



Florida Department of Transportation

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DATE: December 9, 2005
TO: Registered Plans Preparation Manual Holders
FROM: David C. O'Hagan, P.E., State Roadway Design Engineer
CC: Bob Greer, William Nickas, Jim Mills
SUBJECT: IMPLEMENTATION - PLANS PREPARATION MANUAL
JANUARY 1, 2006 UPDATES

The January 1, 2006 Updates include:

1. Revisions to Plans Preparation Manual (PPM), Volume I, **Complete Reprint** January 2006 (Topic No. 625-000-007).
2. Revisions to PPM, Volume II, **Complete Reprint** January 2006 (Topic No. 625-000-008).

The major changes in design requirements are to be implemented as follows:

Volume I, Chapter 1, Section 1.9 Design Speed

SUMMARY OF CHANGE:

This section has been updated to discuss the coordination required in determining the design speed and posted speed for a project. Corresponding changes have been made to Section 13.4 and Section 16.2.3.

In addition, this section has been updated to add the requirement that designers shall not include in their plans a posted speed higher than the design speed.

Also, this section has been updated to add the requirement for documentation (in a design speed matrix) for any design feature designed to speeds other than the project design speed.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2006.

Volume I, Chapter 1, Section 1.12 Design Vehicle

SUMMARY OF CHANGE:

This section has been added to include discussion on the design vehicle. Also, this section defines the new Florida Interstate Semitrailer WB-62FL. Figure 1.12.1 has also been added to describe the WB-62FL design vehicle.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2006. Use of the WB-62FL on projects underway (prior to January 1, 2006) is discretionary.

Volume I, Chapter 2 Section 2.1.4 Pedestrian, Bicycle and Public Transit Facilities

SUMMARY OF CHANGE:

Section 2.1.4.2 has been changed to include the requirement for the location of a bike lane when the project has a bus bay.

Section 2.1.4.3 has been added to describe the coordination effort required in determining the need for public transit facilities. This section also refers to Chapter 8 for guidelines.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume I, Chapter 2, Table 2.3.1 Shoulder Widths and Slopes - Freeways

SUMMARY OF CHANGE:

This Table has been changed to include shoulder requirements for barrier separated High Occupancy Vehicle (HOV) lanes. Corresponding notes have been added to Figure 2.0.1.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2006.

Volume I, Chapter 2, Section 2.17 High-Speed Urban Arterial Highways

SUMMARY OF CHANGE:

This section has been added to include criteria for the development of a high-speed urban typical section. This new typical section accommodates a higher speed (50mph) than the traditional urban typical section, yet it provides adequate clear zone and still requires less right of way than a traditional rural typical section. This section also outlines the requirements for using this high-speed urban typical section. Also, a new high-speed urban arterial highway typical section exhibit has been developed and is included in Volume II as Exhibit TYP-16.

IMPLEMENTATION:

These changes are effective immediately.

Volume I, Chapter 4, Section 4.3.5 Placement

SUMMARY OF CHANGE:

This section has been revised based on NCHRP Report 357 (Recommended Guidelines for Curb and Curb-Barrier Installations) to include new criteria for the placement of guardrail in combination with curb. These changes include a new Figure 4.3.1 (Placement of Curb-Guardrail Combinations) that shows acceptable guardrail locations and design speed limitations. Corresponding changes made to Figure 2.11.1 (Horizontal Clearance to Guardrail).

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2006.

Volume I, Chapter 4, Section 4.4.1 Warrants

SUMMARY OF CHANGE:

This section has been changed to include new requirements for providing shielding on Interstate and expressway medians.

IMPLEMENTATION:

These changes are effective immediately.

Volume I, Chapter 4, Section 4.5.2 Selection

SUMMARY OF CHANGE:

This section has been changed to include new requirements for the use of optional permanent crash cushions in the plans. Corresponding changes have been made to Volume II, Section 7.1 General, and Exhibit SQ-4.

IMPLEMENTATION:

These changes are based on the [April 1, 2005 Basis of Estimates Cover Letter](#) and are effective on all applicable projects beginning with the January 2006 letting.

