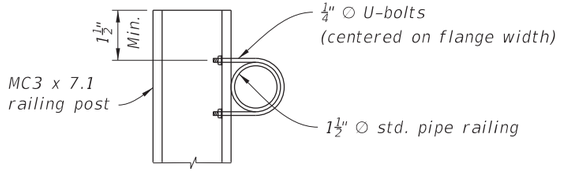
(*) Extend Catwalk from DMS to outer edge of paved shoulder.

FRONT VIEW (Back hangers not shown for clarity)
Scale: $\frac{3}{8}$" = 1'-0"

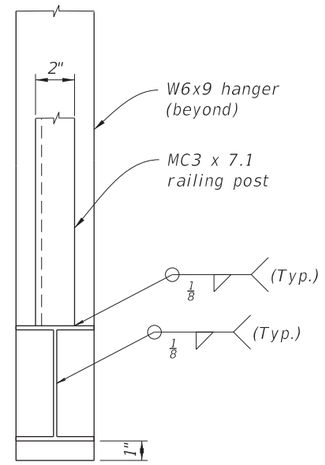


(**) Verify location of grating with DMS sign enclosure access door.

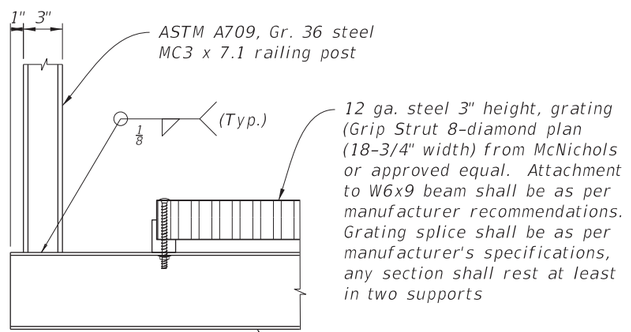
TYPICAL SECTION
Scale: $\frac{1}{2}$" = 1'-0"



DETAIL A
Scale: 6" = 1'-0"



DETAIL B (Front section)
Scale: 1½" = 1'-0"



DETAIL C
Scale: 1" = 1'-0"

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
BY: FDOT VS DATE: 05/21/2019
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4A96

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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CAP ENGINEERING, INC.
E.B. # 27051
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Ph: (305) 448.1711, Fax: (305) 448.1712
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SHEET TITLE: CATWALK DETAILS FOR DYNAMIC MESSAGE SIGN WALK-IN
REF. DWG. NO.
PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1
SHEET NO. IT-193

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STANDARD MAST ARM ASSEMBLIES DESIGN TABLE

Table Date 01-01-12

STRUCTURE ID NUMBERS[8]	ASSEMBLY NUMBERS[1]	FIRST ARM			SECOND ARM			UF (deg)	LL (deg)	POLE				SPECIAL DRILLED SHAFT					
		ARM TYPE	FAA[2] (ft.)	FBA[2] (in.)	ARM TYPE	FAA[2] (ft.)	FBA[2] (in.)			POLE TYPE	UAA[3] (ft.)	UB (ft.)	UCA[3] (in.)	DA (ft.)	DB (ft.)	RA	RB	RC	RD (in.)
STA. 3137+30	E1 - T1	E1	-	-	-	-	-	-	-	T1	-	23.0	-	11	4	11	14	10	12
STA. 3139+61	E3 - T2	E3	-	-	-	-	-	-	-	T2	-	23.0	-	13.5	4	11	14	10	12
STA. 3141+16	E5 - T3	E5	-	-	-	-	-	-	-	T3	-	23.0	-	12	4.5	11	16	10	12

Soil Parameters

Structure Number[8]	Soil Type	Boring ID	Soil Layer Thickness	Friction Angle	Soil Weight	N	Depth of Design Water Table below surface
			ft.	deg.	pcf	blows/ft.	ft.
STA. 3137+30	SAND	TB-2	25	31	44	11	-
STA. 3139+61	SAND	TB-3	25	31	42	10	-
STA. 3141+16	SAND	TB-4	25	31	45	14	-

WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT 46

NOTES:

1. Assembly Number Legend

   Single Arm:
   Arm Type - Pole Type = E1 - T1
   = E3 - T2
   = E5 - T3

2. If an entry appears in columns "FAA" and "FBA", a shorter arm is required. This is obtained by removing length from the arm tip. For these cases the mast arm length shall be shortened from "FA" to "FAA" and the tip diameter shall be increased from "FB" to "FBA".

3. If an entry appears in columns "UAA" and "UCA", a shorter pole is required. This is obtained by removing length from the pole tip. For these cases the pole height shall be shortened from "UA" to "UAA" and the pole tip diameter shall be increased from "UC" to "UCA".

4. For locations of signs on mast arms, see ITS Cross Section sheets IT-116A, IT-116B and IT-116C.

5. Work with FY 2016-17 Design Standards Index Nos. 17743 and 17745.

6. Design based on Borings taken sealed by TERRACON.

7. See Soil Parameters table for assumptions and values used in design.

8. Mast Arms have been identified by stations.

46

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/29/2021	46 SHEET ADDED FOR WRONG WAY DETECTION REVISION.		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Thomas P. Romanowich
P.E. No. 62515

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

MAST ARM ASSEMBLIES DATA TABLE

SHEET NO.
IT-193A

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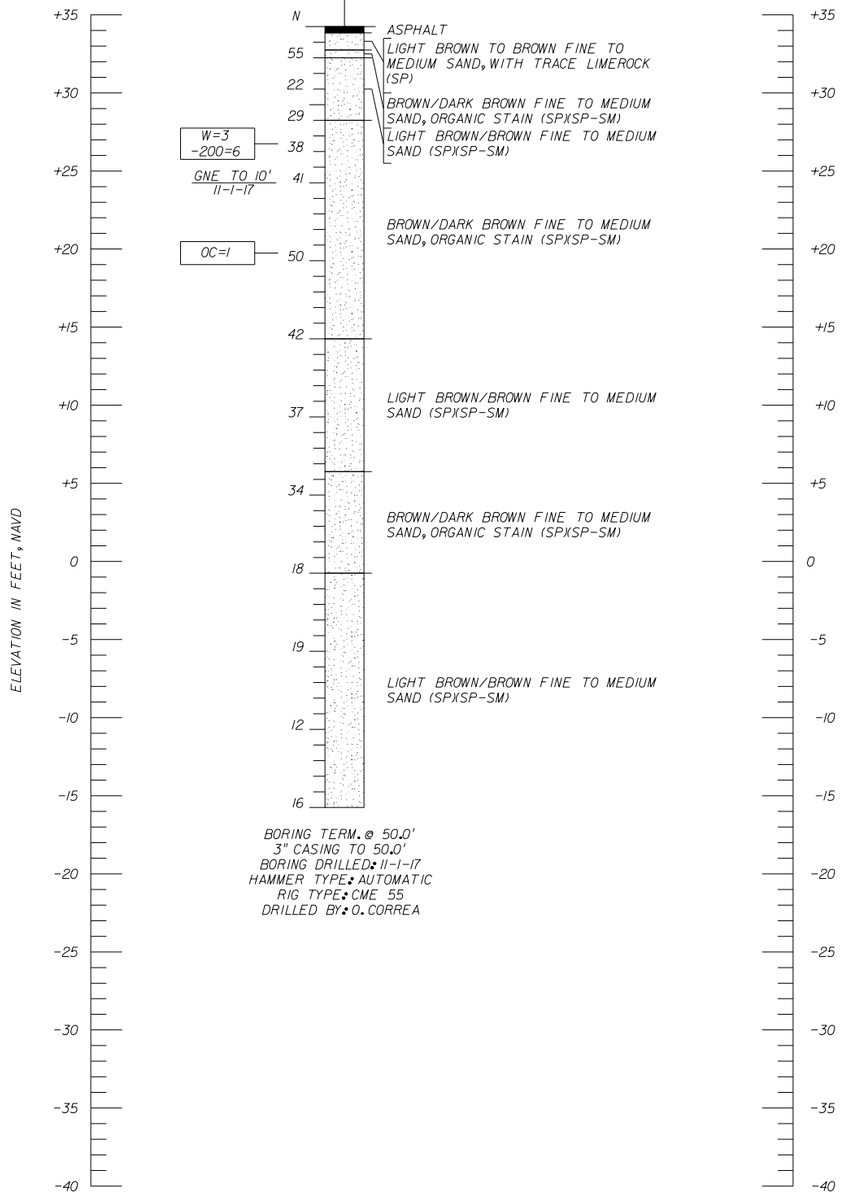
RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 2/25/2021
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

BORING No.: DMS-4
STATION: 3123+96
OFFSET: 8' RT.
LATITUDE: 26.344659
LONGITUDE: -80.118082
ELEVATION: +34.2'



BORING TERM. @ 50.0'
3" CASING TO 50.0'
BORING DRILLED: 11-1-17
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME 55
DRILLED BY: O. CORREA

LEGEND

- ASPHALT
- SAND
- (SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL
- 10-25-17 ENCOUNTERED GROUNDWATER LEVEL (DATE OF READING)
- W=0, -200=0, LL=0, PI=0 NATURAL MOISTURE CONTENT (%), FINES PASSING No. 200 SIEVE (%), LIQUID LIMIT (%), PLASTICITY INDEX (%)
- N STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT UNLESS OTHERWISE NOTED

AUTOMATIC HAMMER

STANDARD PENETRATION TEST DATA

SPOON INSIDE DIA.	1 3/8 in.
SPOON OUTSIDE DIA.	2 in.
ASTM STANDARD DROP	AUTOMATIC HAMMER
AVG. HAMMER DROP	30 in.
HAMMER WEIGHT	140 lbs.

GRANULAR MATERIALS

RELATIVE DENSITY	SPT (BLOWS/FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40

SILTS AND CLAYS

CONSISTENCY	SPT (BLOWS/FOOT)
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTES:

1) LAYER BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL LAYERS AT EACH TEST HOLE LOCATION ONLY. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED.

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BY: JROTH VS DATE: 05/21/2019

RELEASED FOR CONSTRUCTION
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4F96

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

HUGO E. SOTO, P.E.
P.E. LICENSE NUMBER 36440
TERRACON
16200 NW 59th. AVENUE – SUITE 106
MIAMI, FLORIDA 33014
CERTIFICATE OF AUTHORIZATION No. 8830

DRAWN BY: MG 4-9-18
CHECKED BY: RN 4-9-18
DESIGNED BY:
CHECKED BY:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

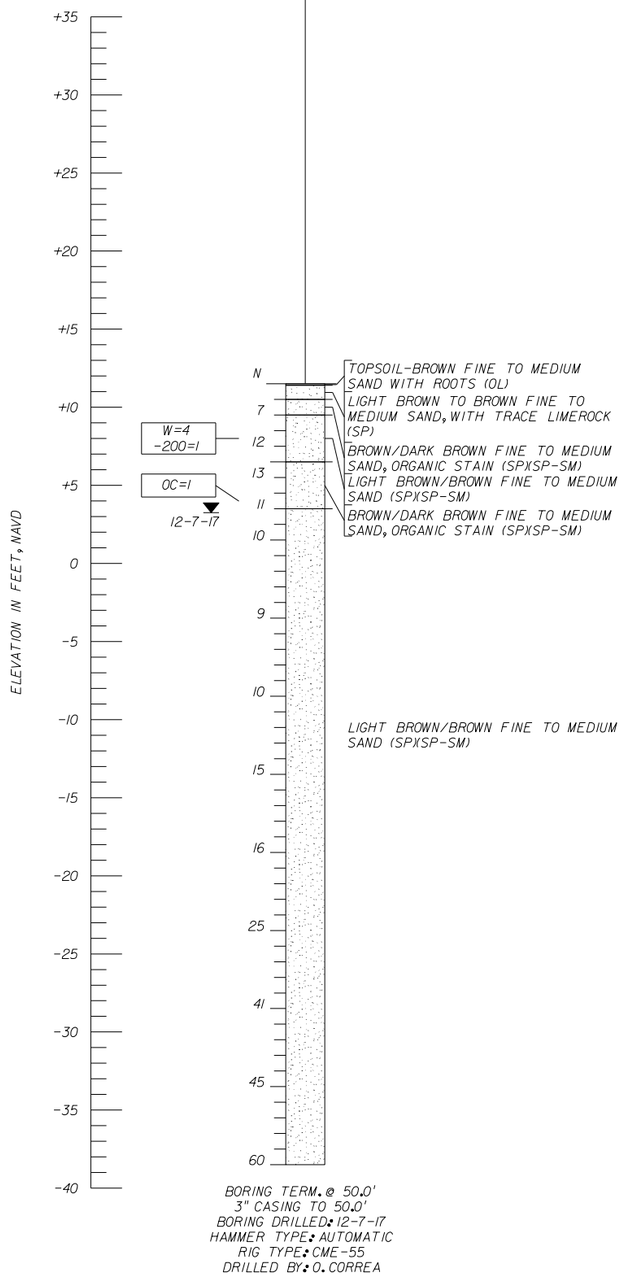
SHEET TITLE: REPORT OF CORE BORINGS FOR SIGNS

REF. DWG. NO.:

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

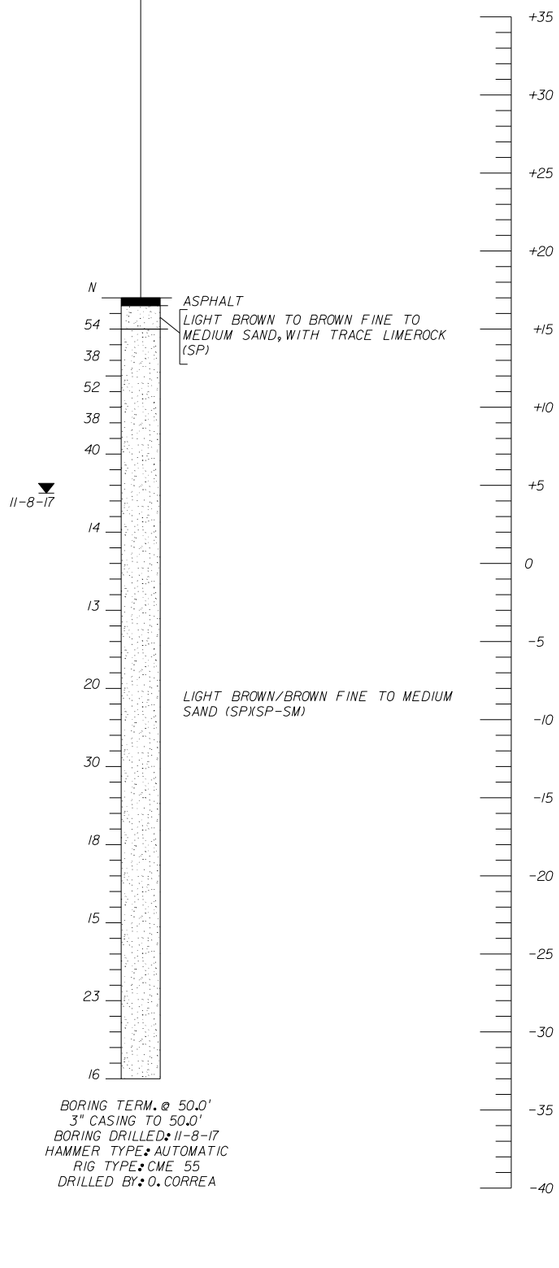
SHEET NO.: IT-194

BORING No.: DMS-6
STATION: 3179+15
OFFSET: 96' RT.
LATITUDE: 26.359680
LONGITUDE: -80.119563
ELEVATION: +13.7'



BORING TERM. @ 50.0'
3" CASING TO 50.0'
BORING DRILLED: 12-7-17
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME-55
DRILLED BY: O. CORREA

BORING No.: DMS-5
STATION: 3179+23
OFFSET: 7' RT.
LATITUDE: 26.359647
LONGITUDE: -80.119836
ELEVATION: +17.0'



BORING TERM. @ 50.0'
3" CASING TO 50.0'
BORING DRILLED: 11-8-17
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME 55
DRILLED BY: O. CORREA

LEGEND

	ASPHALT
	SAND
(SP)	UNIFIED SOIL CLASSIFICATION GROUP SYMBOL
10-25-17	ENCOUNTERED GROUNDWATER LEVEL (DATE OF READING)
W=0 -200=0 LL=0 PI=0	NATURAL MOISTURE CONTENT (%) FINES PASSING No. 200 SIEVE (%) LIQUID LIMIT (%) PLASTICITY INDEX (%)
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT UNLESS OTHERWISE NOTED

AUTOMATIC HAMMER

STANDARD PENETRATION TEST DATA

SPOON INSIDE DIA.	1 3/8 in.
SPOON OUTSIDE DIA.	2 in.
ASTM STANDARD DROP	AUTOMATIC HAMMER
AVG. HAMMER DROP	30 in.
HAMMER WEIGHT	140 lbs.

GRANULAR MATERIALS

RELATIVE DENSITY	SPT (BLOWS/FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40

SILTS AND CLAYS

CONSISTENCY	SPT (BLOWS/FOOT)
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTES:

1) LAYER BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL LAYERS AT EACH TEST HOLE LOCATION ONLY. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED.

BY: JROT VS DATE: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4F96
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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

HUGO E. SOTO, P.E.
P.E. LICENSE NUMBER 36440
TERRACON
16200 NW 59th. AVENUE – SUITE 106
MIAMI, FLORIDA 33014
CERTIFICATE OF AUTHORIZATION No. 8830

DRAWN BY: MG 4-9-18
CHECKED BY: RN 4-9-18
DESIGNED BY:
CHECKED BY:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

SHEET TITLE: REPORT OF CORE BORINGS FOR SIGNS

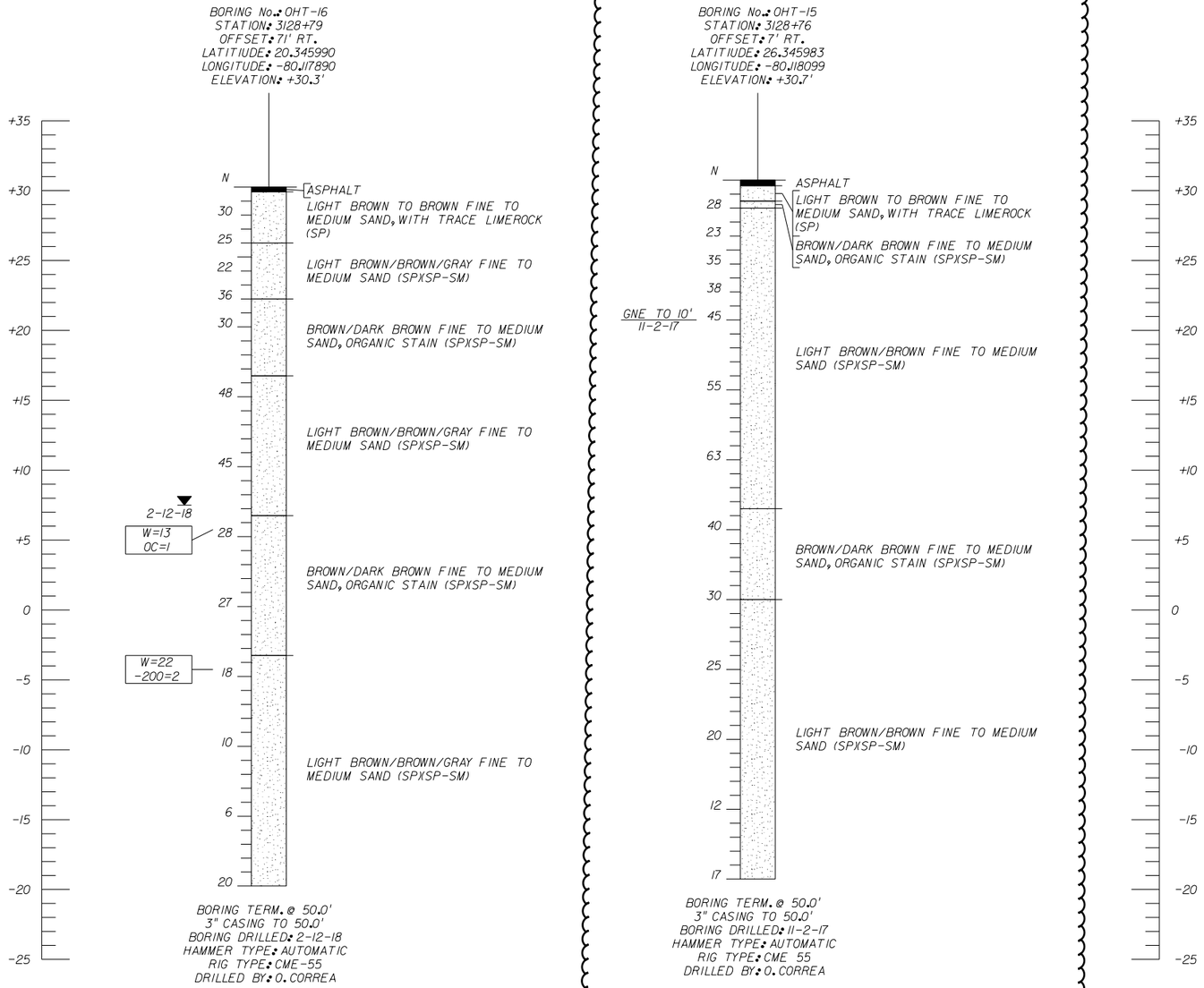
REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO. IT-195

TERRACON Project No.: 3417P055

mgarcia 2/5/2019 1:34:38 PM N:\CADD\FDOT-Projects\433108-6\geotech\Signs\sngeo06.dgn



LEGEND

	ASPHALT
	SAND
(SP)	UNIFIED SOIL CLASSIFICATION GROUP SYMBOL
▼ 10-25-17	ENCOUNTERED GROUNDWATER LEVEL (DATE OF READING)
W=0 -200=0 OC=0	NATURAL MOISTURE CONTENT (%) FINES PASSING No. 200 SIEVE (%) ORGANIC CONTENT (%)
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT UNLESS OTHERWISE NOTED

AUTOMATIC HAMMER

STANDARD PENETRATION TEST DATA

SPOON INSIDE DIA.	1 3/8 in.
SPOON OUTSIDE DIA.	2 in.
ASTM STANDARD DROP	AUTOMATIC HAMMER
AVG. HAMMER DROP	30 in.
HAMMER WEIGHT	140 lbs.

GRANULAR MATERIALS

RELATIVE DENSITY	SPT (BLOWS/FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40

SILTS AND CLAYS

CONSISTENCY	SPT (BLOWS/FOOT)
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTES:

1) LAYER BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL LAYERS AT EACH TEST HOLE LOCATION ONLY. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED.

2) N/A - NOT AVAILABLE AT THIS TIME.

BY: RJROTH VS DATE: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4F96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

HUGO E. SOTO, P.E.
P.E. LICENSE NUMBER 36440
TERRACON
16200 NW 59th. AVENUE - SUITE 106
MIAMI, FLORIDA 33014
CERTIFICATE OF AUTHORIZATION No. 8830

DRAWN BY: MG 4-25-18
CHECKED BY: RN 4-25-18
DESIGNED BY:
CHECKED BY:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

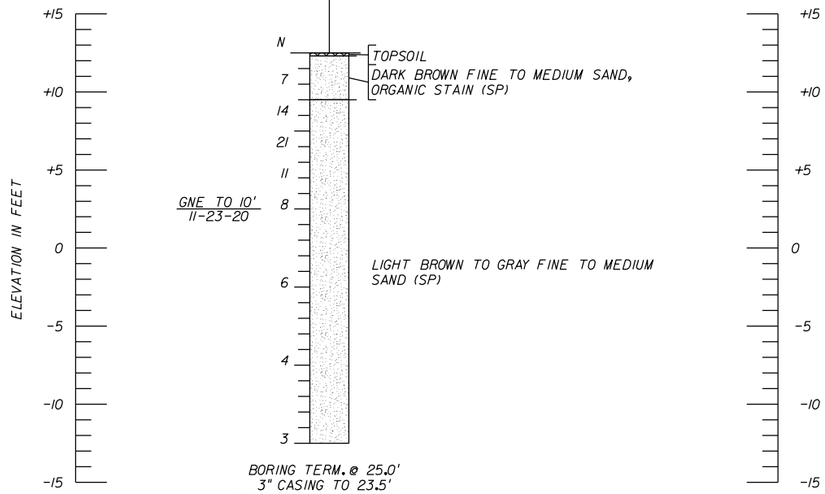
SHEET TITLE: REPORT OF CORE BORINGS FOR SIGNS

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

REF. DWG. NO.

SHEET NO. IT-196

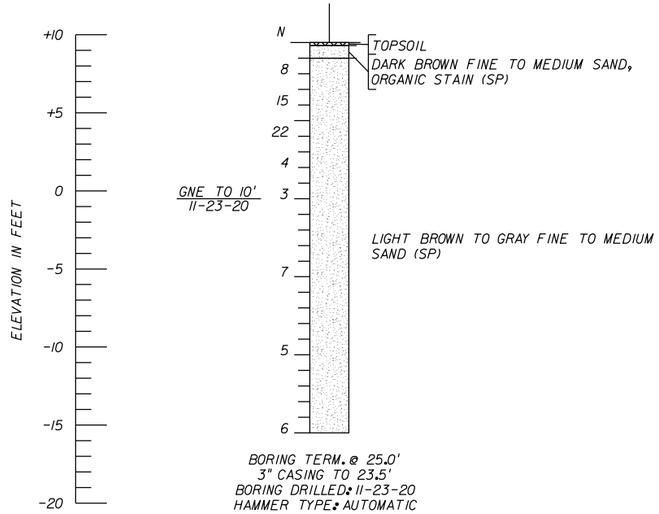
BORING No.: TB-2
STATION: 3137+45
OFFSET: 165' RT.
LATITUDE: 26.348333
LONGITUDE: -80.017566
ELEVATION: +12.4'



BORING TERM. @ 25.0'
3" CASING TO 23.5'
BORING DRILLED: 11-23-20
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME-855
DRILLED BY: O. CORREA

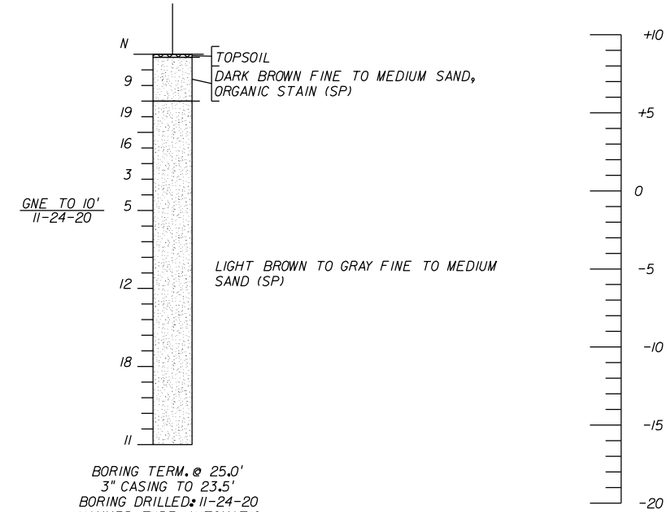
WRONG WAY DETECTION SYSTEM TO BE CONSTRUCTED UNDER SEPARATE CONTRACT (B)

BORING No.: TB-3
STATION: 3139+45
OFFSET: 215' RT.
LATITUDE: 26.348900
LONGITUDE: -80.017400
ELEVATION: +9.6'



BORING TERM. @ 25.0'
3" CASING TO 23.5'
BORING DRILLED: 11-23-20
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME-855
DRILLED BY: O. CORREA

BORING No.: TB-4
STATION: 3141+10
OFFSET: 255' RT.
LATITUDE: 26.349283
LONGITUDE: -80.017266
ELEVATION: +8.8'



BORING TERM. @ 25.0'
3" CASING TO 23.5'
BORING DRILLED: 11-24-20
HAMMER TYPE: AUTOMATIC
RIG TYPE: CME-855
DRILLED BY: O. CORREA

LEGEND

	TOPSOIL
	SAND
(SP)	UNIFIED SOIL CLASSIFICATION GROUP SYMBOL
GNE TO 10'	GROUNDWATER NOT ENCOUNTERED TO THE DEPTH OF 10 FEET
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT UNLESS OTHERWISE NOTED

AUTOMATIC HAMMER

STANDARD PENETRATION TEST DATA

SPOON INSIDE DIA.	1 3/8 in.
SPOON OUTSIDE DIA.	2 in.
ASTM STANDARD DROP AUTOMATIC HAMMER	
AVG. HAMMER DROP	30 in.
HAMMER WEIGHT	140 lbs.

GRANULAR MATERIALS

RELATIVE DENSITY	SPT (BLOWS/FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40

SILTS AND CLAYS

CONSISTENCY	SPT (BLOWS/FOOT)
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTES:

1) LAYER BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL LAYERS AT EACH TEST HOLE LOCATION ONLY. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED.

2) LATITUDE AND LONGITUDE AT BORING LOCATIONS IS BASED ON HANDHELD GPS DEVICE.

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of design, and compliance with codes, standards, fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT T5696
BY:(FDOT) VS Date: 2/25/2021
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
12-18-20	MG	(A) REV-46			

HUGO E. SOTO, P.E.
P.E. LICENSE NUMBER 36440
TERRACON
16200 NW 59th. AVENUE – SUITE 106
MIAMI, FLORIDA 33014
CERTIFICATE OF AUTHORIZATION No. 8830

DRAWN BY: MG 12-18-20
CHECKED BY: RN 12-18-20
DESIGNED BY:
CHECKED BY:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

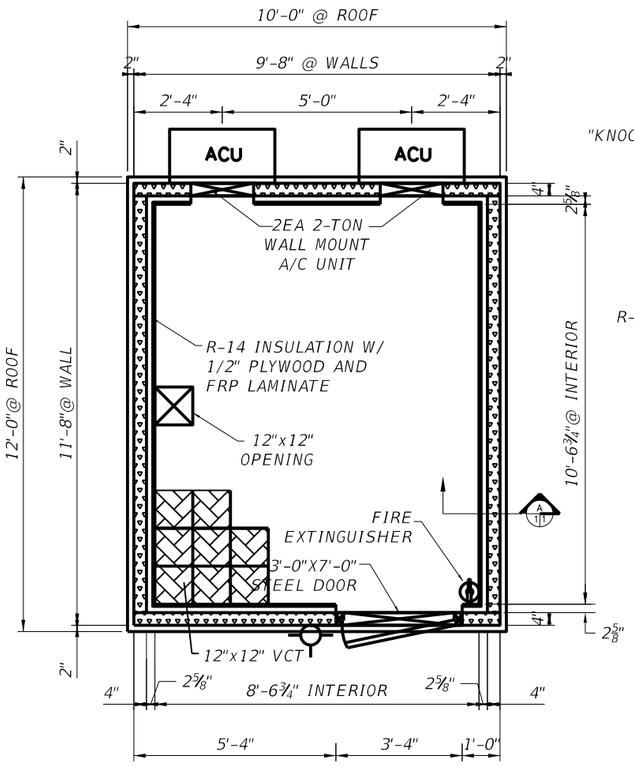
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

SHEET TITLE: REPORT OF CORE BORINGS FOR SIGN

REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1 ITS SEGMENT 2

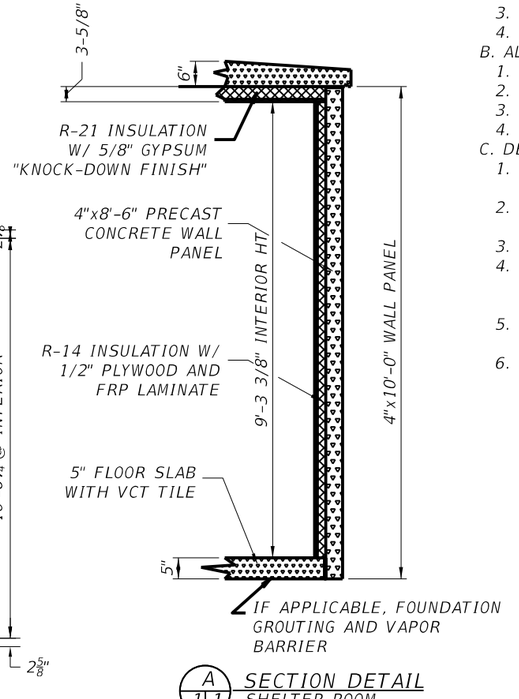
SHEET NO. IT-196A



FP 1|1 PLAN VIEW

INDICATES 4" PRECAST WALLS

INSULATION AND GYPSUM



A 1|1 SECTION DETAIL
SHELTER ROOM

A. DESIGN CRITERIA
1. FLORIDA BUILDING CODE 6TH EDITION (2017)
   A. ENCLOSURE CLASSIFICATION: ENCLOSED
   B. WIND RISK CATEGORY II
   C. WIND EXPOSURE: C
   D. OCCUPANCY CLASSIFICATION: S-2
   E. CONSTRUCTION TYPE: II-B
2. ACI-318-11 / 318R-11
3. DESIGN SOIL PRESSURE: 2000 PSF BY OTHERS
4. FLOOD LOAD: NOT DESIGN FOR FLOOD HAZARD AREA

B. ALL LOADING CRITERIA PER FBC SECTION 1603.1
1. ROOF LIVE LOAD - 100 PSF
2. FLOOR LIVE LOAD - 200 PSF
3. FLOOR DEAD LOAD - 63 PSF
4. WIND LOAD 170 ULTIMATE - 132 NOMINAL

C. DESIGN SPECIFICATION ON MATERIAL
1. CONCRETE - 5000 PSI, LIGHT WEIGHT CONCRETE, 28 DAYS
2. REINF. STEEL - ASTM A615, GRADE 60
   MINIMUM LAP - 46" BAR DIAMETERS
3. MINIMUM COVER - EXTERIOR - 1 1/2" INTERIOR - 3/4"
4. WELDED WIRE FABRIC - ASTM A185,
   MIN. LAP 8". ALTERNATE JOINTS IN PANEL
   W/ DOUBLE MESH
5. ERECTION/LIFTING INSERTS/DEVICES SHALL BE INSTALLED PER MFR'S RECOMMENDATIONS
6. ALL ERECTION/LIFTING DEVICES SHALL BE 2-TON CAPACITY (MEADOW/BURKE)

D. OTHER
1. REFER TO OWNER'S PROJECT REQUIREMENTS FOR SPECIFICATIONS ON BUILDING COMPONENTS (WINDOWS, DOORS, EQUIPMENT BASES, LOUVERS); HVAC EQUIPMENT (A/C, EXHAUST FANS); PLUMBING FIXTURES (PIPES, DRAINS); ELECTRICAL EQUIPMENT (POWER PANELS, CONDUITS, SWITCHES, LIGHTING FIXTURES), ETC. NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPLY CONCRETE MODULAR SYSTEMS, INC. WITH THE EXACT SIZE AND LOCATION OF ALL OPENINGS REQUIRED IN THE FLOOR, WALL AND ROOF PANELS. THE ITEMS LISTED ABOVE ARE NOT TO BE CONSTRUED AS AN ALL INCLUSIVE LIST.
2. WINDOWS AND DOORS SHALL BE CERTIFIED FOR COMPLIANCE WITH WIND DESIGN PRESSURES FOR COMPONENTS AND CLADDING.
3. ALL MATERIALS COMPRISING THE BUILDING ENVELOPE SHALL HAVE FLORIDA PRODUCT APPROVAL IN ACCORDANCE WITH 553.842(5) OR FAC CHAPTER 61-G20-3.

ROOF COMPONENTS AND CLADDING LOAD

Pr = ZONE 1 = +23.0/-60.3 PSF
ZONE 2 = +23.0/-87.6 PSF
ZONE 3 = +23.0/-115.3 PSF

WALL COMPONENTS AND CLADDING LOAD

Pw= ZONE 4 = +55.0/-59.8 PSF
ZONE 5 = +55.0/-71.6 PSF

THIS BUILDING IS NOT DESIGN FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15'-0" IN HEIGHT.

NOTE:
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BY:JTODD Date: 12/10/2019 VS

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4A98

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
11-19-19		17 ADDED SHEET			

WSP USA Inc.
2202 North West Shore Blvd.
Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 1462
EOR: TODD MITCHELL, P.E.
License No. 60188

DRAWN BY:	JRP 6-19
CHECKED BY:	ZY 6-19
DESIGNED BY:	JTM 6-19
CHECKED BY:	ZY 6-19

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

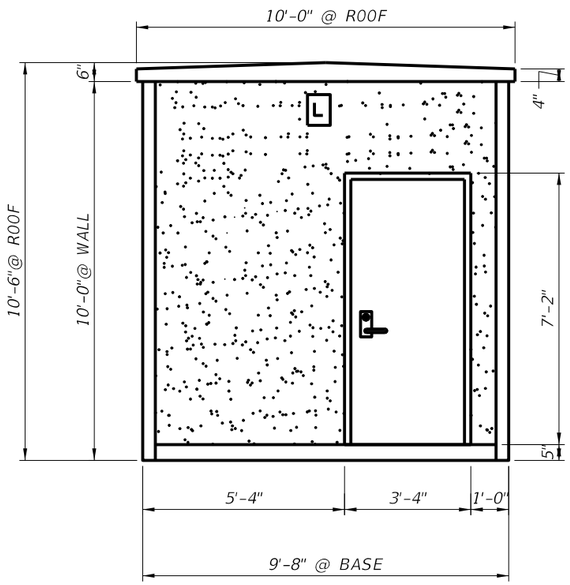
SHEET TITLE: HUB BUILDING PLAN

REF. DWG. NO.

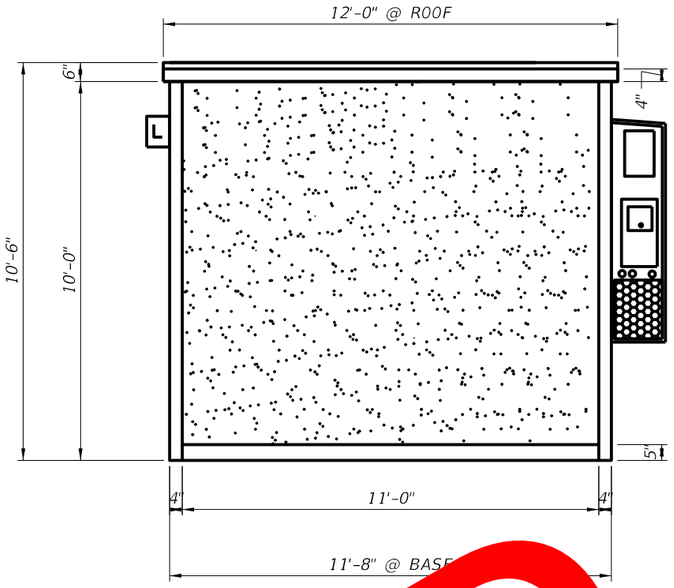
PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO. IT-197

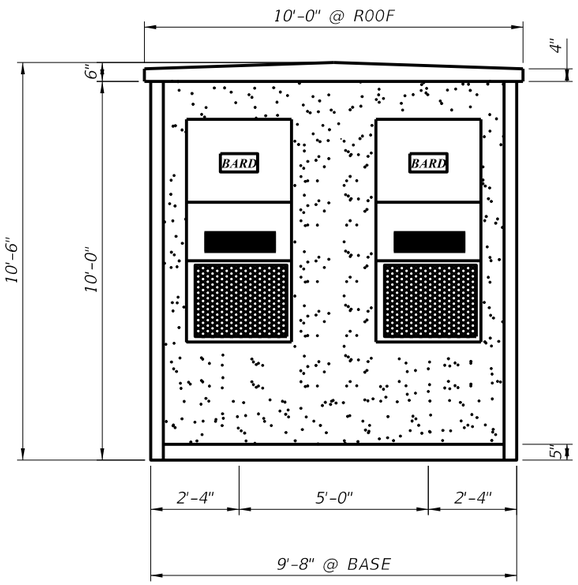
PLOT DATE: 11/27/2019 PLOTTED BY: Todd Mitchell FILE NAME: N:\Projects\Miami-Dade\I-95 Express\Phase 3B\Roadway\Plans\Sheets\IT\IT197_HUB BUILDING PLAN.dgn



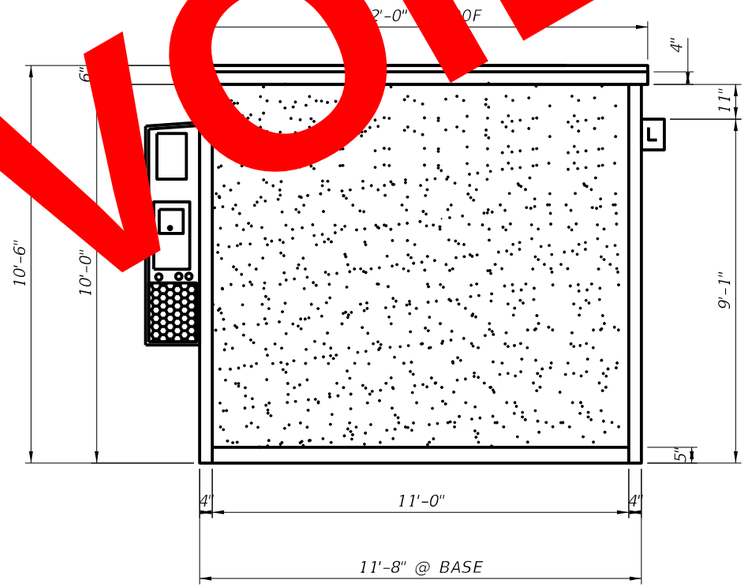
FW 1 2 FRONT ELEVATION



RW 1 2 RIGHT ELEVATION



BW 1 2 BACK ELEVATION



LW 1 2 LEFT ELEVATION

VOID

DOOR AND HARDWARE SCHEDULE

DOOR: 1EA 3'-0"X7'-0"X1-3/4" STEEL DOOR RHR
FRAME: 1EA 3'-4"X7'-2"X3-3/4" STEEL FRAME RHR
HINGES: DEANSTEEL CONTINOUS STEEL HINGE
LOCK: CORBIN RUSSWIN #ML2024 MORTISE LOCKSET
DOOR SWEEP: PEMKO #A-57 VINLY DOOR SWEEP
DRIP CAP: PEMKO #346C ALUMINUM OVERHEAD RAIN DRIP CAP
CLOSER: LCN #4041 DOOR CLOSER

EXTERIOR FINISH SCHEDULE:

EXTERIOR WALLS:
"EXPOSED AGGREGATE FINISH" 5000 PSI CONCRETE FINISH
PPG EXTERIOR ACRYLIC LATEX MASONRY PAINT
COLOR: EARTH TONE

ROOF: SHALL HAVE A $\frac{1}{8}$" PER FOOT MINIMUM PITCH FOR DRAINAGE

DOORS AND FRAMES:
FRAMES: BAKED ENAMEL COLOR EARTH TONE
DOORS: BAKED ENAMEL EARTH TONE

INTERIOR FINISH SCHEDULE:

WALLS: PROVIDE VAPOR SHIELD TO PREVENT MOISTURE PENETRATION, MINIMUM INSULATING FACTOR OF R14 W/ 1/2" PLYWOOD AND FRP LAMINATE

CEILING: PROVIDE VAPOR SHIELD TO PREVENT MOISTURE PENETRATION, MINIMUM INSULATING FACTOR OF R21 W/ 5/8" GYPSUM BOARD "KNOCK-DOWN FINISH"

FLOOR: INSULATE WITH POLYSTYRENE FOAM HAVING MINIMUM INSULATING FACTOR OF R11 FLOOR COVERING: INDUSTRIAL-GRADE VINYL FLOORING FASTENED WATERPROOF GLUE

WALL/FLOOR
INTERSECTIONS: SHALL HAVE A 4 INCH VINYL BASEBOARD FASTENED WITH WATERPROOF GLUE

MECHANICAL SCHEDULE:

2EA BARD 2-TON WALL MOUNT A/C WA241-A05-XPXXXJ W/ "J" PACKAGE, GRILLS

NOTE:
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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY:JPOOT Date: 12/10/2019 VS

RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433094-4-52-01 CONTRACT E4A58

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
11-19-19		17 ADDED SHEET			

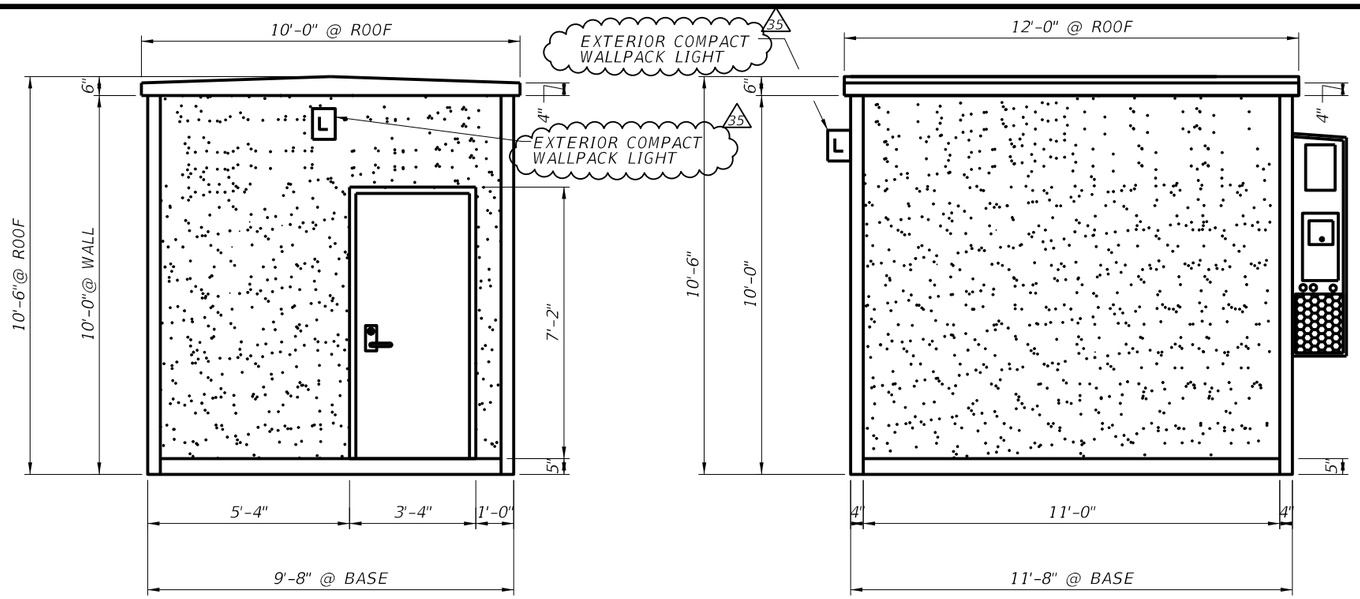
WSP USA Inc.
2202 North West Shore Blvd.
Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 1462
EOR: TODD MITCHELL, P.E.
License No. 60188

DRAWN BY: JRP 6-19
CHECKED BY: ZY 6-19
DESIGNED BY: JTM 6-19
CHECKED BY: ZY 6-19

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

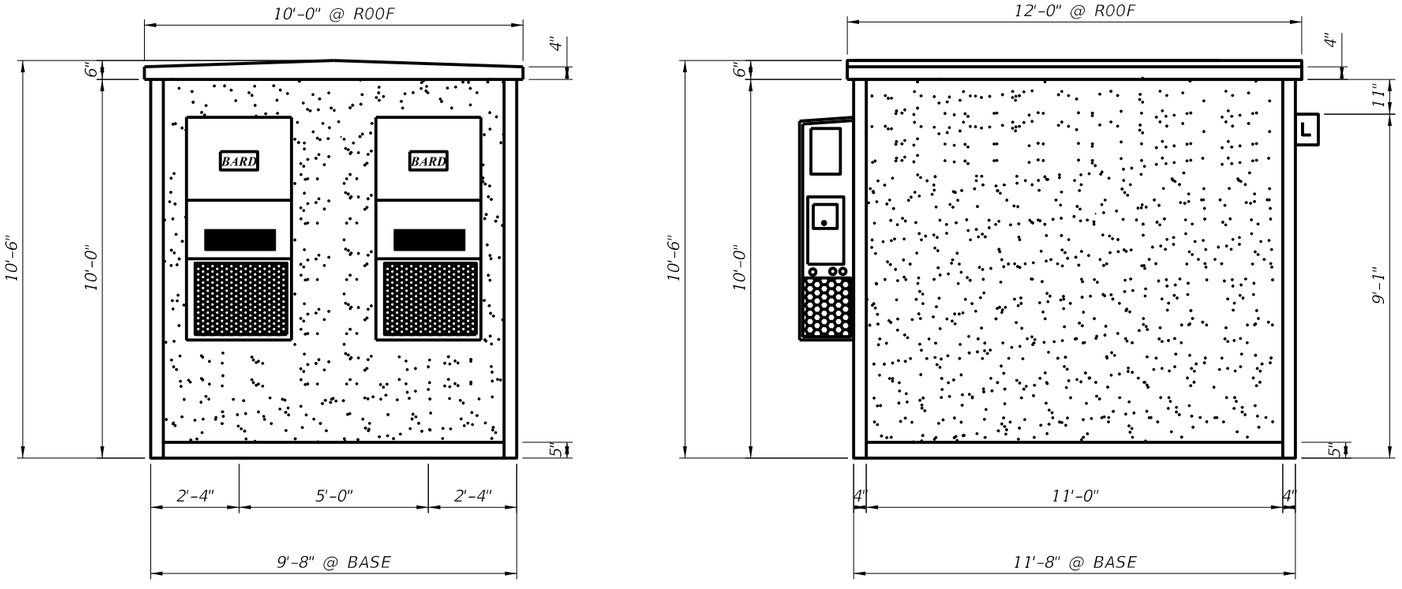
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

SHEET TITLE: HUB BUILDING ELEVATIONS
REF. DWG. NO.
PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1
SHEET NO. IT-198



FW 1 2 FRONT ELEVATION

RW 1 2 RIGHT ELEVATION



BW 1 2 BACK ELEVATION

LW 1 2 LEFT ELEVATION

DOOR AND HARDWARE SCHEDULE

DOOR: 1EA 3'-0"X7'-0"X1-3/4" STEEL DOOR RHR, BULLET RESISTANT 35
FRAME: 1EA 3'-4"X7'-2"X3-3/4" STEEL FRAME RHR
HINGES: DEANSTEEL CONTINOUS STEEL HINGE
LOCK: CORBIN RUSSWIN #ML2024 MORTISE LOCKSET
DOOR SWEEP: PEMKO #A-57 VINLY DOOR SWEEP
DRIP CAP: PEMKO #346C ALUMINUM OVERHEAD RAIN DRIP CAP
CLOSER: LCN #4041 DOOR CLOSER

EXTERIOR FINISH SCHEDULE:

EXTERIOR WALLS:
"EXPOSED AGGREGATE FINISH" 5000 PSI CONCRETE FINISH
PPG EXTERIOR ACRYLIC LATEX MASONRY PAINT
COLOR: EARTH TONE

ROOF: SHALL HAVE A $\frac{1}{8}$" PER FOOT MINIMUM PITCH FOR DRAINAGE

DOORS AND FRAMES:
FRAMES: BAKED ENAMEL COLOR EARTH TONE
DOORS: BAKED ENAMEL EARTH TONE

INTERIOR FINISH SCHEDULE: 35

WALLS: PROVIDE VAPOR SHIELD TO PREVENT MOISTURE PENETRATION, MINIMUM INSULATING FACTOR OF R14 W/ 1/2" PLYWOOD AND WHITE TEXTURED FINISH WALL COVERING WITH MOLDING ON ALL CORNERS.

CEILING: PROVIDE VAPOR SHIELD TO PREVENT MOISTURE PENETRATION, MINIMUM INSULATING FACTOR OF R21 W/ 5/8" GYPSUM BOARD "KNOCK-DOWN FINISH"

FLOOR: INSULATE WITH POLYSTYRENE FOAM HAVING MINIMUM INSULATING FACTOR OF R11 fLOOR COVERING: INDUSTRIAL-GRADE VINYL FLOORING FASTENED WATERPROOF GLUE

WALL/FLOOR
INTERSECTIONS: SHALL HAVE A 4 INCH VINYL BASEBOARD FASTENED WITH WATERPROOF GLUE

MECHANICAL SCHEDULE:

2EA BARD 2-TON WALL MOUNT A/C WA241-A05-XPXXXJ W/ "J" PACKAGE, GRILLS

NOTE:
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RELEASED FOR CONSTRUCTION
Review is for general conformance with contract documents. Shop responsibility for correct and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4W66
BY WSP ON 03/04/2020 Date VS
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
11-19-19		17 ADDED SHEET			
02-14-20		35 ADDED NOTES			

WSP USA Inc.
2202 North West Shore Blvd.
Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 1462
EOR: TODD MITCHELL, P.E.
License No. 60188

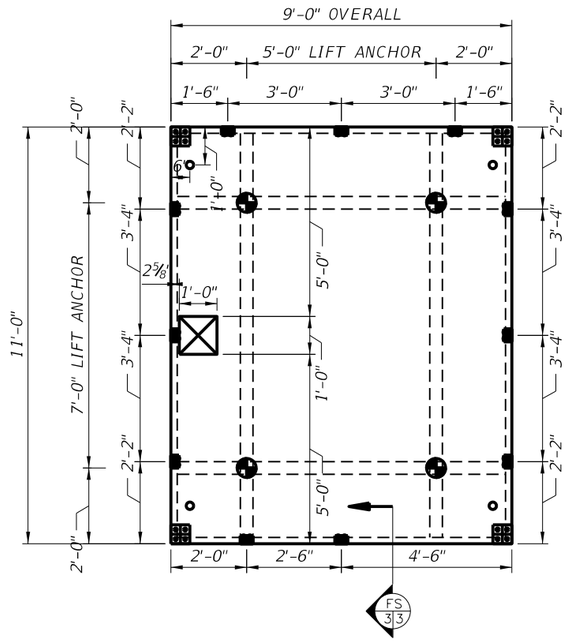
DRAWN BY: JRP 6-19
CHECKED BY: ZY 6-19
DESIGNED BY: JTM 6-19
CHECKED BY: ZY 6-19

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

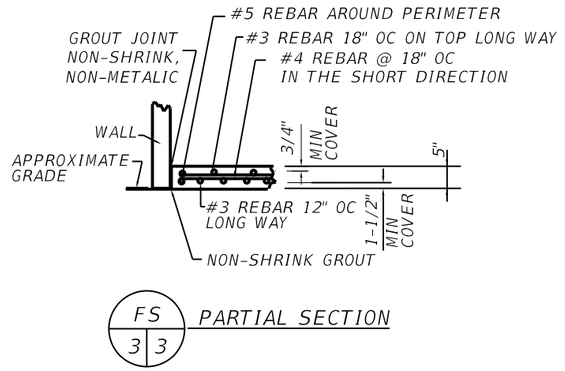
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

SHEET TITLE: HUB BUILDING ELEVATIONS
REF. DWG. NO.
PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1
SHEET NO. IT-198

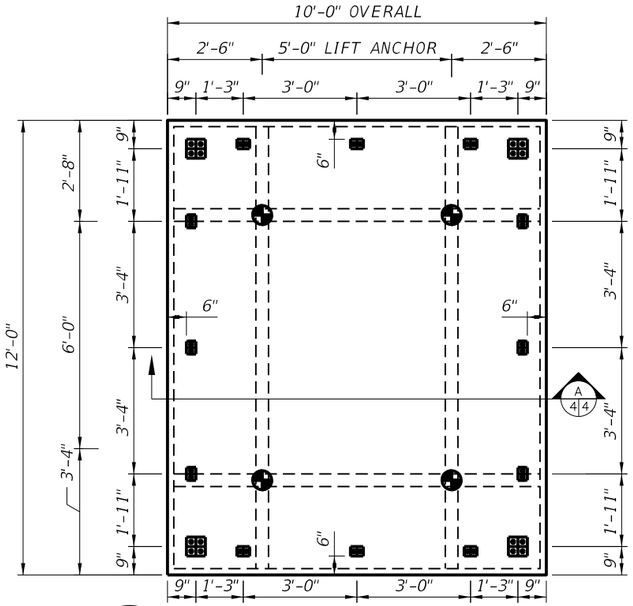
$USER$ $DATE$ $TIME$ $FILE$



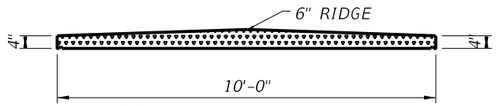
FS 1 3 FABRICATION 5" THICK FLOOR SLAB



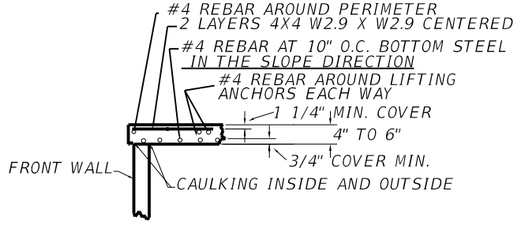
FS 3 3 PARTIAL SECTION



RS 1 4 FABRICATION 4" TO 6" THICK ROOF SLAB



A 4 4 PARTIAL SECTION



B 4 4 PARTIAL SECTION

REINFORCEMENT:
#3 REBAR @ 18" O.C. @ TOP OF SLAB LONG WAY
#4 REBAR @ 18" O.C. SHORT WAY
#3 REBAR @ 12" O.C. @ BOTTOM OF SLAB
(1) #5 REBAR AROUND PERIMETER OF SLAB
(1) #5 REBAR E.S. LIFTING INSERTS E.W. UNDER TOP STEEL
EXTRA #5 REBAR AROUND OPENINGS AS SHOWN

SEE DETAILS "F" ON HUB BLDG SHEET X FOR FLOOR TO WALL CONNECTION

DENOTES LIFTING INSERT SEE DETAIL "B" ON HUB BLDG SHEET X

DENOTES LOCATION OF WELD PLATES SEE DETAIL "F" ON HUB BLDG SHEET X P-1 A-1

DENOTES LOCATION OF 3/8" ANCHOR BOLT. MIN 5" EMBED WITH WASHER AND BOLT OR ALT. DRILL & EPOXY #5 BAR MIN 5" EMBED. COVERED WITH PATCH, TYP.

NOTE:
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REINFORCEMENT:
(1) #4 AROUND EACH EDGE OF PANEL
(1) #4 REBAR EACH SIDE OF LIFTING INSERT EACH WAY AS SHOWN
(1) LAYER OF 4X4 W2.9 / W2.9 WWM CENTERED
#4 REBAR AT 10" O.C., IN THE SLOPE DIRECTION BOTTOM STEEL 3/4" COVER
EXTRA #5 AROUND OPENINGS AS SHOWN

SEE DETAILS "D" ON SHEET #9 FOR ROOF TO WALL CONNECTION

DENOTES LIFTING INSERT SEE DETAIL "B" ON HUB BLDG SHEET X

DENOTES LOCATION OF WELD PLATES SEE DETAIL "D" ON HUB BLDG SHEET X P-1 P-2

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BY:JTODT VS Date: 12/10/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4A98

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
11-19-19		17 ADDED SHEET			

WSP USA Inc.
2202 North West Shore Blvd.
Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 1462
EOR: TODD MITCHELL, P.E.
License No. 60188

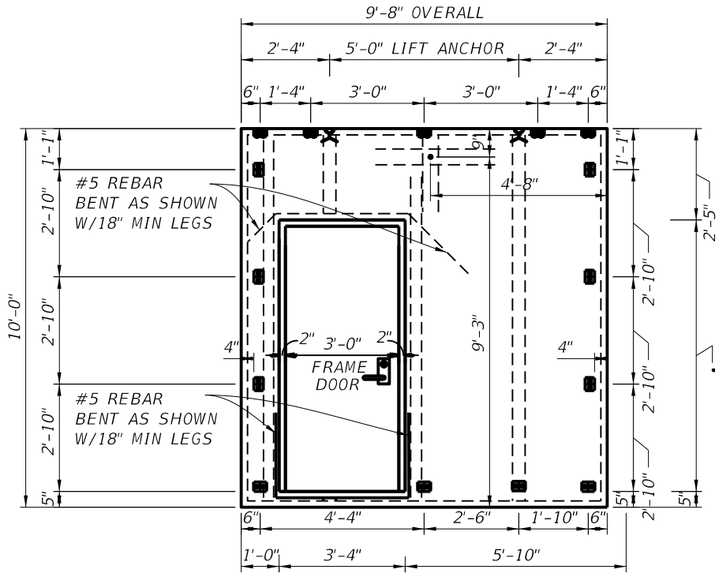
DRAWN BY: JRP 6-19
CHECKED BY: ZY 6-19
DESIGNED BY: JTM 6-19
CHECKED BY: ZY 6-19

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

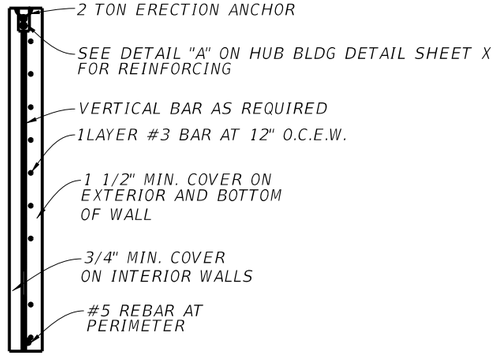
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

SHEET TITLE: HUB BUILDING STRUCTURE DETAILS 1
REF. DWG. NO.
PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1
SHEET NO. IT-199

PLOT DATE=12/10/2019 PLOT TIME=8:29:39 AM D:\Projects\Miami\Active\433092-2\CAD\IT\IT199.dgn



FW 1 5 FABRICATION 4" THICK FRONT WALL



FW 5 5 PARTIAL SECTION

TYPICAL PANEL REINFORCEMENT

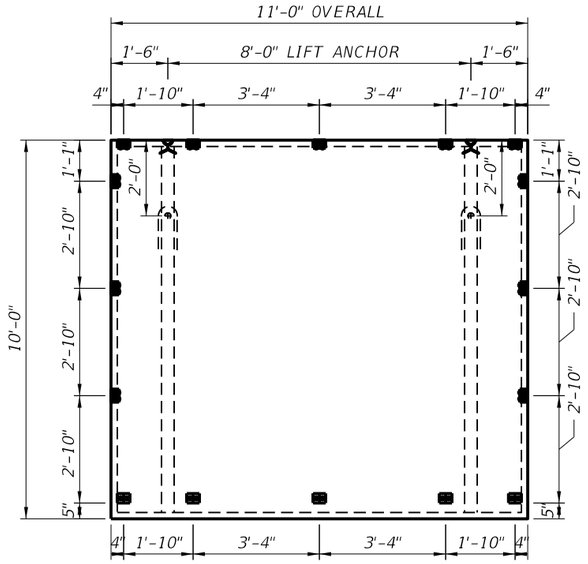
(1) LAYER #3 BARS 12 O.C. EACH WAY
(1) #5 BARS @ PERIMETER AS SHOWN
(2) #5 BARS @ LIFTING INSERTS AS SHOWN
EXTRA #5 BARS @ OPENINGS AS SHOWN

NOTE:
SEE DETAILS "D" ON HUB BLDG DETAILS SHEET X FOR ROOF TO WALL CONNECTION
SEE DETAILS "E" ON HUB BLDG DETAILS SHEET X FOR WALL TO WALL CONNECTION
SEE DETAILS "F" ON HUB BLDG DETAILS SHEET X FOR FLOOR TO WALL CONNECTION

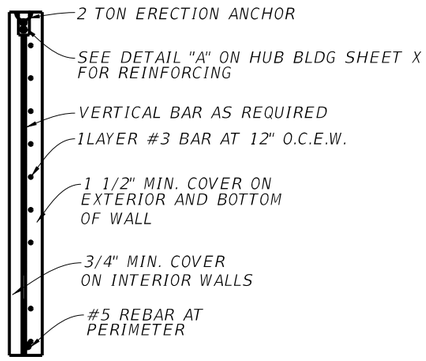
DENOTES EDGE ANCHOR SEE DETAIL "A" HUB BLDG DETAILS SHEET X

DENOTES LOCATION OF WELD PLATES FOR CONNECTING
SEE DETAILS "D,E,F" ON HUB BLDG SHEET X

DENOTES 1 1/4" SCHEDULE 80 STEEL SLEEVE WITH #5 HAIR
PIN FOR BUILDING PICK POINTS SEE DETAIL "C" ON HUB BLDG SHEET X



LW 1 6 FABRICATION 4" THICK LEFT WALL



LW 6 6 PARTIAL SECTION

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(813) 520-4444
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DRAWN BY: JRP 6-19
CHECKED BY: ZY 6-19
DESIGNED BY: JTM 6-19
CHECKED BY: ZY 6-19

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

SHEET TITLE: HUB BUILDING STRUCTURE DETAILS 2

REF. DWG. NO.

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO. IT-200

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BY:JPOTH DATE: 12/10/2019 VS
RELEASED FOR CONSTRUCTION
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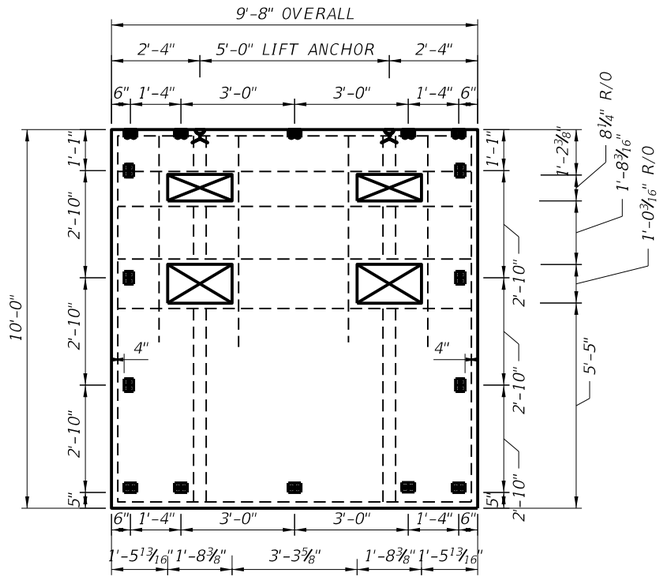
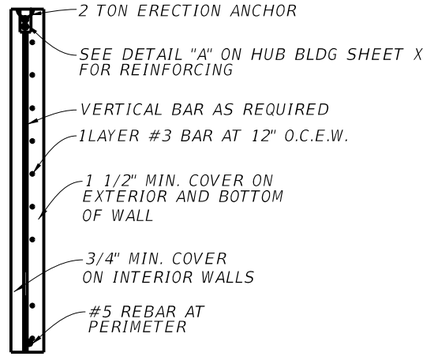
PID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A58



BW 1|7 FABRICATION 4" THICK BACK WALL



BW 7|7 PARTIAL SECTION

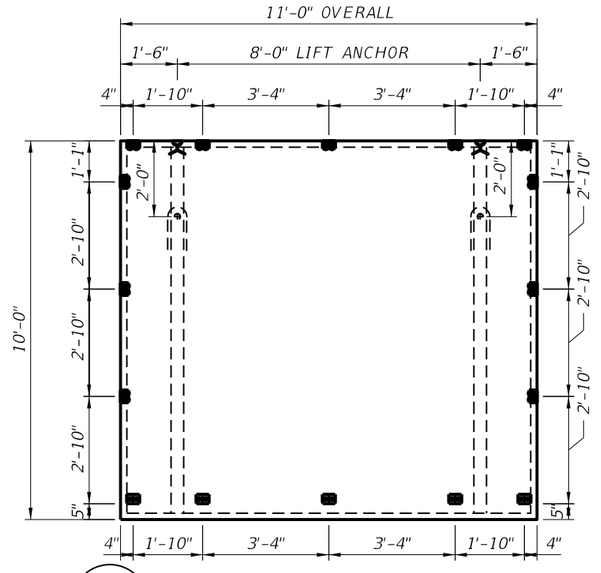
TYPICAL PANEL REINFORCEMENT
(1) LAYER #3 BARS 12 O.C. EACH WAY
(1) #5 BARS @ PERIMETER AS SHOWN
(2) #5 BARS @ LIFTING INSERTS AS SHOWN
EXTRA #5 BARS @ OPENINGS AS SHOWN

NOTE:
SEE DETAILS "D" ON HUB BLDG DETAILS SHEET X FOR ROOF TO WALL CONNECTION
SEE DETAILS "E" ON HUB BLDG DETAILS SHEET X FOR WALL TO WALL CONNECTION
SEE DETAILS "F" ON HUB BLDG DETAILS SHEET X FOR FLOOR TO WALL CONNECTION

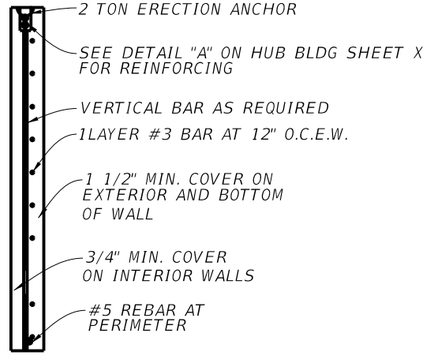
DENOTES EDGE ANCHOR SEE DETAIL "A" HUB BLDG DETAILS SHEET X

DENOTES LOCATION OF WELD PLATES FOR CONNECTING SEE DETAILS "D,E,F" ON HUB BLDG SHEET X

DENOTES 1 1/4" SCHEDULE 80 STEEL SLEEVE WITH #5 HAIR PIN FOR BUILDING PICK POINTS SEE DETAIL "C" ON HUB BLDG SHEET X



RW 1|8 FABRICATION 4" THICK RIGHT WALL



RW 8|8 PARTIAL SECTION

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BY:JTODT VS DATE: 12/10/2019
RELEASED FOR CONSTRUCTION
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PID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4H58

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
11-19-19		17 ADDED SHEET			

WSP USA Inc.
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EOR: TODD MITCHELL, P.E.
License No. 60188

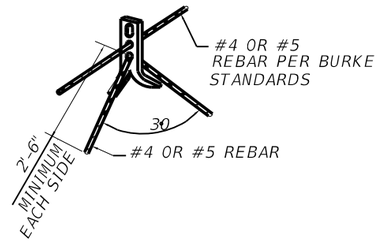
DRAWN BY:	JRP 6-19
CHECKED BY:	ZY 6-19
DESIGNED BY:	JTM 6-19
CHECKED BY:	ZY 6-19

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

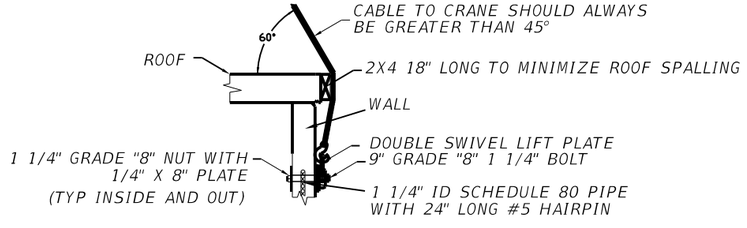
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

SHEET TITLE: *HUD BUILDING STRUCTURE DETAILS 3*
REF. DWG. NO.
PROJECT NAME: *I-95 EXPRESS LANES - PHASE 3B-1*
SHEET NO. *IT-201*

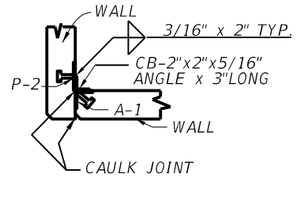
PLOT DATE: 12/9/2019 PLOT TIME: 4:39:24 PM FILE NAME: N:\Projects\Broward\Design\Sheets\Revised\IT201.dgn



A TYPICAL REINFORCING FOR 2-TON
BURKE TYPE EDGE ANCHOR

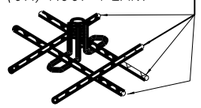


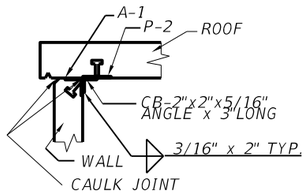
C BUILDING PICK POINTS
APPROX BUILDING WEIGHT 23,000 LBS

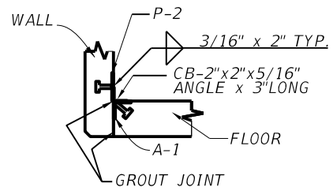


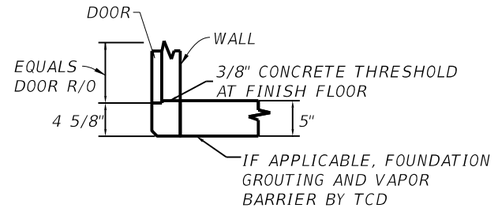
E SECTION-WALL/WALL

REINFORCEMENT:
LONGITUDINAL AND TRANSVERSE REBAR; SIZE AS SHOWN ON FLOOR AND (OR) ROOF PLAN.









B TYPICAL LIFTING INSERT FOR "FACE LIFT" APPLICATION

D SECTION-ROOF/WALL

F SECTION-FLOOR/WALL

G SECTION-THRESHOLD/FLOOR

NOTE:
CONCRETE MODULAR SYSTEMS INC. RESERVES THE RIGHT TO SUBSTITUTE APPROVE EQUAL BASED ON PRICE AND AVAILIBILITY

CONNECTION MATERIAL			
QUAN.	MARK#	SIZE OF MATERIAL	STUD REQUIRED/MANU.
8	P-1	6"x 6"X 3/8" A-36 PLATE	(4) 1/2" DIA x 3" LG.
27	P-2	4"x 3"X 1/4" A-36 PLATE	(2) 1/2" DIA x 3" LG.
28	A-1	2-1/2"x 2-1/2"x 1/4" x 4"	(2) 1/2" DIA x 3" LG.
16	CB	2"x 2"x 5/16" x 2" A-36	NONE
8		#79528 ERECTION ANCHOR	MEADOW-BURKE
8		CX-28 2-TON LIFT ANCHOR	MEADOW-BURKE
3		NON SHRINK GROUT	EUCLID
30		SONOLASTIC NP-1	SONNEBORN

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DRAWN BY: JRP 6-19
CHECKED BY: ZY 6-19
DESIGNED BY: JTM 6-19
CHECKED BY: ZY 6-19

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

SHEET TITLE: HUB BUILDING DETAILS
REF. DWG. NO.
PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1
SHEET NO. IT-202

PLOT DATE: 11/27/2019 PLOT TIME: 2:49:17 PM C:\Projects\I95_Express_Lanes_Phase_3B\2092_Civil\DGN\IT202.dgn

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BY:JTODD DATE: 12/10/2019 VS

RELEASED FOR CONSTRUCTION
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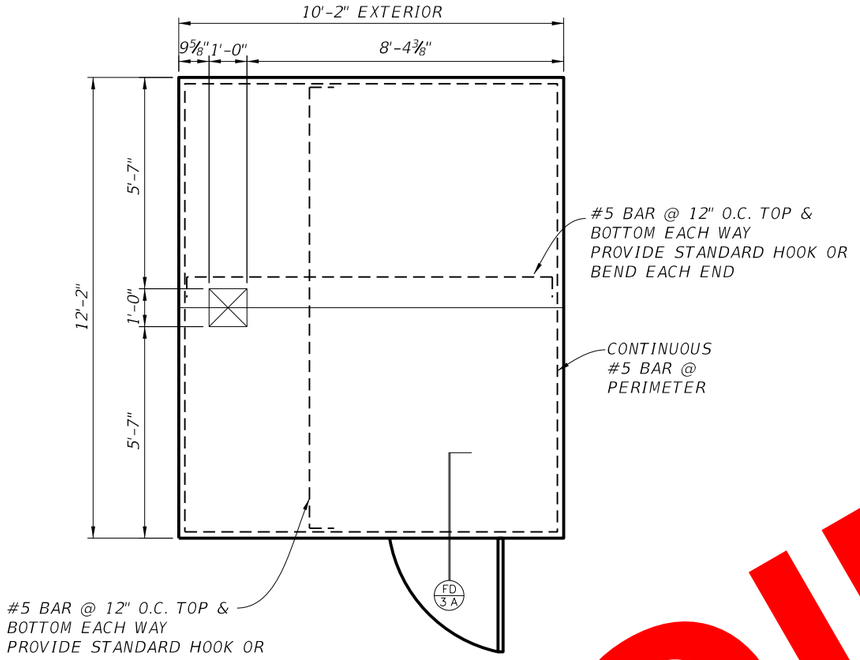
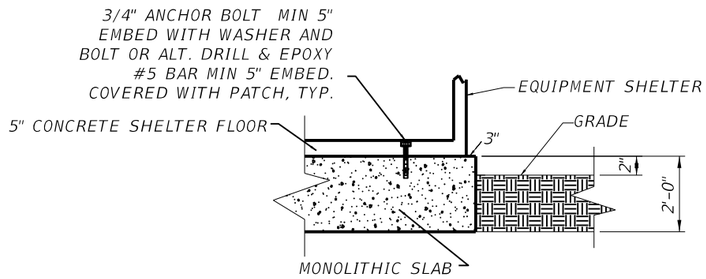
PPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4H98





FD / 3 A FOUNDATION SECTIONAL DETAIL

VOID

NOTES:

(A) DESIGN CRITERIA

1. APPLICABLE CODE:
   FLORIDA BUILDING CODE 6TH EDITION (2017)
2. ACI 318-11 / 318R-11
3. DESIGN SOIL PRESSURE: 2000 PSF (TO BE VERIFIED)

(B) DESIGN SPECIFICATION ON MATERIAL

1. CONCRETE- 3000PSI AT 28 DAYS
2. REINF STEEL- ASTM A615 GRADE 60
   MINIMUM LAP - 30"

(C) FOUNDATION CRITERIA

1. IN ACCORDANCE WITH SECTION 455 OF THE SPECIFICATIONS.

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PPID 433108-4-52-01 and 433109-4-52-01 CONTRACT E4A98

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DESIGNED BY:	JTM 6-19
CHECKED BY:	ZY 6-19

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

SHEET TITLE: HUB BUILDING FOUNDATION

REF. DWG. NO.:

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

SHEET NO.: IT-203

PLOT DATE: 11/21/2019 PLOT TIME: 4:39:29 PM
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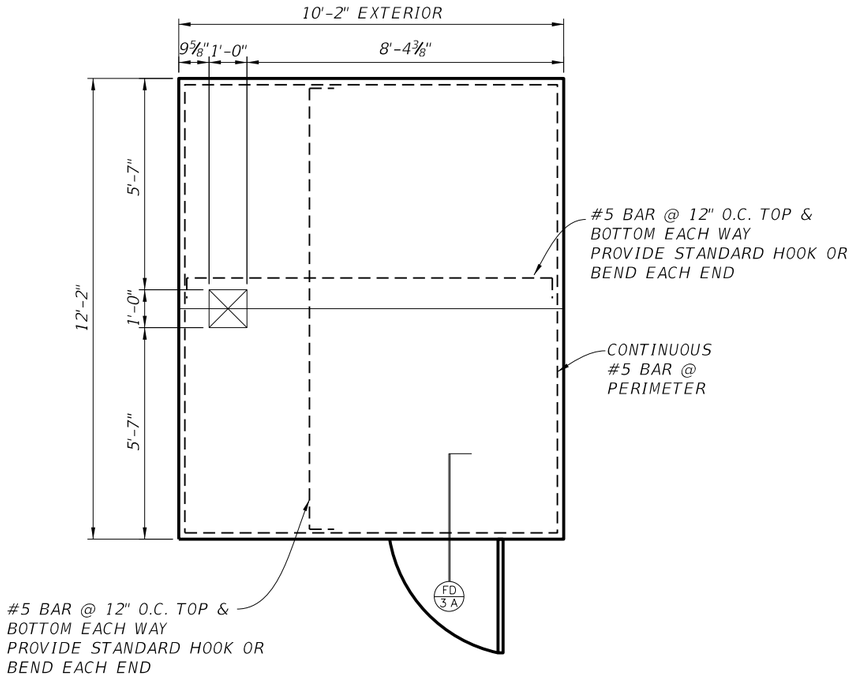

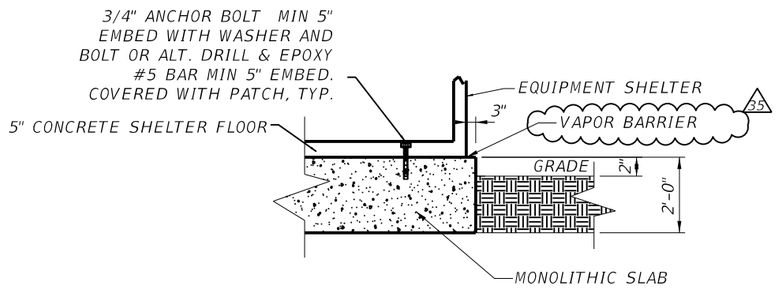

FD 3 A FOUNDATION SECTIONAL DETAIL

NOTES:

(A) DESIGN CRITERIA

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3. DESIGN SOIL PRESSURE: 2000 PSF (TO BE VERIFIED)

(B) DESIGN SPECIFICATION ON MATERIAL

1. CONCRETE- 3000PSI AT 28 DAYS
2. REINF STEEL- ASTM A615 GRADE 60
   MINIMUM LAP - 30"

(C) FOUNDATION CRITERIA

1. IN ACCORDANCE WITH SECTION 455 OF THE SPECIFICATIONS.

ALL DETAILS AND INFORMATION ON THIS SHEET ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR WILL PROVIDE FINAL DESIGN, DETAILS, AND SHOP DRAWINGS, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA. THE CONTRACTOR WILL SUBMIT THE DESIGN AND DETAILS TO THE ENGINEER FOR REVIEW. REVIEW AND APPROVAL WILL BE FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH STANDARD DESIGN AND CONSTRUCTION SPECIFICATIONS AND THE INFORMATION IN WSP'S DOCUMENTS.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

RELEASED FOR CONSTRUCTION BY:(FDOT) VS Date: 03/04/2020
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
11-19-19		17 ADDED SHEET			
02-14-20		35 ADDED NOTES			

WSP USA Inc.
2202 North West Shore Blvd.
Suite 300
Tampa, FL 33607
(813) 520-4444
Cert. of Auth. No. 1462
EOR: TODD MITCHELL, P.E.
License No. 60188

DRAWN BY: JRP 6-19
CHECKED BY: ZY 6-19
DESIGNED BY: JTM 6-19
CHECKED BY: ZY 6-19

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD	433108-6-52-01
	PALM BEACH	433109-4-52-01

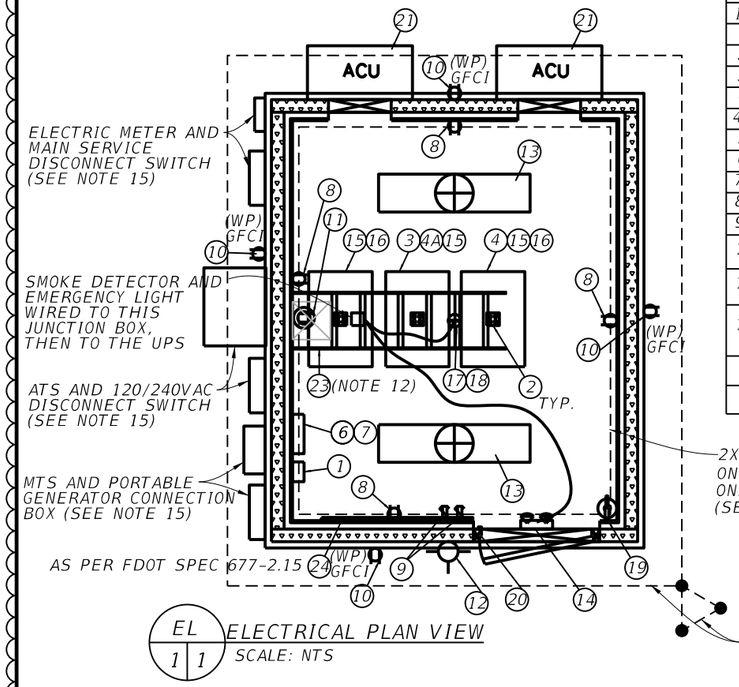
SHEET TITLE: HUB BUILDING FOUNDATION

PROJECT NAME: I-95 EXPRESS LANES - PHASE 3B-1

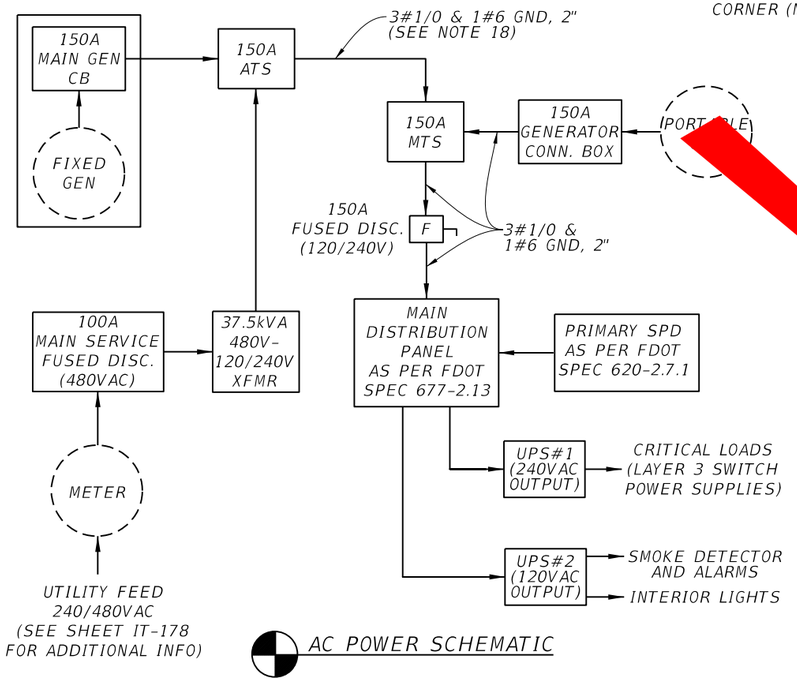
REF. DWG. NO.

SHEET NO. IT-203

$USER$ $DATE$ $TIME$ $FILE$



EL 1|1 ELECTRICAL PLAN VIEW
SCALE: NTS



AC POWER SCHEMATIC

EQUIPMENT LIST				
ID	QTY	MANUF.	PART NO.	DESCRIPTION
1	1	ASCO	430120SP20ACAJ10	PRIMARY SPD (120/240VAC)
2	3	PASS & SEYMOUR	CR20-W	20 AMP QUAD RECEPTACLE (SEE NOTE 16)
3	1	DIGITAL-LOGGER	ETHERNET POWER CONT. 6	POWER DISTRIBUTION UNIT (PDU)
4	1			UPS#1 (240VAC OUTPUT) LAY3 SWITCH PWR
4A	1	ALPHA	FXM650	UPS#2 (120VAC OUTPUT)
5	1	CYBER POWER	CPS-1215RMS	SECONDARY SPD (@ 120VAC POINT OF USE)
6	1	SIEMENS	G4242L1225	225 AMP 42 POSITION PANELBOARD
7	1	SIEMENS	MBK150A	150 AMP MAIN BREAKER KIT
8	4	PASS & SEYMOUR	CR20-W	20 AMP DUPLEX RECEPTACLE
9	2	PASS & SEYMOUR	CS20AC1-W	20 AMP LIGHT SWITCH
10	4	PASS & SEYMOUR	2097-W (RECEPTACLE) & WIUCAST1 (WP COVER)	20 AMP (5-20R) GFCI DUPLEX RECEPT W/ WEATHER PROOF WHILE IN USE COVER
11	3	PASS & SEYMOUR	L520-R	20 AMP (L5-20R) TWIST-LOCK SINGLE RECEPTACLE
12	1	EATON	G12-E-BLK-LD4-30W-40-CL-120-EDC1-PB120/CSTG/BLK	EXTERIOR COMPACT WALLPACK LIGHT (SEE NOTE 14)

EQUIPMENT LIST (CONTINUED)				
ID	QTY	MANUF.	PART NO.	DESCRIPTION
13	2	LITHONIA	CLX-L48-9000LM-SEF-FDL-MVOLT-WH	INTERIOR LIGHT (SEE NOTE 14)
14	1	SURELITE	SEL17	EMERGENCY LIGHT
15	3	STARTECH	RK4236BK	ENCLOSED RACK
16	1	STARTECH	4UDRAWER 4U	DOCUMENT DRAWER
17	1	KIDDE	I12020	SMOKE ALARM
18	1	KIDDE	SM120X	SMOKE ALARM RELAY MODULE
19	1	KIDDE	PRO10CDM	10 LBS. BC FIRE EXTINGUISHER
20	1	DIRECTED	8600	MAGNETIC MICRO DOOR SWITCH
21	2	BARD	WA241-A05-XPXXXJ	2 TON AC WITH J PACKAGE
22	1	BARD	MC4001	HVAC CONTROLLER
23	1	CENTRAL STEEL		3"x12" CABLE TRAY WITH ACCESSORIES (SEE NOTE 12)
24	1			3/4" AC GRADE 48"X48" GRAY PLYWOOD BOARD (PER FDOT SPEC SECT. 677-2.15)

GENERAL ELECTRICAL NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH 2011 NATIONAL ELECTRICAL CODE (NEC) AND SHALL ALSO COMPLY WITH APPLICABLE RULES AND REGULATIONS OF LOCAL AND STATE LAWS AND ORDINANCES AS W[illegible] FDOT SPECIFICATION SECTION 677.
2. CIRCUITS 600V OR LESS S[illegible] CONDUCTORS ONLY: #10 AWG AND SMALLER SHALL BE [illegible], AND #8 A[illegible] AND LARGER SHALL BE STRANDED. ALL CONDUCTORS SHALL [illegible] TYPE XHHW 75[illegible] INSULATION. MINIMUM SIZE #12 AWG FOR RECEPTACLE [illegible] SWITCH[illegible] LIGHTING C[illegible] TS.
3. ROUTE CONDUITS [illegible] UNIT EQ[illegible]ENT AND B[illegible]NG STRUCTURE. CONDUITS TO BE UL LISTED, [illegible] AND [illegible] TIGHT F[illegible]BLE CONDUIT MAY BE USED BE[illegible] JUNCTION[illegible]ES TO [illegible] M[illegible]S TOGETHER. SURFACE [illegible] SUPPOR[illegible]H STA[illegible]S S[illegible] HARDWARE AND PER NEC.

[illegible]EAL CONDU[illegible]NETH[illegible]S THR[illegible]S WITH WEATHER SEALED BOOTS AS PER FDOT [illegible]CIFIC[illegible] SECT[illegible] 677-2.14. REFER TO HUB SHELTER DETAILS SHEE[illegible]-131 [illegible]ENETRATION LOCATIONS.

GROUNDING AND [illegible]IGHTNIN[illegible]OTECTION AS PER JANUARY 2017 FDOT SPECIFICATION SECTION 620. T[illegible] INCLUDES ALL INTERIOR, EXTERIOR AND FENCE GROUNDING REQUIRED AT T[illegible] HUB BUILDING SITE.

