



Arcadia Municipal Airport Airport Master Plan and Airport Layout Plan Update

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DRAFT Master Plan Update

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Submitted to:

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Appendix B – Public Involvement Materials

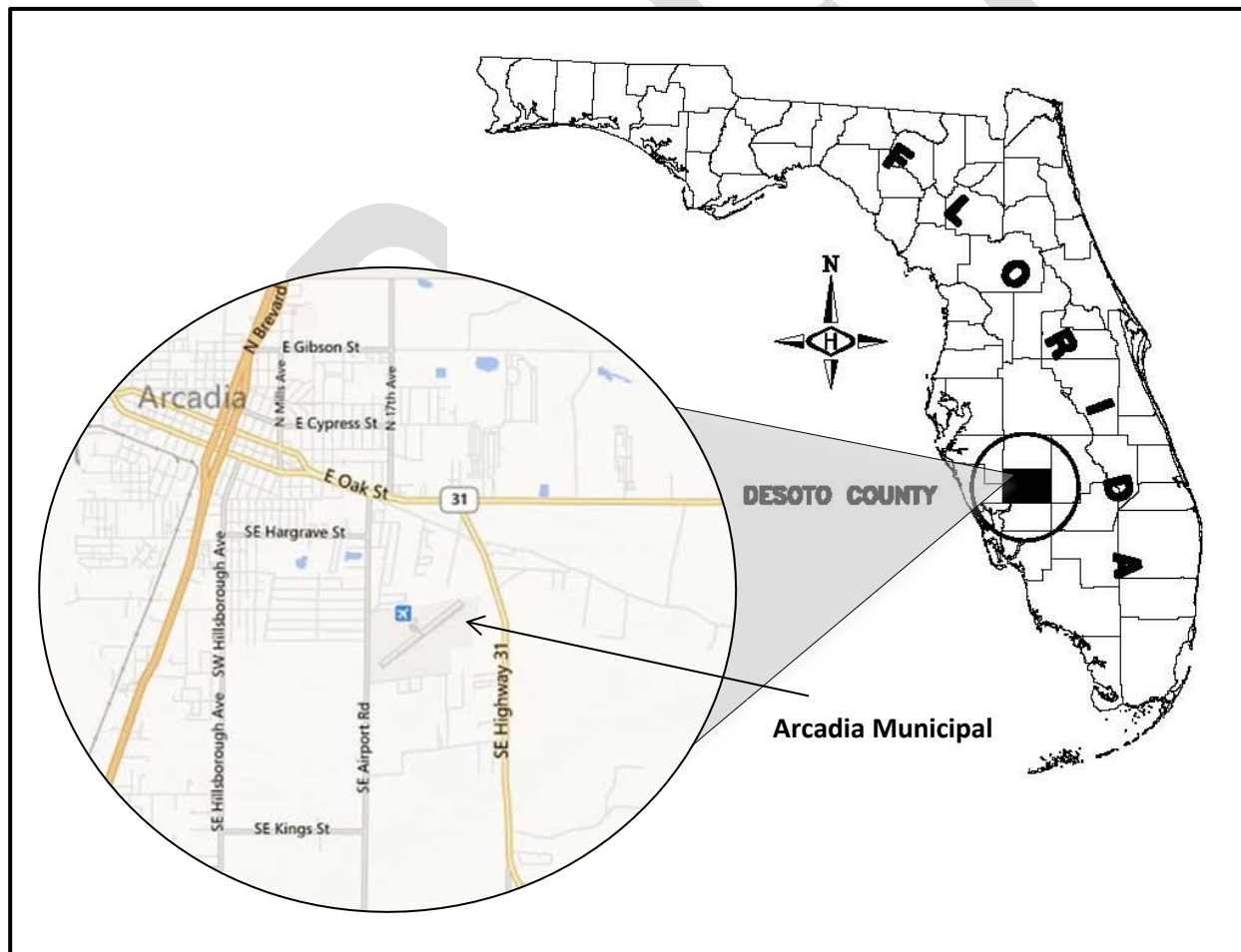
1. EXISTING CONDITIONS

1.1 Airport Ownership and Location

Arcadia Municipal Airport ("X06") is a public use general aviation airport owned by the City of Arcadia, Florida and administered by the City Council. An Airport Advisory Committee (AAC) advises the City Administrator on matters pertaining to the airport. The City Administrator serves as the airport manager.

X06 is a non-towered airport that is operational 24 hours a day, seven days a week. Existing airport property is approximately 210 acres of land located on the southeast side of Arcadia, 2 miles from the city center. The airport is located south of State Route 70, west of State Route 31, and is accessible by SE A.C. Polk Drive which is off of Airport Road. Airport coordinates are latitude 27-11-44.1910N and longitude 081-50-14.0219W. Airport elevation is 63 feet above mean sea level (MSL). The airport's location is shown on **Figure 1.1**.

Figure 1.1 General Location map



1.2 Airport Facilities

1.2.1 Runways and Taxiways

Arcadia Municipal has one paved (asphalt) runway and one turf runway. The primary runway (6-24) is 3,700' long and 75' wide. The pavement was rejuvenated in early 2014 and the pavement condition is excellent. (Note: Runway 6-24 was previously identified as 5-23. Surveys conducted during runway rejuvenation project showed that Runway 5-23 markings should be changed to 6-24 due to changes in magnetic declination. The runway markings were corrected as part of the rejuvenation project. The Future Airport Layout Drawing shows Runway 13-31 will be identified as 14-32 due to magnetic declination changes.

Runway 13-31 is 2,829' long and 100' wide. The turf is in fair condition. The runway has no markings; however the thresholds and runway edges are identified by yellow painted tires. The Airport Master Record 5010 indicates the Runway 13 threshold is displaced by 775' due to a fence and the Runway 31 threshold is displaced 775' due to trees. However, the survey completed for this project indicates the Runway 13 threshold is displaced 678' and Runway 31 threshold is displaced is 994'. The 5010 also identifies Runway 13-31 as 2,780' long and 140' wide.

As a result of the displaced thresholds, declared distances are in place for Runway 13-31. Declared distances represent the maximum distances available and suitable for meeting takeoff, rejected takeoff, and landing distance performance requirements. Typically, declared distances are used to meet Runway Safety Area (RSA), Runway Object Free Area (ROFA) requirements, or to meet approach/departure surface clearance requirements. Below, **Table 1.1** identifies existing declared distances by runway end and provides a description of the terminology.

Table 1.1 Existing Declared Distances

	Runway 6	Runway 24	Runway 13	Runway 31
TORA	3,700'	3,700'	2,829'	2,829'
TODA	3,700'	3,700'	2,829'	2,829'
ASDA	3,700'	3,700'	2,515'	2,610'
LDA	3,700'	3,700'	1,837'	1,616'

Source: Hanson Professional Services Inc., 2015

- Take-off Runway Available (TORA) is the distance to accelerate from brake release to lift off, plus safety factors. This distance defines the length of runway declared available to satisfy take-off run minimums.
- Take-off Distance Available (TODA) is the distance to accelerate from brake release past lift off to start the take-off climb, plus safety factors. This distance consists of the TORA plus any remaining runway or clearway beyond the far end of the TORA available to satisfy take-off distance requirements.
- Accelerate Stop Distance Available (ASDA) is the distance to accelerate from brake release to aircraft take-off decision speed (V1) and then decelerate to a stop, plus safety

factors. This distance defines the runway plus stopway declared available and suitable for satisfying ASDA requirements.

- Landing Distance Available (LDA) is the distance from threshold required to complete approach, touchdown, and deceleration to a stop, plus safety factors.

Runway 6-24 has a 40' wide full parallel taxiway (Taxiway "A") with connectors to the T-hangar complex and the apron. The taxiway is constructed of asphalt and is in excellent condition as it was included in the 2014 Runway 6-24 rejuvenation project. The T-Hangar taxiways and connectors to the Parking Ramp and Taxiway A are in very poor condition. **Table 1.2** summarizes runway characteristics.

In May of 2011, FDOT Aviation Office published a Statewide Airfield Pavement Management Program report documenting the condition of the pavement at Arcadia Municipal. The pavement conditions for Runway 6-24, taxiway and apron space were evaluated by an FDOT inspector. The report determined that the runway pavement and apron area was in fair condition prior to the rejuvenation project. Taxiway A and the connectors to Runway 6-24 were identified as satisfactory condition. Pavement servicing the T-hangar complex was documented as very poor condition. This includes the pavement leading to the T-hangar complex from the apron and Taxiway A.

1.2.2 Airport and Airfield Lighting

Arcadia Municipal has a rotating light beacon that had been out of service. The beacon was placed back into service as part of the installation of the new electrical vault. As indicated in **Table 1.2**, Runway 6-24 is equipped with medium intensity Quartz runway lights (MIRLs). The taxiway is equipped with medium intensity LED taxiway lights (MITLs). Runway 13-31 is not equipped with lights.

Table 1.2 Summary of Runway and Taxiway Characteristics

Airport Elevation			62.2 feet	
Runways	6	24	13	31
Dimensions (ft)	3,700 x 75		2,829 x 100	
Surface	Asphalt		Turf	
Surface Condition	Excellent		Fair	
Pavement Strength	12,500 LBS S.W.		NA	
Lighting	MIRL		None	
NAVAIDS	None			
Visual Aids	PAPI - 2	None	None	None
Runway Marking	Non-Precision		None	
Taxiways				
Dimensions (ft)	3,700 x 40		None	
Surface	Asphalt		NA	
Surface Condition	Excellent		NA	
Lighting	MITL		NA	
Source: Airport Master Record 5010, Airport Facility Directory, 2015, Hanson 2015				

1.2.3 Approach and Landing Aids

In addition to the rotating beacon, Runway End 6 is equipped with precision approach path indicators (PAPIs) of the two-light unit type. X06 is also equipped with a lighted windsock.

1.3 Landside Facilities

Landside facilities include hangars, apron and ramp access, and auto parking. At X06 these facilities are located in the northeast quadrant of the intersection of Runways 6-24 and 13-31. The fixed base operator (FBO) is located in the terminal building which is immediately north of the apron. Services provided include Avgas fuel sale, tie-down rental, and small airframe and powerplant repairs.

There are 10 paved parking spaces for automobile; however, the Airport allows automobiles to park in the grass adjacent to the terminal building. Tenants are permitted to park their vehicles in the grassy areas surrounding hangars. X06 can be accessed by vehicle via A.C. Polk Road which is accessed from Airport Road.

The airport has a total of 10 anchored tie-down spaces for local and itinerant aircraft located on the paved apron adjacent to the terminal building. Airport records indicate 4 spaces are leased and there is no waiting list. The FBO manages the rental and leasing of tie-down spaces and hangars and T-hangars. The Airport maintains the waiting list for all hangars and tie-down spaces.

A T-hangar complex is located just northeast of the apron which provides storage for 23 aircraft. Adjacent to the Runway 13 end, there is a larger t-hangar structure with three units that are each 1,100 square feet in size. Additional aircraft storage includes one conventional hangar in the sizes of 50' x 100' and one partially enclosed 42' x 35' hangar. Airport records identify no vacancies and three individuals are on the waiting list for T-Hangar complex. **Figure 1.2** provides locations of airport facilities.

Figure 1.2 Facility Locations



1.4 Fuel Storage

X06 has one 12,000-gallon capacity above ground fuel tank that stores 100LL Avgas which is maintained by the FBO. The FBO takes all payment for fuel purchases and also pumps the fuel. Currently the airport does not accommodate self-serve fueling as the pump does not accept credit cards. According to the FBO records 5,863 gallons of 100LL were sold in 2013.

1.5 Published Instrument Approach Procedures

X06 has an En Route Area Navigation (RNAV) approach for Runway 6-24.

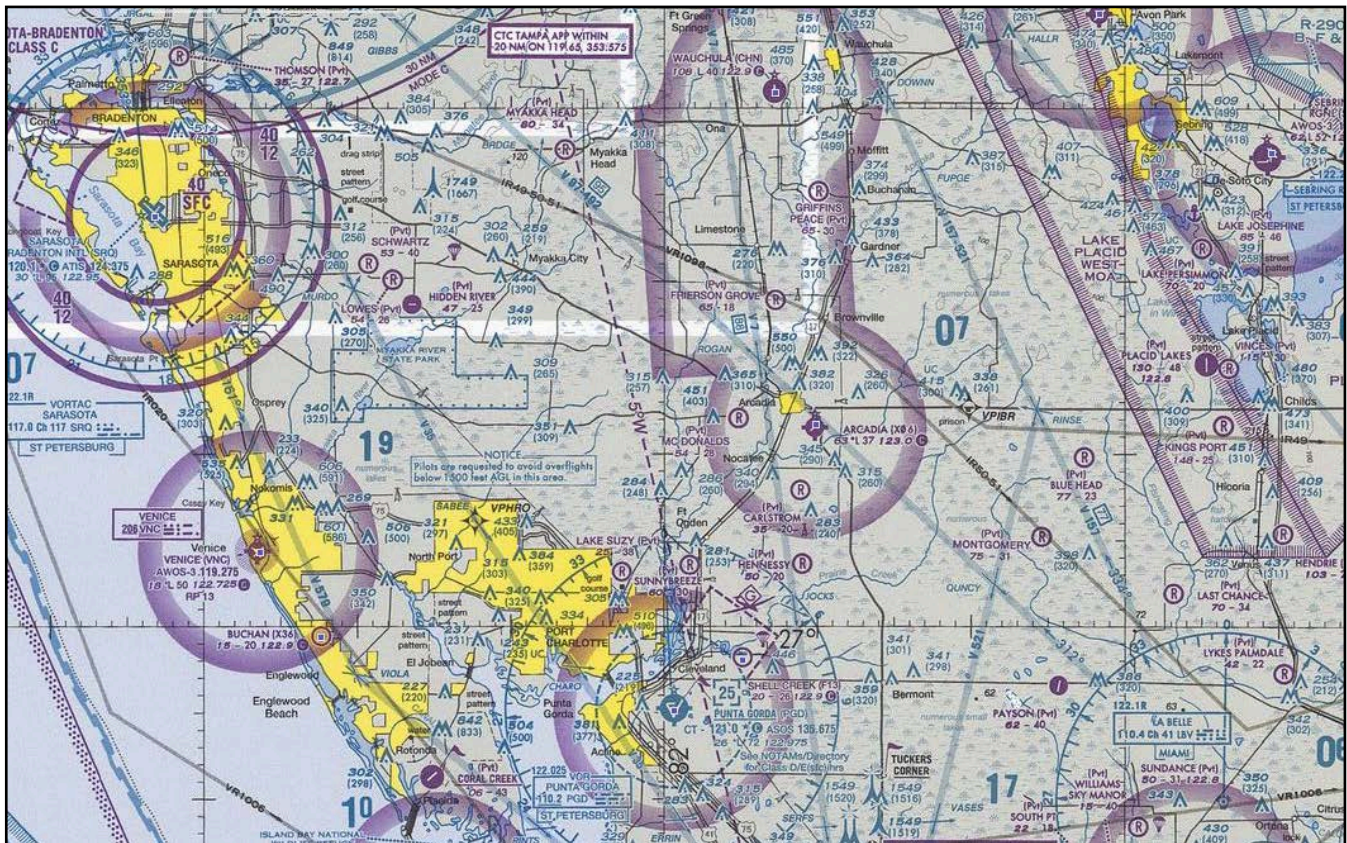
1.6 Area Airports and Airspace

X06 is a non-towered airport in Class E airspace. There are no overlapping airspaces associated with surrounding airports. Pilots in the vicinity of the airport may communicate using the Unicom frequency of 123.0. Airports and airspace in the vicinity of X06 are depicted on the Miami Sectional Aeronautical

Chart, a portion of which is reproduced in **Figure 1.3**. The airport closest to X06 is Punta Gorda Airport, located approximately 18.5 nautical miles southwest of Arcadia. Punta Gorda is a public use airport with three asphalt runways and full service facilities. Roughly seven privately owned private use airports are located within 20 nautical miles with McDonalds Field the closest at approximately 4.2 nautical miles. Other nearby airports includes:

- KCHN – Wauchula Municipal Airport (19.3 nm N)
- KAVO – Avon Park Executive Airport (28.9 nm NE)
- KSEF – Sebring Regional Airport (30.7 nm NE)
- KVNC – Venice Municipal Airport (33.1 nm W)

Figure 1.3 Area Airports and Airspace



1.7 Airport Activity

1.7.1 Based Aircraft

Based aircraft data were obtained from the FAA's Terminal Area Forecast (TAF). This source reflects data and information obtained for recording on the FAA's Form 5010 Airport Master Record. Data for the period 2000 to 2013 are presented in **Table 1.3**.

The Form 5010's detailed based aircraft estimate is presented below:

Single-engine	0
Multi-engine	0
Jet	0
Ultra-light	3
Rotor	<u>0</u>
Total	3

The number of based aircraft obtained from current airport records is presented below:

Single-engine	18
Multi-engine	4
Jet	0
Ultra-light	4
Rotor	<u>0</u>
Total	26

Table 1.3 Based Aircraft Data

Year	Based Aircraft
2000	31
2001	31
2002	31
2003	31
2004	31
2005	31
2006	31
2007	31
2008	31
2009	31
2010	28
2011	28
2012	31
2013	31

Source: FAA Terminal Area Forecast, 2014

Review of the data indicates the limitation of the FAA database, specifically, a tendency to record the same estimated number of based aircraft for a period of years. While it is conceivable that an airport could have exactly the same complement of based aircraft for a period of five years, the recurrence of this circumstance for many airports in the TAF's database suggests that the TAF historical data may be insufficient for accurate reporting of actual numbers. For the purpose of this study, the 2013 data provided by airport staff identifying 26 based aircraft will be used.

1.7.2 Aircraft Operations

As noted, X06 is a non-towered airport. The airport staff and fixed base operators do not maintain a full log of operations; therefore, accurate data concerning aircraft operations are not available. (An operation is either a takeoff or a landing. Touch-and-go and stop-and-go activities, which simulate takeoffs and landings, count as two operations for each cycle.) The TAF's data concerning aircraft operations were also obtained and reviewed. The number of total operations has remained unchanged since 1990. These are presented in **Table 1.4**. The Form 5010 for 2010 continues to report 19,370 annual operations that are categorized as follows:

The Form 5010's aircraft operations estimate is presented below:

Air Carrier	0
Air Taxi	30
G.A. Local	12,500
G.A. Itinerant	6,800
Military	40
Total	19,370

The estimated number of aircraft operations obtained from the airport is presented below:

Air Carrier	0
Air Taxi	0
G.A. Local	8,577
G.A. Itinerant	4,616
Military	0
Total	13,196

Table 1.4 Annual Operations

Year	Total Operations
2000	19,370
2001	19,370
2002	19,370
2003	19,370
2004	19,370
2005	19,370
2006	19,370
2007	19,370
2008	19,370
2009	19,370
2010	19,370
2011	19,370
2012	19,370
2013	19,370
Source: FAA Terminal Area Forecast, 2014	

The nature of the data concerning operations, i.e., identical numbers of operations occurring for several years, suggests the same database limitation referenced with respect to based aircraft. This will be considered more during the development of the aviation forecast. For the purpose of this study, the 2013 base year data provided by airport staff identifying 13,196 operations will be used.

1.8 Socio-economic Data and Projections

Socio-economic characteristics identify an area's past and future growth. In certain regions, socio-economic characteristics have a positive relationship to aviation activity and are often useful in preparing estimates of future airport activity.

1.8.1 Population

The U.S. Census Bureau in Census 2010 recorded the population of the City of Arcadia as 7,637 persons. This represented an increase of 15% from the 2000 population (6,640). DeSoto County's 2010 population (34,863) represents a 8.2% increase from the 2000 population (32,209). Florida's population grew to 18,801,310 in 2010, representing a 17.6% increase from 2000. The Census Bureau estimates that the population of Arcadia in 2012 was 7,621 while DeSoto County's and Florida's populations were estimated as 34,712 and 19,320,749, respectively.

Population projections from the Census Bureau anticipate continued rapid growth in the state's population to 28,685,769 by 2030. Projections for the DeSoto County area are estimated to be 39,799 in 2033 representing a 14.2% increase.

1.8.2 Income

Income data were obtained for the U.S., Florida, and DeSoto County. These data indicate the following levels of per capita personal income (PCPI) in 2012:

- U.S. – \$43,735
- State of Florida – \$41,012
- DeSoto County – \$25,506

(Source: U.S. Department of Commerce Bureau of Economic Analysis)

The data examined shows a U.S increase of 8.9% since 2010. Corresponding percentage increases for the State of Florida and DeSoto County were 6.5% and 4.7%, respectively since 2010.

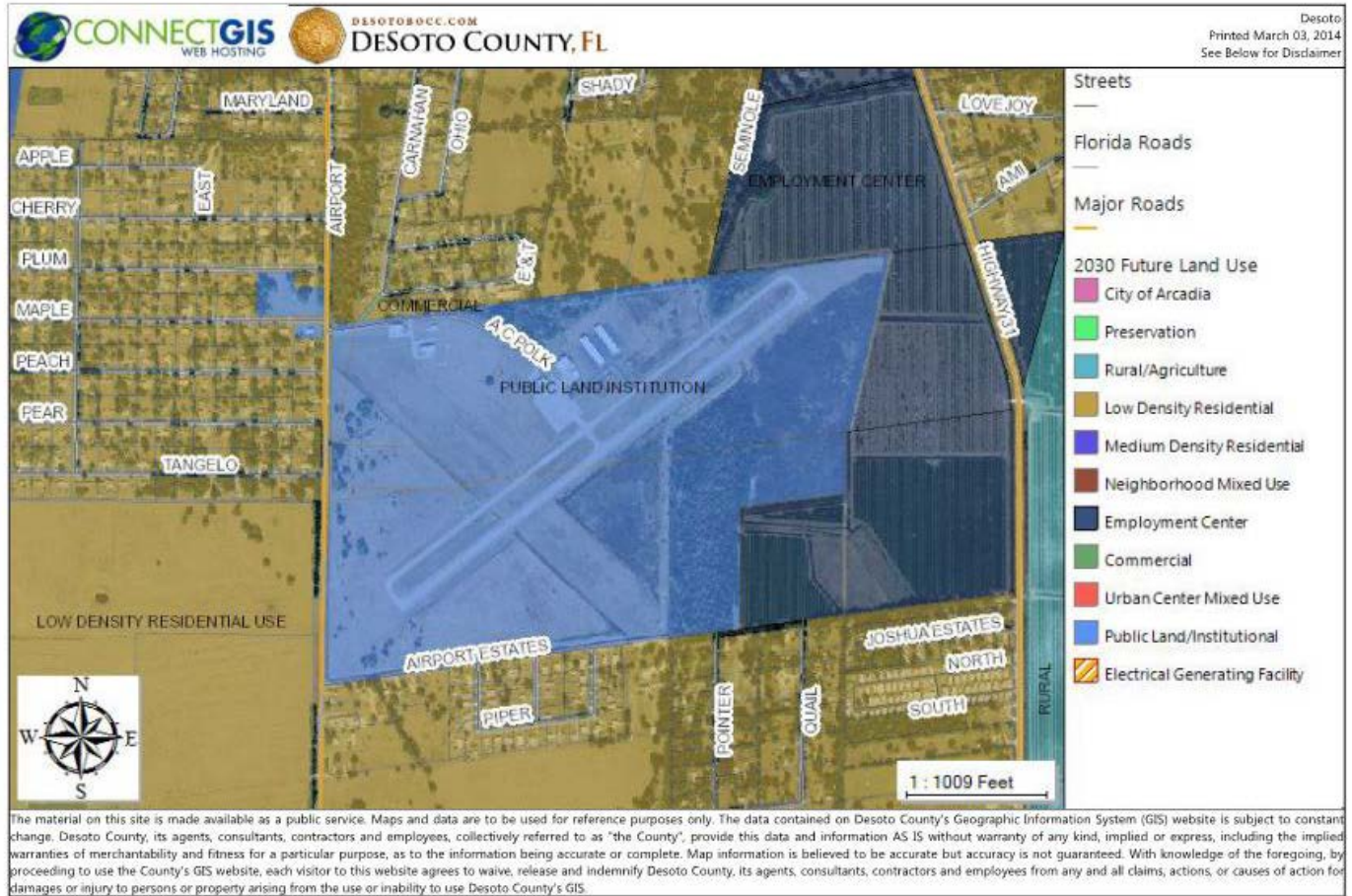
1.9 Area Land Use Planning and Management

Land in the airport vicinity exhibits a variety of uses. Airport property is identified as public land/institutional. The DeSoto County Future Land Use Map, provided as **Figure 1.4**, indicates the following proposed land uses in the areas adjacent to X06:

- To the north and northeast, Low Density Residential and Employment Center.
- To the west, Low Density Residential.
- To the south, Low Density Residential.
- To the East, Employment Center and Rural Agricultural.

The City of Arcadia has partnered with DeSoto County Economic Development office to conduct comprehensive planning and adopt and administer a Land Development Code through its Community and Economic Development Department. Neither the Comprehensive Plan nor the Land Regulation Code addresses regulation of land use surrounding the airport.

Figure 1.4 Airport Area Future Land Use Map



Source: DeSoto County Future Land Use Map, 2014

Land Use Descriptions:

- **Low Density Residential:** Allowance for up to 2 dwelling units per acre.
- **Public Land / Institution:** Land containing State, Federal, City government facilities (excludes preservation land use which is related to threatened natural resources).
- **Employment Center:** Multiple types of non-residential land uses such as commercial, institutional, office, and industrial.
- **Rural Agricultural:** Mix of low density residential and agricultural activities. Allowance for up to 1 dwelling per 10 acres or 1 dwelling per 5 acres.

2. ENVIRONMENTAL REVIEW

This Master Plan Update recommends substantial improvement to the Arcadia Municipal Airport during the 20-year planning horizon. This environmental review identifies impacts in certain areas, such as noise and compatible land use, which do not require field surveys. Other impact categories, such as air quality and wetlands, are examined to identify areas that could require further examination in the form of an EA. FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* identify airport development actions typically requiring an Environmental Assessment. This environmental review should not be considered an exhaustive analysis; rather, its purposes are to consider potential impacts of future airport development actions and to identify areas in which additional analysis may be needed.

FAA Order 1050.1E, CHG 1, *Environmental Impacts: Policies and Procedures* identify airport development actions normally requiring an Environmental Assessment (EA). Review of that document indicates that the recommended actions in this Master Plan will not require an EA. The following sections identify the impact categories considered and present an overview of their potential significance.

2.1 Analysis of Impact Categories

Under the provisions of FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* and its supplement FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions the impact categories to be examined in the EA include:

- Air Quality
- Coastal Resources
- Compatible Land Use
- Construction Impacts
- Department of Transportation Act: Section 4(f)
- Farmlands
- Fish, Wildlife, and Plants
- Floodplains
- Hazardous Materials, Pollution Prevention, and Solid Waste
- Historical, Architectural, Archeological, and Cultural Resources
- Light Emissions and Visual Impacts
- Natural Resources and Energy Supply
- Noise
- Secondary (Induced) Impacts Socioeconomic Impacts, Environmental Justice, and Children's Environmental
- Health and Safety Risks
- Water Quality
- Wetlands
- Wild and Scenic Rivers

The objective of this review is to identify impacts in certain areas, such as noise compatibility and land use, which does not require field surveys. Other impact categories such as air quality and wetlands are examined to identify those areas that could require further examination.

2.2 Air Quality

The two principle sources of air pollution associated with the development and operation of the Airport are vehicular (both customer and maintenance vehicles and equipment) and aircraft emissions. Other contributing sources include emissions from aircraft refueling and repair/production activities.

Implementation of the recommendations in this Master Plan Update will require coordination with Florida Department of Environmental Protection Division of Air Resource Management to determine permitting requirements under the New Source Review (NSR) and Prevention of Significant Deterioration (PSD) Program. Construction permits are used to implement the Federal Clean Air Act requirements for air quality including Best Available Control Technology (BACT) determinations.

The principal effects upon air quality associated with proposed development actions will be construction emissions, especially dust. These will be temporary in nature; however, any necessary permits must be obtained before construction begins. Best Management Practices, such as watering, should be required of contractors to reduce any impacts associated with dust from construction activities.

Air quality associated with construction emissions, specifically dust, will not be a long-term factor. All necessary permits should be obtained before construction begins. Best Management Practices, such as watering, should be followed to reduce any impacts associated with dust from construction activity.

2.3 Coastal Resources

“The National Coastal Zone Management (CZM) Program is a voluntary partnership between the federal government and U.S. coastal states and territories authorized by the Coastal Zone Management Act of 1972. The Coastal Programs Division, within the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management, administers the program at the federal level and works with state coastal zone management partners...”

In Florida, the entire state comprises the coastal zone. Although implementation of the proposed improvements would not be expected to impact coastal zones adversely, coordination will be required as part of an EA. Jurisdiction for this impact category is within the Florida Department of Environmental Protection Division of State Lands Office of Coastal and Aquatic Managed Areas.

The nearest Coast Barrier Resources System is Unit P21 located 37 miles west of DeSoto County in Charlotte County. Compliance with the Coastal Barrier Resources Act of 1982 is not a factor identified by this overview as requiring additional analysis.

2.4 Compatible Land Use

According to the DeSoto County Future Land Use Map (FLUM), Arcadia Municipal Airport is presently surrounded by low-density residential land use designations (2-3.5 DU/ac) to the north, west and south, and Neighborhood Mixed Use (3.5-5 DU/ac, or 0.8-1.2 FAR) property designation to the northeast and east of the airport property. As indicated by the noise contours illustrated in this report, some land uses currently developed or designated as low-density residential and Neighborhood

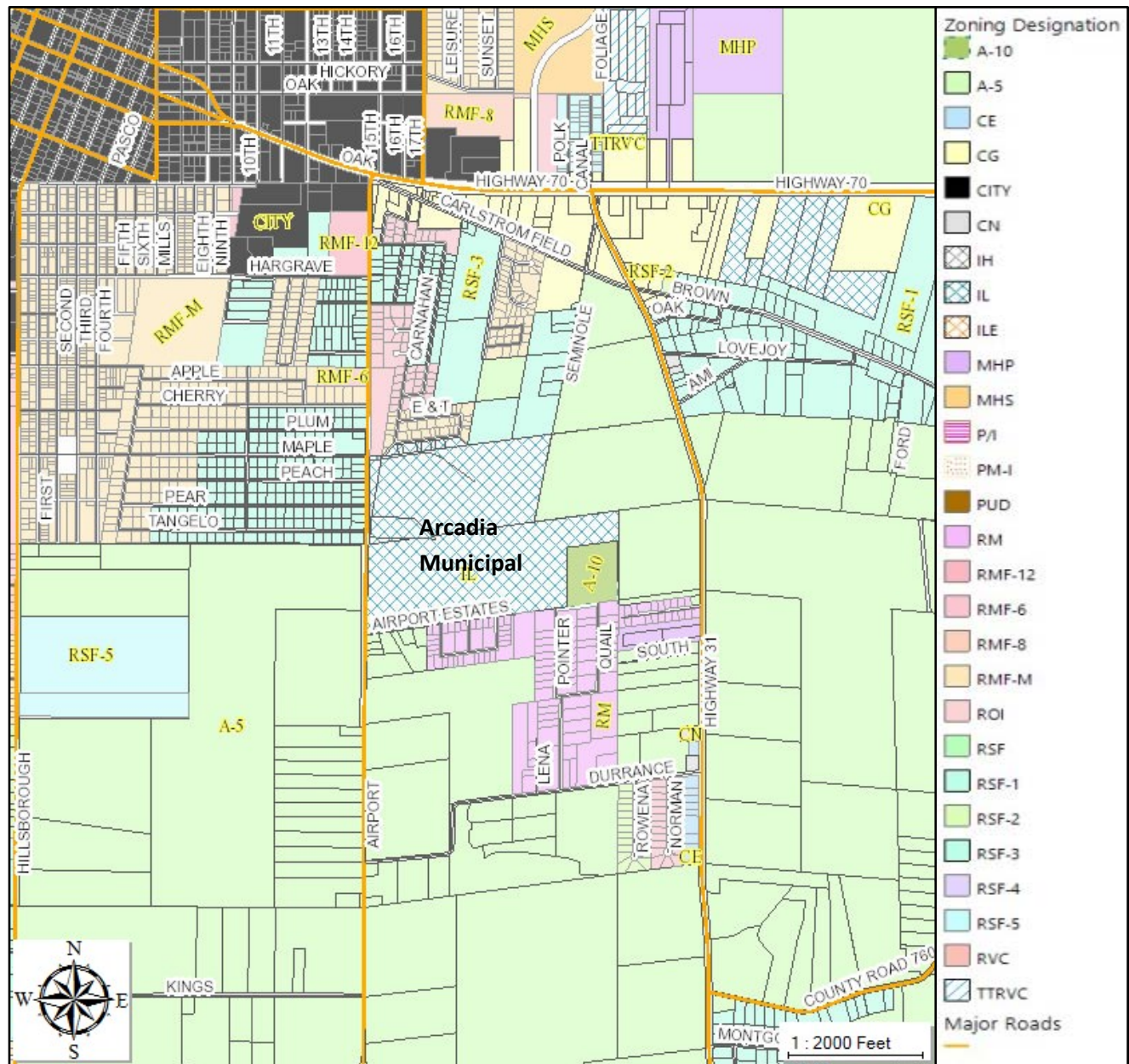
Mixed Use may be impacted by the 65 DNL noise contour as a part of the airport's present or forecast operations. The potential increase in noise impacts identified in this update is associated with substantial amount of development possible on the vacant lands surrounding the facility under the present land use designations at maximum development potential.

Furthermore, the existing Runway Protection Zones (RPZs) for both of the facility's runways have a potential to impact and be impacted by off-airport incompatible land uses. In accordance with the Federal Aviation Administration interim guidance on RPZs, any on-airport development that changes the dimensions of the present RPZs, or off-airport development that takes place within the existing or planned RPZs has to undergo an analysis of alternatives, designated to avoid, mitigate, or minimize potential impacts. Runway 6-24 is particularly susceptible to such impacts.

Section 163.3177(6)(a)11, Florida Statutes requires local governments to update or amend their comprehensive plan to include criteria and address compatibility of lands adjacent to an airport as defined in s. 330.35 and consistent with s. 333.02, in their future land use plan element by June 30, 2012. At the present, DeSoto County does not appear to have proposed or adopted comprehensive plan policies that address the airport land use compatibility provision of the aforementioned section.

While airport protection zoning regulations have been adopted by the City of Arcadia (Chapter 10, City of Arcadia Code of Ordinances) in accordance with requirements of s. 333.03, F.S., the airport is surrounded by properties that are presently unincorporated. DeSoto County did not adopt airport protection zoning regulations in accordance with requirements of s. 333.03, F.S., and therefore, protections of the aviation facility from encroachment by tall structures and impacts on and by incompatible land uses are presently not in place. The DeSoto County Zoning Map is provided in Figure 2.1 below. The airport is located within the City of Arcadia limits and is surrounded by land zoned for residential and agricultural uses.

Figure 2.1 DeSoto County Zoning Map



Source: DeSoto County, 2014

2.5 Construction Impacts

Construction operations will cause specific impacts resulting from, and limited to, actions to improve the Arcadia Municipal Airport. The following are some impacts that might be expected from the proposed improvements.

- An increase in particulate and gaseous air pollution levels as a result of dust generated by construction activity and by vehicle emissions from equipment and workers' automobiles;
- An increase in solid and sanitary wastes from workers at the site;
- An increase in traffic volumes in the airport area due to construction activity;

- A slight increase in noise levels due to the operation of heavy equipment;
- Impacts to aircraft operations during runway construction, and
- Temporary erosion or scarring of land surfaces and loss of vegetation in areas which are excavated or otherwise disturbed.

These impacts are temporary in duration. Best Management Practices should be used to reduce construction impacts. For example, increases in dust generation can be significantly reduced by watering during construction. Bid packages for construction items should include provisions that require implementation of applicable practices to reduce such impacts.

2.6 Department of Transportation Act, Section 4(f) Lands

In accordance with requirements of the FAA Order 1050.1E and under the provisions of the Department of Transportation Act, Section 4(f), projects that require the use of any publicly owned land from a public park, recreation area, wildlife and waterfowl refuge, or historic site cannot be approved by the Department unless there is no feasible and prudent alternative to the use of such land, and the project includes all possible planning to minimize harm resulting from the use.

The scope of the Airport Master Plan and Airport Layout Plan update does not contemplate or propose the use of any publicly owned land from a public park, recreation area, wildlife and waterfowl refuge or an historic site. The nearest park or recreation area is the Walt Brewer Sports Complex, located more than 0.5 statute miles to the northwest from the nearest point of the airport property. According to the information obtained from the National Wildlife Refuge System, there are no wildlife or waterfowl refuges located in the airport vicinity. A search of the National Register of Historic Places identified four DeSoto County areas/structures listed in the register. None of the areas or structures are located on or in vicinity of the Arcadia Municipal Airport. Therefore, none of the public land categories will be impacted by the scope of this proposal.

2.7 Farmlands

In accordance with the federal Farmland Protection Policy Act (FPPA), in the event that a federally-funded project is likely to have direct or indirect impacts on Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance, a Form AD 1006 may be required to be prepared to determine the extent and significance of potential.

None of the proposed changes to this document are likely to impact – directly or indirectly – any farmlands that are subject to FPPA requirements, however, a survey of surrounding lands has been conducted to verify the absence of impact potential on Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. Lands located at the approach ends of Runway 13/31 are developed as low-density residential uses. Land located at the approach end of Runway 24 is currently developed as an orange grove, however, it's FLUM designation as Neighborhood Mixed Use indicates that this use is likely temporary, and ultimate development plans aim to convert this property to a non-farming use. Moreover, a soil report obtained from the USDA Natural Resources Conservation Service (NRCS) indicates the property soil as Smyrna fine sand, and therefore not subject to Prime and Important Farmland Classification. Land located at the approach end of Runway 6 is presently vacant, while its FLUM designation of Low Density Residential indicates

a planned ultimate development as a non-farming use. A soil report obtained from the USDA NRCS indicates the property soil as Smyrna fine sand, Anclote mucky fine sand (depressional), and Ona fine sand. According to USDA NRCS report findings, none of the identified soils within the property are subject to Prime and Important Farmland Classification.

2.8 Fish, Wildlife, and Plants

For the purposes of the initial fish, wildlife, and plant assessment, data was collected from the U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper, Florida Statewide Endangered and Threatened Plant Conservation Program database, as well as wildlife observation databases made available by the Florida Fish and Wildlife Conservation Commission (FFWCC) through the Florida Geographic Data Library.

Review of the rare plant data obtained from the Florida Statewide Endangered and Threatened Plant Conservation Program did not identify any plant conservation projects located in DeSoto County. The habitat search conducted using the USFWS mapper did not identify any critical habitats. However, this part of the state is generally considered a suitable habitat range for the Florida scrub jay (*Aphelocoma coerulescens*), which is a threatened species. Data from the FFWCC wildlife observations database indicated a sighting of a Florida scrub jay at a ranch located approximately 2.9 statute miles north-northeast of the airport. The USFWS and the Florida Natural Areas Inventory (FNAI) list protected species potentially found in DeSoto County. **Table 2.1** presents these species. Therefore, a biological survey of the area will need to be conducted to confirm the presence or absence of any threatened or endangered species, and a potential need for an Avian Protection Plan or any other proactive wildlife protection or conservation measures.

Table 2.1 Federal and State Listed Species in DeSoto County

Common Name	Scientific Name	Federal Status	State Status
Plant Species			
Edison's Ascyrum	Hypericum edisonianum	N	E
Giant Orchid	Pteroglossaspis ecristata	N	T
Sleeping Beauty Waterlily	Nymphaea jamesoniana	N	E
Wildlife Species			
American Alligator	Alligator mississippiensis	T	T
Black Skimmer	Rynchops niger	N	SC
Carolina Gopher Frog	Lithobates capito	N	SC
Crested Caracara	Caracara cheriway	T	T
Eastern Indigo Snake	Drymarchon couperi	T	T
Florida Black Bear	Ursus americanus floridanus	N	T
Florida Burrowing Owl	Athene cunicularia floridana	N	SC
Florida Grasshopper Sparrow	Ammodramus savannarum floridanus	E	E
Florida Sandhill Crane	Grus canadensis pratensis	N	T
Florida Scrub-Jay	Aphelocoma coerulescens	T	T
Gopher Tortoise	Gopherus polyphemus	C	T
Limpkin	Aramus guarauna	N	SC
Little Blue Heron	Egretta caerulea	N	SC
Manatee	Trichechus manatus	E	E
Osprey	Pandion haliaetus	N	SC
Sand Skink	Plestiodon reynoldsi	T	T
Sherman's Fox Squirrel	Sciurus niger shermani	N	SC
Snowy Egret	Egretta thula	N	SC
Southeastern American Kestrel	Falco sparverius paulus	N	T
Tricolored Heron	Egretta tricolor	N	SC
White Ibis	Eudocimus albus	N	SC
Wood Stork	Mycteria americana	E	E

Sources: USFWS, 2014; Endangered Species (E), Threatened Species (T), Not Listed (N), Special Concern (SC)

2.9 Floodplains

Executive Order 11988 directs federal agencies to take action to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare and restore and preserve the natural and beneficial floodplains. Floodplains are defined as areas that have a one percent or greater chance of flooding in any given year. Information obtained from the Federal Emergency Management Agency (FEMA) Map Service Center shows a part of the Arcadia Municipal Airport developed and undeveloped property, as well as the associated infrastructure, in Flood Zone A, which is an area subject to inundation by a 100-year flood as determined using approximate methodologies. The area, which bisects Runway 6/24, measures approximately 25 acres. The objective would be to avoid development in this zone. Floodplains are not expected to impact the recommended future development recommended in this study as it is planned to occur on the north side of airport property.

2.10 Hazardous Materials, Pollution Prevention, and Solid Waste

FAA actions to fund, approve, or conduct an activity may require consideration of hazardous material, pollution prevention, and solid waste impacts under provisions of the National Environmental Protection Act (NEPA). FAA Order 1050.1.E, Change 1, *Environmental Impacts: Policies and Procedures*, dated March 20, 2006, identifies four primary laws that govern handling and disposal of hazardous materials, chemicals, substances and wastes.

Federal, state, and local laws regulate the use, storage, transport and disposal of hazardous materials. The largest hazardous material consumed and stored at the airport is fuel. The airport has one above ground fuel storage tank maintained by the FBO. This tank is subject to various federal, state, and local regulations as outlined in previous paragraphs. The proposed airport improvements would not affect this tank however due to the age of this tank; it should be inspected for proper operation. Motor oil is the most common waste at the airport. Disposal bins should be provided to collect motor oil for appropriate disposal.

The U.S. EPA has listed three hazardous waste sites in the immediate vicinity of the airport, based on the Resource Conservation and Recovery Act (RCRA):

- Leading Edge (Handler ID: FLD984188235)
- Dexter Aviation LLC (Handler: FLR000151126)
- Debson Ranch (Handler: FLT980061824)

There is one known active landfill located 5 miles southwest of the airport. Airport construction projects, such as runway, taxiway, and apron construction, do not normally generate significant amounts of perishable or non-perishable waste, other than wastes associated with construction debris. Any waste generated will be disposed in licensed landfills.

2.11 Historical, Architectural, Archeological, and Cultural Resources

The improvements proposed as a part of this update are not expected to impact any historical, architectural, archeological, or cultural resources. A search of the National register of Historic Places and the National Historic Landmarks Survey maintained by the U.S. Department of Interior National Parks Service did not identify any listed structures, sites, or objects on or in the immediate vicinity of the airport property.

In the State of Florida, the Bureau of Historic Preservation within the Florida Department of State Division of Historical Resources is tasked with the review of development projects for compliance with federal and state historic preservation laws. The bureau also provides technical assistance on preservation laws, and should be consulted for consideration of projects' potential impacts on any historic or archeological properties.

2.12 Light Emissions and Visual Impacts

FAA Order 1050.1E, Change1, indicates that proposed improvements resulting in light emission that create annoyances that interfere with normal activity may constitute a light emission impact.

Proposed airport improvements include LED lighting on Runway 6/24 extension, Taxiway 'A' extension, and new Taxiway "B". Given the location of these improvements on the airfield, it is unlikely that significant impacts will be imposed on residence. Outside lighting associated with the new terminal building and parking lot are not anticipated to impact residences located off the Runway 24 end across Highway 31.

2.13 Natural Resources and Energy Supply

Effects on natural resources would include use of building materials, such as asphalt, concrete, etc. The amounts required for the proposed development actions are not considered significant within national, state, or local contexts. The proposed development actions will increase the power requirements for the airport due to the proposed runway and taxiway lighting extensions and additional landside facilities. The increased power requirements are considered to be within the capacity of the current supplier. Fuel consumption is expected to increase with additional aircraft operations at the airport. This increase will not have a significant impact on the nation's fuel resources, and no mitigation measures are envisioned.

All proposed upgrade projects should be evaluated for potential ways in which they can be made more energy efficient. Routinely, efforts should also be made to review changes to Florida's natural resource and energy policy to ensure compliance with new regulations and allow the airport to contemplate the use of any financial incentives that might be offered in relation to energy efficiency technologies.

2.14 Noise

Aircraft noise is a major environmental consideration when assessing possible impacts of airport development actions. For land use planning purposes, noise impacts at X06 were evaluated for existing conditions (2013) and for 20-year planning forecast (2033) conditions.

In accordance with FAA guidelines for the development of airport master plans, noise contours were generated using the FAA's Integrated Noise Model (INM) Version 7.0d. Data including runway location, elevation, temperature, pressure, and other variables were combined with flight paths and estimated and forecast airport activity to create contours that may be used to assess noise and land use compatibility. The Day-Night Level (DNL) metric was used. DNL represents the total noise exposure from aircraft operations over a given 24-hour period, and the noise contours produced represent noise levels in average daily duration of perceived decibels on the A-scale (dBA).

Interpretation of the significance of these noise impacts were based upon FAA guidelines presented in FAR Part 150, Airport Noise Compatibility Planning (see **Table 2.2**). Review of these standards indicates that DNL values of 65 and below are considered acceptable for all land use categories.

A review of the DNL noise levels for the Arcadia Municipal Airport indicates that no substantial, objectionable levels of noise will be imposed on non-compatible areas in the vicinity of the airport as a result of the proposed development. Figure 2.3 depicts the 2013 existing 65 DNL Noise Exposure Map. The 65 DNL noise contour for Runway 6-24 does reach outside of the airport boundary. On the 24 end the contour overlaps the agricultural land that this study will recommend the airport to

purchase in the future. On the 06 end the noise contour overlaps Airport Estates Road. As with the 24 end, this area is being recommended for acquisition in the future. Also, the contour is limited to the road and does not impact any residential properties. The 65 DNL contour for the proposed developments is contained within the proposed airport property envelope for the 2033 activity projections. The 2033 65 DNL noise contour is shown in **Figure 2.4**.

Table 2.2 FAA Land Use Compatibility Guidelines

Land Use	Yearly Day-Night Average Sound Level (Ldn) in decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Residential						
Residential, other than mobile homes and transient lodgings	YES	NO (1)	NO (1)	NO	NO	NO
Mobile home parks	YES	NO	NO	NO	NO	NO
Transient lodgings	YES	NO (1)	NO (1)	NO (1)	NO	NO
Public Use						
Schools	YES	NO (1)	NO (1)	NO	NO	NO
Hospitals and nursing homes	YES	25	30	NO	NO	NO
Churches, auditoriums, and concert halls	YES	25	30	NO	NO	NO
Government services	YES	YES	25	30	NO	NO
Transportation	YES	YES	YES (2)	YES (3)	YES (4)	YES (4)
Parking	YES	YES	YES (2)	YES (3)	YES (4)	NO
Commercial Use						
Offices, business and professional	YES	YES	25	30	NO	NO
Wholesale and retail- building materials, hardware and farm equipment	YES	YES	YES (2)	YES (3)	YES (4)	NO
Retail trade-general	YES	YES	25	30	NO	NO
Utilities	YES	YES	YES (2)	YES (3)	YES (4)	NO
Communication	YES	YES	25	30	NO	NO
Manufacturing and Production						
Manufacturing, general	YES	YES	YES (2)	YES (3)	YES (4)	NO
Photographic and optical	YES	YES	25	30	NO	NO
Agriculture (except livestock) and forestry	YES	YES (6)	YES (7)	YES (8)	YES (8)	YES (8)
Livestock farming and breeding	YES	YES (6)	YES (7)	NO	NO	NO
Mining and fishing, resource production and extraction	YES	YES	YES	YES	YES	YES
Recreational						
Outdoor sports arenas and spectator sports	YES	YES (5)	YES (5)	NO	NO	NO
Outdoor music shells, amphitheaters	YES	NO	NO	NO	NO	NO
Nature exhibits and zoos	YES	YES	NO	NO	NO	NO

Land Use	Yearly Day-Night Average Sound Level (Ldn) in decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Amusements, parks, resorts, and camps	YES	YES	YES	NO	NO	NO
Golf courses, riding stables and water recreation	YES	YES	25	30	NO	NO

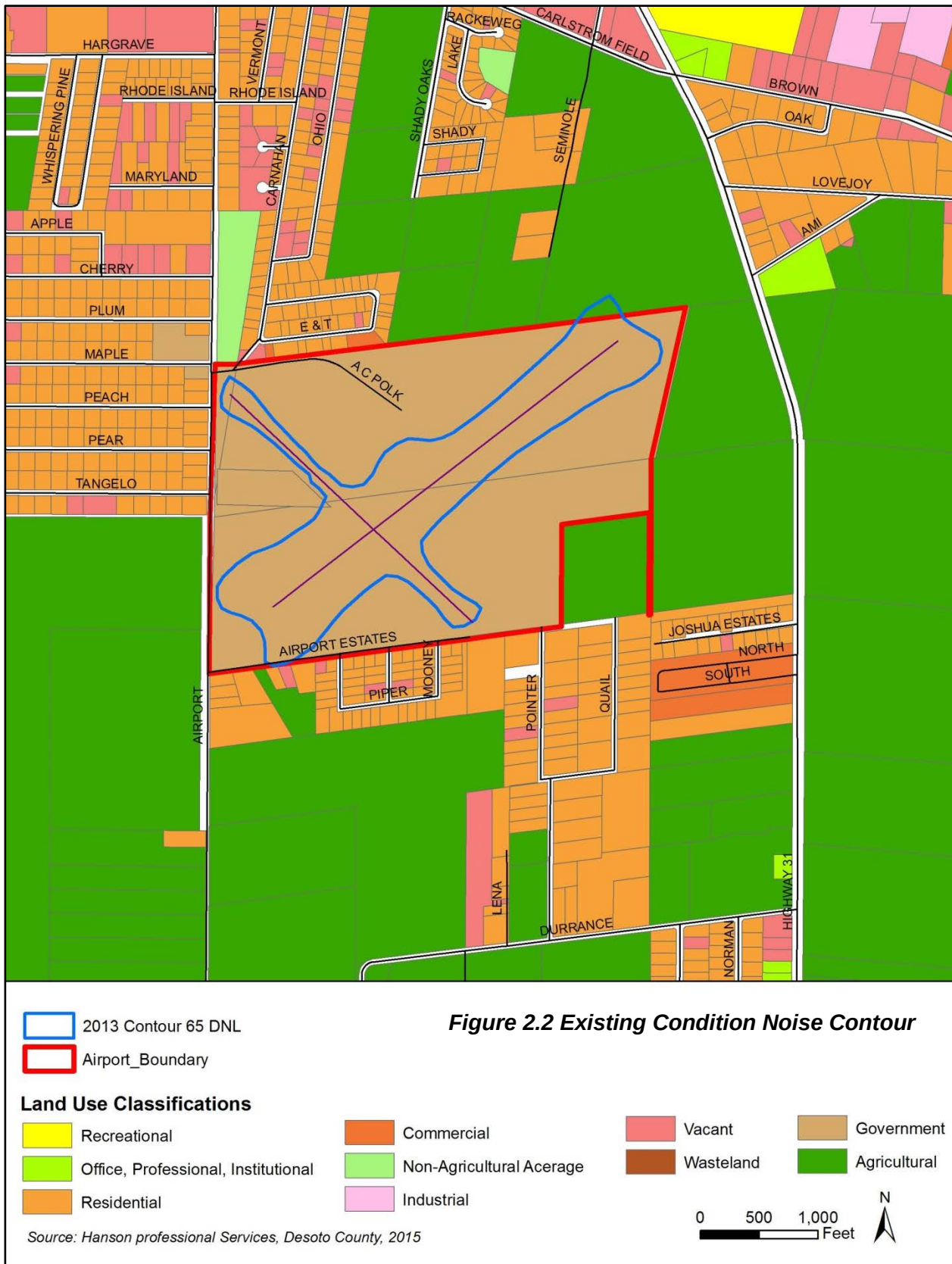
Numbers in parenthesis refer to notes.

