

Chapter 8

Implementation Plan

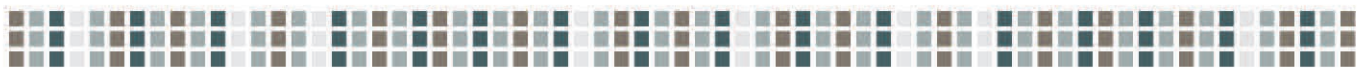


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8. Implementation Plan

8.1 Introduction

The primary objective of this Implementation Plan is to outline the capital improvements proposed for the Airport through 2035. The implementation plan presented herein describes the timing of proposed improvements, prerequisite projects, and anticipated development costs. This implementation plan is intended to provide general financial guidance for the Monroe County Department of Airports and Airport staff to support decision making relative to recommended development at the Airport based on forecast demand and operational needs.

The projects described in this section focus on those identified as part of the master planning process (master plan projects). Projects currently listed on the existing Capital Improvement Program (CIP) and not discussed in detail in the MPU (non-master plan projects) have also been incorporated into this section. It should be noted that the CIP is based on the assumption that the Airport's activity will grow consistent with the aviation activity forecasts presented in this Master Plan, and that the facilities will be developed when required to meet demand. If actual activity does not meet forecast demand, the implementation of the project schedule should be modified as necessary.

The information provided in this document can also be used to update the Joint Automated Capital Improvement Program (JACIP) used by the FAA and the FDOT to coordinate and program airport grant funding. To facilitate coordination with the various stakeholders, project summary sheets for each master plan project have been included. These summary sheets include the following information:

- name and brief description of the project
- project justification: brief explanation on why the project is needed
- site information: location map indicating the project location and overall project exhibit
- projected timing: anticipated project construction start date
- order-of-magnitude costs
- sources of funds: potential sources of funding for the projects

8.2 Capital Improvement Program

The proposed CIP for the Airport includes airfield, landside, hangar, and other general airport improvements necessary to accommodate forecast aviation activity as well as existing or anticipated airport needs, and to address the County's development goals for the Airport. This section presents a general order of priority for the implementation of these improvements based on forecast airport activity growth.

8.2.1 PROJECT SEQUENCING

To clearly present the priorities for the recommended Airport improvements, the proposed sequencing of projects has been divided into three phases:

- Short-Term Improvements (FY 2018 through FY 2023)
- Intermediate-Term Improvements (FY 2024 through FY 2029)
- Long-Term Improvements (FY 2030 through FY 2035)

Although these three phases estimate the general period (in Fiscal Years) for future Airport improvements, periodic re-evaluation of the proposed timing will be necessary to accommodate changing development needs or priorities and to adjust for unforeseen factors. It is also possible that other improvements not identified in this implementation plan may be required to support airport operations and/or improve operational efficiency.

The short-term CIP projects are listed in **Table 8-1** and illustrated on **Exhibit 8-1**. Projects identified as part of the MPU are described below:

- Taxiway A Rehabilitation, Geometry Improvements, and Lighting (depicted as project TW2): In 2015, the average Pavement Condition Index (PCI) for Taxiway A was 65¹. The age of the pavement combined with the increased traffic and aircraft size has resulted in the pavement showing signs of distress and a potential generator of Foreign Object Debris (FOD) on the taxiways. The rehabilitation of the pavement will include a mill and overlay. Improvements to the pavement geometry along Taxiway A are needed to comply with FAA design standards. Geometry improvements include widening the Taxiway A connectors to allow for cockpit-over-centerline taxiing; removing excess pavement at both the Runway 9 and Runway 27 entrances from Taxiway A; and installing a no-taxi island south of Taxiway C to prevent direct access from the apron to the runway. Rehabilitation of the taxiway lighting system includes the replacement of taxiway edge light fixtures, isolation transformers, and circuitry back to the airfield lighting vault.

¹ Florida Department of Transportation, *Statewide Airfield Pavement Management Program*, June 2015.

Table 8-1: Short-Term Projects

Project ID¹	Project Description
Master Plan Projects	
AP 1	Commercial Apron Expansion - Design and Permitting
AP 2	Commercial Apron Expansion - Construction
AP 3	Overflow Parking Ramp (Phase 1)
AP 4	Vehicle Service Road Relocation
ED 1	Environmental Assessment - Taxiway A, Commercial Apron Extension, Overflow Aircraft Parking, and Vehicle Service Road Relocation
LS 1	Terminal Arrivals Curb Modifications
LS 2	New Access Road
LS 3	Bus Station Relocation
LS 4	Rental Car Facilities (Phase 1)
PS 3	Terminal Expansion and Renovation – Preliminary Design
SF 1 & 2	Maintenance Building - Design and Construction
SF 3	Consolidated Maintenance Building - Construction
TE 6	Terminal Expansion and Renovation - Design
TE 7	Terminal Expansion and Renovation - Construction (Phase 1)
TW 1	Taxiway A Rehabilitation, Geometry Improvements, and Lighting - Design
TW 2	Taxiway A Rehabilitation, Geometry Improvements, and Lighting - Construction
TW 3	Former NWS Weather Balloon Facility Demolition
TW 4	Taxiway A Extension – Design, Permitting, and Construction
FE 1	New Perimeter Fence
Non-Master Plan Projects	
TE 1	Terminal Improvements - Chillers
TE 2	Terminal Restrooms and Pet Relief Design
TE 3	Customs Expansion
TE 4	Terminal Annex Modifications II & III/ Customs Upgrades (including EOC)
TE 5	Restroom Renovation and SARA
SI 1-6	Airport Building and Security Improvements
EQ 2,3,4,6	Essential Airport Equipment
EQ 1	Replace Existing Airport Beacon
EQ 5	Airfield Rescue and Fire Fighting (ARFF) Equipment and Fire Support Equipment
NP 1 - 6	Noise Insulation Program - Phase 1 - 6

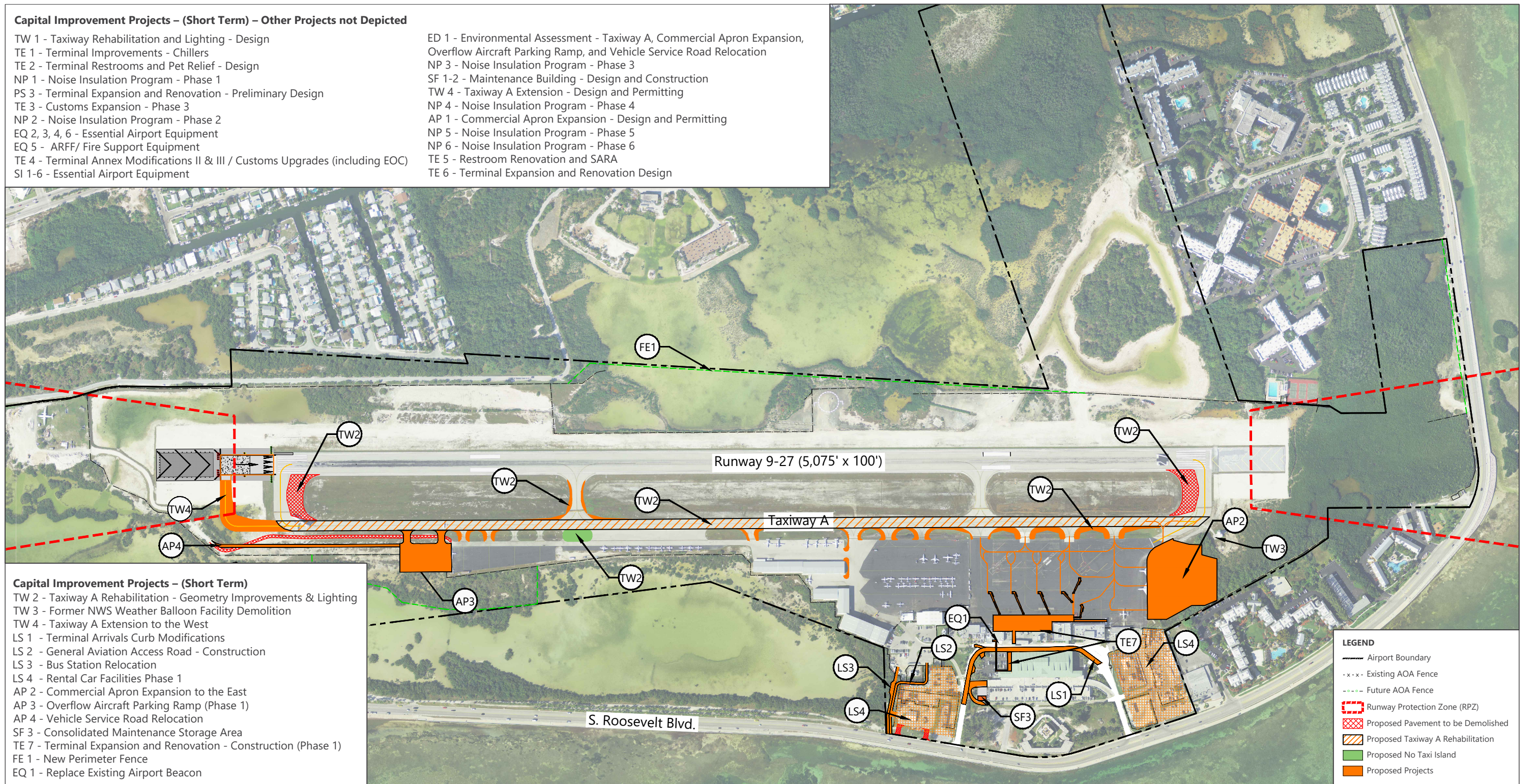
NOTES:

1/ LS – Landside; TE – Terminal; TW – Taxiway; NP – Noise Insulation Program; SI – Security Improvements; PS – Planning Study; EQ – Equipment; ED – Environmental Documentation; AP – Apron; AF – Airfield; GA – General Aviation; EOC – Emergency Operations Center; SF – Support Facility

2/ FY = October 1 through September 30. Programmed FY is based on the approved Master Plan Forecasts. Actual implementation and timeline should be correlated with actual demand levels.

SOURCES: Monroe County, December 2018 (Capital Improvement Program); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., January 2019.



SOURCES: Martinez Geospatial, Basemap Planimetrics, November 2016; Martinez Geospatial, Aerial Photography, April 2016.
 PREPARED BY: Ricondo & Associates, Inc., January, 2019.

