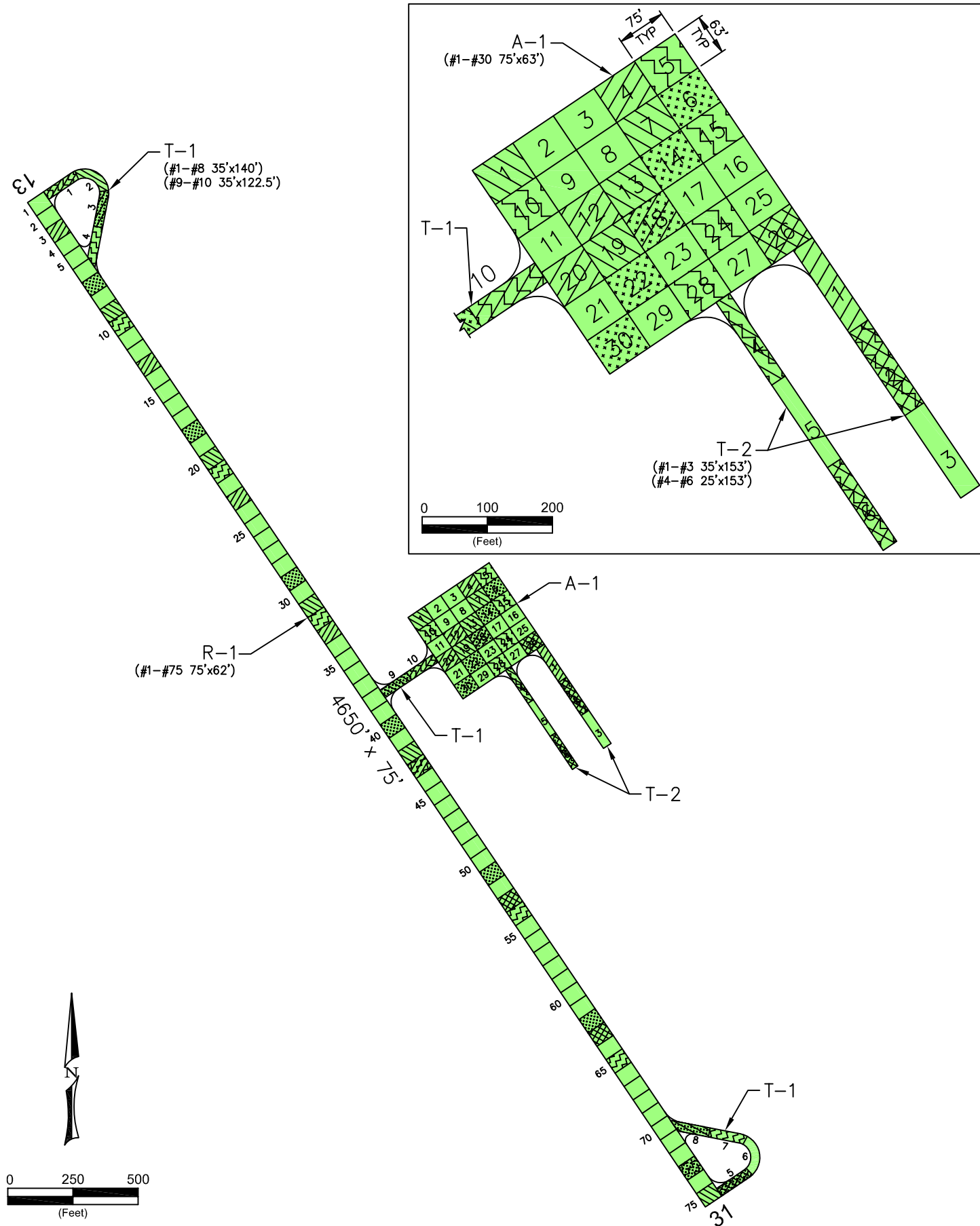


PLAINS



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=7.2	6" COMP. P-152 FILTER FABRIC	8" P-154	3" P-208	3" P-401	P-609	12,500			1,2,3
TAXIWAYS										
T-1	CBR=7.2	6" COMP. P-152 FILTER FABRIC	8" P-154	3" P-208	3" P-401	P-609	12,500			1,2,3
T-2	CBR=7.2	6" COMP. P-152 FILTER FABRIC	8" P-154	3" P-208	3" P-401	P-609	12,500			1,2,3
APRONS										
A-1	CBR=7.2	6" COMP. P-152 FILTER FABRIC	8" P-154	3" P-208	3" P-401	P-609	12,500			1,2,3

REMARKS:

- AIP-005-2006, ALL NEW CONSTRUCTION
- AIP-008-2011, CRACK SEAL, FOG SEAL, AND REMARK ALL PAVEMENTS.
- AIP-009-2016, CRACK SEAL, SURFACE SEAL AND REMARK ALL PAVEMENTS.

