Alaska DOT&PF

Data Modernization and Innovation
Pavement Management
5800 East Tudor Road, Anchorage AK 99507

Pavement Inspection Report
Kenai Airport

Airport Name	IATA	ICAO	Latitude	Longitude	Elevation (ft)
Kenai Airport	ENA	PAEN	60° 34' 24" N	151° 14' 41" W	99

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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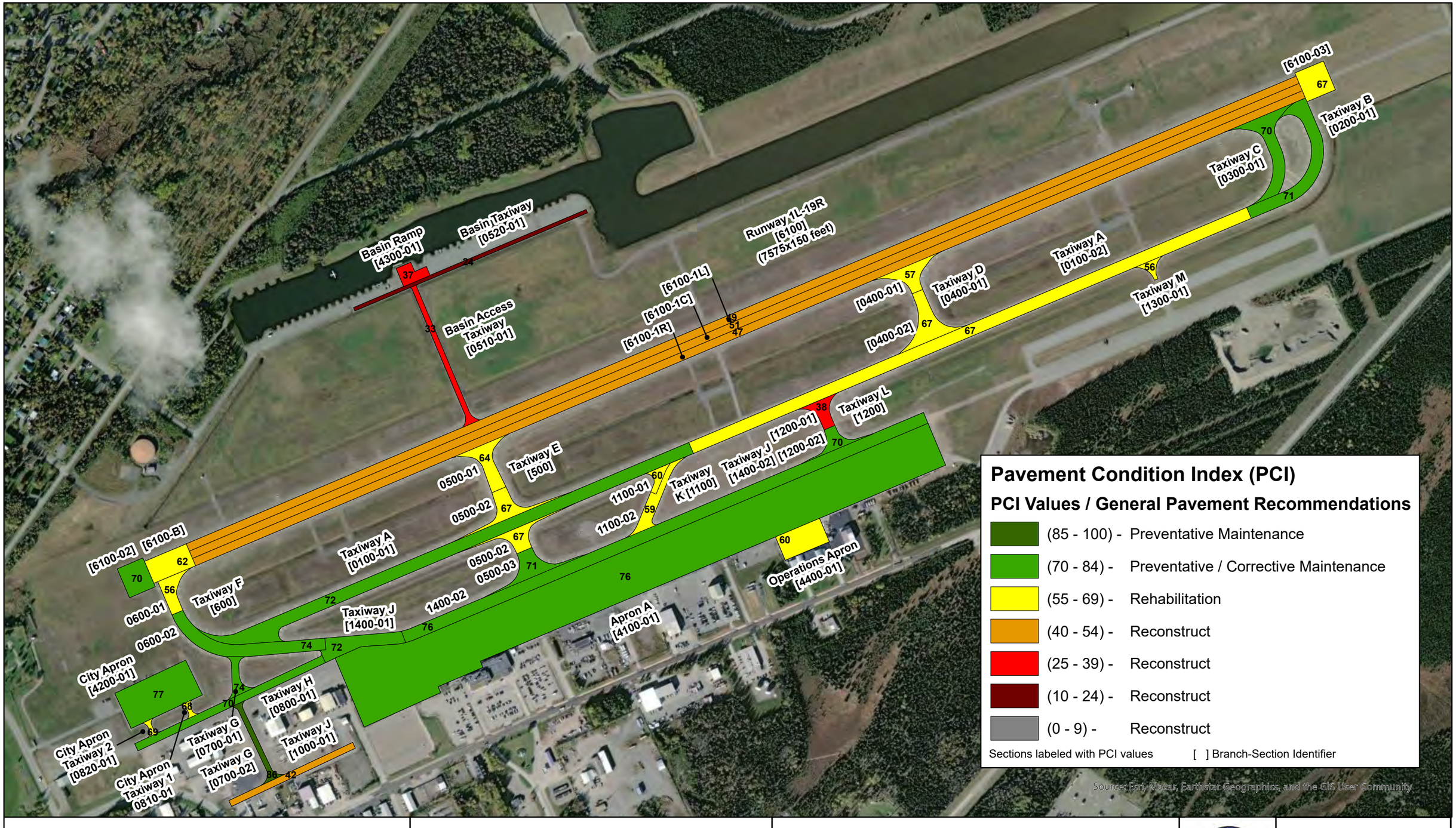


Pavement Condition Index (PCI)

