

**STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
AVIATION OFFICE**

**Statewide Airfield Pavement  
Management Program**

**Cross City Airport – CTY  
(General Aviation)  
Cross City, Florida  
(District 2)**



**May 2011**

## TABLE OF CONTENTS

<b>SECTION</b>	<b>PAGE NO.</b>
Executive Summary .....	iii
1. Introduction.....	1
2. Network Definition and Pavement Inventory .....	10
3. Pavement Condition.....	14
4. Pavement Condition Prediction .....	19
5. Maintenance Policies and costs .....	20
6. Pavement Rehabilitation Needs Analysis .....	26
7. Maintenance and Rehabilitation Plan .....	33
8. Visual Aids.....	35
9. Recommendations.....	36

### **LIST OF FIGURES**

Figure 1-1: Pavement Life Cycle.....	4
Figure 1-2: PCI Rating Scale .....	6
Figure 2-1: Pavement Area by Surface Type.....	12
Figure 3-1: Network PCI Distribution by Rating Category.....	16
Figure 3-1a: Condition Rating Summary.....	16
Figure 3-2: Percentage of Pavement Area within Each PCI Range by Pavement Use.....	17
Figure 4-1: Predicted PCI by Pavement Use .....	19
Figure 6-1: Budget Scenario Analysis .....	32

### **LIST OF TABLES**

Table I: Condition Summary by Branch.....	iii
Table II: Condition Summary by Pavement Use .....	iv
Table III: Condition Summary by Pavement Rank.....	iv
Table IV: Immediate Major M&R Needs .....	v
Table V: 10-Year M&R Costs under Unlimited Funding Scenario .....	vi
Table 1-1: Sampling Rate for FDOT Condition Surveys .....	5
Table 2-1: Construction Since Last Inspection & Anticipated Construction Activity .....	11
Table 2-2: Pavement Area by Pavement Use .....	11
Table 2-3: Branch and Section Inventory .....	13
Table 3-1: Pavement Distresses for Asphalt Concrete Surfaces.....	14
Table 3-2: Pavement Distresses for Portland Cement Concrete Surfaces .....	15
Table 3-3: Condition by Pavement Use .....	17
Table 5-1: Routine Maintenance Activities for Airfield Pavements .....	21
Table 5-2: Critical PCI for General Aviation Airports .....	22
Table 5-3: Desired Minimum PCI for General Aviation Airports.....	22
Table 5-4: M&R Activities for General Aviation Airports .....	23
Table 5-5: Maintenance Unit Costs for FDOT .....	24
Table 5-6: M&R Activities and Unit Costs by Condition for General Aviation Airports.....	25
Table 6-1 Summary of Immediate Major M&R Needs Option No. 1 .....	27

## **TABLE OF CONTENTS**

<b><u>SECTION</u></b>	<b><u>PAGE NO.</u></b>
Table 6-2: Summary of Immediate Major M&R Needs Option No. 2 .....	28
Table 6-3: Summary of Year 1 Maintenance Activities .....	29
Table 7-1: M&R Costs under Unlimited Funding Scenario .....	33

### **APPENDICES**

Appendix A	Network Definition Map
	System Inventory Map
	Pavement Inventory Table
	Work History Report
Appendix B	2011 Condition Map
	Pavement Condition Index Table
Appendix C	Branch Condition Report
	Section Condition Report
Appendix D	Pavement Condition Prediction Table
	Predicted PCI by Pavement Use Graph
Appendix E	Year 1 Maintenance Activities Table
Appendix F	Major M&R Plan by Year under Unlimited Funding Scenario Table
Appendix G	10-Year M&R Map
Appendix H	Photographs
Appendix I	PCI Re-inspection Report

## **EXECUTIVE SUMMARY**

In 2010, the Florida Department of Transportation (FDOT) Aviation Office selected a Consultant team consisting of Kimley-Horn and Associates and their Subconsultants, MACTEC Engineering and Consulting and All About Pavements, Inc., to provide services in support of FDOT in the continuing evaluation and updating of the existing Statewide Airfield Pavement Management Program (SAPMP) to be completed over fiscal years 2011 and 2012.

The tasks required to achieve this objective at Cross City Airport included:

- Obtain recent construction history from the Airport to update the Pavement Inventory CADD drawings from the previous SAPMP update,
- Perform a visual Pavement Condition Index (PCI) survey of the airfield pavements at the Airport,
- Update the MicroPAVER database to analyze the PCI field data and determine the current condition of the airfield pavements,
- Predict the future deterioration of the pavements,
- Develop a 10-year M&R plan to address the pavement needs at Cross City Airport, and
- Provide the estimated costs associated with the suggested immediate and future M&R activities

During February 2011, the PCI survey was performed at Cross City Airport. The results of the survey indicate that, based on a numerical scale of 0 to 100, the overall area-weighted average PCI of the airfield pavements in 2011 is 56, representing a Poor overall network condition.

Table I below summarizes the overall condition summary by network branch.

**Table I: Condition Summary by Branch**

<b>Branch Name</b>	<b>Area Weighted PCI</b>	<b>Condition Rating</b>	<b>FDOT Minimum Service Level</b>	<b>MicroPAVER Minimum PCI</b>	<b>Action Required</b>
Apron	36.00	Very Poor	60	65	X
Runway 13-31	54.00	Poor	75	65	X
Runway 4-22	63.00	Fair	75	65	X
Taxiway Alpha - Parallel RW 13-31	63.00	Fair	65	65	X
Taxiway Charlie - Parallel RW 4-22	67.00	Fair	65	65	
Taxiway Charlie 1	65.00	Fair	65	65	
Taxiway Charlie 2	57.00	Fair	65	65	X

Tables II and III below illustrate the area-weighted PCI computed individually for each pavement use and rank, respectively.

**Table II: Condition Summary by Pavement Use**

<b>Use</b>	<b>Average Area-Weighted PCI</b>	<b>Condition Rating</b>
Runway	58	Fair
Taxiway	64	Fair
Apron	36	Very Poor
<b>All (Weighted)</b>	<b>56</b>	Fair

**Table III: Condition Summary by Pavement Rank**

<b>Rank*</b>	<b>Average Area-Weighted PCI</b>	<b>Condition Rating</b>
Primary	56	Fair
<b>All (Weighted)</b>	<b>56</b>	<b>Fair</b>

\*The pavement rank for the airport pavement network is listed on Table 2-3.

The immediate M&R needs, or needs that have been programmed to be completed in the first year of the 10-year M&R plan based on an unlimited budget at Cross City Airport, include: Apron, Runway 13-31, Runway 4-22, Taxiway Alpha, and Taxiway Charlie. Pavement conditions in these areas justify either mill and overlay rehabilitation activity, PCC restoration or full pavement reconstruction. The immediate needs are summarized in Table IV below.

**Table IV: Immediate Major M&R Needs**

<b>Branch Name</b>	<b>Section ID</b>	<b>Surface Type</b>	<b>Section Area (ft<sup>2</sup>)</b>	<b>Major M&amp;R Costs*</b>	<b>PCI Before M&amp;R</b>	<b>M&amp;R Activity</b>	<b>PCI After M&amp;R</b>
Apron	4105	PCC	270,000	\$3,677,401.19	27	Reconstruction	100
Runway 13-31	6105	AAC	470,000	\$2,551,630.56	53	Mill and Overlay	100
Runway 13-31	6110	PCC	30,000	\$188,700.01	48	PCC Restoration	100
Runway 4-22	6205	AC	15,000	\$85,740.01	52	Mill and Overlay	100
Runway 4-22	6210	AC	386,625	\$1,111,160.99	62	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	105	AC	19,030	\$114,237.10	51	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	110	AC	160,514	\$373,676.83	64	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	120	PCC	2,500	\$15,725.00	48	PCC Restoration	100
Taxiway Alpha - Parallel RW 13-31	150	AC	19,750	\$107,222.77	53	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	155	AC	7,075	\$18,402.09	63	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	165	AC	17,900	\$46,557.93	63	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	170	AC	6,400	\$25,561.61	58	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	175	AC	8,930	\$48,480.98	53	Mill and Overlay	100
Taxiway Charlie - Parallel RW 4-22	205	AC	8,200	\$21,328.21	63	Mill and Overlay	100
Taxiway Charlie - Parallel RW 4-22	207	AC	10,500	\$30,177.02	62	Mill and Overlay	100
Taxiway Charlie 1	215	AC	16,350	\$38,062.82	64	Mill and Overlay	100
Taxiway Charlie 2	220	AC	16,350	\$74,686.83	56	Mill and Overlay	100
<b>Total</b>				<b>\$8,528,751.95</b>	<b>60</b>		<b>100</b>

\* Costs are adjusted for inflation.

A forecast of Major M&R needs for a 10-year period, starting from 2011, was developed using an unlimited budget. The analysis identified ongoing maintenance needs and major M&R during that interval. The results of this analysis are provided in Table V below.

**Table V: 10-Year M&R Costs under Unlimited Funding Scenario**

<b>Year</b>	<b>Preventative</b>	<b>Major M&amp;R</b>	<b>Total Year Cost</b>
2011	\$85,345.16	\$8,528,751.98	\$8,614,097.14
2012	\$55,389.02	\$0.00	\$55,389.02
2013	\$9,396.43	\$536,298.17	\$545,694.60
2014	\$7,498.11	\$50,875.11	\$58,373.21
2015	\$10,435.45	\$0.00	\$10,435.45
2016	\$22,900.22	\$0.00	\$22,900.22
2017	\$42,912.91	\$0.00	\$42,912.91
2018	\$73,856.32	\$0.00	\$73,856.32
2019	\$116,139.60	\$0.00	\$116,139.60
2020	\$148,416.19	\$43,442.97	\$191,859.16
<b>Total</b>	<b>\$572,289.41</b>	<b>\$9,159,368.23</b>	<b>\$9,731,657.63</b>

Note: Costs are adjusted for inflation.

The implementation of the 10-Year Major M&R Plan is expected to provide an improvement in the overall condition of the airfield pavement, where the area-weighted PCI would increase from 56 in 2011 to 83 in 2020. Appendix F lists the Major M&R for the 10-Year program. Appendix G graphically depicts the program activity.

It is important to note that although preventative and some major M&R activities would have to be conducted over several years, the area-weighted PCI value for all Cross City Airport pavements in 2020 may remain near 83. The airport manager should realize that what is most important is that the pavement repair work (preventative and major M&R) that has been identified for Cross City Airport is conducted at some point in the 10-year plan.

## **1. INTRODUCTION**

The State of Florida has more than 100 public airports that are vital to the Florida economy as well as the economy of the United States. There are millions of square yards of pavement for the runways, taxiways, aprons and other areas of these airports that support aircraft operations. The timely and proper maintenance and rehabilitation (M&R) of these pavements allows the airports to operate efficiently, economically and without excessive down time.

In order to support the planning, scheduling, and design of the M&R activities based on pavement evaluation and pavement management performance trends, the Florida Department of Transportation (FDOT) Aviation Office implemented the Statewide Airfield Pavement Management Program (SAPMP) in 1992.

In 2010, the FDOT Aviation Office selected a Consultant team consisting of Kimley-Horn and Associates and their Subconsultants, MACTEC Engineering and Consulting and All About Pavements, Inc., to provide services in support of FDOT in the continuing evaluation and updating of the existing SAPMP to be completed over fiscal years 2011 and 2012.

This report discusses the work performed, a summary of the findings, results, and recommendations for M&R planning associated with the update to the SAPMP. It also describes the procedures used to ensure that the appropriate engineering and scientific standards of care, quality, budget, and schedule requirements are implemented during the performance of the SAPMP.

### **1.1 Purpose**

This Florida Airport Pavement Evaluation Report is intended to:

- Describe, briefly, the SAPMP and the roles and responsibilities of the program's participants;
- Provide background information on pavement management principles, objectives, and benefits to this airport;
- Outline the procedures used to collect, evaluate and report pavement inspection results at this airport;
- Present the findings from the pavement inspection;
- Analyze and discuss the needs for Maintenance and Rehabilitation (M&R) activities and associated costs for this airport.

### **1.2 FDOT Statewide Airfield Pavement Management Program**

In 1992, the FDOT implemented the SAPMP to improve the knowledge of pavement conditions at public airports in the State system, identify maintenance needs at individual airports, automate information management, and establish standards to address future needs. The 1992 SAPMP provided valuable information for establishing and performing pavement M&R.

In 1992/1993, and 1998/1999, the FDOT Aviation Office participated in the development of a proprietary software pavement management system and developed and populated a pavement management database that provided valuable information for establishing M&R policies, estimating M&R costs, and developing recommendations for performing routine pavement maintenance. This system, AIRPAV, was implemented, and initial condition surveys were



performed in 1992 and 1993. The SAPMP was updated with additional surveys in 1998 and 1999.

In 2004, the FDOT Aviation Office undertook a project to update the pavement management system software utilized for the SAPMP. This project involved a review of the AIRPAV software and other available pavement management system software. As a result of this review, MicroPAVER was selected as the software for the update project. Data from the 1998/1999 condition surveys were converted to the MicroPAVER system, and the inventory of the pavement systems and drawings of the pavements were updated to reflect maintenance, rehabilitation, and construction activities since 1998/1999. The pavements were inspected between 2006 and 2008, and an updated M&R program was developed based on the new condition of the airfield pavements. As part of the update, procedures for the inspection and collection of pavement data were developed, and a website ([www.floridaairportpavement.com](http://www.floridaairportpavement.com)) was created for the input of data under secure procedures.

Currently, airports using the AIP Grant Program are required by the Federal Aviation Administration (FAA) to develop a pavement maintenance program (FAA/AC 150/5380-6B “Guidelines and Procedures for Maintenance of Airport Pavements”) using trained personnel to perform a detailed inspection of airfield pavements. The inspections are required to be performed at least once a year or every 3 years if pavement inspection is characterized in the form of a Pavement Condition Index (PCI) survey (such as ASTM D 5340 “Standard Test Method for Airport Pavement Condition Index Surveys”, (2004 edition)). The 2004 edition was utilized in lieu of the 2010 edition to maintain database integrity and benefit of pavement performance curves from the previous inspections.

In 2010, the FDOT Aviation Office selected a team consisting of the Consultant and their Subconsultants to provide services in support of FDOT in the continuing evaluation and updating of the existing SAPMP to be completed over fiscal years 2011 and 2012.

### **1.3 Organization**

#### **1.3.1 Aviation Office Program Manager Role**

The Aviation Office Airport Engineering Manager serves as the Aviation Office Program Manager (AO-PM) monitoring the work of the Consultant. The AO-PM has review and approval authority for each program task and also manages the day-to-day details of the SAPMP and the updates.

#### **1.3.2 Consultant Role**

The Consultant (Kimley-Horn and Associates, Inc.) and their Subconsultants (MACTEC Engineering and Consulting and All About Pavements, Inc.) provide technical and administrative assistance to the AO-PM during the execution of this program, which involves the continuing evaluation of airport pavements and updating of the SAPMP based upon procedures outlined in FAA Advisory Circular 150/5380-6B “Guidelines and Procedures for Maintenance of Airport Pavements” and ASTM D 5340 “Standard Test Method for Airport Pavement Condition Index Surveys” (2004).

### **1.3.3 Airport Role**

The airports are the ultimate client for each of the field inspections and reports. Individual airports will be provided final deliverables prepared by the Consultant that have been reviewed and approved by the AO-PM. The airport should provide a current Airport Layout Plan (ALP) to the Consultant and, if they participated in the previous SAPMP update, indicate any construction activity that has been performed since the previous inspections.

## **1.4 Pavement Types and Pavement Management**

### **1.4.1 Pavement basics**

A pavement is a prepared surface designed to provide a continuous smooth ride at a certain speed and to support an estimated amount of traffic for a certain number of years. Pavements are constructed of a combination of subgrade soils, subbases, bases and surfacing. There are mainly two types of pavements;

- Flexible pavement, composed of an asphalt concrete (AC) surface, and
- Rigid pavement composed of a Portland Cement Concrete (PCC) surface.

Both pavement types use a combination of layered materials and thicknesses in order to support the traffic loads and protect the underlying natural subgrade soil. Flexible pavements (AC) dissipate the load from layer to layer until the load magnitude is small enough to be supported by the subgrade soil. In rigid pavements (PCC), the Portland Cement Concrete supports most of the load, and the base or subbase layer is mainly constructed to provide a smooth and continuous platform for the construction of the concrete surface.

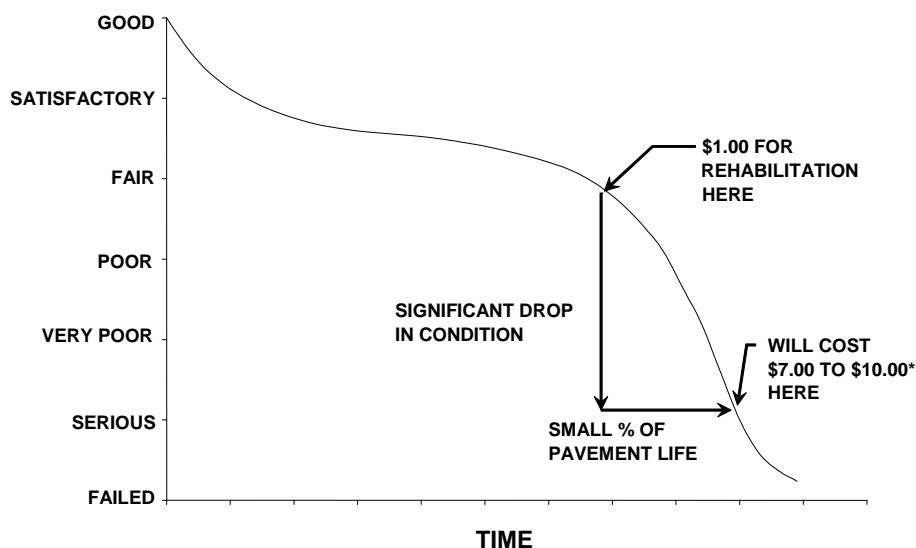
A small percentage of the airport pavements in Florida are composed of asphalt concrete surface over Portland Cement Concrete (APC). This pavement type is known as “composite” pavement.

Due to the different nature of the pavement types and their materials, flexible and rigid pavements have different distresses and failure mechanisms. Understanding the mechanics and failure modes of both pavement types will assist engineers in making adequate and long lasting repairs or rehabilitation to the pavement structures.

### **1.4.2 Pavement Management System Concept**

The SAPMP utilized a Pavement Management System (PMS) to develop the M&R recommendations discussed in this report. A PMS is a tool to assist engineers, planners and managing agencies in making decisions when planning pavement M&R. The management of pavements involves scheduling pavement maintenance and rehabilitation before pavements deteriorate to a condition where reconstruction (the most expensive alternative) is the only solution. Figure 1-1 below, taken from FAA/AC 5380-7A “Airport Pavement Management Program”, illustrates how a pavement generally deteriorates and the relative cost of rehabilitation at various times throughout its life. Note that during the first 75 percent of a pavement’s life, it performs relatively well. After that, however, it begins to deteriorate rapidly. The number of years a pavement stays in “good” condition depends on how well it is maintained. As the illustration demonstrates, the cost of maintaining the pavement above a critical condition before rapid deterioration occurs is much less compared to maintaining pavements after substantial deterioration has occurred.

**Figure 1-1: Pavement Life Cycle**



Source: FAA/AC 150/5380-7A "Airport Pavement Management Program"  
 \*Modified to reflect current construction costs.

Pavements deteriorate at an accelerated rate with increasing traffic and limited M&R resources. Planned maintenance and rehabilitation, essentially preventing pavements from reaching deteriorated conditions, helps managers/owners/agencies maximize the use of their budgets and prolong the life of the pavements. A PMS provides a tool to schedule and plan maintenance and rehabilitation based on engineering information and existing and predicted conditions of pavements.

There are several components or elements that are essential to a PMS. The first steps in the implementation of a PMS are to know and clearly identify what needs to be managed, the limits of the managing agency's responsibilities and the condition of the existing pavements. Once the cause and the extent of pavement problems are known, the appropriate maintenance and/or rehabilitation can be planned. By using local unit costs and expected yearly budgets, a multi-year M&R plan can be determined.

### **1.4.3 Pavement Inspection Methodology for the SAPMP**

Pavement condition assessment is one of the primary decision variables in any airport PMS. Pavement condition assessments generally include visual surveys in accordance with ASTM D 5340, "Standard Test Method for Airport Pavement Condition Index Surveys" and structural evaluation. Pavement condition surveys assess the functional condition of the pavement surface. Typically, most problems within a pavement structure will eventually reflect to the pavement surface. The structural condition and relative support of the pavement layers can be assessed utilizing non-destructive deflection testing (NDT) as well as other in-depth engineering evaluation or sampling and testing methods.

For the Statewide Aviation Pavement Management Program update, only visual surveys were performed. Further structural and geotechnical testing should be conducted to determine the appropriate rehabilitation methods during the design process.

In preparation of the PCI surveys, the airfield pavements are divided into sample units as established in FAA AC 150/5380-6B and ASTM D 5340. Further discussion of how the airport pavements are divided and subdivided into units by construction and use can be found in Section 2 “Network Definition and Pavement Inventory” of this report.

Sample unit sizes are approximately  $5000 \pm 2000$  square feet for AC-surfaced pavements and  $20 \pm 8$  slabs for PCC-surfaced pavements. Prior to conducting the field inspections, the sampling plan was developed based on previous sampling and modified based on the available knowledge of Branches, Sections, use patterns, construction types and history. The sampling rate used for the FDOT Statewide Airfield Pavement Management Program is provided in Table 1-1 below.

**Table 1-1: Sampling Rate for FDOT Condition Surveys**

AC Pavements			PCC Pavements		
N	n		N	n	
	Runway	Others		Runway	Others
1-4	1	1	1-3	1	1
5-10	2	1	4-6	2	1
11-15	3	2	7-10	3	2
16-30	5	3	11-15	4	2
31-40	7	4	16-20	5	3
41-50	8	5	21-30	7	3
≥51	20% but ≤20	10% but ≤10	31-40	8	4
			41-50	10	5
			≥51	20% but ≤20	10% but ≤10

Where  $N$  = total number of sample units in Section  
 $n$  = number of sample units to inspect

The sample units to inspect are determined by a systematic random sampling technique. This means that the locations are determined such that they are distributed evenly throughout the Section. In the case when nonrepresentative distresses are observed in the field, additional sample units were added.

The distress quantities and severity levels from the sample units are used to compute the PCI value for each Section. PCI values range from 0 to 100. As Figure 1-2 below indicates, MicroPAVER provides a rating scale that relates PCI to pavement condition. A PCI between 0 and 10 is considered ‘Failed’ pavement, and a PCI between 86 and 100 is considered ‘Good’ pavement, with five other conditions for PCI values between 11 and 85.

**Figure 1-2: PCI Rating Scale**

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

## 1.5 Definitions

Aviation Office - The Aviation Office is charged with responsibility for promoting the safe development of aviation to serve the people of the State of Florida. The Aviation Office Program Manager (AO-PM) has review and approval authority for each program task of the SAPMP.

Base Course - Base Course is a layer of manufactured material, usually crushed rock (aggregate) or stabilized material (asphalt or concrete or Florida Limerock), immediately beneath the surface course of a pavement, which provides support to the surface course.

Branch - A Branch designates pavements that have common usage and functionality, such as an entire runway, taxiway, or apron.

Branch ID - A short form identification for the pavement Branch. In this report, Branch includes the common designation for the item e.g. RW 18-36.

Category - The Category classifies the airport according to the type and volume of aircraft traffic, as follows:

- GA – for general aviation or community airports;
- RL – for regional relievers or small hubs;
- PR – for primary (certified under Part 139 requirements).

Critical PCI - The PCI value considered to be the threshold for M&R decisions. PCI above the Critical generate economical activities expected to preserve and prolong acceptable condition. M&R for PCI values less than Critical make sense only for reasons of safety or to maintain a pavement in operable condition. A pavement section is expected to deteriorate very quickly once it reaches the Critical PCI and the unit cost of repair increases significantly.

