FLORIDA DEPARTMENT OF TRANSPORTATION
AVIATION AND SPACEPORTS OFFICE

Statewide Airfield Pavement Management Program

DISTRICT 6

NOVEMBER 2019

FDOT

OFFICE OF FREIGHT, LOGISTICS & PASSENGER OPERATIONS

Florida Department of Transportation

Statewide Airfield Pavement Management Program

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OFFICE OF FREIGHT, LOGISTICS & PASSENGER OPERATIONS

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Executive Summary

Program Background

Airport airfield pavement infrastructure facilities represent a large capital investment in the Florida Airport System. Timely and appropriate maintenance and strategic rehabilitation are essential as repair costs increase significantly in proportion to deterioration. Airport pavement distresses can also contribute to the development of loose debris and decreased ride quality, which can be a safety concern for aircraft operations.

In 2016, the Florida Department of Transportation (FDOT) Aviation and Spaceports Office (ASO) selected Kimley-Horn and Associates, Inc. with subconsultants Airfield Pavement Management Systems, LLC and AVCON, Inc. to provide professional services in support of FDOT in the continued efforts of performing a system update to the Statewide Airfield Pavement Management Program (SAPMP). This work is to be completed from fiscal year 2016 through fiscal year 2019. The SAPMP has 95 public use airport facilities throughout the seven FDOT Districts that participate in the system update. The results of this system update are presented in this report and can be utilized by FDOT and the Federal Aviation Administration (FAA) to identify, prioritize, and schedule pavement maintenance, repair, and major rehabilitation projects.

Pavement condition was assessed utilizing the pavement condition index (PCI) methodology as defined in the FAA Advisory Circular ***150/5380-7B "Airport Pavement Management Program (PMP)"*** using the documented procedures set forth by ASTM ***D5340-12*** "***Standard Test Method for Airport Pavement Condition Index Surveys."***

Pavement deterioration, in accordance with the ASTM D5340-12, was characterized in terms of distinct distress types, severity level of distress, and quantity of distress. This information is utilized to calculate a PCI numeric that represents the overall condition of the pavement in a numeric index that ranges from 0 (a condition category of FAILED) to 100 (GOOD). The PCI methodology analyzes an overall measure of the pavement condition and provides an indication of the degree of maintenance, repair, or rehabilitation efforts that will be required to sustain functional pavement.

The tasks required for the system update at each participating airport consist of the following:

- Obtain recent and anticipated airfield pavement construction work data.
- Update airport airfield pavement system inventory records (construction history, identification, geometry, and facility classification).
- Perform PCI Survey Inspections at each participating airport.
- Update the FDOT SAPMP PAVER™ database system.
- Update the FDOT SAPMP GIS Airfield Navigation GPS enabled Maps.
- Update airfield pavement performance models and pavement condition forecasting.
- Identification of planning-level maintenance, repair, and major rehabilitation to address pavement needs based on functional PCI analysis.
- Development of planning-level opinion of probable construction costs for pavement rehabilitation.

Summary of Results

PAVEMENT CONDITION INDEX (LATEST INSPECTION)

Table E-1 Pavement Condition Index Summary (Last Inspection) –by Airport

Network ID	Airport Type	Area-Weighted Pavement Condition Index (PCI)				
		Runway PCI	Taxiway PCI	Taxilane PCI	Apron PCI	Overall Airfield PCI
EYW	PR	100	52	-	71	74
MTH	GA	51	63	-	59	58
OPF	RL	55	61	38	56	58
TMB	RL	70	73	-	68	70
TNT	GA	50	59	-	42	54
X51	GA	70	59	-	64	65
OVERALL DISTRICT		**62**	**63**	**38**	**62**	**62**

PCI Rating Scale	Good	Satisfactory	Fair	Poor	Very Poor	Serious	Failed
PCI Values	100-86	85-71	70-56	55-41	40-26	25-11	10-0

RUNWAY PAVEMENT CONDITION INDEX

Table E-2 Runway Pavement Condition Index by Airport

Network ID	Airport Type	Branch ID	Branch Name	Length (Feet)	Width (Feet)	Area-Weighted PCI	PCI Rating	Below FDOT Minimum PCI of 75
EYW	PR	RW 9-27	RUNWAY 9-27	5,076	100	100	GOOD	
MTH	GA	RW 7-25	RUNWAY 7-25	5,008	100	51	POOR	X
OPF	RL	RW 12-30	RUNWAY 12-30	6,800	150	48	POOR	X
OPF	RL	RW 9L-27R	RUNWAY 9L-27R	8,002	150	56	FAIR	X
OPF	RL	RW 9R-27L	RUNWAY 9R-27L	4,309	100	65	FAIR	X
TMB	RL	RW 13-31	RUNWAY 13-31	4,001	150	70	FAIR	X
TMB	RL	RW 9L-27R	RUNWAY 9L-27R	5,003	150	72	SATISFACTORY	X
TMB	RL	RW 9R-27L	RUNWAY 9R-27L	6,000	150	70	FAIR	X
TNT	GA	RW 9-27	RUNWAY 9-27	10,499	150	50	POOR	X
X51	GA	RW 10-28	RUNWAY 10-28	3,000	75	67	FAIR	X
X51	GA	RW 18-36	RUNWAY 18-36	3,999	100	72	SATISFACTORY	X

Figure E-3 Runway Condition

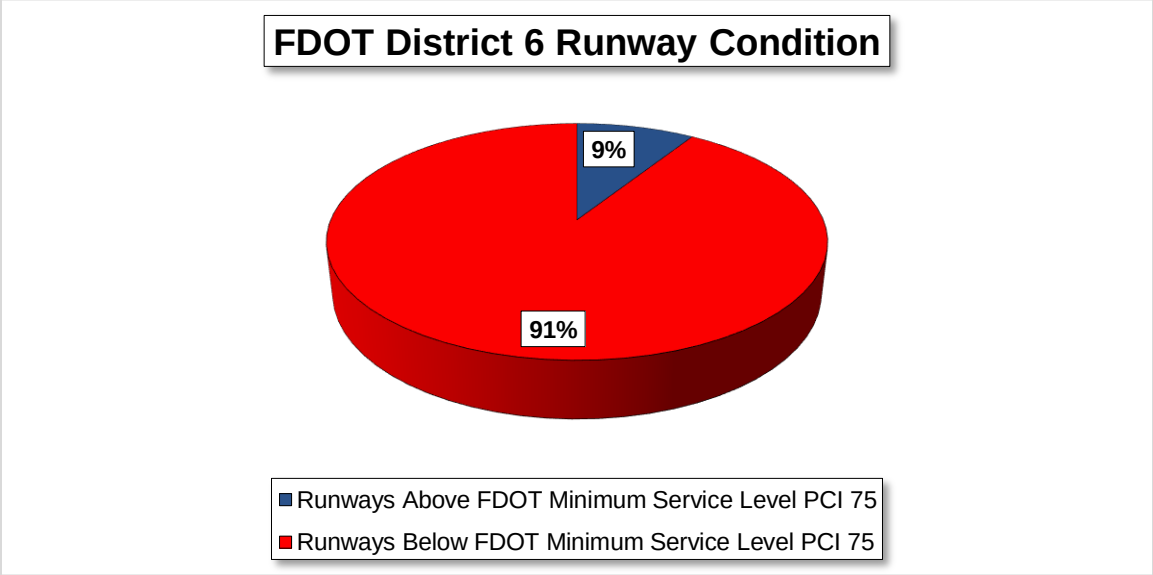


Figure E-4 Runway Pavement Condition Index Comparison to FDOT Minimum PCI

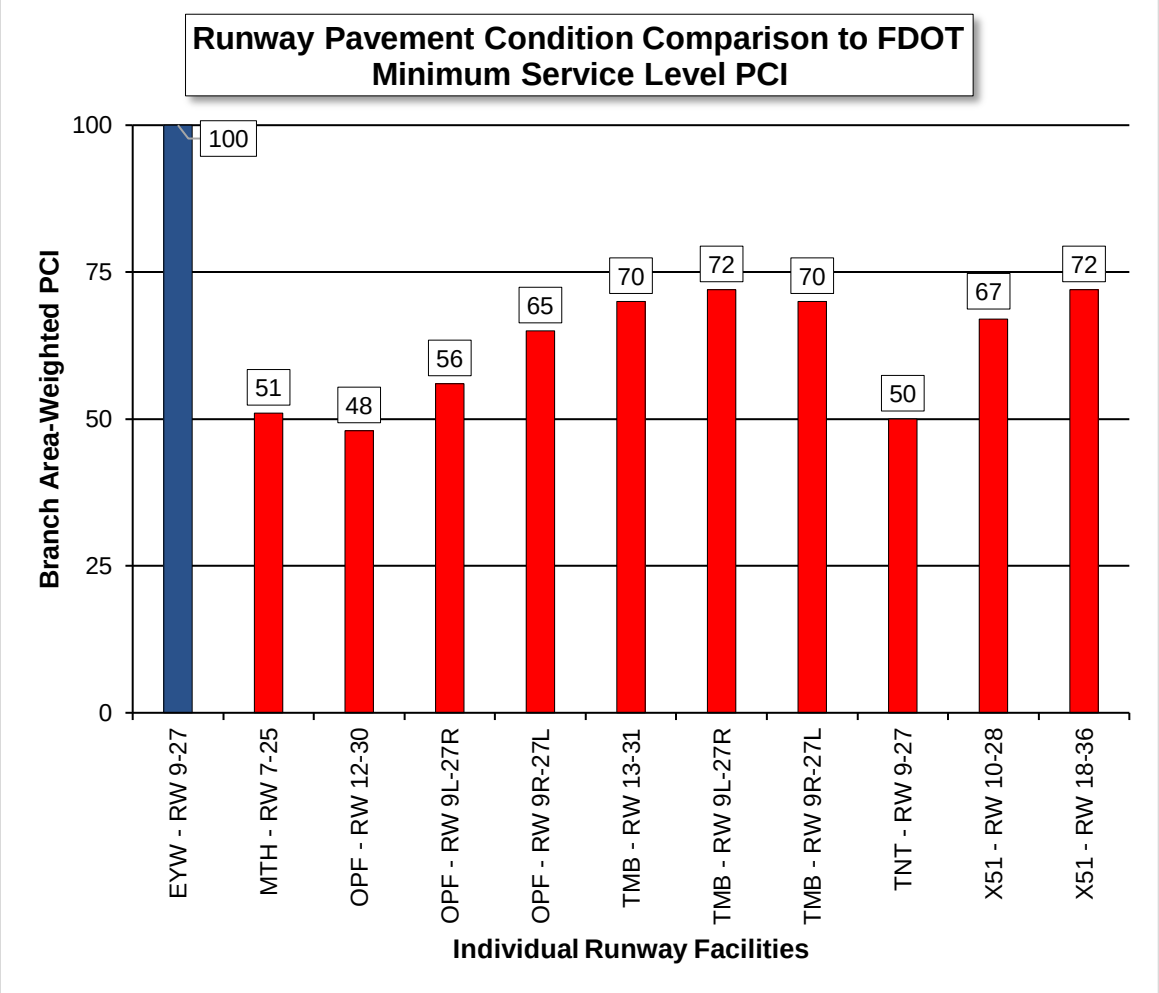
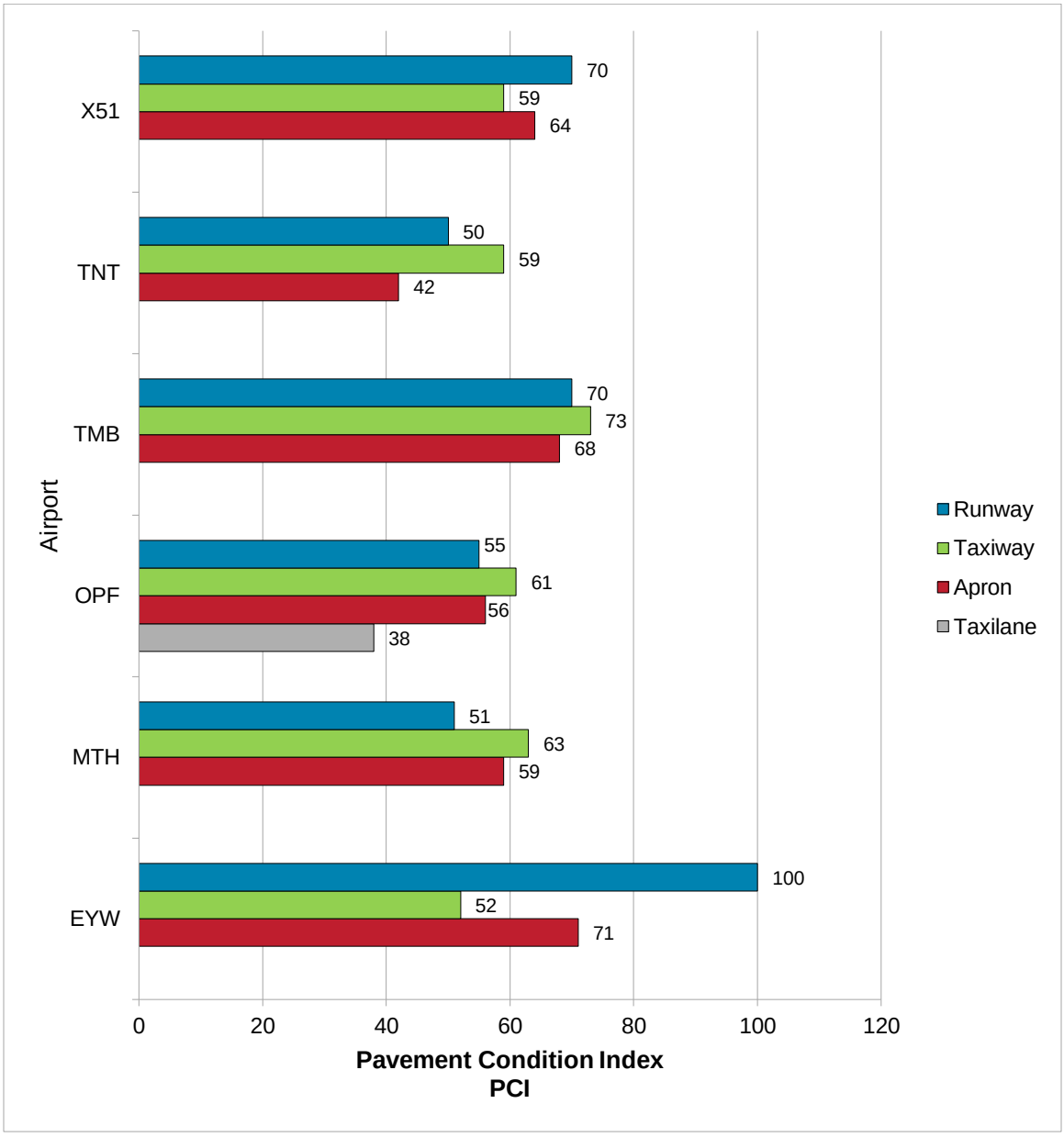


Table E-5 District Summary of Area by Use by Airport

Network ID	Airport Type	Pavement Area (Square Feet)				
		Runway	Taxiway	Taxilane	Apron	Overall
EYW	PR	480,000	396,469	-	893,776	1,770,245
MTH	GA	500,800	395,290	-	772,709	1,668,799
OPF	RL	2,656,123	4,838,092	107,164	3,387,007	10,988,386
TMB	RL	2,250,750	2,343,728	-	2,679,999	7,274,477
TNT	GA	1,575,000	1,770,734	-	49,500	3,395,234
X51	GA	625,125	540,814	-	462,380	1,628,319
OVERALL DISTRICT		**8,087,798**	**10,285,127**	**107,164**	**8,245,371**	**26,725,460**

Figure E-6 PCI by Pavement Functional Use by Airport



MAJOR REHABILITATION PLANNING

Table E-7 Major Rehabilitation Planning Year 1

Network ID	Airport Type	Weighted-Average PCI	Average Rating	Year 1 Major Rehabilitation	
EYW	PR	74	SATISFACTORY	$	10,691,000
MTH	GA	58	FAIR	$	11,245,000
OPF	RL	58	FAIR	$	83,932,000
TMB	RL	70	FAIR	$	12,906,000
TNT	GA	54	POOR	$	21,508,000
X51	GA	65	FAIR	$	6,416,000
OVERALL DISTRICT		**62**	**FAIR**	**$**	**146,698,000**

**All planning cost values have been rounded to the nearest thousand-dollar.*

Table E-8 Major Rehabilitation Planning 10-Year (2018-2029)

Network ID	Airport Type	Weighted-Average PCI	Average Rating	10-Year Major Rehabilitation	
EYW	PR	74	SATISFACTORY	$	10,691,000
MTH	GA	58	FAIR	$	11,735,000
OPF	RL	58	FAIR	$	97,638,000
TMB	RL	70	FAIR	$	49,428,000
TNT	GA	54	POOR	$	22,892,000
X51	GA	65	FAIR	$	9,927,000
OVERALL DISTRICT		**62**	**FAIR**	**$**	**202,311,000**

**All planning cost values have been rounded to the nearest thousand-dollar.*

Table E-9 Major Rehabilitation Needs by Airport (2018-2029)

Major Rehabilitation ($ in Millions)												
Network ID	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
EYW	-	-	10.69M	0M	0M	0M	0M	0M	0M	0M	0M	0M
MTH	-	-	11.25M	0.26M	0M	0M	0M	0M	0.05M	0.08M	0.1M	0M
OPF	-	-	83.93M	2.04M	0.11M	3.43M	0.11M	6.47M	0.62M	0.92M	0M	0M
TMB	-	-	12.91M	0M	3.95M	9.44M	11.83M	5.25M	1.27M	0.17M	2.33M	2.29M
TNT	21.51M	1.34M	0M	0M	0M	0M	0.05M	0M	0M	0M	-	-
X51	6.42M	2.42M	0M	0M	0.08M	0.14M	0M	0.05M	0.81M	0M	-	-
DISTRICT	**27.92M**	**3.76M**	**118.77M**	**2.3M**	**4.15M**	**13.01M**	**11.99M**	**11.77M**	**2.76M**	**1.16M**	**2.43M**	**2.29M**

Additional design-level investigation in accordance to the FAA Advisory Circulars will be required to identify specific areas within each section that are subject to reconstruction, mill and overlay, and PCC restoration. The work and budgets identified are intended for the planning level not the design level. Areas identified as mill and overlay may in fact require select areas of reconstruction should load-based distresses observed warrant it. It is important to state that the project specific design level efforts are necessary in determining the final rehabilitative construction activity and project limits. In certain cases, adjacent or nearby Sections may not have deteriorated to a PCI level that would warrant "major rehabilitation" but are deteriorated enough to be considered for inclusion as a combined project.

Runway projects, based on pavement conditions at or below the Critical PCI of 65, which the District should consider as immediate needs, are listed as follows. These are not all the needs at each participating airport within the District and may not be the individual airport's priority but should be considered in development of funding programs. **Table E-10** below highlights Runway pavement sections that have current PCI values at or below the Critical PCI of 65.

Table E-10 Year 1 Runway Major Rehabilitation Needs

Network ID	Branch Name	Sections with Major Rehabilitation in Year 1	Major Rehabilitation Cost
EYW	RUNWAY 9-27	***No Major Rehabilitation***	$ -
MTH	RUNWAY 7-25	6105, 6110	$ 3,598,000
OPF	RUNWAY 12-30	6205, 6210	$ 10,492,000
OPF	RUNWAY 9L-27R	6105, 6110, 6115, 6120, 6125, 6130	$ 10,886,000
OPF	RUNWAY 9R-27L	6410	$ 956,000
TMB	RUNWAY 13-31	***No Major Rehabilitation***	$ -
TMB	RUNWAY 9L-27R	6104, 6109, 6126	$ 383,000
TMB	RUNWAY 9R-27L	6302	$ 951,000
TNT	RUNWAY 9-27	6105, 6110	$ 11,919,000
X51	RUNWAY 10-28	***No Major Rehabilitation***	$ -
X51	RUNWAY 18-36	6110	$ 1,287,000

**All planning cost values have been rounded to the nearest thousand-dollar.*

Summary of District 6

Pavement Condition Index surveys were performed for airfield pavement facilities for the following airports located in District 6.

- EYW, Key West International Airport
- MTH, The Florida Keys Marathon Airport
- OPF, Miami-Opa Locka Executive Airport
- TMB, Miami Executive Airport
- TNT, Dade-Collier Training and Transition Airport
- X51, Miami Homestead General Aviation Airport

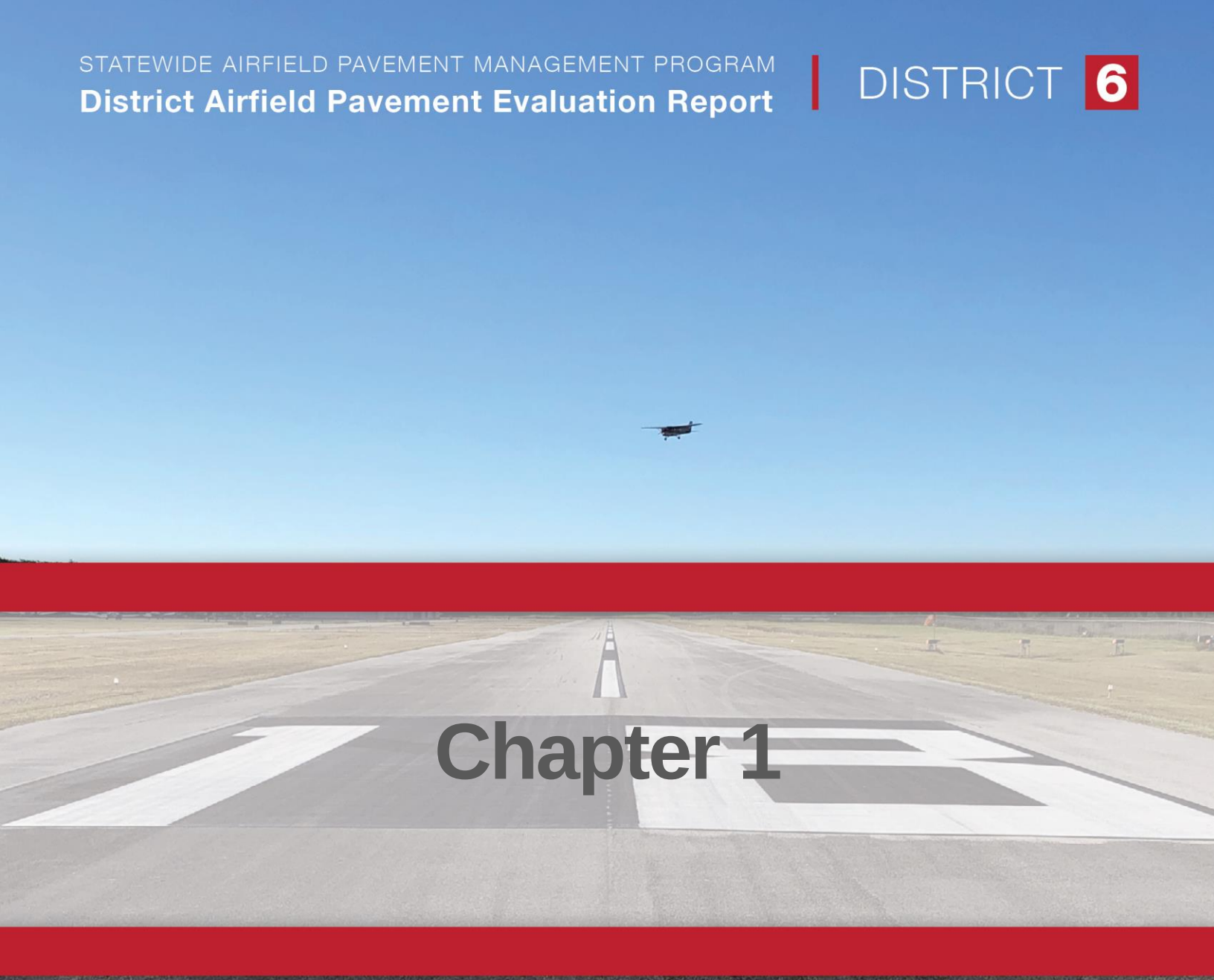
Miami International Airport (MIA), which is managed by the Dade County Aviation Department, declined to participate in the FDOT SAPMP update and therefore was not included in the inspection efforts as part of this program update.

District 6's overall area-weighted Pavement Condition Index (PCI) is at a 62, a condition rating of "Fair". **Table E-1: Condition Summary by Airport** above represents the results of the PCI inspection at each airport within the District. The overall area-weighted average PCI values for the participating airport facilities in District 6 ranged from 54 (Poor) to 74 (Satisfactory). Specific individual airport results are identified in the individual Airport Pavement Evaluation Reports provided to each airport.

STATEWIDE AIRFIELD PAVEMENT MANAGEMENT PROGRAM

District Airfield Pavement Evaluation Report

DISTRICT 6



Chapter 1

FDOT

Chapter 1 – Introduction

1.1 Background

The State of Florida has 128 public airports of which 100 public-use airports are recognized as part of the Federal Aviation Administration's (FAA) National Plan of Integrated Airport Systems (NPIAS) that are vital to the Florida economy as well as the economy of the United States. The Florida Aviation System (FAS) provides opportunities for the State to capitalize on an increasingly global marketplace. Florida's system of commercial service and general aviation (GA) airports are important to businesses throughout the entire State. Air travel is essential to tourism, Florida's number one industry.

There are millions of square feet of pavement infrastructure that consists of runways, taxiways, aprons, ramps, and other areas of airports that are vital to the support and safety of aircraft operations. Timely pavement maintenance, repair and major rehabilitation of these pavements will support the airport in operating safely, efficiently, economically and without excessive down time.

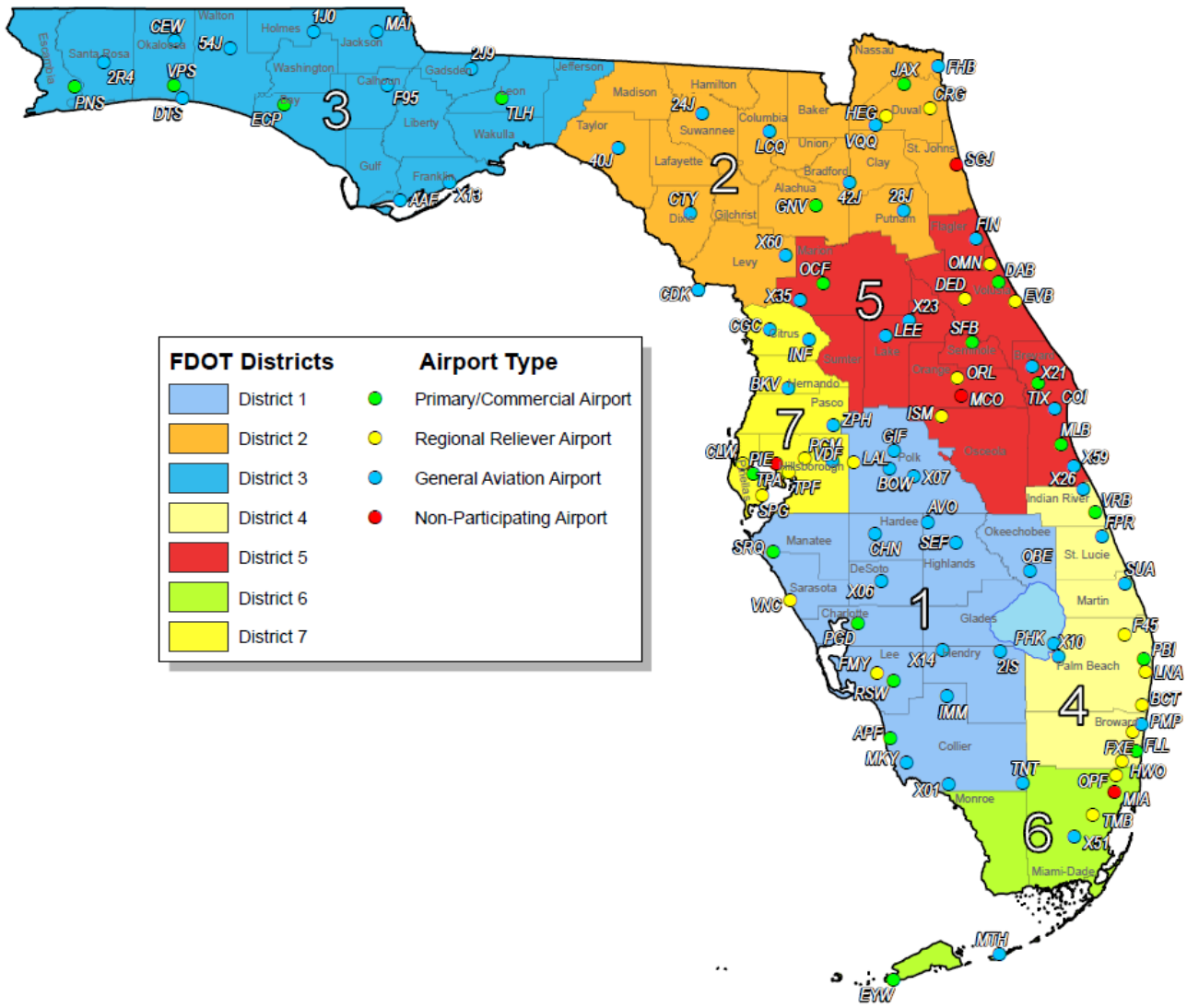
In general, adherence to the FAA Advisory Circulars are mandatory for all projects funded with federal grant monies through the Airport Improvement Program (AIP) and with revenue from the Passenger Facilities Charges (PFC) Program. Further information is detailed in FAA Grant Assurance No. 11 "Pavement Maintenance," No. 34 "Policies, Standards, and Specifications," and PFC Assurance No. 9 "Standards and Specifications." The Florida Department of Transportation (FDOT) performs the Statewide Airfield Pavement Management Program (SAPMP) System Updates for the benefit of participating public-use and publicly owned airports through the Aviation and Spaceports Office (ASO).

The SAPMP addresses the requirements of maintaining an effective pavement management program for the participating airports at the network level. Network-level management of pavement assets provides insight for short-term and long-term budget needs, understanding of the overall condition of the network (current and future), and pavement facilities that are subject for project consideration. A network-level evaluation can be supportive in the identification of maintenance, repair, and major rehabilitation needs and budgetary planning-level opinions of probable construction costs.

1.2 Statewide Airfield Pavement Management Program (SAPMP) Update

In 1992, the FDOT established the Statewide Airfield Pavement Management Program (SAPMP) to provide program managers, District Aviation and Spaceports Offices, and airport operators a system to proactively manage airport airfield pavement infrastructure within the Florida Aviation System. The SAPMP performs network-level Pavement Condition Index (PCI) survey inspections for airport facilities that are categorized as General Aviation (GA), Reliever (RL), and Commercial (PR). Currently, the program consists of 95 actively participating public-use airports with pavement facilities and provides users with comprehensive data to better manage pavement assets.

Figure 1.2 Florida Aviation System (Facilities with Pavement) and FDOT Districts



In 2016, the Florida Department of Transportation Aviation and Spaceports Office contracted Kimley-Horn and Associates, Inc. along with subconsultants Airfield Pavement Management Systems, LLC and AVCON, Inc. to provide professional services in support of FDOT in the continued efforts of performing a system update to the SAPMP. This work is to be completed from fiscal year 2016 through fiscal year 2019.

1.3 Organization

1.3.1 FLORIDA DEPARTMENT OF TRANSPORTATION AVIATION AND SPACEPORTS OFFICE PROGRAM MANAGER

The FDOT Aviation and Spaceports Office (ASO) Aviation Engineering Manager serves as the Program Manager (ASO-PM) for the SAPMP. The ASO-PM monitors the work performed by the designated Consultant for the program. The ASO-PM has review and

approval authority for each program task and manages the program's day-to-day details and pertinent updates.

The ASO-PM reports updates and milestones to the FDOT State Aviation and Spaceports Manager and Development Administrator.

1.3.2 PARTICIPATING FLORIDA PUBLIC-USE AND PUBLICLY OWNED AIRPORTS

The airports are the end-user and beneficiary of the SAPMP. The SAPMP provides a specific Airport Pavement Evaluation Report that meets the requirements of the FAA Advisory Circular ***150/5380-7B "Airport Pavement Management Program (PMP)."*** Individual participating airports will be provided a final Airport Pavement Evaluation Report by the designated Consultant that is specific to each airport's airfield pavement condition index survey. The ASO-PM has full authority and final approval of each report prior to finalization. In advance of each PCI survey and prior to completion of each Airport Pavement Evaluation Report, participating airports are asked to provide the necessary record documentation for the proper analysis efforts. Relevant record documentation artifacts may consist of but are not limited to: Airport Layout Plans (ALP), Construction Bid Tabulations, As-Built Construction Drawings, Engineer's Reports, and/or field pavement inspection reports.

1.3.3 FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT OFFICES

The seven (7) FDOT District Offices, specifically the Aviation representatives (currently the Freight and Logistics personnel), provide essential support to the SAPMP update and the ASO-PM. Each District supports the SAPMP's on-going efforts by providing local construction cost information throughout the State. The construction cost information, typically consisting of plans and bid tabulations, are used as the basis of the development maintenance, repair, and major rehabilitation opinions of probable construction costs for planning purposes. Each District Office receives copies of individual Airport Pavement Evaluation Reports for the participating airport facilities located within their respective Districts.

1.3.4 CONSULTANT

The Consultant, Kimley-Horn and Associates, Inc., provides technical and administrative support to the ASO-PM for the SAPMP update. The support consists of airfield pavement system inventory updates, performance of PCI Surveys in accordance with ASTM ***D5340-12*** "***Standard Test Method for Airport Pavement Condition Index Surveys,"*** evaluation and reporting of the pavement condition in accordance with the FAA Advisory Circular ***150/5380-7B "Airport Pavement Management Program (PMP)."***

The Consultant Team consists of Kimley-Horn, Airfield Pavement Management Systems, LLC., and AVCON, Inc.

A brief description of the general scope of work undertaken to update the SAPMP includes but is not limited to:

- **Research and evaluation of existing record documentation** was performed to identify construction projects that have taken place since the most recent major update of the SAPMP. This data is used to update the pavement inventory and network definition.
- **An update to the existing Network Definition Map** was made to reflect geometric changes, pavement composition updates, and section characterization. Furthermore, an update to the PCI Survey sample units were made to reflect the field investigation efforts.
- **A functional pavement evaluation with PCI Survey inspections** was completed on all airfield pavements maintained by the Airport. The PCI Survey procedure, as defined by ASTM D5340-12, was used as the basis of the functional pavement evaluation. For this specific evaluation, the sample units defined by prior studies were inspected as to better develop performance models for prediction curves. Pavement subject to construction or anticipated construction during scheduled PCI Survey inspection or within 2 years were omitted from inspection based on confirmation of airport personnel.
- **Condition Analysis** was performed based on the distress data observed, rated, measured, and recorded in accordance with the ASTM D5340-12 for the calculation of PCI values and ratings. The results of the current condition analysis were used in concert with the historic PCI Survey data and construction work history to develop performance models to forecast future PCI values for each section for a 10-year study duration.
- **Maintenance, Repair, and Rehabilitation Planning** was performed predicated on the results of the condition analysis with updated policies and planning-level unit costs. The policies, or M&R policies, have been updated to reflect standard practices for maintenance, repair, and major rehabilitation as defined by the FAA **AC *150/5380-6C "Guidelines and Procedures for Maintenance of Airport Pavements."*** Planning-level unit costs were developed based on representative construction bid tabulations provided by participating airports. The bid tabulations consisted of limited airfield pavement construction projects that took place between 2009 and 2015 at participating airports.

1.4 Purpose of District Pavement Evaluation Report

The District pavement evaluation report discusses the work performed, a summary of findings, condition analysis results, and recommendations for maintenance, repair, and major rehabilitation (M&R) planning associated with the SAPMP system update. It also briefly describes the procedures used to ensure that the appropriate engineering and scientific standards of care, quality, budget, schedules, and safety requirements were implemented during the performance of this work.

This document is intended to serve as a summary of the District's participating airports airfield pavement facility condition and long-term major rehabilitation needs. Furthermore, the purpose of this District Summary document is to provide:

- Information on the pavement management principles, objectives, and methods used to update the existing program;
- Provide the average results of the PCI survey and analysis at each District's participating airport.
- Provide the results of the maintenance level activities and major rehabilitation analysis identified for the immediate Year-1 needs and long-term 10-Year project needs on an airport and District-wide basis.

The identification of rehabilitation needs has been determined at the planning level. Design-level investigation is recommended prior to developing construction-level design documents and budgets.

In compliance with FAA Grant Assurances 11 and 19; the FDOT SAPMP provides airports with airfield pavement evaluation reports in accordance with FAA **AC 150/5380-7B Airport Pavement Management Program (PMP)** and **AC 150/5380-6C Guidelines and Procedures for Maintenance of Airport Pavements**. The application of the results of a PCI survey are for planning purposes and are limited to the visual observation of deteriorated pavements in limited sampling; design-level investigation is recommended in accordance with the FAA procedures defined in **AC 5320-6F Airport Pavement Design and Evaluation** and **AC 150/5370-11B Use of Nondestructive Testing in the Evaluation of Airport Pavements**. The aforementioned ACs provide the design-level material properties of in-situ pavement and subgrade layers for the determination of appropriate rehabilitation actions. The FDOT Statewide Airfield Pavement Management Program is organized to provide airports with planning-level data and does not intend to preclude the responsible engineer in performing the appropriate level of investigation and analysis in determining the appropriate design details of a pavement rehabilitation. It would not be advisable to solely base design-level rehabilitation without the appropriate level of investigation and determination of pavement deterioration beyond that of a visual functional condition assessment.

1.5 History of the Program

In 1992, the FDOT implemented the SAPMP to understand the pavement conditions at public airports in the FAS, systematically update pavement infrastructure information, and assist airport operators with recommendations of pavement maintenance, repair, and major rehabilitation needs. The 1992 SAPMP implementation provided the FDOT and the

participating airports valuable information for establishing and performing timely and appropriate pavement rehabilitation.