EXHIBIT 8-1



Short-Term Improvement Projects
 (FY 2018 – FY 2023)

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Master Plan Update
 Implementation Plan

- Taxiway A Extension (depicted as project TW4): Taxiway A will be extended to the west to provide access to the runway end. A full-length parallel taxiway will provide additional takeoff runway length without back taxiing on the runway.
- Terminal Arrivals Curb Modifications (depicted as project LS1): This project consists of improvements to Faraldo Circle to maintain two lanes through the terminal core and eliminate the existing merge lane., This project also includes modifications of curbsides and landscaping, as well as 1,334 SY of pavement construction and restriping.
- Terminal Expansion and Renovation – Project Definition Document (noted as project PS3): This project includes a project definition document (PDD) to further define the project scope and operational parameters for the proposed terminal expansion and renovation.
- Terminal Expansion and Renovation (depicted as project TE7): A second-floor concourse to the north of the existing terminal facility will be built. This concourse will accommodate new holdrooms, concession spaces, restrooms, and five boarding bridges, and will connect the existing landside terminal and proposed building via the existing departure bridge. The existing terminal will be improved and renovated to meet forecast demand with the addition of a new baggage claim, an expanded baggage makeup area, and the creation of a turboprop holdroom.
- General Aviation (GA) Area Access Road (depicted as project LS2): This project consists of the construction of a new access roadway to the GA area and Airport support facilities directly from S. Roosevelt Boulevard. In addition, this project will eliminate two existing access points on S. Roosevelt Boulevard and will provide dedicated access to the existing Department of Motor Vehicles (DMV) from the newly constructed roadway. This project would eliminate trips on the arrival curbside roadway generated by fuel tankers and county waste management trucks, improving safety and security at the Airport.
- Bus Station Relocation (depicted as project LS3): This project involves relocating the bus pickup/drop-off currently leased to Greyhound and associated office at the Airport.
- Commercial Apron Expansion (depicted as project AP2): Expanding the commercial terminal apron is necessary to accommodate additional aircraft during peak periods and during irregular operations. The proposed expanded terminal apron will allow for aircraft utilizing the existing easternmost apron parking positions and aircraft utilizing the future designated Customs and Border Protection (CBP) parking area to power-in and power-out, rather than utilize an aircraft tug. The commercial apron expansion will also provide additional capacity during the expansion of the terminal.
- Consolidated Maintenance Building (depicted as project SF3): This project includes the consolidation of all Airport maintenance facilities into one building, which will be constructed as an extension to the west side of the existing employee parking garage. This site will be built above the stormwater retention area to avoid impacts to the retention area.
- Former NWS Balloon Facility Demolition (depicted as project TW3): This project includes the demolition of the former NWS Balloon facility which is currently located within the Runway 9-27 Runway Object Free Area (ROFA).
- New Perimeter Fence (depicted as project FE1): The project includes the construction of a new air operations area (AOA) fence along the north Airport boundary (including earthwork and infill of the salt ponds and

wetland areas). This project would also include the removal of the existing fence located within the Runway Safety Area (RSA), as well as environmental reviews and approvals.

- Overflow Aircraft Parking Ramp – Phase 1 (depicted as project AP3): This project consists of the construction of approximately 5,000 square yards of ramp to provide additional aircraft parking positions. This ramp will be used to park aircraft that cannot be accommodated on the existing apron areas.
- Rental Car Facilities – Phase 1 (depicted as project LS4): This project includes the planning, design, and construction of a consolidated rental car (CONRAC) facility. The location of and concession program for the proposed facilities will be defined as part of the planning phase for this new CONRAC facility.
- Vehicle Service Road Relocation (depicted as project AP4): This project provides for the relocation of the service road located south of Taxiway A and west of the existing GA ramp. Specifically, the service road will be relocated outside of the runway and taxiway object free areas in compliance with FAA airport design standards, as stipulated in Advisory Circular 150/5300-13A.
- Replace Existing Airport Beacon (depicted as project EQ2): This project includes the replacement of the existing airfield’s rotating beacon, pole, and foundation. The existing beacon has reached the end of its serviceable life and it is not easily maintained. The existing beacon will be replaced with a beacon and pole system to allow for maintenance to occur without the need for the Airport to rent a boom truck.
- Environmental Documentation (project ED1): An environmental document will be necessary to study the implications of these projects. In particular, an Environmental Assessment (EA) will be required for the Taxiway A Extension, the Commercial Apron Expansion Project, the Overflow Aircraft Parking Ramp project, and the Vehicle Service Road Relocation project.

The intermediate-term CIP projects are required to provide additional public parking and a terminal expansion and renovation. A list of proposed projects occurring during the intermediate-term is included in **Table 8-2**. The intermediate-term projects are illustrated on **Exhibit 8-2** and are described below.

- Public Parking Facilities (Phase 1) (depicted as project LS5): This project consists of the planning, design, and construction of a new public parking lot and/or garage with approximately 150 parking spaces. The location of the proposed public parking facilities will be established once the location of the CONRAC facilities is set.
- Terminal Expansion and Renovation – Phase 2 and 3 (depicted as projects TE8 and TE9): The second and third phase of the terminal expansion and renovation project. The terminal expansion will involve a new second-floor concourse north of the existing terminal facility. The existing terminal will also be improved and renovated to accommodate anticipated forecasted demand.
- Security Screening Checkpoint Expansion (depicted as project LS 6): This project proposes the construction of an 1,800-square-foot building extension to the west of the existing security checkpoint to contain the third checkpoint lane that is required to accommodate the projected passenger demand. This third lane will be capable of functioning either as a dedicated Pre✓ lane or a standard lane.
- Airport Master Plan Update (project PS8): This project will update the Airport Master Plan to provide the framework needed to cost effectively satisfy aviation demand, while considering potential environmental and socioeconomic impacts. Airport Master Plans are also useful for reassessing airport needs and changing patterns at the Airport.

Table 8-2: Intermediate-Term Projects

Project ID¹	Project Description
Master Plan Projects	
ED 2	Environmental Documentation – Intermediate-term projects
LS 5	Public Parking Facilities – Design and Construction
LS 6	Security Screening Checkpoint Expansion
PS 8	Airport Master Plan Update
TE 8	Terminal Expansion and Renovation - Construction (Phase 2)
TE 9	Terminal Expansion and Renovation - Construction (Phase 3)
ED 3	Environmental Assessment – Overflow Aircraft Parking Ramp (Phase 2)
AP 5	Overflow Aircraft Parking Ramp Expansion (Phase 2) - Design
Non-Master Plan Projects	
NP 7	NIP Phase 7 Construction - Homes, Grace Lutheran Church and School (Phase 1)
NP 8	NIP Phase 7 Construction - Homes, Grace Lutheran Church and School (Phase 2)

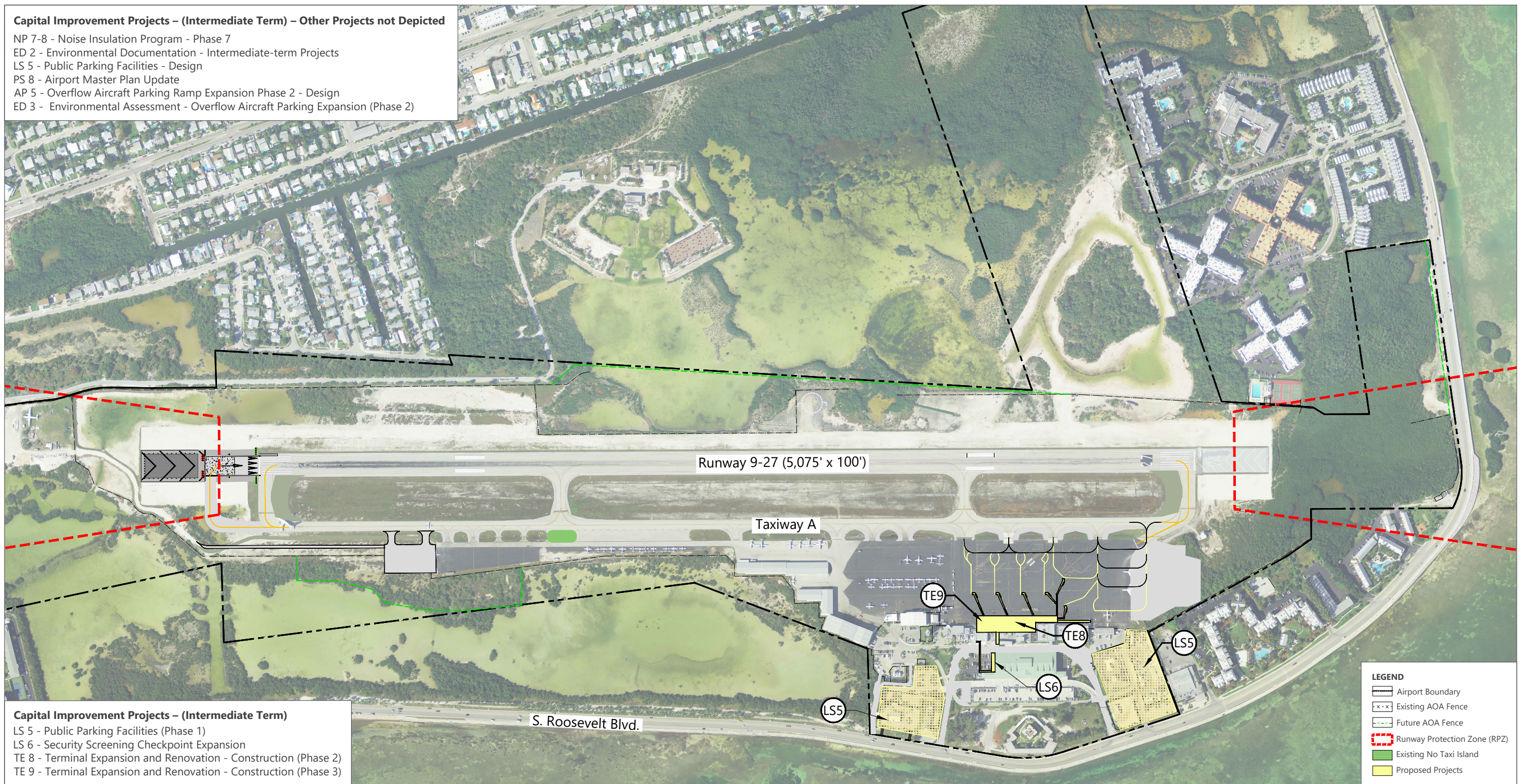
NOTES:

1/ LS – Landside; TE – Terminal; NP – Noise Insulation Program; PS – Planning Study; ED – Environmental Documentation; AP – Apron; GA – General Aviation; EOC – Emergency Operations Center; CATEX – Categorical Exclusion

2/ FY = October 1 through September 30. Programmed FY is based on the approved Master Plan Forecasts. Actual implementation and timeline should be correlated with actual demand levels.

SOURCES: Monroe County, December 2018 (Capital Improvement Program); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., January 2019.



Capital Improvement Projects – (Intermediate Term) – Other Projects not Depicted
 NP 7-8 - Noise Insulation Program - Phase 7
 ED 2 - Environmental Documentation - Intermediate-term Projects
 LS 5 - Public Parking Facilities - Design
 PS 8 - Airport Master Plan Update
 AP 5 - Overflow Aircraft Parking Ramp Expansion Phase 2 - Design
 ED 3 - Environmental Assessment - Overflow Aircraft Parking Expansion (Phase 2)

Capital Improvement Projects – (Intermediate Term)
 LS 5 - Public Parking Facilities (Phase 1)
 LS 6 - Security Screening Checkpoint Expansion
 TE 8 - Terminal Expansion and Renovation - Construction (Phase 2)
 TE 9 - Terminal Expansion and Renovation - Construction (Phase 3)

LEGEND
 [Symbol] Airport Boundary
 [Symbol] Existing AOA Fence
 [Symbol] Future AOA Fence
 [Symbol] Runway Protection Zone (RPZ)
 [Symbol] Existing No Taxi Island
 [Symbol] Proposed Projects

SOURCE: Martinez Geospatial, *Basemap Planimetrics*, November 2016; Martinez Geospatial, *Aerial Photography*, April 2016.
 PREPARED BY: Ricondo & Associates, Inc., January, 2019.



Intermediate-Term Improvement Projects
 (FY 2024 – FY 2029)

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The long-term CIP projects consist of apron expansion to accommodate demand for additional aircraft parking space, the relocation of Taxiway D, and the Runway 27 bypass taxiway and safety improvements. A list of proposed projects occurring during the long-term is included in **Table 8-3**. The long-term projects are illustrated on **Exhibit 8-3** and are described below.

