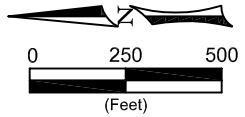
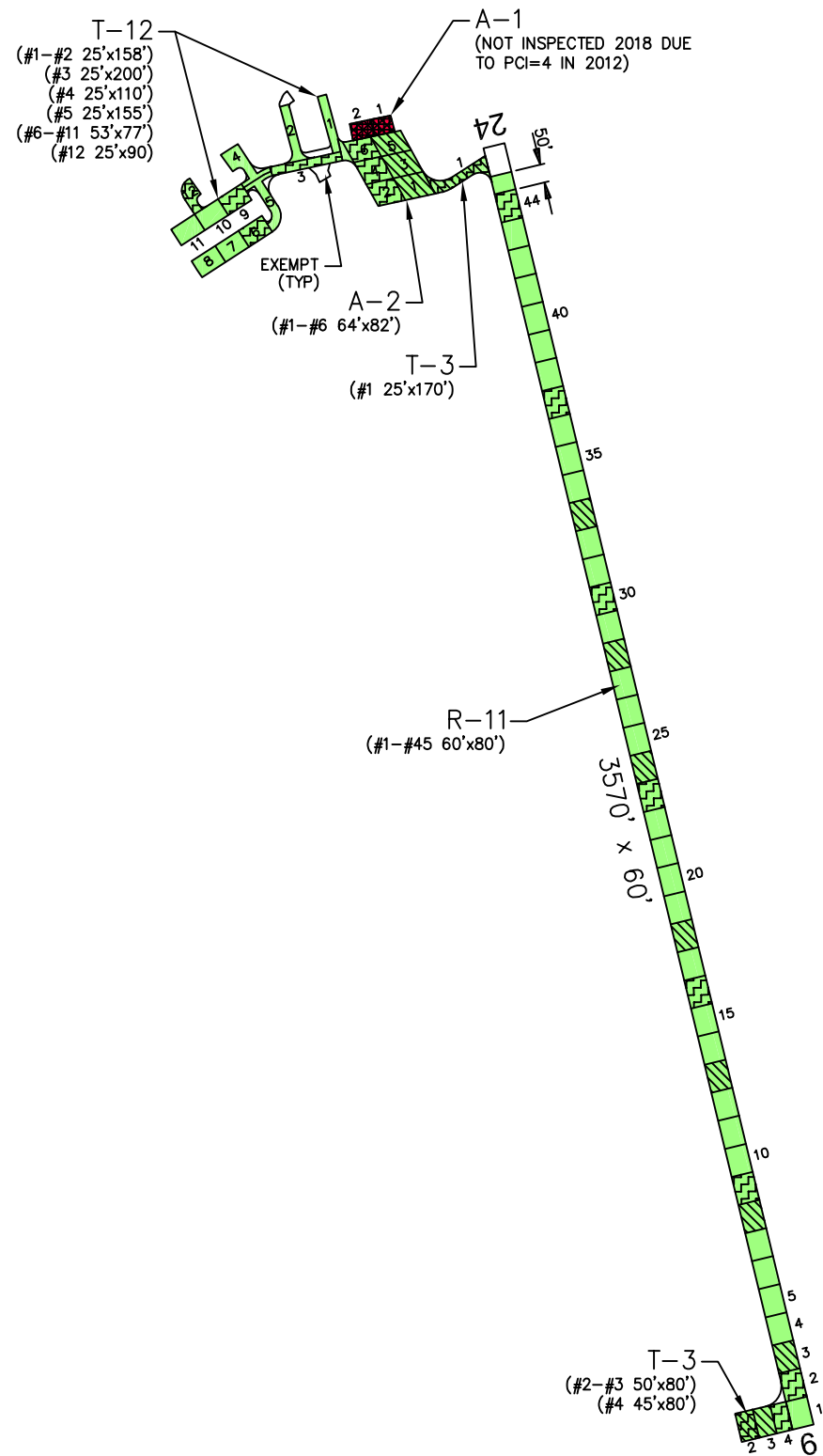


BIG SANDY



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-11		CBR=2.0		13" P-209	3" P-401	P-608	12,500			2,3
TAXIWAYS										
T-3		CBR=2.0		13" P-209	3" P-401	P-608	12,500			2,3
T-12		CBR=2.0	P-154 & GEOTEX FABRIC	13" P-208	3" P-401		12,500			3
APRONS										
A-1					PCC					
A-2		CBR=2.0		13" P-209	3" P-401	P-608	12,500			2,3

REMARKS:

1986
AIP-001-1993, REHABILITATE AND EXTEND RUNWAY 6-24; REHABILITATE CONNECTING TAXIWAY; CONSTRUCT TURNAROUND AND HANGAR ACCESS TAXIWAY.

