

WOLF POINT AIRPORT

Branch: 32A **APRON** **A-5**

Length: 350 LF Width: 300 LF Area: 106,363 SF Last Const: 2010 Family: ACAM
 From: T-1 To: T-3 & T-4 Surface: AC

Inspections

Samples Surveyed: 6 Total Samples: 27 Last Inspection Date: 8/21/2012 **PCI: 98**

Sample # 2	Distress Description NONE	Severity	Quantity	Area: 5,000 SF
Sample # 7	Distress Description NONE	Severity	Quantity	Area: 5,000 SF
Sample # 12	Distress Description NONE	Severity	Quantity	Area: 5,000 SF
Sample # 15	Distress Description NONE	Severity	Quantity	Area: 5,000 SF
Sample # 17	Distress Description WEATHERING	Severity L	Quantity 8 SF	Area: 5,000 SF
Sample # 22	Distress Description OIL SPILLAGE RAVELING	Severity N M	Quantity 15 SF 100 SF	Area: 5,000 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
OIL SPILLAGE	N	53 SF	16.67%	2.00
RAVELING	M	355 SF	65.04%	5.39
WEATHERING	L	28 SF	1.62%	0.00

* 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 73.0 % Climate/Durability 27.0 % Other

WOLF POINT AIRPORT

Branch: 32R **RUNWAY** **R-11**

Length: 5,091 LF Width: 100 LF Area: 509,100 SF Last Const: 2010 Family: ACRH
 From: 0+00 To: 50+91 Surface: AC

Inspections

Samples Surveyed: 7 Total Samples: 6 Last Inspection Date: 8/21/2012 **PCI: 99**

Sample #	Distress Description	Severity	Quantity	Area:
2	RAVELING	L	1 SF	5,000 SF
17	NONE			5,000 SF
32	NONE			5,000 SF
47	LONGITUDINAL/TRANSVERSE CRACKING	L	28 LF	5,000 SF
62	NONE			5,000 SF
77	NONE			5,000 SF
92	NONE			5,000 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	407 LF	5.18%	2.50
RAVELING	L	15 SF	0.53%	1.00

* 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

WOLF POINT AIRPORT

Branch: 32T TAXIWAY

T-1

Length: 130 LF Width: 75 LF Area: 9,750 SF Last Const: 2010 Family: ACRH
 From: 24+25 R/W 10-28 To: APRON Surface: AC

Inspections

Samples Surveyed: 2 Total Samples: 2 Last Inspection Date: 8/21/2012 **PCI: 89**

Sample # 1				Area: 4,875 SF
	Distress Description	Severity	Quantity	
	RAVELING	M	5 SF	
Sample # 2				Area: 4,875 SF
	Distress Description	Severity	Quantity	
	LONGITUDINAL/TRANSVERSE CRACKING	L	12 LF	
	LONGITUDINAL/TRANSVERSE CRACKING	M	35 LF	
	RAVELING	M	6 SF	

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	12 LF	61.61%	2.53
LONGITUDINAL/TRANSVERSE CRACKING	M	35 LF	0.41%	7.10
RAVELING	M	11 SF	28.55%	4.09

* 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

WOLF POINT AIRPORT

Branch: 32T TAXIWAY

T-2

Length: 298 LF Width: 40 LF Area: 11,920 SF Last Const: 2010 Family: ACRH
 From: 34+50 R/W 10-28 To: T-1 Surface: AC

Inspections

Samples Surveyed: 3 Total Samples: 3 Last Inspection Date: 8/21/2012 **PCI: 97**

Sample #	Distress Description	Severity	Quantity	Area
1	NONE			4,000 SF
2	RAVELING	M	10 SF	4,000 SF
3	RAVELING	M	10 SF	3,920 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
RAVELING	M	20 SF	5.05%	4.45

* 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

WOLF POINT AIRPORT

Branch: 32T TAXIWAY

T-3

Length: 875 LF Width: 25 LF Area: 21,875 SF Last Const: 2010 Family: ACRH
 From: A-5 To: T-2 Surface: AC