Distress Type - A distress type is a defined visible defect in pavement evidenced by cracking, vertical displacement or deterioration of material. In PCI technology, 16 distinct distress types for asphalt surfaced and 15 for Portland Cement Concrete surfaced pavements have been described and rated according to the impact their presence has on pavement condition.

Florida DOT (FDOT) - Florida Department of Transportation was represented in this project by the Office of Aviation.

Global M&R - Global M&R is defined as activities applied to entire pavement Sections with the primary objective of slowing the rate of deterioration. These activities are primary for asphalt surfaced pavements, e.g. surface treatments.

Localized M&R (Maintenance and Repair) - Localized M&R is a temporizing activity performed on existing pavement to extend its serviceability and/or to improve rideability. Localized M&R can be applied either as a safety (stop-gap) measure or preventive measure. Common localized maintenance methods include crack sealing, joint sealing, and patching.

Major M&R (e.g. Rehabilitation) - Activities performed over the entire area of a pavement Section that are intended to restore and/or maintain serviceability. This includes asphalt overlays, milling and replacing asphalt pavement, reconstruction with asphalt, reconstruction with Portland Cement Concrete (PCC) pavements, and PCC overlays.

MicroPAVER - A commercially available software subsidized by FAA and agencies in the US Department of Defense developed to support engineered management of pavement assets using a condition based approach. This software has the functionality such that, if properly implemented, maintained, and operated, it meets the pavement management program requirements described by the FAA in Advisory Circular 150/5380-7A.

Minimum Condition Level - A threshold PCI value established by FDOT to represent the targeted minimum pavement condition that is desirable in the Florida Airport System. These values were established with consideration of pavement function and airport type. For instance, runways have higher minimum condition levels than aprons, and Primary airports have higher minimum condition levels than General Aviation airports.

Network Definition - A Network Definition is a Computer-Aided Drafting & Design (CADD) drawing which shows the airport pavement outline with Branch and Section boundaries. This drawing also includes the PCI sample units and is used to identify those sample units to be surveyed, i.e. the sampling plan. The Network Definition for the airport is in Appendix A along with a table of inventory data.

Pavement Condition Index (PCI) - The Pavement Condition Index is a number which represents the condition of a pavement segment at a specific point in time. It is based on visual identification and measurement of specific distress types commonly found in pavement which has been in service for a period of time. The definitions and procedures for determining the PCI are found in ASTM D 5340, published by ASTM International.

Pavement Evaluation - A systematic approach undertaken by trained and experienced personnel intended for determination of the condition, serviceability, and best corrective action for pavement. Techniques to standardize pavement evaluation include the Pavement Condition Index procedures.

Pavement Management System (PMS) - A Pavement Management System is a broad function that uses pavement evaluation and pavement performance trends as a basis for planning, programming, financing, and maintaining a pavement system.

Pavement Surface Type - The surface of pavement is identified as one of four types:

- AC – for asphalt surface pavements;
- PCC – for Portland Cement Concrete pavements;
- AAC – for asphalt surface pavements that have had an asphalt overlay at some point in their construction history;
- APC – for composite pavements, which consist of asphalt over Portland Cement Concrete pavement.
- PAC – for composite pavements, which consist of Portland Cement Concrete over asphalt pavement.

Rank - Pavement rank in MicroPAVER determines the priority to be assigned to a pavement Section when developing an M&R plan. Pavement Sections are ranked as follows according to their use:

- P – for Primary pavements, such as primary runways, primary taxiways, and primary aprons;
- S – or Secondary pavements, such as secondary runways, secondary taxiways, and secondary aprons;
- T – for Tertiary pavements such as “T” hangars and slightly used aprons.

Reconstruction - Reconstruction includes removal of existing pavement, preparation of subgrade, and construction of new pavement with new or recycled materials. Reconstruction is indicated when distress types evident at the surface indicate failure in the pavement structure or subgrade of a type, and to an extent, not correctable by less extensive construction.

Rehabilitation - Rehabilitation represents construction using existing pavement for a foundation. Rehabilitation most commonly consists of an overlay of existing pavement with a new asphalt or concrete surface. Recently, technology has expanded the options to include recycling of existing pavement and incorporating engineering fabrics or thin layers of elasticized materials to retard reflection of distress types through the new surface.

Sample Unit - Uniformly sized portions of a Section as defined in ASTM D 5340. Sample units are a means to reduce the total amount of pavement actually surveyed using statistics to select and survey enough area to provide a representative measure of Section PCI. Sample Unit sizes are  $5,000 \pm 2,000$  square feet for AC-surfaced pavements and  $20 \pm 8$  slabs for PCC-surfaced pavements.

Section - Sections subdivide Branches into portions of similar pavement. Sections are prescribed by pavement structure, age, condition, and use. Sections are identified on the airport Network Definition. They are the smallest unit used for determining M&R requirements based on condition.

Section ID - A short form identification for the pavement Section that maintains the original AirPAV identification where 100 series through 3000 series Sections are taxiways, 4000 and 5000 series Sections are aprons (the 5000 series represent run-up aprons and turnarounds), and 6000 series Sections are runways.

Statewide Airfield Pavement Management Program (SAPMP) – The Statewide Airfield Pavement Management Program is a program implemented in 1992 by the Florida Department of Transportation to plan, schedule, and design the maintenance and rehabilitation activities

necessary for the airfield pavement on Florida's public airports to allow the airports to operate efficiently, economically, and without excessive down time.

System Inventory - A System Inventory is a Computer-Aided Drafting & Design (CADD) drawing which shows the airport pavement outline and identifies airfield construction activities since the last inspection. The System Inventory for the airport is included in Appendix A.

Use - In MicroPAVER, Use is the term for the function of the pavement area. This is either Runway, Taxiway, or Apron for purposes of the FDOT Statewide Aviation Pavement Management System.



## **2. NETWORK DEFINITION AND PAVEMENT INVENTORY**

Cross City Airport (CTY) is located two miles south of the Cross City, Florida business district and is directly controlled by the County Board of Commissioners with a paid Fixed Based Operator (FBO) manager. The airport focuses primarily on serving general aviation aircraft and has two intersecting runways. These runways are Runway 4-22 and Runway 13-31, and are served by full-length parallel taxiways.

Based on field measurements, it is important to note that the runway data and other pavement facilities geometric dimensions may vary slightly from the geometry used in the condition and M&R analysis.

The airport was opened in April 1940, but was requisitioned for use by the United State Army Air Force in August 1942. The airfield was used as a training base for the Army Air Forces School of Applied Tactics, 50<sup>th</sup> Fighter Group. After World War II, the airport was returned to civil control. The facility was placed under the operational control of the 891<sup>st</sup> Radar Squadron of the Air Defense Command from 1959 to 1969.

This airport is designated as a General Aviation airport and is located in District 2 of the Florida Department of Transportation.

### **2.1 Network Definition**

The pavements within the network are defined in MicroPAVER in terms of manageable units that help to organize the data into similar groups. An organizational hierarchy is used to establish these units.

#### **2.1.1 Branch Section Identification**

The airport pavement network is subdivided into separate Branches (runways, taxiways, or aprons) that have distinctly different uses. Branches are then further divided into Sections with similar pavement construction and performance that may share other common attributes.

Sections are manageable units used to organize the data collection and are treated individually during the rehabilitation planning stage. A pavement rank, consisting of primary, secondary, and tertiary levels, is assigned to each Section based on their level and type of use. The pavement rankings that were designated for each Section in the previous SAPMP update were again used for this update.

As discussed in Section 1.4.3 “Pavement Inspection Methodology for the SAPMP”, the sections are sub-divided into sample units, which are the smallest subdivision in a pavement network, only for the purpose of conducting the pavement condition survey.

#### **2.1.2 System Inventory and Network Definition Update**

The System Inventory and Network Definition drawings are used to identify changes in the network since the most recent update from the 2006/2008 inspections and also to plan the field inspection activities for the 2011 survey. Prior to the field inspection process, the System Inventory drawing was updated from the previous inspection with notes indicating recent

construction projects on the various Sections of pavement throughout the airfield. This System Inventory drawing is used to update the Network Definition drawing.

The Network Definition drawing shows the airport pavement outline with Branch and Section boundaries. This drawing also includes the PCI sample units and is used to identify those sample units to be surveyed, i.e. the sampling plan. The previous airport configuration and history was compared with the current airport configuration, and the existing network branch, section and sample unit designations were revised to match the current configuration. This drawing serves not only as a primary guide for the airfield inspectors but also as an important historical record.

The updated System Inventory and Network Definition drawings for Cross City Airport are provided in Appendix A. Table 2-1 below lists the recent construction projects at the airport.

**Table 2-1: Construction Since Last Inspection & Anticipated Construction Activity**

<b>Construction Year</b>	<b>Location</b>	<b>Work Type / Pavement Section</b>
2006	Apron 4110	New Construction (PCC)
2006	Apron 4205	New Construction (AC)

## **2.2 Pavement Inventory**

The detailed pavement inventory was updated to reflect the network definition update and field inspection results.

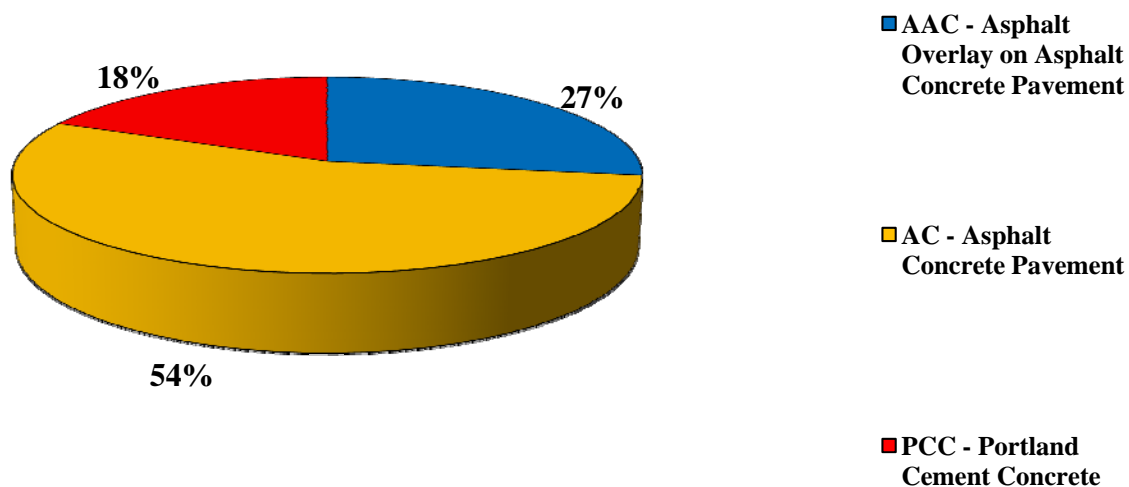
The total airfield pavement area in 2011 at Cross City Airport is 1,712,733 square feet. The breakdown of pavement area for each pavement use is provided in Table 2-2.

**Table 2-2: Pavement Area by Pavement Use**

<b>Use</b>	<b>Area (ft<sup>2</sup>)</b>	<b>% of Total Area</b>
Runway	901,625	53%
Taxiway	505,752	29%
Apron	305,356	18%
<b>All (Weighted)</b>	<b>1,712,733</b>	<b>100%</b>

Figure 2-1 presents the breakdown of the pavement area at Cross City Airport by surface type.

**Figure 2-1: Pavement Area by Surface Type**



Details of pavement Branch and Section information including Branch name (which indicates pavement use), Branch ID, Section ID, section area, rank, surface type, last construction date, number of samples inspected, and number of samples in each Section are given in Table 2-3 below. A more detailed Pavement Inventory Table may be found in Appendix A of this report.

**Table 2-3: Branch and Section Inventory**

Branch Name	Branch ID	Section ID	True Area (ft <sup>2</sup> )	Section Rank	Surface Type	Last Const. Date	Total Samples Inspected	Total Samples
Apron	AP	4105	270,000.00	P	PCC	1/1/1942	5	44
Apron	AP	4110	12,801.00	P	PCC	1/1/2006	0	2
Apron	AP	4205	22,555.00	P	AC	1/1/2006	0	10
Runway 13-31	RW 13-31	6105	470,000.00	P	AAC	1/1/1995	19	94
Runway 13-31	RW 13-31	6110	30,000.00	P	PCC	1/1/1942	2	4
Runway 4-22	RW 4-22	6205	15,000.00	P	AC	1/1/1989	1	3
Runway 4-22	RW 4-22	6210	386,625.00	P	AC	1/1/1993	20	103
Taxiway Alpha - Parallel RW 13-31	TW A	105	19,030.00	P	AC	1/1/1989	2	5
Taxiway Alpha - Parallel RW 13-31	TW A	110	160,514.00	P	AC	1/1/1989	6	45
Taxiway Alpha - Parallel RW 13-31	TW A	115	14,453.00	P	AC	1/1/1989	1	4
Taxiway Alpha - Parallel RW 13-31	TW A	120	2,500.00	P	PCC	1/1/1942	1	1
Taxiway Alpha - Parallel RW 13-31	TW A	150	19,750.00	P	AC	1/1/1989	1	3
Taxiway Alpha - Parallel RW 13-31	TW A	155	7,075.00	P	AC	1/1/1989	1	2
Taxiway Alpha - Parallel RW 13-31	TW A	160	17,900.00	P	AC	1/1/1989	2	6
Taxiway Alpha - Parallel RW 13-31	TW A	165	17,900.00	P	AC	1/1/1989	2	6
Taxiway Alpha - Parallel RW 13-31	TW A	170	6,400.00	P	AC	1/1/1989	1	1
Taxiway Alpha - Parallel RW 13-31	TW A	175	8,930.00	P	AC	1/1/1989	1	1
Taxiway Charlie - Parallel RW 4-22	TW C	205	8,200.00	P	AC	1/1/1989	1	3
Taxiway Charlie - Parallel RW 4-22	TW C	207	10,500.00	P	AC	1/1/1995	1	3
Taxiway Charlie - Parallel RW 4-22	TW C	210	179,900.00	P	AC	1/1/1993	6	51
Taxiway Charlie 1	TW C1	215	16,350.00	P	AC	1/1/1993	2	5
Taxiway Charlie 2	TW C2	220	16,350.00	P	AC	1/1/1993	2	5

Note: If a new construction, then survey date = last construction date and PCI is set to 100 by MicroPAVER.

Sections not surveyed due to reasons such as re-sectioning, no escort, not accessible at the time of survey.

### 3. PAVEMENT CONDITION

Pavement conditions were inspected in accordance with the methods outlined in FAA AC 150/5380-6B and ASTM D 5340-04 “Standard Practice for Airport Pavement Condition Index Surveys.” These procedures define distress type, severity and quantity for sampling areas within each section to determine the Pavement Condition Index (PCI).

#### 3.1 Inspection Methodology

A PCI survey is performed by measuring the amount and severity of pavement distresses, which are caused by traffic load, climate, and other factors, observed within a sample unit. This data is imported into MicroPAVER, which calculates PCI values for the pavement sections. Tables 3-1 and 3-2 below list the pavement distress types and related causes for asphalt concrete (AC) and Portland Cement Concrete (PCC), respectively.

**Table 3-1: Pavement Distresses for Asphalt Concrete Surfaces**

Code	Distress	Mechanism
41	Alligator Cracking	Load
42	Bleeding	Construction Quality/ Mix Design
43	Block Cracking	Climate / Age
44	Corrugation	Load / Construction Quality
45	Depression	Subgrade Quality
46	Jet Blast	Aircraft
47	Joint Reflection - Cracking	Climate / Prior Pavement
48	Longitudinal/Transverse Cracking	Climate / Age
49	Oil Spillage	Aircraft / Vehicle
50	Patching	Utility / Pavement Repair
51	Polished Aggregate	Load
52	Weathering/Raveling	Climate / Load
53	Rutting	Load
54	Shoving	Pavement Growth
55	Slippage Cracking	Load / Pavement Bond
56	Swelling	Climate / Subgrade Quality
<i>Source: U.S. Army CERL, FDOT Airfield Inspection Reference Manual</i>		

**Table 3-2: Pavement Distresses for Portland Cement Concrete Surfaces**

Code	Distress	Mechanism
61	Blow-up	Climate
62	Corner Break	Load
63	Linear Cracking	Load
64	Durability Cracking	Climate
65	Joint Seal Damage	Climate
66	Small Patch	Pavement Repair
67	Large Patch/Utility Cut	Utility / Pavement Repair
68	Popout	Climate
69	Pumping	Load
70	Scaling/Crazing	Construction Quality
71	Faulting	Subgrade Quality
72	Shattered Slab	Load
73	Shrinkage Cracking	Construction Quality / Load
74	Joint Spalling	Load
75	Corner Spalling	Load
<i>Source: U.S. Army CERL, FDOT Airfield Inspection Reference Manual</i>		

Prior to conducting the inspections, Global Positioning System (GPS) coordinates were recorded using CADD at the centroid of each sample unit. The centroid is usually the geometric center of the area, but in cases where sample units are irregular in shape, this is the center of mass. These data are presented in a table on the updated Network Definition Map in Appendix A of this report.

Pavement condition inspections at Cross City Airport were performed in February 2011. Data were recorded in the field in accordance with FAA Advisory Circular 150/5380-6B “Guidelines and Procedures for Maintenance of Airport Pavements” and ASTM D 5340 “Standard Test Method for Airport Pavement Condition Index Surveys” (2004).

After the completion of data collection, the data was imported into MicroPAVER, and PCI values were calculated for the pavement sections.

### **3.2 Pavement Condition Index Results**

According to the 2011 survey, the overall area-weighted PCI at Cross City Airport is 56, representing a Poor overall network condition.

Overall the airport exhibited pavement distresses associated with climate and age distresses. Runway 4-22 exhibited medium severity longitudinal and transversal cracking along with low to high severity weathering and raveling. Runway 13-31 exhibited very similar distresses throughout its Asphalt Concrete pavement section, having medium severity longitudinal and transversal cracking, along with low to high severity weathering and raveling, in addition to a medium severity patch and a medium severity depression. While in the Portland Cement Concrete pavement section of Runway 13-31 distresses such as patches, joint damage, linear cracking and spalling were observed.

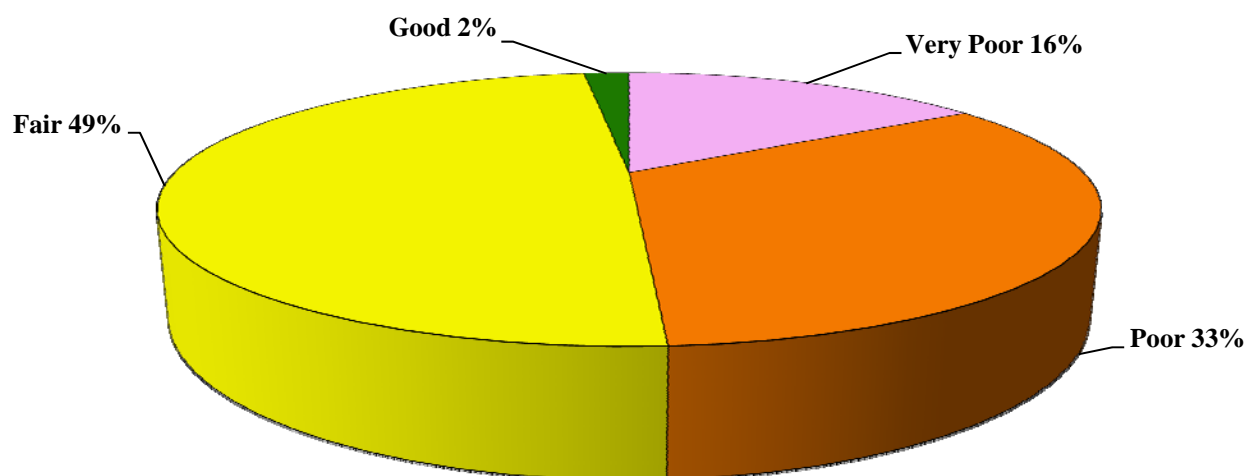
Taxiways throughout the airfield exhibited medium to high severity longitudinal and transverse cracking with low to medium severity weathering and raveling. Taxiway Charlie 2 exhibited the most distress, thereby the worst condition. A moderate severity, 12-square foot patch was also observed in a Taxiway Charlie section.

The Apron section was in very poor condition, with a large number of medium to high severity longitudinal and transverse cracking throughout the pavement, along with a 93-square foot patch of medium severity.

Appendix B contains a table and a Condition Map which depicts the PCI results by Section, and Appendix C contains a table of PCI results by Branch. Appendix I includes detailed distress data generated by MicroPAVER for each inspected sample unit.

Figure 3-1 provides the PCI distribution by rating category for Cross City Airport.

**Figure 3-1: Network PCI Distribution by Rating Category**



**Figure 3-1a: Condition Rating Summary**

Condition Rating	Total Area (ft <sup>2</sup> )	Percent
Good	35,356	2%
Satisfactory	0	0%
Fair	842,167	49%
Poor	565,210	33%
Very Poor	270,000	16%
Serious	0	0%
Failed	0	0%

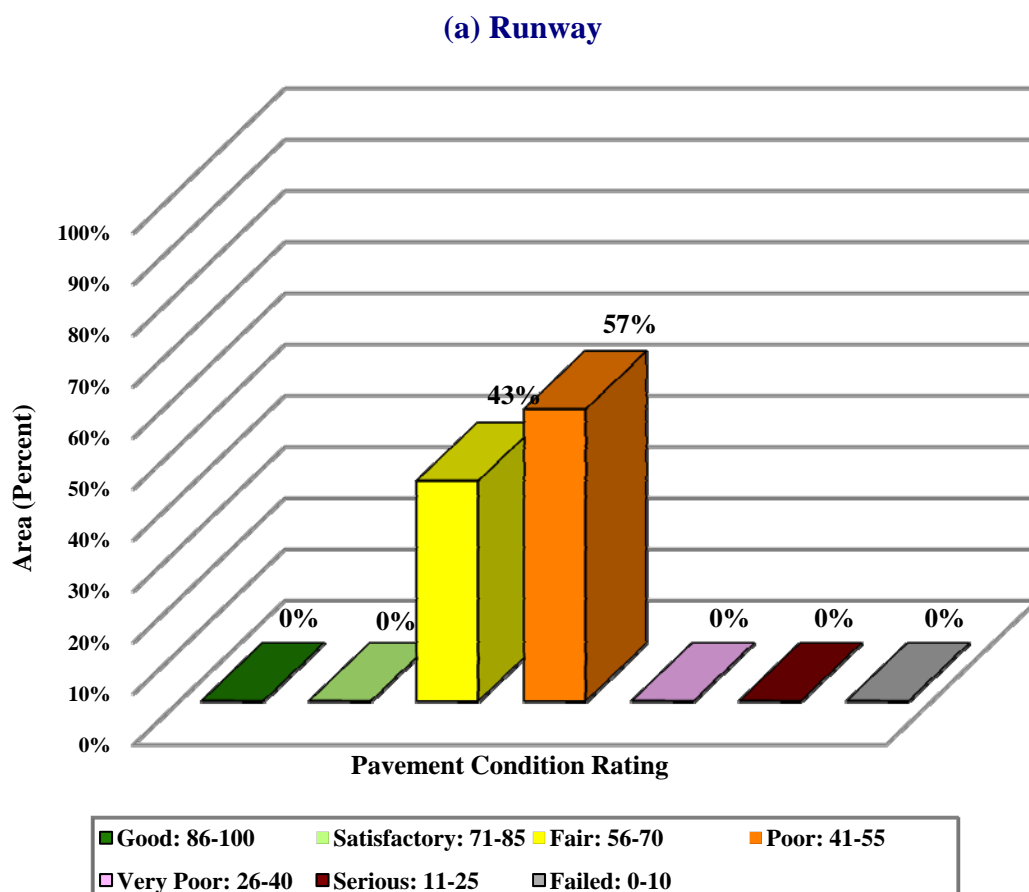
Approximately 2% of the network is in Good condition while 49% of the network is in Poor and Very Poor condition. Table 3-3 illustrates the area-weighted PCI computed individually for each pavement use.