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

Sections labeled with PCI values [ ] Branch-Section Identifier

Kenai Airport

Airport Code: ENA

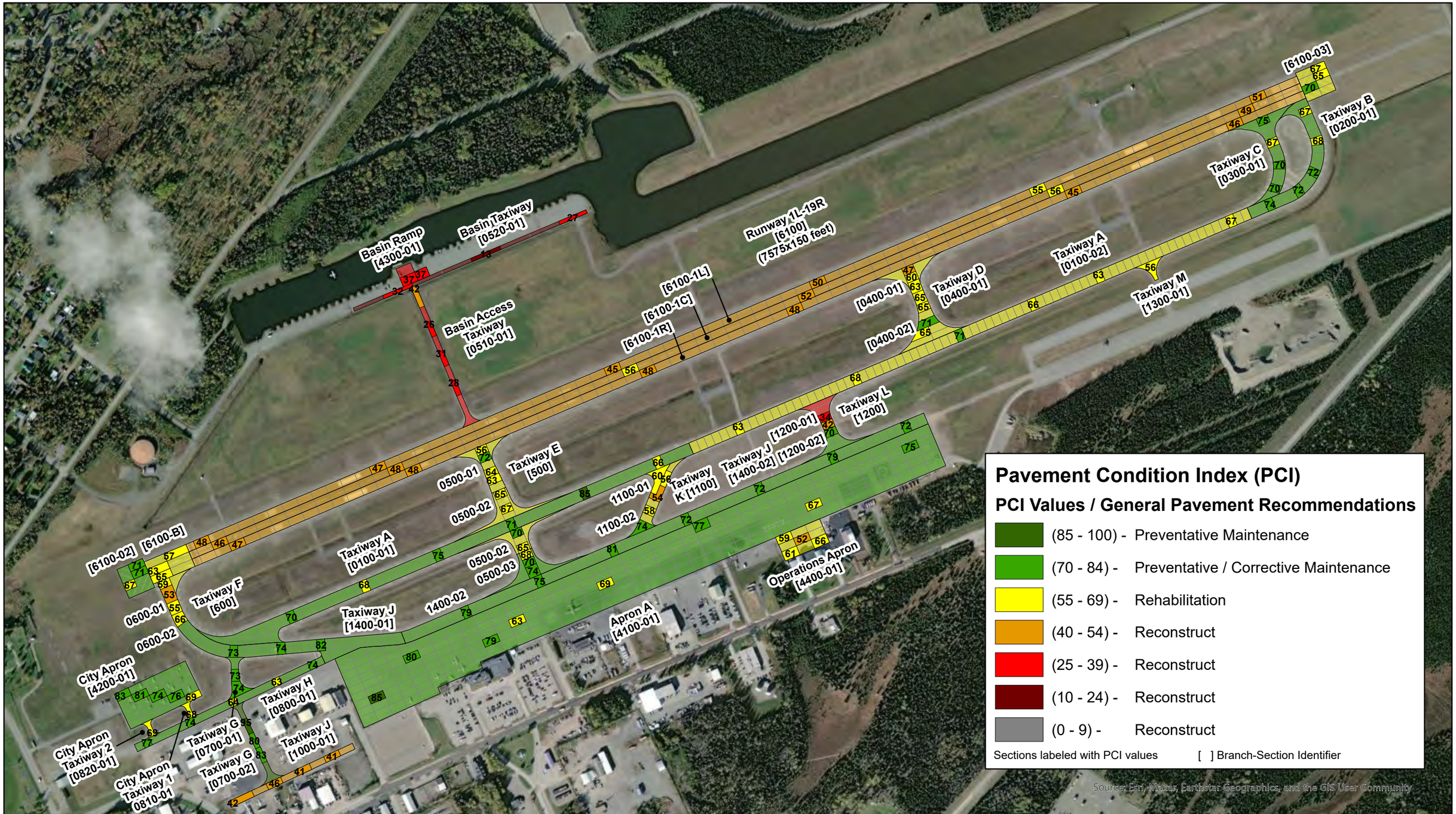
Pavement Condition Index (PCI)
Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2024 Pavement Inspection Results

0 250 500 1,000 1,500
Feet

Map Created by
State of Alaska DOT&PF

Map 1 of 6



Kenai Airport

Airport Code: ENA

Sample Unit
Pavement Condition Index (PCI)

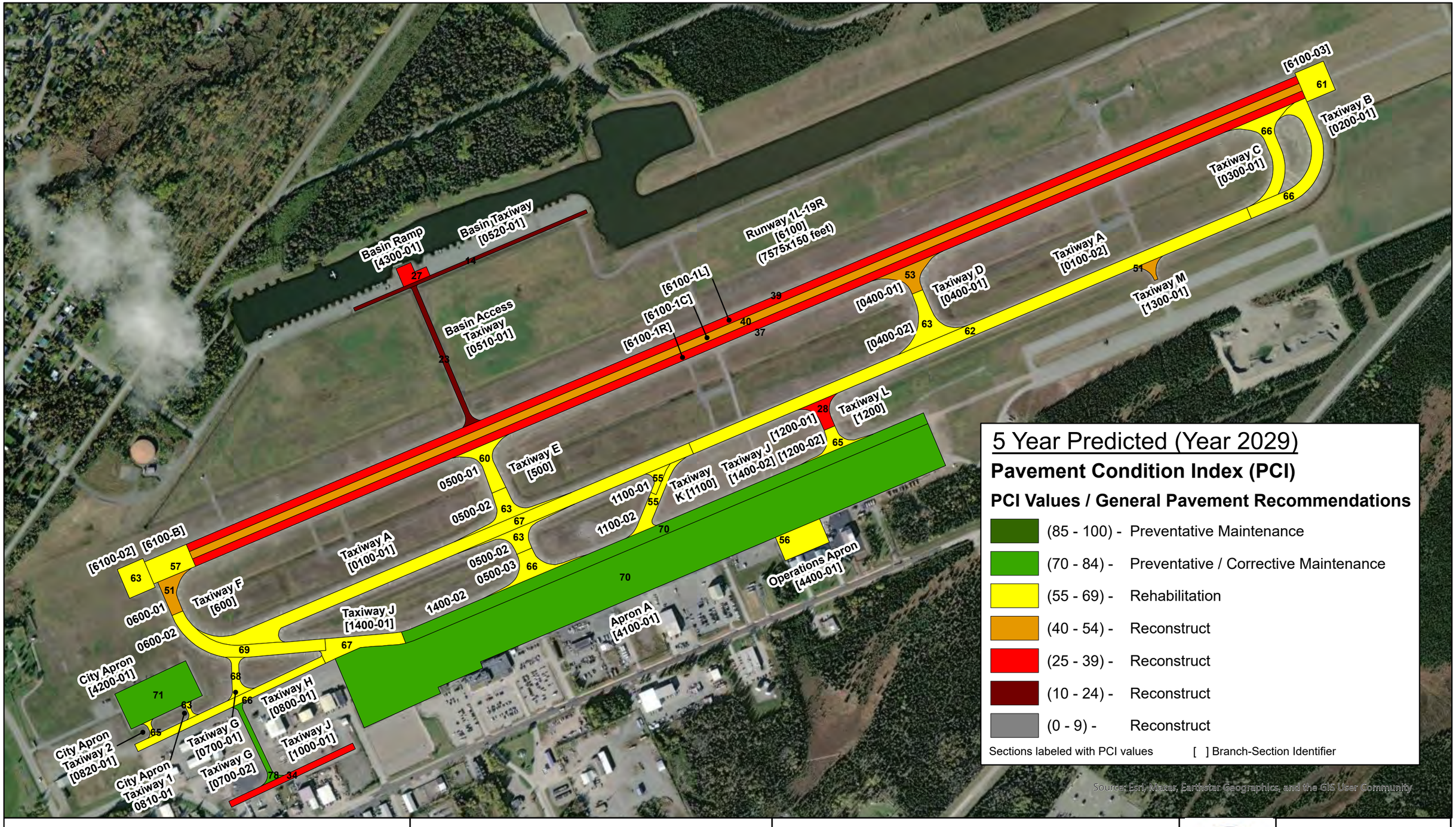
2024 Pavement Inspection Results

0 250 500 1,000 1,500

Feet

Map Created by
State of Alaska 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

