



CMAP Pavement Management Program

**BOARD PRESENTATION – VILLAGE OF OAK PARK
MAY 12, 2026**

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CMAP Pavement Management Work Plan

The Chicago Metropolitan Agency for Planning (CMAP) is the region's official comprehensive planning organization.

This program supports effective and efficient use of member agency resources using pavement management tools and incorporation of preservation approaches in agencies.

CMAP hired APTech to implement pavement management for the Village.

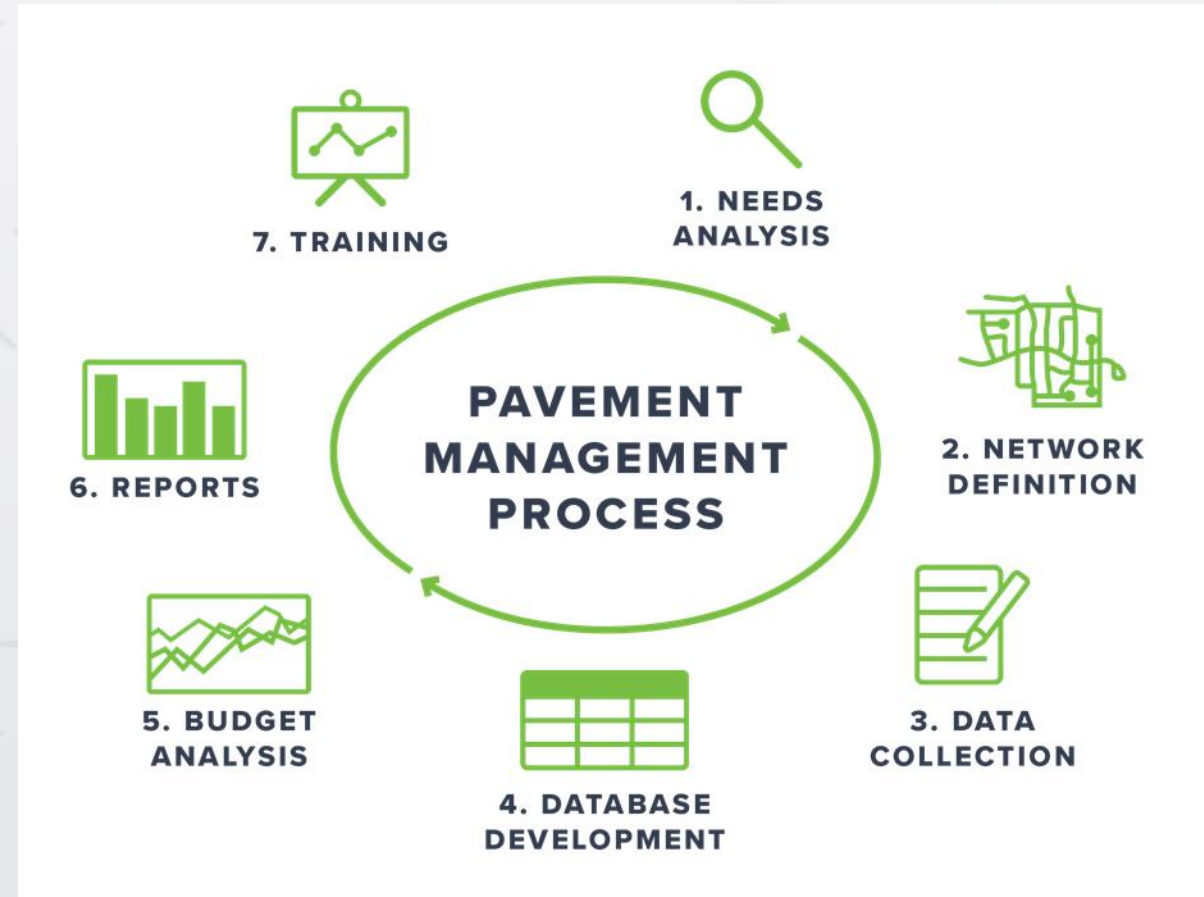
Program Goals

- Promote and support asset management at the local level
- Implement the PAVER pavement management system
- Perform a comprehensive pavement condition survey
- Evaluate the impact of the Village's existing funding level on future pavement conditions
- Determine funding levels required to:
 - ✓ Maintain current pavement conditions
 - ✓ Improve current pavement conditions
 - ✓ Eliminate rehabilitation and reconstruction backlog
- Recommend pavement preservation and rehabilitation projects



Why Pavement Management Makes Sense

- According to the AASHTO PM Guide, Pavement Management provides a systematic approach that enables agencies to evaluate consequences of investment decisions and determine most cost-effective use of resources.
- Agencies have reported benefits including:
 - Developing strategies to use resources more efficiently
 - Data-driven, performance-based decision making
 - Better understand current and future road needs
 - Better respond to queries both internal and external
 - Better communication
 - Improved transparency in decision making
 - Better credibility



CMAP PM Project Overview

- Working with the Village;
 - Define pavement network
 - Assess treatment types and costs
 - Gather budget information
- Collect 2025 pavement condition information
- Update PAVER pavement management software
- Run “scenario” analyses and present results to the Village
- Document work, results, and recommendations in report
- Provide PAVER training
- Board of Trustees presentation

Pavement Data Collection and Pavement Management System Implementation

Village of Oak Park, Illinois

Draft Report

PREPARED FOR

Village of Oak Park

IN ASSOCIATION WITH

Chicago Metropolitan Agency for Planning

PREPARED BY

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May 2026



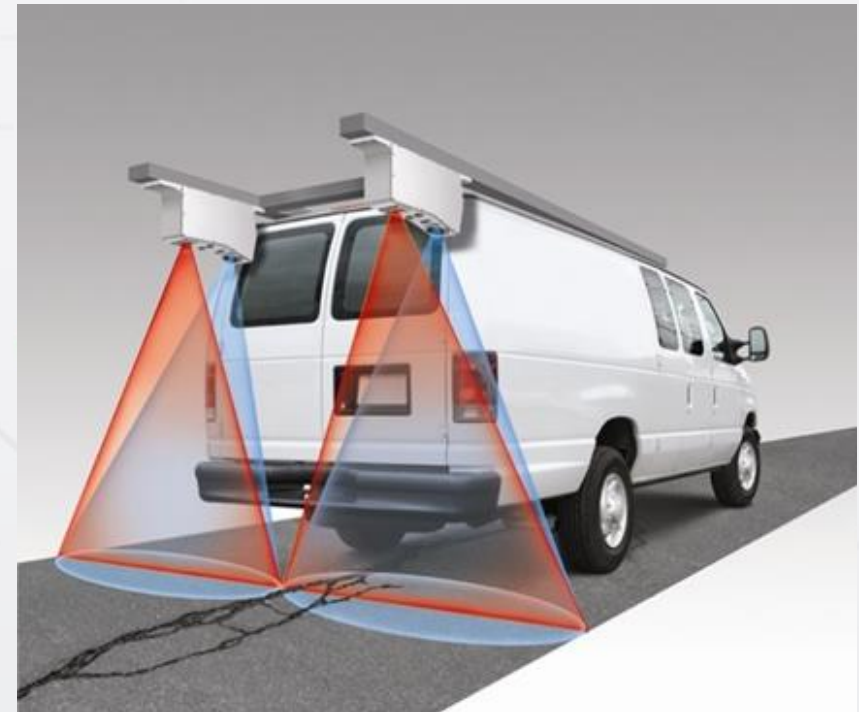
Data Collection

Data collection with APTech's EDGE van
August 27, 28, and September 22, 2025

- LCMS sensors
- Road Surface Profiler,
- ROW Cameras (front-facing 3 angles and rear-facing)
- GPS receivers for spatial positioning.

The van drove the Village roadways with a driver watching the road and a separate technician reviewing data in real time.

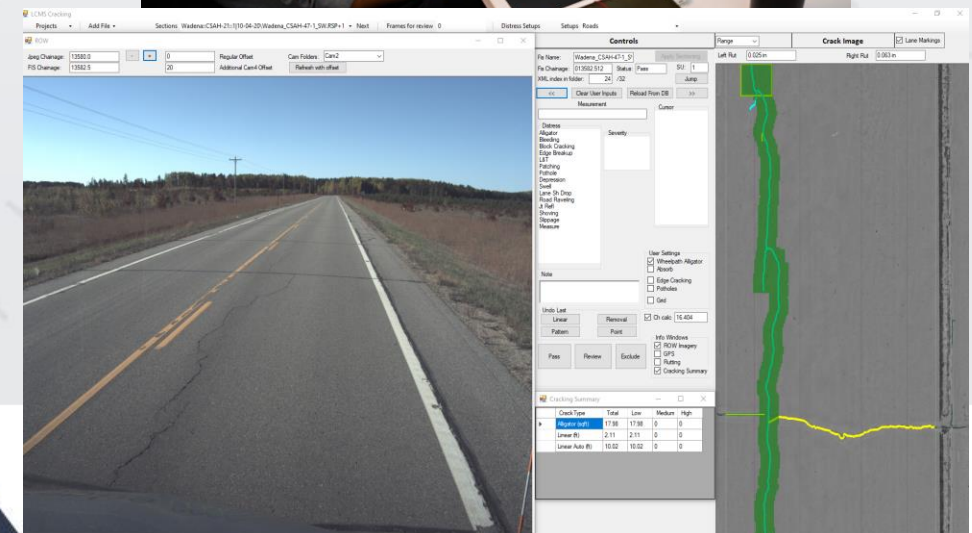
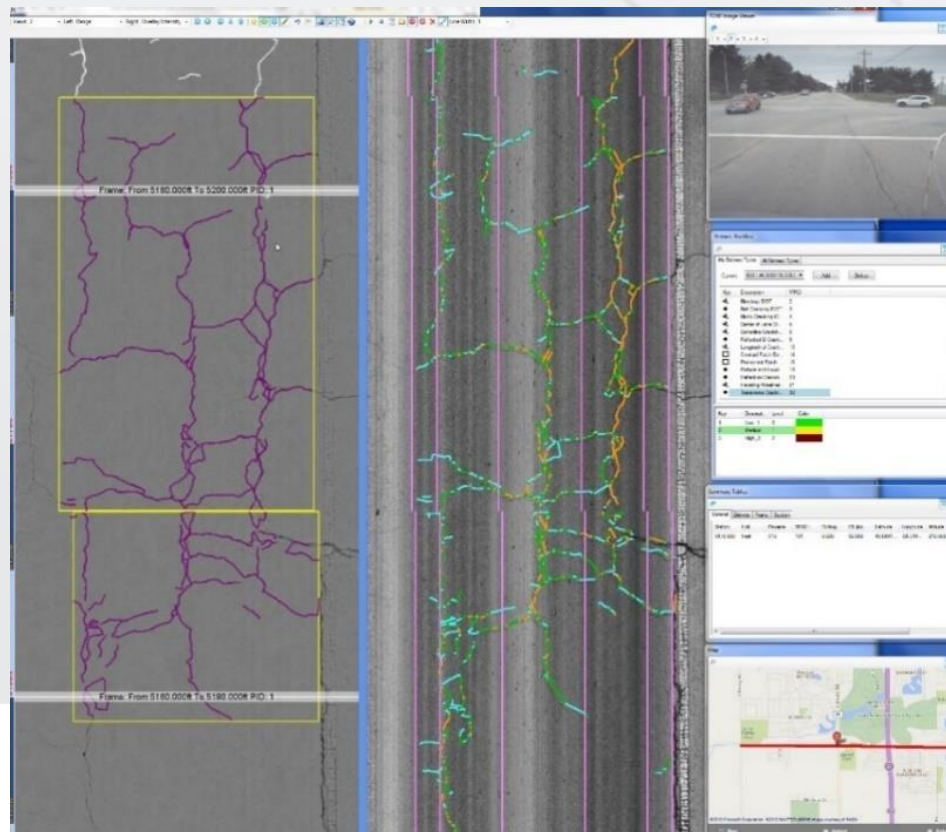
Safe, efficient, unobtrusive.