[illegible]OR CODE[illegible]ONDUCTORS AS REQUIRED BY THE NEC.

7. [illegible] WITH #10 OR #12 AWG PHASE CONDUCTORS SHALL BE PRO[illegible] WITH A PARITY SIZED GREEN EQUIPMENT GROUND CONDUCTOR. GROUND CONDUCTOR SHALL BE INSTALLED IN ENTIRE RACEWAY SYSTEM AND SHALL BE CONNECTED TO GROUND BUS IN PANELBOARD.
8. INSTALL THREE, L5-20R TWIST-LOCK WALL RECEPTACLES, FOR LAYER 3 SWITCH POWER SUPPLIES.
9. INSTALL ONE, VANDAL RESISITANT FLOODLIGHT MOUNTED OUTSIDE NEAR ENTRANCE DOOR. IT SHALL BE FURNISHED WITH A PHOTOCELL AND INTERIOR LIGHT SWITCH.
10. ALARM OPTIONS SHALL BE WIRED AND LABELED TO A TYPE 66 BLOCK AND INCLUDE:
    - DRY CONTACT MAGNETIC DOOR ALARM
    - DRY CONTACT AIR CONDITIONER FAILURE ALARM FOR EACH UNIT
    - DRY CONTACT FIRE ALARM
    - DRY CONTACT HIGH AND LOW TEMPERATURE ALARMS WITH THRESHOLDS ADJUSTABLE BETWEEN 50° AND 90° F
    - POWER FAIL ALARM WIRED FROM A DEDICATED CIRCUIT BREAKER
    - MAIN FUSE ALARM WIRED FROM THE MAIN FUSED DISCONNECT
    - PROVIDE (SPARE CONDUITS & PULL STRINGS) ON EXTERIOR OR BUILDING FOR FUTURE SECURITY CAMERA INSTALLATION PER JANUARY 2017 FDOT SPECIFICATION SECTION 677-2.12.
11. INSTALL A TWO-HEADED EMERGENCY LIGHT WITH RECHARGEABLE BATTERIES, A CHARGER PILOT, AND TEST LIGHT, WIRED TO THE UPS.
12. 3"x12" CABLE TRAY SUSPENDED FROM CEILING AS PER FDOT SPEC 677-2.9 WITH NO LESS THAN 86" CLEARANCE TO THE FLOOR. GROUND CABLE TRAY PER JANUARY 2017 FDOT SPEC SECTION 620-3.6.1.
13. EQUIPOTENTIAL GROUND LOOP (#2 AWG BARE COPPER CONDUCTOR) BURIED AROUND ENTIRE HUB BUILDING PERIMETER. INSTALL GROUND ROD ASSEMBLY AT EACH CORNER AND CONNECT TO GROUND LOOP PER JANUARY 2017 FDOT SPECIFICATION SECTION 620-3.6.2. ONE ASSEMBLY SHOWN FOR DIAGRAMATIC PURPOSES, BUT FOUR ARE REQUIRED.
14. LIGHTING PER JANUARY 2017 FDOT SPECIFICATION SECT. 677-2.7.

AC PANEL SCHEDULE

225 AMP, 120/240VAC, 42 SPACE, 1Ø, 3W+G, 150A MCB

CKT #	DESCRIPTION	WIRE SIZE	AMP	AMP	WIRE SIZE	DESCRIPTION	CKT #
1	INT QUAD RECEP	12	20	20	12	EXT LIGHT	2
3	INT QUAD RECEP	12	20	20	12	EXT RECEP	4
5	INT QUAD RECEP	12	20	20	12	INT RECEPT	6
7	UPS#1 (240V)	12	30	20	12	QUAD RECEPT	8
9				20	12	QUAD RECEPT	10
11	UPS#2 (120V)	12	25	20	12	QUAD RECEPT	12
13	A/C UNIT #1	10	30	20	12	PWR MONITOR	14
15				15		SPARE	16
17	A/C UNIT #2	10	30	15		SPARE	18
19				15		SPARE	20
21	SPARE		20			SPACE	22
23	SPARE		20			SPACE	24
25	SPARE		20			SPACE	26
27	SPACE					SPACE	28
29	SPACE					SPACE	30
31	SPACE					SPACE	32
33	SPACE					SPACE	34
35	SPACE					SPACE	36
37	SPACE					SPACE	38
39	SPACE					SPACE	40
41	SPACE					SPACE	42

MINIMUM A.I.C. RATING OF CIRCUIT BREAKERS SHALL BE 10,000 @ 240V

15. FOR ADDITIONAL INFORMATION REGARDING THE MAIN ELECTRICAL DISTRIBUTION EQUIPMENT MOUNTED TO THE OUTSIDE OF THE HUB BUILDING WALL, REFER TO ITS SHEETS IT-131 AND IT-178.
16. QUAD RECEPTACLE SHALL BE SURFACE MOUNTED TO FLOOR OF EACH IT RACK.
17. ALL DETAILS AND INFORMATION ON THIS SHEET ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR WILL PROVIDE FINAL DESIGN, DETAILS, AND SHOP DRAWINGS, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA. THE CONTRACTOR WILL SUBMIT THE DESIGN AND DETAILS TO THE ENGINEER FOR REVIEW. REVIEW AND APPROVAL WILL BE FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH STANDARD DESIGN AND CONSTRUCTION SPECIFICATIONS AND THE INFORMATION IN WSP'S DOCUMENTS.
18. REFER TO SHEETS IT-131 & IT-178 FOR ADDITIONAL CONDUIT AND WIRING INFORMATION FOR HUB BLDG ELECTRICAL SERVICE.

VOID

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
11-19-19	17 ADDED SHEET		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

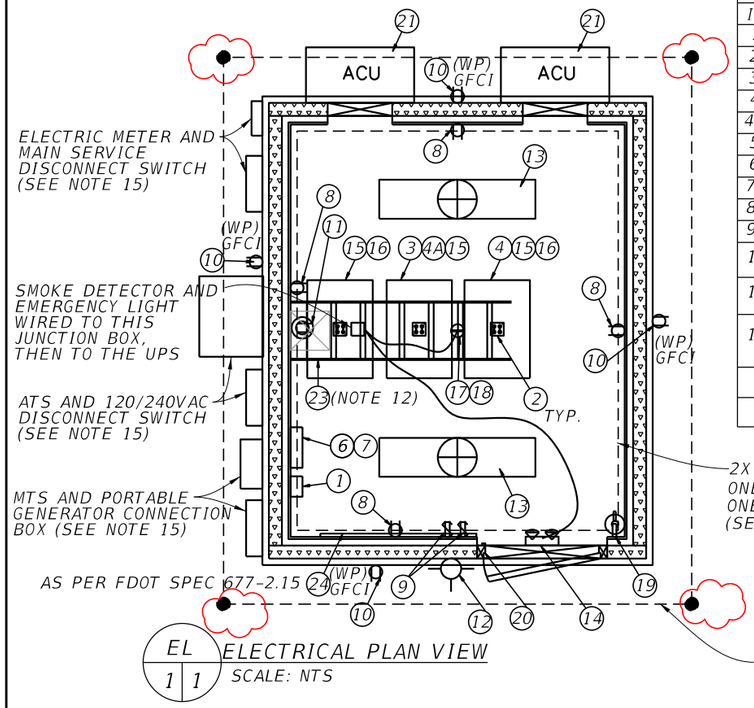
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

HUB BUILDING ELECTRICAL PLAN

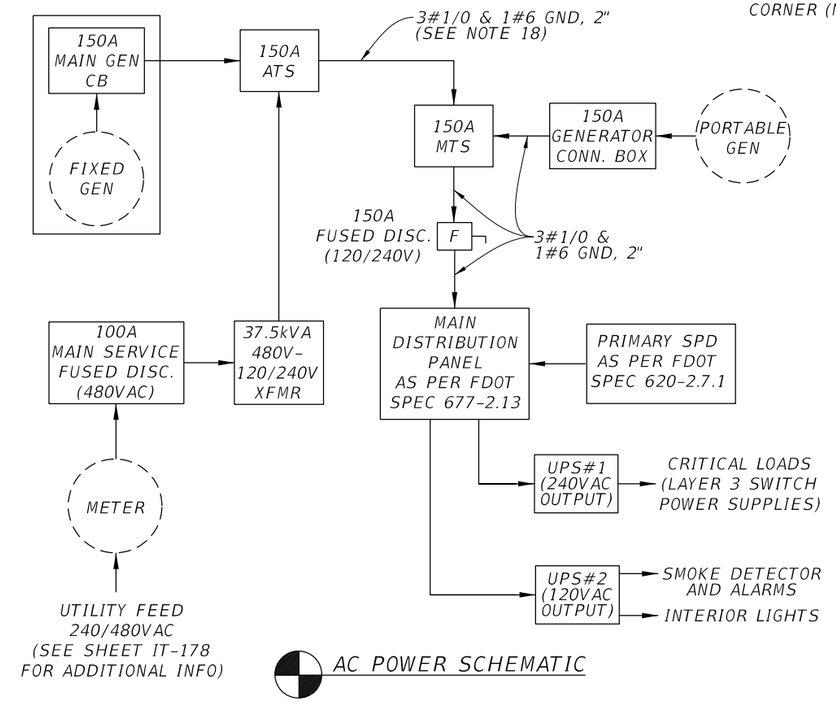
SHEET NO. IT-204

Date: 12/10/2019
BY:FDOT
VS
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
PID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4A98

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



EL 1 1 ELECTRICAL PLAN VIEW
SCALE: NTS



AC POWER SCHEMATIC

EQUIPMENT LIST

ID	QTY	MANUF.	PART NO.	DESCRIPTION
1	1	ASCO	430120SP20ACAJ10	PRIMARY SPD (120/240VAC)
2	3	PASS & SEYMOUR	CR20-W	20 AMP QUAD RECEPTACLE (SEE NOTE 16)
3	1	DIGITAL-LOGGER	ETHERNET POWER CONT. 6	POWER DISTRIBUTION UNIT (PDU)
4	1			UPS#1 (240VAC OUTPUT) LAY3 SWITCH PWR
4A	1	ALPHA	FXM350	UPS#2 (120VAC OUTPUT)
5	1	CYBER POWER	CPS-1215RMS	SECONDARY SPD (@ 120VAC POINT OF USE)
6	1	SIEMENS	G4242L1225	225 AMP 42 POSITION PANELBOARD
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10	4	PASS & SEYMOUR	2097-W (RECEPTACLE) & WIUCAST1 (WP COVER)	20 AMP (5-20R) GFCI DUPLEX RECEPT W/ WEATHER PROOF WHILE IN USE COVER
11	3	PASS & SEYMOUR	L520-R	20 AMP (L5-20R) TWIST-LOCK SINGLE RECEPTACLE
12	1	EATON	G12-E-BLK-LD4-30W-40-CL-120-EDC1-PB120/CSTG/BLK	EXTERIOR COMPACT WALLPACK LIGHT (SEE NOTE 14)

EQUIPMENT LIST (CONTINUED)

ID	QTY	MANUF.	PART NO.	DESCRIPTION
13	2	LITHONIA	CLX-L48-9000LM-SEF-FDL-MVOLT-WH	INTERIOR LIGHT (SEE NOTE 14)
14	1	SURELITE	SEL17	EMERGENCY LIGHT
15	3	STARTECH	RK4236BK	ENCLOSED RACK
16	1	STARTECH	4UDRAWER 4U	DOCUMENT DRAWER
17	1	KIDDE	I12020	SMOKE ALARM
18	1	KIDDE	SM120X	SMOKE ALARM RELAY MODULE
19	1	KIDDE	PRO10CDM	10 LBS. BC FIRE EXTINGUISHER
20	1	DIRECTED	8600	MAGNETIC MICRO DOOR SWITCH
21	2	BARD	WA241-A05-XPXXXJ	2 TON AC WITH J PACKAGE
22	1	BARD	MC4001	HVAC CONTROLLER
23	1	CENTRAL STEEL		3"x12" CABLE TRAY WITH ACCESSORIES (SEE NOTE 12)
24	1			3/4" AC GRADE 48"X48" GRAY PLYWOOD BOARD (PER FDOT SPEC SECT. 677-2.15)

GENERAL ELECTRICAL NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH 2011 NATIONAL ELECTRICAL CODE (NEC) AND SHALL ALSO COMPLY WITH APPLICABLE RULES AND REGULATIONS OF LOCAL AND STATE LAWS AND ORDINANCES AS WELL AS FDOT SPECIFICATION SECTION 677.
2. CIRCUITS 600V OR LESS SHALL USE COPPER CONDUCTORS ONLY: #10 AWG AND SMALLER SHALL BE SOLID, AND #8 AWG AND LARGER SHALL BE STRANDED. ALL CONDUCTORS SHALL BE TYPE XHHW 75°C INSULATION. MINIMUM SIZE #12 AWG FOR RECEPTACLE, SWITCH, AND LIGHTING CIRCUITS.
3. ROUTE CONDUITS TO SUIT EQUIPMENT AND BUILDING STRUCTURE. CONDUITS TO BE UL LISTED, PVC, AND LIQUID TIGHT FLEXIBLE CONDUIT MAY BE USED BETWEEN JUNCTION BOXES TO CONNECT MODULES TOGETHER. SURFACE MOUNT AND SUPPORT WITH STAINLESS STEEL HARDWARE AND PER NEC.
4. SEAL CONDUIT PENETRATIONS THRU WALLS WITH WEATHER SEALED BOOTS AS PER FDOT SPECIFICATION SECTION 677-2.14. REFER TO HUB SHELTER DETAILS SHEET IT-131 FOR PENETRATION LOCATIONS.
5. GROUNDING AND LIGHTNING PROTECTION AS PER JANUARY 2017 FDOT SPECIFICATION SECTION 620. THIS INCLUDES ALL INTERIOR, EXTERIOR AND FENCE GROUNDING REQUIRED AT THE HUB BUILDING SITE.
6. COLOR CODE ALL CONDUCTORS AS REQUIRED BY THE NEC.
7. ALL RACEWAYS WITH #10 OR #12 AWG PHASE CONDUCTORS SHALL BE PROVIDED WITH A PARITY SIZED GREEN EQUIPMENT GROUND CONDUCTOR. GROUND CONDUCTOR SHALL BE INSTALLED IN ENTIRE RACEWAY SYSTEM AND SHALL BE CONNECTED TO GROUND BUS IN PANELBOARD.
8. INSTALL THREE, L5-20R TWIST-LOCK WALL RECEPTACLES, FOR LAYER 3 SWITCH POWER SUPPLIES.
9. INSTALL ONE, VANDAL RESISITANT FLOODLIGHT MOUNTED OUTSIDE NEAR ENTRANCE DOOR. IT SHALL BE FURNISHED WITH A PHOTOCELL AND INTERIOR LIGHT SWITCH.
10. ALARM OPTIONS SHALL BE WIRED AND LABELED TO A TYPE 66 BLOCK AND INCLUDE:
    - DRY CONTACT MAGNETIC DOOR ALARM
    - DRY CONTACT AIR CONDITIONER FAILURE ALARM FOR EACH UNIT
    - DRY CONTACT FIRE ALARM
    - DRY CONTACT HIGH AND LOW TEMPERATURE ALARMS WITH THRESHOLDS ADJUSTABLE BETWEEN 50° AND 90° F
    - POWER FAIL ALARM WIRED FROM A DEDICATED CIRCUIT BREAKER
    - MAIN FUSE ALARM WIRED FROM THE MAIN FUSED DISCONNECT
    - PROVIDE (SPARE CONDUITS & PULL STRINGS) ON EXTERIOR OR BUILDING FOR FUTURE SECURITY CAMERA INSTALLATION PER JANUARY 2017 FDOT SPECIFICATION SECTION 677-2.12.
11. INSTALL A TWO-HEADED EMERGENCY LIGHT WITH RECHARGEABLE BATTERIES, A CHARGER PILOT, AND TEST LIGHT, WIRED TO THE UPS.
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13. EQUIPOTENTIAL GROUND LOOP (#2 AWG BARE COPPER CONDUCTOR) BURIED AROUND ENTIRE HUB BUILDING PERIMETER. INSTALL GROUND ROD ASSEMBLY AT EACH CORNER AND CONNECT TO GROUND LOOP PER JANUARY 2017 FDOT SPECIFICATION SECTION 620-3.6.2.
14. LIGHTING PER JANUARY 2017 FDOT SPECIFICATION SECT. 677-2.7.

AC PANEL SCHEDULE

225 AMP, 120/240VAC, 42 SPACE, 1Ø, 3W+G, 150A MCB

CKT #	DESCRIPTION	WIRE SIZE	AMP	AMP	WIRE SIZE	DESCRIPTION	CKT #
1	INT QUAD RECEP	12	20	20	12	EXT LIGHT	2
3	INT QUAD RECEP	12	20	20	12	EXT RECEP	4
5	INT QUAD RECEP	12	20	20	12	INT RECEPT	6
7	UPS#1 (240V)	12	30	20	12	QUAD RECEPT	8
9				20	12	QUAD RECEPT	10
11	UPS#2 (120V)	12	15	20	12	QUAD RECEPT	12
13	A/C UNIT #1	10	30	20	12	PWR MONITOR	14
15				15		SPARE	16
17	A/C UNIT #2	10	30	15		SPARE	18
19				15		SPARE	20
21	SPARE		20			SPACE	22
23	SPARE		20			SPACE	24
25	SPARE		20			SPACE	26
27	SPACE					SPACE	28
29	SPACE					SPACE	30
31	SPACE					SPACE	32
33	SPACE					SPACE	34
35	SPACE					SPACE	36
37	SPACE					SPACE	38
39	SPACE					SPACE	40
41	SPACE					SPACE	42

MINIMUM A.I.C. RATING OF CIRCUIT BREAKERS SHALL BE 10,000 @ 240V

15. FOR ADDITIONAL INFORMATION REGARDING THE MAIN ELECTRICAL DISTRIBUTION EQUIPMENT MOUNTED TO THE OUTSIDE OF THE HUB BUILDING WALL, REFER TO ITS SHEETS IT-131 AND IT-178.
16. QUAD RECEPTACLE SHALL BE SURFACE MOUNTED TO FLOOR OF EACH IT RACK.
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18. REFER TO SHEETS IT-131 & IT-178 FOR ADDITIONAL CONDUIT AND WIRING INFORMATION FOR HUB BLDG ELECTRICAL SERVICE.

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
11/19/2019	1 ADDED SHEET		
10/4/2021	AS-BUILTS PER RFI 422 & 428		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Kevin Walsh, P.E. No. 78396

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

HUB BUILDING ELECTRICAL PLAN

SHEET NO. IT-204

SUNGUIDE DMS DEVISES

Sign Name	Center ID	Protocol	Connection Type	Type	Manufacturer	Number of Lines	Number of Columns	Existing DMS	Font	Sign type	Sign use	Cabinet Description	Location_Description	DMS Type	Roadway	Direction	Latitude	Longitude
FLD4DOT095042.4NB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	042.3CABNS	I-95 NB N of Hillsboro Blvd	STATUS	I-95	NB	26.32163	-80.11615
FLD4DOT095042.7NB-TR1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	042.7CABNS	I-95 NB S of Hillsboro Canal	TOLL	I-95	NB	26.32658	-80.11643
FLD4DOT09542.7	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	96	416	95SB42	18 23x15_3	FullMatrix	General	ExistDMSCab0427	I-95 NB S of Hillsboro Canal	GEN-WALK-IN	I-95	SB	26.32709	-80.11713
FLD4DOT095042.9NB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	043.0_CABNS_3	I-95 NB N Hillsboro Canal	STATUS	I-95	NB	26.32919	-80.11663
FLD4DOT095043.0NB-TR1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	043.0CABNS_2	I-95 NB N Hillsboro Canal	TOLL	I-95	NB	26.33146	-80.11684
FLD4DOT095043.2NB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	043.2CABNS_2	I-95 NB N of SW 18th St	STATUS	I-95	NB	26.33415	-80.11702
FLD4DOT095044.0SB-EL1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	96	416	N/A	18 23x15_3	FullMatrix	General	044.0CABSS	I-95 SB N of camino Real	GEN-FRONT	I-95	SB	26.34467	-80.1181
FLD4DOT095044.0NB-EL1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	96	416	N/A	18 23x15_3	FullMatrix	General	044.0CABNS_2	Camino Real WB @ I-95	GEN-FRONT	I-95	NB	26.34591	-80.11811
FLD4DOT095044.6SB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	044.6CABSS	I-95 SB @ Palmetto Park Rd WB Off Ramp	STATUS	I-95	SB	26.35368	-80.1186
FLD4DOT095044.9SB-TR1	District 3	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	17 23x15_3	FullMatrix	General	044.9CABSS	I-95 SB 3900ft N of Palmetto Park Rd	TR-DOUBLE	I-95	SB	26.35833	-80.11997
FLD4DOT095044.9SB-TR2	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	044.9CABSS	I-95 SB 3900ft N of Palmetto Park Rd	TR-DOUBLE	I-95	SB	26.35833	-80.11997
95NB045.0	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	96	416	N/A	18 23x15_3	FullMatrix	General	045.0CABNS	I-95 NB 4000ft N of Palmetto Park Rd	GEN-WALK-IN	I-95	NB	26.35965	-80.11948
FLD4DOT095045.3SB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	045.3CABSS	I-95 SB 1500ft S of Glades Rd	STATUS	I-95	SB	26.3633	-80.12022
FLD4DOT095045.5SB-TR1	District 3	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	17 23x15_3	FullMatrix	General	045.5CABSS	I-95 SB S of Glades Rd	TR-DOUBLE	I-95	SB	26.36622	-80.1195
FLD4DOT095045.5SB-TR2	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	144	N/A	18 23x15_3	FullMatrix	General	045.5CABSS	I-95 SB S of Glades Rd	TR-DOUBLE	I-95	SB	26.36622	-80.1195
FLD4DOT095045.7SB-LS1	District 4	NTCIP (SNMP)	Direct	LED	Daktronics	24	352	N/A	18 23x15_3	FullMatrix	General	045.7CABSS	I-95 SB N of Glades Rd	STATUS	I-95	SB	26.36875	-80.11864

SUNGUIDE CCTV DEVICES

Camera Name	Center ID	Protocol	Poll Process	Manufacturer	Cabinet Description	Location_Description	Roadway	Direction	Latitude	Longitude	Port_Server_IP	Port Server Port	Community Name	Video Device IP Address	Video Device Type	Manufacturer2	Model	S/N
0425-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	042.5CABNS	I-95 NB @ Hillsboro Blvd EB On Ramp	I-95	NB	26.32356	-80.11616	10.176.81.66	161	write	232.212.194.42	CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR214128777B
0427D-CCTV-1	DISTRICT 4	SNMP	NTCIP	GOVCOMM	042.7CABNS	I-95 NB S of Hillsboro Canal	I-95	NB	26.32603	-80.11639	10.176.83.67	161	write	232.212.193.42	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0427CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	042.7CABNS_2	I-95 NB S of Hillsboro Canal	I-95	NB	26.32682	-80.11644	10.176.84.66	161	write	232.212.194.242	CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR214128814B
0427D-CCTV-2	DISTRICT 4	SNMP	NTCIP	GOVCOMM	042.7CABNS_2	I-95 NB S of Hillsboro Canal	I-95	NB	26.32603	-80.11639	10.176.84.67	161	write	232.212.193.242	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0427D-CCTV-3	DISTRICT 4	SNMP	NTCIP	GOVCOMM	042.8CABSS	I-95 SB @ Hillsboro Canal	I-95	SB	26.32758	-80.11715	10.176.85.67	161	write	232.212.192.42	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0430D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	043.0CABNS	I-95 NB N Hillsboro Canal	I-95	NB	26.3305	-80.11676	10.176.81.83	161	write	232.212.195.43	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR214128821B
0432D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	043.2CABNS	I-95 NB N of SW 18th St	I-95	NB	26.3335	-80.11698	10.176.85.83	161	write	232.212.195.243	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0433-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	043.3CABNS	I-95 NB 1400ft N of SW 18th St	I-95	NB	26.33567	-80.11712	10.176.81.98	161	write	232.212.194.43	CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR214128818B
0436D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	043.6CABNS_2	I-95 NB 2000ft S of Camino Real	I-95	NB	26.33893	-80.11736	10.176.83.99	161	write	232.212.194.243	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR214128748B
0437-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	043.7CABNS	I-95 NB 1200ft S of Camino Real	I-95	NB	26.34099	-80.11755	10.176.85.98	161	write	232.212.193.43	CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR214128795B
0437D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	043.7CABSS	I-95 SB 1200ft S of Camino Real	I-95	SB	26.34113	-80.11827	10.176.84.99	161	write	232.212.193.243	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR214128802B
0440D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.0CABNS	Camino Real EB @ I-95	I-95	NB	26.34403	-80.11773	10.176.81.115	161	write	232.212.195.244	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR214128771B
0440-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.0CABSS_2	I-95 SB N of camino Real	I-95	SB	26.34547	-80.11848	10.176.82.98	161	write	232.212.195.44	CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0440D-CCTV-2	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.0CABSS_2	I-95 SB N of camino Real	I-95	SB	26.34547	-80.11848	10.176.82.99	161	write	232.212.194.44	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0441D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.1CABNS	I-95 NB @ Palmetto Park Rd WB Off Ramp	I-95	NB	26.34714	-80.11774	10.176.85.115	161	write	232.212.194.244	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0442D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.2CABSS	I-95 SB @ Palmetto Park Rd WB On Ramp	I-95	SB	26.34874	-80.11847	10.176.165.115	161	write	232.212.193.44	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0443-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.3CABSS	I-95 SB @ Palmetto Park Rd WB	I-95	SB	26.35023	-80.11842	10.176.88.18	161	write	232.212.193.244	CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0444D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.4CABSS	Palmetto Park Rd @ I-95 WB On Ramp	I-95	SB	26.35133	-80.11974	10.176.166.115	161	write	232.212.192.44	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0445D-CCTV-2	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.5CABNS	I-95 NB @ Palmetto Park Rd EB On Ramp	I-95	NB	26.35215	-80.11756	10.176.80.19	161	write	232.212.191.244	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0445D-CCTV-1	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.5CABSS	I-95 SB @ Palmetto Park Rd WB On Ramp	I-95	SB	26.35198	-80.11855	10.176.89.19	161	write	232.212.191.44	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0445D-CCTV-3	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.5CABSS_2	I-95 SB @ Palmetto Park Rd WB On Ramp	I-95	SB	26.35224	-80.11932	10.176.92.19	161	write	232.212.190.44	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0445-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.5CABSS_3	I-95 SB @ Palmetto Park Rd WB On Ramp	I-95	SB	26.35224	-80.11932	10.176.167.114	161	write	232.212.192.244	CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0447D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.7CABSS	I-95 SB @ Palmetto Park Rd EB Off Ramp	I-95	SB	26.35524	-80.11908	10.177.239.19	161	write	232.212.190.244	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0448-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	044.8CABSS	I-95 SB @ Palmetto Park Rd EB Off Ramp	I-95	SB	26.35627	-80.11949	10.177.231.18	161	write	232.212.189.44	CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0450D-CCTV-1	DISTRICT 4	SNMP	NTCIP	GOVCOMM	045.0CABNS	I-95 NB 4000ft N of Palmetto Park Rd	I-95	NB	26.35887	-80.1194	10.177.233.19	161	write	232.212.195.45	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0450D-CCTV-2	DISTRICT 4	SNMP	NTCIP	GOVCOMM	045.0CABSS	I-95 SB 4000ft N of Palmetto Park Rd	I-95	SB	26.35888	-80.12007	10.177.236.19	161	write	232.212.195.245	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0454D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	045.4CABSS	I-95 SB @ Glades Rd EB On Ramp	I-95	SB	26.36477	-80.11996	10.177.234.35	161	write	232.212.194.45	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0455D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	045.5CABSS	I-95 SB S of Glades Rd	I-95	SB	26.36694	-80.11925	10.177.236.35	161	write	232.212.194.245	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287
0457D-CCTV	DISTRICT 4	SNMP	NTCIP	GOVCOMM	045.7CABSS	I-95 SB N of Glades Rd	I-95	SB	26.3699	-80.11826	10.177.237.35	161	write	232.212.193.45	D-CCTV	GOVCOMM	GC-IMPO-FIZDE	20180514CCWR2141287

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICES (1)

SHEET NO.
IT-205

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SUNGUIDE TSS DETECTORS

Detector Name	Driver Name	Roadway	Direction	Cabinet Description	Location Description	Latitude	Longitude	Poll Cycle	Type	Protocol	Port Server IP	Port Server Port	Station	Serial Number
FLD4095042.3SBSS-DS-GP	RtmsDriver	I-95	SB	042.3CABSS	I-95 SB N of Hillsboro Blvd	26.32105	-80.11669	20	RADAR	Wavetronix	10.176.86.52	8000	3038+00	1010416AB0015673
FLD4095042.5NBNS-DS-GP	RtmsDriver	I-95	NB	042.5CABNS	I-95 NB @ Hillsboro Blvd EB On Ramp	26.32356	-80.11616	20	RADAR	Wavetronix	10.176.81.68	8000	3047+01	1010416AB0013372
FLD4095042.5SBSS-DS-GP	RtmsDriver	I-95	SB	042.5CABSS	I-95 SB @ Hillsboro Blvd EB Off Ramp	26.32379	-80.11692	20	RADAR	Wavetronix	10.176.82.52	8000	3048+00	1010416AB0015685
FLD4095042.7NBNS-DS-GP	RtmsDriver	I-95	NB	042.7CABNS_2	I-95 NB S of Hillsboro Canal	26.32682	-80.11644	20	RADAR	Wavetronix	10.176.84.68	8000	3058+90	1010416AB0015329
FLD4095042.8SBSS-DS-GP	RtmsDriver	I-95	SB	042.8CABSS	I-95 SB @ Hillsboro Canal	26.32758	-80.11715	20	RADAR	Wavetronix	10.176.85.68	8000	3061+78	1010416AB0013369
FLD4095043.0NBNS-DS-GP	RtmsDriver	I-95	NB	043.0CABNS	I-95 NB N Hillsboro Canal	26.3305	-80.11676	20	RADAR	Wavetronix	10.176.81.84	8000	3072+30	1010416AB0015310
FLD4095043.0SBSS-DS-GP	RtmsDriver	I-95	SB	043.0CABSS	I-95 SB S of SW 18th St	26.33147	-80.11751	20	RADAR	Wavetronix	10.176.82.68	8000	3076+00	1010416AB0015679
FLD4095043.2NBNS-DS-GP	RtmsDriver	I-95	NB	043.2CABNS	I-95 NB N of SW 18th St	26.3335	-80.11698	20	RADAR	Wavetronix	10.176.85.84	8000	3083+23	1010416AB0015698
FLD4095043.2SBSS-DS-GP	RtmsDriver	I-95	SB	043.2CABSS	I-95 SB N of SW 18th St	26.33414	-80.11775	20	RADAR	Wavetronix	10.176.86.84	8000	3085+71	1010416AB0015701
FLD4095043.3NBNS-DS-GP	RtmsDriver	I-95	NB	043.3CABNS	I-95 NB 1400ft N of SW 18th St	26.33567	-80.11712	20	RADAR	Wavetronix	10.176.81.100	8000	3091+14	1010416AB0015704
FLD4095043.5SBSS-DS-GP	RtmsDriver	I-95	SB	043.5CABSS	I-95 SB 2200ft N of SW 18th St	26.33809	-80.11807	20	RADAR	Wavetronix	10.176.82.84	8000	3100+10	1010416AB0015696
FLD4095043.6NBNS-DS-GP	RtmsDriver	I-95	NB	043.6CABNS_2	I-95 NB 2000ft S of Camino Real	26.33893	-80.11736	20	RADAR	Wavetronix	10.176.83.100	8000	3103+00	1010416AB0015695
FLD4095043.7NBNS-DS-GP	RtmsDriver	I-95	NB	043.7CABNS	I-95 NB 1200ft S of Camino Real	26.34099	-80.11755	20	RADAR	Wavetronix	10.176.85.100	8000	3110+50	SS125U10008012
FLD4095043.8SBSS-DS-GP	RtmsDriver	I-95	SB	043.8CABSS	I-95 SB 800ft S of Camino Real	26.34198	-80.11831	20	RADAR	Wavetronix	10.176.86.100	8000	3114+25	1010416AB0015694
FLD4095044.0NBNS-DS-GP	RtmsDriver	I-95	NB	044.0CABNS	W Camino Real WB @ I-95	26.34403	-80.11773	20	RADAR	Wavetronix	10.176.81.116	8000	3121+62	1010416AB0013373
FLD4095044.0SBSS-DS-GP	RtmsDriver	I-95	SB	044.0CABSS_2	I-95 SB N of Camino Real	26.34547	-80.11848	20	RADAR	Wavetronix	10.176.82.100	8000	3126+90	1010416A0015301
FLD4095044.1NBNS-DS-GP	RtmsDriver	I-95	NB	044.1CABNS	I-95 NB @ Palmetto Park Rd WB Off Ramp	26.34714	-80.11774	20	RADAR	Wavetronix	10.176.85.116	8000	3133+00	1010416AB0015703
FLD4095044.1SBSS-DS-GP	RtmsDriver	I-95	SB	044.1CABSS	I-95 SB @ Palmetto Park Rd WB On Ramp	26.34726	-80.11848	20	RADAR	Wavetronix	10.176.86.116	8000	3133+38	1010416AB0015672
FLD4095044.3NBNS-DS-GP	RtmsDriver	I-95	NB	044.3CABNS	I-95 NB @ Palmetto Park Rd WB	26.35033	-80.11767	20	RADAR	Wavetronix	10.176.87.20	8000	3144+69	1010416A0015097
FLD4095044.3SBSS-DS-GP	RtmsDriver	I-95	SB	044.3CABSS	I-95 SB @ Palmetto Park Rd WB	26.35023	-80.11842	20	RADAR	Wavetronix	10.176.88.20	8000	3144+15	1010416AB0015333
FLD4095044.5SBSS-DS-GP	RtmsDriver	I-95	SB	044.5CABSS	I-95 SB @ Palmetto Park Rd WB On Ramp	26.35198	-80.11855	20	RADAR	Wavetronix	10.176.89.20	8000	3150+68	1010416AB0015099
FLD4095044.6NBNS-DS-GP	RtmsDriver	I-95	NB	044.6CABNS	I-95 NB @ Palmetto Park Rd EB On Ramp	26.35382	-80.11784	20	RADAR	Wavetronix	10.176.90.20	8000	3157+05	1010416AB0015681
FLD4095044.7SBSS-DS-GP	RtmsDriver	I-95	SB	044.7CABSS	I-95 SB @ Palmetto Park Rd EB Off Ramp	26.35524	-80.11908	20	RADAR	Wavetronix	10.177.239.20	10000	3163+02	1010416AB0015320
FLD4095044.8NBNS-DS-GP	RtmsDriver	I-95	NB	044.8CABNS	I-95 NB 3000ft N of Palmetto Park Rd	26.35652	-80.11874	20	RADAR	Wavetronix	10.177.234.20	10000	3167+15	1010416AB0015690
FLD4095045.0NBNS-DS-GP	RtmsDriver	I-95	NB	045.0CABNS_2	I-95 NB 3000ft S of Glades Rd	26.36061	-80.11961	20	RADAR	Wavetronix	10.177.237.20	10000	3182+60	1010416AB0015389
FLD4095045.0SBSS-DS-GP	RtmsDriver	I-95	SB	045.0CABSS	I-95 SB 4000ft N of Palmetto Park Rd	26.35888	-80.12007	20	RADAR	Wavetronix	10.177.236.20	10000	3176+48	1010416AB0015391
FLD4095045.1SBSS-DS-GP	RtmsDriver	I-95	SB	045.1CABSS	I-95 SB 2500ft S of Glades Rd	26.36159	-80.12029	20	RADAR	Wavetronix	10.177.238.20	10000	3186+22	1010416AB0015102
FLD4095045.4SBSS-DS-GP	RtmsDriver	I-95	SB	045.4CABSS	I-95 SB @ Glades Rd EB On Ramp	26.36477	-80.11996	20	RADAR	Wavetronix	10.177.234.36	10000	3197+60	1010416AB0015337

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS DEVICES (2)

SHEET NO.
IT-206

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = c:\projectwise\pb\projectwiseint\wsp__michael.west\d0173361\As-Built_FDOT_Default.tbl PENTABLE = pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase4B1 Landscape\As-Built\ USMW189428 10/22/2021 6:43:11 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\TABQITI01_As-Built.dgn

SUNGUIDE TSS LANES

Link Name	Lane Name	Lane Description	Lane Zone	Direction	Sta
FLD4095042.3SBSS-DS-GP	FLD4095042.3SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3038+00
FLD4095042.3SBSS-DS-GP	FLD4095042.3SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095042.3SBSS-DS-GP	FLD4095042.3SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095042.3SBSS-DS-GP	FLD4095042.3SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095042.5NBNS-DS-GP	FLD4095042.5NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3047+01
FLD4095042.5NBNS-DS-GP	FLD4095042.5NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095042.5NBNS-DS-GP	FLD4095042.5NBNS-DS-GP-LANE1	GP-LANE1 NB	2		
FLD4095042.5NBNS-DS-GP	FLD4095042.5NBNS-DS-GP-LANE2	GP-LANE2 NB	3		
FLD4095042.5NBNS-DS-GP	FLD4095042.5NBNS-DS-GP-LANE3	GP-LANE3 NB	4		
FLD4095042.5NBNS-DS-GP	FLD4095042.5NBNS-DS-ON-LANE4	ON-LANE4 NB	5		
FLD4095042.5SBSS-DS-GP	FLD4095042.5SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3048+00
FLD4095042.5SBSS-DS-GP	FLD4095042.5SBSS-DS-EL-LANE2	EL-LANE2 SB	1		
FLD4095042.5SBSS-DS-GP	FLD4095042.5SBSS-DS-GP-LANE1	GP-LANE1 SB	2		
FLD4095042.5SBSS-DS-GP	FLD4095042.5SBSS-DS-GP-LANE2	GP-LANE2 SB	3		
FLD4095042.5SBSS-DS-GP	FLD4095042.5SBSS-DS-GP-LANE3	GP-LANE3 SB	4		
FLD4095042.5SBSS-DS-GP	FLD4095042.5SBSS-DS-OFF-LANE4	OFF-LANE4 SB	5		
FLD4095042.7NBNS-DS-GP	FLD4095042.7NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3058+90
FLD4095042.7NBNS-DS-GP	FLD4095042.7NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095042.7NBNS-DS-GP	FLD4095042.7NBNS-DS-GP-LANE1	GP-LANE1 NB	2		
FLD4095042.7NBNS-DS-GP	FLD4095042.7NBNS-DS-GP-LANE2	GP-LANE2 NB	3		
FLD4095042.7NBNS-DS-GP	FLD4095042.7NBNS-DS-GP-LANE3	GP-LANE3 NB	4		
FLD4095042.7NBNS-DS-GP	FLD4095042.7NBNS-DS-GP-LANE4	GP-LANE4 NB	5		
FLD4095042.8SBSS-DS-GP	FLD4095042.8SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3061+78
FLD4095042.8SBSS-DS-GP	FLD4095042.8SBSS-DS-EL-LANE2	EL-LANE2 SB	1		
FLD4095042.8SBSS-DS-GP	FLD4095042.8SBSS-DS-GP-LANE1	GP-LANE1 SB	2		
FLD4095042.8SBSS-DS-GP	FLD4095042.8SBSS-DS-GP-LANE2	GP-LANE2 SB	3		
FLD4095042.8SBSS-DS-GP	FLD4095042.8SBSS-DS-GP-LANE3	GP-LANE3 SB	4		
FLD4095042.8SBSS-DS-GP	FLD4095042.8SBSS-DS-GP-LANE4	GP-LANE4 SB	5		
FLD4095043.0NBNS-DS-GP	FLD4095043.0NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3072+30
FLD4095043.0NBNS-DS-GP	FLD4095043.0NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095043.0NBNS-DS-GP	FLD4095043.0NBNS-DS-GP-LANE1	GP-LANE1 NB	2		
FLD4095043.0NBNS-DS-GP	FLD4095043.0NBNS-DS-GP-LANE2	GP-LANE2 NB	3		
FLD4095043.0NBNS-DS-GP	FLD4095043.0NBNS-DS-GP-LANE3	GP-LANE3 NB	4		
FLD4095043.0NBNS-DS-GP	FLD4095043.0NBNS-DS-GP-LANE4	GP-LANE4 NB	5		
FLD4095043.0SBSS-DS-GP	FLD4095043.0SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3076+00
FLD4095043.0SBSS-DS-GP	FLD4095043.0SBSS-DS-EL-LANE2	EL-LANE2 SB	1		
FLD4095043.0SBSS-DS-GP	FLD4095043.0SBSS-DS-GP-LANE1	GP-LANE1 SB	2		
FLD4095043.0SBSS-DS-GP	FLD4095043.0SBSS-DS-GP-LANE2	GP-LANE2 SB	3		
FLD4095043.0SBSS-DS-GP	FLD4095043.0SBSS-DS-GP-LANE3	GP-LANE3 SB	4		
FLD4095043.0SBSS-DS-GP	FLD4095043.0SBSS-DS-GP-LANE4	GP-LANE4 SB	5		
FLD4095043.2NBNS-DS-GP	FLD4095043.2NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3083+23
FLD4095043.2NBNS-DS-GP	FLD4095043.2NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095043.2NBNS-DS-GP	FLD4095043.2NBNS-DS-GP-LANE1	GP-LANE1 NB	2		
FLD4095043.2NBNS-DS-GP	FLD4095043.2NBNS-DS-GP-LANE2	GP-LANE2 NB	3		
FLD4095043.2NBNS-DS-GP	FLD4095043.2NBNS-DS-GP-LANE3	GP-LANE3 NB	4		
FLD4095043.2NBNS-DS-GP	FLD4095043.2NBNS-DS-GP-LANE4	GP-LANE4 NB	5		
FLD4095043.2SBSS-DS-GP	FLD4095043.2SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3085+71
FLD4095043.2SBSS-DS-GP	FLD4095043.2SBSS-DS-EL-LANE2	EL-LANE2 SB	1		
FLD4095043.2SBSS-DS-GP	FLD4095043.2SBSS-DS-GP-LANE1	GP-LANE1 SB	2		
FLD4095043.2SBSS-DS-GP	FLD4095043.2SBSS-DS-GP-LANE2	GP-LANE2 SB	3		
FLD4095043.2SBSS-DS-GP	FLD4095043.2SBSS-DS-GP-LANE3	GP-LANE3 SB	4		
FLD4095043.2SBSS-DS-GP	FLD4095043.2SBSS-DS-GP-LANE4	GP-LANE4 SB	5		
FLD4095043.3NBNS-DS-GP	FLD4095043.3NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3091+14
FLD4095043.3NBNS-DS-GP	FLD4095043.3NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095043.3NBNS-DS-GP	FLD4095043.3NBNS-DS-GP-LANE1	GP-LANE1 NB	2		
FLD4095043.3NBNS-DS-GP	FLD4095043.3NBNS-DS-GP-LANE2	GP-LANE2 NB	3		
FLD4095043.3NBNS-DS-GP	FLD4095043.3NBNS-DS-GP-LANE3	GP-LANE3 NB	4		
FLD4095043.3NBNS-DS-GP	FLD4095043.3NBNS-DS-GP-LANE4	GP-LANE4 NB	5		
FLD4095043.3NBNS-DS-GP	FLD4095043.3NBNS-DS-GP-LANE5	GP-LANE5 NB	6		

Link Name	Lane Name	Lane Description	Lane Zone	Direction	Sta
FLD4095043.5SBSS-DS-GP	FLD4095043.5SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3100+10
FLD4095043.5SBSS-DS-GP	FLD4095043.5SBSS-DS-EL-LANE2	EL-LANE2 SB	1		
FLD4095043.5SBSS-DS-GP	FLD4095043.5SBSS-DS-EL-LANE3	EL-LANE3 SB	2		
FLD4095043.5SBSS-DS-GP	FLD4095043.5SBSS-DS-GP-LANE2	GP-LANE1 SB	3		
FLD4095043.5SBSS-DS-GP	FLD4095043.5SBSS-DS-GP-LANE3	GP-LANE2 SB	4		
FLD4095043.5SBSS-DS-GP	FLD4095043.5SBSS-DS-GP-LANE4	GP-LANE3 SB	5		
FLD4095043.5SBSS-DS-GP	FLD4095043.5SBSS-DS-GP-LANE5	GP-LANE4 SB	6		
FLD4095043.6NBNS-DS-GP	FLD4095043.6NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3103+00
FLD4095043.6NBNS-DS-GP	FLD4095043.6NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095043.6NBNS-DS-GP	FLD4095043.6NBNS-DS-EL-LANE3	EL-LANE3 NB	2		
FLD4095043.6NBNS-DS-GP	FLD4095043.6NBNS-DS-GP-LANE2	GP-LANE1 NB	3		
FLD4095043.6NBNS-DS-GP	FLD4095043.6NBNS-DS-GP-LANE3	GP-LANE2 NB	4		
FLD4095043.6NBNS-DS-GP	FLD4095043.6NBNS-DS-GP-LANE4	GP-LANE3 NB	5		
FLD4095043.6NBNS-DS-GP	FLD4095043.6NBNS-DS-GP-LANE5	GP-LANE4 NB	6		
FLD4095043.7NBNS-DS-GP	FLD4095043.7NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3110+50
FLD4095043.7NBNS-DS-GP	FLD4095043.7NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095043.7NBNS-DS-GP	FLD4095043.7NBNS-DS-GP-LANE1	GP-LANE1 NB	2		
FLD4095043.7NBNS-DS-GP	FLD4095043.7NBNS-DS-GP-LANE2	GP-LANE2 NB	3		
FLD4095043.7NBNS-DS-GP	FLD4095043.7NBNS-DS-GP-LANE3	GP-LANE3 NB	4		
FLD4095043.7NBNS-DS-GP	FLD4095043.7NBNS-DS-GP-LANE4	GP-LANE4 NB	5		
FLD4095043.8SBSS-DS-GP	FLD4095043.8SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3114+25
FLD4095043.8SBSS-DS-GP	FLD4095043.8SBSS-DS-EL-LANE2	EL-LANE2 SB	1		
FLD4095043.8SBSS-DS-GP	FLD4095043.8SBSS-DS-GP-LANE1	GP-LANE1 SB	2		
FLD4095043.8SBSS-DS-GP	FLD4095043.8SBSS-DS-GP-LANE2	GP-LANE2 SB	3		
FLD4095043.8SBSS-DS-GP	FLD4095043.8SBSS-DS-GP-LANE3	GP-LANE3 SB	4		
FLD4095043.8SBSS-DS-GP	FLD4095043.8SBSS-DS-GP-LANE4	GP-LANE4 SB	5		
FLD4095044.0NBNS-DS-GP	FLD4095044.0NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3121+62
FLD4095044.0NBNS-DS-GP	FLD4095044.0NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095044.0NBNS-DS-GP	FLD4095044.0NBNS-DS-GP-LANE1	GP-LANE1 NB	2		
FLD4095044.0NBNS-DS-GP	FLD4095044.0NBNS-DS-GP-LANE2	GP-LANE2 NB	3		
FLD4095044.0NBNS-DS-GP	FLD4095044.0NBNS-DS-GP-LANE3	GP-LANE3 NB	4		
FLD4095044.0NBNS-DS-GP	FLD4095044.0NBNS-DS-GP-LANE4	GP-LANE4 NB	5		
FLD4095044.0SBSS-DS-GP	FLD4095044.0SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3126+90
FLD4095044.0SBSS-DS-GP	FLD4095044.0SBSS-DS-EL-LANE2	EL-LANE2 SB	1		
FLD4095044.0SBSS-DS-GP	FLD4095044.0SBSS-DS-GP-LANE1	GP-LANE1 SB	2		
FLD4095044.0SBSS-DS-GP	FLD4095044.0SBSS-DS-GP-LANE2	GP-LANE2 SB	3		
FLD4095044.0SBSS-DS-GP	FLD4095044.0SBSS-DS-GP-LANE3	GP-LANE3 SB	4		
FLD4095044.0SBSS-DS-GP	FLD4095044.0SBSS-DS-GP-LANE4	GP-LANE4 SB	5		
FLD4095044.0SBSS-DS-GP	FLD4095044.0SBSS-DS-GP-LANE5	ON-LANE5 SB	6		
FLD4095044.1NBNS-DS-GP	FLD4095044.1NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3133+00
FLD4095044.1NBNS-DS-GP	FLD4095044.1NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095044.1NBNS-DS-GP	FLD4095044.1NBNS-DS-GP-LANE1	GP-LANE1 NB	2		
FLD4095044.1NBNS-DS-GP	FLD4095044.1NBNS-DS-GP-LANE2	GP-LANE2 NB	3		
FLD4095044.1NBNS-DS-GP	FLD4095044.1NBNS-DS-GP-LANE3	GP-LANE3 NB	4		
FLD4095044.1NBNS-DS-GP	FLD4095044.1NBNS-DS-OFF-LANE4	OFF-LANE4 NB	5		
FLD4095044.1SBSS-DS-GP	FLD4095044.1SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3133+38
FLD4095044.1SBSS-DS-GP	FLD4095044.1SBSS-DS-EL-LANE2	EL-LANE2 SB	1		
FLD4095044.1SBSS-DS-GP	FLD4095044.1SBSS-DS-GP-LANE1	GP-LANE1 SB	2		
FLD4095044.1SBSS-DS-GP	FLD4095044.1SBSS-DS-GP-LANE2	GP-LANE2 SB	3		
FLD4095044.1SBSS-DS-GP	FLD4095044.1SBSS-DS-GP-LANE3	GP-LANE3 SB	4		
FLD4095044.1SBSS-DS-GP	FLD4095044.1SBSS-DS-GP-LANE4	GP-LANE4 SB	5		
FLD4095044.1SBSS-DS-GP	FLD4095044.1SBSS-DS-ON-LANE5	ON-LANE5 SB	6		

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SUNGUIDE LANE ASSIGNMENT (1)

SHEET NO.
IT-207

SUNGUIDE TSS LANES

Link Name	Lane Name	Lane Description	Lane Zone	Direction	Sta
FLD4095044.3SBSS-DS-GP	FLD4095044.3SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3144+15
FLD4095044.3SBSS-DS-GP	FLD4095044.3SBSS-DS-EL-LANE2	EL-LANE2 SB	1		
FLD4095044.3SBSS-DS-GP	FLD4095044.3SBSS-DS-GP-LANE1	GP-LANE1 SB	2		
FLD4095044.3SBSS-DS-GP	FLD4095044.3SBSS-DS-GP-LANE2	GP-LANE2 SB	3		
FLD4095044.3SBSS-DS-GP	FLD4095044.3SBSS-DS-GP-LANE3	GP-LANE3 SB	4		
FLD4095044.3SBSS-DS-GP	FLD4095044.3SBSS-DS-GP-LANE4	GP-LANE4 SB	5		
FLD4095044.3NBNS-DS-GP	FLD4095044.3NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3144+69
FLD4095044.3NBNS-DS-GP	FLD4095044.3NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095044.3NBNS-DS-GP	FLD4095044.3NBNS-DS-EL-LANE3	EL-LANE3 NB	2		
FLD4095044.3NBNS-DS-GP	FLD4095044.3NBNS-DS-GP-LANE2	GP-LANE1 NB	3		
FLD4095044.3NBNS-DS-GP	FLD4095044.3NBNS-DS-GP-LANE3	GP-LANE2 NB	4		
FLD4095044.3NBNS-DS-GP	FLD4095044.3NBNS-DS-GP-LANE4	GP-LANE3 NB	5		
FLD4095044.3NBNS-DS-GP	FLD4095044.3NBNS-DS-GP-LANE5	GP-LANE4 NB	6		
FLD4095044.5SBSS-DS-GP	FLD4095044.5SBSS-EL-GP-LANE1	EL-LANE1 SB	0	SB	3150+68
FLD4095044.5SBSS-DS-GP	FLD4095044.5SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095044.5SBSS-DS-GP	FLD4095044.5SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095044.5SBSS-DS-GP	FLD4095044.5SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095044.5SBSS-DS-GP	FLD4095044.5SBSS-DS-ON-LANE5	ON-LANE4 SB	4		
FLD4095044.6NBNS-DS-GP	FLD4095044.6NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3157+05
FLD4095044.6NBNS-DS-GP	FLD4095044.6NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095044.6NBNS-DS-GP	FLD4095044.6NBNS-DS-GP-LANE1	GP-LANE1 NB	2		
FLD4095044.6NBNS-DS-GP	FLD4095044.6NBNS-DS-GP-LANE2	GP-LANE2 NB	3		
FLD4095044.6NBNS-DS-GP	FLD4095044.6NBNS-DS-GP-LANE3	GP-LANE3 NB	4		
FLD4095044.6NBNS-DS-GP	FLD4095044.6NBNS-DS-GP-LANE4	GP-LANE4 NB	5		
FLD4095044.6NBNS-DS-GP	FLD4095044.6NBNS-DS-ON-LANE5	ON-LANE5 NB	6		
FLD4095044.7SBSS-DS-GP	FLD4095044.7SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3163+02
FLD4095044.7SBSS-DS-GP	FLD4095044.7SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095044.7SBSS-DS-GP	FLD4095044.7SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095044.7SBSS-DS-GP	FLD4095044.7SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095044.7SBSS-DS-GP	FLD4095044.7SBSS-DS-OFF-LANE5	OFF-LANE4 SB	4		
FLD4095044.8NBNS-DS-GP	FLD4095044.8NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3167+15
FLD4095044.8NBNS-DS-GP	FLD4095044.8NBNS-DS-EL-LANE2	EL-LANE2 NB	1		
FLD4095044.8NBNS-DS-GP	FLD4095044.8NBNS-DS-GP-LANE1	GP-LANE1 NB	2		
FLD4095044.8NBNS-DS-GP	FLD4095044.8NBNS-DS-GP-LANE2	GP-LANE2 NB	3		
FLD4095044.8NBNS-DS-GP	FLD4095044.8NBNS-DS-GP-LANE3	GP-LANE3 NB	4		
FLD4095044.8NBNS-DS-GP	FLD4095044.8NBNS-DS-GP-LANE4	GP-LANE4 NB	5		
FLD4095045.0SBSS-DS-GP	FLD4095045.0SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3176+48
FLD4095045.0SBSS-DS-GP	FLD4095045.0SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095045.0SBSS-DS-GP	FLD4095045.0SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095045.0SBSS-DS-GP	FLD4095045.0SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095045.0SBSS-DS-GP	FLD4095045.0SBSS-DS-GP-LANE4	GP-LANE4 SB	4		
FLD4095045.0NBNS-DS-GP	FLD4095045.0NBNS-DS-EL-LANE1	EL-LANE1 NB	0	NB	3182+60
FLD4095045.0NBNS-DS-GP	FLD4095045.0NBNS-DS-GP-LANE1	GP-LANE1 NB	1		
FLD4095045.0NBNS-DS-GP	FLD4095045.0NBNS-DS-GP-LANE2	GP-LANE2 NB	2		
FLD4095045.0NBNS-DS-GP	FLD4095045.0NBNS-DS-GP-LANE3	GP-LANE3 NB	3		
FLD4095045.0NBNS-DS-GP	FLD4095045.0NBNS-DS-GP-LANE4	GP-LANE4 NB	4		
FLD4095045.1SBSS-DS-GP	FLD4095045.1SBSS-DS-EL-LANE1	EL-LANE1 SB	0	SB	3186+22
FLD4095045.1SBSS-DS-GP	FLD4095045.1SBSS-DS-GP-LANE1	GP-LANE1 SB	1		
FLD4095045.1SBSS-DS-GP	FLD4095045.1SBSS-DS-GP-LANE2	GP-LANE2 SB	2		
FLD4095045.1SBSS-DS-GP	FLD4095045.1SBSS-DS-GP-LANE3	GP-LANE3 SB	3		
FLD4095045.1SBSS-DS-GP	FLD4095045.1SBSS-DS-ON-LANE4	ON-LANE4 SB	4		
FLD4095045.4SBSS-DS-GP	FLD4095045.4SBSS-DS-GP-LANE1	GP-LANE1 SB	0	SB	3197+60
FLD4095045.4SBSS-DS-GP	FLD4095045.4SBSS-DS-GP-LANE2	GP-LANE2 SB	1		
FLD4095045.4SBSS-DS-GP	FLD4095045.4SBSS-DS-GP-LANE3	GP-LANE3 SB	2		
FLD4095045.4SBSS-DS-GP	FLD4095045.4SBSS-DS-GP-LANE4	GP-LANE4 SB	3		
FLD4095045.4SBSS-DS-GP	FLD4095045.4SBSS-DS-ON-LANE5	ON-LANE5 SB	4		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SUNGUIDE LANE ASSIGNMENT (2)

SHEET NO.
IT-208

ITS REEL 1

Project	IT Page	PCS Box Number	SV / PB	Cable Ft. In:	Cable Ft. Out	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation	Fiber Accumulation
3B1	33	46481	SV	26520	26310	548	210	210	210
3B1	34	46480	PB	25762	25712	312	50	260	808
3B1	34	46479	SV	25400	25200	324	200	460	1320
3B1	34	46478	PB	24876	24826	54	50	510	1694
3B1	34	46477	PB	24772	24722	382	50	560	1798
3B1	35	46476	SV	24340	24140	226	200	760	2380
3B1	35	46475	PB	23914	23864	630	50	810	2656
3B1	36	46474	PB	23234	23184	276	50	860	3336
3B1	37	46473	SV	22908	22658	684	250	1110	3862
3B1	37	46472	PB	21974	21924	58	50	1160	4596
3B1	37	56175	PB	21866	21816	614	50	1210	4704
3B1	38	56176	SV	21202	20982	570	220	1430	5538
3B1	39	56177	SV	20412	20192	184	220	1650	6328
3B1	39	56178	PB	20008	19958	728	50	1700	6562
3B1	40	56179	SV	19230	18960	544	270	1970	7560
3B1	41	56180	PB	18416	18366	106	50	2020	8154
3B1	41	56181	PB	18260	18210	418	50	2070	8310
3B1	42	56182	SV	17792	17522	366	270	2340	8998
3B1	43	56183	PB	17156	17106	416	50	2390	9414
3B1	44	56184	SV	16690	16470	650	220	2610	10050
3B1	45	56185	SV	15820	15550	478	270	2880	10970
3B1	45	56186	PB	15072	15022	320	50	2930	11498
3B1	45	56187	PB	14702	14652	354	50	2980	11868
3B1	45	46677	PB	14298	14248	272	50	3030	12272
3B1	46	46678	SV	13976	13756	200	220	3250	12764
3B1	46	46679	SV	13556	13336	528	220	3470	13184
3B1	47	46680	PB	12808	12758	532	50	3520	13762
3B1	47	46681	SV	12226	11956	246	270	3790	14564
3B1	48	46682	SV	11710	11440	224	270	4060	15080
3B1	48	46683	PB	11216	11166	108	50	4110	15354
3B1	48	46684	PB	11058	11008	646	50	4160	15512
3B1	61	46685	SV	10362	10142	306	220	4380	16378
3B1	61	46686	PB	9836	9786	752	50	4430	16734
3B1	50	46687	PB	9034	8984	216	50	4480	17536
3B1	50	46688	SV	8768	8498	158	270	4750	18022
3B1	63	46689	PB	8340	8290	100	50	4800	18230
3B1	63	46690	SV	8190	7970	0	220	5020	18550
					Total Fiber Length	Actual Linear Footage	Actual Slack Footage		
					630,684 ft	13,530 ft	5,020 ft		

ITS REEL 2

Project	IT Page	PCS Box Number	SV / PB	Cable Ft. In:	Cable Ft. Out	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation	Fiber Accumulation
3B1	63	HUB	SV	408	978	768	570	570	570
3B1	52	3163	SV	1746	2016	436	270	840	1608
3B1	52	1367	SV	2452	2722	300	270	540	2314
3B1	53	3170	PB	3022	3072	610	50	320	2664
3B1	53	3176	SV	3682	3952	510	270	320	3544
3B1	54	3181	PB	4462	4512	546	50	320	4104
3B1	55	3186	SV	5058	5328	400	270	320	4920
3B1	56	3190	PB	5728	5778	408	50	320	5370
3B1	56	3194 S	SV	6186	6456	542	270	320	6048
3B1	56	3194 N	SV	6998	7198	0	200	470	6790
					Total Fiber Length	Actual Linear Footage	Actual Slack Footage		
					42,012 ft	4,520 ft	2,270 ft		

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Tampa, Florida 33607
(813) 520-4444
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SEQUENTIAL CABLE LENGTH (1)

SHEET NO.
IT-209

PLOT DRIVER = c:\projectwise\pb\projectwiseint\wsp__michael.west\d0173361\As-Built_FDOT_DGN.pltcfg pw:\\wsp-us-pw.bentley.com:wsp-us-pw-01\Documents\FL - Miami Projects\I-95 Phase3B1 Broward\3B1 Plans Build
USMW189428 10/22/2021 6:43:36 PM c:\projectwise\pb\projectwiseint\wsp__michael.west\d0230493\TABQIT02_As-Built.dgn

Broward/Palm Beach Co. 144 Fiber Backbone –TSM&O Reel 1

Project	IT Page	PCS Box Number	SV / PB	Cable Ft. In:	Cable Ft. Out	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation	Fiber Accumulation
3B1	33	46481	SV	6912	7122	548	210	210	210
3B1	34	46480	PB	7670	7720	312	50	260	808
3B1	34	46479	SV	8032	8232	324	200	460	1320
3B1	34	46478	PB	8556	8606	54	50	510	1694
3B1	34	46477	PB	8660	8710	382	50	560	1798
3B1	35	46476	SV	9092	9292	226	200	760	2380
3B1	35	46475	PB	9518	9568	630	50	810	2656
3B1	36	46474	PB	10198	10248	266	50	860	3336
3B1	37	46473	SV	10514	10764	674	250	1110	3852
3B1	37	57174	PB	11438	11488	1056	50	1160	4576
3B1	37	56175	PB	12544	12594	384	50	1210	5682
3B1	38	56176	PB	12978	13028	572	50	1260	6116
3B1	39	56177	SV	13600	13800	186	200	1460	6888
3B1	39	56178	PB	13986	14036	730	50	1510	7124
3B1	40	56179	SV	14766	14966	542	200	1710	8054
3B1	41	56180	SV	15508	15758	106	250	1960	8846
3B1	41	56181	PB	15864	15914	418	50	2010	9002
3B1	42	56182	PB	16332	16382	382	50	2060	9470
3B1	43	56183	SV	16764	17014	420	250	2310	10102
3B1	44	56184	PB	17434	17484	650	50	2360	10572
3B1	45	56185	SV	18134	18334	484	200	2560	11422
3B1	45	56186	SV	18818	19068	320	250	2810	12156
3B1	45	56187	PB	19388	19438	350	50	2860	12526
3B1	45	56188	PB	19788	19838	276	50	2910	12926
3B1	46	56189	SV	20114	20314	386	200	3110	13402
3B1	46	46679	SV	20700	20920	534	220	3330	14008
3B1	47	46680	PB	21454	21504	642	50	3380	14592
3B1	47	46681	SV	22146	22416	246	270	3650	15504
3B1	48	46682	SV	22662	22932	278	270	3920	16020
3B1	48	46683	PB	23210	23260	108	50	3970	16348
3B1	48	46684	PB	23368	23418	646	50	4020	16506
3B1	61	46685	SV	24064	24284	306	220	4240	17372
3B1	61	46686	PB	24590	24640	752	50	4290	17728
3B1	50	46687	PB	25392	25442	216	50	4340	18530
3B1	50	46688	SV	25658	25928	158	270	4610	19016
3B1	63	46689	PB	26086	26136	100	50	4660	19224
3B1	63	46690	SV	26236	26456	0	220	4880	19544
					Total Fiber Length	Actual Linear Footage	Actual Slack Footage		
					627,054 ft	14,664 ft	4,880 ft		

Broward/Palm Beach Co. 144 Fiber Backbone –TSM&O Reel 2

Project	IT Page	PCS Box Number	SV / PB	Cable Ft. In:	Cable Ft. Out	Footage to Next Box/Vault	PB/SV Slack Ft.	Slack Accumulation	Fiber Accumulation
3B1	63	HUB	SV	1	692	768	691	691	691
3B1	52	3163	SV	1460	1730	436	270	961	1729
3B1	52	1367	SV	2166	2436	300	270	540	2435
3B1	53	3170	PB	2736	2786	610	50	320	2785
3B1	53	3176	SV	3396	3666	510	270	320	3665
3B1	54	3181	PB	4176	4226	546	50	320	4225
3B1	55	3186	SV	4772	5042	400	270	320	5041
3B1	56	3190	PB	5442	5492	408	50	320	5491
3B1	56	3194 S	SV	5900	6170	542	270	320	6169
3B1	56	3194 N	SV	6712	6912	0	200	470	6911
					Total Fiber Length	Actual Linear Footage	Actual Slack Footage		
					39,152 ft	4,520 ft	2,391 ft		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

SEQUENTIAL CABLE LENGTH (2)

SHEET NO.
IT-210

ITS FIBER MARKERS

FIBER MARKERS	LATITUDE	LONGITUDE
41	26.32103	-80.11666
42	26.32124	-80.1161
43	26.32163	-80.11614
44	26.32189	-80.11672
45	26.32274	-80.11682
46	26.32278	-80.11696
47	26.32357	-80.11615
48	26.32376	-80.11619
49	26.32372	-80.11689
50	26.32443	-80.11697
51	26.32599	-80.11707
52	26.32605	-80.11639
53	26.32656	-80.11643
54	26.32687	-80.11644
55	26.32683	-80.11717
56	26.32696	-80.11713
57	26.32709	-80.11716
58	26.32756	-80.11715
59	26.32855	-80.11738
60	26.3292	-80.11661
61	26.32977	-80.11748
62	26.33053	-80.11674
63	26.33061	-80.11754
64	26.33147	-80.11683
65	26.33149	-80.11752
66	26.33167	-80.11762
67	26.33173	-80.11685
68	26.33215	-80.11765
69	26.33314	-80.11773
70	26.33352	-80.11698
71	26.33416	-80.11697
72	26.33411	-80.11775

FIBER MARKERS	LATITUDE	LONGITUDE
73	26.33564	-80.11711
74	26.33559	-80.11789
75	26.33586	-80.11793
76	26.33713	-80.11803
77	26.33804	-80.1181
78	26.33888	-80.11737
79	26.33914	-80.11819
80	26.33952	-80.11735
81	26.341	-80.11755
82	26.34093	-80.11832
83	26.34111	-80.11826
84	26.34197	-80.11846
85	26.34196	-80.11831
86	26.34221	-80.11851
87	26.34224	-80.11758
88	26.3431	-80.11753
89	26.344	-80.11766
90	26.34402	-80.11773
91	26.34399	-80.11859
92	26.34428	-80.11769
93	26.34428	-80.11851
94	26.34434	-80.11766
95	26.34468	-80.11843
96	26.34508	-80.11767
97	26.34508	-80.11847
98	26.34544	-80.11848
99	26.34594	-80.11768
100	26.34716	-80.11774
101	26.34732	-80.11762
102	26.34731	-80.11849
103	26.34811	-80.11757
104	26.34861	-80.11749
105	26.34865	-80.11768
106	26.34873	-80.11865
107	26.34944	-80.11747
108	26.34997	-80.11751
109	26.35021	-80.11842
110	26.35034	-80.11722
111	26.35052	-80.11719
112	26.35116	-80.1173

FIBER MARKERS	LATITUDE	LONGITUDE
113	26.35113	-80.11708
114	26.35116	-80.11689
115	26.35098	-80.11585
116	26.35028	-80.11898
117	26.35053	-80.11993
118	26.35095	-80.11895
119	26.35134	-80.11974
120	26.35177	-80.11959
121	26.35226	-80.11923
122	26.35167	-80.1174
123	26.35198	-80.11856
124	26.35209	-80.1187
125	26.35223	-80.11863
126	26.3527	-80.1177
127	26.35315	-80.11782
128	26.3532	-80.11761
129	26.35307	-80.11858
129b	26.35383	-80.11784
130	26.35366	-80.11873
131	26.3537	-80.11861
132	26.35405	-80.11869
133	26.35436	-80.11904
134	26.35324	-80.1191
135	26.35329	-80.11933
136	26.35523	-80.11911
137	26.35628	-80.1195
138	26.35635	-80.11948
139	26.35654	-80.11874
140	26.35697	-80.11969
141	26.35835	-80.11998
142	26.35871	-80.12007
143	26.35876	-80.12015

FIBER MARKERS	LATITUDE	LONGITUDE
144	26.35886	-80.11936
145	26.35887	-80.12009
146	26.35898	-80.11927
147	26.35967	-80.11928
148	26.35964	-80.11948
149	26.36016	-80.12034
150	26.36059	-80.1193
151	26.36062	-80.11962
152	26.3616	-80.1203
153	26.36163	-80.12039
154	26.36237	-80.12037
155	26.36332	-80.12024
156	26.36376	-80.1202
157	26.36383	-80.12024
158	26.36372	-80.11944
159	26.36477	-80.11998
160	26.36623	-80.11948
161	26.36693	-80.11925
162	26.36792	-80.11894
163	26.36879	-80.11865
164	26.36928	-80.11858
165	26.36931	-80.11843
166	26.36978	-80.11831

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
10/4/2021	ASBUILT		

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS - FIBER MARKERS

SHEET NO.
IT-211

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

FINAL AS-BUILT PLANS

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-6-52-01

433109-4-52-01

(FEDERAL FUNDS)

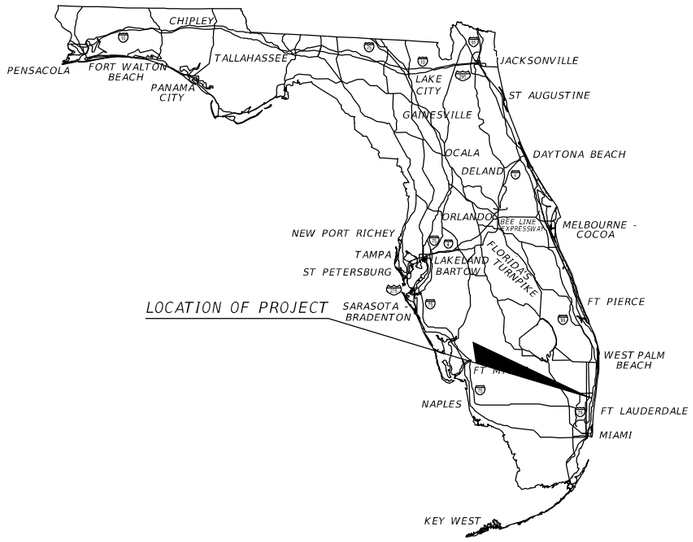
BROWARD COUNTY (86070)

PALM BEACH COUNTY (93220)

STATE ROAD NO. 9 (I-95)

SR 9/I-95 FROM SOUTH OF SW 10TH STREET (SR 869)
TO SOUTH OF GLADES ROAD (SR 808)

RAMP SIGNALING SYSTEM PLANS



INDEX OF RAMP SIGNALING SYSTEM PLANS

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
1 T-1A	SIGNATURE SHEET
T-2	GENERAL NOTES
T-3	PROJECT LAYOUT
T-4 THRU T-6	PLAN SHEET
T-7	TYPICAL TYPE I SIGNAL DETAIL
1 T-8	RSS CABINET WIRING DIAGRAM

SARA E. CALHOUN
LICENSE
No 64295
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

RAMP SIGNALING SYSTEM PLANS
ENGINEER OF RECORD:
SARA E. CALHOUN, P.E. NO.: 64295
VIBE
700 CENTRAL AVENUE, SUITE 302
ST PETERSBURG, FL 33701
(727)317-4967
CONTRACT NO.: E4R96
VENDOR NO. 46-2667875
CERTIFICATE OF AUTHORIZATION 30322

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

AS-BUILT PLANS
SR 9 (I-95)
10-12-21

KEY DATE	SHEET REVISIONS DESCRIPTION
10/12/21	1 FINAL AS-BUILT PLANS ADDED SHEET T-1A AND T-8

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4R96	17	T-1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 433108-6-52-01

433109-4-52-01

(FEDERAL FUNDS)

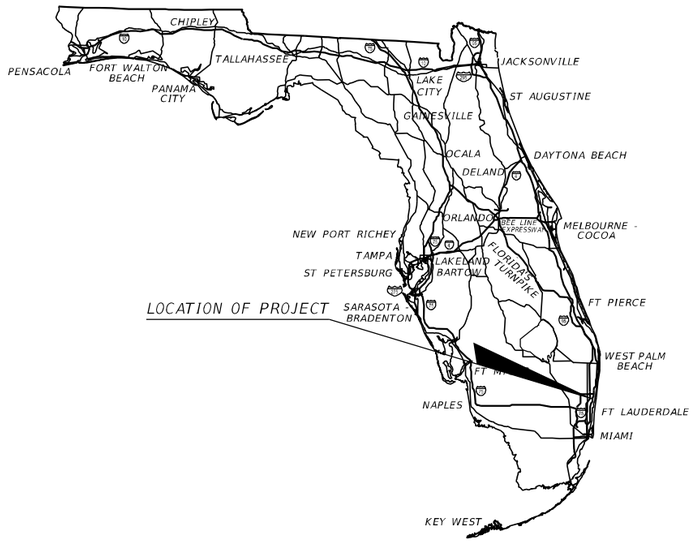
BROWARD COUNTY (86070)

PALM BEACH COUN[illegible] (95[illegible])

STATE ROAD NO. [illegible]I-95)

SR 9/I-95 FROM SOUTH OF [illegible] 10T[illegible] [illegible]REET ([illegible]869)
TO SOUTH OF GLADE[illegible] [illegible]OAD [illegible] 808)

RAMP SIG[illegible]ALI[illegible] S[illegible]TEM PLANS



INDEX OF RAMP SIGNALING SYSTEM PLANS

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	GENERAL NOTES
T-3	PROJECT LAYOUT
T-4 THRU T-6	PLAN SHEET
T-7	TYPICAL TYPE I SIGNAL DETAIL

VOID

SARA E. CALHOUN
LICENSE
No 64295
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

Sara E Calhoun
2019.03.15 15:57:41 -04'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

RAMP SIGNALING SYSTEM PLANS
ENGINEER OF RECORD:
SARA E. CALHOUN, P.E. NO.: 64295
VIBE
700 CENTRAL AVENUE, SUITE 302
ST PETERSBURG, FL 33701
(727)317-4967
CONTRACT NO.: E4R96
VENDOR NO. 46-2667875
CERTIFICATE OF AUTHORIZATION 30322

William Leidy
Corridor Design Consultant (HDR) - This serves as confirmation that all comments have been satisfactorily resolved
2019.05.20 10:38:12-04'00'

Vanita Saini, P.E., FDOT Design PM - This serves as concurrence to release for construction
2019.05.21 10:59:30-04'00'

FDOT PROJECT MANAGER:

VANITA SAINI, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E4R96	17	T-1

RELEASED FOR CONSTRUCTION BY:FDOT VS Date: 05/21/2019
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 64295

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY SARA E CALHOUN, P.E.
ON THE DATE INDICATED HERE

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

VIBE
700 CENTRAL AVENUE, SUITE 302
ST. PETERSBURG, FL 33701
SARA E CALHOUN, P.E. NO. 64295

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING CHANGES, INDICATED IN REDLINE REVISION, IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD.

ITS PLANS

SHEET NO.	DESCRIPTION OF CHANGE
T-1	REVISED INDEX OF PLANS
T-1A	AS-BUILT SIGNATURE SHEET
T-4	CONDUIT SHIFTED
T-5	PULLBOX REMOVED AND CABINET SHIFTED
T-8	RSS CABINET WIRING DIAGRAM ADDED

Date	Name	Position (Title)	Review Type, If Applicable
RESIDENT OFFICE			
DISTRICT OFFICE			

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

SARA E CALHOUN, P.E.
P.E. LICENSE NUMBER 64295
VIBE
700 CENTRAL AVENUE, SUITE 302
ST. PETERSBURG, FL 33701

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

FINAL "AS-BUILT" SIGNATURE SHEET

SHEET NO.
T-1A

RAMP SIGNALING NOTES

GENERAL

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OR THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS, NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.

2. IN ORDER TO MINIMIZE IMPACT TO LANDSCAPING MATERIAL, EXERCISE CAUTION THROUGH LANDSCAPING LIMITS DURING ALL PHASES OF CONSTRUCTION ACTIVITY. CONTRACTOR SHALL REPAIR / REPLACE ANY DAMAGED LANDSCAPING AND PLANT BEDS CAUSED BY THEIR CONSTRUCTION ACTIVITY.

3. THE WORK CORRIDOR SHALL BE RESTORED TO PRE-WORK CONDITIONS.

4. HAND DIG THE FIRST 4' AT EACH POLE INSTALLATION LOCATION. BACKFILLING AROUND POLE SHALL CONFORM TO SECTION 125 OF THE STANDARD SPECIFICATIONS.

5. PULLING INSTRUCTIONS FOR POWER CONDUCTORS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET AND MEET MANUFACTURES REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURERS REQUIREMENTS. ALL BENDS SHALL NOT BE LESS THAN RECOMMENDED BY N.E.C. OR N.E.S.C. FOR CABLE USED.

6. AVOID AND/OR PROTECT ALL TREES AND ROOTS BY HAND DIGGING AS NECESSARY.

7. BASELINES SHOWN ON THE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT STAKED IN THE FIELD.

8. THE RIGHT OF WAY DESIGNATIONS SHOWN ON THE PLANS ARE NOT TIED TO A SURVEYED CENTERLINE AND AS SUCH ARE APPROXIMATE.

9. IF WIRES, PVC CONDUIT AND/OR CABINETS TO PTMS LOCATIONS ARE DAMAGED DUE TO PROJECT, THESE SITES NEED TO BE REPAIRED OR REPLACED AS IN THE FIELD. "CALL THE PLANNING DEPARTMENT IF THE INDUCTIVE LOOPS AND/OR PIEZOS ARE CUT, IN ORDER TO PERFORM AN INSPECTION. CONTACT KARA SCHWARTZ 954-777-4364 AND E-MAIL KARA.SCHWARTZ@DOT.STATE.FL .US"

10. ALL TRAFFIC CONTROL DEVICES MAINTAINED BY BROWARD COUNTY / PALM BEACH COUNTY, THAT ARE REMOVED OR DAMAGED BY CONSTRUCTION SHALL BE REPLACED USING CURRENT BROWARD COUNTY / PALM BEACH COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS.

11. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE A COPY OF THE REQUEST TO THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC). THE CONTRACTOR SHALL PROVIDE THE DCIC WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE, AND PROVIDE A DESCRIPTION OF THE SPECIFIC MANNER IN WHICH THE MATERIAL WILL BE USED. THE PROJECT ENGINEER SHALL COORDINATE WITH THE DCIC PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AS HAZARDOUS MATERIALS, SUCH PRODUCTS DO NOT REQUIRE AN MSDS SUBMITTAL. ALL BULK PETROLEUM PRODUCTS STORED ON SITE SHALL REQUIRE PROPER STORAGE WHICH INCLUDES SECONDARY CONTAINMENT.

12. IF SUSPECT CONTAMINATED OR HAZARDOUS MATERIAL IS FOUND ON THE PROJECT, OR ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE DISTRICT CONTAMINATION IMPACT COORDINATOR (DCIC) AT PHONE NUMBER (954) 777-4286.

13. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING OR STOCKPILING AREAS WITH THE DISTRICT CONSTRUCTION ENVIRONMENTAL COORDINATOR AT (954) 777-4665.

CONDUIT

1. ALL HDPE CONDUIT CONNECTIONS SHALL BE JOINED WITH A MECHANICAL COUPLE OR APPROVED EQUAL.

2. ALL CONDUIT TRENCHES SHALL BE BACKFILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF EACH WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE. DO NOT OPEN ANY AREA THAT CANNOT BE BACKFILLED IN THE SAME DAY/NIGHT OPERATION.

PULL BOXES

1. POWER AND COMMUNICATIONS CABLE MUST BE IN SEPARATE PULL BOXES.

ITS / RAMP SIGNALS

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING AND PROPOSED ROADWAY LIGHTING PRIOR TO INSTALLATION OF CONDUIT, PULL BOXES, AND FOUNDATIONS.

2. VEGETATION SHALL BE REMOVED OR CUT BACK AS DIRECTED BY THE ENGINEER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR ALL DEVICE LOCATIONS.

3. ALL DIMENSIONS SHOWN FOR THE PURPOSE OF DEVICE POLE LOCATIONS ARE MADE FROM THE REFERENCE POINT SHOWN TO THE FACE OF THE POLE NEAREST THE ROADWAY.

4. AT LOCATIONS WHERE UNDERGROUND UTILITIES OR STORM ARE WITHIN TWO FEET OF THE CONDUIT RUN, THE CONTRACTOR WILL HAND DIG THE FIRST FOUR FEET OF THE CONDUIT RUN.

