



# AIRPORT LAND USE COMPATIBILITY GUIDEBOOK



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Florida's economy and quality of life rely on a robust and well-integrated transportation system, which is crucial for its continued vitality.

Airports play a critical role in this system, acting as gateways for millions of tourists and residents traveling to and from the state. Ensuring the safety and efficiency of these vital hubs goes beyond the airport perimeter. Incompatible land uses in areas surrounding airports can pose significant threats to both aircraft operations and the well-being of communities on the ground.

The Airport Land Use Compatibility Guidebook (Guidebook) is designed to provide local government staff with the knowledge and resources necessary to adopt airport zoning regulations that promote safety and responsible development in the vicinity of airports required by state law. By understanding and implementing airport protection zoning regulations, local governments can help promote the continued operation of Florida's airports while fostering sustainable growth within surrounding communities. The content of this Guidebook outlines the specific provisions and considerations that should be addressed in the development of these regulations.

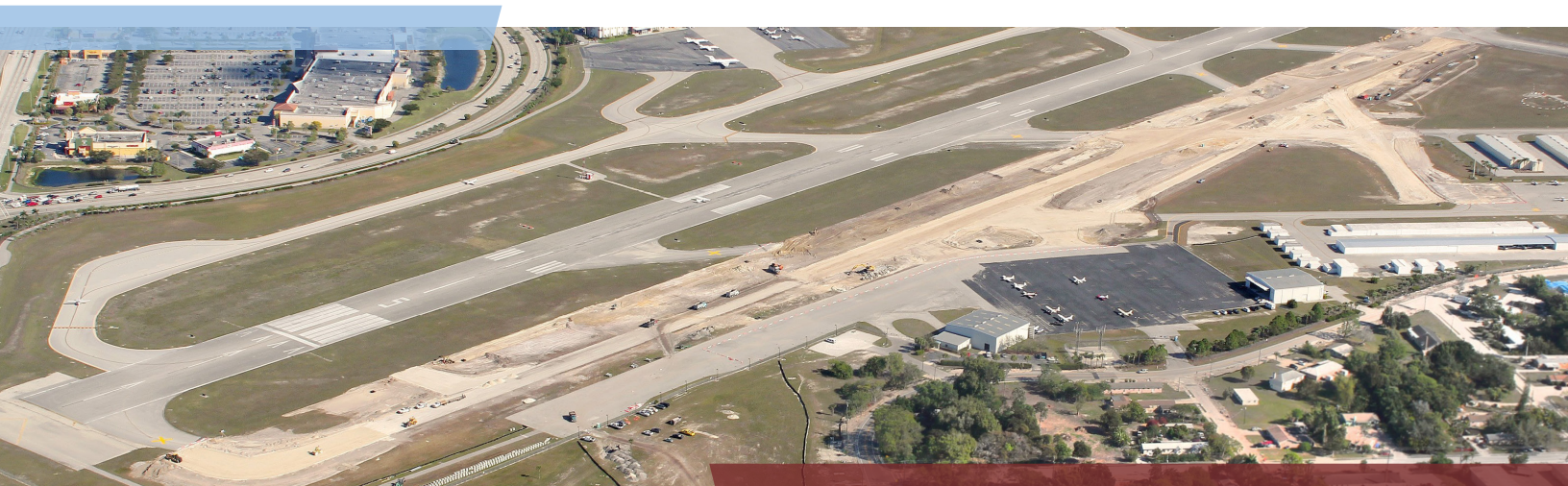
## AIRPORT ZONING ORIENTATION

### What Are Airport Zoning Regulations?

Airport zoning regulations are local government regulations that establish specific requirements and restrictions for land use and development in areas surrounding airports. These regulations aim to promote the compatibility of nearby land uses with aviation operations and are important for protecting public safety and preventing potential hazards to both aircraft and the surrounding community. It is important for local government planners to develop and enforce these regulations in compliance with federal and state laws.

Airport-compatible zoning is put in place to create a buffer zone around the airport that minimizes the potential for conflicts and promotes the long-term viability of the airport. Effective airport zoning regulations prevent issues caused by incompatible land uses before they are developed and helps manage issues associated with existing incompatible uses.

Airport zoning regulations typically include provisions that restrict certain types of development or land uses in areas surrounding the airport. For example, they may prohibit the construction of tall buildings or structures that could create hazards for aircraft, or they may limit noise-sensitive land uses such as residential areas near flight paths. These regulations may also include requirements for height limitations, and noise insulation measures for development near an airport.



## What Is Compatible Land Use?

The Federal Aviation Administration (FAA)'s Advisory Circular (AC) on Airport Land Use Compatibility Planning (AC 150/5190-4B) defines airport compatible land uses as **“those that can coexist with a nearby airport without constraining the safe and efficient operation of the airport, or exposing people living or working nearby to significant environmental impacts.”** This definition goes beyond simply avoiding negative impacts; it outlines a holistic approach to balancing the needs of both the airport and adjacent communities. The term “coexist” implies a mutually beneficial relationship between the airport and surrounding land uses. This means development shouldn't hinder the airport's ability to operate safely and efficiently and expand to meet capacity needs, but should also not create unacceptable environmental burdens on nearby communities.

When evaluating the compatibility of a specific land use with an airport, AC 150/5190-4B discusses six core characteristics or areas of consideration to assess. These include:

- **Airspace.** Confirming that the land use does not encroach upon or interfere with the designated airspace required for safe aircraft movement (i.e., tall structures, vegetation, or terrain).
- **Visual/atmospheric interference.** Evaluating whether the proposed land use could create visual obstructions or atmospheric conditions that may affect pilot visibility or navigation (e.g., glare, light emissions, electronic frequencies).
- **Population density.** Considering the intensity and density of people to be using the proposed land use and its proximity to runways and aircraft traffic patterns.
- **Wildlife.** Considering the likelihood of the proposed use to be attractive to birds and other wildlife (e.g., providing source of food, water, shelter) which could potentially pose safety risks to aircraft and passengers in the event of a wildlife strike.
- **Noise.** The potential impact of aircraft noise on the proposed land use and its ability to coexist with airport operations.
- **Protection of people and property.** Assessing the potential risks to the safety of people and property associated with the proposed land use, including factors such as common accident locations, emergency response access, and hazardous materials.

It is important to note that in addition to these core characteristics, state and local criteria, if applicable, should also be taken into account when evaluating land use compatibility. Since the FAA has limited regulatory authority in land use planning, local, regional, and state provisions typically take precedence in local decision-making processes.

## Who Must Adopt Airport Zoning Regulations?

The intent of airport zoning regulations is primarily to promote the safety and compatibility of surrounding land uses with airport operations. In some cases, a local government might question the applicability of the regulation to their specific situation, especially if they have no airport within their jurisdiction or if the airport falls under the jurisdiction of another entity.

However, extrapolating from Florida Statute (FS) Chapter 333—which states that political subdivisions with airport hazard areas must adopt airport zoning regulations—**airport zoning regulations are required for all local governments in the state**. A few definitions to better understand this statement:

- **Airport Hazard:** Defined in Section 333.01(3), FS, as “an obstruction to air navigation which affects the safe and efficient use of navigable airspace or the operation of planned or existing air navigation and communication facilities.”
- **Airport Hazard Area:** Defined in Section 333.01(4), FS, as “any area of land or water upon which an airport hazard might be established.”
- **Political Subdivision:** Defined in Section 333.01(3), FS, as “the local government of any country, municipality, town, village, or other subdivision or agency thereof, or any district or special district, port commission, port authority, or other such agency authorized to establish or operate airports in the state”—also referred to in this Guidebook as a “local government” or “jurisdiction.”

The placement of Florida’s numerous airports, along with their sizeable airport hazard areas, mean that each local government in Florida must adopt airport zoning regulations, because each political subdivision in Florida has at least an airport hazard area within its jurisdiction. These regulations are a necessary tool for managing land use in the vicinity of airports, even if that land is across jurisdictional boundaries. They promote safety, mitigate noise impacts, protect airspace, manage wildlife hazards, preserve property values, and facilitate coordinated planning. By adopting these regulations, local governments can create an environment where airports can operate safely and efficiently while maintaining a high quality of life for nearby residents.

## ROLES IN PROTECTING LAND SURROUNDING AIRPORTS

The responsibility for protecting airports from incompatible uses is shared between federal, state, and local governments. As depicted in **Figure 1**, each level of government has different regulatory and enforcement power:

- **Federal.** Provides guidance and advisory material in securing compatible land use development and planning surrounding airports. Airports that accept federal money through the Airport Improvement Program (AIP) must comply with all FAA Grant Assurances. These assurances are based on statutory requirements. The FAA is also authorized to carry out the provisions of Parts 77 and 150 of the Federal Aviation Regulations (FAR).
- **State.** Sets regulations in Florida law, requiring local governments to take action.
- **Local.** Holds the key to enforcement by adopting, administering, and enforcing airport zoning regulations.

Understanding these roles in airport airspace and land use protection is a crucial starting point for local governments to effectively protect airports and their communities.



Figure 1: Government Roles

## WHO SHOULD USE THIS GUIDEBOOK?

Ensuring the proper adoption, enforcement, and observance of airport zoning regulations requires a collaborative effort from the following stakeholders:



### *Local Government Planners and Staff*

**In Florida, the local government is responsible for adopting airport zoning regulations.**

**This authority is granted by Florida state law, specifically Section 333.03, FS.** This

Guidebook is meant to aid local government staff who have been tasked with addressing their airport zoning regulations by helping planners understand and implement these regulations, whether it be drafting or amending a zoning ordinance or the policies of a comprehensive plan.

Additionally, this Guidebook serves as a valuable resource for planners, enabling them to make informed decisions, promote responsible development practices, improve planning efficiency, and foster collaboration and communication among stakeholders.



### *Airports*

While local airports may provide support and guidance to these local governments during the adoption process, they do not hold the primary responsibility for setting the regulations themselves. However, an airport sponsor, typically the owner or operator of the airport<sup>1</sup>, plays a crucial role in advocating for compatible land use around their airport by actively engaging with the community, providing information and resources, and working collaboratively to promote the long-term sustainability and success of both the airport and the surrounding area.

Airports also play a collaborative role in ensuring safe and efficient operations at their airport. Airport sponsors may utilize this Guidebook to learn more about the technical aspects of land use compatibility and their responsibilities in promoting it.



### *Developers and Real Estate Professionals*

Developers are responsible for complying with airport zoning regulations, specifically with regards to notice and permitting processes. Developers and real estate professionals may use this Guidebook for awareness of the legal requirements and local zoning ordinances which may impact their projects.

This Guidebook also discusses requirements of 14 Code of Federal Regulations (CFR) Part 77 which is crucial for developers working on projects near airports. Part 77 contains federal regulations concerning airspace preservation, airspace obstructions, and proposed development notification requirements. Following the Part 77 guidance provided by this Guidebook helps promote safety, avoid legal issues, streamline the approval process, minimize project risks, and promote responsible development in the vicinity of airports.



### *The FDOT Aviation Office*

The FDOT Aviation Office has commissioned this Guidebook to assist local government planners in adopting airport zoning regulations. The Guidebook also clarifies the FDOT Aviation Office's role in reviewing airport zoning regulations submitted by local municipalities for compliance with Chapter 333, as well as their role as acting permitting authority for communities without airport zoning regulations yet on file.

<sup>1</sup> For some airports, the sponsor may be the local government itself.

## HOW TO USE THIS GUIDEBOOK

This Guidebook lays out a clear roadmap for navigating the complexities of airport zoning regulations, taking users from adoption to enhancement with best practices in mind.

**Chapter 1: Adopting Airport Zoning Regulations.** Starting with the fundamentals, Chapter 1 establishes the foundation by introducing and guiding users through the essential steps of implementing compliant regulations. This chapter includes understanding the legal framework, the necessary components of airport zoning regulations, and navigating the regulation adoption process.

**Chapter 2: Enhancing Airport Zoning Regulations.** Building upon this foundation, Chapter 2 delves into methods for optimizing existing regulations. This chapter explores strategies for promoting compatible land use development and utilizing technology-based tools for monitoring and enforcement.

**Chapter 3: Best Practices.** Finally, Chapter 3 equips users with valuable insights and resources. This chapter showcases model ordinances as practical examples for crafting effective regulations and offers guidance to help planners best plan for airport growth.

### Use of Icons

This Guidebook utilizes a clear and intuitive system of icons to help users quickly identify the sections most relevant to their needs. The icons used on the previous page can be found throughout the Guidebook with the following meanings:



This identifies sections geared towards local government planners and community stakeholders.



This signifies sections specifically addressing airport operators, sponsors, and officials.



This denotes sections containing information applicable to developers and real estate professionals seeking to develop land near a Florida airport.



This icon identifies sections that address the FDOT Aviation Office roles and responsibilities.

### Use of Quick Notes

Following each chapter, users will find Quick Notes designed to streamline communication and planning for administrators and planners. These notes serve as checklists outlining both mandatory and recommended elements for effective airport zoning regulations. These may be used to:

1. Draft communication documents. Easily reference key regulation components when creating informational materials for the public or other stakeholders.
2. Communicate with officials. Simplify discussions with appointed and elected officials by using the checklist to present the necessary modifications to local regulations required for compliance with Chapter 333, FS.

This clear and concise format enables efficient communication and informed decision-making throughout the compliance process.

## Appendices

This Guidebook is designed to highlight the most important information needed to successfully adopt airport zoning regulations. However, there is a wealth of supporting additional information, examples, and templates to supplement understanding and support implementation. These materials have been gathered and organized into a series of appendices at the end of the Guidebook.

- **Appendix A:** Acronyms and Definitions
- **Appendix B:** Chapter 333, Florida Statutes (FS)
- **Appendix C:** 14 Code of Federal Regulations (CFR) Part 77
- **Appendix D:** FAA Form 7460-1 and Instructions
- **Appendix E:** FDOT Form 725-04-11, Airspace Obstruction Permit Application
- **Appendix F:** Florida Counties and Municipalities Adjacent to an Airport

This comprehensive approach ensures users have the necessary tools and knowledge to navigate the intricacies of airport land use planning and compliance.

## This Guidebook Supplements, But Does Not Substitute, Chapter 333, FS

This Guidebook is intended to provide supplemental information and insights related to Chapter 333, FS. While it aims to be informative and comprehensive, it is crucial to understand that the Guidebook does not replace a thorough reading and understanding of the official statute itself.

Chapter 333, FS, remains the definitive legal source and holds the ultimate authority regarding airport zoning regulations in Florida. This Guidebook serves as a companion resource, offering explanations, clarifications, and examples how Florida law has been applied, but it should never be taken as a substitute for the official statute.

It is strongly recommended that users read Chapter 333, FS, in its entirety, which is readily available online through the Florida Legislature website (<http://www.leg.state.fl.us/statutes/>). Users should consult with legal professionals if they have specific questions or require guidance on interpreting or applying the statute to their specific jurisdiction.

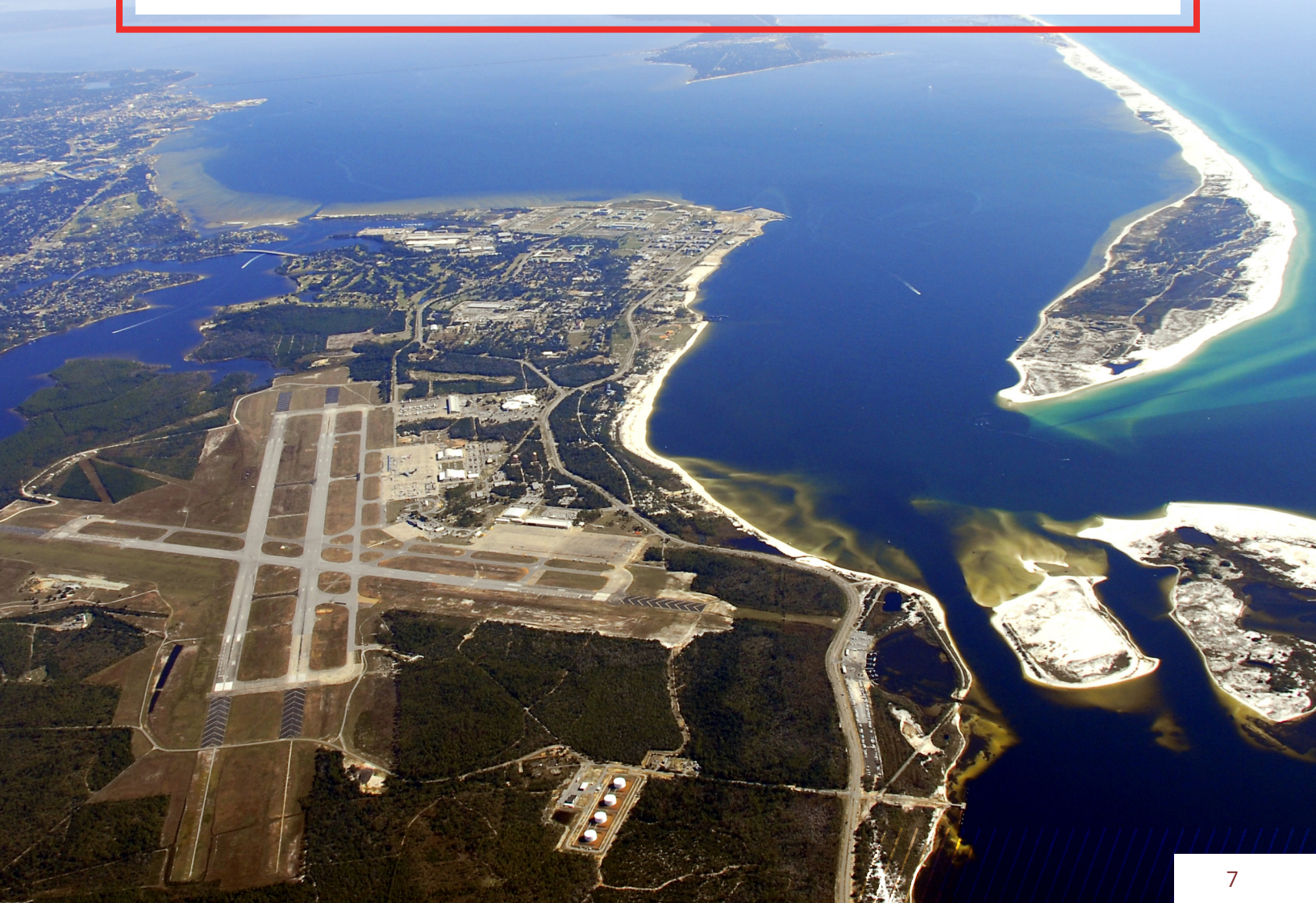
By using this Guidebook in conjunction with a full and thorough reading of Chapter 333, FS, users can gain a deeper understanding of airport zoning regulations in Florida and make informed decisions based on accurate and reliable information.

## Adopting Airport Zoning Regulations

State statute serves a critical role as establishing the legal directive for the adoption of airport zoning regulations.

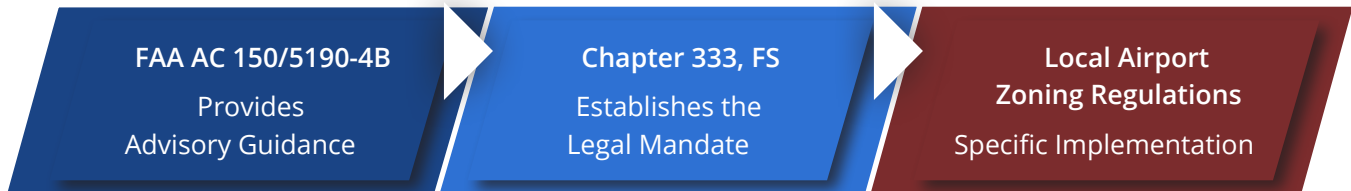
This mandate is found in Chapter 333, FS, which sets forth the guidelines for airport zoning regulations in Florida. Chapter 333, FS, outlines the framework and requirements for local governments and airport authorities to adopt and establish these regulations within their jurisdictions. Additionally, Chapter 333, FS provides the process for amending and enforcing these regulations to guide land use development around airports in Florida.

The following chapter guides users through the essential steps of implementing compliant regulations, including the necessary components of airport zoning regulations and how to incorporate them as prescribed in Chapter 333, FS.



**Implementing compliant airport zoning regulations requires a collaborative approach, balancing state requirements, local expertise, and community concerns to promote safe and sustainable airport operations and public safety.** Therefore, it is critical that local governments understand the advisory and regulatory materials meant to guide local governments in adopting these regulations. As depicted in **Figure 2**, FAA AC 150/5190 4B, Chapter 333, FS, and local airport zoning regulations all play crucial roles, but they function in different ways.

- FAA AC 150/5190-4B provides advisory guidance.
- Chapter 333, FS, establishes the legal mandate.
- Local Airport Zoning Regulations are the specific implementation tool.



**Figure 2: Relationship Between Advisory and Regulatory Materials**

The FAA provides advisory guidance, Florida state law legally mandates implementation, and local regulations customize zoning to each airport's specific needs. Together, these components work to promote safe and efficient airport operations.





## 1.1 NECESSARY COMPONENTS OF AIRPORT ZONING REGULATIONS

Chapter 333, FS, defines the elements required of airport zoning regulations. As defined in Chapter 333, FS, airport zoning regulations consist of two categories.

Chapter 333, FS, requires the establishment of standards for both types of regulations in the development of airport zoning regulations with the purpose of preventing both airport hazards and incompatible land uses. The following subsections discuss these two categories and required components.

### Chapter 333, Airport Zoning Regulations

#### *Airport Protection Zoning Regulations*

Defined as airport zoning regulations governing airport hazards (Section 333.01(8), FS).

#### *Land Use Compatibility Zoning Regulations*

Defined as airport zoning regulations governing the use of land on, adjacent to, or in the immediate vicinity of airports (Section 333.019(5), FS).

#### *Section 1.1.1 – Airport Protection Zoning Regulations*

1. Airspace Obstruction Permit Process for Potential Obstructions (Section 333.025, FS)
2. Marking and Lighting Requirements (Section 333.025(7), FS)
3. Joint Airport Protection Zoning (Section 333.03(1)(b), FS)

#### *Section 1.1.2 – Land Use Compatibility Zoning Regulations*

1. Prohibition of New Landfills and the Restriction of Existing Landfills (Section 333.03(2)(a), FS)
2. Mitigation of Hazards via Bird Management Requirements (Section 333.03(2)(b), FS)
3. Prohibition of Incompatible Uses Within the Noise Contours Established by a Federally Approved Noise Study (Section 333.03(2)(C), FS)
4. Prohibition of Incompatible Uses Near an Airport With No Noise Study (Section 333.03(2)(d), FS)
5. Restriction of New Incompatible Uses Within Runway Protection Zones (RPZs) (Section 333.03(2)(e), FS)

Additionally, Chapter 3 of this Guidebook provides a model ordinance that local governments can use as a template when developing airport zoning regulations.

## 1.1.1 Airport Protection Zoning Regulations

Airport protection zoning regulations are intended to protect against airspace obstructions, which significantly increase the risk of accidents and hinder the efficient operation of airports. According to Chapter 333, FS, obstructions (also referred to in this Guidebook as airspace obstructions) can be “any existing or proposed object, terrain, or structure construction that exceeds the federal obstruction standards contained in 14 CFR part 77, subpart C.” Obstructions could be trees and natural growth, terrain, or any new construction and/or temporary construction equipment. Per Chapter 333, the following subsections describe how airport protection zoning regulations must be addressed as a part of local governments’ airport zoning.

### 1.1.1.1 Airspace Obstruction Permit Process for Potential Obstructions

Airport zoning regulations must establish the process for obtaining an Airspace Obstruction Permit. These permits are needed for any obstruction (see Section 2.2.2 of the Guidebook). Section 333.07, FS, outlines specific steps that must be included in a local government’s airport zoning regulations regarding the Airspace Obstruction Permitting process.



#### 333.025(1), FS

A person proposing the construction or alteration of an obstruction must obtain a permit from the [Florida Department of Transportation]...

#### 333.025(4), FS

If political subdivisions have, in compliance with this chapter, adopted adequate airport protection zoning regulations, placed such regulations on file with the department’s aviation office, and established a permitting process, a permit for the construction or alteration of an obstruction is not required from the department...



**Per Section 333.025(4), local governments are the permitting authority if they meet the following three requirements:**

#### 1. ADEQUATE AIRPORT PROTECTION ZONING REGULATIONS ARE ADOPTED.

Please note that “adequate” is not defined in Chapter 333, FS. However, the FDOT Aviation Office generally considers “adequate” regulations as those which, at a minimum, address each applicable component of Chapter 333, FS, specifically Sections 333.02, 333.025, and 333.03(1).

#### 2. REGULATIONS ARE ON FILE WITH THE FDOT.

Per Section 333.025(4), local governments must place their airport zoning regulations on file with the FDOT Aviation Office, who are also available to answer questions about regulation development and submittal. Submissions should include any relevant interlocal agreements, attachments, or amendments along with the regulations. While the FDOT Aviation Office will acknowledge receipt of the airport zoning regulations, this acknowledgment does not indicate completeness or adequacy for approval. More on filing regulations with the FDOT can be found in Section 1.2.4 of this Guidebook.

#### Note

Interlocal Agreements between two political subdivisions are necessary in some scenarios. See Section 1.2.2 of this Guidebook for more on interlocal agreements.

**3. A PERMITTING PROCESS IS ESTABLISHED.**

This permitting process must include the following components (per Section 333.03(1)(c)1.-5):

- A permit for the construction or alteration of any obstruction (Section 333.03(1)(c)(1), FS).
- Obstruction marking and lighting requirements (Section 333.03(1)(c)(2), FS).
- Documentation showing compliance with the federal requirement for notification of proposed construction or alteration of structures and a valid aeronautical study submitted by each person applying for a permit (Section 333.03(1)(c)(3), FS).
- Consideration of the following statutory criteria when determining whether to issue or deny a permit (Section 333.03(1)(c)(4), FS, quoting Section 333.025(6)(a-h)).
  - The safety of persons on the ground and in the air.
  - The safe and efficient use of navigable airspace.
  - The nature of the terrain and height of existing structures.
  - The effect of the construction or alteration of an obstruction on the state licensing standards for a public-use airport contained in chapter 330 and rules adopted thereunder.
  - The character of existing and planned flight operations and developments at public-use airports.
  - Federal airways, visual flight rules, flyways and corridors, and instrument approaches as designated by the Federal Aviation Administration.
  - The effect of the construction or alteration of an obstruction on the minimum descent altitude or the decision height at the affected airport.
  - The cumulative effects on navigable airspace of all existing obstructions and all known proposed obstructions in the area.
- That approval of a permit cannot be based solely on the determination by the Federal Aviation Administration that the proposed structure is not an airport hazard (Section 333.03(1)(c)(5), FS).

**DEVELOPING A PERMIT APPLICATION**



Local governments must adopt airport zoning regulations that define the permitting process and provide users with sufficient details to successfully complete the process. The permitting process should reasonably allow an individual to submit a completed application for an Airspace Obstruction Permit, including information it deems necessary for the applicant to comply with:

- Section 333.03(1)(c)3, FS.
- Federal requirement for Notice and a valid aeronautical study.



The local government should establish a permitting process to include an application which should require information and/or documents similar to that required by 1) FDOT Form 725-040-11 "Airspace Obstruction Permit Application <sup>2</sup>," 2) the Notice Criteria Tool <sup>3</sup>, and 3) FAA Form 7460-1<sup>4</sup>, including but not limited to:

- Name, address, and contact information of the applicant, including an email address.
- Name, address, and contact information of the authorized representative (if different), including an email address.
- Location of the proposed structure (address/plat information, etc.).
- Type of the proposed structure (e.g., tower, antenna, power pole, building, roadway, etc.).
- Coordinates of the proposed structure (latitude/longitude in degrees, minutes, and seconds to the nearest hundredth of a second).
- Site elevation at the structure site and the proposed structure's ultimate height above ground level (AGL), including all appurtenances.

## Identifying Potential Points of Obstruction

If the proposed structure is multi-dimensional (e.g., building), the coordinates and elevation/height information should be submitted for the tallest point(s) on the building, as well as for each individual building corner. In a situation where a structure may be located close to a critical airspace surface, a lower yet closer point may have greater impact on navigable airspace than a higher point further away. The precision of locations and heights should be in accordance with appropriate survey accuracies required by the FAA.

Chapter 333 does not specify a time limit for local governments issuing an approval or denial of an Airspace Obstruction Permit. Therefore, each local government may apply existing procedures and time limits to the Airspace Obstruction Permit process. However, the local government should take into consideration that, per Chapter 333, upon receipt of a complete permit application, the local government shall provide a copy of the application to the FDOT Aviation Office. The FDOT Aviation Office then has a 15-day review period to evaluate technical consistency with Section 333.025(4). That review may run concurrently with the local government review but should be considered as a part of the overall review timeline.

**Per Section 333.025(4), local governments are not the permitting authority if they have not yet adopted adequate airport protection zoning regulations.**

In this scenario, the FDOT Aviation Office shall serve as the permitting authority until regulations have been fully adopted by the local government. The FDOT Aviation Office requires submittal of FDOT Form 725-04-11, "Airspace Obstruction Permit Application" for any proposed structure that meets the criteria outlined in Section 333.025(1), FS. To apply for an FDOT airspace obstruction permit, the sponsor or representative proposing the construction or alteration must submit an FDOT Airspace Obstruction Permit application to:

### Aviation Office

Florida Department of Transportation  
Attention: Airspace Protection and Security Manager  
605 Suwannee Street, MS 46  
Tallahassee, FL 32399-0450

<sup>2</sup> A sample FDOT Form 725-040-11 can be found in Appendix E.

<sup>3</sup> More on the FAA's Notice Criteria Tool can be found in Section 2.2.2 of this Guidebook.

<sup>4</sup> More on FAA Form 7460-1 can be found in Section 2.2.3 of this Guidebook.

A copy of an FDOT Airspace Obstruction Permit application is provided in **Appendix E**. Once a complete application is received, FDOT has 30 days to review the application and issue or deny the Airspace Obstruction Permit. The application must be accompanied by the following information:

- A copy of Federal Aviation Administration (FAA) Form 7460-1, Notice of Proposed Construction or Alteration (Notice), filed with FAA if applicable.
- An aeronautical study or FAA document showing the Determination issued in response to the Notice.
- A United States Geological Survey (USGS) 7.5-minute Quadrangle Map with the precise site marked and any certified survey conducted.
- A scaled construction diagram showing the size and dimensions of the proposed construction.
- Zoning statement from the appropriate zoning agency showing the proposal will comply with local zoning regulations and any conditions which must be accomplished for such compliance.
- If the applicant is not the landowner, attach a copy of the authorization to construct upon or lease the land involved.

The FDOT Aviation Office comprehensively reviews each Airspace Obstruction Permit application. The FDOT Aviation Office may issue an airspace obstruction permit if the review determines:

- The proposed construction or alteration of an obstruction does not adversely impact the factors outlined in Section 333.025(6), FS and
- The applicant submits documentation showing both compliance with federal requirement for notification of proposed construction or alteration and a valid aeronautical study.

## Appeals

Section 333.09(3), FS, provides an appeal process for anyone that contends a decision made by a political subdivision or its administrative agency is an improper application of airport zoning regulations. The statute provides that political subdivisions are to set reasonable times for the hearing of appeals and are to give public notice as well as due notice of the hearing to parties in interest.

If the FDOT Aviation Office determines that it cannot issue the Airspace Obstruction Permit because the proposed construction or alteration adversely impacts the criteria listed in Section 333.025(6), FS, or the FAA determines the proposed construction or alteration is a hazard, the FDOT Aviation Office will work with the applicant to determine how the applicant can alter the proposed construction or alteration to resolve the adverse impacts and/or hazard determination. However, if these issues cannot be satisfactorily resolved, the Airspace Obstruction Permit will not be issued, and constructing the proposed structure would violate Chapter 333, FS, and Part 77. It is also important to note that a permit may not be approved solely on the basis that the FAA determined that the proposed construction or alteration of an obstruction is not an airport hazard, per Section 333.025(8), FS.

Additionally, when issuing a permit under this section, the FDOT Aviation Office will require the owner of the obstruction to install, operate, and maintain, at the owner's expense, marking and lighting in conformance with the specific standards established by the FAA, per Section 333.025(7), FS.

Lastly, as a state agency, the FDOT Aviation Office's decisions rendered on Airspace Obstruction Permits are subject to administrative review proceedings as provided in Chapter 120, FS, in accordance with Section 333.07(9), FS.

### 1.1.1.2 Marking and Lighting Requirements



#### **333.025(7), FS**

When issuing a permit under this section, the department shall require the owner of the obstruction to install, operate, and maintain, at the owner's expense, marking and lighting in conformance with the specific standards established by the Federal Aviation Administration.

#### **333.07(3), FS**

OBSTRUCTION MARKING AND LIGHTING. – In issuing a permit under this section, the political subdivision or its administrative agency shall require the owner of the obstruction to install, operate, and maintain thereon, at his or her own expense, marking and lighting in conformance with the specific standards established by the Federal Aviation Administration.



All Airspace Obstruction Permits should contain provisions that require obstruction marking and lighting<sup>5</sup> if the structure exceeds federal obstruction standards (see Section 333.03(1)(c)2., FS). Marking and lighting recommendations may be made by the FAA as a part of an aeronautical study to enhance a pilot's visual awareness of the structure's presence and location.

Local governments are required to include directions concerning who will be responsible for performing and paying for these marking and lighting requirements in their airport zoning regulations, specifically in the permitting process (see Section 333.025(7), FS). These regulations should require Airspace Obstruction Permit applicants to augment their obstruction with lighting and marking to follow state regulatory requirements. This helps local governments be compliant with Chapter 333, FS, and Part 77.



<sup>5</sup> See FAA AC 70/7460-1M, Obstruction Marking and Lighting for federal obstruction marking and lighting guidance.



### 1.1.1.3 Joint Airport Protection Zoning

#### 333.03(1)(b), FS

If an airport is owned or controlled by a political subdivision and if any other political subdivision has land upon which an obstruction may be constructed or altered which underlies any surface of the airport as provided in 14 CFR part 77, subpart C, the political subdivisions shall either:

1. By interlocal agreement, adopt, administer, and enforce a set of airport protection zoning regulations; or
2. By ordinance, regulation, or resolution duly adopted, create a joint airport protection zoning board that shall adopt, administer, and enforce a set of airport protection zoning regulations. The joint airport protection zoning board shall have as voting members two representatives appointed by each participating political subdivision and a chair elected by a majority of the members so appointed. The airport manager or a representative of each airport in the affected participating political subdivisions shall serve on the board in a nonvoting capacity.

As mentioned, airport hazard areas often extend beyond jurisdictional boundaries. In these cases, Section 333.03(1)(b), FS, requires cooperation between adjacent local governments to adopt cohesive airport zoning regulations. This cooperation may take one of two forms – an interlocal agreement, or the formation of a joint airport protection zoning board. If this scenario applies, users may find more information about interlocal agreements and joint zoning boards in Section 1.2.2 of this Guidebook.

**These airport protection zoning regulations (airspace obstruction permitting, marking and lighting requirements, and joint airport protection zoning) must be addressed as a part of local government's airport zoning.**

## 1.1.2 Land Use Compatibility Zoning Regulations

As previously noted, there are two major components to airport zoning regulations. The first, addressed by airport protection zoning regulations, is airport hazards. The second, addressed by airport land use compatibility zoning regulations, is airport compatible land use. Put even more simply, airport zoning regulations should protect both the air surrounding the airport and the land surrounding the airport.

Regarding the land surrounding the airport, as described in Section 333.03(2), **local governments are required, at a minimum, to address five elements as part of their airport land use compatibility zoning regulations** (Prohibition of New Landfills and the Restriction of Existing Landfills, Mitigation of Hazards via Bird Management Requirements, Prohibition of Incompatible Uses Within the Noise Contours Established by a Federally Approved Noise Study, Prohibition of Incompatible Uses Near an Airport With No Noise Study, and Restriction of New Incompatible Uses Within Runway Protection Zones). Depending upon an airport's and/or a local government's specific circumstances, consideration should be given to additional land use issues in the regulations to maintain the viability of the airport. The following five airport land use compatibility zoning regulation components must be addressed as a part of the regulation adoption process. Chapter 2 provides additional considerations that are not required by statute, but which may be beneficial to include in airport zoning regulations.

