



Pavement Data Collection and Pavement Management System Implementation for Village of Sugar Grove, IL

Prepared for
Village of Sugar Grove, Illinois
In Association with
Chicago Metropolitan Agency for Planning

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List of Abbreviations

<u>Abbreviation</u>	<u>Explanation</u>
AADT -	Annual Average Daily Traffic
AC -	Asphalt Concrete
ADT -	Average Daily Traffic
AECOM -	The organization AECOM
ARA -	Applied Research Associates
ASTM -	American Society for Testing and Materials
CMAP -	Chicago Metropolitan Agency for Planning
DSV -	Digital Survey Vehicle
FHWA -	Federal Highway Administration
GIS -	Geographic Information System
GPS -	GLOBAL Positioning System
HMA -	Hot Mix Asphalt
IDOT -	Illinois Department of Transportation
IRI -	International Roughness Index
LCMS -	Laser Crack Measurement System
LTR -	Load Transfer Restoration
PCC -	Portland Cement Concrete
PCI -	Pavement Condition Index
PMS -	Pavement Management System
RSL -	Remaining Service Life
STA -	State Transportation Agencies

INTRODUCTION

1.1 Background

Chicago Metropolitan Agency for Planning (CMAP) selected ARA to develop pavement management plans for a selected number of local agencies from the CMAP region, including additional data collection for non-Federal Aid routes. The pavement management plans will provide participating local agencies with a document that describes the importance and types of pavement preservation, the current condition of pavements, scenarios evaluating the cost to meet different network-level pavement conditions, and recommended capital plans based on the selected pavement condition/spending scenarios. The pavement management plan for the Village of Sugar Grove includes summary tables, charts, graphics, and maps depicting current pavement conditions and forecasted pavement conditions under different scenarios. CMAP and AECOM staff managed the development of the pavement management plan in conjunction with the Village of Sugar Grove.

As part of this project, ARA has evaluated the current condition of the Village of Sugar Grove's roadway pavement network, implemented a pavement management system (PMS) using PAVER™ software, forecasted condition, generated budget scenarios, and recommended future maintenance and rehabilitation (M&R) plans.

1.2 Project Kick-off and Records Review

ARA met with the Village of Sugar Grove, CMAP, and AECOM representatives for a project kick-off meeting on March 18, 2021. Based on the kick-off meeting and documents provided by the Village and CMAP, pavement data was collected between April 14th and May 2nd, 2021. A GIS shapefile was originally picked from the IDOT's IRIS database and later verified by the Village and was used as a base-map for field data collection. The network segmentation provided in the GIS shapefile was the primary source of roadway inventory for the village's pavement management database. The Village responded with valuable information to a questionnaire that ARA developed to better understand the PMS inputs available from the Village and any specific project requirements. ARA worked with the village to finalize treatment types, unit costs, and their annual budgets from 2022 through 2026 to plan future M&R activities. The following documents were reviewed as part of this effort:

- GIS shapefile for the local agency (CMAP)
- Network Segmentation for collection (CMAP)
- Review of network segmentation (Village of Sugar Grove)
- Completed Questionnaire (Village of Sugar Grove)

1.3 Network Segmentation

The Village of Sugar Grove manages approximately 59.42 miles of roadway pavements, consisting primarily of asphalt pavements. The initial GIS shapefile had 478 segments. However, three (3) gravel pavement sections were not inspected because those sections were likely to impact the overall network PCI inappropriately. Hence, only 477 segments were inspected.

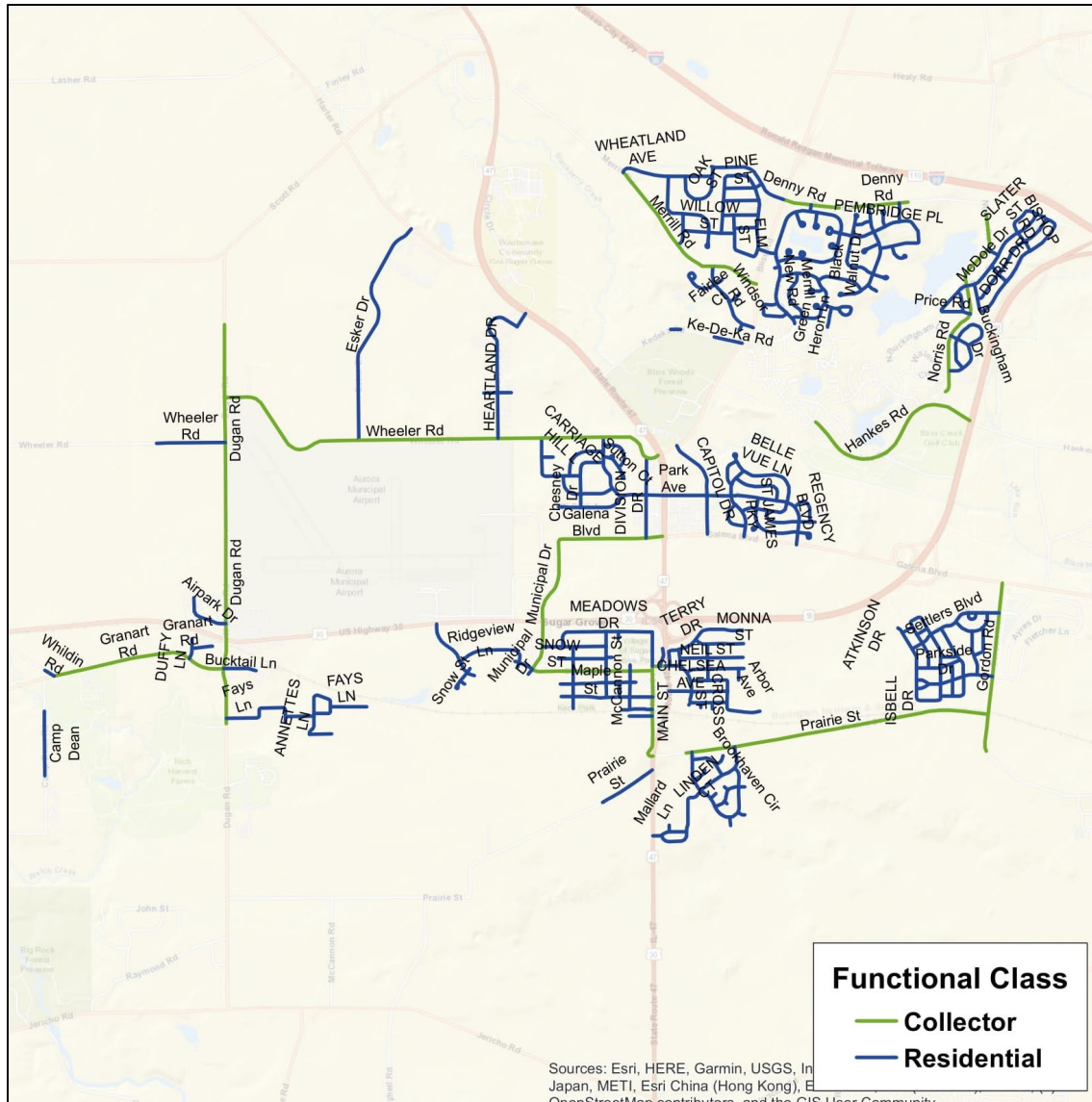


Figure 1. Village of Sugar Grove’s roadway network segmentation.

1.4 Traffic Data

Table 1 displays the distribution of network length based on functional class. As observed in Table 1, the majority of the roadway network is comprised of residential streets.

Collectors gather traffic from local roads and funnel it to the arterial network. Collectors serve primarily intra-county travel and typical travel distances are shorter than on arterial routes. Collectors are broken down into two categories: Major Collectors and Minor Collectors. Generally, major collector routes are longer; have lower driveway densities; have higher speed limits; are spaced at greater intervals; have higher traffic volumes, and may have more travel lanes than their minor collector counterparts.

The minimum spacing between two collector roadways in suburban areas of Illinois is ½ or 1 mile typically. In a densely populated urban area, two collector roadways might be found at ¼ mile spacing or

less, but in most areas within the Chicago metropolitan region ¼ mile is considered an absolute minimum and requires significant justification in terms of the traffic patterns and land uses served. An exception is the case of paired one-way roads serving traffic moving in the opposite direction of each other. Projects on roadways with a minor collector functional classification and located outside of the adjusted urbanized area boundary are not eligible for federal-aid funding.

Local/residential roads primarily provide access to private properties and connect with higher classified routes. Design speeds are low, stub sections are common, and the main consideration is given to access needs. They offer the lowest level of mobility, have the shortest trip lengths, and through traffic is often deliberately discouraged. Local roads and streets are typically not eligible for federal-aid funding, though some bicycle and pedestrian projects on local roads and streets may be eligible for federal-aid funding.

Average daily traffic (ADT) data for the Village of Sugar Grove network was obtained from the following two resources:

- Illinois Department of Transportation (IDOT) transportation management system:
<http://www.gettingaroundillinois.com/gai.htm?mt=aadt>.
- IDOT Traffic Count Database Systems:
<https://idot.ms2soft.com/tcds/tsearch.asp?loc=idot&mod=>

The maximum traffic volume in the Village’s network is 8,900 vehicles per day. Figure 2 shows the annual average daily traffic (AADT) data for the individual pavement sections.

Table 1. Village of Sugar Grove’s roadway network distribution.

Network/Functional Class	Length	Unit	Maximum AADT in 2021	Minimum AADT in 2021
Collector	14.70	miles	8,900	475
Residential	44.72	miles	2,750	175
Total Network	59.42	miles		

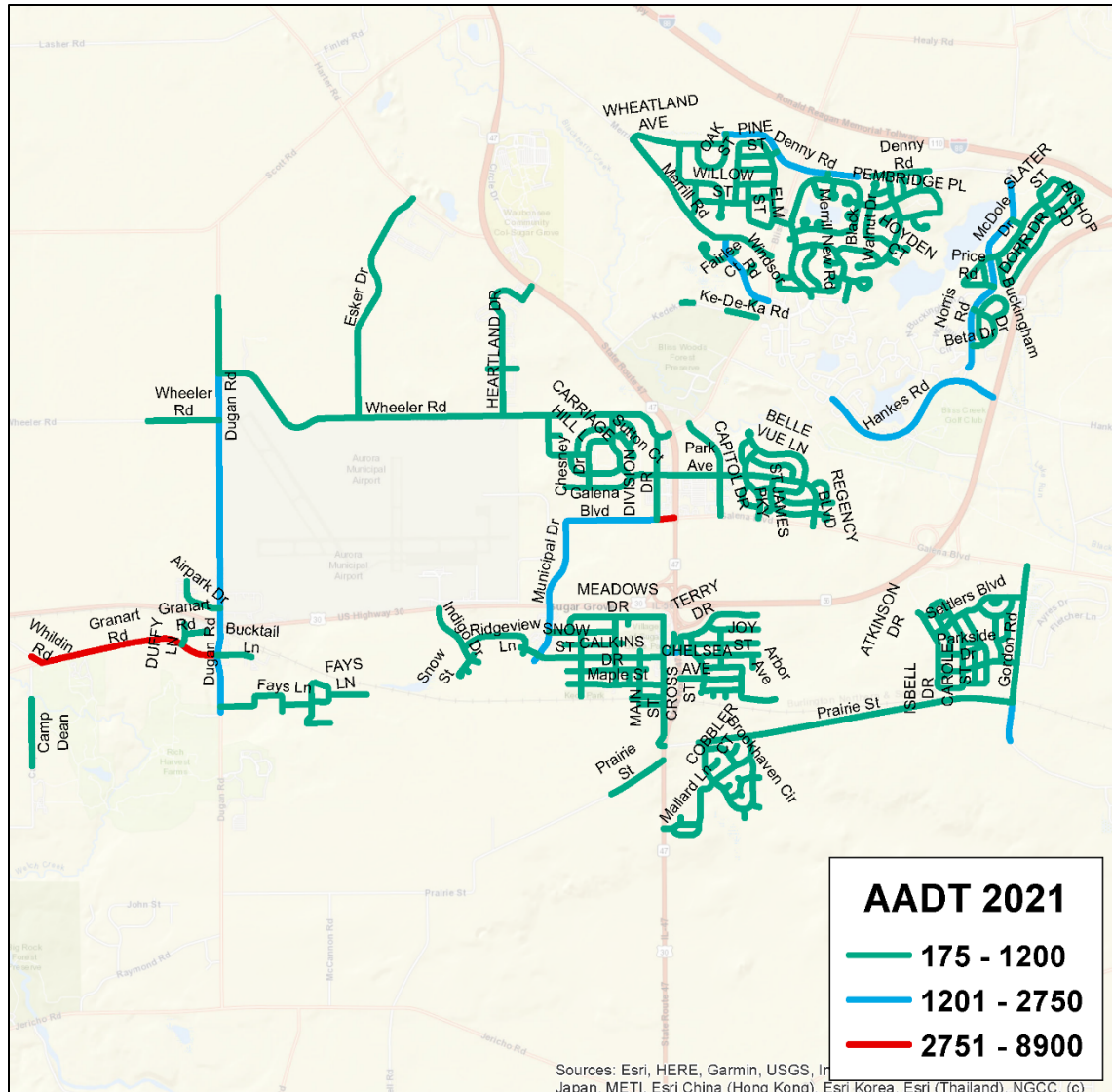


Figure 2. Village of Sugar Grove’s annual average daily traffic data.