During the 1992-1993 implementation and again during the 1998-1999 updates; the SAPMP performed the development with proprietary software for pavement management system analysis. This development allowed for the creation of pavement management database file system populated with airport attributes and condition data. The pavement management database was used to establish maintenance, repair, and rehabilitation policies; consider planning-level unit costs; and develop recommendations for performing pavement maintenance. This system, known as AIRPAV, was initially developed during the 1992-1993 SAPMP implementation for the analysis of distress data. The AIRPAV system was used again in the 1998-1999 SAPMP update.

In 2004, the SAPMP system update included the review of the AIRPAV software compared to other industry available non-proprietary software packages. As a result of this review, MicroPAVER™ (currently known as PAVER™) was selected for implementation of the system update. MicroPAVER™ was developed by the U.S. Army Corps of Engineers Construction Engineering Research Laboratory for pavement management. Data from the 1998-1999 FDOT SAPMP update, which was built upon the initial 1992-1993 implementation of AIRPAV, was reviewed and converted to be compatible with the MicroPAVER™ system. This data conversion included all documented pavement facilities, classifications, types, histories, geometries, PCI condition data and pertinent attributes gathered from airport feedback at the time. This information was used to develop the inventory of each participating airport's pavement facilities in a consistent format. This was the development of Airfield Pavement Network Definition Exhibits. These inventory exhibits visually depicted the branch, section, and sample units that were based upon the pavement construction history and composition information provided by each airport.

In the 2006-2008 system update, the SAPMP was updated again with continued use of the MicroPAVER™ system. Based on the distress data collected, a maintenance repair and major rehabilitation planning program was developed for each airport. As part of this SAPMP update, the procedures for the inspection and the collection of the pavement distress data were documented, and an interactive website (http://www.dot.state.fl.us/aviation/pavement.shtm) was established for input of data.

In the 2010-2012 system update, the SAPMP was updated using new global positioning system (GPS) integrated technology to digitally collect pavement distress data. Interactive geographic information system (GIS) map files were developed from updated Airfield Pavement Network Definition Exhibits to aid pavement condition inspectors in the collection of sample distress data. The data collected was utilized to develop pavement performance models to predict future pavement PCI values and make recommendations for major rehabilitation.

In the 2013-2015 system update, the SAPMP integrated PAVER™ and FieldInspector™ with the use of GPS and GIS capable field tablets. Furthermore, the update included continued adherence to the ASTM ***D5340-12*** "***Standard Test Method for Airport Pavement Condition Index Surveys."*** The ASTM update consisted of refinement of

distress definition types and deduction values for select asphalt concrete and Portland Cement Concrete distresses.

1.6 Federal Aviation Administration (FAA)

Currently, airports participating in the Airport Improvement Program (AIP) Grant Program are required by the FAA to develop and implement a pavement maintenance program to be eligible for funding (FAA Advisory Circular ***150/5380-6C "Guidelines and Procedures for Maintenance of Airport Pavements"*** and ***150/5380-7B "Airport Pavement Management Program (PMP)"***). This program requires detailed inspection of airfield pavement conditions by trained personnel. The inspections are required to be performed at least once a year using the PASER method or every three years if the pavement is inspected as defined by the PCI survey procedure in accordance with the ASTM ***D5340-12*** "***Standard Test Method for Airport Pavement Condition Index Surveys."***

In general, adherence to the Advisory Circulars are mandatory for all projects funded with federal grant monies through the AIP program and with revenue from the Passenger Facilities Charges (PFC) Program. Further information is detailed in FAA Grant Assurance No. 11 "Pavement Maintenance," No. 34 "Policies, Standards, and Specifications," and PFC Assurance No. 9 "Standards and Specifications."

1.7 FDOT SAPMP Objectives and Components

The FDOT SAPMP is a program that provides the FAS support in implementing and/or maintaining a network-level Pavement Management Program in a consistent and regularly scheduled manner.

In accordance with FAA AC***150/5380-7B "Airport Pavement Management Program (PMP)"*** an effective Pavement Management Program consists of a system that achieves specific objectives. The FDOT SAPMP objectives are as follows:

1.7.1 PROGRAM OBJECTIVES

1. A systematic means for collecting and storing information regarding existing pavement structure and condition.
2. An objective and repeatable system for evaluating pavement condition.
3. Procedures for predicting future pavement condition.
4. Procedures for modeling both past and future pavement performance conditions.
5. Procedures to determine the budget requirements to meet management objectives, such as the maintenance, repair, and major rehabilitation budget required to keep a pavement at a specified PCI level or the budget required to improve to target PCI level.
6. Procedures for formulating and prioritizing maintenance, repair, and major rehabilitation projects.

The objectives are accomplished by the following components:

1.7.2 PROGRAM COMPONENTS

A. Database

B. Pavement Inventory
C. Pavement Structure
D. Pavement Work History
E. Pavement Condition Data
F. Pavement Performance Modeling for the Prediction/Forecast of PCI
G. Maintenance, Repair, and Major Rehabilitation Policies and Budget Simulation

A well-maintained network-level pavement management program may provide airport staff a better understanding of the airfield pavement performance for developing and planning for specific maintenance, repair, and major rehabilitation projects. The understanding of specific distress types and severities will assist the airport in addressing pavement maintenance and repair with the appropriate treatments as defined by the FAA Advisory Circular ***150/5380-6C "Guidelines and Procedures for Maintenance of Airport Pavements."*** The development of projects with an understanding of system inventory, deterioration details, and pavement condition forecasts may assist airport staff in developing practical rehabilitation actions and budgets. Furthermore, the understanding of pavements' past performance and forecasted condition may assist airport staff in addressing pavement rehabilitation in a timely and cost-effective manner. **Figure 1.7.2 (a) Typical Pavement Condition Life Cycle**, which is based on the FAA Advisory Circular ***150/5380-7B "Airport Pavement Management Program (PMP)."*** **Figure 1.7.2 (a) Typical Pavement Condition Life Cycle**, depicts a general duration of a pavement section and identifies the ideal condition to perform rehabilitative treatments at an optimal cost rather than allowing significant increase in rate of deterioration that would result in increased costs.

Figure 1.7.2 (a) Typical Pavement Condition Life Cycle

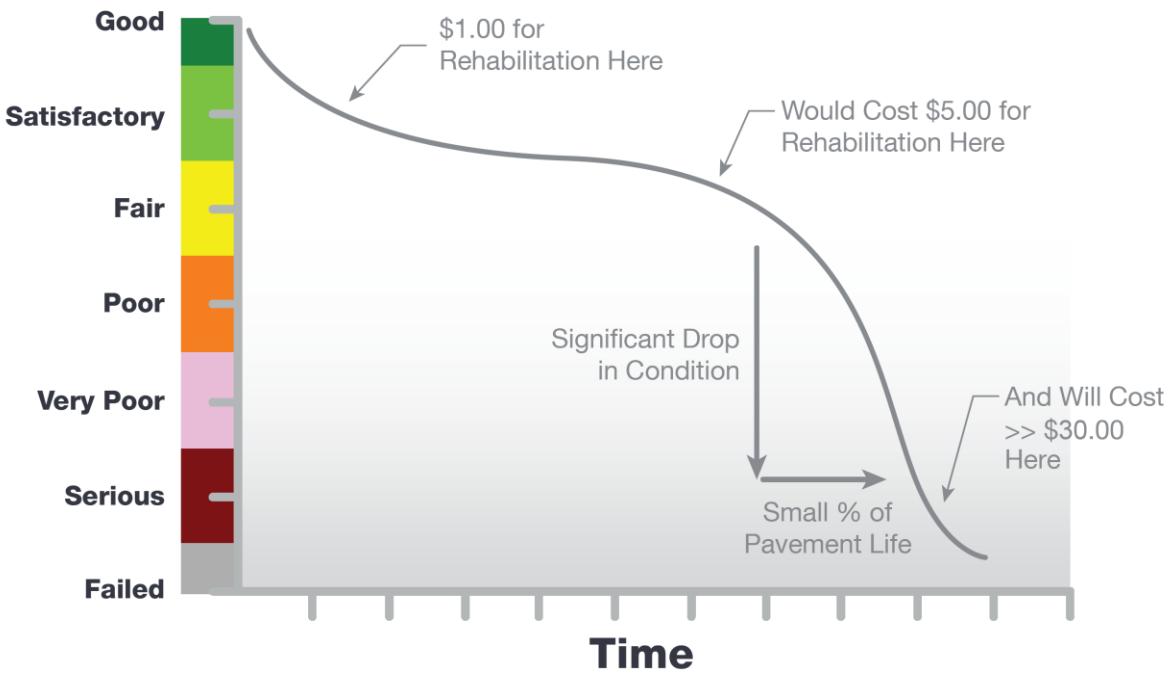
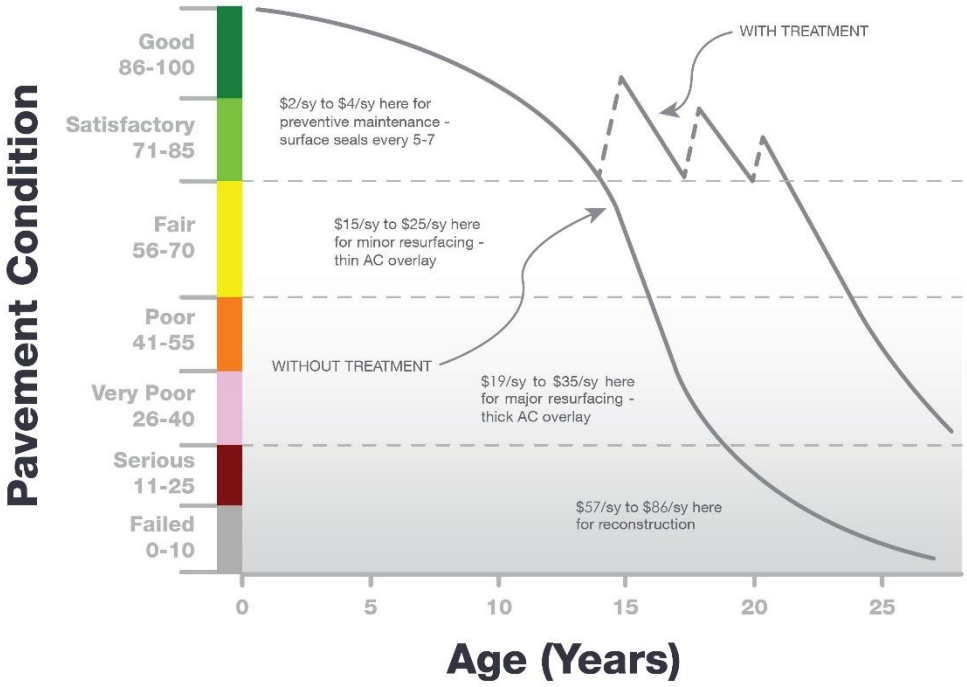


**Figure is for conceptual purposes only – unit costs are not specific to airfield pavements (AC vs PCC).*

Figure 1.7.2 (b) General Pavement Treatments by Condition Range depicts generic flexible asphalt concrete (AC) pavement treatments that are effective at specific condition ranges. This graphic is a general concept and will vary based on pavement surface type and overall composition. The intent is to convey various treatment types that would be effective based on the condition of the pavement along the deterioration model.

Figure 1.7.2 (b) General Pavement Treatments by Condition Range



Pavement maintenance, repair, and major rehabilitation would be quite anticipatory if all pavements behaved as depicted in **Figures 1.7.2 (a) and 1.7.2 (b)**, however pavement condition performance vary significantly based on several factors. Factors that contribute to a pavement section's condition and deterioration performance may include: functional design life, material type, material construction quality, climatic conditions, aircraft loading type and frequency, non-aircraft loading type and frequency, maintenance history, subgrade conditions, and other infrastructure in the vicinity. The list of factors is not all-inclusive of all factors that may contribute to a pavement's life cycle, it is intended to clarify that unique conditions certainly will affect a pavement's deterioration.

Figures 1.7.2 (c) and Figure 1.7.2 (d) depict visual conditions of pavement facilities, for both AC and PCC respectively, with approximated PCI ranges and corresponding repair and rehabilitation measures.

Figure 1.7.2 (c) Flexible Asphalt Concrete

	PCI Range	Representative PCI	Representative Pavement Surface	Rehabilitation Activities
Routine Maintenance	86-100	90		Pavements with PCI values above 85, or 'Good', may require periodic joint/crack sealing and local patching.
Pavement Preservation	65-85	70		Pavements with PCI conditions ranging from 'Fair' to 'Satisfactory' may require surface treatments (seal coat), thin overlays, and/or joint/crack sealing.
Major Rehabiliation	40-64	50		Pavements that have deteriorated below a PCI 65 (but above 39), or within the range of 'Very Poor' to 'Fair' conditions, may require major rehabilitation such as pavement mill and overlay or partial full-depth reconstruction.
Major Reconstruction	0-39	15		Pavements that have deteriorated below a PCI 40, or within the range of 'Failed' to 'Very Poor' conditions, may require major reconstruction.

Figure 1.7.2 (d) Rigid Portland Cement Concrete

	PCI Range	Representative PCI	Representative Pavement Surface	Rehabilitation Activities
Routine Maintenance	86-100	90		Pavements with PCI values above 85, or 'Good', may require periodic joint/crack sealing and local patching.
Pavement Preservation	65-85	70		Pavements with PCI conditions ranging from 'Fair' to 'Satisfactory' may require patches and/or joint/crack sealing.
Major Rehabiliation	40-64	50		Pavements that have deteriorated below a PCI 65 (but above 39), or within the range of 'Very Poor' to 'Fair' conditions may require major rehabilitation such as slab replacement and PCC restoration activity.
Major Reconstruction	0-39	15		Pavements that have deteriorated below a PCI 40, or within the range of 'Failed' to 'Very Poor' conditions, may require major reconstruction.

1.8 References

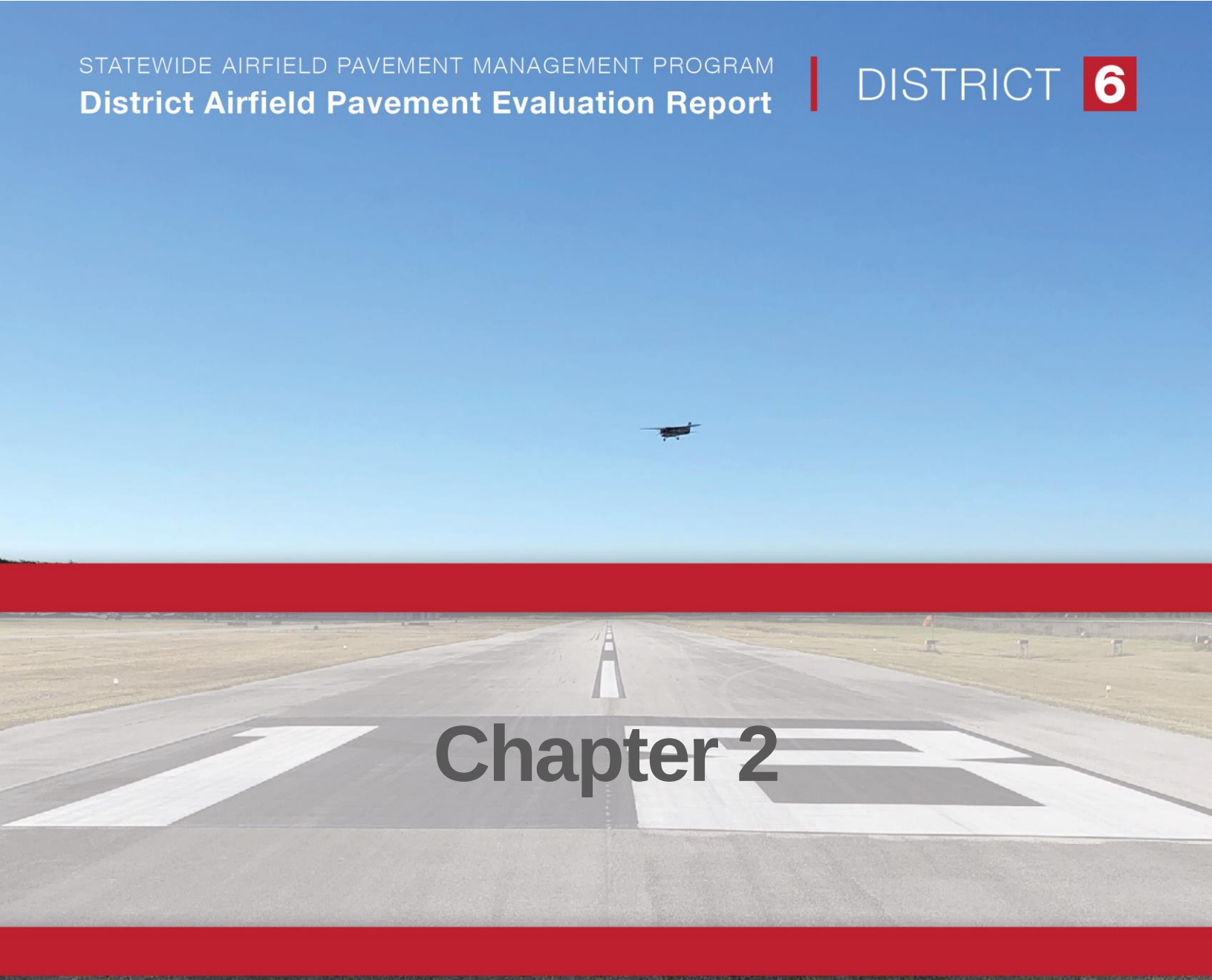
The following reference documents were referenced as specific guidelines and procedures for maintaining airport pavements; establishing an effective pavement maintenance program; and identifying specific pavement distresses, probable causes of distresses, inspection guidelines, and recommended methods of repair:

- ASTM D5340-12 “Standard Test Method for Airport Pavement Condition Index Surveys.”
- FAA Advisory Circular 150/5380-7B “Airport Pavement Management Program.”
- FAA Advisory Circular 150/5380-6C “Guidelines and Procedures for Maintenance of Airport Pavements.”
- FAA Advisory Circular 150/5320-6F “Airport Pavement Design and Evaluation.”
- Department of the Air Force, Air Force Civil Engineer Center “Engineering Technical Letter (ETL) 14-3: Preventive Maintenance Plan (PMP) for Airfield Pavements.”
- Unified Facilities Criteria (UFC) 3-260-16FA 16 “Airfield Pavement Condition Survey Procedures Pavements.”
- Unified Facilities Criteria (UFC) 3-260-03 “Airfield Pavement Evaluation.”
- Pavement Management for Airports, Roads, and Parking Lots 2nd Edition, M.Y. Shahin.

STATEWIDE AIRFIELD PAVEMENT MANAGEMENT PROGRAM

District Airfield Pavement Evaluation Report

DISTRICT 6



Chapter 2

FDOT

Chapter 2 – Methodology

An effective pavement management program incorporates the regular collection of pavement condition information and communication of information to appropriate sponsors. This chapter of the report defines the specific methods utilized as part of the SAPMP System Update to meet the requirements of an effective pavement management system as defined by the FAA Advisory Circular ***150/5380-7B "Airport Pavement Management Program (PMP)."***

2.1 Airfield Pavement Database

The SAPMP program has historically utilized PAVER™ (formerly MicroPAVER™); the current update has maintained the use of the PAVER™ 7.0 version of the software. The PAVER™ software application was developed by the U.S. Army Construction Engineering Research Laboratory sponsored by the FAA, Federal Highway Administration, U.S. Army, U.S. Air Force, and the U.S. Navy to meet the objectives of an effective pavement management system. The SAPMP consists of a network-level database of the airport's airfield pavement facilities that are part of the program. PAVER™ can achieve the following pavement management objectives: a manageable inventory system, the analysis of the current condition of pavements in accordance with the ASTM D5340, the development of pavement performance models to forecast conditions, and the development of maintenance, repair, and major rehabilitation recommendations based on budgetary scenarios.

PAVER™ inventory management is based on a tiered organizational structure that consists of networks, branches, and sections, with the section being the smallest unit of management. Critical elements of an effective pavement management program are maintained within the network-level PAVER™ database. These elements typically consist of pavement inventory characteristics, pavement structure, work history, historic condition records, and analytical customization.

The SAPMP System Update consisted of the conversion of the previous database from a PAVER™ version 6.5 to a version 7.0.

2.2 Airfield Pavement System Inventory

An airfield pavement system inventory typically maintains the location of all runways, taxiways, and aprons; geometric characteristics; type of pavement structure, year of construction and/or last major rehabilitation; and general composition details of the pavement.

The pavement inventory for an airport's airfield is an assembly of pavement infrastructure information that builds an inventory of branches and sections that codifies the airport's airfield pavement network. General geometry characteristics, estimated length, width, functional classification, pavement surface type, and operational function are among the characteristics identified at this initial phase in the pavement management process. The development of a pavement inventory that reasonably reflects the airport's airfield pavement facilities that are maintained by the airport provides a defined scope of the

inspection and analysis efforts. As in the past, the SAPMP scope of work is specific to the airport-maintained airfield pavements as defined in the field network definition exhibits presented to current airport personnel.

A critical input to the pavement system inventory and network definition in the development of the SAPMP update is the date of last major rehabilitation/construction performed on the pavement assets that would set the asset at a PCI of 100 and a condition rating of Good. The airport provided a limited combination of record drawings, reports, and staff input that was pertinent information in developing the construction history of the airport's pavements from inception. Major rehabilitation/construction activities performed in the last 24-months or anticipated in the next 24-months are assumed to restore the PCI to 100. These activities include; pavement overlay, mill and replace, mill and overlay, new construction, and/or complete reconstruction.

Aerial imagery was obtained through the FDOT Surveying & Mapping Office's *Aerial Photo Look Up System (APLUS)*. This spatially projected imagery was utilized with computer-aided drafting software (AutoCAD) in concert with geographical information system software (ArcGIS) to develop a planning-level representative model that reasonably reflects the pavement assets at the airport.

2.2.1 PAVEMENT MANAGEMENT PROGRAM NETWORK DEFINITION TERMINOLOGY

There are several terms that are common in the communication of the results of the SAPMP System Update, these terms are defined as follows:

Pavement Network

A pavement network is a logical unit for organizing pavements into a structure for pavement management. A network will typically consist of one or more pavement *branches*, which are typically comprised of one or many pavement *sections*. The network is the starting point of the hierarchy of pavement management organization. For example, a network can be all the pavements within an airport's airfield or all the pavements in a statewide program. For the FDOT SAPMP, a network represents an individual airport's airfield pavement facilities maintained by the airport.

The SAPMP System Update consists of research and evaluation of existing record documentation for the participating airports' airfield facilities. The pavement network is typically limited to the pavement facilities subject to aircraft use that is also maintained by the airport owner and eligible for public funding.

Pavement Branch

A pavement branch, also known as a facility, is a logical unit of generally identifiable pavement of a network with distinct functional classification. For example, within an airfield each runway, taxiway, or apron is considered a branch. A branch must consist of at least one section.

Pavement Section

A pavement section, also known as a feature, is the most specific management unit when considering the application and selection of maintenance, repair, and/or major rehabilitation treatments on an area of pavement within a branch. Each branch consists of at least one section but may consist of more if pavement feature characteristics are distinct throughout the branch. Characteristics considered when subdividing branches into sections include, but are not limited to: pavement structure, type, age, condition, and function; traffic composition and frequency (current and future); geometric location; construction history; and other related infrastructure features (e.g. drainage). A pavement section is defined as a subordinate of a pavement branch, which is a subordinate of a "parent" pavement network.

Pavement Sample Unit

A pavement sample unit is a subdivision of a pavement section that has a standard size range: twenty (20) continuous slabs (±8 slabs) for Portland Cement Concrete (PCC) pavement and 5,000 contiguous square feet (±2,000 ft^2) for flexible asphalt concrete (AC) or porous friction course pavements.

Table 2.2.1 Airfield Pavement Database Network Definition Terminology

PMS Network Level	Common Definition	Airport Example
Network	Overall pavement assets maintained by the Airport	"Tallahassee International Airport – Airfield Pavements"
Branch Name	Commonly defined asset name as established by Airport and by use	"Runway 18-36"
Branch ID	Codified shorthand name for commonly defined asset established for database identification	"RW 18-36" RW, Branch Use, "Runway" 18-36, Runway Facility
Section ID	Codified identification for pavement asset that is distinct by the following: • Pavement Composition • Construction Work History • Aircraft Traffic • Condition Records	"6105"
Sample Unit	A numeric identification of an area of pavement (5,000±2,000 SF of AC or 20±8 slabs of PCC) that has been inspected in accordance with ASTM D5340-12.	"300"

2.3 Airfield Pavement Structure

2.3.1 PAVEMENT STRUCTURE TYPES

Airport airfield pavements are constructed to provide adequate support for the loads imposed by aircraft and produce a firm, stable, smooth, all-year, all-weather surface free of debris or other particles that may be blown or dislocated by propeller wash or jet blast. Typical pavement planning and design requires coordination of factors that include but are not limited to; subgrade conditions, material layer types, aircraft fleet mix (type, frequency, and traffic growth), and functional use. A pavement structure is composed of constructed layers that consist of subgrade, subbase, base course, structural courses, and surfaces courses. For the FDOT SAPMP, two major pavement structure types are classified for evaluation and analysis: Flexible Asphalt Concrete Surface and Rigid Portland Cement Concrete Surface. Additionally, Composite Structures known as Whitetopping Pavements are also present at limited airports within the Florida Airports System; these unique pavement structures are evaluated separately.

Flexible Asphalt Concrete Surface

A pavement comprised of aggregate mixture with an asphalt cement binder. The FDOT SAPMP consists of three (3) asphalt concrete surface types: Asphalt Concrete (AC), Asphalt Concrete Overlaid on Asphalt Concrete (AAC), and Asphalt Concrete Overlaid on Portland Cement Concrete (APC).

Asphalt Concrete (AC)

A flexible pavement section consisting of aggregate mixture with asphalt cement binder layered on engineered base course material that is layered on subbase and subgrade soil material.

Asphalt Concrete Overlaid on Asphalt Concrete (AAC)

A flexible pavement section consisting of aggregate mixture with asphalt cement binder layered on an existing flexible AC pavement section. Flexible airfield pavement sections are AAC when a pavement rehabilitation consists of a pavement milling operation and a resurfacing of asphalt layers; or a direct overlay of asphalt concrete without surface preparation.

Asphalt Concrete Overlaid on Portland Cement Concrete (APC)

A flexible pavement section consisting of aggregate mixture with asphalt cement binder layered on an existing Rigid PCC pavement section. This unique pavement composition may result in distinct pavement distress manifestations known as reflective joint cracking.

Rigid Portland Cement Concrete Surface

A pavement comprised of aggregate mixture with a Portland Cement binder. The FDOT SAPMP recognizes Portland Cement Concrete (PCC) as the primary rigid pavement section.

Portland Cement Concrete (PCC)

A rigid pavement section composed of Portland cement concrete placed on a granular or treated base course that is supported on a compacted subgrade. The concrete surface must provide a texture of nonskid qualities, prevent the infiltration of surface water into the subgrade, and provide structural support to the airplanes. Rigid pavement construction requires the layout of appropriately designed joint spacing.

Composite Structure – Whitetopping Pavement

A composite pavement comprised of relatively thin Portland Cement Concrete overlaid on an existing flexible asphalt concrete pavement structure. There are three (3) types of Whitetopping Pavements; Conventional (WHT), Thin (TWT), and Ultra-Thin (UTW).

Conventional Whitetopping (WHT)

A composite pavement structure consisting of a modified PCC overlaid on an existing flexible AC pavement section area. The modified PCC layer is typically greater than 8 inches in thickness.

Thin Whitetopping (TWT)

A composite pavement structure consisting of a modified PCC overlaid on an existing flexible asphalt concrete pavement section. The modified PCC layer is typically between 4 and 8 inches in thickness.

Ultra-Thin Whitetopping (UTW)

A composite pavement structure consisting of a modified PCC overlaid on an existing flexible asphalt concrete pavement section. The Portland Cement Concrete layer is typically between 2 and 4 inches in thickness.

2.4 Airfield Pavement Work History

2.4.1 AIRFIELD PAVEMENT RECORD KEEPING

It is strongly recommended that airports maintain records of all airfield construction and maintenance related to the pavement facilities. A history of all maintenance and repair performed and its associated costs (construction and soft costs) can provide valuable information on the effectiveness of various treatments on pavements. An airport should maintain detailed records of maintenance (routine, emergency, and proactive) activities. The records should consist of the following:

1. Location and Limits of Work.
2. Types and Severity of Distresses Repaired.
3. Type of Work.
4. Cost of Work.
5. Supporting Documents (contract documents, construction drawings, specifications, bid tabulations, repair product, photograph records, etc.).

2.5 Airfield Pavement Traffic

A pavement section is typically designed to meet the needs of the user (airlines, air cargo, general aviation, and/or military) in providing a safe, smooth, operational surface. Pavement deterioration generally occurs gradually through increased roughness and/or fatigue cracking caused by successive and heavy aircraft traffic.

This study does not consist of a study or analysis of each individual airport's airfield aircraft fleet mix or traffic operations. However, it is strongly recommended that airports incorporate the requirements of FAA Advisory Circular ***150/5320-6F Airport Pavement Design and Evaluation*** when developing design-level rehabilitation activities. The AC provides guidance on incorporation of aircraft traffic fleet mix data.

2.6 Airfield Pavement Condition Index (PCI) Survey

2.6.1 PCI SURVEY METHODOLOGY

In adherence to the FAA Advisory Circular ***150/5380-7B "Airport Pavement Management Program (PMP),"*** the FDOT SAPMP utilizes the PCI Survey Method of inspection to collect pavement distress data and analyze the condition. The PCI Survey Inspection procedure is a visual statistical sampling of pavements for recording primary distress types (e.g. cracking and deformation), associated severities, and quantities as defined by the ASTM D5340-12. This effort is the primary means of obtaining and recording pavement distress data. The survey inspection consists primarily of visual inspection of pavement surfaces for signs of distress and deterioration resulting from loading (aircraft) and environmental influences.

A visual pavement condition survey provides an indication of the cause and rate of deterioration of a pavement section from a functional point of view and can be an indicator of structural distress. The functional condition analysis assesses the rating of the operational surface. A visual PCI Survey Inspection does not predict the remaining structural life of a pavement section, or its ability to support loads. The functional condition

determined by the PCI method can provide a cost-effective means to plan for pavement rehabilitation projects. The timely application of pavement rehabilitation may lead to the extension of functional life of individual pavement sections. This method varies from structural evaluation; functional condition is limited to visually observed distresses and indicative modes of pavement deterioration. A formal structural evaluation analyzes subsurface conditions, material characteristics, and qualitative pavement structure attributes. A structural evaluation may consist of; subsurface geotechnical exploration, falling weight deflectometer testing, petrographic testing, material coring, and/or flexural testing.

2.6.2 PAVEMENT DISTRESS TYPES

For each section, the severity and quantity of defined distresses are recorded and then analyzed in accordance with the ASTM D5340-12 standard. The standard identifies 17 distinct flexible asphalt concrete distress types and 16 distinct rigid Portland Cement Concrete distress types.

Table 2.6.2 (a) Pavement Distress Types – Flexible Asphalt Concrete-Surfaced Airfields

Distress	Common Distress Mechanisms
Alligator Cracking	Load / Fatigue
Bleeding	Construction Quality/ Mix Design
Block Cracking	Climate / Age
Corrugation	Load / Construction Quality
Depression	Load / Subsurface
Jet Blast	Aircraft
Joint Reflection - Cracking	Climate / Subsurface Pavement / Traffic Load
Longitudinal/Transverse Cracking	Climate / Construction Quality
Oil Spillage	Aircraft / Vehicle
Patching	Utility / Pavement Repair / Age
Polished Aggregate	Repeated Traffic Loading
Raveling	Climate / Age
Rutting	Load / Fatigue
Shoving	PCC Pavement Growth / Movement
Slippage Cracking	Load / Pavement Bond / Mix Design
Swelling	Climate / Subsurface
Weathering	Climate / Age

Table 2.6.2 (b) Pavement Distresses Possible Causes – Flexible Asphalt Concrete-Surfaced Airfields

Classification by Possible Causes			
Load	Climate / Durability	Moisture / Drainage	Others
➢ Alligator Cracking ➢ Corrugation ➢ Depression ➢ Patching of Load-based distress ➢ Polished Aggregate ➢ Rutting ➢ Slippage Cracking	➢ Bleeding ➢ Block Cracking ➢ Joint Reflection Cracking ➢ L/T Cracking ➢ Patching of climate / durability-caused distresses ➢ Shoving from PCC ➢ Raveling ➢ Weathering ➢ Swelling	➢ Alligator Cracking ➢ Depression ➢ Patching of moisture / drainage caused distress ➢ Swelling ➢ Raveling ➢ Weathering	➢ Oil Spillage ➢ Jet Blast Erosion ➢ Polished Aggregate

Table 2.6.2 (c) Pavement Distresses Possible Effects – Flexible Asphalt Concrete-Surfaced Airfields

Classification by Possible Effects			
Roughness	Skid / Hydroplaning Potential	FOD Potential	Rate of Deterioration and Maintenance Requirements
➢ Corrugation ➢ Depression ➢ Rutting ➢ Shoving of asphalt pavement ➢ Swelling ➢ Raveling ➢ Weathering	➢ Bleeding ➢ Depression ➢ Polished Aggregate ➢ Rutting	➢ Block Cracking ➢ Joint Reflection Cracking ➢ L/T Cracking ➢ Slippage Cracking	➢ All Distresses

Table 2.6.2 (d) Pavement Distresses – Rigid Portland Cement Concrete-Surfaced Airfields

Distress	Common Distress Mechanisms
Blowup	Climate / ASR
Corner Break	Load Repetition / Curling Stresses
Linear Cracking	Load Repetition / Curling Stresses / Shrinkage Stresses
Durability Cracking	Freeze-Thaw Cycling
Joint Seal Damage	Material Deterioration / Construction Quality / Age
Small Patch	Pavement Repair
Large Patch/Utility Cut	Utility / Pavement Repair
Popout	Freeze-Thaw Cycling / ASR / Material Quality
Pumping	Load Repetition / Poor Joint Sealant
Scaling	Construction Quality / Freeze-Thaw Cycling
Faulting	Subgrade Quality / ASR / Inadequate Load Transfer
Shattered Slab	Overloading
Shrinkage Cracking	Construction Quality / Climate
Joint Spalling	Load Repetition / Infiltration of Incompressible Material / Deterioration of Dowel (Load Transfer) Bars
Corner Spalling	Load Repetition / Infiltration of Incompressible Material / Deterioration of Dowel (Load Transfer) Bars
Alkali-Silica Reaction (ASR)	Construction Quality / Climate / Chemical Reaction

Table 2.6.2 (e) Pavement Distresses Possible Causes – Rigid Portland Cement Concrete-Surfaced Airfields

Classification by Possible Causes			
Load	Climate / Durability	Moisture / Drainage	Others
➢ Corner Break ➢ Shattered Slab ➢ L/T/D Cracking ➢ Pumping ➢ Patching of Load-associated distress ➢ Spalling	➢ Blowup ➢ "D" Cracking ➢ Joint Seal Damage ➢ Popouts ➢ Scaling ➢ Patch of Climate/Durability-associated distress ➢ Shrinkage Cracking ➢ Spalling ➢ L/T/D Cracking	➢ Corner Break ➢ Shattered Slab ➢ Pumping ➢ Patching of Moisture/Drainage-associated distress	➢ Settlement / Faulting

Table 2.6.2 (f) Pavement Distresses Possible Effects – Rigid Portland Cement Concrete-Surfaced Airfields

Classification by Possible Effects			
Roughness	Skid / Hydroplaning Potential	FOD Potential	Rate of Deterioration and Maintenance Requirements
➢ Blowup ➢ Corner Break ➢ L/T/D Cracking ➢ Shattered Slab ➢ Settlement / Faulting ➢ Spalling	➢ Settlement / Faulting ➢ Spalling	➢ Corner Break ➢ L/T/D Cracking ➢ "D" Cracking ➢ Joint Seal Damage ➢ Shattered Slab ➢ Popouts ➢ Scaling	➢ All distresses

2.6.3 PCI SURVEY INSPECTION PROCEDURES

Inspection Sampling Rate

The FDOT SAPMP performs PCI Survey Inspections on sample units defined in the previous update. The sample units are subject to change at the discretion of the inspection personnel and/or to major pavement rehabilitation treatments. Furthermore, access to the sample units based on accessibility or impacts to operations may affect the overall sampling rate effort at each airport. The following **Tables 2.6.3 (a) and (b)** define the sampling criteria used by the FDOT SAPMP. A higher sampling rate may be utilized to achieve a greater statistical confidence should the airport have the available resources to perform PCI Survey Inspections independent of the FDOT SAPMP.

Table 2.6.3 (a) Recommended Sample Rate Schedule for Flexible Asphalt Concrete

Number of Total Sample Units in Section	Sample Units to Inspect	
	Runways	Taxiways, Aprons, and Others
1 - 4	1	1
5 - 10	2	1
11 - 15	3	2
16 - 30	5	3
31 - 40	7	4
41 - 50	8	5
51 or more	20% but ≤20	10% but ≤10

Table 2.6.3 (b) Recommended Sample Rate Schedule for Rigid Portland Cement Concrete

Number of Total Sample Units in Section	Sample Units to Inspect	
	Runways	Taxiways, Aprons, and Others
1 - 3	1	1
4 - 6	2	1
7 - 10	3	2
11 - 15	4	2
16 - 20	5	3
21 - 30	7	3
31 - 40	8	4
41 - 50	10	5
51 or more	20% but ≤20	10% but ≤10

2.6.4 UPDATES TO THE ASTM D5340-12

Airfield pavement distresses and conditions were surveyed in accordance with the methods outlined in FAA Advisory Circular 150/5380-6C and ASTM D5340-12. These procedures define distress type, severity, and quantity for sampling areas within each defined pavement section area to analyze and determine the PCI value and condition rating. During the 2013-2015 System Update, the incorporation of the significant changes to the ASTM D5340 (version D5340-12) resulted in adjusted pavement condition indices on pavement sections subject to the distress types updated. Furthermore, the revision of the PCI deduction curves and the separation of distress types from the original, such as Weathering and Raveling, have in select cases increased the PCI value of the section without any rehabilitation performed.

