

2022 ODA Pavement Evaluation Program Wasco State Airport

Wasco, Oregon

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Prepared for

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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 Wasco State Airport in Wasco, 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 Wasco 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

Wasco State Airport is located in Wasco, 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 Wasco State Airport Location Map, Figure 2.1.



Figure 2.1 - WASCO STATE AIRPORT LOCATION MAP

Wasco State Airport contains one runway, one taxiway, and multiple connector taxiways, taxilanes, and aprons. The types of airside pavements include asphalt concrete (AC) and surface-treated (ST) pavements. The airport pavements, delineated by surface type and branch use, are shown on the Wasco State Airport Percent of Pavement Area by Surface Type, Figure 2.2, and on the Wasco State Pavement Area by Branch Use, Figure 2.3. The pavement inventory, including work history for each pavement section, is displayed spatially on the Wasco 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.

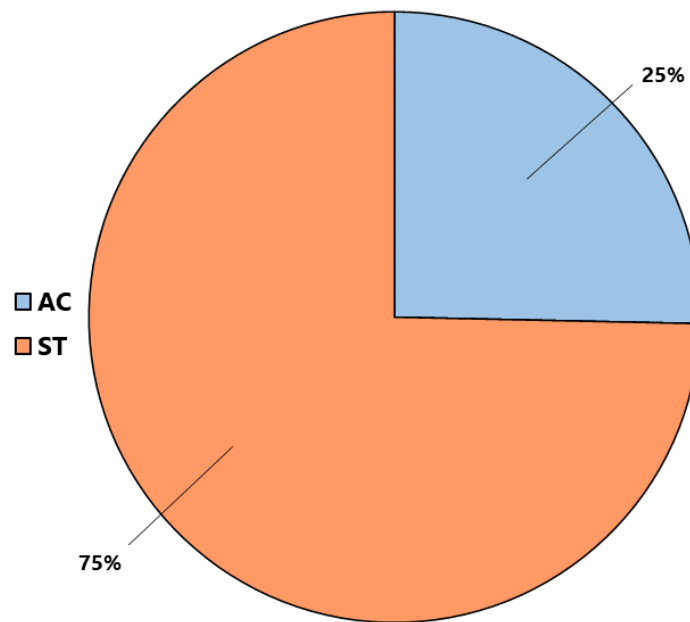


Figure 2.2 - WASCO STATE AIRPORT PERCENT OF PAVEMENT AREA BY SURFACE TYPE

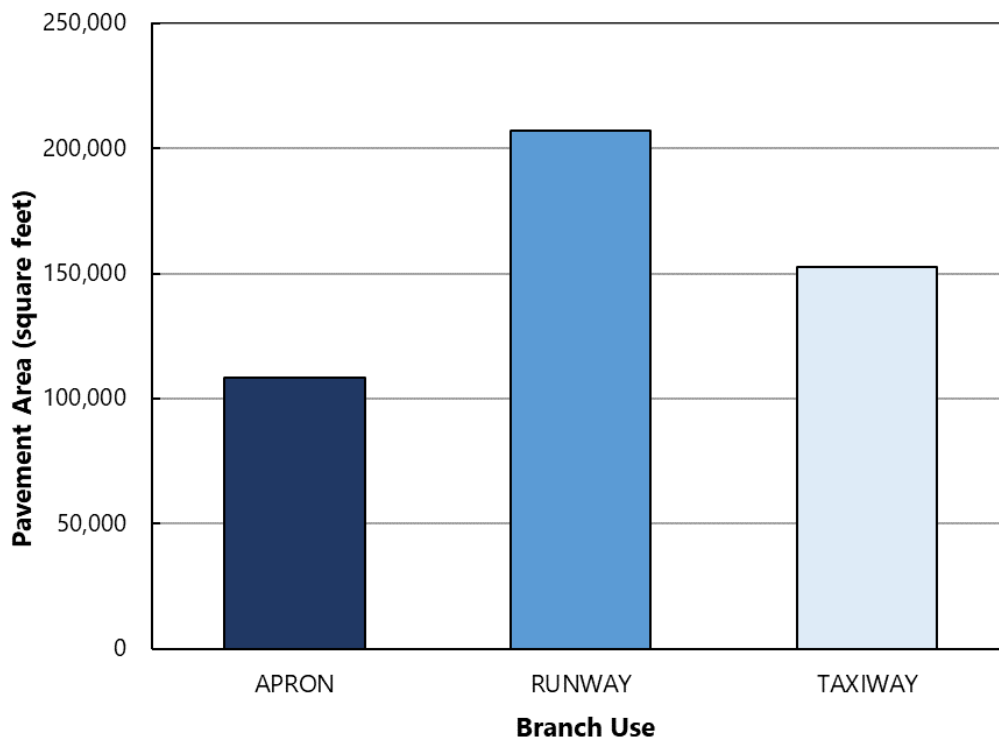
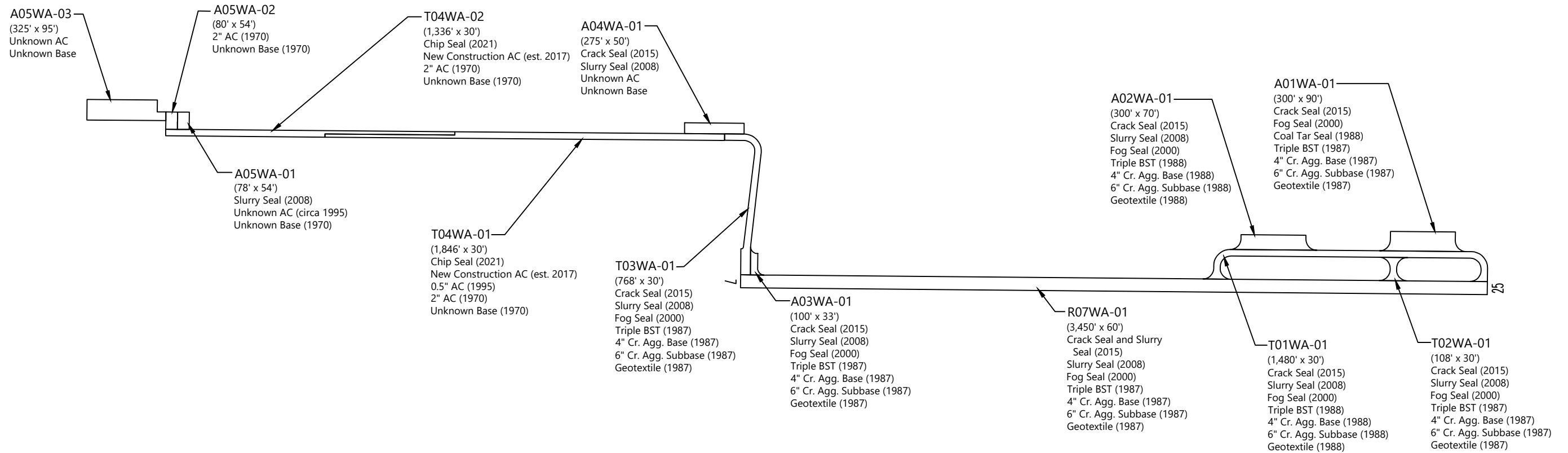
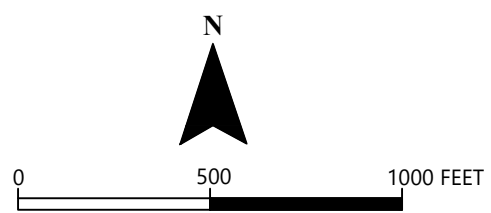


Figure 2.3 - WASCO STATE AIRPORT PAVEMENT AREA BY BRANCH USE



ABBREVIATIONS: AC = ASPHALT CONCRETE; Cr. = CRUSHED; Agg. = AGGREGATE; BST = BITUMINOUS SURFACE TREATMENT; est. = ESTIMATED







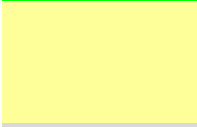


3 PAVEMENT CONDITION INSPECTION RESULTS

3.1 Introduction

GRI conducted a visual PCI survey of the airside pavements at Wasco State Airport in July 2022. The 2022 survey work was performed on sections last inspected in 2017 in order to update the Wasco 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.

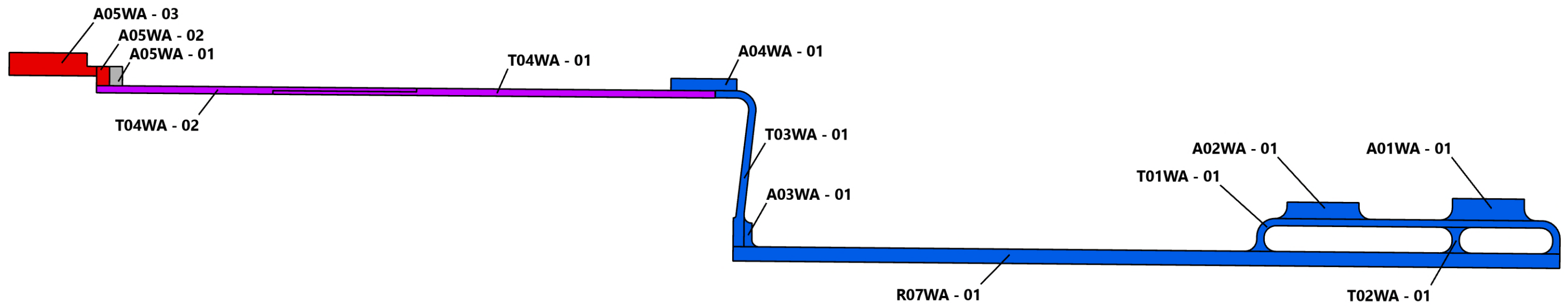
The PCI is based on the type, severity, and quantity of each distress found in an inspected sample unit. Further discussion of distress types for flexible pavement is provided in Appendix B and summarized in Table 1B in Appendix B. The results of the PCI survey are displayed using a seven-category rating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

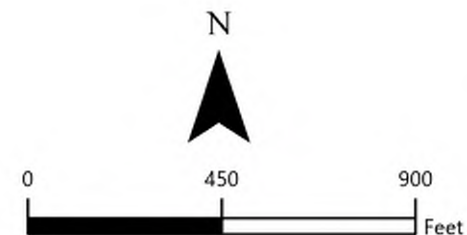
PCI Color Legend	PCI Range	PCI Rating and Definition
	86 – 100	GOOD: Pavement has minor or no distresses and should require only routine maintenance.
	71 – 85	SATISFACTORY: Pavement has scattered low-severity distresses that should require only routine maintenance.
	56 – 70	FAIR: Pavement has a combination 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 Wasco State Airport is approximately 61. The section PCIs ranged from a low of 0 to a high of 100. The primary distresses observed during the inspection were weathering, block cracking, fatigue (alligator) cracking, and raveling on AC-surfaced pavements. Section PCIs following our pavement survey are displayed below spatially on the 2022 PCI Survey Results Wasco State Airport, Figure 3.1.