Volume I, Chapter 5, Section 5.5 Coordination Process

SUMMARY OF CHANGE:

This section has been changed to clarify the coordination of utility issues. Part of this change includes new language addressing DEP notification requirements when a potable water supply line must pass through a storm drain structure. Another part of this change is a requirement for providing a summary of changes when submitting to Utility/Agency Owners.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume I, Chapter 7, Section 7.4.12.1 Mast Arm Supports

SUMMARY OF CHANGE:

This section has been changed to include the new mast arm policy area and criteria.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume I, Chapter 7, Section 7.4.15, Pedestrian Countdown Signal Applications

SUMMARY OF CHANGE:

This section has been added to include discussion on the pedestrian countdown signal and agency coordination requirements. This section also refers to the Department's Traffic Engineering Manual, Section 3.9, for criteria on installation and operation.

IMPLEMENTATION:

This change documents requirements already in effect.

Volume I, Chapter 7, Traffic and ITS Design and Section 7.5 ITS Components

SUMMARY OF CHANGE:

This chapter has been renamed to include Intelligent Transportation Systems (ITS). Section 7.5, ITS Components, includes design criteria for several ITS components. Although more components will be added to this chapter in future PPM updates, the ITS Section of the Traffic Operations Office can be contacted for information on components not currently listed.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning with the July 2006 letting.

Volume I, Chapter 8, Pedestrian, Bicycle and Public Transit Facilities, Section 8.1 General, and Section 8.10 Public Transit Facilities

SUMMARY OF CHANGE:

This Chapter 8 has been changed to include Public Transit facilities. Section 8.1 was modified and Section 8.10 was added to provide guidance on for Public Transit Facilities. This change included the addition of a new Figure 8.3 Bus Stop Categories.

IMPLEMENTATION:

These changes are guidelines and considerations that are effective immediately.

Volume I, Chapter 8, Section 8.3.2 Disability Considerations

SUMMARY OF CHANGE:

This section was updated to address requirements for pullboxes, manholes and other surface features in proposed crosswalk locations. Corresponding language added to Section 25.4.19.

IMPLEMENTATION:

These changes are based on current ADA requirements and are effective immediately.

Volume I, Chapter 8, Section 8.3.3 Marked Crosswalks at Uncontrolled Locations

SUMMARY OF CHANGE:

This section was added to provide requirements for locating Marked Crosswalks at Uncontrolled Locations. This change includes a new section (8.3.3.1 Midblock Crosswalks) that provides requirements specific to midblock locations. Corresponding changes have been made to Section 21.6.2.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2006.

Volume I, Chapter 8, Section 8.7 Bridges, Overpasses, and Underpasses

SUMMARY OF CHANGE:

This section was changed to clarify minimum clear width on pedestrian and shared use path structures. Figure 8.1 was also revised to show clear widths and rail height.

This section was also changed to include new criteria for pedestrian bridge facilities.

IMPLEMENTATION:

The clarification documents requirements already in effect. The criteria additions for pedestrian bridge facilities were based on [Structures Temporary Design Bulletin C05-06](#) and are effective on all applicable projects beginning with the July 2005 letting.

Volume I, Chapter 9, Section 9.4 Community Identification Structures and Landscapes (CISL)

SUMMARY OF CHANGE:

This section was added to provide requirements and design criteria for any CISL to be designed and placed on the highway right of way. Corresponding language added to Section 1.7.2 and Section 21.5.10.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume I, Chapter 10, Section 10.17 Motorist Awareness System

SUMMARY OF CHANGE:

This section was changed to include additional MAS requirements activation, deactivation, location, and required use.

IMPLEMENTATION:

These changes are based on [Roadway Design Bulletin 05-04](#) and are effective on all applicable projects beginning with the January 2006 letting.

Volume I, Chapter 13, Section 13.2 Initial Engineering Design (Phase I)

SUMMARY OF CHANGE:

This section has been changed to include the development of the Pavement Type Selection Report as one of the activities that should be accomplished in the initial engineering process. A corresponding change has been made in Exhibit 13-A.

IMPLEMENTATION:

This change documents requirements already in effect. See the Department's [Pavement Type Selection Manual](#).

Volume I, Chapter 13, Section 13.5.2 Hazardous Materials on Bridges and Section 13.5.2.2 Projects Involving Bridge Demolition or Renovation

SUMMARY OF CHANGE:

Section 13.5.2 has been re-titled and reorganized to accommodate multiple subsections. Section 13.5.2.2 has been added to include requirements for projects that involve the demolition or renovation of bridges that may contain asbestos materials.

