



Chapter 2 Existing Conditions

The development of a Master Plan Update for Southwest Florida International Airport (RSW or the airport) necessitates the collection and evaluation of information relating to the airport and the surrounding areas. This information serves as the baseline for subsequent analyses. Information summarized in this chapter includes an inventory of the facilities, structures, and environment at the airport. Historical context provides insight into the evolution of the airport.

2.1 Airport Setting

Southwest Florida International Airport (RSW) is located in the southwestern portion of the state of Florida approximately 10 miles southeast of downtown Fort Myers and encompasses approximately 6,431 acres. The airport's reference elevation according to the Florida Department of Transportation (FDOT) Florida Airport Directory is 30 feet above mean sea level (MSL). The Airport's Reference Point (ARP) coordinates are latitude 26°32.170 N and longitude 081°45.310 W and the magnetic variation at the airport is 0.1 degree west according to January 2020 measurements. **Figure 2-1** depicts the general location of the Airport in relation to other major cities in the state.

The United States Department of Transportation publishes the National Plan of Integrated Airport Systems (NPIAS) approximately every two years with a planning horizon of five years. The NPIAS is submitted to Congress in accordance with Section 47103 of Title 49 of the United States Code and is utilized to define those airports that warrant federal investment. The current 2021-2025 NPIAS was published on September 30, 2020, and identifies 3,310 airports, including RSW, that are significant to national air transportation.



Figure 2-1 RSW Location Map

In the NPIAS, the role of each commercial service airport is identified as one of five basic service levels as seen in **Table 2-1**.

There are 519 commercial service airports throughout the United States. Of these, 396 have more than 10,000 enplanements and are classified as primary airports. RSW is designated by NPIAS as a Primary Medium Hub Airport.

RSW is also included in the FDOT's Florida Aviation System Plan (FASP) 2035 Update and is located in the Continuing Florida Aviation System Plan Process (CFASPP) Southwest Region. RSW is supported by FDOT District 1.

Table 2-1 Categories of Airport Activities		
Statutory Definition	Criteria	Also referred to as:
COMMERCIAL SERVICE		
Publicly owned airports with at least 2,500 annual enplanements and scheduled air carrier service. Primary airports are a commercial service airport with more than 10,000 annual enplanements.		
Large Hub	Receives 1% or more of the annual U.S. commercial enplanements	Primary
Medium Hub	Receives 0.25% to 1.0% of the annual U.S. commercial enplanements	Primary
Small Hub	Receives 0.05% to 0.25% of the annual U.S. commercial enplanements	Primary
Non-Hub	Receives less than 0.05% but more than 10,000 of the annual U.S. commercial enplanements	Primary
Nonprimary commercial Service, Non-hub	Also referred to as non-hub nonprimary, these airports have scheduled passenger service and between 2,500 and 10,000 annual enplanements	Nonprimary
RELIEVER		
An airport designated by the Secretary of Transportation to relieve congestion at a commercial service airport and to provide more general aviation access to the overall community		Nonprimary
GENERAL AVIATION		
A public-use airport that does not have scheduled service or has scheduled service with less than 2,500 passenger boardings each year		Nonprimary

SOURCE: FAA, *Airport Categories*, 2021

Locale

All of the property comprising RSW is located within unincorporated Lee County. The airport occupies approximately 6,431 acres of land and is located south of Daniels Parkway, east of Interstate 75 and Treeline Avenue and north of Alico Road.

The airport is owned by Lee County and operated by the Lee County Port Authority (LCPA). Lee County includes some of the fastest-growing cities in the region, including Fort Myers, Cape Coral, Bonita Springs, and Fort Myers Beach. Additionally, the popular tourist destinations of Sanibel and Captiva Islands are located in the county. Lee County is bordered by Charlotte County to the north, Hendry County to the east, Collier County to the south and the Gulf of Mexico to the west. In 2019, the year before the COVID-19 pandemic, the airport handled 10,225,180 passengers.

RSW is the primary commercial airport in Southwest Florida, with Punta Gorda Airport having a more limited commercial role (**Figure 2-2**). In 2019, RSW ranked 43rd in the United States based on enplanements and 5th in Florida, accounting for 5.27% of enplanements in the state. In 2020, RSW maintained its 5th place position in Florida, but moved up in the national ranking to 36th in terms of passenger enplanements, despite the effects of the COVID-19 pandemic on the aviation industry. RSW also fared better in 2020 as compared to other Florida airports, representing 6.84% of all enplanements in Florida.

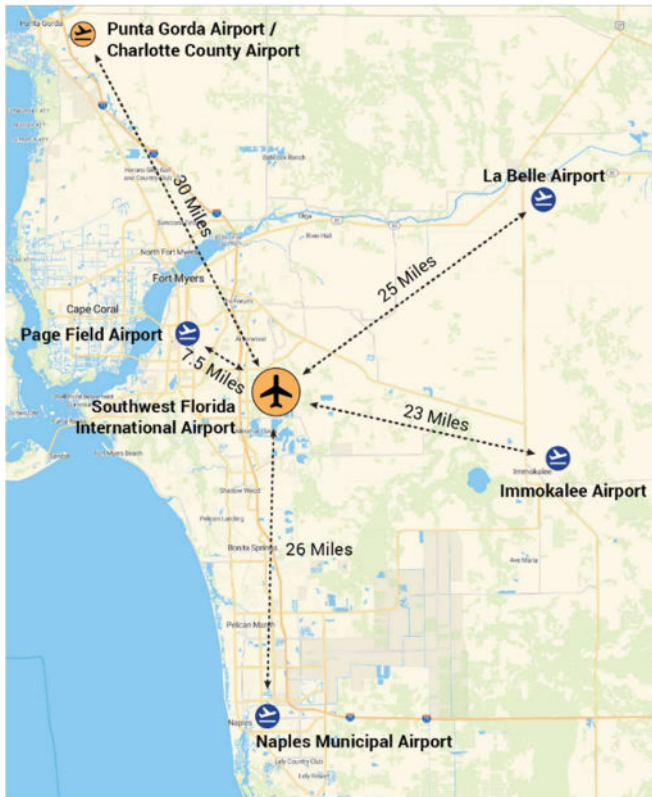


Figure 2-2 RSW Local Area Map

RSW was the nation's first new airport built since the opening of the Dallas/Ft. Worth Regional Airport in 1974. It was also the first airport to be built in compliance with National Environmental Protection Association (NEPA) regulations.

The airport officially opened on Saturday, May 14, 1983. With the opening of Southwest Florida Regional Airport, all air carrier and commercial operations were relocated to the new airport, relegating Page Field (FMY) to a "reliever airport" role.

On August 11, 1987, the Lee County Board of County Commissioners implemented the provisions of Chapter 63-1541, Laws of Florida, by adopting Lee County Resolution No. 87-8-9, creating the Lee County Port Authority as a body corporate to operate the two County airports, Page Field and Southwest Florida International Airport (then known as Southwest Florida Regional Airport). The Resolution was subsequently adopted as an ordinance, to be known as the Lee County Port Authority Ordinance, Lee County Ordinance No. 90-02, later repealed and replaced by Lee County Ordinance No. 01-14. The Board of Port

Commissioners is made up of county commissioners who set policy and direct operations for the airports. The role of the Airports Special Management Committee is to serve in an advisory role to the Board of Port Commissioners. Each Commissioner appoints one member to the Airports Special Management Committee; plus one representative is selected from Collier County and one from Charlotte County. The Lee County Port Authority, the Board of Port Commissioners and the Airports Special Management Committee is the political structure that oversees the airport today.

Airport History

Air carrier service has been available in some form in the Fort Myers/Southwest Florida area since 1937. After World War II, the U.S. Army Air Corps' Fort Myers training base (named Page Field in commemoration of World War I hero Captain Channing Page) was decommissioned and turned over to Lee County. For approximately 50 years, Page Field offered local area residents and visitors a full-service air transportation facility as the original commercial airport for Fort Myers. However, it was also recognized during this time that Page Field had limited space to meet expansion requirements for commercial jet aircraft operations and increased passenger volumes.

The 1972 State of Florida Aviation System Plan documented Page Field's limitations and recommended that a new air carrier facility be constructed. This plan also stated that the new airport should be adequate to serve the Southwest Florida region encompassing Lee, Collier, Charlotte, Glades, and Hendry counties. Shortly thereafter, a five-county advisory group was established to select a suitable site for the new aviation facility.



Page Field (FMY)

SOURCE: Lee County Port Authority



Original 1983 Terminal under construction

SOURCE: Lee County Port Authority



Original 1983 Terminal after opening

SOURCE: Lee County Port Authority

In 1988, to accommodate increasing passenger demand, the original terminal was expanded by extending Concourse B and enlarging the terminal apron.

While the airport had served international passengers primarily traveling on Canadian charter flights since 1984, in the late 1980s LCPA initiated an expansion program to facilitate the airport accommodating nonstop transcontinental, as well as transatlantic international flights. As the numbers of foreign visitors soared, RSW officials petitioned the U.S. government to construct a Federal Inspection Station (FIS) at RSW to provide Customs, Immigration, Public Health and Agriculture services. An agreement was reached that the FIS would be a user-fee facility supported by airport operations revenue and, on December 20, 1993, the RSW FIS opened.

By 1992, two projects crucial to the international air carrier traffic initiative were underway. In the summer of 1992, work began to extend Runway 6-24 from 8,400 feet to 12,000 feet. This additional runway length allowed aircraft operating from RSW to increase fuel loads, thereby increasing flight ranges to transcontinental and international-transatlantic distances. The \$20 million runway project was completed in the fall of 1994. In November 1992, construction began on a 48,211-square-foot terminal addition that would house expanded FIS facilities and additional passenger ticketing and waiting areas. The expanded and improved facilities, together with the runway extension, proved to be the catalyst for RSW to enter, initially by charter operations, into new international passenger and cargo markets.

In 1993, the new name of Southwest Florida International Airport was selected to reflect the emerging international status of RSW. This new name became official on May 14, 1993, which coincidentally marked the 10-year anniversary of the official opening of the



airport. In the late 1990s, sustained passenger and aircraft operation increases at RSW necessitated further terminal expansion and expansion of Concourse B, which was completed in 1998.

In order to meet the ever-growing demand at the airport, multiple planning, design and construction projects were initiated in the early 2000s. In February 2002, construction began on a new Midfield Terminal Complex to replace the existing terminal, which in spite of multiple expansions, was experiencing a capacity limit and a degraded passenger experience. The new terminal opened on September 9, 2005, with three concourses serving 28 aircraft gates. The terminal plan has the possibility to add two additional concourses to provide a total of 65 gates.

The new terminal was constructed to the south of the existing runway to be centrally placed between the existing and future parallel runway. In 2015, a new airport interchange was completed that directly connects RSW to I-75.

In 2016, a new Aircraft Rescue & Fire Fighting (ARFF) station was inaugurated opposite the terminal. A new Airport Traffic Control Tower (ATCT) was built and is currently undergoing testing and certification and will begin operations in 2022. Both the ATCT and the ARFF facility are centrally located to support the future airfield.



New Midfield Terminal

SOURCE: Lee County Port Authority



Future Airport Traffic Control Tower

SOURCE: Lee County Port Authority

2.2 Climate

Weather conditions play an important role in the planning and development of an airport. Temperature, along with other operating parameters, is an important factor in determining runway length. Wind direction and speed are essential in determining optimum runway orientation. The percentage of time rain and/or fog impairs or restricts visibility at an airport is a major factor in determining the need for aircraft navigational aids and runway lighting systems.

RSW is situated in the subtropical Southwest Florida climate, located approximately 13 miles from the Gulf of Mexico. The region is often influenced by the maritime air masses that move inland. Typical summertime weather conditions include daily afternoon thunderstorms caused by rapid convective heating exacerbated by high temperatures and excessive humidity. Based on 10-year meteorological data (2011-2020), RSW operated in Instrument Meteorological Conditions¹ (IMC) and Visual Meteorological Conditions (VMC)² 9.45% and 90.55% of the time, respectively.

Temperature

Temperature is one of the most important factors affecting aircraft performance. The direct impact of high temperatures is a marked increase in runway take-off distance requirements. Temperatures at RSW generally range from the low 60s Fahrenheit (F) in the winter to the low 90s (F) in the summer. Winters are typically mild, with many bright, warm days and

¹ IMC occur when the prevailing visibility is less than 3.0 statute miles or the cloud ceiling is lower than 1,000 feet above ground level (AGL).

² VMC occur when the prevailing visibility is greater than or equal to 3.0 statute miles and the cloud ceiling is 1,000 feet AGL or higher.

moderately cool nights. Occasional cold snaps bring temperatures in the 30s (F) but only rarely do temperatures drop into the 20s (F). However, light frost and minor freeze conditions do occur in the rural-inland areas a few times each year. In the summer, temperatures have reached 100 degrees (F), but these occurrences are rare. According to metrological data compiled by National Oceanic and Atmospheric Administration (NOAA), August is the hottest month of the year at RSW with an average maximum temperature of 92 degrees (F) and a mean temperature of 83 degrees (F). During the winter, RSW experiences the coldest average temperatures during the month of January, which has an average low temperature of 54 degrees (F) and a mean temperature of 65 degrees (F).

Precipitation

Precipitation occurs during all seasons in Southwest Florida, although rainfall is more abundant during the summer months. June, July, and August account for an average of 9.76 inches of rainfall per month at RSW. The driest months are January, February, November, and December with an average of only 1.94 inches of rainfall during each of these months. The average annual rainfall for the RSW station is 58.6 inches (2011-2020, Source: National Center for Environmental Information).

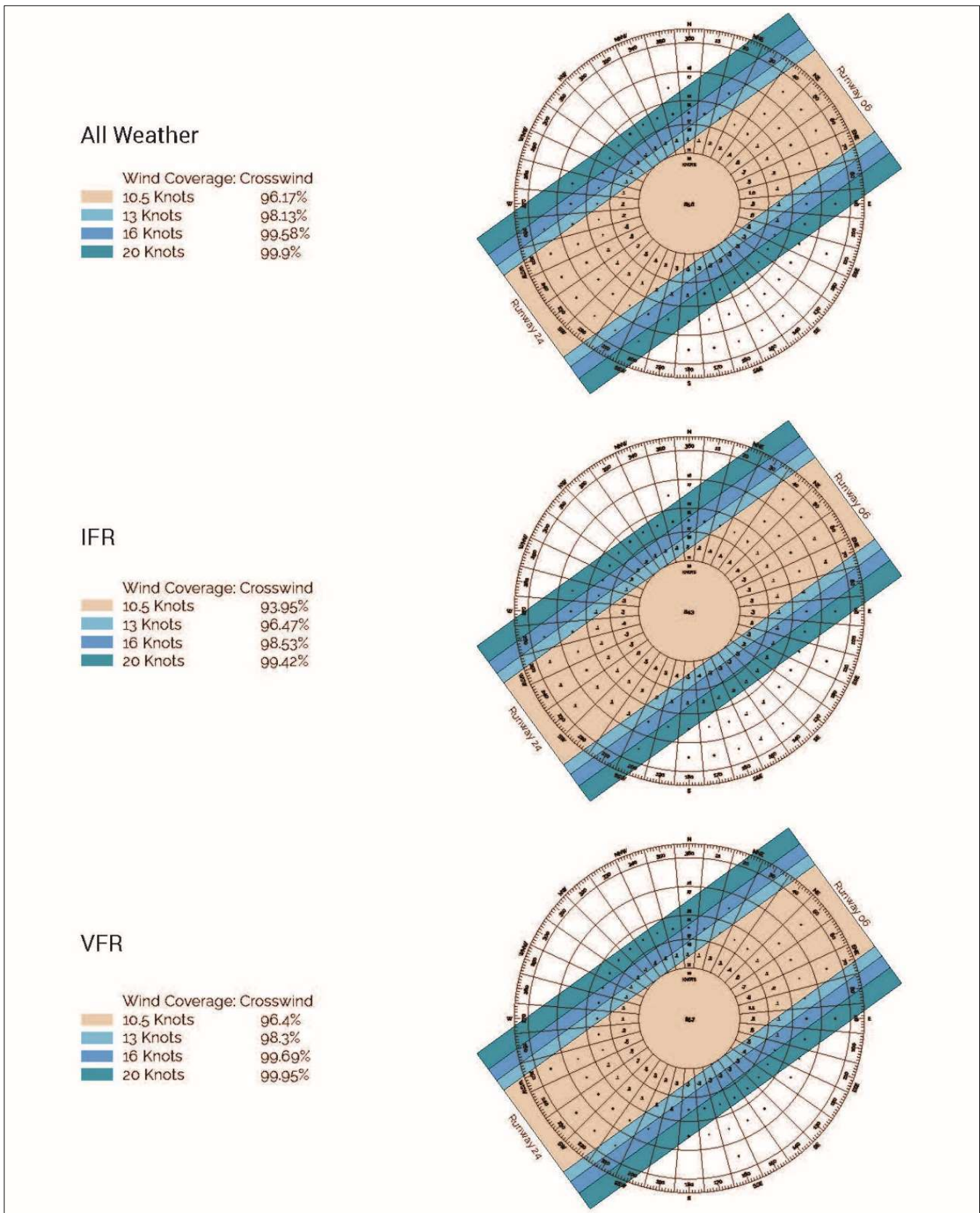
The amount of precipitation experienced by any airport impacts aircraft operations because of reduced braking action on wet runways and limited ceiling and visibility during storm conditions. About two-thirds of the annual precipitation in Fort Myers occurs during June through September. There are frequent long periods during the winter when only very light, or no rain falls. Most of the summer rain occurs during late afternoon or early evening thunderstorms. Although these showers seldom last long, they can yield large amounts of rain. During late summer and early fall, the Fort Myers area may experience rainfall from tropical depressions, tropical storms, or hurricanes nearby. These storms can result in heavy downpours. Totals of 6 to over 10 inches of rainfall within a 24-hour period have been recorded. Thunderstorms can occur at any time of the year but are typically infrequent from November to April. However, from June through September, thunderstorms occur every two out of three days on average. Heavy fog is rather infrequent and mainly confined to winter mornings.