### Land Use Compatibility in Chapter 333, FS

Chapter 333, FS assumes compatible land use to mean land uses that are generally considered to be compatible with airports (such as industrial and commercial) compared to less compatible uses such as residential, schools, and churches. This is an important distinction from the language of land use compatibility in zoning codes which typically refers to the characteristics of different uses, activities, or site design which allow them to be located near or adjacent to each other in a suitable manner.



### 1.1.2.1 Prohibition of New Landfills and the Restriction of Existing Landfills

#### 333.03(2)(a), FS

At a minimum, airport land use compatibility zoning regulations must address the following:

(a) The prohibition of new landfills and the restriction of existing landfills within the following areas:

1. Within 10,000 feet from the nearest point of any runway used or planned to be used by turbine aircraft.
2. Within 5,000 feet from the nearest point of any runway used by only nonturbine aircraft.
3. Outside the perimeters defined in subparagraphs 1. and 2., but still within the lateral limits of the civil airport imaginary surfaces defined in 14 CFR s. 77.19. Case-by-case review of such landfills is advised.

Landfills attract wildlife and endanger aircraft, especially during takeoff, landing, and transitions, when located near an airport. To address this, Section 333.03(2)(a) requires local governments to address the prohibition of new landfills and the restriction of existing landfills within the perimeters of the airport. Choosing buffer dimensions for landfill restrictions around airports depends on the type of aircraft expected to use the runway (called the “design aircraft”). Consult the airport master plan or layout plan to identify the planned (or existing if applicable) primary aircraft category. While airports can’t dictate every aircraft that might use the runway, these plans help determine the most likely type. **For airports whose predominant use is by turbine aircraft, the buffer is 10,000 feet, while airports whose predominate users are non-turbine aircraft, the buffer is 5,000 feet.** Figures 3 and 4 illustrates buffer criteria for both non-turbine and turbine aircraft operations.



Figure 3: Landfill Buffers for Runways Used by Non-Turbine Aircraft

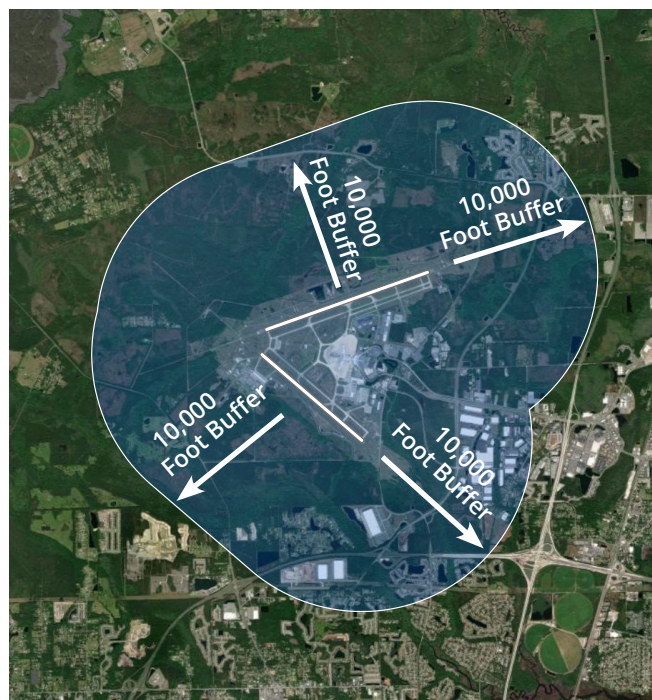


Figure 4: Landfill Buffers for Runways Used by Turbine Aircraft

### 1.1.2.2 Mitigation of Hazards via Bird Management Requirements

#### 333.03(2)(b), FS

At a minimum, airport land use compatibility zoning regulations must address the following:

(b) When any landfill is located and constructed in a manner that attracts or sustains hazardous bird movements from feeding, water, or roosting areas into, or across, the runways or approach and departure patterns of aircraft. The landfill operator must incorporate bird management techniques or other practices to minimize bird hazards to airborne aircraft.

Section 333.03(2)(b), FS, requires that local airport zoning regulations address any instances where a landfill is located and constructed in a manner that attracts or sustains hazardous bird movements from feeding, water, or roosting areas into or across the runways or approach and departure patterns of aircraft. The landfill operator must incorporate bird management techniques or other practices to minimize bird hazards to airborne aircraft.

#### Wildlife Strikes

AC 150/5190-4B states that “From 1988 to 2021, reported wildlife strikes killed more than 301 people and destroyed over 298 aircraft worldwide.” This is a seven-fold increase from 1990 to 2021. While no community can completely control wildlife activity, local planners can be strategic in mitigating wildlife attractants near airports through thoughtful land use compatibility zoning regulations.



### 1.1.2.3 Prohibition of Incompatible Uses Within the Noise Contours Established by a Federally Approved Noise Study



#### 333.03(2)(c), FS

At a minimum, airport land use compatibility zoning regulations must address the following:

(c) When an airport authority or other governing body operating a public-use airport has conducted a noise study in accordance with 14 CFR part 150, or when a public-use airport owner has established noise contours pursuant to another public study accepted by the Federal Aviation Administration, the prohibition of incompatible uses, as established in the noise study in 14 CFR part 150, Appendix A or as a part of an alternative Federal Aviation Administration-accepted public study, within the noise contours established by any of these studies, except if such uses are specifically contemplated by such study with appropriate mitigation or similar techniques described in the study.



14 CFR Part 150 is a set of federal regulations that deal specifically with airport noise compatibility planning. If an airport has conducted a noise study as described in Part 150 or established noise contours through an FAA-approved study, **Section 333.03(2)(c), FS, requires that regulations prohibit incompatible uses within those zones, as established in the Part 150 noise study**, or in Part 150 Appendix A<sup>6</sup>. Exceptions might be made if the study specifically allows them with appropriate mitigation measures. **Figure 5** shows an example of noise contours created by a Part 150 study, highlighting areas where certain land uses are restricted.



*DNL refers to Day-Night Sound Level*

**Figure 5: Contours for an Airport with a Part 150 Noise Study**

<sup>6</sup> More can be found on incompatible uses related to aviation noise in Section 2.1.1.5 of this Guidebook.

### 1.1.2.4 Prohibition of Incompatible Uses Near an Airport With No Noise Study

#### 333.03(2)(d), FS

At a minimum, airport land use compatibility zoning regulations must address the following:

(d) When an airport authority or other governing body operating a public-use airport has not conducted a noise study, the prohibition of residential construction and educational facilities, with the exception of aviation school facilities or residential property near a public-use airport that has as its sole runway a turf runway measuring less than 2,800 feet in length, within an area contiguous to the airport measuring one-half the length of the longest runway on either side of and at the end of each runway centerline.

If an airport doesn't have a Part 150 or FAA-approved noise study, Florida law (Section 333.03(2)(d), FS) requires specific public safety measures. **In such cases, the airport zoning ordinance must prohibit new houses and schools (except aviation schools or residential construction near a sole turf runway shorter than 2,800 feet) within an area half the length of the longest runway on either side and at the end of each runway.** Figure 6 illustrates these noise zones for an airport without a noise study.

It's important to note that these noise compatibility requirements don't force changes to existing schools built before July 1, 1993, or upgrade their facilities. They also shouldn't hinder the existing use or expansion of schools built before that date.

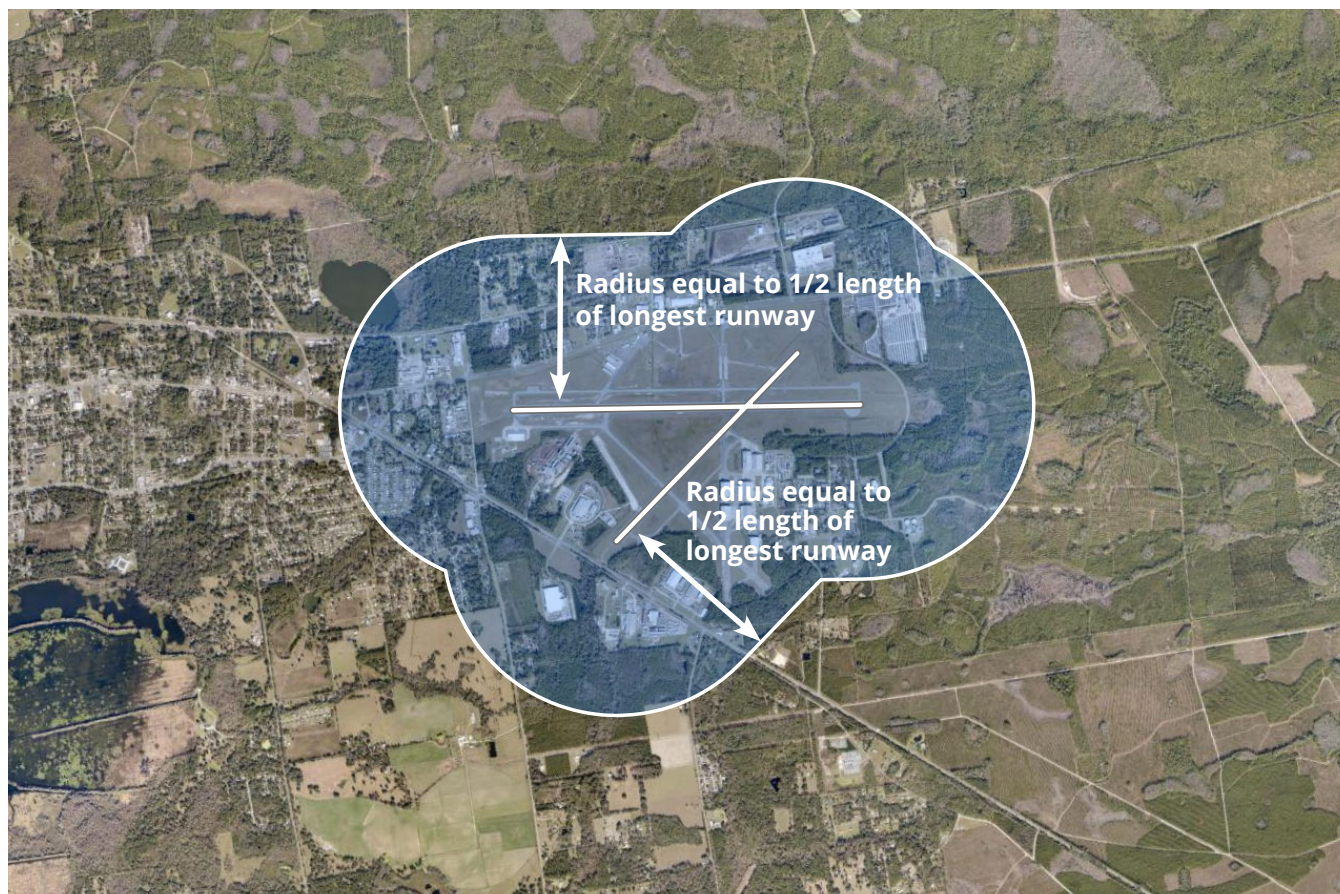


Figure 6: Contours for an Airport with No Part 150 Noise Study

### 1.1.2.5 Restriction of New Incompatible Uses Within Runway Protection Zones (RPZs)

#### 333.03(2)(e), FS

At a minimum, airport land use compatibility zoning regulations must address the following:  
(e) The restriction of new incompatible uses, activities, or substantial modifications to existing incompatible uses within runway protection zones.

The final of the five elements to address is the restriction of new incompatible uses, activities, or substantial modifications to existing incompatible uses within runway protection zones, or RPZ (Section 333.03(2)(e), FS). **RPZs are trapezoidal areas located at the end of each runway**, as shown in **Figure 7**. RPZ dimensions are determined based on the design code of each runway as well as the visibility minimums of each runway end. The dimensions of each RPZ are provided in an airport's master plan and layout plan and should be incorporated as determined as part of those studies.



Figure 7: Runway Protection Zones (RPZs)

Local governments are responsible for implementing these restrictions through their airport zoning regulations. These regulations should:

- Prevent new incompatible uses within RPZs.
- Minimize the impact of existing incompatible uses by relocating them, reducing their size/intensity, or implementing other measures.
- Mitigate risks through physical barriers or operational changes.

Local governments are encouraged to explore various options, such as:

- **Transfer of development rights.** Allowing property owners to transfer their development rights to another parcel in exchange for leaving the RPZ clear.
- **Easements.** Restricting specific activities on land within the RPZ.
- **Physical measures.** Installing bird deterrents or glare shields.

### A Runway Protection Zone (RPZ)

Defined as “an area at ground level beyond the runway end to enhance the safety and protection of people and property on the ground.” RPZs exist to safeguard both people and property near airport runways. They achieve this by restricting activities and structures that could pose a danger in case of an aircraft incident. These restrictions target:

- **Large gatherings of people.** This includes residences, schools, churches, and sports facilities.
- **Bird attractants.** Activities or facilities that attract birds, such as landfills or wastewater treatment plants.
- **Visual distractions.** Glare from buildings or other structures can interfere with pilots' visibility.
- **Hazardous materials.** Fuel storage facilities and similar sites increase the potential damage from an accident.

FAA also provides guidance on prohibited activities in AC 150/5190-4B.

## 1.2 INCORPORATING AIRPORT ZONING REGULATIONS

Local governments benefit significantly from ensuring their airport zoning regulations are cohesive with other local plans and goals. Ensuring cohesive airport zoning regulations is essential for local governments to achieve balanced development, resource efficiency, community livability, and informed long-term decision-making. This section delves into the collaborative approach Florida employs to manage land use and promote public safety and explores how stakeholders work together to create and adopt airport zoning regulations, fostering thriving communities alongside flourishing airports.

### 1.2.1 Comprehensive Plan Alignment

Many local governments elect to address airport zoning regulations as part of their local comprehensive plans. When airport zoning regulations align with the community's comprehensive plan (a long-term vision for the whole community), they contribute to integrated and sustainable development, increased efficiency and cost savings, enhanced public engagement and transparency, and higher levels of regulatory compliance.

Chapter 163, FS, Intergovernmental Programs includes provisions related to county and municipal planning, including comprehensive planning. In accordance with these statutes, all 67 counties and 400+ municipalities in Florida are required to adopt a comprehensive plan. Airport master plans and airport zoning regulations must operate within and be compatible with their respective comprehensive plans. If a local government has adopted land development regulations (LDRs), they must address airport zoning consistent with the provisions of Chapter 333, FS. The provisions of Chapter 163, FS, that relate to airports are discussed in this section. Understanding these laws is crucial for maintaining cohesive plans and regulations and achieving community goals.

Although airport master plans and airport layout plans may be included in comprehensive plans, it is not required that aviation projects be included in the five-year capital improvements plan and the capital improvements element. There are multiple elements in a comprehensive plan required by Section 163.3177, FS. Airports are most frequently included and addressed in one or more of the following elements:

- Transportation element
- Future land use element
- Intergovernmental coordination element
- Capital improvements element



As described in further detail below, each of these elements contains requirements intended to increase protection for airports and airspace from encroachment of incompatible development. This Guidebook can be utilized as an information source to help provide consistency with the requirements of Chapter 163, FS.

### Transportation Element

Florida law dictates the content of transportation plans for different communities. For local governments within large metropolitan areas (MPOs), the law mandates a comprehensive plan that addresses facilities like airports, seaports, and rail terminals, along with access to these facilities (Section 163.3177(6)(b)2.b., FS). Additionally, they must consider future airport development and land use compatibility around existing airports (Section 163.3177(6)

(b)2.d., FS). However, for smaller communities with less than 50,000 residents, the law only requires airport plans to address how people and goods move within the airport itself (Section 163.3177(6)(b)2.b., FS).

Section 163.3177(6)(b)4., FS, addresses the relationship between local comprehensive plans and airport master plans. This law allows for the incorporation of an airport master plan (a blueprint for future airport development) directly into the community's comprehensive plan. This ensures both plans work together smoothly.

It is important to note that any changes to a comprehensive plan need to address how land use around the airport interacts with its operations, following the guidelines in Chapter 333, FS. Additionally, a comprehensive plan's transportation section should show both existing and planned transportation features, including airport access routes.

### Future Land Use Element

According to Section 163.3177(6)(a)2.g., FS, the required future land use element must be based upon surveys, studies, and data regarding the area, including the compatibility of uses on lands adjacent to an airport. Additionally, Section 163.3177(6)(a)3.b., FS, requires that the future land use element include specific rules for how future development near the airport will be approved. These rules should also consider compatibility and follow those same state guidelines.

### Intergovernmental Coordination Element

Section 163.3177(6)(h)c., FS, requires that the intergovernmental coordination element provide for interlocal agreements pursuant to Section 333.03(1)(b), FS, to address an airport hazard area located wholly or partially within a political subdivision different than the political subdivision of the airport location. For more information about interlocal agreements and joint zoning boards, please see Guidebook Section 1.2.2.

### Capital Improvements Element

Section 163.3177(3)(a)4., FS, states that a comprehensive plan needs a clear schedule for future infrastructure improvements. This includes projects funded by any level of government (federal, state, or local) that the local government is responsible for. This can also include privately funded projects, even if the local government has no fiscal responsibility.

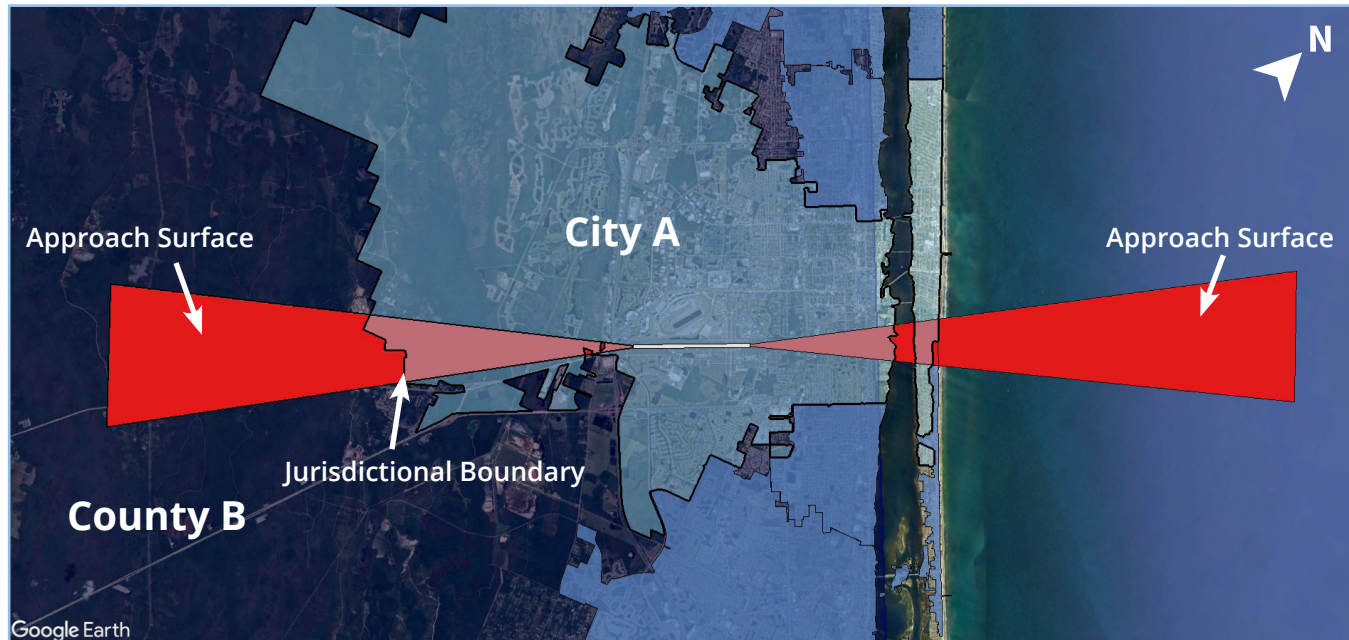
This schedule must be aligned with the larger transportation plans for the region, created by the MPO in metropolitan areas. It should cover at least the next five years, giving everyone a clear picture of upcoming infrastructure changes.

### Note

A Metropolitan Planning Organization (MPO) is an organization responsible for carrying out transportation planning and programming.

## 1.2.2 Interlocal Agreements and Joint Zoning Boards

Understanding the reach of airports and the applicability of state and federal law beyond an airport's boundaries can be complex, as airports have imaginary surfaces (zones of influence) that sometimes extend beyond a single jurisdiction, as seen in **Figure 8**. This can create a potential conflict when a neighboring town has land under one of these surfaces, potentially allowing them to build something that obstructs the airspace.



**Figure 8: Interlocal Agreement Example Scenario**

To avoid such conflicts, Section 333.03(1)(b) requires local governments to collaborate. They can either form a formal agreement or create a joint zoning board. This allows them to work together to create and enforce airport protection regulations for the neighboring land. **In simpler terms, when setting airport zoning rules, local governments must partner with their adjacent political subdivisions who share the airspace to promote mutual understanding and safety.**

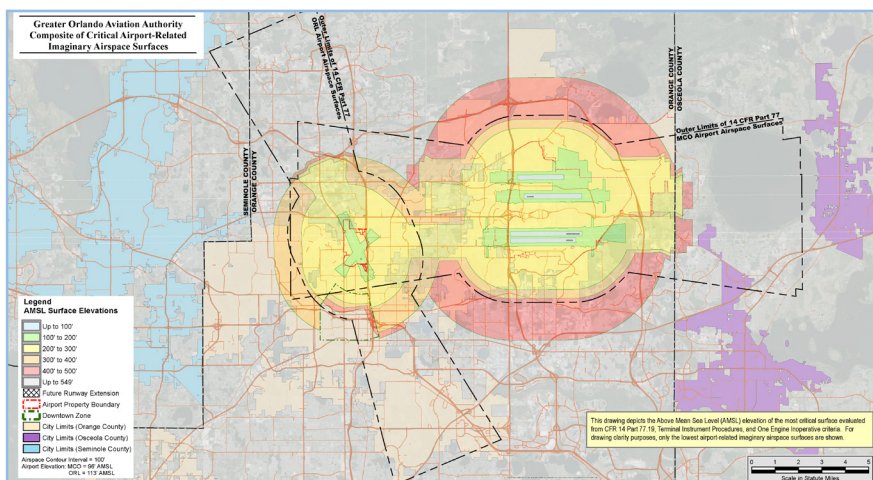
**Figure 8** illustrates a scenario where an interlocal agreement is required. Imagine that in this scenario:

- City A (Light Blue area) has an airport with a Northeast Southwest runway (white strip).
- County B (Dark Blue area) surrounds City A.
- The runway's approach surface (Red area) extends into both City A and County B.

If County B wants to build a tall structure in the red area, it could disrupt City A's airport. County B might argue they have zoning authority since it is their land. City A might argue the structure creates a safety hazard. To avoid such conflicts Section 333.03(1)(b) requires that City A and County B either:

- By interlocal agreement, adopt, administer, and enforce a set of airport protection zoning regulations; or
- By ordinance, regulation, or resolution duly adopted, create a joint airport protection zoning board that shall adopt, administer, and enforce a set of airport protection zoning regulations. The joint airport protection zoning board shall have as voting members two representatives appointed by each participating political subdivision and a chair elected by a majority of the members so appointed. The airport manager or a representative of each airport in the affected participating political subdivisions shall serve on the board in a nonvoting capacity.

**Figure 9** provides an example of a shared airspace depiction from an Orlando, FL area interlocal agreement.



**Figure 9: Greater Orlando Aviation Authority (GOAA) Interlocal Agreement Airspace Depiction**

An **interlocal agreement** for establishing airport zoning regulations is a formal contract between two or more local governments to collaborate on managing land use around an airport.

A **joint zoning board** is essentially a shared committee established by two or more local governments to manage land use near an airport. Instead of signing a written agreement, the involved local governments form a joint board with representatives from each participating jurisdiction. This board then acts as a single entity, with the authority to adopt and enforce airport zoning regulations for the shared airspace. This allows for direct collaboration and decision-making on the regulations, similar to how a single government would manage zoning within its own territory.

The key differences of a joint zoning board from an interlocal agreement are:

1	<p><b>Structure.</b></p> <p>A joint board is a formal entity with members, meetings, and voting procedures, while an interlocal agreement is a written document of record.</p>	2	<p><b>Flexibility.</b></p> <p>An interlocal agreement can be tailored to specific needs and preferences, while a joint board might have a more standardized structure.</p>	3	<p><b>Control.</b></p> <p>Both parties have equal control in a joint board, while an interlocal agreement might involve specific power dynamics based on the agreement's terms.</p>
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The choice between an interlocal agreement and a joint zoning board depends on several factors, such as:

- **Complexity of the situation.** A joint board might be better suited for complex situations requiring ongoing collaboration.
- **Level of trust and cooperation.** An interlocal agreement might be sufficient if there's strong trust and communication between the jurisdictions.
- **Desired level of control and flexibility.** Each option offers different levels of control and flexibility in shaping the regulations.

Regardless of the chosen solution, both interlocal agreements and joint zoning boards serve the same purpose: to ensure coordinated and effective management of land use near airports across jurisdictional boundaries. The optimal choice depends on the specific needs and preferences of the involved local governments. However, since an interlocal agreement is a document on record, it can often provide more stringent and reliable guidance for joint decision-making than a board who may not be able to act without quorum.



### 1.2.3 Procedure for Adopting Airport Zoning Regulations

When airport zoning regulations have been drafted and agreed upon, local governments may begin the formal adoption procedure. Section 333.05, FS, describes the process for the formal adoption of airport zoning regulations for local Florida governments. Before holding a public hearing to adopt the airport zoning regulations, Florida law requires a public hearing be held that gives community members an opportunity to provide their input.



#### 333.05, FS

##### (1) NOTICE AND HEARING

Airport zoning regulations may not be adopted, amended, or repealed under this chapter except by action of the legislative body of the political subdivision or affected subdivisions, or the joint board provided in s. 333.03(1)(b)2. by the political subdivisions therein provided and set forth, after a public hearing in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. Notice of the hearing shall be published at least once a week for 2 consecutive weeks in a newspaper of general circulation in the political subdivision or subdivisions where the airport zoning regulations are to be adopted, amended, or repealed.

##### (2) AIRPORT ZONING COMMISSION

Before the initial zoning of any airport area under this chapter, the political subdivision or joint airport zoning board that is to adopt, administer, and enforce the regulations must appoint a commission, to be known as the airport zoning commission, to recommend the boundaries of the various zones to be established and the regulations to be adopted therefor. Such commission shall make a preliminary report and hold public hearings thereon before submitting its final report, and the legislative body of the political subdivision or the joint airport zoning board may not hold its public hearings or take any action until it has received the final report of such commission, and at least 15 days shall elapse between the receipt of the final report of the commission and the hearing to be held by the latter board. If a planning commission, an airport commission, or a comprehensive zoning commission already exists, it may be appointed as the airport zoning commission.



Simply put, the steps involved in the process (**Figure 10**) are:

- 1. Airport zoning commission.** The political subdivision or joint airport zoning board must appoint a group called the “airport zoning commission.” This commission’s purpose is to recommend the new regulations and the geographical areas they apply to. If a planning commission, an airport commission, or a comprehensive zoning commission already exists, it may be appointed as the airport zoning commission.
- 2. Public hearing.** An announcement must be published in a newspaper of general circulation in the community at least once a week for two consecutive weeks, providing for sufficient notice of the hearing date. The public hearing must be held to gather an initial round of community feedback.
- 3. Additional hearings.** The commission drafts a preliminary report on the proposed airport zoning regulations. The report will include the commission’s recommendations to be discussed at additional public hearings to gather public input on these recommendations.
- 4. Final decision.** The commission will then update their report on the commission’s recommendations and the gathered community input and submit the report to the local government. After reviewing the commission’s report and waiting at least 15 days, the deciding body (legislative body of the political subdivision or the join airport zoning board) makes the final decision on adopting the airport zoning regulations.

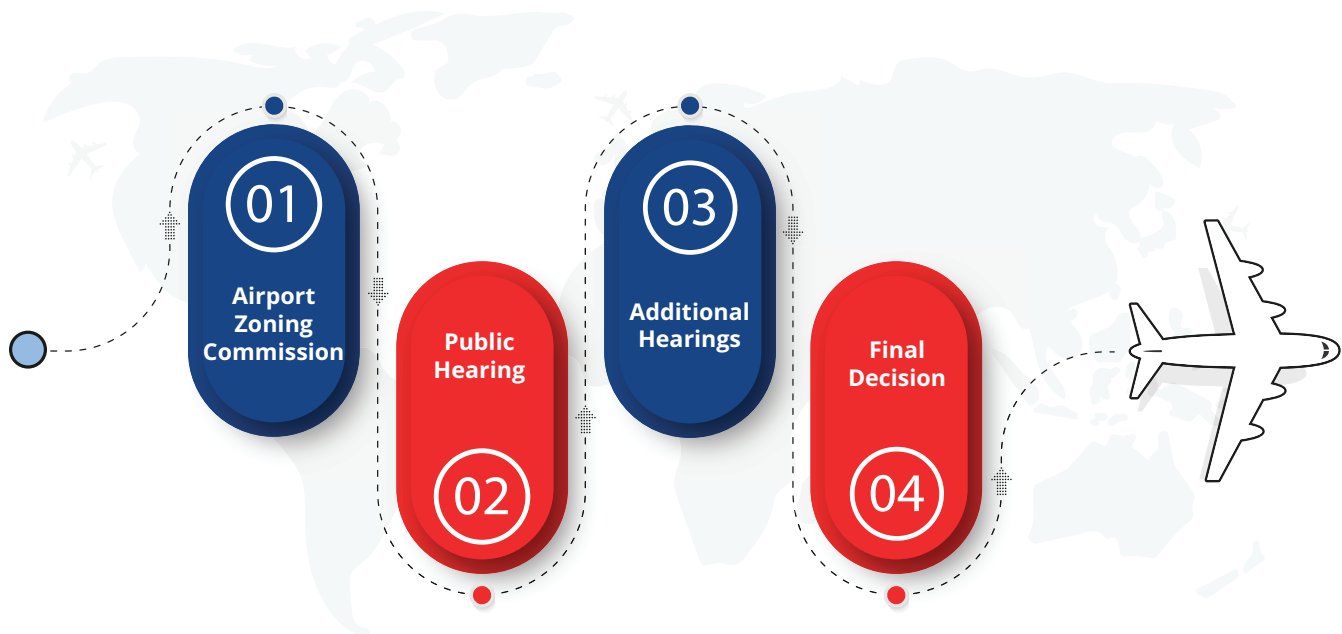


Figure 10: Chapter 333, FS, Airport Zoning Regulations Adoption Process

## 1.2.4 Filing Airport Zoning Regulations With the FDOT Aviation Office

### 333.03(3), FS

Political subdivisions shall provide a copy of all airport protection zoning regulations and airport land use compatibility zoning regulations, and any related amendments, to the department's aviation office within 30 days after adoption.

Timely consideration and preparation (or amendment) of airport zoning regulations are important to protect public-use airports and military airfields from encroachment of incompatible land uses. Section 333.03(3) mandates local governments to file their new or amended airport zoning regulations with the FDOT Aviation Office within 30 days of adoption to promote compliance and proper record-keeping.

Airport zoning regulations are crucial documents that need to be filed with the FDOT Aviation Office for several important reasons:

Compliance with Federal Law:

- **FAA regulations.** The FDOT Aviation Office plays a crucial role in ensuring compliance with FAA regulations regarding airport safety and airspace protection. Having zoning regulations on file demonstrates adherence to these federal mandates.

Transparency and Accountability:

- **Public access.** Filing regulations with the FDOT Aviation Office ensures public access to the information, allowing residents and stakeholders to understand the land use restrictions around airports and participate in the planning process.
- **Dispute resolution.** Clearly defined regulations provide a basis for resolving potential conflicts between landowners, airports, and local governments regarding land use permissions.

While local governments have flexibility in drafting and adopting their airport zoning regulations, the final adopted version needs to be submitted to the FDOT Aviation Office. This promotes compliance with federal, state, and local laws regarding development near airports. Following these regulations helps responsible communities avoid potential legal issues and promotes the safety and efficiency of airport operations.

## Quick Notes

This section functions as a checklist outlining essential components for crafting local government airport zoning regulations, adhering to Chapter 333, FS. For local governments lacking existing regulations, this checklist aids in drafting staff reports, analytical documents, and presentations. It also serves as a convenient reference during meetings with elected officials, appointed officials, departments, and agencies when discussing upcoming airport zoning changes. Finally, for local governments with existing regulations, this checklist can be used to evaluate if their regulations are current and meet state requirements, potentially prompting necessary amendments.

### ***Required Components of Airport Zoning Regulations – Quick Notes***

The following components should be addressed in local government airport zoning regulations per Chapter 333, FS:

#### **Airport Protection Zoning Regulations**

- 1. Airspace Obstruction Permit Process for Potential Obstructions** (Section 333.025, FS). Per Section 333.03(1)(c)(1-5), regulations must provide a permitting process that includes the following components:
  - A permit for the construction or alteration of any obstruction (Section 333.03(1)(c)(1), FS).
  - Obstruction marking and lighting requirements (Section 333.03(1)(c)(2), FS).
  - Documentation showing compliance with the federal requirement for notification of proposed construction or alteration of structures and a valid aeronautical study submitted by each person applying for a permit (Section 333.03(1)(c)(3), FS).
  - Consideration of the following statutory criteria when determining whether to issue or deny a permit (Section 333.03(1)(c)(4), FS, quoting Section 333.025(6)(a-h)).
    - The safety of persons on the ground and in the air.
    - The safe and efficient use of navigable airspace.
    - The nature of the terrain and height of existing structures.
    - The effect of the construction or alteration of an obstruction on the state licensing standards for a public-use airport contained in chapter 330 and rules adopted thereunder.
    - The character of existing and planned flight operations and developments at public-use airports.
    - Federal airways, visual flight rules, flyways and corridors, and instrument approaches as designated by the FAA.
    - The effect of the construction or alteration of an obstruction on the minimum descent altitude or the decision height at the affected airport.
    - The cumulative effects on navigable airspace of all existing obstructions and all known proposed obstructions in the area.
    - That approval of a permit cannot be based solely on the determination by the Federal Aviation Administration that the proposed structure is not an airport hazard (Section 333.03(1)(c)(5), FS).

## Quick Notes

- 2. Marking and Lighting Requirements** (Section 333.025(7), FS). When issuing a permit under Chapter 333, FS, the political subdivision or its administrative agency shall require the owner of the obstruction to install, operate, and maintain thereon, at his or her own expense, marking and lighting in conformance with the specific standards established by the FAA.
- 3. Interlocal Agreement or Joint Zoning Board Applicability** (Section 333.03(1)(b), FS). In scenarios where an airport's imaginary surfaces extend beyond a single jurisdiction, statute requires local governments to collaborate to create airport zoning regulations that apply to the relevant jurisdictions. They can either form a formal interlocal agreement or create a joint zoning board to ensure coordinated and effective management of land use near airports across jurisdictional boundaries.

### Land Use Compatibility Zoning Regulations

- 4. Prohibition of New Landfills and the Restriction of Existing Landfills** (Section 333.03(2)(a), FS). Regulations must address the prohibition of new landfills and the restriction of existing landfills within the following areas:
  - Within 10,000 feet from the nearest point of any runway used or planned to be used by turbine aircraft.
  - Within 5,000 feet from the nearest point of any runways used by only non-turbine aircraft.
  - Outside the perimeters defined in the previous two bullet points, but still within the lateral limits of the civil imaginary surfaces defined in Part 77. Case-by-case review of such landfills is advised.
- 5. Mitigation of Hazards via Bird Management Requirements** (Section 333.03(2)(b), FS). Regulations must address scenarios when any landfill is located and constructed in a manner that attracts or sustains hazardous bird movements from feeding, water, or roosting areas into, or across, the runways or approach and departure patterns of aircraft. The landfill operator must incorporate bird management techniques or other practices to minimize bird hazards to airborne aircraft.
- 6. Prohibition of Incompatible Uses Within the Noise Contours Established by a Federally Approved Noise Study** (Section 333.03(2)(C), FS). Regulations must address scenarios when an airport authority or other governing body operating a public-use airport has conducted a noise study in accordance with 14 CFR part 150, or when a public-use airport owner has established noise contours pursuant to another public study accepted by the FAA, the prohibition of incompatible uses, as established in the noise study in 14 CFR part 150, Appendix A or as a part of an alternative FAA-accepted public study, within the noise contours established by any of these studies, except if such uses are specifically contemplated by such study with appropriate mitigation or similar techniques described in the study.
- 7. Prohibition of Incompatible Uses Near an Airport With No Noise Study** (Section 333.03(2)(d), FS). Regulations must address scenarios when an airport authority or other governing body operating a public-use airport has not conducted a noise study, the prohibition of residential construction and educational facilities, with the exception of aviation school facilities or residential property near a public-use airport that has as its sole runway a turf runway measuring less than 2,800 feet in length, within an area contiguous to the airport measuring one-half the length of the longest runway on either side of and at the end of each runway centerline.

