2022 ODA Pavement Evaluation Program Joseph State Airport

Joseph, Oregon

May 8, 2023

Prepared for

State of Oregon Department of Aviation
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1 OVERVIEW

GRI assisted with updating the Oregon Department of Aviation (ODA) airport pavement management system and developing a five-year plan for global maintenance and rehabilitation (M&R) and preservation work for the Joseph State Airport in Joseph, Oregon. This project was implemented as a part of the ODA and Federal Aviation Administration (FAA) *Oregon Continuous Aviation System Plan*. The information provided in this report ensures compliance with FAA Grant Assurance Number 11, which outlines that an airport shall have an effective airport pavement maintenance-management program in place to receive federal financial assistance for the construction, reconstruction, or repair of airport pavements.

GRI conducted surveys of the airside pavement at Joseph State Airport in 2022 in accordance with the procedures of Advisory Circular 150/5380-7B and ASTM International (ASTM) D5340. We uploaded the survey data into the PAVER database and used the software to provide a rapid calculation of the pavement condition index (PCI) rating. The PCI is a numerical indicator that defines the functional condition of the pavement based on visual inspection. The scale ranges from zero to 100, where zero represents a pavement in the worst possible condition with no remaining functional life and 100 represents a pavement in the best possible condition with no defects.

2 PAVEMENT INVENTORY

Joseph State Airport is located in Joseph, Oregon, and is owned and operated by the Oregon Department of Transportation. The airport consists of one runway that serves a variety of general aviation aircraft. The general location of the airport is shown below on the Joseph State Airport Location Map, Figure 2.1.

Figure 2.1 - JOSEPH STATE AIRPORT LOCATION MAP

Joseph State Airport contains one runway, one primary parallel taxiway, and multiple connector taxiways, taxilanes, and aprons. Types of airside pavements include asphalt concrete (AC) and portland cement concrete (PCC). The airport pavements, delineated by surface type and branch use, are shown on the Joseph State Airport Percent of Pavement Area by Surface Type, Figure 2.2 and on the Joseph State Pavement Area by Branch Use, Figure 2.3. The pavement inventory, including work history for each pavement section, is displayed spatially on the Joseph State Airport Pavement Inventory, Figure 2.4. The pavement facilities summarized by branch and section are listed in Tables 1A and 2A, respectively, in Appendix A. The sample unit layout for each section is shown on Figure 1A in Appendix A. We used the sampling rates outlined in Table 3A of Appendix A in our survey. The pavement inventory, including work history for individual airport pavement sections, is provided in the work history report, Table 1F.

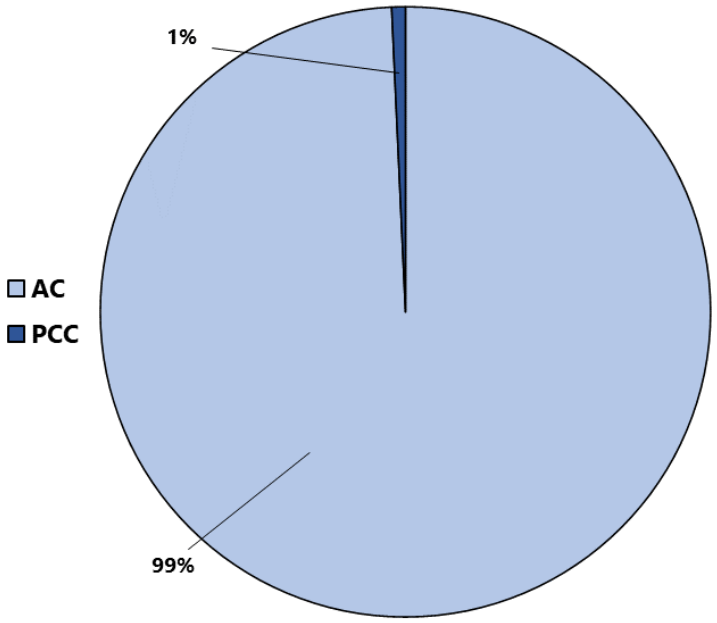


Figure 2.2 - JOSEPH STATE AIRPORT PERCENT OF PAVEMENT AREA BY SURFACE TYPE

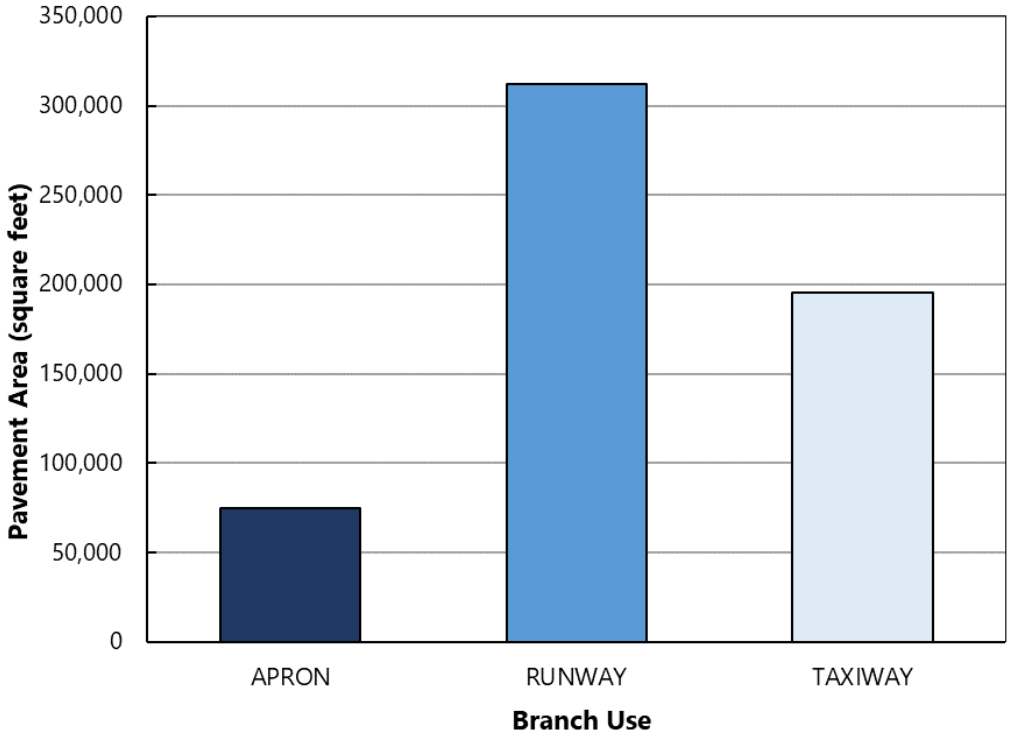
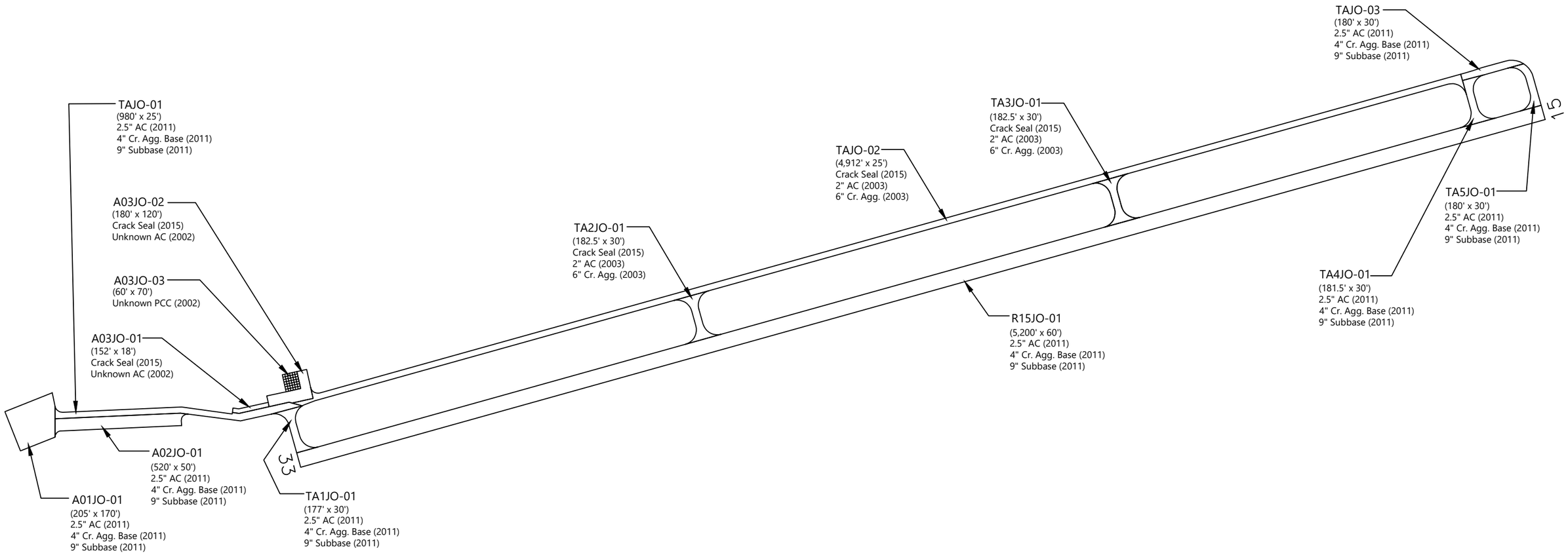


Figure 2.3 - JOSEPH STATE AIRPORT PAVEMENT AREA BY BRANCH USE



ABBREVIATIONS: AC = ASPHALT CONCRETE; PCC = PORTLAND CEMENT CONCRETE; Cr. = CRUSHED; Agg. = AGGREGATE

N

0 400 800 FEET

GRI

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STATEWIDE PAVEMENT EVALUATION PROGRAM

JOSEPH STATE AIRPORT PAVEMENT INVENTORY

MAY 2023 JOB NO. 6593-C FIG. 2.4

3 PAVEMENT CONDITION INSPECTION RESULTS

3.1 Introduction

GRI conducted a visual PCI survey of the airside pavements at Joseph State Airport in July 2022. The 2022 survey work was performed on sections last inspected in 2017 in order to update the Joseph State Airport inspection data. GRI performed the 2022 PCI survey in accordance with the methods described in FAA Advisory Circular 150/5380-6C and ASTM D5340, and further discussed in Appendix B of this report.

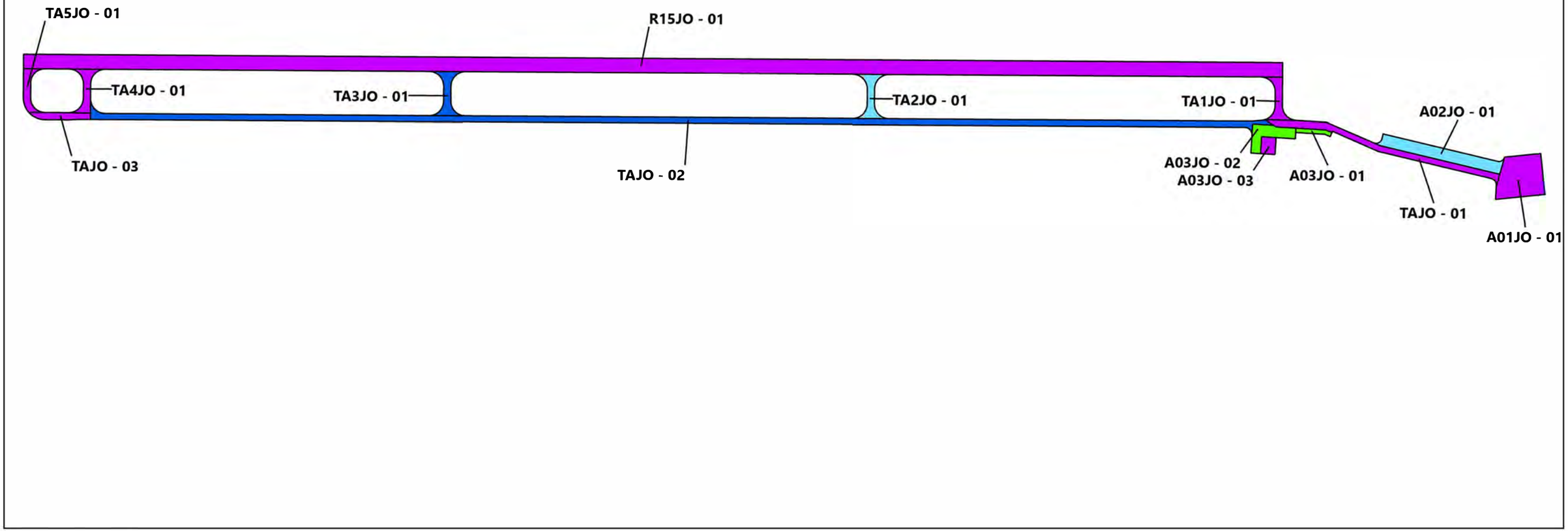
The PCI is based on the type, severity, and quantity of each distress found in an inspected sample unit. Further discussion of distress types for flexible and rigid pavement is provided in Appendix B and summarized in Table 1B in Appendix B. The results of the PCI survey are displayed using a seven-category rating scale in accordance with ASTM D5340. Details of the ASTM PCI rating scale are provided in Table 3-1 below.