LEGEND

- 2006 SURVEY AREA (N/A)
- 2009 SURVEY AREA
- 2012 SURVEY AREA
- 2015 SURVEY AREA
- 2018 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:	OCT. 23, 2018
EVALUATED BY:	S. BROWN
LOCATION:	PLAINS MONTANA

**MONTANA AVIATION SYSTEM PLAN
2018 UPDATE - PAVEMENT CONDITION INDEXES**

**PENN STOHR FIELD
(S34)**

Date: _____ Prepared For: _____ Prepared By: _____

DECEMBER 2018

MONTANA DEPARTMENT OF TRANSPORTATION

PLAINS



A-1, Overview



A-1, Crack and Depression



R-1, Overview



R-1, Mechanical Raveling



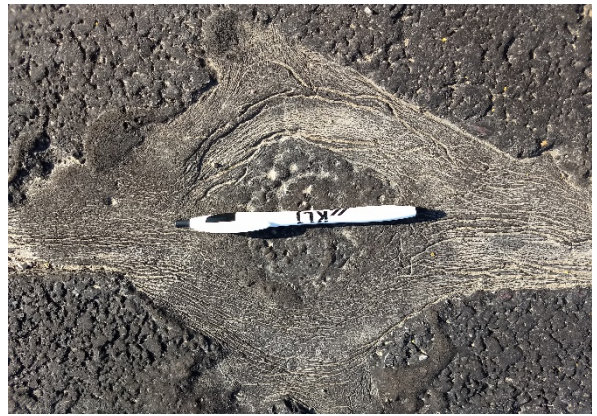
T-1, Overview



T-1, Crack



T-2 Overview



T-2, Sealed Crack and Patch

PLAINS AIRPORT

Branch: 63A **APRON**

A-1

Length: 378 LF **Width:** 375 LF **Area:** 141,750 SF **Last Const:** 2006 **Family:** ACAM
From: APRON **To:** T-1 **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 30 **Last Inspection Date:** 10/23/2018 **PCI:** 87

Sample # 5	Distress Description NO DISTRESSES	Severity	Quantity	Area: 4,725 SF
Sample # 10	Distress Description LONGITUDINAL/TRANSVERSE CRACKING	L	4 LF	Area: 4,725 SF
Sample # 15	Distress Description LONGITUDINAL/TRANSVERSE CRACKING PATCHING DEPRESSION	L L L	38 LF 24 SF 45 SF	Area: 4,725 SF
Sample # 24	Distress Description LONGITUDINAL/TRANSVERSE CRACKING PATCHING PATCHING PATCHING	L L H M	57 LF 9.4 SF 3.1 SF 3.1 SF	Area: 4,725 SF
Sample # 28	Distress Description LONGITUDINAL/TRANSVERSE CRACKING PATCHING DEPRESSION LONGITUDINAL/TRANSVERSE CRACKING	L L L M	221 LF 1.2 SF 82 SF 60 LF	Area: 4,725 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	762 SF	0.54%	3.59
LONGITUDINAL/TRANSVERSE CRACKING	LOW	1,920 LF	1.35%	5.75
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	360 LF	0.25%	5.91
PATCHING	HIGH	19 SF	0.01%	15.50
PATCHING	LOW	208 SF	0.15%	2.01
PATCHING	MEDIUM	19 SF	0.01%	6.20

* 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 91.0 % Climate/Durability 9.0 % Other

PLAINS AIRPORT				Branch: 63R	RUNWAY	R-1
Length: 4,650 LF	Width: 75 LF	Area: 348,750 SF	Last Const: 2006	Family: ACRML		
From: STA 12+00 RWY 13/31	To: STA 58+50 RWY 13/31			Surface: AC		

Inspections

Samples Surveyed: 7 **Total Samples:** 75 **Last Inspection Date:** 10/23/2018 **PCI:** 85

Sample #	Distress Description	Severity	Quantity	Area:
10	LONGITUDINAL/TRANSVERSE CRACKING	L	158 LF	4,875 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	28 LF	
	PATCHING	L	0.2 SF	
21	RAVELING	H	0.5 SF	4,875 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	79 LF	
	LONGITUDINAL/TRANSVERSE CRACKING	M	68 LF	
32	LONGITUDINAL/TRANSVERSE CRACKING	L	186 LF	4,875 SF
43	LONGITUDINAL/TRANSVERSE CRACKING	M	10 LF	4,875 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	108 LF	
54	LONGITUDINAL/TRANSVERSE CRACKING	L	154 LF	4,875 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	13 LF	
65	LONGITUDINAL/TRANSVERSE CRACKING	L	145 LF	4,875 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	9 LF	
73	LONGITUDINAL/TRANSVERSE CRACKING	L	186 LF	4,875 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	LOW	10,383 LF	2.98%	9.99
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	1,308 LF	0.38%	7.26
PATCHING	LOW	2 SF	0.00%	2.00
RAVELING	HIGH	5 SF	0.00%	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

