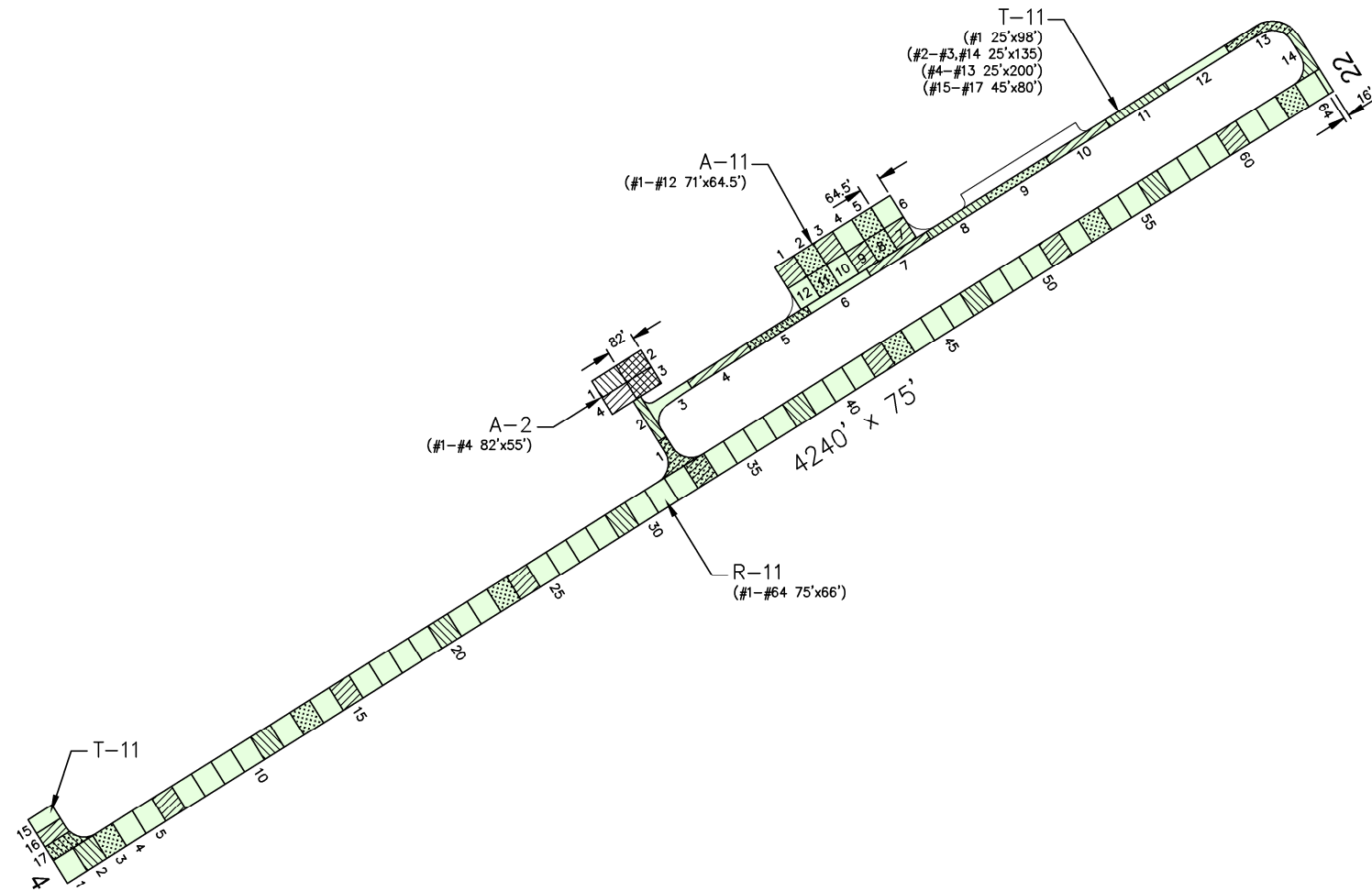


LINCOLN

PAVEMENT STRENGTH SURVEY/PAVEMENT CONDITION SURVEY

LINCOLN

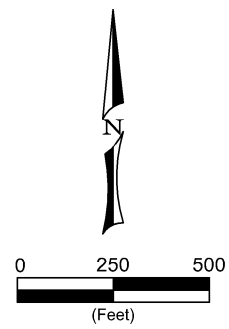


PAVE. IDENT.	SOIL CLASS	SUB GRADE CLASS	SUBBASE COURSE	BASE COURSE	SURFACE COURSE	OVERLAY	PAVEMENT STRENGTH			REMARKS
							MAX. GROSS LOAD (LBS)			
							SINGLE	DUAL	DUAL TAN.	
RUNWAYS										
R-11	E-6	F6	29" P-154	6.75" P-208	3" P-401	P-609	12,500			1,2
TAXIWAYS										
T-11	E-6	F6	29" P-154	6.75" P-208	3" P-401	P-609	12,500			1,2
APRONS										
A-11	E-6	F6	29" P-154	6.75" P-208	3" P-401	P-609	12,500			1,2
A-2			29" P-154	6.75" P-208	3" P-401	P-609	12,500			1,2

REMARKS:

AIP-01, 1984, RECONSTRUCT PORTIONS OF RUNWAY AND SURFACE RUNWAY; REHABILITATE TAXIWAY AND APRON.

- AIP-004-2005, ALL NEW CONSTRUCTION: RECONSTRUCT RUNWAY 4/22 (R-11), TAXIWAY (T-11), AND APRONS (A-11,A-2).
- AIP-005-2014, CRACK SEAL, FOG SEAL, AND REMARK RUNWAY, TAXIWAY, AND APRONS.



LEGEND <input type="checkbox"/> 2003 SURVEY AREA (N/A) <input type="checkbox"/> 2006 SURVEY AREA (NOT SURVEYED) <input type="checkbox"/> 2009 SURVEY AREA <input type="checkbox"/> 2012 SURVEY AREA <input