IMPLEMENTATION:

These changes are based on the Department Procedure [Asbestos on Bridges / Inspection, Abatement and Notification \(Topic No. 625-020-020\)](#) previously in effect.

Volume I, Chapter 19, Section 19.2 Sealing of Contract Plans/Record Set and Section 19.4.1 Plans

SUMMARY OF CHANGE:

This section has been changed to include requirements/restrictions for the use of "District Standards" on a project.

IMPLEMENTATION:

This change documents requirements already in effect.

Volume I, Chapter 20, Section 20.3.2 Submittal to Tallahassee

SUMMARY OF CHANGE:

This section has been changed to clarify the stringing of federally funded with non federally funded projects, and to clarify the application of NEPA requirements to the projects.

IMPLEMENTATION:

These changes document requirements already in effect based on [Federal Aid Technical Bulletin 05-01](#).

Volume I, Chapter 20, Exhibit 20-A Transmittal of PS&E Package, and Exhibit 20-G Preliminary Engineering Certification

SUMMARY OF CHANGE:

Exhibit 20-A has been changed to show the date by which the Authorization Estimate will be posted if it is after the posting of the Plans and Specifications. Sheet 2 of this exhibit has been changed to include the project manager as a recipient of the transmittal email.

Exhibit 20-G has been changed to address district wide projects.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume I, Chapter 22, Section 22.3 Plans Preparation

SUMMARY OF CHANGE:

This section has been changed to include the requirement that concrete and reinforcing steel quantities for individual bridge components be shown on lump sum bridge projects.

IMPLEMENTATION:

This change is effective on all applicable projects beginning immediately.

Volume I, Chapter 25, Section 25.4.6 Roadway Cross Slopes

SUMMARY OF CHANGE:

Section 25.4.6 has been changed to clarify that the section applies to shoulder cross slopes also.

IMPLEMENTATION:

This change is for clarification and is effective on all applicable projects beginning immediately.

Volume I, Chapter 25, Section 25.4.8 Shoulder Treatment

SUMMARY OF CHANGE:

This section has been changed to require the shoulder treatment option to be shown in the plans on RRR projects using the 2006 Design Standards, Index 105. This section also includes additional criteria for using Treatment 1 and Treatment 2. Corresponding changes have also been made to Volume II, Section 6.2 and Exhibits TYP-7, TYP-8, TYP-8A, TYP 9, TYP-9A, and TYP-9B.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning with the July 2006 letting.

Volume I, Chapter 25, Section 25.4.10.1 Vertical Curvature

SUMMARY OF CHANGE:

This section was changed to include requirements for evaluating and designing sag vertical curves on RRR projects.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2006.

Volume I, Chapter 25, Section 25.4.25.3 Bridge Railing, Section 25.4.26.2 Guardrail to Bridge Rail Transitions

SUMMARY OF CHANGE:

These sections have been updated to revise the requirements for bridge traffic railing retrofits.

IMPLEMENTATION:

These changes are based on the [Roadway Design Bulletin 05-03](#) / [Structures Temporary Design Bulletin C05-07](#) and are effective on all applicable projects as described in the design bulletin.

Volume I, Chapter 26, Section 26.5 Responsibility

SUMMARY OF CHANGE:

This section has been changed to clarify the Structures Design Office responsibility for Category 2 structures. Also, this section has been changed to include coordination requirements when structures related phase review comments are received.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume I, Chapter 26, Section 26.9.2 Contents

SUMMARY OF CHANGE:

This section has been changed to include (as a major item to be considered in the BDR) a description of anticipated pedestrian facilities and the means to be used to comply with ADA requirements.

IMPLEMENTATION:

This change is effective on all applicable projects beginning design on or after January 1, 2006.

Volume I, Chapter 26, Section 26.9.9 30% Structures Plans and Section 26.11.2 60% Substructure Submittal/60% Structure Plans

SUMMARY OF CHANGE:

These sections have been changed to include accessible pedestrian facility elements or details to the 30% and 60% Structures Plans.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2006.

Volume I, Chapter 26, Section 26.10 Bridge Development Report Submittal Checklist

SUMMARY OF CHANGE:

This section has been changed to revise the design water elevations included in the Bridge Hydraulic Recommendations Sheet (BHRS).

