Advanced Infrastructure Design, Inc.
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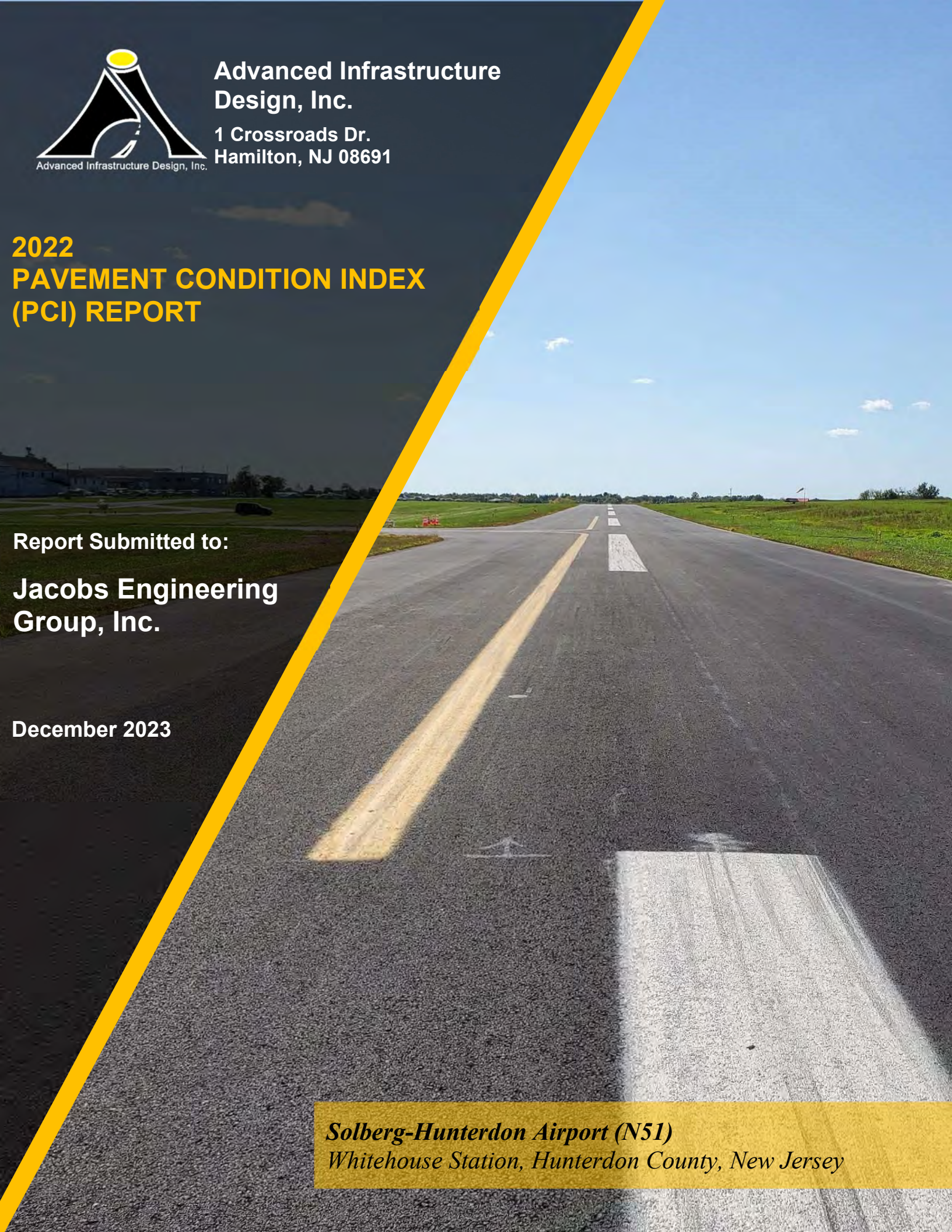
2022 PAVEMENT CONDITION INDEX (PCI) REPORT

Report Submitted to:

Jacobs Engineering Group, Inc.

December 2023



Solberg-Hunterdon Airport (N51)
Whitehouse Station, Hunterdon County, New Jersey

Advanced Infrastructure Design, Inc.

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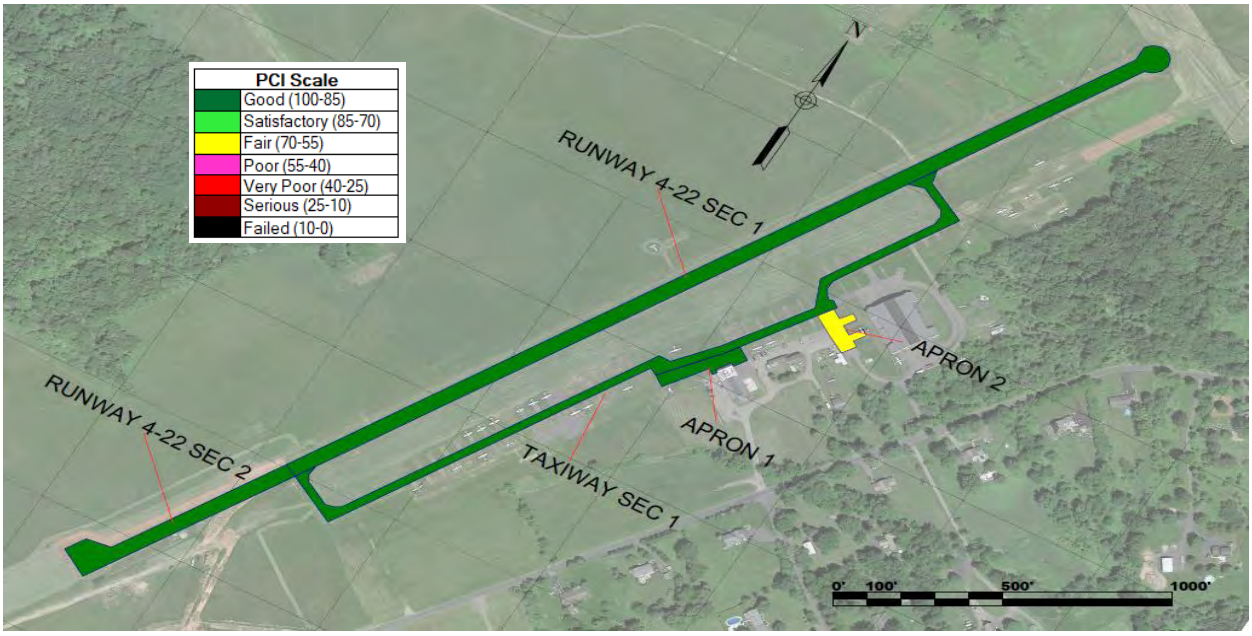
Executive Summary

The pavement condition of the runway, taxiway, and apron of Solberg-Hunterdon Airport (N51) was evaluated through a pavement distress survey in October 2022 and the Pavement Condition Index (PCI) was computed. The results were compared to those obtained from the 2014 condition assessment of the N51 airport pavement.