Flexible Asphalt Concrete Pavement Distress Updates

The previous methodology which featured "(52) Weathering and Raveling" distress has been separated into two distresses "(52) Raveling" and "(57) Weathering." Previously, areas that were recorded as "Weathering and Raveling" were considered as one distress with a high deduction. Based on the updated methodology, in certain situations where "Weathering" only exists and does not meet the definition of "Raveling," the PCI deduction is not as high as the former "Weathering and Raveling." Therefore, areas identified only as "(57) Weathering" based on current ASTM standards, which were previously identified as "(52) Weathering and Raveling," may be subject to an improvement in PCI. In instances where pavement PCI has increased due to this update, it is not due to an improvement in actual condition, however indicative of the adjusted distress deterioration effects.

Rigid Portland Cement Concrete Pavement Distress Updates

The previous methodology defined "(70) Scaling" as a distress that consisted of surface deterioration caused by construction defects, material defects, and environmental factors. The distress included Alkali-Silica Reaction, also known as ASR. The current methodology has separated Alkali-Silica Reaction as a distress identified as "(76) Alkali-Silica Reaction / ASR." As a result, the previous "(70) Scaling" numerical deduction contribution to the PCI has been reduced. Previous inspections that recorded "(70) Scaling," and currently do not exhibit "(76) Alkali-Silica Reactivity / ASR" may potentially see an increase in PCI. Additionally, "(73) Shrinkage Cracks" has been redefined as "(73) Shrinkage Cracking". Shrinkage Cracking is characterized in two forms; drying shrinkage and plastic shrinkage. Drying shrinkage occurs over time as moisture leaves the pavement, it develops when hardened pavement continues to shrink as excess water not needed for cement hydration evaporates. It forms when subsurface resistance to the shrinkage is present and may extend through the entire depth of the slab. Plastic shrinkage can be caused by both atmospheric conditions and construction. Plastic shrinkage caused by atmospheric conditions develops when there is rapid loss of water in the surface of recently placed pavement. High winds or low humidity are contributing factors to evaporation. These shrinkage cracks can appear as a series of parallel cracks, usually 1 to 3 feet apart and do not extend very deep into the pavement's surface. Plastic shrinkage caused by construction can form from over finishing/overworking of the pavement during construction. These shrinkage cracks appear as a series of inter-connected hairline cracks, or pattern cracking, and are often observed throughout most of the slab surface. This condition is also referred to as map cracking or crazing.

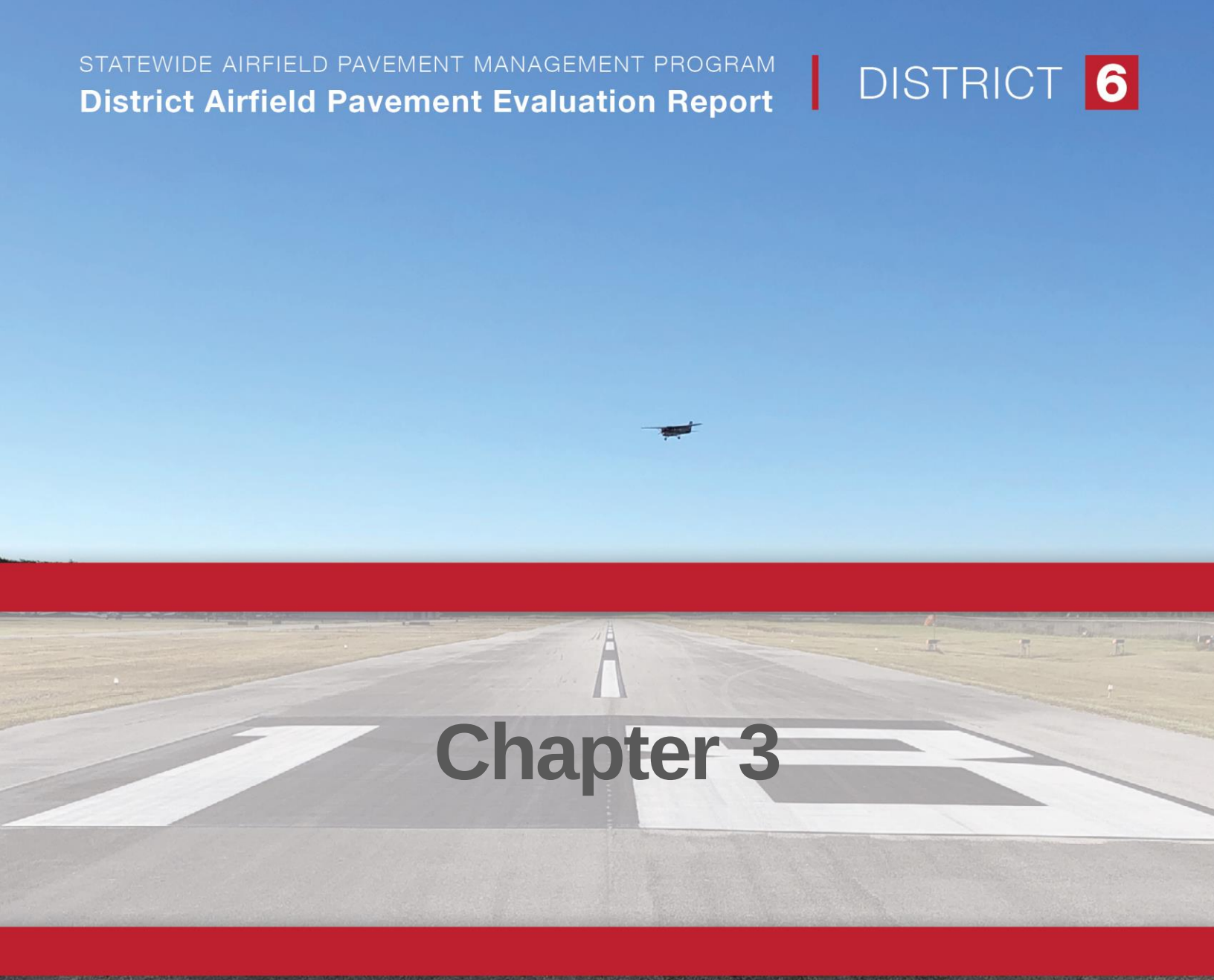
Table 2.6.4 Summary of Updates to ASTM D5340-12

Distress Updates to Reflect ASTM 5340-12				
Use and Surface Type	**Updated Distress**	**Former Distress in Prior to 5340-10**	**Deduction Curve**	**Potential Effect**
AC/AAC/ APC Airfield	(52) Raveling - Low	(52) Weathering and Raveling - Low	No Change	N/A
	(52) Raveling - Medium	(52) Weathering and Raveling - Medium	No Change	N/A
	(52) Raveling - High	(52) Weathering and Raveling - High	No Change	N/A
	(57) Weathering - Low	N/A – was part of 'Weathering and Raveling'	New	Increase in PCI with no maintenance
	(57) Weathering - Medium	N/A – was part of 'Weathering and Raveling'	New	Increase in PCI with no maintenance
	(57) Weathering - High	N/A – was part of 'Weathering and Raveling'	New	Increase in PCI with no maintenance
PCC Airfield	(70) Scaling - Low	(70) Scaling, Map Cracking, and Crazing - Low	New	Increase in PCI with no maintenance
	(70) Scaling - Medium	(70) Scaling, Map Cracking, and Crazing - Medium	New	Increase in PCI with no maintenance
	(70) Scaling - High	(70) Scaling, Map Cracking, and Crazing - High	New	Increase in PCI with no maintenance
	(76) Alkali Silica Reaction – Low	N/A – was part of 'Scaling, Map Cracking, and Crazing'	New	Increase in PCI with no maintenance
	(76) Alkali Silica Reaction – Medium	N/A – was part of 'Scaling, Map Cracking, and Crazing'	New	Increase in PCI with no maintenance
	(76) Alkali Silica Reaction – High	N/A – was part of 'Scaling, Map Cracking, and Crazing'	New	Increase in PCI with no maintenance
	(73) Shrinkage Cracking	(73) Shrinkage Cracking	No Change	Prior distress types identified as 'Scaling, Map Cracking, and Crazing' may now be identified as 'Shrinkage Cracking'

STATEWIDE AIRFIELD PAVEMENT MANAGEMENT PROGRAM

District Airfield Pavement Evaluation Report

DISTRICT 6



Chapter 3

FDOT

Chapter 3 – Airfield Pavement System Inventory

A significant element of an effective airfield pavement management system is the appropriate record keeping of changes due to construction or operational use of the pavement facilities. This chapter discusses the inventory data collected from the airport and summarizes network-level characteristics of the airport's airfield pavements. At the start of each FDOT SAPMP System Update, all airports are asked to review the existing Airfield Pavement Network Definition exhibit for accuracy. Furthermore, participating airports are asked to provide documentation for any recent or anticipated construction related to their airfield pavements.

3.1 Airfield Pavement Network Information

3.1.1 PREVIOUS AND/OR ANTICIPATED AIRFIELD PAVEMENT CONSTRUCTION

A significant element to the development and update of the SAPMP has been to identify recent and anticipated construction activity that affects the pavement composition and performance. With cooperation from airport personnel, the project team was able to gather airport specific information that included changes in pavement geometry, new or reconstructed pavements since the last inspection and anticipated pavement rehabilitation that would negate the findings of a visual inspection done in the short term. At the beginning of each phase for this update, FDOT SAPMP participants responded to the Aviation and Spaceports Office with project specific information on the recent and anticipated work. In addition to the construction activity, updates to pavement facility designators (i.e. re-designation, magnetic declination, and/or decommissioning) were reported. Lastly, the project team leaders performing field inspections confirm with airport staff on site previous, recent, and anticipated construction projects that may affect the airfield pavement facilities.

This information was considered in conjunction with aerial imagery provided by FDOT during the updating of pavement section areas on each airport's Airfield Pavement Network Definition Exhibit. The previous, recent, and anticipated construction activity information provided by airport staff has been graphically depicted relative to the branch, section, and sample unit definition on the Airfield Pavement System Inventory Exhibit for each participating airport. This information was also included in the PAVER database updates for the SAPMP.

The airports provided a limited combination of record drawings, reports, and staff input that was pertinent information in developing the construction history of the airport's pavements from inception. Major rehabilitation/construction activities performed in the last 24-months or anticipated in the next 24-months are assumed to restore the PCI to 100. These activities include: pavement overlay, mill and replace, mill and overlay, new construction, and/or complete reconstruction. These pavements were not formally subject to a PCI Survey and actual conditions may vary. Furthermore, any localized maintenance

or repair performed that would improve the PCI will be considered in the condition analysis, if performed within inspection areas.

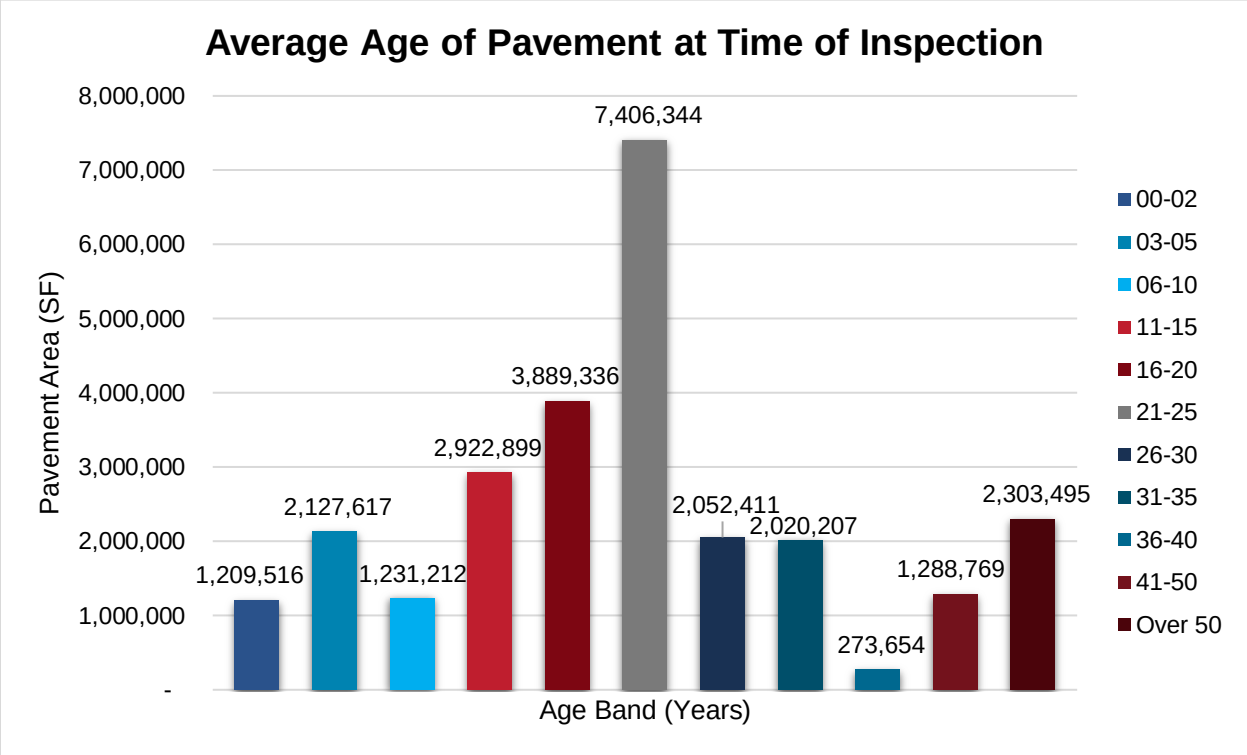
The **Airfield Pavement Network Definition Exhibit** provides details to the PCI Survey inspection efforts. The exhibit identifies the pavement facilities, surface type, section definition, and sample unit delineation.

The **Airfield Pavement System Inventory Exhibit** provides details to the work history updates communicated by each Airport. The Exhibit provides the approximate limits of recent and/or anticipated construction on the airfield pavement facilities. The limits are based on documentation provided by the Airports and, if constructed, observed in the field.

3.1.2 ESTIMATED PAVEMENT AGE

Standard pavement design practice considers a design life of a 20-year period. Design inputs typically require subgrade soil conditions, pavement section layer material characteristics, and anticipated loading (aircraft fleet mix) for the design-life period. Based on the review of the historic airfield pavement construction, **Figure 3.1.2** summarizes the average age of the pavement sections at the time of the PCI survey inspection. Age is determined to be the number of years since any major construction activity has occurred. This is intended to be a rough estimate based on interpretation of the limited data available at the time of report.

Figure 3.1.2 Average Age of Pavements at Inspection



The estimation of the pavement age is based on information requested and provided by participating airports. Additionally, data collected in the prior system updates since 1992 have been relied upon.

3.1.3 FUNCTIONAL USE CLASSIFICATION

Pavements are subject to varying aircraft loading patterns based on utilization and overall operations. For this SAPMP Update, the following categories of airfield functional use have been identified and associated with the following possible pavement branch facilities: Apron, Runway, Taxiway, and Taxilane. **Table 3.1.3** summarizes the identified pavements' functional use by area by airport. The pavement areas reviewed exclude shoulder pavement facilities. Separately, **Figure 3.1.3 (a)** depicts the district airfield pavement areas by facility use, and **Figure 3.1.3 (b)** provides a breakdown of airfield pavement area by facility use at each participating airport for the District.

Table 3.1.3 Functional Classification Use by Area by Airport

Network ID	Airport Type	Pavement Area (Square Feet)				
		Runway	Taxiway	Taxilane	Apron	Overall
EYW	PR	480,000	396,469	-	893,776	1,770,245
MTH	GA	500,800	395,290	-	772,709	1,668,799
OPF	RL	2,656,123	4,838,092	107,164	3,387,007	10,988,386
TMB	RL	2,250,750	2,343,728	-	2,679,999	7,274,477
TNT	GA	1,575,000	1,770,734	-	49,500	3,395,234
X51	GA	625,125	540,814	-	462,380	1,628,319
OVERALL DISTRICT		**8,087,798**	**10,285,127**	**107,164**	**8,245,371**	**26,725,460**

Figure 3.1.3 (a) District Pavement Area by Functional Classification Use

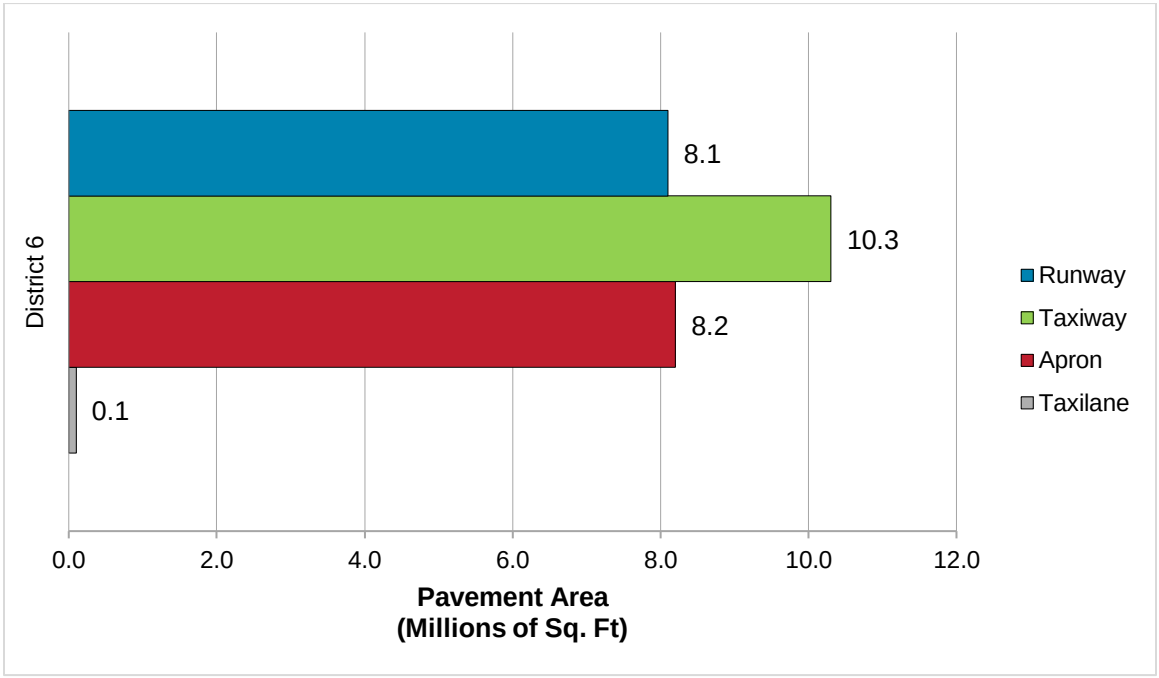
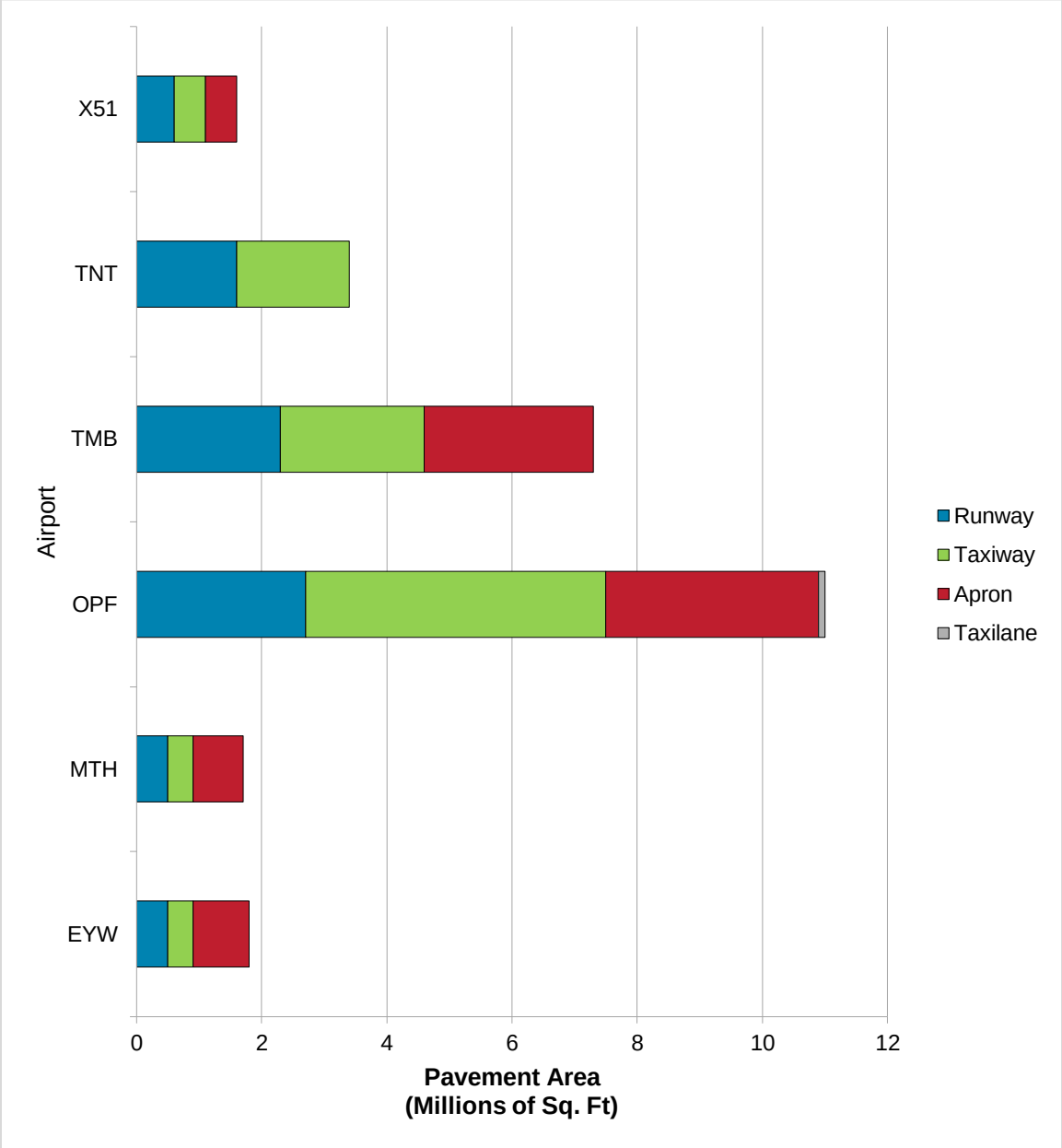


Figure 3.1.3 (b) Functional Classification Use by Area by Airport



*All areas are rounded to the nearest 0.1 Million Square Feet.

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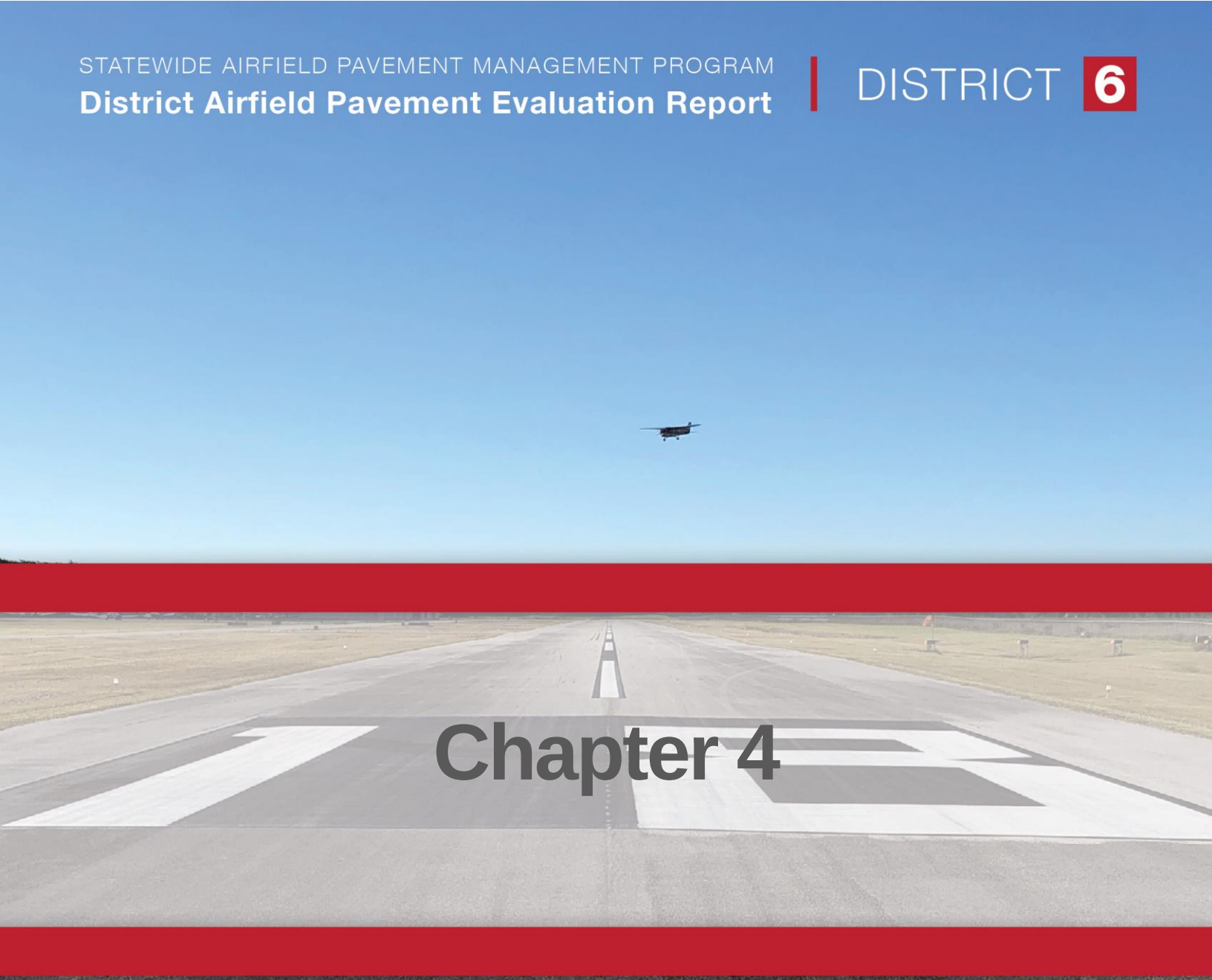


Chapter 4

FDOT

Chapter 4 – Airfield Pavement Condition

The examination of specific distress types (with causes attributed to load, climate, or other defined distress mechanism), determination of the severity of distress, and determination of the quantity of distress manifestation are required in the computation of a PCI value. The PCI provides valuable information that can be used to determine the existing condition of the pavement, possible cause of the pavement deterioration, and eventually aid in the planning of the rehabilitation of pavements. It should be noted that the PCI method of pavement condition evaluation is strictly a visual and functional evaluation. Further evaluation of the pavement condition may be necessary for design and/or project-level determination of pavement rehabilitation.

4.1 Airfield Pavement Condition Index (Latest Inspection)

4.1.1 DISTRICT-LEVEL ANALYSIS

The following **Table 4.1.1** summarizes the pavement condition analysis at each airport within the District based on the most recent PCI Survey inspection results.

Table 4.1.1 Latest Condition – Summary by Airport

Network ID	Airport Type	Area-Weighted Pavement Condition Index (PCI)				
		Runway PCI	**Taxiway PCI**	**Taxilane PCI**	**Apron PCI**	**Overall Airfield PCI**
EYW	PR	100	52	-	71	74
MTH	GA	51	63	-	59	58
OPF	RL	55	61	38	56	58
TMB	RL	70	73	-	68	70
TNT	GA	50	59	-	42	54
X51	GA	70	59	-	64	65
OVERALL DISTRICT		**62**	**63**	**38**	**62**	**62**

PCI Rating Scale	Good	Satisfactory	Fair	Poor	Very Poor	Serious	Failed
PCI Values	100-86	85-71	70-56	55-41	40-26	25-11	10-0

4.1.2 PCI BY FUNCTIONAL USE

Pavements are subject to varying aircraft loading patterns based on utilization and overall operations. For this SAPMP Update, the following categories of airfield functional use have been identified and associated with the following possible pavement branch facilities: Apron, Runway, Taxiway, and Taxilane. **Figure 4.1.2 (a)** graphically depicts the PCI for each pavement functional use (Apron, Runway, Taxiway, and Taxilane) at each participating airport within the District. The pavement areas reviewed exclude shoulder pavement facilities. Separately, **Figure 4.1.2 (b)** depicts the District's area-weighted PCI for each pavement functional use.

Figure 4.1.2 (a) PCI by Pavement Functional Use by Airport

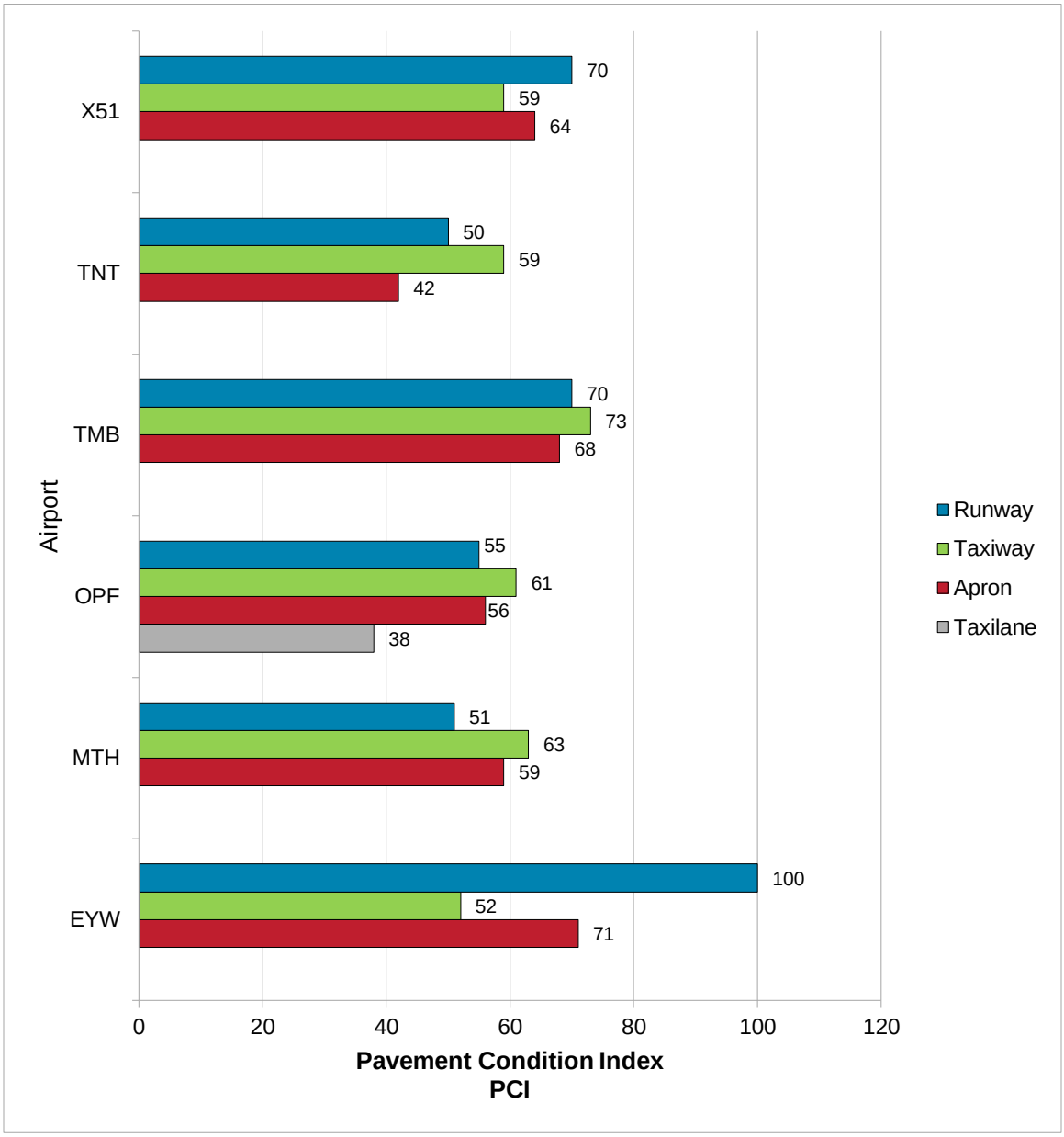
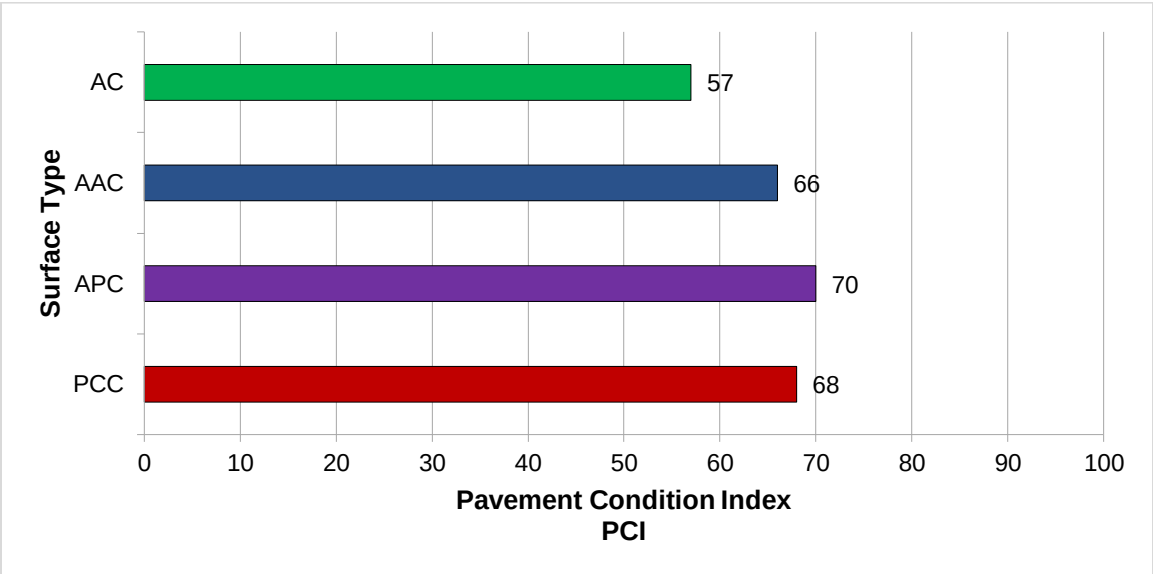


Figure 4.1.2 (b) PCI by Pavement Functional Use

4.1.3 PCI BY SURFACE TYPE

Pavement facility surface types considered for the SAPMP update consist of the four common types within the Florida Airport System: Portland Cement Concrete (PCC), Asphalt Concrete Overlaid on Portland Cement Concrete Pavement (APC), Asphalt Concrete Pavement (AC), and Asphalt Concrete Overlaid on Asphalt Concrete (AAC). **Figure 4.1.3** summarizes the PCI determined based on the various pavement types within the participating District airports. Whitetopping, a composite pavement type that consists of a thin concrete overlay on asphalt concrete pavement exists at certain airports within the Florida Airport System and is discussed within the specific individual airport pavement evaluation report document for those airports.

Figure 4.1.3 PCI by Pavement Surface Type



4.2 Forecasted Pavement Conditions

4.2.1 PERFORMANCE MODELS AND PREDICTION CURVES

Pavement Performance Models are developed from the distress data and historic construction records collected for the SAPMP. This data is consolidated in a database and organized by inspection/construction date, pavement type, age, and pavement use. The pavement Performance Models are used to develop broad Prediction Curves, alternatively known as deterioration curves or family curves. These Prediction Curves are utilized to developed forecasted PCI values based on historic trends and statistical models.

4.2.2 NETWORK-LEVEL PAVEMENT CONDITION FORECAST

The following **Table 4.2.2** depicts the network-level pavement condition forecast for each airport within the District. The forecasted conditions are for a 10-year duration starting in January 2020 through January 2029.

Table 4.2.2 Forecasted Network Pavement Performance

Network ID	Program Year Overall Airport Area-Weighted PCI									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
EYW	72	69	66	64	61	59	56	54	52	49
MTH	57	55	53	51	49	47	45	43	41	40
OPF	57	56	55	53	52	51	50	49	48	47
TMB	70	68	67	65	64	63	62	60	59	58
TNT	48	46	44	42	40	38	37	35	33	31
X51	60	59	57	56	54	53	52	50	49	48
DISTRICT	**61**	**59**	**57**	**56**	**54**	**53**	**52**	**50**	**49**	**48**

4.2.3 RUNWAY-LEVEL PAVEMENT CONDITION FORECAST

The following **Table 4.2.3** depicts the runway-level pavement condition forecast for each airport within the District. The forecasted conditions are for a 10-year duration starting in January 2020 through January 2029.

Table 4.2.3 Forecasted Runway Pavement Performance

Network ID	Program Year Overall Runway Branch Area-Weighted PCI									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
EYW	96	93	90	87	84	82	80	79	78	76
MTH	50	47	44	41	38	35	32	29	27	24
OPF	54	53	52	50	49	48	47	46	45	44
TMB	70	69	68	67	66	65	65	64	63	62
TNT	42	39	36	33	30	27	25	22	19	16
X51	65	64	62	60	59	58	57	56	55	54
DISTRICT	**59**	**57**	**56**	**54**	**52**	**51**	**49**	**48**	**46**	**45**

4.2.4 TAXIWAY-LEVEL PAVEMENT CONDITION FORECAST

The following **Table 4.2.4** depict the taxiway-level pavement condition forecast for each airport within the District. The forecasted conditions are for a 10-year duration starting in January 2020 through January 2029.

Table 4.2.4 Forecasted Taxiway Pavement Performance

Network ID	Program Year Overall Taxiway Branch Area-Weighted PCI									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
EYW	51	49	47	45	42	40	37	34	30	27
MTH	62	61	59	58	56	55	53	52	51	49
OPF	60	59	58	57	56	55	54	53	52	51
TMB	72	71	70	69	67	66	65	64	63	62
TNT	55	54	52	51	50	49	48	47	46	45
X51	56	54	53	52	50	49	47	46	44	43
DISTRICT	**61**	**60**	**59**	**58**	**57**	**55**	**54**	**53**	**52**	**51**

4.2.5 APRON-LEVEL PAVEMENT CONDITION FORECAST

The following **Table 4.2.5** depict the apron-level pavement condition forecast for each airport within the District. The forecasted conditions are for a 10-year duration starting in January 2020 through January 2029.