MAINTENANCE OF TRAFFIC NOTES

1. THE EXISTING POSTED SPEED IS TO BE MAINTAINED ON THE ROADWAYS DURING CONSTRUCTION. ALL SPEED LIMIT SIGNS ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

2. LANE CLOSURE RESTRICTIONS FOR THE ARTERIALS WILL BE PROVIDED DURING THE PERMITTING PROCESS.

BY:FDOT VS Date: 05/21/2019
RELEASED FOR CONSTRUCTION
Review is for general compliance with contract documents. Sole responsibility for errors and omissions, correctness of dimensions, details, quantities, and safety during fabrication and erection shall remain with the contractor.
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4D86
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

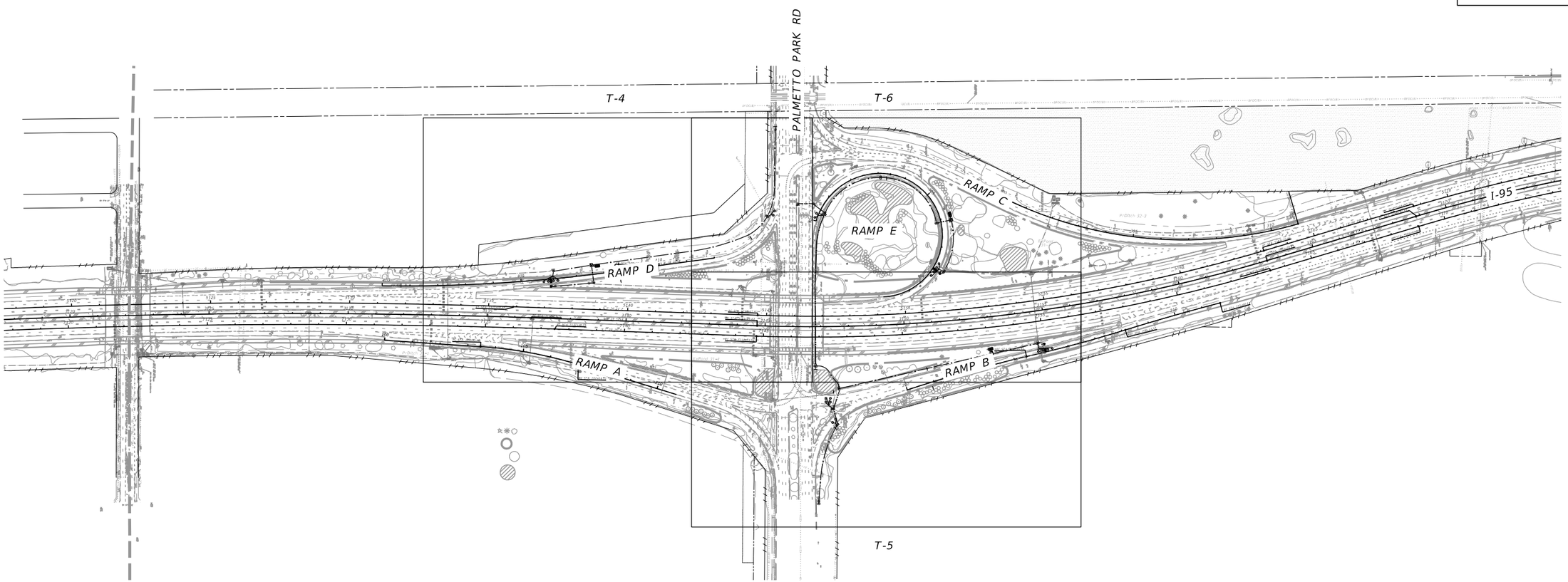
SARA E CALHOUN, P.E.
P.E. LICENSE NUMBER 64295
VIBE
700 CENTRAL AVE
SUITE 302
ST PETERSBURG, FL 33701
CERTIFICATE OF AUTHORIZATION 30322

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

GENERAL NOTES

SHEET NO. T-2



0 100 400
Feet

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4D86

BY: FDOT VS Date: 05/21/2019

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SARA E CALHOUN, P.E.
P.E. LICENSE NUMBER 64295
VIBE
700 CENTRAL AVE
SUITE 302
ST PETERSBURG, FL 33701
CERTIFICATE OF AUTHORIZATION 30322

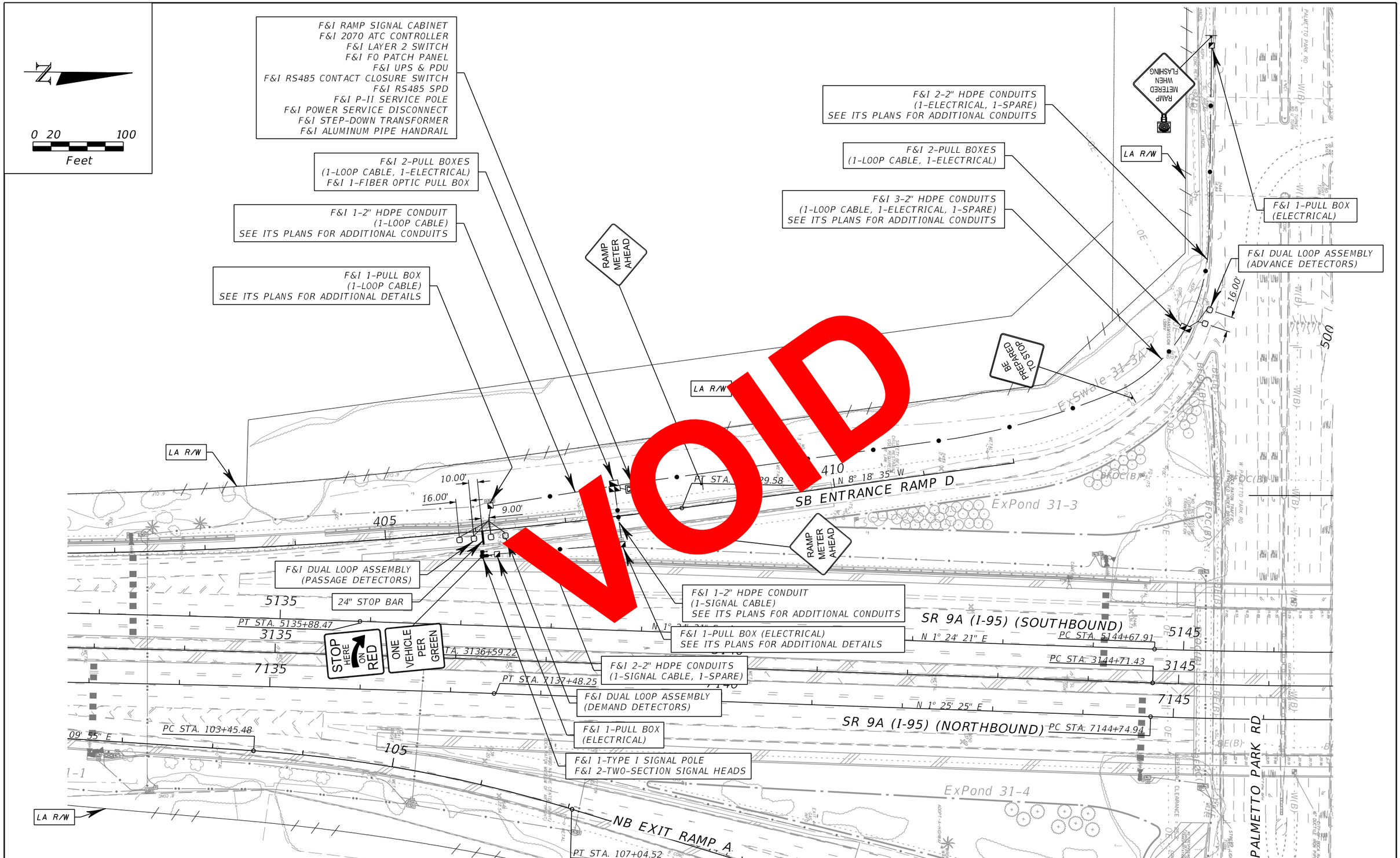
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PROJECT LAYOUT

SHEET NO.
T-3

ArtTester 3/15/2019 9:53:27 AM c:\projectwise\pb\projectwiseint\arthur.tester\d0235787\PLAYIT201.DGN



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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4R96

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SARA E CALHOUN, P.E.
P.E. LICENSE NUMBER 64295
VIBE
700 CENTRAL AVE
SUITE 302
ST PETERSBURG, FL 33701
CERTIFICATE OF AUTHORIZATION 30322

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PLAN SHEET
RAMP D

SHEET NO.
T-4

ArtTester 3/15/2019 9:53:36 AM c:\projectwise\pb\projectwiseint\arthur.tester\d0235787\planit201.dgn

N

0 20 100
Feet

F&I RAMP SIGNAL CABINET
F&I 2070 ATC CONTROLLER
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I RS485 CONTACT CLOSURE SWITCH
F&I RS485 SPD
F&I P-II SERVICE POLE
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN TRANSFORMER
F&I ALUMINUM PIPE HANDRAIL

F&I 2-PULL BOXES
(1-LOOP CABLE, 1-ELECTRICAL)
F&I 1-FIBER OPTIC PULL BOX

F&I 1-2" HDPE CONDUIT
(1-LOOP CABLE)
SEE ITS PLANS FOR ADDITIONAL CONDUITS

F&I 1-PULL BOX
(1-LOOP CABLE)
SEE ITS PLANS FOR ADDITIONAL DETAILS

RAMP METER AHEAD

F&I 2-2" HDPE CONDUITS
(1-ELECTRICAL, 1-SPARE)
SEE ITS PLANS FOR ADDITIONAL CONDUITS

F&I 2-PULL BOXES
(1-LOOP CABLE, 1-ELECTRICAL)

F&I 3-2" HDPE CONDUITS
(1-LOOP CABLE, 1-ELECTRICAL, 1-SPARE)
SEE ITS PLANS FOR ADDITIONAL CONDUITS

LA R/W

RAMP METERED WHEN FLASHING

F&I 1-PULL BOX
(ELECTRICAL)

F&I DUAL LOOP ASSEMBLY
(ADVANCE DETECTORS)

16.00'

BE PREPARED TO STOP

500

1

LA R/W

10.00'
16.00'
9.00'

PT STA. 408+29.58

410

N 8° 18' 35" W

SB ENTRANCE RAMP D

405

RAMP METER AHEAD

F&I DUAL LOOP ASSEMBLY
(PASSAGE DETECTORS)

24" STOP BAR

5135

PT STA. 5135+88.47

3135

STOP HERE ON RED

ONE VEHICLE PER GREEN

PT STA. 3136+59.22

7135

F&I 1-2" HDPE CONDUIT
(1-SIGNAL CABLE)
SEE ITS PLANS FOR ADDITIONAL CONDUITS

F&I 1-PULL BOX (ELECTRICAL)
SEE ITS PLANS FOR ADDITIONAL DETAILS

F&I 2-2" HDPE CONDUITS
(1-SIGNAL CABLE, 1-SPARE)

PT STA. 7137+48.25

F&I DUAL LOOP ASSEMBLY
(DEMAND DETECTORS)

F&I 1-PULL BOX
(ELECTRICAL)

F&I 1-TYPE I SIGNAL POLE
F&I 2-TWO-SECTION SIGNAL HEADS

N 1° 24' 21" E

PC STA. 5144+67.91

5145

PC STA. 3144+71.43

3145

7145

N 1° 25' 25" E

SR 9A (I-95) (SOUTHBOUND)

SR 9A (I-95) (NORTHBOUND)

PC STA. 7144+74.94

PC STA. 103+45.48

09' 55" E

105

LA R/W

NB EXIT RAMP A

PT STA. 107+04.52

PALMETTO PARK RD

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/12/21	1 FINAL AS-BUILT DESIGN		

SARA E CALHOUN, P.E.
P.E. LICENSE NUMBER 64295
VIBE
700 CENTRAL AVENUE, SUITE 302
ST. PETERSBURG, FL 33701

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PLAN SHEET
RAMP D

SHEET NO.
T-4

USER: ArtTester 10/11/2021 7:46:09 PM V:\0117005 I-95 Express Phase 3B - Ramp Metering\Project Working Files\FPID 433108-6-52-01\ITS\VIBE\planit201-ABS.dgn

MATCHLINE A, SEE THIS SHEET

F&I 1-2" HDPE CONDUITS (1-ELECTRICAL) SEE SHEET T-6 FOR ADDITIONAL CONDUITS

F&I RAMP SIGNAL CABINET
F&I 2070 ATC CONTROLLER
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I RS485 CONTACT CLOSURE SWITCH
F&I RS485 SPD
F&I P-II SERVICE POLE
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN TRANSFORMER

F&I 2-PULL BOXES (1-LOOP CABLE, 1-ELECTRICAL)
F&I 1-FIBER OPTIC PULL BOX

F&I 2-2" HDPE CONDUITS (1-LOOP CABLE, 1-ELECTRICAL) SEE ITS PLANS FOR ADDITIONAL CONDUITS

F&I 2-PULL BOXES (1-LOOP CABLE, 1-ELECTRICAL)

PC STA. 5144+67.91
PC STA. 3144+71.43
25' 25" E
PC STA. 7144+74.94

SR 9A (I-95) (SOUTHBOUND)
SR 9A (I-95) (NORTHBOUND)

5145
3145
7145
3150

F&I 1-PULL BOX (ELECTRICAL) SEE SHEET T-6 FOR ADDITIONAL DETAILS

BE PREPARED TO STOP

RAMP METER AHEAD

ExPond 31-4

F&I 2-PULL BOXES (1-LOOP CABLE, 1-ELECTRICAL) SEE ITS PLANS FOR ADDITIONAL DETAILS

F&I 2-2" HDPE CONDUITS (1-ELECTRICAL, 1-SPARE)

16.00'

NB EN... RAMP

SB EXIT RAMP A

F&I DUAL LOOP ASSEMBLY (ADVANCE DETECTORS)

F&I DUAL LOOP ASSEMBLY (ADVANCE DETECTORS)

F&I 2-2" HDPE CONDUITS (1-LOOP CABLE, 1-SIGNAL CABLE) SEE ITS PLANS FOR ADDITIONAL CONDUITS

F&I DUAL LOOP ASSEMBLY (DEMAND DETECTORS)

F&I ... HDPE CONDUITS (1-LO...BLE, 1-ELECT..., 1-SPARE) SEE IT... FOR ...ONAL CONDUITS

RAMP METERED WHEN FLASHING

F&I 3-2" HDPE CONDUITS (1-LOOP CABLE, 1-ELECTRICAL, 1-SPARE) SEE ITS PLANS FOR ADDITIONAL CONDUITS

F&I DUAL LOOP ASSEMBLY (ADVANCE DETECTORS)

F&I 2-PULL BOXES (1-LOOP CABLE, 1-ELECTRICAL)

F&I 2-PULL BOXES (1-LOOP CABLE, 1-ELECTRICAL)

F&I 2-2" HDPE CONDUITS (1-ELECTRICAL, 1-SPARE) SEE ITS PLANS FOR ADDITIONAL CONDUITS

BE PREPARED TO STOP

F&I 1-PULL BOX (ELECTRICAL)

RAMP METERED WHEN FLASHING

LA R/W

PALMETTO PARK RD

PRC STA. 204+45.45

5155
3155
7155
205

STOP HERE ON RED

ONE VEHICLE PER GREEN

F&I 1-TYPE I SIGNAL POLE
F&I 2-TWO-SECTION SIGNAL HEADS

F&I DUAL LOOP ASSEMBLY (PASSAGE DETECTORS)

24" STOP BAR

LA R/W

10.00'
9.00'
16.00'

VOID

F&I 1-2" HDPE CONDUITS (1-ELECTRICAL) SEE SHEET T-6 FOR ADDITIONAL CONDUITS

F&I 1-PULL BOX (ELECTRICAL) SEE SHEET T-6 FOR ADDITIONAL DETAILS

F&I 2-2" HDPE CONDUITS (1-ELECTRICAL, 1-SPARE)

F&I 1-PULL BOX (ELECTRICAL)

F&I 1-PULL BOX (ELECTRICAL)

500

RAMP METERED WHEN FLASHING

F&I 2-2" HDPE CONDUITS (1-ELECTRICAL, 1-SPARE)

MATCHLINE A, SEE THIS SHEET

0 20 100
Feet

N

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SARA E CALHOUN, P.E.
P.E. LICENSE NUMBER 64295
VIBE
700 CENTRAL AVE
SUITE 302
ST PETERSBURG, FL 33701
CERTIFICATE OF AUTHORIZATION 30322

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PLAN SHEET
RAMP B

SHEET NO.
T-5

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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4D86

ArtTester 3/15/2019 9:53:43 AM c:\projectwise\pb\projectwiseint\arthur.tester\d0235787\planit202.dgn

MATCHLINE A, SEE THIS SHEET

F&I 1-2" HDPE CONDUITS
(1-ELECTRICAL)
SEE SHEET T-6 FOR ADDITIONAL CONDUITS

F&I RAMP SIGNAL CABINET
F&I 2070 ATC CONTROLLER
F&I LAYER 2 SWITCH
F&I FO PATCH PANEL
F&I UPS & PDU
F&I RS485 CONTACT CLOSURE SWITCH
F&I RS485 SPD
F&I P-II SERVICE POLE
F&I POWER SERVICE DISCONNECT
F&I STEP-DOWN TRANSFORMER

F&I 2-PULL BOXES
(1-LOOP CABLE, 1-ELECTRICAL)

F&I 1-TYPE I SIGNAL POLE
F&I 2-TWO-SECTION SIGNAL HEADS

F&I DUAL LOOP ASSEMBLY
(PASSAGE DETECTORS)

PC STA. 5144+67.91

5145

SR 9A (I-95) (SOUTHBOUND)

PC STA. 3144+71.43

3145

7145

25' 25" E

PC STA. 7144+74.94

SR 9A (I-95) (NORTHBOUND)

F&I 2-2" HDPE CONDUITS
(1-LOOP CABLE, 1-ELECTRICAL)
SEE ITS PLANS FOR ADDITIONAL CONDUITS

5155

3155

7155

ONE VEHICLE PER GREEN

STOP HERE ON RED

F&I 1-PULL BOX (ELECTRICAL)
SEE SHEET T-6 FOR ADDITIONAL DETAILS

BE PREPARED TO STOP

RAMP METER AHEAD

PC STA. 204+45.45

205

24" STOP BAR

LA R/W

F&I 1-PULL BOXES
(1-LOOP CABLE, 1-ELECTRICAL)
SEE ITS PLANS FOR ADDITIONAL DETAILS

1

10.00'

9.00'

16.00'

F&I 2-2" HDPE CONDUITS
(1-ELECTRICAL, 1-SPARE)

NB ENTRANCE RAMP B

F&I 2-PULL BOXES
(1-LOOP CABLE, 1-ELECTRICAL)
F&I 1-FIBER OPTIC PULL BOX

16.00'

SB EXIT RAMP A

F&I DUAL LOOP ASSEMBLY
(ADVANCE DETECTORS)

F&I 3-2" HDPE CONDUITS
(1-LOOP CABLE, 1-ELECTRICAL, 1-SPARE)
SEE ITS PLANS FOR ADDITIONAL CONDUITS

F&I 2-2" HDPE CONDUITS
(1-LOOP CABLE, 1-SIGNAL CABLE)
SEE ITS PLANS FOR ADDITIONAL CONDUITS

F&I DUAL LOOP ASSEMBLY
(ADVANCE DETECTORS)

RAMP METER AHEAD

RAMP METERED WHEN FLASHING

F&I DUAL LOOP ASSEMBLY
(DEMAND DETECTORS)

16.00'

LA R/W

F&I 3-2" HDPE CONDUITS
(1-LOOP CABLE, 1-ELECTRICAL, 1-SPARE)
SEE ITS PLANS FOR ADDITIONAL CONDUITS

F&I DUAL LOOP ASSEMBLY
(ADVANCE DETECTORS)

F&I 2-PULL BOXES
(1-LOOP CABLE, 1-ELECTRICAL)

BE PREPARED TO STOP

F&I 2-PULL BOXES
(1-LOOP CABLE, 1-ELECTRICAL)

F&I 2-2" HDPE CONDUITS
(1-ELECTRICAL, 1-SPARE)
SEE ITS PLANS FOR ADDITIONAL CONDUITS

F&I 1-PULL BOX
(ELECTRICAL)

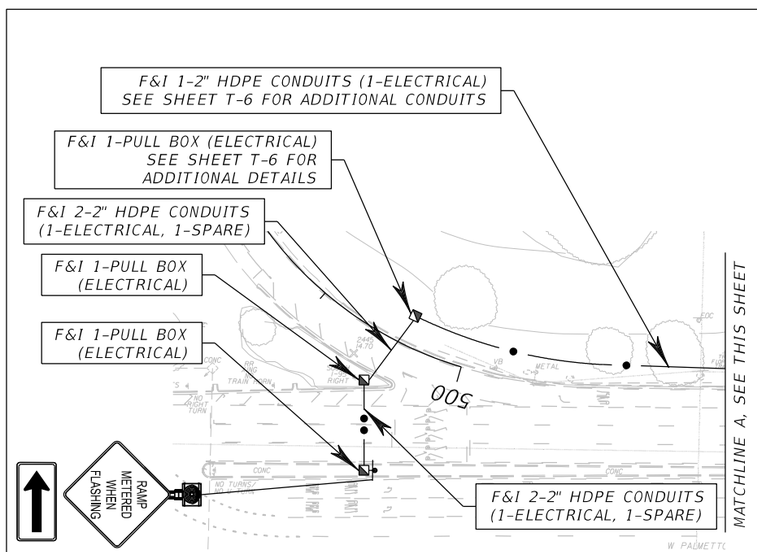
PALMETTO PARK RD

RAMP METERED WHEN FLASHING

LA R/W

0 20 100
Feet

N



0 20 100
Feet

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/12/21	1 FINAL AS-BUILT DESIGN		

SARA E CALHOUN, P.E.
P.E. LICENSE NUMBER 64295
VIBE
700 CENTRAL AVENUE, SUITE 302
ST. PETERSBURG, FL 33701

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PLAN SHEET
RAMP B

SHEET NO.
T-5

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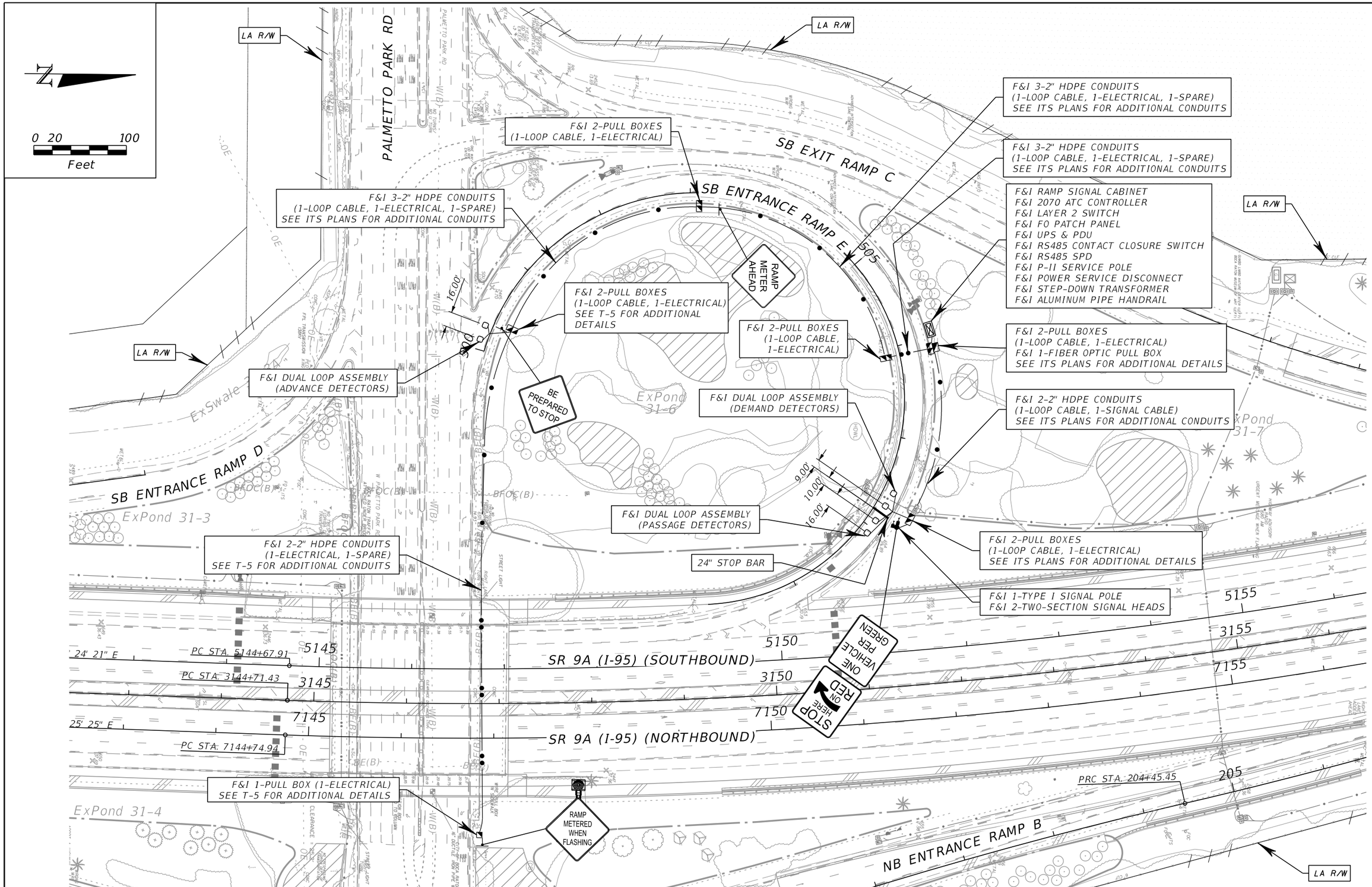

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SARA E CALHOUN, P.E.
P.E. LICENSE NUMBER 64295
VIBE
700 CENTRAL AVE
SUITE 302
ST PETERSBURG, FL 33701
CERTIFICATE OF AUTHORIZATION 30322

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

PLAN SHEET
RAMP E

SHEET NO.
T-6

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BY:FDOT VS Date: 05/21/2019
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FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4D86
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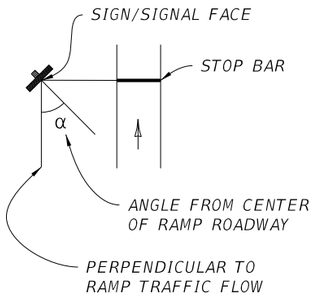
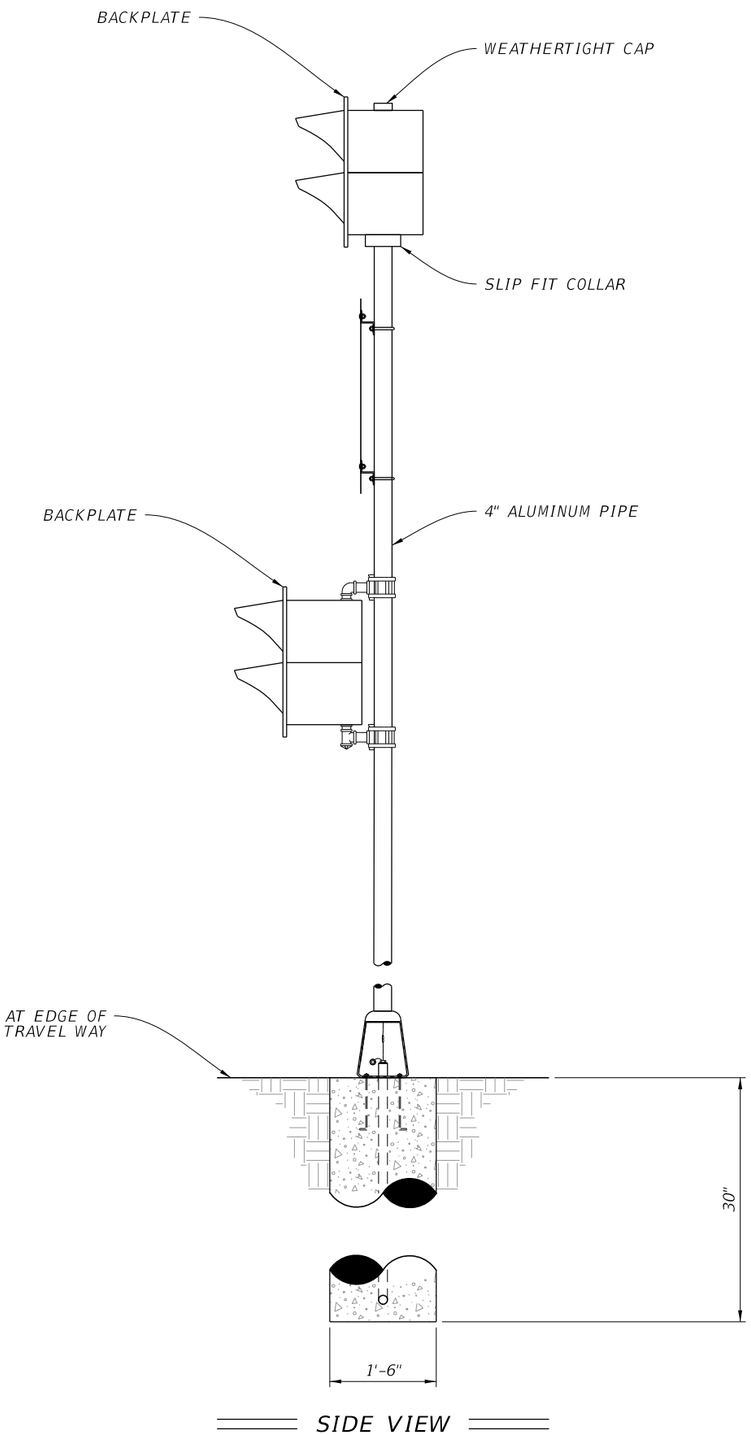
NOTES

1. FOR ADDITIONAL DESIGN CRITERIA, REFER TO DESIGN STANDARDS INDEX 11860.

2. INSTALL SIGN AND SIGNAL ASSEMBLY ROTATED COUNTERCLOCKWISE AT AN ANGLE (α) OF 50° TOWARDS THE RAMP TRAFFIC FLOW (SEE ILLUSTRATION).



FRONT VIEW



SIDE VIEW

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SARA E CALHOUN, P.E.
P.E. LICENSE NUMBER 64295
VIBE
700 CENTRAL AVE
SUITE 302
ST PETERSBURG, FL 33701
CERTIFICATE OF AUTHORIZATION 30322

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

TYPICAL TYPE I SIGNAL DETAIL

SHEET NO. T-7

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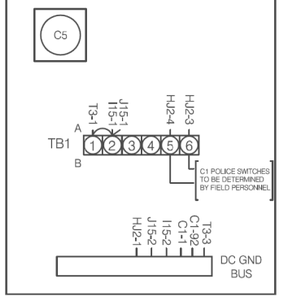
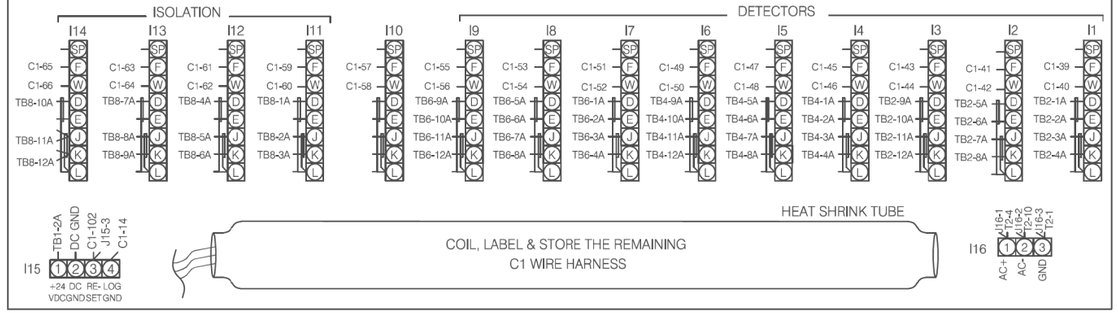
FPID 433108-6-52-01 and 433109-4-52-01 CONTRACT E4D86

UPPER INPUT PANEL #1



I INPUT FILE (REAR VIEW)



170 CONTROLLER C1 ASSIGNMENT

PIN NO.	FROM	CONN. TO
1	C1-1	DC BUS
2	C1-2	SP 1-RED
3	C1-3	SP 1-GRN
4	C1-4	SP 2-RED
5	C1-5	SP 2-YEL
6	C1-6	SP 2-GRN
7	C1-7	SP 3-RED
8	C1-8	SP 3-YEL
9	C1-9	SP 3-GRN
10	C1-10	C & S
11	C1-11	C & S
12	C1-12	C & S
13	C1-13	C & S
14	C1-14	I15-4
15	C1-15	C & S
16	C1-16	C & S
17	C1-17	C & S
18	C1-18	C & S
19	C1-19	C & S
20	C1-20	C & S
21	C1-21	C & S
22	C1-22	C & S
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26	C1-26	C & S
27	C1-27	C & S
28	C1-28	C & S
29	C1-29	C & S
30	C1-30	C & S
31	C1-31	C & S
32	C1-32	C & S
33	C1-33	C & S
34	C1-34	C & S
35	C1-35	C & S
36	C1-36	C & S
37	C1-37	SP1-YEL
38	C1-38	C & S
39	C1-39	I1-F
40	C1-40	I1-W
41	C1-41	I2-F
42	C1-42	I2-W
43	C1-43	I3-F
44	C1-44	I3-W
45	C1-45	I4-F
46	C1-46	I4-W
47	C1-47	I5-F
48	C1-48	I5-W
49	C1-49	I6-F
50	C1-50	I6-W
51	C1-51	I7-F
52	C1-52	I7-W
53	C1-53	I8-F
54	C1-54	I8-W
55	C1-55	I9-F
56	C1-56	I9-W
57	C1-57	I10-F
58	C1-58	I10-W
59	C1-59	I11-F
60	C1-60	I11-W
61	C1-61	I12-F
62	C1-62	I12-W
63	C1-63	I13-F
64	C1-64	I13-W
65	C1-65	I14-F
66	C1-66	I14-W
67	C1-67	C & S
68	C1-68	C & S
69	C1-69	C & S
70	C1-70	C & S
71	C1-71	C & S
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73	C1-73	C & S
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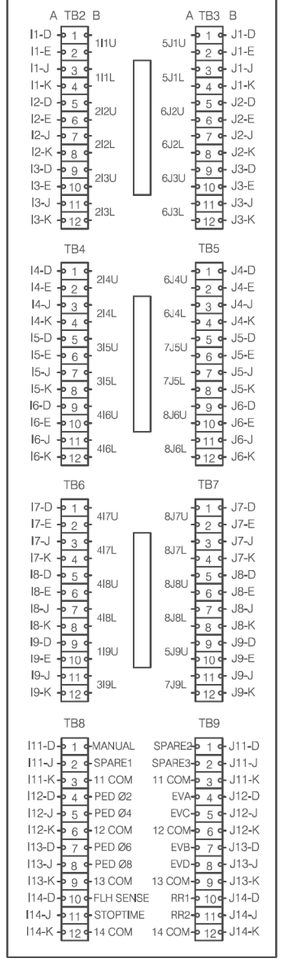
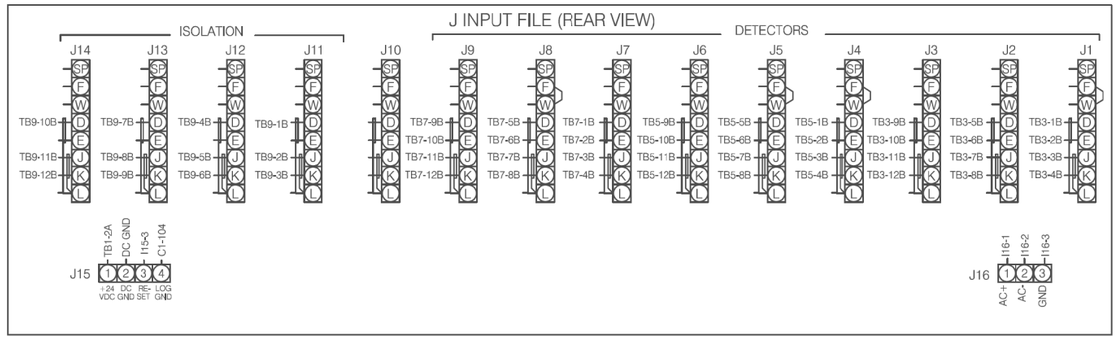
90	C1-90	C & S
91	C1-91	C & S
92	C1-92	DC GND
93	C1-93	C & S
94	C1-94	C & S
95	C1-95	C & S
96	C1-96	C & S
97	C1-97	C & S
98	C1-98	C & S
99	C1-99	C & S
100	C1-100	C & S
101	C1-101	C & S
102	C1-102	I15-3
103	C1-103	WDT/C6-10
104	C1-104	J15-4

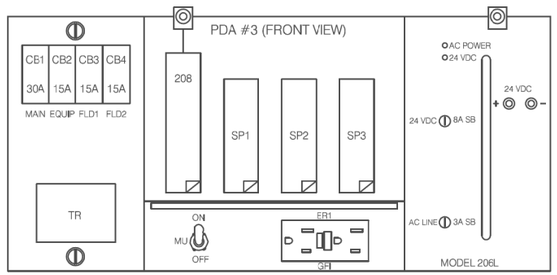
NOTE: ANY C1- C&S TO BE DETERMINED BY FIELD PERSONNEL

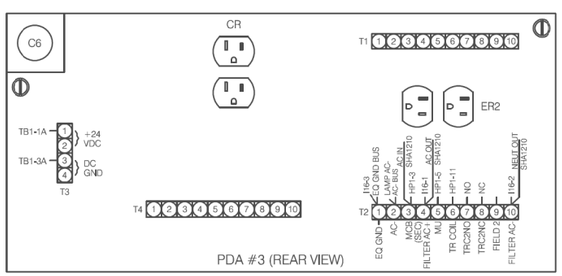
LOWER INPUT PANEL

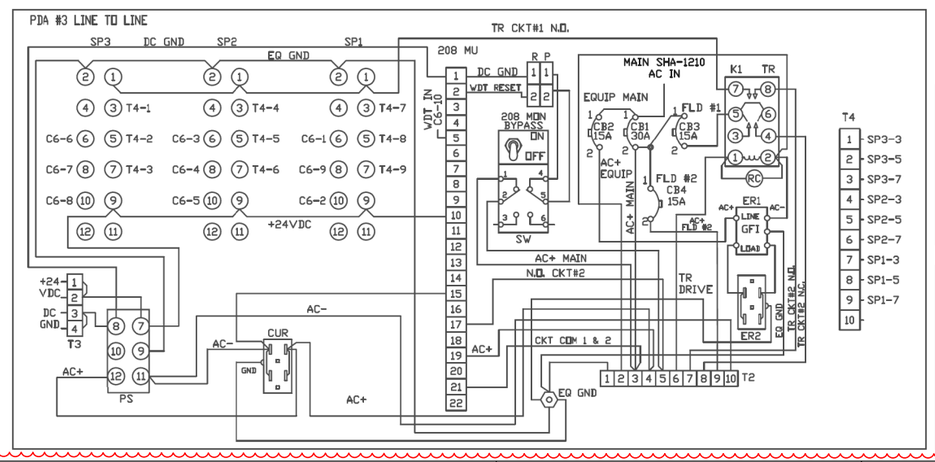


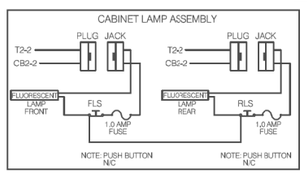
J INPUT FILE (REAR VIEW)



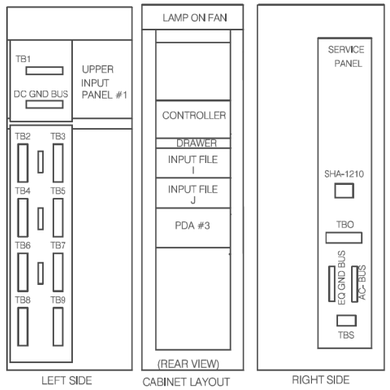


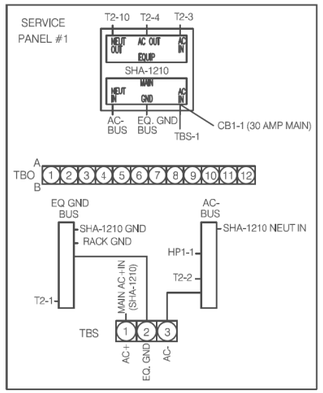




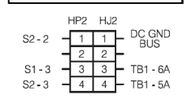


SHEET DEFINITION:
FLD#1 = FIELD #1 CIRCUIT BREAKER
FLD#2 = FIELD #2 CIRCUIT BREAKER
PSS = POWER SUPPLY CONNECTOR
SP = SWITCH PACK
EQ GND = EQUIPMENT GROUND
ER1, ER2 = GROUND FAULT PROTECTED RECEPTACLE
CUR = MODEL 170 RECEPTACLE
HJ1/HP1 = HARNESS JACK/HARNESS PLUG #1
DC GND = D.C. GROUND
RC = RESISTOR CAPACITOR NETWORK
208 MON = 208 MONITOR
TR = TRANSFER RELAY

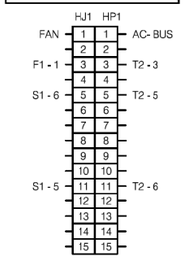




HARNESS PLUG/JACK NO. 2



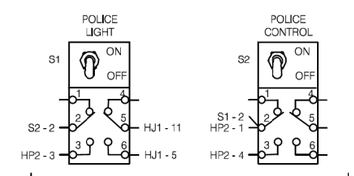
HARNESS JACK/PLUG NO. 1



C6 CONN

PIN	CONN TO
1	C1-2
2	C1-3
3	C1-4
4	C1-5
5	C1-6
6	C1-7
7	C1-8
8	C1-9
9	C1-37
10	C1-103
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	DC GND BUS
24	TB1-2A





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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
10/12/21	1 FINAL AS-BUILT PLANS ADDED SHEET T-8		

SARA E CALHOUN, P.E.
P.E. LICENSE NUMBER 64295
VIBE
700 CENTRAL AVENUE, SUITE 302
ST. PETERSBURG, FL 33701

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

RSS CABINET WIRING DIAGRAM

SHEET NO. T-8

STRUCTURES DESIGN CALCULATIONS

CATWALK FOR WALK-IN DMS

ITS (Segment 2) S&S Submittal

I-95 Express Lane Segment 3B-1

Miscellaneous Structures

Financial Project No.: 433108-6-52-01
433109-4-52-01
Federal Aid Project No.: 0951-691-I for 433108-6-52-01
0951-694-I for 433109-4-52-01

Contract No.: E4R96

Prepared For:

Florida Department of Transportation
District Four



Prepared By:
Prince
WSP USA, Inc.
CAP Engineering, Inc.
7650 Corporate Center Dr. Suite 300
Miami, Florida 33126
FBPR Certificate of Authorization No. 1462

Engineer of Record:
Morgan Villanueva, P.E. No. 60292

February 04, 2019

TITLE: SPECIAL CATWALK CALCULATION FOR DMS WALK-IN SIGN | SHEET: 01 OF 18
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1 | PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V. | DATE: 1/8/2019

CATWALK CALCULATIONS

I. Design Loads

1. Single load of 500lb, distributed over 2ft transversely to the member shall be used for designing members for walkways and service platforms. **[Standard Specification for Structural Supports for Highways Signs, Luminaires, and Traffic Signals, 3.6]**

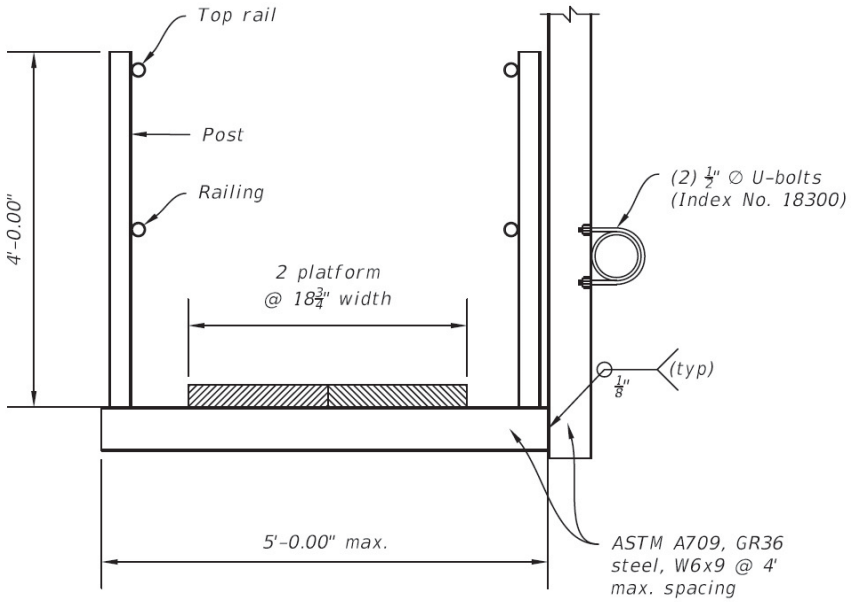
2. Railing shall be taken as w = 0.050 klf, both transversely and vertically, acting simultaneously. In addition, a concentrated load of 0.20 kips, which acts simultaneously with the above load at any point, at any direction. **[LFRD 13.8.2]**

3. Concentrated load P_{LL} = 0.20 + 0.050L applied transversely. **[LRFD 13.8.2]**

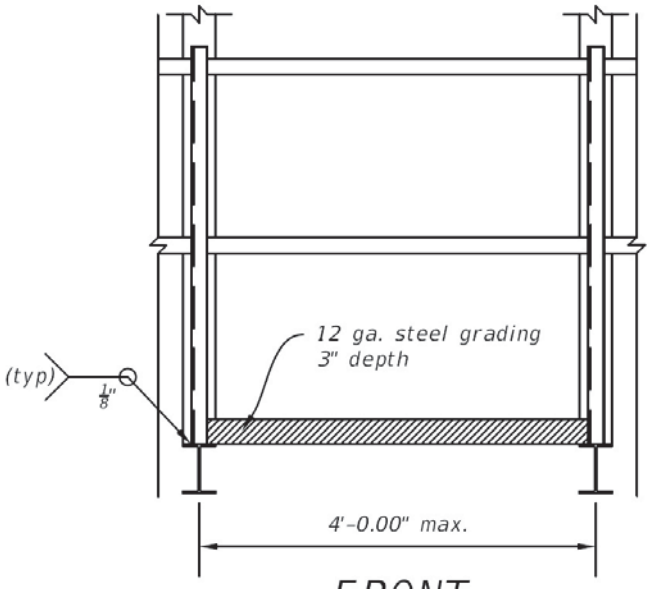
TITLE: SPECIAL CATWALK CALCULATION FOR DMS WALK-IN SIGN | SHEET: 02 OF 18
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1 | PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V. | DATE: 1/8/2019

CATWALK CALCULATIONS

II. Calculations (ASD)



SECTION



FRONT

CATWALK CALCULATIONS

A. Check Handrail (1.50" Ø Standard Pipe)

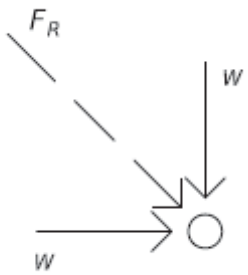
a. Section Properties:

$F_{Ry} := 35ksi$ $E_s := 29000ksi$ [AISC 14th Edition]

$A_R := 0.749in^2$ $I_R := 0.293in^4$ [AISC 14th Edition]

b. Loads:

$w := 0.05\frac{kip}{ft}$ $L_{span} := 4ft$



$F_R := \sqrt{w^2 + w^2}\left(L_{span}\right) + 0.20kip = 0.483 \cdot kip$

$V_{RU} := \frac{F_R}{2} = 0.241 \cdot kip$

$M_{RU} := \frac{F_R \cdot L_{span}}{4} = 0.483 \cdot kip \cdot ft$

c. Flexural:

$M_{Rn} := 0.736kip \cdot ft$ [AISC 14th Edition, Table 3-15, value includes Ω_b factor]

$M_{Rcheck} :=$ | $M_U \leftarrow M_{RU}$
| $M_n \leftarrow M_{Rn}$
| "OK" if $M_n > M_U$
| "N.G." otherwise

$M_{Rcheck} = \text{"OK"}$

d. Shear:

$F_{cr} := 0.60 \cdot F_{Ry} = 21 \cdot ksi$

$V_{Rn} := \left(\frac{F_{cr} \cdot A_R}{2}\right) = 7.865 \cdot kip$

$\Omega_v := 1.67$

CATWALK CALCULATIONS

$$V_{Rcheck} := \begin{vmatrix} V_U \leftarrow V_{RU} \\ V_n \leftarrow \frac{V_{Rn}}{\Omega_v} \\ \text{"OK"} \quad \text{if } V_n > V_U \\ \text{"N.G."} \quad \text{otherwise} \end{vmatrix}$$

$V_{Rcheck} = \text{"OK"}$

e. Combined:

$$Comb_R := \begin{vmatrix} M_U \leftarrow M_{RU} \\ M_n \leftarrow M_{Rn} \\ V_U \leftarrow V_{RU} \\ V_n \leftarrow \frac{V_{Rn}}{\Omega_v} \\ \text{"OK"} \quad \text{if } \frac{M_U}{M_n} + \left(\frac{V_U}{V_n}\right)^2 \le 1 \\ \text{"N.G."} \quad \text{otherwise} \end{vmatrix}$$

$Comb_R = \text{"OK"}$

f. Deflection:

$$\Delta_{Rmax} := \frac{F_R \cdot L_{span}^{\ 3}}{48 \cdot E_s \cdot I_R} = 0.131 \cdot \text{in}$$

$$\Delta_{Rcheck} := \begin{vmatrix} \Delta \leftarrow \Delta_{Rmax} \\ L \leftarrow L_{span} \\ \text{"OK"} \quad \text{if } \Delta \le \frac{L}{150} \\ \text{"N.G."} \quad \text{otherwise} \end{vmatrix}$$

$\Delta_{Rcheck} = \text{"OK"}$

CATWALK CALCULATIONS

B. Check Post (MC3x7.1)

a. Section Properties:

$F_{Py} := 36ksi$ $F_{Pu} := 58ksi$ $h_{P0} := 2.65in$

$A_P := 2.11in^2$ $r_{Py} := 0.562in$ $t_{Pw} := 0.312in$

$C_{Pw} := 0.915in^6$ $S_{Px} := 1.81in^3$ $b_{Pf} := 1.94in$

$I_P := 0.666in^4$ $J_P := 0.0928in^4$ $t_{Pf} := 0.351in$

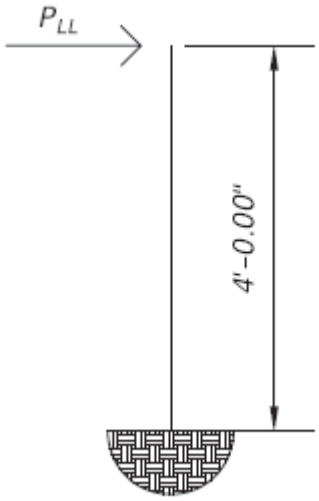
$d_P := 3.00in$ $C_{Pb} := 1.0$ $Z_{Px} := 0.998in^3$

b. Loads:

$P_{PLL} := 0.20kip + w \cdot L_{span} = 0.4 \cdot kip$

$V_{PU} := P_{PLL} = 0.4 \cdot kip$

$M_{PU} := P_{PLL} \cdot L_{span} = 1.6 \cdot kip \cdot ft$



c. Yielding:

$M_{Pn} := F_{Py} \cdot Z_{Px} = 2.994 \cdot kip \cdot ft$ $\Omega_b := 1.67$

$$M_{Pcheck} := \begin{cases} M_U \leftarrow M_{PU} \\ M_n \leftarrow \dfrac{M_{Pn}}{\Omega_b} \\ \text{"OK"} \quad \text{if } M_n > M_U \\ \text{"N.G."} \quad \text{otherwise} \end{cases}$$

$M_{Pcheck} = \text{"OK"}$

d. Lateral-Torsional Buckling:

$L_{Pb} := 4ft$

$L_{Pp} := 1.76 \cdot r_{Py} \cdot \sqrt{\dfrac{E_s}{F_{Py}}} = 2.339 \cdot ft$ $r_{Pts} := \sqrt{\dfrac{\sqrt{I_P \cdot C_{Pw}}}{S_{Px}}} = 0.657 \cdot in$ $c_P := \dfrac{h_{P0}}{2} \cdot \sqrt{\dfrac{I_P}{C_{Pw}}} = 1.13$

CATWALK CALCULATIONS

$$L_{Pr} := 1.95 \cdot r_{Pts} \cdot \frac{E_s}{0.7F_{Py}} \cdot \sqrt{\frac{J_P \cdot c_P}{S_{Px} \cdot h_{P0}} + \sqrt{\left(\frac{J_P \cdot c_P}{S_{Px} \cdot h_{P0}}\right)^2 + 6.76\left(\frac{0.7F_{Py}}{E_s}\right)^2}} = 25.719 \cdot ft$$

$$M_{Pn2} := C_{Pb} \cdot \left[F_{Py} \cdot Z_{Px} - 0.30F_{Py} \cdot Z_{Px} \cdot \left(\frac{L_{Pb} - L_{Pp}}{L_{Pr} - L_{Pp}}\right)\right] = 2.93 \cdot kip \cdot ft$$

$M_{P2check} :=$ | $M_U \leftarrow M_{PU}$ | $M_n \leftarrow \frac{M_{Pn2}}{\Omega_b}$ | "OK" if $M_n > M_U$ | "N.G." otherwise

$$M_{P2check} = \text{"OK"}$$

e. Shear:

$$k_v := 5.0 \qquad b_P := 1.10 \cdot \sqrt{\frac{k_v \cdot E_s}{F_{Py}}} = 69.811$$

$$a_P := \frac{d_P}{t_{Pw}} = 9.615 \qquad c_P := 1.37 \cdot \sqrt{\frac{k_v \cdot E_s}{F_{Py}}} = 86.947$$

$C_{Pv} :=$ | $C_{Pv} \leftarrow 1.0$ if $a_P \le b_P$ | $C_{Pv} \leftarrow \frac{b_P}{a_P}$ if $b_P < a_P \le c_P$ | $C_{Pv} \leftarrow \frac{1.51 \cdot k_v \cdot E_s}{a_P^2 \cdot F_{Py}}$ if $a_P > c_P$ | return C_{Pv}

$$C_{Pv} = 1$$

$$A_{Pw} := d_P \cdot t_{Pw} = 0.936 \cdot in^2$$

$$V_{Pn} := 0.60 \cdot F_{Py} \cdot A_{Pw} \cdot C_{Pv} = 20.218 \cdot kip$$

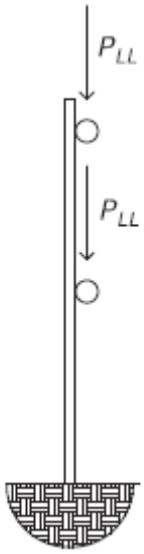
CATWALK CALCULATIONS

$$V_{Pcheck} := \begin{cases} V_U \leftarrow V_{PU} \\ V_n \leftarrow \dfrac{V_{Pn}}{\Omega_v} \\ \text{"OK"} \quad \text{if } V_n > V_U \\ \text{"N.G."} \quad \text{otherwise} \end{cases}$$

$V_{Pcheck} = \text{"OK"}$

f. Compression:

$P_{PU} := 2P_{PLL} = 0.8 \cdot kip$ $K_P := 2.10$ $\Omega_c := 1.67$



$\dfrac{b_{Pf}}{t_{Pf}} = 5.527$

$\lambda_{Pr} := 0.56 \cdot \sqrt{\dfrac{E_s}{F_{Py}}} = 15.894$ b/t < λ_r ------> non-slender element

$\dfrac{K_P \cdot L_{span}}{r_{Py}} = 179.359$

$4.71 \cdot \sqrt{\dfrac{E_s}{F_{Py}}} = 133.681$ KL/r > 4.71√(E/F_y) -----> F_{cr} = 0.877 F_e

$$F_{Pe} := \frac{\pi^2 \cdot E_s}{\left(\dfrac{K_P \cdot L_{span}}{r_{Py}}\right)^2} = 8.897 \cdot ksi$$

$F_{Pcr} := 0.877 \cdot F_{Pe} = 7.803 \cdot ksi$ $P_{Pnc} := F_{Pcr} \cdot A_P = 16.464 \cdot kip$

$$P_{Pccheck} := \begin{cases} P_U \leftarrow P_{PU} \\ P_n \leftarrow \dfrac{P_{Pnc}}{\Omega_c} \\ \text{"OK"} \quad \text{if } P_n > P_U \\ \text{"N.G."} \quad \text{otherwise} \end{cases}$$

$P_{Pccheck} = \text{"OK"}$

CATWALK CALCULATIONS

g. Tension:

1. Yielding:

$P_{Pnt} := F_{Py} \cdot A_P = 75.96 \cdot kip$ $\Omega_t := 1.67$

$$P_{Ptcheck} := \begin{cases} P_U \leftarrow P_{PU} \\ P_n \leftarrow \dfrac{P_{Pnt}}{\Omega_t} \\ \text{"OK"} \quad \text{if } P_n > P_U \\ \text{"N.G."} \quad \text{otherwise} \end{cases}$$

$P_{Ptcheck} = \text{"OK"}$

2. Rupture:

$d_{Pbolt} := 0.25in$ $x_P := 0.434in$ $l_P := d_{Pbolt} + 1.50in$ $\Omega_r := 2.00$

$$A_{Pn} := A_P - \left(d_{Pbolt} + \frac{1}{16}in\right) t_{Pf} = 2 \cdot in^2$$

$U_1 := \dfrac{b_{Pf} \cdot t_{Pf}}{A_P} = 0.323$ <---- Use most conservative value

$U_2 := 1 - \dfrac{x_P}{l_P} = 0.752$

$A_{Pe} := A_{Pn} \cdot U_1 = 0.646 \cdot in^2$

$P_{Pnr} := F_{Pu} \cdot A_{Pe} = 37.441 \cdot kip$

$$P_{Prcheck} := \begin{cases} P_U \leftarrow P_{PU} \\ P_n \leftarrow \dfrac{P_{Pnr}}{\Omega_r} \\ \text{"OK"} \quad \text{if } P_n > P_U \\ \text{"N.G."} \quad \text{otherwise} \end{cases}$$

$P_{Prcheck} = \text{"OK"}$

CATWALK CALCULATIONS

3. Combined:

$$\text{Comb}_P := \begin{| l} M_U \leftarrow M_{PU} \\ M_n \leftarrow \dfrac{M_{Pn2}}{\Omega_b} \\ V_U \leftarrow V_{PU} \\ P_U \leftarrow P_{PU} \\ V_n \leftarrow \dfrac{V_{Pn}}{\Omega_v} \\ P_n \leftarrow \dfrac{P_{Pnc}}{\Omega_c} \\ \text{"OK"} \quad \text{if} \quad \dfrac{P_U}{P_n} + \dfrac{M_U}{M_n} + \left(\dfrac{V_U}{V_n}\right)^2 \le 1 \\ \text{"N.G."} \quad \text{otherwise} \end{|}$$

$\text{Comb}_P = \text{"OK"}$

CATWALK CALCULATIONS

C. Check Support Beam (W6x9)

a. Loads:

$F_{By} := 36ksi$ $r_{By} := 2.47in$ $d_B := 5.90in$

$Z_{Bx} := 6.23in^3$ $I_B := 16.40in^4$ $t_{Bw} := 0.170in$

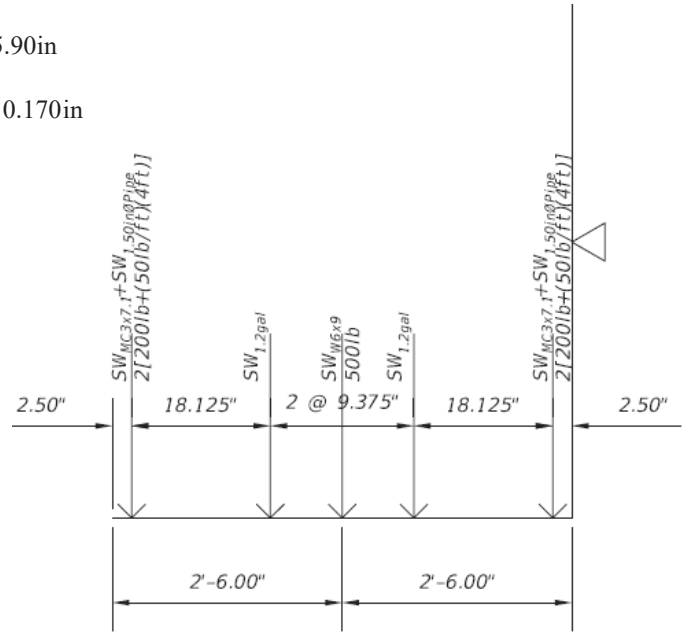
b. Loads:

$SW_{W6x9} := 5ft \cdot 9\frac{lbf}{ft} = 45 \cdot lbf$

$SW_{MC3x7.1} := 4ft \cdot 7.1\frac{lbf}{ft} = 28.4 \cdot lbf$

$SW_{1.50inØPipe} := 2 \cdot 4ft \cdot 2.72\frac{lbf}{ft} = 21.76 \cdot lbf$

$SW_{12gal} := 2 \cdot 4ft \cdot 9.6\frac{lbf}{ft} = 76.8 \cdot lbf$



$DL_B := 2 \cdot \left(SW_{MC3x7.1} + SW_{1.50inØPipe} + SW_{12gal}\right) + SW_{W6x9} = 0.299 \cdot kip$

$LL_B := 2 \cdot \left[2 \cdot \left(200lbf + w \cdot L_{span}\right)\right] + 500lbf = 2.1 \cdot kip$

$V_{BU} := \left(DL_B\right) + \left(LL_B\right) = 2.399 \cdot kip$

$M_1 := 2.50in \cdot \left[\left(SW_{MC3x7.1} + SW_{1.50inØPipe}\right) + \left[2 \cdot \left(200lbf + w \cdot L_{span}\right)\right]\right] = 0.177 \cdot kip \cdot ft$

$M_2 := (30in + 9.375in)SW_{12gal} = 0.252 \cdot kip \cdot ft$

$M_3 := 2.50ft \cdot \left(SW_{W6x9} + 500lbf\right) = 1.362 \cdot kip \cdot ft$

$M_4 := 39.375in \cdot SW_{12gal} = 0.252 \cdot kip \cdot ft$

$M_5 := 57.50in \cdot \left[\left(SW_{MC3x7.1} + SW_{1.50inØPipe}\right) + \left[2 \cdot \left(200lbf + w \cdot L_{span}\right)\right]\right] = 4.074 \cdot kip \cdot ft$

$M_{BU} := M_1 + M_2 + M_3 + M_4 + M_5 = 6.117 \cdot kip \cdot ft$

CATWALK CALCULATIONS

c. Yielding:

$M_{Bn} := F_{By} \cdot Z_{Bx} = 18.69 \cdot kip \cdot ft$

$$M_{Bcheck} := \begin{cases} M_U \leftarrow M_{BU} \\ M_n \leftarrow \dfrac{M_{Bn}}{\Omega_b} \\ \text{"OK"} \quad \text{if } M_n > M_U \\ \text{"N.G."} \quad \text{otherwise} \end{cases}$$

$M_{Bcheck} = \text{"OK"}$

d. Lateral-Torsional Buckling:

$L_{Bb} := 5ft$

$L_{Bp} := 1.76 \cdot r_{By} \cdot \sqrt{\dfrac{E_s}{F_{By}}} = 10.282 \cdot ft$

Lateral-Torsional Buckling is not applicable since $L_b < L_p$

e. Deflection:

$P_{\Delta max} := \dfrac{M_{BU}}{L_{Bb}} = 1.223 \cdot kip$

$\Delta_{Bmax} := \dfrac{P_{\Delta max} \cdot L_{Bb}^{3}}{3 \cdot E_s \cdot I_B} = 0.185 \cdot in$

$$\Delta_{Bcheck} := \begin{cases} \Delta \leftarrow \Delta_{Bmax} \\ L \leftarrow L_{Bb} \\ \text{"OK"} \quad \text{if } \Delta \le \dfrac{L}{150} \\ \text{"N.G."} \quad \text{otherwise} \end{cases}$$

$\Delta_{Bcheck} = \text{"OK"}$

CATWALK CALCULATIONS

f. Shear:

$$a_B := \frac{d_B}{t_{Bw}} = 34.706 \qquad b_B := 1.10 \cdot \sqrt{\frac{k_v \cdot E_s}{F_{By}}} = 69.811 \qquad c_B := 1.37 \cdot \sqrt{\frac{k_v \cdot E_s}{F_{By}}} = 86.947$$

$$C_{Bv} := \begin{cases} C_{Bv} \leftarrow 1.0 \text{ if } a_B \le b_B \\ C_{Bv} \leftarrow \frac{b_B}{a_B} \text{ if } b_B < a_B \le c_B \\ C_{Bv} \leftarrow \frac{1.51 \cdot k_v \cdot E_s}{(a_B)^2 \cdot F_{By}} \text{ if } a_B > c_B \\ \text{return } C_{Bv} \end{cases}$$

$$C_{Bv} = 1$$

$$A_{Bw} := d_B \cdot t_{Bw} = 1.003 \cdot in^2$$

$$V_{Bn} := 0.60 \cdot F_{By} \cdot A_{Bw} \cdot C_{Bv} = 21.665 \cdot kip$$

$$V_{Bcheck} := \begin{cases} V_U \leftarrow V_{BU} \\ V_n \leftarrow \frac{V_{Bn}}{\Omega_v} \\ \text{"OK"} \text{ if } V_n > V_U \\ \text{"N.G."} \text{ otherwise} \end{cases}$$

$$V_{Bcheck} = \text{"OK"}$$

CATWALK CALCULATIONS

D. Check Weld (Critical Connection)

$F_{exx} := 70ksi$

$F_{nw} := 0.60 \cdot F_{exx} = 42 \cdot ksi$

$A_{weld} := \frac{\frac{1}{8} in}{\sqrt{2}}$

$R_n := F_{nw} \cdot A_{weld} = 3.712 \cdot \frac{kip}{in}$

$L_{weld.required} := \frac{V_{BU} \cdot \Omega_v}{R_n} = 1.079 \cdot in$

*All Members shall be welded completely around for structure stability, 1/8" fillet weld

(continued)

d HSS

ınd Properties

I	S	r	Z	Torsion	
				J	C
in.^{4}	in.^{3}	in.	in.^{3}	in.^{4}	in.^{3}
0.910	0.766	0.762	1.07	1.82	1.53
0.824	0.694	0.771	0.960	1.65	1.39
0.733	0.617	0.781	0.845	1.47	1.23
0.627	0.528	0.791	0.713	1.25	1.06
0.527	0.443	0.800	0.592	1.05	0.887
0.355	0.374	0.613	0.520	0.710	0.747
0.293	0.309	0.626	0.421	0.586	0.617
0.251	0.264	0.634	0.356	0.501	0.527
0.184	0.222	0.543	0.305	0.368	0.444

Table 1-14
Pipe
Dimensions and Properties

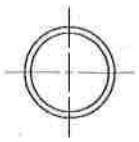


PIPE

Shape	Nominal Wt.	Dimensions		Nominal Wall Thickness	Design Wall Thickness	Area	D/t	I	S	r	J	Z
		Outside Diameter	Inside Diameter									
	lb/ft	in.	in.	in.	in.	in.^{2}		in.^{4}	in.^{3}	in.	in.^{4}	in.^{3}
Standard Weight (Std.)												
Pipe 12 Std.	49.6	12.8	12.0	0.375	0.349	13.7	36.5	262	41.0	4.39	523	53.7
Pipe 10 Std.	40.5	10.8	10.0	0.365	0.340	11.5	31.6	151	28.1	3.68	302	36.9
Pipe 8 Std.	28.6	8.63	7.98	0.322	0.300	7.85	28.8	68.1	15.8	2.95	136	20.8
Pipe 6 Std.	19.0	6.63	6.07	0.280	0.261	5.20	25.4	26.5	7.99	2.25	52.9	10.6
Pipe 5 Std.	14.6	5.56	5.05	0.258	0.241	4.01	23.1	14.3	5.14	1.88	28.6	6.83
Pipe 4 Std.	10.8	4.50	4.03	0.237	0.221	2.96	20.4	6.82	3.03	1.51	13.6	4.05
Pipe 3 1/2 Std.	9.12	4.00	3.55	0.226	0.211	2.50	19.0	4.52	2.26	1.34	9.04	3.03
Pipe 3 Std.	7.58	3.50	3.07	0.216	0.201	2.07	17.4	2.85	1.63	1.17	5.69	2.19
Pipe 2 1/2 Std.	5.80	2.88	2.47	0.203	0.189	1.61	15.2	1.45	1.01	0.952	2.89	1.37
Pipe 2 Std.	3.66	2.38	2.07	0.154	0.143	1.02	16.6	0.627	0.528	0.791	1.25	0.713
Pipe 1 1/2 Std.	2.72	1.90	1.61	0.145	0.135	0.749	14.1	0.293	0.309	0.626	0.586	0.421
Pipe 1 1/4 Std.	2.27	1.66	1.38	0.140	0.130	0.625	12.8	0.184	0.222	0.543	0.368	0.305
Pipe 1 Std.	1.68	1.32	1.05	0.133	0.124	0.469	10.6	0.0830	0.126	0.423	0.166	0.177
Pipe 3/4 Std.	1.13	1.05	0.824	0.113	0.105	0.312	10.0	0.0350	0.0671	0.336	0.0700	0.0942
Pipe 1/2 Std.	0.850	0.840	0.622	0.109	0.101	0.234	8.32	0.0160	0.0388	0.264	0.0320	0.0555
Extra Strong (x-Strong)												
Pipe 12 x-Strong	65.5	12.8	11.8	0.500	0.465	17.5	27.4	339	53.2	4.35	678	70.2
Pipe 10 x-Strong	54.8	10.8	9.75	0.500	0.465	15.1	23.1	199	37.0	3.64	398	49.2
Pipe 8 x-Strong	43.4	8.63	7.63	0.500	0.465	11.9	18.5	100	23.1	2.89	199	31.0
Pipe 6 x-Strong	28.6	6.63	5.76	0.432	0.403	7.83	16.4	38.3	11.6	2.20	76.6	15.6
Pipe 5 x-Strong	20.8	5.56	4.81	0.375	0.349	5.73	15.9	19.5	7.02	1.85	39.0	9.50
Pipe 4 x-Strong	15.0	4.50	3.83	0.337	0.315	4.14	14.3	9.12	4.05	1.48	18.2	5.53
Pipe 3 1/2 x-Strong	12.5	4.00	3.36	0.318	0.296	3.43	13.5	5.94	2.97	1.31	11.9	4.07
Pipe 3 x-Strong	10.3	3.50	2.90	0.300	0.280	2.83	12.5	3.70	2.11	1.14	7.40	2.91
Pipe 2 1/2 x-Strong	7.67	2.88	2.32	0.276	0.257	2.10	11.2	1.83	1.27	0.930	3.66	1.77
Pipe 2 x-Strong	5.03	2.38	1.94	0.218	0.204	1.40	11.7	0.827	0.696	0.771	1.65	0.964
Pipe 1 1/2 x-Strong	3.63	1.90	1.50	0.200	0.186	1.00	10.2	0.372	0.392	0.610	0.744	0.549
Pipe 1 1/4 x-Strong	3.00	1.66	1.28	0.191	0.178	0.837	9.33	0.231	0.278	0.528	0.462	0.393
Pipe 1 x-Strong	2.17	1.32	0.957	0.179	0.166	0.602	7.92	0.101	0.154	0.410	0.202	0.221
Pipe 3/4 x-Strong	1.48	1.05	0.742	0.154	0.143	0.407	7.34	0.0430	0.0818	0.325	0.0860	0.119
Pipe 1/2 x-Strong	1.09	0.840	0.546	0.147	0.137	0.303	6.13	0.0190	0.0462	0.253	0.0380	0.0686
Double-Extra Strong (xx-Strong)												
Pipe 8 xx-Strong	72.5	8.63	6.88	0.875	0.816	20.0	10.6	154	35.8	2.78	308	49.9
Pipe 6 xx-Strong	53.2	6.63	4.90	0.864	0.805	14.7	8.23	63.5	19.2	2.08	127	27.4
Pipe 5 xx-Strong	38.6	5.56	4.06	0.750	0.699	10.7	7.96	32.2	11.6	1.74	64.4	16.7
Pipe 4 xx-Strong	27.6	4.50	3.15	0.674	0.628	7.66	7.17	14.7	6.53	1.39	29.4	9.50
Pipe 3 xx-Strong	18.6	3.50	2.30	0.600	0.559	5.17	6.26	5.79	3.31	1.06	11.6	4.89
Pipe 2 1/2 xx-Strong	13.7	2.88	1.77	0.552	0.514	3.83	5.59	2.78	1.94	0.854	5.56	2.91
Pipe 2 xx-Strong	9.04	2.38	1.50	0.436	0.406	2.51	5.85	1.27	1.07	0.711	2.54	1.60

Table 3-15
Pipe
Available Flexural Strength, kip-ft

F_y = 35 ksi



Shape	M_n/Ω_b ASD	$\phi_b M_n$ LRFD	Shape	M_n/Ω_b ASD	$\phi_b M_n$ LRFD
Pipe 12 x-Strong	123	184	Pipe 2½ xx-Strong	5.08	7.64
Pipe 12 Std.	93.8	141	Pipe 2½ x-Strong	3.09	4.64
Pipe 10 x-Strong	86.0	129	Pipe 2½ Std.	2.39	3.59
Pipe 10 Std.	64.4	96.8	Pipe 2 xx-Strong	2.79	4.19
Pipe 8 xx-Strong	87.2	131	Pipe 2 x-Strong	1.68	2.53
Pipe 8 x-Strong	54.1	81.4	Pipe 2 Std.	1.25	1.87
Pipe 8 Std.	36.3	54.6	Pipe 1½ x-Strong	0.958	1.44
Pipe 6 xx-Strong	47.9	72.0	Pipe 1½ Std.	0.736	1.11
Pipe 6 x-Strong	27.3	41.0	Pipe 1¼ x-Strong	0.686	1.03
Pipe 6 Std.	18.5	27.8	Pipe 1¼ Std.	0.533	0.801
Pipe 5 xx-Strong	29.1	43.7	Pipe 1 x-Strong	0.385	0.579
Pipe 5 x-Strong	16.6	24.9	Pipe 1 Std.	0.308	0.463
Pipe 5 Std.	11.9	17.9	Pipe ¾ x-Strong	0.207	0.311
Pipe 4 xx-Strong	16.6	24.9	Pipe ¾ Std.	0.164	0.247
Pipe 4 x-Strong	9.65	14.5	Pipe ½ x-Strong	0.120	0.180
Pipe 4 Std.	7.07	10.6	Pipe ½ Std.	0.0969	0.146
Pipe 3½ x-Strong	7.11	10.7			
Pipe 3½ Std.	5.30	7.96			
Pipe 3 xx-Strong	8.55	12.8			
Pipe 3 x-Strong	5.08	7.64			
Pipe 3 Std.	3.83	5.75			

ASD	LRFD
Ω_b = 1.67	ϕ_b = 0.90

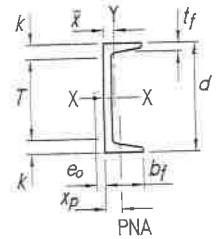


Table 1-6 (continued)
MC-Shapes
Dimensions

Shape	Area, A	Depth, d		Web Thickness, t_w		$\frac{t_w}{2}$	Flange Width, b_f		Flange Average Thickness, t_f		Distance k	Distance T	Distance Workable Gage	r_{ts}	h_o
	in.^{2}	in.		in.		in.	in.		in.		in.	in.	in.	in.	in.
MC7×22.7	6.67	7.00	7	0.503	1/2	1/4	3.60	3 5/8	0.500	1/2	1 1/8	4 3/4	2[9]	1.23	6.50
×19.1	5.61	7.00	7	0.352	3/8	3/16	3.45	3 1/2	0.500	1/2	1 1/8	4 3/4	2[9]	1.19	6.50
MC6×18	5.29	6.00	6	0.379	3/8	3/16	3.50	3 1/2	0.475	1/2	1 1/16	3 7/8	2[9]	1.20	5.53
×15.3	4.49	6.00	6	0.340	5/16	3/16	3.50	3 1/2	0.385	3/8	7/8	4 1/4	2[9]	1.20	5.62
MC6×16.3	4.79	6.00	6	0.375	3/8	3/16	3.00	3	0.475	1/2	1 1/16	3 7/8	1 3/4[9]	1.03	5.53
×15.1	4.44	6.00	6	0.316	5/16	3/16	2.94	3	0.475	1/2	1 1/16	3 7/8	1 3/4[9]	1.01	5.53
MC6×12	3.53	6.00	6	0.310	5/16	3/16	2.50	2 1/2	0.375	3/8	7/8	4 1/4	1 1/2[9]	0.856	5.63
MC6×7	2.09	6.00	6	0.179	3/16	1/8	1.88	1 7/8	0.291	5/16	3/4	4 1/2	—	0.638	5.71
×6.5	1.95	6.00	6	0.155	1/8	1/16	1.85	1 7/8	0.291	5/16	3/4	4 1/2	—	0.631	5.71
MC4×13.8	4.03	4.00	4	0.500	1/2	1/4	2.50	2 1/2	0.500	1/2	1	2	—	0.851	3.50
MC3×7.1	2.11	3.00	3	0.312	5/16	3/16	1.94	2	0.351	3/8	13/16	1 3/8	—	0.657	2.65

[9] The actual size, combination and orientation of fastener components should be compared with the geometry of the cross section to ensure compatibility.
— Indicates flange is too narrow to establish a workable gage.

Table 1-6 (continued)
MC-Shapes
Properties



MC7-MC3

Nominal Wt.	Shear Ctr, e_o	Axis X-X I	Axis X-X S	Axis X-X r	Axis X-X Z	Axis Y-Y I	Axis Y-Y S	Axis Y-Y r	Axis Y-Y $\bar{x}$	Axis Y-Y Z	Axis Y-Y x_p	Torsional Properties J	Torsional Properties C_w	Torsional Properties $\bar{r}_o$	Torsional Properties H
lb/ft	in.	in.^{4}	in.^{3}	in.	in.^{3}	in.^{4}	in.^{3}	in.	in.	in.^{3}	in.	in.^{4}	in.^{6}	in.	
22.7	1.01	47.4	13.5	2.67	16.4	7.24	2.83	1.04	1.04	5.38	0.477	0.625	58.3	3.53	0.659
19.1	1.15	43.1	12.3	2.77	14.5	6.06	2.55	1.04	1.08	4.85	0.579	0.407	49.3	3.70	0.638
18	1.17	29.7	9.89	2.37	11.7	5.88	2.47	1.05	1.12	4.68	0.644	0.379	34.6	3.46	0.563
15.3	1.16	25.3	8.44	2.38	9.91	4.91	2.01	1.05	1.05	3.85	0.511	0.223	30.0	3.41	0.579
16.3	0.930	26.0	8.66	2.33	10.4	3.77	1.82	0.887	0.927	3.47	0.465	0.336	22.1	3.11	0.643
15.1	0.982	24.9	8.30	2.37	9.83	3.46	1.73	0.883	0.940	3.30	0.543	0.285	20.5	3.18	0.634
12	0.725	18.7	6.24	2.30	7.47	1.85	1.03	0.724	0.704	1.97	0.294	0.155	11.3	2.80	0.740
7	0.583	11.4	3.81	2.34	4.50	0.603	0.439	0.537	0.501	0.865	0.174	0.0464	4.00	2.63	0.830
6.5	0.612	11.0	3.66	2.38	4.28	0.565	0.422	0.539	0.513	0.836	0.191	0.0412	3.75	2.68	0.824
13.8	0.643	8.85	4.43	1.48	5.53	2.13	1.29	0.727	0.849	2.40	0.508	0.373	4.84	2.23	0.550
7.1	0.574	2.72	1.81	1.14	2.24	0.666	0.518	0.562	0.653	0.998	0.414	0.0928	0.915	1.76	0.516

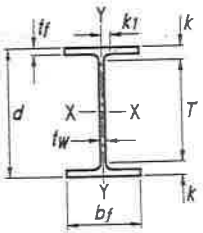


Table 1-1 (continued)
W-Shapes
Dimensions

Shape	Area, A	Depth, d		Web Thickness, t_w		$\frac{t_w}{2}$	Flange Width, b_f		Flange Thickness, t_f		Distance k		k_1	T	Workable Gage
											k_{des}	k_{det}			
	in.^{2}	in.		in.		in.	in.		in.		in.	in.	in.	in.	in.
W8×67	19.7	9.00	9	0.570	9/16	5/16	8.28	8 1/4	0.935	15/16	1.33	1 5/8	15/16	5 3/4	5 1/2
×58	17.1	8.75	8 3/4	0.510	1/2	1/4	8.22	8 1/4	0.810	13/16	1.20	1 1/2	7/8		
×48	14.1	8.50	8 1/2	0.400	3/8	3/16	8.11	8 1/8	0.685	11/16	1.08	1 3/8	13/16		
×40	11.7[h]	8.25	8 1/4	0.360	3/8	3/16	8.07	8 1/8	0.560	9/16	0.954	1 1/4	13/16		
×35	10.3	8.12	8 1/8	0.310	5/16	3/16	8.02	8	0.495	1/2	0.889	1 3/16	13/16		
×31[f]	9.13	8.00	8	0.285	5/16	3/16	8.00	8	0.435	7/16	0.829	1 1/8	3/4		
W8×28	8.25	8.06	8	0.285	5/16	3/16	6.54	6 1/2	0.465	7/16	0.859	15/16	5/8	6 1/8	4
×24	7.08	7.93	7 7/8	0.245	1/4	1/8	6.50	6 1/2	0.400	3/8	0.794	7/8	9/16	6 1/8	4
W8×21	6.16	8.28	8 1/4	0.250	1/4	1/8	5.27	5 1/4	0.400	3/8	0.700	7/8	9/16	6 1/2	2 3/4[g]
×18	5.26	8.14	8 1/8	0.230	1/4	1/8	5.25	5 1/4	0.330	5/16	0.630	13/16	9/16	6 1/2	2 3/4[g]
W8×15	4.44	8.11	8 1/8	0.245	1/4	1/8	4.02	4	0.315	5/16	0.615	13/16	9/16	6 1/2	2 1/4[g]
×13	3.84	7.99	8	0.230	1/4	1/8	4.00	4	0.255	1/4	0.555	3/4	9/16		
×10[c,f]	2.96	7.89	7 7/8	0.170	3/16	1/8	3.94	4	0.205	3/16	0.505	11/16	1/2		
W6×25	7.34	6.38	6 3/8	0.320	5/16	3/16	6.08	6 1/8	0.455	7/16	0.705	15/16	9/16	4 1/2	3 1/2
×20	5.87	6.20	6 1/4	0.260	1/4	1/8	6.02	6	0.365	3/8	0.615	7/8	9/16		
×15[f]	4.43	5.99	6	0.230	1/4	1/8	5.99	6	0.260	1/4	0.510	3/4	9/16		
W6×16	4.74	6.28	6 1/4	0.260	1/4	1/8	4.03	4	0.405	3/8	0.655	7/8	9/16	4 1/2	2 1/4[g]
×12	3.55	6.03	6	0.230	1/4	1/8	4.00	4	0.280	1/4	0.530	3/4	9/16		
×9[f]	2.68	5.90	5 7/8	0.170	3/16	1/8	3.94	4	0.215	3/16	0.465	11/16	1/2		
×8.5[f]	2.52	5.83	5 7/8	0.170	3/16	1/8	3.94	4	0.195	3/16	0.445	11/16	1/2		
W5×19	5.56	5.15	5 1/8	0.270	1/4	1/8	5.03	5	0.430	7/16	0.730	13/16	7/16	3 1/2	2 3/4[g]
×16	4.71	5.01	5	0.240	1/4	1/8	5.00	5	0.360	3/8	0.660	3/4	7/16	3 1/2	2 3/4[g]
W4×13	3.83	4.16	4 1/8	0.280	1/4	1/8	4.06	4	0.345	3/8	0.595	3/4	1/2	2 5/8	2 1/4[g]

[c] Shape is slender for compression with $F_y = 50$ ksi.
[f] Shape exceeds compact limit for flexure with $F_y = 50$ ksi.
[g] The actual size, combination and orientation of fastener components should be compared with the geometry of the cross section to ensure compatibility.

Table 1-1 (continued)
W-Shapes
Properties



W8-W4

Nominal Wt.	Compact Section Criteria $\frac{b_f}{2t_f}$	Compact Section Criteria $\frac{h}{t_w}$	Axis X-X I	Axis X-X S	Axis X-X r	Axis X-X Z	Axis Y-Y I	Axis Y-Y S	Axis Y-Y r	Axis Y-Y Z	r_{ts}	h_o	Torsional Properties J	Torsional Properties C_w
lb/ft			in.^{4}	in.^{3}	in.	in.^{3}	in.^{4}	in.^{3}	in.	in.^{3}	in.	in.	in.^{4}	in.^{6}
67	4.43	11.1	272	60.4	3.72	70.1	88.6	21.4	2.12	32.7	2.43	8.07	5.05	1440
58	5.07	12.4	228	52.0	3.65	59.8	75.1	18.3	2.10	27.9	2.39	7.94	3.33	1180
48	5.92	15.9	184	43.2	3.61	49.0	60.9	15.0	2.08	22.9	2.35	7.82	1.96	931
40	7.21	17.6	146	35.5	3.53	39.8	49.1	12.2	2.04	18.5	2.31	7.69	1.12	726
35	8.10	20.5	127	31.2	3.51	34.7	42.6	10.6	2.03	16.1	2.28	7.63	0.769	619
31	9.19	22.3	110	27.5	3.47	30.4	37.1	9.27	2.02	14.1	2.26	7.57	0.536	530
28	7.03	22.3	98.0	24.3	3.45	27.2	21.7	6.63	1.62	10.1	1.84	7.60	0.537	312
24	8.12	25.9	82.7	20.9	3.42	23.1	18.3	5.63	1.61	8.57	1.81	7.53	0.346	259
21	6.59	27.5	75.3	18.2	3.49	20.4	9.77	3.71	1.26	5.69	1.46	7.88	0.282	152
18	7.95	29.9	61.9	15.2	3.43	17.0	7.97	3.04	1.23	4.66	1.43	7.81	0.172	122
15	6.37	28.1	48.0	11.8	3.29	13.6	3.41	1.70	0.876	2.67	1.06	7.80	0.137	51.8
13	7.84	29.9	39.6	9.91	3.21	11.4	2.73	1.37	0.843	2.15	1.03	7.74	0.0871	40.8
10	9.61	40.5	30.8	7.81	3.22	8.87	2.09	1.06	0.841	1.66	1.01	7.69	0.0426	30.9
25	6.68	15.5	53.4	16.7	2.70	18.9	17.1	5.61	1.52	8.56	1.74	5.93	0.461	150
20	8.25	19.1	41.4	13.4	2.66	14.9	13.3	4.41	1.50	6.72	1.70	5.84	0.240	113
15	11.5	21.6	29.1	9.72	2.56	10.8	9.32	3.11	1.45	4.75	1.66	5.73	0.101	76.5
16	4.98	19.1	32.1	10.2	2.60	11.7	4.43	2.20	0.967	3.39	1.13	5.88	0.223	38.2
12	7.14	21.6	22.1	7.31	2.49	8.30	2.99	1.50	0.918	2.32	1.08	5.75	0.0903	24.7
9	9.16	29.2	16.4	5.56	2.47	6.23	2.20	1.11	0.905	1.72	1.06	5.69	0.0405	17.7
8.5	10.1	29.1	14.9	5.10	2.43	5.73	1.99	1.01	0.890	1.56	1.05	5.64	0.0333	15.8
19	5.85	13.7	26.3	10.2	2.17	11.6	9.13	3.63	1.28	5.53	1.45	4.72	0.316	50.9
16	6.94	15.4	21.4	8.55	2.13	9.63	7.51	3.00	1.26	4.58	1.43	4.65	0.192	40.6
13	5.88	10.6	11.3	5.46	1.72	6.28	3.86	1.90	1.00	2.92	1.16	3.82	0.151	14.0

McNICHOLS® PLANK GRATING

GRIP STRUT® | 8-DIAMOND | 18-3/4" WIDTH

CARBON STEEL & GALVANIZED STEEL LOAD TABLE

GAUGE	DEPTH (mm)	#/LF (kg/m)	LOAD	CLEAR SPAN 24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	108"	120"	132"	144"
14	1-1/2" (38.1)	6.1 (9.1)	U	337	211	151	112	86	69	56	47	--	--	--	--	--	--	--	--	--
			D	0.33	0.27	0.26	0.29	0.33	0.38	0.45	0.55	--	--	--	--	--	--	--	--	--
			C	263	211	178	153	135	121	110	101	--	--	--	--	--	--	--	--	--
			D	0.16	0.15	0.15	0.16	0.11	0.19	0.22	0.25	--	--	--	--	--	--	--	--	--
	2" (50.8)	6.3 (9.4)	U	540	358	250	184	142	113	92	76	65	55	48	42	--	--	--	--	--
			D	0.48	0.37	0.34	0.32	0.34	0.38	0.43	0.50	0.58	0.66	0.77	0.87	--	--	--	--	--
			C	437	349	292	251	220	198	179	164	152	141	132	124	--	--	--	--	--
			D	0.24	0.21	0.20	0.19	0.20	0.21	0.23	0.26	0.29	0.32	0.36	0.40	--	--	--	--	--
	2-1/2" (63.5)	6.6 (9.8)	U	540	411	286	211	162	129	105	87	74	63	56	48	43	--	--	--	--
			D	0.46	0.39	0.35	0.28	0.27	0.28	0.31	0.35	0.39	0.44	0.50	0.57	0.64	--	--	--	--
			C	450	402	335	287	252	225	205	188	173	161	151	142	134	--	--	--	--
			D	0.24	0.22	0.20	0.19	0.19	0.19	0.20	0.21	0.23	0.24	0.27	0.29	32	--	--	--	--
12	1-1/2" (38.1)	8.5 (12.6)	U	446	281	201	148	115	91	75	63	53	46	40	--	--	--	--	--	--
			D	0.27	0.22	0.22	0.26	0.32	0.39	0.47	0.56	0.67	0.80	0.92	--	--	--	--	--	--
			C	359	280	235	203	179	161	146	135	125	117	110	--	--	--	--	--	--
			D	0.12	0.12	0.12	0.14	0.16	0.19	0.22	0.26	0.30	0.35	0.40	--	--	--	--	--	--
	2" (50.8)	8.9 (13.2)	U	710	456	318	235	181	144	117	98	83	71	62	54	48	--	--	--	--
			D	0.31	0.25	0.23	0.25	0.28	0.31	0.37	0.44	0.51	0.60	0.68	0.79	0.90	--	--	--	--
			C	554	444	371	319	282	253	229	210	194	181	169	160	151	--	--	--	--
			D	0.17	0.15	0.14	0.15	0.16	0.17	0.19	0.22	0.25	0.28	0.32	0.36	0.40	--	--	--	--
	2-1/2" (63.5)	9.2 (13.7)	U	810	680	473	348	267	212	172	143	120	103	89	78	69	55	45	--	--
			D	0.33	0.31	0.27	0.26	0.27	0.29	0.32	0.37	0.42	0.49	0.55	0.63	0.72	0.90	1.12	--	--
			C	800	663	553	475	416	371	334	307	282	262	244	229	216	194	177	--	--
			D	0.23	0.20	0.18	0.18	0.18	0.18	0.19	0.21	0.23	0.25	0.28	0.31	0.34	0.41	0.50	--	--
	3" (76.2)	9.6 (14.3)	U	810	810	598	440	337	267	217	180	152	130	112	98	87	69	57	47	40
			D	0.32	0.35	0.30	0.27	0.26	0.28	0.31	0.34	0.39	0.43	0.49	0.56	0.62	0.78	0.96	1.17	1.40
			C	800	800	699	600	526	468	422	385	353	327	307	288	271	243	221	203	189
			D	0.22	0.23	0.22	0.20	0.20	0.20	0.20	0.21	0.22	0.24	0.26	0.28	0.31	0.37	0.44	0.52	0.61

U - Uniform Load - Lbs. per Square Foot

D - Deflection - in Inches

C - Concentrated Load - Lbs. per Square Foot of Width at Mid Span

- Spans and loading values to the left of the bolded black line produce a deflection of 1/4" or less under a uniform load of 100 lbs. per square foot, allowing for safe pedestrian comfort. Span and loading values to the right of the bolded black line are applicable to other types of loads at the discretion of a licensed engineer.
- Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. **McNICHOLS** shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Grating.

