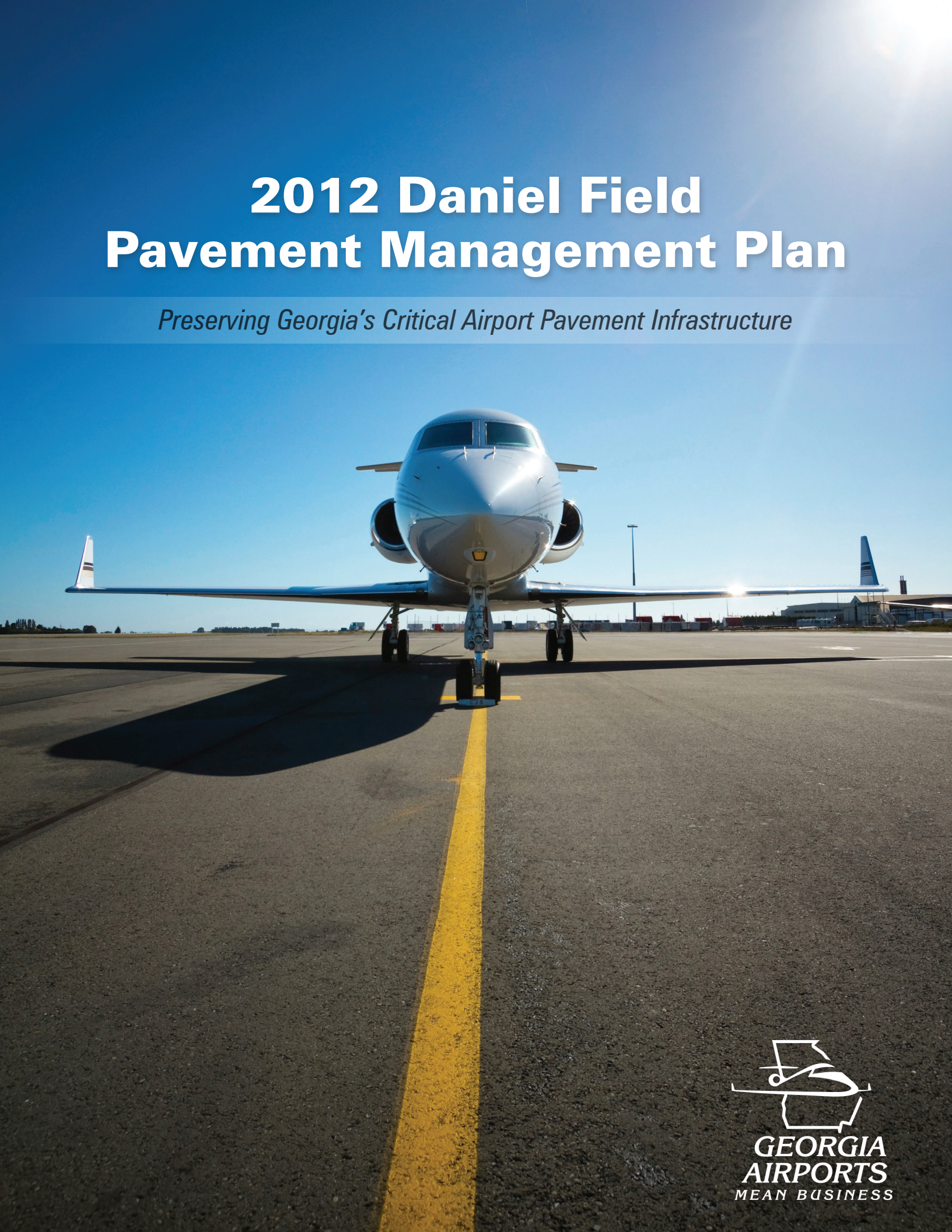
2012 Daniel Field Pavement Management Plan

Preserving Georgia's Critical Airport Pavement Infrastructure



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Acknowledgement

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DANIEL FIELD

PAVEMENT MANAGEMENT REPORT

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INTRODUCTION

In 2012, the Georgia Department of Transportation – Aviation Programs (the Department), selected Applied Pavement Technology, Inc. (APTech), assisted by CDM Smith, to update its statewide airport pavement management system (APMS). This study will provide airports and the State with pavement information and analytical tools to help identify pavement related needs, optimize selection of individual airport projects over a multi-year period, and evaluate the long-term impacts of project priorities.

As part of this study, pavement conditions at Daniel Field were assessed in 2012 using the pavement condition index (PCI) procedure. The results of that evaluation are presented within this report and can be used by the Department, the Federal Aviation Administration (FAA), and Daniel Field to monitor the condition of airfield pavements and to identify, prioritize, and schedule pavement maintenance and rehabilitation (M&R) actions at the airport.

During a PCI inspection, the types, severities, and amounts of distress present in a pavement are visually quantified. This information is then used to develop a composite index that represents the overall condition of the pavement in numerical terms, ranging from 0 (failed) to 100 (excellent). The PCI number is a measure of overall condition and is indicative of the level of work that will be required to maintain or repair a pavement. Further, the information provides insight into the cause of pavement deterioration, which is the first step in selecting the appropriate repair action.

Programmed into an APMS, PCI information is used to determine when preventive maintenance actions, such as crack sealing, are advisable and also identifies the most cost-effective time to perform major rehabilitation, such as an overlay. The importance of identifying not only the type of repair but also the optimal time of repair is illustrated in Figure 1. There is a point in a pavement's life cycle where the rate of deterioration increases and the financial impact of delaying repairs beyond this point can be severe.

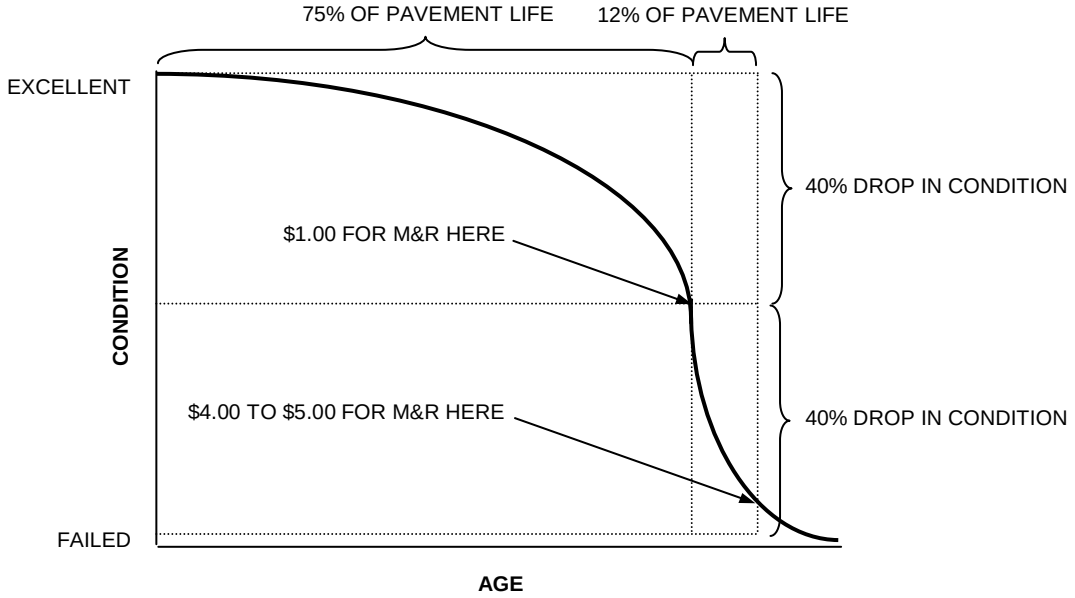


Figure 1. Pavement Condition versus Cost of Repair.

This study collected pavement history information, developed CAD maps, evaluated current pavement condition, and updated the Department's APMS. The APMS was used to prepare a 5-year pavement M&R program. Individual reports, such as this one, have been prepared for each individual airport as well as a statewide analysis report and an executive summary report in order to convey the study results.

METHODOLOGY

The study consists of three major work elements: records review and network definition; pavement condition evaluation; and the development of an M&R plan for the preservation of the pavement infrastructure. Detail of each work element is further described below.

Records Review and Network Definition

The first activities undertaken involved gathering historical airfield pavement data, which includes date of original construction and date of any subsequent rehabilitation; location of completed work; and the type of work undertaken.

The historical data is used to divide the pavement system into management units – branches, sections, and sample units. A branch is a single entity that serves a distinct function. For example, a runway is considered a branch because it serves a single function (allowing aircraft to take off and land). Taxiways and aprons are also separate branches.

A branch is further divided into sections. A section is considered the management unit of the APMS, and represents a pavement area where pavement maintenance or rehabilitation would be undertaken. For example, if a runway was built in 1968 and then extended and overlaid in 1984, this runway might be represented by a single section, even though there are two distinct construction periods. However, if the condition of one part of the runway was significantly different than another the branch would be divided into two sections because in that situation the runway may not be repaired as a whole in the future.

To estimate the overall condition of each pavement section, each section is subdivided into sample units. A percentage of these sample units are then evaluated during pavement inspections, and the condition information is extrapolated to predict the condition of the section as a whole.

Pavement Evaluation Procedure

Pavements were evaluated at Daniel Field using the PCI procedure. This procedure is described in FAA Advisory Circular (AC) 150/5380-6B, *Guidelines and Procedures for Maintenance of Airport Pavements* and American Society for Testing and Material (ASTM) Standard D5340-11, *Standard Test Method for Airport Pavement Condition Index Surveys*.

The PCI provides a numerical indication of overall pavement condition, as illustrated in Figure 2. The types and amounts of deterioration are used to calculate the PCI value of the section. The PCI ranges from 0 to 100, with 100 representing a pavement in excellent condition. It should be noted that a PCI value is based on visual signs of pavement deterioration and does not provide a measure of structural capacity.

Typical Pavement Surface[1]	PCI
	100
	60
	20

[1]Photographs shown are not specific to Daniel Field.

Figure 2. Visual Representation of PCI Scale.

In general terms, pavements with a PCI greater than 70 that are not exhibiting significant load-related distress will benefit from preventive maintenance actions, such as crack sealing and surface treatments. Pavements with a PCI of 40 to 70 may require major rehabilitation, such as an overlay. Often, when the PCI is less than 40, reconstruction is the only viable alternative due to the substantial damage to the pavement structure. Figure 3 illustrates how repair type varies with the PCI of a pavement section.

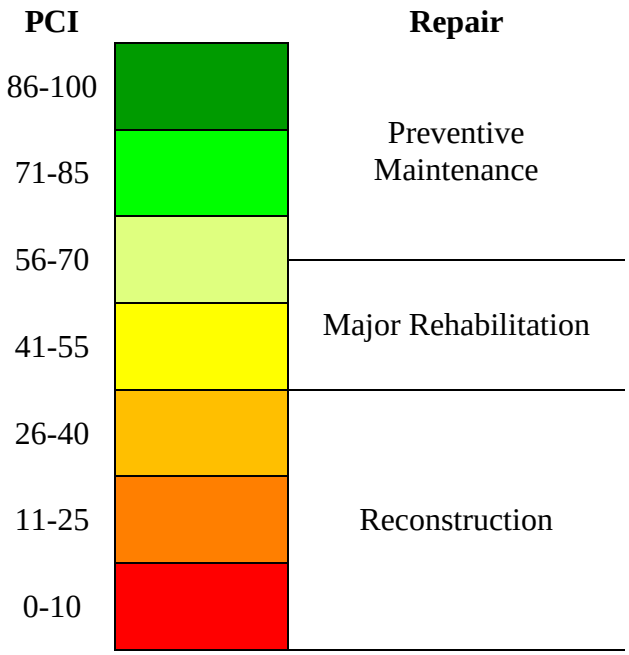


Figure 3. PCI versus Repair Type.