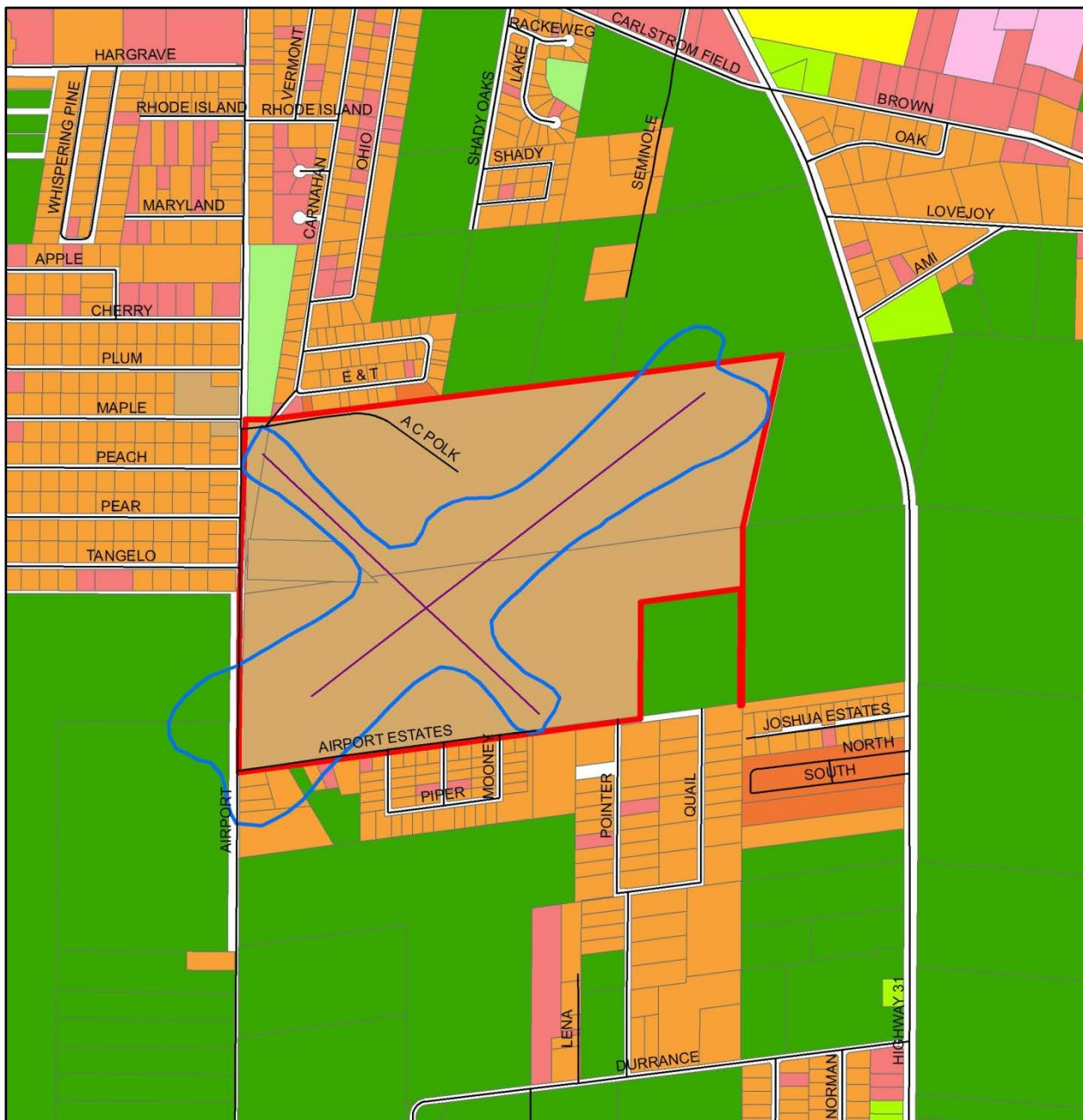
Source: Federal Aviation Regulations Part 150, Airport Noise Compatibility Planning

Notes to Table 2-2

NOTE: The designations in this table do not constitute a Federal determination that any use of land is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with local land use authorities. FAA determinations under Part 150 are guidelines and are not intended to substitute for land uses determined to be suitable by local authorities in response to locally determined needs and values in achieving noise compatible land uses.	
Key to Table 1	
YES	Land Use and related structures compatible without restrictions.
NO	Land Use and related structures are not compatible and should be prohibited.
NLR	Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30, or 35	Land use and related structures generally compatible; measures to achieve NLR of 25, 30 or 35 dB must be incorporated into design and construction of structure.
Notes for Table 1	
(1)	Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
(2)	Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(3)	Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(4)	Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(5)	Land use compatible provided special sound reinforcement systems are installed.
(6)	Residential buildings require an NLR of 25.
(7)	Residential buildings require an NLR of 30.
(8)	Residential buildings not permitted.
(End of Table 2-2)	

Source: FAA





2033 Contour 65 DNL

Airport_Boundary

Land Use Classifications

Recreational

Office, Professional, Institutional

Residential

Commercial

Non-Agricultural Acreage

Industrial

Vacant

Wasteland

Government

Agricultural

Source: Hanson professional Services, Desoto County, 2015

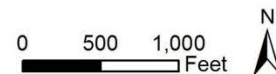


Figure 2.3 Future Condition Noise Contour

2.15 Secondary (Induced) Impacts

Data available from the Florida Department of Transportation Statewide Aviation Economic Impact Study (updated in March 2010) indicates that Arcadia Municipal Airport generates \$339,800 in annual economic activity. That data does not take into consideration potential positive socioeconomic impacts generated by proposed airport improvements in the form of temporary construction employment and income. However, the annual economic activity number is likely to go up in the event that planned airport improvements attract new airport tenants, businesses, or air traffic. Airport development is likely to create additional sources of airport revenue that go beyond the current revenues generated by flight training and recreational/sport aviation air traffic. Overall, it is expected that the community and region will be positively influenced by proposed improvements.

2.16 Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks

The areas proposed to be affected by the scope of the proposed airport improvements are contained within the airport property boundaries. Therefore, there are no anticipated highly adverse impacts on minority or low-income populations as a result of this proposal. Also, there are no anticipated impacts or disproportionate risks to children, resulting from environmental health or safety risks.

2.17 Water Quality

The Federal Water Pollution Control Act, as amended, commonly known as the Clean Water Act (CWA), governs the control of water pollution in the nation. The objective of the act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Federal agencies are required to comply with all federal, state, interstate and local water pollution control requirements both substantively and procedurally. The CWA provides the statutory basis for state water quality standards programs.

The airport is located within the jurisdiction of the Southwest Florida Water Management District (SWFWMD). Regulatory authority under programs delegated to the SWFWMD include management of the consumptive use of water, aquifer recharge, well construction, and surface water management, and the administration of the Department of Environmental Protections (DEP's) stormwater management program. The Florida DEP is also responsible for regulating public water systems in the State of Florida. This authority derives from Chapter 403, Part IV, Florida Statutes (FS), and by delegation of the federal program from the USEPA.

According to the EPA, there is one Toxic Releases to Water sites in DeSoto County. This site is located 3 miles northeast of the airport. Construction of the proposed airport improvements will temporarily increase runoff to the surrounding area; however, Best Management Practices, including the maintenance of detention/retention basins, can be used to mitigate the flow of runoff so that impacts to water resources should be minimized. These actions will reduce impacts associated with construction of the proposed projects to area streams and ponds and to the area water quality in general. Coordination with the South Florida Water Management District and the Florida Department of Environmental Protection will be required for implementation of various proposed improvements.

Long-term impacts of the projects would be limited to increased runoff due to increased areas of pavement for parking, runway, taxiway and apron space. The EPA considers this a non-point source pollution, because unlike point source pollution, it does not come from one specific location; rather, it comes from a broad range of sources. These increases can be accommodated through stormwater management planning and implementation of those plans.

2.18 Wetlands

Information obtained from the Southwest Florida Water Management District indicates a presence of a potential wetland on the airport property approximately 18 acres in size as shown in **Figure 2.4**. This area may be impacted by aeronautical development projects. Impacts could also occur as a result of non-aeronautical development of the airport property.

Therefore, evaluation of existing wetland conditions and determination of status by an environmental scientist may be necessary, and development of that area may require coordination with federal and state agencies, as well as environmental mitigation. Agencies with jurisdiction over the wetlands are the U.S. Army Corps of Engineers (USACE) and the Environmental Protection Agency at the federal level, as well as the Florida Department of Environmental Protection (FDEP) and the Southwest Florida Water Management District (SWFWMD) at the state level.

Figure 2.4 Wetlands Surrounding X06



Source: City of Arcadia, 2014

2.19 Wild and Scenic Rivers

The “Wild and Scenic” river classification is presently only applicable to approximately 49.2 miles of Florida’s Loxahatchee (located just south of Stuart, FL) and Wekiva (located in Central Florida) rivers. As such, the proposed developments at the Arcadia Municipal Airport are not going to impact either one of these areas.

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3. FORECASTS OF AVIATION DEMAND

Estimates of future activity levels provide the basis for evaluating the adequacy of existing airport facilities and their capability to handle increased traffic levels. Forecasts of demand are also used to determine the types, quantities, and timing for needed improvements.

3.1 Forecast Methodologies

Aviation demand forecasts are generally prepared in a series of steps. First, historical aviation activity data are gathered and examined to estimate existing and past levels of traffic and trends or patterns of growth. Simultaneously, data that might indicate conditions or circumstances that would alter growth patterns are examined. The second step involves projecting past growth patterns into the future and projecting historical relationships between aviation activity and other indicators into the future. The resulting estimates are used in the third step, where a judgment is made concerning which projection represents the most reasonable estimate of future levels of aviation activity. This judgmental evaluation culminates in the selection of a preferred forecast.

Several techniques are typically examined for applicability in forecasting general aviation activity. These include regression analysis, trend analysis, market share analysis, and growth rate projections.

Regression analysis involves use of historical data to identify the relationships between a selected dependent variable, such as based aircraft, and independent variables, such as population. These relationships are then applied to projections of the independent variables to give estimates of future values for the dependent variable.

A second statistical technique, trend analysis, provides estimates of future values for the desired element (aviation demand) by determining its pattern of change and extending that pattern into the future. The primary assumption of this methodology is that the same factors will influence future aviation demand as have affected it in the past.

Because the airport does not maintain historical operations and based aircraft data for X06 are not available, regression analysis and trend analysis were not conducted. Historic data maintained by the FAA and FDOT both presented no change in the number of based aircraft or operations from the early 1990's through 2012. A trend analysis would show no movement in the trend line; therefore, the following two methods were the focus for developing the forecast in this Master Plan Update.

A third means to estimate aviation demand, market share analysis, involves review of historical activity at an airport and calculations to determine that activity as a percentage of activity in a larger regional, statewide, or national market. Calculated percentages, or market shares, are then applied to forecasts of activity at the larger level(s) to produce a market share projection for the individual airport.

A fourth method, similar to market share analysis, involves the application of growth rates present in third-party projections, such as the FAA's *Terminal Area Forecast* (TAF) to the local market. Adjustments may be made, up or down, on the basis of factors such as local socio-economic conditions and pending projects or development activity that could affect aviation activity.

These approaches were examined for applicability in the preparation of alternative projections from which the recommended forecast was selected.

3.2 Forecast Results

Airport activity forecasts are typically prepared for a number of components of aviation demand. These include:

- Based aircraft
- Aircraft operations by type
 - Annual
 - Design hour
 - Local/itinerant
 - Aircraft mix
- Design aircraft
- Annual instrument approaches
- Vehicles

The results obtained from the forecasting of these elements provide direct inputs for subsequent portions of this airport master plan update, most particularly the capacity analysis and facility requirements determinations.

3.2.1 Based Aircraft

The number of based aircraft at an airport is important in determining future activity levels and the need for expanded or improved airport facilities. Forecasts of based aircraft are used directly to estimate the need for certain types of facilities, such as hangars and aircraft apron. At non-towered general aviation airports, projections of based aircraft also often serve as the basis for developing the forecasts of other components of demand, such as aircraft operations.

The inventory of existing conditions provided data concerning historical levels of based aircraft at Arcadia Municipal Airport (X06) taken from the TAF's database. Although the database has limitations, it provides multi-year information. Because the data is not considered to reflect annual based aircraft data on a reliable basis, trend analysis and regression analysis were not judged applicable for preparing projections. Two alternative methods, market share and growth rate projections, were employed.

In addition to the TAF referenced earlier, the FAA's current reports include *FAA Aerospace Forecasts Fiscal Years 2013 – 2033* and *FAA Long-Range Aerospace Forecasts Fiscal Years 2020, 2025 and 2030*. Although differing in level of detail, both include forecasts of the national general aviation fleet. **Table 3.1** displays the projections from the former report; **Table 3.2** provides the forecasts from the latter.

Table 3.1 FAA Aerospace Forecasts Fiscal Years 2013-2033

Aircraft Type	Aircraft by Year			
	2013	2018	2023	2033
Total	221,085	223,920	227,915	246,375
Single-engine	135,005	131,095	128,200	129,040
Multi-engine	15,530	15,165	14,605	13,650
Piston-Engine Subtotal	150,535	146,260	142,805	142,690
Turboprops	9,830	10,650	11,595	13,740
Turbojets	12,230	14,420	16,895	24,620
Turbine Subtotal	22,060	25,070	28,490	38,360
Rotorcraft	10,995	12,815	14,590	18,555
Experimental	24,750	26,250	27,745	30,980
Sport Aircraft	7,075	7,890	8,680	10,245
Other	5,670	5,635	5,605	5,545

Source: FAA Aerospace Forecasts Fiscal years 2013-2033.

Using the market share approach involves calculating the percentage of national active aircraft and applying it to X06's 26 based aircraft. Applying the 2013 result of 0.01176%, $[(26/221,085)*100]$, projections for total national aircraft yields the following projections for X06:

- 2018 26 based aircraft
- 2023 27 based aircraft
- 2033 29 based aircraft

Table 3.2 FAA Long-Range Forecasts

Aircraft Type	Aircraft by Year					
	2010	2015	2020	2025	2030	2033
Total	242,700	261,400	274,900	288,300	303,400	314,454
Piston-Engine	169,600	173,000	174,400	175,500	176,600	183,034
Turbine Engine	21,700	26,500	31,600	37,100	43,300	44,878
Rotorcraft	11,300	13,600	15,200	17,000	19,000	19,692
Experimental/Other	40,100	48,300	53,700	58,700	64,500	66,850

Source: FAA Long-Range Aerospace Forecasts Fiscal Years 2020, 2025 and 2030 (2033 Extrapolated)

A second approach to developing an independent projection was used that applied national growth rates for total aircraft to the 26 based aircraft at X06. The *FAA Long-Range Aerospace Forecasts Fiscal Years 2020, 2025 and 2030*, projects an average annual growth rate of 1.4 percent until 2020 and a rate of 1.2 percent thereafter. The FAA's Long Range Forecasts ended at Fiscal Year 2030. Therefore, for use in this Master Plan Update, the 1.2 percent growth rate was projected out to Fiscal Year 2033.

- 2018 28 based aircraft
- 2023 31 based aircraft
- 2033 36 based aircraft (Extrapolated)

Comparison of these projections shows a difference of 7 based aircraft for the 2033 horizon year. The national market share projection shows a conservative increase in growth of 3 based aircraft over the entire planning horizon. The national growth rate projection was considered slightly more aggressive with an increase of 8 based aircraft over the entire planning horizon. The 1994 Airport Master Plan identified 38 based aircraft in the base year (1993). It is a realistic assumption that based aircraft could reach the 2033 projection associated with the national growth rate. **Table 3.3** compares the projections for the market share and the national growth rate.

Table 3.3 National Growth Rate vs Market Share

Planning Year	National Growth Rate	Market Share	Difference
2018	28 Based Aircraft	26 Based Aircraft	2 (3.8%)
2023	31 Based Aircraft	27 Based Aircraft	4 (14.8%)
2033	36 Based Aircraft	29 Based Aircraft	7 (24.1%)
Growth	28.6%	11.5%	

For the purposes of this master plan update, the national growth rate was selected as the based aircraft forecast.

- **2018 28 based aircraft**
- **2023 31 based aircraft**
- **2033 36 based aircraft**

Judgment in the selection of a preferred forecast should also include consideration of alternative forecasts. Two were considered in this study. The FAA's *Terminal Area Forecast* has already been referenced as a source of historical data and the limitations of that database have been noted. In the consultant's view, the TAF's forecasts for facilities such as X06 are very limited. For non-FAA facilities, which rely solely on Form 5010 data for general aviation activity levels, operations levels are held constant unless otherwise specified by a local or regional FAA official. The TAF projects based aircraft at X06, and most other general aviation airports, to remain constant through 2040. For X06, the relevant projections, by year, are:

- 2018 31 based aircraft
- 2023 31 based aircraft
- 2033 31 based aircraft

The TAF was not considered applicable to X06 due to lack of projected growth. The *FAA Aerospace Forecasts Fiscal Years 2013 – 2033* and *FAA Long-Range Aerospace Forecasts Fiscal Years 2020,*

2025 and 2030 predict overall growth in the population of general aviation aircraft throughout their forecast periods. It is reasonable to conclude that X06 will share in that projected growth.

A second independent forecast from the website of the Florida Department of Transportation (FDOT) Aviation Office, forecasts based aircraft at X06 as follows:

- 2018 33 based aircraft
- 2023 34 based aircraft
- 2033 36 based aircraft (extrapolated)

Comparison of these results with those for the recommended forecasts shows no a difference in based aircraft for 2033. The FDOT forecast was projected to 2032. Therefore, for the purpose of this Master Plan Update, the forecast for 2033 was extrapolated by projecting the 0.65% growth rate into 2033. The near equality of these two forecasts suggests that the recommended based aircraft projection presented herein should be considered reasonable. **Table 3.4** provides a comparison of four forecast options. Examination of the table indicates there are not drastic differences between the forecasting methods. The National Growth Rate is the recommended forecast for based aircraft.

Table 3.4 Comparison of Forecasts for Based Aircraft

Forecast Years	Forecast Model			
	Market Share	National Growth Rate	TAF	FDOT
2018	26	28	31	31
2023	27	31	31	34
2033	29	36	31	36

3.2.2 Annual Operations

Forecasts of annual operations were also prepared for this study. (An operation is a take-off or a landing. Touch-and-go activity that simulates take-offs and landings constitute two operations for each touch-and-go cycle.)

As was the case with based aircraft, statistical techniques such as regression and trend analysis were not appropriate for this study because of database limitations. The TAF, for example, presents estimates of annual operations of 19,370 that remain constant from historical year 1990 to the estimate through 2040. For 2013, airport staff estimates roughly 36 operations per day.

An alternative method frequently used in preparing airport master plan forecasts is to develop a ratio of aircraft operations to based aircraft (OPBA) using historical data. This OPBA is then applied to forecasts of based aircraft to develop estimates of future annual operations.

The aircraft operations database provided by the TAF is presented in **Table 3.5**. These data were used to calculate the OPBA ratios also shown in the table. Based upon these data and calculations, the OPBA ratio can be seen to have increased 19.3% during the period for which estimates are presented.

Table 3.5 TAF General Aviation Operations Data

Year	Based Aircraft	Annual General Aviation Operations	OPBA
2000	37	19,370	524
2001	31	19,370	625
2002	31	19,370	625
2003	31	19,370	625
2004	31	19,370	625
2005	31	19,370	625
2006	31	19,370	625
2007	31	19,370	625
2008	31	19,370	625
2009	31	19,370	625
2010	28	19,370	692
2011	28	19,370	692
2012	31	19,370	625
2013	31	19,370	625

Context for these OPBA ratios was developed by examining other forecasts for the airport. As noted earlier, the website of the Florida Department of Transportation (FDOT) Aviation Office includes forecasts for activity at X06. Using those results, OPBA ratios were calculated. The results for these two sources are shown below:

- FDOT's OPBA ratios by year: 2018 – 591 operations per based aircraft; 2023 – 612 operations per based aircraft; and 2033 – 616 operations per based aircraft.

Within this context, the consultant concluded that the OPBA ratios used by FDOT would be adapted for use in this master plan. **Table 3.6** presents the resulting forecasts of annual operations at X06.

Table 3.6 FDOT General Aviation Operations Data

	Year	Based Aircraft	OPBA	Annual Operations
<i>Historical</i>	2000	28	692	19,370
	2001	31	625	19,370
	2002	31	625	19,370
	2003	31	625	19,370
	2004	31	625	19,370
	2005	31	625	19,370
	2006	31	625	19,370
	2007	31	625	19,370
	2008	31	625	19,370
	2009	31	625	19,370
	2010	31	625	19,370
	2011	31	625	19,370
	2012	31	625	19,370
	2013	31	629	19,496
Actual	2013	26	508	13,196
Adjusted Forecast Based on FDOT OPBA				
<i>Forecast</i>	2018	28	591	16,548
	2023	31	612	18,972
	2033	36	616	22,176

Comparison of FDOT, TAF and OPBA are compared in **Table 3.7**. Relative to the FDOT forecasts, the revised master plan forecasts are 21.7% lower in 2018; 9.6% lower in 2023; and 0.1% lower in 2033. The TAF, by contrast, assumes that operations will remain constant (at 19,370 annually) throughout the period to 2040. For reasons previously discussed, the consultant does not consider the TAF's projections appropriate to an airport such as X06. The recommended forecast for operations is the OPBA due to the steady growth pattern over the entire 20-year planning period.

Table 3.7 Comparison of TAF, FDOT, & OPBA Operations Forecast

Forecast Years	TAF Forecast Operations	FDOT Forecast Operations	OPBA Forecast Operations
2018	19,370	20,138	16,548
2023	19,370	20,801	18,972
2033	19,370	22,193*	22,176

*Forecast extrapolated

FAA data identifies 30 air taxi operations annually. No separate consideration was given to these operations as they are conducted by general aviation aircraft and handled by the FBO. FAA data identifies 40 military operations annually. Military operations also were not considered separately as they are typically conducted by medivac helicopters and the occasional T28 Trojan.

3.2.3 Local and Itinerant General Aviation Operations

A local operation is a take-off or a landing performed by an aircraft that will operate within the local traffic pattern, within sight of the airfield, or an operation which simulates a takeoff/landing cycle. Itinerant operations are all other arrivals and departures.

The TAF database's estimates show that 65% of operations at X06 are local and 35% are itinerant throughout the planning horizon. The splits between itinerant and local general aviation operations used in this study are as follows:

- 2018: 35% itinerant/65% local
- 2023: 35% itinerant/65% local
- 2033: 35% itinerant/65% local

Application of these percentages to the forecasts of general aviation operations recommended above produced the forecasts of local and itinerant operations shown in **Table 3.8**.

Table 3.8 Forecast of Local/Itinerant Operations

Year	Annual Operations		
	Total	Local	Itinerant
2018	16,548	10,756	5,792
2023	18,972	12,332	6,640
2033	22,176	14,414	7,762

3.2.4 Design Hour Operations

Design hour operations were also forecast as a function of total annual operations. The methodology used involved three steps. In Step 1, average day operations were calculated by dividing total annual operations by 365. In Step 2, design day operations were calculated by multiplying average day operations by 1.9. Step 3 involved an assumption that a typical design hour constituted a fixed percentage (15 percent) of design day operations; accordingly, design hour operations equaled .15 times design day operations. The projections are also presented in **Table 3.9**.

Table 3.9 Forecast of Design Hour Operations

Year	Operations			
	Annual	Average Day	Design Day	Design Hour
2018	16,548	45	86	13
2023	18,972	52	99	15
2033	22,176	61	115	17

3.2.5 Annual Instrument Approaches (AIAs)

Arcadia Municipal did not have published instrument approach procedures at the time of this Master Plan Update. Therefore there are no records of IFR operations for X06.

The ATADS database showed 3,214 general aviation instrument operations were performed in 2013 at Punta Gorda Airport (PGD) with a total of 55,781 general aviation operations. From this information, general aviation AIAs were calculated as 6% of total annual operations. Because X06 has a lower level of training activity, it was concluded that AIAs by general aviation aircraft would be a lower percentage of annual operations than those at PGD. Accordingly, AIAs were forecast by applying a factor of 4% to the forecasts of annual operations producing the following forecasts of AIAs at Arcadia Municipal Airport:

- 2018 662 AIAs
- 2023 759 AIAs
- 2033 887 AIAs

3.2.6 Aircraft Mix

Aircraft mix refers to the types of aircraft using the airport. For initial forecasting purposes, the categories considered were those reported by airport staff. Those categories and the number of based aircraft reported for each are as follows:

- Single-engine 18
- Multi-engine 4
- Jet 0
- Ultra-light 4
- Rotor 0
- **Total** **26**

Based single-engine aircraft include the Cessna (140/150/172/182), Piper (Sport/Arrow/Cherokee/Colt), Mooney, and Cheetah. Based multi-engine aircraft include the Piper Seneca and the Gruman Widegeon. The FAA Long Range projected growth for 2013 through 2033, by FAA forecasting category, are as follows:

- Piston-engine 4%
- Rotorcraft 51%
- Turbine-engine 83%
- Experimental/other 45%

Consideration of this information as well as historical data for X06 suggests that based aircraft will continue to be dominated by the single-engine piston aircraft category. These observations and assumptions are reflected in the results presented in Table 3.10.

Table 3.10 Based Aircraft Mix

Aircraft Category	Based Aircraft by Year			
	2013	2018	2023	2033
Single-engine	18	19	21	25
Multi-engine	4	5	5	6
Jet	0	0	0	0
Helicopter	0	0	0	0
Experimental/Other	4	4	5	5
Total	26	28	31	36

3.2.7 Design Aircraft

Aircraft mix refers to the types of airplanes that use, and will use, the airport. Mix is considered in requirements for runway length, strength, and width among other design parameters. Mix also reflects three primary aircraft characteristics with respect to airfield design weight, approach speed, and wingspan. Review and consideration of these factors produces planning inputs including the design aircraft for the airport as well as the mix of based aircraft and the overall operational fleet mix. The “design” aircraft may be a single aircraft or a composite of several different aircraft composed of the most demanding characteristics of each. FAA Advisory Circular (AC) 150/5300-13A, Change 1, *Airport Design*, suggests two categories of aircraft weight. Aircraft weighing 12,500 pounds or less are classified as small aircraft, and aircraft weighing more than 12,500 pounds are classified as large aircraft. The AC lists five Aircraft Categories with respect to approach speed:

Category A: with speeds of less than 91 knots

Category B: with speeds of 91 knots or more but less than 121 knots

Category C: with speeds of 121 knots or more but less than 141 knots

Category D: with speeds of 141 knots or more but less than 166 knots

Category E: with speeds of 166 knots or more

The FAA's classification system divides aircraft into six Airplane Design Groups according to wingspans:

Group I: with wingspans of up to but not including 49 feet

Group II: with wingspans of up to but not including 79 feet

Group III: with wingspans of up to but not including 118 feet

Group IV: with wingspans of up to but not including 171 feet

Group V: with wingspans of up to but not including 197 feet

Group VI: with wingspans of up to but not including 262 feet

Based single-engine aircraft include the Cessna (140/150/172/182), Piper (Sport/Arrow/Cherokee/Colt), Mooney, and Cheetah. Based multi-engine aircraft include the Piper Seneca and the Grumman Widegeon. Airport staff indicated a Cessna Citation operates at the airport weekly from October through the end of April. Applying these criteria to aircraft at X06 shows that most based airplanes are small aircraft in Approach Categories A and B and Design Group I. Identification of the design aircraft at most general aviation airports is accomplished by considering itinerant aircraft. The Citation Jet was estimated to have performed 56 operations between October 2012 and the end of April 2013 (8 operations per month). The Citation is Category B and Design Group I/II. From this information it was concluded that the Design Aircraft for Runway 6-24 is the Piper PA-42 Seneca. The Design Aircraft for Runway 13/31 is the Cessna 172. Both runways are design code B-I (small).

3.2.8 Forecast of Pilots and Passengers

The number of persons using an airport during design hour conditions is a major consideration in defining future needs for terminal and auto parking space. Data presented in past FAA studies indicate the applicability of a ratio of two persons (one pilot and one passenger) per general aviation design hour operation. This ratio and forecasts of activity for Arcadia Municipal Airport were used to produce the projections of design hour pilots and passengers presented below:

- 2018 26 persons
- 2023 30 persons
- 2033 34 persons

3.3 Summary

Preceding sections have presented the forecasts of aviation demand at X06 and have described the historical data and methods used to produce the estimates of activity. **Table 3.11** summarizes the aviation forecast as approved by the FAA on June 6, 2014.

Table 3.11 Summary of Major Forecast Elements

Forecast Element	Forecast by Horizon Year				
	2013 FAA Estimate	2013 Airport Estimate	2018	2023	2033
Based Aircraft					
Single-engine	0	18	19	21	25
Multi-engine	0	4	5	5	6
Jet	0	0	0	0	0
Helicopter	0	0	0	0	0
Experiemtnal/Other	3	4	4	5	5
Total	3	26	28	31	36
Annual Operations					
Local	12,500	8,577	10,756	12,332	14,414
Itinerant	6,870	4,619	5,792	6,640	7,762
Total	19,370	13,196	16,548	18,972	22,176
Design Hour Operations	N/A	N/A	13	15	17
Airport Reference Code	B-I Utility (Small)		B-I Utility (Small)	B-I Utility (Small)	B-I Utility (Small)
Critical Aircraft	Piper PA-42 Seneca		Piper PA-42 Seneca	Piper PA-42 Seneca	Piper PA-42 Seneca

4. CAPACITY ANALYSIS AND FACILITY REQUIREMENTS

Preceding sections described existing airport facilities and presented the forecasts of activity anticipated at X06. Using the forecasts and airports physical and operational characteristics permits the evaluation of the airports capacity and determination of the facilities needed to serve local air transportation needs.

4.1 Capacity Analysis

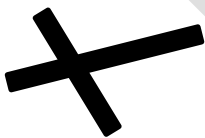
Three areas of capacity are addressed in the sections below: ability to process aircraft operations; adequacy of runway length and width; and wind coverage provided by the existing runway configuration.

4.1.1 Airfield Operational Capacity

FAA Advisory Circular 150/5060-5 Change 2, *Airport Capacity and Delay*, provides guidance and recommendations for completing a capacity analysis. Airfield capacity is a reasonable estimate of the maximum number of aircraft operations that the airport can accommodate in an hour. A number of factors can influence airfield capacity including, runway configuration, aircraft fleet mix, and weather conditions.

Airfield capacity can be defined by an airport's Annual Service Volume (ASV). The ASV is the number of annual operations capacity. For planning purposes, an airports ASV can be estimated by the runway configuration and the mix index, which accounts for the level of operations by large (Class C) and heavy (Class D) aircraft. The mix index formula is $\%(C+3D)$. Because the fleet mix at X06 contains only Class A and B aircraft, the mix index is 0%. **Table 4.1** below shows the Annual Service Volume based on the intersecting runway configuration at X06.

Table 4.1 Annual Service Volume Based on Runway Configuration

FAA Runway Configuration	Mix Index%	Hourly Capacity (Operations/Hour)		Annual Service Volume (Operations/Year)
		VFR	IFR	
	0-20	98	59	230,000
	21-50	77	57	200,000
	51-80	77	56	215,000
	81-120	76	59	225,000
	121-180	72	60	265,000

Source: FAA AC 150/5060-5 Change 2

With a 0% mix index the ASV is 230,000; the VFR capacity is 98; and the IFR capacity is 59. FAA guidelines suggest that planning for additional capacity should be initiated at the below designated threshold levels of ASV:

- 60% of ASV: Planning for capacity improvements should begin
- 80% of ASV: Construction of improvements should be complete

The FAA approved forecast presented in Chapter 3 indicates that the ASV will not be exceeded during the planning period with operations increasing to 22,176 by 2033. Hourly Capacity under VFR

and IFR conditions is not forecasted to be exceeded by 2033. Therefore, additional airfield capacity is not needed within the planning period.

4.1.2 Runway Length and Width Requirements

Adequacy of the existing runway length was reviewed using information from the inventory of existing facilities and the forecasts of aviation demand. The former shows an existing primary runway (6-24) length of 3,700 feet. The forecasts suggest the need to consider a B-I small airplane as the Design Aircraft. Typical of these are the Piper Seneca, Beechcraft KingAir 100, Beechcraft Baron, Piper Navajo, and Piper Cheyenne.

Primary runway length requirements were determined based on the recommendations provided in FAA Advisory Circular 150/5325-4B, *Runway Length Requirements for Airport Design*. Applicable data used for X06 are runway elevation = 63' MSL and normal mean daily maximum temperature of the hottest month of the year = 92.2° Fahrenheit. Using this data and **Figure 4.1** in the above referenced Advisory Circular, the runway length requirements were determined as shown in **Table 4.2**. The Design Aircraft for X06 is a B-I small airplane. As shown in the table below, serving 95 percent of small airplanes (12,500 pounds or less) requires 3,110 feet of runway while a runway length requirement of 3,690 feet is indicated for serving 100 percent of small airplanes with less than 10 passenger seats. For the purpose of this study the small aircraft runway standard of 3,690 feet was considered an appropriate option. Consistent with FAA's long-time practice, this length was rounded up to 3,700 feet.

Table 4.2 Runway Lengths Recommended for Airport Design

	Recommended Length
Small airplanes with approach speeds of less than 30 knots	302 feet
Small airplanes with approach speeds of less than 50 knots	805 feet
Small airplanes with less than 10 passenger seats	
95 percent of these small airplanes	3,110 feet
100 percent of these small airplanes	3,690 feet

Source: FAA AC 150/5325-4B

On the basis of this information, the existing primary runway length of 3,700 feet is sufficient. A Cessna Citation 560 operates twice a week from October through April for business purposes. The corporate jet is owned by Becker Trading Company, which is a produce grower, whose citrus manufacturing facility is located in Arcadia. Citrus is one of the biggest industries in Arcadia and it is reasonable to assume that in providing a longer runway this operator would increase flights to X06. At the existing length this aircraft can only operate at X06 by reducing the aircrafts take-off weight which affects the range of the aircraft.

In order for Runway 6-24 to be extended, the land just off Runway 6 would need to be acquired. Land not utilized for the runway extension can be designated as aeronautical use if it has airfield access or designated as non-aeronautical use if it does not have airfield access. The alternatives analysis will examine the runway extension and additional uses for the acquired land.

With respect to Runway 13-31 at X06, FAA has long used a general guideline that a crosswind runway be at least 80 percent of the length of the primary runway. Given a primary runway length requirement of 3,700 feet; Runway 13-31 falls 131 feet short of the crosswind runway requirement. An extension to Runway 13-31 would be costly due to obstructions which are currently being cleared with the use of displaced thresholds on both runway ends. Local pilots who frequently use Runway 13-31 were opposed to the possibility of paving Runway 13-31; therefore it was not analyzed as part of the alternatives chapter.

In regards to runway width, the FAA's standard for B-I small airplanes is 60 feet for runways with visual approaches, and instrument approach procedures with minimums not lower than $\frac{3}{4}$ statute mile. The present runway width is 75 feet for 6-24. Runway 13-31 is 100 feet wide. All runways exceed the recommended width.

4.1.3 Wind Coverage

FAA guidelines suggest that a runway or runway system should provide coverage for 95% of crosswinds. The weather station located in the City of Arcadia does not collect wind data. In the absence of data within the City of Arcadia, data from the Punta Gorda Airport weather equipment was utilized to determine wind coverage at X06. Examination of the all-weather wind rose in **Figure 4.1** and the information in **Table 4.3** shows that the existing runway system provides approximately 99.10% coverage for crosswind components of 10.5 knots or less. Runways 6-24 and 13-31 individually do not provide the recommended 95% coverage for crosswind components of 10.5 knots.

As individually shown in **Figure 4.2** and **Table 4.4**, combined wind coverage is 98.63% under IFR conditions; however, neither runway individually meets the 95% threshold at 10.5 knots or less. It is recommended that the existing intersecting runway configuration be maintained.

Figure 4.1 All Weather Wind Rose

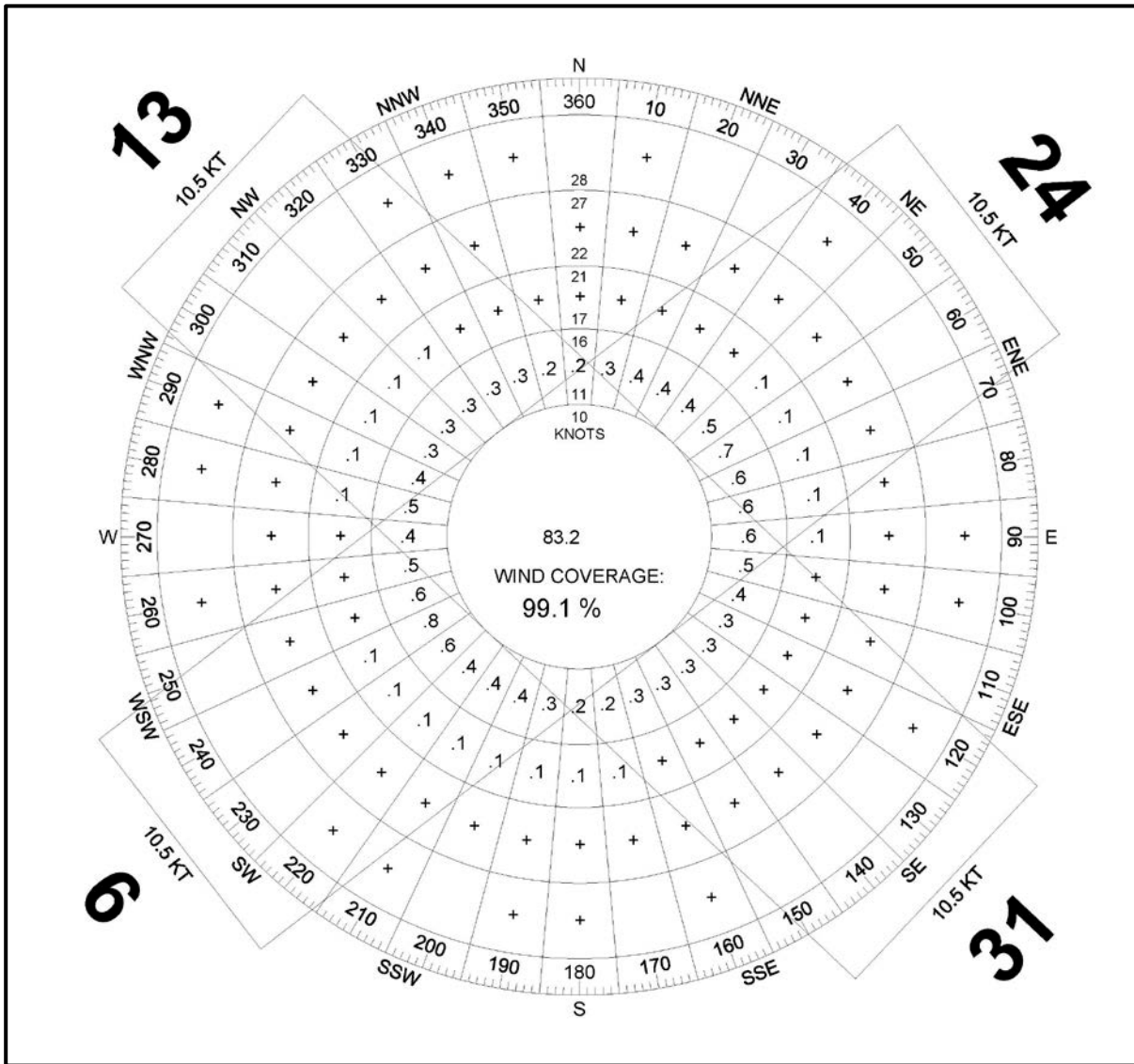


Table 4.3 All Weather Wind Coverage (Percent)

Runway	Wind Velocities	
	10.5 Knots	13 Knots
6-24	94.09	96.93
13-31	91.24	95.23
Combined	99.10	99.76

Source: Punta Gorda Airport Weather Station: Period 2006-2015

Figure 4.2 IFR Wind Rose

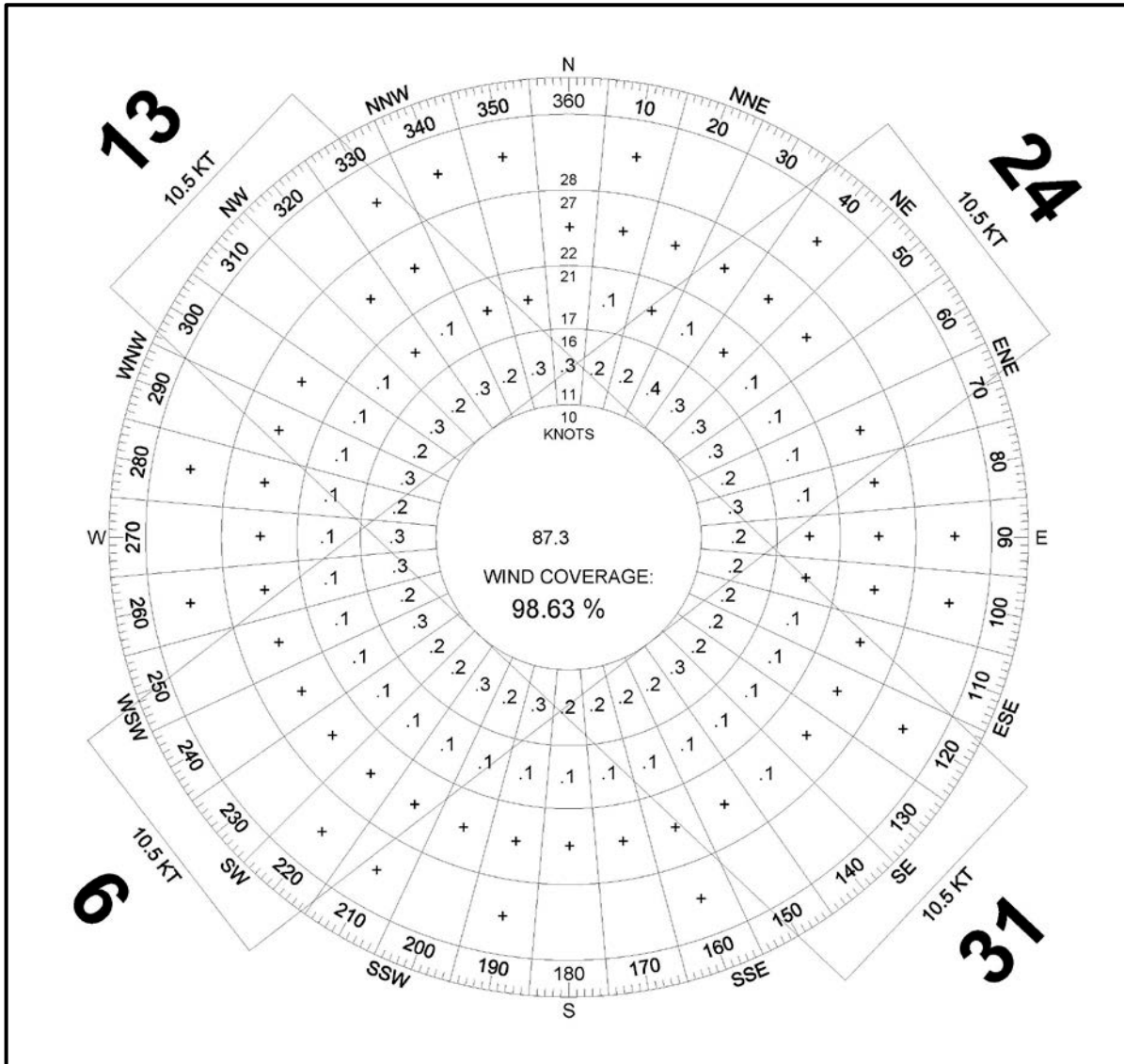


Table 4.4 IFR Wind Coverage (Percent)

Runway	Wind Velocities	
	10.5 Knots	13 Knots
6-24	94.13	96.40
13-31	93.55	96.11
Combined	98.63	99.48

Source: Punta Gorda Airport Weather Station: Period 2006-2015

4.2 Airside Facility Requirements

For the purposes of this report, the airside facilities of an airport are the runway configuration, its associated taxiway system, and any visual or electronic navigational/landing aids. Future needs for these facilities were determined based upon forecasts of aviation demand, in particular, projected levels of aircraft operational activity and aircraft fleet mix. Guidelines and planning standards from FAA AC 150/5300/13A Change 1, *Airport Design* were used.

4.2.1 Airfield Design Guidelines and Standards

The FAA has developed guidelines for airport geometry. These include specifications for Obstacle Free Zones (OFZ), Runway and Taxiway/Taxilane Object Free Areas (ROFA/TOFA), Runway and Taxiway Safety Areas (RSA/TSA), Runway Protection Zones (RPZ), aircraft holdline dimensions, and FAR Part 77 Surfaces. Applications of these guidelines for B-I Small Design Aircraft are shown in **Table 4.5**. Specific design dimensions applicable to airfield alternatives will be discussed in the next chapter.

Table 4.5 Alternative Airfield Design Standards

Design Standard/Surface Runway 6-24	Design Standard for Approaches with visual & not lower than 1 mile visibility minimums, Approach Category B, Design Group I Small Airplanes
Runway Width	60 feet
Runway Object Free Area	250 feet wide, longitudinally centered about the runway centerline, and extending 240 feet beyond each runway end
Runway Safety Area	120 feet wide, centered longitudinally on runway centerline, extending 240 feet beyond each runway end
Runway Protection Zones	Begins 200 feet beyond each runway end, with an inner width of 250 feet, an outer width of 450 feet, and a length of 1,000 feet
Holding Position Markings	125-foot separation from runway centerline to intersecting runway/taxiway centerline
Runway to Parallel Taxiway	Minimum 150-foot separation, taxiway to runway centerline
Runway to Aircraft Parking	Minimum 125-foot separation, runway centerline to parking
Taxiway Safety Area	49 feet wide
Taxiway Width	40 feet wide
Taxiway Object Free Area	89 feet wide
Taxilane Object Free Area	79 feet wide
FAR Part 77 Primary Surface	500 feet wide, longitudinally centered on runway centerline, extending 200 feet beyond each runway end

Source: FAA AC 150/5300-13A, Change 1

4.2.2 Runway Grades and Line-of-sight

The maximum longitudinal runway grade and allowable grade change for a paved runway is ± 2.0 percent for airplanes in Approach Categories B. It is recommended that longitudinal grades be kept to a minimum. The FAA recommends turf runways be graded to provide at least a 2.0 percent slope away from the center of the runway for a minimum distance of 40 feet on either side of the centerline of the landing strip and a 5.0 percent slope from that point to the edge of the RSA to provide rapid drainage.

In the presence of a full parallel taxiway, gradient changes shall be such that any point 5 feet above the runway centerline shall be mutually visible with any other point 5 feet above the runway centerline that is located at a distance less than one half the length of the runway. X06 meets the runway grade requirements for Runway 6-24 and Runway 13-31.

