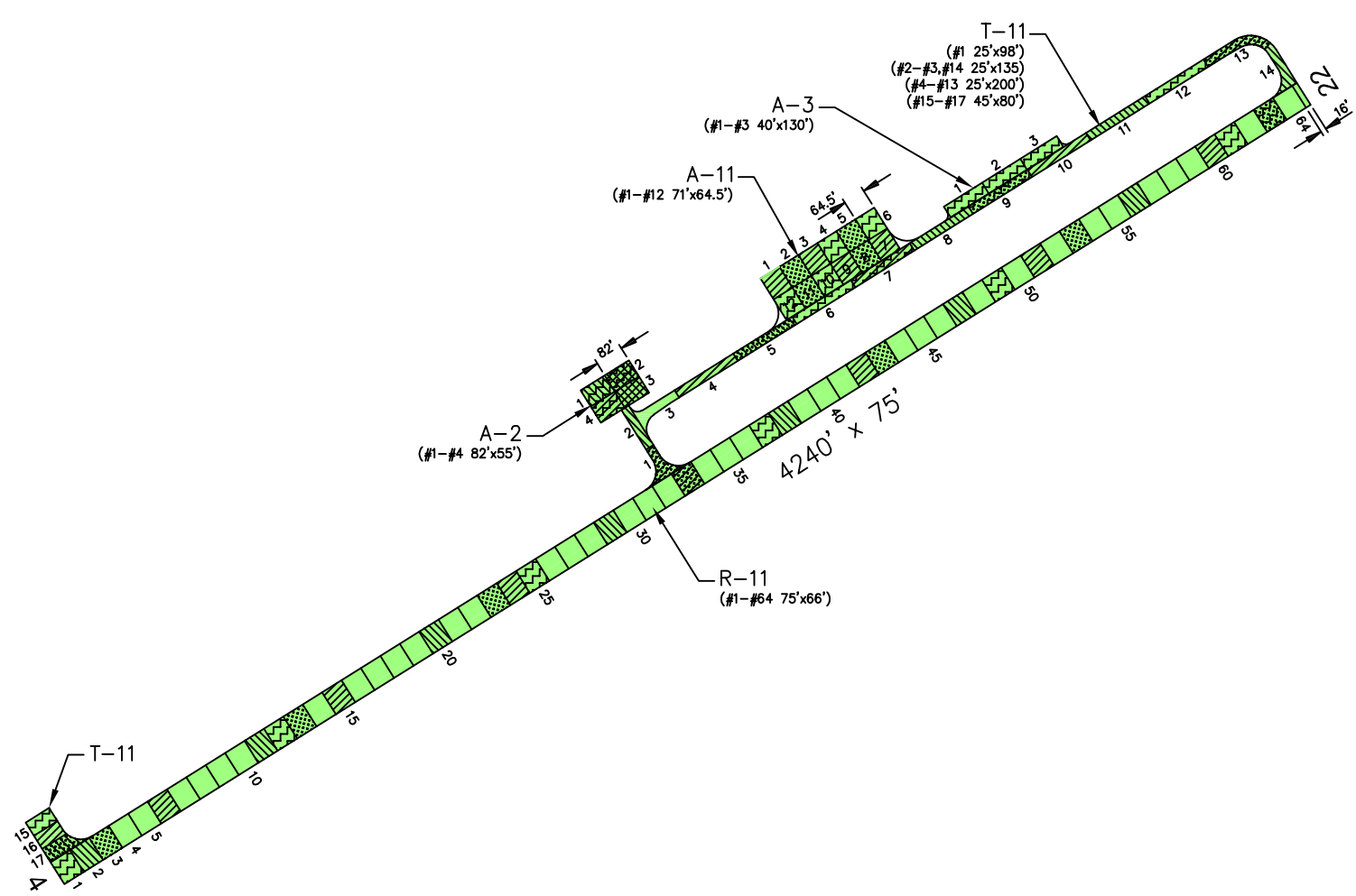


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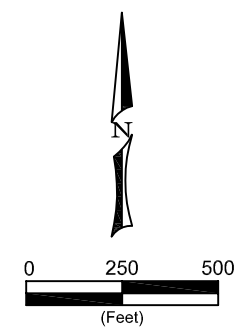
PAVEMENT STRENGTH SURVEY/PAVEMENT CONDITION SURVEY



