

2022 ODA Pavement Evaluation Program Chiloquin State Airport

Chiloquin, 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 Chiloquin State Airport in Chiloquin, 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 Chiloquin 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

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

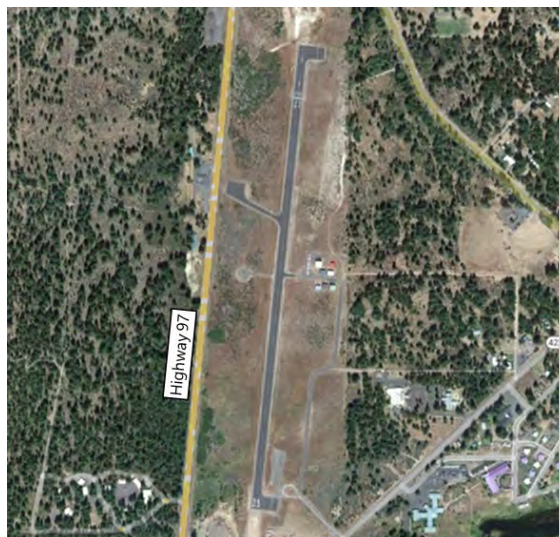


Figure 2.1 – CHILOQUIN STATE AIRPORT LOCATION MAP

Chiloquin Airport contains one runway and multiple connector taxiways and aprons. The airside pavements are surfaced with asphalt concrete (AC). The airport pavements, delineated by surface type and branch use, are shown on the Chiloquin Airport Percent of Total Pavement Area by Surface Type, Figure 2.2 and the Chiloquin Airport Pavement Area by Branch Use, Figure 2.3. The pavement inventory, including work history for each pavement section, is displayed spatially on the Chiloquin 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, Appendix F.

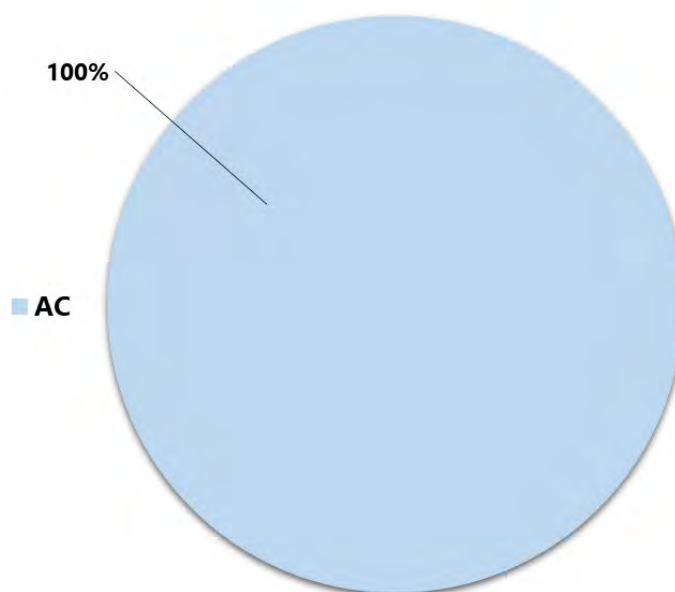


Figure 2.2 – CHILOQUIN AIRPORT PERCENT OF TOTAL PAVEMENT AREA BY SURFACE TYPE

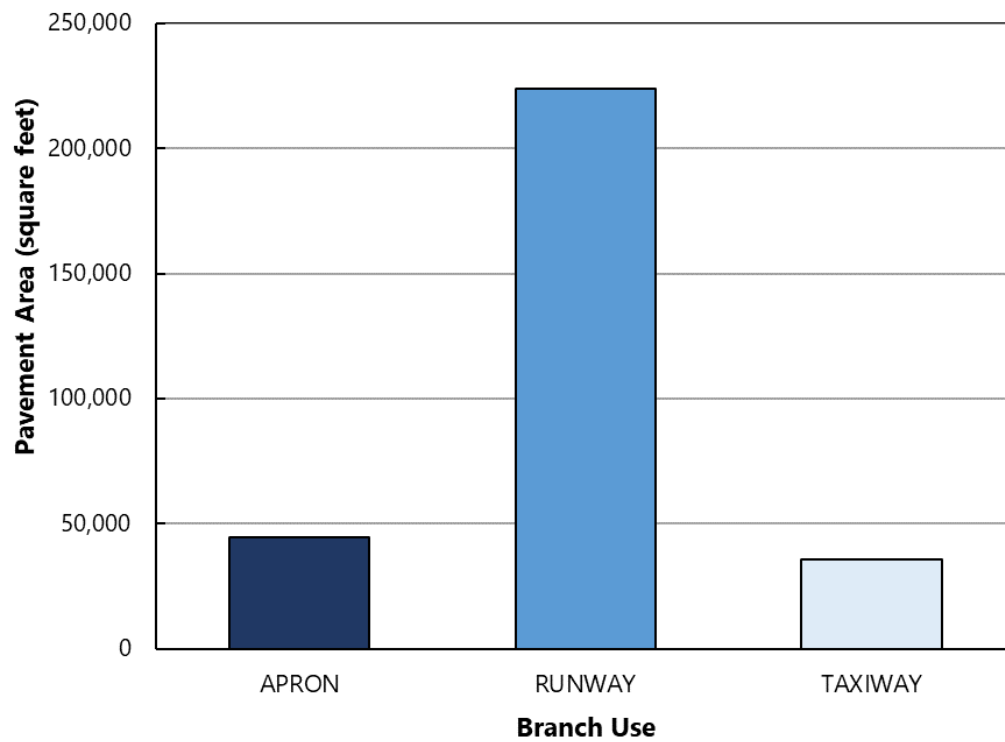
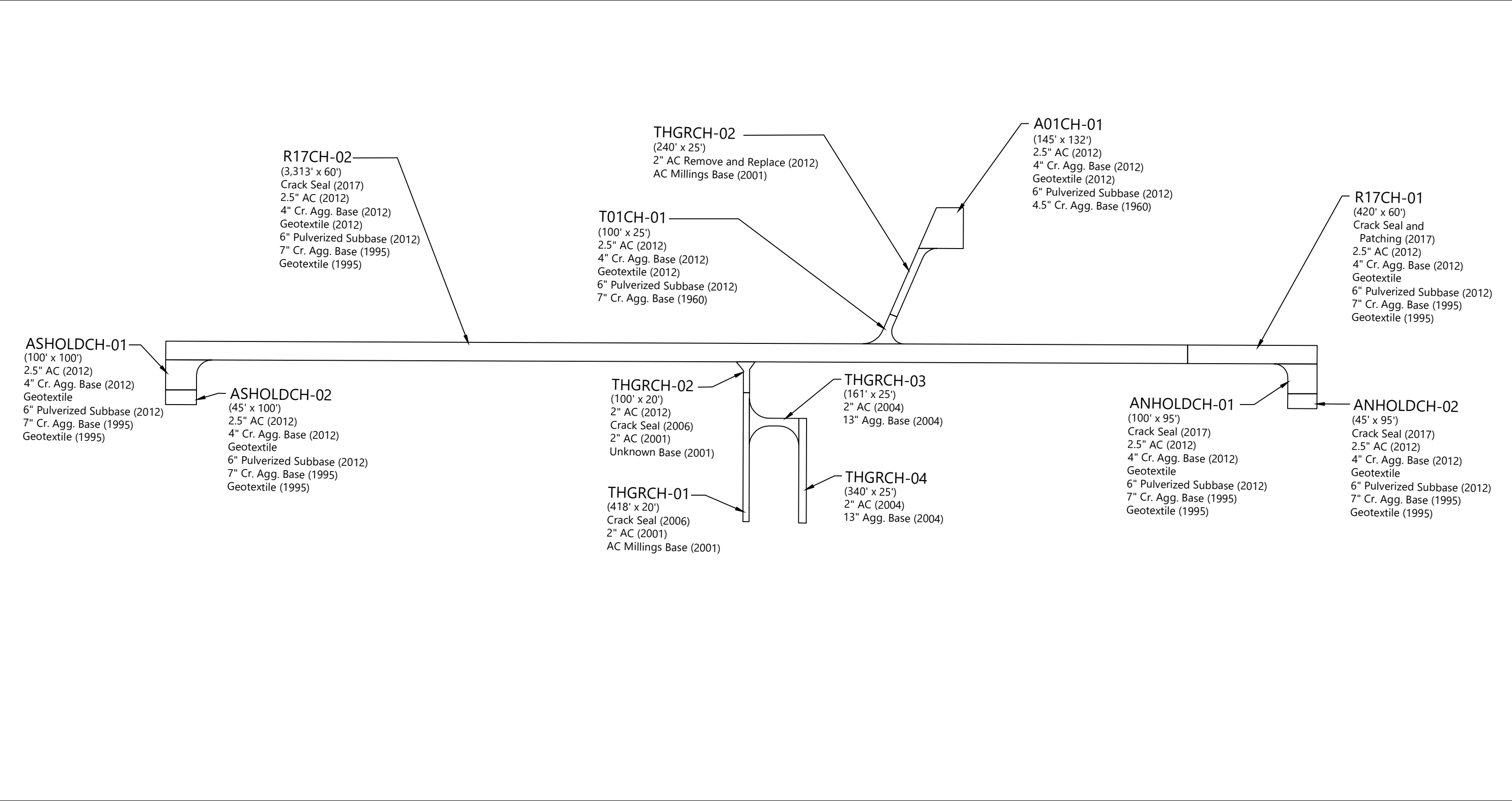
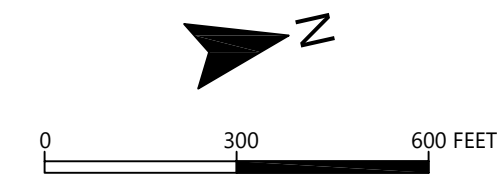


Figure 2.3 – CHILOQUIN AIRPORT PAVEMENT AREA BY BRANCH USE



Abbreviations: AC = Asphalt Concrete; Cr. = Crushed; Agg. = Aggregate



3 PAVEMENT CONDITION INSPECTION RESULTS

3.1 Introduction

GRI conducted a visual PCI survey of the airside pavements at Chiloquin Airport in March 2022. The 2022 survey work was performed on sections last inspected in 2019 in order to update the Chiloquin 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.

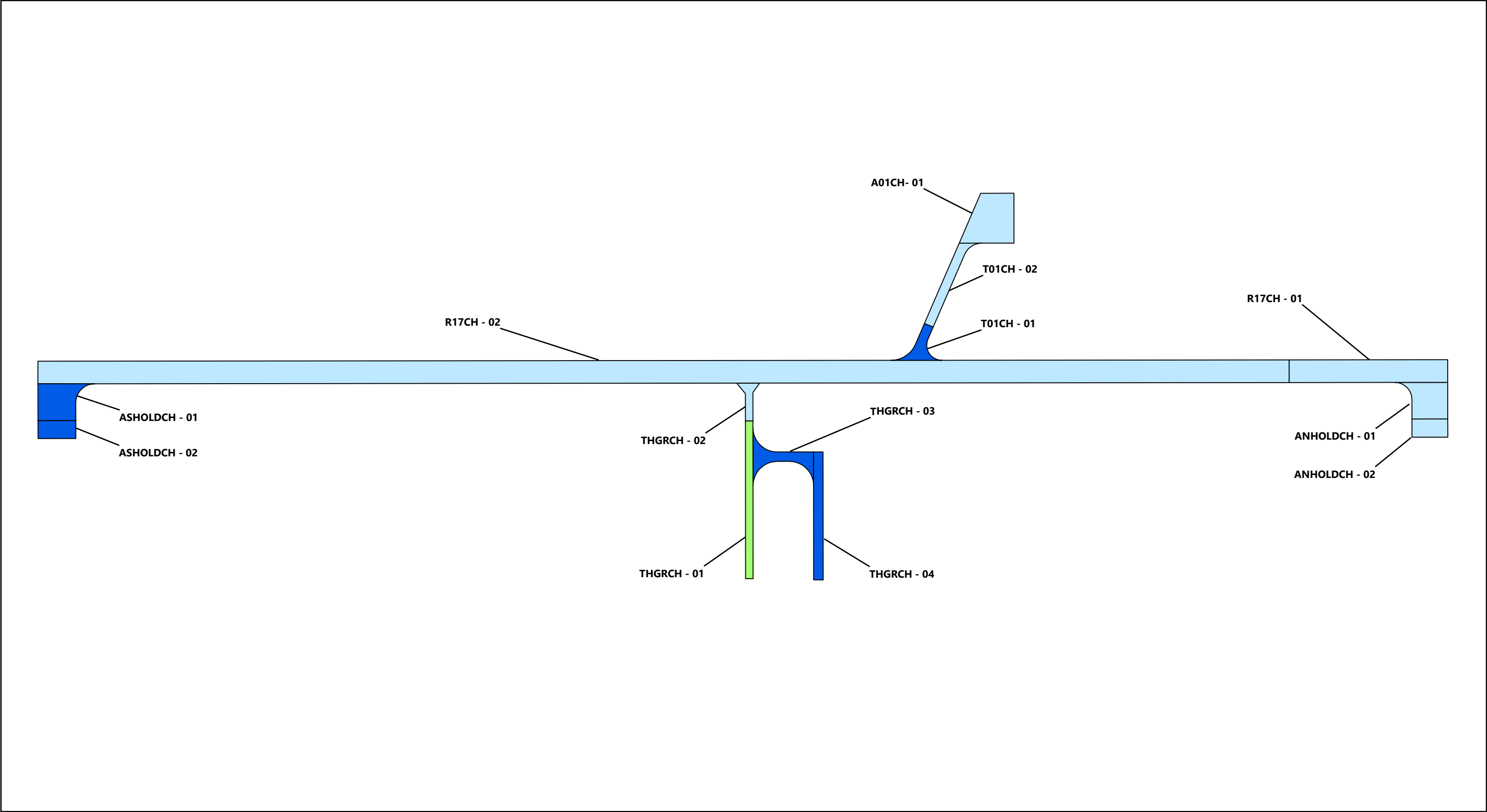
The PCI is based on the type, severity, and quantity of each distress found in an inspected sample unit. Further discussion of distress types for flexible pavement is provided in Appendix B and summarized in Table 1B. The results of the PCI survey are displayed using a seven-category rating scale in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

