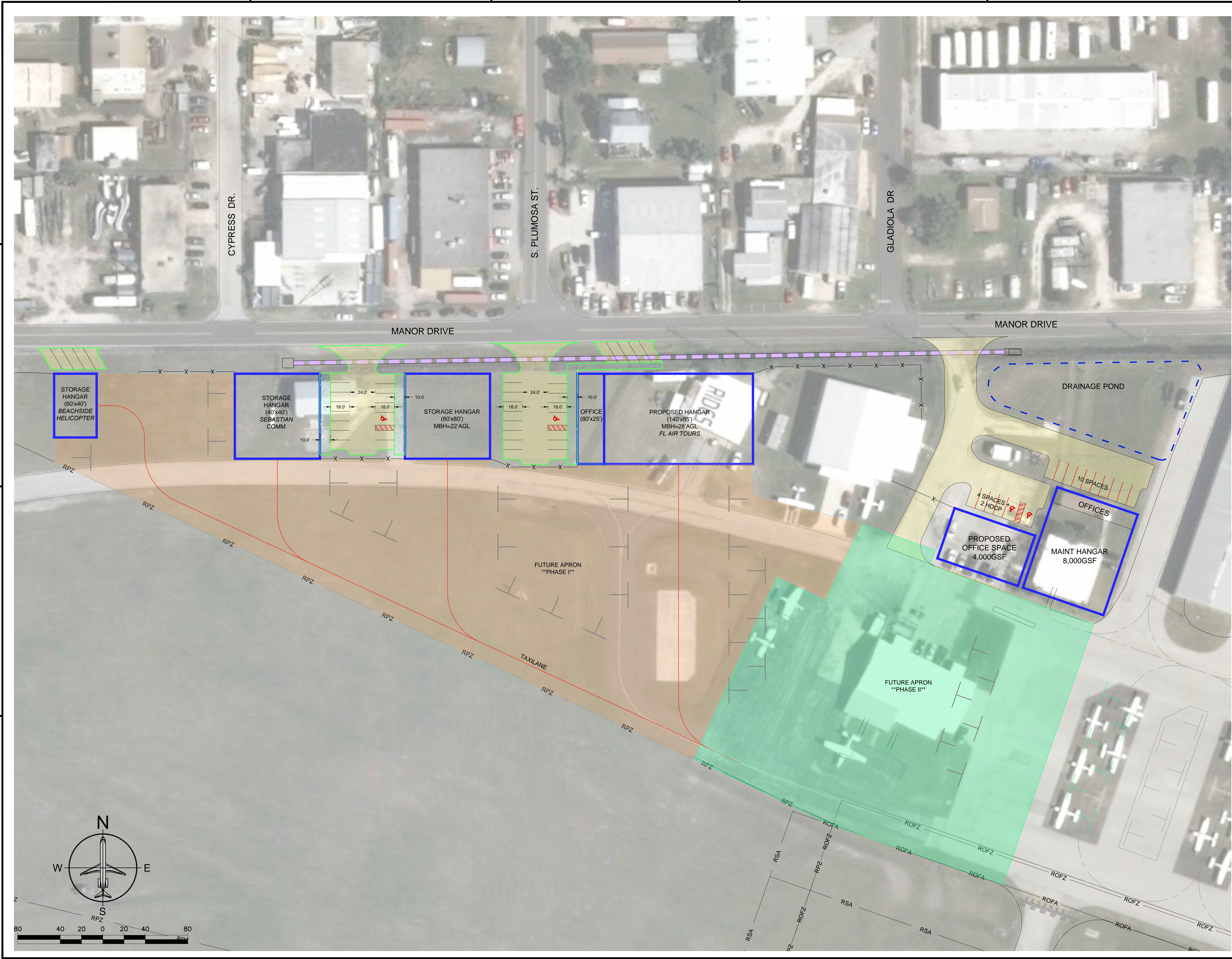


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Location: Y:\Projects\0-Airports\TICO-Titusville-Cocoa\_Apt\_Auth\95-Potential Projects\COI - NW Development Area\COI-General Aviation Build-Out Plan.dwg



MERRITT ISLAND AIRPORT

**Michael Baker INTERNATIONAL**  
12740 GRAN BAY PKWY W., SUITE 2110  
JACKSONVILLE, FLORIDA 32258  
PHONE: (904) 380-2500  
CORPORATE LICENSE NUMBER 28861