STRUCTURES DESIGN CALCULATIONS

SPECIAL CANTILEVER SIGN STRUCTURE

ITS (Segment 2) S&S Submittal

I-95 Express Lane - Segment 3B-1

Miscellaneous Structures

Financial Project No.: 433108-6-52-01
433109-4-52-01
Federal Aid Project No.: 0951-691-I for 433108-6-52-01
0951-694-I for 433109-4-52-01

Contract No.: E4R96

Prepared For:

Florida Department of Transportation
District Four



Prepared By:
Prince
WSP USA, Inc.
CAP Engineering, Inc.
7650 Corporate Center Dr. Suite 300
Miami, Florida 33126
FBPR Certificate of Authorization No. 1462

Engineer of Record:
Morgan Villanueva, P.E. No. 60292

February 04, 2019

NOTE TO REVIEWER:

As per RFP, the median width for special overhead structures (dual uprights) shall be designed for 2'-6" max. due to spacing constrains. In order to fit the legs of the structure in this space, double upright special design must be used. Based on this constrain and the size of the signs we select the following worst conditions and below there is the list of the structures that the design applies:

1) STA 3128+50.00, Front Access DMS:

- STA 3124+00.00, Front Access DMS

Design Group 1

STA 3128+50.00 – Front Access DMS

Structure w/ worst conditions

STA 3124+00.00 – Front Access DMS

The following table contains the values considered to determine the worst loading condition:

Sign	Station	M_{Long} (kip-ft)	V_{Long} (kip)	M_{Trans} (kip-ft)	V_{Trans} (kip)	Axial (kip)	Torque (kip-ft)
DMS	3124+00.00	777.167	38.380	391.833	7.676	17.730	945.833
DMS	3128+50.00	790.333	38.460	395.250	7.692	19.210	949.500

Note: Values in red represent the worst condition, obtained from FDOT Cantilever Overhead Sign Program v6.1

℄ Truss elev = 35.04 + 19.50' + 7.83/2 = 58.46'

Truss height = 58.46' - 38.41' = 20.05'

Wind height = 58.46' - 13.00 = 45.46'

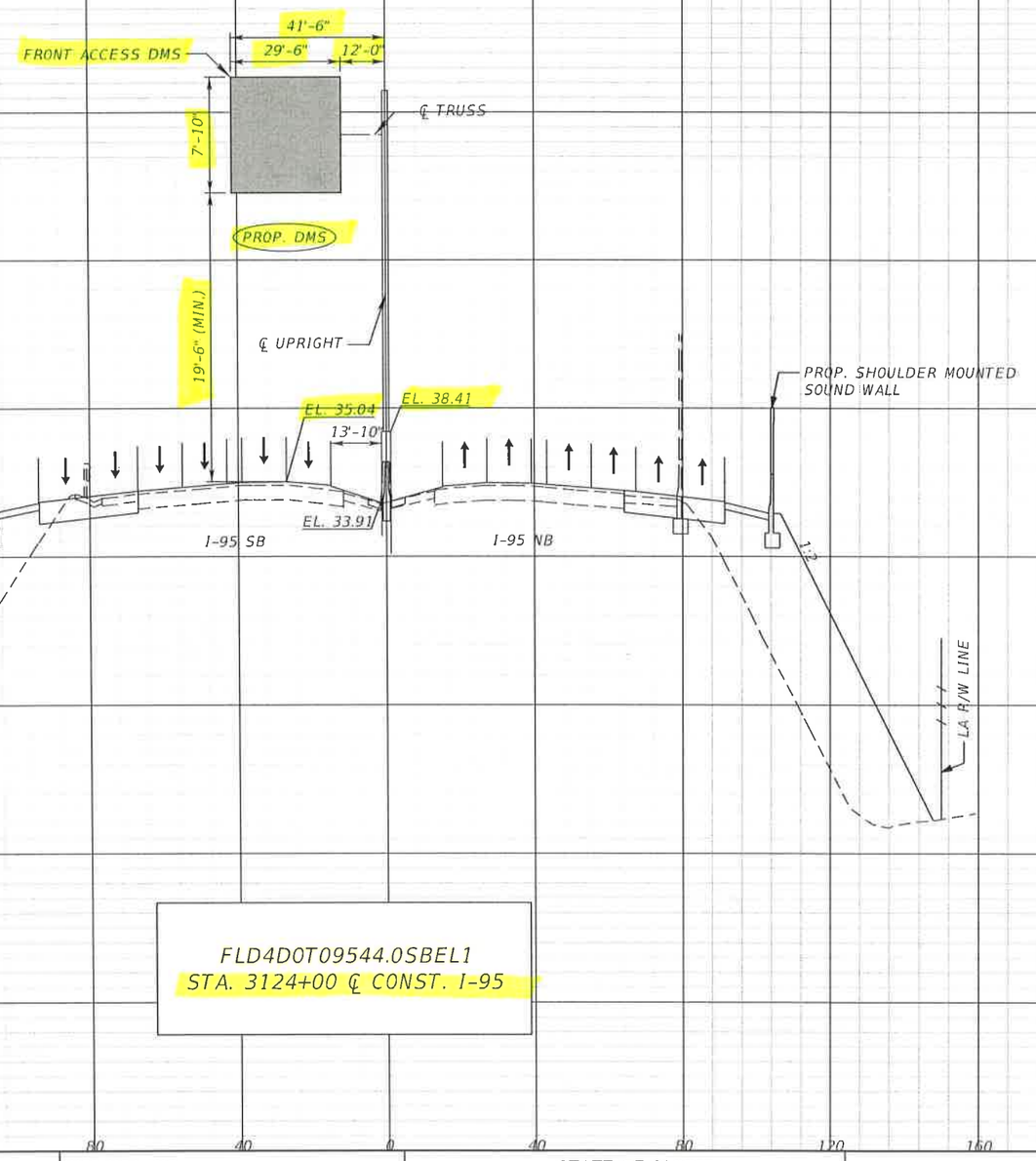
DMS Front Access:

Area = 29.50' x 7.83' = 231.08 ft²

Weight = 2,380lb (from Manufacturer)

Load = $\frac{2380\text{lb}}{231.08\text{ft}^2}$ = 10.30 lb/ft²

Design Dimensions = 29.50' x 1.25 (7.83')
= 29.50' x 9.79'



FLD4D0T09544.0SBEL1
STA. 3124+00 ℄ CONST. I-95

NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (46)

SHEET NO.
IT-108

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = SPLTDRVLS PEN TABLE = SPENTBLLS MODEL NAME = Rdxsrd_shg BarcoJ 10/12/2018 4:35:53 PM c:\projectwise\pb\projectwiseinl\barco\d0230493\SSXSIT200.dgn

Cantilever Overhead Sign Program v6.1

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Florida Department of Transportation
Structures Design Office **http://www.dot.state.fl.us/structures**

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User Manual

Data Files Folder Change Folder

E:\PROJECTS\2017\I-95, 3B-1\43310865201_I95_3B-1\struct\CAP\ITS\100%\Special Cantilever\CantileverV6.1\Data\

Open Existing Data File (optional)

DMS (Sta. 3124+00)(MV).dat
DMS (Sta. 3128+50)(MV).dat
Ex1 - Static Sign Panels with Drilled Shaft.dat
Ex2 - Static Sign Panels with Spread Footing.dat
Ex3 - Static Sign Panels Front and Back.dat
Ex4 - Walk-In DMS.dat
Ex5 - Walk-In DMS with Walkway.dat
Ex6 - Front-Access DMS with Static Signs.dat
Sign 8 - STA 2353+49 3A2.dat

Refresh List

Open File

Project Data

Project Name	I-95 Express Lanes, Phase 3B-1		
Project No.	433108-6-52-01, 433109-4-52-01		
Designed by	JR	Date	10 / 22 / 2018
Checked by	MV	Date	10 / 22 / 2018

Sign Structure Data

Sign Name	DMS Front Access
Station/Offset	3124+00.00

Material Properties Data

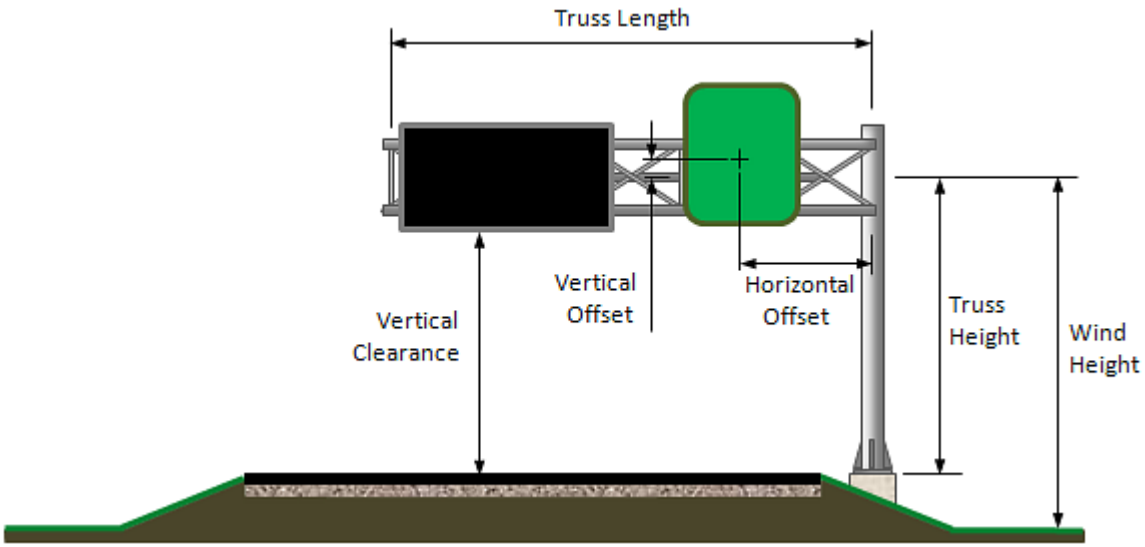
Fy of Upright	42	ksi
Fy of Web	36	ksi
Fy of Chord	42	ksi

Truss Data

Truss Length	41.50	ft
Truss Height	20.05	ft
Vertical Clearance	19.5	ft
No. of Truss Panels	4	
Vert. Truss Depth	8	ft

Wind Load Data

Wind Height	45.46	ft
Design Wind Speed	150	mph



Load Data

Reset Load Data

Sign Panels

Show Panels 11-20

Sign Panel Number	Panel Length (ft)	Panel Height (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Back-side Mounted?	Panel Weight (psf)
1					☐	
2					☐	
3					☐	
4					☐	
5					☐	
6					☐	
7					☐	
8					☐	
9					☐	
10					☐	

DMS Panels

DMS Panel Number	Panel Length (ft)	Panel Height (ft)	Panel Depth (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Panel Weight (psf)
1	29.50	9.79	1.333	26.75	0	10.30
2						
3						

Walkways

Walkway Number	Walkway Length (ft)	Walkway Width (ft)	Number of Hangers	Horizontal Offset (ft)	Vertical Offset* (ft)	Walkway Weight (plf)
1						
2						

Attachments

Attachment Number	Projected Area (sq. ft)	Drag Coeff., C_d	Attached to Which Chord Member? (Top / Bottom / Back)	Horizontal Offset (ft)	Attachment Weight (lb)
1					
2					
3					

** Vertical offsets are input as negative values when element centroid is below the truss centerline.*

Member Data

Member Properties

Chord Size

- 3.50" O.D. Pipe, 0.216" Wall
- 4.00" O.D. Pipe, 0.226" Wall
- 4.50" O.D. Pipe, 0.237" Wall
- 4.50" O.D. Pipe, 0.337" Wall
- 5.563" O.D. Pipe, 0.258" Wall
- 5.563" O.D. Pipe, 0.375" Wall
- **6.625" O.D. Pipe, 0.432" Wall**
- 8.625" O.D. Pipe, 0.500" Wall
- CUSTOM

Design Properties

Outside Diameter (D)	6.63	in
Wall Thickness (t)	0.402	in
Area (A)	7.86	in^2
Moment of Inertia (I)	38.2	in^4
Radius of Gyration (r)	2.2	in
Torsional Constant (J)	76.4	in^4
Nominal Weight	28.6	plf

Web Size

- Angle 2-1/2" x 2-1/2" x 1/4"
- Angle 3" x 3" x 1/4"
- Angle 3" x 3" x 5/16"
- Angle 3-1/2" x 3-1/2" x 5/16"
- Angle 3-1/2" x 3-1/2" x 3/8"
- Angle 4" x 4" x 3/8"
- Angle 4" x 4" x 1/2"
- **Angle 5" x 5" x 1/2"**
- CUSTOM

Design Properties

Leg Length (b)	5	in
Leg Thickness (t)	0.5	in
Area (A)	4.79	in^2
Dist. to Centroid ($\bar{x}$)	1.42	in
X Moment of Inertia (I_x)	11.3	in^4
X Rad. of Gyration (r_x)	1.53	in
Z Rad. of Gyration (r_z)	0.98	in
Nominal Weight	16.2	plf

Upright Size

- 24" O.D. Pipe, 0.375" Wall
- 24" O.D. Pipe, 0.562" Wall
- 24" O.D. Pipe, 0.750" Wall
- 30" O.D. Pipe, 0.500" Wall
- 30" O.D. Pipe, 0.625" Wall
- 30" O.D. Pipe, 0.750" Wall
- 36" O.D. Pipe, 0.500" Wall
- 36" O.D. Pipe, 0.625" Wall
- **36" O.D. Pipe, 0.750" Wall**
- CUSTOM

Design Properties

Outside Diameter (D)	36	in
Wall Thickness (t)	0.75	in
Area (A)	83.1	in^2
Moment of Inertia (I)	12906	in^4
Radius of Gyration (r)	12.47	in
Torsional Constant (J)	25812	in^4
Nominal Weight	282.6	plf

Connection Data

Gusset Plates

Min. Gusset Bolt Diameter	5/8" **3/4"** 7/8" 1" 1-1/4"	Min. Gusset Plate Thickness	3/8" **1/2"** 5/8" 3/4" 7/8" 1"

Truss Connections

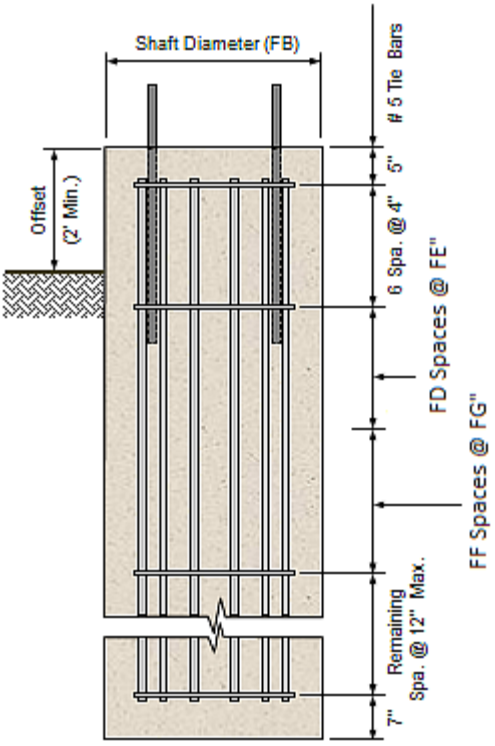
Min. Truss Bolt Diameter	**7/8"** 1"		
Min. Horizontal Plate Thickness	**1/2"** 5/8" 3/4" 7/8" 1"	Min. Vertical Plate Thickness	**1/2"** 5/8" 3/4" 7/8" 1"

Base Connection

Anchor Bolt Diameter	1-1/2" 1-3/4" 2" 2-1/4" **2-1/2"**	Number of Anchor Bolts	8 **10** 12
Min. Base Plate Thickness	3/4" 1" **1-1/4"** 1-1/2" 1-3/4" 2"	Min. Stiffener Plate Thickness	3/8" **1/2"** 5/8" 3/4" 7/8" 1"

Foundation Data

Foundation Type: Drilled Shaft / Spread Footing / None



Drilled Shaft Data

Soil Type: Sand / Clay

Soil Density, γ_{soil}	53	pcf
Friction Angle, ϕ	36	deg
SPT Number (N_{blows})	31	
Shear Strength, *c*		ksf
Safety Factor against Overturning	2	
Safety Factor against Torsion	1.3	
Shaft Diameter (FB)	5.5	ft
Ground to Top of Shaft Offset	4.5	ft

First Set Stirrups:

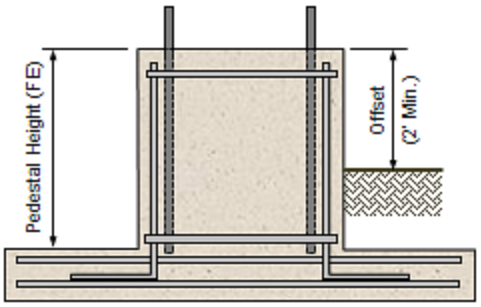
Number of Stirrup Spaces (FD)	7	
Stirrup Spacing (FE)	4	in

Second Set Stirrups:

Number of Stirrup Spaces (FF)	60	
Stirrup Spacing (FG)	6	in
Stirrup Bar Size	#5 Stirrup / #6 Stirrup	

Spread Footing Data

Bearing Pressure Not to Exceed		psf
Soil Density		pcf
Coeff. of Passive Pressure		
Factor of Safety for Overturning		
Factor of Safety for Twisting		
Coeff. Friction between Slab and Soil		
Pedestal Height (FE)		ft



☐ Cross Slope Present run/rise

Save Data

Save Data File (optional)

☑ Use current input file

File Name DMS (Sta. 3124+00)(MV).dat Save Data

Note: Select an output folder by using the "Change Folder" option above.

Data Initialization

Geometry Check Calculations

Preliminary Geometry Checks

$CheckL_{TrussPanel}$ = "OK"

$CheckClr_{Web}$ = "OK"

$CheckClr_{GusPlate}$ = "OK"

$CheckLayout_{Sign}$ = "OK"

$CheckOverlap_{Panel}$ = "OK"

$Check_{DMS}$ = "OK"

3D Model Data

Wireframe Diagram

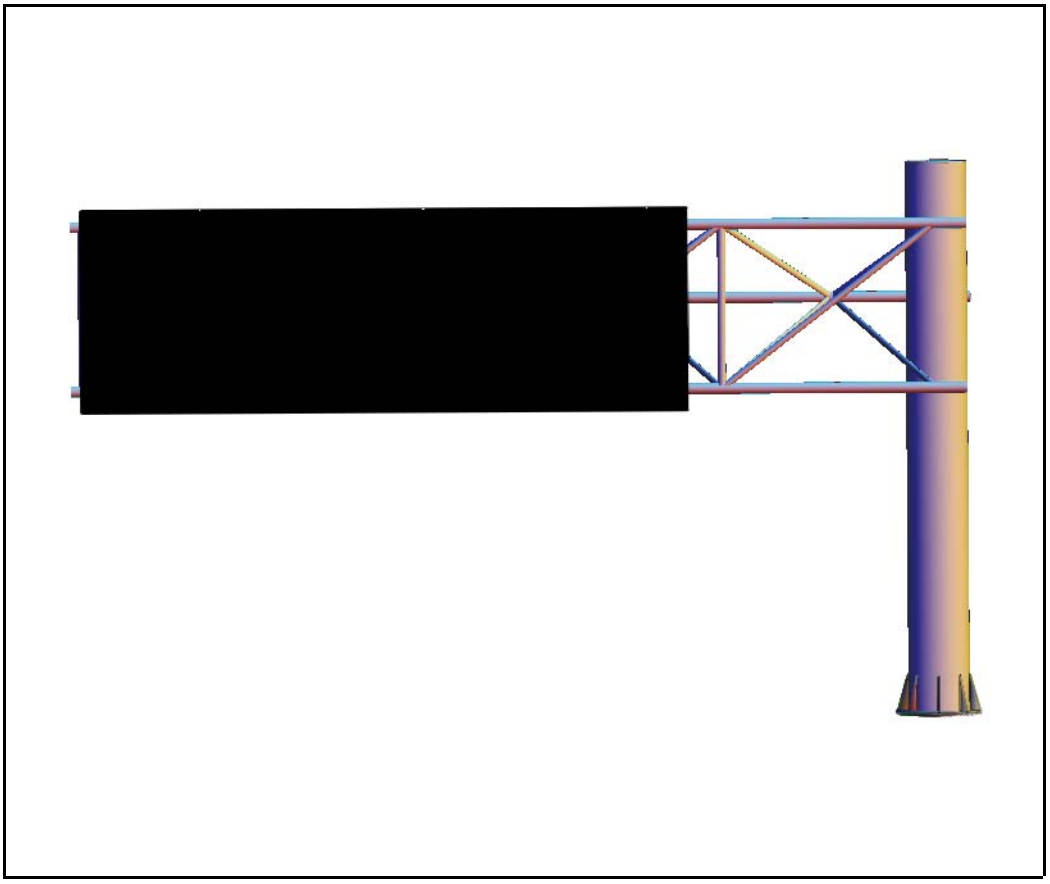
Design Forces

Fatigue Forces

Total Forces

Truss Diagram Data

Truss Diagram



Note: Use your mouse and keyboard to zoom in, zoom out or rotate the 3D plot above.
(See "Rotating, Spinning, or Zooming a 3D Plot" in Mathcad Help for instructions.)

3D Structural Analysis

Run Analysis

Note: A new analysis MUST be run after any change in program input.

PC-SAP Output Data

Design Check Calculations

Maximum Reactions

Results Output

Results

Sign Structure Geometry

(A) $H_{Truss} = 20.05\,ft$

(B) Number_of_Truss_Panels = "4 @ 10' 4-1/2" (Total_Length = 41.5 ft.)"

(C) $Vertical\_Truss\_Depth = 96 \cdot in$

$Horizontal\_Truss\_Depth = 83.138 \cdot in$

Sign Structure Members

(D) ChordMember = "6.625" O.D. Pipe, 0.432" Wall"

(E) WebMember = "Angle 5" x 5" x 1/2""

(F) UprightMember = "36" O.D. Pipe, 0.750" Wall"

CSR_{Chord} = "0.705 OK"

CSR_{Web} = "0.614 OK"

$CSR_{Upright}$ = "0.625 OK"

Additional Design Checks

$CheckSlenderness_{Web}$ = "OK"

$CheckSlenderness_{Chord}$ = "OK"

$Check_{Chord}$ = "OK"

$Check_{Sign.Hangers}$ = "OK"

$CheckRotation_{Upright}$ = "OK"

Max. Reactions at Base of Upright

$M_{Long} = 777.167 \cdot kip \cdot ft$

$V_{Long} = 38.380 \cdot kip$

$M_{Trans} = 391.833 \cdot kip \cdot ft$

$V_{Trans} = 7.676 \cdot kip$

$Axial = 17.730 \cdot kip$

$Torq = 945.833 \cdot kip \cdot ft$

(G) $BackRake = 3.7485 \cdot in$

Splice Calculations

Gusset Plate Calculations

Truss Connection Calculations

Base Plate Calculations and Anchor Bolt Design

Connection Output

Connection Values

Note: All truss bolted connections use A325 bolts, and upright anchor bolts are ASTM F1554. All welds are sized assuming E70xx electrodes.

Splice Connection

(SA) $Size_{Angle}$ = "Angle 6" x 6" x 1/2""

(SB) $\#Bolts_{Reqd.in.Splice}$ = "6"

(SC) $d_{BoltReqd.for.Splice}$ = "1" Dia."

(SD) $N_{Panel.Where.1st.Splice.Allowed}$ = "2 (from upright)"

Gusset Plates

(GA) t_{Gus} = "1/2""

(GB) $d_{Bolt.Gus}$ = "7/8" Dia."

(GC) $L_{Back.Chord.Gus}$ = "1' 5-3/4""

(GD) $H_{Back.Chord.Gus}$ = "8-1/2""

(GE) $L_{Front.Chord.Gus}$ = "1' 2-3/4""

(GF) $H_{Front.Chord.Gus}$ = "7""

(GG) $L_{Back.Truss.End.Plate}$ = "1' 4-1/4""

(GH) $H_{Back.Truss.End.Plate}$ = "8""

(GJ) $L_{Front.Truss.End.Plate}$ = "11-1/4""

(GK) $Weld_{Gusset.to.Chord}$ = "3/16""

$CheckWeldSizeLimit_{Gusset}$ = "OK"

Truss Connections

(TA) $d_{Required}$ = "7/8" Dia."

(TB) $\#Bolts_{Reqd.Back.Chord.Connection}$ = "10"

(TC) $\#Bolts_{Reqd.Front.Chord.Connection}$ = "8"

(TD) $t_{Horz.Connec.Plate}$ = "3/4""

(TE) $t_{Vert.Connec.Plate}$ = "5/8""

(TF) $Weld_{Horz.PL.to.Upright}$ = "5/16""

(TG) $Weld_{Vert.PL.to.Upright}$ = "1/4""

(TH) $Weld_{Chord.to.Connec.PL}$ = "3/16""

(TJ) $Weld_{Vert.PL.to.Horz.PL}$ = "3/16""

Additional Truss Connection Checks

$CheckWeldSizeLimit_{Horz.Plate}$ = "OK"

$CheckWeldSizeLimit_{Vert.Plate}$ = "OK"

$CheckWeldSizeLimit_{Connec.Plate}$ = "OK"

$CheckWeldSizeLimit_{Horz.Vert}$ = "OK"

$CheckStress_{Horz.Plate}$ = "OK"

$CheckStress_{Vert.Plate}$ = "OK"

$CheckBending_{Upright}$ = "OK"

Base Connection

(BA) D_{Anchor} = "2-1/2" Dia."

(BB) #AnchorBoltsReqd = "10"

(BC) $t_{Base.Plate}$ = "2-1/4""

(BD) $t_{Stiffener.Plate}$ = "5/8""

(BE) $H_{Stiffener.Plate}$ = "2' 10-1/2""

(BF) $Weld_{Inside.Base.PL}$ = "5/16""

(BG) $Weld_{Outside.Base.PL}$ = "5/16""

(BH) $Weld_{Stiffener.to.Base}$ = "5/16""

(BJ) $Weld_{Stiffener.to.Upright}$ = "1/4""

Additional Base Connection Check

$CheckThickenss_{Stiffener}$ = "OK"

$CheckWeldSizeLimit_{BaseUpright.in}$ = "OK"

$CheckWeldSizeLimit_{BaseUpright.out}$ = "OK"

$CheckWeldSizeLimit_{StiffBase}$ = "OK"

$CheckWeldSizeLimit_{StiffUpright}$ = "OK"

Fatigue Calculations

Fatigue Design Checks

Base Connection

$CheckFatigue_{Upright}$ = "OK (1.09 ksi < 7 ksi)"

$CheckFatigue_{Base}$ = "OK (0.78 ksi < 3.13 ksi)"

$CheckFatigue_{Anchor.Bolt}$ = "OK (0.15 ksi < 7 ksi)"

Chord Member Connections

$CheckFatigue_{Chord.Splice}$ = "OK (1.06 ksi < 7 ksi)"

$CheckFatigue_{Chord.Slot}$ = "OK (1.5 ksi < 2.6 ksi)"

$CheckFatigue_{Half.Chord}$ = "OK (1.07 ksi < 2.6 ksi)"

$CheckFatigue_{Truss.Bolts}$ = "OK (0.65 ksi < 7 ksi)"

Gusset Plates

$CheckFatigue_{Back.Plates}$ = "OK (0.18 ksi < 1.2 ksi)"

$CheckFatigue_{Back.End.Plates}$ = "OK (0.21 ksi < 1.2 ksi)"

$CheckFatigue_{Front.Plates}$ = "OK (0.2 ksi < 1.2 ksi)"

$CheckFatigue_{Front.End.Plates}$ = "OK (0.22 ksi < 1.2 ksi)"

$CheckFatigue_{Top.Center.Plates}$ = "OK (0.46 ksi < 1.2 ksi)"

Web Members

$CheckFatigue_{Web}$ = "OK (0.48 ksi < 7 ksi)"

Drilled Shaft Calculations

Spread Footing Calculations

Anchor Bolt Embedment and Breakout Strength

Drilled Shaft Design

Drilled Shaft Design Checks

$Check_{MassConcrete}$ = "OK"

$Check_{Long.Reinf.Spacing}$ = "OK"

$Check_{Capacity.Long.Reinf}$ = "OK"

$Check_{Comb.Shear.Torsion}$ = "OK"

$Check_{Max.Stirrup.Spacing}$ = "OK"

$Check_{StirupSpacing}$ = "OK"

Drilled Shaft Dimensions/Reinforcing

(FA) $L_{Drilled.Shaft} = 30.5\,ft$

(FB) $D_{Drilled.Shaft} = 5.5\,ft$

(FC) LongitudinalReinforcement = "16 No. 14 bars evenly spaced"

(FD) $\#Spaces_{Stirrup} = 7$

(FE) $Spacing_{Shear.Stirrup} = 4.00 \cdot in$

(FF) $\#Spaces_{Stirrupb} = 50$

(FG) $Spacing_{Shear.Stirrupb} = 6.00 \cdot in$

$Size_{Stirup}$ = "6"

Spread Footing Design

Spread Footing Design Checks

$Check_{Footing.Design}$ = "n/a"

$Check_{Pedestal.Height}$ = "n/a"

Spread Footing Dimensions/Reinforcing

(FA) L_{Slab} = "n/a"

(FB) W_{Slab} = "n/a"

(FC) t_{Slab} = "n/a"

(FD) $D_{Pedestal}$ = "n/a"

(FE) $H_{Pedestal}$ = "n/a"

(FF) $LongitudinalRebar_{Bot}$ = "n/a"

(FG) $TransverseRebarar_{Bot}$ = "n/a"

(FH) $LongitudinalRebar_{Top}$ = "n/a"

(FJ) $TransverselRebar_{Top}$ = "n/a"

(FK) StirrupBars = "n/a"

(FL) VerticalBars = "n/a"

Anchor Bolt Design

Anchor Bolt Length

(BK) $L_{Anchor.Bolt.Embed} = 50 \cdot in$

Additional Anchor Bolt Checks

$Check_{Anchor.Bolt.Capacity} = "OK"$

$Check_{Concrete.Breakout} = "OK"$

$Spacing_{Clear} = 0.435 \cdot in$

MicroStation Data

Create MicroStation Text File

☑ Use same name as current data file

File Name DMS (Sta. 3124+00)(MV).txt

Create MicroStation File

℄ Truss elevation = 32.09' + 19.50' + 7.83'/2 = 55.51'

Truss height = 55.51' − 35.06' = 20.45'

Wind height = 55.51' − 12.00' = 43.51'

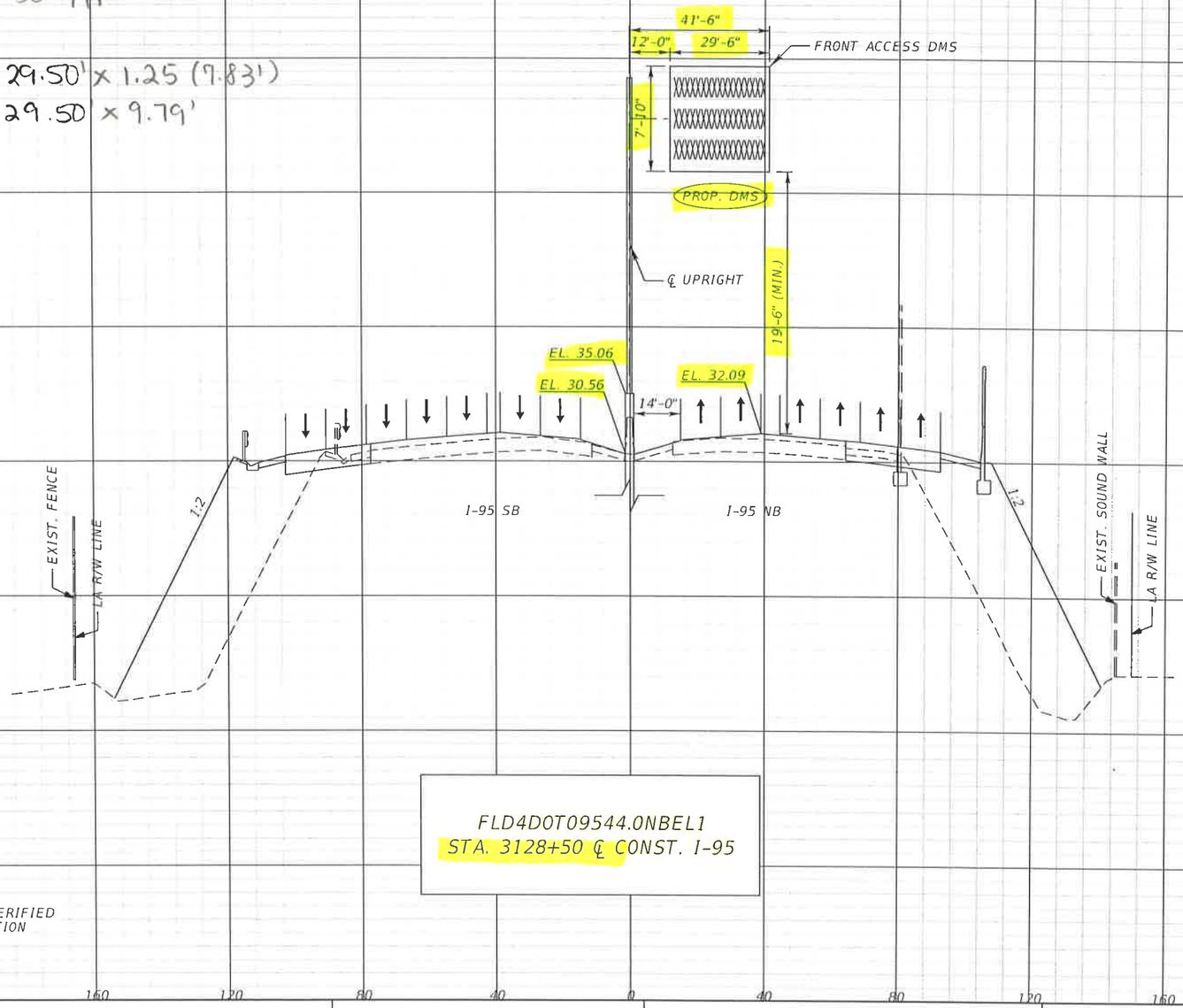
DMS Front Access:

Area = 29.50' x 7.83' = 231.08 ft²

Weight = 2,380 lb (from Manufacturer)

Load = $\frac{2{,}380\text{ lb}}{231.08\text{ ft}^2}$ = 10.30 lb/ft²

Design Dimensions = 29.50' x 1.25 (7.83')
= 29.50' x 9.79'



FLD4D0T09544.0NBEL1
STA. 3128+50 ℄ CONST. I-95

NOTE:

1.UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9A	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (47)

SHEET NO.
IT-109

PLOT DRIVER = $PLTDRVLS PEN TABLE = $PENTBLLS MODEL NAME = Rdxsrd_shq konukb 8/17/2018 10:48:36 AM c:\projectwise\pb\projectwiseint\konukb\d0230493\SSXSIT200.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Cantilever Overhead Sign Program v6.1

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Florida Department of Transportation
Structures Design Office **http://www.dot.state.fl.us/structures**

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User Manual

Data Files Folder Change Folder

E:\PROJECTS\2017\I-95, 3B-1\43310865201_I95_3B-1\struct\CAP\ITS\100%\Special Cantilever\CantileverV6.1\Data\

Open Existing Data File (optional)

Refresh List

Open File

- DMS (Sta. 3124+00)(MV).dat
- DMS (Sta. 3128+50)(MV).dat
- Ex1 - Static Sign Panels with Drilled Shaft.dat
- Ex2 - Static Sign Panels with Spread Footing.dat
- Ex3 - Static Sign Panels Front and Back.dat
- Ex4 - Walk-In DMS.dat
- Ex5 - Walk-In DMS with Walkway.dat
- Ex6 - Front-Access DMS with Static Signs.dat
- Sign 8 - STA 2353+49 3A2.dat

Project Data

Project Name	I-95 Express Lanes, Phase 3B-1		
Project No.	433108-6-52-01, 433109-4-52-01		
Designed by	JR	Date	02 / 01 / 2019
Checked by	MV	Date	02 / 01 / 2019

Sign Structure Data

Sign Name	DMS Front Access
Station/Offset	3128+50/0'

Material Properties Data

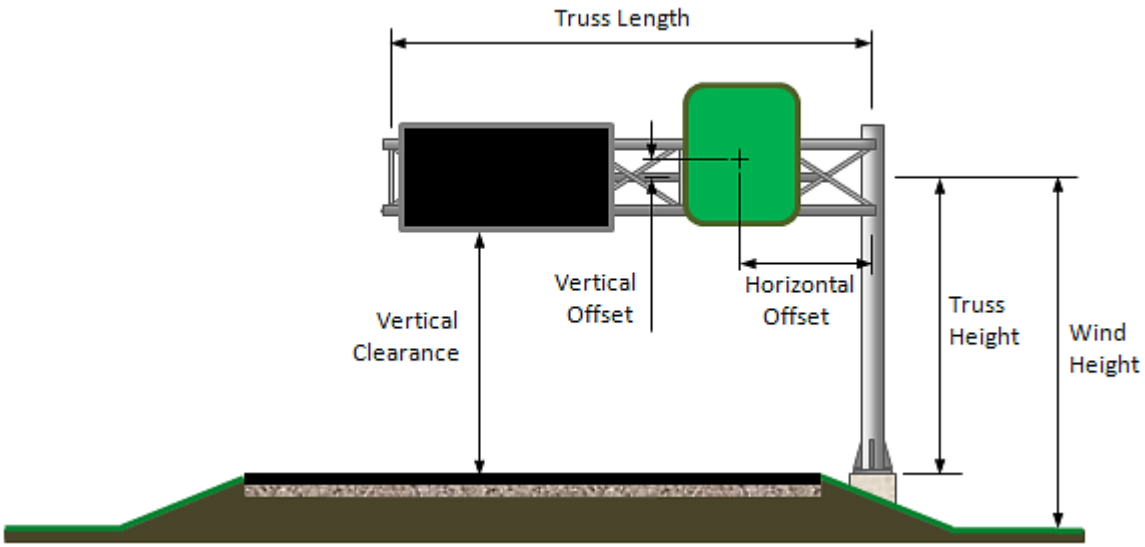
Fy of Upright	42	ksi
Fy of Web	36	ksi
Fy of Chord	42	ksi

Truss Data

Truss Length	41.50	ft
Truss Height	20.45	ft
Vertical Clearance	19.5	ft
No. of Truss Panels	4	
Vert. Truss Depth	8	ft

Wind Load Data

Wind Height	43.51	ft
Design Wind Speed	150	mph



Load Data

Reset Load Data

Sign Panels

Show Panels 11-20

Sign Panel Number	Panel Length (ft)	Panel Height (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Back-side Mounted?	Panel Weight (psf)
1					☐	
2					☐	
3					☐	
4					☐	
5					☐	
6					☐	
7					☐	
8					☐	
9					☐	
10					☐	

DMS Panels

DMS Panel Number	Panel Length (ft)	Panel Height (ft)	Panel Depth (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Panel Weight (psf)
1	29.50	9.79	1.333	26.75	0	10.30
2						
3						

Walkways

Walkway Number	Walkway Length (ft)	Walkway Width (ft)	Number of Hangers	Horizontal Offset (ft)	Vertical Offset* (ft)	Walkway Weight (plf)
1						
2						

Attachments

Attachment Number	Projected Area (sq. ft)	Drag Coeff., C_d	Attached to Which Chord Member? (Top / Bottom / Back)	Horizontal Offset (ft)	Attachment Weight (lb)
1					
2					
3					

** Vertical offsets are input as negative values when element centroid is below the truss centerline.*

Member Data

Member Properties

Chord Size

- 3.50" O.D. Pipe, 0.216" Wall
- 4.00" O.D. Pipe, 0.226" Wall
- 4.50" O.D. Pipe, 0.237" Wall
- 4.50" O.D. Pipe, 0.337" Wall
- 5.563" O.D. Pipe, 0.258" Wall
- 5.563" O.D. Pipe, 0.375" Wall
- **6.625" O.D. Pipe, 0.432" Wall**
- 8.625" O.D. Pipe, 0.500" Wall
- CUSTOM

Design Properties

Outside Diameter (D)	6.63	in
Wall Thickness (t)	0.402	in
Area (A)	7.86	in^2
Moment of Inertia (I)	38.2	in^4
Radius of Gyration (r)	2.2	in
Torsional Constant (J)	76.4	in^4
Nominal Weight	28.6	plf

Web Size

- Angle 2-1/2" x 2-1/2" x 1/4"
- Angle 3" x 3" x 1/4"
- Angle 3" x 3" x 5/16"
- Angle 3-1/2" x 3-1/2" x 5/16"
- Angle 3-1/2" x 3-1/2" x 3/8"
- Angle 4" x 4" x 3/8"
- Angle 4" x 4" x 1/2"
- **Angle 5" x 5" x 1/2"**
- CUSTOM

Design Properties

Leg Length (b)	5	in
Leg Thickness (t)	0.5	in
Area (A)	4.79	in^2
Dist. to Centroid ($\bar{x}$)	1.42	in
X Moment of Inertia (I_x)	11.3	in^4
X Rad. of Gyration (r_x)	1.53	in
Z Rad. of Gyration (r_z)	0.98	in
Nominal Weight	16.2	plf

Upright Size

- 24" O.D. Pipe, 0.375" Wall
- 24" O.D. Pipe, 0.562" Wall
- 24" O.D. Pipe, 0.750" Wall
- 30" O.D. Pipe, 0.500" Wall
- 30" O.D. Pipe, 0.625" Wall
- 30" O.D. Pipe, 0.750" Wall
- 36" O.D. Pipe, 0.500" Wall
- 36" O.D. Pipe, 0.625" Wall
- **36" O.D. Pipe, 0.750" Wall**
- CUSTOM

Design Properties

Outside Diameter (D)	36	in
Wall Thickness (t)	0.75	in
Area (A)	83.1	in^2
Moment of Inertia (I)	12906	in^4
Radius of Gyration (r)	12.47	in
Torsional Constant (J)	25812	in^4
Nominal Weight	282.6	plf

Connection Data

Gusset Plates

Min. Gusset Bolt Diameter	5/8" **3/4"** 7/8" 1" 1-1/4"	Min. Gusset Plate Thickness	3/8" **1/2"** 5/8" 3/4" 7/8" 1"

Truss Connections

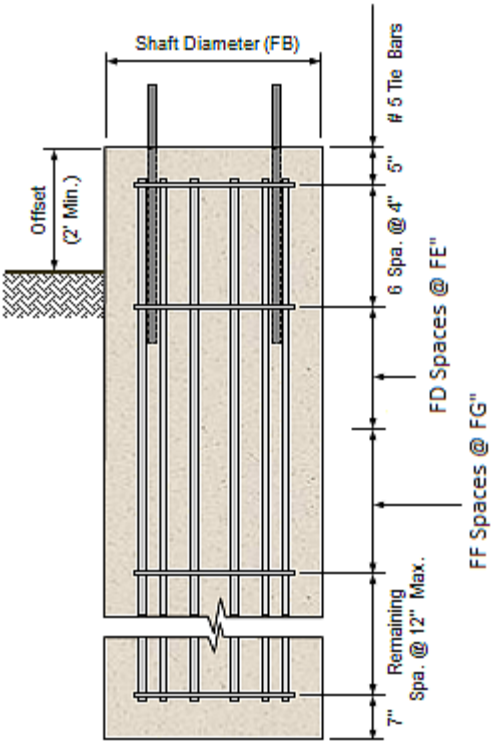
Min. Truss Bolt Diameter	**7/8"** 1"		
Min. Horizontal Plate Thickness	**1/2"** 5/8" 3/4" 7/8" 1"	Min. Vertical Plate Thickness	**1/2"** 5/8" 3/4" 7/8" 1"

Base Connection

Anchor Bolt Diameter	1-1/2" 1-3/4" 2" 2-1/4" **2-1/2"**	Number of Anchor Bolts	8 **10** 12
Min. Base Plate Thickness	1" **1-1/4"** 1-1/2" 1-3/4" 2"	Min. Stiffener Plate Thickness	3/8" **1/2"** 5/8" 3/4" 7/8" 1"

Foundation Data

Foundation Type: Drilled Shaft



Drilled Shaft Data

Soil Type: Sand

Soil Density, γ_{soil}	53	pcf
Friction Angle, ϕ	36	deg
SPT Number (N_{blows})	31	
Shear Strength, *c*		ksf
Safety Factor against Overturning	2	
Safety Factor against Torsion	1.3	
Shaft Diameter (FB)	5.5	ft
Ground to Top of Shaft Offset	4.5	ft

First Set Stirrups:

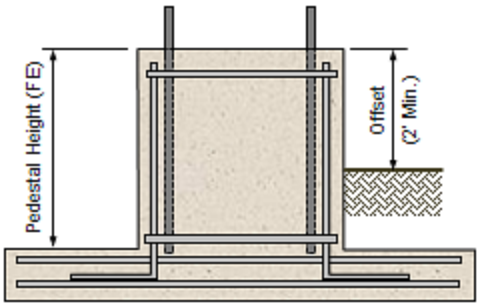
Number of Stirrup Spaces (FD)	7	
Stirrup Spacing (FE)	4	in

Second Set Stirrups:

Number of Stirrup Spaces (FF)	60	
Stirrup Spacing (FG)	6	in
Stirrup Bar Size	#6 Stirrup	

Spread Footing Data

Bearing Pressure Not to Exceed		psf
Soil Density		pcf
Coeff. of Passive Pressure		
Factor of Safety for Overturning		
Factor of Safety for Twisting		
Coeff. Friction between Slab and Soil		
Pedestal Height (FE)		ft



☐ Cross Slope Present run/rise

Save Data

Save Data File (optional)

☑ Use current input file

File Name: DMS (Sta. 3128+50)(MV).dat Save Data

Note: Select an output folder by using the "Change Folder" option above.

Data Initialization

Geometry Check Calculations

Preliminary Geometry Checks

$CheckL_{TrussPanel}$ = "OK"

$CheckClr_{Web}$ = "OK"

$CheckClr_{GusPlate}$ = "OK"

$CheckLayout_{Sign}$ = "OK"

$CheckOverlap_{Panel}$ = "OK"

$Check_{DMS}$ = "OK"

3D Model Data

Wireframe Diagram

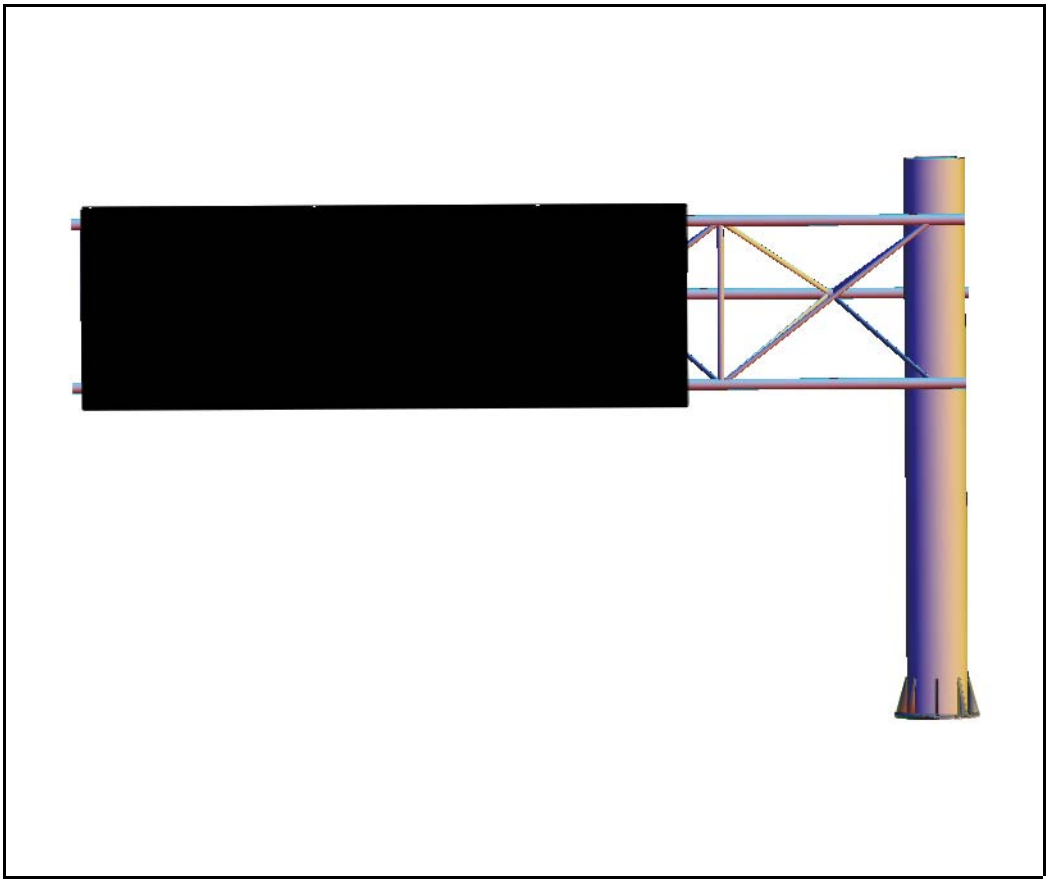
Design Forces

Fatigue Forces

Total Forces

Truss Diagram Data

Truss Diagram



Note: Use your mouse and keyboard to zoom in, zoom out or rotate the 3D plot above.
(See "Rotating, Spinning, or Zooming a 3D Plot" in Mathcad Help for instructions.)

3D Structural Analysis

Run Analysis

Note: A new analysis MUST be run after any change in program input.

PC-SAP Output Data

Design Check Calculations

Maximum Reactions

Results Output

Results

Sign Structure Geometry

(A) $H_{Truss} = 20.45\,ft$

(B) Number_of_Truss_Panels = "4 @ 10' 4-1/2" (Total_Length = 41.5 ft.)"

(C) $Vertical\_Truss\_Depth = 96 \cdot in$

$Horizontal\_Truss\_Depth = 83.138 \cdot in$

Sign Structure Members

(D) ChordMember = "6.625" O.D. Pipe, 0.432" Wall"

(E) WebMember = "Angle 5" x 5" x 1/2""

(F) UprightMember = "36" O.D. Pipe, 0.750" Wall"

CSR_{Chord} = "0.7 OK"

CSR_{Web} = "0.609 OK"

$CSR_{Upright}$ = "0.628 OK"

Additional Design Checks

$CheckSlenderness_{Web}$ = "OK"

$CheckSlenderness_{Chord}$ = "OK"

$Check_{Chord}$ = "OK"

$Check_{Sign.Hangers}$ = "OK"

$CheckRotation_{Upright}$ = "OK"

Max. Reactions at Base of Upright

$M_{Long} = 790.333 \cdot kip \cdot ft$

$V_{Long} = 38.460 \cdot kip$

$M_{Trans} = 395.250 \cdot kip \cdot ft$

$V_{Trans} = 7.692 \cdot kip$

$Axial = 19.210 \cdot kip$

$Torq = 949.500 \cdot kip \cdot ft$

(G) $BackRake = 2.2399 \cdot in$

Splice Calculations

Gusset Plate Calculations

Truss Connection Calculations

Base Plate Calculations and Anchor Bolt Design

Connection Output

Connection Values

Note: All truss bolted connections use A325 bolts, and upright anchor bolts are ASTM F1554. All welds are sized assuming E70xx electrodes.

Splice Connection

(SA) $Size_{Angle}$ = "Angle 6" x 6" x 1/2""

(SB) $\#Bolts_{Reqd.in.Splice}$ = "6"

(SC) $d_{BoltReqd.for.Splice}$ = "1" Dia."

(SD) $N_{Panel.Where.1st.Splice.Allowed}$ = "2 (from upright)"

Gusset Plates

(GA) t_{Gus} = "1/2""

(GB) $d_{Bolt.Gus}$ = "7/8" Dia."

(GC) $L_{Back.Chord.Gus}$ = "1' 5-3/4""

(GD) $H_{Back.Chord.Gus}$ = "8-1/2""

(GE) $L_{Front.Chord.Gus}$ = "1' 2-3/4""

(GF) $H_{Front.Chord.Gus}$ = "7""

(GG) $L_{Back.Truss.End.Plate}$ = "1' 4""

(GH) $H_{Back.Truss.End.Plate}$ = "8""

(GJ) $L_{Front.Truss.End.Plate}$ = "11-1/4""

(GK) $Weld_{Gusset.to.Chord}$ = "3/16""

$CheckWeldSizeLimit_{Gusset}$ = "OK"

Truss Connections

(TA) $d_{Required}$ = "7/8" Dia."

(TB) $\#Bolts_{Reqd.Back.Chord.Connection}$ = "10"

(TC) $\#Bolts_{Reqd.Front.Chord.Connection}$ = "8"

(TD) $t_{Horz.Connec.Plate}$ = "3/4""

(TE) $t_{Vert.Connec.Plate}$ = "5/8""

(TF) $Weld_{Horz.PL.to.Upright}$ = "5/16""

(TG) $Weld_{Vert.PL.to.Upright}$ = "1/4""

(TH) $Weld_{Chord.to.Connec.PL}$ = "3/16""

(TJ) $Weld_{Vert.PL.to.Horz.PL}$ = "3/16""

Additional Truss Connection Checks

$CheckWeldSizeLimit_{Horz.Plate}$ = "OK"

$CheckWeldSizeLimit_{Vert.Plate}$ = "OK"

$CheckWeldSizeLimit_{Connec.Plate}$ = "OK"

$CheckWeldSizeLimit_{Horz.Vert}$ = "OK"

$CheckStress_{Horz.Plate}$ = "OK"

$CheckStress_{Vert.Plate}$ = "OK"

$CheckBending_{Upright}$ = "OK"

Base Connection

(BA) D_{Anchor} = "2-1/2" Dia."

(BB) #AnchorBoltsReqd = "10"

(BC) $t_{Base.Plate}$ = "2-1/4""

(BD) $t_{Stiffener.Plate}$ = "5/8""

(BE) $H_{Stiffener.Plate}$ = "2' 10-1/2""

(BF) $Weld_{Inside.Base.PL}$ = "5/16""

(BG) $Weld_{Outside.Base.PL}$ = "5/16""

(BH) $Weld_{Stiffener.to.Base}$ = "5/16""

(BJ) $Weld_{Stiffener.to.Upright}$ = "1/4""

Additional Base Connection Check

$CheckThickenss_{Stiffener}$ = "OK"

$CheckWeldSizeLimit_{BaseUpright.in}$ = "OK"

$CheckWeldSizeLimit_{BaseUpright.out}$ = "OK"

$CheckWeldSizeLimit_{StiffBase}$ = "OK"

$CheckWeldSizeLimit_{StiffUpright}$ = "OK"

Fatigue Calculations

Fatigue Design Checks

Base Connection

$CheckFatigue_{Upright}$ = "OK (1.13 ksi < 7 ksi)"

$CheckFatigue_{Base}$ = "OK (0.81 ksi < 3.07 ksi)"

$CheckFatigue_{Anchor.Bolt}$ = "OK (0.16 ksi < 7 ksi)"

Chord Member Connections

$CheckFatigue_{Chord.Splice}$ = "OK (1.07 ksi < 7 ksi)"

$CheckFatigue_{Chord.Slot}$ = "OK (1.5 ksi < 2.6 ksi)"

$CheckFatigue_{Half.Chord}$ = "OK (1.07 ksi < 2.6 ksi)"

$CheckFatigue_{Truss.Bolts}$ = "OK (0.65 ksi < 7 ksi)"

Gusset Plates

$CheckFatigue_{Back.Plates}$ = "OK (0.18 ksi < 1.2 ksi)"

$CheckFatigue_{Back.End.Plates}$ = "OK (0.21 ksi < 1.2 ksi)"

$CheckFatigue_{Front.Plates}$ = "OK (0.2 ksi < 1.2 ksi)"

$CheckFatigue_{Front.End.Plates}$ = "OK (0.22 ksi < 1.2 ksi)"

$CheckFatigue_{Top.Center.Plates}$ = "OK (0.46 ksi < 1.2 ksi)"

Web Members

$CheckFatigue_{Web}$ = "OK (0.48 ksi < 7 ksi)"

Drilled Shaft Calculations

Spread Footing Calculations

Anchor Bolt Embedment and Breakout Strength

Drilled Shaft Design

Drilled Shaft Design Checks

$Check_{MassConcrete}$ = "OK"

$Check_{Long.Reinf.Spacing}$ = "OK"

$Check_{Capacity.Long.Reinf}$ = "OK"

$Check_{Comb.Shear.Torsion}$ = "OK"

$Check_{Max.Stirrup.Spacing}$ = "OK"

$Check_{StirupSpacing}$ = "OK"

Drilled Shaft Dimensions/Reinforcing

(FA) $L_{Drilled.Shaft} = 30.5\,ft$

(FB) $D_{Drilled.Shaft} = 5.5\,ft$

(FC) LongitudinalReinforcement = "16 No. 14 bars evenly spaced"

(FD) $\#Spaces_{Stirrup} = 7$

(FE) $Spacing_{Shear.Stirrup} = 4.00 \cdot in$

(FF) $\#Spaces_{Stirrupb} = 50$

(FG) $Spacing_{Shear.Stirrupb} = 6.00 \cdot in$

$Size_{Stirup}$ = "6"

Spread Footing Design

Spread Footing Design Checks

$Check_{Footing.Design}$ = "n/a"

$Check_{Pedestal.Height}$ = "n/a"

Spread Footing Dimensions/Reinforcing

(FA) L_{Slab} = "n/a"

(FB) W_{Slab} = "n/a"

(FC) t_{Slab} = "n/a"

(FD) $D_{Pedestal}$ = "n/a"

(FE) $H_{Pedestal}$ = "n/a"

(FF) $LongitudinalRebar_{Bot}$ = "n/a"

(FG) $TransverseRebarar_{Bot}$ = "n/a"

(FH) $LongitudinalRebar_{Top}$ = "n/a"

(FJ) $TransverselRebar_{Top}$ = "n/a"

(FK) StirrupBars = "n/a"

(FL) VerticalBars = "n/a"

Anchor Bolt Design

Anchor Bolt Length

(BK) $L_{Anchor.Bolt.Embed} = 50 \cdot in$

Additional Anchor Bolt Checks

$Check_{Anchor.Bolt.Capacity} = "OK"$

$Check_{Concrete.Breakout} = "OK"$

$Spacing_{Clear} = 0.435 \cdot in$

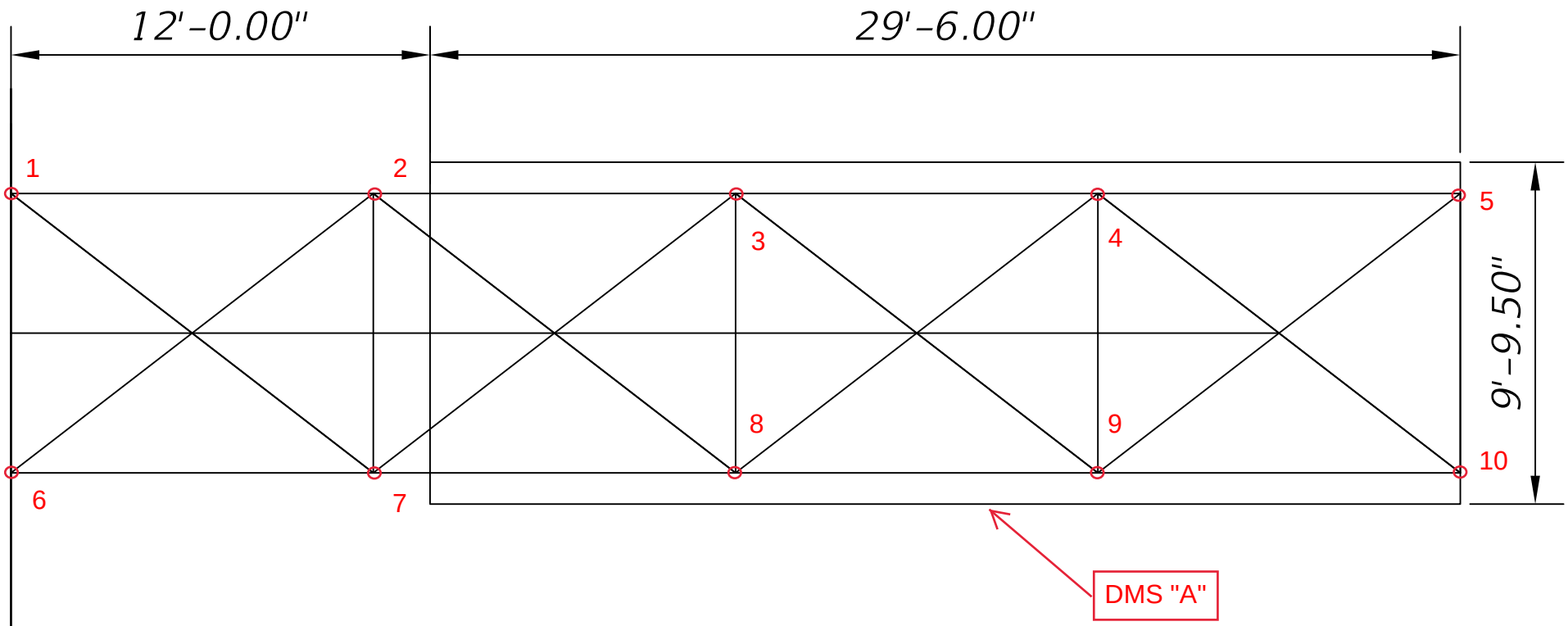
MicroStation Data

Create MicroStation Text File

☑ Use same name as current data file

File Name DMS (Sta. 3128+50)(MV).txt

Create MicroStation File



Front Access DMS "A" Info:

- Model: Vanguard VF-2420-96x416-20-RGB
- 29'-6"W x 7'-10"H x 1'-4"D*
- 2,380.00lb*

* These values were provided by manufacturer, a 25% increase is provided in the design

TITLE: STA 3128+50.00 SPECIAL CANTILEVER CALCULATION
SHEET: 01 OF 06
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1
PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V.
DATE: 10/11/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals (6th Edition)

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)	
Ir =	1.00		**Table [3.8.1-1]** *Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**

DMS (A) Pressure

Kz =	1.09		**Table [3.8.4-1]** *Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Lsign =	32.00	(ft)	
Wsign =	25.63	(ft)	
Lsign / Wsign =	1.25		
Cd =	1.19		**Table [3.8.6-1]**
Pz =	**85.17**	(psf)	

TITLE: STA 3128+50.00 SPECIAL CANTILEVER CALCULATION
SHEET: 02 OF 06
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1
PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V.
DATE: 10/11/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals (6th Edition)

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)		
Ir =	1.00		**Table [3.8.1-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*

Chord

Kz =	1.09		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
d =	6.625	(in)		
Cv*V*d =	82.81	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	32.21	(psf)		
Force on Member =	0.018	(kip/ft)		

TITLE: STA 3128+50.00 SPECIAL CANTILEVER CALCULATION
SHEET: 03 OF 06
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1
PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V.
DATE: 10/11/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals (6th Edition)

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)		
Ir =	1.00		**Table [3.8.1-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	

Truss Web (Angle)

Kz =	1.09		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cd =	1.70		**Table [3.8.6-1]**	
Pz =	121.68	(psf)		
Angle Size =	5.00	(in)		
Force on Member =	0.051	(kip/ft)		

TITLE: STA 3128+50.00 SPECIAL CANTILEVER CALCULATION
SHEET: 04 OF 06
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1
PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V.
DATE: 10/11/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals (6th Edition)

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)		
Ir =	1.00		**Table [3.8.1-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*

Upright

Kz =	1.09		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
d =	18.000	(in)		
Cv*V*d =	225.00	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	32.21	(psf)		
Force on Member =	0.048	(kip/ft)		

TITLE: STA 3128+50.00 SPECIAL CANTILEVER CALCULATION
SHEET: 05 OF 06
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1
PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V.
DATE: 10/11/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals (6th Edition)

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)	
Ir =	1.00		**Table [3.8.1-1]** *Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**
Cv =	1.00		**Table [3.8.3-3]** *Recurrence Interval, 50 Years*

Left Upright Web 1

Kz =	1.09		**Table [3.8.4-1]** *Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
Cd =	1.70		**Table [3.8.6-1]**
Pz =	121.68	(psf)	
Angle Size =	8.00	(in)	
Force on Member =	0.081	(kip/ft)	

LOAD CALCULATIONS

Wind Load for SAP Model:

NODE 2 & 7:

$$WL_{2.7} := [29ft + 6in - 2.5(10ft + 4.50in)] \cdot \left(\frac{10ft}{2}\right) \cdot (85.17psf) = 1.517 \cdot kip$$

NODE 3 & 8:

$$WL_{3.8} := (10ft + 4.50in) \cdot \left(\frac{10ft}{2}\right) \cdot (85.17psf) = 4.418 \cdot kip$$

NODE 4 & 9:

$$WL_{4.9} := (10ft + 4.50in) \cdot \left(\frac{10ft}{2}\right) \cdot (85.17psf) = 4.418 \cdot kip$$

NODE 5 & 10:

$$WL_{5.10} := \left(\frac{10ft + 4.50in}{2}\right) \cdot \left(\frac{10ft}{2}\right) \cdot (85.17psf) = 2.209 \cdot kip$$

Dead Load for SAP Model:

NODE 2 & 7:

$$DL_{2.7} := [29ft + 6in - 2.5 \cdot (10ft + 4.50in)] \cdot \left(\frac{10ft}{2}\right) \cdot (10.30psf) = 0.183 \cdot kip$$

NODE 3 & 8:

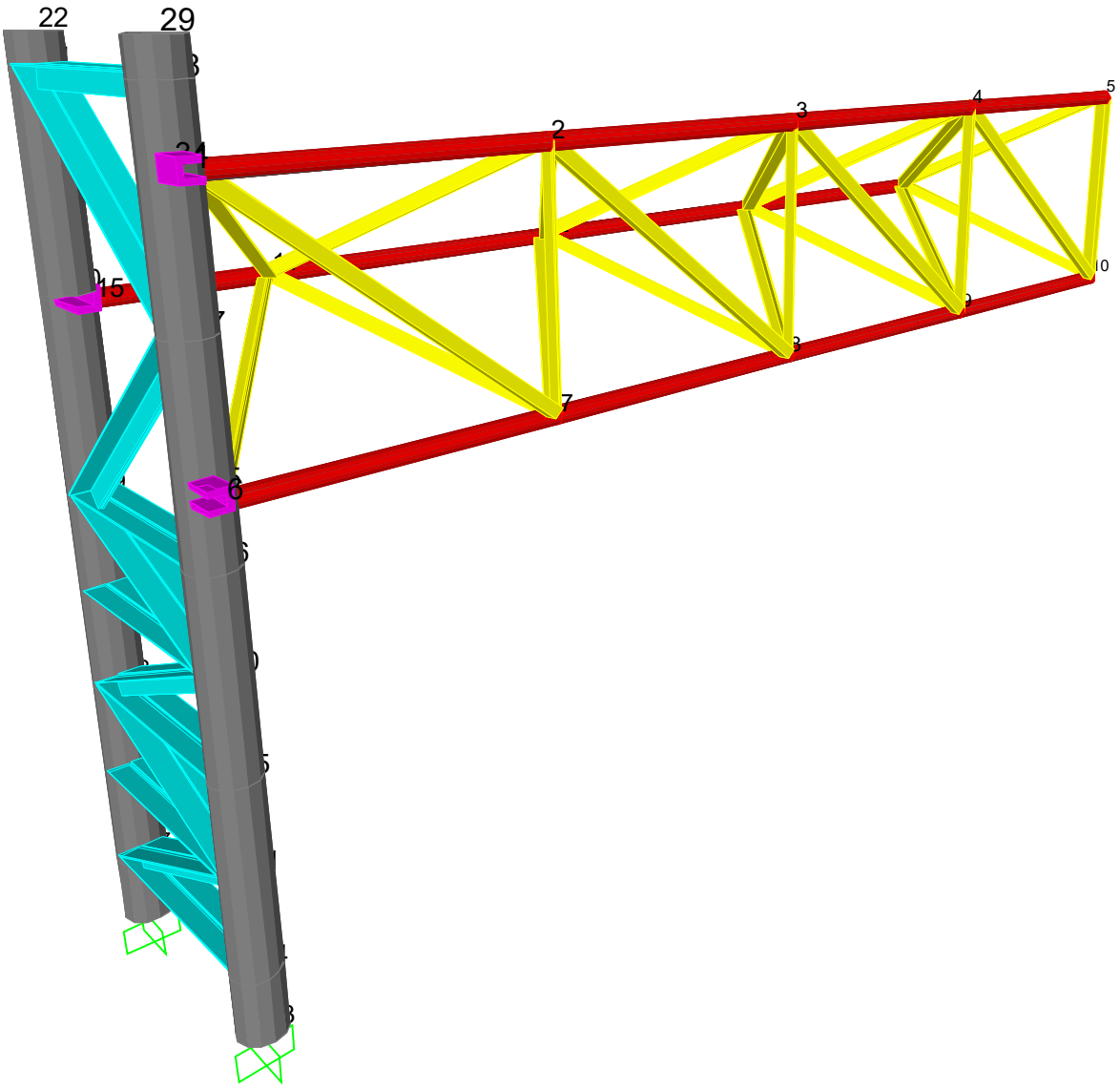
$$DL_{3.8} := (10ft + 4.50in) \cdot \left(\frac{10ft}{2}\right) \cdot (10.30psf) = 0.534 \cdot kip$$

NODE 4 & 9:

$$DL_{4.9} := (10ft + 4.50in) \cdot \left(\frac{10ft}{2}\right) \cdot (10.30psf) = 0.534 \cdot kip$$

NODE 5 & 10:

$$DL_{5.10} := \left(\frac{10ft + 4.50in}{2}\right) \cdot \left(\frac{10ft}{2}\right) \cdot (10.30psf) = 0.267 \cdot kip$$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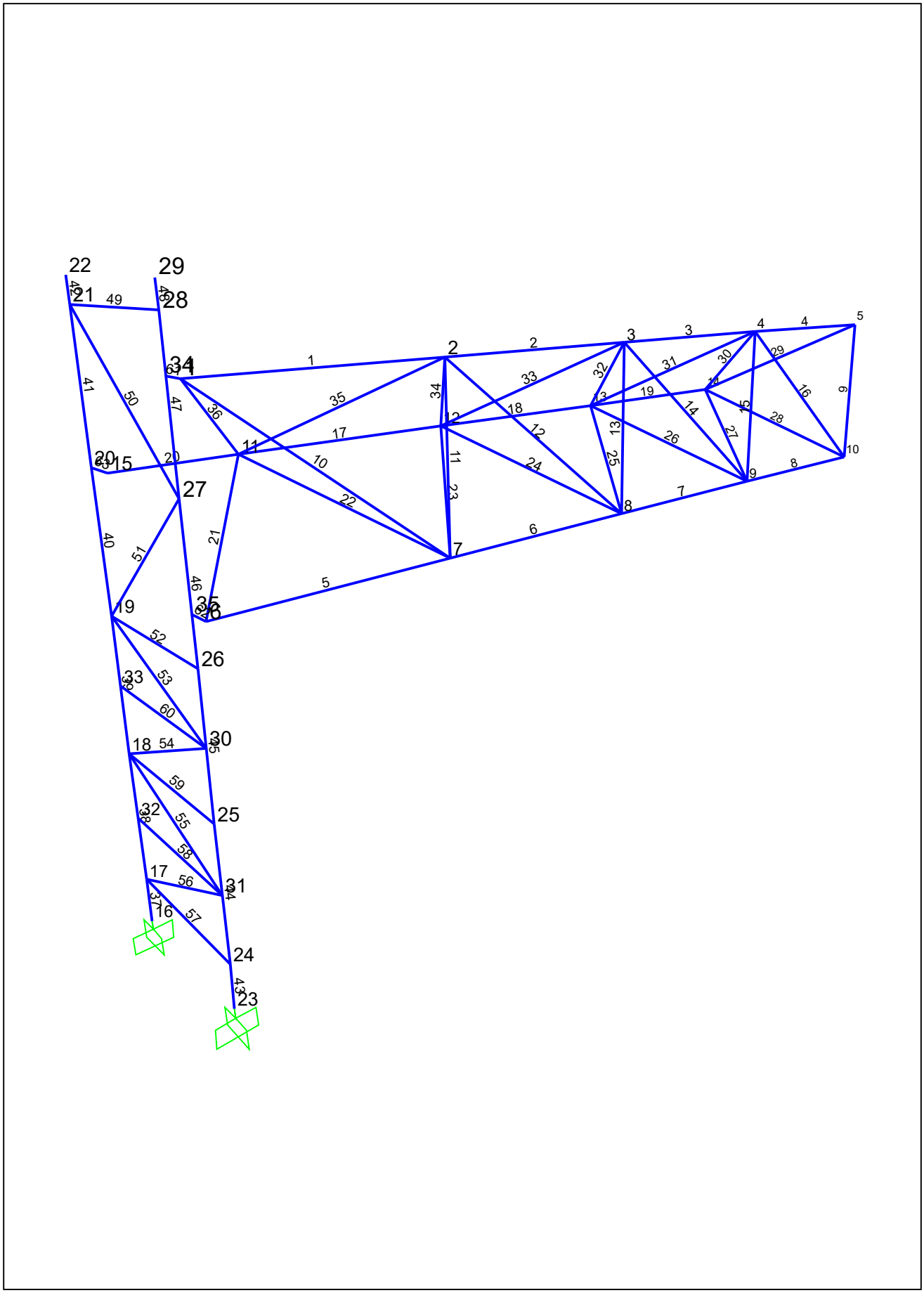
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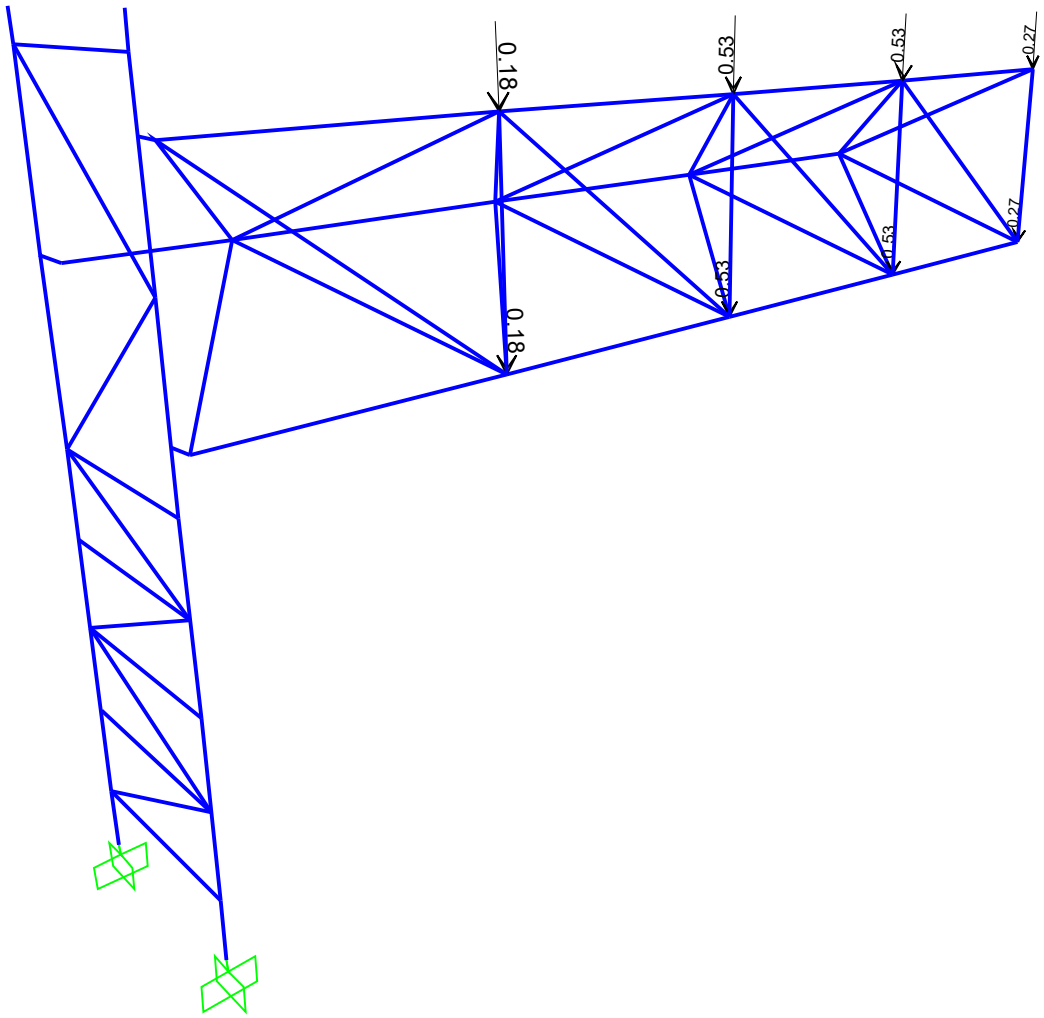
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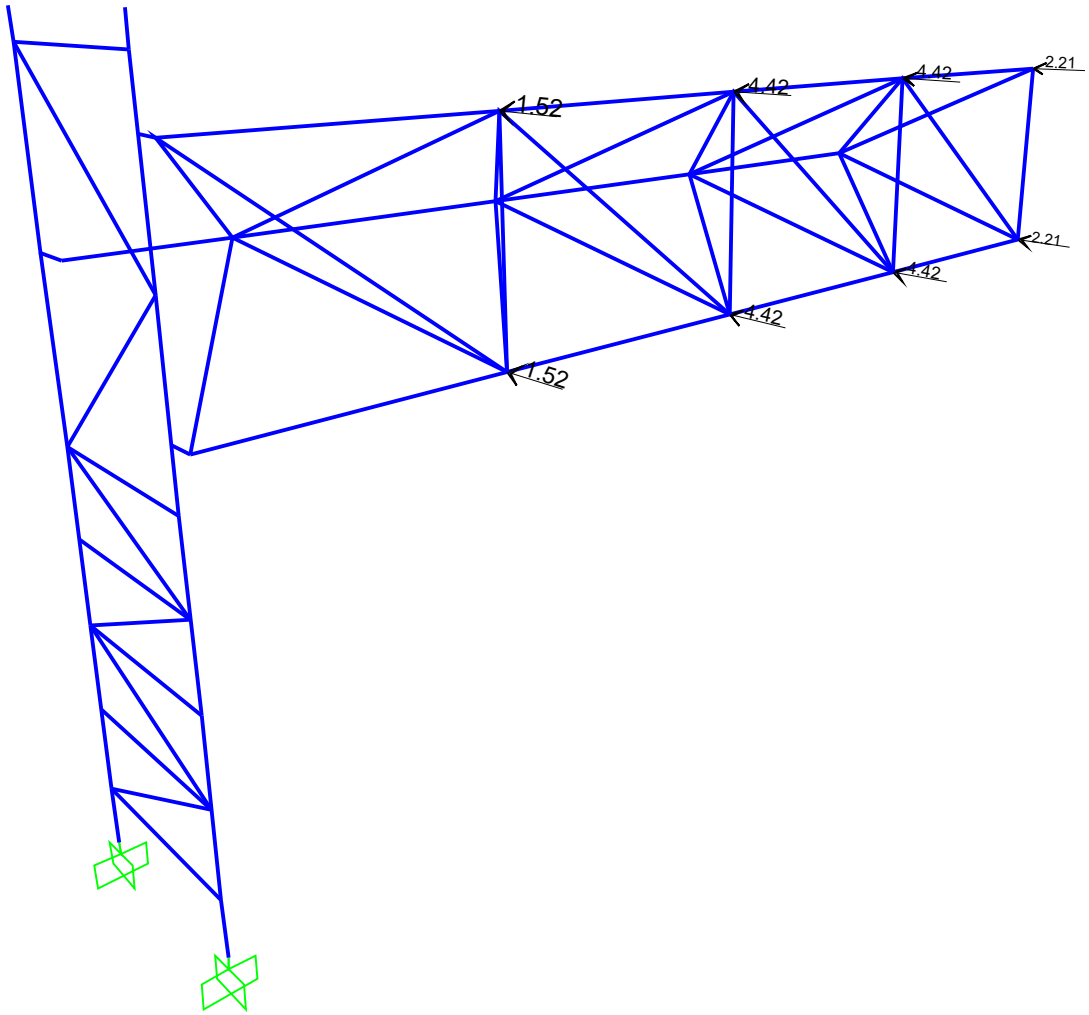
0.18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2.21
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4.42
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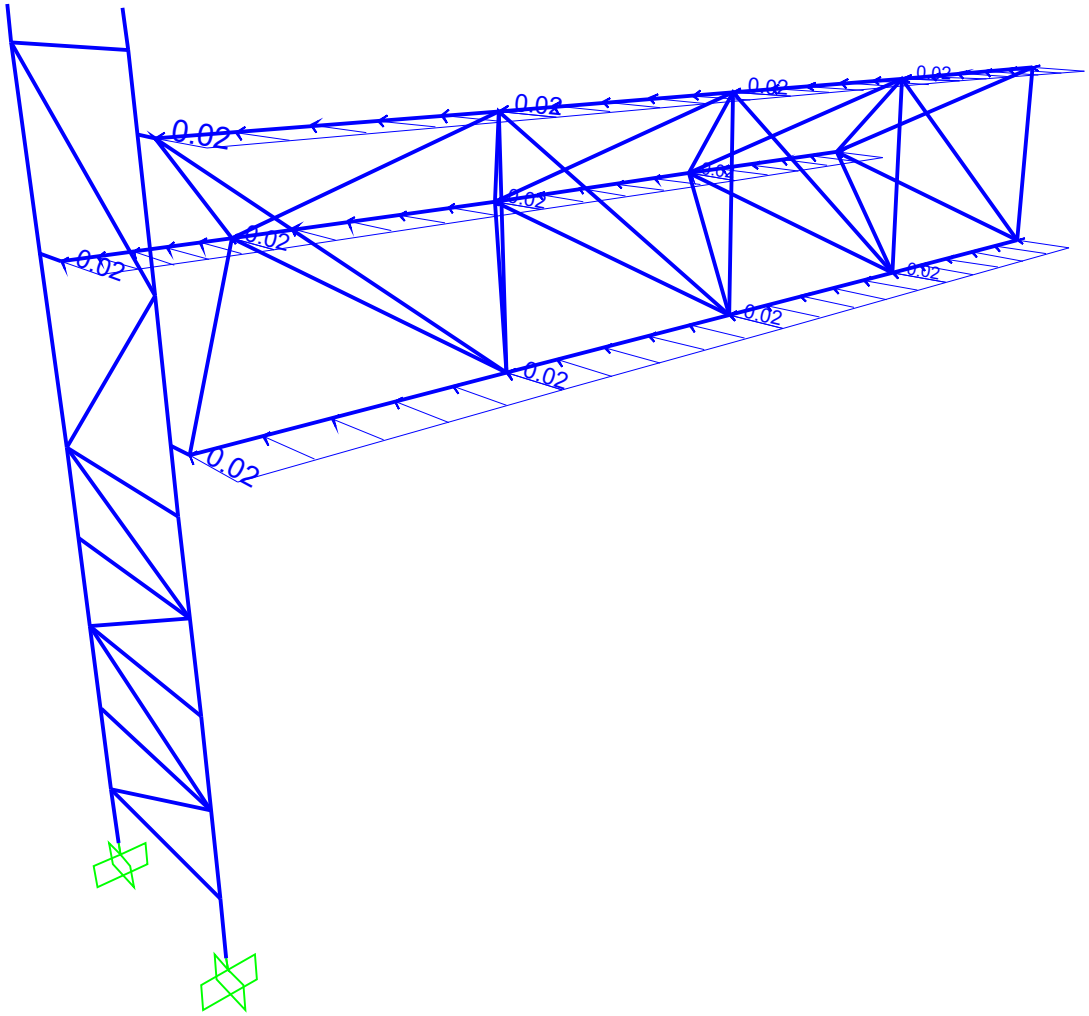
1.52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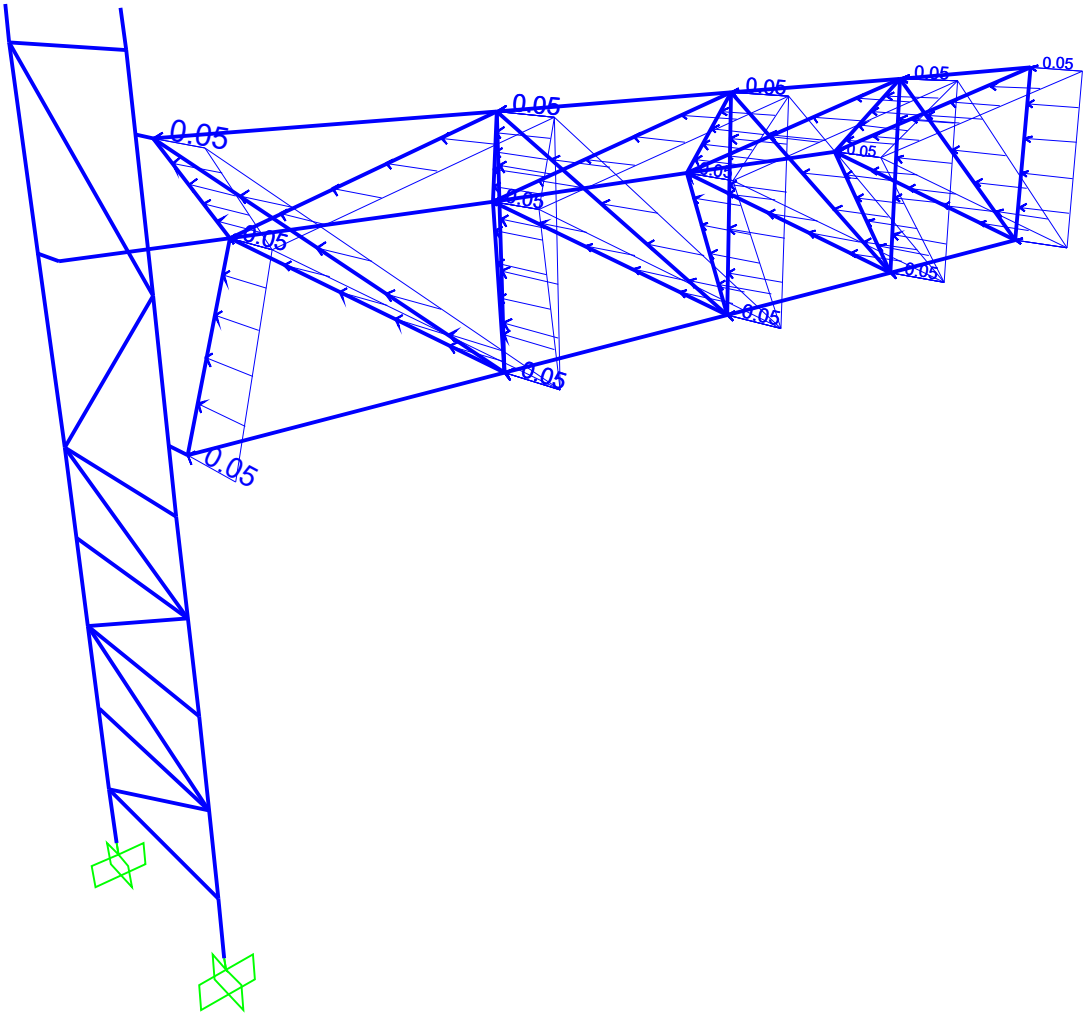
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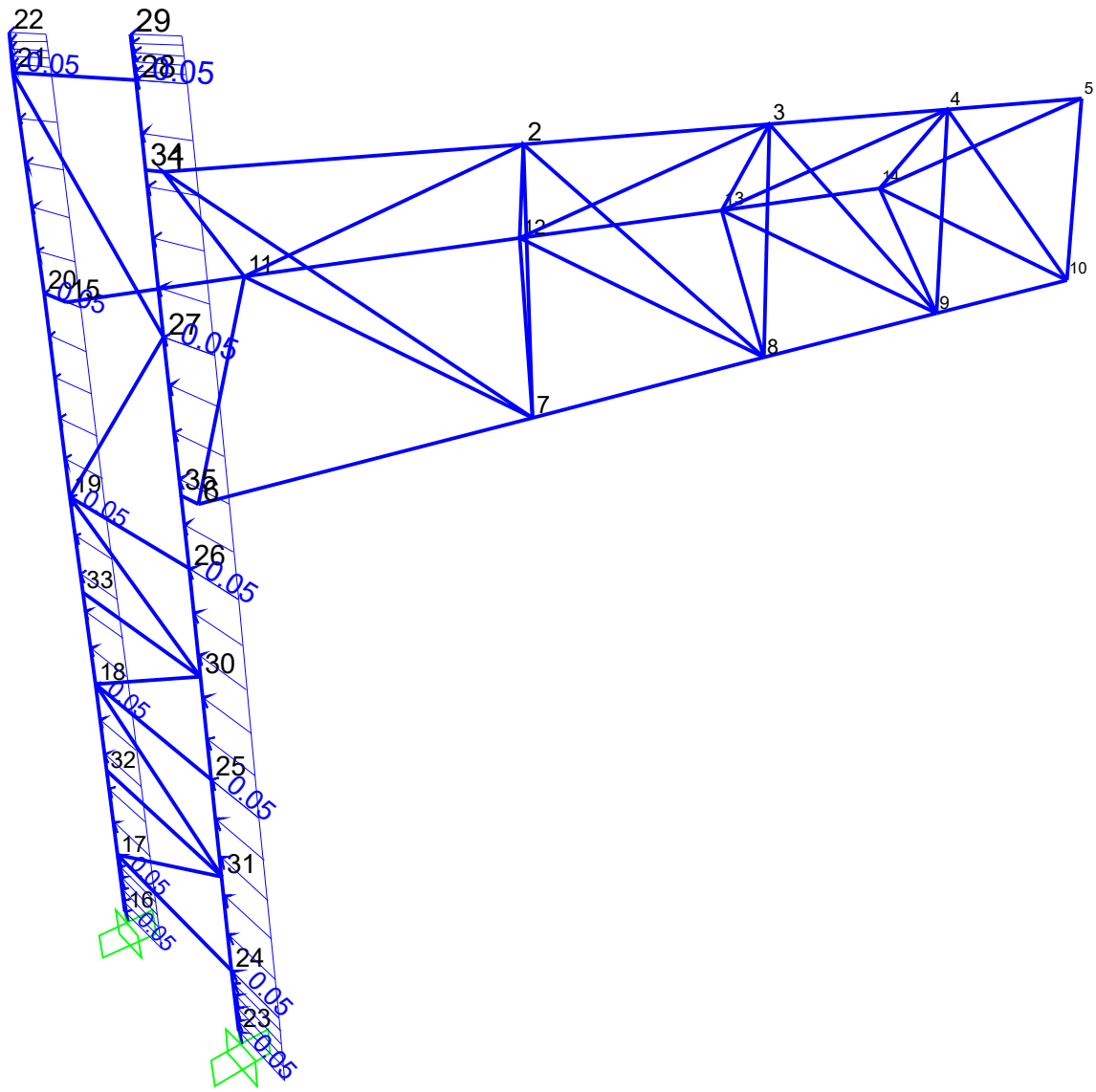
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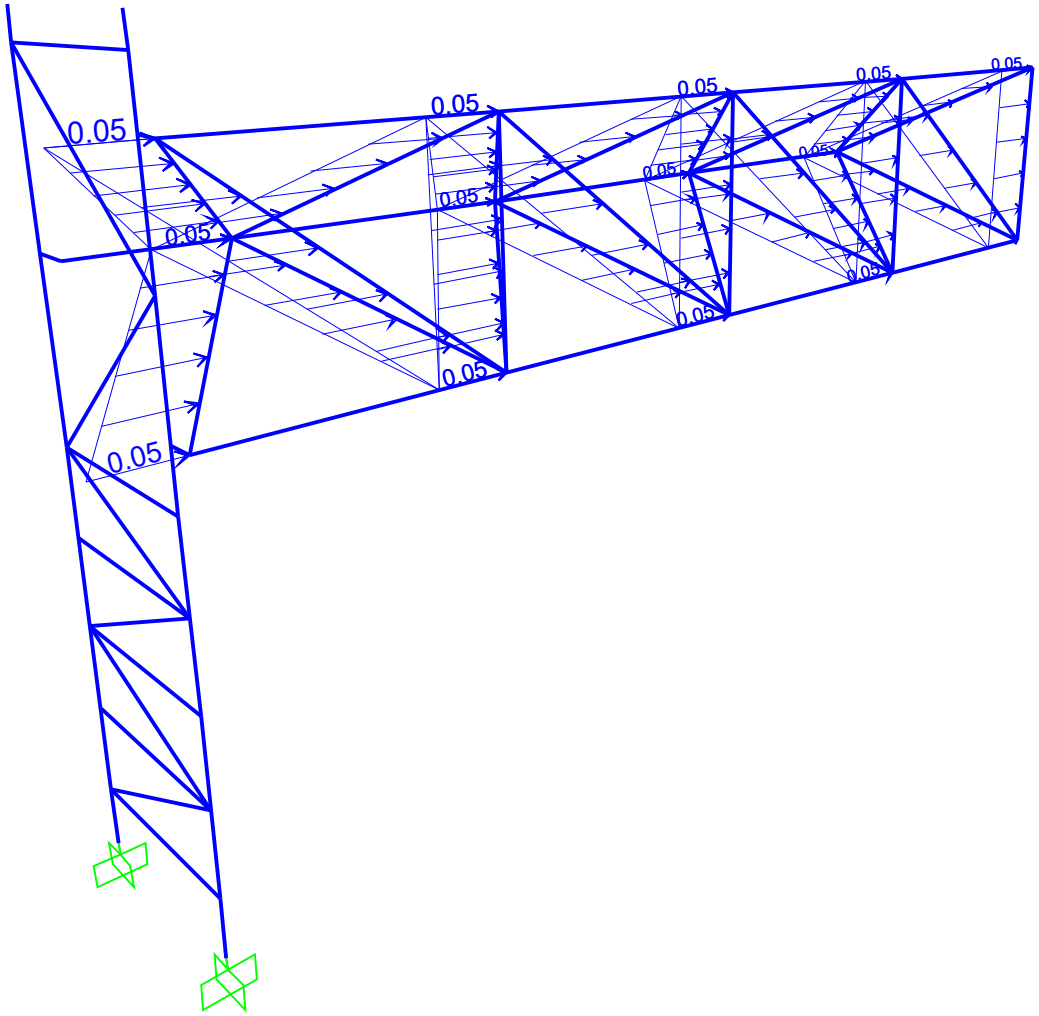
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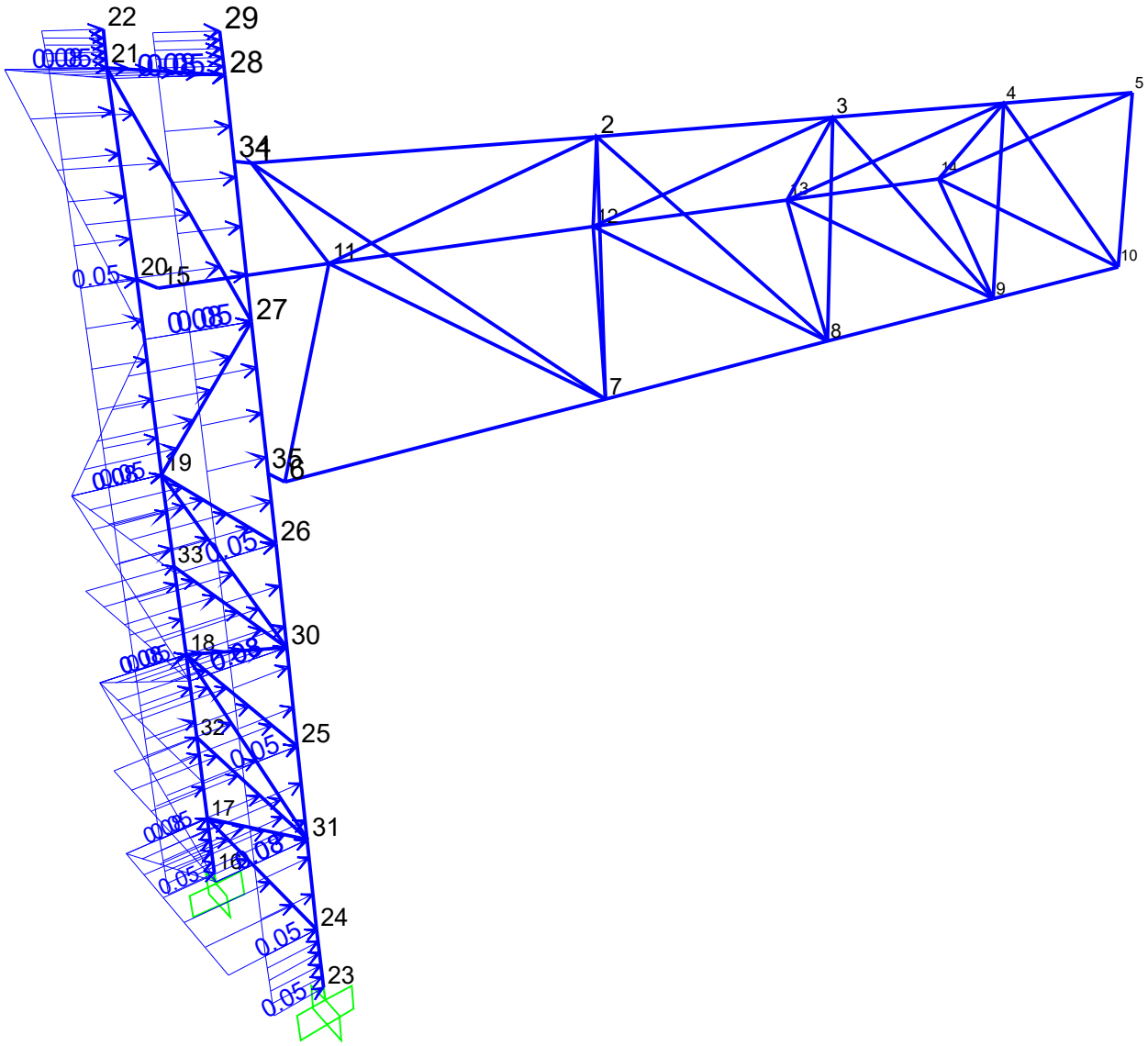
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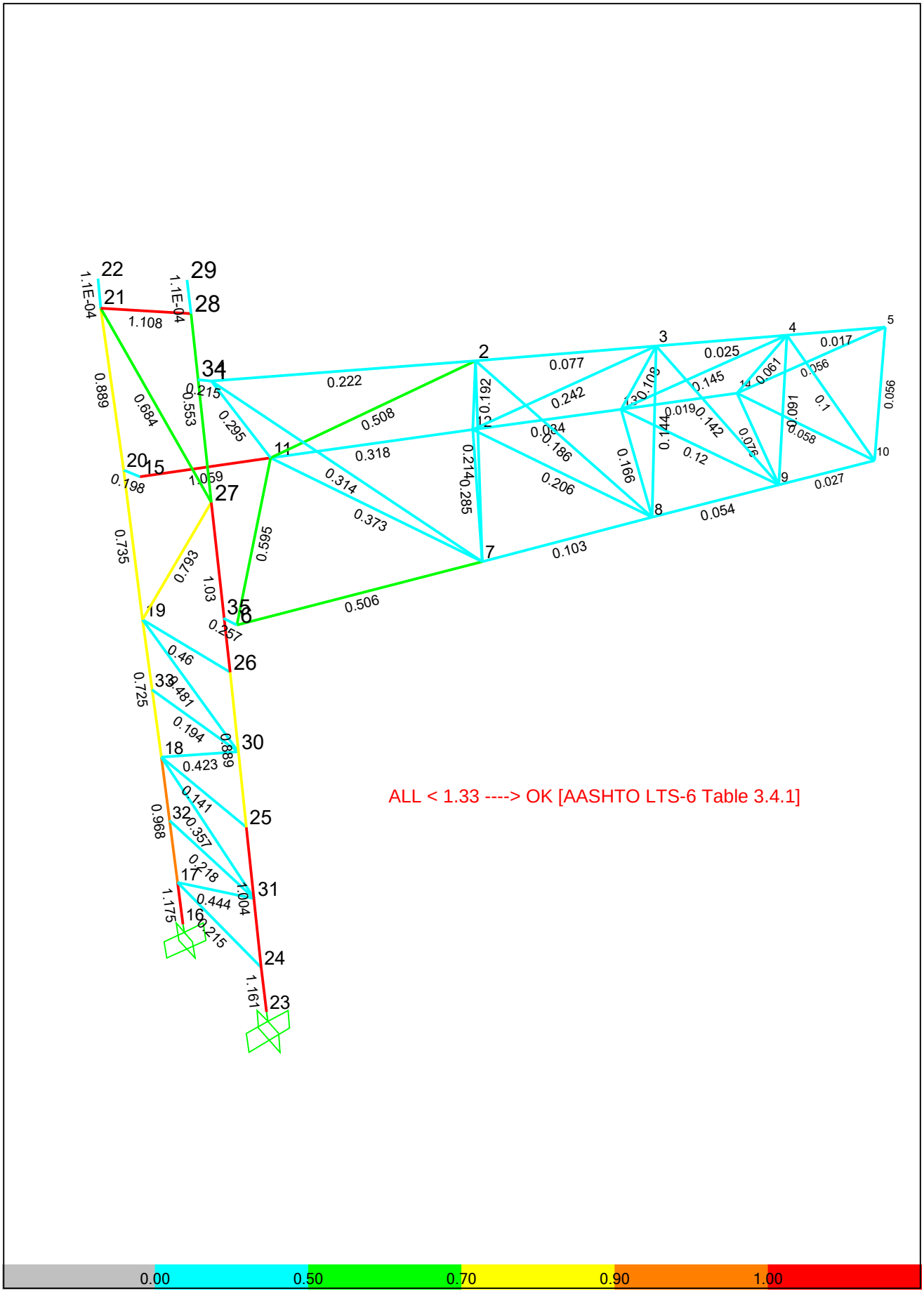

ALL < 1.33 ----> OK [AASHTO LTS-6 Table 3.4.1]
0.00
0.50
0.70
0.90
1.00

TABLE: Element Joint Forces - Frames									
Frame	Joint	OutputCase	CaseType	F1	F2	F3	M1	M2	M3
Text	Text	Text	Text	Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
61	34	DEAD	LinStatic	-17.956	-1.014	4.916	-4.1783	0.9422	-15.0725
61	1	DEAD	LinStatic	17.956	1.014	-4.78	-0.6699	-0.9422	-2.8831
61	34	DEAD SIGN	LinStatic	-9.775	0.416	2.455	-2.2652	0.5867	-8.1442
61	1	DEAD SIGN	LinStatic	9.775	-0.416	-2.455	-0.1898	-0.5867	-1.631
61	34	WIND SIGN	LinStatic	-41.061	-2.025	0.584	0.4846	-2.7296	-38.8359
61	1	WIND SIGN	LinStatic	41.061	2.025	-0.584	-1.0687	2.7296	-2.2255
61	34	CHORD	LinStatic	-2.596	-0.385	0.134	-0.0579	-0.1547	-2.5943
61	1	CHORD	LinStatic	2.596	0.385	-0.134	-0.0758	0.1547	-0.0016
61	34	TRUSS (FRONT)	LinStatic	-15.75	-2.032	0.724	-1.1717	-0.9809	-15.5404
61	1	TRUSS (FRONT)	LinStatic	15.75	2.032	-0.724	0.4478	0.9809	-0.2096
61	34	TRUSS (SIDE)	LinStatic	-4.104	0.053	-0.032	0.2333	0.4108	-3.2581
61	1	TRUSS (SIDE)	LinStatic	4.104	-0.053	0.032	-0.201	-0.4108	-0.8454
61	34	UPRIGHT (FRONT)	LinStatic	-0.00007698	0.00111	-0.0009122	0.000839	0.000008353	-0.0028
61	1	UPRIGHT (FRONT)	LinStatic	0.00007698	-0.00111	0.0009122	0.00007321	-0.000008353	0.0028
61	34	UPRIGHT (SIDE)	LinStatic	0.031	-0.021	-0.038	-0.0053	0.1094	-0.1457
61	1	UPRIGHT (SIDE)	LinStatic	-0.031	0.021	0.038	0.0433	-0.1094	0.1767
61	34	DL + WL (Front)	Combination	-87.138	-5.039	8.812	-7.1876	-2.3363	-80.1902
61	1	DL + WL (Front)	Combination	87.138	5.039	-8.676	-1.5563	2.3363	-6.948
61	34	DL + WL (Side)	Combination	-32.323	-0.643	7.328	-6.227	2.0181	-27.1394
61	1	DL + WL (Side)	Combination	32.323	0.643	-7.192	-1.0326	-2.0181	-5.1831
61	34	DL	Combination	-27.731	-0.598	7.371	-6.4434	1.5289	-23.2167
61	1	DL	Combination	27.731	0.598	-7.235	-0.8597	-1.5289	-4.5141
61	34	DL - WL (Front)	Combination	31.676	3.843	5.93	-5.6993	5.3941	33.7567
61	1	DL - WL (Front)	Combination	-31.676	-3.843	-5.794	-0.1631	-5.3941	-2.0803
62	6	DEAD	LinStatic	-18.223	-1.255	-1.738	-0.9838	3.3932	3.7311
62	35	DEAD	LinStatic	18.223	1.255	1.874	-0.8225	-3.3932	14.4918
62	6	DEAD SIGN	LinStatic	-9.92	0.284	-0.254	-0.3452	1.6174	2.0876
62	35	DEAD SIGN	LinStatic	9.92	-0.284	0.254	0.0917	-1.6174	7.8322
62	6	WIND SIGN	LinStatic	45.701	10.476	4.806	-2.6257	-1.7823	20.3482
62	35	WIND SIGN	LinStatic	-45.701	-10.476	-4.806	7.4319	1.7823	-66.0492
62	6	CHORD	LinStatic	2.885	0.926	0.405	-0.1565	-0.1275	1.4444
62	35	CHORD	LinStatic	-2.885	-0.926	-0.405	0.5617	0.1275	-4.329
62	6	TRUSS (FRONT)	LinStatic	17.511	5.177	2.362	-1.369	-0.7475	8.1446
62	35	TRUSS (FRONT)	LinStatic	-17.511	-5.177	-2.362	3.731	0.7475	-25.656
62	6	TRUSS (SIDE)	LinStatic	4.287	0.318	0.131	-0.0867	0.4319	0.2153
62	35	TRUSS (SIDE)	LinStatic	-4.287	-0.318	-0.131	0.2182	-0.4319	-4.5019
62	6	UPRIGHT (FRONT)	LinStatic	0.007157	0.02	0.012	0.0039	-0.0042	0.0013
62	35	UPRIGHT (FRONT)	LinStatic	-0.007157	-0.02	-0.012	0.0084	0.0042	-0.0085
62	6	UPRIGHT (SIDE)	LinStatic	-0.005766	0.003131	-0.05	-0.0534	0.253	0.1675
62	35	UPRIGHT (SIDE)	LinStatic	0.005766	-0.003131	0.05	0.0035	-0.253	-0.1617
62	6	DL + WL (Front)	Combination	37.961	15.629	5.594	-5.4764	2.349	35.7573
62	35	DL + WL (Front)	Combination	-37.961	-15.629	-5.458	11.0021	-2.349	-73.7186
62	6	DL + WL (Side)	Combination	-23.285	-0.464	-1.829	-1.5005	5.67	6.4904
62	35	DL + WL (Side)	Combination	23.285	0.464	1.965	-0.3968	-5.67	16.7947
62	6	DL	Combination	-28.143	-0.97	-1.992	-1.329	5.0106	5.8187
62	35	DL	Combination	28.143	0.97	2.128	-0.7308	-5.0106	22.3241
62	6	DL - WL (Front)	Combination	-94.247	-17.569	-9.577	2.8183	7.6722	-24.1199
62	35	DL - WL (Front)	Combination	94.247	17.569	9.713	-12.4638	-7.6722	118.3667
63	15	DEAD	LinStatic	0.267	0.241	-0.745	0.0079	3.1587	1.0039
63	20	DEAD	LinStatic	-0.267	-0.241	0.959	-1.3477	-3.1587	-1.424
63	15	DEAD SIGN	LinStatic	0.145	0.132	-0.328	0.0028	1.5499	0.5454
63	20	DEAD SIGN	LinStatic	-0.145	-0.132	0.328	-0.5176	-1.5499	-0.7727
63	15	WIND SIGN	LinStatic	-86.762	12.623	-4.222	-0.8553	17.611	53.9655
63	20	WIND SIGN	LinStatic	86.762	-12.623	4.222	-5.7813	-17.611	82.4104
63	15	CHORD	LinStatic	-5.48	0.837	-0.271	-0.0528	1.1278	3.4559
63	20	CHORD	LinStatic	5.48	-0.837	0.271	-0.3738	-1.1278	5.1584
63	15	TRUSS (FRONT)	LinStatic	-33.261	4.876	-1.638	-0.31	6.8122	20.853
63	20	TRUSS (FRONT)	LinStatic	33.261	-4.876	1.638	-2.2647	-6.8122	31.4282
63	15	TRUSS (SIDE)	LinStatic	3.695	-0.265	-0.164	-0.0617	0.7107	-0.7231
63	20	TRUSS (SIDE)	LinStatic	-3.695	0.265	0.164	-0.1956	-0.7107	-5.0846
63	15	UPRIGHT (FRONT)	LinStatic	-0.007234	-0.019	-0.013	0.0021	0.0326	-0.0542
63	20	UPRIGHT (FRONT)	LinStatic	0.007234	0.019	0.013	-0.0227	-0.0326	0.0656
63	15	UPRIGHT (SIDE)	LinStatic	0.037	-0.024	0.012	-0.0025	-0.0424	-0.0891
63	20	UPRIGHT (SIDE)	LinStatic	-0.037	0.024	-0.012	0.0213	0.0424	0.0312
63	15	DL + WL (Front)	Combination	-125.099	18.689	-7.218	-1.2053	30.2922	79.7695
63	20	DL + WL (Front)	Combination	125.099	-18.689	7.432	-10.3079	-30.2922	116.8659
63	15	DL + WL (Side)	Combination	3.047	0.251	-1.279	-0.0641	5.6025	1.4283
63	20	DL + WL (Side)	Combination	-3.047	-0.251	1.493	-2.1144	-5.6025	-6.2185
63	15	DL	Combination	0.412	0.372	-1.073	0.0107	4.7087	1.5492
63	20	DL	Combination	-0.412	-0.372	1.287	-1.8654	-4.7087	-2.1967
63	15	DL - WL (Front)	Combination	125.923	-17.944	5.072	1.2268	-20.8749	-76.671
63	20	DL - WL (Front)	Combination	-125.923	17.944	-4.858	6.5772	20.8749	-121.2593
			MAX	125.923	18.689	9.713	12.4638	30.2922	121.2593

TRUSS TO UPRIGHT CONNECTION

Truss Connection Calculations

Design Truss-to-Upright Connections

Connection Output

Get Design Forces for the Truss-to-Upright Connection Elements

Design forces for the truss-to-upright connection elements are obtained from the SAP output data computed during the 3D frame analysis.

