Alaska DOT&PF

Statewide Design and Engineering Services
Pavement Management and Preservation Office
5800 East Tudor Road, Anchorage AK 99507-1286

Pavement Inspection Report
Saint Paul Airport

Airport Name	IATA	ICAO	Latitude	Longitude	Elevation (ft)
Saint Paul Airport	SNP	PASN	57° 9' 58.7" N	170° 13' 21.2" W	66.4

Please refer all questions or for further information about this report, please contact the AKDOT&PF Pavement Management and Preservation Office as follows:

Point of Contact	Phone	Email	Date Inspected	Date Published
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TABLE OF CONTENTS

Pavement Condition Index (PCI)

PCI Values / General Pavement Recommendations

- (85 - 100) - Preventative Maintenance
- (70 - 84) - Preventative / Corrective Maintenance
- (55 - 69) - Rehabilitation
- (40 - 54) - Reconstruct
- (25 - 39) - Reconstruct
- (10 - 24) - Reconstruct
- (0 - 9) - Reconstruct

Saint Paul Airport

Airport Code: SNP
Site Number: 50682.*A

Pavement Condition Index (PCI)

Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2023 Pavement Inspection Results

0 250 500 1,000
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 1 of 6

Pavement Condition Index (PCI)

PCI Values / General Pavement Recommendations

- (85 - 100) - Preventative Maintenance
- (70 - 84) - Preventative / Corrective Maintenance
- (55 - 69) - Rehabilitation
- (40 - 54) - Reconstruct
- (25 - 39) - Reconstruct
- (10 - 24) - Reconstruct
- (0 - 9) - Reconstruct
- Inventoried Sample Unit

Saint Paul Airport

Airport Code: SNP
Site Number: 50682.*A

Sample Unit
Pavement Condition Index (PCI)

Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2023 Pavement Inspection Results

0 250 500 1,000
Feet

Map Created by Duval Engineering
for AK DOT&PF

Map 2 of 6

5 Year Predicted* (Year 2028)

Pavement Condition Index (PCI)

PCI Values / General Pavement Recommendations

- (85 - 100) - Preventative Maintenance
- (70 - 84) - Preventative / Corrective Maintenance
- (55 - 69) - Rehabilitation
- (40 - 54) - Reconstruct
- (25 - 39) - Reconstruct
- (10 - 24) - Reconstruct
- (0 - 9) - Reconstruct

*Assumes continued preventive maintenance

Saint Paul Airport

Airport Code: SNP
Site Number: 50682.*A

5 Year Predicted
Pavement Condition Index (PCI)

Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2023 Pavement Inspection Results