For airports with intersecting runways, the FAA recommends a clear line-of-sight between the ends of runways. The determination of the runway visibility zone (RVZ) for airports with intersecting runways reflects the distance of runway ends from the point of intersection of the centerlines of the runways. For conditions at X06, the visibility point on each runway segment is determined as follows:

- The end of the runway if runway end is less than 750 feet from the runway intersection.
- 750 feet from the runway intersection if the end of the runway is less than 1,500 feet from the runway intersection.
- Half the distance from the intersecting runway, if the end of the runway is more than 1,500 feet from the runway intersection.



Runway 24 Marking

Connection of the visibility points with imaginary straight lines defines the runway visibility zones. Applying this guidance to X06 indicates there is a small portion of the southwest section of the apron located in the RVZ. The RVZ area will be depicted in the Airport Plans Package presented in Appendix A of this study.

4.2.3 Taxiway System

The taxiway system consists of Taxiway A which is a 40 foot wide full parallel for Runway 6/24. Taxiway A has connectors to the apron and t-hangar complex. The connector to the apron is 40 feet wide and the connector to the t-hangar complex is 25 feet wide. The existing taxiway configuration for both runways meets the 150-foot centerline-to-centerline separation requirement. It is recommended that Taxiway B be constructed to provide access to development on the northwest side of the facility via Taxiway A.

The alternatives chapter will provide further potential locations and configurations for the proposed new taxiway. It is also recommended that planning for rehabilitation of the pavement adjacent to both t-hangar buildings begin immediately. This pavement was identified as very poor in the May 2011 Statewide Airfield Pavement Management Report.

4.2.4 Airfield Lighting

Runway 6-24 has quartz Medium Intensity Runway Lights (MIRLs) and the taxiway is equipped with LED Medium Intensity Taxiway Lights (MITLs). The Runway 6 end is equipped with a two-light Precision Approach Path Indicator (PAPI). Runway 6-24 and Taxiway A lighting was replaced in early 2014 as part of the installation of the new electrical vault. Runway 13-31 is not equipped with runway lights. A lighted windsock is located on the northeast side of the intersection of Runways 6-24 and 13-31. MITLs should be included in any construction of the Taxiway A extension improvements and MIRLs should be included in the recommended construction of the Runway 6-24 extension.

4.2.5 Airfield Marking and Signage

Runway 6-24 is equipped with non-precision markings including runway centerline, threshold markings, runway designation markings, and aiming points. The turf runway, 13-31, does not have markings. Taxiway A is equipped with centerline and hold line markings. Runway 6-24 and Taxiway A markings were improved in early 2014 as part of the pavement rejuvenation project which also included the apron pavement.

The airfield at X06 is equipped with signage typical of an airport of its type. All signage was installed in early 2014 as part of an airfield lighting improvement project that included the installation of a new electrical vault, lighted windcone and runway and taxiway lights. As runway and taxiway improvements are completed, the locations of existing and new/replacement signs should be reviewed and installations made that conform to FAA guidelines. Plans for the appropriate marking and signage will be included with all runway and taxiway improvement projects.

4.2.6 Instrument Approach Capability

On May 29, 2014, two GPS instrument approach procedures for Runway 6-24 were published for X06. The minimums associated with those approach procedures are provided below in **Table 4.6**. These approaches are considered adequate for operations at X06.

Table 4.6 GPS Approach Minimums

Runway	Circling Ceiling	Visibility
06	420	1
24	420	1

Source: FAA National Flight Data Center (NFDC)

4.3 Landside Facility Requirements

This section describes the guidelines and methodologies used to develop facility requirements for the landside areas of the airport. These were estimated using forecasts of aviation demand and FAA guidelines. The following categories were examined:

- T-Hangars and Conventional Hangars
- Aircraft Apron and Tie Downs
- Terminal Facility and FBO
- Auto Parking and Ground Access
- Fuel Storage

4.3.1 T-Hangars and Conventional Hangars

Several factors influence hangar requirements, e.g., the number of based aircraft, the physical characteristics of these aircraft, aircraft owner preferences, and the local climate. Currently the majority of X06's based aircraft are stored in T-hangars. Currently, the airport has 23 T-hangars and 2 conventional hangars.

The number of based aircraft at the airport is projected to increase from 26 to 36 during the 20-year planning period. It is estimated that 90% of based aircraft at X06 are stored either in a T-hangar (80%) or conventional hangar (10%). This percentage was applied to estimate the total number of hangar spaces. Continuation of these practices would indicate the need for the additional hangar units identified in **Table 4.7**. The proposed areas for additional hangars will be examined as part of the analysis of alternatives.



T-Hangar & Maintenance Building

Table 4.7 Hangar Requirements

Year	Forecast Based Aircraft	T-Hangars		Conventional Hangars	
		Existing Units	Units Required	Existing	Required
2013	26	23	NA	2	NA
2018	28		22		3
2023	31		25		3
2033	36		29		4
Total Additional Hangars			6		2

4.3.2 Aircraft Apron and Tie-Downs

X06 has 10 aircraft tie-down spaces on the ramp adjacent to the terminal building. This area is used for both based aircraft and itinerant aircraft. Based upon the forecast of itinerant operational activity, requirements can be formulated with the following five-step methodology:



Existing Apron

Step 1 produces estimated peak month itinerant operations by assuming them equal to 10 percent of annual itinerant operations. Step 2 estimates average daily itinerant operations from the peak month, from Step 1, dividing it by 30. In Step 3, it is assumed that the busy itinerant day is 10 percent more active than the average day. Step 4 was modified from the FAA's approach. That methodology uses the final assumption that parking will be needed for 50 percent of the itinerant aircraft during the busiest day of the peak month. Finally, 360 square yards per aircraft is typically used to determine space requirements. **Table 4.8** depicts the cumulative results of this analysis.

Table 4.8 Estimates of Itinerant Ramp Requirements

Year	Itinerant Operations				Total Spaces Needed	Area (Sq. yds.)
	Annual	Peak Month	Average Daily	Busy Day		
2018	5,792	579	18	21	11	3,823
2023	6,640	664	22	24	12	4,382
2033	7,762	776	26	28	14	5,123

Note: Area totals are rounded.

It is estimated that 10% of based aircraft will occupy tie-down spaces. Based upon the forecasts of demand and the estimates of future aircraft stored in hangars, 10 tie-downs will be inadequate. Projected needs for aircraft tie-down spaces (parking apron) are outlined in **Table 4.9**. Options for additional tie-down and itinerant apron space will be provided in the alternatives analysis. The development of the new itinerant ramp will be located near the new terminal building site off the Runway 24 end. The existing apron should be expanded until the new FBO area in the Southeast quadrant of the airport can be constructed.

Table 4.9 Tie-down Requirements

Year	Forecast Based Aircraft	Based Aircraft Demand	Itinerant Aircraft Demand	Total Tie-Down Demand	Additional Tie-Downs Required
2013 Existing Tie-downs = 10					
2018	28	3	11	14	4
2023	31	3	12	15	5
2033	36	4	14	18	8

4.3.3 Terminal Facility and FBO

A general aviation terminal facility provides space for management and operations offices, lounge areas, restrooms, and other areas for the needs of pilots and passengers. The existing terminal building is 1,200 square feet and is shared with the FBO. The FAA has formulated guidelines for calculating general aviation terminal requirements that utilize airport operational peaking characteristics. The method relates the number of peak hour pilots and passengers to the functional areas within the terminal. The product of the analysis is then an overall building size.

Local aircraft owners typically do not use general aviation terminal facilities as often as pilots/passengers associated with itinerant operations. For this reason, 80 percent of the forecast pilot/passengers design hour was considered in calculating general aviation terminal facility requirements.

FAA guidelines suggest that a ratio of 49.0 square feet per peak hour pilot/passenger be used to calculate general aviation terminal building floor space requirements. Using this approach and 80 percent of the pilot/passenger design hour calculated in the forecast chapter, requirements for general

aviation terminal building space were calculated by multiplying design hour operations by 1.8 to estimate passenger. These results were then multiplied by 49 square feet per pilot/passenger to estimate terminal building space requirements. The results were as follow:

- 2018: 1,835 square feet
- 2023: 2,117 square feet
- 2033: 2,399 square feet
(Numbers are rounded.)

The size of the terminal building is forecast to be inadequate by 2018. As can be seen in the photograph, the terminal/FBO building is an older structure. As it reaches the end of its usefulness, consideration should be given to a new terminal building. It is recommended that the new terminal be located on the east side of the airfield with an access road from Highway 31. The location of the new terminal building, access road and utilities (water, sewer, electric) will be identified on the Airport Layout Plan provided in Chapter 6 of this document. The existing FBO building should be maintained as a facility for based operators or a potential future aviation related tenant.



Existing Terminal Building

4.3.4 Parking and Ground Access

Immediate access to the primary landside areas is provided by A.C. Polk Drive which ends at the terminal building. A.C. Polk is a two lane road which also provides access to a residential development to the north of the airport. X06 has no perimeter service road and no other access to the airfield. Construction of a new access road off Highway 31 will provide entrance to the planned new terminal building complex.

With regard to auto parking, provisions are typically made for 1.3 parking spaces per design hour operations. In the case of X06 it is assumed that owners/operators of based aircraft typically park their surface vehicles in or adjacent to the hangar when using their aircraft. The consultant's experience at general aviation airports such as X06 suggests that an alternative methodology is applicable, because owners/operators of based aircraft frequently park their surface vehicles in their hangars while their aircraft are in use. For the purposes of this study, the following methodology was used:

- Design hour for pilots and passengers assuming 50 percent of local pilots will park their surface vehicles in a parking lot.
- Total parking spaces for itinerant pilots and passengers were estimated by multiplying design hour pilots and passengers by 1.3.
- Total parking spaces required for itinerant pilots and passengers were calculated and increased by 10 percent to provide spaces for employee parking and local operators.

This methodology produced the following estimates of parking spaces required:

- 2018: 13 spaces
- 2023: 14 spaces
- 2033: 17 spaces

Currently there are 10 paved parking spaces adjacent to the terminal building. These numbers suggest that by 2018 the existing parking will not accommodate the increase in demand. It is

recommended that new vehicle parking be constructed near the t-hangar complex, new terminal building and each new storage hangar. Locations for additional vehicle parking will be presented on the Airport Layout Plan.

4.3.5 Fuel Storage

Existing fuel storage is maintained by Air Cadia and consists of one above ground 12,000-gallon tank which stores 100LL Avgas. Currently self-serve fueling is not available because the pump is not equipped to accept credit cards. It is recommended that the pump be upgraded to self-serve with a credit card reader so operators, both local and transient, can purchase fuel at any time without contacting the FBO.

Airport staff indicated 2013 annual fuel sales of 5,863 gallons of 100LL. Unadjusted for seasonal demand, the sales for 2013 would translate into an average of 489 gallons per month in the tank. As air traffic increases, fuel sales will also increase. The addition of self-serve fueling will also increase sales as pilots will be more likely to refuel at X06 with a simplified transaction at the pump. It is projected that fuel sales will approach 9,700 gallons per year by 2033 or 808 gallons per month. The 12,000 gallon capacity fuel tank is expected to be adequate for the fuel storage requirements through the 2033 planning period.



Above Ground Fuel Tank

In December 2014 World Fuel Services Inc. inspected the fuel tank and provided the City with recommended repairs. The repairs are estimated to cost \$33,600 and would include an internal cleaning of the tank; replace filter, drain box, pipes and vales; and install a new credit card reader. World Fuel recommended the City contact environmental / regulatory agencies such as EPA, NFPA and FAA for approval prior to completing any repairs on the fuel system. It should be noted that future construction and operation of all airport fuel facilities must comply with future airport rules and regulations, FAA guidance, applicable uniform building and fire code standards, and any state or federal laws regarding fuel storage tank regulations. A new Jet A and 100LL fuel farm is recommended to be constructed with the new terminal building at the new site. This new fuel farm will not contain self-service fueling. All fueling at the new terminal building location will be truck delivery. The existing 100LL tank should be upgraded including a functioning card reader and remain in the current location to provide self-fueling services for based aircraft owners and itinerant operators.

5. IDENTIFICATION AND ANALYSIS OF ALTERNATIVES

The preceding portions of this report provided forecasts of aviation demand for X06. Subsequently, these forecasts were used, in conjunction with FAA guidelines and standards, to identify facility requirements for the airport. As with most projects, improvements can often be accomplished in various ways. The purpose of this evaluation of alternatives is to identify the plan that will best serve the area and its future aviation needs. This chapter describes the analysis of alternative development plans for the Arcadia Municipal Airport.

Information in preceding sections indicates the need for airport improvements to respond to existing and future demand. Runway and other airfield improvements have significant cost implications. Landside/hangar development, often a major local or private expenditure, must also be considered and integrated. This airport master plan will consider alternatives in these areas:

- Runway 6 extension
- New terminal complex (including access road, fuel farm, vehicle parking, apron space)
- New aircraft storage
- Apron expansion
- New Taxiway B

5.1 Identification of Alternatives

Six broad airfield and landside alternatives have been developed for future improvements to the Arcadia Municipal Airport. The following airfield and landside alternatives were formulated to address the facility requirements.

- **Alternative No. 1 – Maintain Existing Conditions.** Alternative No. 1 would retain the existing airfield configuration with no improvements. Runway lengths would remain at 2,829 feet for 13-31 and 3,700 feet for 6-24. The existing parallel taxiway configurations would also be retained.
- **Alternative No. 2 – Extension of the Runway 6 end only.** This alternative would allow the full 600 feet of pavement to be extended to the southwest. The existing RPZ already encompasses Airport Road and an adjacent vacant lot. This alternative would shift the existing RPZ farther into the vacant lot which is currently impacted. The property to the west of Airport Road will be acquired to relocate Airport Road and residential land acquisition and relocation will be required for the homes to the south of Runway 6. The residential properties will be purchased to allow for the development of the new access to SE Airport Estates Road. This alternative is depicted in **Figure 5.1**.

Extension Justification: European Rally School is a new business which will be locating in Desoto County, Florida on 713 acres located approximately 4.5 miles south of Arcadia Municipal Airport. The property on which the school will be located is owned by the State of Florida and an agreement for the purchase has been reached.

The business is owned by Ivor Wigham. Mr. Wigham owned the Go Rally driving school at Keystone Heights Airpark just south of Starke, Florida. The business will offer an ideal venue

for advanced driver education, special and exclusive corporate events or team building experiences, media and hospitality functions or vehicle test sessions. The school attracts clients, including military, from around the world.

Mr. Wigham was interviewed about the proposed new facility which is currently in the process of obtaining permits and is expected to be fully operational by the end of 2015. Mr. Wigham indicated that up to 25 corporate jets, including regional jets, could reasonably be expected to use Arcadia Municipal on an annual basis. Numerous smaller aircraft will use the airport consistently. He further stated that during special events as many as three corporate jets a day would land at the airport. Military training frequently attracts aircraft as large as a C-130. Various models of helicopters can be expected weekly.

As a result of this business locating in DeSoto County, Arcadia Municipal Airport can expect a positive increase in traffic and that aircraft which use the airport for access to the school include the Citation X, Pilatus PC-12, and various models of the Learjet and King Air, as well as numerous smaller single and twin engine aircraft.

- **Alternative No. 3 – Runway 13-31 (Turf) Object Free Area and Runway Safety Area Clearance.** At its current length of 2,829 feet, Runway 13-31 has penetrations to both the runway object free area (ROFA) and Runway Safety Area (RSA). **Figure 5.2** depicts the turf runway at a reduced length of 2,400 feet. The reduction in the total length of Runway 13-31 to 2,400 feet will mitigate all penetrations with the exception of a portion of fencing in the ROFA. This portion of fencing cannot be relocated and further reduction in runway length would significantly impact users.
- **Alternative No. 4 – Construct New Conventional & T-Hangar Building.** This alternative identifies the proposed expansion of the existing apron to the east and includes the addition of two new 10 stall t-hangar buildings to the east of the existing t-hangar complex. Several new conventional hangars will be constructed to the northwest, adjacent to existing hangar buildings. Taxiway B will be constructed to provide access to the existing and new hangar development. Automobile parking is also being proposed near the T-hangar complex. The expansion of the existing apron will include a new taxiway connector to the t-hangar complex and the elimination of the existing ramp connector which leads directly from Runway 6/24. The appropriate lighting and signage will be installed during the construction of Taxiway B. The proposed locations for the apron expansion, the new terminal building apron, Taxiway B and the Hangar developments are illustrated in **Figure 5-3**.
- **Alternative No. 5 – Construct New Terminal/FBO Building.** This alternative identifies the proposed location for a new terminal/FBO building to the southeast of the Runway 24 end. The new building is estimated to be 2,400 square feet and will house the FBO, management and operations offices, lounge area, planning room and restrooms for pilots and passenger. An automobile parking lot will be constructed adjacent to the new terminal/FBO building for pilot, passenger and employee use. Construction of a new fuel farm, storage hangars and a new access road from US 31 are also included in this alternative. The existing terminal building is proposed to be maintained for storage or tenant use. **Figure 5.4** shows the location of the developments proposed as Alternative 5.

[illegible][illegible]

This aerial map illustrates the proposed expansion of the Naval Air Station at Fort Belvoir. The map shows several key features:

- Runways:** Runway 6-24 (3,700' x 75') and Runway 14-32 (2,400' x 100'). A future runway of 4,300' x 75' is also indicated.
- Taxiways and Aprons:** Taxiway B (25'), Taxiway C (25'), and Taxiway D (25'). Apron Expansion areas are shown near Runway 6-24.
- Hangars:** Six 60'x60' Hangars are located along SE AC Polk Dr.
- Future Development:** Future ROFZ (200' x 250'), Future Aeronautical/Non Aeronautical Development area, and Fuel storage tanks.
- Other Features:** Beacon, Lighted Windcone, RVZ (Runway Visual Zone), and various safety areas like RSA (Runway Safety Area) and ROFA (Runway Object Free Area).

Existing Siting Survey 250'X700'

Future Access Rd

Future Automobile Parking

Future FBO/Terminal

Future Fuel Farm

Future Airport Property Line

Future Aeronautical Development

Future Non-Aeronautical Development

Runway 4C 24'

Taxiway C 25'

Runway 4D 24'

Runway 4E 24'

Runway 4F 24'

Runway 4G 24'

Runway 4H 24'

Runway 4I 24'

Runway 4J 24'

Runway 4K 24'

Runway 4L 24'

Runway 4M 24'

Runway 4N 24'

Runway 4O 24'

Runway 4P 24'

Runway 4Q 24'

Runway 4R 24'

Runway 4S 24'

Runway 4T 24'

Runway 4U 24'

Runway 4V 24'

Runway 4W 24'

Runway 4X 24'

Runway 4Y 24'

Runway 4Z 24'

Runway 4AA 24'

Runway 4AB 24'

Runway 4AC 24'

Runway 4AD 24'

Runway 4AE 24'

Runway 4AF 24'

Runway 4AG 24'

Runway 4AH 24'

Runway 4AI 24'

Runway 4AJ 24'

Runway 4AK 24'

Runway 4AL 24'

Runway 4AM 24'

Runway 4AN 24'

Runway 4AO 24'

Runway 4AP 24'

Runway 4AQ 24'

Runway 4AR 24'

Runway 4AS 24'

Runway 4AT 24'

Runway 4AU 24'

Runway 4AV 24'

Runway 4AW 24'

Runway 4AX 24'

Runway 4AY 24'

Runway 4AZ 24'

Runway 4BA 24'

Runway 4BB 24'

Runway 4BC 24'

Runway 4BD 24'

Runway 4BE 24'

Runway 4BF 24'

Runway 4BG 24'

Runway 4BH 24'

Runway 4BI 24'

Runway 4BJ 24'

Runway 4BK 24'

Runway 4BL 24'

Runway 4BM 24'

Runway 4BN 24'

Runway 4BO 24'

Runway 4BP 24'

Runway 4BQ 24'

Runway 4BR 24'

Runway 4BS 24'

Runway 4BT 24'

Runway 4BU 24'

Runway 4BV 24'

Runway 4BW 24'

Runway 4BX 24'

Runway 4BY 24'

Runway 4BZ 24'

Runway 4CA 24'

Runway 4CB 24'

Runway 4CC 24'

Runway 4CD 24'

Runway 4CE 24'

Runway 4CF 24'

Runway 4CG 24'

Runway 4CH 24'

Runway 4CI 24'

Runway 4CJ 24'

Runway 4CK 24'

Runway 4CL 24'

Runway 4CM 24'

Runway 4CN 24'

Runway 4CO 24'

Runway 4CP 24'

Runway 4CQ 24'

Runway 4CR 24'

Runway 4CS 24'

Runway 4CT 24'

Runway 4CU 24'

Runway 4CV 24'

Runway 4CW 24'

Runway 4CX 24'

Runway 4CY 24'

Runway 4CZ 24'

Runway 4DA 24'

Runway 4DB 24'

Runway 4DC 24'

Runway 4DD 24'

Runway 4DE 24'

Runway 4DF 24'

Runway 4DG 24'

Runway 4DH 24'

Runway 4DI 24'

Runway 4DJ 24'

Runway 4DK 24'

Runway 4DL 24'

Runway 4DM 24'

Runway 4DN 24'

Runway 4DO 24'

Runway 4DP 24'

Runway 4DQ 24'

Runway 4DR 24'

Runway 4DS 24'

Runway 4DT 24'

Runway 4DU 24'

Runway 4DV 24'

Runway 4DW 24'

Runway 4DX 24'

Runway 4DY 24'

Runway 4DZ 24'

Runway 4EA 24'

Runway 4EB 24'

Runway 4EC 24'

Runway 4ED 24'

Runway 4EE 24'

Runway 4EF 24'

Runway 4EG 24'

Runway 4EH 24'

Runway 4EI 24'

Runway 4EJ 24'

Runway 4EK 24'

Runway 4EL 24'

Runway 4EM 24'

Runway 4EN 24'

Runway 4EO 24'

Runway 4EP 24'

Runway 4EQ 24'

Runway 4ER 24'

Runway 4ES 24'

Runway 4ET 24'

Runway 4EU 24'

Runway 4EV 24'

Runway 4EW 24'

Runway 4EX 24'

Runway 4EY 24'

Runway 4EZ 24'

Runway 4FA 24'

Runway 4FB 24'

Runway 4FC 24'

Runway 4FD 24'

Runway 4FE 24'

Runway 4FF 24'

Runway 4FG 24'

Runway 4FH 24'

Runway 4FI 24'

Runway 4FJ 24'

Runway 4FK 24'

Runway 4FL 24'

Runway 4FM 24'

Runway 4FN 24'

Runway 4FO 24'

Runway 4FP 24'

Runway 4FQ 24'

Runway 4FR 24'

Runway 4FS 24'

Runway 4FT 24'

Runway 4FU 24'

Runway 4FV 24'

Runway 4FW 24'

Runway 4FX 24'

Runway 4FY 24'

Runway 4FZ 24'

Runway 4GA 24'

Runway 4GB 24'

Runway 4GC 24'

Runway 4GD 24'

Runway 4GE 24'

Runway 4GF 24'

Runway 4GG 24'

Runway 4GH 24'

Runway 4GI 24'

Runway 4GJ 24'

Runway 4GK 24'

Runway 4GL 24'

Runway 4GM 24'

Runway 4GN 24'

Runway 4GO 24'

Runway 4GP 24'

Runway 4GQ 24'

Runway 4GR 24'

Runway 4GS 24'

Runway 4GT 24'

Runway 4GU 24'

Runway 4GV 24'

Runway 4GW 24'

Runway 4GX 24'

Runway 4GY 24'

Runway 4GZ 24'

Runway 4HA 24'

Runway 4HB 24'

Runway 4HC 24'

Runway 4HD 24'

Runway 4HE 24'

Runway 4HF 24'

Runway 4HG 24'

Runway 4HH 24'

Runway 4HI 24'

Runway 4HJ 24'

Runway 4HK 24'

Runway 4HL 24'

Runway 4HM 24'

Runway 4HN 24'

Runway 4HO 24'

Runway 4HP 24'

Runway 4HQ 24'

Runway 4HR 24'

Runway 4HS 24'

Runway 4HT 24'

Runway 4HU 24'

Runway 4HV 24'

Runway 4HW 24'

Runway 4HX 24'

Runway 4HY 24'

Runway 4HZ 24'

Runway 4IA 24'

Runway 4IB 24'

Runway 4IC 24'

Runway 4ID 24'

Runway 4IE 24'

Runway 4IF 24'

Runway 4IG 24'

Runway 4IH 24'

Runway 4II 24'

Runway 4IJ 24'

Runway 4IK 24'

Runway 4IL 24'

Runway 4IM 24'

Runway 4IN 24'

Runway 4IO 24'

Runway 4IP 24'

Runway 4IQ 24'

Runway 4IR 24'

Runway 4IS 24'

Runway 4IT 24'

Runway 4IU 24'

Runway 4IV 24'

Runway 4IW 24'

Runway 4IX 24'

Runway 4IY 24'

Runway 4IZ 24'

Runway 4JA 24'

Runway 4JB 24'

Runway 4JC 24'

Runway 4JD 24'

Runway 4JE 24'

Runway 4JF 24'

Runway 4JG 24'

Runway 4JH 24'

Runway 4JI 24'

Runway 4JJ 24'

Runway 4JK 24'

Runway 4JL 24'

Runway 4JM 24'

Runway 4JN 24'

Runway 4JO 24'

5.2 Evaluation of Alternatives

Several criteria were used to determine the relative merits of the alternatives. These include:

- Safety
- Ability to serve future demand
- Aeronautical considerations
- Environmental effects
- Surface access considerations

It should be noted that the process of examining alternatives does not necessarily produce full acceptance of a single alternative to the exclusion of all facets of the others. The recommended alternative often will be a combination of features of two or more alternatives that during the evaluation are shown to address the standards explicit in the evaluation criteria.

5.2.1 Safety

Safety was evaluated in terms of the conformity with FAA guidelines and criteria for airport development. This included consideration of standards such as runway-taxiway separations, runway safety areas (RSAs), runway and taxiway object free areas (ROFAs and TOFAs), and runway protection zones (RPZs). While airfield capacity has an obvious relationship to safety, it was considered as part of the evaluation of the airport's ability to serve future demand.

X06s airfield currently has a few deviations from FAA's guidelines and standards that will require correcting. Examples include the following:

- Fencing within the Runway Object Free Area.
- Aircraft tie-downs and other aircraft parking within the Runway Visibility Zone.
- Lack of control or ownership interest in the Runway Protection Zones.

The airfield alternatives were analyzed for such nonconformities with guidelines and standards to reflect consideration of the safety criterion.

Alternative 1 Maintain Existing Conditions would correct none of the existing conditions that deviate from FAA's guidelines and standards. This failure to address conditions that detract from safety is unacceptable as an alternative.

Alternative 2 would also include the construction of a 600 foot Runway 06 extension. The taxiway would also be extended to maintain the full parallel for Runway 6-24. The additional pavement would improve airfield capacity and contribute to the safe operation of business jet traffic such as the Citation 560 that utilizes the airport.

Alternative 3 aims to correct the obstructions identified by FDOT during an annual inspection in the latter part of 2014. The Runway Object Free Area for Runway 13-31 was determined by the FDOT inspector to be impacted by portions of the existing fencing. Implementing declared distances to reduce the usable runway length available will bring the Runway 13-31 into compliance with standard safety area requirements.

Alternative 4 would also include construction of new Taxiway B which would connect to Taxiway A providing airfield access from hangars located on the northwest portion of the airport. This new taxiway would contribute to the safety of operations by facilitating aircraft movement from hangars located in the northwest quadrant of the airport.

Existing and proposed facilities show one modification to FAA standards related to a portion of fencing located in the ROFA of Runway 13-31. The principal safety concern at X06 is the removal of tree obstructions impacting approaches to each runway ends. The modification of standards is presented on the Data Tables on Sheet 2 and obstructions are presented on Sheets 6 through 13 of the Airport Layout Plan.

5.2.2 Ability to Serve Future Demand

Discussions in Working Papers indicate that based aircraft and aircraft operations at X06 are forecast to grow steadily and that new/additional facilities will be required to accommodate this growth. This criterion includes consideration of each alternative's response to existing and anticipated levels of demand.

As noted in Working Paper No. 2, the Annual Service Volume for the present airfield configuration (Alternatives 1) is estimated as 230,000 operations. Forecasts of demand indicate that the airport is not expected to exceed 138,000 annual operations by 2033. This forecast constitutes approximately 60 percent of estimated Annual Service Volume; therefore, no problems with annual capacity are anticipated during the planning period. FAA does, however, recommend that planning for additional capacity be initiated when the 60 percent threshold is reached. Growth in activity at X06 should be monitored and the airfield capacity issue should be re-examined in future master plan updates.

Potential does exist for peak hour operations to exceed hourly capacity under VFR conditions during the planning period. This will be heavily dependent upon the amount of traffic attracted to the airport due to the extension of Runway 6-24 and the availability of a full service FBO. Using the forecasts provided in Chapter 3, the 60 percent threshold would be exceeded during the planning period; therefore, the next master plan update should review growth in operations, especially peaking characteristics, and provide appropriate recommendations.

5.2.3 Aeronautical Considerations

This criterion included consideration of airspace effects associated with the various alternatives as well as issues related to obstructions identified using standards from Federal Aviation Regulations (FAR) Part 77 Objects Affecting Navigable Airspace. Regardless of the specific alternative, airspace conflicts with other airports are not currently of concern. It is anticipated that this condition will continue into the future; therefore, all alternatives were considered equal in terms of effects upon area airspace. All alternatives present problems with respect to obstructions. Implementation of any of the alternatives will require addressing the obstruction problems relative to FAR Part 77 surfaces.

5.2.4 Environmental Effects

The evaluation of alternatives also considered environmental effects that development would impose. Because landside development exists and is planned exclusively on airport properties, associated off-airport effects would be limited. Consequently, this part of the evaluation focused upon Alternatives No. 1, 2, and 3.

Among the factors considered in this comparative analysis were noise, compatibility with existing plans, land acquisition and relocation requirements, and impacts of surface drainage and wetlands and floodplains. Each of these subjects is considered below.

- **Aircraft Noise.** Examination of potential noise impacts related to aircraft activity was completed using the FAA's Integrated Noise Model. The 2013 and 2033 Noise Exposure Maps are depicted in **Figures 5.5 and 5.6**.

The analysis of both existing operations and forecast operations identified no impact to residential land uses as discussed in Chapter 2, Environmental Review. The 65 DNL contour will impact an agricultural property on the Runway 24 end and Airport Estates Road on the 906 end. Both areas are recommended for acquisition to accommodate the Runway 6 extension and the ownership of the RPZ's. The 2033 65 DNL noise contour will lay within the new airport boundary due to the acquisition of land necessary for the Runway 6 extension.

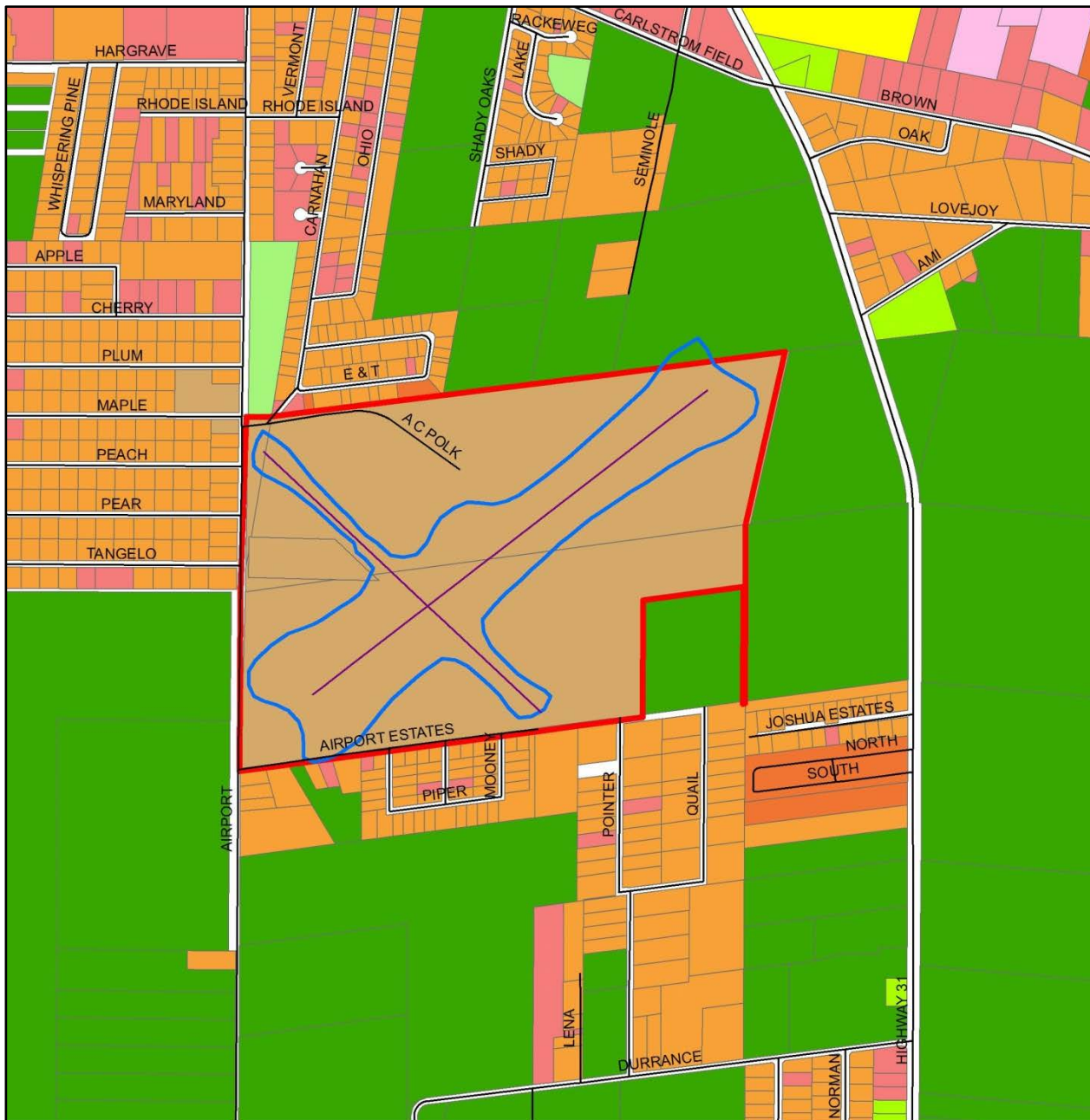


Figure 5.5 Existing Noise Contour

2013 Contour 65 DNL

Airport_Boundary

Land Use Classifications

Recreational

Office, Professional, Institutional

Residential

Commercial

Non-Agricultural Acreage

Industrial

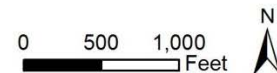
Vacant

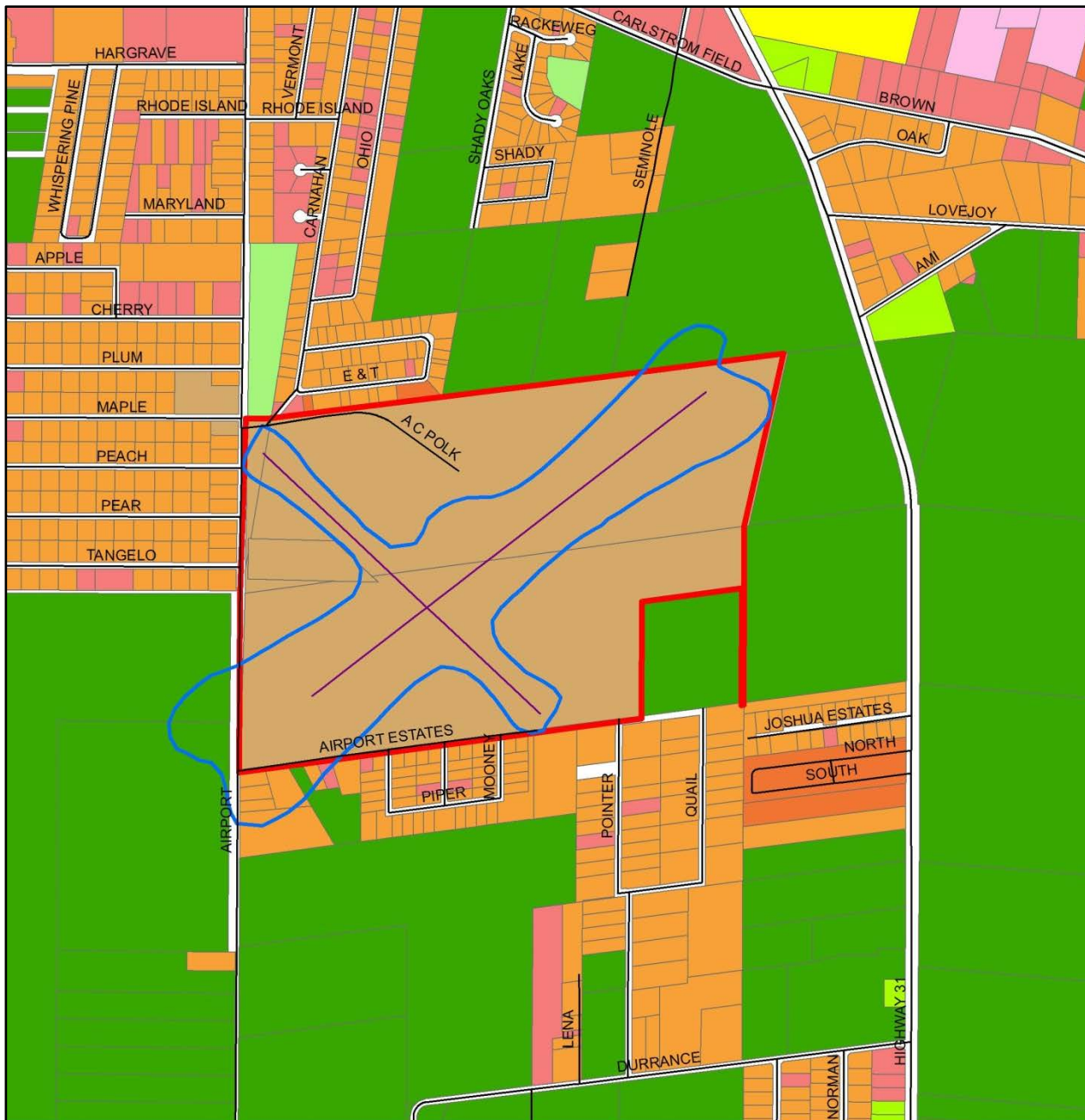
Wasteland

Government

Agricultural

Source: Hanson professional Services, Desoto County, 2015





-  2033 Contour 65 DNL
-  Airport_Boundary

Land Use Classifications

 Recreational	 Commercial	 Vacant	 Government
 Office, Professional, Institutional	 Non-Agricultural Acreage	 Wasteland	 Agricultural
 Residential	 Industrial		

Source: Hanson professional Services, Desoto County, 2015

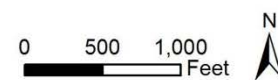


Figure 5.6 Future Noise Contour

- **Land Acquisition and Relocation Requirements.** The potential need for relocation and acquisition was reviewed for each of the development options. Alternative 2 would require the acquisition of roughly 170 acres of land located to the west of Airport Road. There are also 9 residential properties to the southwest that would require acquisition. Relocation of the occupants of these residences would also be required. This property would be used to relocate Airport Road which would go through the RPZ, and construct a new access road to SE Airport Estates Road.

It is also recommend that the property to the northeast of Runway end 24 be acquired. This would allow the airport to own and control the RPZ for that runway end. In the future that parcel can be developed for non-aviation use and provide an additional revenue source to the airport.

- **Surface Drainage and Wetlands and Floodplains.** Alternatives 2, 4, and 5 would create more paved areas due to the new runway/taxiway and access taxiways pavements. This could be mitigated by proper airfield drainage. Impacts to drainage patterns, wetlands and floodplains are expected to be minimal.

5.2.5 Surface Access Considerations

Primary access to X06 is via Airport Road thence to AC Polk Drive. Alternative 2 will not affect the access to the airport using AC Polk however it will impact access to a portion of the residential neighborhood to the southwest of the airport. Due to the necessary relocation of Airport Road so it is not within the RPZ, a new road will be constructed to provide access to homes on SE 12th Place. Alternate 5 will include access to the new terminal building development via a road off Highway 31 on the southeast side of the airport. This new road will provide surface access to the terminal building, storage hangars and fuel farm. On the basis of surface access effects alone, alternatives 2 and 5 are considered feasible.

6. AIRPORT PLANS

An airport plans package was prepared to depict the existing facilities and proposed improvements in the long-term development plan for the Arcadia Municipal Airport. Projects eligible to receive federal funding under the Airport Improvement Program (AIP) must be shown on an approved Airport Layout Drawing (ALD) in order to qualify for assistance. The Airport Layout Drawing is the primary drawing in the plans package which shows the overall development plan for the airport, both existing and proposed. The airport plans set is an important tool for airport development. These drawings should be reviewed and revised, as appropriate, upon completion of airport improvement projects. An 11"x17" format plan set is included as **Appendix A** of this document. Drawings comprising the Airport Layout Plan set include:

- Cover Sheet (Sheet 1)
- Data Sheet (Sheet 2)
- Existing Airport Layout Drawing (Sheet 3)
- Future Airport Layout Drawing (Sheet 4)
- Airport Airspace Drawing (Sheet 5)
- Runway 6 Inner Portion of the Approach Surface Drawing (Sheet 6)
- Runway 6 Obstruction Tables (Sheet 7)
- Runway 24 Inner Portion of the Approach Surface Drawing (Sheet 8)
- Runway 24 Obstruction Tables (Sheet 9)
- Runway 13 Inner Portion of the Approach Surface Drawing (Sheet 10)
- Runway 13 Obstruction Tables (Sheet 11)
- Runway 31 Inner Portion of the Approach Surface Drawing (Sheet 12)
- Runway 31 Obstruction Tables (Sheet 13)
- Terminal Area Drawing – Sheet 1 (Sheet 14)
- Terminal Area Drawing – Sheet 2 (Sheet 15)
- Airport Land Use Drawing (Sheet 16)
- Exhibit A – Airport Property Inventory Map (Sheet 17)
- Airport Property Inventory Map Data Tables (Sheet 18)

The features of these drawings are briefly discussed in subsequent paragraphs.

6.1 Cover Sheet (Sheet 1)

The cover sheet provides an index of drawings in the plans set. The location map and vicinity map indicate the location relative to the State of Florida and the City of Arcadia, respectively. The wind rose and an accompanying table indicate coverage of crosswinds provided by runways individually and collectively. An index of drawings is also provided.

6.2 Data Sheet (Sheet 2)

The Airport Data Sheet includes information regarding the existing and future facilities at the airport. The information includes the following:

- Navigational Aids
- Wind Coverage

- Runway Characteristics
- Taxiway Characteristics
- Airport Characteristics
- Design Standards

6.3 Existing Airport Layout Drawing & Future Airport Layout Drawing (Sheets 3 & 4)

The Airport Layout Drawing (ALD) was developed in accordance with FAA AC 150/5300-13A, Airport Design and the FAA Airport Layout Plan Drawing Set Checklist. The ALD depicts existing facilities and improvements recommended in this Master Plan Update through planning year 2033. Notable recommendations include extension of Runway 6-24 and a corresponding extension of Taxiway A, new t-hangar and box hangar buildings, taxiway improvements, new terminal area including a new entrance road, terminal building, fuel farm, aircraft storage hangars and aircraft and vehicle parking, expanded apron area and an area designated aeronautical/non-aeronautical which will house a camp ground location. The installation of an Automated Weather Observation System is also anticipated. The Future ALD also depicts the ultimate runway and taxiway configurations.

The ALD also incorporates development projects that have been completed since the last ALD. The last ALD was completed and approved as part of the 1994 Airport Master Plan. The following developments have occurred since 1994:

- Runway 6-24 rejuvenation and new pavement markings
- New electrical vault (new location)
- New lighted windsock (new location)
- New Runway 6-24 quartz lighting and Taxiway 'A' LED lighting
- Runway 6 PAPI

6.4 Airport Airspace Drawing (Sheet 5)

Ideally, airports should be located where the airspace is free and clear of obstructions that could not be hazardous to aircraft. It is necessary to keep the surrounding airspace free from obstacles by preventing, where possible, the introduction and development of obstructions that could interfere with the navigation of aircraft.

The regulations for the protection of airspace in the vicinity of airports are established by the definition of a set of "imaginary surfaces"; penetration of these surfaces can result in an obstruction affecting navigable airspace. The shape and size of these imaginary surfaces is defined in Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace. The Airport Airspace Plan depicts the imaginary surfaces applicable to the Arcadia Airport. It is important to illustrate the airspace for the ultimate airport development conditions to prevent introduction of obstructions that would inhibit realization of the plan. The imaginary surfaces shown in the Airspace Plan are:

- Primary Surface
- Approach Surface
- Horizontal Surface
- Transitional Surface

- Conical Surface

The Airspace Plan depicts these surfaces in plan view. To ensure understanding of these surfaces, explanations of each are provided below.

- **Primary Surface** – The primary surface is a surface longitudinally centered on the runway. When the runway has a prepared hard surface, the primary surface extends 200 feet beyond each end of the runway. When the runway has no prepared hard surface, the primary surface ends at the end of that runway. Runway 6-24 currently has a non-precision approach and has a primary surface width of 500 feet. Runway 13-31 is a turf runway that serves small aircraft only and has a primary surface width of 250 feet.
- **Approach Surface** – The approach surface is the surface longitudinally centered in the extended runway centerline that extends outward and upward from each end of the primary surface. The approach slope and dimensions are determined for each runway end based on the type of approach.

Runway 6-24 is a non-precision runway and requires a 34:1 slope at a horizontal length of 10,000 feet. The approach surface measures 500 feet at the inner edge and expands to a width of 2,000 feet. Runway 13-31 is a visual turf runway with a 20:1 approach slope with a horizontal length of 5,000 feet. The approach surface measures 250 feet at the inner edge and expands to a width of 1,250 feet.

- **Horizontal Surface** – The horizontal surface is an imaginary horizontal plane located 150 feet above the established airport elevation. At the Arcadia Municipal Airport, the elevation is 63 feet above mean sea level (MSL) so the horizontal surface's elevation is 213 feet. The dimensions of the horizontal surface are established by arcs of specified dimensions from the end of the primary surface for each runway. The arcs are connected by striking tangents to the arcs with the tangents' being parallel to the runway alignment(s).
- **Transitional Surface** – The transitional surface is an inclined plane with a slope of 7:1 extending upward and outward from the primary and approach surfaces, terminating at the point where they intersect with the horizontal surface or conical surface.
- **Conical Surface** – The conical surface is an inclined plane extending upward and outward from the outer boundary of the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet.

6.5 Inner Portion of the Approach Surface Drawings & Data Tables (Sheets 6 - 13)

These plans provide detailed views of the physical features near each runway's extended centerline including topography, roads, obstructions and incompatible objects in these critical areas. A table usually summarizes the existing obstructions (road, fence, brush) to the airspace and their proposed disposition, if applicable.

6.6 *Terminal Area Drawings (Sheets 14 & 15)*

The Terminal Area Plan provides depiction of the existing FBO/Terminal Complex and Ultimate Terminal Complex to be constructed on the southeast quadrant of the airport and apron areas included in the proposed development areas of the airport. Also depicted are existing and future hangars, aircraft parking aprons and vehicle parking facilities.

6.7 *Airport Land Use Drawing (Sheet 16)*

The Existing Land Use Plan illustrates the general boundaries of the airport property, land use as designated by the controlling jurisdiction, and noise contours for the base year of the analysis. The Future Land Use Plan depicts noise contours for the Year 2033 levels of forecast activity. Noise contours represented include the 60, 65, and 70 DNL contours. The significance of these contours and their relationships to land use compatibility were discussed in Chapter 2 of this report.

6.8 *Exhibit A – Airport Property Inventory Map & Data Tables (Sheets 17 & 18)*

The Airport Property Map depicts the existing and proposed airport property envelope. The associated Property Map Data Table indicates, by parcel number, the type of interest owned (fee simple), nature of the party from which the land was acquired and other information. The Property Plan also reflects the future acquisition of land to accommodate the Runway 6 extension, new terminal building, road relocation, new access road, utility installation and airspace protection.

7. FINANCIAL AND IMPLEMENTATION PLAN

This section describes recommended development at the Arcadia Municipal Airport for the 20-year planning period. Using FAA guidelines for airport master plans, recommended improvements are grouped into three phases: short-term (1 to 5 years), intermediate-term (6 to 10 years), and long-term (11 to 20 years). Phasing of projects assists the airport sponsor in budgetary planning for needed construction improvements. It also provides a preliminary set of recommendations pertaining to priorities for implementation of projects insofar as timing is concerned. These recommendations are subject to later revisions based upon operational and budgetary considerations.

7.1 Existing JACIP

In order to plan and program state funding for airport improvements, the Florida Department of Transportation uses a process termed the Joint Automated Capital Improvement Plan (JACIP). The JACIP provides online access to a spreadsheet that identifies proposed projects, by airport, for a six-year period. **Table 7.1** summarizes the current JACIP for X06. Review of the table shows that realization of all the projects in the plan would require over \$9,000,000 in total funding by Year 2021 assuming that the cost estimates remained applicable.

Table 7.1 Existing JACIP Summary

Project Description	Year	Estimated Cost
Reconstruct Hangar Taxiways	2015	\$ 800,000
Taxiway B Construction	2015	\$ 1,200,000
AWOS	2015	\$ 100,000
2015 Yearly Total		\$ 2,100,000
Land Acquisition	2016	\$ 800,000
2016 Yearly Total		\$ 800,000
Taxiway Extension	2017	\$ 1,100,000
Water and Sewer Supply	2017	\$ 1,000,000
Runway Extension	2017	\$ 1,100,000
2017 Yearly Total		\$ 3,200,000
Avigation Easement	2018	\$ 200,000
T-Hangars	2018	\$ 450,000
2018 Yearly Total		\$ 650,000
Rehabilitate Apron	2021	\$ 500,000
Rehabilitate Taxiway	2021	\$ 800,000
Runway Pavement Rehabilitation	2021	\$ 1,000,000
2021 Yearly Total		\$ 2,300,000
Airport Total		\$ 9,050,000

Source: Florida Aviation Database.