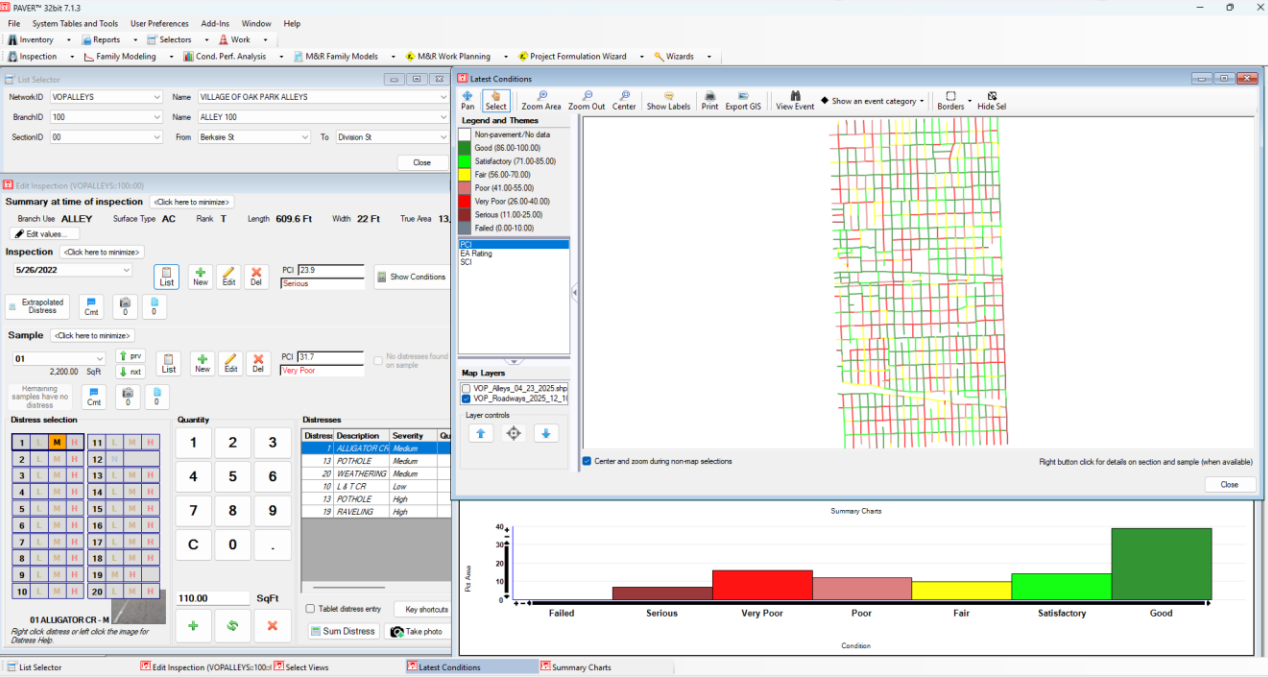
Distress Data Extraction

Laser Crack Measurement System produced range and intensity 3D images. Automated image processing algorithms initially identified distress.

Trained surveyors reviewed on workstations to complete the surveys.



Calculation of Pavement Condition Index (PCI)



- ## Distress

 - Type
 - Severity
 - Extent

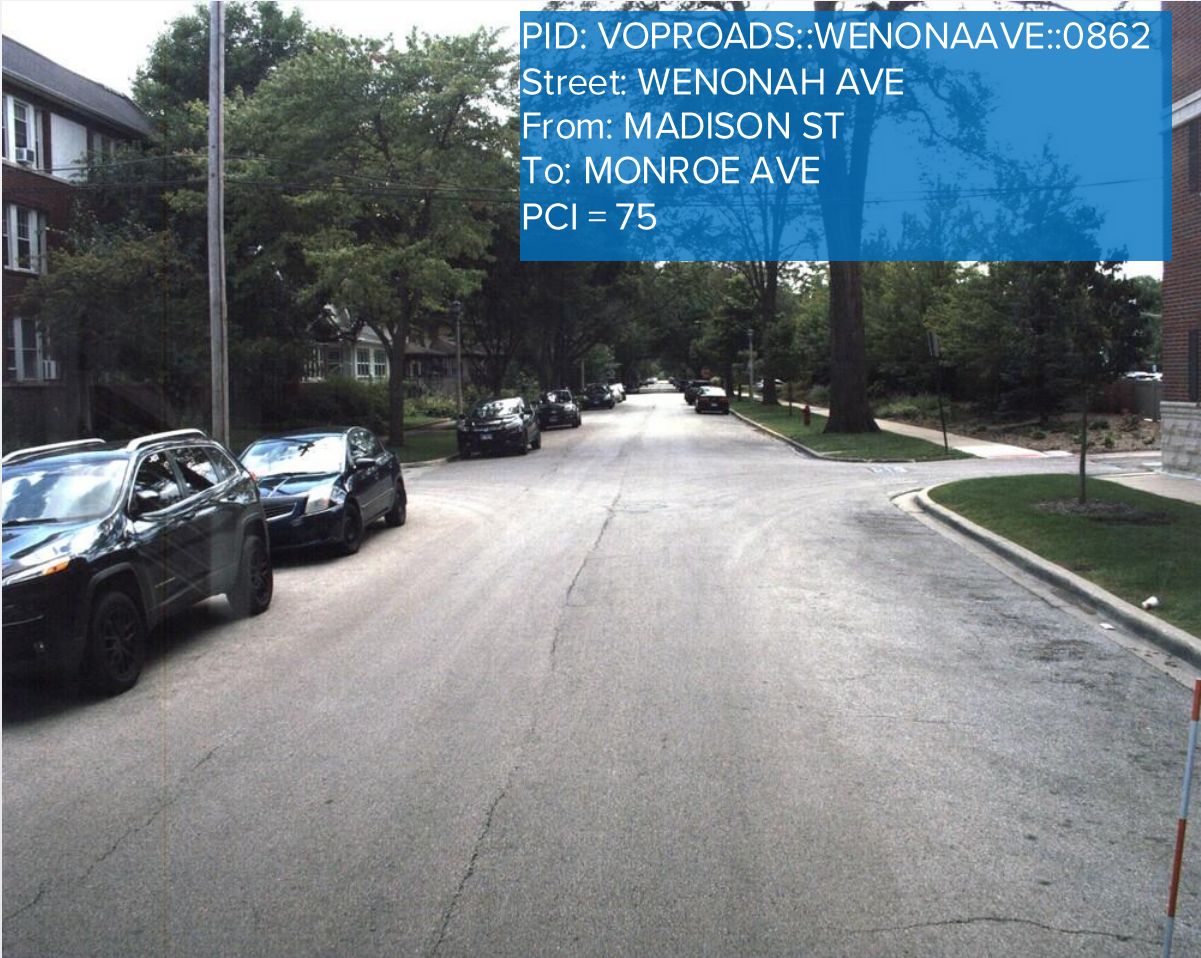
PCI Range		Condition Category	
100	86	Good	
85	71	Satisfactory	
70	56	Fair	
55	41	Poor	
40	26	Very Poor	
25	11	Serious	
10	0	Failed	



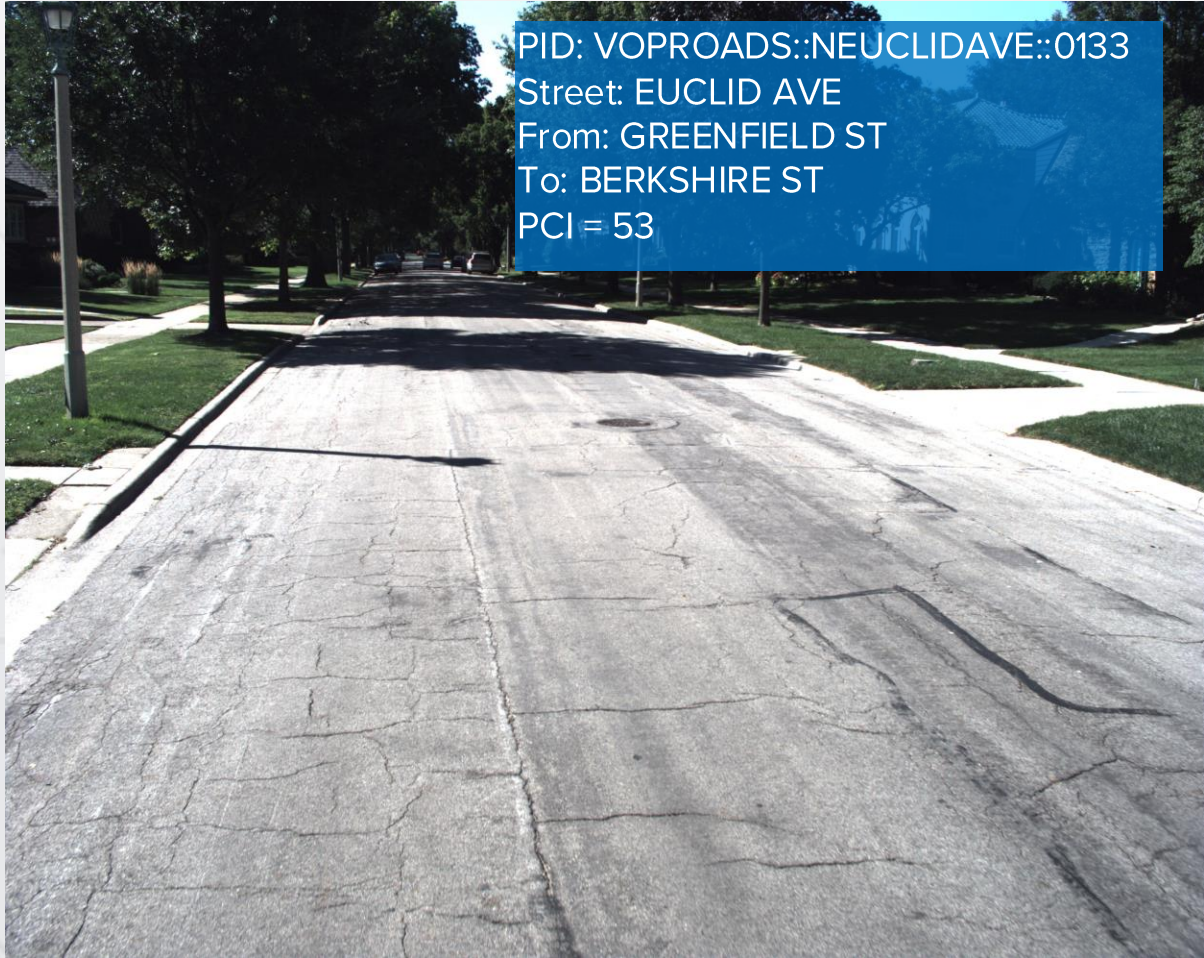
Pavement Condition Examples



Pavement Condition Examples (cont.)