**Table 3-3: Condition by Pavement Use**

Use	Area-Weighted PCI	Condition Rating
Runway	58	Fair
Taxiway	64	Fair
Apron	36	Very Poor
All (Weighted)	56	Fair

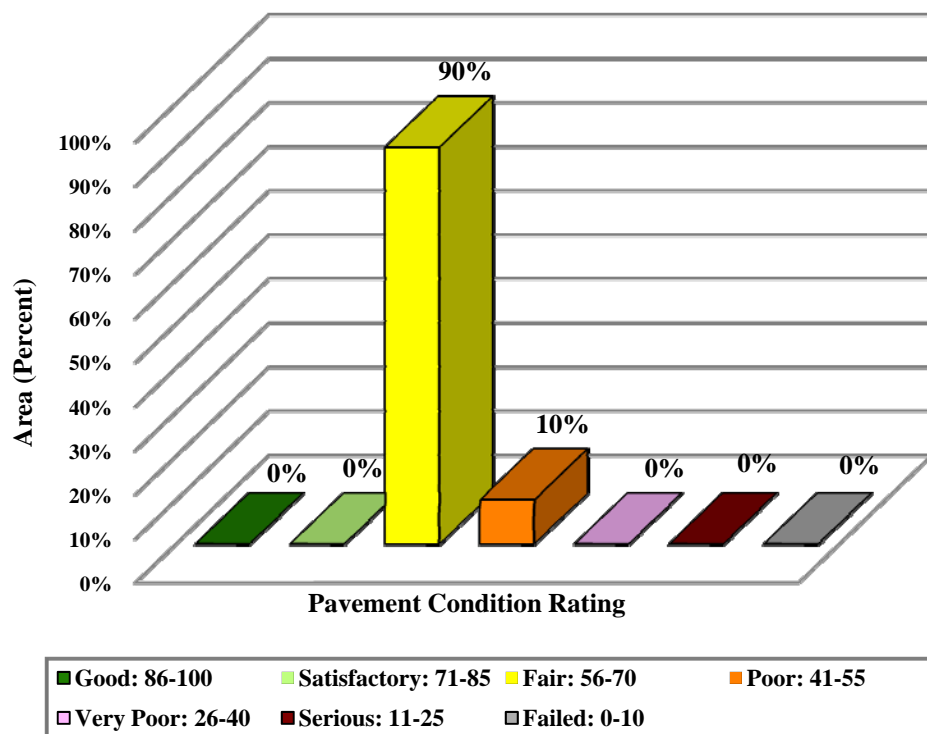
Figure 3-2 presents the breakdown of PCI by range for each pavement use.

**Figure 3-2: Percentage of Pavement Area within Each PCI Range by Pavement Use**

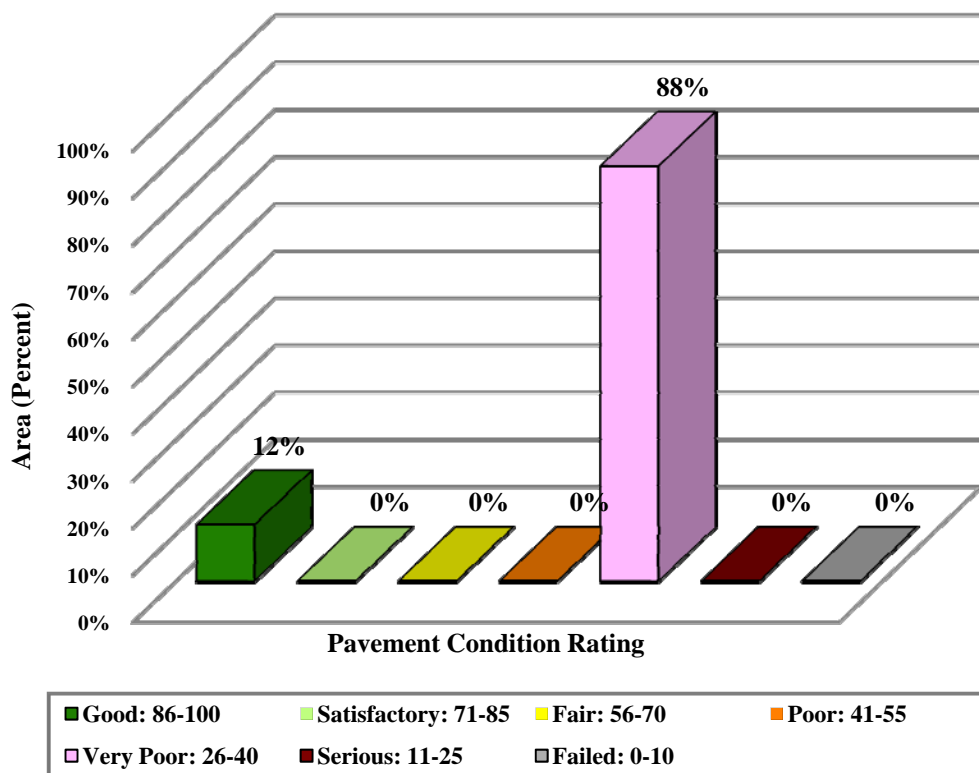




### (b) Taxiway



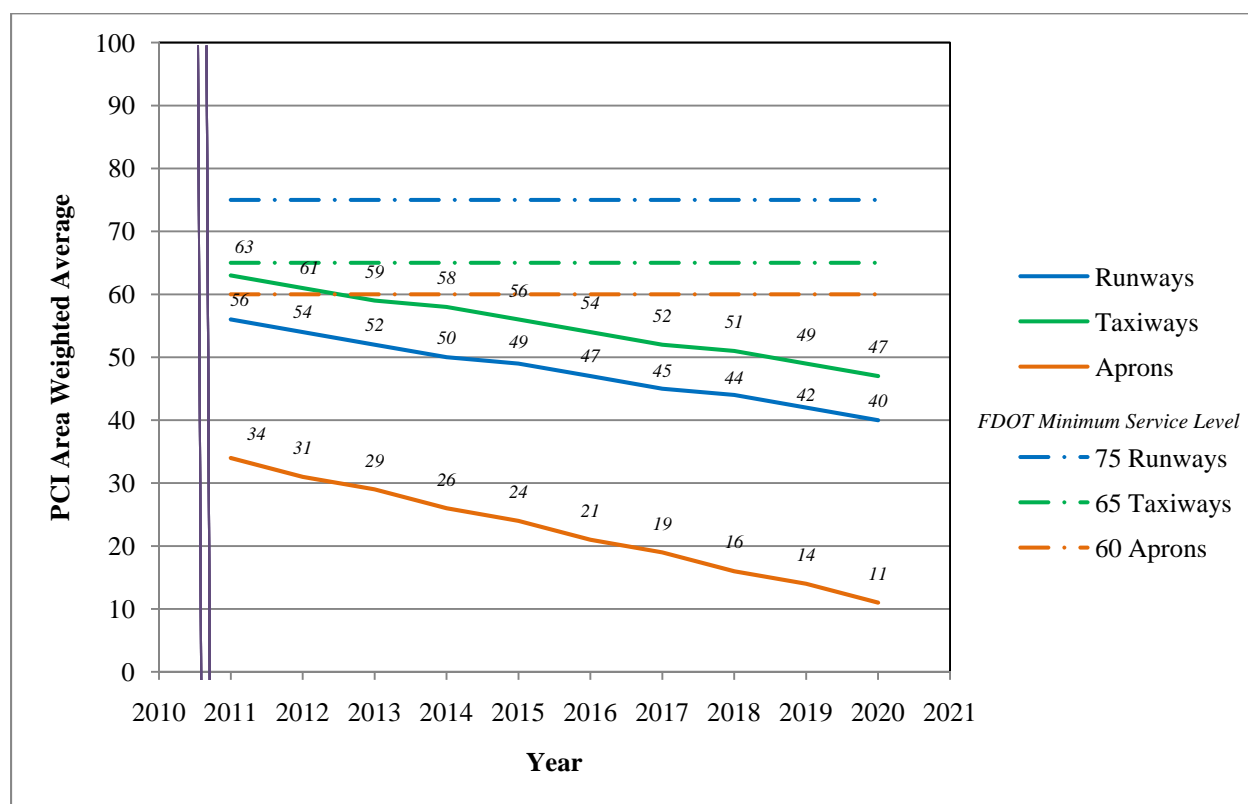
### (c) Apron



#### 4. PAVEMENT CONDITION PREDICTION

Performance prediction models or deterioration curves for PCI were used to develop a condition forecast. The performance models were developed for combinations of variables such as pavement use (runway, taxiway or apron), surface type (AC or PCC) and airport category (GA, RL, or PR). Figure 4-1 illustrates the predicted performance of pavements at Cross City Airport based on current condition, age since last construction and the deterioration model appropriate for the type of pavement. The figure presents the forecast for each pavement use and displays the FDOT minimum service level for General Aviation (GA) airports.

**Figure 4-1: Predicted PCI by Pavement Use**



Appendix D presents the tabular summary of the predicted Section PCI for each year from 2011 to 2020.

## **5. MAINTENANCE POLICIES AND COSTS**

### **5.1 Policies**

Maintenance and rehabilitation (M&R) policies are sets of rules used to develop repair recommendations for distresses encountered during the visual inspections.

Maintenance refers to repair-type activities that are applied to specific distress types on the pavement. These activities are preventative and/or corrective in nature and are recommended to help achieve the performance goal.

Table 5-1 provides the list of the maintenance activities used in MicroPAVER to treat specific distress types. MicroPAVER applies repairs to these distresses and adjusts the PCI based on specific rules. These repairs are used only in the first year of an analysis.

Rehabilitation is warranted when the pavement condition decreases below a critical point such that the deterioration is extensive or the rate of deterioration is so great that routine maintenance is no longer cost-efficient. This critical point is called “Critical PCI.” The critical PCI levels for different pavement and branch types established in the previous SAPMP update were used in this update for the development of the M&R plan for the airport. Sections above critical PCI levels receive routine maintenances while pavements predicted to deteriorate below their respective critical PCI level during the analysis period will be identified for Major M&R. Table 5-2 gives the critical PCI levels for General Aviation Airports.

The maintenance rehabilitation policy and activity costs have been updated based on the study of readily available construction cost data at the time of this study. The costs depicted in this report are intended for planning purposes.

**Table 5-1: Routine Maintenance Activities for Airfield Pavements**

Surface	Distress	Severity*	Work Type	Code	Work Unit
AC	Alligator Crack	M, H	Patching - AC Deep	PA-AD	SqFt
	Bleeding	N/A	No Localized M&R	NONE	N/A
	Block Crack	M, H	Crack Sealing – AC	CS-AC	SqFt
	Corrugation	L, M, H	Patching - AC Deep	PA-AD	SqFt
	Depression	M, H	Patching - AC Deep	PA-AD	SqFt
	Jet Blast	N/A	Patching - AC Deep	PA-AD	SqFt
	Joint Ref. Crack	M, H	Crack Sealing – AC	CS-AC	Ft
	L & T Crack	M, H	Crack Sealing – AC	CS-AC	Ft
	Oil Spillage	N/A	Patching - AC Shallow	PA-AS	SqFt
	Patching	M, H	Patching - AC Deep	PA-AD	SqFt
	Polished Agg.	N/A	No Localized M&R	NONE	N/A
	Raveling	L	Surface Sealing - Rejuvenating	SS-RE	SqFt
		M	Surface Seal - Coal Tar	SS-CT	SqFt
		H	Microsurfacing	MI-AC	SqFt
	Rutting	M, H	Patching - AC Deep	PA-AD	SqFt
	Shoving	M, H	Grinding (Localized)	GR-LL	SqFt
	Slippage Crack	N/A	Patching - AC Shallow	PA-AS	SqFt
	Swelling	M, H	Patching - AC Deep	PA-AD	SqFt
PCC	Blow-Up	L, M, H	Patching - PCC Full Depth	PA-PF	SqFt
	Corner Break	M, H	Patching - PCC Full Depth	PA-PF	SqFt
	Linear Crack	M, H	Crack Sealing – PCC	CS-PC	Ft
	Durability Crack	H	Slab Replacement – PCC	SL-PC	SqFt
		M	Patching - PCC Full Depth	PA-PF	SqFt
	Jt. Seal Damage	M, H	Joint Seal (Localized)	JS-LC	Ft
	Small Patch	M, H	Patching - PCC Partial Depth	PA-PP	SqFt
	Large Patch	M, H	Patching - PCC Full Depth	PA-PF	SqFt
	Popouts	N/A	No Localized M&R	NONE	N/A
	Pumping	N/A	No Localized M&R	NONE	N/A
	Scaling	H	Slab Replacement – PCC	SL-PC	SqFt
	Faulting	M, H	Grinding (Localized)	GR-PP	Ft
	Shattered Slab	M, H	Slab Replacement – PCC	SL-PC	SqFt
	Shrinkage Crack	N/A	No Localized M&R	NONE	N/A
	Joint Spall	M, H	Patching - PCC Partial Depth	PA-PP	SqFt
	Corner Spall	M, H	Patching - PCC Partial Depth	PA-PP	SqFt

\*L = Low, M = Medium, H = High

**Table 5-2: Critical PCI for General Aviation Airports**

Use	Critical PCI
Runway	65
Taxiway	65
Apron	65

It should be noted that critical PCI is not the same as Minimum PCI or Minimum Condition. The Minimum PCI is a value set by the user so pavement sections are rehabilitated before they fall below the set minimum. Table 5-3 gives the targeted, or desired, Minimum PCI values for runways, taxiways, and aprons of General Aviation Airports.

**Table 5-3: FDOT Minimum Service Level PCI for General Aviation Airports**

Minimum PCI		
Runway	Taxiway	Apron
75	65	60

Typical Major M&R activities range from overlays to reconstruction. Based on the critical PCI values in Table 5-2, the PCI trigger range when the likely activity would be a mill and resurface was 40 to 79 and reconstruction at a PCI of 39 or lower. One important concept of pavement management systems is that it is cost effective to maintain pavements that are already in good condition rather than wait for them to get worse and require more expensive rehabilitation.

Crack sealing and full-depth patching are the M&R activities recommended to repair pavements with PCI values between 80 and 90. MicroPAVER considers these as preventative M&R with their primary objective being to slow the rate of pavement deterioration. While the trigger PCI for mill and overlay has been set to 55, MicroPAVER also assigns mill and overlay to sections with a PCI greater than 55 if they exhibit some structural distress. Table 5-4 summarizes the M&R activities for General Aviation Airports based on PCI value.

**Table 5-4: M&R Activities for General Aviation Airports**

	Activity	PCI Range
Maintenance	Crack Sealing and Full-Depth Patching	80 and 90
Rehabilitation	Mill and Overlay (AC) or Concrete Pavement Restoration (PCC)	40 to 79
	Reconstruction	39 and less

## **5.2 Unit Costs**

FDOT cost databases for airports and highway pavement maintenance and rehabilitation were updated from the previous SAPMP study based on current construction cost trends in order to determine meaningful costs for the program. Table 5-5 presents the unit costs summary.

## **5.3 M&R Activities**

FDOT recognizes that although Mill and Overlay work is recommended for asphalt pavements within a PCI range from 40 to 79, it is conceivable that airports may not have adequate funding to perform this type of rehabilitation. Microsurfacing treatment is a maintenance/rehabilitation measure that can be used in lieu of asphalt pavement mill and overlay; however it should be understood that this measure is intended for short term pavement life extension. While the cost of microsurfacing is significantly lower than that of pavement mill and overlay, it is not intended to be a full rehabilitative measure for long term benefit.

**Table 5-5: Maintenance Unit Costs for FDOT**

Code	Name	Cost	Unit
GR-LL	Grinding (Localized for AC)	\$2.10	SqFt
PA-AL	Patching – AC Leveling	\$2.30	SqFt
PA-AS	Patching – AC Shallow	\$2.90	SqFt
PA-PF	Patching – PCC Full Depth	\$38.11	SqFt
PA-PP	Patching – PCC Partial Depth	\$19.06	SqFt
SL-PC	Slab Replacement – PCC	\$39.11	SqFt
CS-PC	Crack Sealing – PCC	\$4.24	Ft
UN-PC	Undersealing – PCC	\$3.40	Ft
CS-AC	Crack Sealing – AC	\$2.25	Ft
GR-PP	Grinding (Localized for PCC)	\$22.51	Ft
JS-LC	Joint Seal (Localized)	\$2.00	Ft
SH-LE	Shoulder Leveling	\$2.81	Ft
JS-SI	Joint Seal – Silicon	\$2.81	Ft
PA-AD	Patching – AC Deep	\$4.90	SqFt
OL-AT	Overlay – AC Thin	\$2.80	SqFt
SS-CT	Surface Seal – Coal Tar	\$0.40	SqFt
SS-FS	Surface Seal – Fog Seal	\$0.40	SqFt
SS-RE	Surface Seal – Rejuvenating	\$0.40	SqFt
ST-SB	Surface Treatment – Single Bitum.	\$0.30	SqFt
ST-SS	Surface Treatment – Slurry Seal	\$0.55	SqFt
ST-ST	Surface Treatment – Sand Tar	\$0.28	SqFt
MI-AC	Microsurfacing - AC	\$0.65	SqFt

The improvement in condition due to maintenance actions applied to specific distresses is only performed when an inspection was performed recently and only in the first year of the M&R analysis. In subsequent years, MicroPAVER calculates M&R costs based on expected unit costs for pavements in a range of PCIs. That is, for low PCI, it is expected that the repair would be significant (e.g. reconstruction) and therefore very costly.

Using available unit cost data, the Major M&R Cost by Condition table was set up as shown in Table 5-6. The cost assigned to each range of PCI is based on a Transportation Cost Report provided by Office of Planning Policy of FDOT where the unit costs of reconstruction and resurfacing of airfield pavements were included. These costs were then assigned to the appropriate PCI range to arrive at a cost per square foot necessary to restore pavements at that PCI level to new condition, i.e. a PCI of 100.

**Table 5-6: M&R Activities and Unit Costs by Condition for  
General Aviation Airports**

	Activity	PCI Trigger	Cost/SqFt
Maintenance	Crack Sealing and Full-Depth Patching	90	\$0.06
		80	\$0.24
Rehabilitation	Mill and Overlay (AC) or Concrete Pavement Restoration (PCC)	70	\$3.00
		60	\$3.42
		50	\$6.29
		40	\$6.29
	Reconstruction	30	\$13.62
		20	\$13.62

A 3% inflation rate per year was applied to the unit costs during the M&R analysis.



## **6. PAVEMENT REHABILITATION NEEDS ANALYSIS**

Maintenance and Rehabilitation (M&R) analyses were performed after the condition data were calculated and MicroPAVER was customized with the maintenance policies and cost settings described in the previous section.

The objective of the M&R analysis is to observe the effect of different fiscal scenarios on the network condition, over a period of ten years, starting from 2011. The analysis was conducted using an unlimited budget. An unlimited budget allows all M&R needs to be identified along with the associated cost regardless of priority.

Table 6-1 presents the M&R list of immediate needs for Major M&R, i.e. Year 1 of the forecast. The importance of this listing is that it points out the major activities triggered by the current condition of the pavements.

**Table 6-1 Summary of Immediate Major M&R Needs Option No. 1**

Branch Name	Section ID	Surface Type	Section Area (ft <sup>2</sup> )	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
Apron	4105	PCC	270,000	\$3,677,401.19	27	Reconstruction	100
Runway 13-31	6105	AAC	470,000	\$2,551,630.56	53	Mill and Overlay	100
Runway 13-31	6110	PCC	30,000	\$188,700.01	48	PCC Restoration	100
Runway 4-22	6205	AC	15,000	\$85,740.01	52	Mill and Overlay	100
Runway 4-22	6210	AC	386,625	\$1,111,160.99	62	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	105	AC	19,030	\$114,237.10	51	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	110	AC	160,514	\$373,676.83	64	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	120	PCC	2,500	\$15,725.00	48	PCC Restoration	100
Taxiway Alpha - Parallel RW 13-31	150	AC	19,750	\$107,222.77	53	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	155	AC	7,075	\$18,402.09	63	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	165	AC	17,900	\$46,557.93	63	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	170	AC	6,400	\$25,561.61	58	Mill and Overlay	100
Taxiway Alpha - Parallel RW 13-31	175	AC	8,930	\$48,480.98	53	Mill and Overlay	100
Taxiway Charlie - Parallel RW 4-22	205	AC	8,200	\$21,328.21	63	Mill and Overlay	100
Taxiway Charlie - Parallel RW 4-22	207	AC	10,500	\$30,177.02	62	Mill and Overlay	100
Taxiway Charlie 1	215	AC	16,350	\$38,062.82	64	Mill and Overlay	100
Taxiway Charlie 2	220	AC	16,350	\$74,686.83	56	Mill and Overlay	100
<b>Total</b>				<b>\$9,159,368.21</b>	<b>60</b>		<b>100</b>

\* Costs are adjusted for inflation.

FDOT recognizes that the costs attributed to the aforementioned ‘Major Activity’ of performing a pavement ‘Mill and Overlay’ may conflict with budgetary constraints. Table 6-2 presents an alternative minor rehabilitative activity to the mid-range performing pavements. The alternative activity is performing a ‘Microsurfacing/Slurry Seal’ to the pavement to retard the degradation of the facility until funding is available for a ‘Mill and Overlay’ activity.

**Table 6-2: Summary of Immediate Major M&R Needs Option No. 2**

Branch Name	Section ID	Surface Type	Section Area (ft <sup>2</sup> )	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
Apron	4105	PCC	270,000	\$3,677,401.19	27	Reconstruction	100
Runway 13-31	6105	AAC	470,000	\$305,500.00	53	Microsurfacing	100
Runway 13-31	6110	PCC	30,000	\$188,700.01	48	PCC Restoration	100
Runway 4-22	6205	AC	15,000	\$9,750.00	52	Microsurfacing	100
Runway 4-22	6210	AC	386,625	\$251,306.30	62	Microsurfacing	100
Taxiway Alpha - Parallel RW 13-31	105	AC	19,030	\$12,369.50	51	Microsurfacing	100
Taxiway Alpha - Parallel RW 13-31	110	AC	160,514	\$104,334.10	64	Microsurfacing	100
Taxiway Alpha - Parallel RW 13-31	120	PCC	2,500	\$15,725.00	48	PCC Restoration	100
Taxiway Alpha - Parallel RW 13-31	150	AC	19,750	\$12,837.50	53	Microsurfacing	100
Taxiway Alpha - Parallel RW 13-31	155	AC	7,075	\$4,598.75	63	Microsurfacing	100
Taxiway Alpha - Parallel RW 13-31	165	AC	17,900	\$11,635.00	63	Microsurfacing	100
Taxiway Alpha - Parallel RW 13-31	170	AC	6,400	\$4,160.00	58	Microsurfacing	100
Taxiway Alpha - Parallel RW 13-31	175	AC	8,930	\$5,804.50	53	Microsurfacing	100
Taxiway Charlie - Parallel RW 4-22	205	AC	8,200	\$5,330.00	63	Microsurfacing	100
Taxiway Charlie - Parallel RW 4-22	207	AC	10,500	\$6,825.00	62	Microsurfacing	100
Taxiway Charlie 1	215	AC	16,350	\$10,627.50	64	Microsurfacing	100
Taxiway Charlie 2	220	AC	16,350	\$10,627.50	56	Microsurfacing	100
<b>Total</b>				<b>\$4,637,531.80</b>	<b>60</b>		<b>100</b>

\* Costs are adjusted for inflation.

In addition to the immediate Major M&R needs, maintenance activities for pavement areas above critical PCI have been recommended by MicroPAVER for Year 1 and are shown in Table 6-3 below. The costs provided in Table 5-5 were used to calculate the costs associated with this work, which is intended to treat specific distress types. A more detailed table is provided in Appendix E.