Wind

Wind is a primary factor that influences the runway orientation and can subsequently affect runway capacity. Under ideal conditions, aircraft takeoffs and landings are determined by the prevailing winds and are conducted on the runway that provides the most head wind to operating aircraft. The Federal Aviation Administration (FAA) recommends that the runway orientation provided achieve 95% wind coverage. Wind coverage for a given runway is that percentage of time when the crosswind component is below an acceptable velocity. The crosswind component can be defined as the maximum permissible wind velocity occurring at right angles (or 90 degrees left or right) of the heading of a landing or departing aircraft. This is calculated by using a 10.5-knot (12-mile-per-hour [mph]) maximum crosswind component for the smaller, lighter aircraft, while a 13-knot (15 mph) and 16-knot (18 mph) maximum cross wind component is utilized for the larger jet aircraft. When carrying out an evaluation of this type, the FAA suggests that historical weather information for a period of at least five (ideally 10) years be used for determining runway wind coverage.

Using data provided by the National Climatic Data Center, wind conditions were analyzed for a 10-year period from 2011-2020. The orientation of Runway 6-24 provides 98.13% coverage at 13-knots under all weather conditions and 96.47% under IMC. For comparison purposes, more typical of air carrier airports, a crosswind component of 16-knots was analyzed and resulted in coverage of 99.58% for all weather conditions and 98.53% for Instrument Flight Rules (IFR) conditions.

Figure 2-3 graphically displays the All Weather Wind Rose for 10.5-, 13-, 15-, and 20-knot crosswind components based on combined weather conditions. Figure 2-3 also displays the Visual Flight Rules (VFR) Wind Rose and IFR Weather Wind Roses. Each segment of the wind rose represents a wind direction and speed grouping based on a percentage of the total recorded hourly observations for the Airport.



SOURCE: FAA Airport Data and Information Portal, RSW Weather Station 722108 1022-2020, data gathered 9/2021

Figure 2-3 RSW Wind Roses

2.3 Airfield

Airfield Overview

The airfield was developed in two phases (with several sub-phases), largely in line with the construction of the passenger terminal facilities:

- 1983-2005: North Terminal
- 2005-Present: Midfield Terminal

Unlike many commercial airports, the airfield has relatively few external constraints in the form of urban encroachment which allows the Airport to operate without displaced thresholds, declared distances, or modifications of standards to meet FAA design criteria with regards to runway and taxiway safety areas and centerline separation.

The FAA classifies aircraft by Airplane Design Group (ADG) based on a combination of wingspan and tail height as summarized in **Table 2-2**. During initial planning for RSW, larger aircraft design requirements were used to allow flexibility for larger ADG-IV and ADG-V aircraft to operate.

The critical aircraft category used in the previous master plan and in subsequent studies was an ADG-V such as the Boeing 747 or Airbus A330/340. A more detailed discussion about the critical aircraft is provided in the "Facility Requirements" section of this plan.

Table 2-2 FAA Airplane Design Group (ADG) Categories

ADG	Tail Height (ft.)	Wingspan (ft.)	Example Aircraft
I	< 20'	< 49'	C-172, C-208
II	20' to < 30'	49' to < 79'	CRJ-200 E-145
III	30' to < 45'	79' to < 118'	E-170/175/190, B737, A320
IV	45' to < 60'	118' to < 171'	B757, B767, MD-11
V	60' to < 66'	171' to < 214'	A330, A340, A350, B747*, B787, B777*
VI	66' to < 80'	214' to < 262'	B747-8*, A380

SOURCE: FAA, *Advisory Circular 150/5300-13A Change 1, 2/26/2014*

- * Boeing 747-100, -200, -300, -400 aircraft are ADG-V;
- Boeing 747-8i/f are ADG-VI;
- Boeing 777-8, -9 are ADG-V aircraft on taxiways and aprons and are ADG-VI on runways due to folding wingtips

Hot Spots and Airfield Geometry

An increased focus has been placed in recent years on mitigating areas of concern on airfields where airfield geometry could potentially lead to an incident such as a runway incursion. In 2014, the FAA issued an update to Advisory Circular (AC) 150/5300-13A "Airport Design" which placed a strong focus on promoting design practices that reduced possibilities of runway incursions. Existing airfields were analyzed to identify areas of high concern that had a history of potential risk. The areas with the highest risk are called "Hot Spots" and are identified to pilots on Airport Diagrams. The FAA strongly encourages airports to mitigate any hot spots or any other areas of concern through design changes.

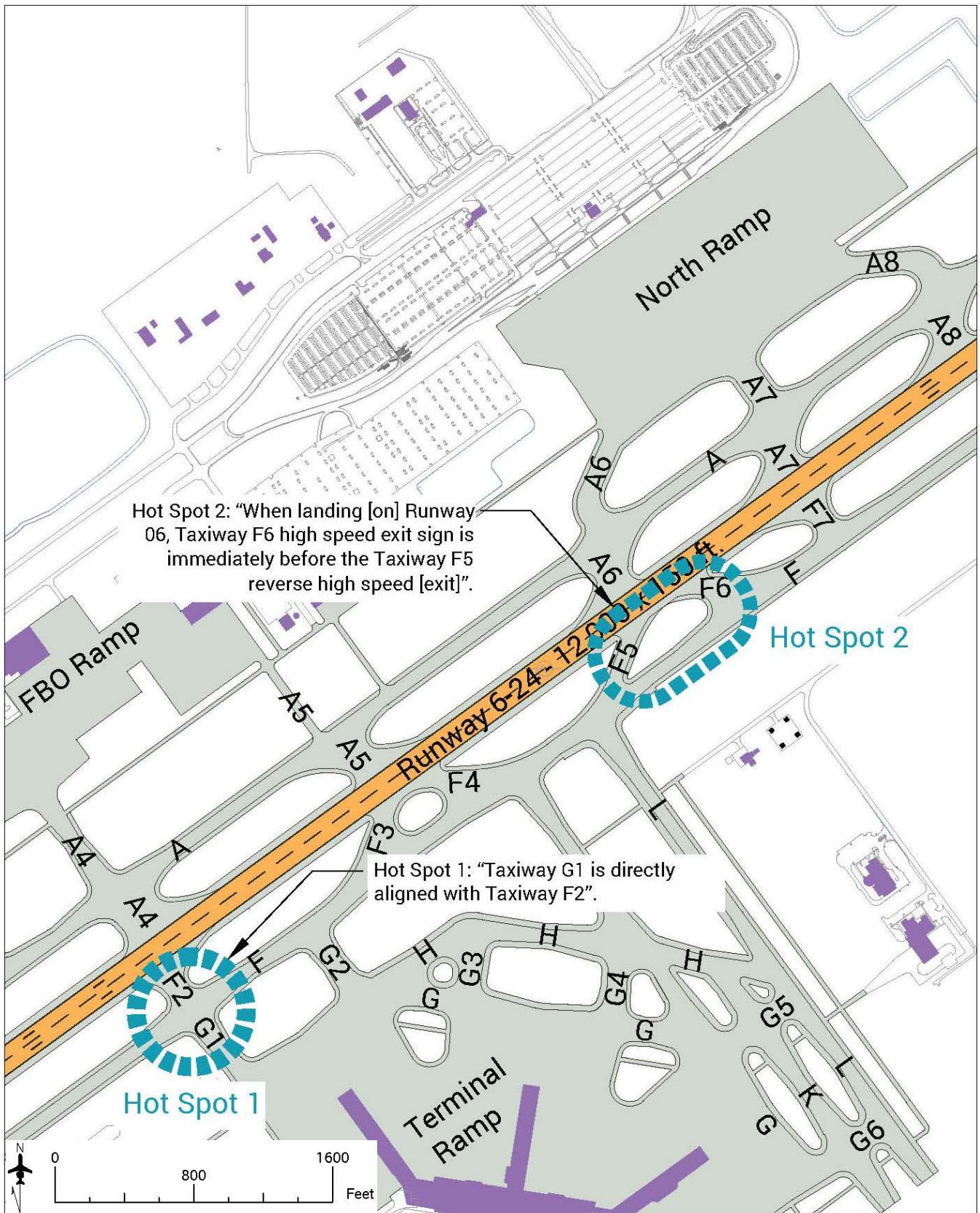
There are currently two identified hot spots at RSW described³ below and illustrated in **Figure 2-4**. Hot-spot 2 has been mitigated as part of an airside rehabilitation project, the hot spot mitigation portion was completed in July 2021 and the hot spot will be removed from the hot-spot list after FAA review:

- Hot Spot 1: "Taxiway G1 is directly aligned with Taxiway F2." This hot spot is in reference to avoiding direct access to or from an apron to a runway. It is recommended that access to the runway from an apron be indirect so that a pilot is forced to make a conscious maneuver prior to taxing onto a runway.

"A hot spot is defined as a location on an airport movement area with a history of potential risk of collision or runway incursion, and where heightened attention by pilots and drivers is necessary."

—FAA

³ SOURCE: FAA Airport Data and Information Portal



SOURCE: FAA, September 2021

Figure 2-4 RSW Hot Spots

- Hot Spot 2: “When landing [on] Runway 6, Taxiway F6 high-speed exit sign is immediately before the Taxiway F5 reverse high-speed [exit].” This hot spot references the position of a runway exit sign that precedes a reverse high-speed exit instead of the high-speed exit taxiway it is identifying. This could lead a pilot to attempt to use the reverse high-speed exit instead of the high-speed exit intended.

Efforts are underway at RSW to address these hot spots, and a more detailed discussion on the mitigation strategy is in the Alternatives Analysis section of this Plan.

Airfield Pavement Condition

FDOT conducts airfield inspections for Florida’s public-use airports and publishes a Statewide Airfield Pavement Management Program (SAPMP) reports on a rotating three-year cycle. The last inspection conducted for RSW was in November 2018 and the results are published in the November 2019 SAPMP. The airport also conducted an in-depth pavement condition study in January 2018. Both the FDOT study and the airport-funded study can be found in Appendix A and Appendix B, respectively. It was determined that while the majority of the airfield was either considered to be in fair, satisfactory, or good condition; there were certain sections of the airfield that required rehabilitation.

Figure 2-5 is a composite map showing the results of the FDOT November 2018 SAPMP inspection as well as pavement rehabilitations that have been conducted since the 2018 SAPMP inspection.

Runway

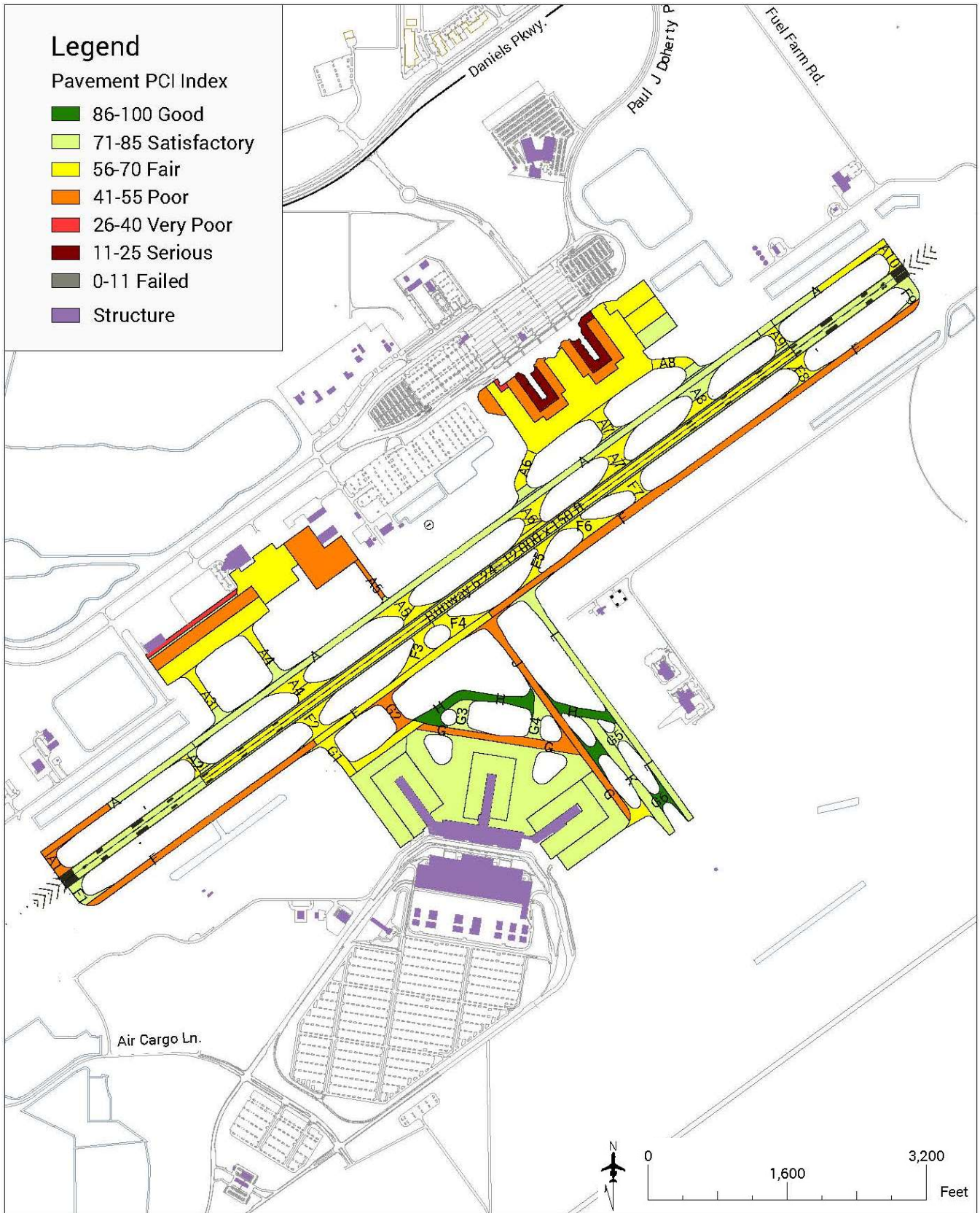
Currently, there is only one runway at RSW. Runway 6-24 is 12,000 feet long and 150 feet wide, constructed of asphalt concrete, and is grooved to help prevent aircraft hydroplaning when the runway is wet. The runway is equipped with high-intensity edge lights and centerline lights. In 1994, the runway was extended from 8,400 to 12,000 feet to accommodate the demand for larger, long-range aircraft associated with inter-continental and international-transatlantic flights. This 3,600-foot runway extension permitted aircraft originating at RSW to operate nonstop flights from Fort Myers, Florida to many destinations in Europe and Canada. Runway 6-24 is considered to be in good condition overall. The runway last underwent rehabilitation in 2007. Taxiway A was used as a temporary runway during the Runway 6-24 rehabilitation. The estimated gross pavement weight bearing strength for Runway 6-24 is shown in **Table 2-3**.

