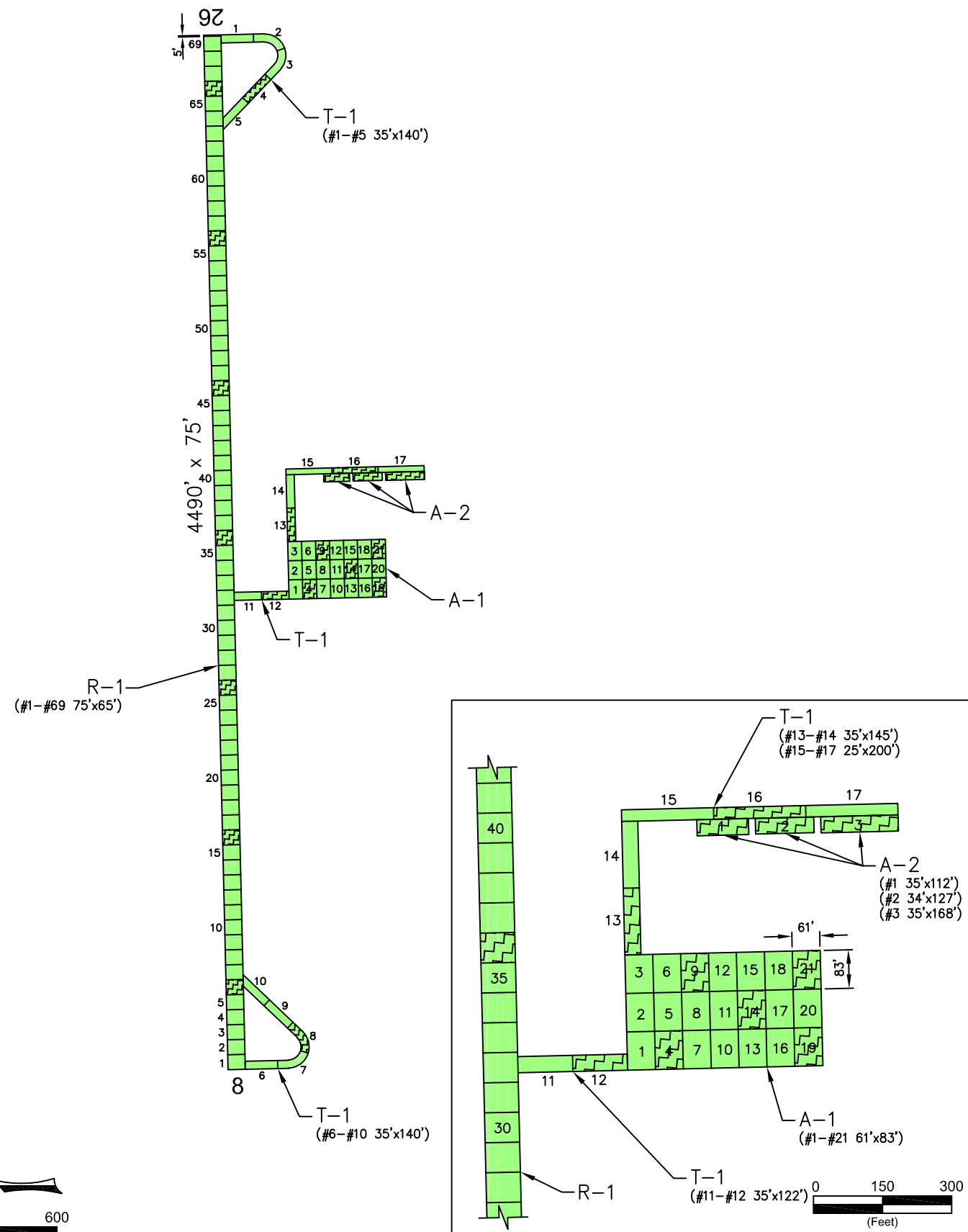


HARDIN

HARDIN

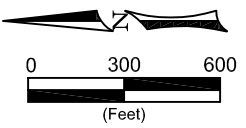


PAVEMENT STRENGTH SURVEY/PAVEMENT CONDITION SURVEY

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	FG-38.4	CBR=1.8	36" P-154	5" P-208	3" P-401		18,500			1
TAXIWAYS										
T-1	FG-38.4	CBR=1.8	36" P-154	5" P-208	3" P-401		18,500			1
APRONS										
A-1	FG-38.4	CBR=1.8	36" P-154	5" P-208	3" P-401		18,500			1
A-2	FG-38.4	CBR=1.8	36" P-154	5" P-208	3" P-401		18,500			1