2. FIELD DATA COLLECTION AND ASSESSMENT

2.1 Digital Survey Vehicle (DSV)

ARA collected geo-referenced images of the entire Village of Sugar Grove roadway network using the DSV between April 14th and May 2nd, 2021. ARA’s DSV equipped with the Laser Crack Measurement System (LCMS), shown in Figure 3, captures images at 20-ft intervals. Each image is linearly referenced with the DSV’s onboard distance measuring instrument (DMI) and associated global positioning system (GPS) coordinates. For two-lane Village highways, ARA collected images in a single direction. In four-lane pavement sections, data was collected in the outermost lane in both directions.

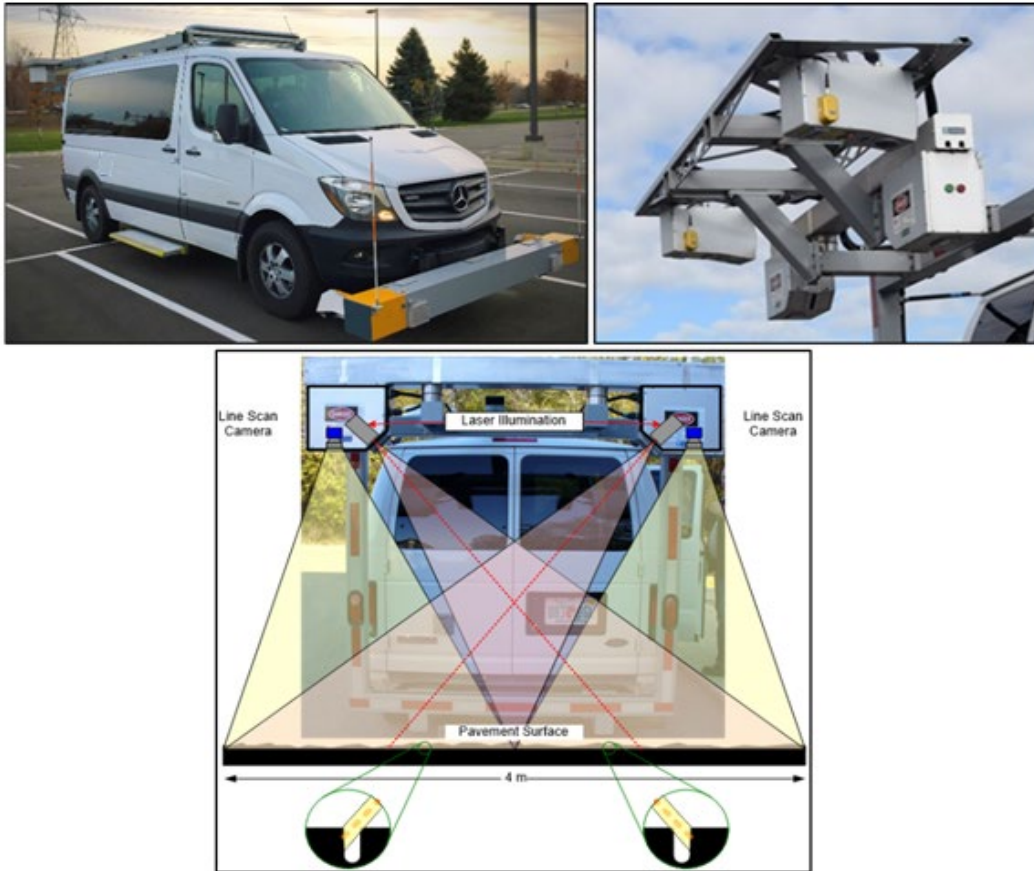


Figure 3. ARA's Laser Crack Measurement System (LCMS).

The LCMS captures enhanced right-of-way images using a right-of-way camera system. The images were used to assess the surface condition of pavements using the Pavement Condition Index (PCI) methodology per ASTM D6433. In addition to the images, International Roughness Index (IRI) and rutting information were collected using a high-speed laser profiling sensor for all the segments. The weighted average IRI value of the Village network is 215 inch/mile, which indicates the network is in 'Rough' condition in terms of pavement roughness. Figure 4 illustrates a scale that is recommended by the Federal Highway Administration (FHWA) as part of its Highway Performance Monitoring System (HPMS) requirements. The HPMS requirements for roadway smoothness is relatively stringent because it involves pavements that are in the National Highway System (NHS).

IRI (in/mile)	Condition
0 – 95	Smooth
96 – 170	Marginal
171 – 220	Rough
Over 220	Unacceptable

Figure 4: Pavement condition rating scale based on IRI values.

However, pavement roughness is subjective to human perception. The level of tolerance of roadway roughness is relatively higher for urban-street travelers because of lower operating speed than Interstate and US highways. Moreover, urban street smoothness is largely impacted by frequently intersecting streets, and localized roughness (e.g., manhole covers, railroad crossings, bridge approaches, roundabouts, etc.). Many of these items are not existent in Interstate or US highways. To account for these variabilities into pavement roughness estimation, a study was conducted by the District Department of Transportation (DDOT) in 2009 (1). The study was focused on IRI values of dense urban roadways of Washington D.C. As part of the study, a survey was conducted asking D.C. travelers to give their opinions on pavement smoothness based on the Weaver/AASHO scale. The ratings were directly used to establish a correlation between actual IRI value and perceived smoothness. The study proposed a new scale for the DDOT suggesting 188-318 in/mi for Collectors and 182-281 in/mi for Arterials as acceptable ranges.

Therefore, the Village of Sugar Grove’s network average IRI is not of a concern or require immediate attention. Because of this wide variability, IRI was not used in generating any of the budget scenarios presented in this report.

2.2 Pavement Condition Index Procedure

Pavement Condition Index (PCI) is a measurement of pavement condition which ranges from 0 to 100. This is an industry standard defined in ASTM D6433. A newly constructed pavement will have a PCI of 100 whereas a failed pavement will have a PCI of 10 or less. After construction, PCI starts to deteriorate with time due to traffic loads and volumes, climate, construction materials, and age. Examples of common traffic load-related distress are fatigue cracking, corner break, etc. whereas block cracking, longitudinal and transverse cracking, etc. are climate-related distresses.

PCI Value	Pavement Rating
100	
85	Good
70	Satisfactory
55	Fair
40	Poor
25	Very Poor
10	Serious
0	Failed

Figure 5. Pavement condition category based on the PCI value.

A PCI survey allows users to compare all pavements on a common scale and provides an index for monitoring pavement deterioration and treatment selection during the PMS analysis. Typically, PCI surveys are conducted foot-on-ground in the field. The modified version allows the use of digital images to perform the survey in an office environment and still provides the highest detail of distress rating.

ARA's LCMS system identifies the pavement distresses and reports the type, severity, and extent of key pavement distresses, as shown in Figure 6. Some sample pavement surface images with representative PCI values are shown in Figure 7.

Ten percent of the surveyed sections were subjected to an internal quality assurance survey by an independent surveyor. After completion of the PCI calculation, visual checks were performed to ensure that the PCI values are representative of the surveyed images.

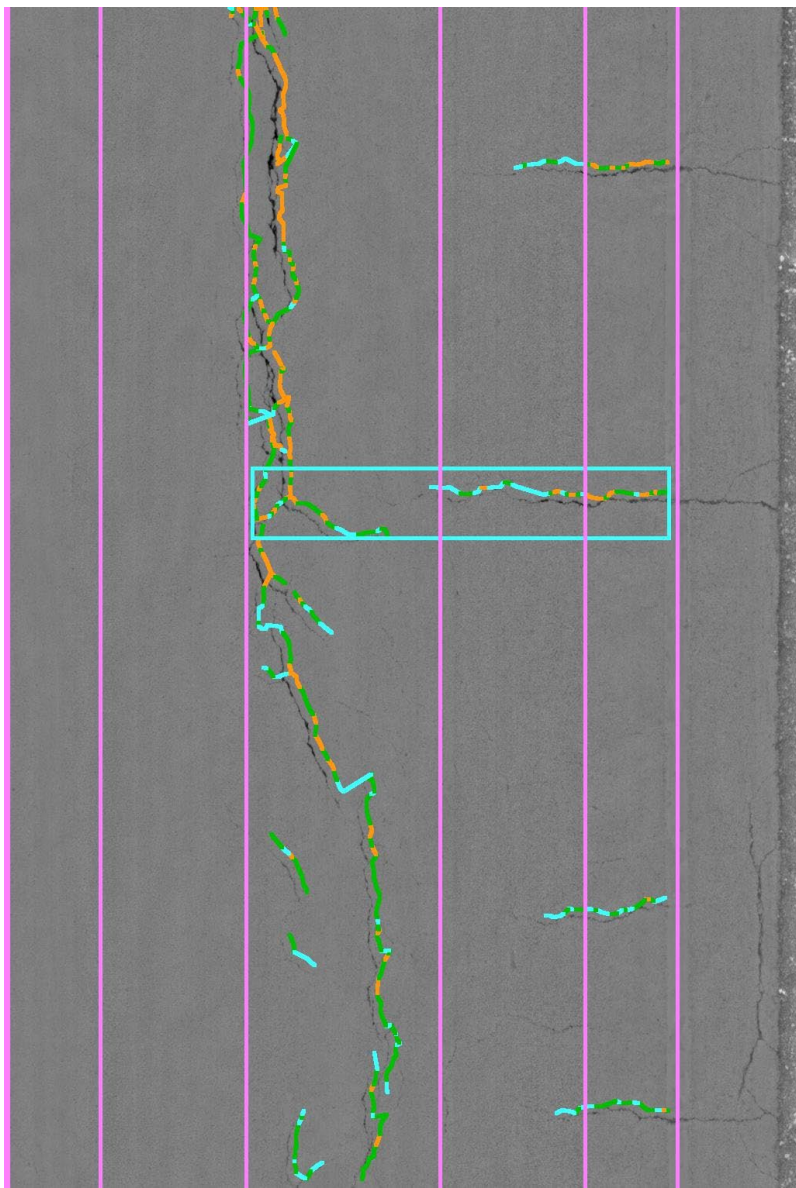


Figure 6. Pavement distress detection using LCMS system.



Figure 7. Sample pavement images with different PCI values (Good - Serious).



Section. 0451, Merrill New Rd, PCI=5

Figure 8. Sample pavement images with ‘Failed’ PCI value.

2.3 Pavement Network and Current Condition

After performing an automated condition survey with the collected images, the inspection data was imported into the PAVER™ software. As mentioned earlier, three (3) sections listed below were not inspected because they were gravel roads. Gravel roads could inappropriately affect the network average PCI.

- RAILROAD ST – Section ID: 0066 – 0.04 mi – Gravel.
- RAILROAD ST – Section ID: 0067 – 0.13 mi – Gravel.
- Whildin Rd – Section ID: 0471 – 0.06 mi – Gravel.

Based on the April 2021 pavement condition survey, the weighted average PCI of the network is 69.3, which represents a pavement network is in “fair” condition. ARA discussed the results of the PCI survey on June 18, 2021. Table 2 shows the pavement condition, percent area, number of sections, and number of sections by pavement surface type.

Table 2. Pavement condition, percent area, and the number of sections by pavement surface type.

Surface Type	Wt. Avg PCI	Pavement Area (SqFt)	% Area	Number of Sections
Asphalt Concrete (AC)	69.3	9,038,373	100	475

Figure 9 shows the distribution of network pavement area based on current pavement conditions. Per the latest survey, about 5% of the network is in 'serious' condition, about 24% of the network is in 'poor' or 'very poor' condition whereas about 52% of the network is in 'satisfactory' or 'good' condition. Figure 10 shows a detailed distribution of pavement conditions based on functional class.