$Conn\_Horz\_Shear := 9.713kip$

$Conn\_Vert\_Shear := 18.689kip$

$Conn\_Axial\_Force := 125.923kip$

$Upright\_Diameter := 18in$

$Upright\_Thickness := 0.500in$

$Fy\_Upright := 42ksi$

$Vert\_Depth := 8ft$

$Chord\_Diameter := 6.625in$

$E := 29000 \cdot ksi$

$Gs := 11200 \cdot ksi$

Determine Required Bolt Size and Number of Bolts for Connection Plates

The truss-to-upright bolted connections are designed in accordance with AASHTO Standard Specifications for Highway Bridges, 17th Edition (2002). Bolts used will be 7/8" diameter or 1" diameter, as required. Bolt spacing is 3.5" per FDOT Design Standards.

$$Truss\_Bolt\_Data := \begin{pmatrix} \text{"Bolt Type"} & \text{"Diameter (in)"} & \text{"Area (in^2)"} \\ 1 & 1.000 & 0.7854 \\ 2 & 1.250 & 1.2272 \\ 3 & 1.500 & 1.7671 \\ 4 & 1.750 & 2.4053 \\ 5 & 2.000 & 3.1416 \end{pmatrix}$$

[AISC Table I-D]

$Min\_Truss\_Bolt\_Type := 3$

Bolt_Props :=

HorzShear ← Conn_Horz_Shear

VertShear ← Conn_Vert_Shear

AxialForce ← Conn_Axial_Force

ConnLen ← 0·in

MaxConnLen ← Upright_Diameter + 2·in

$F_v \leftarrow (19 \cdot ksi)$ [AASHTO Bridge Table 10.32.3B; AASHTO Table 3.4-1]

$F_t \leftarrow (38 \cdot ksi)$

if Min_Truss_Bolt_Type = 1

"Design Connection Using 7/8" Diameter Bolts"

BoltType ← 1

$A_{bolt} \leftarrow Truss\_Bolt\_Data_{BoltType,2} \cdot in^2$

$F_{v\_bolt} \leftarrow A_{bolt} \cdot F_v$

"Design for Shear"

$MaxShearForce \leftarrow \sqrt{HorzShear^2 + AxialForce^2}$

$NumBolts \leftarrow \frac{MaxShearForce}{F_{v\_bolt}}$

$NumBolts \leftarrow Ceil(round(NumBolts, 5), 2)$

"Check Tension" *use even number of bolts*

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$ [AASHTO Bridge Eq. 10-16]

while $f_t > F'_t$ [AASHTO Bridge Eq. 10-17]

NumBolts ← NumBolts + 2

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$

"Set Minimum Number of Bolts"

NumBolts ← 4 if NumBolts < 4

ConnLen ← NumBolts·(1.75·in)

if Min_Truss_Bolt_Type = 3 ∨ ConnLen > MaxConnLen

"Design Connection Using 1" Diameter Bolts"

BoltType ← 3

$A_{bolt} \leftarrow Truss\_Bolt\_Data_{BoltType,2} \cdot in^2$

$F_{v\_bolt} \leftarrow A_{bolt} \cdot F_v$

"Design for Shear"

$MaxShearForce \leftarrow \sqrt{HorzShear^2 + AxialForce^2}$

$NumBolts \leftarrow \frac{MaxShearForce}{F_{v\_bolt}}$

$NumBolts \leftarrow Ceil(round(NumBolts, 5), 2)$

"Check Tension"

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$$

while $f_t > F'_t$

$NumBolts \leftarrow NumBolts + 2$

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$$

"Set Minimum Number of Bolts"

$NumBolts \leftarrow 4 \text{ if } NumBolts < 4$

"Return Error if Connection Design Exceeds Geometric Constraints"

$ConnLen \leftarrow NumBolts \cdot (1.75 \cdot in)$

if ConnLen > MaxConnLen

$BoltData_0 \leftarrow -1$

$BoltData_1 \leftarrow 0$

return BoltData

$BoltData_0 \leftarrow BoltType$

$\text{BoltData}_1 \leftarrow \text{NumBolts}$

return BoltData

$\text{Truss\_Bolt\_Type} := \text{Bolt\_Props}_0$

$$\text{Truss\_Bolt\_Diameter} := \begin{cases} \text{Truss\_Bolt\_Data}_{\text{Truss\_Bolt\_Type},1} \cdot \text{in} & \text{if Truss\_Bolt\_Type} \neq -1 \\ 0 \cdot \text{in} & \text{otherwise} \end{cases}$$

$\text{Num\_Bolts} := \text{Bolt\_Props}_1$

$\text{Truss\_Bolt\_Type} = 3$

$\text{Truss\_Bolt\_Diameter} = 1.5 \cdot \text{in}$

$\text{Num\_Bolts} = 4$

Compute the Required Thickness for the Horizontal Connection Plates (TD)

The buckling of the horizontal plates is investigated using Formula 12 on page 544 of the 5th edition of the book "Formulas for Stress and Strain" by Raymond Roark and Warren Young.

$\text{Min\_Horz\_Plate\_Thickness} := 0.625\,\text{in}$

$\text{Horz\_Depth} := \text{Vert\_Depth} \cdot \sin(60 \cdot \text{deg})$

Horz_Plate_Thickness :=

HorzShear ← Conn_Horz_Shear

FOS ← 2.0 *factor of safety*

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Min\_Horz\_Plate\_Thickness$

$b_{plate} \leftarrow Upright\_Diameter + 2 \cdot in$

$P_{crit} \leftarrow \frac{0.669 \cdot t_{plate}^{3} \cdot b_{plate} \cdot \sqrt{\left(1 - 0.63 \cdot \frac{t_{plate}}{b_{plate}}\right) \cdot E \cdot Gs}}{L_{plate}^{2}}$

while $P_{crit} < FOS \cdot HorzShear$

$t_{plate} \leftarrow t_{plate} + \frac{1}{8} \cdot in$

"Return Error if Calculated Plate Thickness Exceeds Program Limit"

if $t_{plate} > 1.0001 \cdot in$

$t_{plate} \leftarrow -1 \cdot in$

return t_{plate}

$P_{crit} \leftarrow \frac{0.669 \cdot t_{plate}^{3} \cdot b_{plate} \cdot \sqrt{\left(1 - 0.63 \cdot \frac{t_{plate}}{b_{plate}}\right) \cdot E \cdot Gs}}{L_{plate}^{2}}$

return t_{plate}

$Horz\_Plate\_Thickness = 0.625 \cdot in$

Compute the Required Thicknesses for the Vertical Connection Plates (TE)

The buckling of the vertical plates is investigated using the discussion on pages 752 through 765 in the 2nd edition of the book "Steel Structures" by Charles Salmon and John Johnson

$Min\_Vert\_Plate\_Thickness := 0.875 in$

Vert_Plate_Thickness :=

$F_{y\_plate} \leftarrow 36 \cdot ksi$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow L_{plate} \cdot \frac{\sqrt{\frac{F_{y\_plate}}{ksi}}}{250}$ [Salmon Eq. 13.5.5a]

if $t_{plate} < Min\_Vert\_Plate\_Thickness$

"Apply User-Specified Minimum Plate Thickness"

$t_{plate} \leftarrow Min\_Vert\_Plate\_Thickness$

return t_{plate}

$Vert\_Plate\_Thickness = 0.875 \cdot in$

Design Welds for Truss to Upright Connection Plates (TF, TG, TH, TJ)

$F_u := 70ksi$

$F_{weld} := 0.60 \cdot 0.75 \cdot F_u = 31.5 \cdot ksi$

Horz_PL_to_Upright_Weld :=

$HorzShear \leftarrow Conn\_Horz\_Shear$

$AxialForce \leftarrow Conn\_Axial\_Force$

$D_{upright} \leftarrow Upright\_Diameter$

$t_{upright} \leftarrow Upright\_Thickness$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Horz\_Plate\_Thickness$

$MomArm \leftarrow L_{plate} + 0.36338 \cdot \frac{D_{upright}}{2}$

$WeldInertia \leftarrow 1.86835 \cdot \left(\frac{D_{upright}}{2}\right)^3$

$WeldForceX \leftarrow \frac{HorzShear \cdot MomArm \cdot \left(0.63662 \cdot \frac{D_{upright}}{2}\right)}{WeldInertia} + \frac{2 \cdot HorzShear}{\pi \cdot D_{upright}}$

$WeldForceY \leftarrow \frac{HorzShear \cdot MomArm \cdot \left(\frac{D_{upright}}{2}\right)}{WeldInertia} + \frac{2 \cdot AxialForce}{\pi \cdot D_{upright}}$

$WeldForce \leftarrow \frac{\sqrt{WeldForceX^2 + WeldForceY^2}}{2}$

$WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right)$

$WeldSize \leftarrow \frac{3}{16} \cdot in \quad if \quad WeldSize < \frac{3}{16} \cdot in$

$WeldSize \leftarrow \frac{1}{\ldots} \cdot \ldots if \ldots \frac{1}{\ldots} \cdot \ldots WeldSize \ldots \frac{1}{\ldots} \cdot \ldots$

$$\begin{aligned}
&\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if } t_{upright} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in} \\
&\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if } t_{plate} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in} \\
&\text{WeldSize} \leftarrow \frac{5}{16}\cdot\text{in} \quad \text{if } t_{plate} > \frac{3}{4}\cdot\text{in} \wedge \text{WeldSize} < \frac{5}{16}\cdot\text{in} \\
&\text{return WeldSize}
\end{aligned}$$

$\text{Horz\_PL\_to\_Upright\_Weld} = 0.25\cdot\text{in}$

Compute Allowable Shear Stress for Fillet Welds

Note: The allowable weld stress computed here is used to design all welds computed by the program.

$F_{weld} :=$

$F_u \leftarrow 70\text{ksi}$ [E70xx Electrode]

$F_v \leftarrow 0.27\cdot F_u$ [AASHTO Bridge Eq. 10-12]

$F_{weld} \leftarrow 0.707\cdot F_v$

$F_{weld} \leftarrow F_{weld}\cdot 1.33$ *apply "group load" factor* [AASHTO Table 3.4-1]

return F_{weld}

$F_{weld} = 17.772\cdot\text{ksi}$

$$\text{Vert\_PL\_to\_Upright\_Weld} :=$$

$\text{VertShear} \leftarrow \text{Conn\_Vert\_Shear}$

$\text{AxialForce} \leftarrow \text{Conn\_Axial\_Force}$

$D_{upright} \leftarrow \text{Upright\_Diameter}$

$t_{upright} \leftarrow \text{Upright\_Thickness}$

$L_{plate} \leftarrow \frac{\text{Horz\_Depth}}{2} - \frac{\text{Upright\_Diameter}}{2}$

$t_{plate} \leftarrow \text{Horz\_Plate\_Thickness}$

$$Spa_{vertplate} \leftarrow \begin{cases} 3\cdot(3.5\cdot\text{in}) & \text{if } \text{mod}(\text{Num\_Bolts},4) > 0 \\ 2\cdot(3.5\cdot\text{in}) & \text{otherwise} \end{cases}$$

$$\theta \leftarrow \text{asin}\left(\frac{Spa_{vertplate}}{D_{upright}}\right)$$

$$\text{MomArm} \leftarrow L_{plate} + \frac{D_{upright}}{2}\cdot(1 - \cos(\theta))$$

$$\text{WeldForceX} \leftarrow \frac{\text{VertShear}}{4\cdot\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)}$$

$$\text{WeldForceY} \leftarrow \frac{\text{AxialForce}}{4\cdot\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)} \ldots + \frac{\text{VertShear}\cdot\text{MomArm}}{4\cdot\left[\frac{\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)^2}{6}\right]}$$

$$\text{WeldForce} \leftarrow \sqrt{\text{WeldForceX}^2 + \text{WeldForceY}^2}$$

$$\text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16}\cdot\text{in}, \frac{1}{16}\cdot\text{in}\right)$$

$$\text{WeldSize} \leftarrow \frac{3}{16}\cdot\text{in} \quad \text{if} \quad \text{WeldSize} < \frac{3}{16}\cdot\text{in}$$

$$\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if} \quad t_{upright} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in}$$

$$\text{WeldSize} \leftarrow \frac{5}{16}\cdot\text{in} \quad \text{if} \quad t_{upright} > \frac{3}{4}\cdot\text{in} \wedge \text{WeldSize} < \frac{5}{16}\cdot\text{in}$$

return WeldSize

$$\text{Vert\_PL\_to\_Upright\_Weld} = 0.1875\cdot\text{in}$$

$$\text{Conn\_PL\_to\_Chord\_Weld} :=$$

$\text{HorzShear} \leftarrow \text{Conn\_Horz\_Shear}$

$$\text{WeldForce} \leftarrow 0.9\cdot\frac{\text{HorzShear}}{4\cdot(1.5\cdot\text{Chord\_Diameter})}$$

$$\text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16}\cdot\text{in}, \frac{1}{16}\cdot\text{in}\right)$$

$$\text{WeldSize} \leftarrow \frac{3}{16}\cdot\text{in} \quad \text{if} \quad \text{WeldSize} < \frac{3}{16}\cdot\text{in}$$

return WeldSize

$\text{Conn\_PL\_to\_Chord\_Weld} = 0.1875 \cdot \text{in}$

$\text{Horz\_PL\_to\_Vert\_PL\_Weld} :=$

$\text{VertShear} \leftarrow \text{Conn\_Vert\_Shear}$

$L_{plate} \leftarrow \frac{\text{Horz\_Depth}}{2} - \frac{\text{Upright\_Diameter}}{2}$

$t_{plate} \leftarrow \text{Horz\_Plate\_Thickness}$

$\text{WeldForce} \leftarrow \frac{\text{VertShear}}{4 \cdot \left(L_{plate} - 0.75 \cdot \text{in} - t_{plate}\right)}$

$\text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16} \cdot \text{in}, \frac{1}{16} \cdot \text{in}\right)$

$\text{WeldSize} \leftarrow \frac{3}{16} \cdot \text{in} \quad \text{if} \quad \text{WeldSize} < \frac{3}{16} \cdot \text{in}$

$\text{WeldSize} \leftarrow \frac{1}{4} \cdot \text{in} \quad \text{if} \quad t_{plate} > \frac{1}{2} \cdot \text{in} \wedge \text{WeldSize} < \frac{1}{4} \cdot \text{in}$

$\text{WeldSize} \leftarrow \frac{5}{16} \cdot \text{in} \quad \text{if} \quad t_{plate} > \frac{3}{4} \cdot \text{in} \wedge \text{WeldSize} < \frac{5}{16} \cdot \text{in}$

return WeldSize

$\text{Horz\_PL\_to\_Vert\_PL\_Weld} = 0.25 \cdot \text{in}$

Check Stresses in Horizontal Connection Plates

$\text{Horz\_Plate\_Stress\_Check} :=$

$\text{HorzShear} \leftarrow \text{Conn\_Horz\_Shear}$

$F_{y\_plate} \leftarrow 36 \cdot \text{ksi}$

$D_{upright} \leftarrow \text{Upright\_Diameter}$

$L_{plate} \leftarrow \frac{\text{Horz\_Depth}}{2} - \frac{\text{Upright\_Diameter}}{2}$

$t_{plate} \leftarrow \text{Horz\_Plate\_Thickness}$

$b_{plate} \leftarrow \text{Upright\_Diameter} + 2 \cdot \text{in}$

$L_{vertplate} \leftarrow L_{plate}$

$t_{vertplate} \leftarrow \text{Vert\_Plate\_Thickness}$

$\text{Spa}_{vertplate} \leftarrow \begin{cases} 3 \cdot (3.5 \cdot \text{in}) & \text{if } \text{mod}(\text{Num\_Bolts}, 4) > 0 \\ 2 \cdot (3.5 \cdot \text{in}) & \text{otherwise} \end{cases}$

$S_y \leftarrow \frac{\frac{t_{plate} \cdot b_{plate}^{3}}{12} + \frac{\left(L_{vertplate} - t_{plate} - 0.75 \cdot \text{in}\right) \cdot t_{vertplate} \cdot \text{Spa}_{vertplate}^{2}}{2}}{\frac{b_{plate}}{2}}$

$d_{mom} \leftarrow L_{plate} + 0.36338 \cdot \frac{D_{upright}}{2}$

$f_b \leftarrow \frac{\text{HorzShear} \cdot d_{mom}}{S_y}$

$F_b \leftarrow \left(0.66 \cdot F_{y\_plate}\right) \cdot 1.33$

$\text{Msg} \leftarrow \begin{cases} \text{"OK"} & \text{if } \frac{f_b}{F_b} \le 1.0 \end{cases}$

"N.G. Design connection to upright by hand." otherwise

return Msg

Horz_Plate_Stress_Check = "OK"

Check Stresses in Vertical Connection Plates

Vert_Plate_Stress_Check :=

VertShear ← Conn_Vert_Shear

$F_{y\_plate} \leftarrow 36 \cdot ksi$

$D_{upright} \leftarrow Upright\_Diameter$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Horz\_Plate\_Thickness$

$b_{plate} \leftarrow Upright\_Diameter + 2 \cdot in$

$L_{vertplate} \leftarrow L_{plate}$

$t_{vertplate} \leftarrow Vert\_Plate\_Thickness$

$Spa_{vertplate} \leftarrow \begin{cases} 3 \cdot (3.5 \cdot in) & \text{if } mod(Num\_Bolts, 4) > 0 \\ 2 \cdot (3.5 \cdot in) & \text{otherwise} \end{cases}$

$C_x \leftarrow \frac{t_{plate} \cdot b_{plate} \cdot \left(L_{vertplate} - \frac{t_{plate}}{2}\right) + \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right)^2 \cdot t_{vertplate}}{t_{plate} \cdot b_{plate} + 2 \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right) \cdot t_{vertplate}}$

$R_x \leftarrow \frac{2 \cdot t_{vertplate} \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right)^3}{12} + t_{plate} \cdot b_{plate} \cdot \left(L_{vertplate} - \frac{t_{plate}}{2} - C_x\right)^2 \ldots$

$+ 2 \cdot t_{vertplate} \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right) \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in - C_x\right)^2$

$S_x \leftarrow \min\left(\frac{R_x}{C_x}, \frac{R_x}{\left|L_{vertplate} - C_x\right|}\right)$

$\theta \leftarrow \operatorname{asin}\left(\frac{Spa_{vertplate}}{D_{upright}}\right)$

$d_{mom} \leftarrow L_{plate} + \frac{D_{upright}}{2} \cdot (1 - \cos(\theta))$

$f_b \leftarrow \frac{VertShear \cdot d_{mom}}{S_x}$

$F_b \leftarrow \left(0.66 \cdot F_{y\_plate}\right) \cdot 1.33$

$Msg \leftarrow \begin{cases} \text{"OK"} & \text{if } \frac{f_b}{F_b} \le 1.0 \\ \text{"N.G. Design connection to upright by hand."} & \text{otherwise} \end{cases}$

return Msg

Vert_Plate_Stress_Check = "OK"

Check Yielding of Uprights due to Vertical Plate Loads

Upright_Yielding_Check :=

VertShear ← Conn_Vert_Shear

FOS ← 1.5 *factor of safety*

$t_{upright} \leftarrow$ Upright_Thickness

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$L_{vertplate} \leftarrow L_{plate}$

$VertMom \leftarrow VertShear \cdot L_{plate}$

$VertCap \leftarrow \left(\pi \cdot t_{upright}^{2} \cdot L_{vertplate}\right) \cdot Fy\_Upright$

Msg ← "OK" if $VertMom \cdot FOS \le VertCap$

"N.G. Design connection to upright by hand." otherwise

return Msg

Upright_Yielding_Check = "OK"

Truss Connection Calculations

Connection Output

Truss Connections

(TA) Bolt_Size_Required = "1-1/2" Dia."

(TB) Number_of_Bolts_Reqd_at_Chord_Connection = "4"

(TD) Thickness_of_Horizontal_Connection_Plate = "5/8""

(TE) Thickness_of_Vertical_Connection_Plate = "7/8""

(TF) Fillet_Weld_Size_for_Horz_PL_to_Upright = "1/4""

(TG) Fillet_Weld_Size_for_Vert_PL_to_Upright = "3/16""

(TH) Fillet_Weld_Size_for_Chord_to_Connection_PL = "3/16""

(TJ) Fillet_Weld_Size_for_Vert_PL_to_Horz_PL = "1/4""

Additional Truss Connection Checks

Horz_Plate_Stress_Check = "OK"

Vert_Plate_Stress_Check = "OK"

Upright_Yielding_Check = "OK"

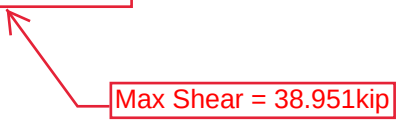
TABLE: Element Joint Forces - Upright						
Frame	**Joint**	**OutputCase**	**CaseType**	**F1**	**F2**	**F3**
Text	Text	Text	Text	Kip	Kip	Kip
49	28	DEAD	LinStatic	3.696	0.061	0.236
49	21	DEAD	LinStatic	-3.696	-0.061	0.16
49	28	DEAD SIGN	LinStatic	2.011	-0.632	0.016
49	21	DEAD SIGN	LinStatic	-2.011	0.632	-0.016
49	28	WIND SIGN	LinStatic	27.743	0.982	0.419
49	21	WIND SIGN	LinStatic	-27.743	-0.982	-0.419
49	28	CHORD	LinStatic	1.753	0.187	0.028
49	21	CHORD	LinStatic	-1.753	-0.187	-0.028
49	28	TRUSS (FRONT)	LinStatic	10.634	0.837	0.168
49	21	TRUSS (FRONT)	LinStatic	-10.634	-0.837	-0.168
49	28	UPRIGHT (FRONT)	LinStatic	0.0004824	0.167	0.006832
49	21	UPRIGHT (FRONT)	LinStatic	-0.0004824	-0.167	-0.006832
49	28	DL + WL (Front)	Combination	45.837	1.601	0.873
49	21	DL + WL (Front)	Combination	-45.837	-1.601	-0.478
49	28	DL	Combination	5.707	-0.572	0.252
49	21	DL	Combination	-5.707	0.572	0.143
49	28	DL - WL (Front)	Combination	-34.422	-2.745	-0.369
49	21	DL - WL (Front)	Combination	34.422	2.745	0.764
50	21	DEAD	LinStatic	-0.797	-0.029	0.243
50	27	DEAD	LinStatic	0.797	0.029	0.263
50	21	DEAD SIGN	LinStatic	-0.433	-0.602	-0.49
50	27	DEAD SIGN	LinStatic	0.433	0.602	0.49
50	21	WIND SIGN	LinStatic	-14.829	5.859	4.274
50	27	WIND SIGN	LinStatic	14.829	-5.859	-4.274
50	21	CHORD	LinStatic	-0.936	0.51	0.384
50	27	CHORD	LinStatic	0.936	-0.51	-0.384
50	21	TRUSS (FRONT)	LinStatic	-5.685	2.719	2.031
50	27	TRUSS (FRONT)	LinStatic	5.685	-2.719	-2.031
50	21	UPRIGHT (FRONT)	LinStatic	-0.0005606	0.462	0.363
50	27	UPRIGHT (FRONT)	LinStatic	0.0005606	-0.462	-0.363
50	21	DL + WL (Front)	Combination	-22.681	8.92	6.805
50	27	DL + WL (Front)	Combination	22.681	-8.92	-6.298
50	21	DL	Combination	-1.23	-0.63	-0.247
50	27	DL	Combination	1.23	0.63	0.753
50	21	DL - WL (Front)	Combination	20.221	-10.181	-7.299
50	27	DL - WL (Front)	Combination	-20.221	10.181	7.805
51	27	DEAD	LinStatic	-0.642	0.666	-0.319
51	19	DEAD	LinStatic	0.642	-0.666	0.825
51	27	DEAD SIGN	LinStatic	-0.351	-0.201	0.159
51	19	DEAD SIGN	LinStatic	0.351	0.201	-0.159
51	27	WIND SIGN	LinStatic	10.284	12.29	-10.141
51	19	WIND SIGN	LinStatic	-10.284	-12.29	10.141
51	27	CHORD	LinStatic	0.647	1.169	-0.958
51	19	CHORD	LinStatic	-0.647	-1.169	0.958

51	27	TRUSS (FRONT)	LinStatic	3.931	6.577	-5.395
51	19	TRUSS (FRONT)	LinStatic	-3.931	-6.577	5.395
51	27	UPRIGHT (FRONT)	LinStatic	0.0005313	0.81	-0.662
51	19	UPRIGHT (FRONT)	LinStatic	-0.0005313	-0.81	0.662
51	27	DL + WL (Front)	Combination	13.869	21.312	-17.316
51	19	DL + WL (Front)	Combination	-13.869	-21.312	17.822
51	27	DL	Combination	-0.993	0.466	-0.159
51	19	DL	Combination	0.993	-0.466	0.666
51	27	DL - WL (Front)	Combination	-15.855	-20.381	16.997
51	19	DL - WL (Front)	Combination	15.855	20.381	-16.491
52	19	DEAD	LinStatic	1.148	0.968	0.185
52	26	DEAD	LinStatic	-1.148	-0.968	0.211
52	19	DEAD SIGN	LinStatic	0.625	-0.063	0.001585
52	26	DEAD SIGN	LinStatic	-0.625	0.063	-0.001585
52	19	WIND SIGN	LinStatic	-10	-2.137	0.827
52	26	WIND SIGN	LinStatic	10	2.137	-0.827
52	19	CHORD	LinStatic	-0.627	-0.237	0.066
52	26	CHORD	LinStatic	0.627	0.237	-0.066
52	19	TRUSS (FRONT)	LinStatic	-3.822	-1.245	0.375
52	26	TRUSS (FRONT)	LinStatic	3.822	1.245	-0.375
52	19	UPRIGHT (FRONT)	LinStatic	-0.0009791	-0.046	0.035
52	26	UPRIGHT (FRONT)	LinStatic	0.0009791	0.046	-0.035
52	19	DL + WL (Front)	Combination	-12.678	-2.76	1.49
52	26	DL + WL (Front)	Combination	12.678	2.76	-1.095
52	19	DL	Combination	1.773	0.905	0.187
52	26	DL	Combination	-1.773	-0.905	0.209
52	19	DL - WL (Front)	Combination	16.224	4.571	-1.117
52	26	DL - WL (Front)	Combination	-16.224	-4.571	1.513
53	19	DEAD	LinStatic	0.922	-0.154	0.142
53	30	DEAD	LinStatic	-0.922	0.154	0.284
53	19	DEAD SIGN	LinStatic	0.501	-0.052	-0.022
53	30	DEAD SIGN	LinStatic	-0.501	0.052	0.022
53	19	WIND SIGN	LinStatic	-6.256	24.111	10.291
53	30	WIND SIGN	LinStatic	6.256	-24.111	-10.291
53	19	CHORD	LinStatic	-0.395	2.004	0.852
53	30	CHORD	LinStatic	0.395	-2.004	-0.852
53	19	TRUSS (FRONT)	LinStatic	-2.399	11.344	4.825
53	30	TRUSS (FRONT)	LinStatic	2.399	-11.344	-4.825
53	19	UPRIGHT (FRONT)	LinStatic	-0.0008563	1.285	0.543
53	30	UPRIGHT (FRONT)	LinStatic	0.0008563	-1.285	-0.543
53	19	DL + WL (Front)	Combination	-7.628	38.538	16.631
53	30	DL + WL (Front)	Combination	7.628	-38.538	-16.205
53	19	DL	Combination	1.423	-0.206	0.12
53	30	DL	Combination	-1.423	0.206	0.306
53	19	DL - WL (Front)	Combination	10.474	-38.95	-16.391
53	30	DL - WL (Front)	Combination	-10.474	38.95	16.817
54	30	DEAD	LinStatic	-0.39	0.173	0.136

54	18	DEAD	LinStatic	0.39	-0.173	0.29
54	30	DEAD SIGN	LinStatic	-0.212	0.054	-0.025
54	18	DEAD SIGN	LinStatic	0.212	-0.054	0.025
54	30	WIND SIGN	LinStatic	-1.928	23.197	-9.723
54	18	WIND SIGN	LinStatic	1.928	-23.197	9.723
54	30	CHORD	LinStatic	-0.124	1.964	-0.824
54	18	CHORD	LinStatic	0.124	-1.964	0.824
54	30	TRUSS (FRONT)	LinStatic	-0.747	11.064	-4.64
54	18	TRUSS (FRONT)	LinStatic	0.747	-11.064	4.64
54	30	UPRIGHT (FRONT)	LinStatic	-0.00003815	1.509	-0.632
54	18	UPRIGHT (FRONT)	LinStatic	0.00003815	-1.509	0.632
54	30	DL + WL (Front)	Combination	-3.402	37.96	-15.707
54	18	DL + WL (Front)	Combination	3.402	-37.96	16.133
54	30	DL	Combination	-0.602	0.227	0.111
54	18	DL	Combination	0.602	-0.227	0.315
54	30	DL - WL (Front)	Combination	2.198	-37.506	15.929
54	18	DL - WL (Front)	Combination	-2.198	37.506	-15.503
55	18	DEAD	LinStatic	0.289	-0.252	0.098
55	31	DEAD	LinStatic	-0.289	0.252	0.328
55	18	DEAD SIGN	LinStatic	0.157	-0.046	-0.021
55	31	DEAD SIGN	LinStatic	-0.157	0.046	0.021
55	18	WIND SIGN	LinStatic	4.069	22.369	9.39
55	31	WIND SIGN	LinStatic	-4.069	-22.369	-9.39
55	18	CHORD	LinStatic	0.258	1.914	0.803
55	31	CHORD	LinStatic	-0.258	-1.914	-0.803
55	18	TRUSS (FRONT)	LinStatic	1.565	10.767	4.521
55	31	TRUSS (FRONT)	LinStatic	-1.565	-10.767	-4.521
55	18	UPRIGHT (FRONT)	LinStatic	-0.0001626	1.753	0.737
55	31	UPRIGHT (FRONT)	LinStatic	0.0001626	-1.753	-0.737
55	18	DL + WL (Front)	Combination	6.338	36.505	15.527
55	31	DL + WL (Front)	Combination	-6.338	-36.505	-15.101
55	18	DL	Combination	0.446	-0.298	0.076
55	31	DL	Combination	-0.446	0.298	0.35
55	18	DL - WL (Front)	Combination	-5.446	-37.101	-15.374
55	31	DL - WL (Front)	Combination	5.446	37.101	15.8
56	31	DEAD	LinStatic	0.027	0.23	0.107
56	17	DEAD	LinStatic	-0.027	-0.23	0.319
56	31	DEAD SIGN	LinStatic	0.014	0.04	-0.018
56	17	DEAD SIGN	LinStatic	-0.014	-0.04	0.018
56	31	WIND SIGN	LinStatic	-7.888	20.348	-8.596
56	17	WIND SIGN	LinStatic	7.888	-20.348	8.596
56	31	CHORD	LinStatic	-0.502	1.74	-0.735
56	17	CHORD	LinStatic	0.502	-1.74	0.735
56	31	TRUSS (FRONT)	LinStatic	-3.037	9.79	-4.136
56	17	TRUSS (FRONT)	LinStatic	3.037	-9.79	4.136
56	31	UPRIGHT (FRONT)	LinStatic	-0.0001007	1.801	-0.761
56	17	UPRIGHT (FRONT)	LinStatic	0.0001007	-1.801	0.761

56	31	DL + WL (Front)	Combination	-11.387	33.949	-14.14
56	17	DL + WL (Front)	Combination	11.387	-33.949	14.566
56	31	DL	Combination	0.041	0.27	0.088
56	17	DL	Combination	-0.041	-0.27	0.338
56	31	DL - WL (Front)	Combination	11.468	-33.408	14.316
56	17	DL - WL (Front)	Combination	-11.468	33.408	-13.89
57	17	DEAD	LinStatic	0.066	0.136	0.191
57	24	DEAD	LinStatic	-0.066	-0.136	0.204
57	17	DEAD SIGN	LinStatic	0.036	0.016	-0.0008733
57	24	DEAD SIGN	LinStatic	-0.036	-0.016	0.0008733
57	17	WIND SIGN	LinStatic	6.703	5.552	0.547
57	24	WIND SIGN	LinStatic	-6.703	-5.552	-0.547
57	17	CHORD	LinStatic	0.427	0.474	0.047
57	24	CHORD	LinStatic	-0.427	-0.474	-0.047
57	17	TRUSS (FRONT)	LinStatic	2.58	2.668	0.263
57	24	TRUSS (FRONT)	LinStatic	-2.58	-2.668	-0.263
57	17	UPRIGHT (FRONT)	LinStatic	0.000004325	0.505	0.051
57	24	UPRIGHT (FRONT)	LinStatic	-0.000004325	-0.505	-0.051
57	17	DL + WL (Front)	Combination	9.811	9.351	1.099
57	24	DL + WL (Front)	Combination	-9.811	-9.351	-0.704
57	17	DL	Combination	0.101	0.153	0.191
57	24	DL	Combination	-0.101	-0.153	0.205
57	17	DL - WL (Front)	Combination	-9.609	-9.046	-0.718
57	24	DL - WL (Front)	Combination	9.609	9.046	1.114
58	31	DEAD	LinStatic	-0.129	-0.237	0.195
58	32	DEAD	LinStatic	0.129	0.237	0.2
58	31	DEAD SIGN	LinStatic	-0.07	-0.042	0.0002379
58	32	DEAD SIGN	LinStatic	0.07	0.042	-0.0002379
58	31	WIND SIGN	LinStatic	-6.645	-0.801	-0.592
58	32	WIND SIGN	LinStatic	6.645	0.801	0.592
58	31	CHORD	LinStatic	-0.423	-0.066	-0.051
58	32	CHORD	LinStatic	0.423	0.066	0.051
58	31	TRUSS (FRONT)	LinStatic	-2.558	-0.373	-0.285
58	32	TRUSS (FRONT)	LinStatic	2.558	0.373	0.285
58	31	UPRIGHT (FRONT)	LinStatic	0.00002107	-0.123	-0.05
58	32	UPRIGHT (FRONT)	LinStatic	-0.00002107	0.123	0.05
58	31	DL + WL (Front)	Combination	-9.825	-1.643	-0.781
58	32	DL + WL (Front)	Combination	9.825	1.643	1.177
58	31	DL	Combination	-0.199	-0.279	0.195
58	32	DL	Combination	0.199	0.279	0.2
58	31	DL - WL (Front)	Combination	9.427	1.085	1.172
58	32	DL - WL (Front)	Combination	-9.427	-1.085	-0.776
59	18	DEAD	LinStatic	0.397	0.17	0.193
59	25	DEAD	LinStatic	-0.397	-0.17	0.202
59	18	DEAD SIGN	LinStatic	0.216	0.051	-0.000004343
59	25	DEAD SIGN	LinStatic	-0.216	-0.051	0.000004343
59	18	WIND SIGN	LinStatic	3.205	-0.228	0.578

59	25	WIND SIGN	LinStatic	-3.205	0.228	-0.578
59	18	CHORD	LinStatic	0.205	-0.014	0.049
59	25	CHORD	LinStatic	-0.205	0.014	-0.049
59	18	TRUSS (FRONT)	LinStatic	1.236	-0.084	0.278
59	25	TRUSS (FRONT)	LinStatic	-1.236	0.084	-0.278
59	18	UPRIGHT (FRONT)	LinStatic	-0.00009324	-0.08	0.042
59	25	UPRIGHT (FRONT)	LinStatic	0.00009324	0.08	-0.042
59	18	DL + WL (Front)	Combination	5.258	-0.185	1.141
59	25	DL + WL (Front)	Combination	-5.258	0.185	-0.746
59	18	DL	Combination	0.613	0.22	0.193
59	25	DL	Combination	-0.613	-0.22	0.202
59	18	DL - WL (Front)	Combination	-4.032	0.626	-0.754
59	25	DL - WL (Front)	Combination	4.032	-0.626	1.15
60	30	DEAD	LinStatic	-0.696	-0.128	0.199
60	33	DEAD	LinStatic	0.696	0.128	0.197
60	30	DEAD SIGN	LinStatic	-0.378	-0.024	-0.0005762
60	33	DEAD SIGN	LinStatic	0.378	0.024	0.0005762
60	30	WIND SIGN	LinStatic	2.195	2.413	-0.622
60	33	WIND SIGN	LinStatic	-2.195	-2.413	0.622
60	30	CHORD	LinStatic	0.137	0.153	-0.053
60	33	CHORD	LinStatic	-0.137	-0.153	0.053
60	30	TRUSS (FRONT)	LinStatic	0.837	0.887	-0.297
60	33	TRUSS (FRONT)	LinStatic	-0.837	-0.887	0.297
60	30	UPRIGHT (FRONT)	LinStatic	0.0004098	0.013	-0.036
60	33	UPRIGHT (FRONT)	LinStatic	-0.0004098	-0.013	0.036
60	30	DL + WL (Front)	Combination	2.095	3.313	-0.809
60	33	DL + WL (Front)	Combination	-2.095	-3.313	1.204
60	30	DL	Combination	-1.075	-0.153	0.198
60	33	DL	Combination	1.075	0.153	0.197
60	30	DL - WL (Front)	Combination	-4.245	-3.619	1.205
60	33	DL - WL (Front)	Combination	4.245	3.619	-0.81
			MAX	45.837	38.95	17.822



UPRIGHT WEB TRUSS GUSSET PLATES

Design Web Connection Gusset Plates

Get Design Forces for the Web Connection Gusset Plate

Design forces for the truss-to-upright connection elements are obtained from the SAP output data computed during the 3D frame analysis.

$MaxForce := 38.95kip$

$E := 29000ksi$

$X_{Web} := 1.67in$

$F_{y.Chord} := 42ksi$

$t_{Chord} := 0.500in$

$D_{Chord} := 18in$ <--- Diameter of upright

$D_{Vert} := 18in$

$W_{Web} := 8in$ <--- Size of Double Angle

$L_{TrussPanel} := 6ft$ <--- N1

Determine Required Bolt Size and Other Relevant Bolt Data (GB)

Two bolts are used at each end of the web members. Allowable shear forces for the A325 bolts were calculated using bolt areas from AISC Table 7-1, allowable stress from AASHTO Standard Specifications for Highway Bridges Table 10.32.3B and by applying the LTS-6 Table 3.4-1 group loading factor (e.g., 3/4" bolt, double shear: 2 x ((0.4418 in^2) x (19 ksi) x 1.33) = 22.33 kip).

$TypeMin_{Gusset.Bolt} := 1$

$Data_{WebBolt} :=$

"Bolt Type"	"Diameter (in)"	"Min. Edge Dist. (in)"	"Min. Spacing (in)"
1	0.750	1.25	2.5
2	0.875	1.50	3.0
3	1.000	1.75	3.5
4	1.250	2.1875	4.375
5	1.50	3.0	5.25

$Type_{WebBolt} :=$ MaxForce ← MaxForce

BoltType ←
- 1 if $MaxForce \le 22.33 \cdot kip$
- 2 if $22.33 \cdot kip < MaxForce \le 30.39 \cdot kip$
- 3 if $30.39 \cdot kip < MaxForce \le 39.69 \cdot kip$
- 4 if $39.69 \cdot kip < MaxForce \le 54.27 \cdot kip$
- 5 if $54.27 \cdot kip < MaxForce \le 95.6 \cdot kip \wedge W_{Web} \ge 4 \cdot in$
- −1 otherwise

if $BoltType \ne -1 \wedge BoltType < TypeMin_{Gusset.Bolt}$
- "Apply User-Specified Minimum Bolt Size"
- $BoltType \leftarrow TypeMin_{Gusset.Bolt}$

return BoltType

$D_{WebBolt} :=$
- $Data_{WebBolt_{Type_{WebBolt}},1} \cdot in$ if $Type_{WebBolt} \ne -1$
- $0 \cdot in$ otherwise

$EdgeDistance :=$
- $Data_{WebBolt_{Type_{WebBolt}},2} \cdot in$ if $Type_{WebBolt} \ne -1$
- $0 \cdot in$ otherwise

$Spacing_{WebBolt} :=$
- $Data_{WebBolt_{Type_{WebBolt}},3} \cdot in$ if $Type_{WebBolt} \ne -1$
- $0 \cdot in$ otherwise

Compute Angles Between Chords and Web Members

$$\theta_{backweb} := \operatorname{atan}\left(\frac{2 \cdot D_{Vert}}{L_{TrussPanel}}\right)$$

$$\phi_{diagweb} := \operatorname{atan}\left(\frac{D_{Vert}}{L_{TrussPanel}}\right)$$

Compute Required Length of Back Chord Gusset Plates (GC)

The minimum length of the back chord gusset plates is determined by using Newton's Method to compute the minimum length required for strength, and comparing the result to the minimum length required for detailing.

d_{mom} - *moment arm for calculating moment in gusset plate*
M_{plate} - *moment in gusset plate*
Spa - *additional length used for gusset failure calculation*
M_p - *plastic moment capacity of chord wall*
L_{req} - *minimum gusset plate length required for strength*
L_{temp} - *intermediate gusset plate length*
L_{det} - *minimum gusset plate length required for detailing*
L_{crit} - *buckling length*
F_x - *function giving gusset plate moment capacity*
F'_x - *derivative of F_x function*

$L_{BackPlate} :=$

$WebForce \leftarrow MaxForce$

$FOS \leftarrow 1.5$ *factor of safety*

$D_{chord} \leftarrow D_{Chord}$

$d_{mom} \leftarrow \frac{D_{chord}}{\tan(\theta_{backweb})}$

$M_{plate} \leftarrow (WebForce \cdot \sin(\theta_{backweb})) \cdot d_{mom}$

$Spa \leftarrow \frac{\pi \cdot D_{chord}}{6}$

$M_p \leftarrow \frac{t_{Chord}^2}{4} \cdot F_{y.Chord}$

$L_{req} \leftarrow 0 \cdot in$

$L_{temp} \leftarrow 6 \cdot in$

while $|L_{req} - L_{temp}| > 0.001 \cdot in$ *use 6" for the initial value*

$L_{req} \leftarrow L_{temp}$

$L_{crit} \leftarrow L_{req} + Spa$

$F_x \leftarrow M_p \cdot L_{crit} \cdot \left(5.14159 + 2 \cdot \frac{L_{crit}}{D_{chord}} + 2 \cdot \frac{D_{chord}}{L_{crit}}\right) - FOS \cdot M_{plate}$

$F'_x \leftarrow M_p \cdot \left(5.14159 + 4 \cdot \frac{L_{req}}{D_{chord}} + 4 \cdot \frac{Spa}{D_{chord}}\right)$

$L_{temp} \leftarrow L_{req} - \frac{F_x}{F'_x}$

$L_{Checkaa} \leftarrow \frac{d_{mom}}{2} + \frac{0.375 \cdot in + (W_{Web} - X_{Web}) \cdot \cos(\theta_{backweb})}{\tan(\theta_{backweb})}$

$L_{Checkab} \leftarrow X_{Web} \cdot \sin(\theta_{backweb}) + \frac{1}{8} \cdot in$

$L_{Checka} \leftarrow \max(L_{Checkaa}, L_{Checkab})$

$L_{deta} \leftarrow 2 \cdot \left[\begin{array}{l} L_{Checka} + (0.57 \cdot W_{Web} - X_{Web}) \cdot \sin(\theta_{backweb}) \ldots \\ + (EdgeDistance + Spacing_{WebBolt}) \cdot \cos(\theta_{backweb}) \ldots \\ + EdgeDistance \end{array}\right] + 0.25 \cdot in$

$L_{Checkba} \leftarrow \frac{d_{mom}}{2} + \frac{0.375 \cdot in + X_{Web} \cdot \cos(\theta_{backweb})}{\tan(\theta_{backweb})}$

$L_{Checkbb} \leftarrow (W_{Web} - X_{Web}) \cdot \sin(\theta_{backweb}) + \frac{1}{8} \cdot in$

$$L_{Checkb} \leftarrow \max\left(L_{Checkba}, L_{Checkbb}\right)$$

$$L_{detb} \leftarrow 2\cdot\left[\begin{array}{l} L_{Checkb} - \left(0.57\cdot W_{Web} - X_{Web}\right)\cdot\sin\left(\theta_{backweb}\right) \ldots \\ + \left(EdgeDistance + Spacing_{WebBolt}\right)\cdot\cos\left(\theta_{backweb}\right) \ldots \\ + EdgeDistance \end{array}\right] + 0.25\cdot in$$

$$Len \leftarrow \max\left(L_{req}, L_{deta}, L_{detb}\right)$$

return Len

Compute Required Height of Back Chord Gusset Plates (GD)

$H_{BackPlate} :=$

$$D_{chord} \leftarrow D_{Chord}$$

$$d_{mom} \leftarrow \frac{D_{chord}}{\tan\left(\theta_{backweb}\right)}$$

$$L_{Checkaa} \leftarrow \frac{d_{mom}}{2} + \frac{0.375\cdot in + \left(W_{Web} - X_{Web}\right)\cdot\cos\left(\theta_{backweb}\right)}{\tan\left(\theta_{backweb}\right)}$$

$$L_{Checkab} \leftarrow X_{Web}\cdot\sin\left(\theta_{backweb}\right) + \frac{1}{8}\cdot in$$

$$H_{Checka} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}\right)\cdot\tan\left(\theta_{backweb}\right)$$

$$H_{deta} \leftarrow H_{Checka} - \left(0.57\cdot W_{Web} - X_{Web}\right)\cdot\cos\left(\theta_{backweb}\right) \ldots + \left(Spacing_{WebBolt} + EdgeDistance\right)\cdot\sin\left(\theta_{backweb}\right) \ldots + EdgeDistance - \frac{D_{Chord}}{2}$$

$$L_{Checkba} \leftarrow \frac{d_{mom}}{2} + \frac{0.375\cdot in + X_{Web}\cdot\cos\left(\theta_{backweb}\right)}{\tan\left(\theta_{backweb}\right)}$$

$$L_{Checkbb} \leftarrow \left(W_{Web} - X_{Web}\right)\cdot\sin\left(\theta_{backweb}\right) + \frac{1}{8}\cdot in$$

$$H_{Checkb} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}\right)\cdot\tan\left(\theta_{backweb}\right)$$

$$H_{detb} \leftarrow H_{Checkb} + \left(0.57\cdot W_{Web} - X_{Web}\right)\cdot\cos\left(\theta_{backweb}\right) \ldots + \left(Spacing_{WebBolt} + EdgeDistance\right)\cdot\sin\left(\theta_{backweb}\right) \ldots + EdgeDistance - \frac{D_{Chord}}{2}$$

$Ht \leftarrow \max(H_{deta}, H_{detb})$

return Ht

Compute Required Length of Front Chord Gusset Plates (GE)

The minimum length of the front chord gusset plates is determined by using Newton's Method to compute the minimum length required for strength, and comparing the result to the minimum length required for detailing.

d_{mom} - moment arm for calculating moment in gusset plate
M_{plate} - moment in gusset plate
M_p - plastic moment capacity of chord wall
L_{req} - minimum gusset plate length required for strength
L_{temp} - intermediate gusset plate length
L_{det} - minimum gusset plate length required for detailing
L_{crit} - buckling length
F_x - function giving gusset plate moment capacity
F'_x - derivative of F_x function

$L_{FrontPlate} :=$

$WebForce \leftarrow MaxForce$

$FOS \leftarrow 1.5$ *factor of safety*

$D_{chord} \leftarrow D_{Chord}$

$d_{mom} \leftarrow \frac{0.5 \cdot D_{chord}}{\tan(\phi_{diagweb})}$

$M_{plate} \leftarrow (WebForce \cdot \sin(\phi_{diagweb})) \cdot d_{mom}$

$M_p \leftarrow \frac{t_{Chord}^2}{4} \cdot F_{y.Chord}$

$L_{req} \leftarrow 0 \cdot in$

$L_{temp} \leftarrow 5 \cdot in$

use 5" for the initial value

while $|L_{req} - L_{temp}| > 0.001 \cdot in$

$L_{req} \leftarrow L_{temp}$

$L_{crit} \leftarrow L_{req}$

$F_x \leftarrow M_p \cdot L_{crit} \cdot \left(5.14159 + 2 \cdot \frac{L_{crit}}{D_{chord}} + 2 \cdot \frac{D_{chord}}{L_{crit}} \right) - FOS \cdot M_{plate}$

$F'_x \leftarrow M_p \cdot \left(5.14159 + 4 \cdot \frac{L_{req}}{D_{chord}} \right)$

$\left(\text{chord}\right)$

$L_{temp} \leftarrow L_{req} - \frac{F_x}{F'_x}$

$L_{Checkaa} \leftarrow d_{mom} + \frac{0.375 \cdot in + X_{Web} \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)}$

$L_{Checkab} \leftarrow \left(W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25 \cdot in$

$L_{Checka} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}\right)$

$L_{deta} \leftarrow L_{Checka} - \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots$
$+ \left(EdgeDistance + Spacing_{WebBolt}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots$
$+ 2 \cdot EdgeDistance + \left(0.57 \cdot W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$L_{Checkba} \leftarrow d_{mom} + \frac{0.375 \cdot in + \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)}$

$L_{Checkbb} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$L_{Checkb} \leftarrow \max\left(L_{Checkba}, L_{Checkbb}\right)$

$L_{detb} \leftarrow L_{Checkb} \cdots$
$+ \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots$
$+ \left(EdgeDistance + Spacing_{WebBolt}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots$
$+ 2 \cdot EdgeDistance - \left(0.57 \cdot W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$L_{Checkca} \leftarrow d_{mom} + \frac{0.375 \cdot in + X_{Web} \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)}$

$L_{Checkcb} \leftarrow \left(W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$L_{Checkc} \leftarrow \max\left(L_{Checkca}, L_{Checkcb}\right)$

$L_{detc} \leftarrow L_{Checkc} - \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots$
$+ \left(EdgeDistance + Spacing_{WebBolt}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots$
$+ 2 \cdot EdgeDistance - \left(0.57 \cdot W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$L_{Checkda} \leftarrow d_{mom} + \frac{0.375 \cdot in + \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)}$

$L_{Checkdb} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25 \cdot in$

$L_{Checkd} \leftarrow \max\left(L_{Checkda}, L_{Checkdb}\right)$

$L_{detd} \leftarrow L_{Checkd} + \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots$
$+ \left(EdgeDistance + Spacing_{WebBolt}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots$
$+ 2 \cdot EdgeDistance + \left(0.57 \cdot W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$Len \leftarrow \max\left(L_{req}, L_{deta}, L_{detc}, L_{detc}, L_{detd}\right)$

return Len

Compute Required Height of Front Chord Gusset Plates (GF)

$$
\begin{aligned}
H_{FrontPlate} := \;& D_{chord} \leftarrow D_{Chord} \\
& d_{mom} \leftarrow \frac{0.5 \cdot D_{chord}}{\tan\left(\phi_{diagweb}\right)} \\
& L_{Checkaa} \leftarrow d_{mom} + \frac{0.375 \cdot in + X_{Web} \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)} \\
& L_{Checkab} \leftarrow \left(W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25 \cdot in \\
& H_{Checka} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}\right) \cdot \tan\left(\phi_{diagweb}\right) \\
& H_{deta} \leftarrow H_{Checka} + \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots \\
& \qquad + \left(Spacing_{WebBolt} + EdgeDistance\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots \\
& \qquad + EdgeDistance - 0.5 \cdot D_{chord} \\
& L_{Checkba} \leftarrow d_{mom} + \frac{0.375 \cdot in + \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)} \\
& L_{Checkbb} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25 \cdot in \\
& H_{Checkb} \leftarrow \max\left(L_{Checkba}, L_{Checkbb}\right) \cdot \tan\left(\phi_{diagweb}\right) \\
& H_{detb} \leftarrow H_{Checkb} - \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots \\
& \qquad + \left(Spacing_{WebBolt} + EdgeDistance\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots \\
& \qquad + EdgeDistance - 0.5 \cdot D_{chord} \\
& L_{Checkca} \leftarrow d_{mom} + \frac{0.375 \cdot in + X_{Web} \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)} \\
& L_{Checkcb} \leftarrow \left(W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25 \cdot in \\
& H_{Checkc} \leftarrow \max\left(L_{Checkca}, L_{Checkcb}\right) \cdot \tan\left(\phi_{diagweb}\right) \\
& H_{detc} \leftarrow H_{Checkc} + \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots \\
& \qquad + \left(Spacing_{WebBolt} + EdgeDistance\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots \\
& \qquad + EdgeDistance - 0.5 \cdot D_{chord} \\
& L_{Checkda} \leftarrow d_{mom} + \frac{0.375 \cdot in + \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)} \\
& L_{Checkdb} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25 \cdot in
\end{aligned}
$$

$$
\begin{aligned}
&H_{Checkd} \leftarrow \max\left(L_{Checkda}, L_{Checkdb}\right)\cdot\tan\left(\phi_{diagweb}\right)\\
&H_{detd} \leftarrow H_{Checkd} - \left(0.57\cdot W_{Web} - X_{Web}\right)\cdot\cos\left(\phi_{diagweb}\right) \cdots\\
&\qquad + \left(Spacing_{WebBolt} + EdgeDistance\right)\cdot\sin\left(\phi_{diagweb}\right) \cdots\\
&\qquad + EdgeDistance - 0.5\cdot D_{chord}\\
&H_{dete} \leftarrow Spacing_{WebBolt} + 2\cdot EdgeDistance + 0.375\cdot in\\
&Ht \leftarrow \max\left(H_{deta}, H_{detb}, H_{detc}, H_{detd}, H_{dete}\right)\\
&\text{return } Ht
\end{aligned}
$$

Compute Required Length of Center Front Chord Gusset Plate (GG)

The minimum length of the center front chord gusset plate is computed as the minimum length required for detailing.

d_{mom} *- moment arm for calculating moment in gusset plate*

L_{det} *- minimum gusset plate length required for detailing*

$$
\begin{aligned}
L_{CenterPlate} := \quad & d_{mom} \leftarrow \frac{0.5\cdot D_{Chord}}{\tan\left(\phi_{diagweb}\right)}\\
& L_{Checkaa} \leftarrow d_{mom} + \frac{0.375\cdot in + \left(W_{Web} - X_{Web}\right)\cdot\cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)}\\
& L_{Checkab} \leftarrow X_{Web}\cdot\sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25\cdot in\\
& L_{Checkac} \leftarrow X_{Web}\cdot\sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25\cdot in\\
& L_{Checka} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}, L_{Checkac}\right)\\
& L_{det} \leftarrow 2L_{Checka} \cdots\\
& \qquad + 2\cdot\left[\begin{array}{l}\left(0.57\cdot W_{Web} - X_{Web}\right)\cdot\sin\left(\phi_{diagweb}\right) \cdots\\ \quad + \left(EdgeDistance + Spacing_{WebBolt}\right)\cdot\cos\left(\phi_{diagweb}\right) \cdots\\ \quad + EdgeDistance\end{array}\right] \cdots\\
& \qquad + 0.25\cdot in\\
& \text{return } L_{det}
\end{aligned}
$$

$$H_{CenterPlate} := \left| \begin{array}{l} d_{mom} \leftarrow \dfrac{0.5 \cdot D_{Chord}}{\tan\left(\phi_{diagweb}\right)} \\ L_{Checkaa} \leftarrow d_{mom} + \dfrac{0.375 \cdot in + \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)} \\ L_{Checkab} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25 \cdot in \\ L_{Checkac} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25 \cdot in \\ H_{Checka} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}, L_{Checkac}\right) \cdot \tan\left(\phi_{diagweb}\right) \\ H_{deta} \leftarrow H_{Checka} - 0.5 \cdot D_{Chord} \cdots \\ \quad + \left[\begin{array}{l} -\left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots \\ + \left(EdgeDistance + Spacing_{WebBolt}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots \\ + EdgeDistance \end{array} \right] \\ H_{dete} \leftarrow Spacing_{WebBolt} + 2 \cdot EdgeDistance + 0.375 \cdot in \\ \text{return } \max\left(H_{deta}, H_{dete}\right) \end{array} \right.$$

$$H_{FrontPlate} := \max\left(H_{FrontPlate}, H_{CenterPlate}\right)$$

Compute ' Gap' Length Required to Avoid Conflicts

Compute the additional space (i.e., gap) required to prevent conflicts between the back chord web members and the front chord to upright connection plates.

$$Gap := \left| \begin{array}{l} gap \leftarrow 0.375 \cdot in \quad \textit{minimum length} \\ XtraLen \leftarrow \dfrac{W_{Web}}{\tan(30 \cdot deg)} + \dfrac{0.375 \cdot in}{\sin(30 \cdot deg)} \\ MinLen \leftarrow \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\theta_{backweb}\right) + 0.375 \cdot in + \dfrac{D_{Chord}}{2} \\ gap \leftarrow \max(XtraLen, MinLen) \\ \text{return } gap \end{array} \right.$$

Compute Required Thickness of Web Member Gusset Plates (GA)

Allowable axial stress for the gusset plates is determined in accordance with AASHTO LTS-6 Article 5.10.

$$tMin_{GusPlate} := 0.500in$$

$t_{GusPlate} :=$

$WebForce \leftarrow MaxForce \cdot \sin(\theta_{backweb})$

$Fy\_Plate \leftarrow 36 \cdot ksi$

$t_{plate} \leftarrow \frac{3}{8} \cdot in$

$t_{Web} \leftarrow 0.500 in$

$k \leftarrow 1.0$ *"pinned-pinned"*

$L_{plate} \leftarrow 0.43 \cdot W_{Web} \cdot \cos(\theta_{backweb}) \ldots$
$+ EdgeDistance \cdot \sin(\theta_{backweb}) + Gap$

$r_{plate} \leftarrow 0.289 \cdot t_{plate}$

$\left[\frac{kL}{r}\right] \leftarrow \frac{k \cdot L_{plate}}{r_{plate}}$

$C_c \leftarrow \sqrt{\frac{2 \cdot \pi^2 \cdot E}{Fy\_Plate}}$

$$Fa \leftarrow \begin{cases} \dfrac{\left[1 - \dfrac{\left(\left[\frac{kL}{r}\right]\right)^2}{2 \cdot C_c^{\,2}}\right] \cdot Fy\_Plate}{\frac{5}{3} + \dfrac{3 \cdot \left[\frac{kL}{r}\right]}{8 \cdot C_c} - \dfrac{\left(\left[\frac{kL}{r}\right]\right)^3}{8 \cdot C_c^{\,3}}} & \text{if } \left[\frac{kL}{r}\right] < C_c \\ \dfrac{12 \cdot \pi^2 \cdot E}{23 \cdot \left(\left[\frac{kL}{r}\right]\right)^2} & \text{if } \left[\frac{kL}{r}\right] \geq C_c \end{cases}$$

$Fa \leftarrow Fa \cdot 1.33$ *apply "group load" factor* [AASHTO Table 3.4-1

while $\left(L_{plate} \cdot t_{plate}\right) \cdot Fa < WebForce$

$t_{plate} \leftarrow t_{plate} + \frac{1}{8} \cdot in$

$r_{plate} \leftarrow 0.289 \cdot t_{plate}$

$\left[\frac{kL}{r}\right] \leftarrow \frac{k \cdot L_{plate}}{r_{plate}}$

$C_c \leftarrow \sqrt{\frac{2 \cdot \pi^2 \cdot E}{Fy\_Plate}}$

$\left[1 - \left(\left[\frac{kL}{r}\right]\right)^2\right]_{Fy\_Pl}$

$$Fa \leftarrow \begin{cases} \left[1 - \frac{\left[\frac{kL}{r}\right]^2}{2 \cdot C_c^2}\right] \cdot Fy\_Plate \\ \hline \frac{5}{3} + \frac{3 \cdot \left[\frac{kL}{r}\right]}{8 \cdot C_c} - \frac{\left(\left[\frac{kL}{r}\right]\right)^3}{8 \cdot C_c^3} \end{cases} \text{ if } \left[\frac{kL}{r}\right] < C_c$$

$$\frac{12 \cdot \pi^2 \cdot E}{23 \cdot \left(\left[\frac{kL}{r}\right]\right)^2} \text{ if } \left[\frac{kL}{r}\right] \geq C_c$$

$Fa \leftarrow Fa \cdot 1.33$

apply "group load" factor [AASHTO Table 3.4-1

while $t_{Web} > \frac{1}{4} \cdot in \wedge t_{plate} + \frac{1}{16} \cdot in < t_{Web}$

$t_{plate} \leftarrow t_{plate} + \frac{1}{8} \cdot in$

if $t_{plate} < tMin_{GusPlate}$

"Apply User-Specified Minimum Plate Thickness"

$t_{plate} \leftarrow tMin_{GusPlate}$

return t_{plate}

Compute Allowable Shear Stress for Fillet Welds

Note: The allowable weld stress computed here is used to design all welds computed by the program.

$F_{weld} :=$

$F_u \leftarrow 70ksi$ [E70xx Electrode]

$F_v \leftarrow 0.27 \cdot F_u$ [AASHTO Bridge Eq. 10-12]

$F_{weld} \leftarrow 0.707 \cdot F_v$

$F_{weld} \leftarrow F_{weld} \cdot 1.33$ *apply "group load" factor* [AASHTO Table 3.4-1]

return F_{weld}

Format Connection Output

$ftin(dim) \equiv$

$str \leftarrow /FIF(dim)$

$str \leftarrow substr(str, search(str, " ", 0) + 1, 10)$ if $substr(str, 0, 1) = "0"$

return str

Format Connection Output

$$\text{ftin}(\text{dim}) \equiv \left| \begin{array}{l} \text{str} \leftarrow \text{/FIF}(\text{dim}) \\ \text{str} \leftarrow \text{substr}(\text{str}, \text{search}(\text{str}, " ", 0) + 1, 10) \quad \text{if} \quad \text{substr}(\text{str}, 0, 1) = "0" \\ \text{return} \quad \text{str} \end{array} \right.$$

Gusset Plates

$$t_{Gus} := \begin{cases} \text{ftin}\left(\text{Round}\left(t_{GusPlate}, 0.0625 \cdot \text{in}\right)\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "n/a" & \text{otherwise} \end{cases}$$

$$d_{GusBolt} := \begin{cases} \text{concat}\left(\text{ftin}\left(D_{WebBolt}\right), " \text{ Dia.}"\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "\text{N.G. Web member load exceeds bolt capacity.}" & \text{otherwise} \end{cases}$$

$$L_{2AGuss} := \begin{cases} \text{ftin}\left(\text{Round}\left(\frac{L_{BackPlate}}{3}, 0.25 \cdot \text{in}\right)\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "n/a" & \text{otherwise} \end{cases}$$

$$H_{Gus} := \begin{cases} \text{ftin}\left(\text{Round}\left(H_{FrontPlate}, 0.25 \cdot \text{in}\right)\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "n/a" & \text{otherwise} \end{cases}$$

$$L_{1AGuss} := \begin{cases} \text{ftin}\left(\text{Round}\left(\frac{L_{FrontPlate}}{3}, 0.25 \cdot \text{in}\right)\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "n/a" & \text{otherwise} \end{cases}$$

$$L_{3Gus} := \begin{cases} \text{ftin}\left(\text{Round}\left(\frac{L_{CenterPlate}}{3}, 0.25 \cdot \text{in}\right)\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "n/a" & \text{otherwise} \end{cases}$$

(TA) $t_{Gus} = "1/2"" \cdot \text{in}$

(TB) $d_{GusBolt} = "1" \text{ Dia."}$

(TC) $L_{2AGuss} = "2' 1\text{-}1/4""$

(TD) $H_{Gus} = "8\text{-}3/4""$

(TE) $L_{1AGuss} = "2' 3/4""$

(TF) $L_{3Gus} = "3' 10\text{-}1/2""$

TABLE: Joint Reactions								
Joint	**OutputCase**	**CaseType**	**F1**	**F2**	**F3**	**M1**	**M2**	**M3**
Text	Text	Text	Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
16	DEAD	LinStatic	-0.085	-0.143	7.089	-0.2044	-76.1695	-1.0801
16	DEAD SIGN	LinStatic	-0.046	-0.00547	-0.372	-0.1128	-41.2266	-0.5842
16	WIND SIGN	LinStatic	58.763	-15.538	59.641	31.2958	301.2117	-112.4072
16	CHORD	LinStatic	3.742	-1.328	5.098	2.6747	19.1779	-7.1519
16	TRUSS (FRONT)	LinStatic	22.629	-7.475	28.688	15.051	115.9802	-43.2699
16	TRUSS (SIDE)	LinStatic	-3.322	0.00009621	0.00006848	-0.0008147	-108.9242	-5.5803
16	UPRIGHT (FRONT)	LinStatic	-0.000003797	-3.389	8.616	6.3485	0.000575	0.0022
16	UPRIGHT (SIDE)	LinStatic	-5.879	-0.000007486	0.000005658	-0.00005204	-75.3909	-1.1498
16	DL + WL (Front)	Combination	85.004	-27.878	108.761	55.0527	318.9741	-164.4911
16	DL + WL (Side)	Combination	-8.584	-0.414	7.737	0.2168	-297.8757	-9.8248
16	DL	Combination	-0.132	-0.148	6.717	-0.3173	-117.3962	-1.6644
16	DL - WL (Front)	Combination	-85.267	27.582	-95.327	-55.6873	-553.7665	161.1624
23	DEAD	LinStatic	0.085	0.143	12.049	-0.336	-74.1548	0.4395
23	DEAD SIGN	LinStatic	0.046	0.00547	3.408	-0.1306	-40.1341	0.2379
23	WIND SIGN	LinStatic	-58.763	-9.586	-59.641	25.1321	-301.2117	-120.0596
23	CHORD	LinStatic	-3.742	-0.819	-5.098	2.1484	-19.1779	-7.6476
23	TRUSS (FRONT)	LinStatic	-22.629	-4.61	-28.688	12.0892	-115.9802	-46.2371
23	TRUSS (SIDE)	LinStatic	-8.763	-0.00009621	-0.00006848	0.0003012	-133.3784	-4.4662
23	UPRIGHT (FRONT)	LinStatic	0.000003797	-2.238	-8.616	5.1257	-0.000575	-0.0023
23	UPRIGHT (SIDE)	LinStatic	-5.876	0.000007486	-0.000005658	0.000009599	-73.9982	1.1405
23	DL + WL (Front)	Combination	-85.004	-17.105	-86.587	44.0288	-550.6592	-173.2692
23	DL + WL (Side)	Combination	-15.256	-0.016	14.438	-0.0366	-325.5009	-4.1779
23	DL	Combination	0.132	0.148	15.458	-0.4666	-114.2889	0.6774
23	DL - WL (Front)	Combination	85.267	17.401	117.502	-44.962	322.0815	174.624
		MAX	85.267	27.878	117.502	55.6873	553.7665	174.624

Pedestal Calculations for Sign & Signal Structures

SUBJECT I-95 EXPRESS LANES, PHASE 3B-1

STA. 3124+00.00

DESIGNED BY JR DATE 02/04/2019

CHECKED BY MV DATE 02/04/2019

Input

$b_{concrete} := 2.50 \cdot ft$

Applied Loads

$M_x := 553.7665 \cdot kip \cdot ft$ $V_x := 27.878 \cdot kip$ $Torsion := 174.624 \cdot kip \cdot ft$

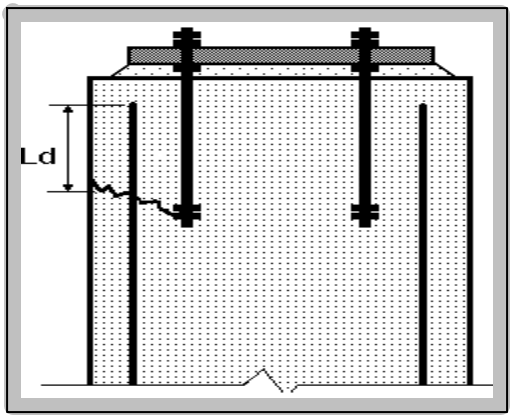
$M_z := 55.6873 \cdot kip \cdot ft$ $V_z := 85.267 \cdot kip$ $Axial := 117.502 \cdot kip$

$f_c := 5.5 \cdot ksi$ *concrete strength pedestal*

$cover := 2 \cdot in$ *cover*

$d_{v.bar} := 0.625 in$

Anchor Bolt Embedment



$Num_{anchor} := 12$ *number of anchor bolts*

$d_{anchor} := 2.50 \cdot in$ *anchor bolt diameter* ***[ASTM F1554-04]***

$Upright_{diameter} := 18 in$ $Upright\_Thickness := 0.625 in$

$Diameter_{boltcircle.anchor} := \left(Upright_{diameter} + 6 in\right) = 24 \cdot in$

Check clearance between anchor bolts and DrilledShaft reinforcement

$$EdgeAnchorBolt := \frac{Diameter_{boltcircle.anchor}}{2} + \frac{d_{anchor}}{2} = 13.2 \cdot in$$

$$EdgeReinforcement := \frac{b_{concrete}}{2} - \left(cover + d_{v.bar}\right) = 12.4 \cdot in$$

$Edge_{baseplate} := Upright_{diameter} + 12 in = 30 \cdot in$

$F_{t.anchor} := 93.7 \cdot kip$ *anchor bolt tensile load (see F.t.anchor calc below)*

F.t.anchor calculation (double click gray line below)

FTanchor

$M_{anchor} := \sqrt{M_x^2 + M_z^2} = 556.6 \cdot kip \cdot ft$

Input appropriate applied loads M.x and M.y on page 1.

$$n := \begin{cases} 8 & \text{if } d_{anchor} = 1.0 \cdot in \\ 6 & \text{if } d_{anchor} = 1.5 \cdot in \\ 5 & \text{if } d_{anchor} = 1.75 \cdot in \\ 4.5 & \text{if } 2 \cdot in \le d_{anchor} \le 2.25 \cdot in \\ 4 & \text{if } d_{anchor} \ge 2.5 \cdot in \end{cases}$$

threads per inch

ASTM F1554

$n = 4$

$$A_{net.anchor} := \frac{\pi}{4} \cdot \left(d_{anchor} - \frac{0.9743}{\frac{n}{in}} \right)^2 = 4.00 \cdot in^2$$

AASHTO Eqn 5.17.4.2-4

$$I_{anchor} := \frac{Diameter_{boltcircle.anchor}^2}{8} \cdot A_{net.anchor} \cdot Num_{anchor} = 3.5 \times 10^3 \cdot in^4$$

$$S_{anchor} := \frac{I_{anchor}}{\frac{Diameter_{boltcircle.anchor}}{2}} = 287.9 \cdot in^3$$

$$f_{t.anchor} := \frac{M_{anchor}}{S_{anchor}} = 23.2 \cdot ksi$$

$F_{t.anchor.calc} := f_{t.anchor} \cdot A_{net.anchor} = 92.8 \cdot kip$

Copy F.t.anchor.calc result into F.t.anchor input above.

$V_{csr.pole} := \sqrt{(V_x)^2 + (V_z)^2} = 89.7 \cdot kip$

$$V_{u.rod} := \frac{V_{csr.pole}}{Num_{anchor}} + \frac{Torsion}{\left(\frac{Diameter_{boltcircle.anchor}}{2} \right) \cdot Num_{anchor}} = 22.0 \cdot kip$$

$f_{v.rod} := \frac{V_{u.rod}}{A_{net.anchor}} = 5.5 \cdot ksi$

$F_{y.rod} := 55 \cdot ksi$

$F_{t.rod} := 0.5 \cdot F_{y.rod} = 27.5 \cdot ksi$

AASHTO Eqn 5.17.4.2-1

$F_{v.rod} := 0.3 \cdot F_{y.rod} = 16.5 \cdot ksi$ AASHTO Eqn 5.17.4.2-3

$$CSR_{rod} := \left(\frac{f_{t.anchor}}{1.33F_{t.rod}}\right)^2 + \left(\frac{f_{v.rod}}{1.33F_{v.rod}}\right)^2$$ AASHTO Eqn 5.17.4.2-5

$CSR_{rod} = 0.465$

Use the AISC LRFD Code, 2nd Edition, for Design of Elements Where Possible

Design of bolts based on "Design Guide for Steel to Concrete Connections by Cook, Doerr & Klingne Research Report 1126-4F by the Bureau of Engineering Research at the Univ. of Texas at Austin

$T_{u.rod.old} := 1.3 \cdot F_{t.anchor} = 121.8 \cdot kip$

$V_{u.rod.old} := 1.3 \cdot V_{u.rod} = 28.6 \cdot kip$

(use a 1.3 load factor since loads are a mix of wind load and dead load)

$$A_{net.rod.old} := 0.75 \cdot \pi \cdot \left(\frac{d_{anchor}}{2}\right)^2 = 3.68 \cdot in^2$$

$F_{u.rod} := 75 \cdot ksi$

$T_{s.rod} := A_{net.rod.old} \cdot F_{u.rod} = 276.1 \cdot kip$

$\gamma := 0.5$ *(property of embedded rods)*

$$T_{n.rod} := \sqrt{T_{s.rod}^2 - \left(\frac{V_{u.rod}}{\gamma}\right)^2}$$

$0.75 \cdot T_{n.rod} = 204.4 \cdot kip$ ***(if greater than actual rod tension, bolts are OK)***

$$PR_{rod} := \frac{T_{u.rod.old}}{0.75 \cdot T_{n.rod}}$$

$PR_{rod} = 0.596$

$$Anchor\_Bolt\_Capacity\_Check := \begin{cases} \text{"OK"} & \text{if } CSR_{rod} \le 1 \wedge PR_{rod} \le 1 \\ \text{"No Good"} & \text{otherwise} \end{cases}$$

$Anchor\_Bolt\_Capacity\_Check = \text{"OK"}$

FTanchor

$L_{embedment.anchor} := 20.d_{anchor} + 12in = 62 \cdot in$

$LF_{shr} := 1.3$ *Shear Load Factor*

$LF_{tor} := 1.3$ *Torsion Load Factor*

1.3 is a reasonable Load Factor for combined WL + DL on sign and signal structures

$V_u := LF_{shr} \cdot \sqrt{V_x^2 + V_z^2} = 116.6 \cdot kip$

$T_u := LF_{tor} \cdot Torsion = 227 \cdot kip \cdot ft$

Anchor Bolt Shear Break-Out Strength

References:
ACI 318-05 Appendix D.
FDOT/University of Florida Report BD545 RPWO #54, Anchor Embedment Requirements for Signal/Sign Structures, July 2007.

$r_b := \frac{Diameter_{boltcircle.anchor}}{2}$ $r_b = 12 \cdot in$

$r := \frac{b_{concrete}}{2}$ $r = 15 \cdot in$

$c_{a1} := \frac{\sqrt{r_b^2 + 3.25 \cdot \left(r^2 - r_b^2\right)} - r_b}{3.25}$ $c_{a1} = 2.52 \cdot in$ *adjusted cover*

UF Report Eqn 3-2

$L_e := \min\left(8 \cdot d_{anchor}, L_{embedment.anchor}\right)$ $L_e = 20 \cdot in$ *load bearing length of anchor for shear*

ACI D.6.2.2

$V_b := 13 \cdot \left(\frac{L_e}{d_{anchor}}\right)^{0.2} \cdot \sqrt{\frac{d_{anchor}}{in}} \cdot \sqrt{\frac{f_c}{psi}} \left(\frac{c_{a1}}{in}\right)^{1.5} \cdot lbf$

$V_b = 9.2 \cdot kip$ *shear break-out strength (single anchor)*

UF Report Eqn 2-11

$A := \frac{(360 \cdot deg)}{Num_{anchor}}$ $A = 30 \cdot deg$ *UF Report Fig 3-7*

$\alpha := 2 \operatorname{asin}\left[\frac{\left(1.5 \cdot c_{a1}\right)}{r}\right]$ $\alpha = 29.2 \cdot deg$

OverlapTest := if(A ≤ α, "Overlap of Failure Cones" , "No Overlap of Failure Cones")

OverlapTest = "No Overlap of Failure Cones"

$chord := 2 \cdot r \cdot \sin\left(\frac{A}{2}\right)$ $chord = 7.8 \cdot in$ *UF Report Fig 3-7*

$A_{Vco} := 4.5 \cdot c_{a1}^2$ $A_{Vco} = 28.5 \cdot in^2$ *projected concrete failure area (single anchor)*

ACI Eqn D-23

$A_{Vc} := chord \cdot 1.5 \cdot c_{a1}$ $A_{Vc} = 29.3 \cdot in^2$ *projected concrete failure area (group)*

ACI D.6.2.1

$A_{Vc} := \text{if}\left(A_{Vc} > A_{Vco}, A_{Vco}, A_{Vc}\right)$ $A_{Vc} = 28.5 \cdot in^2$

$\psi_{ecV} := 1.0$	*eccentric load modifier*	*ACI D.6.2.5*	
$\psi_{edV} := 1.0$	*edge effect modifier*	*ACI D.6.2.6*	
$\psi_{cV} := 1.4$	*cracked section modifier*	*ACI D.6.2.7*	*(stirrup spacing <= 4")*
$\psi_{hV} := 1.0$	*member thickness modifier*	*ACI D.6.2.8*	
$\phi_{breakout} := 0.75$	*strength reduction factor*	*ACI D.4.4.c.i*	*(shear breakout, condition A)*

$V_{cbg} := Num_{anchor} \cdot \left(\frac{A_{Vc}}{A_{Vco}}\right) \cdot \left(\psi_{ecV} \cdot \psi_{edV} \cdot \psi_{cV} \cdot \psi_{hV}\right) \cdot V_b$ $V_{cbg} = 155.0 \cdot kip$ *concrete breakout strength - shear*

ACI Eqn D-22 *Shear force ⊥ to edge*

$V_{cbg\_parallel} := 2 \cdot V_{cbg}$ $V_{cbg\_parallel} = 310 \cdot kip$ *ACI D.6.2.1.c* *Shear force || to edge*

$T_{n.breakout} := V_{cbg\_parallel} \cdot r_b$ $T_{n.breakout} = 310 \cdot kip \cdot ft$ *concrete breakout strength - torsion*

$\phi_{breakout} \cdot T_{n.breakout} = 232.5 \cdot kip \cdot ft$

$T_u = 227 \cdot kip \cdot ft$

$\text{BreakoutTest} := \text{if}\left(\phi_{breakout} \cdot T_{n.breakout} \geq T_u, \text{"OK"}, \text{"No Good"}\right)$ BreakoutTest = "OK"

$\text{OverlapDesign} := \text{if}(A \leq \alpha, \text{"Based on Overlap of Failure Cones"}, \text{"Based on No Overlap of Failure Cones"})$

OverlapDesign = "Based on No Overlap of Failure Cones"

References

LRFD = AASHTO LRFD Bridge Design Specifications

LTS = AASHTO Luminaire, Traffic Signal, and Sign Structure Specifications.