## Quick Notes

- 8. Restriction of New Incompatible Uses Within RPZs** (Section 333.03(2)(e), FS). Regulations must address the restriction of new incompatible uses, activities, or substantial modifications to existing incompatible uses within RPZs.

### *Incorporating Airport Zoning Regulations – Quick Notes*

Per Florida Statute, the following process should be followed to formally adopt airport zoning regulations:

- 1. Comprehensive Plan Alignment** (Chapter 163, FS). Chapter 163, FS, Intergovernmental Programs includes provisions related to county and municipal planning, including comprehensive planning. In accordance with these statutes, all 67 counties and 400+ municipalities in Florida are required to adopt a comprehensive plan. Airport master plans and airport zoning regulations must operate within and be compatible with their respective comprehensive plans. If a local government has adopted land development regulations (LDRs), they must address airport zoning consistent with the provisions of Chapter 333, FS.
- 2. Procedure for Formally Adopting Airport Zoning Regulations** (Section 333.05, FS). Per statute, the following process is required for formal adoption:
  - **Airport Zoning Commission.** The political subdivision or joint airport zoning board must appoint a group called the “airport zoning commission.” This commission’s purpose is to recommend the new regulations and the geographical areas they apply to. If a planning commission, an airport commission, or a comprehensive zoning commission already exists, it may be appointed as the airport zoning commission.
  - **Public Hearing.** An announcement must be published in a newspaper of general circulation in the community at least once a week for two consecutive weeks, providing for sufficient notice of the hearing date. The public hearing must be held to gather an initial round of community feedback.
  - **Additional Hearings.** The commission drafts a preliminary report on the proposed airport zoning regulations. The report will include the commission’s recommendations to be discussed at additional public hearings to gather public input on these recommendations.
  - **Final Decision.** The commission will then update their report on the commission’s recommendations and the gathered community input to the local government. After reviewing the commission’s report and waiting at least 15 days, the deciding body (legislative body of the political subdivision or the joint airport zoning board) makes the final decision on adopting the airport zoning regulations.
- 3. File Airport Zoning Regulations With the FDOT Aviation Office** (Section 333.03(3), FS). Political subdivisions must provide a copy of all airport protection zoning regulations and airport land use compatibility zoning regulations, and any related amendments, to the department’s aviation office within 30 days after adoption.

## Enhancing Airport Zoning Regulations

Chapter 2 explores additional guidance beyond the requirements of Chapter 333, FS, for local government planners and staff when adopting new or enhancing existing airport zoning regulations.

This additional guidance builds upon the foundation provided in Chapter 333, FS. While not mandatory components of the regulations themselves, these considerations can be valuable for informed decision-making. It is important to note that state law does not prohibit local governments from enacting airport zoning regulations that are more strict than what is prescribed in statute.

Therefore, based on federal guidance, this section presents additional factors to consider when developing and amending airport zoning regulations, such as strategies for promoting compatible land use development and utilizing technology-based tools for monitoring and enforcement.



## 2.1 RESOURCES FOR PLANNERS

Maintaining safe and efficient airport operations hinges on addressing several key land use compatibility concerns, including the maintenance of unobstructed airspace, the protection of navigational facilities, and safeguarding existing and future airport capacity. Local land use planning authorities must identify and assess land uses incompatible with airports to understand their potential impacts. While addressed in part by Chapter 333, FS, this section outlines the key characteristics of such developments commonly found near airports to lay the foundation of additional considerations for inclusion in airport zoning regulations. According to Airport Cooperative Research Program (ACRP) Report 27, Enhancing Airport Land Use Compatibility, “compatible” land uses can coexist with airports without hindering safe operations or causing excessive noise or hazards for nearby communities. Identifying which uses are incompatible with this goal depends on particular variables of the land use, including:

- **Land Use Management.** How the land is used and maintained.
- **Location.** How close the land use is to the airport.
- **Development Attributes.** What development is allowable on the land such as building characteristics like height and density.
- **Secondary Impacts.** What activities are associated with the land use.



**Land Use  
Management**



**Location**



**Development  
Attributes**



**Secondary  
Impacts**

### Land Use Compatibility

Determining land use compatibility requires understanding and answering the following two questions:

- What are the conditions required for airports to operate safely and efficiently? (That is, what land use characteristics can adversely affect airport operations?)
- What attributes of airports potentially compromise the health, safety, and welfare of people occupying nearby residences, neighborhoods, and communities?

There are six core characteristics of land use that determine the degree to which the land use is compatible with airport operations and are crucial to evaluate when making development decisions:

- Airspace
- Visual/atmospheric interference
- Population density
- Wildlife
- Noise
- Protection of people property\*

\*The sixth core characteristic relates to development within the RPZ. However, since Chapter 333, FS, addresses this concern it is not repeated in this Chapter.

Depending on the proposed development near an airport, there may be one or more safety or annoyance impacts within these categories that require careful evaluation. Each proposed development can be generally classified into one of **seven major land use categories**:

- Residential
- Commercial
- Industrial and mining
- Institutional
- Infrastructure/utilities/energy production
- Agricultural and open space
- Parks and recreational land use

**Table 1** highlights the potential considerations associated with each land use surrounding airports. These potential areas of impact are discussed in more detail in the following sections.

**Table 1: Major Land Use Categories and Their Potential Levels of Impact**

(FAA Advisory Circular 150/5190-4B, Airport Land Use Compatibility Planning)	Airspace	Visual and/or Atmospheric Interference	Population Density	Wildlife	Noise Sensitivity
Residential	P	P	I	P	I
Commercial	P	P	I	P	I
Industrial & Mining	P	P	P	P	N
Institutional	I	I	I	I	I
Infrastructure/Utilities/ Energy Production	I	I	N	P	N
Agriculture & Open Space	N	I	N	I	N
Parks and Recreation	P	P	P	P	I

**I** = Impact   **P** = Possible   **N** = No Impact   Source: FAA Advisory Circular 150/5190-4B, Airport Land Use Compatibility Planning

While Chapter 333, FS, sets a baseline for airport zoning regulations, local planners have the power to enact additional regulations to protect public health, safety, and welfare of their local communities. Section 333.03(5) notes that “This section [333, FS,] does not prohibit an airport authority, a political subdivision or its administrative agency, or any other governing body operating a public-use airport from establishing airport zoning regulations more restrictive than prescribed in this section in order to protect the health, safety, and welfare of the public in the air and on the ground.” **Therefore, if local governments determine that additional restrictions are necessary for their local circumstances beyond those explicitly included in Chapter 333 or in federal guidance, they may add them.**

## 2.1.1 What Are Supplementary Protections?

Minimizing disruptions to both airport operations and surrounding communities requires a two-pronged approach: mitigation techniques to address current impacts and regulatory protections to safeguard against future safety and quality-of-life concerns for residents near airports. This section, categorized by land use characteristic, details how airport zoning regulations can be used to protect against these concerns.

**Please note that this is not an exhaustive list of all land use and zoning considerations when it comes to airports, but it includes some common land use solutions and strategies that are used to promote compatibility.**

### 2.1.1.1 Airspace

**It is important to understand that not all hazards come in the form of tall buildings.** While tall buildings in the vicinity of an airport are a concern, many other structures can penetrate protected airspace and disrupt airport operations. Discouraging all tall structures within airport approach and departure areas is particularly critical to maintaining compatibility. Cell or TV towers, power lines, trees, terrain, and even temporary objects like cranes can pose risks, especially in low visibility. Aircraft rely on specific flight paths with clear approaches during bad weather. These paths consider the height of nearby objects. If a tall structure obstructs the approach, pilots need new procedures, potentially requiring longer runways or adjustments to landing points. This reduces the safety margin for stopping within the runway length.

#### Proper Application of Part 77.9(b)

Some local governments have incorporated the imaginary surfaces in 14 CFR Part 77.9(b) as a standard for a limitation on the height of proposed structures across the entire municipality, which is not the intent of the standard. Such a standard will result in a significantly limited height standard for some proposed structures that are beyond the airport's area of influence. Local governments do have authority under Chapter 333, FS, to establish airport zoning regulations more restrictive than those allowed in accordance with Chapter 333, FS; Part 77; or an FAA Determination to protect the health, safety, and welfare of the public in the air and on the ground. However, local governments should be cognizant as to how these standards are used in their airport zoning regulations to avoid unintended consequences such as a height limitation for a tall structure that has no effect on airport protected airspace.

Even in good weather, tall structures can force aircraft to circle or climb over them, impacting efficiency and safety. This is especially true for helicopters, military aircraft, and agricultural spraying operations that fly at lower altitudes, making them more vulnerable to power lines, wind turbines, and tall buildings further from the airport.

#### When to Adopt Additional Protections

Local governments may decide to implement additional airspace protections for several reasons, including:

- Unique geographical features or land use patterns that warrant additional protection measures.
- The desire to attract or retain businesses or industries that require a certain level of airspace protection, such as research and development facilities or aerospace companies.
- Common local weather conditions such as strong winds, heavy precipitation, or low visibility.
- Anticipation of development surrounding the airport which may pose airspace obstructions.



### 2.1.1.2 Visual/Atmospheric Interference

Safe landings and takeoffs rely on pilots having a clear view, free of visual obstructions. Unimpaired vision becomes even more critical without navigational aids. Visual obstructions encompass a variety of different characteristics that can impact airport operations and pose safety hazards. ACRP Report 27 discusses the following visual obstructions:

- **Dust.** Dry climates or activities like farming and construction can stir up dust, reducing visibility during low-altitude maneuvers.
- **Glare.** Reflective surfaces like glass buildings, solar panels, or water can create blinding glare for pilots, especially during low-level flight.
- **Light confusion.** Upward-facing lights can disorient pilots, especially at night or in low visibility. Placing lighting in patterns which mimic runway lighting can also make it challenging for pilots to distinguish.
- **Smoke and Steam.** Emissions (visible and invisible) can drift into airport approaches, creating visibility problems, and/or thermal disturbance which can cause turbulence.

Land uses that produce such visual obstructions near an airport may have an impact on aviation safety due to visual and/or atmospheric interference with airport operations.

#### When to Adopt Additional Protections

Local governments may decide to implement additional visual/atmospheric protections for several reasons, including:

- Propensity of land uses causing visual obstructions within their jurisdiction and near the airport.
- Desire to protect sensitive lands just outside the specified distances.
- Desire to protect a larger zone of land around the airport.
- Anticipation of growth surrounding the airport which may cause visual obstructions.
- Airport staff feedback that existing mitigation techniques are not sufficient.

#### Addressing Visual Obstructions

Visual obstructions are not specifically referenced in Part 77 or Chapter 333, FS. However, these factors can be included as a separate section when developing airport zoning regulations to further promote safe navigation to and from Florida's airports.

### 2.1.1.3 Population Density

Limiting uses that attract higher concentrations of people near airports helps reduce the potential impacts of aircraft accidents should they occur. Some example uses that commonly attract higher concentrations of people include, but are not limited to:

- **Dense housing.** Apartment buildings, townhomes, and other multifamily housing.
- **Large gathering places.** Sports stadiums, concert venues, shopping malls.
- **Public service facilities.** Hospitals, schools, assisted living facilities.

Residential, commercial, and institutional land uses near an airport all increase population density in the airport vicinity, which could impact safety for those in the air and on the ground.

#### When to Adopt Additional Protections

Local governments may decide to implement additional population density limitations for several reasons, including:

- Propensity of land uses encouraging population density within their jurisdiction and near the airport.
- Desire to protect sensitive lands just outside the specified distances.
- Desire to protect a larger zone of land around the airport.
- Anticipation of growth surrounding the airport which may increase population density.

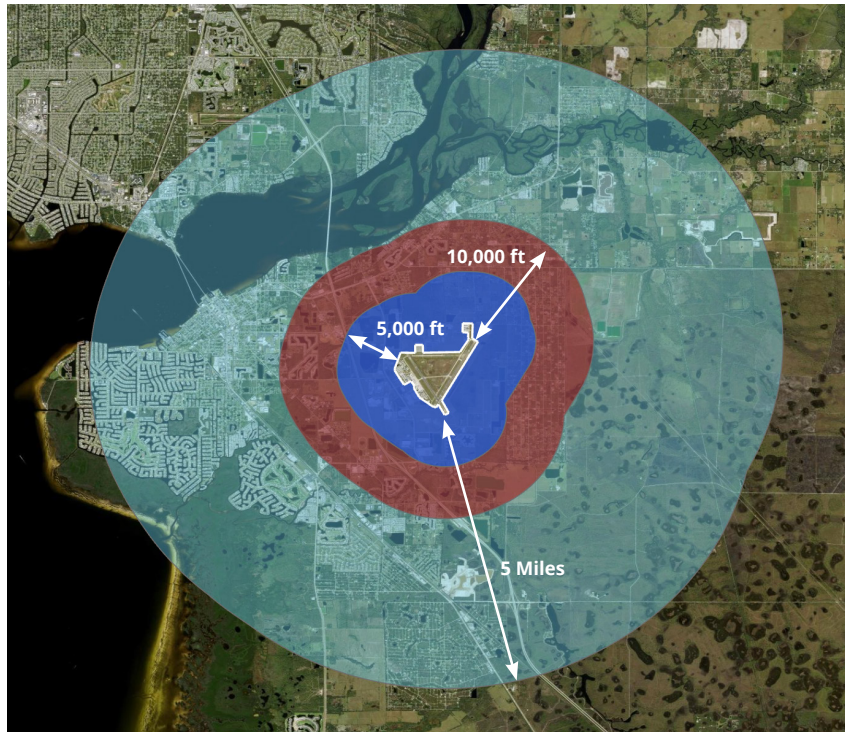


### 2.1.1.4 Wildlife

Wildlife on airport grounds is a significant safety hazard due to the possibility of aircraft collisions. According to the FAA, there were 17,190 strikes reported in 2022, a 10% increase from 2021<sup>7</sup>. Bird strikes are the most common wildlife threat to aircraft, but other animals can also pose a danger on runways. In Florida this could include prevalent animals like deer, foxes, tortoises, alligators, and/or other animals. To minimize these risks, it is critical for local planning authorities to develop local zoning ordinances that limit the potential for new development to attract wildlife.

Wildlife attractants are anything that attracts animals by providing a source of food, water, or shelter. This includes human-made features like landfills or ponds, or natural features like wetlands. The FAA has guidelines to help airports manage these attractants (FAA Advisory Circular 150/5200-33C, Hazardous Wildlife Attractants on or near Airports). The guidelines recommend keeping these attractants a safe distance from airport operations areas, including:

- 5,000 feet for airports serving smaller, piston-powered aircraft (blue perimeter in **Figure 11**).
- 10,000 feet for airports serving larger, turbine-powered aircraft (red perimeter in **Figure 11**).
- Five-mile radius around the airport's aircraft operations area to protect approach, departure, and circling areas (green perimeter in **Figure 11**).



**Figure 11: FAA Separation Threshold for Potential Wildlife Attractions**

Hazardous wildlife attractants should be avoided, eliminated, or mitigated within these separation distances. Depending on the type of wildlife concern, airports may employ mitigation techniques such as fence installation and elimination of standing water. Local governments may work with airports to provide additional mitigation and protection measures such as the prohibition of crops and other vegetation known to be attractive to wildlife.

#### When to Adopt Additional Protections

Local governments may decide to enact enhanced protections against wildlife presence near airports for several reasons, including:

- Desire to protect sensitive lands just outside the specified distances.
- Anticipation of growth within or just outside of the specified distances which may attract wildlife.
- Airport staff feedback that existing mitigation techniques are not sufficient.
- Wildlife hazard assessments reveal wildlife presence on airport and/or if the airport has been the location of wildlife strikes in the past.

<sup>7</sup> From FAA Report, "Wildlife Strikes to Civil Aircraft in the United States, 1990-2022"



### 2.1.1.5 Noise

Aircraft noise is a major source of incompatibility between airports and surrounding communities. It can disrupt daily life by creating a nuisance that interrupts sleep, work, conversation, and other activities. Beyond annoyance, aircraft noise can also cause vibrations that further impact quality of life for those living and working near airports. The severity of noise impacts varies depending on:

- **Airport type and operations.** Larger airports with more frequent flights by larger aircraft tend to generate more noise than smaller airports that are used by smaller aircraft.
- **Community needs.** Some communities may be more tolerant of noise than others. For instance, residents of a community near an airport hosting frequent military aircraft activity may expect loud airport operations.
- **Surrounding development.** Some land use types are more sensitive to noise than others. For example, institutional uses such as schools are more sensitive to noise impacts (which can disrupt their learning/concentration) than industrial uses which often generate their own noise and may require employees to wear hearing protection.

## The FAA Neighborhood Environmental Survey (NES)

Findings from the FAA's 2017 Neighborhood Environmental Survey show that a higher percentage of people are reporting annoyance from aircraft noise exposure. The study concluded that the public is more sensitive to aircraft noise at lower levels than 65 dB DNL, a noise level that has conventionally been used and recognized as the "threshold" at which the average person experiences annoyance from aircraft noise. See Section 3.2.1 of this Guidebook for a case study on how a local Florida government addressed this issue.

### When to Adopt Additional Protections

Local governments may decide to implement additional restrictions on noise-sensitive use development near airports for several reasons, including:

- Anticipated changes to airport operations or anticipated airport growth which may expand the size of noise contours or increase the impact of aircraft noise in the future.
- Desire to protect sensitive lands just outside the existing noise contours.
- Anticipation of growth within or just outside of the noise contours that is desired to be diverted elsewhere.
- Community feedback and/or complaints about noise that are not sufficiently addressed by statutory language.

## 2.1.6 How to Incorporate Supplementary Protections

The preceding sections provided context in which local governments may want to adopt enhanced airport zoning regulations related to 1) airspace; 2) visual/atmospheric interference; 3) population density; 4) wildlife; and 5) noise. Local governments thus may want to implement additional protections addressing one or more of these components. Implementing these additional protections may be done in two different ways:

### 1. Include additional restrictions on land uses beyond those required by Chapter 333.

Local governments may establish stricter limitations within designated distances of airports (as outlined in Section 333.03(2)(a)) and/or noise contours. These limitations may help alleviate and protect against land use incompatibilities related to each of the above characteristics, such as:

- **Potential airspace obstructions arising from land uses specific to that local jurisdiction.** For example, a municipality near a military base might implement stricter regulations to prevent conflicts between training flights and surrounding developments.
- **Uses causing visual obstructions.** For instance, local governments may opt to prohibit uses such as surface mining or specific agricultural uses due to the dust generation often associated with these uses which can pose visual interference.
- **Uses promoting residential development near an airport.** Additional restrictions may relate to the prohibition of uses that attract large concentrations of people in these areas. In addition to residential uses, this may include uses such as stadiums, malls, or amusement parks.
- **Uses supporting wildlife attractants.** Additional restrictions may relate to the prohibition of additional uses (beyond landfills) that may be wildlife attractants, such as agriculture and open space activities.
- **Uses promoting noise-sensitive development near an airport.** Additional restrictions may relate to the prohibition of additional uses that may be noise-sensitive, such as residential and institutional activities.

## Addressing Environmental Sensitivity in Airport Zoning Regulations

Environmental protection is not explicitly addressed by Chapter 333, FS, and is not discussed in this chapter. Nevertheless, local governments may wish to adopt additional regulations that protect environmentally sensitive lands near the airport. For instance, a local government may opt to prohibit industrial activities near the airport to mitigate environmental pollution.

These regulations can be integrated with existing airport zoning ordinances that already incorporate state-mandated language. Local authorities, in close collaboration with aviation officials and with proper mitigation according to the use, may also choose to permit certain exceptions for specific land uses using their pre-existing variance processes.

### 2. Expand the area of control beyond the boundaries required by Chapter 333.

Local governments have the authority to define entirely new zones around airports or extend existing designated distances (Section 333.03(2)(a)) and/or noise contours. This allows for targeted regulations addressing specific types of airspace obstructions, visual obstructions, population densities, wildlife hazards, noise-sensitive uses, and environmental protection concerns.

These regulations can be incorporated into existing airport zoning ordinances. Local authorities can establish new zones with restricted land uses or update existing zone boundaries to expand or contract the protected area, as long as the resulting limitations remain more stringent than statutory minimums.

## 2.1.7 Potential Downsides to Incorporating Supplementary Protections

As noted previously, Chapter 333 does not prohibit local governments from enacting stricter airport zoning regulations than what is outlined in statute. This section has detailed several additional components local governments may want to consider. However, as part of this consideration, local governments should also consider the potential downsides to enacting additional components of airport zoning regulations. These potential downsides are presented not to deter local governments from enacting airport zoning regulations that are necessary to protect the health, safety, and welfare of the public in the air and on the ground, but rather, to provide additional context before doing so. **The decision to develop more restrictive airport zoning regulations requires careful consideration. Local governments should weigh these factors carefully, engage in public dialogue, and seek expert advice to establish regulations which are effective, balanced, and legally sound.**

### Economic Impact

Additional regulations as detailed in this section may have a negative economic impact on the area surrounding the airport and on the community as a whole. It is sometimes suggested that land uses related to industry, such as commercial businesses and some industrial uses, be restricted in airport zoning regulations. In many circumstances, these are the best land uses that could be hoped for. If these uses are restricted, it could limit the demand for commercial or industrial uses to support increased population, along with a reduction in property and possibly income taxes. Local governments should consider the impact to other development and tax revenue when enacting stricter regulations.

### Additional Enforcement

With additional regulations comes additional enforcement needed to ensure these regulations are being followed. This may come in the form of additional steps in a permitting process, a longer review period, additional variance requests, and/or regulation of non-compliant uses. Local governments should consider the impact to their enforcement mechanisms when enacting stricter regulations.

### Legal Challenges

Additional regulations may prompt legal challenges, especially from developers and property owners, who may determine that they are being wrongfully barred from using the land as they had anticipated. Property owners in particular may be wary about the impacts of additional regulations on their property values. Local governments should ensure that any additional regulations are legally sound and in the best interest of the public good.

### Public Opposition

As with any new regulations, additional airport zoning regulations may result in public opposition. Community members may feel that the additional regulations are limiting their property rights or economic opportunities. Community members may also feel that the regulations do not do enough to address adverse impacts from airport operations, such as noise. Local governments should consider their local community members and potential public opposition when enacting stricter regulations.



## 2.2 RESOURCES FOR DEVELOPERS

The Resources for Developers section is intended to provide additional information for developers to understand the potential impact of proposed development, as well as the tools available to evaluate if their development is or is not a hazard. The section begins with an overview of civil, military, and heliport imaginary surfaces, which inform the determination of airport hazards (tall structures and development). This is followed by a discussion on the FAA's Notice Criteria Tool, an online resource for assessing potential impacts on airspace and determining whether additional review by the FAA is needed. Finally, this section provides guidance on the process of filing FAA Form 7460-1, which formally notifies the FAA of proposed development projects and initiates a review process (if needed).

### 2.2.1 Imaginary Surfaces

Understanding the FAA's imaginary airspace surfaces is crucial when it comes to developing projects near airports. These surfaces are designed to ensure the safety and efficiency of air traffic operations. Part 77 establishes imaginary surfaces to protect airspace for safe aircraft navigation. These imaginary surfaces define volumes of airspace with specific dimensions and slopes. Penetrating an imaginary surface with an airport hazard has the potential to endanger aircraft during the critical landing and take-off phases of flight.

#### 2.2.1.1 Civil Imaginary Surfaces

Part 77 describes civil public-use imaginary surfaces in these categories:

- **Horizontal Surface.** A flat plane extending 150 feet above the airport, encompassing a larger area for larger runways.
- **Conical Surface.** An outward sloping zone from the horizontal surface, providing additional clearance.
- **Primary Surface.** A centered area along the runway, extending slightly beyond each end. The width varies based on the runway type and approach procedures.
- **Approach Surface.** An extended area beyond the runway end, ensuring a clear path for landing aircraft. The width and length depend on the approach precision (visual or instrument). Precision runways have much larger approach surfaces.
- **Transitional Surfaces.** Sloped areas connecting the other surfaces, ensuring a smooth transition between them.

#### 14 CFR Part 77 Imaginary Surface Standards

Read more about civil, military, and heliport imaginary surfaces in [Part 77, Subpart C-Standards for Determining Obstructions to Air Navigation or Navigational Aids or Facilities.](#)

The size and dimensions of these imaginary surfaces vary depending on the category of the airport runway, which is based on the type of approach procedure used (visual or instrument) and the aircraft it can accommodate.

The dimensions and interrelationship of the various surfaces to each other are complex. To assist in visualizing civil airport Part 77 surfaces, **Table 2** summarizes the dimensional standards of the civil imaginary surfaces, and the following **Figure 12** illustrates these imaginary surfaces.

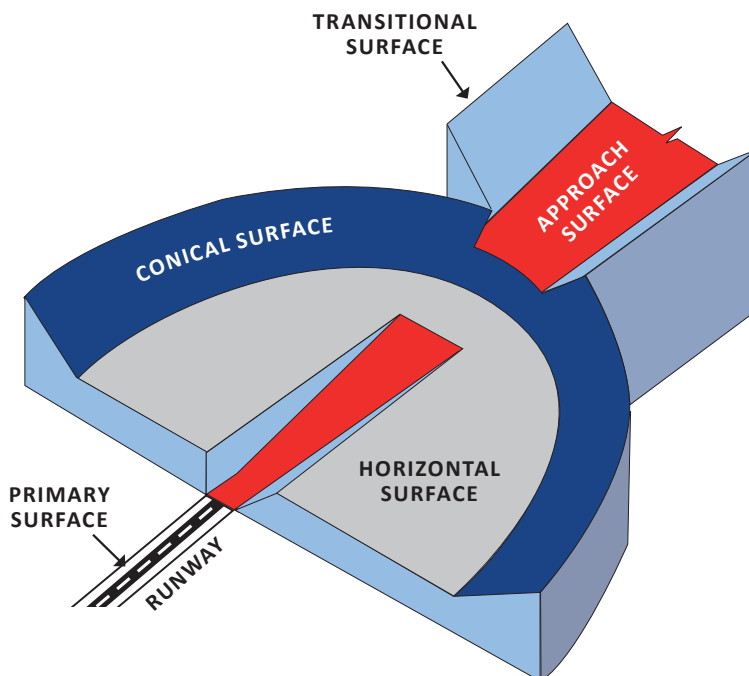
**Table 2: Civil Imaginary Surfaces Dimensional Standards**

Surface	Dimensional Standards (Feet)					
	Visual Runway		Non-Precision Instrument Runway			Precision Instrument Runway
	A	B	A	C	D	
Width of primary surface and approach surface width at inner end	250	500	500	500	1,000	1,000
Radius of horizontal surface	5,000	5,000	5,000	10,000	10,000	10,000
Approach surface width at end	1,250	1,500	2,000	3,500	4,000	16,000
Approach surface length	5,000	5,000	5,000	10,000	10,000	*
Approach slope	20:1	20:1	20:1	34:1	34:1	*
Conical surface slope	20:1	20:1	20:1	20:1	20:1	20:1
Width of conical surface	4,000	4,000	4,000	4,000	4,000	4,000
Transitional surface slope	7:1	7:1	7:1	7:1	7:1	7:1**

\* Precision Instrument Approach Slope is 50:1 for Inner 10,000 Feet and 40:1 for an additional 40,000 Feet.

\*\* Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

Source: <https://www.ngs.noaa.gov/AERO/oisspec.html>, FAR Part 77 Objects Affecting Navigable Airspace



**Figure 12: Civil Airport Imaginary Surfaces**

### 2.2.1.2 United States Department of Defense Airport Imaginary Surfaces

Similar to public-use airport imaginary surfaces, military airports have a set of criteria in Part 77 used by the FAA to evaluate potential impacts of a proposed development. Since Florida has a number of military airports, information from pertinent regulations regarding the United States Department of Defense (DOD)'s imaginary surfaces are provided below. These zones are similar to those at civilian airports but with some nuanced differences.

- **Inner Horizontal Surface.** A flat, oval-shaped area 150 feet above the airfield, larger at the runway ends.
- **Conical Surface.** An outward sloping zone from the horizontal surface for additional clearance.
- **Outer Horizontal Surface.** A large, flat area 500 feet above the airfield, extending outward from the conical surface.
- **Primary Surface.** A centered area along each runway, 2,000 feet wide in most cases. Exceptions might exist at established bases with older development patterns.
- **Clear Zone Surface.** A short zone at each runway end, same width as the primary surface and 1,000 feet long.
- **Approach Clearance Surface.** A large, inclined plane guiding aircraft during landing that starts beyond the runway end and extends outward for 50,000 feet. The slope is steeper near the runway and then levels out at a higher altitude. The width starts the same as the primary surface and widens to 16,000 feet at the end.
- **Transitional Surfaces.** Sloped areas connecting all the other surfaces smoothly.

The dimensions and interrelationship of the various surfaces to each other are complex. To assist in visualizing military airport Part 77 surfaces, **Table 3** summarizes the dimensional standards of the military imaginary surfaces, and the following **Figure 13** illustrates these imaginary surfaces.

**Table 3: Military Imaginary Surfaces Dimensional Standards**

Description	Dimension (Feet)	Notes
Primary surface width	2,000	
Primary surface length	Runway length	
Clear zone surface width	2,000	Same width as primary surface
Clear zone surface length	1,000	
Start of approach clearance surface	200	Beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end
Length of approach clearance surface	50,000	
Slope of approach clearance surface	50:1	Until it reaches an elevation of 500 feet above the established airport elevation
Length of sloped portion of approach surface	25,000	
Start of horizontal portion of approach clearance surface	25,000	Continues horizontally at 500 feet above the established airport elevation to a point 50,000 feet from the point of beginning

Table 3: Military Imaginary Surfaces Dimensional Standards, cont.

Description	Dimension (Feet)	Notes
Width of approach clearance surface at start	2,000	Same as the primary surface
Width of approach clearance surface at end of horizontal portion	16,000	The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet
Radius of inner horizontal surface	7,500	The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents
Elevation of inner horizontal surface	150	Above the established airfield
Horizontal width of conical surface	7,000	A surface extending from the periphery of the inner horizontal surface outward and upward
Slope of conical surface	20:1	Slope ratio is horizontal: vertical
Elevation of conical surface at end of slope	500	Above the established airfield elevation
Elevation of outer horizontal surface	500	Above the established airfield elevation
Width of outer horizontal surface	30,000	Extending outward from the outer periphery of the conical surface
Slope of transitional surfaces	7:1	The slope of the transitional surface is 7:1 outward and upward at right angles to the runway centerline
Start of transitional surfaces	1,000 from centerline of runway	These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface, or other transitional surfaces
End of transitional surfaces	See notes	The transitional surface ends at the inner horizontal surfaces, conical surface, outer horizontal surfaces, or at an elevation of 150 feet

Source: 14 CFR Part 77

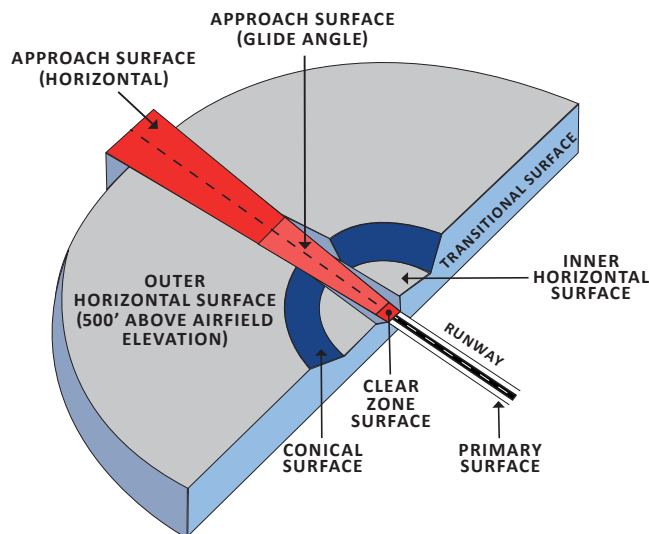


Figure 13: Military Airport Imaginary Surfaces

### 2.2.1.3 Heliport Imaginary Surfaces

Similar to civil public-use airport imaginary surfaces, heliports have a set of criteria used by the FAA to evaluate potential impacts of a proposed development. Since Florida has a number of heliports, information from pertinent regulations regarding heliport imaginary surfaces are provided below.

- **Primary Surface:** A flat, level area matching the size and shape of the designated landing and takeoff zone for helicopters.
- **Approach Surface:** An inclined area extending outward from each end of the primary surface. It maintains the same width as the primary surface but extends for a horizontal distance of 4,000 feet, where it widens to 500 feet. The slope of this approach surface is slightly steeper for military heliports (10 to 1) compared to civilian heliports (8 to 1). This steeper slope allows for a more precise approach for military helicopters.
- **Transitional Surfaces:** Sloped areas on the sides of the primary surface and approach surface that connect them smoothly. These transitional surfaces have a slope of 2 to 1 and extend outward horizontally for 250 feet from the centerline of the other surfaces.

Figure 14 is provided to assist in visualizing these heliport Part 77 surfaces.

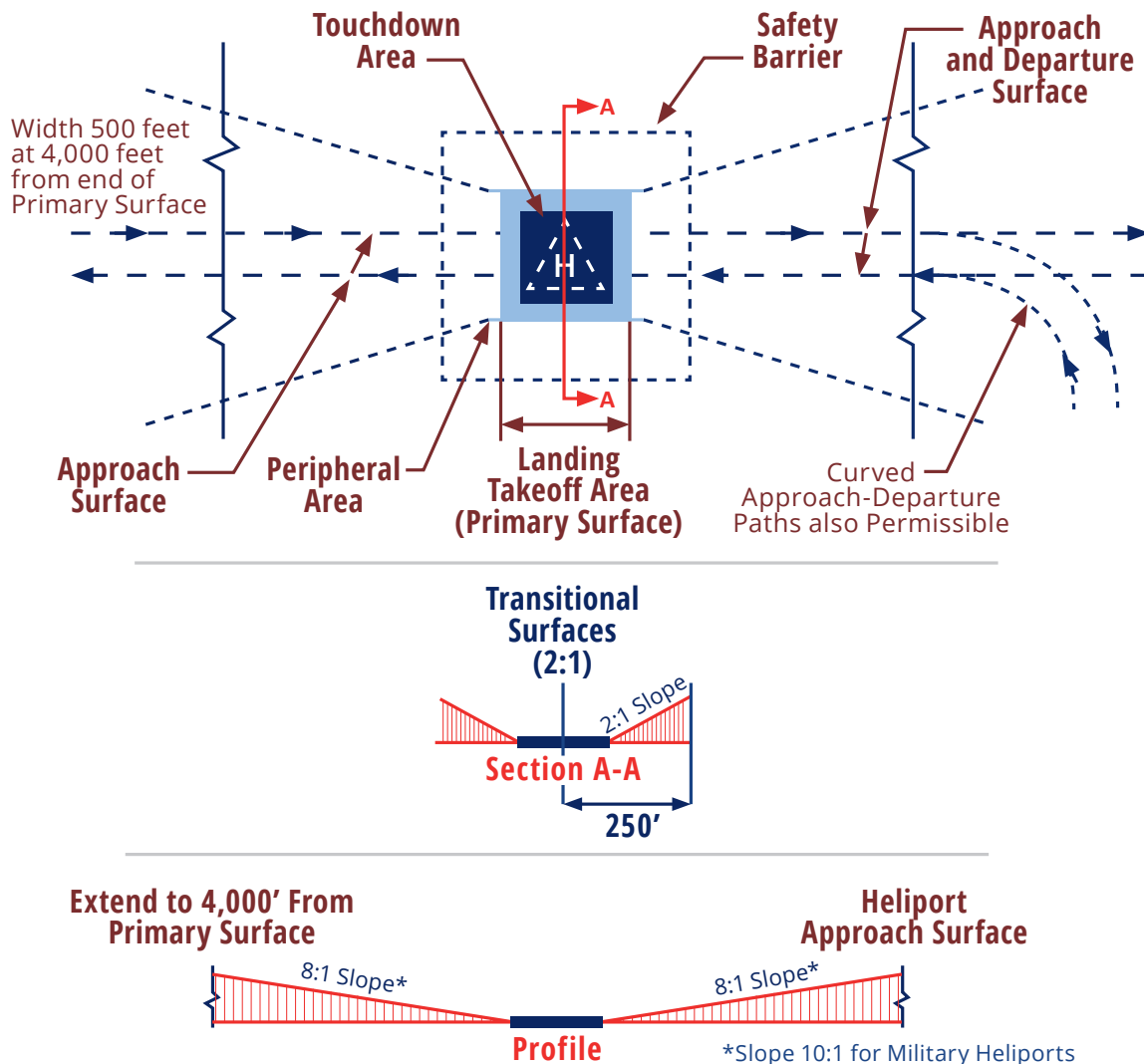


Figure 14: Heliport Imaginary Surfaces

### 2.2.1.4 Imaginary Surfaces Example

To illustrate the scope and shape of actual imaginary surfaces, **Figure 15** is provided below as a real-life example. It depicts all the civil airport imaginary surfaces defined in Part 77 for an actual Florida airport. These include the primary surface around the runway, transitional surfaces connecting them, horizontal and conical surfaces extending outward, and approach surfaces guiding aircraft landing.

