Airport Layout Plan Narrative Report

Apalachicola Municipal Airport



Franklin County
Board of County Commissioners
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AIPORT LAYOUT PLAN (ALP) NARRATIVE REPORT APALACHICOLA MUNICIPAL AIRPORT

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Apalachicola, Florida

1.0 INTRODUCTION

This narrative report provides a summary of the existing Apalachicola Municipal Airport (AAF) facilities, reasoning for certain proposed airport improvements, and an explanation of major Airport Layout Plan (ALP) features. The ALP Update, prepared by URS Corporation, includes the drawings listed below. Copies of these drawings are included in Attachment "A" of this report.

Cover Sheet	
Airport Layout Plan	Sheet 1 of 7
Terminal Area Plan	Sheet 2 of 7
Airport Airspace Plan	Sheet 3 of 7
Inner Approach Plan (RW 13/31)	Sheet 4 of 7
Inner Approach Plan (RW 6/24 & 18/36)	Sheet 5 of 7
Airport Property Map	Sheet 6 of 7
Land Use Plan	Sheet 7 of 7

The ALP Update was prepared in accordance with applicable Federal Aviation Administration (FAA Advisory Circular 150/5070-6B, *Airport Master Plans*); Florida Department of Transportation requirements and guidance (*Guidebook for Airport Master Planning*); and, Florida Administrative Code (FAC) Chapter 14-60. The primary objective of this assignment was to update the existing Airport Layout Plan drawings in accordance with current guidance and recommend improvements to airfield and general aviation facilities. Key issues at AAF include aging infrastructure, a demand for additional general aviation facilities (i.e., hangars) and improved approaches, and development of the airport to support local economic development efforts.

2.0 AIRPORT DESCRIPTION

The history of the airport started with the acquisition of 160 acres of property by Franklin County in 1933 for airport development. In 1942, the County acquired additional land (approximately 852 acres) and leased the airfield to the U.S. government for development and operation of the Apalachicola Army Airfield. During this time, much of the existing airfield pavement and airport infrastructure was constructed. In 1947, the U.S. government ended its lease and returned the airport to the County. The airport was again leased to the U.S. Army between May 22, 1951, and January 5, 1954¹. Since 1954, the airport has been owned and operated by Franklin County. According to a boundary survey of the airport dated September 22, 2005, the Airport is approximately 1,077.6 acres in size.

¹ Florida Department of Transportation. "Airport Profile – Apalachicola Municipal Airport". http://www.florida-aviation-database.com/library/projects/20031028115548/apalachicola municipal airport profile.pdf

The Apalachicola Municipal Airport serves the business and general aviation transportation needs of Franklin County, the City of Apalachicola, and surrounding communities. The airport supports business jet traffic and recreational flying. A significant portion of general aviation traffic at AAF is associated with people coming to Franklin County for recreation activities (i.e., fishing and tourism) and real estate development.

2.1 Runways

The existing runway configuration at AAF consists of three intersecting concrete runways. A summary of runway features is provided in Table 1.

Runway pavements at AAF are mostly the original concrete pavements constructed during the military use of the facility in the 1940s and 1950s. Pavement strength is reported to be 35,000 pounds Single Wheel Load (SWL) and the surface is reported by the Florida Department of Transportation (FDOT) to be in good condition. However, numerous concrete panels on the runways are cracked or shattered and are in need of rehabilitation and/or replacement. Runway 13/31 has a 294-foot displaced threshold due to trees on the approach to Runway 31. Runway 18/36 also has a 288-foot displaced threshold due to trees on the approach to Runway 18. The area under the approach to Runway 31 (generally within the Runway Protection Zone) was cleared of most trees and vegetation in 2005. Verification that controlling obstacles were cleared is necessary before the displaced threshold on Runway 31 would be removed. Also in 2005, Runway 13/31 was re-marked and new directional signage on its parallel taxiway (Taxiway A) was installed.

TABLE 1

SUKE TRUNWAY Information

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Runway	Dimensions (feet)	NAVAIDS	Markings	Lighting	Pavement / Strength (reported)	
13/31 (Primary Runway)	5,332 x 150	NDB, GPS	Non-Precision	Medium Intensity	Concrete / 35,000 Single Gear	
6/24 (Secondary Runway)	5,270 x 150	None	Visual	Medium Intensity	Concrete / 35,000 Single Gear	
18/36	5,250 x 150	None	Visual	None	Concrete / 35,000 Single Gear	

Source: URS, 2006.

The County received FAA and FDOT funding in September 2006 for the first phase of a project to rehabilitate Runway 13/31. The project will replace and/or repair damaged concrete panels and construct additional pavement to provide a "square" runway pavement end at the threshold of Runway 31. The project would recover approximately 92 feet runway length lost due to irregular runway end pavement configuration. Due to budget limitations, the rehabilitation project did not seal cracks in the runway. Crack sealing is proposed for a future project (Phase 2) which will complete the Runway 13/31 rehabilitation.

2.2 Taxiways

Table 2 provides information regarding taxiways at the airport. The taxiway pavements are mostly the original concrete pavements constructed during the military use of the facility. As with the runway pavements, concrete panels on the parallel taxiways and connector taxiways are cracked or shattered and are in need of rehabilitation and/or replacement.

TABLE 2
Taxiway Information

Taxiway	Description	Width (feet)	Lighting	Pavement Type
Α	Runway 13/31 full length parallel taxiway. Portion of taxiway is apronedge taxiway.	75	Medium Intensity	Concrete
В	Runway 6/24 partial parallel taxiway. Extends from Runway 6 end to Runway 13/31. Portion of taxiway is apron-edge taxiway.	75	Medium Intensity	Concrete
С	Runway 18/36 partial parallel taxiway. Extends from Runway 18 end to Runway 6/24.	75	Medium Intensity	Concrete

Source: URS, 2006.

2.3 Terminal Facilities

The existing terminal building provides approximately 1,300 square feet of space for the Fixed Base Operator (FBO), passengers, and pilots. The stand-alone building is adjacent to the FBO aircraft maintenance hangar.

2.4 Hangars, Buildings, and Apron

The airport has five T-hangar structures located adjacent to the apron that parallels Runway 6/24. Four of the T-hangar structures have seven units and one structure has six units. A 13,300 square foot aircraft maintenance hangar and a 60-foot x 60-foot airfield maintenance building are located on the edge of the general aviation apron parallel to Runway 13/31.

Typical of former military air bases, AAF has an abundance of aircraft parking apron. The apron parallel to Runway 13/31 is approximately 40,400 square yards in total size and is mostly in good condition. Taxiway A comprises an apron-edge taxiway for the length of the pavement area. The area available for aircraft parking and circulation is approximately 28,000 square yards. Most aircraft utilize the tie-downs and parking positions in front of the FBO/terminal building and maintenance hangar.

The apron parallel to Runway 6/24 is approximately 66,400 square yards in size, inclusive of apron-edge Taxiway B. The area available for aircraft parking and circulation is approximately 46,000 square yards and is in good to fair condition. This apron is seldom used for aircraft parking, but provides access to the five existing T-hangar structures. Several concrete panels near a drainage outfall in the vicinity of the T-hangars have been undercut from erosion.

2.5 NAVAIDS and Other Aviation Facilities/Services

Navigational and approach aids and include a rotating beacon, Precision Approach Path Indicator (PAPI) lights on Runways 13/31 and 6/24, and a lighted wind cone. An Automated Surface Observation System (ASOS) located on the airfield provides weather information to pilots. There are non-precision NDB and RNAV-GPS approaches to the Runway 13/31. The lowest minimums currently available for Runway 13/31 are 500 feet /1 mile.

AvGas (100 LL) and Jet-A fuel are available at the airport. Fuel is delivered to aircraft by the Fixed Base Operator via fueling trucks. Aviation services provided on the airport by the Fixed Base Operator include major engine and airframe maintenance and repair.

2.6 Non-Aviation Facilities on the Airport

The former National Weather Service building currently houses the Franklin County Emergency Management operations and a field office of the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS). Land near the entrance to the airport and on the east side of the airport, considered surplus for aviation use, has been identified by the County for possible industrial and commercial development.

3.0 AVIATION ACTIVITY AND FORECAST

This section presents the review of existing forecasts and a recommendation of a forecast of aviation activity at Apalachicola Municipal Airport.

3.1 Aviation Activity Profile

General aviation activity comprises the majority of operations at AAF. According to airport management and published data, military training operations occur occasionally. Military operations include: aircraft practicing approaches, support for training exercises; and itinerant aircraft fuel stops. Charter and air taxi operations, mostly associated with recreation and fishing, comprise a modest but important transportation service at the airport. Shipping of seafood represents the most common form of air cargo activity at the airport, but the amount of cargo varies with market demand. There have been no scheduled air carrier operations at the airport.

Discussions with the Fixed Base Operator (FBO) and airport management indicate a significant portion of the traffic at the airport is associated with people coming to Franklin County for recreation and land development activities. Traffic usually peaks during weekends (Thursday through Sunday) while traffic during the remainder of the week is variable. The number of aircraft operations is reported to be fairly constant throughout the year.

3.2 Aviation Activity Forecasts

The FAA's Terminal Area Forecast² (TAF), provides historic information and a forecast of annual aircraft operations and based aircraft at AAF. According to the TAF, annual aircraft operations

² FAA APO Terminal Area Forecast Detail Report for the Apalachicola Municipal Airport. Forecast issued February 2006. (www.apo.data.faa.gov/wtaf/detail.asp)

increased from 4,720 in 1996 to 24,375 in 2005. The number of based aircraft was listed annually at zero until 1996, where the number of based aircraft was adjusted to 22. Currently, the TAF shows 30 based aircraft at the airport. The FAA TAF was determined to not provide a forecast suitable for airport planning as it projected a zero growth rate for the airport. This is not uncommon for small general aviation airports included in the TAF. The TAF historical data for the airport is presented in Table 3.

Table 4 summarizes the Florida Department of Transportation's Aviation System Plan (FASP) historic data (through 2005) and forecast projections for based aircraft and annual operations at AAF. Records show the airport had thirty-three based aircraft and 24,680 aircraft operations in 2005. The forecast projects moderate growth in the number of based aircraft and annual aircraft operations. The number of based aircraft is projected by the FDOT to have a Compound Annual Growth Rate of 1.49 percent over the 2005 through 2025 period. The number of aircraft operations at the airport is expected to increase at a CAGR of 1.25 percent over the same time period.

The TAF and FASP both show a large increase in the number of annual operations in 2001. The reason for the large increase recorded for 2001 is not entirely clear; however, it likely represents a change in the reporting of aircraft operations and may indicate that activity at the airport have been historically underreported. This is not unusual at low activity airports where detailed records are usually unavailable and estimates of annual operations often rely on the prior year's estimate. Based on a review of local factors and FBO/airport management interviews, the FASP forecast for the Apalachicola Municipal Airport was deemed to be a reasonable forecast and suitable for planning purposes.

Based on the FDOT projections, forecasts for key aviation activities were developed by URS Corporation. The activities included average month operations, peak month operations, average daily operations for peak month, busy day operations, transient aircraft on apron on busy day. Estimates for peak hour operations and passengers and based aircraft fleet mix were also developed. A summary of these forecasts are presented in Table 5.

