

STANFORD AIRPORT

Branch: 20A APRON

A-2

Length: 300 LF Width: 200 LF Area: 60,000 SF Last Const: 1997 Family: ACAM
 From: ENTIRE APRON To: T-2 Surface:

Inspections

Samples Surveyed: 4 Total Samples: 12 Last Inspection Date: 8/31/2012 **PCI: 78**

Sample # 1 Area: 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	232 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	38 LF
WEATHERING	L	3,000 SF

Sample # 5 Area: 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	153 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	11 LF
WEATHERING	L	3,000 SF

Sample # 8 Area: 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	234 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	8 LF
WEATHERING	L	3,000 SF

Sample # 11 Area: 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	287 LF
WEATHERING	L	2,500 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	2,718 LF	4.53%	13.74
LONGITUDINAL/TRANSVERSE CRACKING	M	171 LF	0.29%	6.30
WEATHERING	L	34,500 SF	57.50%	5.11

* 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

STANFORD AIRPORT

Branch: 20R RUNWAY

R-2

Length: 700 LF Width: 100 LF Area: 70,000 SF Last Const: 1997 Family: ACRML
 From: 35+00 R/W 11-29 To: 42+00 R/W 11-29 Surface: AC

Inspections

Samples Surveyed: 5 Total Samples: 14 Last Inspection Date: 8/31/2012 **PCI: 75**

Sample # 4 Area: 3,750 SF

Distress Description	Severity	Quantity
ALLIGATOR CRACKING	L	27 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	214 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	22 LF
WEATHERING	L	2,250 SF

Sample # 6 Area: 3,750 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	170 LF
WEATHERING	L	2,250 SF

Sample # 8 Area: 3,750 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	135 LF
WEATHERING	L	2,250 SF

Sample # 10 Area: 3,750 SF

Distress Description	Severity	Quantity
ALLIGATOR CRACKING	L	20 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	186 LF
WEATHERING	L	2,250 SF

Sample # 12 Area: 3,750 SF

Distress Description	Severity	Quantity
ALLIGATOR CRACKING	L	50 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	76 LF
WEATHERING	L	2,250 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
ALLIGATOR CRACKING	L	362 SF	0.52%	14.74
LONGITUDINAL/TRANSVERSE CRACKING	L	2,916 LF	4.17%	12.91
LONGITUDINAL/TRANSVERSE CRACKING	M	82 LF	0.12%	4.01
WEATHERING	L	42,000 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

40.0 % Load

60.0 % Climate/Durability

0.0 % Other

STANFORD AIRPORT

Branch: 20R RUNWAY

R-3

Length: 3,500 LF Width: 75 LF Area: 262,500 SF Last Const: 1997 Family: ACRML
 From: 0+00 R/W 11-29 To: 35+00 R/W 11-29 Surface: AC

Inspections

Samples Surveyed: 7 Total Samples: 55 Last Inspection Date: 8/31/2012 **PCI: 75**

Sample #	Distress Description	Severity	Quantity	Area:
5	LONGITUDINAL/TRANSVERSE CRACKING	L	245 LF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	118 LF	
	WEATHERING	L	2,970 SF	
13	LONGITUDINAL/TRANSVERSE CRACKING	L	272 LF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	12 LF	
	WEATHERING	L	2,970 SF	
21	LONGITUDINAL/TRANSVERSE CRACKING	L	248 LF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	54 LF	
	WEATHERING	L	2,970 SF	
29	LONGITUDINAL/TRANSVERSE CRACKING	L	153 LF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	26 LF	
	WEATHERING	L	2,970 SF	
37	LONGITUDINAL/TRANSVERSE CRACKING	L	292 LF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	166 LF	
	WEATHERING	L	2,970 LF	
45	LONGITUDINAL/TRANSVERSE CRACKING	L	292 LF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	166 LF	
	WEATHERING	L	2,970 LF	
53	LONGITUDINAL/TRANSVERSE CRACKING	L	193 LF	4,950 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	78 LF	
	WEATHERING	L	2,970 SF	