As shown, the surfaces of this airport extend far beyond the boundaries of the runway. Property owners, developers, and other affected parties within these surfaces may not be aware that they are within airport imaginary surfaces, particularly if they are far from the runway itself. Anyone developing land within these zones must be aware of these imaginary surfaces and the potential to create a hazard. For instance, residential and commercial development is located within the airport’s imaginary surfaces to the southeast of the airport in **Figure 15**. Property owners in these developments might not realize they are in these zones, but they would be required to notify the FAA if they planned to build a new tall structure or modify the height of existing ones.

This example highlights the significant impact airports have, not just on their immediate surroundings but also on land and airspace for a considerable surrounding distance. Incompatible development near airports may affect operations. For example, if land use isn’t carefully planned, it could limit usable landing areas on runways, ultimately compromising safety for both ground personnel and people on board aircraft.

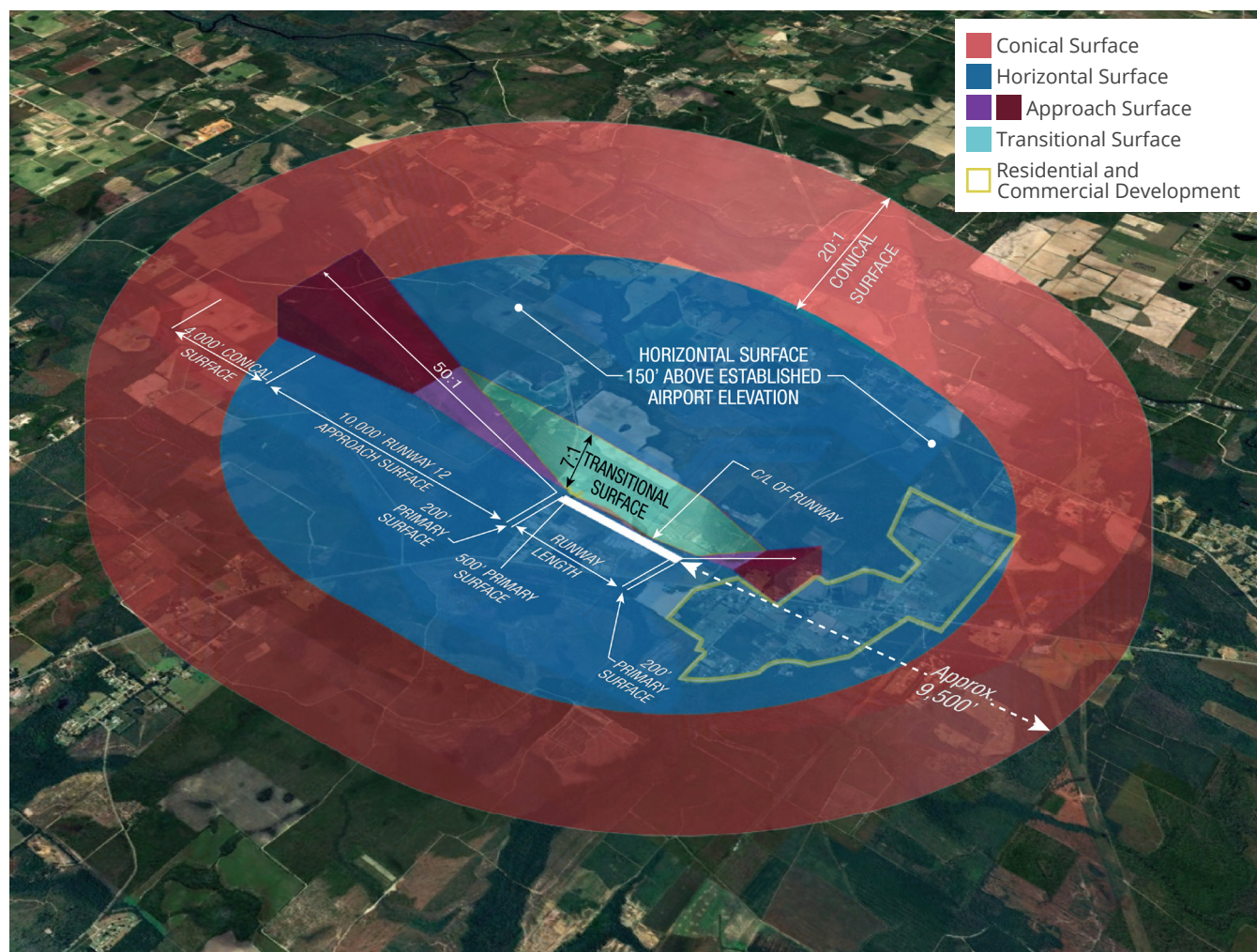


Figure 15: Imaginary Surface Example

### 2.2.1.5 Construction or Alteration Requiring Notice

#### 333.05, FS

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

- A. Any construction or alteration that is more than 200 ft. AGL at its site.
- B. Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:
  1. 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.
  2. 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.
  3. 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.

In addition to being aware of the imaginary surfaces surrounding airports, those planning structures anywhere within the country should be aware of Part 77.9's notification requirement surfaces. These designated areas extend outward from runways and may trigger notification requirements to the FAA depending on the proposed structure's height and location. Among other requirements, Part 77.9 states that developers must file notice with the FAA of any construction or alteration:

- Exceeding 200 ft. AGL at its site.
- Exceeding a 100-1 slope out to 20,000 ft. from airports with runways longer than 3,200 ft.
- Exceeding a 50-1 slope out to 10,000 ft. from airport with runways no longer than 3,200 ft.
- Exceeding a 25-1 slope out to 5,000 ft. from the nearest heliport.

**Figure 16** gives a visual depiction of a how these slopes correlate to the requirement to file notice with the FAA. How to file notice of these construction or alteration projects is discussed in the following sections.

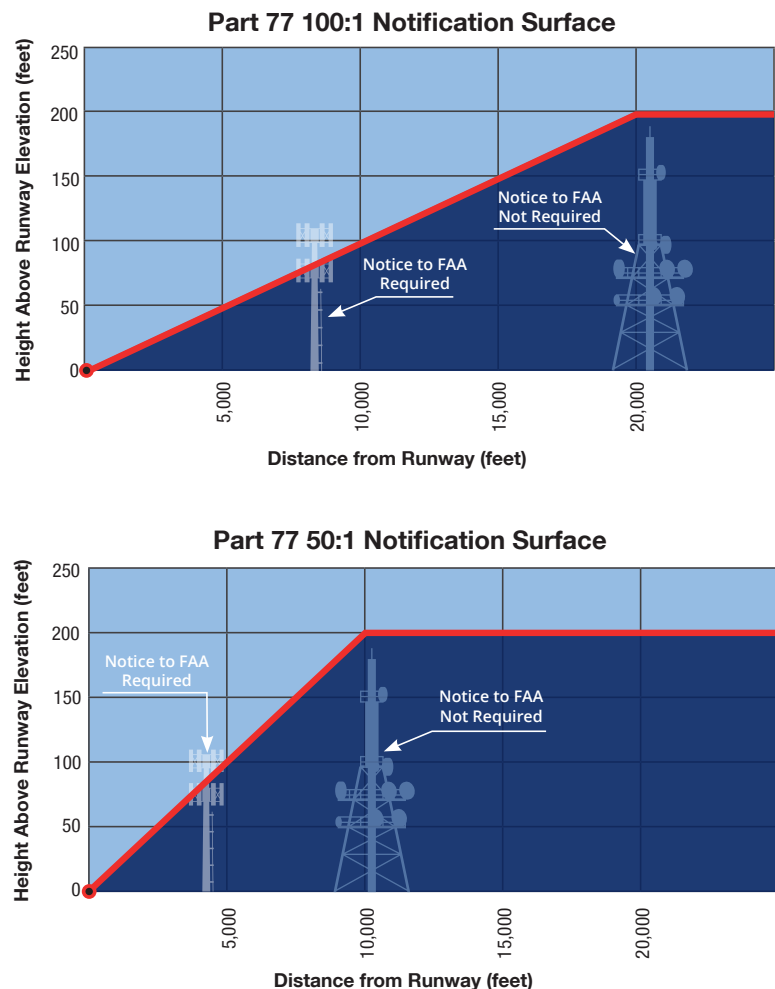


Figure 16: Obstruction Notification Requirements

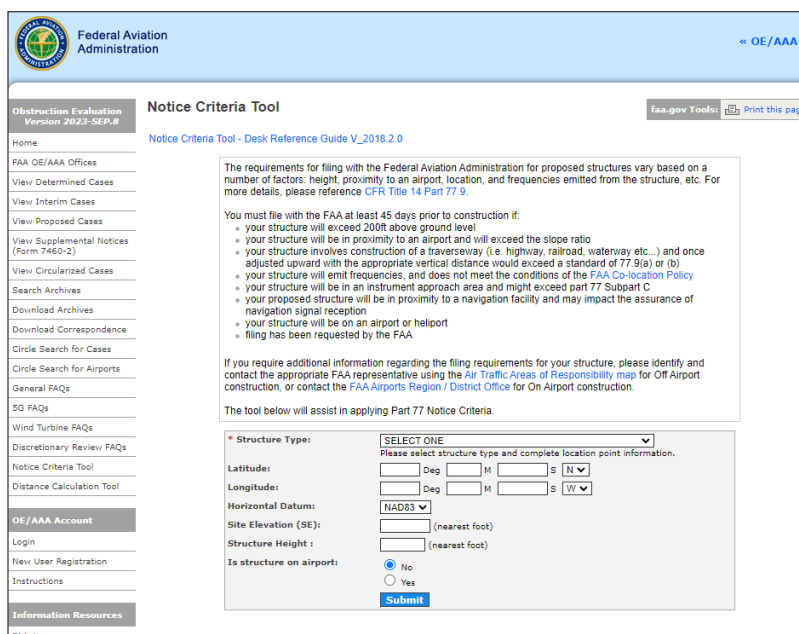
## 2.2.2 Using the Notice Criteria Tool

The potential obstruction of proposed tall structures such as buildings, bridges, light poles, utility poles, and cell phone towers in airport hazard areas (imaginary surfaces) can be determined using the **FAA's Notice Criteria Tool** which can be found on their Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) website <https://oeaaa.faa.gov/oeaaa/oe3a/main/>. This tool is designed to streamline the process of determining whether notice needs to be provided to the FAA in accordance with Part 77, Subpart B. It is the most efficient and cost-effective method to identify obstructions to navigational and communication facilities that may not be revealed by other standards and FAA information.

Determining whether a notice needs to be filed without using the Notice Criteria Tool is complicated, time-consuming, expensive, and likely inadequate. Section 77.9 states that a notice must be filed with the FAA if requested or if certain types of construction or alteration are proposed. The Notice Criteria Tool determines if the FAA requires a notice and the reasons behind it. Even if the tool suggests no filing requirement, the FAA might still request notification in specific cases.

The FAA has developed a Desk Reference Guide that provides step-by-step guidance to use the Notice Criteria Tool. The Desk Reference link is found in the upper left-hand corner of the Notice Criteria Tool page. The Notice Criteria Tool is depicted in **Figure 17**. The Notice Criteria Tool requires input of the following data:

- **Structure Type.** Users will select their structure type from a drop down menu. The options range from AG\_EQUIPMENT | Grain Bin/Silo to WIN TURBINE | WT-Barge Crane.
- **Latitude and Longitude.** Enter data in degrees, minutes and seconds. Seconds should be in the hundreds (e.g., 59.94).
- **Horizontal Datum.** North American Datum of 1983 (NAD 83) is preferred but other relevant datum may be utilized but may affect the accuracy of the results.
- **Site Elevation (SE).** Enter the SE to the nearest foot.
- **Structure Height.** Enter the proposed structure height to the nearest foot.
- **Location.** Enter “yes” or “no” to indicate if the structure is located on airport.



### Note

The more precise the input data to the Notice Criteria Tool, the more accurate the results. The less precise the input data the more likely the results will exceed the Part 77.9 standards and require filing a Notice. For this reason, it may be best in input multiple high points on the proposed structure rather than just one.

Figure 17: Notice Criteria Tool

After inputting the relevant data, users must select “submit” to get the result. The result will indicate whether the development exceeds the Notice standards of Section 77.9, which requires the user to file a Notice with the FAA. **Figure 18** provides an example of the Notice Criteria Tool with the necessary information entered and the result displayed after submission. In this particular example, the result states, “You exceed the following Notice criteria,” and the FAA mandates that you file. This request is obligatory in order to comply with federal regulations. To do so, the user must submit FAA Form 7460-1 promptly (discussed in Section 2.2.3 of this Guidebook). It’s important to note that this result only pertains to the proposed construction exceeding the Subpart B standards (Section 77.7), which do not determine whether the structure is considered an obstruction. The determination of obstruction will be made in the aeronautical study and documented by the FAA’s Determination, which follows the federal obstruction standards established in Subpart C. The submission of FAA Form 7460-1, in accordance with the Notice Criteria Tool Result, initiates the aeronautical study. Given the capabilities of the Notice Criteria Tool and the number of airports in Florida, it is highly likely that any inquiry regarding a specific proposed structure or alteration in Florida will result in the FAA requesting a Form 7460-1.

**Note**  
 Persons failing to comply with the provisions of Part 77 are subject to Civil Penalty under Section 902 of the Federal Aviation Act of 1958, as amended and pursuant to 49 U.S.C. Section 46301(a).

The screenshot displays the FAA Notice Criteria Tool interface. On the left is a navigation menu with categories like 'Obstruction Evaluation', 'OE/AAA Account', and 'Information Resources'. The main content area is titled 'Notice Criteria Tool' and includes a 'Notice Criteria Tool - Desk Reference Guide V\_2018.2.0' link. The tool form contains the following fields and values:

- Structure Type:** BUILDING | Commercial Use Building
- Latitude:** 28 Deg 05 M 42.59 S N
- Longitude:** 80 Deg 39 M 06.23 S W
- Horizontal Datum:** NAD83
- Site Elevation (SE):** 29 (nearest foot)
- Structure Height:** 110 (nearest foot)
- Is structure on airport:**  No

The **Results** section states: "You exceed the following Notice Criteria: Your proposed structure is in proximity to a navigation facility and may impact the assurance of navigation signal reception. The FAA, in accordance with 77.9, requests that you file. 77.9(b) by 89 ft. The nearest airport is MLB, and the nearest runway is 27L/09R. The FAA requests that you file."

Figure 18: Sample Copy of Results of Notice Criteria Tool



To conduct the aeronautical study, the FAA relies on the information provided in Form 7460-1. This form is self-explanatory and requires similar information to what is requested in the Notice Criteria Tool and local government airport zoning permit applications. The FAA strongly encourages electronic filing of Form 7460-1 through the website at <https://oeaaa.faa.gov/oeaaa/external/portal.jsp>. E-filing is the preferred method because it is fast, accurate, and assigns an aeronautical study number immediately. It also establishes a direct communication link with the FAA, allowing users to obtain project status and notifications directly from the website.

Detailed instructions for completing Form 7460-1 can be found in **Appendix D**. In some cases, precise data or documents may be requested, such as accurate survey measurements for specific points of construction or alteration. Compliance with these details is crucial to prevent errors or excesses that could impact the results and findings of the aeronautical study and the FAA's final Determination. Along with Form 7460-1, relevant information and documentation related to the construction or alteration must be submitted. This includes attachments showing the type and location of the proposed alteration. This additional information provides the FAA with an overview of the project, helping them evaluate its potential impact on navigable airspace. The FAA may also request further information or documentation as needed. Supplemental information or documentation that may be required for FAA review include:

- Drawings showing the object's location in relation to the nearest active runway(s).
- The perpendicular distance of the object to the nearest runway centerlines.
- The distance along the centerline to the intercept point.
- The ground elevation at the proposed object's site.
- The height of the object including antennas or other components.
- Accurate geodetic coordinates conforming to NAD 83.
- Sketches or drawings illustrating the proposed construction or alteration.

## Note

Additional guidance on preparing and submitting a Form 7460-1 can be found at the FAA Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) webpage under "Instructions" at <https://oeaaa.faa.gov/oeaaa/external/content/instructions.jsp>

If a structure exceeds the Notice criteria and no action is taken, including filing Form 7460-1, the sponsor is knowingly and willingly violating the Notice requirements of Part 77 and may be subject to a civil penalty of \$1,000 per day until the Notice is received, as outlined in 49 U.S.C., Section 46301(a). In addition to using the Notice Criteria Tool, sponsors of potential obstructions should also familiarize themselves with the Section 77.9 imaginary surfaces (discussed in Section 2.2.1 of this Guidebook), which extend outward from the runway pavement edge of public-use airports and military airfields. These imaginary surfaces may have notification standards that need to be met.

## Quick Notes

This section functions as a checklist outlining the various considerations local governments may want to make in enhancing local government airport zoning regulations. These quick notes may be utilized as aids in drafting reports, analytical documents, and presentations. It also serves as a convenient reference during meetings with elected officials, appointed officials, departments, and agencies when discussing upcoming airport zoning changes. Finally, this checklist may also be used to evaluate if enhancements to current airport zoning regulations are needed.

### *Impacts of Land Use Categories Near Airports – Quick Notes*

The following land use categories may have an impact on aviation operations or on communities surrounding an airport. Considerations for each category below may be used in strengthening airport zoning regulations to mitigate these impacts.

**Residential, Commercial, Institutional, and Recreational** land uses near an airport may impact:

- Airspace safety
- Visual and/or atmospheric clarity
- Population density
- Wildlife presence
- Sensitivity to aircraft noise

**Industrial** land uses near an airport may impact:

- Airspace safety
- Visual and/or atmospheric clarity
- Population density
- Wildlife presence

**Infrastructure/Utilities/Energy Production** related land uses near an airport may impact:

- Airspace safety
- Visual and/or atmospheric clarity
- Wildlife presence

**Agriculture & Open Space** land uses near an airport may impact:

- Visual and/or atmospheric clarity
- Wildlife presence

### *Additional Regulated Land Use Protections – Quick Notes*

Local governments determine that additional restrictions are necessary for their local circumstances beyond those explicitly included in Chapter 333 or addressed in federal guidance. This section details some reasons local governments may want to enact additional protections in the following categories. Note: this is not an exhaustive list.

**Airspace.** When to adopt additional protections:

- Unique geographical features or land use patterns that warrant additional protection measures.
- The desire to attract or retain businesses or industries that require a certain level of airspace protection, such as research and development facilities or aerospace companies.
- Common local weather conditions such as strong winds, heavy precipitation, or low visibility.
- Anticipation of development surrounding the airport which may pose airspace obstructions.

## Quick Notes

**Visual/Atmospheric Interference.** When to adopt additional protections:

- Propensity of land uses causing visual obstructions within their jurisdiction and near the airport.
- Desire to protect sensitive lands just outside the specified distances.
- Desire to protect a larger zone of land around the airport.
- Anticipation of growth surrounding the airport which may cause visual obstructions.
- Airport staff feedback that existing mitigation techniques are not sufficient.

**Population Density.** When to adopt additional protections:

- Propensity of land uses encouraging population density within their jurisdiction and near the airport.
- Desire to protect sensitive lands just outside the specified distances.
- Desire to protect a larger zone of land around the airport.
- Anticipation of growth surrounding the airport which may increase population density.

**Wildlife.** When to adopt additional protections:

- Desire to protect sensitive lands just outside the specified distances.
- Anticipation of growth within or just outside of the specified distances which may attract wildlife.
- Airport staff feedback that existing mitigation techniques are not sufficient.
- Wildlife hazard assessments reveal wildlife presence on airport and/or if the airport has been the location of wildlife strikes in the past.

**Noise.** When to adopt additional protections:

- Anticipated changes to airport operations or anticipated airport growth which may expand the size of noise contours or increase the impact of aircraft noise in the future.
- Desire to protect sensitive lands just outside the existing noise contours.
- Anticipation of growth within or just outside of the noise contours that is desired to be diverted elsewhere.
- Community feedback and/or complaints about noise that is not sufficiently addressed by statutory language.

### Imaginary Surfaces – Quick Notes

Part 77 establishes imaginary surfaces that define volumes of airspace with specific dimensions and slopes around airports to protect airspace for safe aircraft navigation. These imaginary surfaces are summarized below.

Civil Imaginary Surfaces

Surface	Dimensional Standards (Feet)					Precision Instrument Runway
	Visual Runway		Non-Precision Instrument Runway			
	A	B	A	C	D	
Width of primary surface and approach surface width at inner end	250	500	500	500	1,000	1,000
Radius of horizontal surface	5,000	5,000	5,000	10,000	10,000	10,000
Approach surface width at end	1,250	1,500	2,000	3,500	4,000	16,000

## Quick Notes

Surface	Dimensional Standards (Feet)					Precision Instrument Runway
	Visual Runway		Non-Precision Instrument Runway			
	A	B	A	C	D	
Approach surface length	5,000	5,000	5,000	10,000	10,000	*
Approach slope	20:1	20:1	20:1	34:1	34:1	*
Conical surface slope	20:1	20:1	20:1	20:1	20:1	20:1
Width of conical surface	4,000	4,000	4,000	4,000	4,000	4,000
Transitional surface slope	7:1	7:1	7:1	7:1	7:1	7:1**

Source: <https://www.ngs.noaa.gov/AERO/oisspec.html>, FAR Part 77 Objects Affecting Navigable Airspace

### US Department of Defense (Military) Airport Imaginary Surfaces

Description	Dimension (Feet)	Notes
Primary surface width	2,000	
Primary surface length	Runway length	
Clear zone surface width	2,000	Same width as primary surface
Clear zone surface length	1,000	
Start of approach clearance surface	200	Beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end
Length of approach clearance surface	50,000	
Slope of approach clearance surface	50:1	Until it reaches an elevation of 500 feet above the established airport elevation
Length of sloped portion of approach surface	25,000	
Start of horizontal portion of approach clearance surface	25,000	Continues horizontally at 500 feet above the established airport elevation to a point 50,000 feet from the point of beginning
Width of approach clearance surface at start	2,000	Same as the primary surface
Width of approach clearance surface at end of horizontal portion	16,000	The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.
Radius of inner horizontal surface	7,500	The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.
Elevation of inner horizontal surface	150	Above the established airfield

## Quick Notes

Description	Dimension (Feet)	Notes
Horizontal width of conical surface	7,000	A surface extending from the periphery of the inner horizontal surface outward and upward
Slope of conical surface	20:1	Slope ratio is horizontal: vertical
Elevation of conical surface at end of slope	500	Above the established airfield elevation
Elevation of outer horizontal surface	500	Above the established airfield elevation
Width of outer horizontal surface	30,000	Extending outward from the outer periphery of the conical surface
Slope of transitional surfaces	7:1	The slope of the transitional surface is 7:1 outward and upward at right angles to the runway centerline.
Start of transitional surfaces	1,000 from centerline of runway	These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface, or other transitional surfaces
End of transitional surfaces	See notes	The transitional surface ends at the inner horizontal surfaces, conical surface, outer horizontal surfaces, or at an elevation of 150 feet

Source: 14 CFR Part 77

## Best Practices

Effective management of airspace and land use surrounding airports presents a complex challenge for local governments due to the need to simultaneously balance local development pressures with airport operations today and in the future.

Just as communities grow, airports too, need to plan for future growth to accommodate demand. This chapter explores some best practices for aligning this collective growth in a way that promotes compatibility and meets the collective needs of the community and the airport. These best practices are centered around proactive and frequent communication between the local government and airport, aligning plans for growth, and engaging other interested parties (e.g., developers). Real-world examples gleaned from successful case studies are provided, alongside a model ordinance that serves as a template for crafting airport zoning regulations that meet the requirements of Chapter 333, FS.



## 3.1 PLANNING FOR AIRPORT AND COMMUNITY GROWTH

Local planning efforts should not occur in a vacuum—being involved with an airport’s planning efforts is an opportunity for local government officials to be aware of potential changes in their community. Similarly, airport officials should be familiar with the local comprehensive plan, future land use map, and other applicable plans, such as neighborhood plans and Transit Development Plans (TDPs) that may have an impact on the airport. Beyond just being aware of each other’s plans, local government officials and airport officials should have a role in their development, from simply staying informed to being an active participant in the plan development (e.g., such as serving on an advisory committee).

This section details the numerous planning documents developed by local governments and airports and highlights opportunities for connections between the two. Moreover, this section emphasizes that local communities should not only accommodate airports within their jurisdictional boundaries but also look outside of their jurisdiction for nearby airport growth.

### Airport Master Plan and Airport Layout Plan (ALP)

An airport master plan is a comprehensive and long-term blueprint that outlines the development and expansion of an airport over a specified period, usually 20 to 30 years. It serves as a strategic guide for airport authorities and stakeholders to manage growth, improve infrastructure, and enhance operational efficiency. The master plan takes into account various factors such as forecasted demand, aircraft fleet mix, technology advancements, environmental considerations, and regulatory requirements. It includes detailed assessments of existing facilities, infrastructure, and services, as well as potential future needs.

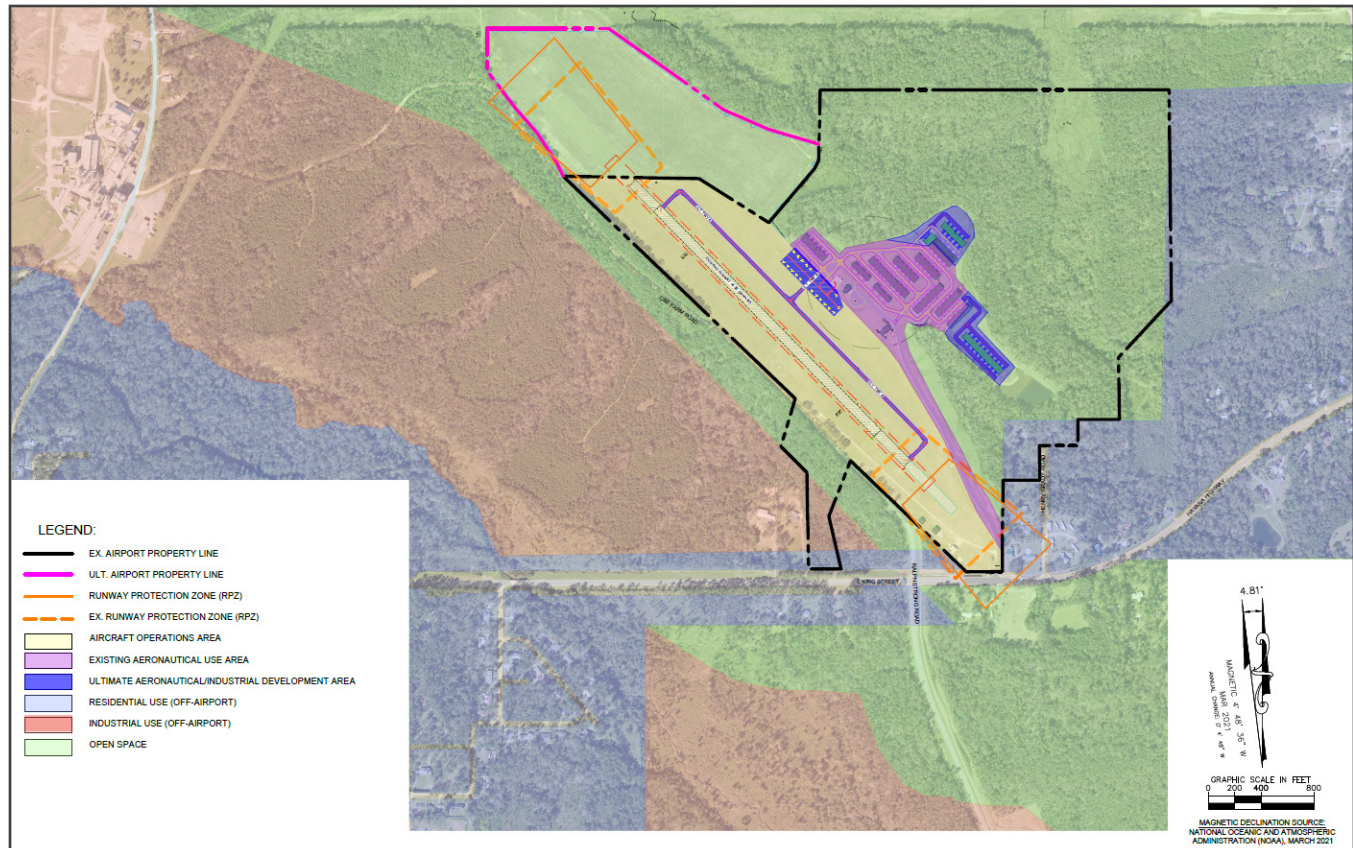
The master plan incorporates input from various stakeholders, including airport operators, airlines, government agencies, local communities, and the public. This stakeholder engagement process ensures that their perspectives and concerns are considered in the planning process. During plan development advisory committees are often formed to provide guidance and input throughout the planning process. The composition of these committees can vary depending on the specific airport and its stakeholders, but local government planners or officials often serve as advisory committee members.

As a product and crucial element of an airport master plan, the airport layout plan (ALP) serves as a critical planning tool that depicts both existing facilities and planned development for an airport through a set of drawings. It can be thought of as the airport’s version of a comprehensive plan or land use map. Specifically, the ALP shows:

- Boundaries and proposed additions to all areas owned or controlled by the sponsor for airport purposes.
- The location and nature of existing and proposed airport facilities and structures.
- The location on the airport of existing and proposed non-aviation areas and improvements thereon.



Having a current ALP is a requirement for airports that receive federal grant funding from the FAA, and it is a best practice for all airports to maintain and regularly update their ALP to reflect existing conditions as they change in the future. **Figure 20** depicts a Land Use Map sheet from a recent ALP from Quincy Municipal Airport where existing aeronautical use property is shown in contrast with the future or ultimate aeronautical/industrial development area. As shown in the legend, these maps also depict land use purposes for the land surrounding the airport.



**Figure 20. Quincy Municipal Airport Land Use Map**

Using the ALP, local planning officials can compare the proposed projects at the airport to the comprehensive plan and future land use map, flagging any potential conflicts. Further, similar to the local comprehensive planning process, the airport master plan and ALP development process includes a public engagement effort. Local governments should be a partner and participant during this process, to ensure early coordination between all planning efforts within the community.

#### **Questions to guide the airport master plan and ALP process that includes local planning officials:**

- What are the major future projects identified in the plan? How will those projects impact capacity and operations at the airport? How will those projects impact land use and vehicular and pedestrian traffic around the airport?
- Does the airport anticipate any major changes to its operations or user base over the planning horizon? For instance, is it planning for additional jet traffic?
- What kind of growth is forecasted for the airport? How does the airport anticipate this will affect the surrounding community?

## Local Comprehensive Plan

As detailed in Section 1.2.1 of this Guidebook, a comprehensive plan is a document that outlines a community's long-term vision for development, including land use patterns, infrastructure needs, and economic goals. Many local governments elect to adopt airport zoning regulations as part of their local comprehensive plans. When airport zoning regulations align with the community's comprehensive plan, they can contribute to integrated and sustainable development, increased efficiency and cost savings, enhanced public engagement and transparency, and higher levels of regulatory guidance. Chapter 163, FS, outlines further details and requirements for comprehensive plans.

**The local comprehensive plan is an opportunity for the community to consider potential growth at the airport.** Beyond incorporating airport zoning regulations, the comprehensive planning process is an excellent opportunity for communities to become more engaged with their airport's plans. Rather than assuming a static environment surrounding the airport, planning officials should actively partner with the airport to determine how to most thoughtfully incorporate them into the comprehensive plan. In addition, the public engagement process can include components specifically related to airport planning so that the community is also aware of any confirmed, anticipated, or desired changes happening at the airport. This can help mitigate challenges that may arise from these changes. For instance, if the airport plans on attracting new businesses that will primarily rely on business jets, informing the community early in the process may mitigate conflict arising from potential noise complaints in the future.

### **Example questions to guide the local comprehensive planning process that includes the airport(s):**

- Are there any proposed infrastructure projects occurring at the airport over the next five-10 years? How will these projects impact capacity or operations?
- Is the airport planning on acquiring any additional land? For what purpose?
- Do we have the latest copy of the airport master plan or ALP?
- Have any new major business or other tenants joined the airport? How has that impacted the local community?
- Have operations at the airport changed? For instance, maybe the airport used to serve primarily single- or multi-engine aircraft and is now seeing more jet operations.
- Is the airport facing any current land use or zoning challenges that may be mitigated with the comprehensive plan?
- What do airport officials wish other local officials and/or the public knew about the airport?
- What are ways other local officials and/or the public can get involved at the airport?





## Transit Development Plan (TDP)

Every transit agency in Florida is required to adopt a TDP as a prerequisite to receiving State Public Transit Block Grant funds, per Chapter 339, FS. The TDP is also an opportunity for transit providers to assess how they are currently providing transit services to their community; and, coupled with extensive sociodemographic forecasting and analysis of planned service changes, how they can plan to provide the best transit service in the future.

While the TDP focuses solely on public transportation (buses, light rail, and micromobility), it is considered as part of the larger local transportation network, which includes roadways, bicycle and pedestrian facilities, ports, airports, and waterways. Transit agencies developing the TDP should strongly consider including the airport as part of their public participation and agency coordination processes to see how changes at the airport may drive ridership in the future.

### Example questions to guide the local TDP process that includes the airport(s):

- How many airport employees rely on the local transit system for their commute to work?
- How many users does the airport welcome that rely on the local transit system?
- Are there any changes to businesses at the airport (whether expanding an existing business or recruiting a new one) which may result in new jobs, thus potentially impacting ridership of the local transit system?
- Does the airport have any current projects, or is the airport planning for any future projects, which may impact the connection with the local transit system?
- How could the connection between the local transit system and the airport be improved?

## Future Land Use Map

A future land use map is used by communities to plan for growth. While a zoning map and comprehensive plan show a community as it currently exists, the future land use map shows where the community wants to go. Similar to the discussion on the local comprehensive plan, the airport should be an active partner in developing the plan for future land use. The map should be developed in harmony with the airport's ALP and/or airport master plan, detailing uses around the airport that will not restrict potential growth or cause land use or zoning issues for the airport. **Figure 21** provides an example of a future land use map.