The 2022 distress survey indicated that the runway, taxiway, and apron pavement of airport N51, considered as a whole, is currently in GOOD condition with an overall average PCI of 94. This is a 43-point increase from the overall PCI of 51 (POOR) found for the airport in 2014. This improvement in condition can be attributed to the M&R activity that occurred in nearly all sections of the airport. In terms of area, the airport pavement was in POOR condition (96%) in 2014 but improved nearly all of the pavement being in GOOD condition (97%) in 2022. With respect to branch type/use, the runway and taxiway improved from the POOR condition in 2014 to the GOOD condition in 2022. These increase in conditions are due to a new extension on Runway 4-22 as well as resurfacing projects on the runway and taxiway. Regarding the aprons, Apron 2 remained in FAIR condition while Apron 1 improved from POOR to GOOD condition due to an M&R activity on the pavement.

In terms of distresses observed, the entire pavement area is primarily affected by climatic/durability factors. Longitudinal and transverse cracking is the predominant distress across N51. Patching, weathering, and localized depressions were also contributors to PCI deductions.



Part I – Introduction

Jacobs Engineering Group Inc. retained Advanced Infrastructure Design, Inc. (AID) to provide technical services pertaining to the collection of Pavement Condition Index (PCI) data on the airside pavement of seventeen (17) airports in New Jersey. This report pertains to the PCI data collection work conducted on 10/10/2022 at Solberg-Hunterdon Airport (N51) and includes a comparison of the results to those obtained in 2014. The project site is located in Whitehouse Station, Hunterdon County, New Jersey.

AID collected data for the runways, taxiways, and aprons at 17 airports in 2014. This data was then used to develop an Airport Pavement Management System (APMS) for each of those 17 airports. Several years later, it is now prudent to update the PCI data at the 17 airports to account for deterioration and improvements that have occurred since the last PCI survey conducted in 2014. The updated PCI information will provide the New Jersey Department of Transportation (NJDOT) and Federal Aviation Administration (FAA) with important existing condition information that can then be used to allocate funds appropriately. Additionally, the new set of PCI data can eventually be added to the 2014 data in the APMS to enable refinements to pavement deterioration models.

The intent of AID's work on this project was to collect PCI data on the primary airside pavement, which can be readily entered into the Airport Pavement Management System (APMS) for N51. To this end, the distress survey was conducted on the runway, taxiway, and apron pavement. The remainder of this report discusses the scope of work in detail and presents the results yielded by the PCI inspection. In addition to this report, the database created in 2014 is being updated with the 2022 distress survey data. The database will include the airport pavement inventory, distresses, and PCI data from the 2014 and 2022 distress surveys.

The airport layout showing the various pavement branches and sections at the airport and their respective designations is shown in Appendix A. It should be noted that the letter designations that were arbitrarily assigned to the taxiways during AID's 2014 PCI survey were also followed for the current survey.

Part II – Scope of Work

As part of the PCI data collection efforts, AID performed the following tasks:

2.1 Reviewed Existing Information

To understand the existing pavement assets and their structure and condition for planning the project work, updates since the 2014 work to pertinent information such as the Airport Layout Plan (ALP), CADD files, pavement type information, historical pavement condition information, and past and planned maintenance and rehabilitation (M&R) activities were requested. For N51, M&R activity details were not available to AID at the time of this report. Google Earth imagery was used for mapping on this project and identifying the location of the M&R activity on the pavement. Google Earth images helped identify a runway resurfacing project in 2021, a runway extension project in May 2022, and a taxiway/Apron 1 resurfacing project in late 2022.

2.2 Performed PCI Survey

ASTM D5340-20: Standard Test Method for Airport Pavement Condition Index Surveys, which is employed as the visual distress identification and rating system in *FAA AC No. 150/5380-6C: Guidelines and Procedures for Maintenance of Airport Pavements*, was followed in carrying out the PCI inspection work for this project. This work can be divided into three components – sampling, inspection, and analysis.

2.2.1 Sampling

The sampling plan from the 2014 PCI survey was followed for the current, 2022 survey. This involved first dividing the airport pavement into different branches based on functionality and geography. The branches were then subdivided into different sections, where appropriate, based on the pavement type, condition, and geometry. The sections were further divided into sample units for the purpose of PCI inspection, where each unit has an area of 5000 $\pm$ 2000 SF for asphalt concrete (AC) surfaced pavements. Following *ASTM D5340-20*, a sampling rate was established to balance the need for reliable data with the need to efficiently carry out the inspection work, keeping in mind that the PCI data being collected is intended to be used in making network-level decisions regarding M&R treatments. Table 1 shows the sampling plan that was typically followed. This displays the minimum number of sample units to be surveyed within a section with a specified total number of sample units. These are designated “Random” sample units. “Additional” sample units are sample units that have a non-representative pavement condition and are inspected in addition to the random sample units when they were found to exist. Locations and designations for all the branches, sections, and sample units are shown in Appendix A.

Table 1. Sampling Rate Plan

Total No. of Sample Units in a Section	No. of Sample Units to Survey
1	1
2-4	2
5-7	3
8-10	4
11-12	5
13-15	6
16-18	7
19-21	8
22-25	9
26-30	10
31-35	11
36-60	12
>60	20%

2.2.2 Inspection

The layout of the branches, sections, and sample units established during the 2014 distress survey as well as the sampling plan from 2014 were followed for the current PCI survey. AID conducted the distress survey on N51 on October 10, 2022.