7.2 Development Phasing and Revised Cost Estimates

This master plan included a review of future projects within the context of existing and anticipated conditions and activity at the airport. Based upon this review, revisions are recommended to the JACIP's lists of projects. **Table 7.2** identifies the airport improvements recommended by this study.

These are arranged by proposed development phase. Planning level cost estimates were prepared for these items and are also presented in **Table 7.2**. The table further indicates the potential sources of funding for individual projects based upon current FAA and FDOT eligibility guidelines. Additional information concerning funding sources is provided in section 7.3 of this section.

Eligibility for FAA funding does not ensure that grants will be forthcoming in the timeframes indicated in **Table 7.2**. The FAA's resources are limited, and the process of awarding grants is competitive. As a result, the consultant recommends that annual reviews of X06's needs and opportunities be conducted to ensure that the money available is used most effectively. In general terms, priorities should be considered that reflect the following factors:

- Safety as indicated by conforming to FAA Guidelines – This factor places most emphasis upon maintenance and improvements, such as obstruction removal, correction of deficiencies that do not meet FAA standards, etc.
- Maintenance of existing facilities – X06 has several facilities in need of maintenance/rehabilitation, particularly T-Hangar pavement. In the absence of full funding for all projects, emphasis should generally be placed upon those projects that will allow continued use of existing needed facilities.
- Improvements that provide additional income – Recommendations are indicated in **Table 7.2** that would support development of several parcels for rentals. As described in the following section, these rents would increase the capability of the airport to provide local funding for operations, maintenance, and improvements.

Table 7.2 Proposed Projects by Development Phase

Phase I: 2013-2018	Estimated Cost	Eligible Funding by Source		
Projects		Federal	State	Local
Construct Taxiway B (Butler Bldg to Taxiway A)	\$ 1,100,000	\$ 990,000	\$ 55,000	\$ 55,000
Avigation Easement & Obstruction Removal	\$ 425,000		\$ 425,000	
Land Acquisition West of US 31	\$ 750,000		\$ 600,000	150,000
Extend Water & Sewer	\$ 1,250,000		\$ 1,000,000	\$ 250,000
Construct Two T-Hangar Buildings	\$ 675,000		\$ 540,000	135,000
T-Hangar Access Road	\$ 500,000		\$ 400,000	\$ 100,000
Construct Perimeter Fencing East Quadrant	\$ 550,000		\$ 440,000	\$ 110,000
Total, Phase I: 2013-2018	\$ 5,250,000	\$ 990,000	\$ 3,460,000	\$ 800,000

Phase II, 2019-2023	Estimated Cost	Eligible Funding by Source		
Projects		Federal	State	Local
Construct 60x60 Box Hangar w/ramp & vehicle parking	\$ 525,000		\$ 420,000	105,000
Construct 60x60 Box Hangar w/ramp & vehicle parking	\$ 525,000		\$ 420,000	\$ 105,000
Apron Expansion	\$ 425,000	\$ 382,500	\$ 21,250	\$ 21,250
Construct 60x60 Box Hangar w/ramp & vehicle parking	\$ 525,000		\$ 420,000	\$ 105,000
Construct 60x60 Box Hangar w/ramp & vehicle parking	\$ 525,000		\$ 420,000	105,000
Land Acquisition West of Airport Road	\$ 2,225,000	\$ 2,002,500	\$ 111,250	\$ 111,250
Total, Phase II: 2019-2023	\$ 4,750,000	\$ 2,385,000	\$ 1,812,500	\$ 552,500

Phase III: 2024-2033	Estimated Cost	Eligible Funding by Source		
Projects		Federal	State	Local
Airport Road Relocation	\$ 1,450,000		\$ 1,160,000	\$ 290,000
RWY6 Extension & REILs, TWY A Extension	\$ 1,550,000	\$ 1,395,000	\$ 77,500	77,500
Construct Terminal Building, apron, fuel farm, access road, & vehicle parking	\$ 3,575,000		\$ 2,860,000	\$ 715,000
Construct Two 100x120 Hangars	\$ 1,950,000		\$ 1,560,000	\$ 390,000
Total, Phase III: 2024-2033	\$ 8,525,000	\$ 1,395,000	\$ 5,657,500	\$ 1,472,500

Source: Hanson Professional Services Inc., 2015

7.3 Funding Sources

Funding of airport development projects is provided by sources at the federal, state, and local levels as well as private entities. The primary source, especially at general aviation airports such as X06, is the Federal Aviation Administration's Airport Improvement Program (AIP). Financing for the AIP comes from the Airport and Airway Trust Fund, which receives proceeds from various aviation related taxes, such as those imposed on aviation fuel. AIP funding is distributed under appropriations set by Congress for entitlement, state apportionment, and discretionary funds as FAA grants. Under the current program, the grants provide up to 90% of the costs for eligible projects, which include airport planning, airport capacity enhancement and preservation projects, noise compatibility programs, and many types of airport improvement and development projects. AIP has several categories including:

- **Entitlement Funds** – The appropriation for commercial service airport entitlement funds is based on a formula related to the number of enplaned passengers and state population. Scheduled commercial service airports receive entitlement funds based upon their respective levels of enplaning paid passengers departing on scheduled commercial aircraft. These figures are reported by the airlines to the FAA. General aviation airport entitlement funds are

limited to \$150,000 per year per airport; however, within certain guidelines and limits, use of these funds may be deferred and the amounts carried forward to future years.

- **State Apportionment Funds** – These funds are available for use within each state for planning and development at general aviation, reliever, and non-primary commercial service airports, the latter category being defined as those commercial service airports that enplane between 2,500 and 9,999 passengers annually. The area and population of each state is used to determine state apportionment amounts.
- **Discretionary Funds** – Any eligible airport may use federal discretionary funds from the AIP. Discretionary allocations are a function of project need and priorities according to the FAA's rating system and are weighed against other projects. Funding levels, or set-asides, are often established by legislation related to discretionary funds for special projects and noise mitigation.
- **State Funding** – For eligible projects at community service airports, FDOT provides up to 5 percent of the local share if federal funding is available and up to 80 percent if federal funding is not available. FDOT will also provide up to 50 percent of the local share for economic development projects. Section 288.0656, Florida Statutes, establishes the Rural Economic Development Initiative (REDI) to better serve Florida's rural communities by providing a more focused and coordinated effort among state and regional agencies that provide programs and services for rural areas.
- **Local Funding** – The City of Arcadia has contributed the necessary matching funds for X06's capital improvement projects. The City's funding capability is based upon surplus airport revenues and a budget set forth by the City of Arcadia annually. Local funding may take various forms. Some communities provide regular general revenue funding for their airports; others make local matching funds available to secure federal and state grants. The State Department of Transportation (Aviation Office) has been designated as a REDI agency and therefore the State of Florida may fund 100% of eligible projects for communities that are classified as Rural Economic Development Initiative areas. Desoto County has been designated as a REDI community and therefore Arcadia also receives the REDI designation. For this reason the Local match requirement for grants may be absorbed by the state eliminating the local share outlined in Table 7.2 and increasing the FDOT share by the local match shown.

Appendix A

Airport Layout Plan



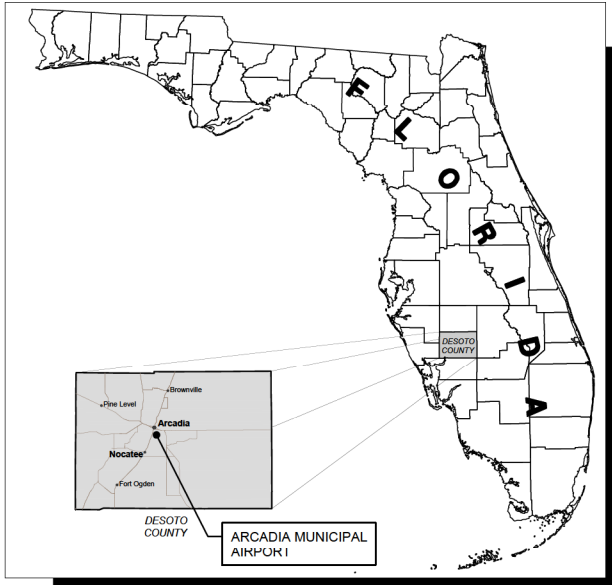
DRAFT
AIRPORT LAYOUT PLAN
FOR
ARCADIA MUNICIPAL AIRPORT (X06)
ARCADIA, DESOTO COUNTY, FLORIDA

AUGUST 24, 2015

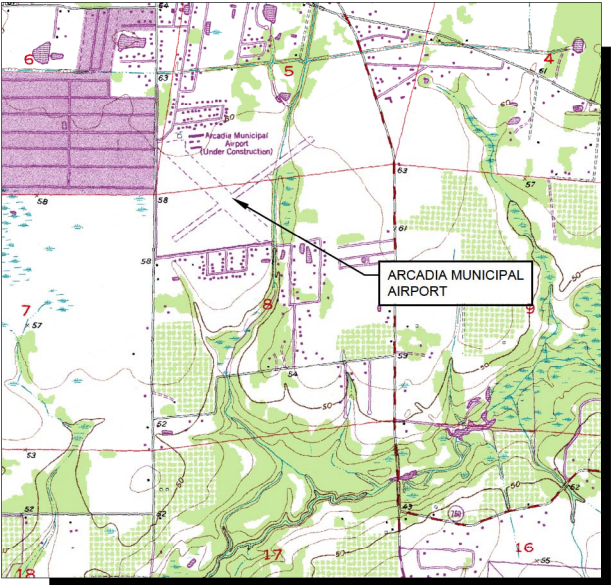
FDOT ITEM # 433855-1-94-01
FAA AIP NO. 3-12-0093-004-2013

INDEX OF SHEETS

SHEET NO.	TITLE
1	COVER SHEET
2	AIRPORT DATA SHEET
3	EXISTING AIRPORT LAYOUT DRAWING
4	FUTURE AIRPORT LAYOUT DRAWING
5	AIRPORT AIRSPACE DRAWING
6	RUNWAY 6 INNER PORTION OF THE APPROACH SURFACE DRAWING
7	RUNWAY 6 OBSTRUCTION DATA TABLES
8	RUNWAY 24 INNER PORTION OF THE APPROACH SURFACE DRAWING
9	RUNWAY 24 OBSTRUCTION DATA TABLES
10	RUNWAY 13 INNER PORTION OF THE APPROACH SURFACE DRAWING
11	RUNWAY 13 OBSTRUCTION DATA TABLES
12	RUNWAY 31 INNER PORTION OF THE APPROACH SURFACE DRAWING
13	RUNWAY 31 OBSTRUCTION DATA TABLES
14	TERMINAL AREA DRAWING - SHEET 1
15	TERMINAL AREA DRAWING - SHEET 2
16	AIRPORT LAND USE DRAWING
17	EXHIBIT "A" - AIRPORT PROPERTY INVENTORY MAP
18	AIRPORT PROPERTY INVENTORY MAP DATA TABLES



LOCATION MAP



VICINITY MAP

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No.	Issue/Description	Date	By



ARCADIA MUNICIPAL AIRPORT
Arcadia, Florida

City of Arcadia

Date



HANSON

Hanson Professional Services Inc.
9015 Town Center Parkway, Suite 105
Lakewood Ranch, Florida 34202
Telephone: 941-342-6321
www.hanson-inc.com

Consultant

Date



FLORIDA DEPARTMENT OF TRANSPORTATION
Aviation and Spaceports Office

Kristi Smith, Senior Modal Project Manager, FDOT District 1

Date

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RUNWAY DATA TABLE												
ITEM	6-24				13 31 (Future 14 32)							
	Existing		Future		Ultimate		Existing		Future			
	Runway End 6	Runway End 24	Runway End 6	Runway End 24	Runway End 6	Runway End 24	Runway End 13	Runway End 31	Runway End 14	Runway End 32		
Runway Identification	B-I-VIS (Utility)		B-I-5000 (Utility)		B-II-5000		B-I-VIS (Utility)		B-I-VIS (Utility)			
Runway Design Code (RDC)*	B-I-VIS (Utility)		B-I-5000 (Utility)		B-II-5000		B-I-VIS (Utility)		B-I-VIS (Utility)			
Approach Reference Code (APRC)	B-I-VIS (Utility)		B-I-5000 (Utility)		B-II-5000		B-I-VIS (Utility)		B-I-VIS (Utility)			
Departure Reference Code (DPRC)	B-I-VIS (Utility)		B-I-5000 (Utility)		B-II-5000		B-I-VIS (Utility)		B-I-VIS (Utility)			
Pavement Surface Type	Asphalt		Asphalt		Asphalt		Turf		Turf			
Pavement Strength (lbs)	12,500 (Single Wheel)		12,500 (Single Wheel)		20,000 (Single Wheel)		N/A		N/A			
Pavement Strength (PCN)	---		---		---		---		---			
Surface Treatment	None		None		None		N/A		N/A			
Effective Runway Gradient (%)**	0.09%		0.10%		0.10%		0.13%		0.12%			
Wind Coverage (%)	94.09%		94.09%		96.93%		91.24%		91.24%			
Runway Length	3,700'		4,300'		4,700'		2,829'		2,400'			
Runway Width	75'		75'		75'		100'		100'			
Critical Aircraft	Piper PA-34 Seneca		Piper PA-34 Seneca		Cessna Citation 560XL		Cessna 172		Cessna 172			
Approach Speed	---		---		107 Knots		107 Knots		59 Knots			
Wing Span	38.9'		38.9'		55.8'		35.8'		35.8'			
Aircraft Tail Height	9.9'		9.9'		17.2'		8.9'		8.9'			
Maximum Takeoff Weight (lbs.)	4,570		4,570		20,000		2,450		2,450			
Runway True Bearing	52° 24' 18.8"		232° 24' 33.6"		52° 24' 16.3"		232° 24' 33.5"		133° 20' 14.0"		313° 20' 24.4"	
Runway End Coordinates (NAD83)									133° 20' 14.1"		313° 20' 23.0"	
Latitude	27° 11' 33.0152" N		27° 11' 55.3668" N		27° 11' 29.3885" N		27° 11' 55.3668" N		27° 11' 49.4092" N		27° 11' 33.0972" N	
Longitude	81° 50' 30.2554" W		81° 49' 57.7884" W		81° 50' 35.5227" W		81° 49' 57.7884" W		81° 50' 32.4986" W		81° 50' 13.6677" W	
Runway End Elevation (MSL)	58.9'		62.2'		58.0'		62.2'		59.2'		56.7'	
Displaced Threshold From Runway End	None		None		None		None		678'		None	
Displaced Threshold Coordinates (NAD83)												
Latitude	N/A		N/A		N/A		N/A		27° 11' 46.2931" N		N/A	
Longitude	N/A		N/A		N/A		N/A		27° 11' 38.4234" N		N/A	
Displaced Threshold Elevation (MSL)	N/A		N/A		N/A		N/A		81° 50' 19.4787" W		N/A	
Runway Safety Area (RSA)									59.2'		N/A	
Actual	4,180'x120'		4,180'x120'		4,780'x120'		4,780'x120'		5,300'x150'		5,300'x150'	
Design Standard - Length Beyond Departure End	240'		240'		240'		240'		300'		300'	
Design Standard - Length Prior to Threshold	240'		240'		240'		240'		300'		300'	
Design Standard - Width	120'		120'		120'		120'		150'		150'	
Runway Lighting Type	MKL		MKL		MKL		MKL		None		None	
Approach Runway Protection Zone (RPZ)									None		None	
Length	1,000'		1,000'		1,000'		1,000'		1,000'		1,000'	
Inner Width	250'		250'		250'		250'		250'		250'	
Outer Width	450'		450'		450'		450'		450'		450'	
Departure Runway Protection Zone (RPZ)									None		None	
Length	1,000'		1,000'		1,000'		1,000'		1,000'		1,000'	
Inner Width	250'		250'		250'		250'		250'		250'	
Outer Width	450'		450'		450'		450'		450'		450'	
Runway Marking Type	Non-Precision		Non-Precision		Non-Precision		Non-Precision		None		None	
14 CFR FAR Part 77 Approach Category	20.1		20.1		20.1		20.1		20.1		20.1	
14 CFR FAR Part 77 Approach Type	Visual (Utility)		Visual (Utility)		Non-Precision (Utility)		Non-Precision (Utility)		Visual (Utility)		Visual (Utility)	
14 CFR FAR Part 77 Approach Dimensions (WxOxWxL)	250'x1,250'x5,000'		250'x1,250'x5,000'		500'x2,000'x5,000'		500'x2,000'x5,000'		250'x1,250'x5,000'		250'x1,250'x5,000'	
14 CFR FAR Part 77 Approach Visibility Minimums	Visual		Visual		> 3/4 Mile		> 3/4 Mile		Visual		Visual	
Visibility Minimums (RVR)	Visual (VIS)		Visual (VIS)		> 1 Mile (5000)		> 1 Mile (5000)		Visual (VIS)		Visual (VIS)	
Type of Aeronautical Survey Required for Approach	Not Vertically Guided		Not Vertically Guided		Not Vertically Guided		Not Vertically Guided		Not Vertically Guided		Not Vertically Guided	
Instrument Approach Procedures									Visual - Circling (1 Mile)		Visual - Circling (1 Mile)	
Type (Visibility Minimum)	Visual - Circling (1 Mile)		Visual - Circling (1 Mile)		Non-Precision (1 Mile)		Non-Precision (1 Mile)		Visual - Circling (1 Mile)		Visual - Circling (1 Mile)	
Approach Instrumentation	GPS		GPS		RNAV (GPS)		RNAV (GPS)		GPS		GPS	
Runway Object Free Area (ROFA)									Visual - Circling (1 Mile)		Visual - Circling (1 Mile)	
Design Standard - Length Beyond Runway	240'		240'		240'		300'		240'		240'	
Design Standard - Length Prior to Threshold	240'		240'		240'		300'		240'		240'	
Design Standard - Width	250'		250'		250'		500'		250'		250'	
Runway Obstacle Free Zone (ROFZ)									Visual - Circling (1 Mile)		Visual - Circling (1 Mile)	
Length	200'		200'		200'		200'		200'		200'	
Width	250'		250'		250'		400'		250'		250'	
Precision Obstacle Free Zone (POFZ)									Visual - Circling (1 Mile)		Visual - Circling (1 Mile)	
Length	N/A		N/A		N/A		N/A		N/A		N/A	
Width	N/A		N/A		N/A		N/A		N/A		N/A	
Threshold Siting									Visual - Circling (1 Mile)		Visual - Circling (1 Mile)	
Approach Surface Type	2		2		4		4		2		2	
Approach Surface Slope	20.1		20.1		20.1		20.1		20.1		20.1	
Approach Surface Dimensions	0'x250'x700'x2,250'x2,750'		0'x250'x700'x2,250'x2,750'		200'x400'x3,800'x10,000'		200'x400'x3,800'x10,000'		0'x250'x700'x2,250'x2,750'		0'x250'x700'x2,250'x2,750'	
Runway Departure Surface									0'x250'x700'x2,250'x2,750'		0'x250'x700'x2,250'x2,750'	
Departure Surface Slope	N/A		N/A		40.1		40.1		N/A		N/A	
Departure Surface Dimensions	N/A		N/A		0'x1,000'x6,466'x10,200'		0'x1,000'x6,466'x10,200'		N/A		N/A	
Visual NAVAIDS	PAPI(2)		None		PAPI(2), REIL		PAPI(4), REIL		None		None	
Instrument NAVAIDS	None		None		None		None		None		None	
Touchdown Zone Elevation	60.0'		62.2'		60.0'		62.2'		59.6'		59.6'	
Taxiway Design Group	1A		1A		1A		2		1A		1A	
Taxiway/Taxilane Width									Visual - Circling (1 Mile)		Visual - Circling (1 Mile)	
Design Standard	25'		25'		25'		25'		25'		25'	
Actual	40'		40'		40'		35'		25'		25'	
Taxiway Safety Area (TSA) Width	49'		49'		49'		79'		49'		49'	
Taxiway Object Free Area (TOFA) Width	89'		89'		89'		131'		89'		89'	
Taxilane Object Free Area Width	79'		79'		79'		115'		79'		79'	
Taxiway/Taxilane Separation									Visual - Circling (1 Mile)		Visual - Circling (1 Mile)	
Taxiway Centerline to Fixed or Movable Object	44.5'		44.5'		44.5'		65.5'		44.5'		44.5'	
Taxilane Centerline to Fixed or Movable Object	39.5'		39.5'		39.5'		57.5'		39.5'		39.5'	
Taxiway Lighting	MITL		MITL		MITL		MITL		None		None	

- * RDC-RUNWAY DESIGN CODE: DESIGN AIRCRAFT BASED UPON AC 150/5300-13A TABLES 1-1, 1-2 AND 1-3, PAGE 13.
AIRCRAFT APPROACH CATEGORY B: SPEED OF 91 KNOTS OR MORE, BUT LESS THAN 121 KNOTS.
AIRPLANE DESIGN GROUP I:
TAIL HEIGHT - LESS THAN 20'.
WINGSPAN - LESS THAN 49'.
AIRPLANE DESIGN GROUP II:
TAIL HEIGHT - AT LEAST 20' BUT LESS THAN 30'.
WINGSPAN - AT LEAST 49' BUT LESS THAN 79'.
VIS - RUNWAYS DESIGNATED WITH VISUAL APPROACH USE ONLY.
CATEGORY: 5000 - NOT LOWER THAN 1 MILE.
** RUNWAY MEETS LINE OF SIGHT REQUIREMENTS

GENERAL NOTES

1. A/P PREPARED USING DESIGN CRITERIA FROM FAA ADVISORY CIRCULAR 150/5300-13A, CHANGE 1 "AIRPORT DESIGN" AND FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE".
2. THERE ARE NO OBSTACLE FREE ZONE PENETRATIONS FOR RUNWAY 6-24. PENETRATIONS TO RUNWAY 13-31 OBSTACLE FREE ZONES WILL BE CORRECTED DURING FUTURE PROJECTS.
3. FUTURE AREAS OF EASEMENT MAY BE PURCHASED IN FEE AS PART OF FUTURE PROJECTS.
4. CURRENT AND FUTURE AIRPORT PROPERTY TO BE FENCED AS PART OF FUTURE PROJECTS.
5. FUTURE NAVAIDS TO BE SITED UNDER FUTURE PROJECTS.
6. ULTIMATE EXTENSION OF RUNWAY 6-24 AND UPGRADE OF FACILITY TO ARC B-II STANDARDS EXCEEDS THE FACILITY REQUIREMENTS SET FORTH IN THE MASTER PLAN. THESE IMPROVEMENTS ARE NOT ANTICIPATED TO BE CONSTRUCTED WITHIN THE 20-YEAR PLANNING HORIZON, BUT ARE DEPICTED IN ORDER TO AID IN SITING FUTURE IMPROVEMENTS. THEIR CONSTRUCTION AND EXACT LOCATION WILL BE DEPENDENT ON FUTURE AVIATION ACTIVITY AND ECONOMIC GROWTH OF THE AIRPORT. ASSOCIATED AIRSPACE SURFACES OMITTED FOR CLARITY.

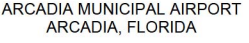
REFERENCE

1. LATITUDE AND LONGITUDE ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83), AS APPLICABLE, CONVERSIONS MADE FROM FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE.
2. VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. ELEVATIONS SHOWN ARE IN "MEAN SEA LEVEL" (MSL) UNLESS NOTED OTHERWISE, AND ARE NOT INTENDED FOR DESIGN PURPOSES.
4. ALL ELEVATIONS AND DIMENSIONS IN FEET, UNLESS NOTED OTHERWISE.
5. AERIAL MAPPING AND PHOTOGRAPHY FROM GRW INC., JULY 2014.
6. GROUND CONTOUR INTERVALS SHOWN ARE 2-FOOT, GENERATED FROM AERIAL MAPPING.

DECLARED DISTANCES								
Declared Distance	Existing Rwy 6-24		Future Runway 6-24		Existing Runway 13-31		Future Runway 14-32	
	Runway 6	Runway 24	Runway 6	Runway 24	Runway 13	Runway 31	Runway 13	Runway 31
Takeoff Run Available (TORA)	3,700'	3,700'	4,300'	4,300'	2,829'	2,829'	2,400'	2,400'
Takeoff Distance Available (TODA)	3,700'	3,700'	4,300'	4,300'	2,829'	2,829'	2,400'	2,400'
Accelerate - Stop Distance Available (ASDA)	3,700'	3,700'	4,300'	4,300'	2,515'	2,610'	2,400'	2,400'
Landing Distance Available (LDA)	3,700'	3,700'	4,300'	4,300'	1,837'	1,616'	2,400'	2,400'



B-7961



AIRPORT LAYOUT PLAN

GENERAL NOTES

1. ALP PREPARED USING DESIGN CRITERIA FROM FAA ADVISORY CIRCULAR 150/5300-13A, CHANGE 1 "AIRPORT DESIGN" AND FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE".
2. THERE ARE NO OBSTACLE FREE ZONE PENETRATIONS FOR RUNWAY 6-24. PENETRATIONS TO RUNWAY 13-31 OBSTACLE FREE ZONES WILL BE CORRECTED DURING FUTURE PROJECTS.
3. EXISTING FENCE IS 4" AND 6" HIGH.

1. LATITUDE AND LONGITUDE ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83). AS APPLICABLE, CONVERSIONS MADE FROM FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE 18.
2. VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. ELEVATIONS SHOWN ARE IN "MEAN SEA LEVEL" (MSL) UNLESS NOTED OTHERWISE, AND ARE NOT INTENDED FOR DESIGN PURPOSES.
4. ALL ELEVATIONS AND DIMENSIONS IN FEET, UNLESS NOTED OTHERWISE.
5. AERIAL MAPPING AND PHOTOGRAPHY FROM GRW INC., JULY 2014.
6. GROUND CONTOUR INTERVALS SHOWN ARE 2-FOOT, GENERATED FROM AERIAL MAPPING.

EXISTING	LEGEND	FUTURE	ULTIMATE
	AIRPORT PROPERTY LINE	N/A	N/A
	FENCE	N/A	N/A
	ROADS	N/A	N/A
	AIRFIELD BUILDINGS	N/A	N/A
	AIRFIELD PAVEMENT	N/A	N/A
	AVIGATION EASEMENT	N/A	N/A
	PRECISION APPROACH PATH INDICATOR (PAPI)	N/A	N/A
N/A	RUNWAY END IDENTIFIER LIGHTS (REIL)	N/A	N/A
	LIGHTED WIND CONE/WIND TEE	N/A	N/A
	AIRPORT REFERENCE POINT (ARP)	N/A	N/A
	THRESHOLD SITING SURFACE	N/A	N/A
	BUILDING RESTRICTION LINE (BRL) FOR 25' BLDG.	N/A	N/A
	FAR PART 77 SURFACE	N/A	N/A
	RUNWAY OBJECT FREE AREA (ROFA)	N/A	N/A
	TAXIWAY OBJECT FREE AREA (TOFA)	N/A	N/A
	RUNWAY OBSTACLE FREE ZONE (ROFZ)	N/A	N/A
	RUNWAY PROTECTION ZONE (RPZ)	N/A	N/A
	RUNWAY SAFETY AREA (RSA)	N/A	N/A
	TAXIWAY SAFETY AREA (TSA)	N/A	N/A
	RUNWAY VISIBILITY ZONE	N/A	N/A
N/A	40:1 DEPARTURE SURFACE	N/A	N/A
N/A	PAVEMENT OR TURF RUNWAY TO BE REMOVED	N/A	N/A
	VEGETATION	N/A	N/A
	DRAINAGE DITCH/SWALE	N/A	N/A

ISSUE: AUGUST 24, 2015

PROJECT NO: 12A0141
PLANT FILE: 03-ALD-E.DWG
DESIGN BY: MLH 12/04/2014
DRAWN BY: MLH 12/04/2014
REVIEWED BY: MCM 08/13/2015

SHEET TITLE

EXISTING AIRPORT LAYOUT DRAWING

DRAFT



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EB-7961

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ARCADIA MUNICIPAL AIRPORT
ARCADIA, FLORIDA

AIRPORT LAYOUT PLAN

Facilities Table		
#	Facility Description	Top Elevation
1	FBO/Terminal Building	82'
2	Electrical Vault	72'
3	Hangar	75'
4	Maintenance Hangar	88'
5	T-Hangar	78'
6	T-Hangar	78'
7	T-Hangar	80'
8	Maintenance Shed	75'
9	Maintenance Hangar	78'
F1	T-Hangar	80'
F2	T-Hangar	78'
F3	60'x60' Hangar	85'
F4	60'x60' Hangar	85'
F5	60'x60' Hangar	85'
F6	60'x60' Hangar	85'
F7	T-Hangar	80'
F8	FBO/Terminal	95'
F9	120'x100' Hangar	06'
F10	120'x100' Hangar	95'

GENERAL NOTES

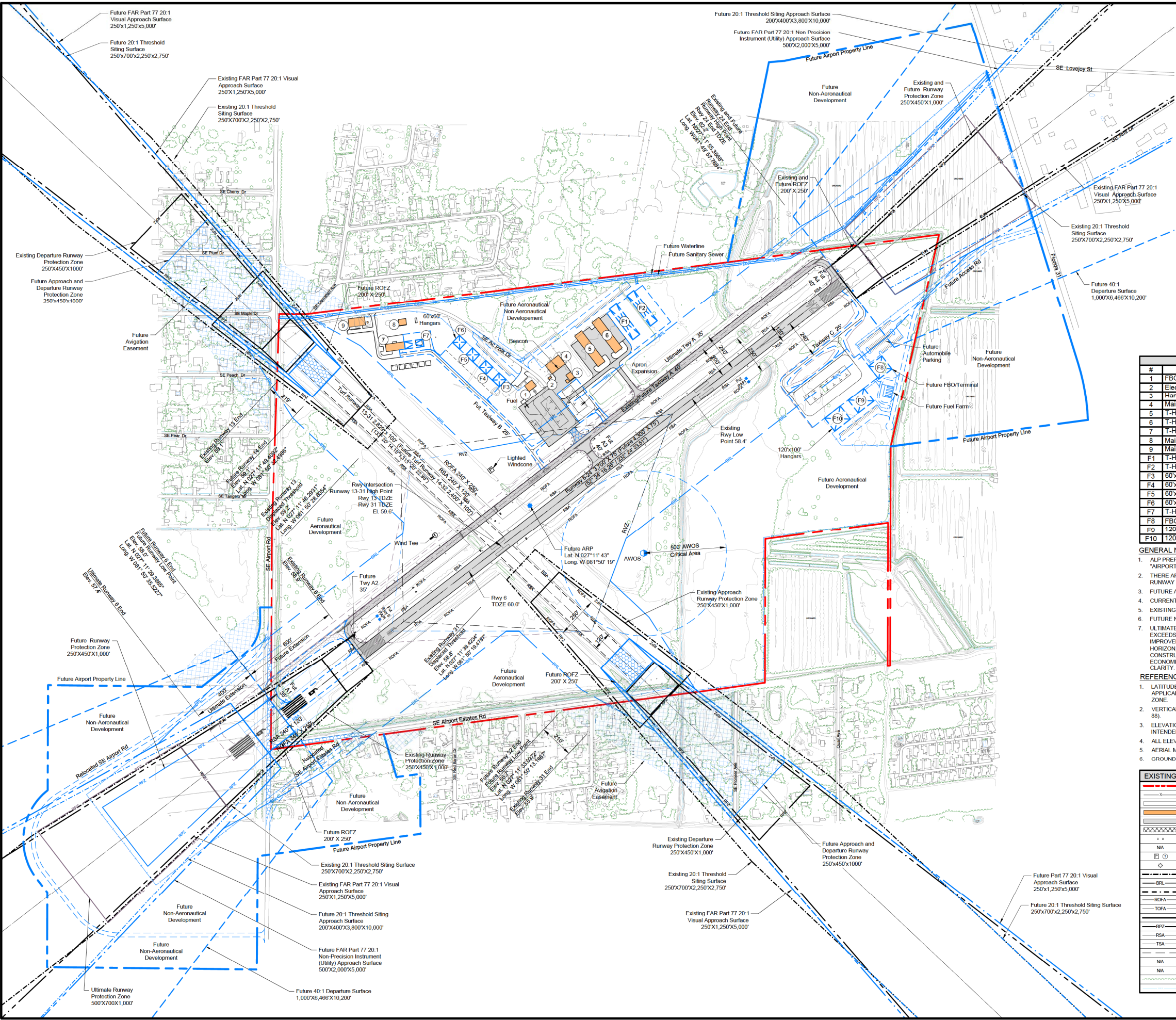
- ALP PREPARED USING DESIGN CRITERIA FROM FAA ADVISORY CIRCULAR 150/5300-13A, CHANGE 1 "AIRPORT DESIGN" AND FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE".
- THERE ARE NO OBSTACLE FREE ZONE PENETRATIONS FOR RUNWAY 6-24. PENETRATIONS TO RUNWAY 13-31 OBSTACLE FREE ZONES WILL BE CORRECTED DURING FUTURE PROJECTS.
- FUTURE AREAS OF EASEMENT MAY BE PURCHASED IN FEE AS PART OF FUTURE PROJECTS.
- CURRENT AND FUTURE AIRPORT PROPERTY TO BE FENCED AS PART OF FUTURE PROJECTS.
- EXISTING FENCE IS 4' AND 6' HIGH. FUTURE FENCE TO BE 6' HEIGHT.
- FUTURE NAVAIDS TO BE SITED UNDER FUTURE PROJECTS.
- ULTIMATE EXTENSION OF RUNWAY 6-24 AND UPGRADE OF FACILITY TO ARC B-II STANDARDS EXCEEDS THE FACILITY REQUIREMENTS SET FORTH IN THE MASTER PLAN. THESE IMPROVEMENTS ARE NOT ANTICIPATED TO BE CONSTRUCTED WITHIN THE 20-YEAR PLANNING HORIZON, BUT ARE DEPICTED IN ORDER TO AID IN SITING FUTURE IMPROVEMENTS. THEIR CONSTRUCTION AND EXACT LOCATION WILL BE DEPENDENT ON FUTURE AVIATION ACTIVITY AND ECONOMIC GROWTH OF THE AIRPORT. ASSOCIATED AIRSPACE SURFACES OMITTED FOR CLARITY.

REFERENCE

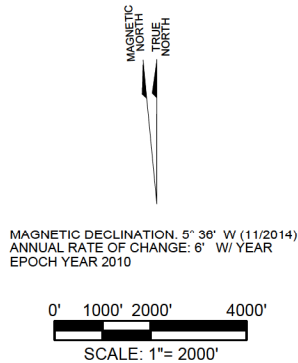
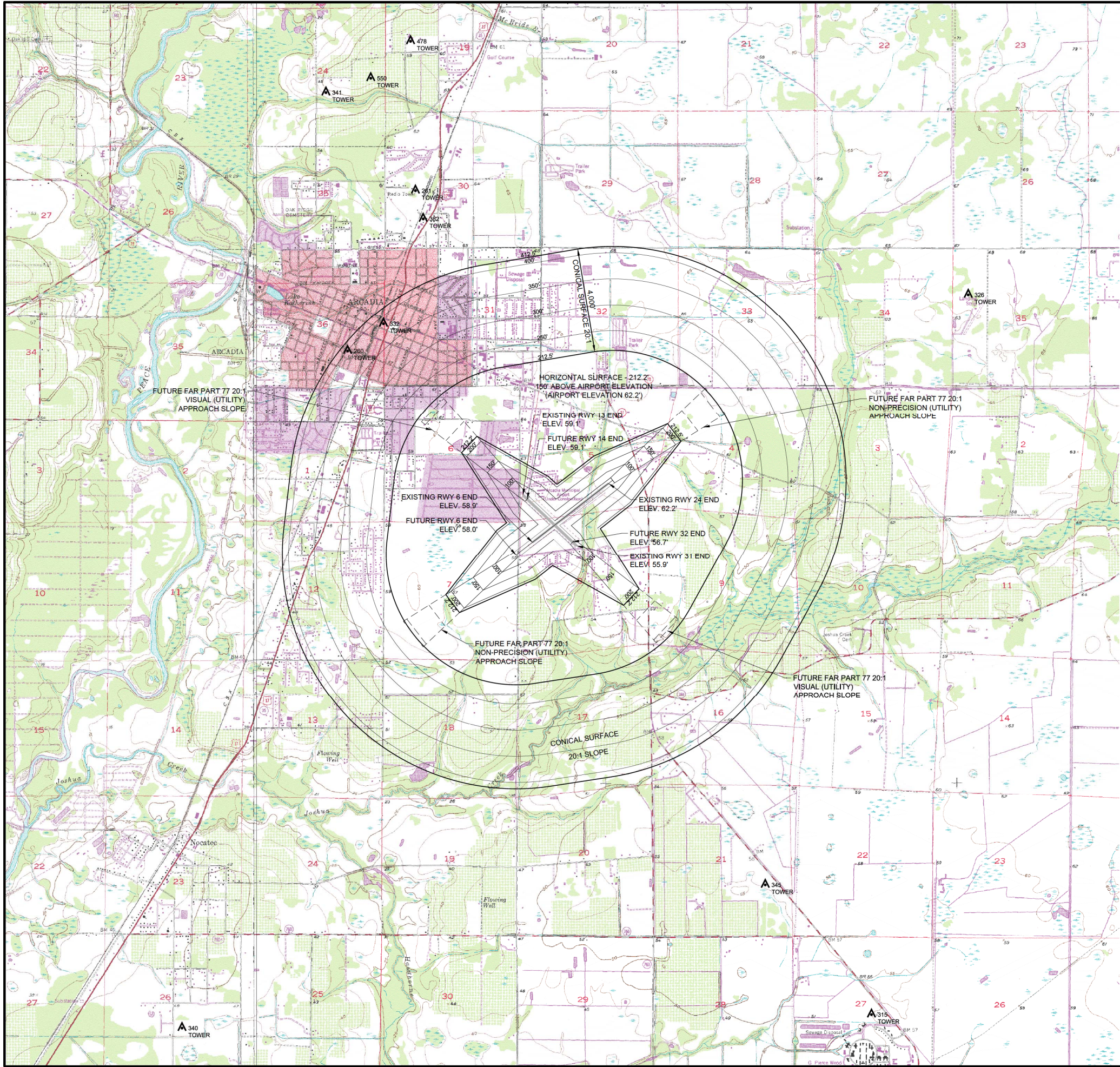
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- ALL ELEVATIONS AND DIMENSIONS IN FEET, UNLESS NOTED OTHERWISE.
- AERIAL MAPPING AND PHOTOGRAPHY FROM GRW INC., JULY 2014.
- GROUND CONTOUR INTERVALS SHOWN ARE 2-FOOT, GENERATED FROM AERIAL MAPPING.

EXISTING	LEGEND	FUTURE	ULTIMATE
---	AIRPORT PROPERTY LINE	---	NA
---	FENCE	---	NA
---	ROADS	---	NA
---	AIRFIELD BUILDINGS	---	NA
---	AIRFIELD PAVEMENT	---	NA
---	AVIATION EASEMENT	---	NA
---	PRECISION APPROACH PATH INDICATOR (PAPI)	---	NA
---	RUNWAY END IDENTIFIER LIGHTS (REIL)	---	NA
---	LIGHTED WIND CONEWIND TEE	---	NA
---	AIRPORT REFERENCE POINT (ARP)	---	NA
---	THRESHOLD SITING SURFACE	---	NA
---	BUILDING RESTRICTION LINE (BRL) FOR 25' BLDG.	---	NA
---	FAR PART 77 SURFACE	---	NA
---	RUNWAY OBJECT FREE AREA (ROFA)	---	NA
---	TAXIWAY OBJECT FREE AREA (TOFA)	---	NA
---	RUNWAY OBSTACLE FREE ZONE (ROFZ)	---	NA
---	RUNWAY PROTECTION ZONE (RPZ)	---	NA
---	RUNWAY SAFETY AREA (RSA)	---	NA
---	TAXIWAY SAFETY AREA (TSA)	---	NA
---	RUNWAY VISIBILITY ZONE	---	NA
---	40:1 DEPARTURE SURFACE	---	NA
---	PAVEMENT OR TURF RUNWAY TO BE REMOVED	---	NA
---	VEGETATION	---	NA
---	DRAINAGE DITCH/SWALE	---	NA

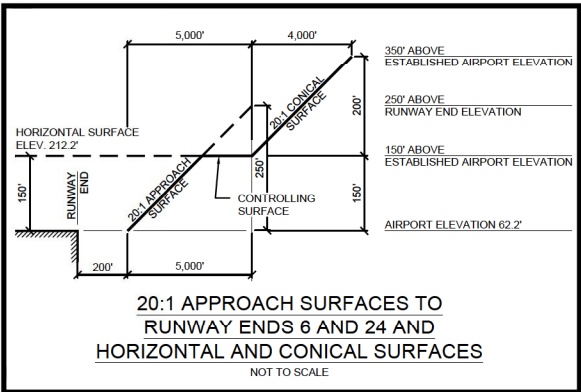
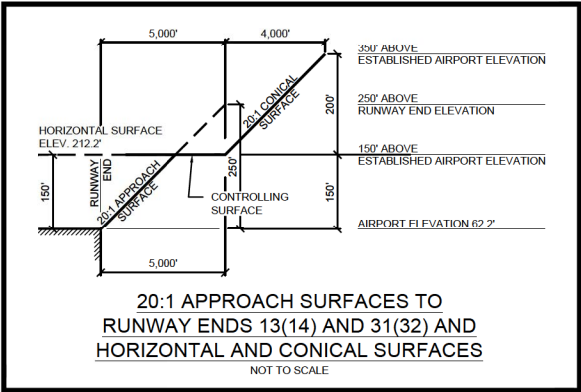
DRAFT



AUG 22, 2015 5:58 PM HARR01115
I:\12\JOBS\12A0141\CAD\AIRPORT\105-AIRS-PT77-F.DWG



MAGNETIC DECLINATION, 5° 36' W (11/2014)
ANNUAL RATE OF CHANGE: 6" W/YEAR
EPOCH YEAR 2010



GENERAL NOTES

1. APPROACH SURFACE TO PAVED RUNWAY ENDS BEGIN 200' BEYOND RUNWAY END. APPROACH SURFACE TO TURF RUNWAY ENDS BEGIN AT THE RUNWAY END.
2. ANY HEIGHT WITHIN A TERMINAL OBSTACLE CLEARANCE AREA, INCLUDING AN INITIAL APPROACH SEGMENT, AND A DEPARTURE 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 IS AN OBSTRUCTION TO AIR NAVIGATION.
3. OBJECT DATA FROM FAA OBSTACLE REPOSITORY SERVICE DIGITAL OBSTACLE FILE (DOF), DATED 07/19/2015.
4. ELEVATIONS APPROXIMATE FEET ABOVE MEAN SEA LEVEL.
5. SEE RUNWAY PROFILE SHEETS FOR OBSTRUCTIONS IN INNER PORTION OF APPROACH SURFACES.
6. THERE ARE CURRENTLY NO LOCAL ZONING RESTRICTIONS THAT ARE IN PLACE TO PROTECT THE AIRPORT AND SURROUNDING AIRSPACE; ONLY FLORIDA STATUTE 333 APPLIES.



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EB-7961

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ARCADIA MUNICIPAL AIRPORT
ARCADIA, FLORIDA

AIRPORT LAYOUT PLAN

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: AUGUST 24, 2015
PROJECT NO: 12A0141
CAD FILE: 05-AIRS-PT77-F.DWG
DESIGN BY: MLH 12/04/2014
DRAWN BY: MLH 12/04/2014
REVIEWED BY: MCM 08/13/2015

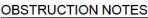
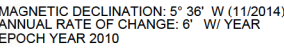
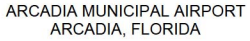
SHEET TITLE

AIRPORT AIRSPACE
DRAWING

DRAFT



EB-7961



1. PER PART 77, "OBJECTS AFFECTING NAVIGABLE AIRSPACE", PUBLIC ROADS
CONSIDERED AS 15' OBJECTS, PRIVATE ROADS AS 10' OR THE HIGHEST OBJECT
USING THE ROAD.
2. OBSTRUCTIONS ARE TO BE REMOVED OR RELOCATED AS PART OF FUTURE PROJECTS
AS NECESSARY TO ACCOMMODATE AIRFIELD DEVELOPMENT AND OPERATION.
3. FUTURE OBJECTS TO BE SITED AND MITIGATED UNDER FUTURE PROJECTS.
4. THERE MAY EXIST OBSTRUCTIONS NOT REPRESENTED.
5. NO TERRAIN PENETRATIONS.
6. TREES SHOWN AS OBJECTS MAY REPRESENT MULTIPLE TREES.
7. OBSTRUCTIONS SHOWN FROM AERIAL MAPPING SURVEY PERFORMED BY GRW,
INC., JULY, 2014.

GENERAL NOTES

1. ALP PREPARED USING DESIGN CRITERIA FROM FAA ADVISORY CIRCULAR 150/5300-13A, CHANGE 1 "AIRPORT DESIGN" AND PART 77 "OBSTACLE AFFECTING NAVIGABLE AIRSPACE".
2. THERE ARE NO OBSTACLE FREE ZONE PENETRATIONS FOR RUNWAY 6-24.
PENETRATIONS TO RUNWAY 13-31 OBSTACLE FREE ZONES WILL BE CORRECTED DURING FUTURE PROJECTS.
3. FUTURE AREAS OF EASEMENT MAY BE PURCHASED IN FEAS AS PART OF FUTURE PROJECTS.
4. CURRENT AND FUTURE AIRPORT PROPERTY TO BE FENCED AS PART OF FUTURE PROJECTS.
5. FUTURE NAVAIDS TO BE SITED UNDER FUTURE PROJECTS.
6. ULTIMATE EXTENSION OF RUNWAY 6-24 AND UPGRADE OF FACILITY TO ARC B-II STANDARDS EXCEEDS THE FACILITY REQUIREMENTS SET FORTH IN THE MASTER PLAN. THESE IMPROVEMENTS ARE NOT ANTICIPATED TO BE CONSTRUCTED WITHIN THE 20-YEAR PLANNING HORIZON, BUT ARE DEPICTED IN ORDER TO AID IN SITING FUTURE DEVELOPMENTS. THEIR CONSTRUCTION AND EXACT LOCATION WILL BE DEPENDENT ON FUTURE AVIATION ACTIVITY AND ECONOMIC GROWTH OF THE AIRPORT. ASSOCIATED AIRSPACE SURFACES OMITTED FOR CLARITY.

REFERENCE

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2. VERTICAL COORDINATE IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
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5. AERIAL MAPPING AND PHOTOGRAPHY FROM GRW INC., JULY 2014.
6. GROUND CONTOUR INTERVALS SHOWN ARE 2-FOOT, GENERATED FROM AERIAL MAPPING.