Pavement Condition Examples (cont.)



Pavement Condition Examples (cont.)



PID: VOPROADS::NEASTAVE::0172
Street: EAST AVE
From: BERKSHIRE ST
To: DIVISION ST
PCI = 37









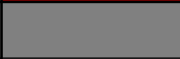
PID: VOPROADS::PAULINAST::0327
Street: PAULINA ST
From: N HARLEM AVE
To: N MARION ST
PCI = 24



Pavement Condition Examples (cont.)

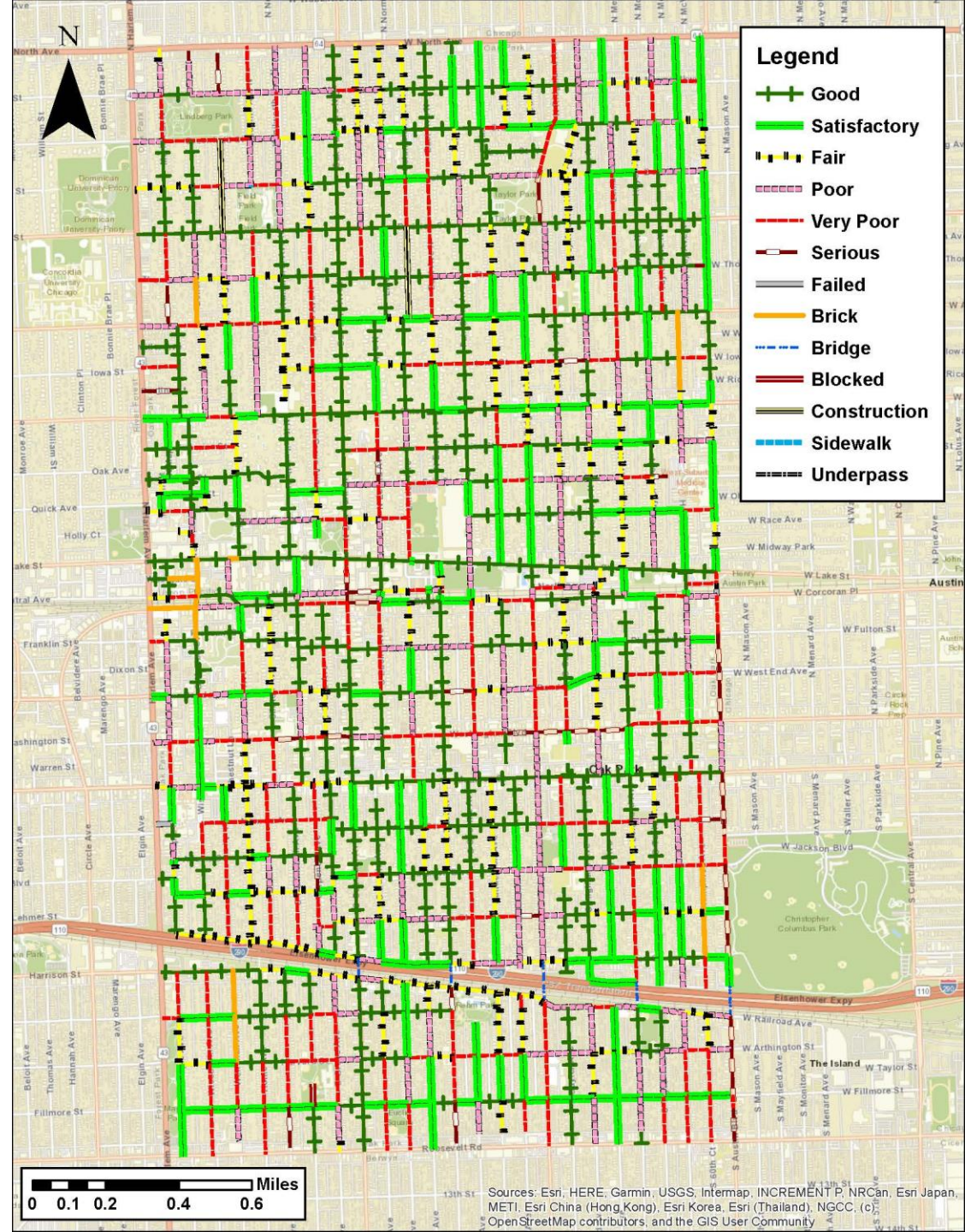


PCI Results








PCI Range		Condition Category	
100	86	Good	
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70	56	Fair	
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40	26	Very Poor	
25	11	Serious	
10	0	Failed	

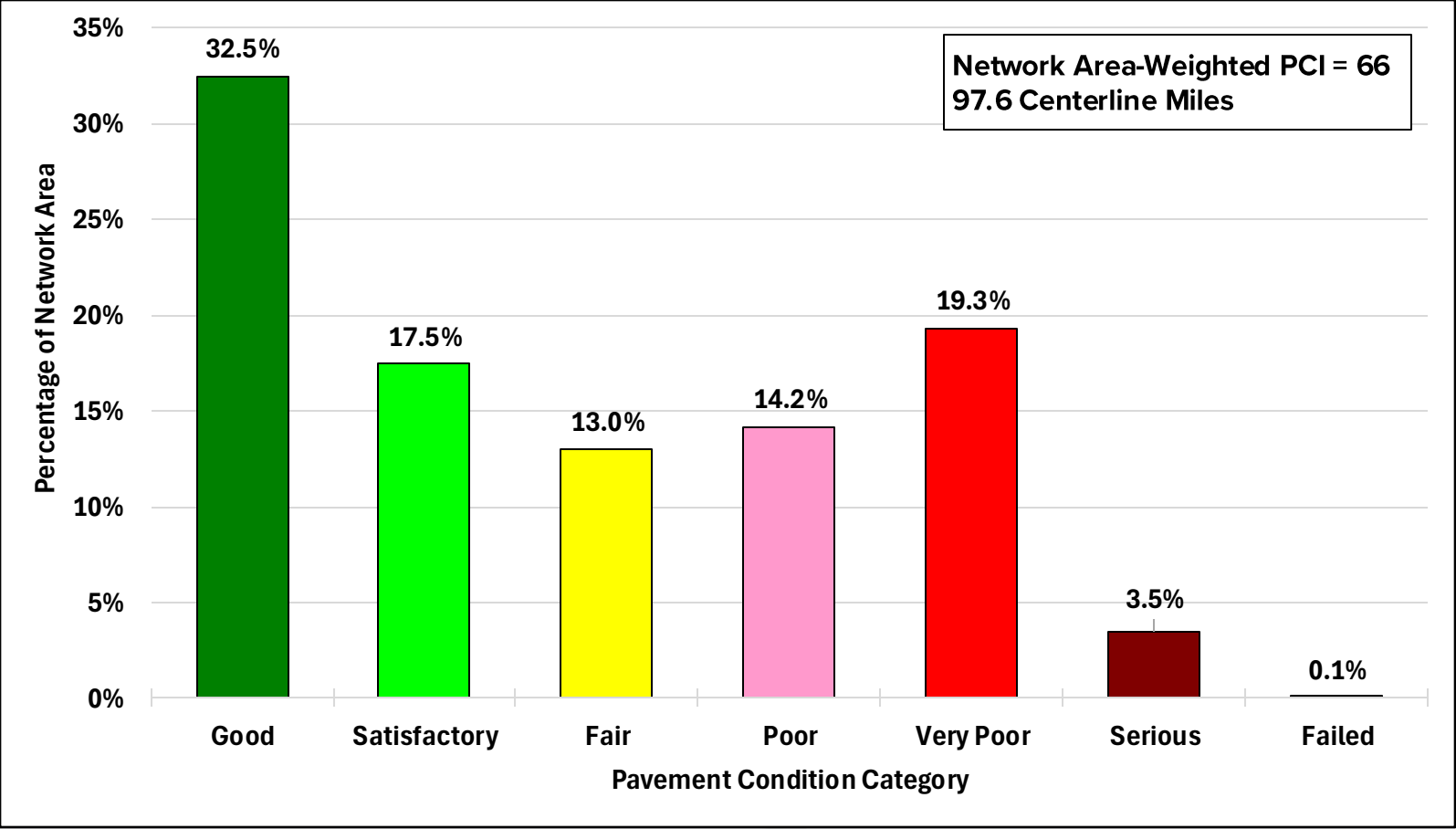
**Network Area-Weighted
PCI = 66**

97.6 Total Centerline Miles



PCI Results – Network Level (Percentage of Area)