Table 3-1: ASTM PCI RATING SCALE

PCI Color Legend	PCI Range	PCI Rating and Definition
	86 – 100	GOOD: Pavement has minor or no distresses and should require only routine maintenance.
	71 – 85	SATISFACTORY: Pavement has scattered low-severity distresses that should require only routine maintenance.
	56 – 70	FAIR: Pavement has a combination of generally low- and medium-severity distresses. Maintenance and repair needs may range from routine to major.
	41 – 55	POOR: Pavement has low-, medium-, and high-severity distresses that probably cause some operational problems. M&R needs will be major.
	26 – 40	VERY POOR: Pavement has predominantly medium- and high-severity distresses that cause considerable maintenance and operational problems. M&R needs will be major.
	11 – 25	SERIOUS: Pavement has mainly high-severity distresses that may affect operational safety; immediate repairs are needed.
	0 – 10	FAILED: Pavement deterioration has progressed to the point that safe aircraft operations are no longer possible; complete reconstruction is required.

3.2 Pavement Condition Index Survey Results

The area-weighted average PCI for all airport pavements at Joseph State Airport is approximately 82. The section PCIs ranged from a low of 45 to a high of 96. The primary distresses observed during the inspection were weathering, longitudinal and transverse cracking, fatigue (alligator) cracking, and patching on AC-surfaced pavements, and spalling on PCC pavements. Section PCIs following our pavement survey are displayed below spatially on the 2022 PCI Survey Results Joseph State Airport, Figure 3.1.



2022 SECTION PCI

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

N

0 400 800 Feet

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STATEWIDE PAVEMENT EVALUATION PROGRAM

2022 PCI SURVEY RESULTS
JOSEPH STATE AIRPORT

MAY 2023 JOB NO. 6593-C FIG. 3.1

The condition distribution of the network by percent of total pavement area is provided on the Joseph State Airport Pavement Condition Rating by Percent of Area, Figure 3.2. A summary of the pavement condition results by branch and section are included in Tables 2B and 3B of Appendix B, respectively. A comparison between the previous inspection and the 2022 inspection is provided in Table 4B in Appendix B. The re-inspection report that includes inspection details for individual sample units is provided in Table 1E in Appendix E.

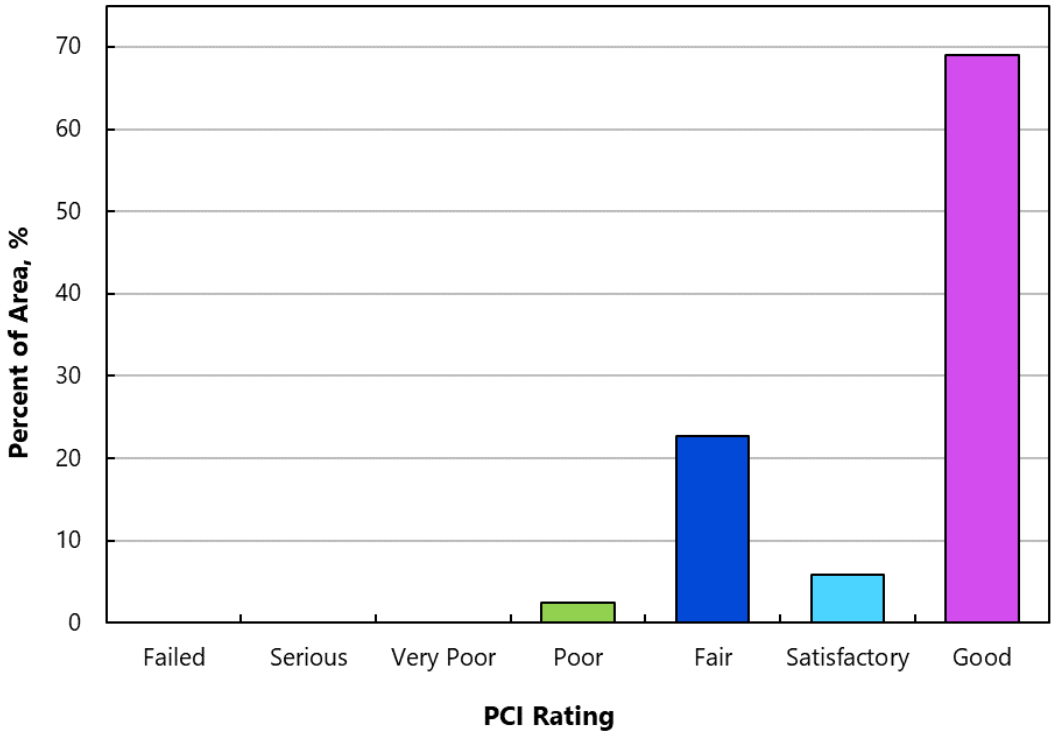


Figure 3.2 - JOSEPH STATE AIRPORT PAVEMENT CONDITION RATING BY PERCENT OF AREA

4 FUTURE PAVEMENT CONDITION ANALYSIS

4.1 Introduction

In addition to assessing the current condition of a pavement, it is very important from a planning standpoint to be able to predict with reasonable accuracy the future condition. Additional details regarding our future pavement condition analysis, including pavement condition prediction models, are provided in Appendix C. PCI performance curves developed for Joseph State Airport are displayed on Figures 1C through 4C in Appendix C.

4.2 Future Condition Analysis

Using the condition prediction models discussed above, the projected condition of each pavement section was determined for 5- and 10-year periods. Based on this analysis, we

project the PCI to decrease from a current value of 82 to a value of 74 in 2027 and 67 in 2032 if no maintenance or rehabilitation work is performed. The projected pavement condition in 5 years and 10 years for each pavement section at Joseph State Airport is displayed spatially on the Future Pavement Condition Joseph State Airport, Figure 4.1, and listed in Table 1C in Appendix C, along with the past and present PCI values for the pavement network.

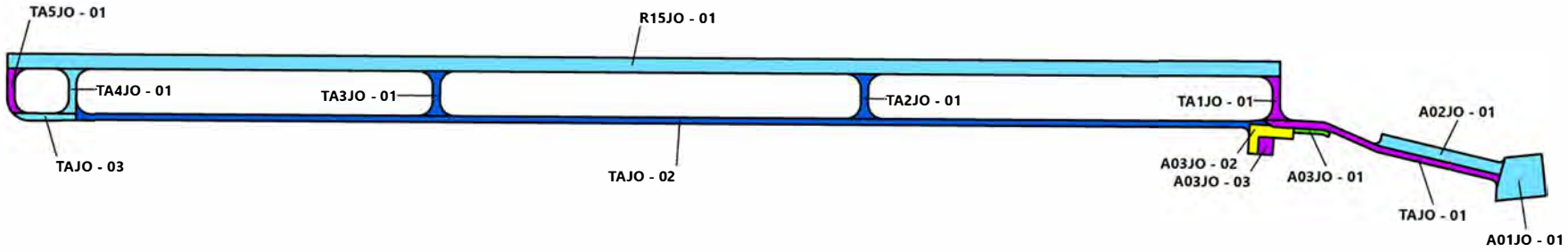
4.3 Functional Remaining Life

The functional remaining life is the practical amount of time a pavement is in service before requiring rehabilitation, as estimated solely based on visual condition. This is not to be confused with structural remaining life, which requires analysis of the structural capacity of a pavement and typically a field exploration and testing program that includes core explorations and falling weight deflectometer (FWD) deflection tests.

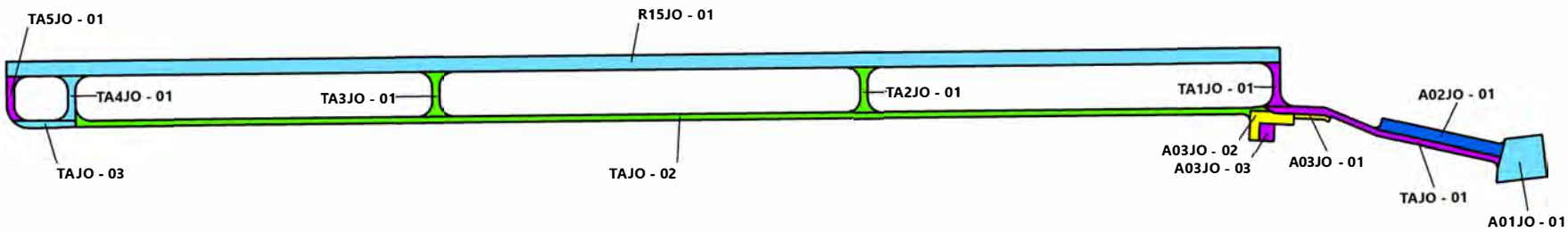
We calculated two forms of functional remaining life based on the current visual condition surveys of the pavement at Joseph State Airport. The first type of functional remaining life is the time until rehabilitation such as an overlay is needed. The critical PCI, further discussed in Section C.3 of Appendix C, is the threshold used for this type of functional remaining life analysis. The second type of functional remaining life is the time until the pavement is no longer operational due to high foreign object debris (FOD) potential and increased safety concerns for trafficking aircraft. A PCI of 40 was set as the trigger point for the end of the pavement's functional service life with regard to FOD potential.

The two types of functional remaining life for each section at Joseph State Airport are summarized in Table 2C in Appendix C.

PREDICTED CONDITION IN 2027



PREDICTED CONDITION IN 2032



SECTION PCI

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

N

0 700 1,400
Feet

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STATEWIDE PAVEMENT EVALUATION PROGRAM

FUTURE PAVEMENT CONDITION
JOSEPH STATE AIRPORT

MAY 2023 JOB NO. 6593-C FIG. 4.1

5 MAINTENANCE AND REHABILITATION PROJECT RECOMMENDATIONS

5.1 Introduction

We evaluated M&R needs, as determined from the PAVER analysis results, in order to develop localized maintenance, global maintenance, and rehabilitation needs. Details of our M&R work priority and unit costs for work activities are provided in Tables 1D and 2D, respectively, in Appendix D.

Based on the 2022 PCI-survey results shown on the Joseph State Airport Pavement Network General Treatment Type Distribution Based on PCI, Figure 5.1 displays a breakdown of the Joseph State Airport network pavement condition by percent of area and general M&R treatment categories. Approximately 75% and 25% of the area require preservation treatments and rehabilitation, respectively.

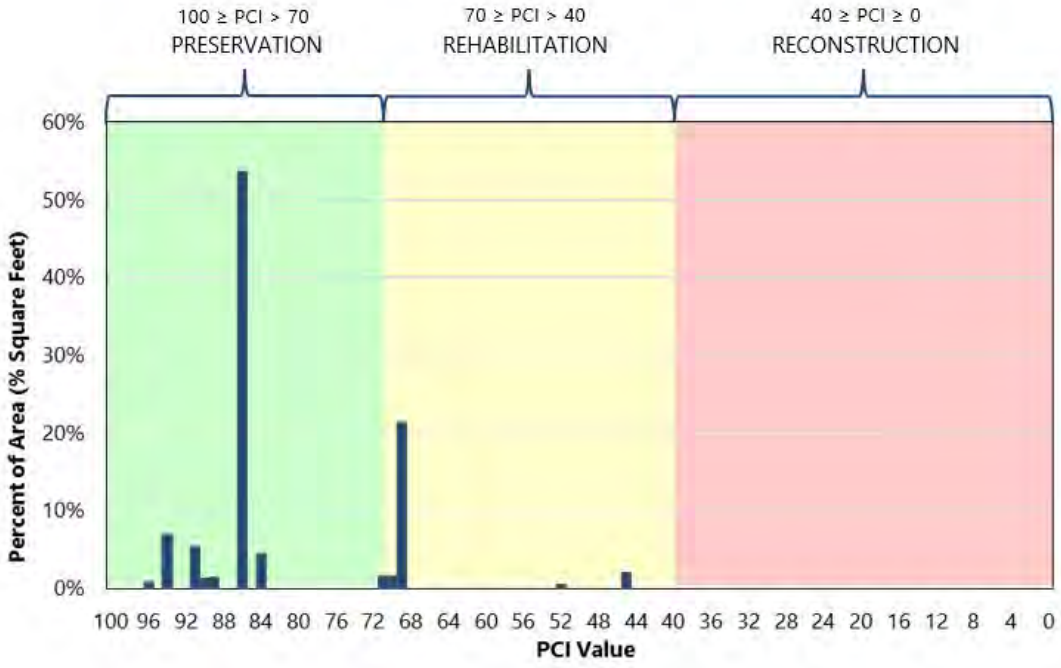


Figure 5.1 - JOSEPH STATE AIRPORT PAVEMENT NETWORK GENERAL TREATMENT TYPE DISTRIBUTION BASED ON PCI

5.2 Recommended Localized Maintenance

Localized maintenance refers to activities such as crack sealing and patching, which should be performed annually in order to properly maintain aging pavements. Using the PAVER Localized Distress Maintenance Analysis tool, we developed a list of recommended localized maintenance. This list is shown in Table 3D in Appendix D and is independent of the global maintenance and rehabilitation projects associated with the five-year global

maintenance and rehabilitation work plan. A summary of total localized maintenance quantities is provided in Table 5-1 below.