2022 SECTION PCI



The condition distribution of the network by percent of total pavement area is provided on the Wasco 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.

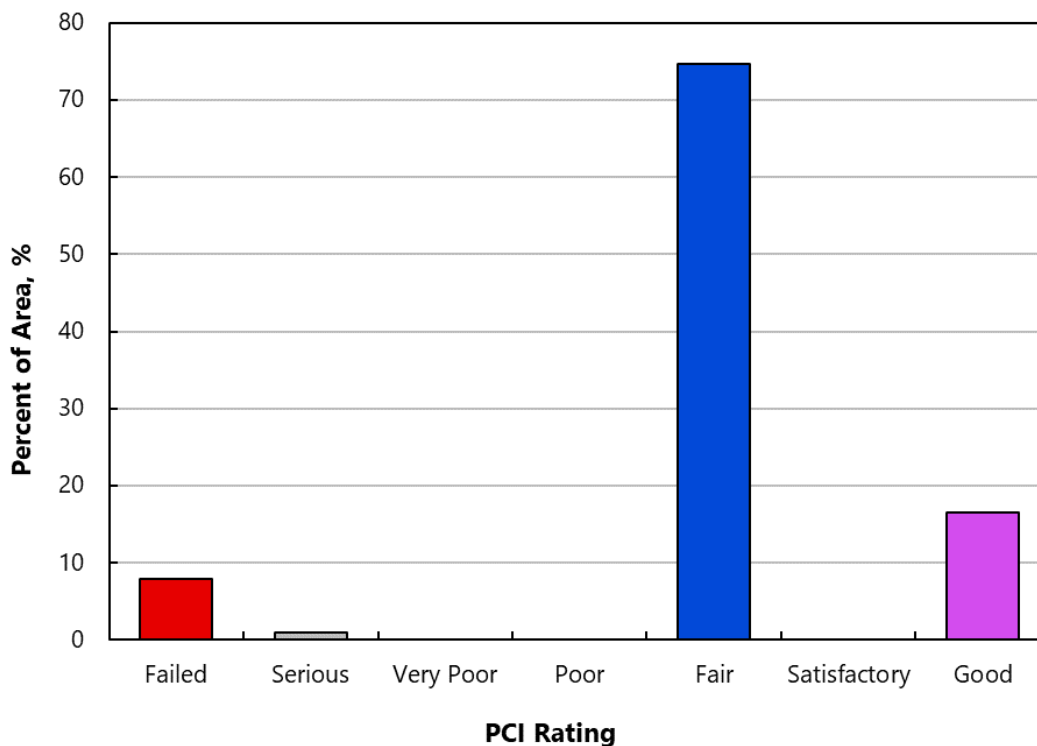


Figure 3.2 - WASCO STATE AIRPORT PAVEMENT CONDITION RATING BY PERCENT OF AREA

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 Wasco State Airport are displayed on Figures 1C through 3C 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 61 to a value of 54 in 2027 and 47 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 Wasco State Airport is displayed spatially on the Future Pavement Condition Wasco 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.

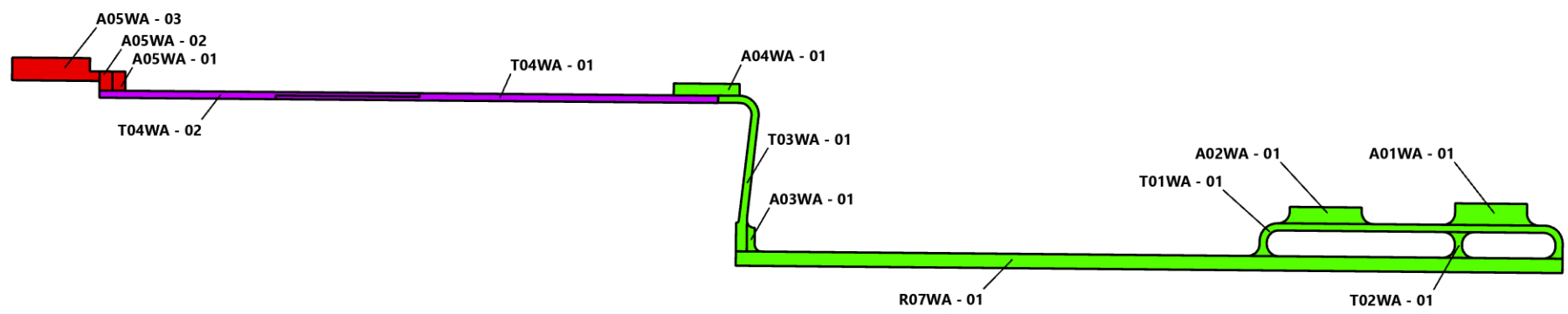
4.3 Functional Remaining Life

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.

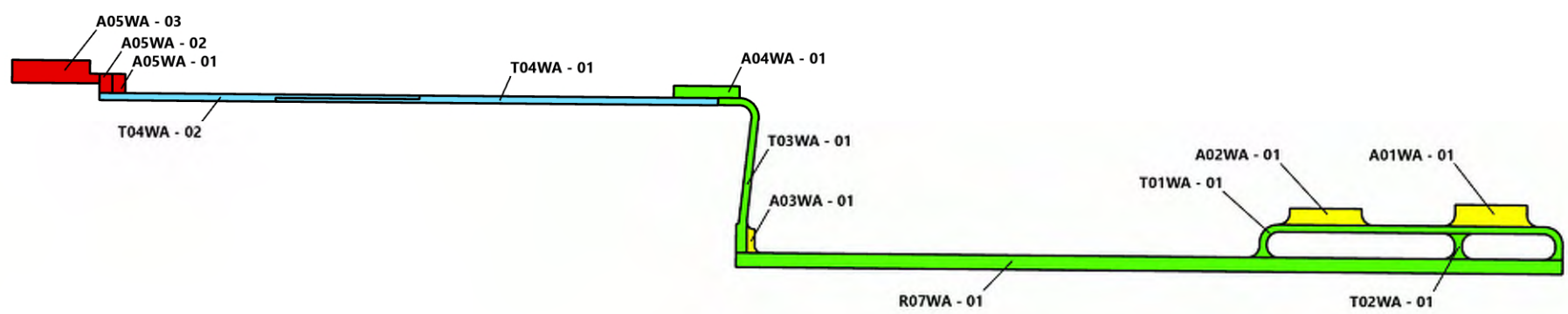
We calculated two forms of functional remaining life based on the current visual condition surveys of the pavement at Wasco State Airport. The first type of functional remaining life is the time until rehabilitation, such as an overlay, is needed. The critical PCI, further discussed in Section C.3 of 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 Wasco State Airport are summarized in Table 2C in Appendix C.

PREDICTED CONDITION IN 2027



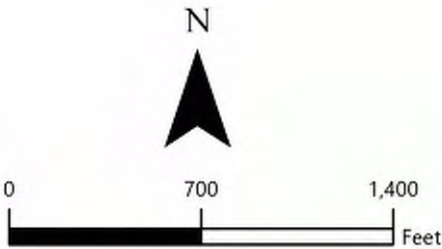
PREDICTED CONDITION IN 2032



2022 PCI SURVEY RESULTS

SECTION PCI

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



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 Wasco State Airport Pavement Network General Treatment Type Distribution Based on PCI, Figure 5.1 displays a breakdown of the Wasco State Airport network pavement condition by percent of area and general M&R treatment categories. Approximately 17%, 75%, and 9% of the area require preservation treatments, rehabilitation, and reconstruction, respectively.

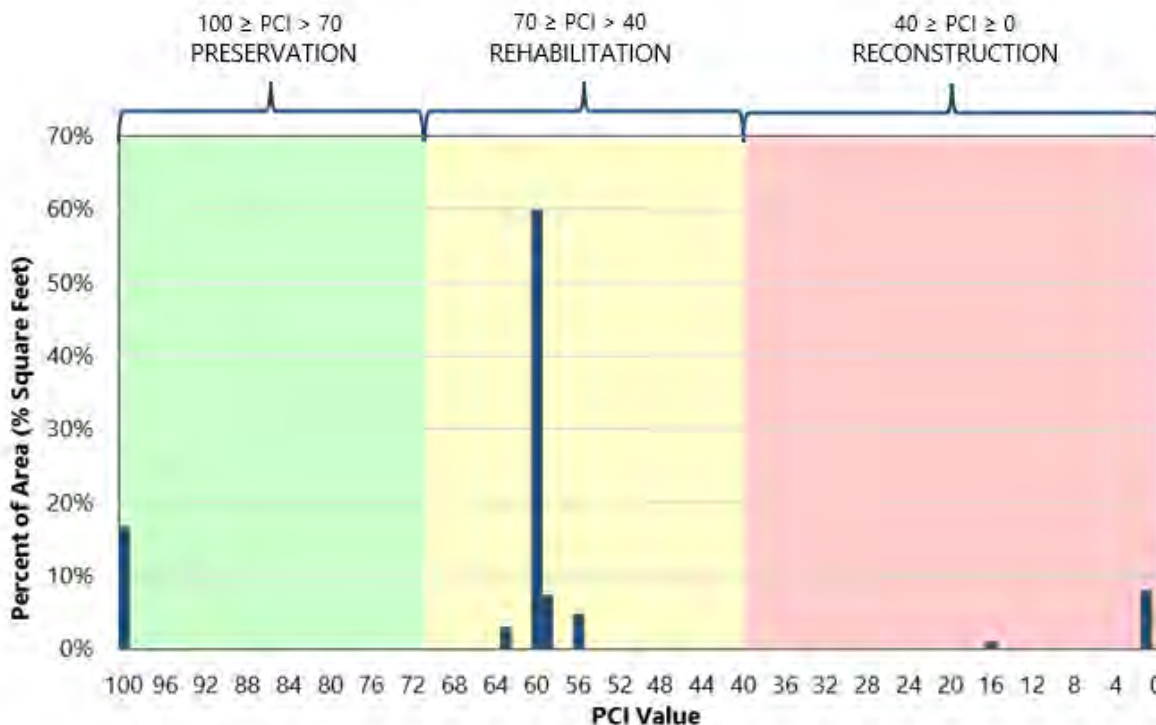


Figure 5.1 - WASCO STATE AIRPORT PAVEMENT NETWORK GENERAL TREATMENT TYPE DISTRIBUTION BASED ON PCI

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

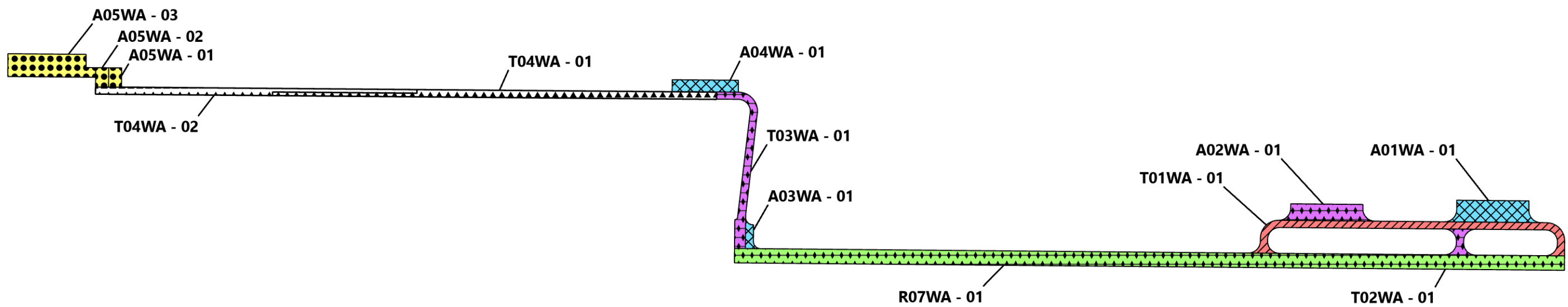
Localized Maintenance Operation	Quantity
Asphalt Concrete Crack Sealing	86,513 linear feet
Asphalt Concrete Full-Depth Patching	37,991square feet