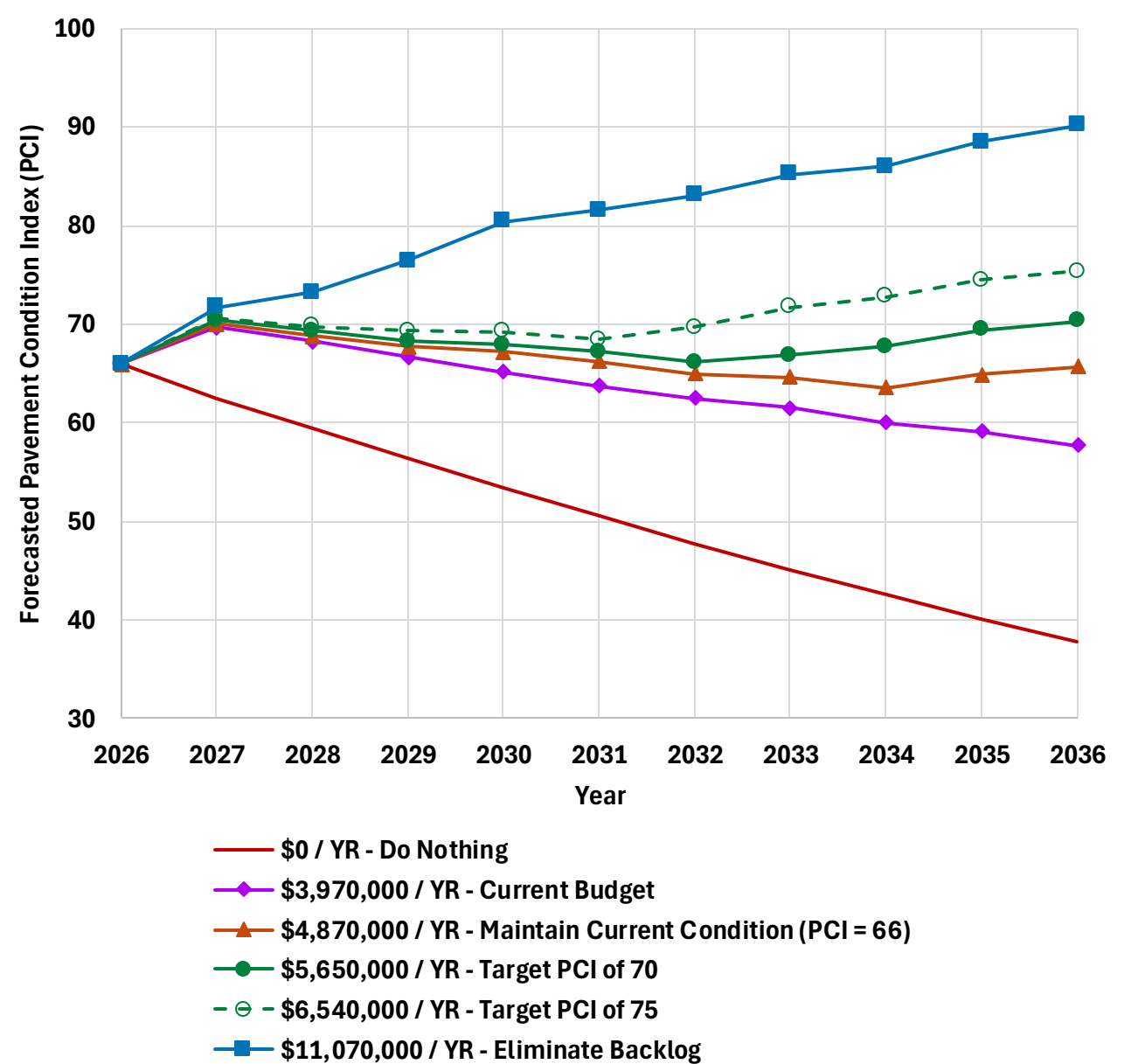
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100	86	Good	
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Budget Analyses

Forecasted PCI (10-year analysis)

- \$0/yr (safety repairs only). Final PCI = 38
- \$3.97M/yr – Current Funding. Final PCI = 58
- \$4.87M/yr – Maintain Current PCI = 66
- \$5.65M/yr – Reach Target Condition. PCI = 70
- \$6.54M/yr – Reach Target Condition. PCI = 75
- \$11.07M/yr – Eliminate Backlog. Final PCI = 90



Overview of Budget Scenario Results

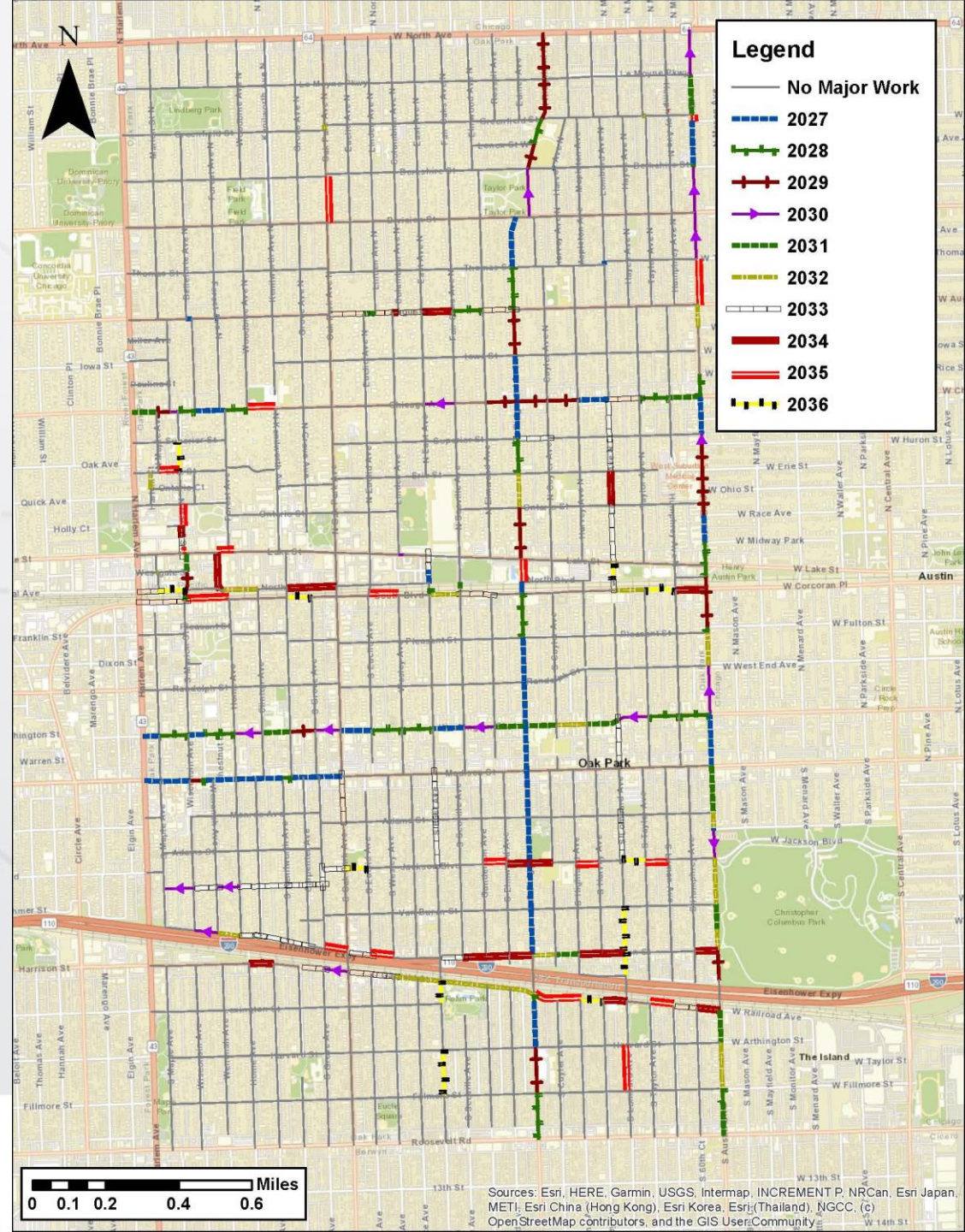
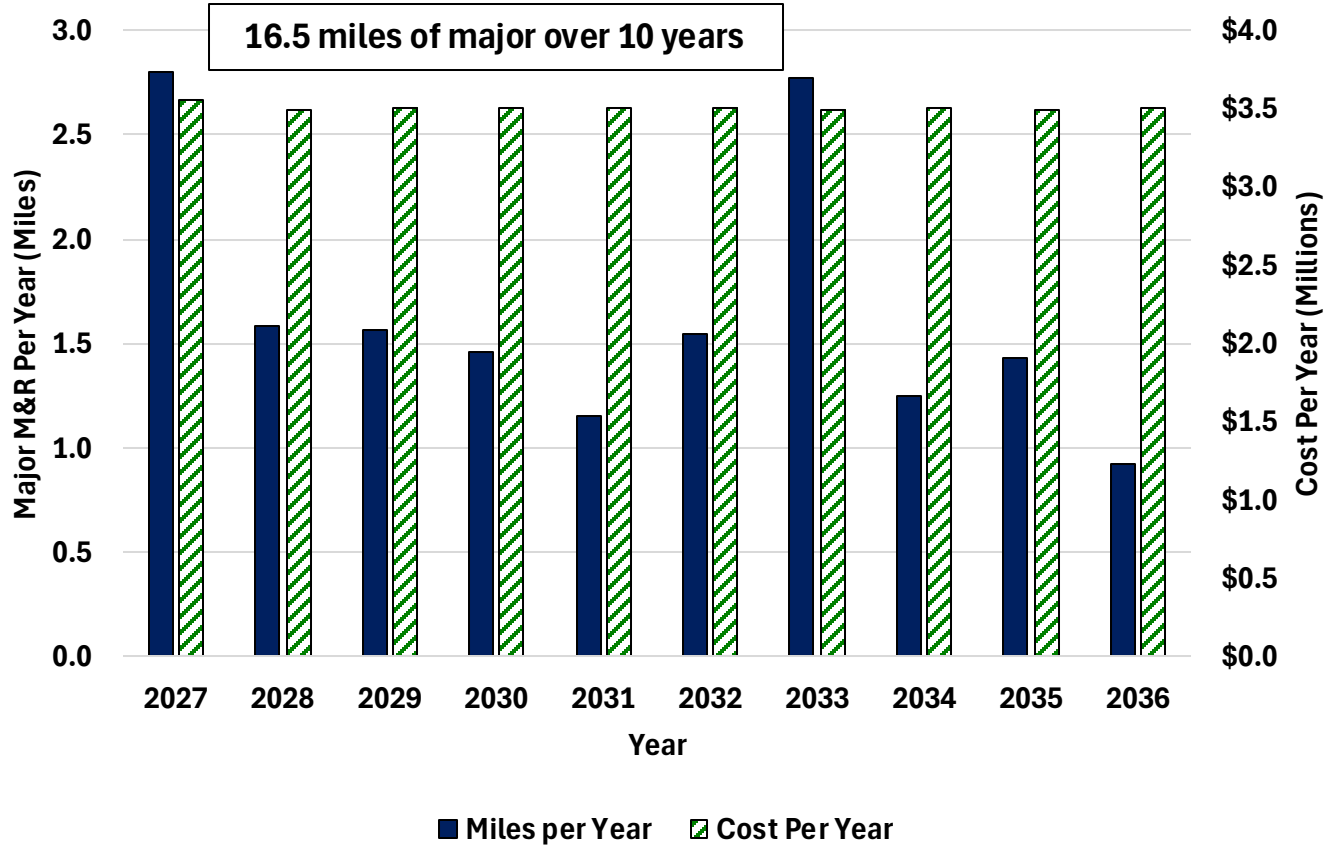
Funding Scenario	Total 10-Year Funded Costs	Remaining M&R Backlog in 2036	Total Funded + Backlog	Forecasted PCI in 2036
\$0 / YR - Do Nothing	\$0	\$190,126,673	\$190,126,673	38
\$3,970,000 / YR - Current Budget	\$39,685,818	\$97,376,495	\$137,062,313	58
\$4,870,000 / YR - Maintain Current Condition (PCI = 66)	\$48,722,268	\$83,697,617	\$132,419,884	66
\$5,650,000 / YR - Target PCI of 70	\$56,457,193	\$75,619,754	\$132,076,947	70
\$6,540,000 / YR - Target PCI of 75	\$65,360,367	\$65,253,700	\$130,614,067	75
\$11,070,000 / YR - Eliminate Backlog	\$110,737,742	\$0	\$110,737,742	90