The types of distress identified during the PCI inspection provide insight into the cause of pavement deterioration. PCI distress types are characterized as:

- **Load-related** – These distress types are defined as being caused by aircraft or vehicular traffic and may provide an indication of a structural deficiency. Examples of load-related distresses include alligator cracking on hot-mix asphalt (HMA) pavements and corner breaks on portland cement concrete (PCC) pavements,

- **Climate/durability-related** – These distress types often signify the presence of aged and/or environment-susceptible material and include durability-related issues. Examples of climate/durability-related distresses include weathering, which is climate-related, on HMA pavements and durability cracking, which is durability-related, on PCC pavements, and

- **Other** – Distress types that fall into this category cannot be attributed solely to load or climate/durability. Examples of this type of distress include depressions on HMA pavements and shrinkage cracking on PCC pavements.

Understanding the cause of distress helps in selecting a rehabilitation alternative that corrects the cause and thus eliminates its recurrence.

Appendix A contains tables for asphalt and PCC pavements indicating the typical types of distresses that may be identified during a PCI survey, the likely cause of each distress type, and feasible maintenance strategies for addressing each distress type.

Paint Markings Evaluation Procedure

The condition of the paint markings was evaluated for each section at Daniel Field. The markings were rated as "satisfactory" or "non-satisfactory" based on whether the markings were visible and the paint and reflectivity appeared intact. Following is a short description of each category:

- Not Applicable (N/A): No paint markings exist to rate.
- Satisfactory (SAT): Markings that are still visible and in good condition, requiring no maintenance or remarking.
- Non-satisfactory: Markings that require maintenance or remarking in the near future and any of the following conditions are present:
  - Paint is faded to the point where markings are not easily visible from a distance (U-FA).
  - Paint is flaking off the surface or has worn to point that portions of the painted surface no longer have paint on them (U-CH).
  - Painted areas have a large amount of superficial cracking within their limits, degrading the integrity of the painted area and reducing its visibility (U-CR).

Development of Maintenance and Rehabilitation Program

Using the information collected during the 2012 pavement inspection, an M&R program for 2013 through 2017 was developed. The MicroPAVER™ pavement management software was used to perform this analysis.

Analysis Parameters

Several parameters were defined prior to running the analysis, and are further explained below.

Critical PCI Values

MicroPAVER™ uses critical PCI values to determine whether preventive maintenance or major rehabilitation is the appropriate repair action. Above the critical PCI, localized (such as crack sealing) and global (such as a slurry seal) preventive maintenance activities are recommended. Below the critical PCI, major rehabilitation (such as an overlay or reconstruction) is recommended. The Department set the critical PCI values shown in Table 1.

Table 1. Critical PCI Values.

Airport Classification	Runway	Taxiway/ T-Hangar	Apron/Helipad
General Aviation	70	60	60
Commercial Service	75	65	65

Budget and Inflation Rate

An unlimited budget and an inflation rate of 3 percent were used during the analysis.

Maintenance Policies

Localized preventive maintenance policies and global preventive maintenance policies were developed for the Department. Localized maintenance policies, shown in Appendix D, identify the localized maintenance actions that the Department consider appropriate to correct different distress types when the PCI of the pavement is above the critical PCI level.

Global maintenance actions were also considered in the analysis. These are treatments that are applied over an entire section, rather than just to distressed areas. Rejuvenators were considered for pavements that are more than 5 years old with a PCI value greater than 80. Rejuvenators were only applied once during the analysis period to eligible sections.

Unit Costs

Unit costs for maintenance treatments and major rehabilitation actions are presented in Appendix D. For general aviation airports, the costs were separated by geographic regions. MicroPAVER™ estimates the cost of major rehabilitation based on the PCI of the pavement. If major rehabilitation is recommended in the program, further engineering investigation will be needed to identify the most appropriate rehabilitation action and to more accurately estimate the cost of such work.

Analysis Approach

The goal of the M&R program is to maintain the pavements above established critical PCI values. Major rehabilitation was recommended for pavements in the year they dropped below their critical PCI value for 2013 through 2017.

For 2013, a localized preventive maintenance plan was developed for those pavement sections that were above their critical PCI value. If major rehabilitation was triggered for a section in 2014 or 2015, then localized maintenance was not recommended for 2013. It was assumed that all low-severity cracking would need to be resealed in 2017 unless major rehabilitation was triggered on the section. No other maintenance activities, other than crack sealing, were considered for year 2017.

RESULTS

Pavement Inventory

Daniel Field has over 1,961,225 square feet of pavement, as shown in Figure 4. Figure 5 is a network definition map of the airport showing the pavement system broken down into management units, as described on page 3 of this report. It also shows the nomenclature used in the MicroPAVER™ pavement management database to identify the different pavement areas. Additionally, the map summarizes the construction history information compiled during the records review and identifies the areas inspected during the visual survey.

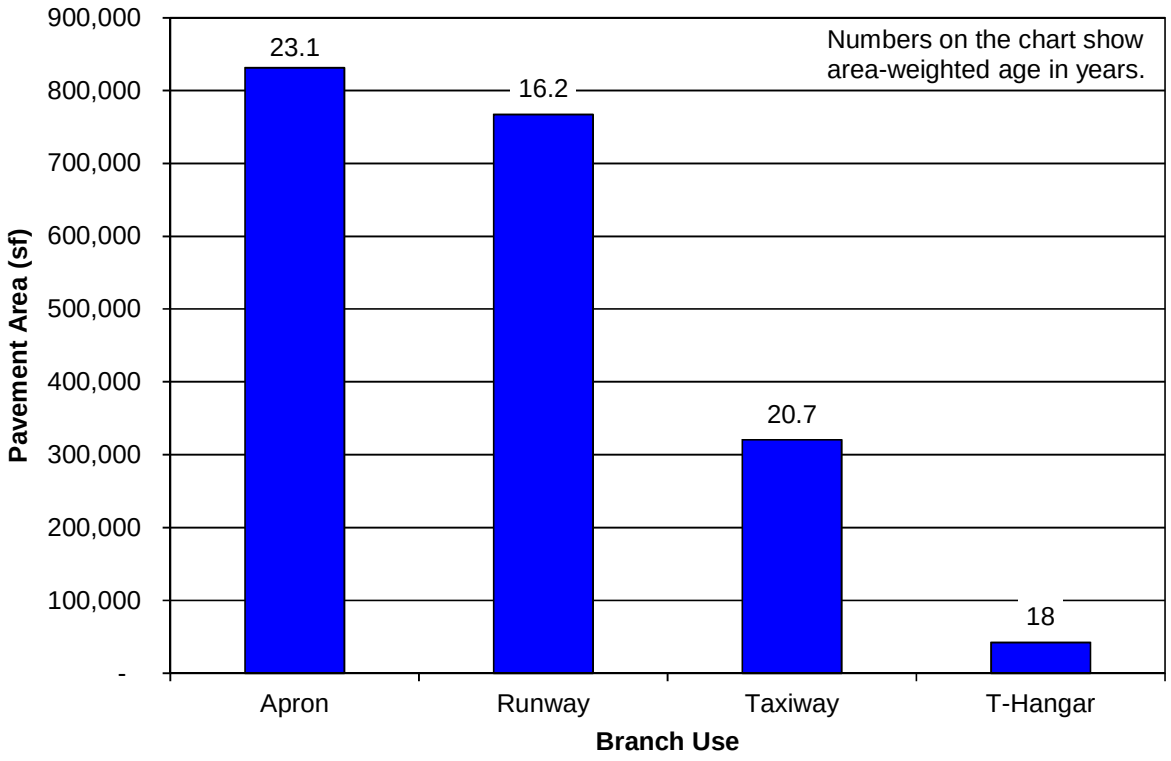
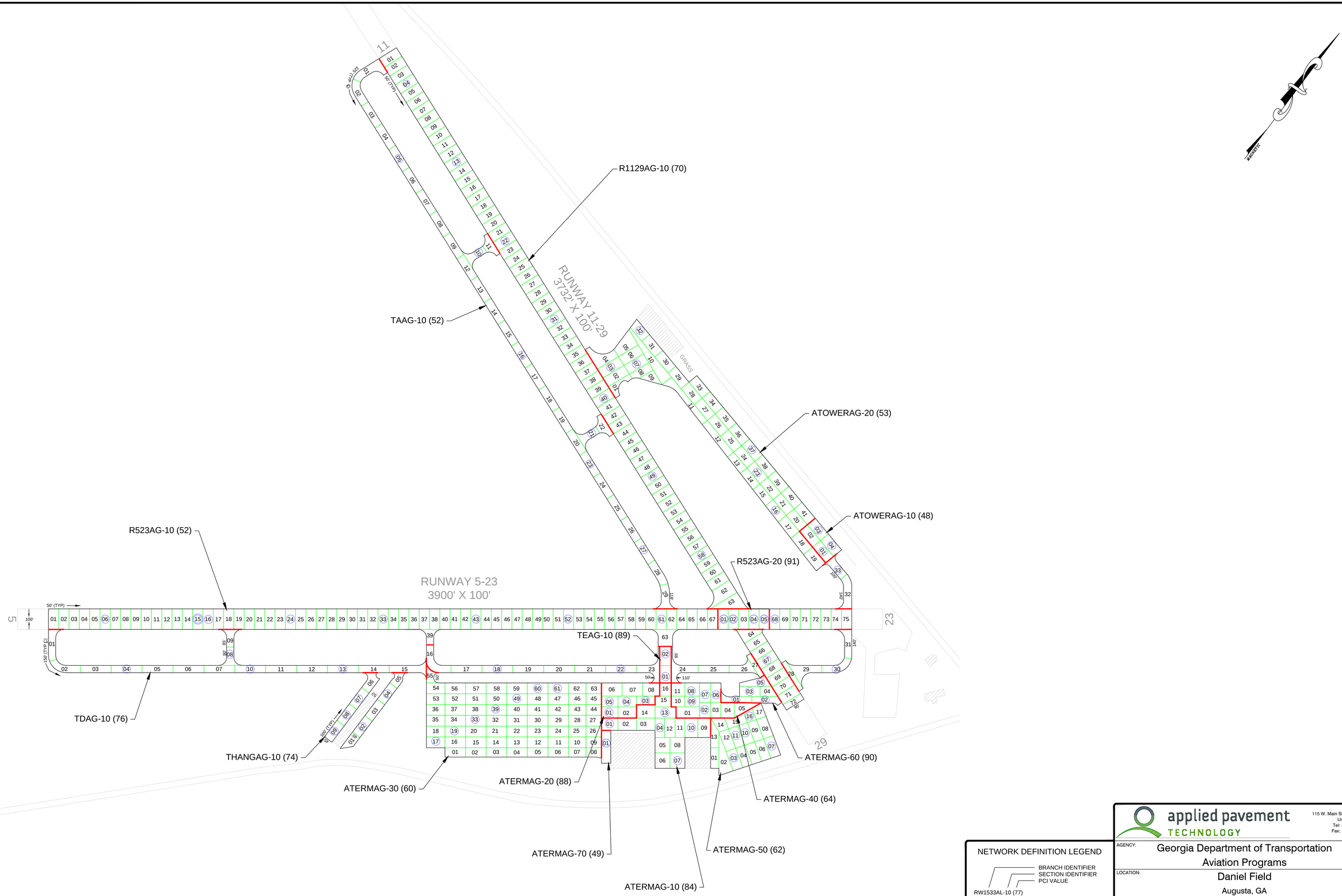


Figure 4. Pavement Inventory.