- **Overflow Aircraft Parking Ramp Expansion (Phase 2)** (depicted as project AP5): This project consists of an additional 24,000 square yards of parking apron and up to three additional connectors to Taxiway A. This new apron area constructed to FAA design standards, including access, shoulders, signage, marking, and lighting, will be required to park, fuel, and tie-down transient and based aircraft.
- **Taxiway D Relocation** (depicted as project AP6): This project provides for the relocation of Taxiway D 150 feet west to mitigate the direct access from the apron to the runway (in compliance with FAA AC 150/5300-13A).
- **Runway 27 Bypass Taxiway and Safety Improvements** (depicted as project AP7): The extension of the runway by 200 feet to the east would allow for the construction of a bypass taxiway to help mitigate potential delay at the Runway 27 end. This project also includes the construction of an Engineered Material Arresting System (EMAS) to provide a level of safety that is generally equivalent to a full RSA built to the dimensional standards in AC 150/5300-13A, *Airport Design*.

Table 8-3: Long-Term Projects

Project ID ¹	Project Description
Master Plan Projects	
AP 5	Overflow Aircraft Parking Ramp Expansion (Phase 2) - Construction
AP 6	Taxiway D Relocation
AP 7	Runway 27 Bypass Taxiway and Safety Improvements

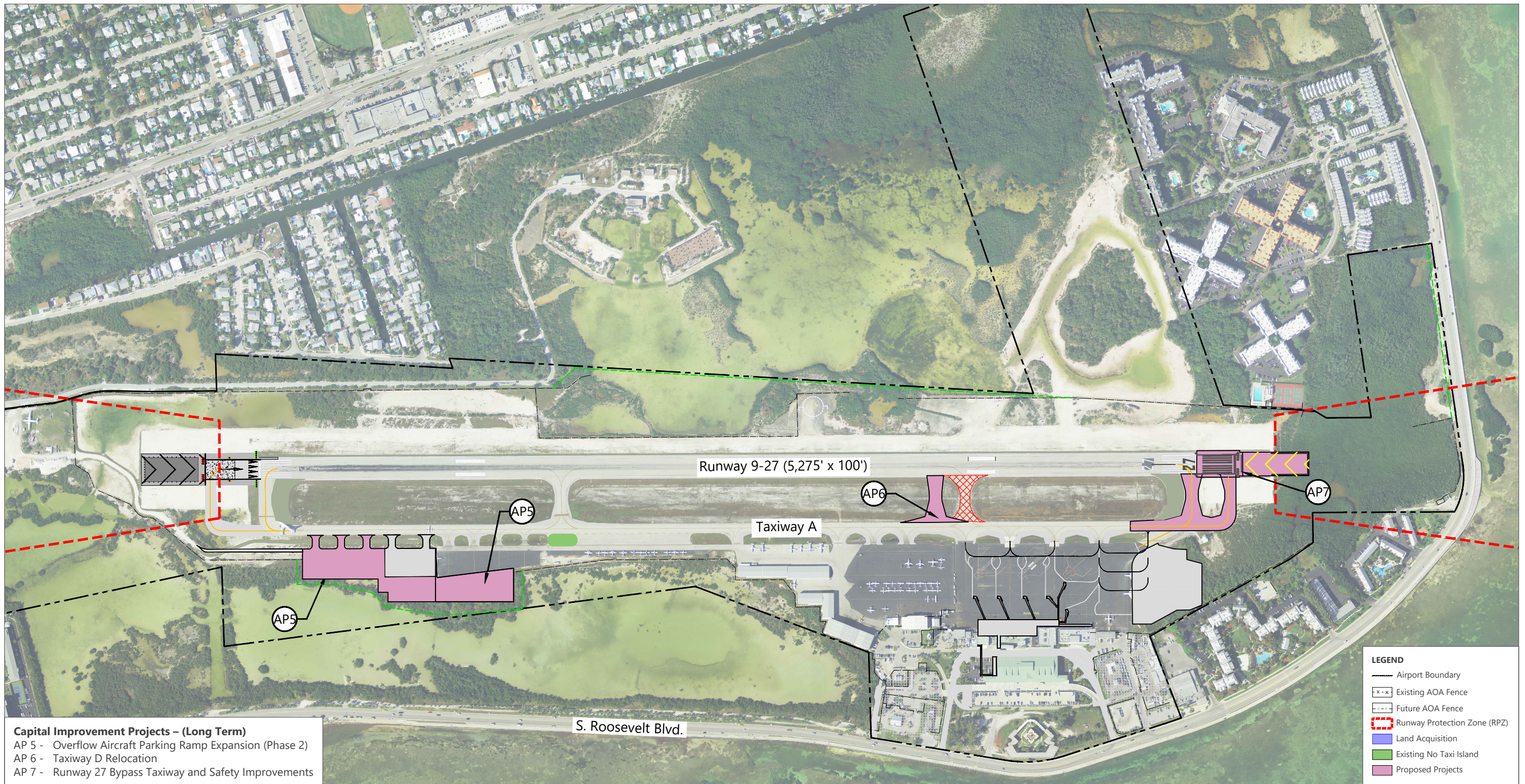
NOTES:

1/ LS – Landside; PS – Planning Study; ED – Environmental Documentation; AP – Apron;

2/ FY = October 1 through September 30. Programmed FY is based on the approved Master Plan Forecasts. Actual implementation and timeline should be correlated with actual demand levels.

SOURCES: Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., April 2018.



Capital Improvement Projects – (Long Term)
 AP 5 - Overflow Aircraft Parking Ramp Expansion (Phase 2)
 AP 6 - Taxiway D Relocation
 AP 7 - Runway 27 Bypass Taxiway and Safety Improvements

LEGEND

- Airport Boundary
- x-x- Existing AOA Fence
- - - Future AOA Fence
- ▭ Runway Protection Zone (RPZ)
- ▭ Land Acquisition
- ▭ Existing No Taxi Island
- ▭ Proposed Projects

SOURCES: Martinez Geospatial, *Basemap Planimetrics*, November 2016; Martinez Geospatial, *Aerial Photography*, April 2016.
 PREPARED BY: Ricondo & Associates, Inc., January, 2019.

EXHIBIT 8-3



Long-Term Improvement Projects
 (FY 2030 – FY 2035)

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8.2.2 ROUGH ORDER OF MAGNITUDE ESTIMATES

The estimated project budget presented for each identified Airport improvement reflects a preliminary opinion of the probable implementation costs for the project, including a construction contingency of 25 percent. Additionally, a soft-cost markup of 30 percent has been included to account for professional design services, bidding and permitting services, and construction administration, inspection and testing. The ROM costs were developed using 2018 U.S. dollars and have been escalated at 3 percent annually to account for inflation.

Due to the conceptual nature of this MPU's Airport plans, further refinement of the cost estimates through architectural and engineering analyses will be required. Capital costs in this document should be viewed only as estimates subject to further refinement during design as the scope for the project is confirmed or refined. The short-, intermediate-, and long-term CIP cost estimates are presented in **Table 8-4** through **Table 8-6**.

Table 8-4: Short-Term Capital Improvement Program Costs

Project ID ¹	Fiscal Year ²	Project Description	Rough Order of Magnitude (escalated) ^{3, 4}
Master Plan Projects			
LS 1	2018	Terminal Arrivals Curb Modifications	\$ 1,400,000
LS 2	2018	New Access Road	\$ 2,200,000
TW 1	2018	Taxiway A Rehabilitation, Geometry Improvements, and Lighting - Design	\$ 610,000
ED 1	2019	Environmental Assessment - Taxiway A, Commercial Apron Extension, Overflow Aircraft Parking, and Vehicle Service Road Relocation	\$ 750,000
LS 3	2019	Bus Station Relocation	\$ 110,000
TW 2	2019	Taxiway A Rehabilitation, Geometry Improvements, and Lighting - Construction	\$ 6,500,000
PS 3	2019	Terminal Expansion and Renovation – Preliminary Design	\$ 1,000,000
SF 1	2019	Maintenance Building - Design and Construction	\$ 460,000
SF 2	2020	Maintenance Building - Design and Construction	\$ 1,300,000
TW 3	2020	Former NWS Weather Balloon Facility Demolition	Included in TW 2 Project Costs
TW 4	2020	Taxiway A Extension and Overflow Aircraft Parking (Phase 1 – Design and Permitting)	\$ 850,000
SF 3	2021	Consolidated Maintenance Building - Construction	\$ 930,000
TW 4, AP 3, AP 4	2021	Taxiway A Extension and Overflow Aircraft Parking (Phase 1) – Construction and Vehicle Service Road Relocation	\$ 10,000,000
FE 1	2021	New Perimeter Fence	TBD
AP 1	2021	Commercial Apron Expansion - Design and Permitting	\$ 850,000
AP 2	2022	Commercial Apron Expansion - Construction	\$ 10,000,000
TE 6	2022	Terminal Expansion and Renovation - Design	\$ 2,000,000
TE 7	2023	Terminal Expansion and Renovation - Construction (Phase 1)	\$ 35,000,000 ^{5/}
LS 4	2020-2023	Rental Car Facilities (Phase 1)	TBD
Total Master Plan Projects Costs			\$ 73,960,000

Table 8-4 (Cont'd): Short-Term Capital Improvement Program Costs

Project ID ¹	Fiscal Year ²	Project Description	Rough Order of Magnitude (escalated) ^{3,4}
Non-Master Plan Projects			
TE 1	2018	Terminal Improvements - Chillers	\$ 200,000
TE 2	2018	Terminal Restrooms and Pet Relief Design	\$ 230,000
NP 1	2018	Noise Insulation Program - Phase 1	\$ 6,100,000
TE 3	2019	Customs Expansion (Phase 3)	\$ 4,780,000
NP 2	2019	Noise Insulation Program - Phase 2	\$ 9,200,000
EQ 1	2019	Replace Existing Airport Beacon	\$ 410,000
TE 4	2019	Terminal Annex Modifications II & III/ Customs Upgrades (including EOC)	\$ 2,170,000
TE 5	2019	Restroom Renovation and SARA	\$ 1,700,000
NP 3	2020	Noise Insulation Program - Phase 3	\$ 4,500,000
NP 4	2021	Noise Insulation Program - Phase 4	\$ 4,500,000
EQ 5	2022	Airfield Rescue and Fire Fighting (ARFF) Equipment	\$ 1,000,000
NP 5	2022	Noise Insulation Program - Phase 5	\$ 4,100,000
NP 6	2023	Noise Insulation Program - Phase 6	\$ 3,900,000
SI 1-6	2018, 2019, 2020, 2021, 2022, 2023	Airport Buildings and Security Improvements	\$ 2,160,000
EQ 2, 3, 4, 6	2020, 2021, 2022, 2023	Essential Airport Equipment	\$ 1,150,000
Total Non-Master Plan Projects Costs			\$ 46,100,000
Total Project Costs			\$ 120,060,000

NOTES:

- 1/ LS – Landside; TE – Terminal; TW – Taxiway; NP – Noise Insulation Program; SI – Security Improvements; PS – Planning Study; EQ – Equipment; ED – Environmental Documentation; AP – Apron; AF – Airfield; GA – General Aviation; EOC – Emergency Operations Center; SF – Support Facility; TBD-To be Determined.
- 2/ FY = October 1 through September 30. Programmed FY is based on the approved Master Plan Forecasts. Actual implementation and timeline should be correlated with actual demand levels.
- 3/ Estimated project costs include the following soft costs: 15 percent for professional design, bidding, and permitting services (A/E); 15 percent for construction administration and resident project representative services; and a 25 percent contingency allowance.
- 4/ Costs developed using 2018 U.S. dollars and have been escalated at 3 percent annually for inflation.
- 5/ Overall projects costs including Phases 2 and 3 Construction

SOURCES: Monroe County, December 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., January 2018.