Table 5-1: LOCALIZED MAINTENANCE QUANTITIES

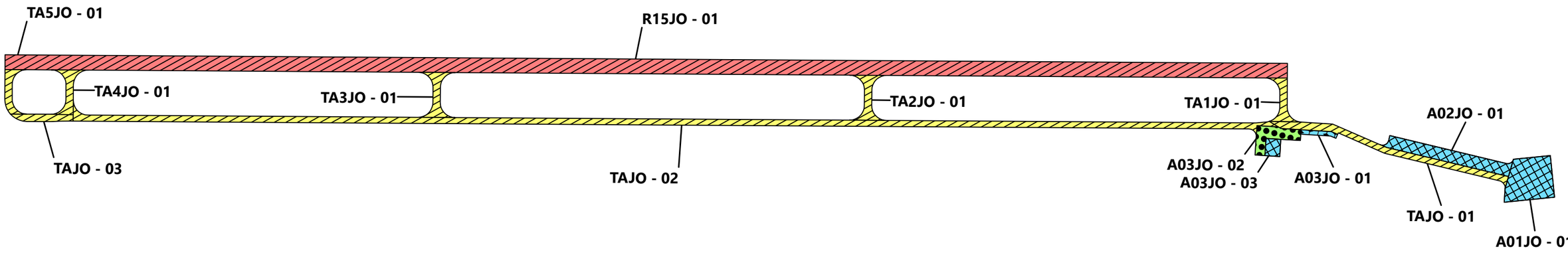
Localized Maintenance Operation	Quantity
Asphalt Concrete Crack Sealing	14,855 linear feet
Asphalt Concrete Full-Depth Patching	265

5.3 Global Maintenance and Rehabilitation Plan

To develop the five-year work plan, we first ran the eliminate backlog scenario with the PAVER M&R Work Planning Module in order to generate a list, organized by year, of global and M&R projects. We then reviewed the project list and refined it into practical construction projects for each year. A summary of global and M&R quantities is provided in Table 5-2 below, and maps of the project locations by year are shown on the 5-Year Pavement Management Plan Joseph State Airport, Figure 5.2. The complete list of recommended global and M&R projects is presented in Table 4D in Appendix D.

Table 5-2: GLOBAL MAINTENANCE AND REHABILITATION QUANTITIES

Global Maintenance or Rehabilitation Operation	Quantity, square feet
Reconstruction	11,259
Overlay	2,661
Fog Seal	60,825
Slurry Seal	507,249



ACTION TIMING

- 2024
- 2025
- 2026
- 2027
- 2028

ACTION

- FOG SEAL
- SLURRY SEAL
- OVERLAY
- RECONSTRUCTION
- ROUTINE MAINTENANCE

N

0 400 800 Feet

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STATEWIDE PAVEMENT EVALUATION PROGRAM

5-YEAR PAVEMENT MANAGEMENT PLAN
JOSEPH STATE AIRPORT

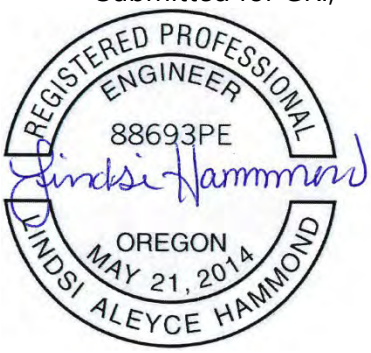
MAY 2023 JOB NO. 6593-C FIG. 5.2

6 LIMITATIONS

This report has been prepared to assist the Oregon Department of Aviation (ODA) with pavement-related project planning for the Joseph State Airport. The scope is limited to the specific pavement areas described within this report. The conclusions and recommendations provided in this report are based on information provided by ODA, estimated costs, and an understanding of the pavement conditions based solely on visual assessment. The global maintenance and rehabilitation recommendations and project selections provided in this report, as well as their corresponding cost estimates, are based on a practical grouping of projects and an estimate of the structural requirements. It is possible that recommendations based on a structural evaluation would differ materially from the recommendations given herein. Therefore, the information included in this report should be used solely for project planning purposes, and it should be understood that rehabilitation costs may vary from the cost estimates given within this report.

Because the condition of the airport pavement network is dynamic, an effective maintenance and rehabilitation program should be reviewed and updated on a regular basis. In addition to regularly surveying and updating the pavement condition, completed construction activities should be tracked in the PAVER database. If Joseph State Airport would like to know more about the results presented in this report, please contact the undersigned.

Submitted for GRI,



RENEWS: 06/2023

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This document has been submitted electronically.

APPENDIX A

Pavement Inventory Report and Maps

APPENDIX A

PAVEMENT INVENTORY REPORTS AND MAPS

A.1 PAVEMENT NETWORK

Joseph State Airport is located in Joseph, Oregon, and is owned and operated by the Oregon Department of Aviation. The pavement network/facilities at Joseph State Airport serve a variety of general aviation aircraft. Joseph State Airport consists of one runway, one primary parallel taxiway, multiple connector taxiways, taxilanes, and several aprons. Types of airside pavements include asphalt concrete (AC) and portland cement concrete (PCC).

The current airport pavement management system (APMS) network at Joseph State Airport has an approximate area of 581 thousand square feet of paved airside facilities. The pavement network has previously been divided (by others) into a hierarchical order of branches, sections, and sample units that facilitate inspection and maintenance planning. The pavement facilities summarized by branch and section are listed in Tables 1A and 2A, respectively. Pavement sections and the sample unit layout for each section are shown on Figure 1A in this appendix.

A.2 BRANCHES

A branch, as defined in the PAVER system, is a facility that is a readily identifiable part of the pavement system and has a distinct function. For airports, branches typically consist of individual runways, taxiways, and aprons. The current pavement network for Joseph State Airport contains 10 branches, tabulated in Table 1A and shown on Figure 1A.

A.3 SECTIONS AND SAMPLE UNITS

A pavement section is the smallest management unit used when considering the application and selection of maintenance and rehabilitation (M&R) repairs and treatments and is defined by Section 2.1.8 of ASTM International (ASTM) D5340 as *"a contiguous pavement area having uniform construction, maintenance, usage history, and condition."* All sections should also have the same traffic volume and load intensity. The current pavement network included in the PAVER database for Joseph State Airport contains 14 sections that are managed by the Oregon Department of Aviation, which are tabulated in Table 2A and shown spatially on Figure 1A.

PAVER assigns a rank, which designates that pavement's prioritization in receiving maintenance and repair. The highest use or priority pavements, such as runways, taxiways, and terminal aprons, are ranked *Primary*, while the surrounding aprons and shoulders are

ranked *Secondary* and low-use areas are ranked *Tertiary*. The ranks for all sections are shown on Table 2A.

To facilitate the visual survey of the airport pavement, each section is further subdivided into smaller areas called sample units. Similar sizing of these units is critical, and studies have found that maintaining the size of the sample units to within 40% of the established normal distribution reduces the standard error of the average pavement condition index (PCI) values. To meet this criterion, the ASTM method recommends sample units for flexible pavements be 5,000 ± 2,000 square feet and 20 slabs ± 8 slabs for rigid pavements. The delineation of sample units for each section is displayed on Figure 1A.

A.4 SAMPLE UNIT DELINEATION

For an APMS survey, a PCI confidence level of 92% and an allowable error (e) of eight PCI points are used for all airport pavements. To determine the number of sample units that need to be inspected to achieve the required confidence level and allowable error, the following equation is used:

$$n = \frac{N \times s^2}{\left(e^2/_4\right)(N-1)+s^2} \qquad \text{(Equation 1)}$$

where:

n = number of sample units to be inspected
N = total number of samples in the pavement sections
e = allowable error
s = section standard deviation

For the 2022 Joseph State Airport PCI survey, Table 3A was used as a guideline in developing sampling rates for flexible and rigid pavement that reflect similar rates used for other large airport pavement networks. In general, this sampling rate distribution provides a 92% confidence level with a standard error of eight PCI points.

Sample unit locations at Joseph State Airport were selected using a systematic random sampling model method. This technique is implemented by first determining the number of sample units needed based on the confidence interval calculated using Equation 1. The first sample unit is randomly placed in the section and then the remaining sample units are systematically spaced throughout the section at an equal distance apart.

Table 1A – JOSEPH STATE AIRPORT PAVEMENT BRANCHES

Facility Designation (Branch ID)	Branch Name	Number of Sections	Approximate Area, square feet
A01JO	Apron 01 Joseph	1	30,902
A02JO	Apron 02 Joseph	1	25,724
A03JO	Apron 03 Joseph	3	18,120
R15JO	Runway 15/33 Joseph	1	312,000
TA1JO	Taxiway A1 Joseph	1	7,492
TA2JO	Taxiway A2 Joseph	1	8,565
TA3JO	Taxiway A3 Joseph	1	8,565
TA4JO	Taxiway A4 Joseph	1	7,785
TA5JO	Taxiway A5 Joseph	1	6,462
TAJO	Taxiway A Joseph	3	156,380

Table 2A - JOSEPH STATE AIRPORT CURRENT PAVEMENT INVENTORY

BranchID	Branch Name	Branch Use	SectionID	From	To	Rank	Length, feet	Width, feet	Approximate Area, square feet	LCD[1]	Surface Type
A01JO	Apron 01 Joseph	APRON	01	End	TAJO-01	P	205	164	30,902	9/3/2011	AC
A02JO	Apron 02 Joseph	APRON	01	A01JO-01	TAJO-01	P	520	50	25,724	9/3/2011	AC
A03JO	Apron 03 Joseph	APRON	01	TAJO-01	A03JO-02	S	152	18	2,661	8/1/2002	AC
A03JO	Apron 03 Joseph	APRON	02	A03JO-01	TAJO-02	S	180	120	11,259	8/1/2002	AC
A03JO	Apron 03 Joseph	APRON	03	A03JO-02	A03JO-02	S	60	70	4,200	8/1/2002	PCC
R15JO	Runway 15/33 Joseph	RUNWAY	01	TA1JO	TA5JO	P	5,200	60	312,000	9/3/2011	AC
TA1JO	Taxiway A1 Joseph	TAXIWAY	01	TAJO-02	R15JO	P	177	30	7,492	9/3/2011	AC
TA2JO	Taxiway A2 Joseph	TAXIWAY	01	TAJO-02	R15JO	P	183	30	8,565	9/30/2003	AC
TA3JO	Taxiway A3 Joseph	TAXIWAY	01	TAJO-02	R15JO	P	183	30	8,565	9/30/2003	AC
TA4JO	Taxiway A4 Joseph	TAXIWAY	01	TAJO-02	R15JO	P	182	30	7,785	9/3/2011	AC
TA5JO	Taxiway A5 Joseph	TAXIWAY	01	TAJO-03	R15JO	P	180	30	6,462	9/3/2011	AC
TAJO	Taxiway A Joseph	TAXIWAY	01	A01JO	TAJO-02	P	980	25	25,802	9/3/2011	AC
TAJO	Taxiway A Joseph	TAXIWAY	02	A03JO-02	TA4JO	P	4,912	25	123,788	9/30/2003	AC
TAJO	Taxiway A Joseph	TAXIWAY	03	TA4JO	TA5JO	P	250	30	6,790	9/3/2011	AC

Abbreviations:
P = Primary pavement, S = Secondary pavement, AC = Asphalt Concrete, PCC = Portland Cement Concrete

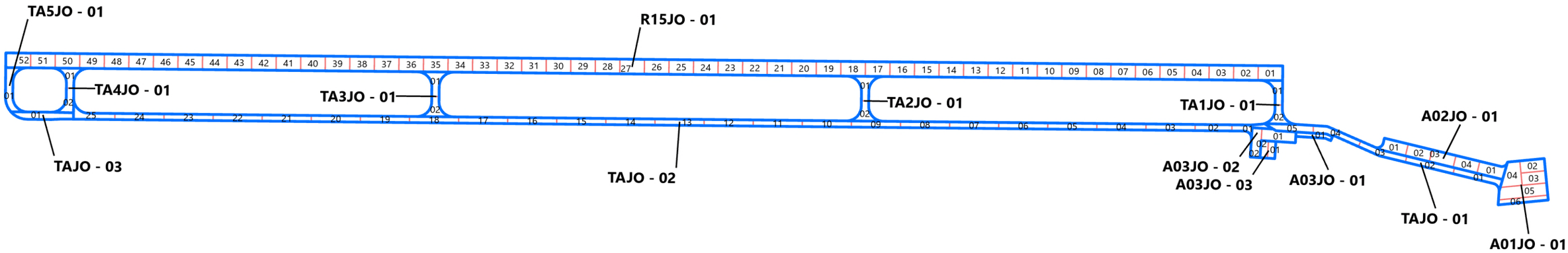
Note:
[1] LCD = Last Construction Date. The date of the last major rehabilitation (e.g. overlay)

Table 3A: EXAMPLE SAMPLE RATES FOR AC AND PCC PAVEMENTS

AC Sampling Rate	
Total Number of Sample Units, N	**Sample Units to Survey, n**
1	1
2-3	2
4-6	3
7-13	4
14-38	5
39+	6

PCC Sampling Rate	
Total Number of Sample Units, N	**Sample Units to Survey, n**
1	1
2	2
3-4	3
5-6	4
7-8	5
9-11	6
12-14	7
15-19	8
20-27	9
28-38	10
39-58	11
59-104	12
105-313	13
314+	14

Note: AC = Asphalt Concrete
PCC = Portland Cement Concrete



SECTION

SAMPLE UNIT

N

0 400 800 Feet

GRI

SAMPLE UNIT LAYOUT

JOSEPH STATE AIRPORT

MAY 2023 JOB NO. 6593-C FIG. 1A

APPENDIX B

Pavement Condition Index Survey Results

APPENDIX B

PAVEMENT CONDITION INDEX SURVEY RESULTS

B.1 METHODOLOGY

As previously discussed, the PCI is a measure of the pavement's functional surface condition and provides a methodology for assessing the causes of distress and whether the distress is related to a load or climatic conditions. Although the PCI is not a direct measure of structural capacity, it provides a suggestion of the structural needs of the pavement.