NETWORK DEFINITION LEGEND

RW1533AL-10 (77)

- BRANCH IDENTIFIER
- SECTION IDENTIFIER
- PCI VALUE

- SECTION BREAK LINE
- SAMPLE UNIT BREAK LINE
- SLAB JOINT
- 03 SAMPLE UNIT NUMBER
- (03) SAMPLE UNIT INSPECTED
- (03) ADDITIONAL SAMPLE UNIT

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AGENCY: Georgia Department of Transportation Aviation Programs			
LOCATION: Daniel Field, Augusta, GA			
PAGE TITLE: NETWORK DEFINITION MAP			
PROJECT DATE: NOV. 2011	CREATION DATE: NOV. 2011	PROJECT MANAGER: MRC	JOB NUMBER: 09-067-AM01
DRAWING SCALE: 1"= 200'	LAST MODIFIED DATE: APR. 2012	REVISED BY: DSP	DRAWN BY: DSP
FILENAME: Augusta-Daniel Field.dwg		LAYOUT NAME/NUMBER: NET. DEF.	FIGURE: 5

Pavement Evaluation and Paint Assessment

The inspection of Daniel Field was completed on March 15, 2012 using the PCI procedure described previously. The map presented in Figure 5 identifies the sample units inspected during the pavement evaluation.

Inspection Comments

Sixteen pavement sections were defined during the inspection.

Runways

Runway 11-29

Runway 11-29 was comprised of one section with a PCI value of 70. A surface treatment project was completed on this runway in 2010. Substantial amounts of low- and medium-severity longitudinal and transverse (L&T) cracking were observed throughout this section. The low-severity cracking was both sealed and unsealed, and the medium-severity cracking was due to unsatisfactory crack sealant.

Runway 5-23

Runway 5-23 consisted of two sections. Section 10 had a PCI value of 52. The only distresses identified in this section were low- and medium-severity L&T cracking and low-severity weathering along with smaller quantities of medium-severity weathering. All low-severity cracking was unsealed, and medium-severity cracking was due to unsatisfactory crack sealant. An additional sample unit that included several areas of low- and medium-severity patching unique to that location of the runway was recorded in accordance with ASTM D5340. Section 20 consisted of the intersection of both runways and had a PCI value of 91. Moderate amounts of low-severity weathering were observed in this section along with low-severity, unsealed L&T cracking.

Taxiways

Taxiway A

Taxiway A was defined by one section with a PCI value of 52. The primary distresses identified in Section 10 were medium-severity L&T cracking and low-severity weathering. In addition, moderate amounts of low-severity L&T cracking, medium-severity alligator cracking, and medium-severity weathering were also observed. All low-severity cracking was unsealed and medium-severity cracking was due to unsatisfactory crack sealant.

Taxiway D

Taxiway D was comprised of one section with a PCI value of 76. Substantial quantities of low-severity weathering were recorded throughout Section 10 along with moderate amounts of low- and medium-severity L&T cracking and medium-severity weathering. All low-severity cracking was unsealed and medium-severity cracking was due to unsatisfactory crack sealant.

Taxiway E

Taxiway E was defined by one section with a PCI value of 89. The primary distress identified in Section 10 was low-severity weathering. Additionally, low-severity, unsealed L&T cracking and medium-severity weathering were observed in smaller quantities.

Aprons

Terminal Apron

The terminal apron area (ATERMAG) consisted of seven sections. The low-severity cracking in these sections was both sealed and unsealed. The medium-severity cracking was primarily due to unsatisfactory crack sealant with small amounts due to unsealed crack widths greater than ¼ inch or development of secondary cracking. Section 10 had a PCI value of 84. The primary distress identified in this section was low-severity L&T cracking along with smaller quantities of low-severity patching and medium-severity L&T cracking. Section 20 had a PCI value of 88. Only small amounts of low-severity L&T cracking were recorded in this section. Section 30 had a PCI value of 60. Substantial amounts of low- and medium-severity L&T cracking, low-severity weathering, and low-severity raveling were observed throughout this section. Section 40 had a PCI value of 64. The only distresses identified were low- and medium-severity L&T cracking. Section 50 had a PCI value of 62. Moderate amounts of low- and medium-severity L&T cracking were recorded in this section. Section 60 had a PCI value of 90. Substantial amounts of low-severity weathering were identified in this section along with smaller quantities of low-severity L&T cracking. Section 70 had a PCI value of 49. Extensive amounts of low- and medium-severity block cracking were observed throughout.

Tower Apron

The tower apron area (ATOWERAG) contained two sections. All low-severity cracking was unsealed; all medium-severity cracking was due to unsatisfactory crack sealant. Section 10 had a PCI value of 48. The primary distresses identified in this section were medium-severity L&T cracking and weathering. Low-severity L&T cracking was also recorded. Section 20 had a PCI value of 53. The main distresses observed in this section were medium-severity L&T cracking and low-severity weathering. Moderate amounts of low-severity L&T cracking and block cracking were also identified along with smaller quantities of low-severity patching.

T-Hangar

The T-Hangar area was comprised of one section with a PCI value of 74. The primary distresses identified in Section 10 were low-severity block cracking and weathering. Smaller quantities of low-severity L&T cracking and raveling were also observed. All low-severity cracking was unsealed.

Overall Condition

The 2012 area-weighted condition of Daniel Field is 63, with conditions ranging from 48 to 91 [on a scale of 0 (failed) to 100 (excellent)]. This compares to a 2007 PCI of 79.

Figures 6 and 7 provide graphs summarizing the overall condition of the pavements at Daniel Field. Figure 8 is a map that displays the condition of the pavements evaluated. Table 2 summarizes the results of the pavement evaluation and paint assessment and also presents both the 2007 and 2012 PCI values. Please note that modifications have been made to the PCI methodology since the time of the last pavement inspection in 2007, as detailed in ASTM 5340-11. These changes include the separation of the raveling and weathering distress type on asphalt-surfaced pavements into two distress types along with the addition of the alkali silica reaction (ASR) distress type on PCC pavements.

Appendix B presents photographs taken during the PCI inspection, and Appendix C contains a detailed inspection report. The detailed inspection report provides information on the quantity of the different types and severities of distresses observed during the visual survey.

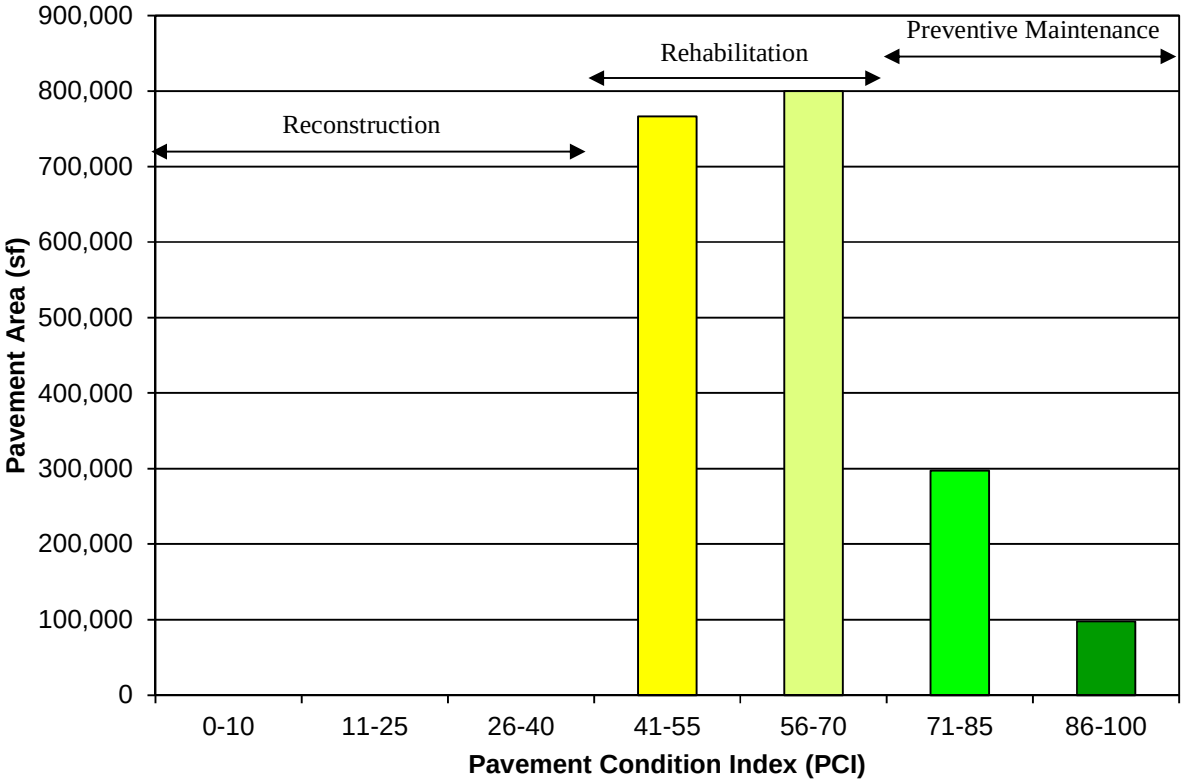


Figure 6. Condition Distribution.

