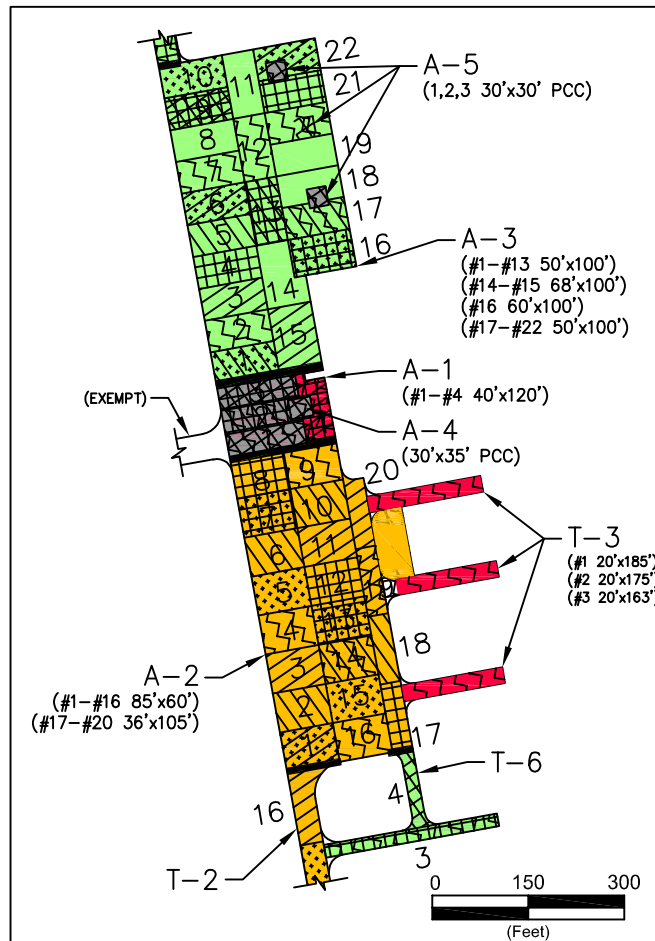
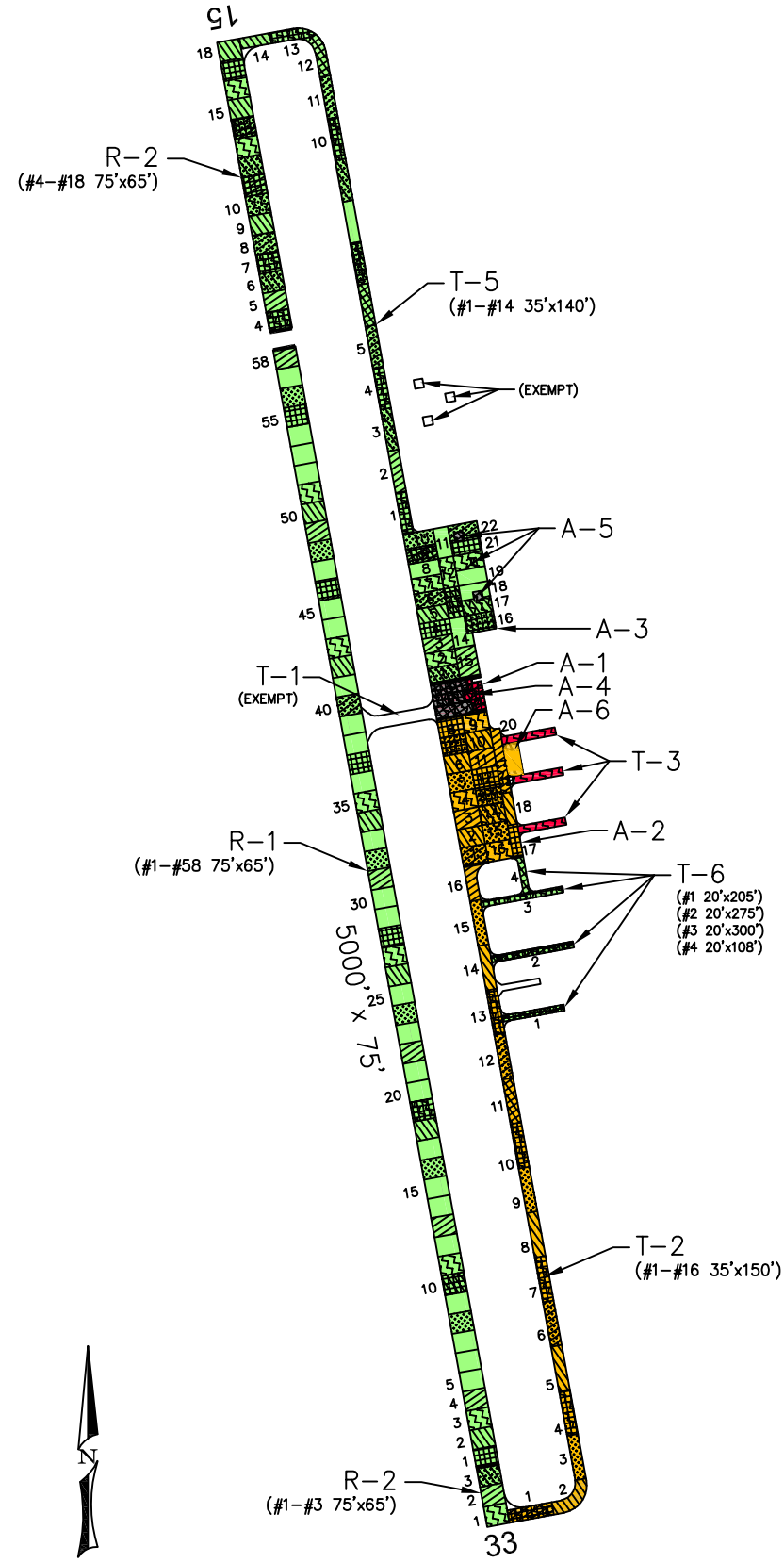