Sections labeled with PCI values [ ] Branch-Section Identifier

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Kenai Airport

Airport Code: ENA

5 Year Predicted
Pavement Condition Index (PCI)

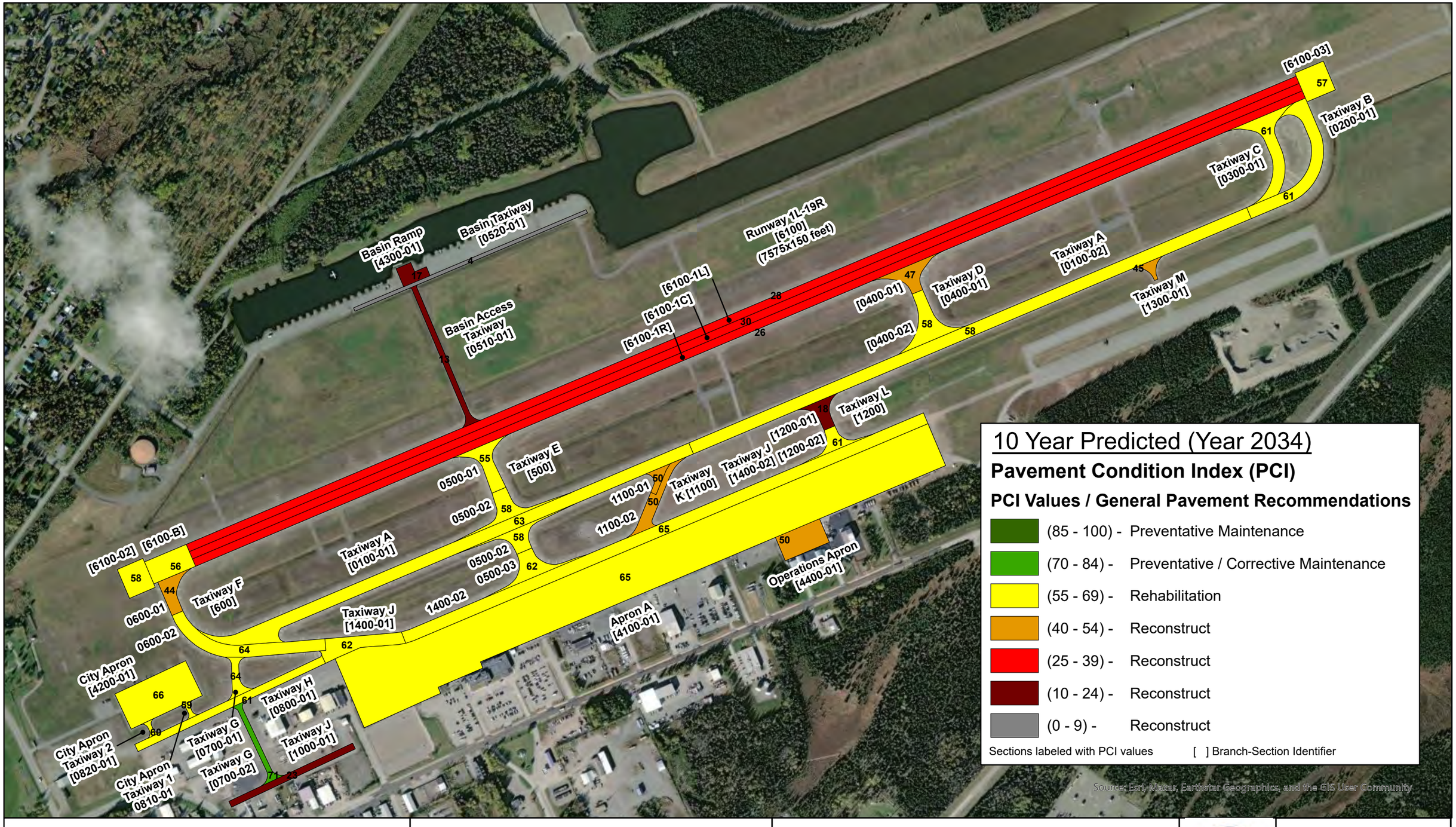
Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2024 Pavement Inspection Results