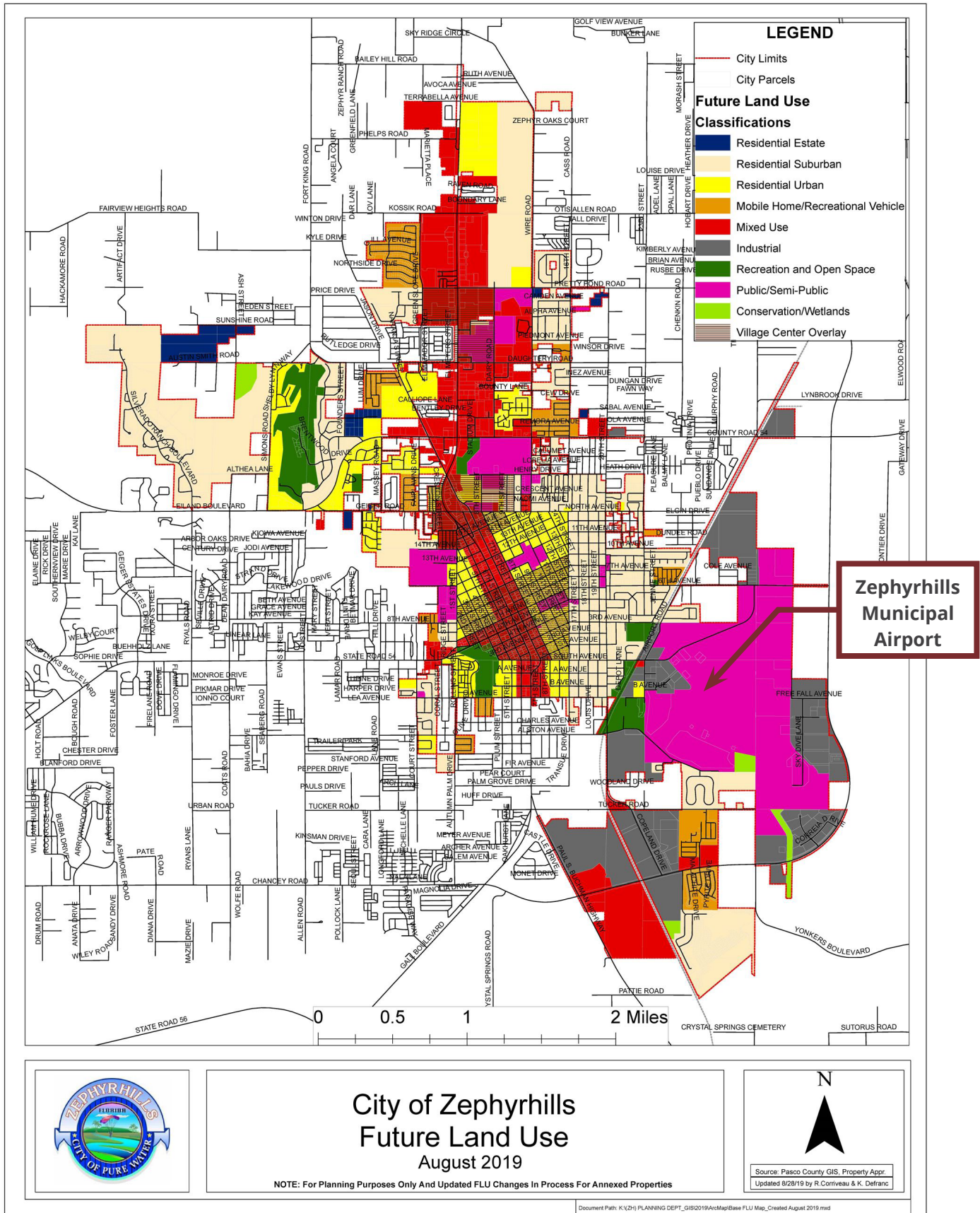


Figure 21. City of Zephyrhills Future Land Use Map

## Encouraging Compatible Development Near Airports

While protecting the current airport/airspace and planning for airport and community growth starts with a collaboration between airports and local governments, it is strengthened by engaging key stakeholders along the way. One of the most impacted parties includes developers and real estate professionals who are regularly involved in the identification, purchase, and development of property. Understanding the development constraints or limitations on property near airports is important for minimizing compatibility issues later on. Local governments can increase awareness by educating developers and can consider offering compatible design incentives as a sign of appreciation and partnership with developers.

### *Educate Developers and Real Estate Professionals*

**Provide comprehensive information:** This can include brochures, handbooks, or online resources that provide developers with a step-by-step guide on how to ensure their projects are compatible with local airport zoning and other protective measures.

**Conduct workshops and seminars:** Organize educational workshops and seminars specifically targeted towards developers. Invite experts from regulatory agencies, airport authorities, and experienced developers to speak and share their knowledge and experiences.

**Offer training programs:** Collaborate with local educational institutions or industry organizations to develop training programs focused on compatible development near airports such as using sound-insulating materials.

**Engage in outreach efforts:** This can include industry events, trade shows, and conferences. Use these opportunities to provide information, answer questions, and foster discussions on best practices for ensuring compatibility.

### *Offer Incentives*

**Expedited permitting processes:** Implement a streamlined permitting process for developers who proactively incorporate compatible design features into their projects.

**Fee reductions or waivers:** Consider offering financial incentives such as reduced or waived fees for developers who demonstrate a commitment to compatible development.

**Density bonuses or additional development rights:** Provide developers with the opportunity to increase the density or intensity of their projects in exchange for incorporating compatible design features.

**Tax incentives or abatements:** Explore the possibility of offering tax incentives or abatements to developers who prioritize compatible development near airports.

### *Foster Collaboration*

**Establish a collaborative forum:** Create a platform or committee where developers, airport authorities, regulatory agencies, and other stakeholders can come together to discuss and address compatibility issues.

**Regular meetings and site visits:** Organize regular meetings between developers, airport authorities, and regulatory agencies to review proposed projects, address concerns, and provide guidance on ensuring compatibility. Conduct site visits to assess potential impacts and provide on-site recommendations for design modifications if necessary.

**Collaborative planning process:** Airport authorities and regulatory agencies should provide clear guidelines and feedback to guide developers throughout the whole planning process.

## 3.2 CASE STUDIES

Case studies on how local Florida governments have handled land use issues surrounding airports can be helpful for informing local decision-making. The following studies offer real-world examples of successful land use planning strategies that have benefited Florida airports and communities. These examples include Naples Airport (APF) and Pensacola Naval Air Station (NAS Pensacola). These particular case studies are also examined in great detail as a part of ACRP Report 27, *Enhancing Airport Land Use Compatibility*, Volume 2. The summaries below are inspired by and informed by ACRP Report 27 and other relevant sources. Additionally, ACRP Report 27 includes a case study on Fort Lauderdale Executive Airport (FXE) that is not included as a part of this Guidebook. More can be read about that example at the [Transportation Research Board \(TRB\) website](#). By examining case studies such as these, local governments can make informed choices about development based on the successful efforts of others and can foster better collaboration to mitigate potential airspace and land use impacts.

### 3.2.1 Naples Airport Noise Reduction Efforts

Naples Airport (APF) serves a significant role as a transportation hub and economic driver for the city of Naples, Florida. As the primary airport serving the area, APF connects residents and visitors to domestic and international destinations. The airport not only provides convenient access for travelers but also serves as a gateway for tourism, business, and commerce in the region.



## The Issue

APF is in a densely populated area, leading to noise concerns for surrounding residents, the Naples Airport Authority (NAA), and the city (the local government). The NAA was proactive about noise reduction. Following the 1990 Airport Noise and Capacity Act (ANCA), APF was the first airport in the United States to ban Stage 1 aircraft operations, as defined by the federal noise standards in 14 CFR Part 36, Appendix C § 36.5. This pioneering effort continued with the city enacting a ban on Stage 2 aircraft.

The NAA's first FAR Part 150 (noise) study was conducted in 1987. This study established official noise contours around the airport and recommended six specific noise control measures, which were subsequently implemented. Based on the results of the study, the city's first step was to establish an "Airport High Noise Special Overlay District" in 1989 that mandated rezoning for any new development or significant redevelopment projects occurring within the "High Noise Impact Area," defined by the 65 dB Day-Night Sound Level Average Scale (DNL) contour. Most noise and land use compatibility studies use the 65 dB DNL contour as the basis of compatibility and limit all noise sensitive lands, such as residential developments, as incompatible within that zone. Public complaint about aviation noise continued after the establishment of the Airport High Noise Special Overlay District. Another APF Part 150 Study was conducted in 1996, and it was found that no noise sensitive lands existed within the 65 dB DNL contour. However, the overwhelming input from the public was that noise sensitivity extended beyond that distance. The city and the NAA were faced with the challenge of finding alternative ways to mitigate aviation noise.

## The Solution

A Part 150 Study-associated Noise Compatibility Program (NCP) pointed to a possible solution. The study stated that,

*"For Naples Municipal Airport, the FAA and FDOT guidelines do not apply since these guidelines use the 65 L<sub>dn</sub> contour as the threshold of incompatibility, and the 65 L<sub>dn</sub> contour does not contain any incompatible uses... As such, another standard should be designated by the local land use planning agencies to ensure that residential and noise sensitive uses are not developed too close to the Airport. One possible standard is the 60 L<sub>dn</sub> contour."*<sup>9</sup>

In March 1997, the city updated its Comprehensive Plan to define the "High Noise Impact Area" by the 60 dB DNL contour from the 1996 NCP study. The revised plan required any new development outside the airport boundary, but within this high noise zone, to go through a more rigorous approval process called a General Development Site Plan (GDSP). This plan was officially adopted by the City Council in January 1998 (Ordinance 98-8165). It is important to note that since implementing this change, the city has not approved any new residential developments within this high noise area (above 60 DNL). Following Naples' lead, Collier County also adopted a 60 DNL limit for noise-land use compatibility in June 2000.

### City of Naples and Collier County Adopted Standards within 60 dB Contour

- Not permitted: single- and multi-family residential, correctional institutions, nursing homes, assisted living facilities, and schools.
- Conditional permission: transient lodging, church, library, and hospital uses, based on sound attenuation and other factors.
- All other uses are permitted and compatible under Part 150.

<sup>9</sup> "Revised Noise Compatibility Program, 1996" Final Report, February 1997

Critically, this step of redefining the limit of compatibility established a standard for working with surrounding jurisdictions and communities to establish land use policies that limit land uses within the 60 dB contour (depicted in **Figure 22**). This approach protected both the airport’s potential for future growth and the surrounding communities from excessive noise. Further, by establishing a clear noise limit, it paved the way for the groundbreaking ban on Stage 2 jet operations at APF.

### Stage 1 and Stage 2 Jets

Stage 1 and Stage 2 jets refer to different levels of performance and capabilities in the aviation industry.

- Stage 1 jets are older aircraft that do not meet the noise and emissions standards set by regulatory authorities.
- Stage 2 jets are an improvement over Stage 1 jets in terms of noise and emissions levels.
- As aviation technology continues to advance, newer generations of aircraft, such as Stage 3 and Stage 4 jets, have been developed to further reduce noise and emissions levels.

In 1999 and following its initial actions taken to mitigate noise pollution, including the elimination of Stage 1 aircraft, the NAA commissioned a Part 161 study to identify operational restrictions authorized by federal law. The study concluded that Stage 2 jets, certified under Part 36 of FAA regulations, were the main source of noise pollution affecting nearby communities. As a result, the study recommended a complete prohibition of Stage 2 aircraft operations as the most practical and cost-effective approach to minimizing conflicts with land use. The city was ultimately successful in implementing and enforcing the ban. **The APF experience highlights a key lesson: collaborating on a comprehensive land-use plan is crucial. This plan should involve all parties and guide future land-use decisions to minimize noise impact.**



**FIGURE 22. APF 2015 FIVE-YEAR FORECAST CONDITIONS NOISE EXPOSURE MAP**

Source: Naples Municipal Airport, Harris Miller Miller & Hanson Inc. (HMMH)

### 3.2.2 Pensacola Naval Air Station Encroachment Mitigation Efforts

Pensacola Naval Air Station (NAS Pensacola) serves as the primary training base for Navy, Marine Corps, and Coast Guard aviators, as well as a hub for aviation maintenance and support activities. The base is renowned for its prestigious flight training programs, including the United States Navy Flight Demonstration Squadron, the Blue Angels. As a vital component of the Navy's aviation operations, NAS Pensacola plays a crucial role in defending our nation and ensuring the readiness of our military forces. NAS Pensacola serves as a major economic driver for the region, employing thousands of military personnel, civilian workers, and contractors.



## *The Issue*

The increasing popularity of Florida's Gulf Coast has raised concerns about encroachment around NAS Pensacola. In recent years, both residential and commercial development have encroached upon NAS Pensacola, posing issues related to safety, airspace, and noise. Two issues in particular have been ongoing concerns of NAS Pensacola: night visibility concerns and standardized maneuver limitations.

**Night Visibility Concerns.** Training at NAS Pensacola faces challenges due to light emissions from surrounding urban areas. Pilots routinely utilize Night Vision Goggles (NVGs) during exercises. However, ambient light from streetlamps, parking lots, and general urban illumination can hinder NVG effectiveness and induce night blindness. Excessive ambient light disrupts pilot training, potentially impacting safety as well as the base's operational readiness.

**Standardized Maneuver Limitations.** NAS Pensacola's implementation of right-hand departure turns to avoid residential areas introduces an additional operational hurdle. This standard was implemented for NAS Pensacola's 7L and 7R runways to reduce noise over the residential areas to the north of the airfield. Standard practice aboard aircraft carriers dictates left-hand turns for departing flights. Enforcing right-hand turns at NAS Pensacola to avoid areas of high population density disrupts pilot training routines established for carrier operations. This deviation from standard procedures could increase the likelihood of training incidents, potentially jeopardizing pilot safety and that of nearby communities.

Additional concerns caused by encroachment include wildlife attractants, noise pollution, and airspace obstructions.

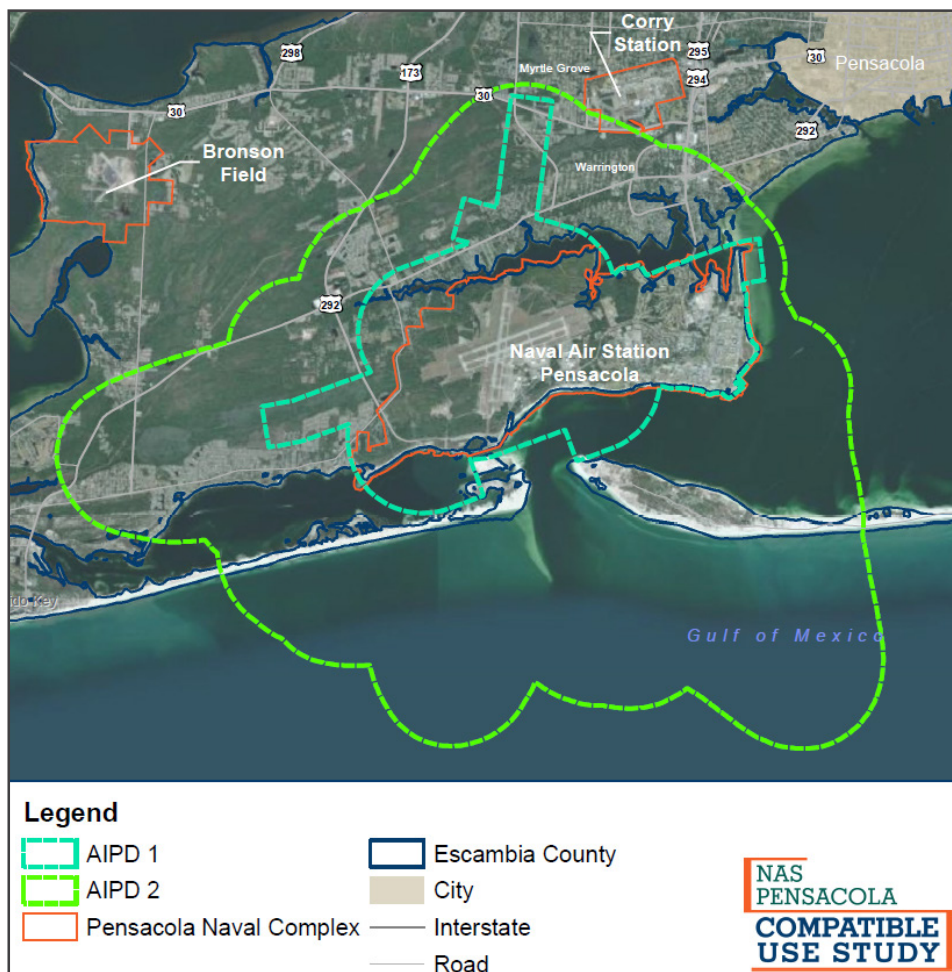
## *The Solution*

To proactively address these issues, Escambia County (the local government exercising jurisdiction over the land surrounding NAS Pensacola) has collaborated with the Navy in the development of a unique planning document called a Joint Land Use Study (JLUS).

A JLUS is a process that fosters collaboration between civilian communities and military installations. It aims to identify potential land use compatibility issues that could impact both parties and generates recommendations to address these challenges, ensuring they are incorporated into the sponsoring community's comprehensive plan and zoning regulations. Notably, the JLUS is developed by local jurisdictional authorities as an internal plan that prioritizes community control and direction throughout the process with the goal of benefitting both the military installation and the local community. Consulted stakeholders include local elected officials, planning commissioners, local military base command staff, community business leaders, chambers of commerce, homebuilders, real estate interests, and affected residents. The collaborative planning expertise fundamental to the JLUS process is crucial for implementing the compatibility recommendations outlined in the community's comprehensive plan and zoning ordinances.

Escambia County initiated the JLUS program in 2005 to develop a comprehensive strategy for mitigating land-use encroachment around NAS Pensacola. The resulting recommendations were incorporated into the county's comprehensive plan and zoning ordinances to effectively address this challenge. Recognizing the vital role NAS Pensacola plays in the community, Escambia County prioritized protecting this strategic asset. It was determined that County planning staff, the Board of Commissioners, and the development review committee all play a crucial role in determining if proposed developments within the JLUS area are compatible with base operations. At the same time, the JLUS program emphasizes balanced growth. NAS Pensacola's goal was not to hinder development, but rather to advocate for controlled growth that considers the health, safety, and well-being of residents within the Accident Potential Zone (APZ) and Airfield Influence Planning District (AIPD).

An outcome of the JLUS program, the AIPD (**Figure 23**) serves several key purposes including promoting orderly land-use transitions, ensuring continued military operations, identifying areas potentially impacted by airbase activities, and fostering a compatible mix of development that prioritizes public well-being. As a direct result of the JLUS, Escambia County has established specific policies and procedures that developers and real estate professionals must adhere to when proposing new developments, modifications to existing structures, or property sales within the AIPD.



**Figure 23. NAS Pensacola Airfield Influence Planning District (AIPD)**

Source: [NAS Pensacola Compatible Use Study, 2023](#)

The JLUS was designed to align with Escambia County’s comprehensive plan as well as its land development code. These resources all consistently define allowable development densities and intensities throughout the county. Outlined within the land development code are also the overlay districts established during the JLUS process and the permitted uses and use restrictions.

Finally, the JLUS expands upon the Air Installation Compatible Use Zone (AICUZ) program which is a program and planning tool by the military to ensure that land use activities around military installations are compatible with the operations and safety requirements of the base. The AICUZ is a military product created for the military. By combining the JLUS with the AICUZ, the JLUS becomes an extension of the AICUZ and develops a holistic plan for both the military and the community.

The NAS Pensacola case study highlights the importance of active communication in safeguarding military installations from incompatible development. Cooperation at all levels, including the Department of Defense, the State of Florida, and the community itself, has fostered a unified vision for the base and its surrounding area. This level of collaboration ensures compatibility with both military needs and the needs and expectations of the surrounding community.

### 3.3 MODEL ORDINANCE

Local governments are encouraged to use the following model ordinance to guide the language and content of newly adopted and/or amended airport zoning regulations. The intent is for this resource to be used as a starting point in crafting ordinances that best meet the needs of the community. However, please note that the model includes placeholder language that needs customization. This includes the municipality's name and any figure references.

The following example is based largely on the required elements to airport zoning regulations as outlined in the previous sections. However, state law allows additional components in airport zoning regulations if such components improve the health, safety, and welfare of residents in the community. It is encouraged that users assess the type of community (size, complexity, unique features) they are drafting ordinances for and adapt this language to incorporate elements most relevant to their situation. For instance, in larger more densely populated municipalities provisions may be needed to address the complexities of managing multiple airports. Planners in all communities are encouraged to evaluate these additional elements and determine their applicability.

#### Disclaimer:

This model ordinance is for illustration purposes only. Local governments are ultimately responsible for complying with all federal, state, and local requirements. Please ensure your airport zoning regulations comply with the most up-to-date federal, state, and local requirements.

## Sample Airport Zoning Regulation Language

### THE (NAME OF POLITICAL SUBDIVISION) AIRPORT ZONING ORDINANCE

#### 1. TITLE

These regulations shall be known as the (Name of Political Subdivision) Airport Zoning Regulations.

#### 2. PURPOSE AND INTENT

The purpose of these airport zoning regulations is to provide both airspace protection and land use compatibility in relation to the normal operation of the (Number of Airports in Political Subdivision) airport(s) licensed for public-use by the State of Florida Department of Transportation (FDOT) in (Name of Political Subdivision), Florida. These facilities include (Name(s) of Airport(s)).

These regulations, through the establishment of airport zones and corresponding regulations, provide for the independent review of development proposals in order to promote the public interest in safety, health, and general welfare within the territorial limits over which (Name of Political Subdivision) has jurisdiction, and to ensure that all airports licensed for public-use in the (Type of Political Subdivision) can effectively function.

Therefore, (Name of Political Subdivision) deems it necessary to regulate the uses of land located around said airports relative to the:

- Height of structures and objects of natural growth on such land;
- Uses of land in areas subject to airport noise;
- Uses of land in areas subject to aircraft overflight potential;
- Establishment of residential use or educational facilities of public and private schools on such land;
- Uses of land which result in the generation of in-flight visual or electronic interference; and
- Uses of land which result in aircraft bird strike hazards.

There is hereby adopted and established these airport zoning regulations pursuant to the authority conferred on (Name of Political Subdivision) by Chapters 163 and 333, Florida Statutes (FS), as they may be amended from time to time.

### 3. DEFINITIONS

- A. AERONAUTICAL STUDY
- B. AIRPORT
- C. AIRPORT HAZARD
- D. AIRPORT HAZARD AREA
- E. AIRPORT LAND USE COMPATIBILITY ZONING
- F. AIRPORT LAYOUT PLAN
- G. AIRPORT MASTER PLAN
- H. AIRPORT PROTECTION ZONING REGULATIONS
- I. AIRPORT REFERENCE POINT
- J. AIRPORT ZONING ADMINISTRATOR
- K. AVERAGE SOUND LEVEL
- L. AVIGATION EASEMENT
- M. DAY/NIGHT AVERAGE SOUND LEVEL (DNL)
- N. DEPARTMENT
- O. EDUCATIONAL FACILITY
- P. LANDFILL
- Q. NOISE LEVEL
- R. NONCONFORMING USE
- S. NONPRECISION INSTRUMENT
- T. OBJECT OF NATURAL GROWTH
- U. OCCUPIED ROOMS
- V. OCCUPIED STRUCTURE
- W. OTHER-THAN-UTILITY RUNWAY
- X. PERSON
- Y. POLITICAL SUBDIVISION
- Z. PRECISION INSTRUMENT RUNWAY
- AA. PUBLIC-USE AIRPORT
- BB. QUALIFIED ACOUSTICAL CONSULTANT
- CC. RUNWAY(S)
- DD. RUNWAY END ELEVATION
- EE. RUNWAY PROTECTION ZONE
- FF. SEAPLANE BASE
- GG. SOUND EXPOSURE LEVEL
- HH. SOUND LEVEL
- II. STRUCTURE
- JJ. SUBSTANTIAL MODIFICATION
- KK. UTILITY RUNWAY
- LL. VISUAL RUNWAY
- MM. YEARLY DAY-NIGHT AVERAGE SOUND LEVEL (YDNL)

### Definitions

The following terms may be necessary to include in the ordinance and, as such, should be defined in this section if used. Additional definitions may be necessary.

### 4. AIRPORT ZONES OF INFLUENCE

The (Name of Political Subdivision) hereby establishes two (2) airport zones of influence. Said zones are established to regulate land development in relation to the airports in the (Type of Political Subdivision) licensed for public use. The location of these airport zones of influence and restrictions on the use of land within said zones, are hereby established by these regulations. The boundaries of said zones and restrictions on the use of land within said zones, shall be changed only through the amendment of these regulations by the (Type of Political Subdivision and amending body).

Any application for land development within these airport zones of influence shall comply with these regulations, any applicable state or federal regulations, and any applicable requirements of the land development regulations of the (Name of Political Subdivision). The airport zones of influence established in these regulations include:

- Airport Height Notification Zone; and
- Airport Overflight Zone.

## Note

Smaller communities may not need to establish separate zones of influence. They may, instead, opt for two sections describing:

- Relevant airport adjacent airspace guidelines, and
- The land use guidelines in areas surrounding airports.

## A) AIRPORT HEIGHT NOTIFICATION ZONES AND REGULATIONS

### (A)1. ESTABLISHMENT OF ZONE

For each public-use airport in (Name of Political Subdivision), the boundary of the Airport Height Notification Zone established in these regulations is based on the runway configuration which is planned and documented as such in its approved airport layout plan, which is defined as the airport layout plan submitted by the owner of each such airport to the FAA for approval.

An Airport Height Notification Zoning Map series shall be maintained by (Name of Political Subdivision) based on an application of the boundaries set forth herein. This map shall be updated as necessary to reflect any changes in the documentation of the runway configuration on which said zone is based. The dimensions of the Airport Height Notification Zone boundaries as prescribed in these regulations shall serve as the authoritative source for said boundaries.

In the event a discrepancy arises between an Airport Height Notification Zone boundary depicted on the map and the boundary located by application of the definition of said boundary as set forth in these regulations, the boundary as prescribed by the latter shall prevail.

There is hereby established the Airport Height Notification Zone as an airport zone of influence. The Airport Height Notification Zone is established to regulate the height of structures and objects of natural growth in areas lying beneath the primary, approach, transitional, horizontal, and conical surfaces around each public-use airport in the (Type of Political Subdivision). A site located in more than one of the described surfaces shall apply the most restrictive height limitation. The various surfaces as defined in 14 CFR, Part 77 are hereby established as the Airport Height Notification Zones.

## 14 CFR Part 77 Surfaces

Local governments may decide to describe these surfaces in their airport zoning regulations, or they may refer to the language and surface definitions in Part 77 itself. These definitions can be found in Section 2.2.1 of this Guidebook as well as through the CFR website:

[www.ecfr.gov/current/title-14/chapter-I/subchapter-E/part-77](http://www.ecfr.gov/current/title-14/chapter-I/subchapter-E/part-77).

Local governments may also opt to include a depiction of these surfaces as seen in **Section 2.2.1 of this Guidebook**.

## **(A)2. AIRPORT HEIGHT NOTIFICATION REGULATIONS**

All development proposals for land lying within an Airport Height Notification Zone shall be reviewed for conformance with the federal obstruction standards contained in 14 CFR, Part 77, for civil airports.

Relative to all (Name of Political Subdivision) public-use airports, any proposed land development shall be considered a "potential airport obstruction," if the proposed land development would result in a structure or object of natural growth having a height which would exceed the previously prescribed standards.

Any person that is planning to sponsor construction or alterations which may affect navigable airspace, must file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) either electronically or manually with the FAA. No land development proposal determined to result in a structure or object of natural growth that constitutes a "potential airport obstruction" shall be approved for construction unless an Airport Obstruction Permit is issued by the Airport Zoning Administrator and has been coordinated through the FAA.

## **B) AIRPORT OVERFLIGHT ZONES AND REGULATIONS**

### **(B)1. ESTABLISHMENT OF ZONE**

There is hereby established the Airport Overflight Zone as an airport zone of influence. The Airport Overflight Zone is established to regulate the uses of land lying in specified areas above which aircraft must routinely operate at low altitudes and climb from or descend to the runways of public-use airports. Within an Airport Overflight Zone, certain land uses are restricted or prohibited due to land use characteristics which could result in further death, injury, and property damage in the event of an aircraft accident, as such areas are more likely, statistically, to be exposed to accidents involving aircraft climbing from or descending to the runway at low altitudes.

The Airport Overflight Zone includes the area over which aircraft routinely operate at low altitudes and includes protections against:

- Development within runway protection zones
- Development within airport noise zones
  - Development of educational or residential land uses
  - Development within FAA approved noise studies
- Development of landfills

For each publicly owned, public-use airport in (Name of Political Subdivision), the boundary of the Airport Overflight Zone established in these regulations is based on the runway configuration documented in its approved airport layout plan, which is defined as the airport layout plan submitted by the owner of each such airport to the FAA for approval. For each privately owned, public-use airport in (Name of Political Subdivision), the boundary of the Airport Overflight Zone established in this section is based on the existing runway configuration documented by the Department.

An Airport Overflight Zoning Map series shall be maintained by (Name of Political Subdivision) based on an application of the boundaries set forth herein. These maps shall be updated as necessary to reflect any changes in the documentation of the runway configuration on which said zone is based. The Airport Overflight Zone boundaries as prescribed in these regulations shall serve as the authoritative source for said boundaries.

In the event a discrepancy arises between an Airport Overflight Zone boundary depicted on the maps and the boundary located by application of the definition of said boundary as set forth in these regulations, the boundary as prescribed by the latter shall prevail.

## (B)2. AIRPORT OVERFLIGHT ZONE REGULATIONS

### (B)2.a. PROHIBITED LAND USES

All development proposals for land lying within an Airport Overflight Zone shall be reviewed for conformance with the state standards contained in Ch 333, F.S. Referencing and adhering to the guidelines set forth in this statute when planning future development is required.

### C) DETERMINATION OF BOUNDARIES

In determining the location of airport zone boundaries, the following rules shall apply:

- Where boundaries are shown to follow streets or alleys, the centerline of such streets or alleys as they exist at the time of adoption of these regulations, shall be the airport zone boundary;
- Where boundaries are shown to enter or cross platted lots, property lines of lots as they exist at the time of adoption of these regulations shall be the airport zone boundary;
- Notwithstanding the above, where boundaries are shown on any platted lot, provisions of the more restrictive airport zone shall apply;
- Where boundaries are shown on unsubdivided property of less than five (5) acres in area, provisions of the more restrictive airport zone shall apply; and
- Where boundaries are shown on unsubdivided property of five (5) or more acres in area, the location shall be determined by the Airport Noise Zone boundary the Airport Height Notification Zone or Airport Overflight Zone boundary located by application of the definition of said zone boundaries set forth in these regulations.

### Note

Local governments may use the “Prohibited Land Uses” section both to describe the prohibitions and restrictions listed as requirements of Ch. 333, F.S. (as discussed in Chapter 1 of this Guidebook), and to define and describe prohibited land uses unique to the jurisdiction that are situationally relevant and/or necessary.

### D) NONCONFORMING USES

If a nonconforming obstruction has been abandoned or is more than 80 percent torn down, destroyed, deteriorated, or decayed, a permit may not be granted if it would allow the obstruction to exceed the applicable height limit or otherwise deviate from the Airport Zoning Regulations. Whether or not an application is made for a permit, the owner of the nonconforming obstruction may be required, at his or her own expense, to lower, remove, reconstruct, alter, or equip such obstruction as may be necessary to conform to the current Airport Zoning Regulations. If the owner of the nonconforming obstruction neglects or refuses to comply with such requirement for 10 days after Notice, the (Type of Political Subdivision) may proceed to have the obstruction so lowered, removed, reconstructed, altered, or equipped and assess the cost and expense thereof upon the owner of the obstruction or the land whereon it is or was located.

If a nonconforming obstruction is determined to be an airport hazard and the owner will not remove, lower, or otherwise eliminate it, the approach protection necessary cannot, because of constitutional limitations, be provided by the (Name of Political Subdivision) Airport Zoning Regulations; or it appears advisable that the necessary approach protection be provided by acquisition of property rights rather than by the (Name of Political Subdivision) Airport Zoning Regulations, the (type of Political Subdivision) within which the property or nonconforming obstruction is located, or the (type of Political Subdivision) owning or operating the airport or being served by it, may acquire, by purchase, grant, or condemnation in the manner provided by Chapter 73 and 74, FS.

## 5. ADMINISTRATION AND ENFORCEMENT

### A) DUTIES OF THE AIRPORT ZONING ADMINISTRATOR

It shall be the duty of the Airport Zoning Administrator to administer and enforce the regulations prescribed herein. Permits shall be requested through the submission of an application to the Airport Zoning Administrator.

Temporary or conditional permits pending completion of review, comment, or approval by any other local, state, or federal agency shall not be issued.

### B) PERMITS

Any applicant receiving a "Notice of Potential Airport Obstruction" may apply to the Airport Zoning Administrator for an Airport Obstruction Permit.

#### *Procedures for Requesting an Airport Obstruction Permit*

The applicant shall submit a completed Airport Obstruction Permit application, as provided by the Airport Zoning Administrator, to include the final written Determination of the "Notice of Proposed Construction or Alteration" issued by the FAA.

Upon receipt of a complete permit application, the (Type of Political Subdivision) shall provide a copy of the application to the FDOT Aviation Office by certified mail, return receipt requested, or by a delivery service that provides a receipt evidencing delivery. To evaluate technical consistency, FDOT shall have a 15-day review period following receipt of the application, which shall run concurrently with the (Type of Political Subdivision) permitting process. Cranes, construction equipment, and other temporary structures in use or in place for a period not to exceed 18 consecutive months are exempt from the FDOT's review, unless such review is requested by FDOT. The FDOT shall, within 30 days after receipt of an application for a permit, issue or deny a permit for the construction or alteration of an obstruction. The Department shall review permit applications for issuance by the Department in conformity with Section 120.60, FS.

#### *Criteria for Granting an Airport Obstruction Permit*

In determining whether to issue or deny a permit, the following shall be considered:

1. The safety of persons on the ground and in the air;
2. The safe and efficient use of navigable airspace;
3. The nature of the terrain and height of existing structures;
4. The effect of the construction or alteration on the state licensing standards for a public-use airport contained in Chapter 330, FS, and rules adopted thereunder;
5. The character of existing and planned flight operations and developments at public-use airports;
6. Federal airways, visual flight rules, flyways and corridors, and instrument approaches as designated by the FAA;
7. The effect of the construction or alteration of the proposed structure on the minimum descent altitude or the decision height at the affected airport;
8. The cumulative effects on navigable airspace of all existing structures and all other known proposed structures in the area; and
9. The (Type of Political Subdivision) shall require the owner of the obstruction to install, operate, and maintain thereon, at his or her own expense, marking and lighting in conformance with the specific standards established by the FAA.

Where the FAA has reviewed a proposed development and determined it would not affect the safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities, the Airport Zoning Administrator may grant an Airport Obstruction Permit for a proposed development, provided that conditions are attached to said permit to ensure the installation, operation, and maintenance of appropriate obstruction marking, lighting, and/or flagging, if such obstruction marking, lighting, and/or flagging is required in its written Determination. No Airport Obstruction Permit shall be issued after the expiration date indicated on the FAA's written Determination. Each Airport Obstruction Permit issued shall specify a reasonable expiration date as a condition.

Where the FAA has reviewed a proposed land development request and determined it would affect the safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities for civil airports, or the establishment of a "Hazard to Air Navigation," or both, no Airport Obstruction Permit shall be granted by the Airport Zoning Administrator.

### **C) NOTIFICATION REQUIREMENTS**

#### **(C)1. NOTIFICATION OF AIRPORT NOISE POTENTIAL**

The following notification requirement shall apply to property lying within any Airport Noise Zone defined in these regulations.

Constructive knowledge shall be made available to all purchasers of property located in any Airport Noise Zone defined in these regulations.

- Public notice, via maps depicting said zones, shall be made available by the (Name of Political Subdivision).
- A disclosure statement shall be completed upon the sale of all residential property located in any such zone and shall be filed with the property deed.

#### **(C)2. NOTIFICATION OF AIRCRAFT OVERFLIGHT POTENTIAL**

The following notification requirement shall apply to property lying within any Airport Overflight Zone defined in these regulations.

Constructive knowledge shall be made available to all purchasers and users of property in any Airport Overflight Zone defined in these regulations.

- Constructive knowledge shall be accomplished in the manner and form prescribed in Section (5)(c)1 of these regulations.
- When the end user of any property located in any Airport Overflight Zone defined in these regulations is not the purchaser, the purchaser shall convey the notification condition to the user. Such notification shall be in writing, shall be acknowledged by user's signature, and shall be accomplished prior to the user occupying or making any type of legally binding obligation to occupy said property. A copy of the user's acknowledgment shall be filed with the property deed.