PCI is used for quantifying pavement condition, where values range from 0-100 with 0 being the worst possible condition and 100 being the best possible condition. Using "deduct curves" from *ASTM D5340-20*, a single PCI value is calculated for each surveyed sample unit based on the distress types, severities (low, medium, or high), and quantities found within that sample unit. The PCI can be related to a verbal description called a "pavement condition rating" for ease of interpretation of the results. The PCI scale shown below is cited as an example in *ASTM D5340-20* and was used for this project.

PCI Scale

- Good (100-85)
- Satisfactory (85-70)
- Fair (70-55)
- Poor (55-40)
- Very Poor (40-25)
- Serious (25-10)
- Failed (10-0)

2.2.3 Analysis

The distress survey data collected during the inspections was analyzed using *Paver (v.7.0.10)*, which was developed by the U.S. Army Corps of Engineers, Construction Engineering Research Laboratory (CERL). The analysis of the distress survey data includes the calculation of the PCI and distress quantities extrapolated over the entirety of the surveyed pavement sections.

Part III – Results

3.1 Overview

Based on the pavement distress survey and analysis, it was found that the runway, taxiway, and apron pavement of airport N51, considered as a whole, is currently in GOOD condition with an overall average PCI of 94. This is a 43-point increase from the overall PCI of 51 (POOR) found for the airport in 2014. This improvement in conditions can be attributed to the M&R activities that occurred in nearly all sections of the airport. The percentage breakdowns of the pavement area falling within each PCI condition category, both in 2014 and 2022, are shown in Figure 1. This figure shows that nearly all of the pavement areas were in POOR condition (96%) in 2014 but improved to nearly all of the pavement being in GOOD condition (97%) in 2022.

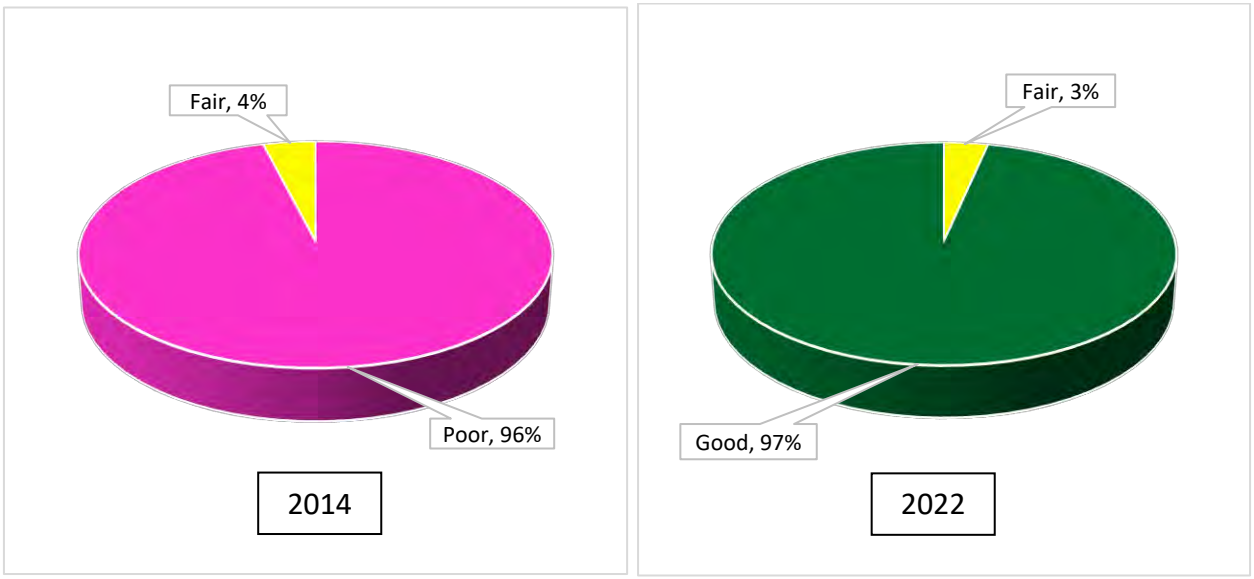


Figure 1. Comparison of Overall N51 PCI Category Breakdown in 2014 and 2022.

Figure 2 shows the PCI category breakdown by branch use in 2014 vs. 2022. The runway and taxiway improved from POOR condition in 2014 to GOOD condition in 2022. These increases in conditions are due to a new extension on Runway 4-22 as well as resurfacing projects on the runway and taxiway. Regarding the aprons, Apron 2 remained in FAIR condition while Apron 1 improved from POOR to GOOD condition due to an M&R activity on the pavement.

Figure 2. Comparison of PCI Category Breakdown by Branch Use in 2014 and 2022.

Figure 3 shows the change in overall weighted average PCI by branch use. The PCI values improved from 2014 to 2022 due to the M&R activity that occurred in all branch types.

The detailed data collected and produced through pavement inspections, including branch, section, and sample unit reports as well as a report with extrapolated distress data by section, is compiled in Appendix B. Because no information was made available to AID at the time of this report regarding the "Last Construction Date", which reflects the date when the last major rehabilitation was carried out, an arbitrary date assigned by Paver program is listed in the Section Condition Report.