TABLE 3
FAA TERMINAL AREA FORECAST SUMMARY

	Itinerant Operations				Local Operations				
Year	Air Carrier	Air Taxi/ Commuter	General Aviation	Military	Total	General Aviation	Military	Total	Total Operations
1996	0	0	3,000	220	3,220	1,500	0	1,500	4,720
1997	0	0	3,000	220	3,220	1,500	0	1,500	4,720
1998	0	0	3,000	220	3,220	1,500	0	1,500	4,720
1999	0	. 0	3,000	220	3,220	1,500	0	1,500	4,720
2000	0	0	3,000	220	3,220	15,000	0	1,500	4,720
2001	0	1,228	8,000	147	9,375	15,000	0	15,000	24,375
2002	0	1,228	8,000	147	9,375	15,000	0	15,000	24,375
2003	0	1,228	8,000	147	9,375	15,000	0	15,000	24,375
2004	0	1,228	8,000	147	9,375	15,000	0	15,000	24,375
2005*	0	1,228	8,000	147	9,375	15,000	0	15,000	24,375
2010	0	1,228	8,000	147	9,375	15,000	0	15,000	24,375
2015	0	1,228	8,000	147	9,375	15,000	0	15,000	24,375
2020	0	1,228	8,000	147	9,375	15,000	0	15,000	24,375
2025	0	1,228	8,000	147	9,375	15,000	0	15,000	24,375

Source: FAA Terminal Area Forecast, February 2006.

TABLE 4 FDOT FASP FORECAST (2005-2025)

Year	Based Aircraft	Aircraft Operations
	Historic Activity	
2000	30	5,600
2001	30	24,375
2002	33	15,000
2003	33	24,375
2004	33	24,375
	Projected Activity	
2005	33	24,680
2010	36	26,261
2015	39	27,944
2020	42	29,735
2025	45	31,640

Source: Florida Aviation System Plan (FASP), 2006.

^{*} Estimated

TABLE 5
PEAK OPERATIONS AND BASED AÌRCRAFT FORECAST

Description	2005	2010	2015	2025
Annual Aircraft Operations	24,680	26,261	27,944	31,640
Annual Itinerant Operations	9,502	10,110	10,758	12,181
Peak Month and Day Activity Forecast				
Peak Month Operations	2,468	2,626	2,794	3,164
Averages Daily Operations for Peak Month	81	86	92	104
Busy Day Operations	89	95	101	1 14
Transient Aircraft on Apron on Busy Day	9	10	11	12
Peak Hour Activity Forecast				
Peak Hour Operations	20	22	23	26
Based Aircraft Forecast				
Based Aircraft Over 12,500 lbs	33	35	37	41
Based Aircraft Under 12,500 lbs	0	1	2	4
Based Aircraft (Total)	33	36	39	45

Source: URS Corporation, 2006.

4.0 PLANNING CONSIDERATIONS

The following describes the planning considerations and design criteria applicable to the Apalachicola Municipal Airport and the facility needs identified during the development of the ALP Update.

4.1 Airport Reference Code

To properly and consistently plan future facilities, design criteria must be identified and applied. Airport design criteria are specified by the Airport Reference Code (ARC) that consists of two components. The first component is the Aircraft Approach Category, which is related to the approach speed of aircraft and provides information on the operational capabilities of aircraft using the airport. The second component is the Airplane Design Group. This component is related to the wingspan of the aircraft and provides information regarding the physical characteristics of aircraft using the airport. Table 6 provides a listing of the approach categories and design groups.

The Apalachicola Municipal Airport serves a variety of general aviation aircraft, including single-engine, twin-engine, turboprops, and turbine-powered aircraft. Turbine-powered aircraft using the airport include business jets and occasional charter jets. Based on current activity, a B-II ARC represents the family of most demanding aircraft using the airport on a regular basis (i.e., Falcon 900). For future planning, the C-II ARC Citation X is anticipated to represent the most demanding family of aircraft to use the airport in the future. This aircraft has an approach speed of 131 knots, a wingspan of 63.6 feet, and a maximum take-off weight of 36,100 pounds. Based on current and

expected airport needs, the airport's primary runway (Runway 13/31) and terminal facilities would be planned using C-II criteria. For the planning period, Runway 6/24 and Runway 18/36 would retain B-II ARC status.

TABLE 6
AIRPORT DESIGN CRITERIA

RFORT DESIGN CRITERIA
rcraft Approach Category
Approach Speed
Less the 91 Knots
91 to 120 Knots
121 to 140 Knots
141 to 165 Knots
166 Knots or Greater
Airplane Design Group
Wing Span
Up to 48 Feet
49 to 78 Feet
79 to 117 Feet
118 to 170 Feet
171 to 213 Feet
214 Feet or Greater

Source: FAA Advisory Circular 150/5300-13, Airport Design.

4.2 Applicable Design Standards

FAA's Advisory Circular AC 150/5300-13, Airport Design, designates the appropriate design standards for airports, based on the ARC. Table 7 provides information on the design standards applicable to the current B-II and proposed C-II ARC. The ALP depicts information for C-I features and setbacks.

TABLE 7
APPLICABLE AIRPORT DESIGN CRITERIA

Design Item	B-II Criteria ¹ (ft)	C-II Criteria (ft)	
Runway			
Runway Width	75	100	
Runway Safety Area (width along runway x length beyond runway end)	150 x 300	$500 \times 1,000^2$	
Runway Object Free Area (width along runway x length beyond runway end)	500 x 300	800 x 1,000	
Taxiway			
Taxiway Width	35	35	
Taxiway Safety Area Width	79	79	
Taxiway Object Free Area Width	131	131	
Taxiway to Taxilane Centerline Separation	105	105	
Taxiway Centerline to Fixed or Movable Object	65.5	65.5	

Source: FAA Advisory Circular 150/5300-13, Airport Design.

² For ARC C-I and C-II, a RSA width of 400 feet is permissible.

Design standards for runway with approach visibility minimums not lower than 3/4 statute mile.

4.3 Site Constraints and Opportunities

Site conditions and constraints influenced the range of alternatives and development strategies considered for AAF. The short-term and long-term development strategies were to provide and orderly plan for development and to make efficient use of available property and resources. Site constraints and opportunities are summarized below.

Opportunities

- Three existing runways (each in excess of 5,000 feet in length).
- Airport land available in the terminal area for future general aviation and commercial development.
- Airport land available east of Runway 18/36 and along the airport entrance for development of future air cargo, industrial, and/or commercial use.

Constraints

- · Residential land use immediately north and northeast of the airport.
- Residential land use immediately south of the airport (Gulf Colony Subdivision).
- Institutional land use (Florida Department of Corrections) near Runway 6 End.
- U.S. Highway 98 and the Gulf of Mexico south of the airport.

4.4 Runway 13/31 Extension

The 1999 Airport Layout Plan Update³ included a proposal to extend Runway 13/31 from its present length of 5,332 feet to approximately 10,000 feet. The project was determined to be necessary to support air cargo operations that would ship fresh seafood from Apalachicola to domestic and foreign markets. The proposed extension represented the potential maximum runway length required to accommodate a Boeing 727-100 cargo aircraft at maximum take-off weight.

During the current ALP update effort, the County decided not to pursue a major runway extension and to no longer depict the proposed runway on the ALP. Accordingly, the proposed runway extension and associated land acquisition requirements were not included in the drawings prepared for this ALP update.

4.5 Airport Runway and Property Surveys

During the course of this ALP update, URS encountered conflicting information in federal and state databases regarding runway end coordinates and runway lengths at the airport. To resolve this issue, the FAA and FDOT provided funding to the County in 2005 to survey the three runways at the airport with the purpose of documenting runway end coordinates (and elevations) and runway lengths. The project also included the preparation of an Exhibit "A" Property Map, which depicts the airport's boundary and ownership information. The runway and property surveys were completed in 2006 and incorporated into the updated ALP drawings.

³ Apalachicola Municipal Airport Layout Plan Update. Dames & Moore. March 1999.

5.0 PROPOSED FACILITY IMPROVEMENTS

The following provides a brief summary of recommended improvements at the airport.

5.1 Runways, Taxiways, and Aprons

The airfield pavements at AAF are comprised mostly of concrete panels, which were constructed in the 1940s and 1950s. As noted previously, numerous concrete panels on the runways, taxiways, and aprons are either shattered, cracked, or have severe spalling.

5.1.1 Runways

Rehabilitation and repair of the runway surfaces was identified as a necessary improvement for safety purposes. Runway 13/31 will undergo a two-phase rehabilitation program. In early 2007, Runway 13/31 will undergo Phase 1 of the rehabilitation that will replace shattered and broken concrete panels. However, the cracks on the runway were not repaired due to budget limitations. The cracks are planned to be repaired under Phase 2 of the rehabilitation program.

It is also recommended that shattered, broken, or cracked panels on Runways 6/24 and 18/36 be repaired as needed to maintain the integrity of the landing surfaces and to minimize potential damage to aircraft.

Runway lengths are considered adequate for the planning period and no runway extensions are proposed at this time. The County should continue to monitor air cargo activity and demands at the airport. If cargo aircraft that need additional runway length start regular service at the airport, planning should be initiated to determine the amount of additional runway length required and the ALP should be updated accordingly to support any request for federal and/or state assistance for a runway extension.

The existing RSAs appear to meet applicable design standards. However, the future upgrade of Runway 13/31 to an ARC C-II category will require an expanded RSA. The RSA for Runway 31 will need to be improved to relocate or enclose a portion of a drainage ditch to provide a smooth, graded RSA surface.

5.1.2 Taxiwavs

As with the runway maintenance and repairs mentioned above, it is recommended that the taxiway pavements receive routine maintenance and their condition monitored annually. Cracked, shattered, and broken panels should be repaired or replaced as necessary to maintain the integrity of the aircraft movement surfaces.

When aviation-related and/or air cargo facilities are developed in the area east of Runway 18/36, improved taxiway access will be needed to minimize taxiing on Runway 6/24 and or Runway 18/36. It is proposed that Taxiway B be extended from its present terminus at Runway 13/31 to Runway 18/36 to provide improved taxiway access.

5.1.3 Aprons

The amount of existing aircraft parking apron should be adequate for the planning period. The aprons, constructed during the airport's former use as a military base, are generally in good condition with certain areas in fair condition. Areas in need of rehabilitation and repair exhibit spalls and cracks. The apron pavements should be monitored and repairs should be implemented as needed to maintain the integrity of the aircraft movement surfaces.

5.2 Airfield Drainage System Repair and Rehabilitation

Portions of the original airfield drainage system have either failed or perform under capacity. Erosion from certain segments has undercut several concrete panels on the edge of the aircraft apron in the vicinity of the T-hangars. It is proposed that an evaluation of the airport's drainage infrastructure be conducted to identify and prioritize needed improvements. Necessary repair and rehabilitation should be implemented to provide adequate drainage for the airfield.

5.3 Improved Runway Approaches

Based on input from the Airport Advisory Board and FBO, additional and improved instrument flight procedures are desired for the airport. The new approaches would include, but not necessarily be limited to, a precision GPS-based approach for Runway End 13 and non-precision GPS approaches for Runway End 31, Runway 6/24, and Runway 18/36. The proposed approaches would improve access to the airport and improve safety during inclement weather.

5.4 Hangar Development

The development plan for AAF includes construction of additional aircraft storage and maintenance hangars. Proposed hangar types include additional T-hangars, aircraft storage hangars, and aircraft maintenance hangars. As hangars improvements are constructed, the need for internal vehicle access roads and parking will also be needed to improve access to the proposed hangars.

The building area fronting Runway 13/31 would continue to be developed with aircraft maintenance hangars and aircraft storage hangars. A proposed aircraft maintenance hangar, approximately 100 feet x 120 feet in size, would be located northwest of the existing maintenance hangar, near the apex of the aircraft parking apron. Two aircraft storage hangars (approximately 60 feet x 60 feet in size) are proposed to be constructed near the southeast portion of the apron, near the Franklin County Emergency Management building. A proposed general aviation terminal building would provide additional space for visitors, passengers, pilots, and airport management. The building would be approximately 5,000 square feet in size and be located between the existing aircraft maintenance hangar and a proposed maintenance hangar.