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	12,242 LF	4.66%	14.04
LONGITUDINAL/TRANSVERSE CRACKING	M	3,773 LF	1.44%	13.31
WEATHERING	L	157,500 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

STANFORD AIRPORT

Branch: 20T TAXIWAY

T-2

Length: 220 LF Width: 80 LF Area: 13,100 SF Last Const: 1997 Family: ACRML
 From: TURNAROUND & R/W To: APRON Surface: AC

Inspections

Samples Surveyed: 3 Total Samples: 3 Last Inspection Date: 8/31/2012 **PCI: 90**

Sample # 1 Area: 3,500 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	53 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	13 LF
WEATHERING	L	2,100 SF

Sample # 2 Area: 4,800 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	6 LF
WEATHERING	L	2,100 SF

Sample # 3 Area: 4,800 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	2 LF
OIL SPILLAGE	N	2 SF
WEATHERING	L	2,100 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	61 LF	0.47%	4.00
LONGITUDINAL/TRANSVERSE CRACKING	M	13 LF	0.10%	4.00
OIL SPILLAGE	N	2 SF	0.02%	2.00
WEATHERING	L	6,300 SF	48.09%	4.72

* 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

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FIRST YEAR LOCAL: 2013

LOCAL REPAIR COST: \$10,331

Section	Distress Description	Severity	Quantity	Work Description	Quantity	Cost	Policy
A-2	L & T CR	M	171 LF	Crack Sealing - AC	171 LF	\$428	PREV.
R-2	L & T CR	M	82 LF	Crack Sealing - AC	82 LF	\$205	PREV.
R-3	L & T CR	M	3,773 LF	Crack Sealing - AC	3,773 LF	\$9,432	PREV.
T-2	L & T CR	M	13 LF	Crack Sealing - AC	13 LF	\$33	PREV.
T-2	OIL SPILLAGE	N	2 SF	Patching - AC Shallow	12 SF	\$234	PREV.

FIFTEEN YEAR PROJECTIONS

ESTIMATED AVERAGE ANNUAL COST: \$50,608

Plan Year: 2013		Estimated Cost: \$182,629					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Global MR + Preventive	\$1,469	\$15,000	\$0	\$0	\$16,469	76	82	
R-2	Major Above Critical	\$0	\$0	\$0	\$88,284	\$88,284	74	100	
R-3	Global MR + Preventive	\$8,948	\$65,626	\$0	\$0	\$74,573	74	78	
T-2	Global MR + Preventive	\$28	\$3,275	\$0	\$0	\$3,303	88	96	

Plan Year: 2014		Estimated Cost: \$7,947					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$779	\$0	\$0	\$0	\$779	79	80	
R-3	Preventive	\$7,169	\$0	\$0	\$0	\$7,169	76	76	

Plan Year: 2015		Estimated Cost: \$10,825					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$1,484	\$0	\$0	\$0	\$1,484	77	77	
R-3	Preventive	\$9,314	\$0	\$0	\$0	\$9,314	74	74	
T-2	Preventive	\$27	\$0	\$0	\$0	\$27	88	88	

Plan Year: 2016		Estimated Cost: \$13,658					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$2,185	\$0	\$0	\$0	\$2,185	74	74	
R-2	Preventive	\$122	\$0	\$0	\$0	\$122	88	88	
R-3	Preventive	\$11,278	\$0	\$0	\$0	\$11,278	73	73	
T-2	Preventive	\$74	\$0	\$0	\$0	\$74	85	85	

Plan Year: 2017		Estimated Cost: \$16,385					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$2,882	\$0	\$0	\$0	\$2,882	72	72	
R-2	Preventive	\$313	\$0	\$0	\$0	\$313	85	85	
R-3	Preventive	\$13,071	\$0	\$0	\$0	\$13,071	71	72	
T-2	Preventive	\$118	\$0	\$0	\$0	\$118	82	82	