type="checkbox"/> 2015 SURVEY AREA <input type="checkbox"/> MAINTAIN: PCI > 60 <input type="checkbox"/> TRANSITION: PCI 45 TO 60 <input type="checkbox"/> RECONSTRUCT: PCI < 45	DATE OF PAVEMENT STRENGTH SURVEY:	OCT. 15, 1990	MONTANA AVIATION SYSTEM PLAN 2015 UPDATE - PAVEMENT CONDITION INDEXES LINCOLN AIRPORT (S69)	
	EVALUATED BY:	J. STYBA		
	DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	AUG. 6, 2015	Date: DECEMBER 2015	Prepared For: MONTANA DEPARTMENT OF TRANSPORTATION
	EVALUATED BY:	B. BURKLAND	Prepared By: RPA Robert Peccia & Associates, Inc.	
LOCATION:	LINCOLN MONTANA			

LINCOLN AIRPORT

8/6/2015



A-11, Overview



A-11, Surface detail with gouge



R-11, Surface detail with cracking



R-11, Overview

LINCOLN AIRPORT

8/6/2015



T-11, Overview



T-11, Surface detail with large gouge

LINCOLN AIRPORT

Branch: 12R

RUNWAY

R-11

Length: 4,240 LF **Width:** 75 LF **Area:** 318,000 SF **Last Const. :** 2005 **Family:** ACRML15
From: STA. 22+00 RWY 4/22 **To:** STA. 64+40 RWY 4/22 **Surface:** AC

Inspections

Samples Surveyed: 7 **Total Samples:** 64 **Last Inspection Date (RPA)** 8/6/2015 **PCI:** 86