The building area fronting Runway 6/24 is proposed to be developed for corporate hangars, aviation-related industries, and T-hangars. Based on discussions with the FBO (who expressed interest developing hangars in this area), sites were reserved for four corporate hangars ranging in size from 6,400 square feet up to 22,500 square feet. The potential configuration of this area is flexible and would depend on the specific aircraft, business, and/or manufacturing needs of the

tenants. The development of hangars in this area would also provide five additional T-hangar structures and one three-unit aircraft storage hangar. The location and configuration of hangars in this area is constrained by wetlands. If in the future a portion of the aircraft parking apron in this area is declared excess, additional T-hangars could be developed on the aircraft parking apron.

5.5 Industrial and Commercial Development

To support local economic development efforts and to increase airport revenue, two areas were identified on the ALP for industrial and commercial development. It is recommended that an Industrial/Commercial Development Master Plan be prepared to guide this type development on the airport. The Master Plan would seek the highest and best use of the industrial/commercial areas, provide layouts and cost schedules, and promote compatibility with airport operations.

6.0 PROPOSED DEVELOMENT PLAN

The ALP and Proposed Development Plan for the Apalachicola Municipal Airport provides a guide for the County to meet the aviation needs of the community. In this regard, development of the airport should efficiently utilize existing facilities and allow for the orderly development of new facilities. All development actions should consider safety, efficiency, and utility.

The current level of activity at the airport precludes use of a schedule-driven Development Plan. In general, major improvements and new aviation facilities (i.e., hangars, aircraft parking aprons, and runway extension) should occur as demand dictates. However, proposed development can be considered in two broad categories: Near-Term Projects and Long-Term Projects. Near-Term projects are suggested for consideration in fiscal years 2008 through 2012. Based on the County's priorities and funding availability, one or more of these projects could be included in the next update of the FAA's and FDOT's Joint Application Capital Improvement Plan (JACIP). However, some of the projects identified as Near-Term, if implemented, may occur at some point beyond 2012. Long-Term projects would be planned for the future (beyond 2012) and individual projects would be included in future JACIP updates as needed or as local priorities change. The JACIP should be reviewed and updated yearly (usually in January) to add projects as necessary and adjust priorities to meet current needs.

Descriptions of each recommended project (less those already included in the current JACIP) are provided below and depicted on Figure 1. A summary of the current JACIP entries are provided in Table C-1. Conceptual cost estimates for potential Near-Term projects are provided in Table C-2 and potential Long-Term projects are provided in Table C-3 in Attachment C.

6.1 Near-Term Projects

Security / Apron Lighting — This project would add new lighting to the general aviation apron and replace certain older light fixtures/poles that are beyond their useful life. The purpose of the project is to provide adequate lighting on the apron at night to improve safety and security.

Conduct Survey for GPS Approaches – Project would include preparation of necessary user surveys and document for the proposed approaches to Runways 6/24 and 18/36.

Rehabilitate Runway 13/31 (Phase 2) – This project will complete the rehabilitation of Runway 13/31, which will have damaged concrete panels repaired or replaced in 2007. Due to budget limitations, crack sealing could not be accomplished in Phase 1. The proposed project (phase 2) will clean and seal cracks in the runway's concrete surface.

Wetlands Mitigation Alternatives Analysis – This project would identify the extent and type of wetlands that would be impacted by future airport development and evaluate different mitigation scenarios. The result would be a strategic plan to mitigate wetland impacts in the most cost-effective manner possible and reduce future project delays.

Rehabilitate Runway 6/24 – This project would repair or replace the damaged concrete panels and seal cracks on the airport's secondary runway. Depending on funding availability, the project could be implemented in two phases similar to the Runway 13/31 rehabilitation program.

Industrial/Commercial Development Master Plan — This project would evaluate land available at two locations on the airport for future industrial and commercial development. Approximately 70 acres of airport land is available on the east side of Runway 18/36 for air cargo, aviation-related industry, and commercial development. Approximately 22 acres of airport land is available along the new entrance road and on the west side of the Apalachee Street for commercial and industrial development. The project would evaluate the needs of potential users; recommend a layout for lots, roads, and utilities; and provide a schedule of development costs. Strategies to promote local economic development efforts and increase airport revenue would also be recommended.

Runway 13/31 RSA Improvements – This project would improve and expand the existing Runway 13/31 ARC B-II RSA to meet ARC C-II design standards (500 feet wide x 1,000 feet beyond each runway end). The primary effort would include clearing, grading, and the realignment (or enclosure) of a ditch located beyond Runway 31 end. Minor grading would also be accomplished at other areas in along the runway and beyond Runway 13.

Rehabilitate Taxiway "A" and Connectors - This project would repair or replace damaged concrete panels and seal cracks on the parallel taxiway for Runway 13/31. The project would include new markings.

6.2 Long-Term Projects

Rehabilitate Runway 18/36 - This project would repair or replace damaged concrete panels on the airport's north/south runway.

Rehabilitate Taxiway "B" and Connectors - This project would repair or replace damaged concrete panels on the parallel taxiway for Runway 6/24. The project would include new markings and signage.

Rehabilitate Taxiway "C" and Connectors - This project would repair or replace damaged concrete panels on the parallel taxiway for Runway 18/36. The project would include new markings and signage.

Extend Taxiway "B" – This project would construct a 1,175-foot extension of Taxiway B, between Runway 13/31 and Runway 18/36. The project would provide a full-length parallel taxiway for Runway 6/24 and provide improved access for future development of cargo and aviation-related facilities east of Runway 18/36.

Rehabilitate GA Aircraft Parking Apron (Phase 1) – This project would repair concrete panels and clean and seal cracks on the existing general aviation aircraft parking apron. Approximately 10,000 square yards of apron would be included in Phase1.

Rehabilitate GA Aircraft Parking Apron (Phase 2) – This project would repair concrete panels and clean and seal cracks on areas of existing aircraft parking in conjunction with the future development of a terminal building and additional general aviation facilities. Approximately 9,000 square yards of apron would be included in Phase 2.

Construct Terminal Building and Parking – The project consists of a stand-alone terminal building (approximately 5,000 square feet in size) that would provide space for pilots, passengers, FBO sales, and airport administration/records. Construction of the terminal would be accompanied by development of a vehicle parking lot (15 to 30 spaces) and an access drive.

Relocate NDB Antenna – The development of a new terminal building and general aviation facilities would require the relocation of the existing NDB antenna. This project would relocate the antenna and replace parts that are beyond their useful life.

Construct T-Hangars – This proposal includes the phased development of five additional T-hangar structures and their associated access taxiways. The recommended Development Plan would construct the T-hangars as "extensions" of the existing T-hangar structures. The hangars should be developed as demand dictates.

Construct Aircraft Maintenance / Storage Hangars — This proposal includes the development of additional aircraft maintenance and aircraft storage hangars, each with associated vehicle parking. The proposed hangars would vary in size from 60-feet x 60-feet to 150-feet x 150-feet in size; however, the actual size and features of each hangar would be dependent on the needs of prospective tenants. The hangars may be constructed by the County for lease or by private sector entities on leased airport property.

West Hangar Complex Access Road and Parking – This project includes construction of a 600-foot, 2-lane access road from Apalachee Street to the west hangar complex. The road would provide vehicle access to existing T-hangars and proposed T-hangars and aircraft storage hangars, thus eliminating the need for vehicles to access existing and proposed hangars via the aircraft parking apron. The project would also provide parking for the existing and proposed T-hangars.

Resurface and Extend Airport Access Road – This project would resurface a 600-foot portion of an existing airport road that provides access to the airfield maintenance building, the Franklin County Emergency Management Building, and the UF/IFAS office. A 150-foot extension would provide access to two future aircraft storage hangar sites.

Update ALP with New Base Mapping – This project would update the Airport Layout Plan to reflect changes to existing/proposed airport facilities, operational characteristics, and applicable design criteria. The current ALP base map was derived from USGS quadrangle maps and aerial photographs. It is recommended that the proposed ALP update include orthophotographs and planimetric mapping. This will provide base mapping suitable for multiple planning and development purposes and provide detailed information not available with the current base maps (i.e., height of objects and trees on or near the airport).

Air Cargo / Industrial Park Apron – This project would construct an aircraft parking apron in the industrial development area east of Runway 18/36. The proposed apron, approximately 16,700 square yards in size, represents a potential configuration capable of accommodating ARC C-III cargo aircraft (e.g., Boeing 727-200F). The apron could be constructed in phases and the configuration could be modified to conform to specific user needs and the planned layout for the industrial development area proposed on the east side of Runway 18/36.

ATTACHMENT A AIRPORT LAYOUT PLAN DRAWINGS

AIRPORT LAYOUT PLANS APALACHICOLA MUNICIPAL AIRPORT

FRANKLIN COUNTY, FLORIDA

PREPARED FOR:

FRANKLIN COUNTY
BOARD OF COUNTY COMMISSIONERS

PREPARED BY:



7650 West Courtney Campbell Causeway Tampa, FL 33607-1462 No. 12004685.00001

NOVEMBER 2006



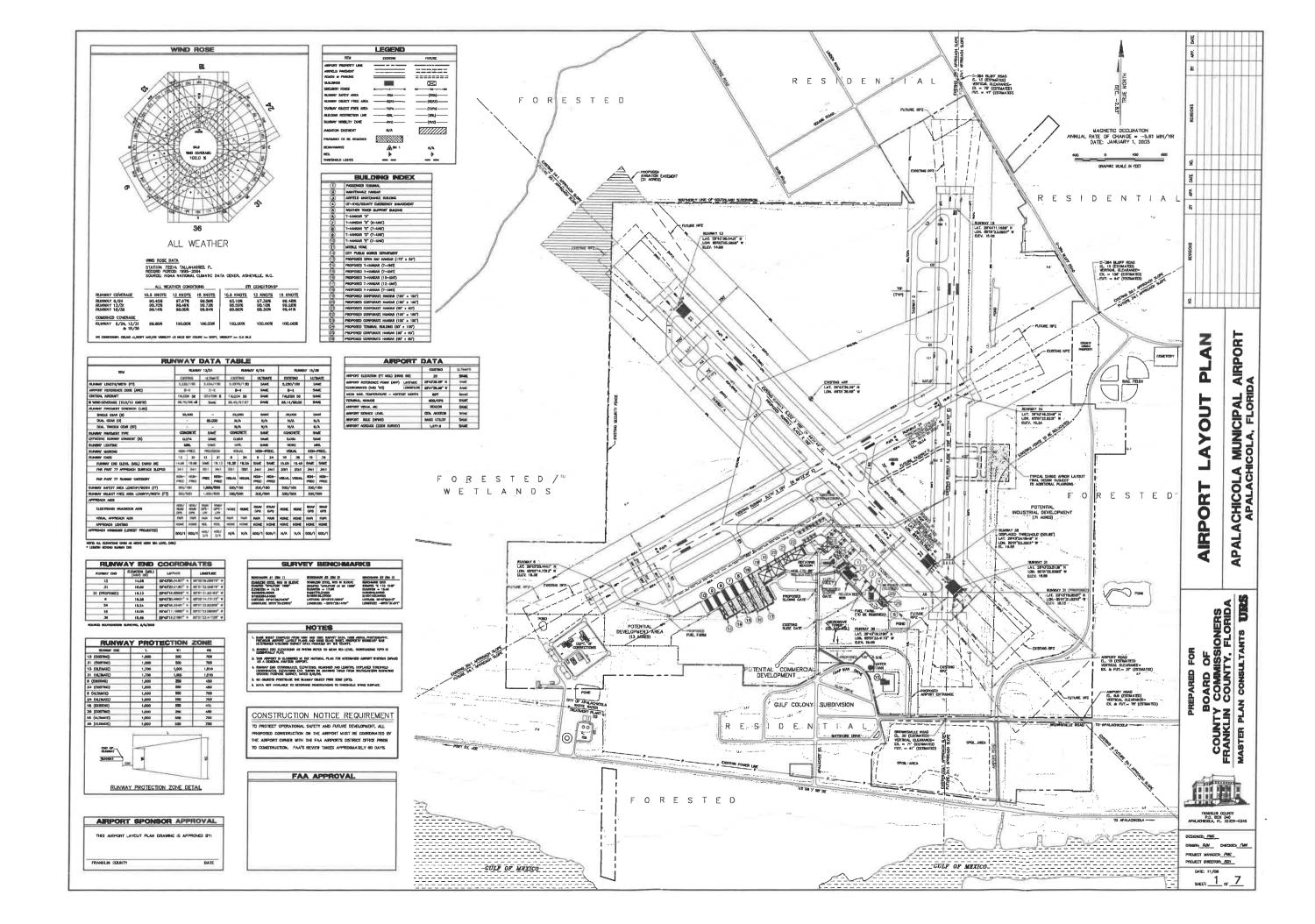
LOCATION MAP

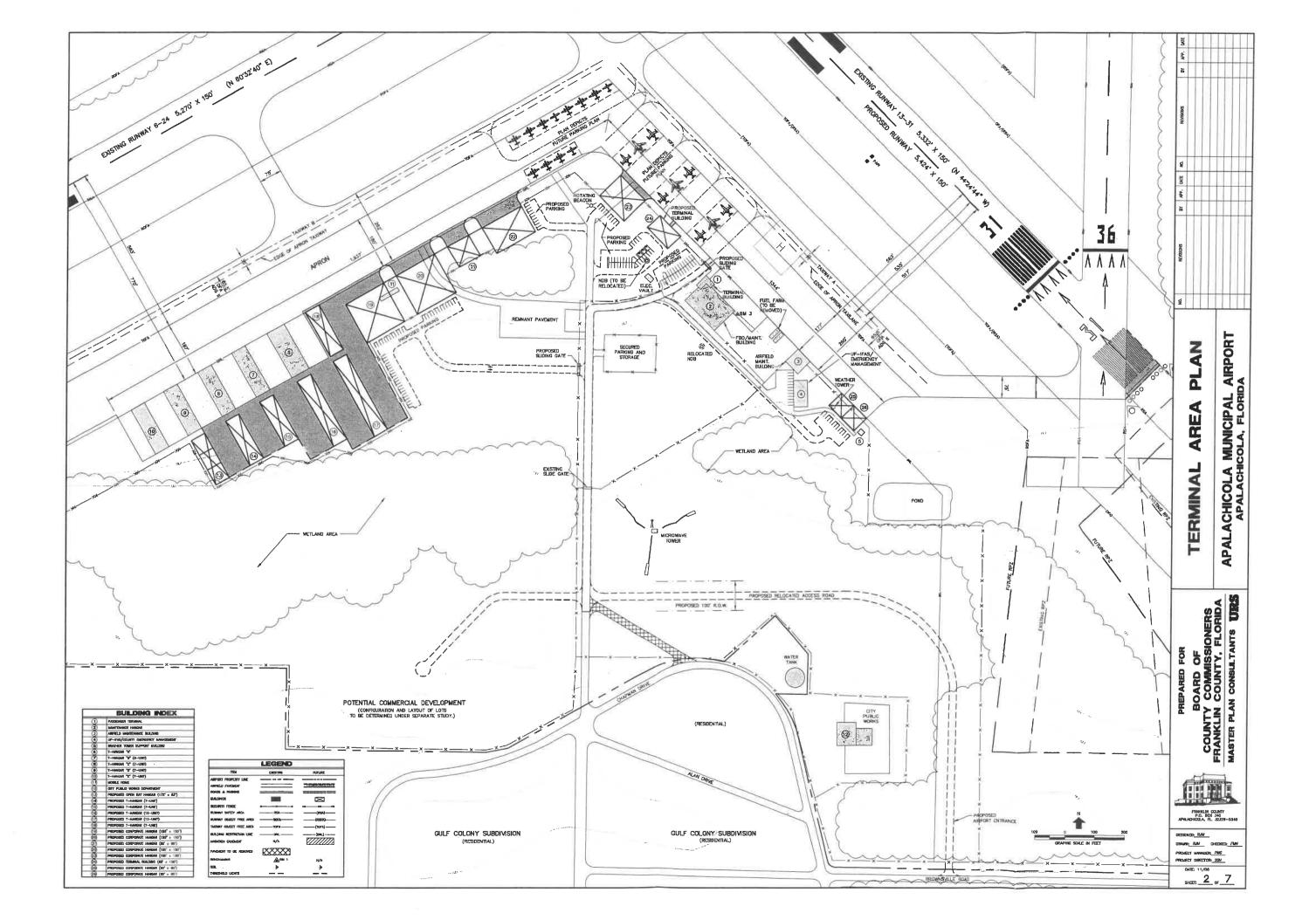
INDEX C	F DRAWINGS	
TITLE	SHEE	T NO.
AIRPORT LAYOUT PLAN	1 0	F 7
TERMINAL AREA PLAN	2 0	F 7
AIRPORT AIRSPACE PLAN	3 0)F 7
INNER APPROACH SURFACE PLA RUNWAY 13/31	N & PROFILE 4 0)F 7
INNER APPROACH SURFACE PLA RUNWAY 6/24 & RUNWAY 18/30		F 7
AIRPORT PROPERTY MAP	6 O	F 7
LAND USE PLAN	7 0	F 7

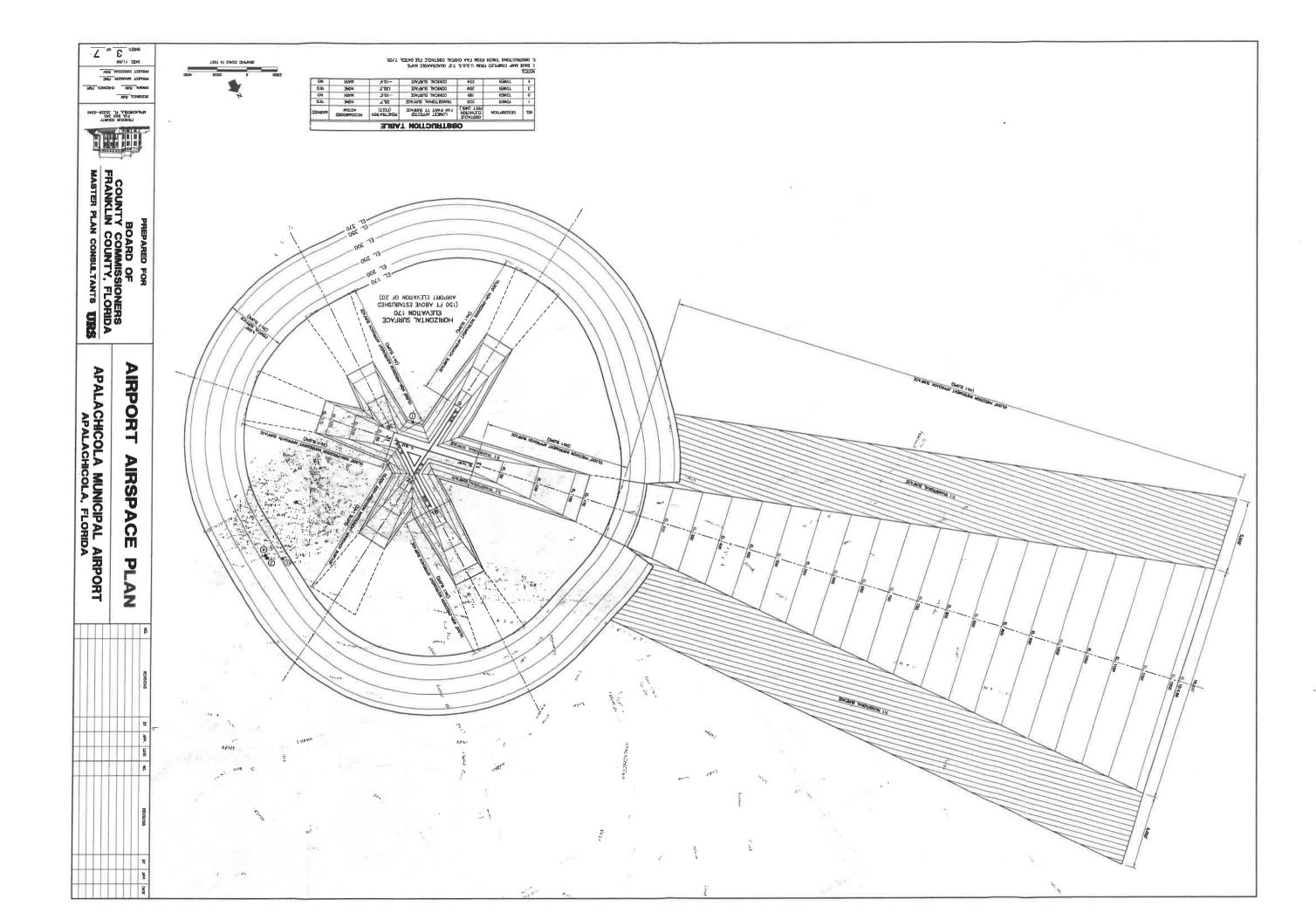


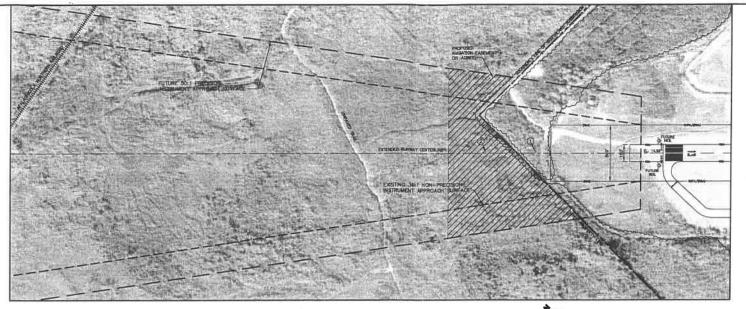
VICINITY MAP

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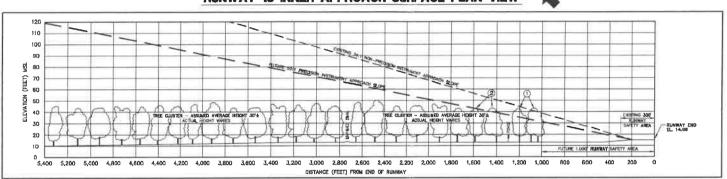




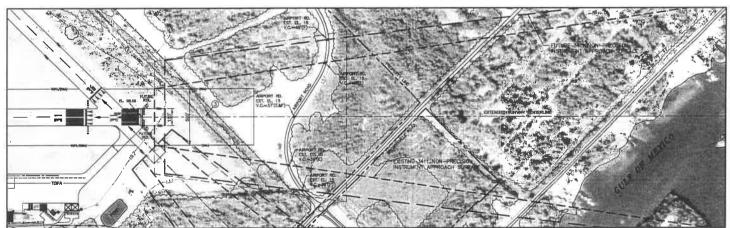






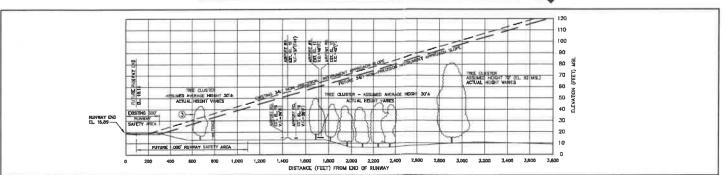


RUNWAY 13 INNER APPROACH SURFACE PROFILE VIEW

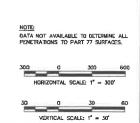


		OBSTRU	CTION DATA	TABLE	
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@	TREE CLUSTER	43	FUTURE RW 13 APPROACH	49	REMOVE
3	THUSE CLUSTER	43	EXERCISE RW 31 APPROACH FUTURE RW 31 APPROACH	10°± 14°±	PENDAG