Engineer of Record:  
  
  
Additional Notes / Comments:

REVISIONS			
No.	Description	Date	By

Designed by: AM	Technician: AF	Checked by: AM
--------------------	-------------------	-------------------

Project Name:  
**NORTHWEST AREA DEVELOPMENT**

Drawing Name:  
**GENERAL AVIATION BUILD OUT PLAN**

Baker Project Number: EXHIBIT	Date: APRIL 2016
FAA AIP No:	Drawing Number:
FDOT FIN No:	<b>2</b>



# *PROJECT PHASING REPORT*

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## **NORTH SIDE PROPERTY AT MERRITT ISLAND AIRPORT**

*PREPARED FOR THE  
TITUSVILLE-COCOA AIRPORT AUTHORITY*



March, 2015

**Prepared by**

**Michael Baker International**  
5200 Belfort Rd | Suite 110 | Jacksonville, FL 32256  
Phone: (904) 380-2500 | Website: [www.mbakerial.com](http://www.mbakerial.com)

**Michael Baker**  
INTERNATIONAL

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Drawing by Others: .....	<b>Error! Bookmark not defined.</b>
“Northwest Hangars and Taxi lane” .....	<b>Error! Bookmark not defined.</b>

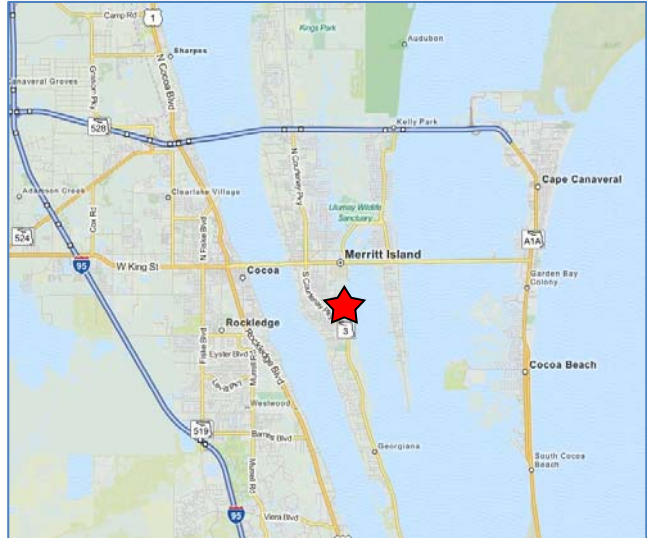
## Appendices

Appendix A – Airport Layout Plan dated 2010

## Airport History & Site Information

This Airport (COI) is located in Merritt Island, Florida. The Airport is owned and operated by the Titusville-Cocoa Airport Authority (TCAA).

The Airport's property consists of 136 acres, a single paved runway (Runway 11-29), parallel taxiways, apron parking, hangars, and two Fixed Base Operators (FBO's). The runway measures 3,601 feet in length and 75 feet in width, and primarily serves General Aviation (GA) aircraft. The runway is equipped with Medium Intensity Runway Lights (MIRL's), which consist of runway edge lights and runway threshold lights.



## Background

The TCAA completed its last Master Plan Update in March 2009. The update includes all of the development requested in this phasing plan. The last master plan update was completed more than 5 years ago and it should be updated to reflect changes to the advisory circulars and new planning objectives of the Airport.

## Site Visit and Observations

A site visit was conducted on February 10<sup>th</sup>, 2015 with Mr. Michael Powell (CEO-TCAA), Mr. Miguel Martinez (Architect-Baker) and Mr. Aaron McDaniel (Project Manager-Baker). During the site visit, a meeting was conducted with Mr. Mick Gosdin of Voyager Aviation to gather details of their current operations.

During the site visit, several important details of this side of the Airport were brought to our attention. A water main is located nearby and serviced by Brevard County. The Airport has an electrical vault and beacon established in this area, thus electrical needs can be met for future construction. However, there are also constraints because of the existing conduits that are already located throughout this area. There is no lift station or force main located nearby which forces all of the existing buildings to use septic tanks for sanitary purposes. The storm water facilities in this area are small and some of them were not permitted through the St Johns River

Water Management District according to some light research that was conducted following the site visit. There are security concerns due to wash outs under the fence where inadequate storm water facilities were constructed along that northern fence line.