Table 4.2.5 Forecasted Apron Pavement Performance

Network ID	Program Year Overall Apron Branch Area-Weighted PCI									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
EYW	68	65	62	60	57	55	52	50	47	45
MTH	58	56	55	53	52	50	49	47	46	45
OPF	56	54	53	51	50	48	47	45	44	43
TMB	67	65	63	61	59	58	56	54	52	50
TNT	34	32	29	26	24	21	19	16	13	11
X51	60	58	56	55	53	52	50	48	47	45
DISTRICT	**61**	**59**	**57**	**56**	**54**	**52**	**50**	**49**	**47**	**45**

4.2.6 FORECASTED PCI CONSIDERATIONS

As FDOT continues to update the SAPMP with future PCI Survey inspections and assembly of airfield pavement construction work history, the performance models will be further refined. With the refinement of additional PCI and work history data points, the forecasting of pavement conditions will continue to better reflect the performance trends of airfield pavements in the Florida Airports System. Forecasted or predicted pavement conditions for the airport are intended for planning purposes only. Design-level recommendations for pavement rehabilitation and/or reconstruction will require the appropriate application of the procedures defined in FAA ***AC 150/5320-6F Airport Pavement Design and Evaluation*** and ***AC 150/5370-11B Use of Nondestructive Testing in the Evaluation of Airport Pavements*** to determine structural and/or functional conditions at the time of project.

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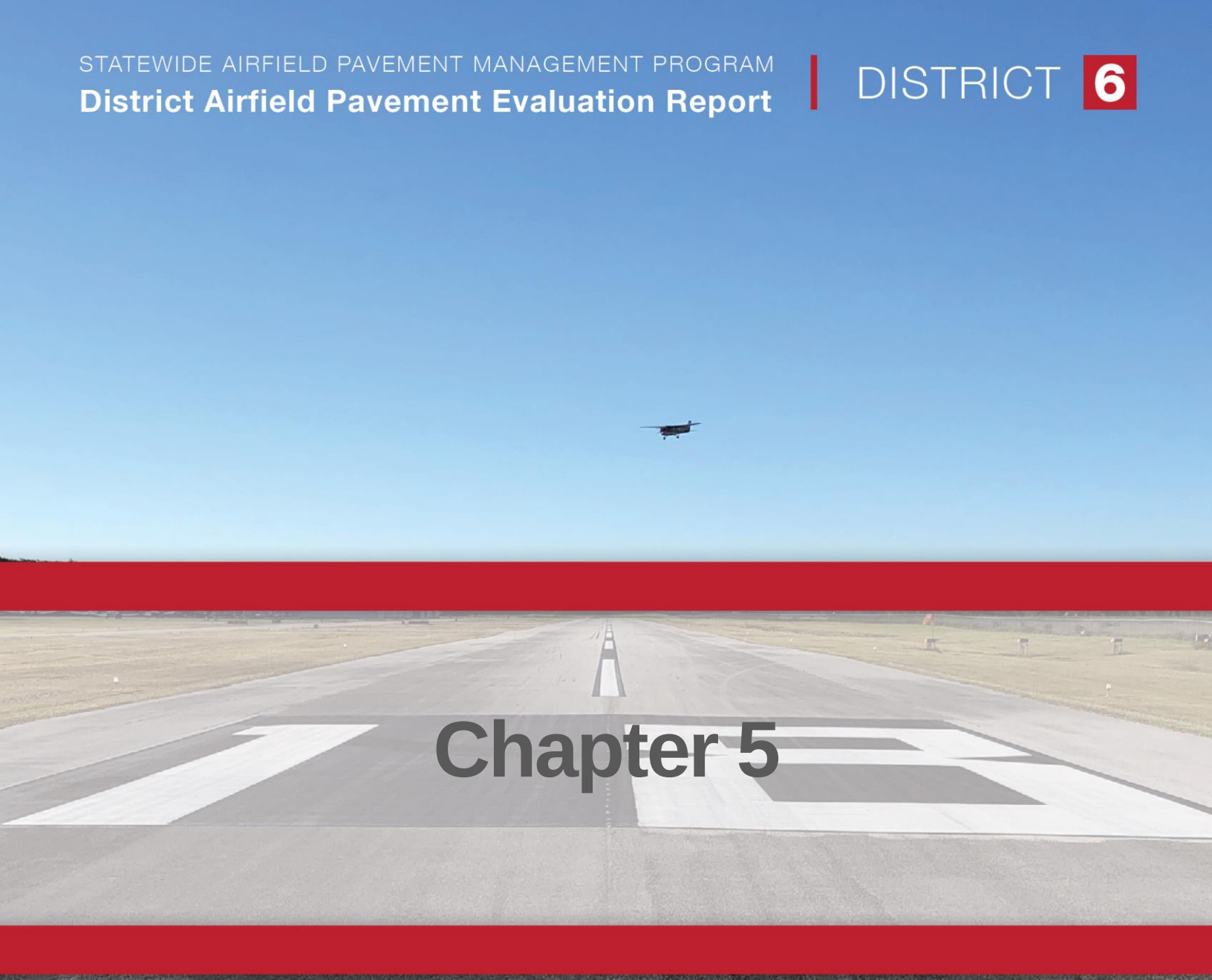


Chapter 5

FDOT

Chapter 5 – Localized Maintenance and Repair Planning

General Maintenance and Rehabilitation (M&R) methods are characterized under three broad categories: localized maintenance and repair, global treatments, and major rehabilitation.

- **Localized Maintenance and Repair** includes patching and crack sealing.
- **Global Treatments** include surface seals and rejuvenators for flexible pavements.
- **Major Rehabilitation** includes overlays, significant slab replacement, and reconstruction.

This chapter discusses the FDOT SAPMP Localized Maintenance and Repair Planning approach. Proactive localized maintenance and repair, specifically preservation, is highly recommended to the airports. However, it is certainly recognized that once pavements have deteriorated below a certain condition, the facility would benefit from more substantial rehabilitation in lieu of localized efforts. Chapter 6 Major Rehabilitation Planning discusses the addressing of pavements through timely rehabilitation once it has deteriorated below a critical PCI where localized repairs may not be as cost effective.

5.1 Localized Maintenance and Repair

Localized maintenance and repair is best applied as a conservation measure and is oftentimes applied to slow the rate of deterioration of distressed pavements; however, may be applied as a temporary corrective measure in isolated areas. Localized maintenance and repair can be applied either as a safety (“stopgap”) measure or preventive measure. Example distress types subject to localized preventive maintenance and repair may consist of low-severity longitudinal and transverse cracking and low-severity weathering. In many cases however, localized stopgap repair is applied as a safety measure to address high-severity distress manifestations when major rehabilitation is not funded for a given section with a PCI value below critical PCI. Some agencies may elect to define both types; preventative and stopgap, as localized maintenance.

Localized Stopgap/Safety Maintenance and Repair

Localized Stopgap or Safety Maintenance and Repair is defined as the localized distress repair needed to keep pavements operational in a safe condition. These activities are typically applied to high-severity distresses or distresses affecting operational activities. Typical pavement section PCIs will range from 0 to 65.

Localized Preventive Maintenance and Repair

Localized Preventive Maintenance and Repair is defined as distress maintenance activities performed with the primary objective of slowing the rate of deterioration. These activities typically include crack sealing and patching. Typical pavement section PCIs will be above 65.

5.2 Localized Maintenance and Repair Policy

The resulting Localized Maintenance and Repair recommendations are identified based on the policy defined in **Table 5.2 (a)** and **Table 5.2 (b)**, for flexible asphalt concrete and rigid Portland cement concrete pavements, respectively. The activities identified were based on the research of practical pavement treatments in consideration of the FAA ***AC 150/5380-6C "Guidelines and Procedures for Maintenance of Airport Pavements"*** and the ***FDOT Airfield Pavement Distress Repair Manual.*** Additionally, the ***Engineering Technical Letter (ETL) 14-3: Preventive Maintenance Plan (PMP) for Airfield Pavements*** was referenced for conservative application of pavement treatments. The Localized Maintenance and Repair Policy and associated planning-level unit costs were developed in consideration of a network-level analysis – it is strictly intended to provide a glimpse of the condition of the airport pavements with a limited PCI survey effort.

The developed Localized Maintenance and Repair Policy and associated planning-level unit costs were based on a statewide consideration of pavement treatments and review of state construction costs for both Airfield Pavements and from the FDOT Historical Cost Information archives. Furthermore, a consideration of limited repair quantities was factored in the determination of conservative planning-level unit costs. The identified Localized maintenance activities for both preventive and stopgap activities are based on a statewide network approach; project-specific evaluation and maintenance quantities should be developed prior to any construction.

Table 5.2 (a) Localized Maintenance and Repair – Flexible Asphalt Concrete

Distress	Severity	Description	Code	Work Type	Work Unit
41	Low	ALLIGATOR CR	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
41	Medium	ALLIGATOR CR	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
41	High	ALLIGATOR CR	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
42	N/A	BLEEDING	FDOT-MO-PV	FDOT - MONITOR	N/A
43	Low	BLOCK CR	FDOT-MO-PV	FDOT - MONITOR	N/A
43	Medium	BLOCK CR	FDOT-CS-AC	FDOT - CRACK SEALING - AC	Ft
43	High	BLOCK CR	FDOT-PA-AP	FDOT - PATCHING - AC PARTIAL DEPTH	SqFt
44	Low	CORRUGATION	FDOT-ML-AC	FDOT - MILLING - AC	SqFt
44	Medium	CORRUGATION	FDOT-ML-AC	FDOT - MILLING - AC	SqFt
44	High	CORRUGATION	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
45	Low	DEPRESSION	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
45	Medium	DEPRESSION	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
45	High	DEPRESSION	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
46	N/A	JET BLAST	FDOT-PA-AP	FDOT - PATCHING - AC PARTIAL DEPTH	SqFt
47	Low	JT REF. CR	FDOT-MO-PV	FDOT - MONITOR	N/A
47	Medium	JT REF. CR	FDOT-CS-AC	FDOT - CRACK SEALING - AC	Ft
47	High	JT REF. CR	FDOT-CS-AC	FDOT - CRACK SEALING - AC	Ft
48	Low	L & T CR	FDOT-MO-PV	FDOT - MONITOR	N/A
48	Medium	L & T CR	FDOT-CS-AC	FDOT - CRACK SEALING - AC	Ft

Distress	Severity	Description	Code	Work Type	Work Unit
48	High	L & T CR	FDOT-CS-AC	FDOT - CRACK SEALING - AC	Ft
49	N/A	OIL SPILLAGE	FDOT-PA-AP	FDOT - PATCHING - AC PARTIAL DEPTH	SqFt
50	Low	PATCHING	FDOT-MO-PV	FDOT - MONITOR	N/A
50	Medium	PATCHING	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
50	High	PATCHING	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
51	N/A	POLISHED AG	FDOT-SS-LO	FDOT - SURFACE SEAL	SqFt
52	Low	RAVELING	FDOT-SS-LO	FDOT - SURFACE SEAL	SqFt
52	Medium	RAVELING	FDOT-PA-AP	FDOT - PATCHING - AC PARTIAL DEPTH	SqFt
52	High	RAVELING	FDOT-PA-AP	FDOT - PATCHING - AC PARTIAL DEPTH	SqFt
53	Low	RUTTING	FDOT-MO-PV	FDOT - MONITOR	N/A
53	Medium	RUTTING	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
53	High	RUTTING	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
54	Low	SHOVING	FDOT-MO-PV	FDOT - MONITOR	N/A
54	Medium	SHOVING	FDOT-ML-AC	FDOT - MILLING - AC	SqFt
54	High	SHOVING	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
55	N/A	SLIPPAGE CR	FDOT-PA-AP	FDOT - PATCHING - AC PARTIAL DEPTH	SqFt
56	Low	SWELLING	FDOT-MO-PV	FDOT - MONITOR	N/A
56	Medium	SWELLING	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
56	High	SWELLING	FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt
57	Low	WEATHERING	FDOT-MO-PV	FDOT - MONITOR	N/A
57	Medium	WEATHERING	FDOT-SS-LO	FDOT - SURFACE SEAL	SqFt
57	High	WEATHERING	FDOT-PA-AP	FDOT - PATCHING - AC PARTIAL DEPTH	SqFt

Table 5.2 (b) Localized Maintenance and Repair – Rigid Portland Cement Concrete

Distress	Severity	Description	Code	Work Type	Work Unit
61	Low	BLOW-UP	FDOT-PA-PP	FDOT - PATCHING - PCC PARTIAL DEPTH	SqFt
61	Medium	BLOW-UP	FDOT-PA-PF	FDOT - PATCHING - PCC FULL DEPTH	SqFt
61	High	BLOW-UP	FDOT-SL-PC	FDOT - SLAB REPLACEMENT - PCC	SqFt
62	Low	CORNER BREAK	FDOT-CS-PC	FDOT - CRACK SEALING - PCC	Ft
62	Medium	CORNER BREAK	FDOT-PA-PF	FDOT - PATCHING - PCC FULL DEPTH	SqFt
62	High	CORNER BREAK	FDOT-PA-PF	FDOT - PATCHING - PCC FULL DEPTH	SqFt
63	Low	LINEAR CR	FDOT-MO-PV	FDOT - MONITOR	N/A
63	Medium	LINEAR CR	FDOT-CS-PC	FDOT - CRACK SEALING - PCC	Ft
63	High	LINEAR CR	FDOT-PA-PP	FDOT - PATCHING - PCC PARTIAL DEPTH	SqFt
64	Low	DURABIL. CR	FDOT-MO-PV	FDOT - MONITOR	N/A
64	Medium	DURABIL. CR	FDOT-PA-PF	FDOT - PATCHING - PCC FULL DEPTH	SqFt
64	High	DURABIL. CR	FDOT-SL-PC	FDOT - SLAB REPLACEMENT - PCC	SqFt
65	Low	JT SEAL DMG	FDOT-JS-PC	FDOT - JOINT SEAL - PCC	Ft

Distress	Severity	Description	Code	Work Type	Work Unit
65	Medium	JT SEAL DMG	FDOT-JS-PC	FDOT - JOINT SEAL - PCC	Ft
65	High	JT SEAL DMG	FDOT-JS-PC	FDOT - JOINT SEAL - PCC	Ft
66	Low	SMALL PATCH	FDOT-MO-PV	FDOT - MONITOR	N/A
66	Medium	SMALL PATCH	FDOT-PA-PP	FDOT - PATCHING - PCC PARTIAL DEPTH	SqFt
66	High	SMALL PATCH	FDOT-PA-PP	FDOT - PATCHING - PCC PARTIAL DEPTH	SqFt
67	Low	LARGE PATCH	FDOT-MO-PV	FDOT - MONITOR	N/A
67	Medium	LARGE PATCH	FDOT-PA-PF	FDOT - PATCHING - PCC FULL DEPTH	SqFt
67	High	LARGE PATCH	FDOT-PA-PF	FDOT - PATCHING - PCC FULL DEPTH	SqFt
68	N/A	POPOUTS	FDOT-PO-FL	FDOT - POPOUT FILLER	SqFt
69	N/A	PUMPING	FDOT-SB-PC	FDOT – SLAB STABILIZATION - PCC	SqFt
70	Low	SCALING	FDOT-MO-PV	FDOT - MONITOR	N/A
70	Medium	SCALING	FDOT-PA-PP	FDOT - PATCHING - PCC PARTIAL DEPTH	SqFt
70	High	SCALING	FDOT-SL-PC	FDOT - SLAB REPLACEMENT - PCC	SqFt
71	Low	FAULTING	FDOT-MO-PV	FDOT - MONITOR	N/A
71	Medium	FAULTING	FDOT-GR-PP	FDOT - GRINDING (LOCALIZED)	Ft
71	High	FAULTING	FDOT-GR-PP	FDOT - GRINDING (LOCALIZED)	Ft
72	Low	SHAT. SLAB	FDOT-CS-PC	FDOT - CRACK SEALING - PCC	Ft
72	Medium	SHAT. SLAB	FDOT-SL-PC	FDOT - SLAB REPLACEMENT - PCC	SqFt
72	High	SHAT. SLAB	FDOT-SL-PC	FDOT - SLAB REPLACEMENT - PCC	SqFt
73	N/A	SHRINKAGE CR	FDOT-MO-PV	FDOT - MONITOR	N/A
74	Low	JOINT SPALL	FDOT-CS-PC	FDOT - CRACK SEALING - PCC	Ft
74	Medium	JOINT SPALL	FDOT-PA-PP	FDOT - PATCHING - PCC PARTIAL DEPTH	SqFt
74	High	JOINT SPALL	FDOT-PA-PP	FDOT - PATCHING - PCC PARTIAL DEPTH	SqFt
75	Low	CORNER SPALL	FDOT-CS-PC	FDOT - CRACK SEALING - PCC	Ft
75	Medium	CORNER SPALL	FDOT-PA-PP	FDOT - PATCHING - PCC PARTIAL DEPTH	SqFt
75	High	CORNER SPALL	FDOT-PA-PP	FDOT - PATCHING - PCC PARTIAL DEPTH	SqFt
76	Low	ASR	FDOT-MO-PV	FDOT - MONITOR	N/A
76	Medium	ASR	FDOT-PA-PF	FDOT - PATCHING - PCC FULL DEPTH	SqFt
76	High	ASR	FDOT-SL-PC	FDOT - SLAB REPLACEMENT - PCC	SqFt

Table 5.2 (c) Localized M&R Planning-Level Unit Costs – Flexible Asphalt Concrete

Code	Work Type	Work Unit	GA Airport (Cost/Work Unit)	Reliever Airport (Cost/Work Unit)	Primary Airport (Cost/Work Unit)
FDOT-SS-LO	FDOT - SURFACE SEAL	SqFt	$0.55	$0.55	$0.55
FDOT-ML-AC	FDOT - MILLING - AC	SqFt	$2.00	$2.00	$2.00
FDOT-CS-AC	FDOT - CRACK SEALING - AC	Ft	$3.00	$3.00	$3.00
FDOT-MO-PV	FDOT - MONITOR	N/A	$0.00	$0.00	$0.00
FDOT-PA-AF	FDOT - PATCHING - AC FULL DEPTH	SqFt	$6.00	$9.00	$12.50
FDOT-PA-AP	FDOT - PATCHING - AC PARTIAL DEPTH	SqFt	$3.00	$4.00	$5.50

Table 5.2 (d) Localized M&R Planning-Level Unit Costs – Rigid Portland Cement Concrete

Code	Work Type	Work Unit	GA Airport (Cost/Work Unit)	Reliever Airport (Cost/Work Unit)	Primary Airport (Cost/Work Unit)
FDOT-PA-PF	FDOT - PATCHING - PCC FULL DEPTH	SqFt	$100.00	$150.00	$185.00
FDOT-SL-PC	FDOT - SLAB REPLACEMENT - PCC	SqFt	$30.00	$30.00	$30.00
FDOT-SB-PC	FDOT - SLAB STABILIZATION - PCC	SqFt	$30.00	$30.00	$30.00
FDOT-PA-PP	FDOT - PATCHING - PCC PARTIAL DEPTH	SqFt	$72.00	$72.00	$72.00
FDOT-PO-FL	FDOT - POPOUT FILLER	SqFt	$0.05	$0.05	$0.05
FDOT-GR-PP	FDOT - GRINDING (LOCALIZED)	Ft	$2.00	$2.00	$2.00
FDOT-CS-PC	FDOT - CRACK SEALING - PCC	Ft	$4.25	$4.25	$4.25
FDOT-MO-PV	FDOT - MONITOR	N/A	$0.00	$0.00	$0.00
FDOT-JS-PC	FDOT - JOINT SEAL - PCC	Ft	$2.75	$2.75	$2.75

**PCC Patching (Full Depth and Partial Depth) consider high-early-strength and high-performing repair material.*

5.3 Localized Maintenance and Repair Analysis and Recommendations

The SAPMP provides a planning-level estimation of Localized Maintenance and Repair based on the results of the latest PCI Survey Inspection performed at the airport. Based on the limited sample units inspected, a statistical extrapolation of distresses at the section level is used to estimate the quantities of recommended repair activities based on the policies defined in **5.2 Localized M&R Policy**. The PCI Survey Inspections did not consist of 100% inspection of all sample units; therefore, the section-level distress quantities used to estimate the Localized Maintenance and Repair needs are for conceptual planning purposes. The accuracy of the extrapolated distresses, and therefore work quantities, is subject to the amount of sample units inspected and the concentration of distress types observed in sample units. Localized Preventive Maintenance and Repair is typically applied to pavements that are in a condition at or above the Critical PCI of 65. Localized Stopgap Maintenance and Repair is typically applied to pavements that are below the Critical PCI of 65. It is recommended that airport staff evaluate the application of Localized Maintenance and Repair in concert with the planning of Major Rehabilitation efforts identified in Chapter 6 Major Rehabilitation Planning. Pavements with Stopgap

recommendations that are subject to near-term Major Rehabilitation efforts may remove the need to perform localized maintenance efforts.

The following **Table 5.3** summarizes the anticipated Localized Maintenance and Repair needs based on the PCI Survey Inspection efforts performed at each airport within the District as part of this SAPMP System Update. The following table depicts planning-level costs rounded for summary purposes.

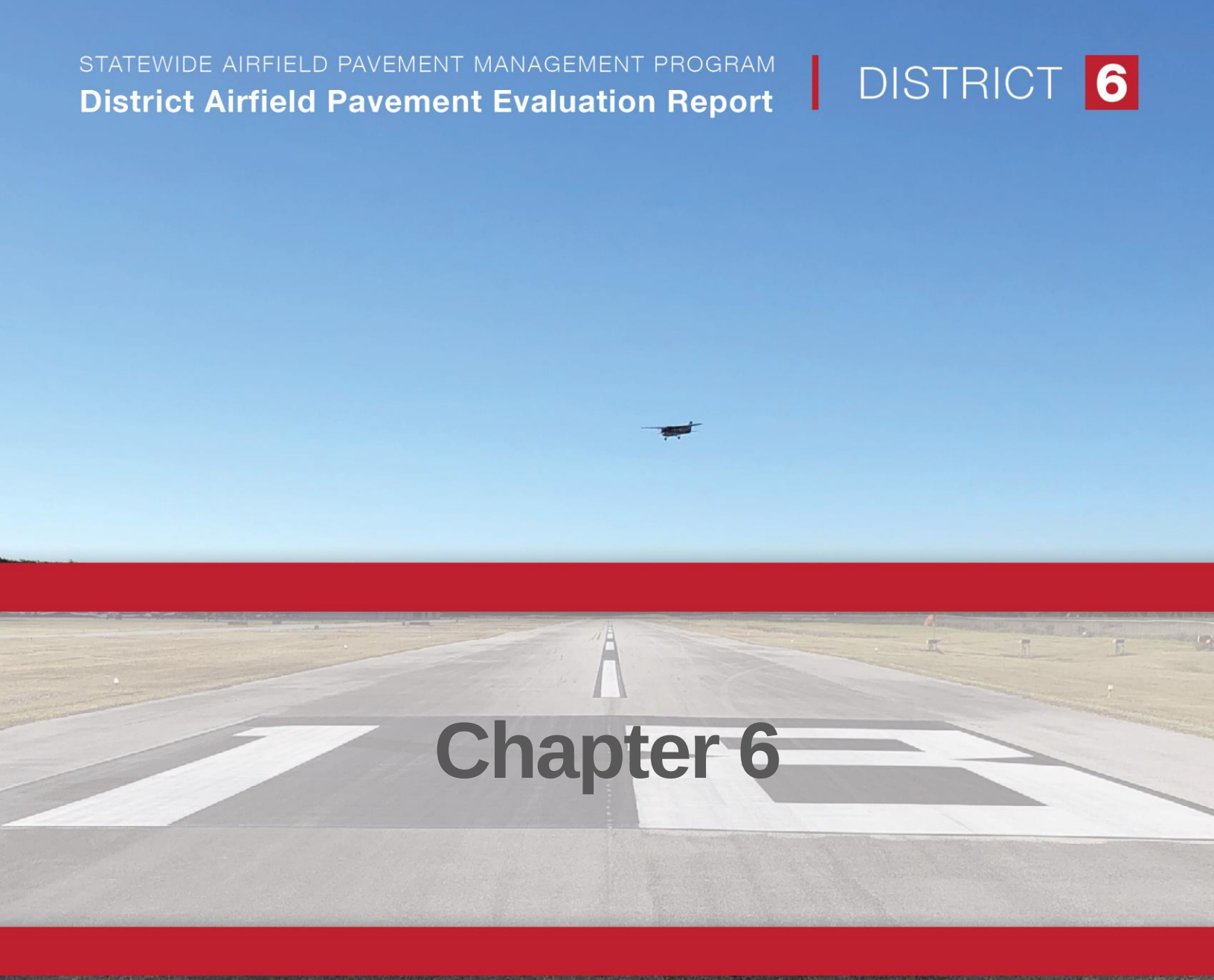
Table 5.3 Summary of Localized M&R Planning Needs by Airport

Network ID	Localized Preventive	Localized Stopgap	TOTAL Localized Maintenance
EYW	$ 1,790	$ 979,990	$ 981,780
MTH	$ 24,010	$ 1,036,090	$ 1,060,100
OPF	$ 578,690	$ 8,825,480	$ 9,404,170
TMB	$ 1,695,670	$ 1,060,340	$ 2,756,010
TNT	$ 87,050	$ 3,035,930	$ 3,122,980
X51	$ 156,910	$ 760,160	$ 917,070
DISTRICT	**$ 2,544,120**	**$ 15,697,990**	**$ 18,242,110**

STATEWIDE AIRFIELD PAVEMENT MANAGEMENT PROGRAM

District Airfield Pavement Evaluation Report

DISTRICT 6



Chapter 6

FDOT

Chapter 6 – Major Rehabilitation Planning

6.1 Major Rehabilitation

Major rehabilitation is recommended to correct or improve structural deficiencies and/or functional deterioration for pavement sections within a network. Often, when pavements are subject to significant changes in the aircraft fleet mix (frequency and type), major rehabilitation is required to provide a pavement section to meet the traffic demand. Major rehabilitation is recommended when a pavement section falls below the Critical PCI value that is defined during the system customization or if a pavement section has a significant observation of load-related distress. Observation of any load-related distress potentially indicates that the section may be structurally deficient or that the aircraft loads being applied to the pavement section are different than what the section was designed for. **Figures 6.1 (a) and 6.1 (b)** depict the decision process for major rehabilitation project identification with the assumption of available funds. Should funding be unavailable for pavement sections in need of major rehabilitation, the airport may elect to apply the appropriate localized stopgap repair.

Figure 6.1 (a) Major Rehabilitation Planning Decision Diagram, PCI ≤ Critical PCI

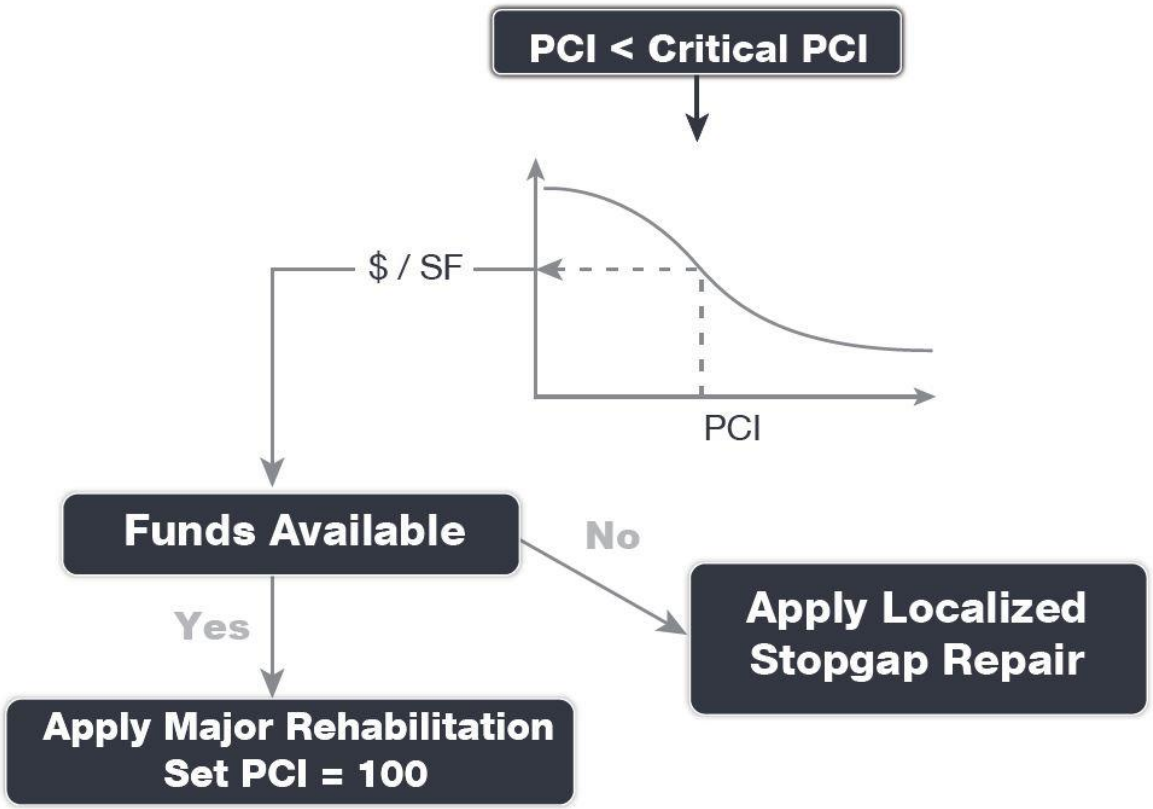
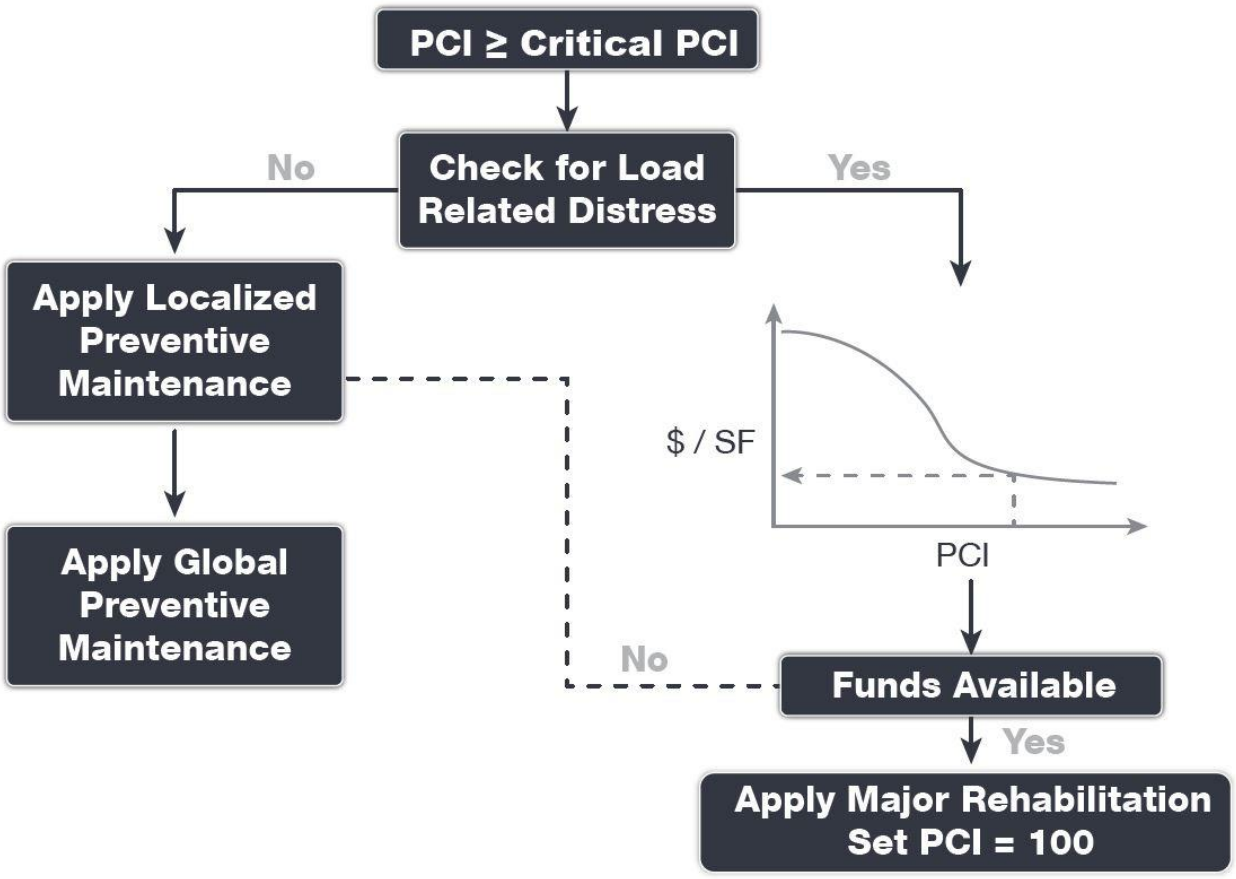


Figure 6.1 (b) Major Rehabilitation Planning Decision Diagram, PCI > Critical PCI



6.1.1 CRITICAL PCI

For the FDOT SAPMP the development of a major rehabilitation program is based on the Critical PCI concept. The ***Critical PCI*** concept assumes that it is more cost-effective to maintain pavements above, rather than below their critical PCI. It is assumed that once a pavement section deteriorates to the Critical PCI value that it is more cost-effective to complete a major rehabilitation project rather than continuing to apply preventive maintenance. This method includes defining the Critical PCI and introducing major rehabilitation work types.

Identification of annual and long-range Major Rehabilitation work plans are typically based on the Critical PCI concept. The Critical PCI is defined as the PCI value at which the rate of loss (deterioration) increases with time, or the cost of applying localized maintenance and repair increases or is not effective. A Critical PCI is usually within a range of 55 and 70; the following procedure is standard approach in developing a specific Critical PCI:

1. Develop a pavement performance model and refine a prediction model for the pavements considered.
2. Select a localized maintenance and repair policy to be used in developing a work plan.
3. Apply the selected localized policy to the pavement sections for a range of PCI.
4. Compute the unit cost per area for each PCI range.
5. Plot the cost versus the PCI.
6. Determine the Critical PCI based on the point where the cost is insignificant.

The FDOT SAPMP defines the Critical PCI at 65 – this is based on the historic trends in pavement performance and Statewide planning efforts.

6.1.2 FDOT RECOMMENDED MINIMUM SERVICE-LEVEL PCI

The FDOT has recommended ***Minimum Service-Level PCI*** for airports' airfield pavements based on the following characteristics; airport type within FDOT SAPMP, branch use, and expected aircraft operations. For the purposes of Major Rehabilitation, the Critical PCI is typically the threshold condition that triggers major construction, however it is recommended that the airports maintain the Minimum Service-Level PCI with a combination of Localized Maintenance and Repair and timely Major Rehabilitation. **Table 6.1.2** summarizes the FDOT Recommended Minimum Service-Level PCI.

Table 6.1.2 FDOT Recommended Minimum Service-Level PCI

Use	FDOT Recommended Minimum Service Level PCI			Critical PCI
	Primary Airports	**Regional Reliever Airports**	**General Aviation Airports**	
Runway	75	75	75	65
Taxiway	70	65	65	65
Apron	65	65	60	65

6.2 Major Rehabilitation Policy

6.2.1 MAJOR REHABILITATION PAVEMENT SECTION DEVELOPMENT

The review of the existing as-built record documentation within the participating airports' archives was used as the basis of the conceptual pavement design sections. Refinement of the pavement section layers was performed in consideration of the FAA ***AC 150/ 5320-6F "Airport Pavement Design and Evaluation."*** It should be noted that no subsurface geotechnical investigation, ALTA/ACSM Survey, topographic survey, utilities survey, environmental, or site-specific air traffic study(s) have been utilized in the development of the design criteria. No warranty or assurance is implied in this document for final design nor construction for any airfield pavements discussed within this report. The following **Tables 6.2.1 (a) and (b)** provide details on the conceptual pavement sections developed for this study.

Major rehabilitation is divided into two policy categories as part of this program: Full-Depth Reconstruction (Reconstruction) and Intermediate-Level Major Rehabilitation (Restoration). Based on the pavement type, the general categories are defined as AC Reconstruction and AC Restoration for AC, AAC, and APC flexible pavement types and PCC Reconstruction and PCC Restoration for PCC rigid pavement types. The pavement sections have been based on the average Airport Type requirements; no pavement design has been performed in accordance with AC 150/5320-6F for the determined conceptual sections.

Table 6.2.1 (a) Conceptual Pavement Section for Major Rehabilitation – Flexible Asphalt Concrete

Rehabilitation Type		GA Airport	Reliever Airport	Primary Airport
AC Mill and Overlay	**PCI = 41 to 65**	**75% Mill and Overlay** P-101 AC Milling (2") P-603 Bituminous Tack P-401 (HMA) (2") **25% AC Reconstruction** P-101 Pavement Removal P-152 Subgrade (12") P-211 Base (6") P-602 Bituminous Prime P-603 Bituminous Tack P-401 HMA (2")	**75% Mill and Overlay** P-101 AC Milling (3") P-603 Bituminous Tack P-401 (HMA) (3") **25% AC Reconstruction** P-101 Pavement Removal P-152 Subgrade (12") P-211 Base (8") P-602 Bituminous Prime P-603 Bituminous Tack P-401 HMA (4")	**75% Mill and Overlay** P-101 AC Milling (4") P-603 Bituminous Tack P-401 (HMA) (4") **25% AC Reconstruction** P-101 Pavement Removal P-152 Subgrade (12") P-211 Base (8") P-602 Bituminous Prime P-603 Bituminous Tack P-401 HMA (6")
AC Reconstruction	**PCI = 40 or less**	P-101 Pavement Removal P-152 Subgrade (12") P-211 Base (6") P-602 Bituminous Prime P-603 Bituminous Tack P-401 HMA (2")	P-101 Pavement Removal P-152 Subgrade (12") P-211 Base (8") P-602 Bituminous Prime P-603 Bituminous Tack P-401 HMA (4")	P-101 Pavement Removal P-152 Subgrade (12") P-211 Base (8") P-602 Bituminous Prime P-603 Bituminous Tack P-401 HMA (6")

Table 6.2.1 (b) Conceptual Pavement Section for Major Rehabilitation – Rigid Portland Cement Concrete

Rehabilitation Type	GA Airport	Reliever Airport	Primary Airport
PCC Restoration PCI = 41 to 65	P-101 Pavement Removal P-605 Joint Seal Repair P-152 Subgrade (6") P-211 Base (if needed, typical) (6") P-501 Rigid PCC (10") *Select Slabs (25%) **Crack Seal and Limited Patching	P-101 Pavement Removal P-605 Joint Seal Repair P-152 Subgrade (12") P-211 Base (if needed, typical) (6") P-501 Rigid PCC (15") *Select Slabs (25%) **Crack Seal and Limited Patching	P-101 Pavement Removal P-605 Joint Seal Repair P-152 Subgrade (12") P-211 Base (if needed, typical) (6") P-501 Rigid PCC (16") *Select Slabs (25%) **Crack Seal and Limited Patching
PCC Reconstruction PCI = 40 or less	P-101 Pavement Removal P-605 Joint Seal Repair P-152 Subgrade (6") P-211 Base (6") P-501 Rigid PCC (10")	P-101 Pavement Removal P-605 Joint Seal Repair P-152 Subgrade (12") P-211 Base (6") P-501 Rigid PCC (14")	P-101 Pavement Removal P-605 Joint Seal Repair P-152 Subgrade (12") P-211 Base (6") P-501 Rigid PCC (17")

The identification of rehabilitation needs and conceptual pavement sections have been determined at the planning level. Design-level investigation is recommended prior to developing construction-level design documents and budgets.