**Table 6-3: Summary of Year 1 Maintenance Activities**

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Apron	AP	4105	LINEAR CR	M	Crack Sealing - PCC	9,558.00	Ft	\$4.24	\$40,526.03
Apron	AP	4105	LINEAR CR	H	Crack Sealing - PCC	810.00	Ft	\$4.24	\$3,434.41
Apron	AP	4105	SMALL PATCH	M	Patching - PCC Partial Depth	93.00	SqFt	\$19.06	\$1,772.58
Runway 13-31	RW 13-31	6105	L & T CR	M	Crack Sealing – AC	2,538.00	Ft	\$2.25	\$5,710.51
Runway 13-31	RW 13-31	6105	WEATH/RAVEL	M	Surface Seal - Coat Tar	41,745.90	SqFt	\$0.40	\$16,698.50
Runway 13-31	RW 13-31	6105	WEATH/RAVEL	L	Surface Seal – Rejuvenating	414,866.50	SqFt	\$0.40	\$165,947.99
Runway 13-31	RW 13-31	6105	DEPRESSION	M	Patching - AC Deep	94.40	SqFt	\$4.90	\$462.47
Runway 13-31	RW 13-31	6105	PATCHING	M	Patching - AC Deep	94.40	SqFt	\$4.90	\$462.47
Runway 13-31	RW 13-31	6105	WEATH/RAVEL	H	Microsurfacing – AC	13,387.60	SqFt	\$0.65	\$8,701.87
Runway 13-31	RW 13-31	6110	SMALL PATCH	M	Patching - PCC Partial Depth	43.10	SqFt	\$19.06	\$820.64
Runway 13-31	RW 13-31	6110	SMALL PATCH	H	Patching - PCC Partial Depth	5.40	SqFt	\$19.06	\$102.58
Runway 13-31	RW 13-31	6110	JT SEAL DMG	M	Joint Seal (Localized)	3,200.00	Ft	\$2.00	\$6,400.02
Runway 13-31	RW 13-31	6110	LINEAR CR	M	Crack Sealing – PCC	337.50	Ft	\$4.24	\$1,431.00
Runway 4-22	RW 4-22	6205	L & T CR	M	Crack Sealing – AC	120.90	Ft	\$2.25	\$271.94
Runway 4-22	RW 4-22	6205	WEATH/RAVEL	H	Microsurfacing – AC	25.90	SqFt	\$0.65	\$16.83
Runway 4-22	RW 4-22	6205	WEATH/RAVEL	L	Surface Seal – Rejuvenating	14,218.70	SqFt	\$0.40	\$5,687.53
Runway 4-22	RW 4-22	6205	WEATH/RAVEL	M	Surface Seal - Coat Tar	755.40	SqFt	\$0.40	\$302.16
Runway 4-22	RW 4-22	6210	WEATH/RAVEL	M	Surface Seal - Coat Tar	814.50	SqFt	\$0.40	\$325.80
Runway 4-22	RW 4-22	6210	WEATH/RAVEL	L	Surface Seal – Rejuvenating	385,810.50	SqFt	\$0.40	\$154,325.49
Runway 4-22	RW 4-22	6210	L & T CR	M	Crack Sealing – AC	1,871.30	Ft	\$2.25	\$4,210.35
Taxiway Alpha - Parallel RW 13-31	TW A	105	L & T CR	M	Crack Sealing – AC	140.20	Ft	\$2.25	\$315.41
Taxiway Alpha - Parallel RW 13-31	TW A	105	WEATH/RAVEL	L	Surface Seal – Rejuvenating	14,633.50	SqFt	\$0.40	\$5,853.46

**Table 6-3: Summary of Year 1 Maintenance Activities (Continued)**

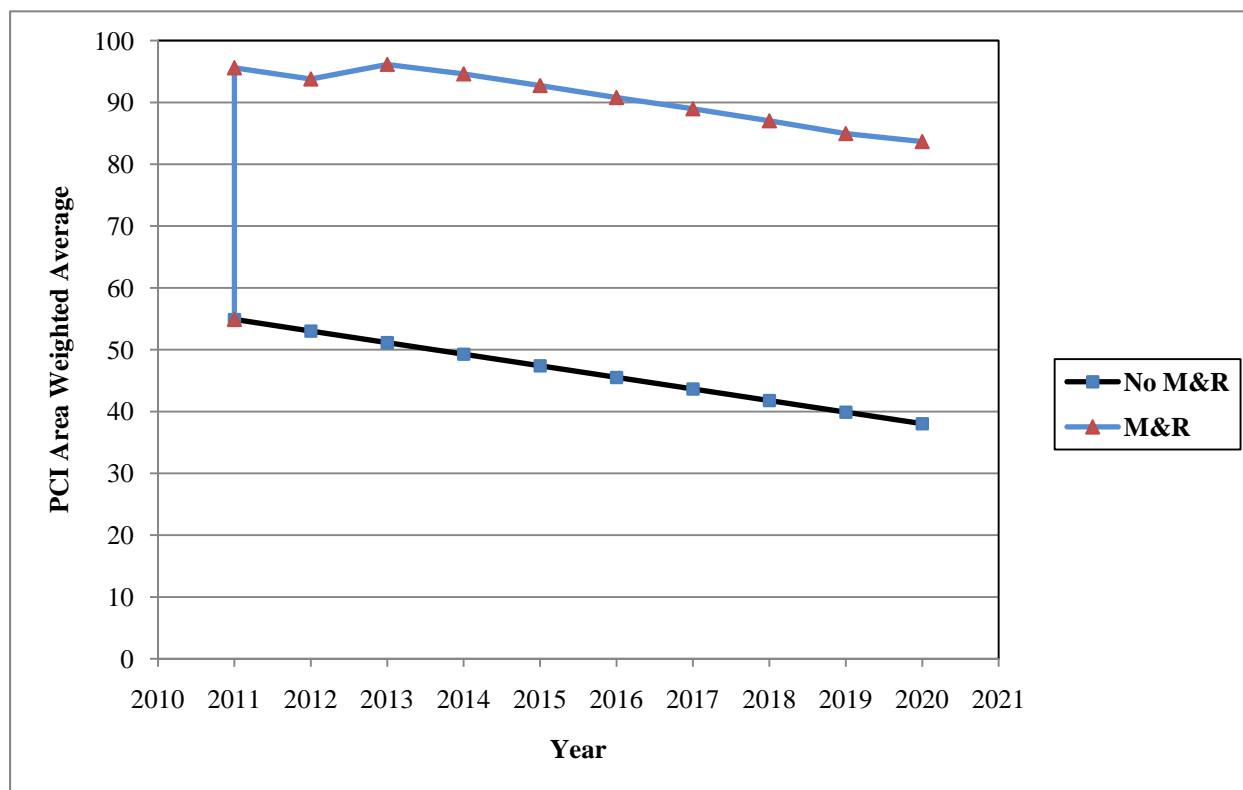
<b>Branch Name</b>	<b>Branch ID</b>	<b>Section ID</b>	<b>Distress Description</b>	<b>Distress Severity</b>	<b>Work Description</b>	<b>Work Quantity</b>	<b>Work Unit</b>	<b>Unit Cost</b>	<b>Work Cost</b>
Taxiway Alpha - Parallel RW 13-31	TW A	105	WEATH/RAVEL	M	Surface Seal - Coat Tar	3,316.50	SqFt	\$0.40	\$1,326.60
Taxiway Alpha - Parallel RW 13-31	TW A	110	L & T CR	H	Crack Sealing - AC	7.50	Ft	\$2.25	\$16.88
Taxiway Alpha - Parallel RW 13-31	TW A	110	L & T CR	M	Crack Sealing - AC	315.00	Ft	\$2.25	\$708.75
Taxiway Alpha - Parallel RW 13-31	TW A	110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	157,500.00	SqFt	\$0.40	\$63,000.52
Taxiway Alpha - Parallel RW 13-31	TW A	115	WEATH/RAVEL	L	Surface Seal - Rejuvenating	14,450.00	SqFt	\$0.40	\$5,780.05
Taxiway Alpha - Parallel RW 13-31	TW A	120	LINEAR CR	M	Crack Sealing - PCC	37.50	Ft	\$4.24	\$159.00
Taxiway Alpha - Parallel RW 13-31	TW A	150	L & T CR	M	Crack Sealing - AC	197.50	Ft	\$2.25	\$444.38
Taxiway Alpha - Parallel RW 13-31	TW A	150	WEATH/RAVEL	L	Surface Seal - Rejuvenating	18,960.00	SqFt	\$0.40	\$7,584.06
Taxiway Alpha - Parallel RW 13-31	TW A	150	WEATH/RAVEL	M	Surface Seal - Coat Tar	790.00	SqFt	\$0.40	\$316.00
Taxiway Alpha - Parallel RW 13-31	TW A	155	WEATH/RAVEL	L	Surface Seal - Rejuvenating	7,075.00	SqFt	\$0.40	\$2,830.02
Taxiway Alpha - Parallel RW 13-31	TW A	160	WEATH/RAVEL	L	Surface Seal - Rejuvenating	17,900.00	SqFt	\$0.40	\$7,160.06
Taxiway Alpha - Parallel RW 13-31	TW A	165	L & T CR	M	Crack Sealing - AC	89.50	Ft	\$2.25	\$201.38
Taxiway Alpha - Parallel RW 13-31	TW A	165	WEATH/RAVEL	L	Surface Seal - Rejuvenating	17,900.00	SqFt	\$0.40	\$7,160.06
Taxiway Alpha - Parallel RW 13-31	TW A	170	L & T CR	M	Crack Sealing - AC	32.00	Ft	\$2.25	\$72.00

**Table 6-3: Summary of Year 1 Maintenance Activities (Continued)**

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Taxiway Alpha - Parallel RW 13-31	TW A	170	WEATH/RAVEL	L	Surface Seal - Rejuvenating	6,400.00	SqFt	\$0.40	\$2,560.02
Taxiway Alpha - Parallel RW 13-31	TW A	175	WEATH/RAVEL	L	Surface Seal - Rejuvenating	8,930.00	SqFt	\$0.40	\$3,572.03
Taxiway Alpha - Parallel RW 13-31	TW A	175	L & T CR	M	Crack Sealing - AC	85.00	Ft	\$2.25	\$191.36
Taxiway Charlie - Parallel RW 4-22	TW C	205	L & T CR	M	Crack Sealing - AC	125.00	Ft	\$2.25	\$281.14
Taxiway Charlie - Parallel RW 4-22	TW C	205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	8,200.00	SqFt	\$0.40	\$3,280.03
Taxiway Charlie - Parallel RW 4-22	TW C	207	L & T CR	M	Crack Sealing - AC	252.00	Ft	\$2.25	\$567.00
Taxiway Charlie - Parallel RW 4-22	TW C	207	WEATH/RAVEL	L	Surface Seal - Rejuvenating	10,500.00	SqFt	\$0.40	\$4,200.04
Taxiway Charlie - Parallel RW 4-22	TW C	210	L & T CR	M	Crack Sealing - AC	171.30	Ft	\$2.25	\$385.50
Taxiway Charlie - Parallel RW 4-22	TW C	210	PATCHING	M	Patching - AC Deep	12.00	SqFt	\$4.90	\$58.96
Taxiway Charlie - Parallel RW 4-22	TW C	210	WEATH/RAVEL	L	Surface Seal - Rejuvenating	179,900.00	SqFt	\$0.40	\$71,960.60
Taxiway Charlie 1	TW C1	215	WEATH/RAVEL	L	Surface Seal - Rejuvenating	16,350.00	SqFt	\$0.40	\$6,540.05
Taxiway Charlie 2	TW C2	220	L & T CR	H	Crack Sealing – AC	11.50	Ft	\$2.25	\$25.97
Taxiway Charlie 2	TW C2	220	L & T CR	M	Crack Sealing – AC	57.70	Ft	\$2.25	\$129.84
Taxiway Charlie 2	TW C2	220	WEATH/RAVEL	L	Surface Seal - Rejuvenating	16,338.50	SqFt	\$0.40	\$6,535.44
Taxiway Charlie 2	TW C2	220	WEATH/RAVEL	M	Surface Seal - Coat Tar	11.50	SqFt	\$0.40	\$4.62
<b>Total =</b>									<b>\$620,832.40</b>

The 10 year forecast results are shown in Figure 6-1, illustrating the effect on pavement condition (PCI) of doing no maintenance versus having unlimited funds and performing all M&R actions based on the policies.

**Figure 6-1: Budget Scenario Analysis**



The following network level observations can be made from the figure above:

- The PCI will deteriorate from 56 in 2011 to 38 in ten years if no M&R activities are performed.
- The PCI will remain at or above 83 through the 10-year analysis period under the unlimited budget scenario. A 2020 PCI of 83 with this scenario is 45 PCI points higher than a “No M&R” scenario. The total cost for Major M&R over this 10-year period is about \$9.2 million.

## 7. MAINTENANCE AND REHABILITATION PLAN

The M&R analysis results include activities that likely exceed a typical annual budget level. These activities would need to be evaluated for feasibility and desirability based on the airport's future plans. In an effort to identify appropriate budget levels, the 10 year M&R analysis was evaluated to determine levels needed to address several specific areas: preventive maintenance, major activities for pavements in poor condition (Major M&R for PCIs less than Critical), and activities that would be desirable to preserve good pavement conditions where they exist (Major M&R for PCI greater than or equal to Critical).

Table 7-1 provides the summary results under the critical PCI unlimited funding scenario.

**Table 7-1: M&R Costs under Unlimited Funding Scenario**

Year	Preventative	Major M&R	Total Year Cost
2011	\$85,345.16	\$8,528,751.98	\$8,614,097.14
2012	\$55,389.02	\$0.00	\$55,389.02
2013	\$9,396.43	\$536,298.17	\$545,694.60
2014	\$7,498.11	\$50,875.11	\$58,373.21
2015	\$10,435.45	\$0.00	\$10,435.45
2016	\$22,900.22	\$0.00	\$22,900.22
2017	\$42,912.91	\$0.00	\$42,912.91
2018	\$73,856.32	\$0.00	\$73,856.32
2019	\$116,139.60	\$0.00	\$116,139.60
2020	\$148,416.19	\$43,442.97	\$191,859.16
<b>Total</b>	<b>\$572,289.41</b>	<b>\$9,159,368.23</b>	<b>\$9,731,657.63</b>

Note: Costs are adjusted for inflation.

Approximately 93% of the total Major M&R cost is required in the first year (2011). According to the 2011 inspections, the following pavement sections were in immediate need of Major M&R Activity:

- **Apron** – Reconstruction of PCC pavement per the FAA P-501 Specification.
- **Runway 13-31** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification and restoration of PCC pavement per the FAA P-501 Specification.
- **Runway 4-22** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.
- **Taxiway Alpha – Parallel RW 13-31** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification and restoration of PCC pavement per the FAA P-501 Specification.
- **Taxiway Charlie - Parallel RW 4-22** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.



- **Taxiway Charlie 1** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.
- **Taxiway Charlie 2** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.

The unlimited budget scenario provides the basis for estimating the total repair cost.

Appendix F provides details of M&R plan by year under the unlimited funding scenario, and the map of the 10-year M&R plan is provided in Appendix G. It is important to understand that the SAPMP is a network level tool and the M&R costs provided in this report are only for planning purposes.

## **8. VISUAL AIDS**

### **8.1 System Inventory and Network Definition Drawings**

The System Inventory and Network Definition CADD drawings, which show the airport pavement outline with Branch and Section boundaries and identify changes in the network pavement since the last inspection and the sampling plan, respectively, are included in Appendix A of this report.

### **8.2 Condition Map**

A Condition Map that has been prepared based on data linked to the airport's shape file is included in Appendix B. The Condition Map graphically show the inventory and condition of the airport via color coding shown on the shape file. The coding provides a visual representation that illustrates the PCIs for each pavement section.

### **8.3 10-Year M&R Map**

A 10-Year M&R Map that shows the summary of the M&R plan is attached in Appendix G.

### **8.4 Photographs**

Selected digital photographs taken during the pavement inspection are provided in Appendix H to provide visual support to special pavement conditions or distress observed during the inspection of the airport.

## **9. RECOMMENDATIONS**

Pavement condition inspections were performed at Cross City Airport, and a 10-year M&R plan was developed based on the unlimited funding scenario.

The following recommendations were made based on the 2011 condition inspection and M&R analysis results:

- **Apron** – Reconstruction of PCC pavement per the FAA P-501 Specification.
- **Runway 13-31** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification and restoration of PCC pavement per the FAA P-501 Specification.
- **Runway 4-22** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.
- **Taxiway Alpha – Parallel RW 13-31** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification and restoration of PCC pavement per the FAA P-501 Specification.
- **Taxiway Charlie - Parallel RW 4-22** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.
- **Taxiway Charlie 1** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.
- **Taxiway Charlie 2** – Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.

Further evaluation of these features is necessary in order to develop repair plans and timing for future budgets since these needs cannot be addressed with typical annual expenditures.