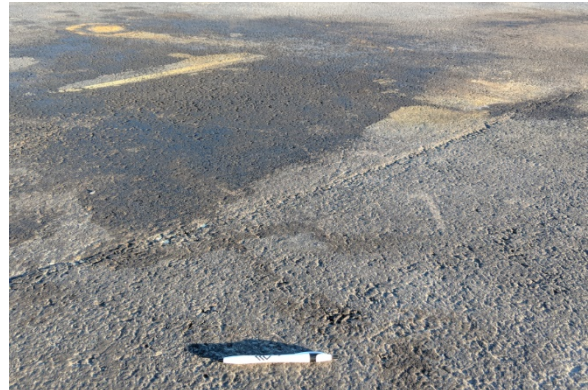
REMARKS:
1. AIP-007-2013, NEW AIRPORT CONSTRUCTION (PAVED IN 2014).

LEGEND ■ 2006 SURVEY AREA (N/A) ▨ 2009 SURVEY AREA (N/A) ▩ 2012 SURVEY AREA (N/A) ▤ 2015 SURVEY AREA (NOT SURVEYED) ▥ 2018 SURVEY AREA ■ MAINTAIN: PCI > 60 ■ TRANSITION: PCI 45 TO 60 ■ RECONSTRUCT: PCI < 45	DATE OF PAVEMENT STRENGTH SURVEY:		MONTANA AVIATION SYSTEM PLAN 2018 UPDATE - PAVEMENT CONDITION INDEXES BIG HORN COUNTY AIRPORT (00U)	
	EVALUATED BY:			
	DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	OCT. 12, 2018		Date: Prepared For: Prepared By:
	EVALUATED BY:	N. SCHROHT		DECEMBER 2018
	LOCATION:	HARDIN MONTANA	MONTANA MDT DEPARTMENT OF TRANSPORTATION	





A-1, Overview



A-1, Chemical Spill



R-1, Overview



R-1, Cracking



T-1, Overview



T-1, Ravel

HARDIN AIRPORT

Branch: 66A TAXIWAY

A-1

Length: 427 LF **Width:** 249 LF **Area:** 106,323 SF **Last Const:** 2014 **Family:** ACAM
From: T-1 **To:** HANGARS & T **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 21 **Last Inspection Date:** 10/12/2018 **PCI:** 98

Sample # 4	Distress Description NO DISTRESSES	Severity	Quantity	Area: 5,063 SF
Sample # 9	Distress Description PATCHING	Severity L	Quantity 21 SF	Area: 5,063 SF
Sample # 14	Distress Description PATCHING	Severity L	Quantity 9 SF	Area: 5,063 SF
Sample # 19	Distress Description LONGITUDINAL/TRANSVERSE CRACKING	Severity L	Quantity 36 LF	Area: 5,063 SF
Sample # 21	Distress Description NO DISTRESSES	Severity	Quantity	Area: 4,875 5063

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	LOW	151 LF	0.14%	2.66
PATCHING	LOW	128 SF	0.12%	2.00

* 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 100.0 % Climate/Durability 0.0 % Other

HARDIN AIRPORT

Branch: 66R RUNWAY

R-1

Length: 4490 LF **Width:** 75 LF **Area:** 336,750 SF **Last Const:** 2014 **Family:** ACRML
From: STA. 0+00 **To:** STA. 44+90 **Surface:** AC

Inspections

Samples Surveyed: 7 **Total Samples:** 70 **Last Inspection Date:** 10/12/2018 **PCI:** 95