The PCI is based on the type, severity, and quantity of each distress found in an inspected sample unit. The results are displayed using a seven-category rating scale in accordance with ASTM D5340. Flexible pavement (e.g., AC and AAC) and rigid pavement (e.g., PCC) distress types are presented in Table 1B. A summary of the pavement condition results by branch and section are included in Tables 2B and 3B of Appendix B, respectively.

Table 1B: PAVER DISTRESS CODES FOR FLEXIBLE AND RIGID PAVEMENT

Flexible Pavement			Rigid Pavement		
PAVER Code	Pavement Distress	Related Cause	PAVER Code	Pavement Distress	Related Cause
41	Alligator Cracking	Load	61	Blow-Up	Load
42	Bleeding	Other	62	Corner Break	Load
43	Block Cracking	Climate/ Durability	63	Longitudinal, Transverse, & Diagonal Cracks	Climate/ Durability
44	Corrugation	Other	64	Durability Cracking	Climate/ Durability
45	Depression	Other	65	Joint Seal Damage	Other
46	Jet Blast	Other	66	Small Patch	Other
47	Joint Reflection Cracking	Climate/ Durability	67	Large Patch	Other
48	Longitudinal & Transverse Cracking	Climate/ Durability	68	Pop Outs	Other
49	Oil Spillage	Other	69	Pumping	Other
50	Patching	Climate/ Durability	70	Scaling	Other
51	Polished Aggregate	Other	71	Faulting	Other
52	Raveling	Climate/ Durability	72	Shattered Slab	Load

Flexible Pavement		
PAVER Code	Pavement Distress	Related Cause
53	Rutting	Load
54	Shoving	Other
55	Slippage Cracking	Other
56	Swelling	Other
57	Weathering	Climate/ Durability

Rigid Pavement		
PAVER Code	Pavement Distress	Related Cause
73	Shrinkage Cracking	Other
74	Joint Spalls	Other
75	Corner Spalls	Other
76	Alkali-Silica Reactivity (ASR)	Other

To obtain the section PCI, we extrapolated the PCI of each selected sample unit over the entire section area. Distresses found in sample units classified as "additional"– defined as nonrepresentative instead of random- are not extrapolated over the entire section but merely added to the extrapolated quantity. The PCI rating scale presented previously in Table 3-1 of Section 3.1 and is based on ASTM D5340.

Section 4.1 of ASTM D5340 governing PCI surveys offers this caution:

"The PCI is a numerical indicator that rates the surface condition of the pavement. The PCI provides a measure of the **present condition** of the pavement based on the distress observed on the surface of the pavement, which also indicates the structural integrity and surface operational condition (localized roughness and safety). The PCI **cannot** measure structural capacity; nor does it provide a direct measurement of skid resistance or roughness. It provides an objective and rational basis for determining maintenance and repair needs and priorities. Continuous monitoring of the PCI is used to establish the rate of pavement deterioration, which permits early identification of major rehabilitation needs. The PCI provides feedback on pavement performance for validation or improvement of current pavement design and maintenance procedures."

Based on the limitations of the PCI method, it is imperative that engineers and planners treat the PCI as a tool that will assist them during the M&R planning process. Any major project should always be preceded by an up-to-date, detailed, 100% project-level inspection of the pavement in order to reevaluate maintenance needs prior to the project design process.

B.2 DISTRESS TYPES

Distress tends to fall into one of the following four cause categories:

- **Load-related:** Flexible pavement distresses include alligator/fatigue cracking, corrugation, depression, polished aggregate, rutting, and slippage cracking. Rigid

pavement distresses include corner breaks, longitudinal cracking, divided slabs, polished aggregate, pumping, and joint spalling.

- **Climate- and durability-related:** Flexible pavement distresses include bleeding, block cracking, joint reflection cracking, longitudinal and transverse (L&T) cracking, swelling, and raveling/weathering. Rigid pavement distresses include blow-ups, durability cracking, longitudinal cracking, pop-outs, pumping, scaling, shrinkage cracks, and joint and corner spalling.

- **Moisture- and drainage-related:** Flexible pavement distresses include alligator/ fatigue cracking, depressions, potholes, and swelling. Rigid pavement distresses include corner breaks, divided slabs, and pumping.

- **Other factors:** Oil spillage, jet blast erosion, bleeding, patching, and concrete slab joint faulting.

As described above, a distress may be the result of more than one cause. For example, depressions may be caused by incorrect compaction during construction or by subgrade softening due to environmental factors. In addition, distress may be initiated by one cause but may progress to a distress of higher severity by another cause. Therefore, engineering judgment is critical in analyzing the actual cause or causes of the distress.

B.3 PAVEMENT CONDITION INDEX SURVEY RESULTS

The evaluated Joseph State Airport pavement network consists of 10 branches and 14 sections. A total of 35 sample units were visually inspected in the field. Data from the inspected sample units were input into the PAVER database, and a resultant PCI for each section was computed. Additional details regarding the PCI and distress types observed for each surveyed sample unit are provided in the re-inspection report, Table 1E, in Appendix E. Based on the 2022 PCI survey, the area-weighted average PCI for the entire pavement network at Joseph State Airport is approximately 82, which corresponds to a PCI rating of Satisfactory.

To investigate the rate of deterioration of each pavement section, we compared the PCI results from the 2022 survey to the PCI results from the previous inspection. The variation in PCI between inspections for Joseph State Airport pavement sections is outlined in Table 4B in this appendix.

Table 2B - JOSEPH STATE AIRPORT CURRENT BRANCH CONDITION REPORT

Branch ID	Number of Sections	Approximate Area, square feet	Use	Area Weighted Average Branch PCI	PCI Category
A01JO	1	30,902	APRON	91	Good
A02JO	1	25,724	APRON	84	Satisfactory
A03JO	3	18,120	APRON	58	Fair
R15JO	1	312,000	RUNWAY	86	Good
TA1JO	1	7,492	TAXIWAY	94	Good
TA2JO	1	8,565	TAXIWAY	71	Satisfactory
TA3JO	1	8,565	TAXIWAY	70	Fair
TA4JO	1	7,785	TAXIWAY	89	Good
TA5JO	1	6,462	TAXIWAY	94	Good
TAJO	3	156,380	TAXIWAY	74	Satisfactory

Use Category	Number of Sections	Total Area, square feet	Area Weighted Average PCI
APRON	5	74,746	81
RUNWAY	1	312,000	86
TAXIWAY	8	195,249	76
ALL	**14**	**581,995**	**82**

Abbreviation: PCI = Pavement Condition Index

Table 3B - JOSEPH STATE AIRPORT 2022 PAVEMENT CONDITION INDEX SURVEY

BranchID	SectionID	Last Construction Date	Surface Type	Use	Last Inspection Date	Age at Inspection	PCI	PCI Category	PCI % Climate	PCI % Load	PCI % Other
A01JO	01	9/3/2011	AC	APRON	7/1/2022	11	91	Good	100	0	0
A02JO	01	9/3/2011	AC	APRON	7/1/2022	11	84	Satisfactory	100	0	0
A03JO	01	8/1/2002	AC	APRON	7/1/2022	20	52	Poor	46	54	0
A03JO	02	8/1/2002	AC	APRON	7/1/2022	20	45	Poor	76	24	0
A03JO	03	8/1/2002	PCC	APRON	7/1/2022	20	96	Good	0	0	100
R15JO	01	9/3/2011	AC	RUNWAY	7/1/2022	11	86	Good	100	0	0
TA1JO	01	9/3/2011	AC	TAXIWAY	7/1/2022	11	94	Good	100	0	0
TA2JO	01	9/30/2003	AC	TAXIWAY	7/1/2022	19	71	Satisfactory	100	0	0
TA3JO	01	9/30/2003	AC	TAXIWAY	7/1/2022	19	70	Fair	100	0	0
TA4JO	01	9/3/2011	AC	TAXIWAY	7/1/2022	11	89	Good	100	0	0
TA5JO	01	9/3/2011	AC	TAXIWAY	7/1/2022	11	94	Good	100	0	0
TAJO	01	9/3/2011	AC	TAXIWAY	7/1/2022	11	94	Good	100	0	0
TAJO	02	9/30/2003	AC	TAXIWAY	7/1/2022	19	69	Fair	82	18	0
TAJO	03	9/3/2011	AC	TAXIWAY	7/1/2022	11	90	Good	100	0	0

Abbreviations:
PCI = Pavement Condition Index, AC = Asphalt Concrete, PCC = Portland Cement Concrete

Table 4B - JOSEPH STATE AIRPORT COMPARISON OF PREVIOUS INSPECTION AND 2022 RESULTS

Branch ID	Section ID	Surface Type[1]	Approximate Area, square feet	LCD[2]	2017 Survey PCI	2017 Survey PCI Category	2017 Survey Insp. Date	2022 Survey PCI	2022 Survey PCI Category	Age[3]	Δ PCI/yr[4]	Rate of Deterioration
A01JO	01	AC	30,902	9/3/2011	100	Good	6/13/2017	91	Good	6	-1.78	NORMAL
A02JO	01	AC	25,724	9/3/2011	98	Good	6/13/2017	84	Satisfactory	6	-2.77	NORMAL
A03JO	01	AC	2,661	8/1/2002	75	Satisfactory	6/13/2017	52	Poor	15	-4.55	HIGH
A03JO	02	AC	11,259	8/1/2002	67	Fair	6/13/2017	45	Poor	15	-4.35	HIGH
A03JO	03	PCC	4,200	8/1/2002	100	Good	6/13/2017	96	Good	15	-0.79	NORMAL
R15JO	01	AC	312,000	9/3/2011	96	Good	6/13/2017	86	Good	6	-1.98	NORMAL
TA1JO	01	AC	7,492	9/3/2011	100	Good	6/13/2017	94	Good	6	-1.19	NORMAL
TA2JO	01	AC	8,565	9/30/2003	73	Satisfactory	6/13/2017	71	Satisfactory	14	-0.40	NORMAL
TA3JO	01	AC	8,565	9/30/2003	69	Fair	6/13/2017	70	Fair	14	0.20	NONE
TA4JO	01	AC	7,785	9/3/2011	100	Good	6/13/2017	89	Good	6	-2.18	NORMAL
TA5JO	01	AC	6,462	9/3/2011	100	Good	6/13/2017	94	Good	6	-1.19	NORMAL
TAJO	01	AC	25,802	9/3/2011	100	Good	6/13/2017	94	Good	6	-1.19	NORMAL
TAJO	02	AC	123,788	9/30/2003	76	Satisfactory	6/13/2017	69	Fair	14	-1.39	NORMAL
TAJO	03	AC	6,790	9/3/2011	100	Good	6/13/2017	90	Good	6	-1.98	NORMAL

Abbreviations:

[1] AC = Asphalt Concrete, PCC = Portland Cement Concrete

[2] LCD = Last construction date. The date of the last major pavement rehabilitation (e.g. AC overlay)

[3] Age = Pavement age in years at the time of the PCI survey in 2017

[4] Δ PCI/yr = Change in PCI points per year between 2017 survey and 2022 survey

GRI

APPENDIX C

Future Pavement Condition Analysis

APPENDIX C

PAVEMENT CONDITION ANALYSIS

C.1 METHODOLOGY

In addition to assessing the current condition of a pavement, it is very important from a planning standpoint to be able to predict with reasonable accuracy its future condition. In a pavement management plan (PMP), this is done with the aid of a prediction model. When an APMS is initially implemented, the default models are typically used to predict the future condition of a pavement. However, after PCI surveys are completed, the historical data are then used to refine the models, so they better represent the deterioration of a particular class of pavement based on local climatic conditions, loading, material sources, construction procedures, etc. The importance of accurate prediction models is part of the reason it is essential to conduct periodic, routine surveys in order to track the rate of deterioration.