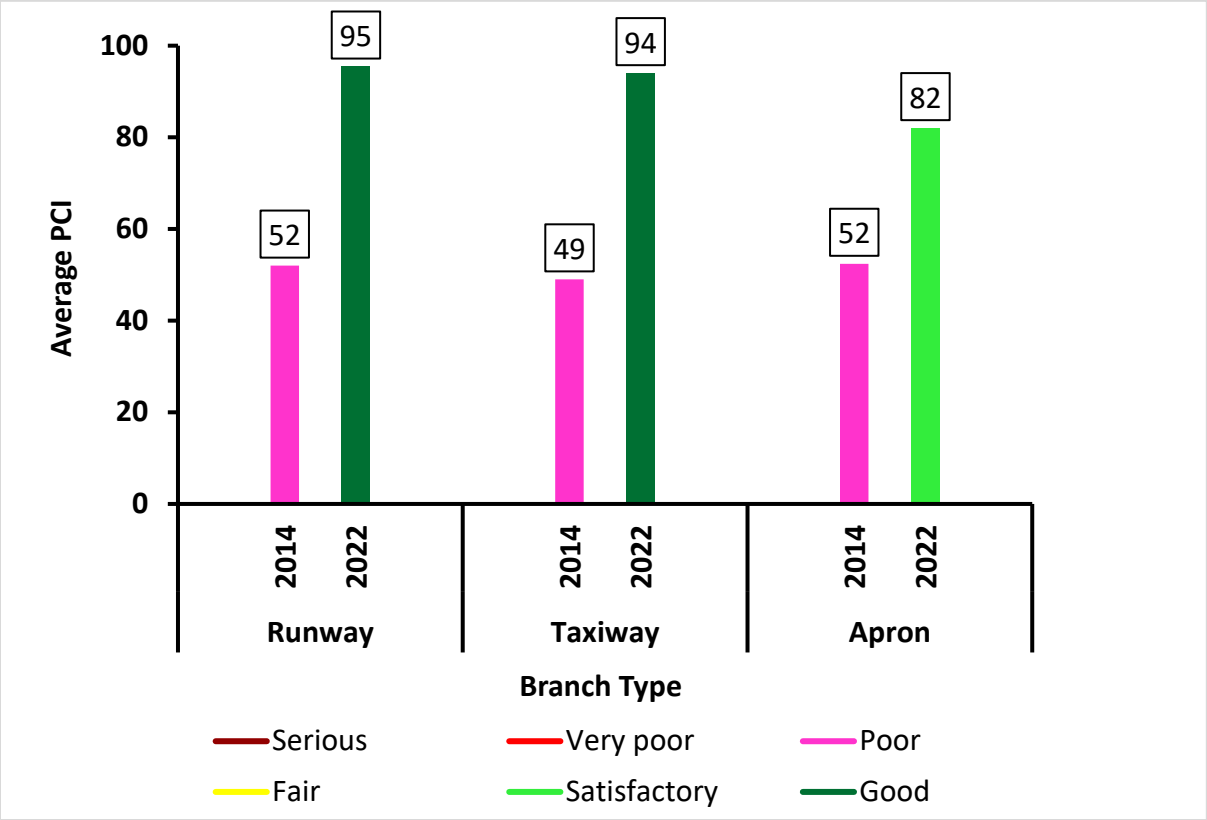


Figure 3. Comparison of Average PCI by Branch Use in 2014 and 2022.

3.2 Branch/Section Discussion

Table 2 summarizes pertinent attributes of the pavement branches and sections. This table also lists the total number of samples in each section along with the number of random and additional samples that were surveyed. Table 3 summarizes the PCI by section and branch for both 2014 and 2022.

Table 4 summarizes the observed distresses by section from the 2022 survey. In terms of distresses, the entire pavement area is primarily affected by climatic/durability factors. L-Longitudinal and transverse cracking is the predominant distress across N51. L-patching, weathering, and localized depression were also contributors to PCI deductions. A photo log is included to visualize the typical condition in various pavement sections at the time of the 2022 inspection.

Table 2. Summary of Pavement Branch and Section Attributes.

Branch	Section ID	Surface Type	Total Area (sq. feet)	Total Sample Units	Sample Units Inspected	
					Random	Additional
Runway 4-22	1	AC	153021	31	12	0
	2	AC	41688	8	4	0
Taxiway 1	1	AC	73060	14	7	2
Apron 1	1	AC	11963	2	2	0
Apron 2	1	AC	9873	2	2	0

Notes:

1. *AC- Asphalt Concrete*
2. *Refer to Appendix A for Branch ID, Section ID, and Locations*

Table 3. PCI Comparison by Branch and Section for 2014 and 2022.

Branch ID	Section ID	PCI-2014				PCI-2022				Predominant distresses in 2022
		Branch PCI	Branch PCI Category	Section PCI	Section PCI Category	Branch PCI	Branch PCI Category	Section PCI	Section PCI Category	
Runway 4-22	1	52	Poor	52	Poor	95	Good	94	Good	Longitudinal and transverse cracking
	2	DID NOT EXIST						100	Good	No distress
Taxiway 1	1	49	Poor	49	Poor	94	Good	94	Good	Longitudinal and transverse cracking
Apron 1	1	42	Poor	42	Poor	96	Good	96	Good	Longitudinal and transverse cracking
Apron 2	1	65	Fair	65	Fair	65	Fair	65	Fair	Longitudinal and transverse cracking

Table 4. Summary of 2022 Observed Distress Types by Section

Branch ID	Section ID	Pavement Distresses										
		Alligator cracking	Block cracking	Depression	Long. & Trans. Cracking	Patching	Raveling/ weathering	Rutting	Shoving	Slippage Cracking	Swell	Others
Runway 4-22	1				**L**	L						
	2											
Taxiway 1	1				**L**	L						
Apron 1	1				**L**							
Apron 2	1			M	**L/M/H**		L					

Notes: L- Low severity; M-Medium Severity; H-High Severity; Bold text represents predominant distress