Undercarriage Type	Weight (lbs.)
Single Wheel	120,000
Double Wheel	250,000
Double Tandem	538,000
Dual Double Tandem	1,045,000

SOURCE: FAA Airport Data and Information Portal

The pavement condition index (PCI) scores the condition of pavement at various locations on a 0-100 scale. The higher the score, the better the condition of the pavement. The last pavement condition inspection of Runway 6-24 was conducted in November 2018 with varying PCI findings ranging between 69 and 76 along the length of the runway. According to FAA standards, this range is mostly satisfactory with the exception of one area with a fair rating.

All Runway 6-24 markings and striping are considered to be in good condition and there are no close-in obstacles on either end of the runway.



SOURCE: FDOT, *District 1 Airfield Pavement Management Program Summary Report*, November 2019

Figure 2-5 Pavement PCI Index

Taxiways

Runway 6-24 is currently served by two full-length parallel taxiways. Prior to the opening of the Midfield Terminal, aircraft primarily used Taxiway A to access the runway and aircraft aprons (passenger terminal, cargo, and fixed-base operator (FBO)). A new south parallel taxiway, Taxiway F, was constructed, as well as crossfield taxiways and a terminal apron with access taxilanes to support the new terminal. Taxiway A now primarily serves cargo and general aviation traffic.

Most taxiways at RSW, whether from the first or the second phase of development, were designed with the capability to handle larger widebody aircraft (ADG-V) to allow for international trans-Atlantic or high-density domestic flights. Since the last master plan study, new aircraft have entered service that are primarily longer versions of existing aircraft. Though these aircraft share many of the same characteristics as the original shorter versions, their longer fuselage and wheelbase created ground maneuvering challenges with existing taxiway configuration standards. As a result, a new aircraft classification system was implemented in addition to the ADG classification for the purposes of taxiway design. The Taxiway Design Group (TDG) focuses on the landing gear configuration of aircraft to help determine taxiway pavement fillet requirements, each colored block in the table represents one section as reviewed by the FDOT consultant, their shapes and sizes can differ greatly.

There are seven categories of taxiways/taxilanes at RSW:

- Parallel: A parallel taxiway to a runway
- Runway connector: A taxiway that connects the runway to a parallel taxiway
- Highspeed exit: A taxiway used to exit a runway at a higher speed than a standard perpendicular runway connector. This type of exit helps reduce runway occupancy time.
- Apron connector: A taxiway/taxilane connecting a taxiway to an Apron
- Crossfield: A taxiway that is built to cross an airfield
- Terminal Area: A taxiway that serves to circulate aircraft in a terminal area
- Taxilane: Access to gates in the apron area in a non-movement area

Table 2-4 provides an inventory of the existing taxiway and taxilane system at RSW. The taxiway/taxilane type, aircraft (ADG/TDG) classification as well as the pavement condition are shown. Figure 2-5 provides a graphical depiction of pavement condition throughout the airfield.

PCI Index:	Failed	Serious	Very Poor	Poor	Fair	Satisfactory	Good
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Table 2-4 RSW Taxiway Inventory						
Taxiway	Width (ft.)	Length (ft.)	Type	ADG	TDG	Pavement Condition (Multiple sections)
A	75	11,715	Parallel	V	5	Good, Satisfactory, Fair, Serious, Failed
A1	102	269	Runway Connector	V	NS	Poor, Fair, Satisfactory, Good
A2	105	325	Runway Connector	V	NS	Fair, Satisfactory, Good
A3	78	765	Apron Connector	V	5	Fair, Satisfactory, Good
A4	277	398	Highspeed exit	V	NS	Satisfactory, Fair, Serious, Failed
A4	78	765	Apron Connector	V	5	Poor, Fair, Satisfactory, Good
A5	238	384	Highspeed exit	V	NS	Fair, Satisfactory, Good

Table 2-4 RSW Taxiway Inventory

Taxiway	Width (ft.)	Length (ft.)	Type	ADG	TDG	Pavement Condition (Multiple sections)				
A5	50	757	Apron Connector	III	NS	Green	Orange			
A6	195	384	Highspeed exit	V	NS	Yellow	Yellow	Yellow		
A6	104	625	Apron Connector	V	NS	Green	Green	Yellow		
A7	200	384	Highspeed exit	V	NS	Yellow	Yellow	Green	Yellow	Yellow
A7	150	434	Apron Connector	V	NS	Yellow	Green	Green	Green	Yellow
A8	195	384	Highspeed exit	V	NS	Yellow	Green			
A8	105	625	Apron Connector	V	NS	Green	Green	Yellow		
A9	105	325	Runway Connector	V	NS	Yellow	Green	Green		
A10	103	325	Runway Connector	V	NS	Dark Green				
F	75	11,715	Parallel	V	NS	Dark Green	Dark Green	Dark Green		
F1	117	307	Runway Connector	V	5	Green				
F2	130	330	Runway Connector	V	NS	Yellow				
F3	116	660	Highspeed exit	V	NS	Yellow				
F4	120	660	Highspeed exit	V	NS	Yellow				
F5	75	660	Highspeed exit	V	NS	Yellow				
F6	124	630	Highspeed exit	V	NS	Yellow				
F7	125	325	Runway Connector	V	NS	Yellow				
F8	130	325	Runway Connector	V	NS	Yellow				
F9	400	325	Runway Connector	V	NS	Green				
G	75	3,815	Terminal Area	V	5	Yellow	Orange			
G1	104	640	Apron Connector	V	5	Yellow				
G1		925	Taxilane			Green				
G2	100	640	Apron Connector	V	5	Dark Green				
G2		670	Taxilane			Green				
G3	127	580	Apron Connector	V	5	Green				
G3		590	Taxilane			Green				
G4	107	720	Apron Connector	V	5	Green				
G4		590	Taxilane			Green				
G5	125	680	Apron Connector	V	5	Dark Green	Green			
G5		650	Taxilane			Green				
G6	125	680	Apron Connector	V	5	Yellow	Dark Green			
G6		820	Taxilane			Green				
H	101	2,465	Apron Connector	V	5	Dark Green	Dark Green			
J	79	1,890	Crossfield	V	5	Green				
K	82	1,780	Crossfield	V	5	Green				
L	75	3,265	Crossfield	V	5	Green				

SOURCES: ESA Analysis, 2004 Master Plan Update, FDOT SAPMP Report District 1, LCPA

NOTES:

Taxiway widths are measured at the narrowest point for each taxiway. Taxiway widths are based on taxiway edge markings and do not include shoulders.

"NS" referenced in TDG means that the taxiway intersections do not meet current FAA standards for TDG fillets described in AC 150/5300-13A

Taxilanes do not have TDG fillet standards

Shoulders are 25' except portions of TW G, G1, G2, G3, G4, G5, H, J, K, and L, which are between 25' and 40'.

The colored blocks represent the PCI index for each pavement section surveyed by the FDOT consultant. Each section varies in size and configuration.

Aprons

There are five aprons used for aircraft parking at RSW:

- Terminal Apron: The Terminal apron entered service in 2005 at the same time as the Midfield Terminal.
- Cargo Apron: The cargo ramp entered service in 1990 and was expanded in 2004. Both taxiway entrances are capable of handling ADG-V type aircraft.
- FBO Apron: The Fixed Base Operator (FBO) ramp was built in 2000 and used by PrivateSky, the sole FBO operator at RSW.
- General Aviation Apron: The General Aviation ramp was part of the original airport built in 1983 and served as the FBO ramp until the new FBO ramp was constructed in 2000.
- North Apron: The North Apron was originally used as terminal apron when the airport opened in 1983. Since the opening of the new Midfield Terminal in 2005, the North Ramp is used as parking for cargo carriers and irregular operations. The footprint of the original terminal remains unpaved and the paved area immediately adjacent is no longer used and is inaccessible to aircraft due to fencing.

Table 2-5 inventories the apron areas in more detail. Figure 2-5 provides a graphical depiction of pavement condition.

PCI Index:	Failed	Serious	Very Poor	Poor	Fair	Satisfactory	Good
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Table 2-5 RSW Apron Inventory							
Apron	Area (square feet)	Pavement Type	Pavement Condition (Multiple sections)				
Terminal Ramp	2,592,924	AC/PCC	Good	Good	Good	Good	Good
Cargo Ramp	620,219	AAC/AC/PCC	Good	Good	Good	Good	Good
GA Ramp	306,945	AC	Poor				
North Ramp	1,811,062	AC/PCC	Poor	Fair	Poor	Serious	Fair
FBO Ramp	309,375	AC	Fair				

SOURCES: ESA Analysis, 2004 Master Plan Update, FDOT SAPMP Report District 1, LCPA
AAC: Asphalt overlay over asphalt concrete, AC: Asphalt concrete, PCC: Portland cement concrete
The colored blocks represent the PCI index for each pavement section surveyed by the FDOT consultant. Each section varies in size and configuration.

2.4 Navigational Aids

Airport navigational aids (NAVAIDs) are equipment that support the safe and efficient movement of aircraft on- and in the vicinity of an airport. For the purposes of this discussion, the NAVAIDs are classified as visual aids, electronic aids, or meteorological aids. The NAVAIDs at RSW are depicted in **Figure 2-6** and summarized in **Table 2-6**.

Visual Approach Aids

Airport Rotating Beacon

An airport rotating beacon provides long-range visual identification of an airport by projecting alternating green and white lights on a rotating head spaced 180 degrees apart. The RSW airport rotating beacon is located atop the ATCT cab. The ATCT and rotating beacon were under construction at the time this document was written. The rotating beacon will become operational in 2022.

Table 2-6 Navigational Aids

Item	Runway 6	Runway 24	Airport Wide	Associated Instrument Procedure
VISUAL APPROACH AIDS				
Airport Rotating Beacon ^a	—	—	Yes	—
Windcone	Yes	Yes	—	—
Segmented Circle/Windcone	—	—	Yes	—
Precision Approach Path Indicator (PAPI)	Yes	Yes	—	—
Medium Intensity Approach Light System with Runway Alignment Indicator Lights (MALSR)	Yes	No	—	—
Runway End Identifier Lights (REILs)	No	Yes	—	—
ELECTRONIC AIDS				
Glideslope (GS)	Yes	No	—	Runway 6 ILS
Localizer (LOC)	Yes	No	—	Runway 6 ILS, RNAV (GPS)
Middle Marker (MM)	Yes	No	—	Runway 6 ILS
Compass Locator at the ILS Outer Marker (LOM)	Yes	No	—	Runway 6 ILS
Runway Visual Range (RVR)	Yes – Touchdown	Yes – Rollout	—	Runway 6 ILS, RNAV (GPS) Runway 24 VOR/DME
VHF Omnidirectional Range with Collocated Tactical Air Navigation (VORTAC)	—	—	Yes	Runway 24 VOR/DME
Airport Surveillance Radar (ASR)	—	—	Yes	—
Remote Transmitter/Receiver (RTR) ^b	—	—	Yes	—
METEOROLOGICAL AIDS				
Automated Surface Observing System (ASOS)	—	—	Yes	—
Low Level Windshear Alert System (LLWAS)	—	—	Yes	—

SOURCE: FAA 5010 Master Record; RS&H, 2021

a. Replacement beacon is under construction. Anticipated operational date: 2022

b. New RTR facility under construction near the future ATCT. Anticipated operational date: 2022

Windcones and Segmented Circle

A windcone provides quick visual reference to the current general wind conditions (speed and direction) at an airport. A segmented circle is paired with an airport's primary windcone and provides visual indication of current airport operations such as active landing direction and traffic patterns. The RSW segmented circle and primary windcone are lighted and are located northeast of the Taxiway A/Taxiway A5 intersection, near the Runway 6-24 midpoint. Each runway end is also equipped with supplemental windcones (without segmented circle), generally aligned with the runway aiming point markings. The Runway 6 windcone is located north of Taxiway A, and the Runway 24 windcone is located south of Taxiway F.

Precision Approach Path Indicator

A PAPI is a light array that provides visual indication of an aircraft's vertical position relative to the designated glidepath while on approach. The PAPI system consists of four equally spaced lights located near the runway aiming point markings. Both runway ends are equipped with PAPI systems. The Runway 6 PAPI is located on the north side of the runway, 1,350 feet from the runway end and the Runway 24 PAPI is located south of the runway, 1,355 feet from the runway end.

Medium Intensity Approach Light System with Runway Alignment Indicator Lights

MALSRS is a type of Approach Lighting System positioned symmetrically along the extended runway centerline. Runway 6 is equipped with a MALSRS. The MALSRS configuration is a 2,400-foot system with light stations every 200 feet. The first 1,400 feet of the system is composed of steady burning white lights and the last 1,000 feet includes sequenced flashing runway alignment indicator lights. The system pairs with the ILS to help provide visual reference of the runway environment in low visibility conditions and help achieve the visibility minimums associated with a Category I (CAT-I) ILS.

Runway End Identifier Lights

Runway End Identifier Lights (REILs) consist of flashing white lights installed at the approach end of the runway. The lights enable pilots to visually identify the runway end while the aircraft is on approach. The Runway 24 end is equipped with REILs.