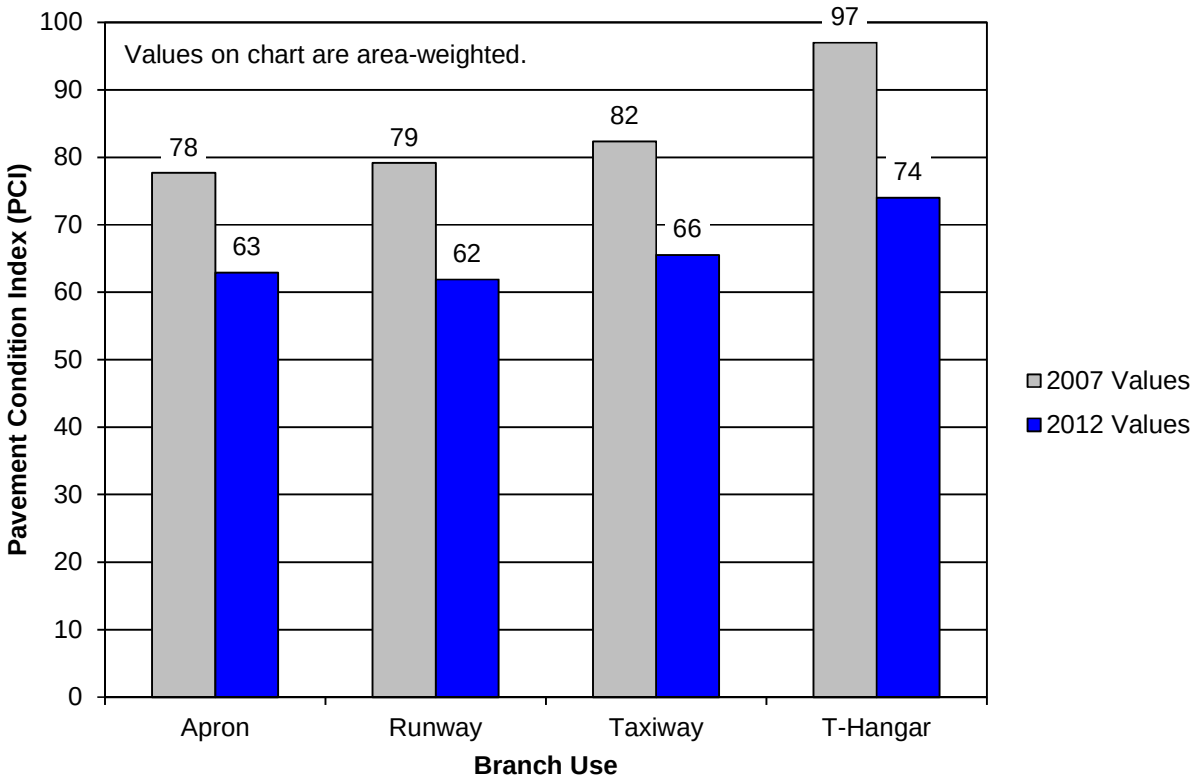
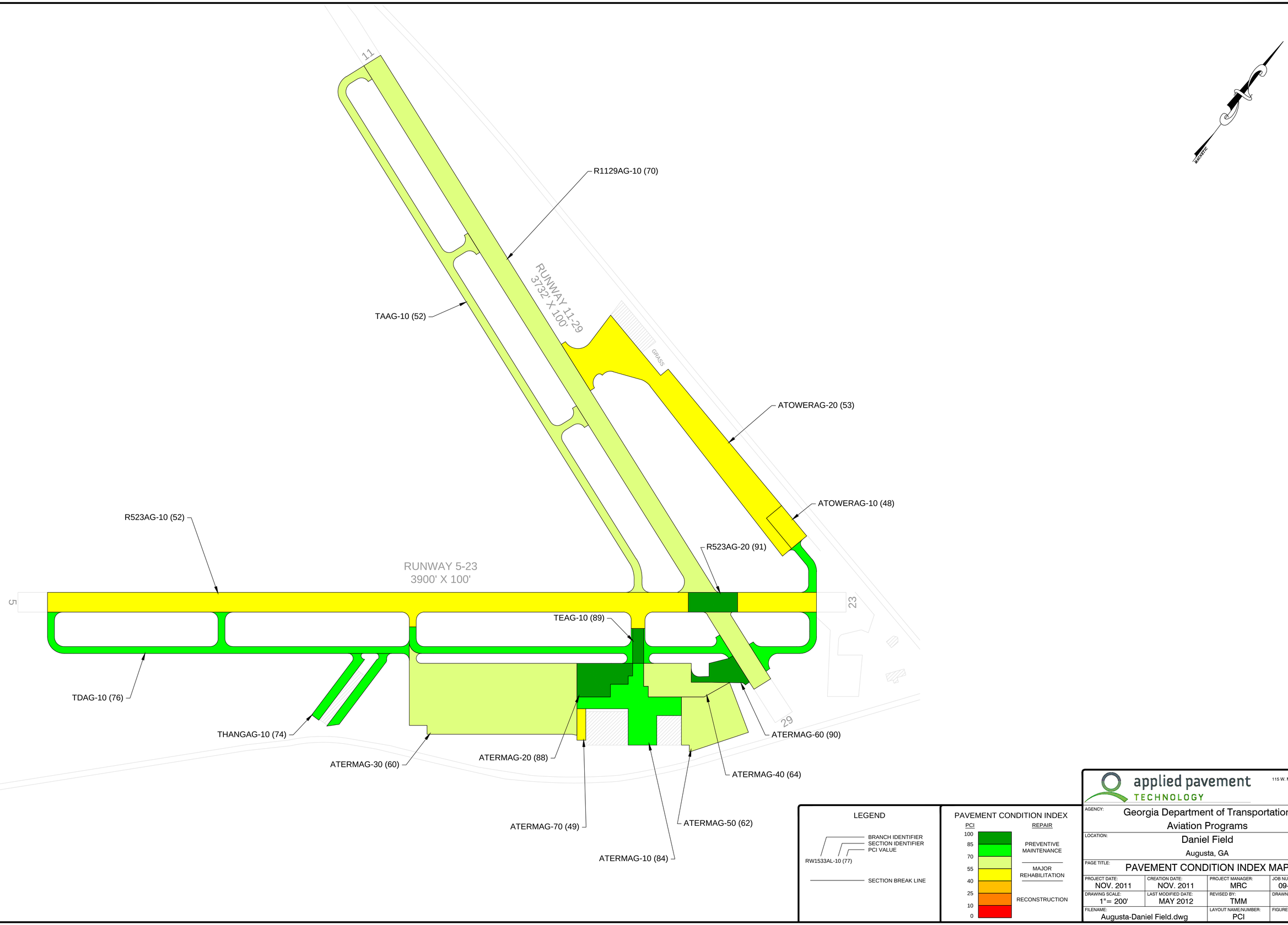


Figure 7. Condition by Use.



LEGEND

BRANCH IDENTIFIER
SECTION IDENTIFIER
PCI VALUE
RW1533AL-10 (77)

SECTION BREAK LINE

PAVEMENT CONDITION INDEX

PCI	REPAIR
100	
85	PREVENTIVE MAINTENANCE
70	
55	MAJOR REHABILITATION
40	
25	
10	RECONSTRUCTION
0	

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Aviation Programs

LOCATION: Daniel Field
Augusta, GA

PAGE TITLE: PAVEMENT CONDITION INDEX MAP

PROJECT DATE:	CREATION DATE:	PROJECT MANAGER:	JOB NUMBER:
NOV. 2011	NOV. 2011	MRC	09-067-AM01
DRAWING SCALE:	LAST MODIFIED DATE:	REVISED BY:	DRAWN BY:
1"= 200'	MAY 2012	TMM	TMM
FILENAME:		LAYOUT NAME/NUMBER:	FIGURE:
Augusta-Daniel Field.dwg		PCI	8

Table 2. Pavement Evaluation Results.

Branch[1]	Section[1]	Surface Type[2]	Section Area (sf)	LCD[3]	Paint Markings[4]	2007 PCI	2012 PCI	% Distress due to:		Distress Types[7]
								Load[5]	Climate or Durability[6]	
ATERMAG	10	AAC	89,103	6/1/2000	SAT	92	84	0	100	L&T Cracking, Patching
ATERMAG	20	AAC	39,992	6/1/2000	SAT	100	88	0	100	L&T Cracking
ATERMAG	30	AC	304,816	6/2/1985	SAT	74	60	0	100	L&T Cracking, Raveling, Weathering
ATERMAG	40	AAC	49,624	6/2/1985	U-FA	79	64	0	100	L&T Cracking
ATERMAG	50	AC	78,268	6/1/1986	N/A	71	62	0	100	L&T Cracking
ATERMAG	60	AAC	22,504	1/1/2004	N/A	100	90	0	100	L&T Cracking, Weathering
ATERMAG	70	AAC	7,165	6/1/1997	N/A	71	49	0	100	Block Cracking
ATOWERAG	10	AAC	20,000	6/1/1988	N/A	61	48	0	100	L&T Cracking, Weathering
ATOWERAG	20	AAC	219,678	6/1/1988	SAT	77	53	0	100	Block Cracking, L&T Cracking, Patching, Weathering
R1129AG	10	AAC	367,242	6/1/2000	SAT	82	70	0	100	L&T Cracking
R523AG	10	AAC	374,796	6/1/1991	SAT	75	52	0	100	L&T Cracking, Patching, Weathering
R523AG	20	AAC	25,000	6/1/2005	SAT	100	91	0	100	L&T Cracking, Weathering
TAAG	10	AC	144,936	6/1/1984	SAT	77	52	18	82	Alligator Cracking, L&T Cracking, Weathering
TDAG	10	AC	165,658	6/2/1997	SAT	86	76	0	100	L&T Cracking, Weathering
TEAG	10	AAC	9,931	1/1/2003	SAT	100	89	0	100	L&T Cracking, Weathering
THANGAG	10	AAC	42,512	6/1/1994	U-FA	97	74	0	100	Block Cracking, L&T Cracking, Raveling, Weathering

Table 2. Pavement Evaluation Results (continued).

NOTES:

[1]See Figure 5 for the location of the branch and section.

[2] AC = asphalt cement concrete; AAC = asphalt overlay on AC; PCC = portland cement concrete; APC = asphalt overlay on PCC.

[3]LCD = last construction date.

[4] Paint markings condition: not applicable (N/A), satisfactory (SAT), unsatisfactory due to faded paint (U-FA), unsatisfactory due to chipping paint (U-CH), or unsatisfactory due to superficial cracking (U-CR).

[5]Distress due to load includes distresses attributed to a structural deficiency in the pavement, such as alligator (fatigue) cracking, rutting, or shattered concrete slabs.

[6]Distress due to climate or durability includes those distresses attributed to either the aging of the pavement and the effects of the environment (such as weathering or block cracking in AC pavements) or to a materials-related problem (such as durability cracking in a PCC pavement).

[7]L&T Cracking = longitudinal and transverse cracking.

Maintenance and Rehabilitation Program

The 5-year M&R program developed for Daniel Field is described on page 6 of this report.

A summary of the M&R program is presented in Table 3. Detailed information on the localized maintenance plan for 2013 is contained in Appendix E and Appendix F. While localized preventive maintenance should be an annual undertaking at Daniel Field, it is not possible to accurately predict the propagation of cracking and other distresses. The airport should budget for maintenance every year and can use the 2013 maintenance plan as a baseline for that work. As the pavements age, it can be assumed that the amount of localized maintenance required will increase.

Because an unlimited budget was used in the analysis, it is probable that the pavement repair program will need to be adjusted to take into account economic and/or operational constraints. Further, the identification of the need for a major rehabilitation project does not mean that federal or state funding will be available to complete the work in the year shown. It is important to remember that regardless of the recommendations presented within this report, Daniel Field is responsible for repairing pavements where existing conditions pose a hazard to safe operations.

Note these recommendations are based on a broad network-level analysis and are meant to provide Daniel Field with an indication of the type of pavement-related work required during the next 5 years. Further engineering investigation will need to be performed to identify exactly which repair action is most appropriate and to more accurately estimate the cost of such work. In addition, the cost estimates provided were based on a statewide policy and each airport should adjust the maintenance policies and unit costs to match its own approach to pavement maintenance and to reflect local costs.

Table 3. 5-Year Program under an Unlimited Funding Analysis Scenario.

Branch[1]	Section	Year	Type of Repair[2]	Estimated Cost[3]
ATERMAG	10	2013	Preventive Maintenance	$623
		2013	Rejuvenator	$19,603
		2017	Preventive Maintenance	$8,008
	20	2013	Rejuvenator	$8,798
		2017	Preventive Maintenance	$3,516
	30	2013	Major M&R	$630,867
	40	2013	Preventive Maintenance	$7,284
		2016	Major M&R	$112,229
	50	2014	Major M&R	$143,771
	60	2013	Rejuvenator	$4,951
		2017	Preventive Maintenance	$565
	70	2013	Major M&R	$38,273
ATOWERAG	10	2013	Major M&R	$106,338
	20	2013	Major M&R	$1,000,468
R1129AG	10	2013	Major M&R	$627,984
R523AG	10	2013	Major M&R	$1,966,884
	20	2013	Rejuvenator	$5,500
		2017	Preventive Maintenance	$952
TAAG	10	2013	Major M&R	$730,287
TDAG	10	2013	Preventive Maintenance	$5,819
		2017	Preventive Maintenance	$16,117
TEAG	10	2013	Rejuvenator	$2,185
		2017	Preventive Maintenance	$107
THANGAG	10	2017	Preventive Maintenance	$2,963

[1]See Figure 5 for the location of the branch and section.

[2]Major Rehabilitation: overlay, mill and overlay, reconstruction, and so on;
Localized Maintenance: crack sealing, patching, joint resealing, and so on;
Global Maintenance: surface treatments, rejuvenators, and so on.

[3]Cost estimates based on broad, statewide policy and should be adjusted to reflect local costs.