Sample # 3	<table border="0"> <tr> <th style="text-align: left;">Distress Description</th> <th style="text-align: left;">Severity</th> <th style="text-align: left;">Quantity</th> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>82 LF</td> </tr> <tr> <td>RAVELING</td> <td>L</td> <td>99 SF</td> </tr> <tr> <td>WEATHERING</td> <td>L</td> <td>50 SF</td> </tr> <tr> <td>WEATHERING</td> <td>M</td> <td>10 SF</td> </tr> <tr> <td>RAVELING</td> <td>H</td> <td>3 SF</td> </tr> </table>	Distress Description	Severity	Quantity	LONGITUDINAL/TRANSVERSE CRACKING	L	82 LF	RAVELING	L	99 SF	WEATHERING	L	50 SF	WEATHERING	M	10 SF	RAVELING	H	3 SF	Area: 4950 SF			
Distress Description	Severity	Quantity																					
LONGITUDINAL/TRANSVERSE CRACKING	L	82 LF																					
RAVELING	L	99 SF																					
WEATHERING	L	50 SF																					
WEATHERING	M	10 SF																					
RAVELING	H	3 SF																					
Sample # 13	<table border="0"> <tr> <th style="text-align: left;">Distress Description</th> <th style="text-align: left;">Severity</th> <th style="text-align: left;">Quantity</th> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>36 LF</td> </tr> <tr> <td>RAVELING</td> <td>L</td> <td>99 SF</td> </tr> <tr> <td>WEATHERING</td> <td>L</td> <td>25 SF</td> </tr> <tr> <td>WEATHERING</td> <td>M</td> <td>5 SF</td> </tr> </table>	Distress Description	Severity	Quantity	LONGITUDINAL/TRANSVERSE CRACKING	L	36 LF	RAVELING	L	99 SF	WEATHERING	L	25 SF	WEATHERING	M	5 SF	Area: 4950 SF						
Distress Description	Severity	Quantity																					
LONGITUDINAL/TRANSVERSE CRACKING	L	36 LF																					
RAVELING	L	99 SF																					
WEATHERING	L	25 SF																					
WEATHERING	M	5 SF																					
Sample # 23	<table border="0"> <tr> <th style="text-align: left;">Distress Description</th> <th style="text-align: left;">Severity</th> <th style="text-align: left;">Quantity</th> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>51 LF</td> </tr> <tr> <td>RAVELING</td> <td>L</td> <td>99 SF</td> </tr> <tr> <td>WEATHERING</td> <td>L</td> <td>25 SF</td> </tr> <tr> <td>WEATHERING</td> <td>M</td> <td>5 SF</td> </tr> <tr> <td>RAVELING</td> <td>H</td> <td>1 SF</td> </tr> </table>	Distress Description	Severity	Quantity	LONGITUDINAL/TRANSVERSE CRACKING	L	51 LF	RAVELING	L	99 SF	WEATHERING	L	25 SF	WEATHERING	M	5 SF	RAVELING	H	1 SF	Area: 4950 SF			
Distress Description	Severity	Quantity																					
LONGITUDINAL/TRANSVERSE CRACKING	L	51 LF																					
RAVELING	L	99 SF																					
WEATHERING	L	25 SF																					
WEATHERING	M	5 SF																					
RAVELING	H	1 SF																					
Sample # 33	<table border="0"> <tr> <th style="text-align: left;">Distress Description</th> <th style="text-align: left;">Severity</th> <th style="text-align: left;">Quantity</th> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>132 LF</td> </tr> <tr> <td>RAVELING</td> <td>L</td> <td>99 SF</td> </tr> <tr> <td>WEATHERING</td> <td>L</td> <td>25 SF</td> </tr> <tr> <td>WEATHERING</td> <td>M</td> <td>5 SF</td> </tr> <tr> <td>PATCHING</td> <td>L</td> <td>1 SF</td> </tr> </table>	Distress Description	Severity	Quantity	LONGITUDINAL/TRANSVERSE CRACKING	L	132 LF	RAVELING	L	99 SF	WEATHERING	L	25 SF	WEATHERING	M	5 SF	PATCHING	L	1 SF	Area: 4950 SF			
