

HAMILTON AIRPORT

Branch: 06A APRON

A-1

Length: 380 LF **Width:** 150 LF **Area:** 57,000 SF **Last Const:** 1980 **Family:** ACAM
From: STA 0+00 A1 **To:** STA 3+80 A1 **Surface:** ST

Inspections

Samples Surveyed: 4 **Total Samples:** 13 **Last Inspection Date:** 11/13/2012 **PCI:** 38

Sample # 2

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| DEPRESSION | L | 50 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 300 LF |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 56 LF |
| RAVELING | L | 500 SF |
| RAVELING | M | 500 SF |

Area: 5,250 SF

Sample # 5

| Distress Description | Severity | Quantity |
|----------------------|----------|----------|
| BLEEDING | N | 700 SF |
| DEPRESSION | L | 280 SF |
| BLOCK CRACKING | M | 4,085 SF |
| WEATHERING | L | 4,085 SF |

Area: 5,250 SF

Sample # 8

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| ALLIGATOR CRACKING | L | 20 SF |
| DEPRESSION | L | 100 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 270 LF |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 60 LF |
| PATCHING | L | 950 SF |
| RAVELING | L | 400 SF |
| WEATHERING | L | 3,135 SF |
| WEATHERING | M | 950 SF |

Area: 5,250 SF

Sample # 11

| Distress Description | Severity | Quantity |
|----------------------|----------|----------|
| BLEEDING | N | 500 SF |
| DEPRESSION | L | 60 SF |
| BLOCK CRACKING | M | 4,085 SF |
| WEATHERING | L | 4,085 SF |

Area: 4,085 SF

Extrapolated Distress Quantities*

| Distress Description | Severity | Quantity | Density | Deduct |
|----------------------------------|----------|-----------|---------|--------|
| BLOCK CRACKING | M | 28,500 SF | 50.00% | 40.87 |
| BLEEDING | N | 4,186 SF | 7.34% | 31.67 |
| DEPRESSION | L | 1,814 SF | 3.18% | 15.06 |
| RAVELING | M | 1,744 SF | 3.06% | 12.34 |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 1,988 LF | 3.49% | 11.28 |
| PATCHING | L | 3,314 SF | 5.81% | 10.81 |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 405 LF | 0.71% | 9.67 |
| RAVELING | L | 3,140 SF | 5.51% | 7.18 |
| ALLIGATOR CRACKING | L | 70 SF | 0.12% | 7.13 |
| WEATHERING | L | 39,436 SF | 69.19% | 5.47 |
| WEATHERING | M | 3,314 SF | 5.81% | 3.8 |

* 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

5.0 % Load

68.0 % Climate/Durability

27.0 % Other

HAMILTON AIRPORT

Branch: 06A APRON

A-2

Length: 0 LF Width: 0 LF Area: 145,800 SF Last Const: 1983 Family: ACAM
 From: 0+00 A2 To: STA 6+60 A1 Surface: ST

Inspections

Samples Surveyed: 5 Total Samples: 32 Last Inspection Date: 11/13/2012 **PCI: 39**

Sample # 1

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| ALLIGATOR CRACKING | L | 110 SF |
| BLEEDING | N | 400 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 240 LF |
| OIL SPILLAGE | N | 18 SF |
| PATCHING | L | 6 SF |
| WEATHERING | L | 4,700 SF |

Area: 5,250 SF

Sample # 7

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| ALLIGATOR CRACKING | L | 250 SF |
| BLEEDING | N | 45 SF |
| DEPRESSION | L | 30 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 275 LF |
| OIL SPILLAGE | N | 2 SF |
| PATCHING | L | 6 SF |
| RAVELING | M | 50 SF |
| WEATHERING | L | 4,700 SF |

Area: 5,250 SF

Sample # 13

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| ALLIGATOR CRACKING | L | 245 SF |
| DEPRESSION | M | 8 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 350 LF |
| OIL SPILLAGE | N | 20 SF |
| PATCHING | L | 14 SF |
| WEATHERING | L | 4,700 SF |

Area: 5,250 SF

Sample # 19

| Distress Description | Severity | Quantity |
|----------------------|----------|----------|
| ALLIGATOR CRACKING | L | 4,700 SF |
| RAVELING | L | 950 SF |
| WEATHERING | L | 3,700 SF |
| WEATHERING | M | 1,000 SF |

Area: 5,250 SF

Sample # 25

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| ALLIGATOR CRACKING | L | 120 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 207 LF |
| OIL SPILLAGE | N | 15 SF |
| PATCHING | L | 8 SF |
| WEATHERING | L | 4,700 SF |

Area: 4,000 SF

HAMILTON AIRPORT

Branch: 06A

APRON

A-2

Extrapolated Distress Quantities*

| Distress Description | Severity | Quantity | Density | Deduct |
|----------------------------------|----------|------------|---------|--------|
| ALLIGATOR CRACKING | L | 33,658 SF | 16.42% | 52.53 |
| BLEEDING | N | 2,761 SF | 70.71% | 10.20 |
| DEPRESSION | L | 186 SF | 0.99% | 0.33 |
| DEPRESSION | M | 50 SF | 4.88% | 5.20 |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 6,651 LF | 0.19% | 13.81 |
| OIL SPILLAGE | N | 341.23 SF | 29.29% | 2.65 |
| PATCHING | L | 210.94 SF | 0.0001 | 2.01 |
| RAVELING | L | 5894.04 SF | 0.0013 | 6.04 |
| RAVELING | M | 310.21 SF | 0.0158 | 4.73 |
| WEATHERING | L | 139596 SF | 0.0053 | 5.93 |
| WEATHERING | M | 6204.26 SF | 0.0215 | 3.17 |