1. AIP-002-2005, CRACK SEAL, FOG SEAL, AND REMARK AIRCRAFT PAVEMENTS.
2. AIP-004-2010, RECONSTRUCT RUNWAY 6/24 (R-11); CONSTRUCT APRON (A-2) AND CONNECTING TAXIWAY (T-3).
3. AIP-005-2015, RECONSTRUCT TAXIWAYS (T-12); CRACK SEAL AND SEAL COAT REMAINING PAVEMENTS (R-11,T-3,A-2); MARK/REMARK ALL PAVEMENTS.

LEGEND ■ 2006 SURVEY AREA ▨ 2009 SURVEY AREA ▩ 2012 SURVEY AREA ▪ 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 SANDY AIRPORT (3U8)	
	EVALUATED BY:			
	DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	OCT. 14, 2018	Date:	Prepared For:
	EVALUATED BY:	S. BROWN	DECEMBER 2018	Prepared By:
LOCATION:	BIG SANDY MONTANA			

BIG SANDY



A-1, Overview



A-1, Shattered Slab



A-2, Overview



A-2, Tie Down



R-11, Overview



R-11, Crack



T-3, Overview



T-3, Surface with Weathering



T-12, Overview



T-12, Crack

BIG SANDY AIRPORT

Branch: 18A **APRON**

A-2

Length: 0 LF **Width:** 0 LF **Area:** 23,750 SF **Last Const:** 1986 **Family:** ACAM
From: 0+00 BEGIN R/W 6-24 **To:** 46+50 END R/W 6-24 **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 6 **Last Inspection Date:** 10/14/2018 **PCI:** 86

Sample # 2 **Area:** 5,248 SF

Distress Description	Severity	Quantity
PATCHING	L	4 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	52 LF

Sample # 4 **Area:** 5,248 SF

Distress Description	Severity	Quantity
PATCHING	L	4 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	35 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	2 LF

Sample # 6 **Area:** 5,248 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	M	26 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	63 LF
DEPRESSION	L	168 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	336 SF	1.07%	7.02
LONGITUDINAL/TRANSVERSE CRACKING	LOW	300 LF	0.95%	4.85
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	56 LF	0.18%	4.81
PATCHING	LOW	15 SF	0.05%	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 62.0 % Climate/Durability 38.0 % Other

BIG SANDY AIRPORT				Branch: 18R	RUNWAY	R-11
Length: 3,651 LF	Width: 60 LF	Area: 219,060 SF	Last Const: 2010		Family: ACRML	
From: BEGINNING OF RUNWAY		To: END OF RUNWAY		Surface: AC		

Inspections

Samples Surveyed: 7 **Total Samples:** 45 **Last Inspection Date:** 10/4/2018 **PCI:** 86

Sample #	Distress Description	Severity	Quantity	Area:
2	LONGITUDINAL/TRANSVERSE CRACKING	M	7 LF	4,800 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	85 LF	
	DEPRESSION	L	13 SF	
9	LONGITUDINAL/TRANSVERSE CRACKING	M	2 LF	4,800 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	31 LF	
16	LONGITUDINAL/TRANSVERSE CRACKING	L	24 LF	4,800 SF
	PATCHING	L	0.4 SF	
23	LONGITUDINAL/TRANSVERSE CRACKING	L	147 LF	4,800 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	8 LF	
30	LONGITUDINAL/TRANSVERSE CRACKING	M	6 LF	4,800 SF
	PATCHING	L	0.4 SF	
	LONGITUDINAL/TRANSVERSE CRACKING	L	106 LF	
37	LONGITUDINAL/TRANSVERSE CRACKING	L	89 LF	4,800 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	32 LF	
44	DEPRESSION	L	507 SF	4,800 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	3,388 SF	1.55%	9.40
LONGITUDINAL/TRANSVERSE CRACKING	LOW	3,142 LF	1.43%	5.95
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	359 LF	0.16%	4.59
PATCHING	LOW	5 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 57.0 % Climate/Durability 43.0 % Other

BIG SANDY AIRPORT

Branch: 18T TAXIWAY

T-3

Length: 664 LF **Width:** 25 LF **Area:** 16,600 SF **Last Const:** 2010 **Family:** ACAM
From: RW **To:** APRON **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 4 **Last Inspection Date:** 10/14/2018 **PCI:** 92

Sample # 1 **Area:** 4,250 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	46 LF
PATCHING	L	0.18 SF
DEPRESSION	L	22 SF

Sample # 2 **Area:** 4,000 SF

Distress Description	Severity	Quantity
PATCHING	L	0.14 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	26 LF

