

LIVINGSTON AIRPORT

Branch: 24A APRON

A-11

Length: 510 LF Width: 360 LF Area: 183,600 SF Last Const: 2011 Family: ACAH
 From: T-11 To: T-5 Surface: AC

Inspections

Samples Surveyed: 0 Total Samples: 0 Last Inspection Date: 8/23/2011 **PCI: 100**

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
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* 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	0.0 % Climate/Durability	0.0 % Other
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LIVINGSTON AIRPORT

Branch: 24R RUNWAY

R-11

Length: 5,701 LF Width: 75 LF Area: 427,575 SF Last Const: 2011 Family: ACAH
 From: 0+00 To: 57+01 Surface: AC

Inspections

Samples Surveyed: 0 Total Samples: 0 Last Inspection Date: 8/25/2011 **PCI: 100**

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
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* 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	0.0 % Climate/Durability	0.0 % Other
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LIVINGSTON AIRPORT

Branch: 24T TAXIWAY

T-11

Length: 463 LF Width: 35 LF Area: 16,205 SF Last Const: 2011 Family: ACRH
 From: RUNWAY To: APRON Surface: AC

Inspections

Samples Surveyed: 0 Total Samples: 0 Last Inspection Date: 9/30/2011 **PCI: 100**

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
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* 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	0.0 % Climate/Durability	0.0 % Other
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LIVINGSTON AIRPORT

Branch: 24T TAXIWAY T-5

Length: 2,565 LF Width: 35 LF Area: 89,775 SF Last Const: 2005 Family: ACRH
 From: T-1 / A-1 To: HANGARS Surface: AC

Inspections

Samples Surveyed: 5 Total Samples: 19 Last Inspection Date: 8/29/2012 **PCI: 83**

Sample #	Distress Description	Severity	Quantity	Area:
4	LONGITUDINAL/TRANSVERSE CRACKING	L	24 LF	4,900 SF
	WEATHERING	L	560 SF	
8	LONGITUDINAL/TRANSVERSE CRACKING	L	38 LF	3,850 SF
	WEATHERING	L	231 SF	
12	ALLIGATOR CRACKING	L	90 SF	3,842 SF
	WEATHERING	L	49 SF	
14	LONGITUDINAL/TRANSVERSE CRACKING	L	6 LF	4,935 SF
17	ALLIGATOR CRACKING	L	450 SF	4,935 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
ALLIGATOR CRACKING	L	2,158 SF	2.40%	28.90
LONGITUDINAL/TRANSVERSE CRACKING	L	272 LF	0.30%	3.61
WEATHERING	L	3,358 SF	3.74%	0.92

* 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

86.0 % Load 14.0 % Climate/Durability 0.0 % Other

LIVINGSTON AIRPORT

FIRST YEAR LOCAL: 2013 **LOCAL REPAIR COST: \$0**

Section	Distress Description	Severity	Quantity	Work Description	Quantity	Cost	Policy
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FIFTEEN YEAR PROJECTIONS **ESTIMATED AVERAGE ANNUAL COST: \$49,856**

Plan Year: 2013							Estimated Cost: \$107,730		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
T-5	Major Above Critical	\$0	\$0	\$0	\$107,730	\$107,730	81	100		

Plan Year: 2014							Estimated Cost: \$1,080		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$474	\$0	\$0	\$0	\$474	87	88		
R-11	Preventive	\$589	\$0	\$0	\$0	\$589	89	89		
T-11	Preventive	\$16	\$0	\$0	\$0	\$16	89	89		

Plan Year: 2015							Estimated Cost: \$3,416		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$1,243	\$0	\$0	\$0	\$1,243	84	84		
R-11	Preventive	\$2,099	\$0	\$0	\$0	\$2,099	85	85		
T-11	Preventive	\$74	\$0	\$0	\$0	\$74	86	86		

Plan Year: 2016							Estimated Cost: \$5,891		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$1,981	\$0	\$0	\$0	\$1,981	80	80		
R-11	Preventive	\$3,512	\$0	\$0	\$0	\$3,512	82	83		
T-11	Preventive	\$128	\$0	\$0	\$0	\$128	83	83		
T-5	Preventive	\$270	\$0	\$0	\$0	\$270	87	87		

Plan Year: 2017							Estimated Cost: \$10,244		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$4,546	\$0	\$0	\$0	\$4,546	77	77		
R-11	Preventive	\$4,927	\$0	\$0	\$0	\$4,927	80	80		
T-5	Preventive	\$592	\$0	\$0	\$0	\$592	84	84		
T-11	Preventive	\$179	\$0	\$0	\$0	\$179	80	80		

Plan Year: 2018							Estimated Cost: \$17,794		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$7,041	\$0	\$0	\$0	\$7,041	74	74		
R-11	Preventive	\$9,514	\$0	\$0	\$0	\$9,514	78	78		
T-5	Preventive	\$894	\$0	\$0	\$0	\$894	81	81		
T-11	Preventive	\$344	\$0	\$0	\$0	\$344	78	78		