* 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

50.0 % Load

33.0 % Climate/Durability

17.0 % Other

HAMILTON AIRPORT

Branch: 06R

RUNWAY

R-1A

Length: 2,200 LF

Width: 75 LF

Area: 165,000 SF

Last Const: 1992

Family: ACRMU

From: STA 12+00

To: STA 34+00

Surface: AC

Inspections

Samples Surveyed: 6

Total Samples: 34

Last Inspection Date: 11/13/2012

PCI: 62

Sample # 4

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| BLEEDING | N | 120 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 213 LF |
| RAVELING | L | 975 SF |
| WEATHERING | L | 3,400 SF |
| WEATHERING | M | 1,475 SF |

Area: 4,875 SF

Sample # 10

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| LONGITUDINAL/TRANSVERSE CRACKING | L | 254 LF |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 150 LF |
| RAVELING | L | 950 SF |
| WEATHERING | L | 3,100 SF |
| WEATHERING | M | 1,775 SF |

Area: 4,875 SF

Sample # 16

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| LONGITUDINAL/TRANSVERSE CRACKING | L | 39 LF |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 45 LF |
| RAVELING | L | 1,000 SF |
| WEATHERING | L | 3,600 SF |
| WEATHERING | M | 1,275 SF |

Area: 4,875 SF

Sample # 22

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| LONGITUDINAL/TRANSVERSE CRACKING | L | 300 LF |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 75 LF |
| RAVELING | L | 875 SF |
| WEATHERING | L | 4,000 SF |
| WEATHERING | M | 875 F |

Area: 4,875 SF

Sample # 28

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| LONGITUDINAL/TRANSVERSE CRACKING | L | 410 LF |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 70 LF |
| RAVELING | L | 975 SF |
| WEATHERING | L | 3,500 SF |
| WEATHERING | M | 1,375 SF |

Area: 4,875 SF

Sample # 34

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| LONGITUDINAL/TRANSVERSE CRACKING | L | 260 LF |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 35 LF |
| RAVELING | L | 2,450 SF |
| WEATHERING | L | 3,500 SF |
| WEATHERING | M | 1,575 SF |

Area: 4,875 SF

HAMILTON AIRPORT

Branch: 06R

RUNWAY

R-1A

Extrapolated Distress Quantities*

| Distress Description | Severity | Quantity | Density | Deduct |
|----------------------------------|----------|------------|---------|--------|
| BLEEDING | N | 677 SF | 0.37% | 2.73 |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 8,326 LF | 0.06% | 14.87 |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 2,115 LF | 10.23% | 12.60 |
| RAVELING | L | 40,756 SF | 0.83% | 15.07 |
| WEATHERING | L | 119,026 SF | 1.85% | 5.54 |
| WEATHERING | M | 47,103 SF | 0.71% | 11.05 |

* 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

96.0 % Climate/Durability

4.0 % Other

HAMILTON AIRPORT

Branch: 06R

RUNWAY

R-2

Length: 2,200 LF

Width: 75 LF

Area: 165,000 SF

Last Const: 1992

Family: ACRMU

From: STA 12+00

To: STA 34+00

Surface: AC

Inspections

Samples Surveyed: 6

Total Samples: 34

Last Inspection Date: 11/13/2012

PCI: 62

Sample # 2

Distress Description

LONGITUDINAL/TRANSVERSE CRACKING
 LONGITUDINAL/TRANSVERSE CRACKING
 RAVELING
 RAVELING

Severity

L
 M
 L
 M

Quantity

375 LF
 35 LF
 4,100 SF
 4,875 SF

Area: 4,875 SF

Sample # 7

Distress Description

LONGITUDINAL/TRANSVERSE CRACKING
 LONGITUDINAL/TRANSVERSE CRACKING
 RAVELING
 WEATHERING

Severity

L
 M
 L
 M

Quantity

153 LF
 69 LF
 3,900 SF
 4,875 SF

Area: 4,875 SF

Sample # 12

Distress Description

LONGITUDINAL/TRANSVERSE CRACKING
 RAVELING
 WEATHERING

Severity

L
 L
 L

Quantity

180 LF
 2,475 SF
 4,875 SF

Area: 4,875 SF

Sample # 17

Distress Description

LONGITUDINAL/TRANSVERSE CRACKING
 RAVELING
 WEATHERING

Severity

L
 L
 M

Quantity

276 LF
 2,425 SF
 4,875 SF

Area: 4,875 SF

Sample # 22

Distress Description

LONGITUDINAL/TRANSVERSE CRACKING
 LONGITUDINAL/TRANSVERSE CRACKING
 RAVELING
 WEATHERING

Severity

L
 M
 L
 M

Quantity

260 LF
 20 LF
 2,620 SF
 4,875 SF

Area: 4,875 SF

Sample # 27

Distress Description

LONGITUDINAL/TRANSVERSE CRACKING
 LONGITUDINAL/TRANSVERSE CRACKING
 RAVELING
 WEATHERING
 WEATHERING

Severity

L
 M
 L
 M
 H

Quantity

270 LF
 30 LF
 2,500 SF
 4,400 SF
 475 SF

Area: 4,875 SF

HAMILTON AIRPORT

Branch: 06R

RUNWAY

R-2

Extrapolated Distress Quantities*

| Distress Description | Severity | Quantity | Density | Deduct |
|----------------------------------|----------|-----------|---------|--------|
| LONGITUDINAL/TRANSVERSE CRACKING | L | 7,764 LF | 15.08% | 15.14 |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 790 LF | 0.30% | 8.49 |
| RAVELING | L | 92,410 SF | 0.45% | 21.99 |
| RAVELING | M | 25,000 SF | 69.95% | 25.97 |
| WEATHERING | L | 25,000 SF | 44.65% | 2.48 |
| WEATHERING | M | 97,564 SF | 1.06% | 17.31 |
| WEATHERING | H | 2,436 SF | 0.03% | 10.05 |

