Alaska DOT&PF

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

Pavement Inspection Report
Adak Airport

Airport Name	IATA	ICAO	Latitude	Longitude	Elevation (ft)
Adak Airport	ADK	PADK	51° 53' 0.898" N	176° 38' 32.936" W	19.5

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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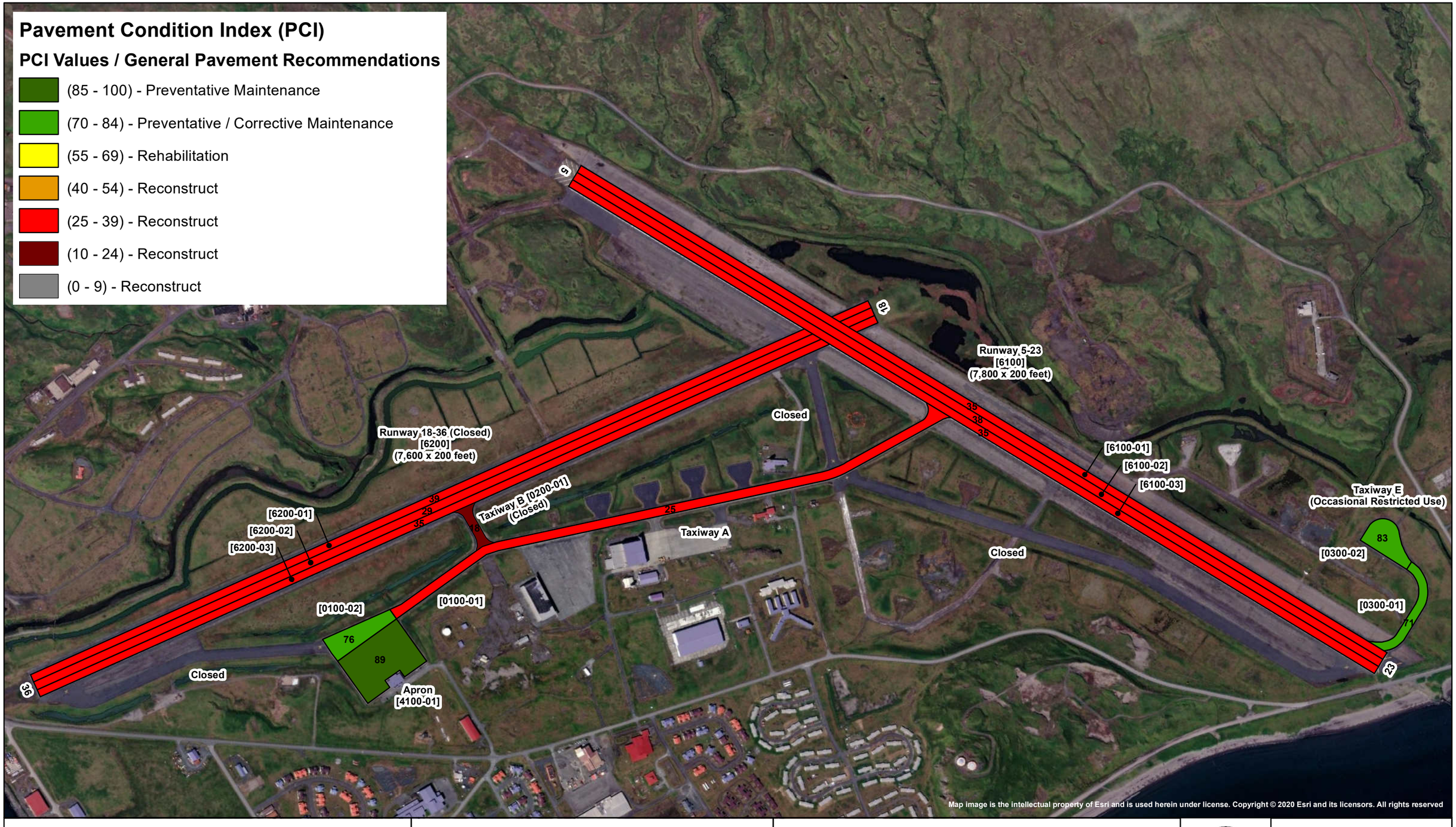
PCI Values / General Pavement Recommendations

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



Adak Airport

Airport Code: ADK
Site Number: 50009.*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

0 500 1,000 2,000
Feet

Map Created by Duval Engineering
for AK DOT&PF

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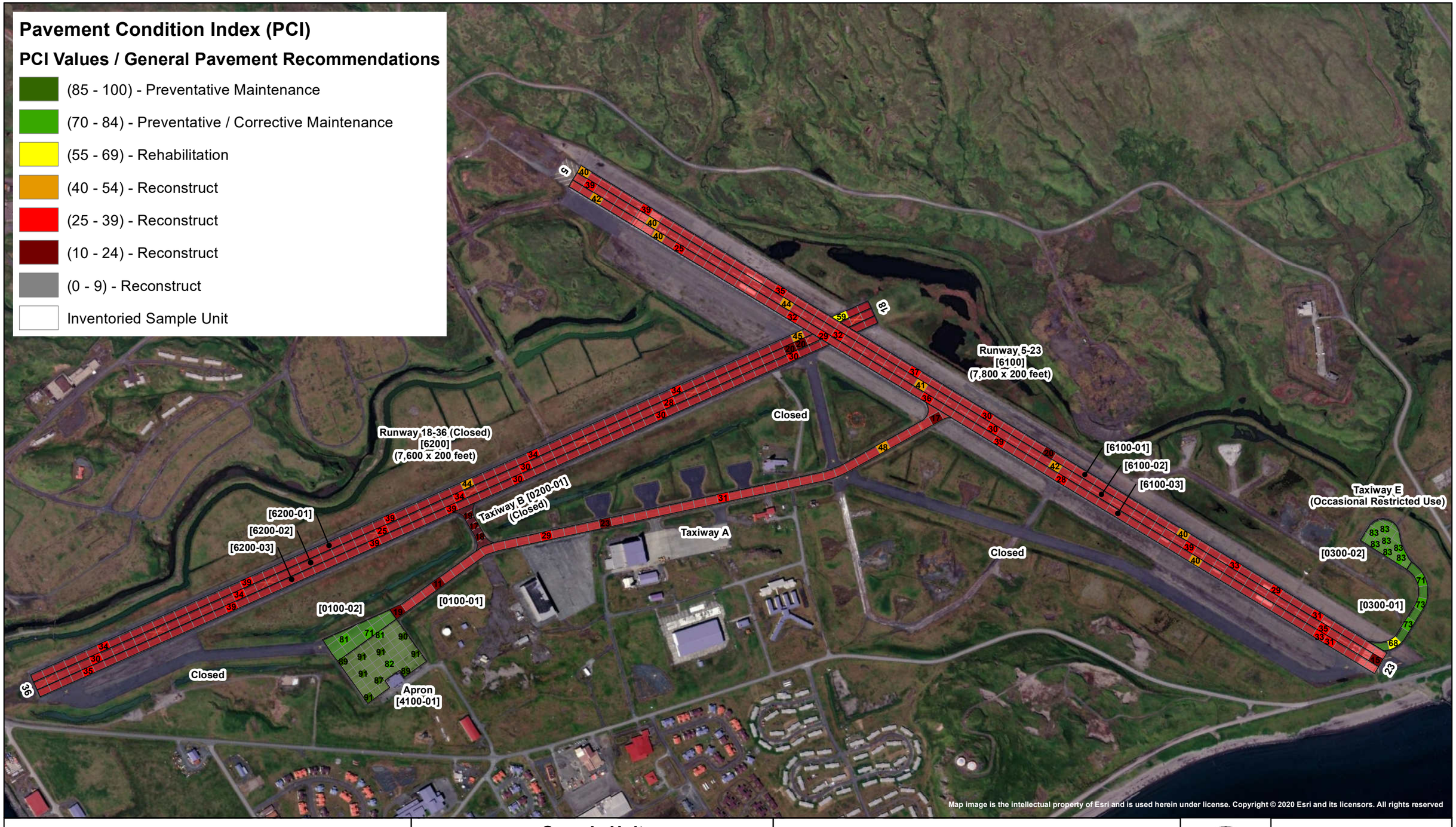
Pavement Condition Index (PCI)

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



Adak Airport

Airport Code: ADK
Site Number: 50009.*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

0 500 1,000 2,000
Feet

Map Created by Duval Engineering
for AK DOT&PF

Map 2 of 6

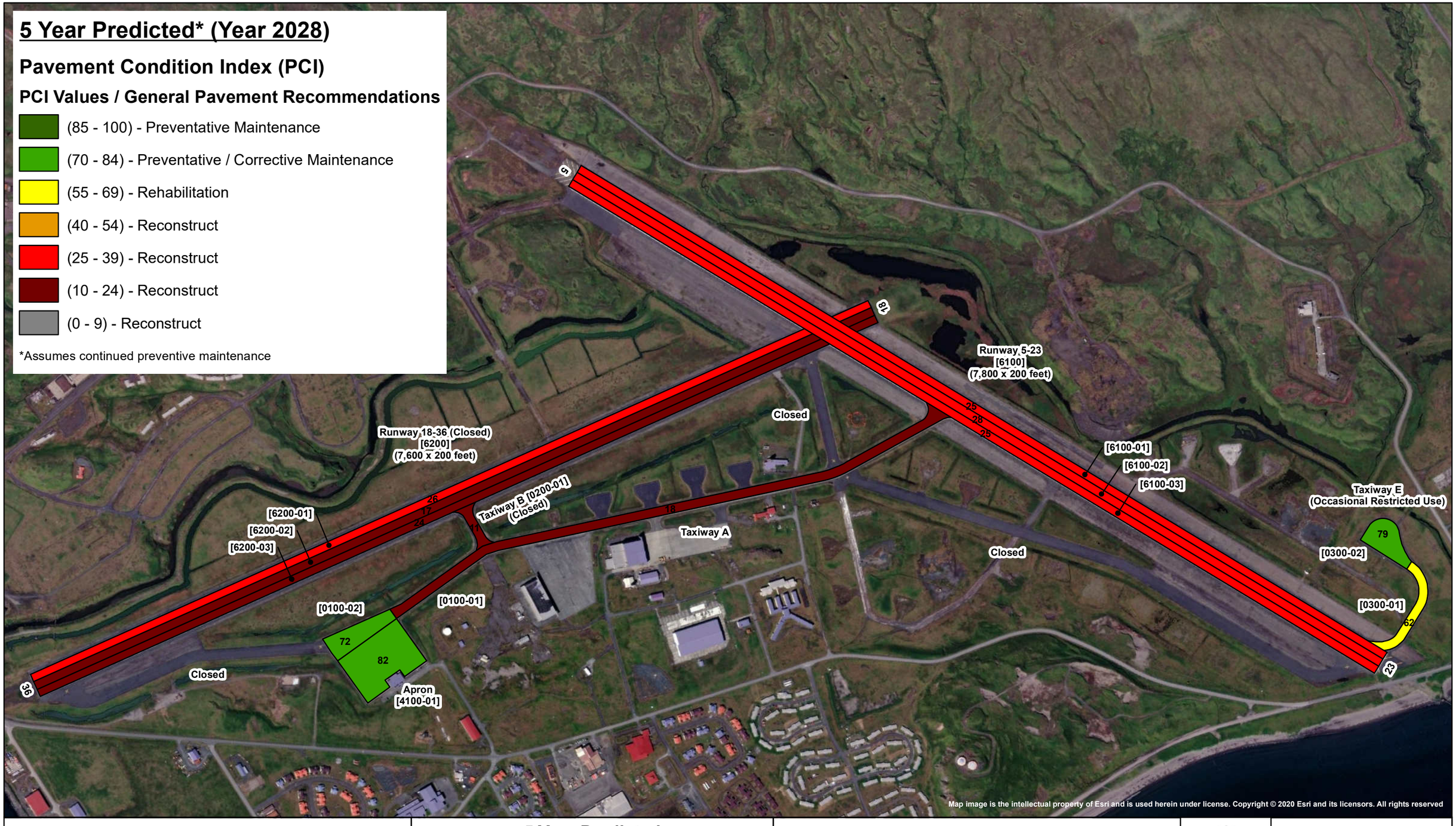
5 Year Predicted* (Year 2028)

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



Adak Airport

Airport Code: ADK
Site Number: 50009.*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

0 500 1,000 2,000
Feet

Map Created by Duval Engineering
for AK DOT&PF

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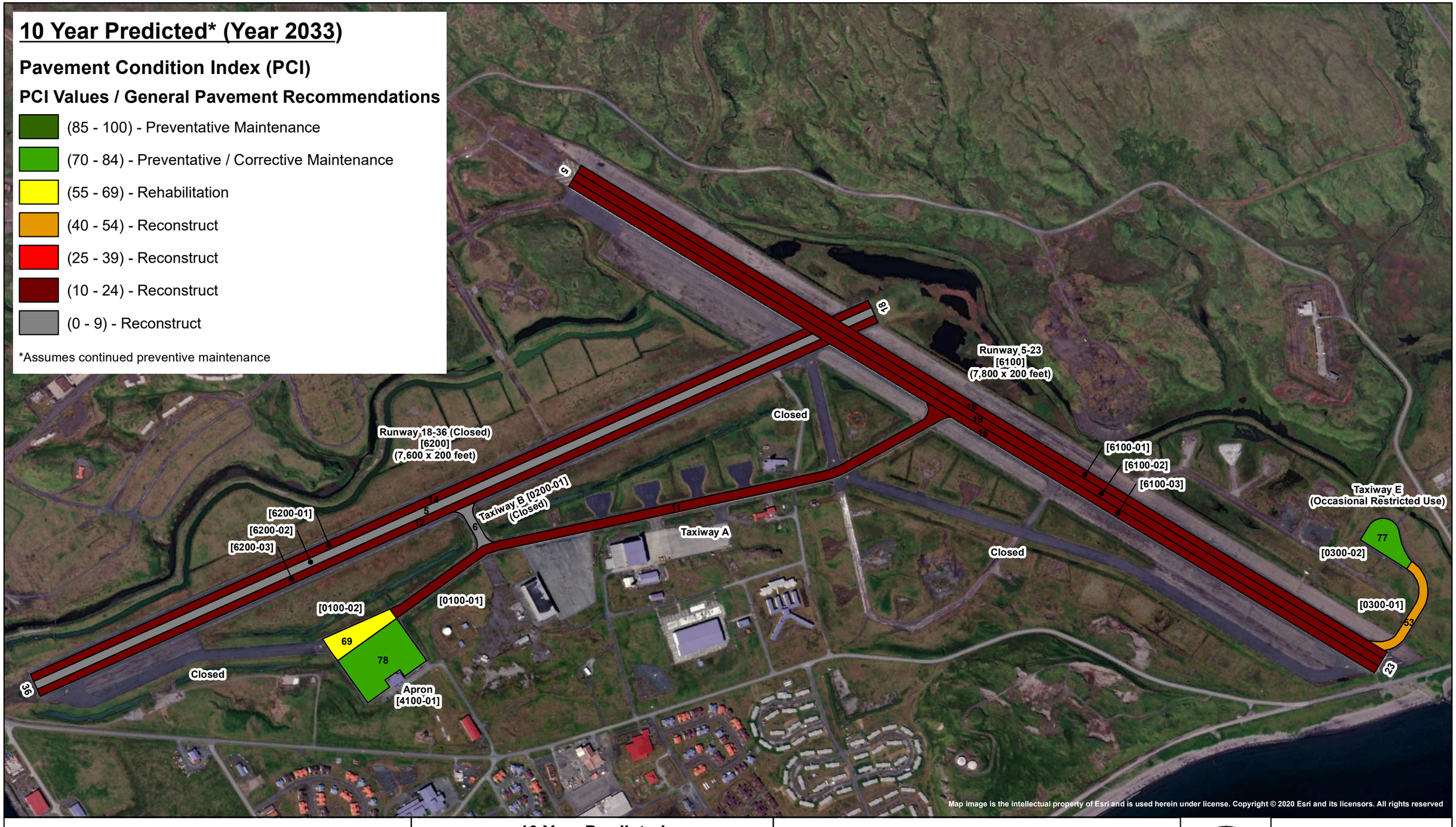
10 Year Predicted* (Year 2033)

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



Adak Airport

Airport Code: ADK
Site Number: 50009.*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

0 500 1,000 2,000
Feet

Map Created by Duval Engineering
for AK DOT&PF

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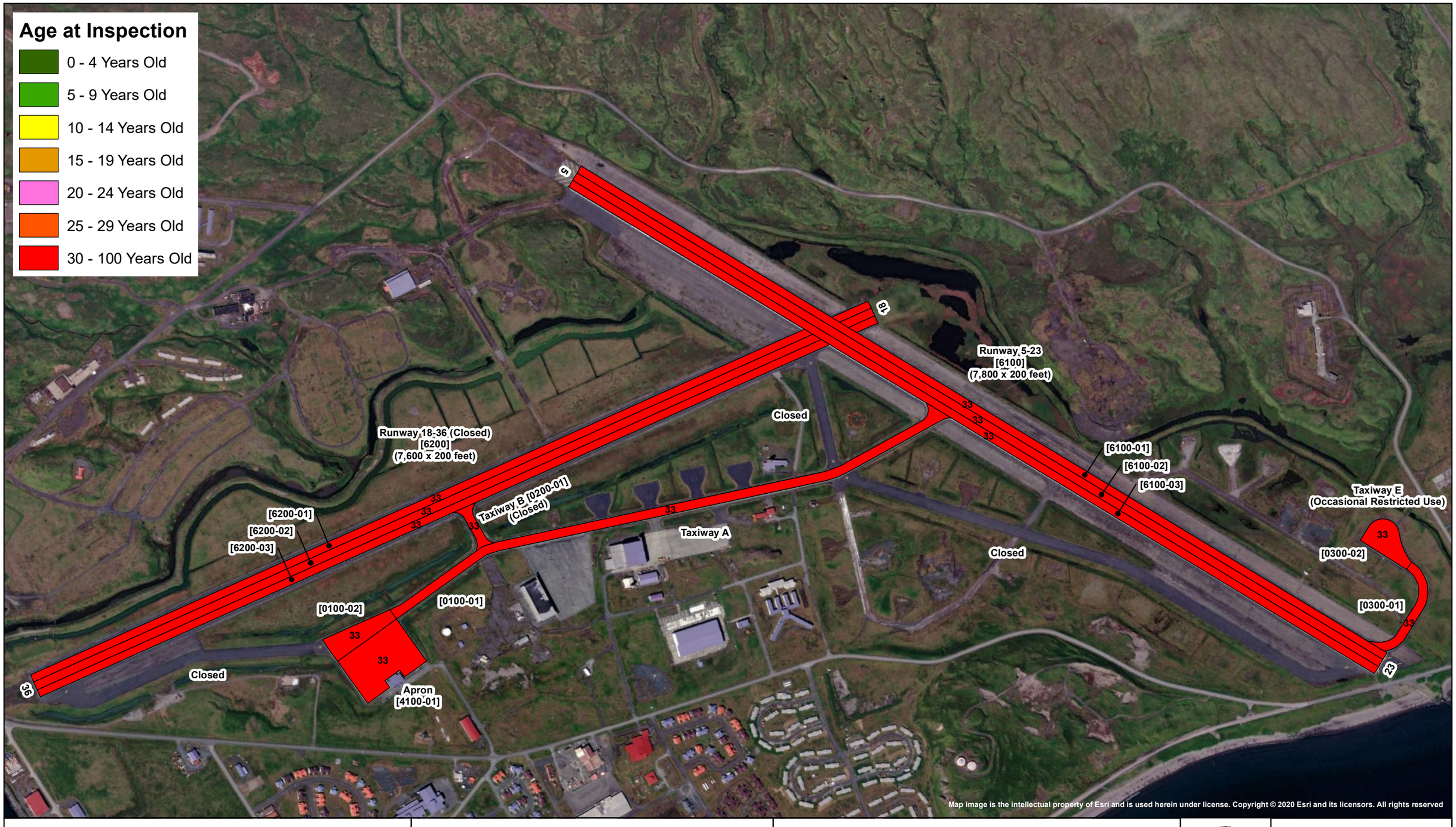

Adak Airport

Airport Code: ADK
Site Number: 50009.*A

Pavement Age at Inspection

2023 Pavement Inspection Results

0 500 1,000 2,000
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 5-23
[6100]
(7,800 x 200 feet)

Runway 18-36 (Closed)
[6200]
(7,600 x 200 feet)

Closed

[6100-01]
[6100-02]
[6100-03]

Taxiway E
(Occasional Restricted Use)

[6200-01]
[6200-02]
[6200-03]

Taxiway B [0200-01]
(Closed)

Taxiway A

[0300-02]

[0300-01]

[0100-02]

[0100-01]

Closed

Apron
[4100-01]

Adak Airport

Airport Code: ADK
Site Number: 50009.*A

Pavement Crack Seal Condition (CSC)

2023 Pavement Inspection Results

0 500 1,000 2,000
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	2	471,761	35

Taxiway A was constructed in 1990 and has not received major work since. Occasional crack seal operations have been performed on the branch. The most common distresses observed are medium to high severity longitudinal and transverse cracking, low to high severity raveling, and low severity alligator cracking. Field observations include further deterioration of the top layer of asphalt which is contributing to higher quantity and severity raveling throughout the branch. Efforts have been made to seal areas of high cracking and raveling, but the sealant is failing.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0200	Taxiway B	Inactive	1	32,765	18

Like Taxiway A, Taxiway B was constructed in 1990 and has not received any major work since. At the time of the inspection Taxiway B was designated as inactive. Occasional crack seal operations have been performed on the branch. The most common distresses observed are medium severity longitudinal and transverse cracking, low to high severity raveling, and low severity alligator cracking. Field observations include paint markings having been milled which created large areas of high raveling. Efforts have been made to seal areas of high raveling, but the sealant is failing.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0300	Taxiway E	Taxiway	2	156,369	78

AC Section 0300-01 (71 PCI)

Like Taxiway A and B, Taxiway C was constructed in 1990 and has not received any major work since. Taxiway C is designated as restricted use and consists of two sections, of which one is AC and the other is PCC. The AC section was constructed in 1990. Crack seal operations have not been performed on the branch. The most common distresses observed are low to medium severity longitudinal and transverse cracking and low severity raveling. Field observations include the paving joints continuing to deteriorate and widen leading to higher severity distresses. Vegetation was observed growing in the paving joints.

PCC Section 0300-02 (83 PCI)

The PCC section was also constructed in 1990 and has not received any major work since. The most common distresses observed are high severity joint seal damage and low severity scaling. Field observations include wearing of the surface of the concrete leading to the low severity scaling, and vegetation growth in every joint leading to the high severity joint seal damage.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
4100	Apron	Apron	1	247,647	89

The apron was constructed in 1990 and has not received any work since. The most common distresses observed are low severity joint seal damage, low severity scaling, and low severity joint and corner spalling. Field observations include wearing of the surface of the concrete leading to the low severity scaling and the occasional joint or corner spall located by the high traffic areas of the apron.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
6100	Runway 05/23	Runway	3	1,560,000	36




Runway 05/23 was constructed in 1990 and has not received any major work since. Periodic crack seal operations have been performed on the branch since construction. The most common distresses observed are low to high severity longitudinal and transverse cracking and low to high severity raveling. Field observations include further deterioration of the top layer of asphalt, contributing to higher quantity and severity raveling throughout the branch. Efforts have been made to seal areas of high raveling, but the sealant is failing.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
6200	Runway 18/36	Inactive	3	1,568,000	34




Runway 18/36 was constructed in 1990 and has not received any major work since. The runway is designated inactive. Periodic crack seal operations have been performed on the branch since construction. The most common distresses observed are low to high severity longitudinal and transverse cracking and low to high severity raveling. Field observations include paint markings having been milled which created large areas of high raveling. A previous study took place where a vertical pipe was installed in the pavement to examine groundwater tendencies. This study has since concluded but the pipe is still extruding from the pavement surface.

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	2	5,535	115	471,761	TAXIWAY	50.45	25.45	35.18
0200	1	350	75	32,765	INACTIVE	18.00	0.00	18.00
0300	2	1,355	173	156,369	INACTIVE	77.00	6.00	77.79
4100	1	430	600	247,647	APRON	89.00	0.00	89.00
6100	3	23,400	67	1,560,000	RUNWAY	35.93	1.39	35.98
6200	3	22,800	67	1,568,000	INACTIVE	34.20	4.20	34.06

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	1	247,647	89.00	0.00	89.00
INACTIVE	6	1,757,134	45.77	23.27	37.65
RUNWAY	3	1,560,000	35.93	1.39	35.98
TAXIWAY	2	471,761	50.45	25.45	35.18
ALL	12	4,036,542	47.69	23.64	39.87

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	6/1/1990	AAC	TAXIWAY	A	377,441	6/1/2023	33	25
0100	0100-02	6/1/1990	AAC	TAXIWAY	A	94,320	6/1/2023	33	76
0200	0200-01	6/1/1990	AAC	INACTIVE	A	32,765	6/1/2023	33	18
0300	0300-01	6/1/1990	AAC	INACTIVE	A	67,899	6/1/2023	33	71
0300	0300-02	6/1/1990	PCC	INACTIVE	A	88,470	6/1/2023	33	83
4100	4100-01	6/1/1990	PCC	APRON	A	247,647	6/1/2023	33	89
6100	6100-01	6/1/1990	AAC	RUNWAY	A	507,000	6/1/2023	33	35
6100	6100-02	6/1/1990	AAC	RUNWAY	A	546,000	6/1/2023	33	38
6100	6100-03	6/1/1990	AAC	RUNWAY	A	507,000	6/1/2023	33	35
6200	6200-01	6/1/1990	AAC	INACTIVE	A	509,600	6/1/2023	33	39
6200	6200-02	6/1/1990	AAC	INACTIVE	A	548,800	6/1/2023	33	29
6200	6200-03	6/1/1990	AAC	INACTIVE	A	509,600	6/1/2023	33	35

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
31-35	33	4,036,542	12	47.69	23.64	39.87
ALL	33	4,036,542	12	47.69	23.64	39.87

Work History Report

Pavement Database: Alaska

Network: Adak Airport **Branch:** 0100 Taxiway A **Section:** 0100-01 **Surface:**AAC
L.C.D. 6/1/1990 **Use:** TAXIWAY **Rank:** A **Length:** 4,935.00 (Ft) **Width:** 75.00 (Ft) **True Area:** 377441.0001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 0100 Taxiway A **Section:** 0100-02 **Surface:**AAC
L.C.D. 6/1/1990 **Use:** TAXIWAY **Rank:** A **Length:** 600.00 (Ft) **Width:** 155.00 (Ft) **True Area:** 94320.00002 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 0200 Taxiway B **Section:** 0200-01 **Surface:**AAC
L.C.D. 6/1/1990 **Use:** INACTIVE **Rank:** A **Length:** 350.00 (Ft) **Width:** 75.00 (Ft) **True Area:** 32765.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 0300 Taxiway E **Section:** 0300-01 **Surface:**AAC
L.C.D. 6/1/1990 **Use:** INACTIVE **Rank:** A **Length:** 900.00 (Ft) **Width:** 75.00 (Ft) **True Area:** 67899.00002 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 0300 Taxiway E **Section:** 0300-02 **Surface:**PCC
L.C.D. 6/1/1990 **Use:** INACTIVE **Rank:** A **Length:** 455.00 (Ft) **Width:** 270.00 (Ft) **True Area:** 88470.00002 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 4100 Apron **Section:** 4100-01 **Surface:**PCC
L.C.D. 6/1/1990 **Use:** APRON **Rank:** A **Length:** 430.00 (Ft) **Width:** 600.00 (Ft) **True Area:** 247647.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 6100 05/23 **Section:** 6100-01 **Surface:**AAC
L.C.D. 6/1/1990 **Use:** RUNWAY **Rank:** A **Length:** 7,800.00 (Ft) **Width:** 65.00 (Ft) **True Area:** 507000.0001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 6100 05/23 **Section:** 6100-02 **Surface:**AAC
L.C.D. 6/1/1990 **Use:** RUNWAY **Rank:** A **Length:** 7,800.00 (Ft) **Width:** 70.00 (Ft) **True Area:** 546000.0001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 6100 05/23 **Section:** 6100-03 **Surface:** AAC

L.C.D. 6/1/1990 **Use:** RUNWAY **Rank:** A **Length:** 7,800.00 (Ft) **Width:** 65.00 (Ft) **True Area:** 507000.0001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 6200 18/36 **Section:** 6200-01 **Surface:** AAC

L.C.D. 6/1/1990 **Use:** INACTIVE **Rank:** A **Length:** 7,600.00 (Ft) **Width:** 65.00 (Ft) **True Area:** 509600.0001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 6200 18/36 **Section:** 6200-02 **Surface:** AAC

L.C.D. 6/1/1990 **Use:** INACTIVE **Rank:** A **Length:** 7,600.00 (Ft) **Width:** 70.00 (Ft) **True Area:** 548800.0001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	NC-IN	New Construction - Initial	0.00	0.00	☑ X	(Funded via AIP)

Network: Adak Airport **Branch:** 6200 18/36 **Section:** 6200-03 **Surface:** AAC

L.C.D. 6/1/1990 **Use:** INACTIVE **Rank:** A **Length:** 7,600.00 (Ft) **Width:** 65.00 (Ft) **True Area:** 509600.0001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/1990	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	12	4,036,542.00	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	11	P-401	11	P-208	31	P-154	SM	14
	0100-02	11	P-401	11	P-208	31	P-154	SM	14
Taxiway B 200, Closed (Note 1)	0200-01	11	P-401	11	P-208	31	P-154	SM	14
Taxiway E 300	0300-01	11	P-401	11	P-208	31	P-154	SM	14
	0300-02	24	PCC			5	P-154	SM	14
Apron 4100	4100-01	18	P-401	10	P-208	14	P-154	SM	14
Runway 5/23 6100	6100-01	18	P-401	10	P-208	14	P-154	SM	14
	6100-02 keel	18	P-401	10	P-208	14	P-154	SM	14
	6100-03	18	P-401	10	P-208	14	P-154	SM	14
Runway 18/36 6200 Closed (Note 2)	6200-01	18	P-401	10	P-208	14	P-154	SM	14
	6200-02 keel	18	P-401	10	P-208	14	P-154	SM	14
	6200-03	11	P-401	11	P-208	31	P-154	SM	14

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	23	227
2	Beechcraft King Air B200	12,590	95.00	98	4	38
3	Saab 340B	29,000	95.00	55	2	23
4	B737-400	150,500	93.80	185	4	60
5	B737-7 MAX	177,500	93.60	204	197	2,895
6	L-100-20	155,801	96.40	104	4	76
7	B737-800	174,700	93.60	204	68	996
8	B737-900 ER	188,200	94.60	220	2	29
9	C-130-70	155,000	95.00	105	19	357
10	C-17A	585,000	95.00	138	2	64

PAVEMENT CLASSIFICATION RATINGS

Runway	Critical Aircraft	Max Allowable Wt (lb)	Subgrade Mr (psi)	Evaluation Thickness (in)	Pass to Traffic Cycle Ratio	PCR
5-23	B737-7 MAX	670001	21000	42.0	1.0	2482/F/B/W/T

PCR CALCULATION NOTES

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

REFERENCES

Year	Project No.	Document Title
2020	SFATP00194	Geological Report Runway Taxiway Apron Rehabilitation
2018	APEB	Runway and Taxiway Rehabilitation
2015	54972	Runway Safety Improvements
2013	54972	Geological Report Runway Improvements
1959		Geological Report - Communication Facility