All scenarios include planned work
 All scenarios include surface treatments
 3% inflation rate used for all scenarios

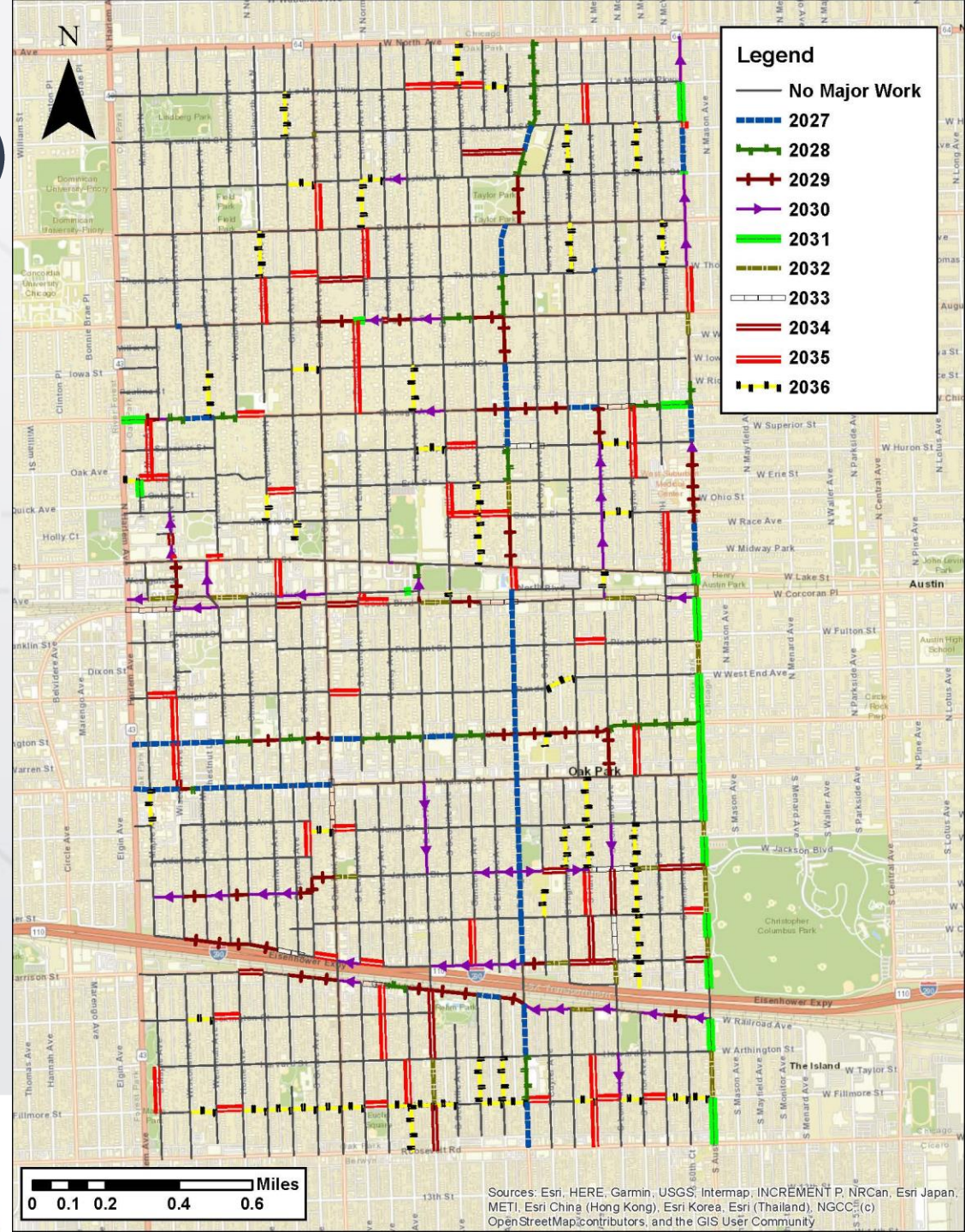
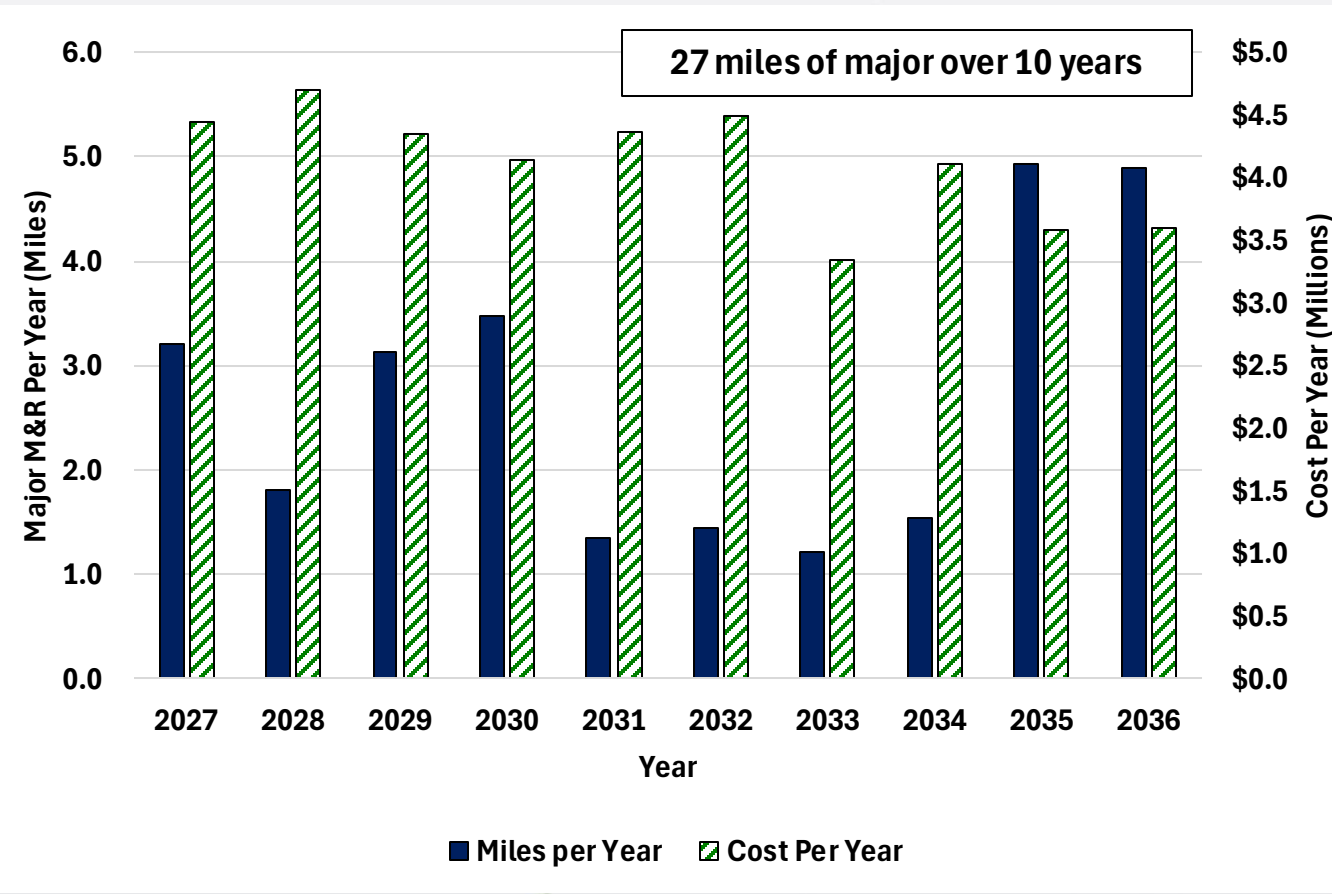


Current Funding (\$3.97M)