SM = FDOT Structures Manual

SDG = FDOT Structures Design Guidelines

Spec = FDOT Standard Specifications

ACI = ACI 318 Structural Concrete Building Code

Check Anchor Bolt Stress and Minimum Spacing

$$BoltStress := \frac{F_{t.anchor.calc}}{A_{net.anchor}} = 23.2 \cdot ksi$$

$$MaxShear := \sqrt{V_x^{\,2} + V_z^{\,2}} = 89.7 \cdot kip$$

$$BoltShear := \left(\frac{MaxShear}{Num_{anchor}} + \frac{|Torsion|}{Num_{anchor} \cdot r_b} \right) = 22 \cdot kip$$

$$AllowStress := \left[\begin{array}{l} 0 \cdot ksi \quad \text{if} \quad \frac{1.3 \cdot BoltShear}{0.5} \geq 0.75 \cdot (75 \cdot ksi) \cdot A_{net.anchor} \\ \frac{\left(\frac{0.75}{1.3}\right) \cdot \sqrt{\left[0.75 \cdot (75 \cdot ksi) \cdot A_{net.anchor}\right]^2 - \left(\frac{1.3 \cdot BoltShear}{0.5}\right)^2}}{A_{net.anchor}} \quad \text{otherwise} \end{array} \right]$$

return $AllowStress = 31.4 \cdot ksi$

$BoltStressCheck := \text{if}(AllowStress \geq BoltStress, \text{"OK"}, \text{"No Good"})$ BoltStressCheck = "OK"

$$\theta_{bolts} := \frac{360deg}{Num_{anchor}} = 30 \cdot deg$$

$$Distance\_Between\_Bolts := 2 \cdot r_b \cdot \sin\left(\frac{\theta_{bolts}}{2}\right) = 6.21 \cdot in$$

Distance_Between_Bolts := 7.5in *base connection rectangular array override*

$Minimum\_Spacing := 3 \cdot d_{anchor} = 7.5 \cdot in$

$Bolt\_Minimum\_Spacing\_Check := \text{if}(Distance\_Between\_Bolts \geq Minimum\_Spacing, \text{"OK"}, \text{"No Good"})$

Bolt_Minimum_Spacing_Check = "OK"

Base Plate Calculations

Compute Base Plate Thickness

Minimum base plate thicknesses are determined using the formula on page 410 of the 5th edition of Roark's "Formulas for Stress and Strain" by Raymond Roark and Warren Young.

Anchor_Bolt_Tension := $F_{t.anchor.calc}$

Min_Base_Plate_Thickness := 2.25in

Base_PL_Thickness :=
W ← Anchor_Bolt_Tension
FOS ← 2.12 *factor of safety* **[AASHTO Bridge Table 10.32.1A]**
$W_u \leftarrow W \cdot FOS$
$F_{y\_plate} \leftarrow 36 \cdot ksi$
$\sigma_y \leftarrow F_{y\_plate}$
$\sigma_y \leftarrow \sigma_y$ *apply "group load" factor* **[AASHTO Table 3.4-1]**
$t_{plate} \leftarrow \sqrt{\frac{2 \cdot W_u}{\pi \cdot \sigma_y}}$ **[Roark (Ref.45)]**
$t_{plate} \leftarrow Min\_Base\_Plate\_Thickness$ if $t_{plate} < Min\_Base\_Plate\_Thickness$
return t_{plate}

Base_PL_Thickness = 2.250·in

Compute Stiffener Plate Thickness

The buckling of the vertical plates is investigated using the discussion on pages 752 through 765 in the 2nd edition of the book "Steel Structures" by Charles Salmon and John Johnson

Min_Stiffener_Thickness := $\frac{5}{8}$in

Stiffener_Thickness :=
P ← Anchor_Bolt_Tension
FOS ← 2.0 *factor of safety*
$F_{y\_stiff} \leftarrow 36 \cdot ksi$
$b_{stiff} \leftarrow 6.in$
$t_{stiff} \leftarrow \frac{P \cdot FOS}{0.90 \cdot F_{y\_stiff} \cdot (b_{stiff}) \cdot 2}$ **[Salmon Eq. 13.4.4]**
$t_{stiff} \leftarrow Min\_Stiffener\_Thickness$ if $t_{stiff} < Min\_Stiffener\_Thickness$
return t_{stiff}

Stiffener_Thickness = 0.625·in

Compute Stiffener Plate Height

In accordance with AASHTO LTS-6 Article 5.14.4, "only tapered stiffeners having a termination angle of 15 degrees on the tube at the tip of the stiffener shall be used."

Stiffener_Height :=
StiffWidth ← 6.in
$\theta_{stiff} \leftarrow 15 \cdot deg$
$StiffHeight \leftarrow \frac{StiffWidth - 1 \cdot in}{\tan(\theta_{stiff})} + 1 \cdot in$
return StiffHeight

$Stiffener\_Height = 19.660 \cdot in$

Compute Allowable Shear Stress for Fillet Welds

Note: The allowable weld stress computed here is used to design all welds computed by the program.

F_{weld} :=
$F_u \leftarrow 70ksi$ *[E70xx Electrode]*
$F_v \leftarrow 0.27 \cdot F_u$ *[AASHTO Bridge Eq. 10-12]*
$F_{weld} \leftarrow 0.707 \cdot F_v$
$F_{weld} \leftarrow F_{weld}$ *apply "group load" factor* *[AASHTO Table 3.4-1]*
return F_{weld}

$F_{weld} = 13.362 \cdot ksi$

Design Base Plate to Upright Welds

Base_PL_to_Upright_Welds :=
$WeldRadius \leftarrow \frac{Upright_{diameter}}{2}$
$WeldForce \leftarrow \frac{MaxShear + \frac{Torsion}{WeldRadius}}{2 \cdot \pi \cdot WeldRadius}$
$Weld_{req} \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right)$
$Weld_{in} \leftarrow Floor\left(Upright\_Thickness, \frac{1}{16} \cdot in\right) - \frac{1}{16} \cdot in$
$Weld_{out} \leftarrow Weld_{req} - Weld_{in}$
$Weld_{out} \leftarrow \frac{5}{16} \cdot in \text{ if } Weld_{out} < \frac{5}{16} \cdot in$
$Weld_{in} \leftarrow \frac{5}{16} \cdot in \text{ if } Weld_{req} - Weld_{out} < Weld_{in} \wedge Weld_{req} - Weld_{out} < \frac{5}{16} \cdot in$
$Diff \leftarrow Weld_{req} - (Weld_{in} + Weld_{out})$
$Weld_{in} \leftarrow Weld_{in} - Diff \text{ if } Diff \geq \frac{1}{16} \cdot in$
$Weld_{in} \leftarrow \frac{5}{16} \cdot in \text{ if } Weld_{in} < \frac{5}{16} \cdot in$
$Welds_0 \leftarrow Weld_{in}$
$Welds_1 \leftarrow Weld_{out}$
return Welds

$$Base\_PL\_Inside\_Weld := Base\_PL\_to\_Upright\_Welds_0 \qquad Base\_PL\_Inside\_Weld = 0.3125 \cdot in$$

$$Base\_PL\_Outside\_Weld := Base\_PL\_to\_Upright\_Welds_1 \qquad Base\_PL\_Outside\_Weld = 0.3125 \cdot in$$

Design Stiffener Plate to Base Plate Weld

$$\begin{aligned} Stiff\_PL\_to\_Base\_PL\_Weld := \; & WeldForce \leftarrow \frac{Anchor\_Bolt\_Tension}{2 \cdot (6.in - 0.75 \cdot in)} \\ & WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right) \\ & WeldSize \leftarrow \frac{5}{16} \cdot in \quad if \quad WeldSize < \frac{5}{16} \cdot in \\ & return \quad WeldSize \end{aligned}$$

$$Stiff\_PL\_to\_Base\_PL\_Weld = 0.5000 \cdot in$$

Design Stiffener Plate to Upright Weld

$$\begin{aligned} Stiff\_PL\_to\_Upright\_Weld := \; & BoltTension \leftarrow Anchor\_Bolt\_Tension \\ & StiffHt \leftarrow Stiffener\_Height \\ & WeldForce \leftarrow \frac{\sqrt{\left\lceil \frac{(18 \cdot in) \cdot BoltTension}{(StiffHt - 0.75 \cdot in)^2} \right\rceil^2 + \left(\frac{BoltTension}{StiffHt - 0.75 \cdot in}\right)^2}}{2} \\ & WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right) \\ & WeldSize \leftarrow \frac{3}{16} \cdot in \quad if \quad WeldSize < \frac{3}{16} \cdot in \\ & return \quad WeldSize \end{aligned}$$

$$Stiff\_PL\_to\_Upright\_Weld = 0.3125 \cdot in$$

Check Stiffener Thickness to Upright Wall Thickness Ratio

In accordance with AASHTO LTS-6 Article 5.14.4, "the ratio of the stiffener thickness to the tube wall thicknesses shall not exceed 1.25".

$$\text{Stiffener\_to\_Upright\_Thickness\_Check} := \begin{cases} \text{"OK"} & \text{if } \frac{\text{Stiffener\_Thickness}}{\text{Upright\_Thickness}} \le 1.25 \\ \text{"N.G. Select an upright member with thicker walls."} & \text{otherwise} \end{cases}$$

Additional Base Connection Check

Stiffener_to_Upright_Thickness_Check = "OK"

Base Plate Calculations

Connection Output

Connection Values

Base Connection

Note: All truss bolted connections use A325 bolts, and upright anchor bolts are ASTM F1554. All welds are sized assuming E70xx electrodes.

(BA) Anchor_Bolt_Size = 2.50·in

(BB) Number_of_Anchor_Bolts_Reqd = 12

(BC) Base_Plate_Thickness = 2.25·in

(BD) $\text{Stiffener\_Plate\_Thickness} = \frac{5}{8}\cdot\text{in}$

(BE) Stiffener_Plate_Height = 20·in

(BF) $\text{Inside\_Base\_Plate\_Fillet\_Weld} = \frac{5}{16}\cdot\text{in}$

(BG) $\text{Outside\_Base\_Plate\_Fillet\_Weld} = \frac{5}{16}\cdot\text{in}$

(BH) $\text{Stiffener\_PL\_to\_Base\_PL\_Fillet\_Weld} = \frac{1}{2}\cdot\text{in}$

(BJ) $\text{Stiffener\_PL\_to\_Upright\_Fillet\_Weld} = \frac{5}{16}\cdot\text{in}$

Anchor Bolt Lengths

(BK) $\text{Anchor\_Bolt\_Embed\_Length} := L_{embedment.anchor} = 62\cdot\text{in}$

$\text{Pedestal\_Minimum\_Width} := b_{concrete} = 2.5\,\text{ft}$

SUBJECT I-95 EXPRESS LANES, PHASE 3B-1

DESIGNED BY JR DATE 10/11/2018
CHECKED BY MV DATE 10/11/2018

STA 3128+50.00 DMS Special Cantilever
Pile Cap Calculations

Description

This section provides the criteria for the pile cap design.

Section

A **Input Variables**

B **Moment Design**

- B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]
- B2. Limits for Reinforcement [LRFD 5.7.3.3]
- B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]
- B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]
- B5. Mass Concrete Provisions [SDG 3.9]

C **Shear and Torsion Design [LRFD 5.8]**

- C1. Check if Torsion Design is Required
- C2. Determine Nominal Shear Resistance
- C3. Transverse Reinforcement

D **Summary of Reinforcement Provided**

A. Input Variables

Material Properties

Unit weight of concrete..... $\gamma_{conc} := 150 \cdot pcf$

Modulus of elasticity for reinforcing steel..... $E_s := 29000 \cdot ksi$

Yield strength of reinforcing steel..... $f_y := 60 \cdot ksi$

Note: Epoxy coated reinforcing not allowed on FDOT projects. **[SDG 4.1]**

Design Parameters **[LRFD 5.5.4.2]**

Resistance Factor for Flexure and tension of reinforced concrete..... $\phi := 0.90$

Resistance Factor for Shear and torsion of normal weight concrete..... $\phi_v := 0.90$

Florida DOT Concrete & Environment [SDG 1.4]

The environment can be classified as either "Slightly", "Moderately" or "Extremely" aggressive.
Per 1.02 General Notes:

Environmental classification for substructure..... $Environment_{sub} \equiv "Moderately"$

Concrete cover for substructure not in contact with water..... $cover_{sub} := \begin{cases} 4 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 3 \cdot in & \text{otherwise} \end{cases} = 3 \cdot in$

Concrete cover for substructure cast against earth or in contact with water..... $cover_{sub.earth} := \begin{cases} 4.5 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 4 \cdot in & \text{otherwise} \end{cases} = 4 \cdot in$

Minimum 28-day compressive strength of concrete components..... $f_{c.sub} := 5.5 \cdot ksi$
(Class IV, Cast-in-place Substructure)

Correction factor for Florida lime rock coarse aggregate..... $K_1 := 0.9$

Unit Weight of Florida lime rock concrete (kcf)..... $w_{c.limerock} := .145 \frac{kip}{ft^3}$

Modulus of elasticity for substructure..... $E_{c.sub} := 33000 \cdot K_1 \cdot \left(\frac{w_{c.limerock}}{\frac{kip}{ft^3}} \right)^{1.5} \sqrt{f_{c.sub} \cdot ksi} = 3846 \cdot ksi$

Pile Cap Geometry

Height of pier cap..... $h_{Cap} := 2.50ft$

Width of pier cap..... $b_{Cap} := 8ft$

Length of pier cap..... $L_{Cap} := 12ft$

Design Loads - Moments, Shears and Torques

"Service Loads for the footing, utilized only to check for crack control"

"Maximum loads are obtained from FDOT Cantilever Program and FB-Multipier"

"1.3 Load Factor (Strength1) included since loads are a mix of wind load and dead load"

Moment (M) - Service..... $M_{Service1.pos} := 553.7665ft \cdot kip$

$M_{Strength1.pos} := 1.3 \cdot M_{Service1.pos} = 719.9 \cdot ft \cdot kip$

Axial (V) - Service ..... $V_{Service.neg} := 117.502kip$

$V_{Strength1.neg} := 1.3 \cdot V_{Service.neg} = 152.8 \cdot kip$

Torsion (Trans Moment) - Service ..... $T_{Service.neg} := 174.624 \cdot ft \cdot kip$

$T_{Strength1.neg} := 1.3 \cdot T_{Service.neg} = 227\ ft \cdot kip$

B. Moment Design

A few recommendations on bar size and spacing are available to minimize problems during construction.

- Use the same size and spacing of reinforcing for both the negative and positive moment regions. This prevents field errors whereas the top steel is mistakenly placed at the bottom or vice versa.
- If this arrangement is not possible, give preference to maintaining the same spacing between the top and bottom reinforcement. Same grid pattern allows the concrete vibrator to be more effective in reaching the full depth of the cap.

The design procedure consists of calculating the reinforcement required to satisfy the design moment, then checking this reinforcement against criteria for crack control, minimum reinforcement, maximum reinforcement, shrinkage and temperature reinforcement, and distribution of reinforcement. The procedure is the same for both positive and negative moment regions.

$$M_r := M_{Strength1.pos} = 720 \cdot ft \cdot kip$$

Factored resistance

$$M_r = \phi \cdot M_n$$

Nominal flexural resistance

$$M_n = A_{ps} \cdot f_{ps} \cdot \left(d_p - \frac{a}{2} \right) + A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right) - A'_s \cdot f'_s \cdot \left(d'_s - \frac{a}{2} \right) + 0.85 \cdot f'_c \cdot \left(b - b_w \right) \cdot h_f \cdot \left(\frac{a}{2} - \frac{h_f}{2} \right)$$

For a rectangular, non-prestressed section,

$$M_n = A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right)$$

$$a = \frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b}$$

Assume $f_s := f_y$ [LRFD 5.7.2.1]

B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]

Using variables defined in above.....

$$M_r = \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b} \right) \right]$$

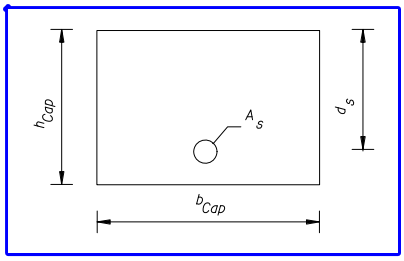
where $f_{c.sub} = 5.5 \cdot ksi$

$f_y = 60 \cdot ksi$

$\phi = 0.9$

$h_{Cap} = 30 \cdot in$

$b_{Cap} = 96 \cdot in$



Initial assumption for area of steel required

Number of bars..... $n_{bar} := 16$

Size of bar..... $bar := "6"$

Note: if bar spacing is "-1", the spacing is less than 3", and a bigger bar size should be selected.

Bar area..... $A_{bar} = 0.440 \cdot in^2$

Bar diameter..... $dia = 0.750 \cdot in$

Equivalent bar spacing..... $bar_{spa} = 5.9 \cdot in$

Area of steel provided..... $A_{s.pos} := n_{bar} \cdot A_{bar} = 7.04 \cdot in^2$

Distance from extreme compressive fiber to centroid of reinforcing steel (assuming a #6 stirrup)..... $d_s := h_{Cap} - cover_{sub} - \frac{dia}{2} - \frac{3}{4}in = 25.9 \cdot in$

Stress block factor..... $\beta_1 := \min\left[\max\left[0.85 - 0.05 \cdot \left(\frac{f_{c.sub} - 4ksi}{ksi} \right), 0.65 \right], 0.85 \right] = 0.78$

Distance between the neutral axis and compressive face..... $c := \frac{A_{s.pos} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot \beta_1 \cdot b_{Cap}} = 1.21 \cdot in$

Initial assumption for the area of steel required, this process is iterative..... $A_{sreq} := A_{s.pos} = 7.04 \cdot in^2$

Solve the quadratic equation for the area of steel required..... Given $M_r = \phi \cdot A_{sreq} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{sreq} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right]$

Area of steel required..... $A_{s.required} := Find(A_{sreq}) = 6.28 \cdot in^2$

The area of steel provided, $A_{s.pos} = 7.04\,in^2$, should be greater than the area of steel required, $A_{s.required} = 6.28\,in^2$. If not, decrease the spacing of the reinforcement. Once $A_{s.pos}$ is greater than $A_{s.reqd}$, the proposed reinforcing is adequate for the applied moments.

Moment capacity provided.....

$$M_{r.pos} := \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right] = 804.8 \cdot kip \cdot ft$$

Check assumption that $f_s = f_y$.....

$$Check\_f_s := if\left(\frac{c}{d_s} < 0.6, "OK", "Not\ OK" \right)$$

$Check\_f_s = "OK"$

B2. Limits for Reinforcement [LRFD 5.7.3.3]

Minimum Reinforcement

The minimum reinforcement requirements ensure the moment capacity provided is at least equal to the lesser of the cracking moment and 1.33 times the factored moment required by the applicable strength load combinations.

Modulus of Rupture.....

$$f_r := -0.24 \cdot \sqrt{f_{c.sub} \cdot ksi} = -562.8\ psi$$ [SDG 1.4.1.B]

Section modulus of cap.....

$$S := \frac{b_{Cap} \cdot h_{Cap}^2}{6} = 14400 \cdot in^3$$

Flexural cracking variability factor.....

$$\gamma_1 := 1.6$$

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement.....

$$\gamma_3 := 0.67$$ (for ASTM A615, Grade 60 reinforcing steel, per SDG 1.4.1.C)

Cracking moment.....

$$M_{cr} := \gamma_3 \cdot \gamma_1 \cdot f_r \cdot S = -724.1 \cdot kip \cdot ft$$

Required flexural resistance.....

$$M_{r.reqd} := \min\left(\left| M_{cr} \right|, 133 \cdot \%\cdot M_r \right) = 724.1 \cdot kip \cdot ft$$

Check that the capacity provided, $M_{r.pos} = 804.8\,ft \cdot kip$, exceeds minimum requirements, $M_{r.reqd} = 724.1\,ft \cdot kip$.

$$LRFD_{5.7.3.3.2} := \begin{cases} "OK, minimum\ reinforcement\ for\ positive\ moment\ is\ satisfied" & if\ M_{r.pos} \geq M_{r.reqd} \\ "NG, reinforcement\ for\ positive\ moment\ is\ less\ than\ minimum" & otherwise \end{cases}$$

$LRFD_{5.7.3.3.2} = "OK, minimum\ reinforcement\ for\ positive\ moment\ is\ satisfied"$

B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]

Concrete is subjected to cracking. Limiting the width of expected cracks under service conditions increases the longevity of the structure. Potential cracks can be minimized through proper placement of the reinforcement. The check for crack control requires that the actual stress in the reinforcement should not exceed the service limit state stress (LRFD 5.7.3.4). The stress equations emphasize bar spacing rather than crack widths.

The maximum spacing of the mild steel reinforcement for control of cracking at the service limit state shall satisfy.....

$$s \le \frac{700 \cdot \gamma_e}{\beta_s \cdot f_{ss}} - 2 \cdot d_c$$

where

$$\beta_s = 1 + \frac{d_c}{0.7\left(h - d_c\right)}$$

Exposure factor for Class 1 exposure condition.....

$\gamma_e := 1.00$ **[SDG 3.15.8]**

Overall thickness or depth of the component.....

$h_{Cap} = 2.5\,ft$

Distance from extreme tension fiber to center of closest bar.....

$$d_c := cover_{sub} + \frac{dia}{2} + \frac{3}{4}in = 4.13 \cdot in$$

$$\beta_s := 1 + \frac{d_c}{0.7\left(h_{Cap} - d_c\right)} = 1.23$$

The neutral axis of the section must be determined to determine the actual stress in the reinforcement. This process is iterative, so an initial assumption of the neutral axis must be made.

Guess value $x := 36 \cdot in$

Given

$$\frac{1}{2} \cdot b_{Cap} \cdot x^2 = \frac{E_s}{E_{c.sub}} \cdot A_{s.pos} \cdot \left(d_s - x\right)$$

$$x_{na} := Find(x) = 4.82 \cdot in$$

Tensile force in the reinforcing steel due to service limit state moment.....

$$T_s := \frac{M_{Service1.pos}}{d_s - \frac{x_{na}}{3}} = 273.8 \cdot kip$$

Actual stress in the reinforcing steel due to service limit state moment.....

$$f_{s.actual} := \frac{T_s}{A_{s.pos}} = 38.9 \cdot ksi$$

Required reinforcement spacing.....

$$s_{required} := \frac{700 \cdot \gamma_e \cdot \frac{kip}{in}}{\beta_s \cdot f_{s.actual}} - 2 \cdot d_c = 6.41 \cdot in$$

Provided reinforcement spacing.....

$$bar_{spa} = 5.92 \cdot in$$

The required spacing of mild steel reinforcement in the layer closest to the tension face shall not be less than the reinforcement spacing provided due to the service limit state moment.

$$LRFD_{5.7.3.4} := \begin{cases} \text{"OK, crack control for M is satisfied"} & \text{if } s_{required} \geq bar_{spa} \\ \text{"NG, crack control for M not satisfied, provide more reinforcement"} & \text{otherwise} \end{cases}$$

$LRFD_{5.7.3.4} = \text{"OK, crack control for M is satisfied"}$

B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]

Initial assumption for area of steel required

Size of bar..... $bar_{st} := "6"$

Spacing of bar..... $bar_{spa.st} := 4.8 \cdot in$

Bar area..... $A_{bar} = 0.44 \cdot in^2$

Bar diameter..... $dia = 0.750 \cdot in$

Minimum area of shrinkage and temperature reinforcement.....

$$A_{shrink.temp} := \min\left[\left[\max\left[\left[\begin{array}{c}\left(0.60\,\frac{in^2}{ft}\right)\\ \left(0.11\,\frac{in^2}{ft}\right)\\ \left[\frac{1.3 \cdot b_{Cap} \cdot h_{Cap} \cdot \frac{kip}{in \cdot ft}}{2\left(b_{Cap} + h_{Cap}\right) \cdot f_y}\right]\end{array}\right]\right]\right] = 0.25 \cdot \frac{in^2}{ft}$$

Maximum spacing of shrinkage and temperature reinforcement

$$spacing_{shrink.temp} := \begin{cases} \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 12 \cdot in\right) & \text{if } \left(b_{Cap} > 36in\right) \cdot \left(h_{Cap} > 36in\right) \\ \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 3 \cdot b_{Cap}, 3 \cdot h_{Cap}, 18in\right) & \text{otherwise} \end{cases} = 18 \cdot in$$

The bar spacing should be less than the maximum spacing for shrinkage and temperature reinforcement

$$LRFD_{5.7.10.8} := \begin{cases} "OK, minimum shrinkage and temperature requirements" & \text{if } bar_{spa.st} \le spacing_{shrink.temp} \\ "NG, minimum shrinkage and temperature requirements" & \text{otherwise} \end{cases}$$

$LRFD_{5.7.10.8} = "OK, minimum shrinkage and temperature requirements"$

B5. Mass Concrete Provisions [SDG 3.9]

Surface area of pier cap..... $Surface_{cap} := 2 \cdot b_{Cap} \cdot h_{Cap} + \left(2b_{Cap} + 2h_{Cap}\right) \cdot L_{Cap} = 292\ ft^2$

Volume of pier cap..... $Volume_{cap} := b_{Cap} \cdot h_{Cap} \cdot L_{Cap} = 240 \cdot ft^3$

Mass concrete provisions apply if the volume to surface area ratio, $\frac{Volume_{cap}}{Surface_{cap}} = 0.82 ft$, exceeds 1 ft and the minimum dimension exceeds 3 feet

$$SDG_{3.9} := \begin{cases} \text{"Use mass concrete provisions"} & \text{if } \frac{Volume_{cap}}{Surface_{cap}} > 1.0 \cdot ft \wedge b_{Cap} > 3 ft \wedge h_{Cap} > 3 ft \\ \text{"Use regular concrete provisions"} & \text{otherwise} \end{cases}$$

$SDG_{3.9} = \text{"Use regular concrete provisions"}$

C. Shear and Torsion Design [LRFD 5.8]

C1. Check if Torsion Design is Required

$T_u := |T_{Strength1.neg}|$ $V_u := |V_{Strength1.neg}|$

For normal weight concrete, torsional effects shall be investigated if.....

$$T_u > 0.25 \cdot \phi_v \cdot T_{cr}$$

and.....

$$T_{cr} = 0.125 \cdot \sqrt{f_c} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_c}}}$$

Total area enclosed by outside perimeter of concrete cross section.....

$$A_{cp} := h_{Cap} \cdot b_{Cap} = 20\,ft^2$$

Length of outside perimeter of cross section.....

$$p_c := 2 \cdot (h_{Cap} + b_{Cap}) = 21\,ft$$

Compressive stress in concrete after prestress losses have occured.....

$$f_{pc} := 0 \cdot psi$$

Torsional cracking moment.....

$$T_{cr} := 0.125 \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_{c.sub} \cdot ksi}}} = 804.1 \cdot kip \cdot ft$$

$$LRFD_{5.8.2} := \begin{cases} \text{"OK, torsion can be neglected"} & \text{if } 0.25 \cdot \phi_v \cdot T_{cr} \geq T_u \\ \text{"NG, torsion shall be investigated..."} & \text{otherwise} \end{cases}$$

$LRFD_{5.8.2} = \text{"NG, torsion shall be investigated..."}$

C2. Determine Nominal Shear Resistance

Effective width of the section..... $b_v := b_{Cap} = 96 \cdot in$

Effective shear depth..... $a := \frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} = 0.94 \cdot in$

$d_v := \max\left(d_s - \frac{a}{2}, 0.9 \cdot d_s, 0.72 \cdot h_{Cap}\right) = 25.4 \cdot in$

Determination of β and θ **(LRFD 5.8.3.4)**

The pier cap is a non-prestressed concrete section not subjected to axial tension. Assuming it has at least the amount of transverse reinforcement specified in **LRFD 5.8.2.5** or an overall depth of less than 16 in, the Simplified Procedure for determining Shear Resistance per LRFD 5.8.3.4.1 may be used.

$\beta := 2$ $\theta := 45 \cdot deg$

Nominal shear resistance of concrete section..... $V_c := 0.0316 \cdot \beta \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot b_v \cdot d_v = 361.5 \cdot kip$

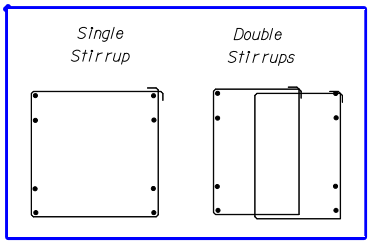
C3. Transverse Reinforcement

Because the overall depth is greater than 16 in, transverse reinforcement shall be provided in the pier cap according to **LRFD 5.8.2.5.**

$$A_v \geq .0316 \cdot \sqrt{f'_c} \cdot \frac{b_v \cdot s}{f_y}$$

The pier cap has no prestressing. $V_p := 0 \cdot kip$

Stirrups



Size of stirrup bar ("4" "5" "6" "7")... bar := "5"

Number of stirrup bars ("single" "double")..... n_{bar} := "single"

Area of shear reinforcement..... $A_v = 0.620 \cdot in^2$

Diameter of shear reinforcement..... $dia = 0.625 \cdot in$

Nominal shear strength provided by shear reinforcement

$V_n = V_c + V_p + V_s$

where..... $V_n := \min\left(\frac{V_u}{\phi_v}, 0.25 \cdot f_{c.sub} \cdot b_v \cdot d_v + V_p\right) = 169.73 \cdot kip$

and..... $V_s := V_n - V_c - V_p = -191.75 \cdot kip$

Spacing of stirrups

Minimum transverse reinforcement..... $s_{min} := \frac{A_v \cdot f_y}{0.0316 \cdot b_v \cdot \sqrt{f_{c.sub} \cdot ksi}} = 5.23 \cdot in$

Transverse reinforcement required..... $s_{req} := if\left(V_s \le 0, s_{min}, \frac{A_v \cdot f_y \cdot d_v \cdot \cot(\theta)}{V_s}\right) = 5.23 \cdot in$

Minimum transverse reinforcement required..... $s_w := \min\left(s_{min}, s_{req}\right) = 5.23 \cdot in$

Maximum transverse reinforcement spacing

$$s_{max} := if\left[\frac{V_u - \phi_v \cdot V_p}{\phi_v \cdot \left(b_v \cdot d_v\right)} < 0.125 \cdot f_{c.sub}, \min\left(\begin{pmatrix} 0.8 \cdot d_v \\ 24 \cdot in \end{pmatrix}\right), \min\left(\begin{pmatrix} 0.4 \cdot d_v \\ 12 \cdot in \end{pmatrix}\right)\right] = 20.32 \cdot in$$

Spacing of transverse reinforcement cannot exceed the following spacing..... $spacing := floor\left(\frac{if\left(s_{max} > s, s, s_{max}\right)}{in}\right) \cdot in = 5 \cdot in$

LRFD 5.8.3.5 is applicable at the end bearing support areas. Therefore, this check is ignored.

C2. Determine Nominal Torsion Resistance

$$T_n := \frac{2A_{cp} \cdot \left(A_v \cdot f_y - V_s\right)}{spacing \cdot \tan(\theta)} = 2.2 \times 10^4 \cdot kip \cdot ft$$

$T_u = 227.01 \cdot kip \cdot ft$

$$LRFD_{5.8.2.1} := \begin{cases} T_r \leftarrow \phi_v \cdot T_n \\ \text{"OK"} \quad \text{if } T_r > T_u \\ \text{"NG, add transverse reinforcement"} \quad \text{otherwise} \end{cases}$$

$LRFD_{5.8.2.1} = \text{"OK"}$

D. Summary of Reinforcement Provided

Moment Reinforcement (Top and Bottom)

Bar size..... $bar_{posM} = "6"$

Number of bars..... $n_{bar.posM} = 16$

Bar spacing..... $bar_{spa.posM} = 5.9 \cdot in$

Transverse reinforcement

Bar size..... $bar = "5"$

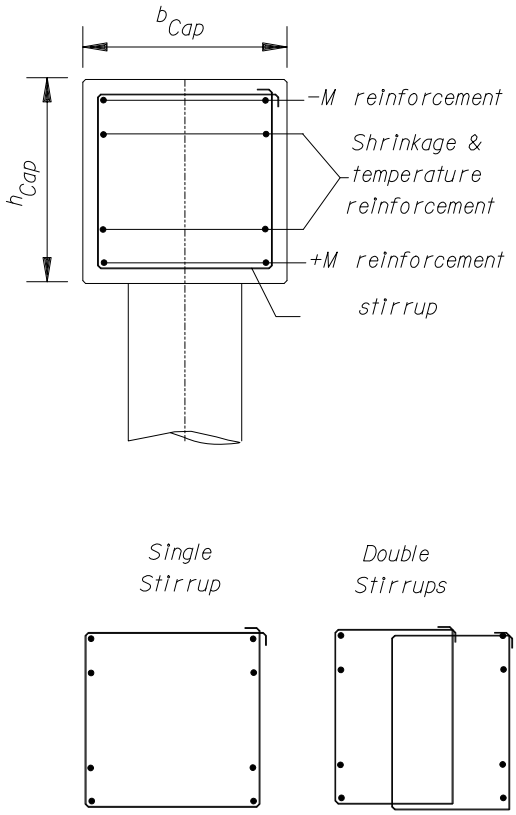
Bar spacing..... $spacing = 5.0 \cdot in$

Type of stirrups..... $n_{bar} = "single"$

Temperature and Shrinkage

Bar size..... $bar_{shrink.temp} = "6"$

Bar spacing..... $bar_{spa.st} = 4.8 \cdot in$



Drilled Shaft Foundation for Sign & Signal Structures

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SUBJECT I-95 EXPRESS LANES, PHASE 3B-1
(STA 3128+50.00, Boring #OHT-15)

DESIGNED BY JR DATE 01/31/2019
CHECKED BY MV DATE 01/31/2019

Input

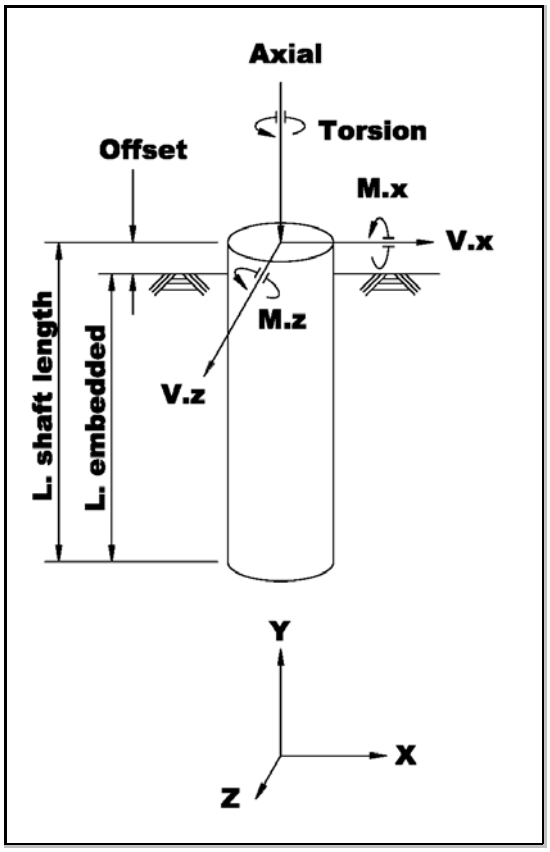
SoilType := Sand / Clay

WaterElevation := Below Bottom of Shaft / Above Top of Shaft

$\gamma_{soil.dry} := 53 \cdot pcf$ *dry soil density*

$\gamma_{water} := 62.4 \cdot pcf$ *water density*

$\gamma_{soil} := \gamma_{soil.dry} - if(WaterElevation = "Above\ Top\ of\ Shaft", \gamma_{water}, 0 \cdot pcf) = 53 \cdot pcf$



$b := 2.5 \cdot ft$ *shaft diameter*

$Offset := 0 \cdot ft$ *groundline to top of foundation*

$\phi_{soil} := 36 \cdot deg$ *soil friction angle (sand)*

$c_{soil} := 2.0 \cdot \frac{kip}{ft^2}$ *soil shear strength (clay)*

Applied Loads, Assuming 20% transfers

$M_x := 110.7533 \cdot kip \cdot ft$ $V_x := 5.5756 \cdot kip$ $Torsion := 34.9248 \cdot kip \cdot ft$

$M_z := 11.13746 \cdot kip \cdot ft$ $V_z := 17.0534 \cdot kip$ $Axial := 136.702 \cdot kip$

Shaft Depth Required to Resist Overturning

$SF_{ot} := 2$ *Safety Factor against Overturning* *SM Vol-9 13.6*

$M_{total} := (SF_{ot}) \cdot \sqrt{M_x^2 + M_z^2} = 222.6 \cdot kip \cdot ft$

$P_{total} := (SF_{ot}) \cdot \sqrt{V_x^2 + V_z^2} = 35.9 \cdot kip$

*short free-head pile in **cohesionless soil** using Broms method*

$K_p := \tan\left(45 \cdot deg + \frac{\phi_{soil}}{2}\right)^2 = 3.9$ $e_{sand} := Offset = 0$

Guess value $L_{otSand} := 50 \cdot ft$

Given $\frac{\gamma_{soil} \cdot b \cdot L_{otSand}^3 \cdot K_p}{2} - P_{total} \cdot (e_{sand} + L_{otSand}) - M_{total} = 0 \cdot kip \cdot ft$

$L_{otSand} := Find(L_{otSand}) = 14.2\ ft$

$L_{otSand} := ceil\left(\frac{L_{otSand}}{ft}\right) \cdot ft = 15\ ft$ *(round up to next foot)*

*short free-head pile in **cohesive soil** using Modified Broms method for L < 3b (see reference file for derivation)*

$c_{soil} := \text{if}(c_{soil} = 0\cdot ksf, 0.1\cdot ksf, c_{soil}) = 2\cdot ksf$ $\quad$ $Slope := 8\cdot\frac{c_{soil}}{3\cdot b} = 2.1\cdot\frac{kip}{ft^3}$ $\quad$ $e_{clay} := \frac{M_{total}}{P_{total}} + Offset = 6.2\,ft$

$nforce(M,N) := \left[Slope\cdot(2\cdot M + N) + 2\cdot c_{soil}\right]\cdot N\cdot\frac{b}{2}$ $\quad$ $mforce(M) := \left(2\cdot c_{soil} + M\cdot Slope\right)\cdot M\cdot\frac{b}{2}$

$m\_arm(M) := e_{clay} + \frac{M}{3}\cdot\frac{2\cdot\left(M\cdot Slope + c_{soil}\right) + c_{soil}}{M\cdot Slope + 2\cdot c_{soil}}$

$n\_arm(M,N) := e_{clay} + M + \frac{N}{3}\cdot\frac{2\cdot\left(N\cdot Slope + M\cdot Slope + c_{soil}\right) + \left(M\cdot Slope + c_{soil}\right)}{Slope\cdot(2\cdot M + N) + 2\cdot c_{soil}}$

Guess value $\quad$ $M := 10.0\cdot ft$ $\quad$ $N := 5.0\cdot ft$

Given $\quad$ $P_{total} + nforce(M,N) = mforce(M)$ $\quad$ $mforce(M)\cdot m\_arm(M) = nforce(M,N)\cdot n\_arm(M,N)$

$\begin{pmatrix} M \\ N \end{pmatrix} := Find(M,N)$ $\quad$ $L_{ot1Clay} := M + N = 8.6\,ft$

$L_{ot1Clay} := ceil\left(\frac{L_{ot1Clay}}{ft}\right)\cdot ft = 9\,ft$ $\quad$ *(round up to next foot)*

*short free-head pile in **cohesive soil** using Regular Broms method for L > 3b*

$f_{clay} := \frac{P_{total}}{9\cdot c_{soil}\cdot b} = 0.8\,ft$ $\quad$ $M_{maxtemp} := P_{total}\cdot\left(e_{clay} + 1.5\cdot b + 0.5\cdot f_{clay}\right) = 371.5\cdot kip\cdot ft$ $\quad$ $g := \sqrt{\frac{M_{maxtemp}}{2.25\cdot c_{soil}\cdot b}} = 5.7\,ft$

$L_{ot2Clay} := \left(1.5\cdot b + f_{clay} + g\right) = 10.3\,ft$

$L_{ot2Clay} := ceil\left(\frac{L_{ot2Clay}}{ft}\right)\cdot ft = 11\,ft$ $\quad$ *(round up to next foot)*

$L_{otClay} := \text{if}\left(L_{ot1Clay} < 3\cdot b, L_{ot1Clay}, L_{ot2Clay}\right) = 3.4$ $\quad$ *(If $L_\alpha < 3b$, use Modified Broms method)*

$L_{reqdOT} := \text{if}\left(SoilType = \text{"Sand"}, L_{otSand}, L_{otClay}\right) = 4.6$

Shaft Depth Required to Resist Torsion

NOTE: ω_{fdot} and μ are based upon concrete soil interaction. This torsion methodology is not to be used with permanent casing.

$SF_{tor} := 1.3$ *Safety Factor against Torsion*
1.0 for Mast Arm signal structures
1.3 for Overhead Cantilever sign structures

SM Vol-9 13.6

$N_{blows} := 31$ *Number of blows per foot. If N< 5, contact the district geotech Engineer*

$$\omega_{fdot} := \text{if}\left(N_{blows} < 5, 0, \text{if}\left(N_{blows} \geq 15, 1.5, 1.5 \cdot \frac{N_{blows}}{15}\right)\right) = 1.5$$

load transfer ratio, If 5<N<15, ω_{fdot} is reduced by a factor of $\frac{N_{blows}}{15}$

SM Vol-9 13.6

$\mu := 0.38$ *coefficient of friction between concrete shaft and soil*

$$\gamma_{concrete} := \text{if}\left(\text{WaterElevation} = \text{"Above Top of Shaft"}, 150 \cdot pcf - \gamma_{water}, 150 \cdot pcf\right) = 150 \cdot pcf$$

$CohesionFactor := 0.55$

$f_{se} := CohesionFactor \cdot c_{soil} = 1.1 \cdot ksf$

*short free-head pile in **cohesionless soil***

Guess value $L_{torSand} := L_{reqdOT} = 15\ ft$

Given

$$Torsion = \frac{\left[\pi \cdot b \cdot \left(L_{torSand}\right) \cdot \gamma_{soil} \cdot \left(\frac{L_{torSand}}{2}\right) \cdot \left(\omega_{fdot}\right) \cdot \frac{b}{2} + \pi \cdot \left(\frac{b}{2}\right)^2 \cdot L_{torSand} \cdot \left(\gamma_{concrete}\right) \cdot \frac{b}{3} \cdot \mu\right]}{SF_{tor}}$$

$L_{torSand} := \text{Find}\left(L_{torSand}\right) = 10.5\ ft$

$$L_{torSand} := \text{ceil}\left(\frac{L_{torSand}}{ft}\right) \cdot ft = 11\ ft$$ *(round up to next foot)*

*short free-head pile in **cohesive soil***

Guess value $L_{torClay} := L_{reqdOT}$

Given $$\left[f_{se} \cdot (\pi \cdot b) \cdot \left(L_{torClay} - 1.5 \cdot ft\right) \cdot \frac{b}{2}\right] + \left[f_{se} \cdot \pi \cdot \left(\frac{b}{2}\right)^2 \cdot \left(\frac{b}{3}\right)\right] = Torsion \cdot SF_{tor}$$

$L_{torClay} := \text{Find}\left(L_{torClay}\right) = 5.3\ ft$

$$L_{torClay} := \text{ceil}\left(\frac{L_{torClay}}{ft}\right) \cdot ft = 6\ ft$$ *(round up to next foot)*

$L_{reqdTor} := if(SoilType = "Sand", L_{torSand}, L_{torClay}) = 3.4$

$L_{embedded} := if(L_{reqdTor} > L_{reqdOT}, L_{reqdTor}, L_{reqdOT}) = 4.6$

$L_{shaft.length} := L_{embedded} + Offset = 15\,ft$

Unfactored Maximum Moment in Shaft

*short free-head pile in **cohesionless soil** using Broms method*

$$f_{sand} := \sqrt{\frac{2 \cdot \frac{P_{total}}{SF_{ot}}}{3 \cdot \gamma_{soil} \cdot b \cdot K_p}} = 4.8\,ft$$

$$M_{maxSand} := \frac{P_{total}}{SF_{ot}} \cdot (e_{sand} + f_{sand}) - \frac{\frac{P_{total}}{SF_{ot}} \cdot f_{sand}}{3} + \frac{M_{total}}{SF_{ot}} = 169.2 \cdot kip \cdot ft$$

*short free-head pile in **cohesive soil** using Modified Broms method for L < 3b (see reference file for derivation)*

Guess value $f_{mod} := 4.0 \cdot ft$

Given $\frac{P_{total}}{SF_{ot}} = \frac{f_{mod} \cdot b}{2} \cdot (2 \cdot c_{soil} + f_{mod} \cdot Slope)$

$f_{mod} := Find(f_{mod}) = 1.8\,ft$

$$M_{modBroms} := \frac{P_{total}}{SF_{ot}} \cdot (e_{clay} + f_{mod}) - \frac{c_{soil} \cdot b \cdot f_{mod}^{2}}{2} - \frac{b \cdot f_{mod}^{3} \cdot Slope}{6} = 130.3 \cdot kip \cdot ft$$

*short free-head pile in **cohesive soil** using Regular Broms method for L > 3b*

$$M_{Broms} := \frac{P_{total}}{SF_{ot}} \cdot (e_{clay} + 1.5 \cdot b + 0.5 \cdot f_{clay}) = 185.7 \cdot kip \cdot ft$$

$M_{maxClay} := if(L_{ot1Clay} < 3 \cdot b, M_{modBroms}, M_{Broms}) = 185.7 \cdot kip \cdot ft$ *(If $L_{\alpha} < 3b$, use Modified Broms method)*

$M_{max} := if(SoilType = "Sand", M_{maxSand}, M_{maxClay}) = 169.2 \cdot kip \cdot ft$ *(Service moment)*

Minimum Reinforcing and Spacing

$F_{y.rebar} := 60 \cdot ksi$ *reinforcing yield strength*

$f_c := 4 \cdot ksi$ *concrete strength* Spec 346-3

$cover := 6 \cdot in$ *cover* SDG Table 1.4.2-1

$A_{bar} := 1.27 \cdot in^2$ *longitudinal bar area*

$d_{bar} := 1.27 \cdot in$ *longitudinal bar diameter*

$A_{v.bar} := 0.31 \cdot in^2$ *stirrup area* SM Vol-9 13.6.2

$d_{v.bar} := 0.625 \cdot in$ *stirrup diameter*

$s_{v1} := 6 \cdot in$ *stirrup spacing, depth = 0 ft-2 ft* SM Vol-9 13.6.2

$s_{v2} := 6in$ *stirrup spacing, depth = 2 ft-depth.stir*

$s_{v3} := 6 \cdot in$ *stirrup spacing, depth > depth.stir*

$depth_{stir} := 20 \cdot ft$ *stirrup depth, see s.v2 and s.v3 above*

$b = 2.5\,ft$ *shaft diameter*

$$Num_{bar_1} := \frac{0.01}{A_{bar}} \cdot \frac{\pi \cdot b^2}{4} = 5.6$$ *LRFD 5.7.4.2*

$$Num_{bar_2} := \frac{0.135}{A_{bar} \cdot F_{y.rebar}} \cdot \left(\frac{\pi \cdot b^2}{4} \cdot f_c \right) = 5$$

$$Num_{bar} := ceil\left(max\left(Num_{bar_1}, Num_{bar_2}\right)\right) = 6$$ *number of longitudinal bars*

$$ReinfClearSpacing := \left[b - 2 \cdot \left(cover + d_{v.bar} + \frac{d_{bar}}{2} \right) \right] \cdot \frac{\pi}{Num_{bar}} - d_{bar} = 6.84 \cdot in$$

CheckReinfClearSpacing := if(ReinfClearSpacing ≥ 6in, "OK" , "No Good") CheckReinfClearSpacing = "OK"

SDG 3.6.10

Check Shear and Torsion

$LF_{shr} := 1.3$	*Shear Load Factor*	*1.3 is a reasonable Load Factor for combined WL + DL on sign and signal structures*
$LF_{tor} := 1.3$	*Torsion Load Factor*	
$\phi_{shr} := 0.90$	*Shear Resistance Factor*	*LRFD 5.5.4.2.1*
$\phi_{tor} := 0.90$	*Torsion Resistance Factor*	*LRFD 5.5.4.2.1*

$$V_u := LF_{shr} \cdot \sqrt{V_x^2 + V_z^2} = 23.3 \cdot kip$$

$$T_u := LF_{tor} \cdot Torsion = 45.4 \cdot kip \cdot ft$$

Area and perimeter of concrete cross-section

$$A_{cp} := \pi \cdot \left(\frac{b}{2} \right)^2 = 706.9 \cdot in^2 \qquad p_{cp} := 2 \cdot \pi \cdot \left(\frac{b}{2} \right) = 94.2 \cdot in$$

Diameter, perimeter and area enclosed by the centerline of the outermost closed transverse torsion reinforcement

$$d_{oh} := b - 2 \cdot \left(cover + \frac{d_{v.bar}}{2} \right) = 17.4 \cdot in \qquad p_h := \pi \cdot d_{oh} = 54.6 \cdot in$$

$$A_{oh} := \pi \left(\frac{d_{oh}}{2} \right)^2 = 237.1 \cdot in^2 \qquad A_o := 0.85 \cdot A_{oh} = 201.5 \cdot in^2$$

$0.8 \cdot b = 2\ ft$

Effective shear depth

$D_r := b - 2\cdot\left(cover + d_{v.bar} + \frac{d_{bar}}{2}\right) = 1.3\,ft$ $d_e := \frac{b}{2} + \frac{D_r}{\pi} = 1.7\,ft$

LRFD C5.8.2.1

$d_v := \max\left(0.9\cdot d_e, 0.72\cdot b\right) = 1.8\,ft$

Check Shear Strength

$V_c := 0.0316\cdot(2.0)\cdot\sqrt{\frac{f_c}{ksi}}\cdot\left(\frac{b}{in}\right)\cdot\left(\frac{d_v}{in}\right)\cdot kip = 81.9\cdot kip$ LRFD Eqn 5.8.3.3-3 LRFD 5.8.3.4.1 ACI 11.3.3

$V_s := \frac{A_{v.bar}\cdot F_{y.rebar}\cdot d_v}{\max\left(s_{v1}, s_{v2}, s_{v3}\right)} = 67\cdot kip$ LRFD Eqn 5.8.3.3-4

$\phi_{shr} = 0.9$ $V_u = 23.3\cdot kip$

$ShearRatio := \frac{V_u - \phi_{shr}\cdot V_c}{\phi_{shr}\cdot V_s} = -0.8$

$ShearRatio := if(ShearRatio \le 0, 0, ShearRatio) = 0$

Check Torsion Strength

$T_{n1} := \frac{2\cdot A_o\cdot A_{v.bar}\cdot F_{y.rebar}}{s_{v1}} = 104.1\cdot kip\cdot ft$ LRFD Eqn 5.8.3.6.2-1 LRFD 5.8.3.4.1

$T_{n2} := \frac{2\cdot A_o\cdot A_{v.bar}\cdot F_{y.rebar}}{s_{v2}} = 104.1\cdot kip\cdot ft$

$T_{n3} := \frac{2\cdot A_o\cdot A_{v.bar}\cdot F_{y.rebar}}{s_{v3}} = 104.1\cdot kip\cdot ft$

$\phi_{tor} = 0.9$ $T_u = 45.4\cdot kip\cdot ft$ $L_{reqdTor} = 11\,ft$

$Tor2_{sand} := T_u - \max\left[\left[\pi\cdot b\cdot(2\cdot ft - Offset)\cdot\gamma_{soil}\cdot\left(\frac{2\cdot ft - Offset}{2}\right)\cdot\left(\omega_{fdot}\right)\cdot\frac{b}{2}\right], 0\cdot kip\cdot ft\right] = 43.8\cdot kip\cdot ft$

$Tor3_{sand} := T_u - \max\left[\left[\pi\cdot b\cdot\left(depth_{stir} - Offset\right)\cdot\gamma_{soil}\cdot\left(\frac{depth_{stir} - Offset}{2}\right)\cdot\left(\omega_{fdot}\right)\cdot\frac{b}{2}\right], 0\cdot kip\cdot ft\right] = -110.7\cdot kip\cdot ft$

$Tor2_{clay} := T_u - \max\left[\left[f_{se}\cdot(\pi\cdot b)\cdot(2.0\cdot ft - Offset - 1.5\cdot ft)\cdot\frac{b}{2}\right], 0\cdot kip\cdot ft\right] = 40\cdot kip\cdot ft$

$Tor3_{clay} := T_u - \max\left[\left[f_{se}\cdot(\pi\cdot b)\cdot\left(depth_{stir} - Offset - 1.5\cdot ft\right)\cdot\frac{b}{2}\right], 0\cdot kip\cdot ft\right] = -154.4\cdot kip\cdot ft$

$Tor2 := if\left(SoilType = "Sand", Tor2_{sand}, Tor2_{clay}\right) = 43.8\cdot kip\cdot ft$

$Tor3 := if\left(SoilType = "Sand" , Tor3_{sand}, Tor3_{clay}\right) = -110.7 \cdot kip \cdot ft$

$TorsionRatio_{n1} := \frac{T_u}{\phi_{tor} \cdot T_{n1}} = 0.48$

$TorsionRatio_{n2} := \frac{Tor2}{\phi_{tor} \cdot T_{n2}} = 0.47$

$TorsionRatio_{n3} := \frac{Tor3}{\phi_{tor} \cdot T_{n3}} = -1.18$

$TorsionRatio := \max\left(TorsionRatio_{n1}, TorsionRatio_{n2}, TorsionRatio_{n3}\right) = 0.48$

$T_{cr} := 0.125 \sqrt{\frac{f_c}{ksi}} \cdot \left(\frac{A_{cp}^{\ 2}}{p_{cp} \cdot in^3} \right) \cdot kip \cdot in = 110.4 \cdot kip \cdot ft$ LRFD Eqn 5.8.2.1-4

$TorsionRatio := if\left(T_u \le 0.25 \cdot \phi_{tor} \cdot T_{cr}, 0, TorsionRatio\right) = 0.5$ LRFD Eqn 5.8.2.1-3

$ShearRatio = 0$

$CheckShearTorsion := if\left(ShearRatio + TorsionRatio \le 1, "OK" , "No Good" \right)$ $CheckShearTorsion = "OK"$

Check Maximum Spacing Transverse Reinforcement

$vu := \frac{V_u}{\phi_{shr} \cdot b \cdot (0.8 \cdot b)} = 0.035994 \cdot ksi$ $0.125 \cdot f_c = 0.5 \cdot ksi$ LRFD Eqn 5.8.2.9-1

$s_{max1} := if\left(0.8 \cdot d_v < 24 \cdot in, 0.8 d_v, 24 \cdot in\right) = 17.3 \cdot in$ LRFD Eqn 5.8.2.7-1

$s_{max2} := if\left(0.4 \cdot d_v < 12 \cdot in, 0.4 d_v, 12 \cdot in\right) = 8.6 \cdot in$ LRFD Eqn 5.8.2.7-2

$s_{max} := if\left(vu < 0.125 \cdot f_c, s_{max1}, s_{max2}\right) = 17.3 \cdot in$

$\max\left(s_{v1}, s_{v2}, s_{v3}\right) = 6 \cdot in$

$CheckMaxSpacingTransvReinf := if\left(\max\left(s_{v1}, s_{v2}, s_{v3}\right) \le s_{max}, "OK" , "No Good" \right)$ $CheckMaxSpacingTransvReinf = "OK"$

Check Longitudinal Reinforcement for Combined Shear and Torsion LRFD Eqn 5.8.3.6.3-1

LRFD 5.8.3.4.1

$M_u := LF_{tor} \cdot \sqrt{M_x^{\ 2} + M_z^{\ 2}} = 144.7 \cdot kip \cdot ft$

$V_{temp} := if\left(\frac{V_u}{\phi_{shr}} - 0.5 \cdot V_s > 0 \cdot kip, \frac{V_u}{\phi_{shr}} - 0.5 \cdot V_s, 0 \cdot kip \right) = 0 \cdot kip$

$$LongReinf_{shr.tor} := \frac{\frac{M_u}{\phi_{tor}\cdot(0.8\cdot b)} + \sqrt{\left(\frac{V_{temp}}{kip}\right)^2 + \left(\frac{0.45\cdot p_h\cdot T_u}{2\cdot A_o\cdot\phi_{tor}\cdot kip}\right)^2}\cdot kip}{F_{y.rebar}} = 2\cdot in^2$$

$$Num_{bar}\cdot A_{bar} = 7.6\cdot in^2$$

$$CheckLongReinf_{shr.tor} := if\left(Num_{bar}\cdot A_{bar} \geq LongReinf_{shr.tor}, "OK" , "No Good"\right) \qquad CheckLongReinf_{shr.tor} = "OK"$$

Drilled Shaft Dimensions/Reinforcing

(FA) Drilled_Shaft_Length := $L_{shaft.length} = 15.0\,ft$

(FB) Drilled_Shaft_Diameter := $b = 2.5\,ft$

(FC) Longitudinal_Reinforcement := $Num_{bar} = 6$ See longitudinal bar diameter for size of bars

(FD) Num_Stirrup_Spaces := $\frac{(depth_{stir} - 5.in - 24in - 7in)}{s_{v2}} = 34$

(FE) Shear_Stirrup_Spacing := $s_{v2} = 6.00 \cdot in$

STRUCTURES DESIGN CALCULATIONS

SPECIAL SPAN SIGN STRUCTURE

ITS (Segment 2) S&S Submittal

I-95 Express Lane - Segment 3B-1

Miscellaneous Structures

Financial Project No.: 433108-6-52-01
433109-4-52-01
Federal Aid Project No.: 0951-691-I for 433108-6-52-01
0951-694-I for 433109-4-52-01

Contract No.: E4R96

Prepared For:

Florida Department of Transportation
District Four



Prepared By:
Prince
WSP USA, Inc.
CAP Engineering, Inc.
7650 Corporate Center Dr. Suite 300
Miami, Florida 33126
FBPR Certificate of Authorization No. 1462

Engineer of Record:
Morgan Villanueva, P.E. No. 60292

February 04, 2019

NOTES TO REVIEWER:

AS PER RFP, THE MEDIAN WIDTH FOR THE SPECIAL DUAL UPRIGHTS SHALL BE DESIGNED FOR 2'-6" BASED ON THIS CONSTRAIN. THE PROPOSED DUAL UPRIGHT WERE CHECKED FOR THE WORST LOADING AS PER THE PROPOSED SIGN CONFIGURATION.

ONE (1) SAP MODEL FROM THE ONE (1) SPECIAL SPAN (DUAL UPRIGHT) AND FOUNDATION DESIGN WAS DONE FOR THE ONLY LOADING CONDITION.

STA. 3179+00.00 - Walk-in DMS

℄ Truss height = 17.15' + 19.50' + 7.92'/2 = 40.61'

Left Truss height = 40.61' − 21.65' = 18.96'

Right Truss height = 40.61' − 11.12' = 29.49'

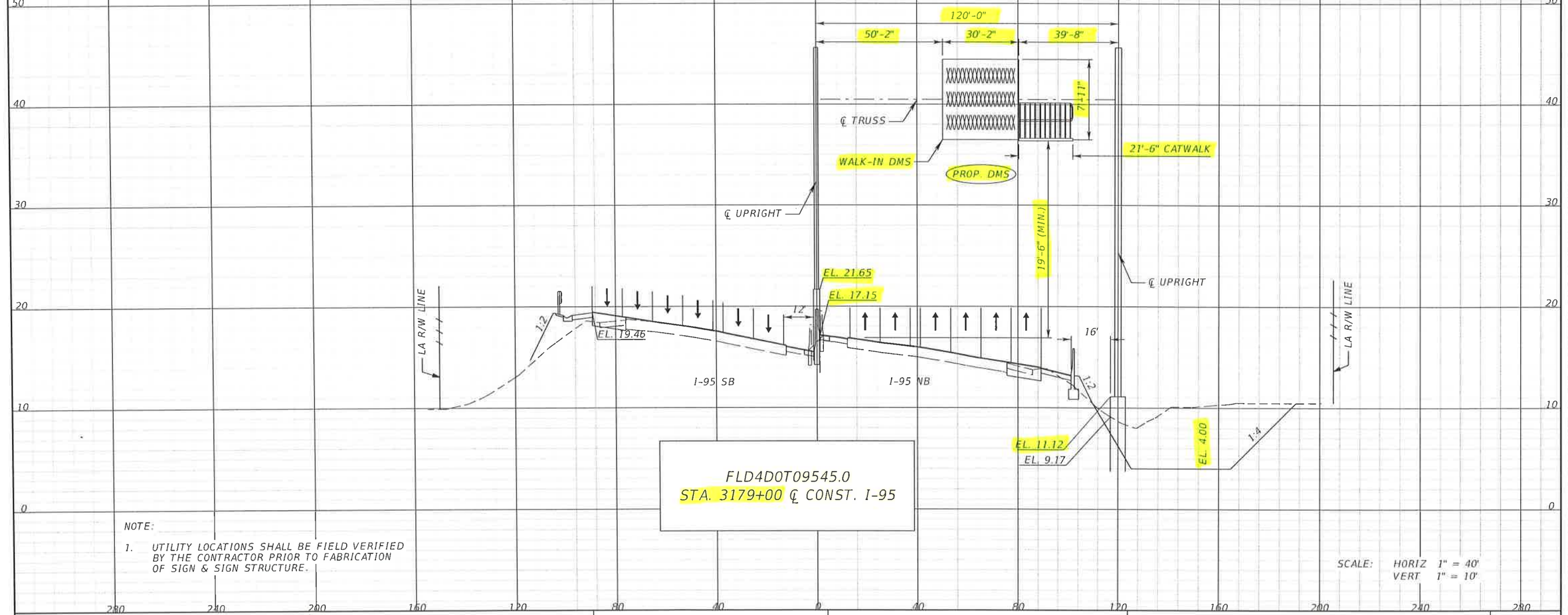
Wind height = 40.61' − 4.00' = 36.61'

Walk-in DMS:

- 30.17' x 7.92' (A = 238.82 ft²)
- Model: Vanguard VF-2020-96x416x20-RGB)
- Weight = $\frac{4000 lb}{238.82 ft^2}$ = 16.75 lb/ft²

Design height = 1.25 x 7.92' = 9.90'

Walkway: 21.50' long, 4' wide, 100 lb/ft



NOTE:

1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN & SIGN STRUCTURE.

SCALE: HORIZ 1" = 40'
VERT 1" = 10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WSP USA INC.
2202 North West Shore Blvd., Suite 300
Tampa, Florida 33607
(813) 520-4444
Cert. of Auth. No. 01462
EOR: Derrick A. Lue, P.E. No. 44730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
9	BROWARD PALM BEACH	433108-6-52-01 433109-4-52-01

ITS CROSS SECTION (51)

SHEET NO.
IT-113

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLOT DRIVER = SPLTDRVLS PEN TABLE = SPENTBLLS MODEL NAME = Raxsrd_shg Barcoj 11/15/2018 12:48:32 PM c:\projectwise\pb\projectwiseint\barco\d0230493\SSXSIT200.dgn

Span Overhead Sign Program v6.1

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Florida Department of Transportation
Structures Design Office **http://www.dot.state.fl.us/structures**

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User Manual

Data Files Folder

Change Folder

E:\PROJECTS\2017\I-95, 3B-1\43310865201_I95_3B-1\struct\CAP\ITS\100%\Special Span\FDOT Program\Data\

Open Existing Data File (optional)

Refresh List

Open File

Project Data

Project Name	I-95 Express Lanes, Phase 3B-1		
Project No.	433108-6-52-01, 433109-4-52-01		
Designed by	J.R.	Date	07 / 24 / 2018
Checked by	M.V.	Date	07 / 24 / 2018

Sign Structure Data

Sign Number	Walk-in DMS
Station	3179+00

Material Properties Data

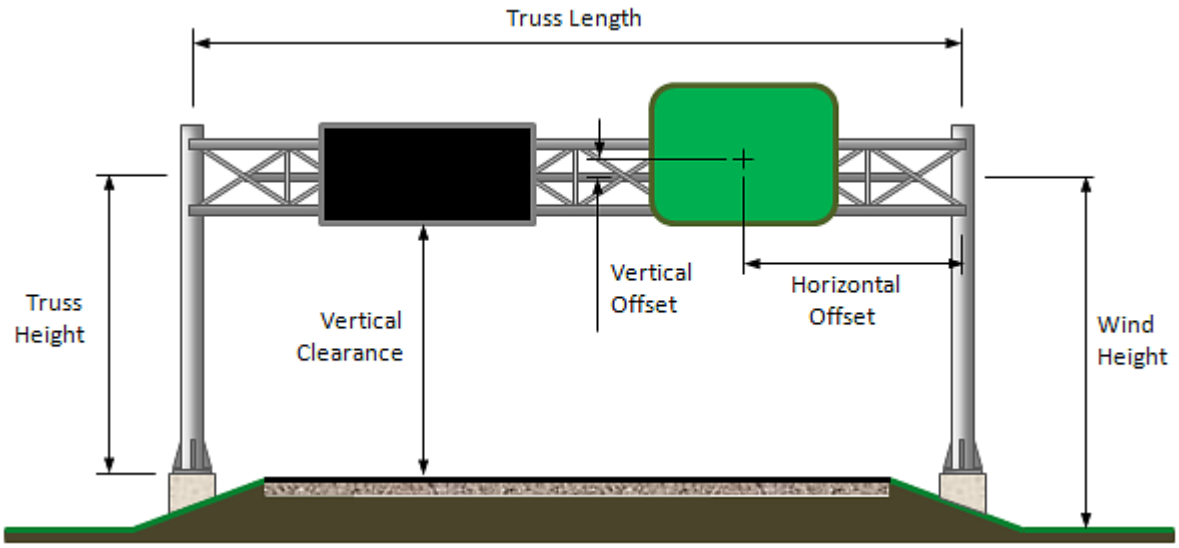
Fy of Upright	42	ksi
Fy of Web	36	ksi
Fy of Chord	42	ksi

Truss Data

Truss Length	120.00	ft
Left Truss Height	18.96	ft
Right Truss Height	29.49	ft
Vertical Clearance	19.50	ft
No. of Truss Panels	12	
Vert. Truss Depth	6	ft

Wind Load Data

Wind Height	36.61	ft
Design Wind Speed	150	mph



Load Data

Reset Load Data

Sign Panels

Show Panels 11-20

Sign Panel Number	Panel Length (ft)	Panel Height (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Back-side Mounted?	Panel Weight (psf)
1					☐	
2					☐	
3					☐	
4					☐	
5					☐	
6					☐	
7					☐	
8					☐	
9					☐	
10					☐	

DMS Panels

DMS Panel Number	Panel Length (ft)	Panel Height (ft)	Panel Depth (ft)	Horizontal Offset (ft)	Vertical Offset* (ft)	Panel Weight (psf)
1	30.17	9.90	4.00	54.75	0.00	16.75
2						
3						

Walkways

Walkway Number	Walkway Length (ft)	Walkway Width (ft)	Number of Hangers	Horizontal Offset (ft)	Vertical Offset* (ft)	Walkway Weight (plf)
1	21.50	4.00	7	28.92	-2.95	100
2						

Attachments

Attachment Number	Projected Area (sq. ft)	Drag Coeff., C_d	Attached to Which Chord Member? (Top / Bottom / Back)	Horizontal Offset (ft)	Attachment Weight (lb)
1					
2					
3					

** Vertical offsets are input as negative values when element centroid is below the truss centerline.*

Member Data

Member Properties

Chord Size

- 3.50" O.D. Pipe, 0.216" Wall
- 4.00" O.D. Pipe, 0.226" Wall
- 4.50" O.D. Pipe, 0.237" Wall
- 4.50" O.D. Pipe, 0.337" Wall
- 5.563" O.D. Pipe, 0.258" Wall
- 5.563" O.D. Pipe, 0.375" Wall
- 6.625" O.D. Pipe, 0.432" Wall
- **8.625" O.D. Pipe, 0.500" Wall**
- CUSTOM

Design Properties

Outside Diameter (D)	8.63	in
Wall Thickness (t)	0.465	in
Area (A)	11.9	in^2
Moment of Inertia (I)	100	in^4
Radius of Gyration (r)	2.89	in
Torsional Constant (J)	199	in^4
Nominal Weight	43.43	plf

Web Size

- Angle 2-1/2" x 2-1/2" x 1/4"
- Angle 3" x 3" x 1/4"
- Angle 3" x 3" x 5/16"
- Angle 3-1/2" x 3-1/2" x 5/16"
- Angle 3-1/2" x 3-1/2" x 3/8"
- Angle 4" x 4" x 3/8"
- **Angle 4" x 4" x 1/2"**
- Angle 5" x 5" x 1/2"
- CUSTOM

Design Properties

Leg Length (b)	4	in
Leg Thickness (t)	0.5	in
Area (A)	3.75	in^2
Dist. to Centroid ($\bar{x}$)	1.18	in
X Moment of Inertia (I_x)	5.52	in^4
X Rad. of Gyration (r_x)	1.21	in
Z Rad. of Gyration (r_z)	0.776	in
Nominal Weight	12.8	plf

Left Upright Size

- 24" O.D. Pipe, 0.375" Wall
- 24" O.D. Pipe, 0.562" Wall
- **24" O.D. Pipe, 0.750" Wall**
- 30" O.D. Pipe, 0.500" Wall
- 30" O.D. Pipe, 0.625" Wall
- 30" O.D. Pipe, 0.750" Wall
- 36" O.D. Pipe, 0.500" Wall
- 36" O.D. Pipe, 0.625" Wall
- 36" O.D. Pipe, 0.750" Wall
- CUSTOM

Design Properties

Outside Diameter (D)	24	in
Wall Thickness (t)	0.75	in
Area (A)	54.8	in^2
Moment of Inertia (I)	3705	in^4
Radius of Gyration (r)	8.22	in
Torsional Constant (J)	7411	in^4
Nominal Weight	7411	plf

Right Upright Size

- 12.75" O.D. Pipe, 0.375" Wall
- 14" O.D. Pipe, 0.375" Wall
- 16" O.D. Pipe, 0.375" Wall
- 18" O.D. Pipe, 0.438" Wall
- 20" O.D. Pipe, 0.500" Wall
- 24" O.D. Pipe, 0.375" Wall
- 24" O.D. Pipe, 0.562" Wall
- **24" O.D. Pipe, 0.750" Wall**
- 30" O.D. Pipe, 0.500" Wall
- 30" O.D. Pipe, 0.625" Wall
- 30" O.D. Pipe, 0.750" Wall

Design Properties

Outside Diameter (D)	24	in
Wall Thickness (t)	0.75	in
Area (A)	54.8	in^2
Moment of Inertia (I)	3705	in^4
Radius of Gyration (r)	8.22	in
Torsional Constant (J)	7411	in^4
Nominal Weight	186.4	plf

Connection Data

Gusset Plates

Min. Gusset Bolt Diameter	5/8", 3/4", **7/8"**, 1", 1-1/4"
Min. Gusset Plate Thickness	1/2", 5/8", **3/4"**, 7/8", 1"

Truss Connections

Min. Truss Bolt Diameter	**7/8"**, 1"
Min. Horizontal Plate Thickness	1/2", **5/8"**, 3/4", 7/8", 1"
Min. Vertical Plate Thickness	1/2", **5/8"**, 3/4", 7/8", 1"

Base Connection

Left Anchor Bolt Diameter	1", 1-1/2", 1-3/4", 2", **2-1/4"**, 2-1/2"
Left Number of Anchor Bolts	8, **10**, 12
Right Anchor Bolts Diameter	1-1/2", 1-3/4", 2", 2-1/4", **2-1/2"**
Right Number of Anchor Bolts	8, **10**, 12
Min. Base Plate Thickness	3/4", **1"**, 1-1/4", 1-1/2", 1-3/4", 2"
Min. Stiffener Plate Thickness	3/8", **1/2"**, 5/8", 3/4", 7/8", 1"

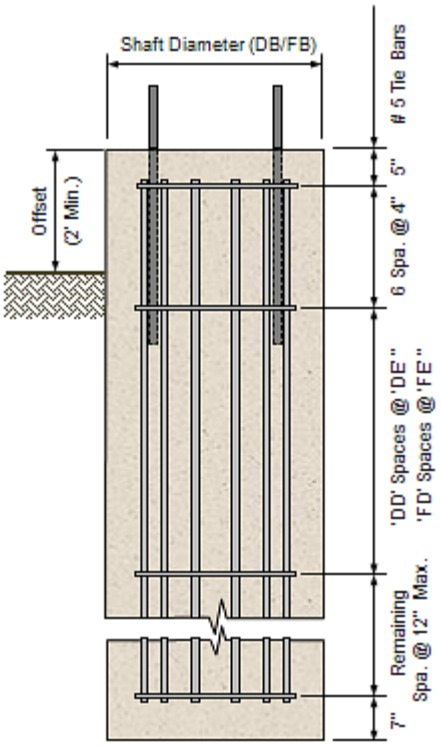
Foundation Data

Foundation Type: Drilled Shafts (None)

Left Drilled Shaft Data

Soil Type: Sand (Clay)

Soil Density, γ_{soil}	51	pcf
Friction Angle, ϕ	35	deg
SPT Number (N_{blows})	24	
Shear Strength, *c*		ksf
Safety Factor against Overturning	2	
Safety Factor against Torsion	1.3	
Shaft Diameter (DB)	5.5	ft
Ground to Top of Shaft Offset	4.5	ft
Number of Stirrup Spaces (DD)	40	
Stirrup Spacing (DE)	9	in



Right Drilled Shaft Data

Soil Type: Sand (Clay)

Soil Density, γ_{soil}	51	pcf
Friction Angle, ϕ	34	deg
SPT Number (N_{blows})	24	
Shear Strength, *c*		ksf
Safety Factor against Overturning	2	
Safety Factor against Torsion	1.3	
Shaft Diameter (FB)	6	ft
Ground to Top of Shaft Offset	7.12	ft
Number of Stirrup Spaces (FD)	40	
Stirrup Spacing (FE)	9	in

Save Data

Save Data File (optional)

Use current input file

File Name 3179+00 Walk-in DMS.dat Save Data

Note: Select an output folder by using the "Change Folder" option above.

Data Initialization

Geometry Check Calculations

Preliminary Geometry Checks

$CheckLengt_{TrussPanel}$ = "OK"

$CheckClearance_{Wed}$ = "OK"

$CheckLayout_{SignPanel\_}$ = "OK"

$CheckOverlap_{Panel}$ = "OK"

$Check_{DMS}$ = "OK"

3D Model Data

Wireframe Diagram

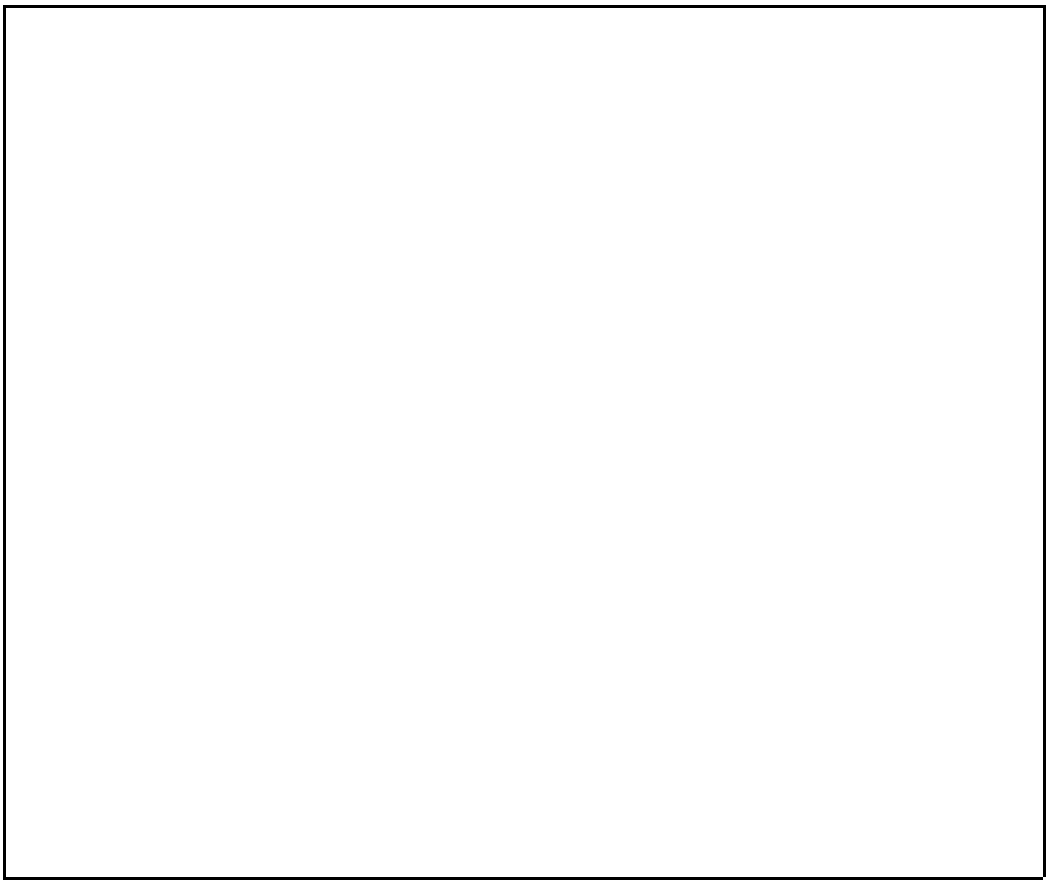
Design Forces

Fatigue Forces

Total Forces

Truss Diagram Data

Truss Diagram



Note: Use your mouse and keyboard to zoom in, zoom out or rotate the 3D plot above.
(See "Rotating, Spinning, or Zooming a 3D Plot" in Mathcad Help for instructions.)

3D Structural Analysis

Run Analysis

Note: A new analysis MUST be run after any change in program input.

PC-SAP Output Data

Design Check Calculations
Maximum Reactions
Results Output

Results

Sign Structure Geometry

(A) $L_{Truss} = 120\,ft$

(B) $H_{Left.Truss} = 18.96\,ft$

(C) $H_{Right.Truss} = 29.49\,ft$

(D) #TrussPanels = "12 @ 10' 0" (Total_Length = 120 ft.)"

(E) $D_{VerticalTruss} = 72 \cdot in$

$D_{HorzTruss} = 62.3538 \cdot in$

Sign Structure Members

(F) ChordMember = "8.625" O.D. Pipe, 0.500" Wall"

(G) WebMember = "Angle 4" x 4" x 1/2""

(H) $UprightMember_{Left}$ = "24" O.D. Pipe, 0.750" Wall"

(J) $UprightMember_{Right}$ = "24" O.D. Pipe, 0.750" Wall"

(K) Camber = "4""

CSR_{Chord} = "0.681 OK"

CSR_{Web} = "0.785 OK"

$CSR_{LeftUpright}$ = "0.643 OK"

$CSR_{RightUpright}$ = "0.859 OK"

Additional Design Checks

$Check_{WebSlenderness}$ = "OK"

$Check_{ChordSlenderness}$ = "OK"

$Check_{ChordElements}$ = "OK"

$Check_{SignHangers}$ = "OK"

$Check_{TrussDeflection}$ = "OK"

Max. Reactions at Base of Left Upright

$LongMom_{Lt} = 440.833 \cdot kip \cdot ft$

$LongShear_{Lt} = 21.850 \cdot kip$

$TransMom_{Lt} = 159.417 \cdot kip \cdot ft$

$TransShear_{Lt} = 20.150 \cdot kip$

$Axial_{Lt} = 206.200 \cdot kip$

$Torque_{Lt} = 32.292 \cdot kip \cdot ft$

Max. Reactions at Base of Right Upright

$LongMom_{Rt} = 761.833 \cdot kip \cdot ft$

$LongShear_{Rt} = 26.600 \cdot kip$

$TransMom_{Rt} = 209.750 \cdot kip \cdot ft$

$TransShear_{Rt} = 15.920 \cdot kip$

$Axial_{Rt} = 21.790 \cdot kip$

$Torque_{Rt} = 32.292 \cdot kip \cdot ft$

Splice Calculations

Gusset Plate Calculations

Truss Connection Calculations

Base Plate Calculations

Connection Output

Connection Values

Note: All truss bolted connections use A325 bolts, and upright anchor bolts are ASTM F1554. All welds are sized assuming E70xx electrodes.

Splice Connection

(SA) $Size_{Angle}$ = "Angle 8" x 8" x 1/2""

(SB) $\#Bolts_{Reqd.in.Splice}$ = "12"

(SC) $d_{BoltReqd.for.Splice}$ = "1" Dia."

CheckSpacing = "OK"

Alternate Flange Splice Connection

(PA) t_{Flange} = "2""

(PB) $Offset_{Bolt}$ = "3-1/4""

(PC) $Weld_{Inside}$ = "7/16""

(PD) $Weld_{Outside}$ = "1/2""

(PE) d_{Bolt} = "1-1/4""

(PF) #Bolts = "14"

Gusset Plates

(GA) t_{Gus} = "3/4""

(GB) $d_{GusBolt}$ = "1-1/4" Dia."

(GC) $L_{BackChordGus}$ = "2' 1-1/2""

(GD) $H_{BackChordGus}$ = "10""

(GE) $L_{FrontChordGus}$ = "1' 11-3/4""

(GF) $H_{FrontChordGus}$ = "9-1/4""

(GG) $L_{CenterFrontGus}$ = "3' 4-3/4""

(GH) $L_{BackTrussEnd}$ = "1' 2-3/4""

(GJ) $H_{BackTrussEnd}$ = "10""

(GK) $L_{FrontTrussEnd}$ = "1' 8-3/4""

(GL) $Weld_{Gusset.To.Chord}$ = "3/16""

$CheckThickness_{Gusset}$ = "OK"

Left Truss Connection

(LA) $d_{LtBolt.Reqd}$ = "7/8" Dia."

(LB) $\#Bolts_{LtReqd}$ = "4"

(LC) $t_{LtHorzConnPL}$ = "5/8""

(LD) $t_{LtVertConnPL}$ = "5/8""

(LE) $Weld_{LtHorzPLtoUpright}$ = "1/4""

(LF) $Weld_{LtVertPLtoUpright}$ = "1/4""

(LG) $Weld_{LtConnPLtoChord}$ = "3/16""

(LH) $Weld_{LtVertPLtoHorzPL}$ = "1/4""

Additional Left Truss Connection Checks

$CheckThickness_{LtHorz.Plate}$ = "OK"

$CheckThickness_{LtVert.Plate}$ = "OK"

$CheckThickness_{LtConn.Plate}$ = "OK"

$CheckThickness_{LtHorz.Vert}$ = "OK"

$Check_{LtHorzPL}$ = "OK"

$Check_{LtVertPL}$ = "OK"

$Check_{LtUpright}$ = "OK"

Right Truss Connection

(RA) $d_{RtBolt.Reqd}$ = "7/8" Dia."

(RB) $\#Bolts_{RtReqd}$ = "4"

(RC) $t_{RtHorzConnPL}$ = "5/8""

(RD) $t_{RtVertConnPL}$ = "5/8""

(RE) $Weld_{RtHorzPLtoUpright}$ = "1/4""

(RF) $Weld_{RtVertPLtoUpright}$ = "1/4""

(RG) $Weld_{RtConnPLtoChord}$ = "3/16""

(RH) $Weld_{RtVertPLtoHorzPL}$ = "1/4""

Additional Right Truss Connection Checks

$CheckThickness_{RtHorz.Plate}$ = "OK"

$CheckThickness_{RtVert.Plate}$ = "OK"

$CheckThickness_{RtConn.Plate}$ = "OK"

$CheckThickness_{RtHorz.Vert}$ = "OK"

$Check_{RtHorzPL}$ = "OK"

$Check_{RtVertPL}$ = "OK"

$Check_{RtUpright} = \text{"OK"}$

Left Base Connection

(BA) $d_{LtAnchor}$ = "2-1/4" Dia."

(BB) #AnchorLt = 10

(BC) t_{LtBase} = "1-1/2""

(BD) $t_{LtStiff}$ = "1/2""

(BE) $H_{LtStiff}$ = "2' 5-3/4""

(BF) $Weld_{LtBaseInside}$ = "5/16""

(BG) $Weld_{LtBaseOutside}$ = "5/16""

(BH) $Weld_{LtStifftoBase}$ = "5/16""

(BJ) $Weld_{LtStifftoUpright}$ = "1/4""

Right Base Connection

(CA) $d_{RtAnchor}$ = "2-1/2" Dia."