0 250 500 1,000 1,500
Feet

Map Created by
State of Alaska DOT&PF

Map 3 of 6



Kenai Airport

Airport Code: ENA

10 Year Predicted Pavement Condition Index (PCI)

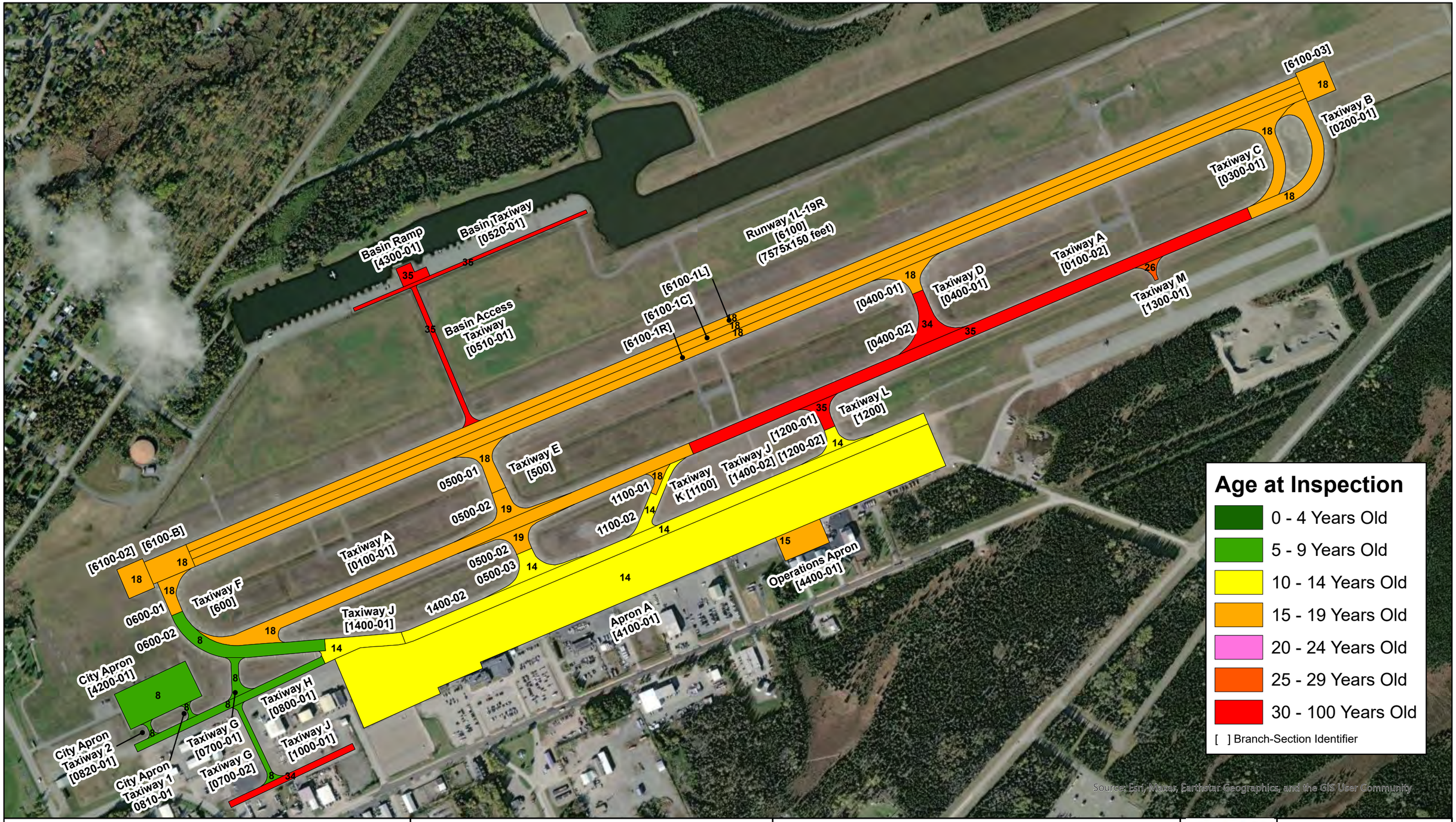
Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2024 Pavement Inspection Results

0 250 500 1,000 1,500
Feet

Map Created by
State of Alaska DOT&PF

Map 4 of 6



Age at Inspection

- 0 - 4 Years Old
- 5 - 9 Years Old
- 10 - 14 Years Old
- 15 - 19 Years Old
- 20 - 24 Years Old
- 25 - 29 Years Old
- 30 - 100 Years Old

[ ] Branch-Section Identifier

Kenai Airport

Airport Code: ENA

Pavement Age at Inspection

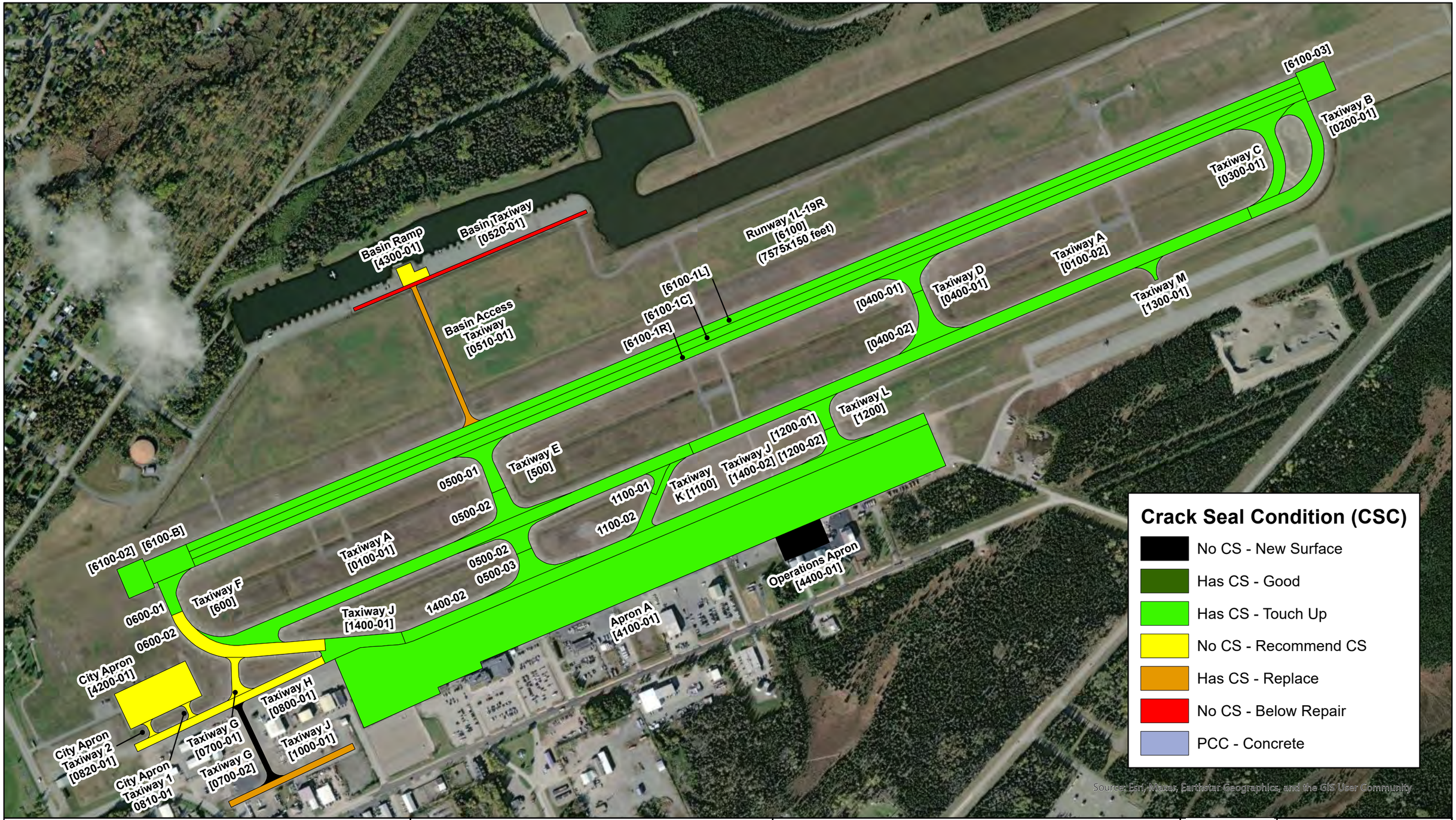
2024 Pavement Inspection Results

0 250 500 1,000 1,500

Feet

Map Created by
State of Alaska DOT&PF

Map 5 of 6



Kenai Airport

Airport Code: ENA

Pavement Crack Seal Condition (CSC)