Sample # 6	Distress Description LONGITUDINAL/TRANSVERSE CRACKING	Severity L	Quantity 72 LF	Area: 4,875 SF
Sample # 16	Distress Description PATCHING LONGITUDINAL/TRANSVERSE CRACKING	Severity L L	Quantity 0.2 SF 42 LF	Area: 4,875 SF
Sample # 26	Distress Description LONGITUDINAL/TRANSVERSE CRACKING	Severity L	Quantity 34 LF	Area: 4,875 SF
Sample # 36	Distress Description LONGITUDINAL/TRANSVERSE CRACKING	Severity L	Quantity 60 LF	Area: 4,875 SF
Sample # 46	Distress Description LONGITUDINAL/TRANSVERSE CRACKING	Severity L	Quantity 17 LF	Area: 4,875 SF
Sample # 56	Distress Description LONGITUDINAL/TRANSVERSE CRACKING	Severity L	Quantity 20 LF	Area: 4,875 SF
Sample # 66	Distress Description PATCHING	Severity L	Quantity 0.2 SF	Area: 4,875 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	LOW	2,418 LF	0.72%	4.41
PATCHING	LOW	4 SF	0.00%	2.00

* 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 100.0 % Climate/Durability 0.0 % Other

HARDIN AIRPORT

Branch: 66T TAXIWAY

T-1

Length: 2534 LF **Width:** 35 LF **Area:** 82,811 SF **Last Const:** 2014 **Family:** ACRML
From: TA, R-1, HANGARS **To:** A-1 **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 17 **Last Inspection Date:** 10/12/2018 **PCI:** 95

Sample #	Distress Description	Severity	Quantity	Area:
4	LONGITUDINAL/TRANSVERSE CRACKING	L	0.4 LF	4,900 SF
8	PATCHING	L	0.2 SF	4,900 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	24 LF	
12	RAVELING	H	8 SF	4,270 SF
13	LONGITUDINAL/TRANSVERSE CRACKING	L	2 LF	5,075 SF
	PATCHING	L	0.2 SF	
16	PATCHING	L	0.6 SF	5,000 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	35 LF	
56	LONGITUDINAL/TRANSVERSE CRACKING	L	20 LF	4,875 SF
66	PATCHING	L	0.2 SF	4,875 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	LOW	209 LF	0.25%	3.41
PATCHING	LOW	5 SF	0.01%	2.00
RAVELING	HIGH	27 SF	0.03%	6.00

* 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 100.0 % Climate/Durability 0.0 % Other

HARDIN AIRPORT (66)