Electronic NAVAIDS

Global Positioning System/Wide Area Augmentation System

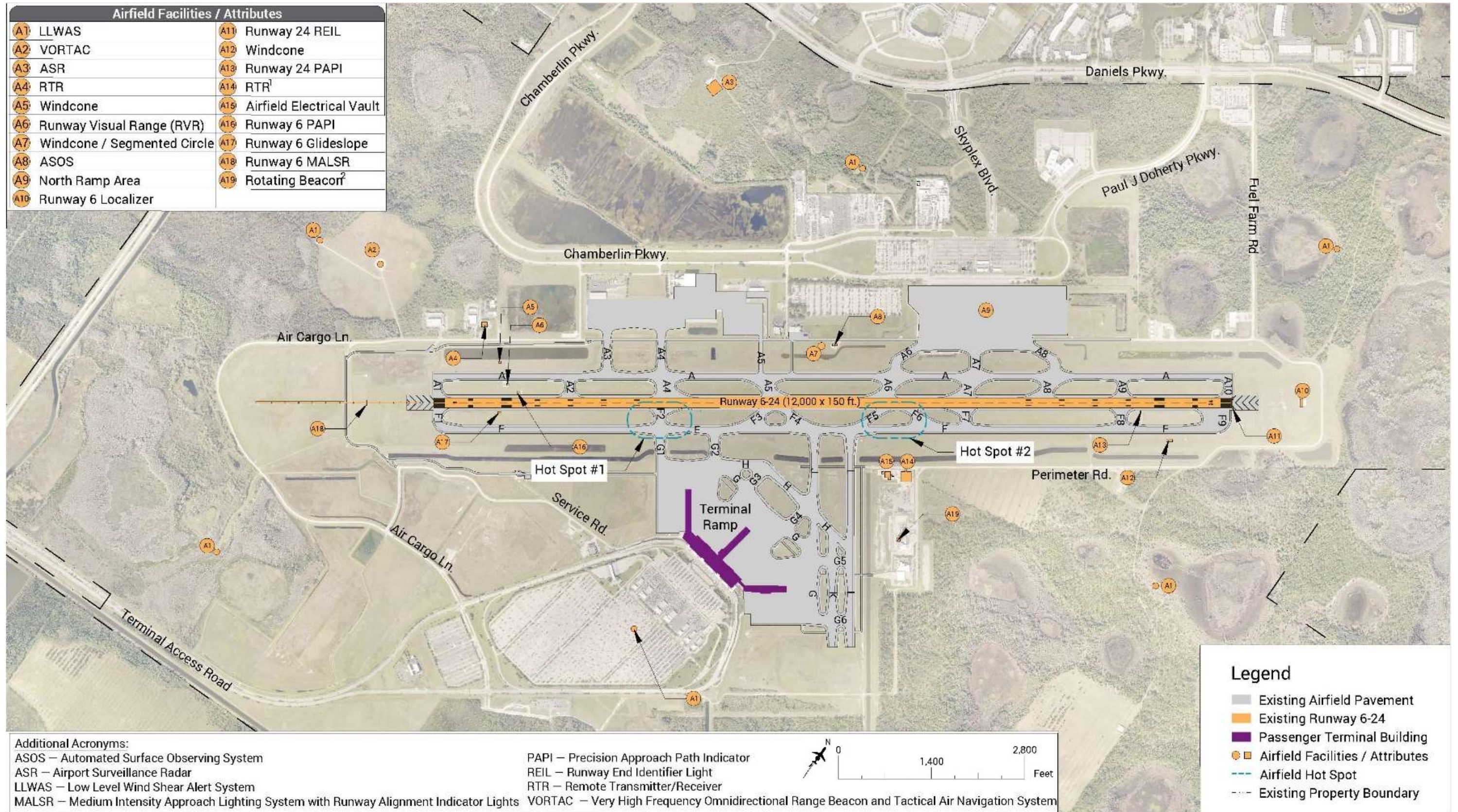
Global Positioning System (GPS) is a constellation of satellites used to identify aircraft location and velocity on a continual basis. This capability can serve aircraft while on approach to land using Area Navigation (RNAV) procedures based on input data from the GPS. RNAV instrument approach procedures are in place for approaches to Runway 6 and Runway 24. These RNAV instrument approach procedures replace less accurate procedures using ground-based Non-Directional Beacons (NDB). Both RNAV approaches are LPV approaches (Localizer Performance with Vertical guidance) which take advantage of the refined accuracy of Wide Area Augmentation System (WAAS).

The WAAS is a navigation system that provides horizontal and vertical guidance to aircraft on all phases of flight—including enroute navigation, airport departures, and airport arrivals. The WAAS provides a greater level of accuracy (similar to Category I ILS capabilities) to aircraft by supplementing data received from GPS satellites with location and velocity information of the aircraft relative to surveyed, ground-based equipment. The ground-based equipment—referred to as Wide Area Reference Stations—are widely spaced around the National Airspace System (NAS). There are no WAAS Area Reference Stations on or in the immediate vicinity of the Airport.

Instrument Landing System

Runway 6 is equipped with an Instrument Landing System (ILS). The Runway 6 ILS includes four elements—a glideslope (GS), localizer (LOC), Middle Marker, and Compass Locator at the ILS Outer Marker (LOM).

- A GS provides pilots with electronic guidance of descent gradient and vertical positioning relative to the runway end elevation while the aircraft is on approach. The Runway 6 GS antenna is located near the Runway 6 aiming point markings, on the north side of the Runway.
- A LOC provides pilots with electronic guidance of lateral positioning relative to the runway centerline while the aircraft is on approach. The Runway 6 LOC is located on the extended runway centerline, 1,040 feet beyond the Runway 24 end. The Runway 6 LOC is collocated with Distance Measuring Equipment (DME). DME is a Very-High Frequency (VHF) antenna that provides pilots with a range measurement of distance to the DME facility. The DME antenna is used to augment and enhance the capabilities of the Runway 6 LOC approach.
- Marker beacons are upward facing directive antennas that indicate known points along the approach path. The Middle Marker indicates the point along the approach where the pilot should be able to visually identify the runway environment. If visual identification is not made by this point, pilots should execute a missed approach. The Middle Marker beacon is located 2,600 feet from the Runway 6 end.



SOURCE: Lee County Port Authority, *Airport Layout Plan*, February 2011

Figure 2-6 Nav aids

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- The LOM indicates the point along the approach path at which an aircraft should intercept the glideslope. The LOM is located approximately 4.3 nautical miles from the Runway 6 end.

Runway Visual Range

The Runway Visual Range (RVR) measures atmospheric visibility near the runway end and informs pilots of the range of visual distance that can be observed near the runway end. RSW is equipped with an RVR system located adjacent to the Runway 6 GS antenna on the north side of the Runway. This equipment serves dual purpose as the Runway 6 Touchdown RVR to enable the CAT-I ILS and as the Runway 24 Rollout RVR for supplemental visibility reporting.

VHF Omnidirectional Range with Collocated Tactical Air Navigation

A VHF Omnidirectional Range with Collocated Tactical Air (VORTAC) is a radio antenna that provides pilots directional information relative to the facility. It is the collocation of equipment typically used by civilian aircraft—VHF Omnidirectional Range (VOR)—and navigational equipment typically used by military aircraft—Tactical Air Navigation (TACAN). The TACAN includes DME capabilities which is used to augment and enhance the capabilities of the Runway 6 VOR approach and provides azimuth information to pilots. The RSW VORTAC is a low altitude facility that primarily provides non-precision instrument approach capability for RSW and neighboring airports. The VORTAC is located 2,260 feet northwest of the Runway 6 end.

Airport Surveillance Radar

The Airport Surveillance Radar (ASR) is used to detect the location, range, and elevation of aircraft within the terminal airspace (60 nautical miles) of an airport. The radar equipment allows for air traffic controllers to track aircraft 360 degrees around the facility to facilitate aircraft sequencing and maintain adequate airspace separation. RSW is equipped with an ASR Series 11 (ASR-11) antenna, which is located in a wooded area within the non-aviation support designated area north of Runway 6-24, approximately 1.05 nautical miles north of the Runway 6 endpoint.

Remote Transmitter/Receiver

A Remote Transmitter/Receiver (RTR) site is an air-to-ground radio communications system that relays transmissions from aircraft to the ATCT. RTR sites are unmanned and usually comprise several communications towers. There are two RTR sites at RSW. The original RTR site is located approximately 1,420 feet north of the Runway 6 end, adjacent to the airport field maintenance facility. The second RTR is located east of Taxiway L, proximate to the future ATCT, and will become operational in 2022. The new RTR facility includes an equipment shed and four antenna towers.

Meteorological Aids

Automated Surface Observing System

The Automated Surface Observing System (ASOS) is a collection of meteorological instruments that measure and automatically report conditions to pilots and air traffic controllers. The RSW ASOS is located northeast of the Taxiway A/Taxiway A5 intersection, adjacent to the segmented circle.

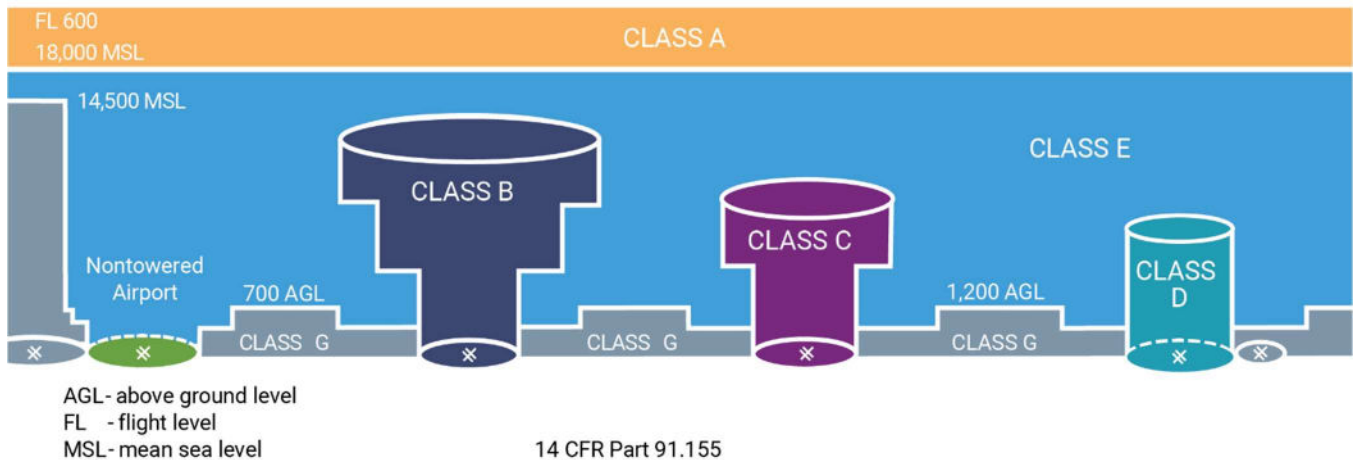
Low-Level Windshear Alert System

The Low-Level Windshear Alert System (LLWAS) is composed of anemometer stations that measure wind speed and direction. The LLWAS system at RSW is composed of six stations around the airport that automatically generate warnings when windshear or microburst conditions are detected.

2.5 Airspace Configuration/Approach Procedures

Airspace Classifications

The FAA has six classifications of airspace under the NAS. These classifications, which are designated as Class A, B, C, D, E, and G, are critical to the safety of all flights and to the efficient operation of all airport traffic control facilities. Based on the level of activity and type of operations, airports receive either a classification of B, C, D or E. Class A airspace only exists above 18,000 feet and Class G airspace is designated as uncontrolled airspace. **Figure 2-7** is a visual representation of the classification of the NAS.



SOURCE: FAA

Figure 2-7 National Airspace System Classification

Because RSW has an active FAA ATCT, is serviced by a radar approach control facility, and has a significant number of IFR operations, the RSW airspace has been designated Class C. In Class C airspace, pilots must establish and maintain two-way radio communications with the ATCT at that airport, prior to entering the airspace. In addition, the aircraft must be equipped with a Mode C transponder and operable ADS-B Out equipment that automatically sends GPS location, altitude, ground speed and other data to air traffic control ground stations and other aircraft. In Class C airspace, aircraft operating under VFR are typically separated from the IFR aircraft and VFR aircraft must still see and avoid other VFR aircraft.

Although Class C airspace can be tailored to meet individual airport needs, the airspace usually consists of two columns of airspace. The Class C airspace at RSW contains no modifications to the standard airspace configuration. The inner column of airspace encompasses an area that has a 5-nautical-mile radius from the airport and extends from the surface up to 4,000 feet above the airport elevation. The outer column of airspace encompasses an area that has a 10-nautical-mile radius but begins at 1,200 feet above the airport elevation and extends up to 4,000 feet above the airport elevation. The simplest way to visualize Class C airspace is to imagine a two-layer wedding cake turned upside down and centered on the airport.

RSW is in close proximity to the Class D airspace which surrounds FMY. The Class D airspace at FMY encompasses a single column of airspace, 5 nautical miles in radius from the surface up to 1,200 feet above the airport elevation. Class D airspace requires each pilot to establish two-way radio communication with the ATCT prior to entering the airspace and to maintain this communication while in the airspace. Although considered controlled airspace, Class D airspace does not provide any separation service to VFR aircraft. When the ATCT is closed, the airspace at the airport is designated as Class G, or uncontrolled airspace.

FMY also has a small portion of Class E designated airspace. Typically, this classification of airspace extends upward from either the surface or a designated altitude to the overlying or adjacent controlled airspace and is used to provide additional safety to aircraft transiting to and from the Airport. The small portion of Class E airspace at FMY provides additional controlled airspace for precision and non-precision instrument approaches to Runway 5 and the non-precision instrument approach to Runway 13. These approaches are controlled by the FAA facilities at RSW. The FMY Class E airspace has a floor beginning at 700 feet and extends up to 17,999 feet. Only a small portion of Class E airspace is required because most of the area surrounding FMY is encompassed by the RSW Class C airspace.

Figure 2-8 has been taken from the Miami Sectional Aeronautical Chart to illustrate the airspace relationships in the Fort Myers area. The two large magenta circles represent the inner and outer columns of Class C airspace for RSW. FMY falls between these two circles. This limits the ceiling for FMY's Class D airspace to 1,200 feet. At 1,200 feet, the Class D meets the overlying RSW Class C airspace that is more restrictive.

Published Instrument Approach Procedures

There are four published instrument approach procedures and one published visual approach at RSW. The primary difference between a precision and a non-precision instrument approach is that the precision instrument approaches provide some form of electronic glide slope or glide path information for vertical guidance. It is important to note that the minimum approach descent altitudes expressed in the following paragraphs are for Category C aircraft (those aircraft with approach speeds near 140 knots) as these are the most common aircraft utilizing RSW.

At RSW, the Category I ILS system for Runway 6 is one of four classifications of ILS approach systems in use at airports today (**Table 2-7**). The following delineates the typical approach minimums associated with the category of ILS approaches. These minimums may be adjusted higher based on specific circumstances at each individual airport.

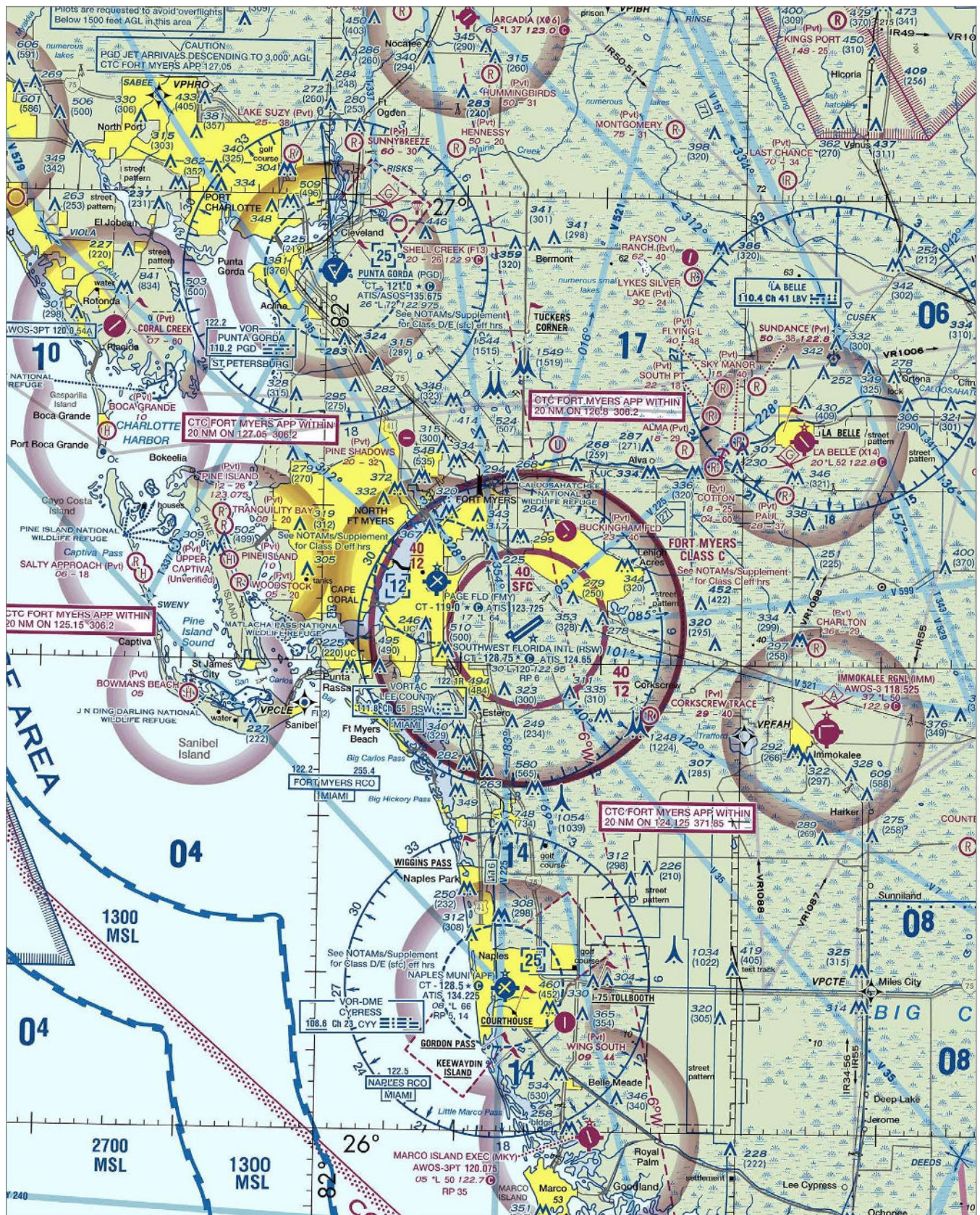
The Runway 6 Category I ILS provides instrument rated pilots with a decision height of 227 feet MSL and visibility minimums of 1/3 mile (RVR 1,800). The approach also provides a straight-in non-precision approach utilizing the localizer only with a minimum descent altitude (similar to the precision approach decision height) of 380 feet MSL and visibility minimums of 0.5 miles. There is also a circle to land approach (visual approach) that provides a decision height of 500 feet MSL and visibility minimums of 1 mile for aircraft with approach speeds up to 140 knots. The approach plates can be found in Appendix C, Procedures and Charts.