2024 Pavement Inspection Results

0 250 500 1,000 1,500

Feet

Map Created by
State of Alaska DOT&PF

Map 6 of 6

AIRPORT PAVEMENT INSPECTION NOTES BY BRANCH

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0100	Taxiway A	Taxiway	2	537,552	69

Section 100-01 – PCI 72

Section 100-01 of Taxiway A was last resurfaced in 2006. Predominant distresses include low to medium severity longitudinal and transverse cracking, low severity weathering, and low severity raveling. Other distresses observed are medium severity raveling and weathering.

Section 100-02 – PCI 67

The last known resurfacing of the 100-02 portion of Taxiway A was in 1989. Predominant distresses include low to medium severity longitudinal and transverse cracking, low severity weathering, and low severity raveling. Distresses are in higher concentrations than in 100-01.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0200	Taxiway B	Taxiway	1	77,980	71

Taxiway B was constructed in 2006. Predominant distresses include low to medium severity longitudinal and transverse cracking, low and medium severity weathering and low severity raveling.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0300	Taxiway C	Taxiway	1	57,036	70

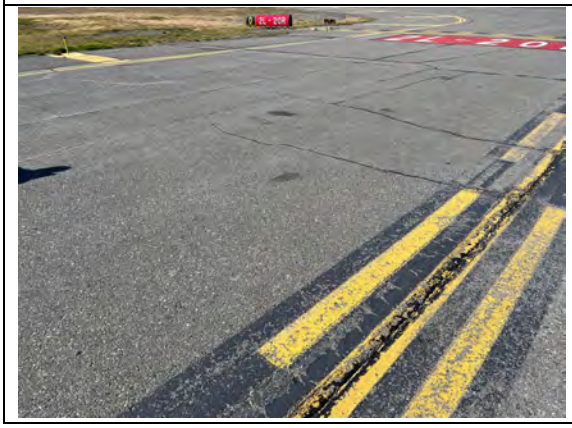
Taxiway C was reconstructed in 2006. Common distresses include low and medium severity longitudinal and transverse cracking, low severity weathering and low severity raveling.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0400	Taxiway D	Taxiway	2	72,400	63

Section 400-01 – PCI 57

Section 400-01 of Taxiway D was constructed in 1971 was resurfaced in 1990 and 2006. Common distresses include low and medium severity longitudinal and transverse cracking, low severity weathering and low severity raveling. Other distresses observed include small areas of high severity cracking and medium severity weathering.

Section 400-02 – PCI 67



Section 400-02 of Taxiway D was constructed in 1971 the last known resurfacing was in 1990. Common distresses include low to medium severity longitudinal and transverse cracking, low severity weathering and small areas of low severity raveling.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0500	Taxiway E	Taxiway	3	123,100	67

Taxiway E was constructed in 1965 and resurfaced in 1990. Section 500-01 (PCI 64) was last resurfaced in 2006, 500-02 (PCI 67) in 2005, and 500-03 (PCI 71) in 2010. Predominant distresses include low to medium severity longitudinal and transverse cracking, low to medium severity weathering and low severity raveling. Section 500-01 has some small areas with high severity longitudinal and transverse cracking and medium severity raveling.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0510	Basin Access Taxiway	Taxiway	1	32,060	33

The Basin Access Taxiway was constructed in 1989 and has received no work since. Common distresses include low, medium and high severity longitudinal and transverse cracking, low severity weathering, and low, medium and high severity raveling. Other distresses include low and medium severity alligator cracking, with isolated high severity alligator cracking.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0520	Basin Taxiway	Taxiway	1	34,980	24

The Basin Taxiway was constructed in 1989 and has received no work since. Common distresses include low to medium severity block cracking, low to medium severity raveling, low to medium severity weathering, and low, medium and high severity alligator cracking. Other distresses observed include high severity depression and severe edge cracking.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0600	Taxiway F	Taxiway	2	99,580	70

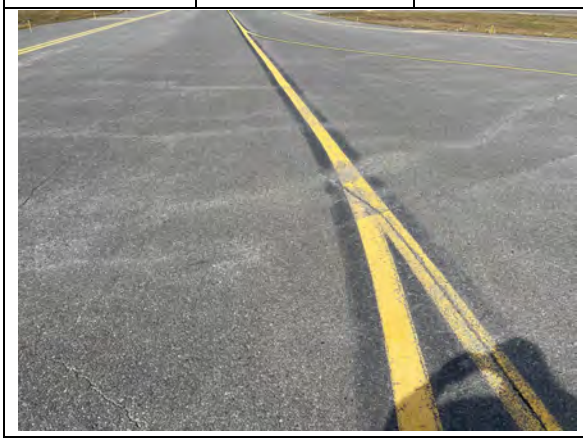
Section 600-01 – PCI 56

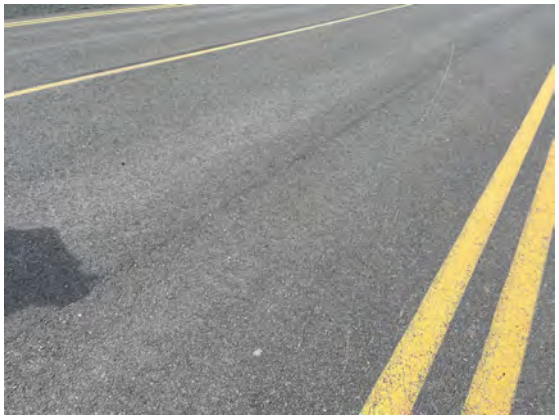
Section 600-01 of Taxiway F was constructed in 1965 and resurfaced in 1989 and 2006. Common distresses include low to medium severity longitudinal and transverse cracking, low to medium severity weathering and low severity raveling. Medium severity raveling was observed at isolated locations.