Table 8-5: Intermediate-Term Capital Improvement Program Costs

Project ID ¹	Fiscal Year ²	Project Description	Rough Order of Magnitude (escalated) ^{3,4}
Master Plan Projects			
LS 5	2024	Public Parking Facilities - Design	\$ 420,000
LS 6	2024	Security Screening Checkpoint Expansion – Design and Construction	\$ 1,930,000
ED 2	2024	Environmental Documentation – Intermediate-term projects	\$ 240,000
TE 8, TE 9	2024	Terminal Expansion and Renovation - Construction (Phases 2 and 3)	Included as part of TE7
LS 5	2025	Public Parking Facilities - Construction	\$ 3,100,000
ED 3	2028	Environmental Assessment – Overflow Aircraft Parking Ramp (Phase 2)	\$ 700,000
PS 8	2029	Airport Master Plan Update	\$ 1,400,000
AP 5	2029	Overflow Aircraft Parking Ramp Expansion (Phase 2) Design	\$ 1,100,000
Total Master Plan Projects Costs			\$ 8,890,000
Non-Master Plan Projects			
NP 7	2024	NIP Phase 7 Construction - Homes, Grace Lutheran Church and School (Phase 1)	\$ 2,600,000
NP 8	2025	NIP Phase 7 Construction - Homes, Grace Lutheran Church and School (Phase 2)	\$ 3,000,000
Total Non-Master Plan Projects Costs			\$ 5,600,000
Total Projects Costs			\$ 14,490,000

Notes:

- 1/ LS – Landside; TE – Terminal; TW – Taxiway; NP – Noise Insulation Program; SI – Security Improvements; PS – Planning Study; EQ – Equipment; ED – Environmental Documentation; AP – Apron; AF – Airfield; GA – General Aviation
- 2/ FY = October 1 through September 30. Programmed FY is based on the approved Master Plan Forecasts. Actual implementation and timeline should be correlated with actual demand levels.
- 3/ Estimated project costs include the following soft costs: 15 percent for professional design, bidding, and permitting services (A/E); 15 percent for construction administration and resident project representative services; and a 25 percent contingency allowance.
- 4/ Costs developed using 2018 U.S. dollars and escalated at 3 percent annually for inflation.

SOURCES: Monroe County, December 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., January 2019.

Table 8-6: Long-Term Capital Improvement Program Costs

Project ID ¹	Fiscal Year ²	Project Description	Rough Order of Magnitude (escalated) ^{3, 4}	
Master Plan Projects				
AP 5	2030	Overflow Aircraft Parking Ramp Expansion (Phase 2)	\$	11,000,000
AP 6	2031	Taxiway D Relocation	\$	5,080,000
AP 7	2032	Runway 27 Bypass Taxiway and Safety Improvements		TBD
Total Master Plan Projects Costs			\$	16,080,000

NOTES:

- 1/ LS – Landside; TE – Terminal; TW – Taxiway; NP – Noise Insulation Program; SI – Security Improvements; PS – Planning Study; EQ – Equipment; ED – Environmental Documentation; AP – Apron; AF – Airfield; GA – General Aviation; TBD-To be Determined.
- 2/ FY = October 1 through September 30. Programmed FY is based on the approved Master Plan Forecasts. Actual implementation and timeline should be correlated with actual demand levels.
- 3/ Estimated project costs include the following soft costs: 15 percent for professional design, bidding, and permitting services (A/E); 15 percent for construction administration and resident project representative services; and a 25 percent contingency allowance.
- 4/ Costs developed using 2018 U.S. dollars and escalated at 3 percent annually for inflation.

SOURCES: Monroe County, December 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., January 2019.

8.2.3 ANTICIPATED FUNDING SOURCES

This subsection discusses the potential funding sources for the CIP. Potential sources of funding for each project identified in the Master Plan are provided in the project description sheets included in Section 8.3.

- **Federal Grants** – The United States Congress has long recognized the need to develop and maintain a system of aviation facilities across the nation for defense purposes and to promote interstate commerce. Various grant-in-aid programs for public airports have been established over the years for this purpose. The primary source of FAA-related funds is the Airport Improvement Program (AIP), which was established by the Airport and Airway Improvement Act of 1982 (Public Law 97-248). Since then, the AIP has been amended several times, most recently with the passage of the FAA Modernization and Reform Act of 2012. Funds obligated for the AIP are drawn from the Airport and Airway Trust Fund, which is supported by user fees, fuel taxes, and other similar revenue sources. Funds deposited into the Airport and Airway Trust Fund are distributed to eligible airports throughout the United States and its territories through FAA grants under appropriations limits established by Congress.

To be eligible for AIP grants, airports must meet the following criteria: (1) publicly owned, or privately owned, but designated by the FAA as a reliever; (2) privately owned but having scheduled commercial service and at least 2,500 annual enplaned passengers; and (3) included in the NPIAS. The NPIAS is published every 2 years and identifies public-use airports that are important to public transportation and contribute to the needs of civil aviation, national defense, and the U.S. Postal Service.

In general, airport sponsors can use AIP grants for most airfield capital improvements or repairs. AIP grants cannot be used for exclusive-use areas in terminals, revenue-producing areas of terminals, hangars, or nonaviation development. Any professional services that are necessary for eligible projects, such as planning, surveying, and design, are also eligible; however, operating expenses associated with AIP projects are not eligible. Aviation demand at an airport must justify the projects, which must also meet federal environmental and procurement requirements.

AIP funding is allocated on a national priority basis. The Airport competes with other airports throughout the State of Florida and the FAA Southern Region, as well as the remainder of the country, for development grants. As in the past, federal grants are expected to be used to finance a portion of the Airport CIP. Historically, projects at the Airport have been eligible to receive 90 percent to 95 percent AIP participation. Also, in the case of security-related projects, airports may be eligible for 100 percent AIP funding. With respect to discretionary grants, it is difficult to predict a reasonable amount that can be applied to the CIP, given today's status concerning federal funding of airport-related capital projects. To the extent that projected discretionary grants are not received, the County may have to re-evaluate the phasing of the CIP and/or its funding eligibility from other sources.

Monroe County has received an average of \$2.7 million in AIP entitlement grants and \$4.0 million in discretionary funding over the past 5 years for projects at EYW.

- **State Grants** – A significant amount of funding for Airport capital improvements has historically come from the State of Florida. The Airport is included in the JACIP, a coordinated process between the FAA and the FDOT to plan airport capital improvements and expenditures. If the project receives federal funding, then the FDOT is expected to contribute approximately 5 percent of the funding. The FDOT will provide up to 80 percent of the funding for most non-FAA-supported airport development projects; however, only 50 percent funding is provided if the project is directly related to economic development.

Monroe County has received an average of \$1.5 million in grants from FDOT over the past 5 years for projects at EYW.

- **Sponsor Funding / Local Share** – The net remaining amount of funding required for the CIP will be derived from the County's revenues or other sources. The County's revenues are typically generated through user fees charged for the facilities and services provided. These user fees are typically established by Airport management based on market conditions in the area.
- **Passenger Facility Charges (PFC) Revenues** – PFC revenues may be used on a "pay-as-you-go" (PAYGO) basis or leveraged to pay debt service on bonds or other debt used to pay for PFC-eligible projects. Because airport sponsors may use PFC revenues for the local matching share of AIP grants, PFCs can help airport sponsors implement AIP-financed projects sooner than they would be able to otherwise. Although the FAA is required to approve the collection of a PFC and the use of PFC revenues, the PFC Program permits local collections of PFC revenues through the airlines operating at airports and provides more flexibility to airport sponsors than the AIP funding. PFCs may be used for any AIP-eligible project, although PFC eligibility is generally broader than AIP eligibility.
- **Revenue Bond Proceeds** - Proceeds from the issuance of General Airport Revenue Bonds (GARBs) and PFC Bonds can be used to fund projects included in the CIP. Future GARB and PFC debt service associated with the CIP projects are estimated based on industry standards over a bond term of thirty years.

8.3 Master Plan Project Description Sheets

For each new project identified as a part of this planning process and included in the short- and intermediate-CIP, a project description sheet has been prepared to assist the County and Airport management in applying for grants and other financial assistance. These project description sheets include some of the information necessary for the preparation of a grant application or what is typically required by the JACIP database. Each sheet is intended to facilitate the entry of planned Airport capital improvement projects into the JACIP system. Note that sheets have not been developed for supporting projects, such as the environmental documentation accompanying each project, and projects already programmed in the Airport's CIP, such as the Noise Insulation Program (NIP).

Where applicable, each project sheet also includes a diagram indicating the general location of the proposed capital improvement projects and the general limits of work associated with each project. These diagrams illustrate nearby significant Airport landmarks for reference and may be useful in coordinating future projects with funding and regulatory agencies prior to initiating design and development.

The project description sheets also include the preliminary ROM estimates based the projected limits of work and the assumptions provided. Budget estimates are based on approximate quantities and typical unit prices for similar work, and they include professional services and contingency fees, where applicable. All estimated costs and budgets in this report were developed using 2018 U.S. dollars and were escalated at 3 percent annually for inflation.

PROJECT: TW 1/2 TAXIWAY A REHABILITATION, GEOMETRY IMPROVEMENTS, AND LIGHTING

Project Description: Project includes approximately 3,000 SY of additional pavement and the removal of approximately 5,750 SY of asphalt along Taxiway A and its associated connectors. This project also includes lighting and signage relocations or improvements and a rehabilitation of Taxiway A (4,750' x 50').

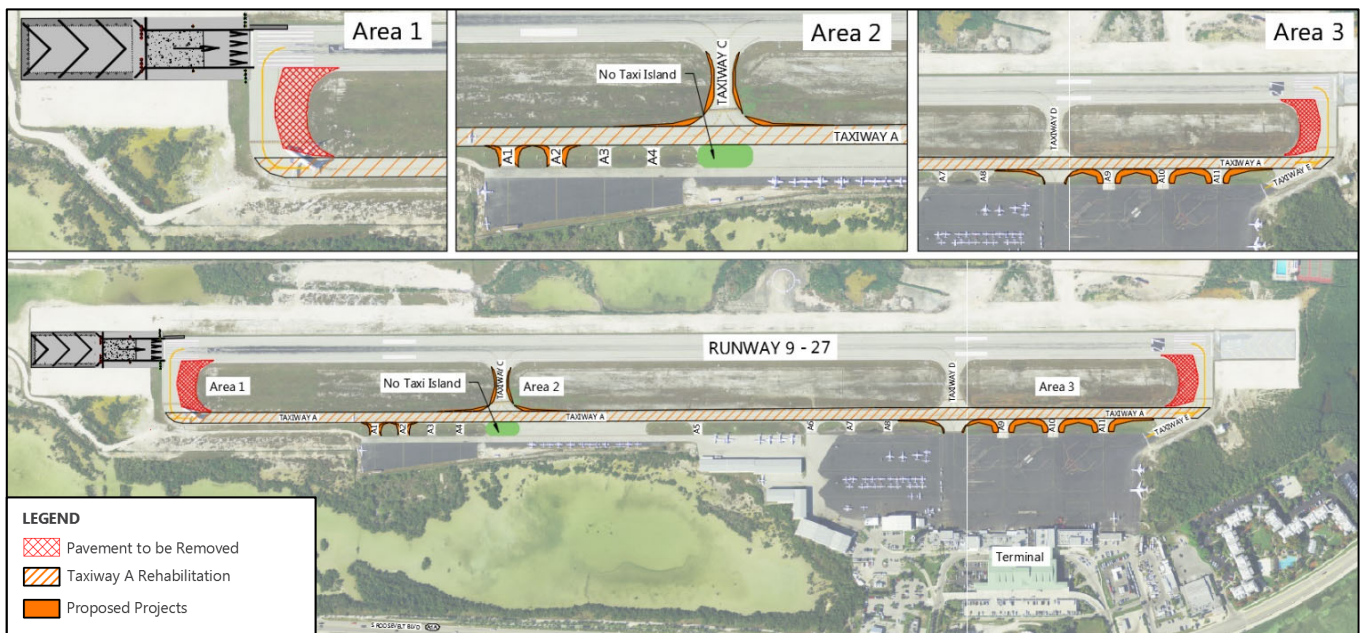
Project Justification: Improvements to the pavement geometry along Taxiway A are needed to comply with FAA design standards. Geometry improvements will include widening the Taxiway A connectors to allow for cockpit-over-centerline taxiing; removing access pavement at both the Runway 9 and Runway 27 entrances from Taxiway A; installing a no-taxi island south of Taxiway C to prevent direct access from the apron to the runway. In 2015, the average PCI for Taxiway A was 65². The age of the pavement combined with the increased traffic and aircraft size has resulted in the pavement showing signs of distress and a potential generator of FOD on the taxiways.