In PAVER, the pavement deterioration curves are developed based on the "family" model procedure. A pavement "family" is defined as a group of pavements with similar deterioration characteristics. The procedure for developing the prediction models is:

1) Define the pavement families.

2) Review the data.

3) Conduct a data outlier analysis.

4) Model the data.

C.2 PREDICTION MODELS

We developed separate condition prediction models for each pavement "family" at Joseph State Airport. The delineation is based on branch use, surface type, section rank, and structural design life. We use four distinct models for the following "families" of pavements at Joseph State Airport. For each model, we reviewed the data in order to filter out any inconsistent or inaccurate data or any data that fall outside boundary values set by PAVER. After outliers are removed and the data are checked for accuracy and reasonableness, the PAVER program calculates a best-fit curve using a polynomial-constrained, least-squares analysis procedure. This best-fit curve for each family is used in the analysis to predict the average behavior of all sections within each "family." Our condition prediction models for each "family" are provided on Figures 1C through 4C below.

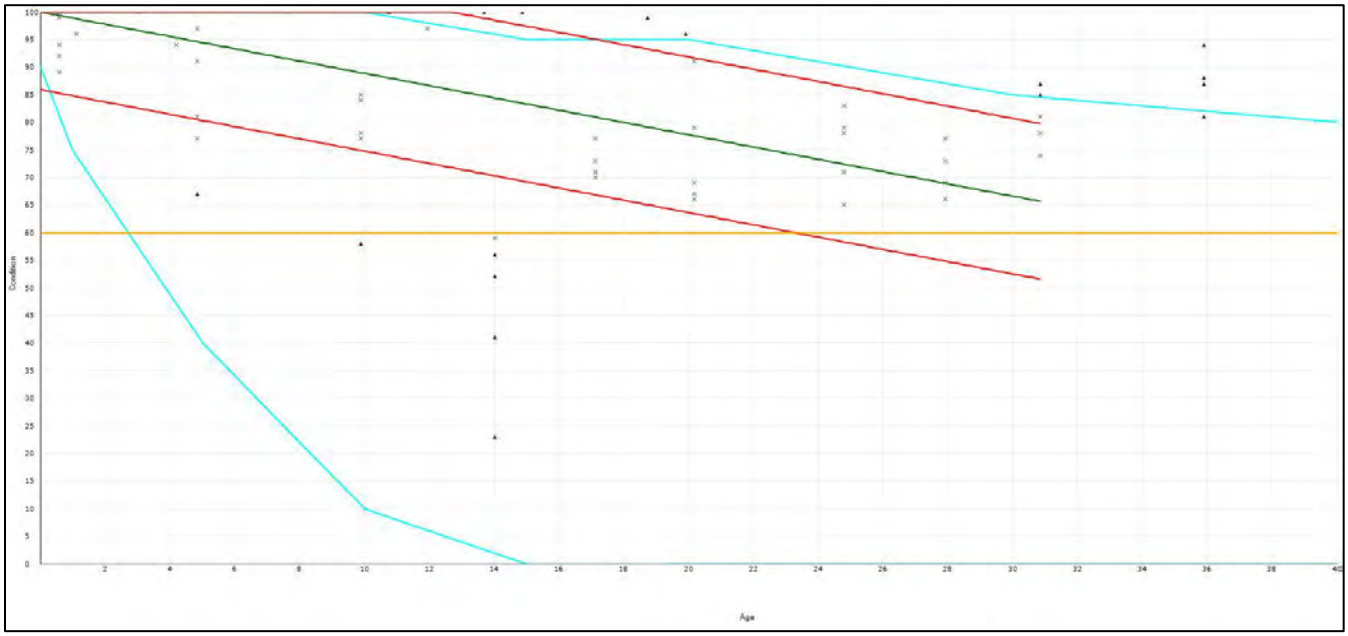


Figure 1C - CONDITION PREDICTION MODEL FOR EASTERN CATEGORY 4 PCC RUNWAYS, TAXIWAYS, AND APRONS

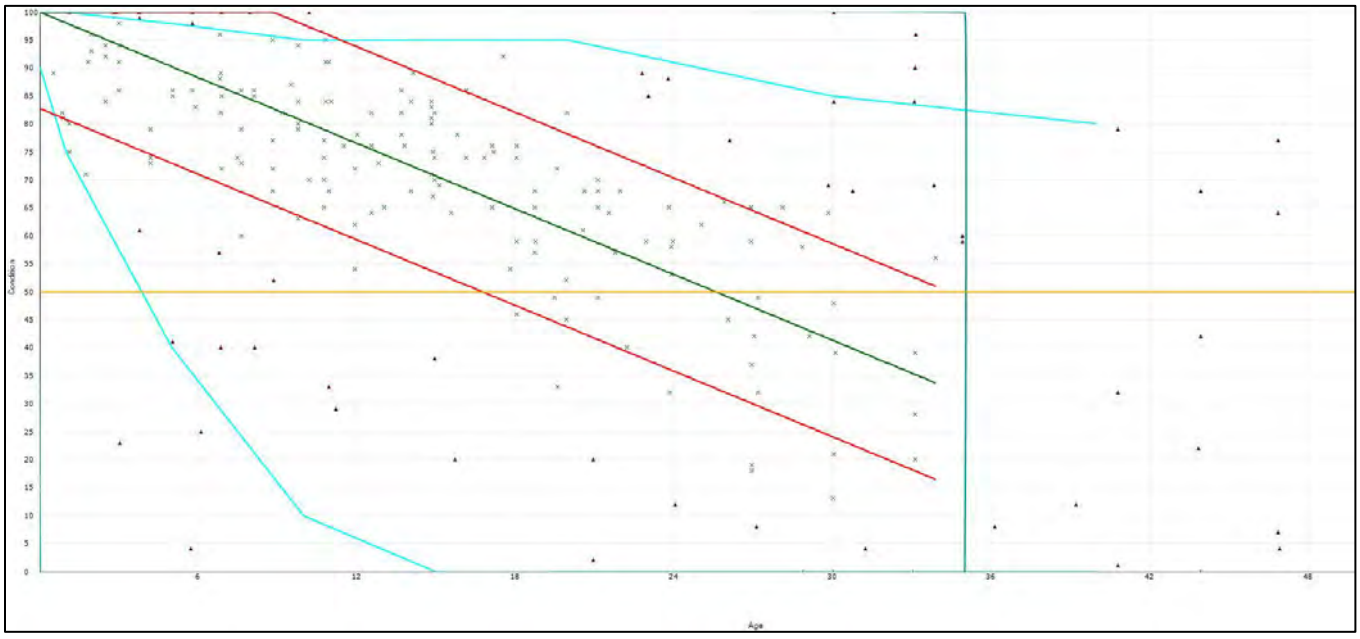


Figure 2C - CONDITION PREDICTION MODEL FOR EASTERN CATEGORY 4 AC APRONS

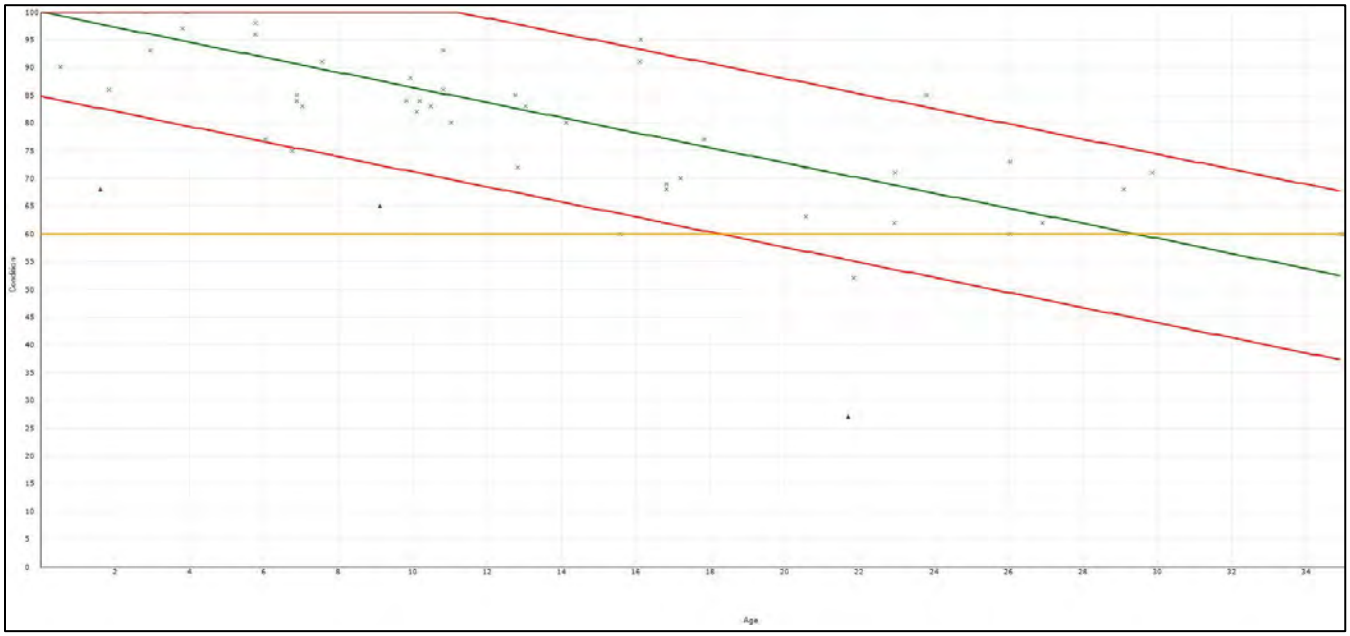


Figure 3C - CONDITION PREDICTION MODEL FOR EASTERN CATEGORY 4 AC RUNWAYS

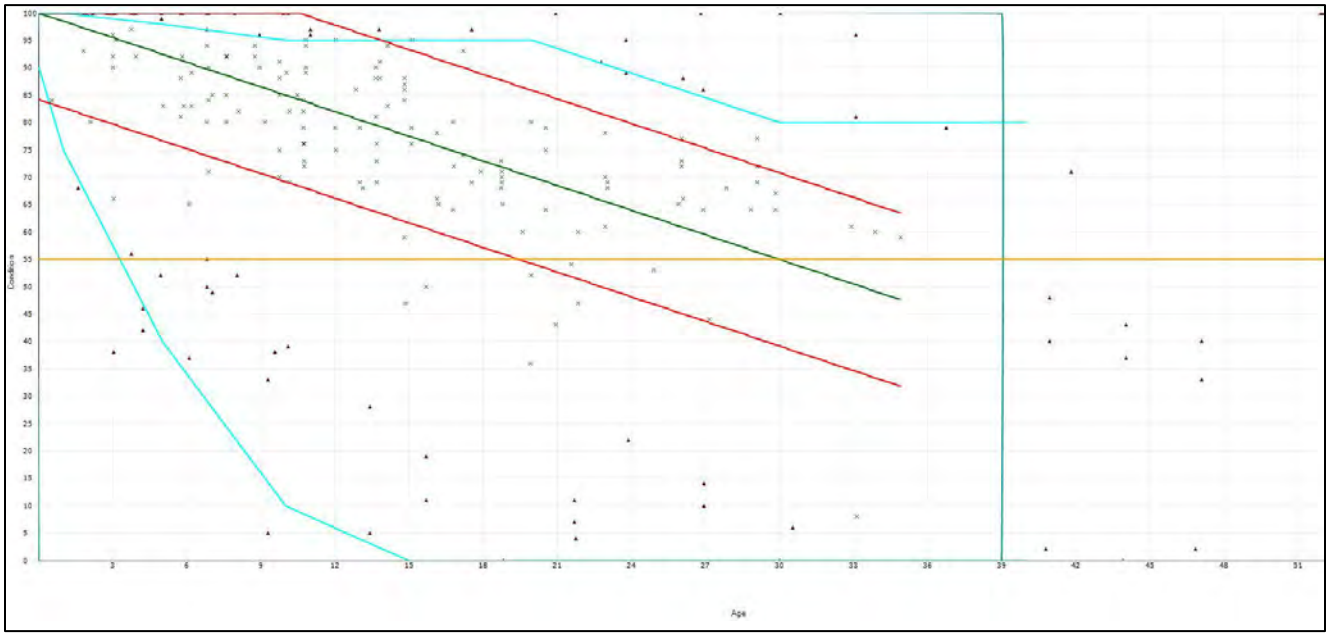


Figure 4C - CONDITION PREDICTION MODEL FOR EASTERN CATEGORY 4 AC TAXIWAYS

C.3 CRITICAL PCI

Each of the condition-prediction models have an assigned critical PCI. The critical PCI is the point at which the pavement condition begins to deteriorate more quickly over time. As the condition deteriorates to a worse state, major M&R is triggered because the cost to apply localized M&R increases significantly. Pavement sections with PCI above the

critical value are given a higher priority for funding during budget analysis in order to prevent them from deteriorating to the point where more costly rehabilitation is necessary. We used the following critical PCI values at Joseph State Airport:

- Runways – 60
- Taxiways/Taxilanes – 55
- Aprons – 50

C.4 FUTURE CONDITION ANALYSIS

As previously discussed, the projected condition of each pavement section was determined for 5- and 10-year periods. The projected pavement conditions in 5 years and 10 years for each pavement section at Joseph State Airport, along with the conditions at the previous inspection, are listed in Table 1C.