Category	Decision Height (ft.)	Runway Visual Range (RVR) (ft.)
I	> 200	> 1,800, or visibility > 2,600
II	100-200	> 1,000
IIIA	< 100	> 700
IIIB	< 50	150-700

SOURCE: FAA

A VOR straight-in instrument approach is available to Runway 24. This approach is created by the Lee County VORTAC and requires DME or TACAN equipment. This straight-in approach provides pilots with a minimum descent altitude of 400 feet MSL and visibility minimums of 1 mile. The approach also provides a circle to land approach with a 500 feet minimum descent altitude and a 1-mile minimum visibility. This approach plate can be found in Appendix C, Procedures and Charts.

The "Bay Visual" procedure provides a visual approach to Runway 6. The approach notes that "Radar Required" indicating that the crew can expect to be provided radar navigational guidance while transitioning through segments of the approach. This procedure is not valid at night. This approach plate can be found in Appendix C, Procedures and Charts.



SOURCE: FAA, September 3, 2021

Figure 2-8 Miami Sectional Chart (Focus RSW)

Both Runway 6 and Runway 24 have non-precision GPS approaches. These approaches have a minimum descent altitude of between 330 feet MSL to 280 feet MSL for Runways 6 and 24 respectively. Runway 6 has a 2.400 Runway Visual Range, while Runway 24 has a 0.75-mile visibility minimum. Both approaches have a circle-to-land approach with a minimum descent altitude of 500 feet MSL with a minimum visibility requirement of 1 mile. The GPS approach plates can be found in Appendix C, Procedures and Charts.

Standard Instrument Departures

A Standard Instrument Departure (SID) is an ATCT coded departure procedure that has been established at certain airports to simplify clearance delivery procedures. SIDs are carried out by the pilot without vectors from ATCT and are also established to assist pilots conducting IFR flight in avoiding obstacles during climb out to Minimum Enroute Altitudes (MEA). There are four SIDs at RSW (including one RNAV). These SIDs are listed below.

- ALICO SEVEN
- SCUBY SEVEN
- CSHEL SIX (RNAV)
- MOOKY SIX

Plates for these departures can be found in Appendix C, Procedures and Charts.

Standard Terminal Arrival Procedures

A Standard Terminal Arrival (STAR) is an ATCT coded IFR arrival route established for application to arriving IFR aircraft destined for certain airports. The purpose of a STAR is to simplify clearance delivery and facilitate transition between enroute and instrument approach procedures. There are three STAR procedures available for use at RSW:

- JOSFF FIVE
- SHFTY FIVE (RNAV)
- TYNEE TWO (RNAV)

Plates for these procedures can be found in Appendix C, Procedures and Charts.

2.6 Terminal Facilities

The terminal building completed in 2005 is a four-story 449,428-square-foot structure:

- Level 1 is approximately 204,910 square feet, and contains baggage claim, baggage make-up, Transportation Security Administration (TSA) checked baggage inspection systems (CBIS) and checked baggage reconciliation area (CBRA) (15,560 square feet), TSA offices (11,055 square feet) and miscellaneous building services and utility areas. There are 14 baggage claim devices in 36,026 square feet and 12 baggage make-up devices in 93,320 square feet.
- Level 2 is approximately 169,906 square feet and contains ticketing (112 check-in positions and 52 self-check-in kiosks), concessions, and miscellaneous building services. The connection to the concourses is at this level.
- Level 3 is the airport administration offices and a mechanical mezzanine totaling 61,468 square feet.
- Level 4 is a small mechanical area totaling 13,144 square feet.

There are three existing three-story concourses comprising a total of 371,570 square feet including 66,215 square feet of hold rooms:

- Concourse B:
 - First Level: 68,806 square feet
 - Second Level: 77,122 square feet
 - Third Level: 6,985 square feet
 - **Total: 152,913 square feet**
- Concourse C:
 - First Level: 41,405 square feet
 - Second Level: 53,540 square feet
 - Third Level: 1,985 square feet
 - **Total: 96,930 square feet**
- Concourse D:
 - First Level: 49,410 square feet
 - Second Level: 65,362 square feet
 - Third Level: 6,955 square feet
 - **Total: 121,727 square feet**

Each concourse contains the following:

- Level 1 contains airline operation spaces, concession storage, mechanical rooms, and other miscellaneous operations spaces.
- Level 1 also contains an FIS (only concourse B) capable of handling one international flight an hour consisting of 30,465 square feet). There is also a passenger holding area for international flights diverted to Fort Meyers (typically scheduled to land at MIA). The existing FIS processes passengers through a two-step process and contains 6 passport control stations. The facility can process Global Entry passengers, but the number of kiosks is indeterminate at this date as the existing FIS is not in use as of the writing of this report.
- Level 2 contains a TSA checkpoint at the entry to each concourse with 4 security lanes at each concourse, with 9 gates on each concourse along with concessions and other public building services.
- Level 3 contains mechanical and building maintenance spaces.
- Concourse B contains nine contact gates accommodating up to ADG IV aircraft. Three of the gates can accommodate aircraft up to ADG V. Two of the gates in Concourse B can service international flights with a sterile corridor to an FIS on the ground level. Concourse C contains nine contact gates. Six gates can accommodate aircraft up to ADG IV and three gates can accommodate up to ADG V aircraft. Concourse D contains nine contact gates and 1 commuter ramp with 1 gate ADG V capable.

The existing structure is comprised of cast-in-place concrete columns, beams, and a floor system with open web steel roof joists (both sloped top chord and flat parallel chord type) with either a curved metal deck roof system or a low slope roof system. The facility is designed to withstand 167 mph winds and is classified as a Group 3 hurricane facility. The facility is not slated for use as an emergency shelter during hurricanes.

Infill walls are either cast-in-place concrete or concrete masonry units with a stucco finish system or a glazed storefront system. Exterior doors are both hollow metal doors in hollow metal frames and upward acting roll-up doors. The existing facility is fully sprinklered and designed to meet the Florida Energy Conservation Code.

The terminal building will be undergoing a renovation and expansion as part of the Phase 1 Terminal Expansion Project. The primary driver behind the expansion is to consolidate the security checkpoint and increase the number of concessions available to passengers. No gates will be lost or gained in this expansion and renovation. The terminal will be expanded northward toward Concourse C. Central to this expansion project is the consolidation of the TSA Security Checkpoints from three separate checkpoints at the entry to each concourse to one 18-lane checkpoint in the terminal building consisting of 47,500 square feet. The expansion also will increase the existing concessions and concessions storage area of 38,479 by approximately 24,706 square feet with an open food court style venue to a total program concessions square footage of 63,185.

Other areas of the terminal will be expanded to provide additional offices, an airline passenger lounge, exiting stairs, vertical circulation and utility spaces. In total, the terminal expansion project includes 96,450 square feet of expansion and 164,805 square feet of renovation. Construction is expected to begin in October 2021 and will be completed in early 2025. The expansion and renovation of the terminal encompasses the following approximate square footages:

<u>1st Level (Arrivals)</u>		<u>2nd Level (Departures)</u>	
Expansion	10,487 square feet	Expansion	56,911 square feet (includes international lounge)
Renovation	46,759 square feet	Renovation	110,434 square feet
1st Level Total	57,246 square feet	2nd Level Total	167,345 square feet
<u>3rd Level (Administration & Mechanical)</u>		<u>4th Level (Mechanical)</u>	
Expansion	23,232 square feet	Expansion	5,820 square feet (includes removal of open double-height space above the security screening checkpoint [SSCP])
Renovation	25,845 square feet	Renovation	3,124 square feet
3rd Level Total	49,077 square feet	4th Level Total	8,944 square feet
<u>Total All Levels</u>			
Expansion	96,449 square feet		
Renovation	186,163 square feet		
Terminal Expansion Total	282,612 square feet		

When the expansion and renovations are completed, the terminal and concourses will be a total of 917,448 square feet.

<u>Post Terminal Expansion Total All Levels</u>	
Terminal	545,878 square feet
Concourse B	152,913 square feet
Concourse C	96,930 square feet
Concourse D	121,727 square feet
Terminal Expansion Total:	917,448 square feet

The detailed breakdown of spaces is listed in in **Table 2-8**.

Table 2-8 Terminal Functional Areas						
Function	Level 1	Level 2	Level 3	Level 4	TOTAL	Percentage
AIRLINE						
Check-In Hall	—	24,337	—	—	24,337	3%
Holdroom	2,467	66,215	—	—	68,682	7%
Baggage Handling System	93,230	3,608	—	—	96,838	11%
Domestic Baggage Claim	36,026	—	—	—	36,026	4%
Airline Support	16,964	11,617	—	—	28,581	3%
DEPARTMENT OF HOMELAND SECURITY						
Security Screening Checkpoint	—	47,489	—	—	47,489	5%
Checked Baggage Inspection System	15,561	—	—	—	15,561	2%
TSA Support	11,056	4,234	—	—	15,290	2%
Customs and Border Protection (CBP)	30,466	184	—	—	30,650	3%
International Baggage Claim	5,190	—	—	—	5,190	1%
COMMERCIAL PROGRAM						
Concessions	161	62,252	—	—	62,413	7%
Concessions Support	14,763	156	—	—	14,919	2%
AIRPORT SUPPORT AND SERVICES						
Airport and Amenities	44,175	1,520	44,430	—	90,125	10%
Restrooms	12,915	15,795	—	—	28,710	3%
Building Services	23,835	4,576	49,971	18,081	96,463	11%
Circulation	56,083	168,569	2,306	498	227,456	25%
Structure/Walls/Void	12,126	12,289	3,918	385	28,718	3%
Total	375,018	422,841	100,625	18,964	917,448	100%

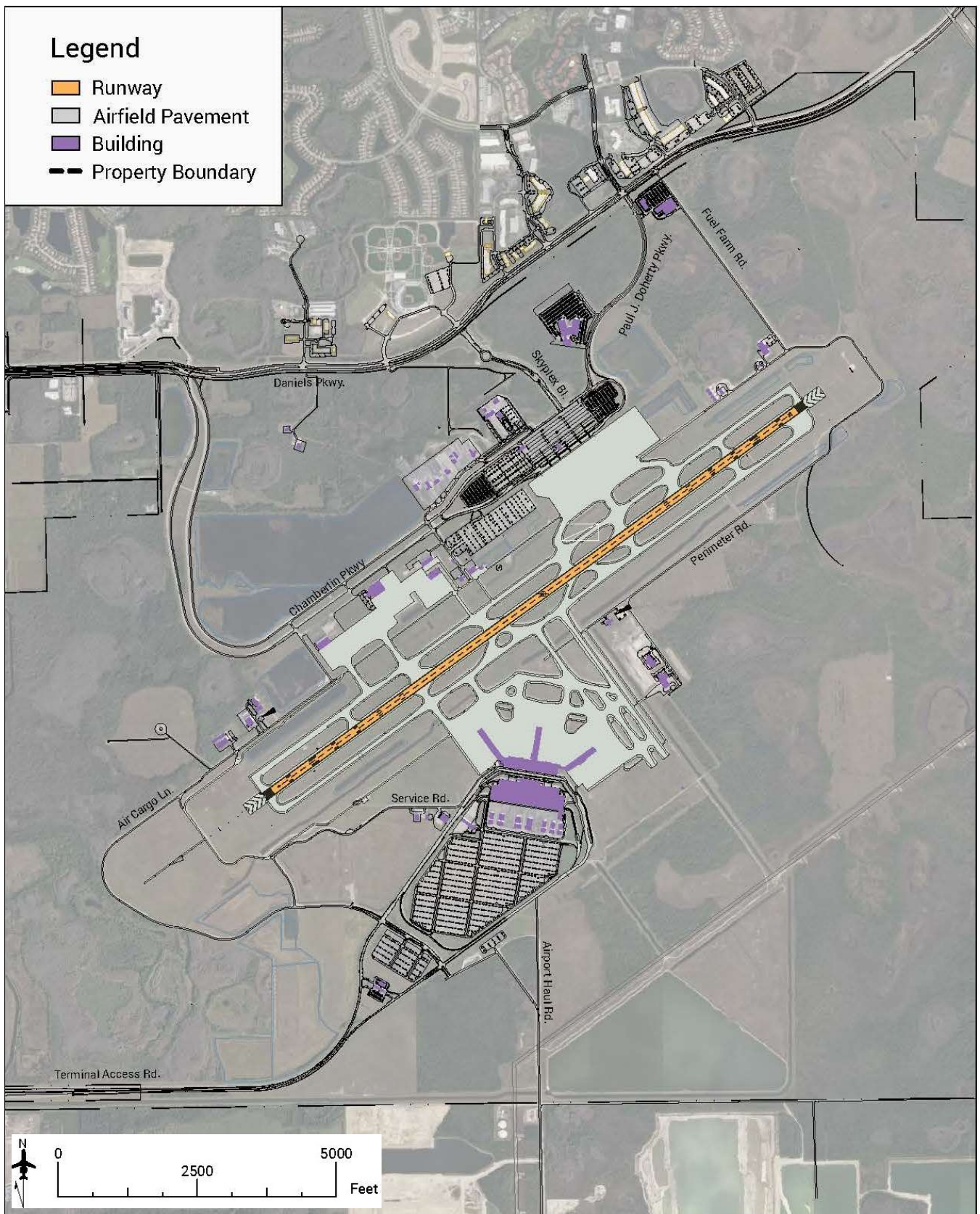
2.7 Landside Facilities

The following section summarizes the ground access roadway system and commercial vehicle areas that serve RSW, such as on-airport access roads, circulation and service roads, parking and curb fronts. This section also summarizes existing rental car facilities and associated activity. Several studies have been completed for RSW in recent years and were reviewed as part of this Master Plan Update process. Information from these prior studies is sourced for reference, these studies can be found in Appendix D, Landside Studies.

Landside and Non-Aviation Area Roads

The RSW internal roadway network provides access to landside facilities including the terminals, parking lots, rental car facilities and LCPA support facilities. Primary access to RSW is provided from the west by I-75, via Exits 128 (Alico Road) and 131 (Daniels Parkway). Access is also provided from the east by State Road 82. Daniels Parkway and Terminal Access Road are the primary on-airport access roads that provide ingress and egress to the landside facilities from the north and south.

The following sections outline the defining characteristics for each roadway in the internal RSW network. The roadways at the Airport are depicted on **Figure 2-9**.