When said property also lies partially or entirely within any Airport Noise Zone defined in these regulations, notification shall include specific reference to both airport noise and aircraft overflight potential.

## 6. JUDICIAL REVIEW

- A)** Any person, political subdivision, or joint airport zoning board aggrieved by a decision of (Name of Political Subdivision) or its administrative agency may seek judicial relief by filing an application within 30 days after the decision is rendered. The review shall be conducted through a petition for writ of certiorari, governed by the Florida Rules of Appellate Procedure.
- B)** The circuit court in the judicial circuit where the political subdivision is located shall have exclusive jurisdiction to affirm, reverse, or modify the decision on the permit or other determination being appealed. The court may also order further proceedings by (Name of Political Subdivision) or its administrative agency, if deemed necessary. The court shall accept the findings of fact made by (Name of Political Subdivision) or its administrative agency as conclusive if supported by substantial evidence. Only objections raised during the underlying proceeding shall be considered by the court.
- C)** In the event that airport zoning regulations adopted under this chapter are determined by a court to unduly interfere with the use and enjoyment of a specific structure or parcel of land, to the extent that it constitutes a taking or deprivation of property in violation of the State Constitution or the Constitution of the United States, such holding shall not affect the application of such regulations to other structures and parcels of land not involved in the particular decision.
- D)** A judicial appeal to any court under this section shall not be permitted until the appellant has exhausted all available remedies through the application for local government permits, exceptions, and appeals.

## 7. ACQUISITION OF AIR RIGHTS

If a nonconforming obstruction is deemed to pose a hazard to the airport and the owner refuses to remove, lower, or otherwise eliminate it, and if providing necessary approach protection through airport zoning regulations under Chapter 333, FS, is not feasible due to constitutional limitations, or if it is determined that acquiring property rights would be more advisable than relying on airport zoning regulations, the political subdivision in which the property or nonconforming obstruction is located, or the political subdivision that owns or operates the airport or is served by it, may acquire the necessary property, air rights, aviation easements, or other interests in the property or nonconforming obstruction through purchase, grant, or condemnation as provided by Chapter 73, FS. In the case of condemnation, the political subdivision shall have the right to take immediate possession of the property, interest in property, air rights, or other rights sought to be condemned in accordance with the provisions of Chapter 74, FS. Additionally, if any property, easement, or interest therein is purchased or acquired through eminent domain, the political subdivision shall be responsible for not only compensating for the taking, injury, or destruction of the property, but also for covering the costs associated with the removal and relocation of any structure or public utility that needs to be moved to a new location.

## 8. ENFORCEMENT AND REMEDIES

- A)** Each violation of Chapter 333, FS, or of any airport zoning regulations, orders, or rulings adopted or made pursuant to Chapter 333, FS, shall constitute a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083, and each day a violation continues to exist shall constitute a separate offense.
- B)** In addition, (Name of Political Subdivision) may institute in any court of competent jurisdiction an action to prevent, restrain, correct, or abate any violation of Chapter 333, FS, or of airport zoning regulations adopted under Chapter 333, FS, or of any order or ruling made in connection with their administration or enforcement, and the court shall adjudge to the plaintiff such relief, by way of injunction, which may be mandatory, or otherwise, as may be proper under all the facts and circumstances of the case in order to fully effectuate the purposes of this chapter and of the regulations adopted and orders and rulings made pursuant thereto.
- C)** The Department may institute a civil action for injunctive relief in the appropriate circuit court to prevent violation of any provision of this chapter.

## Terms and Definitions

This Guidebook contains several terms and definitions that may be unfamiliar to users. This appendix provides a comprehensive overview of every acronym used in this Guidebook, as well as additional terms that may be helpful to users as they read this Guidebook and apply the information provided to local land use planning efforts.

### Acronyms

**AC** — Advisory Circular

**ACRP** — Airport Cooperative Research Program

**AGL** — Above Ground Level

**AIP** — Airport Improvement Program

**ALP** — Airport Layout Plan

**ALUCP** — Airport Land Use Compatibility Plan

**AO** — FDOT Aviation Office

**AOA** — Airport Operational Area

**CFR** — Code of Federal Regulations

**DNL** — Day-Night Sound Level

**DOD** — Department of Defense

**FAA** — Federal Aviation Administration

**FAC** — Florida Administrative Code

**FAR** — Federal Aviation Regulation

**FDOT** — Florida Department of Transportation (in this Guidebook, “FDOT” refers to the FDOT Aviation Office, unless otherwise specified)

**FS** — Florida Statute

**FT** — Feet

**MPO** — Metropolitan Planning Organization

**NCP** — Noise Compatibility Program

**NEM** — Noise Exposure Map

**NM** — Nautical Mile

**OE** — Obstruction Evaluation

**OE/AAA** — Obstruction Evaluation/Airport Airspace Analysis

**OES** — Obstruction Evaluation Service

**RPZ** — Runway Protection Zone

**SE** — Site Elevation

**VFR** — Visual Flight Rules

**YDNL** — Yearly Day-Night Average Sound Level

## Definitions

**Above Ground Level** — The height an object is above the ground.

**Advisory Circular (AC)** — A series of FAA publications providing guidance and standards for the design, operation, and performance of aircraft and airport facilities.

**Aeronautical Evaluation/Study** — A Federal Aviation Administration study, conducted in accordance with the standards of 14 CFR, Part 77, Subpart C, and FAA policy and guidance, on the effect of proposed construction or alteration upon the operation of air navigation facilities and the safe and efficient use of navigable airspace.

**Aircraft Approach Category** — A grouping of airplanes based on wingspan, per the following:

- Category A: Speed less than 91 knots
- Category B: Speed 91 knots or more, but less than 121 knots
- Category C: Speed 121 knots or more, but less than 141 knots
- Category D: Speed 141 knots or more, but less than 166 knots
- Category E: Speed 166 knots or more

**Aircraft Operations** — Airborne movements of aircraft at an airport including aircraft landings (arrivals) and takeoffs (departures). These operations can be further defined by the following:

- Local Operations include those performed by aircraft that operate in the local traffic pattern or within sight of the airport; and/or are known to be departing for or arriving from a local practice area.
- Itinerant Operations are all others.

**Aircraft Traffic Patterns** — The standard path followed by aircraft when taking off or landing which is used for coordinating air traffic. Dimensions of the traffic pattern are determined by the approach speed of the aircraft performing the operation.

**Airport Cooperative Research Program (ACRP)** — A research program established by the FAA intended to provide publications on aviation growth and development. It is sponsored by the FAA and is managed by the Transportation Research Board (TRB).

**Airport Improvement Program (AIP)** — A program that provides grants to public agencies and in some cases to private entities for the planning and development of public-use airports within the NPIAS. A public-use airport must meet current eligibility requirements for FAA funding.

**Airport Hazard** — An obstruction to air navigation which affects the safe and efficient use of navigable airspace or the operation of planned or existing air navigation and communication facilities.

**Airport Hazard Area** — Any area of land or water upon which an airport hazard might be established.

**Airport Land Use Compatibility Zoning** — Airport zoning regulations governing the use of land on, adjacent to, or in the immediate vicinity of airports.

**Airport Layout Plan (ALP)** — A set of scaled drawings that provides a graphic representation of the existing and future development plan for the airport and demonstrates the preservation and continuity of safety, utility, and efficiency of the airport.

**Airport Master Plan** — A comprehensive plan of an airport which typically describes current and future plans for airport development designed to support existing and future aviation demand.

**Airport Compatible Land Use** — Land use that can coexist with a nearby airport without constraining the safe and efficient operation of the airport, or exposing people living or working nearby to significant environmental impacts.

**Airport Operational Area (AOA)** — The area that includes all areas designated and used for landing, taking off, or surface maneuvering of aircraft. The area includes ramps, aprons, runways and taxiways.

**Airport Protection Zoning Ordinance** — Airport zoning regulations governing airport hazards.

**Airport Sponsor** — A public agency that is authorized to own and operate an airport, to obtain property interests, to obtain funds, and to be legally, financially, and otherwise able to meet all applicable requirements of current laws and regulations.

**Airspace** — The area above the ground in which aircraft travel. It is divided into corridors, routes, and restricted zones for the control and safety of aircraft operations.

**Airport Land Use Compatibility Plan (ALUCP)** — A plan that provides guidance on how to limit the placement of incompatible land uses by involving multiple stakeholders, such as local government officials, planners, and citizens with guidance and information about compatibility issues with development near an airport.

**Airspace Obstruction Permit** — Permit required by Florida law for any proposed construction or alteration that exceeds federal obstruction standards (Part 77).

**Approach Minimums** — The altitude below which an aircraft may not descend while on an IFR approach unless the pilot has the runway in sight.

**Approach Surface** — A Part 77 imaginary surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is designated for each runway based upon the type of approach available or planned for that runway end.

**Aviation Office (FDOT Aviation Office)** — An office of FDOT intended to promote the development and improvement of Florida's airports, regulate airports, and protect airport approaches.

**Avigation Easement** — An agreement that compels property owners to surrender their property's air rights to the government.

**Chapter 333, FS** — A chapter of Florida Statute providing requirements and standards for airport zoning regulations and airspace obstruction permitting

**Code of Federal Regulations (CFR)** — The codification of the rules published in the Federal Register by the federal government.

**Commercial Service** — Commercial service airports are publicly owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service.

**Conical Surface** — A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

**Day-Night Sound Levels (DNL)** — The system used by the FAA and the Department of Housing and Urban Development (HUD) to measure noise. Contours representing DNL levels are generated from the INM. The military also uses the DNL methodology to express noise impacts. Sound levels in the DNL contours are expressed in decibel units.

**Decibel** — A measurement of sound.

**Department of Defense (DOD)** — A division of the federal government that manages all agencies related to national security.

**Design Aircraft** — An aircraft with characteristics that determine the application of airport design standards for a specific runway, taxiway, taxilane, apron, or other facility. This aircraft can be a specific aircraft model or a composite of several aircraft using, expected, or intended to use the airport or part of the airport. (Also called "critical aircraft" or "critical design aircraft.")

**Easement** — The legal right of one party to use a portion of the total rights in real estate owned by another party. This may include the right of passage over, on, or below the property; certain air rights above the property, including view rights; and the rights to any specified form of development or activity, as well as any other legal rights in the property that may be specified in the easement document.

**Educational Facility** — Any structure, land, or use that includes a public or private kindergarten through 12th grade school, charter school, magnet school, college campus, or university campus. The term does not include space used for educational purposes within a multi-tenant building.

**Encroachment** — The development on or entry into an area near an airport not previously occupied. Airport encroachment can be in the form of a structure that, due to its height, may create a potential hazard for aircraft; these encroachments are referred to as “tall structures” or land development that is not considered compatible, such as residential development.

**FAR Part 77** — Federal regulation covering objects affecting navigable airspace. Part 77 establishes standards for determining obstructions in navigable airspace; sets forth the requirements for Notice to the FAA of certain proposed construction or alteration; provides for aeronautical studies of obstructions to air navigation to determine their effect on the safe and efficient use of airspace; provides for public hearings on the hazardous effect of proposed construction or alteration on air navigation; and provides for establishing antenna farm areas. It provides for the establishment of “imaginary surfaces” on and around an airport to identify potential aeronautical hazards in order to prevent or minimize adverse impacts to the safe and efficient use of navigable airspace. Imaginary surfaces include the primary surface, approach surfaces, transitional surfaces, the horizontal surface, and the conical surface.

**FAR Part 150** — Regulation pertaining to airport noise compatibility planning.

**FAR Part 161** — Regulation pertaining to Notice and approval of airport noise and airport access restrictions.

**Federal Airways** — A part of the navigable airspace that the FAA designates as a federal airway.

**Federal Aviation Administration (FAA)** — A branch of the U.S. Department of Transportation responsible for insuring the safe and efficient use of the nation’s airspace, for fostering civil aeronautics and air commerce, and for supporting the requirements of national defense. In addition to regulating airports, aircraft manufacturing and parts certification, aircraft operation and pilot certification, the FAA operates Air Traffic Control Towers (ATCT), purchases and maintains navigation equipment, certifies airports and aids airport development, among other activities. The FAA also administers the Airport Improvement Program (AIP) that supports airport development.

**Federal Aviation Regulations (FARs)** — The body of Federal regulations relating to civil aviation and aviation-related activities, published as Title 14 of the Code of Federal Regulations.

**Fee Simple Acquisition** — The outright purchase of land.

**Final Approach** — The part of an instrument approach procedure in which alignment and descent for landing are accomplished.

**Flight Path** — The line or course along which an aircraft is flying or is intended to be flown.

**Florida Administrative Code (FAC)** — Official compilation of the rules and regulations of Florida regulatory agencies.

**Florida Statutes (FS)** — Statutory laws of Florida that provide the basis for all development within Florida.

**Geodetic Coordinates** — Coordinates in an abstract coordinate system with a reference surface (such as sea level) that serves to provide known locations to begin surveys and create maps.

**Hazard to Air Navigation** — See Airport Hazard.

**Heliport** — A landing facility to be used by helicopters only.

**Horizontal Surface** — The area around each civil airport with an outer boundary, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each airport’s runway and connecting the adjacent arcs by lines tangent to those arcs.

**Imaginary Surfaces** — Specific areas around each airport or military airfield that should not contain any protruding objects from a height standpoint which may pose potential hazards to airports and/or air navigation as established by Part 77. Imaginary surfaces include the primary surface, approach surfaces, transitional surfaces, the horizontal surface, and the conical surface.

**Incompatible Land Use** — Land development that is not considered compatible with airport operations.

**Instrument Approach** — A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to landing, or to a point from which a landing may be made visually.

**Instrument Flight Rules (IFR)** — Rules from Federal Aviation Regulations (14 CFR 91) that govern the procedures for conducting instrument flight. Pilots are required to follow these rules when operating in controlled airspace during instrument meteorological conditions (IMC) (i.e., visibility of less than three miles and/or ceiling lower than 1,000 ft). These procedures may also be used under visual conditions and provide for positive control by Air Traffic Control (ATC).

**Instrument Runway** — A runway equipped with electronic and visual navigational aids for which a precision or non-precision approach procedure having straight-in landing minimums has been approved.

**Interlocal Agreement** — An agreement among participants to set clear and reasonable criteria for appropriate development standards. Participants in the agreement could include a county, any adjacent city, affected fire districts, etc.

**Joint Zoning Board** — A shared committee established by two or more local governments to manage land use near an airport.

**Land Development Regulation** — A land development regulation is any regulation that implements a jurisdiction's land development code or restrictions.

**Land Use Compatibility** — The ability of land uses surrounding the airport to coexist with airport-related activities with minimum conflict.

**Land Use Density** — A measure of the number of residences per acre or hectare. (Also referred to as "population density" in this Guidebook).

**Landfill** — Any solid waste land disposal area for which a permit, other than a general permit, is required by s. 403.707 and which receives solid waste for disposal in or upon land. The term does not include a land-spreading site, an injection well, a surface impoundment, or a facility for the disposal of construction and demolition debris.

**Metropolitan Planning Organization (MPO)** — A local government within a metropolitan planning area responsible for carrying out transportation planning and programming.

**Military Airfield** — An airport that provides basing and support for military aircraft.

**National Airspace System (NAS)** — Established by FAA to protect persons and property on the ground, and to establish a safe and efficient airspace environment for civil, commercial, and military aviation.

**Navigable Airspace** — Airspace at and above the minimum safe flight level, including airspace needed for safe takeoff and landing.

**Noise Abatement** — A measure or action that minimizes the amount of noise impact on the environs of an airport. Noise abatement measures include aircraft operating procedures and use or disuse of certain runways or flight tracks.

**Noise Compatibility Program (NCP)** — A program that outlines various strategies that the airport may consider in order to reduce noise, assuming adverse noise impacts are identified through the Part 150 process.

**Noise Exposure Map (NEM)** — A map representing average annual noise levels summarized by lines connecting points of equal noise exposure.

**Noise Mitigation** — Strategies to reduce aircraft noise impact.

**Non-Precision Approach Procedure** — A standard instrument approach procedure with only horizontal guidance or area-type navigational guidance for straight-in approaches; no electronic vertical guidance such as VOR, TACAN, NDB, or LOC (i.e., glideslope) is provided.

**North American Datum (NAD) 83** — North American Datum of 1983 is a geographic reference system that defines a framework for locations in North America (including the United States, Canada, Mexico, and Central America).

**Notice Criteria Tool** — A computerized tool offered by FAA that can be used to determine whether or not a proposed structure meets FAR Part 77 requirements for notification of construction.

**Notice of Presumed Hazard** — Notice given by the FAA after conducting an aeronautical study that a structure is presumed to be a hazard to air navigation.

**Notification** — Providing an alert to a purchaser that the property is near an airport. This can be in the form of a buyer awareness program or disclosure agreements.

**Obstruction** — Any existing or proposed object, terrain, or structure construction or alteration that exceeds the federal obstruction standards contained in 14 CFR, Part 77, Subpart C. The term includes:

- Any object of natural growth or terrain.
- Permanent or temporary construction or alteration, including equipment or materials used and any permanent or temporary apparatus.
- Alteration of any permanent or temporary existing structure by a change in the structure's height, including appurtenances, lateral dimensions, and equipment or materials used in the structure.

**Obstruction Evaluation/Airport Airspace Analysis (OE/AAA)** — A web-based tool developed by the FAA to help defend against further encroachment of obstacles on navigable airspace. The web site allows anyone in the public to become familiar with any proposed construction that may affect airspace at an airport they are interested in.

**Off-Airport Land Use Drawing** — A depiction of the recommended zones and the compatibility of land uses in each zone in the vicinity of an airport. This drawing assists a local government or county with the development of appropriate airport overlay zoning in order to protect the airport from incompatible development.

**Operation** — A takeoff or landing of an aircraft. Every aircraft flight requires at least two operations, a takeoff and landing.

**Operational Procedures** — A set of written instructions for operating aircraft, used to try to reduce noise exposure. Procedures may include restricting ground movements and engine run-ups, use of preferential runway ends, managing power and flap setting for the aircraft on take-off, limiting thrust reverse, and changing traffic patterns.

**Ordinance** — A law enacted by government.

**Part 150 Noise Study** — Also called an airport noise compatibility study, this study seeks to reduce the impacts of airport operations on neighborhoods surrounding the airport as outlined in Part 150 of the Federal Aviation Regulation (FAR). This study allows airport owners to voluntarily submit noise exposure maps (NEMs) and noise compatibility programs (NCPs) to the FAA for review and approval.

**Person** — Any individual, firm, copartnership, corporation, company, association, joint-stock association, or body politic, and includes any trustee, receiver, assignee, or other similar representative thereof.

**Piston Aircraft** — An aircraft having one or more piston-powered engines connected to propeller(s) which provide thrust to move the aircraft on the ground and through the air. Piston-powered aircraft most commonly use 100 octane low-leaded fuel and fly at altitudes below 15,000 feet.

**Political Subdivision** — The local government of any county, municipality, town, village, or other subdivision or agency thereof, or any district or special district, port commission, port authority, or other such agency authorized to establish or operate airports in the state.

**Precision Approach Procedure** — A standard instrument approach procedure in which an electronic glide slope is provided.

**Primary Surface** — An area longitudinally centered on a runway extending 200 feet beyond each end of that runway with a width so specified for each runway for the most precise approach existing or planned for either end of the runway. No structure or obstruction is permitted within the primary surface that is not part of the landing/takeoff area or that is of a height greater than the nearest point on the runway centerline. The primary surface surrounds and protects the landing area; the dimensions of the primary surface vary by type of landing area, weight of the landing aircraft, visibility, and the type of landing approach.

**Public Airport Site Approval Application** — The application that must be completed and submitted to FDOT for approval prior to site acquisition, construction, or establishment of a proposed airport.

**Public-Use Airport** — An airport, publicly or privately owned, licensed by the state, which is open for use by the public.

**Rules and Regulations** — Directions approved and enforced by an airport sponsor to protect public health, safety, interest, and welfare on the airport, as well as to augment any ordinances and resolutions pertaining to the airport.

**Runway** — A defined rectangular surface on an airport prepared or suitable for the landing or takeoff of airplanes.

**Runway Protection Zone (RPZ)** — An area at ground level beyond the runway end to enhance the safety and protection of people and property on the ground.

**Seaplane** — An airplane equipped with floats for landing on or taking off from water.

**Soundproofing** — A noise mitigation strategy to neutralize or reduce aircraft-related noise.

**Sponsor** — An individual applying for an Airspace Obstruction Permit from the FAA.

**State Aviation Manager** — The individual authorized to issue site approval orders and licenses; to accept registrations for airports subject to licensing and registration requirements of Section 330.30, Florida Statutes; and to enforce the provisions of Chapter 330, F.S. The State Aviation Manager is also authorized to issue Airspace Obstruction Permits subject to the requirements of Section 333.025, F.S. and to enforce the provisions of Chapter 333, F.S.

**Structure** — Any object constructed, erected, altered, or installed, including, but not limited to, buildings, towers, smokestacks, utility poles, power generation equipment, and overhead transmission lines.

**Substantial Modification** — Any repair, reconstruction, rehabilitation, or improvement of a structure when the actual cost of the repair, reconstruction, rehabilitation, or improvement of the structure equals or exceeds 50 percent of the market value of the structure.

**Taxiway** — A defined path established for the taxiing of aircraft from one part of an airport to another.

**Title 14 CFR Part 77, Objects Affecting Navigable Airspace** — See FAR Part 77.

**Title 14 CFR Part 150, Airport Noise Compatibility Planning** — See FAR Part 150.

**Title 14 CFR Part 161, Notice and Approval of Airport Noise and Access Restrictions** — See FAR Part 161.

**Training Operations** — Operations at an airport related to pilot training. These operations include “touch and go” operations, when an aircraft lands and departs on a runway without stopping or exiting the runway.

**Transfer of Development Rights** — A strategy typically outlined in a local zoning ordinance that allows landowners to transfer the right to develop one parcel of land to a different parcel of land.

**Transitional Surface** — A surface area that surrounds and protects the lateral boundaries of the primary and approach surfaces; this surface extends outward and upward at right angles to the runway centerline and the extended runway centerline at specified ratios. Height limits of the transitional surface are the same as the primary surface or approach surface at the boundary line where it adjoins and increases at a rate of one foot vertically for every seven feet horizontally. Horizontal distances are measured at right angles to the runway centerline and extended centerline, until the height matches the height of the horizontal surface or conical surface or for a horizontal distance of 5,000 feet from the side of the part of the precision approach surface that extends beyond the conical surface.

## Chapter 333, Florida Statutes (FS)

### 333.01 Definitions.—As used in this chapter, the term:

- (1) "Aeronautical study" means a Federal Aviation Administration study, conducted in accordance with the standards of 14 C.F.R. part 77, subpart C, and Federal Aviation Administration policy and guidance, on the effect of proposed construction or alteration upon the operation of air navigation facilities and the safe and efficient use of navigable airspace.
- (2) "Airport" means any area of land or water designed and set aside for the landing and taking off of aircraft and used or to be used in the interest of the public for such purpose.
- (3) "Airport hazard" means an obstruction to air navigation which affects the safe and efficient use of navigable airspace or the operation of planned or existing air navigation and communication facilities.
- (4) "Airport hazard area" means any area of land or water upon which an airport hazard might be established.
- (5) "Airport land use compatibility zoning" means airport zoning regulations governing the use of land on, adjacent to, or in the immediate vicinity of airports.
- (6) "Airport layout plan" means a set of scaled drawings that provides a graphic representation of the existing and future development plan for the airport and demonstrates the preservation and continuity of safety, utility, and efficiency of the airport.
- (7) "Airport master plan" means a comprehensive plan of an airport which typically describes current and future plans for airport development designed to support existing and future aviation demand.
- (8) "Airport protection zoning regulations" means airport zoning regulations governing airport hazards.
- (9) "Department" means the Department of Transportation as created under s. 20.23.
- (10) "Educational facility" means any structure, land, or use that includes a public or private kindergarten through 12th grade school, charter school, magnet school, college campus, or university campus. The term does not include space used for educational purposes within a multi-tenant building.
- (11) "Landfill" has the same meaning as provided in s. 403.703.
- (12) "Obstruction" means any existing or proposed object, terrain, or structure construction or alteration that exceeds the federal obstruction standards contained in 14 C.F.R. part 77, subpart C. The term includes:
  - a. Any object of natural growth or terrain;
  - b. Permanent or temporary construction or alteration, including equipment or materials used and any permanent or temporary apparatus; or
  - c. Alteration of any permanent or temporary existing structure by a change in the structure's height, including appurtenances, lateral dimensions, and equipment or materials used in the structure.
- (13) "Person" means any individual, firm, copartnership, corporation, company, association, joint-stock association, or body politic, and includes any trustee, receiver, assignee, or other similar representative thereof.
- (14) "Political subdivision" means the local government of any county, municipality, town, village, or other subdivision or agency thereof, or any district or special district, port commission, port authority, or other such agency authorized to establish or operate airports in the state.
- (15) "Public-use airport" means an airport, publicly or privately owned, licensed by the state, which is open for use by the public.

- (16) "Runway protection zone" means an area at ground level beyond the runway end to enhance the safety and protection of people and property on the ground.
- (17) "Structure" means any object constructed, erected, altered, or installed, including, but not limited to, buildings, towers, smokestacks, utility poles, power generation equipment, and overhead transmission lines.
- (18) "Substantial modification" means any repair, reconstruction, rehabilitation, or improvement of a structure when the actual cost of the repair, reconstruction, rehabilitation, or improvement of the structure equals or exceeds 50 percent of the market value of the structure.

History.—s. 1, ch. 23079, 1945; s. 2, ch. 75-16; s. 1, ch. 88-356; s. 70, ch. 90-136; s. 84, ch. 91-221; s. 482, ch. 95-148; s. 1, ch. 2016-209; s. 21, ch. 2016-239.

### **333.02 Airport hazards and uses of land in airport vicinities contrary to public interest.—**

- (1) It is hereby found that an airport hazard endangers the lives and property of users of the airport and of occupants of land in its vicinity and also, if of the obstruction type, in effect reduces the size of the area available for the taking off, maneuvering, or landing of aircraft, thus tending to destroy or impair the utility of the airport and the public investment therein. It is further found that certain activities and uses of land in the immediate vicinity of airports as enumerated in s. 333.03(2) are not compatible with normal airport operations, and may, if not regulated, also endanger the lives of the participants, adversely affect their health, or otherwise limit the accomplishment of normal activities. Accordingly, it is hereby declared:
  - (a) That the creation or establishment of an airport hazard and the incompatible use of land in airport vicinities are public nuisances and injure the community served by the airport in question;
  - (b) That it is therefore necessary in the interest of the public health, public safety, and general welfare that the creation or establishment of airport hazards and incompatible land uses be prevented; and
  - (c) That this should be accomplished, to the extent legally possible, by the exercise of the police power, without compensation.
- (2) It is further declared that the limitation of land uses incompatible with normal airport operations, the prevention of the creation or establishment of airport hazards, and the elimination, removal, alteration, mitigation, or marking and lighting of existing airport hazards are public purposes for which political subdivisions may raise and expend public funds and acquire land or property interests therein, or air rights thereover.

History.—s. 2, ch. 23079, 1945; s. 2, ch. 88-356; s. 71, ch. 90-136.

### **333.025 Permit required for obstructions.—**

- (1) A person proposing the construction or alteration of an obstruction must obtain a permit from the department, subject to subsections (2), (3), and (4). However, permits from the department will be required only within an airport hazard area where federal obstruction standards are exceeded and if the proposed construction or alteration is within a 10-nautical-mile radius of the airport reference point, located at the approximate geometric center of all usable runways of a public-use airport or military airport.
- (2) Existing, planned, and proposed facilities on public-use airports contained in an airport master plan, in an airport layout plan submitted to the Federal Aviation Administration, or in comparable military documents shall be protected from airport hazards.
- (3) A permit is not required for existing structures that received construction permits from the Federal Communications Commission for structures exceeding federal obstruction standards before May 20, 1975; a permit is not required for any necessary replacement or repairs to such existing structures if the height and location are unchanged.

- (4) If political subdivisions have, in compliance with this chapter, adopted adequate airport protection zoning regulations, placed such regulations on file with the department's aviation office, and established a permitting process, a permit for the construction or alteration of an obstruction is not required from the department. Upon receipt of a complete permit application, the local government shall provide a copy of the application to the department's aviation office by certified mail, return receipt requested, or by a delivery service that provides a receipt evidencing delivery. To evaluate technical consistency with this subsection, the department shall have a 15-day review period following receipt of the application, which must run concurrently with the local government permitting process. Cranes, construction equipment, and other temporary structures in use or in place for a period not to exceed 18 consecutive months are exempt from the department's review, unless such review is requested by the department.
- (5) The department shall, within 30 days after receipt of an application for a permit, issue or deny a permit for the construction or alteration of an obstruction. The department shall review permit applications in conformity with s. 120.60.
- (6) In determining whether to issue or deny a permit, the department shall consider:
  - (a) The safety of persons on the ground and in the air.
  - (b) The safe and efficient use of navigable airspace.
  - (c) The nature of the terrain and height of existing structures.
  - (d) The effect of the construction or alteration of an obstruction on the state licensing standards for a public-use airport contained in chapter 330 and rules adopted thereunder.
  - (e) The character of existing and planned flight operations and developments at public-use airports.
  - (f) Federal airways, visual flight rules, flyways and corridors, and instrument approaches as designated by the Federal Aviation Administration.
  - (g) The effect of the construction or alteration of an obstruction on the minimum descent altitude or the decision height at the affected airport.
  - (h) The cumulative effects on navigable airspace of all existing obstructions and all known proposed obstructions in the area.
- (7) When issuing a permit under this section, the department shall require the owner of the obstruction to install, operate, and maintain, at the owner's expense, marking and lighting in conformance with the specific standards established by the Federal Aviation Administration.
- (8) The department may not approve a permit for the construction or alteration of an obstruction unless the applicant submits documentation showing both compliance with the federal requirement for notification of proposed construction or alteration and a valid aeronautical study. A permit may not be approved solely on the basis that the Federal Aviation Administration determined that the proposed construction or alteration of an obstruction was not an airport hazard.
- (9) The denial of a permit under this section is subject to administrative review pursuant to chapter 120.

History.—s. 3, ch. 75-16; s. 3, ch. 88-356; s. 7, ch. 92-152; s. 2, ch. 2016-209; s. 22, ch. 2016-239.

### **333.03 Requirement to adopt airport zoning regulations.—**

- (1) (a) Every political subdivision having an airport hazard area within its territorial limits shall adopt, administer, and enforce, under the police power and in the manner and upon the conditions prescribed in this section, airport protection zoning regulations for such airport hazard area.

- (b) If an airport is owned or controlled by a political subdivision and if any other political subdivision has land upon which an obstruction may be constructed or altered which underlies any surface of the airport as provided in 14 C.F.R. part 77, subpart C, the political subdivisions shall either:

  - 1. By interlocal agreement, adopt, administer, and enforce a set of airport protection zoning regulations;  
or
  - 2. By ordinance, regulation, or resolution duly adopted, create a joint airport protection zoning board that shall adopt, administer, and enforce a set of airport protection zoning regulations. The joint airport protection zoning board shall have as voting members two representatives appointed by each participating political subdivision and a chair elected by a majority of the members so appointed. The airport manager or a representative of each airport in the affected participating political subdivisions shall serve on the board in a nonvoting capacity.
- (c) Airport protection zoning regulations adopted under paragraph (a) must, at a minimum, require:

  - 1. A permit for the construction or alteration of any obstruction;
  - 2. Obstruction marking and lighting for obstructions;
  - 3. Documentation showing compliance with the federal requirement for notification of proposed construction or alteration of structures and a valid aeronautical study submitted by each person applying for a permit;
  - 4. Consideration of the criteria in s. 333.025(6), when determining whether to issue or deny a permit; and
  - 5. That approval of a permit not be based solely on the determination by the Federal Aviation Administration that the proposed structure is not an airport hazard.
- (d) The department shall be available to provide assistance to political subdivisions regarding federal obstruction standards.
- (2) In the manner provided in subsection (1), political subdivisions shall adopt, administer, and enforce airport land use compatibility zoning regulations. At a minimum, airport land use compatibility zoning regulations must address the following:

  - (a) The prohibition of new landfills and the restriction of existing landfills within the following areas:
    - 1. Within 10,000 feet from the nearest point of any runway used or planned to be used by turbine aircraft.
    - 2. Within 5,000 feet from the nearest point of any runway used by only nonturbine aircraft.
    - 3. Outside the perimeters defined in subparagraphs 1. and 2., but still within the lateral limits of the civil airport imaginary surfaces defined in 14 C.F.R. s. 77.19. Case-by-case review of such landfills is advised.
  - (b) When any landfill is located and constructed in a manner that attracts or sustains hazardous bird movements from feeding, water, or roosting areas into, or across, the runways or approach and departure patterns of aircraft. The landfill operator must incorporate bird management techniques or other practices to minimize bird hazards to airborne aircraft.

- (c) When an airport authority or other governing body operating a public-use airport has conducted a noise study in accordance with 14 C.F.R. part 150, or when a public-use airport owner has established noise contours pursuant to another public study accepted by the Federal Aviation Administration, the prohibition of incompatible uses, as established in the noise study in 14 C.F.R. part 150, Appendix A or as a part of an alternative Federal Aviation Administration-accepted public study, within the noise contours established by any of these studies, except if such uses are specifically contemplated by such study with appropriate mitigation or similar techniques described in the study.
  - (d) When an airport authority or other governing body operating a public-use airport has not conducted a noise study, the prohibition of residential construction and any educational facility, with the exception of aviation school facilities or residential property near a public-use airport that has as its sole runway a turf runway measuring less than 2,800 feet in length, within an area contiguous to the airport measuring one-half the length of the longest runway on either side of and at the end of each runway centerline.
  - (e) The restriction of new incompatible uses, activities, or substantial modifications to existing incompatible uses within runway protection zones.
- (3) Political subdivisions shall provide a copy of all airport protection zoning regulations and airport land use compatibility zoning regulations, and any related amendments, to the department's aviation office within 30 days after adoption.
  - (4) Subsection (2) may not be construed to require the removal, alteration, sound conditioning, or other change, or to interfere with the continued use or adjacent expansion of any educational facility or site in existence on July 1, 1993.
  - (5) This section does not prohibit an airport authority, a political subdivision or its administrative agency, or any other governing body operating a public-use airport from establishing airport zoning regulations more restrictive than prescribed in this section in order to protect the health, safety, and welfare of the public in the air and on the ground.

History.—s. 3, ch. 23079, 1945; s. 4, ch. 75-16; s. 4, ch. 88-356; s. 72, ch. 90-136; s. 8, ch. 92-152; s. 10, ch. 93-164; s. 1, ch. 94-201; s. 958, ch. 95-148; s. 971, ch. 2002-387; s. 3, ch. 2016-209; s. 23, ch. 2016-239; s. 4, ch. 2023-197.

#### ***333.04 Comprehensive zoning regulations; most stringent to prevail where conflicts occur.—***

- (1) INCORPORATION.—In the event that a political subdivision has adopted, or hereafter adopts, a comprehensive plan or policy regulating, among other things, the height of buildings, structures, and natural objects, and uses of property, any airport zoning regulations applicable to the same area or portion thereof may be incorporated in and made a part of such comprehensive plan or policy, and be administered and enforced in connection therewith.
- (2) CONFLICT.—In the event of conflict between any airport zoning regulations adopted under this chapter and any other regulations applicable to the same area, whether the conflict be with respect to the height of structures or vegetation, the use of land, or any other matter, and whether such regulations were adopted by the political subdivision that adopted the airport zoning regulations or by some other political subdivision, the more stringent limitation or requirement shall govern and prevail.

History.—s. 4, ch. 23079, 1945; s. 4, ch. 2016-209; s. 24, ch. 2016-239.