Sample # 4 **Area:** 3,600 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	38 LF
PATCHING	L	0.33 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	31 SF	0.19%	0.67
LONGITUDINAL/TRANSVERSE CRACKING	LOW	154 LF	0.93%	4.80
PATCHING	LOW	1 SF	0.01%	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 91.0 % Climate/Durability 9.0 % Other

BIG SANDY AIRPORT

Branch: 18T TAXIWAY

T-12

Length: 1692 LF **Width:** 25 LF **Area:** 42,311 SF **Last Const:** 2015 **Family:** ACPL
From: APRON A-2 **To:** HANGARS **Surface:** AC

Inspections

Samples Surveyed: 4 **Total Samples:** 12 **Last Inspection Date:** 10/14/2018 **PCI:** 94

Sample # 3	Distress Description LONGITUDINAL/TRANSVERSE CRACKING	Severity L	Quantity 12 LF	Area: 5,000 SF
Sample # 6	Distress Description PATCHING	Severity L	Quantity 3 SF	Area: 4,081 SF
Sample # 9	Distress Description PATCHING	Severity L	Quantity 0.14 SF	Area: 4,081 SF
Sample # 12	Distress Description DEPRESSION LONGITUDINAL/TRANSVERSE CRACKING PATCHING	Severity L L L	Quantity 80 SF 52 LF 52 SF	Area: 2,250 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	220 SF	0.52%	3.44
LONGITUDINAL/TRANSVERSE CRACKING	LOW	177 LF	0.42%	3.91
PATCHING	LOW	151 SF	0.36%	2.20

* 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 64.0 % Climate/Durability 36.0 % Other

BIG SANDY AIRPORT (18)

FIFTEEN YEAR PROJECTIONS							ESTIMATED AVERAGE ANNUAL COST:		\$27,196	
Plan Year: 2019							Estimated Cost:	\$129,373	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total		Before	After	
A-1	Major Below Critical	\$0	\$0	\$37,440	\$0	\$37,440		0	100	
A-2	Preventive + Global MR	\$139	\$10,706	\$0	\$0	\$10,844		86	91	
R-11	Preventive + Global MR	\$965	\$74,480	\$0	\$0	\$75,444		86	91	
T-12	None	\$0	\$0	\$0	\$0	\$0		93	93	
T-3	Global MR	\$0	\$5,644	\$0	\$0	\$5,644		92	95	
Plan Year: 2020							Estimated Cost:	\$14,607	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	\$28	\$0	\$0	\$0	\$28		89	89	
R-11	Preventive	\$193	\$0	\$0	\$0	\$193		89	89	
T-12	Global MR	\$0	\$14,386	\$0	\$0	\$14,386		90	99	
T-3	None	\$0	\$0	\$0	\$0	\$0		94	94	
Plan Year: 2021							Estimated Cost:	\$628	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total		Before	After	
A-1	None	\$0	\$0	\$0	\$0	\$0		94	94	
A-2	Preventive	\$79	\$0	\$0	\$0	\$79		87	88	
R-11	Preventive	\$549	\$0	\$0	\$0	\$549		87	88	
T-12	None	\$0	\$0	\$0	\$0	\$0		96	96	
T-3	None	\$0	\$0	\$0	\$0	\$0		93	93	
Plan Year: 2022							Estimated Cost:	\$1,031	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total		Before	After	
A-1	None	\$0	\$0	\$0	\$0	\$0		91	91	
A-2	Preventive	\$130	\$0	\$0	\$0	\$130		86	86	
R-11	Preventive	\$902	\$0	\$0	\$0	\$902		86	86	
T-12	None	\$0	\$0	\$0	\$0	\$0		93	93	
T-3	None	\$0	\$0	\$0	\$0	\$0		92	92	
Plan Year: 2023							Estimated Cost:	\$1,450	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total		Before	After	
A-1	Preventive	\$12	\$0	\$0	\$0	\$12		88	88	
A-2	Preventive	\$181	\$0	\$0	\$0	\$181		84	84	
R-11	Preventive	\$1,258	\$0	\$0	\$0	\$1,258		84	84	
T-12	None	\$0	\$0	\$0	\$0	\$0		90	90	
T-3	None	\$0	\$0	\$0	\$0	\$0		91	91	
Plan Year: 2024							Estimated Cost:	\$92,819	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total		Before	After	
A-1	Preventive	\$27	\$0	\$0	\$0	\$27		85	86	
A-2	Preventive + Global MR	\$232	\$10,706	\$0	\$0	\$10,938		83	88	
R-11	Preventive + Global MR	\$1,612	\$74,480	\$0	\$0	\$76,092		83	88	
T-12	Preventive	\$115	\$0	\$0	\$0	\$115		87	87	
T-3	Preventive + Global MR	\$3	\$5,644	\$0	\$0	\$5,647		90	93	
Plan Year: 2025							Estimated Cost:	\$15,626	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total		Before	After	
A-1	Preventive	\$43	\$0	\$0	\$0	\$43		83	83	
A-2	Preventive	\$121	\$0	\$0	\$0	\$121		86	86	
R-11	Preventive	\$843	\$0	\$0	\$0	\$843		86	86	
T-12	Preventive + Global MR	\$234	\$14,386	\$0	\$0	\$14,620		84	94	
T-3	None	\$0	\$0	\$0	\$0	\$0		92	92	
Plan Year: 2026							Estimated Cost:	\$1,433	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total		Before	After	
A-1	Preventive	\$62	\$0	\$0	\$0	\$62		80	80	
A-2	Preventive	\$172	\$0	\$0	\$0	\$172		85	85	
R-11	Preventive	\$1,199	\$0	\$0	\$0	\$1,199		85	85	
T-12	None	\$0	\$0	\$0	\$0	\$0		91	91	
T-3	None	\$0	\$0	\$0	\$0	\$0		91	91	
Plan Year: 2027							Estimated Cost:	\$1,999	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total		Before	After	
A-1	Preventive	\$125	\$0	\$0	\$0	\$125		77	77	
A-2	Preventive	\$223	\$0	\$0	\$0	\$223		83	83	
R-11	Preventive	\$1,551	\$0	\$0	\$0	\$1,551		83	83	
T-12	Preventive	\$98	\$0	\$0	\$0	\$98		88	88	
T-3	Preventive	\$3	\$0	\$0	\$0	\$3		90	90	