Section 600-02 – PCI 74

Section 600-02 of Taxiway F was constructed in 1965 and resurfaced in 1989, 1994 and 2016. Common distresses include low to medium severity longitudinal and transverse cracking and low severity weathering.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0700	Taxiway G	Taxiway	2	35,791	74



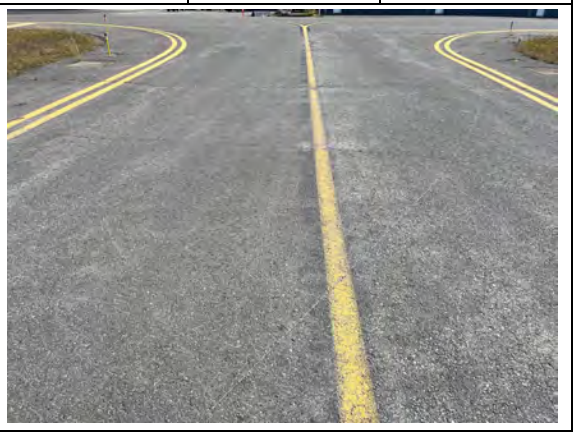


Taxiway G was constructed in 1968 and received resurfacing in 1990 and 2016. Common distresses include low severity longitudinal and transverse cracking and low severity weathering. Small quantities of medium severity longitudinal and transverse cracking and low severity raveling were observed.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0800	Taxiway H	Taxiway	1	65,000	71

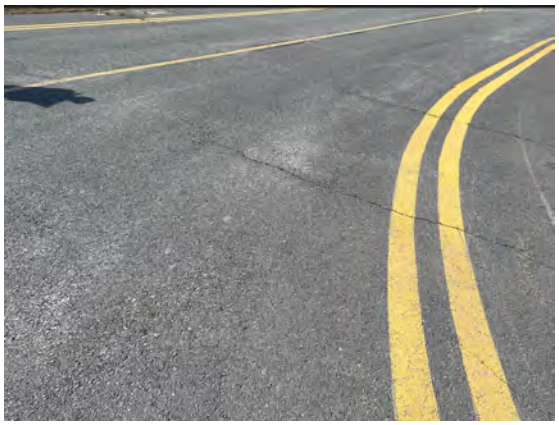
Taxiway H was constructed in 1989 and was resurfaced in 1994 and 2016. Common distresses include low to medium severity longitudinal and transverse cracking, low severity weathering and isolated areas of low severity raveling. A significant number of new longitudinal and transverse cracks were observed this inspection.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0810	City Apron TW 1	Taxiway	1	3,610	68



The City Apron Taxiway 1 was constructed in 1989 and resurfaced in 2016. Distresses observed include low to medium severity longitudinal and transverse cracking, low severity weathering and low severity raveling.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0820	City Apron TW 2	Taxiway	1	3,600	70



The City Apron Taxiway 2 was constructed in 1989 and resurfaced in 2016. Distresses observed include low to medium severity longitudinal and transverse cracking, low severity weathering and low severity raveling.

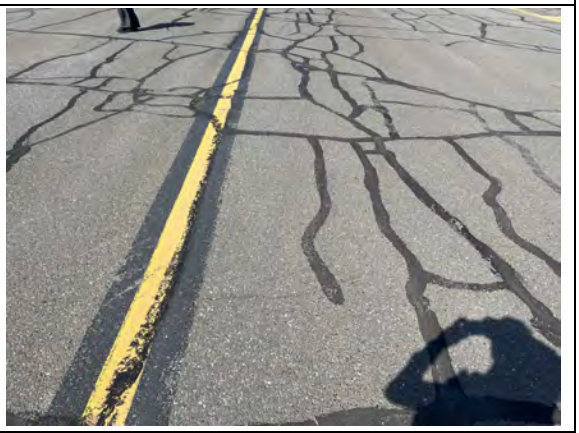
Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
1000	Taxiway J	Taxiway	1	34,400	42

Taxiway J was constructed in 1968 and resurfaced in 1990. Common distresses include low, medium and high severity longitudinal and transverse cracking, low to medium severity raveling and low severity weathering. Other observed distresses are low severity depressions and alligator cracking.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
1100	Taxiway K	Taxiway	2	39,355	59

Taxiway K was constructed in 1989. Section 1100-01 was resurfaced in 2006 while 1100-02 was resurfaced in 2010. Common distresses include low, medium and high severity longitudinal and transverse cracking, low severity weathering and low severity raveling. Section 1100-01 includes an area with medium severity swelling at a longitudinal crack with blade damage observed. Section 1100-02 contained one sample with alligator cracking and medium severity weathering occurs over both sections of Taxiway K and.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
1200	Taxiway L	Taxiway	2	37,428	53
Section 1200-01 – PCI 38					

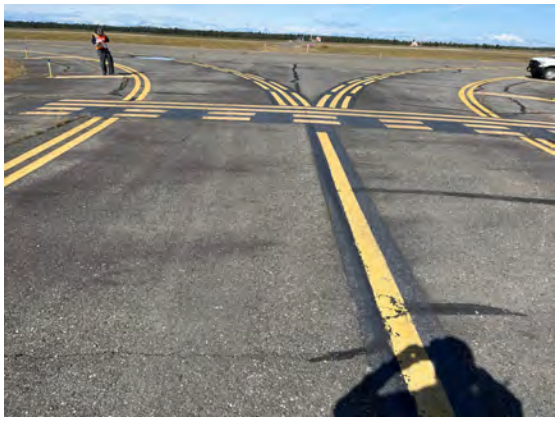


Section 1200-01 of Taxiway L was constructed in 1989 and has received no major work since. It contains low to medium severity block cracking, low severity weathering, and low to medium severity raveling. One small area of alligator cracking was observed.