Plan Year: 2019							Estimated Cost: \$25,281		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$9,401	\$0	\$0	\$0	\$9,401	72	72		
R-11	Preventive	\$13,864	\$0	\$0	\$0	\$13,864	76	76		
T-11	Preventive	\$511	\$0	\$0	\$0	\$511	76	76		
T-5	Preventive	\$1,505	\$0	\$0	\$0	\$1,505	79	79		

Plan Year: 2020							Estimated Cost: \$33,337		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$12,125	\$0	\$0	\$0	\$12,125	70	70		
R-11	Preventive	\$18,047	\$0	\$0	\$0	\$18,047	74	74		
T-11	Preventive	\$670	\$0	\$0	\$0	\$670	74	74		
T-5	Preventive	\$2,496	\$0	\$0	\$0	\$2,496	77	77		

Plan Year: 2021							Estimated Cost: \$43,128		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$16,815	\$0	\$0	\$0	\$16,815	68	68		
R-11	Preventive	\$22,055	\$0	\$0	\$0	\$22,055	72	72		
T-11	Preventive	\$823	\$0	\$0	\$0	\$823	72	73		
T-5	Preventive	\$3,435	\$0	\$0	\$0	\$3,435	75	75		

Plan Year: 2022							Estimated Cost: \$52,433		PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After		
A-11	Preventive	\$21,154	\$0	\$0	\$0	\$21,154	66	66		
R-11	Preventive	\$25,972	\$0	\$0	\$0	\$25,972	71	71		
T-11	Preventive	\$973	\$0	\$0	\$0	\$973	71	71		
T-5	Preventive	\$4,334	\$0	\$0	\$0	\$4,334	73	73		

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Plan Year: 2023		Estimated Cost: \$62,999					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-11	Preventive	\$25,142	\$0	\$0	\$0	\$25,142	65	65	
R-11	Preventive	\$31,486	\$0	\$0	\$0	\$31,486	70	70	
T-11	Preventive	\$1,163	\$0	\$0	\$0	\$1,163	70	70	
T-5	Preventive	\$5,208	\$0	\$0	\$0	\$5,208	72	72	

Plan Year: 2024		Estimated Cost: \$76,029					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-11	Preventive	\$28,770	\$0	\$0	\$0	\$28,770	64	64	
R-11	Preventive	\$39,716	\$0	\$0	\$0	\$39,716	68	68	
T-11	Preventive	\$1,478	\$0	\$0	\$0	\$1,478	68	68	
T-5	Preventive	\$6,065	\$0	\$0	\$0	\$6,065	70	70	

Plan Year: 2025		Estimated Cost: \$89,540					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-11	Preventive	\$32,094	\$0	\$0	\$0	\$32,094	63	63	
R-11	Preventive	\$47,976	\$0	\$0	\$0	\$47,976	67	67	
T-11	Preventive	\$1,791	\$0	\$0	\$0	\$1,791	67	67	
T-5	Preventive	\$7,679	\$0	\$0	\$0	\$7,679	69	69	

Plan Year: 2026		Estimated Cost: \$102,874					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-11	Preventive	\$35,078	\$0	\$0	\$0	\$35,078	62	62	
R-11	Preventive	\$56,200	\$0	\$0	\$0	\$56,200	66	66	
T-11	Preventive	\$2,104	\$0	\$0	\$0	\$2,104	66	66	
T-5	Preventive	\$9,492	\$0	\$0	\$0	\$9,492	68	68	

Plan Year: 2027		Estimated Cost: \$116,058					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-11	Preventive	\$37,797	\$0	\$0	\$0	\$37,797	61	61	
R-11	Preventive	\$64,543	\$0	\$0	\$0	\$64,543	65	65	
T-11	Preventive	\$2,419	\$0	\$0	\$0	\$2,419	65	65	
T-5	Preventive	11298.49	0	0	0	11298.49	66.68	66.71	