* 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

HAMILTON AIRPORT

Branch: 06T TAXIWAY

T-2

Length: 1,885 LF Width: 30 LF Area: 56,550 SF Last Const: 1994 Family: ACRMU
 From: STA 0+00 T2 To: STA 14+30 T2 Surface: AC

Inspections

Samples Surveyed: 4 Total Samples: 11 Last Inspection Date: 11/13/2012 **PCI: 34**

| Sample # 1 | <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>ALLIGATOR CRACKING</td> <td>L</td> <td>180 SF</td> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>450 LF</td> </tr> <tr> <td>RAVELING</td> <td>L</td> <td>1,200 SF</td> </tr> <tr> <td>RAVELING</td> <td>M</td> <td>1,200 SF</td> </tr> <tr> <td>RAVELING</td> <td>H</td> <td>120 SF</td> </tr> </table> | Distress Description | Severity | Quantity | ALLIGATOR CRACKING | L | 180 SF | LONGITUDINAL/TRANSVERSE CRACKING | L | 450 LF | RAVELING | L | 1,200 SF | RAVELING | M | 1,200 SF | RAVELING | H | 120 SF | Area: 6,000 SF |
|----------------------------------|--|----------------------|----------|----------|--------------------|---|--------|----------------------------------|---|--------|----------|---|----------|----------|---|----------|----------|---|--------|----------------|
| Distress Description | Severity | Quantity | | | | | | | | | | | | | | | | | | |
| ALLIGATOR CRACKING | L | 180 SF | | | | | | | | | | | | | | | | | | |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 450 LF | | | | | | | | | | | | | | | | | | |
| RAVELING | L | 1,200 SF | | | | | | | | | | | | | | | | | | |
| RAVELING | M | 1,200 SF | | | | | | | | | | | | | | | | | | |
| RAVELING | H | 120 SF | | | | | | | | | | | | | | | | | | |

| Sample # 4 | <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>ALLIGATOR CRACKING</td> <td>L</td> <td>275 SF</td> </tr> <tr> <td>ALLIGATOR CRACKING</td> <td>M</td> <td>580 SF</td> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>163 LF</td> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>M</td> <td>132 LF</td> </tr> <tr> <td>RAVELING</td> <td>L</td> <td>510 SF</td> </tr> <tr> <td>RAVELING</td> <td>M</td> <td>495 SF</td> </tr> <tr> <td>RAVELING</td> <td>H</td> <td>108 SF</td> </tr> </table> | Distress Description | Severity | Quantity | ALLIGATOR CRACKING | L | 275 SF | ALLIGATOR CRACKING | M | 580 SF | LONGITUDINAL/TRANSVERSE CRACKING | L | 163 LF | LONGITUDINAL/TRANSVERSE CRACKING | M | 132 LF | RAVELING | L | 510 SF | RAVELING | M | 495 SF | RAVELING | H | 108 SF | Area: 4,950 SF |
|----------------------------------|--|----------------------|----------|----------|--------------------|---|--------|--------------------|---|--------|----------------------------------|---|--------|----------------------------------|---|--------|----------|---|--------|----------|---|--------|----------|---|--------|----------------|
| Distress Description | Severity | Quantity | | | | | | | | | | | | | | | | | | | | | | | | |
| ALLIGATOR CRACKING | L | 275 SF | | | | | | | | | | | | | | | | | | | | | | | | |
| ALLIGATOR CRACKING | M | 580 SF | | | | | | | | | | | | | | | | | | | | | | | | |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 163 LF | | | | | | | | | | | | | | | | | | | | | | | | |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 132 LF | | | | | | | | | | | | | | | | | | | | | | | | |
| RAVELING | L | 510 SF | | | | | | | | | | | | | | | | | | | | | | | | |
| RAVELING | M | 495 SF | | | | | | | | | | | | | | | | | | | | | | | | |
| RAVELING | H | 108 SF | | | | | | | | | | | | | | | | | | | | | | | | |

| Sample # 7 | <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>ALLIGATOR CRACKING</td> <td>L</td> <td>254 SF</td> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>352 LF</td> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>M</td> <td>53 LF</td> </tr> <tr> <td>RAVELING</td> <td>L</td> <td>498 SF</td> </tr> <tr> <td>RAVELING</td> <td>M</td> <td>303 SF</td> </tr> <tr> <td>RAVELING</td> <td>H</td> <td>248 SF</td> </tr> </table> | Distress Description | Severity | Quantity | ALLIGATOR CRACKING | L | 254 SF | LONGITUDINAL/TRANSVERSE CRACKING | L | 352 LF | LONGITUDINAL/TRANSVERSE CRACKING | M | 53 LF | RAVELING | L | 498 SF | RAVELING | M | 303 SF | RAVELING | H | 248 SF | Area: 4,950 SF |
|----------------------------------|---|----------------------|----------|----------|--------------------|---|--------|----------------------------------|---|--------|----------------------------------|---|-------|----------|---|--------|----------|---|--------|----------|---|--------|----------------|
| Distress Description | Severity | Quantity | | | | | | | | | | | | | | | | | | | | | |
| ALLIGATOR CRACKING | L | 254 SF | | | | | | | | | | | | | | | | | | | | | |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 352 LF | | | | | | | | | | | | | | | | | | | | | |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 53 LF | | | | | | | | | | | | | | | | | | | | | |
| RAVELING | L | 498 SF | | | | | | | | | | | | | | | | | | | | | |
| RAVELING | M | 303 SF | | | | | | | | | | | | | | | | | | | | | |
| RAVELING | H | 248 SF | | | | | | | | | | | | | | | | | | | | | |

