Alaska DOT&PF

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

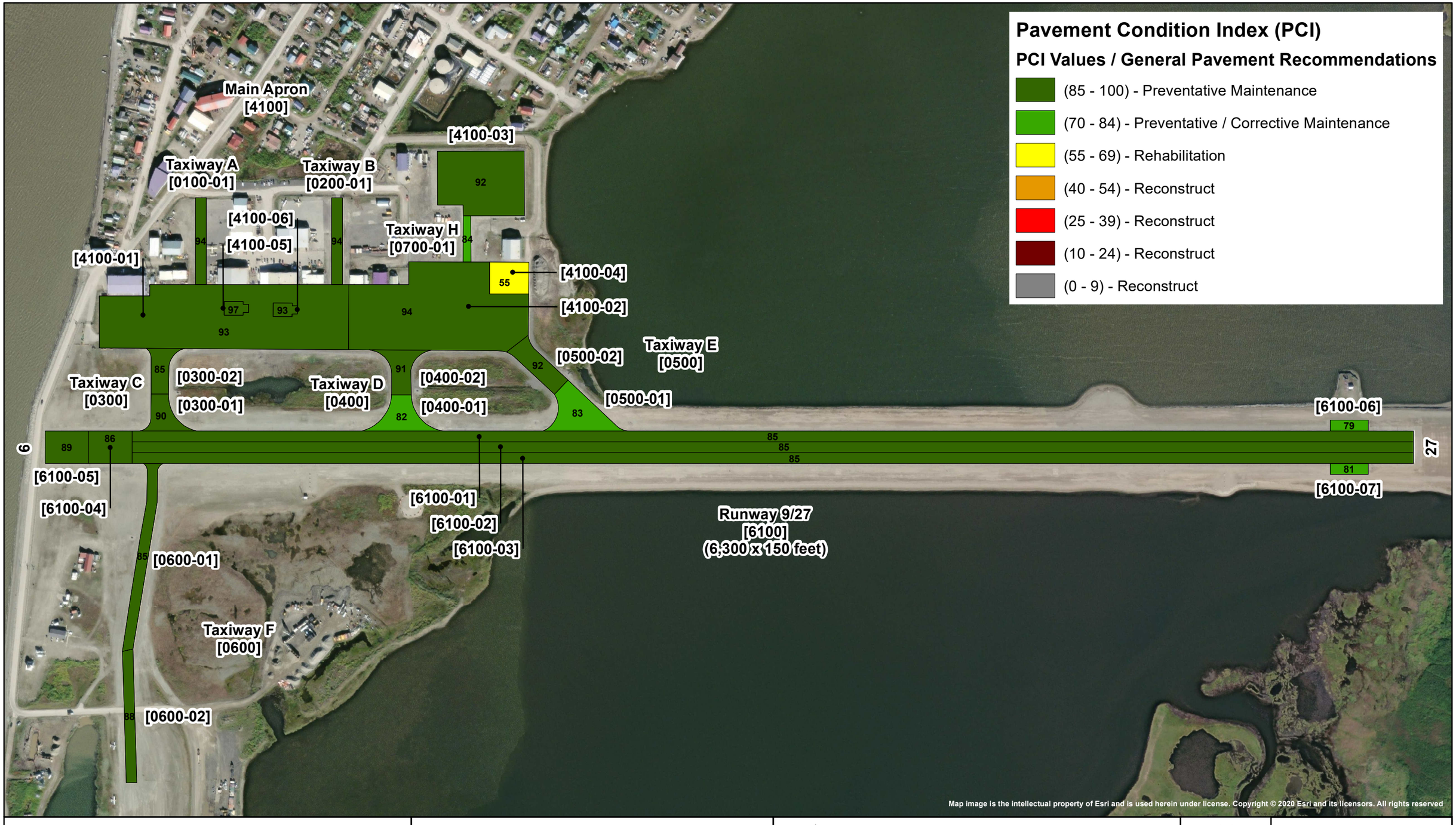
Pavement Inspection Report
Kotzebue Airport

Airport Name	IATA	ICAO	Latitude	Longitude	Elevation (ft)
Ralph Wein Memorial Airport	OTZ	PAOT	66° 53' 5.3" N	162° 35' 53.3" W	15.4

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
Mr. Andrew Pavey, Pavement Management Engineer	(907) 269 6213	andrew.pavey@alaska.gov	July 2024	December 2024

TABLE OF CONTENTS



Kotzebue Airport

Airport Code: OTZ
Site Number: 50429.*A

Pavement Condition Index (PCI)

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

N E S W

2024 Pavement Inspection Results

0 300 600 1,200
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 1 of 6

Kotzebue Airport

Airport Code: OTZ
Site Number: 50429.*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

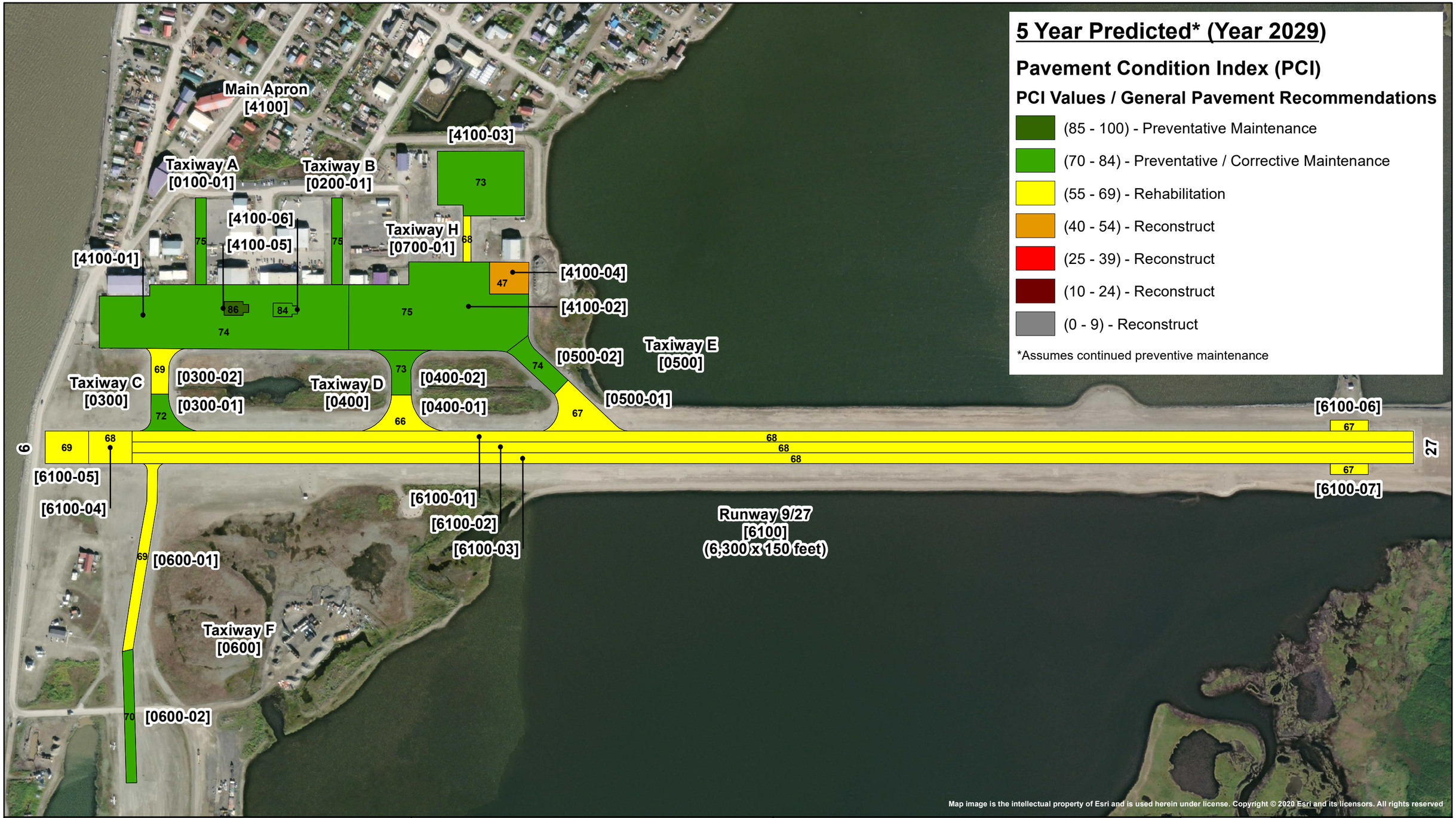
N E S W

2024 Pavement Inspection Results

0 300 600 1,200
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 2 of 6



5 Year Predicted* (Year 2029)

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

Kotzebue Airport

Airport Code: OTZ
Site Number: 50429.*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

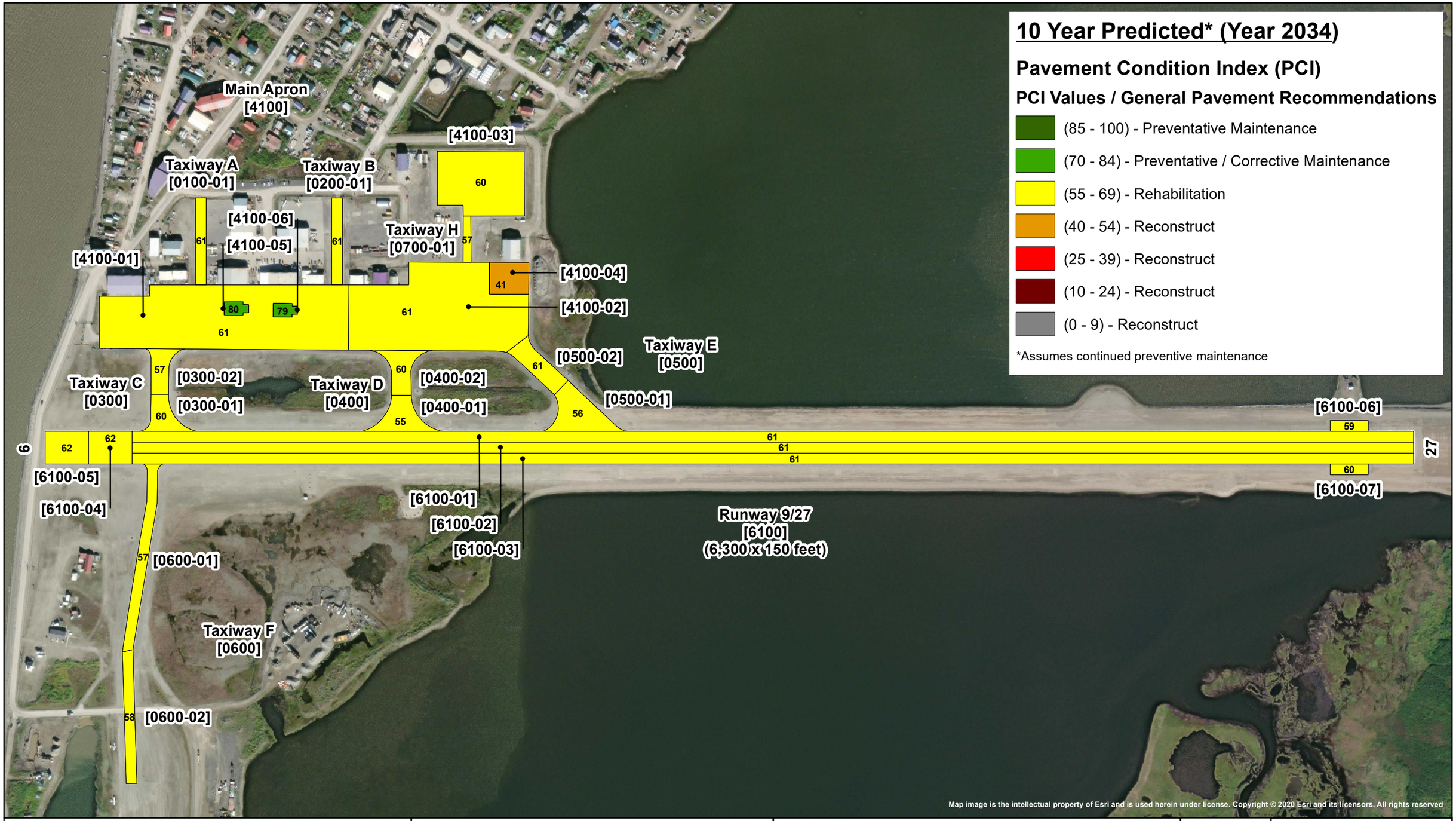
N E S W

2024 Pavement Inspection Results

0 300 600 1,200
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 3 of 6



Kotzebue Airport

Airport Code: OTZ
Site Number: 50429.*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

N E S W

2024 Pavement Inspection Results

0 300 600 1,200
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 4 of 6

Kotzebue Airport

Airport Code: OTZ
Site Number: 50429.*A

Pavement Age at Inspection

N E S W

2024 Pavement Inspection Results

0 300 600 1,200
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 5 of 6

Kotzebue Airport

Airport Code: OTZ
Site Number: 50429.*A

Pavement Crack Seal Condition (CSC)

N E S W

2024 Pavement Inspection Results

0 300 600 1,200
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	20,000	94

Taxiway A was initially constructed in 1994, the most recent major work was complete reconstruction in 2022. Crack seal operations have not yet been performed on the branch. The most common distresses observed are low severity longitudinal and transverse cracking, low severity raveling, and low severity weathering. Field observations include the initial wearing of the pavement surface and the development of cracking along the taxiway.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0200	Taxiway B	Taxiway	1	20,000	94

Taxiway B was initially constructed in 1994, the most recent major work was complete reconstruction in 2022. Crack seal operations have been performed on the branch. The most common distresses observed are low severity longitudinal and transverse cracking, low severity raveling, and low severity weathering. Field observations include the initial wearing of the pavement surface and the development of cracking along the taxiway.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0300	Taxiway C	Taxiway	2	38,958	88

Taxiway C was initially constructed in 1975, the most recent major work was complete reconstruction in 2016 which realigned the taxiway to be perpendicular to the runway. Occasional crack seal operations have been performed on the branch. The most common distresses observed are low to medium severity longitudinal and transverse cracking, low severity raveling, and low severity weathering. Field observations include sealed transverse cracks that are starting to widen and depress increasing the distresses severity.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0400	Taxiway D	Taxiway	2	50,941	86

Section 0400-01 (82 PCI)

Taxiway D Section 0400-01 was initially constructed in 1975 then received a surface reconstruction along with the runway in 2011. The most common distresses observed are low to medium severity depressions, low to medium severity longitudinal and transverse cracking, low severity patching, and low to medium severity weathering. Field observations include the development of depressions across the taxiway as well as a patched area that is beginning to depress and hold water again.

Section 0400-02 (91 PCI)

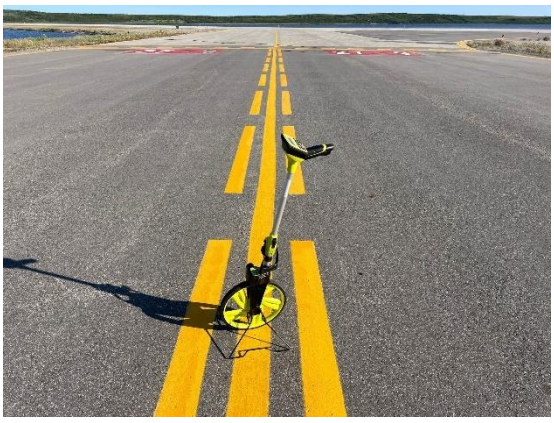
Taxiway D Section 0400-02 was initially constructed in 1975, the most recent major work was complete reconstruction in 2022. Crack seal operations have been performed on the section. The most common distresses observed are low severity longitudinal and transverse cracking, low severity raveling, and low severity weathering. Field observations include the initial wearing of the pavement surface and the development of cracking along the taxiway.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0500	Taxiway E	Taxiway	2	67,719	86

Section 0500-01 (83 PCI)

Taxiway E Section 0500-01 was initially constructed in 1985 then received a surface reconstruction along with the runway in 2011. The most common distresses observed are low severity depressions, low to medium severity longitudinal and transverse cracking, low severity raveling, and low to medium severity weathering. Field observations include the development of depressions across the taxiway as well as the pavements surface beginning to deteriorate leading to higher quantities and severities of raveling and weathering.

Section 0500-02 (92 PCI)



Taxiway E Section 0500-02 was initially constructed in 1985, the most recent major work was complete reconstruction in 2022. Crack seal operations have been performed on the section. The most common distresses observed are low to medium severity longitudinal and transverse cracking, and low severity weathering. Field observations include the development of new unfilled cracks as well as the widening of previously sealed cracks increasing the severity.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0600	Taxiway F	Taxiway	2	72,684	86

Taxiway F was initially constructed in 1975, both sections were reconstructed in 2013 and then section 0600-01 was realigned in 2016 to directly match up with Taxiway C across the runway. Occasional crack seal operations have been performed on the branch. The most common distresses observed are low medium severity longitudinal and transverse cracking, low to medium severity raveling, and low to medium severity weathering. Field observations include sealed transverse cracks that are starting to widen and depress increasing the distresses severity.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0700	Taxiway H	Taxiway	1	7,590	84

Taxiway H was constructed in 2017 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 longitudinal and transverse cracking, low severity raveling, and low severity weathering. Field observations include sealed transverse cracks that are starting to widen and depress increasing the distresses severity.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
4100	Main Apron	Apron	6	745,409	92

AC Sections 4100-01 (93 PCI), 4100-02 (94 PCI)

The Main Apron Section 4100-01 was initially constructed in 1975 while AC section 4100-02 was initially constructed in 1985. Both sections were completely reconstructed in 2022 receiving 6" of foamed asphalt stabilized base course and 4" of new HMA. Crack seal operations have been performed on the branch. The most common distresses observed are low to severity longitudinal and transverse cracking, oil spillage, low to medium severity raveling, and low severity weathering. Field observations include the initial wearing of the pavement surface and the development of cracking across the apron.

AC Section 4100-03 (92 PCI)

The Main Apron Section 4100-03 was constructed in 2017 and has not received any major work since. Crack seal operations have not yet been performed on the branch. The most common distresses observed are oil spillage, medium to high severity raveling, and low severity weathering. Field observations include the initial wearing of the pavement surface, large areas of oil spillage beginning to soften the asphalt surface, and gouges in the asphalt due to propeller strikes, snow plow operations, etc.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
4100	Main Apron	Apron	6	745,409	92

AC Section 4100-04 (55 PCI)

The Main Apron Section 4100-04 was initially constructed in 1985 then received a thin overlay in 2011. Occasional crack seal operations have been performed on the branch. The most common distresses observed are low severity block cracking, low severity depressions, low to high severity longitudinal and transverse cracking, low severity raveling, and low to medium severity weathering. Field observations include further deterioration of the pavements surface leading to higher quantities and severities of raveling and weathering. The longitudinal and transverse cracks are expanding also increasing the quantities and severities.

PCC Section 4100-05 (97 PCI), 4100-06 (93 PCI)

The Main Apron PCC hardstands, Sections 4100-05 and 4100-06, were constructed in 2022 and have not received any major work since. The most common distresses observed are low severity joint seal damage, low to medium severity joint spall, and low severity corner spall. Field observations include minor damage to the joint seal and a few spalls on both hardstands.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
6100	Runway 09/27	Runway	7	962,500	85




Runway 09/27 was initially constructed in 1975 and underwent a surface reconstruction in 2011. Regular crack seal operations have been performed on the branch. The most common distresses observed are low severity depressions, low severity longitudinal and transverse cracking, low severity patching, low to high severity raveling, and low to medium severity weathering. Field observations include further deterioration of the top layer of asphalt, contributing to higher quantity and severity of raveling and weathering. There have been settlement issues causing depressions across the runway, some of the larger areas of concern were repaired as part of the Runway Settlement Repair Project NFAPT00650 (Runway full width between Taxiway D and Taxiway E).

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	400	50	20,000	TAXIWAY	93.50	0.00	93.50
0200	1	400	50	20,000	TAXIWAY	93.50	0.00	93.50
0300	2	380	80	38,958	TAXIWAY	87.70	2.60	87.74
0400	2	375	90	50,941	TAXIWAY	86.40	4.80	86.06
0500	2	565	90	67,719	TAXIWAY	87.40	4.90	86.34
0600	2	1,480	50	72,684	TAXIWAY	86.30	1.30	86.07
0700	1	212	35	7,590	TAXIWAY	84.40	0.00	84.40
4100	6	2,780	195	745,409	APRON	87.00	14.48	91.62
6100	7	18,450	79	962,500	RUNWAY	84.13	2.90	84.78

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	6	745,409	87.00	14.48	91.62
RUNWAY	7	962,500	84.13	2.90	84.78
TAXIWAY	11	277,892	87.91	4.22	87.39
ALL	24	1,985,801	86.58	8.10	87.71

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	6/1/2022	AC	TAXIWAY	T	20,000	7/20/2024	2	94
0200	0200-01	6/1/2022	AC	TAXIWAY	T	20,000	7/20/2024	2	94
0300	0300-01	6/29/2016	AC	TAXIWAY	P	19,804	7/20/2024	8	90
0300	0300-02	6/9/2016	AC	TAXIWAY	P	19,154	7/20/2024	8	85
0400	0400-01	9/1/2011	AAC	TAXIWAY	P	27,268	7/20/2024	13	82
0400	0400-02	6/1/2022	AAC	TAXIWAY	P	23,673	7/20/2024	2	91
0500	0500-01	9/1/2011	AAC	TAXIWAY	P	41,186	7/20/2024	13	83
0500	0500-02	6/1/2022	AAC	TAXIWAY	P	26,533	7/20/2024	2	92
0600	0600-01	6/29/2016	AC	TAXIWAY	T	42,826	7/20/2024	8	85
0600	0600-02	6/15/2013	AC	TAXIWAY	T	29,858	7/20/2024	11	88
0700	0700-01	6/24/2017	AAC	TAXIWAY	T	7,590	7/20/2024	7	84
4100	4100-01	6/1/2022	AAC	APRON	P	314,743	7/20/2024	2	93
4100	4100-02	6/1/2022	AAC	APRON	P	278,203	7/20/2024	2	94
4100	4100-03	6/24/2017	AAC	APRON	T	113,251	7/20/2024	7	92
4100	4100-04	7/1/2011	AAC	APRON	P	26,400	7/20/2024	13	55
4100	4100-05	6/1/2022	PCC	APRON	P	6,406	7/20/2024	2	97
4100	4100-06	6/1/2022	PCC	APRON	P	6,406	7/20/2024	2	93
6100	6100-01	9/1/2011	AAC	RUNWAY	P	295,000	7/20/2024	13	85
6100	6100-02	9/1/2011	AAC	RUNWAY	P	295,000	7/20/2024	13	85
6100	6100-03	9/1/2011	AAC	RUNWAY	P	295,000	7/20/2024	13	85
6100	6100-04	9/1/2011	AAC	RUNWAY	P	30,000	7/20/2024	13	86
6100	6100-05	9/1/2015	AC	RUNWAY	P	30,000	7/20/2024	9	89
6100	6100-06	9/1/2011	AC	RUNWAY	P	8,750	7/20/2024	13	79
6100	6100-07	9/1/2011	AC	RUNWAY	P	8,750	7/20/2024	13	81

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
00-02	2	695,964	8	93.28	1.44	93.16
06-10	8	232,625	6	87.47	2.78	89.06
11-15	13	1,057,212	10	80.69	8.96	83.83
ALL	8	1,985,801	24	86.58	8.10	87.71

Work History Report

Pavement Database: Alaska

Network: Kotzebue (Ralph Wei **Branch:** 0100 Taxiway A **Section:** 0100-01 **Surface:**AC

L.C.D. 6/1/2022 **Use:** TAXIWAY **Rank:** T **Length:** 400.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 20000 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/2022	CR-AC	Complete Reconstruction - AC	0.00	3.00	☑	3” HMA with 8” Crushed Asphalt Bas
9/8/1994	NC-IN	New Construction - Initial	0.00	0.00	☑	Initial paving, (Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 0200 Taxiway B **Section:** 0200-01 **Surface:**AC

L.C.D. 6/1/2022 **Use:** TAXIWAY **Rank:** T **Length:** 400.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 20000 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/2022	CR-AC	Complete Reconstruction - AC	0.00	3.00	☑	3” HMA with 8” Crushed Asphalt Bas
9/8/1994	NC-IN	New Construction - Initial	0.00	0.00	☑	Initial paving, (Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 0300 Taxiway C **Section:** 0300-01 **Surface:**AC

L.C.D. 6/29/2016 **Use:** TAXIWAY **Rank:** P **Length:** 170.00 (Ft) **Width:** 80.00 (Ft) **True Area:** 19804 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/29/2016	CR-AC	Complete Reconstruction - AC	0.00	4.00	☑	4" HMA, (Funded via AIP)
6/29/2016	CR-AC	Complete Reconstruction - AC	0.00	8.00	☑	8" Gravel, (Funded via AIP)
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	8.00	☑	, 8" Gravel, (Funded via AIP)
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	4.00	☑	4" AC, (Funded via AIP)
9/11/1975	NC-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 0300 Taxiway C **Section:** 0300-02 **Surface:**AC

L.C.D. 6/9/2016 **Use:** TAXIWAY **Rank:** P **Length:** 210.00 (Ft) **Width:** 80.00 (Ft) **True Area:** 19154 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/9/2016	CR-AC	Complete Reconstruction - AC	0.00	4.00	☑	4" HMA, (Funded via AIP)
6/9/2016	CR-AC	Complete Reconstruction - AC	0.00	8.00	☑	8" Gravel, (Funded via AIP)
8/26/2004	PA-AL	Patching - AC Leveling	0.00	0.00	☐	(Funded via AIP)
8/15/2002	SR-AC	Surface Reconstruction - AC	0.00	0.00	☑	(Funded via AIP)
9/11/1975	CR-AC	Complete Reconstruction - AC	0.00	0.00	☑	Initial const., (Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 0400 Taxiway D **Section:** 0400-01 **Surface:**AAC

L.C.D. 9/1/2011 **Use:** TAXIWAY **Rank:** P **Length:** 165.00 (Ft) **Width:** 90.00 (Ft) **True Area:** 27268 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	8.00	☑	, 8" Gravel, (Funded via AIP)
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	4.00	☑	4" AC, (Funded via AIP)
9/7/1975	NC-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 0400 Taxiway D **Section:** 0400-02 **Surface:**AC

L.C.D. 6/1/2022 **Use:** TAXIWAY **Rank:** P **Length:** 210.00 (Ft) **Width:** 90.00 (Ft) **True Area:** 23673 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/2022	CR-AC	Complete Reconstruction - AC	0.00	4.00	☑	4” HMA with 6” Foamed Asphalt Stab
7/1/2011	OL-AT	Overlay - AC Thin	0.00	1.50	☑	(Funded via AIP)
8/15/2002	SR-AC	Surface Reconstruction - AC	0.00	0.00	☑	(Funded via AIP)
9/7/1975	NC-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 0500 Taxiway E **Section:** 0500-01 **Surface:**AAC

L.C.D. 9/1/2011 **Use:** TAXIWAY **Rank:** P **Length:** 280.00 (Ft) **Width:** 90.00 (Ft) **True Area:** 41186 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	8.00	☑	, 8" Gravel, (Funded via AIP)
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	4.00	☑	4" AC, (Funded via AIP)
9/11/1985	NC-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 0500 Taxiway E **Section:** 0500-02 **Surface:**AC

L.C.D. 6/1/2022 **Use:** TAXIWAY **Rank:** P **Length:** 285.00 (Ft) **Width:** 90.00 (Ft) **True Area:** 26533 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/2022	CR-AC	Complete Reconstruction - AC	0.00	4.00	☑	4” HMA with 6” Foamed Asphalt Stab
7/1/2011	OL-AT	Overlay - AC Thin	0.00	1.50	☑	(Funded via AIP)
8/15/2002	SR-AC	Surface Reconstruction - AC	0.00	0.00	☑	(Funded via AIP)
8/11/1985	CR-AC	Complete Reconstruction - AC	0.00	0.00	☑	Initial construction, (Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 0600 Taxiway F **Section:** 0600-01 **Surface:**AC

L.C.D. 6/29/2016 **Use:** TAXIWAY **Rank:** T **Length:** 870.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 42826 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/29/2016	NC-AC	New Construction - AC	0.00	18.00	☑	18" Gravel, (Funded via AIP)
6/29/2016	NC-AC	New Construction - AC	0.00	2.00	☑	2" HMA, (Funded via AIP)
6/29/2013	SR-AC	Surface Reconstruction - AC	0.00	2.00	☑	2" HMA, (Funded via AIP)
6/29/2013	SR-AC	Surface Reconstruction - AC	0.00	4.00	☑	4" Base Course, (Funded via AIP)
9/11/1975	NC-IN	New Construction - Initial	0.00	0.00	☑	Initial pving. - RAP, (Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 0600 Taxiway F **Section:** 0600-02 **Surface:**AC

L.C.D. 6/15/2013 **Use:** TAXIWAY **Rank:** T **Length:** 610.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 29858 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/15/2013	NC-AC	New Construction - AC	0.00	4.00	☑	4" Base Course, (Funded via AIP)
6/15/2013	NC-IN	New Construction - Initial	0.00	2.00	☑	2" HMA, (Funded via AIP)
9/11/1975	NC-IN	New Construction - Initial	0.00	0.00	☑	Initial pving. - RAP, (Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 0700 Taxiway H **Section:** 0700-01 **Surface:**AAC

L.C.D. 6/24/2017 **Use:** TAXIWAY **Rank:** T **Length:** 212.00 (Ft) **Width:** 35.00 (Ft) **True Area:** 7590 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/24/2017	NC-IN	New Construction - Initial	0.00	2.00	☑	(Funded via AIP) 52" Gravel, 2" HMA

Network: Kotzebue (Ralph Wei **Branch:** 4100 Main Apron **Section:** 4100-01 **Surface:**AC

L.C.D. 6/1/2022 **Use:** APRON **Rank:** P **Length:** 1,150.00 (Ft) **Width:** 300.00 (Ft) **True Area:** 314743 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/2022	CR-AC	Complete Reconstruction - AC	0.00	4.00	☑	4" HMA with 6" Foamed Asphalt Stab
8/15/2002	SR-AC	Surface Reconstruction - AC	0.00	0.00	☑	(Funded via AIP)
9/11/1975	NC-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 4100 Main Apron **Section:** 4100-02 **Surface:**AC

L.C.D. 6/1/2022 **Use:** APRON **Rank:** P **Length:** 825.00 (Ft) **Width:** 300.00 (Ft) **True Area:** 278203 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/2022	CR-AC	Complete Reconstruction - AC	0.00	4.00	☑	4" HMA with 6" Foamed Asphalt Stab
7/1/2011	OL-AT	Overlay - AC Thin	0.00	1.50	☑	(Funded via AIP)
8/26/2004	PA-AL	Patching - AC Leveling	0.00	0.00	☐	(Funded via AIP)
8/15/2002	CR-AC	Complete Reconstruction - AC	0.00	0.00	☑	need to verify per plans, (Funded via
9/11/1985	NC-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 4100 Main Apron **Section:** 4100-03 **Surface:**AAC

L.C.D. 6/24/2017 **Use:** APRON **Rank:** T **Length:** 400.00 (Ft) **Width:** 300.00 (Ft) **True Area:** 113251 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/24/2017	NC-IN	New Construction - Initial	0.00	2.00	☑	(Funded via AIP) 52" Gravel, 2" HMA

Network: Kotzebue (Ralph Wei **Branch:** 4100 Main Apron **Section:** 4100-04 **Surface:**AAC

L.C.D. 7/1/2011 **Use:** APRON **Rank:** P **Length:** 180.00 (Ft) **Width:** 146.00 (Ft) **True Area:** 26400 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2011	OL-AT	Overlay - AC Thin	0.00	1.50	☑	(Funded via AIP)
8/26/2004	PA-AL	Patching - AC Leveling	0.00	0.00	☐	(Funded via AIP)
8/15/2002	CR-AC	Complete Reconstruction - AC	0.00	0.00	☑	need to verify per plans, (Funded via
9/11/1985	NC-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 4100 Main Apron **Section:** 4100-05 **Surface:**PCC

L.C.D. 6/1/2022 **Use:** APRON **Rank:** P **Length:** 112.50 (Ft) **Width:** 62.50 (Ft) **True Area:** 6406 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/2022	NC-IN	New Construction - Initial	0.00	0.00	☑	

Network: Kotzebue (Ralph Wei **Branch:** 4100 Main Apron **Section:** 4100-06 **Surface:**PCC

L.C.D. 6/1/2022 **Use:** APRON **Rank:** P **Length:** 112.50 (Ft) **Width:** 62.50 (Ft) **True Area:** 6406 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/2022	NC-IN	New Construction - Initial	0.00	0.00	☑	

Network: Kotzebue (Ralph Wei **Branch:** 6100 09/27 **Section:** 6100-01 **Surface:** AAC

L.C.D. 9/1/2011 **Use:** RUNWAY **Rank:** P **Length:** 5,900.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 295000 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	4.00	☑	4" AC, (Funded via AIP)
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	8.00	☑	8" Gravel, (Funded via AIP)
9/9/1994	AR-HO	AC Surface Recycling - Hot	0.00	4.00	☑	(Funded via AIP)
9/11/1975	NC-IN	New Construction - Initial	0.00	0.00	☑	Insulated SG, (Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 6100 09/27 **Section:** 6100-02 **Surface:** AAC

L.C.D. 9/1/2011 **Use:** RUNWAY **Rank:** P **Length:** 5,900.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 295000 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	4.00	☑	4" AC, (Funded via AIP)
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	8.00	☑	8" Gravel, (Funded via AIP)
9/8/1994	SR-AC	Surface Reconstruction - AC	0.00	4.00	☑	(Funded via AIP)
9/11/1975	NC-IN	New Construction - Initial	0.00	0.00	☑	Insulated SG, (Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 6100 09/27 **Section:** 6100-03 **Surface:** AAC

L.C.D. 9/1/2011 **Use:** RUNWAY **Rank:** P **Length:** 5,900.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 295000 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	8.00	☑	(Funded via AIP)
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	4.00	☑	4" AC, (Funded via AIP)
9/9/1994	AR-HO	AC Surface Recycling - Hot	0.00	4.00	☑	(Funded via AIP)
9/11/1975	NC-IN	New Construction - Initial	0.00	0.00	☑	Insulated SG, (Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 6100 09/27 **Section:** 6100-04 **Surface:** AAC

L.C.D. 9/1/2011 **Use:** RUNWAY **Rank:** P **Length:** 200.00 (Ft) **Width:** 150.00 (Ft) **True Area:** 30000 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	8.00	☑	(Funded via AIP)
9/1/2011	SR-AC	Surface Reconstruction - AC	0.00	4.00	☑	4" AC, (Funded via AIP)
9/9/1994	AR-HO	AC Surface Recycling - Hot	0.00	4.00	☑	(Funded via AIP)
9/11/1975	NC-IN	New Construction - Initial	0.00	0.00	☑	Insulated SG, (Funded via AIP)

Network: Kotzebue (Ralph Wei **Branch:** 6100 09/27 **Section:** 6100-05 **Surface:** AC

L.C.D. 9/1/2015 **Use:** RUNWAY **Rank:** P **Length:** 200.00 (Ft) **Width:** 150.00 (Ft) **True Area:** 30000 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2015	NC-IN	New Construction - Initial	0.00	0.00	☑	

Network: Kotzebue (Ralph Wei **Branch:** 6100 09/27 **Section:** 6100-06 **Surface:** AC

L.C.D. 9/1/2011 **Use:** RUNWAY **Rank:** P **Length:** 175.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 8750 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	NC-IN	New Construction - Initial	0.00	0.00	☑	

Network: Kotzebue (Ralph Wei **Branch:** 6100 09/27 **Section:** 6100-07 **Surface:**AC

L.C.D. 9/1/2011 **Use:** RUNWAY **Rank:** P **Length:** 175.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 8750 (SqFt)

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	NC-IN	New Construction - Initial	0.00	0.00	☑	

Work History Report

Pavement Database: Alaska

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
AC Surface Recycling - Hot	3	620,000.00	4.00	0.00
Complete Reconstruction - AC	14	1,111,358.00	3.29	2.55
New Construction - AC	3	115,510.00	8.00	7.12
New Construction - Initial	23	1,969,972.00	0.26	0.67
Overlay - AC Thin	4	354,809.00	1.50	0.00
Patching - AC Leveling	3	323,757.00	0.00	0.00
Surface Reconstruction - AC	21	2,771,271.00	4.48	2.89