SOURCE: ESA, September 28, 2021

Figure 2-9 Roadways

Access Roads

Chamberlin Parkway

Chamberlin Parkway is a 2.7-mile, four-lane divided roadway that connects the internal RSW roadway network to Daniels Parkway to the northwest. Chamberlin Parkway also intersects Paul J. Doherty Parkway and Skyplex Boulevard. This roadway, located north of the airfield, circulates the perimeter of the overflow parking facility and provides access to various LCPA support facilities. According to the 2017 RSW Pavement Rehabilitation Evaluation, the roadway consists of two 12-foot lanes with 4-foot paved shoulders along the outside of the travel lanes and a 2-foot paved shoulder along the inside of the travel lanes. The roadway utilizes an open swale drainage system and has posted speed limits of 25, 35, and 45 mph.

Terminal Access Road

Terminal Access Road circulates the terminal facility and provides passengers with access to the departures and arrivals curb front. The Terminal Access Road system at RSW is a one-way "return loop" type system and runs in a counterclockwise direction. Originating at the I-75 access ramp, southwest of the terminal building, this roadway narrows from four to two travel lanes in the terminal area and provides access to both long-term and short-term parking.

Skyplex Boulevard

Skyplex Boulevard is a four-lane divided roadway that connects Daniels Parkway to Chamberlin Parkway. This newly constructed connector road extends 0.5 miles and includes a roundabout, sidewalks, and bike lanes.

Circulation and Service Roads

Air Cargo Lane

Air Cargo Lane is a two-lane undivided roadway that follows the southern perimeter of the airfield and terminates south of the long-term parking lot. As referenced in the 2017 RSW Pavement Rehabilitation Evaluation, this corridor has 12-foot travel lanes and flush unpaved shoulders. North of the airfield, Air Cargo Lane provides access to the Aircraft Observation Area, LCPA Vehicle Maintenance Facility and other LCPA support facilities. The roadway also provides access to several lots on airport property including the Employee Parking Lot, the Transportation Network Companies (TNCs) Ground Transportation Staging Area and the Commercial Ground Transportation Staging Lot. The posted speed limit is 35 mph.

Paul J. Doherty Parkway

According to the 2017 RSW Pavement Rehabilitation Evaluation, Paul J. Doherty Parkway is an existing four-lane divided suburban roadway that connects the internal RSW Chamberlin Loop to Daniels Parkway to the north. The corridor is approximately 0.7 miles long and consists of two 12-foot travel lanes in both directions separated by F-curb and a 22-foot median. The roadway includes 5-foot paved shoulders, an open swale drainage system, and posted speed limit of 40 mph.

Fuel Farm Road

Fuel Farm Road is a two-lane undivided connector roadway in the northeast quadrant of the Airport property. The roadway is 0.8 miles in length and extends from Daniels Parkway to Perimeter Road. Fuel Farm Road provides access to the LSG Sky Chefs facility. The roadway consists of two 12-foot travel lanes with flush unpaved shoulders.

Perimeter Road

Perimeter Road is an approximate 5.1-mile, two-lane undivided roadway that circulates the entire perimeter of the airfield. The roadway intersects several taxiways and provides airside access to aircraft maintenance facilities, fixed based operators, and various LCPA support facilities. The roadway consists of two 12-foot travel lanes with flush unpaved shoulders.

Service Road

Service Road is a two-lane undivided roadway that consists of two 12-foot travel lanes with flush unpaved shoulders. It is located south of the airfield, between the runway and the long-term parking lot. It originates at the intersection with Perimeter Road and terminates at the terminal building. Service Road provides access to the rental car fuel storage area and is approximately 1.1 miles in length.

Rental Car Lane

Rental Car Lane is an existing two-lane two-way rural roadway that serves as an access to the rental car agencies on the north side of Chamberlin Parkway. Rental Car Lane spans approximately 0.5 miles, beginning at Regional Lane to the southwest and terminating at Chamberlin Parkway to the east. The roadway consists of two 12-foot travel lanes, a 3-foot paved shoulder on the northern most lane, and flush unpaved shoulder on the southern lane.

Regional Lane

Regional Lane is a two-lane undivided roadway just south of the overflow parking lot. The roadway is approximately 0.25 miles in length and connects Chamberlin Parkway and Perimeter Road. Regional Lane provides access to the RSW Control Tower.

Terminal Curb Fronts

Upper-Level Curb Front/Roadway

As referenced in the 2016 RSW Curb Front Roadway Assessment, the upper-level curb front serves departures for all three Concourses (B, C, and D). The upper level is divided into six zones, Zone 1 through Zone 6, each serving different airlines. Two pedestrian crosswalks (located within Zones 2 and 5) connect the departures curb front with the parking garage and ground transportation curb front on the lower level (via stairs and an elevator).

The traffic lanes on the upper level are divided into two functions. The curb front lanes, or inside lanes closest to the terminal, are used for passenger loading and unloading. The outside lanes, or exit lanes, are used for orbiting and circulating traffic throughout the Airport. Two lanes approach the upper-level curb front and expand into five lanes, comprised of two curbing lanes and three thru traffic lanes. The two southernmost lanes are designated with pavement markings as thru lanes. The curb front lanes merge as vehicles exit the curb front. The posted speed limit through the upper-level curb front is 10 mph and lane widths are 12 feet wide.

Lower-Level Curb Front/Roadway

The lower-level curb front serves as the arrivals level of RSW. The lower level at the terminal is divided in six (6) zones, Zone 1 through Zone 6, each serving different airlines. Each of the zones is serviced by a pedestrian crosswalk that connects the arrivals curb front with the ground transportation curb front and with the parking garage.

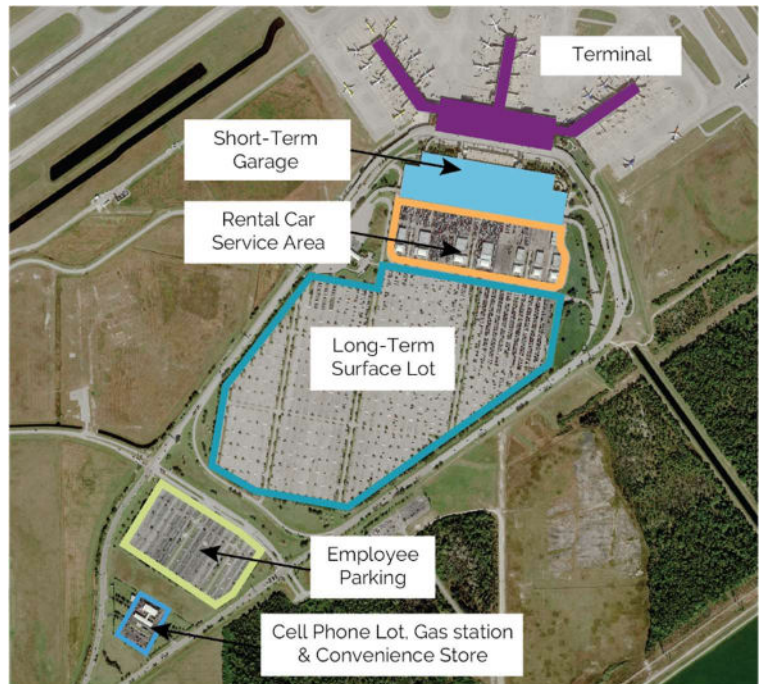
Based on the 2016 RSW Curb Front Roadway Assessment, two lanes approach the lower-level curb front and expand into four lanes, comprised of three curbing lanes and one lane designated with pavement markings as the exit lane. The three curbing lanes merge as vehicles exit the curb front. The posted speed limit through the lower-level curb front is 10 mph. The location of the speed limit sign is approximately 200 feet before the two lanes entering the curb front lanes begin to diverge. Lane widths are 12 feet wide.

Parking and Rental Cars

Cell Phone Lot, Convenience Store and Gas Station

The Cell Phone Lot is located on the airport property at Airport Service Plaza, between the inbound Terminal Access Road and the outbound Terminal Access Road. It is adjacent to a 7-Eleven/Mobil gas station. This facility provides free temporary parking for vehicles of users picking up passengers who communicate via cellphone once their plane has landed. The Cell Phone Lot consists of 85 marked parking spaces, 2 of which are reserved for Americans with Disabilities Act (ADA) accessible parking.

Airport Service Plaza offers many services to Cell Phone Lot users such as gas, restrooms, a connected fast-food restaurant, additional parking, air for tires and a car wash. The convenience store is approximately 6,000 square feet with 20 fueling positions. **Figure 2-10** shows the location of the cell phone lot, gas station and convenience store. The convenience store has of 36 marked parking spaces, 2 of which are reserved for Americans with Disabilities Act (ADA) accessible parking.



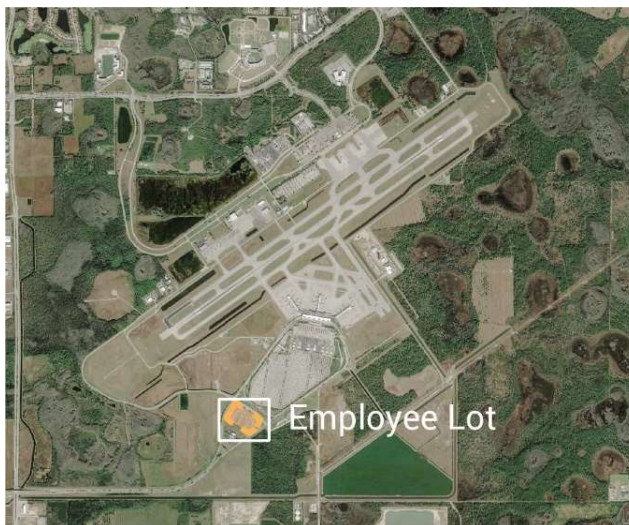
SOURCE: Kimley-Horn, *RSW Existing Parking Facility Capacity Evaluation*, 2018 [Appendix D-01]

Figure 2-10 Parking Facilities

Employee Parking (Surface Lot)

The RSW Employee Parking Lot is located southwest of the airport terminal between the long-term parking lot and the 7-Eleven/Mobil gas station. The employee lot can be accessed from Gate 21 and Gate 22 via Air Cargo Lane. Based on the 2017 RSW Employee Parking Facility Capacity Assessment (Appendix D-01), both access locations to the parking lot are gate controlled. This requires badged employees to scan their badge to access the lot and requires unbadged

employees to scan a parking lot access card to enter and exit the lot. There are 1,297 spaces within the employee parking lot, 23 of which are reserved for Americans with Disabilities Act (ADA) accessible parking. The employee lot is estimated to comprise 540,000 square feet **Figure 2-11** illustrates the location of the Employee Parking Lot at RSW.



SOURCE: Kimley-Horn, *RSW Employee Parking Facility Capacity Assessment*, 2017 [Appendix D-02]

Figure 2-11 Employee Parking Lot Location

Public Parking, Short-Term Parking (Garage)

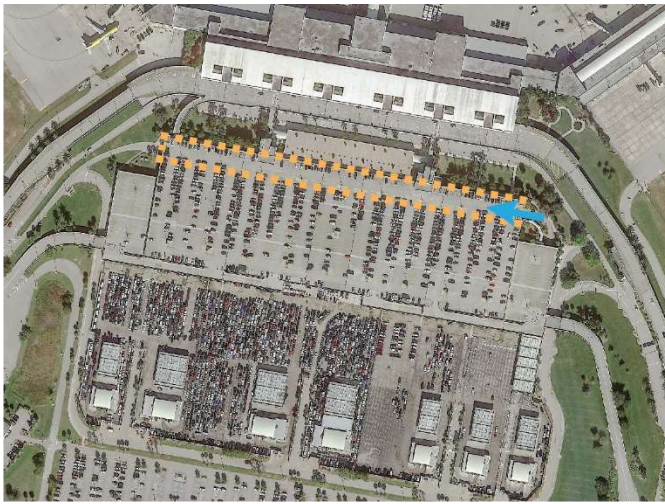
The Short-term Parking facility is a three-level parking garage, located directly across from the terminal entrance. Based on the 2018 RSW Existing Parking Facility Capacity Evaluation, the rental car center is located on the ground floor of the garage, with the second and third levels available for public parking. The majority of the second level of the garage provides covered parking and the third level (rooftop level) is uncovered. There are two access points to short-term parking. One access point is via two lanes from the entry plaza, located off Terminal Access Road and the other, secondary access point is via one lane from the upper-level roadway. There is one exit location in the short-term parking area which has two lanes and is located on the second level. From this exit point, users are funneled to the exit plaza. This facility is open 24 hours a day, 7 days a week, and does not require reservations to use. Figure 2-11 illustrates the location of the short-term parking facility.

There is a total of 2,432 public parking spaces in the short-term parking garage with 1,273 parking spaces on the second level and 1,159 parking spaces on the third/rooftop level.

Ground Level Exit Lane

On the ground level of the short-term parking garage, one lane is used by vehicles exiting the rental car center. Based on the 2018 Garage Ground Level Curb Front Assessment (Appendix D-03), the roadway is undivided, unstriped, and provides one direction of travel to exit the garage from east to west. The travel lane is approximately 32 feet wide and a total of 1,075 feet in length. This ground level exit lane is only accessible by vehicles exiting one of the six rental car facility exit points located within the garage. The rental car gated exit points provide direct access to the exit lane of the garage for passengers renting vehicles. No other private vehicle or commercial access to the ground level exit lane is available. Along the travel lane, there are 10 crosswalk locations spaced between 60 and 120 feet apart, each with ADA ramps.

Figure 2-12 provides a location map and photo of the ground level exit lane curb from the east end, looking west.



SOURCE: Kimley-Horn, *RSW Garage Ground Level Curb Front Assessment*, 2018 [Appendix D-03]

Figure 2-12 Ground-Level Exit Lane of the Short-Term Parking Garage

Public Parking, Long-Term (Surface Lot)

The long-term parking facility is a surface parking lot located to the south of the short-term garage and separated by the rental car service center. A complimentary shuttle service is offered for passengers between the terminal and parking lot. This facility is open 24 hours a day, 7 days a week, and does not require reservations to use. Figure 2-10 illustrates the location of the long-term parking facility.

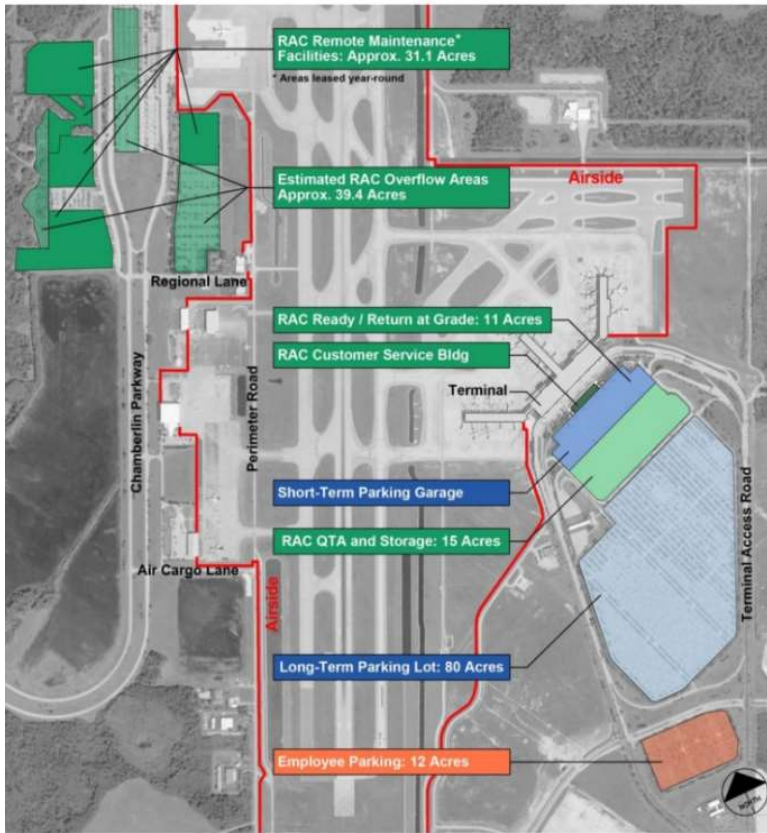
Based on the 2019 RSW Existing Parking Facility Capacity Evaluation (Appendix D-01), the long-term parking lot is divided into four sections: Red, Blue, Green, and Gold. A total of 8,762 spaces are available for public parking in the long-term surface parking lot.