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8/29/2012



A-11, Overview



R-11, Overview



T-5, Overview



T-5, Overview 2

LIVINGSTON AIRPORT

8/21/2012



T-5, Overview 3

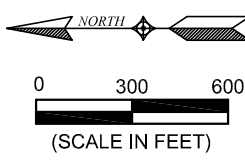
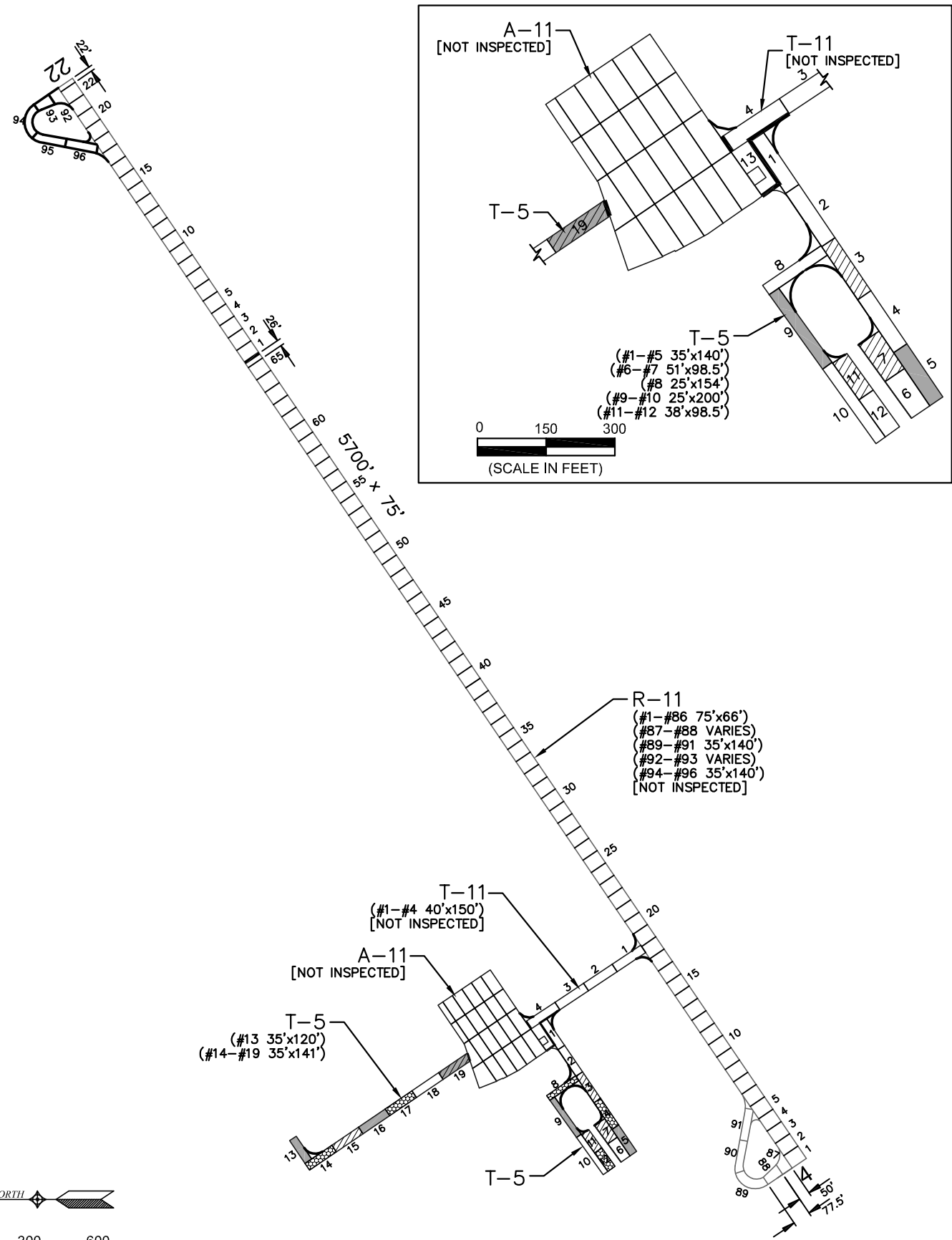


T-5, Surface detail with crack



T-5, Surface detail with cracking

LIVINGSTON



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=18.6		6" P-209	4" P-401		40,000	70,000	110,000	6
TAXIWAYS										
T-5		CBR=18.6	8" P-154	6" P-209	4" P-401	P-609	30,000	30,000		5 6
T-11		CBR=18.6		6" P-209	4" P-401		40,000	70,000	110,000	6
APRONS										
A-11		CBR=18.6		6" P-209	4" P-401		40,000	70,000	110,000	6

REMARKS:

- 1 ADAP-01, 1972, EXTEND RUNWAY AND CONSTRUCT TAXIWAY (T-2).
- 2 AIP-01, 1983, CHIP SEAL ALL PAVEMENTS (P-602).
- 3 AIP-02, 1993, 1" OVERLAY, APRON EXTENSION (A-2), AND CONSTRUCT TAXIWAY (T-3).
- 4 AIP-03, 2002, CRACK SEAL, FOG SEAL, AND REMARK ALL PAVEMENTS.
- 5 AIP-004-2005, CONSTRUCT TAXIWAYS (T-5). SELECT ON-SITE BORROW WAS USED TO REPLACE UNSUITABLE SUBGRADE, TYPICALLY RANGING FROM 0" TO 6" (SPOT LOCATIONS WERE AS DEEP AS 4 FT.).
- 6 AIP-010-2010, RUNWAY 4-22 RECONSTRUCT, TAXIWAY A

LEGEND [Pattern] 1997 SURVEY AREA [Pattern] 2000 SURVEY AREA [Pattern] 2003 SURVEY AREA [Pattern] 2006 SURVEY AREA [Pattern] 2009 SURVEY AREA [Pattern] 2012 SURVEY AREA	DATE OF PAVEMENT STRENGTH SURVEY:	DEC. 1992	MONTANA AVIATION SYSTEM PLAN 2012 UPDATE - PAVEMENT CONDITION INDEXES
	EVALUATED BY:	G. GATES	
	DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	SEPT. 2012	MISSION FIELD LIVINGSTON MONTANA
	EVALUATED BY:	J. WALLA	
			PREPARED FOR:
			DATE: SEPT. 2012