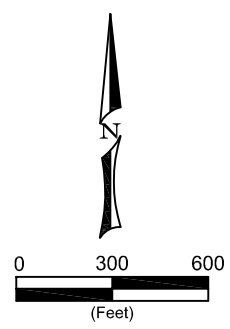
LIBBY

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			8" AGG.	2" P-201	1.6" P-401	1.25" P-402, P-609	23,000			3,6,8
R-2			6" P-154	2" P-208	3.6" P-201	1.25" P-402, P-609	23,000			3,6,8
TAXIWAYS										
T-1			8" AGG. ASSUMED	2" P-201	2" P-401	2" P-401, P-609	23,000			1,4,6,8
T-2			6" P-154	6" P-209	3" P-401	P-609	60,000			2,6,8
T-3			6" P-154	4" P-209	2" P-401		23,000			1
T-5			12" COMP. P-154 W/FILTER FABRIC	8" P-208	4" P-401	P-609	23,000			3,6,8
T-6			12" COMP. P-154 W/FILTER FABRIC	8" P-208	4" P-401	P-609	23,000			3,6,8
APRONS										
A-1				8" AGG.	2" P-401	2" P-401, P-609	23,000			1,4,6,8
A-2			6" P-154	2" P-208	4" P-201	2" P-401, P-609	23,000			1,4,6,8
A-3			6" P-154	6" P-209	3" P-401	2" P-401, P-609	60,000			2,4,6,8
A-4				8" AGG.	6" PCC					5
A-5			6" P-154	6" P-209	6" PCC					5
A-6					6" PCC					7

- REMARKS:**
- AIP-001-1985, REHABILITATE AND EXTEND RUNWAY; REHABILITATE AND EXPAND APRON; CONSTRUCT RUNWAY 15 TURNAROUND.
 - AIP-002-1987, CONSTRUCT TAXIWAY (T-2) AND APRON (A-3); CONSTRUCT ACCESS TAXIWAYS (T-3).
 - AIP-003-1999, REHABILITATE RUNWAY (PFC REMOVE AND REPLACE); CONSTRUCT PARALLEL (T-5) AND ACCESS TAXIWAYS (T-6).
 - AIP-004-2002, OVERLAY APRONS (A-1,A-2,A-3) AND CONNECTING TAXIWAY (T-1).
 - AIP-005-2004, CONSTRUCT CONCRETE HELICOPTER PADS (A-4,A-5).
 - AIP-007-2007, FOG SEAL AND REMARK RUNWAY; CRACK SEAL, FOG SEAL, AND REMARK REMAINING PAVEMENTS.
 - AIP-010-2011, CONSTRUCT CONCRETE FUELING PAD (A-6).
 - AIP-011-2012, CRACK SEAL, FOG SEAL, AND REMARK ALL PAVEMENTS.



LEGEND 2006 SURVEY AREA 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:			
	DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	SEPT. 25, 2018	Date:	Prepared For:
	EVALUATED BY:	S. BROWN	DECEMBER 2018	Prepared By:
LOCATION:	LIBBY MONTANA			



A-1, Overview



A-1, Routed Crack with Sealant



A-2, Overview



A-2, Tie Down



R-1, Overview



R-1, Bleeding



R-2, Overview



R-2, Surface Detail



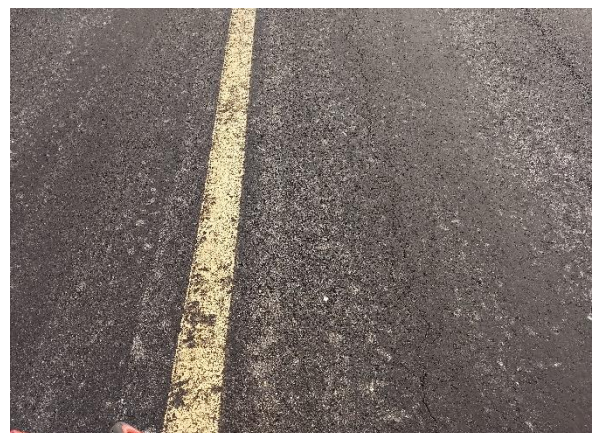
T-2, Overview



T-2, Transverse Crack



T-5, Overview



T-5, Surface Detail

LIBBY AIRPORT

Branch: 01A **APRON**

A-1

Length: 120 LF **Width:** 155 LF **Area:** 18,600 SF **Last Const:** 2002 **Family:** ACAM
From: STA 5+40A **To:** STA 6+60A **Surface:** AAC

Inspections

Samples Surveyed: 3 **Total Samples:** 4 **Last Inspection Date:** 9/25/2018 **PCI:** 71

Sample # 1 **Area:** 4,800 SF

Distress Description	Severity	Quantity
WEATHERING	L	4,800 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	151 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	3 LF
DEPRESSION	M	0 SF

Sample # 2 **Area:** 4,800 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	51 LF
RAVELING	H	2 SF
WEATHERING	L	4,800 SF
PATCHING	L	750 SF
RAVELING	L	450 SF

Sample # 4 **Area:** 4,800 SF

Distress Description	Severity	Quantity
WEATHERING	L	4,800 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	34 LF
PATCHING	L	450 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	MEDIUM	0 SF	0.00%	5.20
LONGITUDINAL/TRANSVERSE CRACKING	LOW	305 LF	1.64%	6.46
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	4 LF	0.02%	4.00
PATCHING	LOW	1,550 SF	8.33%	13.22
RAVELING	HIGH	2 SF	0.01%	6.00
RAVELING	LOW	581 SF	3.13%	5.20
WEATHERING	LOW	18,600 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 89.0 % Climate/Durability 11.0 % Other