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	E-6	F6	29" P-154	6.75" P-208	3" P-401	P-609	12,500			1,2
TAXIWAYS										
T-11	E-6	F6	29" P-154	6.75" P-208	3" P-401	P-609	12,500			1,2
APRONS										
A-2	E-6	F6	29" P-154	6.75" P-208	3" P-401	P-609	12,500			1,2
A-3	E-6	F6	29" P-154	6.75" P-208	3" P-401	P-609	12,500			1,2
A-11	E-6	F6	29" P-154	6.75" P-208	3" P-401	P-609	12,500			1,2

REMARKS:

- AIP-001-1984, RECONSTRUCT PORTIONS OF RUNWAY AND SURFACE RUNWAY; REHABILITATE TAXIWAY AND APRON.
- 1. AIP-004-2005, ALL NEW CONSTRUCTION: RECONSTRUCT RUNWAY 4/22 (R-11), TAXIWAY (T-11), AND APRONS (A-11,A-2).
- 2. AIP-005-2014, CRACK SEAL, FOG SEAL, AND REMARK RUNWAY, TAXIWAY, AND APRONS.



LEGEND [] 2006 SURVEY AREA (NOT SURVEYED) [] 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:		MONTANA AVIATION SYSTEM PLAN 2018 UPDATE - PAVEMENT CONDITION INDEXES		
	EVALUATED BY:				LINCOLN AIRPORT (S69)
	DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	OCT. 11, 2018	Date:	Prepared For:	Prepared By:
	EVALUATED BY:	S. BROWN	DECEMBER 2018		
LOCATION:	LINCOLN MONTANA				



A-2, Overview



A-2, Patch



A-11, Overview



A-11, Swell



R-11, Overview



R-11, Sealed Crack

LINCOLN AIRPORT

Branch: 12A **APRON**

A-2

Length: 164 LF **Width:** 110 LF **Area:** 18,040 SF **Last Const:** 2005 **Family:** ACAM
From: T-11 **To:** SOUTHWEST END **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 4 **Last Inspection Date:** 10/11/2018 **PCI:** **84**

Sample # 1 **Area:** 4,510 SF

Distress Description	Severity	Quantity
RAVELING	L	943 SF
WEATHERING	L	3,567 SF

Sample # 2 **Area:** 4,510 SF

Distress Description	Severity	Quantity
RAVELING	L	943 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	2 LF
WEATHERING	L	3,567 SF

Sample # 4 **Area:** 4,510 SF

Distress Description	Severity	Quantity
WEATHERING	L	4,510 SF
PATCHING	L	0 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	LOW	3 LF	0.01%	2.50
PATCHING	LOW	1 SF	0.00%	2.00
RAVELING	LOW	2,514 SF	13.94%	11.57
WEATHERING	LOW	15,526 SF	86.06%	5.81

* 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

LINCOLN AIRPORT

Branch: 12A **APRON**

A-3

Length: 390 LF **Width:** 40 LF **Area:** 15,600 SF **Last Const:** 2005 **Family:** ACAM
From: T-11 **To:** HANGARS **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 3 **Last Inspection Date:** 10/11/2018 **PCI:** **85**

Sample # 1 **Area:** 5,200 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	92 LF
RAVELING	H	1 SF
WEATHERING	L	520 SF

Sample # 2 **Area:** 5,200 SF

Distress Description	Severity	Quantity
WEATHERING	L	5,200 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	115 LF

Sample # 3 **Area:** 5,200 SF

Distress Description	Severity	Quantity
RAVELING	H	1 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	133 LF
WEATHERING	L	5,200 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	LOW	340 LF	2.18%	7.89
RAVELING	HIGH	1 SF	0.01%	6.00
WEATHERING	LOW	10,920 SF	70.00%	5.49

* 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 10.0 % Other

LINCOLN AIRPORT

Branch: 12A **APRON**

A-11

Length: 387 LF **Width:** 142 LF **Area:** 54,954 SF **Last Const:** 2005 **Family:** ACAM
From: APRON **To:** T-11 **Surface:** AC

Inspections

Samples Surveyed: 4 **Total Samples:** 12 **Last Inspection Date:** 10/11/2018 **PCI:** 78