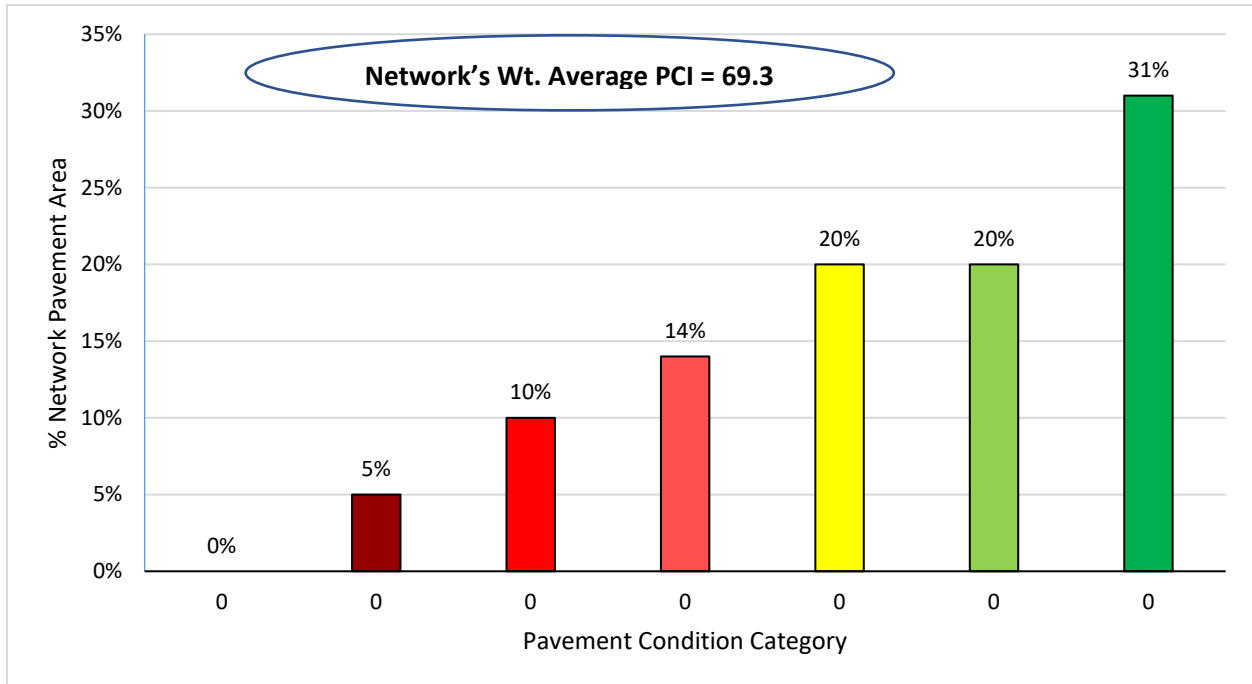


Figure 9. Distribution of network pavement area based on pavement condition.

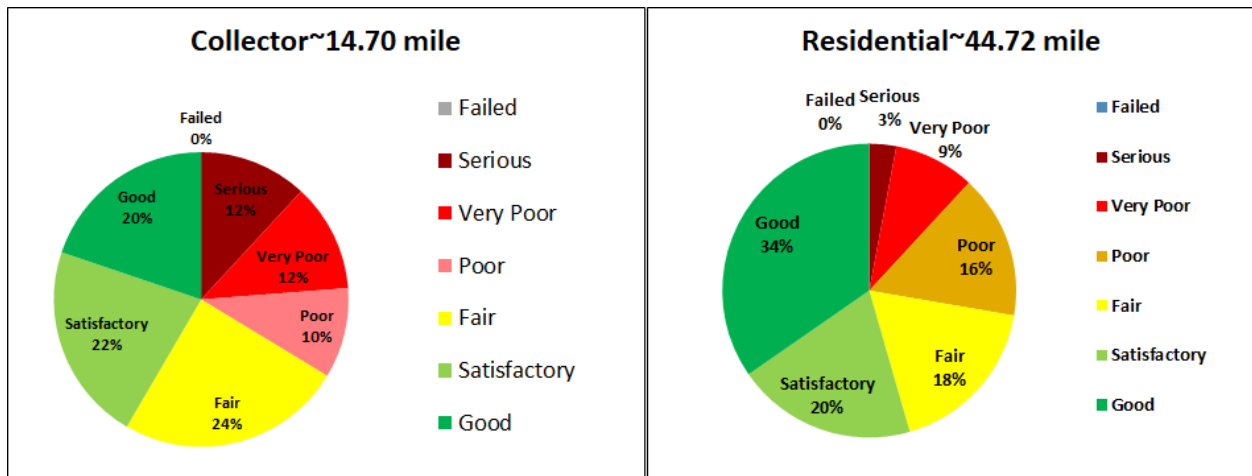


Figure 10. Pavement condition distribution based on functional class.

Figure 11 shows the average pavement condition based on functional class. The collector pavement sections comprise about 24.74% of the network and are in “Fair” condition with an average PCI value of 62.7. The major part (75.26%) of the network consists of residential streets with an average PCI value of 71.5. A GIS map with pavement conditions for individual segments is shown in Figure 12.

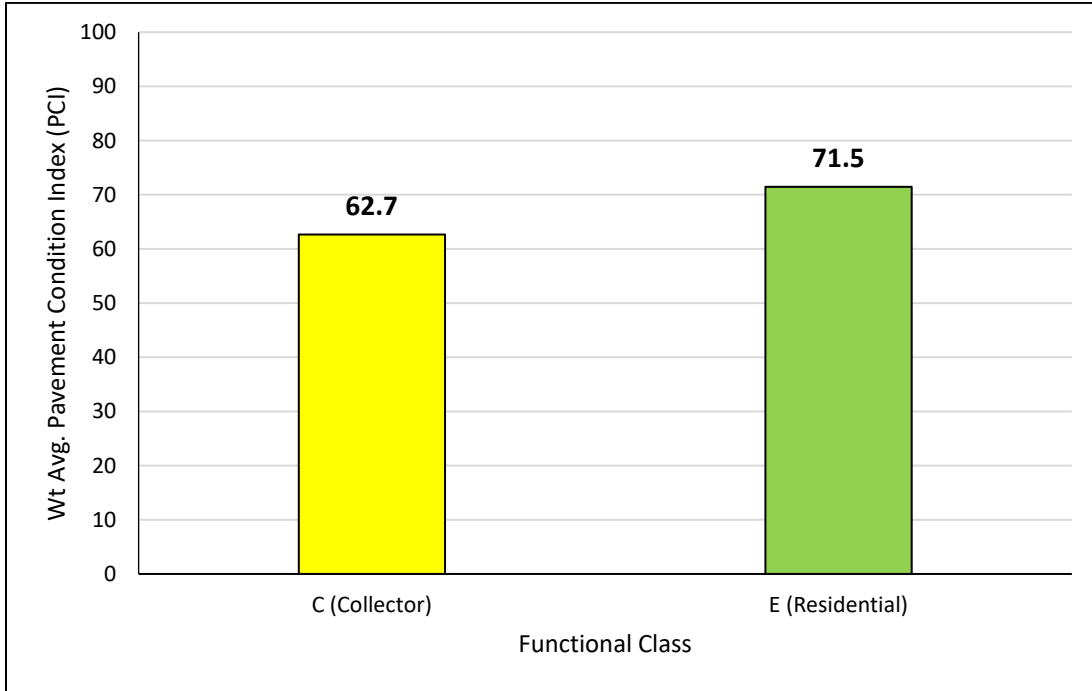


Figure 11. Average pavement condition index (PCI) based on functional class.

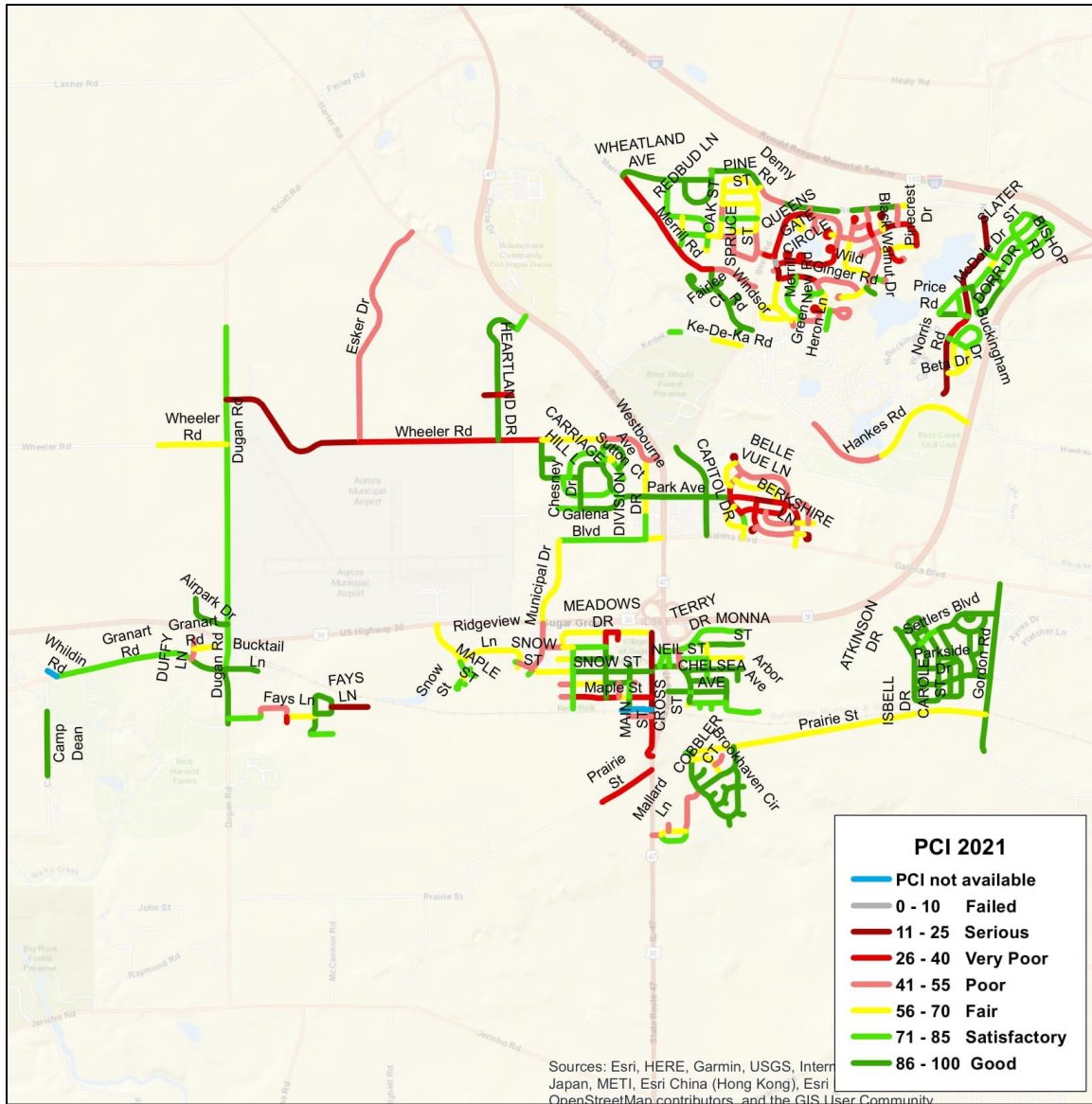


Figure 12. Village of Sugar Grove’s current pavement condition ratings.

3. PAVEMENT MANAGEMENT SYSTEM IMPLEMENTATION

ARA discussed the PMS analysis with the Village, CMAP, and AECOM on July 20, 2021. ARA discussed pavement performance models, treatment matrix, unit costs, and consequences of several funding scenarios. Based on the Village’s feedback on PMS analysis, ARA prepared the PMS analysis, and results are presented in this section.

ARA used PAVER™ pavement management software to implement a pavement management system (PMS) for the Village of Sugar Grove. PAVER™ provides pavement management capabilities to (a) develop and organize the pavement inventory, (b) assess the current condition of pavements, (c) develop models to predict future conditions, (d) report on past and future pavement performance, (e) develop scenarios for M&R based on budget or condition requirements, and (f) plan projects.