	RUNWAY	31	INNEF	APPRO	ACH	SURFACE	PLAN	VIEW	瓜
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RUNWAY 31 INNER APPROACH SURFACE PROFILE VIEW

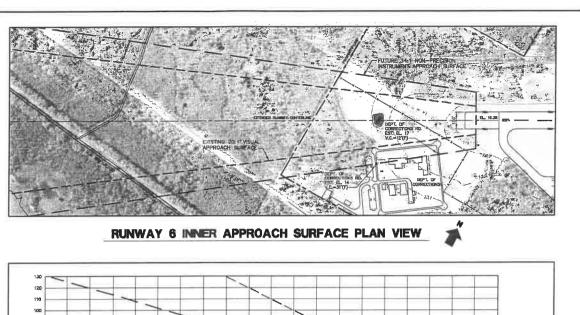


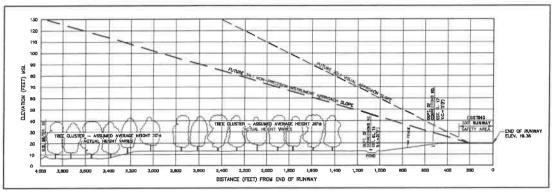
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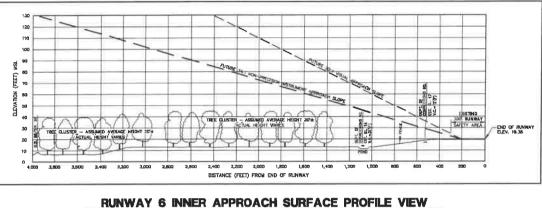
INNER APPROACH PLAN & PROFILE RUNWAY 13/31

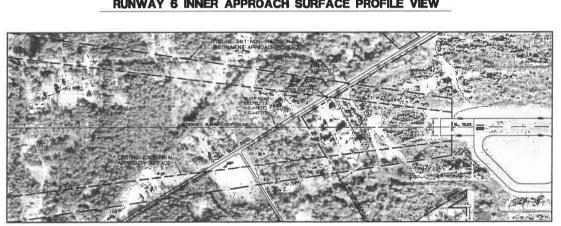
APALACHICOLA MUNICIPAL AIRPORT APALACHICOLA, FLORIDA

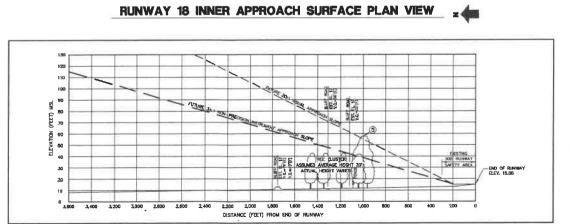
DESIGNED: RAI PROJECT DIRECTOR: SIGH DATE 11/06
SHEET: 4 OF 7





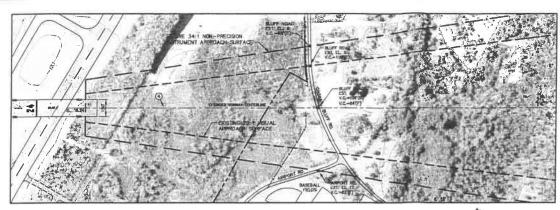




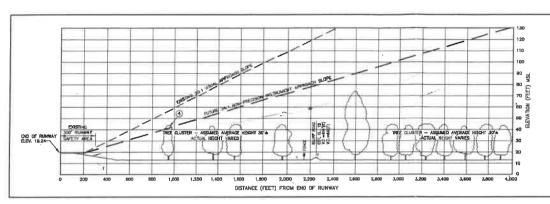




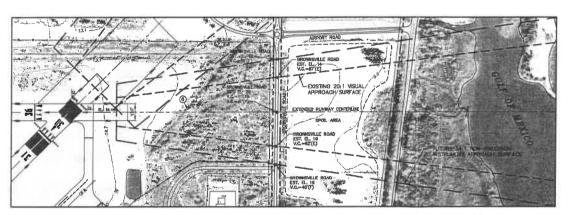




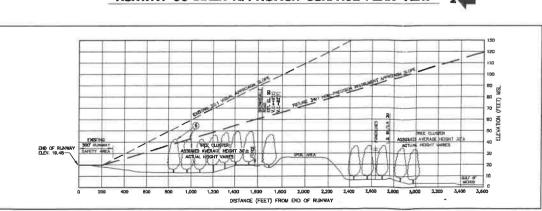




RUNWAY 24 INNER APPROACH SURFACE PROFILE VIEW



RUNWAY 36 INNER APPROACH SURFACE PLAN VIEW



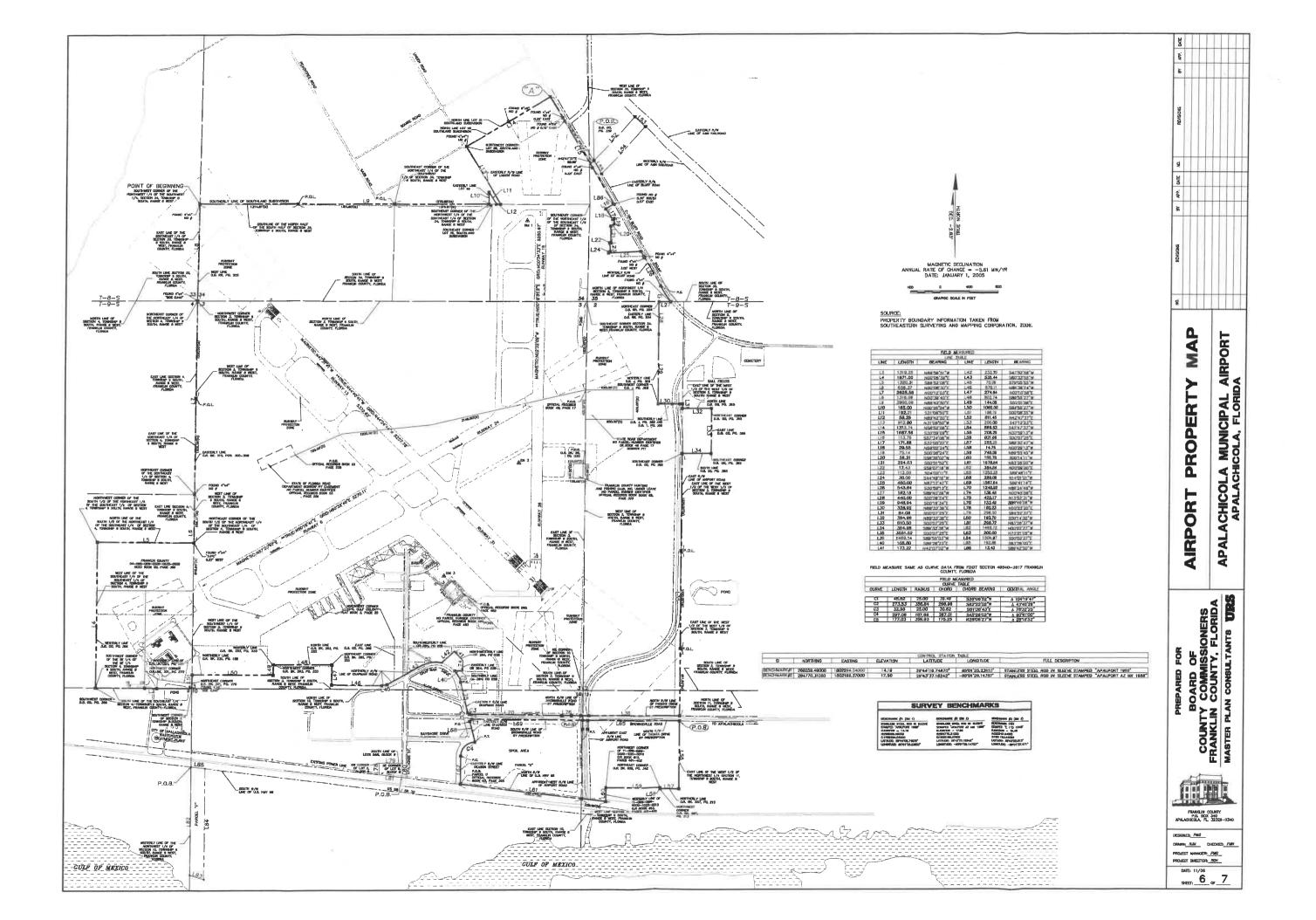
RUNWAY 36 INNER APPROACH SURFACE PROFILE VIEW