| Sample # 10 | <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>ALLIGATOR CRACKING</td> <td>L</td> <td>203 SF</td> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>L</td> <td>281 LF</td> </tr> <tr> <td>LONGITUDINAL/TRANSVERSE CRACKING</td> <td>M</td> <td>32 LF</td> </tr> <tr> <td>RAVELING</td> <td>M</td> <td>125 SF</td> </tr> <tr> <td>RAVELING</td> <td>H</td> <td>75 SF</td> </tr> </table> | Distress Description | Severity | Quantity | ALLIGATOR CRACKING | L | 203 SF | LONGITUDINAL/TRANSVERSE CRACKING | L | 281 LF | LONGITUDINAL/TRANSVERSE CRACKING | M | 32 LF | RAVELING | M | 125 SF | RAVELING | H | 75 SF | Area: 4,950 SF |
|----------------------------------|--|----------------------|----------|----------|--------------------|---|--------|----------------------------------|---|--------|----------------------------------|---|-------|----------|---|--------|----------|---|-------|----------------|
| Distress Description | Severity | Quantity | | | | | | | | | | | | | | | | | | |
| ALLIGATOR CRACKING | L | 203 SF | | | | | | | | | | | | | | | | | | |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 281 LF | | | | | | | | | | | | | | | | | | |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 32 LF | | | | | | | | | | | | | | | | | | |
| RAVELING | M | 125 SF | | | | | | | | | | | | | | | | | | |
| RAVELING | H | 75 SF | | | | | | | | | | | | | | | | | | |

Extrapolated Distress Quantities*

| Distress Description | Severity | Quantity | Density | Deduct |
|----------------------------------|----------|----------|---------|--------|
| ALLIGATOR CRACKING | L | 2,474 SF | 2.58% | 34.83 |
| ALLIGATOR CRACKING | M | 1,573 SF | 3.41% | 40.10 |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 3,379 LF | 0.06% | 16.76 |
| LONGITUDINAL/TRANSVERSE CRACKING | M | 589 F | 0.85% | 11.44 |
| RAVELING | L | 5,989 SF | 0.05% | 10.11 |
| RAVELING | M | 5,758 SF | 0.24% | 20.85 |
| RAVELING | H | 1,494 SF | 7.34% | 30.63 |

* 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

45.0 % Load 55.0 % Climate/Durability 0.0 % Other

HAMILTON AIRPORT

Branch: 06T TAXIWAY

T-3

Length: 2,735 LF Width: 30 LF Area: 82,050 SF Last Const: 1983 Family: STPA
 From: STA 0+00 T3 To: STA 23+00 T3 Surface: ST

Inspections

Samples Surveyed: 4 Total Samples: 17 Last Inspection Date: 11/13/2012 **PCI: 19**

Sample # 6 **Area:** 4,950 SF

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| ALLIGATOR CRACKING | L | 1,490 SF |
| ALLIGATOR CRACKING | M | 2,640 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 51 LF |
| RAVELING | L | 505 SF |
| WEATHERING | L | 4,950 SF |

Sample # 9 **Area:** 4,950 SF

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| ALLIGATOR CRACKING | L | 2,475 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 170 LF |
| RAVELING | L | 302 SF |
| WEATHERING | L | 3,960 SF |
| WEATHERING | M | 990 SF |

Sample # 12 **Area:** 4,950 SF

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| ALLIGATOR CRACKING | L | 2,090 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 248 LF |
| RAVELING | L | 500 SF |
| WEATHERING | L | 4,950 SF |

Sample # 15 **Area:** 4,950 SF

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| ALLIGATOR CRACKING | L | 2,000 SF |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 205 LF |
| RAVELING | L | 250 SF |
| WEATHERING | L | 4,500 SF |
| WEATHERING | M | 450 SF |

Extrapolated Distress Quantities*

| Distress Description | Severity | Quantity | Density | Deduct |
|----------------------------------|----------|-----------|---------|--------|
| ALLIGATOR CRACKING | L | 33,379 SF | 5.81% | 59.77 |
| ALLIGATOR CRACKING | M | 10,940 SF | 69.19% | 60.05 |
| LONGITUDINAL/TRANSVERSE CRACKING | L | 2,793 LF | 3.06% | 11.07 |
| RAVELING | L | 6,452 SF | 5.51% | 8.68 |
| WEATHERING | L | 76,083 SF | 5.81% | 5.90 |
| WEATHERING | M | 5,967 SF | 0.37% | 4.38 |

* 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

80.0 % Load 20.0 % Climate/Durability 0.0 % Other

HAMILTON AIRPORT

Branch: 06T TAXIWAY **T-5**

Length: 1,613 LF Width: 25 LF Area: 53,912 SF Last Const: 2002 Family: ACRMU
 From: R-2 To: T-3 Surface: AC

Inspections

Samples Surveyed: 4 Total Samples: 17 Last Inspection Date: 11/13/2012 **PCI: 80**

Sample # 2 Area: 5,170 SF

| Distress Description | Severity | Quantity |
|----------------------|----------|----------|
| RAVELING | L | 1,040 LF |
| WEATHERING | L | 5,170 LF |

Sample # 5 Area: 4,550 SF

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| LONGITUDINAL/TRANSVERSE CRACKING | L | 75 LF |
| RAVELING | L | 455 LF |
| WEATHERING | L | 4,550 LF |

Sample # 8 Area: 4,275 SF

| Distress Description | Severity | Quantity |
|----------------------------------|----------|----------|
| LONGITUDINAL/TRANSVERSE CRACKING | L | 59 LF |
| RAVELING | L | 630 LF |
| WEATHERING | L | 4,275 LF |