5.3 Global Maintenance and Rehabilitation Plan

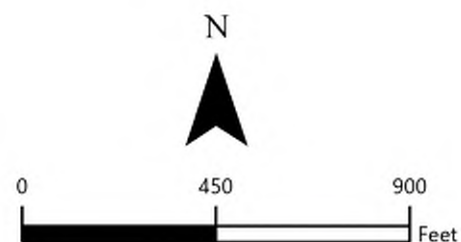
To develop the five-year work plan, we first ran the eliminate backlog scenario with the PAVER M&R Work Planning Module in order to generate a list, organized by year, of global and M&R projects. We then reviewed the project list and refined it into practical construction projects for each year. A summary 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 Wasco 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	41,115
Overlay	259,281
Fog Seal	45,476
Slurry Seal	44,668



ACTION TIMING		ACTION	
2024		FOG SEAL	
2025		SLURRY SEAL	
2026		OVERLAY	
2027		RECONSTRUCTION	
2028		ROUTINE MAINTENANCE	



6 LIMITATIONS

This report has been prepared to assist the Oregon Department of Aviation (ODA) with pavement-related project planning for the Wasco 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 within this report. 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 Wasco 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

Wasco State Airport is located in Wasco, Oregon, and is owned and operated by the Oregon Department of Transportation. The pavement network facilities at Wasco State Airport serve a variety of general aviation aircraft. Wasco State Airport consists of one runway, one taxiway, multiple connector taxiways, taxilanes, and several aprons. The types of airside pavements include asphalt concrete (AC) and surfaced-treated (ST) pavements.

The current airport pavement management system (APMS) network at Wasco State Airport has an approximate area of 468,000 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 a pavement system and has a distinct function. For airports, branches typically consist of individual runways, taxiways, and aprons. The current pavement network for Wasco 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 Wasco State Airport contains 13 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 $5,000 \pm 2,000$ square feet. 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:

$$n = \frac{N \times s^2}{\left(\frac{e^2}{4}\right)(N-1) + s^2} \quad \text{(Equation 1)}$$

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 Wasco 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 Wasco 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 – WASCO AIRPORT PAVEMENT BRANCHES

Facility Designation (Branch ID)	Branch Name	Number of Sections	Approximate Area, square feet
A01WA	Apron 01 Wasco	1	28,073
A02WA	Apron 02 Wasco	1	21,773
A03WA	Apron 03 Wasco	1	3,653
A04WA	Apron 04 Wasco	1	13,750
A05WA	Apron 05 Wasco	3	41,115
R07WA	Runway 07/25 Wasco	1	207,027
T01WA	Taxiway 01 Wasco	1	44,668
T02WA	Taxiway 02 Wasco	1	5,371
T03WA	Taxiway 03 Wasco	1	25,110
T04WA	Taxiway 04 Wasco	2	77,460

Table 2A - WASCO 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
A01WA	Apron 01 Wasco	APRON	01	TO1-01	T01-01	P	300	90	28,073	8/3/1987	ST
A02WA	Apron 02 Wasco	APRON	01	T01-01	T01-01	P	300	70	21,773	8/4/1988	ST
A03WA	Apron 03 Wasco	APRON	01	T03	R07	S	100	33	3,653	8/4/1987	ST
A04WA	Apron 04 Wasco	APRON	01	T03	EDGE	S	275	50	13,750	8/2/1970	ST
A05WA	Apron 05 Wasco	APRON	01	T03-02	T03-02	S	54	80	4,320	8/1/1970	AC
A05WA	Apron 05 Wasco	APRON	02	T03-02	T03-02	S	54	80	4,320	8/2/1970	AC
A05WA	Apron 05 Wasco	APRON	03	A05-01	TIE-DOWNS	S	325	95	32,475	9/2/1919	AC
R07WA	Runway 07/25 Wasco	RUNWAY	01	T03	R25 END	P	3,450	60	207,027	8/4/1987	ST
T01WA	Taxiway 01 Wasco	TAXIWAY	01	R07-01	R07-01	P	1,480	30	44,668	8/4/1988	ST
T02WA	Taxiway 02 Wasco	TAXIWAY	01	R07-01	T01-01	P	108	30	5,371	8/4/1987	ST
T03WA	Taxiway 03 Wasco	TAXIWAY	01	R07-01	T04-01	S	768	30	25,110	8/4/1987	ST
T04WA	Taxiway 04 Wasco	TAXIWAY	01	T02-01	T03-02	S	1,846	30	46,380	9/1/1995	AC
T04WA	Taxiway 04 Wasco	TAXIWAY	02	T03-01	A05-01	S	1,336	30	31,080	8/2/1970	AC

Abbreviations:

P = Primary pavement, S = Secondary pavement, AC = Asphalt Concrete, ST = Surface Treatment

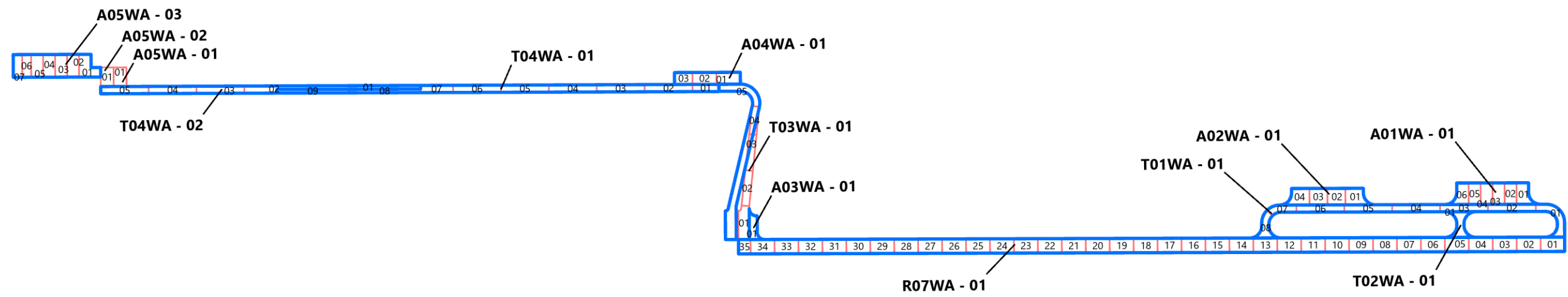
Note:

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

Table 3A: EXAMPLE SAMPLE RATES FOR AC PAVEMENTS

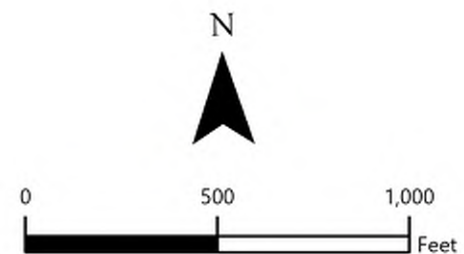
AC Sampling Rate	
Total Number of Sample Units, N	Sample Units to Survey, n
1	1
2-3	2
4-6	3
7-13	4
14-38	5
39+	6

Note: AC = Asphalt Concret



 SECTION

 SAMPLE UNIT



SAMPLE UNIT LAYOUT WASCO STATE AIRPORT

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		
PAVER Code	Pavement Distress	Related Cause
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

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

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 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.

- **Climate- and durability-related:** Flexible pavement distresses include bleeding, block cracking, joint reflection cracking, longitudinal and transverse (L&T) cracking, swelling, and raveling/weathering.
- **Moisture- and drainage-related:** Flexible pavement distresses include alligator/fatigue cracking, depressions, potholes, and swelling.
- **Other factors:** Oil spillage, jet blast erosion, bleeding, patching.

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 Wasco State Airport pavement network consists of 10 branches and 13 sections. A total of 36 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 Wasco State Airport is approximately 61, which corresponds to a PCI rating of Fair.

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 Wasco State Airport pavement sections is outlined in Table 4B in this appendix.