0 250 500 1,000
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 3 of 6

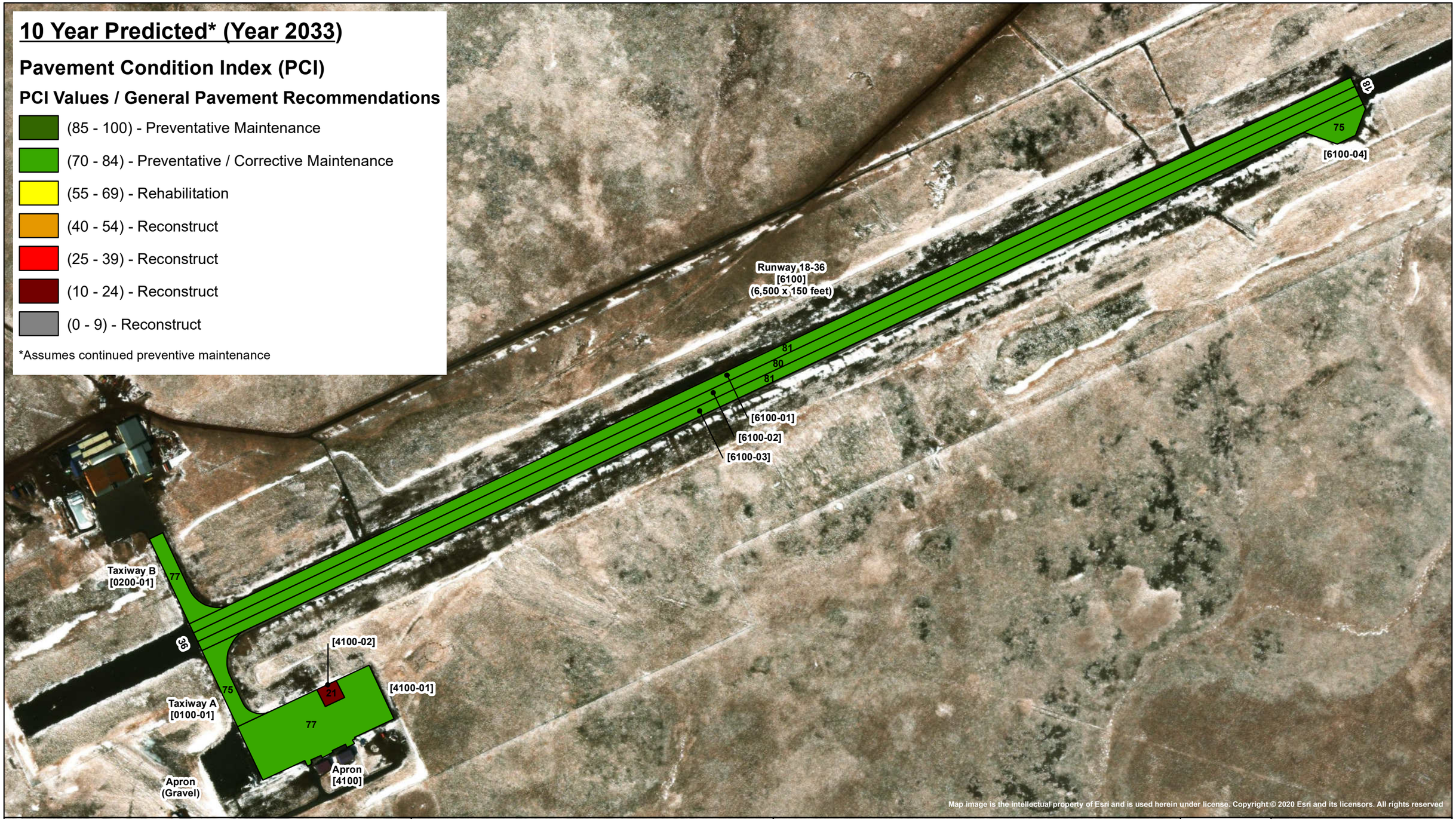
10 Year Predicted* (Year 2033)

Pavement Condition Index (PCI)

PCI Values / General Pavement Recommendations

- (85 - 100) - Preventative Maintenance
- (70 - 84) - Preventative / Corrective Maintenance
- (55 - 69) - Rehabilitation
- (40 - 54) - Reconstruct
- (25 - 39) - Reconstruct
- (10 - 24) - Reconstruct
- (0 - 9) - Reconstruct

*Assumes continued preventive maintenance



Saint Paul Airport

Airport Code: SNP
Site Number: 50682.*A

10 Year Predicted
Pavement Condition Index (PCI)

Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2023 Pavement Inspection Results

0 250 500 1,000
Feet

Map Created by Duval Engineering
for AK DOT&PF

Map 4 of 6

Saint Paul Airport

Airport Code: SNP
Site Number: 50682.*A

Pavement Age at Inspection

2023 Pavement Inspection Results

0 250 500 1,000
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 5 of 6

Crack Seal Condition (CSC)

- No CS - New Surface
- Has CS - Good
- Has CS - Touch Up
- No CS - Recommend CS
- Has CS - Replace
- No CS - Below Repair
- PCC - Concrete

Runway 18-36
[6100]
(6,500 x 150 feet)

18

36

[6100-01]

[6100-02]

[6100-03]

[6100-04]

Taxiway B
[0200-01]

Taxiway A
[0100-01]

[4100-02]

[4100-01]

Apron
[4100]

Apron
(Gravel)

Saint Paul Airport

Airport Code: SNP
Site Number: 50682.*A

Pavement Crack Seal Condition (CSC)

N W E S

2023 Pavement Inspection Results

0 250 500 1,000
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 6 of 6

AIRPORT PAVEMENT INSPECTION NOTES BY BRANCH

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0100	Taxiway A	Taxiway	1	40,820	80

Taxiway A was constructed in 2005 and has not received any major work since. Crack seal operations have not been performed on the branch. The most common distresses observed are low to medium severity raveling, and low severity weathering. Field observations include wearing of the pavements surface concentrated at the paving joints, and localized areas of raveling.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0200	Taxiway B	Taxiway	1	40,930	82