DRAFT

AIRPORT LAYOUT PLAN

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: AUGUST 24, 2015

PROJECT NO: 12A0141

CAD FILE: 06-09-INNR-APCH-06-24.DWG

DESIGN BY: MLH 12/04/2014

DRAWN BY: RAD 12/04/2014

REVIEWED BY: MCM 08/13/20

SHEET TITLE

RUNWAY 6 INNER
PORTION OF THE
APPROACH SURFACE
DRAWING



AUG 24, 2015 2:10 PM HARR01115
11720BST12A0141CADAIRPORTISHEET06-08-INNR-APCH-06-24.DWG

RUNWAY 6 OBSTRUCTION DATA																										
ID	DESCRIPTION	OBJECT TOP ELEVATION	EXISTING OBSTRUCTION DISPOSITION										FUTURE OBSTRUCTION DISPOSITION										PROPOSED ACTION	TRIGGERING EVENT	ID	
			FAR PART 77 PRIMARY SURFACE		FAR PART 77 7:1 TRANSITIONAL SURFACE		FAR PART 77 20:1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE		FAR PART 77 PRIMARY SURFACE		FAR PART 77 7:1 TRANSITIONAL SURFACE		FAR PART 77 20:1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE					
			SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)				
6A	TREE	87	-	-	93	6	-	-	-	-	-	-	-	-	75	-12	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6A	
6B	TREE	116	-	-	115	-2	-	-	-	-	-	-	-	-	97	-20	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6B	
6C	TREE	115	-	-	107	-9	-	-	-	-	-	-	-	-	89	-27	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6C	
6D	TREE	118	-	-	113	-5	-	-	-	-	-	-	-	-	96	-23	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6D	
6E	TREE	93	-	-	74	-18	-	-	-	-	-	-	59	-34	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6E	
6F	TREE	74	-	-	78	4	-	-	-	-	-	-	-	-	60	-14	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6F	
6G	TREE	86	-	-	83	-3	-	-	-	-	-	-	-	-	65	-21	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6G	
6H	TREE	90	-	-	82	-8	-	-	-	-	-	-	-	-	64	-26	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6H	
6I	TREE	88	-	-	84	-4	-	-	-	-	-	-	-	-	66	-22	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6I	
6J	TREE	89	-	-	64	-25	-	-	-	-	-	-	59	-31	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6J	
6K	TREE	85	-	-	61	-24	-	-	70	-16	-	-	59	-27	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6K	
6L	TREE	90	-	-	65	-26	-	-	-	-	-	-	59	-31	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6L	
6M	TREE	90	-	-	60	-24	-	-	-	-	-	-	59	-31	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6M	
6N	TREE	87	-	-	63	-24	-	-	-	72	-15	-	59	-28	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6N	
6O	TREE	86	-	-	68	-18	-	-	-	-	-	-	58	-28	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6O	
6P	TREE	102	-	-	73	-30	-	-	-	-	-	-	58	-44	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6P	
6Q	TREE	89	-	-	69	-20	-	-	-	-	-	-	58	-31	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6Q	
6R	TREE	91	-	-	-	-	65	-26	76	-15	-	-	58	-33	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6R	
6S	TREE	72	-	-	71	-1	-	-	-	-	-	-	58	-14	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6S	
6T	TREE	77	-	-	70	-8	-	-	-	78	0	-	58	-19	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6T	
6U	TREE	85	-	-	73	-12	-	-	-	-	-	-	58	-27	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6U	
6V	TREE	81	-	-	78	-3	-	-	-	-	-	-	58	-22	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6V	
6W	TREE	92	-	-	71	-21	-	-	79	-13	-	-	58	-34	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6W	
6X	TREE	90	-	-	-	-	69	-20	80	-9	-	-	58	-31	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6X	
6Y	TREE	72	-	-	78	6	-	-	-	-	-	-	58	-14	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6Y	
6Z	TREE	88	-	-	75	-13	-	-	-	-	-	-	58	-29	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6Z	
6AA	TREE	91	-	-	71	-20	-	-	-	82	-10	-	58	-33	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6AA	
6AB	TREE	85	-	-	77	-8	-	-	-	-	-	-	58	-26	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	CURRENT PROJECT BY AIRPORT	6AB	
6AC	TREE	112	-	-	95	-17	-	-	-	-	-	-	-	-	67	-45	-	-	-	-	-	-	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AC	
6AD	TREE	105	-	-	101	-4	-	-	-	-	-	-	-	-	73	-32	-	-	-	-	-	-	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AD	
6AE	TREE	112	-	-	99	-14	-	-	84	21	-	-	-	-	58	-5	-	-	-	-	-	-	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AE	
6AF	FENCE AT LT. TSS	63	-	-	76	13	-	-	-	-	-	-	70	-42	-	-	-	-	-	-	-	-	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6AF	
6AG	TREE	107	-	-	109	2	-	-	-	-	-	-	-	-	81	-26	-	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AG	
6AH	FENCE AT LT. PT. 77	63	-	-	-	-	74	11	84	22	-	-	58	-5	-	-	-	-	-	-	-	-	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6AH	
6AI	TREE	108	-	-	110	2	-	-	-	-	-	-	-	-	81	-27	-	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AI	
6AJ	FENCE AT CL	62	-	-	-	-	74	12	85	23	-	-	58	-4	-	-	-	-	-	-	-	-	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6AJ	
6AK	FENCE AT RT. PT. 77	62	-	-	-	-	74	12	85	23	-	-	58	-4	-	-	-	-	-	-	-	-	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6AK	
6AL	FENCE AT RT. TSS	62	-	-	77	15	-	-	85	23	-	-	58	-3	-	-	-	-	-	-	-	-	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6AL	
6AM	TREE	107	-	-	107	0	-	-	-	-	-	-	-	-	78	-29	-	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AM	
6AN	TREE	103	-	-	95	-8	-	-	-	-	-	-	-	-	66	-38	-	-	-	-	-	-	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AN	
6AO	TREE	99	-	-	94	-5	-	-	-	-	-	-	-	-	64	-35	-	-	-	-	-	-	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AO	
6AP	AIRPORT RD. AT LT. TSS	73	-	-	80	-7	-	-	88	15	-	-	68	-15	-	-	-	-	-	-	-	-	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6AP	
6AQ	TREE	99	-	-	91	-8	-	-	-	-	-	-	-	-	60	-39	-	-	-	-	-	-	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AQ	
6AR	AIRPORT RD. AT LT. PT. 77	73	-	-	-	-	77	5	88	15	-	-	58	-15	-	-	-	-	-	-	-	-	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6AR	
6AS	SPORT ESTATES RD. AT RT. TSS	72	-	-	83	11	-	-	91	19	-	-	58	-14	-	-	-	-	-	-	59	-13	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6AS	
6AT	TREE	101	-	-	93	-7	-	-	-	-	-	-	-	-	59	-42	-	-	-	-	59	-42	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AT	
6AU	TREE	104	-	-	89	-15	-	-	-	-	-	-	58	-46	-	-	-	-	-	-	59	-45	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AU	
6AV	TREE	104	-	-	87	-17	-	-	-	-	-	-	58	-46	-	-	-	-	-	-	59	-44	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AV	
6AW	TREE	108	-	-	100	-8	-	-	-	-	-	-	-	-	65	-43	-	-	-	-	59	-49	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AW	
6AX	SPORT ESTATES RD. AT RT. PT. 77	72	-	-	-	-	82	10	93	21	-	-	58	-14	-	-	-	-	-	-	59	-12	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6AX	
6AY	TREE	112	-	-	106	-6	-	-	-	-	-	-	-	-	70	-41	-	-	-	-	60	-52	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6AY	
6AZ	AIRPORT RD. AT CL	73	-	-	-	-	84	11	95	22	-	-	58	-15	-	-	-	-	-	-	60	-12	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6AZ	
6BA	TREE	103	-	-	100	-3	-	-	-	-	-	-	-	-	-	-	60	-44	-	-	64	-39	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6BA	
6BB	AIRPORT RD. AT RT. PT. 77	73	-	-	-	-	91	19	102	29	-	-	-	-	-	-	60	-12	-	60	-12	64	-9	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6BB
6BC	AIRPORT RD. AT RT. TSS	73	-	-	95	22	-	-	103	30	-	-	-	-	-	-	61	-11	-	-	65	-8	FUTURE RELOCATION	RUNWAY 6 EXTENSION	6BC	
6BD	TREE	101	-	-	97	-4	-	-	106	5	-	-	-	-	-	-	64	-36	-	64	-36	66	-35	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6BD
6BE	TREE	99	-	-	103	4	-	-	-	-	-	-	-	-	-	-	65	-34	-	-	67	-32	TRIMMING/REMOVAL	LAND EASEMENT ACQUISITION	6BE	



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ARCADIA MUNICIPAL AIRPORT
ARCADIA, FLORIDA

AIRPORT LAYOUT PLAN

NO.	DATE	DESCRIPTION			
		DES	DWN	REV	

ISSUE: AUGUST 24, 2015

PROJECT NO: 12A0141

CAD FILE: 06-09-INNR-APCH-06-24.DWG

DESIGN BY: MLH 08/01/2015

DRAWN BY: RAD 08/01/2015

REVIEWED BY: MCM 08/13/2015

SHEET TITLE

RUNWAY 6
OBSTRUCTION DATA
TABLE

DRAFT

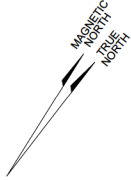
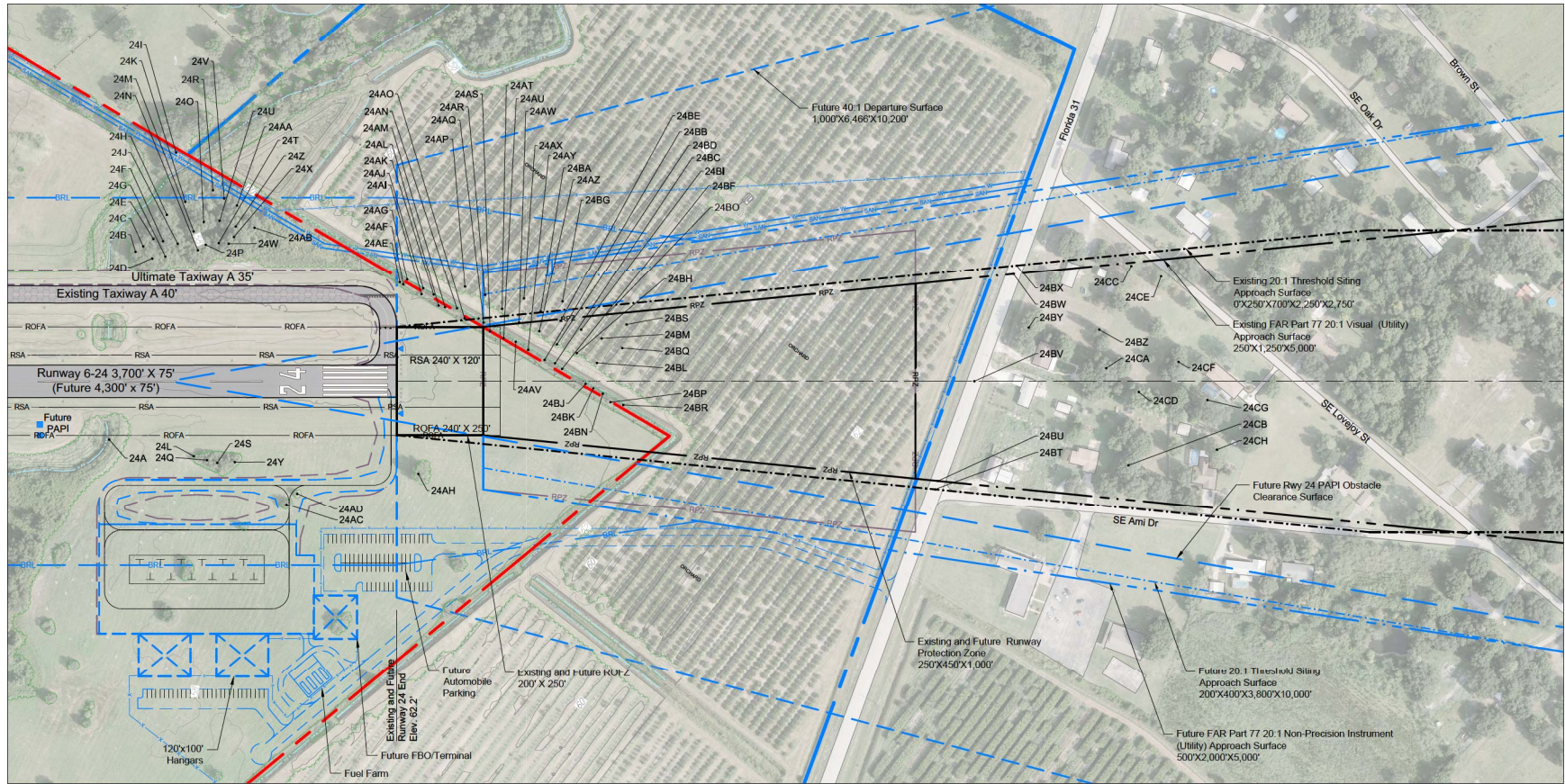


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ARCADIA MUNICIPAL AIRPORT
ARCADIA, FLORIDA



MAGNETIC DECLINATION: 5° 36' W (11/2014)
ANNUAL RATE OF CHANGE: 6' W/ YEAR
EPOCH YEAR 2010

0' 100' 200' 400'
SIZE SCALE: 1"= 200'

OBSTRUCTION NOTES

- PER FAR PART 77, "OBJECTS AFFECTING NAVIGABLE AIRSPACE", PUBLIC ROADS CONSIDERED AS 15' OBJECTS, PRIVATE ROADS AS 10' OR THE HIGHEST OBJECT USING THE ROAD.
- OBSTRUCTIONS TO BE REMOVED OR RELOCATED AS PART OF FUTURE PROJECTS AS NECESSARY TO ACCOMMODATE AIRFIELD DEVELOPMENT AND OPERATION.
- FUTURE OBJECTS TO BE SITED AND MITIGATED UNDER FUTURE PROJECTS.
- THERE MAY EXIST OBSTRUCTIONS NOT REPRESENTED.
- NO TERRAIN PENETRATIONS.
- TREES SHOWN AS OBJECTS MAY REPRESENT MULTIPLE TREES.
- OBSTRUCTIONS SHOWN FROM AERIAL MAPPING SURVEY PERFORMED BY GRW, INC., JULY, 2014.

GENERAL NOTES

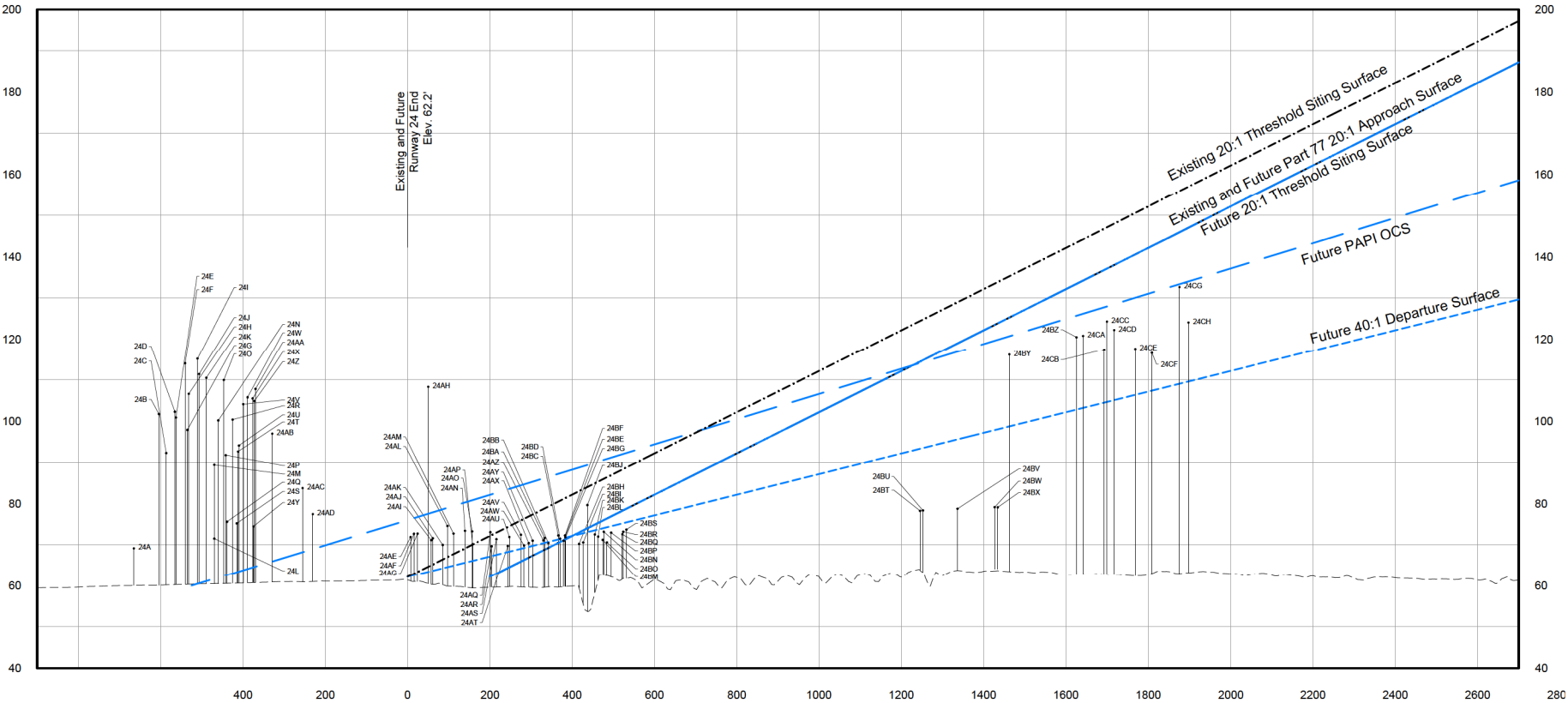
- ALP PREPARED USING DESIGN CRITERIA FROM FAA ADVISORY CIRCULAR 150/5300-13A, CHANGE 1 "AIRPORT DESIGN" AND FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE".
- THERE ARE NO OBSTACLE FREE ZONE PENETRATIONS FOR RUNWAY 6-24. PENETRATIONS TO RUNWAY 13-31 OBSTACLE FREE ZONES WILL BE CORRECTED DURING FUTURE PROJECTS.
- FUTURE AREAS OF EASEMENT MAY BE PURCHASED IN FEE AS PART OF FUTURE PROJECTS.
- CURRENT AND FUTURE AIRPORT PROPERTY TO BE FENCED AS PART OF FUTURE PROJECTS.
- FUTURE NAVAIDS TO BE SITED UNDER FUTURE PROJECTS.
- ULTIMATE EXTENSION OF RUNWAY 6-24 AND UPGRADE OF FACILITY TO ARC B-II STANDARDS EXCEEDS THE FACILITY REQUIREMENTS SET FORTH IN THE MASTER PLAN. THESE IMPROVEMENTS ARE NOT ANTICIPATED TO BE CONSTRUCTED WITHIN THE 20-YEAR PLANNING HORIZON, BUT ARE DEPICTED IN ORDER TO AID IN SITING FUTURE IMPROVEMENTS. THEIR CONSTRUCTION AND EXACT LOCATION WILL BE DEPENDENT ON FUTURE AVIATION ACTIVITY AND ECONOMIC GROWTH OF THE AIRPORT. ASSOCIATED AIRSPACE SURFACES OMITTED FOR CLARITY.

REFERENCE

- LATITUDE AND LONGITUDE ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83). AS APPLICABLE, CONVERSIONS MADE FROM FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE.
- VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- ELEVATIONS SHOWN ARE IN "MEAN SEA LEVEL" (MSL) UNLESS NOTED OTHERWISE, AND ARE NOT INTENDED FOR DESIGN PURPOSES.
- ALL ELEVATIONS AND DIMENSIONS IN FEET, UNLESS NOTED OTHERWISE.
- AERIAL MAPPING AND PHOTOGRAPHY FROM GRW INC., JULY 2014.
- GROUND CONTOUR INTERVALS SHOWN ARE 2-FOOT, GENERATED FROM AERIAL MAPPING.

EXISTING	LEGEND	FUTURE	ULTIMATE
---	AIRPORT PROPERTY LINE	---	N/A
---	FENCE	---	N/A
---	ROADS	---	N/A
---	AIRFIELD BUILDINGS	---	N/A
---	AIRFIELD PAVEMENT	---	N/A
---	AVIGATION EASEMENT	---	N/A
---	PRECISION APPROACH PATH INDICATOR (PAPI)	---	N/A
---	RUNWAY END IDENTIFIER LIGHTS (REIL)	---	N/A
---	LIGHTED WIND CONEWIND TEE	---	N/A
---	AIRPORT REFERENCE POINT (ARP)	---	N/A
---	THRESHOLD SITING SURFACE	---	N/A
---	BUILDING RESTRICTION LINE (BRL) FOR 25' BLDG.	---	N/A
---	FAR PART 77 SURFACE	---	N/A
---	RUNWAY OBJECT FREE AREA (ROFA)	---	N/A
---	TAXIWAY OBJECT FREE AREA (TOFA)	---	N/A
---	RUNWAY OBSTACLE FREE ZONE (ROFZ)	---	N/A
---	RUNWAY PROTECTION ZONE (RPZ)	---	N/A
---	RUNWAY SAFETY AREA (RSA)	---	N/A
---	TAXIWAY SAFETY AREA (TSA)	---	N/A
---	RUNWAY VISIBILITY ZONE	---	N/A
---	40:1 DEPARTURE SURFACE	---	N/A
---	PAVEMENT OR TURF RUNWAY TO BE REMOVED	---	N/A
---	VEGETATION	---	N/A
---	DRAINAGE DITCH/SWALE	---	N/A

RUNWAY 24 END - PLAN



RUNWAY 24 END - PROFILE

AIRPORT LAYOUT PLAN

NO.	DATE	DESCRIPTION
DES	DWN	REV

ISSUE: AUGUST 24, 2015
PROJECT NO: 12A0141
CAD FILE: 06-09-INNR-APCH-06-24.DWG
DESIGN BY: MLH 12/04/2014
DRAWN BY: RAD 12/04/2014
REVIEWED BY: MCM 08/13/2015

SHEET TITLE

RUNWAY 24 INNER
PORTION OF THE
APPROACH SURFACE
DRAWING

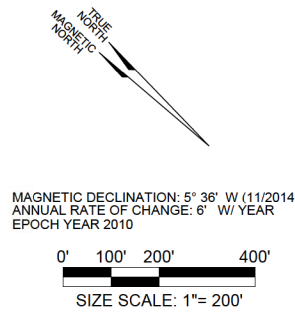
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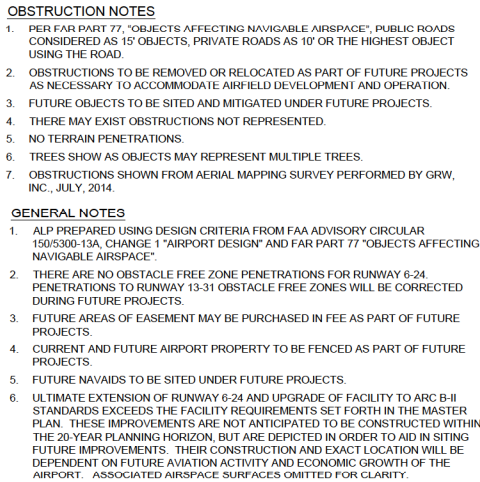
RUNWAY 24 OBSTRUCTION DATA																											
ID	DESCRIPTION	OBJECT TOP ELEVATION	EXISTING OBSTRUCTION DISPOSITION										FUTURE OBSTRUCTION DISPOSITION										PROPOSED ACTION	TRIGGERING EVENT	D		
			FAR PART 77 PRIMARY SURFACE		FAR PART 77 7:1 TRANSITIONAL SURFACE		FAR PART 77 20:1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE		FAR PART 77 PRIMARY SURFACE		FAR PART 77 7:1 TRANSITIONAL SURFACE		FAR PART 77 20:1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE						
			SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)					
24A	TREE	69	-	-	61	-8	-	-	-	-	-	-	60	-9	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24A	
24B	TREE	102	-	-	85	-17	-	-	-	-	-	-	-	-	67	-34	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24B	
24C	TREE	92	-	-	87	-5	-	-	-	-	-	-	-	-	69	-23	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24C	
24D	TREE	102	-	-	83	-19	-	-	-	-	-	-	-	-	65	-37	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24D	
24E	TREE	101	-	-	90	-11	-	-	-	-	-	-	-	-	72	-29	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24E	
24F	TREE	114	-	-	89	-25	-	-	-	-	-	-	-	-	71	-43	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24F	
24G	TREE	98	-	-	84	-14	-	-	-	-	-	-	-	-	66	-32	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24G	
24H	TREE	107	-	-	98	-9	-	-	-	-	-	-	-	-	80	-27	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24H	
24I	TREE	115	-	-	118	3	-	-	-	-	-	-	-	-	100	-15	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24I	
24J	TREE	111	-	-	103	-23	-	-	-	-	-	-	-	-	70	-41	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24J	
24K	TREE	111	-	-	102	-9	-	-	-	-	-	-	-	-	84	-26	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24K	
24L	TREE	72	-	-	67	-4	-	-	-	-	-	-	61	-11	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	TWY CARRON CONSTRUCTION	24L	
24M	TREE	89	-	-	92	3	-	-	-	-	-	-	-	-	75	-15	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24M	
24N	TREE	100	-	-	86	-14	-	-	-	-	-	-	-	-	68	-32	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24N	
24O	TREE	110	-	-	95	-15	-	-	-	-	-	-	-	-	78	-32	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24O	
24P	TREE	92	-	-	88	-4	-	-	-	-	-	-	-	-	70	-22	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24P	
24Q	TREE	76	-	-	69	-7	-	-	-	-	-	-	61	-15	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	TWY CARRON CONSTRUCTION	24Q	
24R	TREE	100	-	-	106	5	-	-	-	-	-	-	-	-	88	-12	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24R	
24S	TREE	75	-	-	70	-6	-	-	-	-	-	-	61	-14	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	TWY CARRON CONSTRUCTION	24S	
24T	TREE	93	-	-	89	-4	-	-	-	-	-	-	-	-	71	-22	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24T	
24U	TREE	94	-	-	96	2	-	-	-	-	-	-	-	-	78	-16	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24U	
24V	TREE	104	-	-	103	-1	-	-	-	-	-	-	-	-	86	-18	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24V	
24W	TREE	106	-	-	88	-17	-	-	-	-	-	-	-	-	71	-35	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24W	
24X	TREE	106	-	-	91	-15	-	-	-	-	-	-	-	-	73	-32	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24X	
24Y	TREE	75	-	-	70	-5	-	-	-	-	-	-	61	-14	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	TWY CARRON CONSTRUCTION	24Y	
24Z	TREE	105	-	-	94	-11	-	-	-	-	-	-	-	-	77	-28	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24Z	
24AA	TREE	108	-	-	101	-7	-	-	-	-	-	-	-	-	83	-24	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AA	
24AB	TREE	97	-	-	94	-3	-	-	-	-	-	-	-	-	76	-21	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AB	
24AC	TREE	84	-	-	84	0	-	-	-	-	-	-	-	-	66	-17	-	-	-	-	-	-	-	TRIMMING/REMOVAL	TWY CARRON CONSTRUCTION	24AC	
24AD	TREE	78	-	-	81	3	-	-	-	-	-	-	-	-	63	-15	-	-	-	-	-	-	-	TRIMMING/REMOVAL	TWY CARRON CONSTRUCTION	24AD	
24AE	TREE	72	-	-	77	5	-	-	-	-	-	-	62	-10	-	-	-	-	-	-	62	-10	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AE	
24AF	TREE	73	-	-	76	3	-	-	-	-	-	-	62	-11	-	-	-	-	-	-	63	-10	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AF	
24AG	TREE	73	-	-	78	5	-	-	-	-	-	-	62	-11	-	-	-	-	-	-	63	-10	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AG	
24AH	TREE	108	-	-	75	-33	-	-	-	-	-	-	62	-46	-	-	-	-	-	-	63	-45	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AH	
24AI	TREE	71	-	-	73	2	-	-	-	-	-	-	62	-9	-	-	-	-	-	-	64	-8	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AI	
24AJ	TREE	72	-	-	75	3	-	-	-	-	-	-	62	-9	-	-	-	-	-	-	64	-8	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AJ	
24AK	TREE	70	-	-	73	3	-	-	-	-	-	-	62	-8	-	-	-	-	-	-	64	-6	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AK	
24AL	TREE	75	-	-	69	-5	-	-	-	-	-	-	62	-12	-	-	-	-	-	-	65	-10	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AL	
24AM	TREE	73	-	-	69	-4	-	-	-	-	-	-	62	-11	-	-	-	-	-	-	65	-8	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AM	
24AN	TREE	73	-	-	68	-5	-	-	-	-	-	-	62	-11	-	-	-	-	-	-	66	-8	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AN	
24AO	TREE	73	-	-	65	-8	-	-	-	-	-	-	62	-11	-	-	-	-	-	-	66	-7	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AO	
24AP	TREE	70	-	-	76	5	-	-	-	-	-	-	62	-11	-	-	-	-	-	-	66	-4	-	FUTURE TRIMMING/REMOVAL	LAND ACQUISITION	24AP	
24AQ	TREE	73	-	-	64	-9	-	-	-	72	-1	-	-	-	-	-	-	62	-11	62	-11	67	-6	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AQ
24AR	TREE	70	-	-	73	3	-	-	-	-	-	-	-	-	-	-	-	62	-7	62	-7	67	-2	-	FUTURE TRIMMING/REMOVAL	LAND ACQUISITION	24AR
24AS	TREE	71	-	-	-	-	-	63	-8	-	73	2	-	-	-	-	-	63	-8	63	-8	68	-4	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AS
24AT	TREE	70	-	-	70	0	-	-	-	-	-	-	-	-	-	-	-	64	-5	64	-5	68	-1	-	FUTURE TRIMMING/REMOVAL	LAND ACQUISITION	24AT
24AU	TREE	72	-	-	-	-	-	65	-7	-	75	3	-	-	-	-	-	65	-7	65	-7	68	-4	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AU
24AV	TREE	73	-	-	-	-	-	66	-7	-	76	3	-	-	-	-	-	66	-7	66	-7	69	-3	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AV
24AW	TREE	70	-	-	67	-3	-	-	-	76	6	-	-	-	-	-	-	66	-4	66	-4	69	-1	-	FUTURE TRIMMING/REMOVAL	LAND ACQUISITION	24AW
24AX	TREE	70	-	-	75	4	-	-	-	-	-	-	-	-	-	-	-	67	-4	67	-4	70	-1	-	FUTURE TRIMMING/REMOVAL	LAND ACQUISITION	24AX
24AY	TREE	71	-	-	-	-	-	67	-4	-	77	6	-	-	-	-	-	67	-4	67	-4	70	-1	-	TRIMMING/REMOVAL	FUTURE PROJECT	24AY
24AZ	TREE	71	-	-	-	-	-	69	-2	-	79	8	-	-	-	-	-	69	-2	69	-2	70	-1	-	FUTURE TRIMMING/REMOVAL	LAND ACQUISITION	24AZ
24BA	TREE	72	-	-	72	0	-	-	-	-	-	-	-	-	-	-	-	69	-3	69	-3	71	-1	-	FUTURE TRIMMING/REMOVAL	LAND ACQUISITION	



ARCADIA MUNICIPAL AIRPORT
ARCADIA, FLORIDA



AIRPORT LAYOUT PLAN



EXISTING	LEGEND	FUTURE	ULTIMATE
	AIRPORT PROPERTY LINE		NA
	FENCE		NA
	ROADS		NA
	AIRFIELD BUILDINGS		NA
	AIRFIELD PAVEMENT		NA
	AVIGATION EASEMENT		NA
	PRECISION APPROACH PATH INDICATOR (PAPI)		NA
NA	RUNWAY END IDENTIFIER LIGHTS (REIL)		NA
	LIGHTED WIND CONE/WIND TEE		NA
	AIRPORT REFERENCE POINT (ARP)		NA
	THRESHOLD SITING SURFACE		NA
	BUILDING RESTRICTION LINE (BRL) FOR 25' BLDG.		NA
	FAR PART 77 SURFACE		NA
	RUNWAY OBJECT FREE AREA (ROFA)		NA
	TAXIWAY OBJECT FREE AREA (TOFA)		NA
	RUNWAY OBSTACLE FREE ZONE (ROFZ)		NA
	RUNWAY PROTECTION ZONE (RPZ)		NA
	RUNWAY SAFETY AREA (RSA)		NA
	TAXIWAY SAFETY AREA (TSA)		NA
	RUNWAY VISIBILITY ZONE		NA
NA	40:1 DEPARTURE SURFACE		NA
NA	PAVEMENT OR TURF RUNWAY TO BE REMOVED		
	VEGETATION	NA	NA
	DRAINAGE DITCH/SWALE	NA	NA

RUNWAY 13 INNER
PORTION OF THE
APPROACH SURFACE
DRAWING

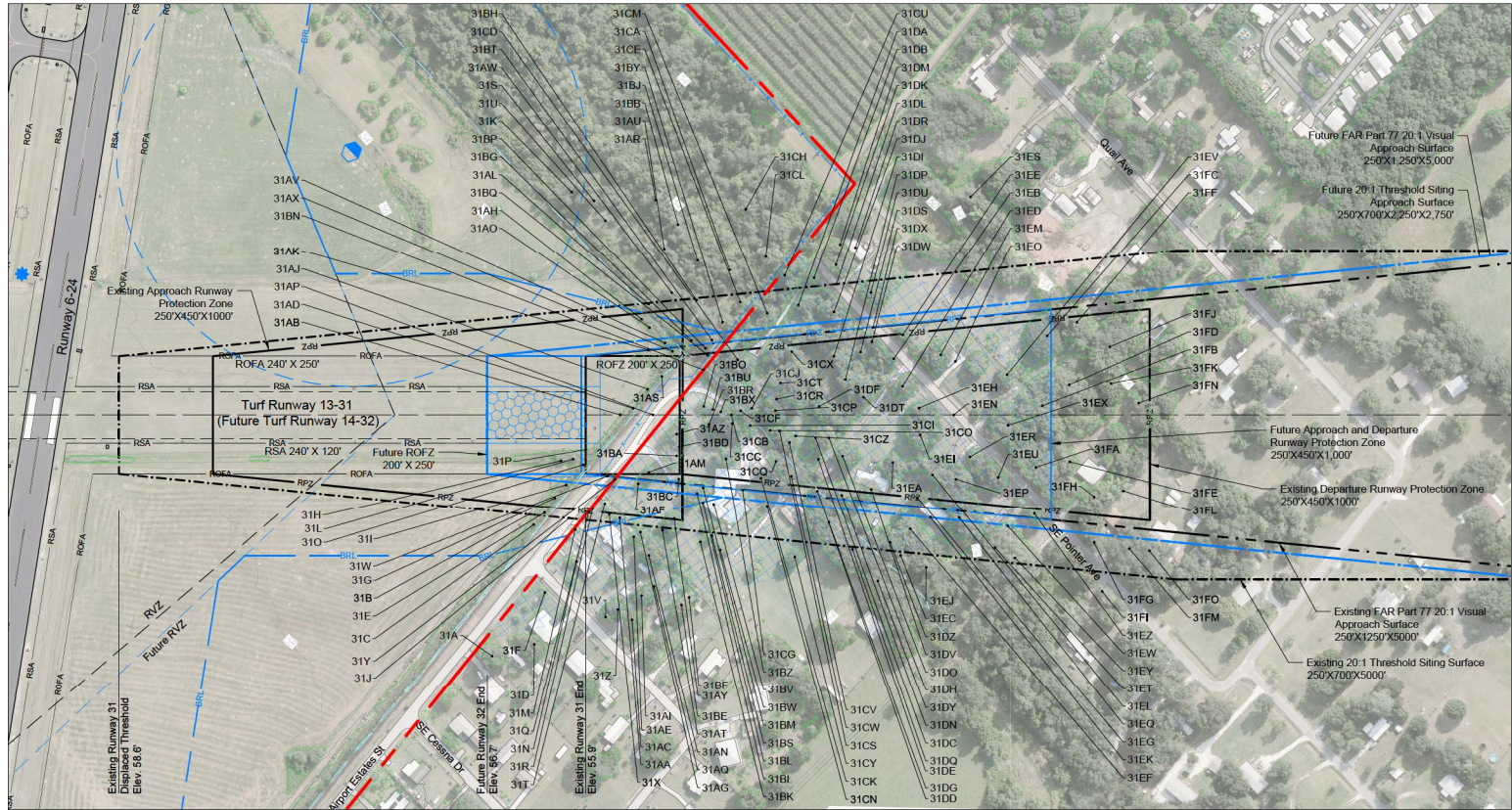
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RUNWAY 13 OBSTRUCTION DATA																										
ID	DESCRIPTION	OBJECT TOP ELEVATION	EXISTING OBSTRUCTION DISPOSITION										FUTURE OBSTRUCTION DISPOSITION										PROPOSED ACTION	TRIGGERING EVENT	ID	
			FAR PART 77 PRIMARY SURFACE		FAR PART 77 1:1 TRANSITIONAL SURFACE		FAR PART 77 20:1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE		FAR PART 77 PRIMARY SURFACE		FAR PART 77 1:1 TRANSITIONAL SURFACE		FAR PART 77 20:1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE					
			SURFACE ELEVATION	CLEARANCE(+)/PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/PENETRATION(-)				
13A	TREE	84	-	-	82	-2	-	-	-	-	-	-	-	-	82	-2	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13A	
13B	TREE	84	-	-	89	6	-	-	-	-	-	-	-	-	89	5	-	-	-	-	-	-	NO ACTION	-	13B	
13C	TREE	86	-	-	92	5	-	-	-	-	-	-	-	-	91	5	-	-	-	-	-	-	NO ACTION	-	13C	
13D	TREE	86	-	-	79	-6	-	-	-	-	-	-	-	-	79	-7	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13D	
13E	TREE	89	-	-	67	-22	-	-	-	-	-	-	-	-	66	-23	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13E	
13F	TREE	98	-	-	66	-32	-	-	-	-	-	-	-	-	66	-32	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13F	
13G	TREE	95	-	-	93	-1	-	-	-	-	-	-	-	-	93	-2	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13G	
13H	TREE	93	-	-	74	-20	-	-	-	-	-	-	-	-	73	-20	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13H	
13I	TREE	101	-	-	84	-16	-	-	-	-	-	-	-	-	84	-16	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13I	
13J	TREE	106	-	-	78	-30	-	-	-	-	-	-	-	-	78	-30	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13J	
13K	TREE	100	-	-	72	-28	-	-	-	-	-	-	-	-	71	-29	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13K	
13L	TREE	103	-	-	86	-17	-	-	-	-	-	-	-	-	86	-17	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13L	
13M	TREE	97	-	-	83	-13	-	-	-	-	-	-	-	-	83	-14	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13M	
13N	TREE	96	-	-	67	-29	-	-	-	-	-	-	-	-	67	-29	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13N	
13O	TREE	101	-	-	73	-28	-	-	-	-	-	-	-	-	72	-28	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13O	
13P	TREE	102	-	-	62	-40	-	-	76	-26	-	-	-	-	62	-40	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13P	
13Q	TREE	100	-	-	72	-28	-	-	-	-	-	-	-	-	72	-28	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13Q	
13R	TREE	99	-	-	89	-11	-	-	-	-	-	-	-	-	88	-11	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13R	
13S	TREE	103	-	-	67	-37	-	-	-	-	-	-	-	-	67	-37	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13S	
13T	TREE	93	-	-	86	-7	-	-	-	-	-	-	-	-	86	-7	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13T	
13U	TREE	109	-	-	86	-24	-	-	-	-	-	-	-	-	85	-24	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13U	
13V	TREE	108	-	-	89	-19	-	-	-	-	-	-	-	-	89	-18	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	13V	
13W	TREE	103	-	-	90	-13	-	-	-	-	-	-	-	-	96	-7	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13W	
13X	TREE	106	-	-	88	-18	-	-	-	-	-	-	-	-	94	-12	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13X	
13Y	FENCE AT RT. TSS	65	-	-	68	3	-	-	91	26	-	-	-	-	75	10	-	-	-	-	-	-	NO ACTION	-	13Y	
13Z	TREE	104	-	-	98	-6	-	-	-	-	-	-	-	-	105	1	-	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	FUTURE PROJECT	13Z	
13AA	TREE	92	-	-	88	-4	-	-	-	-	-	-	-	-	96	4	-	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13AA	
13AB	TREE	113	-	-	114	1	-	-	-	-	-	-	-	-	122	9	-	-	-	-	-	-	NO ACTION	-	13AB	
13AC	FENCE AT RT. PT. 77	65	-	-	-	-	60	-5	94	29	-	-	-	-	-	71	6	71	6	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13AC	
13AD	TREE	109	-	-	81	-27	-	-	-	-	-	-	-	-	89	-19	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13AD	
13AE	TREE	119	-	-	114	-4	-	-	-	-	-	-	-	-	122	4	-	-	-	-	-	-	NO ACTION	-	13AE	
13AF	TREE	71	-	-	-	-	61	-10	95	24	-	-	-	-	-	-	72	1	72	1	-	-	-	FUTURE TRIMMING/REMOVAL	FUTURE PROJECT	13AF
13AG	TREE	104	-	-	96	-8	-	-	-	-	-	-	-	-	104	0	-	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13AG	
13AH	AIRPORT RD. AT TSS	76	-	-	71	-5	-	-	95	19	-	-	-	-	79	3	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13AH	
13AI	TREE	99	-	-	94	-5	-	-	-	-	-	-	-	-	102	3	-	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13AI	
13AJ	TREE	108	-	-	80	-28	-	-	-	-	-	-	-	-	80	-18	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13AJ	
13AK	FENCE AT LT. TSS	65	-	-	72	7	-	-	97	31	-	-	-	-	80	15	-	-	-	-	-	-	NO ACTION	-	13AK	
13AL	SE POLK DR. AT LT. TSS	75	-	-	74	-2	-	-	98	22	-	-	-	-	81	6	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13AL	
13AM	AIRPORT RD. AT RT PT. 77	75	-	-	-	-	64	-12	98	22	-	-	-	-	-	75	0	75	0	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13AM	
13AN	TREE	104	-	-	71	-34	-	-	98	-6	-	-	-	-	79	-26	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13AN	
13AO	FENCE AT LT. PT. 77	65	-	-	-	-	64	-1	98	33	-	-	-	-	-	75	10	75	10	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13AO	
13AP	CARNAHAN AVE. AT LT. TSS	75	-	-	75	0	-	-	100	24	-	-	-	-	83	8	-	-	-	-	-	-	NO ACTION	-	13AP	
13AQ	FENCE AT CL	65	-	-	-	-	66	1	100	35	-	-	-	-	-	77	12	77	12	-	-	-	NO ACTION	-	13AQ	
13AR	TREE	111	-	-	101	-10	-	-	-	-	-	-	-	-	109	-2	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13AR	
13AS	TREE	95	-	-	69	-25	-	-	100	5	-	-	-	-	77	-5	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13AS	
13AT	SE POLK DR. AT LT. PT. 77	76	-	-	-	-	66	-10	100	24	-	-	-	-	-	77	-1	77	-1	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13AT	
13AU	TREE	87	-	-	75	-12	-	-	100	13	-	-	-	-	83	-4	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13AU	
13AV	BUILDING	75	-	-	78	3	-	-	-	-	-	-	-	-												

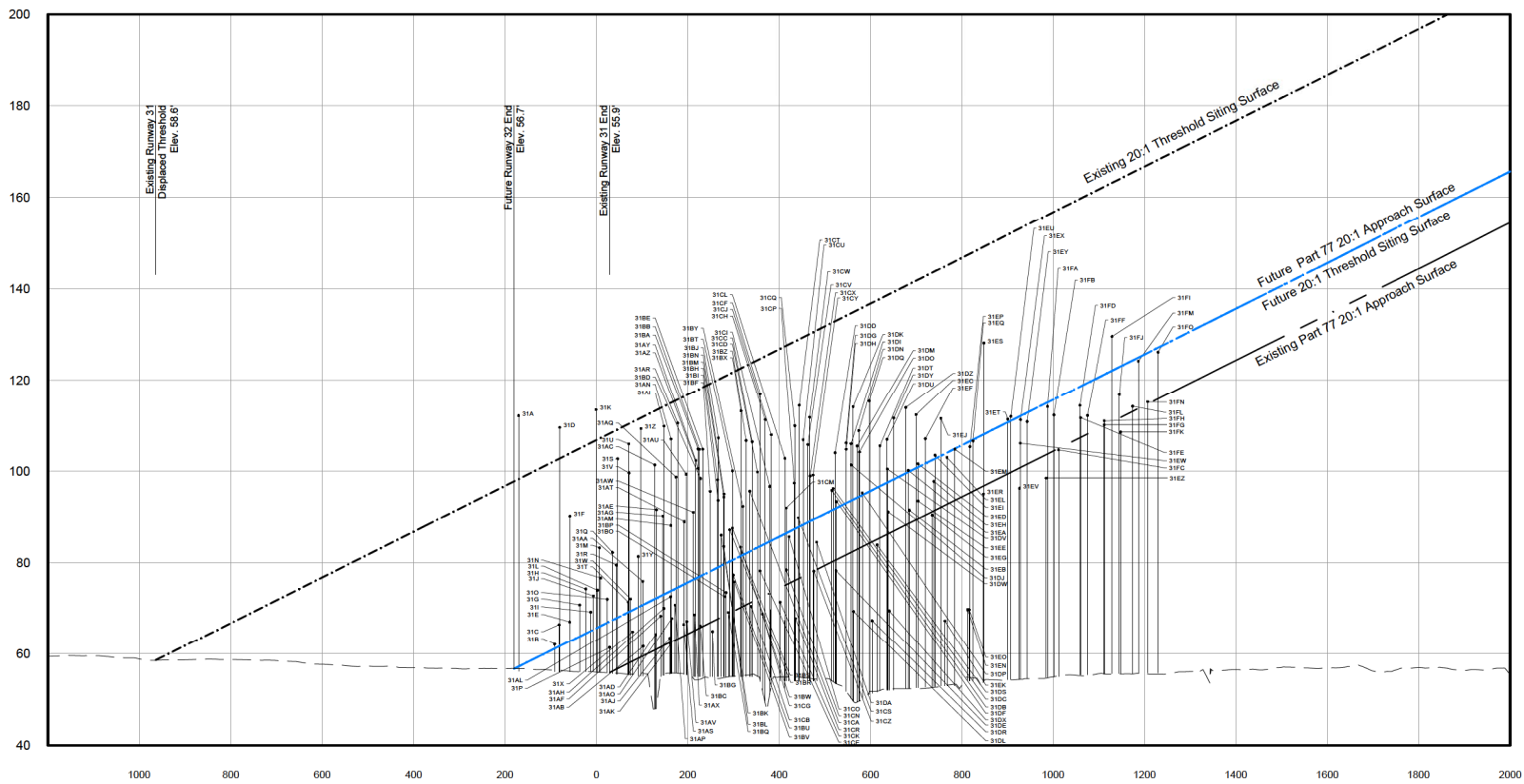
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RUNWAY 13 OBSTRUCTION DATA (CONTINUED)																											
ID	DESCRIPTION	OBJECT TOP ELEVATION	EXISTING OBSTRUCTION DISPOSITION										FUTURE OBSTRUCTION DISPOSITION										PROPOSED ACTION	TRIGGERING EVENT	ID		
			FAR PART 77 PRIMARY SURFACE		FAR PART 77 7:1 TRANSITIONAL SURFACE		FAR PART 77 20:1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE		FAR PART 77 PRIMARY SURFACE		FAR PART 77 7:1 TRANSITIONAL SURFACE		FAR PART 77 20:1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE						
			SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)					
13DP	TREE	100	-	-	-	-	94	-6	128	28	-	-	-	-	105	5	105	5	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13DP		
13DQ	TREE	103	-	-	-	-	94	-9	128	25	-	-	-	-	105	2	105	2	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13DQ		
13DR	TREE	96	-	-	-	-	94	-2	128	32	-	-	-	-	105	9	105	9	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13DR		
13DS	TREE	93	-	-	-	-	94	1	128	35	-	-	-	-	105	12	105	12	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13DS		
13DT	TREE	104	-	-	98	-6	-	-	128	24	-	-	-	-	106	2	-	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13DT		
13DU	TREE	107	-	-	-	-	95	-12	129	22	-	-	-	-	106	-1	106	-1	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13DU		
13DV	TREE	96	-	-	-	-	96	0	130	34	-	-	-	-	107	11	107	11	-	-	-	-	NO ACTION	-	13DV		
13DW	TREE	107	-	-	-	-	96	-11	130	23	-	-	-	-	107	0	107	0	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13DW		
13DX	TREE	111	-	-	-	-	96	-14	130	20	-	-	-	-	107	-3	107	-3	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13DX		
13DY	TREE	110	-	-	-	-	96	-14	131	20	-	-	-	-	107	-3	107	-3	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13DY		
13DZ	TREE	111	-	-	-	-	97	-14	131	20	-	-	-	-	108	-3	108	-3	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13DZ		
13EA	TREE	108	-	-	-	-	97	-11	131	23	-	-	-	-	108	0	108	0	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EA		
13EB	TREE	117	-	-	-	-	97	-20	131	14	-	-	-	-	108	-9	108	-9	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EB		
13EC	HOUSE	76	-	-	-	105	29	-	-	131	56	-	-	-	112	37	-	-	-	-	-	-	NO ACTION	-	13EC		
13ED	TREE	96	-	-	-	-	98	2	132	36	-	-	-	-	109	13	109	13	-	-	-	-	NO ACTION	-	13ED		
13EE	TREE	105	-	-	-	-	98	-7	132	27	-	-	-	-	109	4	109	4	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EE		
13EF	TREE	102	-	-	-	-	98	-4	132	30	-	-	-	-	109	7	109	7	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EF		
13EG	TREE	111	-	-	-	-	98	-12	132	22	-	-	-	-	109	-1	109	-1	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EG		
13EH	TREE	113	-	-	-	-	98	-15	132	19	-	-	-	-	109	-4	109	-4	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EH		
13EI	TREE	106	-	-	-	-	99	-7	133	27	-	-	-	-	110	4	110	4	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EI		
13EJ	TREE	108	-	-	-	-	99	-8	133	26	-	-	-	-	110	3	110	3	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EJ		
13EK	TREE	104	-	-	-	-	99	-5	133	29	-	-	-	-	110	6	110	6	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EK		
13EL	HOUSE	74	-	-	-	-	100	26	134	60	-	-	-	-	111	37	111	37	-	-	-	-	NO ACTION	-	13EL		
13EM	TREE	108	-	-	-	-	100	-8	134	26	-	-	-	-	111	3	111	3	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EM		
13EN	TREE	105	-	-	-	-	101	-4	135	30	-	-	-	-	112	7	112	7	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EN		
13EO	TREE	105	-	-	-	-	101	-4	135	30	-	-	-	-	112	7	112	7	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EO		
13EP	TREE	99	-	-	-	-	102	2	136	36	-	-	-	-	113	13	113	13	-	-	-	-	NO ACTION	-	13EP		
13EQ	TREE	107	-	-	-	-	102	-5	136	29	-	-	-	-	113	6	113	6	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EQ		
13ER	TREE	107	-	-	-	-	102	-5	136	29	-	-	-	-	113	6	113	6	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13ER		
13ES	TREE	112	-	-	-	114	2	-	-	-	-	-	-	-	121	10	-	-	-	-	-	-	NO ACTION	-	13ES		
13ET	TREE	117	-	-	110	-7	-	-	137	20	-	-	-	-	118	1	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13ET		
13EU	TREE	103	-	-	-	-	103	0	137	34	-	-	-	-	-	-	114	11	114	11	-	-	NO ACTION	-	13EU		
13EV	TREE	110	-	-	-	-	103	-7	137	28	-	-	-	-	-	-	114	4	114	4	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EV
13EW	TREE	112	-	-	-	-	104	-9	138	25	-	-	-	-	-	-	115	2	115	2	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13EW
13EX	TREE	106	-	-	-	108	2	-	-	138	31	-	-	-	-	-	-	-	-	-	-	-	NO ACTION	-	13EX		
13EY	TREE	106	-	-	-	-	104	-2	138	32	-	-	-	-	-	-	115	9	115	9	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13EY
13EZ	TREE	105	-	-	-	113	8	-	-	138	33	-	-	-	-	-	-	-	-	-	-	-	NO ACTION	-	13EZ		
13FA	TREE	126	-	-	-	109	-17	-	-	139	13	-	-	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	13FA		
13FB	house	75	-	-	-	-	105	30	139	64	-	-	-	-	-	-	116	41	116	41	-	-	-	-	NO ACTION	-	13FB
13FC	house	74	-	-	-	-	105	31	139	65	-	-	-	-	-	-	116	42	116	42	-	-	-	-	NO ACTION	-	13FC
13FD	TREE	113	-	-	-	-	105	-8	139	26	-	-	-	-	-	-	116	3	116	3	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13FD
13FE	TREE	93	-	-	-	-	107	13	141	48	-	-	-	-	-	-	118	24	118	24	-	-	-	-	NO ACTION	-	13FE
13FF	TREE	112	-	-	110	-3	-	-	141	28	-	-	-	-	-	-	118	5	118	5	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13FF
13FG	TREE	98	-	-	-	-	107	9	141	43	-	-	-	-	-	-	118	20	118	20	-	-	-	-	NO ACTION	-	13FG
13FH	TREE	109	-	-	-	114	5	-	-	142	33	-	-	-	-	-	-	-	-	-	-	-	-	NO ACTION	-	13FH	
13FI	TREE	109	-	-	-	-	108	-1	142	33	-	-	-	-	-	-	119	10	119	10	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13FI
13FJ	HOUSE	69	-	-	-	116	47	-	-	143	74	-	-	-	-	-	-	-	-	-	-	-	-	NO ACTION	-	13FJ	
13FK	TREE	112	-	-	-	-	109	-2	143	32	-	-	-	-	-	-	120	8	120	8	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13FK
13FL	HOUSE	75	-	-	-	-	110	34	144	68	-	-	-	-	-	-	121	45	121	45	-	-	-	-	NO ACTION	-	13FL
13FM	HOUSE	74	-	-	-	-	110	36	144	70	-	-	-	-	-	-	121	47	121	47	-	-	-	-	NO ACTION	-	13FM
13FN	TREE	108	-	-	-	118	10	-	-	145	37	-	-	-	-	-	-	-	-	-	-	-	-	NO ACTION	-	13FN	
13FO	TREE	117	-	-	-	-	111	-5	145	29	-	-	-	-	-	-	122	6	122	6	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	13FO
13FP	TREE	107	-	-	-	-	112	3	146	40	-	-	-	-	-	-	123	17	123	17	-	-	-	-	NO ACTION	-	13FP
13FQ	HOUSE	77	-	-	-	-	113	36	146	69	-	-	-	-	-	-	123	46	123	46	-	-	-	-	NO ACTION	-	13FQ
13FR	TREE	116	-	-	-	-	112	-3	146	31	-	-	-	-	-	-	123	8	123	8	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	13FR
13FS	TREE	108	-	-	-	-	113	5	147	39	-	-	-	-	-	-	124	16	124	16	-</						

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RUNWAY 31 END - PLAN



RUNWAY 31 END - PROFILE

OBSTRUCTION NOTES

1. PER FAR PART 77, "OBJECTS AFFECTING NAVIGABLE AIRSPACE", PUBLIC ROADS CONSIDERED AS 15' OBJECTS, PRIVATE ROADS AS 10' OR THE HIGHEST OBJECT USING THE ROAD.
2. OBSTRUCTIONS TO BE REMOVED OR RELOCATED AS PART OF FUTURE PROJECTS AS NECESSARY TO ACCOMMODATE AIRFIELD DEVELOPMENT AND OPERATION.
3. FUTURE OBJECTS TO BE SITED AND MITIGATED UNDER FUTURE PROJECTS.
4. THERE MAY EXIST OBSTRUCTIONS NOT REPRESENTED.
5. NO TERRAIN PENETRATIONS.
6. TREES SHOW AS OBJECTS MAY REPRESENT MULTIPLE TREES.
7. OBSTRUCTIONS SHOWN FROM AERIAL MAPPING SURVEY PERFORMED BY GRW, INC., JULY, 2014.