Table 2B - WASCO AIRPORT CURRENT BRANCH CONDITION REPORT

Branch ID	Number of Sections	Approximate Area, square feet	Use	Area Weighted Average Branch PCI	PCI Category
A01WA	1	28,073	APRON	60	Fair
A02WA	1	21,773	APRON	56	Fair
A03WA	1	3,653	APRON	59	Fair
A04WA	1	13,750	APRON	63	Fair
A05WA	3	41,115	APRON	2	Failed
R07WA	1	207,027	RUNWAY	60	Fair
T01WA	1	44,668	TAXIWAY	60	Fair
T02WA	1	5,371	TAXIWAY	59	Fair
T03WA	1	25,110	TAXIWAY	59	Fair
T04WA	2	77,460	TAXIWAY	100	Good

Use Category	Number of Sections	Total Area, square feet	Area Weighted Average PCI
APRON	7	108,364	37
RUNWAY	1	207,027	60
TAXIWAY	5	152,609	80
ALL	13	468,000	61

Abbreviation: PCI = Pavement Condition Index

Table 3B - WASCO AIRPORT 2022 PAVEMENT CONDITION INDEX SURVEY RESULTS

BranchID	SectionID	Last Construction Date	Surface Type	Use	Last Inspection Date	Age at Inspection	PCI	PCI Category	PCI % Climate	PCI % Load	PCI % Other
A01WA	01	8/3/1987	ST	APRON	7/1/2022	35	60	Fair	100	0	0
A02WA	01	8/4/1988	ST	APRON	7/1/2022	34	56	Fair	100	0	0
A03WA	01	8/4/1987	ST	APRON	7/1/2022	35	59	Fair	100	0	0
A04WA	01	8/2/1970	ST	APRON	7/1/2022	52	63	Fair	100	0	0
A05WA	01	8/1/1970	AC	APRON	7/1/2022	52	16	Serious	44	56	0
A05WA	02	8/2/1970	AC	APRON	7/1/2022	52	0	Failed	41	59	0
A05WA	03	9/2/1919	AC	APRON	7/1/2022	103	0	Failed	41	59	0
R07WA	01	8/4/1987	ST	RUNWAY	7/1/2022	35	60	Fair	100	0	0
T01WA	01	8/4/1988	ST	TAXIWAY	7/1/2022	34	60	Fair	100	0	0
T02WA	01	8/4/1987	ST	TAXIWAY	7/1/2022	35	59	Fair	100	0	0
T03WA	01	8/4/1987	ST	TAXIWAY	7/1/2022	35	59	Fair	100	0	0
T04WA	01	9/1/1995	AC	TAXIWAY	7/1/2022	27	100	Good	100	0	0
T04WA	02	8/2/1970	AC	TAXIWAY	7/1/2022	52	100	Good	100	0	0

Abbreviations:

PCI = Pavement Condition Index, AC = Asphalt Concrete, ST = Surface Treatment

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

Branch ID	Section ID	Surface Type ¹	Approximate Area, square feet	LCD ²	2017 Survey			2022 Survey		Age ³	Δ PCI/yr ⁴	Rate of Deterioration
					PCI	PCI Category	Insp. Date	PCI	PCI Category			
A01WA	01	ST	28,073	8/3/1987	69	Fair	6/9/2017	60	Fair	30	-1.78	NORMAL
A02WA	01	ST	21,773	8/4/1988	58	Fair	6/9/2017	56	Fair	29	-0.40	NORMAL
A03WA	01	ST	3,653	8/4/1987	64	Fair	6/9/2017	59	Fair	30	-0.99	NORMAL
A04WA	01	ST	13,750	8/2/1970	77	Satisfactory	6/9/2017	63	Fair	47	-2.77	NORMAL
A05WA	01	AC	4,320	8/1/1970	64	Fair	6/9/2017	16	Serious	47	-9.48	HIGH
A05WA	02	AC	4,320	8/2/1970	7	Failed	6/9/2017	0	Failed	47	-1.38	NORMAL
A05WA	03	AC	32,475	9/2/1919	13	Serious	6/9/2017	0	Failed	98	-2.57	NORMAL
R07WA	01	ST	207,027	8/4/1987	71	Satisfactory	6/9/2017	60	Fair	30	-2.17	NORMAL
T01WA	01	ST	44,668	8/4/1988	64	Fair	6/9/2017	60	Fair	29	-0.79	NORMAL
T02WA	01	ST	5,371	8/4/1987	67	Fair	6/9/2017	59	Fair	30	-1.58	NORMAL
T03WA	01	ST	25,110	8/4/1987	64	Fair	6/9/2017	59	Fair	30	-0.99	NORMAL
T04WA	01	AC	46,380	9/1/1995	4	Failed	6/9/2017	100	Good	22	18.96	NONE
T04WA	02	AC	31,080	8/2/1970	2	Failed	6/9/2017	100	Good	47	19.36	NONE

Abbreviations:

¹ PCI = Pavement Condition Index, AC = Asphalt Concrete, ST = Surface Treatment

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

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 Wasco State Airport. The delineation is based on branch use, surface type, section rank, and structural design life. We use five distinct models for the following “families” of pavements at Wasco 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 3C below.

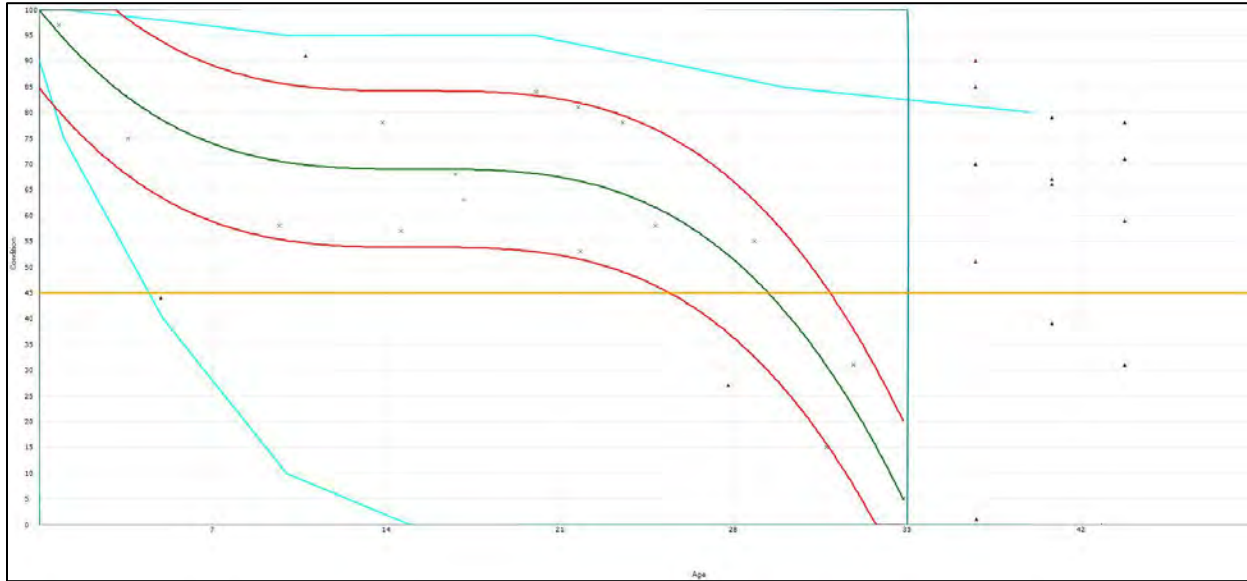


Figure 1C - CONDITION PREDICTION MODEL FOR EASTERN CATEGORY 5 AC AND AAC APRONS

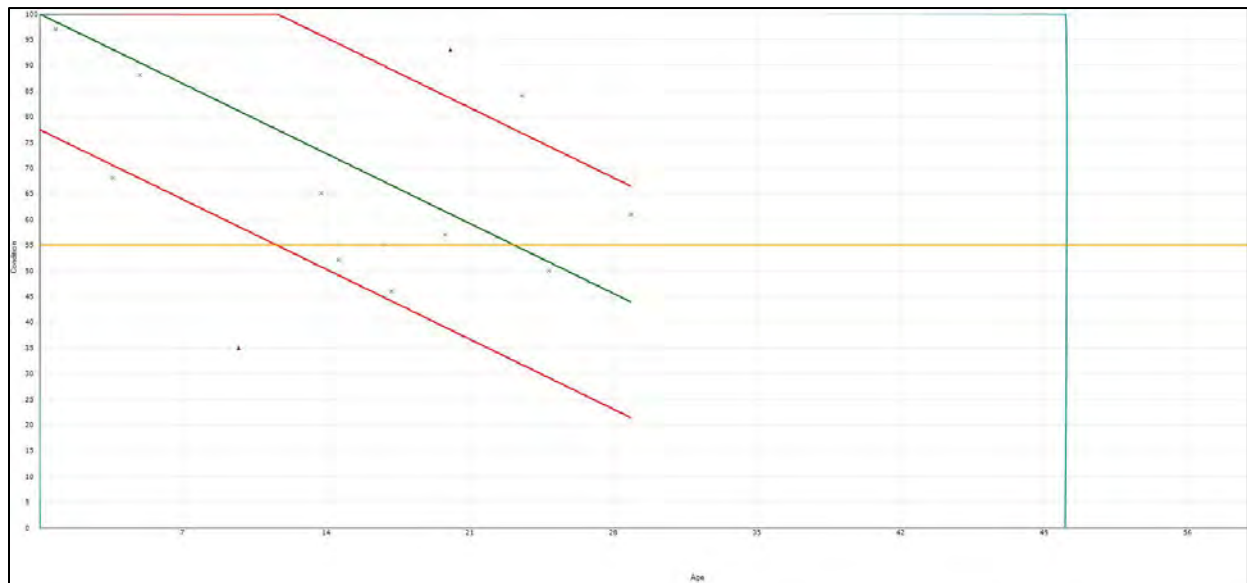


Figure 2C - CONDITION PREDICTION MODEL FOR EASTERN CATEGORY 5 AC AND AAC RUNWAYS

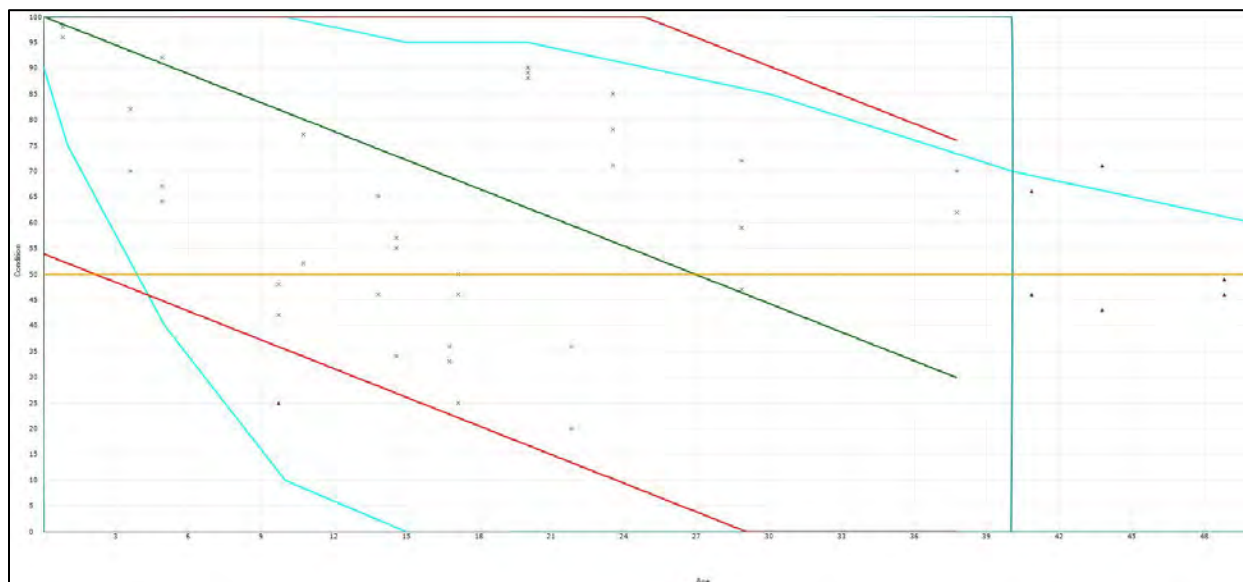


Figure 3C - CONDITION PREDICTION MODEL FOR EASTERN CATEGORY 5 AAC TAXIWAYS

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 Wasco State Airport:

- Runways – 55
- Taxiways/Taxilanes – 50
- Aprons – 45

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 Wasco 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 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 Wasco 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	Current PCI	Predicted Future PCI	
		2017	2022	2027	2032
A01WA	01	69	60	50	40
A02WA	01	58	56	46	36
A03WA	01	64	59	49	39
A04WA	01	77	63	53	43
A05WA	01	64	16	6	0
A05WA	02	7	0	0	0
A05WA	03	13	0	0	0
R07WA	01	71	60	53	46
T01WA	01	64	60	53	45
T02WA	01	67	59	52	44
T03WA	01	64	59	52	44
T04WA	01	4	100	93	85
T04WA	02	2	100	93	85

Abbreviation: PCI = Pavement Condition Index

Table 2C - WASCO 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
A01WA	01	ST	60	0 - 5	50	6 - 10
A02WA	01	ST	56	0 - 5	50	6 - 10
A03WA	01	ST	59	0 - 5	50	6 - 10
A04WA	01	ST	63	6 - 10	50	11 - 15
A05WA	01	AC	16	0 - 5	50	0 - 5
A05WA	02	AC	0	0 - 5	50	0 - 5
A05WA	03	AC	0	0 - 5	50	0 - 5
R07WA	01	ST	60	0 - 5	60	11 - 15
T01WA	01	ST	60	0 - 5	55	11 - 15
T02WA	01	ST	59	0 - 5	55	11 - 15
T03WA	01	ST	59	0 - 5	55	11 - 15
T04WA	01	AC	100	> 20	55	> 20
T04WA	02	AC	100	> 20	55	> 20

Abbreviations:

PCI = Pavement Condition Index; AC = Asphalt Concrete, ST = Surface Treatment

¹ Major M&R (Maintenance and Rehabilitation) Trigger PCI = Critical PCI

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 Wasco 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 Wasco 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 Wasco 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: WASCO 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 - WASCO AIRPORT NETWORK MAINTENANCE REPORT

Network	Branch ID	Section ID	Distress	Severity	Action	Work Quantity	Unit	Unit Cost	Work Cost	Section Total
Wasco	A01WA	01	Block Cracking	Low	Crack Sealing - AC	1,371	Ft	\$2.40	\$3,292	\$3,292
Wasco	A02WA	01	Block Cracking	Low	Crack Sealing - AC	6,017	Ft	\$2.40	\$14,440	\$15,927
Wasco	A02WA	01	Block Cracking	Medium	Crack Sealing - AC	620	Ft	\$2.40	\$1,488	
Wasco	A03WA	01	Block Cracking	Low	Crack Sealing - AC	1,114	Ft	\$2.40	\$2,672	\$2,672
Wasco	A04WA	01	Long. & Transv. Cracking	Medium	Crack Sealing - AC	1,079	Ft	\$2.40	\$2,590	\$2,590
Wasco	A05WA	01	Block Cracking	Medium	Crack Sealing - AC	1,183	Ft	\$2.40	\$2,838	\$34,544
Wasco	A05WA	01	Alligator Cracking	High	Patching - AC Deep	529	SqFt	\$60.00	\$31,706	
Wasco	A05WA	02	Long. & Transv. Cracking	Medium	Crack Sealing - AC	20	Ft	\$2.40	\$48	\$255,561
Wasco	A05WA	02	Alligator Cracking	High	Patching - AC Deep	4,258	SqFt	\$60.00	\$255,513	
Wasco	A05WA	03	Alligator Cracking	High	Patching - AC Deep	33,205	SqFt	\$60.00	\$1,992,259	\$1,992,259
Wasco	R07WA	01	Block Cracking	Medium	Crack Sealing - AC	3,506	Ft	\$2.40	\$8,414	\$126,203
Wasco	R07WA	01	Block Cracking	Low	Crack Sealing - AC	49,079	Ft	\$2.40	\$117,790	
Wasco	T01WA	01	Block Cracking	Low	Crack Sealing - AC	13,234	Ft	\$2.40	\$31,762	\$31,762
Wasco	T02WA	01	Block Cracking	Low	Crack Sealing - AC	1,637	Ft	\$2.40	\$3,929	\$3,929
Wasco	T03WA	01	Block Cracking	Low	Crack Sealing - AC	7,654	Ft	\$2.40	\$18,368	\$18,368

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	T01WA	01	TAXIWAY	ST	60	Slurry Seal	44,668	\$0.40	\$17,867
	A05WA	01	APRON	AC	16	Reconstruction	4,320	\$13.32	\$57,544
2025	A05WA	02	APRON	AC	0	Reconstruction	4,320	\$13.32	\$57,544
	A05WA	03	APRON	AC	0	Reconstruction	32,475	\$13.32	\$432,581
2026	R07WA	01	RUNWAY	ST	60	Overlay	207,027	\$5.88	\$1,217,284
	A01WA	01	APRON	ST	60	Fog Seal	28,073	\$0.24	\$6,737
2027	A03WA	01	APRON	ST	59	Fog Seal	3,653	\$0.24	\$877
	A04WA	01	APRON	ST	63	Fog Seal	13,750	\$0.24	\$3,300
	A02WA	01	APRON	ST	56	Overlay	21,773	\$5.90	\$128,508
2028	T02WA	01	TAXIWAY	ST	59	Overlay	5,371	\$5.88	\$31,581
	T03WA	01	TAXIWAY	ST	59	Overlay	25,110	\$5.88	\$147,643

Abbreviations:

PCI = Pavement Condition Index, AC = Asphalt Concrete, ST = Surface Treated

Cost Summary	
2024 Total Project Cost	\$17,867
2025 Total Project Cost	\$547,670
2026 Total Project Cost	\$1,217,284
2027 Total Project Cost	\$10,914
2028 Total Project Cost	\$307,731
Total 5-Year Project Cost	\$2,101,466

APPENDIX E

Reinspection Report

Re-Inspection Report

ODA_WOC3_4-10-2023_PostWHEdits_4PM

Generated Date 4/13/2023

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Network:	Wasco		Name:	Wasco State				
Branch:	A01WA	Name:	Apron 01 Wasco		Use:	APRON		
Area:	28,073 SqFt							
Section:	01	of	1	From:	TO1-01	To:	T01-01	
Last Const.:	8/3/1987							
Surface:	ST	Family:	2022_Eastern_Cat4_Apron_AC/AAC		Zone:	35S	Category:	K
Rank:	P							
Area:	28,073 SqFt	Length:	300 Ft	Width:	90 Ft			
Slabs:		Slab Length:	Ft	Slab Width:	Ft	Joint Length:	Ft	
Shoulder:		Street Type:		Grade:	0	Lanes:	0	
Section Comments:								
Work Date:	8/1/1987	Work Type:	Subgrade-Geotextile		Code:	SG-GE	Is Major M&R:	True
Work Date:	8/1/1987	Work Type:	Subbase - Aggregate		Code:	SB-AG	Is Major M&R:	True
Work Date:	8/2/1987	Work Type:	Base Course - Aggregate		Code:	BA-AG	Is Major M&R:	True
Work Date:	8/3/1987	Work Type:	Surface Course - Triple Bitum.		Code:	SU-TB	Is Major M&R:	True
Work Date:	8/1/1988	Work Type:	Surface Seal - Coal Tar		Code:	SS-CT	Is Major M&R:	False
Work Date:	9/1/2000	Work Type:	Surface Seal - Fog Seal		Code:	SS-FS	Is Major M&R:	False
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:	6	Surveyed:	3			
Conditions:	PCI:	60						
Inspection Comments:								
Sample Number:	01	Type:	R	Area:	5037.00 SqFt	PCI:	65	
Sample Comments:	Created by Inspection Schedule							
52	RAVELING	L	4037.00	SqFt				
52	RAVELING	M	1000.00	SqFt				
Sample Number:	03	Type:	R	Area:	4500.00 SqFt	PCI:	46	
Sample Comments:	Created by Inspection Schedule							
43	BLOCK CR	L	2250.00	SqFt				
52	RAVELING	M	2250.00	SqFt				
57	WEATHERING	M	2250.00	SqFt				
Sample Number:	05	Type:	R	Area:	4500.00 SqFt	PCI:	69	
Sample Comments:	Created by Inspection Schedule							
52	RAVELING	L	4000.00	SqFt				
52	RAVELING	M	500.00	SqFt				

Network:	Wasco		Name:	Wasco State								
Branch:	A02WA		Name:	Apron 02 Wasco		Use:	APRON	Area:	21,773 SqFt			
Section:	01	of 1	From:	T01-01			To:	T01-01		Last Const.:	8/4/1988	
Surface:	ST	Family:	2022_Eastern_Cat4_Apron_AC/AAC		Zone:	35S		Category:	K		Rank:	P
Area:	21,773 SqFt		Length:	300 Ft		Width:	70 Ft					
Slabs:	Slab Length:		Ft		Slab Width:	Ft		Joint Length:	Ft			
Shoulder:	Street Type:				Grade:	0		Lanes:	0			
Section Comments:												
Work Date:	8/1/1988		Work Type: Subgrade-Geotextile				Code:	SG-GE		Is Major M&R:	True	
Work Date:	8/2/1988		Work Type: Subbase - Aggregate				Code:	SB-AG		Is Major M&R:	True	
Work Date:	8/3/1988		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R:	True	
Work Date:	8/4/1988		Work Type: Surface Course - Triple Bitum.				Code:	SU-TB		Is Major M&R:	True	
Work Date:	9/1/2000		Work Type: Surface Seal - Fog Seal				Code:	SS-FS		Is Major M&R:	False	
Work Date:	9/1/2008		Work Type: Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False	
Work Date:	9/2/2008		Work Type: Surface Treatment - Slurry Seal				Code:	ST-SS		Is Major M&R:	False	
Work Date:	9/1/2012		Work Type: Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False	
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:	4		Surveyed:	3					
Conditions:	PCI:	56										
Inspection Comments:												
Sample Number:	01	Type:	R	Area:	5711.00 SqFt		PCI:	55				
Sample Comments: Created by Inspection Schedule												
43	BLOCK CR	L	5211.00	SqFt								
43	BLOCK CR	M	500.00	SqFt								
57	WEATHERING	L	5711.00	SqFt								
Sample Number:	02	Type:	R	Area:	5175.00 SqFt		PCI:	56				
Sample Comments: Created by Inspection Schedule												
43	BLOCK CR	L	4675.00	SqFt								
43	BLOCK CR	M	500.00	SqFt								
57	WEATHERING	L	5175.00	SqFt								
Sample Number:	03	Type:	R	Area:	5175.00 SqFt		PCI:	56				
Sample Comments: Created by Inspection Schedule												
43	BLOCK CR	L	4675.00	SqFt								
43	BLOCK CR	M	500.00	SqFt								
57	WEATHERING	L	5175.00	SqFt								