Condition Photo Log

Photo No: A-1

Airport Code: N51

Branch: RW 4-22

Section: 1

Date: 10/10/2022

Description: L-Longitudinal & Transverse Cracking

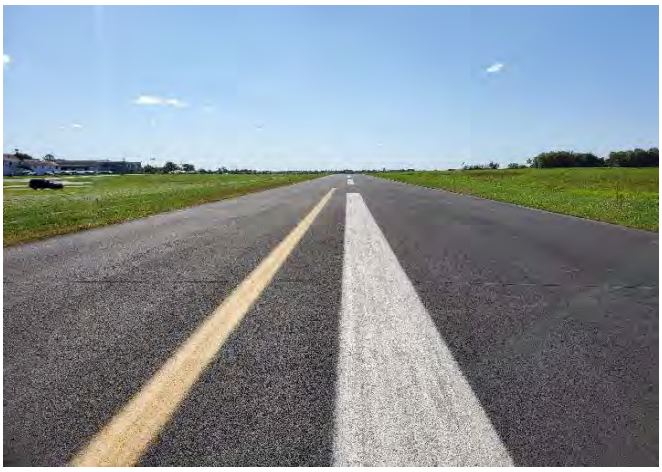


Photo No: A-2

Airport Code: N51

Branch: RW 4-22

Section: 1

Date: 10/10/2022

Description: L-Longitudinal & Transverse Cracking

Photo No: A-3

Airport Code: N51

Branch: RW 4-22

Section: 1

Date: 10/10/2022

Description: L-Longitudinal & Transverse Cracking; L-Patching

No Picture

Photo No: A-4

Airport Code: N51

Branch: RW 4-22

Section: 2

Date: 10/10/2022

Description: N/A

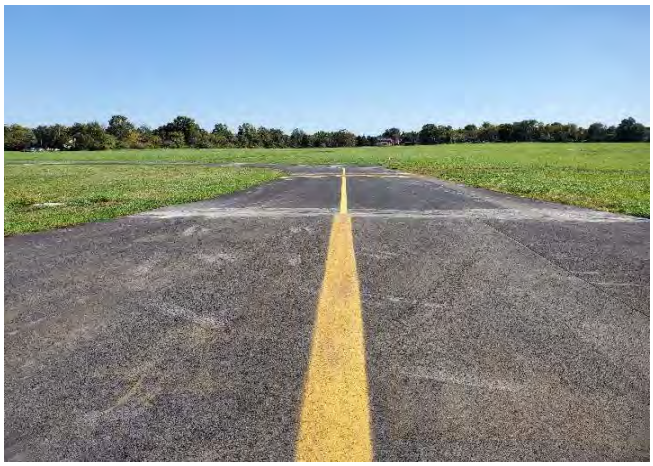


Photo No: A-5

Airport Code: N51

Branch: TW

Section: 1

Date: 10/10/2022

Description: L-Longitudinal & Transverse Cracking

Photo No: A-6

Airport Code: N51

Branch: TW

Section: 1

Date: 10/10/2022

Description: Minimal Distress

Photo No: A-7

Airport Code: N51

Branch: TW

Section: 1

Date: 10/10/2022

Description: L-Patching (Core)

Photo No: A-8

Airport Code: N51

Branch: APR

Section: 1

Date: 10/10/2022

Description: Minimal Distress

Photo No: A-9

Airport Code: N51

Branch: APR

Section: 2

Date: 10/10/2022

Description: M-Longitudinal & Transverse Cracking; L-Weathering

Photo No: A-10

Airport Code: N51

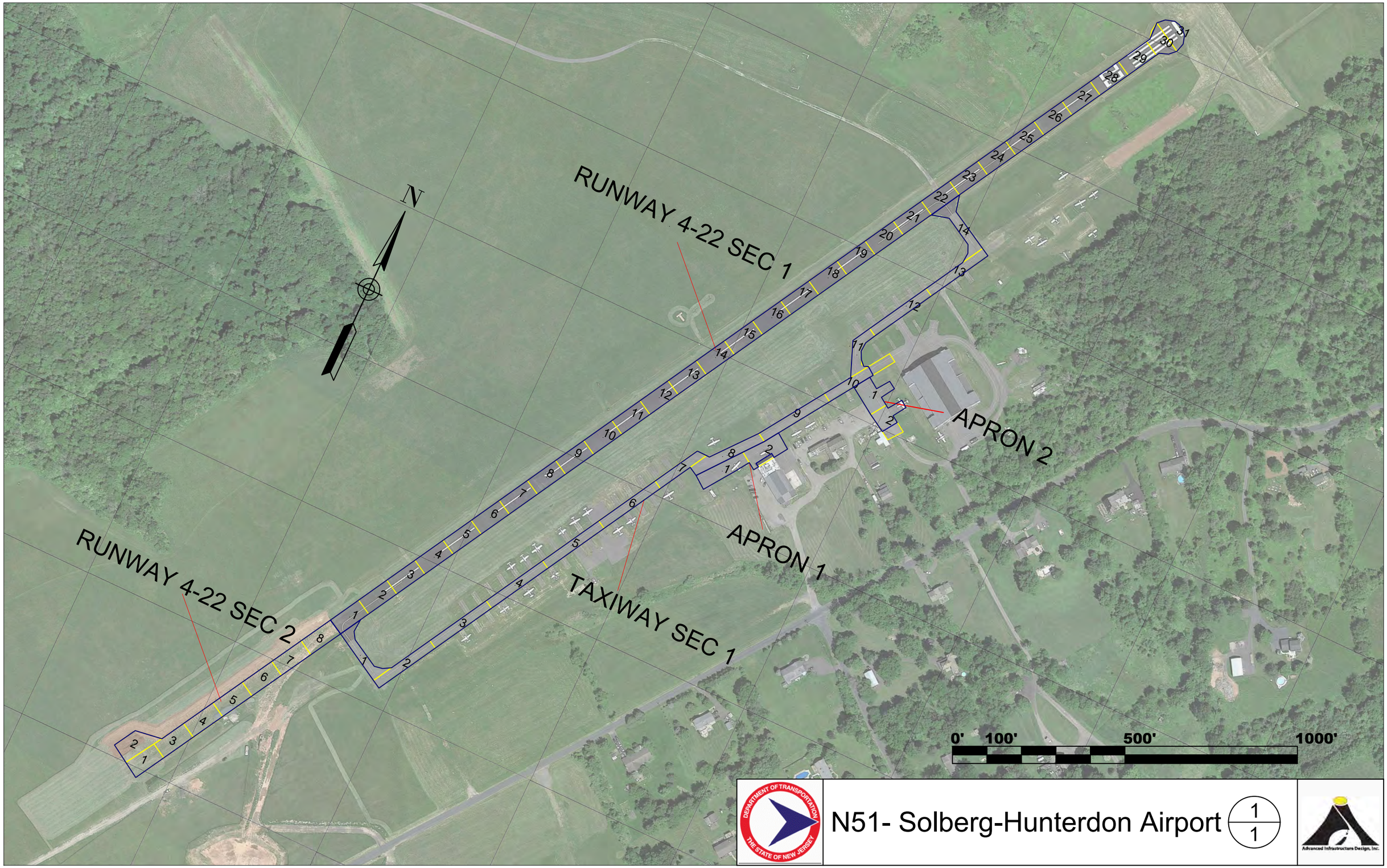
Branch: APR

Section: 2

Date: 10/10/2022

Description: L/M-Longitudinal & Transverse Cracking; L-Weathering

Appendix A: Layout and Results Maps



DEPARTMENT OF TRANSPORTATION
THE STATE OF NEW JERSEY

N51- Solberg-Hunterdon Airport

1
1

Advanced Infrastructure Design, Inc.

Good (100-85)

Satisfactory (85-70)

Fair (70-55)

Poor (55-40)

Very Poor (40-25)

Serious (25-10)

Failed (0-10)

N

RUNWAY 4-22 SEC 1

RUNWAY 4-22 SEC 2

TAXIWAY SEC 1

APRON 1

APRON 2

0' 100' 500' 1000'

DEPARTMENT OF TRANSPORTATION
THE STATE OF NEW JERSEY

N51- Solberg-Hunterdon Airport
Section Results

1
1

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Appendix B: Detailed Data Reports

Branch Listing Report

Pavement Database: 2014-NJDOT-GA AIRPORTS

Network ID	Branch ID	Name	Use	Number of Sections	True Area (SqFt)	Comments
N51	APR 1	Apron 1	APRON	1	11,963.00	
N51	APR 2	Apron 2	APRON	1	9,873.00	
N51	RW 4-22	Runway 4-22	RUNWAY	2	194,709.00	
N51	TW 1	Taxiway 1	TAXIWAY	1	73,060.00	

Total Number of Networks:	**1**	
Total Number of Branches:	**4**	
Total Number of Sections:	**5**	
Total True Area:	**289,605.00**	**(SqFt)**
Average Branch True Area:	**72,401.25**	**(SqFt)**

Branch Condition Report

Pavement Database: 2014-NJDOT-GA AIRPORTS

Branch ID	Number of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (SqFt)	Use	Average PCI	Standard Deviation PCI	Weighted Average PCI
APR 1	1	271.00	44.00	11,963.00	APRON	95.50	0.00	95.50
APR 2	1	184.00	54.00	9,873.00	APRON	65.30	0.00	65.30
RW 4-22	2	3,839.00	50.00	194,709.00	RUNWAY	97.10	2.90	95.44
TW 1	1	2,479.00	26.00	73,060.00	TAXIWAY	93.90	0.00	93.90

Pavement Database: 2014-NJDOT-GA AIRPORTS

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average STD PCI	Weighted Average PCI
APRON	2	21,836.00	80.40	15.10	81.85
RUNWAY	2	194,709.00	97.10	2.90	95.44
TAXIWAY	1	73,060.00	93.90	0.00	93.90
ALL	5	289,605.00	89.78	12.43	94.03

Pavement Database: 2014-NJDOT-GA AIRPORTS *NetworkId: N51*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
APR 1	1	1/1/1988	AC	APRON	A	0	11,963.00	10/10/2022	34	95.5
APR 2	1	1/1/1988	AC	APRON	A	0	9,873.00	10/10/2022	34	65.3
RW 4-22	1	1/1/1988	AC	RUNWAY	A	0	153,021.00	10/10/2022	34	94.2
RW 4-22	2	7/7/2022	AC	RUNWAY	P	0	41,688.00	10/10/2022	0	100
TW 1	1	1/1/1988	AC	TAXIWAY	A	0	73,060.00	10/10/2022	34	93.9

Pavement Database: 2014-NJDOT-GA AIRPORTS

Age Category	Average Age at Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
00-02		41,688.00	1	100.00	0.00	100.00
31-35	34	247,917.00	4	87.23	12.67	93.02
ALL	27	289,605.00	5	89.78	12.43	94.03

Inspection Report

2014-NJDOT-GA AIRPORTS

Generated Date 12/27/2023

Network: N51 **Name:** Solberg N51

Branch: APR 1 **Name:** Apron 1 **Use:** APRON **Area:** 11,963 SqFt

Section: 1 of 1 **From:** x **To:** y **Last Const.:** 1/1/1988

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** A

Area: 11,963 SqFt **Length:** 271 Ft **Width:** 44 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1988 **Work Type:** New Construction - Initial **Code:** NC-IN **Is Major M&R:** True

Last Insp. Date: 10/10/2022 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 96

Inspection Comments:

Sample Number: 1 **Type:** R **Area:** 6223.00 SqFt **PCI:** 96

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	38.00 Ft	0.6	4.2	

Sample Number: 2 **Type:** R **Area:** 5740.00 SqFt **PCI:** 95

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	53.00 Ft	0.9	4.8	

Network: N51 **Name:** Solberg N51

Branch: APR 2 **Name:** Apron 2 **Use:** APRON **Area:** 9,873 SqFt

Section: 1 of 1 **From:** x **To:** y **Last Const.:** 1/1/1988

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** A

Area: 9,873 SqFt **Length:** 184 Ft **Width:** 54 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1988 **Work Type:** New Construction - Initial **Code:** NC-IN **Is Major M&R:** True

Last Insp. Date: 10/10/2022 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 65

Inspection Comments:

Sample Number: 1 **Type:** R **Area:** 5801.00 SqFt **PCI:** 68

Sample Comments:

Distress	Description	Severity	Quantity		Density	Deduct	Comments
48	L & T CR	L	15.00	Ft	0.3	3.4	
48	L & T CR	L	10.00	Ft	0.2	2.9	
48	L & T CR	L	4.00	Ft	0.1	2.5	
48	L & T CR	L	8.00	Ft	0.1	2.6	
48	L & T CR	L	4.00	Ft	0.1	2.5	
48	L & T CR	L	4.00	Ft	0.1	2.5	
48	L & T CR	L	6.00	Ft	0.1	2.5	
48	L & T CR	L	6.00	Ft	0.1	2.5	
48	L & T CR	L	10.00	Ft	0.2	2.9	
48	L & T CR	M	5.00	Ft	0.1	4.0	
48	L & T CR	M	8.00	Ft	0.1	4.2	
48	L & T CR	M	60.00	Ft	1.0	11.4	
48	L & T CR	M	10.00	Ft	0.2	4.7	
48	L & T CR	M	6.00	Ft	0.1	4.0	
48	L & T CR	M	55.00	Ft	0.9	11.0	
48	L & T CR	M	15.00	Ft	0.3	6.0	
48	L & T CR	H	55.00	Ft	0.9	19.1	
57	WEATHERING	L	5801.00	SqFt	100.0	6.0	