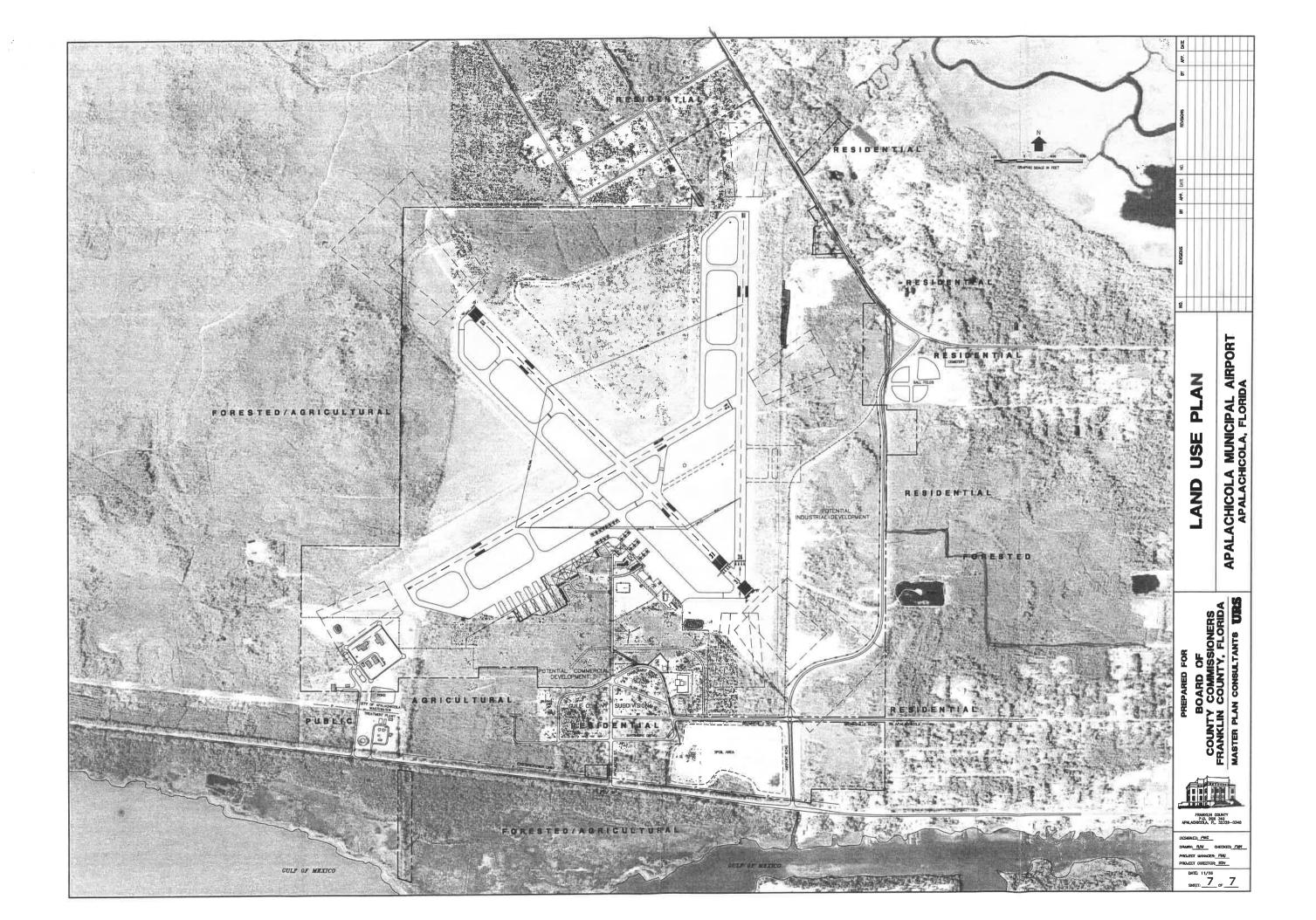
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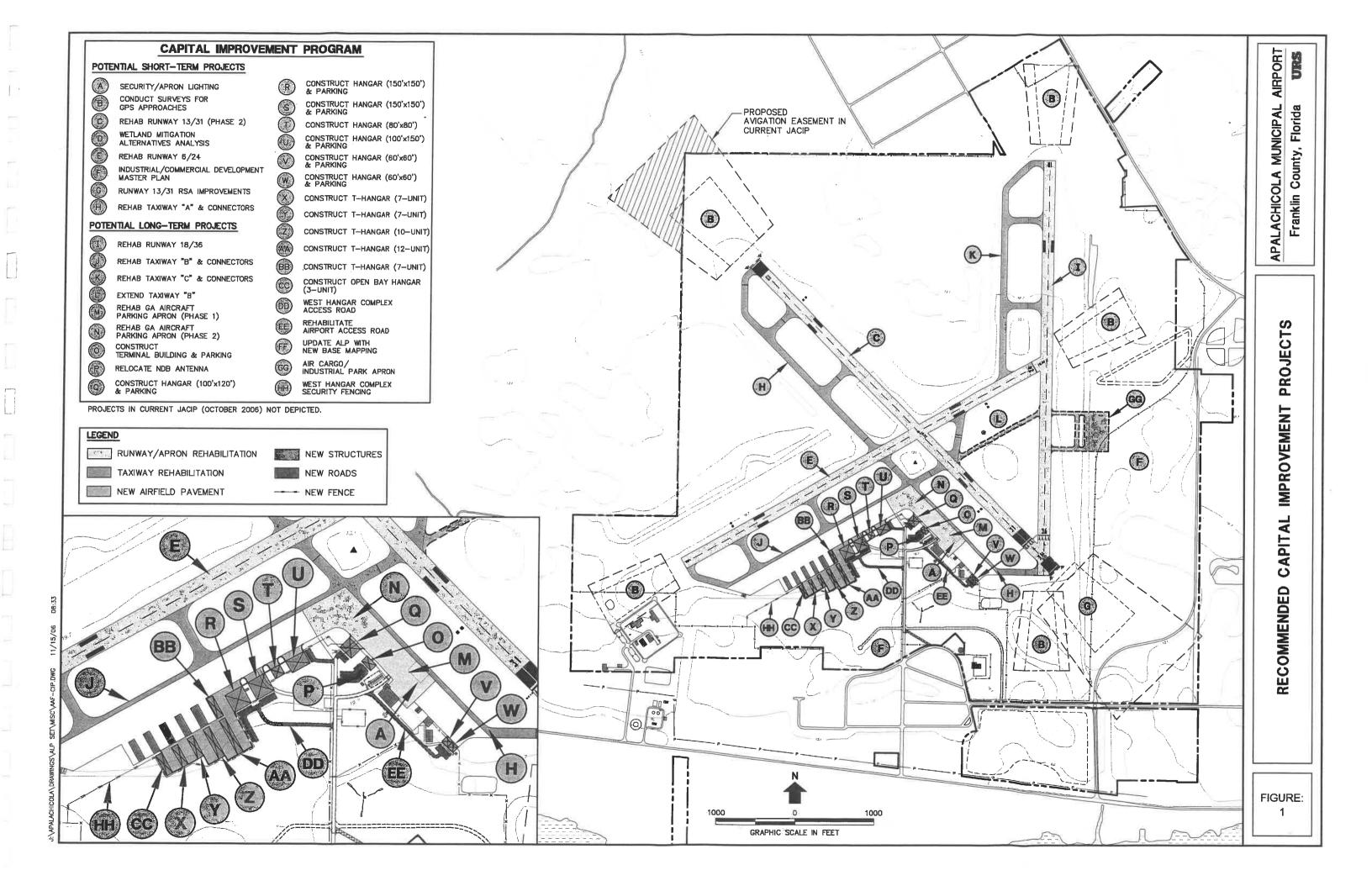


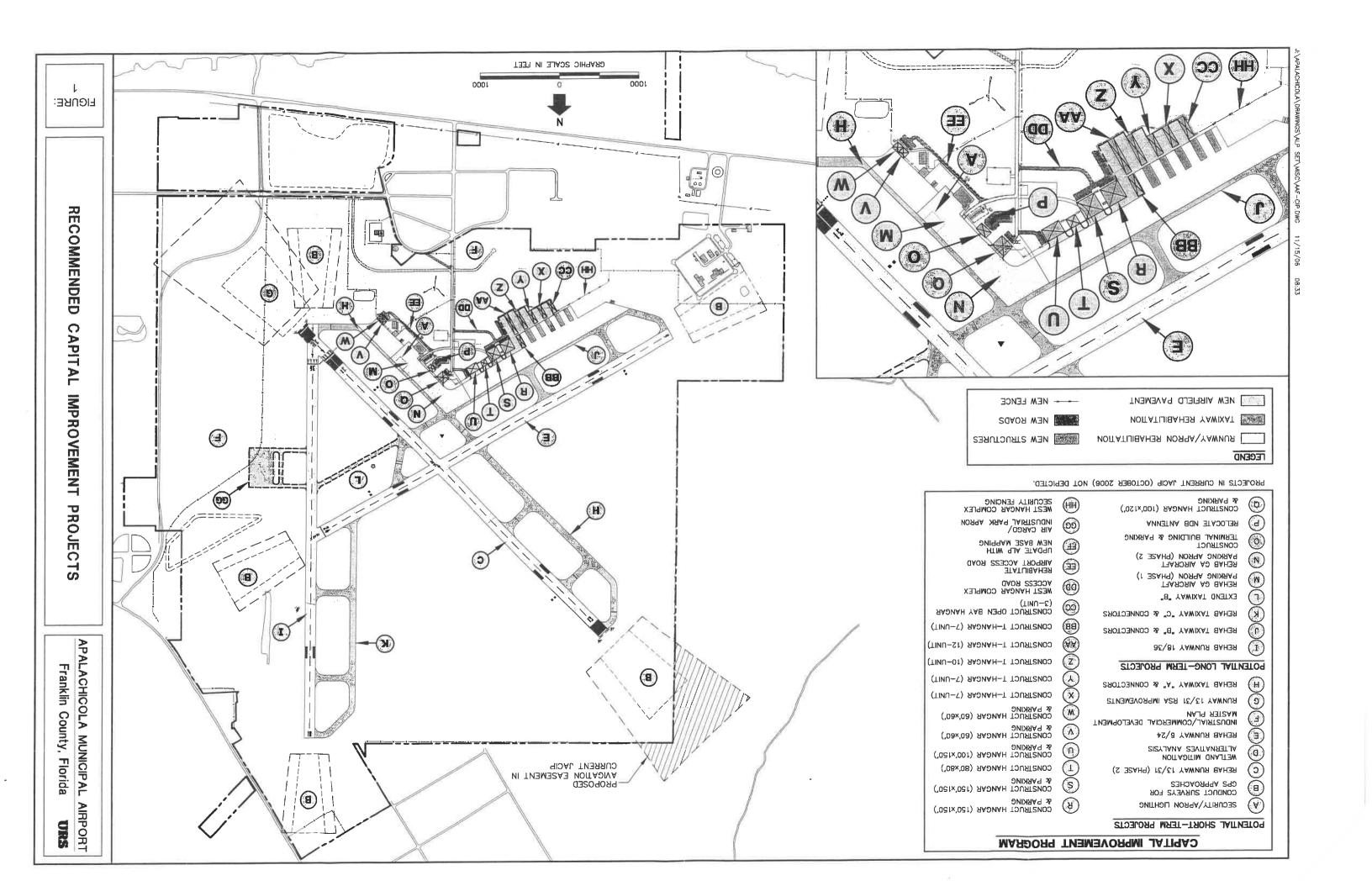
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PROJECT DIRECTOR: SGN

SHEET: 5 of 7











GRAPHIC SCALE (IN FEET) 1 inch = 300 rt.

SYMBOLS & ABBREVIATIONS:

NO. = NUMBER

L.B. = LICENSED BUSINESS

L.S. = LICENSED SURVEYOR

P.S.M. = PROFESSIONAL SURVEYOR AND MAPPER
NAVD = NORTH AMERICAN VERTICAL DATUM

F.D.E.P. = CLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
INC. = INCORPORATEO

N/A = NOT APPLICABLE

SURVEYOR'S NOTES:

1. THIS SURVEY IS REFERENCED TO FLORIDA STATE PLANE COORDINATES, NORTH ZONE, NAD 1983/90, U.S. SURVEY FEET, PURSUANT TO FEDERAL BASE NETWORK CONTROL STATION "APALPORT 1882", AS SHOWN HEREON.

2. VERTICAL DATUM SHOWN HEREON.

3. THIS SURVEY, MAP, AND REPORT IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL STATION "APALPORT 1988", AS SHOWN HEREON.

3. THIS SURVEY, MAP, AND REPORT IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL STATES STATE OF A LORDING LIGHESTS DISTRICTOR AND WHITHOUT THE SIGNATURE AND ORIGINAL SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED NO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED COORDINATES AND ELEVATION OBTAINED FROM THE FILE P. LAND BOUNDARY INFORMATION SYSTEM INTERNET WER SITE (WWW.LABINS.ORG), AND USED AS THE BASE STATION FOR THIS SURVEY; COORDINATES AND ELEVATIONS OBTAINED FROM THE FILE P. LAND BOUNDARY INFORMATION SURVEY.

5. NO TITLE SEARCH, TITLE OPINION OR ABSTRACT WAS PERFORMED BY, NOR PROVIDED TO PREBLE-RISK, INC., FOR THE SIGNECT PROPERTY. THERE MAY BE DED OF RECORD, UNKNOWN, SO ON OTHER MERCHANDER WAS BELIEVED TO PREBLE-RISK, INC., FOR THE SIGNECT PROPERTY. THERE MAY BE DED OF RECORD, UNKNOWN, SO OTHER DISTRICTIONS OF THE OWN OF RECORD OF STANKEN OF THE SURVEY.

6. THERE MAY BE ADDITIONAL RESTRICTIONS NOT SHOWN ON THIS SURVEY THAT MAY BE FOLAD.

7. DATE OF FIELD SURVEY; SEPTEMBER MAY 22, 2012.

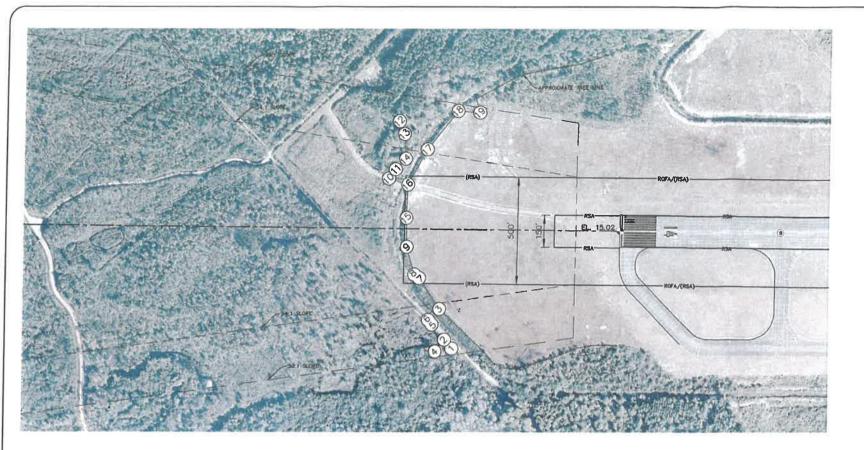
8. THE PURPOSE OF THIS SURVEY IS TO LECKATE, 30TH HORIZONTALLY AND VERTICALLY, POTENTIAL APPROACH (BSTRUCTIONS FOR RILINWAYS 14 AND 32.