LIBBY AIRPORT

Branch: 01A **APRON**

A-2

Length: 540 LF **Width:** 205 LF **Area:** 110,700 SF **Last Const:** 2002 **Family:** ACAM
From: STA 0+00A **To:** STA 5+40A **Surface:** AAC

Inspections

Samples Surveyed: 5 **Total Samples:** 20 **Last Inspection Date:** 9/25/2018 **PCI:** 79

Sample # 4 **Area:** 5,100 SF

Distress Description	Severity	Quantity
WEATHERING	L	5,100 SF
RAVELING	L	600 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	27 LF
PATCHING	M	1 SF

Sample # 9 **Area:** 5,100 SF

Distress Description	Severity	Quantity
WEATHERING	L	5,100 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	24 LF
RAVELING	L	385 SF
RAVELING	H	2 SF
PATCHING	M	1 SF
DEPRESSION	L	10 SF

Sample # 14 **Area:** 5,100 SF

Distress Description	Severity	Quantity
WEATHERING	L	5,100 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	6 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	59 LF
RAVELING	L	690 SF
PATCHING	M	2 SF

Sample # 16 **Area:** 5,100 SF

Distress Description	Severity	Quantity
WEATHERING	L	5,100 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	22 LF
DEPRESSION	L	0.09 SF

Sample # 19 **Area:** 3,780 SF

Distress Description	Severity	Quantity
WEATHERING	L	3,780 SF
RAVELING	H	0.1 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	46 SF	0.04%	0.30
LONGITUDINAL/TRANSVERSE CRACKING	LOW	604 LF	0.55%	4.14
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	27 LF	0.02%	4.00
PATCHING	MEDIUM	18 SF	0.02%	6.20
RAVELING	HIGH	9 SF	0.01%	6.00
RAVELING	LOW	7,668 SF	6.93%	8.12
WEATHERING	LOW	110,700 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

LIBBY AIRPORT

Branch: 01A **APRON**

A-3

Length: 480 LF **Width:** 223 LF **Area:** 107,040 SF **Last Const:** 2002 **Family:** ACAH
From: STA 6+60A **To:** STA 11+40A **Surface:** AAC

Inspections

Samples Surveyed: 5 **Total Samples:** 22 **Last Inspection Date:** 9/25/2018 **PCI:** 75

Sample # 2 **Area:** 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	130 LF
WEATHERING	L	5,000 SF

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

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	M	1 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	165 LF
WEATHERING	L	5,000 SF
DEPRESSION	M	1 SF

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

Distress Description	Severity	Quantity
WEATHERING	L	5,000 SF
DEPRESSION	L	0.02 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	74 LF
DEPRESSION	M	3 SF

Sample # 17 **Area:** 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	180 LF
DEPRESSION	M	1 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	90 LF
PATCHING	L	300 SF
WEATHERING	L	4,700 SF

Sample # 20 **Area:** 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	283 LF
PATCHING	L	900 SF
DEPRESSION	M	1 SF
WEATHERING	L	4,100 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	0 SF	0.00%	0.30
DEPRESSION	MEDIUM	22 SF	0.02%	5.20
LONGITUDINAL/TRANSVERSE CRACKING	LOW	3,562 LF	3.33%	10.88
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	390 LF	0.36%	7.15
PATCHING	LOW	5,138 SF	4.80%	9.66
WEATHERING	LOW	101,902 SF	95.20%	5.92

* 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 86.0 % Climate/Durability 14.0 % Other

LIBBY AIRPORT

Branch: 01A **APRON**

A-4

Length: 30 LF **Width:** 35 LF **Area:** 1,050 SF **Last Const:** 2004 **Family:** PCAA
From: HELIPAD APRON **To:** A-1 **Surface:** PCC

Inspections

Samples Surveyed: 1 **Total Samples:** 1 **Last Inspection Date:** 9/25/2018 **PCI:** 22

Sample # 1		Severity	Quantity	Area: 4 SLABS
	Distress Description			
	SHATTERED SLAB	LOW	3 SLABS	
	SHRINKAGE	N/A	1 SLABS	
	JOINT SPALLING	LOW	2 SLABS	
	JOINT SPALLING	MEDIUM	2 SLABS	
	CORNER SPALLING	LOW	2 SLABS	

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
SHATTERED SLAB	LOW	3 SLABS	75.00%	50.78
SHRINKAGE	N/A	1 SLABS	25.00%	3.60
JOINT SPALLING	LOW	2 SLABS	50.00%	11.11
JOINT SPALLING	MEDIUM	2 SLABS	50.00%	26.51
CORNER SPALLING	LOW	2 SLABS	50.00%	13.63

* 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

48.0 % Load 0.0 % Climate/Durability 52.0 % Other

LIBBY AIRPORT

Branch: 01A **APRON**

A-5

Length: 90 LF **Width:** 30 LF **Area:** 2,700 SF **Last Const:** 2004 **Family:** PCAA
From: HELIPAD **To:** A-3 **Surface:** PCC

Inspections

Samples Surveyed: 3 **Total Samples:** 3 **Last Inspection Date:** 9/25/2018 **PCI:** 77

Sample # 1	<p>Distress Description L&T CRACKS JOINT SEAL DAMAGE JOINT SPALLING CORNER SPALLING</p>	<p>Severity LOW LOW LOW LOW</p>	<p>Quantity 1 SLABS 4 SLABS 4 SLABS 1 SLABS</p>	Area: 4 SLABS
Sample # 2	<p>Distress Description JOINT SEAL DAMAGE JOINT SPALLING CORNER SPALLING</p>	<p>Severity LOW LOW LOW</p>	<p>Quantity 4 SLABS 4 SLABS 2 SLABS</p>	Area: 4 SLABS
Sample # 3	<p>Distress Description JOINT SEAL DAMAGE JOINT SPALLING</p>	<p>Severity LOW LOW</p>	<p>Quantity 4 SLABS 4 SLABS</p>	Area: 4 SLABS