3.1 PAVER™ Pavement Management System Overview

Figure 13 shows the various modules of the PAVER™ software which includes:

- Inventory — The inventory module is designed based on a hierarchical structure including network, branch, and sections where a section is the smallest pavement unit managed by the agency. This structure allows users to easily organize their inventory while providing numerous fields and levels for storing pavement data.
- Work History — Similar to the inventory module, the work history module also follows the hierarchical structure. To update a pavement section's attribute or work history, it is required to have the network, branch, and section information.
- Inspection — In the inspection module, pavement can be surveyed manually or the automated survey data can be imported and modified, and finally PCI is being calculated.
- PCI Family Model— The PCI family model module is used to create a pavement performance model. Basically, it uses historical pavement condition and age data.
- Condition Analysis — The condition analysis module is used to analyze or predict the condition of the entire or part of the network. This feature reports past conditions based on prior interpolated values between previous inspections and projected conditions based on prediction models.
- M&R Family Models — M&R Family Models module is used to select treatment, treatment consequences, unit costs, and treatment matrix.
- M&R Working Plans — M&R working plans module allows creating multi-year network and project level M&R planning, scheduling, and budgeting. This module allows the users to create a consequence of the current funding level and generates funding scenarios for targeted PCI, backlog eliminations, etc.
- Reports — This module facilitates the generation of summary charts, latest condition maps, and user-defined reports. The users can pick and choose the attributes fields to create a report.

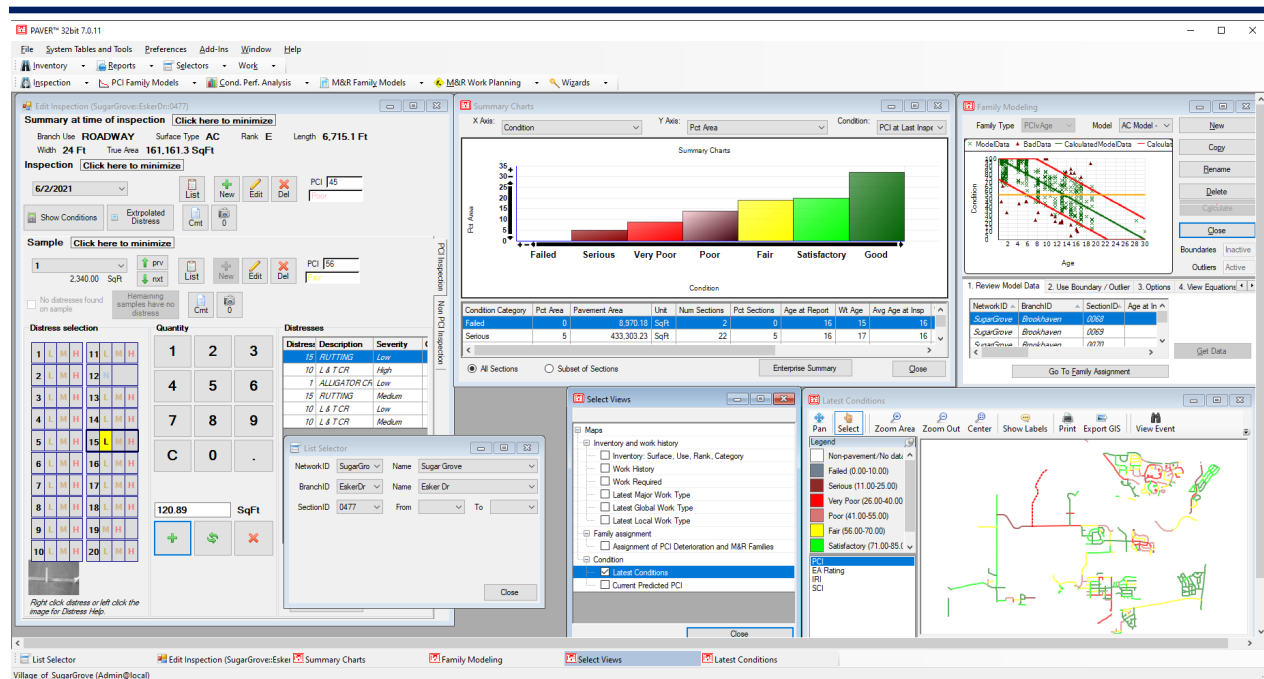


Figure 13. PAVER™ overview.

3.2 Pavement Performance Model

A PMS is only useful for making decisions if performance models can be established, validated, and relied upon to accurately forecast pavement conditions into the future. A pavement performance model is developed based on the date of construction for new pavement and the date of resurfacing for an overlay or mill and overlay, the types and thicknesses of pavement materials, the traffic level, and the pavement condition. The pavement performance model becomes more accurate with multiple pavement condition ratings, as the model gets calibrated and adjusted to match the conditions present at the distress in a pavement’s life cycle.

The PCI Family Models module in PAVER™ helps to identify and group pavements of similar construction that are subjected to similar traffic, weather, and other factors affecting pavement performance. The pavement condition historical data are used to build a model that can accurately predict the future performance of a group of pavements with similar attributes.

For the Village of Sugar Grove, a PCI family model was developed both for the asphalt (AC) surfaced and concrete (PCC) surfaced pavements. The AC pavement performance model was developed based on the age data provided by the village and the latest PCI conditions. The reliability of the pavement performance models is expected to increase with future pavement inspection and age data. Figure 14 shows the PCI family model used for the AC pavements.

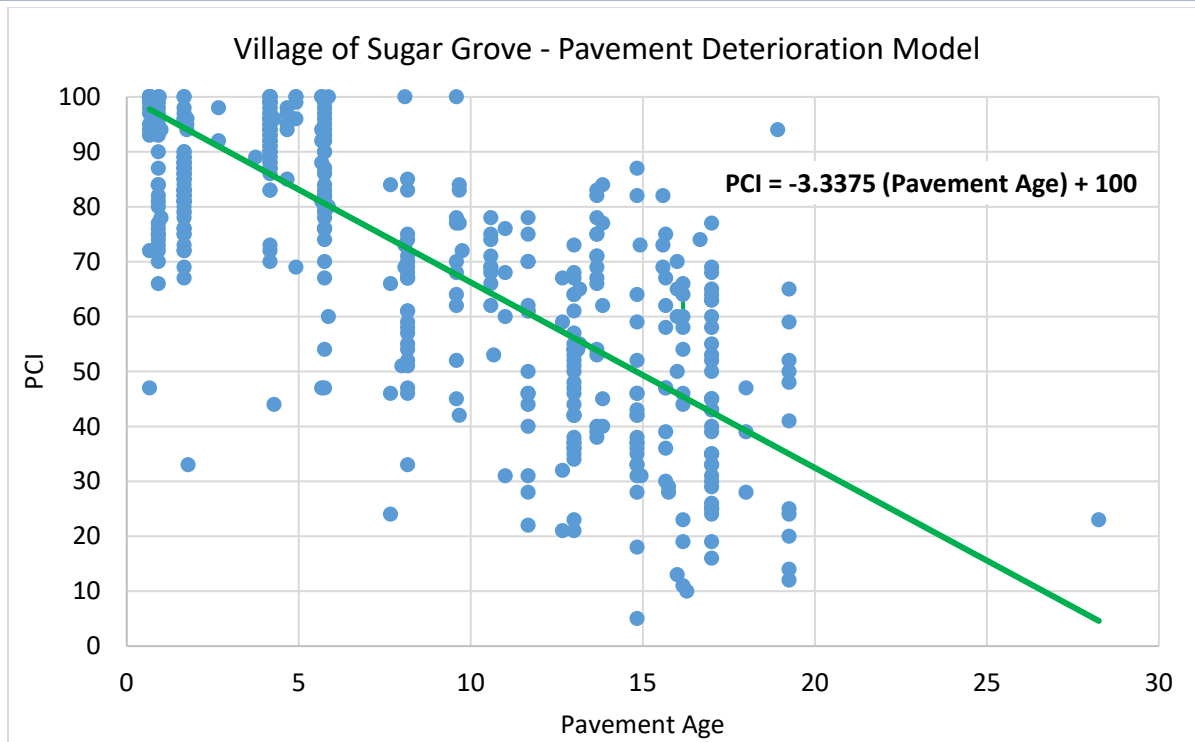


Figure 14. PCI family model for asphalt surfaced streets.

3.3 Treatment Matrix

Based on the pavement preservation and rehabilitation techniques currently used in the Village of Sugar Grove, and discussion with the Village, ARA developed a treatment matrix that defines when a treatment will be performed based on PCI values and functional class. In PAVER™, critical PCI is defined as the PCI value at which the rate of PCI loss increases with time and the cost of applying localized preventive maintenance increases significantly. The M&R Family Assignment Tool is used to designate sections to receive specific M&R work, including:

- Localized Stopgap
- Localized Preventive, and
- Major M&R

The *Localized Stopgap* (PCI < Critical) option is used to indicate the use of Safety M&R policies, which allows PAVER™ to plan localized stopgap M&R work (pothole filling, etc.) on areas where the PCI is below the critical level. The *Localized Preventive* M&R (PCI ≥ Critical) option allows PAVER™ to plan M&R work in localized areas where the PCI is above critical. In this option, life-extending credit, in years, can be given to any localized preventive work. Applying any preventive work where the PCI is still above critical will save money and improve the pavement life. The *Major M&R* option allows PAVER™ to plan any overlay or other major work where the resulting pavement has a PCI of 100.

Table 3. Treatment matrix for the Village of Sugar Grove’s Residential Roads.

Treatment Matrix for Residential Roads				
PCI	Localized Preventive	Localized Stop Gap	Pavement Preservation	Major M&R
0	No Localized Preventive Treatment Recommended	Patching and Repair	No Preservation-Work Recommended	Reconstruction
25				3.0" Mill & Overlay
40				2.0" Mill & Overlay
50	Crack Seal and Distress Repair	No Localized Stop Gap Recommended	Microsurfacing	No Major M&R Recommended
65				
80				
100				
			No Preservation-Work	

Table 4. Treatment matrix for the Village of Sugar Grove’s Collector Roads.

Treatment Matrix for Collector Roads				
PCI	Localized Preventive	Localized Stop Gap	Pavement Preservation	Major M&R
0	No Localized Preventive Treatment Recommended	Patching and Repair	No Preservation-Work Recommended	Reconstruction
25				4.0" Mill & Overlay
40				2.0" Mill & Overlay
55	Crack Seal and Distress Repair	No Localized Stop Gap Recommended	Microsurfacing	No Major M&R Recommended
65				
80				
100				
			No Preservation-Work	

As observed in Table 3 and Table 4, Residential pavement sections with PCI greater than 50 and Collector pavement sections with PCI greater than 55 are selected for localized preventive treatments such as crack sealing or distress repair. These PCI values are the critical values set for pavements based on their levels of importance (Functional Class). Sections with PCI values falling below the critical PCI values are assigned to stopgap works such as patching and repair. The stopgap candidates are already eligible for major M&R work as long as funding is available. PAVER™ assigns major M&R works to a subset of the below critical sections depending on the availability of funding. The 2-inch and 3-inch Mill and Overlays are considered for the Residential Roads below PCI of 50 and 40 respectively. The Collector roads are set to receive 2-inch Mill and overlay a little early (as soon as the PCI drops below 55) and 4-inch Mill and Overlay below 40. Pavement preservation works can be applied to pavements with higher PCI values and minimal distresses. Microsurfacing treatment was applied to sections having PCI values between 65 and 80. This is a relatively inexpensive treatment that helps keep the good pavements good for a longer period. The treatment only defers the pavement deterioration and is not to be considered as an addition to the structural strength of pavements.

3.4 Unit Costs

ARA used the unit costs presented in Table 5 for developing different budget scenarios and a Capital Improvement Plan (CIP). Some of the costs were directly provided by the Village. Some of these costs were discussed with the Village during the PMS analysis results meeting on July 20, 2021. The Village reviewed and approved the unit costs. The unit costs used for PAVER™ analysis are shown in Table 5. To run the PMS analysis in the future, the unit costs can be updated based on the available unit price of materials and construction.

Table 5. Treatment unit costs for the Village of Sugar Grove.

Treatment Type	Unit Cost
Distress Repair & Crack Seal-AC	\$ 1.50/ft.
2.00" Mill and Overlay-AC	\$ 23.50/SY
3.00" Mill and Overlay-AC	\$ 27.40/SY
4.00" Mill and Overlay-AC	\$ 33.00/SY
Partial Depth Patching-AC	\$ 25.00/SY
Full Depth Patching-AC	\$ 45.00/SY
Reconstruction-AC	\$ 115.00/SY
Microsurfacing	\$ 10.20/SY

3.5 Annual Budget

The Village of Sugar Grove provided its annual budget from 2022-2026 as shown below:

- 2022 - \$700,000
- 2023 - \$1,435,000
- 2024 - \$310,000

- 2025 - \$1,350,000
- 2026 - \$600,000

ARA allocated the funds to three types of maintenance activities based on the village’s recommendation. The Village planned to spend on Major M&R activities only in 2022, 2023, and 2025. Other maintenance activities (Microsurfacing and Crack Seal/ Patching) were planned to be funded in certain years only. The budget allocation from 2022 to 2026 is shown below in Figure 15.