### **333.05 Procedure for adoption of airport zoning regulations.—**

- (1) NOTICE AND HEARING.—Airport zoning regulations may not be adopted, amended, or repealed under this chapter except by action of the legislative body of the political subdivision or affected subdivisions, or the joint board provided in s. 333.03(1)(b)2. by the political subdivisions therein provided and set forth, after a public hearing in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. Notice of the hearing shall be published at least once a week for 2 consecutive weeks in a newspaper of general circulation in the political subdivision or subdivisions where the airport zoning regulations are to be adopted, amended, or repealed.
- (2) AIRPORT ZONING COMMISSION.—Before the initial zoning of any airport area under this chapter, the political subdivision or joint airport zoning board that is to adopt, administer, and enforce the regulations must appoint a commission, to be known as the airport zoning commission, to recommend the boundaries of the various zones to be established and the regulations to be adopted therefor. Such commission shall make a preliminary report and hold public hearings thereon before submitting its final report, and the legislative body of the political subdivision or the joint airport zoning board may not hold its public hearings or take any action until it has received the final report of such commission, and at least 15 days shall elapse between the receipt of the final report of the commission and the hearing to be held by the latter board. If a planning commission, an airport commission, or a comprehensive zoning commission already exists, it may be appointed as the airport zoning commission.

History.—s. 5, ch. 23079, 1945; s. 74, ch. 90-136; s. 23, ch. 90-279; s. 39, ch. 95-143; s. 5, ch. 2016-209; s. 25, ch. 2016-239.

### **333.06 Airport zoning regulation requirements.—**

- (1) REASONABLENESS.—All airport zoning regulations adopted under this chapter shall be reasonable and may not impose any requirement or restriction which is not reasonably necessary to effectuate the purposes of this chapter. In determining what regulations it may adopt, each political subdivision and joint airport zoning board shall consider, among other things, the character of the flying operations expected to be conducted at the airport, the nature of the terrain within the airport hazard area and runway protection zones, the character of the neighborhood, the uses to which the property to be zoned is put and adaptable, and the impact of any new use, activity, or construction on the airport's operating capability and capacity.
- (2) INDEPENDENT JUSTIFICATION.—The purpose of all airport zoning regulations adopted under this chapter is to provide both airspace protection and land uses compatible with airport operations. Each aspect of this purpose requires independent justification in order to promote the public interest in safety, health, and general welfare. Specifically, construction in a runway protection zone which does not exceed airspace height restrictions is not conclusive that such use, activity, or construction is compatible with airport operations.
- (3) NONCONFORMING USES.—An airport protection zoning regulation adopted under this chapter may not require the removal, lowering, or other change or alteration of any obstruction not conforming to the regulation when adopted or amended, or otherwise interfere with the continuance of any nonconforming use, except as provided in s. 333.07(1) and (3).

- (4) **ADOPTION OF AIRPORT MASTER PLAN AND NOTICE TO AFFECTED LOCAL GOVERNMENTS.**—An airport master plan shall be prepared by each public-use airport licensed by the department under chapter 330. The authorized entity having responsibility for governing the operation of the airport, when either requesting from or submitting to a state or federal governmental agency with funding or approval jurisdiction a “finding of no significant impact,” an environmental assessment, a site-selection study, an airport master plan, or any amendment to an airport master plan, shall submit simultaneously a copy of said request, submittal, assessment, study, plan, or amendments by certified mail to all affected local governments. As used in this subsection, the term “affected local government” is defined as any municipality or county having jurisdiction over the airport and any municipality or county located within 2 miles of the boundaries of the land subject to the airport master plan.

History.—s. 6, ch. 23079, 1945; s. 75, ch. 90-136; s. 76, ch. 2002-20; s. 6, ch. 2016-209; s. 26, ch. 2016-239.

### **333.07 Local government permitting of airspace obstructions.—**

- (1) **PERMITS.**—
- (a) A person proposing to construct, alter, or allow an airport obstruction in an airport hazard area in violation of the airport protection zoning regulations adopted under this chapter must apply for a permit. A permit may not be issued if it would allow the establishment or creation of an airport hazard or if it would permit a nonconforming obstruction to become a greater hazard to air navigation than it was when the applicable airport protection zoning regulation was adopted which allowed the establishment or creation of the obstruction, or than it is when the application for a permit is made.
  - (b) If the political subdivision or its administrative agency determines that a nonconforming obstruction has been abandoned or is more than 80 percent torn down, destroyed, deteriorated, or decayed, a permit may not be granted if it would allow the obstruction to exceed the applicable height limit or otherwise deviate from the airport protection zoning regulations. Whether or not an application is made for a permit under this subsection, the owner of the nonconforming obstruction may be required, at his or her own expense, to lower, remove, reconstruct, alter, or equip such obstruction as may be necessary to conform to the current airport protection zoning regulations. If the owner of the nonconforming obstruction neglects or refuses to comply with such requirement for 10 days after notice, the administrative agency may report the violation to the political subdivision involved, which subdivision, through its appropriate agency, may proceed to have the obstruction so lowered, removed, reconstructed, altered, or equipped and assess the cost and expense thereof upon the owner of the obstruction or the land whereon it is or was located.
- (2) **CONSIDERATIONS WHEN ISSUING OR DENYING PERMITS.**—In determining whether to issue or deny a permit, the political subdivision or its administrative agency must consider the following, as applicable:
- (a) The safety of persons on the ground and in the air.
  - (b) The safe and efficient use of navigable airspace.
  - (c) The nature of the terrain and height of existing structures.
  - (d) The effect of the construction or alteration on the state licensing standards for a public-use airport contained in chapter 330 and rules adopted thereunder.
  - (e) The character of existing and planned flight operations and developments at public-use airports.
  - (f) Federal airways, visual flight rules, flyways and corridors, and instrument approaches as designated by the Federal Aviation Administration.

- (g) The effect of the construction or alteration of the proposed structure on the minimum descent altitude or the decision height at the affected airport.
  - (h) The cumulative effects on navigable airspace of all existing structures and all other known proposed structures in the area.
  - (i) Additional requirements adopted by the political subdivision or administrative agency pertinent to evaluation and protection of airspace and airport operations.
- (3) OBSTRUCTION MARKING AND LIGHTING.—In issuing a permit under this section, the political subdivision or its administrative agency shall require the owner of the obstruction to install, operate, and maintain thereon, at his or her own expense, marking and lighting in conformance with the specific standards established by the Federal Aviation Administration.

History.—s. 7, ch. 23079, 1945; s. 5, ch. 88-356; s. 76, ch. 90-136; s. 483, ch. 95-148; s. 33, ch. 2016-10; s. 7, ch. 2016-209; s. 28, ch. 2016-239.

### **333.09 Administration of airport protection zoning regulations.—**

- (1) ADMINISTRATION.—All airport protection zoning regulations adopted under this chapter shall provide for the administration and enforcement of such regulations by the political subdivision or its administrative agency. The duties of any administrative agency designated pursuant to this chapter must include that of hearing and deciding all permits under s. 333.07, as they pertain to such agency, and all other matters under this chapter applying to said agency.
- (2) LOCAL GOVERNMENT PROCESS.—
  - (a) A political subdivision required to adopt airport zoning regulations under this chapter shall provide a process to:
    - 1. Issue or deny permits consistent with s. 333.07.
    - 2. Provide the department with a copy of a complete application consistent with s. 333.025(4).
    - 3. Enforce the issuance or denial of a permit or other determination made by the administrative agency with respect to airport zoning regulations.
  - (b) If a zoning board or permitting body already exists within a political subdivision, the zoning board or permitting body may implement the airport zoning regulation permitting and appeals processes.
- (3) APPEALS.—
  - (a) A person, a political subdivision or its administrative agency, or a joint airport zoning board that contends a decision made by a political subdivision or its administrative agency is an improper application of airport zoning regulations may use the process established for an appeal.
  - (b) All appeals taken under this section must be taken within a reasonable time, as provided by the political subdivision or its administrative agency, by filing with the entity from which the appeal is taken a notice of appeal specifying the grounds for appeal.
  - (c) An appeal shall stay all proceedings in the underlying action appealed from, unless the entity from which the appeal is taken certifies pursuant to the rules for appeal that by reason of the facts stated in the certificate a stay would, in its opinion, cause imminent peril to life or property. In such cases, proceedings may not be stayed except by order of the political subdivision or its administrative agency on notice to the entity from which the appeal is taken and for good cause shown.

- (d) The political subdivision or its administrative agency shall set a reasonable time for the hearing of appeals, give public notice and due notice to the parties in interest, and decide the same within a reasonable time. Upon the hearing, any party may appear in person, by agent, or by attorney.
- (e) The political subdivision or its administrative agency may, in conformity with this chapter, affirm, reverse, or modify the decision on the permit or other determination from which the appeal is taken.

History.—s. 9, ch. 23079, 1945; s. 8, ch. 2016-209; s. 30, ch. 2016-239.

### **333.11 Judicial review.—**

- (1) Any person, political subdivision, or joint airport zoning board affected by a decision of a political subdivision or its administrative agency may apply for judicial relief to the circuit court in the judicial circuit where the political subdivision is located within 30 days after rendition of the decision. Review shall be by petition for writ of certiorari, which shall be governed by the Florida Rules of Appellate Procedure.
- (2) The court has exclusive jurisdiction to affirm, reverse, or modify the decision on the permit or other determination from which the appeal is taken and, if appropriate, to order further proceedings by the political subdivision or its administrative agency. The findings of fact by the political subdivision or its administrative agency, if supported by substantial evidence, shall be accepted by the court as conclusive, and an objection to a decision of the political subdivision or its administrative agency may not be considered by the court unless such objection was raised in the underlying proceeding.
- (3) If airport zoning regulations adopted under this chapter are held by a court to interfere with the use and enjoyment of a particular structure or parcel of land to such an extent, or to be so onerous in their application to such a structure or parcel of land, as to constitute a taking or deprivation of that property in violation of the State Constitution or the Constitution of the United States, such holding shall not affect the application of such regulations to other structures and parcels of land, or such regulations as are not involved in the particular decision.
- (4) A judicial appeal to any court may not be permitted under this section until the appellant has exhausted all of its remedies through application for local government permits, exceptions, and appeals.

History.—s. 11, ch. 23079, 1945; s. 43, ch. 63-512; s. 7, ch. 88-356; s. 485, ch. 95-148; s. 9, ch. 2016-209; s. 32, ch. 2016-239.

### **333.12 Acquisition of air rights.—**

If a nonconforming obstruction is determined to be an airport hazard and the owner will not remove, lower, or otherwise eliminate it; the approach protection necessary cannot, because of constitutional limitations, be provided by airport zoning regulations under this chapter; or it appears advisable that the necessary approach protection be provided by acquisition of property rights rather than by airport zoning regulations, the political subdivision within which the property or nonconforming obstruction is located, or the political subdivision owning or operating the airport or being served by it, may acquire, by purchase, grant, or condemnation in the manner provided by chapter 73, such property, air right, navigation easement, or other estate, portion, or interest in the property or nonconforming obstruction or such interest in the air above such property, in question, as may be necessary to effectuate the purposes of this chapter, and in so doing, if by condemnation, to have the right to take immediate possession of the property, interest in property, air right, or other right sought to be condemned, at the time, and in the manner and form, and as authorized by chapter 74. In the case of the purchase of any property, easement, or estate or interest therein or the

acquisition of the same by the power of eminent domain, the political subdivision making such purchase or exercising such power shall, in addition to the damages for the taking, injury, or destruction of property, also pay the cost of the removal and relocation of any structure or any public utility that is required to be moved to a new location.

History.—s. 12, ch. 23079, 1945; s. 10, ch. 2016-209; s. 33, ch. 2016-239.

### **333.13 Enforcement and remedies.—**

- (1) Each violation of this chapter or of any airport zoning regulations, orders, or rulings adopted or made pursuant to this chapter shall constitute a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083, and each day a violation continues to exist shall constitute a separate offense.
- (2) In addition, the political subdivision or agency adopting the airport zoning regulations under this chapter may institute in any court of competent jurisdiction an action to prevent, restrain, correct, or abate any violation of this chapter or of airport zoning regulations adopted under this chapter or of any order or ruling made in connection with their administration or enforcement, and the court shall adjudge to the plaintiff such relief, by way of injunction, which may be mandatory, or otherwise, as may be proper under all the facts and circumstances of the case in order to fully effectuate the purposes of this chapter and of the regulations adopted and orders and rulings made pursuant thereto.
- (3) The department may institute a civil action for injunctive relief in the appropriate circuit court to prevent violation of any provision of this chapter.

History.—s. 13, ch. 23079, 1945; s. 232, ch. 71-136; s. 5, ch. 75-16; s. 11, ch. 2016-209; s. 34, ch. 2016-239.

### **333.135 Transition provisions.—**

- (1) Any airport zoning regulation in effect on July 1, 2016, which includes provisions in conflict with this chapter shall be amended to conform to the requirements of this chapter by July 1, 2017.
- (2) Any political subdivision having an airport within its territorial limits which has not adopted airport zoning regulations shall, by July 1, 2017, adopt airport zoning regulations consistent with this chapter.
- (3) For those political subdivisions that have not yet adopted airport zoning regulations pursuant to this chapter, the department shall administer the permitting process as provided in s. 333.025.

History.—s. 12, ch. 2016-209; s. 35, ch. 2016-239.

### **333.15 Rulemaking authority.—**

The department shall adopt rules pursuant to ss. 120.536(1) and 120.54 to implement this chapter.

History.—s. 10, ch. 2021-186.

## 14 Code of Federal Regulations (CFR), Part 77

### TITLE 14 —AERONAUTICS AND SPACE

Chapter I —Federal Aviation Administration, Department of Transportation Subchapter E —Airspace

#### PART 77—SAFE, EFFICIENT USE, AND PRESERVATION OF THE NAVIGABLE AIRSPACE

Authority: 49 U.S.C. 106 (g), 40103, 40113-40114, 44502, 44701, 44718, 46101-46102, 46104.

Source: Docket No. FAA-2006-25002, 75 FR 42303, July 21, 2010, unless otherwise noted.

#### Subpart A—General

##### *§ 77.1 Purpose.*

This part establishes:

- a. The requirements to provide notice to the FAA of certain proposed construction, or the alteration of existing structures;
- b. The standards used to determine obstructions to air navigation, and navigational and communication facilities;
- c. The process for aeronautical studies of obstructions to air navigation or navigational facilities to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities or equipment; and
- d. The process to petition the FAA for discretionary review of determinations, revisions, and extensions of determinations.

##### *§ 77.3 Definitions.*

For the purpose of this part:

**Non-precision instrument runway** means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

**Planned or proposed airport** is an airport that is the subject of at least one of the following documents received by the FAA:

1. Airport proposals submitted under 14 CFR part 157.
2. Airport Improvement Program requests for aid.
3. Notices of existing airports where prior notice of the airport construction or alteration was not provided as required by 14 CFR part 157.
4. Airport layout plans.
5. DOD proposals for airports used only by the U.S. Armed Forces.
6. DOD proposals on joint-use (civil-military) airports.
7. Completed airport site selection feasibility study.

**Precision instrument runway** means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated by an FAA-approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

**Public-use airport** is an airport available for use by the general public without a requirement for prior approval of the airport owner or operator.

**Seaplane base** is considered to be an airport only if its sea lanes are outlined by visual markers.

**Utility runway** means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

**Visual runway** means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA- approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

## Subpart B—Notice Requirements

### *§ 77.5 Applicability.*

- a. If you propose any construction or alteration described in § 77.9, you must provide adequate notice to the FAA of that construction or alteration.
- b. If requested by the FAA, you must also file supplemental notice before the start date and upon completion of certain construction or alterations that are described in § 77.9.
- c. Notice received by the FAA under this subpart is used to:
  1. Evaluate the effect of the proposed construction or alteration on safety in air commerce and the efficient use and preservation of the navigable airspace and of airport traffic capacity at public use airports;
  2. Determine whether the effect of proposed construction or alteration is a hazard to air navigation;
  3. Determine appropriate marking and lighting recommendations, using FAA Advisory Circular 70/7460-1, Obstruction Marking and Lighting;
  4. Determine other appropriate measures to be applied for continued safety of air navigation; and
  5. Notify the aviation community of the construction or alteration of objects that affect the navigable airspace, including the revision of charts, when necessary

### *§ 77.7 Form and time of notice.*

- a. If you are required to file notice under § 77.9, you must submit to the FAA a completed FAA Form 7460-1, Notice of Proposed Construction or Alteration. FAA Form 7460-1 is available at FAA regional offices and on the Internet.
- b. You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.
- c. If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.

- d. If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.
- e. The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460-1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.

### **§ 77.9 Construction or alteration requiring notice.**

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

- a. Any construction or alteration that is more than 200 ft. AGL at its site.
- b. Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:
  - 1. 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.
  - 2. 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.
  - 3. 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.
- c. Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.
- d. Any construction or alteration on any of the following airports and heliports:
  - 1. A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications;
  - 2. A military airport under construction, or an airport under construction that will be available for public use;
  - 3. An airport operated by a Federal agency or the DOD.
  - 4. An airport or heliport with at least one FAA-approved instrument approach procedure.
- e. You do not need to file notice for construction or alteration of:
  - 1. Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation;
  - 2. Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose;

3. Any construction or alteration for which notice is required by any other FAA regulation.
4. Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure. § 77.11 Supplemental notice requirements.

### **§ 77.11 Supplemental notice requirements**

- a. You must file supplemental notice with the FAA when:
  1. The construction or alteration is more than 200 feet in height AGL at its site; or
  2. Requested by the FAA.
- b. You must file supplemental notice on a prescribed FAA form to be received within the time limits specified in the FAA determination. If no time limit has been specified, you must submit supplemental notice of construction to the FAA within 5 days after the structure reaches its greatest height.
- c. If you abandon a construction or alteration proposal that requires supplemental notice, you must submit notice to the FAA within 5 days after the project is abandoned.
- d. If the construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

## **Subpart C—Standards for Determining Obstructions to Air Navigation or Navigational Aids or Facilities**

### **§ 77.13 Applicability.**

This subpart describes the standards used for determining obstructions to air navigation, navigational aids, or navigational facilities. These standards apply to the following:

- a. Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used and any permanent or temporary apparatus.
- b. The alteration of any permanent or temporary existing structure by a change in its height, including appurtenances, or lateral dimensions, including equipment or material used therein.

### **§ 77.15 Scope.**

- a. This subpart describes standards used to determine obstructions to air navigation that may affect the safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities. Such facilities include air navigation aids, communication equipment, airports, Federal airways, instrument approach or departure procedures, and approved off-airway routes.
- b. Objects that are considered obstructions under the standards described in this subpart are presumed hazards to air navigation unless further aeronautical study concludes that the object is not a hazard. Once further aeronautical study has been initiated, the FAA will use the standards in this subpart, along with FAA policy and guidance material, to determine if the object is a hazard to air navigation.
- c. The FAA will apply these standards with reference to an existing airport facility, and airport proposals received by the FAA, or the appropriate military service, before it issues a final determination.

- d. For airports having defined runways with specially prepared hard surfaces, the primary surface for each runway extends 200 feet beyond each end of the runway. For airports having defined strips or pathways used regularly for aircraft takeoffs and landings, and designated runways, without specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At airports, excluding seaplane bases, having a defined landing and takeoff area with no defined pathways for aircraft takeoffs and landings, a determination must be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those determined pathways must be considered runways, and an appropriate primary surface as defined in § 77.19 will be considered as longitudinally centered on each such runway. Each end of that primary surface must coincide with the corresponding end of that runway.
- e. The standards in this subpart apply to construction or alteration proposals on an airport (including heliports and seaplane bases with marked lanes) if that airport is one of the following before the issuance of the final determination:
  1. Available for public use and is listed in the Airport/Facility Directory, Supplement Alaska, or Supplement Pacific of the U.S. Government Flight Information Publications; or
  2. A planned or proposed airport or an airport under construction of which the FAA has received actual notice, except DOD airports, where there is a clear indication the airport will be available for public use; or,
  3. An airport operated by a Federal agency or the DOD; or,
  4. An airport that has at least one FAA-approved instrument approach.

### ***§ 77.17 Obstruction standards.***

- a. An existing object, including a mobile object, is, and a future object would be an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:
  1. A height of 499 feet AGL at the site of the object.
  2. A height that is 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile from the airport up to a maximum of 499 feet.
  3. A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.
  4. A height within an en route obstacle clearance area, including turn and termination areas, of a Federal Airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.
  5. The surface of a takeoff and landing area of an airport or any imaginary surface established under § 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

- b. Except for traverse ways on or near an airport with an operative ground traffic control service furnished by an airport traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:
  - 1. 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.
  - 2. 15 feet for any other public roadway.
  - 3. 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.
  - 4. 23 feet for a railroad.
  - 5. For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

### ***§ 77.1D Civil airport imaginary surfaces.***

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach procedure existing or planned for that runway end.

- a. **Horizontal surface.** A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of a specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:
  - 1. 5,000 feet for all runways designated as utility or visual;
  - 2. 10,000 feet for all other runways. The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.
- b. **Conical surface.** A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.
- c. **Primary surface.** A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is:
  - 1. 250 feet for utility runways having only visual approaches.
  - 2. 500 feet for utility runways having non-precision instrument approaches.
  - 3. For other than utility runways, the width is:

- i. 500 feet for visual runways having only visual approaches.
  - ii. 500 feet for non-precision instrument runways having visibility minimums greater than three-fourths statute mile.
  - iii. 1,000 feet for a non-precision instrument runway having a non-precision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways.
  - iv. The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.
- d. **Approach surface.** A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.
1. The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:
    - i. 1,250 feet for that end of a utility runway with only visual approaches;
    - ii. 1,500 feet for that end of a runway other than a utility runway with only visual approaches;
    - iii. 2,000 feet for that end of a utility runway with a non-precision instrument approach;
    - iv. 3,500 feet for that end of a non-precision instrument runway other than utility, having visibility minimums greater than three-fourths of a statute mile;
    - v. 4,000 feet for that end of a non-precision instrument runway, other than utility, having a non-precision instrument approach with visibility minimums as low as three-fourths statute mile; and
    - vi. 16,000 feet for precision instrument runways.
  2. The approach surface extends for a horizontal distance of:
    - i. 5,000 feet at a slope of 20 to 1 for all utility and visual runways;
    - ii. 10,000 feet at a slope of 34 to 1 for all non-precision instrument runways other than utility; and
    - iii. 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.
  3. The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.
- e. **Transitional surface.** These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

### § 77.21 Department of Defense (DOD) airport imaginary surfaces.

- a. **Related to airport reference points.** These surfaces apply to all military airports. For the purposes of this section, a military airport is any airport operated by the DOD.
  1. **Inner horizontal surface.** A plane that is oval in shape at a height of 150 feet above the established airfield elevation. The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.
  2. **Conical surface.** A surface extending from the periphery of the inner horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 7,000 feet to a height of 500 feet above the established airfield elevation.
  3. **Outer horizontal surface.** A plane, located 500 feet above the established airfield elevation, extending outward from the outer periphery of the conical surface for a horizontal distance of 30,000 feet.
- b. **Related to runways.** These surfaces apply to all military airports.
  1. **Primary surface.** A surface located on the ground or water longitudinally centered on each runway with the same length as the runway. The width of the primary surface for runways is 2,000 feet. However, at established bases where substantial construction has taken place in accordance with a previous lateral clearance criteria, the 2,000-foot width may be reduced to the former criteria.
  2. **Clear zone surface.** A surface located on the ground or water at each end of the primary surface, with a length of 1,000 feet and the same width as the primary surface.
  3. **Approach clearance surface.** An inclined plane, symmetrical about the runway centerline extended, beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end and extending for 50,000 feet. The slope of the approach clearance surface is 50 to 1 along the runway centerline extended until it reaches an elevation of 500 feet above the established airport elevation. It then continues horizontally at this elevation to a point 50,000 feet from the point of beginning. The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.
  4. **Transitional surfaces.** These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface or other transitional surfaces. The slope of the transitional surface is 7 to 1 outward and upward at right angles to the runway centerline.

### § 77.23 Heliport imaginary surfaces.

- a. **Primary surface.** The area of the primary surface coincides in size and shape with the designated take-off and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.
- b. **Approach surface.** The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.
- c. **Transitional surfaces.** These surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

## Subpart D—Aeronautical Studies and Determinations

### *§ 77.25 Applicability.*

- a. This subpart applies to any aeronautical study of a proposed construction or alteration for which notice to the FAA is required under § 77.9.
- b. The purpose of an aeronautical study is to determine whether the aeronautical effects of the specific proposal and, where appropriate, the cumulative impact resulting from the proposed construction or alteration when combined with the effects of other existing or proposed structures, would constitute a hazard to air navigation.
- c. The obstruction standards in subpart C of this part are supplemented by other manuals and directives used in determining the effect on the navigable airspace of a proposed construction or alteration. When the FAA needs additional information, it may circulate a study to interested parties for comment.

### *§ 77.27 Initiation of studies.*

The FAA will conduct an aeronautical study when:

- a. Requested by the sponsor of any proposed construction or alteration for which a notice is submitted; or
- b. The FAA determines a study is necessary.

### *§ 77.2D Evaluating aeronautical effect.*

- a. The FAA conducts an aeronautical study to determine the impact of a proposed structure, an existing structure that has not yet been studied by the FAA, or an alteration of an existing structure on aeronautical operations, procedures, and the safety of flight. These studies include evaluating:
  1. The impact on arrival, departure, and en route procedures for aircraft operating under visual flight rules;
  2. The impact on arrival, departure, and en route procedures for aircraft operating under instrument flight rules;
  3. The impact on existing and planned public use airports;
  4. Airport traffic capacity of existing public use airports and public use airport development plans received before the issuance of the final determination;
  5. Minimum obstacle clearance altitudes, minimum instrument flight rules altitudes, approved or planned instrument approach procedures, and departure procedures;
  6. The potential effect on ATC radar, direction finders, ATC tower line-of-sight visibility, and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems;
  7. The aeronautical effects resulting from the cumulative impact of a proposed construction or alteration of a structure when combined with the effects of other existing or proposed structures.
- b. If you withdraw the proposed construction or alteration or revise it so that it is no longer identified as an obstruction, or if no further aeronautical study is necessary, the FAA may terminate the study.

### **§ 77.31 Determinations.**

- a. The FAA will issue a determination stating whether the proposed construction or alteration would be a hazard to air navigation, and will advise all known interested persons.
- b. The FAA will make determinations based on the aeronautical study findings and will identify the following:
  1. The effects on VFR/IFR aeronautical departure/arrival operations, air traffic procedures, minimum flight altitudes, and existing, planned, or proposed airports listed in § 77.15(e) of which the FAA has received actual notice prior to issuance of a final determination.
  2. The extent of the physical and/or electromagnetic effect on the operation of existing or proposed air navigation facilities, communication aids, or surveillance systems.
- c. The FAA will issue a Determination of Hazard to Air Navigation when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard and would have a substantial aeronautical impact.
- d. A Determination of No Hazard to Air Navigation will be issued when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard but would not have a substantial aeronautical impact to air navigation. A Determination of No Hazard to Air Navigation may include the following:
  1. Conditional provisions of a determination.
  2. Limitations necessary to minimize potential problems, such as the use of temporary construction equipment.
  3. Supplemental notice requirements, when required.
  4. Marking and lighting recommendations, as appropriate.
- e. The FAA will issue a Determination of No Hazard to Air Navigation when a proposed structure does not exceed any of the obstruction standards and would not be a hazard to air navigation.

### **§ 77.33 Effective period of determinations.**

- a. The effective date of a determination not subject to discretionary review under 77.37(b) is the date of issuance. The effective date of all other determinations for a proposed or existing structure is 40 days from the date of issuance, provided a valid petition for review has not been received by the FAA. If a valid petition for review is filed, the determination will not become final, pending disposition of the petition.
- b. Unless extended, revised, or terminated, each Determination of No Hazard to Air Navigation issued under this subpart expires 18 months after the effective date of the determination, or on the date the proposed construction or alteration is abandoned, whichever is earlier.
- c. A Determination of Hazard to Air Navigation has no expiration date.

[Doc. No. FAA-2006-25002, 75 FR 42303, July 21, 2010, as amended by Amdt. 77-13-A, 76 FR 2802, Jan. 18, 2011]

### **§ 77.35 Extensions, terminations, revisions and corrections.**

- a. You may petition the FAA official that issued the Determination of No Hazard to Air Navigation to revise or reconsider the determination based on new facts or to extend the effective period of the determination, provided that:
  1. Actual structural work of the proposed construction or alteration, such as the laying of a foundation, but not including excavation, has not been started; and
  2. The petition is submitted at least 15 days before the expiration date of the Determination of No Hazard to Air Navigation.
- b. A Determination of No Hazard to Air Navigation issued for those construction or alteration proposals not requiring an FCC construction permit may be extended by the FAA one time for a period not to exceed 18 months.

- c. A Determination of No Hazard to Air Navigation issued for a proposal requiring an FCC construction permit may be granted extensions for up to 18 months, provided that:
  1. You submit evidence that an application for a construction permit/license was filed with the FCC for the associated site within 6 months of issuance of the determination; and
  2. You submit evidence that additional time is warranted because of FCC requirements; and
  3. Where the FCC issues a construction permit, a final Determination of No Hazard to Air Navigation is effective until the date prescribed by the FCC for completion of the construction. If an extension of the original FCC completion date is needed, an extension of the FAA determination must be requested from the Obstruction Evaluation Service (OES).
  4. If the Commission refuses to issue a construction permit, the final determination expires on the date of its refusal.

## Subpart E—Petitions for Discretionary Review

### *§ 77.37 General.*

- a. If you are the sponsor, provided a substantive aeronautical comment on a proposal in an aeronautical study, or have a substantive aeronautical comment on the proposal but were not given an opportunity to state it, you may petition the FAA for a discretionary review of a determination, revision, or extension of a determination issued by the FAA.
- b. You may not file a petition for discretionary review for a Determination of No Hazard that is issued for a temporary structure, marking and lighting recommendation, or when a proposed structure or alteration does not exceed obstruction standards contained in subpart C of this part.

### *§ 77.39 Contents of a petition.*

- a. You must file a petition for discretionary review in writing and it must be received by the FAA within 30 days after the issuance of a determination under § 77.31, or a revision or extension of the determination under § 77.35.
- b. The petition must contain a full statement of the aeronautical basis on which the petition is made, and must include new information or facts not previously considered or presented during the aeronautical study, including valid aeronautical reasons why the determination, revisions, or extension made by the FAA should be reviewed.
- c. In the event that the last day of the 30-day filing period falls on a weekend or a day the Federal government is closed, the last day of the filing period is the next day that the government is open.
- d. The FAA will inform the petitioner or sponsor (if other than the petitioner) and the FCC (whenever an FCC-related proposal is involved) of the filing of the petition and that the determination is not final pending disposition of the petition.

### *§ 77.41 Discretionary review results.*

- a. If discretionary review is granted, the FAA will inform the petitioner and the sponsor (if other than the petitioner) of the issues to be studied and reviewed. The review may include a request for comments and a review of all records from the initial aeronautical study.
- b. If discretionary review is denied, the FAA will notify the petitioner and the sponsor (if other than the petitioner), and the FCC, whenever a FCC-related proposal is involved, of the basis for the denial along with a statement that the determination is final.
- c. After concluding the discretionary review process, the FAA will revise, affirm, or reverse the determination.



## Instructions for Completion

Instructions to complete Form 7460-1 to file Notice with the FAA are provided below.

- ITEM #1** Please include the name, address, and phone number of the specific contact person as well as the company name.
- ITEM #2** Please include the name, address, and phone number of the specific contact person as well as the company name.
- ITEM #3** New Construction is a structure that has not yet been built.
- Alteration** is a change to an existing structure such as the addition of a side-mounted antenna or a change to the marking and lighting, power and/or frequency, or height. The nature of the alteration shall be included in ITEM #21 "Complete Description of Proposal."
- Existing** is a correction to the latitude and/or longitude, a correction to the height, or if filing on an existing structure that has never been studied by the FAA. The reason for the Notice shall be included in ITEM #21 "Complete Description of Proposal."
- ITEM #4** If **Permanent**, so indicate. If **Temporary**, such as a crane or drilling derrick, enter the estimated length of time the temporary structure will be up.
- ITEM #5** Enter the date that construction is expected to start and the date that construction should be completed.
- ITEM #6** Please indicate the type of structure. Do not leave blank.
- ITEM #7** In the event that obstruction marking and lighting are required, please indicate the type desired. If no preference, check "other" and indicate "no preference." Do not leave blank. High intensity lighting shall be used only for structures over 500 feet above ground level (AGL). In the absence of high intensity lighting for structures over 500 feet AGL, marking is also required.
- ITEM #8** If this is an existing tower that has been registered with the Federal Communications Commission (FCC), enter the FCC Antenna Structure Registration number.
- ITEMs #9/10** Latitude and longitude must be geographic coordinates accurate to within the nearest second or hundredth of a second if known. Latitude and longitude derived solely from a hand-held Global Positioning System (GPS) instrument is not acceptable. A hand-held GPS is only accurate to within 100 meters (328 feet) 95 percent of the time. This data, when plotted, should match the site depiction submitted under ITEM #20.
- ITEM #11** NAD 83 is preferred; however, latitude and longitude may be submitted in NAD 27. Also, in some geographic areas where NAD 27 and NAD 83 are not available other datum may be used. It is important to know which datum is used. Do not leave blank.
- ITEM #12** Enter the name of the nearest city and state to the site. If the structure is or will be in a city, enter the name of that city and state.
- ITEM #13** Enter the full name of the nearest public-use (not private-use) airport or heliport or military airport or heliport to the site.
- ITEM #14** Enter the distance from the airport or heliport listed in ITEM #13 to the structure.
- ITEM #15** Enter the direction from the airport or heliport listed in ITEM #13 to the structure.
- ITEM #16** Enter the site elevation above mean sea level and expressed in whole feet rounded to the nearest foot (e.g., 17'3" [17 feet, 3 inches] rounds to 17' [17 feet]; 17'6" [17 feet, six inches] rounds to 18' [18 feet]). This data should match the ground contour elevations for site depiction submitted under ITEM #20.

- ITEM #17** Enter the total structure height above ground level in whole feet rounded to the next highest foot (e.g., 17'3" [17 feet, three inches] rounds to 18' [18 feet]). The total structure height shall include anything mounted on top of the structure, such as antennas, obstruction lights, lightning rod, etc.
- ITEM #18** Enter the overall height above mean sea level and expressed in whole feet. This will be the total of ITEM #16 and ITEM #17.
- ITEM #19** If an FAA aeronautical study was previously conducted, enter the previous study number.
- ITEM #20** Enter the relationship of the structure to roads, airports, prominent terrain, existing structures, etc. Attach an 8.5" x 11" non-reduced copy of the appropriate 7.5 minute U.S. Geological Survey (USGS) Quadrangle Map marked with a precise indication of the site location. To obtain maps, contact USGS at 1-888-275-8747 or via internet at <http://store.usgs.gov>. If available, attach a copy of a documented site survey with the surveyor's certification stating the amount of vertical and horizontal accuracy in feet.
- ITEM #21** Following the instruction below based on the type of proposed construction or alteration:
- For transmitting stations, include maximum effective radiated power (ERP) and all frequencies.
  - For antennas, include the type of antenna and center of radiation (Attach the antenna pattern, if available).
  - For microwave, include azimuth relative to true north.
  - For overhead wires or transmission lines, include size and configuration of wires and their supporting structures (attach depiction).
  - For each pole/support, include coordinates, site elevation, and structure height AGL or water.
  - For buildings, include site orientation, coordinates of each corner, dimensions, and construction materials.
  - For alterations, explain the alteration thoroughly.
  - For existing structures, thoroughly explain the reason for notifying the Federal Aviation Authority (FAA) (e.g., corrections, no record or previous study, etc.)

Filing this information with the FAA does not relieve the sponsor of this construction or alteration from complying with any other federal, state, or local rules or regulations. If you are not sure what other rules or regulations apply to your proposal, contact local/state aviation and zoning authorities.

# APPENDIX E

## FDOT Form 725-040-11

Local governments must adopt airport zoning regulations that define the permitting process for potential airspace obstructions and provide users with sufficient details to successfully complete the process. The permitting process should reasonably allow an individual to submit a completed application for an Airspace Obstruction Permit, including information it deems necessary for the applicant to comply with:

- Section 333.03(1)(c)3, FS.
- Federal requirement for Notice and a valid aeronautical study.