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
L&T CRACKS	LOW	1 SLABS	8.33%	7.36
JOINT SEAL DAMAGE	LOW	12 SLABS	100.00%	2.00
JOINT SPALLING	LOW	12 SLABS	100.00%	13.47
CORNER SPALLING	LOW	3 SLABS	25.00%	8.56

* 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 54.0 % Climate/Durability 46.0 % Other

LIBBY AIRPORT

Branch: 01A **APRON**

A-6

Length: 108 LF **Width:** 47 LF **Area:** 4,740 SF **Last Const:** 2010 **Family:** PCAA
From: SELF FUELING AREA **To:** A-1 **Surface:** PCC

Inspections

Samples Surveyed: 2 **Total Samples:** 2 **Last Inspection Date:** 9/25/2018 **PCI:** 59

Sample # 1 **Area:** 15 SLABS

Distress Description	Severity	Quantity
JOINT SEAL DAMAGE	LOW	15 SLABS
POPOUTS	N/A	2 SLABS
JOINT SPALLING	MEDIUM	4 SLABS
JOINT SPALLING	LOW	4 SLABS
JOINT SPALLING	HIGH	2 SLABS
CORNER SPALLING	LOW	3 SLABS

Sample # 2 **Area:** 17 SLABS

Distress Description	Severity	Quantity
JOINT SEAL DAMAGE	LOW	17 SLABS
JOINT SPALLING	MEDIUM	6 SLABS
JOINT SPALLING	LOW	7 SLABS
CORNER SPALLING	LOW	6 SLABS

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
JOINT SEAL DAMAGE	LOW	36 SLABS	100.00%	2.00
POPOUTS	N/A	2 SLABS	6.25%	5.12
JOINT SPALLING	HIGH	2 SLABS	6.25%	15.11
JOINT SPALLING	LOW	12 SLABS	34.38%	8.80
JOINT SPALLING	MEDIUM	11 SLABS	31.25%	19.09
CORNER SPALLING	LOW	10 SLABS	28.13%	9.33

* 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 3.0 % Climate/Durability 97.0 % Other

LIBBY AIRPORT

Branch: 01R RUNWAY

R-1

Length: 3,800 LF
From: STA 3+00

Width: 75 LF

Area: 285,000 SF
To: STA 41+00

Last Const: 1999

Family: ACRML
Surface: AAC

Inspections

Samples Surveyed: 7 **Total Samples:** 59 **Last Inspection Date:** 9/25/2018 **PCI:** 63

Sample # 3 **Area:** 4,875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	28 LF
RAVELING	H	130 SF
DEPRESSION	H	0.33 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	48 LF

Sample # 11 **Area:** 4,875 SF

Distress Description	Severity	Quantity
BLEEDING	NA	0.2 SF
RAVELING	H	141 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	9 LF

Sample # 19 **Area:** 4,875 SF

Distress Description	Severity	Quantity
RAVELING	H	139 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	83 LF
DEPRESSION	H	0.25 SF
DEPRESSION	L	0.07 SF

Sample # 27 **Area:** 4,875 SF

Distress Description	Severity	Quantity
BLEEDING	NA	2 SF
RAVELING	H	130 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	9 LF

Sample # 35 **Area:** 4,875 SF

Distress Description	Severity	Quantity
RAVELING	H	130 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	18 LF
BLEEDING	NA	1 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	4 LF

Sample # 43 **Area:** 4,875 SF

Distress Description	Severity	Quantity
RAVELING	H	132 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	89 LF

Sample # 51 **Area:** 4,875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	4 LF
DEPRESSION	L	0.13 SF
RAVELING	H	130 SF
BLEEDING	NA	0.09 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
BLEEDING	N/A	22 SF	0.01%	0.00
DEPRESSION	HIGH	5 SF	0.00%	12.00
DEPRESSION	LOW	2 SF	0.00%	0.30
LONGITUDINAL/TRANSVERSE CRACKING	LOW	2,004 LF	0.70%	4.39
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	434 LF	0.15%	4.42
RAVELING	HIGH	7,780 SF	2.73%	31.16

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

LIBBY AIRPORT

Branch: 01R

RUNWAY

R-1

Percent of Deduct Values Based on Distress Mechanism

0.0 % Load

76.0 % Climate/Durability

24.0 % Other

LIBBY AIRPORT

Branch: 01R RUNWAY

R-2

Length: 1,200 LF **Width:** 75 LF **Area:** 90,000 SF **Last Const:** 1999 **Family:** ACRML
From: STA 0+00 - 3+00 **To:** STA 41+00 - 50+00 **Surface:** AAC

Inspections

Samples Surveyed: 6 **Total Samples:** 18 **Last Inspection Date:** 9/25/2018 **PCI:** 71

Sample # 1	Distress Description RAVELING LONGITUDINAL/TRANSVERSE CRACKING	Severity H L	Quantity 2 SF 26 LF	Area: 4,875 SF
Sample # 4	Distress Description LONGITUDINAL/TRANSVERSE CRACKING BLEEDING DEPRESSION RAVELING	Severity L NA L H	Quantity 19 LF 0.05 SF 0.02 SF 130 SF	Area: 4,875 SF
Sample # 7	Distress Description RAVELING LONGITUDINAL/TRANSVERSE CRACKING	Severity H L	Quantity 130 SF 16 LF	Area: 4,875 SF
Sample # 10	Distress Description BLEEDING RAVELING DEPRESSION	Severity NA H L	Quantity 0.3 SF 130 SF 0.04 SF	Area: 4,875 SF
Sample # 13	Distress Description RAVELING BLEEDING LONGITUDINAL/TRANSVERSE CRACKING	Severity H NA L	Quantity 130 SF 0.4 SF 6 LF	Area: 4,875 SF
Sample # 16	Distress Description RAVELING	Severity H	Quantity 130 SF	Area: 4,875 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
BLEEDING	N/A	2 SF	0.00%	0.00
DEPRESSION	LOW	0.2 SF	0.00%	0.30
LONGITUDINAL/TRANSVERSE CRACKING	LOW	208 LF	0.23%	3.30
RAVELING	HIGH	2,005 SF	2.23%	27.90