Network:	Wasco	Name:	Wasco State						
Branch:	A03WA	Name:	Apron 03 Wasco	Use:	APRON	Area:	3,653 SqFt		
Section:	01	of	1	From:	T03	To:	R07	Last Const.:	8/4/1987
Surface:	ST	Family:	2022_Eastern_Cat4_Apron_AC/AAC	Zone:	35S	Category:	K	Rank:	S
Area:	3,653 SqFt	Length:	100 Ft	Width:	33 Ft				
Slabs:	Slab Length:	Ft	Slab Width:	Ft	Joint Length:	Ft			
Shoulder:	Street Type:	Grade:	0	Lanes:	0				
Section Comments:									
Work Date:	8/1/1987	Work Type:	Subgrade-Geotextile	Code:	SG-GE	Is Major M&R:	True		
Work Date:	8/2/1987	Work Type:	Subbase - Aggregate	Code:	SB-AG	Is Major M&R:	True		
Work Date:	8/3/1987	Work Type:	Base Course - Aggregate	Code:	BA-AG	Is Major M&R:	True		
Work Date:	8/4/1987	Work Type:	Surface Course - Triple Bitum.	Code:	SU-TB	Is Major M&R:	True		
Work Date:	9/1/2000	Work Type:	Surface Seal - Fog Seal	Code:	SS-FS	Is Major M&R:	False		
Work Date:	9/1/2008	Work Type:	Crack Sealing - AC	Code:	CS-AC	Is Major M&R:	False		
Work Date:	9/2/2008	Work Type:	Surface Treatment - Slurry Seal	Code:	ST-SS	Is Major M&R:	False		
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:	59							
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	3653.00 SqFt	PCI:	59		
Sample Comments:	Created by Inspection Schedule								
43	BLOCK CR	L	3653.00	SqFt					
57	WEATHERING	L	3653.00	SqFt					

Network:	Wasco			Name:	Wasco State									
Branch:	A04WA			Name:	Apron 04 Wasco			Use:	APRON		Area:	13,750 SqFt		
Section:	01	of 1		From:	T03			To:	EDGE		Last Const.:	8/2/1970		
Surface:	ST	Family:	2022_Eastern_Cat4_Apron_AC/AAC		Zone:	35S			Category:	K		Rank:	S	
Area:	13,750 SqFt			Length:	275 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:	8/1/1970			Work Type: Base Course - Unknown (Major MR)					Code:	BA-UN		Is Major M&R:	True	
Work Date:	8/2/1970			Work Type: Surface Course - BST					Code:	SU-SB		Is Major M&R:	True	
Work Date:	9/1/2008			Work Type: Crack Sealing - AC					Code:	CS-AC		Is Major M&R:	False	
Work Date:	9/2/2008			Work Type: Surface Treatment - Slurry Seal					Code:	ST-SS		Is Major M&R:	False	
Work Date:	9/1/2012			Work Type: Crack Sealing - AC					Code:	CS-AC		Is Major M&R:	False	
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:	3			Surveyed: 2						
Conditions:	PCI: 63													
Inspection Comments:														
Sample Number:	01	Type:	R	Area:	5000.00 SqFt			PCI:	66					
Sample Comments:	Created by Inspection Schedule													
48	L & T CR		M	15.00 Ft										
48	L & T CR		M	100.00 Ft										
48	L & T CR		M	100.00 Ft										
48	L & T CR		M	100.00 Ft										
57	WEATHERING		L	5000.00 SqFt										
Sample Number:	02	Type:	R	Area:	5000.00 SqFt			PCI:	60					
Sample Comments:	Created by Inspection Schedule													
48	L & T CR		M	160.00 Ft										
48	L & T CR		M	10.00 Ft										
48	L & T CR		M	300.00 Ft										
57	WEATHERING		L	5000.00 SqFt										

Network:		Wasco		Name:		Wasco State			
Branch:	A05WA		Name:	Apron 05 Wasco		Use:	APRON	Area:	41,115 SqFt
Section:	02	of 3	From:	T03-02		To:	T03-02		Last Const.: 8/2/1970
Surface:	AC	Family:	2022_Eastern_Cat4_Apron_AC/AAC		Zone:	35S	Category:	K	Rank: S
Area:	4,320 SqFt		Length:	54 Ft		Width:	80 Ft		
Slabs:	Slab Length:		Ft		Slab Width:	Ft		Joint Length:	Ft
Shoulder:	Street Type:				Grade:	0		Lanes:	0
Section Comments:									
Work Date:	8/1/1970		Work Type: Base Course - Unknown (Major MR)				Code:	BA-UN	Is Major M&R: True
Work Date:	8/2/1970		Work Type: New Construction - AC				Code:	NC-AC	Is Major M&R: True
Last Insp. Date:	7/1/2022		TotalSamples:	1		Surveyed:	1		
Conditions:	PCI: 0								
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	4320.00 SqFt		PCI:	0	
Sample Comments:	Created by Inspection Schedule								
41	ALLIGATOR CR		H	4000.00 SqFt					
48	L & T CR		M	10.00 Ft					
48	L & T CR		M	10.00 Ft					
52	RAVELING		H	1000.00 SqFt					

Network:		Wasco		Name:		Wasco State																									
Branch:		A05WA		Name:		Apron 05 Wasco		Use:		APRON		Area:		41,115 SqFt																	
Section:		01		of		3		From:		T03-02		To:		T03-02		Last Const.:		8/1/1970													
Surface:		AC		Family:		2022_Eastern_Cat4_Apron_AC/AAC		Zone:		35S		Category:		K		Rank:		S													
Area:		4,320 SqFt		Length:		54 Ft		Width:		80 Ft																					
Slabs:				Slab Length:		Ft		Slab Width:		Ft		Joint Length:		Ft																	
Shoulder:				Street Type:				Grade:		0		Lanes:		0																	
Section Comments:																															
Work Date:				8/1/1970				Work Type:				New Construction - AC				Code:				NC-AC				Is Major M&R:				True			
Work Date:				8/2/1970				Work Type:				Surface Treatment - Slurry Seal				Code:				ST-SS				Is Major M&R:				False			
Last Insp. Date:				7/1/2022				TotalSamples:				1				Surveyed:				1											
Conditions:				PCI:				16																							
Inspection Comments:																															
Sample Number:		01		Type:		R		Area:		4320.00 SqFt		PCI:		16																	
Sample Comments: Created by Inspection Schedule																															
41		ALLIGATOR CR		H		440.00		SqFt																							
43		BLOCK CR		M		3880.00		SqFt																							
57		WEATHERING		L		4320.00		SqFt																							

Network:	Wasco			Name:	Wasco State				
Branch:	A05WA		Name:	Apron 05 Wasco		Use:	APRON	Area:	41,115 SqFt
Section:	03	of	3	From:	A05-01		To:	TIE-DOWNS	Last Const.: 9/2/1919
Surface:	AC	Family:	2022_Eastern_Cat4_Apron_AC/AAC		Zone:	35S	Category:	K	Rank: S
Area:	32,475 SqFt		Length:	325 Ft		Width:	95 Ft		
Slabs:	Slab Length:		Ft		Slab Width:		Ft		Joint Length: Ft
Shoulder:	Street Type:				Grade:	0	Lanes:	0	
Section Comments:									
Work Date:	9/1/1919		Work Type: Base Course - Unknown (Major MR)				Code:	BA-UN	Is Major M&R: True
Work Date:	9/2/1919		Work Type: New Construction - AC				Code:	NC-AC	Is Major M&R: True
Last Insp. Date:	7/1/2022		TotalSamples:	7		Surveyed:	4		
Conditions:	PCI: 0								
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	6350.00 SqFt		PCI:	0	
Sample Comments:	Created by Inspection Schedule								
41	ALLIGATOR CR	H	6350.00	SqFt					
52	RAVELING	H	6350.00	SqFt					
Sample Number:	02	Type:	R	Area:	4750.00 SqFt		PCI:	0	
Sample Comments:	Created by Inspection Schedule								
41	ALLIGATOR CR	H	4750.00	SqFt					
52	RAVELING	H	4750.00	SqFt					
Sample Number:	03	Type:	R	Area:	4750.00 SqFt		PCI:	0	
Sample Comments:	Created by Inspection Schedule								
41	ALLIGATOR CR	H	4750.00	SqFt					
52	RAVELING	H	4750.00	SqFt					
Sample Number:	04	Type:	R	Area:	4750.00 SqFt		PCI:	0	
Sample Comments:	Created by Inspection Schedule								
41	ALLIGATOR CR	H	4750.00	SqFt					
52	RAVELING	H	4750.00	SqFt					

Network:	Wasco			Name:	Wasco State				
Branch:	R07WA		Name:	Runway 07/25 Wasco		Use:	RUNWAY	Area:	207,027 SqFt
Section:	01	of	1	From:	T03		To:	R25 END	
Surface:	ST	Family:	2022_Eastern_Cat4_RW_AC/AAC		Zone:	35S	Category:	K	Last Const.: 8/4/1987
Area:	207,027 SqFt		Length:	3,450 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:	8/1/1987		Work Type: Subgrade-Geotextile				Code:	SG-GE	Is Major M&R: True
Work Date:	8/2/1987		Work Type: Subbase - Aggregate				Code:	SB-AG	Is Major M&R: True
Work Date:	8/3/1987		Work Type: Base Course - Aggregate				Code:	BA-AG	Is Major M&R: True
Work Date:	8/4/1987		Work Type: Surface Course - Triple Bitum.				Code:	SU-TB	Is Major M&R: True
Work Date:	9/1/2000		Work Type: Surface Seal - Fog Seal				Code:	SS-FS	Is Major M&R: False
Work Date:	9/1/2008		Work Type: Crack Sealing - AC				Code:	CS-AC	Is Major M&R: False
Work Date:	9/2/2008		Work Type: Surface Treatment - Slurry Seal				Code:	ST-SS	Is Major M&R: False
Work Date:	9/1/2012		Work Type: Crack Sealing - AC				Code:	CS-AC	Is Major M&R: False
Work Date:	9/1/2015		Work Type: Crack Sealing - AC				Code:	CS-AC	Is Major M&R: False
Work Date:	9/2/2015		Work Type: Surface Treatment - Slurry Seal				Code:	ST-SS	Is Major M&R: False
Last Insp. Date:	7/1/2022		TotalSamples:	35		Surveyed: 6			
Conditions:	PCI: 60								
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	6000.00 SqFt		PCI:	67	
Sample Comments: Created by Inspection Schedule									
43	BLOCK CR	L	3000.00	SqFt					
57	WEATHERING	L	6000.00	SqFt					
Sample Number:	05	Type:	R	Area:	6000.00 SqFt		PCI:	67	
Sample Comments: Created by Inspection Schedule									
43	BLOCK CR	L	3000.00	SqFt					
57	WEATHERING	L	6000.00	SqFt					
Sample Number:	13	Type:	R	Area:	6000.00 SqFt		PCI:	59	
Sample Comments: Created by Inspection Schedule									
43	BLOCK CR	L	6000.00	SqFt					
57	WEATHERING	L	6000.00	SqFt					
Sample Number:	21	Type:	R	Area:	6000.00 SqFt		PCI:	59	
Sample Comments: Created by Inspection Schedule									
43	BLOCK CR	L	6000.00	SqFt					
57	WEATHERING	L	6000.00	SqFt					
Sample Number:	28	Type:	R	Area:	6000.00 SqFt		PCI:	55	
Sample Comments: Created by Inspection Schedule									
43	BLOCK CR	L	5500.00	SqFt					
43	BLOCK CR	M	500.00	SqFt					
57	WEATHERING	L	6000.00	SqFt					
Sample Number:	33	Type:	R	Area:	6000.00 SqFt		PCI:	53	
Sample Comments: Created by Inspection Schedule									
43	BLOCK CR	L	4500.00	SqFt					
43	BLOCK CR	M	1500.00	SqFt					
57	WEATHERING	L	6000.00	SqFt					