Major M&R

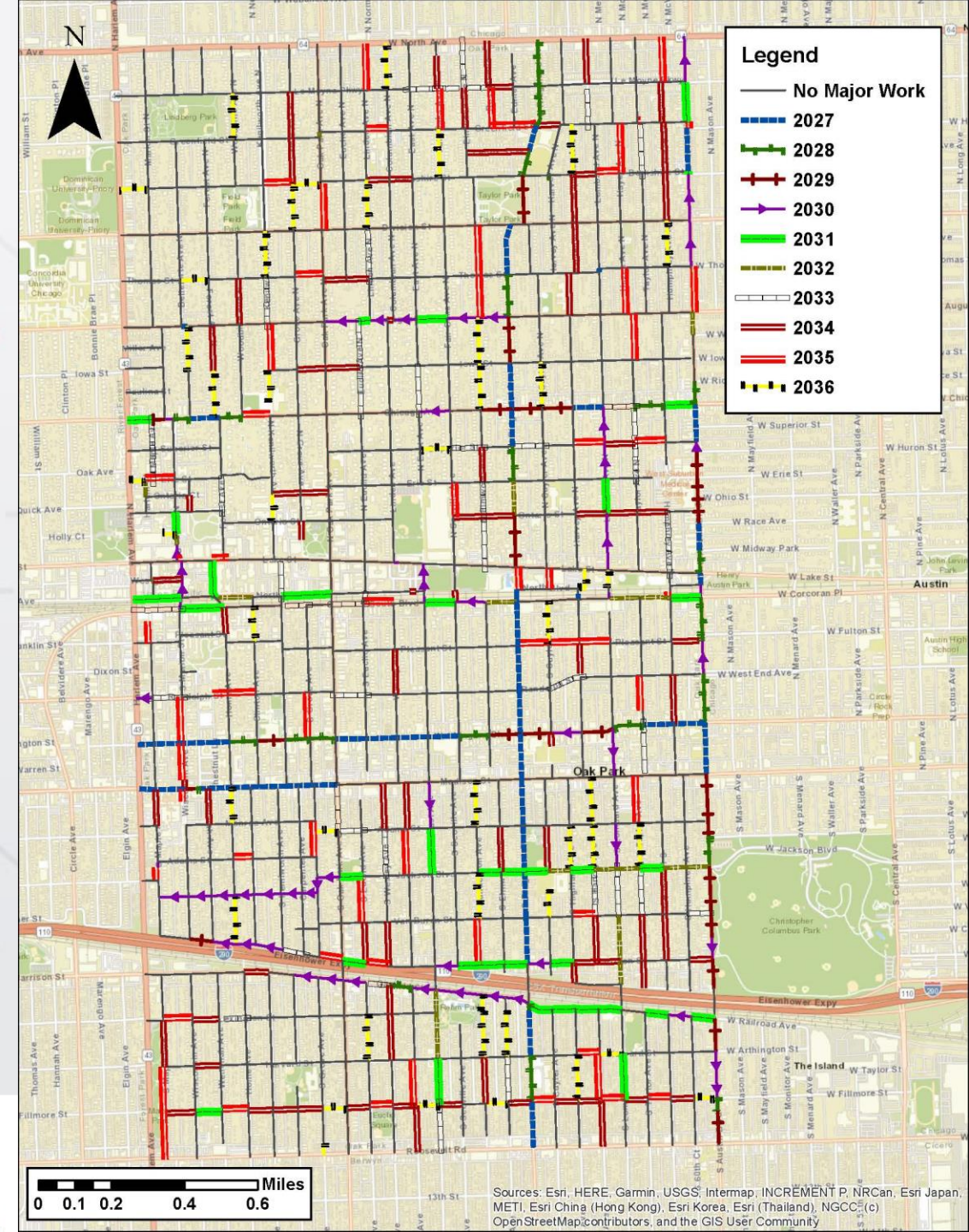
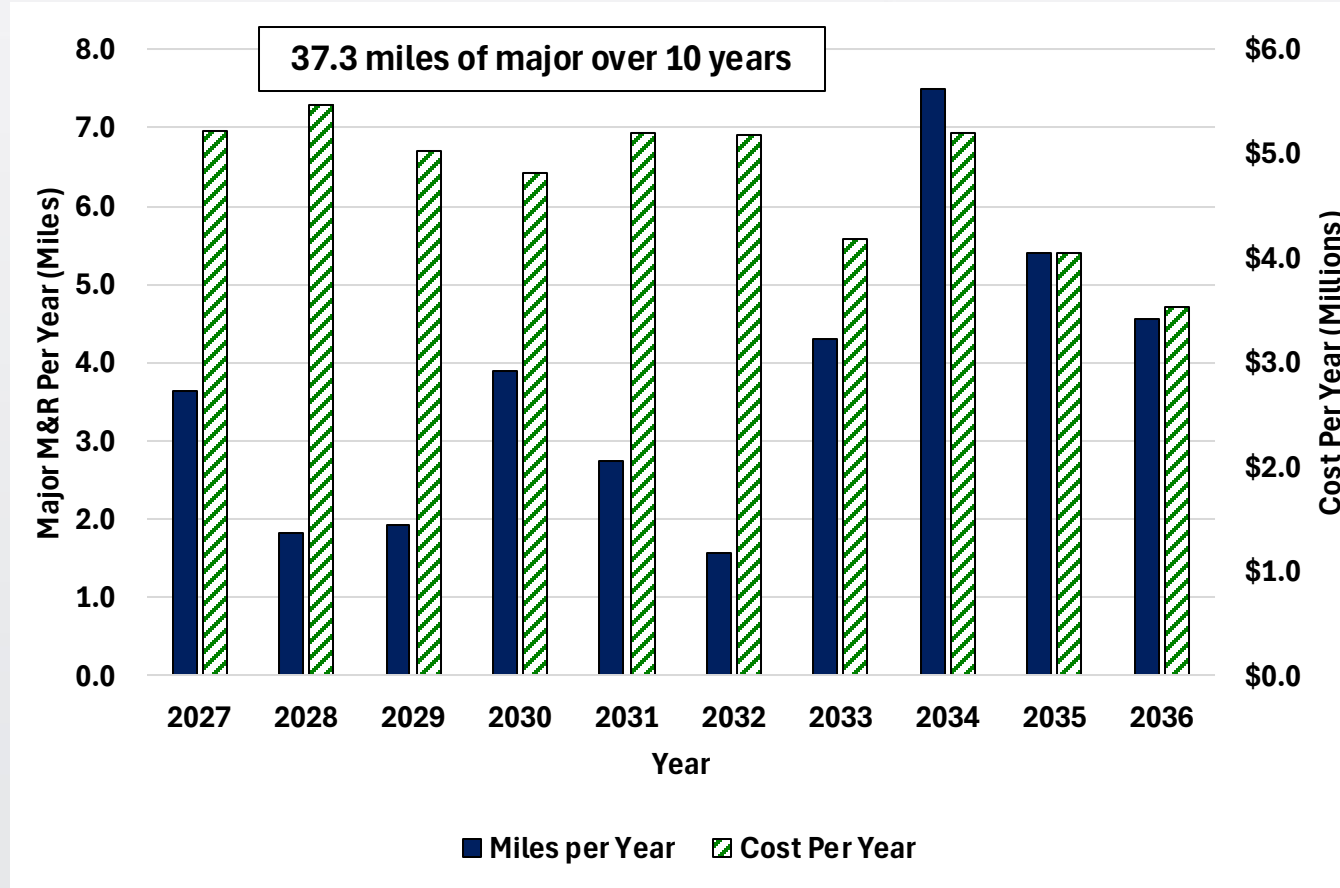


Maintain Current Condition(\$4.87M) Major M&R



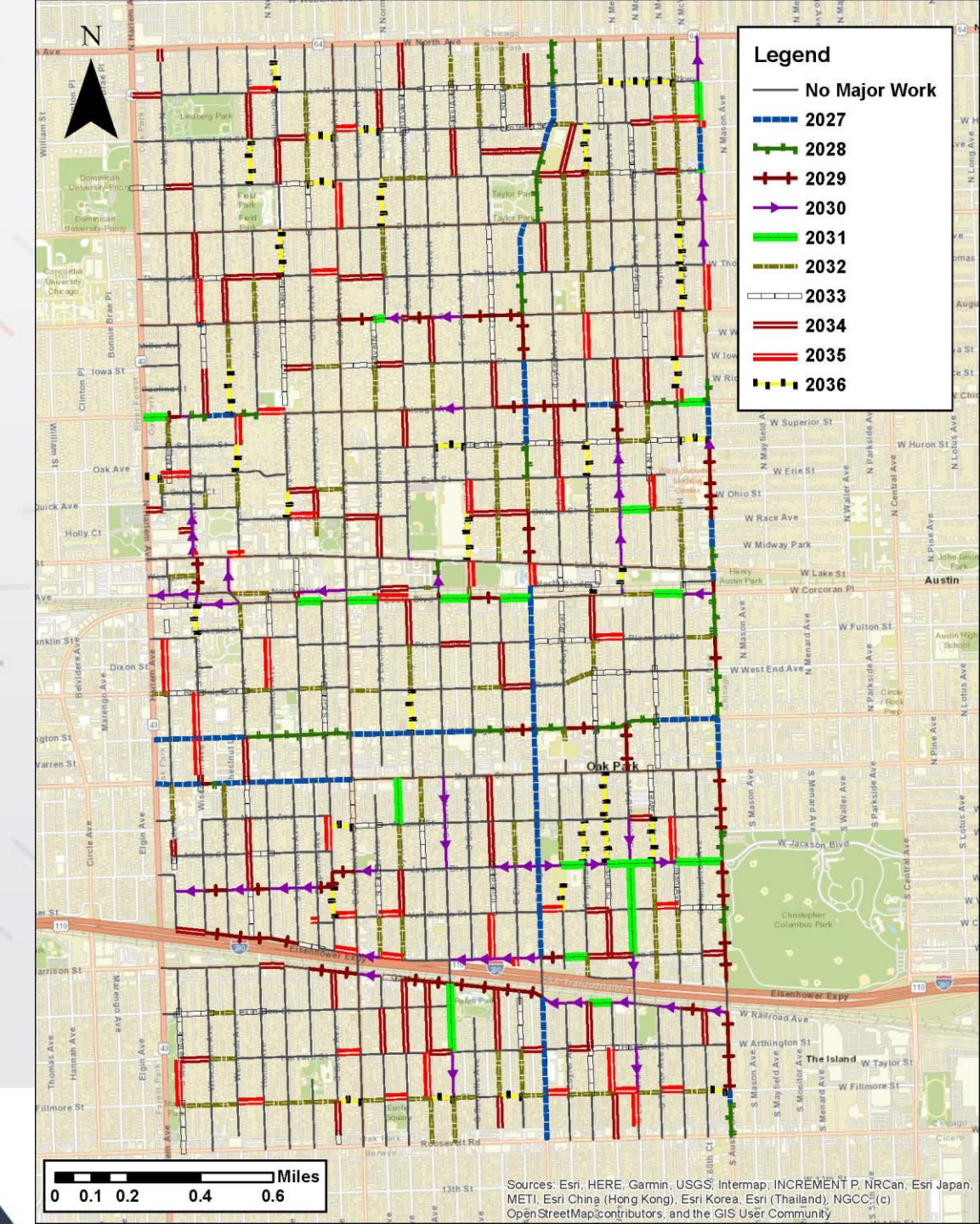
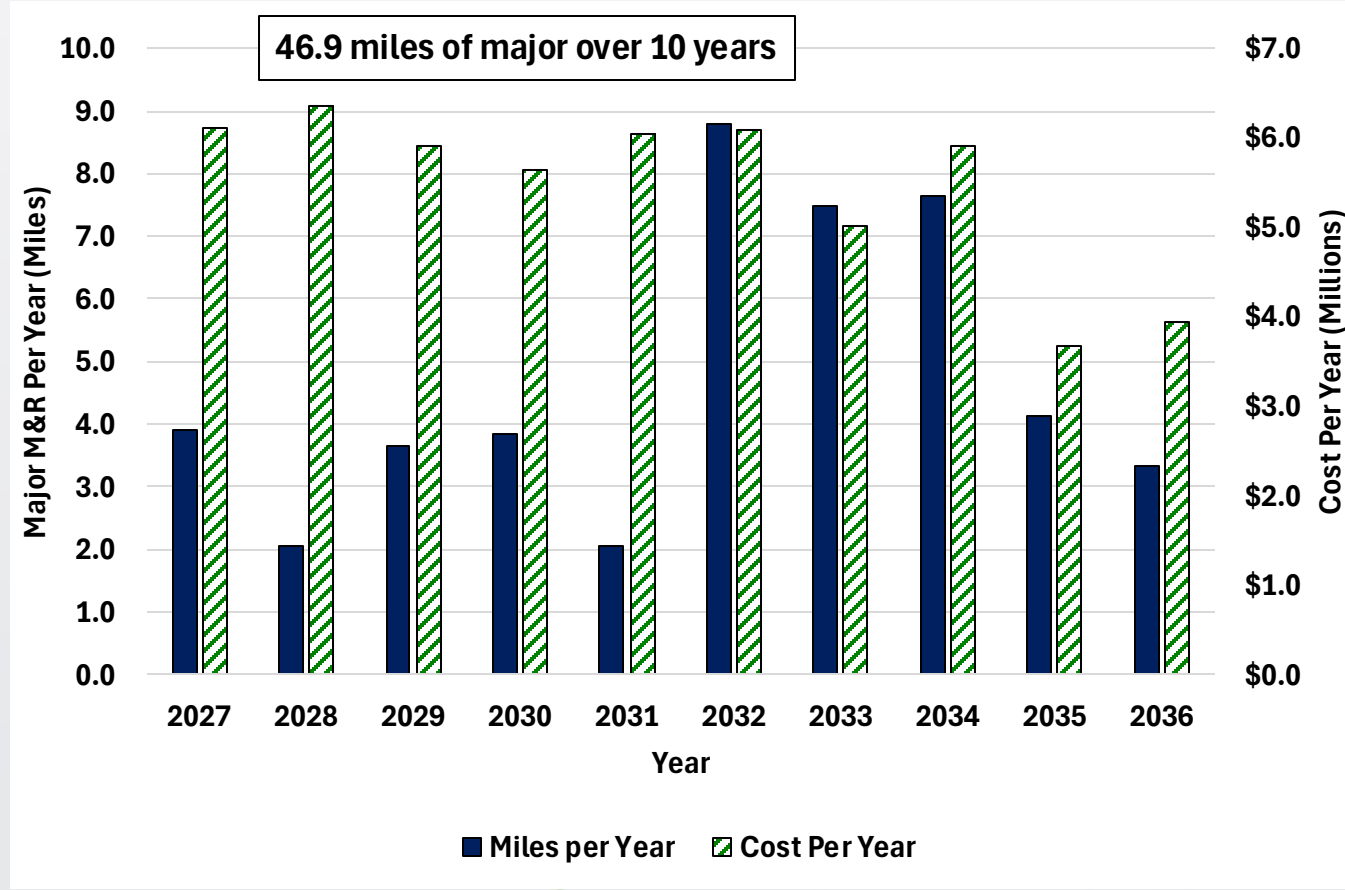
Target PCI of 70 (\$5.65M)