* 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

LIBBY AIRPORT

Branch: 01T TAXIWAY

T-2

Length: 2,360 LF **Width:** 35 LF **Area:** 82,600 SF **Last Const:** 1999 **Family:** ACRH
From: SOUTH END RUNWAY 32 **To:** APRON **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 16 **Last Inspection Date:** 9/25/2018 **PCI:** 51

Sample # 1	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING DEPRESSION RAVELING LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING WEATHERING</p>	<p>Severity M L H L H L</p>	<p>Quantity 220 LF 1 SF 35 SF 137 LF 2 LF 5,250 SF</p>	Area: 5,250 SF
Sample # 4	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity L H L M</p>	<p>Quantity 246 LF 4 SF 5,250 LF 101 LF</p>	Area: 5,250 SF
Sample # 7	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity L H M L</p>	<p>Quantity 181 LF 2 SF 230 LF 5,250 LF</p>	Area: 5,250 SF
Sample # 10	<p>Distress Description RAVELING LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING WEATHERING</p>	<p>Severity H L M L</p>	<p>Quantity 24 SF 202 LF 213 LF 5,250 SF</p>	Area: 5,250 SF
Sample # 13	<p>Distress Description PATCHING LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING WEATHERING RAVELING</p>	<p>Severity M M L L H</p>	<p>Quantity 140 SF 213 LF 227 LF 5,250 SF 1 SF</p>	Area: 5,250 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	3 SF	0.00%	0.30
LONGITUDINAL/TRANSVERSE CRACKING	HIGH	6 LF	0.01%	7.50
LONGITUDINAL/TRANSVERSE CRACKING	LOW	36,165 LF	43.78%	42.56
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	3,074 LF	3.72%	21.91
PATCHING	MEDIUM	441 SF	0.53%	8.09
RAVELING	HIGH	207 SF	0.25%	8.35
WEATHERING	LOW	49,560 SF	60.00%	5.20

* 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 100.0 % Climate/Durability 0.0 % Other

LIBBY AIRPORT

Branch: 01T TAXIWAY

T-5

Length: 1,957 LF **Width:** 35 LF **Area:** 68,501 SF **Last Const:** 1999 **Family:** ACRML
From: R-2 **To:** A-3 (N PARALLEL TW) **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 14 **Last Inspection Date:** 9/25/2018 **PCI:** 60

Sample # 1	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING RAVELING PATCHING</p>	<p>Severity M L H L</p>	<p>Quantity 3 LF 222 LF 140 SF 88 SF</p>	Area: 4,900 SF
Sample # 4	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING</p>	<p>Severity L H</p>	<p>Quantity 238 LF 140 SF</p>	Area: 4,900 SF
Sample # 7	<p>Distress Description PATCHING RAVELING LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity L H L</p>	<p>Quantity 0.2 SF 140 SF 106 LF</p>	Area: 4,900 SF
Sample # 10	<p>Distress Description RAVELING LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity H L</p>	<p>Quantity 140 SF 247 LF</p>	Area: 4,900 SF
Sample # 13	<p>Distress Description DEPRESSION RAVELING LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity M H L</p>	<p>Quantity 243 SF 10 SF 174 LF</p>	Area: 4,900 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	MEDIUM	679 SF	0.99%	15.55
LONGITUDINAL/TRANSVERSE CRACKING	LOW	2,760 LF	4.03%	12.59
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	8 LF	0.01%	4.00
PATCHING	LOW	245 SF	0.36%	2.20
RAVELING	HIGH	1,594 SF	2.33%	28.58

* 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

LIBBY AIRPORT

Branch: 01T TAXIWAY

T-6

Length: 870 LF **Width:** 20 LF **Area:** 17,400 SF **Last Const:** 1999 **Family:** ACRML
From: T-2 & A-2 **To:** HANGARS **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 4 **Last Inspection Date:** 9/25/2018 **PCI:** 76

Sample # 1	<p>Distress Description DEPRESSION WEATHERING</p>	<p>Severity L L</p>	<p>Quantity 80 SF 4,100 SF</p>	Area: 4,100 SF
Sample # 2	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING WEATHERING RAVELING PATCHING</p>	<p>Severity L L H H</p>	<p>Quantity 2 LF 6,000 SF 1 SF 80 SF</p>	Area: 6,000 SF
Sample # 3	<p>Distress Description WEATHERING DEPRESSION RAVELING LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity L M H L</p>	<p>Quantity 5,500 SF 1 SF 0.4 SF 71 LF</p>	Area: 5,500 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	89 SF	0.51%	3.39
DEPRESSION	MEDIUM	1 SF	0.01%	5.20
LONGITUDINAL/TRANSVERSE CRACKING	LOW	81 LF	0.47%	4.01
PATCHING	HIGH	89 SF	0.51%	16.93
RAVELING	HIGH	1 SF	0.01%	6.00
WEATHERING	LOW	17,400 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 79.0 % Climate/Durability 21.0 % Other

LIBBY AIRPORT (01)