Sample # 4 **Area:** 4,579 SF

Distress Description	Severity	Quantity
PATCHING	L	8 SF
WEATHERING	L	4,580 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	21 LF

Sample # 6 **Area:** 4,579 SF

Distress Description	Severity	Quantity
WEATHERING	L	4,580 SF
RAVELING	H	7 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	6 LF
SWELL	H	6 SF
DEPRESSION	L	0.02 SF
PATCHING	L	3 SF

Sample # 10 **Area:** 4,579 SF

Distress Description	Severity	Quantity
WEATHERING	L	4,580 SF
PATCHING	L	13 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	75 LF

Sample # 12 **Area:** 4,579 SF

Distress Description	Severity	Quantity
PATCHING	L	3 SF
WEATHERING	L	4,580 SF
DEPRESSION	L	0.02 SF
RAVELING	H	9 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	60 LF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	0 SF	0.00%	0.30
LONGITUDINAL/TRANSVERSE CRACKING	LOW	486 LF	0.88%	4.71
PATCHING	LOW	79 SF	0.14%	2.01
RAVELING	HIGH	47 SF	0.08%	6.00
SWELL	HIGH	18 SF	0.03%	28.00
WEATHERING	LOW	54,954 SF	100.00%	5.96

* 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 40.0 % Climate/Durability 60.0 % Other

LINCOLN AIRPORT				Branch: 12R	RUNWAY	R-11
Length: 4,240 LF	Width: 75 LF	Area: 318,000 SF	Last Const: 2005	Family: ACRML		
From: STA 20+00 RWY 4-22	To: STA 64+40 RWY 4-22			Surface: AC		

Inspections

Samples Surveyed: 7 **Total Samples:** 65 **Last Inspection Date:** 10/11/2018 **PCI:** 82

Sample #	Distress Description	Severity	Quantity	Area:
1	LONGITUDINAL/TRANSVERSE CRACKING	L	163 LF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	2 LF	
	WEATHERING	L	4,950 SF	
	RAVELING	H	66 SF	
12	WEATHERING	L	4,950 SF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	69 LF	
	PATCHING	L	0.2 SF	
25	LONGITUDINAL/TRANSVERSE CRACKING	L	147 LF	4,950 SF
	WEATHERING	L	4,950 SF	
37	WEATHERING	L	4,950 SF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	209 LF	
49	WEATHERING	L	4,950 SF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	128 LF	
61	PATCHING	L	0.2 SF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	131 LF	
	WEATHERING	L	4,950 SF	
63	RAVELING	H	0.42 SF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	112 LF	
	WEATHERING	L	4,950 SF	

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	LOW	8,801 LF	2.77%	9.44
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	18 LF	0.01%	4.00
PATCHING	LOW	4 SF	0.00%	2.00
RAVELING	HIGH	610 SF	0.19%	7.86
WEATHERING	LOW	318,000 SF	100.00%	5.96

* 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

LINCOLN AIRPORT

Branch: 12T TAXIWAY **T-11**

Length: 2,503 LF **Width:** 25 LF **Area:** 62,575 SF **Last Const:** 2005 **Family:** ACRML
From: R-1 STA 43+70 **To:** R-1 STA 64+40 **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 17 **Last Inspection Date:** 10/11/2018 **PCI:** 81

Sample # 6 **Area:** 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	81 LF
RAVELING	H	7 SF
WEATHERING	L	5,000 SF

Sample # 7 **Area:** 5,000 SF

Distress Description	Severity	Quantity
RAVELING	H	13 SF
WEATHERING	L	5,000 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	48 LF

Sample # 9 **Area:** 5,000 SF

Distress Description	Severity	Quantity
RAVELING	H	5 SF
WEATHERING	L	5,000 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	253 LF

Sample # 12 **Area:** 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	23 LF
WEATHERING	L	5,000 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	3 LF

Sample # 15 **Area:** 3,600 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	60 LF
WEATHERING	L	3,600 SF
DEPRESSION	L	1 SF
RAVELING	H	1 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	1 LF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	2 SF	0.00%	0.30
LONGITUDINAL/TRANSVERSE CRACKING	LOW	1,233 LF	1.97%	7.33
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	11 LF	0.02%	4.00
RAVELING	HIGH	71 SF	0.11%	6.59
WEATHERING	LOW	62,575 SF	100.00%	5.96