Rental Car Facilities

The existing rental car service and storage facility operates in close proximity to the location of the original, now demolished, terminal north of Runway 6-24. These facilities are approximately 3.5 miles from the airport terminal. Rental car agencies shuttle cars between the existing service and storage facility and the terminal. Based on the 2019 Rental Car & Public Parking Sizing Analysis (Appendix D-04), there are nine brands and three brand families using the rental car facilities. The existing remote facilities are undersized for current operations and are in need of repair and/or replacement. **Figure 2-13** shows the locations of the existing rental car facilities. **Table 2-9** shows the existing supply of the rental car vehicle spaces and facilities.

Ready/Return

The existing rental car ready/return area is located on the ground level of the three-story parking structure and has pedestrian path connectivity to the terminal building. The ready/return area with the adjacent customer service building provides rental car patrons with convenient access to rental cars. Based on the 2019 Rental Car & Public Parking Sizing Analysis, the existing ready/return area has a capacity of 1,200 stalls. **Figure 2-14** and **Figure 2-15** show each rental car brand family's secured location and market share.



SOURCE: Kimley-Horn, *Rental Car & Public Parking Sizing Analysis*, 2019 [Appendix D-04]

Figure 2-13 Existing Rental Car Facilities

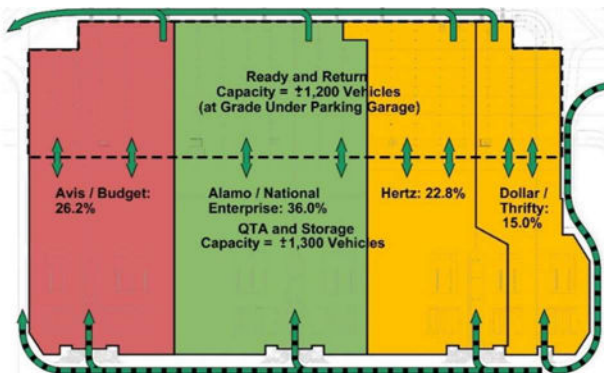
Table 2-9 Rental Car Existing Facilities

Rental Car Facility	Existing Supply
R/R & QTA^a	
Ready/Return Spaces	1,200
Fueling Positions	68
Wash Bays	17
Vehicle Stacking Spaces	1,300
CUSTOMER SERVICE^a	
Service Counters	66
REMOTE SERVICE^b	
Maintenance Bays	<i>Not Specified</i>
Wash Bays	<i>Not Specified</i>
Leased Vehicle Storage Spaces	3,500 ^c
Overflow Spaces	4,500
Total All Vehicle Storage Spaces	10,500^d

SOURCE: Kimley-Horn, *Rental Car & Public Parking Sizing Analysis*, 2019 [Appendix D-04]

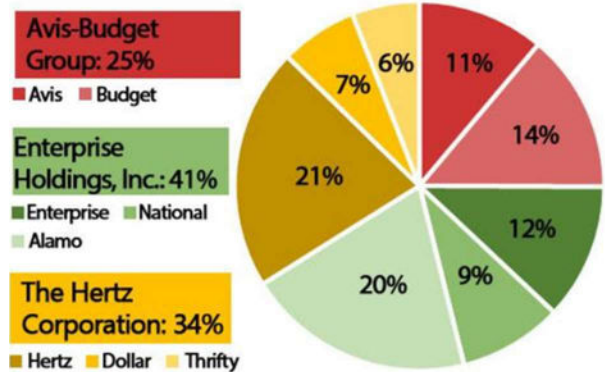
NOTES:

- a. Midfield Terminal Complex Parking Garage Construction Package, September 2002
- b. Estimated via Google Earth Pro.
- c. Includes remote areas leased year-round, does not include overflow lots
- d. Total of R/R spaces, vehicle stacking spaces, and remote spaces



SOURCE: Kimley-Horn, *Rental Car & Public Parking Sizing Analysis*, 2019 [Appendix D-04]

Figure 2-14 Ready/Return and QTA/Storage



SOURCE: Kimley-Horn, *Rental Car & Public Parking Sizing Analysis*, 2019 [Appendix D-04]

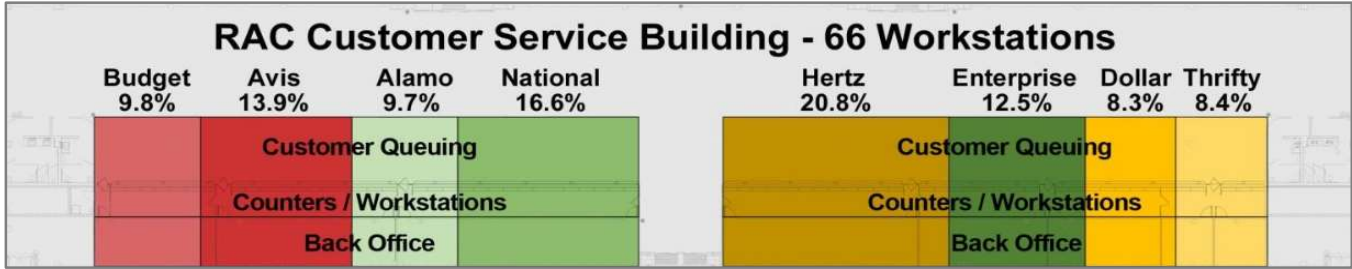
Figure 2-15 Rental Car Agency Market Share

Quick Turn-Around Facility

The Quick Turn-Around Facility (QTA) and vehicle stacking area is located at grade and contiguous with the ready/return area. Similar to the ready/return area, the QTA space is allocated based on market share. The continuity between the ready/return area and the QTA makes it possible for each brand family to shuttle rental cars without leaving the secured area.

Customer Service Building

The Rental Car Customer Service Building (CSB) is located adjacent to and contiguous with the ready/return area. The customer service building contains customer service counters and a waiting area with seating and restrooms. Unlike the ready/return area, the customer service counters are allocated by brand instead of brand family, as shown in **Figure 2-16**.



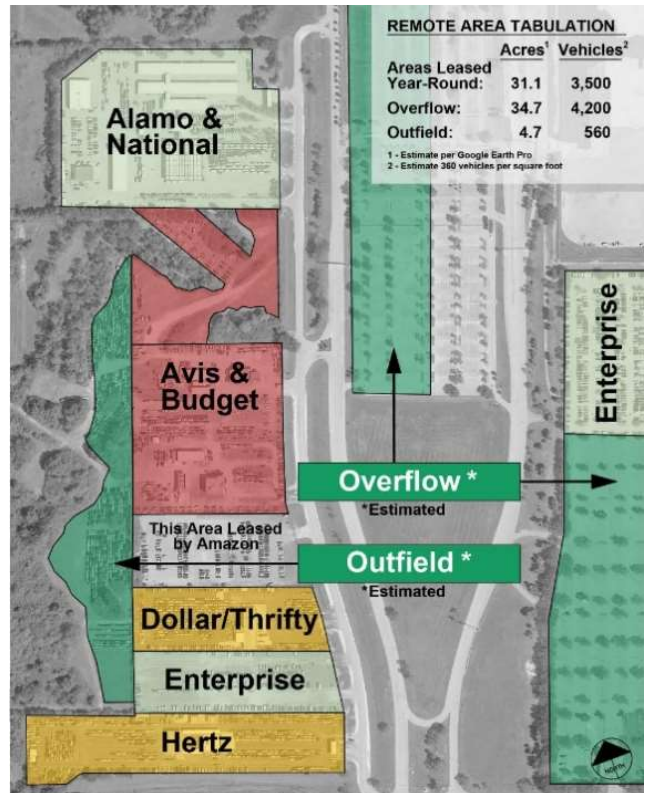
SOURCE: Kimley-Horn, *Rental Car & Public Parking Sizing Analysis*, 2019 [Appendix D-04]

Figure 2-16 Rental Car Customer Service Building

Maintenance and Storage Facilities

The existing maintenance and storage area is currently located north of the terminal area in the vicinity of the former main terminal, which was demolished in 2006. Based on the 2019 Rental Car & Public Parking Sizing Analysis (Appendix D-04), the existing storage area contains space for vehicles to park when space at the new Midfield Terminal is fully occupied. Because the current storage area was the former rental car facility for the old terminal (when customers were shuttled), it contains all the components of a fully operational facility including car wash bays, maintenance bays, fueling, and office space.

During periods of high demand, the leased area does not meet the storage needs of the RSW rental car market and, as a result, the rental car agencies park and store vehicles in areas outside of the lease area (paved areas near the old main terminal site), as shown in **Figure 2-17**.



SOURCE: Kimley-Horn, *Rental Car & Public Parking Sizing Analysis*, 2019 [Appendix D-04]

Figure 2-17 Remote Service and Storage Sites

2.8 Aviation Support Facilities

The airport support facilities include the general aviation (GA) and fixed base operator (FBO) facilities; airport maintenance buildings; air cargo and airline freight facilities; aircraft fuel storage facilities; airline catering facilities; aircraft maintenance, repair and overhaul (MRO) facilities; Airport Traffic Control Tower (ATCT); and Aircraft Rescue & Fire Fighting Station. Many of these facilities are located on the north side of the airfield, as illustrated on **Figure 2-18**. The aviation support area is accessible via Chamberlin Parkway, which connects to Daniels Parkway (State Road 876).

General Aviation and Fixed Base Operator Facilities

PrivateSky Aviation operates the only FBO facility at the airport. In 2001, a two-story FBO terminal building (**S5**) encompassing 57,000 square feet was constructed to replace the original 8,000-square-foot FBO terminal that has since been demolished. The FBO/GA apron provides approximately 34,000 square yards for aircraft parking and ground support activities. According to the SAPMP, dated November 2019 (Appendix A), the PCI rating for the FBO terminal apron is 74, or satisfactory. The FBO/GA apron area abuts the main air cargo apron and the GA aircraft hangar apron. Taxiway A4 provides direct access to the FBO/GA aircraft apron, with secondary access via Taxiway A5. Landside access to the FBO terminal is provided via two-lane roadway PrivateSky Way, which connects to Chamberlin Parkway. The automobile parking includes 106 spaces.



Private Sky Aviation Hangar and FBO/GA Apron

SOURCE: Lee County Airport Authority

The 26,000-square-foot PrivateSky Aviation GA aircraft hangar (**S6**) built in 1996 is located east of the FBO terminal and south of the passenger airline freight forwarding facility. It is used for aircraft maintenance services and aircraft storage. There is no landside access to the GA aircraft hangar. The associated GA aircraft apron encompasses 35,000 square yards and provides 25 to 30 aircraft tiedown spaces for single-engine and multi-engine aircraft. The PCI rating for the GA aircraft apron is 57, or fair. Taxiway A5 provides direct access to the GA aircraft apron, with secondary access via Taxiway A4.

Lee County Port Authority Airport Maintenance Department Facilities

The Airport Maintenance Department operates three maintenance facilities: the Airport Maintenance Warehouse and Vehicle Maintenance facilities, which are located north of the Runway 6 end (**S1** and **S2**), and the Airfield and Landside Maintenance facility (**S11**) located north of Taxiway A5, adjacent to the existing ATCT. The two facilities north of the Runway 6 end are accessible via two-lane Air Cargo Lane, which connects to Chamberlin Parkway. The Airfield and Landside Maintenance facility is accessible via Regional Lane.

Airport Maintenance Warehouse

The 12,000-square-foot Airport Maintenance Warehouse (**S2**) was constructed in 1989 and is used for grounds maintenance operations and storage as the primary airport maintenance warehouse. The facility provides four drive-through vehicle bays with an additional 4,800 square feet of detached covered vehicle and equipment storage. Parking consists of 28 automobile spaces.

Vehicle Maintenance Facility and Sign Shop

The second Airport Maintenance Facility (S1) comprises an Airport Maintenance building and detached covered vehicle and equipment storage. The 16,300-square-foot maintenance building is used primarily for airport vehicle and equipment maintenance, welding and fabrication operations, and signage development. The building also includes administrative spaces including 12 offices, two open workspaces, one conference room, and one training room. The 7,800 square feet of detached covered vehicle and equipment storage includes three drive-through vehicle bays. Parking consists of 36 automobile spaces. The facility was expanded by 6,000 square feet and existing spaces were renovated in February 2020. Airfield and Landside Maintenance Facility

The third 13,100-square-foot Airport Maintenance Facility (S11) was formerly the original ARFF station built in 1983. The Airport Maintenance Department repurposed the ARFF station into a maintenance facility used for airfield and landside maintenance operations. The facility includes eight apparatus bays and the parking consists of 38 automobile spaces.

Air Cargo Facilities

The air cargo facilities include two buildings, two aircraft aprons, landside air cargo loading/unloading infrastructure and automobile parking.

Main Air Cargo Facility

The main cargo building (S3) consists of approximately 24,000 square feet of floor space and is occupied by two tenants: Federal Express (FedEx) and United Parcel Service (UPS). The facility is accessible via PrivateSky Way, which connects to Chamberlin Parkway. The landside facility supports pick-up and delivery operations via 10 cargo truck docking stations. Parking consists of 50 automobile parking spaces, six double trailer truck parking spaces and six 53-foot trailer truck parking spaces.

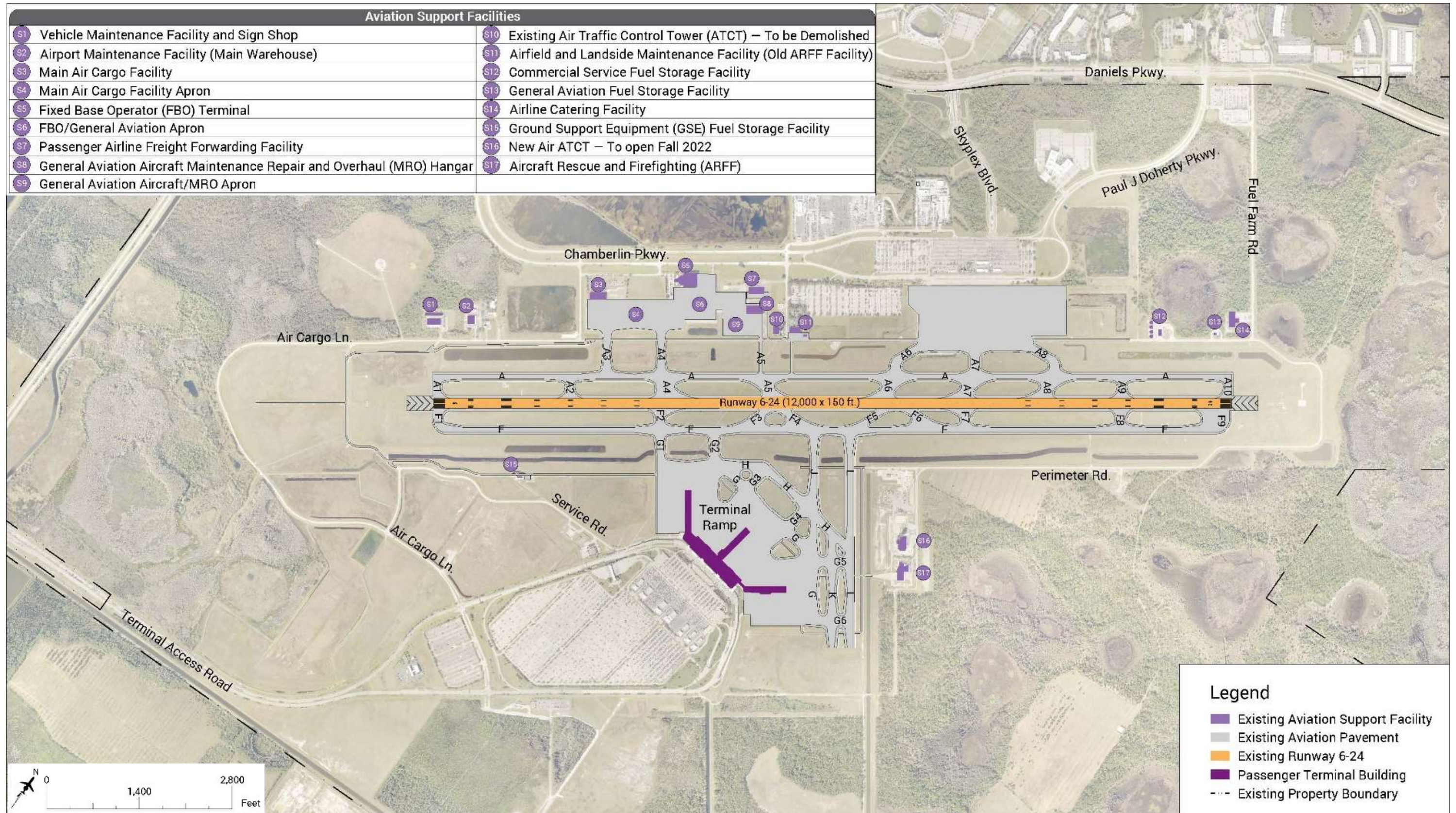
The ramp adjacent to the cargo building provides approximately 69,000 square yards for on-apron cargo loading and unloading operations, the staging of trailers and other Ground Support Equipment (GSE), and aircraft parking. The air cargo apron area includes six aircraft parking positions served by Taxiways A3 and A4, with direct access to parallel Taxiway A. The air cargo area apron underwent a pavement rehabilitation which was completed in 2021, the condition of the pavement is good. The Airport initiated a Cargo Ramp Rehabilitation project in October 2020. The project includes rehabilitation of the concrete and asphalt apron areas and Taxiways A3 and A4. The construction phase of the project is expected to be completed in December 2021.