Sample # 11 Area: 4,650 SF

| Distress Description | Severity | Quantity |
|----------------------|----------|----------|
| OIL SPILLAGE | N | 2 LF |
| RAVELING | L | 450 LF |
| RAVELING | M | 2 LF |
| WEATHERING | L | 4,650 LF |

Extrapolated Distress Quantities*

| Distress Description | Severity | Quantity | Density | Deduct |
|----------------------------------|----------|-----------|---------|--------|
| LONGITUDINAL/TRANSVERSE CRACKING | L | 387 LF | 3.83% | 4.42 |
| OIL SPILLAGE | N | 6 SF | 50.00% | 2.00 |
| RAVELING | L | 7,446 SF | 0.12% | 11.52 |
| RAVELING | M | 6 SF | 0.61% | 4.00 |
| WEATHERING | L | 53,912 SF | 4.04% | 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 93.0 % Climate/Durability 7.0 % Other

HAMILTON AIRPORT

FIRST YEAR LOCAL: 2013 **LOCAL REPAIR COST: \$37,541**

| Section | Distress Description | Severity | Quantity | Work Description | Quantity | Cost | Policy |
|---------|----------------------|----------|----------|-----------------------|----------|----------|--------|
| R-1A | L & T CR | M | 2,115 LF | Crack Sealing - AC | 2,115 LF | \$5,288 | PREV. |
| R-2 | L & T CR | M | 790 LF | Crack Sealing - AC | 790 LF | \$1,974 | PREV. |
| T-2 | RAVELING | H | 1,494 SF | Patching - AC Shallow | 1,494 SF | \$29,889 | SAFETY |
| T-5 | OIL SPILLAGE | N | 6 SF | Patching - AC Shallow | 20 SF | \$389 | PREV. |

FIFTEEN YEAR PROJECTIONS **ESTIMATED AVERAGE ANNUAL COST: \$392,066**

| Plan Year: 2013 | | Estimated Cost: \$2,569,462 | | | | | PCI | | |
|-----------------|------------------------|-----------------------------|----------|------------|------------|-----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Major Below Critical | \$0 | \$0 | \$396,492 | \$0 | \$396,492 | 37 | 100 | |
| A-2 | Major Below Critical | \$0 | \$0 | \$991,658 | \$0 | \$991,658 | 38 | 100 | |
| R-1A | Preventive | \$22,491 | \$0 | \$0 | \$0 | \$22,491 | 61 | 61 | |
| R-2 | Global MR + Preventive | \$20,446 | \$37,500 | \$0 | \$0 | \$57,946 | 61 | 65 | |
| T-2 | Major Below Critical | \$0 | \$0 | \$430,261 | \$0 | \$430,261 | 33 | 100 | |
| T-3 | Major Below Critical | \$0 | \$0 | \$656,400 | \$0 | \$656,400 | 17 | 100 | |
| T-5 | Global MR + Preventive | \$735 | \$13,478 | \$0 | \$0 | \$14,213 | 79 | 84 | |

| Plan Year: 2014 | | Estimated Cost: \$45,020 | | | | | PCI | | |
|-----------------|-------------|--------------------------|--------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| R-1A | Preventive | \$26,156 | \$0 | \$0 | \$0 | \$26,156 | 60 | 60 | |
| R-2 | Preventive | \$18,401 | \$0 | \$0 | \$0 | \$18,401 | 63 | 63 | |
| T-5 | Preventive | \$463 | \$0 | \$0 | \$0 | \$463 | 82 | 82 | |

| Plan Year: 2015 | | Estimated Cost: \$53,605 | | | | | PCI | | |
|-----------------|-------------|--------------------------|--------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| R-1A | Preventive | \$31,431 | \$0 | \$0 | \$0 | \$31,431 | 58 | 58 | |
| R-2 | Preventive | \$21,419 | \$0 | \$0 | \$0 | \$21,419 | 62 | 62 | |
| T-3 | Preventive | \$26 | \$0 | \$0 | \$0 | \$26 | 90 | 90 | |
| T-5 | Preventive | \$730 | \$0 | \$0 | \$0 | \$730 | 79 | 79 | |

| Plan Year: 2016 | | Estimated Cost: \$64,328 | | | | | PCI | | |
|-----------------|-------------|--------------------------|--------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$131 | \$0 | \$0 | \$0 | \$131 | 88 | 88 | |
| A-2 | Preventive | \$336 | \$0 | \$0 | \$0 | \$336 | 88 | 88 | |
| R-1A | Preventive | \$37,322 | \$0 | \$0 | \$0 | \$37,322 | 56 | 56 | |
| R-2 | Preventive | \$24,783 | \$0 | \$0 | \$0 | \$24,783 | 60 | 60 | |
| T-2 | Preventive | \$70 | \$0 | \$0 | \$0 | \$70 | 89 | 89 | |
| T-3 | Preventive | \$421 | \$0 | \$0 | \$0 | \$421 | 85 | 86 | |
| T-5 | Preventive | \$1,265 | \$0 | \$0 | \$0 | \$1,265 | 77 | 77 | |

| Plan Year: 2017 | | Estimated Cost: \$77,814 | | | | | PCI | | |
|-----------------|-------------|--------------------------|--------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$345 | \$0 | \$0 | \$0 | \$345 | 85 | 85 | |
| A-2 | Preventive | \$883 | \$0 | \$0 | \$0 | \$883 | 85 | 85 | |
| R-1A | Preventive | \$43,902 | \$0 | \$0 | \$0 | \$43,902 | 54 | 54 | |
| R-2 | Preventive | \$29,832 | \$0 | \$0 | \$0 | \$29,832 | 58 | 58 | |
| T-2 | Preventive | \$260 | \$0 | \$0 | \$0 | \$260 | 86 | 86 | |
| T-3 | Preventive | \$806 | \$0 | \$0 | \$0 | \$806 | 81 | 82 | |
| T-5 | Preventive | \$1,786 | \$0 | \$0 | \$0 | \$1,786 | 75 | 75 | |