GENERAL RECOMMENDATIONS

Maintenance

In addition to the specific maintenance actions presented in Appendix E and Appendix F, the following strategies are recommended to prolong pavement life:

1. Conduct an aggressive campaign against weed growth through timely herbicide applications. Vegetation growing in pavement cracks is very destructive and significantly increases the rate of pavement deterioration.

2. Implement a periodic crack sealing program. Sealing cracks is a proven method for cost-effectively keeping water and debris out of the pavement system and extending its life.

3. Ensure that dirt does not build up along the edges of the pavements. This can create a "bathtub" effect—reducing the ability of water to drain away from the pavement system.

4. Closely monitor heavy equipment movement, such as construction equipment, emergency equipment, and fueling equipment, to make sure that it is only operating on pavement designed to accommodate the heavy loads this type of equipment often applies. Failure to restrict heavy equipment to appropriate areas may result in the premature failure of airport pavements.

5. Other maintenance necessities include keeping all pavement markings well painted, keeping safety signage clear of debris and weeds, ensuring the continuous operation of lighting systems (bulb replacement), and the frequent removal of any debris found in any of the operating areas. In addition, failed pavement areas should be remediated as necessary.

Remaining in Compliance with Public Law 103-305

Public Law 103-305 states that after January 1, 1995, airport sponsors must provide assurances or certifications that an airport has implemented an effective airport pavement maintenance management system (PMMS) before the airport will be considered for funding of pavement replacement or reconstruction projects. To be in full compliance with the Federal law, the PMMS must include the following components at a minimum: pavement inventory, pavement inspections, record keeping, information retrieval, and program funding.

By undertaking this project, the Department has provided Daniel Field with an excellent basis for meeting the requirements of this law. The airport now has a complete pavement inventory and a detailed inspection. To remain in compliance with the law, the airport will also need to undertake monthly drive-by inspections of pavement conditions and track pavement-related maintenance activities. The next detailed inspection should occur in 2015.

The FAA AC 150/5380-6B provides further information on Public Law 103-305. Specifically, Appendix 1 of this AC outlines what needs to be included in a PMMS to satisfy FAA Grant Assurance 11. A copy of this AC can be found at the following website http://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/22556.

SUMMARY

This report documents the results of the pavement evaluation conducted at Daniel Field. During a visual inspection of the pavements in 2012, it was found that the overall condition of the pavement network is a PCI of 63. A 5- year pavement repair program was generated for Daniel Field, which revealed that approximately $5,444,091 needs to be expended on the pavement system to maintain and/or improve its condition.

APPENDIX A

CAUSE OF DISTRESS TABLES

Table A-1. Cause of Pavement Distress, Asphalt-Surfaced Pavements.

Distress Type	Probable Cause of Distress	Feasible Maintenance Strategies
Alligator Cracking	Fatigue failure of the asphalt concrete surface under repeated traffic loading.	If localized, partial- or full-depth asphalt patch. If extensive, major rehabilitation needed.
Bleeding	Excessive amounts of asphalt cement or tars in the mix and/or low air void content.	Spread heated sand, roll, and sweep. Another option is to plane excess asphalt. Or, remove and replace.
Block Cracking	Shrinkage of the asphalt concrete and daily temperature cycling; it is not load associated.	At low severity levels, crack seal and/or surface treatment. At higher severities, consider overlay.
Corrugation	Traffic action combined with an unstable pavement layer.	If localized, mill. If extensive, remove and replace.
Depression	Settlement of the foundation soil or can be "built up" during construction.	Patch.
Jet Blast	Bituminous binder has been burned or carbonized.	Patch.
Joint Reflection Cracking	Movement of the concrete slab beneath the asphalt concrete surface due to thermal and moisture changes.	At low- and medium-severities, crack seal. At higher severities, especially if extensive, consider overlay.
Longitudinal and Transverse Cracking	Cracks may be caused by 1) poorly constructed paving lane joint, 2) shrinkage of the AC surface due to low temperatures or hardening of the asphalt, or 3) reflective crack caused by cracks in an underlying PCC slab.	At low- and medium-severity levels, crack seal. At higher severities, especially if extensive, consider overlay options.
Oil Spillage	Deterioration or softening of the pavement surface caused by the spilling of oil, fuel, or other solvents.	Patch.
Patching	N/A	Replace patch if deteriorated.
Polished Aggregate	Repeated traffic applications.	Aggregate seal coat is one option. Could also groove or mill. Overlay is another option.
Raveling	Asphalt binder may have hardened significantly, causing coarse aggregate pieces to dislodge.	Patch if isolated. At higher severity levels, consider major rehabilitation if extensive.
Rutting	Usually caused by consolidation or lateral movement of the materials due to traffic loads.	Patch medium- and high-severity levels if localized. If extensive, consider major rehabilitation.
Shoving	Where PCC pavements adjoin flexible pavements, PCC "growth" may shove the asphalt pavement.	Mill and patch as needed.
Slippage Cracking	Low strength surface mix or poor bond between the surface and next layer of pavement structure.	Partial- or full-depth patch.
Swelling	Usually caused by frost action or by swelling soil.	Patch if localized. Major rehabilitation if extensive.
Weathering	Asphalt binder and/or fine aggregate may wear away as the pavement ages and hardens.	Patch if isolated. Consider a surface treatment if extensive.

Table A-2. Cause of Pavement Distress, PCC Pavements.

Distress Type	Probable Cause of Distress	Feasible Maintenance Strategies
Alkali Silica Reaction (ASR)	Chemical reaction of alkalis in the portland cement with certain reactive silica minerals. ASR may be accelerated by the use of chemical pavement deicers.	At medium- and high-severity levels, slab replacement is recommended.
Blow-Up	Incompressibles in joints.	Partial- or full-depth patch. Slab replacement.
Corner Break	Load repetition combined with loss of support and curling stresses.	Seal cracks at low-severity. Full-depth patch.
Cracks	Combination of load repetition, curling stresses, and shrinkage stresses.	Seal cracks. At high-severity, may need full-depth patch or slab replacement.
Durability Cracking	Concrete's inability to withstand environmental factors such as freeze-thaw cycles.	Full-depth patch if present on small amount of slab. At higher severity levels, once it has appeared on most of slab, slab replacement.
Joint Seal Damage	Stripping of joint sealant, extrusion of joint sealant, weed growth, hardening of the filler (oxidation), loss of bond to the slab edges, or absence of sealant in joint.	Replace joint seal.
Patching (Small and Large)	N/A	Replace patches if deteriorated.
Popouts	Freeze-thaw action in combination with expansive aggregates.	Monitor.
Pumping	Poor drainage, poor joint sealant.	Seal cracks and joints. Underseal is an option if voids have developed. Establish good drainage.
Scaling	Overfinishing of concrete, deicing salts, improper construction, freeze-thaw cycles, and poor aggregate.	At low-severity levels, do nothing. At medium- and high-severity levels, partial-depth patches or slab replacement.
Settlement	Upheaval or consolidation.	At higher severity levels, leveling patch or grind to restore smooth ride.
Shattered Slab	Load repetition.	Replace slab.
Shrinkage	Setting and curing of the concrete.	Monitor.
Spalling (Joint and Corner)	Excessive stresses at the joint caused by infiltration of incompressible materials or traffic loads; weak concrete at joint combined with traffic loads.	Partial-depth patch.

APPENDIX B

PHOTOGRAPHS

ATERMAG-10. Overview.

ATERMAG-10. Longitudinal and Transverse Cracking (Sample Unit #13).

ATERMAG-10. Patching (Sample Unit #01).

ATERMAG-10. Satisfactory Paint.

ATERMAG-20. Overview.

ATERMAG-20. Longitudinal and Transverse Cracking (Sample Unit #05).

ATERMAG-20. Satisfactory Paint.

ATERMAG-30. Overview.

ATERMAG-30. Longitudinal and Transverse Cracking (Sample Unit #19).

ATERMAG-30. Longitudinal and Transverse Cracking (Sample Unit #33).

ATERMAG-30. Raveling (Sample Unit #39).

ATERMAG-30. Satisfactory Paint.

ATERMAG-30. Seal Coat (Sample Unit #49).

ATERMAG-30. Weathering (Sample Unit #49).

ATERMAG-40. Overview.

ATERMAG-40. Longitudinal and Transverse Cracking (Sample Unit #11).

ATERMAG-40. Unsatisfactory Paint.

ATERMAG-50. Overview.

ATERMAG-50. Longitudinal and Transverse Cracking (Sample Unit #10).

ATERMAG-60. Overview.

ATERMAG-60. Longitudinal and Transverse Cracking (Sample Unit #03).

ATERMAG-70. Overview.

ATERMAG-70. Block Cracking (Sample Unit #01).

ATOWERAG-10. Overview.

ATOWERAG-10. Longitudinal and Transverse Cracking (Sample Unit #01).

ATOWERAG-20. Overview.

ATOWERAG-20. Block Cracking (Sample Unit #03).

ATOWERAG-20. Longitudinal and Transverse Cracking (Sample Unit #23).

ATOWERAG-20. Satisfactory Paint.

R0523AG-10. Overview.

R0523AG-10. Longitudinal and Transverse Cracking (Sample Unit #06).

R0523AG-10. Patching (Sample Unit #15).

R0523AG-10. Satisfactory Paint.

R0523AG-10. Weathering (Sample Unit # 06).

R0523AG-20. Overview.

R0523AG-20. Longitudinal and Transverse Cracking (Sample Unit #04).

R0523AG-20. Satisfactory Paint.

R1129AG-10. Overview.

R1129AG-10. Longitudinal and Transverse Cracking (Sample Unit #09).

R1129AG-10. Longitudinal and Transverse Cracking (Sample Unit #22).

R1129AG-10. Satisfactory Paint.

TAAG-10. Overview.

TAAG-10. Alligator Cracking (Sample Unit #05).

TAAG-10. Longitudinal and Transverse Cracking (Sample Unit #05).

TAAG-10. Longitudinal and Transverse Cracking (Sample Unit #16).

TAAG-10. Satisfactory Paint.

TDAG-10. Overview.

TDAG-10. Longitudinal and Transverse Cracking (Sample Unit #18).

TDAG-10. Longitudinal and Transverse Cracking (Sample Unit #22).

TDAG-10. Satisfactory Paint.

TEAG-10. Overview.

TEAG-10. Longitudinal and Transverse Cracking (Sample Unit #01).

TEAG-10. Satisfactory Paint.

THANGAG-10. Overview.

THANGAG-10. Longitudinal and Transverse Cracking (Sample Unit #08).

THANGAG-10. Unsatisfactory Paint.