# **APPENDIX A**

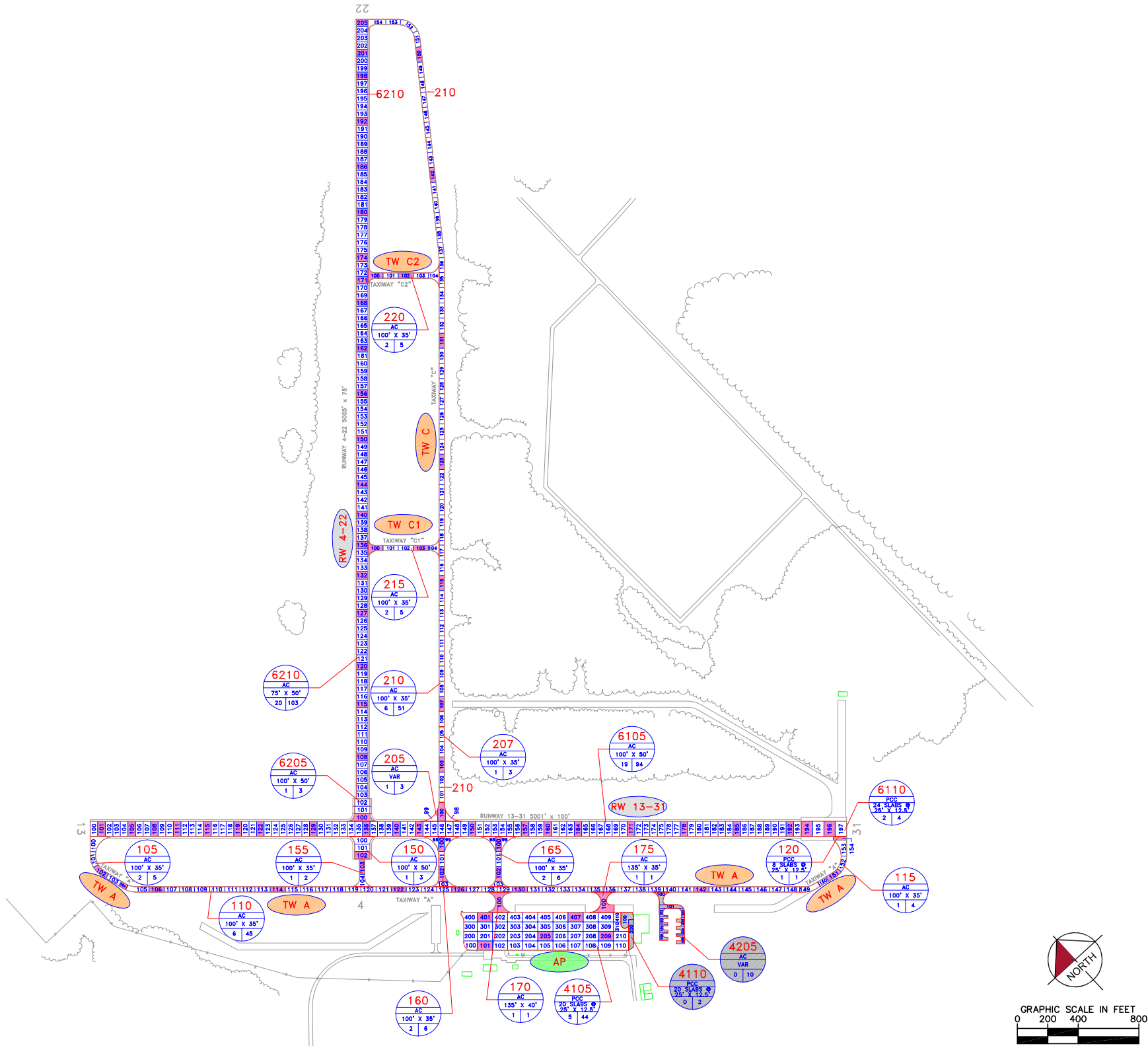
**NETWORK DEFINITION MAP**

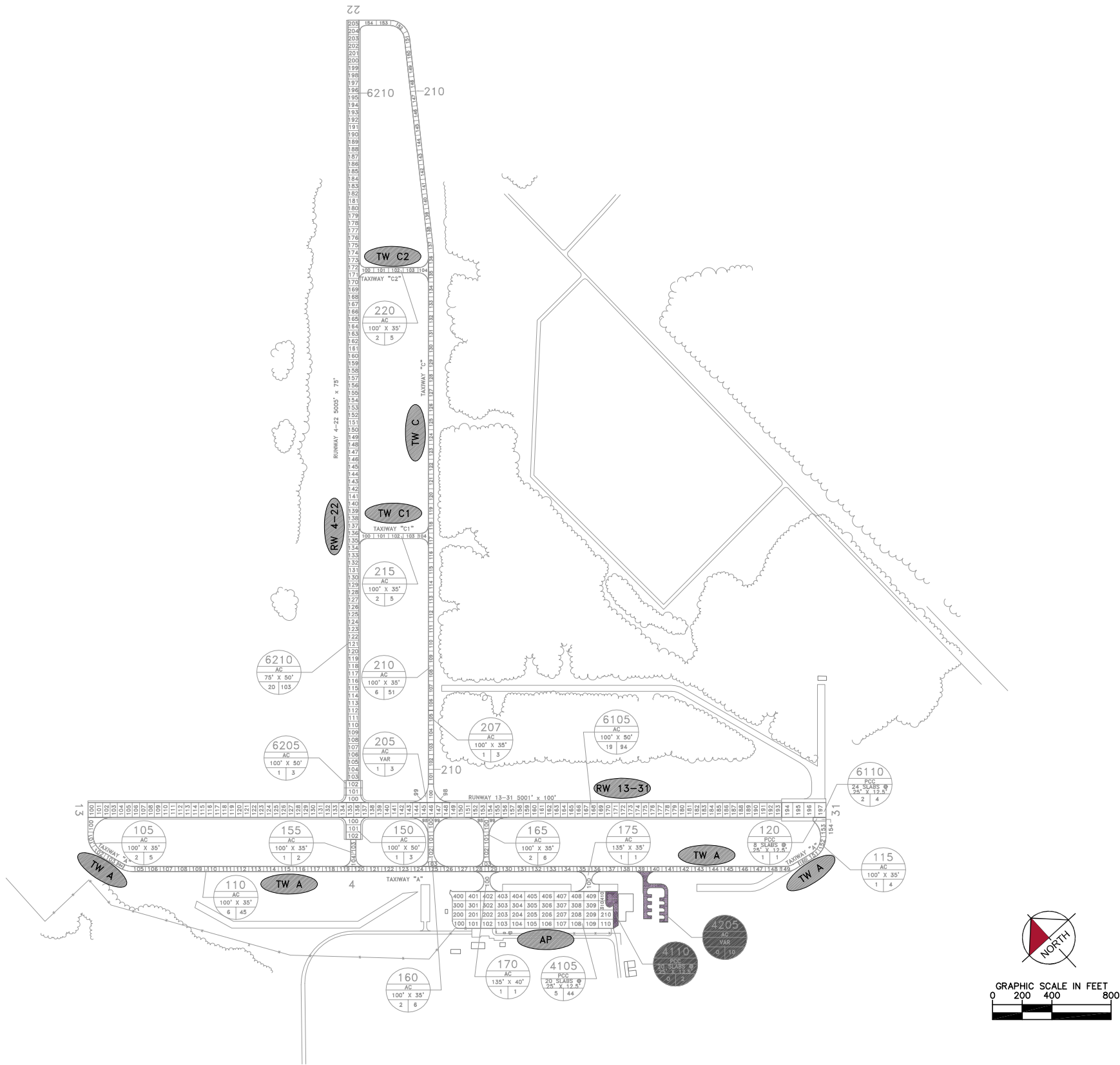
**SYSTEM INVENTORY MAP**

**PAVEMENT INVENTORY TABLE**

**WORK HISTORY REPORT**

GPS COORDINATES - CROSS CITY AIRPORT				
LOCATION	SECTION	SAMPLE	LATITUDE	LONGITUDE
AP	4105	101	29.63027155	-83.10846738
AP	4105	205	29.62963731	-83.10742016
AP	4105	209	29.62887862	-83.10650864
AP	4105	401	29.63064486	-83.10806032
AP	4105	407	29.62950683	-83.10689302
AP	4110	200	29.62859891	-83.10609024
AP	4205	101	29.62844467	-83.10509685
RW 4-22	6205	100	29.63344655	-83.10842456
RW 4-22	6210	108	29.6342903	-83.1076091
RW 4-22	6210	115	29.63498713	-83.10684922
RW 4-22	6210	120	29.63548485	-83.10630644
RW 4-22	6210	127	29.63618167	-83.10554654
RW 4-22	6210	132	29.63667939	-83.10500375
RW 4-22	6210	136	29.63707757	-83.10456951
RW 4-22	6210	140	29.63747575	-83.10413527
RW 4-22	6210	144	29.63787392	-83.10370103
RW 4-22	6210	150	29.63847118	-83.10304965
RW 4-22	6210	156	29.63906843	-83.10239827
RW 4-22	6210	162	29.63966569	-83.10174688
RW 4-22	6210	168	29.64026294	-83.10109549
RW 4-22	6210	171	29.64056156	-83.10076978
RW 4-22	6210	174	29.64086018	-83.10044408
RW 4-22	6210	180	29.64145742	-83.09979267
RW 4-22	6210	186	29.64205466	-83.09914125
RW 4-22	6210	192	29.6426519	-83.09848982
RW 4-22	6210	198	29.64324913	-83.09783838
RW 4-22	6210	201	29.64354775	-83.09751266
RW 4-22	6210	205	29.64394383	-83.09708062
RW 13-31	6105	101	29.63661389	-83.1125687
RW 13-31	6105	105	29.63623456	-83.1121289
RW 13-31	6105	108	29.63595007	-83.11177103
RW 13-31	6105	111	29.63566557	-83.11142917
RW 13-31	6105	115	29.63528624	-83.11097336
RW 13-31	6105	119	29.63490691	-83.11051756
RW 13-31	6105	122	29.63462241	-83.11017571
RW 13-31	6105	129	29.63395858	-83.10937807
RW 13-31	6105	136	29.63329474	-83.10858009
RW 13-31	6105	140	29.6329154	-83.10812466
RW 13-31	6105	143	29.63262961	-83.10778423
RW 13-31	6105	150	29.63196705	-83.10698486
RW 13-31	6105	157	29.63130032	-83.10618762
RW 13-31	6105	160	29.63101869	-83.10584579
RW 13-31	6105	164	29.63063934	-83.10539003
RW 13-31	6105	171	29.62997547	-83.10459245
RW 13-31	6105	178	29.62931161	-83.10379489
RW 13-31	6105	185	29.62864773	-83.10299733
RW 13-31	6105	192	29.62798386	-83.10219978
RW 13-31	6110	194	29.62777047	-83.10194343
RW 13-31	6110	196	29.62748594	-83.10160163
TW A	105	102	29.63605668	-83.11319438
TW A	105	104	29.63559381	-83.11305095
TW A	110	106	29.63512532	-83.11260538
TW A	110	114	29.63360802	-83.11078217
TW A	110	122	29.63209068	-83.10895901
TW A	110	126	29.63133201	-83.10804746
TW A	110	130	29.63057332	-83.10713592
TW A	110	142	29.62829724	-83.10440137
TW A	115	151	29.62683282	-83.10220477
TW A	120	154	29.62722977	-83.10157905
TW A	150	102	29.63299619	-83.10902029
TW A	155	103	29.63284687	-83.10918311
TW A	160	100	29.63215272	-83.10766461
TW A	160	102	29.63172713	-83.10812074
TW A	165	100	29.63143726	-83.106805
TW A	165	102	29.63103484	-83.10724447
TW A	170	100	29.63066253	-83.10764073
TW A	175	100	29.6293645	-83.10603808
TW C	205	100	29.63256588	-83.1072112
TW C	207	103	29.63319498	-83.10652123
TW C	210	107	29.63399134	-83.10565279
TW C	210	115	29.63558405	-83.10391588
TW C	210	123	29.63717674	-83.10217891
TW C	210	131	29.6387694	-83.10044188
TW C	210	142	29.64106588	-83.09820321
TW C	210	150	29.64281678	-83.09667869
TW C1	215	100	29.63691892	-83.10448376
TW C1	215	103	29.63630276	-83.10372985
TW C1	220	100	29.6405064	-83.10057443
TW C1	220	102	29.64007594	-83.10004945
NOTE: GEODETICS REPRESENT DECIMAL DEGREES WGS84 (DERIVED FROM NAD 83 FLORIDA STATE PLANES, NORTH ZONE, US FOOT). ALL GPS COORDINATES ARE AT THE CENTROID OF THE SAMPLE UNITS.				





CONSTRUCTION SINCE LAST INSPECTION & ANTICIPATED CONSTRUCTION ACTIVITY

CONSTRUCTION YEAR	LOCATION	WORK TYPE / PAVEMENT SECTION
2006	APRON 4110	NEW CONSTRUCTION (PCC)
2006	APRON 4205	NEW CONSTRUCTION (AC)

LEGEND

- PROJECTS YEAR 2006
- PROJECTS YEAR 2007
- PROJECTS YEAR 2008
- PROJECTS YEAR 2009
- PROJECTS YEAR 2010
- PROJECTS YEAR 2011
- PROJECTS YEAR 2012
- PROJECTS YEAR 2013
- PROJECTS YEAR 2014
- PROJECTS YEAR 2015
- PROJECTS YEAR 2016
- PROJECTS YEAR 2017

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

NUMBER	DATE	REVISIONS
DESIGNED:	FL	DRAWN: BB
CHECKED:		DATE: JUNE 2011



SYSTEM INVENTORY MAP  
**CROSS CITY AIRPORT**  
**DIXIE COUNTY, FLORIDA**  
FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION OFFICE

**Table A-1: Pavement Inventory**

<b>Branch Name</b>	<b>Branch ID</b>	<b>Branch Use</b>	<b>Section ID</b>	<b>Length (ft)</b>	<b>Width (ft)</b>	<b>True Area (ft<sup>2</sup>)</b>	<b>Section Rank</b>	<b>Surface Type</b>	<b>Last Const. Date</b>	<b>Last Insp. Date</b>	<b>Sample Units in Section</b>
Apron	AP	APRON	4105	1350	200	270,000.00	P	PCC	1/1/1942	2/10/2011	44
Apron	AP	APRON	4110	350.00	35	12,801.00	P	PCC	1/1/2006	1/1/2006	2
Apron	AP	APRON	4205	685.00	32	22,555.00	P	AC	1/1/2006	1/1/2006	10
Runway 13-31	RW 13-31	RUNWAY	6105	4700	100	470,000.00	P	AAC	1/1/1995	2/10/2011	94
Runway 13-31	RW 13-31	RUNWAY	6110	300	100	30,000.00	P	PCC	1/1/1942	2/10/2011	4
Runway 4-22	RW 4-22	RUNWAY	6205	150.00	100	15,000.00	P	AC	1/1/1989	2/10/2011	3
Runway 4-22	RW 4-22	RUNWAY	6210	5155	75	386,625.00	P	AC	1/1/1993	2/10/2011	103
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	105	470	35	19,030.00	P	AC	1/1/1989	2/10/2011	5
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	110	4585	35	160,514.00	P	AC	1/1/1989	2/10/2011	45
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	115	365	35	14,453.00	P	AC	1/1/1989	2/10/2011	4
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	120	100.00	25	2,500.00	P	PCC	1/1/1942	2/10/2011	1
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	150	150.00	125	19,750.00	P	AC	1/1/1989	2/10/2011	3
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	155	190.00	35	7,075.00	P	AC	1/1/1989	2/10/2011	2
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	160	350	35	17,900.00	P	AC	1/1/1989	2/10/2011	6
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	165	350	35	17,900.00	P	AC	1/1/1989	2/10/2011	6
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	170	135	40	6,400.00	P	AC	1/1/1989	2/10/2011	1
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	175	135	35	8,930.00	P	AC	1/1/1989	2/10/2011	1

**Table A-1: Pavement Inventory (Continued)**

<b>Branch Name</b>	<b>Branch ID</b>	<b>Branch Use</b>	<b>Section ID</b>	<b>Length (ft)</b>	<b>Width (ft)</b>	<b>True Area (ft<sup>2</sup>)</b>	<b>Section Rank</b>	<b>Surface Type</b>	<b>Last Const. Date</b>	<b>Last Insp. Date</b>	<b>Total Samples</b>
Taxiway Charlie - Parallel RW 4-22	TW C	TAXIWAY	205	120	50	8,200.00	P	AC	1/1/1989	2/10/2011	3
Taxiway Charlie - Parallel RW 4-22	TW C	TAXIWAY	207	300	35	10,500.00	P	AC	1/1/1995	2/10/2011	3
Taxiway Charlie - Parallel RW 4-22	TW C	TAXIWAY	210	5100	35	179,900.00	P	AC	1/1/1993	2/10/2011	51
Taxiway Charlie 1	TW C1	TAXIWAY	215	450	35	16,350.00	P	AC	1/1/1993	2/10/2011	5
Taxiway Charlie 2	TW C2	TAXIWAY	220	450	35	16,350.00	P	AC	1/1/1993	2/10/2011	5

Note: If a new construction, then survey date = last construction date and PCI is set to 100 by MicroPAVER.

Sections not surveyed due to reasons such as re-sectioning, no escort, not accessible at the time of survey.



Date:06/21/2011

# Work History Report

1 of 4

Pavement Database:

Network: CTY Branch: AP (APRON) Section: 4105 Surface: PCC  
 L.C.D.: 01/01/1942 Use: APRON Rank: P Length: 1,350.00 Ft Width: 200.00 Ft True Area:270,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1942	IMPORTED	BUILT			True	ESTIMATE 1942 PCC PAVEMENT SECTION UNKNOWN

Network: CTY Branch: AP (APRON) Section: 4110 Surface: PCC  
 L.C.D.: 01/01/2006 Use: APRON Rank: P Length: 350.00 Ft Width: 35.00 Ft True Area: 12,801.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/2006	NC-PC	New Construction - PCC	\$0	0.00	True	

Network: CTY Branch: AP (APRON) Section: 4205 Surface: AC  
 L.C.D.: 01/01/2006 Use: APRON Rank: P Length: 685.00 Ft Width: 32.00 Ft True Area: 22,555.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/2006	NC-AC	New Construction - AC	\$0	0.00	True	

Network: CTY Branch: RW 13-31 (RUNWAY 13-31) Section: 6105 Surface: AAC  
 L.C.D.: 01/01/1995 Use: RUNWAY Rank: P Length: 4,700.00 Ft Width: 100.00 Ft True Area:470,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1995	IMPORTED	OVERLAY			True	1995 AC OVERLAY
01/01/1989	IMPORTED	BUILT		2.00	True	1989 2" P401 AC SURF ON VBL P211 BASE ON VBL P250 SUBBASE

Network: CTY Branch: RW 13-31 (RUNWAY 13-31) Section: 6110 Surface: PCC  
 L.C.D.: 01/01/1942 Use: RUNWAY Rank: P Length: 300.00 Ft Width: 100.00 Ft True Area: 30,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1942	IMPORTED	BUILT			True	ESTIMATE 1942 PCC PAVEMENT SECTION UNKNOWN

Network: CTY Branch: RW 4-22 (RUNWAY 4-22) Section: 6205 Surface: AC  
 L.C.D.: 01/01/1989 Use: RUNWAY Rank: P Length: 150.00 Ft Width: 100.00 Ft True Area: 15,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	IMPORTED	BUILT		2.00	True	1989 2" P401 AC PAVEMENT ON VARIABLE LIMEROCK BASE ON COMPACTED SUBBAS

Network: CTY Branch: RW 4-22 (RUNWAY 4-22) Section: 6210 Surface: AC  
 L.C.D.: 01/01/1993 Use: RUNWAY Rank: P Length: 5,155.00 Ft Width: 75.00 Ft True Area:386,625.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1993	IMPORTED	BUILT		2.00	True	1993 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 4" P154 SUBBASE

Network: CTY Branch: TW A (TAXIWAY A - PARALLEL RW 13-31) Section: 105 Surface: AC  
 L.C.D.: 01/01/1989 Use: TAXIWAY Rank: P Length: 470.00 Ft Width: 35.00 Ft True Area: 19,030.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	IMPORTED	BUILT		2.00	True	1989 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 12" STABILIZED SUBBASE

Date:06/21/2011

# Work History Report

2 of 4

*Pavement Database:*

**Network:** CTY **Branch:** TW A (TAXIWAY A - PARALLEL RW 13-31) **Section:** 110 **Surface:** AC  
**L.C.D.:** 01/01/1989 **Use:** TAXIWAY **Rank:** P **Length:** 4,585.00 Ft **Width:** 35.00 Ft **True Area:** 160,514.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	INITIAL	Initial Construction	\$0	0.00	True	

**Network:** CTY **Branch:** TW A (TAXIWAY A - PARALLEL RW 13-31) **Section:** 115 **Surface:** AC  
**L.C.D.:** 01/01/1989 **Use:** TAXIWAY **Rank:** P **Length:** 365.00 Ft **Width:** 35.00 Ft **True Area:** 14,453.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	INITIAL	Initial Construction	\$0	0.00	True	

**Network:** CTY **Branch:** TW A (TAXIWAY A - PARALLEL RW 13-31) **Section:** 120 **Surface:** PCC  
**L.C.D.:** 01/01/1942 **Use:** TAXIWAY **Rank:** P **Length:** 100.00 Ft **Width:** 25.00 Ft **True Area:** 2,500.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1942	INITIAL	Initial Construction	\$0	0.00	True	

**Network:** CTY **Branch:** TW A (TAXIWAY A - PARALLEL RW 13-31) **Section:** 150 **Surface:** AC  
**L.C.D.:** 01/01/1989 **Use:** TAXIWAY **Rank:** P **Length:** 150.00 Ft **Width:** 125.00 Ft **True Area:** 19,750.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	IMPORTED	BUILT		2.00	True	1989 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 12" STABILIZED SUBBASE

**Network:** CTY **Branch:** TW A (TAXIWAY A - PARALLEL RW 13-31) **Section:** 155 **Surface:** AC  
**L.C.D.:** 01/01/1989 **Use:** TAXIWAY **Rank:** P **Length:** 190.00 Ft **Width:** 35.00 Ft **True Area:** 7,075.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	IMPORTED	BUILT		2.00	True	1989 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 12" STABILIZED SUBBASE

**Network:** CTY **Branch:** TW A (TAXIWAY A - PARALLEL RW 13-31) **Section:** 160 **Surface:** AC  
**L.C.D.:** 01/01/1989 **Use:** TAXIWAY **Rank:** P **Length:** 350.00 Ft **Width:** 35.00 Ft **True Area:** 17,900.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	IMPORTED	BUILT		2.00	True	1989 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 12" STABILIZED SUBBASE

**Network:** CTY **Branch:** TW A (TAXIWAY A - PARALLEL RW 13-31) **Section:** 165 **Surface:** AC  
**L.C.D.:** 01/01/1989 **Use:** TAXIWAY **Rank:** P **Length:** 350.00 Ft **Width:** 35.00 Ft **True Area:** 17,900.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	IMPORTED	BUILT		2.00	True	1989 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 12" STABILIZED SUBBASE

**Network:** CTY **Branch:** TW A (TAXIWAY A - PARALLEL RW 13-31) **Section:** 170 **Surface:** AC  
**L.C.D.:** 01/01/1989 **Use:** TAXIWAY **Rank:** P **Length:** 135.00 Ft **Width:** 40.00 Ft **True Area:** 6,400.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	IMPORTED	BUILT		2.00	True	1989 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 12" STABILIZED SUBBASE

Date:06/21/2011

**Work History Report**

3 of 4

*Pavement Database:*

**Network:** CTY      **Branch:** TW A      (TAXIWAY A - PARALLEL RW 13-31)      **Section:** 175      **Surface:** AC  
**L.C.D.:** 01/01/1989    **Use:** TAXIWAY      **Rank:** P    **Length:** 135.00 Ft    **Width:** 35.00 Ft    **True Area:** 8,930.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	IMPORTED	BUILT		2.00	True	1989 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 12" STABILIZED SUBBASE

**Network:** CTY      **Branch:** TW C      (TAXIWAY C - PARALLEL RW 4-22)      **Section:** 205      **Surface:** AC  
**L.C.D.:** 01/01/1989    **Use:** TAXIWAY      **Rank:** P    **Length:** 120.00 Ft    **Width:** 50.00 Ft    **True Area:** 8,200.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1989	IMPORTED	BUILT		2.00	True	1989 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 12" STABILIZED SUBBASE

**Network:** CTY      **Branch:** TW C      (TAXIWAY C - PARALLEL RW 4-22)      **Section:** 207      **Surface:** AC  
**L.C.D.:** 01/01/1995    **Use:** TAXIWAY      **Rank:** P    **Length:** 300.00 Ft    **Width:** 35.00 Ft    **True Area:** 10,500.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1995	IMPORTED	BUILT			True	1995 AC PATCH

**Network:** CTY      **Branch:** TW C      (TAXIWAY C - PARALLEL RW 4-22)      **Section:** 210      **Surface:** AC  
**L.C.D.:** 01/01/1993    **Use:** TAXIWAY      **Rank:** P    **Length:** 5,100.00 Ft    **Width:** 35.00 Ft    **True Area:** 179,900.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1993	IMPORTED	BUILT		2.00	True	1993 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 10" COMPACTED SUBGRADE

**Network:** CTY      **Branch:** TW C1      (TAXIWAY C1)      **Section:** 215      **Surface:** AC  
**L.C.D.:** 01/01/1993    **Use:** TAXIWAY      **Rank:** P    **Length:** 450.00 Ft    **Width:** 35.00 Ft    **True Area:** 16,350.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1993	IMPORTED	BUILT		2.00	True	1993 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 4" P154 SUBBASE

**Network:** CTY      **Branch:** TW C2      (TAXIWAY C2)      **Section:** 220      **Surface:** AC  
**L.C.D.:** 01/01/1993    **Use:** TAXIWAY      **Rank:** P    **Length:** 450.00 Ft    **Width:** 35.00 Ft    **True Area:** 16,350.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1993	IMPORTED	BUILT		2.00	True	1993 2" P401 AC SURFACE ON 6" LIMEROCK BASE ON 4" P154 SUBBASE

Date: 6/21/2011

## Work History Report

4 of 4

*Pavement Database:*

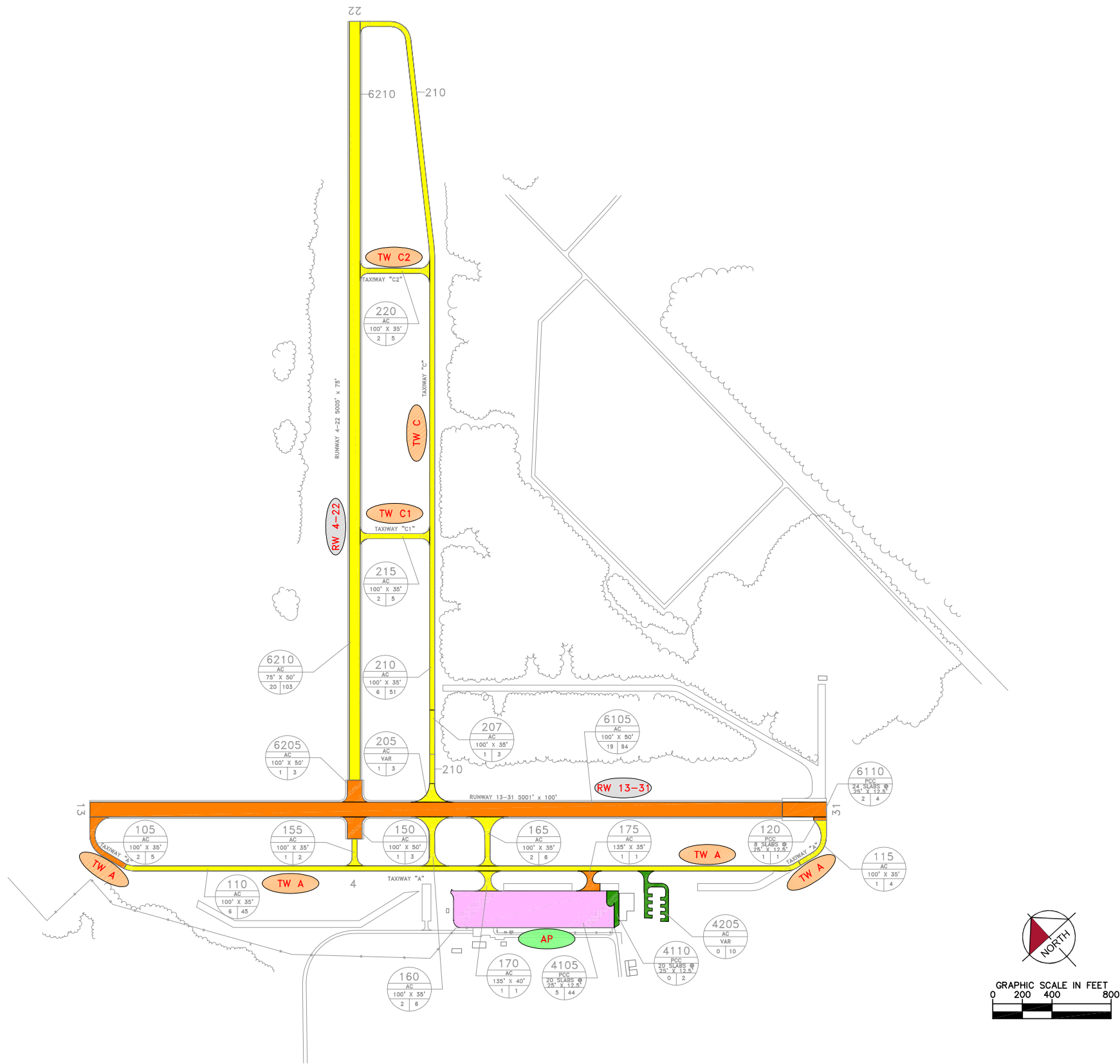
### Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
BUILT	17	1,499,910.00	2.00	.00
Initial Construction	3	177,467.00	.00	.00
New Construction - AC	1	22,555.00	.00	
New Construction - PCC	1	12,801.00	.00	
OVERLAY	1	470,000.00		

STD = Standard Deviation

# **APPENDIX B**

## **2011 CONDITION MAP PAVEMENT CONDITION INDEX TABLE**



**LEGEND**

**Runway/Taxiway/Apron Branch IDs:**

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

**Pavement Condition Index (PCI) Legend:**

- 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

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

NUMBER	DATE	REVISIONS
DESIGNED:	FL	DRAWN: BB
CHECKED:		DATE: MAY 2011
PLATTED: July 19, 2011 BY: [Signature] [Signature] [Signature] [Signature] [Signature] [Signature]		



**Table B-1: Pavement Condition Index**

Branch Name	Branch ID	Branch Use	Section ID	True Area (ft <sup>2</sup> )	Section Rank	Surface Type	Total Samples Inspected	Total Samples	PCI	PCI Category
Apron	AP	APRON	4105	270,000.00	P	PCC	5	44	28	Very Poor
Apron	AP	APRON	4110	12,801.00	P	PCC	0	2	100	Good
Apron	AP	APRON	4205	22,555.00	P	AC	0	10	100	Good
Runway 13-31	RW 13-31	RUNWAY	6105	470,000.00	P	AAC	19	94	54	Poor
Runway 13-31	RW 13-31	RUNWAY	6110	30,000.00	P	PCC	2	4	49	Poor
Runway 4-22	RW 4-22	RUNWAY	6205	15,000.00	P	AC	1	3	53	Poor
Runway 4-22	RW 4-22	RUNWAY	6210	386,625.00	P	AC	20	103	63	Fair
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	105	19,030.00	P	AC	2	5	52	Poor
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	110	160,514.00	P	AC	6	45	65	Fair
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	115	14,453.00	P	AC	1	4	67	Fair
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	120	2,500.00	P	PCC	1	1	49	Poor
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	150	19,750.00	P	AC	1	3	54	Poor
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	155	7,075.00	P	AC	1	2	64	Fair
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	160	17,900.00	P	AC	2	6	69	Fair
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	165	17,900.00	P	AC	2	6	64	Fair
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	170	6,400.00	P	AC	1	1	59	Fair
Taxiway Alpha - Parallel RW 13-31	TW A	TAXIWAY	175	8,930.00	P	AC	1	1	54	Poor

**Table B-1: Pavement Condition Index (Continued)**

<b>Branch Name</b>	<b>Branch ID</b>	<b>Branch Use</b>	<b>Section ID</b>	<b>True Area (ft<sup>2</sup>)</b>	<b>Section Rank</b>	<b>Surface Type</b>	<b>Total Samples Inspected</b>	<b>Total Samples</b>	<b>PCI</b>	<b>PCI Category</b>
Taxiway Charlie - Parallel RW 4-22	TW C	TAXIWAY	205	8,200.00	P	AC	1	3	64	Fair
Taxiway Charlie - Parallel RW 4-22	TW C	TAXIWAY	207	10,500.00	P	AC	1	3	63	Fair
Taxiway Charlie - Parallel RW 4-22	TW C	TAXIWAY	210	179,900.00	P	AC	6	51	67	Fair
Taxiway Charlie 1	TW C1	TAXIWAY	215	16,350.00	P	AC	2	5	65	Fair
Taxiway Charlie 2	TW C2	TAXIWAY	220	16,350.00	P	AC	2	5	57	Fair

Note: If a new construction, then survey date = last construction date and PCI is set to 100 by MicroPAVER.