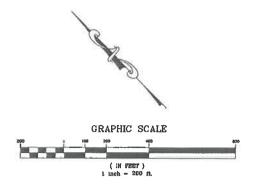
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APALACHICOLA REGIONAL AIRPORT RUNWAY 14-32 APPROACH SURVEY FRANKLIN COUNTY, FLORIDA.

SPECIFIC PURPOSE SURVEY

PROJECT NO. SHEET 710.006 10f3





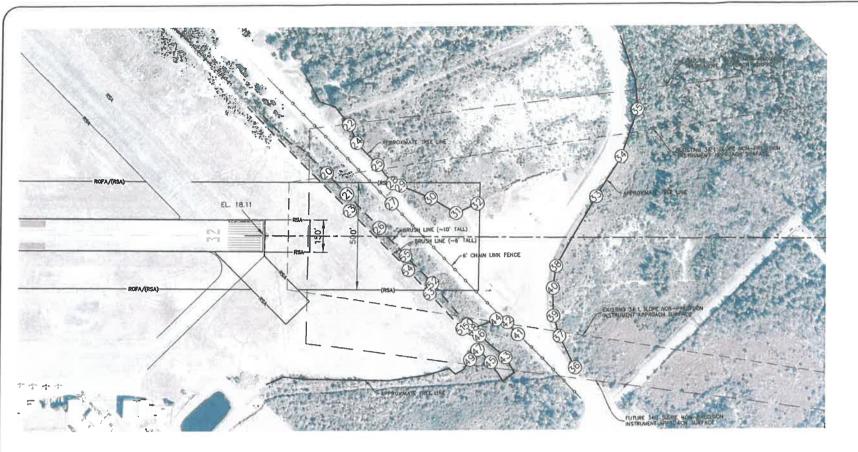
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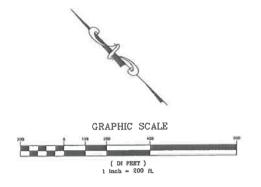
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SPECIFIC PURPOSE SURVEY	LACHICOLA REGIONAL AIRPORT	WAY 14-32 APPROACH SURVEY

APALACHICOLA REGIONAL AIRPO RUNWAY 14-32 APPROACH SURV FRANKLIN COUNTY, FLORIDA. S

PROJECT NO. SHEET 710.006 20f3





SURVEYOR'S NOTES:

1. THIS SURVEY IS REFERENCED TO FLORIDA STATE PLANE COORDINATES, NORTH ZONE, NAD 1983/90, U.S. SURVEY EST, PURSUANT TO FEDERAL BASE NETWORK CONTROL STATION "APALPORT 1985", AS SHOWN HEREON IS REFERENCED TO NAVO 1988, PURSUANT TO FEDERAL BASE NETWORK CONTROL STATION "APALPORT 1988", AS SHOWN HEREON IS A SHOWN HEREON.

3. THIS SURVEY, MAP, AND REPORT IS NOT VALID WINDOUT THE SECRIAL RIPE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHEBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES IS PROHEBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES IS PROHEBITED CONTROL OF PROPERATION. FEDERAL AREA REFERED FOR JUST AND A "APAPORT 1988", A SOURCE OF REPORADION. FEDERAL AREA REFERED FOR JUST AND A "APAPORT 1988", CONTROL INTERNET WEB SITE (WWW.LABINS.ORG), AND USED AS THE BASE STATION FOR THIS SURVEY, COORDINATES AND ELEVATIONS CONTAINED BY FIELD SURVEY.

5. NO THE SEARCH, THIS COPHON OR ASSIRACT WAS PERFORMED BY FIELD SURVEY.

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7. THERE MAY BE ADDITIONAL REGULE COUNTY, FLORIDA.

8. THERE MAY BE ADDITIONAL REGULE COUNTY, FLORIDA.

9. THE PURPOSE OF THIS SURVEY IS TO LOCATE, BOTH HORIZONTALLY AND VERTICALLY, POTENTIAL APPROACH OSSTRUCTIONS FOR RUMWAYS 14 AND 32.

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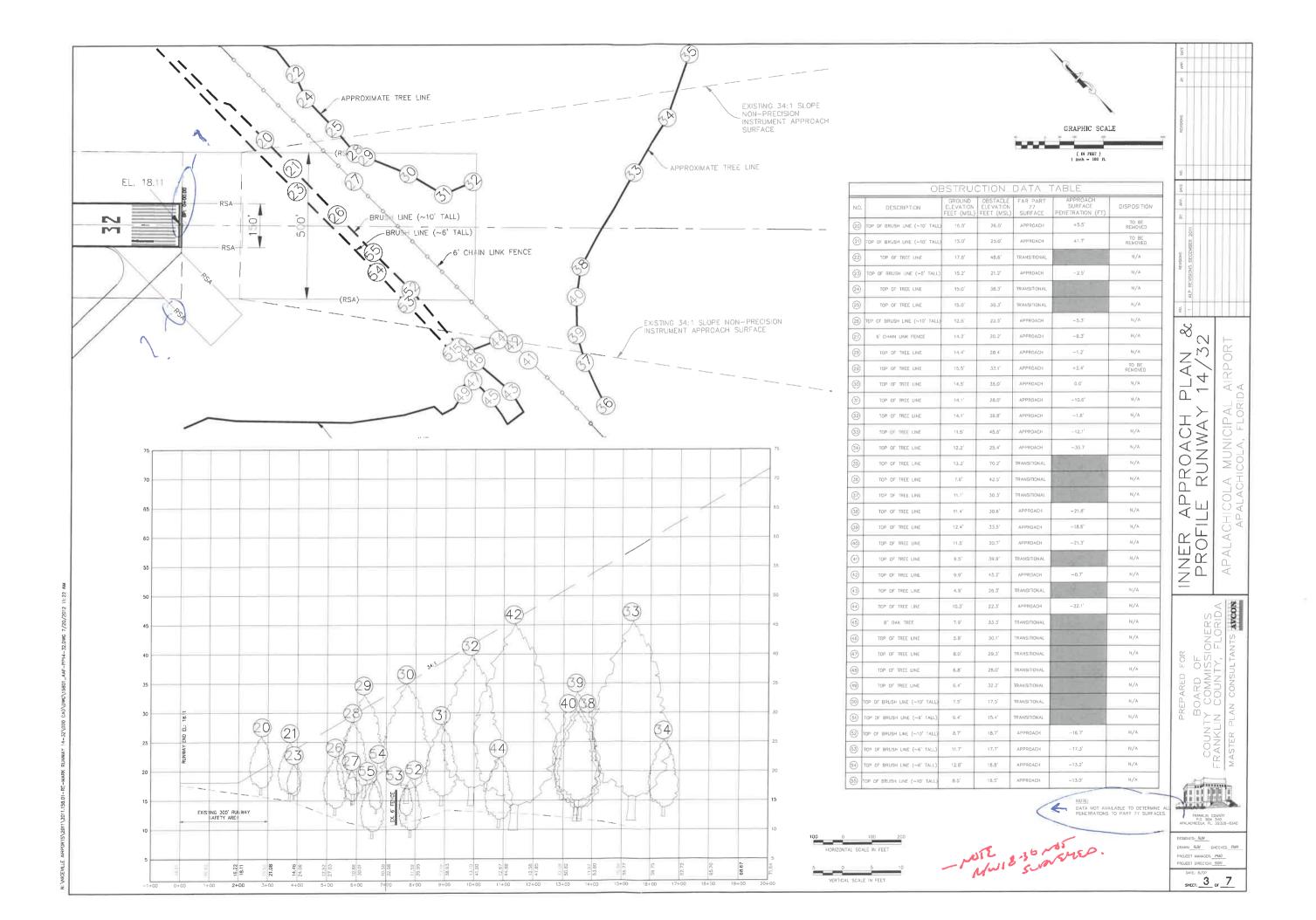
NO.	DESCRIPTION	GROUND ELEVATION FEET (MSL)	OBSTACLE ELEVATION FEET (MSL)
-			
®	TOP OF BRUSH LINE (~10' TALL)	16.0	28.0'
@	TOP OF BRUSH LINE (-10" TALL)	15.0'	25.0'
2	TOP OF TREE UNE	17.8'	48,6'
23	TOP OF BRUSH LINE (~6" TALL)	15.2	21.2'
29	TOP OF TREE LINE	15.0	38.3"
23	TOP OF TREE LINE	15.0"	39.3
29	TOP OF BRUSH LINE (~10" TALL)	12.5'	22.5"
3	6" CHAIN LINK FENCE	14,2"	20.2"
29	TOP OF TREE LINE	14.4"	28.4*
29	TOP OF TREE LINE	15.5	33.1
9	TOP OF TREE LINE	14.5	35.0
39	TOP OF TREE LINE	14.1	28.0"
33	YOP OF TREE LINE	14.1	39.8*
(3)	TOP OF TREE LINE	11.5'	45.6
39	YOP OF TREE LINE	12.2	25,4
(3)	TOP OF TREE LINE	13.3	70,2
(36)	TOP OF TREE LINE	7.6'	42.5
(37)	TOP OF TREE LINE	11,1"	30,3
38	TOP OF TREE LINE	11.4'	30.6
39	TOP OF TREE LINE	12.4"	33.5'
@	TOP OF TREE LINE	11.5'	30.7
(49)	TOP OF TREE LINE	9.5*	39.9"
@	TOP OF TREE LINE	9.9*	45.2'
43	TOP OF TREE LINE	4.9"	26.3
@	TOP OF TREE LINE	10.3	22.3'
(43)	8° OAK TREE	7.9'	33.3
@	TOP OF TREE LINE	5.8"	30.1
4	TOP OF TREE LINE	8.0'	29.3
(4)	TOP OF TREE LINE	6.8'	28.0"
0	TOP OF TREE LINE	6,4"	32.2
9	TOP OF BRUSH LINE (~10" TALL)	7.5'	17.5
3 1	TOP OF BRUSH LINE (~6' TALL)	9.4*	15.4
33	10" OF BRUSH LINE (~10" TALL)	8.7"	18.7
(3)	TOP OF BRUSH LINE (~6" YALL)	11.7	17.7
9	TOP OF BRUSH LINE (~6' TALL)	12.8	18.8"
63	TOP OF BRUSH LINE (~10' TALL)	8.5'	18.5'