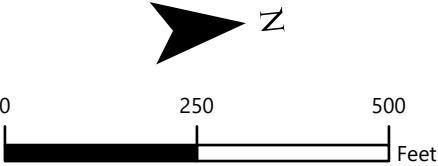
3.2 Pavement Condition Index Survey Results

The area-weighted average PCI for all airport pavements at Chiloquin Airport is approximately 71. The section PCIs ranged from a low of 52 to a high of 75. The primary distresses observed during the inspection were weathering and longitudinal and transverse cracking. Section PCIs following our pavement survey are displayed below spatially on the 2022 PCI Survey Results, 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



The condition distribution of the network by the percent of total pavement area is provided on the Chiloquin Airport Pavement Condition Rating by Percent of Pavement 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 Appendix E.

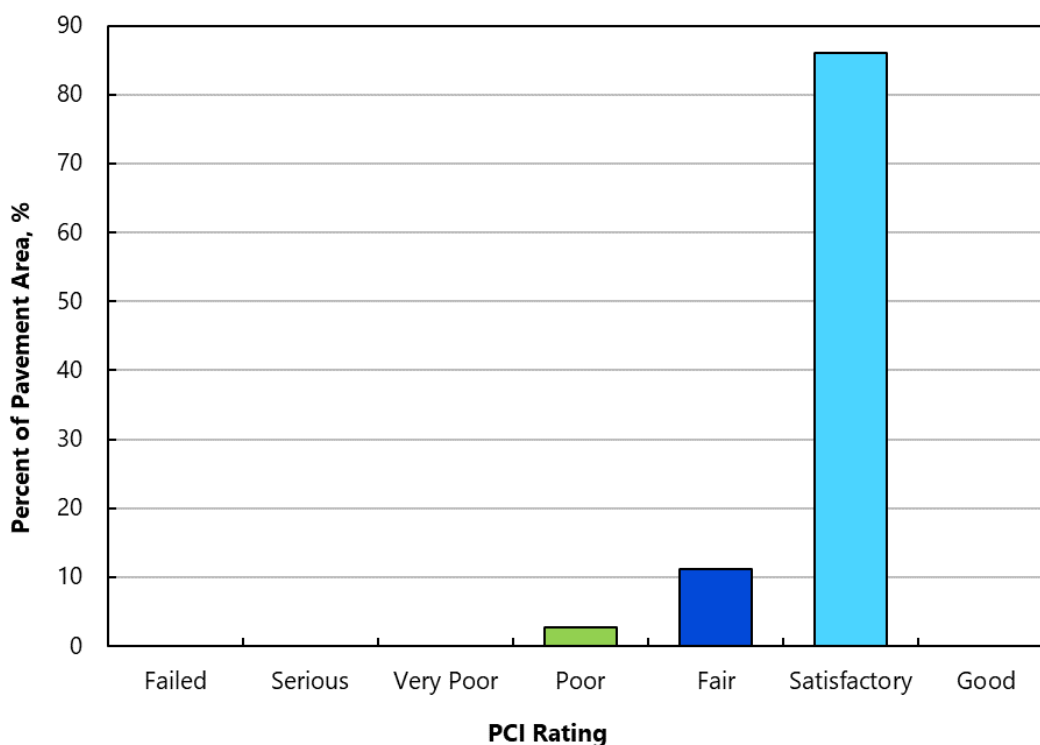


Figure 3.2 – CHILOQUIN AIRPORT PAVEMENT CONDITION RATING BY PERCENT OF PAVEMENT AREA

4 FUTURE PAVEMENT CONDITION ANALYSIS

4.1 Introduction

In addition to assessing the current condition of 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 Chiloquin 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 71 to a value of 59 in the year 2027

and 48 in the year 2032, if no maintenance or rehabilitation work is performed. The projected pavement condition in 5 years and 10 years for each pavement section at Chiloquin Airport is displayed spatially on the Future Pavement Condition, Figure 4.1 and listed in Table 1C in Appendix C, along with the past and present PCI values for the pavement network.

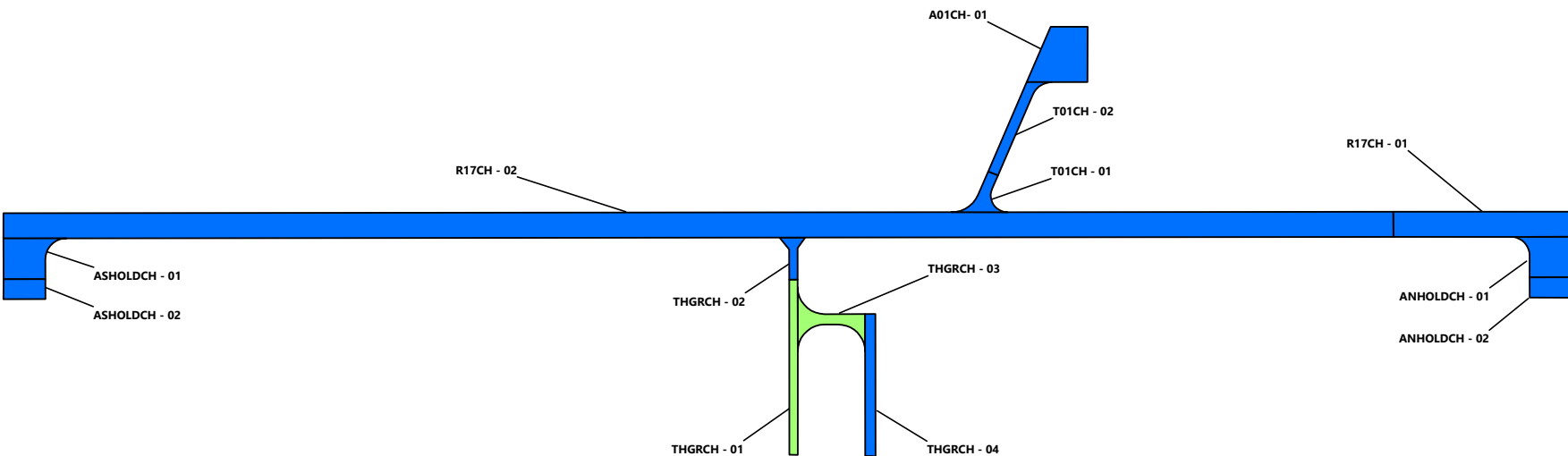
4.3 Functional Remaining Life

The functional remaining life is the practical amount of time a pavement is in service before requiring rehabilitation, as estimated based solely 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.

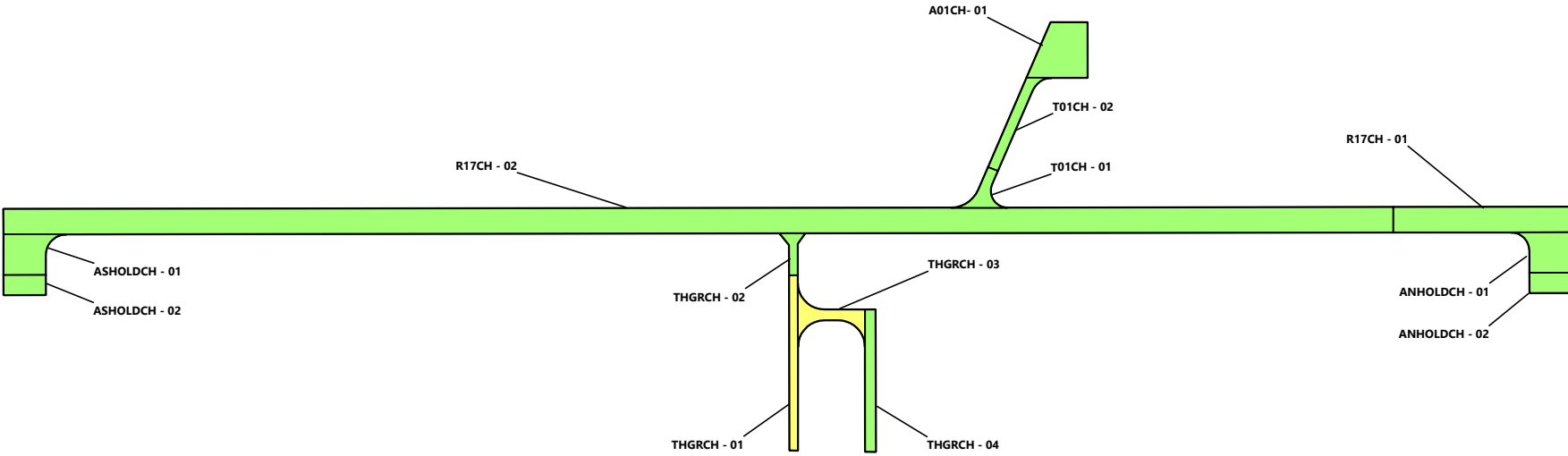
We calculated two forms of functional remaining life based on the current visual condition surveys of the pavement at Chiloquin Airport. The first type of functional remaining life is the time until rehabilitation such as an overlay is needed. The critical PCI, further discussed in Section C.3 of Appendix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

PREDICTED CONDITION IN 2027

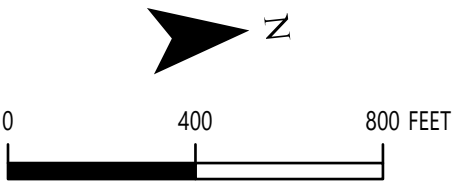


PREDICTED CONDITION IN 2032



SECTION PCI

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



5 MAINTENANCE AND REHABILITATION PROJECT RECOMMENDATIONS

5.1 Introduction

We evaluated Maintenance and Rehabilitation (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, the 5-Year Pavement Management Plan Chiloquin Airport, Figure 5.1 displays a breakdown of the Chiloquin Airport network pavement condition by percent of area and general M&R treatment categories. Approximately 86%, 14%, and 0% of the area require preservation treatments, rehabilitation, and reconstruction, respectively.