PLAINS AIRPORT

Branch: 63T TAXIWAY

T-1

Length: 1,365 LF **Width:** 35 LF **Area:** 47,775 SF **Last Const:** 2006 **Family:** ACRML
From: R-1 NORTHWEST END **To:** R-1 SOUTHEAST END **Surface:** AC

Inspections

Samples Surveyed: 4 **Total Samples:** 10 **Last Inspection Date:** 10/23/2018 **PCI:** 94

Sample # 1 **Area:** 4,900 SF

Distress Description	Severity	Quantity
DEPRESSION	L	0.1 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	43 LF

Sample # 4 **Area:** 4,900 SF

Distress Description	Severity	Quantity
DEPRESSION	L	0.1 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	47 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	2 LF

Sample # 7 **Area:** 4,900 SF

Distress Description	Severity	Quantity
NO DISTRESSES		

Sample # 9 **Area:** 4,288 SF

Distress Description	Severity	Quantity
DEPRESSION	L	61 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	154 SF	0.32%	1.82
LONGITUDINAL/TRANSVERSE CRACKING	LOW	226 LF	0.47%	4.02
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	5 LF	0.01%	4.00

* 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 81.0 % Climate/Durability 19.0 % Other

PLAINS AIRPORT Branch: 63T TAXIWAY **T-2**
Length: 918 LF **Width:** 30 LF **Area:** 27,540 SF **Last Const:** 2006 **Family:** ACRML
From: SOUTHEAST CORNER **To:** A-1 **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 6 **Last Inspection Date:** 10/23/2018 **PCI:** 91

Sample # 2 **Area:** 5,355 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	155 LF
PATCHING	L	0.8 SF

Sample # 4 **Area:** 3,825 SF

Distress Description	Severity	Quantity
DEPRESSION	M	0.05 SF
DEPRESSION	L	4.25 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	50 LF

Sample # 6 **Area:** 3,825 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	11 LF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	9 SF	0.03%	0.30
DEPRESSION	MEDIUM	0 SF	0.00%	5.20
LONGITUDINAL/TRANSVERSE CRACKING	LOW	457 LF	1.66%	6.52
PATCHING	LOW	2 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 61.0 % Climate/Durability 39.0 % Other

PLAINS AIRPORT (63)