In compliance with FAA Grant Assurances 11 and 19, the FDOT SAPMP provides airports with airfield pavement evaluation reports in accordance with **FAA AC 150/5380-7B Airport Pavement Management Program (PMP)** and **AC 150/5380-6C Guidelines and Procedures for Maintenance of Airport Pavements**. The application of the results of a PCI survey are for planning purposes and are limited to the visual observation of deteriorated pavements in limited sampling; design-level investigation is recommended in accordance with the FAA procedures defined in **AC 5320-6F Airport Pavement Design and Evaluation** and **AC 150/5370-11B Use of Nondestructive Testing in the Evaluation of Airport Pavements**. The aforementioned ACs provide the design-level material properties of in-situ pavement and subgrade layers for the determination of appropriate rehabilitation actions. The FDOT SAPMP is organized to provide airports with planning-level data and does not intend to preclude the responsible engineer in performing the appropriate level of investigation and analysis in determining the appropriate design details of a pavement rehabilitation. It would not be advisable to solely base design-level rehabilitation without the appropriate level of investigation and determination of pavement deterioration beyond that of a visual functional condition assessment.

The recommendations identified in the Major Rehabilitation Needs consider the **FAA AC 150/5370-10H** Standard Specifications for Construction of Airports when determining the appropriate materials and methods implemented for construction projects, such as pavement rehabilitation, on airports. It should be noted that the **AC 150/5370-10H**

Standard Specifications for Construction of Airports was updated in December of 2018. Design-level determination of project specific specifications based on the AC should be developed by the Airport when performing applicable construction projects.

6.2.2 MAJOR REHABILITATION PLANNING-LEVEL UNIT COSTS

Planning-level opinion of probable construction unit costs developed for this System Update was based on archived bid tabulations and records from airfield pavement projects provided by participating airports. A review of cost trends and cost factors have been incorporated to assist airports in planning for project budgets. Neither FDOT nor the Consultant Team has control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable construction costs provided herein are based on the information known to FDOT at this time and represent only the Consultant Team's judgment as a design professional familiar with the construction industry. This report cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable construction costs.

Table 6.2.2 Major Rehabilitation Planning-Level Unit Cost by Pavement Type

Major Rehabilitation	PCI Range	GA Airport (Cost per SF)	Reliever Airport (Cost per SF)	Primary Airport (Cost per SF)
AC Mill and Overlay	41-65	$ 7.00	$ 9.50	$ 11.00
AC Reconstruction	0-40	$ 9.00	$ 12.50	$ 14.00
PCC Restoration	41-65	$ 10.00	$ 13.50	$ 17.00
PCC Reconstruction	0-40	$ 15.00	$ 20.00	$ 23.00

Planning-level opinion of probable construction unit costs consider factors for non-pavement improvements, QA/QC testing, and administrative costs.

6.3 Major Rehabilitation Needs

The objective of the major pavement rehabilitation needs analysis is to provide planning-level projects within an airport's airfield pavement network. Major rehabilitation activities are recommended when a pavement section has deteriorated below the Critical PCI value, a point at which localized maintenance and repair activities may not be the most cost-effective solution. In addition, major rehabilitation is also recommended when the Section PCI is at or above the Critical PCI but the section has significant load-related PCI distresses. Identification of rehabilitation needs is done at the Airfield Pavement Network Definition's section level. This however does not limit the airport from further refining limits of project planning areas.

Major rehabilitation is identified within the FDOT SAPMP as major construction activity that would result in an improvement or resetting of the pavement section's PCI to a value of 100. Major rehabilitation recommendations (AC Restoration, AC Reconstruction, PCC Restoration, and PCC Reconstruction) should be considered as planning-level only. Additional design-level investigation in accordance to the FAA Advisory Circulars will be required. Recommendations identified within this planning document do not imply final design. **Table 6.3** identifies the overall planning-level costs for each airport based on the total sections requiring major rehabilitation due to its PCI being below the Critical PCI of 65 or having substantial load-based distresses.

Table 6.3 Summary of District Year 1 Major Rehabilitation Needs

Network ID	Airport Type	Weighted-Average PCI	Average Rating	Year 1 Major Rehabilitation	
EYW	PR	74	SATISFACTORY	$	10,691,000
MTH	GA	58	FAIR	$	11,245,000
OPF	RL	58	FAIR	$	83,932,000
TMB	RL	70	FAIR	$	12,906,000
TNT	GA	54	POOR	$	21,508,000
X51	GA	65	FAIR	$	6,416,000
OVERALL DISTRICT		**62**	**FAIR**	**$**	**146,698,000**

**All values have been rounded to the nearest thousand-dollar.*

6.3.1 10-YEAR UNCONSTRAINED BUDGET MAJOR REHABILITATION NEEDS

An unconstrained budget (unlimited budget) is performed for a 10-year duration to identify pavement rehabilitation needs based on current or forecasted PCI values deteriorating below the Critical PCI. FDOT recognizes airports are constrained by budgets and does not intend to convey an unrealistic approach of addressing pavement rehabilitation. The intent of the 10-Year Major Rehabilitation Needs analysis is to identify pavements that will warrant rehabilitation. It is highly recommended that airport staff utilize this information in support of the development of a practical Capital Improvement Program based on priorities, further design/project-level investigation, and budgetary constraints. The following **Table 6.3.1 (a) and Table 6.3.1 (b)** summarize all identified major rehabilitation needs for each airport within the District forecasted for the next 10-year period. It should be noted that the following table depicts planning-level costs and have been rounded for planning purposes.

Table 6.3.1(a) Summary of 10-Year Major Rehabilitation Needs by Airport

Network ID	Airport Type	Weighted-Average PCI	Average Rating	10-Year Major Rehabilitation	
EYW	PR	74	SATISFACTORY	$	10,691,000
MTH	GA	58	FAIR	$	11,735,000
OPF	RL	58	FAIR	$	97,638,000
TMB	RL	70	FAIR	$	49,428,000
TNT	GA	54	POOR	$	22,892,000
X51	GA	65	FAIR	$	9,927,000
OVERALL DISTRICT		**62**	**FAIR**	**$**	**202,311,000**

**All values have been rounded to the nearest thousand-dollar.*

Table 6.3.1. (b) 10-Year Major Rehabilitation Needs by Airport

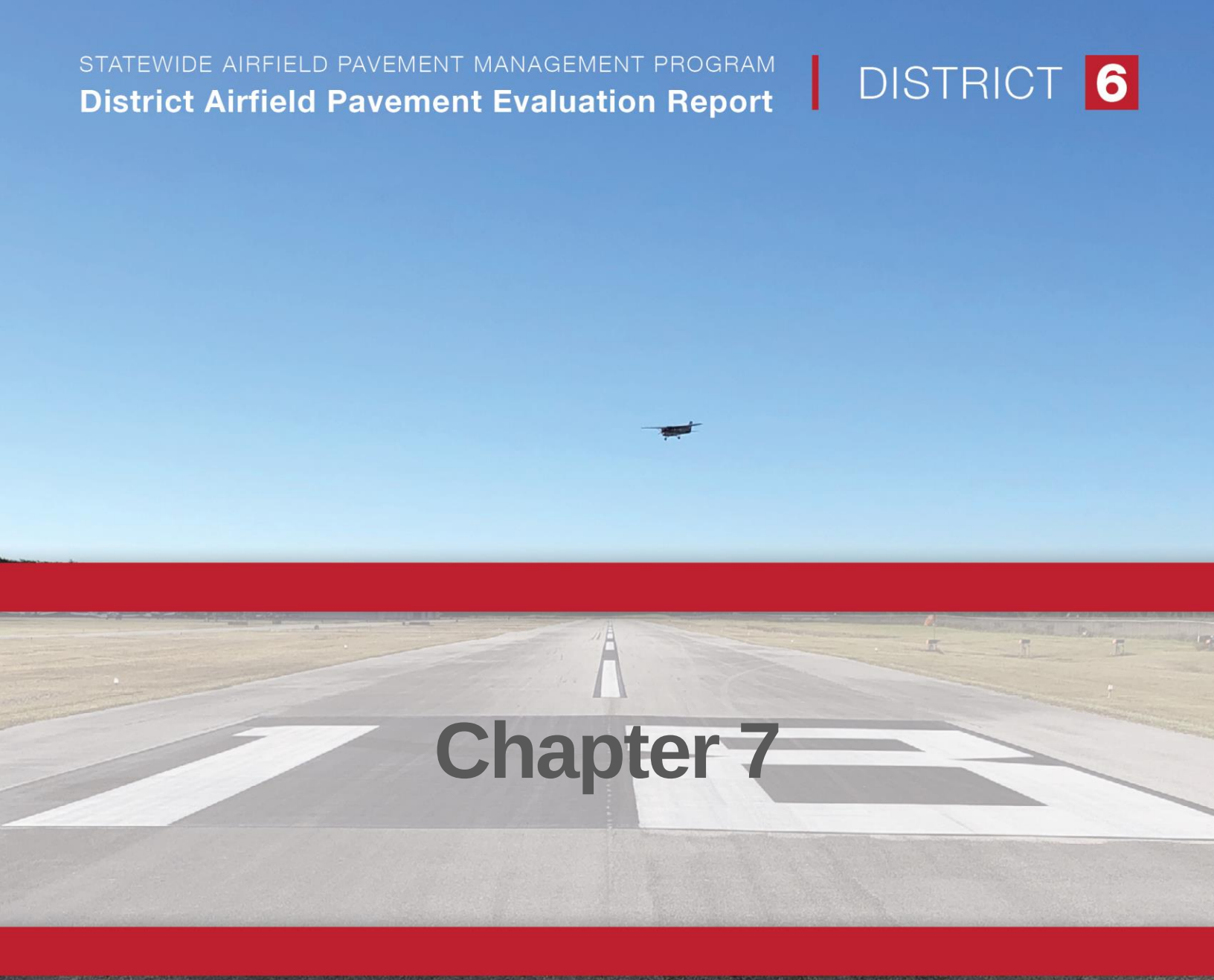
Major Rehabilitation ($ in Millions)												
Network ID	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
EYW	-	-	10.69M	0M	0M	0M	0M	0M	0M	0M	0M	0M
MTH	-	-	11.25M	0.26M	0M	0M	0M	0M	0.05M	0.08M	0.1M	0M
OPF	-	-	83.93M	2.04M	0.11M	3.43M	0.11M	6.47M	0.62M	0.92M	0M	0M
TMB	-	-	12.91M	0M	3.95M	9.44M	11.83M	5.25M	1.27M	0.17M	2.33M	2.29M
TNT	21.51M	1.34M	0M	0M	0M	0M	0.05M	0M	0M	0M	-	-
X51	6.42M	2.42M	0M	0M	0.08M	0.14M	0M	0.05M	0.81M	0M	-	-
DISTRICT	**27.92M**	**3.76M**	**118.77M**	**2.3M**	**4.15M**	**13.01M**	**11.99M**	**11.77M**	**2.76M**	**1.16M**	**2.43M**	**2.29M**

**All values have been rounded to the nearest ten-thousand-dollar.*

STATEWIDE AIRFIELD PAVEMENT MANAGEMENT PROGRAM

District Airfield Pavement Evaluation Report

DISTRICT 6



Chapter 7

FDOT

Chapter 7 – Conclusion

7.1 Recommendations

7.1.1 CONTINUED PCI SURVEY INSPECTIONS

It is recommended that the airport continue to perform regularly scheduled PCI Survey inspections in accordance with the ASTM D5340-12 (or latest edition) to monitor the condition of the airfield pavement facilities.

A high priority should be considered for continuous maintenance record keeping and re-inspection of all the airport's maintained pavement facilities to ensure continued safe aircraft operations. A series of scheduled periodic inspections must be carried out for an effective maintenance program. Re-inspection of pavements should be scheduled in a timely manner to ensure that all areas, particularly those that may not come under day-to-day observation, are thoroughly evaluated and reported.

7.1.2 LOCALIZED MAINTENANCE AND REPAIR

While deterioration of the pavements due to usage and exposure to the environment cannot be completely prevented, applying timely and effective maintenance efforts can slow the anticipated rate of deterioration. Lack of adequate and timely maintenance is the significant factor in pavement deterioration.

It is recommended that airport sponsors coordinate with their respective Airport Maintenance staff and Airport Engineer when developing project-level maintenance and repair efforts.

7.1.3 MAJOR REHABILITATION

Chapter 6 – Major Rehabilitation Planning identified major pavement rehabilitation project needs from 2018-2029. The identification of the rehabilitation needs was performed at the section level for manageable project areas with the assumption of an unconstrained budget scenario. Given the uncertainty in the airport-specific budget information and prioritization goals, the unconstrained budget scenario was performed to evaluate the worst-case scenario and identify all the inspected pavements' needs in a 10-year period. Certainly, it is understood that most airports are faced with constrained budgets; further evaluation of projects based on prioritization, operational criticality, funding availability, and practicality is recommended.

7.1.4 PAVEMENT MANAGEMENT SYSTEM

The following recommendations are made to fully implement an effective pavement management program for the airport:

- Develop a detailed preventive maintenance program for the airport.
- Further refine and implement the identified 10-year major rehabilitation needs.
- Maintain detailed records on pavement maintenance, construction, and inspection.

- Maintain records on major pavement construction projects (year, scope, cost, and construction documents).

7.2 Supporting Documents

AIRFIELD PAVEMENT CONDITION INDEX EXHIBITS

The Airfield Pavement Condition Index Exhibits are located in **Appendix B Pavement Condition Index Exhibits**. The exhibits are a visual summary of the latest conditions calculated from the results of the PCI Survey performed at each airport. The PCI values are identified in the exhibits and are graphically represented using the standard ASTM D5340-12 colors for condition rating categories.

AIRFIELD PAVEMENT MAJOR REHABILITATION EXHIBITS

The Airfield Pavement Major Rehabilitation Exhibits are located in **Appendix D Major Rehabilitation Exhibits**. The exhibits have been prepared based on the section condition analysis, pavement condition forecasts, and major rehabilitation needs analysis. The exhibits graphically depict the inventory with the associated rehabilitation type activity, program year, and the planning-level costs. The area limits, rehabilitation type, and planning-level costs should not be considered a design-level recommendation. A tabulation of the 10-Year Major Rehabilitation is located in **Appendix C Airfield Pavement Major Rehabilitation Table.**

7.3 Conclusion

The FDOT SAPMP Update 2016-2019 was completed for the airports on behalf of the FDOT ASO in accordance with the Advisory Circulars ***150/5380-7B "Airport Pavement Management Program (PMP)"*** and ***150/5380-6C "Guidelines and Procedures for Maintenance of Airport Pavements."*** FDOT's implementation of the SAPMP has assisted public airports with this requirement in performing PCI survey inspections and analysis in accordance with the ASTM ***D5340-12*** "***Standard Test Method for Airport Pavement Condition Index Surveys."***

STATEWIDE AIRFIELD PAVEMENT MANAGEMENT PROGRAM

District Airfield Pavement Evaluation Report

DISTRICT 6

Appendix A

District Section Condition Report

FDOT

Pavement Database: FDOT *NetworkId: EYW*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP E	4105	1/1/2003	AAC	APRON	P	0	34,810.00	7/29/2019	16	47
AP E	4130	1/1/2003	AAC	APRON	P	0	37,772.00	7/29/2019	16	42
AP E	4145	1/1/2003	AAC	APRON	P	0	145,771.00	7/29/2019	16	44
AP E	4150	1/1/2003	AC	APRON	P	0	16,824.00	7/29/2019	16	35
AP E	4155	1/1/2005	AAC	APRON	P	0	51,364.00	7/29/2019	14	58
AP E	4160	10/1/2018	PCC	APRON	P	0	370,379.00	10/1/2018	0	100
AP W	4205	1/1/2003	AC	APRON	P	0	162,131.00	7/29/2019	16	55
AP W	4215	1/1/2006	AC	APRON	P	0	60,960.00	7/29/2019	13	58
AP W	4220	1/1/2005	AC	APRON	P	0	13,765.00	7/29/2019	14	62
RW 9-27	6105	4/1/2018	AAC	RUNWAY	P	0	312,000.00	4/1/2018	0	100
RW 9-27	6110	4/1/2018	AAC	RUNWAY	P	0	168,000.00	4/1/2018	0	100
TW A	105	1/1/2003	AAC	TAXIWAY	P	0	184,302.00	7/29/2019	16	42
TW A	110	1/11/2003	AAC	TAXIWAY	P	0	57,310.00	7/29/2019	16	42
TW A10	165	1/1/2014	PCC	TAXIWAY	P	0	2,531.00	7/29/2019	5	61
TW A11	170	1/1/2003	AC	TAXIWAY	P	0	2,633.00	7/29/2019	16	43
TW A11	172	10/1/2018	PCC	TAXIWAY	P	0	1,525.00	10/1/2018	0	100
TW A7	150	1/1/2014	PCC	TAXIWAY	P	0	1,991.00	7/29/2019	5	88
TW A8	155	1/1/2014	PCC	TAXIWAY	P	0	1,992.00	7/29/2019	5	88
TW A9	160	10/1/2018	PCC	TAXIWAY	P	0	4,194.00	10/1/2018	0	100
TW B	205	4/1/2018	AAC	TAXIWAY	P	0	19,096.00	4/1/2018	0	100
TW B	210	1/1/2003	AAC	TAXIWAY	P	0	20,821.00	7/29/2019	16	46
TW C	305	4/1/2018	AAC	TAXIWAY	P	0	9,642.00	4/1/2018	0	100
TW C	310	1/1/2003	AAC	TAXIWAY	P	0	10,524.00	7/29/2019	16	51
TW D	505	4/1/2018	AAC	TAXIWAY	P	0	9,324.00	4/1/2018	0	100
TW D	510	1/1/2003	AAC	TAXIWAY	P	0	16,297.00	7/29/2019	16	43
TW E	605	4/1/2018	AAC	TAXIWAY	P	0	16,396.00	4/1/2018	0	100
TW E	610	1/1/2003	AAC	TAXIWAY	P	0	37,891.00	7/29/2019	16	50

Pavement Database: FDOT *NetworkId: MTH*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP E	4505	1/1/1999	AC	APRON	T	0	35,198.00	7/30/2019	20	65
AP E	4510	1/1/1999	AC	APRON	T	0	17,050.00	7/30/2019	20	50
AP E	4515	3/1/2017	AC	APRON	P	0	30,304.00	3/1/2017	0	100
AP FLGHT C	4105	1/1/1983	AC	APRON	P	0	269,634.00	7/30/2019	36	63
AP FLGHT C	4110	1/1/1983	PCC	APRON	P	0	4,020.00	7/30/2019	36	28
AP FLGHT C	4115	1/1/1966	AC	APRON	P	0	31,238.00	7/30/2019	53	55
AP FLGHT C	4120	1/1/1998	AAC	APRON	P	0	18,521.00	7/30/2019	21	56
AP FLGHT C	4125	12/25/1999	AC	APRON	P	0	14,266.00	7/30/2019	20	78
AP FLGHT C	4130	1/1/2017	PCC	APRON	P	0	8,289.00	1/1/2017	0	100
AP JET CTR	4305	1/1/1990	AC	APRON	P	0	112,985.00	7/30/2019	29	40
AP JET CTR	4308	1/1/1987	PCC	APRON	P	0	7,543.00	7/30/2019	32	80
AP JET CTR	4315	12/25/1999	AC	APRON	P	0	60,631.00	7/30/2019	20	52
AP TERM	4205	1/1/1978	AAC	APRON	P	0	20,012.00	7/30/2019	41	57
AP TERM	4210	1/1/1999	AC	APRON	P	0	18,371.00	7/30/2019	20	46
AP TERM	4220	1/1/1994	PCC	APRON	P	0	87,363.00	7/30/2019	25	60
AP T-HAN	4405	12/25/1999	AC	APRON	P	0	37,284.00	7/30/2019	20	67
RW 7-25	6105	1/1/1985	AAC	RUNWAY	P	0	375,600.00	7/30/2019	34	50
RW 7-25	6110	1/1/1985	AAC	RUNWAY	P	0	125,200.00	7/30/2019	34	56
TW A	105	1/1/1998	AAC	TAXIWAY	P	0	252,877.00	7/30/2019	21	62
TW A	115	12/25/1999	AC	TAXIWAY	P	0	50,654.00	7/30/2019	20	62
TW B	151	1/1/1998	AAC	TAXIWAY	P	0	10,711.00	7/30/2019	21	53
TW C	205	1/1/1998	AAC	TAXIWAY	P	0	6,247.00	7/30/2019	21	58
TW C	210	1/1/1998	AAC	TAXIWAY	P	0	3,873.00	7/30/2019	21	56
TW D	305	1/1/1998	AAC	TAXIWAY	P	0	9,290.00	7/30/2019	21	49
TW D	310	1/1/1998	AAC	TAXIWAY	P	0	7,468.00	7/30/2019	21	71
TW E	152	1/1/1998	AAC	TAXIWAY	P	0	5,537.00	7/30/2019	21	75
TW E	155	1/1/1998	AAC	TAXIWAY	P	0	5,103.00	7/30/2019	21	64
TW E	405	1/1/1998	AC	TAXIWAY	P	0	43,530.00	7/30/2019	21	79

Pavement Database: FDOT *NetworkId: OPF*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP CENTER	4105	1/2/2001	AAC	APRON	P	0	263,317.00	7/22/2019	18	35
AP CENTER	4110	1/1/1955	PCC	APRON	P	0	205,407.00	7/22/2019	64	27
AP CENTER	4112	1/1/2009	PCC	APRON	P	0	45,995.00	7/22/2019	10	72
AP CENTER	4115	7/1/2015	AAC	APRON	P	0	61,129.00	7/22/2019	4	93
AP CENTER	4122	1/1/2014	PCC	APRON	P	0	38,830.00	7/22/2019	5	98
AP CENTER	4125	1/1/1955	PCC	APRON	P	0	35,700.00	7/22/2019	64	18
AP CENTER	4130	1/1/1955	PCC	APRON	P	0	12,508.00	7/22/2019	64	20
AP CENTER	4135	1/1/1955	PCC	APRON	P	0	35,672.00	7/22/2019	64	29
AP CENTER	4136	6/1/2004	PCC	APRON	P	0	18,019.00	7/22/2019	15	49
AP CENTER	4140	1/1/2012	AAC	APRON	P	0	72,314.00	7/22/2019	7	60
AP CENTER	4145	1/2/2001	AAC	APRON	P	0	37,559.00	7/22/2019	18	51
AP E	4205	1/1/1986	AC	APRON	P	0	49,389.00	7/22/2019	33	43
AP E	4210	1/1/1988	AC	APRON	P	0	209,760.00	7/22/2019	31	36
AP E	4215	1/1/2014	AC	APRON	P	0	260,110.00	7/22/2019	5	73
AP E	4220	1/1/2014	AC	APRON	P	0	73,845.00	7/22/2019	5	87
AP E	4225	1/1/1986	AC	APRON	P	0	126,677.00	7/22/2019	33	54
AP E	4230	1/1/1986	AC	APRON	P	0	19,060.00	7/22/2019	33	51
AP E	4231	1/1/1945	AC	APRON	P	0	36,290.00	7/22/2019	74	17
AP NE	4305	1/1/1985	AC	APRON	P	0	695,920.00	7/22/2019	34	41
AP NE	4315	9/1/2016	AAC	APRON	P	0	302,367.00	7/22/2019	3	93
AP T-HANG	4505	1/1/1985	AC	APRON	P	0	118,793.00	7/22/2019	34	39
AP T-HANG	4507	1/1/1945	AC	APRON	P	0	53,737.00	7/22/2019	74	33
AP T-HANG	4509	1/1/2008	AAC	APRON	P	0	77,168.00	7/22/2019	11	71
AP T-HANG	4510	1/1/1985	AC	APRON	P	0	88,298.00	7/22/2019	34	57
AP T-HANG	4515	1/1/1994	AC	APRON	P	0	26,770.00	7/22/2019	25	45
AP T-HANG	4520	1/1/2014	AAC	APRON	P	0	96,743.00	7/22/2019	5	81
AP T-HANG	4525	1/1/2016	AC	APRON	P	0	325,630.00	7/22/2019	3	93
RW 12-30	6205	1/1/1994	AC	RUNWAY	P	0	643,500.00	7/22/2019	25	45
RW 12-30	6210	1/1/1994	AC	RUNWAY	P	0	321,750.00	7/22/2019	25	49
RW 12-30	6215	6/29/2012	AAC	RUNWAY	P	0	18,000.00	7/22/2019	7	92
RW 12-30	6220	6/29/2012	AAC	RUNWAY	P	0	9,000.00	7/22/2019	7	94
RW 12-30	6225	6/29/2012	AAC	RUNWAY	P	0	18,500.00	7/22/2019	7	90
RW 12-30	6230	6/29/2012	AAC	RUNWAY	P	0	9,250.00	7/22/2019	7	90
RW 9L-27R	6102	5/6/2013	APC	RUNWAY	P	0	9,250.00	7/22/2019	6	88
RW 9L-27R	6105	1/1/1989	APC	RUNWAY	P	0	15,750.00	7/22/2019	30	59
RW 9L-27R	6107	5/6/2013	APC	RUNWAY	P	0	20,350.00	7/22/2019	6	85
RW 9L-27R	6110	1/1/1989	APC	RUNWAY	P	0	31,856.00	7/22/2019	30	61
RW 9L-27R	6115	1/1/2009	AAC	RUNWAY	P	0	350,000.00	7/22/2019	10	53
RW 9L-27R	6120	1/1/1989	AAC	RUNWAY	P	0	700,000.00	7/22/2019	30	56
RW 9L-27R	6125	1/1/1989	APC	RUNWAY	P	0	15,850.00	7/22/2019	30	64
RW 9L-27R	6130	1/1/1989	APC	RUNWAY	P	0	32,104.00	7/22/2019	30	60
RW 9L-27R	6135	5/6/2013	APC	RUNWAY	P	0	9,250.00	7/22/2019	6	82
RW 9L-27R	6140	5/6/2013	APC	RUNWAY	P	0	20,813.00	7/22/2019	6	79
RW 9R-27L	6405	1/2/2002	AAC	RUNWAY	P	0	330,300.00	7/22/2019	17	69
RW 9R-27L	6410	1/2/2002	AAC	RUNWAY	P	0	100,600.00	7/22/2019	17	56
TL P	1670	1/1/1945	AC	TAXILANE	P	0	107,164.00	7/22/2019	74	38
TW B	202	9/1/2016	AAC	TAXIWAY	P	0	53,312.00	7/22/2019	3	94
TW B	205	1/1/1985	AC	TAXIWAY	P	0	16,728.00	7/22/2019	34	56
TW B	210	9/1/2016	AAC	TAXIWAY	P	0	4,748.00	7/22/2019	3	93
TW B	215	1/1/1985	AC	TAXIWAY	P	0	7,653.00	7/22/2019	34	49
TW C	305	1/1/1989	AAC	TAXIWAY	P	0	4,608.00	7/22/2019	30	54

TW C	310	1/1/2014	AAC	TAXIWAY	P	0	33,038.00	7/22/2019	5	89
TW C	312	1/1/2014	AAC	TAXIWAY	P	0	5,722.00	7/22/2019	5	88
TW C	315	1/1/2014	AAC	TAXIWAY	P	0	18,950.00	7/22/2019	5	80
TW C	320	1/1/1988	AC	TAXIWAY	P	0	101,022.00	7/22/2019	31	45
TW C	327	1/1/2013	AC	TAXIWAY	P	0	7,440.00	7/22/2019	6	88
TW C	330	1/1/1988	AC	TAXIWAY	P	0	13,347.00	7/22/2019	31	49
TW D	405	1/1/1994	AAC	TAXIWAY	P	0	30,808.00	7/22/2019	25	49
TW D	410	1/1/1994	AC	TAXIWAY	P	0	71,495.00	7/22/2019	25	47
TW D	415	1/1/1994	AC	TAXIWAY	P	0	87,770.00	7/22/2019	25	54
TW E	505	1/1/1989	AAC	TAXIWAY	P	0	6,116.00	7/22/2019	30	55
TW E	510	1/1/1967	AC	TAXIWAY	P	0	40,471.00	7/22/2019	52	63
TW E	515	1/2/2001	AAC	TAXIWAY	P	0	192,006.00	7/22/2019	18	50
TW E	520	1/1/1992	AC	TAXIWAY	P	0	9,942.00	7/22/2019	27	84
TW F	605	1/1/1989	AAC	TAXIWAY	P	0	4,608.00	7/22/2019	30	53
TW F	610	1/1/2014	AAC	TAXIWAY	P	0	32,630.00	7/22/2019	5	88
TW F	615	1/1/2002	AAC	TAXIWAY	P	0	14,748.00	7/22/2019	17	63
TW F	630	1/1/2015	AAC	TAXIWAY	P	0	5,620.00	7/22/2019	4	89
TW F	635	1/1/2015	AAC	TAXIWAY	P	0	42,867.00	7/22/2019	4	81
TW G	705	1/1/1989	AAC	TAXIWAY	P	0	4,620.00	7/22/2019	30	64
TW G	710	1/1/2014	AAC	TAXIWAY	P	0	33,147.00	7/22/2019	5	89
TW G	715	1/1/2014	AAC	TAXIWAY	P	0	11,179.00	7/22/2019	5	88
TW G	717	1/1/1975	AC	TAXIWAY	P	0	11,084.00	7/22/2019	44	60
TW G	720	1/1/1966	AC	TAXIWAY	P	0	48,730.00	7/22/2019	53	61
TW G	722	1/1/1975	AC	TAXIWAY	P	0	82,424.00	7/22/2019	44	66
TW G	725	1/1/1994	AC	TAXIWAY	P	0	16,579.00	7/22/2019	25	47
TW G	730	1/1/1994	AC	TAXIWAY	P	0	82,966.00	7/22/2019	25	62
TW G	735	1/1/1975	AC	TAXIWAY	P	0	121,482.00	7/22/2019	44	62
TW G	740	1/1/1994	AC	TAXIWAY	P	0	11,329.00	7/22/2019	25	59
TW G	745	1/1/2002	AAC	TAXIWAY	P	0	11,850.00	7/22/2019	17	67
TW H	805	1/1/2009	AAC	TAXIWAY	P	0	36,541.00	7/22/2019	10	65
TW H	806	1/1/1966	AC	TAXIWAY	P	0	41,939.00	7/22/2019	53	46
TW H	815	1/1/2009	AAC	TAXIWAY	P	0	146,625.00	7/22/2019	10	68
TW H	820	1/1/2015	AAC	TAXIWAY	P	0	148,588.00	7/22/2019	4	87
TW H	823	1/1/2009	AAC	TAXIWAY	P	0	23,324.00	7/22/2019	10	66
TW H	824	1/1/2009	AAC	TAXIWAY	P	0	27,651.00	7/22/2019	10	60
TW H	825	1/1/1994	AC	TAXIWAY	P	0	89,179.00	7/22/2019	25	53
TW H	826	1/1/1994	AC	TAXIWAY	P	0	89,179.00	7/22/2019	25	57
TW H	835	1/1/1985	AC	TAXIWAY	P	0	22,875.00	7/22/2019	34	57
TW H	840	1/1/2015	AAC	TAXIWAY	P	0	23,075.00	7/22/2019	4	89
TW H	845	1/1/2009	AAC	TAXIWAY	P	0	24,981.00	7/22/2019	10	53
TW H	846	1/1/2009	AAC	TAXIWAY	P	0	29,637.00	7/22/2019	10	68
TW H	855	1/1/1989	AC	TAXIWAY	P	0	12,262.00	7/22/2019	30	55
TW J	1005	1/1/1989	AAC	TAXIWAY	P	0	4,608.00	7/22/2019	30	51
TW J	1010	1/1/2014	AAC	TAXIWAY	P	0	33,038.00	7/22/2019	5	91
TW J	1015	1/1/1992	AC	TAXIWAY	P	0	22,454.00	7/22/2019	27	69
TW J	1025	1/1/1992	AC	TAXIWAY	P	0	19,915.00	7/22/2019	27	54
TW J	1030	1/1/1965	AC	TAXIWAY	P	0	19,750.00	7/22/2019	54	39
TW J	1035	5/1/2019	AAC	TAXIWAY	P	0	22,300.00	5/1/2019	0	100
TW J	1040	1/1/1994	AC	TAXIWAY	P	0	57,601.00	7/22/2019	25	53
TW N	1410	1/1/1975	PCC	TAXIWAY	P	0	16,875.00	7/22/2019	44	59
TW N	1412	1/1/2014	APC	TAXIWAY	P	0	13,336.00	7/22/2019	5	78
TW N	1415	1/1/2014	APC	TAXIWAY	P	0	7,149.00	7/22/2019	5	92
TW N	1420	1/1/2014	AAC	TAXIWAY	P	0	104,780.00	7/22/2019	5	88
TW N	1422	6/1/2001	AAC	TAXIWAY	P	0	212,770.00	7/22/2019	18	58
TW N	1423	1/1/2014	AAC	TAXIWAY	P	0	179,250.00	7/22/2019	5	89
TW N	1425	1/1/2015	AAC	TAXIWAY	P	0	28,200.00	7/22/2019	4	90

TW N	1430	1/1/1975	PCC	TAXIWAY	P	0	37,642.00	7/22/2019	44	66
TW N	1435	1/1/1975	PCC	TAXIWAY	P	0	59,701.00	7/22/2019	44	68
TW N1	1405	1/1/1975	PCC	TAXIWAY	P	0	58,242.00	7/22/2019	44	70
TW P	1605	1/1/1992	AC	TAXIWAY	P	0	27,346.00	7/22/2019	27	62
TW P	1615	1/1/1992	AC	TAXIWAY	P	0	46,478.00	7/22/2019	27	64
TW P	1620	1/1/1992	AC	TAXIWAY	P	0	194,846.00	7/22/2019	27	61
TW P	1623	1/1/2010	AAC	TAXIWAY	P	0	4,522.00	7/22/2019	9	83
TW P	1625	1/1/2002	AAC	TAXIWAY	P	0	13,111.00	7/22/2019	17	62
TW P	1630	1/1/2002	AAC	TAXIWAY	P	0	95,088.00	7/22/2019	17	50
TW P	1633	1/1/2001	AAC	TAXIWAY	P	0	5,213.00	7/22/2019	18	86
TW P	1640	1/1/1988	AC	TAXIWAY	P	0	20,800.00	7/22/2019	31	46
TW P	1645	1/1/2007	AAC	TAXIWAY	P	0	107,175.00	7/22/2019	12	48
TW P	1650	1/1/1945	AC	TAXIWAY	P	0	8,040.00	7/22/2019	74	7
TW P	1653	1/1/2007	AAC	TAXIWAY	P	0	7,774.00	7/22/2019	12	70
TW P	1655	1/1/1985	AC	TAXIWAY	P	0	21,542.00	7/22/2019	34	49
TW P	1660	9/1/2016	AAC	TAXIWAY	P	0	43,446.00	7/22/2019	3	82
TW P	1665	9/1/2016	AAC	TAXIWAY	P	0	57,543.00	7/22/2019	3	92
TW R	1803	1/1/2010	AAC	TAXIWAY	P	0	7,989.00	7/22/2019	9	82
TW R	1805	1/1/2002	AAC	TAXIWAY	P	0	11,751.00	7/22/2019	17	69
TW R	1810	1/1/2002	AAC	TAXIWAY	P	0	39,059.00	7/22/2019	17	65
TW S	1905	1/1/1994	AC	TAXIWAY	P	0	24,074.00	7/22/2019	25	50
TW S	1920	1/1/1994	AAC	TAXIWAY	P	0	28,125.00	7/22/2019	25	46
TW S	1925	1/1/2010	AAC	TAXIWAY	P	0	13,004.00	7/22/2019	9	83
TW S	1930	1/1/2015	AAC	TAXIWAY	P	0	26,928.00	7/22/2019	4	92
TW S	1935	1/1/2015	AAC	TAXIWAY	P	0	30,114.00	7/22/2019	4	94
TW T	2005	1/1/1994	AC	TAXIWAY	P	0	483,018.00	7/22/2019	25	48
TW T2	2025	1/1/1994	AC	TAXIWAY	P	0	50,517.00	7/22/2019	25	52
TW T3	2020	1/1/1994	AC	TAXIWAY	P	0	45,497.00	7/22/2019	25	47
TW T8	2010	1/1/1994	AC	TAXIWAY	P	0	106,822.00	7/22/2019	25	51
TW V	2505	1/1/1994	AC	TAXIWAY	P	0	55,249.00	7/22/2019	25	66
TW Y	2610	1/1/1966	AC	TAXIWAY	P	0	157,256.00	7/22/2019	53	46
TW Y	2615	1/1/1994	AAC	TAXIWAY	P	0	9,287.00	7/22/2019	25	58
TW Y	2620	1/1/1994	AC	TAXIWAY	P	0	117,770.00	7/22/2019	25	40
TW Y1	2605	1/1/1966	AC	TAXIWAY	P	0	27,058.00	7/22/2019	53	56
TW Y2	2640	1/1/1966	AC	TAXIWAY	P	0	21,687.00	7/22/2019	53	55
TW Y3	2650	1/1/1966	AC	TAXIWAY	P	0	41,211.00	7/22/2019	53	46
TW Y7	2630	1/1/1994	AC	TAXIWAY	P	0	34,246.00	7/22/2019	25	48