* 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 99.0 % Climate/Durability 1.0 % Other

LINCOLN AIRPORT (12)

FIFTEEN YEAR PROJECTIONS							ESTIMATED AVERAGE ANNUAL COST:		\$40,921		
Plan Year: 2019							Estimated Cost:	\$164,026		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After			
A-11	Preventive + Global MR	\$1,079	\$18,684	\$0	\$0	\$19,763	78	83			
A-2	Preventive + Global MR	\$114	\$6,134	\$0	\$0	\$6,247	84	87			
A-3	Preventive + Global MR	\$82	\$5,304	\$0	\$0	\$5,386	85	88			
R-11	Preventive + Global MR	\$2,650	\$108,119	\$0	\$0	\$110,769	82	86			
T-11	Preventive + Global MR	\$585	\$21,275	\$0	\$0	\$21,860	81	85			
Plan Year: 2020							Estimated Cost:	\$2,770		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After			
A-11	Preventive	\$493	\$0	\$0	\$0	\$493	81	81			
A-2	Preventive	\$69	\$0	\$0	\$0	\$69	86	86			
A-3	Preventive	\$46	\$0	\$0	\$0	\$46	87	87			
R-11	Preventive	\$1,761	\$0	\$0	\$0	\$1,761	84	85			
T-11	Preventive	\$401	\$0	\$0	\$0	\$401	84	84			
Plan Year: 2021							Estimated Cost:	\$3,490		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After			
A-11	Preventive	\$672	\$0	\$0	\$0	\$672	79	80			
A-2	Preventive	\$90	\$0	\$0	\$0	\$90	85	85			
A-3	Preventive	\$63	\$0	\$0	\$0	\$63	86	86			
R-11	Preventive	\$2,177	\$0	\$0	\$0	\$2,177	83	83			
T-11	Preventive	\$487	\$0	\$0	\$0	\$487	82	82			
Plan Year: 2022							Estimated Cost:	\$4,375		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After			
A-11	Preventive	\$1,020	\$0	\$0	\$0	\$1,020	78	78			
A-2	Preventive	\$111	\$0	\$0	\$0	\$111	84	84			
A-3	Preventive	\$80	\$0	\$0	\$0	\$80	85	85			
R-11	Preventive	\$2,591	\$0	\$0	\$0	\$2,591	82	82			
T-11	Preventive	\$573	\$0	\$0	\$0	\$573	81	81			
Plan Year: 2023							Estimated Cost:	\$5,360		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After			
A-11	Preventive	\$1,365	\$0	\$0	\$0	\$1,365	76	76			
A-2	Preventive	\$132	\$0	\$0	\$0	\$132	83	83			
A-3	Preventive	\$98	\$0	\$0	\$0	\$98	84	84			
R-11	Preventive	\$3,007	\$0	\$0	\$0	\$3,007	81	81			
T-11	Preventive	\$758	\$0	\$0	\$0	\$758	79	80			
Plan Year: 2024							Estimated Cost:	\$166,745		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After			
A-11	Preventive + Global MR	\$1,712	\$18,684	\$0	\$0	\$20,397	75	80			
A-2	Preventive + Global MR	\$153	\$6,134	\$0	\$0	\$6,287	82	85			
A-3	Preventive + Global MR	\$115	\$5,304	\$0	\$0	\$5,419	83	86			
R-11	Preventive + Global MR	\$4,148	\$108,119	\$0	\$0	\$112,267	79	83			
T-11	Preventive + Global MR	\$1,101	\$21,275	\$0	\$0	\$22,376	78	82			
Plan Year: 2025							Estimated Cost:	\$4,246		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After			
A-11	Preventive	\$960	\$0	\$0	\$0	\$960	78	78			
A-2	Preventive	\$109	\$0	\$0	\$0	\$109	84	84			
A-3	Preventive	\$79	\$0	\$0	\$0	\$79	85	85			
R-11	Preventive	\$2,538	\$0	\$0	\$0	\$2,538	82	82			
T-11	Preventive	\$560	\$0	\$0	\$0	\$560	81	81			
Plan Year: 2026							Estimated Cost:	\$5,190		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After			
A-11	Preventive	\$1,305	\$0	\$0	\$0	\$1,305	77	77			
A-2	Preventive	\$130	\$0	\$0	\$0	\$130	83	83			
A-3	Preventive	\$96	\$0	\$0	\$0	\$96	84	84			
R-11	Preventive	\$2,948	\$0	\$0	\$0	\$2,948	81	81			
T-11	Preventive	\$711	\$0	\$0	\$0	\$711	80	80			
Plan Year: 2027							Estimated Cost:	\$6,887		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After			
A-11	Preventive	\$1,653	\$0	\$0	\$0	\$1,653	75	75			
A-2	Preventive	\$151	\$0	\$0	\$0	\$151	82	82			
A-3	Preventive	\$113	\$0	\$0	\$0	\$113	83	83			
R-11	Preventive	\$3,917	\$0	\$0	\$0	\$3,917	79	79			
T-11	Preventive	\$1,053	\$0	\$0	\$0	\$1,053	78	78			