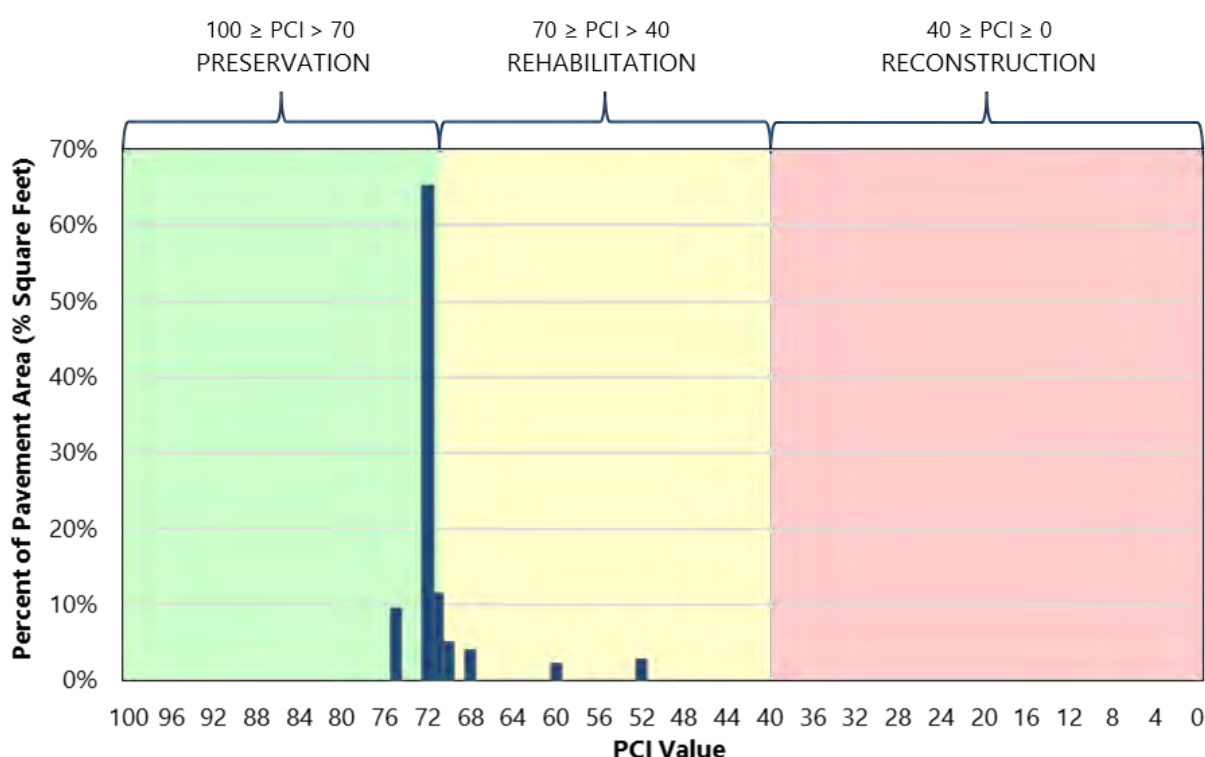


Figure 5.1 – CHILOQUIN AIRPORT PAVEMENT NETWORK GENERAL TREATMENT TYPE DISTRIBUTION BASED ON PCI

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 the approximate total localized maintenance quantities is provided in Table 5.1 below.

Table 5.1: LOCALIZED MAINTENANCE QUANTITIES

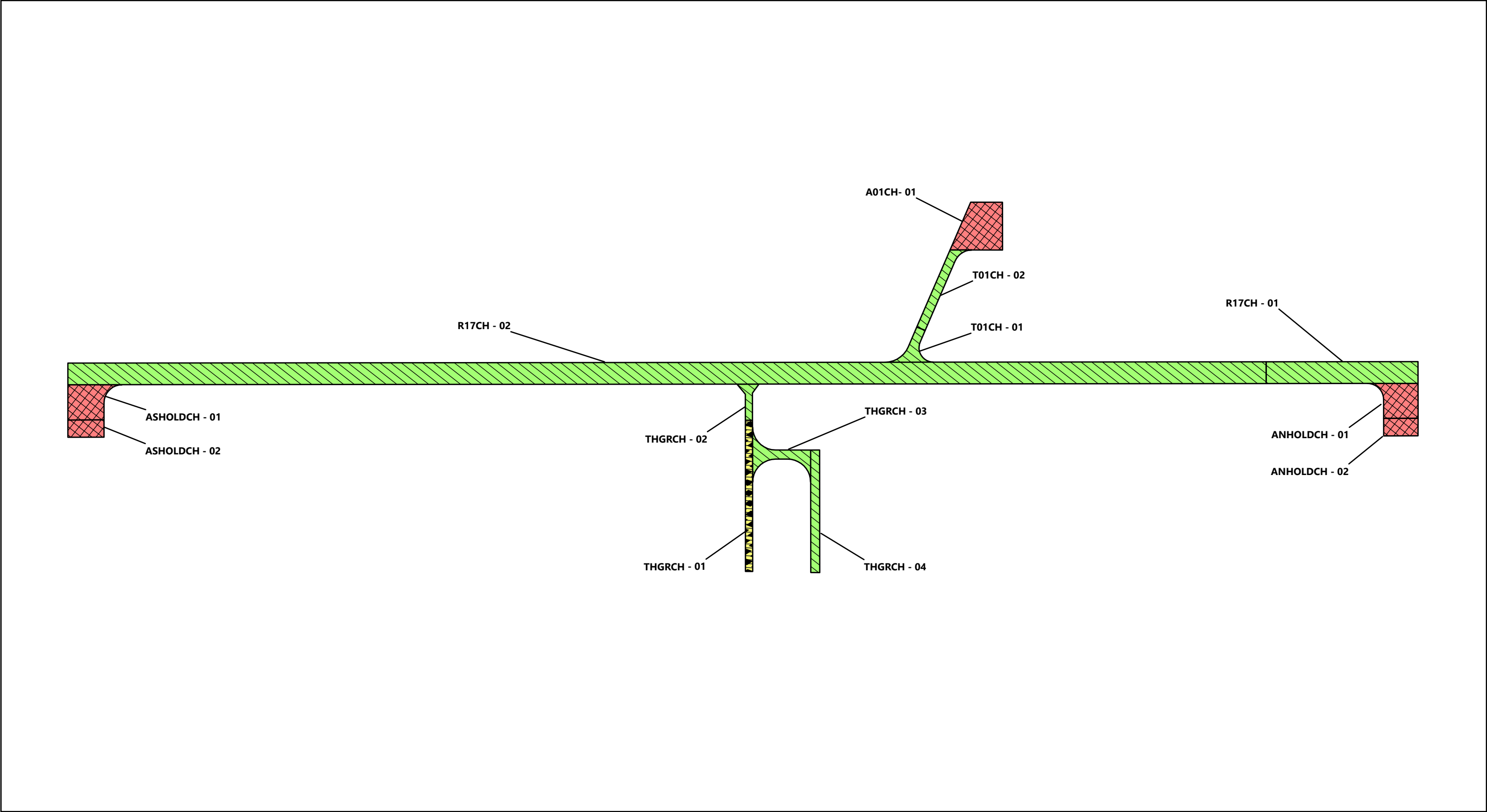
Localized Maintenance Operation	Approximate Quantity
Asphalt Concrete Crack Sealing	5,082 linear feet
Asphalt Concrete Wide Crack Sealing	1,448 linear feet

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 M&R projects. We then reviewed the project list and refined it into practical construction projects for each year. A summary of global 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 Chiloquin Airport, Figure 5.2. The complete list of recommended global 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	0
Overlay	8,360
Fog Seal	44,611
Slurry Seal	251,526

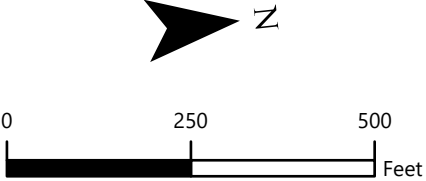


ACTION TIMING

- 2023
- 2024
- 2025
- 2026
- 2027

ACTION

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



6 LIMITATIONS

This report has been prepared to assist the Oregon Department of Aviation (ODA) with pavement-related project planning for the Chiloquin State Airport. The scope is limited to the specific pavement areas described herein. 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 Chiloquin Airport would like to know more about the results presented in this report, please contact the undersigned.

Submitted for GRI,



RENEWS: 06/2023

Lindsy A. Hammond, PE
Principal

A handwritten signature in black ink, likely belonging to Matthew A. Haynes.

Matthew A. Haynes, PE
Project Engineer

This document has been submitted electronically.

APPENDIX A

Pavement Inventory Reports and Maps

APPENDIX A

PAVEMENT INVENTORY REPORTS AND MAPS

A.1 PAVEMENT NETWORK

Chiloquin State Airport is located in Chiloquin, Oregon, and is owned and operated by ODA. The pavement network/facilities at Chiloquin Airport serve a variety of general aviation aircraft. Chiloquin Airport contains one runway with multiple connector taxiways and aprons. The airside pavements are surfaced with asphalt concrete (AC).

The current airport pavement management system (APMS) network at Chiloquin Airport has an approximate area of 304,500 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 Figures 1A and 2A, respectively, 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 Chiloquin Airport contains six 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 Chiloquin Airport contains 13 sections that are managed by ODA, 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 and $20 \text{ slabs} \pm 8 \text{ slabs}$ 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:

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

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 Chiloquin Airport PCI survey, Table 3A was used as a guideline in developing sampling rates for flexible 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 Chiloquin 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 – CHILOQUIN AIRPORT PAVEMENT BRANCHES

Facility Designation (Branch ID)	Branch Name	Number of Sections	Approximate Area, square feet
A01CH	Apron 01 Chiloquin	1	15,365
ANHOLDCH	North Hold Apron Chiloquin	2	14,210
ASHOLDCH	South Hold Apron Chiloquin	2	15,036
R17CH	Runway 17/35 Chiloquin	2	223,980
T01CH	Taxiway 01 Chiloquin	2	9,859
THGRCH	Hangar Taxiway Chiloquin	4	26,047

Table 2A - CHILOQUIN 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
A01CH	Apron 01 Chiloquin	APRON	01	Taxiway 01	End	P	145	132	15,365	11/4/2012	AC
ANHOLDCH	North Hold Apron Chiloquin	APRON	01	R17 End	Hold Line	P	100	95	9,620	11/4/2012	AC
ANHOLDCH	North Hold Apron Chiloquin	APRON	02	Hold Line	East	P	45	95	4,590	11/4/2012	AC
ASHOLDCH	South Hold Apron Chiloquin	APRON	01	R35 End	Hold Line	P	100	100	10,277	11/4/2012	AC
ASHOLDCH	South Hold Apron Chiloquin	APRON	02	Hold Line	East	P	45	100	4,759	11/4/2012	AC
R17CH	Runway 17/35 Chiloquin	RUNWAY	01	Runway 17 End	R17CH-02	P	420	60	25,200	11/4/2012	AC
R17CH	Runway 17/35 Chiloquin	RUNWAY	02	R17CH-01	Runway 35 End	P	3,313	60	198,780	11/4/2012	AC
T01CH	Taxiway 01 Chiloquin	TAXIWAY	01	Runway 17/35	Hold Line	P	100	25	3,747	11/4/2012	AC
T01CH	Taxiway 01 Chiloquin	TAXIWAY	02	Hold Line	Apron 01	P	240	25	6,112	11/1/2012	AC
THGRCH	Hangar Taxiway Chiloquin	TAXIWAY	01	THGRCH-02	Hangars	S	418	20	8,360	9/2/2001	AC
THGRCH	Hangar Taxiway Chiloquin	TAXIWAY	02	Runway 17/35 Midfield	THGRCH-01	S	100	20	2,547	11/2/2012	AC
THGRCH	Hangar Taxiway Chiloquin	TAXIWAY	03	THGRCH-01	THGRCH-04	S	161	25	6,650	6/2/2004	AC
THGRCH	Hangar Taxiway Chiloquin	TAXIWAY	04	THGRCH-03	End	S	340	25	8,490	6/2/2004	AC

Abbreviations:

P = Primary pavement, S = Secondary pavement, AC = Asphalt Concrete

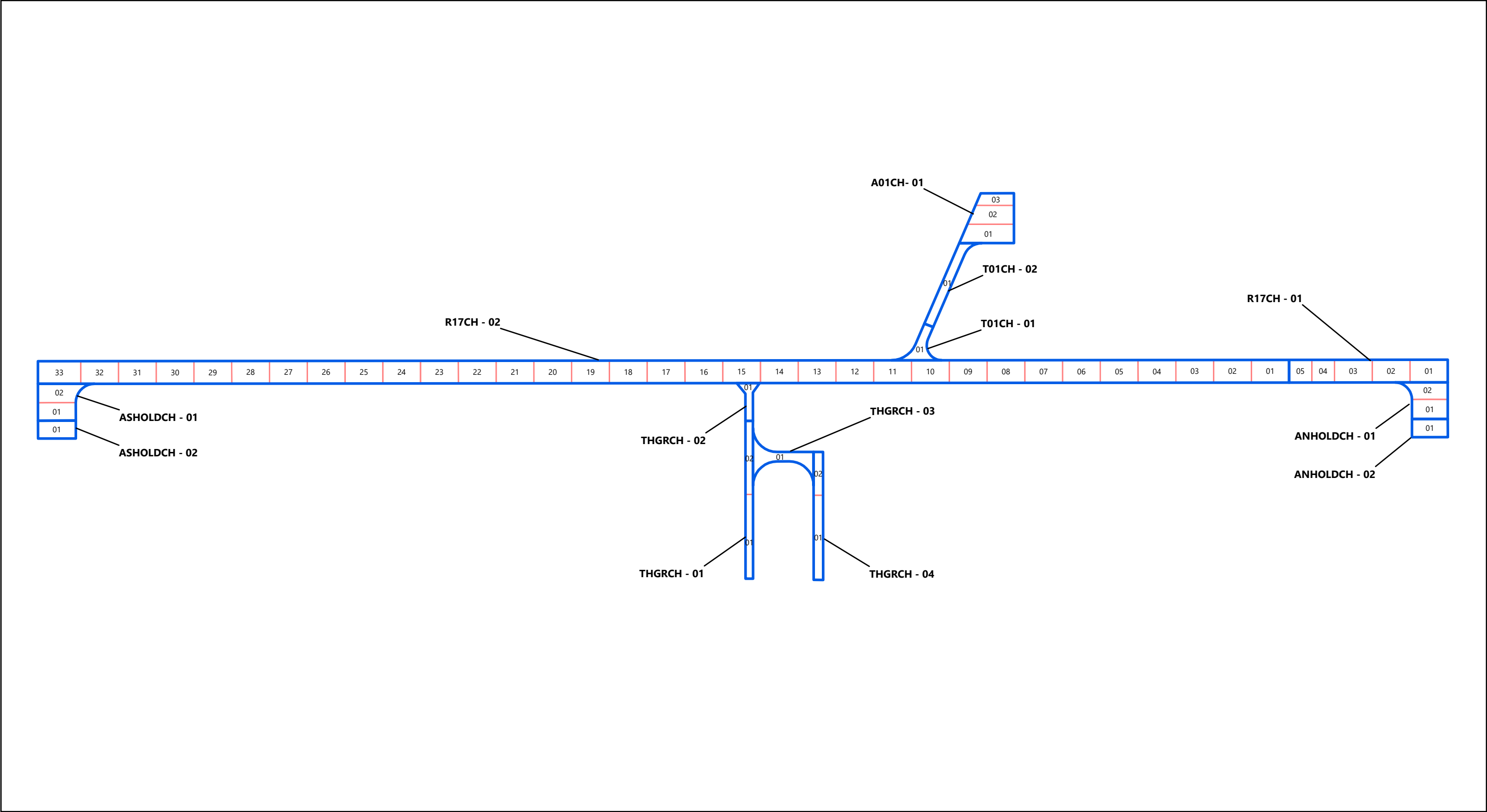
Notes:

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

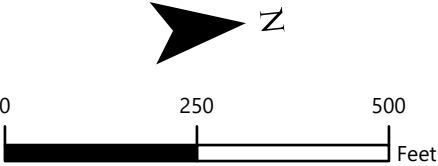
Table 3A: EXAMPLE SAMPLE RATES FOR AC PAVEMENTS

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 Concrete



 SECTION
 SAMPLE UNIT



GRI
SAMPLE UNIT LAYOUT
CHILOQUIN 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) 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 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
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 and are 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 the structural capacity; neither 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, a 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 Chiloquin Airport pavement network consists of six branches and 13 sections. A total of 25 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, in Appendix E. Based on the 2022 PCI survey, the area-weighted average PCI for the entire pavement network at Chiloquin Airport is approximately 71, 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 Chiloquin Airport pavement sections is outlined in Table 4B in this appendix.

Table 2B - CHILOQUIN AIRPORT CURRENT BRANCH CONDITION REPORT

Branch ID	Number of Sections	Approximate Area, square feet	Use	Area Weighted Average Branch PCI	PCI Category
A01CH	1	15,365	APRON	75	Satisfactory
ANHOLDCH	2	14,210	APRON	72	Satisfactory
ASHOLDCH	2	15,036	APRON	70	Fair
R17CH	2	223,980	RUNWAY	72	Satisfactory
T01CH	2	9,859	TAXIWAY	72	Satisfactory
THGRCH	4	26,047	TAXIWAY	62	Fair

Use Category	Number of Sections	Total Area, square feet	Area Weighted Average PCI
APRON	5	44,611	72
RUNWAY	2	223,980	72
TAXIWAY	6	35,906	64
ALL	13	304,497	71

Table 3B - CHILOQUIN 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
A01CH	01	11/4/2012	AC	APRON	3/1/2022	9	75	Satisfactory	100	0	0
ANHOLDCH	01	11/4/2012	AC	APRON	3/1/2022	9	71	Satisfactory	100	0	0
ANHOLDCH	02	11/4/2012	AC	APRON	3/1/2022	9	75	Satisfactory	100	0	0
ASHOLDCH	01	11/4/2012	AC	APRON	3/1/2022	9	70	Fair	100	0	0
ASHOLDCH	02	11/4/2012	AC	APRON	3/1/2022	9	70	Fair	100	0	0
R17CH	01	11/4/2012	AC	RUNWAY	3/1/2022	9	71	Satisfactory	100	0	0
R17CH	02	11/4/2012	AC	RUNWAY	3/1/2022	9	72	Satisfactory	100	0	0
T01CH	01	11/4/2012	AC	TAXIWAY	3/1/2022	9	68	Fair	100	0	0
T01CH	02	11/1/2012	AC	TAXIWAY	3/1/2022	9	75	Satisfactory	100	0	0
THGRCH	01	9/2/2001	AC	TAXIWAY	3/1/2022	20	52	Poor	100	0	0
THGRCH	02	11/2/2012	AC	TAXIWAY	3/1/2022	9	75	Satisfactory	100	0	0
THGRCH	03	6/2/2004	AC	TAXIWAY	3/1/2022	18	60	Fair	100	0	0
THGRCH	04	6/2/2004	AC	TAXIWAY	3/1/2022	18	68	Fair	100	0	0

Abbreviations:

PCI = Pavement Condition Index, AC = Asphalt Concrete

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

			Approximate Area, square feet	LCD ²	2019 Survey			2022 Survey			Rate of Deterioration	
Branch ID	Section ID	Surface Type ¹			PCI	PCI Category	Insp. Date	PCI	PCI Category	Age ³		Δ PCI/yr ⁴
A01CH	01	AC	15,365	11/4/2012	98	Good	5/13/2019	75	Satisfactory	7	-8.21	HIGH
ANHOLDCH	01	AC	9,620	11/4/2012	88	Good	5/13/2019	71	Satisfactory	7	-6.07	
ANHOLDCH	02	AC	4,590	11/4/2012	88	Good	5/13/2019	75	Satisfactory	7	-4.64	
ASHOLDCH	01	AC	10,277	11/4/2012	88	Good	5/13/2019	70	Fair	7	-6.42	
ASHOLDCH	02	AC	4,759	11/4/2012	88	Good	5/13/2019	70	Fair	7	-6.42	
R17CH	01	AC	25,200	11/4/2012	90	Good	5/13/2019	71	Satisfactory	7	-6.78	
R17CH	02	AC	198,780	11/4/2012	89	Good	5/13/2019	72	Satisfactory	7	-6.07	
T01CH	01	AC	3,747	11/4/2012	92	Good	5/13/2019	68	Fair	7	-8.56	
T01CH	02	AC	6,112	11/1/2012	92	Good	5/13/2019	75	Satisfactory	7	-6.07	
THGRCH	01	AC	8,360	9/2/2001	56	Fair	5/13/2019	52	Poor	18	-1.43	NORMAL
THGRCH	02	AC	2,547	11/2/2012	100	Good	5/13/2019	75	Satisfactory	7	-8.92	HIGH
THGRCH	03	AC	6,650	6/2/2004	68	Fair	5/13/2019	60	Fair	15	-2.85	NORMAL
THGRCH	04	AC	8,490	6/2/2004	77	Satisfactory	5/13/2019	68	Fair	15	-3.21	NORMAL

Abbreviations:

¹ AC = Asphalt 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 2019

⁴ Δ PCI/yr = Change in PCI points per year between 2019 survey and 2022 survey

APPENDIX C

Future Pavement Condition Analysis

APPENDIX C

FUTURE 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 Chiloquin Airport. The delineation is based on branch use, surface type, section rank, and structural design life. We use three distinct models for the following “families” of pavements at Chiloquin Airport. For each model, we reviewed the data in order to filter out any suspicious 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 fourth-order, 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.