Network:	Wasco			Name:	Wasco State				
Branch:	T01WA		Name:	Taxiway 01 Wasco		Use:	TAXIWAY	Area:	44,668 SqFt
Section:	01	of	1	From:	R07-01		To:	R07-01	
Surface:	ST	Family:	2022_Eastern_Cat4_Taxiway_AC/AAC		Zone:	35S	Category:	K	Last Const.: 8/4/1988
Area:	44,668 SqFt		Length:	1,480 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:	8/1/1988		Work Type: Subgrade-Geotextile				Code:	SG-GE	
Work Date:	8/2/1988		Work Type: Subbase - Aggregate				Code:	SB-AG	
Work Date:	8/3/1988		Work Type: Base Course - Aggregate				Code:	BA-AG	
Work Date:	8/4/1988		Work Type: Surface Course - Triple Bitum.				Code:	SU-TB	
Work Date:	9/1/2000		Work Type: Surface Seal - Fog Seal				Code:	SS-FS	
Work Date:	9/1/2008		Work Type: Crack Sealing - AC				Code:	CS-AC	
Work Date:	9/2/2008		Work Type: Surface Treatment - Slurry Seal				Code:	ST-SS	
Work Date:	9/1/2012		Work Type: Crack Sealing - AC				Code:	CS-AC	
Work Date:	9/1/2015		Work Type: Crack Sealing - AC				Code:	CS-AC	
Last Insp. Date:	7/1/2022		TotalSamples:	8		Surveyed:	4		
Conditions:	PCI: 60								
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	6690.00 SqFt		PCI:	61	
Sample Comments: Created by Inspection Schedule									
43	BLOCK CR	L	6000.00	SqFt					
57	WEATHERING	L	6000.00	SqFt					
Sample Number:	02	Type:	R	Area:	6000.00 SqFt		PCI:	59	
Sample Comments: Created by Inspection Schedule									
43	BLOCK CR	L	6000.00	SqFt					
57	WEATHERING	L	6000.00	SqFt					
Sample Number:	04	Type:	R	Area:	6000.00 SqFt		PCI:	59	
Sample Comments: Created by Inspection Schedule									
43	BLOCK CR	L	6000.00	SqFt					
57	WEATHERING	L	6000.00	SqFt					
Sample Number:	06	Type:	R	Area:	6000.00 SqFt		PCI:	59	
Sample Comments: Created by Inspection Schedule									
43	BLOCK CR	L	6000.00	SqFt					
57	WEATHERING	L	6000.00	SqFt					

Network:	Wasco	Name:	Wasco State						
Branch:	T02WA	Name:	Taxiway 02 Wasco	Use:	TAXIWAY	Area:	5,371 SqFt		
Section:	01	of	1	From:	R07-01	To:	T01-01	Last Const.:	8/4/1987
Surface:	ST	Family:	2022_Eastern_Cat4_Taxiway_AC/AAC	Zone:	35S	Category:	K	Rank:	P
Area:	5,371 SqFt	Length:	108 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:	8/1/1987	Work Type:	Subgrade-Geotextile	Code:	SG-GE	Is Major M&R:	True		
Work Date:	8/2/1987	Work Type:	Subbase - Aggregate	Code:	SB-AG	Is Major M&R:	True		
Work Date:	8/3/1987	Work Type:	Base Course - Aggregate	Code:	BA-AG	Is Major M&R:	True		
Work Date:	8/4/1987	Work Type:	Surface Course - Triple Bitum.	Code:	SU-TB	Is Major M&R:	True		
Work Date:	9/1/2000	Work Type:	Surface Seal - Fog Seal	Code:	SS-FS	Is Major M&R:	False		
Work Date:	9/1/2008	Work Type:	Crack Sealing - AC	Code:	CS-AC	Is Major M&R:	False		
Work Date:	9/2/2008	Work Type:	Surface Treatment - Slurry Seal	Code:	ST-SS	Is Major M&R:	False		
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:	59							
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	5371.00 SqFt	PCI:	59		
Sample Comments:	Created by Inspection Schedule								
43	BLOCK CR	L	5371.00	SqFt					
57	WEATHERING	L	5371.00	SqFt					

Network:	Wasco			Name:	Wasco State				
Branch:	T03WA		Name:	Taxiway 03 Wasco		Use:	TAXIWAY	Area:	25,110 SqFt
Section:	01	of	1	From:	R07-01		To:	T04-01	Last Const.: 8/4/1987
Surface:	ST	Family:	2022_Eastern_Cat4_Taxiway_AC/AAC		Zone:	35S	Category:	K	Rank: S
Area:	25,110 SqFt		Length:	768 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:	8/1/1987		Work Type: Subgrade-Geotextile				Code:	SG-GE	Is Major M&R: True
Work Date:	8/2/1987		Work Type: Subbase - Aggregate				Code:	SB-AG	Is Major M&R: True
Work Date:	8/3/1987		Work Type: Base Course - Aggregate				Code:	BA-AG	Is Major M&R: True
Work Date:	8/4/1987		Work Type: Surface Course - Triple Bitum.				Code:	SU-TB	Is Major M&R: True
Work Date:	9/1/2000		Work Type: Surface Seal - Fog Seal				Code:	SS-FS	Is Major M&R: False
Work Date:	9/1/2008		Work Type: Crack Sealing - AC				Code:	CS-AC	Is Major M&R: False
Work Date:	9/2/2008		Work Type: Surface Treatment - Slurry Seal				Code:	ST-SS	Is Major M&R: False
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:	5		Surveyed:	3		
Conditions:	PCI: 59								
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	6367.00 SqFt		PCI:	59	
Sample Comments:	Created by Inspection Schedule								
43	BLOCK CR	L	6367.00	SqFt					
57	WEATHERING	L	6367.00	SqFt					
Sample Number:	02	Type:	R	Area:	4500.00 SqFt		PCI:	59	
Sample Comments:	Created by Inspection Schedule								
43	BLOCK CR	L	4500.00	SqFt					
57	WEATHERING	L	4500.00	SqFt					
Sample Number:	03	Type:	R	Area:	4500.00 SqFt		PCI:	59	
Sample Comments:	Created by Inspection Schedule								
43	BLOCK CR	L	4500.00	SqFt					
57	WEATHERING	L	4500.00	SqFt					

Network:	Wasco	Name:	Wasco State								
Branch:	T04WA	Name:	Taxiway 04 Wasco		Use:	TAXIWAY	Area:	77,460 SqFt			
Section:	01	of	2	From:	T02-01	To:	T03-02	Last Const.:	9/1/1995		
Surface:	AC	Family:	2022_Eastern_Cat4_Taxiway_AC/AAC	Zone:	35S	Category:	K	Rank:	S		
Area:	46,380 SqFt		Length:	1,846 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:	8/1/1970		Work Type:			Base Course - Unknown (Major MR)		Code:	BA-UN	Is Major M&R:	True
Work Date:	8/2/1970		Work Type:			New Construction - AC		Code:	NC-AC	Is Major M&R:	True
Work Date:	9/1/1995		Work Type:			Overlay - Thin		Code:	OL-ACTH	Is Major M&R:	True
Work Date:	9/1/2021		Work Type:			Surface Treatment - Micro Surface		Code:	ST-MS	Is Major M&R:	False
Last Insp. Date:	7/1/2022		TotalSamples:	9		Surveyed:					4
Conditions:	PCI:	100									
Inspection Comments:											
Sample Number:	01	Type:	R	Area:	6000.00 SqFt		PCI:	100			
Sample Comments:	Created by Inspection Schedule										
<No Distress>											
Sample Number:	02	Type:	R	Area:	6000.00 SqFt		PCI:	100			
Sample Comments:	Created by Inspection Schedule										
<No Distress>											
Sample Number:	04	Type:	R	Area:	6000.00 SqFt		PCI:	100			
Sample Comments:	Created by Inspection Schedule										
<No Distress>											
Sample Number:	06	Type:	R	Area:	6000.00 SqFt		PCI:	100			
Sample Comments:	Created by Inspection Schedule										
<No Distress>											

Network:	Wasco	Name:	Wasco State								
Branch:	T04WA	Name:	Taxiway 04 Wasco		Use:	TAXIWAY	Area:	77,460 SqFt			
Section:	02	of 2	From:	T03-01		To:	A05-01		Last Const.:	8/2/1970	
Surface:	AC	Family:	2022_Eastern_Cat4_Taxiway_AC/AAC		Zone:	35S		Category:	K	Rank:	S
Area:	31,080 SqFt		Length:	1,336 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:	8/1/1970		Work Type: Base Course - Unknown (Major MR)				Code:	BA-UN		Is Major M&R:	True
Work Date:	8/2/1970		Work Type: New Construction - AC				Code:	NC-AC		Is Major M&R:	True
Work Date:	9/1/2021		Work Type: Surface Treatment - Micro Surface				Code:	ST-MS		Is Major M&R:	False
Last Insp. Date:	7/1/2022		TotalSamples:	5		Surveyed:	3				
Conditions:	PCI:	100									
Inspection Comments:											
Sample Number:	03	Type:	R	Area:	6000.00 SqFt		PCI:	100			
Sample Comments:	Created by Inspection Schedule										
<No Distress>											
Sample Number:	04	Type:	R	Area:	6000.00 SqFt		PCI:	100			
Sample Comments:	Created by Inspection Schedule										
<No Distress>											
Sample Number:	05	Type:	R	Area:	6000.00 SqFt		PCI:	100			
Sample Comments:	Created by Inspection Schedule										
<No Distress>											