Plan Year: 2018		Estimated Cost: \$116,376					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Global MR + Preventive	\$3,735	\$17,389	\$0	\$0	\$21,124	70	75	
R-2	Preventive	\$497	\$0	\$0	\$0	\$497	82	82	
R-3	Global MR + Preventive	\$14,693	\$76,078	\$0	\$0	\$90,771	70	73	
T-2	Global MR + Preventive	\$187	\$3,797	\$0	\$0	\$3,984	79	85	

Plan Year: 2019		Estimated Cost: \$17,637					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$2,986	\$0	\$0	\$0	\$2,986	72	72	
R-2	Preventive	\$803	\$0	\$0	\$0	\$803	79	79	
R-3	Preventive	\$13,727	\$0	\$0	\$0	\$13,727	72	72	
T-2	Preventive	\$121	\$0	\$0	\$0	\$121	82	82	

Plan Year: 2020		Estimated Cost: \$20,859					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$3,793	\$0	\$0	\$0	\$3,793	70	70	
R-2	Preventive	\$1,400	\$0	\$0	\$0	\$1,400	77	77	
R-3	Preventive	\$15,482	\$0	\$0	\$0	\$15,482	71	71	
T-2	Preventive	\$184	\$0	\$0	\$0	\$184	80	80	

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Plan Year: 2021		Estimated Cost: \$25,568				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-2	Preventive	\$5,488	\$0	\$0	\$0	\$5,488	68	68
R-2	Preventive	\$1,950	\$0	\$0	\$0	\$1,950	75	75
R-3	Preventive	\$17,791	\$0	\$0	\$0	\$17,791	70	70
T-2	Preventive	\$339	\$0	\$0	\$0	\$339	77	78

Plan Year: 2022		Estimated Cost: \$30,964				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-2	Preventive	\$7,203	\$0	\$0	\$0	\$7,203	66	66
R-2	Preventive	\$2,455	\$0	\$0	\$0	\$2,455	74	74
R-3	Preventive	\$20,823	\$0	\$0	\$0	\$20,823	69	69
T-2	Preventive	\$483	\$0	\$0	\$0	\$483	75	76

Plan Year: 2023		Estimated Cost: \$149,007				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-2	Global MR + Preventive	\$8,942	\$20,159	\$0	\$0	\$29,101	64	68
R-2	Preventive	\$2,916	\$0	\$0	\$0	\$2,916	72	72
R-3	Global MR + Preventive	\$23,778	\$88,195	\$0	\$0	\$111,973	68	70
T-2	Global MR + Preventive	\$615	\$4,401	\$0	\$0	\$5,017	74	78

Plan Year: 2024		Estimated Cost: \$33,176				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-2	Preventive	\$7,467	\$0	\$0	\$0	\$7,467	66	66
R-2	Preventive	\$3,334	\$0	\$0	\$0	\$3,334	71	71
R-3	Preventive	\$21,875	\$0	\$0	\$0	\$21,875	69	69
T-2	Preventive	\$500	\$0	\$0	\$0	\$500	76	76

Plan Year: 2025		Estimated Cost: \$38,668				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-2	Preventive	\$9,307	\$0	\$0	\$0	\$9,307	64	64
R-2	Preventive	\$3,719	\$0	\$0	\$0	\$3,719	70	70
R-3	Preventive	\$25,000	\$0	\$0	\$0	\$25,000	68	68
T-2	Preventive	\$642	\$0	\$0	\$0	\$642	74	74

Plan Year: 2026		Estimated Cost: \$44,590				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-2	Preventive	\$11,199	\$0	\$0	\$0	\$11,199	62	62
R-2	Preventive	\$4,402	\$0	\$0	\$0	\$4,402	69	69
R-3	Preventive	\$28,217	\$0	\$0	\$0	\$28,217	68	68
T-2	Preventive	\$771	\$0	\$0	\$0	\$771	72	73

Plan Year: 2027		Estimated Cost: \$50,835				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-2	Preventive	\$13,141	\$0	\$0	\$0	\$13,141	61	61
R-2	Preventive	\$5,082	\$0	\$0	\$0	\$5,082	69	69
R-3	Preventive	\$31,723	\$0	\$0	\$0	\$31,723	67	67
T-2	Preventive	\$888	\$0	\$0	\$0	\$888	71	71