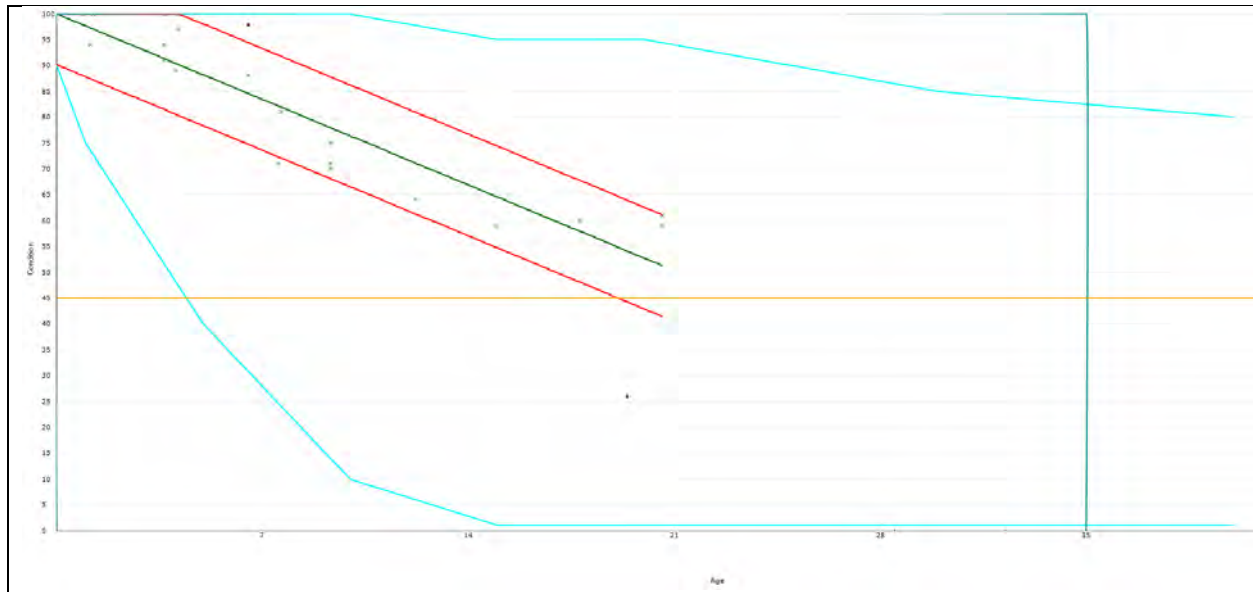


Figure 1C – CONDITION PREDICTION MODEL FOR CENTRAL CATEGORY 5 AC AND AAC APRONS

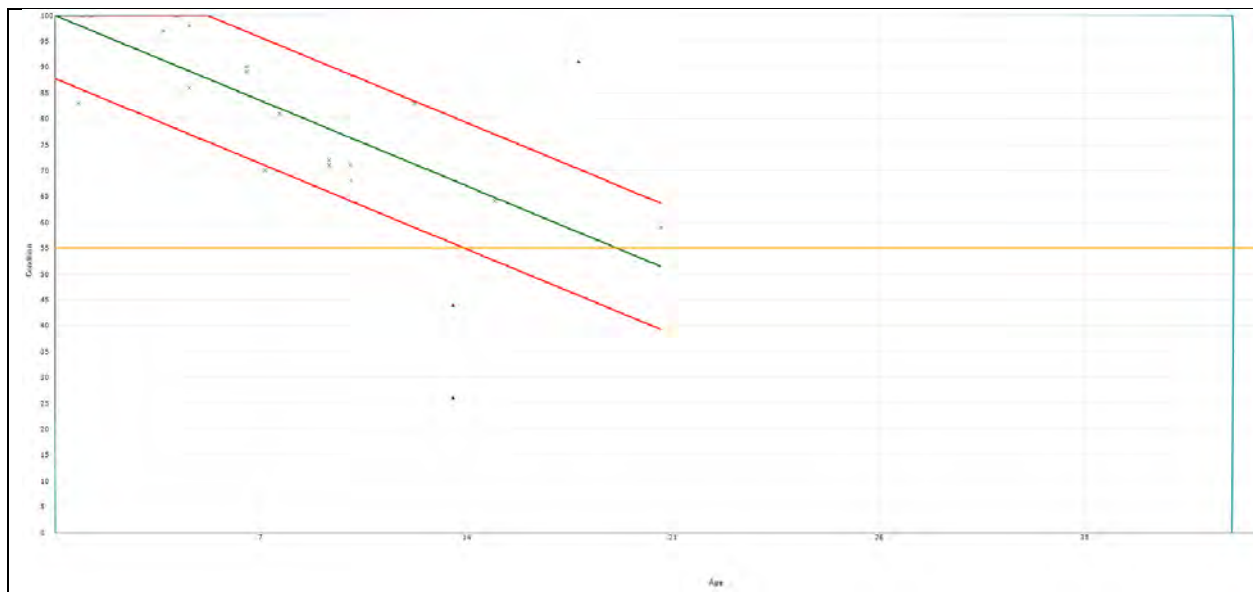


Figure 2C - CONDITION PREDICTION MODEL FOR CENTRAL CATEGORY 5 AC AND AAC RUNWAYS

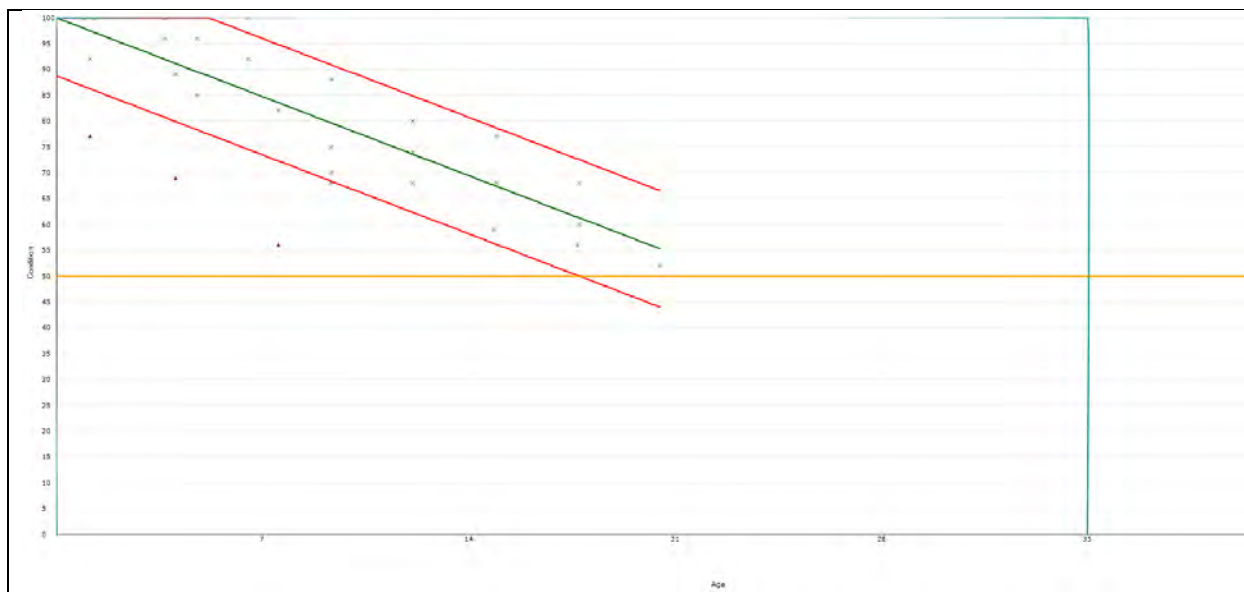


Figure 3C - CONDITION PREDICTION MODEL FOR CENTRAL CATEGORY 5 AC AND AAC TAXIWAYS

C.3 CRITICAL PAVEMENT CONDITION INDEX

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 Chiloquin 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-year and 10-year periods. The projected pavement conditions in 5 years and 10 years for each pavement section at Chiloquin 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 based solely 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 Chiloquin 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	<u>Past Inspection PCI</u>	<u>Current PCI</u>	<u>Predicted Future PCI</u>	
		2019	2022	2027	2032
A01CH	01	98	75	63	51
ANHOLDCH	01	88	71	59	47
ANHOLDCH	02	88	75	63	51
ASHOLDCH	01	88	70	58	46
ASHOLDCH	02	88	70	58	46
R17CH	01	90	71	59	47
R17CH	02	89	72	60	48
T01CH	01	92	68	57	46
T01CH	02	92	75	64	53
THGRCH	01	56	52	41	30
THGRCH	02	100	75	64	53
THGRCH	03	68	60	49	38
THGRCH	04	77	68	57	46

Abbreviations:

PCI = Pavement Condition Index

Table 2C - CHILOQUIN 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
A01CH	01	AC	75	11 - 15	45	11 - 15
ANHOLDCH	01	AC	71	6 - 10	45	11 - 15
ANHOLDCH	02	AC	75	11 - 15	45	11 - 15
ASHOLDCH	01	AC	70	6 - 10	45	11 - 15
ASHOLDCH	02	AC	70	6 - 10	45	11 - 15
R17CH	01	AC	71	6 - 10	55	11 - 15
R17CH	02	AC	72	6 - 10	55	11 - 15
T01CH	01	AC	68	6 - 10	50	11 - 15
T01CH	02	AC	75	11 - 15	50	16 - 20
THGRCH	01	AC	52	0 - 5	50	0 - 5
THGRCH	02	AC	75	11 - 15	50	16 - 20
THGRCH	03	AC	60	0 - 5	50	6 - 10
THGRCH	04	AC	68	6 - 10	50	11 - 15

Abbreviations:

M&R = Maintenance and Rehabilitation, AC = Asphalt Concrete

¹ Major M&R 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 Chiloquin Airport pavement network condition over time. We used PAVER v7 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, 2022. 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 2019 report and updated them by reviewing the bid tabulations for recent projects at Chiloquin 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 Chiloquin 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: CHILOQUIN AIRPORT UNIT COST DATA

Type of M&R	Work Type	Unit Cost	Work Unit
Major M&R	Complete Reconstruction with AC	\$11.10	Sq Ft
	Cold Mill and Overlay – 2 Inches Thick	\$4.90	Sq Ft
Global M&R	Surface Treatment - Slurry Seal	\$0.33	Sq Ft
	Surface Treatment - Fog Seal	\$0.20	Sq Ft
Localized Preventive M&R	Crack Sealing - AC	\$2.00	Ft
	Crack Sealing - PCC	\$15.00	Ft
	Crack Sealing – Wide Cracks	\$33.00	Ft
	AC Patching – Full Depth	\$50.00	Sq Ft
	PCC Patching – Partial Depth	\$100.00	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 M&R activities is provided in Table 4D of this appendix.

Table 3D - CHILOQUIN AIRPORT NETWORK MAINTENANCE REPORT

Network	Branch ID	Section ID	Distress	Severity	Action	Work Quantity	Unit	Unit Cost	Work Cost	Section Total
Chiloquin	A01CH	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	203	Ft	\$2.00	\$406	\$483
Chiloquin	A01CH	01	Long. & Trans. Cracking	Low	Crack Sealing - AC	39	Ft	\$2.00	\$77	
Chiloquin	ANHOLDCH	01	Long. & Trans. Cracking	High	Crack Seal - Wide Cracks	60	Ft	\$33.00	\$1,980	\$2,210
Chiloquin	ANHOLDCH	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	87	Ft	\$2.00	\$174	
Chiloquin	ANHOLDCH	01	Long. & Trans. Cracking	Low	Crack Sealing - AC	28	Ft	\$2.00	\$56	\$110
Chiloquin	ANHOLDCH	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	55	Ft	\$2.00	\$110	
Chiloquin	ASHOLDCH	01	Long. & Trans. Cracking	High	Crack Seal - Wide Cracks	76	Ft	\$33.00	\$2,508	\$2,822
Chiloquin	ASHOLDCH	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	157	Ft	\$2.00	\$314	
Chiloquin	ASHOLDCH	02	Long. & Trans. Cracking	High	Crack Seal - Wide Cracks	35	Ft	\$33.00	\$1,155	\$1,225
Chiloquin	ASHOLDCH	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	35	Ft	\$2.00	\$70	
Chiloquin	R17CH	01	Long. & Trans. Cracking	High	Crack Seal - Wide Cracks	81	Ft	\$33.00	\$2,680	\$3,321
Chiloquin	R17CH	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	321	Ft	\$2.00	\$641	
Chiloquin	R17CH	02	Long. & Trans. Cracking	High	Crack Seal - Wide Cracks	800	Ft	\$33.00	\$26,396	\$32,319
Chiloquin	R17CH	02	Long. & Trans. Cracking	Low	Crack Sealing - AC	227	Ft	\$2.00	\$454	
Chiloquin	R17CH	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	2,735	Ft	\$2.00	\$5,469	
Chiloquin	T01CH	01	Long. & Trans. Cracking	High	Crack Seal - Wide Cracks	66	Ft	\$33.00	\$2,178	\$2,194
Chiloquin	T01CH	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	8	Ft	\$2.00	\$16	
Chiloquin	T01CH	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	46	Ft	\$2.00	\$92	\$116
Chiloquin	T01CH	02	Long. & Trans. Cracking	Low	Crack Sealing - AC	12	Ft	\$2.00	\$24	
Chiloquin	THGRCH	01	Long. & Trans. Cracking	High	Crack Seal - Wide Cracks	38	Ft	\$33.00	\$1,254	\$3,118
Chiloquin	THGRCH	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	912	Ft	\$2.00	\$1,824	
Chiloquin	THGRCH	01	Long. & Trans. Cracking	Low	Crack Sealing - AC	20	Ft	\$2.00	\$40	
Chiloquin	THGRCH	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	24	Ft	\$2.00	\$48	\$48
Chiloquin	THGRCH	03	Long. & Trans. Cracking	High	Crack Seal - Wide Cracks	160	Ft	\$33.00	\$5,280	\$5,560
Chiloquin	THGRCH	03	Long. & Trans. Cracking	Medium	Crack Sealing - AC	140	Ft	\$2.00	\$280	
Chiloquin	THGRCH	04	Long. & Trans. Cracking	High	Crack Seal - Wide Cracks	132	Ft	\$33.00	\$4,356	\$4,424
Chiloquin	THGRCH	04	Long. & Trans. Cracking	Medium	Crack Sealing - AC	34	Ft	\$2.00	\$68	

Long. = Longitudinal; Trans. = Transverse; AC = Asphalt Concrete; Ft = 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
2023	A01CH	01	APRON	AC	75	Fog Seal	15,365	\$0.20	\$3,073
	ANHOLDCH	01	APRON	AC	71	Fog Seal	9,620	\$0.20	\$1,924
	ANHOLDCH	02	APRON	AC	75	Fog Seal	4,590	\$0.20	\$918
	ASHOLDCH	01	APRON	AC	70	Fog Seal	10,277	\$0.20	\$2,055
2024	ASHOLDCH	02	APRON	AC	70	Fog Seal	4,759	\$0.20	\$952
	THGRCH	01	TAXIWAY	AC	52	Overlay	8,360	\$6.93	\$57,963
2025	R17CH	01	RUNWAY	AC	71	Slurry Seal	25,200	\$0.33	\$8,316
	R17CH	02	RUNWAY	AC	72	Slurry Seal	198,780	\$0.33	\$65,597
	T01CH	01	TAXIWAY	AC	68	Slurry Seal	3,747	\$0.33	\$1,237
	T01CH	02	TAXIWAY	AC	75	Slurry Seal	6,112	\$0.33	\$2,017
	THGRCH	02	TAXIWAY	AC	75	Slurry Seal	2,547	\$0.33	\$841
	THGRCH	03	TAXIWAY	AC	60	Slurry Seal	6,650	\$0.33	\$2,195
	THGRCH	04	TAXIWAY	AC	68	Slurry Seal	8,490	\$0.33	\$2,802

Abbreviations:

PCI = Pavement Condition Index, AC = Asphalt Concrete

Cost Summary	
2023 Total Project Cost	\$8,922
2024 Total Project Cost	\$57,963
2025 Total Project Cost	\$83,004
2026 Total Project Cost	\$0
2027 Total Project Cost	\$0
Total 5-Year Project Cost	\$149,889

APPENDIX E

Re-Inspection Report

Re-Inspection Report

ODA_WOC3_9-1-2022_PostBendAnalysis

Generated Date 9/30/2022

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Network:	Chiloquin			Name:	Chiloquin State				
Branch:	A01CH		Name:	Apron 01 Chiloquin		Use:	APRON	Area:	15,365 SqFt
Section:	01	of	1	From:	Taxiway 01		To:	End	Last Const.: 11/4/2012
Surface:	AC	Family:	2022_Central_Cat4/5_Apr on_AC/AAC		Zone:	2S7	Category:	M	Rank: P
Area:	15,365 SqFt		Length:	145 Ft		Width:	132 Ft		
Slabs:	Slab Length:		Ft	Slab Width:		Ft	Joint Length:		Ft
Shoulder:	Street Type:		Grade:		0	Lanes:		0	

Section Comments:

Work Date:	9/1/1960	Work Type:	Base Course - Aggregate	Code:	BA-AG	Is Major M&R:	False
Work Date:	9/1/1961	Work Type:	New Construction - AC	Code:	NC-AC	Is Major M&R:	True
Work Date:	1/1/1968	Work Type:	New Construction - Initial	Code:	NU-IN	Is Major M&R:	True
Work Date:	9/1/1968	Work Type:	Surface Treatment - Seal Coat (Global MR)	Code:	ST-SC	Is Major M&R:	False
Work Date:	9/1/2001	Work Type:	Overlay - AC Thin	Code:	OL-AT	Is Major M&R:	True
Work Date:	9/1/2006	Work Type:	Crack Sealing - AC	Code:	CS-AC	Is Major M&R:	False
Work Date:	11/1/2012	Work Type:	Subbase - Pulverized AC	Code:	SU-PA	Is Major M&R:	False
Work Date:	11/2/2012	Work Type:	Geotextile	Code:	FB-TX	Is Major M&R:	False
Work Date:	11/3/2012	Work Type:	Base Course - Aggregate	Code:	BA-AG	Is Major M&R:	False
Work Date:	11/4/2012	Work Type:	New Construction - AC	Code:	NC-AC	Is Major M&R:	True

Last Insp. Date: 3/1/2022 **TotalSamples:** 3 **Surveyed:** 2

Conditions: PCI: 75

Inspection Comments:

Sample Number:	01	Type:	R	Area:	6708.00 SqFt	PCI:	75
Sample Comments:	Created by Inspection Schedule						
48	L & T CR	L	14.00	Ft			
48	L & T CR	L	6.00	Ft			
48	L & T CR	M	38.00	Ft			
57	WEATHERING	M	6708.00	SqFt			
Sample Number:	02	Type:	R	Area:	5625.00 SqFt	PCI:	75
Sample Comments:	Created by Inspection Schedule						
48	L & T CR	M	125.00	Ft			
48	L & T CR	L	11.00	Ft			
57	WEATHERING	M	5625.00	SqFt			

Network:	Chiloquin		Name:	Chiloquin State								
Branch:	ANHOLDCH		Name:	North Hold Apron Chiloquin		Use:	APRON	Area:	14,210 SqFt			
Section:	02	of 2	From:	Hold Line			To:	East		Last Const.:	11/4/2012	
Surface:	AC	Family:	2022_Central_Cat4/5_Apr on_AC/AAC		Zone:	2S7		Category:	M		Rank:	P
Area:	4,590 SqFt		Length:	45 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:	9/1/1995		Work Type: Subgrade-Geotextile					Code:	SG-GE		Is Major M&R:	True
Work Date:	9/2/1995		Work Type: Base Course - Crushed Aggregate					Code:	BA-CA		Is Major M&R:	False
Work Date:	11/1/2012		Work Type: Subbase - Pulverized AC					Code:	SU-PA		Is Major M&R:	False
Work Date:	11/2/2012		Work Type: Subgrade-Geotextile					Code:	SG-GE		Is Major M&R:	True
Work Date:	11/3/2012		Work Type: Base Course - Crushed Aggregate					Code:	BA-CA		Is Major M&R:	False
Work Date:	11/4/2012		Work Type: New Construction - AC					Code:	NC-AC		Is Major M&R:	True
Work Date:	7/1/2017		Work Type: Crack Sealing - AC					Code:	CS-AC		Is Major M&R:	False
Last Insp. Date:	3/1/2022		TotalSamples:	3		Surveyed:	1					
Conditions:	PCI: 75											
Inspection Comments:												
Sample Number:	01	Type:	R	Area:	4590.00 SqFt			PCI:	75			
Sample Comments:	Created by Inspection Schedule											
48	L & T CR		M	55.00 Ft								
57	WEATHERING		M	4590.00 SqFt								

Network:	Chiloquin		Name:	Chiloquin State						
Branch:	ANHOLDCH		Name:	North Hold Apron Chiloquin		Use:	APRON	Area:	14,210 SqFt	
Section:	01	of 2	From:	R17 End			To:	Hold Line	Last Const.:	11/4/2012
Surface:	AC	Family:	2022_Central_Cat4/5_Apr on_AC/AAC		Zone:	2S7	Category:	M	Rank:	P
Area:	9,620 SqFt		Length:	100 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:	9/1/1995		Work Type:	Subgrade-Geotextile			Code:	SG-GE	Is Major M&R:	True
Work Date:	9/2/1995		Work Type:	Base Course - Crushed Aggregate			Code:	BA-CA	Is Major M&R:	False
Work Date:	11/1/2012		Work Type:	Subbase - Pulverized AC			Code:	SU-PA	Is Major M&R:	False
Work Date:	11/2/2012		Work Type:	Subgrade-Geotextile			Code:	SG-GE	Is Major M&R:	True
Work Date:	11/3/2012		Work Type:	Base Course - Crushed Aggregate			Code:	BA-CA	Is Major M&R:	False
Work Date:	11/4/2012		Work Type:	New Construction - AC			Code:	NC-AC	Is Major M&R:	True
Work Date:	7/1/2017		Work Type:	Crack Sealing - AC			Code:	CS-AC	Is Major M&R:	False
Last Insp. Date:	3/1/2022		TotalSamples:	3		Surveyed:	2			
Conditions:	PCI:	71								
Inspection Comments:										
Sample Number:	01	Type:	R	Area:	4911.00 SqFt		PCI:	75		
Sample Comments:	Created by Inspection Schedule									
48	L & T CR	M	70.00 Ft							
57	WEATHERING	M	4911.00 SqFt							
Sample Number:	02	Type:	R	Area:	4709.00 SqFt		PCI:	68		
Sample Comments:	Created by Inspection Schedule									
48	L & T CR	H	60.00 Ft							
48	L & T CR	L	28.00 Ft							
48	L & T CR	M	17.00 Ft							
57	WEATHERING	M	4709.00 SqFt							

Network:	Chiloquin		Name:	Chiloquin State					
Branch:	ASHOLDCH		Name:	South Hold Apron Chiloquin		Use:	APRON	Area:	15,036 SqFt
Section:	02	of 2	From:	Hold Line			To:	East	Last Const.: 11/4/2012
Surface:	AC	Family:	2022_Central_Cat4/5_Apr on_AC/AAC		Zone:	2S7	Category:	M	Rank: P
Area:	4,759 SqFt		Length:	45 Ft		Width:	100 Ft		
Slabs:	Slab Length:		Ft		Slab Width:		Ft		Joint Length: Ft
Shoulder:	Street Type:		Grade:		0		Lanes: 0		
Section Comments:									
Work Date:	9/1/1995		Work Type: Subgrade-Geotextile				Code:	SG-GE	Is Major M&R: True
Work Date:	9/2/1995		Work Type: Subbase - Crushed Aggregate				Code:	SU-CA	Is Major M&R: False
Work Date:	11/1/2012		Work Type: Subbase - Pulverized AC				Code:	SU-PA	Is Major M&R: False
Work Date:	11/2/2012		Work Type: Subgrade-Geotextile				Code:	SG-GE	Is Major M&R: True
Work Date:	11/3/2012		Work Type: Base Course - Crushed Aggregate				Code:	BA-CA	Is Major M&R: False
Work Date:	11/4/2012		Work Type: New Construction - AC				Code:	NC-AC	Is Major M&R: True
Last Insp. Date:	3/1/2022		TotalSamples:	3		Surveyed:	1		
Conditions:	PCI: 70								
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	4759.00 SqFt		PCI:	70	
Sample Comments:	Created by Inspection Schedule								
48	L & T CR		M	10.00 Ft					
48	L & T CR		H	25.00 Ft					
57	WEATHERING		M	4759.00 SqFt					
48	L & T CR		M	25.00 Ft					
48	L & T CR		H	10.00 Ft					

Network:	Chiloquin		Name:	Chiloquin State					
Branch:	ASHOLDCH		Name:	South Hold Apron Chiloquin		Use:	APRON	Area:	15,036 SqFt
Section:	01	of	2	From:	R35 End		To:	Hold Line	Last Const.: 11/4/2012
Surface:	AC	Family:	2022_Central_Cat4/5_Apr on_AC/AAC		Zone:	2S7	Category:	M	Rank: P
Area:	10,277 SqFt		Length:	100 Ft		Width:	100 Ft		
Slabs:	Slab Length:		Ft		Slab Width:		Ft		Joint Length: Ft
Shoulder:	Street Type:		Grade:		0		Lanes: 0		
Section Comments:									
Work Date:	9/1/1995		Work Type: Subgrade-Geotextile				Code:	SG-GE	Is Major M&R: True
Work Date:	9/2/1995		Work Type: Subbase - Crushed Aggregate				Code:	SU-CA	Is Major M&R: False
Work Date:	11/1/2012		Work Type: Subbase - Pulverized AC				Code:	SU-PA	Is Major M&R: False
Work Date:	11/2/2012		Work Type: Subgrade-Geotextile				Code:	SG-GE	Is Major M&R: True
Work Date:	11/3/2012		Work Type: Base Course - Crushed Aggregate				Code:	BA-CA	Is Major M&R: False
Work Date:	11/4/2012		Work Type: New Construction - AC				Code:	NC-AC	Is Major M&R: True
Last Insp. Date:	3/1/2022		TotalSamples: 3		Surveyed: 2				
Conditions:	PCI: 70								
Inspection Comments:									
Sample Number:	01	Type:	R	Area:		4757.00 SqFt		PCI: 70	
Sample Comments:	Created by Inspection Schedule								
48	L & T CR		H	48.00		Ft			
48	L & T CR		M	63.00		Ft			
57	WEATHERING		M	4757.00		SqFt			
Sample Number:	02	Type:	R	Area:		5520.00 SqFt		PCI: 70	
Sample Comments:	Created by Inspection Schedule								
48	L & T CR		M	94.00		Ft			
48	L & T CR		H	28.00		Ft			
57	WEATHERING		M	5520.00		SqFt			

Network:	Chiloquin			Name:	Chiloquin State							
Branch:	R17CH		Name:	Runway 17/35 Chiloquin		Use:	RUNWAY		Area:	223,980 SqFt		
Section:	02	of 2		From:	R17CH-01			To:	Runway 35 End		Last Const.:	11/4/2012
Surface:	AC	Family:	2022_Central_Cat4/5_RW_AC/AAC		Zone:	2S7		Category:	M		Rank:	P
Area:	198,780 SqFt		Length:	3,313 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:	9/1/1995		Work Type: Subgrade-Geotextile				Code:	SG-GE		Is Major M&R: True		
Work Date:	9/2/1995		Work Type: Subbase - Aggregate				Code:	SB-AG		Is Major M&R: False		
Work Date:	9/3/1995		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R: False		
Work Date:	9/4/1995		Work Type: Surface Course - Double Bitum.				Code:	SU-DB		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:	11/1/2012		Work Type: Subbase - Pulverized AC				Code:	SU-PA		Is Major M&R: False		
Work Date:	11/2/2012		Work Type: Geotextile				Code:	FB-TX		Is Major M&R: False		
Work Date:	11/3/2012		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R: False		
Work Date:	11/4/2012		Work Type: New Construction - AC				Code:	NC-AC		Is Major M&R: True		
Work Date:	9/1/2017		Work Type: Crack Sealing - AC				Code:	CS-AC		Is Major M&R: False		
Last Insp. Date:	3/1/2022		TotalSamples:	33		Surveyed:	6					
Conditions:	PCI: 72											
Inspection Comments:												
Sample Number:	01	Type:	R	Area:	6000.00 SqFt		PCI:	75				
Sample Comments:		Created by Inspection Schedule										
48	L & T CR	L	8.00 Ft									
57	WEATHERING	M	6000.00 SqFt									
48	L & T CR	M	29.00 Ft									
48	L & T CR	L	10.00 Ft									
48	L & T CR	M	32.00 Ft									
Sample Number:	05	Type:	R	Area:	6000.00 SqFt		PCI:	75				
Sample Comments:		Created by Inspection Schedule										
57	WEATHERING	M	6000.00 SqFt									
48	L & T CR	M	40.00 Ft									
Sample Number:	10	Type:	R	Area:	6000.00 SqFt		PCI:	70				
Sample Comments:		Created by Inspection Schedule										
57	WEATHERING	M	6000.00 SqFt									
48	L & T CR	H	35.00 Ft									
48	L & T CR	M	100.00 Ft									
Sample Number:	15	Type:	R	Area:	6000.00 SqFt		PCI:	70				
Sample Comments:		Created by Inspection Schedule										
48	L & T CR	M	82.00 Ft									
57	WEATHERING	M	6000.00 SqFt									
48	L & T CR	H	20.00 Ft									
48	L & T CR	M	45.00 Ft									
Sample Number:	24	Type:	R	Area:	6000.00 SqFt		PCI:	75				
Sample Comments:		Created by Inspection Schedule										
48	L & T CR	M	100.00 Ft									
57	WEATHERING	M	6000.00 SqFt									

Sample Number:		33	Type:	R	Area:	6780.00 SqFt	PCI:	67
Sample Comments:		Created by Inspection Schedule						
48	L & T CR		M		78.00	Ft		
57	WEATHERING		M		6780.00	SqFt		
48	L & T CR		H		93.00	Ft		
48	L & T CR		L		24.00	Ft		

Network:	Chiloquin			Name:	Chiloquin State							
Branch:	R17CH		Name:	Runway 17/35 Chiloquin		Use:	RUNWAY		Area:	223,980 SqFt		
Section:	01	of 2		From:	Runway 17 End			To:	R17CH-02		Last Const.:	11/4/2012
Surface:	AC	Family:	2022_Central_Cat4/5_RW_AC/AAC		Zone:	2S7		Category:	M		Rank:	P
Area:	25,200 SqFt		Length:	420 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:	9/1/1995		Work Type: Subgrade-Geotextile				Code:	SG-GE		Is Major M&R: True		
Work Date:	9/2/1995		Work Type: Subbase - Aggregate				Code:	SB-AG		Is Major M&R: False		
Work Date:	9/3/1995		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R: False		
Work Date:	9/4/1995		Work Type: Surface Course - Double Bitum.				Code:	SU-DB		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:	11/1/2012		Work Type: Subbase - Pulverized AC				Code:	SU-PA		Is Major M&R: False		
Work Date:	11/2/2012		Work Type: Geotextile				Code:	FB-TX		Is Major M&R: False		
Work Date:	11/3/2012		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R: False		
Work Date:	11/4/2012		Work Type: New Construction - AC				Code:	NC-AC		Is Major M&R: True		
Work Date:	9/1/2017		Work Type: Patching - AC Full Depth				Code:	PA-AF		Is Major M&R: False		
Work Date:	9/2/2017		Work Type: Crack Sealing - AC				Code:	CS-AC		Is Major M&R: False		
Last Insp. Date:	3/1/2022		TotalSamples:	5		Surveyed:		3				
Conditions:	PCI: 71											
Inspection Comments:												
Sample Number:	01	Type:	R	Area:	6000.00 SqFt		PCI:	70				
Sample Comments:		Created by Inspection Schedule										
48	L & T CR	H	50.00	Ft								
57	WEATHERING	M	6000.00	SqFt								
48	L & T CR	M	83.00	Ft								
Sample Number:	02	Type:	R	Area:	6000.00 SqFt		PCI:	70				
Sample Comments:		Created by Inspection Schedule										
48	L & T CR	H	8.00	Ft								
48	L & T CR	M	64.00	Ft								
57	WEATHERING	M	6000.00	SqFt								
Sample Number:	03	Type:	R	Area:	6000.00 SqFt		PCI:	75				
Sample Comments:		Created by Inspection Schedule										
48	L & T CR	M	82.00	Ft								
57	WEATHERING	M	6000.00	SqFt								

Network:	Chiloquin		Name:	Chiloquin State									
Branch:	T01CH		Name:	Taxiway 01 Chiloquin		Use:	TAXIWAY	Area:	9,859 SqFt				
Section:	01	of	2	From:	Runway 17/35			To:	Hold Line		Last Const.:	11/4/2012	
Surface:	AC		Family:	2022_Central_Cat4/5_Taxiway_AC/AAC		Zone:	2S7		Category:	M		Rank:	P
Area:	3,747 SqFt		Length:	100 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:	9/1/1960		Work Type:	Base Course - Crushed Aggregate				Code:	BA-CA		Is Major M&R:	False	
Work Date:	11/1/2012		Work Type:	Subbase - Pulverized AC				Code:	SU-PA		Is Major M&R:	False	
Work Date:	11/2/2012		Work Type:	Subgrade-Geotextile				Code:	SG-GE		Is Major M&R:	True	
Work Date:	11/3/2012		Work Type:	Base Course - Crushed Aggregate				Code:	BA-CA		Is Major M&R:	False	
Work Date:	11/4/2012		Work Type:	New Construction - AC				Code:	NC-AC		Is Major M&R:	True	
Last Insp. Date:	3/1/2022		TotalSamples:	2		Surveyed:	1						
Conditions:	PCI: 68												
Inspection Comments:													
Sample Number:	01	Type:	R	Area:	3747.00 SqFt		PCI:	68					
Sample Comments:		Created by Inspection Schedule											
48	L & T CR		H	66.00 Ft									
48	L & T CR		M	8.00 Ft									
57	WEATHERING		M	3747.00 SqFt									

Network:	Chiloquin			Name:	Chiloquin State						
Branch:	T01CH		Name:	Taxiway 01 Chiloquin		Use:	TAXIWAY		Area:	9,859 SqFt	
Section:	02 of 2		From:	Hold Line			To:	Apron 01		Last Const.:	11/1/2012
Surface:	AC		Family:	2022_Central_Cat4/5_Taxiway_AC/AAC		Zone:	2S7		Category:	M Rank: P	
Area:	6,112 SqFt		Length:	240 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:	9/1/1960		Work Type: Base Course - Crushed Aggregate				Code:	BA-CA		Is Major M&R: False	
Work Date:	9/1/2001		Work Type: Base Course - Pulverized AC				Code:	BA-PA		Is Major M&R: False	
Work Date:	11/1/2012		Work Type: Cold Mill and Overlay - 2 Inches				Code:	MOL-2		Is Major M&R: True	
Last Insp. Date:	3/1/2022		TotalSamples:	2		Surveyed:	1				
Conditions:	PCI: 75										
Inspection Comments:											
Sample Number:	01		Type:	R		Area:	6112.00 SqFt		PCI:	75	
Sample Comments:	Created by Inspection Schedule										
48	L & T CR		M	21.00 Ft							
48	L & T CR		M	25.00 Ft							
48	L & T CR		L	12.00 Ft							
57	WEATHERING		M	6112.00 SqFt							

Network:	Chiloquin			Name:	Chiloquin State								
Branch:	THGRCH		Name:	Hangar Taxiway Chiloquin		Use:	TAXIWAY		Area:	26,047 SqFt			
Section:	01	of	4	From:	THGRCH-02			To:	Hangars		Last Const.:	9/2/2001	
Surface:	AC		Family:	2022_Central_Cat4/5_Taxi way_AC/AAC		Zone:	2S7		Category:	M		Rank:	S
Area:	8,360 SqFt		Length:	418 Ft		Width:	20 Ft						
Slabs:			Slab Length:	Ft		Slab Width:	Ft		Joint Length:	Ft			
Shoulder:			Street Type:			Grade:	0		Lanes:	0			
Section Comments:													
Work Date:	9/1/2001			Work Type:	Base Course - Aggregate				Code:	BA-AG		Is Major M&R:	False
Work Date:	9/2/2001			Work Type:	New Construction - AC				Code:	NC-AC		Is Major M&R:	True
Work Date:	9/1/2006			Work Type:	Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False
Last Insp. Date:	3/1/2022			TotalSamples:	2		Surveyed:	2					
Conditions:	PCI: 52												
Inspection Comments:													
Sample Number:	01		Type:	R		Area:	4464.00 SqFt		PCI:	55			
Sample Comments:	Created by Inspection Schedule												
48	L & T CR		M	205.00 Ft									
48	L & T CR		M	194.00 Ft									
48	L & T CR		H	8.00 Ft									
57	WEATHERING		M	4464.00 SqFt									
Sample Number:	02		Type:	R		Area:	3896.00 SqFt		PCI:	47			
Sample Comments:	Created by Inspection Schedule												
48	L & T CR		H	30.00 Ft									
57	WEATHERING		M	3896.00 SqFt									
48	L & T CR		M	178.00 Ft									
48	L & T CR		L	20.00 Ft									
48	L & T CR		M	335.00 Ft									

Network:	Chiloquin		Name:	Chiloquin State									
Branch:	THGRCH		Name:	Hangar Taxiway Chiloquin		Use:	TAXIWAY	Area:	26,047 SqFt				
Section:	02	of	4	From:	Runway 17/35 Midfield			To:	THGRCH-01	Last Const.:	11/2/2012		
Surface:	AC	Family:	2022_Central_Cat4/5_Taxi way_AC/AAC		Zone:	2S7		Category:	M	Rank:	S		
Area:	2,547 SqFt		Length:	100 Ft		Width:	20 Ft						
Slabs:	Slab Length:			Ft	Slab Width:			Ft	Joint Length:			Ft	
Shoulder:	Street Type:			Grade:			0	Lanes:			0		
Section Comments:													
Work Date:	9/1/2001		Work Type:				Base Course - Aggregate		Code:	BA-AG		Is Major M&R:	False
Work Date:	9/2/2001		Work Type:				New Construction - AC		Code:	NC-AC		Is Major M&R:	True
Work Date:	9/1/2006		Work Type:				Crack Sealing - AC		Code:	CS-AC		Is Major M&R:	False
Work Date:	11/1/2012		Work Type:				Cold Milling		Code:	MI-CO		Is Major M&R:	False
Work Date:	11/2/2012		Work Type:				New Construction - AC		Code:	NC-AC		Is Major M&R:	True
Last Insp. Date:	3/1/2022		TotalSamples:		1		Surveyed:					1	
Conditions:	PCI:		75										
Inspection Comments:													
Sample Number:	01		Type:	R		Area:	2547.00 SqFt		PCI:	75			
Sample Comments:		Created by Inspection Schedule											
48	L & T CR		M	24.00 Ft									
57	WEATHERING		M	2547.00 SqFt									

Network:	Chiloquin			Name:	Chiloquin State						
Branch:	THGRCH		Name:	Hangar Taxiway Chiloquin		Use:	TAXIWAY		Area:	26,047 SqFt	
Section:	03 of 4		From:	THGRCH-01			To:	THGRCH-04		Last Const.:	6/2/2004
Surface:	AC		Family:	2022_Central_Cat4/5_Taxi way_AC/AAC		Zone:	2S7		Category:	M Rank: S	
Area:	6,650 SqFt		Length:	161 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:	6/1/2004		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R: False	
Work Date:	6/2/2004		Work Type: New Construction - AC				Code:	NC-AC		Is Major M&R: True	
Last Insp. Date:	3/1/2022		TotalSamples:	1			Surveyed:	1			
Conditions:	PCI: 60										
Inspection Comments:											
Sample Number:	01		Type:	R		Area:	6650.00 SqFt		PCI:	60	
Sample Comments: Created by Inspection Schedule											
57	WEATHERING		M	6650.00 SqFt							
48	L & T CR		H	70.00 Ft							
48	L & T CR		H	30.00 Ft							
48	L & T CR		M	10.00 Ft							
48	L & T CR		M	130.00 Ft							
48	L & T CR		H	20.00 Ft							
48	L & T CR		H	40.00 Ft							

Network:	Chiloquin		Name:	Chiloquin State						
Branch:	THGRCH		Name:	Hangar Taxiway Chiloquin		Use:	TAXIWAY	Area:	26,047 SqFt	
Section:	04	of 4	From:	THGRCH-03			To:	End	Last Const.:	6/2/2004
Surface:	AC	Family:	2022_Central_Cat4/5_Taxi way_AC/AAC		Zone:	2S7	Category:	M	Rank:	S
Area:	8,490 SqFt		Length:	340 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:	6/1/2004		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R: False
Work Date:	6/2/2004		Work Type: New Construction - AC				Code:	NC-AC		Is Major M&R: True
Last Insp. Date:	3/1/2022		TotalSamples:	2		Surveyed:	2			
Conditions:	PCI: 68									
Inspection Comments:										
Sample Number:	01	Type:	R	Area:	5620.00 SqFt		PCI:	67		
Sample Comments:										
48	L & T CR		H	60.00 Ft						
48	L & T CR		M	10.00 Ft						
48	L & T CR		H	24.00 Ft						
48	L & T CR		H	24.00 Ft						
57	WEATHERING		M	5620.00 SqFt						
Sample Number:	02	Type:	R	Area:	2870.00 SqFt		PCI:	70		
Sample Comments:										
48	L & T CR		M	24.00 Ft						
48	L & T CR		H	24.00 Ft						
57	WEATHERING		M	2870.00 SqFt						

APPENDIX F

Work History Report

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Work History Report

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Pavement Database: ODA_WOC3_9-1-2022_PostBendAnalysis

Network: Chiloquin State **Branch:** A01CH Apron 01 Chiloqui **Section:** 01 **Surface:** AC
L.C.D. 11/4/2012 **Use:** APRON **Rank:** P **Length:** 145.00 (Ft) **Width:** 132.00 (Ft) **True Area:** 15365.00046 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
11/4/2012	NC-AC	New Construction - AC	0.00	2.50	<input checked="" type="checkbox"/>	P403
11/3/2012	BA-AG	Base Course - Aggregate	0.00	4.00	<input type="checkbox"/>	P209
11/2/2012	FB-TX	Geotextile	0.00	0.00	<input type="checkbox"/>	
11/1/2012	SU-PA	Subbase - Pulverized AC	0.00	6.00	<input type="checkbox"/>	
9/1/2006	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	
9/1/2001	OL-AT	Overlay - AC Thin	0.00	2.00	<input checked="" type="checkbox"/>	2"+
9/1/1968	ST-SC	Surface Treatment - Seal Coat (Global MR)	0.00	0.10	<input type="checkbox"/>	Slurry / Fog Seal
1/1/1968	NU-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	
9/1/1961	NC-AC	New Construction - AC	0.00	1.25	<input checked="" type="checkbox"/>	
9/1/1960	BA-AG	Base Course - Aggregate	0.00	4.50	<input type="checkbox"/>	Subbase remaining after pulverization

Network: Chiloquin State **Branch:** ANHOLDCH North Hold Apron **Section:** 01 **Surface:** AC
L.C.D. 11/4/2012 **Use:** APRON **Rank:** P **Length:** 100.00 (Ft) **Width:** 95.00 (Ft) **True Area:** 9620.000002 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2017	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	
11/4/2012	NC-AC	New Construction - AC	0.00	2.50	<input checked="" type="checkbox"/>	P403
11/3/2012	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	<input type="checkbox"/>	P209
11/2/2012	SG-GE	Subgrade-Geotextile	0.00	0.00	<input checked="" type="checkbox"/>	
11/1/2012	SU-PA	Subbase - Pulverized AC	0.00	6.00	<input type="checkbox"/>	
9/2/1995	BA-CA	Base Course - Crushed Aggregate	0.00	7.00	<input type="checkbox"/>	
9/1/1995	SG-GE	Subgrade-Geotextile	0.00	0.00	<input checked="" type="checkbox"/>	

Network: Chiloquin State **Branch:** ANHOLDCH North Hold Apron **Section:** 02 **Surface:** AC
L.C.D. 11/4/2012 **Use:** APRON **Rank:** P **Length:** 45.00 (Ft) **Width:** 95.00 (Ft) **True Area:** 4590.000001 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2017	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	
11/4/2012	NC-AC	New Construction - AC	0.00	2.50	<input checked="" type="checkbox"/>	P403
11/3/2012	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	<input type="checkbox"/>	P209
11/2/2012	SG-GE	Subgrade-Geotextile	0.00	0.00	<input checked="" type="checkbox"/>	
11/1/2012	SU-PA	Subbase - Pulverized AC	0.00	6.00	<input type="checkbox"/>	
9/2/1995	BA-CA	Base Course - Crushed Aggregate	0.00	7.00	<input type="checkbox"/>	
9/1/1995	SG-GE	Subgrade-Geotextile	0.00	0.00	<input checked="" type="checkbox"/>	

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Pavement Database: ODA_WOC3_9-1-2022_PostBendAnalysis

Network: Chiloquin State **Branch:** ASHOLDCH South Hold Apron **Section:** 01 **Surface:** AC
L.C.D. 11/4/2012 **Use:** APRON **Rank:** P **Length:** 100.00 (Ft) **Width:** 100.00 (Ft) **True Area:** 10277.00000 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
11/4/2012	NC-AC	New Construction - AC	0.00	2.50	<input checked="" type="checkbox"/>	P403
11/3/2012	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	<input type="checkbox"/>	P209
11/2/2012	SG-GE	Subgrade-Geotextile	0.00	0.00	<input checked="" type="checkbox"/>	
11/1/2012	SU-PA	Subbase - Pulverized AC	0.00	6.00	<input type="checkbox"/>	
9/2/1995	SU-CA	Subbase - Crushed Aggregate	0.00	7.00	<input type="checkbox"/>	P-154
9/1/1995	SG-GE	Subgrade-Geotextile	0.00	0.00	<input checked="" type="checkbox"/>	

Network: Chiloquin State **Branch:** ASHOLDCH South Hold Apron **Section:** 02 **Surface:** AC
L.C.D. 11/4/2012 **Use:** APRON **Rank:** P **Length:** 45.00 (Ft) **Width:** 100.00 (Ft) **True Area:** 4759.000001 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
11/4/2012	NC-AC	New Construction - AC	0.00	2.50	<input checked="" type="checkbox"/>	P403
11/3/2012	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	<input type="checkbox"/>	P209
11/2/2012	SG-GE	Subgrade-Geotextile	0.00	0.00	<input checked="" type="checkbox"/>	
11/1/2012	SU-PA	Subbase - Pulverized AC	0.00	6.00	<input type="checkbox"/>	
9/2/1995	SU-CA	Subbase - Crushed Aggregate	0.00	7.00	<input type="checkbox"/>	P-154
9/1/1995	SG-GE	Subgrade-Geotextile	0.00	0.50	<input checked="" type="checkbox"/>	

Network: Chiloquin State **Branch:** R17CH Runway 17/35 Chil **Section:** 01 **Surface:** AC
L.C.D. 11/4/2012 **Use:** RUNWAY **Rank:** P **Length:** 420.00 (Ft) **Width:** 60.00 (Ft) **True Area:** 25200 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/2/2017	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	
9/1/2017	PA-AF	Patching - AC Full Depth	0.00	0.00	<input type="checkbox"/>	
11/4/2012	NC-AC	New Construction - AC	0.00	2.50	<input checked="" type="checkbox"/>	P403
11/3/2012	BA-AG	Base Course - Aggregate	0.00	4.00	<input type="checkbox"/>	P209
11/2/2012	FB-TX	Geotextile	0.00	0.00	<input type="checkbox"/>	
11/1/2012	SU-PA	Subbase - Pulverized AC	0.00	6.00	<input type="checkbox"/>	
9/1/1999	ST-SS	Surface Treatment - Slurry Seal	0.00	0.50	<input type="checkbox"/>	
9/4/1995	SU-DB	Surface Course - Double Bitum.	0.00	1.50	<input checked="" type="checkbox"/>	P-609
9/3/1995	BA-AG	Base Course - Aggregate	0.00	3.00	<input type="checkbox"/>	P-209
9/2/1995	SB-AG	Subbase - Aggregate	0.00	10.00	<input type="checkbox"/>	P154, Remaining after pulverization
9/1/1995	SG-GE	Subgrade-Geotextile	0.00	0.50	<input checked="" type="checkbox"/>	

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Pavement Database: ODA_WOC3_9-1-2022_PostBendAnalysis

Network: Chiloquin State **Branch:** R17CH Runway 17/35 Chil **Section:** 02 **Surface:** AC
L.C.D. 11/4/2012 **Use:** RUNWAY **Rank:** P **Length:** 3,313.00 (Ft) **Width:** 60.00 (Ft) **True Area:** 198780 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2017	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	P403 P209
11/4/2012	NC-AC	New Construction - AC	0.00	2.50	<input checked="" type="checkbox"/>	
11/3/2012	BA-AG	Base Course - Aggregate	0.00	4.00	<input type="checkbox"/>	
11/2/2012	FB-TX	Geotextile	0.00	0.00	<input type="checkbox"/>	
11/1/2012	SU-PA	Subbase - Pulverized AC	0.00	6.00	<input type="checkbox"/>	
9/1/1999	ST-SS	Surface Treatment - Slurry Seal	0.00	0.50	<input type="checkbox"/>	P-609 P-209 P154, remaining after pulverization
9/4/1995	SU-DB	Surface Course - Double Bitum.	0.00	1.50	<input checked="" type="checkbox"/>	
9/3/1995	BA-AG	Base Course - Aggregate	0.00	3.00	<input type="checkbox"/>	
9/2/1995	SB-AG	Subbase - Aggregate	0.00	7.50	<input type="checkbox"/>	
9/1/1995	SG-GE	Subgrade-Geotextile	0.00	0.50	<input checked="" type="checkbox"/>	

Network: Chiloquin State **Branch:** T01CH Taxiway 01 Chiloq **Section:** 01 **Surface:** AC
L.C.D. 11/4/2012 **Use:** TAXIWAY **Rank:** P **Length:** 100.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 3747.000001 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
11/4/2012	NC-AC	New Construction - AC	0.00	2.50	<input checked="" type="checkbox"/>	P403 P209
11/3/2012	BA-CA	Base Course - Crushed Aggregate	0.00	4.00	<input type="checkbox"/>	
11/2/2012	SG-GE	Subgrade-Geotextile	0.00	0.00	<input checked="" type="checkbox"/>	
11/1/2012	SU-PA	Subbase - Pulverized AC	0.00	6.00	<input type="checkbox"/>	
9/1/1960	BA-CA	Base Course - Crushed Aggregate	0.00	7.00	<input type="checkbox"/>	

Network: Chiloquin State **Branch:** T01CH Taxiway 01 Chiloq **Section:** 02 **Surface:** AC
L.C.D. 11/1/2012 **Use:** TAXIWAY **Rank:** P **Length:** 240.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 6112.000001 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
11/1/2012	MOL-2	Cold Mill and Overlay - 2 Inches	0.00	2.00	<input checked="" type="checkbox"/>	
9/1/2001	BA-PA	Base Course - Pulverized AC	0.00	0.00	<input type="checkbox"/>	
9/1/1960	BA-CA	Base Course - Crushed Aggregate	0.00	7.00	<input type="checkbox"/>	

Network: Chiloquin State **Branch:** THGRCH Hangar Taxiway C **Section:** 01 **Surface:** AC
L.C.D. 9/2/2001 **Use:** TAXIWAY **Rank:** S **Length:** 418.00 (Ft) **Width:** 20.00 (Ft) **True Area:** 8360 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2006	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	Cold mix? Unknown depth, AC millings
9/2/2001	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>	
9/1/2001	BA-AG	Base Course - Aggregate	0.00	0.00	<input type="checkbox"/>	

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Pavement Database: ODA_WOC3_9-1-2022_PostBendAnalysis

Network: Chiloquin State **Branch:** THGRCH Hangar Taxiway C **Section:** 02 **Surface:** AC
L.C.D. 11/2/2012 **Use:** TAXIWAY **Rank:** S **Length:** 100.00 (Ft) **Width:** 20.00 (Ft) **True Area:** 2547.000027 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
11/2/2012	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>	P403
11/1/2012	MI-CO	Cold Milling	0.00	-2.00	<input type="checkbox"/>	
9/1/2006	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	
9/2/2001	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>	Cold mix?
9/1/2001	BA-AG	Base Course - Aggregate	0.00	0.00	<input type="checkbox"/>	Unknown depth, AC millings

Network: Chiloquin State **Branch:** THGRCH Hangar Taxiway C **Section:** 03 **Surface:** AC
L.C.D. 6/2/2004 **Use:** TAXIWAY **Rank:** S **Length:** 161.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 6650.000001 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/2/2004	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>	
6/1/2004	BA-AG	Base Course - Aggregate	0.00	13.00	<input type="checkbox"/>	

Network: Chiloquin State **Branch:** THGRCH Hangar Taxiway C **Section:** 04 **Surface:** AC
L.C.D. 6/2/2004 **Use:** TAXIWAY **Rank:** S **Length:** 340.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 8490.000002 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/2/2004	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>	
6/1/2004	BA-AG	Base Course - Aggregate	0.00	13.00	<input type="checkbox"/>	

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
Base Course - Aggregate	10	504,737.00	4.85	4.35
Base Course - Crushed Aggregate	9	57,062.00	5.33	1.49
Base Course - Pulverized AC	1	6,112.00	0.00	0.00
Cold Mill and Overlay - 2 Inches	1	6,112.00	2.00	0.00
Cold Milling	1	2,547.00	-2.00	0.00
Crack Sealing - AC	7	264,462.00	0.00	0.00
Geotextile	3	239,345.00	0.00	0.00
New Construction - AC	14	316,297.00	2.23	0.36
New Construction - Initial	1	15,365.00	0.00	0.00
Overlay - AC Thin	1	15,365.00	2.00	0.00
Patching - AC Full Depth	1	25,200.00	0.00	0.00
Subbase - Aggregate	2	223,980.00	8.75	1.25
Subbase - Crushed Aggregate	2	15,036.00	7.00	0.00
Subbase - Pulverized AC	8	272,338.00	6.00	0.00
Subgrade-Geotextile	11	286,219.00	0.14	0.22
Surface Course - Double Bitum.	2	223,980.00	1.50	0.00
Surface Treatment - Seal Coat (Global MR)	1	15,365.00	0.10	0.00
Surface Treatment - Slurry Seal	2	223,980.00	0.50	0.00