FIFTEEN YEAR PROJECTIONS ESTIMATED AVERAGE ANNUAL COST: \$190,764

Plan Year: 2019		Estimated Cost:					\$965,352		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive + Global MR	\$894	\$6,324	\$0	\$0	\$7,218	70	76		
A-2	Preventive + Global MR	\$1,717	\$37,638	\$0	\$0	\$39,355	79	83		
A-4	Major Below Critical	\$0	\$0	\$6,825	\$0	\$6,825	20	100		
A-5	Preventive	\$64	\$0	\$0	\$0	\$64	77	77		
A-6	Major Below Critical	\$0	\$0	\$15,969	\$0	\$15,969	58	100		
R-1	Preventive + Global MR	\$25,024	\$96,899	\$0	\$0	\$121,923	62	68		
R-2	Preventive + Global MR	\$4,299	\$30,600	\$0	\$0	\$34,898	71	75		
T-2	Major Below Critical	\$0	\$0	\$365,009	\$0	\$365,009	51	100		
T-3	Major Below Critical	\$0	\$0	\$52,833	\$0	\$52,833	44	100		
T-4	Major Below Critical	\$0	\$0	\$102,960	\$0	\$102,960	0	100		
T-5	Major Below Critical	\$0	\$0	\$211,771	\$0	\$211,771	59	100		
T-6	Preventive + Global MR	\$487	\$6,038	\$0	\$0	\$6,526	76	79		

Plan Year: 2020		Estimated Cost:					\$24,503		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive	\$620	\$0	\$0	\$0	\$620	74	74		
A-2	Preventive	\$965	\$0	\$0	\$0	\$965	81	81		
A-4		\$0	\$0	\$0	\$0	\$0	97	97		
A-5	Preventive	\$81	\$0	\$0	\$0	\$81	75	75		
A-6		\$0	\$0	\$0	\$0	\$0	97	97		
R-1	Preventive	\$19,352	\$0	\$0	\$0	\$19,352	66	67		
R-2	Preventive	\$3,179	\$0	\$0	\$0	\$3,179	74	74		
T-2		\$0	\$0	\$0	\$0	\$0	97	97		
T-3		\$0	\$0	\$0	\$0	\$0	97	97		
T-4		\$0	\$0	\$0	\$0	\$0	97	97		
T-5		\$0	\$0	\$0	\$0	\$0	97	97		
T-6	Preventive	\$306	\$0	\$0	\$0	\$306	78	78		

Plan Year: 2021		Estimated Cost:					\$27,983		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive	\$745	\$0	\$0	\$0	\$745	72	73		
A-2	Preventive	\$1,104	\$0	\$0	\$0	\$1,104	80	80		
A-4		\$0	\$0	\$0	\$0	\$0	94	94		
A-5	Preventive	\$98	\$0	\$0	\$0	\$98	73	74		
A-6		\$0	\$0	\$0	\$0	\$0	94	94		
R-1	Preventive	\$21,944	\$0	\$0	\$0	\$21,944	65	65		
R-2	Preventive	\$3,701	\$0	\$0	\$0	\$3,701	72	72		
T-2		\$0	\$0	\$0	\$0	\$0	94	94		
T-3		\$0	\$0	\$0	\$0	\$0	94	94		
T-4		\$0	\$0	\$0	\$0	\$0	94	94		
T-5		\$0	\$0	\$0	\$0	\$0	94	94		
T-6	Preventive	\$391	\$0	\$0	\$0	\$391	77	77		

Plan Year: 2022		Estimated Cost:					\$31,847		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive	\$871	\$0	\$0	\$0	\$871	71	71		
A-2	Preventive	\$1,642	\$0	\$0	\$0	\$1,642	79	79		
A-4		\$0	\$0	\$0	\$0	\$0	91	91		
A-5	Preventive	\$114	\$0	\$0	\$0	\$114	72	72		
A-6		\$0	\$0	\$0	\$0	\$0	91	91		
R-1	Preventive	\$24,523	\$0	\$0	\$0	\$24,523	63	63		
R-2	Preventive	\$4,219	\$0	\$0	\$0	\$4,219	71	71		
T-2		\$0	\$0	\$0	\$0	\$0	91	91		
T-3		\$0	\$0	\$0	\$0	\$0	91	91		
T-4		\$0	\$0	\$0	\$0	\$0	91	91		
T-5		\$0	\$0	\$0	\$0	\$0	91	91		
T-6	Preventive	\$477	\$0	\$0	\$0	\$477	76	76		

Plan Year: 2023		Estimated Cost:					\$36,179		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive	\$1,014	\$0	\$0	\$0	\$1,014	69	69		
A-2	Preventive	\$2,196	\$0	\$0	\$0	\$2,196	78	78		
A-4	Preventive	\$2	\$0	\$0	\$0	\$2	88	88		
A-5	Preventive	\$131	\$0	\$0	\$0	\$131	70	70		
A-6	Preventive	\$9	\$0	\$0	\$0	\$9	88	88		
R-1	Preventive	\$27,118	\$0	\$0	\$0	\$27,118	61	61		
R-2	Preventive	\$4,793	\$0	\$0	\$0	\$4,793	69	69		
T-2	Preventive	\$165	\$0	\$0	\$0	\$165	88	88		
T-3	Preventive	\$21	\$0	\$0	\$0	\$21	88	88		
T-4	Preventive	\$32	\$0	\$0	\$0	\$32	88	88		
T-5	Preventive	\$137	\$0	\$0	\$0	\$137	88	88		
T-6	Preventive	\$562	\$0	\$0	\$0	\$562	75	75		

Plan Year: 2024		Estimated Cost:					\$982,535		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-1	Preventive + Global MR	\$1,170.89	\$6,323.95	\$0.00	\$0.00	\$7,494.84	67.41	72.89		
A-2	Preventive + Global MR	\$2,749.01	\$37,637.70	\$0.00	\$0.00	\$40,386.71	76.29	80.25		
A-4	Preventive	\$4.97	\$0.00	\$0.00	\$0.00	\$4.97	85.27	85.54		
A-5	Preventive	\$150.93	\$0.00	\$0.00	\$0.00	\$150.93	68.82	68.91		