| Plan Year: 2018 | | Estimated Cost: \$152,420 | | | | | PCI | | |
|-----------------|------------------------|---------------------------|----------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$556 | \$0 | \$0 | \$0 | \$556 | 82 | 82 | |
| A-2 | Preventive | \$1,421 | \$0 | \$0 | \$0 | \$1,421 | 82 | 82 | |
| R-1A | Preventive | \$51,245 | \$0 | \$0 | \$0 | \$51,245 | 52 | 52 | |
| R-2 | Global MR + Preventive | \$35,473 | \$43,473 | \$0 | \$0 | \$78,946 | 56 | 60 | |
| T-2 | Preventive | \$446 | \$0 | \$0 | \$0 | \$446 | 83 | 83 | |
| T-3 | Preventive | \$1,880 | \$0 | \$0 | \$0 | \$1,880 | 78 | 78 | |
| T-5 | Global MR + Preventive | \$2,302 | \$15,625 | \$0 | \$0 | \$17,927 | 73 | 77 | |

| Plan Year: 2019 | | Estimated Cost: \$1,029,425 | | | | | PCI | | |
|-----------------|----------------------|-----------------------------|--------|------------|------------|-----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$1,018 | \$0 | \$0 | \$0 | \$1,018 | 79 | 79 | |
| A-2 | Preventive | \$2,604 | \$0 | \$0 | \$0 | \$2,604 | 79 | 79 | |
| R-1A | Major Below Critical | \$0 | \$0 | \$988,936 | \$0 | \$988,936 | 50 | 100 | |
| R-2 | Preventive | \$31,138 | \$0 | \$0 | \$0 | \$31,138 | 58 | 59 | |
| T-2 | Preventive | \$627 | \$0 | \$0 | \$0 | \$627 | 81 | 81 | |
| T-3 | Preventive | \$3,257 | \$0 | \$0 | \$0 | \$3,257 | 74 | 74 | |
| T-5 | Preventive | \$1,846 | \$0 | \$0 | \$0 | \$1,846 | 75 | 75 | |

HAMILTON AIRPORT

| Plan Year: 2020 | | Estimated Cost: \$51,537 | | | | | PCI | | |
|-----------------|-------------|--------------------------|--------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$1,792 | \$0 | \$0 | \$0 | \$1,792 | 76 | 76 | |
| A-2 | Preventive | \$4,583 | \$0 | \$0 | \$0 | \$4,583 | 76 | 76 | |
| R-2 | Preventive | \$37,052 | \$0 | \$0 | \$0 | \$37,052 | 57 | 57 | |
| T-2 | Preventive | \$1,132 | \$0 | \$0 | \$0 | \$1,132 | 78 | 79 | |
| T-3 | Preventive | \$4,581 | \$0 | \$0 | \$0 | \$4,581 | 71 | 71 | |
| T-5 | Preventive | \$2,397 | \$0 | \$0 | \$0 | \$2,397 | 73 | 74 | |

| Plan Year: 2021 | | Estimated Cost: \$64,270 | | | | | PCI | | |
|-----------------|-------------|--------------------------|--------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$2,556 | \$0 | \$0 | \$0 | \$2,556 | 74 | 74 | |
| A-2 | Preventive | \$6,537 | \$0 | \$0 | \$0 | \$6,537 | 74 | 74 | |
| R-2 | Preventive | \$43,667 | \$0 | \$0 | \$0 | \$43,667 | 55 | 55 | |
| T-2 | Preventive | \$1,768 | \$0 | \$0 | \$0 | \$1,768 | 76 | 76 | |
| T-3 | Preventive | \$6,798 | \$0 | \$0 | \$0 | \$6,798 | 68 | 69 | |
| T-5 | Preventive | \$2,945 | \$0 | \$0 | \$0 | \$2,945 | 72 | 72 | |

| Plan Year: 2022 | | Estimated Cost: \$78,521 | | | | | PCI | | |
|-----------------|-------------|--------------------------|--------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$3,317 | \$0 | \$0 | \$0 | \$3,317 | 71 | 71 | |
| A-2 | Preventive | \$8,485 | \$0 | \$0 | \$0 | \$8,485 | 71 | 71 | |
| R-1A | Preventive | \$244 | \$0 | \$0 | \$0 | \$244 | 89 | 89 | |
| R-2 | Preventive | \$51,053 | \$0 | \$0 | \$0 | \$51,053 | 53 | 53 | |
| T-2 | Preventive | \$2,391 | \$0 | \$0 | \$0 | \$2,391 | 74 | 75 | |
| T-3 | Preventive | \$9,539 | \$0 | \$0 | \$0 | \$9,539 | 66 | 66 | |
| T-5 | Preventive | \$3,492 | \$0 | \$0 | \$0 | \$3,492 | 70 | 70 | |

| Plan Year: 2023 | | Estimated Cost: \$164,394 | | | | | PCI | | |
|-----------------|------------------------|---------------------------|----------|------------|------------|-----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$4,458 | \$0 | \$0 | \$0 | \$4,458 | 69 | 69 | |
| A-2 | Preventive | \$11,403 | \$0 | \$0 | \$0 | \$11,403 | 69 | 69 | |
| R-1A | Preventive | \$906 | \$0 | \$0 | \$0 | \$906 | 86 | 86 | |
| R-2 | Global MR + Preventive | \$59,327 | \$50,397 | \$0 | \$0 | \$109,724 | 50 | 55 | |
| T-2 | Preventive | \$3,009 | \$0 | \$0 | \$0 | \$3,009 | 73 | 73 | |
| T-3 | Preventive | \$12,085 | \$0 | \$0 | \$0 | \$12,085 | 64 | 64 | |
| T-5 | Global MR + Preventive | \$4,695 | \$18,113 | \$0 | \$0 | \$22,808 | 69 | 72 | |