GENERAL NOTES

1. ALP PREPARED USING DESIGN CRITERIA FROM FAA ADVISORY CIRCULAR 150/5300-13A, CHANGE 1 "AIRPORT DESIGN" AND FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE".
2. THERE ARE NO OBSTACLE FREE ZONE PENETRATIONS FOR RUNWAY 6-24. PENETRATIONS TO RUNWAY 13-31 OBSTACLE FREE ZONES WILL BE CORRECTED DURING FUTURE PROJECTS.
3. FUTURE AREAS OF EASEMENT MAY BE PURCHASED IN FEE AS PART OF FUTURE PROJECTS.
4. CURRENT AND FUTURE AIRPORT PROPERTY TO BE FENCED AS PART OF FUTURE PROJECTS.
5. FUTURE NAVAIDS TO BE SITED UNDER FUTURE PROJECTS.
6. ULTIMATE EXTENSION OF RUNWAY 6-24 AND UPGRADE OF FACILITY TO ARC B-II STANDARDS EXCEEDS THE FACILITY REQUIREMENTS SET FORTH IN THE MASTER PLAN. THESE IMPROVEMENTS ARE NOT ANTICIPATED TO BE CONSTRUCTED WITHIN THE 20-YEAR PLANNING HORIZON, BUT ARE DEPICTED IN ORDER TO AID IN SITING FUTURE IMPROVEMENTS. THEIR CONSTRUCTION AND EXACT LOCATION WILL BE DEPENDENT ON FUTURE AVIATION ACTIVITY AND ECONOMIC GROWTH OF THE AIRPORT. ASSOCIATED AIRSPACE SURFACES OMITTED FOR CLARITY.

REFERENCE

1. LATITUDE AND LONGITUDE ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83). AS APPLICABLE, CONVERSIONS MADE FROM FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE.
2. VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. ELEVATIONS SHOWN ARE IN "MEAN SEA LEVEL" (MSL) UNLESS NOTED OTHERWISE, AND ARE NOT INTENDED FOR DESIGN PURPOSES.
4. ALL ELEVATIONS AND DIMENSIONS IN FEET, UNLESS NOTED OTHERWISE.
5. AERIAL MAPPING AND PHOTOGRAPHY FROM GRW INC., JULY 2014.
6. GROUND CONTOUR INTERVALS SHOWN ARE 2-FOOT, GENERATED FROM AERIAL MAPPING.

EXISTING	LEGEND	FUTURE	ULTIMATE
---	AIRPORT PROPERTY LINE	---	NA
---	FENCE	---	NA
---	ROADS	---	NA
---	AIRFIELD BUILDINGS	---	NA
---	AIRFIELD PAVEMENT	---	NA
---	AVIGATION EASEMENT	---	NA
---	PRECISION APPROACH PATH INDICATOR (PAPI)	---	NA
---	RUNWAY END IDENTIFIER LIGHTS (REIL)	---	NA
---	LIGHTED WIND CONEWIND TEE	---	NA
---	AIRPORT REFERENCE POINT (ARP)	---	NA
---	THRESHOLD SITING SURFACE	---	NA
---	BUILDING RESTRICTION LINE (BRL) FOR 25' BLDG.	---	NA
---	FAR PART 77 SURFACE	---	NA
---	RUNWAY OBJECT FREE AREA (ROFA)	---	NA
---	TAXIWAY OBJECT FREE AREA (TOFA)	---	NA
---	RUNWAY OBSTACLE FREE ZONE (ROFZ)	---	NA
---	RUNWAY PROTECTION ZONE (RPZ)	---	NA
---	RUNWAY SAFETY AREA (RSA)	---	NA
---	TAXIWAY SAFETY AREA (TSA)	---	NA
---	RUNWAY VISIBILITY ZONE	---	NA
---	40:1 DEPARTURE SURFACE	---	NA
---	PAVEMENT OR TURF RUNWAY TO BE REMOVED	---	NA
---	VEGETATION	---	NA
---	DRAINAGE DITCH/SWALE	---	NA

DRAFT



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ARCADIA MUNICIPAL AIRPORT
ARCADIA, FLORIDA

AIRPORT LAYOUT PLAN

NO.	DATE	DESCRIPTION
DES	DWN	REV

ISSUE: AUGUST 24, 2015

PROJECT NO: 12A0141
CAD FILE: 10-13-INNR-APCH-13-31.DWG
DESIGN BY: MLH 08/01/2015
DRAWN BY: RAD 08/01/2015
REVIEWED BY: MCM 08/13/2015

SHEET TITLE

RUNWAY 31 INNER
PORTION OF THE
APPROACH SURFACE
DRAWING

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RUNWAY 31 OBSTRUCTION DATA																												
ID	DESCRIPTION	OBJECT TOP ELEVATION	EXISTING OBSTRUCTION DISPOSITION										FUTURE OBSTRUCTION DISPOSITION										PROPOSED ACTION	TRIGGERING EVENT	ID			
			FAR PART 77 PRIMARY SURFACE		FAR PART 77.1 TRANSITIONAL SURFACE		FAR PART 77.20.1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE		FAR PART 77 PRIMARY SURFACE		FAR PART 77.1 TRANSITIONAL SURFACE		FAR PART 77.20.1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE							
			SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)						
31A	TREE	112	-	-	112	0	-	-	-	-	-	-	-	-	112	0	-	-	-	-	-	-	-	NO ACTION	-	31A		
31B	FENCE AT LT. TSS	62	-	-	69	7	-	-	102	40	-	-	-	-	72	10	-	-	-	-	-	-	-	-	NO ACTION	-	31B	
31C	TREE	67	-	-	72	5	-	-	-	-	-	-	-	-	76	9	-	-	-	-	-	-	-	-	NO ACTION	-	31C	
31D	TREE	110	-	-	108	-2	-	-	-	-	-	-	-	-	112	2	-	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31D	
31E	TREE	67	-	-	68	1	-	-	104	37	-	-	-	-	73	6	-	-	-	-	-	-	-	-	NO ACTION	-	31E	
31F	TREE	90	-	-	92	2	-	-	-	-	-	-	-	-	97	7	-	-	-	-	-	-	-	-	NO ACTION	-	31F	
31G	TREE	71	-	-	63	-7	-	-	105	34	-	-	-	-	69	-2	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	31G	
31H	TREE	74	56	-18	-	-	-	-	106	31	-	-	-	-	-	65	-10	-	65	-10	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	31H
31I	TREE	69	-	-	59	-10	-	-	106	37	-	-	-	-	66	-3	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	31I	
31J	ROAD AT LT. TSS	73	-	-	70	-3	-	-	-	-	-	-	-	-	77	4	-	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31J	
31K	TREE	113	-	-	106	-7	-	-	-	-	-	-	-	-	113	0	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	31K	
31L	TREE	74	56	-18	-	-	-	-	107	33	-	-	-	-	-	66	-8	-	66	-8	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	31L
31M	TRFF	81	-	-	73	-10	-	-	-	-	-	-	-	-	81	-3	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31M	
31N	TREE	77	-	-	83	6	-	-	-	-	-	-	-	-	90	14	-	-	-	-	-	-	-	-	NO ACTION	-	31N	
31O	TREE	72	56	-16	-	-	-	-	108	36	-	-	-	-	-	67	-5	-	67	-5	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	31O
31P	TREE	61	56	-5	-	-	-	-	108	47	-	-	-	-	-	67	6	-	67	6	-	-	-	-	-	NO ACTION	-	31P
31Q	TREE	82	-	-	68	-14	-	-	109	26	-	-	-	-	76	-6	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31Q
31R	TREE	80	-	-	67	-12	-	-	109	29	-	-	-	-	75	-4	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31R
31S	TREE	103	-	-	104	1	-	-	-	-	-	-	-	-	112	9	-	-	-	-	-	-	-	-	-	NO ACTION	-	31S
31T	TREE	71	-	-	66	-5	-	-	110	39	-	-	-	-	75	3	-	-	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31T
31U	TREE	106	-	-	99	-7	-	-	-	-	-	-	-	-	107	1	-	-	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31U
31V	TREE	100	-	-	101	-	-	-	-	-	-	-	-	-	109	10	-	-	-	-	-	-	-	-	-	NO ACTION	-	31V
31W	PRIVATE ROAD AT LT. PT. 77	67	-	-	-	-	-	58	-9	111	43	-	-	-	-	69	2	-	69	2	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31W
31X	TREE	65	-	-	70	5	-	-	111	46	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	NO ACTION	-	31X
31Y	TREE	81	-	-	60	-22	-	-	111	30	-	-	-	-	-	-	-	70	-11	70	-11	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	31Y
31Z	TREE	109	-	-	100	-10	-	-	-	-	-	-	-	-	108	-1	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	FUTURE PROJECT	31Z
31AA	TREE	76	-	-	72	-4	-	-	112	36	-	-	-	-	80	4	-	-	-	-	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31AA
31AB	FENCE AT CL	62	-	-	-	-	60	-2	112	50	-	-	-	-	-	71	9	-	71	9	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31AB
31AC	TREE	101	-	-	104	2	-	-	-	-	-	-	-	-	112	11	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	-	31AC
31AD	TREE	64	-	-	-	-	61	-3	113	49	-	-	-	-	-	72	8	-	72	8	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31AD
31AE	TREE	92	-	-	79	-13	-	-	-	-	-	-	-	-	87	-4	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31AE
31AF	TREE	68	-	-	63	-6	-	-	114	45	-	-	-	-	-	73	4	-	73	4	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31AF
31AG	TREE	90	-	-	78	-12	-	-	-	-	-	-	-	-	86	-4	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31AG
31AH	TREE	70	-	-	71	1	-	-	114	44	-	-	-	-	80	10	-	-	-	-	-	-	-	-	-	NO ACTION	-	31AH
31AI	TREE	110	-	-	97	-13	-	-	-	-	-	-	-	-	105	-4	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31AI
31AJ	TREE	64	-	-	-	-	62	-1	115	51	-	-	-	-	-	74	10	-	74	10	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31AJ
31AK	FENCE AT RT. PT. 77	62	-	-	-	-	63	0	115	53	-	-	-	-	-	74	12	-	74	12	-	-	-	-	-	NO ACTION	-	31AK
31AL	TREE	73	-	-	76	4	-	-	115	42	-	-	-	-	85	12	-	-	-	-	-	-	-	-	-	NO ACTION	-	31AL
31AM	TREE	88	-	-	-	-	63	-26	115	27	-	-	-	-	-	74	-14	-	74	-14	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31AM
31AN	TREE	107	-	-	86	-21	-	-	-	-	-	-	-	-	94	-13	-	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31AN
31AO	TREE	68	-	-	69	2	-	-	115	47	-	-	-	-	78	10	-	-	-	-	-	-	-	-	-	NO ACTION	-	31AO
31AP	FENCE	71	-	-	-	-	63	-8	115	45	-	-	-	-	-	74	4	-	74	4	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31AP
31AQ	TREE	99	-	-	95	-3	-	-	-	-	-	-	-	-	104	5	-	-	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31AQ
31AR	TREE	111	-	-	109	-2	-	-	-	-	-	-	-	-	117	7	-	-	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31AR
31AS	</																											

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RUNWAY 31 OBSTRUCTION DATA (CONTINUED)																													
ID	DESCRIPTION	OBJECT TOP ELEVATION	EXISTING OBSTRUCTION DISPOSITION												FUTURE OBSTRUCTION DISPOSITION												PROPOSED ACTION	TRIGGERING EVENT	ID
			FAR PART 77 PRIMARY SURFACE		FAR PART 77 7:1 TRANSITIONAL SURFACE		FAR PART 77 20:1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE		FAR PART 77 PRIMARY SURFACE		FAR PART 77 7:1 TRANSITIONAL SURFACE		FAR PART 77 20:1 APPROACH SURFACE		20:1 THRESHOLD SITING SURFACE		40:1 DEPARTURE SURFACE								
			SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)	SURFACE ELEVATION	CLEARANCE(+)/ PENETRATION(-)							
31DP	TREE	95	-	-	-	-	84	-12	136	41	-	-	-	-	-	-	95	0	95	0	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31DP		
31DQ	TREE	115	-	-	-	99	-16	-	-	-	-	-	-	-	108	-8	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31DQ		
31DR	BUILDING	67	-	-	-	110	42	-	-	-	-	-	-	-	118	50	-	-	-	-	-	-	-	-	NO ACTION	-	31DR		
31DS	TREE	84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NO ACTION	-	31DS	
31DT	TREE	106	-	-	-	-	-	-	85	-20	138	32	-	-	-	-	-	96	12	96	13	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31DT	
31DU	TREE	107	-	-	-	97	-10	-	-	-	139	32	-	-	-	-	105	-2	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31DU	
31DV	TREE	101	-	-	-	-	-	-	86	-14	139	38	-	-	-	-	98	-3	98	-3	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31DV	
31DW	TREE	91	-	-	-	-	-	-	86	-5	139	48	-	-	-	-	98	6	98	6	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31DW	
31DX	TREE	70	-	-	-	-	-	-	86	17	139	69	-	-	-	-	98	28	98	28	-	-	-	-	-	NO ACTION	-	31DX	
31DY	TREE	112	-	-	-	111	-1	-	-	-	-	-	-	-	-	119	7	-	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31DY	
31DZ	TREE	114	-	-	-	100	-14	-	-	-	141	27	-	-	-	108	-6	-	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31DZ	
31EA	TREE	100	-	-	-	-	-	-	89	-12	141	41	-	-	-	-	100	0	100	0	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31EA	
31EB	TREE	92	-	-	-	-	-	-	89	-3	141	50	-	-	-	-	100	8	100	8	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31EB	
31EC	TREE	112	-	-	-	105	-8	-	-	-	-	-	-	-	-	113	1	-	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31EC	
31ED	TREE	102	-	-	-	-	-	-	90	-12	142	40	-	-	-	-	101	-1	101	-1	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31ED	
31EE	TREE	94	-	-	-	-	-	-	90	-4	142	49	-	-	-	-	101	7	101	7	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31EE	
31EF	TREE	107	-	-	-	97	-10	-	-	-	143	36	-	-	-	-	106	-1	-	-	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31EF	
31EG	TREE	90	-	-	-	-	-	-	91	1	144	53	-	-	-	-	102	12	102	12	-	-	-	-	-	NO ACTION	-	31EG	
31EH	TREE	98	-	-	-	-	-	-	91	-6	144	46	-	-	-	-	103	5	103	5	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31EH	
31EI	TREE	104	-	-	-	-	-	-	91	-12	144	40	-	-	-	-	103	-1	103	-1	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31EI	
31EJ	TREE	112	-	-	-	110	-1	-	-	-	-	-	-	-	-	119	7	-	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31EJ	
31EK	HOUSE	67	-	-	-	95	28	-	-	-	145	78	-	-	-	-	104	37	104	37	-	-	-	-	-	NO ACTION	-	31EK	
31EL	TREE	103	-	-	-	-	-	-	93	-10	145	42	-	-	-	-	104	1	104	1	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31EL	
31EM	TREE	105	-	-	-	-	-	-	94	-11	146	41	-	-	-	-	105	0	105	0	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31EM	
31EN	SE POINTER AVE. AT CL	70	-	-	-	-	-	-	95	25	147	78	-	-	-	-	106	37	106	37	-	-	-	-	-	NO ACTION	-	31EN	
31EO	HOUSE	70	-	-	-	-	-	-	95	25	148	78	-	-	-	-	107	37	107	37	-	-	-	-	-	NO ACTION	-	31EO	
31EP	TREE	105	-	-	-	-	-	-	95	-10	148	42	-	-	-	-	107	1	107	1	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31EP	
31EQ	TREE	107	-	-	-	98	-9	-	-	-	148	41	-	-	-	-	107	0	107	0	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31EQ	
31ER	TREE	95	-	-	-	-	-	-	97	2	149	54	-	-	-	-	108	13	108	13	-	-	-	-	-	NO ACTION	-	31ER	
31ES	TREE	128	-	-	-	134	5	-	-	-	-	-	-	-	142	14	-	-	-	-	-	-	-	-	-	NO ACTION	-	31ES	
31ET	TREE	111	-	-	-	110	-2	-	-	-	152	40	-	-	-	-	118	6	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31ET	
31EU	TREE	112	-	-	-	-	-	-	100	-12	152	40	-	-	-	-	111	-1	111	-1	-	-	-	-	-	TRIMMING/REMOVAL	EASEMENT ACQUISITION	31EU	
31EV	TREE	96	-	-	-	-	-	-	101	4	153	57	-	-	-	-	112	16	112	16	-	-	-	-	-	NO ACTION	-	31EV	
31EW	TREE	106	-	-	-	104	-2	-	-	-	153	47	-	-	-	-	112	6	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31EW	
31EX	TREE	111	-	-	-	-	-	-	101	-10	153	42	-	-	-	-	112	1	112	1	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31EX	
31EY	TREE	111	-	-	-	114	3	-	-	-	154	43	-	-	-	-	122	12	-	-	-	-	-	-	-	NO ACTION	-	31EY	
31EZ	TREE	99	-	-	-	-	-	-	104	5	156	57	-	-	-	-	115	16	115	16	-	-	-	-	-	NO ACTION	-	31EZ	
31FA	TREE	114	-	-	-	-	-	-	104	-10	156	42	-	-	-	-	115	1	115	1	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31FA	
31FB	TREE	112	-	-	-	-	-	-	104	-8	157	45	-	-	-	-	116	3	116	3	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31FB	
31FC	TREE	108	-	-	-	-	-	-	106	0	157	63	-	-	-	-	116	12	116	12	-	-	-	-	-	NO ACTION	-	31FC	
31FD	TREE	114	-	-	-	-	-	-	107	-7	160	45	-	-	-	-	119	4	119	4	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31FD	
31FE	TREE	112	-	-	-	-	-	-	107	-4	160	48	-	-	-	-	119	7	119	7	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31FE	
31FF	TREE	112	-	-	-	-	-	-	108	-4	161	48	-	-	-	-	119	7	119	7	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31FF	
31FG	TREE	110	-	-	-	116	5	-	-	-	162	52	-	-	-	124	14	-	-	-	-	-	-	-	-	NO ACTION	-	31FG	
31FH	TREE	111	-	-	-	-	-	-	110	-1	162	51	-	-	-	-	121	10	121	10	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31FH	
31FI	Obst-Spot-Ht	130	-	-	-	131	1	-	-	-	-	-	-	-	-	139	10	-	-	-	-	-	-	-	-	NO ACTION	-	31FI	
31FJ	TREE	117	-	-	-	-	-	-	112	-5	164	47	-	-	-	-	123	6	123	6	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31FJ	
31FK	TREE	109	-	-	-	-	-	-	112	3	164	56	-	-	-	-	123	15	123	14	-	-	-	-	-	NO ACTION	-	31FK	
31FL	TREE	114	-	-	-	-	-	-	113	-1	165	51	-	-	-	-	124	10	124	10	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31FL	
31FM	TREE	124	-	-	-	120	-4	-	-	-	166	42	-	-	-	-	128	4	-	-	-	-	-	-	-	FUTURE TRIMMING/REMOVAL	EASEMENT ACQUISITION	31FM	
31FN	TREE	115	-	-	-	-	-	-	115	0	167	52	-	-	-	-	126	11	126	11	-	-	-	-	-	RUNWAY END ADJUSTMENT	FUTURE PROJECT	31FN	
31FO	TREE	126	-	-	-	122	-4	-	-	-	168	42	-	-	-	-	131	4	-	-	-	-	-	-	-	RUNWAY END ADJUSTMENT	EASEMENT ACQUISITION	31FO	



Hanson Professional Services Inc.
9015 Town Center Pkwy, Suite 105
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EB-7961

Offices Nationwide
www.hanson-inc.com



ARCADIA MUNICIPAL AIRPORT
ARCADIA, FLORIDA

AIRPORT LAYOUT PLAN

NO.	DATE	DESCRIPTION			
		DES	DWN	REV	

ISSUE: AUGUST 24, 2015
PROJECT NO: 12A0141
CAD FILE: 10-13-INNR-APCH-13-31.DWG
DESIGN BY: MLH XX/XX/XXXX
DRAWN BY: RAD XX/XX/XXXX
REVIEWED BY: MCM 08/13/2015

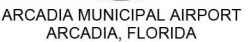
SHEET TITLE

RUNWAY 31
OBSTRUCTION DATA
TABLE SHEET 2

DRAFT



B-7961



GENERAL NOTES

- ## REFERENCE

1. LATITUDE AND LONGITUDE APPLICABLE

- | EXISTING | LEGEND | FUTURE | ULTIMATE |
|----------|--------|--------|----------|
|----------|--------|--------|----------|

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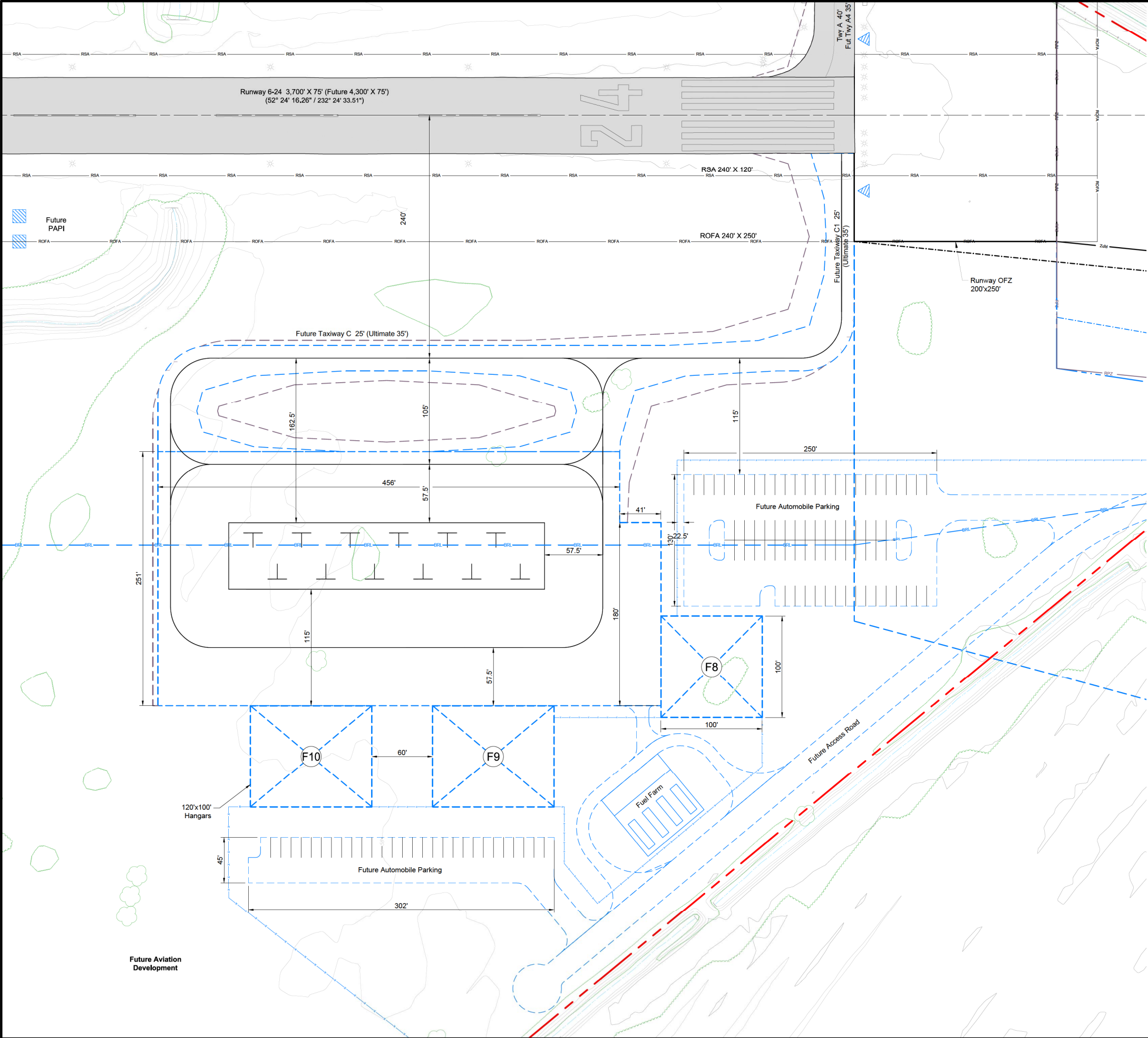


ARCADIA MUNICIPAL AIRPORT
ARCADIA, FLORIDA

NO.	DATE	DESCRIPTION			
		DES	DWN	REV	

SHEET TITLE

15



Facilities Table		
#	Facility Description	Top Elevation
F8	FBO/Terminal	95'
F9	120'x100' Hangar	06'
F10	120'x100' Hangar	95'

GENERAL NOTES

- ALP PREPARED USING DESIGN CRITERIA FROM FAA ADVISORY CIRCULAR 150/5300-13A, CHANGE 1
"AIRPORT DESIGN" AND PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE".
2. THERE ARE NO OBSTACLE FREE ZONE PENETRATIONS FOR RUNWAY 6-24. PENETRATIONS TO
RUNWAY 13-31 OBSTACLE FREE ZONES WILL BE CORRECTED DURING FUTURE PROJECTS.
3. FUTURE AREAS OF EASEMENT MAY BE PURCHASED IN FEE AS PART OF FUTURE PROJECTS.
CURRENT AND FUTURE AIRPORT PROPERTY TO BE FENCED AS PART OF FUTURE PROJECTS.
EXISTING FENCE IS 4' AND 6' HIGH. FUTURE FENCE TO BE 6' HEIGHT.
4. FUTURE NAVAIDS TO BE SITED UNDER FUTURE PROJECTS.
5. ULTIMATE EXTENSION OF RUNWAY 6-24 AND UPGRADE OF FACILITY TO ARC B-II STANDARDS
EXCEEDS THE FACILITY REQUIREMENTS SET FORTH IN THE MASTER PLAN. THESE
IMPROVEMENTS ARE NOT ANTICIPATED TO BE CONSTRUCTED WITHIN THE 20-YEAR PLANNING
HORIZON, BUT ARE DEPICTED IN ORDER TO AID IN SITING FUTURE IMPROVEMENTS. THEIR
CONSTRUCTION AND EXACT LOCATION WILL BE DEPENDENT ON FUTURE AVIATION ACTIVITY AND
ECONOMIC GROWTH OF THE AIRPORT. ASSOCIATED AIRSPACE SURFACES OMITTED FOR
CLARITY.

REFERENCE

1. LATITUDE AND LONGITUDE ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83). AS APPLICABLE, CONVERSIONS MADE FROM FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE 18.
2. VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. ELEVATIONS SHOWN ARE IN "MEAN SEA LEVEL" (MSL) UNLESS NOTED OTHERWISE, AND ARE NOT INTENDED FOR DESIGN PURPOSES.
4. ALL ELEVATIONS AND DIMENSIONS IN FEET, UNLESS NOTED OTHERWISE.
5. AERIAL MAPPING AND PHOTOGRAPHY FROM GRW INC., JULY 2014.
6. GROUND CONTOUR INTERVALS SHOWN ARE 2-FOOT, GENERATED FROM AERIAL MAPPING.

EXISTING	LEGEND	FUTURE	ULTIMATE
	AIRPORT PROPERTY LINE		N/A
	FENCE		N/A
	ROADS		N/A
	AIRFIELD BUILDINGS		N/A
	AIRFIELD PAVEMENT		N/A
	AVIGATION EASEMENT		N/A
	PRECISION APPROACH PATH INDICATOR (PAPI)		N/A
N/A	RUNWAY END IDENTIFIER LIGHTS (REIL)		N/A
	LIGHTED WIND CONEWIND TEE		N/A
	AIRPORT REFERENCE POINT (ARP)		N/A
	THRESHOLD SITING SURFACE		N/A
	BUILDING RESTRICTION LINE (BRL) FOR 25' BLDG.		N/A
	FAR PART 77 SURFACE		N/A
	RUNWAY OBJECT FREE AREA (ROFA)		N/A
	TAXIWAY OBJECT FREE AREA (TOFA)		N/A
	RUNWAY OBSTACLE FREE ZONE (ROFZ)		N/A
	RUNWAY PROTECTION ZONE (RPZ)		N/A
	RUNWAY SAFETY AREA (RSA)		N/A
	TAXIWAY SAFETY AREA (TSA)		N/A
	RUNWAY VISIBILITY ZONE		N/A
	40:1 DEPARTURE SURFACE		N/A
	PAVEMENT OR TURF RUNWAY TO BE REMOVED		N/A
	VEGETATION		N/A
	DRAINAGE DITCH/SWALE		N/A

DRAFT



ARCADIA MUNICIPAL AIRPORT
ARCADIA, FLORIDA

AIRPORT LAYOUT PLAN

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: AUGUST 24, 2015

PROJECT NO: 12A0141

CAD FILE: 16-LAND.DWG

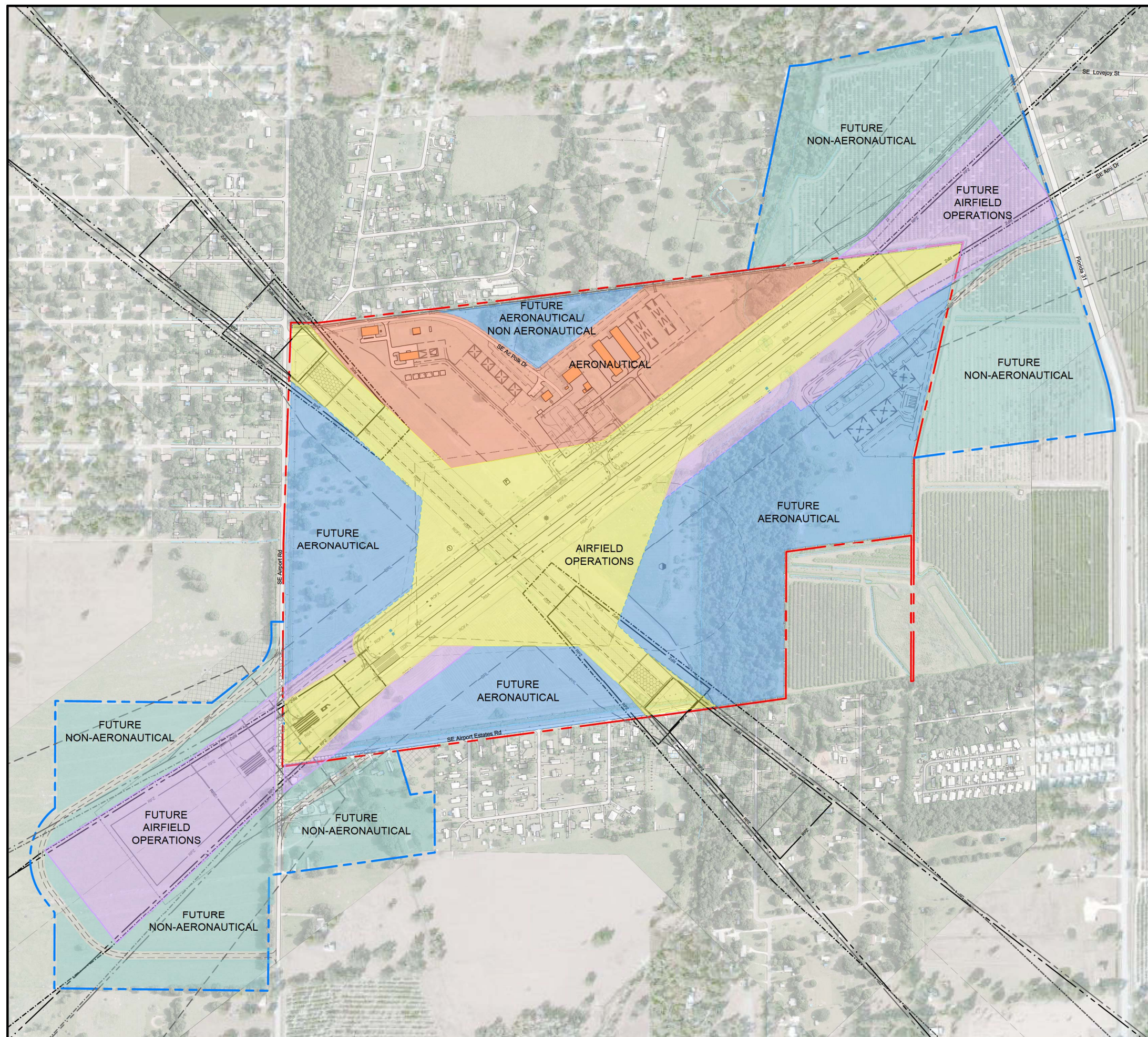
DESIGN BY: MLH 12/04/2014

DRAWN BY: MLH 12/04/2014

REVIEWED BY: MCM 08/13/2015

SHEET TITLE

AIRPORT LAND USE DRAWING



MAGNETIC NORTH
TRUE NORTH

MAGNETIC DECLINATION: 5° 36' W (11/2014)
ANNUAL RATE OF CHANGE: 6' W/ YEAR
EPOCH YEAR 2010

LAND USE LEGEND

-  AIRFIELD OPERATIONS
 FUTURE AIRFIELD OPERATIONS
 AERONAUTICAL
 FUTURE AERONAUTICAL
 FUTURE NON-AERONAUTICAL

GENERAL NOTES

1. AIRPORT PREPARED USING DESIGN CRITERIA FROM FAA ADVISORY CIRCULAR 150/5300-13A, CHANGE 1 "AIRPORT DESIGN" AND FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE".
2. THERE ARE NO OBSTACLE FREE ZONE PENETRATIONS FOR RUNWAY 6-24. PENETRATIONS TO RUNWAY 13-31 OBSTACLE FREE ZONE WILL BE CORRECTED DURING FUTURE PROJECTS.
3. FUTURE AREAS OF EASEMENT MAY BE PURCHASED IN FEE AS PART OF FUTURE PROJECTS.
4. CURRENT AND FUTURE AIRPORT PROPERTY TO BE FENCED AS PART OF FUTURE PROJECTS.
5. EXISTING FENCE IS 4' AND 6' HIGH. FUTURE FENCE TO BE 6' HEIGHT.
6. FUTURE NAVAIDS TO BE SITED UNDER FUTURE PROJECTS.
7. ULTIMATE EXTENSION OF RUNWAY 6-24 AND UPGRADE OF FACILITY TO ARC-B III STANDARDS EXCEEDS THE FACILITY REQUIREMENTS SET FORTH IN THE MASTER PLAN. THESE IMPROVEMENTS ARE NOT ANTICIPATED TO BE CONSTRUCTED WITHIN THE 20-YEAR PLANNING HORIZON, BUT ARE DEPICTED IN ORDER TO AID IN SITING FUTURE IMPROVEMENTS. THEIR CONSTRUCTION AND EXACT LOCATION WILL BE DEPENDENT ON FUTURE AVIATION ACTIVITY AND ECONOMIC GROWTH OF THE AIRPORT. ASSOCIATED AIRSPACE SURFACES OMITTED FOR CLARITY.

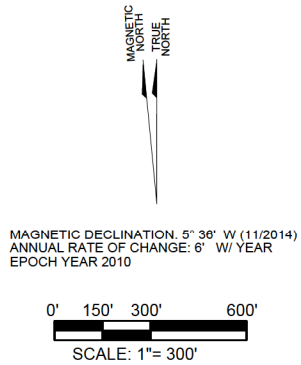
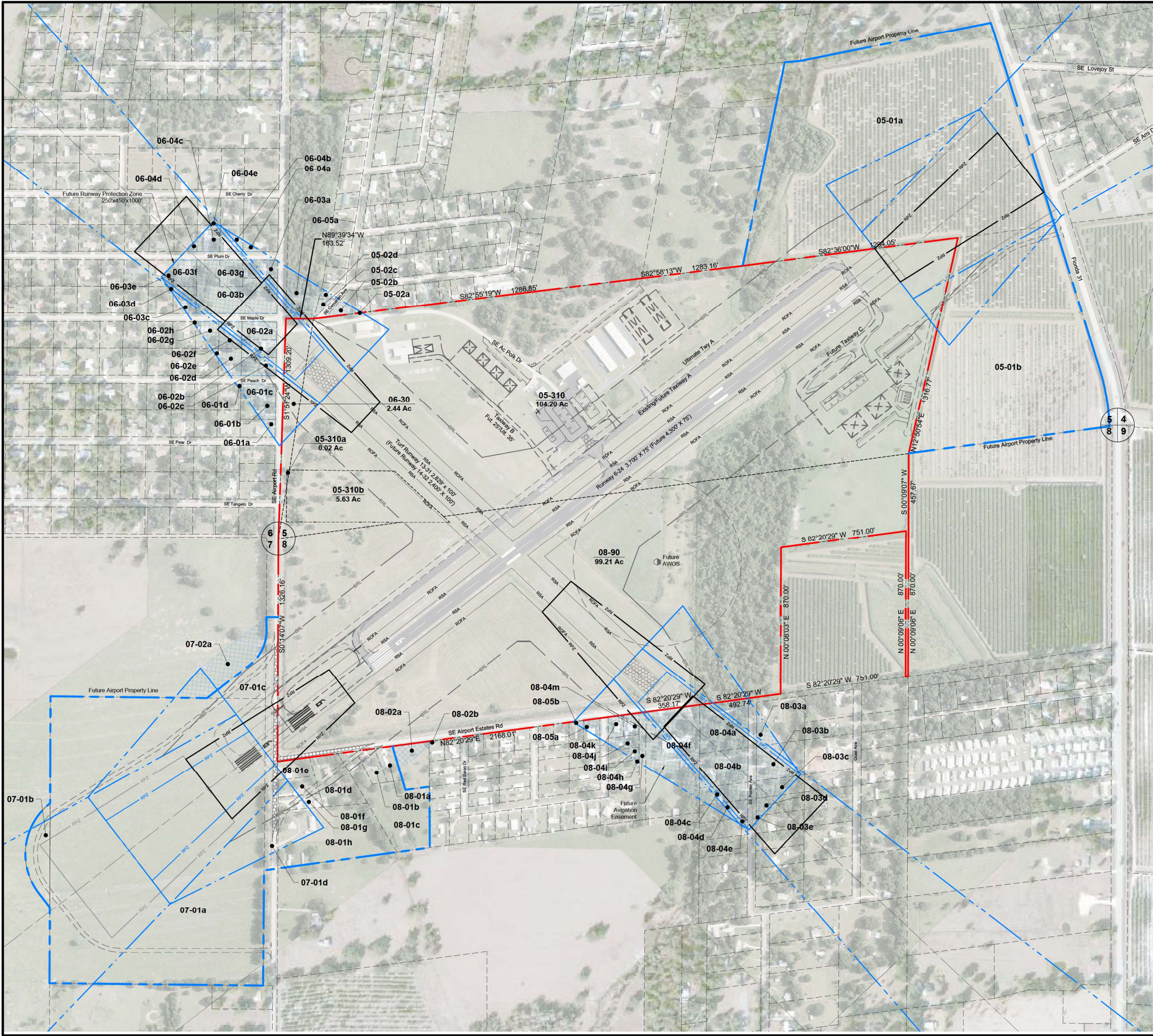
REFERENCE

1. LATITUDE AND LONGITUDE ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83). AS APPLICABLE, CONVERSIONS MADE FROM FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE.
2. VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV D 88).
3. ELEVATIONS SHOWN ARE IN "MEAN SEA LEVEL" (MSL) UNLESS NOTED OTHERWISE, AND ARE NOT INTENDED FOR DESIGN PURPOSES.
4. ALL ELEVATIONS AND DIMENSIONS IN FEET, UNLESS NOTED OTHERWISE.
5. AERIAL MAPPING AND PHOTOGRAPHY FROM GRW INC., JULY 2014.
6. GROUND CONTOUR INTERVALS SHOWN ARE 2'-0", GENERATED FROM AERIAL MAPPING.

EXISTING	LEGEND	FUTURE	ULTIMATE
	AIRPORT PROPERTY LINE		N/A
	FENCE		N/A
	ROADS		N/A
	AIRFIELD BUILDINGS		N/A
	AIRFIELD PAVEMENT		N/A
	AVIGATION EASEMENT		N/A
	PRECISION APPROACH PATH INDICATOR (PAPI)		N/A
N/A	RUNWAY END IDENTIFIER LIGHTS (REIL)		N/A
	LIGHTED WIND CONE/WIND TIE		N/A
	AIRPORT REFERENCE POINT (ARP)		N/A
	THRESHOLD SITING SURFACE		N/A
	BUILDING RESTRICTION LINE (BRL) FOR 25' BLDG.		N/A
	FAR PART 77 SURFACE		N/A
	RUNWAY OBJECT FREE AREA (ROFA)		N/A
	TAXIWAY OBJECT FREE AREA (TOFA)		N/A
	RUNWAY OBSTACLE FREE ZONE (ROFZ)		N/A
	RUNWAY PROTECTION ZONE (RPZ)		N/A
	RUNWAY SAFETY AREA (RSA)		N/A
	TAXIWAY SAFETY AREA (TSA)		N/A
	RUNWAY VISIBILITY ZONE		N/A
N/A	40:1 DEPARTURE SURFACE		N/A
N/A	PAVEMENT OR TURF RUNWAY TO BE REMOVED		
	VEGETATION	N/A	N/A
	DRAINAGE DITCH/SWALE	N/A	N/A

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DESCRIPTION (FROM BOUNDARY SURVEY)
THE SOUTH 1/2 OF THE SW 1/4 AND THE SW 1/4 OF THE SE 1/4 OF SECTION 5, TOWNSHIP 38 SOUTH, RANGE 25 EAST, DESOTO COUNTY, FLORIDA.
AND
THE NORTH 1/4 OF THE NW 1/4 AND THE NW 1/4 OF THE NE 1/4, LESS: COMMENCING AT THE SOUTHEAST CORNER OF THE NW 1/4 OF THE NE 1/4 OF SECTION 8, TOWNSHIP 38 SOUTH, RANGE 25 EAST, DESOTO COUNTY, FLORIDA AND RUN WEST 15 FEET TO A POINT OF BEGINNING; THENCE NORTH 870.00 FEET; THENCE WEST 751.00 FEET; THENCE SOUTH 870.00 FEET; THENCE EAST 751.00 FEET TO THE POINT OF BEGINNING.
AND
THAT PORTION OF THE SE 1/4 OF THE SE 1/4 OF SECTION 6, TOWNSHIP 38 SOUTH, RANGE 25 EAST, DESOTO COUNTY, FLORIDA, LYING EAST OF THE PUBLIC ROAD KNOWN AS SCOTT ROAD (AIRPORT ROAD) AS NOW LOCATED.

- GENERAL NOTES
1. ALP PREPARED USING DESIGN CRITERIA FROM FAA ADVISORY CIRCULAR 150/5300-13A, CHANGE 1 "AIRPORT DESIGN" AND FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE".
 2. EXISTING AIRPORT PROPERTY LINE BASED ON A BOUNDARY SURVEY BY DESOTO LAND SURVEYING, LLC COMPLETED 04/10/2015 AND DATED 05/08/2015.
 3. EXISTING AIRPORT PARCEL DATA BASED ON TITLE OPINION BY SWAINE AND HARRIS, P.A., DATED JULY 25, 2013, AND SEARCH OF DESOTO COUNTY RECORDS PERFORMED BY ARCADIA ABSTRACT AND TITLE THROUGH 12/10/2014.
 4. DESOTO COUNTY PARCEL MAP AND PARCEL INFORMATION PROVIDED BY DESOTO COUNTY PROPERTY APPRAISER.
 5. ULTIMATE EXTENSION OF RUNWAY 6-24 AND UPGRADE OF FACILITY TO ARC B-II STANDARDS EXCEEDS THE FACILITY REQUIREMENTS SET FORTH IN THE MASTER PLAN. THESE IMPROVEMENTS ARE NOT ANTICIPATED TO BE CONSTRUCTED WITHIN THE 20-YEAR PLANNING HORIZON, BUT ARE DEPICTED IN ORDER TO AID IN SITING FUTURE IMPROVEMENTS. THEIR CONSTRUCTION AND EXACT LOCATION WILL BE DEPENDENT ON FUTURE AVIATION ACTIVITY AND ECONOMIC GROWTH OF THE AIRPORT. ASSOCIATED AIRSPACE SURFACES OMITTED FOR CLARITY.

- REFERENCE
1. BEARINGS AND DISTANCES BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, US SURVEY FEET.
 2. ALL ELEVATIONS AND DIMENSIONS IN FEET, UNLESS NOTED OTHERWISE.
 3. AERIAL MAPPING AND PHOTOGRAPHY FROM GRW INC., JULY 2014; SUPPLEMENTAL IMAGERY FROM BING MAPS.