IMPLEMENTATION:

This change documents requirements already in effect.

Volume I, Chapter 26, Section 26.11.1 General

SUMMARY OF CHANGE:

This section has been changed to revise the approved control drawing submittal requirements (proprietary wall).

IMPLEMENTATION:

This change is effective on all applicable projects beginning immediately.

Volume I, Chapter 26, Section 26.16 Bridge Load Rating and Section 26.9.1 General

SUMMARY OF CHANGE:

Section 26.16 was rewritten to include new bridge load rating criteria. Section 26.9.1 was changed to include reference to load rating considerations required in the BDR.

IMPLEMENTATION:

These changes are based on the [Structures Temporary Design Bulletin C01-05](#) and are effective on all applicable projects as described in the design bulletin.

Volume I, Chapter 26, Section 26.17 Review of Non-FDOT Funded Projects

SUMMARY OF CHANGE:

This section has been changed to include the requirement for FDOT review when privately funded structures cross (or affect) Department owned right of way.

This section has also been changed to clarify the review authorities for Category 1 and 2 structures.

IMPLEMENTATION:

This change documents requirements already in effect.

Volume I, Chapter 28, Section 28.8.3 Post-Tensioning System and Computation

SUMMARY OF CHANGE:

This section has been changed to update the language on pre-approved post-tensioning systems.

IMPLEMENTATION:

This change documents requirements already in effect.

Volume I, Chapter 28, Section 28.9 Distribution of Submittals and Table 28.3

SUMMARY OF CHANGE:

This section has been updated to clarify the shop drawing submittal process. Corresponding changes have been made to Table 28.3.

IMPLEMENTATION:

This change documents requirements already in effect.

Volume I, Chapter 28, Section 28.10 Review of Prequalified Joint Welding Procedures

SUMMARY OF CHANGE:

Deleted current language in this section and added new language regarding responsibility of the review and approval of prequalified joint welding procedures. Corresponding changes have been made to Sections 28.2 and 28.11, and Exhibits 28-A thru 28-C.

IMPLEMENTATION:

These changes are based on the [Structures Temporary Design Bulletin C05-17](#) and are effective on all applicable projects beginning with the January 2006 letting.

Volume I, Chapter 29, Section 29.1 General

SUMMARY OF CHANGE:

This section was changed to include language regarding the installation of grout pads and the requirement for each District to establish a policy for the grout pad installations.

IMPLEMENTATION:

These changes are based on the [Structures Temporary Design Bulletin C04-08](#) and are effective on all applicable projects as described in the design bulletin.

Volume I, Chapter 29, Section 29.4.2 Standard Mast Arm Assemblies

SUMMARY OF CHANGE:

This section has been changed to include information concerning mast arm assemblies, soils, and foundations previously contained in the Structures Standard Drawings. Corresponding changes have been made to Sections 29.4.3 and 29.4.4 including a new Figure 29.3 Standard Mast Arm Design Loading Trees, and in Volume II, Section 24.7.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning with the July 2006 letting.

Volume I, Chapter 30, Section 30.2.1 Retaining Walls (Conventional Design)

SUMMARY OF CHANGE:

This section has been changed to provide updated information on conventional cantilever retaining wall design.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning with the July 2006 letting.

Volume I, Chapter 30, Section 30.2.3 Retaining Walls (Proprietary Design), Section 30.2.4 Wall System Selection, and Exhibit 30-A Permanent Retaining Wall Design

SUMMARY OF CHANGE:

These sections have been updated to revise the requirements for permanent retaining walls and the selection of wall systems. Exhibit 30-A has been updated accordingly.

IMPLEMENTATION:

These changes are based on the [Structures Temporary Design Bulletin C05-16](#) and are effective on all applicable projects beginning with the July 2006 letting.

Volume I, Chapter 32, Section 32.6 Design of Sound Barrier Walls

SUMMARY OF CHANGE:

This section has been updated to include new references to the Design Standards and the Structures Manual.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning with the July 2006 letting.

Volume II, Chapter 2, Section 2.1 General

SUMMARY OF CHANGE:

This section has been changed to provide direction for structures plans that are the lead project. Corresponding changes have been included in Section 3.5.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning with the July 2006 letting. Earlier implementation is discretionary.