C.5 FUNCTIONAL REMAINING LIFE

As mentioned above, functional remaining life is the practical amount of time a pavement is in service before requiring rehabilitation, as estimated solely based on visual condition. This is not to be confused with structural remaining life, which requires an analysis of the structural capacity of a pavement.

We calculated two forms of functional remaining life based on the current visual condition surveys of the pavement at Joseph State Airport, the time until rehabilitation, and the time until the pavement is no longer operational due to high foreign object debris potential and increased safety concerns for trafficking aircraft (PCI less than 40). The results of the functional life analysis are provided in Table 2C.

Table 1C - PAST, PRESENT AND FUTURE PCI

BranchID	SectionID	Past Inspection PCI 2017	Current PCI 2022	Predicted Future PCI 2027	Predicted Future PCI 2032
A01JO	01	100	91	81	71
A02JO	01	98	84	74	64
A03JO	01	75	52	42	32
A03JO	02	67	45	35	25
A03JO	03	100	96	90	85
R15JO	01	96	86	79	72
TA1JO	01	100	94	87	79
TA2JO	01	73	71	64	56
TA3JO	01	69	70	63	55
TA4JO	01	100	89	82	74
TA5JO	01	100	94	87	79
TAJO	01	100	94	87	79
TAJO	02	76	69	62	54
TAJO	03	100	90	83	75

Abbreviation: PCI = Pavement Condition Index

Table 2C - JOSEPH AIRPORT FUNCTIONAL REMAINING LIFE ANALYSIS

Branch ID	Section ID	Surface Type	Current PCI	Years to Major M&R	Major M&R Trigger PCI[1]	Years to End of Functional Service Life
A01JO	01	AC	91	> 20	50	> 20
A02JO	01	AC	84	16 - 20	50	> 20
A03JO	01	AC	52	0 - 5	50	6 - 10
A03JO	02	AC	45	0 - 5	50	0 - 5
A03JO	03	PCC	96	> 20	50	> 20
R15JO	01	AC	86	> 20	60	> 20
TA1JO	01	AC	94	> 20	55	> 20
TA2JO	01	AC	71	6 - 10	55	> 20
TA3JO	01	AC	70	6 - 10	55	> 20
TA4JO	01	AC	89	> 20	55	> 20
TA5JO	01	AC	94	> 20	55	> 20
TAJO	01	AC	94	> 20	55	> 20
TAJO	02	AC	69	6 - 10	55	> 20
TAJO	03	AC	90	> 20	55	> 20

Abbreviations:
AC = Asphalt Concrete, PCC = Portland Cement Concrete, PCI = Portland Cement Concrete

APPENDIX D

Unit Cost Data and Maintenance and Rehabilitation Plan

APPENDIX D

UNIT COST DATA AND MAINTENANCE AND REHABILITATION PLAN

D.1 ANALYSIS METHODOLOGY

We evaluated the M&R needs, as determined from the PAVER analysis results, in order to develop project recommendations for the next five years. The purpose of this analysis is to determine the M&R needs of the Joseph State Airport pavement network condition over time. We used PAVER v7.0.8 software to develop network-level project recommendations for the next five years.

The PAVER M&R Work Planning Module identifies when and where M&R is required and how much it will cost. M&R plans can be developed either by assuming an annual budget or by identifying specific constraints, such as a condition goal, to determine the budget required to meet the goal. The M&R work planning analysis was based on a five-year period beginning on August 1, 2024. A backlog elimination analysis scenario was selected to generate a list of global maintenance and rehabilitation projects in order to optimize the allocation of capital and establish preservation-based project recommendations. The repair strategies considered for pavement sections in our analysis are as follows:

- Reconstruction – Considered for pavements with a PCI less than 40.
- Flexible Overlay – Considered for pavements between 40 PCI and the critical PCI, and for pavements exhibiting significant load-related distresses.
- Global Maintenance – Treatments (fog seal, slurry seal, thin AC overlay) applied to an entire pavement section with the intent of slowing the rate of deterioration.
- Localized Maintenance – Maintenance performed on a routine basis such as crack sealing, wide crack repair, and patching.

It should be noted that the five-year list of recommended projects only includes the highest-cost maintenance items and does not include routine localized maintenance (e.g., crack sealing) work that should also be conducted in addition to and concurrently with the five-year work plan.

D.1.1 Pavement Rank and Use Prioritization

Pavement sections are assigned a rank to establish their relative importance in the overall pavement network, which is most commonly defined by their use (e.g., Taxiway, Apron, Runway). The PAVER analysis uses the combination of the section rank and the branch use

to define the priority of each section during the M&R analysis. Table 1D displays the branch use and section rank prioritization schema we used for analysis.

Table 1D: M&R WORK PRIORITY BY BRANCH USE AND SECTION RANK

Branch Use	Section Rank		
	Primary	Secondary	Tertiary
RUNWAY	1	3	6
TAXIWAY	2	5	8
APRON	4	7	9

D.2 MAINTENANCE POLICIES AND UNIT COSTS

The distress-maintenance policies are policies that determine what type of work should be applied to a specific distress type and severity. For example, on an AC pavement, a medium-severity longitudinal/transverse crack would be repaired by crack sealing. Policies for all the distress types and severities are established by ASTM D5340.

Although our work scope does not include budget analysis, we did assign construction costs to the maintenance work so that PAVER would allocate M&R projects that were approximately equal in cost for each year of the five-year period. The anticipated cost of performing M&R is based on cost tables that relate M&R work type cost to PCI. We reviewed the unit costs from the 2017 report and updated them by reviewing the bid tabulations for recent projects within the vicinity of Joseph State Airport and information provided by the project team. The costs for reconstruction are based on the existing pavement sections present within each branch use at Joseph State Airport. The costs represent the fully-loaded costs and include aspects of the project such as administration, contingencies, mobilization, and striping. The cost tables used in the analysis are presented in Table 2D below.

Table 2D: JOSEPH STATE AIRPORT UNIT COST DATA

Type of M&R	Work Type	Unit Cost	Work Unit
Major M&R	Complete Reconstruction with AC	$13.32	Sq Ft
	Cold Mill and Overlay – 2 Inches Thick	$5.88	Sq Ft
Global M&R	Surface Treatment - Slurry Seal	$0.40	Sq Ft
	Surface Treatment - Fog Seal	$0.24	Sq Ft
Localized Preventive M&R	Crack Sealing - AC	$2.40	Ft
	Crack Sealing - PCC	$18.00	Ft
	Crack Sealing – Wide Cracks	$39.60	Ft
	AC Patching – Full Depth	$60.00	Sq Ft
	PCC Patching – Full Depth	$120.00	Sq Ft

D.3 RECOMMENDED LOCALIZED MAINTENANCE

In order to properly maintain aging pavements, localized M&R activities such as crack sealing and patching should be performed on a routine basis. A list of recommended localized maintenance activities is provided in Table 3D of this appendix.

D.4 RECOMMENDED GLOBAL MAINTENANCE AND REHABILITATION PROJECTS

Global maintenance and rehabilitation projects refer to activities such as slurry seal and thin AC overlays, as well as thick AC overlays and reconstruction. A list of recommended global and M&R activities is provided in Table 4D of this appendix.

Table 3D - JOSEPH STATE AIRPORT NETWORK MAINTENANCE REPORT

Network	Branch ID	Section ID	Distress	Severity	Action	Work Quantity	Unit	Unit Cost	Work Cost	Section Total
Joseph	A01JO	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	91	Ft	$2.40	$218	$218
Joseph	A02JO	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	270	Ft	$2.40	$648	$648
Joseph	A03JO	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	29	Ft	$2.40	$70	$5,747
Joseph	A03JO	01	Alligator Cracking	Medium	Patching - AC Deep	95	SqFt	$60.00	$5,678	
Joseph	A03JO	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	266	Ft	$2.40	$637	$6,722
Joseph	A03JO	02	Alligator Cracking	Medium	Patching - AC Deep	101	SqFt	$60.00	$6,084	
Joseph	R15JO	01	Long. & Trans. Cracking	Low	Crack Sealing - AC	7,315	Ft	$2.40	$17,555	$17,555
Joseph	TA2JO	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	391	Ft	$2.40	$938	$938
Joseph	TA3JO	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	386	Ft	$2.40	$926	$962
Joseph	TA3JO	01	Long. & Trans. Cracking	Low	Crack Sealing - AC	15	Ft	$2.40	$36	
Joseph	TA4JO	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	31	Ft	$2.40	$74	$74
Joseph	TAJO	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	6,031	Ft	$2.40	$14,474	$18,611
Joseph	TAJO	02	Alligator Cracking	Medium	Patching - AC Deep	69	SqFt	$60.00	$4,137	
Joseph	TAJO	03	Long. & Trans. Cracking	Low	Crack Sealing - AC	30	Ft	$2.40	$72	$72

Abbreviations:

Long. = Longitudinal; Trans. = Transverse; AC = Asphalt Concrete; Ft = Feet; SqFt = Square Feet

Table 4D - FIVE-YEAR GLOBAL MAINTENANCE AND REHABILITATION PLAN

Action Year	Branch ID	Section ID	Branch Use	Surface Type	Current PCI	Action	Area, square feet	Unit Cost per square foot	Total Cost
2024	R15JO	01	RUNWAY	AC	86	Slurry Seal	312,000	$0.40	$124,801
2025	TA1JO	01	TAXIWAY	AC	94	Slurry Seal	7,492	$0.40	$2,997
	TA2JO	01	TAXIWAY	AC	71	Slurry Seal	8,565	$0.40	$3,426
	TA3JO	01	TAXIWAY	AC	70	Slurry Seal	8,565	$0.40	$3,426
	TA4JO	01	TAXIWAY	AC	89	Slurry Seal	7,785	$0.40	$3,114
	TA5JO	01	TAXIWAY	AC	94	Slurry Seal	6,462	$0.40	$2,585
	TAJO	01	TAXIWAY	AC	94	Slurry Seal	25,802	$0.40	$10,321
	TAJO	02	TAXIWAY	AC	69	Slurry Seal	123,788	$0.40	$49,516
	TAJO	03	TAXIWAY	AC	90	Slurry Seal	6,790	$0.40	$2,716
2026	A03JO	02	APRON	AC	45	Reconstruction	11,259	$13.32	$149,975
2027	A01JO	01	APRON	AC	91	Fog Seal	30,902	$11.80	$364,644
	A02JO	01	APRON	AC	84	Fog Seal	25,724	$0.24	$6,174
	A03JO	01	APRON	AC	52	Overlay	2,661	$8.89	$23,645
	A03JO	03	APRON	AC	96	Fog Seal	4,199	$0.24	$1,008

Abbreviations:
PCI = Pavement Condition Index, AC = Asphalt Concrete

Cost Summary	
2024 Total Project Cost	$124,801
2025 Total Project Cost	$78,100
2026 Total Project Cost	$149,975
2027 Total Project Cost	$395,470
2028 Total Project Cost	$0
Total 5-Year Project Cost	**$748,346**

APPENDIX E

Reinspection Report

Re-Inspection Report

ODA_WOC3_4-10-2023_PostWHEdits_4PM
Generated Date 4/13/2023

Network: Joseph **Name:** Joseph State

Branch: A01JO **Name:** Apron 01 Joseph **Use:** APRON **Area:** 30,902 SqFt

Section: 01 of 1 **From:** End **To:** TAJO-01 **Last Const.:** 9/3/2011

Surface: AC **Family:** 2022_Eastern_Cat4_Apron_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 30,902 SqFt **Length:** 205 Ft **Width:** 164 Ft

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

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

Section Comments:

Work Date: 1/1/1967	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 1/2/1967	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/1/1983	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/1/1985	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/1/1998	**Work Type:** Overlay - AC Thin	**Code:** OL-AT	**Is Major M&R:** True
Work Date: 9/1/2011	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/2011	**Work Type:** Base Course - Crushed Aggregate	**Code:** BA-CA	**Is Major M&R:** False
Work Date: 9/3/2011	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True