Enabling Projects: Environmental Documentation

Anticipated Start Date: FY 2018 (Design), FY 2019 (Construction)

Initial Project Cost Estimates: Design (in 2018 dollars): \$610,000, Construction (in 2019 dollars): \$6,500,000

Potential Funding Sources: FAA (90 percent); FDOT (5 percent); PFC (5 percent); Local Share (0 percent)



SOURCES: Monroe County, April 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., April 2018.

² Florida Department of Transportation, *Statewide Airfield Pavement Management Program*, June 2015.

PROJECT: TW 3/4:**TAXIWAY A EXTENSION****Project Location:**

West of Taxiway A at the approach end of Runway 9.

Project Description:

The project will extend Taxiway A to the west at the approach end of Runway 9 with the addition of approximately 3,300 SY of asphalt including new lighting and signage. Environmental impact associated with this project will be documented as part of the Environmental Assessment.

Project Justification:

Extending Taxiway A to the west will provide additional takeoff roll without aircraft having to back taxi on the runway leading to an increase in safety with the reduction of an aircraft's runway occupancy time and the increase in takeoff distance available.

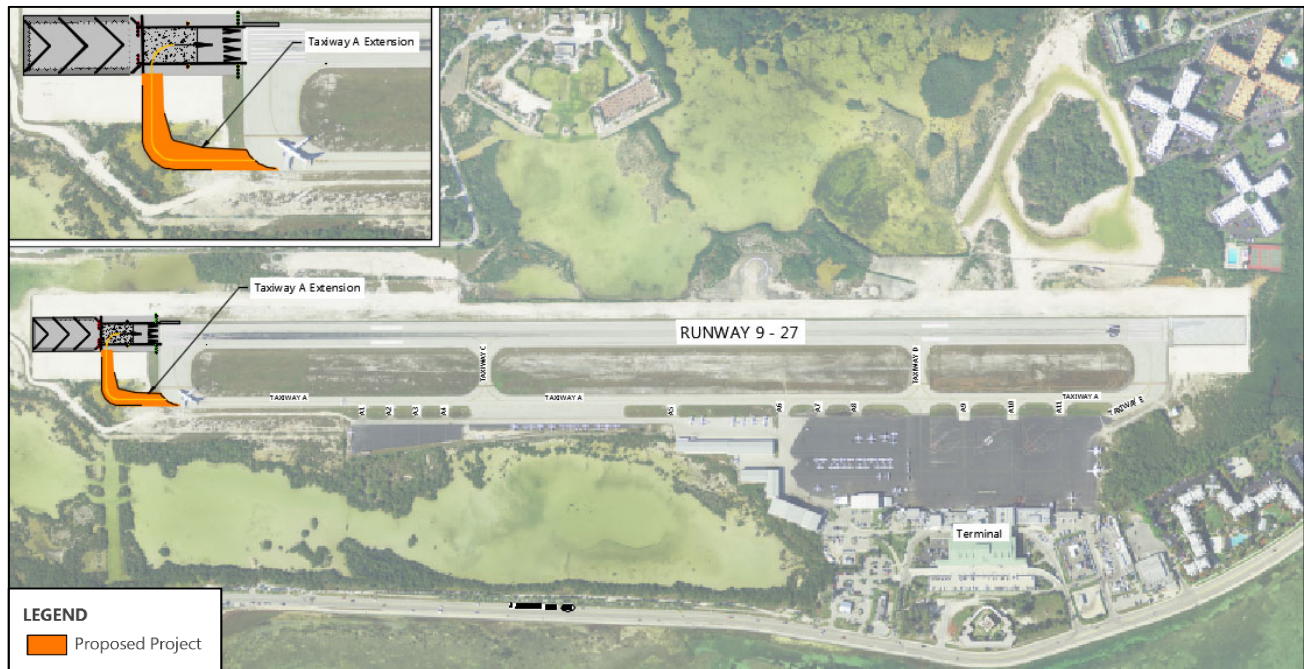
Enabling Projects:

Environmental Assessment

Anticipated Start Date: FY 2020

Initial Project Cost Estimates: The cost estimates for this project are included as part of Projects AP3 and AP4.

Potential Funding Sources: FAA (90 percent); FDOT (5 percent); PFC (5 percent); Local Share (0 percent)



SOURCES: Monroe County, December 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., January 2019.

PROJECT: LS 1**TERMINAL ARRIVALS CURB MODIFICATIONS****Project Location:**

Terminal access roadway.

Project Description:

This project consists of improvements to Faraldo Circle to maintain two lanes through the terminal core and to eliminate an existing merge lane.; this project also includes modifications of curbsides and landscaping, as well as pavement construction of approximately 3,000 SY and restriping.

Project Justification:

The arrivals curb for private vehicles does not adequately support existing demand due to a substandard length. The existing curb is 66 linear feet, representing a LOS deficiency of over 100 linear feet. By the end of the forecast period, the anticipated requirement for arrival curb length is estimated to be 250 linear feet. This project will provide adequate space for private vehicle along the arrivals curb over the Master Plan's planning horizon.

Enabling Projects:

None

Anticipated Start Date: FY 2018

Initial Project Cost Estimates: Construction (in 2018 dollars): \$1,400,000

Potential Funding Sources: FAA (0 percent); FDOT (80 percent); PFC (0 percent); Local Share (20 percent)



SOURCES: Monroe County, April 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., April 2018.

PROJECT: LS 2**NEW ACCESS ROAD****Project Location:**

West of the Terminal core, south of existing FBOs.

Project Description:

This project consists of the construction of a new access roadway to the FBO facilities directly from S. Roosevelt Boulevard. In addition, this project eliminates two existing access points on S. Roosevelt Boulevard and provides dedicated access to the existing DMV from the newly constructed roadway (approximately 2,200 SY).

Project Justification:

A new general aviation area access road providing direct connectivity to S. Roosevelt Boulevard is necessary to increase safety for passenger vehicles and pedestrians by removing fuel trucks and delivery vehicles from the arrival curbside roadway.

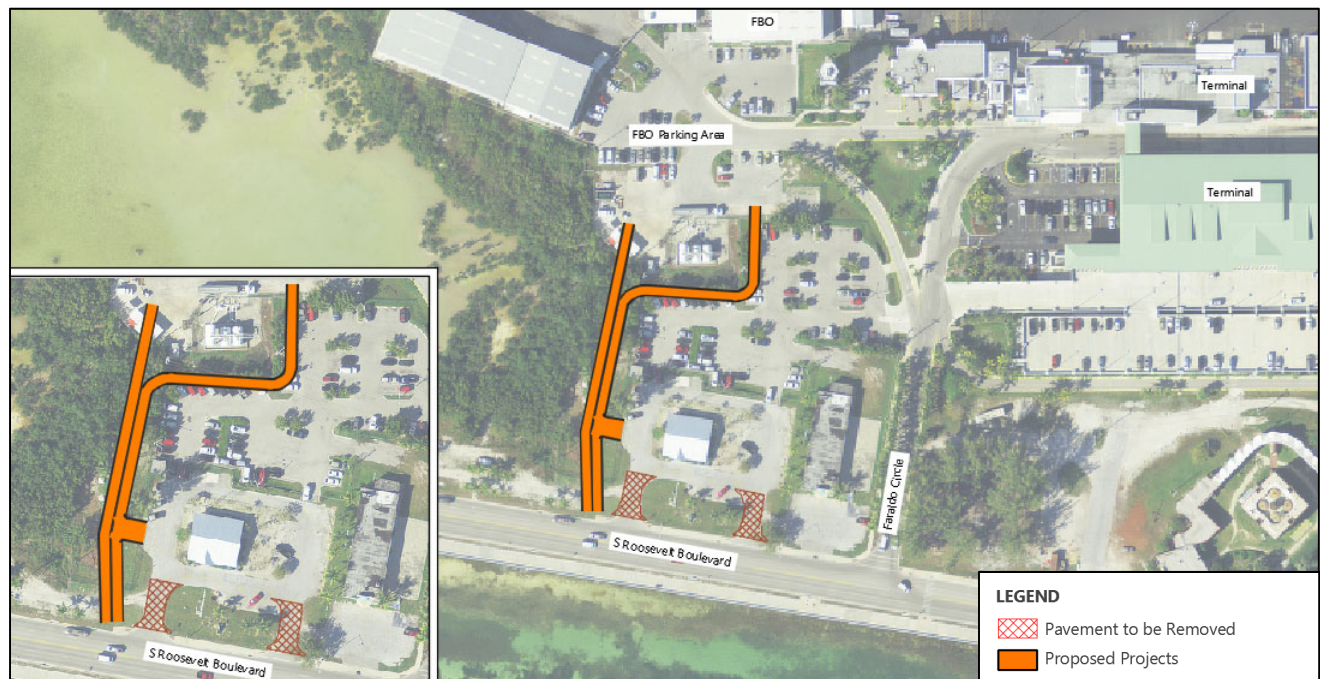
Enabling Projects:

Environmental Documentation

Anticipated Start Date: FY 2018

Initial Project Cost Estimates: Construction (in 2018 dollars): \$2,200,000

Potential Funding Sources: FAA (0 percent); FDOT (0 percent); PFC (100 percent); Local Share (0 percent)



SOURCES: Monroe County, April 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., April 2018.

PROJECT: LS 3**BUS STATION RELOCATION****Project Location:**

West of the Terminal core, south of existing fixed based operator (FBO).

Project Description:

This project consists of the construction of a dedicated covered area (approximately 450 SF) for a relocated Greyhound bus pickup/drop-off at the airport and associated office.

Project Justification:

The relocation of the Greyhound bus terminal will provide additional arrivals curb for private vehicles in front of the terminal facility.

Enabling Projects:

Environmental Documentation and General Aviation Access Road Construction

Anticipated Start Date: FY 2019

Initial Project Cost Estimates: \$110,000 (in 2019 dollars)

Potential Funding Sources: FAA (0 percent); FDOT (0 percent); PFC (0 percent); Local Share (100 percent)



SOURCES: Monroe County, April 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., April 2018.