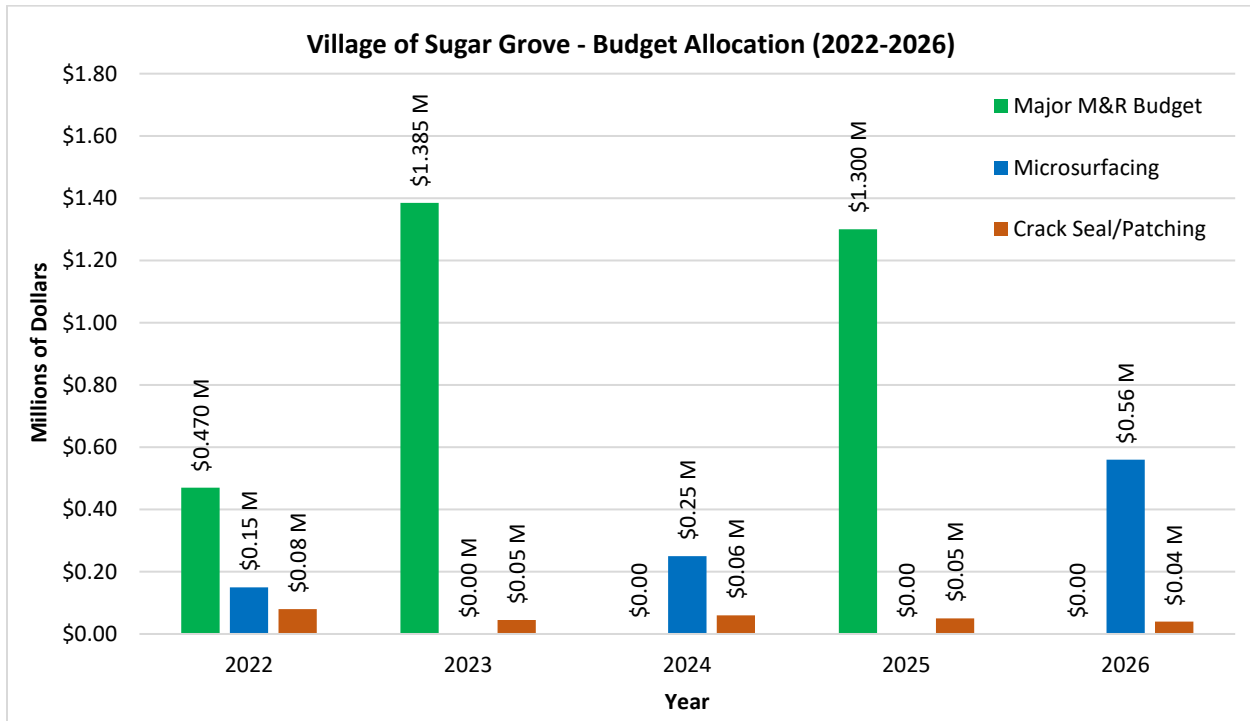


Figure 15. Assumed budget allocation for 5 years (2022-2026).

4. MAINTENANCE AND REHABILITATION ANALYSIS

Maintenance and rehabilitation (M&R) analysis can be performed in PAVER™ to generate an optimized work plan by assuming an annual funding level or by specifying a target PCI.

For the Village of Sugar Grove, the M&R funding analyses were based on the roadway inventory approved by the Village, unit costs discussed with the Village, and the Village’s existing Major M&R policies were used in the analyses. An inflation rate of 3% was used for all analyses. PCI family curves were developed based on existing pavement age and collected condition data. The critical PCI value was set to 50 for Residential and 55 for Collector roads. The critical PCI value represents the condition at or below which Major M&R is recommended. The following five-year M&R funding scenarios were evaluated:

- Eliminate backlogs (pavements in fair or better condition at the end of the analysis period)
- Reach a target PCI of 77
- Maintain current condition (PCI = 69.3)

- Keep funding level current (Avg. \$1.05M/year)
- Do nothing (\$0/year)

4.1 Funding Scenario Results

Using the M&R Working Plans module, different funding scenarios were generated. Table 6 and Figure 16 display the effect of different funding levels on the average pavement condition of the Village network. From Table 6 and Figure 16, it can be observed that the current M&R funding available is less than required (\$1.7M/year) to maintain the current condition over five years. Providing a budget to eliminate backlogs will result in an average PCI of 83.2 after five years, while not spending any funds on the M&R program will deteriorate the network to an average PCI of 53.5 after five years.

Table 6. Predicted PCI values based on funding scenarios.

Year	\$4.0M/year - Eliminate Backlogs	\$2.4M/year - Target PCI of 77	\$1.7 M/year - Maintain Current Condition	Avg. \$1.05M/year – Maintain Current Fund	\$0/year - Do Nothing
2021	69.3	69.3	69.3	69.3	69.3
2022	75.8	72.2	70.2	68.0	66.8
2023	78.2	73.2	70.1	67.8	63.5
2024	78.9	74.9	69.8	65.2	60.1
2025	82.1	76.4	69.9	64.8	56.8
2026	83.2	77.3	69.2	62.8	53.5

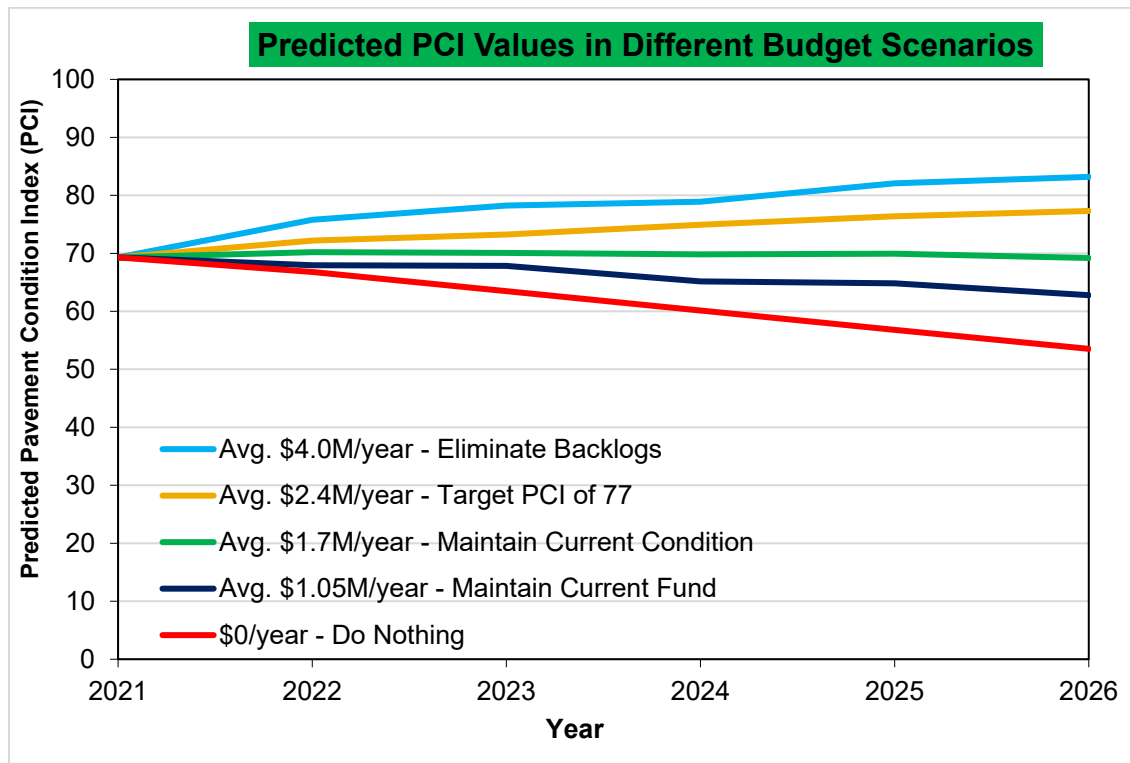


Figure 16. Effect of funding level on the village’s pavement condition.

Table 7 and Figure 17 show the amount of funding required to achieve target PCI values for the various funding scenarios. To eliminate backlogs, it is required to invest about \$4.0M/year for major M&R over the next five years. Maintaining the current M&R funding will result in a PCI of 62.8 by 2026.

Table 7. Total funded budget requirements per year based on funding scenarios.

Year	\$4.0M/year - Eliminate Backlogs	\$2.4M/year - Target PCI of 77	\$1.7 M/year - Maintain Current Condition	Avg. \$1.05M/year – Maintain Current Fund	\$0/year - Do Nothing
2022	\$4,079,408	\$2,493,944	\$1,665,143	\$693,682	\$0.00
2023	\$4,090,681	\$2,500,418	\$1,898,045	\$1,943,041	\$0.00
2024	\$4,047,209	\$2,493,792	\$1,663,899	\$473,880	\$0.00
2025	\$4,065,669	\$2,500,076	\$1,661,073	\$1,349,657	\$0.00
2026	\$3,473,284	\$2,472,507	\$1,664,923	\$795,866	\$0.00

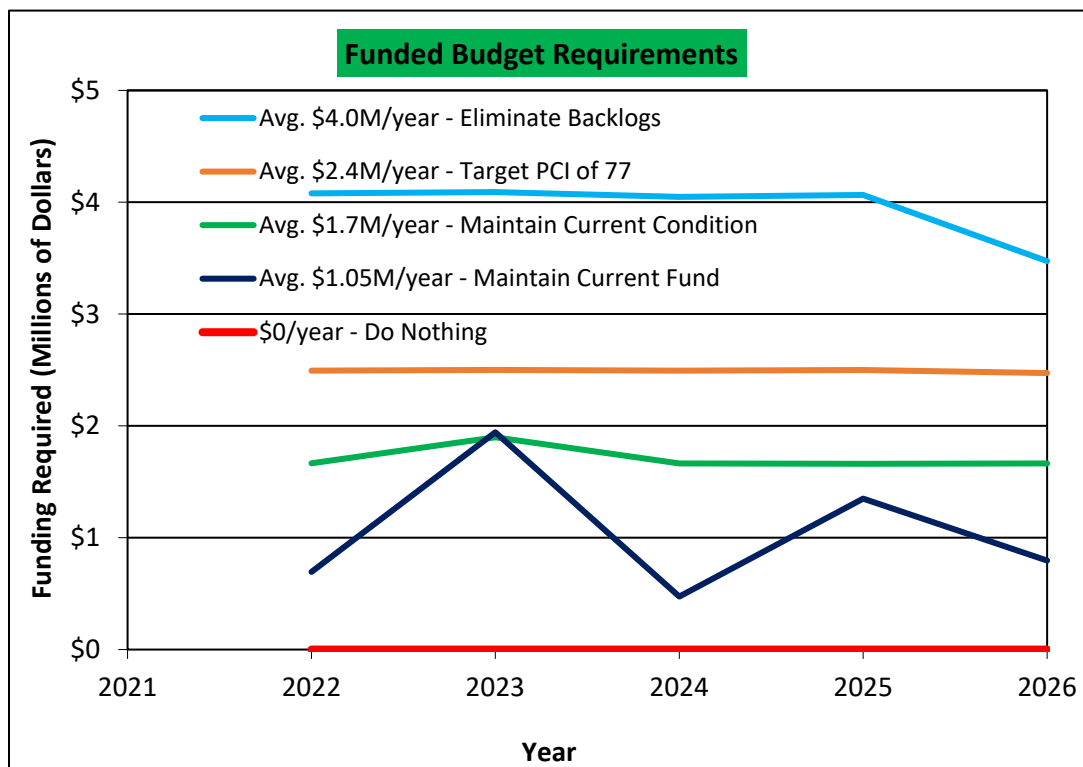


Figure 17. Total funded budget requirements per year based on funding scenarios.

Table 8 and Figure 18 show the total unfunded budget per year based on the funding scenarios. It can be seen that about \$5.7M is required in 2022 to eliminate the backlogs, while doing nothing will generate a backlog of \$29.5M by 2026. Current major M&R funding will sustain a backlog of \$21.4M by 2026.

Table 8. Total unfunded budget requirements per year based on funding scenarios.