FIFTEEN YEAR PROJECTIONS							ESTIMATED AVERAGE ANNUAL COST:		\$39,618			
Plan Year: 2019							Estimated Cost:		\$178,844		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Global MR	\$0	\$36,150	\$0	\$0	\$36,150	98	99				
A-2	Preventive	\$45	\$0	\$0	\$0	\$45	87	87				
R-1	Global MR	\$0	\$114,494	\$0	\$0	\$114,494	95	98				
T-1	Global MR	\$0	\$28,155	\$0	\$0	\$28,155	95	98				
Plan Year: 2020							Estimated Cost:		\$84		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	None	\$0	\$0	\$0	\$0	\$0	99	99				
A-2	Preventive	\$84	\$0	\$0	\$0	\$84	84	84				
R-1	None	\$0	\$0	\$0	\$0	\$0	97	97				
T-1	None	\$0	\$0	\$0	\$0	\$0	97	97				
Plan Year: 2021							Estimated Cost:		\$4,966		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	None	\$0	\$0	\$0	\$0	\$0	98	98				
A-2	Preventive + Global MR	\$123	\$4,843	\$0	\$0	\$4,966	81	91				
R-1	None	\$0	\$0	\$0	\$0	\$0	96	96				
T-1	None	\$0	\$0	\$0	\$0	\$0	96	96				
Plan Year: 2022							Estimated Cost:		\$33		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	None	\$0	\$0	\$0	\$0	\$0	98	98				
A-2	Preventive	\$33	\$0	\$0	\$0	\$33	88	88				
R-1	None	\$0	\$0	\$0	\$0	\$0	95	95				
T-1	None	\$0	\$0	\$0	\$0	\$0	95	95				
Plan Year: 2023							Estimated Cost:		\$72		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	None	\$0	\$0	\$0	\$0	\$0	97	97				
A-2	Preventive	\$72	\$0	\$0	\$0	\$72	85	85				
R-1	None	\$0	\$0	\$0	\$0	\$0	93	93				
T-1	None	\$0	\$0	\$0	\$0	\$0	93	93				
Plan Year: 2024							Estimated Cost:		\$178,910		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Global MR	\$0	\$36,150	\$0	\$0	\$36,150	97	98				
A-2	Preventive	\$111	\$0	\$0	\$0	\$111	82	82				
R-1	Global MR	\$0	\$114,494	\$0	\$0	\$114,494	92	96				
T-1	Global MR	\$0	\$28,155	\$0	\$0	\$28,155	92	96				
Plan Year: 2025							Estimated Cost:		\$172		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	None	\$0	\$0	\$0	\$0	\$0	98	98				
A-2	Preventive	\$172	\$0	\$0	\$0	\$172	79	80				
R-1	None	\$0	\$0	\$0	\$0	\$0	95	95				
T-1	None	\$0	\$0	\$0	\$0	\$0	95	95				
Plan Year: 2026							Estimated Cost:		\$5,171		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	None	\$0	\$0	\$0	\$0	\$0	97	97				
A-2	Preventive + Global MR	\$328	\$4,843	\$0	\$0	\$5,171	77	86				
R-1	None	\$0	\$0	\$0	\$0	\$0	93	93				
T-1	None	\$0	\$0	\$0	\$0	\$0	93	93				
Plan Year: 2027							Estimated Cost:		\$99		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	None	\$0	\$0	\$0	\$0	\$0	97	97				
A-2	Preventive	\$99	\$0	\$0	\$0	\$99	83	83				
R-1	None	\$0	\$0	\$0	\$0	\$0	92	92				
T-1	None	\$0	\$0	\$0	\$0	\$0	92	92				
Plan Year: 2028							Estimated Cost:		\$138		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	None	\$0	\$0	\$0	\$0	\$0	96	96				
A-2	Preventive	\$138	\$0	\$0	\$0	\$138	80	81				
R-1	None	\$0	\$0	\$0	\$0	\$0	91	91				
T-1	None	\$0	\$0	\$0	\$0	\$0	91	91				

HARDIN AIRPORT (66)

FIFTEEN YEAR PROJECTIONS							ESTIMATED AVERAGE ANNUAL COST:		\$39,618	
Plan Year: 2029							Estimated Cost:		\$179,244	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Global MR	\$0	\$36,150	\$0	\$0	\$36,150	96	97		
A-2	Preventive	\$281	\$0	\$0	\$0	\$281	78	78		
R-1	Preventive + Global MR	\$131	\$114,494	\$0	\$0	\$114,625	90	93		
T-1	Preventive + Global MR	\$32	\$28,155	\$0	\$0	\$28,188	90	93		
Plan Year: 2030							Estimated Cost:		\$436	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	None	\$0	\$0	\$0	\$0	\$0	97	97		
A-2	Preventive	\$436	\$0	\$0	\$0	\$436	75	75		
R-1	None	\$0	\$0	\$0	\$0	\$0	92	92		
T-1	None	\$0	\$0	\$0	\$0	\$0	92	92		
Plan Year: 2031							Estimated Cost:		\$5,435	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	None	\$0	\$0	\$0	\$0	\$0	96	96		
A-2	Preventive + Global MR	\$592	\$4,843	\$0	\$0	\$5,435	72	81		
R-1	None	\$0	\$0	\$0	\$0	\$0	91	91		
T-1	None	\$0	\$0	\$0	\$0	\$0	91	91		
Plan Year: 2032							Estimated Cost:		\$375	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	None	\$0	\$0	\$0	\$0	\$0	96	96		
A-2	Preventive	\$235	\$0	\$0	\$0	\$235	78	79		
R-1	Preventive	\$113	\$0	\$0	\$0	\$113	90	90		
T-1	Preventive	\$28	\$0	\$0	\$0	\$28	90	90		
Plan Year: 2033							Estimated Cost:		\$1,041	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	None	\$0	\$0	\$0	\$0	\$0	95	95		
A-2	Preventive	\$390	\$0	\$0	\$0	\$390	76	76		
R-1	Preventive	\$522	\$0	\$0	\$0	\$522	88	88		
T-1	Preventive	\$128	\$0	\$0	\$0	\$128	88	88		