| Plan Year: 2024 | | Estimated Cost: \$98,808 | | | | | PCI | | |
|-----------------|-------------|--------------------------|--------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$6,209 | \$0 | \$0 | \$0 | \$6,209 | 67 | 67 | |
| A-2 | Preventive | \$15,883 | \$0 | \$0 | \$0 | \$15,883 | 67 | 67 | |
| R-1A | Preventive | \$1,555 | \$0 | \$0 | \$0 | \$1,555 | 83 | 83 | |
| R-2 | Preventive | \$53,414 | \$0 | \$0 | \$0 | \$53,414 | 53 | 53 | |
| T-2 | Preventive | \$3,629 | \$0 | \$0 | \$0 | \$3,629 | 71 | 71 | |
| T-3 | Preventive | \$14,458 | \$0 | \$0 | \$0 | \$14,458 | 62 | 62 | |
| T-5 | Preventive | \$3,660 | \$0 | \$0 | \$0 | \$3,660 | 70 | 70 | |

| Plan Year: 2025 | | Estimated Cost: \$118,759 | | | | | PCI | | |
|-----------------|-------------|---------------------------|--------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$7,980 | \$0 | \$0 | \$0 | \$7,980 | 65 | 65 | |
| A-2 | Preventive | \$20,413 | \$0 | \$0 | \$0 | \$20,413 | 65 | 65 | |
| R-1A | Preventive | \$2,183 | \$0 | \$0 | \$0 | \$2,183 | 81 | 81 | |
| R-2 | Preventive | \$62,105 | \$0 | \$0 | \$0 | \$62,105 | 51 | 51 | |
| T-2 | Preventive | \$4,587 | \$0 | \$0 | \$0 | \$4,587 | 69 | 69 | |
| T-3 | Preventive | \$16,624 | \$0 | \$0 | \$0 | \$16,624 | 61 | 61 | |
| T-5 | Preventive | \$4,865 | \$0 | \$0 | \$0 | \$4,865 | 69 | 69 | |

| Plan Year: 2026 | | Estimated Cost: \$1,228,705 | | | | | PCI | | |
|-----------------|----------------------|-----------------------------|--------|-------------|------------|-------------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$9,777 | \$0 | \$0 | \$0 | \$9,777 | 63 | 63 | |
| A-2 | Preventive | \$25,008 | \$0 | \$0 | \$0 | \$25,008 | 63 | 63 | |
| R-1A | Preventive | \$3,944 | \$0 | \$0 | \$0 | \$3,944 | 78 | 79 | |
| R-2 | Major Below Critical | \$0 | \$0 | \$1,158,895 | \$0 | \$1,158,895 | 48 | 100 | |
| T-2 | Preventive | \$5,996 | \$0 | \$0 | \$0 | \$5,996 | 68 | 68 | |
| T-3 | Preventive | \$18,870 | \$0 | \$0 | \$0 | \$18,870 | 60 | 60 | |
| T-5 | Preventive | \$6,215 | \$0 | \$0 | \$0 | \$6,215 | 67 | 67 | |

| Plan Year: 2027 | | Estimated Cost: \$83,919 | | | | | PCI | | |
|-----------------|-------------|--------------------------|--------|------------|------------|----------|--------|-------|--|
| Section | Maintenance | Local | Global | Major<Crit | Major>Crit | Total | Before | After | |
| A-1 | Preventive | \$11,622 | \$0 | \$0 | \$0 | \$11,622 | 62 | 62 | |
| A-2 | Preventive | \$29,729 | \$0 | \$0 | \$0 | \$29,729 | 62 | 62 | |
| R-1A | Preventive | \$6,158 | \$0 | \$0 | \$0 | \$6,158 | 76 | 76 | |
| T-2 | Preventive | \$7,459 | \$0 | \$0 | \$0 | \$7,459 | 66 | 66 | |
| T-3 | Preventive | \$21,334 | \$0 | \$0 | \$0 | \$21,334 | 59 | 59 | |
| T-5 | Preventive | \$7,617 | \$0 | \$0 | \$0 | \$7,617 | 66 | 66 | |