Sections not surveyed due to reasons such as re-sectioning, no escort, not accessible at the time of survey.



# **APPENDIX C**

**BRANCH CONDITION REPORT  
SECTION CONDITION REPORT**

Date: 6 /7/2011

**Branch Condition Report**

1 of 2

Pavement Database: NetworkID: CTY

Branch ID	Number of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (SqFt)	Use	Average PCI	PCI Standard Deviation	Weighted Average PCI
AP (APRON)	3	2,385.00	89.00	305,356.00	APRON	76.00	33.94	36.34
RW 13-31 (RUNWAY 13-31)	2	5,000.00	100.00	500,000.00	RUNWAY	51.50	2.50	53.70
RW 4-22 (RUNWAY 4-22)	2	5,305.00	87.50	401,625.00	RUNWAY	58.00	5.00	62.63
TW A (TAXIWAY A - PARALLEL RW 13-31)	10	6,830.00	43.50	274,452.00	TAXIWAY	59.70	6.66	62.94
TW C (TAXIWAY C - PARALLEL RW 4-22)	3	5,520.00	40.00	198,600.00	TAXIWAY	64.67	1.70	66.66
TW C1 (TAXIWAY C1)	1	450.00	35.00	16,350.00	TAXIWAY	65.00	0.00	65.00
TW C2 (TAXIWAY C2)	1	450.00	35.00	16,350.00	TAXIWAY	57.00	0.00	57.00

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average PCI STD.	Weighted Average PCI
APRON	3	305,356.00	76.00	33.94	36.34
RUNWAY	4	901,625.00	54.75	5.12	57.68
TAXIWAY	15	505,752.00	60.87	6.01	64.28
<b>All</b>	<b>22</b>	<b>1,712,733.00</b>	<b>61.82</b>	<b>14.95</b>	<b>55.82</b>

STD = Standard Deviation

Date: 6 /7/2011

## Section Condition Report

1 of 2

Pavement Database: NetworkID: CTY

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP (APRON)	4105	01/01/1942	PCC	APRON	P	0	270,000.00	02/10/2011	69	28.00
AP (APRON)	4110	01/01/2006	PCC	APRON	P	0	12,801.00	01/01/2006	0	100.00
AP (APRON)	4205	01/01/2006	AC	APRON	P	0	22,555.00	01/01/2006	0	100.00
RW 13-31 (RUNWAY 13-31)	6105	01/01/1995	AAC	RUNWAY	P	0	470,000.00	02/10/2011	16	54.00
RW 13-31 (RUNWAY 13-31)	6110	01/01/1942	PCC	RUNWAY	P	0	30,000.00	02/10/2011	69	49.00
RW 4-22 (RUNWAY 4-22)	6205	01/01/1989	AC	RUNWAY	P	0	15,000.00	02/10/2011	22	53.00
RW 4-22 (RUNWAY 4-22)	6210	01/01/1993	AC	RUNWAY	P	0	386,625.00	02/10/2011	18	63.00
TW A (TAXIWAY A - PARALLEL RW 13-31)	105	01/01/1989	AC	TAXIWAY	P	0	19,030.00	02/10/2011	22	52.00
TW A (TAXIWAY A - PARALLEL RW 13-31)	110	01/01/1989	AC	TAXIWAY	P	0	160,514.00	02/10/2011	22	65.00
TW A (TAXIWAY A - PARALLEL RW 13-31)	115	01/01/1989	AC	TAXIWAY	P	0	14,453.00	02/10/2011	22	67.00
TW A (TAXIWAY A - PARALLEL RW 13-31)	120	01/01/1942	PCC	TAXIWAY	P	0	2,500.00	02/10/2011	69	49.00
TW A (TAXIWAY A - PARALLEL RW 13-31)	150	01/01/1989	AC	TAXIWAY	P	0	19,750.00	02/10/2011	22	54.00
TW A (TAXIWAY A - PARALLEL RW 13-31)	155	01/01/1989	AC	TAXIWAY	P	0	7,075.00	02/10/2011	22	64.00
TW A (TAXIWAY A - PARALLEL RW 13-31)	160	01/01/1989	AC	TAXIWAY	P	0	17,900.00	02/10/2011	22	69.00
TW A (TAXIWAY A - PARALLEL RW 13-31)	165	01/01/1989	AC	TAXIWAY	P	0	17,900.00	02/10/2011	22	64.00
TW A (TAXIWAY A - PARALLEL RW 13-31)	170	01/01/1989	AC	TAXIWAY	P	0	6,400.00	02/10/2011	22	59.00
TW A (TAXIWAY A - PARALLEL RW 13-31)	175	01/01/1989	AC	TAXIWAY	P	0	8,930.00	02/10/2011	22	54.00
TW C (TAXIWAY C - PARALLEL RW 4-22)	205	01/01/1989	AC	TAXIWAY	P	0	8,200.00	02/10/2011	22	64.00
TW C (TAXIWAY C - PARALLEL RW 4-22)	207	01/01/1995	AC	TAXIWAY	P	0	10,500.00	02/10/2011	16	63.00
TW C (TAXIWAY C - PARALLEL RW 4-22)	210	01/01/1993	AC	TAXIWAY	P	0	179,900.00	02/10/2011	18	67.00
TW C1 (TAXIWAY C1)	215	01/01/1993	AC	TAXIWAY	P	0	16,350.00	02/10/2011	18	65.00
TW C2 (TAXIWAY C2)	220	01/01/1993	AC	TAXIWAY	P	0	16,350.00	02/10/2011	18	57.00

Date: 6 /7/2011

## Section Condition Report

2 of 2

*Pavement Database:*

Age Category	Average Age At Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	PCI Standard Deviation	Weighted Average PCI
0-02	0.00	35,356.00	2	100.00	0.00	100.00
16-20	17.33	1,079,725.00	6	61.50	4.54	59.69
21-25	22.00	295,152.00	11	60.45	5.93	62.58
over 40	69.00	302,500.00	3	42.00	9.90	30.26
All	25.14	1,712,733.00	22	61.82	14.95	55.82

# **APPENDIX D**

## **PAVEMENT CONDITION PREDICTION TABLE PREDICTED PCI BY PAVEMENT USE GRAPH**

**Table D-1: Pavement Condition Prediction**

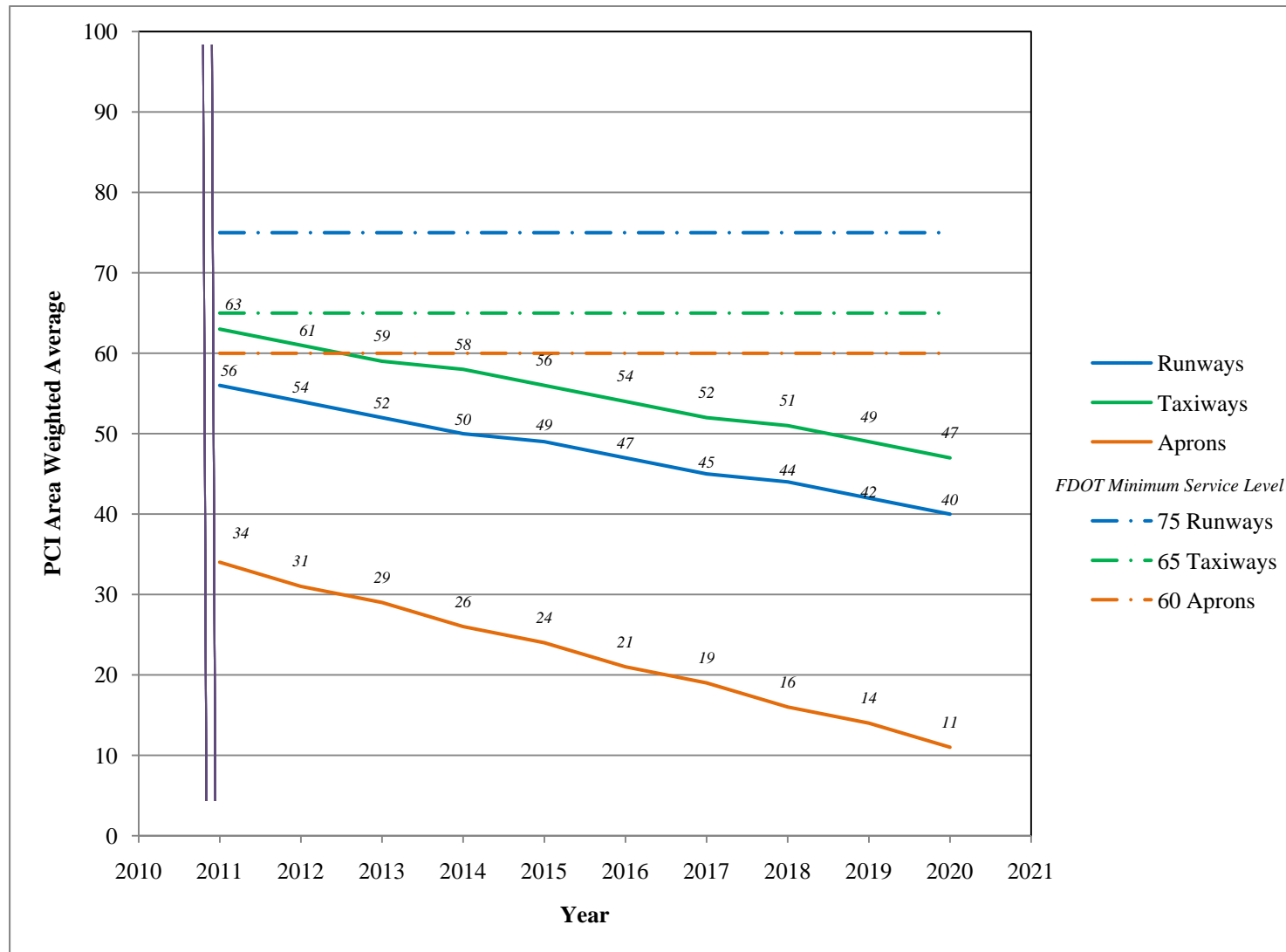
Branch Name	Branch ID	Section ID	Current PCI	PCI Forecast									
				2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Apron	AP	4105	28	27	24	22	19	17	14	12	9	6	4
Apron	AP	4110	100	86	83	81	78	76	73	71	68	65	63
Apron	AP	4205	100	92	91	89	88	86	85	83	82	80	79
Runway 13-31	RW 13-31	6105	54	53	51	49	47	45	43	42	40	38	36
Runway 13-31	RW 13-31	6110	49	48	45	43	40	38	35	33	30	27	25
Runway 4-22	RW 4-22	6205	53	52	51	50	48	47	45	44	42	41	39
Runway 4-22	RW 4-22	6210	63	62	61	60	58	57	55	54	52	51	49
Taxiway Alpha - Parallel RW 13-31	TW A	105	52	51	50	48	46	44	43	41	39	38	36
Taxiway Alpha - Parallel RW 13-31	TW A	110	65	64	63	61	59	57	56	54	52	51	49
Taxiway Alpha - Parallel RW 13-31	TW A	115	67	66	65	63	61	59	58	56	54	53	51
Taxiway Alpha - Parallel RW 13-31	TW A	120	49	48	45	43	40	38	35	33	30	27	25
Taxiway Alpha - Parallel RW 13-31	TW A	150	54	53	52	50	48	46	45	43	41	40	38
Taxiway Alpha - Parallel RW 13-31	TW A	155	64	63	62	60	58	56	55	53	51	50	48
Taxiway Alpha - Parallel RW 13-31	TW A	160	69	68	67	65	63	61	60	58	56	55	53
Taxiway Alpha - Parallel RW 13-31	TW A	165	64	63	62	60	58	56	55	53	51	50	48
Taxiway Alpha - Parallel RW 13-31	TW A	170	59	58	57	55	53	51	50	48	46	45	43
Taxiway Alpha - Parallel RW 13-31	TW A	175	54	53	52	50	48	46	45	43	41	40	38
Taxiway Charlie - Parallel RW 4-22	TW C	205	64	63	62	60	58	56	55	53	51	50	48

**Table D-1: Pavement Condition Prediction (Continued)**

Branch Name	Branch ID	Section ID	Current PCI	PCI Forecast									
				2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Taxiway Charlie - Parallel RW 4-22	TW C	207	63	62	61	59	57	55	54	52	50	49	47
Taxiway Charlie - Parallel RW 4-22	TW C	210	67	66	65	63	61	59	58	56	54	53	51
Taxiway Charlie 1	TW C1	215	65	64	63	61	59	57	56	54	52	51	49
Taxiway Charlie 2	TW C2	220	57	56	55	53	51	49	48	46	44	43	41



**Figure D-1: Predicted PCI by Pavement Use**



# **APPENDIX E**

## **YEAR 1 MAINTENANCE ACTIVITIES TABLE**

**Table E-1: Year 1 Maintenance Activities**

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Apron	AP	4105	LINEAR CR	M	Crack Sealing - PCC	9,558.00	Ft	\$4.24	\$40,526.03
Apron	AP	4105	LINEAR CR	H	Crack Sealing - PCC	810.00	Ft	\$4.24	\$3,434.41
Apron	AP	4105	SMALL PATCH	M	Patching - PCC Partial Depth	93.00	SqFt	\$19.06	\$1,772.58
Runway 13-31	RW 13-31	6105	L & T CR	M	Crack Sealing - AC	2,538.00	Ft	\$2.25	\$5,710.51
Runway 13-31	RW 13-31	6105	WEATH/RAVEL	M	Surface Seal - Coat Tar	41,745.90	SqFt	\$0.40	\$16,698.50
Runway 13-31	RW 13-31	6105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	414,866.50	SqFt	\$0.40	\$165,947.99
Runway 13-31	RW 13-31	6105	DEPRESSION	M	Patching - AC Deep	94.40	SqFt	\$4.90	\$462.47
Runway 13-31	RW 13-31	6105	PATCHING	M	Patching - AC Deep	94.40	SqFt	\$4.90	\$462.47
Runway 13-31	RW 13-31	6105	WEATH/RAVEL	H	Microsurfacing - AC	13,387.60	SqFt	\$0.65	\$8,701.87
Runway 13-31	RW 13-31	6110	SMALL PATCH	M	Patching - PCC Partial Depth	43.10	SqFt	\$19.06	\$820.64
Runway 13-31	RW 13-31	6110	SMALL PATCH	H	Patching - PCC Partial Depth	5.40	SqFt	\$19.06	\$102.58
Runway 13-31	RW 13-31	6110	JT SEAL DMG	M	Joint Seal (Localized)	3,200.00	Ft	\$2.00	\$6,400.02
Runway 13-31	RW 13-31	6110	LINEAR CR	M	Crack Sealing - PCC	337.50	Ft	\$4.24	\$1,431.00
Runway 4-22	RW 4-22	6205	L & T CR	M	Crack Sealing - AC	120.90	Ft	\$2.25	\$271.94
Runway 4-22	RW 4-22	6205	WEATH/RAVEL	H	Microsurfacing - AC	25.90	SqFt	\$0.65	\$16.83
Runway 4-22	RW 4-22	6205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	14,218.70	SqFt	\$0.40	\$5,687.53
Runway 4-22	RW 4-22	6205	WEATH/RAVEL	M	Surface Seal - Coat Tar	755.40	SqFt	\$0.40	\$302.16
Runway 4-22	RW 4-22	6210	WEATH/RAVEL	M	Surface Seal - Coat Tar	814.50	SqFt	\$0.40	\$325.80
Runway 4-22	RW 4-22	6210	WEATH/RAVEL	L	Surface Seal - Rejuvenating	385,810.50	SqFt	\$0.40	\$154,325.49
Runway 4-22	RW 4-22	6210	L & T CR	M	Crack Sealing - AC	1,871.30	Ft	\$2.25	\$4,210.35
Taxiway Alpha - Parallel RW 13-31	TW A	105	L & T CR	M	Crack Sealing - AC	140.20	Ft	\$2.25	\$315.41
Taxiway Alpha - Parallel RW 13-31	TW A	105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	14,633.50	SqFt	\$0.40	\$5,853.46
Taxiway Alpha - Parallel RW 13-31	TW A	105	WEATH/RAVEL	M	Surface Seal - Coat Tar	3,316.50	SqFt	\$0.40	\$1,326.60

**Table E-1: Year 1 Maintenance Activities (Continued)**

<b>Branch Name</b>	<b>Branch ID</b>	<b>Section ID</b>	<b>Distress Description</b>	<b>Distress Severity</b>	<b>Work Description</b>	<b>Work Quantity</b>	<b>Work Unit</b>	<b>Unit Cost</b>	<b>Work Cost</b>
Taxiway Alpha - Parallel RW 13-31	TW A	110	L & T CR	H	Crack Sealing - AC	7.50	Ft	\$2.25	\$16.88
Taxiway Alpha - Parallel RW 13-31	TW A	110	L & T CR	M	Crack Sealing - AC	315.00	Ft	\$2.25	\$708.75
Taxiway Alpha - Parallel RW 13-31	TW A	110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	157,500.00	SqFt	\$0.40	\$63,000.52
Taxiway Alpha - Parallel RW 13-31	TW A	115	WEATH/RAVEL	L	Surface Seal - Rejuvenating	14,450.00	SqFt	\$0.40	\$5,780.05
Taxiway Alpha - Parallel RW 13-31	TW A	120	LINEAR CR	M	Crack Sealing - PCC	37.50	Ft	\$4.24	\$159.00
Taxiway Alpha - Parallel RW 13-31	TW A	150	L & T CR	M	Crack Sealing - AC	197.50	Ft	\$2.25	\$444.38
Taxiway Alpha - Parallel RW 13-31	TW A	150	WEATH/RAVEL	L	Surface Seal - Rejuvenating	18,960.00	SqFt	\$0.40	\$7,584.06
Taxiway Alpha - Parallel RW 13-31	TW A	150	WEATH/RAVEL	M	Surface Seal - Coat Tar	790.00	SqFt	\$0.40	\$316.00
Taxiway Alpha - Parallel RW 13-31	TW A	155	WEATH/RAVEL	L	Surface Seal - Rejuvenating	7,075.00	SqFt	\$0.40	\$2,830.02
Taxiway Alpha - Parallel RW 13-31	TW A	160	WEATH/RAVEL	L	Surface Seal - Rejuvenating	17,900.00	SqFt	\$0.40	\$7,160.06
Taxiway Alpha - Parallel RW 13-31	TW A	165	L & T CR	M	Crack Sealing - AC	89.50	Ft	\$2.25	\$201.38
Taxiway Alpha - Parallel RW 13-31	TW A	165	WEATH/RAVEL	L	Surface Seal - Rejuvenating	17,900.00	SqFt	\$0.40	\$7,160.06
Taxiway Alpha - Parallel RW 13-31	TW A	170	L & T CR	M	Crack Sealing - AC	32.00	Ft	\$2.25	\$72.00
Taxiway Alpha - Parallel RW 13-31	TW A	170	WEATH/RAVEL	L	Surface Seal - Rejuvenating	6,400.00	SqFt	\$0.40	\$2,560.02

**Table E-1: Year 1 Maintenance Activities (Continued)**

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Taxiway Alpha - Parallel RW 13-31	TW A	175	WEATH/RAVEL	L	Surface Seal - Rejuvenating	8,930.00	SqFt	\$0.40	\$3,572.03
Taxiway Alpha - Parallel RW 13-31	TW A	175	L & T CR	M	Crack Sealing - AC	85.00	Ft	\$2.25	\$191.36
Taxiway Charlie - Parallel RW 4-22	TW C	205	L & T CR	M	Crack Sealing - AC	125.00	Ft	\$2.25	\$281.14
Taxiway Charlie - Parallel RW 4-22	TW C	205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	8,200.00	SqFt	\$0.40	\$3,280.03
Taxiway Charlie - Parallel RW 4-22	TW C	207	L & T CR	M	Crack Sealing - AC	252.00	Ft	\$2.25	\$567.00
Taxiway Charlie - Parallel RW 4-22	TW C	207	WEATH/RAVEL	L	Surface Seal - Rejuvenating	10,500.00	SqFt	\$0.40	\$4,200.04
Taxiway Charlie - Parallel RW 4-22	TW C	210	L & T CR	M	Crack Sealing - AC	171.30	Ft	\$2.25	\$385.50
Taxiway Charlie - Parallel RW 4-22	TW C	210	PATCHING	M	Patching - AC Deep	12.00	SqFt	\$4.90	\$58.96
Taxiway Charlie - Parallel RW 4-22	TW C	210	WEATH/RAVEL	L	Surface Seal - Rejuvenating	179,900.00	SqFt	\$0.40	\$71,960.60
Taxiway Charlie 1	TW C1	215	WEATH/RAVEL	L	Surface Seal - Rejuvenating	16,350.00	SqFt	\$0.40	\$6,540.05
Taxiway Charlie 2	TW C2	220	L & T CR	H	Crack Sealing - AC	11.50	Ft	\$2.25	\$25.97
Taxiway Charlie 2	TW C2	220	L & T CR	M	Crack Sealing - AC	57.70	Ft	\$2.25	\$129.84
Taxiway Charlie 2	TW C2	220	WEATH/RAVEL	L	Surface Seal - Rejuvenating	16,338.50	SqFt	\$0.40	\$6,535.44
Taxiway Charlie 2	TW C2	220	WEATH/RAVEL	M	Surface Seal - Coat Tar	11.50	SqFt	\$0.40	\$4.62
<b>Total =</b>									<b>\$620,832.40</b>