Inspections

Samples Surveyed: 3 Total Samples: 4 Last Inspection Date: 8/21/2012 **PCI: 93**

Sample #	Distress Description	Severity	Quantity	Area:
1	OIL SPILLAGE	N	2 SF	5,000 SF
	RAVELING	M	98 SF	
2	RAVELING	M	19 SF	5,000 SF
3	OIL SPILLAGE	N	20 SF	5,000 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
OIL SPILLAGE	N	32 SF	1.28%	2.17
RAVELING	M	171 SF	24.70%	7.18

* 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 77.0 % Climate/Durability 23.0 % Other

WOLF POINT AIRPORT

Branch: 32T TAXIWAY T-4

Length: 40 LF Width: 705 LF Area: 28,200 SF Last Const: 2010 Family: ACRMU
 From: A-5 To: T-2 Surface: AC

Inspections

Samples Surveyed: 3 Total Samples: 5 Last Inspection Date: 8/21/2012 **PCI: 93**

Sample #	Distress Description	Severity	Quantity	Area:
1	NONE			4,720 SF
3	LONGITUDINAL/TRANSVERSE CRACKING	L	35 LF	4,720 SF
5	LONGITUDINAL/TRANSVERSE CRACKING RAVELING	L M	69 LF 160 SF	4,720 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	207 LF	72.14%	4.44
RAVELING	M	319 SF	0.85%	8.25

* 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

WOLF POINT AIRPORT

FIRST YEAR LOCAL: 2013 LOCAL REPAIR COST: \$3,770

Section	Distress Description	Severity	Quantity	Work Description	Quantity	Cost	Poliev
A-5	OIL SPILLAGE	N	53 SF	Patching - AC Shallow	87 SF	\$1,731	PREV.
R-1	L & T CR	H	310 LF	Crack Sealing - AC	310 LF	\$774	SAFETY
T-1	L & T CR	M	35 LF	Crack Sealing - AC	35 LF	\$88	PREV.
T-3	OIL SPILLAGE	N	32 SF	Patching - AC Shallow	59 SF	\$1,178	PREV.

FIFTEEN YEAR PROJECTIONS ESTIMATED AVERAGE ANNUAL COST: \$55,821

Plan Year: 2013		Estimated Cost: \$31				PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before After
T-1	Preventive	\$31	\$0	\$0	\$0	\$31	87 87

Plan Year: 2014		Estimated Cost: \$202				PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before After
T-1	Preventive	\$62	\$0	\$0	\$0	\$62	84 84
T-3	Preventive	\$70	\$0	\$0	\$0	\$70	87 87
T-4	Preventive	\$70	\$0	\$0	\$0	\$70	88 88

Plan Year: 2015		Estimated Cost: \$184,084				PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before After
A-5	Global MR + Preventive	\$262	\$28,210	\$0	\$0	\$28,472	88 96
R-11	Global MR + Preventive	\$1,119	\$135,027	\$0	\$0	\$136,146	88 96
T-1	Global MR + Preventive	\$92	\$2,586	\$0	\$0	\$2,678	81 87
T-2	Global MR + Preventive	\$44	\$3,162	\$0	\$0	\$3,205	87 94
T-3	Global MR + Preventive	\$143	\$5,802	\$0	\$0	\$5,945	84 91
T-4	Global MR + Preventive	\$158	\$7,479	\$0	\$0	\$7,637	85 91

Plan Year: 2016		Estimated Cost: \$200				PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before After
T-1	Preventive	\$65	\$0	\$0	\$0	\$65	84 84
T-3	Preventive	\$70	\$0	\$0	\$0	\$70	87 87
T-4	Preventive	\$66	\$0	\$0	\$0	\$66	88 88

Plan Year: 2017		Estimated Cost: \$1,846				PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before After
A-5	Preventive	\$258	\$0	\$0	\$0	\$258	88 88
R-11	Preventive	\$1,139	\$0	\$0	\$0	\$1,139	88 88
T-1	Preventive	\$96	\$0	\$0	\$0	\$96	81 81
T-2	Preventive	\$45	\$0	\$0	\$0	\$45	87 87
T-3	Preventive	\$148	\$0	\$0	\$0	\$148	84 84
T-4	Preventive	\$159	\$0	\$0	\$0	\$159	85 85