HAMILTON AIRPORT

11/15/2012



A-1, Overview with bleeding



A-2, Overview with cracking



A-2, Surface detail with cracking



R-1A, Overview

HAMILTON AIRPORT

11/15/2012



R-2, Surface detail with crack



T-3 and T-2, Overview

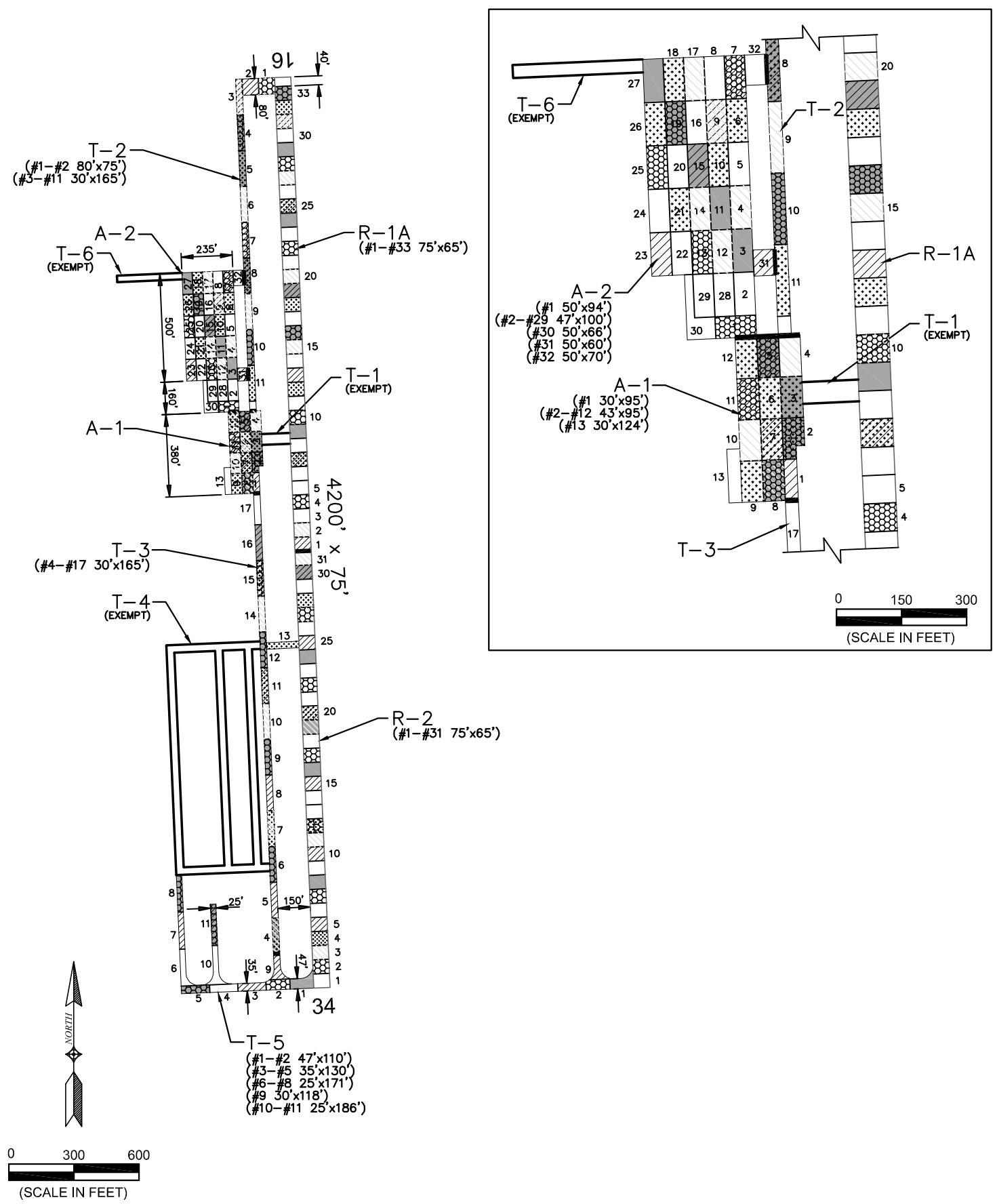


T-3, Surface detail with cracking



T-3, Surface detail with raveling

HAMILTON



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-1A | E-6 | F6 | 4" P-154 | 7" P-208 | P-609 | P-609 | 17,000 | 25,000 | | 4 |
| R-2 | E-6 | F-6 | FABRIC, 40" P-154 | 4" P-208 | 2" P-401 | 1.5" P-402 | 25,000 | | | 6 |
| TAXIWAYS | | | | | | | | | | |
| T-1 | E-6 | F6 | 4" P-154 | 7" P-208 | P-609 | P-609 | 17,000 | 25,000 | | 4 |
| T-2 | E-6 | F-6 | 6" P-152 | 9" P-208 | P-609 | 1.5" P-402 | | | | 4 |
| T-3 | E-6 | F-6 | 6" P-152 | 9" P-208 | P-609 | | | | | 6 |
| T-4 | | | FABRIC, 8" P-154 | 4" P-208 | 2" P-401 | | | | | 6 |
| T-5 | E-6 | F-6 | 12" P-154 | 8" P-208 | 4" P-401 | | 75,000 | 200,000 | | 6 |
| T-6 | E-6 | F-6 | 12" P-154 | 4" P-208 | 3" TYPE S-3 | | 12,500 | | | 6 |
| APRONS | | | | | | | | | | |
| A-1 | E-6 | F6 | 4" P-154 | 7" P-208 | P-609 | | 17,000 | 25,000 | | 4 |
| A-2 | E-6 | F-6 | 6" P-152, FABRIC | 9" P-208 | P-609 | | 17,000 | 25,000 | | 4 |

REMARKS:

- 1 INFORMATION IS SUSPECT PER JWS AUG. 1988
- 2 TAKEN FROM 5320-1 DATED 9/11/68
- 3 STABILIZATION FABRIC
- 4 1980
- 5 AIP-001, 1983, CONSTRUCT TAXIWAY (T-3) AND APRON (A-2).
- 6 AIP-002, 1992, RUNWAY RECONSTRUCTION (R-2); RUNWAY OVERLAY (R-1A).
- 7 NON-AIP BY COUNTY, 1994
- 8 AIP-004, 2002, CONSTRUCT TAXIWAY (T-5).
- 9 AIP-006, 2005, CONSTRUCT TAXIWAY (T-6); FOG SEAL TAXIWAY (T-5).


LEGEND

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

| | |
|--|----------------|
| DATE OF PAVEMENT STRENGTH SURVEY: | SEPT. 11, 1988 |
| EVALUATED BY: | W. MOORE |
| DATE OF MOST RECENT PAVEMENT CONDITION SURVEY: | NOV. 15, 2012 |
| EVALUATED BY: | J. WALLA |

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

RAVALLI COUNTY AIRPORT

PREPARED FOR: 

HAMILTON MONTANA

DATE: DEC. 2012

PREPARED BY: 