Section 1200-02 – PCI 70

Section 1200-02 of Taxiway L was constructed in 1989 and was reconstructed in 2010. Common distresses are low to medium severity longitudinal and transverse cracking, low severity raveling and low to medium severity weathering.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
1300	Taxiway M	Taxiway	1	7,920	56



Taxiway M was constructed in 1998 and has received no work since. Distresses include low to medium severity longitudinal and transverse cracking, low severity raveling, low to medium severity weathering and a medium severity depression. There is a small area with medium severity raveling.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
1400	Taxiway J	Taxiway	2	314,716	75

Taxiway J was constructed in 2010 and has received no work since. Common distresses include low severity longitudinal and transverse cracking, and low to medium severity weathering. There are small areas with raveling.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
4100	Apron A	Apron	1	1,230,780	76

4100 – Apron A Continued

Apron A was constructed in 1965, resurfaced in 1985 and received surface reconstruction in 2010. Common distresses include low to medium severity longitudinal and transverse cracking and low to medium severity weathering.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
4200	City Apron	Apron	1	120,500	77

The City Apron was constructed in 1989 and resurfaced in 2016. Common distresses include low to medium severity longitudinal and transverse cracking, low severity weathering, and oil spillage.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
4300	Basin Ramp	Apron	1	18,100	37

The Basin Ramp was constructed in 1989 and has received no work since. Common distresses include low, medium and high severity longitudinal and transverse cracking, low severity weathering and alligator cracking.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
4400	Operations Building Ramp	Apron	1	48,000	60

The Operations Building Ramp was constructed in 2002 and resurfaced in 2009. Common distresses include low to medium severity longitudinal and transverse cracking, low severity weathering and raveling, low severity depressions and alligator cracking.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
6100	01L/19R	Runway	3	1,253,000	51

Sections 6100-L, 6100-C and 6100-R – PCI 49




Sections 6100-L, 6100-C and 6100-R were originally constructed in 1965 and have received resurfacing in 1979, 1990 and 2006. Cracking distresses are predominantly low to moderate severity block cracking with intermittent cracks reaching high severity. Moderate and high severity cracks are due to winter plowing operations significantly damaging crack seal allowing FOD potential. Other common distresses include low to moderate severity weathering and raveling.

Sections 6100-B, 6100-2 and 6100-3 – PCI 66




Sections 6100-B (PCI 62), 6100-2 (PCI 70) and 6100-3 (67) were constructed in 1990 and resurfaced in 2006. The top two photos are 6100-02 and 6100-03 (blast pads) and bottom two are 6100-B. Common distresses are low to medium severity longitudinal and transverse cracking and low severity weathering. Other distresses include low severity raveling and medium severity weathering.

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	7,020	75.00	537,552	TAXIWAY	69.45	2.85	69.27
0200	1	970	75.00	77,920	TAXIWAY	70.60	0.00	70.60
0300	1	540	75.00	57,036	TAXIWAY	70.40	0.00	70.40
0400	2	490	75.00	72,400	TAXIWAY	62.15	4.75	63.21
0500	3	815	100.00	123,100	TAXIWAY	67.27	3.07	67.17
0510	1	935	30.00	32,060	TAXIWAY	33.00	0.00	33.00
0520	1	1,590	22.00	34,980	TAXIWAY	23.90	0.00	23.90
0600	2	1,250	75.00	99,580	TAXIWAY	64.85	9.25	69.88
0700	2	775	47.50	35,791	TAXIWAY	79.85	6.05	80.51
0800	1	1,300	50.00	65,000	TAXIWAY	70.50	0.00	70.50
0810	1	80	35.00	3,610	TAXIWAY	67.90	0.00	67.90
0820	1	80	40.00	3,600	TAXIWAY	69.40	0.00	69.40
1000	1	860	40.00	34,400	TAXIWAY	42.30	0.00	42.30
1100	2	660	62.50	39,355	TAXIWAY	59.50	0.20	59.40
1200	2	325	75.00	37,428	TAXIWAY	53.80	15.90	53.38
1300	1	120	25.00	7,920	TAXIWAY	56.10	0.00	56.10
1400	2	4,065	75.00	314,716	TAXIWAY	73.95	1.85	75.28
4100	1	4,010	285.00	1,230,780	APRON	75.90	0.00	75.90
4200	1	500	241.00	120,500	APRON	76.70	0.00	76.70
4300	1	180	123.00	18,100	APRON	36.90	0.00	36.90
4400	1	300	160.00	48,000	APRON	59.90	0.00	59.90
6100	6	23,380	116.67	1,253,000	RUNWAY	57.70	9.07	50.65

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	4	1,417,380	62.35	16.15	74.93
RUNWAY	6	1,253,000	57.70	9.07	50.65
TAXIWAY	26	1,576,448	62.81	14.05	67.45
ALL	36	4,246,828	61.91	13.74	64.99