Passenger Airline Freight Forwarding Facility

The 13,600-square-foot passenger airline freight forwarding facility (S7) is used primarily for the airlines' belly-haul air cargo processing. The facility is split into multiple tenant units with each unit including administrative offices and maintenance, storage, and/or receiving areas. Passenger airline freight is transported via the airfield service roads directly to the passenger aircraft parked at the passenger terminal. This building is occupied by five tenants: Delta Air Lines, Airport Terminal Services, Swissport, American Airlines and Hall Technical Services. **Table 2-10** presents the space and tenant allocations within the passenger airline freight forwarding facility.

Table 2-10 Passenger Airline Freight Forwarding Facility – Space Utilization by Tenant

Lessee	Allocated Space (square feet)
Delta Air Lines (Unit 1)	4,480
Airport Terminal Services (Unit 2)	2,960
Swissport (Units 3 and 4)	2,920
American Airlines (Unit 5)	420.5
Hall Technical Services (Unit 6)	1,460
SOURCE: Lee County Port Authority, August 2021	



SOURCE: Lee County Port Authority, *Airport Layout Plan*, February 2011

Figure 2-18 Aviation Support Facilities Composite Map

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The landside portion of the facility provides 10 cargo truck docking stations, including five recessed bays and five ground-level bays. The facility's parking lot also provides 21 automobile parking positions. Landside access to the passenger airline freight forwarding facility is via Regional Lane, which connects to Chamberlin Parkway.

The airside portion provides eight ground-level docks and approximately 3,600 square yards of pavement for cargo vehicle movement and storage, including 3,830 square feet of covered loading area.

Fuel Storage Facilities

There are three fuel storage facilities on the airport property. The commercial service (S12) and GA fuel storage (S13) facilities are located east of the North Ramp area and north of the Runway 24 end; they are accessible via Perimeter Road, a two-lane road. The GSE fuel storage facility (S15) is located south of the Runway 6 end and is accessible via Perimeter Road.

Commercial Aviation Fuel Storage Facility

The existing commercial service fuel storage facility (S12) is owned by LCPA and operated by FSM Group LLC. The most recent upgrades to the fuel storage facility were completed in 2010 and included the addition of a fourth aboveground 420,000-gallon Jet A fuel storage tank. Fuel is pumped underground to the terminal apron area and transported via a hydrant fuel system to parked commercial service aircraft at each gate.

General Aviation Fuel Storage Facility

PrivateSky Aviation owns and operates the GA fuel storage facility (S13), which was upgraded in 2010 and consists of four aboveground 15,000-gallon Jet A fuel storage tanks and one aboveground 12,000-gallon Avgas fuel storage tank. PrivateSky Aviation operates four 5,000-gallon Jet A trucks, one 2,200-gallon Avgas truck, and two 500-gallon unleaded gasoline/Jet A trailers to deliver fuel to the aircraft.

Ground Support Equipment Fuel Storage Facility

As part of the fuel storage facility upgrades completed as part of the opening of the midfield passenger terminal in September 2005, a GSE fuel storage facility (S15) was constructed. The GSE fuel storage facility is accessible via Perimeter Road and is adjacent to Taxiway F to the south. It includes one aboveground 10,000-gallon diesel fuel storage tank and one 10,000-gallon unleaded gasoline fuel storage tank operated by FSM Group LLC. **Table 2-11** provides a summary of the fuel storage facilities at RSW.

Fuel Storage Facility	Number of Tanks and Capacity (gallons)
Commercial Aviation	4 x 420,000
General Aviation Jet A	4 x 15,000
General Aviation Avgas	1 x 12,000
GSE Diesel	1 x 10,000
GSE Unleaded Gasoline	1 x 10,000

SOURCE: Lee County Port Authority, August 2021

Airline Catering Facilities

The 25,000-square-foot airline catering facility (S14) was built in 1990 and is operated by LSG Sky Chefs. LSG Sky Chefs provides full-service in-flight meal catering programs to the airlines at RSW. The airline catering facility is located east of the GA fuel storage facility and is accessible via two-lane Fuel Farm Road. The airline catering facility provides four landside truck docking stations, four airside truck docking stations and 55 automobile parking spaces.

Aircraft Maintenance, Repair and Overhaul Facility

The 26,000-square-foot MRO hangar (S6) is located south of the passenger airline freight forwarding facility. Approximately 13,000 square feet of the aircraft hangar space are dedicated to aircraft maintenance and related services, and the other 13,000 square feet are reserved for aircraft storage. PrivateSky Aviation, the current hangar operator, specializes in aircraft maintenance services for Gulfstream aircraft, including MRO, detailing, refurbishment (interior and exterior), engine and airframe repair, inspections and modifications, avionics, and parts and pilot supplies.

According to the previous 2004 Master Plan Update, and consistent with the FAA-approved ALP dated August 2011, a new commercial service MRO facility is planned for development on the eastern portion of the North Ramp area. The proposed facility would be equipped with the necessary infrastructure to provide services such as heavy aircraft maintenance, airframe inspections, interior modifications, avionics upgrades and testing and aircraft painting.

In 2020, Intrepid Aerospace, Inc. proposed the construction of a 340,000-square-foot facility that would accommodate up to 11 narrowbody aircraft or four to six widebody aircraft. In addition, a paint booth hangar is planned to accommodate one widebody aircraft. The proposed facility was originally planned to open in 2023.

Airfield Electrical Vault

A new airfield electrical vault was constructed in June 2021, east of Taxiway L and north of the future ATCT facility and existing ARFF facility. The vault contains electrical infrastructure supplying power to the airfield lighting system at the airport and has been built to accommodate airfield lighting needs related to the future parallel runway and associated taxiways.

Federal Aviation Administration Airport Traffic Control Tower

The existing ATCT and Terminal Radar Approach Control (TRACON) facility (S10) are located north of Runway 6-24, north of Taxiway A5. The ATCT operates daily between 6 a.m. and 12 a.m. According to the *Air Traffic Controller Workforce Plan*, dated September 2020, the existing ATCT and TRACON facility accommodates 26 Certified Professional Controllers (CPCs), six CPCs in training (CPC-ITs), and one developmental controller. The landside area of the facility is accessible via Regional Lane. The parking lot includes approximately 60 automobile spaces.

According to the *Safety Risk Management Document, Comparative Safety Assessment for ATCT Siting*, dated February 2011, it was determined that a new ATCT and TRACON facility would be necessary to meet the siting criteria in FAA Order 6480.7, *Airport Traffic Control and Terminal Radar Approach Control Facility Design Guidelines*, to accommodate a future parallel runway configuration. The *Air Traffic Control Tower Siting Report*, dated June 2012, determined that a new site centrally located north of the new ARFF facility between (existing) Runway 6-24 and future Runway 6R-24L would meet all required ATCT siting criteria for the future airfield geometry.



New Airport Traffic Control Tower

SOURCE: Lee County Airport Authority

Construction began on the future ATCT (S16) in July 2019. As of September 2021, the completion date is anticipated to be December 2022. The future ATCT is being constructed with a final tower height of 215 feet AGL measured to the top of the tower lightning rod. The total area for each floor of the ATCT will be approximately 12,300 square feet, including the 550-square-foot cab area. The TRACON portion of the facility will encompass approximately 15,500 square feet. The existing ATCT facility is planned to be demolished following the opening of the new facility. The future ATCT will serve the same hours of operation as the existing ATCT.

Aircraft Rescue and Fire Fighting Facility

The 31,000-square-foot ARFF Station (S17) is located between (existing) Runway 6-24 and future Runway 6R-24L, east of the existing passenger terminal building. The ARFF facility provides five drive-through apparatus bays capable of housing 10 ARFF vehicles.

The ARFF facility is typically staffed 24 hours per day, 365 days per year by 10 LCPA ARFF operations personnel. The ARFF facility is accessible via Perimeter Road and includes 51 automobile parking spaces.

Code of Federal Regulations (Part 139) publishes minimum safety standards for emergency response personnel and equipment needed at commercial service airports. Requirements related to the minimum amount of personnel on duty, equipment, and aqueous film forming foam (AFFF) agent are based on the longest commercial passenger aircraft having an average of five or more daily operations. **Table 2-12** lists the ARFF Index categories and associated aircraft length included in Part 139.

RSW is rated as an ARFF Index D airport based on the current level of scheduled air service. This index level requires the facility to have a minimum of three vehicles that can carry at least 500 pounds of sodium-based dry chemical and produce 4,000 gallons of AFFF. The ARFF department operates the following emergency response vehicles:

- Three 2008 Oshkosh Strikers
- One 2021 Rosenbauer Panther 1500
- One 2012 Rosenbauer Panther 3000
- One 1997 Oshkosh T-1500 (to be decommissioned in 2023)
- One 2022 Rosenbauer Panther High Reach Extendable Turret (HRET) will be added to the fleet in 2023.

Additional ARFF support vehicles include the following:

- One primary Class A fire engine
- One secondary National Fire Protection Association 414 fire engine
- One fleet brush truck
- Three utility service vehicles
- Four staff vehicles

Table 2-12 ARFF Index

ARFF Index Category	Overall Aircraft Length
A	Less than 90 feet
B	More than 90 feet but less than 126 feet
C	More than 126 feet but less than 159 feet
D	More than 156 feet but less than 200 feet
E	More than 200 feet

SOURCE: Federal Aviation Administration, *14 Code of Federal Regulations Part 139*



ARFF Station and part of the emergency response fleet

SOURCE: Lee County Airport Authority

2.9 Non-Aviation Support Facilities

Non-Aviation Support lands are designated on RSW property. Non-Aviation Support development is recognized by the local government comprehensive plan (the “Lee Plan”) and on the adopted Airport Layout Plan as an opportunity for compatible uses that support the continued development of the airport by providing a supplementary revenue source and economic growth for the community.

Local zoning approvals are in place with entitlements for roughly one million square feet of industrial, office, commercial and hotel development potential on approximately 344 acres north of Runway 6-24 (known as Skyplex) and on approximately 51.6 acres designated for non-aviation development in the midfield area along Terminal Access Road. In addition to the Skyplex area and the midfield non-aviation support area, there is a third area totaling 487 acres designated for potential future development in the southeast quadrant of the RSW property. While designated on the adopted Airport Layout Plan, this area currently has no infrastructure or zoning entitlements for any activity or use.

Skyplex

The commercial and industrial designated land north of Runway 6-24, known as Skyplex, includes approximately 843 acres of development area. This non-aviation support designated area extends approximately 2 miles along Daniels Parkway, from Chamberlin Parkway on the west to beyond Fuel Farm Road to the east. In 2021, two parcels on the north side of Daniels Parkway along Commerce Lakes Drive totaling 22.1 acres were released from federal obligations. One 7.1-acre non-aviation designated parcel remains on the north side of Daniels Parkway opposite Chamberlin Parkway (known as the Chana Court parcel), while all remaining RSW property is south of Daniels Parkway. Approximately 44.3 acres within Skyplex are currently occupied by rental car maintenance and storage facilities, which are anticipated to relocate to be more centrally located in the future. The following infrastructure and development in Skyplex is existing or has received permits for development:

- Skyplex Boulevard (approximately 2,400 linear feet of 4-lane divided roadway to create a direct connection between Chamberlin Parkway and Daniels Parkway, constructed)
- Chamberlin Parkway Realignment (transition of the former north terminal loop road to a two-way traffic collector road, designed and permitted)
- Sky Walk Shopping Plaza (67,225 square feet, constructed)
- Gartner Office Complex (87,260 square feet, constructed; 87,260 square feet, planned and permitted)
- Alta Resources Office Building (97,338 square feet, permitted and under construction)

LCPA handles marketing and leasing with non-aviation support tenants and manages the common infrastructure and the unleased lands. In anticipation of additional growth and development, LCPA is in the process of soliciting a real estate and development advisor to assist with planning, brokering, and advancing the goals for industrial and commercial development at Skyplex.

Midfield

Approximately 51.6 acres along Terminal Access Road are designated for non-aviation development in the midfield area. A gas station and convenience store known as Airport Plaza is constructed and a Cell Phone Lot is positioned to the west of the gas station. Approximately 40.1 acres are cleared and available for potential commercial, office or hotel use with access from the outbound Terminal Access Road and from Air Cargo Lane.

Future Potential Development Area

A 487-acre area is designated as "Future Potential Development" on the adopted Airport Layout Plan. This area is located in the southeast quadrant of the airport property, south of the planned alignment of the future parallel runway. While designated "Potential Future Development Area" on the adopted Airport Layout Plan, this area currently has no infrastructure and zoning entitlements for any activity or use. Access to the site is currently limited by substandard roadways, including Airport Haul Road and a roadway that borders the southern boundary of the site, used for accessing Green Meadows Water Plant that is east of airport property.

2.10 Utilities

This section describes the existing electrical power, communications, fiber optic, water and sewer utilities serving the Airport. A more in-depth analysis of existing utilities including figures can be found in Appendix D, Utilities.

Electrical power infrastructure is provided by Florida Power & Light (FPL). An existing major 230 kilovolt (kV) high voltage transmission line is routed along Daniels Parkway on the northern border of the RSW property, and several transmission lines branch from the main line into Airport property. There is also a major FPL 230kV high voltage power line that enters the property from the south and is routed through the southeastern portion of the property.

Communications infrastructure is primarily provided by T-Mobile and to a much lesser extent, CenturyLink, located between the runway and Daniels Parkway in the aviation support and non-aviation support area known as Skyplex. Fiber optic infrastructure is limited to most of the perimeter of the runway.

Potable water is provided through the Lee County Utilities system. All five of Lee County Utilities Water Treatment Plants are interconnected and feed the airport from the south and west. An existing 30-inch water transmission main that crosses Airport property from south to north connects Daniels Parkway to Airport Haul Road. A second water service line and fire line have been added on the east end of the terminal as part of the RSW Terminal Expansion Project.

Sanitary sewer service is provided by Lee County Utilities using traditional gravity sewer, force main, and pump stations. There is one Master Lift Station (3307) that takes in all the wastewater south and west of Skyplex Boulevard and discharges due north. Wastewater flow is then directed east along Daniels Parkway within a 24-inch force main, which discharges into Gateway Wastewater Treatment Plant.

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