Distress Description	Severity	Quantity																					
LONGITUDINAL/TRANSVERSE CRACKING	L	132 LF																					
RAVELING	L	99 SF																					
WEATHERING	L	25 SF																					
WEATHERING	M	5 SF																					
PATCHING	L	1 SF																					
Sample # 43	<table border="0"> <tr> <th style="text-align: left;">Distress Description</th> <th style="text-align: left;">Severity</th> <th style="text-align: left;">Quantity</th> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>83 LF</td> </tr> <tr> <td>RAVELING</td> <td>L</td> <td>99 SF</td> </tr> <tr> <td>WEATHERING</td> <td>L</td> <td>25 SF</td> </tr> <tr> <td>WEATHERING</td> <td>M</td> <td>10 SF</td> </tr> <tr> <td>RAVELING</td> <td>M</td> <td>10 SF</td> </tr> <tr> <td>RAVELING</td> <td>H</td> <td>1 SF</td> </tr> </table>	Distress Description	Severity	Quantity	LONGITUDINAL/TRANSVERSE CRACKING	L	83 LF	RAVELING	L	99 SF	WEATHERING	L	25 SF	WEATHERING	M	10 SF	RAVELING	M	10 SF	RAVELING	H	1 SF	Area: 4950 SF
Distress Description	Severity	Quantity																					
LONGITUDINAL/TRANSVERSE CRACKING	L	83 LF																					
RAVELING	L	99 SF																					
WEATHERING	L	25 SF																					
WEATHERING	M	10 SF																					
RAVELING	M	10 SF																					
RAVELING	H	1 SF																					
Sample # 53	<table border="0"> <tr> <th style="text-align: left;">Distress Description</th> <th style="text-align: left;">Severity</th> <th style="text-align: left;">Quantity</th> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>81 LF</td> </tr> <tr> <td>RAVELING</td> <td>L</td> <td>99 SF</td> </tr> <tr> <td>WEATHERING</td> <td>L</td> <td>25 SF</td> </tr> <tr> <td>WEATHERING</td> <td>M</td> <td>5 SF</td> </tr> </table>	Distress Description	Severity	Quantity	LONGITUDINAL/TRANSVERSE CRACKING	L	81 LF	RAVELING	L	99 SF	WEATHERING	L	25 SF	WEATHERING	M	5 SF	Area: 4950 SF						
Distress Description	Severity	Quantity																					
LONGITUDINAL/TRANSVERSE CRACKING	L	81 LF																					
RAVELING	L	99 SF																					
WEATHERING	L	25 SF																					
WEATHERING	M	5 SF																					
Sample # 63	<table border="0"> <tr> <th style="text-align: left;">Distress Description</th> <th style="text-align: left;">Severity</th> <th style="text-align: left;">Quantity</th> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>62 LF</td> </tr> <tr> <td>WEATHERING</td> <td>L</td> <td>40 SF</td> </tr> <tr> <td>WEATHERING</td> <td>M</td> <td>8 SF</td> </tr> </table>	Distress Description	Severity	Quantity	LONGITUDINAL/TRANSVERSE CRACKING	L	62 LF	WEATHERING	L	40 SF	WEATHERING	M	8 SF	Area: 4950 SF									
Distress Description	Severity	Quantity																					
LONGITUDINAL/TRANSVERSE CRACKING	L	62 LF																					
WEATHERING	L	40 SF																					
WEATHERING	M	8 SF																					