PROJECT: AP 1/2**COMMERCIAL APRON EXPANSION****Project Location:**

East of the existing commercial apron.

Project Description:

This project includes a commercial apron expansion of 13,400 square yards of asphalt to the east to accommodate additional aircraft parking demand.

Project Justification:

Expanding the commercial terminal apron is necessary to accommodate additional aircraft during peak periods and during irregular operations. This apron will be used to park multiple large GA aircraft such as the Challenger 600 that the existing GA apron cannot currently accommodate during peak periods. Further, an expanded terminal apron will also allow for aircraft utilizing the existing eastern most apron parking positions, and aircraft utilizing the future designated CBP parking area, to power-in and power-out, rather than utilize an aircraft tug. Finally, this project is an enabling project for the Terminal Expansion and Renovation project.

Enabling Projects:

Environmental Assessment

Anticipated Start Date: FY 2021

Initial Project Cost Estimates: Design (in 2021 dollars): \$850,000, Construction (in 2022 dollars): \$10,000,000

Potential Funding Sources: FAA (90 percent); FDOT (5 percent); PFC (5 percent); Local Share (0 percent)



SOURCES: Monroe County, December 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., January 2019.

PROJECT: SF 1/2/3

CONSOLIDATED MAINTENANCE BUILDING

Project Location:

West of existing garage and south of passenger terminal.

Project Description:

This project includes the consolidation of all Airport maintenance facilities into one 1,000 SF building, which will be constructed as an extension to the west side of the existing employee parking garage. This site will be built above the stormwater retention area to avoid potential impacts to the area.

Project Justification:

A dedicated Airport maintenance building will free up approximately 20 parking spaces in the passenger parking deck that are currently being used for Airport equipment storage. To ensure an efficient maintenance operation, it is necessary to consolidate all maintenance activities and functions.

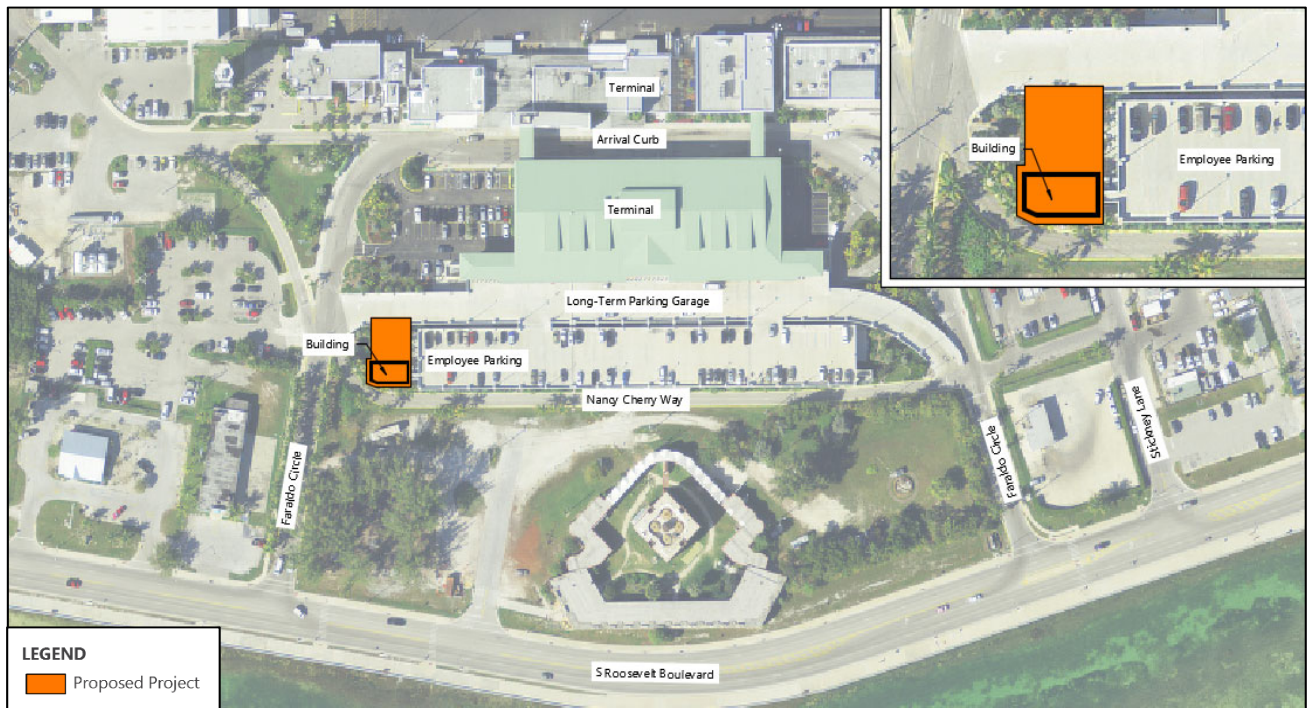
Enabling Projects:

Environmental Documentation

Anticipated Start Date: FY 2019

Initial Project Cost Estimates: Design and Construction (in 2019 dollars): \$2,690,000

Potential Funding Sources: FAA (0 percent); FDOT (50 percent); PFC (0 percent); Local Share (50 percent)



LEGEND
 Proposed Project

SOURCES: Monroe County, April 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., April 2018.

PROJECT: LS 4**RENTAL CAR FACILITIES (PHASE 1)****Project Location:**

To be determined.

Project Description:

This project includes the planning, design, and construction of a consolidated rental car (CONRAC) facility. The location of and concession program for the proposed facilities will be defined as part of the planning phase for this new CONRAC facility.

Project Justification:

The relocation of the rental car pick-up/drop-off parking area to a new CONRAC facility will provide additional public parking capacity. The proposed CONRAC facility would also provide an opportunity to consolidate the customer service areas currently located in the Arrivals Hall. The reclaimed area would enable the expansion of the waiting area in the Arrivals Hall for meeters and greeters and increase the area available for the retrieval of bags.

Enabling Projects:

Environmental Assessment

Anticipated Start Date: FY 2020 – FY 2023

Initial Project Cost Estimates: To be determined following the development of a concession program for the proposed facilities.

Potential Funding Sources: To be determined.

PROJECT: LS 5**PUBLIC PARKING FACILITIES (PHASE 1)****Project Location:**

To be Determined.

Project Description:

This project consists of the construction of parking facilities providing approximately 150 automobile parking spaces. The location of the proposed public parking facilities will be established once the location of the CONRAC facilities is defined.

Project Justification:

The public parking garage is nearing capacity during normal activities, and it regularly exceeds capacity during peak periods. Based on the Master Plan projections, a minimum of 63 additional parking spaces will be needed by 2035. Thus, new parking facilities will allow the airport to satisfy forecast parking demand through the planning horizon and beyond.

Enabling Projects:

Environmental Documentation and the relocation of Monroe County's Maintenance Facilities and Storage.

Anticipated Start Date: FY 2024

Initial Project Cost Estimates: Design (in 2024 dollars): \$420,000, Construction (in 2025 dollars): \$3,100,000

Potential Funding Sources: FAA (0 percent); FDOT (0 percent); PFC (0 percent); Local Share (100 percent)

PROJECT: PS 3 and TE 6 - 9**TERMINAL EXPANSION AND RENOVATIONS**

Project Location: Passenger terminal areas.

Project Description: This project includes the construction of a new second-floor concourse totally 19,500 SF to the north of the existing terminal facility. This concourse will accommodate new holdrooms, concession spaces, restrooms, and five boarding bridges, and it will connect the existing landside terminal and proposed building via the existing departure bridge. The existing terminal will be improved and renovated to meet future demand with the addition of a new baggage claim, an expanded 1,000 SF baggage makeup area, and the creation of a turboprop holdroom. An 1,800-square-foot extension of the existing passenger processing building will take place at the security screening checkpoint to accommodate a new security checkpoint lane. This project includes a Project Definition Document (PDD) to define the project scope, design, construction, and operational parameters.

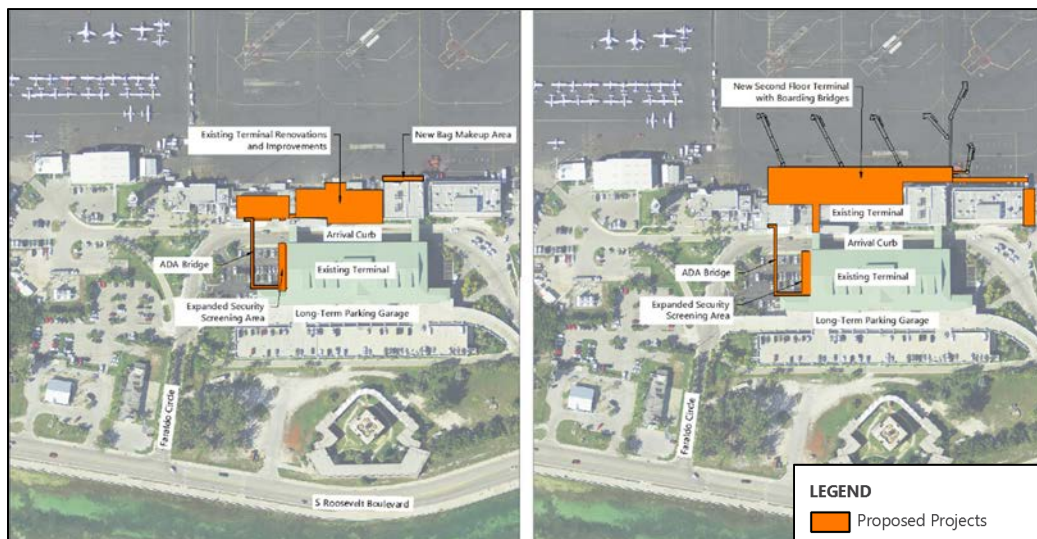
Project Justification: Throughout the planning period, EYW is forecast to have deficiencies in check-in positions (one position), security screening checkpoints (one lane), passenger hold room space (1,500 square feet), baggage makeup areas (2,000 square feet), and baggage claim (2,500 square feet). This project includes the expansion and improvement of the passenger terminal facilities to meet forecast demand. The project will reduce existing congestion in the holdrooms and baggage claim area, and it will provide the infrastructure to accommodate increased passenger traffic.

Enabling Projects: Short Form Environmental Assessment; Commercial Apron Expansion

Anticipated Start Date: FY 2019

Initial Project Cost Estimates: PDD (in 2019 dollars): \$1,000,000, Design (in 2022 dollars): \$2,000,000, Construction (in 2023 dollars): \$35,000,000

Potential Funding Sources: GARBS and PFC



SOURCES: Monroe County, December 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., January 2019.

PROJECT: PS 8**AIRPORT MASTER PLAN UPDATE****Project Location:**

Key West International Airport (Airport wide)

Project Description:

An airport master plan is a comprehensive study of an airports short-, medium-, and long-term development plan to meet future (20-year) aviation demand.

Project Justification:


The Federal Aviation Administration (FAA) recommends continued updates to airports master plan every 10 years to accurately reflect the airports current and future aviation demand at the time in which the master plan update is initiated. A master plan update will be needed to revisit the intermediate and long-term projects identified in the 2018 Master Plan Update to ensure that they remain effective and accurately reflect the aviation demand of the airport as well as the financial, community, environmental, and socioeconomic issues and concerns of the communities surrounding the Key West International Airport.