PHYSICAL PROPERTY DATA

		Pavement		Base		Subbase		Subgrade	
Branch ID	Section ID	Thick (in)	Type	Thick (in)	Type	Thick (in)	Type	Type	CBR
Taxiway A 0100	0100-01	3	P-401	8	P-208	0		GP-E-3	17
Taxiway B 0200	0200-01	3	P-401	8	P-208	0		GP-E-3	17
Taxiway C 0300	0300-01	4	P-401	8	P-208	0		GP-E-3	17
	0300-02	3	P-401	8	P-208	0		GP-E-3	17
Taxiway D 0400	0400-01	4	P-401	10	P-208	0		GP-E-3	17
	0400-02	4	P-401	6	FASBC	0		GP-E-3	17
Taxiway E 0500	0500-01	4	P-401	10	P-208	0		GP-E-3	17
	0500-02	4	P-401	6	FASBC	0		GP-E-3	17
Taxiway F 0600	0600-01	4	P-401	8	P-208	18		GP-E-3	17
	0600-02	2	P-401	4	P-208	12 est	P-154	GP-E-3	17
Taxiway H 0700	0700-01	2	P-401	4	P-208	0		GP-E-3	17
Main Apron 4100	4100-01	4	P-401	6	FASBC	0		GP-E-3	17
	4100-02	4	P-401	6	FASBC	0		GP-E-3	17
	4100-03	2	P-401	4	P-208	0		GP-E-3	17
	4100-04	4	P-401	6	FASBC	0		GP-E-3	17
	4100-05 Hardstand	14	PCC	6	P-208	0		GP-E-3	17
	4100-06 Hardstand	14	PCC	6	P-208	0		GP-E-3	17
Runway 09/27 6100	6100-01 North 50’	4	P-401	8	P-208	18	P-154	GP-E-3	12
	6100-02 Keel	4	P-401	8	P-208	18	P-154	GP-E-3	12
	6100-03 South 50’	4	P-401	8	P-208	18	P-154	GP-E-3	12
	6100-04 West Displaced Threshold	4	P-401	8	P-208	10	P-154	GP-E-3	17
	6100-05 West Overrun	4	P-401	8	P-208	10	P-154	GP-E-3	17
	6100-06 Northeast Turnaround	4	P-401	8	P-208	18	P-154	GP-E-3	12
	6100-07 Southeast Turnaround	4	P-401	8	P-208	18	P-154	GP-E-3	12

Notes:
"est" = estimated, no construction as-builts available
"FASBC" = Foamed Asphalt Stabilized Base Course

AIRCRAFT FLEET MIX

No.	Aircraft	Gross Wt (lb)	% Gross Wt on Main Gear	Tire Pressure (psi)	Annual Departures	20 Yr Coverages
1	S-10	10,000	95.00	50	21	75
2	S-15	15,000	95.00	50	2,155	8,898
3	D-15	15,000	95.00	55	161	995
4	D-100	100,000	95.00	140	4	33
5	Cessna 206 Stationair	3,612	95.00	52	9	24
6	Cessna 208B	8,750	95.00	75	14,041	42,775
7	PA-31-325 Navajo C/R	6,536	95.00	66	1,816	5,257
8	Beechcraft King Air	12,590	95.00	98	54	271
9	Q100/Dash 8	34,700	94.40	131	138	839
10	L-100-20	155,801	96.40	104	311	3,641
11	Saab 340B	29,000	95.00	55	21	163
12	B737-100	111,000	92.00	157	251	1,940
13	B737-300	140,000	90.80	201	230	1,761
14	B737-400	150,500	93.80	185	261	2,140
15	B737-7 MAX	177,500	93.60	204	1,313	10,718
16	EMB-175 STD	83,026	95.00	136	386	2,922
17	DC9-51	122,000	94.00	172	99	796
18	MD-83	161,000	94.80	195	263	2,225
19	B737-800	174,700	93.60	204	354	2,873

PAVEMENT CLASSIFICATION RATINGS

Runway	Critical Aircraft	Max Allowable Wt (lb)	Subgrade Mr (psi)	Evaluation Thickness (in)	Pass to Traffic Cycle Ratio	PCR
09-27	B737-7 MAX	270,614	18,000	30.0	1.0	710/F/B/X/T

PCR CALCULATION NOTES

- 1% traffic growth assumed
- Subgrade strength reduction for frost applied
- S-10 and S-15 refer to “generic single gear aircraft as modeled in FAARFIELD
- D-15 and D-100 refer to “generic” dual gear aircraft as modeled in FAARFIELD

REFERENCES

Year	Project No.	Document Title
2022	3-02-0160-xxx, NFAPT00650	Runway Settlement Repair, As-Built
2020	3-02-0160-xxx,NFAPT00373	Apron Rehabilitation, As-Built
2016	3-02-0160-021, 62586	General Aviation Apron Expansion, As-Built
2012	3-02-0160-021, 63851	Safety Area Improvements Stage III, Runway Extension Sta 60+00 to 62+30 east, Sta 198+95 to 1+00 west. As-Built
2010	3-02-160-xxx, 63181	Safety Area Improvement Stage 1, As-Built
2001	3-02-160-07, 60554	Apron and Terminal Rehabilitation, As-Built
1993	3-02-0102-06, 64498	E/W Runway Resurfacing, Alaska DOT&PF Geology Report
1987	3-02-0160-04, 60434	Terminal Area, Taxiways & Roads, As-Built
1983	3-02-0160-02, D 2241	Apron Paving, As-Built
1982		Shannon & Wilson Geotech Feasibility Study for Airport Expansion
1978	ADAP 6-02-0160-04	Runway Repair and Apron Expansion, As-Built
1978		Alaska DOT&PF Geology Report