Year	\$4.0M/year - Eliminate Backlogs	\$2.4M/year - Target PCI of 77	\$1.7 M/year - Maintain Current Condition	Avg. \$1.05M/year - Maintain Current Fund	\$0/year - Do Nothing
2022	\$5,709,589	\$7,295,053	\$8,123,853	\$9,625,584	\$12,516,867
2023	\$5,396,862	\$9,461,549	\$11,018,541	\$12,623,835	\$16,245,679
2024	\$2,515,181	\$8,892,867	\$11,359,620	\$14,369,078	\$19,289,630
2025	\$1,438,488	\$9,833,481	\$14,068,327	\$17,611,380	\$24,308,968
2026	\$0	\$9,647,619	\$16,719,277	\$21,377,422	\$29,525,170

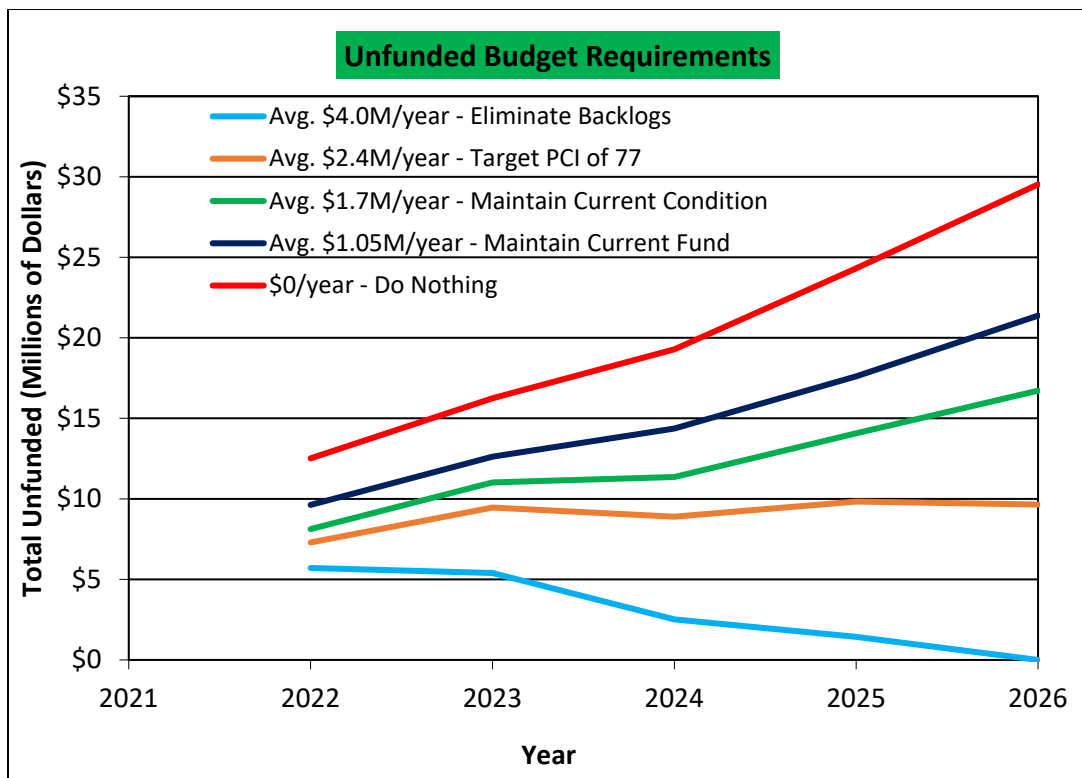


Figure 18. Total unfunded budget requirements per year based on funding scenarios.

The 5-Year major M&R plan based on the eliminate backlogs, current funding, and 2021 localized distress maintenance plans are provided in Appendix A. Figure 19 shows the network condition distribution for the next ten years with the current funding level. Currently, about 15% of the pavement network is in ‘very poor’ or ‘serious’ condition. Moreover, with current funding, the average PCI of the network is expected to be 62.8 in 2026; a decrease of 6.5 PCI points from the 2021 average PCI.

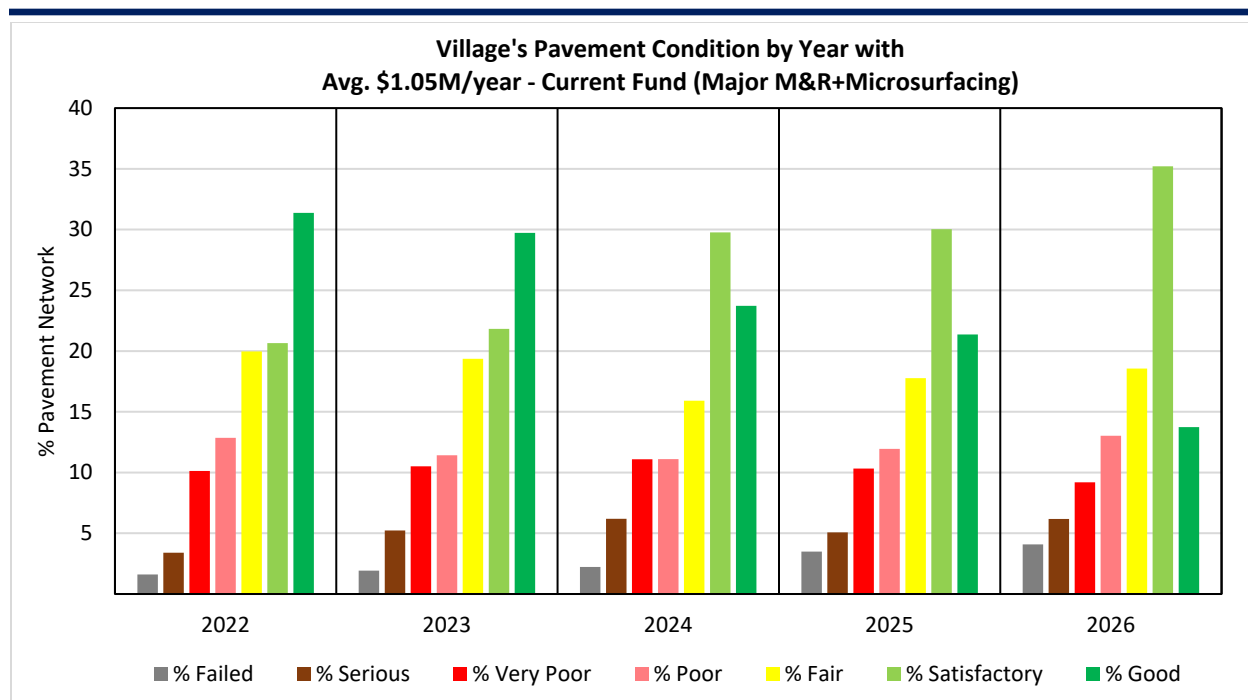


Figure 19. Pavement condition by year with current major M&R funding.

Based on the most recent inspection, about 71% of the network is “Fair” or better condition. However, with the current M&R funding, about 68% (Figure 19) of the network will be in “Fair” or better condition in 2026. Table 9 presents the total five year costs for the funded projects and the remaining M&R backlogs in 2026.

Table 9. Total 5-Year Costs for Various Funding Scenarios

Funding Scenario	Total 5-Year M&R Costs (2022-2026)	Remaining M&R Backlogs in 2026	Total 5-Year Costs	Predicted PCI 2026
Avg. \$4.0M/year - Eliminate Backlogs	\$19.8M	\$0.0	\$19.8M	83
Avg. \$2.4M/year - Target PCI of 77	\$12.5M	\$9.6M	\$22.1M	77
Avg. \$1.7M/year - Maintain Current Condition	\$8.6M	\$16.7M	\$25.3M	69
Avg. \$1.05M/year – Maintain Current Fund	\$5.3M	\$21.4M	\$26.7M	63
\$0/year - Do Nothing	\$0.0M	\$29.5M	\$29.5M	54

1. 'M&R Backlogs' refers to the amount required to resurface/reconstruct all pavements at or below their critical PCI value.
 2. 'Total 5-Year Costs' refers to the sum of 5-year major M&R expenses and remaining backlogs at the end of 5-year period.
 3. Current network weighted average PCI is 69.3.

A map showing crack sealing/patching recommendation based on the current funding is presented in Appendix A. PAVER™ utilized the crack sealing/patching budget amounts presented in Figure 15 to develop a 5-year plan. There are a number of overlapping recommendations throughout the plan period. Therefore, Appendix A has a map of 2022 recommendations only. PAVER™ offers an interactive map tool that allows a user to navigate among the plan years.

4.2 Consequence of Localized Distress Maintenance

The consequence of a localized distress maintenance plan calculates the cost and resulting condition of immediate implementation of local M&R, for the year of the most recent inspection. PAVER™ allows running this plan for the inspection year only and provides recommendations solely based on the distresses encountered. Therefore, this plan is separate from the crack sealing/patching recommendations discussed in the preceding section because there is no budget constraints specified in this plan. Based on the 2021 pavement condition survey, the localized preventive plan estimated that PCI of 236 sections would increase by 2.4 points with an investment of \$106,620. Similarly, the localized stopgap plan estimated that PCI of 23 sections would increase by 0.4 point with an investment of \$5,207. The details of the localized distress maintenance plan based on the 2021 condition survey can be found in Appendix A. Table 10 shows the cost and pavement condition data of the consequence of the localized distress maintenance plan. Table 11 shows the details of the local distress maintenance plan for 2022.

Table 10. Details of the consequence of local distress maintenance plan

Number Sections	Policy Cost	Wt. Avg. of PCI before Maintenance	Wt. Avg. of PCI after Maintenance
236 (Localized Preventive)	\$106,620	78.6	81.0
23 (Localized Stopgap)	\$5,207	34.8	35.2

Table 11. Details of the local distress maintenance plan 2022

Work Description	Work Quantity	Work Units	Work Cost
Crack Sealing – AC	35,784	Ft	\$53,676
Patching - AC Shallow	10,695	SqFt	\$29,731
Patching - AC Deep	5,684	SqFt	\$28,420
Total =			\$111,827

4.3 Pavement Preservation

Pavement preservation considers all work types that are applied over a larger area of pavement. The Global M&R table in PAVER™ allows a user to set the application interval for certain treatments and the age credits received as a result. This change is the time (in years) it would take for the condition of the pavement to return to where it was before the application of the preservation treatment. Pavement preservation can be applied in pavements between PCI values 65-80. The Village prefers to use Microsurfacing as its pavement preservation method. Table 12 lists the suggested years and lengths of Microsurfacing jobs for five (5) years from 2022 to 2026 based on current funding. As presented in Figure 15, funding for Microsurfacing is available in 2022, 2024, and 2026. Therefore, 2023 and 2025 do not have any Microsurfacing recommended by PAVER™. A map and a list of selected sections have been included in Appendix A.

Table 12. Details of pavement preservation plan (2022-2026)

Year	PCI Before	PCI After	Treatment Type	Cost	Length (mi)
2022	69.2	85.9	Microsurfacing	\$ 146,653	0.9
2023	-	-	Microsurfacing	\$ -	0.0
2024	59.8	76.5	Microsurfacing	\$ 413,880	1.1
2025	-	-	Microsurfacing	\$ -	0.0
2026	57.3	74.0	Microsurfacing	\$ 755,865	3.8

5. SUMMARY AND RECOMMENDATION

5.1 Summary

Pavement management can be defined as the systematic process of maintaining pavements cost-effectively. Investing in a pavement management system is rational because, not only it provides a consistent and rational management method to make decisions but also helps in optimal use of funds and reduces pavement rehabilitation, which results in extended pavement life and increased credibility with stakeholders.

In this effort to implement a pavement management system for the Village of Sugar Grove, pavement data was collected with a state-of-the-art digital survey vehicle equipped with a laser crack measurement system. Pavement images were used in an automated condition survey process to assess the type, severity, and extent of the distresses. The pavement inspection data was imported to the PAVER™ software to determine the pavement condition index (PCI) and analyze the pavement network. This PAVER database provides a comprehensive inventory of pavement sections with all attributes that are required for pavement management.

Based on the April 2021 survey, the average pavement condition index (PCI) value for the Village is about 69.3, which indicates the pavement network is in overall “Fair” condition. Based on the Village’s recommendation, several five-year M&R funding analyses were performed using PAVER™ including (a) do nothing (\$0/year), (b) keep funding level current (\$1.05M/year), (c) maintain current condition, (d) reach target PCI of 77.0, and (f) eliminate backlogs.

It was found that the Village’s existing funding level is not adequate to maintain the current pavement condition level for the next ten years. Currently, about 15% of the pavement areas are currently in ‘very poor’ or ‘serious’ condition.