EXISTING	LEGEND	FUTURE	ULTIMATE
	AIRPORT PROPERTY LINE		N/A
	AIRPORT PARCEL LINES		N/A
	PARCEL LINES		N/A
	AIRFIELD BUILDINGS		N/A
	AIRFIELD PAVEMENT		N/A
	AVIGATION EASEMENT		N/A
	BUILDING RESTRICTION LINE (BRL) FOR 25' BLDG.		N/A
	FAR PART 77 SURFACE		N/A
	RUNWAY OBJECT FREE AREA (ROFA)		N/A
	RUNWAY SAFETY AREA (RSA)		N/A
	RUNWAY PROTECTION ZONE (RPZ)		N/A
	PAVEMENT OR TURF RUNWAY TO BE REMOVED		N/A

DRAFT



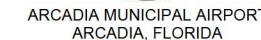
AIRPORT LAYOUT PLAN

NO.	DATE	DESCRIPTION
DES	DWN	REV

ISSUE: AUGUST 24, 2015
PROJECT NO: 12A0141
CAD FILE: 17-PROP.DWG
DESIGN BY: MLH 06/13/2015
DRAWN BY: MLH 06/13/2015
REVIEWED BY: MCM 08/13/2015

SHEET TITLE

EXHIBIT A - AIRPORT
PROPERTY
INVENTORY MAP



NO.	DATE	DESCRIPTION			
		DES	DWN	RE	

SHEET TITLE

DRAFT

SUMMARY OF FUTURE ACQUISITION											
PARCEL DESIGNATION	DESOTO COUNTY PARCEL IDENTIFICATION NUMBER	ACQUIRED FROM	TOTAL PARCEL AREA (ACRES)	PARCEL AREA TO BE ACQUIRED	FAA PARTICIPATION (ACRES)	NON-FAA PARTICIPATION (ACRES)	FAA PROJECT NO.	DATE ACQUIRED	PROPERTY INTEREST ACQUIRED	RECORD DOCUMENT NUMBER	REMARKS
05-01a	05-38-25-0000-0260-0000	WATSON ED SCOTT TR	42.25	42.25	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
05-01b	05-38-25-0000-0150-0000	WATSON ED SCOTT TR	33.29	24.73	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
05-02a	05-38-25-0103-0000-1710	CARLSON JOHN H JR & CLAMAN SANDRA L ROS	0.23	0.003	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
05-02b	05-38-25-0103-0000-1690	HAACK GERALD E & LAVAUGHN & HAACK CODY JT/ROS	0.43	0.23	---	---	---	---	AVIGATION EASEMENT	---	ESTIMATED ACREAGE
05-02c	05-38-25-0103-0000-1691	HOFFMAN STEVEN D	0.12	0.12	---	---	---	---	AVIGATION EASEMENT	---	ESTIMATED ACREAGE
05-02d	05-38-25-0103-0000-1681	BARRAGAN JORGE	0.24	0.08	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-01a	06-38-25-0120-00C0-0030	MOORE TAKI	0.50	0.11	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-01b	06-38-25-0120-00C0-0020	GUERRERO DAMIAN	0.50	0.30	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-01c	06-38-25-0120-00C0-0010	CARLTON KENDAHL A	0.50	0.47	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-01d	06-38-25-0120-00C0-0250	GARCIA RIGOBERTO & CELIA	0.50	0.01	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-02a	06-38-25-0120-00D0-0010	MALONE KIMBERLY	0.50	0.50	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-02b	06-38-25-0120-00D0-0020	TOMLINSON CROWLEY A & LUCINDA	0.50	0.50	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-02c	06-38-25-0120-00D0-0030	GARCIA NICANOR & IRMA	0.50	0.50	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-02d	06-38-25-0120-00D0-0040	FISHER RONNIE LEWIS & SANDRA L	0.50	0.42	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-02e	06-38-25-0120-00D0-0050	OLGUIN JACOBO GUERRERO & GUERRERO FORTUNATA	0.50	0.03	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-02f	06-38-25-0120-00D0-0250	HANSEN DALE & KAREN	0.50	0.50	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-02g	06-38-25-0120-00D0-0240	CARAWAY JAMES R & BONNIE L	0.50	0.35	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-02h	06-38-25-0120-00D0-0230	JACOBS RALPH C	0.50	0.01	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-03a	06-38-25-0120-00E0-0010	FULLERTON CHARLES W & JEAN A	0.50	0.50	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-03b	06-38-25-0120-00E0-0020	DESOTO COUNTY	2.50	2.50	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-03c	06-38-25-0120-00E0-0060	OLGUIN MOISES	0.50	0.39	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-03d	06-38-25-0120-00E0-0070	TWOHIG FRANK T & DORIS A	0.50	0.02	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-03e	06-38-25-0120-00E0-0220	KAWASMY MURSI	0.50	0.13	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-03f	06-38-25-0120-00E0-0230	TAYLOR MARIA DEL CARMEN L/E	0.50	0.49	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-03g	06-38-25-0120-00E0-0250	ARCADIA-DESOTO COUNTY HABITAT FOR HUMANITY	0.50	0.50	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-04a	06-38-25-0120-00F0-0020	BAILEY GERALD D & CONNIE F	0.75	0.09	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-04b	06-38-25-0120-00F0-0040	HILLIARD ANN	0.60	0.35	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-04c	06-38-25-0120-00F0-0050	FEDERAL NATIONAL MTG ASSOC	0.50	0.42	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-04d	06-38-25-0120-00F0-0060	BURNS RHONDAL D & CAROLYN J	0.50	0.06	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-04e	06-38-25-0120-00F0-0240	WALLACE ROBERT & MARIETTA	0.50	0.01	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
06-05a	06-38-25-0000-0020-0000	HOFFMAN STEVEN D	7.75	1.08	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
07-01a	07-38-25-0000-0061-0000	SUNNY SOUTH PACKING COMPANY	50.00	50.00	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
07-01b	07-38-25-0000-0062-0000	SUNNY SOUTH PACKING CO INC	233.00	1.41	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
07-01c	07-38-25-0000-0062-0000	SUNNY SOUTH PACKING CO INC	233.00	1.15	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
07-01d	N/A	CITY OF ARCADIA, FL	2.61	2.61	---	---	---	---	FEE SIMPLE	---	EXISTING AIRPORT RD. ROW; ESTIMATED ACREAGE
07-02a	07-38-25-0000-0062-0000	SUNNY SOUTH PACKING CO INC	233.00	2.13	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-01a	08-38-25-0063-0000-0030	LINDSEY JOHN R & PEGGY S	0.50	0.50	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
08-01b	08-38-25-0063-0000-0020	BECKHAM JUDSON OLOVER & BECKHAM NOLA L	0.50	0.50	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
08-01c	08-38-25-0063-0000-0010	LINDSEY JOHN & PEGGY	3.54	3.54	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
08-01d	08-38-25-0000-0185-0000	GONZALEZ JAIME	1.50	1.50	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
08-01e	08-38-25-0000-0180-0000	LARA MARCOS & SALAZAR MARIA	0.51	0.51	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
08-01f	08-38-25-0000-0181-0000	PADRON MIRIAM & PADRON MARISOL JT/ROS	0.51	0.51	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
08-01g	08-38-25-0000-0183-0000	SALAZAR MARIA & LARA MARCOS	0.51	0.51	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
08-01h	08-38-25-0000-0170-0000	NEWTON LOIS ESTATE	4.90	4.90	---	---	---	---	FEE SIMPLE	---	RECORDED ACREAGE
08-02a	08-38-25-0063-0000-0040	COKER DALE M & SANDRA K	1.20	0.43	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-02b	08-38-25-0010-0000-0010	HERNANDEZ ELISEO & HERNANDEZ ENEDINA C JT/ROS	0.32	0.02	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-03a	08-38-25-0324-0000-0220	ROMAN MARY	1.74	0.31	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-03b	08-38-25-0324-0000-0200	CITI MORTGAGE INC	1.38	0.96	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-03c	08-38-25-0324-0000-0190	FORD TIMOTHY EUGENE & GADUE ELLEN	0.69	0.49	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-03d	08-38-25-0324-0000-0180	WILLEMSSEN ALVA M ESTATE	0.69	0.23	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-03e	08-38-25-0324-0000-0170	BRYANT KAREN P	0.69	0.02	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04a	08-38-25-0324-0000-0010	CHILDRESS EDWINA S ESTATE	2.08	2.08	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04b	08-38-25-0324-0000-0050	MCCRAY DEBRA A	1.38	1.38	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04c	08-38-25-0324-0000-0060	G AN A INC	0.69	0.66	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04d	08-38-25-0324-0000-0070	CARR GAIL F	0.69	0.39	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04e	08-38-25-0324-0000-0080	WELLS FARGO FINANCIAL	0.69	0.08	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04f	08-38-25-0000-0160-0000	COKER DALE M & SANDRA K	5.00	3.26	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04g	08-38-25-0010-0000-0170	ELWARD JUANITA K	1.68	0.29	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04h	08-38-25-0010-0000-0150	SIERRA ROBERTO	0.32	0.00	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04i	08-38-25-0010-0000-0140	MANRIQUEZ SALVADOR & ADRIANA	0.32	0.13	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04j	08-38-25-0010-0000-0130	MANRIQUEZ OMAR	0.32	0.29	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04k	08-38-25-0010-0000-0110	BOHANNAN BEN L & ELIZABETH A	0.32	0.32	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-04m	08-38-25-0010-0000-0120	KNIGHT CHERYL J & DENNIS G	0.32	0.32	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-05a	08-38-25-0010-0000-0095	RENDON BLANCA & ESPINOZA RAMON	0.33	0.19	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE
08-05b	08-38-25-0010-0000-0090	SMITH HERBERT L JR TR	0.30	0.04	---	---	---	---	AVIGATION EASEMENT	---	RECORDED ACREAGE

GENERAL NOTES

1. ALP PREPARED USING DESIGN CRITERIA FROM FAA ADVISORY CIRCULAR 50/1300-13A, CHANGE 1 "PIRPORT DESIGN" AND FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE".
2. EXISTING AIRPORT PROPERTY LINE BASED ON A BOUNDARY SURVEY BY DESOTO LAND SURVEYING, LLC COMPLETED 04/10/2015 AND DATED 05/08/2015.
3. EXISTING AIRPORT PARCEL DATA BASED ON TITLE OPINION BY SWAINE AND HARRIS, P.A., DATED JULY 25, 2013, AND DEED SEARCH OF DESOTO COUNTY RECORDS PERFORMED BY AREA ABSTRACT AND TITLE, T. REGULAR 12/19/2014.
4. DESOTO COUNTY PARCEL MAP AND PARCEL INFORMATION PROVIDED BY DESOTO COUNTY PROPERTY APPRAISER.
5. AREAS OF FUTURE ACQUISITION PARCELS DETERMINED FROM RECORD DOCUMENTS WHERE POSSIBLE.
6. FUTURE PARCEL LETTER-NUMBER DESIGNATION TO BE ASSIGNED SEQUENTIALLY, AS PARCELS ARE ACQUIRED.
7. FUTURE FEE SIMPLE ACQUISITION TO ACCOMMODATE FUTURE AIRFIELD DEVELOPMENT; FUTURE EASEMENT ACQUISITION TO ACCOMMODATE APPROACH SURFACE CLEARING TO 50' SURFACE HEIGHT ABOVE RESPECTIVE RUNWAY END ELEVATION.

Appendix B

Public Involvement Materials





Arcadia Municipal Airport Airport Advisory Committee Meeting Master Plan Update



March 20, 2014
City Hall Building

Arcadia Municipal Airport Master Plan Update



Objectives of this meeting

1. **Review existing conditions**
 - ✓ Recent Projects / facility changes
 - ✓ Based Aircraft
 - ✓ 2013 Estimate of Aircraft Operations
2. **Review preliminary forecasts**
 - ✓ Based Aircraft Forecast
 - ✓ Operations Forecast
3. **Discuss the next steps**

Arcadia Municipal Airport Master Plan Update



Existing Conditions



Existing Runway Characteristics				
Airport Elevation: 63 Feet				
Runways	6	24	13	31
Dimension (ft.)	3,700 x 75		2,780 x 140	
Surface	Asphalt		Turf	
Surface Condition	Excellent		Fair	
Pavement Strength	12,500 LBS. SW		NA	
Lighting	MIRL		None	
NAVAIDS	None	None	None	None
Visual Aids	PAPI – 2	None	None	None
Runway Marking	Non-Precision		None	
Source: Airport Facility Directory, 2014; Master Record Form 5010; and Hanson				

Arcadia Municipal Airport Master Plan Update



Existing Conditions

- **Recent Facility Improvements:**
 - ✓ Runway 6-24 (old 5-23), Taxiway and Apron Pavement Rejuvenation and marking
 - ✓ Airport Security Fencing
 - ✓ Airfield Lighting Improvements including:
 - ✓ New Runways and Taxiway Lights
 - ✓ New Electrical Vault
 - ✓ Installation of Runway 6 PAPIs
 - ✓ Airfield Signage
 - ✓ New Lighted Windsock



Arcadia Municipal Airport Master Plan Update



Forecasts of Aviation Demand Methodologies

- **Based Aircraft**
 - ✓ National Growth Rate – Applies the Federal Aviation Administration (FAA) projected national growth rate.
 - ✓ Market Share – Applies the FAA projected percentage of national active aircraft.
 - ✓ Terminal Area Forecast (TAF) – Accept the FAA projections developed specifically for X06.
 - ✓ Florida Department of Transportation (FDOT) – Accept the FDOT projections specially developed for X06.



Arcadia Municipal Airport Master Plan Update



Forecasts of Aviation Demand Methodologies

- **Operations**
 - ✓ Operations to Based Aircraft (OPBA) – Developed a ratio of operations to based aircraft forecast.
 - ✓ TAF – Accept the FAA projections developed specifically for X06.
 - ✓ FDOT – Accept the FDOT projections specially developed for X06.



Arcadia Municipal Airport Master Plan Update



Forecasts of Aviation Demand Selected Methodology

- **Based Aircraft**

- ✓ National Growth Rate – More aggressive than Market Share while still attainable.



- **Operations**

- ✓ Ratio of Aircraft Operations to Based Aircraft (OPBA) – Most reliable method for projecting operations for GA airports.



Arcadia Municipal Airport Master Plan Update



Forecasts of Aviation Demand

- **Based Aircraft**

Comparison of Actual vs. Forecast Based Aircraft Options

Year	Actual Estimate	TAF (2013)	FDOT	Market Share	National Growth Rate
2003		31	31		
2004		31	31		
2005		31	31		
2006		31	31		
2007		31	31		
2008		31	31		
2009		31	31		
2010		28	31		
2011		28	31		
2012		31	31		
2013	22	31	31		
2018		31	31	22	27
2023		31	34	23	31
2033		31	36	25	37

Source: FAA TAF, 2013; FAA Long Range Forecasts; FDOT FASP, 2013; Hanson; and Airport Staff

Arcadia Municipal Airport Master Plan Update



Forecasts of Aviation Demand

• Aircraft Operations

Comparison of Actual vs. Forecast Operations Options

Year	Actual Estimate	TAF (2013)	FDOT	OPBA
2003		19,370	19,370	
2004		19,370	19,370	
2005		19,370	19,370	
2006		19,370	19,370	
2007		19,370	19,370	
2008		19,370	19,370	
2009		19,370	19,370	
2010		19,370	19,370	
2011		19,370	19,370	
2012		19,370	19,370	
2013	13,196	19,370	19,496	
2018		19,370	20,138	15,957
2023		19,370	20,801	18,972
2033		19,370	22,193	22,792

Source: FAA TAF, 2013; FDOT FASP, 2013; Hanson; and Airport Staff



Arcadia Municipal Airport Master Plan Update



Forecasts of Aviation Demand

Forecast of Operational Fleet Mix

Year	Total Operations	Single-Engine	Multi-Engine	Jet	Helicopter	Experimental
2013 estimate		80%	12%	1%	0%	7%
2018	15,957	12,765	1,915	160	0	1,117
2023	18,972	15,177	2,277	190	0	1,328
2033	22,792	18,234	2,735	228	0	1,595

Arcadia Municipal Airport Master Plan Update



Preliminary Forecasts

Forecast Summary				
	2013	2018	2023	2033
Based Aircraft (Based on National Growth Rate Methodology)				
Single-Engine	16	18	21	25
Multi-Engine	2	4	4	5
Jet	0	0	0	0
Helicopter	0	0	0	0
Experimental/Other	4	5	6	7
Total	22	27	31	37
Annual Airport Operations (Based on Operations per Based Aircraft Methodology)				
Local	8,577	10,372	12,332	14,815
Itinerant	4,619	5,585	6,640	7,977
Total	13,196	15,957	18,972	22,792
Annual Instrument Approaches	NA	638	759	912

Arcadia Municipal Airport Master Plan Update



AAB Action Items

- **Finalize forecasts**
 - ✓ AAB adoption of presented forecast methodology and authorize Hanson to submit to the FAA.
 - ✓ Provide comments on draft Working Paper No.1

Arcadia Municipal Airport Master Plan Update



Next Steps

- Finalize forecasts
- Submit forecasts to FAA/FDOT for review
- Capacity analysis
- Determine facility requirements

Arcadia Municipal Airport Master Plan Update



Scope of Work Status

Task / Status	
Task 1 – Inventory	COMPLETE
Task 2 – Forecasts of Aviation Demand	UNDERWAY
Task 3 – Capacity Analysis	
Task 4 – Facility Requirements	
Task 5 – Identification of Alternatives	
Task 6 – Evaluation of Alternatives	
Task 7 – Selection of Recommended Plan	
Task 8 – Environmental Review	
Task 9 – Airport Plans	
Task 10 – Financial and Implementation Plan	

Arcadia Municipal Airport Master Plan Update



Project Schedule

		Month - 2014											
Task	Task Description	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	Inventory	→	→										
2	Forecast of Aviation Demand	→	→	▲									
3	Capacity Analysis				→								
4	Facility Requirements				→	▲							
5	Identification of Alternatives				→	→	→	→					
6	Evaluate Alternatives					→	→	→	→	▲			
7	Selection of Recommended Plan					→	→	→	→	→			
8	Environmental Review					→	→	→	→	→			
9	Airport Layout Plans					→	→	→	→	→			
10	Financial & Implementation Plan								→	→			
11	Project Coordination & Public Information			◆		◆					◆		◆
12	Reports & Deliverables			→	→	→	→	→	→	→	→	▲	
	Documentation			▲									
	AAB/Public Meetings			◆									
	City Council/Public Meeting			◆									



**AGENDA MINUTES
AIRPORT ADVISORY COMMITTEE
CITY OF ARCADIA
THURSDAY, MARCH 20, 2014
6:00 P.M.**

CALL TO ORDER, INVOCATION, PLEDGE OF ALLEGIANCE & ROLL CALL

Gary Frierson called the meeting to order at approximately 6:10 p.m. with the following members and staff present:

Airport Advisory Committee

Gary Frierson	Ernie Hewett
Glenn Walker	Greg Smith

Richard Fazzone was not present.

City Staff

City Clerk Penny Delaney

Public

Michael Moon of Hanson Professional Services
Timeka Carter Hanson Professional Services
Tim Parker Hanson Professional Services

AGENDA ITEMS

1. CALL TO ORDER, INVOCATION AND ROLL CALL

Committee Member Smith gave the invocation, which was followed by the Pledge of Allegiance and roll call.

2. APPROVAL OF MINUTES DATED FEBRUARY 27, 2014

Vice Chairman Hewett pointed out an error on page one, item two, line one in which a word needed to be deleted. The City Clerk stated she would make the correction and asked if the committee wanted it brought back before them for approval at the next meeting. The committee instructed the City Clerk to make the correction and they advised they did not wish for it to come back before the committee for approval at the next meeting. Vice Chairman Hewett made a motion to approve the February 27, 2014 minutes. Committee Member Walker seconded said motion. Committee voted unanimously, 4-0 to approve said motion.

3. RECOMMENDED ADVERTISING FOR FBO

Chairman Frierson advised that the current FBO's existing lease will be expiring in a year. He asked for any recommendations or ideas to put something out regarding businesses that may need to be moved. Committee Member Walker stated that the committee needed to be advertising for it. He further stated that they need to be looking because they can't wait for the end of the lease and expect someone to just pop up. Committee Member Smith stated that he felt the City should run the airport right now like some other towns do and it could save money. Chairman Frierson asked Committee Member Smith for confirmation that he didn't want to advertise for the two hangars that will be available and Committee Member Smith stated that they should advertise regarding the two hangars, but not for an FBO. He compared Arcadia to Wauchula in that the City controls the airport, they've received grants and the airport has grown considerably and would like the same for Arcadia.

It was agreed that they would advertise for the available hangar space and possibly offices in the terminal. Vice Chairman Hewett stated that he felt they needed to advertise regarding an opportunity; not advertising for an FBO, to sell fuel farm, but for an opportunity. He thought it would be good to put all the opportunities out there and see what would come forward. Chairman Frierson asked if the committee wanted to ask the City to advertise to rent the assets that they have at the airport. George Chase, who was in the public, stated that he felt they should advertise for all the assets and once they get a bite, they can sort through it all. Committee Member Walker made a motion to recommend to the City to advertise, coming soon, all that the airport has available and Vice Chairman Hewett seconded the motion. Committee voted unanimously, 4-0, to approve said motion. Mike Moon, who also was in the public, asked if the committee would like for Hanson Professional Services to do some checking around to see how it could be done. Chairman Frierson stated that anything would be appreciated so they don't have to reinvent the wheel. He further stated that the committee's recommendation is that the City begin to pursue the advertising and opening it up and letting people know that it's coming available. Mr. Moon suggested a request for proposal.

4. AIRPORT MASTER PLAN – DRAFT NO. 1

Michael Moon of Hanson Professional Services, introduced Timeka Carter who is the principal planner on the project and Tim Parker. They presented a power point to the committee which consisted of the objectives of the meeting. These objectives included reviewing the existing conditions, reviewing the preliminary forecasts, and discussing the next steps in the master planning process. There was much discussion regarding the existing conditions, the number of planes at the airport, forecast methodology and the preliminary forecast. Mr. Moon asked if everyone was comfortable with the based aircraft methodology. Chairman Frierson stated that he was fine with it. Mr. Moon stated that what was needed was for the committee to adopt the forecast methodology and authorize them to submit the forecast to FAA. The forecast is one of a two part master plan that the FAA has approval right to. The other being the airport layout plan which will be one of the final things Hanson does. Chairman Frierson asked if there was a motion to adopt the presented forecast methodology that has been presented by Hanson tonight. Committee Member Smith made a motion to accept it and Committee Member Walker seconded the motion. Vice Chairman Hewett asked if Hanson ran any numbers on the other

methods (resident analysis and trend analysis) to see how they came out. Ms. Carter stated they had not because they felt the one's presented were the more appropriate ones for the environment in Arcadia. Mr. Parker stated that there isn't a lot of existing trend data that would be valid. Committee voted, 3-1 to approve said motion with Vice Chairman Hewett casting the dissenting vote.

Mr. Moon stated that the second thing they needed to do was to get the committee's comments on the Draft Working Paper No. 1. He further stated that the next steps would be to finalize the forecast based on the methodologies the committee has selected; submit the forecast to FAA and DOT for review, comment and approve; once approved, Hanson will go into the capacity analysis; and determine the facility requirements. Mr. Moon advised that the inventory was complete. Ms. Carter has another day of work to complete the forecast of aviation demand. He stated that regarding the schedule, assuming a decent turnaround from FAA on the forecast will be a June or July timeframe. He stated Mr. Slaughter would like that to be a joint meeting with the City Council. The final meeting with the advisory committee alone will be in October and the City Council public hearing on the adoption of the final plan will be in December.

A review of the Draft Working Paper No. 1 brought about much discussion. Many items were addressed and changes were made. Chairman Frierson thanked Hanson for all they were doing and stated if there was anything the committee could do to help, they would do it.

5. CONFIRM DATE AND TIME OF NEXT MEETING

Chairman Frierson addressed the issue of setting a time for the next meeting. After much discussion, it was decided that the next meeting would be May 8, 2014 at 6:00 p.m.

PUBLIC INPUT

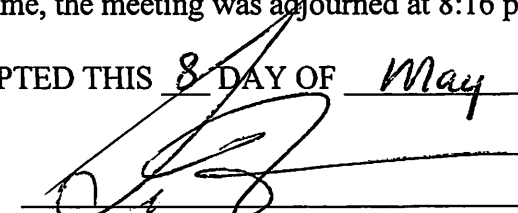
Chairman Frierson addressed the issue of Friends of Arcadia Airport regarding event permits. He stated that some organizations have to obtain a permit, get insurance, etc. He advised that he's been told that Friends of Arcadia Airport hold events in conjunction with the City of Arcadia and do not have to obtain a permit, pay the insurance, or go through the whole process. Chairman Frierson asked George Chase, who was in the public, to comment on such. Mr. Chase stated that the City Attorney made a determination that the existing insurance that the airport has covers what they do. He stated they are a 501C3. He advised that their mission statement states that all of the money they earn will be put back into the airport. He further advised that they do have a partnership with the City and that it is a promotional thing to attract pilots here. Chairman Frierson stated that the people who had asked him wanted to know why other organizations that also do things to promote the City, have to go through the whole process. Mr. Chase replied that they were told by the City Administrator and the City Attorney that it was not necessary.

ADJOURN

Having no further business at this time, the meeting was adjourned at 8:16 p.m.

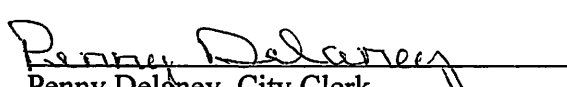
ADOPTED THIS 8 DAY OF May, 2014

By:



Gary Frierson, Chairman

ATTEST:



Penny Delaney, City Clerk



Arcadia Municipal Airport Airport Advisory Committee Meeting Master Plan Update



July 24, 2014
City Hall Building

Arcadia Municipal Airport Master Plan Update



Objectives of this meeting

1. Review FAA Approved Forecast
2. Capacity Analysis
 - ✓ Airside Capacity
 - ✓ Landside Capability
3. Review Facility Recommendation
 - ✓ Highlights of Airside Requirements
 - ✓ Highlights of Landside Requirements
4. Discuss the next steps

Arcadia Municipal Airport Master Plan Update



FAA Approved Forecast

Approved June 6, 2014

Forecast Summary				
	2013	2018	2023	2033
Based Aircraft				
Single-Engine	18	19	21	25
Multi-Engine	4	5	5	6
Jet	0	0	0	0
Helicopter	0	0	0	0
Experimental/Other	4	4	5	5
Total	26	28	31	36
Annual Airport Operations (Based on Operations per Based Aircraft Methodology)				
Local	8,577	10,756	12,332	14,414
Itinerant	4,619	5,792	6,640	7,762
Total	13,196	16,548	18,972	22,176
Design Hour Operations	NA	13	15	17
Design Hour Pilots/Passengers	NA	26	30	34

Arcadia Municipal Airport Master Plan Update



Capacity Analysis

- **FAA Guidelines – plan capacity enhancements when operations reach 60% of capability.**
 - ✓ Operations are not projected to reach the 60% threshold for ASV capacity by planning years 2033.
- **FAA Guidelines – implementation of enhancements at 80% capability.**
 - ✓ The 80% threshold for ASV capacity will not be reached by planning period 2033.

*Annual Service Volume (ASV) is the airports annual operation capacity

Arcadia Municipal Airport Master Plan Update



Airfield Capacity Analysis

- **Runway length and width**
 - ✓ Length Requirement 3,700'; Existing 3,750' = Adequate
 - ✓ Width Requirement 60'; Existing 75' = Adequate
 - ✓ Runway 13-31 length inadequate by 180'; width of 140' is adequate
- **Wind coverage adequate at 98.65% combined coverage**
- **Taxiway width adequate at 40'**
- **Airfield lighting, signage, and markings are adequate**



Arcadia Municipal Airport Master Plan Update



Landside Capacity Analysis

- **Hangars**
 - ✓ Inadequate by 2023 assuming 80% of aircraft in T-hangars
 - ✓ Inadequate by 2018 assuming 10% of aircraft in conventional hangars
- **Tie-Down Spaces**
 - ✓ Inadequate by 2018 assuming 50% of itinerant and 10% based aircraft usage.
- **Terminal Building**
 - ✓ Size is adequate through 2033 assuming 80% pilot/passenger design hour usage.



Arcadia Municipal Airport Master Plan Update



Landside Capacity Analysis Continued

- **Surface Parking**
 - ✓ Inadequate by 2018 assuming 50% local usage
- **Fuel Storage**
 - ✓ Storage capacity is adequate though the 20 year planning period.



Arcadia Municipal Airport Master Plan Update



Highlights of Airside Facility Requirements

- **Runway extension**
 - ✓ Current length and width adequate for existing traffic
 - ✓ Extend Runway 6-24 to estimated 5,000 feet to accommodate / attract jet aircraft
- **Taxiway A extension to full length of Runway 6-24**
- **New taxiway providing access to northwest hangar development**
- **T-hangar pavement rehabilitation**



Arcadia Municipal Airport Master Plan Update



Highlights of Landside Facility Requirements

- **Expansion of hangar facilities**
 - ✓ Six T-hangars
 - ✓ Two conventional hangars
- **New eastside aeronautical development**
 - ✓ Land Acquisition of grove off RWY 24 end
 - ✓ Additional aircraft ramp and apron (eight new tie-downs)
 - ✓ New terminal building with surface parking
 - ✓ Access road off Highway 31
 - ✓ Service Utilities



Arcadia Municipal Airport Master Plan Update



AAC Action Items

- **Provide comments on draft Working Paper No. 2**
- **Provide guidance on camp group**

Arcadia Municipal Airport Master Plan Update



Next Steps

- Identify/Analyze Alternatives
- Recommendation Plan
- Conduct Environmental Review

Arcadia Municipal Airport Master Plan Update



Scope of Work Status

Task / Status	
Task 1 – Inventory	COMPLETE
Task 2 – Forecasts of Aviation Demand	COMPLETE/APPROVED
Task 3 – Capacity Analysis	UNDERWAY
Task 4 – Facility Requirements	UNDERWAY
Task 5 – Identification of Alternatives	
Task 6 – Evaluation of Alternatives	
Task 7 – Selection of Recommended Plan	
Task 8 – Environmental Review	UNDERWAY
Task 9 – Airport Plans	
Task 10 – Financial and Implementation Plan	

Arcadia Municipal Airport Master Plan Update



Project Schedule

		Month - 2014											
Task	Task Description	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	Inventory	→	→										
2	Forecast of Aviation Demand	→	→	▲									
3	Capacity Analysis				→								
4	Facility Requirements				→	▲							
5	Identification of Alternatives				→	→	→	→	→	→	→	→	→
6	Evaluate Alternatives					→	→	→	→	→	→	→	→
7	Selection of Recommended Plan						→	→	→	→	→	→	→
8	Environmental Review					→	→	→	→	→	→	→	→
9	Airport Layout Plans					→	→	→	→	→	→	→	→
10	Financial & Implementation Plan						→	→	→	→	→	→	→
11	Project Coordination & Public Information			◆		◆					◆	◆	◆
12	Reports & Deliverables			→	→	→	→	→	→	→	→	→	→
	Documentation ▲												
	AAB/Public Meetings ◆												
	City Council/Public Meeting ◆												

**AGENDA MINUTES
AIRPORT ADVISORY COMMITTEE
CITY OF ARCADIA
THURSDAY, JULY 24, 2014
6:30 P.M.**

CALL TO ORDER, INVOCATION, PLEDGE OF ALLEGIANCE & ROLL CALL

Chairman Frierson called the meeting to order at approximately 6:33 p.m. with the following members and staff present:

Airport Advisory Committee

Gary Frierson
Ernie Hewett

Greg Smith
Glenn Walker

Chairman Frierson advised that Richard Fazzone had turned in his resignation so that he could concentrate on his campaign for City Council.

City Staff

Shelley Peacock

Public

Timeka Carter of Hanson Professional Services
Tim Parker of Hanson Professional Services
George Chase of Friends of Arcadia Airport, Inc.
Ricky Hilton of Friends of Arcadia Airport, Inc.

Committee Member Smith gave the invocation, which was followed by the Pledge of Allegiance and roll call.

AGENDA ITEMS

1. APPROVAL OF MINUTES DATED MAY 8, 2014

Committee Member Glenn Walker made a motion to approve the May 8, 2014 minutes. Vice-Chairman Hewett seconded said motion. Committee voted unanimously, 4-0 to approve said motion.

2. HANSON PROFESSIONAL SERVICES UPDATE

Chairman Frierson pointed out that the next agenda item was the review of the airport grant proposal by Friends of Arcadia Airport, but Hanson was there for the Master Plan Update and he wanted to put them on first due to travel on their part.

Timeka Carter introduced herself and Tim Parker and advised they were there to provide an update on the progress made on the Airport Master Plan for the Arcadia Municipal Airport.

She reviewed the FAA Approved Forecast, the Capacity Analysis, which includes airside capacity and landside capability, the Facility Recommendation which included highlights of airside requirements and highlights of landside requirements and the next steps in the Master Plan process. After providing the update to the committee, Ms. Carter advised that the items they would need from the committee in the very near future would be comments on the Working Paper No. 2 which would include providing their ideas as to a location they feel the terminal would be better located and locations regarding the campground would be helpful. George Chase stated that the Council had approved the area behind the terminal, behind the t-hangars for the campground. Chairman Frierson stated that from the committee's perspective, they are open to whatever needs to be done.

Discussion was made regarding the FDOT grant for the patents regarding instrument approach and staff was advised to get with Jennifer regarding the payments of same. Discussion was also made regarding PAPI's and the cost of certification being \$4,000.00. The committee was advised by Mr. Parker that the fee is a one-time cost, but after that they are flight-checked every twelve (12) months and it's in FDOT's budget then.

Ms. Carter advised that the next step would be to identify and analyze alternatives based on the improvements that were discussed. She advised that based on that, Hanson will provide a recommendation plan of the most efficient way to get the new development that is required. She further advised that Hanson would conduct an environmental review which has been started. Ms. Carter informed the committee that the Inventory had been completed and the Forecasts had been completed and FAA approved. Regarding the Capacity Analysis, she stated they would await the committee's input on the Working Paper before they consider it complete and the same went for the requirements. She stated they would wait the committee's input before they consider that complete. She advised they would then move on to Tasks 5, 6 and 7.

3. REVIEW AIRPORT GRANT PROPOSAL BY FRIENDS OF ARCADIA AIRPORT, INC.; DISCUSS POSSIBLE ALTERNATE LOCATION OF CAMPING GROUNDS

Chairman Frierson reminded the committee that Mr. Chase had made a presentation at the last meeting regarding the camping and very little discussion was had at that meeting. He advised that the Friends of the Airport, Inc. had gone before the Council, but the committee hadn't done anything to move forward or have much discussion on it. He asked for any thoughts or ideas regarding the issue. Committee Member Smith stated that he felt it was a win-win for the airport if the area that was proposed is used on a temporary basis. He further stated that it would get the area cleaned up and it will look neater and cleaner as a result. Chairman Frierson stated that he didn't disagree, but a couple of things had been brought up to him. One of those items was the history of it and whatever one group does, any other group should be able to do also. He stated that what was possibly suggested was where the park used to be across from Airport Road if it was re-energized. It could be outside the fence instead of inside the fence and then a pavilion could be put up. At that point, it's a facility that the general public could use as well. He suggested having a discussion between the committee and Friends to determine an alternate location. Vice-Chairman Hewett pointed out that Mr. Frierson's proposal opens up to Parks and Recreation an opportunity for something other than the City's mobile home park for

camping. George Chase stated that Friends didn't know it was going to be discussed tonight and was not prepared. Chairman Frierson apologized for it. However, Mr. Chase stated that he wanted to comment on the public use of it. He stated the FAA is very clear that you cannot have a facility like this and have it open to the public. It must be for aviation use only. This will be an aviation use only facility. Committee Member Walker stated that he understood what he was talking about regarding the problem with the grant money. He also stated that he would like to go out and take a look at exactly where Mr. Chase is talking about.

Questions arose as to the procedure since Council has already approved it, but the committee never really decided on which direction to move. Mr. Chase stated that he thought they had done what was supposed to be done. He then stated that if the committee has a concern with the chosen area, he was willing to hear it. He stated Friends had done their homework and he felt they had come to the right conclusion. Chairman Frierson stated that the ultimate decision would be the Council and the committee should have a discussion as well because that was where they were at the last meeting.

Vice-Chairman Hewett stated that they would segregate out a piece of the parcel and not have it part of the airport proper, therefore, not hampering the FAA grant situation. He further stated the under-wing camping would be adjacent to it and could access and then have not only their part, but part of the pavilion and bathrooms that are in the other part of the park. He then stated that any friends that bring friends that bring campers that are not camping under the wing can park their camper in that area.

Ricky Hilton stated they spent a long time researching and trying to figure out the best way to do it and talking to pretty much everyone that had a vote in it and had come up with this conclusion. He stated now that they have permission and getting ready to start clearing, now this meeting is taking place. Chairman Frierson stated that this meeting is a continuation of the last meeting. Mr. Hilton stated that when the committee made their recommendation to the Council to be sure they tell them that Friends is not in agreement with it and Chairman Frierson advised that was their job to tell them.

Mr. Chase stated that he would like to request from the committee to analyze what they have presented and see if they think Friends is on the right page and if they are, they would certainly appreciate the committee's support. Committee Member Walker stated that he wanted to go out and look at the area tomorrow. Mr. Chase advised that they are on the agenda for the next City Council meeting to ask permission to mow it and make a site plan. He stated that if the committee could come up with their decision before that, it would be helpful. Committee Member Walker and Mr. Chase agreed to meet at 9:00 a.m. at the location. Chairman Frierson advised that they would put this issue on hold until the next meeting date.

4. REVIEW RESOLUTIONS 2009-08, 2009-20 AND 2013-08

Chairman Frierson stated that one of the council members doesn't want the committee to be an advisor to the Administrator so they are going to be working on changing that. Committee Member Smith stated that they wanted the committee to have input. Chairman Frierson confirmed that the 2013-08 Resolution was the most current one and that was the one that needed

to be adjusted. Vice-Chairman Hewett stated that the only thing that needed to be changed was in Paragraph 1. He pointed out that the term "City Administrator" needed to be changed to "City Council" and strike out the last sentence that says "all findings and recommendations go to the City Administrator". He stated the rest of the document is fine except for one comment in Section 6 – "The City Administrator shall act as a liaison between the board and the Council". He pointed out that it's actually the "committee and the Council". He advised that he had them make one of the original changes was to take him from an ex officio to an advisor because it messed up the Sunshine Law and they made that change. He further advised that was really the only change made from the original to the second one. He stated that the third one changed it from report to the Council to the Administrator. He didn't feel the City Attorney would have any problem with that and it didn't change anything else in the document that they didn't want changed. Vice-Chairman Hewett made a motion to make those recommended changes to the Council and Committee Member Walker seconded the motion. Committee voted unanimously, 4-0 to approve said motion.

PUBLIC INPUT

None

CONFIRM DATE AND TIME FOR NEXT MEETING

It was agreed upon that the next meeting would tentatively be Thursday, July 31, 2014, at 6:00 p.m. unless they are told differently from City Hall (due to the unknown budget meeting dates). Mr. Chase asked if there was an e-mail list where you notice the meetings that we could be notified regarding the agenda. Chairman Frierson stated that at the next meeting, time permitting, they would also discuss the possibility of the budget because it was asked that they go over it.

ADJOURN

Having no further business at this time, the meeting was adjourned at 8:15 p.m.

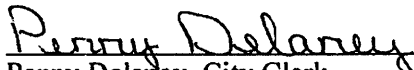
ADOPTED THIS ^{2nd} DAY OF ^{October} ~~JULY~~, 2014

By:



Gary Frierson, Chairman

ATTEST:



Penny Delaney, City Clerk



Arcadia Municipal Airport Airport Advisory Committee Meeting Master Plan Update



November 6, 2014
City Hall Building

Arcadia Municipal Airport Master Plan Update



Objectives of this update

1. **Review Alternatives**
 - ✓ **Airside Improvements**
 - ✓ **Landside Improvements**
2. **Discuss the next steps**

Arcadia Municipal Airport Master Plan Update



Airfield Alternatives

- **Runway length and width**
 - ✓ Length 4,100' - 4,300'
 - ✓ Extend Rwy 6 end Only: 400 feet
(Total Length = 4,100')
 - ✓ Extend Rwy 24 end Only: 600 feet
(Total Length = 4,300')
 - ✓ Extend Both Rwy 6 end 300 feet & Rwy 24 end 300 feet
(Total Length = 4,300')



Arcadia Municipal Airport Master Plan Update



Landside Capacity Analysis

- **Improvements Include**
 - ✓ 2 T-hangar buildings
 - ✓ T-Hangar Complex Vehicle Parking
 - ✓ Apron Expansion with New Taxiway
 - ✓ New Terminal/FBO Building
 - ✓ Clear Runway Visibility Zone Impact



Arcadia Municipal Airport Master Plan Update



AAC Action Items

- **Provide Input on Alternatives**
 - ✓ Location of new terminal
 - ✓ New apron & taxiway configuration
 - ✓ The future of 13-31
 - ✓ Extension of 6-24

Arcadia Municipal Airport Master Plan Update



Next Steps

- **Finalize Alternatives**
- **Finalize Noise Exposure Maps**
- **Complete and Submit Airport Layout Plan for Approval**

Arcadia Municipal Airport Master Plan Update



Scope of Work Status

Task / Status	
Task 1 – Inventory	COMPLETE
Task 2 – Forecasts of Aviation Demand	COMPLETE/APPROVED
Task 3 – Capacity Analysis	COMPLETE
Task 4 – Facility Requirements	COMPLETE
Task 5 – Identification of Alternatives	UNDERWAY
Task 6 – Evaluation of Alternatives	UNDERWAY
Task 7 – Selection of Recommended Plan	
Task 8 – Environmental Review	UNDERWAY
Task 9 – Airport Plans	
Task 10 – Financial and Implementation Plan	

Arcadia Municipal Airport Master Plan Update



Project Schedule

Task	Task Description	Month - 2014											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	Inventory												
2	Forecast of Aviation Demand												
3	Capacity Analysis												
4	Facility Requirements												
5	Identification of Alternatives												
6	Evaluate Alternatives												
7	Selection of Recommended Plan												
8	Environmental Review												
9	Airport Layout Plans												
10	Financial & Implementation Plan												
11	Project Coordination & Public Information												
12	Reports & Deliverables												
	Documentation												
	AAB/Public Meetings												
	City Council/Public Meeting												

**AGENDA MINUTES
AIRPORT ADVISORY COMMITTEE
CITY OF ARCADIA
THURSDAY, NOVEMBER 6, 2014
6:00 P.M.**

CALL TO ORDER, INVOCATION, PLEDGE OF ALLEGIANCE & ROLL CALL

Chairman Watson called the meeting to order at approximately 6:00 p.m. with the following members and staff present:

Airport Advisory Committee

Ronald Watson	Gary Frierson
Buddy Mansfield	Ernie Hewett
Greg Smith	Rickey Hilton

Glenn Walker was not present.

City Staff

Deputy Clerk Dena Duran	City Attorney T.J. Wohl
Interim City Administrator Beth Carsten	Project Manager Shelley Peacock

Public

George Chase, Friends of Arcadia Airport	Mike Moon, Hanson Professional Services
Ross Clark, Friends of Arcadia Airport	Jennifer Fehrs, Hanson Professional Services

AGENDA ITEMS

1. CALL TO ORDER, INVOCATION AND ROLL CALL

Committee Member Smith gave the invocation, which was followed by the Pledge of Allegiance and roll call.

2. APPROVAL OF MINUTES DATED OCTOBER 2, 2014

Committee Member Hewett made a motion to approve the minutes and Committee Member Frierson seconded the motion. Committee voted unanimously, 6-0, to approve said motion.

3. PUBLIC INPUT ON AGENDA ITEMS

None

4. REVIEW OF SUNSHINE LAW, STANDARDS OF CONDUCT, FINANCIAL OR VESTED INTERESTS EXCLUSIONS AND CITY ACCESS TO AIRPORT FACILITIES FOR INSPECTIONS

The City Attorney gave a brief overview of the Sunshine Law and the requirements of same. Mr. Wohl then reviewed the Standards of Conduct for Public Officers and Employees of the City which included public policy, no solicitation or acceptance of gifts, no doing business with the City, unauthorized compensation, salary and expenses, misuse of public position, conflicting employment or contractual relationship, exemptions, lobbying by former City officials, City Attorney, Voting Conflicts, Financial Disclosure and Gifts.

5. OLD BUSINESS

a. Fuel Tank Inspection Update

Chairman Watson advised that the Interim City Administrator will be arranging for the tank inspection. It was approved and the necessary funds have been allocated. Committee Member Frierson asked if he had a specific person in mind for it. Chairman Watson advised that he had recommended she get in touch with Committee Member Walker because he had been in touch with World Fuel, but it would be up to Ms. Carsten as the Interim City Administrator to make the call on that. Committee Member Frierson advised of a man in Cocoa Beach who had completely rebuilt a fuel system for less than putting in a new one. Chairman Watson suggested Committee Member Frierson get in touch with Ms. Carsten.

b. Minimum Standards Update

Committee Member Frierson advised that it had gone before the City Council and they had adopted it.

c. Master Plan Update

Mike Moon of Hanson Professional Services provided an update on the Master Plan. He advised they were going to review the alternatives, air side improvements and land side improvements. Discussion included a proposed apron expansion. Mr. Moon advised the area between the existing ramp and the taxiway is okay, but the area between taxiway alpha and the paved runway will have to go away and it will have to be shown as a "to be removed" straight-shots from ramps to runways are no longer authorized by the FAA.

Discussion was made regarding keeping the FBO where it is or at an alternative site, possibly a land acquisition on Highway 31. Committee Member Frierson made a motion that the committee's future direction would be to eventually have the primary entrance to the airport with an FBO facility off of 31 and it would serve multiple things; it would be a better area of growth and it would be off of a major highway allowing room for access buildings for the water systems. He stated that would be his motion to recommend it to Hanson and Committee Member Hewett seconded the motion. Committee Member Frierson asked if the motion included everything that Mr. Moon needed and Mr. Moon replied that they need a location and that location would include a road off of 31 to that location; it would include a parallel taxiway. Committee Member Frierson stated that his motion was to include all of that. Committee Member Mansfield asked if

a motion or a consensus was required. Mr. Moon stated it would be fine with just a consensus. Committee Member Frierson withdrew his motion. The general consensus was to move forward.

Mr. Moon stated that Committee Member Hilton had asked if there were any plans to redo the taxiways Mr. Moon advised that Shelley Peacock has a grant request in for this year to redo it. The committee discussed the size of the parking lot and Mr. Moon spoke about the Capital Improvement Plan and the stages of same. Regarding the grass runway and trees and visibility, Mr. Moon stated they could purchase navigation easements which gives them the right to trim the trees and keep them down.

Mr. Moon stated the next steps would be to finalize the alternatives to be brought back to the committee, to finalize the noise exposure maps, and once the final alternatives are brought back, they will nail everything down in the full plan and go back to the City Council and get their final approval for submission to the FAA. He advised they anticipate coming back to the committee at their January meeting and bring it before the City Council in February. Mr. Moon advised there will be four (4) meetings which will include public input with more public input at the City Council meeting.

Committee Member Hewett stated that the County still had not adopted by codification the airport zoning ordinance. It has been passed through the State and it's all done except being codified. Lester found the information, but he can't act on it because it's never been codified. He stated that is the issue they have with the Habitat home. He further stated that the last time he had checked with the County Administrator, he was told they were looking for a letter of direction from the City Council.

d. GPS Approach/PAPI Update/Status

The Interim City Administrator stated the supplemental was approved to go ahead and authorize to make the changes to have the PAPIs installed. Chairman Watson stated the GPS approach is awaiting certification. Mr. Moon stated he thought it was up and running. Committee Member Hewett stated that it was pulled down once and brought back up, but not certified with the PAPIs at the moment. Mr. Moon stated that was why the PAPIs were not on because there's a conflict with the GPS approach. Mr. Moon asked if what Committee Member Hewett was saying was that they're waiting until the PAPIs are flight checked and then they will bring the GPS approach up and running. Committee Member Hewett stated that it was up and running. He further stated that it was extended for thirty (30) more day, thirty (30) days ago.

e. Recreational Area Update

George Chase gave the update that he had presented to the City Council. He stated the site had been cleared. He stated that since the site plan had received Council's approval, they had prepared the paperwork for the Development Plan and the Temporary Use Permits needed from DeSoto County and they were submitted on August 26th and approved on October 24th. So far, Friends had provided labor, materials, cash outlay and other services that total over \$7,500.00 to this project. He advised they are gathering the information necessary for the FAA application and must file and have FAA approval prior to doing any building construction on the

site. The goal is to use the Fly-In/Camp-Out Center to attract out of town pilots to Arcadia Airport and once here, to make it possible for them to visit local businesses and attractions. He advised they had applied for a grant to fund the pilot shelter, fire pit and picnic tables, but were not one of the recipients and are working on a back-up plan. However, they have received three substantial donations from both the business and private sector. He advised County Commissioner Bob Miller had been added to the Board of Directors.

6. NEW BUSINESS

a. Designated Representative of AAAC

Chairman Watson was chosen as the designated representative by consensus.

b. Begin Development of Recommendations for Future Airport FBO Operations – City vs. Private FBO

c. Begin Development of Recommendations for April 1, 2014 Assumption of Responsibility for Airport Facilities

Chairman Watson advised that the committee had been asked by the City Council to begin development of recommendations for future airport FBO operations, City vs. private FBO and also begin development of recommendations for the assumption of responsibilities for airport facilities and assignment of FBO operations, if necessary.

Committee Member Hilton asked the Interim City Administrator if the City had decided whether it wants to go with a FBO or they want to be in self-sponsored fuel sales. Ms. Carsten stated they need to move forward to start the RFP process whether they go that way or not, to at least find out what the options are. She further stated that there is interest out there and the City had been approached from one (1) couple from the Sebring area that is interested. Committee Member Hilton stated there were pluses and minuses to each way and didn't want to slam either way at this point. He wanted to have an objective discussion and figure it out and Ms. Carsten agreed. Mr. Moon stated that he felt they were on the right track. They would need to decide who will be responsible for each item such as fuel, light, etc., and what will be the minimum or maximum services they would want an FBO to provide. Committee Member Frierson pointed out areas that would need to be addressed. Chairman Watson asked if the committee would have a problem with meeting one day next week as a one item agenda meeting to address the issue of RFP for FBOs to be presented to City Council as a presentation. Ms. Carsten suggested the presentation be presented at the December 16, 2014 meeting. The committee agreed to meet on November 10, 2014 at 6:00 p.m.

d. Bylaws – Review and Discuss

Committee Member Hilton asked if there was a signed copy of the Bylaws. Mr. Moon advised he had to leave and asked if the committee could set their January meeting. The meeting was scheduled for January 8, 2015 at 6:00 p.m. The committee returned to the discussion of Bylaws. Committee Member Hilton stated that he knew he may not be able to vote, but he

would like to be involved in the discussion. Chairman Watson stated that they need to modify it to bring the bylaws up to Sunshine Law standards. The issue of items being placed on the agenda and who can provide those agenda items were discussed. Committee Member Hilton felt agenda items should come from the City, the City Council, and City staff, to allow for some control. Chairman Watson stated agenda items would go to the Deputy Clerk, and then the agenda would be sent to him for approval as Chairman. He stated he would be very leery of presenting someone from bringing something up, but if it was detrimental to someone or the meeting, then he would probably strike it. Committee Member Hilton stated he was not talking about having it on the agenda, but the procedure for having it put on the agenda.

e. T-33 – Aircraft at Lake Katherine

Committee Member Hilton stated that the only reason he put this on the agenda was to make a point that it had nothing to do with the airport.