FDOT form 725-040-11 Airspace Obstruction Permit Application is used to apply for a permit from the FDOT to construct or alter an object that may penetrate or be located within navigable airspace in jurisdictions that have not yet developed local airport zoning regulations that define the permitting process for airspace obstructions.

This form may also be used as an example for local governments in the development of their own airspace obstruction permit.

Rule 14-60, F.A.C.

Form 725-040-11  
Aviation  
OGC - 07/08  
Page 1 of 2

Type or Print on this Form

State of Florida Department of Transportation		AIRSPACE OBSTRUCTION PERMIT APPLICATION		FOR FDOT USE ONLY FDOT Permit Number - FLA - -	
1. Applicant (person proposing this action): Name: _____ Title: _____ Address 1: _____ Address 2: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____ E-mail: _____			2. Applicant's Representative (if other than #1): Name: _____ Title: _____ Address 1: _____ Address 2: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____ E-mail: _____		
3. Type: <input type="checkbox"/> Antenna Tower <input type="checkbox"/> Antenna – Side Mount <input type="checkbox"/> Crane <input type="checkbox"/> Building <input type="checkbox"/> Power Line <input type="checkbox"/> Pole <input type="checkbox"/> Traverse Way <input type="checkbox"/> Landfill <input type="checkbox"/> Water Tank <input type="checkbox"/> Other: _____			4. Notification Requirements: Is proposed site within an incorporated community? <input type="checkbox"/> Yes <input type="checkbox"/> No Have appropriate building/zoning authorities been notified? <input type="checkbox"/> Yes <input type="checkbox"/> No City/county requiring building permit: _____		
5. Site Elevation (AMSL): _____ Feet			Name of local official: _____		
6. Total Structure Height (AGL): _____ Feet			Title: _____		
7. Overall Height (#5 + #6)(AMSL): _____ Feet			Address 1: _____		
8. Latitude: _____ ° _____ ' _____ " N			Address 2: _____		
9. Longitude: _____ ° _____ ' _____ " W			City: _____ Zip: _____		
10. Datum: <input type="checkbox"/> NAD 83 <input type="checkbox"/> NAD 27 <input type="checkbox"/> Other _____			Phone #: _____ Fax #: _____		
11. County: _____			E-mail: _____		
12. Nearest Military & Public-Use Airport(s): _____					
13. This application <b>MUST</b> be accompanied by <b>ALL</b> of the following attachments: a) A copy of FAA Form 7460-1, Notice of Proposed Construction or Alteration, filed with FAA. b) An Aeronautical Study or FAA document showing the determination issued in response to your Notice of Propos c) A USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey. d) A scaled construction diagram showing the size, type, and dimensions of the proposed construction. e) Zoning statement from the appropriate zoning agency showing this proposal will comply with local zoning regula conditions which must be accomplished for such compliance. f) If the applicant is not the landowner, attach a copy of the authorization to construct or lease of land involved. g) Copy of an existing FDOT Airspace Obstruction Permit, if one has been previously issued.					
The undersigned hereby requests an Airspace Obstruction Permit in accordance with Section 333.025, Flori I hereby certify that all of the above statements made by me are true, complete and correct to the best of my					
Date	Typed or Printed Name of Applicant				Signature
Mail this application along with attachments to Airspace and Land Use Manager Florida Department of Transportation, Aviation Office, 605 Suwannee Street, Mail Stop 46, Tallahassee, Florida, 3 Aviation Phone 850-414-4500. E-mail - aviation.fdot@dot.state.fl.us; http://www.dot.state.fl.us/aviation/					

Page 2 of 2

State of Florida Department of Transportation		INSTRUCTIONS FOR AIRSPACE OBSTRUCTION PERMIT APPLICATION		PLEASE TYPE OR PRINT
ITEM #1.	Include the name, address, phone and fax number, and e-mail address of a personal contact point as well as the company name.			
ITEM #2.	Include the name, address, phone and fax number, and e-mail address of a personal contact point as well as the company name.			
ITEM #3.	Indicate the type of structure. DO NOT LEAVE BLANK.			
ITEM #4.	Indicate whether the proposed construction will be located within the geographical boundaries of a municipality. Indicate whether or not you have notified local officials of your proposal. In addition, please indicate if the city or county is requiring a building permit, as well as the name, address, phone and fax numbers, and e-mail address of the local official responsible for this application.			
ITEM #5.	Enter the site elevation above mean sea level expressed in whole feet rounded to the nearest foot (e.g. 17' 3" rounds to 17', 17'6" rounds to 18"). This data should match the ground contour elevations for site depiction submitted under ITEM #14(c).			
ITEM #6.	Enter the total structure height above ground level in whole feet rounded to the next highest foot (e.g. 17'3" rounds to 18'). The total structure height shall include any appurtenances mounted on top of the structure, such as antennas, obstruction lights, lightning rods, etc. If the structure will be constructed in close proximity to an airport or runway, this measurement should be the highest point of the structure and should match the data submitted to FAA on Form 7460-1.			
ITEM #7.	Enter the overall height above mean sea level, expressed in whole feet. This will be the total of ITEM #5 + ITEM #6.			
ITEM #8.	Latitude and longitude must be geographic coordinates, accurate to within the nearest second or to the nearest hundredth of a second, if known. This data, when plotted, should match the site depiction submitted under ITEM 14(c). The coordinates should match those submitted to the FAA on Form 7460-1. If the coordinates provided on this application do not match those indicated on either FAA Form 7460-1 or the FAA Aeronautical Study, FDOT will not be able to process your application.			
ITEM #9.	NAD 83 is preferred; however, latitude/longitude may be submitted in NAD 27. Also, in some geographic areas where NAD 27 and NAD 83 are not available other datums may be used. It is important to know which datum is used. DO NOT LEAVE BLANK.			
ITEM #10.	Please indicate in which county the proposed structure will be constructed.			
ITEM #11.	Enter the name of all public-use airports (or heliports) or military airports (or heliports) within ten (10) nautical miles of the proposed site.			
ITEM #12.	Lists required attached documents needed to process the application.			
a.	Include a copy of FAA Form 7460-1, Notice of Proposed Construction or Alteration, filed with FAA.			
b.	Include an Aeronautical Study or FAA document showing the determination issued in response to your Notice of Proposed Construction.			
c.	Attach an 8-1/2" X 11" non-reduced copy of the appropriate 7.5 minute U.S. Geological Survey (USGS) Quadrangle Map MARKED WITH A PRECISE INDICATION OF THE SITE LOCATION. To obtain maps, Contact USGC at 1-800-435-7627 or via Internet at "http://mapping.usgs.gov". If available, attach a copy of a documented site survey with the surveyor's certification stating the amount of vertical and horizontal accuracy in feet.			
d.	A scaled construction diagram showing the size, type, and dimensions of the proposed construction.			
e.	Zoning statement from the appropriate zoning agency showing this proposal will comply with local zoning regulations and any conditions which must be accomplished for such compliance.			
f.	If the applicant is not the landowner, attach a copy of the authorization to construct or lease of land involved in the applicant's name.			
g.	If the structure is existing, and a FDOT Airspace Obstruction Permit has been previously issued, please include a copy of that permit.			
Submitting a request for an Airspace Obstruction Permit Application with the Florida Department of Transportation does not relieve the sponsor of this construction or alteration from complying with any other federal, state or local rules or regulations. If you are not sure what other rules or regulations apply to your proposal, contact local zoning authorities.				
Mail this application with attachments to Airspace and Land Use Manager Florida Department of Transportation, Aviation Office, 605 Suwannee Street, Mail Stop 46, Tallahassee, Florida, 32399-0450 Aviation Office 850-414-4500; E-mail - aviation.fdot@dot.state.fl.us; http://www.dot.state.fl.us/aviation/				

Type or Print on this Form

<b>State of Florida</b> Department of Transportation	<b>AIRSPACE OBSTRUCTION PERMIT APPLICATION</b>	<b>FOR FDOT USE ONLY</b> FDOT Permit Number - FLA -      -
<p>1. Applicant (person proposing this action):                  Name: _____                  Title: _____                  Address 1: _____                  Address 2: _____                  City: _____ State: _____ Zip: _____                  Phone #: _____ Fax #: _____                  E-mail: _____</p>		
<p>2. Applicant's Representative (if other than #1):                  Name: _____                  Title: _____                  Address 1: _____                  Address 2: _____                  City: _____ State: _____ Zip: _____                  Phone #: _____ Fax #: _____                  E-mail: _____</p>		
<p>3. Type: <input type="checkbox"/> Antenna Tower    <input type="checkbox"/> Antenna – Side Mount    <input type="checkbox"/> Crane  <input type="checkbox"/> Building    <input type="checkbox"/> Power Line    <input type="checkbox"/> Pole    <input type="checkbox"/> Traverse Way  <input type="checkbox"/> Landfill    <input type="checkbox"/> Water Tank    <input type="checkbox"/> Other: _____</p>		
<p>4. Notification Requirements:                  Is proposed site within an incorporated community? <input type="checkbox"/> Yes <input type="checkbox"/> No                  Have appropriate building/zoning authorities been notified?  <input type="checkbox"/> Yes <input type="checkbox"/> No                  City/county requiring building permit: _____                  Name of local official: _____                  Title: _____                  Address 1: _____                  Address 2: _____                  City: _____ Zip: _____                  Phone #: _____ Fax #: _____                  E-mail: _____</p>		
<p>5. Site Elevation (AMSL): _____ Feet                  6. Total Structure Height (AGL): _____ Feet                  7. Overall Height (#5 + #6)(AMSL): _____ Feet</p>		
<p>8. Latitude: _____ ° _____ ' _____ " N                  9. Longitude: _____ ° _____ ' _____ " W                  10. Datum:    <input type="checkbox"/> NAD 83    <input type="checkbox"/> NAD 27    <input type="checkbox"/> Other _____                  11. County: _____</p>		
<p>12. Nearest Military &amp; Public-Use Airport(s): _____</p>		
<p>13. This application <b>MUST</b> be accompanied by <b>ALL</b> of the following attachments:</p> <ul style="list-style-type: none"> <li>a) A copy of FAA Form 7460-1, Notice of Proposed Construction or Alteration, filed with FAA.</li> <li>b) An Aeronautical Study or FAA document showing the determination issued in response to your Notice of Proposed Construction.</li> <li>c) A USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey.</li> <li>d) A scaled construction diagram showing the size, type, and dimensions of the proposed construction.</li> <li>e) Zoning statement from the appropriate zoning agency showing this proposal will comply with local zoning regulations and any conditions which must be accomplished for such compliance.</li> <li>f) If the applicant is not the landowner, attach a copy of the authorization to construct or lease of land involved.</li> <li>g) Copy of an existing FDOT Airspace Obstruction Permit, if one has been previously issued.</li> </ul>		
<p><b>The undersigned hereby requests an Airspace Obstruction Permit in accordance with Section 333.025, Florida Statutes. I hereby certify that all of the above statements made by me are true, complete and correct to the best of my knowledge.</b></p>		
Date	Typed or Printed Name of Applicant	Signature
<p>Mail this application along with attachments to Airspace and Land Use Manager                  Florida Department of Transportation, Aviation Office, 605 Suwannee Street, Mail Stop 46, Tallahassee, Florida, 32399-0450                  Aviation Phone 850-414-4500, E-mail - aviation.fdot@dot.state.fl.us; http://www.dot.state.fl.us/aviation/</p>		

State of Florida Department of Transportation	<b>INSTRUCTIONS FOR AIRSPACE OBSTRUCTION PERMIT APPLICATION</b>	<b>PLEASE TYPE or PRINT</b>
	<p><b>ITEM #1.</b> Include the name, address, phone and fax number, and e-mail address of a personal contact point as well as the company name.</p> <p><b>ITEM #2.</b> Include the name, address, phone and fax number, and e-mail address of a personal contact point as well as the company name.</p> <p><b>ITEM #3.</b> Indicate the type of structure. DO NOT LEAVE BLANK.</p> <p><b>ITEM #4.</b> Indicate whether the proposed construction will be located within the geographical boundaries of a municipality. Indicate whether or not you have notified local officials of your proposal. In addition, please indicate if the city or county is requiring a building permit, as well as the name, address, phone and fax numbers, and e-mail address of the local official responsible for this application.</p> <p><b>ITEM #5.</b> Enter the site elevation above mean sea level expressed in whole feet rounded to the nearest foot (e.g. 17' 3" rounds to 17', 17'6" rounds to 18'). This data should match the ground contour elevations for site depiction submitted under ITEM #14(c).</p> <p><b>ITEM #6.</b> Enter the total structure height above ground level in whole feet rounded to the next highest foot (e.g. 17'3" rounds to 18'). The total structure height shall include any appurtenances mounted on top of the structure, such as antennas, obstruction lights, lightning rods, etc. If the structure will be constructed in close proximity to an airport or runway, this measurement should be the highest point of the structure and should match the data submitted to FAA on Form 7460-1.</p> <p><b>ITEM #7.</b> Enter the overall height above mean sea level, expressed in whole feet. This will be the total of ITEM #5 + ITEM #6.</p> <p><b>ITEM #8.</b> Latitude and longitude must be geographic coordinates, accurate to within the nearest second or to the nearest hundredth of a second, <b>And</b> if known. This data, when plotted, should match the site depiction submitted under ITEM 14(c). The coordinates should match those submitted to the FAA on Form 7460-1. If the coordinates provided on this application do not match those indicated on either FAA Form 7460-1 or the FAA Aeronautical Study, FDOT will not be able to process your application.</p> <p><b>ITEM #9.</b> NAD 83 is preferred; however, latitude/longitude may be submitted in NAD 27. Also, in some geographic areas where NAD 27 and NAD 83 are not available other datums may be used. It is important to know which datum is used. DO NOT LEAVE BLANK.</p> <p><b>ITEM #10.</b> Please indicate in which county the proposed structure will be constructed.</p> <p><b>ITEM #11.</b> Enter the name of all public-use airports (or heliports) or military airports (or heliports) within ten (10) nautical miles of the proposed site.</p> <p><b>ITEM #12.</b> Lists required attached documents needed to process the application.</p> <ol style="list-style-type: none"> <li>a. Include a copy of FAA Form 7460-1, Notice of Proposed Construction or Alteration, filed with FAA.</li> <li>b. Include an Aeronautical Study or FAA document showing the determination issued in response to your Notice of Proposed Construction.</li> <li>c. Attach an 8-1/2" X 11" non-reduced copy of the appropriate 7.5 minute U.S. Geological Survey (USGS) Quadrangle Map MARKED WITH A PRECISE INDICATION OF THE SITE LOCATION. To obtain maps, Contact USGC at 1-800-435-7627 or via Internet at "http://mapping.usgs.gov". If available, attach a copy of a documented site survey with the surveyor's certification stating the amount of vertical and horizontal accuracy in feet.</li> <li>d. A scaled construction diagram showing the size, type, and dimensions of the proposed construction.</li> <li>e. Zoning statement from the appropriate zoning agency showing this proposal will comply with local zoning regulations and any conditions which must be accomplished for such compliance.</li> <li>f. If the applicant is not the landowner, attach a copy of the authorization to construct or lease of land involved in the applicant's name.</li> <li>g. If the structure is existing, and a FDOT Airspace Obstruction Permit has been previously issued, please include a copy of that permit.</li> </ol>	
<p>Submitting a request for an Airspace Obstruction Permit Application with the Florida Department of Transportation does not relieve the sponsor of this construction or alteration from complying with any other federal, state or local rules or regulations. If you are not sure what other rules or regulations apply to your proposal, contact local zoning authorities.</p>		
<p>Mail this application with attachments to Airspace and Land Use Manager Florida Department of Transportation, Aviation Office, 605 Suwannee Street, Mail Stop 46, Tallahassee, Florida, 32399-0450 Aviation Office 850-414-4500; E-mail - aviation.fdot@dot.state.fl.us; http://www.dot.state.fl.us/aviation/</p>		

# APPENDIX F

## Florida Counties and Municipalities within 10 Nautical Miles of an Airport

Section 333.025, Florida Statutes (FS), states, in part, that “permits from the department will be required only within an airport hazard area where federal obstruction standards are exceeded and if the proposed construction or alteration is within a 10-nautical-mile (NM) radius of the airport reference point.” The table provided in this appendix lists every county and municipality within 10 NM of a public-use airport.

Airport	Counties Within 10 Nautical Miles	Municipalities Within 10 Nautical Miles
Airglades	Glades, Palm Beach, Hendry	Clewiston, Moore Haven
Airport Manatee	Hillsboro, Manatee, Pinellas	Bradenton, Palmetto, St. Petersburg
Albert Whitted	Hillsboro, Manatee, Pinellas	Gulfport, Kenneth City, Largo, Madeira Beach, Pinellas Park, Seminole, South Pasadena, St. Pete Beach, St. Petersburg, Tampa, Treasure Island
Apalachicola Regional - Cleve Randolph Field	Franklin, Gulf	Apalachicola
Arcadia Municipal	Charlotte, De Soto, Hardee	Arcadia
Arthur Dunn Air Park	Brevard, Orange, Seminole, Volusia	Titusville
Bartow Executive	Polk	Auburndale, Bartow, Dundee, Eagle Lake, Fort Meade, Lake Alfred, Lake Hamilton, Lake Wales, Lakeland, Winter Haven
Belle Glade State Municipal	Palm Beach	Belle Glade, Pahokee, South Bay
Bob Sikes	Okaloosa, Walton	Crestview
Bob White Field	Lake, Orange	Apopka, Astatula, Eustis, Howey-In-The-Hills, Montverde, Mount Dora, Ocoee, Tavares
Boca Raton	Broward, Palm Beach	Boca Raton, Boynton Beach, Briny Breezes, Coconut Creek, Coral Springs, Deerfield Beach, Delray Beach, Golf, Gulf Stream, Highland Beach, Hillsboro Beach, Lighthouse Point, Margate, Ocean Ridge, Parkland, Pompano Beach
Brooksville-Tampa Bay Regional	Hernando, Pasco	Brooksville, Weeki Wachee
Buchan	Charlotte, Sarasota	North Point, Venice
Calhoun County	Calhoun, Jackson, Liberty	Altha, Blountstown, Bristol
Carrabelle-Thompson	Franklin	Carrabelle
Cecil	Clay, Duval, Nassau	Baldwin, Jacksonville, Orange Park

Airport	Counties Within 10 Nautical Miles	Municipalities Within 10 Nautical Miles
Chalet Suzanne Air Strip	Osceola, Polk	Dundee, Eagle Lake, Haines City, Highland Park, Hillcrest Heights, Lake Alfred, Lake Hamilton, Lake Wales, Winter Haven
Clearwater Air Park	Hillsboro, Pinellas	Belleair, Belleair Beach, Belleair Bluffs, Clearwater, Dunedin, Indian Rocks Beach, Indian Shores, Kenneth City, Largo, North Redington Beach, Oldsmar, Pinellas Park, Redington Beach, Redington Shores, Safety Harbor, Seminole, St. Petersburg, Tampa, Tarpon Springs
Costin	Franklin, Gulf	Port St. Joe
Cross City	Dixie, Gilchrist,	Cross City, Fanning Springs Levy
Crystal River – Captain Tom Davis Field	Citrus, Levy	Crystal River, Inglis
Dade-Collier Training and Transition	Broward, Collier, Miami-Dade, Monroe	-
Daytona Beach International	Flagler, Volusia	Daytona Beach, Daytona Beach Shores, Holly Hill, New Smyrna Beach, Ormond Beach, Ponce Inlet, Port Orange, South Daytona
Defuniak Springs	Holmes, Walton	De Funiak Springs
DeLand Municipal – Sidney H Taylor Field	Lake, Volusia	Daytona Beach, De Bary, De Land, Deltona, Lake Helen, Orange City
Destin-Fort Walton Beach / Eglin Air Force Base	Okaloosa, Walton	Cinco Bayou, Destin, Fort Walton Beach, Niceville, Shalimar, Valparaiso
Destin Executive Airport	Okaloosa, Walton	Destin, Fort Walton Beach, Miramar Beach, Valpraiso
Downtown Fort Lauderdale	Broward, Miami-Dade	Aventura, Coconut Creek, Cooper City, Coral Springs, Dania Beach, Davie, Deerfield Beach, Fort Lauderdale, Golden Beach, Hallandale, Hillsboro Beach, Hollywood, Lauderdale Lakes, Lauderdale-By-The Sea, Lauderdale, Lighthouse Point, Margate, Miramar, North Lauderdale, North Miami Beach, Oakland Park, Pembroke Park, Pembroke Pines, Plantation, Pompano Beach, Sea Ranch Lakes, Sunny Isles Beach, Sunrise, Tamarac, Wilton Manors
Everglades Airpark	Collier, Monroe	Everglades

Airport	Counties Within 10 Nautical Miles	Municipalities Within 10 Nautical Miles
Executive	Orange, Seminole	Altamonte Springs, Casselberry, Eatonville, Edgewood, Longwood, Maitland, Orlando, Oviedo, Winter Park, Winter Springs
Ferguson	Escambia, Santa Rosa	Gulf Breeze, Pensacola
Fernandina Beach Municipal	Duval, Nassau	Fernandina Beach, Jacksonville
Flagler Executive	Flagler, Volusia	Beverly Beach, Bunnell, Flagler Beach, Ormond Beach, Palm Coast
Flying Ten	Alachua, Gilchrist, Levy	Alachua, Archer, Gainesville, Newberry
Fort Lauderdale Executive	Broward, Palm Beach	Boca Raton, Coconut Creek, Cooper City, Coral Springs, Dania Beach, Davie, Deerfield Beach, Fort Lauderdale, Hillsboro Beach, Hollywood, Lauderdale Lakes, Lauderdale-By-The-Sea, Lauderhill, Lighthouse Point, Margate, North Lauderdale, Oakland Park, Parkland, Plantation, Pompano Beach, Sea Ranch Lakes, Sunrise, Tamarac, Wilton Manors
Fort Lauderdale/ Hollywood International	Broward, Miami-Dade	Aventura, Coconut Creek, Cooper City, Dania Beach, Davie, Fort Lauderdale, Golden Beach, Hallandale, Hollywood, Lauderdale Lakes, Lauderdale-By-The-Sea, Lauderhill, Margate, Miramar, North Lauderdale, North Miami, North Miami Beach, Oakland Park, Pembroke Park, Pembroke Pines, Plantation, Pompano Beach, Sea Ranch Lakes, Sunny Isles Beach, Sunrise, Tamarac, Wilton Manors
Fort Walton Beach	Escambia, Okaloosa, Santa Rosa	Fort Walton Beach, Mary Esther
Gainesville Regional	Alachua, Bradford	Alachua, Gainesville, Waldo
George T Lewis	Levy	Cedar Key
Halifax River Sea Plane Base	Flagler, Volusia	Daytona Beach, Holly Hill, Ormond Beach, Ormond-By-The-Sea, Port Orange
Herlong Recreational	Clay, Duval, Nassau	Baldwin, Jacksonville, Orange Park
Hilliard Airpark	Nassau	Callahan, Hilliard
Immokalee Regional	Collier, Hendry, Lee	-
Indiantown	Martin, Palm Beach	-
Inverness	Citrus, Hernando, Marion, Sumpter	Inverness

Airport	Counties Within 10 Nautical Miles	Municipalities Within 10 Nautical Miles
Jack Browns Seaplane Base	Polk	Auburndale, Bartow, Dundee, Eagle Lake, Haines City, Lake Alfred, Lake Hamilton, Lake Wales, Lakeland, Polk City, Winter Haven
Jacksonville Executive At Craig	Duval, St. Johns	Atlantic Beach, Jacksonville, Jacksonville Beach, Neptune Beach
Jacksonville International	Duval, Nassau	Callahan, Jacksonville
Key West International	Monroe	Key West
Keystone Airpark	Alachua, Bradford, Clay, Putnam	Hampton, Keystone Heights, Starke, Waldo
Kissimmee Gateway	Orange, Osceola, Polk	Bay Lake, Kissimmee, Lake Buena Vista, Orlando, St. Cloud
La Belle Municipal	Charlotte, Glades, Hendry, Lee	Labelle
Lake City Gateway	Baker, Columbia, Union	Lake City
Lake Wales Municipal	Polk	Dundee, Eagle Lake, Frostproof, Highland Park, Hillcrest Heights, Lake Hamilton, Lake Wales, Winter Haven
Lakeland Linder International	Hillsborough, Polk	Bartow, Lakeland, Mulberry, Plant City
Leesburg International	Lake, Marion, Orange, Sumter	
Marco Island Executive	Collier	Marco Island, Naples
Marianna Municipal	Jackson	Bascom, Greenwood, Malone, Marianna
Marion County	Citrus, Levy, Marion, Sumter	Dunnellon, Ocala
Massey Ranch Airpark	Volusia	Daytona Beach Shores, Edgewater, New Smyrna Beach, Oak Hill, Ponce Inlet, Port Orange
Melbourne Orlando International	Brevard	Indialantic, Indian Harbour Beach, Malabar, Melbourne, Melbourne Beach, Melbourne Village, Palm Bay, Palm Shores, Satellite Beach, West Melbourne
Merritt Island	Brevard	Cape Canaveral, Cocoa, Cocoa Beach, Melbourne, Palm Shores, Rockledge, Satellite Beach
Miami Executive	Miami-Dade	Coral Gables, Homestead, Miami, Pinecrest, South Miami, Sweetwater, West Miami
Miami Homestead General Aviation	Miami-Dade	Florida City, Homestead


Airport	Counties Within 10 Nautical Miles	Municipalities Within 10 Nautical Miles
<b>Miami International</b>	Miami-Dade	Biscayne Park, Coral Gables, El Portal, Hialeah, Hialeah Gardens, Key Biscayne, Medley, Miami, Miami Beach, Miami Shores, Miami Springs, Miramar, North Bay Village, North Miami, North Miami Beach, Opa-Locka, Pinecrest, South Miami, Sweetwater, Virginia Gardens, West Miami
<b>Miami-Opa Locka Executive</b>	Broward, Miami-Dade	Aventura, Bal Harbour, Bay Harbor Islands, Biscayne Park, Cooper City, Coral Gables, Davie, El Portal, Golden Beach, Hallandale, Hialeah, Hialeah Gardens, Hollywood, Indian Creek, Medley, Miami, Miami Beach, Miami Shores, Miami Springs, Miramar, North Bay Village, North Miami, North Miami Beach, Opa-Locka, Pembroke Park, Pembroke Pines, Sunny Isles Beach, Surfside, Sweetwater, Virginia Gardens, West Miami
<b>Miami Seaplane Base</b>	Miami-Dade	Aventura, Bal Harbour, Bay Harbor Islands, Biscayne Park, Coral Gables, El Portal, Hialeah, Hialeah Gardens, Indian Creek, Key Biscayne, Medley, Miami, Miami Beach, Miami Shores, Miami Springs, North Bay Village, North Miami, North Miami Beach, Opa-Locka, Pinecrest, South Miami, Sunny Isles Beach, Surfside, Virginia Gardens, West Miami
<b>Mid Florida At Eustis</b>	Lake, Marion, Orange	Apopka, Astatula, Eustis, Mount Dora, Tavares, Umatilla
<b>Naples Municipal</b>	Collier, Lee	Bonita Springs, Naples
<b>New Hibiscus Airpark</b>	Indian River, St. Lucie	Fellsmere, Indian River Shores, Sebastian, Vero Beach
<b>North Palm Beach County General Aviation</b>	Martin, Palm Beach	Daytona Beach, Daytona Beach Shores, Edgewater, New Smyrna Beach, Ponce Inlet, Port Orange, South Dayton

Airport	Counties Within 10 Nautical Miles	Municipalities Within 10 Nautical Miles
North Perry	Broward, Miami-Dade	Aventura, Bal Harbour, Bay Harbor Islands, Biscayne Park, Cooper City, Dania Beach, Davie, El Portal, Fort Lauderdale, Golden Beach, Hallandale, Hialeah, Hialeah Gardens, Hollywood, Indian Creek, Lauderdale Lakes, Lauderhill, Miami, Miami Beach, Miami Shores, Miramar, North Bay Village, North Miami, North Miami Beach, Opa-Locka, Pembroke Park, Pembroke Pines, Plantation, Sunny Isles Beach, Sunrise, Surfside, Weston
Northeast Florida Regional	St. Johns	St. Augustine, St. Augustine Beach
Northwest Florida Regional	Okaloosa, Walton	Cinco Bayou, Destin, Fort Walton Beach, Mary Esther, Niceville, Shalmar, Valparaiso
Northwest Florida Beaches International	Bay	Callaway, Cedar Grove, Lynn Haven, Panama City, Panama City Beach, Parker, Springfield
Oak Tree Landing	Alachua, Columbia, Gilchrist, Levy	Alachua, High Springs, Newberry
Ocala International – Jim Taylor Field	Marion	Ocala
Okeechobee County	Glades, Highlands, Okeechobee	Okeechobee
Orlando Apopka	Lake, Orange, Seminole	Altamonte Springs, Apopka, Astatula, Eustis, Montverde, Mount Dora, Oakland, Ocoee, Orlando, Tavares, Winter Garden
Orlando International	Orange, Osceola	Belle Isle, Edgewood, Kissimmee, Orlando, St. Cloud, Winter Park
Orlando Sanford International	Lake, Orange, Seminole, Volusia	Altamonte Springs, Casselberry, De Bary, Deltona, Lake Mary, Longwood, Orange City, Oviedo, Sanford, Winter Springs
Ormond Beach Municipal	Flagler, Volusia	Daytona Beach, Daytona Beach Shores, Flagler Beach, Holly Hill, Ormond Beach, Palm Coast, Port Orange, South Daytona
Page Field	Lee	Bonita Springs, Cape Coral, City Of Fort Myers
Palatka Municipal – Lt Kay Larkin Field	Putnam, St. Johns	Palatka, Pomona Park
Palm Beach County Glades	Palm Beach	Belle Glade, Pahokee, South Bay

Airport	Counties Within 10 Nautical Miles	Municipalities Within 10 Nautical Miles
<b>Palm Beach County Park</b>	Palm Beach	Atlantis, Boynton Beach, Briny Breezes, Cloud Lake, Delray Beach, Glen Ridge, Golf, Greenacres, Gulf Stream, Haverhill, Hypoluxo, Lake Clarke Shores, Lake Worth, Lantana, Manalapan, Mangonia Park, Ocean Ridge, Palm Beach, Palm Springs, Royal Palm Beach, South Palm Beach, Wellington, West Palm Beach
<b>Palm Beach International</b>	Palm Beach	Cloud Lake, Glen Ridge, Greenacres, Haverhill, Hypoluxo, Lake Clarke Shores, Lake Park, Lake Worth, Lantana, Manalapan, Mangonia Park, North Palm Beach, Ocean Ridge, Palm Beach, Palm Beach Gardens, Palm Beach Shores, Palm Springs, Riviera Beach, Royal Palm Beach, South Palm Beach, Wellington, West Palm Beach
<b>Pensacola International</b>	Escambia, Santa Rosa	Gulf Breeze, Pensacola
<b>Perry-Foley</b>	Taylor	Perry
<b>Peter O Knight</b>	Hillsborough, Pinellas	St. Petersburg, Tampa, Temple Terrace
<b>Peter Prince Field</b>	Santa Rosa	Milton
<b>Pierson Municipal</b>	Flagler, Lake, Putnam, Volusia	Pierson
<b>Pilot Country</b>	Hernando, Hillsborough, Pasco	-
<b>Plant City Airport</b>	Hillsborough, Polk	Lakeland, Plant City
<b>Pompano Beach Airpark</b>	Broward, Palm Beach	Boca Raton, Coconut Creek, Coral Springs, Dania Beach, Deerfield Beach, Fort Lauderdale, Highland Beach, Hillsboro Beach, Hollywood, Lauderdale Lakes, Lauderdale-By-The-Sea, Lauderhill, Lighthouse Point, Margate, North Lauderdale, Oakland Park, Parkland, Plantation, Pompano Beach, Sea Ranch Lakes, Sunrise, Tamarac, Wilton Manors
<b>Punta Gorda</b>	Charlotte, De Soto, Lee, Osceola, Polk, Sarasota	North Point, Punta Gorda
<b>Quincy Municipal</b>	Gadsden, Leon	Gretna, Havana, Midway, Quincy
<b>River Ranch Resort</b>	Highlands, Okeechobee, Osceola, Polk	-
<b>Sarasota/Bradenton International</b>	Manatee, Sarasota	Bradenton, Bradenton Beach, Longboat Key, Palmetto, Sarasota

Airport	Counties Within 10 Nautical Miles	Municipalities Within 10 Nautical Miles
Sebastian Municipal	Brevard, Indian River	Fellsmere, Indian River Shores, Malabar, Orchid, Palm Bay, Sebastian, Vero Beach
Sebring Regional	Highlands, Okeechobee	Lake Placid, Sebring
Shell Creek Airpark	Charlotte, De Soto, Sarasota	North Point, Punta Gorda
South Lakeland	Hillsborough, Polk	Bartow, Lakeland, Mulberry, Plant City
Southwest Florida International	Collier, Lee	Bonita Springs, Fort Myers
Space Coast Regional	Brevard, Orange	Cocoa, Titusville
St Cloud Seaplane Base	Orange, Osceola	Kissimmee, St Cloud
St George Island	Franklin	Apalachicola
St Petersburg-Clearwater International	Hillsborough, Pinellas	Belleair, Belleair Beach, Belleair Bluffs, Clearwater, Dunedin, Gulfport, Indian Rocks Beach, Indian Shores, Kenneth City, Largo, Madeira Beach, North Redington Beach, Oldsmar, Pinellas Park, Redington Beach, Redington Shores, Safety Harbor, Seminole, South Pasadena, St. Pete Beach, St. Petersburg, Tampa, Treasure Island
Suwannee County	Hamilton, Suwannee	Live Oak
Tallahassee International	Gadsden, Leon, Wakulla	Midway, Tallahassee
Tampa Executive		Plant City, Tampa, Temple Terrace
Tampa International	Hillsborough, Pinellas	Clearwater, Oldsmar, Pinellas Park, Safety Harbor, St. Petersburg, Tampa, Temple Terrace
Tampa North Aero Park	Hillsborough, Pasco	San Antonio, St. Leo, Tampa, Temple Terrace, Zephyrhills
Tavares Seaplane Base	Lake, Marion, Orange	Eustis, Leesburg, Tavares
The Florida Keys Marathon	Monroe	Key Colony Beach, Marathon
Treasure Coast International	Indian River, St. Lucie	Fort Pierce, Port St. Lucie, St. Lucie, Vero Beach
Tri-County	Holmes, Jackson, Washington	Bonifay, Chipley, Esto, Graceville, Noma
Umatilla Municipal	Lake, Marion, Orange	Eustis, Mount Dora, Tavares, Umatilla
Valkaria	Brevard, Indian River	Indialantic, Malabar, Melbourne, Melbourne Beach, Melbourne Village, Palm Bay, Sebastian, West Melbourne
Venice Municipal	Charlotte, Sarasota	North Point, Venice

Airport	Counties Within 10 Nautical Miles	Municipalities Within 10 Nautical Miles
Vero Beach Regional	Indian River, St. Lucie	Fellsmere, Indian River Shores, Orchid, Sebastian, St. Lucie, Vero Beach
Wakulla County	Franklin, Liberty, Wakulla	Sopchoppy
Wauchula Municipal	Hardee, Polk	Bowling Green, Wauchula, Zolfo Springs
Williston Municipal	Alachua, Levy, Marion	Williston
Winter Haven Regional	Polk	Auburndale, Bartow, Davenport, Dundee, Eagle Lake, Haines City, Lake Alfred, Lake Hamilton, Lake Wales, Lakeland, Polk City, Winter Haven
Witham Field	Martin, St. Lucie	Jupiter Island, Ocean Breeze Park, Port St. Lucie, Sewall's Point, Stuart
Zephyrhills Municipal	Hillsborough, Pasco, Polk, Sumter	Dade City, San Antonio, St. Leo, Tampa, Zephyrhills

A photograph of the front of a blue propeller airplane on a runway. The image is split vertically: the left half shows the real scene with a clear sky and trees in the background, while the right half is a dark blue, semi-transparent overlay. The text is positioned in the lower right quadrant of the image.

Florida Department of Transportation  
Aviation Office  
605 Suwannee Street  
Tallahassee, FL 32399, MS 46

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Contact Us: 850-414-4500