5.2 Recommendations

5.2.1 Better utilization of available funds by performing timely repairs

Currently, less than 1% of the network is in ‘failed’ condition, 15% of the pavement area is in ‘very poor’ or ‘serious’ condition and 14% area is in ‘poor’ condition. The backlog is expected to increase every year with the current level of funding. It was determined that about \$1.7M/year of funding is needed to

maintain the current condition of the pavement network. It is recommended that the Village should focus on applying routine preventive maintenance to the pavement sections in 'satisfactory' and 'good' condition. Preventive maintenance activities, such as crack sealing and localized patching, can cost-effectively extend the life of a pavement.

5.2.2 Routine update of PAVER™ pavement management system

ARA recommends updating the PAVER™ pavement management system annually to record the major M&R, stopgap, and localized preventive maintenance activities, and pavement inventory changes (i.e., section split, new roads, jurisdictional changes, etc.). Based on the yearly updates of M&R activities, the Village can perform M&R analysis with an updated funding level (if available), accounting for the previous year(s) actual projects.

5.2.3 Routine pavement condition survey

For the Village of Sugar Grove, it is an excellent initiative to establish a pavement management system with the cooperation of the Chicago Metropolitan Agency for Planning (CMAP). To realize the greatest benefit from this holistic effort, it is recommended that the Village of Sugar Grove continue to perform pavement condition surveys on a three to four-year cycle. The benefits of performing routine PCI surveys are many folded including:

- (a) A survey provides the current condition of the pavement network and helps to determine the effectiveness of completed M&R activities performed in the last few years,
- (b) Pavement performance models would be more accurate to predict the future condition, and
- (c) Appropriate treatment and optimal funding allocation are possible to repair localized distresses based on the survey

6. PAVEMENT PRESERVATION

Pavement preservation is a proactive method to keep pavements in good condition with lower costs. This approach includes work that is planned and performed to improve or retain the condition of the pavement in a state of good repair. The various pavement preservation techniques used in the state are also available in the local roads and streets manual (<https://idot.illinois.gov/Assets/uploads/files/Doing-Business/Manuals-Split/Local-Roads-and-Streets/Chapter%2045.pdf>) of IDOT. Preservation activities generally do not increase the structural strength but do restore pavements' overall condition. The intended purpose of a pavement preservation program is to maintain or restore the surface characteristics of pavements and to extend service life of the pavements being managed. However, the improvements are such that there is no increase in strength but they can have a positive impact on the structural capacity by slowing deterioration. The Federal Highway Administration (FHWA) Office of Asset Management provided the following guidance regarding pavement preservation definitions in a memorandum dated September 12, 2005:

Pavement preservation represents a proactive approach to maintain our existing highways. It enables State Transportation agencies (STAs) to reduce costly, time-consuming rehabilitation and reconstruction

projects and the associated traffic disruptions. With timely preservation, we can provide the traveling public with improved safety and mobility, reduced congestion, and smoother, longer-lasting pavements. This is the true goal of pavement preservation, a goal in which the FHWA, through its partnership with the States, local agencies, industry organizations, and other interested stakeholders, is committed to achieving.

The main component of pavement preservation is preventive maintenance. As defined by FHWA, preventive maintenance is a planned strategy of cost-effective treatments to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system (without significantly increasing the structural capacity). The general philosophy of the use of preventive maintenance treatments is to “apply the right treatment, to the right pavement, at the right time.” These practices result in an outcome of “keeping good roads in good condition.”

When activities (e.g., crack sealing, filling, application of seal coats) are placed on the pavement at the right time they are examples of preventive maintenance treatments. Preventive maintenance should be applied to pavements in good condition having significant remaining service life (RSL). It applies cost-effective treatments to the surface or near-surface of structurally sound pavements. Examples include the following:

- Crack sealing
- Patching (Partial and Full depth)
- Rejuvenator/ Reclamite
- Microsurfacing
- Concrete Diamond Grinding

Based on the pavement condition assessment results the following treatment has been selected to describe in this section:

- Bituminous-Surfaced Pavements
 - Asphalt Rejuvenator i.e. reclamite
 - This treatment can be applied globally in the Village of Lyons network at the very early stage of newly constructed pavement or after placing a new surface.
 - Crack Filling/Crack Sealing
 - Sealing/filling cracks in asphalt and pavement prevent the intrusion of water into the pavement structure and decrease the deterioration of pavement conditions.
 - Microsurfacing
 - This treatment can be applied to pavements having relatively higher PCI and minimal distresses.
 - Patching
 - Asphalt patches are used for treating localized distresses from worsening.
- Concrete-Surfaced Pavements
 - Joint/Crack Sealing

-
- Cracking sealing in concrete pavement prevents the entry of water beneath the concrete slab and helps to prevent pumping.
 - Concrete Diamond Grinding
 - Diamond grinding can be used for addressing concrete faulting and surface irregularities so that a smooth riding surface is restored.
 - Patching
 - Concrete patching can be used to treat individual slab distresses or joint distresses such as spalling.

AC - Crack Filling and Crack Sealing	Evaluation Factors			
	Climate	Traffic	Pavement Condition	Not Applicable To
These treatments are intended primarily to prevent the intrusion of moisture through existing cracks. Crack sealing refers to a sealant operation that addresses “working” cracks, i.e., those that open and close with changes in temperature. It typically implies high-quality materials and good preparation. Crack filling is for cracks that undergo little movement. Sealants used are typically thermo-plastic (bituminous) materials that soften upon heating and harden upon cooling.	Treatment can perform well in all climatic conditions. However, sealants perform best in the dryer and warmer environments that do not undergo large daily temperature changes.	Performance is not significantly affected by varying ADT or truck levels.	Functional/Other: <ul style="list-style-type: none"> • Longitudinal cracking • Minor block cracking • Transverse cracking Structural: Adds no structural benefit, but does reduce moisture infiltration through cracks. Only practical if the extent of cracking is minimal and if there is little to no structural cracking.	<ul style="list-style-type: none"> • Structural failure (i.e., extensive fatigue cracking or high severity rutting) • Extensive pavement deterioration, little remaining life
Construction Considerations	Placement should be done during cool, dry weather conditions. Proper crack cleaning is essential to a good bond and maximum performance. Some agencies also use hot compressed air lance prior to sealing.			
Expected Life	2 to 6 years.			
Typical Costs	\$0.30 to \$1.50 per linear ft for crack sealing, including routing; \$0.30 per linear ft for crack filling. Costs are slightly higher for small jobs.			

PCC - Joint Resealing and Crack Sealing	Evaluation Factors			
	Climate	Traffic	Pavement Condition	Not Applicable To
Resealing of transverse joints and sealing of cracks in PCC pavements is intended to minimize the infiltration of surface water into the underlying pavement structure and to prevent the intrusion of incompressibles into the joint. A range of materials including bituminous, silicone, and neoprene are used in designed configurations.	The sealing of PCC pavement joints and cracks performs well in all climatic conditions. Sealant performance is affected by environmental conditions and the performance of sealed and unsealed pavement structures probably varies within environmental regions.	<ul style="list-style-type: none"> • Performance is not affected by different ADT or percent trucks. • Silicone sealants that are not properly recessed are more likely to fail in the wheel path. 	Functional/Other Longitudinal and transverse cracking (L) unsealed or partially sealed joints.	Structural No direct structural benefit, but may reduce the rate of structural deterioration. Crack sealing is not an effective method of repairing cracked slabs but may be useful in preventing further deterioration.
Site Restrictions	The sealant reservoir should be clean and dry. Variable width reservoirs may cause a problem where backer rods are specified.			
Construction Considerations	Sealant performance is dependent on many construction factors, including material type and placement geometry, and application in a clean and dry environment.			
Expected Life	7 to 8 years.			
Typical Costs	\$0.75 to \$1.25 per linear ft for hot-pour rubberized materials and from about \$1.00 to \$2.00 per linear ft for silicone materials.			

Asphalt Patching	Evaluation Factors			
	Climate	Traffic	Pavement Condition	Not Applicable To
Asphalt Patches are common method of treating localized distress. HMA patches can either be Full-depth or partial-depth. Full-depth patches are necessary where the entire depth of pavement is distressed. Partial-depth patches are necessary where the distress is only limited to the pavement surface	Preferably during dryer and warmer months. Cold patches can be used for temporary pothole fixes.	Traffic control is needed. Reduced roadway capacity should be evaluated. Traffic can return to a patched pavement once it cools off to 140°F	Partial Depth Repairs <ul style="list-style-type: none"> • Shallow potholes • Weathering and Ravelling • Block Cracking Full Depth Repairs <ul style="list-style-type: none"> • Depressions • Pumping • Bottom-up fatigue cracking (thin pavement structure) • Underlying stripping 	<ul style="list-style-type: none"> • Thermal cracking • Extensive pavement deterioration, little or no remaining life
Site Restrictions	Appropriate traffic control			
Construction Considerations	<ul style="list-style-type: none"> • Patch boundary should be clearly defined • Remove distressed materials and repair saturated subgrade soil or correct the main cause of distress • Repair should extend 12 inches into the non-distressed pavement • Apply tack coat on all the vertical and horizontal surfaces before placing the patch and compact the patch. • Compact quickly after placing the patch to ensure maximum compaction • Avoiding vibratory compaction under 175°F • Maximum lift thickness is 3 inch. • Avoid leaving a thin strip of asphalt pavement (less than 18 inches wide) along the pavement edge. It is better to extend the repair to the pavement edge. • For small patches, use a jackhammer with a spade bit or a masonry saw. Make vertical cuts through the full depth of the asphalt pavement surface. If a jackhammer is used, work from the center of the patch area outward to avoid damaging good pavement. • For medium to large patches, use a diamond-bladed saw to cut the edges. If the distress is only at the surface and the pavement is thick enough, consider a partial-depth cut for thick asphalt pavement surfaces to retain some interlock with the remaining structure. 			
Expected Life	A provisional maintenance before major M&R. A patch itself can last longer without increasing the overall life of an entire pavement section. Therefore, the expected life should be evaluated on a case by case basis.			
Typical Costs	<ul style="list-style-type: none"> • AC Patch –Partial Depth - \$20.00-25.00/SY • AC Patch –Full depth - \$40.00-50.00/SY 			

Concrete Patching	Evaluation Factors			
	Climate	Traffic	Pavement Condition	Not Applicable To
<p>Full-depth repairs are effective at correcting slab distress that extend beyond one-third the pavement depth such as longitudinal and transverse cracking, corner breaks, and joint spalling.</p> <p>Partial-depth repairs are primarily used to correct joint spalling. They can also be used to correct localized areas of distress that are limited to the upper 1/3 of the slab thickness.</p>	<p>Preferably during dryer seasons</p>	<p>High early strength concretes are used in cases where it is not desirable to close a lane overnight. Partial Depth Repairs are suitable under all traffic conditions.</p>	<p><u>Full Depth Repairs</u> Localized distresses and to prepare distressed PCC pavements for a structural overlay to avoid premature failure of the overlay.</p> <p><u>Partial Depth Repairs</u> To correct joint spalling caused by the intrusion of incompressible materials into the joints, localized areas of scaling, weak concrete, clay balls, or high steel, and the use of joint inserts.</p>	<ul style="list-style-type: none"> Widespread deterioration Structurally deficient pavement. Nearing the end of its fatigue life
Site Restrictions	None			
Construction Considerations	<p><u>Full Depth Repair</u> During construction, it is very important to properly prepare the base, restore joint load-transfer, and finish, texture, and cure the new material per governing specifications.</p> <p><u>Partial Depth Repair</u> During construction, it is very important to properly determine repair boundaries, prepare the patch area, and finish, texture, and cure the new material per governing specifications. If distress is found to extend below the upper 1/3 of the slab, or if steel is exposed, a full-depth repair is required. Partial-depth patches should be a minimum of 4 in (10 cm) by 12 in (30 m).</p>			
Expected Life	5 to 15 years			
Typical Costs	<ul style="list-style-type: none"> PCC Patch –Full Depth - \$225/SY PCC Patch –Partial depth - \$63/SY 			

Asphalt Rejuvenator/Reclamite	Evaluation Factors			
	Climate	Traffic	Pavement Condition	Not Applicable To
<p>According to the National Center for Pavement Preservation, “a true asphalt rejuvenator is a maltene-based petroleum product which has the ability to absorb or penetrate into an asphaltic concrete pavement and restore those reactive components (maltenes) that have been lost from the asphalt cement binder due to the natural process of oxidation.</p> <p>Reclamite is an asphalt pavement rejuvenator which is a maltene-based petroleum product.</p>	<ul style="list-style-type: none"> • shall not be applied to a wet surface or when rain is occurring • shall not be applied when the temperature is less than 40° in the shade 	<p>Traffic control shall continue until the area has been sanded and the resultant surface is not slippery or dangerous to vehicular travel</p>	<p>Newly constructed pavements (0-3 years)</p>	<p>On older pavements, it will reverse the effects of aging due to reverse the effects of aging due to environmental damage from sunlight and environmental damage from sunlight and water intrusion.</p>
Construction Considerations	All manufactured sand used during the treatment must be removed no later than 24 hours after the treatment of a roadway.			
Expected Life	Add 5 to 10 years of extra service life to the treated pavement			
Typical Costs	\$0.79-0.84/Sq. Yd.			