LIBBY AIRPORT (01)

FIFTEEN YEAR PROJECTIONS ESTIMATED AVERAGE ANNUAL COST: \$190,764

A-6	Preventive	\$22.41	\$0.00	\$0.00	\$0.00	\$22.41	85.27	85.54
R-1	Major Below Critical	\$0.00	\$0.00	\$890,910.43	\$0.00	\$890,910.43	59.16	100.00
R-2	Preventive + Global MR	\$5,440.68	\$30,599.75	\$0.00	\$0.00	\$36,040.43	67.91	72.52
T-2	Preventive	\$390.60	\$0.00	\$0.00	\$0.00	\$390.60	85.27	85.54
T-3	Preventive	\$49.46	\$0.00	\$0.00	\$0.00	\$49.46	85.27	85.54
T-4	Preventive	\$74.90	\$0.00	\$0.00	\$0.00	\$74.90	85.27	85.54
T-5	Preventive	\$323.92	\$0.00	\$0.00	\$0.00	\$323.92	85.27	85.54
T-6	Preventive + Global MR	\$647.11	\$6,038.35	\$0.00	\$0.00	\$6,685.46	73.39	77.19

Plan Year: 2025		Estimated Cost:					\$8,565	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$849	\$0	\$0	\$0	\$849	71	71	
A-2	Preventive	\$1,571	\$0	\$0	\$0	\$1,571	79	79	
A-4	Preventive	\$8	\$0	\$0	\$0	\$8	83	83	
A-5	Preventive	\$172	\$0	\$0	\$0	\$172	67	67	
A-6	Preventive	\$35	\$0	\$0	\$0	\$35	83	83	
R-1		\$0	\$0	\$0	\$0	\$0	97	97	
R-2	Preventive	\$4,140	\$0	\$0	\$0	\$4,140	71	71	
T-2	Preventive	\$616	\$0	\$0	\$0	\$616	83	83	
T-3	Preventive	\$78	\$0	\$0	\$0	\$78	83	83	
T-4	Preventive	\$118	\$0	\$0	\$0	\$118	83	83	
T-5	Preventive	\$511	\$0	\$0	\$0	\$511	83	83	
T-6	Preventive	\$467	\$0	\$0	\$0	\$467	76	76	

Plan Year: 2026		Estimated Cost:					\$10,524	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$986	\$0	\$0	\$0	\$986	69	69	
A-2	Preventive	\$2,125	\$0	\$0	\$0	\$2,125	78	78	
A-4	Preventive	\$11	\$0	\$0	\$0	\$11	80	80	
A-5	Preventive	\$193	\$0	\$0	\$0	\$193	66	66	
A-6	Preventive	\$51	\$0	\$0	\$0	\$51	80	80	
R-1		\$0	\$0	\$0	\$0	\$0	94	94	
R-2	Preventive	\$4,698	\$0	\$0	\$0	\$4,698	70	70	
T-2	Preventive	\$889	\$0	\$0	\$0	\$889	80	80	
T-3	Preventive	\$113	\$0	\$0	\$0	\$113	80	80	
T-4	Preventive	\$170	\$0	\$0	\$0	\$170	80	80	
T-5	Preventive	\$737	\$0	\$0	\$0	\$737	80	80	
T-6	Preventive	\$552	\$0	\$0	\$0	\$552	75	75	

Plan Year: 2027		Estimated Cost:					\$13,985	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$1,143	\$0	\$0	\$0	\$1,143	68	68	
A-2	Preventive	\$2,678	\$0	\$0	\$0	\$2,678	76	77	
A-4	Preventive	\$23	\$0	\$0	\$0	\$23	77	77	
A-5	Preventive	\$213	\$0	\$0	\$0	\$213	64	64	
A-6	Preventive	\$103	\$0	\$0	\$0	\$103	77	77	
R-1		\$0	\$0	\$0	\$0	\$0	91	91	
R-2	Preventive	\$5,341	\$0	\$0	\$0	\$5,341	68	68	
T-2	Preventive	\$1,791	\$0	\$0	\$0	\$1,791	77	77	
T-3	Preventive	\$227	\$0	\$0	\$0	\$227	77	77	
T-4	Preventive	\$343	\$0	\$0	\$0	\$343	77	77	
T-5	Preventive	\$1,485	\$0	\$0	\$0	\$1,485	77	77	
T-6	Preventive	\$637	\$0	\$0	\$0	\$637	74	74	

Plan Year: 2028		Estimated Cost:					\$18,009	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$1,301	\$0	\$0	\$0	\$1,301	66	66	
A-2	Preventive	\$3,227	\$0	\$0	\$0	\$3,227	75	75	
A-4	Preventive	\$34	\$0	\$0	\$0	\$34	74	75	
A-5	Preventive	\$234	\$0	\$0	\$0	\$234	63	63	
A-6	Preventive	\$154	\$0	\$0	\$0	\$154	74	75	
R-1	Preventive	\$569	\$0	\$0	\$0	\$569	88	88	
R-2	Preventive	\$5,990	\$0	\$0	\$0	\$5,990	67	67	
T-2	Preventive	\$2,690	\$0	\$0	\$0	\$2,690	74	75	
T-3	Preventive	\$341	\$0	\$0	\$0	\$341	74	75	
T-4	Preventive	\$516	\$0	\$0	\$0	\$516	74	75	
T-5	Preventive	\$2,231	\$0	\$0	\$0	\$2,231	74	75	
T-6	Preventive	\$723	\$0	\$0	\$0	\$723	72	72	