Sample Number: 2 **Type:** R **Area:** 4072.00 SqFt **PCI:** 62

Sample Comments:

Distress	Description	Severity	Quantity		Density	Deduct	Comments
45	DEPRESSION	M	9.00	SqFt	0.2	6.5	
48	L & T CR	L	6.00	Ft	0.1	2.7	
48	L & T CR	L	25.00	Ft	0.6	4.2	
48	L & T CR	L	4.00	Ft	0.1	2.5	
48	L & T CR	L	4.00	Ft	0.1	2.5	
48	L & T CR	L	11.00	Ft	0.3	3.5	

48	L & T CR	L	10.00	Ft	0.2	3.4
48	L & T CR	L	3.00	Ft	0.1	2.5
48	L & T CR	L	9.00	Ft	0.2	3.2
48	L & T CR	M	25.00	Ft	0.6	9.1
48	L & T CR	M	10.00	Ft	0.2	5.8
48	L & T CR	M	53.00	Ft	1.3	12.7
48	L & T CR	M	53.00	Ft	1.3	12.7
48	L & T CR	M	5.00	Ft	0.1	4.1
48	L & T CR	M	18.00	Ft	0.4	7.8
57	WEATHERING	L	4072.00	SqFt	100.0	6.0

Network: N51 **Name:** Solberg N51

Branch: RW 4-22 **Name:** Runway 4-22 **Use:** RUNWAY **Area:** 194,709 SqFt

Section: 1 of 2 **From:** 4 **To:** 22 **Last Const.:** 1/1/1988

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** A

Area: 153,021 SqFt **Length:** 3,005 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1988 **Work Type:** New Construction - Initial **Code:** NC-IN **Is Major M&R:** True

Last Insp. Date: 10/10/2022 **TotalSamples:** 31 **Surveyed:** 12

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 1 **Type:** R **Area:** 5000.00 SqFt **PCI:** 93

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	50.00 Ft	1.0	4.9	
48	L & T CR	L	50.00 Ft	1.0	4.9	

Sample Number: 11 **Type:** R **Area:** 5000.00 SqFt **PCI:** 95

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	50.00 Ft	1.0	4.9	

Sample Number: 12 **Type:** R **Area:** 5000.00 SqFt **PCI:** 95

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	50.00 Ft	1.0	4.9	

Sample Number: 14 **Type:** R **Area:** 5000.00 SqFt **PCI:** 95

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	50.00 Ft	1.0	4.9	

Sample Number: 18 **Type:** R **Area:** 5000.00 SqFt **PCI:** 95

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	50.00 Ft	1.0	4.9	

Sample Number: 21 **Type:** R **Area:** 5000.00 SqFt **PCI:** 93

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	50.00 Ft	1.0	4.9	
48	L & T CR	L	50.00 Ft	1.0	4.9	

Sample Number: 24 **Type:** R **Area:** 5000.00 SqFt **PCI:** 93

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	50.00 Ft	1.0	4.9	
48	L & T CR	L	50.00 Ft	1.0	4.9	

Sample Number: 27 **Type:** R **Area:** 5000.00 SqFt **PCI:** 95

Sample Comments:

Distress	Description	Severity	Quantity		Density	Deduct	Comments
48	L & T CR	L	50.00	Ft	1.0	4.9	

Sample Number: 29 **Type:** R **Area:** 5000.00 SqFt **PCI:** 93

Sample Comments:

Distress	Description	Severity	Quantity		Density	Deduct	Comments
48	L & T CR	L	50.00	Ft	1.0	4.9	
50	PATCHING	L	1.00	SqFt	0.0	2.0	core patch

Sample Number: 31 **Type:** R **Area:** 3870.00 SqFt **PCI:** 98

Sample Comments:

Distress	Description	Severity	Quantity		Density	Deduct	Comments
50	PATCHING	L	1.00	SqFt	0.0	2.0	core patch

Sample Number: 5 **Type:** R **Area:** 5000.00 SqFt **PCI:** 93

Sample Comments:

Distress	Description	Severity	Quantity		Density	Deduct	Comments
48	L & T CR	L	50.00	Ft	1.0	4.9	
48	L & T CR	L	50.00	Ft	1.0	4.9	

Sample Number: 8 **Type:** R **Area:** 5000.00 SqFt **PCI:** 95

Sample Comments:

Distress	Description	Severity	Quantity		Density	Deduct	Comments
48	L & T CR	L	50.00	Ft	1.0	4.9	

Network: N51 **Name:** Solberg N51

Branch: RW 4-22 **Name:** Runway 4-22 **Use:** RUNWAY **Area:** 194,709 SqFt

Section: 2 of 2 **From:** **To:** **Last Const.:** 7/7/2022

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 41,688 SqFt **Length:** 834 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 7/7/2022 **Work Type:** New Construction - Initial **Code:** NC-IN **Is Major M&R:** True

Last Insp. Date: 10/10/2022 **TotalSamples:** 8 **Surveyed:** 4

Conditions: **PCI:** 100

Inspection Comments: Was not Surveyed but this section was present at the time, just constructed the month before, going to assume PCI of 100

Sample Number: 2 **Type:** R **Area:** 6071.00 SqFt **PCI:** 100

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
<No Distress>						

Sample Number: 4 **Type:** R **Area:** 5141.00 SqFt **PCI:** 100

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
<No Distress>						

Sample Number: 6 **Type:** R **Area:** 5141.00 SqFt **PCI:** 100

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
<No Distress>						

Sample Number: 8 **Type:** R **Area:** 5141.00 SqFt **PCI:** 100

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
<No Distress>						

Network: N51 **Name:** Solberg N51

Branch: TW 1 **Name:** Taxiway 1 **Use:** TAXIWAY **Area:** 73,060 SqFt

Section: 1 of 1 **From:** South End **To:** North End **Last Const.:** 1/1/1988

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** A

Area: 73,060 SqFt **Length:** 2,479 Ft **Width:** 26 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1988 **Work Type:** New Construction - Initial **Code:** NC-IN **Is Major M&R:** True