Pavement Database: FDOT *NetworkId: TMB*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP N	4205	1/1/2006	AAC	APRON	P	0	840,000.00	7/24/2019	13	73
AP N	4215	1/1/2006	AAC	APRON	P	0	72,000.00	7/24/2019	13	65
AP N	4220	1/1/1994	AAC	APRON	P	0	97,500.00	7/24/2019	25	56
AP N	4225	12/25/1999	AC	APRON	P	0	69,490.00	7/24/2019	20	52
AP N	4230	12/25/1999	AC	APRON	P	0	18,795.00	7/24/2019	20	37
AP N	4235	1/1/2015	AC	APRON	P	0	19,200.00	7/24/2019	4	92
AP NE	4305	12/25/1999	PCC	APRON	P	0	9,600.00	7/24/2019	20	86
AP NE	4310	12/25/1999	AC	APRON	P	0	19,797.00	7/24/2019	20	60
AP NE	4315	12/25/1999	AC	APRON	P	0	21,176.00	7/24/2019	20	65
AP NE	4320	12/25/1999	PCC	APRON	P	0	9,216.00	7/24/2019	20	86
AP NE	4325	12/25/1999	AC	APRON	P	0	49,524.00	7/24/2019	20	64
AP NE	4330	12/25/1999	PCC	APRON	P	0	2,700.00	7/24/2019	20	68
AP S	4105	1/1/1998	AC	APRON	P	0	192,000.00	7/24/2019	21	64
AP S	4110	1/1/1998	AAC	APRON	P	0	253,679.00	7/24/2019	21	70
AP S	4115	1/1/1998	AAC	APRON	P	0	825,309.00	7/24/2019	21	71
AP S	4125	12/25/1999	AC	APRON	T	0	35,371.00	7/24/2019	20	56
AP S	4130	12/25/1999	AC	APRON	P	0	19,714.00	7/24/2019	20	33
AP S	4135	12/25/1999	AC	APRON	P	0	29,788.00	7/24/2019	20	56
AP S	4140	12/25/1999	AC	APRON	P	0	43,331.00	7/24/2019	20	48
AP SE	4410	12/25/1999	AC	APRON	P	0	45,220.00	7/24/2019	20	58
AP SE	4415	6/1/2014	AC	APRON	P	0	6,589.00	7/24/2019	5	88
RW 13-31	6205	1/1/2004	AAC	RUNWAY	P	0	400,200.00	7/24/2019	15	68
RW 13-31	6210	1/1/2004	AAC	RUNWAY	P	0	200,100.00	7/24/2019	15	74
RW 9L-27R	6104	1/1/1997	AC	RUNWAY	P	0	20,000.00	7/24/2019	22	60
RW 9L-27R	6105	1/1/1965	AC	RUNWAY	P	0	460,000.00	7/24/2019	54	72
RW 9L-27R	6109	1/1/1997	AC	RUNWAY	P	0	10,000.00	7/24/2019	22	63
RW 9L-27R	6110	1/1/1965	AC	RUNWAY	P	0	230,000.00	7/24/2019	54	75
RW 9L-27R	6126	1/1/1997	AC	RUNWAY	P	0	10,100.00	7/24/2019	22	62
RW 9L-27R	6131	1/1/1997	AC	RUNWAY	P	0	20,200.00	7/24/2019	22	70
RW 9R-27L	6302	1/1/2011	AC	RUNWAY	P	0	100,000.00	7/24/2019	8	64
RW 9R-27L	6304	1/1/2011	AAC	RUNWAY	P	0	20,000.00	7/24/2019	8	71
RW 9R-27L	6305	1/1/1997	AAC	RUNWAY	P	0	460,000.00	7/24/2019	22	69
RW 9R-27L	6306	1/1/1997	AC	RUNWAY	P	0	20,100.00	7/24/2019	22	70
RW 9R-27L	6307	1/1/2011	AC	RUNWAY	P	0	50,000.00	7/24/2019	8	71
RW 9R-27L	6309	1/1/2011	AAC	RUNWAY	P	0	10,000.00	7/24/2019	8	71
RW 9R-27L	6310	1/1/1997	AAC	RUNWAY	P	0	230,000.00	7/24/2019	22	75
RW 9R-27L	6311	1/1/1997	AC	RUNWAY	P	0	10,050.00	7/24/2019	22	71
TW 1	270	1/1/2006	AAC	TAXIWAY	P	0	12,843.00	7/24/2019	13	79
TW 15	350	1/1/2007	AAC	TAXIWAY	P	0	19,697.00	7/24/2019	12	78
TW 16	360	1/1/2007	AAC	TAXIWAY	P	0	11,992.00	7/24/2019	12	84
TW 16	365	1/1/2007	AAC	TAXIWAY	P	0	7,706.00	7/24/2019	12	78
TW 17	370	1/1/2007	AAC	TAXIWAY	P	0	12,809.00	7/24/2019	12	81
TW 2	260	1/1/2006	AAC	TAXIWAY	P	0	19,697.00	7/24/2019	13	67
TW 3	250	1/1/2006	AAC	TAXIWAY	P	0	19,697.00	7/24/2019	13	71
TW 4	240	1/1/2006	AAC	TAXIWAY	P	0	19,697.00	7/24/2019	13	74
TW 5	230	1/1/2006	AAC	TAXIWAY	P	0	19,697.00	7/24/2019	13	79
TW 6	220	1/1/2006	AAC	TAXIWAY	P	0	19,697.00	7/24/2019	13	77
TW 7	210	1/1/2005	AAC	TAXIWAY	P	0	18,557.00	7/24/2019	14	74

TW A	103	6/1/2019	AAC	TAXIWAY	P	0	8,250.00	6/1/2019	0	100
TW A	104	6/1/2019	AC	TAXIWAY	P	0	9,750.00	6/1/2019	0	100
TW A	105	1/1/2005	AAC	TAXIWAY	P	0	261,575.00	7/24/2019	14	79
TW A	108	1/1/2005	AAC	TAXIWAY	P	0	18,500.00	7/24/2019	14	71
TW A1	110	6/1/2019	AAC	TAXIWAY	P	0	30,745.00	6/1/2019	0	100
TW A3	120	1/1/1965	AC	TAXIWAY	P	0	50,475.00	7/24/2019	54	83
TW A4	124	12/25/1999	AC	TAXIWAY	P	0	26,792.00	7/24/2019	20	72
TW A4	125	1/1/1965	AC	TAXIWAY	P	0	32,146.00	7/24/2019	54	68
TW AP NE	1005	12/25/1999	AC	TAXIWAY	P	0	44,691.00	7/24/2019	20	62
TW AP SE	1105	12/25/1999	AC	TAXIWAY	P	0	42,727.00	7/24/2019	20	57
TW C	810	1/1/1998	AC	TAXIWAY	P	0	7,744.00	7/24/2019	21	57
TW C	910	1/1/1998	AC	TAXIWAY	P	0	138,069.00	7/24/2019	21	67
TW C1	905	1/1/1998	AC	TAXIWAY	P	0	7,838.00	7/24/2019	21	62
TW C3	320	1/1/1997	AAC	TAXIWAY	P	0	17,567.00	7/24/2019	22	54
TW D	405	1/1/1965	AC	TAXIWAY	P	0	192,147.00	7/24/2019	54	51
TW D	407	6/1/2019	AC	TAXIWAY	P	0	18,131.00	6/1/2019	0	100
TW D	410	6/1/2019	AAC	TAXIWAY	P	0	25,838.00	6/1/2019	0	100
TW D	412	6/1/2019	AC	TAXIWAY	P	0	9,750.00	6/1/2019	0	100
TW D	525	1/1/2007	AAC	TAXIWAY	P	0	41,823.00	7/24/2019	12	70
TW E	503	1/1/2011	AC	TAXIWAY	P	0	56,119.00	7/24/2019	8	83
TW E	505	1/1/2007	AAC	TAXIWAY	P	0	220,186.00	7/24/2019	12	80
TW E	507	1/1/2007	AAC	TAXIWAY	P	0	30,930.00	7/24/2019	12	74
TW E	510	1/1/2007	AAC	TAXIWAY	P	0	32,963.00	7/24/2019	12	83
TW E	535	1/1/2007	AAC	TAXIWAY	P	0	17,500.00	7/24/2019	12	72
TW E1	513	1/1/2011	AC	TAXIWAY	P	0	54,092.00	7/24/2019	8	75
TW E1	516	12/25/1999	AC	TAXIWAY	P	0	38,537.00	7/24/2019	20	72
TW E2	515	1/1/2012	AAC	TAXIWAY	P	0	19,201.00	7/24/2019	7	73
TW E3	520	1/1/2007	AAC	TAXIWAY	P	0	50,475.00	7/24/2019	12	70
TW E5	527	1/1/1996	AC	TAXIWAY	P	0	26,267.00	7/24/2019	23	65
TW E6	529	12/25/1999	AC	TAXIWAY	P	0	26,192.00	7/24/2019	20	60
TW E6	530	1/1/1999	AAC	TAXIWAY	P	0	32,146.00	7/24/2019	20	73
TW F	605	1/1/1998	AAC	TAXIWAY	P	0	57,730.00	7/24/2019	21	77
TW G	115	1/1/1965	AC	TAXIWAY	P	0	50,475.00	7/24/2019	54	82
TW G	415	1/1/1965	AC	TAXIWAY	P	0	50,475.00	7/24/2019	54	60
TW G	705	1/1/2006	AAC	TAXIWAY	P	0	51,622.00	7/24/2019	13	74
TW G	710	1/1/1997	AC	TAXIWAY	P	0	17,106.00	7/24/2019	22	68
TW H	815	1/1/2007	AAC	TAXIWAY	P	0	119,042.00	7/24/2019	12	68
TW H3	805	1/1/1998	AC	TAXIWAY	P	0	4,802.00	7/24/2019	21	70
TW H4	330	1/1/2007	AAC	TAXIWAY	P	0	18,456.00	7/24/2019	12	74
TW H5	340	1/1/2007	AAC	TAXIWAY	P	0	17,255.00	7/24/2019	12	81
TW J	310	1/1/1997	AAC	TAXIWAY	P	0	17,644.00	7/24/2019	22	62
TW J	420	1/1/1965	AC	TAXIWAY	P	0	50,463.00	7/24/2019	54	48
TW W	2305	6/1/2019	AC	TAXIWAY	P	0	117,403.00	6/1/2019	0	100

Pavement Database: FDOT *NetworkId: TNT*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP N	4105	1/1/1991	AAC	APRON	P	0	49,500.00	4/10/2017	26	42
RW 9-27	6105	1/1/1995	AAC	RUNWAY	P	0	525,000.00	4/10/2017	22	55
RW 9-27	6110	1/1/1995	AAC	RUNWAY	P	0	1,050,000.	4/10/2017	22	48
TW A	105	1/1/1999	AAC	TAXIWAY	P	0	733,373.00	4/10/2017	18	54
TW A	110	1/1/1999	AAC	TAXIWAY	P	0	75,225.00	4/10/2017	18	58
TW A	180	1/1/1999	AAC	TAXIWAY	P	0	75,225.00	4/10/2017	18	62
TW A1	120	1/1/1968	AC	TAXIWAY	P	0	68,780.00	4/10/2017	49	30
TW A1	123	1/1/1999	AAC	TAXIWAY	P	0	6,394.00	4/10/2017	18	71
TW A1	126	1/1/1991	AAC	TAXIWAY	P	0	7,437.00	4/10/2017	26	75
TW A2	130	1/1/1991	AAC	TAXIWAY	P	0	107,503.00	4/10/2017	26	75
TW A3	140	1/1/1991	AAC	TAXIWAY	P	0	187,363.00	4/10/2017	26	75
TW A4	150	1/1/1991	AAC	TAXIWAY	P	0	187,363.00	4/10/2017	26	64
TW A5	160	1/1/1991	AAC	TAXIWAY	P	0	107,503.00	4/10/2017	26	67
TW A6	170	1/1/1968	AC	TAXIWAY	P	0	68,780.00	4/10/2017	49	46
TW A6	173	1/1/1999	AAC	TAXIWAY	P	0	6,394.00	4/10/2017	18	65
TW A6	176	1/1/1991	AAC	TAXIWAY	P	0	7,437.00	4/10/2017	26	57
TW B	205	1/1/1991	AAC	TAXIWAY	P	0	83,610.00	4/10/2017	26	66
TW B	210	1/1/1991	AAC	TAXIWAY	P	0	5,222.00	4/10/2017	26	59
TW B	215	1/1/1991	AAC	TAXIWAY	P	0	43,125.00	4/10/2017	26	47

Pavement Database: FDOT *NetworkId: X51*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP N	4205	1/1/1962	AC	APRON	P	0	85,048.00	4/11/2017	55	65
AP NE	4305	1/1/1999	AC	APRON	P	0	109,902.00	4/11/2017	18	78
AP NW	4105	1/1/1967	AC	APRON	P	0	255,472.00	4/11/2017	50	58
AP NW	4110	1/1/2005	AC	APRON	P	0	11,958.00	4/11/2017	12	72
RW 10-28	6205	1/1/1994	AAC	RUNWAY	P	0	224,925.00	4/11/2017	23	67
RW 18-36	6102	6/1/2015	AAC	RUNWAY	P	0	9,000.00	6/1/2015	0	100
RW 18-36	6105	1/1/1993	AAC	RUNWAY	P	0	191,000.00	4/11/2017	24	88
RW 18-36	6110	1/1/1967	AC	RUNWAY	P	0	183,750.00	4/11/2017	50	54
RW 18-36	6112	1/1/2009	AAC	RUNWAY	P	0	7,250.00	4/11/2017	8	81
RW 18-36	6115	6/1/2015	AAC	RUNWAY	P	0	9,200.00	6/1/2015	0	100
TW A	160	1/1/1967	AC	TAXIWAY	P	0	14,699.00	4/11/2017	50	56
TW A	205	1/1/1967	AC	TAXIWAY	P	0	13,738.00	4/11/2017	50	45
TW A	210	1/1/1994	AAC	TAXIWAY	P	0	5,600.00	4/11/2017	23	73
TW A	215	1/1/1962	AC	TAXIWAY	P	0	121,199.00	4/11/2017	55	66
TW A	220	1/1/1994	AAC	TAXIWAY	P	0	6,000.00	4/11/2017	23	75
TW A	260	1/1/1967	AC	TAXIWAY	P	0	5,369.00	4/11/2017	50	47
TW A	270	1/1/1967	AC	TAXIWAY	P	0	5,369.00	4/11/2017	50	48
TW A	280	1/1/1962	AC	TAXIWAY	P	0	4,273.00	4/11/2017	55	55
TW A	290	1/1/1962	AC	TAXIWAY	P	0	4,069.00	4/11/2017	55	59
TW A	295	1/1/1970	AC	TAXIWAY	P	0	4,189.00	4/11/2017	47	51
TW A1	230	1/1/1962	AC	TAXIWAY	P	0	6,237.00	4/11/2017	55	51
TW A1	235	1/1/1994	AAC	TAXIWAY	P	0	2,971.00	4/11/2017	23	62
TW A2	240	1/1/1962	AC	TAXIWAY	P	0	11,520.00	4/11/2017	55	44
TW A3	250	1/1/1962	AC	TAXIWAY	P	0	6,135.00	4/11/2017	55	49
TW A3	255	1/1/1994	AAC	TAXIWAY	P	0	2,869.00	4/11/2017	23	76
TW AP	305	1/1/2001	AAC	TAXIWAY	P	0	10,104.00	4/11/2017	16	43
TW B	105	1/1/1967	AC	TAXIWAY	P	0	192,408.00	4/11/2017	50	61
TW B	180	1/1/1967	AC	TAXIWAY	P	0	13,513.00	4/11/2017	50	49
TW B1	110	1/1/1994	AAC	TAXIWAY	P	0	20,223.00	4/11/2017	23	70
TW B2	120	1/1/1967	AC	TAXIWAY	P	0	21,223.00	4/11/2017	50	49
TW B3	130	1/1/1967	AC	TAXIWAY	P	0	12,237.00	4/11/2017	50	43
TW B4	140	1/1/1967	AC	TAXIWAY	P	0	15,569.00	4/11/2017	50	49
TW B5	150	1/1/1967	AC	TAXIWAY	P	0	6,211.00	4/11/2017	50	56
TW B5	155	1/1/2009	AAC	TAXIWAY	P	0	10,114.00	4/11/2017	8	91
TW C	400	1/1/1957	AC	TAXIWAY	P	0	24,975.00	4/11/2017	60	49

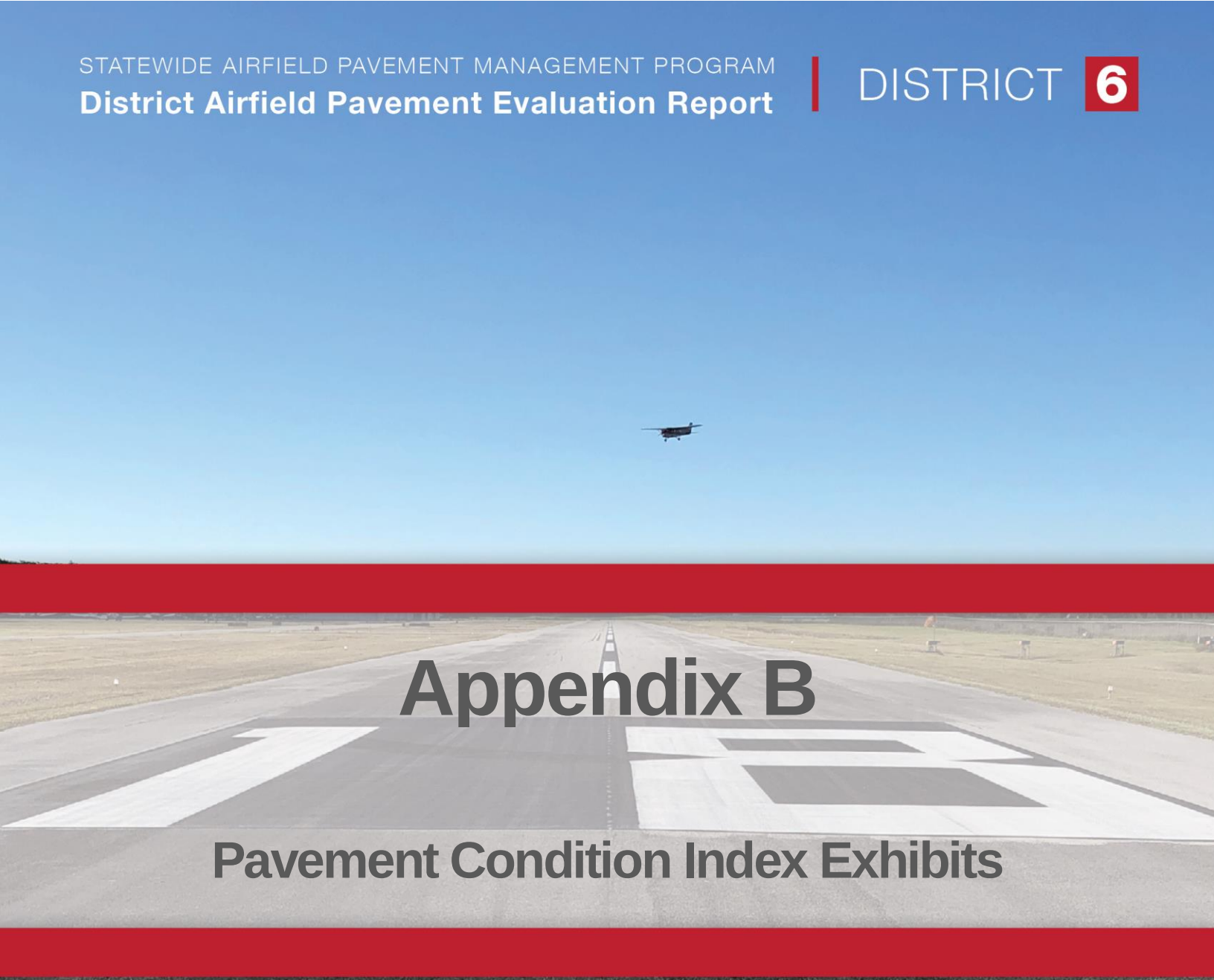
Pavement Database: FDOT

Age Category	Average Age at Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
00-02		1,209,516.00	21	100.00	0.00	100.00
03-05	4	2,127,617.00	34	87.59	6.86	87.77
06-10	8	1,231,212.00	30	76.03	11.52	66.19
11-15	13	2,922,899.00	35	71.60	8.40	71.55
16-20	18	3,889,336.00	58	57.53	12.79	54.80
21-25	23	7,406,344.00	63	60.41	10.29	58.39
26-30	28	2,052,411.00	28	60.46	9.73	60.32
31-35	33	2,020,207.00	17	50.47	9.62	45.49
36-40	36	273,654.00	2	45.50	17.50	62.49
41-50	48	1,288,769.00	23	54.35	9.22	57.11
50+	58	2,303,495.00	33	49.48	18.32	55.68
ALL	23	26,725,460.01	344	65.50	17.91	62.81

STATEWIDE AIRFIELD PAVEMENT MANAGEMENT PROGRAM

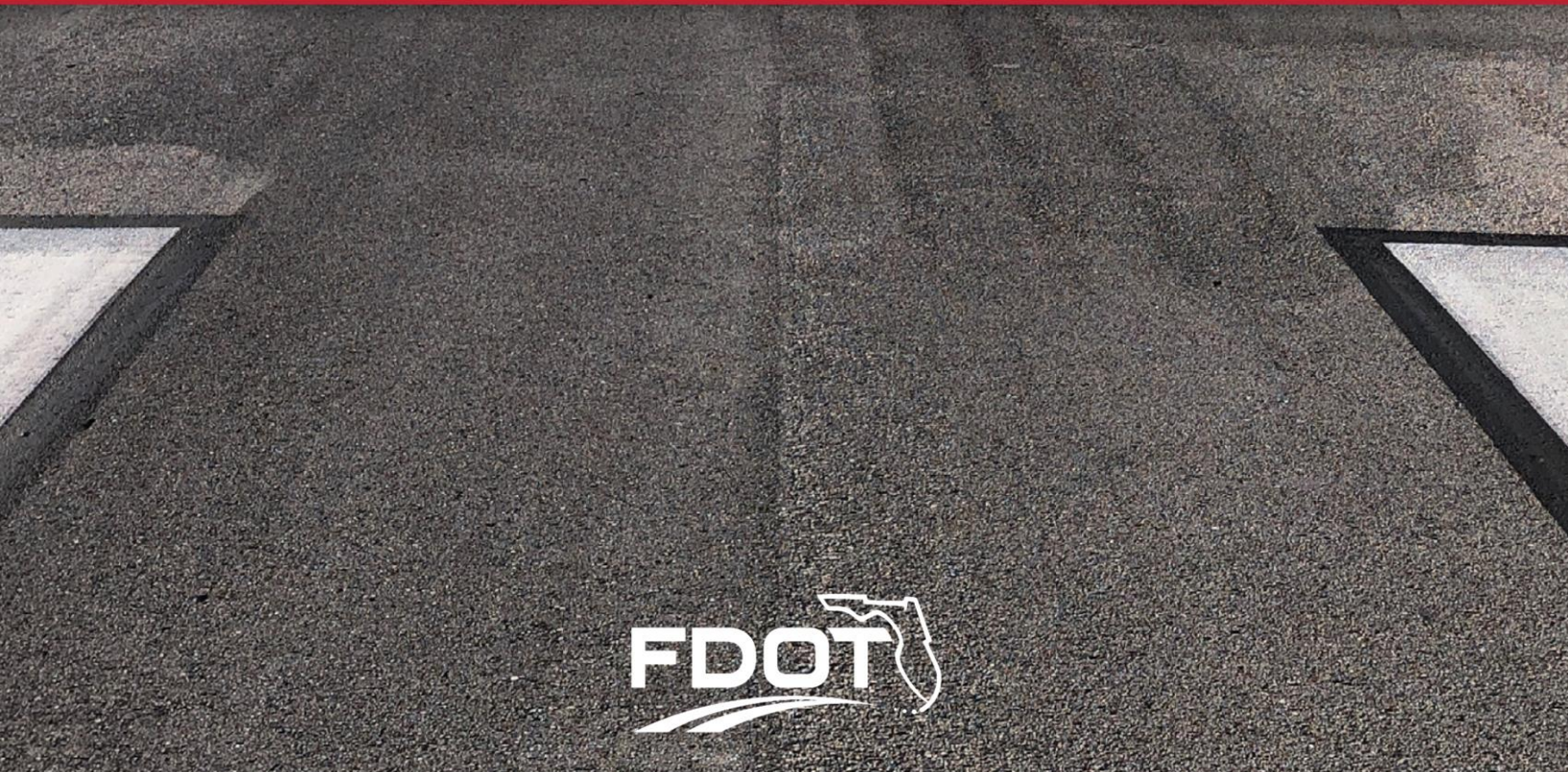
District Airfield Pavement Evaluation Report

DISTRICT 6

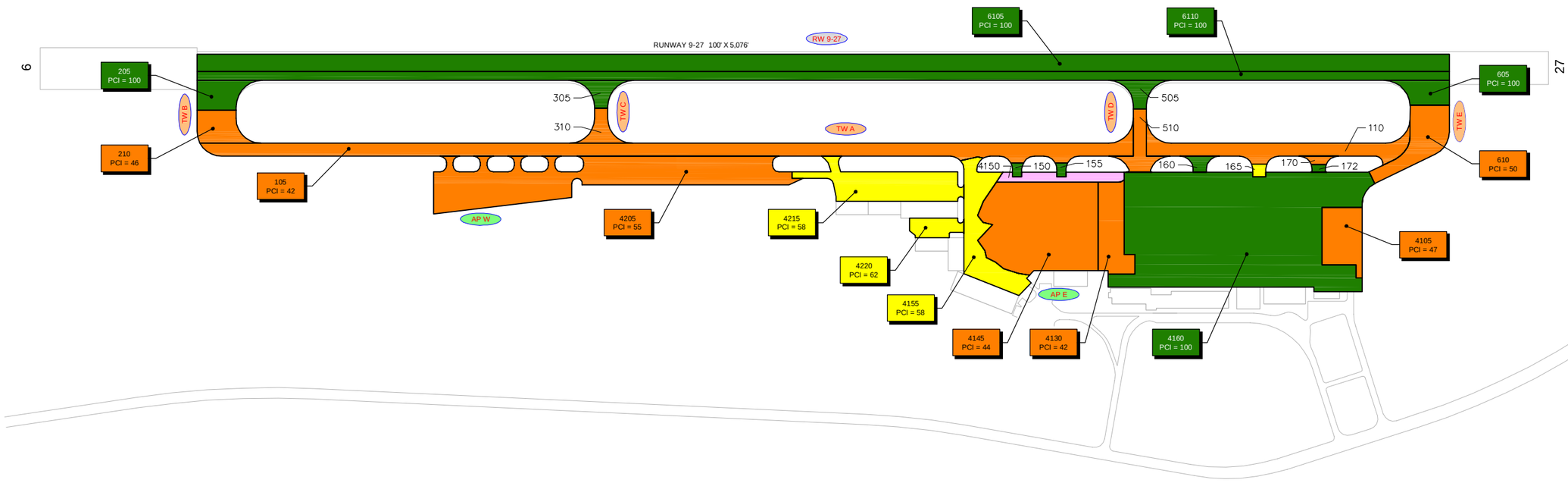


Appendix B

Pavement Condition Index Exhibits



FDOT



110 PCI = 42 | 150 PCI = 88 | 155 PCI = 88 | 160 PCI = 100

165 PCI = 61 | 170 PCI = 43 | 172 PCI = 100 | 305 PCI = 100

310 PCI = 51 | 505 PCI = 100 | 510 PCI = 43 | 4150 PCI = 35

LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID

- PCI 86–100 GOOD
- PCI 71–85 SATISFACTORY
- PCI 56–70 FAIR
- PCI 41–55 POOR
- PCI 26–40 VERY POOR
- PCI 11–25 SERIOUS
- PCI 0–10 FAILED

"SECTION NO."
"PCI NO."

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS.

003 - AIRFIELD PAVEMENT
CONDITION INDEX EXHIBIT

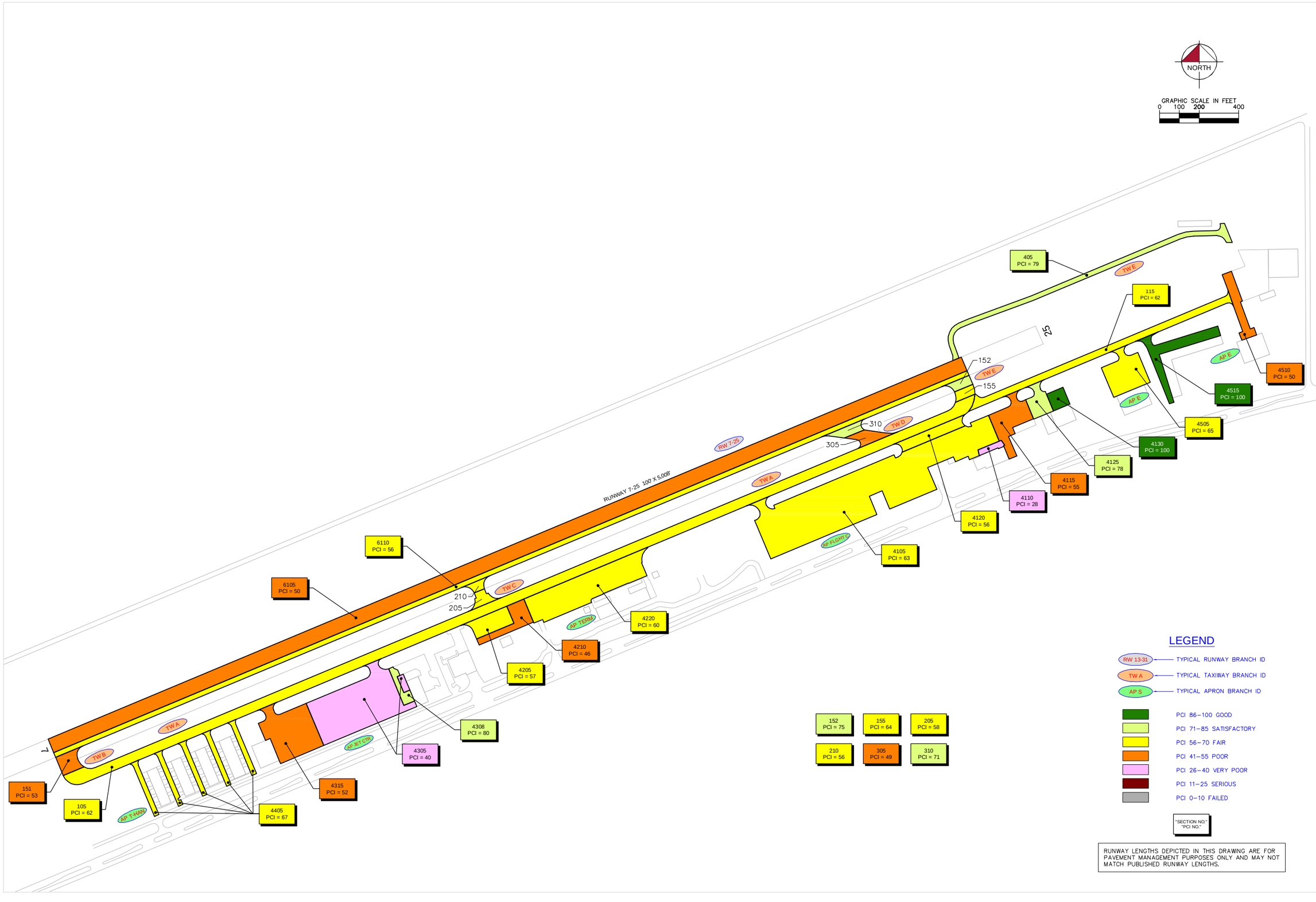
Airport Pavement Evaluation Report

2019

Statewide Airfield Pavement Management Program

KEY WEST INTERNATIONAL AIRPORT - EYW

FDOT



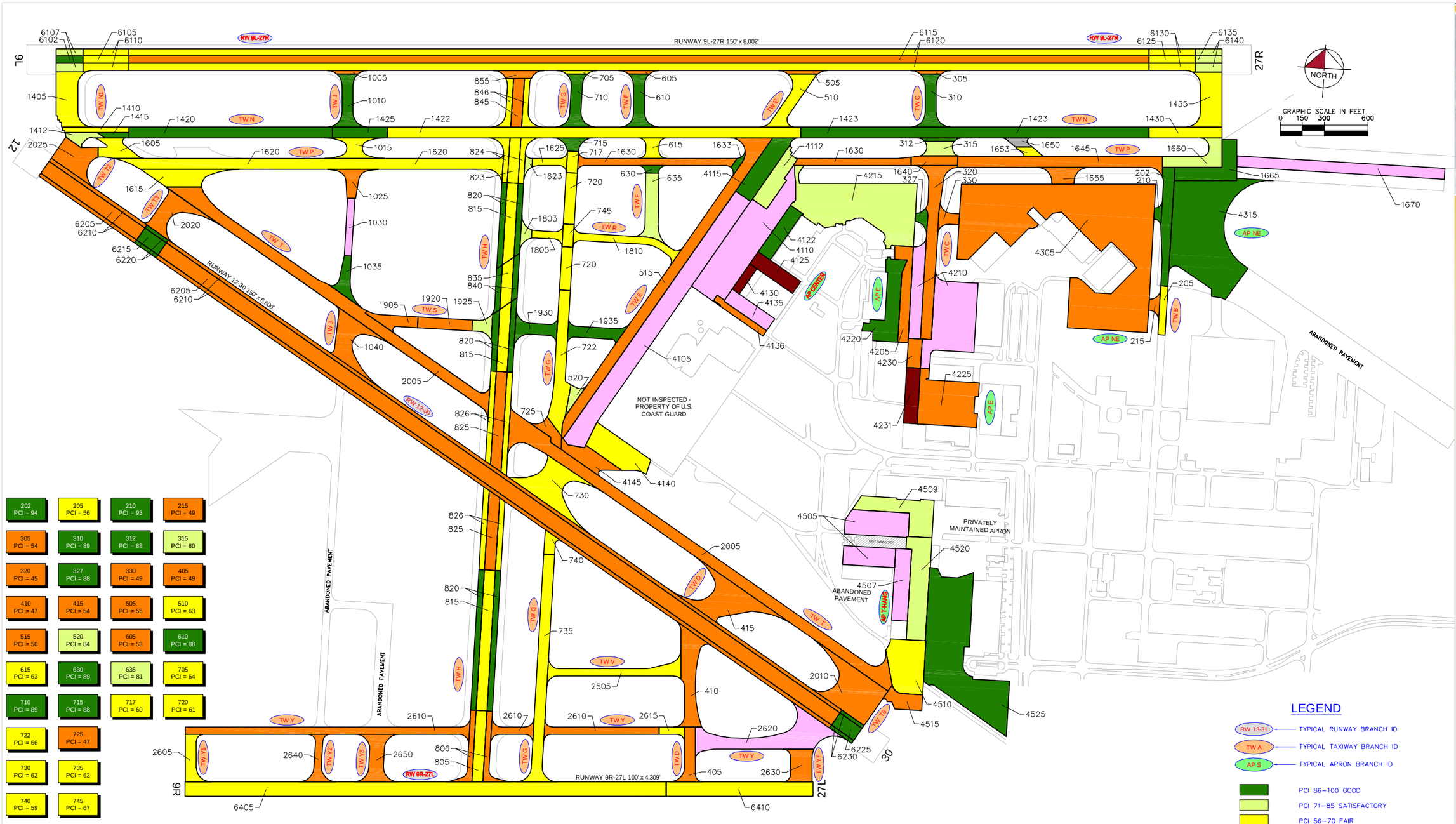
Statewide Airfield Pavement Management Program

Airport Pavement Evaluation Report **2019**

003 - AIRFIELD PAVEMENT CONDITION INDEX EXHIBIT

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT - MTH

FDOT



LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APPRON BRANCH ID

- PCI 86–100 GOOD
- PCI 71–85 SATISFACTORY
- PCI 56–70 FAIR
- PCI 41–55 POOR
- PCI 26–40 VERY POOR
- PCI 11–25 SERIOUS
- PCI 0–10 FAILED

"SECTION NO." "PCI NO."

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS.