Volume II, Chapter 3, Section 3.3 Project Location Map

SUMMARY OF CHANGE:

This section has been changed to include language on providing project description by milepost when station information is not available.

IMPLEMENTATION:

This change documents requirements already in effect.

Volume II, Chapter 3, Section 3.8 Design Standards Modifications

SUMMARY OF CHANGE:

This section has been changed to include information previously contained in Section 3.12. This section has also been changed to include direction on placement of the Governing Specifications and Standards note and the Design Standards Modification note in the plans. Corresponding changes have also been made to Chapters 23-27 and 29.

IMPLEMENTATION:

These changes document requirements already in effect.

Volume II, Chapter 5, Section 5.2.1.2 Profile View

SUMMARY OF CHANGE:

This section has been changed to include the bridge number in the profile view of the Bridge Hydraulic Recommendation Sheet (BHRS).

IMPLEMENTATION:

This change documents requirements already in effect.

Volume II, Chapter 7, Section 7.3 Box Culvert Data Sheet

SUMMARY OF CHANGE:

This section has been changed to include the requirement to use a HS-25 design loading when the structural design of box culverts is done using the PSTDN55 computer program.

IMPLEMENTATION:

This change is effective on all applicable projects beginning design on or after January 1, 2006.

Volume II, Chapter 10, Exhibit 10-1 General Notes for Roadway Plan and Roadway Plan-Profile Sheets

SUMMARY OF CHANGE:

This exhibit has been changed to include a revised note on Optional Materials Tabulation. A corresponding change has been made to Exhibit 14-1 Drainage Structures Notes.

IMPLEMENTATION:

This change is effective on all applicable projects beginning design on or after January 1, 2006.

Volume II, Chapter 20, Exhibit 20-1 General Notes for Utility Adjustments

SUMMARY OF CHANGE:

This exhibit has been changed to include additional information regarding the Utility/Agency Owner contact information.

IMPLEMENTATION:

This change is effective on all applicable projects beginning immediately.

Volume II, Chapter 23, Section 23.7.2 Overhead Sign Cross Section and Support Structure

SUMMARY OF CHANGE:

This section has been changed to update the references to the tables used for designing sign structures.

IMPLEMENTATION:

This change is effective on all applicable projects beginning with the July 2006 letting.

Volume II, Chapter 24, Section 24.1 General

SUMMARY OF CHANGE:

This section has been changed to include the provision for allowing signalization sheets in other component plans as appropriate when work is minor.

IMPLEMENTATION:

This change is effective on all applicable projects beginning immediately.

Volume II, Chapter 24, Section 24.3 Tabulation of Quantities

SUMMARY OF CHANGE:

This section has been changed to include the provision for allowing quantities per sheet or by station. Corresponding changes have been made to Section 25.3.

IMPLEMENTATION:

This change is effective on all applicable projects beginning immediately.

Volume II, Chapter 24, Section 24.7 Mast Arm Sheets and 24.8 Monotube Sheets

SUMMARY OF CHANGE:

This section has been changed to update the references to the tables used for designing mast arm assemblies. Two examples have also been included in this section. Similar changes have been made to Section 24.8 updating the references to the tables used for designing Monotube assemblies.

IMPLEMENTATION:

This change is effective on all applicable projects beginning with the July 2006 letting.

Volume II, Chapter 26, Landscape Plans

SUMMARY OF CHANGE:

This chapter has been completely rewritten. The changes include a new combined Tabulation of Quantities and Schedule sheet (Exhibit LD-1).

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2006.

Volume II, Chapter 27, Section 27.4 Plan Sheets

SUMMARY OF CHANGE:

This section has been revised to include the requirement for identifying the disposition and final ownership of salvageable utility infrastructure. Corresponding changes have been made to Exhibit 7-1 Standard Notes for Summary of Quantities Sheet.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

All other changes in the January 1, 2006 Plans Preparation Manual Update Package primarily consist of minor editing, updated references, clarification and/or error corrections and are effective immediately. In addition the Glossary of Terms has been deleted from Chapter 2 of Volume I and moved to the Introduction as a result of the 2004 PPM User Survey.

If you have any questions please contact this office, 850-414-4356, Suncom 994-4356.