BIG SANDY AIRPORT (18)

FIFTEEN YEAR PROJECTIONS **ESTIMATED AVERAGE ANNUAL COST: \$27,196**

Plan Year: 2028		Estimated Cost:					\$2,602	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$188	\$0	\$0	\$0	\$188	74	75	
A-2	Preventive	\$274	\$0	\$0	\$0	\$274	81	81	
R-11	Preventive	\$1,905	\$0	\$0	\$0	\$1,905	81	81	
T-12	Preventive	\$217	\$0	\$0	\$0	\$217	85	85	
T-3	Preventive	\$19	\$0	\$0	\$0	\$19	89	89	

Plan Year: 2029		Estimated Cost:					\$94,284	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$251	\$0	\$0	\$0	\$251	72	72	
A-2	Preventive + Global MR	\$355	\$10,706	\$0	\$0	\$11,061	80	85	
R-11	Preventive + Global MR	\$2,479	\$74,480	\$0	\$0	\$76,959	80	85	
T-12	Preventive	\$335	\$0	\$0	\$0	\$335	82	82	
T-3	Preventive + Global MR	\$34	\$5,644	\$0	\$0	\$5,678	88	91	

Plan Year: 2030		Estimated Cost:					\$16,957	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$320	\$0	\$0	\$0	\$320	69	69	
A-2	Preventive	\$214	\$0	\$0	\$0	\$214	83	83	
R-11	Preventive	\$1,490	\$0	\$0	\$0	\$1,490	83	83	
T-12	Preventive + Global MR	\$547	\$14,386	\$0	\$0	\$14,932	79	88	
T-3	Preventive	\$1	\$0	\$0	\$0	\$1	90	90	

Plan Year: 2031		Estimated Cost:					\$2,715	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$398	\$0	\$0	\$0	\$398	66	66	
A-2	Preventive	\$265	\$0	\$0	\$0	\$265	82	82	
R-11	Preventive	\$1,844	\$0	\$0	\$0	\$1,844	82	82	
T-12	Preventive	\$191	\$0	\$0	\$0	\$191	85	86	
T-3	Preventive	\$17	\$0	\$0	\$0	\$17	89	89	

Plan Year: 2032		Estimated Cost:					\$3,363	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$477	\$0	\$0	\$0	\$477	63	64	
A-2	Preventive	\$319	\$0	\$0	\$0	\$319	80	80	
R-11	Preventive	\$2,224	\$0	\$0	\$0	\$2,224	80	80	
T-12	Preventive	\$311	\$0	\$0	\$0	\$311	83	83	
T-3	Preventive	\$33	\$0	\$0	\$0	\$33	88	88	

Plan Year: 2033		Estimated Cost:					\$5,218	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$556	\$0	\$0	\$0	\$556	61	61	
A-2	Preventive	\$523	\$0	\$0	\$0	\$523	78	78	
R-11	Preventive	\$3,645	\$0	\$0	\$0	\$3,645	78	78	
T-12	Preventive	\$447	\$0	\$0	\$0	\$447	80	80	
T-3	Preventive	\$49	\$0	\$0	\$0	\$49	87	87	