Plan Year: 2029		Estimated Cost:					\$484,305	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive + Global MR	\$1,458	\$6,324	\$0	\$0	\$7,782	64	70	
A-2	Preventive + Global MR	\$3,782	\$37,638	\$0	\$0	\$41,419	74	78	
A-4	Preventive	\$46	\$0	\$0	\$0	\$46	72	72	
A-5	Preventive	\$255	\$0	\$0	\$0	\$255	61	61	
A-6	Preventive	\$206	\$0	\$0	\$0	\$206	72	72	
R-1	Preventive	\$1,377	\$0	\$0	\$0	\$1,377	85	85	
R-2	Preventive + Global MR	\$6,642	\$30,600	\$0	\$0	\$37,242	65	70	
T-2	Preventive + Global MR	\$3,594	\$177,590	\$0	\$0	\$181,184	72	87	
T-3	Preventive + Global MR	\$455	\$22,489	\$0	\$0	\$22,944	72	87	
T-4	Preventive + Global MR	\$689	\$34,056	\$0	\$0	\$34,745	72	87	

LIBBY AIRPORT (01)

FIFTEEN YEAR PROJECTIONS ESTIMATED AVERAGE ANNUAL COST: \$190,764

T-5	Preventive + Global MR	\$2,981	\$147,277	\$0	\$0	\$150,258	72	87
T-6	Preventive + Global MR	\$808	\$6,038	\$0	\$0	\$6,846	71	75

Plan Year: 2030		Estimated Cost:					\$21,443	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$1,115	\$0	\$0	\$0	\$1,115	68	68	
A-2	Preventive	\$2,608	\$0	\$0	\$0	\$2,608	77	77	
A-4	Preventive	\$58	\$0	\$0	\$0	\$58	69	69	
A-5	Major Below Critical	\$0	\$0	\$8,270	\$0	\$8,270	60	100	
A-6	Preventive	\$263	\$0	\$0	\$0	\$263	69	69	
R-1	Preventive	\$2,176	\$0	\$0	\$0	\$2,176	82	83	
R-2	Preventive	\$5,243	\$0	\$0	\$0	\$5,243	68	68	
T-2	Preventive	\$504	\$0	\$0	\$0	\$504	84	84	
T-3	Preventive	\$64	\$0	\$0	\$0	\$64	84	84	
T-4	Preventive	\$97	\$0	\$0	\$0	\$97	84	84	
T-5	Preventive	\$418	\$0	\$0	\$0	\$418	84	84	
T-6	Preventive	\$627	\$0	\$0	\$0	\$627	74	74	

Plan Year: 2031		Estimated Cost:					\$16,370	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$1,272	\$0	\$0	\$0	\$1,272	66	66	
A-2	Preventive	\$3,157	\$0	\$0	\$0	\$3,157	75	75	
A-4	Preventive	\$73	\$0	\$0	\$0	\$73	66	66	
A-5		\$0	\$0	\$0	\$0	\$0	97	97	
A-6	Preventive	\$328	\$0	\$0	\$0	\$328	66	66	
R-1	Preventive	\$3,373	\$0	\$0	\$0	\$3,373	80	80	
R-2	Preventive	\$5,891	\$0	\$0	\$0	\$5,891	67	67	
T-2	Preventive	\$728	\$0	\$0	\$0	\$728	81	81	
T-3	Preventive	\$92	\$0	\$0	\$0	\$92	81	81	
T-4	Preventive	\$140	\$0	\$0	\$0	\$140	81	81	
T-5	Preventive	\$604	\$0	\$0	\$0	\$604	81	81	
T-6	Preventive	\$712	\$0	\$0	\$0	\$712	72	73	

Plan Year: 2032		Estimated Cost:					\$22,411	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$1,429	\$0	\$0	\$0	\$1,429	65	65	
A-2	Preventive	\$3,711	\$0	\$0	\$0	\$3,711	74	74	
A-4	Preventive	\$87	\$0	\$0	\$0	\$87	63	64	
A-5		\$0	\$0	\$0	\$0	\$0	94	94	
A-6	Preventive	\$392	\$0	\$0	\$0	\$392	63	64	
R-1	Preventive	\$6,588	\$0	\$0	\$0	\$6,588	77	77	
R-2	Preventive	\$6,534	\$0	\$0	\$0	\$6,534	65	66	
T-2	Preventive	\$1,338	\$0	\$0	\$0	\$1,338	78	79	
T-3	Preventive	\$169	\$0	\$0	\$0	\$169	78	79	
T-4	Preventive	\$256	\$0	\$0	\$0	\$256	78	79	
T-5	Preventive	\$1,109	\$0	\$0	\$0	\$1,109	78	79	
T-6	Preventive	\$797	\$0	\$0	\$0	\$797	71	71	

Plan Year: 2033		Estimated Cost:					\$29,101	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$1,588	\$0	\$0	\$0	\$1,588	63	63	
A-2	Preventive	\$4,264	\$0	\$0	\$0	\$4,264	73	73	
A-4	Preventive	\$101	\$0	\$0	\$0	\$101	61	61	
A-5		\$0	\$0	\$0	\$0	\$0	91	91	
A-6	Preventive	\$457	\$0	\$0	\$0	\$457	61	61	
R-1	Preventive	\$9,805	\$0	\$0	\$0	\$9,805	74	74	
R-2	Preventive	\$7,187	\$0	\$0	\$0	\$7,187	64	64	
T-2	Preventive	\$2,243	\$0	\$0	\$0	\$2,243	76	76	
T-3	Preventive	\$284	\$0	\$0	\$0	\$284	76	76	
T-4	Preventive	\$430	\$0	\$0	\$0	\$430	76	76	
T-5	Preventive	\$1,860	\$0	\$0	\$0	\$1,860	76	76	
T-6	Preventive	\$882	\$0	\$0	\$0	\$882	70	70	