Major M&R



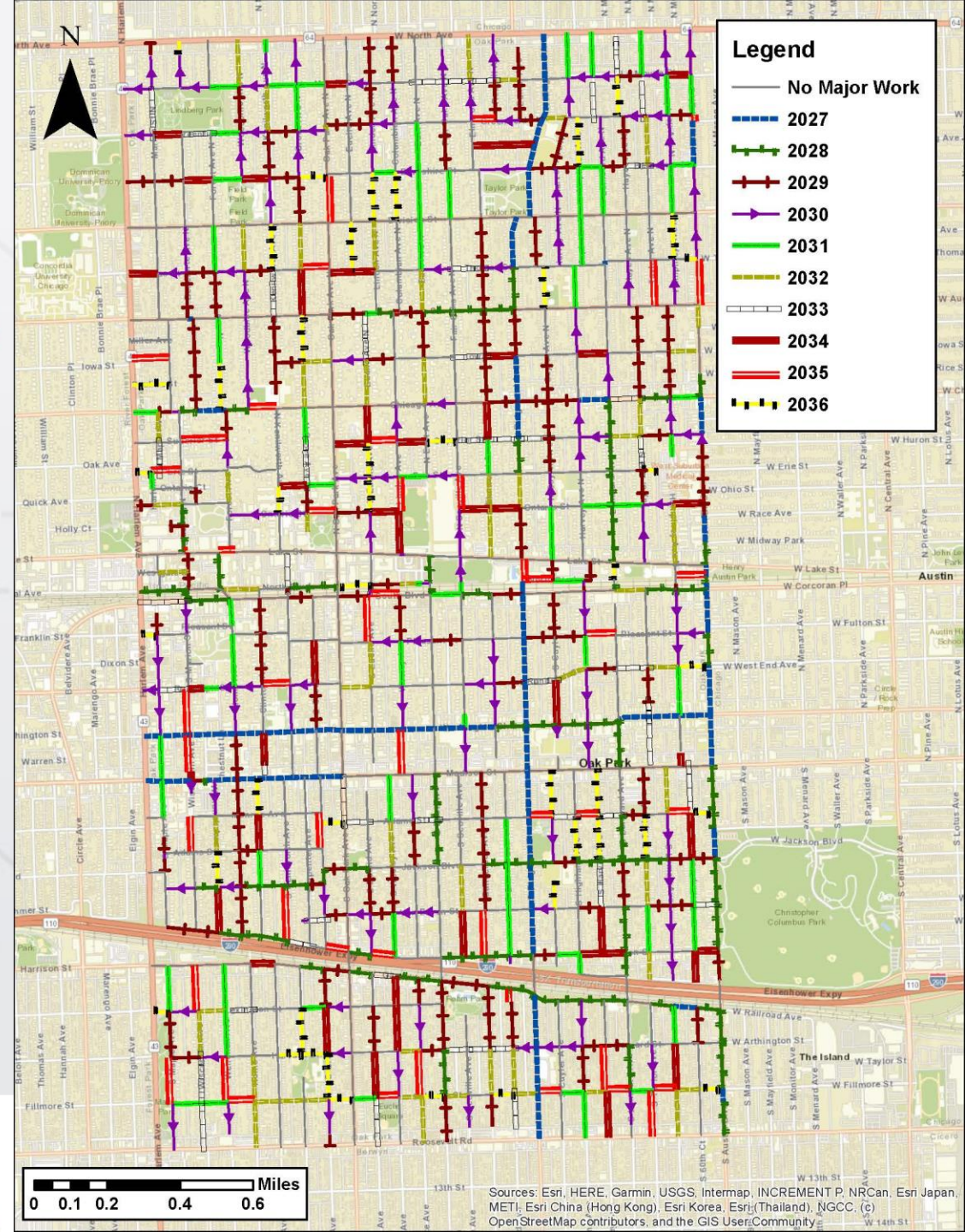
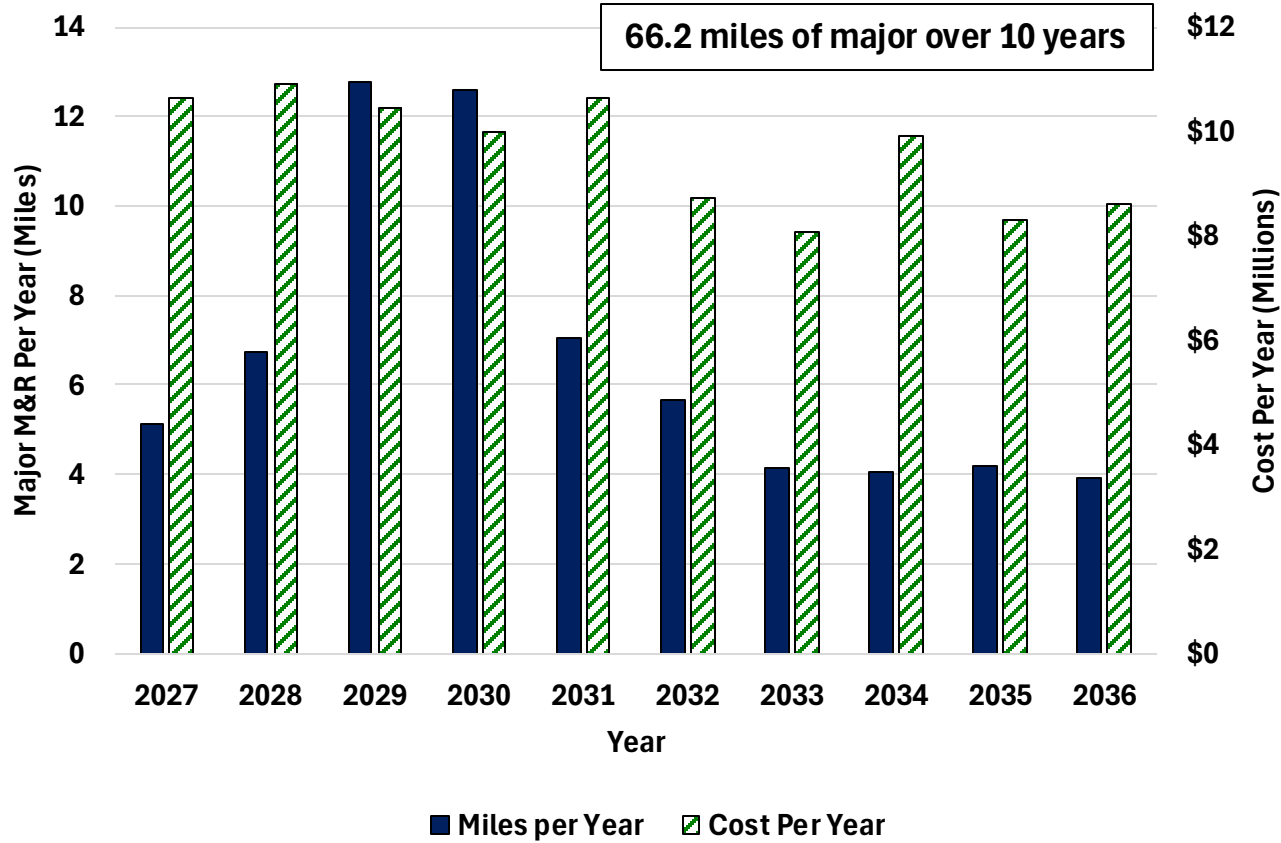
Target PCI of 75 (\$6.54M)

Major M&R



Eliminate Backlog (\$11.07M)

Major M&R



5-YR Capital Improvement Plan Recommendation

Year	Estimated Cost	Estimated Centerline Miles
2027	\$ 3,514,990	4.3
2028	\$ 3,526,675	3.3
2029	\$ 3,587,061	2.6
2030	\$ 3,546,120	1.3
2031	\$ 3,699,030	2.6
TOTAL	\$ 17,873,876	14.0