Last Insp. Date: 7/1/2022 **TotalSamples:** 6 **Surveyed:** 3

Conditions: **PCI:** 91

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 5000.00 SqFt **PCI:** 84

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	50.00	Ft
57	WEATHERING	L	5000.00	SqFt

Sample Number: 03 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5000.00	SqFt

Sample Number: 04 **Type:** R **Area:** 6989.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	6989.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: A02JO **Name:** Apron 02 Joseph **Use:** APRON **Area:** 25,724 SqFt

Section: 01 of 1 **From:** A01JO-01 **To:** TAJO-01 **Last Const.:** 9/3/2011

Surface: AC **Family:** 2022_Eastern_Cat4_Apron_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 25,724 SqFt **Length:** 520 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: 9/1/1998	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 9/2/1998	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/1/2011	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/2011	**Work Type:** Base Course - Crushed Aggregate	**Code:** BA-CA	**Is Major M&R:** False
Work Date: 9/3/2011	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True

Last Insp. Date: 7/1/2022 **TotalSamples:** 5 **Surveyed:** 3

Conditions: **PCI:** 84

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 5200.00 SqFt **PCI:** 88

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	20.00	Ft
57	WEATHERING	L	5200.00	SqFt

Sample Number: 03 **Type:** R **Area:** 5000.00 SqFt **PCI:** 79

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	100.00	Ft
57	WEATHERING	L	5000.00	SqFt

Sample Number: 05 **Type:** R **Area:** 5524.00 SqFt **PCI:** 85

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	45.00	Ft
57	WEATHERING	L	5524.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: A03JO **Name:** Apron 03 Joseph **Use:** APRON **Area:** 18,120 SqFt

Section: 03 of 3 **From:** A03JO-02 **To:** A03JO-02 **Last Const.:** 8/1/2002

Surface: PCC **Family:** 2022_Eastern_Cat4_AllUses_PCC **Zone:** KJSY **Category:** O **Rank:** S

Area: 4,200 SqFt **Length:** 60 Ft **Width:** 70 Ft

Slabs: 42 **Slab Length:** 10 Ft **Slab Width:** 10 Ft **Joint Length:** 710 Ft

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

Section Comments:

Work Date: 8/1/2002 **Work Type:** New Construction - PCC **Code:** NC-PC **Is Major M&R:** True

Last Insp. Date: 7/1/2022 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 96

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 21.00 Slabs **PCI:** 98

Sample Comments: Created by Inspection Schedule

75	CORNER SPALL	L	1.00	Slabs

Sample Number: 02 **Type:** R **Area:** 21.00 Slabs **PCI:** 94

Sample Comments: Created by Inspection Schedule

70	SCALING	L	1.00	Slabs
73	SHRINKAGE CR	N	4.00	Slabs
74	JOINT SPALL	L	1.00	Slabs

Network: Joseph **Name:** Joseph State

Branch: A03JO **Name:** Apron 03 Joseph **Use:** APRON **Area:** 18,120 SqFt

Section: 01 of 3 **From:** TAJO-01 **To:** A03JO-02 **Last Const.:** 8/1/2002

Surface: AC **Family:** 2022_Eastern_Cat4_Apron_AC/AAC **Zone:** KJSY **Category:** O **Rank:** S

Area: 2,661 SqFt **Length:** 152 Ft **Width:** 18 Ft

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

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

Section Comments:

Work Date: 8/1/2002 **Work Type:** New Construction - AC **Code:** NC-AC **Is Major M&R:** True

Work Date: 9/1/2015 **Work Type:** Crack Sealing - AC **Code:** CS-AC **Is Major M&R:** False

Last Insp. Date: 7/1/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 52

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 3574.00 SqFt **PCI:** 52

Sample Comments: Created by Inspection Schedule

41	ALLIGATOR CR	M	80.00	SqFt
48	L & T CR	M	39.00	Ft
57	WEATHERING	M	3574.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: A03JO **Name:** Apron 03 Joseph **Use:** APRON **Area:** 18,120 SqFt

Section: 02 of 3 **From:** A03JO-01 **To:** TAJO-02 **Last Const.:** 8/1/2002

Surface: AC **Family:** 2022_Eastern_Cat4_Apron_AC/AAC **Zone:** KJSY **Category:** O **Rank:** S

Area: 11,259 SqFt **Length:** 180 Ft **Width:** 120 Ft

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

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

Section Comments:

Work Date: 8/1/2002 **Work Type:** New Construction - AC **Code:** NC-AC **Is Major M&R:** True

Work Date: 9/1/2015 **Work Type:** Crack Sealing - AC **Code:** CS-AC **Is Major M&R:** False

Last Insp. Date: 7/1/2022 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 45

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 6985.00 SqFt **PCI:** 42

Sample Comments: Created by Inspection Schedule

41	ALLIGATOR CR	M	68.00	SqFt
48	L & T CR	M	100.00	Ft
48	L & T CR	M	32.00	Ft
52	RAVELING	M	3492.00	SqFt
57	WEATHERING	M	3492.00	SqFt

Sample Number: 02 **Type:** R **Area:** 4800.00 SqFt **PCI:** 48

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	60.00	Ft
48	L & T CR	M	86.00	Ft
52	RAVELING	M	2400.00	SqFt
57	WEATHERING	M	2400.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: R15JO **Name:** Runway 15/33 Joseph **Use:** RUNWAY **Area:** 312,000 SqFt

Section: 01 of 1 **From:** TA1JO **To:** TA5JO **Last Const.:** 9/3/2011

Surface: AC **Family:** 2022_Eastern_Cat4_RW_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 312,000 SqFt **Length:** 5,200 Ft **Width:** 60 Ft

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

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

Section Comments:

Work Date: 9/1/1996	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 9/2/1996	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True
Work Date: 9/1/1999	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False
Work Date: 9/1/2011	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/2011	**Work Type:** Base Course - Crushed Aggregate	**Code:** BA-CA	**Is Major M&R:** False
Work Date: 9/3/2011	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True

Last Insp. Date: 7/1/2022 **TotalSamples:** 52 **Surveyed:** 6

Conditions: **PCI:** 86

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 6000.00 SqFt **PCI:** 91

Sample Comments: Created by Inspection Schedule

48	L & T CR	L	15.00	Ft
57	WEATHERING	L	6000.00	SqFt

Sample Number: 06 **Type:** R **Area:** 6000.00 SqFt **PCI:** 86

Sample Comments: Created by Inspection Schedule

48	L & T CR	L	149.00	Ft
57	WEATHERING	L	6000.00	SqFt

Sample Number: 18 **Type:** R **Area:** 6000.00 SqFt **PCI:** 82

Sample Comments: Created by Inspection Schedule

48	L & T CR	L	100.00	Ft
48	L & T CR	L	150.00	Ft
57	WEATHERING	L	6000.00	SqFt

Sample Number: 28 **Type:** R **Area:** 6000.00 SqFt **PCI:** 84

Sample Comments: Created by Inspection Schedule

48	L & T CR	L	105.00	Ft
48	L & T CR	L	100.00	Ft
57	WEATHERING	L	6000.00	SqFt

Sample Number: 35 **Type:** R **Area:** 6000.00 SqFt **PCI:** 86

Sample Comments: Created by Inspection Schedule

48	L & T CR	L	70.00	Ft
48	L & T CR	L	90.00	Ft
57	WEATHERING	L	6000.00	SqFt

Sample Number: 46 **Type:** R **Area:** 6000.00 SqFt **PCI:** 89

Sample Comments: Created by Inspection Schedule

48	L & T CR	L	65.00	Ft
57	WEATHERING	L	6000.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: TA1JO **Name:** Taxiway A1 Joseph **Use:** TAXIWAY **Area:** 7,492 SqFt

Section: 01 of 1 **From:** TAJO-02 **To:** R15JO **Last Const.:** 9/3/2011

Surface: AC **Family:** 2022_Eastern_Cat4_Taxiway_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 7,492 SqFt **Length:** 177 Ft **Width:** 30 Ft

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

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

Section Comments:

Work Date: 9/1/1996	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 9/2/1996	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True
Work Date: 9/1/2011	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/2011	**Work Type:** Base Course - Crushed Aggregate	**Code:** BA-CA	**Is Major M&R:** False
Work Date: 9/3/2011	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True

Last Insp. Date: 7/1/2022 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 3719.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	3719.00	SqFt

Sample Number: 02 **Type:** R **Area:** 3772.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	3772.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: TA2JO **Name:** Taxiway A2 Joseph **Use:** TAXIWAY **Area:** 8,565 SqFt

Section: 01 of 1 **From:** TAJO-02 **To:** R15JO **Last Const.:** 9/30/2003

Surface: AC **Family:** 2022_Eastern_Cat4_Taxiway_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 8,565 SqFt **Length:** 183 Ft **Width:** 30 Ft

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

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

Section Comments:

Work Date: 9/29/2003	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 9/30/2003	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/1/2015	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False

Last Insp. Date: 7/1/2022 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 71

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 4545.00 SqFt **PCI:** 71

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	197.00	Ft
57	WEATHERING	M	4545.00	SqFt

Sample Number: 02 **Type:** R **Area:** 4020.00 SqFt **PCI:** 70

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	194.00	Ft
57	WEATHERING	M	4020.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: TA3JO **Name:** Taxiway A3 Joseph **Use:** TAXIWAY **Area:** 8,565 SqFt

Section: 01 of 1 **From:** TAJO-02 **To:** R15JO **Last Const.:** 9/30/2003

Surface: AC **Family:** 2022_Eastern_Cat4_Taxiway_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 8,565 SqFt **Length:** 183 Ft **Width:** 30 Ft

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

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

Section Comments:

Work Date: 9/29/2003	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 9/30/2003	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/1/2015	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False

Last Insp. Date: 7/1/2022 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 70

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 4545.00 SqFt **PCI:** 74

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	60.00	Ft
48	L & T CR	M	68.00	Ft
48	L & T CR	M	20.00	Ft
57	WEATHERING	M	4545.00	SqFt

Sample Number: 02 **Type:** R **Area:** 4020.00 SqFt **PCI:** 66

Sample Comments: Created by Inspection Schedule

48	L & T CR	L	15.00	Ft
48	L & T CR	M	107.00	Ft
48	L & T CR	M	131.00	Ft
57	WEATHERING	M	4020.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: TA4JO **Name:** Taxiway A4 Joseph **Use:** TAXIWAY **Area:** 7,785 SqFt

Section: 01 of 1 **From:** TAJO-02 **To:** R15JO **Last Const.:** 9/3/2011

Surface: AC **Family:** 2022_Eastern_Cat4_Taxiway_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 7,785 SqFt **Length:** 182 Ft **Width:** 30 Ft

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

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

Section Comments:

Work Date: 9/1/1996	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 9/2/1996	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True
Work Date: 9/1/1999	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False
Work Date: 9/1/2011	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/2011	**Work Type:** Base Course - Crushed Aggregate	**Code:** BA-CA	**Is Major M&R:** False
Work Date: 9/3/2011	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True

Last Insp. Date: 7/1/2022 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 89

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 3982.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	3982.00	SqFt

Sample Number: 02 **Type:** R **Area:** 3802.00 SqFt **PCI:** 85

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	31.00	Ft
57	WEATHERING	L	3802.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: TA5JO **Name:** Taxiway A5 Joseph **Use:** TAXIWAY **Area:** 6,462 SqFt

Section: 01 of 1 **From:** TAJO-03 **To:** R15JO **Last Const.:** 9/3/2011

Surface: AC **Family:** 2022_Eastern_Cat4_Taxiway_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 6,462 SqFt **Length:** 180 Ft **Width:** 30 Ft

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

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

Section Comments:

Work Date: 9/1/1996	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 9/2/1996	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True
Work Date: 9/1/1999	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False
Work Date: 9/1/2011	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/2011	**Work Type:** Base Course - Crushed Aggregate	**Code:** BA-CA	**Is Major M&R:** False
Work Date: 9/3/2011	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True

Last Insp. Date: 7/1/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 6462.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	6462.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: TAJO **Name:** Taxiway A Joseph **Use:** TAXIWAY **Area:** 156,380 SqFt

Section: 01 of 3 **From:** A01JO **To:** TAJO-02 **Last Const.:** 9/3/2011

Surface: AC **Family:** 2022_Eastern_Cat4_Taxiway_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 25,802 SqFt **Length:** 980 Ft **Width:** 25 Ft

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

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

Section Comments:

Work Date: 9/1/1967	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 9/2/1967	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/1/1983	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/1/1985	**Work Type:** Break and Seat	**Code:** BS-SE	**Is Major M&R:** False
Work Date: 9/1/1998	**Work Type:** Overlay - AC Thin	**Code:** OL-AT	**Is Major M&R:** True
Work Date: 9/1/2011	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/2011	**Work Type:** Base Course - Crushed Aggregate	**Code:** BA-CA	**Is Major M&R:** False
Work Date: 9/3/2011	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True

Last Insp. Date: 7/1/2022 **TotalSamples:** 5 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 5213.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5213.00	SqFt