FIFTEEN YEAR PROJECTIONS							ESTIMATED AVERAGE ANNUAL COST:		\$44,274			
Plan Year: 2019							Estimated Cost:		\$194,668		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Preventive + Global MR	\$458	\$48,195	\$0	\$0	\$48,653	87	90				
R-1	Preventive + Global MR	\$1,834	\$118,574	\$0	\$0	\$120,408	85	88				
T-1	Global MR	\$0	\$16,243	\$0	\$0	\$16,243	94	95				
T-2	Global MR	\$0	\$9,364	\$0	\$0	\$9,364	91	93				
Plan Year: 2020							Estimated Cost:		\$1,112		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Preventive	\$150	\$0	\$0	\$0	\$150	89	89				
R-1	Preventive	\$962	\$0	\$0	\$0	\$962	87	87				
T-1	None	\$0	\$0	\$0	\$0	\$0	95	95				
T-2	None	\$0	\$0	\$0	\$0	\$0	92	92				
Plan Year: 2021							Estimated Cost:		\$1,670		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Preventive	\$296	\$0	\$0	\$0	\$296	88	88				
R-1	Preventive	\$1,374	\$0	\$0	\$0	\$1,374	86	86				
T-1	None	\$0	\$0	\$0	\$0	\$0	94	94				
T-2	None	\$0	\$0	\$0	\$0	\$0	92	92				
Plan Year: 2022							Estimated Cost:		\$2,226		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Preventive	\$441	\$0	\$0	\$0	\$441	87	87				
R-1	Preventive	\$1,785	\$0	\$0	\$0	\$1,785	85	85				
T-1	None	\$0	\$0	\$0	\$0	\$0	94	94				
T-2	None	\$0	\$0	\$0	\$0	\$0	91	91				
Plan Year: 2023							Estimated Cost:		\$2,783		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Preventive	\$586	\$0	\$0	\$0	\$586	86	86				
R-1	Preventive	\$2,197	\$0	\$0	\$0	\$2,197	84	84				
T-1	None	\$0	\$0	\$0	\$0	\$0	93	93				
T-2	None	\$0	\$0	\$0	\$0	\$0	90	90				
Plan Year: 2024							Estimated Cost:		\$195,732		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Preventive + Global MR	\$731	\$48,195	\$0	\$0	\$48,925	85	88				
R-1	Preventive + Global MR	\$2,608	\$118,574	\$0	\$0	\$121,182	83	86				
T-1	Global MR	\$0	\$16,243	\$0	\$0	\$16,243	93	94				
T-2	Preventive + Global MR	\$17	\$9,364	\$0	\$0	\$9,381	89	92				
Plan Year: 2025							Estimated Cost:		\$2,165		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Preventive	\$425	\$0	\$0	\$0	\$425	87	87				
R-1	Preventive	\$1,740	\$0	\$0	\$0	\$1,740	85	85				
T-1	None	\$0	\$0	\$0	\$0	\$0	94	94				
T-2	None	\$0	\$0	\$0	\$0	\$0	91	91				
Plan Year: 2026							Estimated Cost:		\$2,717		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Preventive	\$569	\$0	\$0	\$0	\$569	86	86				
R-1	Preventive	\$2,148	\$0	\$0	\$0	\$2,148	84	84				
T-1	None	\$0	\$0	\$0	\$0	\$0	93	93				
T-2	None	\$0	\$0	\$0	\$0	\$0	90	90				
Plan Year: 2027							Estimated Cost:		\$3,292		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Preventive	\$715	\$0	\$0	\$0	\$715	85	85				
R-1	Preventive	\$2,560	\$0	\$0	\$0	\$2,560	83	83				
T-1	None	\$0	\$0	\$0	\$0	\$0	93	93				
T-2	Preventive	\$17	\$0	\$0	\$0	\$17	89	89				
Plan Year: 2028							Estimated Cost:		\$3,868		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After				
A-1	Preventive	\$860	\$0	\$0	\$0	\$860	84	84				
R-1	Preventive	\$2,971	\$0	\$0	\$0	\$2,971	81	82				
T-1	None	\$0	\$0	\$0	\$0	\$0	92	92				
T-2	Preventive	\$37	\$0	\$0	\$0	\$37	89	89				

PLAINS AIRPORT (63)

FIFTEEN YEAR PROJECTIONS							ESTIMATED AVERAGE ANNUAL COST:		\$44,274	
Plan Year: 2029							Estimated Cost:	\$196,821	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive + Global MR	\$1,006	\$48,195	\$0	\$0	\$49,201	83	86		
R-1	Preventive + Global MR	\$3,383	\$118,574	\$0	\$0	\$121,957	80	84		
T-1	Global MR	\$0	\$16,243	\$0	\$0	\$16,243	92	93		
T-2	Preventive + Global MR	\$56	\$9,364	\$0	\$0	\$9,420	88	90		
Plan Year: 2030							Estimated Cost:	\$3,230	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive	\$701	\$0	\$0	\$0	\$701	85	85		
R-1	Preventive	\$2,514	\$0	\$0	\$0	\$2,514	83	83		
T-1	None	\$0	\$0	\$0	\$0	\$0	93	93		
T-2	Preventive	\$15	\$0	\$0	\$0	\$15	89	89		
Plan Year: 2031							Estimated Cost:	\$3,806	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive	\$845	\$0	\$0	\$0	\$845	84	84		
R-1	Preventive	\$2,926	\$0	\$0	\$0	\$2,926	82	82		
T-1	None	\$0	\$0	\$0	\$0	\$0	92	92		
T-2	Preventive	\$35	\$0	\$0	\$0	\$35	89	89		
Plan Year: 2032							Estimated Cost:	\$4,382	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive	\$990	\$0	\$0	\$0	\$990	83	83		
R-1	Preventive	\$3,337	\$0	\$0	\$0	\$3,337	80	80		
T-1	None	\$0	\$0	\$0	\$0	\$0	92	92		
T-2	Preventive	\$55	\$0	\$0	\$0	\$55	88	88		
Plan Year: 2033							Estimated Cost:	\$5,743	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive	\$1,135	\$0	\$0	\$0	\$1,135	82	82		
R-1	Preventive	\$4,533	\$0	\$0	\$0	\$4,533	79	79		
T-1	None	\$0	\$0	\$0	\$0	\$0	91	91		
T-2	Preventive	\$75	\$0	\$0	\$0	\$75	87	87		