Like Taxiway A, Taxiway B was constructed in 2005 and has not received any major work since. Annual crack seal operations have been performed on the branch. The most common distresses observed are low severity longitudinal and transverse cracking, low to medium severity raveling, and low severity weathering. Field observations include wearing of the pavements surface concentrated at the paving joints, and localized areas of raveling.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
4100	Apron	Apron	2	225,685	79

AC Section 4100-01 (82 PCI)


The Apron consists of 2 sections, of which 1 is AC and 1 is PCC. The AC section was constructed in 2005 and has not received any major work since. Crack seal operations have not been performed on the branch. The most common distresses observed are low to medium severity raveling, and low severity weathering. Field observations include the degradation of the paving joints causing raveling to develop as well as localized areas of raveling across the apron.

PCC Section 4100-02 (26 PCI)


The PCC section consists of a single hardstand constructed in 2005 and has not received major work since. The most common distresses observed are low to medium to high severity linear cracking, and high severity joint seal damage. Field observations show that 8 out of the 14 total slabs have a linear crack of various severities. Also, the joint sealant is failing as vegetation can be seen between the sealant and the concrete.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
6100	Runway 18/36	Runway	4	1,003,600	85




Runway 18/36 was constructed in 2005 and has not received any major work since. Annual crack seal operations have been performed, but the runway would benefit from another application. The most common distresses observed are low to medium severity longitudinal and transverse cracking, low to medium severity raveling, and low severity weathering. Field observations include development of new unfilled cracks, widening of previously filled cracks, and localized areas of increased severity and quantity of raveling throughout.

BRANCH CONDITION REPORT

Branch ID	No. of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (Sq Ft)	Use	Average PCI	Standard Deviation PCI	Weighted Average PCI
0100	1	425	75	40,820	TAXIWAY	80.00	0.00	80.00
0200	1	475	75	40,930	TAXIWAY	82.00	0.00	82.00
4100	2	408	415	225,685	APRON	54.00	28.00	79.45
6100	4	19,830	69	1,003,600	RUNWAY	84.25	2.49	85.51

Note: the dimensions in the Branch Condition Report are derived from area calculations and may not reflect actual dimensions of individual sections. Refer to the maps for actual section dimensions.

BRANCH USE CONDITION REPORT

Use Category	No. of Sections	Total Area (Sq Ft)	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
APRON	2	225,685	54.00	28.00	79.45
RUNWAY	4	1,003,600	84.25	2.49	85.51
TAXIWAY	2	81,750	81.00	1.00	81.00
ALL	8	1,311,035	75.88	18.99	84.18

SECTION CONDITION REPORT

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	True Area (Sq Ft)	Last Inspection Date	Age At Inspection	PCI
0100	0100-01	7/1/2005	AAC	TAXIWAY	P	40,820	6/1/2023	18	80
0200	0200-01	7/1/2005	AAC	TAXIWAY	P	40,930	6/1/2023	18	82
4100	4100-01	7/1/2005	AAC	APRON	P	215,425	6/1/2023	18	82
4100	4100-02	7/1/2005	PCC	APRON	P	10,260	6/1/2023	18	26
6100	6100-01	7/1/2005	AAC	RUNWAY	P	325,000	6/1/2023	18	86
6100	6100-02	7/1/2005	AAC	RUNWAY	P	325,000	6/1/2023	18	85
6100	6100-03	7/1/2005	AAC	RUNWAY	P	325,000	6/1/2023	18	86
6100	6100-04	7/1/2005	AAC	RUNWAY	P	28,600	6/1/2023	18	80

SECTION CONDITION REPORT (SUMMARY BY AGE CATEGORY)

Age Category	Average Age at Inspection	Total Area (Sq Ft)	Number of Sections	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
16-20	18	1,311,035	8	75.88	18.99	84.18
ALL	18	1,311,035	8	75.88	18.99	84.18