LINCOLN AIRPORT (12)

FIFTEEN YEAR PROJECTIONS							ESTIMATED AVERAGE ANNUAL COST: \$40,921			
Plan Year: 2028							Estimated Cost:	\$9,280		PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$1,998	\$0	\$0	\$0	\$1,998	73	73		
A-2	Preventive	\$172	\$0	\$0	\$0	\$172	80	81		
A-3	Preventive	\$130	\$0	\$0	\$0	\$130	82	82		
R-11	Preventive	\$5,584	\$0	\$0	\$0	\$5,584	78	78		
T-11	Preventive	\$1,396	\$0	\$0	\$0	\$1,396	77	77		
Plan Year: 2029							Estimated Cost:	\$171,230		PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive + Global MR	\$2,345	\$18,684	\$0	\$0	\$21,030	72	77		
A-2	Preventive + Global MR	\$230	\$6,134	\$0	\$0	\$6,364	79	83		
A-3	Preventive + Global MR	\$147	\$5,304	\$0	\$0	\$5,451	81	84		
R-11	Preventive + Global MR	\$7,250	\$108,119	\$0	\$0	\$115,369	77	81		
T-11	Preventive + Global MR	\$1,742	\$21,275	\$0	\$0	\$23,017	76	80		
Plan Year: 2030							Estimated Cost:	\$6,538		PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$1,591	\$0	\$0	\$0	\$1,591	75	75		
A-2	Preventive	\$148	\$0	\$0	\$0	\$148	82	82		
A-3	Preventive	\$111	\$0	\$0	\$0	\$111	83	83		
R-11	Preventive	\$3,687	\$0	\$0	\$0	\$3,687	80	80		
T-11	Preventive	\$1,001	\$0	\$0	\$0	\$1,001	79	79		
Plan Year: 2031							Estimated Cost:	\$8,935		PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$1,939	\$0	\$0	\$0	\$1,939	74	74		
A-2	Preventive	\$169	\$0	\$0	\$0	\$169	81	81		
A-3	Preventive	\$128	\$0	\$0	\$0	\$128	82	82		
R-11	Preventive	\$5,353	\$0	\$0	\$0	\$5,353	78	78		
T-11	Preventive	\$1,346	\$0	\$0	\$0	\$1,346	77	77		
Plan Year: 2032							Estimated Cost:	\$11,345		PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$2,284	\$0	\$0	\$0	\$2,284	72	72		
A-2	Preventive	\$219	\$0	\$0	\$0	\$219	79	80		
A-3	Preventive	\$145	\$0	\$0	\$0	\$145	81	81		
R-11	Preventive	\$7,008	\$0	\$0	\$0	\$7,008	77	77		
T-11	Preventive	\$1,689	\$0	\$0	\$0	\$1,689	76	76		
Plan Year: 2033							Estimated Cost:	\$13,822		PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$2,631	\$0	\$0	\$0	\$2,631	71	71		
A-2	Preventive	\$304	\$0	\$0	\$0	\$304	78	78		
A-3	Preventive	\$181	\$0	\$0	\$0	\$181	80	80		
R-11	Preventive	\$8,674	\$0	\$0	\$0	\$8,674	76	76		
T-11	Preventive	\$2,032	\$0	\$0	\$0	\$2,032	74	74		