APPENDIX C

INSPECTION REPORT

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: ATERMAG Name: TERMINAL APRON Use: APRON Area: 591,472.00SqFt

Section: 10 of 7 From: TERMINAL BUILDING To: TAXIWAY E Last Const.: 06/01/2000
Surface: AAC Family: GAAACAPGA1 Zone: SAT Category: Rank: P
Area: 89,103.00SqFt Length: 270.00Ft Width: 90.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments: UNKNOWN LCD

Last Insp. Date: 03/15/2012 Total Samples: 16 Surveyed: 5
Conditions: PCI : 84
Inspection Comments:

Sample Number: 01 Type: R Area: 4,800.00SqFt PCI = 76
Sample Comments:

50 PATCHING	L	850.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	187.00 Ft	Comments:u

Sample Number: 04 Type: R Area: 4,365.00SqFt PCI = 79
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	239.00 Ft	Comments:s
48 LONGITUDINAL/TRANSVERSE CRACKING	M	40.00 Ft	Comments:fs

Sample Number: 07 Type: R Area: 5,440.00SqFt PCI = 83
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	205.00 Ft	Comments:s
48 LONGITUDINAL/TRANSVERSE CRACKING	M	50.00 Ft	Comments:fs

Sample Number: 10 Type: R Area: 5,900.00SqFt PCI = 92
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	134.00 Ft	Comments:s

Sample Number: 13 Type: R Area: 5,500.00SqFt PCI = 86
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	223.00 Ft	Comments:s
48 LONGITUDINAL/TRANSVERSE CRACKING	L	40.00 Ft	Comments:fs

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: ATERMAG Name: TERMINAL APRON Use: APRON Area: 591,472.00SqFt

Section: 20 of 7 From: TAXIWAY E To: FUEL PUMPS Last Const.: 06/01/2000
Surface: AAC Family: GAAACAPGA1 Zone: SAT Category: Rank: P
Area: 39,992.00SqFt Length: 172.00Ft Width: 170.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments: UNKNOWN LCD

Last Insp. Date: 03/15/2012 Total Samples: 8 Surveyed: 4
Conditions: PCI : 88
Inspection Comments:

Sample Number: 01 Type: R Area: 4,300.00SqFt PCI = 85
Sample Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING L 217.00 Ft Comments:u

Sample Number: 03 Type: R Area: 3,770.00SqFt PCI = 89
Sample Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING L 133.00 Ft Comments:u

Sample Number: 04 Type: R Area: 4,730.00SqFt PCI = 89
Sample Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING L 163.00 Ft Comments:u

Sample Number: 05 Type: R Area: 4,190.00SqFt PCI = 89
Sample Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING L 144.00 Ft Comments:u

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: ATERMAG Name: TERMINAL APRON Use: APRON Area: 591,472.00SqFt

Section: 30 of 7 From: S. APRON To: TERMINAL APRON Last Const.: 06/02/1985
Surface: AC Family: GAACAPGA1 Zone: SAT Category: Rank: P
Area: 304,816.00SqFt Length: 700.00Ft Width: 300.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 03/15/2012 Total Samples: 63 Surveyed: 7
Conditions: PCI : 60
Inspection Comments:

Sample Number: 17 Type: R Area: 4,500.00SqFt PCI = 73
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	175.00 Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	M	175.00 Ft	Comments:

Sample Number: 19 Type: R Area: 5,000.00SqFt PCI = 50
Sample Comments:

52 RAVELING	L	500.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	600.00 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	100.00 Ft	Comments:u

Sample Number: 33 Type: R Area: 5,000.00SqFt PCI = 73
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	400.00 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	125.00 Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	L	125.00 Ft	Comments:s

Sample Number: 39 Type: R Area: 5,000.00SqFt PCI = 50
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	600.00 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	100.00 Ft	Comments:u
52 RAVELING	L	500.00 SqFt	Comments:

Sample Number: 49 Type: R Area: 5,000.00SqFt PCI = 60
Sample Comments:

57 WEATHERING	L	2,500.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	350.00 Ft	Comments:fs
48 LONGITUDINAL/TRANSVERSE CRACKING	L	350.00 Ft	Comments:s

Sample Number: 60 Type: R Area: 5,000.00SqFt PCI = 57
Sample Comments:

52 RAVELING	L	500.00 SqFt	Comments:sc
57 WEATHERING	L	2,000.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	300.00 Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	M	300.00 Ft	Comments:fs
48 LONGITUDINAL/TRANSVERSE CRACKING	L	100.00 Ft	Comments:s

Sample Number: 61 Type: R Area: 5,000.00SqFt PCI = 57
Sample Comments:

52 RAVELING	L	500.00 SqFt	Comments:sc
57 WEATHERING	L	2,000.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	200.00 Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	L	100.00 Ft	Comments:s

Re-inspection Report

GA 2012 FINAL

Report Generated Date: November 20, 2012

48	LONGITUDINAL/TRANSVERSE CRACKING	M	300.00 Ft	Comments:fs

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: ATERMAG Name: TERMINAL APRON Use: APRON Area: 591,472.00SqFt

Section: 40 of 7 From: TAXIWAY E To: NEAR 29 Last Const.: 06/02/1985
Surface: AAC Family: GAAACAPGA1 Zone: U-FA Category: Rank: P
Area: 49,624.00SqFt Length: 150.00Ft Width: 125.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 03/15/2012 Total Samples: 11 Surveyed: 5
Conditions: PCI : 64
Inspection Comments:

Sample Number: 02 Type: R Area: 4,050.00SqFt PCI = 62
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	167.00 Ft	Comments:s
48 LONGITUDINAL/TRANSVERSE CRACKING	M	333.00 Ft	Comments:fs

Sample Number: 06 Type: R Area: 4,775.00SqFt PCI = 64
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	333.00 Ft	Comments:fs
48 LONGITUDINAL/TRANSVERSE CRACKING	L	167.00 Ft	Comments:s

Sample Number: 07 Type: R Area: 5,185.00SqFt PCI = 64
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	183.00 Ft	Comments:s
48 LONGITUDINAL/TRANSVERSE CRACKING	M	367.00 Ft	Comments:fs

Sample Number: 08 Type: R Area: 4,280.00SqFt PCI = 64
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	150.00 Ft	Comments:s
48 LONGITUDINAL/TRANSVERSE CRACKING	M	300.00 Ft	Comments:fs

Sample Number: 09 Type: R Area: 3,730.00SqFt PCI = 64
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	133.00 Ft	Comments:s
48 LONGITUDINAL/TRANSVERSE CRACKING	M	267.00 Ft	Comments:fs

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: ATERMAG Name: TERMINAL APRON Use: APRON Area: 591,472.00SqFt

Section: 50 of 7 From: N. APRON AREA To: NEAR 29 APPROACH Last Const.: 06/01/1986
Surface: AC Family: GAACAPGA1 Zone: N/A Category: Rank: P
Area: 78,268.00SqFt Length: 250.00Ft Width: 200.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments: UNKNOWN LCD (STATE PROJECT). AC OVER WWII SOIL CEMENT.

Last Insp. Date: 03/15/2012 Total Samples: 17 Surveyed: 5
Conditions: PCI : 62
Inspection Comments:

Sample Number: 03 Type: R Area: 5,000.00SqFt PCI = 64
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	350.00 Ft	Comments:s
48	LONGITUDINAL/TRANSVERSE CRACKING	M	350.00 Ft	Comments:fs

Sample Number: 07 Type: R Area: 5,000.00SqFt PCI = 64
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	350.00 Ft	Comments:s
48	LONGITUDINAL/TRANSVERSE CRACKING	M	350.00 Ft	Comments:fs

Sample Number: 10 Type: R Area: 5,000.00SqFt PCI = 62
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	400.00 Ft	Comments:s
48	LONGITUDINAL/TRANSVERSE CRACKING	M	400.00 Ft	Comments:fs

Sample Number: 11 Type: R Area: 5,000.00SqFt PCI = 62
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	400.00 Ft	Comments:s
48	LONGITUDINAL/TRANSVERSE CRACKING	M	400.00 Ft	Comments:fs

Sample Number: 16 Type: R Area: 2,550.00SqFt PCI = 56
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	300.00 Ft	Comments:s
48	LONGITUDINAL/TRANSVERSE CRACKING	M	300.00 Ft	Comments:fs

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: ATERMAG Name: TERMINAL APRON Use: APRON Area: 591,472.00SqFt

Section: 60 of 7 From: N. APRON AREA To: 29 APPROACH Last Const.: 01/01/2004
Surface: AAC Family: GAAACAPGA1 Zone: N/A Category: Rank: P
Area: 22,504.00SqFt Length: 170.00Ft Width: 110.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments: UNKNOWN LCD.

Last Insp. Date: 03/15/2012 Total Samples: 5 Surveyed: 4
Conditions: PCI : 90
Inspection Comments:

Sample Number: 01 Type: R Area: 4,725.00SqFt PCI = 93
Sample Comments:

57 WEATHERING	L	1,000.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	20.00	Ft	Comments:u

Sample Number: 02 Type: R Area: 4,480.00SqFt PCI = 89
Sample Comments:

57 WEATHERING	L	4,480.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	40.00	Ft	Comments:u

Sample Number: 03 Type: R Area: 5,000.00SqFt PCI = 85
Sample Comments:

57 WEATHERING	L	5,000.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	150.00	Ft	Comments:u

Sample Number: 05 Type: R Area: 4,820.00SqFt PCI = 94
Sample Comments:

57 WEATHERING	L	4,820.00	SqFt	Comments:

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: ATERMAG Name: TERMINAL APRON Use: APRON Area: 591,472.00SqFt

Section: 70 of 7 From: ENTRANCE To: ATERMAG-10 Last Const.: 06/01/1997
Surface: AAC Family: GAAACAPGA1 Zone: N/A Category: Rank: P
Area: 7,165.00SqFt Length: 160.00Ft Width: 50.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 03/15/2012 Total Samples: 1 Surveyed: 1
Conditions: PCI : 49
Inspection Comments:

Sample Number: 01 Type: R Area: 7,165.00SqFt PCI = 49
Sample Comments:

43 BLOCK CRACKING	M	5,016.00 SqFt	Comments:fs
43 BLOCK CRACKING	L	2,149.00 SqFt	Comments:s

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: ATOWERAG Name: TOWER APRON Use: APRON Area: 239,678.00SqFt

Section: 10 of 2 From: TAXIWAY A To: TOWER Last Const.: 06/01/1988
Surface: AAC Family: GAAACAPGA1 Zone: N/A Category: Rank: S
Area: 20,000.00SqFt Length: 200.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 03/15/2012 Total Samples: 4 Surveyed: 3
Conditions: PCI : 48
Inspection Comments:

Sample Number: 01 Type: R Area: 5,000.00SqFt PCI = 50
Sample Comments:

57 WEATHERING	M	5,000.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	100.00 Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	M	600.00 Ft	Comments:

Sample Number: 03 Type: R Area: 5,000.00SqFt PCI = 48
Sample Comments:

57 WEATHERING	M	5,000.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	100.00 Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	M	700.00 Ft	Comments:

Sample Number: 04 Type: R Area: 5,000.00SqFt PCI = 48
Sample Comments:

57 WEATHERING	M	5,000.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	100.00 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	700.00 Ft	Comments:

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: ATOWERAG Name: TOWER APRON Use: APRON Area: 239,678.00SqFt

Section: 20 of 2 From: TAXIWAY A To: RUNWAY 11/29 Last Const.: 06/01/1988
Surface: AAC Family: GAAACAPGA1 Zone: SAT Category: Rank: S
Area: 219,678.00SqFt Length: 1,000.00Ft Width: 200.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments: W. END IS AAC (OL OF OLD N-S RUNWAY)

Last Insp. Date: 03/15/2012 Total Samples: 41 Surveyed: 6
Conditions: PCI : 53
Inspection Comments:

Sample Number: 03 Type: R Area: 5,450.00SqFt PCI = 51
Sample Comments:

43	BLOCK CRACKING	L	600.00 SqFt	Comments:s
50	PATCHING	L	25.00 SqFt	Comments:
48	LONGITUDINAL/TRANSVERSE CRACKING	M	440.00 Ft	Comments:
48	LONGITUDINAL/TRANSVERSE CRACKING	L	20.00 Ft	Comments:u
57	WEATHERING	L	5,425.00 SqFt	Comments:

Sample Number: 07 Type: R Area: 5,450.00SqFt PCI = 54
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	M	550.00 Ft	Comments:fs
48	LONGITUDINAL/TRANSVERSE CRACKING	L	50.00 Ft	Comments:u
57	WEATHERING	L	5,450.00 SqFt	Comments:

Sample Number: 16 Type: R Area: 5,000.00SqFt PCI = 56
Sample Comments:

57	WEATHERING	L	5,000.00 SqFt	Comments:
48	LONGITUDINAL/TRANSVERSE CRACKING	L	210.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	430.00 Ft	Comments:

Sample Number: 23 Type: R Area: 5,000.00SqFt PCI = 56
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	M	430.00 Ft	Comments:
48	LONGITUDINAL/TRANSVERSE CRACKING	L	208.00 Ft	Comments:u
57	WEATHERING	L	5,000.00 SqFt	Comments:

Sample Number: 32 Type: R Area: 4,566.00SqFt PCI = 54
Sample Comments:

57	WEATHERING	L	4,566.00 SqFt	Comments:
48	LONGITUDINAL/TRANSVERSE CRACKING	L	110.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	440.00 Ft	Comments:

Sample Number: 37 Type: R Area: 5,000.00SqFt PCI = 48
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	160.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	700.00 Ft	Comments:
57	WEATHERING	L	5,000.00 SqFt	Comments:

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: R1129AG Name: RUNWAY 11/29 Use: RUNWAY Area: 367,242.00SqFt

Section: 10 of 1 From: 11 APPROACH To: 29 APPROACH Last Const.: 06/01/2000
Surface: AAC Family: GAAACRWYGA1 Zone: SAT Category: Rank: S
Area: 367,242.00SqFt Length: 3,672.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments: OUTER 30ft IS WWII SURFACE (W/ST)

Last Insp. Date: 03/15/2012 Total Samples: 72 Surveyed: 8
Conditions: PCI : 70
Inspection Comments:

Sample Number: 04 Type: R Area: 5,000.00SqFt PCI = 66
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	115.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	320.00 Ft	Comments:fs
48	LONGITUDINAL/TRANSVERSE CRACKING	L	270.00 Ft	Comments:s

Sample Number: 13 Type: R Area: 5,000.00SqFt PCI = 64
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	38.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	L	120.00 Ft	Comments:s
48	LONGITUDINAL/TRANSVERSE CRACKING	M	368.00 Ft	Comments:fs

Sample Number: 22 Type: R Area: 5,000.00SqFt PCI = 76
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	73.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	115.00 Ft	Comments:fs
48	LONGITUDINAL/TRANSVERSE CRACKING	L	297.00 Ft	Comments:s

Sample Number: 31 Type: R Area: 5,000.00SqFt PCI = 69
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	96.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	247.00 Ft	Comments:fs
48	LONGITUDINAL/TRANSVERSE CRACKING	L	257.00 Ft	Comments:s

Sample Number: 40 Type: R Area: 5,000.00SqFt PCI = 77
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	M	125.00 Ft	Comments:fs
48	LONGITUDINAL/TRANSVERSE CRACKING	L	250.00 Ft	Comments:s
48	LONGITUDINAL/TRANSVERSE CRACKING	L	71.00 Ft	Comments:u

Sample Number: 49 Type: R Area: 5,000.00SqFt PCI = 73
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	50.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	L	180.00 Ft	Comments:s
48	LONGITUDINAL/TRANSVERSE CRACKING	M	180.00 Ft	Comments:fs

Sample Number: 58 Type: R Area: 5,000.00SqFt PCI = 66
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	M	320.00 Ft	Comments:fs
48	LONGITUDINAL/TRANSVERSE CRACKING	L	200.00 Ft	Comments:s
48	LONGITUDINAL/TRANSVERSE CRACKING	L	36.00 Ft	Comments:u

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GA 2012 FINAL
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Sample Number: 67 Type: R Area: 5,000.00SqFt PCI = 69
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	200.00	Ft	Comments:s
48	LONGITUDINAL/TRANSVERSE CRACKING	M	250.00	Ft	Comments:fs
48	LONGITUDINAL/TRANSVERSE CRACKING	L	33.00	Ft	Comments:u

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: R523AG Name: RUNWAY 5/23 Use: RUNWAY Area: 399,796.00SqFt

Section: 10 of 2 From: 5 APPROACH To: 23 APPROACH Last Const.: 06/01/1991
Surface: AAC Family: GAAACRWYGA1 Zone: SAT Category: Rank: P
Area: 374,796.00SqFt Length: 3,650.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 03/15/2012 Total Samples: 75 Surveyed: 9
Conditions: PCI : 52
Inspection Comments:

Sample Number: 06 Type: R Area: 5,000.00SqFt PCI = 58
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	273.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	386.00 Ft	Comments:fs
57	WEATHERING	L	5,000.00 SqFt	Comments:

Sample Number: 15 Type: A Area: 5,000.00SqFt PCI = 47
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	192.00 Ft	Comments:u
50	PATCHING	L	308.00 SqFt	Comments:
50	PATCHING	M	50.00 SqFt	Comments:
48	LONGITUDINAL/TRANSVERSE CRACKING	M	395.00 Ft	Comments:fs
57	WEATHERING	L	4,692.00 SqFt	Comments:

Sample Number: 16 Type: R Area: 5,000.00SqFt PCI = 56
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	160.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	420.00 Ft	Comments:fs
57	WEATHERING	L	5,000.00 SqFt	Comments:

Sample Number: 24 Type: R Area: 5,000.00SqFt PCI = 55
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	125.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	468.00 Ft	Comments:fs
57	WEATHERING	L	5,000.00 SqFt	Comments:

Sample Number: 33 Type: R Area: 5,000.00SqFt PCI = 57
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	259.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	406.00 Ft	Comments:fs
57	WEATHERING	M	5,000.00 SqFt	Comments:

Sample Number: 43 Type: R Area: 5,000.00SqFt PCI = 55
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	358.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	M	465.00 Ft	Comments:fs
57	WEATHERING	L	5,000.00 SqFt	Comments:

Sample Number: 52 Type: R Area: 5,000.00SqFt PCI = 58
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	M	382.00 Ft	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	L	457.00 Ft	Comments:fs
57	WEATHERING	L	5,000.00 SqFt	Comments:

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Sample Number: 61 Type: R Area: 5,000.00SqFt PCI = 49
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	482.00	Ft	Comments:fs
48 LONGITUDINAL/TRANSVERSE CRACKING	L	457.00	Ft	Comments:u
57 WEATHERING	M	500.00	SqFt	Comments:
57 WEATHERING	L	4,500.00	SqFt	Comments:

Sample Number: 68 Type: R Area: 5,000.00SqFt PCI = 29
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	4,000.00	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	1,000.00	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	228.00	Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	M	415.00	Ft	Comments:fs

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: R523AG Name: RUNWAY 5/23 Use: RUNWAY Area: 399,796.00SqFt

Section: 20 of 2 From: INTERSECTION 11-29 To: INTERSECTION 11-29 Last Const.: 06/01/2005
Surface: AAC Family: GAAACRWYGA1 Zone: SAT Category: Rank: P
Area: 25,000.00SqFt Length: 250.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 03/15/2012 Total Samples: 5 Surveyed: 4
Conditions: PCI : 91
Inspection Comments: partially fogged with 1129

Sample Number: 01 Type: R Area: 5,000.00SqFt PCI = 88
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	99.00 Ft	Comments:u
57 WEATHERING	L	5,000.00 SqFt	Comments:

Sample Number: 02 Type: R Area: 5,000.00SqFt PCI = 91
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	136.00 Ft	Comments:u

Sample Number: 04 Type: R Area: 5,000.00SqFt PCI = 94
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	76.00 Ft	Comments:u

Sample Number: 05 Type: R Area: 5,000.00SqFt PCI = 90
Sample Comments:

57 WEATHERING	L	5,000.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	24.00 Ft	Comments:u

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: TAAG Name: TAXIWAY A Use: TAXIWAY Area: 144,936.00SqFt

Section: 10 of 1 From: 11 APPROACH To: RUNWAY 5/23 Last Const.: 06/01/1984
Surface: AC Family: GAACTWYGA1NORTH Zone: SAT Category: Rank: P
Area: 144,936.00SqFt Length: 3,500.00Ft Width: 40.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 03/15/2012 Total Samples: 29 Surveyed: 6
Conditions: PCI : 52
Inspection Comments: 48m is w and fs. l is unsealed

Sample Number: 05 Type: R Area: 5,000.00SqFt PCI = 48
Sample Comments:

41 ALLIGATOR CRACKING	M	40.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	565.00	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	15.00	Ft	Comments:u
57 WEATHERING	L	5,000.00	SqFt	Comments:

Sample Number: 10 Type: R Area: 4,300.00SqFt PCI = 54
Sample Comments:

57 WEATHERING	M	4,300.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	570.00	Ft	Comments:

Sample Number: 16 Type: R Area: 5,000.00SqFt PCI = 49
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	655.00	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	83.00	Ft	Comments:
57 WEATHERING	L	5,000.00	SqFt	Comments:

Sample Number: 21 Type: R Area: 4,300.00SqFt PCI = 51
Sample Comments:

57 WEATHERING	L	4,000.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	400.00	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	42.00	Ft	Comments:
57 WEATHERING	M	300.00	SqFt	Comments:

Sample Number: 23 Type: R Area: 5,000.00SqFt PCI = 55
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	469.00	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	80.00	Ft	Comments:
57 WEATHERING	L	5,000.00	SqFt	Comments:

Sample Number: 27 Type: R Area: 5,000.00SqFt PCI = 55
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	471.00	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	99.00	Ft	Comments:
57 WEATHERING	L	5,000.00	SqFt	Comments:

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: TDAG Name: TAXIWAY D Use: TAXIWAY Area: 165,658.00SqFt

Section: 10 of 1 From: 5 APPROACH To: TOWER APRON Last Const.: 06/02/1997
Surface: AC Family: GAACTWYGA1NORTH Zone: SAT Category: Rank: S
Area: 165,658.00SqFt Length: 3,590.00Ft Width: 35.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments: 1850 FT FROM 5 APPROACH BEGINS 1984 AAC TO TOWER APRON

Last Insp. Date: 03/15/2012 Total Samples: 31 Surveyed: 8
Conditions: PCI : 76
Inspection Comments:

Sample Number: 04 Type: R Area: 5,250.00SqFt PCI = 72
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	37.00	Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	M	150.00	Ft	Comments:
57 WEATHERING	L	5,250.00	SqFt	Comments:

Sample Number: 08 Type: R Area: 3,800.00SqFt PCI = 68
Sample Comments:

57 WEATHERING	M	800.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	192.00	Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	M	85.00	Ft	Comments:
57 WEATHERING	L	3,000.00	SqFt	Comments:

Sample Number: 10 Type: R Area: 5,250.00SqFt PCI = 71
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	170.00	Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	M	155.00	Ft	Comments:
57 WEATHERING	L	5,250.00	SqFt	Comments:

Sample Number: 13 Type: R Area: 5,250.00SqFt PCI = 89
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	80.00	Ft	Comments:
57 WEATHERING	L	5,250.00	SqFt	Comments:u

Sample Number: 18 Type: R Area: 5,250.00SqFt PCI = 70
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	409.00	Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	M	150.00	Ft	Comments:fs
57 WEATHERING	L	5,250.00	SqFt	Comments:

Sample Number: 22 Type: R Area: 5,250.00SqFt PCI = 70
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	415.00	Ft	Comments:u
48 LONGITUDINAL/TRANSVERSE CRACKING	M	150.00	Ft	Comments:fs
57 WEATHERING	L	5,250.00	SqFt	Comments:

Sample Number: 30 Type: R Area: 4,630.00SqFt PCI = 80
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	245.00	Ft	Comments:
57 WEATHERING	L	4,630.00	SqFt	Comments:

Sample Number: 33 Type: R Area: 5,000.00SqFt PCI = 85
Sample Comments:

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48	LONGITUDINAL/TRANSVERSE CRACKING	L	150.00 Ft	Comments:
57	WEATHERING	L	5,000.00 SqFt	Comments:

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: TEAG Name: TAXIWAY E Use: TAXIWAY Area: 9,931.00SqFt

Section: 10 of 1 From: TERMINAL APRON To: RUNWAY 5/23 Last Const.: 01/01/2003
Surface: AAC Family: GAAACTWYGA1NORTH Zone: SAT Category: Rank: S
Area: 9,931.00SqFt Length: 180.00Ft Width: 60.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 03/15/2012 Total Samples: 2 Surveyed: 2
Conditions: PCI : 89
Inspection Comments:

Sample Number: 01 Type: R Area: 4,700.00SqFt PCI = 91
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	10.00	Ft	Comments:u
57 WEATHERING	L	4,700.00	SqFt	Comments:

Sample Number: 02 Type: R Area: 5,231.00SqFt PCI = 87
Sample Comments:

57 WEATHERING	L	5,131.00	SqFt	Comments:
57 WEATHERING	M	100.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	37.00	Ft	Comments:u

Re-inspection Report

GA 2012 FINAL
Report Generated Date: November 20, 2012

Network: AUG-DNL Name: DANIEL FIELD

Branch: THANGAG Name: T-HANGAR Use: THANGAR Area: 42,512.00SqFt

Section: 10 of 1 From: TAXIWAY D To: HANGAR Last Const.: 06/01/1994
Surface: AAC Family: GAAACTH-60 Zone: U-FA Category: Rank: P
Area: 42,512.00SqFt Length: 780.00Ft Width: 45.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments: OL OF OLD N-S RUNWAY

Last Insp. Date: 03/15/2012 Total Samples: 9 Surveyed: 5
Conditions: PCI : 74
Inspection Comments:

Sample Number: 02 Type: R Area: 4,500.00SqFt PCI = 77
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	14.00 Ft	Comments:u
52	RAVELING	L	1,000.00 SqFt	Comments:
57	WEATHERING	L	4,500.00 SqFt	Comments:

Sample Number: 04 Type: R Area: 4,500.00SqFt PCI = 66
Sample Comments:

43	BLOCK CRACKING	L	600.00 SqFt	Comments:u
48	LONGITUDINAL/TRANSVERSE CRACKING	L	191.00 Ft	Comments:u
52	RAVELING	L	1,000.00 SqFt	Comments:
57	WEATHERING	L	4,500.00 SqFt	Comments:

Sample Number: 07 Type: R Area: 4,500.00SqFt PCI = 76
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	80.00 Ft	Comments:u
52	RAVELING	L	1,000.00 SqFt	Comments:
57	WEATHERING	L	4,500.00 SqFt	Comments:

Sample Number: 08 Type: R Area: 4,500.00SqFt PCI = 76
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	100.00 Ft	Comments:u
52	RAVELING	L	1,000.00 SqFt	Comments:
57	WEATHERING	L	4,500.00 SqFt	Comments:

Sample Number: 09 Type: R Area: 4,500.00SqFt PCI = 76
Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	122.00 Ft	Comments:
52	RAVELING	L	1,000.00 SqFt	Comments:
57	WEATHERING	L	4,500.00 SqFt	Comments:

APPENDIX D

MAINTENANCE POLICIES AND UNIT COSTS

Table D-1. Localized Maintenance Policy, Asphalt-Surfaced Pavements.

Distress Type	Severity Level	Maintenance Action
Alligator Cracking	Low	Monitor
	Medium	AC Patching
	High	AC Patching
Bleeding	N/A	Monitor
Block Cracking	Low	Monitor
	Medium	Crack Sealing – AC
	High	Crack Sealing – AC
Corrugation	Low	Monitor
	Medium	AC Patching
	High	AC Patching
Depression	Low	Monitor
	Medium	AC Patching
	High	AC Patching
Jet Blast	N/A	AC Patching
Joint Reflection Cracking	Low	Monitor
	Medium	Crack Sealing – AC
	High	Crack Sealing – AC
Longitudinal and Transverse Cracking	Low	Monitor
	Medium	Crack Sealing – AC
	High	Crack Sealing – AC
Oil/Fuel Damage	N/A	AC Patching
Patching	Low	Monitor
	Medium	Monitor
	High	AC Patching
Polished Aggregate	N/A	Monitor
Raveling	Low	Monitor
	Medium	AC Patching
	High	AC Patching
Rutting	Low	Monitor
	Medium	AC Patching
	High	AC Patching
Shoving	Low	Monitor
	Medium	AC Patching
	High	AC Patching
Slippage Cracking	N/A	AC Patching
Swelling	Low	Monitor
	Medium	AC Patching
	High	AC Patching
Weathering	Low	Monitor
	Medium	Monitor
	High	AC Patching

Table D-2. Localized Maintenance Policy, PCC Pavements.

Distress Type	Severity Level	Maintenance Action
Alkali Silica Reaction (ASR)	Low	Monitor
	Medium	Slab Replacement
	High	Slab Replacement
Blow-Up	Low	Slab Replacement
	Medium	Slab Replacement
	High	Slab Replacement
Corner Break	Low	Crack Sealing – PCC
	Medium	PCC Full Depth Patch
	High	PCC Full Depth Patch
LTD Cracking	Low	Crack Sealing – PCC
	Medium	Crack Sealing – PCC
	High	Crack Sealing – PCC
Durability Cracking	Low	Monitor
	Medium	Slab Replacement
	High	Slab Replacement
Joint Seal Damage	Low	Monitor
	Medium	Joint Sealing – PCC
	High	Joint Sealing – PCC
Patching (Large and Small)	Low	Monitor
	Medium	PCC Full Depth Patch
	High	PCC Full Depth Patch
Popouts	N/A	Monitor
Pumping	N/A	Monitor
Scaling	Low	Monitor
	Medium	Slab Replacement
	High	Slab Replacement
Faulting	Low	Monitor
	Medium	Monitor
	High	PCC Partial Depth Patch
Shattered Slab	Low	Crack Sealing – PCC
	Medium	Slab Replacement
	High	Slab Replacement
Shrinkage	N/A	Monitor
Spalling (Joint and Corner)	Low	Monitor
	Medium	PCC Partial Depth Patch
	High	PCC Partial Depth Patch

Table D-3. 2012 Unit Costs for Localized Maintenance Actions, General Aviation Airports.

Maintenance Action	Unit Cost		
	Metro	North	South
AC Patching	$3.19/sf	$3.18/sf	$3.28/sf
Crack Sealing – AC	$2.02/lf	$2.02/lf	$1.95/lf
Crack Sealing – PCC	$2.71/lf	$2.71/lf	$2.71/lf
Joint Sealing – PCC	$2.71/lf	$2.71/lf	$2.71/lf
PCC Partial Depth Patch	$12.84/sf	$12.84/sf	$12.84/sf
PCC Full Depth Patch	$43.32/sf	$43.32/sf	$43.32/sf
Slab Replacement	$43.32/sf	$43.32/sf	$43.32/sf

Table D-4. 2012 Unit Costs for Localized Maintenance Actions, Air Carrier Airports.

Maintenance Action	Unit Cost
AC Patching	$3.47/sf
Crack Sealing – AC	$6.25/lf
Crack Sealing – PCC	$2.71/lf
Joint Sealing – PCC	$2.71/lf
PCC Partial Depth Patch	$12.84/sf
PCC Full Depth Patch	$43.32/sf
Slab Replacement	$43.32/sf

Table D-5. 2012 Unit Costs for Global Maintenance Actions, General Aviation Airports.

Maintenance Action	Unit Cost		
	Metro	North	South
Single Surface Treatment	$0.26/sf	$0.12/sf	$0.19/sf
Pavement Rejuvenator	$0.22/sf	$0.22/sf	$0.22/sf

Table D-6. 2012 Unit Costs for Global Maintenance Actions, Air Carrier Airports.

Maintenance Action	Unit Cost
Single Surface Treatment	$0.43/sf
Pavement Rejuvenator	$0.22/sf

Table D-7. 2012 Major Rehabilitation Unit Costs Based on PCI Ranges for Asphalt-Surfaced Pavements.

Type of Airport[1]	PCI Range							
	0 – 29	30 – 39	40 – 49	50 – 59	60 – 69	70 – 79	80 – 89	> 89
G.A., Metro	$6.09/sf	$6.09/sf	$6.85/sf	$1.96/sf	$1.96/sf	$1.96/sf	$1.96/sf	$1.96/sf
G.A., North	$5.14/sf	$5.14/sf	$5.38/sf	$1.71/sf	$1.71/sf	$1.71/sf	$1.71/sf	$1.71/sf
G.A., South	$5.00/sf	$5.00/sf	$5.42/sf	$1.87/sf	$1.87/sf	$1.87/sf	$1.87/sf	$1.87/sf
Air Carrier	$6.52/sf	$6.52/sf	$2.62/sf	$2.62/sf	$2.62/sf	$2.62/sf	$2.62/sf	$2.62/sf

[1]G.A. = General Aviation

Table D-8. 2012 Major Rehabilitation Unit Costs Based on PCI Ranges for PCC-Surfaced Pavements.

Type of Airport[1]	PCI Range							
	0 – 29	30 – 39	40 – 49	50 – 59	60 – 69	70 – 79	80 – 89	> 89
G.A., Metro	$9.50/sf	$9.50/sf	$1.96/sf	$1.96/sf	$1.96/sf	$1.96/sf	$1.96/sf	$1.96/sf
G.A., North	$9.87/sf	$9.87/sf	$1.71/sf	$1.71/sf	$1.71/sf	$1.71/sf	$1.71/sf	$1.71/sf
G.A., South	$9.71/sf	$9.71/sf	$1.87/sf	$1.87/sf	$1.87/sf	$1.87/sf	$1.87/sf	$1.87/sf
Air Carrier	$9.68/sf	$9.68/sf	$2.62/sf	$2.62/sf	$2.62/sf	$2.62/sf	$2.62/sf	$2.62/sf

[1]G.A. = General Aviation

APPENDIX E

YEAR 2013 MAINTENANCE PLAN ORGANIZED BY SECTION

Table E-1. 2013 Maintenance Plan Organized by Section.

Branch[1]	Section[1]	Distress Type[2]	Severity	Maintenance Action	Maintenance Quantity	Maintenance Unit	Unit Cost	Estimated Cost
ATERMAG	10	L&T Cracking	Medium	Crack Sealing - AC	308	Ft	$2.02	$623
	40	L&T Cracking	Medium	Crack Sealing - AC	3,606	Ft	$2.02	$7,284
TDAG	10	L&T Cracking	Medium	Crack Sealing - AC	2,881	Ft	$2.02	$5,819

[1]See Figure 5 for the location of the branch and section.

[2]L&T Cracking = longitudinal and transverse cracking.

APPENDIX F

YEAR 2013 MAINTENANCE PLAN
ORGANIZED BY REPAIR TYPE

Table F-1. 2013 Maintenance Plan Organized by Repair Type.

Branch[1]	Section[1]	Distress Type[2]	Severity	Maintenance Action	Maintenance Quantity	Maintenance Unit	Unit Cost	Estimated Cost
ATERMAG	10	L&T Cracking	Medium	Crack Sealing - AC	308	Ft	$2.02	$623
ATERMAG	40	L&T Cracking	Medium	Crack Sealing - AC	3,606	Ft	$2.02	$7,284
TDAG	10	L&T Cracking	Medium	Crack Sealing - AC	2,881	Ft	$2.02	$5,819

[1]See Figure 5 for the location of the branch and section.

[2]L&T Cracking = longitudinal and transverse cracking.

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