Sample Number: 02 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5000.00	SqFt

Sample Number: 04 **Type:** R **Area:** 5379.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5379.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: TAJO **Name:** Taxiway A Joseph **Use:** TAXIWAY **Area:** 156,380 SqFt

Section: 03 of 3 **From:** TA4JO **To:** TA5JO **Last Const.:** 9/3/2011

Surface: AC **Family:** 2022_Eastern_Cat4_Taxiway_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 6,790 SqFt **Length:** 250 Ft **Width:** 30 Ft

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

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

Section Comments:

Work Date: 9/1/1996	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 9/2/1996	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True
Work Date: 9/1/1999	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False
Work Date: 9/1/2011	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/2011	**Work Type:** Base Course - Crushed Aggregate	**Code:** BA-CA	**Is Major M&R:** False
Work Date: 9/3/2011	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True

Last Insp. Date: 7/1/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 90

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 6790.00 SqFt **PCI:** 90

Sample Comments: Created by Inspection Schedule

48	L & T CR	L	30.00	Ft
57	WEATHERING	L	6790.00	SqFt

Network: Joseph **Name:** Joseph State

Branch: TAJO **Name:** Taxiway A Joseph **Use:** TAXIWAY **Area:** 156,380 SqFt

Section: 02 of 3 **From:** A03JO-02 **To:** TA4JO **Last Const.:** 9/30/2003

Surface: AC **Family:** 2022_Eastern_Cat4_Taxiway_AC/AAC **Zone:** KJSY **Category:** O **Rank:** P

Area: 123,788 SqFt **Length:** 4,912 Ft **Width:** 25 Ft

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

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

Section Comments:

Work Date: 9/29/2003	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** True
Work Date: 9/30/2003	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/1/2015	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False

Last Insp. Date: 7/1/2022 **TotalSamples:** 25 **Surveyed:** 5

Conditions: **PCI:** 69

Inspection Comments:

Sample Number: 03 **Type:** R **Area:** 5000.00 SqFt **PCI:** 75

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	100.00	Ft
48	L & T CR	M	25.00	Ft
57	WEATHERING	M	5000.00	SqFt

Sample Number: 09 **Type:** R **Area:** 5000.00 SqFt **PCI:** 63

Sample Comments: Created by Inspection Schedule

41	ALLIGATOR CR	M	4.00	SqFt
41	ALLIGATOR CR	M	4.00	SqFt
48	L & T CR	M	75.00	Ft
48	L & T CR	M	200.00	Ft
57	WEATHERING	M	5000.00	SqFt

Sample Number: 14 **Type:** R **Area:** 5000.00 SqFt **PCI:** 65

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	200.00	Ft
48	L & T CR	M	13.00	Ft
48	L & T CR	M	75.00	Ft
48	L & T CR	M	50.00	Ft
57	WEATHERING	M	5000.00	SqFt

Sample Number: 18 **Type:** R **Area:** 5000.00 SqFt **PCI:** 74

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	75.00	Ft
48	L & T CR	M	15.00	Ft
48	L & T CR	M	75.00	Ft
57	WEATHERING	M	5000.00	SqFt

Sample Number: 23 **Type:** R **Area:** 5000.00 SqFt **PCI:** 66

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	115.00	Ft
48	L & T CR	M	200.00	Ft
57	WEATHERING	M	5000.00	SqFt

APPENDIX F

Work History Report

Pavement Database: ODA_WOC3_4-10-2023_PostWHEdits_4PM

Network: Joseph State **Branch:** A01JO Apron 01 Joseph **Section:** 01 **Surface:**AC

L.C.D. 9/3/2011 **Use:** APRON **Rank:** P **Length:** 205.00 (Ft) **Width:** 164.00 (Ft) **True Area:** 30902.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/3/2011	CR-AC	Complete Reconstruction - AC	0.00	2.50	☑	P-401
9/2/2011	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	☐	P-209
9/1/2011	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P-154
9/1/1998	OL-AT	Overlay - AC Thin	0.00	2.00	☑	
9/1/1985	CS-AC	Crack Sealing - AC	0.00	0.10	☐	
9/1/1983	CS-AC	Crack Sealing - AC	0.00	0.10	☐	
1/2/1967	NC-AC	New Construction - AC	0.00	1.50	☑	
1/1/1967	BA-AG	Base Course - Aggregate	0.00	5.00	☑	

Network: Joseph State **Branch:** A02JO Apron 02 Joseph **Section:** 01 **Surface:**AC

L.C.D. 9/3/2011 **Use:** APRON **Rank:** P **Length:** 520.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 25724.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/3/2011	CR-AC	Complete Reconstruction - AC	0.00	2.50	☑	P-401
9/2/2011	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	☐	P-209
9/1/2011	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P-154
9/2/1998	NC-AC	New Construction - AC	0.00	2.00	☑	
9/1/1998	BA-AG	Base Course - Aggregate	0.00	6.00	☑	

Network: Joseph State **Branch:** A03JO Apron 03 Joseph **Section:** 01 **Surface:**AC

L.C.D. 8/1/2002 **Use:** APRON **Rank:** S **Length:** 152.00 (Ft) **Width:** 18.00 (Ft) **True Area:** 2661.000000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2015	CS-AC	Crack Sealing - AC	0.00	0.00	☐	PMP 2015
8/1/2002	NC-AC	New Construction - AC	0.00	0.00	☑	Unknown date and thickness

Network: Joseph State **Branch:** A03JO Apron 03 Joseph **Section:** 02 **Surface:**AC

L.C.D. 8/1/2002 **Use:** APRON **Rank:** S **Length:** 180.00 (Ft) **Width:** 120.00 (Ft) **True Area:** 11259.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2015	CS-AC	Crack Sealing - AC	0.00	0.00	☐	PMP 2015
8/1/2002	NC-AC	New Construction - AC	0.00	0.00	☑	Unknown date and thickness

Network: Joseph State **Branch:** A03JO Apron 03 Joseph **Section:** 03 **Surface:**PCC

L.C.D. 8/1/2002 **Use:** APRON **Rank:** S **Length:** 60.00 (Ft) **Width:** 70.00 (Ft) **True Area:** 4200.000105 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
8/1/2002	NC-PC	New Construction - PCC	0.00	0.00	☑	Unknown date and thickness

Network: Joseph State **Branch:** R15JO Runway 15/33 Jose **Section:** 01 **Surface:**AC

L.C.D. 9/3/2011 **Use:** RUNWAY **Rank:** P **Length:** 5,200.00 (Ft) **Width:** 60.00 (Ft) **True Area:** 312000.0078 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/3/2011	CR-AC	Complete Reconstruction - AC	0.00	2.50	☑	P-401
9/2/2011	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	☐	P-209
9/1/2011	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P-154
9/1/1999	ST-SS	Surface Treatment - Slurry Seal	0.00	0.50	☐	
9/2/1996	CR-AC	Complete Reconstruction - AC	0.00	2.00	☑	
9/1/1996	BA-AG	Base Course - Aggregate	0.00	6.00	☑	

Network: Joseph State **Branch:** TA1JO Taxiway A1 Josep **Section:** 01 **Surface:**AC

L.C.D. 9/3/2011 **Use:** TAXIWAY **Rank:** P **Length:** 177.00 (Ft) **Width:** 30.00 (Ft) **True Area:** 7492 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/3/2011	CR-AC	Complete Reconstruction - AC	0.00	2.50	☑	P-401
9/2/2011	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	☐	P-209
9/1/2011	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P-154
9/2/1996	CR-AC	Complete Reconstruction - AC	0.00	2.00	☑	
9/1/1996	BA-AG	Base Course - Aggregate	0.00	6.00	☑	

Network: Joseph State **Branch:** TA2JO Taxiway A2 Josep **Section:** 01 **Surface:**AC

L.C.D. 9/30/2003 **Use:** TAXIWAY **Rank:** P **Length:** 182.50 (Ft) **Width:** 30.00 (Ft) **True Area:** 8565.000149 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2015	CS-AC	Crack Sealing - AC	0.00	0.00	☐	PMP 2015
9/30/2003	NC-AC	New Construction - AC	0.00	2.00	☑	
9/29/2003	BA-AG	Base Course - Aggregate	0.00	6.00	☑	

Network: Joseph State **Branch:** TA3JO Taxiway A3 Josep **Section:** 01 **Surface:**AC

L.C.D. 9/30/2003 **Use:** TAXIWAY **Rank:** P **Length:** 182.50 (Ft) **Width:** 30.00 (Ft) **True Area:** 8565.000149 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2015	CS-AC	Crack Sealing - AC	0.00	0.00	☐	PMP 2015
9/30/2003	NC-AC	New Construction - AC	0.00	2.00	☑	
9/29/2003	BA-AG	Base Course - Aggregate	0.00	6.00	☑	

Network: Joseph State **Branch:** TA4JO Taxiway A4 Josep **Section:** 01 **Surface:**AC

L.C.D. 9/3/2011 **Use:** TAXIWAY **Rank:** P **Length:** 181.50 (Ft) **Width:** 30.00 (Ft) **True Area:** 7785 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/3/2011	CR-AC	Complete Reconstruction - AC	0.00	2.50	☑	P-401
9/2/2011	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	☐	P-209
9/1/2011	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P-154
9/1/1999	ST-SS	Surface Treatment - Slurry Seal	0.00	0.50	☐	
9/2/1996	CR-AC	Complete Reconstruction - AC	0.00	2.00	☑	
9/1/1996	BA-AG	Base Course - Aggregate	0.00	6.00	☑	

Network: Joseph State **Branch:** TA5JO Taxiway A5 Josep **Section:** 01 **Surface:**AC
L.C.D. 9/3/2011 **Use:** TAXIWAY **Rank:** P **Length:** 180.00 (Ft) **Width:** 30.00 (Ft) **True Area:** 6462.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/3/2011	CR-AC	Complete Reconstruction - AC	0.00	2.50	☑	P-401
9/2/2011	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	☐	P-209
9/1/2011	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P-154
9/1/1999	ST-SS	Surface Treatment - Slurry Seal	0.00	0.50	☐	
9/2/1996	CR-AC	Complete Reconstruction - AC	0.00	2.00	☑	
9/1/1996	BA-AG	Base Course - Aggregate	0.00	6.00	☑	

Network: Joseph State **Branch:** TAJO Taxiway A Joseph **Section:** 01 **Surface:**AC
L.C.D. 9/3/2011 **Use:** TAXIWAY **Rank:** P **Length:** 980.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 25802.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/3/2011	CR-AC	Complete Reconstruction - AC	0.00	2.50	☑	P-401
9/2/2011	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	☐	P-209
9/1/2011	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P-154
9/1/1998	OL-AT	Overlay - AC Thin	0.00	2.00	☑	
9/1/1985	BS-SE	Break and Seat	0.00	0.00	☐	
9/1/1983	CS-AC	Crack Sealing - AC	0.00	0.10	☐	
9/2/1967	NC-AC	New Construction - AC	0.00	1.50	☑	
9/1/1967	BA-AG	Base Course - Aggregate	0.00	5.00	☑	

Network: Joseph State **Branch:** TAJO Taxiway A Joseph **Section:** 02 **Surface:**AC
L.C.D. 9/30/2003 **Use:** TAXIWAY **Rank:** P **Length:** 4,912.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 123788.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2015	CS-AC	Crack Sealing - AC	0.00	0.00	☐	PMP 2015
9/30/2003	NC-AC	New Construction - AC	0.00	2.00	☑	
9/29/2003	BA-AG	Base Course - Aggregate	0.00	6.00	☑	

Network: Joseph State **Branch:** TAJO Taxiway A Joseph **Section:** 03 **Surface:**AC
L.C.D. 9/3/2011 **Use:** TAXIWAY **Rank:** P **Length:** 250.00 (Ft) **Width:** 30.00 (Ft) **True Area:** 6790.000000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/3/2011	CR-AC	Complete Reconstruction - AC	0.00	2.50	☑	P-401
9/2/2011	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	☐	P-209
9/1/2011	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P-154
9/1/1999	ST-SS	Surface Treatment - Slurry Seal	0.00	0.50	☐	
9/2/1996	CR-AC	Complete Reconstruction - AC	0.00	2.00	☑	
9/1/1996	BA-AG	Base Course - Aggregate	0.00	6.00	☑	

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
Base Course - Aggregate	11	563,875.01	5.82	0.39
Base Course - Crushed Aggregate	8	422,957.01	4.00	0.00
Break and Seat	1	25,802.00	0.00	0.00
Complete Reconstruction - AC	13	763,486.02	2.31	0.24
Crack Sealing - AC	8	242,444.00	0.04	0.05
New Construction - AC	8	237,266.00	1.37	0.82
New Construction - PCC	1	4,200.00	0.00	0.00
Overlay - AC Thin	2	56,704.00	2.00	0.00
Subbase - Aggregate	8	422,957.01	9.00	0.00
Surface Treatment - Slurry Seal	4	333,037.01	0.50	0.00