Enabling Projects: None

Anticipated Start Date: FY 2029

Initial Project Cost Estimates: (in 2029 dollars) \$1,400,000

Potential Funding Sources: FAA (90 percent); FDOT (5 percent); PFC (0 percent); Local Share (5 percent)



U.S. Department
of Transportation
**Federal Aviation
Administration**

Advisory Circular

Subject: Change 2 to Airport Master Plans
Date: 1/27/2015
AC No.: 150/5070-6B

Initiated by: APP-400
Change: 2

1. PURPOSE. This Change 2 incorporates additional guidance on passenger convenience, ground access, and access to airport facilities, as identified in Section 131 of Public Law 112-95, “FAA Modernization and Reform Act of 2012 (49 U.S.C. § 47101(g)(2)).” Additional provisions of Public Law 112-95 such as Section 132 (b) which amended the definition of airport planning to include plans for recycling and minimizing the generation of airport solid waste (49 U.S.C § 47102(b)(5)(C)), and Section 133 providing that master plans address issues related to solid waste recycling and waste minimization (49 U.S.C. § 47106(a)(6)(A)) have been addressed in separate FAA guidance. These and related considerations will be incorporated into a future change to this AC.

This change also incorporates relevant updates related to the recent changes to Advisory Circular (AC) 150/5300-13, Airport Design, and references to the new Standard Operating Procedures for preparation and submission of Airport Layout Plans.

2. PRINCIPAL CHANGES. Changed text is indicated by vertical bars in the margins. The primary revisions are contained in Chapters 8 and 10 and Appendix B of this AC. In addition, limited editorial and text revisions since the release of Change 1 to this AC in 2007 are incorporated throughout. A full revision to this AC is underway.

PROJECT: AP 3, AP4**OVERFLOW AIRCRAFT PARKING (PHASE 1)****Project Location:**

South of Taxiway A near the end of Runway 9.

Project Description:

This project consists of an additional 5,000 square yards of asphalt for a parking apron and up to two connectors to Taxiway A, as well as the relocation of the service road located south of Taxiway A.

Project Justification:

A new apron area constructed to FAA design standards, including access, signage, marking, and lighting, is needed to park, fuel, and tie-down transient and based aircraft. During peak times, the existing ramp is at capacity and there are no available aircraft parking spaces. The proposed ramp will provide additional ramp capacity, especially for the accommodation of general aviation aircraft. The service road needs to be relocated outside the Taxiway A object free area to meet FAA design standards, as stipulated in FAA 5300-13A, Change 1.

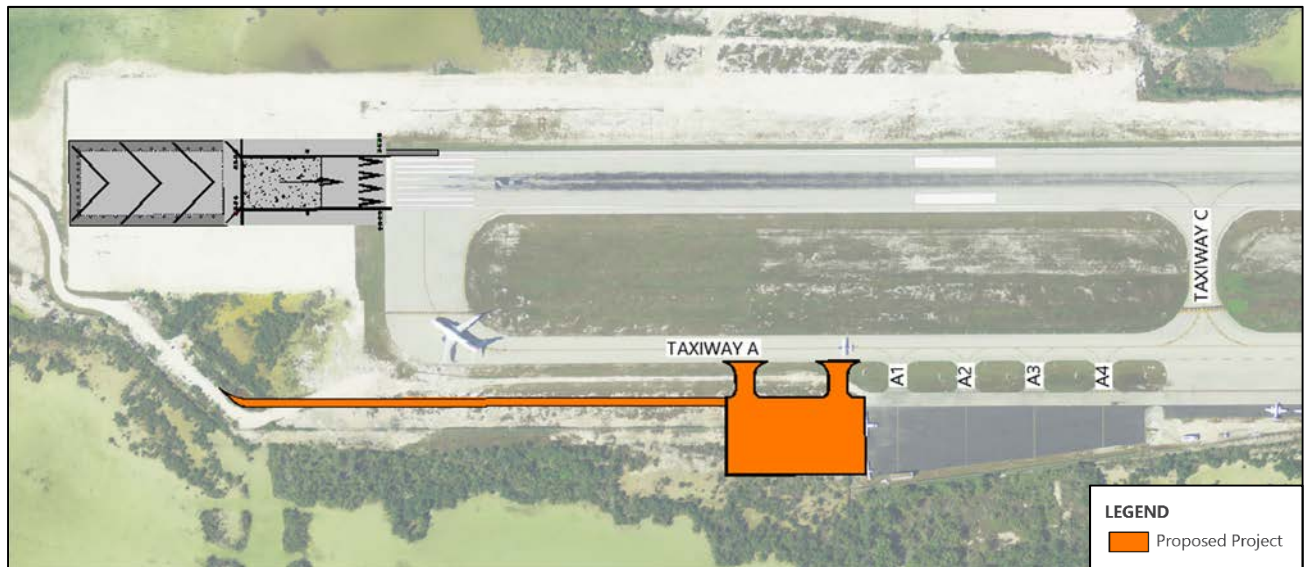
Enabling Projects:

Environmental Assessment

Anticipated Start Date: FY 2020

Initial Project Cost Estimates: Design (in 2020 dollars): \$850,000, Construction (in 2021 dollars): \$10,000,000

Potential Funding Sources: FAA (90 percent); FDOT (5 percent); PFC (0 percent); Local Share (5 percent)



SOURCES: Monroe County, April 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., April 2018.

PROJECT: FE 1**NEW PERIMETER FENCE****Project Location:**

North of Runway 9

Project Description:

A new section of AOA fence would be installed on the north side of the runway. The fencing could be a buoy system across the water with support posts in the upland area.

Project Justification:

The surrounding water is used for recreational canoeing and kayaking. The fencing is needed to prevent unauthorized access to the airfield.

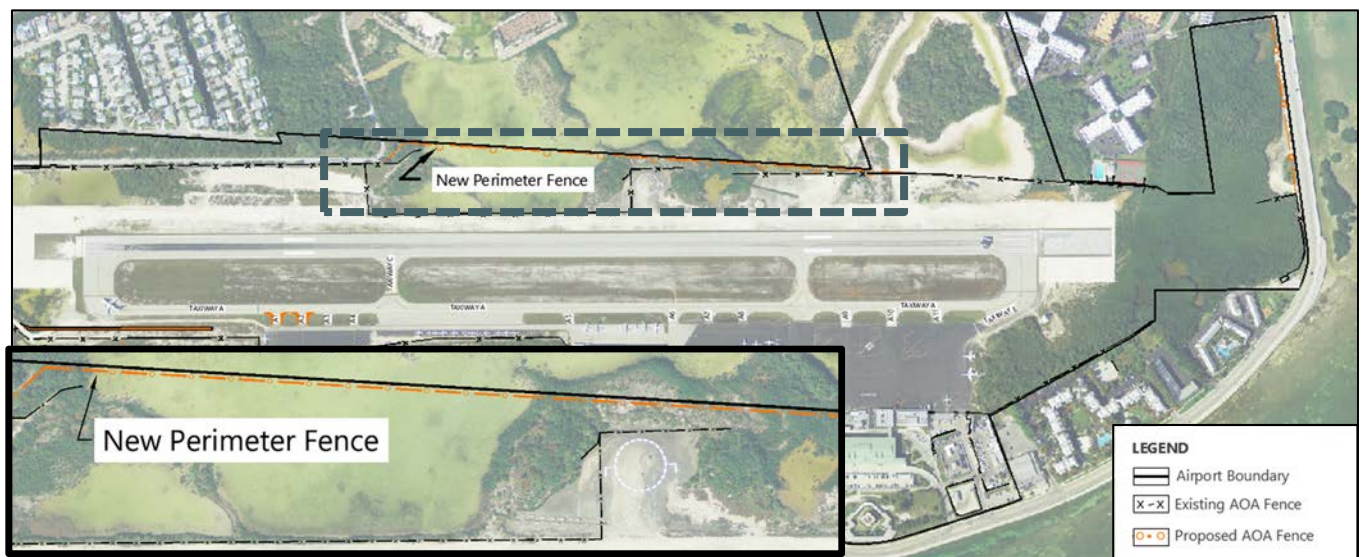
Enabling Projects:

Environmental Assessment

Anticipated Start Date: FY 2020

Initial Project Cost Estimates: To be determined.

Potential Funding Sources: To be determined.



SOURCES: Monroe County, February 2019 (Capital Improvement Program)

PREPARED BY: Ricondo & Associates, Inc., February 2019.

PROJECT: LS 6**SECURITY SCREENING CHECKPOINT EXPANSION****Project Location:**

West of the existing landside terminal.

Project Description:

This project proposes the construction of an 1,800-square-foot building extension to the west of the existing security checkpoint to include the third checkpoint lane and to retain the exit lane corridor.

Project Justification:

One additional checkpoint lane will be required between 2020 and 2025 to accommodate both the increasing demand levels and the ability to accommodate Pre✓ passengers.

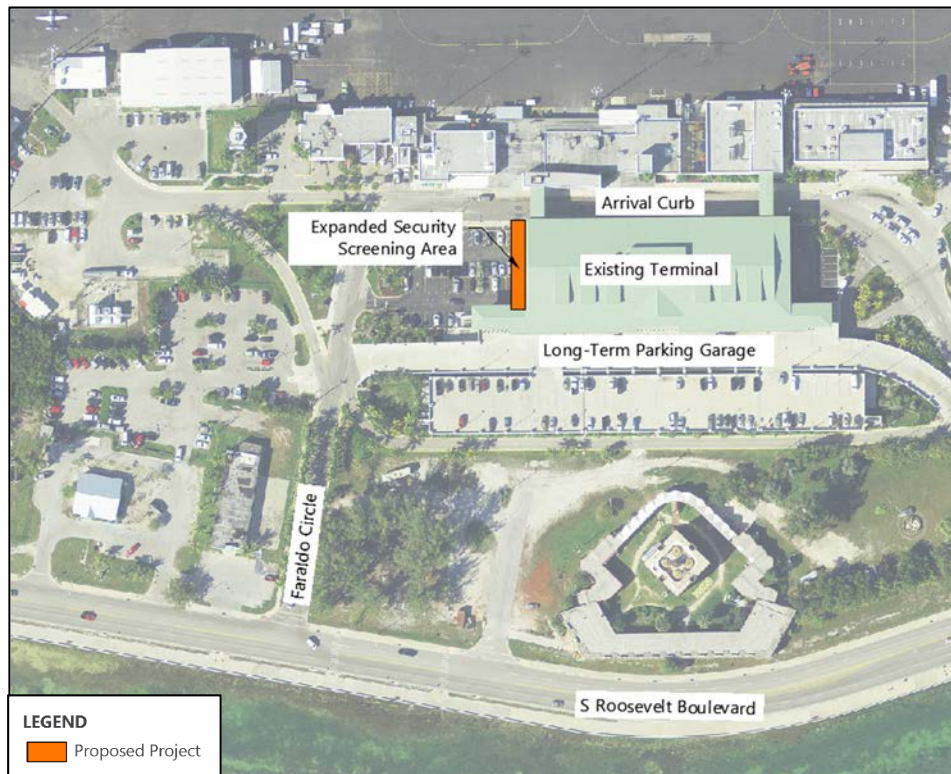
Enabling Projects:

Short Form Environmental Assessment

Anticipated Start Date: FY 2024

Initial Project Cost Estimates: \$1,930,000

Potential Funding Sources: PFC



SOURCES: Monroe County, December 2018 (Capital Improvement Program); Jacobs, March 2018 (Master Plan Project Cost Estimates); Ricondo & Associates, Inc., May 2018.

PREPARED BY: Ricondo & Associates, Inc., January 2019.

PROJECT: AP 5**OVERFLOW AIRCRAFT PARKING EXPANSION (PHASE 2)****Project Location:**

West of the Overflow Aircraft Parking Expansion to be built in Phase 1.