# **APPENDIX F**

## **MAJOR M&R PLAN BY YEAR UNDER UNLIMITED FUNDING SCENARIO TABLE**

**Table F-1: Major M&R Plan by Year under Unlimited Funding Scenario**

<b>Year</b>	<b>Branch Name</b>	<b>Section ID</b>	<b>Surface Type</b>	<b>Section Area (ft<sup>2</sup>)</b>	<b>Major M&amp;R Costs*</b>	<b>PCI Before M&amp;R</b>	<b>M&amp;R Activity</b>	<b>PCI After M&amp;R</b>
2011	Apron	4105	PCC	270,000. SqFt	\$3,677,401.19	27	Reconstruction	100
2011	Runway 13-31	6105	AAC	470,000. SqFt	\$2,551,630.56	53	Mill and Overlay	100
2011	Runway 13-31	6110	PCC	30,000. SqFt	\$188,700.01	48	PCC Restoration	100
2011	Runway 4-22	6205	AC	15,000. SqFt	\$85,740.01	52	Mill and Overlay	100
2011	Runway 4-22	6210	AC	386,625. SqFt	\$1,111,160.99	62	Mill and Overlay	100
2011	Taxiway Alpha - Parallel RW 13-31	105	AC	19,030. SqFt	\$114,237.10	51	Mill and Overlay	100
2011	Taxiway Alpha - Parallel RW 13-31	110	AC	160,514. SqFt	\$373,676.83	64	Mill and Overlay	100
2011	Taxiway Alpha - Parallel RW 13-31	120	PCC	2,500. SqFt	\$15,725.00	48	PCC Restoration	100
2011	Taxiway Alpha - Parallel RW 13-31	150	AC	19,750. SqFt	\$107,222.77	53	Mill and Overlay	100
2011	Taxiway Alpha - Parallel RW 13-31	155	AC	7,075. SqFt	\$18,402.09	63	Mill and Overlay	100
2011	Taxiway Alpha - Parallel RW 13-31	165	AC	17,900. SqFt	\$46,557.93	63	Mill and Overlay	100
2011	Taxiway Alpha - Parallel RW 13-31	170	AC	6,400. SqFt	\$25,561.61	58	Mill and Overlay	100
2011	Taxiway Alpha - Parallel RW 13-31	175	AC	8,930. SqFt	\$48,480.98	53	Mill and Overlay	100
2011	Taxiway Charlie - Parallel RW 4-22	205	AC	8,200. SqFt	\$21,328.21	63	Mill and Overlay	100
2011	Taxiway Charlie - Parallel RW 4-22	207	AC	10,500. SqFt	\$30,177.02	62	Mill and Overlay	100
2011	Taxiway Charlie 1	215	AC	16,350. SqFt	\$38,062.82	64	Mill and Overlay	100
2011	Taxiway Charlie 2	220	AC	16,350. SqFt	\$74,686.83	56	Mill and Overlay	100

**Table F-1: Major M&R Plan by Year under Unlimited Funding Scenario (Continued)**

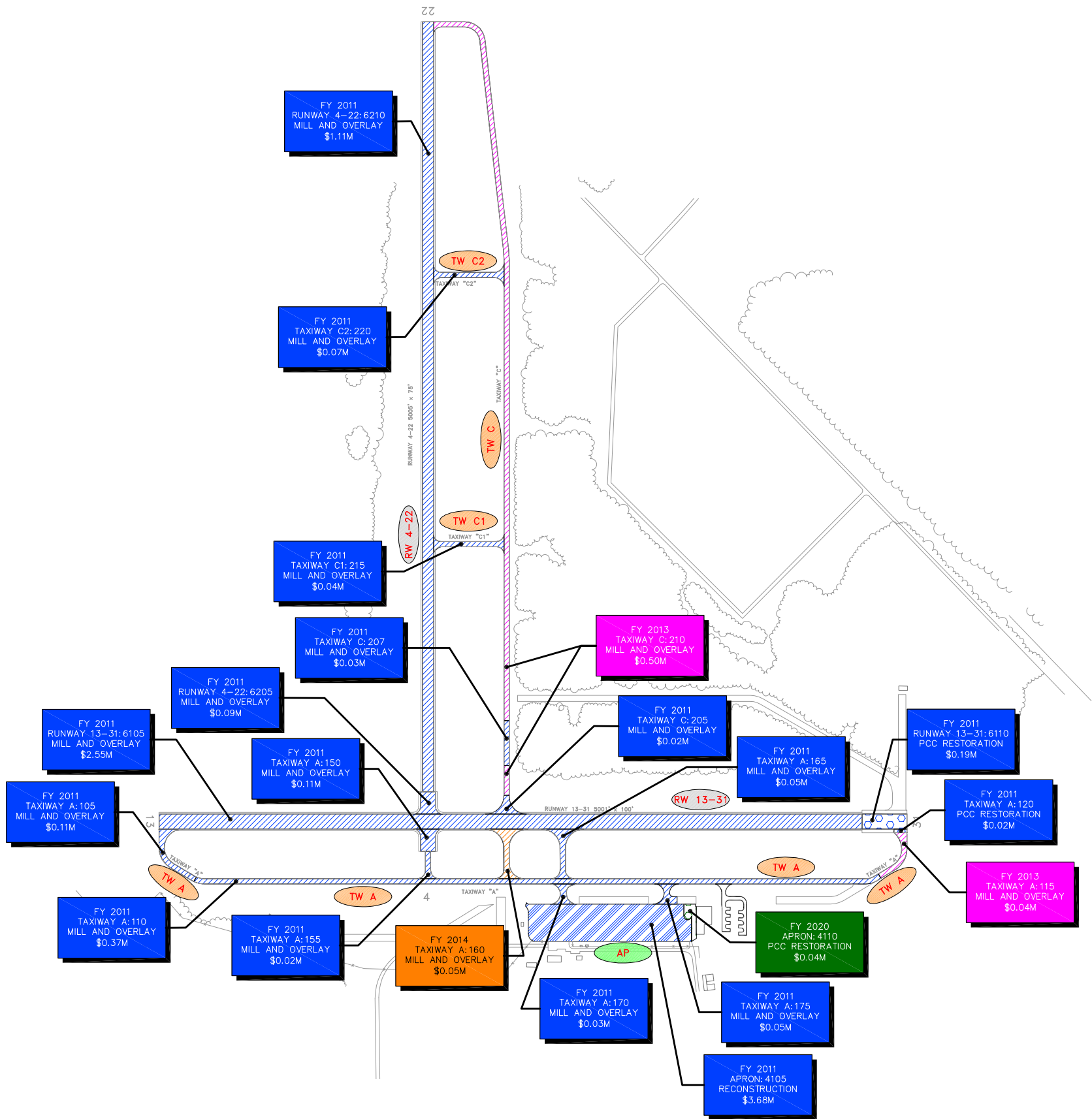
Year	Branch Name	Section ID	Surface Type	Section Area (ft <sup>2</sup> )	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
2013	Taxiway Alpha - Parallel RW 13-31	115	AC	14,453. SqFt	\$39,881.65	66	Mill and Overlay	100
2013	Taxiway Charlie - Parallel RW 4-22	210	AC	179,900. SqFt	\$496,416.53	66	Mill and Overlay	100
2014	Taxiway Alpha - Parallel RW 13-31	160	AC	17,900. SqFt	\$50,875.11	68	Mill and Overlay	100
2020	Apron	4110	PCC	12,801. SqFt	\$43,442.97	86	PCC Restoration	100
<b>Total</b>					<b>\$9,159,368.21</b>	<b>60</b>		<b>0</b>

\* Costs are adjusted for inflation.



# **APPENDIX G**

## **10-YEAR M&R MAP**



LEGEND

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

YEAR

- 2011  
2012  
2013  
2014  
2015  
2016  
2017  
2018  
2019  
2020

ACTIVITY

- MICROSURFACING  
MILL AND OVERLAY  
RECONSTRUCTION  
CONCRETE PAVEMENT RESTORATION

"PLAN YEAR"  
"BRANCH": "SECTION"  
"M AND R ACTIVITY"  
"EST. COST"

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

NUMBER	DATE	REVISIONS
DESIGNED:	FL	DRAWN: BB
CHECKED:		DATE: JUNE 2011



10-YEAR M & R MAP  
**CROSS CITY AIRPORT**  
**DIXIE COUNTY, FLORIDA**  
FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION OFFICE

# **APPENDIX H**

## **PHOTOGRAPHS**



Runway 4-22, Section 6205, Sample Unit 100 – Low and medium severity (48) Longitudinal and Transverse Cracking; low, medium, and high severity (52) Weathering and Raveling; low severity (56) Swell.



Runway 4-22, Section 6210, Sample Unit 205 – Low severity (45) Depression, low severity (48) Longitudinal and Transverse Cracking, low severity (50) Patching, and low severity (52) Weathering and Raveling.





Taxiway Charlie, Section 220, Sample Unit 102 – Low, medium, and high severity (48) Longitudinal and Transverse Cracking, and low severity (52) Weathering and Raveling.



Runway 13-31, Section 6110, Sample Unit 194 – Low and medium severity (63) Linear Cracking; medium severity (65) Joint Seal Damage; medium severity (66) Small Patch; low severity (70) Scaling; low severity (73) Shrinkage Cracking; low severity (74) Joint Spall; low severity (75) Corner Spall.

# **APPENDIX I**

## **PCI RE-INSPECTION REPORT**

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: AP Name: APRON Use: APRON Area: 305,356.00SqFt

Section: 4105 of 3 From: - To: - Last Const.: 1/1/1942  
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: P  
Area: 270,000.00SqFt Length: 1,350.00Ft Width: 200.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 44 Surveyed: 5

Conditions: PCI: 28.00

Inspection Comments:

Sample Number: 101 Type: R Area: 20.00Slabs PCI = 33

Sample Comments:

63 LINEAR CR	M	8.00	Slabs	Comments:
70 SCALING	L	14.00	Slabs	Comments:
75 CORNER SPALL	L	1.00	Slabs	Comments:
70 SCALING	M	1.00	Slabs	Comments:
72 SHAT. SLAB	L	1.00	Slabs	Comments:
73 SHRINKAGE CR	L	2.00	Slabs	Comments:
63 LINEAR CR	L	8.00	Slabs	Comments:
74 JOINT SPALL	L	1.00	Slabs	Comments:
65 JT SEAL DMG	L	20.00	Slabs	Comments:

Sample Number: 205 Type: R Area: 20.00Slabs PCI = 22

Sample Comments:

63 LINEAR CR	M	13.00	Slabs	Comments:
65 JT SEAL DMG	L	20.00	Slabs	Comments:
73 SHRINKAGE CR	L	3.00	Slabs	Comments:
66 SMALL PATCH	L	3.00	Slabs	Comments:
63 LINEAR CR	L	3.00	Slabs	Comments:
75 CORNER SPALL	L	2.00	Slabs	Comments:
63 LINEAR CR	H	2.00	Slabs	Comments:
70 SCALING	L	7.00	Slabs	Comments:
70 SCALING	M	1.00	Slabs	Comments:
74 JOINT SPALL	L	1.00	Slabs	Comments:

Sample Number: 209 Type: R Area: 20.00Slabs PCI = 28

Sample Comments:

70 SCALING	L	9.00	Slabs	Comments:
66 SMALL PATCH	M	1.00	Slabs	Comments:
70 SCALING	M	1.00	Slabs	Comments:
63 LINEAR CR	M	14.00	Slabs	Comments:
63 LINEAR CR	L	5.00	Slabs	Comments:
74 JOINT SPALL	L	2.00	Slabs	Comments:
72 SHAT. SLAB	L	1.00	Slabs	Comments:
73 SHRINKAGE CR	L	2.00	Slabs	Comments:
66 SMALL PATCH	L	1.00	Slabs	Comments:

Sample Number: 401 Type: R Area: 20.00Slabs PCI = 35

Sample Comments:

66 SMALL PATCH	L	3.00	Slabs	Comments:
63 LINEAR CR	M	8.00	Slabs	Comments:
65 JT SEAL DMG	L	20.00	Slabs	Comments:
70 SCALING	L	13.00	Slabs	Comments:
63 LINEAR CR	L	9.00	Slabs	Comments:
75 CORNER SPALL	L	1.00	Slabs	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

73	SHRINKAGE	CR	L	1.00	Slabs	Comments:
63	LINEAR	CR	H	1.00	Slabs	Comments:

---

Sample Number:	407	Type:	R	Area:	20.00Slabs	PCI = 19
Sample Comments:						
73	SHRINKAGE	CR	L	1.00	Slabs	Comments:
62	CORNER	BREAK	L	1.00	Slabs	Comments:
63	LINEAR	CR	L	2.00	Slabs	Comments:
65	JT SEAL	DMG	L	20.00	Slabs	Comments:
66	SMALL	PATCH	L	3.00	Slabs	Comments:
66	SMALL	PATCH	M	3.00	Slabs	Comments:
75	CORNER	SPALL	L	3.00	Slabs	Comments:
63	LINEAR	CR	M	16.00	Slabs	Comments:
63	LINEAR	CR	H	2.00	Slabs	Comments:



# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

Network: CTY      Name: CROSS CITY AIRPORT

---

Branch: AP      Name: APRON      Use: APRON      Area: 305,356.00SqFt

---

Section: 4110      of 3      From: -      To: -      Last Const.: 1/1/2006  
Surface: PCC      Family: FDOT-GA-PCC      Zone:      Category:      Rank: P  
Area: 12,801.00SqFt      Length: 350.00Ft      Width: 35.00Ft  
Shoulder:      Street Type:      Grade: 0.00      Lanes: 0  
Section Comments:

---

Last Insp. Date: 1/1/2006      Total Samples: 0      Surveyed: 0

Conditions: PCI:100.00 |

Inspection Comments: Construction/Major M&R inspection record.

---

Sample Number:      Type:      Area: 0.00  
<NO SAMPLE RECORDS>

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

Network: CTY      Name: CROSS CITY AIRPORT

---

Branch: AP      Name: APRON      Use: APRON      Area: 305,356.00SqFt

---

Section: 4205      of 3      From: -      To: -      Last Const.: 1/1/2006  
Surface: AC      Family: FDOT-GA-AP-AC      Zone:      Category:      Rank: P  
Area: 22,555.00SqFt      Length: 685.00Ft      Width: 32.00Ft  
Shoulder:      Street Type:      Grade: 0.00      Lanes: 0  
Section Comments:

---

Last Insp. Date: 1/1/2006      Total Samples: 0      Surveyed: 0

Conditions: PCI:100.00 |

Inspection Comments: Construction/Major M&R inspection record.

---

Sample Number:      Type:      Area: 0.00  
<NO SAMPLE RECORDS>

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: RW 13-31 Name: RUNWAY 13-31 Use: RUNWAY Area: 500,000.00SqFt

Section: 6105 of 2 From: - To: - Last Const.: 1/1/1995  
Surface: AAC Family: FDOT-GA-RW-AAC Zone: Category: Rank: P  
Area: 470,000.00SqFt Length: 4,700.00Ft Width: 100.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 94 Surveyed: 19

Conditions: PCI: 54.00

Inspection Comments:

Sample Number: 101 Type: R Area: 5,000.00SqFt PCI = 21

Sample Comments:

52 WEATH/RAVEL	H	1,600.00 SqFt	Comments:
52 WEATH/RAVEL	M	1,600.00 SqFt	Comments:
48 L & T CR	L	51.00 Ft	Comments:
52 WEATH/RAVEL	L	1,800.00 SqFt	Comments:

Sample Number: 105 Type: R Area: 5,000.00SqFt PCI = 58

Sample Comments:

48 L & T CR	L	408.00 Ft	Comments:
48 L & T CR	M	21.00 Ft	Comments:
52 WEATH/RAVEL	M	348.00 SqFt	Comments:
52 WEATH/RAVEL	L	4,652.00 SqFt	Comments:

Sample Number: 108 Type: R Area: 5,000.00SqFt PCI = 59

Sample Comments:

48 L & T CR	M	27.00 Ft	Comments:
48 L & T CR	L	243.00 Ft	Comments:
52 WEATH/RAVEL	M	131.00 SqFt	Comments:
52 WEATH/RAVEL	L	4,869.00 SqFt	Comments:

Sample Number: 111 Type: R Area: 5,000.00SqFt PCI = 59

Sample Comments:

48 L & T CR	M	38.00 Ft	Comments:
52 WEATH/RAVEL	M	225.00 SqFt	Comments:
52 WEATH/RAVEL	L	4,775.00 SqFt	Comments:
48 L & T CR	L	304.00 Ft	Comments:

Sample Number: 115 Type: R Area: 5,000.00SqFt PCI = 63

Sample Comments:

52 WEATH/RAVEL	M	400.00 SqFt	Comments:
52 WEATH/RAVEL	L	4,600.00 SqFt	Comments:
48 L & T CR	L	317.00 Ft	Comments:

Sample Number: 119 Type: R Area: 5,000.00SqFt PCI = 59

Sample Comments:

48 L & T CR	L	132.00 Ft	Comments:
52 WEATH/RAVEL	M	200.00 SqFt	Comments:
48 L & T CR	M	40.00 Ft	Comments:
52 WEATH/RAVEL	L	4,800.00 SqFt	Comments:

Sample Number: 122 Type: R Area: 5,000.00SqFt PCI = 31

Sample Comments:

48 L & T CR	L	126.00 Ft	Comments:
-------------	---	-----------	-----------

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

52 WEATH/RAVEL	L	3,000.00	SqFt	Comments:
52 WEATH/RAVEL	M	1,500.00	SqFt	Comments:
52 WEATH/RAVEL	H	500.00	SqFt	Comments:

Sample Number: 129 Type: R Area: 5,000.00SqFt PCI = 64

Sample Comments:

52 WEATH/RAVEL	L	4,930.00	SqFt	Comments:
52 WEATH/RAVEL	M	70.00	SqFt	Comments:
48 L & T CR	L	331.00	Ft	Comments:

Sample Number: 136 Type: R Area: 5,000.00SqFt PCI = 56

Sample Comments:

52 WEATH/RAVEL	M	564.00	SqFt	Comments:
52 WEATH/RAVEL	H	6.00	SqFt	Comments:
52 WEATH/RAVEL	L	4,430.00	SqFt	Comments:
48 L & T CR	L	378.00	Ft	Comments:

Sample Number: 140 Type: R Area: 5,000.00SqFt PCI = 64

Sample Comments:

48 L & T CR	L	253.00	Ft	Comments:
52 WEATH/RAVEL	L	4,910.00	SqFt	Comments:
52 WEATH/RAVEL	M	90.00	SqFt	Comments:

Sample Number: 143 Type: R Area: 5,000.00SqFt PCI = 64

Sample Comments:

52 WEATH/RAVEL	L	4,875.00	SqFt	Comments:
52 WEATH/RAVEL	M	125.00	SqFt	Comments:
48 L & T CR	L	227.00	Ft	Comments:

Sample Number: 150 Type: R Area: 5,000.00SqFt PCI = 64

Sample Comments:

52 WEATH/RAVEL	M	160.00	SqFt	Comments:
48 L & T CR	L	424.00	Ft	Comments:
52 WEATH/RAVEL	L	4,840.00	SqFt	Comments:

Sample Number: 157 Type: R Area: 5,000.00SqFt PCI = 59

Sample Comments:

52 WEATH/RAVEL	L	4,950.00	SqFt	Comments:
48 L & T CR	M	70.00	Ft	Comments:
48 L & T CR	L	275.00	Ft	Comments:
52 WEATH/RAVEL	M	50.00	SqFt	Comments:

Sample Number: 160 Type: R Area: 5,000.00SqFt PCI = 58

Sample Comments:

52 WEATH/RAVEL	M	225.00	SqFt	Comments:
48 L & T CR	L	291.00	Ft	Comments:
48 L & T CR	M	56.00	Ft	Comments:
56 SWELLING	L	3.00	SqFt	Comments:
52 WEATH/RAVEL	L	4,775.00	SqFt	Comments:

Sample Number: 164 Type: R Area: 5,000.00SqFt PCI = 59

Sample Comments:

48 L & T CR	L	270.00	Ft	Comments:
52 WEATH/RAVEL	M	200.00	SqFt	Comments:
48 L & T CR	M	60.00	Ft	Comments:
52 WEATH/RAVEL	L	4,800.00	SqFt	Comments:

Sample Number: 171 Type: R Area: 5,000.00SqFt PCI = 59

Sample Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

52 WEATH/RAVEL	L	4,850.00	SqFt	Comments:
48 L & T CR	L	215.00	Ft	Comments:
48 L & T CR	M	50.00	Ft	Comments:
52 WEATH/RAVEL	M	150.00	SqFt	Comments:

---

Sample Number: 178      Type: R      Area: 5,000.00SqFt      PCI = 25

Sample Comments:

52 WEATH/RAVEL	H	600.00	SqFt	Comments:
52 WEATH/RAVEL	L	2,300.00	SqFt	Comments:
48 L & T CR	M	50.00	Ft	Comments:
52 WEATH/RAVEL	M	2,100.00	SqFt	Comments:
48 L & T CR	L	85.00	Ft	Comments:

---

Sample Number: 185      Type: R      Area: 5,000.00SqFt      PCI = 59

Sample Comments:

52 WEATH/RAVEL	M	150.00	SqFt	Comments:
52 WEATH/RAVEL	L	4,850.00	SqFt	Comments:
48 L & T CR	L	187.00	Ft	Comments:
48 L & T CR	M	50.00	Ft	Comments:

---

Sample Number: 192      Type: R      Area: 5,000.00SqFt      PCI = 49

Sample Comments:

50 PATCHING	M	12.00	SqFt	Comments:
45 DEPRESSION	M	12.00	SqFt	Comments:
52 WEATH/RAVEL	M	150.00	SqFt	Comments:
52 WEATH/RAVEL	L	4,850.00	SqFt	Comments:
48 L & T CR	M	51.00	Ft	Comments:
48 L & T CR	L	374.00	Ft	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: RW 13-31 Name: RUNWAY 13-31 Use: RUNWAY Area: 500,000.00SqFt

Section: 6110 of 2 From: - To: - Last Const.: 1/1/1942  
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: P  
Area: 30,000.00SqFt Length: 300.00Ft Width: 100.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 4 Surveyed: 2

Conditions: PCI: 49.00

Inspection Comments:

Sample Number: 194 Type: R Area: 24.00Slabs PCI = 45

Sample Comments:

63	LINEAR CR	L	7.00	Slabs	Comments:
63	LINEAR CR	M	6.00	Slabs	Comments:
66	SMALL PATCH	M	1.00	Slabs	Comments:
65	JT SEAL DMG	M	24.00	Slabs	Comments:
75	CORNER SPALL	L	1.00	Slabs	Comments:
74	JOINT SPALL	L	1.00	Slabs	Comments:
70	SCALING	L	3.00	Slabs	Comments:
73	SHRINKAGE CR	L	1.00	Slabs	Comments:

Sample Number: 196 Type: R Area: 24.00Slabs PCI = 53

Sample Comments:

75	CORNER SPALL	L	1.00	Slabs	Comments:
63	LINEAR CR	M	3.00	Slabs	Comments:
66	SMALL PATCH	H	1.00	Slabs	Comments:
65	JT SEAL DMG	M	24.00	Slabs	Comments:
63	LINEAR CR	L	7.00	Slabs	Comments:
73	SHRINKAGE CR	L	1.00	Slabs	Comments:
66	SMALL PATCH	M	7.00	Slabs	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: RW 4-22 Name: RUNWAY 4-22 Use: RUNWAY Area: 401,625.00SqFt

Section: 6205 of 2 From: - To: - Last Const.: 1/1/1989  
Surface: AC Family: FDOT-GA-RW-AC Zone: Category: Rank: P  
Area: 15,000.00SqFt Length: 150.00Ft Width: 100.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 3 Surveyed: 1

Conditions: PCI: 53.00

Inspection Comments:

Sample Number: 100 Type: R Area: 6,950.00SqFt PCI = 53

Sample Comments:

52 WEATH/RAVEL	L	6,588.00 SqFt	Comments:
48 L & T CR	M	56.00 Ft	Comments:
52 WEATH/RAVEL	M	350.00 SqFt	Comments:
52 WEATH/RAVEL	H	12.00 SqFt	Comments:
56 SWELLING	L	17.00 SqFt	Comments:
48 L & T CR	L	134.00 Ft	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: RW 4-22 Name: RUNWAY 4-22 Use: RUNWAY Area: 401,625.00SqFt

Section: 6210 of 2 From: - To: - Last Const.: 1/1/1993  
Surface: AC Family: FDOT-GA-RW-AC Zone: Category: Rank: P  
Area: 386,625.00SqFt Length: 5,155.00Ft Width: 75.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 103 Surveyed: 20

Conditions: PCI: 63.00

Inspection Comments:

Sample Number: 108 Type: R Area: 3,750.00SqFt PCI = 62  
Sample Comments:  
50 PATCHING L 0.25 SqFt Comments:  
48 L & T CR M 45.00 Ft Comments:  
52 WEATH/RAVEL L 3,750.00 SqFt Comments:  
48 L & T CR L 130.00 Ft Comments:

Sample Number: 115 Type: R Area: 3,750.00SqFt PCI = 59  
Sample Comments:  
52 WEATH/RAVEL L 3,750.00 SqFt Comments:  
48 L & T CR L 116.00 Ft Comments:  
45 DEPRESSION L 30.00 SqFt Comments:  
48 L & T CR M 17.00 Ft Comments:

Sample Number: 120 Type: R Area: 3,750.00SqFt PCI = 64  
Sample Comments:  
48 L & T CR M 12.00 Ft Comments:  
48 L & T CR L 141.00 Ft Comments:  
52 WEATH/RAVEL L 3,750.00 SqFt Comments:

Sample Number: 127 Type: R Area: 3,750.00SqFt PCI = 64  
Sample Comments:  
48 L & T CR L 98.00 Ft Comments:  
52 WEATH/RAVEL L 3,716.00 SqFt Comments:  
52 WEATH/RAVEL M 34.00 SqFt Comments:

Sample Number: 132 Type: R Area: 3,750.00SqFt PCI = 64  
Sample Comments:  
48 L & T CR L 81.00 Ft Comments:  
52 WEATH/RAVEL M 99.00 SqFt Comments:  
52 WEATH/RAVEL L 3,651.00 SqFt Comments:

Sample Number: 136 Type: R Area: 3,750.00SqFt PCI = 62  
Sample Comments:  
52 WEATH/RAVEL L 3,750.00 SqFt Comments:  
48 L & T CR M 23.00 Ft Comments:  
50 PATCHING L 0.25 SqFt Comments:  
48 L & T CR L 140.00 Ft Comments:

Sample Number: 140 Type: R Area: 3,750.00SqFt PCI = 59  
Sample Comments:  
52 WEATH/RAVEL L 3,725.00 SqFt Comments:  
52 WEATH/RAVEL M 25.00 SqFt Comments:  
48 L & T CR M 17.00 Ft Comments:



# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

48 L & T CR	L	139.00 Ft	Comments:
-------------	---	-----------	-----------

Sample Number: 144	Type: R	Area: 3,750.00SqFt	PCI = 64
--------------------	---------	--------------------	----------

Sample Comments:

48 L & T CR	L	94.00 Ft	Comments:
-------------	---	----------	-----------

52 WEATH/RAVEL	L	3,750.00 SqFt	Comments:
----------------	---	---------------	-----------

48 L & T CR	M	38.00 Ft	Comments:
-------------	---	----------	-----------

Sample Number: 150	Type: R	Area: 3,750.00SqFt	PCI = 64
--------------------	---------	--------------------	----------

Sample Comments:

52 WEATH/RAVEL	L	3,750.00 SqFt	Comments:
----------------	---	---------------	-----------

48 L & T CR	L	112.00 Ft	Comments:
-------------	---	-----------	-----------

48 L & T CR	M	28.00 Ft	Comments:
-------------	---	----------	-----------

Sample Number: 156	Type: R	Area: 3,750.00SqFt	PCI = 62
--------------------	---------	--------------------	----------

Sample Comments:

48 L & T CR	M	31.00 Ft	Comments:
-------------	---	----------	-----------

50 PATCHING	L	0.25 SqFt	Comments:
-------------	---	-----------	-----------

52 WEATH/RAVEL	L	3,750.00 SqFt	Comments:
----------------	---	---------------	-----------

48 L & T CR	L	82.00 Ft	Comments:
-------------	---	----------	-----------

Sample Number: 162	Type: R	Area: 3,750.00SqFt	PCI = 62
--------------------	---------	--------------------	----------

Sample Comments:

50 PATCHING	L	0.25 SqFt	Comments:
-------------	---	-----------	-----------

48 L & T CR	M	40.00 Ft	Comments:
-------------	---	----------	-----------

48 L & T CR	L	111.00 Ft	Comments:
-------------	---	-----------	-----------

52 WEATH/RAVEL	L	3,750.00 SqFt	Comments:
----------------	---	---------------	-----------

Sample Number: 168	Type: R	Area: 3,750.00SqFt	PCI = 64
--------------------	---------	--------------------	----------

Sample Comments:

48 L & T CR	L	85.00 Ft	Comments:
-------------	---	----------	-----------

48 L & T CR	M	50.00 Ft	Comments:
-------------	---	----------	-----------

52 WEATH/RAVEL	L	3,750.00 SqFt	Comments:
----------------	---	---------------	-----------

Sample Number: 171	Type: R	Area: 3,750.00SqFt	PCI = 69
--------------------	---------	--------------------	----------

Sample Comments:

48 L & T CR	L	146.00 Ft	Comments:
-------------	---	-----------	-----------

52 WEATH/RAVEL	L	3,750.00 SqFt	Comments:
----------------	---	---------------	-----------

Sample Number: 174	Type: R	Area: 3,750.00SqFt	PCI = 64
--------------------	---------	--------------------	----------

Sample Comments:

52 WEATH/RAVEL	L	3,750.00 SqFt	Comments:
----------------	---	---------------	-----------

48 L & T CR	L	158.00 Ft	Comments:
-------------	---	-----------	-----------

48 L & T CR	M	13.00 Ft	Comments:
-------------	---	----------	-----------

Sample Number: 180	Type: R	Area: 3,750.00SqFt	PCI = 64
--------------------	---------	--------------------	----------

Sample Comments:

52 WEATH/RAVEL	L	3,750.00 SqFt	Comments:
----------------	---	---------------	-----------

48 L & T CR	M	18.00 Ft	Comments:
-------------	---	----------	-----------

48 L & T CR	L	147.00 Ft	Comments:
-------------	---	-----------	-----------

Sample Number: 186	Type: R	Area: 3,750.00SqFt	PCI = 64
--------------------	---------	--------------------	----------

Sample Comments:

52 WEATH/RAVEL	L	3,750.00 SqFt	Comments:
----------------	---	---------------	-----------

48 L & T CR	M	31.00 Ft	Comments:
-------------	---	----------	-----------

48 L & T CR	L	168.00 Ft	Comments:
-------------	---	-----------	-----------

Sample Number: 192	Type: R	Area: 3,750.00SqFt	PCI = 64
--------------------	---------	--------------------	----------

Sample Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

48 L & T CR	L	198.00	Ft	Comments:
45 DEPRESSION	L	35.00	SqFt	Comments:
52 WEATH/RAVEL	L	3,750.00	SqFt	Comments:

Sample Number: 198	Type: R	Area: 3,750.00SqFt	PCI = 67
--------------------	---------	--------------------	----------

Sample Comments:

56 SWELLING	L	8.00	SqFt	Comments:
52 WEATH/RAVEL	L	3,750.00	SqFt	Comments:
48 L & T CR	L	186.00	Ft	Comments:

Sample Number: 201	Type: R	Area: 3,750.00SqFt	PCI = 69
--------------------	---------	--------------------	----------

Sample Comments:

52 WEATH/RAVEL	L	3,750.00	SqFt	Comments:
48 L & T CR	L	135.00	Ft	Comments:

Sample Number: 205	Type: R	Area: 3,750.00SqFt	PCI = 62
--------------------	---------	--------------------	----------

Sample Comments:

48 L & T CR	L	87.00	Ft	Comments:
52 WEATH/RAVEL	L	3,750.00	SqFt	Comments:
45 DEPRESSION	L	150.00	SqFt	Comments:
50 PATCHING	L	0.25	SqFt	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: TW A Name: TAXIWAY A - PARALLEL RW 1 Use: TAXIWAY Area: 274,452.00SqFt

Section: 105 of 10 From: - To: - Last Const.: 1/1/1989  
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P  
Area: 19,030.00SqFt Length: 470.00Ft Width: 35.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 5 Surveyed: 2

Conditions: PCI: 52.00

Inspection Comments:

Sample Number: 102 Type: R Area: 3,500.00SqFt PCI = 48

Sample Comments:

45 DEPRESSION	L	55.00 SqFt	Comments:
52 WEATH/RAVEL	L	2,580.00 SqFt	Comments:
52 WEATH/RAVEL	M	920.00 SqFt	Comments:
48 L & T CR	L	106.00 Ft	Comments:
48 L & T CR	M	23.00 Ft	Comments:

Sample Number: 104 Type: R Area: 1,750.00SqFt PCI = 59

Sample Comments:

52 WEATH/RAVEL	L	1,700.00 SqFt	Comments:
52 WEATH/RAVEL	M	50.00 SqFt	Comments:
48 L & T CR	L	116.00 Ft	Comments:
48 L & T CR	M	18.00 Ft	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: TW A Name: TAXIWAY A - PARALLEL RW 1 Use: TAXIWAY Area: 274,452.00SqFt

Section: 110 of 10 From: - To: - Last Const.: 1/1/1989  
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P  
Area: 160,514.00SqFt Length: 4,585.00Ft Width: 35.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 45 Surveyed: 6

Conditions: PCI: 65.00

Inspection Comments:

Sample Number: 106 Type: R Area: 3,500.00SqFt PCI = 62

Sample Comments:

48 L & T CR	M	20.00 Ft	Comments:
48 L & T CR	L	199.00 Ft	Comments:
52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:
56 SWELLING	L	6.00 SqFt	Comments:

Sample Number: 114 Type: R Area: 3,500.00SqFt PCI = 64

Sample Comments:

52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:
48 L & T CR	H	1.00 Ft	Comments:
48 L & T CR	L	303.00 Ft	Comments:

Sample Number: 122 Type: R Area: 3,500.00SqFt PCI = 64

Sample Comments:

48 L & T CR	M	22.00 Ft	Comments:
52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:
48 L & T CR	L	258.00 Ft	Comments:

Sample Number: 126 Type: R Area: 3,500.00SqFt PCI = 67

Sample Comments:

52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:
48 L & T CR	L	364.00 Ft	Comments:

Sample Number: 130 Type: R Area: 3,500.00SqFt PCI = 69

Sample Comments:

52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:
48 L & T CR	L	287.00 Ft	Comments:

Sample Number: 142 Type: R Area: 3,500.00SqFt PCI = 68

Sample Comments:

52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:
48 L & T CR	L	326.00 Ft	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

Network: CTY      Name: CROSS CITY AIRPORT

---

Branch: TW A      Name: TAXIWAY A - PARALLEL RW 1      Use: TAXIWAY      Area: 274,452.00SqFt

---

Section: 115      of 10      From: -      To: -      Last Const.: 1/1/1989  
Surface: AC      Family: FDOT-GA-TW-AC      Zone:      Category:      Rank: P  
Area: 14,453.00SqFt      Length: 365.00Ft      Width: 35.00Ft  
Shoulder:      Street Type:      Grade: 0.00      Lanes: 0  
Section Comments:

---

Last Insp. Date: 2/10/2011      Total Samples: 4      Surveyed: 1  
Conditions: PCI: 67.00  
Inspection Comments:

---

Sample Number: 151	Type: R	Area: 3,500.00SqFt	PCI = 67
Sample Comments:			
52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:
48 L & T CR	L	222.00 Ft	Comments:
50 PATCHING	L	0.25 SqFt	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

Network: CTY      Name: CROSS CITY AIRPORT

---

Branch: TW A      Name: TAXIWAY A - PARALLEL RW 1      Use: TAXIWAY      Area: 274,452.00SqFt

---

Section: 120      of 10      From: -      To: -      Last Const.: 1/1/1942  
Surface: PCC      Family: FDOT-GA-PCC      Zone:      Category:      Rank: P  
Area: 2,500.00SqFt      Length: 100.00Ft      Width: 25.00Ft  
Shoulder:      Street Type:      Grade: 0.00      Lanes: 0  
Section Comments:

---

Last Insp. Date: 2/10/2011      Total Samples: 1      Surveyed: 1  
Conditions: PCI: 49.00 |  
Inspection Comments:

---

Sample Number: 154      Type: R      Area: 8.00Slabs      PCI = 49

Sample Comments:

63 LINEAR CR	M	2.00 Slabs	Comments:
70 SCALING	L	3.00 Slabs	Comments:
65 JT SEAL DMG	L	8.00 Slabs	Comments:
63 LINEAR CR	L	4.00 Slabs	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

Network: CTY      Name: CROSS CITY AIRPORT

---

Branch: TW A      Name: TAXIWAY A - PARALLEL RW 1      Use: TAXIWAY      Area: 274,452.00SqFt

---

Section: 150      of 10      From: -      To: -      Last Const.: 1/1/1989  
Surface: AC      Family: FDOT-GA-TW-AC      Zone:      Category:      Rank: P  
Area: 19,750.00SqFt      Length: 150.00Ft      Width: 125.00Ft  
Shoulder:      Street Type:      Grade: 0.00      Lanes: 0  
Section Comments:

---

Last Insp. Date: 2/10/2011      Total Samples: 3      Surveyed: 1

Conditions: PCI: 54.00

Inspection Comments:

---

Sample Number: 102      Type: R      Area: 5,000.00SqFt      PCI = 54

Sample Comments:

52 WEATH/RAVEL	L	4,800.00 SqFt	Comments:
56 SWELLING	L	120.00 SqFt	Comments:
48 L & T CR	M	50.00 Ft	Comments:
48 L & T CR	L	170.00 Ft	Comments:
52 WEATH/RAVEL	M	200.00 SqFt	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

Network: CTY      Name: CROSS CITY AIRPORT

---

Branch: TW A      Name: TAXIWAY A - PARALLEL RW 1      Use: TAXIWAY      Area: 274,452.00SqFt

---

Section: 155      of 10      From: -      To: -      Last Const.: 1/1/1989  
Surface: AC      Family: FDOT-GA-TW-AC      Zone:      Category:      Rank: P  
Area: 7,075.00SqFt      Length: 190.00Ft      Width: 35.00Ft  
Shoulder:      Street Type:      Grade: 0.00      Lanes: 0  
Section Comments:

---

Last Insp. Date: 2/10/2011      Total Samples: 2      Surveyed: 1  
Conditions: PCI: 64.00  
Inspection Comments:

---

Sample Number: 103      Type: R      Area: 3,500.00SqFt      PCI = 64

Sample Comments:

56 SWELLING	L	44.00 SqFt	Comments:
48 L & T CR	L	407.00 Ft	Comments:
52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:



# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: TW A Name: TAXIWAY A - PARALLEL RW 1 Use: TAXIWAY Area: 274,452.00SqFt

Section: 160 of 10 From: - To: - Last Const.: 1/1/1989  
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P  
Area: 17,900.00SqFt Length: 350.00Ft Width: 35.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 6 Surveyed: 2

Conditions: PCI: 69.00

Inspection Comments:

Sample Number: 100 Type: R Area: 3,500.00SqFt PCI = 69  
Sample Comments:  
52 WEATH/RAVEL L 3,500.00 SqFt Comments:  
48 L & T CR L 136.00 Ft Comments:

Sample Number: 102 Type: R Area: 3,500.00SqFt PCI = 69  
Sample Comments:  
52 WEATH/RAVEL L 3,500.00 SqFt Comments:  
48 L & T CR L 76.00 Ft Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: TW A Name: TAXIWAY A - PARALLEL RW 1 Use: TAXIWAY Area: 274,452.00SqFt

Section: 165 of 10 From: - To: - Last Const.: 1/1/1989  
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P  
Area: 17,900.00SqFt Length: 350.00Ft Width: 35.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 6 Surveyed: 2

Conditions: PCI: 64.00

Inspection Comments:

Sample Number: 100 Type: R Area: 3,500.00SqFt PCI = 69  
Sample Comments:  
48 L & T CR L 283.00 Ft Comments:  
52 WEATH/RAVEL L 3,500.00 SqFt Comments:

Sample Number: 102 Type: R Area: 3,500.00SqFt PCI = 59  
Sample Comments:  
48 L & T CR L 192.00 Ft Comments:  
52 WEATH/RAVEL L 3,500.00 SqFt Comments:  
56 SWELLING L 100.00 SqFt Comments:  
48 L & T CR M 35.00 Ft Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

Network: CTY      Name: CROSS CITY AIRPORT

---

Branch: TW A      Name: TAXIWAY A - PARALLEL RW 1      Use: TAXIWAY      Area: 274,452.00SqFt

---

Section: 170      of 10      From: -      To: -      Last Const.: 1/1/1989  
Surface: AC      Family: FDOT-GA-TW-AC      Zone:      Category:      Rank: P  
Area: 6,400.00SqFt      Length: 135.00Ft      Width: 40.00Ft  
Shoulder:      Street Type:      Grade: 0.00      Lanes: 0  
Section Comments:

---

Last Insp. Date: 2/10/2011      Total Samples: 1      Surveyed: 1

Conditions: PCI: 59.00

Inspection Comments:

---

Sample Number: 100      Type: R      Area: 5,400.00SqFt      PCI = 59

Sample Comments:

48 L & T CR	L	460.00 Ft	Comments:
48 L & T CR	M	27.00 Ft	Comments:
54 SHOving	L	55.00 SqFt	Comments:
52 WEATH/RAVEL	L	5,400.00 SqFt	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

Network: CTY      Name: CROSS CITY AIRPORT

---

Branch: TW A      Name: TAXIWAY A - PARALLEL RW 1      Use: TAXIWAY      Area: 274,452.00SqFt

---

Section: 175      of 10      From: -      To: -      Last Const.: 1/1/1989  
Surface: AC      Family: FDOT-GA-TW-AC      Zone:      Category:      Rank: P  
Area: 8,930.00SqFt      Length: 135.00Ft      Width: 35.00Ft  
Shoulder:      Street Type:      Grade: 0.00      Lanes: 0  
Section Comments:

---

Last Insp. Date: 2/10/2011      Total Samples: 1      Surveyed: 1

Conditions: PCI: 54.00

Inspection Comments:

---

Sample Number: 100      Type: R      Area: 8,505.00SqFt      PCI = 54

Sample Comments:

48 L & T CR	M	81.00 Ft	Comments:
52 WEATH/RAVEL	L	8,505.00 SqFt	Comments:
50 PATCHING	L	126.00 SqFt	Comments:
54 SHOving	L	78.00 SqFt	Comments:
48 L & T CR	L	643.00 Ft	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

Network: CTY      Name: CROSS CITY AIRPORT

---

Branch: TWC      Name: TAXIWAY C - PARALLEL RW 4      Use: TAXIWAY      Area: 198,600.00SqFt

---

Section: 205      of 3      From: -      To: -      Last Const.: 1/1/1989  
Surface: AC      Family: FDOT-GA-TW-AC      Zone:      Category:      Rank: P  
Area: 8,200.00SqFt      Length: 120.00Ft      Width: 50.00Ft  
Shoulder:      Street Type:      Grade: 0.00      Lanes: 0  
Section Comments:

---

Last Insp. Date: 2/10/2011      Total Samples: 3      Surveyed: 1  
Conditions: PCI: 64.00  
Inspection Comments:

---

---

Sample Number: 100	Type: R	Area: 4,200.00SqFt	PCI = 64
Sample Comments:			
52 WEATH/RAVEL	L	4,200.00 SqFt	Comments:
48 L & T CR	L	45.00 Ft	Comments:
48 L & T CR	M	64.00 Ft	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

---

Network: CTY      Name: CROSS CITY AIRPORT

---

Branch: TW C      Name: TAXIWAY C - PARALLEL RW 4      Use: TAXIWAY      Area: 198,600.00SqFt

---

Section: 207      of 3      From: -      To: -      Last Const.: 1/1/1995  
Surface: AC      Family: FDOT-GA-TW-AC      Zone:      Category:      Rank: P  
Area: 10,500.00SqFt      Length: 300.00Ft      Width: 35.00Ft  
Shoulder:      Street Type:      Grade: 0.00      Lanes: 0  
Section Comments:

---

Last Insp. Date: 2/10/2011      Total Samples: 3      Surveyed: 1  
Conditions: PCI: 63.00  
Inspection Comments:

---

Sample Number: 103      Type: R      Area: 3,500.00SqFt      PCI = 63

Sample Comments:

48 L & T CR	M	84.00 Ft	Comments:
52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:
42 BLEEDING	L	6.00 SqFt	Comments:
48 L & T CR	L	33.00 Ft	Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: TWC Name: TAXIWAY C - PARALLEL RW 4 Use: TAXIWAY Area: 198,600.00SqFt

Section: 210 of 3 From: - To: - Last Const.: 1/1/1993  
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P  
Area: 179,900.00SqFt Length: 5,100.00Ft Width: 35.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 51 Surveyed: 6

Conditions: PCI: 67.00

Inspection Comments:

Sample Number: 107 Type: R Area: 3,500.00SqFt PCI = 70  
Sample Comments:  
52 WEATH/RAVEL L 3,500.00 SqFt Comments:  
48 L & T CR M 1.00 Ft Comments:

Sample Number: 115 Type: R Area: 3,500.00SqFt PCI = 69  
Sample Comments:  
52 WEATH/RAVEL L 3,500.00 SqFt Comments:  
48 L & T CR L 28.00 Ft Comments:

Sample Number: 123 Type: R Area: 3,500.00SqFt PCI = 69  
Sample Comments:  
52 WEATH/RAVEL L 3,500.00 SqFt Comments:  
48 L & T CR L 39.00 Ft Comments:

Sample Number: 131 Type: R Area: 3,500.00SqFt PCI = 64  
Sample Comments:  
52 WEATH/RAVEL L 3,500.00 SqFt Comments:  
48 L & T CR L 80.00 Ft Comments:  
48 L & T CR M 19.00 Ft Comments:

Sample Number: 142 Type: R Area: 3,500.00SqFt PCI = 64  
Sample Comments:  
52 WEATH/RAVEL L 3,500.00 SqFt Comments:  
50 PATCHING M 0.25 SqFt Comments:  
48 L & T CR L 67.00 Ft Comments:

Sample Number: 150 Type: R Area: 3,500.00SqFt PCI = 69  
Sample Comments:  
52 WEATH/RAVEL L 3,500.00 SqFt Comments:  
48 L & T CR L 22.00 Ft Comments:

# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: TW C1 Name: TAXIWAY C1 Use: TAXIWAY Area: 16,350.00SqFt

Section: 215 of 1 From: - To: - Last Const.: 1/1/1993  
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P  
Area: 16,350.00SqFt Length: 450.00Ft Width: 35.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 5 Surveyed: 2

Conditions: PCI: 65.00

Inspection Comments:

Sample Number: 100 Type: R Area: 5,000.00SqFt PCI = 62

Sample Comments:

52 WEATH/RAVEL	L	5,000.00 SqFt	Comments:
56 SWELLING	L	22.00 SqFt	Comments:
45 DEPRESSION	L	35.00 SqFt	Comments:
48 L & T CR	L	81.00 Ft	Comments:

Sample Number: 103 Type: R Area: 3,500.00SqFt PCI = 69

Sample Comments:

48 L & T CR	L	73.00 Ft	Comments:
52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:



# Re-inspection Report

FDOT

Report Generated Date: 6/8/2011

Site Name:

Network: CTY Name: CROSS CITY AIRPORT

Branch: TW C2 Name: TAXIWAY C2 Use: TAXIWAY Area: 16,350.00SqFt

Section: 220 of 1 From: - To: - Last Const.: 1/1/1993  
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P  
Area: 16,350.00SqFt Length: 450.00Ft Width: 35.00Ft  
Shoulder: Street Type: Grade: 0.00 Lanes: 0  
Section Comments:

Last Insp. Date: 2/10/2011 Total Samples: 5 Surveyed: 2

Conditions: PCI: 57.00

Inspection Comments:

Sample Number: 100 Type: R Area: 5,000.00SqFt PCI = 55

Sample Comments:

52 WEATH/RAVEL	L	4,994.00 SqFt	Comments:
48 L & T CR	M	12.00 Ft	Comments:
56 SWELLING	L	40.00 SqFt	Comments:
52 WEATH/RAVEL	M	6.00 SqFt	Comments:
48 L & T CR	L	61.00 Ft	Comments:
45 DEPRESSION	L	15.00 SqFt	Comments:

Sample Number: 102 Type: R Area: 3,500.00SqFt PCI = 59

Sample Comments:

52 WEATH/RAVEL	L	3,500.00 SqFt	Comments:
48 L & T CR	H	6.00 Ft	Comments:
48 L & T CR	L	34.00 Ft	Comments:
48 L & T CR	M	18.00 Ft	Comments: