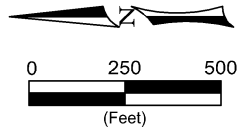
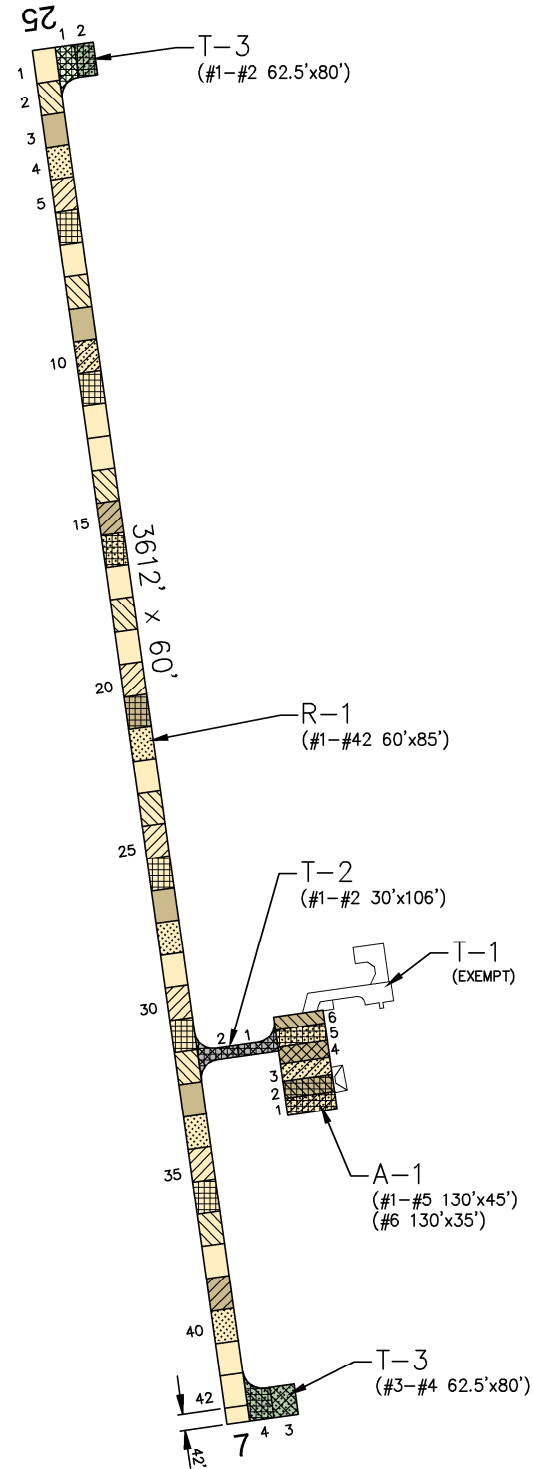


TURNER



PAVEMENT STRENGTH SURVEY/PAVEMENT CONDITION SURVEY

PAVE. IDENT.	SOIL CLASS	SUB GRADE CLASS	SUBBASE COURSE	BASE COURSE	SURFACE COURSE	OVERLAY	PAVEMENT STRENGTH			REMARKS
							MAX. GROSS LOAD (LBS)			
							SINGLE	DUAL	DUAL TAN.	
RUNWAYS										
R-1	CBR=3		22" P-154, FABRIC 12" COMP. P-152	6" P-208	3" P-401(MOD)	P-609	12,500			1,2,3
TAXIWAYS										
T-1	E-7	F-7	6" P-152	5" P-201	P-609	P-609	4000			
T-2	CBR=3		22" P-154, FABRIC 12" COMP. P-152	6" P-208	3" P-401 (MOD)	P-609	12,500			1,2,3
T-3	CBR=3		22" P-154, FABRIC 12" COMP. P-152	6" P-208	3" P-401(MOD)	P-609	12,500			1,2,3
APRONS										
A-1	CBR=3		22" P-154, FABRIC 12" COMP. P-152	6" P-208	3" P-401(MOD)	P-609	12,500			1,2,3

REMARKS:

- ADAP-01, 1978
- AIP-01, SEPT. 1986, DRAINAGE FEATURES (FRENCH DRAIN) BUILT ALONG BOTH SIDES OF RUNWAY TO REDUCE FROST ACTION.
- 1. AIP-02, 1995, REHABILITATE RUNWAY, TAXIWAY, AND APRON.
- 2. AIP-003-2007, MAJOR CRACK REPAIR, CRACK SEAL, FOG SEAL, AND REMARK PAVEMENTS.
- 3. AIP-005-2012, CRACK REPAIR, CRACK SEAL, FOG SEAL, AND REMARK RUNWAY, TAXIWAYS, AND APRON [INSPECTED AFTER MAINTENANCE PROJECT].

LEGEND

- 2003 SURVEY AREA
- 2006 SURVEY AREA
- 2009 SURVEY AREA
- 2012 SURVEY AREA
- 2015 SURVEY AREA

- MAINTAIN: PCI > 60
- TRANSITION: PCI 45 TO 60
- RECONSTRUCT: PCI < 45

DATE OF PAVEMENT STRENGTH SURVEY:

EVALUATED BY:

DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:

EVALUATED BY:

LOCATION:

OCT. 5, 2015

TURNER MONTANA

**MONTANA AVIATION SYSTEM PLAN
2015 UPDATE - PAVEMENT CONDITION INDEXES**

**TURNER AIRPORT
(9U0)**

Date: DECEMBER 2015

Prepared For:



Prepared By:



TURNER AIRPORT

9/30/2015



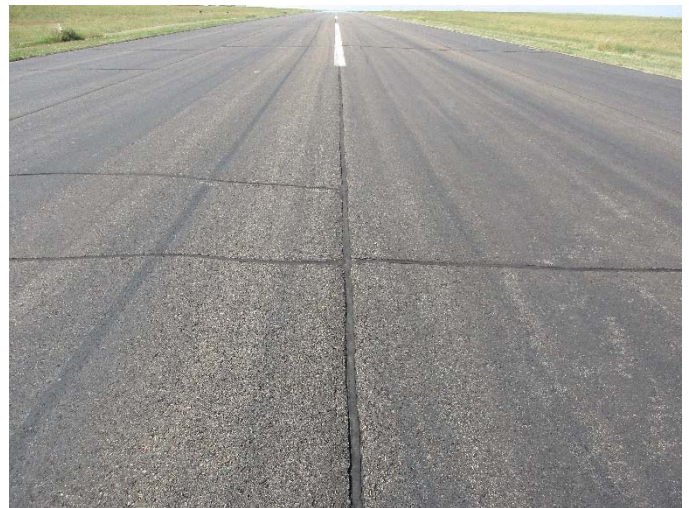
A-1, Overview



A-1, Surface detail with cracks & patch



R-1, Surface detail with patch



R-1, Overview

TURNER AIRPORT

9/30/2015



T-3, Overview with cracks, weathering, & raveling



T-3, Surface detail with raveling & depression

TURNER AIRPORT

Branch: 29A

APRON

A-1

Length: 260 LF **Width:** 130 LF **Area:** 33,800 SF **Last Const. :** 1995 **Family:** ACAM15
From: ENTIRE APRON **To:** **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 6 **Last Inspection Date (RPA)** 9/30/2015 **PCI:** **51**

Sample # 1 **Area:** 5850 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	570 LF
WEATHERING	L	293 SF
RAVELING	L	59 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	12 LF
DEPRESSION	L	34 SF
RAVELING	H	10 SF
DEPRESSION	H	6 SF
PATCHING	M	6 SF
PATCHING	L	1 SF

Sample # 3 **Area:** 5850 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	570 LF
WEATHERING	L	293 SF
RAVELING	L	59 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	15 LF
DEPRESSION	L	42 SF
DEPRESSION	H	6 SF
PATCHING	M	6 SF
RAVELING	H	2 SF

Sample # 5 **Area:** 5850 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	705 LF
WEATHERING	L	293 SF
RAVELING	L	59 SF
DEPRESSION	L	20 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	6 LF
RAVELING	H	6 SF
PATCHING	L	1 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	3553 LF	10.51 %	23.95
DEPRESSION	H	23 SF	0.07 %	12.00
PATCHING	M	23 SF	0.07 %	6.20
RAVELING	H	35 SF	0.10 %	6.13
LONGITUDINAL/TRANSVERSE CRACKING	M	64 LF	0.19 %	4.96
DEPRESSION	L	185 SF	0.55 %	3.66
RAVELING	L	341 SF	1.01 %	2.63
PATCHING	L	4 SF	0.01 %	2.00
WEATHERING	L	1693 SF	5.01 %	1.09

* Multiple deduct values are scaled down from their algebraic sum to keep the model consistent with experimental data.

Percent of Deduct Values Based on Distress Mechanism

0.0 % Load 75.0 % Climate/Durability 25.0 % Other

TURNER AIRPORT

Branch: 29R

RUNWAY

R-1

Length: 3,600 LF **Width:** 60 LF **Area:** 216,000 SF **Last Const. :** 1995 **Family:** ACRMU15
From: STATION 0+00 **To:** STATION 36+00 **Surface:** AC

Inspections

Samples Surveyed: 7 **Total Samples:** 42 **Last Inspection Date (RPA)** 9/30/2015 **PCI:** 59

Sample # 4 **Area:** 5100 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	424 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	132 LF
WEATHERING	L	255 SF
DEPRESSION	L	124 SF
RAVELING	L	51 SF
LONGITUDINAL/TRANSVERSE CRACKING	H	4 LF
SWELLING	L	4 SF
DEPRESSION	M	4 SF

Sample # 10 **Area:** 5100 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	403 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	101 LF
WEATHERING	L	255 SF
DEPRESSION	L	72 SF
RAVELING	L	51 SF
SWELLING	L	5 SF
RAVELING	H	4 SF

Sample # 16 **Area:** 5100 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	288 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	123 LF
WEATHERING	L	255 SF
DEPRESSION	L	137 SF
RAVELING	L	51 SF
PATCHING	M	2 SF

Sample # 22 **Area:** 5100 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	356 LF
PATCHING	L	480 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	117 LF
WEATHERING	L	255 SF
DEPRESSION	L	158 SF
RAVELING	L	51 SF
PATCHING	M	8 SF
RAVELING	H	1 SF

Sample # 28 **Area:** 5100 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	358 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	123 LF
WEATHERING	L	255 SF
DEPRESSION	L	65 SF
RAVELING	L	51 SF
RAVELING	H	20 SF
SWELLING	L	3 SF

Sample # 34 **Area:** 5100 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	273 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	84 LF
WEATHERING	L	255 SF
RAVELING	L	51 SF
DEPRESSION	L	31 SF
RAVELING	H	6 SF
DEPRESSION	H	2 SF

TURNER AIRPORT

Branch: 29R

RUNWAY

R-1

Sample # 40

Area: 5100 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	411 LF
WEATHERING	L	255 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	36 LF
DEPRESSION	L	97 SF
RAVELING	L	51 SF
DEPRESSION	M	16 SF
RAVELING	H	4 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	15205 LF	7.04 %	18.72
LONGITUDINAL/TRANSVERSE CRACKING	M	4332 LF	2.01 %	15.73
DEPRESSION	H	12 SF	0.01 %	12.00
DEPRESSION	L	4138 SF	1.92 %	10.93
LONGITUDINAL/TRANSVERSE CRACKING	H	24 LF	0.01 %	7.50
PATCHING	M	61 SF	0.03 %	6.20
RAVELING	H	212 SF	0.10 %	6.00
DEPRESSION	M	121 SF	0.06 %	5.20
PATCHING	L	2904 SF	1.34 %	4.29
RAVELING	L	2160 SF	1.00 %	2.62
WEATHERING	L	10800 SF	5.00 %	1.09
SWELLING	L	73 SF	0.03 %	1.00

* Multiple deduct values are scaled down from their algebraic sum to keep the model consistent with experimental data.

Percent of Deduct Values Based on Distress Mechanism

0.0 % Load

68.0 % Climate/Durability

32.0 % Other

TURNER AIRPORT

Branch: 29T

TAXIWAY

T-3

Length: 250 LF **Width:** 80 LF **Area:** 20,000 SF **Last Const. :** 1995 **Family:** ACRMU15
From: RW 7 TURNAROUND **To:** & RW 25 TURNAROUND **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 4 **Last Inspection Date (RPA)** 9/30/2015 **PCI:** **66**

Sample # 2 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	268 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	123 LF
WEATHERING	L	260 SF
DEPRESSION	L	130 SF
RAVELING	L	53 SF
SWELLING	L	16 SF

Sample # 3 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	415 LF
WEATHERING	L	250 SF
RAVELING	L	50 SF
RAVELING	H	5 SF
PATCHING	L	1 SF

Sample # 4 **Area:** 5578 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	383 LF
PATCHING	L	1080 SF
WEATHERING	L	279 SF
RAVELING	L	56 SF
DEPRESSION	L	21 SF
RAVELING	H	16 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	1369 LF	6.84 %	18.37
PATCHING	L	1388 SF	6.94 %	11.95
LONGITUDINAL/TRANSVERSE CRACKING	M	158 LF	0.79 %	10.12
RAVELING	H	27 SF	0.13 %	7.15
DEPRESSION	L	194 SF	0.97 %	6.47
RAVELING	L	204 SF	1.02 %	2.65
WEATHERING	L	1013 SF	5.06 %	1.09
SWELLING	L	21 SF	0.10 %	1.03

* Multiple deduct values are scaled down from their algebraic sum to keep the model consistent with experimental data.

Percent of Deduct Values Based on Distress Mechanism

0.0 % **Load** 87.0 % **Climate/Durability** 13.0 % **Other**

TURNER AIRPORT

FIFTEEN YEAR PROJECTIONS: ESTIMATED AVERAGE ANNUAL COST: \$160,854

PLAN YEAR: 2016			ESTIMATED COST:			\$283,480	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Reconstruct				\$175,338	\$175,338	49	100
T-3	Prev. & Seal Coat	\$2,080	\$5,600			\$7,680	65	69
R-1	Prev. & Seal Coat	\$39,982	\$60,480			\$100,462	58	61
PLAN YEAR: 2017			ESTIMATED COST:			\$36,678	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-3	Basic Prev.	\$1,737				\$1,737	67	67
R-1	Basic Prev.	\$34,941				\$34,941	60	60
PLAN YEAR: 2018			ESTIMATED COST:			\$43,895	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-1	Basic Prev.	\$41,729				\$41,729	58	58
T-3	Basic Prev.	\$2,166				\$2,166	65	65
PLAN YEAR: 2019			ESTIMATED COST:			\$51,814	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$104				\$104	87	87
T-3	Basic Prev.	\$2,605				\$2,605	63	63
R-1	Basic Prev.	\$49,105				\$49,105	56	56
PLAN YEAR: 2020			ESTIMATED COST:			\$60,508	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-1	Basic Prev.	\$57,216				\$57,216	54	54
T-3	Basic Prev.	\$3,059				\$3,059	61	62
A-1	Basic Prev.	\$233				\$233	84	84
PLAN YEAR: 2021			ESTIMATED COST:			\$146,821	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-3	Prev. & Seal Coat	\$3,561	\$6,492			\$10,053	60	63
R-1	Prev. & Seal Coat	\$66,296	\$70,113			\$136,409	52	56
A-1	Basic Prev.	\$359				\$359	81	81
PLAN YEAR: 2022			ESTIMATED COST:			\$63,732	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-3	Basic Prev.	\$3,200				\$3,200	62	62
A-1	Basic Prev.	\$720				\$720	78	78
R-1	Basic Prev.	\$59,812				\$59,812	55	55
PLAN YEAR: 2023			ESTIMATED COST:			\$74,218	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-3	Basic Prev.	\$3,708				\$3,708	60	60
R-1	Basic Prev.	\$69,336				\$69,336	53	53
A-1	Basic Prev.	\$1,174				\$1,174	75	76
PLAN YEAR: 2024			ESTIMATED COST:			\$86,196	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-3	Basic Prev.	\$4,454				\$4,454	58	58
R-1	Basic Prev.	\$80,117				\$80,117	50	51
A-1	Basic Prev.	\$1,625				\$1,625	73	73
PLAN YEAR: 2025			ESTIMATED COST:			\$1,494,704	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$2,078				\$2,078	71	71
T-3	Basic Prev.	\$5,261				\$5,261	57	57
R-1	Reconstruct			\$1,487,365		\$1,487,365	48	100
PLAN YEAR: 2026			ESTIMATED COST:			\$16,609	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$2,943				\$2,943	69	69
T-3	Prev. & Seal Coat	\$6,140	\$7,526			\$13,666	55	59
PLAN YEAR: 2027			ESTIMATED COST:			\$9,526	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$4,028				\$4,028	66	67
T-3	Basic Prev.	\$5,498				\$5,498	57	57

PLAN YEAR: 2028		ESTIMATED COST:				\$11,590	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$5,166				\$5,166	64	64
T-3	Basic Prev.	\$6,424				\$6,424	55	55
PLAN YEAR: 2029		ESTIMATED COST:				\$14,819	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-3	Basic Prev.	\$7,459				\$7,459	53	53
R-1	Basic Prev.	\$987				\$987	87	87
A-1	Basic Prev.	\$6,373				\$6,373	62	62
PLAN YEAR: 2030		ESTIMATED COST:				\$18,224	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-3	Basic Prev.	\$8,617				\$8,617	51	51
A-1	Basic Prev.	\$7,664				\$7,664	60	60
R-1	Basic Prev.	\$1,943				\$1,943	84	84