(CB) #AnchorRt = 10

(CC) t_{RtBase} = "1-3/4""

(CD) $t_{RtStiff}$ = "3/4""

(CE) $H_{RtStiff}$ = "2' 9-1/2""

(CF) $Weld_{RtBaseInside}$ = "5/16""

(CG) $Weld_{RtBaseOutside}$ = "5/16""

(CH) $Weld_{RtStifftoBase}$ = "3/8""

(CJ) $Weld_{RtStifftoUpright}$ = "1/4""

Additional Base Connection Checks

$CheckThicknessRatio_{LtStiff.to.Upright}$ = "OK"

$CheckThicknessRatio_{RtStiff.to.Upright}$ = "OK"

$CheckWeldSizeLimit_{LtBaseUpright.in}$ = "OK"

$CheckWeldSizeLimit_{LtBaseUpright.out}$ = "OK"

$CheckWeldSizeLimit_{RtBaseUpright.in}$ = "OK"

$CheckWeldSizeLimit_{RtBaseUpright.out}$ = "OK"

$CheckWeldSizeLimit_{LtStiffBase}$ = "OK"

$CheckWeldSizeLimit_{RtStiffBase}$ = "OK"

$CheckWeldSizeLimit_{LtStiffUpright}$ = "OK"

$CheckWeldSizeLimit_{RtStiffUpright}$ = "OK"

Fatigue Calculations

Fatigue Design Checks

Left Base Connection

CheckFatigue$_{LtUpright}$ = "OK (1.72 ksi < 7 ksi)"

CheckFatigue$_{LtBase}$ = "OK (1.1 ksi < 3.55 ksi)"

CheckFatigue$_{LtAnchor}$ = "OK (2.08 ksi < 7 ksi)"

Right Base Connection

CheckFatigue$_{RtUpright}$ = "OK (2.69 ksi < 7 ksi)"

CheckFatigue$_{RtBase}$ = "OK (1.37 ksi < 2.57 ksi)"

CheckFatigue$_{RtAnchor}$ = "OK (1.69 ksi < 7 ksi)"

Chord Member Connections

CheckFatigue$_{ChordSplice}$ = "OK (1.78 ksi < 7 ksi)"

CheckFatigue$_{ChordSlot}$ = "OK (0.28 ksi < 2.6 ksi)"

CheckFatigue$_{HalfChord}$ = "OK (0.26 ksi < 2.6 ksi)"

CheckFatigue$_{LtTrussBolt}$ = "OK (0.16 ksi < 7 ksi)"

CheckFatigue$_{RtTrussBolt}$ = "OK (0.14 ksi < 7 ksi)"

Gusset Plates

CheckFatigue$_{BackPlate}$ = "OK (0.04 ksi < 1.2 ksi)"

CheckFatigue$_{BackEndPlate}$ = "OK (0.15 ksi < 1.2 ksi)"

CheckFatigue$_{FrontPlate}$ = "OK (0.03 ksi < 1.2 ksi)"

CheckFatigue$_{FrontEndPlate}$ = "OK (0.08 ksi < 1.2 ksi)"

CheckFatigue$_{TopCenterPlate}$ = "OK (0.21 ksi < 1.2 ksi)"

CheckFatigue$_{BotCenterPlate}$ = "OK (0.03 ksi < 1.2 ksi)"

Web Members

CheckFatigue$_{Web}$ = "OK (0.86 ksi < 7 ksi)"

Drilled Shaft Calculations

Anchor Bolt Calculations

Drilled Shaft Design

Left Drilled Shaft Design Checks

$Check_{LtMassConcrete}$ = "OK"

$CheckSpacing_{LtLongReinf}$ = "OK"

$CheckCapacity_{LtLongReinf}$ = "OK"

$CheckShearTorsionComb_{Lt}$ = "OK"

$CheckMaxSpacing_{LtStirrup}$ = "OK"

Left Drilled Shaft Dimensions/Reinforcing

(DA) $L_{LtShaft} = 21.5\,ft$

(DB) $D_{LtShaft} = 5.5\,ft$

(DC) $d_{LtLongReinf}$ = "16 No. 14 bars evenly spaced"

(DD) $\#Spaces_{LtStirrup} = 24$

(DE) $Spacing_{LtShearStirrup} = 9.00 \cdot in$

Right Drilled Shaft Design Checks

$Check_{RtMassConcrete}$ = "OK"

$CheckSpacing_{RtLongReinf}$ = "OK"

$CheckCapacity_{RtLongReinf}$ = "OK"

$CheckShearTorsionComb_{Rt}$ = "OK"

$CheckMaxSpacing_{RtStirrup}$ = "OK"

Right Drilled Shaft Dimensions/Reinforcing

(FA) $L_{RtShaft} = 24.1\,ft$

(FB) $D_{RtShaft} = 6.0\,ft$

(FC) $d_{RtLongReinf}$ = "19 No. 14 bars evenly spaced"

(FD) $\#Spaces_{RtStirrup} = 28$

(FE) $Spacing_{RtShearStirrup} = 9.00 \cdot in$

Anchor Bolt Design

Anchor Bolt Lengths

(DF) $L_{LtAnchorEmbed} = 45 \cdot in$

(FF) $L_{RtAnchorEmbed} = 50 \cdot in$

Additional Anchor Bolt Checks

$CheckCapacity_{LtAnchor}$ = "OK"

$CheckBreakout_{LtAnchor} = \text{"OK"}$

$CheckCapacity_{RtAnchor} = \text{"OK"}$

$CheckBreakout_{RtAnchor} = \text{"OK"}$

$Spacing_{ClearLt} = 7.057 \cdot in$

$Spacing_{ClearRt} = 9.432 \cdot in$

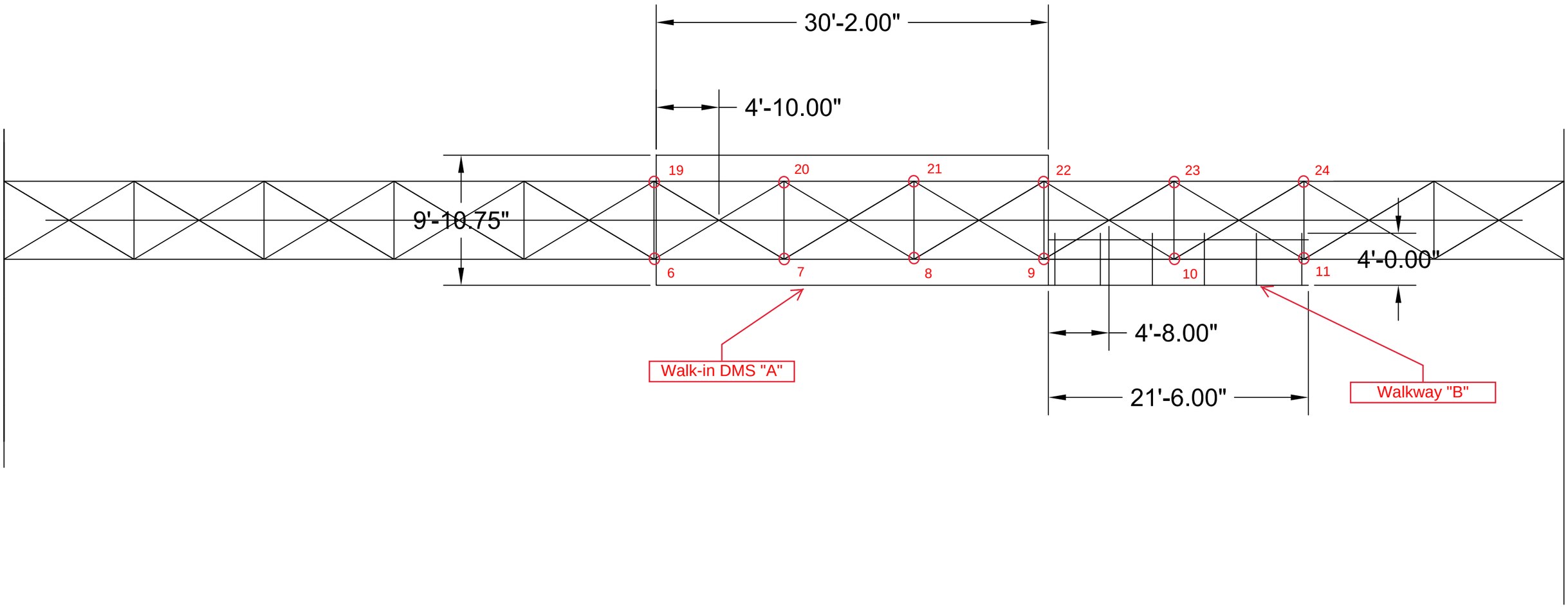
MicroStation Data

Create MicroStation Text File

☑ Use same name as current data file

File Name 3179+00 Walk-in DMS.txt

Create MicroStation File



Walk-in DMS "A" Info:

- Model: Vanguard VF-2420-96x416-20-RGB DMS Walk-in
- (30'-2"W x 7'-11"H x 4'-0"D)*
- 4,000.00lb*

* These values were provided by manufacturer, a 25% increase is provided in the design

TITLE: STA 3179+00.00 SPECIAL SPAN CALCULATION
SHEET: 01 OF 09
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1
PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V.
DATE: 10/12/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V = 150 (mph)

Ir = 1.00 **Table [3.8.1-1]** *Recurrence Interval, 50 Years*

G = 1.14 **[3.8.5]**

DMS (A) Pressure

Kz = 1.05 **Table [3.8.4-1]** *Kz = 1.00 for height less than 32.8 ft*
Kz = 1.05 for height less than 41.0 ft
Kz = 1.09 for height less than 49.2 ft

Lsign = 30.17 (ft)

Wsign = 9.90 (ft)

Lsign / Wsign = 3.05

Cd = 1.20 **Table [3.8.6-1]**

Pz = **82.74** (psf)

TITLE: STA 3179+00.00 SPECIAL SPAN CALCULATION | SHEET: 02 OF 09
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1 | PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V. | DATE: 10/12/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standard Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V = 150 (mph)

Ir = 1.00 **Table [3.8.1-1]** *Recurrence Interval, 50 Years*

G = 1.14 **[3.8.5]**

Walkway (B) Pressure

Kz = 1.05 **Table [3.8.4-1]** *Kz = 1.00 for height less than 32.8 ft*
Kz = 1.05 for height less than 41.0 ft
Kz = 1.09 for height less than 49.2 ft

Cd = 1.70 **Table [3.8.6-1]**

Pz = 117.21 (psf)

TITLE: STA 3179+00.00 SPECIAL SPAN CALCULATION
SHEET: 03 OF 09
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1
PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V.
DATE: 10/12/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standar Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)		
Ir =	1.00		**Table [3.8.1-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*

Chord

Kz =	1.05		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
d =	8.625	(in)		
Cv*V*d =	107.81	(mph-ft)		
Cd =	**0.45**		**Table [3.8.6-1]**	
Pz =	**31.03**	(psf)		
Force on Member =	**0.022**	(kip/ft)		

TITLE: STA 3179+00.00 SPECIAL SPAN CALCULATION
SHEET: 04 OF 09
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1
PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V.
DATE: 10/12/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standar Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V = 150 (mph)

Ir = 1.00 **Table [3.8.1-1]** *Recurrence Interval, 50 Years*

G = 1.14 **[3.8.5]**

Truss Web (Angle)

Kz = 1.05 **Table [3.8.4-1]** *Kz = 1.00 for height less than 32.8 ft*
Kz = 1.05 for height less than 41.0 ft
Kz = 1.09 for height less than 49.2 ft

Cd = 1.70 **Table [3.8.6-1]**

Pz = 117.21 (psf)

Angle Size = 4.00 (in)

Force on Member = 0.039 (kip/ft)

TITLE: STA 3179+00.00 SPECIAL SPAN CALCULATION
SHEET: 05 OF 09
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1
PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V.
DATE: 10/12/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standar Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)		
Ir =	1.00		**Table [3.8.1-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*

Right Upright

Kz =	1.05		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
d =	24.000	(in)		
Cv*V*d =	300.00	(mph-ft)		
Cd =	**0.45**		**Table [3.8.6-1]**	
Pz =	**31.03**	(psf)		
Force on Member =	**0.062**	(kip/ft)		

TITLE: STA 3179+00.00 SPECIAL SPAN CALCULATION
SHEET: 06 OF 09
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1
PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V.
DATE: 10/12/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standar Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)		
Ir =	1.00		**Table [3.8.1-1]**	*Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**	
Cv =	1.00		**Table [3.8.3-3]**	*Recurrence Interval, 50 Years*

Left Upright

Kz =	1.05		**Table [3.8.4-1]**	*Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft* *Kz = 1.09 for height less than 49.2 ft*
d =	12.000	(in)		
Cv*V*d =	150.00	(mph-ft)		
Cd =	0.45		**Table [3.8.6-1]**	
Pz =	31.03	(psf)		
Force on Member =	0.031	(kip/ft)		

TITLE: STA 3179+00.00 SPECIAL SPAN CALCULATION | SHEET: 07 OF 09
PROJECT NAME: I-95 EXPRESS LANES, PHASE 3B-1 | PROJECT #: 433108-6-52-01, 433109-4-52-01
CALCULATED BY: J.R. CHECKED BY: M.V. | DATE: 10/12/2018

WIND LOAD CALCULATIONS

I. REFERENCES

AASHTO Standar Specifications for Structural Supports, for Highway Signs, Luminaires, and Traffic Signals

II. CALCULATIONS

Pz = 0.00256 Kz G V^2 Ir Cd (psf) **[3.8.1]**

V =	150	(mph)	
Ir =	1.00		**Table [3.8.1-1]** *Recurrence Interval, 50 Years*
G =	1.14		**[3.8.5]**

Left Upright Web 1

Kz =	1.05		**Table [3.8.4-1]** *Kz = 1.00 for height less than 32.8 ft* *Kz = 1.05 for height less than 41.0 ft*
Cd =	1.70		**Table [3.8.6-1]** *Kz = 1.09 for height less than 49.2 ft*
Pz =	117.21	(psf)	
Angle Size =	5.00	(in)	
Force on Member =	0.049	(kip/ft)	

LOAD CALCULATIONS

Wind loads for SAP Model (Due to DMS):

NODE 6 & 19:

$$WL_{6.19} := (4ft + 10in)\cdot\left(\frac{9ft + 10.75in}{2}\right)\cdot(82.74psf) = 1.979\cdot kip$$

NODE 7 & 20:

$$WL_{7.20} := (10ft)\cdot\left(\frac{9ft + 10.75in}{2}\right)\cdot(82.74psf) = 4.094\cdot kip$$

NODE 8 & 21:

$$WL_{8.21} := (10ft)\cdot\left(\frac{9ft + 10.75in}{2}\right)\cdot(82.74psf) = 4.094\cdot kip$$

NODE 9 & 22:

$$WL_{9.22} := (30ft + 2in - 24ft - 10in)\cdot\left(\frac{9ft + 10.75in}{2}\right)\cdot(82.74psf) = 2.183\cdot kip$$

Dead loads for SAP Model (Due to DMS):

NODE 6 & 19:

$$DL_{6.19} := (4ft + 10in)\cdot\left(\frac{9ft + 10.75in}{2}\right)\cdot(16.75psf) = 0.401\cdot kip$$

NODE 7 & 20:

$$DL_{7.20} := (10ft)\cdot\left(\frac{9ft + 10.75in}{2}\right)\cdot(16.75psf) = 0.829\cdot kip$$

NODE 8 & 21:

$$DL_{8.21} := (10ft)\cdot\left(\frac{9ft + 10.75in}{2}\right)\cdot(16.75psf) = 0.829\cdot kip$$

NODE 9 & 22:

$$DL_{9.22} := (30ft + 2in - 24ft - 10in)\cdot\left(\frac{9ft + 10.75in}{2}\right)\cdot(16.75psf) = 0.442\cdot kip$$

LOAD CALCULATIONS

Wind loads for SAP Model (Due to Walkway):

NODE 9:

$$WL_9 := \left[(4.67ft \cdot 3in) + 2\left(2.68in^2\right) + 2(6in \cdot 5ft) + 2 \cdot (1.5in \cdot 4.67ft)\right] \cdot 117.21psf = 0.864 \cdot kip$$

NODE 10:

$$WL_{10} := \left[(10ft \cdot 3in) + 2\left(2.68in^2\right) + 2(6in \cdot 5ft) + 2 \cdot (1.5in \cdot 10ft)\right] \cdot 117.21psf = 1.176 \cdot kip$$

NODE 11:

$$WL_{11} := \left[(6.83ft \cdot 3in) + 2\left(2.68in^2\right) + 2(6in \cdot 5ft) + 2 \cdot (1.5in \cdot 6.83ft)\right] \cdot 117.21psf = 0.991 \cdot kip$$

NODE 22, 23 & 24:

$$WL_{22.23.24} := (6in) \cdot (5ft) \cdot (117.21psf) = 0.293 \cdot kip$$

Dead loads for SAP Model (Due to Walkway):

NODE 9:

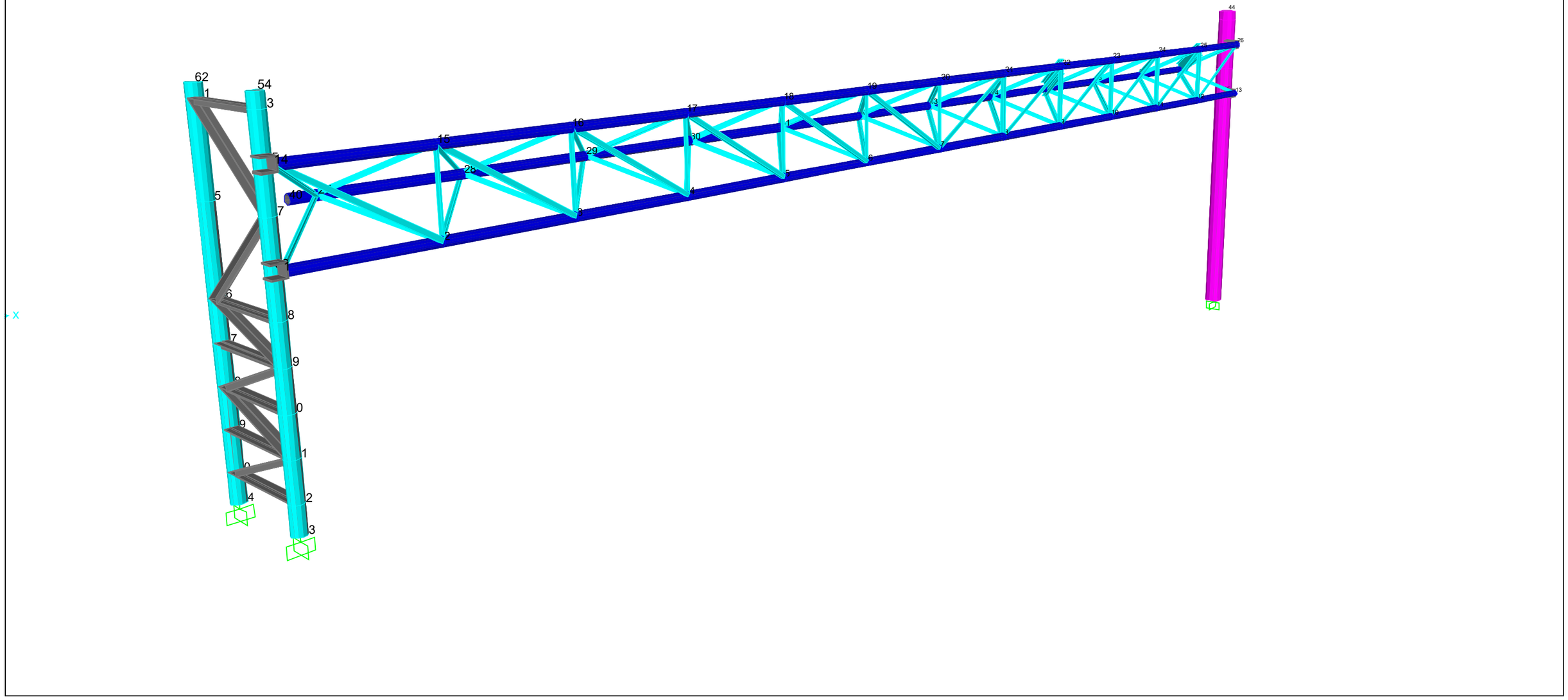
$$DL_9 := (4.67ft) \cdot \left(100 \frac{lbf}{ft}\right) = 0.467 \cdot kip$$

NODE 10:

$$DL_{10} := (10ft) \cdot \left(100 \frac{lbf}{ft}\right) = 1 \cdot kip$$

NODE 11:

$$DL_{11} := (6.83ft) \cdot \left(100 \frac{lbf}{ft}\right) = 0.683 \cdot kip$$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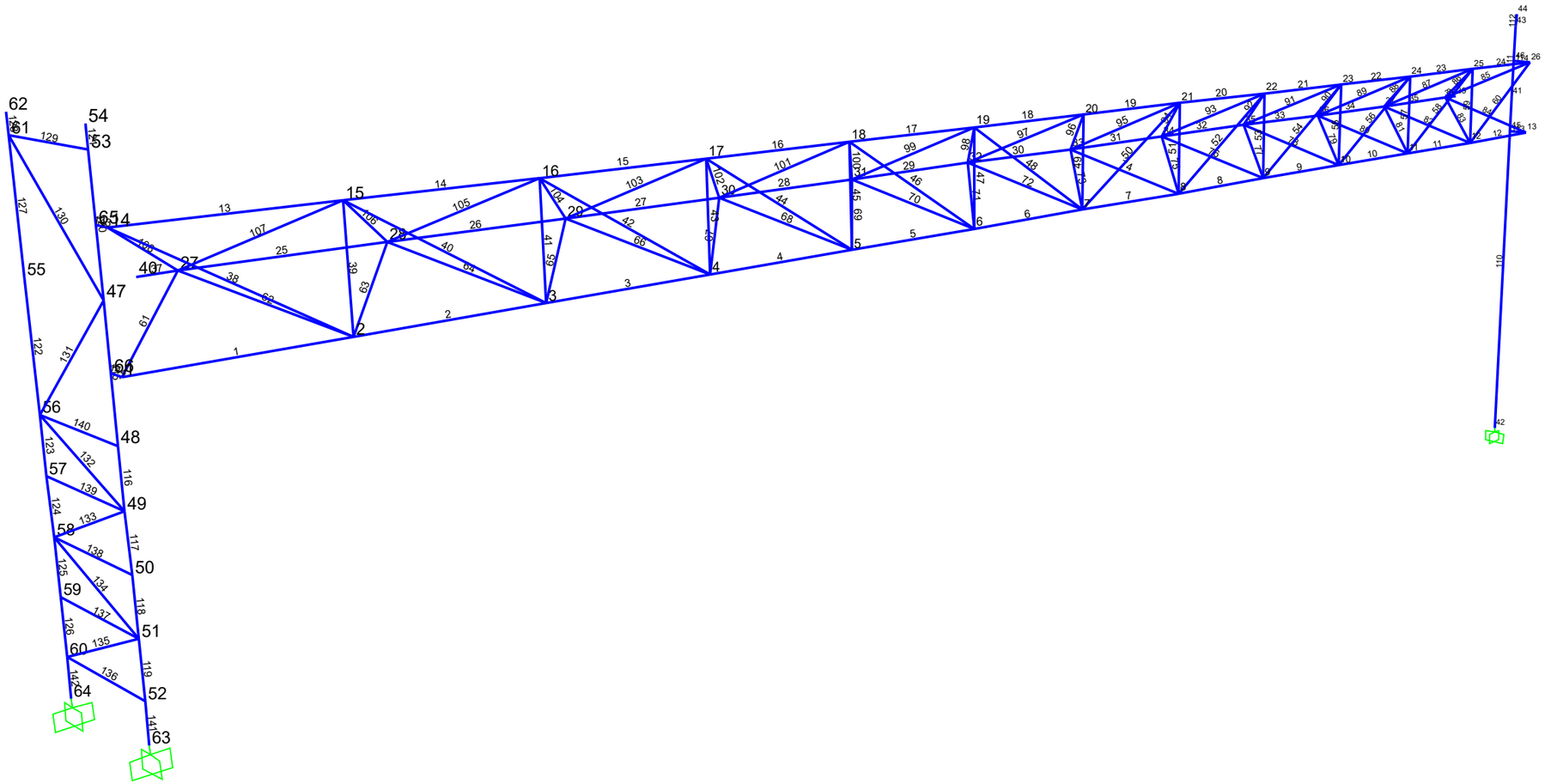

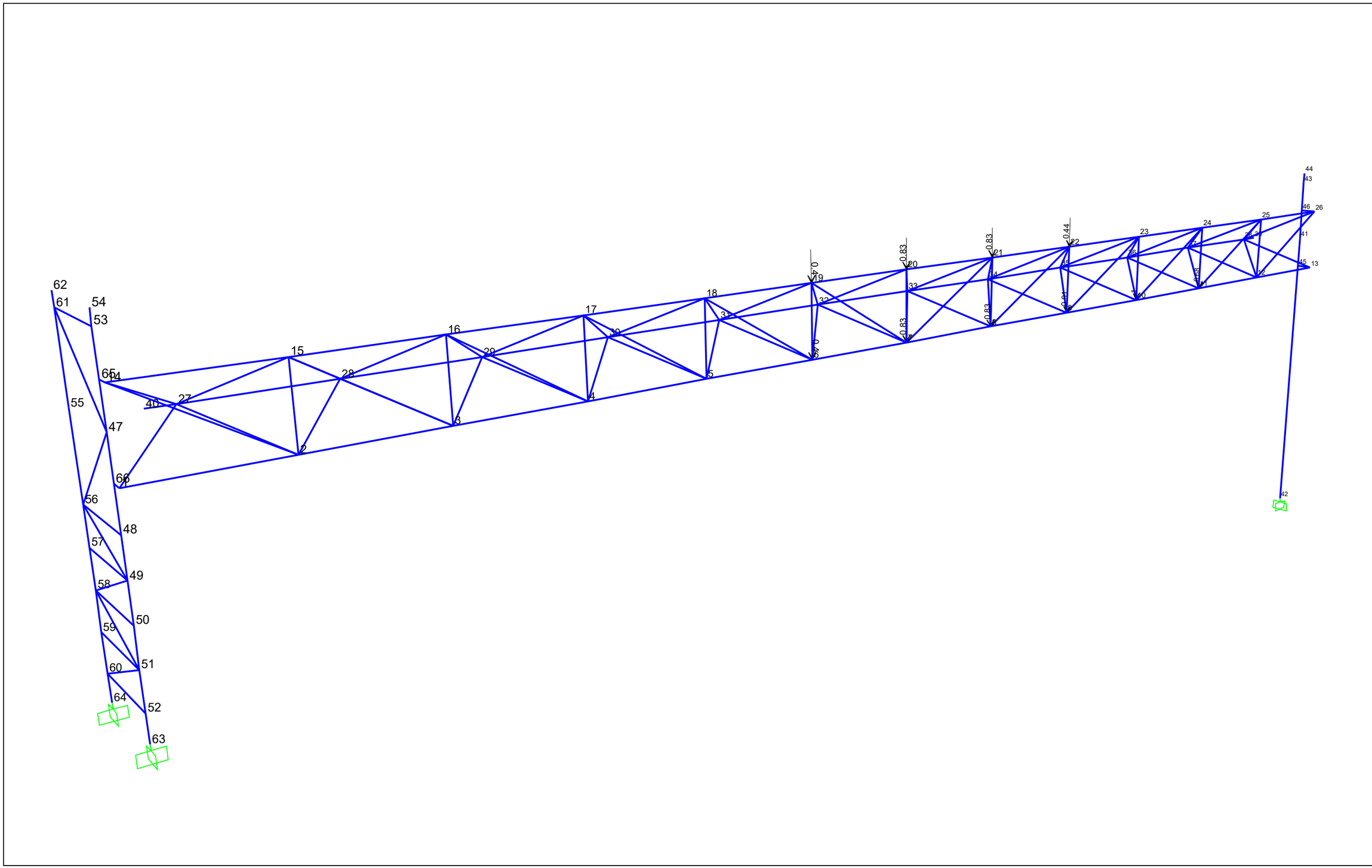
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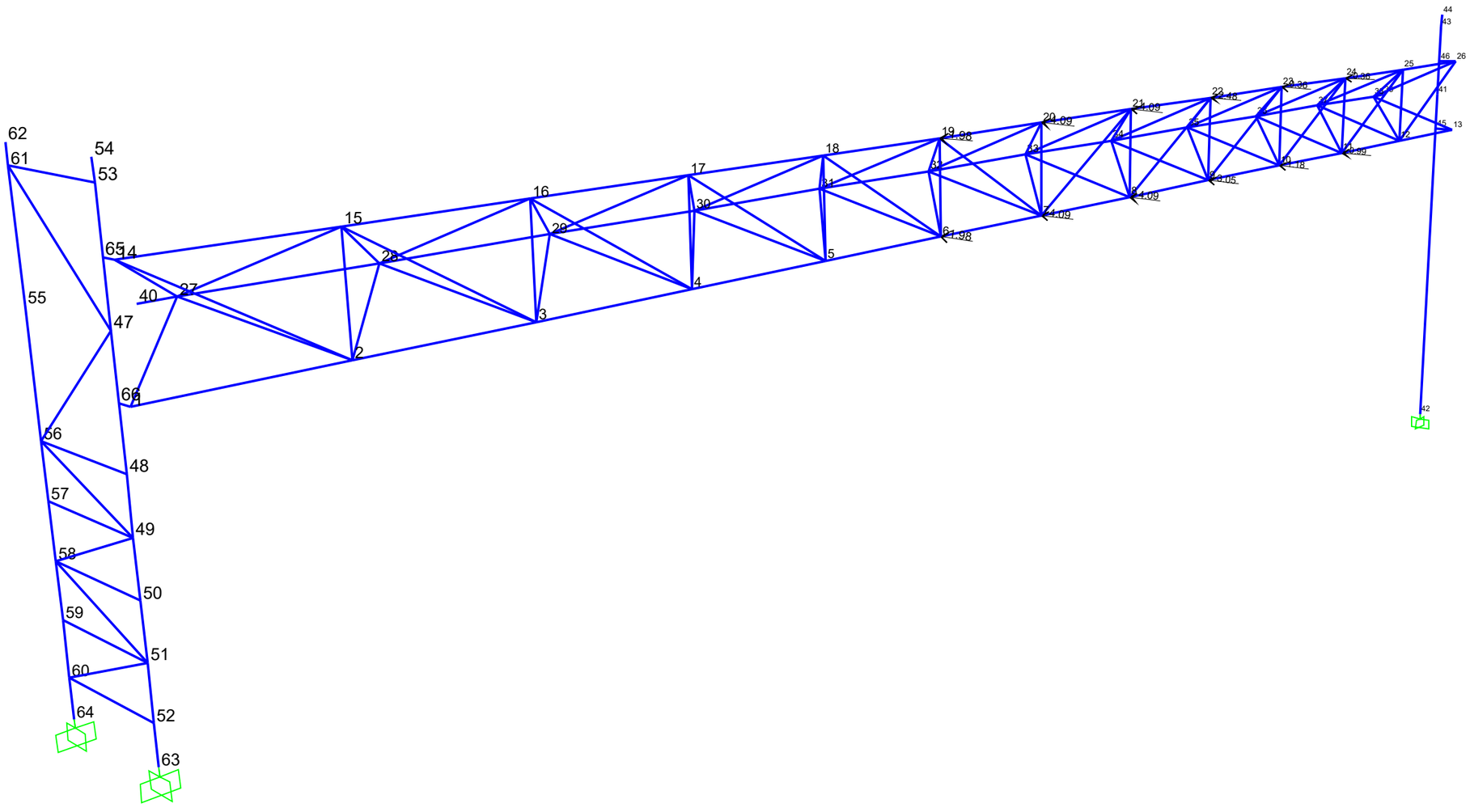
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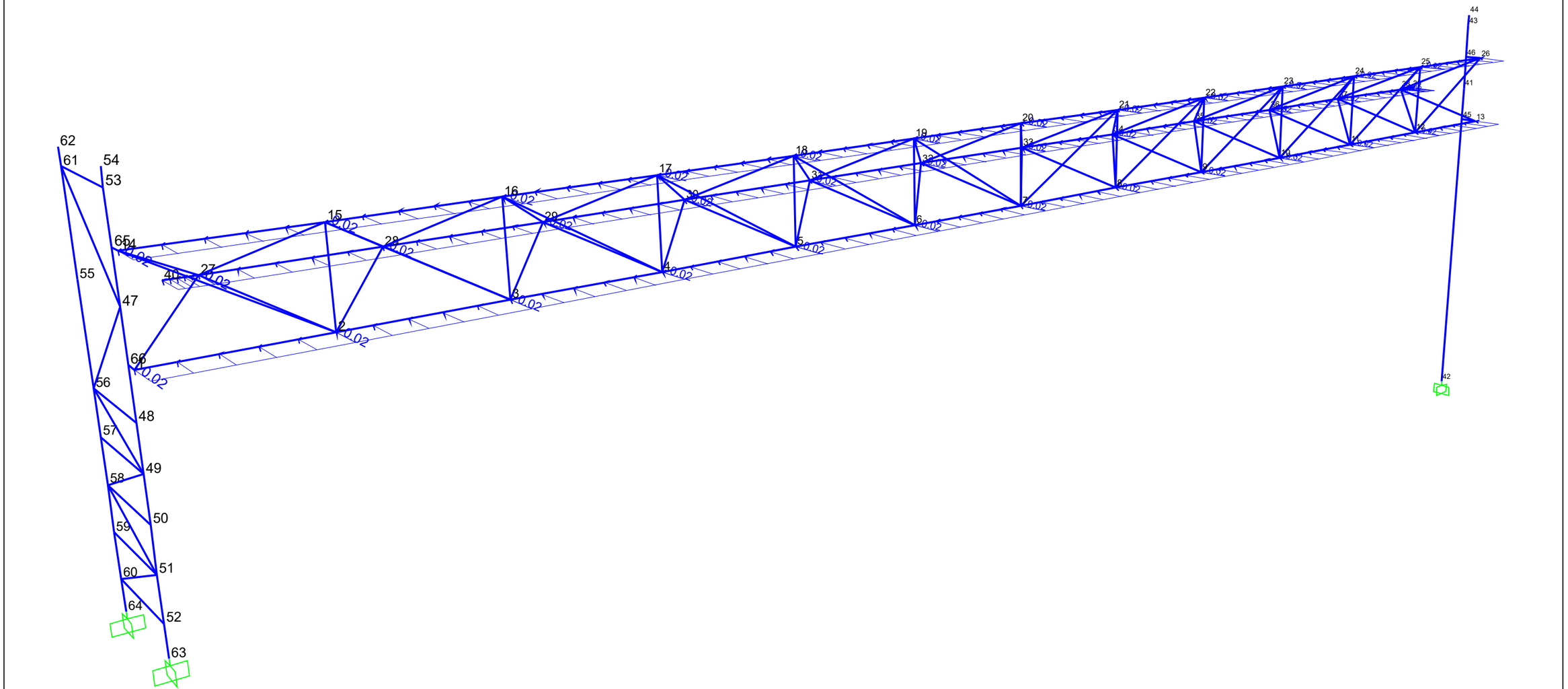
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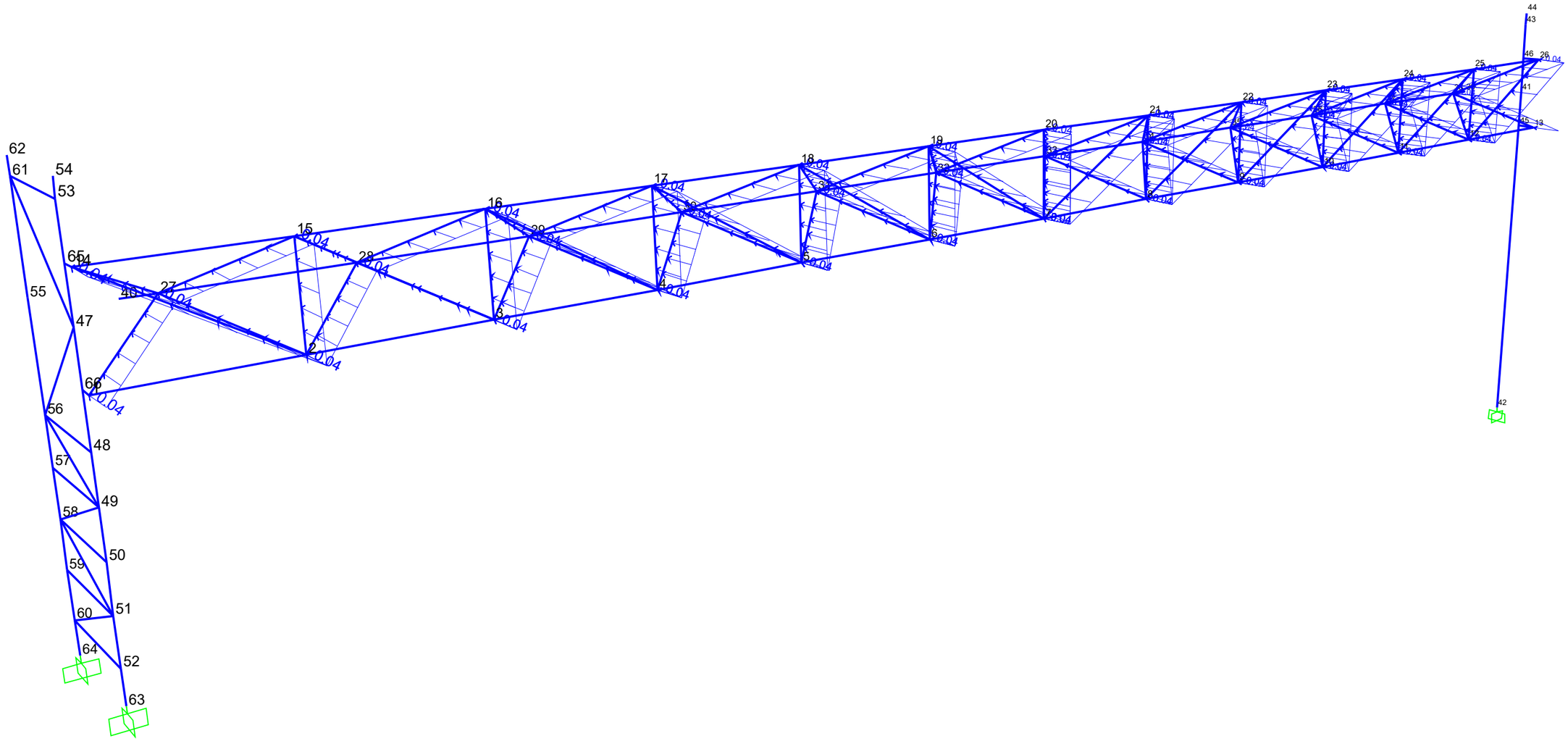
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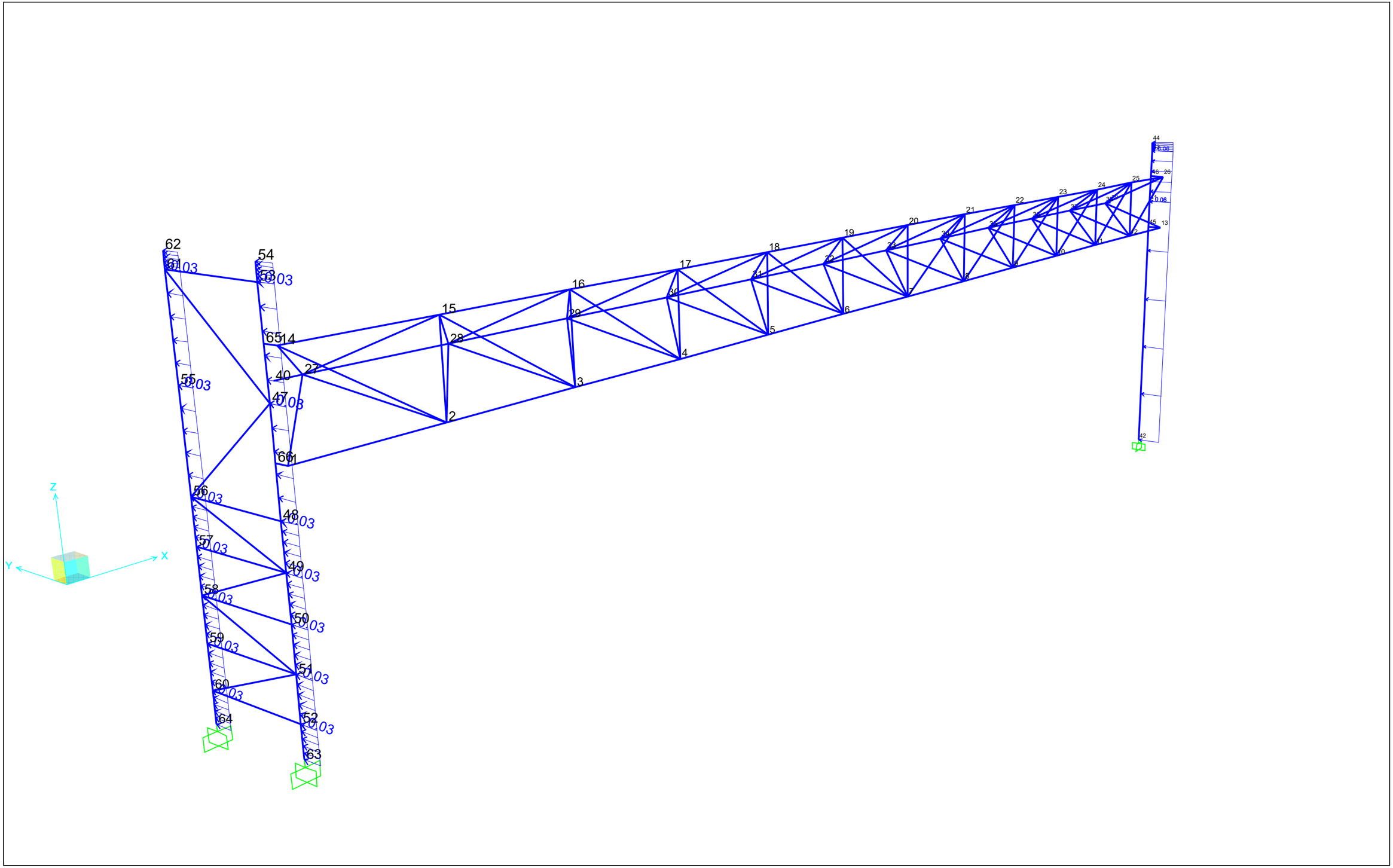
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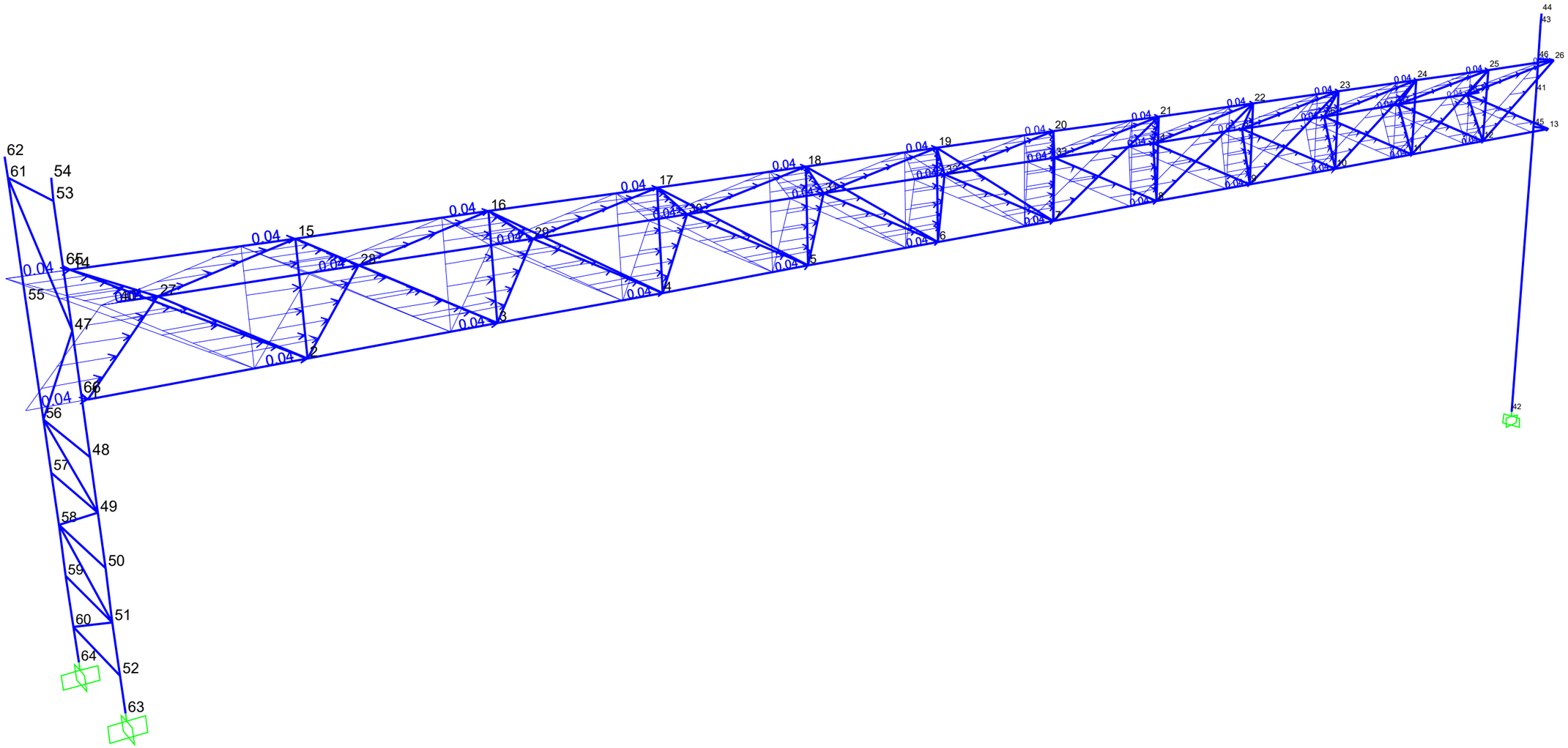
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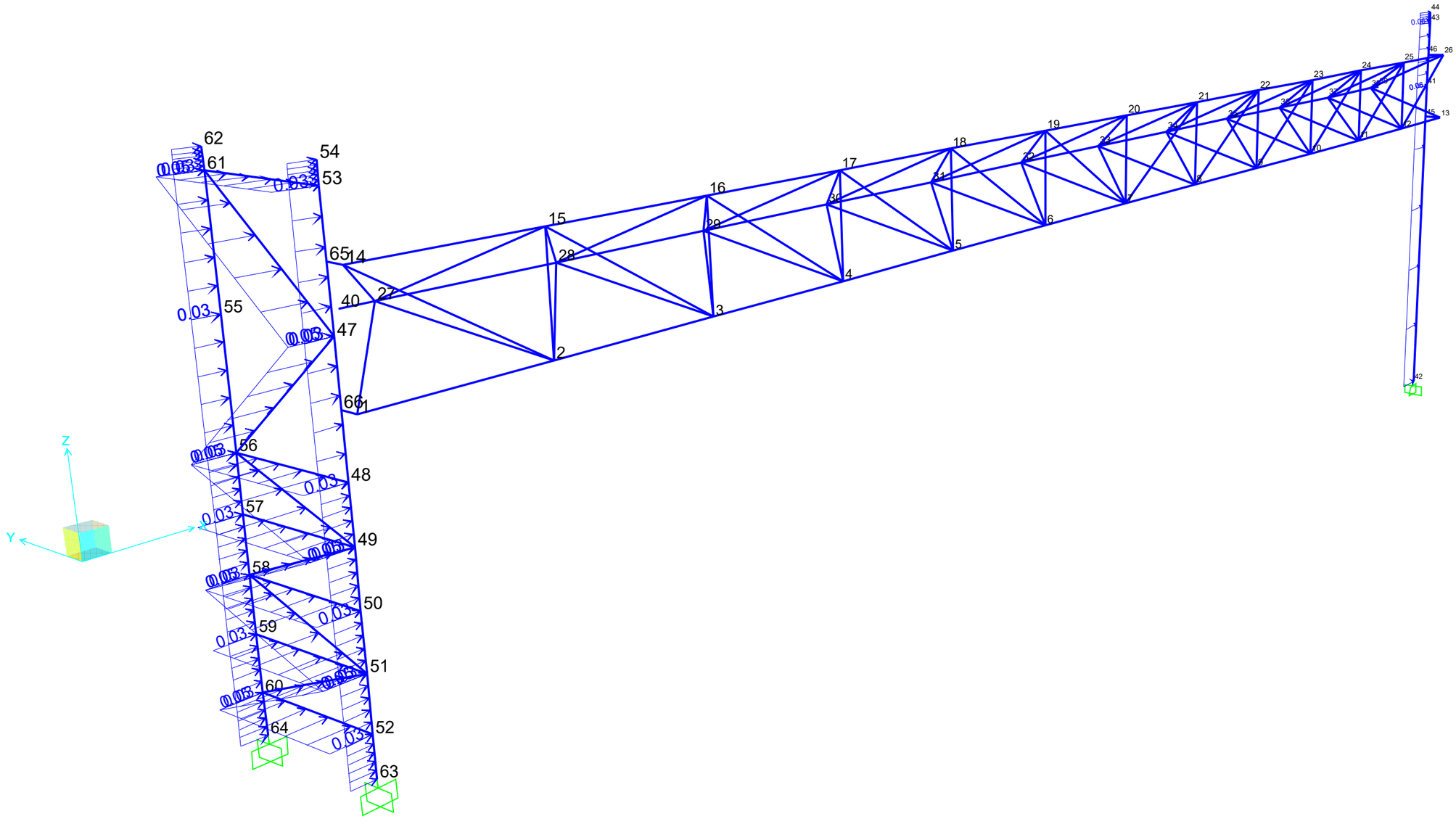
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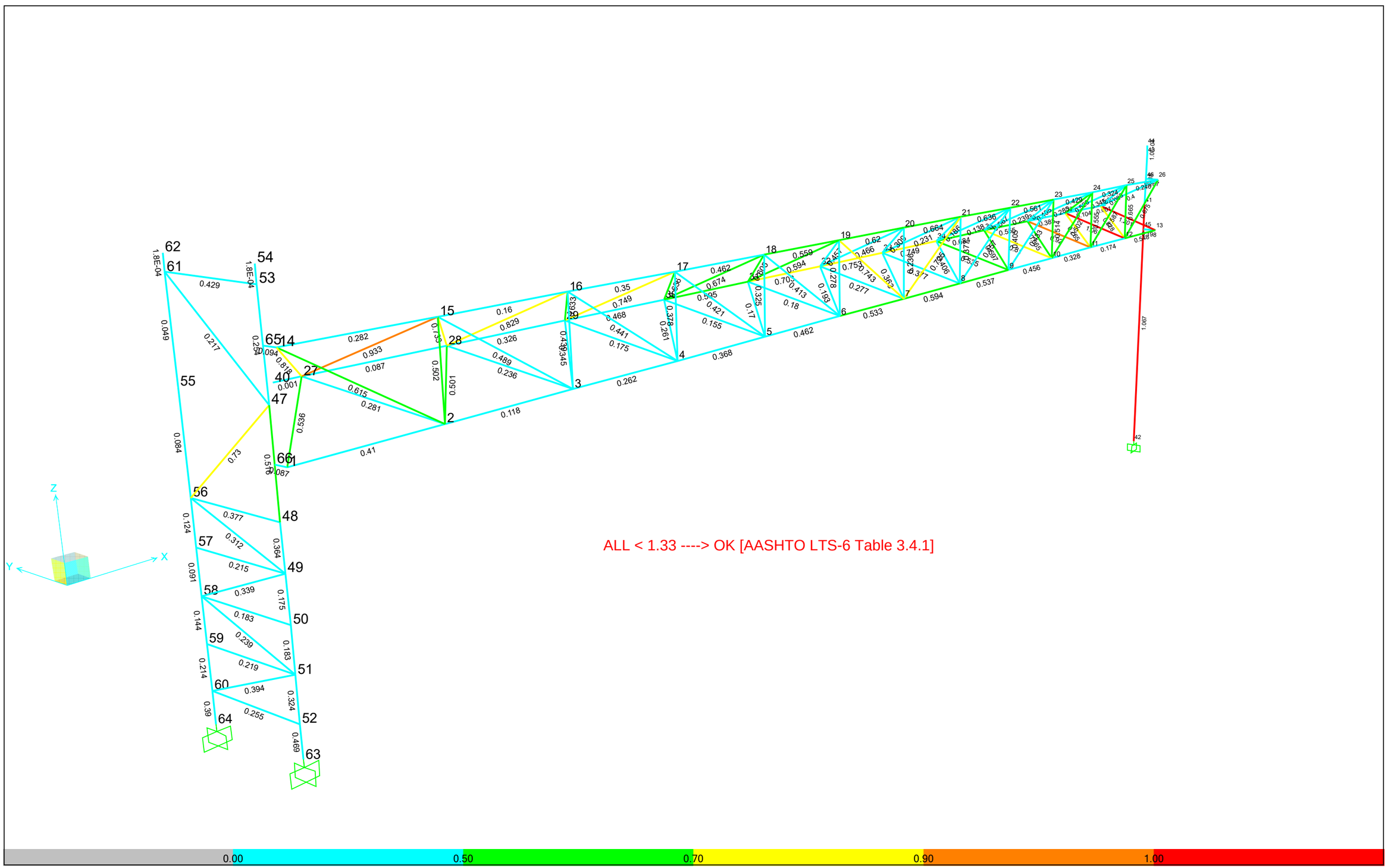

ALL < 1.33 ----> OK [AASHTO LTS-6 Table 3.4.1]
0.00
0.50
0.70
0.90
1.00

TABLE: Element Joint Forces - Frames									
Frame	Joint	OutputCase	CaseType	F1	F2	F3	M1	M2	M3
Text	Text	Text	Text	Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
143	14	DEAD	LinStatic	6.535	3.041	-8.027	0.2597	4.551	0.0191
143	65	DEAD	LinStatic	-6.535	-3.041	8.196	-8.3711	-4.551	-6.554
143	14	DEAD SIGN	LinStatic	2.755	-0.054	-2.284	0.464	1.2841	-0.2255
143	65	DEAD SIGN	LinStatic	-2.755	0.054	2.284	-2.7484	-1.2841	-2.5299
143	14	WIND SIGN	LinStatic	-0.866	8.827	-0.604	-0.3693	0.3163	15.4229
143	65	WIND SIGN	LinStatic	0.866	-8.827	0.604	-0.2347	-0.3163	-14.5572
143	14	CHORD	LinStatic	-0.18	2.797	-0.363	-0.1552	0.1653	3.6817
143	65	CHORD	LinStatic	0.18	-2.797	0.363	-0.2079	-0.1653	-3.5014
143	14	TRUSS (FRONT)	LinStatic	-0.527	7.999	-1.164	0.3242	0.5492	10.3685
143	65	TRUSS (FRONT)	LinStatic	0.527	-7.999	1.164	-1.4882	-0.5492	-9.8416
143	14	TRUSS (SIDE)	LinStatic	-11.336	-0.783	0.138	-0.1989	0.0627	-2.8432
143	65	TRUSS (SIDE)	LinStatic	11.336	0.783	-0.138	0.3373	-0.0627	14.1794
143	14	UPRIGHT (FRONT)	LinStatic	0.012	0.242	0.153	-0.0833	-0.0926	0.3914
143	65	UPRIGHT (FRONT)	LinStatic	-0.012	-0.242	-0.153	0.2362	0.0926	-0.4033
143	14	UPRIGHT (SIDE)	LinStatic	-6.044	-0.166	0.474	0.3419	-0.3444	4.8068
143	65	UPRIGHT (SIDE)	LinStatic	6.044	0.166	-0.474	0.1325	0.3444	1.2373
143	14	DL + WL (Front)	Combination	7.729	22.853	-12.29	0.44	6.7732	29.6581
143	65	DL + WL (Front)	Combination	-7.729	-22.853	12.458	-12.8141	-6.7732	-37.3875
143	14	DL + WL (SIDE)	Combination	-8.992	11.426	-10.375	0.4663	5.9026	17.9165
143	65	DL + WL (SIDE)	Combination	8.992	-11.426	10.544	-10.926	-5.9026	-8.9247
143	14	DL	Combination	9.29	2.988	-10.312	0.7237	5.8351	-0.2064
143	65	DL	Combination	-9.29	-2.988	10.48	-11.1195	-5.8351	-9.0839
143	14	DL - WL (Front)	Combination	10.851	-16.878	-8.333	1.0073	4.8969	-30.071
143	65	DL - WL (Front)	Combination	-10.851	16.878	8.502	-9.4249	-4.8969	19.2196
144	1	DEAD	LinStatic	-11.559	-3.015	-3.062	-0.1321	4.1918	5.8619
144	66	DEAD	LinStatic	11.559	3.015	3.231	-3.0143	-4.1918	5.6971
144	1	DEAD SIGN	LinStatic	-4.805	0.06	-0.356	0.2918	1.1735	2.5737
144	66	DEAD SIGN	LinStatic	4.805	-0.06	0.356	-0.6474	-1.1735	2.2311
144	1	WIND SIGN	LinStatic	1.412	2.865	0.595	-1.6492	-0.7571	15.3028
144	66	WIND SIGN	LinStatic	-1.412	-2.865	-0.595	2.2445	0.7571	-16.7144
144	1	CHORD	LinStatic	0.281	1.122	0.362	-0.4092	-0.2796	3.5971
144	66	CHORD	LinStatic	-0.281	-1.122	-0.362	0.7715	0.2796	-3.8779
144	1	TRUSS (FRONT)	LinStatic	0.82	3.295	1.162	-1.5894	-0.8344	9.994
144	66	TRUSS (FRONT)	LinStatic	-0.82	-3.295	-1.162	2.7513	0.8344	-10.8141
144	1	TRUSS (SIDE)	LinStatic	22.834	0.928	1.922	0.691	-3.9816	-10.8164
144	66	TRUSS (SIDE)	LinStatic	-22.834	-0.928	-1.922	1.2308	3.9816	-12.0177
144	1	UPRIGHT (FRONT)	LinStatic	-0.018	-0.23	-0.153	-0.1134	0.0424	0.2721
144	66	UPRIGHT (FRONT)	LinStatic	0.018	0.23	0.153	-0.04	-0.0424	-0.2541
144	1	UPRIGHT (SIDE)	LinStatic	4.188	0.21	0.128	0.0199	-0.8444	1.1912
144	66	UPRIGHT (SIDE)	LinStatic	-4.188	-0.21	-0.128	0.108	0.8444	-5.3793
144	1	DL + WL (Front)	Combination	-13.869	4.097	-1.452	-3.6015	3.5367	37.6017
144	66	DL + WL (Front)	Combination	13.869	-4.097	1.62	2.0655	-3.5367	-23.7323
144	1	DL + WL (SIDE)	Combination	12.126	1.272	-0.7	-0.8605	-0.2736	14.8327
144	66	DL + WL (SIDE)	Combination	-12.126	-1.272	0.869	0.0758	0.2736	-26.9587
144	1	DL	Combination	-16.364	-2.955	-3.418	0.1597	5.3653	8.4357
144	66	DL	Combination	16.364	2.955	3.586	-3.6618	-5.3653	7.9282
144	1	DL - WL (Front)	Combination	-18.858	-10.008	-5.384	3.9208	7.194	-20.7304
144	66	DL - WL (Front)	Combination	18.858	10.008	5.552	-9.389	-7.194	39.5887
			MAX	22.834	22.853	12.458	12.8141	7.194	39.5887

TRUSS TO UPRIGHT CONNECTION

Truss Connection Calculations

Design Truss-to-Upright Connections

Connection Output

Get Design Forces for the Truss-to-Upright Connection Elements

Design forces for the truss-to-upright connection elements are obtained from the SAP output data computed during the 3D frame analysis.

Conn_Horz_Shear := 12.458kip

Conn_Vert_Shear := 22.853kip

Conn_Axial_Force := 22.834kip

Upright_Diameter := 12in

Upright_Thickness := 0.500in

Fy_Upright := 46ksi

Vert_Depth := 6ft

Chord_Diameter := 8.625in

E := 29000·ksi

Gs := 11200·ksi

Determine Required Bolt Size and Number of Bolts for Connection Plates

The truss-to-upright bolted connections are designed in accordance with AASHTO Standard Specifications for Highway Bridges, 17th Edition (2002). Bolts used will be 7/8" diameter or 1" diameter, as required. Bolt spacing is 3.5" per FDOT Design Standards.

Truss_Bolt_Data :=

"Bolt Type"	"Diameter (in)"	"Area (in^2)"
1	1.000	0.7854
2	1.250	1.2272
3	1.500	1.7671
4	1.750	2.4053
5	2.000	3.1416

[AISC Table I-D]

Min_Truss_Bolt_Type := 3

Bolt_Props :=

HorzShear ← Conn_Horz_Shear

VertShear ← Conn_Vert_Shear

AxialForce ← Conn_Axial_Force

ConnLen ← 0·in

MaxConnLen ← Upright_Diameter + 2·in

$F_v \leftarrow (19 \cdot ksi)$ [AASHTO Bridge Table 10.32.3B; AASHTO Table 3.4-1]

$F_t \leftarrow (38 \cdot ksi)$

if Min_Truss_Bolt_Type = 1

"Design Connection Using 7/8" Diameter Bolts"

BoltType ← 1

$A_{bolt} \leftarrow Truss\_Bolt\_Data_{BoltType,2} \cdot in^2$

$F_{v\_bolt} \leftarrow A_{bolt} \cdot F_v$

"Design for Shear"

$MaxShearForce \leftarrow \sqrt{HorzShear^2 + AxialForce^2}$

$NumBolts \leftarrow \frac{MaxShearForce}{F_{v\_bolt}}$

$NumBolts \leftarrow Ceil(round(NumBolts, 5), 2)$

"Check Tension" *use even number of bolts*

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$ [AASHTO Bridge Eq. 10-16]

while $f_t > F'_t$ [AASHTO Bridge Eq. 10-17]

NumBolts ← NumBolts + 2

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$

"Set Minimum Number of Bolts"

NumBolts ← 4 if NumBolts < 4

ConnLen ← NumBolts·(1.75·in)

if Min_Truss_Bolt_Type = 3 ∨ ConnLen > MaxConnLen

"Design Connection Using 1" Diameter Bolts"

BoltType ← 3

$A_{bolt} \leftarrow Truss\_Bolt\_Data_{BoltType,2} \cdot in^2$

$F_{v\_bolt} \leftarrow A_{bolt} \cdot F_v$

"Design for Shear"

$MaxShearForce \leftarrow \sqrt{HorzShear^2 + AxialForce^2}$

$NumBolts \leftarrow \frac{MaxShearForce}{F_{v\_bolt}}$

$NumBolts \leftarrow Ceil(round(NumBolts, 5), 2)$

"Check Tension"

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$$

while $f_t > F'_t$

$NumBolts \leftarrow NumBolts + 2$

$f_t \leftarrow \frac{VertShear}{NumBolts \cdot A_{bolt}}$

$f_v \leftarrow \frac{MaxShearForce}{NumBolts \cdot A_{bolt}}$

$$F'_t \leftarrow \begin{cases} F_t & \text{if } \frac{f_v}{F_v} \le 0.33 \\ F_t \cdot \sqrt{1 - \left(\frac{f_v}{F_v}\right)^2} & \text{otherwise} \end{cases}$$

"Set Minimum Number of Bolts"

$NumBolts \leftarrow 4 \text{ if } NumBolts < 4$

"Return Error if Connection Design Exceeds Geometric Constraints"

$ConnLen \leftarrow NumBolts \cdot (1.75 \cdot in)$

if ConnLen > MaxConnLen

$BoltData_0 \leftarrow -1$

$BoltData_1 \leftarrow 0$

return BoltData

$BoltData_0 \leftarrow BoltType$

$\text{BoltData}_1 \leftarrow \text{NumBolts}$

return BoltData

$\text{Truss\_Bolt\_Type} := \text{Bolt\_Props}_0$

$$\text{Truss\_Bolt\_Diameter} := \begin{cases} \text{Truss\_Bolt\_Data}_{\text{Truss\_Bolt\_Type},1} \cdot \text{in} & \text{if Truss\_Bolt\_Type} \neq -1 \\ 0 \cdot \text{in} & \text{otherwise} \end{cases}$$

$\text{Num\_Bolts} := \text{Bolt\_Props}_1$

$\text{Truss\_Bolt\_Type} = 3$

$\text{Truss\_Bolt\_Diameter} = 1.5 \cdot \text{in}$

$\text{Num\_Bolts} = 4$

Compute the Required Thickness for the Horizontal Connection Plates (TD)

The buckling of the horizontal plates is investigated using Formula 12 on page 544 of the 5th edition of the book "Formulas for Stress and Strain" by Raymond Roark and Warren Young.

$\text{Min\_Horz\_Plate\_Thickness} := 0.75\text{in}$

$\text{Horz\_Depth} := \text{Vert\_Depth} \cdot \sin(60 \cdot \text{deg})$

Horz_Plate_Thickness :=

HorzShear ← Conn_Horz_Shear

FOS ← 2.0 *factor of safety*

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Min\_Horz\_Plate\_Thickness$

$b_{plate} \leftarrow Upright\_Diameter + 2 \cdot in$

$P_{crit} \leftarrow \frac{0.669 \cdot t_{plate}^{3} \cdot b_{plate} \cdot \sqrt{\left(1 - 0.63 \cdot \frac{t_{plate}}{b_{plate}}\right) \cdot E \cdot Gs}}{L_{plate}^{2}}$

while $P_{crit} < FOS \cdot HorzShear$

$t_{plate} \leftarrow t_{plate} + \frac{1}{8} \cdot in$

"Return Error if Calculated Plate Thickness Exceeds Program Limit"

if $t_{plate} > 1.0001 \cdot in$

$t_{plate} \leftarrow -1 \cdot in$

return t_{plate}

$P_{crit} \leftarrow \frac{0.669 \cdot t_{plate}^{3} \cdot b_{plate} \cdot \sqrt{\left(1 - 0.63 \cdot \frac{t_{plate}}{b_{plate}}\right) \cdot E \cdot Gs}}{L_{plate}^{2}}$

return t_{plate}

$Horz\_Plate\_Thickness = 0.75 \cdot in$

Compute the Required Thicknesses for the Vertical Connection Plates (TE)

The buckling of the vertical plates is investigated using the discussion on pages 752 through 765 in the 2nd edition of the book "Steel Structures" by Charles Salmon and John Johnson

$Min\_Vert\_Plate\_Thickness := 0.75in$

Vert_Plate_Thickness :=

$F_{y\_plate} \leftarrow 36 \cdot ksi$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow L_{plate} \cdot \frac{\sqrt{\frac{F_{y\_plate}}{ksi}}}{250}$ [Salmon Eq. 13.5.5a]

if $t_{plate} < Min\_Vert\_Plate\_Thickness$

"Apply User-Specified Minimum Plate Thickness"

$t_{plate} \leftarrow Min\_Vert\_Plate\_Thickness$

return t_{plate}

$Vert\_Plate\_Thickness = 0.75 \cdot in$

Design Welds for Truss to Upright Connection Plates (TF, TG, TH, TJ)

$F_u := 70ksi$

$F_{weld} := 0.60 \cdot 0.75 \cdot F_u = 31.5 \cdot ksi$

Horz_PL_to_Upright_Weld :=

$HorzShear \leftarrow Conn\_Horz\_Shear$

$AxialForce \leftarrow Conn\_Axial\_Force$

$D_{upright} \leftarrow Upright\_Diameter$

$t_{upright} \leftarrow Upright\_Thickness$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Horz\_Plate\_Thickness$

$MomArm \leftarrow L_{plate} + 0.36338 \cdot \frac{D_{upright}}{2}$

$WeldInertia \leftarrow 1.86835 \cdot \left(\frac{D_{upright}}{2}\right)^3$

$WeldForceX \leftarrow \frac{HorzShear \cdot MomArm \cdot \left(0.63662 \cdot \frac{D_{upright}}{2}\right)}{WeldInertia} + \frac{2 \cdot HorzShear}{\pi \cdot D_{upright}}$

$WeldForceY \leftarrow \frac{HorzShear \cdot MomArm \cdot \left(\frac{D_{upright}}{2}\right)}{WeldInertia} + \frac{2 \cdot AxialForce}{\pi \cdot D_{upright}}$

$WeldForce \leftarrow \frac{\sqrt{WeldForceX^2 + WeldForceY^2}}{2}$

$WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right)$

$WeldSize \leftarrow \frac{3}{16} \cdot in \quad if \quad WeldSize < \frac{3}{16} \cdot in$

$WeldSize \leftarrow \frac{1}{\ldots} \cdot \ldots if \ldots \frac{1}{\ldots} \cdot \ldots WeldSize \ldots \frac{1}{\ldots} \cdot \ldots$

$$\begin{aligned}
&\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if } t_{upright} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in} \\
&\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if } t_{plate} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in} \\
&\text{WeldSize} \leftarrow \frac{5}{16}\cdot\text{in} \quad \text{if } t_{plate} > \frac{3}{4}\cdot\text{in} \wedge \text{WeldSize} < \frac{5}{16}\cdot\text{in} \\
&\text{return WeldSize}
\end{aligned}$$

$\text{Horz\_PL\_to\_Upright\_Weld} = 0.25\cdot\text{in}$

Compute Allowable Shear Stress for Fillet Welds

Note: The allowable weld stress computed here is used to design all welds computed by the program.

$F_{weld} :=$

$F_u \leftarrow 70\text{ksi}$ [E70xx Electrode]

$F_v \leftarrow 0.27\cdot F_u$ [AASHTO Bridge Eq. 10-12]

$F_{weld} \leftarrow 0.707\cdot F_v$

$F_{weld} \leftarrow F_{weld}\cdot 1.33$ *apply "group load" factor* [AASHTO Table 3.4-1]

return F_{weld}

$F_{weld} = 17.772\cdot\text{ksi}$

$$\text{Vert\_PL\_to\_Upright\_Weld} :=$$

$\text{VertShear} \leftarrow \text{Conn\_Vert\_Shear}$

$\text{AxialForce} \leftarrow \text{Conn\_Axial\_Force}$

$D_{upright} \leftarrow \text{Upright\_Diameter}$

$t_{upright} \leftarrow \text{Upright\_Thickness}$

$L_{plate} \leftarrow \frac{\text{Horz\_Depth}}{2} - \frac{\text{Upright\_Diameter}}{2}$

$t_{plate} \leftarrow \text{Horz\_Plate\_Thickness}$

$$Spa_{vertplate} \leftarrow \begin{cases} 3\cdot(3.5\cdot\text{in}) & \text{if } \text{mod}(\text{Num\_Bolts},4) > 0 \\ 2\cdot(3.5\cdot\text{in}) & \text{otherwise} \end{cases}$$

$$\theta \leftarrow \text{asin}\left(\frac{Spa_{vertplate}}{D_{upright}}\right)$$

$$\text{MomArm} \leftarrow L_{plate} + \frac{D_{upright}}{2}\cdot(1 - \cos(\theta))$$

$$\text{WeldForceX} \leftarrow \frac{\text{VertShear}}{4\cdot\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)}$$

$$\text{WeldForceY} \leftarrow \frac{\text{AxialForce}}{4\cdot\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)} \ldots + \frac{\text{VertShear}\cdot\text{MomArm}}{4\cdot\left[\frac{\left(L_{plate} - 0.75\cdot\text{in} - t_{plate}\right)^2}{6}\right]}$$

$$\text{WeldForce} \leftarrow \sqrt{\text{WeldForceX}^2 + \text{WeldForceY}^2}$$

$$\text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16}\cdot\text{in}, \frac{1}{16}\cdot\text{in}\right)$$

$$\text{WeldSize} \leftarrow \frac{3}{16}\cdot\text{in} \quad \text{if} \quad \text{WeldSize} < \frac{3}{16}\cdot\text{in}$$

$$\text{WeldSize} \leftarrow \frac{1}{4}\cdot\text{in} \quad \text{if} \quad t_{upright} > \frac{1}{2}\cdot\text{in} \wedge \text{WeldSize} < \frac{1}{4}\cdot\text{in}$$

$$\text{WeldSize} \leftarrow \frac{5}{16}\cdot\text{in} \quad \text{if} \quad t_{upright} > \frac{3}{4}\cdot\text{in} \wedge \text{WeldSize} < \frac{5}{16}\cdot\text{in}$$

return WeldSize

$$\text{Vert\_PL\_to\_Upright\_Weld} = 0.1875\cdot\text{in}$$

$$\text{Conn\_PL\_to\_Chord\_Weld} :=$$

$\text{HorzShear} \leftarrow \text{Conn\_Horz\_Shear}$

$$\text{WeldForce} \leftarrow 0.9\cdot\frac{\text{HorzShear}}{4\cdot(1.5\cdot\text{Chord\_Diameter})}$$

$$\text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16}\cdot\text{in}, \frac{1}{16}\cdot\text{in}\right)$$

$$\text{WeldSize} \leftarrow \frac{3}{16}\cdot\text{in} \quad \text{if} \quad \text{WeldSize} < \frac{3}{16}\cdot\text{in}$$

return WeldSize

$\text{Conn\_PL\_to\_Chord\_Weld} = 0.1875 \cdot \text{in}$

$\text{Horz\_PL\_to\_Vert\_PL\_Weld} :=$

$\text{VertShear} \leftarrow \text{Conn\_Vert\_Shear}$

$L_{plate} \leftarrow \frac{\text{Horz\_Depth}}{2} - \frac{\text{Upright\_Diameter}}{2}$

$t_{plate} \leftarrow \text{Horz\_Plate\_Thickness}$

$\text{WeldForce} \leftarrow \frac{\text{VertShear}}{4 \cdot \left(L_{plate} - 0.75 \cdot \text{in} - t_{plate}\right)}$

$\text{WeldSize} \leftarrow \text{Round}\left(\frac{\text{WeldForce}}{F_{weld}} + \frac{0.499}{16} \cdot \text{in}, \frac{1}{16} \cdot \text{in}\right)$

$\text{WeldSize} \leftarrow \frac{3}{16} \cdot \text{in} \quad \text{if} \quad \text{WeldSize} < \frac{3}{16} \cdot \text{in}$

$\text{WeldSize} \leftarrow \frac{1}{4} \cdot \text{in} \quad \text{if} \quad t_{plate} > \frac{1}{2} \cdot \text{in} \wedge \text{WeldSize} < \frac{1}{4} \cdot \text{in}$

$\text{WeldSize} \leftarrow \frac{5}{16} \cdot \text{in} \quad \text{if} \quad t_{plate} > \frac{3}{4} \cdot \text{in} \wedge \text{WeldSize} < \frac{5}{16} \cdot \text{in}$

return WeldSize

$\text{Horz\_PL\_to\_Vert\_PL\_Weld} = 0.25 \cdot \text{in}$

Check Stresses in Horizontal Connection Plates

$\text{Horz\_Plate\_Stress\_Check} :=$

$\text{HorzShear} \leftarrow \text{Conn\_Horz\_Shear}$

$F_{y\_plate} \leftarrow 36 \cdot \text{ksi}$

$D_{upright} \leftarrow \text{Upright\_Diameter}$

$L_{plate} \leftarrow \frac{\text{Horz\_Depth}}{2} - \frac{\text{Upright\_Diameter}}{2}$

$t_{plate} \leftarrow \text{Horz\_Plate\_Thickness}$

$b_{plate} \leftarrow \text{Upright\_Diameter} + 2 \cdot \text{in}$

$L_{vertplate} \leftarrow L_{plate}$

$t_{vertplate} \leftarrow \text{Vert\_Plate\_Thickness}$

$\text{Spa}_{vertplate} \leftarrow \begin{cases} 3 \cdot (3.5 \cdot \text{in}) & \text{if } \text{mod}(\text{Num\_Bolts}, 4) > 0 \\ 2 \cdot (3.5 \cdot \text{in}) & \text{otherwise} \end{cases}$

$S_y \leftarrow \frac{\frac{t_{plate} \cdot b_{plate}^{3}}{12} + \frac{\left(L_{vertplate} - t_{plate} - 0.75 \cdot \text{in}\right) \cdot t_{vertplate} \cdot \text{Spa}_{vertplate}^{2}}{2}}{\frac{b_{plate}}{2}}$

$d_{mom} \leftarrow L_{plate} + 0.36338 \cdot \frac{D_{upright}}{2}$

$f_b \leftarrow \frac{\text{HorzShear} \cdot d_{mom}}{S_y}$

$F_b \leftarrow \left(0.66 \cdot F_{y\_plate}\right) \cdot 1.33$

$\text{Msg} \leftarrow \begin{cases} \text{"OK"} & \text{if } \frac{f_b}{F_b} \le 1.0 \end{cases}$

"N.G. Design connection to upright by hand." otherwise

return Msg

Horz_Plate_Stress_Check = "OK"

Check Stresses in Vertical Connection Plates

Vert_Plate_Stress_Check :=

VertShear ← Conn_Vert_Shear

$F_{y\_plate} \leftarrow 36 \cdot ksi$

$D_{upright} \leftarrow Upright\_Diameter$

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$t_{plate} \leftarrow Horz\_Plate\_Thickness$

$b_{plate} \leftarrow Upright\_Diameter + 2 \cdot in$

$L_{vertplate} \leftarrow L_{plate}$

$t_{vertplate} \leftarrow Vert\_Plate\_Thickness$

$Spa_{vertplate} \leftarrow \begin{cases} 3 \cdot (3.5 \cdot in) & \text{if } mod(Num\_Bolts, 4) > 0 \\ 2 \cdot (3.5 \cdot in) & \text{otherwise} \end{cases}$

$C_x \leftarrow \frac{t_{plate} \cdot b_{plate} \cdot \left(L_{vertplate} - \frac{t_{plate}}{2}\right) + \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right)^2 \cdot t_{vertplate}}{t_{plate} \cdot b_{plate} + 2 \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right) \cdot t_{vertplate}}$

$R_x \leftarrow \frac{2 \cdot t_{vertplate} \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right)^3}{12} + t_{plate} \cdot b_{plate} \cdot \left(L_{vertplate} - \frac{t_{plate}}{2} - C_x\right)^2 \ldots$

$+ 2 \cdot t_{vertplate} \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in\right) \cdot \left(L_{vertplate} - t_{plate} - 0.75 \cdot in - C_x\right)^2$

$S_x \leftarrow \min\left(\frac{R_x}{C_x}, \frac{R_x}{\left|L_{vertplate} - C_x\right|}\right)$

$\theta \leftarrow \operatorname{asin}\left(\frac{Spa_{vertplate}}{D_{upright}}\right)$

$d_{mom} \leftarrow L_{plate} + \frac{D_{upright}}{2} \cdot (1 - \cos(\theta))$

$f_b \leftarrow \frac{VertShear \cdot d_{mom}}{S_x}$

$F_b \leftarrow \left(0.66 \cdot F_{y\_plate}\right) \cdot 1.33$

$Msg \leftarrow \begin{cases} \text{"OK"} & \text{if } \frac{f_b}{F_b} \le 1.0 \\ \text{"N.G. Design connection to upright by hand."} & \text{otherwise} \end{cases}$

return Msg

Vert_Plate_Stress_Check = "OK"

Check Yielding of Uprights due to Vertical Plate Loads

Upright_Yielding_Check :=

VertShear ← Conn_Vert_Shear

FOS ← 1.5 *factor of safety*

$t_{upright} \leftarrow$ Upright_Thickness

$L_{plate} \leftarrow \frac{Horz\_Depth}{2} - \frac{Upright\_Diameter}{2}$

$L_{vertplate} \leftarrow L_{plate}$

$VertMom \leftarrow VertShear \cdot L_{plate}$

$VertCap \leftarrow \left(\pi \cdot t_{upright}^{2} \cdot L_{vertplate}\right) \cdot Fy\_Upright$

Msg ← "OK" if $VertMom \cdot FOS \le VertCap$

"N.G. Design connection to upright by hand." otherwise

return Msg

Upright_Yielding_Check = "OK"

Truss Connection Calculations

Connection Output

Truss Connections

(TA) Bolt_Size_Required = "1-1/2" Dia."

(TB) Number_of_Bolts_Reqd_at_Chord_Connection = "4"

(TD) Thickness_of_Horizontal_Connection_Plate = "3/4""

(TE) Thickness_of_Vertical_Connection_Plate = "3/4""

(TF) Fillet_Weld_Size_for_Horz_PL_to_Upright = "1/4""

(TG) Fillet_Weld_Size_for_Vert_PL_to_Upright = "3/16""

(TH) Fillet_Weld_Size_for_Chord_to_Connection_PL = "3/16""

(TJ) Fillet_Weld_Size_for_Vert_PL_to_Horz_PL = "1/4""

Additional Truss Connection Checks

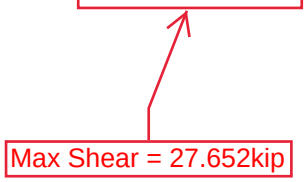
Horz_Plate_Stress_Check = "OK"

Vert_Plate_Stress_Check = "OK"

Upright_Yielding_Check = "OK"

TABLE: Element Joint Forces - Upright						
Frame	**Joint**	**OutputCase**	**CaseType**	**F1**	**F2**	**F3**
Text	Text	Text	Text	Kip	Kip	Kip
129	61	DL + WL (Front)	Combination	-1.019	-7.26	-0.047
129	53	DL + WL (Front)	Combination	1.019	7.26	0.29
129	61	DL	Combination	-0.868	0.349	0.088
129	53	DL	Combination	0.868	-0.349	0.154
129	61	DL - WL (Front)	Combination	-0.716	7.958	0.224
129	53	DL - WL (Front)	Combination	0.716	-7.958	0.019
130	61	DL + WL (Front)	Combination	0.146	7.416	6.287
130	47	DL + WL (Front)	Combination	-0.146	-7.416	-5.977
130	61	DL	Combination	0.04	-0.38	-0.11
130	47	DL	Combination	-0.04	0.38	0.42
130	61	DL - WL (Front)	Combination	-0.065	-8.177	-6.507
130	47	DL - WL (Front)	Combination	0.065	8.177	6.817
131	47	DL + WL (Front)	Combination	-1.183	27.652	-22.168
131	56	DL + WL (Front)	Combination	1.183	-27.652	22.478
131	47	DL	Combination	-0.748	1.201	-0.852
131	56	DL	Combination	0.748	-1.201	1.162
131	47	DL - WL (Front)	Combination	-0.313	-25.251	20.464
131	56	DL - WL (Front)	Combination	0.313	25.251	-20.154
132	56	DL + WL (Front)	Combination	0.349	25.101	9.53
132	49	DL + WL (Front)	Combination	-0.349	-25.101	-9.272
132	56	DL	Combination	0.492	-0.471	-0.052
132	49	DL	Combination	-0.492	0.471	0.31
132	56	DL - WL (Front)	Combination	0.634	-26.043	-9.634
132	49	DL - WL (Front)	Combination	-0.634	26.043	9.892
133	49	DL + WL (Front)	Combination	-0.579	26.286	-9.735
133	58	DL + WL (Front)	Combination	0.579	-26.286	9.993
133	49	DL	Combination	-0.217	0.157	0.069
133	58	DL	Combination	0.217	-0.157	0.19
133	49	DL - WL (Front)	Combination	0.144	-25.972	9.872
133	58	DL - WL (Front)	Combination	-0.144	25.972	-9.614
134	58	DL + WL (Front)	Combination	0.089	26.849	10.216
134	51	DL + WL (Front)	Combination	-0.089	-26.849	-9.957
134	58	DL	Combination	-0.05	-0.195	0.052
134	51	DL	Combination	0.05	0.195	0.206
134	58	DL - WL (Front)	Combination	-0.189	-27.24	-10.112
134	51	DL - WL (Front)	Combination	0.189	27.24	10.37
135	51	DL + WL (Front)	Combination	-0.372	26.884	-10.031
135	60	DL + WL (Front)	Combination	0.372	-26.884	10.289
135	51	DL	Combination	0.123	0.236	0.037
135	60	DL	Combination	-0.123	-0.236	0.222
135	51	DL - WL (Front)	Combination	0.617	-26.412	10.104
135	60	DL - WL (Front)	Combination	-0.617	26.412	-9.846
136	60	DL + WL (Front)	Combination	0.206	8.212	0.489
136	52	DL + WL (Front)	Combination	-0.206	-8.212	-0.247

136	60	DL	Combination	-0.152	0.126	0.118
136	52	DL	Combination	0.152	-0.126	0.124
136	60	DL - WL (Front)	Combination	-0.511	-7.96	-0.252
136	52	DL - WL (Front)	Combination	0.511	7.96	0.495
137	51	DL + WL (Front)	Combination	-0.264	-1.79	-0.192
137	59	DL + WL (Front)	Combination	0.264	1.79	0.434
137	51	DL	Combination	0.094	-0.215	0.119
137	59	DL	Combination	-0.094	0.215	0.123
137	51	DL - WL (Front)	Combination	0.451	1.36	0.43
137	59	DL - WL (Front)	Combination	-0.451	-1.36	-0.188
138	58	DL + WL (Front)	Combination	0.344	-0.354	0.408
138	50	DL + WL (Front)	Combination	-0.344	0.354	-0.165
138	58	DL	Combination	0.092	0.147	0.12
138	50	DL	Combination	-0.092	-0.147	0.123
138	58	DL - WL (Front)	Combination	-0.161	0.647	-0.168
138	50	DL - WL (Front)	Combination	0.161	-0.647	0.411
139	49	DL + WL (Front)	Combination	-0.543	-0.537	-0.163
139	57	DL + WL (Front)	Combination	0.543	0.537	0.405
139	49	DL	Combination	-0.388	-0.144	0.123
139	57	DL	Combination	0.388	0.144	0.119
139	49	DL - WL (Front)	Combination	-0.232	0.248	0.409
139	57	DL - WL (Front)	Combination	0.232	-0.248	-0.167
140	56	DL + WL (Front)	Combination	1.202	1.363	0.366
140	48	DL + WL (Front)	Combination	-1.202	-1.363	-0.124
140	56	DL	Combination	0.827	1.54	0.099
140	48	DL	Combination	-0.827	-1.54	0.144
140	56	DL - WL (Front)	Combination	0.451	1.717	-0.168
140	48	DL - WL (Front)	Combination	-0.451	-1.717	0.411
			MAX	1.202	27.652	22.478



UPRIGHT WEB TRUSS GUSSET PLATES

Design Web Connection Gusset Plates

Get Design Forces for the Web Connection Gusset Plate

Design forces for the truss-to-upright connection elements are obtained from the SAP output data computed during the 3D frame analysis.

$MaxForce := 27.652kip$

$E := 29000ksi$

$X_{Web} := 1.53in$

$F_{y.Chord} := 42ksi$

$t_{Chord} := 0.500in$

$D_{Chord} := 12in$ <--- Diameter of upright

$D_{Vert} := 12in$

$W_{Web} := 5in$ <--- Size of Double Angle

$L_{TrussPanel} := 6ft$ <--- N1

Determine Required Bolt Size and Other Relevant Bolt Data (GB)

Two bolts are used at each end of the web members. Allowable shear forces for the A325 bolts were calculated using bolt areas from AISC Table 7-1, allowable stress from AASHTO Standard Specifications for Highway Bridges Table 10.32.3B and by applying the LTS-6 Table 3.4-1 group loading factor (e.g., 3/4" bolt, double shear: 2 x ((0.4418 in^2) x (19 ksi) x 1.33) = 22.33 kip).