Project Description:

This project consists of an additional 24,000 square yards of asphalt for a parking apron and up to three connectors to Taxiway A, as well as the relocation of the service road located south of Taxiway A. This new apron will be designed to FAA design standards, including access, signage, marking, and lighting.

Project Justification:

It is anticipated that the apron area to be constructed in FY 2021 would need to be expanded to accommodate additional aircraft parking positions. The proposed ramp will provide additional capacity for the accommodation of general aviation aircraft.

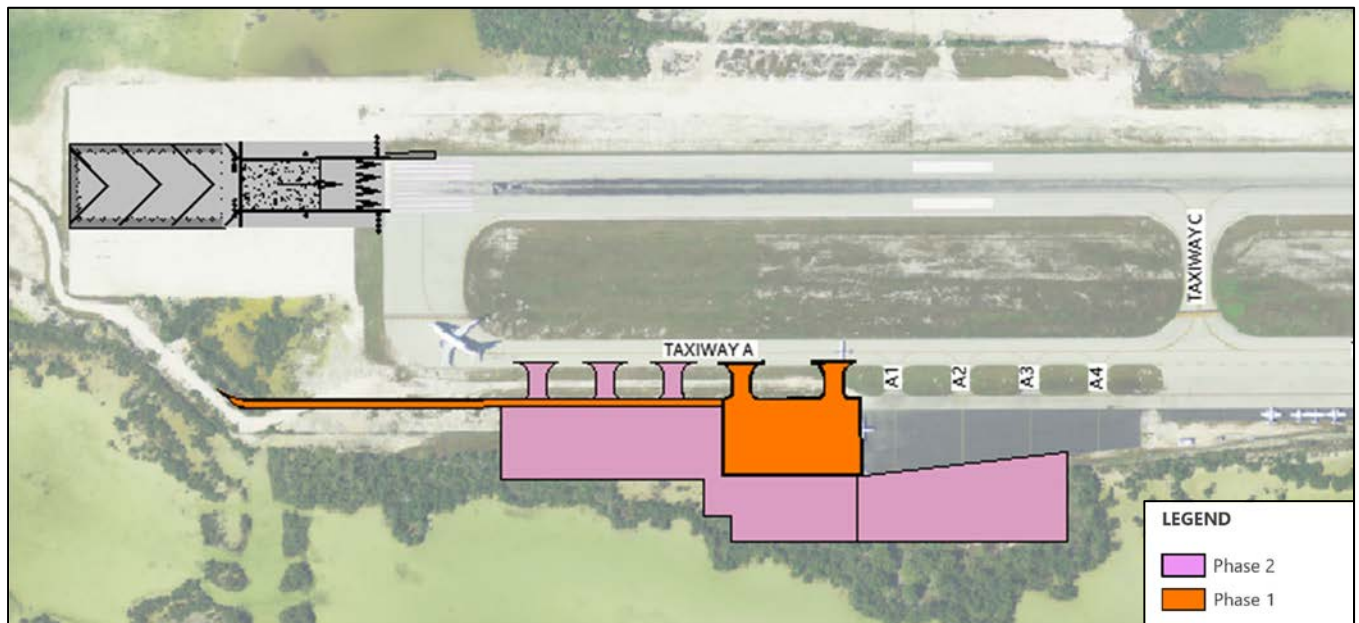
Enabling Projects:

Environmental Assessment

Anticipated Start Date: FY 2031

Initial Project Cost Estimates: To be determined.

Potential Funding Sources: FAA (90 percent); FDOT (5 percent); PFC (0 percent); Local Share (5 percent)



SOURCES: Monroe County, February 2019 (Capital Improvement Program)

PREPARED BY: Ricondo & Associates, Inc., February 2019.

PROJECT: AP 6

TAXIWAY DELTA RELOCATION

Project Location:

Taxiway D between Runway 9-27 and Taxiway A.

Project Description:

This project provides for the relocation of Taxiway D 150 feet west to mitigate the direct access from the apron to the runway (in compliance with FAA AC 150/5300-13A).

Project Justification:

The relocation of Taxiway D is required to avoid the direct access from the existing apron to the runway.

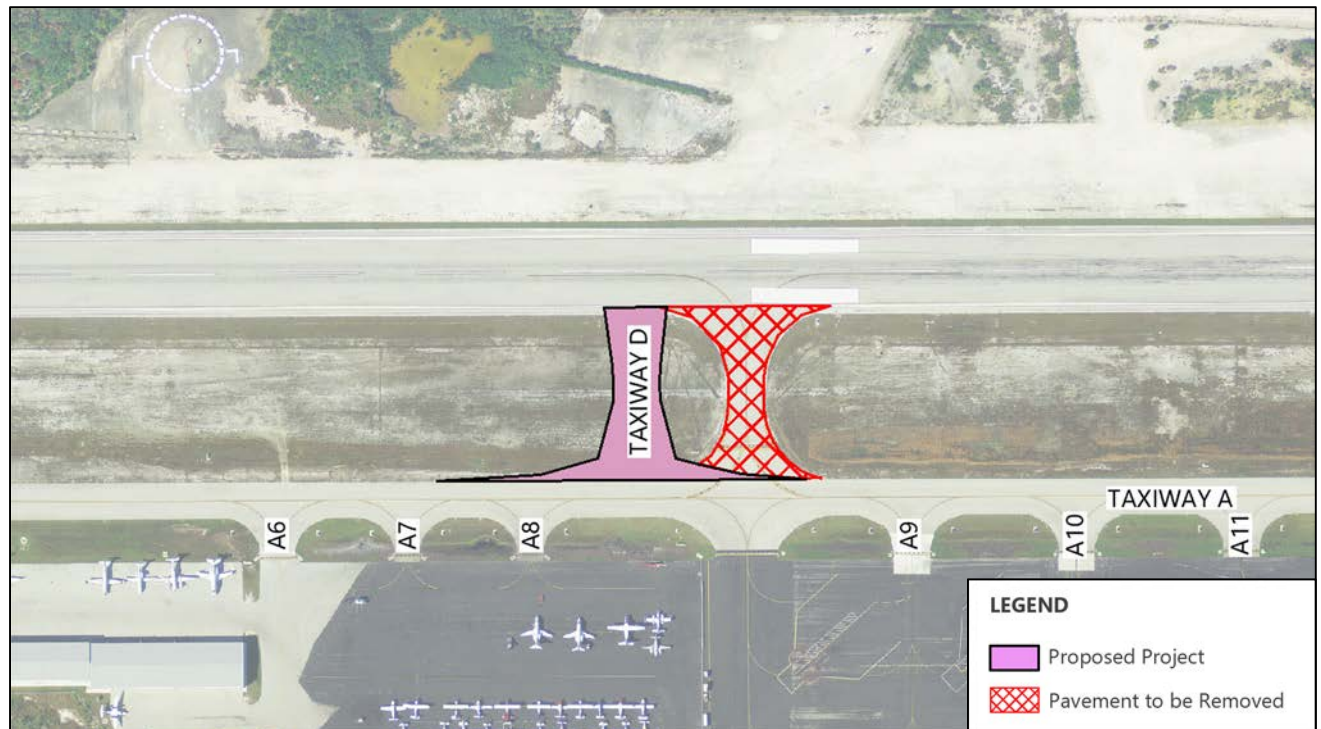
Enabling Projects:

Environmental Assessment

Anticipated Start Date: FY 2031

Initial Project Cost Estimates: To be determined.

Potential Funding Sources: FAA (90 percent); FDOT (5 percent); PFC (0 percent); Local Share (5 percent)



SOURCES: Monroe County, February 2019 (Capital Improvement Program)

PREPARED BY: Ricondo & Associates, Inc., February 2019

PROJECT: AP 7 RUNWAY 27 BYPASS TAXIWAY AND SAFETY IMPROVEMENTS

Project Location:

Runway 27 End.

Project Description:

The proposed taxiway geometry improvements would allow for the construction of a bypass taxiway to help mitigate potential delay at the Runway 27 end. The separation distance between the proposed taxiway connectors is 200 feet in compliance with FAA standards for ADG III aircraft. This project would also include the construction of an Engineered Material Arresting System (EMAS) beyond the relocated Runway 27 end to provide a level of safety that is generally equivalent to a full Runway Safety Area (RSA) built to the dimensional standards in AC 150/5300-13A, *Airport Design*.

Project Justification:

The proposed taxiway geometry improvements would help mitigate potential delay at the Runway 27 end. The additional runway length resulting from these improvements would also provide airlines the ability to serve Boston, New York, and Toronto without any weight restrictions.

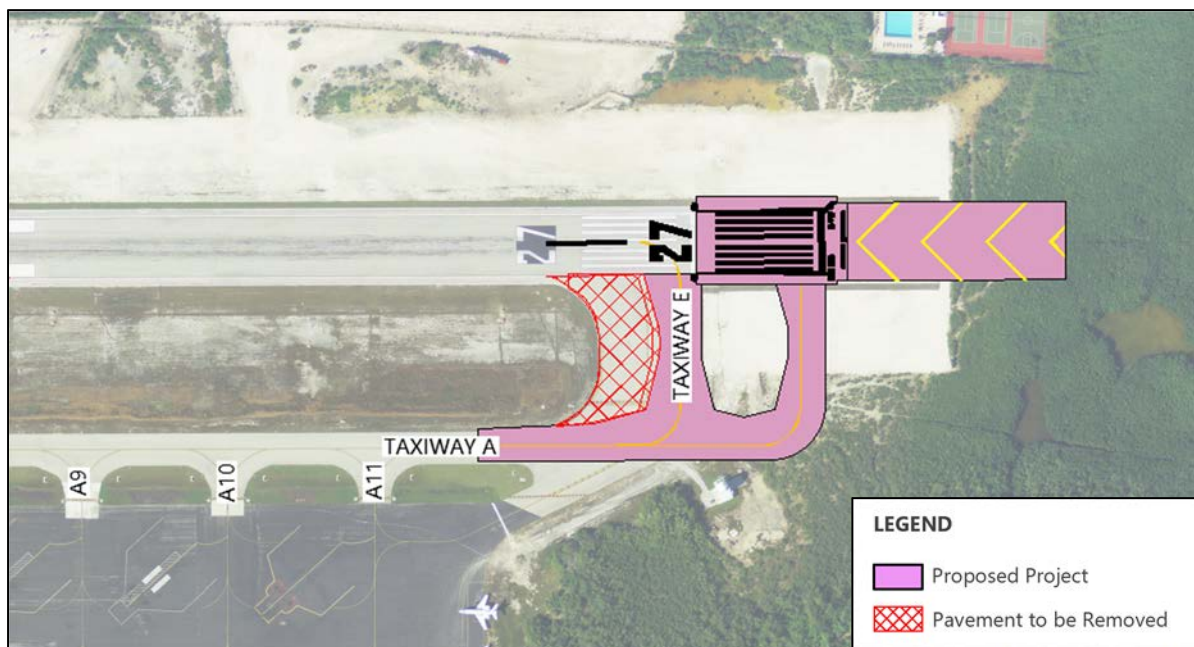
Enabling Projects:

Environmental Assessment

Anticipated Start Date: FY 2031

Initial Project Cost Estimates: To be determined.

Potential Funding Sources: FAA (90 percent); FDOT (5 percent); PFC (0 percent); Local Share (5 percent)



SOURCES: Monroe County, February 2019 (Capital Improvement Program)

PREPARED BY: Ricondo & Associates, Inc., February 2019.