202 PCI = 94	205 PCI = 56	210 PCI = 93	215 PCI = 49
305 PCI = 54	310 PCI = 89	312 PCI = 88	315 PCI = 80
320 PCI = 45	327 PCI = 88	330 PCI = 49	405 PCI = 49
410 PCI = 47	415 PCI = 54	505 PCI = 55	510 PCI = 63
515 PCI = 50	520 PCI = 84	605 PCI = 53	610 PCI = 88
615 PCI = 63	630 PCI = 89	635 PCI = 81	705 PCI = 64
710 PCI = 89	715 PCI = 88	717 PCI = 60	720 PCI = 61
722 PCI = 66	725 PCI = 47		
730 PCI = 62	735 PCI = 62		
740 PCI = 59	745 PCI = 67		

805 PCI = 65	806 PCI = 46	815 PCI = 68	820 PCI = 87	823 PCI = 66	824 PCI = 60	825 PCI = 53	826 PCI = 57	835 PCI = 57	840 PCI = 89	845 PCI = 53	846 PCI = 68	855 PCI = 55	1005 PCI = 51	1010 PCI = 91	1015 PCI = 69	1025 PCI = 54	1030 PCI = 39	1035 PCI = 100	1040 PCI = 53	1405 PCI = 70	1410 PCI = 59
1412 PCI = 78	1415 PCI = 92	1420 PCI = 88	1422 PCI = 58	1423 PCI = 89	1425 PCI = 90	1430 PCI = 66	1435 PCI = 68	1605 PCI = 62	1615 PCI = 64	1620 PCI = 61	1623 PCI = 83	1625 PCI = 62	1630 PCI = 50	1633 PCI = 86	1640 PCI = 46	1645 PCI = 48	1650 PCI = 7	1653 PCI = 70	1655 PCI = 49	1660 PCI = 82	1665 PCI = 92
1670 PCI = 38	1803 PCI = 82	1805 PCI = 69	1810 PCI = 65	1905 PCI = 50	1920 PCI = 46	1925 PCI = 83	1930 PCI = 92	1935 PCI = 94	2005 PCI = 48	2010 PCI = 51	2020 PCI = 47	2025 PCI = 52	2505 PCI = 66	2605 PCI = 56	2610 PCI = 46	2615 PCI = 58	2620 PCI = 40	2630 PCI = 48	2640 PCI = 55	2650 PCI = 46	4105 PCI = 35
4110 PCI = 27	4112 PCI = 72	4115 PCI = 93	4122 PCI = 98	4125 PCI = 18	4130 PCI = 20	4135 PCI = 29	4136 PCI = 49	4140 PCI = 60	4145 PCI = 51	4205 PCI = 43	4210 PCI = 36	4215 PCI = 73	4220 PCI = 87	4225 PCI = 54	4230 PCI = 51	4231 PCI = 17	4305 PCI = 41	4315 PCI = 93	4505 PCI = 39	4507 PCI = 33	4509 PCI = 71
4510 PCI = 57	4515 PCI = 45	4520 PCI = 81	4525 PCI = 93	6102 PCI = 88	6105 PCI = 59	6107 PCI = 85	6110 PCI = 61	6115 PCI = 53	6120 PCI = 56	6125 PCI = 64	6130 PCI = 60	6135 PCI = 82	6140 PCI = 79	6205 PCI = 45	6210 PCI = 49	6215 PCI = 92	6220 PCI = 94	6225 PCI = 90	6230 PCI = 90	6405 PCI = 69	6410 PCI = 56

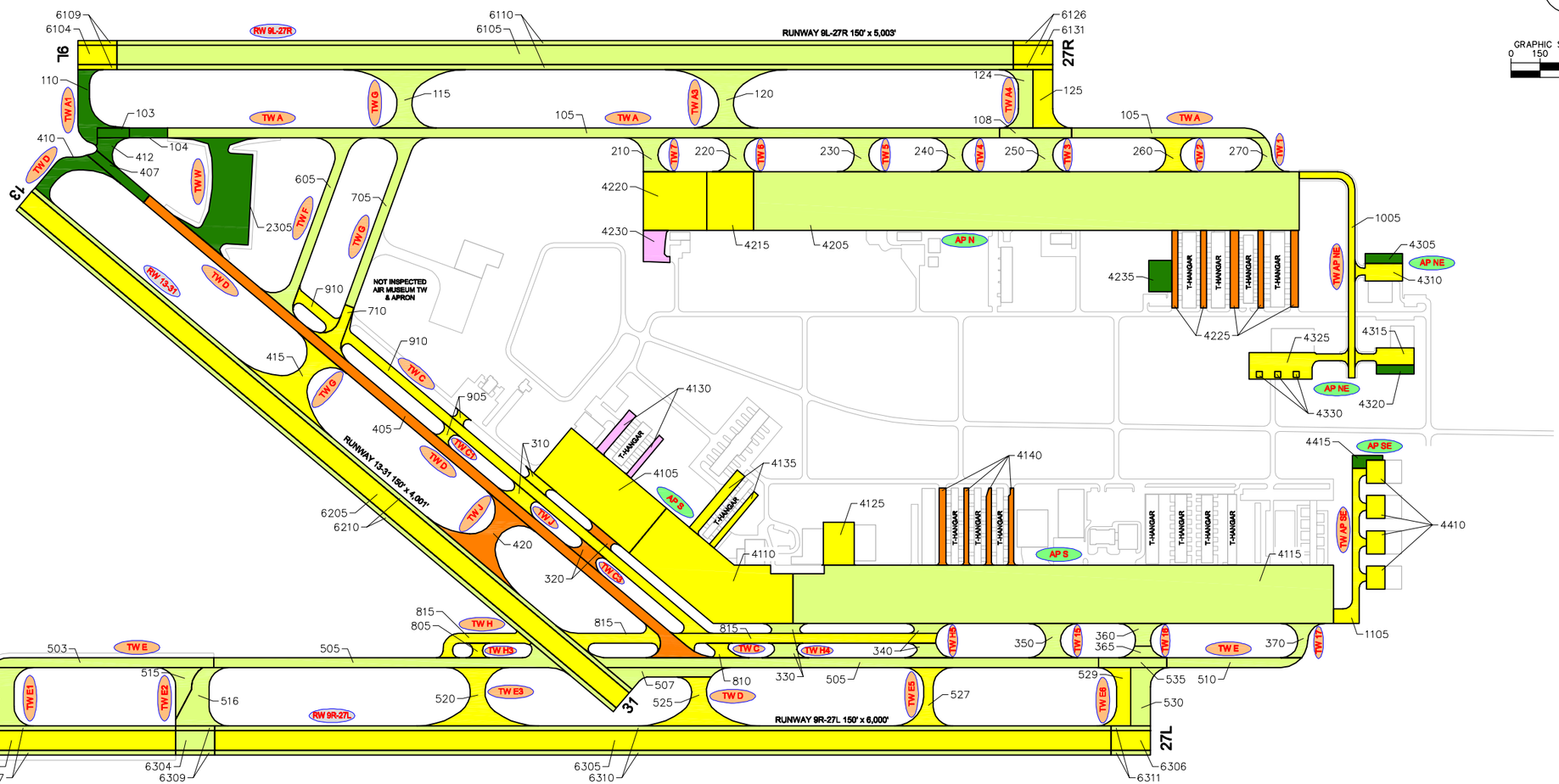
003 - AIRFIELD PAVEMENT CONDITION INDEX EXHIBIT

Airport Pavement Evaluation Report **2019**

Statewide Airfield Pavement Management Program

MIAMI - OPA LOCKA EXECUTIVE AIRPORT - OPF

FDOT



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6110 PCI = 75	6126 PCI = 62	6131 PCI = 70	6205 PCI = 68	6210 PCI = 74	6302 PCI = 64	6304 PCI = 71	6305 PCI = 69	6306 PCI = 70	6307 PCI = 71	6309 PCI = 71	6310 PCI = 75	6311 PCI = 71

LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID

- PCI 86–100 GOOD
- PCI 71–85 SATISFACTORY
- PCI 56–70 FAIR
- PCI 41–55 POOR
- PCI 26–40 VERY POOR
- PCI 11–25 SERIOUS
- PCI 0–10 FAILED

"SECTION NO."
"PCI NO."

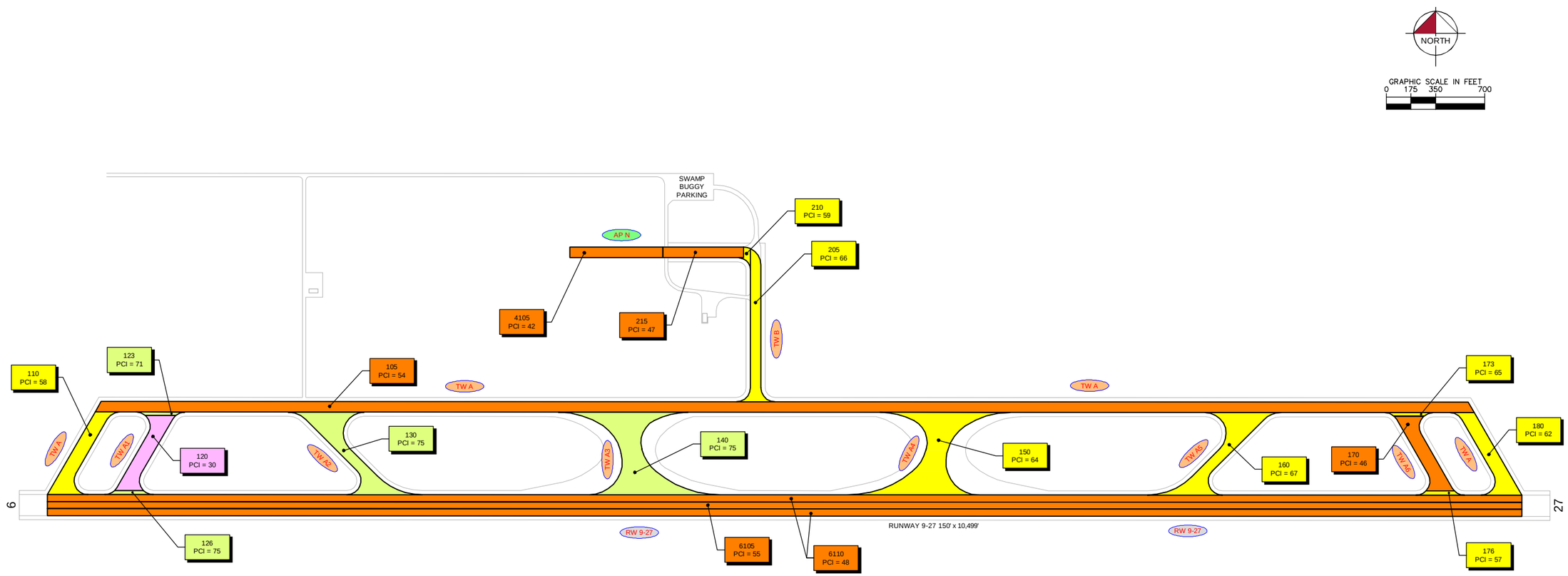
RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS.

003 - AIRFIELD PAVEMENT
CONDITION INDEX EXHIBIT

Airport Pavement Evaluation Report
2019

Statewide Airfield Pavement
Management Program
MIAMI EXECUTIVE AIRPORT - TMB

FDOT



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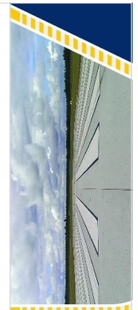


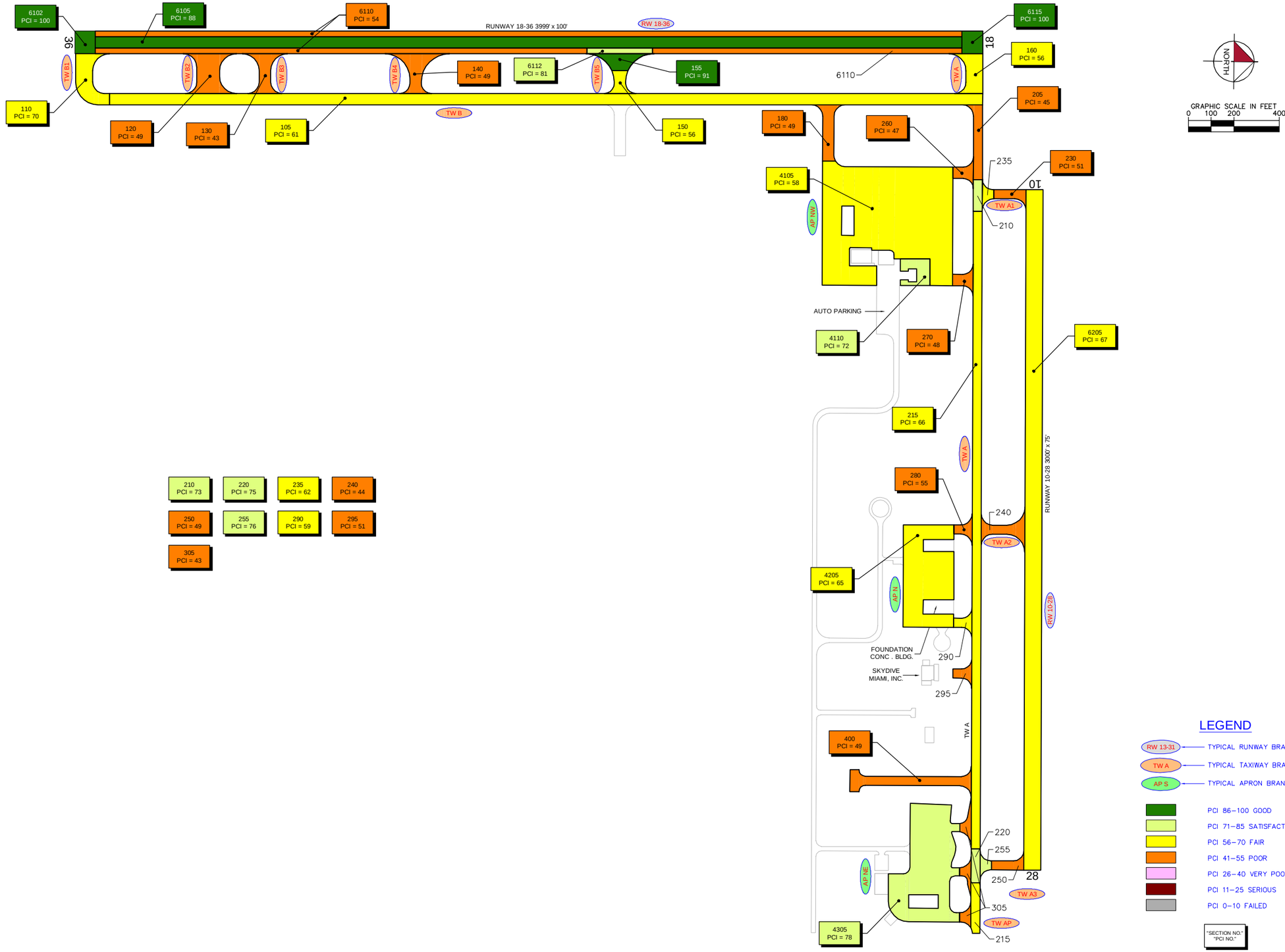
003 - AIRFIELD PAVEMENT CONDITION INDEX EXHIBIT

Airport Pavement Evaluation Report **2017**

Statewide Airfield Pavement Management Program

DADE-COLLIER TRAINING AND TRANSITION AIRPORT - TNT

FDOT



LEGEND

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- AP S — TYPICAL APRON BRANCH ID
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- PCI 71–85 SATISFACTORY
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- PCI 11–25 SERIOUS
- PCI 0–10 FAILED

"SECTION NO."
"PCI NO."

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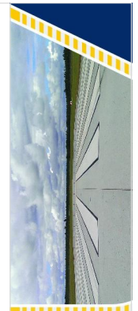

003 - AIRFIELD PAVEMENT
CONDITION INDEX EXHIBIT

Statewide Airfield Pavement Management Program
Airport Pavement Evaluation Report
2017
MIAMI HOMESTEAD GENERAL AVIATION AIRPORT - X51

FDOT

STATEWIDE AIRFIELD PAVEMENT MANAGEMENT PROGRAM

District Airfield Pavement Evaluation Report

DISTRICT 6

Appendix C

Airfield Pavement Major Rehabilitation Tables

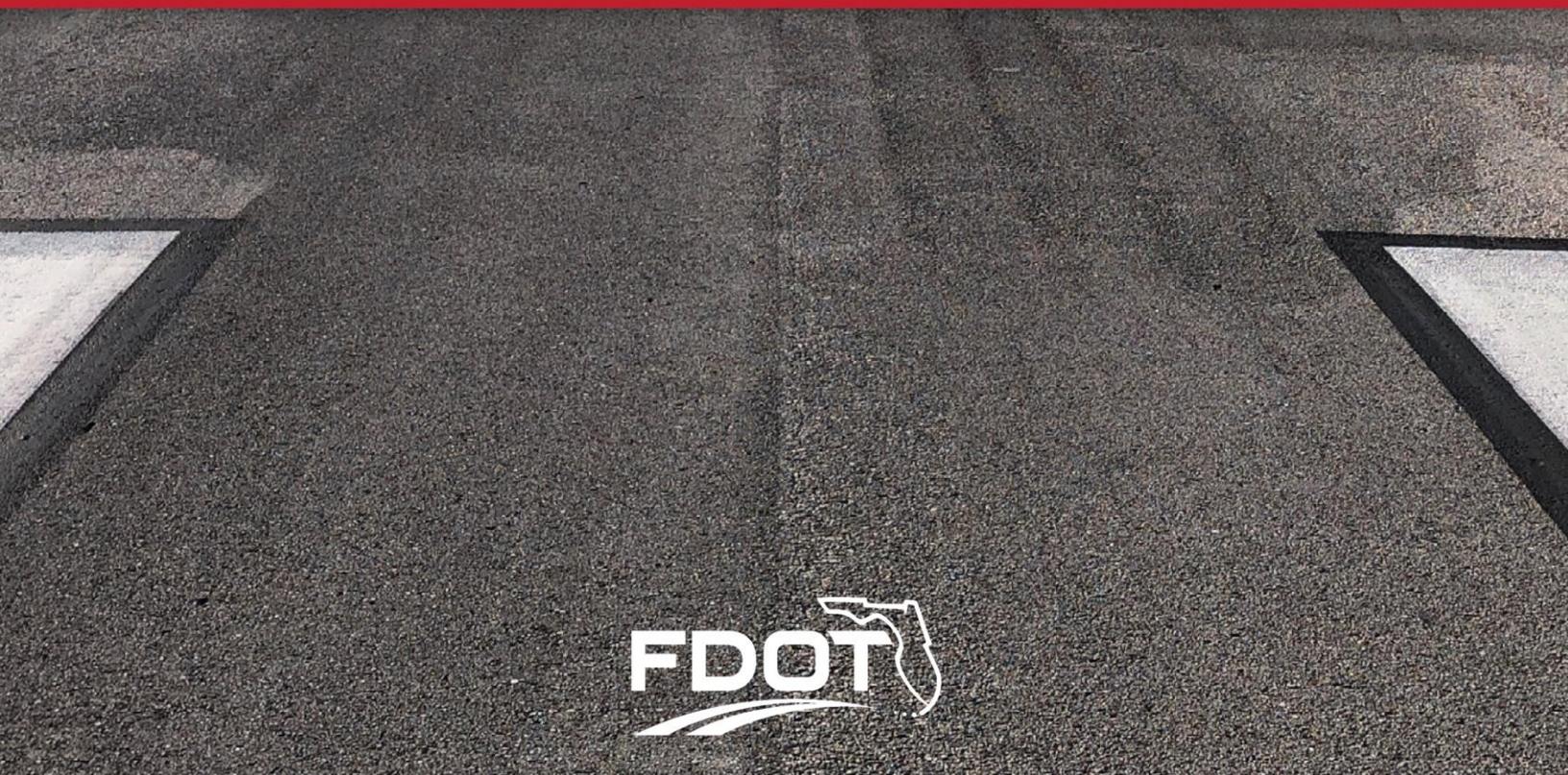

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Table C-1 – 10-Year Major Rehabilitation Planning Needs

Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost
Dade-Collier Training and Transition Airport (TNT)								
2018	TNT	AP N	4105	AAC	49,500	42	AC Restoration	$ 446,000
2018	TNT	RW 9-27	6105	AAC	525,000	55	AC Restoration	$ 3,676,000
2018	TNT	RW 9-27	6110	AAC	1,050,000	48	AC Restoration	$ 8,243,000
2018	TNT	TW A	105	AAC	733,373	54	AC Restoration	$ 5,134,000
2018	TNT	TW A	110	AAC	75,225	58	AC Restoration	$ 527,000
2018	TNT	TW A	180	AAC	75,225	62	AC Restoration	$ 527,000
2018	TNT	TW A1	120	AC	68,780	30	AC Reconstruction	$ 620,000
2018	TNT	TW A4	150	AAC	187,363	64	AC Restoration	$ 1,312,000
2018	TNT	TW A6	170	AC	68,780	46	AC Restoration	$ 553,000
2018	TNT	TW A6	173	AAC	6,394	65	AC Restoration	$ 45,000
2018	TNT	TW A6	176	AAC	7,437	57	AC Restoration	$ 53,000
2018	TNT	TW B	210	AAC	5,222	59	AC Restoration	$ 37,000
2018	TNT	TW B	215	AAC	43,125	47	AC Restoration	$ 335,000
2019	TNT	TW A5	160	AAC	107,503	67	AC Restoration	$ 753,000
2019	TNT	TW B	205	AAC	83,610	66	AC Restoration	$ 586,000
2024	TNT	TW A1	123	AAC	6,394	71	AC Restoration	$ 45,000
Key West International Airport (EYW)								
2020	EYW	AP E	4105	AAC	34,810	47	AC Restoration	$ 431,000
2020	EYW	AP E	4130	AAC	37,772	42	AC Restoration	$ 526,000
2020	EYW	AP E	4145	AAC	145,771	44	AC Restoration	$ 1,941,000
2020	EYW	AP E	4150	AC	16,824	35	AC Reconstruction	$ 236,000
2020	EYW	AP E	4155	AAC	51,364	58	AC Restoration	$ 565,000
2020	EYW	AP W	4205	AC	162,131	55	AC Restoration	$ 1,784,000
2020	EYW	AP W	4215	AC	60,960	58	AC Restoration	$ 671,000
2020	EYW	AP W	4220	AC	13,765	62	AC Restoration	$ 152,000
2020	EYW	TW A	105	AAC	184,302	42	AC Restoration	$ 2,512,000
2020	EYW	TW A	110	AAC	57,310	42	AC Restoration	$ 781,000
2020	EYW	TW A10	165	PCC	2,531	61	PCC Restoration	$ 44,000
2020	EYW	TW A11	170	AC	2,633	43	AC Restoration	$ 36,000
2020	EYW	TW B	210	AAC	20,821	46	AC Restoration	$ 258,000
2020	EYW	TW C	310	AAC	10,524	51	AC Restoration	$ 116,000
2020	EYW	TW D	510	AAC	16,297	43	AC Restoration	$ 217,000
2020	EYW	TW E	610	AAC	37,891	50	AC Restoration	$ 421,000
Miami Executive Airport (TMB)								
2020	TMB	AP N	4215	AAC	72,000	65	AC Restoration	$ 685,000
2020	TMB	AP N	4220	AAC	97,500	56	AC Restoration	$ 927,000
2020	TMB	AP N	4225	AC	69,490	52	AC Restoration	$ 661,000
2020	TMB	AP N	4230	AC	18,795	37	AC Reconstruction	$ 235,000
2020	TMB	AP NE	4310	AC	19,797	60	AC Restoration	$ 189,000
2020	TMB	AP NE	4315	AC	21,176	65	AC Restoration	$ 202,000
2020	TMB	AP NE	4325	AC	49,524	64	AC Restoration	$ 471,000
2020	TMB	AP S	4105	AC	192,000	64	AC Restoration	$ 1,825,000
2020	TMB	AP S	4125	AC	35,371	56	AC Restoration	$ 337,000
2020	TMB	AP S	4130	AC	19,714	33	AC Reconstruction	$ 247,000
2020	TMB	AP S	4135	AC	29,788	56	AC Restoration	$ 283,000

District Airfield Pavement Evaluation Report

Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost
2020	TMB	AP S	4140	AC	43,331	48	AC Restoration	$ 444,000
2020	TMB	AP SE	4410	AC	45,220	58	AC Restoration	$ 430,000
2020	TMB	RW 9L-27R	6104	AC	20,000	60	AC Restoration	$ 191,000
2020	TMB	RW 9L-27R	6109	AC	10,000	63	AC Restoration	$ 96,000
2020	TMB	RW 9L-27R	6126	AC	10,100	62	AC Restoration	$ 96,000
2020	TMB	RW 9R-27L	6302	AC	100,000	64	AC Restoration	$ 951,000
2020	TMB	TW AP NE	1005	AC	44,691	62	AC Restoration	$ 425,000
2020	TMB	TW AP SE	1105	AC	42,727	57	AC Restoration	$ 406,000
2020	TMB	TW C	810	AC	7,744	57	AC Restoration	$ 74,000
2020	TMB	TW C1	905	AC	7,838	62	AC Restoration	$ 75,000
2020	TMB	TW C3	320	AAC	17,567	54	AC Restoration	$ 167,000
2020	TMB	TW D	405	AC	192,147	51	AC Restoration	$ 1,826,000
2020	TMB	TW E5	527	AC	26,267	65	AC Restoration	$ 250,000
2020	TMB	TW E6	529	AC	26,192	60	AC Restoration	$ 249,000
2020	TMB	TW G	415	AC	50,475	60	AC Restoration	$ 480,000
2020	TMB	TW J	310	AAC	17,644	62	AC Restoration	$ 168,000
2020	TMB	TW J	420	AC	50,463	48	AC Restoration	$ 516,000
2022	TMB	AP NE	4330	PCC	2,700	68	PCC Restoration	$ 37,000
2022	TMB	AP S	4110	AAC	253,679	70	AC Restoration	$ 2,411,000
2022	TMB	TW 2	260	AAC	19,697	67	AC Restoration	$ 188,000
2022	TMB	TW C	910	AC	138,069	67	AC Restoration	$ 1,312,000
2023	TMB	AP S	4115	AAC	825,309	71	AC Restoration	$ 7,841,000
2023	TMB	TW A4	125	AC	32,146	68	AC Restoration	$ 306,000
2023	TMB	TW G	710	AC	17,106	68	AC Restoration	$ 163,000
2023	TMB	TW H	815	AAC	119,042	68	AC Restoration	$ 1,131,000
2024	TMB	AP N	4205	AAC	840,000	73	AC Restoration	$ 7,981,000
2024	TMB	RW 13-31	6205	AAC	400,200	68	AC Restoration	$ 3,803,000
2024	TMB	TW H3	805	AC	4,802	70	AC Restoration	$ 46,000
2025	TMB	RW 9R-27L	6305	AAC	460,000	69	AC Restoration	$ 4,371,000
2025	TMB	TW D	525	AAC	41,823	70	AC Restoration	$ 398,000
2025	TMB	TW E3	520	AAC	50,475	70	AC Restoration	$ 480,000
2026	TMB	RW 9R-27L	6304	AAC	20,000	71	AC Restoration	$ 191,000
2026	TMB	RW 9R-27L	6309	AAC	10,000	71	AC Restoration	$ 96,000
2026	TMB	TW 3	250	AAC	19,697	71	AC Restoration	$ 188,000
2026	TMB	TW A	108	AAC	18,500	71	AC Restoration	$ 176,000
2026	TMB	TW A4	124	AC	26,792	72	AC Restoration	$ 255,000
2026	TMB	TW E1	516	AC	38,537	72	AC Restoration	$ 367,000
2027	TMB	TW E	535	AAC	17,500	72	AC Restoration	$ 167,000
2028	TMB	TW 4	240	AAC	19,697	74	AC Restoration	$ 188,000
2028	TMB	TW 7	210	AAC	18,557	74	AC Restoration	$ 177,000
2028	TMB	TW E	507	AAC	30,930	74	AC Restoration	$ 294,000
2028	TMB	TW E1	513	AC	54,092	75	AC Restoration	$ 514,000
2028	TMB	TW E2	515	AAC	19,201	73	AC Restoration	$ 183,000
2028	TMB	TW E6	530	AAC	32,146	73	AC Restoration	$ 306,000
2028	TMB	TW G	705	AAC	51,622	74	AC Restoration	$ 491,000
2028	TMB	TW H4	330	AAC	18,456	74	AC Restoration	$ 176,000
2029	TMB	RW 13-31	6210	AAC	200,100	74	AC Restoration	$ 1,902,000
2029	TMB	RW 9L-27R	6131	AC	20,200	70	AC Restoration	$ 192,000

District Airfield Pavement Evaluation Report

Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost
2029	TMB	RW 9R-27L	6306	AC	20,100	70	AC Restoration	$ 191,000
Miami Homestead General Aviation Airport (X51)								
2018	X51	AP N	4205	AC	85,048	65	AC Restoration	$ 596,000
2018	X51	AP NW	4105	AC	255,472	58	AC Restoration	$ 1,789,000
2018	X51	RW 18-36	6110	AC	183,750	54	AC Restoration	$ 1,287,000
2018	X51	TW A	160	AC	14,699	56	AC Restoration	$ 103,000
2018	X51	TW A	205	AC	13,738	45	AC Restoration	$ 114,000
2018	X51	TW A	260	AC	5,369	47	AC Restoration	$ 43,000
2018	X51	TW A	270	AC	5,369	48	AC Restoration	$ 41,000
2018	X51	TW A	280	AC	4,273	55	AC Restoration	$ 30,000
2018	X51	TW A	290	AC	4,069	59	AC Restoration	$ 29,000
2018	X51	TW A	295	AC	4,189	51	AC Restoration	$ 30,000
2018	X51	TW A1	230	AC	6,237	51	AC Restoration	$ 44,000
2018	X51	TW A1	235	AAC	2,971	62	AC Restoration	$ 21,000
2018	X51	TW A2	240	AC	11,520	44	AC Restoration	$ 98,000
2018	X51	TW A3	250	AC	6,135	49	AC Restoration	$ 46,000
2018	X51	TW AP	305	AAC	10,104	43	AC Restoration	$ 87,000
2018	X51	TW B	105	AC	192,408	61	AC Restoration	$ 1,347,000
2018	X51	TW B	180	AC	13,513	49	AC Restoration	$ 101,000
2018	X51	TW B2	120	AC	21,223	49	AC Restoration	$ 158,000
2018	X51	TW B3	130	AC	12,237	43	AC Restoration	$ 106,000
2018	X51	TW B4	140	AC	15,569	49	AC Restoration	$ 116,000
2018	X51	TW B5	150	AC	6,211	56	AC Restoration	$ 44,000
2018	X51	TW C	400	AC	24,975	49	AC Restoration	$ 186,000
2019	X51	RW 10-28	6205	AAC	224,925	67	AC Restoration	$ 1,575,000
2019	X51	TW A	215	AC	121,199	66	AC Restoration	$ 849,000
2022	X51	AP NW	4110	AC	11,958	72	AC Restoration	$ 84,000
2023	X51	TW B1	110	AAC	20,223	70	AC Restoration	$ 142,000
2025	X51	RW 18-36	6112	AAC	7,250	81	AC Restoration	$ 51,000
2026	X51	AP NE	4305	AC	109,902	78	AC Restoration	$ 770,000
2026	X51	TW A	210	AAC	5,600	73	AC Restoration	$ 40,000
Miami-Opa Locka Executive (OPF)								
2020	OPF	AP CENTER	4105	AAC	263,317	35	AC Reconstruction	$ 3,292,000
2020	OPF	AP CENTER	4110	PCC	205,407	27	PCC Reconstruction	$ 4,109,000
2020	OPF	AP CENTER	4125	PCC	35,700	18	PCC Reconstruction	$ 715,000
2020	OPF	AP CENTER	4130	PCC	12,508	20	PCC Reconstruction	$ 251,000
2020	OPF	AP CENTER	4135	PCC	35,672	29	PCC Reconstruction	$ 714,000
2020	OPF	AP CENTER	4136	PCC	18,019	49	PCC Restoration	$ 262,000
2020	OPF	AP CENTER	4140	AAC	72,314	60	AC Restoration	$ 688,000
2020	OPF	AP CENTER	4145	AAC	37,559	51	AC Restoration	$ 357,000
2020	OPF	AP E	4205	AC	49,389	43	AC Restoration	$ 581,000
2020	OPF	AP E	4210	AC	209,760	36	AC Reconstruction	$ 2,623,000
2020	OPF	AP E	4225	AC	126,677	54	AC Restoration	$ 1,204,000
2020	OPF	AP E	4230	AC	19,060	51	AC Restoration	$ 182,000
2020	OPF	AP E	4231	AC	36,290	17	AC Reconstruction	$ 454,000
2020	OPF	AP NE	4305	AC	695,920	41	AC Restoration	$ 8,601,000
2020	OPF	AP T-HANG	4505	AC	118,793	39	AC Reconstruction	$ 1,485,000
2020	OPF	AP T-HANG	4507	AC	53,737	33	AC Reconstruction	$ 672,000

District Airfield Pavement Evaluation Report

Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost
2020	OPF	AP T-HANG	4510	AC	88,298	57	AC Restoration	$ 839,000
2020	OPF	AP T-HANG	4515	AC	26,770	45	AC Restoration	$ 299,000
2020	OPF	RW 12-30	6205	AC	643,500	45	AC Restoration	$ 7,253,000
2020	OPF	RW 12-30	6210	AC	321,750	49	AC Restoration	$ 3,239,000
2020	OPF	RW 9L-27R	6105	APC	15,750	59	AC Restoration	$ 150,000
2020	OPF	RW 9L-27R	6110	APC	31,856	61	AC Restoration	$ 303,000
2020	OPF	RW 9L-27R	6115	AAC	350,000	53	AC Restoration	$ 3,326,000
2020	OPF	RW 9L-27R	6120	AAC	700,000	56	AC Restoration	$ 6,651,000
2020	OPF	RW 9L-27R	6125	APC	15,850	64	AC Restoration	$ 151,000
2020	OPF	RW 9L-27R	6130	APC	32,104	60	AC Restoration	$ 305,000
2020	OPF	RW 9R-27L	6410	AAC	100,600	56	AC Restoration	$ 956,000
2020	OPF	TL P	1670	AC	107,164	38	AC Reconstruction	$ 1,340,000
2020	OPF	TW B	205	AC	16,728	56	AC Restoration	$ 159,000
2020	OPF	TW B	215	AC	7,653	49	AC Restoration	$ 76,000
2020	OPF	TW C	305	AAC	4,608	54	AC Restoration	$ 44,000
2020	OPF	TW C	320	AC	101,022	45	AC Restoration	$ 1,121,000
2020	OPF	TW C	330	AC	13,347	49	AC Restoration	$ 133,000
2020	OPF	TW D	405	AAC	30,808	49	AC Restoration	$ 307,000
2020	OPF	TW D	410	AC	71,495	47	AC Restoration	$ 752,000
2020	OPF	TW D	415	AC	87,770	54	AC Restoration	$ 834,000
2020	OPF	TW E	505	AAC	6,116	55	AC Restoration	$ 59,000
2020	OPF	TW E	510	AC	40,471	63	AC Restoration	$ 385,000
2020	OPF	TW E	515	AAC	192,006	50	AC Restoration	$ 1,852,000
2020	OPF	TW F	605	AAC	4,608	53	AC Restoration	$ 44,000
2020	OPF	TW F	615	AAC	14,748	63	AC Restoration	$ 141,000
2020	OPF	TW G	705	AAC	4,620	64	AC Restoration	$ 44,000
2020	OPF	TW G	717	AC	11,084	60	AC Restoration	$ 106,000
2020	OPF	TW G	720	AC	48,730	61	AC Restoration	$ 463,000
2020	OPF	TW G	725	AC	16,579	47	AC Restoration	$ 175,000
2020	OPF	TW G	730	AC	82,966	62	AC Restoration	$ 789,000
2020	OPF	TW G	735	AC	121,482	62	AC Restoration	$ 1,155,000
2020	OPF	TW G	740	AC	11,329	59	AC Restoration	$ 108,000
2020	OPF	TW H	805	AAC	36,541	65	AC Restoration	$ 348,000
2020	OPF	TW H	806	AC	41,939	46	AC Restoration	$ 453,000
2020	OPF	TW H	824	AAC	27,651	60	AC Restoration	$ 263,000
2020	OPF	TW H	825	AC	89,179	53	AC Restoration	$ 848,000
2020	OPF	TW H	826	AC	89,179	57	AC Restoration	$ 848,000
2020	OPF	TW H	835	AC	22,875	57	AC Restoration	$ 218,000
2020	OPF	TW H	845	AAC	24,981	53	AC Restoration	$ 238,000
2020	OPF	TW H	855	AC	12,262	55	AC Restoration	$ 117,000
2020	OPF	TW J	1005	AAC	4,608	51	AC Restoration	$ 44,000
2020	OPF	TW J	1025	AC	19,915	54	AC Restoration	$ 190,000
2020	OPF	TW J	1030	AC	19,750	39	AC Reconstruction	$ 247,000
2020	OPF	TW J	1040	AC	57,601	53	AC Restoration	$ 548,000
2020	OPF	TW N	1410	PCC	16,875	59	PCC Restoration	$ 228,000
2020	OPF	TW N	1422	AAC	212,770	58	AC Restoration	$ 2,022,000
2020	OPF	TW P	1605	AC	27,346	62	AC Restoration	$ 260,000
2020	OPF	TW P	1615	AC	46,478	64	AC Restoration	$ 442,000
2020	OPF	TW P	1620	AC	194,846	61	AC Restoration	$ 1,852,000