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	4837 LF	1.52 %	6.16
RAVELING	H	46 SF	0.01 %	6.00
RAVELING	M	92 SF	0.03 %	4.00
RAVELING	L	5451 SF	1.71 %	3.63
PATCHING	L	9 SF	0.00 %	2.00
WEATHERING	M	441 SF	0.14 %	1.23
WEATHERING	L	1973 SF	0.62 %	0.37

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

LINCOLN AIRPORT

Branch: 12R

RUNWAY

R-11

Percent of Deduct Values Based on Distress Mechanism

0.0 % Load

100.0 % Climate/Durability

0.0 % Other

LINCOLN AIRPORT

FIFTEEN YEAR PROJECTIONS: ESTIMATED AVERAGE ANNUAL COST: \$40,914

PLAN YEAR: 2016			ESTIMATED COST:			\$124,515	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Prev. & Seal Coat	\$2,077	\$89,040			\$91,117	83	90
T-11	Prev. & Seal Coat	\$302	\$17,521			\$17,823	85	92
A-11	Prev. & Seal Coat	\$188	\$15,387			\$15,575	87	95
PLAN YEAR: 2017			ESTIMATED COST:			\$1,262	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-11	Basic Prev.	\$97				\$97	88	89
R-11	Basic Prev.	\$1,165				\$1,165	86	87
PLAN YEAR: 2018			ESTIMATED COST:			\$2,589	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-11	Basic Prev.	\$188				\$188	87	87
R-11	Basic Prev.	\$2,103				\$2,103	84	84
T-11	Basic Prev.	\$298				\$298	86	86
PLAN YEAR: 2019			ESTIMATED COST:			\$3,828	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-11	Basic Prev.	\$480				\$480	83	83
R-11	Basic Prev.	\$2,957				\$2,957	81	82
A-11	Basic Prev.	\$391				\$391	83	84
PLAN YEAR: 2020			ESTIMATED COST:			\$5,444	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$4,210				\$4,210	80	80
A-11	Basic Prev.	\$588				\$588	80	81
T-11	Basic Prev.	\$646				\$646	81	81
PLAN YEAR: 2021			ESTIMATED COST:			\$150,408	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Prev. & Seal Coat	\$6,795	\$103,222			\$110,017	78	82
T-11	Prev. & Seal Coat	\$1,022	\$20,312			\$21,333	79	83
A-11	Prev. & Seal Coat	\$1,220	\$17,838			\$19,058	78	84
PLAN YEAR: 2022			ESTIMATED COST:			\$5,399	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$4,131				\$4,131	80	80
T-11	Basic Prev.	\$667				\$667	81	81
A-11	Basic Prev.	\$601				\$601	81	81
PLAN YEAR: 2023			ESTIMATED COST:			\$9,123	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-11	Basic Prev.	\$1,208				\$1,208	78	78
T-11	Basic Prev.	\$1,019				\$1,019	79	79
R-11	Basic Prev.	\$6,896				\$6,896	78	78
PLAN YEAR: 2024			ESTIMATED COST:			\$13,038	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-11	Basic Prev.	\$1,563				\$1,563	78	78
R-11	Basic Prev.	\$9,506				\$9,506	77	77
A-11	Basic Prev.	\$1,969				\$1,969	75	76
PLAN YEAR: 2025			ESTIMATED COST:			\$16,817	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$12,015				\$12,015	75	75
A-11	Basic Prev.	\$2,725				\$2,725	73	73
T-11	Basic Prev.	\$2,077				\$2,077	76	76
PLAN YEAR: 2026			ESTIMATED COST:			\$184,495	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Prev. & Seal Coat	\$14,547	\$119,663			\$134,210	74	77
A-11	Prev. & Seal Coat	\$3,483	\$20,679			\$24,162	71	76
T-11	Prev. & Seal Coat	\$2,577	\$23,547			\$26,123	75	78
PLAN YEAR: 2027			ESTIMATED COST:			\$17,391	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$12,448				\$12,448	75	76
T-11	Basic Prev.	\$2,141				\$2,141	76	76
A-11	Basic Prev.	\$2,802				\$2,802	73	73

PLAN YEAR: 2028			ESTIMATED COST:			\$21,436	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-11	Basic Prev.	\$3,613				\$3,613	71	71
T-11	Basic Prev.	\$2,680				\$2,680	75	75
R-11	Basic Prev.	\$15,143				\$15,143	74	74
PLAN YEAR: 2029			ESTIMATED COST:			\$26,200	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-11	Basic Prev.	\$5,028				\$5,028	69	69
T-11	Basic Prev.	\$3,224				\$3,224	74	74
R-11	Basic Prev.	\$17,948				\$17,948	73	73
PLAN YEAR: 2030			ESTIMATED COST:			\$31,770	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-11	Basic Prev.	\$6,957				\$6,957	67	67
R-11	Basic Prev.	\$21,012				\$21,012	72	72
T-11	Basic Prev.	\$3,801				\$3,801	72	73