Plan Year: 2018		Estimated Cost: \$4,464				PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before After
A-5	Preventive	\$668	\$0	\$0	\$0	\$668	85 85
R-11	Preventive	\$3,070	\$0	\$0	\$0	\$3,070	85 85
T-1	Preventive	\$165	\$0	\$0	\$0	\$165	79 79
T-2	Preventive	\$89	\$0	\$0	\$0	\$89	84 84
T-3	Preventive	\$221	\$0	\$0	\$0	\$221	81 81
T-4	Preventive	\$250	\$0	\$0	\$0	\$250	82 82

Plan Year: 2019		Estimated Cost: \$7,065				PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before After
A-5	Preventive	\$1,074	\$0	\$0	\$0	\$1,074	82 82
R-11	Preventive	\$4,868	\$0	\$0	\$0	\$4,868	82 82
T-1	Preventive	\$269	\$0	\$0	\$0	\$269	77 77
T-2	Preventive	\$129	\$0	\$0	\$0	\$129	81 81
T-3	Preventive	\$378	\$0	\$0	\$0	\$378	79 79
T-4	Preventive	\$346	\$0	\$0	\$0	\$346	80 80

Plan Year: 2020		Estimated Cost: \$222,678				PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before After
A-5	Global MR + Preventive	\$1,983	\$32,704	\$0	\$0	\$34,687	79 85
R-11	Global MR + Preventive	\$7,515	\$156,534	\$0	\$0	\$164,049	80 85
T-1	Global MR + Preventive	\$368	\$2,998	\$0	\$0	\$3,366	75 79
T-2	Global MR + Preventive	\$232	\$3,665	\$0	\$0	\$3,897	79 84
T-3	Global MR + Preventive	\$619	\$6,726	\$0	\$0	\$7,345	77 81
T-4	Global MR + Preventive	\$664	\$8,671	\$0	\$0	\$9,335	78 83

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Plan Year: 2021		Estimated Cost: \$7,328					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-5	Preventive	\$1,098	\$0	\$0	\$0	\$1,098	82	82	
R-11	Preventive	\$5,075	\$0	\$0	\$0	\$5,075	82	82	
T-1	Preventive	\$280	\$0	\$0	\$0	\$280	77	77	
T-2	Preventive	\$135	\$0	\$0	\$0	\$135	81	81	
T-3	Preventive	\$388	\$0	\$0	\$0	\$388	79	79	
T-4	Preventive	\$352	\$0	\$0	\$0	\$352	80	80	

Plan Year: 2022		Estimated Cost: \$11,476					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-5	Preventive	\$1,938	\$0	\$0	\$0	\$1,938	79	79	
R-11	Preventive	\$7,597	\$0	\$0	\$0	\$7,597	80	80	
T-1	Preventive	\$385	\$0	\$0	\$0	\$385	75	75	
T-2	Preventive	\$238	\$0	\$0	\$0	\$238	79	79	
T-3	Preventive	\$643	\$0	\$0	\$0	\$643	77	77	
T-4	Preventive	\$675	\$0	\$0	\$0	\$675	78	78	

Plan Year: 2023		Estimated Cost: \$20,151					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-5	Preventive	\$3,517	\$0	\$0	\$0	\$3,517	76	77	
R-11	Preventive	\$13,876	\$0	\$0	\$0	\$13,876	77	77	
T-1	Preventive	\$486	\$0	\$0	\$0	\$486	73	73	
T-2	Preventive	\$380	\$0	\$0	\$0	\$380	77	77	
T-3	Preventive	\$887	\$0	\$0	\$0	\$887	75	75	
T-4	Preventive	\$1,006	\$0	\$0	\$0	\$1,006	76	76	

Plan Year: 2024		Estimated Cost: \$28,479					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-5	Preventive	\$5,083	\$0	\$0	\$0	\$5,083	74	74	
R-11	Preventive	\$19,844	\$0	\$0	\$0	\$19,844	75	76	
T-1	Preventive	\$584	\$0	\$0	\$0	\$584	72	72	
T-2	Preventive	\$515	\$0	\$0	\$0	\$515	75	75	
T-3	Preventive	\$1,120	\$0	\$0	\$0	\$1,120	73	73	
T-4	Preventive	\$1,333	\$0	\$0	\$0	\$1,333	74	74	