Voyager Aviation is a flight school that is offering Fixed Base Operator (FBO) services. Additional services included conference areas for aviators and the local community, concessions for aviators and the local community, test proctoring for the local community and weather monitoring for aviators. The business also maintains their own aircraft in 3 smaller hangars with the largest current aircraft being a Twin Beach. Voyager has plans to expand services offered to include refueling operations on the north side of the Airport. They are also planning to expand their maintenance services to commercial maintenance services for the public once they have the proper facility.

This visit did not include any professional building surveys for any of the existing local hangars. However, the age of some of these facilities is almost certainly beyond the serviceable lifespan intended for the structures. Most of the facilities seem to be in very poor condition, especially the facilities that are included in this project phasing plan.

## **Project Phasing**

The ultimate goal of the North Side Development phasing is to provide FBO services to the north side of the airport, remove a building in the Part 77 surface, and provide facilities meeting the tenants needs. To effectively complete these tasks the following phases need to take place.

### **Phase 1: MB-4 Hangar and Office Space (Second FBO)**

The existing building houses Voyager Aviation. The demolition of this building needs to be phased into the construction of the new hangar and office space. The site will allow such phasing to take place with little interruption of services to the Public. The proposed scope of services includes design of 4,000SF of office space for FBO operations. It includes an 8,000SF maintenance hangar that will provide space for existing maintenance operations with the appropriate fire protection requirements. It also includes water main work that will meet current code and provide for fire protection and potable water needs. It includes design of a regional lift station and force main to accommodate development of this area. It includes a regional storm water plan and the construction of storm water facilities that support the Airport's operation safety and security. The storm water and utility work must be done in parallel with the first project awarded in order to meet the current requirements of this area.

### **Phase 2: Florida Bi-Planes Hangar**

Florida Bi-Planes (FBP) is currently in a small building that does not meet the needs of the tenant. The existing Airport Layout Plan (ALP) identifies a corporate hangar to replace this building with demolition of the existing building. The relocation of FBP will open the space requirements for the new Sebastian Communication Hangar.

### **Phase 3: Sebastian Communications Hangar**

The hangar that Sebastian Communications (SC) currently operates from is in very poor condition, it is beyond the building restriction line, in the RPZ of the 11 approach and it penetrates the approach surface. The construction of a new hangar in the appropriate location will resolve these issues. The Airport has determined in previous analysis by others that the appropriate size of this hangar should be nearly 70' by 70'. The ALP identifies a corporate hangar to be constructed. Upon relocation of SC the existing hangar will be demolished.