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A-2, Overview



A-2, Surface detail with crack



A-2, Surface detail with cracking



R-2, Surface detail with crack

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R-2, Surface detail with cracking



R-3, Surface detail with crack



R-3, Surface detail with crack



R-3, Surface detail with cracking

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T-2, Surface detail with crack 2



T-2, Surface detail with crack



T-2, Surface detail with oil spill



T-2, Taxiway Overview 2

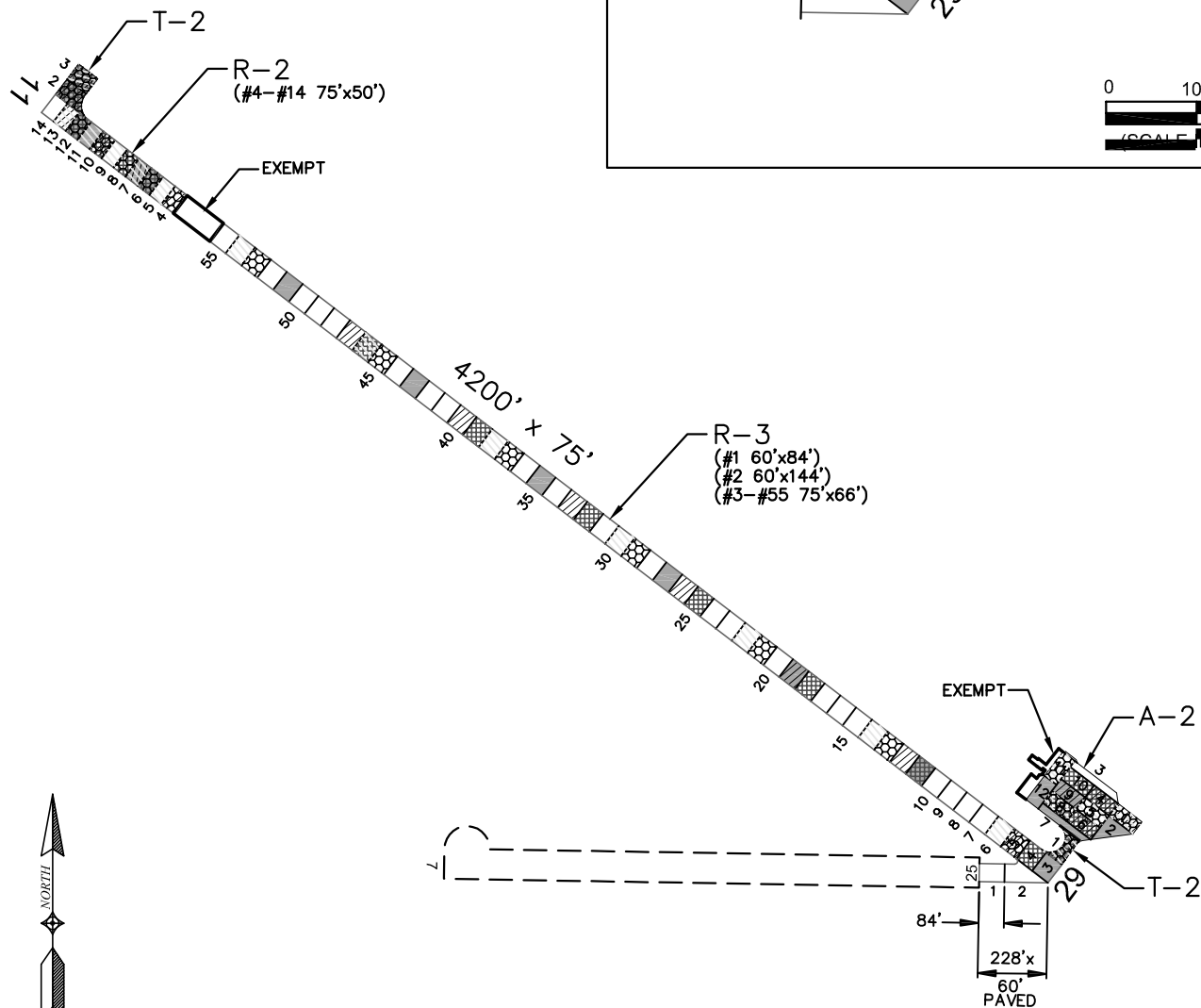
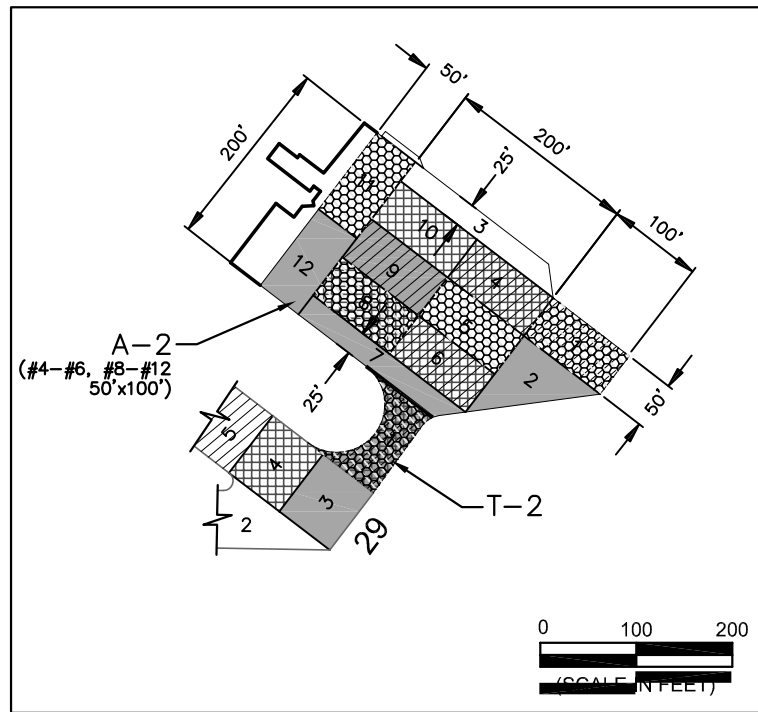
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T-2, Turnaround Overview