Plan Year: 2025		Estimated Cost: \$281,444					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-5	Global MR + Preventive	\$6,641	\$37,912	\$0	\$0	\$44,554	72	77	
R-11	Global MR + Preventive	\$25,524	\$181,465	\$0	\$0	\$206,989	74	78	
T-1	Global MR + Preventive	\$679	\$3,475	\$0	\$0	\$4,155	70	73	
T-2	Global MR + Preventive	\$644	\$4,249	\$0	\$0	\$4,893	73	77	
T-3	Global MR + Preventive	\$1,346	\$7,797	\$0	\$0	\$9,143	72	75	
T-4	Global MR + Preventive	\$1,658	\$10,052	\$0	\$0	\$11,710	72	76	

Plan Year: 2026		Estimated Cost: \$29,657					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-5	Preventive	\$5,224	\$0	\$0	\$0	\$5,224	74	74	
R-11	Preventive	\$20,719	\$0	\$0	\$0	\$20,719	76	76	
T-1	Preventive	\$614	\$0	\$0	\$0	\$614	72	72	
T-2	Preventive	\$539	\$0	\$0	\$0	\$539	75	75	
T-3	Preventive	\$1,176	\$0	\$0	\$0	\$1,176	73	73	
T-4	Preventive	\$1,385	\$0	\$0	\$0	\$1,385	74	74	

Plan Year: 2027		Estimated Cost: \$38,218					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-5	Preventive	\$6,880	\$0	\$0	\$0	\$6,880	72	72	
R-11	Preventive	\$26,799	\$0	\$0	\$0	\$26,799	74	74	
T-1	Preventive	\$716	\$0	\$0	\$0	\$716	70	70	
T-2	Preventive	\$677	\$0	\$0	\$0	\$677	73	73	
T-3	Preventive	\$1,416	\$0	\$0	\$0	\$1,416	72	72	
T-4	Preventive	\$1,730	\$0	\$0	\$0	\$1,730	72	72	