Work History Report

Pavement Database: Alaska

Network: Saint Paul Airport **Branch:** 0100 Taxiway A **Section:** 0100-01 **Surface:**AAC
L.C.D. 7/1/2005 **Use:** TAXIWAY **Rank:** P **Length:** 425.00 (Ft) **Width:** 75.00 (Ft) **True Area:** 40820.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2005	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Saint Paul Airport **Branch:** 0200 Taxiway B **Section:** 0200-01 **Surface:**AAC
L.C.D. 7/1/2005 **Use:** TAXIWAY **Rank:** P **Length:** 475.00 (Ft) **Width:** 75.00 (Ft) **True Area:** 40930.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2005	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Saint Paul Airport **Branch:** 4100 Apron **Section:** 4100-01 **Surface:**AAC
L.C.D. 7/1/2005 **Use:** APRON **Rank:** P **Length:** 300.00 (Ft) **Width:** 735.00 (Ft) **True Area:** 215425.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2005	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Saint Paul Airport **Branch:** 4100 Apron **Section:** 4100-02 **Surface:**PCC
L.C.D. 7/1/2005 **Use:** APRON **Rank:** P **Length:** 108.00 (Ft) **Width:** 95.00 (Ft) **True Area:** 10260.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2005	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Saint Paul Airport **Branch:** 6100 18/36 **Section:** 6100-01 **Surface:**AAC
L.C.D. 7/1/2005 **Use:** RUNWAY **Rank:** P **Length:** 6,500.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 325000.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2005	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Saint Paul Airport **Branch:** 6100 18/36 **Section:** 6100-02 **Surface:**AAC
L.C.D. 7/1/2005 **Use:** RUNWAY **Rank:** P **Length:** 6,500.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 325000.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2005	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Saint Paul Airport **Branch:** 6100 18/36 **Section:** 6100-03 **Surface:**AAC
L.C.D. 7/1/2005 **Use:** RUNWAY **Rank:** P **Length:** 6,500.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 325000.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2005	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Saint Paul Airport **Branch:** 6100 18/36 **Section:** 6100-04 **Surface:**AAC
L.C.D. 7/1/2005 **Use:** RUNWAY **Rank:** P **Length:** 330.00 (Ft) **Width:** 125.00 (Ft) **True Area:** 28600.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2005	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Work History Report

Pavement Database: Alaska

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
New Construction - Initial	8	1,311,035.00	0.00	0.00

PHYSICAL PROPERTY DATA

		Pavement		Base		Subbase		Subgrade	
Branch ID	Section ID	Thick (in)	Type	Thick (in)	Type	Thick (in)	Type	Type	CBR
Taxiway A 100	0100-01	4	P-401	15	FASB	6	P-154	SP/SM	7
Taxiway B 200	0200-01	4	P-401	15	FASB	6	P-154	SP/SM	7
Apron 4100	4100-01	4	P-401	15	FASB	6	P-154	SP/SM	7
	4100-02	4	P-401	15	FASB	6	P-154	SP/SM	7
Runway 18/36 6100	6100-01	4	P-401	15	FASB	6	P-154	SP/SM	7
	6100-02	4	P-401	15	FASB	6	P-154	SP/SM	7
	6100-03	4	P-401	15	FASB	6	P-154	SP/SM	7
	6100-04	4	P-401	15	FASB	6	P-154	SP/SM	7

Notes:
1. FATB = Foamed Asphalt Treated Base
2. For subgrade CBR 7, refer to 2003 Memo, Foamed Asphalt Treated Base

AIRCRAFT FLEET MIX

No.	Aircraft	Gross Wt (lb)	% Gross Wt on Main Gear	Tire Pressure (psi)	Annual Departures	20 Yr Coverages
1	D-15	17,120	95.00	63	369	2,328
2	Beechcraft King Air B200	12,590	95.00	98	79	396
3	Saab 340B	29,000	95.00	55	431	3,344
4	B737-100	111,000	92.00	157	2	15
5	B737-300	140,000	90.80	201	5	38
6	L-100-20	155,801	96.40	104	2	23
7	C-130	155,000	95.00	105	33	383
8	B737-400	150,500	93.80	185	2	16

PAVEMENT CLASSIFICATION RATINGS

Runway	Critical Aircraft	Gross Wt (lb)	Subgrade Mr (psi)	Evaluation Thickness (in)	Pass to Traffic Cycle Ratio	PCR
18-36	B737-400	268,859	10,500	25.0	1.0	878/F/C/W/T

PCR CALCULATION NOTES

- 1% traffic growth assumed.
- Subgrade strength reduction for frost applied.
- D-15 refer to “generic” dual gear aircraft modeled in FAARFIELD.

REFERENCES

Year	Project No.	Document Title
2004	55768, 56948, 55768	Engineering Design Report
2004	55768	Geotechnical Report - FASB
2004	3-02-0277-06, 56948	Reconstruct, As-Built Plans
2003	556768	Draft Geotechnical Report
2003		Memo, Foamed Asphalt Stabilized Base
1994	3-02-0277-04, 50678	Geological Report