District Airfield Pavement Evaluation Report

Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost
2020	OPF	TW P	1625	AAC	13,111	62	AC Restoration	$ 125,000
2020	OPF	TW P	1630	AAC	95,088	50	AC Restoration	$ 917,000
2020	OPF	TW P	1640	AC	20,800	46	AC Restoration	$ 225,000
2020	OPF	TW P	1645	AAC	107,175	48	AC Restoration	$ 1,099,000
2020	OPF	TW P	1650	AC	8,040	7	AC Reconstruction	$ 101,000
2020	OPF	TW P	1655	AC	21,542	49	AC Restoration	$ 214,000
2020	OPF	TW R	1810	AAC	39,059	65	AC Restoration	$ 372,000
2020	OPF	TW S	1905	AC	24,074	50	AC Restoration	$ 232,000
2020	OPF	TW S	1920	AAC	28,125	46	AC Restoration	$ 306,000
2020	OPF	TW T	2005	AC	483,018	48	AC Restoration	$ 4,931,000
2020	OPF	TW T2	2025	AC	50,517	52	AC Restoration	$ 480,000
2020	OPF	TW T3	2020	AC	45,497	47	AC Restoration	$ 478,000
2020	OPF	TW T8	2010	AC	106,822	51	AC Restoration	$ 1,015,000
2020	OPF	TW Y	2610	AC	157,256	46	AC Restoration	$ 1,699,000
2020	OPF	TW Y	2615	AAC	9,287	58	AC Restoration	$ 89,000
2020	OPF	TW Y	2620	AC	117,770	40	AC Reconstruction	$ 1,473,000
2020	OPF	TW Y1	2605	AC	27,058	56	AC Restoration	$ 258,000
2020	OPF	TW Y2	2640	AC	21,687	55	AC Restoration	$ 207,000
2020	OPF	TW Y3	2650	AC	41,211	46	AC Restoration	$ 446,000
2020	OPF	TW Y7	2630	AC	34,246	48	AC Restoration	$ 350,000
2021	OPF	TW G	722	AC	82,424	66	AC Restoration	$ 784,000
2021	OPF	TW H	823	AAC	23,324	66	AC Restoration	$ 222,000
2021	OPF	TW N	1430	PCC	37,642	66	PCC Restoration	$ 509,000
2021	OPF	TW V	2505	AC	55,249	66	AC Restoration	$ 525,000
2022	OPF	TW G	745	AAC	11,850	67	AC Restoration	$ 113,000
2023	OPF	AP T-HANG	4509	AAC	77,168	71	AC Restoration	$ 734,000
2023	OPF	TW H	815	AAC	146,625	68	AC Restoration	$ 1,393,000
2023	OPF	TW H	846	AAC	29,637	68	AC Restoration	$ 282,000
2023	OPF	TW J	1015	AC	22,454	69	AC Restoration	$ 214,000
2023	OPF	TW N	1435	PCC	59,701	68	PCC Restoration	$ 806,000
2024	OPF	TW R	1805	AAC	11,751	69	AC Restoration	$ 112,000
2025	OPF	AP E	4215	AC	260,110	73	AC Restoration	$ 2,472,000
2025	OPF	RW 9R-27L	6405	AAC	330,300	69	AC Restoration	$ 3,138,000
2025	OPF	TW N1	1405	PCC	58,242	70	PCC Restoration	$ 787,000
2025	OPF	TW P	1653	AAC	7,774	70	AC Restoration	$ 74,000
2026	OPF	AP CENTER	4112	PCC	45,995	72	PCC Restoration	$ 621,000
2027	OPF	AP T-HANG	4520	AAC	96,743	81	AC Restoration	$ 920,000
The Florida Keys Marathon (MTH)								
2020	MTH	AP E	4505	AC	35,198	65	AC Restoration	$ 247,000
2020	MTH	AP E	4510	AC	17,050	50	AC Restoration	$ 122,000
2020	MTH	AP FLGHT C	4105	AC	269,634	63	AC Restoration	$ 1,888,000
2020	MTH	AP FLGHT C	4110	PCC	4,020	28	PCC Reconstruction	$ 61,000
2020	MTH	AP FLGHT C	4115	AC	31,238	55	AC Restoration	$ 219,000
2020	MTH	AP FLGHT C	4120	AAC	18,521	56	AC Restoration	$ 130,000
2020	MTH	AP JET CTR	4305	AC	112,985	40	AC Reconstruction	$ 1,017,000
2020	MTH	AP JET CTR	4315	AC	60,631	52	AC Restoration	$ 425,000
2020	MTH	AP TERM	4205	AAC	20,012	57	AC Restoration	$ 141,000
2020	MTH	AP TERM	4210	AC	18,371	46	AC Restoration	$ 146,000

District Airfield Pavement Evaluation Report

Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost
2020	MTH	AP TERM	4220	PCC	87,363	60	PCC Restoration	$ 874,000
2020	MTH	RW 7-25	6105	AAC	375,600	50	AC Restoration	$ 2,721,000
2020	MTH	RW 7-25	6110	AAC	125,200	56	AC Restoration	$ 877,000
2020	MTH	TW A	105	AAC	252,877	62	AC Restoration	$ 1,771,000
2020	MTH	TW A	115	AC	50,654	62	AC Restoration	$ 355,000
2020	MTH	TW B	151	AAC	10,711	53	AC Restoration	$ 75,000
2020	MTH	TW C	205	AAC	6,247	58	AC Restoration	$ 44,000
2020	MTH	TW C	210	AAC	3,873	56	AC Restoration	$ 28,000
2020	MTH	TW D	305	AAC	9,290	49	AC Restoration	$ 68,000
2020	MTH	TW E	155	AAC	5,103	64	AC Restoration	$ 36,000
2021	MTH	AP T-HAN	4405	AC	37,284	67	AC Restoration	$ 261,000
2026	MTH	TW D	310	AAC	7,468	71	AC Restoration	$ 53,000
2027	MTH	AP JET CTR	4308	PCC	7,543	80	PCC Restoration	$ 76,000
2028	MTH	AP FLGHT C	4125	AC	14,266	78	AC Restoration	$ 100,000

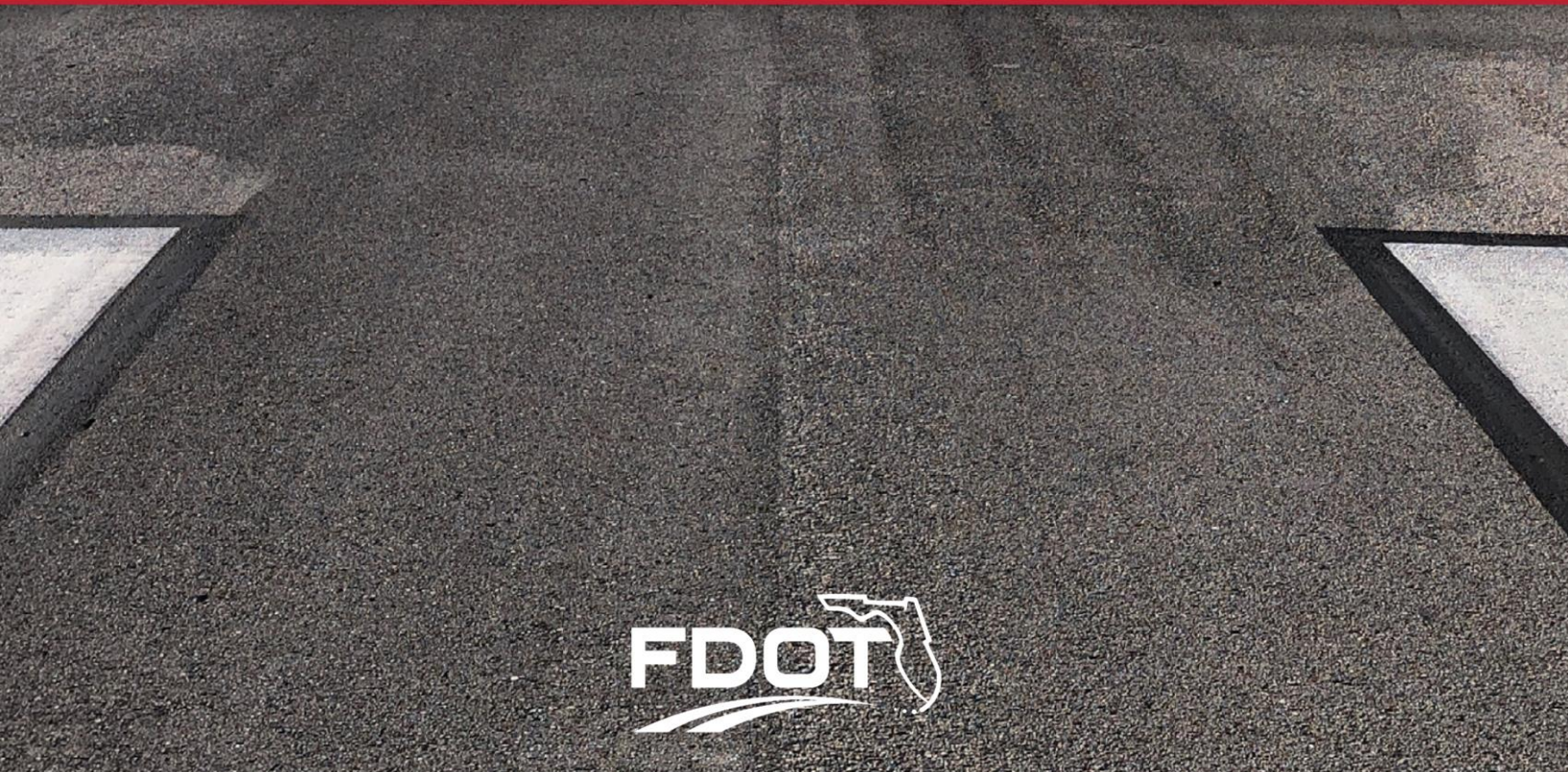
STATEWIDE AIRFIELD PAVEMENT MANAGEMENT PROGRAM

District Airfield Pavement Evaluation Report

DISTRICT 6

Appendix D

Major Rehabilitation Exhibits



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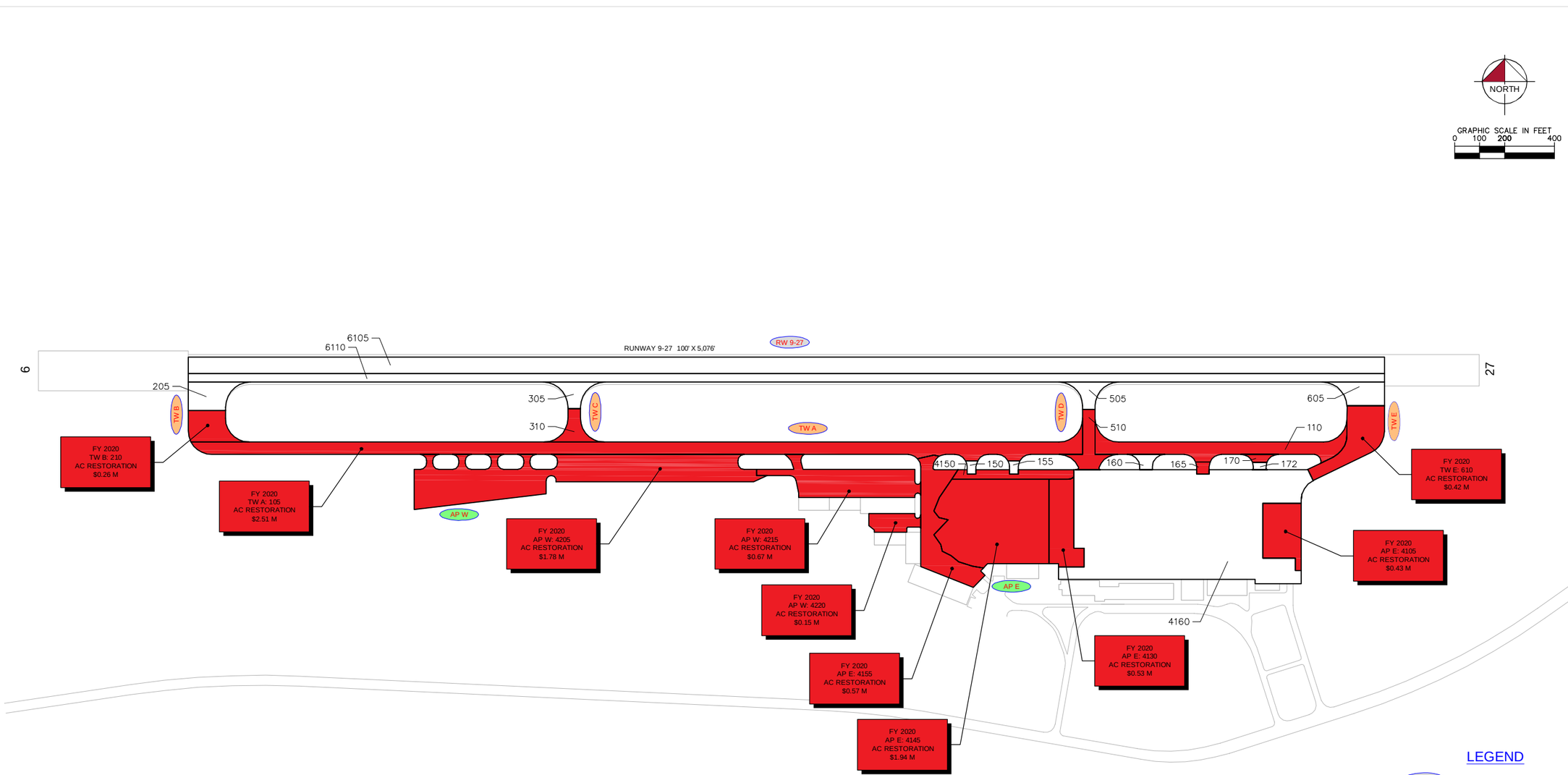


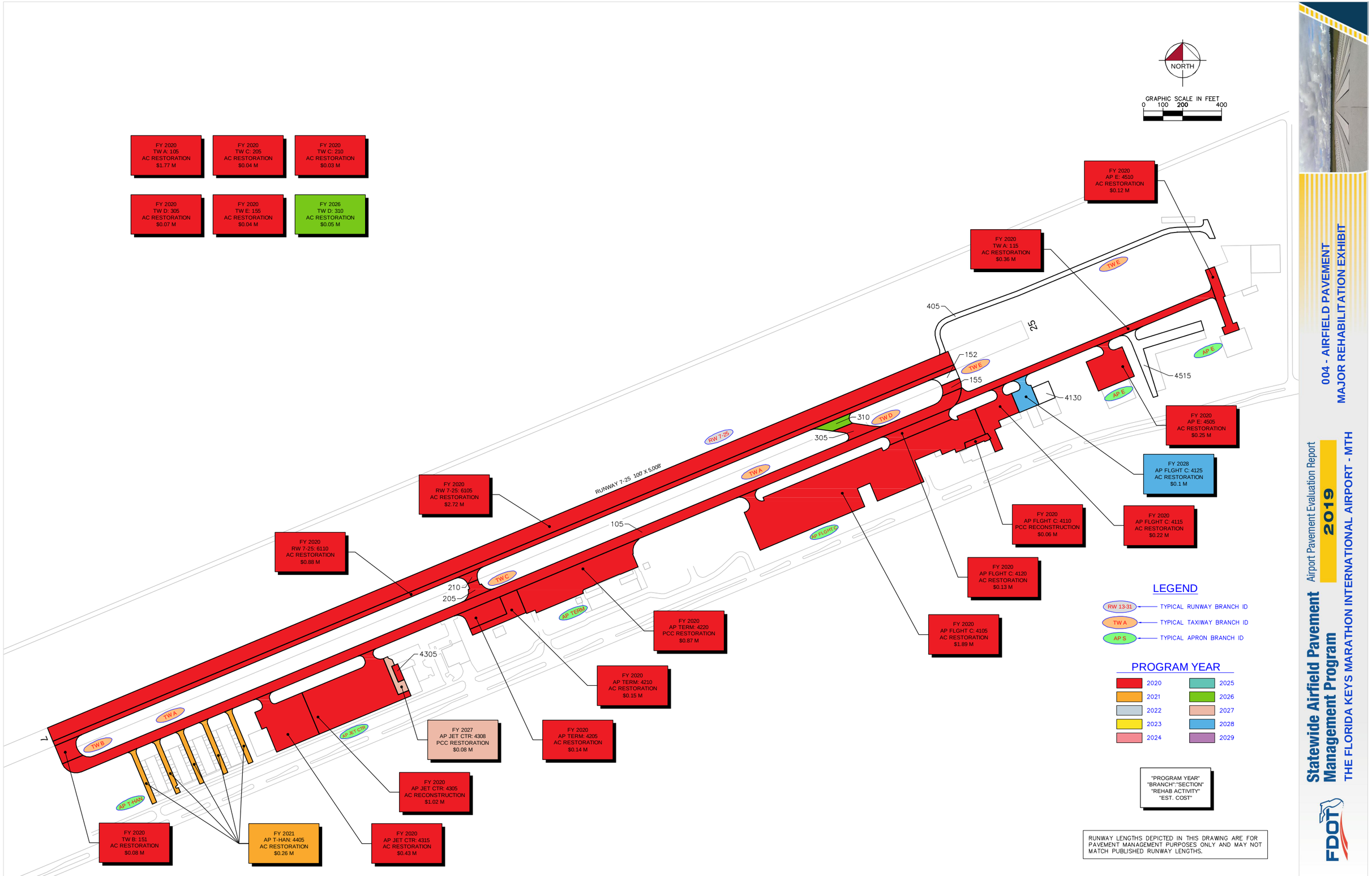
004 - AIRFIELD PAVEMENT
MAJOR REHABILITATION EXHIBIT

Airport Pavement Evaluation Report 2019

Statewide Airfield Pavement Management Program

KEY WEST INTERNATIONAL AIRPORT - EYW

FDOT



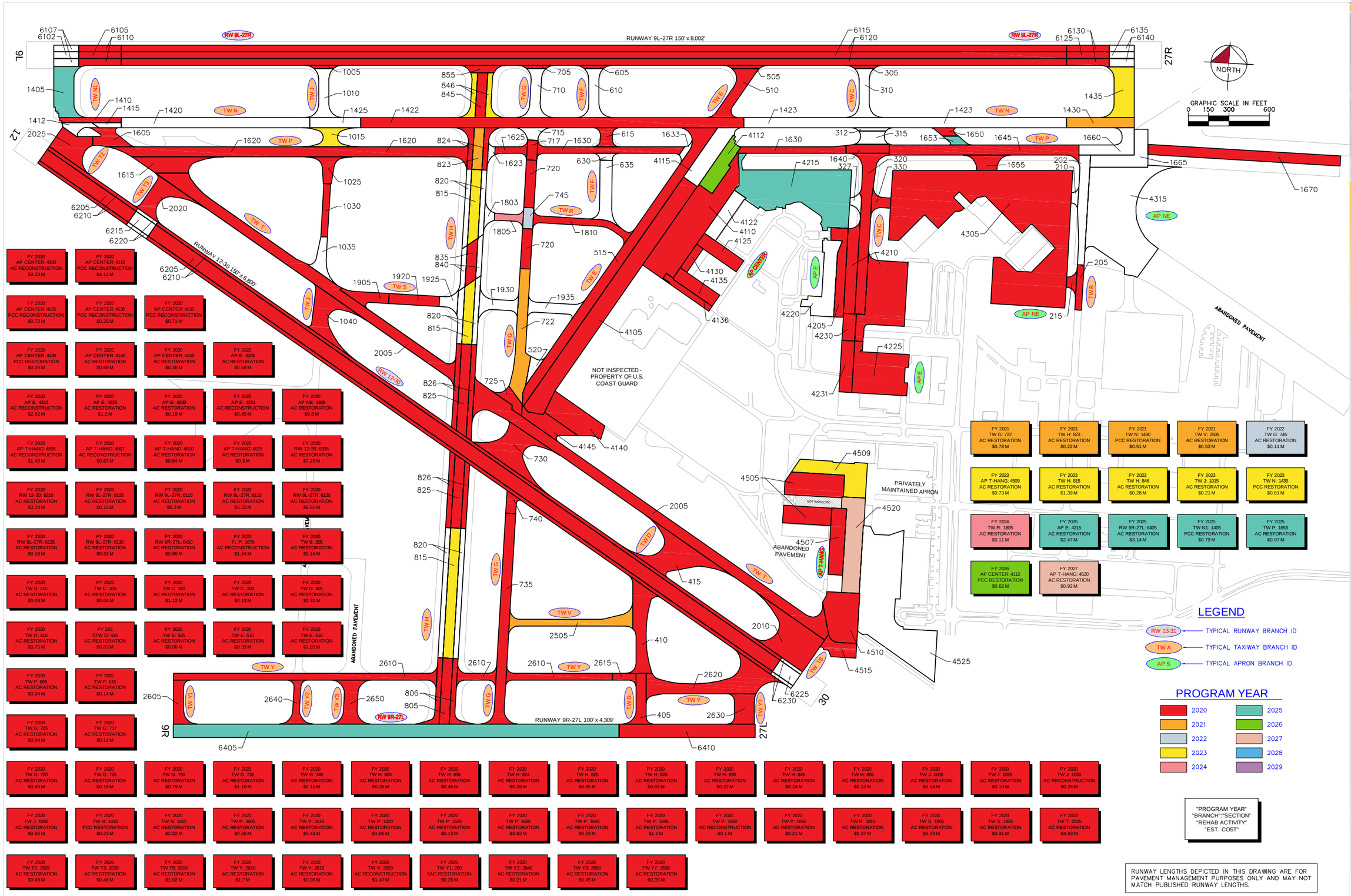
004 - AIRFIELD PAVEMENT
MAJOR REHABILITATION EXHIBIT

Airport Pavement Evaluation Report
2019

Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT - MTH

FDOT



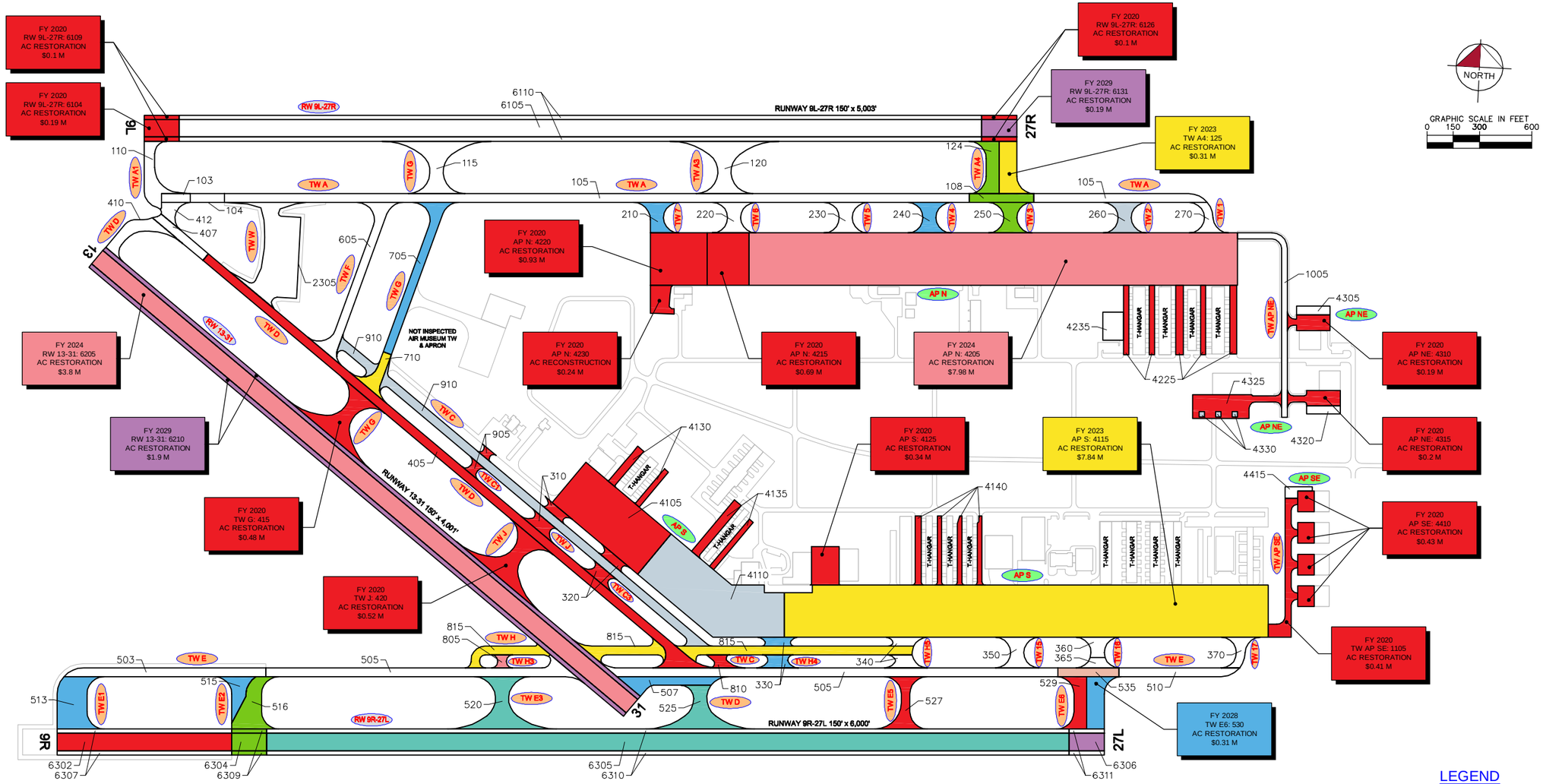
Statewide Airfield Pavement Management Program

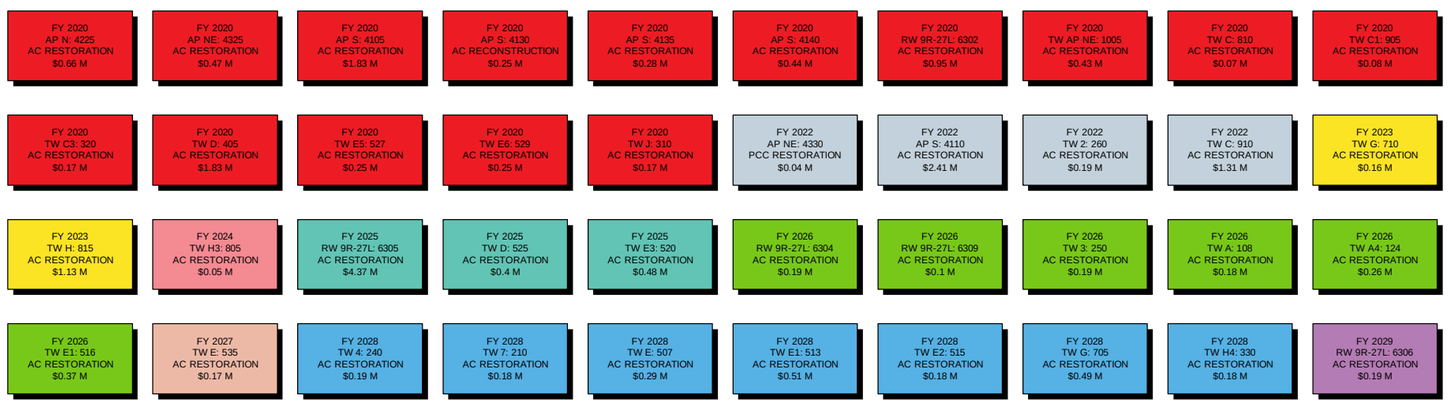
Airport Pavement Evaluation Report 2019

004 - AIRFIELD PAVEMENT MAJOR REHABILITATION EXHIBIT

MIAMI - OPA LOCKA EXECUTIVE AIRPORT - OPF

FDOT





LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID

PROGRAM YEAR

2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029

"PROGRAM YEAR"
"BRANCH":"SECTION"
"REHAB ACTIVITY"
"EST. COST"

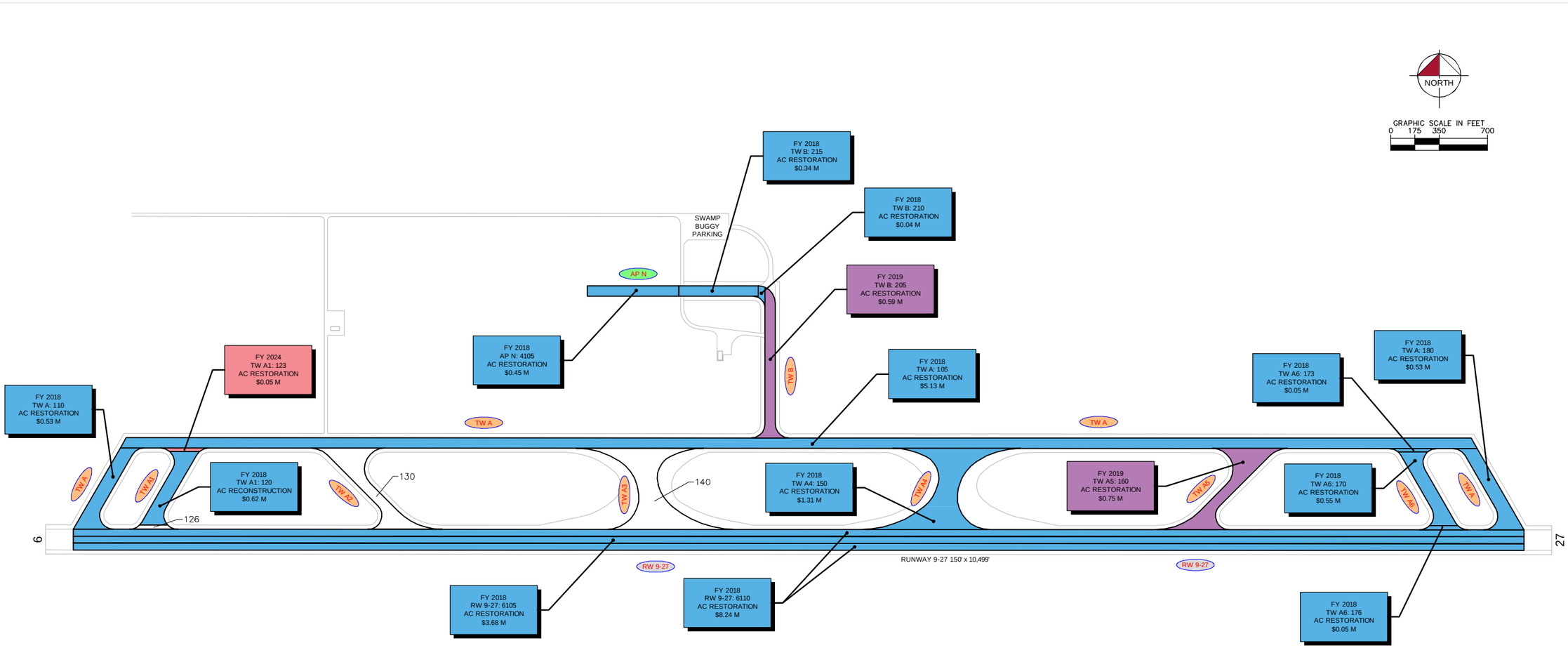
RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS.

004 - AIRFIELD PAVEMENT
MAJOR REHABILITATION EXHIBIT

Airport Pavement Evaluation Report
2019

Statewide Airfield Pavement Management Program
MIAMI EXECUTIVE AIRPORT - TMB

FDOT



LEGEND

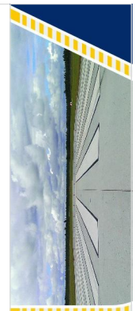
- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID

PROGRAM YEAR

2018	2023
2019	2024
2020	2025
2021	2026
2022	2027

"PROGRAM YEAR"
"BRANCH":"SECTION"
"REHAB ACTIVITY"
"EST. COST"

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS.



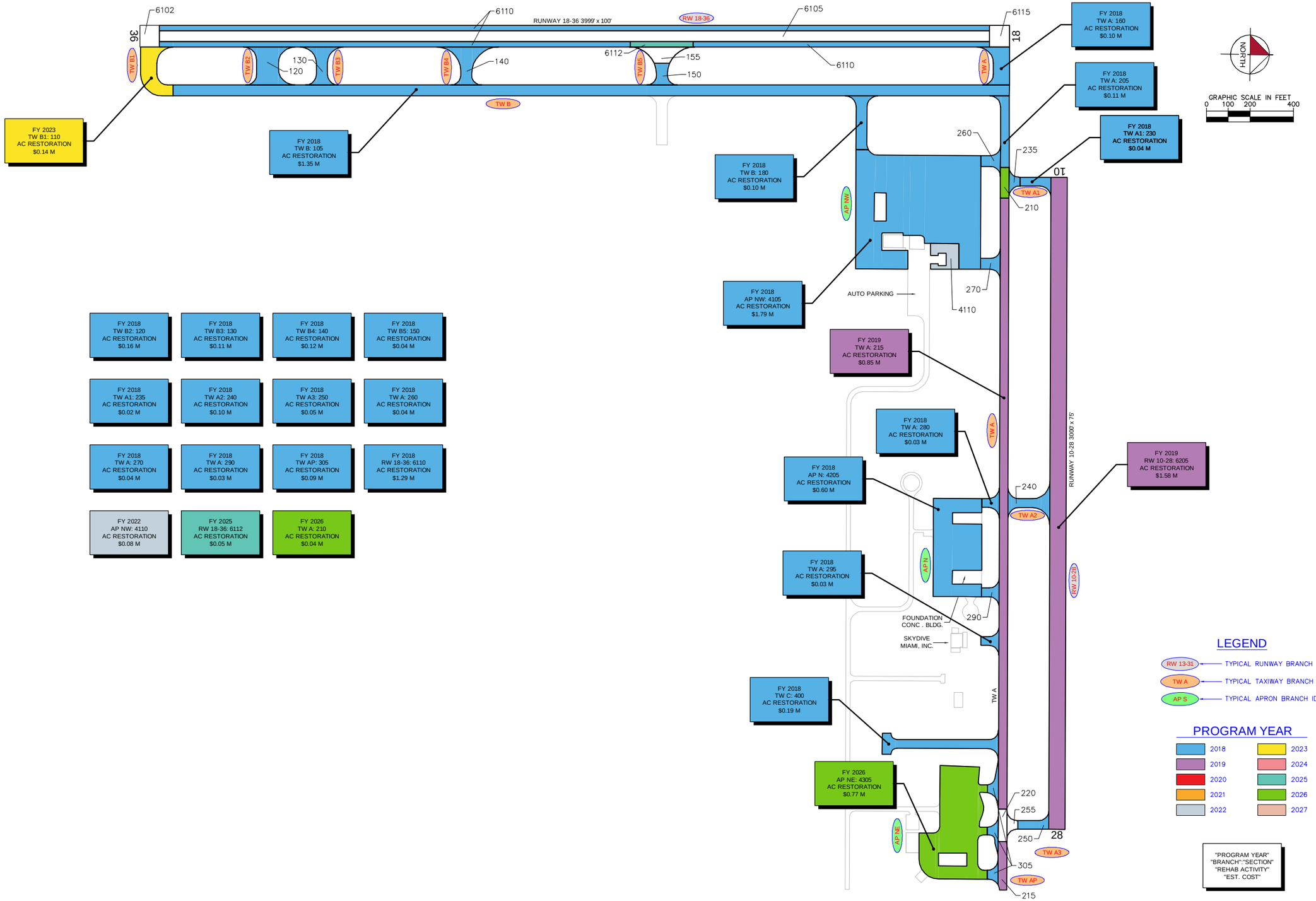
004 - AIRFIELD PAVEMENT
MAJOR REHABILITATION EXHIBIT

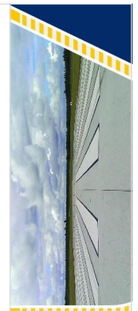
Airport Pavement Evaluation Report
2017

Statewide Airfield Pavement Management Program

DADE-COLLIER TRAINING AND TRANSITION AIRPORT - TNT

FDOT





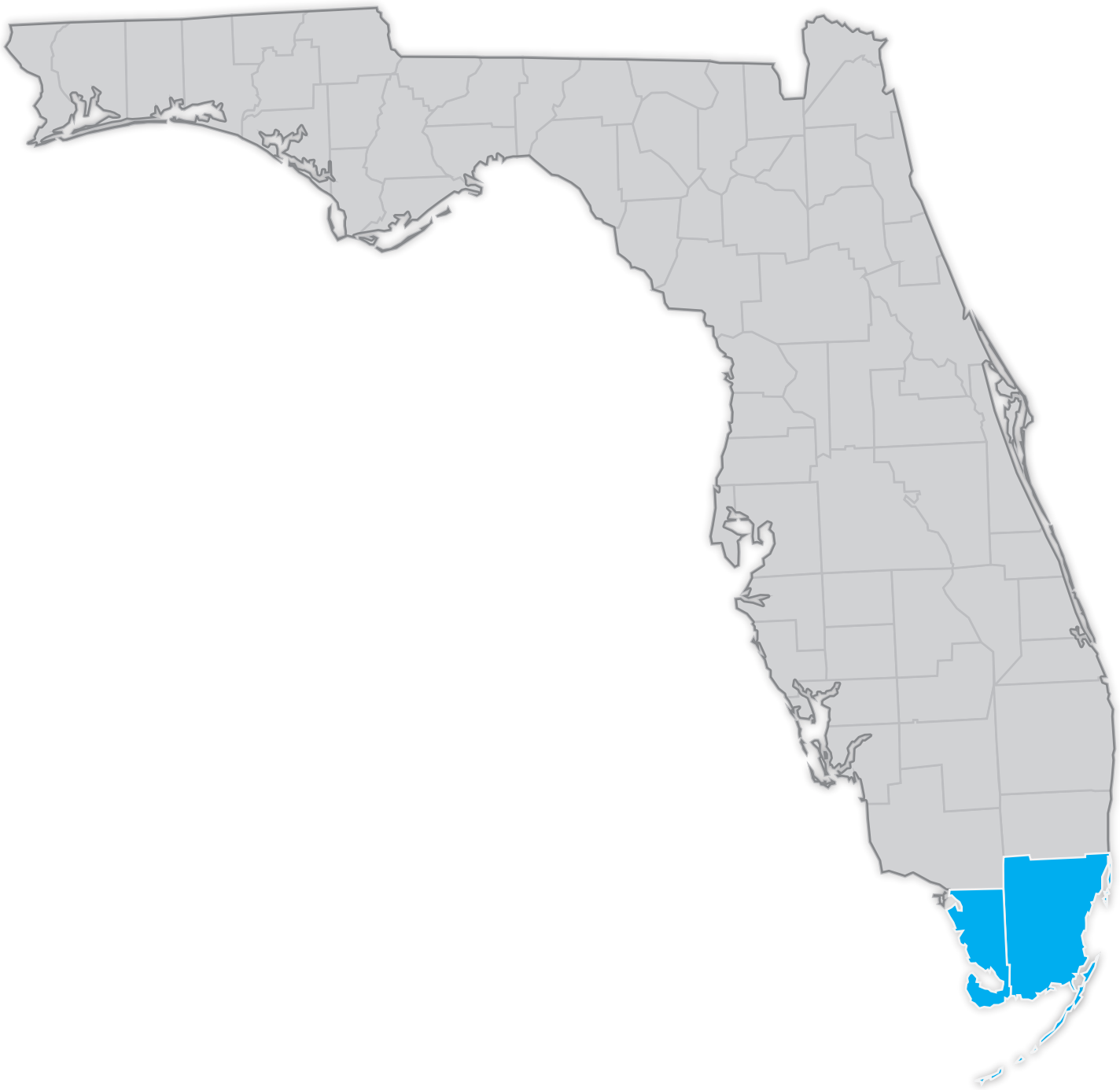
004 - AIRFIELD PAVEMENT
MAJOR REHABILITATION EXHIBIT

Airport Pavement Evaluation Report
2017

Statewide Airfield Pavement Management Program

MIAMI HOMESTEAD GENERAL AVIATION AIRPORT - X51

FDOT



DISTRICT 6

FLORIDA DEPARTMENT OF TRANSPORTATION

AVIATION AND SPACEPORTS OFFICE

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