WOLF POINT AIRPORT

8/21/2012



A-5, Overview



A-5, Surface detail raveling from paint obliteration



R-11, Overview



R-11, Surface detail raveling from lock wheel turn

WOLF POINT AIRPORT

8/21/2012



T-1, Overview



T-1, Surface detail raveling from paint obliteration



T-2, Overview



T-3, Overview

WOLF POINT AIRPORT

8/21/2012



T-3, Surface detail raveling from paint obliteration

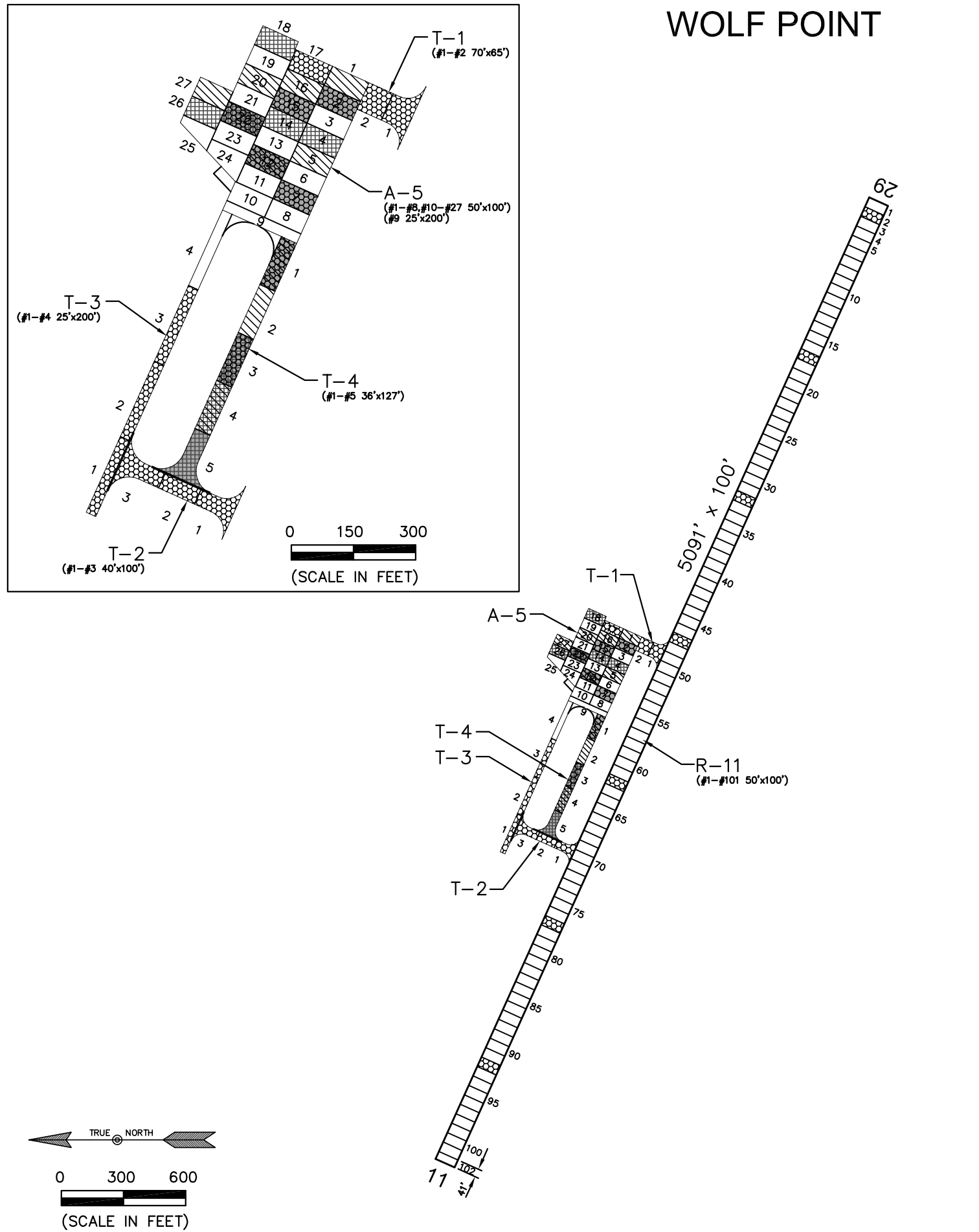


T-4, Overview



T-4, Surface detail with cracking

WOLF POINT



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			9" GRAVEL	14" P-208	4" P-401		38,000	50,000		△
TAXIWAYS										
T-1	E-8	F8	3" SAND	14" P-208	4" P-401		38,000	50,000		△
T-2	E-10	F10		14" P-208	4" P-401		38,000	50,000		△
T-3				14" P-208	4" P-401		38,000	50,000		△
T-4	E-10	F10		15" P-208	3" P-401	1.5" P-401	18,000			△△△△
APRONS										
A-5	E-8	F8		15" P-208	3" P-401	1.5" P-401	18,000			△△△△

REMARKS:

- 1" B.L. INDICATED IN OVERLAY IS 1" BITUMINOUS LEVELING COURSE, 1/2" THICKNESS CONSIDERED FOR STRENGTH.
- △ SURFACE COURSE CONSISTED OF AN ORIGINAL PBT IN 1957 PLUS 1" OVERLAY IN 1964.
- △ SINGLE APPLICATION BITUMINOUS SURFACE TREATMENT WITH PRIOR LEVEL-UP COURSE.
- △ 1984, 1.5" P-201 APPLIED TO CENTER 50' ONLY.
- △ AIP-002, 1994, REHABILITATE RUNWAY 11-29, RELOCATE PARTIAL PARALLEL TAXIWAY, REHABILITATE CONNECTING TAXIWAY, RECONSTRUCT APRON.
- △ 15" OF BASE COURSE IS 11" OF UNCRUSHED AND 4" OF CRUSHED; SOIL SEPARATION FABRIC BETWEEN SUBGRADE AND BASE COURSE.
- △ AIP-003, 2001, CRACK SEAL, FOG SEAL, AND REMARK ALL PAVEMENTS.
- △ AIP-008, 2010, RECONSTRUCT RUNWAY 11-29 (R-7, R-8), TAXIWAY A (T-1, T-2), AND TAXILANE (T-3) AND OVERLAY TAXILANE (T-4) AND APRON (A-5).

LEGEND 	DATE OF PAVEMENT STRENGTH SURVEY:		MONTANA AVIATION SYSTEM PLAN 2012 UPDATE - PAVEMENT CONDITION INDEXES	
	EVALUATED BY:		LYMAN CLAYTON AIRPORT	
	DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	AUG. 21, 2012		
	EVALUATED BY:	M. BECKOFF		
			DATE: NOV. 2012	