### **Phase 4: Apron Construction and Rehab**

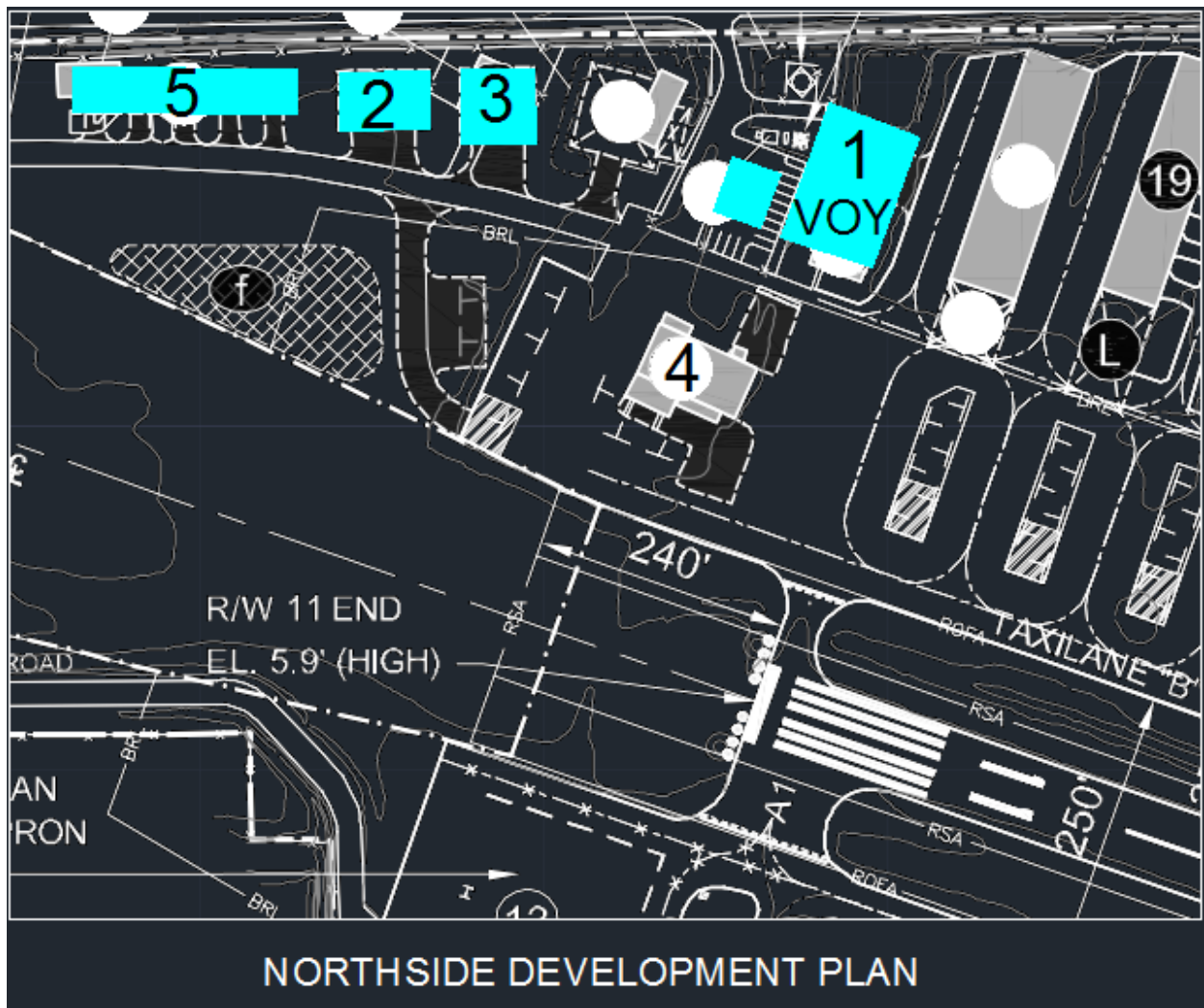
This project would provide construction of new apron in place of the demolished Sebastian Communications hangar and rehabilitation of adjoining pavements that are in poor condition. This project will serve the increasing public requirement for additional apron space near the Voyager FBO.

### **Phase 5: Box Hangar Development**

Merritt Island Airport currently has a waiting list for general aviation storage hangars that has 117 people in it as of September 2014. This project will provide a small relief to the list. The top person on the list has been waiting since 2008.

## **Appendix A**

### **Graphical Phasing Plan**





## **Appendix B**

**Airport Layout Plan (ALP)  
dated 2010**



**THE  
LPA  
GROUP**

**TRANSPORTATION CONSULTANTS**

ATLANTA, GA • BATON ROUGE, LA • CHARLESTON, SC  
CHARLOTTE, NC • CHICAGO, IL • COLUMBIA, SC  
GREENSBORO, NC • JACKSONVILLE, FL • KNOXVILLE, TN  
MOBILE, AL • ORLANDO, FL • RALEIGH, NC • RICHMOND, VA  
SARASOTA, FL • TALLAHASSEE, FL • TAMPA, FL  
• WEST PALM BEACH, FL

Designer:	
<b>DPN</b>	
Technician:	
<b>DPN</b>	
Checked by:	
<b>TF</b>	
Project Number:	
<b>PL377002</b>	

## NOTES

1. ALL ELEVATIONS BASED ON NAVD 88,  
ABOVE MEAN SEA LEVEL (AMSL)
2. EXIST. = EXISTING  
FUT. = FUTURE
3. ALL LATITUDE AND LONGITUDE  
COORDINATES BASED UPON STATE PLANE  
COORDINATES NAD 83; EAST FLORIDA 0901
4. RUNWAY 11-29 BRL INDICATES INNER LIMITS  
FOR A 17' HIGH BUILDING (23.0' MSL).
5. ANY PLANNED CONSTRUCTION OR  
ALTERATION, TEMPORARY OR PERMANENT,  
ON A PUBLIC USE AIRPORT OR HELIPORT  
REGARDLESS OF HEIGHT OR LOCATION MUST  
SUBMIT FAA FORM SF 7460-1, "NOTICE OF  
PROPOSED CONSTRUCTION OR  
ALTERATION". PERSONS FAILING TO COMPLY  
WITH THESE PROVISIONS ARE SUBJECT TO  
CIVIL PENALTY UNDER SECTION 902 OF THE  
FEDERAL AVIATION ACT OF 1968, AS  
AMENDED AND PURSUANT TO 49 U.S.C.  
SECTION 46301(A).