7. PUBLIC INPUT ON NON AGENDA ITEMS

No input from public was heard.

8. CONFIRM DATE AND TIME OF NEXT MEETING

The December meeting will be December 4, 2014 at 6:00 p.m. and the January meeting will be January 8, 2015 at 6:00 p.m. Chairman Watson stated that he would prepare the schedule for next year and have it put in through the Deputy Clerk to everyone through the packet.

Committee Member Hewett asked Committee Member Hilton to send the change he wanted to make to the Interim City Administrator so that she could run it past the City Attorney.

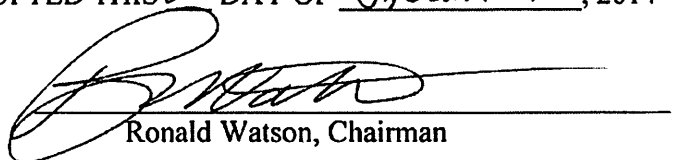
Committee Member Smith advised he is no longer a member of the board of Friends of Arcadia. No further comments were made by any of the committee members.

ADJOURN

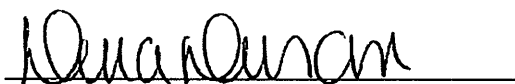
Having no further business at this time, the meeting was adjourned at 8:41 p.m.

ADOPTED THIS 8 DAY OF JANUARY, 2014

By:


Ronald Watson, Chairman

ATTEST:


Dena Duran, Deputy Clerk



Arcadia Municipal Airport Airport Advisory Committee Meeting Master Plan Update



**January 8, 2015
City Hall Building**

Arcadia Municipal Airport Master Plan Update



Where Have We Been?

1. Prepared and Submitted Forecast

A. FAA Approved Forecast June 6, 2014

Forecast Summary				
	2013	2018	2023	2033
Based Aircraft (Based on National Growth Rate Methodology)				
Single-Engine	18	19	21	25
Multi-Engine	4	5	5	6
Jet	0	0	0	0
Helicopter	0	0	0	0
Experimental/Other	4	4	5	5
Total	26	28	31	36
Annual Airport Operations (Based on Operations per Based Aircraft Methodology)				
Local	8,577	10,756	12,332	14,414
Itinerant	4,619	5,792	6,640	7,762
Total	13,196	16,548	18,972	22,176
Design Hour Operations	NA	13	15	17
Design Hour Pilots/Passengers	NA	26	30	34

Arcadia Municipal Airport Master Plan Update



Existing Conditions



Existing Runway Characteristics				
Airport Elevation: 63 Feet				
Runways	6	24	13	31
Dimension (ft.)	3,700 x 75		2,829 x 100	
Surface	Asphalt		Turf	
Surface Condition	Excellent		Fair	
Pavement Strength	12,500 LBS. SW		NA	
Lighting	MIRL		None	
NAVAIDS	None	None	None	None
Visual Aids	PAPI – 2	None	None	None
Runway Marking	Non-Precision		None	
Source: Airport Facility Directory, 2014; Master Record Form 5010; and Hanson				

Arcadia Municipal Airport Master Plan Update



Existing Conditions

- **Recent Facility Improvements:**
 - ✓ Runway 6-24 (old 5-23), Taxiway and Apron Pavement Rejuvenation and marking
 - ✓ Airport Security Fencing
 - ✓ Airfield Lighting Improvements including:
 - ✓ New Runways and Taxiway Lights
 - ✓ New Electrical Vault
 - ✓ Installation of Runway 6 PAPIs
 - ✓ Airfield Signage
 - ✓ New Lighted Windsock



Arcadia Municipal Airport Master Plan Update



Forecasts of Aviation Demand Selected Methodology

- **Based Aircraft**

- ✓ National Growth Rate – More aggressive than Market Share while still attainable.



- **Operations**

- ✓ Ratio of Aircraft Operations to Based Aircraft (OPBA) – Most reliable method for projecting operations for GA airports.



Arcadia Municipal Airport Master Plan Update



Airfield Capacity Analysis

- **Runway length and width**
 - ✓ Length Requirement 3,700'; Existing 3,700' = Adequate
 - ✓ Width Requirement 60'; Existing 75' = Adequate
 - ✓ Runway 13-31 length 2829' Adequate; width of 100' is adequate
- **Wind coverage adequate at 98.65% combined coverage**
- **Taxiway A width adequate at 40'**
- **Airfield lighting, signage, and markings are adequate**

Arcadia Municipal Airport Master Plan Update



Landside Capacity Analysis

- Hangars
- Tie-Down Spaces
- Terminal Building
- Surface Parking
- Fuel Storage

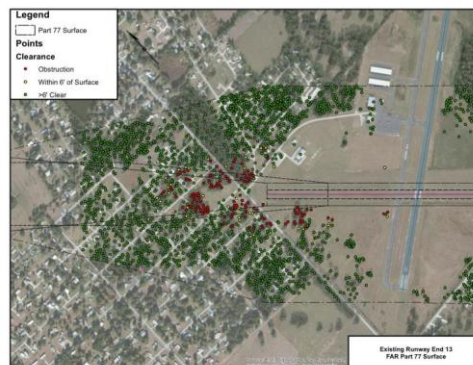
Arcadia Municipal Airport Master Plan Update



Runway 13 Obstruction Survey



Threshold Siting Surface Type 2 Visual
Day/Night



Part 77

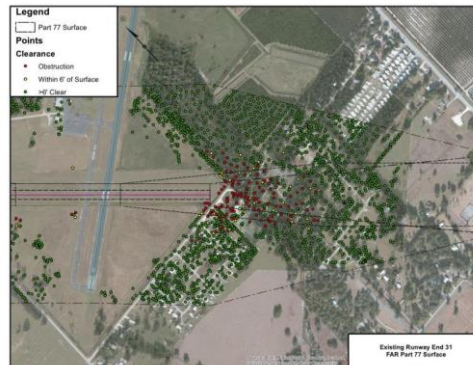
Arcadia Municipal Airport Master Plan Update



Runway 31 Obstruction Survey



Threshold Siting Surface Type 2 Visual
Day/Night



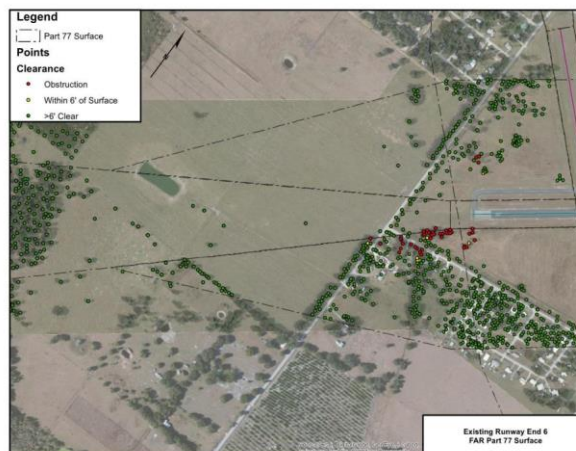
Part 77

Arcadia Municipal Airport Master Plan Update



Runway 06 Obstruction Survey

Part 77



Arcadia Municipal Airport Master Plan Update



Runway 06 Obstruction Survey



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Day/Night



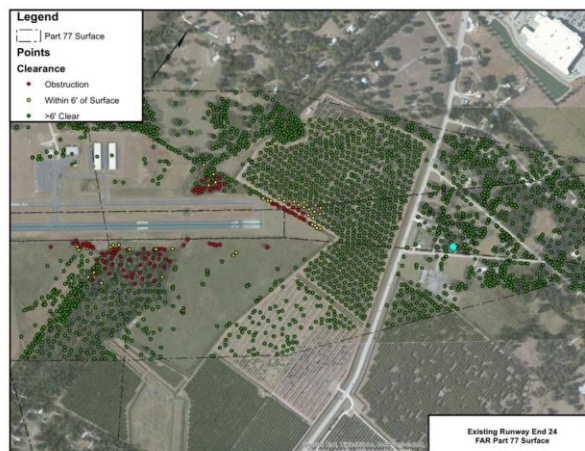
Threshold Sighting Surface Type 4
Instrument Night

Arcadia Municipal Airport Master Plan Update



Runway 24 Obstruction Survey

Part 77



Arcadia Municipal Airport Master Plan Update



Runway 24 Obstruction Survey



Threshold Sighting Surface Type 2 Visual
Day/Night

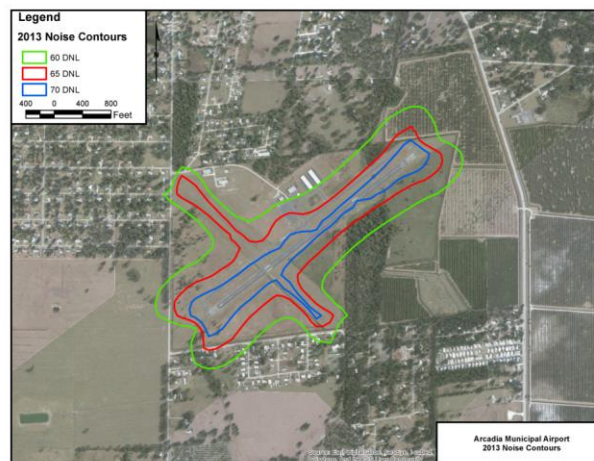


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Instrument Night

Arcadia Municipal Airport Master Plan Update



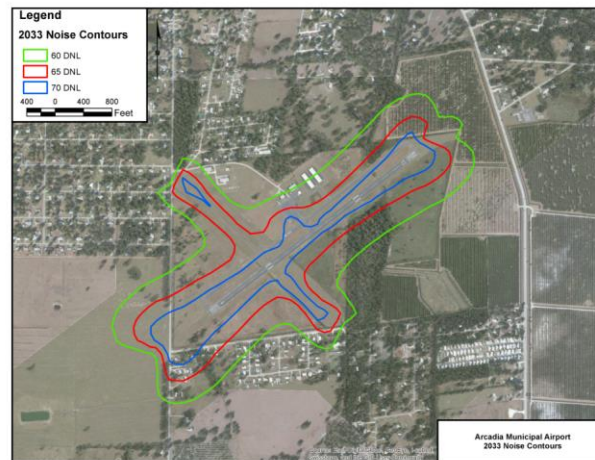
Environmental Analysis



Arcadia Municipal Airport Master Plan Update



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Arcadia Municipal Airport Master Plan Update



Preliminary Alternatives

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AAC Discussed and provided input.

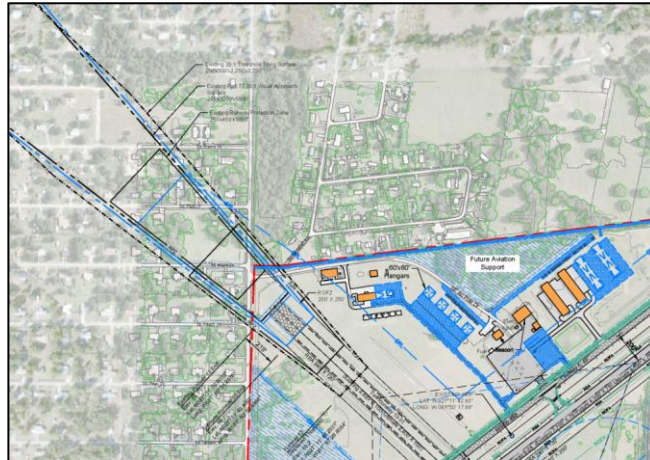
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Arcadia Municipal Airport Master Plan Update



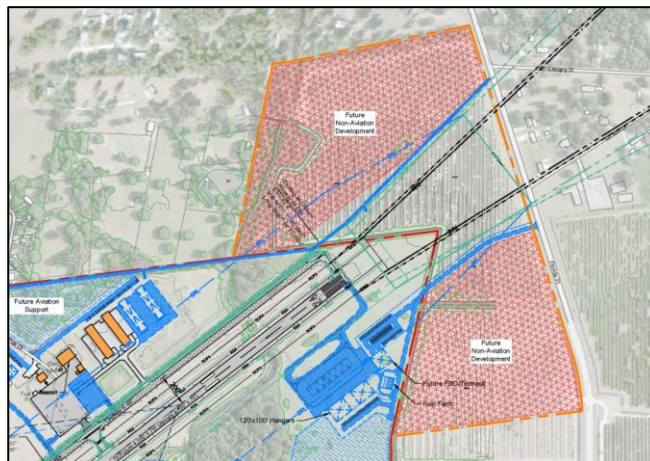
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Arcadia Municipal Airport Master Plan Update



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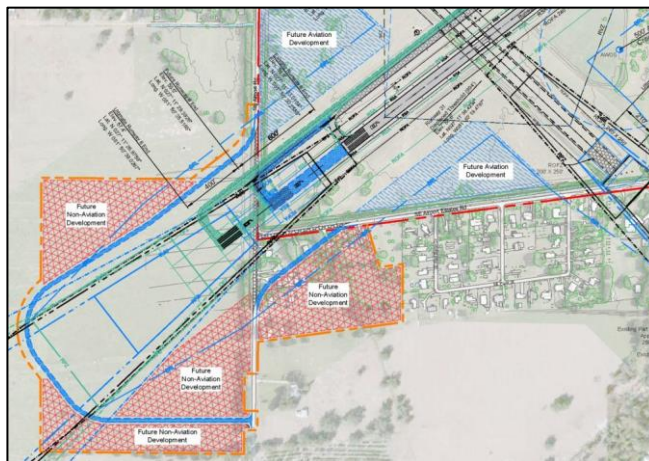
Revised Alternatives



Arcadia Municipal Airport Master Plan Update



Revised Alternatives



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Short Term (0-5 years) Projects Include:

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Arcadia Municipal Airport Master Plan Update



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Arcadia Municipal Airport Master Plan Update



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Arcadia Municipal Airport Master Plan Update



Next Steps

- Finalize ALP Set
 1. Cover Sheet
 2. Airport Layout Plan (ALP)
 3. Data Sheet
 4. Terminal Area Plan
 5. Approach Plan
 6. FAR Part 77 Airspace Plan
 7. Airport Land Use/Noise Contours
 8. Exhibit A/Property Map

- Present Final Master Plan Update to the City Council on February 17, 2015

Arcadia Municipal Airport Master Plan Update



Scope of Work Status

Task / Status	
Task 1 – Inventory	COMPLETE
Task 2 – Forecasts of Aviation Demand	COMPLETE/APPROVED
Task 3 – Capacity Analysis	COMPLETE
Task 4 – Facility Requirements	COMPLETE
Task 5 – Identification of Alternatives	COMPLETE
Task 6 – Evaluation of Alternatives	COMPLETE
Task 7 – Selection of Recommended Plan	COMPLETE
Task 8 – Environmental Review	COMPLETE
Task 9 – Airport Plans	UNDERWAY
Task 10 – Financial and Implementation Plan	UNDERWAY

**AGENDA MINUTES
AIRPORT ADVISORY COMMITTEE
CITY OF ARCADIA
THURSDAY, JANUARY 8, 2015
6:00 P.M.**

CALL TO ORDER, INVOCATION, PLEDGE OF ALLEGIANCE & ROLL CALL

Chairman Watson called the meeting to order at approximately 6:03 p.m. with the following members and staff present:

Airport Advisory Committee

Chairman Ronald Watson
Vice-Chairman Glenn Walker
Committee Member Greg Smith

Committee Member Ricky Hilton
Committee Member Ernest Hewett

Committee Member Gary Frierson and Committee Member Buddy Mansfield were not present.

City Staff

Deputy Clerk Dena Duran
Interim City Administrator Beth Carsten

Project Manager Shelley Peacock

Public

Mike Moon of Hanson Professional Services
Mike Harris of Hanson Professional Services
George Chase of Friends of Arcadia Airport
Kenneth West

Joe Nappier
Jim Hay
Sara Celina
Rick Martin

AGENDA ITEMS

I. CALL TO ORDER, INVOCATION AND ROLL CALL

Chairman Watson gave the invocation, which was followed by the Pledge of Allegiance and roll call.

II. APPROVAL OF MINUTES DATED NOVEMBER 6 AND 10, 2014 AND DECEMBER 4, 2014

Committee Member Hewett made a motion to approve the minutes dated November 6, 2014 and December 4, 2014. Committee Member Smith seconded the motion. Committee voted unanimously, 5-0, to approve said motion.

Committee Member Hewett made a motion to approve the minutes dated November 10, 2014. Committee Member Smith seconded the motion. Committee voted unanimously, 4-0, to approve said motion. Committee Member Hilton did not vote due to his absence at said meeting.

III. PUBLIC INPUT ON AGENDA ITEMS

None

IV. REPORTS/UPDATES

1. Friends of Arcadia Airport

Mr. Chase advised they were planning on having a booth at the Sebring Expo next week and the Rodeo, the County, and the Antique Association will be involved and the City will have information to pass out.

2. Hanson Professional Services

Mr. Moon advised that the instrument approach had been published and the flight check for the PAPIs had been requested and it should be done the first week of February. He further advised Jennifer will be there, along with the electrician, in case there are any adjustments that need to be made to the PAPIs when they do the flight check. Committee Member Hewett stated that the approach was not authorized at night. He asked if that was because the PAPIs were not in service. Mr. Moon stated that Mr. Harris would speak to that when they get into the instructions. Mr. Harris stated that the PAPI obstacle clearance surface should be clear of trees, but the procedure development folks look at different items than what PAPIs require you to.

Mr. Moon presented a power point regarding the Master Plan Presentation and advised it would be basically the presentation, with the committee's approval, that will be shown to the City Council next month. He advised they had prepared and submitted the forecasts and the FAA approved the forecasts on June 6, 2014.

Committee Member Smith advised there was a big development going in on Highway 31 that has the potential of increasing the activity at the airport. He advised that the Governor signed off on it and between that and trying to boost the environment in Arcadia; he may want to sign off on a little bit more for the airport to accommodate it. Mr. Moon stated that was true and asked if there was anywhere they could get additional information from that to include in the final master plan document as justification. Mr. Smith advised he would try to get Commissioner Bob Miller's e-mail address to give Mr. Moon because he could give him a lot of the information on it. Mr. Moon stated that would be very helpful because that's the type of justifications the FAA looks for with some of the facility improvements and the sooner he can get that information to him, the better off they would be.

Mr. Moon reviewed items that pertained to the Master Plan as he presented the power point. Mr. Harris came forward to speak on the part of the presentation regarding the runway obstructions. He advised they picked up a lot of trees in the approach and showed the areas referenced using the power point and explained how they will address the issue. He stated they would be proposing to clear all the approaches and go with the bigger surface. So the future airport layout plan will show the bottom right surface with navigation easement.

Mr. Moon continued with the power point which included the following: existing conditions (existing runway characteristics and recent facility improvements), forecasts of aviation demand selected methodology, airfield capacity analysis and landside capacity analysis. Mr. Harris came forward to speak on the part of the presentation regarding runway 13 obstruction survey, runway 31 obstruction survey, runway 06 obstruction survey, and runway 24 obstruction survey. Mr. Moon returned to review the environmental analysis, preliminary alternatives, and revise alternatives. He then reviewed the financial plan and the next steps to be taken. He advised their plan is to present the present final Master Plan Update to the City Council on February 17, 2015. Mr. Moon reviewed the scope of the work status and advised if City Council blesses it without a lot of changes, they will submit to the FAA on the 18th.

Other issues were discussed which included public restrooms. Mr. Moon stated that if they tied it into the sewer extension; if they told them where they wanted it, they will stick it in the project with the sewer line.

Mr. Chase stated that Armando with FAA asked that the campground be added on the ALP. Ms. Carsten advised that it is temporary. Mr. Moon stated that he could speak with Armando and they needed to determine what designation he wanted to see. Mr. Moon further stated that if it is listed as a campground and it's not used for whatever reason, then you're locked into that designation for that area.

Committee Member Hewett asked when the narrative for the Master Plan would be available. Mr. Moon advised it would be attached to the City Council Agenda.

Ms. Carsten stated that with the three new council members, they would like to do a workshop on the airport. She was concerned that they may be overwhelmed with all of this information without having a workshop first. Mr. Moon stated that he can do that and that he can bring this before the Council at any time. Chairman Watson stated that as a committee, it didn't make a difference of when it is presented to them, as long as the committee agrees and Mr. Moon agrees that it's a good presentation that they need to go forward. Committee Member Hewett made a motion to accept the presentation to go forward to the Council and Vice-Chairman Walker seconded the motion. Committee voted unanimously, 5-0, to approve said motion. Mr. Moon advised he would work with Ms. Carsten on the date that it will go forward.

3. City Administration

None

V. OLD BUSINESS

1. Fuel Tank Inspection Update

Chairman Watson advised that a copy of World Fuel's report had been provided to the committee members. He stated that tank is good, but the inside needed to be cleaned out and the electronics need to be replaced. He pointed out that they recommended installing twenty-two (22) bollards and a discussion followed regarding same.

2. By-Laws Recommendations

Chairman Watson stated that in the Resolution that created this committee, they were operating under the auspices of City Council and no one knows where the by-laws came from. Committee Member Hewett stated that other than minute taking and paperwork was handled primarily by the committee, it sort of got dropped by the Recorded and Administration and they handled it internally the first year or two, but they did vote on it and it was approved. Chairman Watson stated that according to the City Attorney, the committee operates at the wishes of the City Council and therefore, fall under the auspices of the City Council and their by-laws. So, for the committee to make adjustments to anything would be making adjusting to Council's by-laws and they can't do that. Chairman Watson suggested that they don't bother with it and operate under City Council's authority and there was a general consensus from the committee.

VI. NEW BUSINESS

None

VII. PUBLIC INPUT ON NON-AGENDA ITEMS

Jim Hay of Wauchula, Florida stated that he would like to leave his resume with them regarding the FBO. Chairman Watson stated he didn't have to leave it with them, but to leave it with Ms. Carsten and at this point, it's at the City level, not the committee level. Mr. Hay addressed traffic and fuel sales. Again, Chairman Watson told him to submit his information to the City.

Rick Martin asked if there had been any discussion about the management format that everyone is looking for so they can get a feel for what to expect. Chairman Watson stated that they had discussed it, but they were at a holding point to find out what type of responses they get from the ad and responses and proposals they get with the RFPs. Committee Member Hilton advised that they had advertised and put together a Request for Proposal for a FBO. He explained that under the Minimum Standards, the FBO has to rent the terminal building, 50,000 sq ft of the ramp area and the big hangar and for that, they get to sell fuel. He stated that he didn't know if any decisions had been made as to whether the City wants to take over the fuel sales and do it in-house or give it to a FBO to manage everything and that is where they are at in the process.

VIII. COMMITTEE MEMBER COMMENTS

Committee Member Hewett inquired again regarding the letter from the County pertaining to the codification of the ordinance. Ms. Carsten stated that it had been in the County's hands for a long time. Committee Member Hewett stated that someone needed to jog their memory then.

Committee Member Smith stated that he would get with Mr. Miller regarding future growth of the airport with the development going on Highway 31 and also he would get with

Bobby Mixon who owns the property on the west end of the airport regarding what his feelings are.

IX. CONFIRM DATE AND TIME OF NEXT MEETING

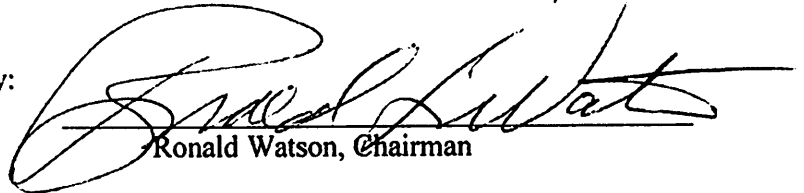
The next meeting will be February 5, 2015 at 6:00 p.m.

X. ADJOURN

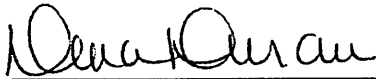
Having no further business at this time, Committee Member Hewett made a motion to adjourn and Committee Member Smith seconded the motion. Committee voted unanimously, 5-0, to approve said motion. The meeting was adjourned at 7:35 p.m.

ADOPTED THIS 5 DAY OF FEBRUARY, 2015.

By:


Ronald Watson, Chairman

ATTEST:



Dena Duran, Deputy Clerk



Arcadia Municipal Airport Master Plan Update City Council Meeting



March 17, 2015
City Hall Building

Arcadia Municipal Airport Master Plan Update



Where Have We Been?

1. Prepared and Submitted Forecast

A. FAA Approved Forecast June 6, 2014

Forecast Summary				
	2013	2018	2023	2033
Based Aircraft (Based on National Growth Rate Methodology)				
Single-Engine	18	19	21	25
Multi-Engine	4	5	5	6
Jet	0	0	0	0
Helicopter	0	0	0	0
Experimental/Other	4	4	5	5
Total	26	28	31	36
Annual Airport Operations (Based on Operations per Based Aircraft Methodology)				
Local	8,577	10,756	12,332	14,414
Itinerant	4,619	5,792	6,640	7,762
Total	13,196	16,548	18,972	22,176
Design Hour Operations	NA	13	15	17
Design Hour Pilots/Passengers	NA	26	30	34

Arcadia Municipal Airport Master Plan Update



Existing Conditions



Existing Runway Characteristics				
Airport Elevation: 63 Feet				
Runways	6	24	13	31
Dimension (ft.)	3,700 x 75		2,829 x 100	
Surface	Asphalt		Turf	
Surface Condition	Excellent		Fair	
Pavement Strength	12,500 LBS. SW		NA	
Lighting	MIRL		None	
NAVAIDS	None	None	None	None
Visual Aids	PAPI – 2	None	None	None
Runway Marking	Non-Precision		None	
Source: Airport Facility Directory, 2014; Master Record Form 5010; and Hanson				

Arcadia Municipal Airport Master Plan Update



Existing Conditions

- **Recent Facility Improvements:**
 - ✓ Runway 6-24 (old 5-23), Taxiway and Apron Pavement Rejuvenation and marking
 - ✓ Airport Security Fencing
 - ✓ Airfield Lighting Improvements including:
 - ✓ New Runways and Taxiway Lights
 - ✓ New Electrical Vault
 - ✓ Installation of Runway 6 PAPIs
 - ✓ Airfield Signage
 - ✓ New Lighted Windsock



Arcadia Municipal Airport Master Plan Update



Forecasts of Aviation Demand Selected Methodology

- **Based Aircraft**

- ✓ National Growth Rate – More aggressive than Market Share while still attainable.



- **Operations**

- ✓ Ratio of Aircraft Operations to Based Aircraft (OPBA) – Most reliable method for projecting operations for GA airports.



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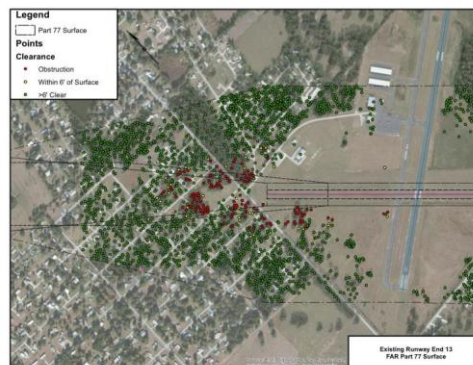
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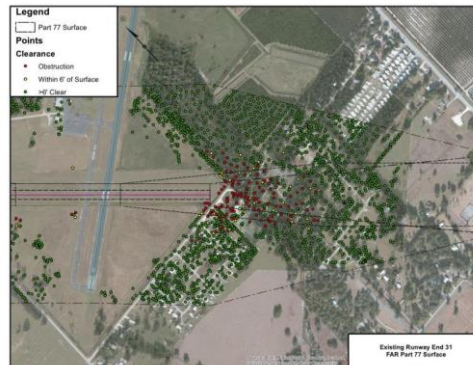
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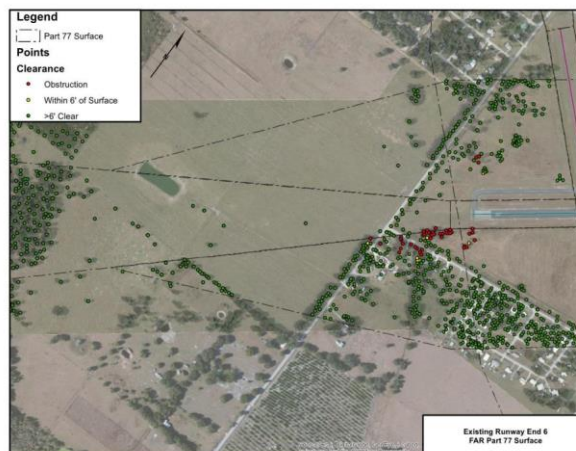
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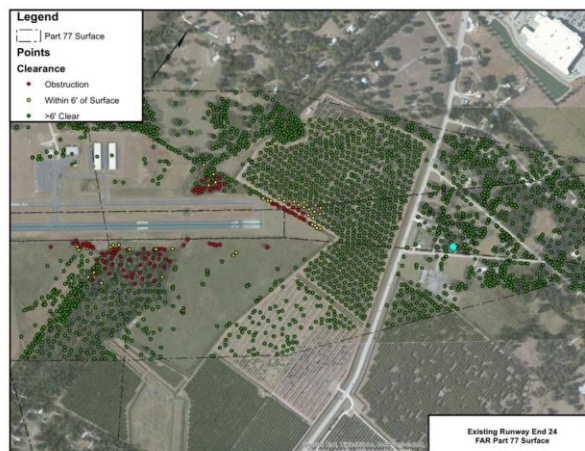
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Part 77



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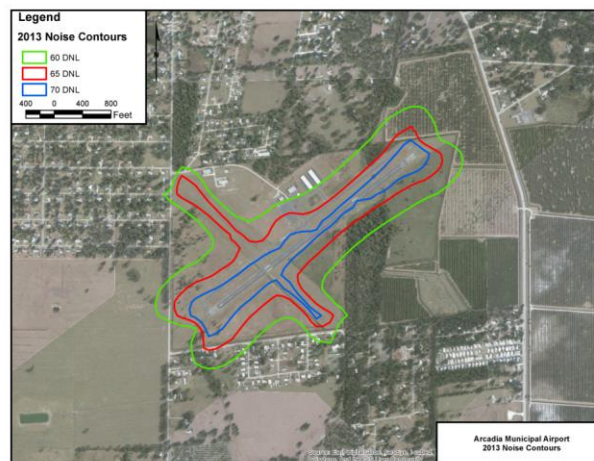


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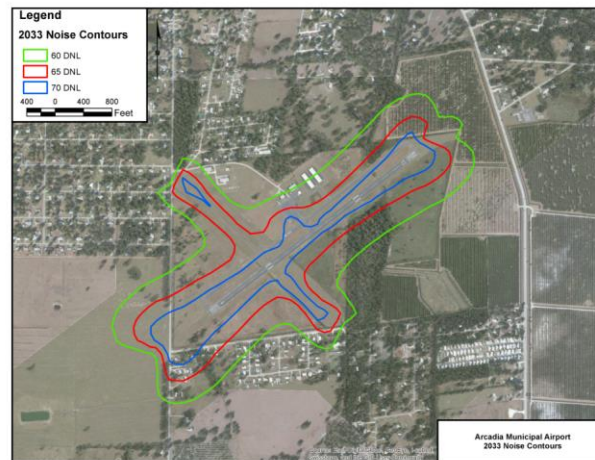
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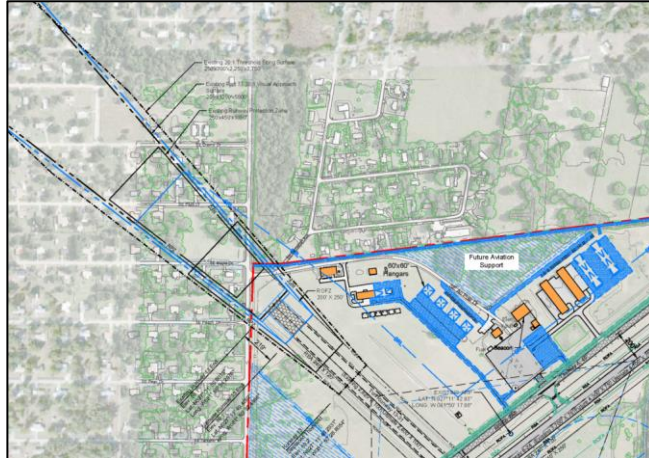
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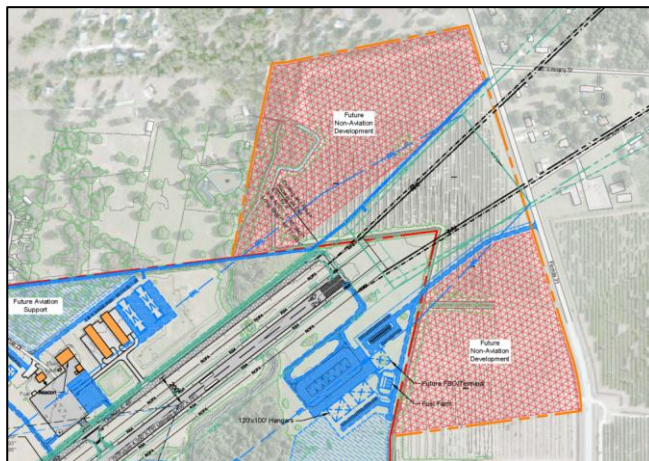
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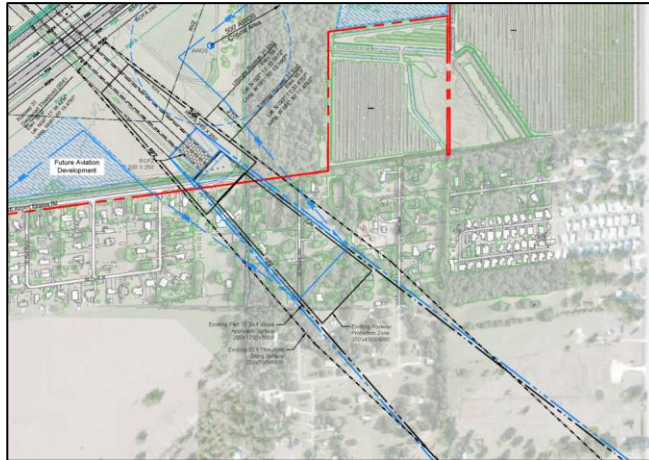
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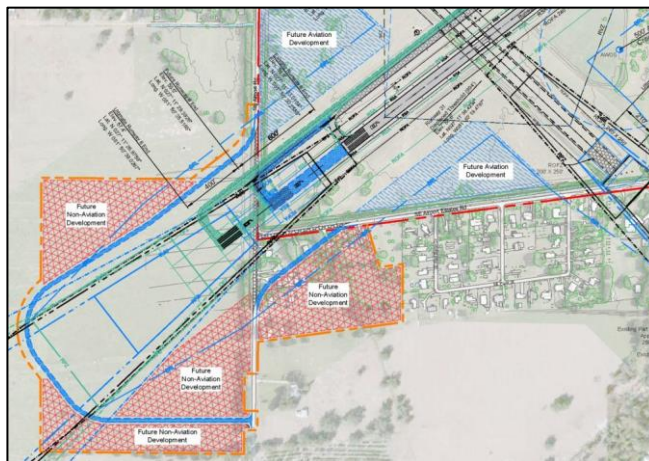
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 3. Data Sheet
 4. Terminal Area Plan
 5. Approach Plan
 6. FAR Part 77 Airspace Plan
 7. Airport Land Use/Noise Contours
 8. Exhibit A/Property Map

- Incorporate changes as directed by City Council and submit to FAA

Arcadia Municipal Airport Master Plan Update



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Task / Status	
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Task 2 – Forecasts of Aviation Demand	COMPLETE/APPROVED
Task 3 – Capacity Analysis	COMPLETE
Task 4 – Facility Requirements	COMPLETE
Task 5 – Identification of Alternatives	COMPLETE
Task 6 – Evaluation of Alternatives	COMPLETE
Task 7 – Selection of Recommended Plan	COMPLETE
Task 8 – Environmental Review	COMPLETE
Task 9 – Airport Plans	UNDERWAY
Task 10 – Financial and Implementation Plan	COMPLETE (pending council directive)

**AGENDA MINUTES
CITY COUNCIL
CITY OF ARCADIA
TUESDAY, MARCH 17, 2015
6:00 P.M.**

The following minutes reflect action items of the City Council of the City of Arcadia. For a verbatim copy of the minutes, you may contact City Administration to obtain a copy of the recorded meeting.

INVOCATION, PLEDGE, CALL TO ORDER AND ROLL CALL

Robert Womack gave the invocation which was followed by the pledge of allegiance. The Mayor called the meeting to order at approximately 6:00 p.m. and the following members and staff were present:

Arcadia City Council

Mayor Judy Wertz-Strickland
Deputy Mayor Frierson
Councilmember Joseph E. Fink

Councilmember Susan Coker
Councilmember S. Delshay Turner

Arcadia City Staff

Interim City Administrator Beth Carsten
City Attorney TJ Wohl
City Clerk Penny Delaney

Marshal Matt Anderson
City Planner Carl McQuay

PRESENTATIONS

Agenda Item 1 – Presentation to Franklin T. Boone – Retirement after 30 + years of service

This agenda item was pulled due to Mr. Boone being out of state.

Agenda Item 2 – Presentation to Lieutenant Gary Evans – 20 years of service

Mayor Wertz-Strickland presented Lieutenant Gary Evans of the Arcadia Police Department with a certificate for his twenty (20) years of commendable service with the City of Arcadia. Marshal Anderson also spoke and thanked Lieutenant Evans for his dedicated service.

Agenda Item 3 – Certificate of Appreciation to Robert Womack of Womack Sanitation, Inc.

Mayor Wertz-Strickland presented Robert Womack of Womack Sanitation, Inc. with a Certificate of Appreciation for their collaboration and reductions of fees in the demolition of the Arcadia Livestock Market.

Agenda Item 4 – Certificate of Appreciation to Brad Avery of WCA Waste Corporation

Mr. Avery was not in attendance. Therefore, Mayor Wertz-Strickland presented Manager Jason Harris and District Manager Mike Gabbert of WCA Waste Corporation with a Certificate of Appreciation for their collaboration and waiver of fees in the demolition of the Arcadia Livestock Market.

At this point in the meeting, Mayor Wertz-Strickland called former City Recorder Margaret Way to come forward. Ms. Way had just celebrated her birthday and Mayor Wertz-Strickland presented her with a birthday card signed by the City Council, the Interim City Administrator, the City Attorney and the City Clerk.

Agenda Item 5 – Grant Writing Option – John Bry

Councilmember Coker stated that she had asked John Bry to speak tonight. She said there were a lot of grants out there and the City doesn't have someone to research grants, tell Council what's available and how to get them, so she asked two different gentlemen to come and speak. She advised Mr. Bry was there to give a presentation to look at the possibility of having him become a grant writer for the City. Mr. Bry made his presentation and at the end of his presentation, he asked if Council had any questions and there were none.

Agenda Item 6 – Airport Master Plan

Mike Moon and Timeka Carter of Hanson Professional Services, Inc. presented the Master Plan Update for the Arcadia Municipal Airport. Mr. Moon stated that the action they were looking for from City Council was for them to adopt the Master Plan with any changes they may direct and with the approval and adoption with those changes, Hanson will forward it to FAA for their final review. After the presentation, various questions were asked regarding the buyout of homes in regards to the expansion, usage projections sent out to the public, and the relocation of Airport Road to which Mr. Moon and Ms. Carter answered same. Councilmember Fink made a motion to accept as presented and Deputy Mayor Frierson seconded the motion. No new discussion followed and it was unanimously, 5/0, approved. Mr. Moon thanked the City for the opportunity to work with them on the airport and stated they looked forward to a long and lasting relationship with the City of Arcadia.

CONSENT AGENDA

Agenda Item 7 – City Council Minutes for January 13, 2015

Agenda Item 8 – City Council Minutes for March 3, 2015

Agenda Item 9 – Special Event Permit – Six Gun Country Music Showcase

Deputy Mayor Frierson made a motion to accept the consent agenda and Councilmember Coker seconded the motion. No discussion followed and it was unanimously, 5/0, approved.

ACTION ITEMS**Agenda Item 10 – Cyndy’s Place Regarding Discount of Water/Sewer**

Andrew Crites of 132 S. Hernando Avenue, Arcadia, Florida, a representation of Cyndy’s Place, addressed City Council and referenced the letter provided in Council’s packet in which they were requesting a waiver of City of Arcadia water and sewer connection fees. Councilmember Fink asked if Cyndy’s Place was a 501C3 and Mr. Crites advised that it was. Councilmember Fink then asked if the rentals would be taxable and Mr. Crites advised they would just pay the non-ad valorem taxes. The City Attorney stated that would be a determination that the Property Appraiser would make, but stated that being familiar with other projects similar to this; he advised he believed they would be tax exempt. Deputy Mayor Frierson pointed out that they were saturated with low income housing and at some point the community would have to say “no more low income housing”. Councilmember Fink stated that he agreed with Deputy Mayor Frierson and the City’s housing stock is not in need of any additional low income housing. He further stated that the City couldn’t afford to give incentives by allowing them to do the work rather than going through the proper channels and tying onto the system using what the City has as a nominal impact fee for this particular endeavor. Deputy Mayor Frierson stated that the City needs medium income housing. Deputy Mayor Frierson made a motion to reject the request and Councilmember Fink seconded the motion. No discussion followed and it was unanimously, 5/0, approved.

Agenda Item 11 – Approval of Application Regarding Planning & Zoning Board

This agenda item was pulled.

Agenda Item 12 – Request for Rezoning of Parcel No. 36-37-24-0A00-0781-0000

This agenda item was pulled.

Agenda Item 13 – Alarm/Surveillance Systems at City Garage

This agenda item was pulled.

Agenda Item 14 – Airport Painting

Councilmember Fink stated that he was bringing this before Council because he didn’t want the City to be encumbered regarding the airport when it’s turned back over to them. He stated he was concerned with the paint hangar and its usage. He advised he had spoken with someone in the DeSoto County Planning Department and was advised there was not a usable permit on the property to revenue tax and an application of a business since 2013. He stated their last knowledge of a business license was to have a boutique shop at the terminal and that is not a painting operation. Councilmember Fink stated that the Interim City Administrator had determined that they had disposed of the paint residue that is left over from scraped planes in what appears to be a professional manner, but again, this is without the permitting organization

of DeSoto County allowing it. He suggested the Administrator provide Council with a copy of the report regarding disposal of the paint chips. Councilmember Fink stated the disposal of the paint would have been a toxic waste and has to be disposed of by the EPA underneath EPA guidance rather than anything else. He pointed out that because the City didn't know, it could have been left with a serious mess. Councilmember Fink stated that this didn't just pop up, but that it had been reported to Ms. Jankosky. He stated he had asked the Fire Marshal for a copy of it.

Councilmember Fink suggested Mike Moon of Hanson Professional Services, Inc. take administration out to see what's what and so they would know where to look. Mr. Moon stated sometimes a visual check isn't as deep as you need to go and there may need to be some soil testing, and possibly check for fuel leakage, etc. before it's returned. He further stated that it was out of their scope, but Hanson would do what they could do to assist the City. Deputy Mayor Frierson stated that if one hangar is to be checked, they should all be checked. The City Attorney stated that he understood the concern, but the ultimate relief will be against a corporation that will likely be dissolved. Mr. Moon stated the ultimate responsibility, if you can't go after the tenant, will lie with the City and the City Attorney agreed. Mr. Moon recommended that any leases involving mechanical work, fuel, painting, etc., should have an environmental liability policy.

COMMENTS FROM DEPARTMENTS

Marshal Anderson stated they had had a busy weekend with the rodeo; Friday's was almost sold out while Saturday's and Sunday's were sold out. He advised the department had received several compliments from the public regarding the parade, rodeo and traffic. He also stated that Mosaic donated \$3 million to the rodeo association to help build their arena. Marshal Anderson also advised that there had been a pretty big car show at Louis C. Anderson Park which was heavily attended from various counties. He further advised of a wedding that had taken place at the Tree of Knowledge and the positive comments the department had received from the public. Marshal Anderson also gave credit to City staff regarding their assistance with barricades and the clean up between the parade and the wedding. He asked if City Council or the general public had any questions and there were none.

The City Attorney referenced the sidewalk parking issue that had been brought to Council's attention by Robert Blank. He advised he had ridden with Marshal Anderson to look at the sidewalks and areas in question and there were issues that were not cut and dry. He stated that he and the Marshal are trying to find a way to resolve the issues. Marshal Anderson spoke up and stated that Becky Mercer with the Housing Authority had sent out newsletters regarding the parking of vehicles. He advised that the police department is driving through the area and between that and Ms. Mercer's newsletter; he's hoping the issue is being resolved as he has not found a violation with his drive-throughs of the area. He stated that he understood Mr. Blank's complaint and issues and they are trying their best to try to do what they can fairly to the residents who live on that street.

The Finance Director provided the financial report to City Council and advised that regarding revenues, the general fund is at 47.9% and enterprise fund is at 41.7%. She advised that regarding expenditures, the general fund is at 43.3% and the enterprise fund is at 37.7%.

The Interim City Administrator stated that she had been in Arcadia for 25 years and this year was the best year she had experienced with parking and felt the City Police Department did a wonderful job with funneling traffic and wanted to express her appreciation.

She stated that regarding the LAP project, the landscaping started going in today and the intersections will begin their paving in about two (2) weeks and won't start until after the last antique fair, but their work will be done at night. She stated there will be \$21,000.00 worth of overages. She advised that some came from the beginning with issues of when the plans were originally done and things weren't put in right and there are other overages just because. She advised that Manatee and Oak won't be getting the stamped concrete that the rest of the intersections are getting. She further advised that it was always their intent that when the crosswalks went in to make them ADA compliant. She stated that due to the way the box-culvert is, they have come up with a way to mill down some of the area and repair the bump and it will be no more than \$7,000.00. She stated all four (4) of the sections that come out to the crosswalk will be fixed to be ADA compliant. Mayor Wertz-Strickland asked if the \$21,000.00 overage included the \$7,000.00 and Ms. Carsten advised that it did. Deputy Mayor Frierson asked what fund it would come out of and Ms. Carsten advised it would come out of capital improvement. Deputy Mayor Frierson asked what was left in that fund and Ms. Carsten advised that they had \$372,000.00 and they had used \$15,000.00, but that's always where they had earmarked the \$30,000.00 to come out of for this project. Deputy Mayor Frierson asked if that was also earmarked for Bridle Path and Ms. Carsten advised that they would have to take some of it. Councilmember Coker made a motion to approve \$7,000.00 for Oak and Manatee and Councilmember Turner seconded the motion. No discussion followed and it was unanimously, 5/0, approved.

Regarding the airport, Ms. Carsten stated that Council had tasked her with meeting with all the parties involved with what they were looking to do with the airport. She advised that she was still finishing up getting the research and information together and stated that Council had wanted to do a workshop and asked if March 26, 2015 at 5:00 p.m. would work for everyone. It was the general consensus to meet at the suggested time. Ms. Carsten also stated that the airport was completely out of fuel and asked for direction. After much discussion, it was opened up for public comment. Greg Smith of 5750 SW Hull, Arcadia, Florida, suggested taking control of the fuel tanks and to use this period of time before a new FBO comes in to change the filters and set up the card reader. After further discussion, it was Council's general consensus to wait until after the workshop to decide which direction they would go.

Ms. Carsten advised that the pastor from Heritage Baptist Church and requested use of the Tree of Knowledge for an Easter Sunrise Service on Easter Sunday from 6:45 a.m. to 7:45 a.m. She advised she wasn't able to get it on the agenda, but felt it would be a time that wouldn't be too much of a bother as long as they understood it was a public park. Councilmember Fink made a motion to allow Heritage Baptist to do their usual Easter Sunrise Service at the Tree of

Knowledge and Councilmember Coker seconded the motion. No discussion followed and it was unanimously, 5/0, approved.

PUBLIC

DeSoto County Commissioner Bob Miller of 7595 NE Cubitis Avenue, Arcadia, Florida, commended the Finance Director on the budget. He stated it was very easy to understand, but yet comprehensive in its content. He also stated he was happy to see how seriously the airport is being addressed and the opportunities out there. He stated that DeSoto County is on the way up. He advised that World Wide Windows and Doors had purchased the old Central Maloney facility and they would be bringing jobs to DeSoto County. He further advised there were other businesses, but he couldn't divulge much about them because he doesn't know what the statuses are, and he referenced the G. Pierce Wood facility being sold and going back on the ad valorem, etc. He stated that he just wanted to share how happy he was with the Council and the direction it is going.

MAYOR AND COUNCIL REPORTS

Councilmember Fink stated that he was very pleased with item number five (5) and suggested a workshop or an agenda item as an action item to deal with this particular issue. He stated that he felt they needed to have more than one dip at the grant writing area and determine how they want to address it as a Council.

Councilmember Coker thanked Marshal Anderson regarding the control of the rodeo traffic. She also stated she had been asked to pass on a comment for those who own and maintain our streets to please trim the curbs and make it look pretty. She also stated that the Friends of Arcadia Airport Fly-In was nice. She advised she had visited the 1924 fire truck and would like to do something about it in the future. She felt it was a beautiful relic that needed to be maintained as a piece of Arcadia history. She also stated that she had heard a few comments about people wondering why there were no signs to keep trucks out of downtown especially with the new curbs. Councilmember Fink advised there is a sign on the west end and should be one put up on the east end.

ADJOURN

Having no further business at this time, the meeting was adjourned at approximately 8:17

ADOPTED THIS 7th DAY OF April, 2015.

By:

Judy Wertz Strickland
Judy Wertz-Strickland, Mayor

Penny Delaney
Penny Delaney, City Clerk