Last Insp. Date: 10/10/2022 **TotalSamples:** 14 **Surveyed:** 9

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 1 **Type:** R **Area:** 5212.00 SqFt **PCI:** 94

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	25.00 Ft	0.5	4.0	
48	L & T CR	L	35.00 Ft	0.7	4.3	
48	L & T CR	L	25.00 Ft	0.5	4.0	

Sample Number: 10 **Type:** A **Area:** 5447.00 SqFt **PCI:** 94

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	30.00 Ft	0.6	4.1	
48	L & T CR	L	30.00 Ft	0.6	4.1	
48	L & T CR	L	30.00 Ft	0.6	4.1	

Sample Number: 11 **Type:** R **Area:** 2821.00 SqFt **PCI:** 93

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	26.00 Ft	0.9	4.8	
48	L & T CR	L	26.00 Ft	0.9	4.8	

Sample Number: 13 **Type:** R **Area:** 5200.00 SqFt **PCI:** 95

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	26.00 Ft	0.5	4.1	
48	L & T CR	L	26.00 Ft	0.5	4.1	

Sample Number: 14 **Type:** R **Area:** 6231.00 SqFt **PCI:** 93

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	26.00 Ft	0.4	3.9	
48	L & T CR	L	26.00 Ft	0.4	3.9	
50	PATCHING	L	1.00 SqFt	0.0	2.0	core

Sample Number: 3 **Type:** R **Area:** 5200.00 SqFt **PCI:** 95

Sample Comments:

Distress	Description	Severity	Quantity	Density	Deduct	Comments
48	L & T CR	L	25.00 Ft	0.5	4.0	

48	L & T CR	L	25.00	Ft	0.5	4.0

Sample Number: 5 **Type:** R **Area:** 5200.00 SqFt **PCI:** 94

Sample Comments:

Distress	Description	Severity	Quantity		Density	Deduct	Comments
48	L & T CR	L	25.00	Ft	0.5	4.0	
48	L & T CR	L	25.00	Ft	0.5	4.0	
48	L & T CR	L	25.00	Ft	0.5	4.0	

Sample Number: 6 **Type:** R **Area:** 5200.00 SqFt **PCI:** 93

Sample Comments:

Distress	Description	Severity	Quantity		Density	Deduct	Comments
48	L & T CR	L	25.00	Ft	0.5	4.0	
48	L & T CR	L	25.00	Ft	0.5	4.0	
50	PATCHING	L	1.00	SqFt	0.0	2.0	core
50	PATCHING	L	1.00	SqFt	0.0	2.0	core

Sample Number: 8 **Type:** A **Area:** 6734.00 SqFt **PCI:** 94

Sample Comments:

Distress	Description	Severity	Quantity		Density	Deduct	Comments
48	L & T CR	L	30.00	Ft	0.4	4.0	
48	L & T CR	L	30.00	Ft	0.4	4.0	
48	L & T CR	L	30.00	Ft	0.4	4.0	

Extrapolated Distress Data by Section

BRANCH ID	SECTION ID	SHORT DESCRIPTION	DISTRESS ID	DISTRESS SEVERITY	DISTRESS QUANTITY	DISTRESS UNITS	PCI DEDUCT	DENSITY (%)	DISTRESS MECHANISM
Runway 4-22	1	L & T CR	48	Low	1949	Ft	5.6	1.3	Climate/Durability
		PATCHING	50	Low	5	SqFt	2.0	0.0	Climate/Durability
Taxiway 1	1	L & T CR	48	Low	902	Ft	5.5	1.2	Climate/Durability
		PATCHING	50	Low	5	SqFt	2.0	0.0	Climate/Durability
Apron 1	1	L & T CR	48	Low	91	Ft	4.5	0.8	Climate/Durability
Apron 2	1	DEPRESSION	45	Medium	9	SqFt	5.2	0.1	Other
		L & T CR	48	High	55	Ft	15.1	0.6	Climate/Durability
		L & T CR	48	Low	139	Ft	5.9	1.4	Climate/Durability
		L & T CR	48	Medium	323	Ft	20.4	3.3	Climate/Durability
		WEATHERING	57	Low	9873	SqFt	6.0	100.0	Climate/Durability

Asphalt Surfaced Airfields

Pavement Distress	Distress Type
41. Alligator Cracking	Load
42. Bleeding	Other
43. Block Cracking	Climate/Durability
44. Corrugation	Other
45. Depression	Other
46. Jet Blast	Other
47. Joint Reflection Cracking	Climate/Durability
48. Longitudinal/Transverse Cracking	Climate/Durability
49. Oil Spillage	Other
50. Patching	Climate/Durability
51. Polished Aggregate	Other
52. Raveling	Climate/Durability
53. Rutting	Load
54. Shoving	Other
55. Slippage Cracking	Other
56. Swell	Other
57. Weathering	Climate/Durability

Concrete Surfaced Airfields

Pavement Distress	Distress Type
61. Blow Up	Climate/Durability
62. Corner Break	Load
63. Linear Cracking	Load
64. Durability Cracking	Climate/Durability
65. Joint Seal Damage	Climate/Durability
66. Small Patch	Other
67. Large Patch/Utility Cut	Other
68. Popouts	Other
69. Pumping	Other
70. Scaling	Other
71. Faulting	Other
72. Shattered Slab	Load
73. Shrinkage Cracking	Other
74. Joint Spalling	Other
75. Corner Spalling	Other
76. Alkili Silica Reaction (ASR)	Other

Unsurfaced Roads

Pavement Distress	Distress Type
81. Improper Cross Section	Other
82. Inadequate Roadside Drainage	Other
83. Corrugation	Climate/Durability
84. Dust	Other
85. Pothole	Climate/Durability
86. Rutting	Climate/Durability
87. Loose Aggregate	Other