### CONSTRUCTION NOTICE REQUIREMENT

To protect operational safety and future development, all proposed construction on the airport must be coordinated by the airport owner with the FAA Airports District Office prior to construction. FAA's review takes approximately 60 days.

## REVISIONS

[illegible]

Project Name:

**Merritt Island Airport  
Merritt Island, FL  
Master Plan Update**

Drawing Name:

# AIRPORT LAYOUT PLAN DRAWING

FAA A.I.P. Project Number:

312001300152006

Autocad Drawing Reference:

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Date: \_\_\_\_\_

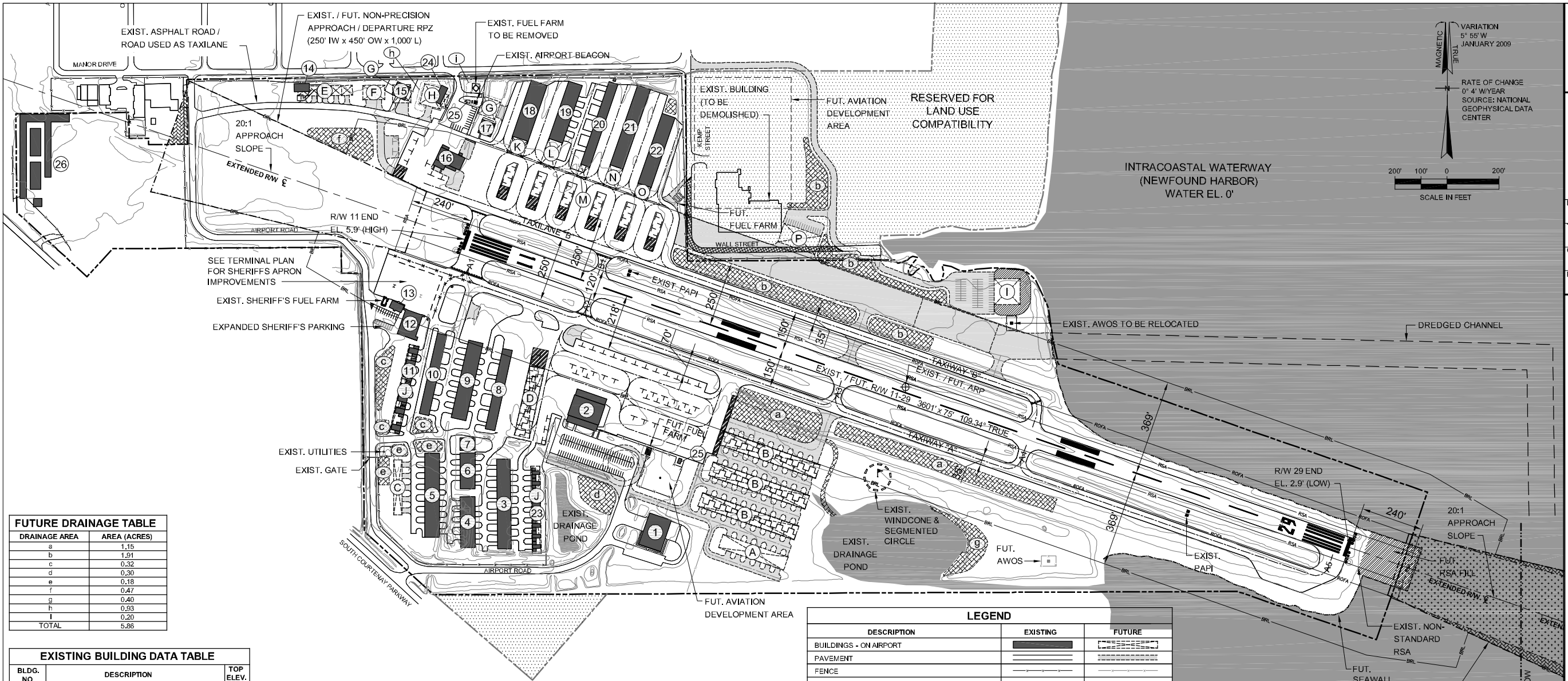
**March 2009**

Scale:

March 2009	Planning
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Scale:

**1" = 200'**



### FUTURE DRAINAGE TABLE

DRAINAGE AREA	AREA (ACRES)
a	1.15
b	1.91
c	0.32
d	0.30
e	0.18
f	0.47
g	0.40
h	0.93
i	0.20
TOTAL	5.86

### EXISTING BUILDING DATA TABLE

BLDG. NO.	DESCRIPTION	TOP ELEV.
1	FIRE STATION	±35'
2	SPACE COAST AVIATION (FBO) BAER AIR CHARTER	±32'
3	T-HANGARS (109-124)	±21'
4	CONDO HANGARS	±22'
5	CONDO HANGARS	±17'
6	CONDO HANGARS	±17'
7	CONDO HANGAR	±17'
8	T-HANGARS (11-20)	±17'
9	CONDO HANGARS	±17'
10	T-HANGARS (1-10)	±17'
11	LARGE PORT-A-PORTS (TO BE REPLACED)	±13'
12	SHERIFF'S HANGAR	±30'
13	CIVIL AIR PATROL BUILDING	±19'
14	MOSQUITO CONTROL (TO BE RELOCATED)	±20'
15	TOP FLIGHT SERVICES (TO BE RELOCATED)	±24'
16	SEBASTIAN COMMUNICATIONS (TO BE RELOCATED)	±22'
17	VOYAGER AVIATION INTERNATIONAL (TO BE RELOCATED)	±18'
18	T-HANGARS (81-98)	±22'
19	T-HANGARS (99-108)	±22'
20	T-HANGARS (21-30)	±22'
21	T-HANGARS (61-74)	±22'
22	T-HANGARS (75-86)	±22'
23	SMALL PORT-A-PORTS (TO BE REPLACED)	±15'
24	CIVIL AIR PATROL TRAILER (TO BE SOLD)	±12'
25	ELECTRICAL VAULTS	±12'
26	SELF STORAGE FACILITY	±24'

### FUTURE BUILDING DATA TABLE

BLDG. NO.	DESCRIPTION	TOP ELEV.
A	(6) 35' x 42' BOX HANGARS	20'
B	(3) 18 UNIT NESTED T-HANGAR	22'
C	(5) 35' x 42' BOX HANGARS	22'
D	11 UNIT NESTED T-HANGAR	22'
E	(4) 38' x 42' BOX HANGARS	23'
F	55' x 85' CORPORATE HANGAR	27'
G	70' x 70' CORPORATE HANGAR	27'
H	80' x 80' CORPORATE HANGAR AND OFFICE	27'
I	75' x 150' RESTAURANT & PATIO	33'
J	(8) 35' x 42' BOX HANGARS	22'
K	T-HANGAR EXPANSION	22'
L	T-HANGAR EXPANSION	22'
M	T-HANGAR EXPANSION	22'
N	T-HANGAR EXPANSION	22'
O	T-HANGAR EXPANSION	22'
P	75' x 150' SEAPLANE HANGAR	22'

**AIRPORT SPONSOR APPROVAL**

THIS AIRPORT DRAWING IS APPROVED BY:

(SIGNATURE)

DATE:

NAME: \_\_\_\_\_


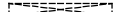





















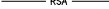








TITLE: \_\_\_\_\_

### RUNWAY DATA TABLE

	RUNWAY 11-29			
	EXISTING		FUTURE	
RUNWAY LENGTH	3,601'		SAME	
RUNWAY WIDTH	75'		SAME	
AIRPORT REFERENCE CODE	84'		SAME	
CRITICAL AIRCRAFT	PIPER NAVAJO		SAME	
TRUE BEARING	109.34° TRUE		SAME	
EFFECTIVE GRADIENT (%)	0.08%		SAME	
ROFA DIMENSIONS (RWY END)	250' x 240'		SAME	
OFZ DIMENSIONS (RWY END)	200' x 250'		SAME	
RUNWAY LIGHTING	MIRL		SAME	
PAVEMENT STRENGTH:				
SINGLE WHEEL GEAR (LBS)	22,000		12,500	
SURFACE COMPOSITION	ASPHALT		SAME	
PRIMARY SURFACE (FAR PART ??)	4,001' x 600'		SAME	
	RUNWAY 11		RUNWAY 29	
	EXISTING	FUTURE	EXISTING	FUTURE
APPROACH CATEGORY	NON-PRECISION	SAME	VISUAL	SAME
APPROACH SURFACE SLOPE	20:1	SAME	20:1	SAME
LINE OF SIGHT REQUIREMENTS	20:1	SAME	20:1	SAME
APPROACH MINIMUMS	1 MILE	SAME	1 MILE	SAME
TYPE OF APPROACH TO RUNWAY END	GPS	SAME	VISUAL	SAME
RUNWAY END COORDINATES				
LATITUDE (NAD 83)	28° 20' 35.665" N	SAME	28° 20' 23.852" N	SAME
LONGITUDE (NAD 83)	80° 41' 26.756" W	SAME	80° 40' 48.731" W	SAME
RUNWAY ELEVATION (NAVD 88)	5.9'	SAME	2.9'	SAME
TOUCHDOWN ZONE EL. (NAVD 88)	5.9'	SAME	5.4'	SAME
RUNWAY MARKINGS	NON-PRECISION	SAME	NON-PRECISION	SAME
NAVAIDS	PAPI	PAPI / REILS	PAPI	PAPI / REILS
RUNWAY PROTECTION ZONE:				
LENGTH	1,000'	SAME	1,000'	SAME
INNER WIDTH	250'	SAME	250'	SAME
OUTER WIDTH	450'	SAME	450'	SAME
ACRES	8,035 AC	SAME	8,035 AC	SAME
RSA DIMENSIONS (RWY END)	120' x 240'	SAME	120' x 60'	120' x 240'
DISPLACED THRESHOLD	NONE	SAME	NONE	SAME

\* SMALL AIRCRAFT EXCLUSIVELY (12,500 LBS. OR LESS)

### LEGEND

DESCRIPTION	EXISTING	FUTURE
BUILDINGS - ON AIRPORT		
PAVEMENT		
FENCE		
PROPERTY LINE		
SEAWALL	N/A	
RPZ		
PAVEMENT MARKINGS		
NAVAIDS		
RSA		
ROFA		
BRL		
REILS	N/A	
AIRCRAFT PARKING TO BE RELOCATED	N/A	
EXIST. CONTOURS		N/A
PAVEMENT TO BE REMOVED	N/A	
AVIGATION EASEMENT		
LAND ACQUISITION	N/A	
DRAINAGE IMPROVEMENTS	N/A	
FUT. RSA FILL	N/A	
THRESHOLD LIGHTS		

## MODIFICATIONS TO STANDARDS

DESCRIPTION	CRITERIA	STANDARD	REQUESTED	EXIST.	FAA APPROVAL
Separation Between Taxiway A Centerline & South Apron Aircraft Parking Area *	75'	AC 150/5300-13	60'	60'	SEPTEMBER 11, 1977

## AIRPORT DATA

DESCRIPTION	EXISTING	FUTURE
AIRPORT ACREAGE	136.14 AC	167.16 AC
SERVICE LEVEL (N.P.I.A.S.)	GENERAL AVIATION	SAME
AIRPORT REFERENCE CODE (ARC)	B-I*	SAME
AIRPORT ELEVATION (M.S.L.)	6.0'	SAME
MEAN MAX. TEMP. (HOTTEST MONTH)	91.0° F (JULY)	SAME
AIRPORT REFERENCE POINT (NAD 83) LATITUDE	28° 20' 29.800"	SAME
LONGITUDE	80° 41' 7.700"	SAME
MAGNETIC DECLINATION	5° 55' W	0° 4' W / YEAR
AIRPORT IDENTIFIER	COI	SAME
TAXIWAY LIGHTING	MILT	SAME
AIRPORT NAVAIDS	BEACON, GPS, NDB, LIGHTED WINDCONE, AWOS	BEACON, GPS, LIGHTED WINDCONE, AWOS, REILS

NOTE: EXIST. NDB TO BE DECOMMISSIONED

\* SMALL AIRCRAFT EXCLUSIVELY (12,500 LBS. OR LESS)