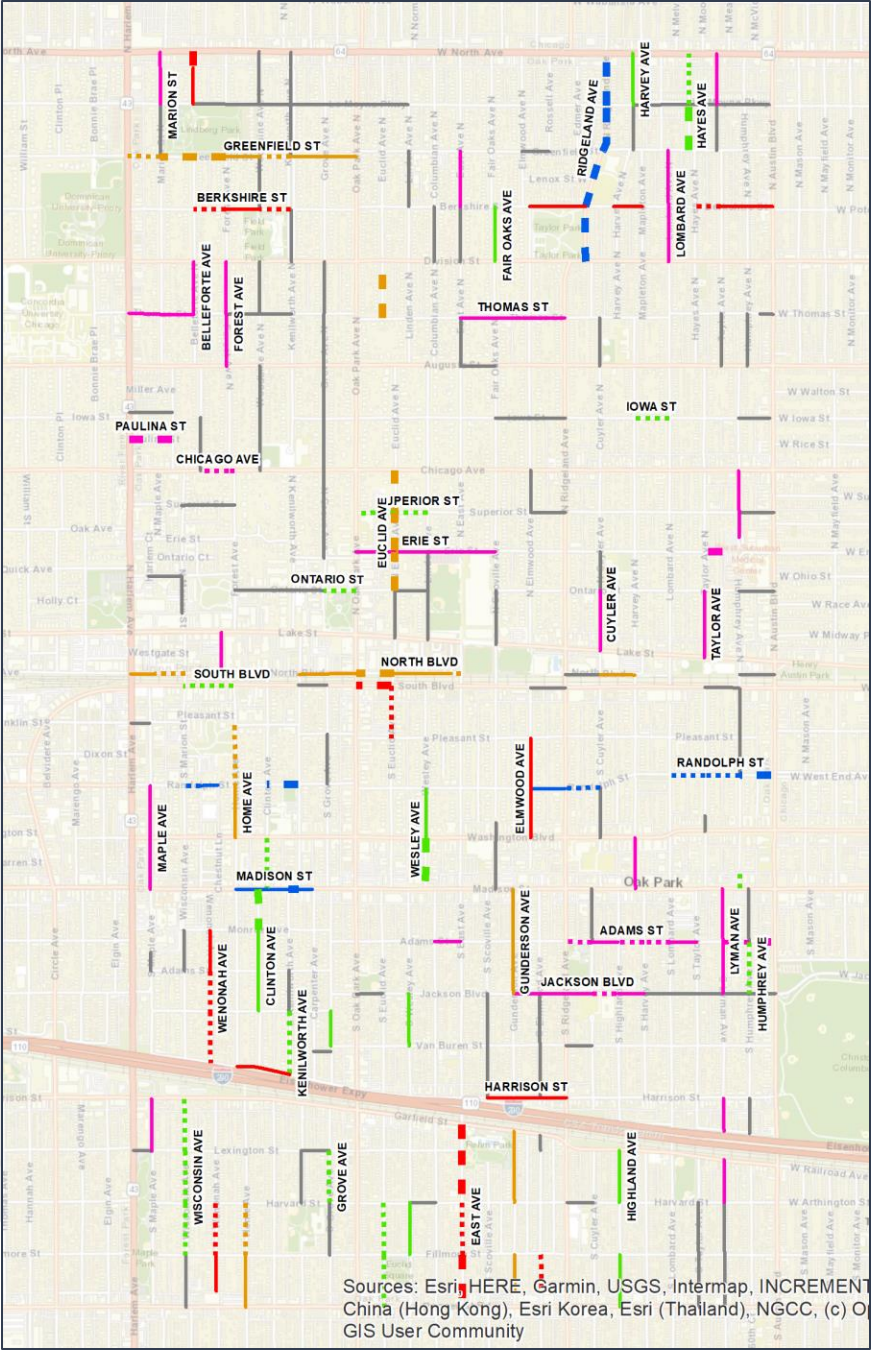
Legend

CIP Year

- 2027
- 2028
- 2029
- 2030
- 2031
- CIP Alternates

CIP Work

- AC Resurfacing & PCC Repair
- AC Rehabilitation
- AC Reconstruction



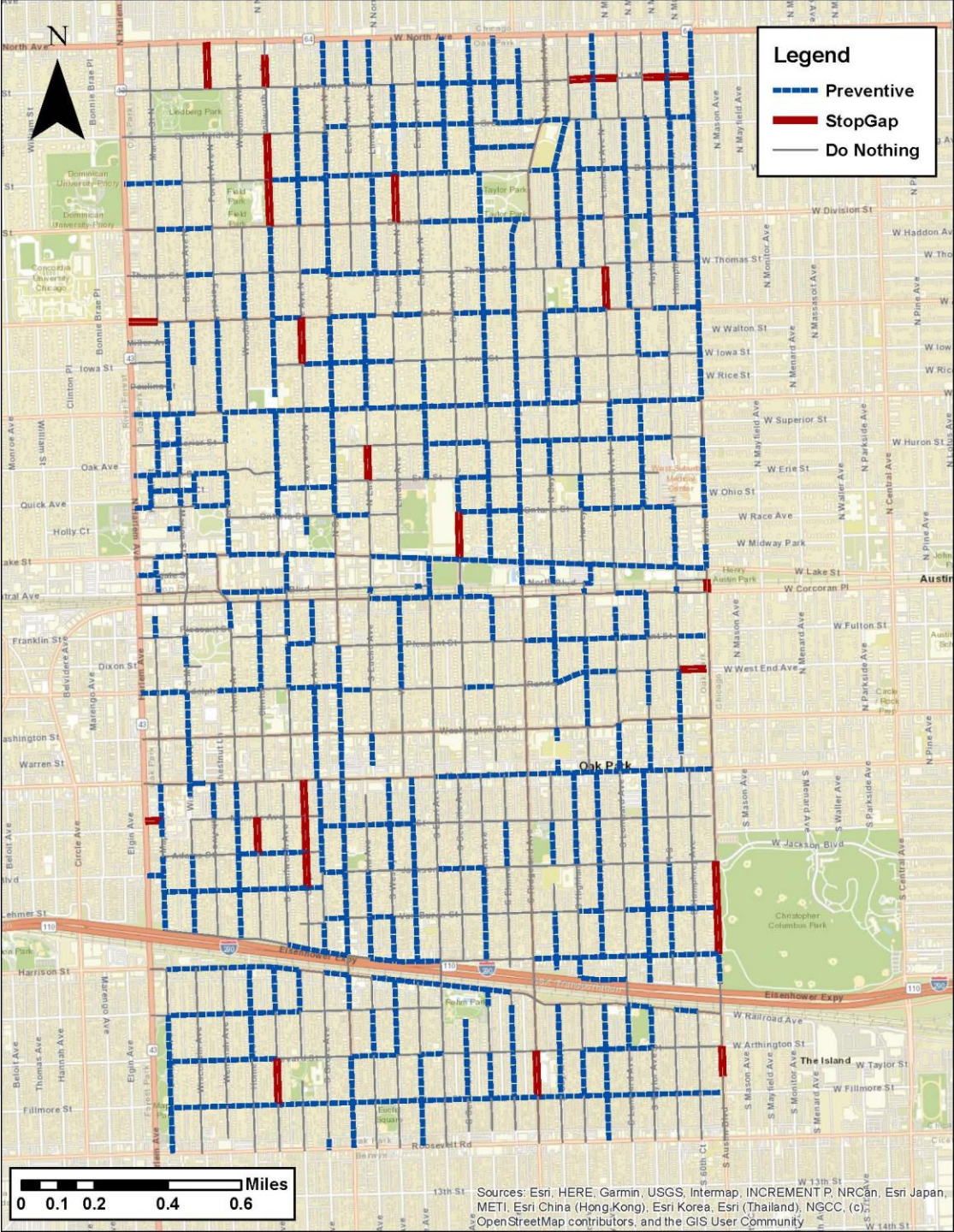
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT
China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) O
GIS User Community



Localized Maintenance Recommendations

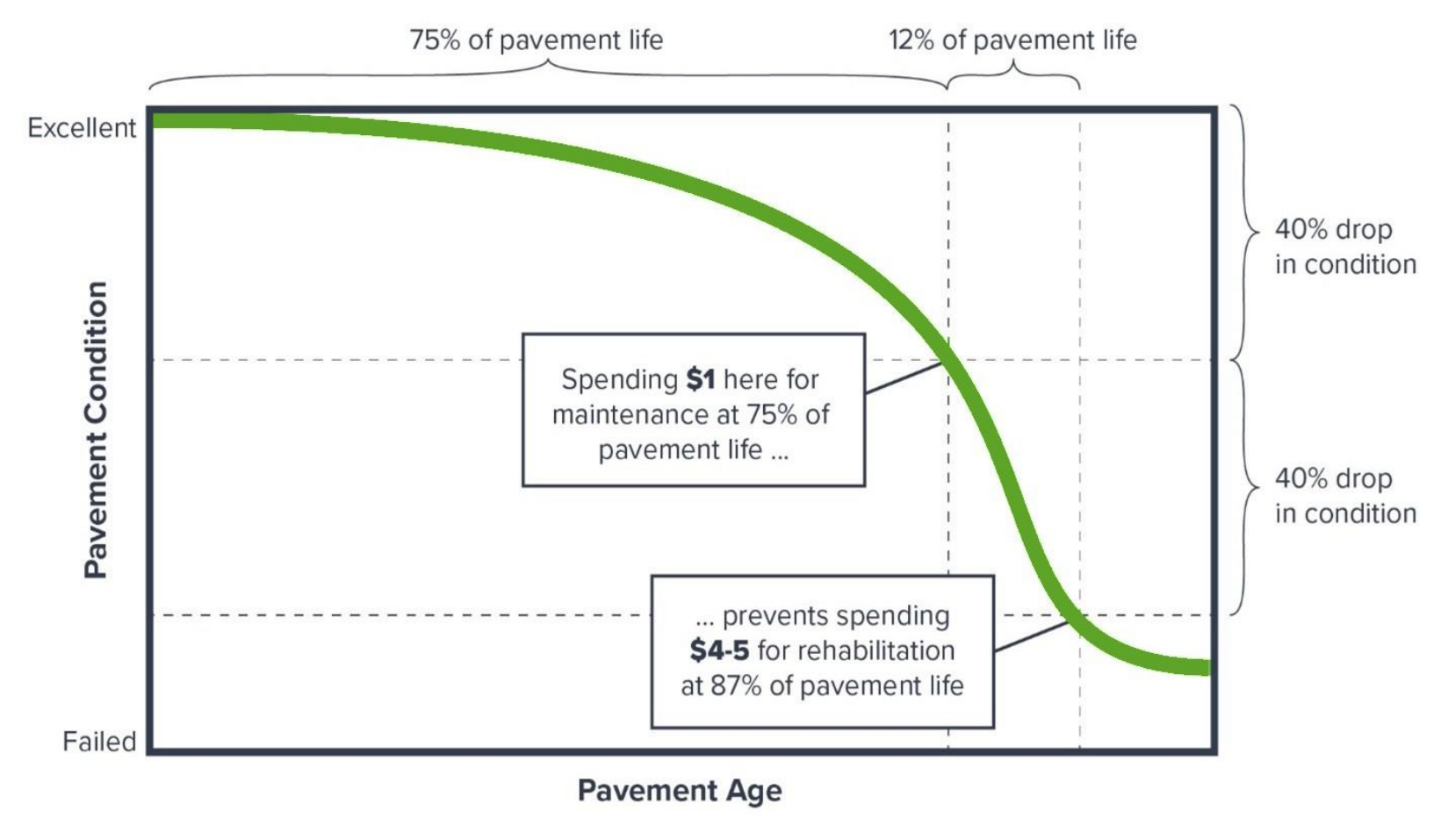
Policy	Number of Sections	Cost	Weighted Average PCI Before Maintenance	Weighted Average PCI After Maintenance
Preventive	394	\$309,061	79.00	80.70
Stopgap	28	\$64,331	31.70	35.00

Policy	Work Description	Work Quantity	Work Cost
Stopgap	Patching	7,148 ft ²	\$64,331
Preventive	Crack Sealing	24,043 ft	\$46,883
Preventive	Patching	15,325 ft ²	\$242,098
Preventive	Slab Replacement	1,166 ft ²	\$20,080
Total			\$373,392



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Pavement Life Cycle and Expected Costs



Recommendations

- Maintain the PMS
 - Annual updates to work history
 - Update condition data about every 3-5 years
 - Update treatment unit costs
- Use the PMS to make accountable, performance-based, data-driven decisions about work needs, and to demonstrate progress towards achieving goals.
- Use preventive maintenance (preservation) approaches to make the most effective use of available resources by extending pavement life.



Acknowledgements

- Village of Oak Park
- Chicago Metropolitan Agency for Planning (CMAP)



Discussion

- Thanks for your time attention!
- Any questions?