$TypeMin_{Gusset.Bolt} := 1$

$Data_{WebBolt} :=$

"Bolt Type"	"Diameter (in)"	"Min. Edge Dist. (in)"	"Min. Spacing (in)"
1	0.750	1.25	2.5
2	0.875	1.50	3.0
3	1.000	1.75	3.5
4	1.250	2.1875	4.375
5	1.50	3.0	5.25

$Type_{WebBolt} :=$ MaxForce ← MaxForce

BoltType ←
- 1 if $MaxForce \le 22.33 \cdot kip$
- 2 if $22.33 \cdot kip < MaxForce \le 30.39 \cdot kip$
- 3 if $30.39 \cdot kip < MaxForce \le 39.69 \cdot kip$
- 4 if $39.69 \cdot kip < MaxForce \le 54.27 \cdot kip$
- 5 if $54.27 \cdot kip < MaxForce \le 95.6 \cdot kip \wedge W_{Web} \ge 4 \cdot in$
- −1 otherwise

if $BoltType \ne -1 \wedge BoltType < TypeMin_{Gusset.Bolt}$
- "Apply User-Specified Minimum Bolt Size"
- $BoltType \leftarrow TypeMin_{Gusset.Bolt}$

return BoltType

$D_{WebBolt} :=$
- $Data_{WebBolt_{Type_{WebBolt}},1} \cdot in$ if $Type_{WebBolt} \ne -1$
- $0 \cdot in$ otherwise

$EdgeDistance :=$
- $Data_{WebBolt_{Type_{WebBolt}},2} \cdot in$ if $Type_{WebBolt} \ne -1$
- $0 \cdot in$ otherwise

$Spacing_{WebBolt} :=$
- $Data_{WebBolt_{Type_{WebBolt}},3} \cdot in$ if $Type_{WebBolt} \ne -1$
- $0 \cdot in$ otherwise

Compute Angles Between Chords and Web Members

$$\theta_{backweb} := \operatorname{atan}\left(\frac{2 \cdot D_{Vert}}{L_{TrussPanel}}\right)$$

$$\phi_{diagweb} := \operatorname{atan}\left(\frac{D_{Vert}}{L_{TrussPanel}}\right)$$

Compute Required Length of Back Chord Gusset Plates (GC)

The minimum length of the back chord gusset plates is determined by using Newton's Method to compute the minimum length required for strength, and comparing the result to the minimum length required for detailing.

d_{mom} - *moment arm for calculating moment in gusset plate*
M_{plate} - *moment in gusset plate*
Spa - *additional length used for gusset failure calculation*
M_p - *plastic moment capacity of chord wall*
L_{req} - *minimum gusset plate length required for strength*
L_{temp} - *intermediate gusset plate length*
L_{det} - *minimum gusset plate length required for detailing*
L_{crit} - *buckling length*
F_x - *function giving gusset plate moment capacity*
F'_x - *derivative of F_x function*

$L_{BackPlate} :=$

$WebForce \leftarrow MaxForce$

$FOS \leftarrow 1.5$ *factor of safety*

$D_{chord} \leftarrow D_{Chord}$

$d_{mom} \leftarrow \frac{D_{chord}}{\tan(\theta_{backweb})}$

$M_{plate} \leftarrow (WebForce \cdot \sin(\theta_{backweb})) \cdot d_{mom}$

$Spa \leftarrow \frac{\pi \cdot D_{chord}}{6}$

$M_p \leftarrow \frac{t_{Chord}^2}{4} \cdot F_{y.Chord}$

$L_{req} \leftarrow 0 \cdot in$

$L_{temp} \leftarrow 6 \cdot in$

while $|L_{req} - L_{temp}| > 0.001 \cdot in$ *use 6" for the initial value*

$L_{req} \leftarrow L_{temp}$

$L_{crit} \leftarrow L_{req} + Spa$

$F_x \leftarrow M_p \cdot L_{crit} \cdot \left(5.14159 + 2 \cdot \frac{L_{crit}}{D_{chord}} + 2 \cdot \frac{D_{chord}}{L_{crit}}\right) - FOS \cdot M_{plate}$

$F'_x \leftarrow M_p \cdot \left(5.14159 + 4 \cdot \frac{L_{req}}{D_{chord}} + 4 \cdot \frac{Spa}{D_{chord}}\right)$

$L_{temp} \leftarrow L_{req} - \frac{F_x}{F'_x}$

$L_{Checkaa} \leftarrow \frac{d_{mom}}{2} + \frac{0.375 \cdot in + (W_{Web} - X_{Web}) \cdot \cos(\theta_{backweb})}{\tan(\theta_{backweb})}$

$L_{Checkab} \leftarrow X_{Web} \cdot \sin(\theta_{backweb}) + \frac{1}{8} \cdot in$

$L_{Checka} \leftarrow \max(L_{Checkaa}, L_{Checkab})$

$L_{deta} \leftarrow 2 \cdot \left[\begin{array}{l} L_{Checka} + (0.57 \cdot W_{Web} - X_{Web}) \cdot \sin(\theta_{backweb}) \ldots \\ + (EdgeDistance + Spacing_{WebBolt}) \cdot \cos(\theta_{backweb}) \ldots \\ + EdgeDistance \end{array}\right] + 0.25 \cdot in$

$L_{Checkba} \leftarrow \frac{d_{mom}}{2} + \frac{0.375 \cdot in + X_{Web} \cdot \cos(\theta_{backweb})}{\tan(\theta_{backweb})}$

$L_{Checkbb} \leftarrow (W_{Web} - X_{Web}) \cdot \sin(\theta_{backweb}) + \frac{1}{8} \cdot in$

$$L_{Checkb} \leftarrow \max\left(L_{Checkba}, L_{Checkbb}\right)$$

$$L_{detb} \leftarrow 2\cdot\left[\begin{array}{l} L_{Checkb} - \left(0.57\cdot W_{Web} - X_{Web}\right)\cdot\sin\left(\theta_{backweb}\right) \ldots \\ + \left(EdgeDistance + Spacing_{WebBolt}\right)\cdot\cos\left(\theta_{backweb}\right) \ldots \\ + EdgeDistance \end{array}\right] + 0.25\cdot in$$

$$Len \leftarrow \max\left(L_{req}, L_{deta}, L_{detb}\right)$$

return Len

Compute Required Height of Back Chord Gusset Plates (GD)

$H_{BackPlate} :=$

$$D_{chord} \leftarrow D_{Chord}$$

$$d_{mom} \leftarrow \frac{D_{chord}}{\tan\left(\theta_{backweb}\right)}$$

$$L_{Checkaa} \leftarrow \frac{d_{mom}}{2} + \frac{0.375\cdot in + \left(W_{Web} - X_{Web}\right)\cdot\cos\left(\theta_{backweb}\right)}{\tan\left(\theta_{backweb}\right)}$$

$$L_{Checkab} \leftarrow X_{Web}\cdot\sin\left(\theta_{backweb}\right) + \frac{1}{8}\cdot in$$

$$H_{Checka} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}\right)\cdot\tan\left(\theta_{backweb}\right)$$

$$H_{deta} \leftarrow H_{Checka} - \left(0.57\cdot W_{Web} - X_{Web}\right)\cdot\cos\left(\theta_{backweb}\right) \ldots + \left(Spacing_{WebBolt} + EdgeDistance\right)\cdot\sin\left(\theta_{backweb}\right) \ldots + EdgeDistance - \frac{D_{Chord}}{2}$$

$$L_{Checkba} \leftarrow \frac{d_{mom}}{2} + \frac{0.375\cdot in + X_{Web}\cdot\cos\left(\theta_{backweb}\right)}{\tan\left(\theta_{backweb}\right)}$$

$$L_{Checkbb} \leftarrow \left(W_{Web} - X_{Web}\right)\cdot\sin\left(\theta_{backweb}\right) + \frac{1}{8}\cdot in$$

$$H_{Checkb} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}\right)\cdot\tan\left(\theta_{backweb}\right)$$

$$H_{detb} \leftarrow H_{Checkb} + \left(0.57\cdot W_{Web} - X_{Web}\right)\cdot\cos\left(\theta_{backweb}\right) \ldots + \left(Spacing_{WebBolt} + EdgeDistance\right)\cdot\sin\left(\theta_{backweb}\right) \ldots + EdgeDistance - \frac{D_{Chord}}{2}$$

$Ht \leftarrow \max(H_{deta}, H_{detb})$

return Ht

Compute Required Length of Front Chord Gusset Plates (GE)

The minimum length of the front chord gusset plates is determined by using Newton's Method to compute the minimum length required for strength, and comparing the result to the minimum length required for detailing.

d_{mom} - moment arm for calculating moment in gusset plate
M_{plate} - moment in gusset plate
M_p - plastic moment capacity of chord wall
L_{req} - minimum gusset plate length required for strength
L_{temp} - intermediate gusset plate length
L_{det} - minimum gusset plate length required for detailing
L_{crit} - buckling length
F_x - function giving gusset plate moment capacity
F'_x - derivative of F_x function

$L_{FrontPlate} :=$

$WebForce \leftarrow MaxForce$

$FOS \leftarrow 1.5$ *factor of safety*

$D_{chord} \leftarrow D_{Chord}$

$d_{mom} \leftarrow \frac{0.5 \cdot D_{chord}}{\tan(\phi_{diagweb})}$

$M_{plate} \leftarrow (WebForce \cdot \sin(\phi_{diagweb})) \cdot d_{mom}$

$M_p \leftarrow \frac{t_{Chord}^2}{4} \cdot F_{y.Chord}$

$L_{req} \leftarrow 0 \cdot in$

$L_{temp} \leftarrow 5 \cdot in$

use 5" for the initial value

while $|L_{req} - L_{temp}| > 0.001 \cdot in$

$L_{req} \leftarrow L_{temp}$

$L_{crit} \leftarrow L_{req}$

$F_x \leftarrow M_p \cdot L_{crit} \cdot \left(5.14159 + 2 \cdot \frac{L_{crit}}{D_{chord}} + 2 \cdot \frac{D_{chord}}{L_{crit}} \right) - FOS \cdot M_{plate}$

$F'_x \leftarrow M_p \cdot \left(5.14159 + 4 \cdot \frac{L_{req}}{D_{chord}} \right)$

$\left(\text{chord}\right)$

$L_{temp} \leftarrow L_{req} - \frac{F_x}{F'_x}$

$L_{Checkaa} \leftarrow d_{mom} + \frac{0.375 \cdot in + X_{Web} \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)}$

$L_{Checkab} \leftarrow \left(W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25 \cdot in$

$L_{Checka} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}\right)$

$L_{deta} \leftarrow L_{Checka} - \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots$
$+ \left(EdgeDistance + Spacing_{WebBolt}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots$
$+ 2 \cdot EdgeDistance + \left(0.57 \cdot W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$L_{Checkba} \leftarrow d_{mom} + \frac{0.375 \cdot in + \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)}$

$L_{Checkbb} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$L_{Checkb} \leftarrow \max\left(L_{Checkba}, L_{Checkbb}\right)$

$L_{detb} \leftarrow L_{Checkb} \cdots$
$+ \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots$
$+ \left(EdgeDistance + Spacing_{WebBolt}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots$
$+ 2 \cdot EdgeDistance - \left(0.57 \cdot W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$L_{Checkca} \leftarrow d_{mom} + \frac{0.375 \cdot in + X_{Web} \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)}$

$L_{Checkcb} \leftarrow \left(W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$L_{Checkc} \leftarrow \max\left(L_{Checkca}, L_{Checkcb}\right)$

$L_{detc} \leftarrow L_{Checkc} - \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots$
$+ \left(EdgeDistance + Spacing_{WebBolt}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots$
$+ 2 \cdot EdgeDistance - \left(0.57 \cdot W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$L_{Checkda} \leftarrow d_{mom} + \frac{0.375 \cdot in + \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)}$

$L_{Checkdb} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25 \cdot in$

$L_{Checkd} \leftarrow \max\left(L_{Checkda}, L_{Checkdb}\right)$

$L_{detd} \leftarrow L_{Checkd} + \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots$
$+ \left(EdgeDistance + Spacing_{WebBolt}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots$
$+ 2 \cdot EdgeDistance + \left(0.57 \cdot W_{Web} - X_{Web}\right) + 0.25 \cdot in$

$Len \leftarrow \max\left(L_{req}, L_{deta}, L_{detc}, L_{detc}, L_{detd}\right)$

return Len

Compute Required Height of Front Chord Gusset Plates (GF)

$$
\begin{aligned}
H_{FrontPlate} := \;& D_{chord} \leftarrow D_{Chord} \\
& d_{mom} \leftarrow \frac{0.5 \cdot D_{chord}}{\tan\left(\phi_{diagweb}\right)} \\
& L_{Checkaa} \leftarrow d_{mom} + \frac{0.375 \cdot in + X_{Web} \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)} \\
& L_{Checkab} \leftarrow \left(W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25 \cdot in \\
& H_{Checka} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}\right) \cdot \tan\left(\phi_{diagweb}\right) \\
& H_{deta} \leftarrow H_{Checka} + \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots \\
& \qquad + \left(Spacing_{WebBolt} + EdgeDistance\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots \\
& \qquad + EdgeDistance - 0.5 \cdot D_{chord} \\
& L_{Checkba} \leftarrow d_{mom} + \frac{0.375 \cdot in + \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)} \\
& L_{Checkbb} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25 \cdot in \\
& H_{Checkb} \leftarrow \max\left(L_{Checkba}, L_{Checkbb}\right) \cdot \tan\left(\phi_{diagweb}\right) \\
& H_{detb} \leftarrow H_{Checkb} - \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots \\
& \qquad + \left(Spacing_{WebBolt} + EdgeDistance\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots \\
& \qquad + EdgeDistance - 0.5 \cdot D_{chord} \\
& L_{Checkca} \leftarrow d_{mom} + \frac{0.375 \cdot in + X_{Web} \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)} \\
& L_{Checkcb} \leftarrow \left(W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25 \cdot in \\
& H_{Checkc} \leftarrow \max\left(L_{Checkca}, L_{Checkcb}\right) \cdot \tan\left(\phi_{diagweb}\right) \\
& H_{detc} \leftarrow H_{Checkc} + \left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right) \cdots \\
& \qquad + \left(Spacing_{WebBolt} + EdgeDistance\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots \\
& \qquad + EdgeDistance - 0.5 \cdot D_{chord} \\
& L_{Checkda} \leftarrow d_{mom} + \frac{0.375 \cdot in + \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)} \\
& L_{Checkdb} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25 \cdot in
\end{aligned}
$$

$$
\begin{aligned}
&H_{Checkd} \leftarrow \max\left(L_{Checkda}, L_{Checkdb}\right)\cdot\tan\left(\phi_{diagweb}\right)\\
&H_{detd} \leftarrow H_{Checkd} - \left(0.57\cdot W_{Web} - X_{Web}\right)\cdot\cos\left(\phi_{diagweb}\right) \cdots\\
&\qquad + \left(Spacing_{WebBolt} + EdgeDistance\right)\cdot\sin\left(\phi_{diagweb}\right) \cdots\\
&\qquad + EdgeDistance - 0.5\cdot D_{chord}\\
&H_{dete} \leftarrow Spacing_{WebBolt} + 2\cdot EdgeDistance + 0.375\cdot in\\
&Ht \leftarrow \max\left(H_{deta}, H_{detb}, H_{detc}, H_{detd}, H_{dete}\right)\\
&\text{return } Ht
\end{aligned}
$$

Compute Required Length of Center Front Chord Gusset Plate (GG)

The minimum length of the center front chord gusset plate is computed as the minimum length required for detailing.

d_{mom} *- moment arm for calculating moment in gusset plate*

L_{det} *- minimum gusset plate length required for detailing*

$$
\begin{aligned}
L_{CenterPlate} := \quad & d_{mom} \leftarrow \frac{0.5\cdot D_{Chord}}{\tan\left(\phi_{diagweb}\right)}\\
& L_{Checkaa} \leftarrow d_{mom} + \frac{0.375\cdot in + \left(W_{Web} - X_{Web}\right)\cdot\cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)}\\
& L_{Checkab} \leftarrow X_{Web}\cdot\sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25\cdot in\\
& L_{Checkac} \leftarrow X_{Web}\cdot\sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25\cdot in\\
& L_{Checka} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}, L_{Checkac}\right)\\
& L_{det} \leftarrow 2L_{Checka} \cdots\\
& \qquad + 2\cdot\left[\begin{array}{l}\left(0.57\cdot W_{Web} - X_{Web}\right)\cdot\sin\left(\phi_{diagweb}\right) \cdots\\ \quad + \left(EdgeDistance + Spacing_{WebBolt}\right)\cdot\cos\left(\phi_{diagweb}\right) \cdots\\ \quad + EdgeDistance\end{array}\right] \cdots\\
& \qquad + 0.25\cdot in\\
& \text{return } L_{det}
\end{aligned}
$$

$$H_{CenterPlate} := \left| \begin{array}{l} d_{mom} \leftarrow \dfrac{0.5 \cdot D_{Chord}}{\tan\left(\phi_{diagweb}\right)} \\ L_{Checkaa} \leftarrow d_{mom} + \dfrac{0.375 \cdot in + \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\phi_{diagweb}\right)}{\tan\left(\phi_{diagweb}\right)} \\ L_{Checkab} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + X_{Web} + 0.25 \cdot in \\ L_{Checkac} \leftarrow X_{Web} \cdot \sin\left(\phi_{diagweb}\right) + \left(W_{Web} - X_{Web}\right) + 0.25 \cdot in \\ H_{Checka} \leftarrow \max\left(L_{Checkaa}, L_{Checkab}, L_{Checkac}\right) \cdot \tan\left(\phi_{diagweb}\right) \\ H_{deta} \leftarrow H_{Checka} - 0.5 \cdot D_{Chord} \cdots \\ \quad + \left[\begin{array}{l} -\left(0.57 \cdot W_{Web} - X_{Web}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots \\ + \left(EdgeDistance + Spacing_{WebBolt}\right) \cdot \sin\left(\phi_{diagweb}\right) \cdots \\ + EdgeDistance \end{array} \right] \\ H_{dete} \leftarrow Spacing_{WebBolt} + 2 \cdot EdgeDistance + 0.375 \cdot in \\ \text{return } \max\left(H_{deta}, H_{dete}\right) \end{array} \right.$$

$$H_{FrontPlate} := \max\left(H_{FrontPlate}, H_{CenterPlate}\right)$$

Compute ' Gap' Length Required to Avoid Conflicts

Compute the additional space (i.e., gap) required to prevent conflicts between the back chord web members and the front chord to upright connection plates.

$$Gap := \left| \begin{array}{l} gap \leftarrow 0.375 \cdot in \quad \textit{minimum length} \\ XtraLen \leftarrow \dfrac{W_{Web}}{\tan(30 \cdot deg)} + \dfrac{0.375 \cdot in}{\sin(30 \cdot deg)} \\ MinLen \leftarrow \left(W_{Web} - X_{Web}\right) \cdot \cos\left(\theta_{backweb}\right) + 0.375 \cdot in + \dfrac{D_{Chord}}{2} \\ gap \leftarrow \max(XtraLen, MinLen) \\ \text{return } gap \end{array} \right.$$

Compute Required Thickness of Web Member Gusset Plates (GA)

Allowable axial stress for the gusset plates is determined in accordance with AASHTO LTS-6 Article 5.10.

$$tMin_{GusPlate} := 0.500in$$

$t_{GusPlate} :=$

$WebForce \leftarrow MaxForce \cdot \sin(\theta_{backweb})$

$Fy\_Plate \leftarrow 36 \cdot ksi$

$t_{plate} \leftarrow \frac{3}{8} \cdot in$

$t_{Web} \leftarrow 0.500 in$

$k \leftarrow 1.0$ *"pinned-pinned"*

$L_{plate} \leftarrow 0.43 \cdot W_{Web} \cdot \cos(\theta_{backweb}) \ldots$
$+ EdgeDistance \cdot \sin(\theta_{backweb}) + Gap$

$r_{plate} \leftarrow 0.289 \cdot t_{plate}$

$\left[\frac{kL}{r}\right] \leftarrow \frac{k \cdot L_{plate}}{r_{plate}}$

$C_c \leftarrow \sqrt{\frac{2 \cdot \pi^2 \cdot E}{Fy\_Plate}}$

$$Fa \leftarrow \begin{cases} \dfrac{\left[1 - \dfrac{\left(\left[\frac{kL}{r}\right]\right)^2}{2 \cdot C_c^{\,2}}\right] \cdot Fy\_Plate}{\frac{5}{3} + \dfrac{3 \cdot \left[\frac{kL}{r}\right]}{8 \cdot C_c} - \dfrac{\left(\left[\frac{kL}{r}\right]\right)^3}{8 \cdot C_c^{\,3}}} & \text{if } \left[\frac{kL}{r}\right] < C_c \\ \dfrac{12 \cdot \pi^2 \cdot E}{23 \cdot \left(\left[\frac{kL}{r}\right]\right)^2} & \text{if } \left[\frac{kL}{r}\right] \geq C_c \end{cases}$$

$Fa \leftarrow Fa \cdot 1.33$ *apply "group load" factor* [AASHTO Table 3.4-1

while $\left(L_{plate} \cdot t_{plate}\right) \cdot Fa < WebForce$

$t_{plate} \leftarrow t_{plate} + \frac{1}{8} \cdot in$

$r_{plate} \leftarrow 0.289 \cdot t_{plate}$

$\left[\frac{kL}{r}\right] \leftarrow \frac{k \cdot L_{plate}}{r_{plate}}$

$C_c \leftarrow \sqrt{\frac{2 \cdot \pi^2 \cdot E}{Fy\_Plate}}$

$\left[1 - \left(\left[\frac{kL}{r}\right]\right)^2\right]_{Fy\_Pl}$

$$Fa \leftarrow \begin{cases} \left[1 - \frac{\left[\frac{kL}{r}\right]^2}{2 \cdot C_c^2}\right] \cdot Fy\_Plate \\ \hline \frac{5}{3} + \frac{3 \cdot \left[\frac{kL}{r}\right]}{8 \cdot C_c} - \frac{\left(\left[\frac{kL}{r}\right]\right)^3}{8 \cdot C_c^3} \end{cases} \text{ if } \left[\frac{kL}{r}\right] < C_c$$

$$\frac{12 \cdot \pi^2 \cdot E}{23 \cdot \left(\left[\frac{kL}{r}\right]\right)^2} \text{ if } \left[\frac{kL}{r}\right] \geq C_c$$

$Fa \leftarrow Fa \cdot 1.33$

apply "group load" factor [AASHTO Table 3.4-1

while $t_{Web} > \frac{1}{4} \cdot in \wedge t_{plate} + \frac{1}{16} \cdot in < t_{Web}$

$t_{plate} \leftarrow t_{plate} + \frac{1}{8} \cdot in$

if $t_{plate} < tMin_{GusPlate}$

"Apply User-Specified Minimum Plate Thickness"

$t_{plate} \leftarrow tMin_{GusPlate}$

return t_{plate}

Compute Allowable Shear Stress for Fillet Welds

Note: The allowable weld stress computed here is used to design all welds computed by the program.

$F_{weld} :=$

$F_u \leftarrow 70ksi$ [E70xx Electrode]

$F_v \leftarrow 0.27 \cdot F_u$ [AASHTO Bridge Eq. 10-12]

$F_{weld} \leftarrow 0.707 \cdot F_v$

$F_{weld} \leftarrow F_{weld} \cdot 1.33$ *apply "group load" factor* [AASHTO Table 3.4-1]

return F_{weld}

Format Connection Output

$ftin(dim) \equiv$

$str \leftarrow /FIF(dim)$

$str \leftarrow substr(str, search(str, " ", 0) + 1, 10)$ if $substr(str, 0, 1) = "0"$

return str

Format Connection Output

$$\text{ftin}(\text{dim}) \equiv \left| \begin{array}{l} \text{str} \leftarrow \text{/FIF}(\text{dim}) \\ \text{str} \leftarrow \text{substr}(\text{str}, \text{search}(\text{str}, " ", 0) + 1, 10) \quad \text{if} \quad \text{substr}(\text{str}, 0, 1) = "0" \\ \text{return} \quad \text{str} \end{array} \right.$$

Gusset Plates

$$t_{Gus} := \begin{cases} \text{ftin}\left(\text{Round}\left(t_{GusPlate}, 0.0625 \cdot \text{in}\right)\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "n/a" \quad \text{otherwise} \end{cases}$$

$$d_{GusBolt} := \begin{cases} \text{concat}\left(\text{ftin}\left(D_{WebBolt}\right), " \text{ Dia.}"\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "\text{N.G. Web member load exceeds bolt capacity.}" \quad \text{otherwise} \end{cases}$$

$$L_{2AGuss} := \begin{cases} \text{ftin}\left(\text{Round}\left(\frac{L_{BackPlate}}{3}, 0.25 \cdot \text{in}\right)\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "n/a" \quad \text{otherwise} \end{cases}$$

$$H_{Gus} := \begin{cases} \text{ftin}\left(\text{Round}\left(H_{FrontPlate}, 0.25 \cdot \text{in}\right)\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "n/a" \quad \text{otherwise} \end{cases}$$

$$L_{1AGuss} := \begin{cases} \text{ftin}\left(\text{Round}\left(\frac{L_{FrontPlate}}{3}, 0.25 \cdot \text{in}\right)\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "n/a" \quad \text{otherwise} \end{cases}$$

$$L_{3Gus} := \begin{cases} \text{ftin}\left(\text{Round}\left(\frac{L_{CenterPlate}}{3}, 0.25 \cdot \text{in}\right)\right) & \text{if} \quad \text{Type}_{WebBolt} \neq -1 \\ "n/a" \quad \text{otherwise} \end{cases}$$

(TA) $t_{Gus} = "1/2"" \cdot \text{in}$

(TB) $d_{GusBolt} = "7/8" \text{ Dia."}$

(TC) $L_{2AGuss} = "1' 11\text{-}1/2""$

(TD) $H_{Gus} = "6\text{-}1/2""$

(TE) $L_{1AGuss} = "1' 10\text{-}3/4""$

(TF) $L_{3Gus} = "3' 7\text{-}1/2""$

TABLE: Joint Reactions								
Joint	**OutputCase**	**CaseType**	**F1**	**F2**	**F3**	**M1**	**M2**	**M3**
Text	Text	Text	Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
63	DEAD	LinStatic	4.347	0.133	15.019	-0.3566	23.201	2.04
63	DEAD SIGN	LinStatic	1.778	0.002203	3.102	-0.0866	9.7642	0.8359
63	WIND SIGN	LinStatic	-3.657	-4.689	-29.424	9.5387	-14.8052	-4.1635
63	CHORD	LinStatic	-0.838	-1.571	-9.721	3.1912	-3.292	-0.9705
63	TRUSS (FRONT)	LinStatic	-2.356	-4.529	-27.921	9.1933	-9.2822	-2.7215
63	TRUSS (SIDE)	LinStatic	-9.937	-0.062	-1.91	0.1534	-71.5705	-4.4845
63	UPRIGHT (FRONT)	LinStatic	-0.061	-1.857	-6.999	3.3677	-0.2153	-0.08
63	UPRIGHT (SIDE)	LinStatic	-3.937	-0.019	-0.582	0.0468	-26.838	0.9268
63	DL + WL (Front)	Combination	-0.787	-12.51	-55.944	24.8478	5.3705	-5.0595
63	DL + WL (SIDE)	Combination	-11.572	-4.948	-15.739	9.9341	-80.907	-5.0393
63	DL	Combination	6.126	0.135	18.121	-0.4432	32.9652	2.8759
63	DL - WL (Front)	Combination	13.039	12.781	92.186	-25.7341	60.5599	10.8113
64	DEAD	LinStatic	0.677	-0.159	5.691	-0.2252	9.2332	2.1782
64	DEAD SIGN	LinStatic	0.271	-0.008057	-0.462	-0.075	4.0351	0.8973
64	WIND SIGN	LinStatic	3.111	-7.004	29.432	11.7661	11.7038	-3.7723
64	CHORD	LinStatic	0.738	-2.347	9.722	3.9375	2.8827	-0.877
64	TRUSS (FRONT)	LinStatic	2.063	-6.765	27.923	11.3445	8.0374	-2.4609
64	TRUSS (SIDE)	LinStatic	-1.561	-0.084	-0.15	0.1723	-40.4583	-5.0636
64	UPRIGHT (FRONT)	LinStatic	0.067	-2.628	6.999	4.1261	0.2921	-0.0722
64	UPRIGHT (SIDE)	LinStatic	-4.498	-0.025	-0.02	0.0526	-29.8294	-0.2126
64	DL + WL (Front)	Combination	6.927	-18.912	79.306	30.874	36.1843	-4.1068
64	DL + WL (SIDE)	Combination	-1.853	-7.75	36.436	12.4783	-44.7391	-6.1483
64	DL	Combination	0.948	-0.167	5.229	-0.3002	13.2683	3.0756
64	DL - WL (Front)	Combination	-5.032	18.577	-68.848	-31.4744	-9.6477	10.2579
		MAX	13.039	18.912	92.186	31.4744	80.907	10.8113

Pedestal Calculations for Sign & Signal Structures

SUBJECT I-95 EXPRESS LANES, PHASE 3B-1

STA. 3179+00.00

DESIGNED BY JR DATE 04/13/2018

CHECKED BY MV DATE 04/13/2018

Input

$b_{concrete} := 2.50 \cdot ft$

Applied Loads

$M_x := 80.907 \cdot kip \cdot ft$ $V_x := 18.912 \cdot kip$ $Torsion := 10.8113 \cdot kip \cdot ft$

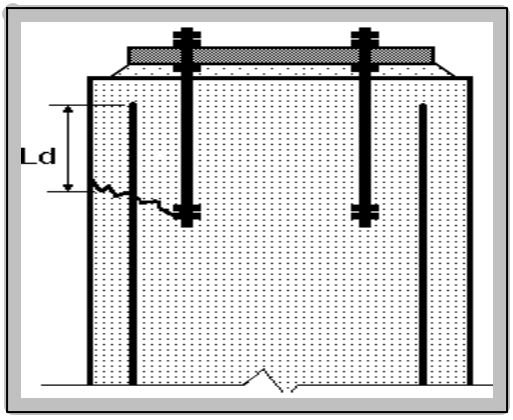
$M_z := 31.4744 \cdot kip \cdot ft$ $V_z := 13.039 \cdot kip$ $Axial := 92.186 \cdot kip$

$f_c := 5.5 \cdot ksi$ *concrete strength pedestal*

$cover := 2 \cdot in$ *cover*

$d_{v.bar} := 0.625 in$

Anchor Bolt Embedment



$Num_{anchor} := 8$ *number of anchor bolts*

$d_{anchor} := 2.00 \cdot in$ *anchor bolt diameter* ***[ASTM F1554-04]***

$Upright_{diameter} := 12in$ $Upright\_Thickness := 0.500in$

$Diameter_{boltcircle.anchor} := \left(Upright_{diameter} + 6in\right) = 18 \cdot in$

Check clearance between anchor bolts and DrilledShaft reinforcement

$$EdgeAnchorBolt := \frac{Diameter_{boltcircle.anchor}}{2} + \frac{d_{anchor}}{2} = 10 \cdot in$$

$Edge_{baseplate} := Upright_{diameter} + 12in = 24 \cdot in$

$$EdgeReinforcement := \frac{b_{concrete}}{2} - \left(cover + d_{v.bar}\right) = 12.4 \cdot in$$

$Check_{clearance.anchor} := if(EdgeReinforcement \geq EdgeAnchorBolt, "OK", "No Good")$ $Check_{clearance.anchor} = "OK"$

$F_{t.anchor} := 93.7 \cdot kip$ *anchor bolt tensile load (see F.t.anchor calc below)*

F.t.anchor calculation (double click gray line below)

FTanchor

$$M_{anchor} := \sqrt{M_x^2 + M_z^2} = 86.8 \cdot kip \cdot ft$$

Input appropriate applied loads M.x and M.y on page 1.

$$n := \begin{cases} 8 & \text{if } d_{anchor} = 1.0 \cdot in \\ 6 & \text{if } d_{anchor} = 1.5 \cdot in \\ 5 & \text{if } d_{anchor} = 1.75 \cdot in \\ 4.5 & \text{if } 2 \cdot in \le d_{anchor} \le 2.25 \cdot in \\ 4 & \text{if } d_{anchor} \ge 2.5 \cdot in \end{cases}$$

threads per inch

ASTM F1554

$$n = 4.5$$

$$A_{net.anchor} := \frac{\pi}{4} \cdot \left(d_{anchor} - \frac{0.9743}{\frac{n}{in}} \right)^2 = 2.50 \cdot in^2$$

AASHTO Eqn 5.17.4.2-4

$$I_{anchor} := \frac{Diameter_{boltcircle.anchor}^2}{8} \cdot A_{net.anchor} \cdot Num_{anchor} = 809.4 \cdot in^4$$

$$S_{anchor} := \frac{I_{anchor}}{\frac{Diameter_{boltcircle.anchor}}{2}} = 89.9 \cdot in^3$$

$$f_{t.anchor} := \frac{M_{anchor}}{S_{anchor}} = 11.6 \cdot ksi$$

$$F_{t.anchor.calc} := f_{t.anchor} \cdot A_{net.anchor} = 28.9 \cdot kip$$

Copy F.t.anchor.calc result into F.t.anchor input above.

$$V_{csr.pole} := \sqrt{(V_x)^2 + (V_z)^2} = 23.0 \cdot kip$$

$$V_{u.rod} := \frac{V_{csr.pole}}{Num_{anchor}} + \frac{Torsion}{\left(\frac{Diameter_{boltcircle.anchor}}{2} \right) \cdot Num_{anchor}} = 4.7 \cdot kip$$

$$f_{v.rod} := \frac{V_{u.rod}}{A_{net.anchor}} = 1.9 \cdot ksi$$

$$F_{y.rod} := 55 \cdot ksi$$

$$F_{t.rod} := 0.5 \cdot F_{y.rod} = 27.5 \cdot ksi$$

AASHTO Eqn 5.17.4.2-1

$F_{v.rod} := 0.3 \cdot F_{y.rod} = 16.5 \cdot ksi$ AASHTO Eqn 5.17.4.2-3

$$CSR_{rod} := \left(\frac{f_{t.anchor}}{1.33F_{t.rod}}\right)^2 + \left(\frac{f_{v.rod}}{1.33F_{v.rod}}\right)^2$$ AASHTO Eqn 5.17.4.2-5

$CSR_{rod} = 0.108$

Use the AISC LRFD Code, 2nd Edition, for Design of Elements Where Possible

Design of bolts based on "Design Guide for Steel to Concrete Connections by Cook, Doerr & Klingne Research Report 1126-4F by the Bureau of Engineering Research at the Univ. of Texas at Austin

$T_{u.rod.old} := 1.3 \cdot F_{t.anchor} = 121.8 \cdot kip$

$V_{u.rod.old} := 1.3 \cdot V_{u.rod} = 6.1 \cdot kip$

(use a 1.3 load factor since loads are a mix of wind load and dead load)

$$A_{net.rod.old} := 0.75 \cdot \pi \cdot \left(\frac{d_{anchor}}{2}\right)^2 = 2.36 \cdot in^2$$

$F_{u.rod} := 75 \cdot ksi$

$T_{s.rod} := A_{net.rod.old} \cdot F_{u.rod} = 176.7 \cdot kip$

$\gamma := 0.5$ *(property of embedded rods)*

$$T_{n.rod} := \sqrt{T_{s.rod}^2 - \left(\frac{V_{u.rod}}{\gamma}\right)^2}$$

$0.75 \cdot T_{n.rod} = 132.4 \cdot kip$ ***(if greater than actual rod tension, bolts are OK)***

$$PR_{rod} := \frac{T_{u.rod.old}}{0.75 \cdot T_{n.rod}}$$

$PR_{rod} = 0.920$

$$Anchor\_Bolt\_Capacity\_Check := \begin{cases} \text{"OK"} & \text{if } CSR_{rod} \le 1 \wedge PR_{rod} \le 1 \\ \text{"No Good"} & \text{otherwise} \end{cases}$$

Anchor_Bolt_Capacity_Check = "OK"

FTanchor

$L_{embedment.anchor} := 20.d_{anchor} + 12in = 52 \cdot in$

$LF_{shr} := 1.3$ *Shear Load Factor*

$LF_{tor} := 1.3$ *Torsion Load Factor*

1.3 is a reasonable Load Factor for combined WL + DL on sign and signal structures

$V_u := LF_{shr} \cdot \sqrt{V_x^2 + V_z^2} = 29.9 \cdot kip$

$T_u := LF_{tor} \cdot Torsion = 14.1 \cdot kip \cdot ft$

Anchor Bolt Shear Break-Out Strength

References:
ACI 318-05 Appendix D.
FDOT/University of Florida Report BD545 RPWO #54, Anchor Embedment Requirements for Signal/Sign Structures, July 2007.

$r_b := \frac{Diameter_{boltcircle.anchor}}{2}$ $r_b = 9 \cdot in$

$r := \frac{b_{concrete}}{2}$ $r = 15 \cdot in$

$c_{a1} := \frac{\sqrt{r_b^2 + 3.25 \cdot \left(r^2 - r_b^2\right)} - r_b}{3.25}$ $c_{a1} = 4.44 \cdot in$ *adjusted cover*

UF Report Eqn 3-2

$L_e := \min\left(8 \cdot d_{anchor}, L_{embedment.anchor}\right)$ $L_e = 16 \cdot in$ *load bearing length of anchor for shear*

ACI D.6.2.2

$V_b := 13 \cdot \left(\frac{L_e}{d_{anchor}}\right)^{0.2} \cdot \sqrt{\frac{d_{anchor}}{in}} \cdot \sqrt{\frac{f_c}{psi}} \left(\frac{c_{a1}}{in}\right)^{1.5} \cdot lbf$

$V_b = 19.3 \cdot kip$ *shear break-out strength (single anchor)*

UF Report Eqn 2-11

$A := \frac{(360 \cdot deg)}{Num_{anchor}}$ $A = 45 \cdot deg$ *UF Report Fig 3-7*

$\alpha := 2 \operatorname{asin}\left[\frac{\left(1.5 \cdot c_{a1}\right)}{r}\right]$ $\alpha = 52.7 \cdot deg$

OverlapTest := if(A ≤ α, "Overlap of Failure Cones" , "No Overlap of Failure Cones")

OverlapTest = "Overlap of Failure Cones"

$chord := 2 \cdot r \cdot \sin\left(\frac{A}{2}\right)$ $chord = 11.5 \cdot in$ *UF Report Fig 3-7*

$A_{Vco} := 4.5 \cdot c_{a1}^2$ $A_{Vco} = 88.7 \cdot in^2$ *projected concrete failure area (single anchor)*

ACI Eqn D-23

$A_{Vc} := chord \cdot 1.5 \cdot c_{a1}$ $A_{Vc} = 76.5 \cdot in^2$ *projected concrete failure area (group)*

ACI D.6.2.1

$A_{Vc} := \text{if}\left(A_{Vc} > A_{Vco}, A_{Vco}, A_{Vc}\right)$ $A_{Vc} = 76.5 \cdot in^2$

$\psi_{ecV} := 1.0$	*eccentric load modifier*	*ACI D.6.2.5*	
$\psi_{edV} := 1.0$	*edge effect modifier*	*ACI D.6.2.6*	
$\psi_{cV} := 1.4$	*cracked section modifier*	*ACI D.6.2.7*	*(stirrup spacing <= 4")*
$\psi_{hV} := 1.0$	*member thickness modifier*	*ACI D.6.2.8*	
$\phi_{breakout} := 0.75$	*strength reduction factor*	*ACI D.4.4.c.i*	*(shear breakout, condition A)*

$V_{cbg} := Num_{anchor} \cdot \left(\frac{A_{Vc}}{A_{Vco}}\right) \cdot \left(\psi_{ecV} \cdot \psi_{edV} \cdot \psi_{cV} \cdot \psi_{hV}\right) \cdot V_b$ $V_{cbg} = 186.6 \cdot kip$ *concrete breakout strength - shear*

ACI Eqn D-22 *Shear force ⊥ to edge*

$V_{cbg\_parallel} := 2 \cdot V_{cbg}$ $V_{cbg\_parallel} = 373.3 \cdot kip$ *ACI D.6.2.1.c* *Shear force || to edge*

$T_{n.breakout} := V_{cbg\_parallel} \cdot r_b$ $T_{n.breakout} = 280 \cdot kip \cdot ft$ *concrete breakout strength - torsion*

$\phi_{breakout} \cdot T_{n.breakout} = 210 \cdot kip \cdot ft$

$T_u = 14.1 \cdot kip \cdot ft$

$\text{BreakoutTest} := \text{if}\left(\phi_{breakout} \cdot T_{n.breakout} \geq T_u, \text{"OK"}, \text{"No Good"}\right)$ BreakoutTest = "OK"

$\text{OverlapDesign} := \text{if}(A \leq \alpha, \text{"Based on Overlap of Failure Cones"}, \text{"Based on No Overlap of Failure Cones"})$

OverlapDesign = "Based on Overlap of Failure Cones"

References

LRFD = AASHTO LRFD Bridge Design Specifications

LTS = AASHTO Luminaire, Traffic Signal, and Sign Structure Specifications.

SM = FDOT Structures Manual

SDG = FDOT Structures Design Guidelines

Spec = FDOT Standard Specifications

ACI = ACI 318 Structural Concrete Building Code

Check Anchor Bolt Stress and Minimum Spacing

$$BoltStress := \frac{F_{t.anchor.calc}}{A_{net.anchor}} = 11.6 \cdot ksi$$

$$MaxShear := \sqrt{V_x^{\,2} + V_z^{\,2}} = 23 \cdot kip$$

$$BoltShear := \left(\frac{MaxShear}{Num_{anchor}} + \frac{|Torsion|}{Num_{anchor} \cdot r_b} \right) = 4.7 \cdot kip$$

$$AllowStress := \left[\begin{array}{l} 0 \cdot ksi \quad \text{if} \quad \frac{1.3 \cdot BoltShear}{0.5} \geq 0.75 \cdot (75 \cdot ksi) \cdot A_{net.anchor} \\ \frac{\left(\frac{0.75}{1.3}\right) \cdot \sqrt{\left[0.75 \cdot (75 \cdot ksi) \cdot A_{net.anchor}\right]^2 - \left(\frac{1.3 \cdot BoltShear}{0.5}\right)^2}}{A_{net.anchor}} \quad \text{otherwise} \end{array} \right]$$

return $AllowStress = 32.3 \cdot ksi$

$BoltStressCheck := if(AllowStress \geq BoltStress, "OK", "No Good")$ $BoltStressCheck = "OK"$

$$\theta_{bolts} := \frac{360deg}{Num_{anchor}} = 45 \cdot deg$$

$$Distance\_Between\_Bolts := 2 \cdot r_b \cdot \sin\left(\frac{\theta_{bolts}}{2}\right) = 6.89 \cdot in$$

$$Minimum\_Spacing := 3 \cdot d_{anchor} = 6 \cdot in$$

$Bolt\_Minimum\_Spacing\_Check := if(Distance\_Between\_Bolts \geq Minimum\_Spacing, "OK", "No Good")$

$Bolt\_Minimum\_Spacing\_Check = "OK"$

Base Plate Calculations

Compute Base Plate Thickness

Minimum base plate thicknesses are determined using the formula on page 410 of the 5th edition of Roark's "Formulas for Stress and Strain" by Raymond Roark and Warren Young.

Anchor_Bolt_Tension := $F_{t.anchor.calc}$

Min_Base_Plate_Thickness := 1.50in

Base_PL_Thickness :=
W ← Anchor_Bolt_Tension
FOS ← 2.12 *factor of safety* **[AASHTO Bridge Table 10.32.1A]**
$W_u \leftarrow W \cdot FOS$
$F_{y\_plate} \leftarrow 36 \cdot ksi$
$\sigma_y \leftarrow F_{y\_plate}$
$\sigma_y \leftarrow \sigma_y$ *apply "group load" factor* **[AASHTO Table 3.4-1]**
$t_{plate} \leftarrow \sqrt{\frac{2 \cdot W_u}{\pi \cdot \sigma_y}}$ **[Roark (Ref.45)]**
$t_{plate} \leftarrow Min\_Base\_Plate\_Thickness$ if $t_{plate} < Min\_Base\_Plate\_Thickness$
return t_{plate}

Base_PL_Thickness = 1.500·in

Compute Stiffener Plate Thickness

The buckling of the vertical plates is investigated using the discussion on pages 752 through 765 in the 2nd edition of the book "Steel Structures" by Charles Salmon and John Johnson

Min_Stiffener_Thickness := 0.500in

Stiffener_Thickness :=
P ← Anchor_Bolt_Tension
FOS ← 2.0 *factor of safety*
$F_{y\_stiff} \leftarrow 36 \cdot ksi$
$b_{stiff} \leftarrow 6.in$
$t_{stiff} \leftarrow \frac{P \cdot FOS}{0.90 \cdot F_{y\_stiff} \cdot (b_{stiff}) \cdot 2}$ **[Salmon Eq. 13.4.4]**
$t_{stiff} \leftarrow Min\_Stiffener\_Thickness$ if $t_{stiff} < Min\_Stiffener\_Thickness$
return t_{stiff}

Stiffener_Thickness = 0.500·in

Compute Stiffener Plate Height

In accordance with AASHTO LTS-6 Article 5.14.4, "only tapered stiffeners having a termination angle of 15 degrees on the tube at the tip of the stiffener shall be used."

Stiffener_Height :=
StiffWidth ← 6.in
$\theta_{stiff} \leftarrow 15 \cdot deg$
$StiffHeight \leftarrow \frac{StiffWidth - 1 \cdot in}{\tan(\theta_{stiff})} + 1 \cdot in$
return StiffHeight

$Stiffener\_Height = 19.660 \cdot in$

Compute Allowable Shear Stress for Fillet Welds

Note: The allowable weld stress computed here is used to design all welds computed by the program.

F_{weld} :=
$F_u \leftarrow 70ksi$ *[E70xx Electrode]*
$F_v \leftarrow 0.27 \cdot F_u$ *[AASHTO Bridge Eq. 10-12]*
$F_{weld} \leftarrow 0.707 \cdot F_v$
$F_{weld} \leftarrow F_{weld}$ *apply "group load" factor* *[AASHTO Table 3.4-1]*
return F_{weld}

$F_{weld} = 13.362 \cdot ksi$

Design Base Plate to Upright Welds

Base_PL_to_Upright_Welds :=
$WeldRadius \leftarrow \frac{Upright_{diameter}}{2}$
$WeldForce \leftarrow \frac{MaxShear + \frac{Torsion}{WeldRadius}}{2 \cdot \pi \cdot WeldRadius}$
$Weld_{req} \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right)$
$Weld_{in} \leftarrow Floor\left(Upright\_Thickness, \frac{1}{16} \cdot in\right) - \frac{1}{16} \cdot in$
$Weld_{out} \leftarrow Weld_{req} - Weld_{in}$
$Weld_{out} \leftarrow \frac{5}{16} \cdot in \text{ if } Weld_{out} < \frac{5}{16} \cdot in$
$Weld_{in} \leftarrow \frac{5}{16} \cdot in \text{ if } Weld_{req} - Weld_{out} < Weld_{in} \wedge Weld_{req} - Weld_{out} < \frac{5}{16} \cdot in$
$Diff \leftarrow Weld_{req} - (Weld_{in} + Weld_{out})$
$Weld_{in} \leftarrow Weld_{in} - Diff \text{ if } Diff \geq \frac{1}{16} \cdot in$
$Weld_{in} \leftarrow \frac{5}{16} \cdot in \text{ if } Weld_{in} < \frac{5}{16} \cdot in$
$Welds_0 \leftarrow Weld_{in}$
$Welds_1 \leftarrow Weld_{out}$
return Welds

$$Base\_PL\_Inside\_Weld := Base\_PL\_to\_Upright\_Welds_0 \qquad Base\_PL\_Inside\_Weld = 0.3125 \cdot in$$

$$Base\_PL\_Outside\_Weld := Base\_PL\_to\_Upright\_Welds_1 \qquad Base\_PL\_Outside\_Weld = 0.3125 \cdot in$$

Design Stiffener Plate to Base Plate Weld

$$\begin{aligned} Stiff\_PL\_to\_Base\_PL\_Weld := \; & WeldForce \leftarrow \frac{Anchor\_Bolt\_Tension}{2 \cdot (6.in - 0.75 \cdot in)} \\ & WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right) \\ & WeldSize \leftarrow \frac{5}{16} \cdot in \quad if \quad WeldSize < \frac{5}{16} \cdot in \\ & return \quad WeldSize \end{aligned}$$

$$Stiff\_PL\_to\_Base\_PL\_Weld = 0.3125 \cdot in$$

Design Stiffener Plate to Upright Weld

$$\begin{aligned} Stiff\_PL\_to\_Upright\_Weld := \; & BoltTension \leftarrow Anchor\_Bolt\_Tension \\ & StiffHt \leftarrow Stiffener\_Height \\ & WeldForce \leftarrow \frac{\sqrt{\left[\frac{(18 \cdot in) \cdot BoltTension}{(StiffHt - 0.75 \cdot in)^2}\right]^2 + \left(\frac{BoltTension}{StiffHt - 0.75 \cdot in}\right)^2}}{2} \\ & WeldSize \leftarrow Round\left(\frac{WeldForce}{F_{weld}} + \frac{0.499}{16} \cdot in, \frac{1}{16} \cdot in\right) \\ & WeldSize \leftarrow \frac{3}{16} \cdot in \quad if \quad WeldSize < \frac{3}{16} \cdot in \\ & return \quad WeldSize \end{aligned}$$

$$Stiff\_PL\_to\_Upright\_Weld = 0.1875 \cdot in$$

Check Stiffener Thickness to Upright Wall Thickness Ratio

In accordance with AASHTO LTS-6 Article 5.14.4, "the ratio of the stiffener thickness to the tube wall thicknesses shall not exceed 1.25".

$$\text{Stiffener\_to\_Upright\_Thickness\_Check} := \begin{cases} \text{"OK"} & \text{if } \frac{\text{Stiffener\_Thickness}}{\text{Upright\_Thickness}} \le 1.25 \\ \text{"N.G. Select an upright member with thicker walls."} & \text{otherwise} \end{cases}$$

Additional Base Connection Check

Stiffener_to_Upright_Thickness_Check = "OK"

Base Plate Calculations

Connection Output

Connection Values

Base Connection

Note: All truss bolted connections use A325 bolts, and upright anchor bolts are ASTM F1554. All welds are sized assuming E70xx electrodes.

(BA) Anchor_Bolt_Size = 2.00·in

(BB) Number_of_Anchor_Bolts_Reqd = 8

(BC) Base_Plate_Thickness = 1.5·in

(BD) $\text{Stiffener\_Plate\_Thickness} = \frac{1}{2}\cdot\text{in}$

(BE) Stiffener_Plate_Height = 20·in

(BF) $\text{Inside\_Base\_Plate\_Fillet\_Weld} = \frac{5}{16}\cdot\text{in}$

(BG) $\text{Outside\_Base\_Plate\_Fillet\_Weld} = \frac{5}{16}\cdot\text{in}$

(BH) $\text{Stiffener\_PL\_to\_Base\_PL\_Fillet\_Weld} = \frac{5}{16}\cdot\text{in}$

(BJ) $\text{Stiffener\_PL\_to\_Upright\_Fillet\_Weld} = \frac{3}{16}\cdot\text{in}$

Anchor Bolt Lengths

(BK) $\text{Anchor\_Bolt\_Embed\_Length} := L_{embedment.anchor} = 52\cdot\text{in}$

$\text{Pedestal\_Minimum\_Width} := b_{concrete} = 2.5\,\text{ft}$

SUBJECT I-95 EXPRESS LANES, PHASE 3B-1

DESIGNED BY JR DATE 07/24/2018
CHECKED BY MV DATE 07/24/2018

STA 3179+00.00 DMS Special Cantilever
Pile Cap Calculations

Description

This section provides the criteria for the pile cap design.

Section

A **Input Variables**

B **Moment Design**

- B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]
- B2. Limits for Reinforcement [LRFD 5.7.3.3]
- B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]
- B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]
- B5. Mass Concrete Provisions [SDG 3.9]

C **Shear and Torsion Design [LRFD 5.8]**

- C1. Check if Torsion Design is Required
- C2. Determine Nominal Shear Resistance
- C3. Transverse Reinforcement

D **Summary of Reinforcement Provided**

A. Input Variables

Material Properties

Unit weight of concrete..... $\gamma_{conc} := 150 \cdot pcf$

Modulus of elasticity for reinforcing steel..... $E_s := 29000 \cdot ksi$

Yield strength of reinforcing steel..... $f_y := 60 \cdot ksi$

Note: Epoxy coated reinforcing not allowed on FDOT projects. **[SDG 4.1]**

Design Parameters **[LRFD 5.5.4.2]**

Resistance Factor for Flexure and tension of reinforced concrete..... $\phi := 0.90$

Resistance Factor for Shear and torsion of normal weight concrete..... $\phi_v := 0.90$

Florida DOT Concrete & Environment [SDG 1.4]

The environment can be classified as either "Slightly", "Moderately" or "Extremely" aggressive.
Per 1.02 General Notes:

Environmental classification for substructure..... $Environment_{sub} \equiv "Moderately"$

Concrete cover for substructure not in contact with water..... $cover_{sub} := \begin{cases} 4 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 3 \cdot in & \text{otherwise} \end{cases} = 3 \cdot in$

Concrete cover for substructure cast against earth or in contact with water..... $cover_{sub.earth} := \begin{cases} 4.5 \cdot in & \text{if } Environment_{sub} = "Extremely" \\ 4 \cdot in & \text{otherwise} \end{cases} = 4 \cdot in$

Minimum 28-day compressive strength of concrete components..... $f_{c.sub} := 5.5 \cdot ksi$
(Class IV, Cast-in-place Substructure)

Correction factor for Florida lime rock coarse aggregate..... $K_1 := 0.9$

Unit Weight of Florida lime rock concrete (kcf)..... $w_{c.limerock} := .145 \frac{kip}{ft^3}$

Modulus of elasticity for substructure..... $E_{c.sub} := 33000 \cdot K_1 \cdot \left(\frac{w_{c.limerock}}{\frac{kip}{ft^3}} \right)^{1.5} \sqrt{f_{c.sub} \cdot ksi} = 3846 \cdot ksi$

Pile Cap Geometry

Height of pier cap..... $h_{Cap} := 2.50ft$

Width of pier cap..... $b_{Cap} := 6ft$

Length of pier cap..... $L_{Cap} := 12ft$

Design Loads - Moments, Shears and Torques

"Service Loads for the footing, utilized only to check for crack control"

"Maximum loads are obtained from FDOT Cantilever Program and FB-Multipier"

"1.3 Load Factor (Strength1) included since loads are a mix of wind load and dead load"

Moment (M) - Service..... $M_{Service1.pos} := 80.907ft \cdot kip$

$M_{Strength1.pos} := 1.3 \cdot M_{Service1.pos} = 105.2 \cdot ft \cdot kip$

Axial (V) - Service ..... $V_{Service.neg} := 92.186kip$

$V_{Strength1.neg} := 1.3 \cdot V_{Service.neg} = 119.8 \cdot kip$

Torsion (Trans Moment) - Service ..... $T_{Service.neg} := 10.8113 \cdot ft \cdot kip$

$T_{Strength1.neg} := 1.3 \cdot T_{Service.neg} = 14.1\ ft \cdot kip$

B. Moment Design

A few recommendations on bar size and spacing are available to minimize problems during construction.

- Use the same size and spacing of reinforcing for both the negative and positive moment regions. This prevents field errors whereas the top steel is mistakenly placed at the bottom or vice versa.
- If this arrangement is not possible, give preference to maintaining the same spacing between the top and bottom reinforcement. Same grid pattern allows the concrete vibrator to be more effective in reaching the full depth of the cap.

The design procedure consists of calculating the reinforcement required to satisfy the design moment, then checking this reinforcement against criteria for crack control, minimum reinforcement, maximum reinforcement, shrinkage and temperature reinforcement, and distribution of reinforcement. The procedure is the same for both positive and negative moment regions.

$$M_r := M_{Strength1.pos} = 105 \cdot ft \cdot kip$$

Factored resistance

$$M_r = \phi \cdot M_n$$

Nominal flexural resistance

$$M_n = A_{ps} \cdot f_{ps} \cdot \left(d_p - \frac{a}{2} \right) + A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right) - A'_s \cdot f'_s \cdot \left(d'_s - \frac{a}{2} \right) + 0.85 \cdot f'_c \cdot \left(b - b_w \right) \cdot h_f \cdot \left(\frac{a}{2} - \frac{h_f}{2} \right)$$

For a rectangular, non-prestressed section,

$$M_n = A_s \cdot f_s \cdot \left(d_s - \frac{a}{2} \right)$$

$$a = \frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b}$$

Assume $f_s := f_y$ [LRFD 5.7.2.1]

B1. Positive Moment Region Design - Flexural Resistance [LRFD 5.7.3.2]

Using variables defined in above.....

$$M_r = \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b} \right) \right]$$

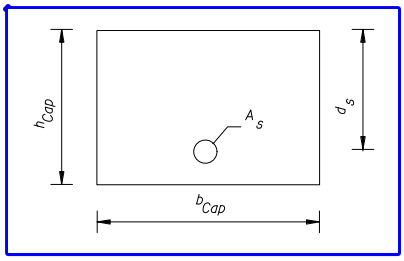
where $f_{c.sub} = 5.5 \cdot ksi$

$f_y = 60 \cdot ksi$

$\phi = 0.9$

$h_{Cap} = 30 \cdot in$

$b_{Cap} = 72 \cdot in$



Initial assumption for area of steel required

Number of bars..... $n_{bar} := 12$

Size of bar..... $bar := "5"$

Note: if bar spacing is "-1", the spacing is less than 3", and a bigger bar size should be selected.

Bar area..... $A_{bar} = 0.310 \cdot in^2$

Bar diameter..... $dia = 0.625 \cdot in$

Equivalent bar spacing..... $bar_{spa} = 5.9 \cdot in$

Area of steel provided..... $A_{s.pos} := n_{bar} \cdot A_{bar} = 3.72 \cdot in^2$

Distance from extreme compressive fiber to centroid of reinforcing steel (assuming a #6 stirrup)..... $d_s := h_{Cap} - cover_{sub} - \frac{dia}{2} - \frac{3}{4}in = 25.9 \cdot in$

Stress block factor..... $\beta_1 := \min\left[\max\left[0.85 - 0.05 \cdot \left(\frac{f_{c.sub} - 4ksi}{ksi} \right), 0.65 \right], 0.85 \right] = 0.78$

Distance between the neutral axis and compressive face..... $c := \frac{A_{s.pos} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot \beta_1 \cdot b_{Cap}} = 0.86 \cdot in$

Initial assumption for the area of steel required, this process is iterative..... $A_{sreq} := A_{s.pos} = 3.72 \cdot in^2$

Solve the quadratic equation for the area of steel required..... Given $M_r = \phi \cdot A_{sreq} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{sreq} \cdot f_s}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right]$

Area of steel required..... $A_{s.required} := Find(A_{sreq}) = 0.9 \cdot in^2$

The area of steel provided, $A_{s.pos} = 3.72 \cdot in^2$, should be greater than the area of steel required, $A_{s.required} = 0.90 \cdot in^2$. If not, decrease the spacing of the reinforcement. Once $A_{s.pos}$ is greater than $A_{s.reqd}$, the proposed reinforcing is adequate for the applied moments.

Moment capacity provided..... $M_{r.pos} := \phi \cdot A_{s.pos} \cdot f_s \cdot \left[d_s - \frac{1}{2} \cdot \left(\frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} \right) \right] = 428.6 \cdot kip \cdot ft$

Check assumption that $f_s = f_y$..... $Check\_f_s := if\left(\frac{c}{d_s} < 0.6, "OK", "Not OK" \right)$ $Check\_f_s = "OK"$

B2. Limits for Reinforcement [LRFD 5.7.3.3]

Minimum Reinforcement

The minimum reinforcement requirements ensure the moment capacity provided is at least equal to the lesser of the cracking moment and 1.33 times the factored moment required by the applicable strength load combinations.

Modulus of Rupture..... $f_r := -0.24 \cdot \sqrt{f_{c.sub} \cdot ksi} = -562.8 \, psi$ [SDG 1.4.1.B]

Section modulus of cap..... $S := \frac{b_{Cap} \cdot h_{Cap}^2}{6} = 10800 \cdot in^3$

Flexural cracking variability factor..... $\gamma_1 := 1.6$

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement..... $\gamma_3 := 0.67$ (for ASTM A615, Grade 60 reinforcing steel, per SDG 1.4.1.C)

Cracking moment..... $M_{cr} := \gamma_3 \cdot \gamma_1 \cdot f_r \cdot S = -543 \cdot kip \cdot ft$

Required flexural resistance..... $M_{r.reqd} := \min\left(\left| M_{cr} \right|, 133 \cdot \% \cdot M_r \right) = 139.9 \cdot kip \cdot ft$

Check that the capacity provided, $M_{r.pos} = 428.6 \, ft \cdot kip$, exceeds minimum requirements, $M_{r.reqd} = 139.9 \, ft \cdot kip$.

$$LRFD_{5.7.3.3.2} := \begin{cases} "OK, minimum reinforcement for positive moment is satisfied" & \text{if } M_{r.pos} \geq M_{r.reqd} \\ "NG, reinforcement for positive moment is less than minimum" & \text{otherwise} \end{cases}$$

$LRFD_{5.7.3.3.2} = "OK, minimum reinforcement for positive moment is satisfied"$

B3. Crack Control by Distribution Reinforcement [LRFD 5.7.3.4]

Concrete is subjected to cracking. Limiting the width of expected cracks under service conditions increases the longevity of the structure. Potential cracks can be minimized through proper placement of the reinforcement. The check for crack control requires that the actual stress in the reinforcement should not exceed the service limit state stress (LRFD 5.7.3.4). The stress equations emphasize bar spacing rather than crack widths.

The maximum spacing of the mild steel reinforcement for control of cracking at the service limit state shall satisfy.....

$$s \le \frac{700 \cdot \gamma_e}{\beta_s \cdot f_{ss}} - 2 \cdot d_c$$

where

$$\beta_s = 1 + \frac{d_c}{0.7\left(h - d_c\right)}$$

Exposure factor for Class 1 exposure condition.....

$\gamma_e := 1.00$ **[SDG 3.15.8]**

Overall thickness or depth of the component.....

$h_{Cap} = 2.5\,ft$

Distance from extreme tension fiber to center of closest bar.....

$$d_c := cover_{sub} + \frac{dia}{2} + \frac{3}{4}in = 4.06 \cdot in$$

$$\beta_s := 1 + \frac{d_c}{0.7\left(h_{Cap} - d_c\right)} = 1.22$$

The neutral axis of the section must be determined to determine the actual stress in the reinforcement. This process is iterative, so an initial assumption of the neutral axis must be made.

Guess value $x := 36 \cdot in$

Given

$$\frac{1}{2} \cdot b_{Cap} \cdot x^2 = \frac{E_s}{E_{c.sub}} \cdot A_{s.pos} \cdot \left(d_s - x\right)$$

$$x_{na} := Find(x) = 4.12 \cdot in$$

Tensile force in the reinforcing steel due to service limit state moment.....

$$T_s := \frac{M_{Service1.pos}}{d_s - \frac{x_{na}}{3}} = 39.5 \cdot kip$$

Actual stress in the reinforcing steel due to service limit state moment.....

$$f_{s.actual} := \frac{T_s}{A_{s.pos}} = 10.63 \cdot ksi$$

Required reinforcement spacing.....

$$s_{required} := \frac{700 \cdot \gamma_e \cdot \frac{kip}{in}}{\beta_s \cdot f_{s.actual}} - 2 \cdot d_c = 45.71 \cdot in$$

Provided reinforcement spacing.....

$$bar_{spa} = 5.89 \cdot in$$

The required spacing of mild steel reinforcement in the layer closest to the tension face shall not be less than the reinforcement spacing provided due to the service limit state moment.

$$LRFD_{5.7.3.4} := \begin{cases} \text{"OK, crack control for M is satisfied"} & \text{if } s_{required} \geq bar_{spa} \\ \text{"NG, crack control for M not satisfied, provide more reinforcement"} & \text{otherwise} \end{cases}$$

$LRFD_{5.7.3.4} = \text{"OK, crack control for M is satisfied"}$

B4. Shrinkage and Temperature Reinforcement [LRFD 5.10.8]

Initial assumption for area of steel required

Size of bar..... $bar_{st} := "5"$

Spacing of bar..... $bar_{spa.st} := 4.8 \cdot in$

Bar area..... $A_{bar} = 0.31 \cdot in^2$

Bar diameter..... $dia = 0.625 \cdot in$

Minimum area of shrinkage and temperature reinforcement.....

$$A_{shrink.temp} := \min\left[\left[\max\left[\left[\begin{matrix}\left(0.60\,\frac{in^2}{ft}\right)\\ \left(0.11\,\frac{in^2}{ft}\right)\\ \left[\frac{1.3 \cdot b_{Cap} \cdot h_{Cap} \cdot \frac{kip}{in \cdot ft}}{2\left(b_{Cap} + h_{Cap}\right) \cdot f_y}\right]\end{matrix}\right]\right]\right] = 0.23 \cdot \frac{in^2}{ft}$$

Maximum spacing of shrinkage and temperature reinforcement

$$spacing_{shrink.temp} := \begin{cases} \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 12 \cdot in\right) & \text{if } \left(b_{Cap} > 36in\right) \cdot \left(h_{Cap} > 36in\right) \\ \min\left(\frac{A_{bar}}{A_{shrink.temp}}, 3 \cdot b_{Cap}, 3 \cdot h_{Cap}, 18in\right) & \text{otherwise} \end{cases} = 16.22 \cdot in$$

The bar spacing should be less than the maximum spacing for shrinkage and temperature reinforcement

$$LRFD_{5.7.10.8} := \begin{cases} "OK, minimum shrinkage and temperature requirements" & \text{if } bar_{spa.st} \le spacing_{shrink.temp} \\ "NG, minimum shrinkage and temperature requirements" & \text{otherwise} \end{cases}$$

$LRFD_{5.7.10.8} = "OK, minimum shrinkage and temperature requirements"$

B5. Mass Concrete Provisions [SDG 3.9]

Surface area of pier cap..... $Surface_{cap} := 2 \cdot b_{Cap} \cdot h_{Cap} + \left(2b_{Cap} + 2h_{Cap}\right) \cdot L_{Cap} = 234\ ft^2$

Volume of pier cap..... $Volume_{cap} := b_{Cap} \cdot h_{Cap} \cdot L_{Cap} = 180 \cdot ft^3$

Mass concrete provisions apply if the volume to surface area ratio, $\frac{Volume_{cap}}{Surface_{cap}} = 0.77 ft$, exceeds 1 ft and the minimum dimension exceeds 3 feet

$$SDG_{3.9} := \begin{cases} \text{"Use mass concrete provisions"} & \text{if } \frac{Volume_{cap}}{Surface_{cap}} > 1.0 \cdot ft \wedge b_{Cap} > 3 ft \wedge h_{Cap} > 3 ft \\ \text{"Use regular concrete provisions"} & \text{otherwise} \end{cases}$$

$SDG_{3.9} = \text{"Use regular concrete provisions"}$

C. Shear and Torsion Design [LRFD 5.8]

C1. Check if Torsion Design is Required

$T_u := |T_{Strength1.neg}|$ $V_u := |V_{Strength1.neg}|$

For normal weight concrete, torsional effects shall be investigated if.....

$$T_u > 0.25 \cdot \phi_v \cdot T_{cr}$$

and.....

$$T_{cr} = 0.125 \cdot \sqrt{f_c} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_c}}}$$

Total area enclosed by outside perimeter of concrete cross section.....

$$A_{cp} := h_{Cap} \cdot b_{Cap} = 15\,ft^2$$

Length of outside perimeter of cross section.....

$$p_c := 2 \cdot (h_{Cap} + b_{Cap}) = 17\,ft$$

Compressive stress in concrete after prestress losses have occured.....

$$f_{pc} := 0 \cdot psi$$

Torsional cracking moment.....

$$T_{cr} := 0.125 \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot \frac{A_{cp}^2}{p_c} \cdot \sqrt{1 + \frac{f_{pc}}{0.125 \cdot \sqrt{f_{c.sub} \cdot ksi}}} = 558.7 \cdot kip \cdot ft$$

$$LRFD_{5.8.2} := \begin{cases} \text{"OK, torsion can be neglected"} & \text{if } 0.25 \cdot \phi_v \cdot T_{cr} \geq T_u \\ \text{"NG, torsion shall be investigated..."} & \text{otherwise} \end{cases}$$

$LRFD_{5.8.2}$ = "OK, torsion can be neglected"

C2. Determine Nominal Shear Resistance

Effective width of the section..... $b_v := b_{Cap} = 72 \cdot in$

Effective shear depth..... $a := \frac{A_{s.pos} \cdot f_y}{0.85 \cdot f_{c.sub} \cdot b_{Cap}} = 0.66 \cdot in$

$d_v := \max\left(d_s - \frac{a}{2}, 0.9 \cdot d_s, 0.72 \cdot h_{Cap}\right) = 25.61 \cdot in$

Determination of β and θ **(LRFD 5.8.3.4)**

The pier cap is a non-prestressed concrete section not subjected to axial tension. Assuming it has at least the amount of transverse reinforcement specified in **LRFD 5.8.2.5** or an overall depth of less than 16 in, the Simplified Procedure for determining Shear Resistance per LRFD 5.8.3.4.1 may be used.

$\beta := 2$ $\theta := 45 \cdot deg$

Nominal shear resistance of concrete section..... $V_c := 0.0316 \cdot \beta \cdot \sqrt{f_{c.sub} \cdot ksi} \cdot b_v \cdot d_v = 273.3 \cdot kip$

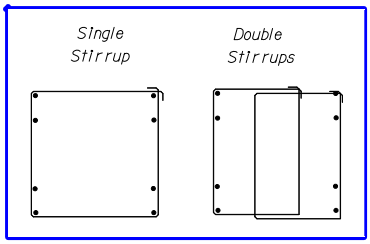
C3. Transverse Reinforcement

Because the overall depth is greater than 16 in, transverse reinforcement shall be provided in the pier cap according to **LRFD 5.8.2.5.**

$$A_v \geq .0316 \cdot \sqrt{f'_c} \cdot \frac{b_v \cdot s}{f_y}$$

The pier cap has no prestressing. $V_p := 0 \cdot kip$

Stirrups



Size of stirrup bar ("4" "5" "6" "7")... bar := "5"

Number of stirrup bars ("single" "double")..... n_{bar} := "single"

Area of shear reinforcement..... $A_v = 0.620 \cdot in^2$

Diameter of shear reinforcement..... $dia = 0.625 \cdot in$

Nominal shear strength provided by shear reinforcement

$V_n = V_c + V_p + V_s$

where..... $V_n := \min\left(\frac{V_u}{\phi_v}, 0.25 \cdot f_{c.sub} \cdot b_v \cdot d_v + V_p\right) = 133.16 \cdot kip$

and..... $V_s := V_n - V_c - V_p = -140.1 \cdot kip$

Spacing of stirrups

Minimum transverse reinforcement..... $s_{min} := \frac{A_v \cdot f_y}{0.0316 \cdot b_v \cdot \sqrt{f_{c.sub} \cdot ksi}} = 6.97 \cdot in$

Transverse reinforcement required..... $s_{req} := if\left(V_s \le 0, s_{min}, \frac{A_v \cdot f_y \cdot d_v \cdot \cot(\theta)}{V_s}\right) = 6.97 \cdot in$

Minimum transverse reinforcement required..... $s := \min\left(s_{min}, s_{req}\right) = 6.97 \cdot in$

Maximum transverse reinforcement spacing

$$s_{max} := if\left[\frac{V_u - \phi_v \cdot V_p}{\phi_v \cdot \left(b_v \cdot d_v\right)} < 0.125 \cdot f_{c.sub}, \min\left(\begin{pmatrix} 0.8 \cdot d_v \\ 24 \cdot in \end{pmatrix}\right), \min\left(\begin{pmatrix} 0.4 \cdot d_v \\ 12 \cdot in \end{pmatrix}\right)\right] = 20.48 \cdot in$$

Spacing of transverse reinforcement cannot exceed the following spacing..... $spacing := floor\left(\frac{if\left(s_{max} > s, s, s_{max}\right)}{in}\right) \cdot in = 6 \cdot in$

LRFD 5.8.3.5 is applicable at the end bearing support areas. Therefore, this check is ignored.

C2. Determine Nominal Torsion Resistance

$$T_n := \frac{2A_{cp} \cdot \left(A_v \cdot f_y - V_s\right)}{spacing \cdot \tan(\theta)} = 1.06 \times 10^4 \cdot kip \cdot ft$$

$T_u = 14.05 \cdot kip \cdot ft$

$$LRFD_{5.8.2.1} := \begin{cases} T_r \leftarrow \phi_v \cdot T_n \\ \text{"OK"} \quad \text{if } T_r > T_u \\ \text{"NG, add transverse reinforcement"} \quad \text{otherwise} \end{cases}$$

$LRFD_{5.8.2.1} = \text{"OK"}$

D. Summary of Reinforcement Provided

Moment Reinforcement (Top and Bottom)

Bar size..... $bar_{posM} = "5"$

Number of bars..... $n_{bar.posM} = 12$

Bar spacing..... $bar_{spa.posM} = 5.9 \cdot in$

Transverse reinforcement

Bar size..... $bar = "5"$

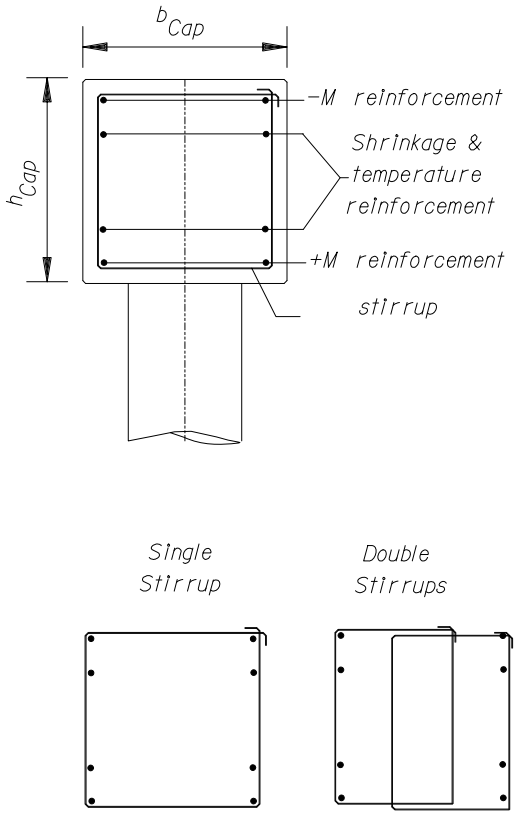
Bar spacing..... $spacing = 6.0 \cdot in$

Type of stirrups..... $n_{bar} = "single"$

Temperature and Shrinkage

Bar size..... $bar_{shrink.temp} = "5"$

Bar spacing..... $bar_{spa.st} = 4.8 \cdot in$



Drilled Shaft Foundation for Sign & Signal Structures

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SUBJECT I-95 EXPRESS LANES, PHASE 3B-1
(STA 3179+00.00, Boring #DMS-5)

DESIGNED BY JR DATE 01/31/2019
CHECKED BY MV DATE 01/31/2019

Input

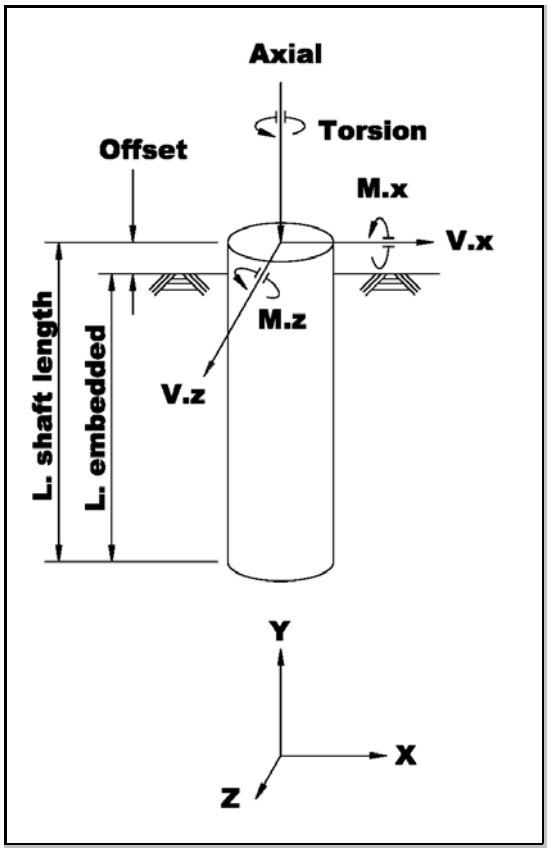
SoilType := Sand / Clay

WaterElevation := Below Bottom of Shaft / Above Top of Shaft

$\gamma_{soil.dry} := 51 \cdot pcf$ *dry soil density*

$\gamma_{water} := 62.4 \cdot pcf$ *water density*

$\gamma_{soil} := \gamma_{soil.dry} - if(WaterElevation = "Above\ Top\ of\ Shaft", \gamma_{water}, 0 \cdot pcf) = 51 \cdot pcf$



$b := 2.5 \cdot ft$ *shaft diameter*

$Offset := 0 \cdot ft$ *groundline to top of foundation*

$\phi_{soil} := 35 \cdot deg$ *soil friction angle (sand)*

$c_{soil} := 2.0 \cdot \frac{kip}{ft^2}$ *soil shear strength (clay)*

Applied Loads, Assuming 20% transfers

$M_x := 16.1814 \cdot kip \cdot ft$ $V_x := 3.7824 \cdot kip$ $Torsion := 2.16226 \cdot kip \cdot ft$

$M_z := 6.2949 \cdot kip \cdot ft$ $V_z := 2.6078 \cdot kip$ $Axial := 99.386 \cdot kip$

Shaft Depth Required to Resist Overturning

$SF_{ot} := 2$ *Safety Factor against Overturning* *SM Vol-9 13.6*

$M_{total} := (SF_{ot}) \cdot \sqrt{M_x^2 + M_z^2} = 34.7 \cdot kip \cdot ft$

$P_{total} := (SF_{ot}) \cdot \sqrt{V_x^2 + V_z^2} = 9.2 \cdot kip$

*short free-head pile in **cohesionless soil** using Broms method*

$K_p := \tan\left(45 \cdot deg + \frac{\phi_{soil}}{2}\right)^2 = 3.7$ $e_{sand} := Offset = 0$

Guess value $L_{otSand} := 50 \cdot ft$

Given $\frac{\gamma_{soil} \cdot b \cdot L_{otSand}^3 \cdot K_p}{2} - P_{total} \cdot (e_{sand} + L_{otSand}) - M_{total} = 0 \cdot kip \cdot ft$

$L_{otSand} := Find(L_{otSand}) = 7.6\,ft$

$L_{otSand} := ceil\left(\frac{L_{otSand}}{ft}\right) \cdot ft = 8\,ft$ *(round up to next foot)*

*short free-head pile in **cohesive soil** using Modified Broms method for L < 3b (see reference file for derivation)*

$c_{soil} := \text{if}(c_{soil} = 0\cdot ksf, 0.1\cdot ksf, c_{soil}) = 2\cdot ksf$ $\quad Slope := 8\cdot\frac{c_{soil}}{3\cdot b} = 2.1\cdot\frac{kip}{ft^3}$ $\quad e_{clay} := \frac{M_{total}}{P_{total}} + Offset = 3.8\,ft$

$nforce(M,N) := \left[Slope\cdot(2\cdot M + N) + 2\cdot c_{soil}\right]\cdot N\cdot\frac{b}{2}$ $\quad mforce(M) := \left(2\cdot c_{soil} + M\cdot Slope\right)\cdot M\cdot\frac{b}{2}$

$m\_arm(M) := e_{clay} + \frac{M}{3}\cdot\frac{2\cdot\left(M\cdot Slope + c_{soil}\right) + c_{soil}}{M\cdot Slope + 2\cdot c_{soil}}$

$n\_arm(M,N) := e_{clay} + M + \frac{N}{3}\cdot\frac{2\cdot\left(N\cdot Slope + M\cdot Slope + c_{soil}\right) + \left(M\cdot Slope + c_{soil}\right)}{Slope\cdot(2\cdot M + N) + 2\cdot c_{soil}}$

Guess value $\quad M := 10.0\cdot ft$ $\quad N := 5.0\cdot ft$

Given $\quad P_{total} + nforce(M,N) = mforce(M)$ $\quad mforce(M)\cdot m\_arm(M) = nforce(M,N)\cdot n\_arm(M,N)$

$\begin{pmatrix} M \\ N \end{pmatrix} := Find(M,N)$ $\quad L_{ot1Clay} := M + N = 4.1\,ft$

$L_{ot1Clay} := ceil\left(\frac{L_{ot1Clay}}{ft}\right)\cdot ft = 5\,ft$ $\quad$ *(round up to next foot)*

*short free-head pile in **cohesive soil** using Regular Broms method for L > 3b*

$f_{clay} := \frac{P_{total}}{9\cdot c_{soil}\cdot b} = 0.2\,ft$ $\quad M_{maxtemp} := P_{total}\cdot\left(e_{clay} + 1.5\cdot b + 0.5\cdot f_{clay}\right) = 70.1\cdot kip\cdot ft$ $\quad g := \sqrt{\frac{M_{maxtemp}}{2.25\cdot c_{soil}\cdot b}} = 2.5\,ft$

$L_{ot2Clay} := \left(1.5\cdot b + f_{clay} + g\right) = 6.5\,ft$

$L_{ot2Clay} := ceil\left(\frac{L_{ot2Clay}}{ft}\right)\cdot ft = 7\,ft$ $\quad$ *(round up to next foot)*

$L_{otClay} := \text{if}(L_{ot1Clay} < 3\cdot b, L_{ot1Clay}, L_{ot2Clay}) = 1.5$ $\quad$ *(If L_α < 3b, use Modified Broms method)*

$L_{reqdOT} := \text{if}(SoilType = \text{"Sand"}, L_{otSand}, L_{otClay}) = 2.4$

Shaft Depth Required to Resist Torsion

NOTE: ω_{fdot} *and* μ *are based upon concrete soil interaction. This torsion methodology is not to be used with permanent casing.*

$SF_{tor} := 1.3$ *Safety Factor against Torsion*
1.0 for Mast Arm signal structures
1.3 for Overhead Cantilever sign structures

SM Vol-9 13.6

$N_{blows} := 24$ *Number of blows per foot. If N< 5, contact the district geotech Engineer*

$\omega_{fdot} := if\left(N_{blows} < 5, 0, if\left(N_{blows} \geq 15, 1.5, 1.5 \cdot \frac{N_{blows}}{15}\right)\right) = 1.5$

load transfer ratio, If 5<N<15, ω_{fdot} *is reduced by a factor of* $\frac{N_{blows}}{15}$

SM Vol-9 13.6

$\mu := 0.38$ *coefficient of friction between concrete shaft and soil*

$\gamma_{concrete} := if\left(WaterElevation = \text{"Above Top of Shaft"}, 150 \cdot pcf - \gamma_{water}, 150 \cdot pcf\right) = 150 \cdot pcf$

$CohesionFactor := 0.55$

$f_{se} := CohesionFactor \cdot c_{soil} = 1.1 \cdot ksf$

short free-head pile in ***cohesionless soil***

Guess value $L_{torSand} := L_{reqdOT} = 8\ ft$

Given

$$Torsion = \frac{\left[\pi \cdot b \cdot \left(L_{torSand}\right) \cdot \gamma_{soil} \cdot \left(\frac{L_{torSand}}{2}\right) \cdot \left(\omega_{fdot}\right) \cdot \frac{b}{2} + \pi \cdot \left(\frac{b}{2}\right)^2 \cdot L_{torSand} \cdot \left(\gamma_{concrete}\right) \cdot \frac{b}{3} \cdot \mu\right]}{SF_{tor}}$$

$L_{torSand} := Find\left(L_{torSand}\right) = 2.4\ ft$

$L_{torSand} := ceil\left(\frac{L_{torSand}}{ft}\right) \cdot ft = 3\ ft$ *(round up to next foot)*

short free-head pile in ***cohesive soil***

Guess value $L_{torClay} := L_{reqdOT}$

Given $\left[f_{se} \cdot (\pi \cdot b) \cdot \left(L_{torClay} - 1.5 \cdot ft\right) \cdot \frac{b}{2}\right] + \left[f_{se} \cdot \pi \cdot \left(\frac{b}{2}\right)^2 \cdot \left(\frac{b}{3}\right)\right] = Torsion \cdot SF_{tor}$

$L_{torClay} := Find\left(L_{torClay}\right) = 1.3\ ft$

$L_{torClay} := ceil\left(\frac{L_{torClay}}{ft}\right) \cdot ft = 2\ ft$ *(round up to next foot)*

$L_{reqdTor} := if(SoilType = "Sand", L_{torSand}, L_{torClay}) = 0.9$

$L_{embedded} := if(L_{reqdTor} > L_{reqdOT}, L_{reqdTor}, L_{reqdOT}) = 2.4$

$L_{shaft.length} := L_{embedded} + Offset = 8\,ft$

Unfactored Maximum Moment in Shaft

*short free-head pile in **cohesionless soil** using Broms method*

$$f_{sand} := \sqrt{\frac{2 \cdot \frac{P_{total}}{SF_{ot}}}{3 \cdot \gamma_{soil} \cdot b \cdot K_p}} = 2.6\,ft$$

$$M_{maxSand} := \frac{P_{total}}{SF_{ot}} \cdot (e_{sand} + f_{sand}) - \frac{\frac{P_{total}}{SF_{ot}} \cdot f_{sand}}{3} + \frac{M_{total}}{SF_{ot}} = 25.2 \cdot kip \cdot ft$$

*short free-head pile in **cohesive soil** using Modified Broms method for L < 3b (see reference file for derivation)*

Guess value $f_{mod} := 4.0 \cdot ft$

Given $\frac{P_{total}}{SF_{ot}} = \frac{f_{mod} \cdot b}{2} \cdot (2 \cdot c_{soil} + f_{mod} \cdot Slope)$

$f_{mod} := Find(f_{mod}) = 0.7\,ft$

$$M_{modBroms} := \frac{P_{total}}{SF_{ot}} \cdot (e_{clay} + f_{mod}) - \frac{c_{soil} \cdot b \cdot f_{mod}^{2}}{2} - \frac{b \cdot f_{mod}^{3} \cdot Slope}{6} = 19.1 \cdot kip \cdot ft$$

*short free-head pile in **cohesive soil** using Regular Broms method for L > 3b*

$$M_{Broms} := \frac{P_{total}}{SF_{ot}} \cdot (e_{clay} + 1.5 \cdot b + 0.5 \cdot f_{clay}) = 35.1 \cdot kip \cdot ft$$

$M_{maxClay} := if(L_{ot1Clay} < 3 \cdot b, M_{modBroms}, M_{Broms}) = 19.1 \cdot kip \cdot ft$ *(If L_{ot} < 3b, use Modified Broms method)*

$M_{max} := if(SoilType = "Sand", M_{maxSand}, M_{maxClay}) = 25.2 \cdot kip \cdot ft$ *(Service moment)*

Minimum Reinforcing and Spacing

$F_{y.rebar} := 60 \cdot ksi$	*reinforcing yield strength*	
$f_c := 4 \cdot ksi$	*concrete strength* *Spec 346-3*	
$cover := 6 \cdot in$	*cover* *SDG Table 1.4.2-1*	
$A_{bar} := 1.27 \cdot in^2$	*longitudinal bar area*	
$d_{bar} := 1.27 \cdot in$	*longitudinal bar diameter*	
$A_{v.bar} := 0.31 \cdot in^2$	*stirrup area*	*SM Vol-9 13.6.2*
$d_{v.bar} := 0.625 \cdot in$	*stirrup diameter*	
$s_{v1} := 6 \cdot in$	*stirrup spacing, depth = 0 ft-2 ft*	*SM Vol-9 13.6.2*
$s_{v2} := 6in$	*stirrup spacing, depth = 2 ft-depth.stir*	
$s_{v3} := 6 \cdot in$	*stirrup spacing, depth > depth.stir*	
$depth_{stir} := 20 \cdot ft$	*stirrup depth, see s.v2 and s.v3 above*	
$b = 2.5\,ft$	*shaft diameter*	

$$Num_{bar_1} := \frac{0.01}{A_{bar}} \cdot \frac{\pi \cdot b^2}{4} = 5.6$$ *LRFD 5.7.4.2*

$$Num_{bar_2} := \frac{0.135}{A_{bar} \cdot F_{y.rebar}} \cdot \left(\frac{\pi \cdot b^2}{4} \cdot f_c \right) = 5$$

$$Num_{bar} := ceil\left(max\left(Num_{bar_1}, Num_{bar_2}\right)\right) = 6$$ *number of longitudinal bars*

$Num_{bar} := 6$ *To accomodate rectangular bolt layout*

$$ReinfClearSpacing := \left[b - 2 \cdot \left(cover + d_{v.bar} + \frac{d_{bar}}{2} \right) \right] \cdot \frac{\pi}{Num_{bar}} - d_{bar} = 6.84 \cdot in$$

$CheckReinfClearSpacing := if(ReinfClearSpacing \geq 6in, "OK", "No Good")$ $CheckReinfClearSpacing = "OK"$

SDG 3.6.10

Check Shear and Torsion

$LF_{shr} := 1.3$	*Shear Load Factor*	*1.3 is a reasonable Load Factor for combined WL + DL on sign and signal structures*
$LF_{tor} := 1.3$	*Torsion Load Factor*	
$\phi_{shr} := 0.90$	*Shear Resistance Factor*	*LRFD 5.5.4.2.1*
$\phi_{tor} := 0.90$	*Torsion Resistance Factor*	*LRFD 5.5.4.2.1*

$$V_u := LF_{shr} \cdot \sqrt{V_x^2 + V_z^2} = 6 \cdot kip$$

$$T_u := LF_{tor} \cdot Torsion = 2.8 \cdot kip \cdot ft$$

Area and perimeter of concrete cross-section

$$A_{cp} := \pi \cdot \left(\frac{b}{2} \right)^2 = 706.9 \cdot in^2 \qquad p_{cp} := 2 \cdot \pi \cdot \left(\frac{b}{2} \right) = 94.2 \cdot in$$

Diameter, perimeter and area enclosed by the centerline of the outermost closed transverse torsion reinforcement

$$d_{oh} := b - 2 \cdot \left(cover + \frac{d_{v.bar}}{2} \right) = 17.4 \cdot in \qquad p_h := \pi \cdot d_{oh} = 54.6 \cdot in$$

$$A_{oh} := \pi \left(\frac{d_{oh}}{2} \right)^2 = 237.1 \cdot in^2 \qquad A_o := 0.85 \cdot A_{oh} = 201.5 \cdot in^2$$

$0.8 \cdot b = 2\ ft$

Effective shear depth

$D_r := b - 2\cdot\left(cover + d_{v.bar} + \frac{d_{bar}}{2}\right) = 1.3\,ft$ $d_e := \frac{b}{2} + \frac{D_r}{\pi} = 1.7\,ft$

LRFD C5.8.2.1

$d_v := \max\left(0.9\cdot d_e, 0.72\cdot b\right) = 1.8\,ft$

Check Shear Strength

$V_c := 0.0316\cdot(2.0)\cdot\sqrt{\frac{f_c}{ksi}}\cdot\left(\frac{b}{in}\right)\cdot\left(\frac{d_v}{in}\right)\cdot kip = 81.9\cdot kip$ LRFD Eqn 5.8.3.3-3 LRFD 5.8.3.4.1 ACI 11.3.3

$V_s := \frac{A_{v.bar}\cdot F_{y.rebar}\cdot d_v}{\max\left(s_{v1}, s_{v2}, s_{v3}\right)} = 67\cdot kip$ LRFD Eqn 5.8.3.3-4

$\phi_{shr} = 0.9$ $V_u = 6\cdot kip$

$ShearRatio := \frac{V_u - \phi_{shr}\cdot V_c}{\phi_{shr}\cdot V_s} = -1.1$

$ShearRatio := if(ShearRatio \le 0, 0, ShearRatio) = 0$

Check Torsion Strength

$T_{n1} := \frac{2\cdot A_o\cdot A_{v.bar}\cdot F_{y.rebar}}{s_{v1}} = 104.1\cdot kip\cdot ft$ LRFD Eqn 5.8.3.6.2-1 LRFD 5.8.3.4.1

$T_{n2} := \frac{2\cdot A_o\cdot A_{v.bar}\cdot F_{y.rebar}}{s_{v2}} = 104.1\cdot kip\cdot ft$

$T_{n3} := \frac{2\cdot A_o\cdot A_{v.bar}\cdot F_{y.rebar}}{s_{v3}} = 104.1\cdot kip\cdot ft$

$\phi_{tor} = 0.9$ $T_u = 2.8\cdot kip\cdot ft$ $L_{reqdTor} = 3\,ft$

$Tor2_{sand} := T_u - \max\left[\left[\pi\cdot b\cdot(2\cdot ft - Offset)\cdot\gamma_{soil}\cdot\left(\frac{2\cdot ft - Offset}{2}\right)\cdot\left(\omega_{fdot}\right)\cdot\frac{b}{2}\right], 0\cdot kip\cdot ft\right] = 1.3\cdot kip\cdot ft$

$Tor3_{sand} := T_u - \max\left[\left[\pi\cdot b\cdot\left(depth_{stir} - Offset\right)\cdot\gamma_{soil}\cdot\left(\frac{depth_{stir} - Offset}{2}\right)\cdot\left(\omega_{fdot}\right)\cdot\frac{b}{2}\right], 0\cdot kip\cdot ft\right] = -147.4\cdot kip\cdot ft$

$Tor2_{clay} := T_u - \max\left[\left[f_{se}\cdot(\pi\cdot b)\cdot(2.0\cdot ft - Offset - 1.5\cdot ft)\cdot\frac{b}{2}\right], 0\cdot kip\cdot ft\right] = -2.6\cdot kip\cdot ft$

$Tor3_{clay} := T_u - \max\left[\left[f_{se}\cdot(\pi\cdot b)\cdot\left(depth_{stir} - Offset - 1.5\cdot ft\right)\cdot\frac{b}{2}\right], 0\cdot kip\cdot ft\right] = -197\cdot kip\cdot ft$

$Tor2 := if\left(SoilType = "Sand", Tor2_{sand}, Tor2_{clay}\right) = 1.3\cdot kip\cdot ft$

$Tor3 := if\left(SoilType = "Sand" , Tor3_{sand}, Tor3_{clay}\right) = -147.4 \cdot kip \cdot ft$

$TorsionRatio_{n1} := \frac{T_u}{\phi_{tor} \cdot T_{n1}} = 0.03$

$TorsionRatio_{n2} := \frac{Tor2}{\phi_{tor} \cdot T_{n2}} = 0.01$

$TorsionRatio_{n3} := \frac{Tor3}{\phi_{tor} \cdot T_{n3}} = -1.57$

$TorsionRatio := \max\left(TorsionRatio_{n1}, TorsionRatio_{n2}, TorsionRatio_{n3}\right) = 0.03$

$T_{cr} := 0.125 \sqrt{\frac{f_c}{ksi}} \cdot \left(\frac{A_{cp}^{\ 2}}{p_{cp} \cdot in^3} \right) \cdot kip \cdot in = 110.4 \cdot kip \cdot ft$ LRFD Eqn 5.8.2.1-4

$TorsionRatio := if\left(T_u \le 0.25 \cdot \phi_{tor} \cdot T_{cr}, 0, TorsionRatio\right) = 0$ LRFD Eqn 5.8.2.1-3

$ShearRatio = 0$

$CheckShearTorsion := if\left(ShearRatio + TorsionRatio \le 1, "OK" , "No Good" \right)$ $CheckShearTorsion = "OK"$

Check Maximum Spacing Transverse Reinforcement

$vu := \frac{V_u}{\phi_{shr} \cdot b \cdot (0.8 \cdot b)} = 0.009217 \cdot ksi$ $0.125 \cdot f_c = 0.5 \cdot ksi$ LRFD Eqn 5.8.2.9-1

$s_{max1} := if\left(0.8 \cdot d_v < 24 \cdot in, 0.8 d_v, 24 \cdot in\right) = 17.3 \cdot in$ LRFD Eqn 5.8.2.7-1

$s_{max2} := if\left(0.4 \cdot d_v < 12 \cdot in, 0.4 d_v, 12 \cdot in\right) = 8.6 \cdot in$ LRFD Eqn 5.8.2.7-2

$s_{max} := if\left(vu < 0.125 \cdot f_c, s_{max1}, s_{max2}\right) = 17.3 \cdot in$

$\max\left(s_{v1}, s_{v2}, s_{v3}\right) = 6 \cdot in$

$CheckMaxSpacingTransvReinf := if\left(\max\left(s_{v1}, s_{v2}, s_{v3}\right) \le s_{max}, "OK" , "No Good" \right)$ $CheckMaxSpacingTransvReinf = "OK"$

Check Longitudinal Reinforcement for Combined Shear and Torsion LRFD Eqn 5.8.3.6.3-1

LRFD 5.8.3.4.1

$M_u := LF_{tor} \cdot \sqrt{M_x^{\ 2} + M_z^{\ 2}} = 22.6 \cdot kip \cdot ft$

$V_{temp} := if\left(\frac{V_u}{\phi_{shr}} - 0.5 \cdot V_s > 0 \cdot kip, \frac{V_u}{\phi_{shr}} - 0.5 \cdot V_s, 0 \cdot kip \right) = 0 \cdot kip$

$$LongReinf_{shr.tor} := \frac{\frac{M_u}{\phi_{tor}\cdot(0.8\cdot b)} + \sqrt{\left(\frac{V_{temp}}{kip}\right)^2 + \left(\frac{0.45\cdot p_h\cdot T_u}{2\cdot A_o\cdot\phi_{tor}\cdot kip}\right)^2}\cdot kip}{F_{y.rebar}} = 0.2\cdot in^2$$

$$Num_{bar}\cdot A_{bar} = 7.6\cdot in^2$$

$$CheckLongReinf_{shr.tor} := if\left(Num_{bar}\cdot A_{bar} \geq LongReinf_{shr.tor}, "OK" , "No Good"\right) \qquad CheckLongReinf_{shr.tor} = "OK"$$

Drilled Shaft Dimensions/Reinforcing

(FA) Drilled_Shaft_Length := $L_{shaft.length} = 8.0\,ft$

(FB) Drilled_Shaft_Diameter := $b = 2.5\,ft$

(FC) Longitudinal_Reinforcement := $Num_{bar} = 6$ See longitudinal bar diameter for size of bars

(FD) Num_Stirrup_Spaces := $\frac{(depth_{stir} - 5.in - 24in - 7in)}{s_{v2}} = 34$

(FE) Shear_Stirrup_Spacing := $s_{v2} = 6.00 \cdot in$