SECTION CONDITION REPORT

Branch ID	Section ID	Last Const. Date	Surf.	Use	Rank	True Area (Sq Ft)	Last Inspection Date	Age At Inspection	PCI
0100	0100-01	6/1/2006	AC	TAXIWAY	S	252,002	8/23/2024	18	72
0100	0100-02	8/1/1989	AAC	TAXIWAY	S	285,550	8/23/2024	35	67
0200	0200-01	8/1/2006	AAC	TAXIWAY	S	77,920	8/23/2024	18	71
0300	0300-01	8/1/2006	AC	TAXIWAY	S	57,036	8/23/2024	18	70
0400	0400-01	8/1/2006	AAC	TAXIWAY	S	28,100	8/23/2024	18	57
0400	0400-02	8/1/1990	AAC	TAXIWAY	S	44,300	8/23/2024	34	67
0500	0500-01	8/1/2006	AAC	TAXIWAY	S	34,100	8/23/2024	18	64
0500	0500-02	5/20/2005	AAC	TAXIWAY	S	56,000	8/23/2024	19	67
0500	0500-03	9/30/2010	AAC	TAXIWAY	S	33,000	8/23/2024	14	71
0510	0510-01	8/1/1989	AC	TAXIWAY	T	32,060	8/23/2024	35	33
0520	0520-01	7/1/1989	AC	TAXIWAY	T	34,980	8/23/2024	35	24
0600	0600-01	8/1/2006	AAC	TAXIWAY	S	22,705	8/23/2024	18	56
0600	0600-02	10/22/2016	AAC	TAXIWAY	S	76,875	8/23/2024	8	74
0700	0700-01	10/22/2016	AAC	TAXIWAY	T	15,950	8/23/2024	8	74
0700	0700-02	10/22/2016	AAC	TAXIWAY	T	19,841	8/23/2024	8	86
0800	0800-01	10/22/2016	AAC	TAXIWAY	T	65,000	8/23/2024	8	71
0810	0810-01	10/22/2016	AAC	TAXIWAY	T	3,610	8/23/2024	8	68
0820	0820-01	10/22/2016	AAC	TAXIWAY	T	3,600	8/23/2024	8	69
1000	1000-01	8/1/1990	AAC	TAXIWAY	T	34,400	8/23/2024	34	42
1100	1100-01	6/1/2006	AAC	TAXIWAY	S	10,050	8/23/2024	18	60
1100	1100-02	8/1/1989	AC	TAXIWAY	S	29,305	8/23/2024	14	59
1200	1200-01	6/1/1989	AC	TAXIWAY	S	19,203	8/23/2024	35	38
1200	1200-02	9/30/2010	AC	TAXIWAY	S	18,225	8/23/2024	14	70
1300	1300-01	8/1/1998	AC	TAXIWAY	T	7,920	8/23/2024	26	56
1400	1400-01	9/30/2010	AAC	TAXIWAY	S	43,966	8/23/2024	14	72
1400	1400-02	9/30/2010	AAC	TAXIWAY	S	270,750	8/23/2024	14	76
4100	4100-01	9/30/2010	AAC	APRON	S	1,230,780	8/23/2024	14	76
4200	4200-01	10/22/2016	AAC	APRON	T	120,500	8/23/2024	8	77
4300	4300-01	7/1/1989	AC	APRON	T	18,100	8/23/2024	35	37
4400	4400-01	9/30/2009	AAC	APRON	T	48,000	8/23/2024	15	60
6100	6100-02	8/1/2006	AC	RUNWAY	T	35,000	8/23/2024	18	70
6100	6100-03	8/1/2006	AC	RUNWAY	T	39,000	8/23/2024	18	67
6100	6100-1C	8/1/2006	AAC	RUNWAY	S	378,750	8/23/2024	18	51
6100	6100-1L	8/1/2006	AAC	RUNWAY	S	378,750	8/23/2024	18	49
6100	6100-1R	8/1/2006	AAC	RUNWAY	S	378,750	8/23/2024	18	47
6100	6100-B	8/1/2006	AAC	RUNWAY	S	42,750	8/23/2024	18	62

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
06-10	8	305,376	7	74.04	5.60	74.98
11-15	14	1,644,721	6	70.77	5.37	75.15
16-20	18	1,790,913	14	61.63	8.23	56.17
26-30	26	7,920	1	56.10	0.00	56.10
31-35	35	497,898	8	45.85	15.24	57.17

PHYSICAL PROPERTY DATA

Branch ID	Section ID	Pavement		Base		Subbase		Subgrade	
		Thick (in)	Type	Thick (in)	Type	Thick (in)	Type	Type	CBR
Runway 02R-20 6200	6100-B	6	P-401	6	SP-SM	Variable	Embankment	SP-SM	12
	6100-01L	6	P-401	6	SP-SM	Variable	Embankment	SP-SM	12
	6100-01C	6	P-401	6	SP-SM	Variable	Embankment	SP-SM	12
	6100-01R	6	P-401	6	SP-SM	Variable	Embankment	SP-SM	12

Notes – Base material (SP-SM) does contain gravel and generally meets the requirements of P-154 subbase, while the subbase/subgrade SP-SM material is generally too sandy/silty to meet P-154 requirements and is F2 frost group.
Subgrade CBR is based on LWD results and does not take a frost reduction factor into account.

AIRCRAFT FLEET MIX

No.	Aircraft	Gross Wt (lb)	% Gross Wt on Main Gear	Tire Pressure (psi)	Annual Departures	20 Yr Coverages
1	Cessna 206 Stationair	3,612	95	52	7,545	36,756
2	Cessna 208B Grand Caravan EX	8,750	95	75	8,690	45,900
3	PA-31-325 Navajo C/R	6,536	95	66	156	801
4	Beechcraft King Air 300	14,100	95	92	202	1,618
5	Q100/Dash 8 Series 100	34,700	94.4	131	6,382	61,587
6	B737-300	140,000	90.8	201	2	23
7	B737-900 ER	188,200	94.6	220	2	24
8	L-100-20	155,801	96.4	104	2	16
9	C-130	164,000	95	111	249	1,967
10	B707-320C	336,000	186.8	180	11	160
11	C-17A	585,000	95	138	73	964

PAVEMENT CLASSIFICATION RATINGS

Runway	Critical Aircraft	Max Allowable Wt (lb)	Subgrade Mr (psi)	Evaluation Thickness (in)	Pass to Traffic Cycle Ratio	PCR
02L/20R	B707-320C	-	18,305	12	1.0	461 F/B/X/U

PCR CALCULATION NOTES

- 1% traffic growth assumed
- Aircraft fleet mix provided by Kenai Airport. It is 2019 operations based on a combination of BTS T-100 reports, TFMSC reports, OPSNET reports and interviews.
- Runway 02L/20R PCR should be recalculated after the runway rehabilitation project is completed. The PCR of 461 F/B/X/U is based on the Using Aircraft Method given the runway has proven performance supporting the Boeing KC-135 Stratotanker and Boeing Globemaster 3 military operations.

Year	Reference No.	Document Title
2021	-	Rehabilitation of Runway 02L/20R Geotechnical Data Report (Draft)
2019	-	Kenai Airport – Aircraft Fleet Mix
2016	3-02-0142-053-2016	Kenai TW F, G, H, Tiedown Area Asphalt Rehab As-Built
2006	3-02-0142-035-2006	Kenai RW Improvements: Safety Areas, Pavement, Lighting As-Built
2005	3-02-0142-034-2005	Kenai Parallel Taxiway Extension As-Built