APPENDIX F

Work History Report

4/13/2023

Work History Report

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Pavement Database: ODA_WOC3_4-10-2023_PostWHEdits_4PM

Network: Wasco State Branch: A01WA Apron 01 Wasco Section: 01 Surface:ST
 L.C.D. 8/3/1987 Use: APRON Rank: P Length: 300.00 (Ft) Width: 90.00 (Ft) True Area: 28073.00011 (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	<input type="checkbox"/>	PMP 2015
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	<input type="checkbox"/>	
8/1/1988	SS-CT	Surface Seal - Coal Tar	0.00	0.50	<input type="checkbox"/>	
8/3/1987	SU-TB	Surface Course - Triple Bitum.	0.00	1.00	<input checked="" type="checkbox"/>	
8/2/1987	BA-AG	Base Course - Aggregate	0.00	4.00	<input checked="" type="checkbox"/>	
8/1/1987	SB-AG	Subbase - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>	
8/1/1987	SG-GE	Subgrade-Geotextile	0.00	0.50	<input checked="" type="checkbox"/>	

Network: Wasco State Branch: A02WA Apron 02 Wasco Section: 01 Surface:ST
 L.C.D. 8/4/1988 Use: APRON Rank: P Length: 300.00 (Ft) Width: 70.00 (Ft) True Area: 21773.00000 (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	<input type="checkbox"/>	PMP 2015
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012
9/2/2008	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	<input type="checkbox"/>	
8/4/1988	SU-TB	Surface Course - Triple Bitum.	0.00	1.00	<input checked="" type="checkbox"/>	
8/3/1988	BA-AG	Base Course - Aggregate	0.00	4.00	<input checked="" type="checkbox"/>	
8/2/1988	SB-AG	Subbase - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>	
8/1/1988	SG-GE	Subgrade-Geotextile	0.00	0.50	<input checked="" type="checkbox"/>	

Network: Wasco State Branch: A03WA Apron 03 Wasco Section: 01 Surface:ST
 L.C.D. 8/4/1987 Use: APRON Rank: S Length: 100.00 (Ft) Width: 33.00 (Ft) True Area: 3653.000084 (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	<input type="checkbox"/>	PMP 2015
9/2/2008	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	<input type="checkbox"/>	
8/4/1987	SU-TB	Surface Course - Triple Bitum.	0.00	1.00	<input checked="" type="checkbox"/>	
8/3/1987	BA-AG	Base Course - Aggregate	0.00	4.00	<input checked="" type="checkbox"/>	
8/2/1987	SB-AG	Subbase - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>	
8/1/1987	SG-GE	Subgrade-Geotextile	0.00	0.50	<input checked="" type="checkbox"/>	

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Network: Wasco State		Branch: A04WA		Apron 04 Wasco		Section: 01	Surface: ST
L.C.D. 8/2/1970	Use: APRON	Rank: S	Length: 275.00 (Ft)	Width: 50.00 (Ft)	True Area: 13750.00000 (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	<input type="checkbox"/>	PMP 2015	
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012	
9/2/2008	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	PMP 2008	
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2008	
8/2/1970	SU-SB	Surface Course - BST	0.00	0.75	<input checked="" type="checkbox"/>		
8/1/1970	BA-UN	Base Course - Unknown (Major MR)	0.00	0.00	<input checked="" type="checkbox"/>		

Network: Wasco State		Branch: A05WA		Apron 05 Wasco		Section: 01	Surface: AC
L.C.D. 8/1/1970	Use: APRON	Rank: S	Length: 54.00 (Ft)	Width: 80.00 (Ft)	True Area: 4320.000108 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
8/2/1970	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	Unk. date	
8/1/1970	NC-AC	New Construction - AC	0.00	0.00	<input checked="" type="checkbox"/>	Unknown date and thickness	

Network: Wasco State		Branch: A05WA		Apron 05 Wasco		Section: 02	Surface: AC
L.C.D. 8/2/1970	Use: APRON	Rank: S	Length: 54.00 (Ft)	Width: 80.00 (Ft)	True Area: 4320.000108 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
8/2/1970	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>		
8/1/1970	BA-UN	Base Course - Unknown (Major MR)	0.00	0.00	<input checked="" type="checkbox"/>		

Network: Wasco State		Branch: A05WA		Apron 05 Wasco		Section: 03	Surface: AC
L.C.D. 9/2/1919	Use: APRON	Rank: S	Length: 325.00 (Ft)	Width: 95.00 (Ft)	True Area: 32475.00077 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/2/1919	NC-AC	New Construction - AC	0.00	0.00	<input checked="" type="checkbox"/>	unk. thickness	
9/1/1919	BA-UN	Base Course - Unknown (Major MR)	0.00	0.00	<input checked="" type="checkbox"/>		

Network: Wasco State		Branch: R07WA		Runway 07/25 Wa		Section: 01	Surface: ST
L.C.D. 8/4/1987	Use: RUNWAY	Rank: P	Length: 3,450.00 (Ft)	Width: 60.00 (Ft)	True Area: 207027.0000 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/2/2015	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	PMP 2015	
9/1/2015	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2015	
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012	
9/2/2008	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	PMP 2008	
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2008	
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	<input type="checkbox"/>		
8/4/1987	SU-TB	Surface Course - Triple Bitum.	0.00	1.00	<input checked="" type="checkbox"/>		
8/3/1987	BA-AG	Base Course - Aggregate	0.00	4.00	<input checked="" type="checkbox"/>		
8/2/1987	SB-AG	Subbase - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>		
8/1/1987	SG-GE	Subgrade-Geotextile	0.00	0.50	<input checked="" type="checkbox"/>		

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Network: Wasco State **Branch:** T01WA Taxiway 01 Wasco **Section:** 01 **Surface:** ST
L.C.D. 8/4/1988 **Use:** TAXIWAY **Rank:** P **Length:** 1,480.00 (Ft) **Width:** 30.00 (Ft) **True Area:** 44668.00111 (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	<input type="checkbox"/>	PMP 2015
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012
9/2/2008	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	<input type="checkbox"/>	
8/4/1988	SU-TB	Surface Course - Triple Bitum.	0.00	1.00	<input checked="" type="checkbox"/>	
8/3/1988	BA-AG	Base Course - Aggregate	0.00	4.00	<input checked="" type="checkbox"/>	
8/2/1988	SB-AG	Subbase - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>	
8/1/1988	SG-GE	Subgrade-Geotextile	0.00	0.50	<input checked="" type="checkbox"/>	

Network: Wasco State **Branch:** T02WA Taxiway 02 Wasco **Section:** 01 **Surface:** ST
L.C.D. 8/4/1987 **Use:** TAXIWAY **Rank:** P **Length:** 108.00 (Ft) **Width:** 30.00 (Ft) **True Area:** 5371.000089 (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	<input type="checkbox"/>	PMP 2015
9/2/2008	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	<input type="checkbox"/>	
8/4/1987	SU-TB	Surface Course - Triple Bitum.	0.00	1.00	<input checked="" type="checkbox"/>	
8/3/1987	BA-AG	Base Course - Aggregate	0.00	4.00	<input checked="" type="checkbox"/>	
8/2/1987	SB-AG	Subbase - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>	
8/1/1987	SG-GE	Subgrade-Geotextile	0.00	0.50	<input checked="" type="checkbox"/>	

Network: Wasco State **Branch:** T03WA Taxiway 03 Wasco **Section:** 01 **Surface:** ST
L.C.D. 8/4/1987 **Use:** TAXIWAY **Rank:** S **Length:** 768.00 (Ft) **Width:** 30.00 (Ft) **True Area:** 25110.00000 (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	<input type="checkbox"/>	PMP 2015
9/2/2008	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	<input type="checkbox"/>	
8/4/1987	SU-TB	Surface Course - Triple Bitum.	0.00	1.00	<input checked="" type="checkbox"/>	
8/3/1987	BA-AG	Base Course - Aggregate	0.00	4.00	<input checked="" type="checkbox"/>	
8/2/1987	SB-AG	Subbase - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>	
8/1/1987	SG-GE	Subgrade-Geotextile	0.00	0.50	<input checked="" type="checkbox"/>	

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Network: Wasco State		Branch: T04WA		Taxiway 04 Wasco		Section: 01	Surface: AC
L.C.D. 9/1/1995	Use: TAXIWAY	Rank: S	Length: 1,846.00 (Ft)	Width: 30.00 (Ft)	True Area: 46380.00001 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/1/2021	ST-MS	Surface Treatment - Micro Surface	16,233.00	0.00	<input type="checkbox"/>	Chip Seal	
9/1/1995	OL- ACTH	Overlay - Thin	0.00	0.50	<input checked="" type="checkbox"/>	VERY THIN OVERLAY	
8/2/1970	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>		
8/1/1970	BA-UN	Base Course - Unknown (Major MR)	0.00	0.00	<input checked="" type="checkbox"/>		

Network: Wasco State		Branch: T04WA		Taxiway 04 Wasco		Section: 02	Surface: AC
L.C.D. 8/2/1970	Use: TAXIWAY	Rank: S	Length: 1,336.00 (Ft)	Width: 30.00 (Ft)	True Area: 31080.00096 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/1/2021	ST-MS	Surface Treatment - Micro Surface	10,878.00	0.00	<input type="checkbox"/>	Chip Seal	
8/2/1970	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>		
8/1/1970	BA-UN	Base Course - Unknown (Major MR)	0.00	0.00	<input checked="" type="checkbox"/>		

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
Base Course - Unknown (Major MR)	5	128,005.00	0.00	0.00
Base Course - Aggregate	7	335,675.00	4.00	0.00
Crack Sealing - AC	19	957,995.00	0.00	0.00
New Construction - AC	5	118,575.00	1.20	0.98
Overlay - Thin	1	46,380.00	0.50	0.00
Subbase - Aggregate	7	335,675.00	6.00	0.00
Subgrade-Geotextile	7	335,675.00	0.50	0.00
Surface Course - BST	1	13,750.00	0.75	0.00
Surface Course - Triple Bitum.	7	335,675.00	1.00	0.00
Surface Seal - Coal Tar	1	28,073.00	0.50	0.00
Surface Seal - Fog Seal	7	335,675.00	0.10	0.00
Surface Treatment - Micro Surface	2	77,460.00	0.00	0.00
Surface Treatment - Slurry Seal	9	532,699.00	0.00	0.00