Œ	STRUCTION D	ATA T	ABLE
Ю.	DESCRIPTION	GROUND ELEVATION FEET (MSL)	OBSTACLE ELEVATION FEET (MSL)
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9	TOP OF BRUSH LINE (-10" TALL)	15.0'	25.0'
9	TOP OF TREE UNE	17.5	48,6'
9	TOP OF BRUSH LINE (~5" TALL)	15.2"	21.2*
9	TOP OF TREE LINE	15.0	38.3
9	TOP OF TREE LINE	15,0"	39.3
9	TOP OF BRUSH LINE (~10" TALL)	12.5'	22.5
9	6" CHAIN LINK FENCE	14,2"	20.2"
9	TOP OF TREE LINE	14.4"	28.4*
9	TOP OF TREE LINE	15.5	33.1
9	TOP OF TREE LINE	14.5°	35.0*
9)	TOP OF TREE LINE	14.1	28.0°
3	YOP OF TREE LINE	19.35	39.8*
3)	TOP OF TREE LINE	11.5'	45.6'
9	YOP OF TREE LINE	12.2	25,4
3	TOP OF TREE LINE	13.3'	70,2
9	TOP OF TREE LINE	7.6'	42.5
9	TOP OF TREE LINE	11.1'	30,3
3	TOP OF TREE LINE	11.4'	30.6
9	TOP OF TREE LINE	12.4"	33.5'
9	TOP OF TREE LINE	11.5'	30.7
1	TOP OF TREE LINE	9.5	39.9"
3	TOP OF TREE LINE	9.9*	45.2'
3	TOP OF TREE LINE	4.9"	26.3
9	TOP OF TREE LINE	10.31	22.3
3)	8° CAK TREE	7.9'	33.3
9	TOP OF TREE LINE	5.8"	30.1
9	TOP OF TREE LINE	8.0°	29.3'
9	TOP OF TREE LINE	6.8"	28.0
9	TOP OF TREE LINE	6.4"	32.2
9	TOP OF BRUSH LINE (~10" FALL)	7.5'	17.5
9	TOP OF BRUSH LINE (~6' TALL)	9.4*	15.4
3	TOP OF BRUSH LINE (~10" TALL)	8.7	18.7
3	TOP OF BRUSH LINE (~6' TALL)	15.7	17.7"
9	TOP OF BRUSH LINE (~6' TALL)	12.8	18.6"
3	TOP OF BRUSH LINE (~10' TALL)	8.5'	18.5'

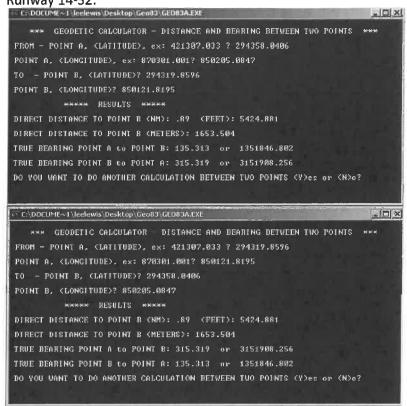
APALACHICOLA REGIONAL AIRPORT RUNWAY 14-32 APPROACH SURVEY FRANKLIN COUNTY, FLORIDA. SPECIFIC PURPOSE SURVEY

PREBLE-RISH INC
CONSULTING ENGINEERS AND SURVEYORS
COVIL SURVEYORS
COVIN SURVE

PROJECT NO. SHEET 710.006 30f3



Runway 14-32:



Runway 6-24:

```
*** GEODETIC CALCULATOR - DISTANCE AND BEARING BETWEEN TWO POINTS ***

FROM - POINT A, (LATITUDE), ex: 421307.033 ? 294320.4696

POINT A, (LONGITUDE), ex: 870301.001? 850214.7298

TO - POINT B, (LATITUDE)? 294346.3343

POINT B, (LONGITUDE)? 850122.8109

***** RESULTS *****

DIRECT DISTANCE TO POINT B (NM): .87 (FEET): 5271.821

DIRECT DISTANCE TO POINT B (METERS): 1606.607

IRUE BEARING POINT A to POINT B: 60.2802 or 601648.85

TRUE BEARING POINT B to POINT A: 240.2874 or 2401714.594

DO YOU WANT TO DO ANOTHER CALCULATION BETWEEN TWO POINTS (Y)es or (N)o?
```

Runway 18-36:

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*** C:\DOCUME~I\leelews\Desktop\Geo83\GEO83AEXE

*** GEODETIC CALCULATOR - DISTANCE AND BEARING BETWEEN TWO POINTS ***

FROM - POINT A, (LATITUDE), ex: 421387.033 ? 294411.19862

POINT A, (LONGITUDE), ex: 870301.001? 850123.09065

TO - POINT B, (LATITUDE)? 294319.21897

POINT B, (LONGITUDE)? 850123.41728

***** RESULTS *****

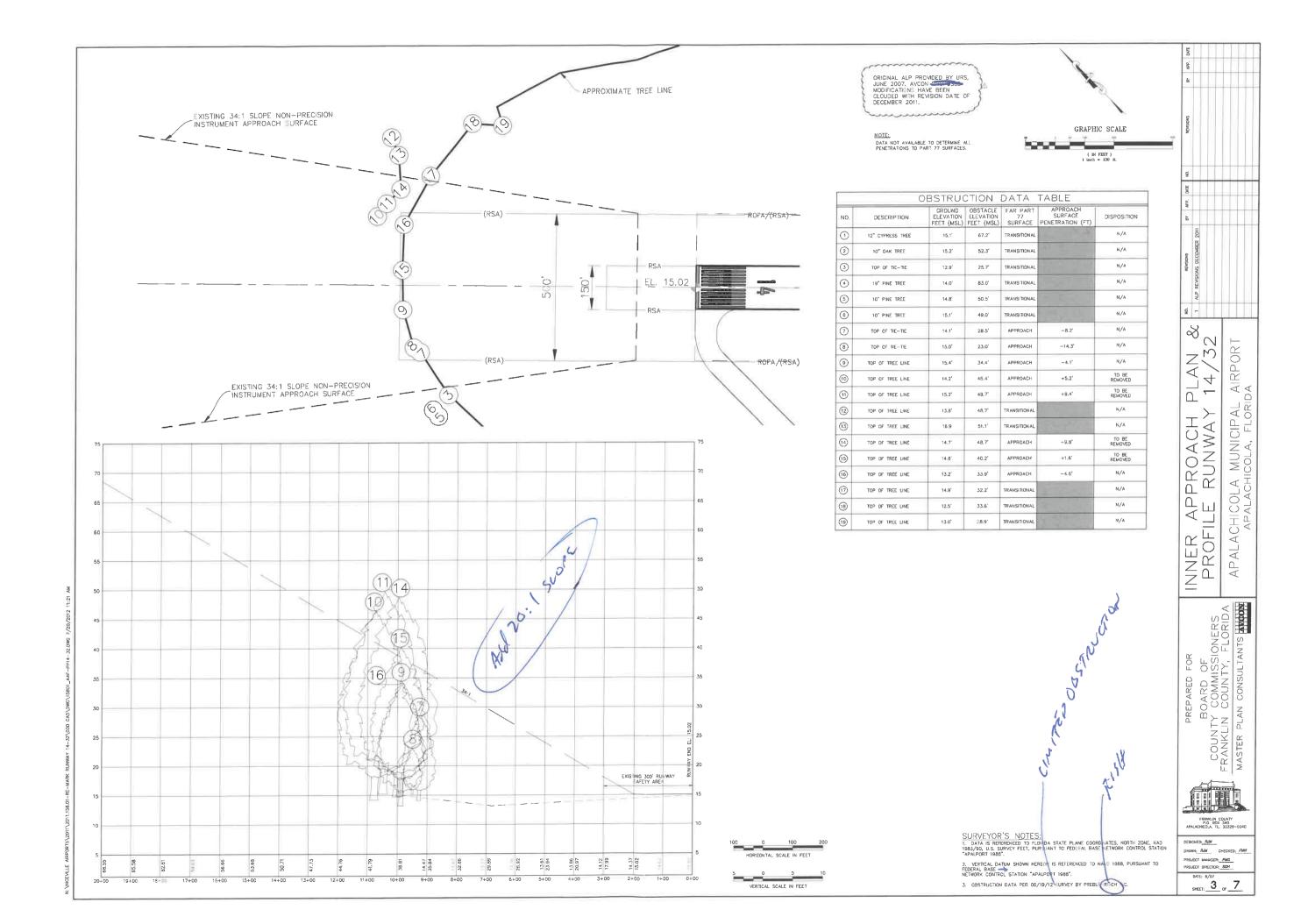
DIRECT DISTANCE TO POINT B (NM): .86 (FEET): 5251.095

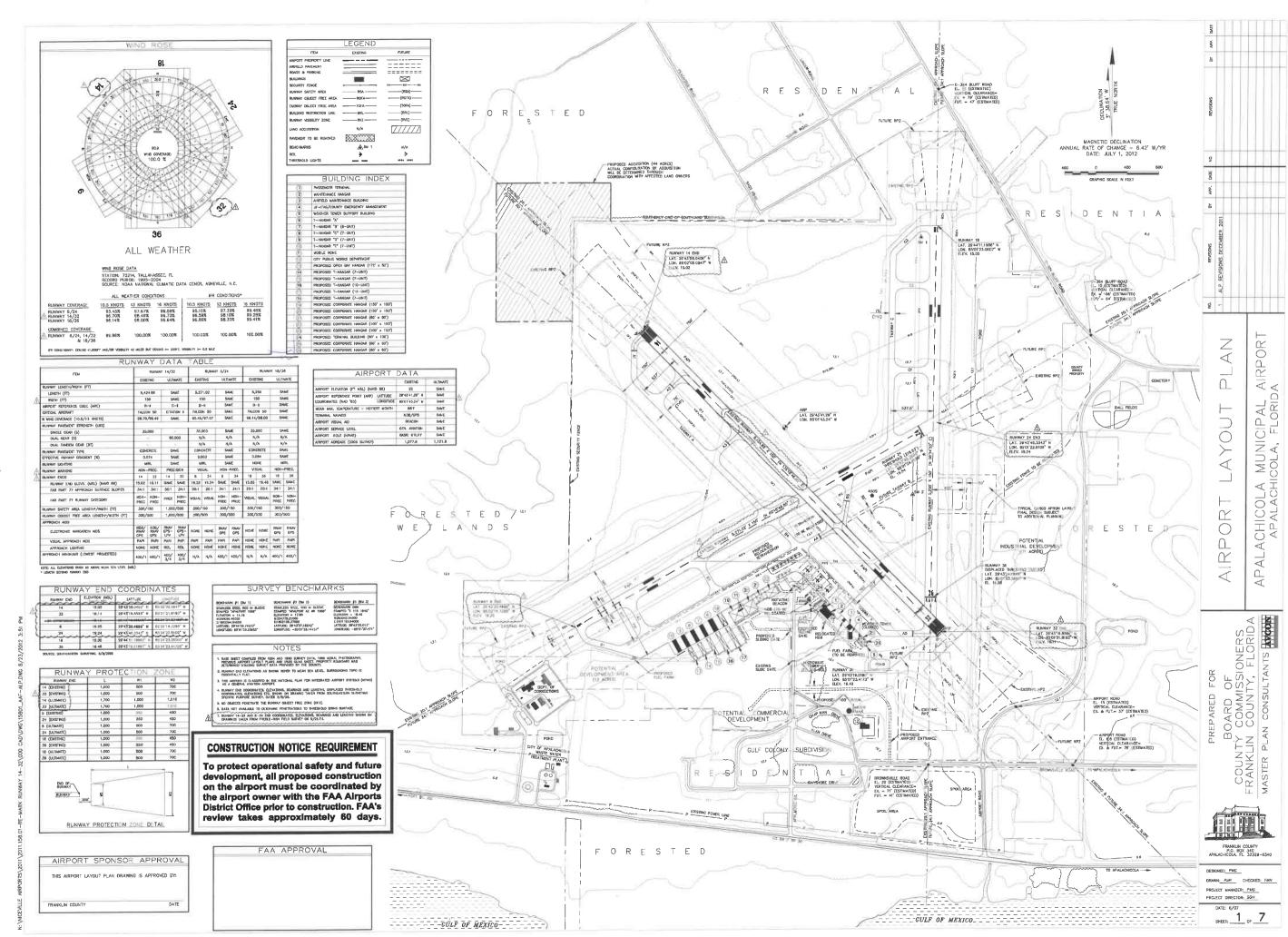
DIRECT DISTANCE TO POINT B (METERS): 1600.534

TRUE BEARING POINT A to POINT B: 180.3143 or 1801851.32

TRUE REARING POINT B to POINT A: .3142 or 1851.158

DO YOU WANT TO DO ANOTHER CALCULATION RETWEEN TWO POINTS (Y)es or (N)o? =
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