STANFORD



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-2	CBR=1.0		12" P-152	12"P-208	P-609	3"P-401	12,500			1 2 3 4
R-3	E-7	F7		8"P-207	3"P-401		12,500			2 3 4
TAXIWAYS										
T-2	E-7	F7		8"P-207	3"P-401		12,500			2 3 4
APRONS										
A-2	E-7	F7		8"P-207	3"P-401		12,500			2 3 4

REMARKS:

- 1 AIP-002, 1986, RUNWAY EXTENSION AND CHIP SEAL.
- 2 AIP-003, 1997, PULVERIZE AND RECONSTRUCT ALL PAVEMENTS EXCEPT RUNWAY 11 END (R-2) EXTENSION, WHICH WAS OVERLAYED.
- 3 AIP-004, 2005, CRACK SEAL, FOG SEAL, AND REMARK PAVEMENTS.
- 4 AIP-006, 2009, CRACK SEAL, FOG SEAL, AND REMARK PAVEMENTS [INSPECTED AFTER PAVEMENT MAINTENANCE].

LEGEND

- 1997 SURVEY AREA (RECONSTRUCTED)
- 2000 SURVEY AREA (NOT SURVEYED)
- 2003 SURVEY AREA
- 2006 SURVEY AREA
- 2009 SURVEY AREA
- 2012 SURVEY AREA

DATE OF PAVEMENT STRENGTH SURVEY:

EVALUATED BY:

DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:

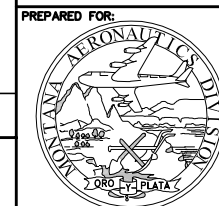
EVALUATED BY:

AUG. 30, 2012

S. BROWN

**MONTANA AVIATION SYSTEM PLAN
2012 UPDATE - PAVEMENT CONDITION INDEXES**

STANFORD AIRPORT



STANFORD MONTANA

DATE: DEC. 2012