Microsurfacing	Evaluation Factors			
	Climate	Traffic	Pavement Condition	Not Applicable To
<p>Microsurfacing is basically a slurry seal with an accelerated setting capability. It consists of the application of a mixture of water, asphalt emulsion, aggregate (very small crushed rock), and <u>chemical additives</u> to an existing asphalt concrete pavement surface. Polymer is commonly added to the asphalt emulsion to provide better mixture properties. The major difference between slurry seal and Microsurfacing is in how they “break” or harden.</p>	<ul style="list-style-type: none"> • Not applicable during a rain event. • Not applicable in excessively cold temperature. • Atmospheric temperature is at least 10°C (50°F) and rising. • Pavement that have a lot of shade. 	<ul style="list-style-type: none"> • Applicable to high traffic situations. • Traffic can be allowed to roll when a person’s full weight can be placed on the pavement without the aggregates sticking to the shoe. 	<ul style="list-style-type: none"> • Low to Moderate level of distress. • Structurally sound pavement. 	<ul style="list-style-type: none"> • Highly distressed pavement. • High longitudinal roughness. • Structurally deficient pavement. • Subgrade rut. • Ruts above 2-in deep.
Site Restrictions	Lane closure is needed.			
Construction Considerations	<ul style="list-style-type: none"> • Spread microsurfacing materials only when the atmospheric temperature is at least 10°C (50°F) and rising. • Thoroughly cleaned surface and slightly dampened prior placing the mixture. • Ruts deeper than ½-in shall be filled separately. 			
Expected Life	6-8 years			
Typical Costs	\$2.75/ yd ²			

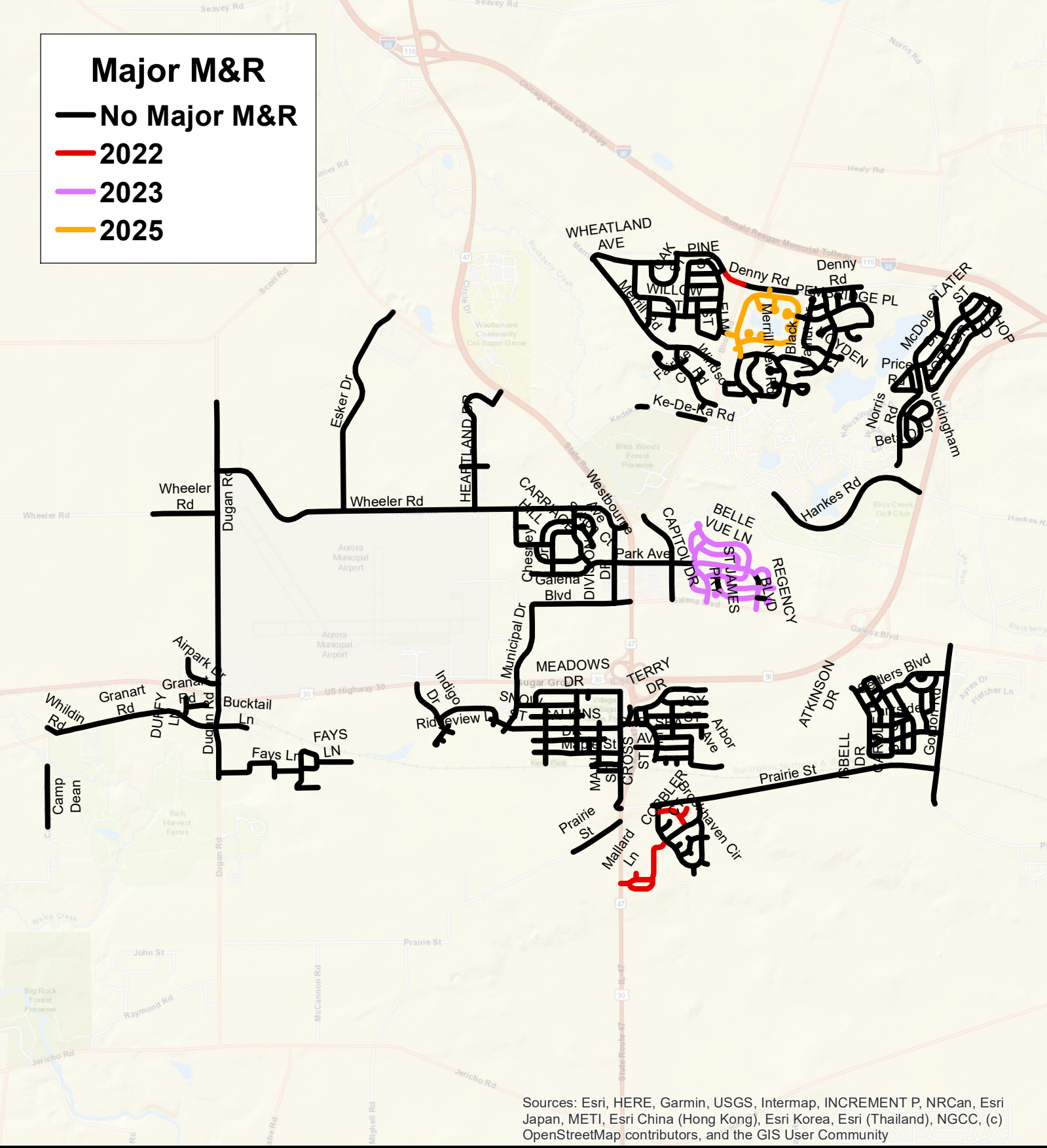
Concrete Diamond Grinding	Evaluation Factors			
	Climate	Traffic	Pavement Condition	Not Applicable To
Diamond grinding is effective at removing joint faulting and other surface irregularities to restore a smooth-riding surface and increase pavement surface friction.	Not recommended during excessively cold or hot temperature.	Grinding may be used to remove faulting. If the root cause is not addressed, faulting can reoccur due to the continued application of truck traffic. If used to restore friction to a polished pavement (due to vehicle traffic), heavy volumes of traffic may cause the problem to reoccur.	Note that diamond grinding is a surface repair method because it corrects the existing faulting and wear of PCC pavements. It does nothing to correct pavement distress mechanisms. Therefore, grinding usually is performed in combination with other rehabilitation methods to both repair certain pavement distresses and prevent their recurrence.	<ul style="list-style-type: none"> • High severity faulting. • Structurally deficient pavement. • Mid panel cracks or corner breaks. • Material related distresses. • Softer aggregate.
Site Restrictions	Moving Lane Closure is needed.			
Construction Considerations	Typically constructed with a moving lane closure with traffic operating in the adjacent lanes. Diamond grinding should be used in conjunction with all restoration techniques including load-transfer restoration, full- and partial depth repair, cross stitching, and subsealing/undersealing.			
Expected Life	8-15 years			
Typical Costs	\$4.00/ft			

Appendix — A

1. 2022-2026 Major M&R Plan Based on Current Funding
2. 2022 Crack Sealing/Patching Locations Based on Current Funding
3. 2022 Localized Distress Maintenance Plan Based on the Most Recent Inspection
4. 2022-2031 Major M&R Plan Based on “Eliminate Backlog” Funding
5. 2022-2031 Pavement Preservation Plan
6. Pavement Surface Type
7. 2021 Pavement Condition Index (PCI)
8. 2021 International Roughness Index (IRI)
9. List of Sections Selected for 2022-2031 Major M&R Plan Based on Current Funding
10. List of Sections Selected for 2022-2031 Pavement Preservation Plan Based on Current Funding
11. List of Pavement Sections with 2021 PCI and IRI values
12. Details of the 2022 Localized Distress Maintenance Plan Based on the Most Recent Inspection

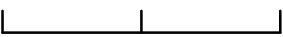
Major M&R

-  No Major M&R
-  2022
-  2023
-  2025



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

0 2,800 5,600 Feet



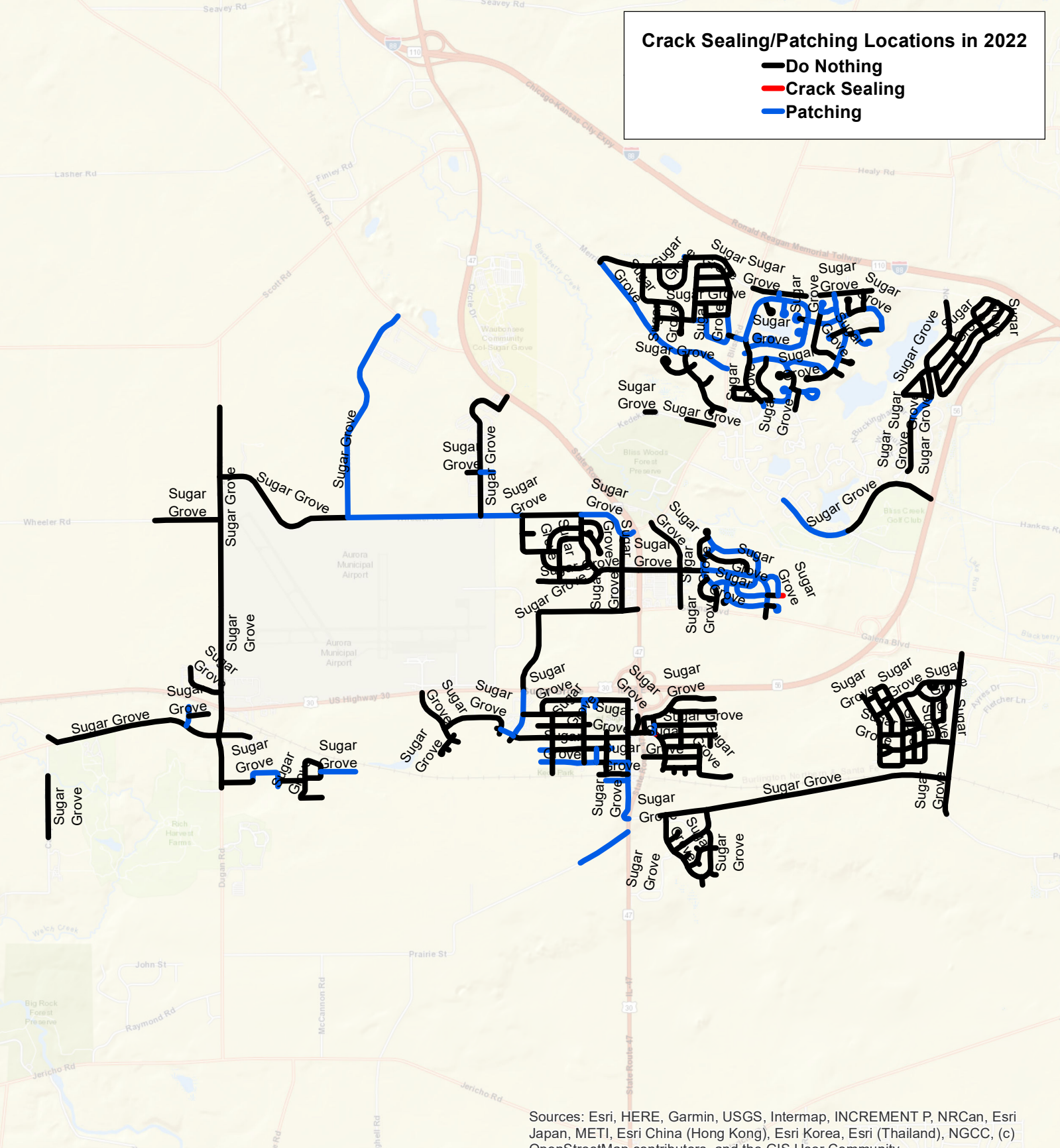
Major M&R 2022-2026
Based on Current Funding

Village of Sugar Grove



Crack Sealing/Patching Locations in 2022

- Do Nothing
- Crack Sealing
- Patching



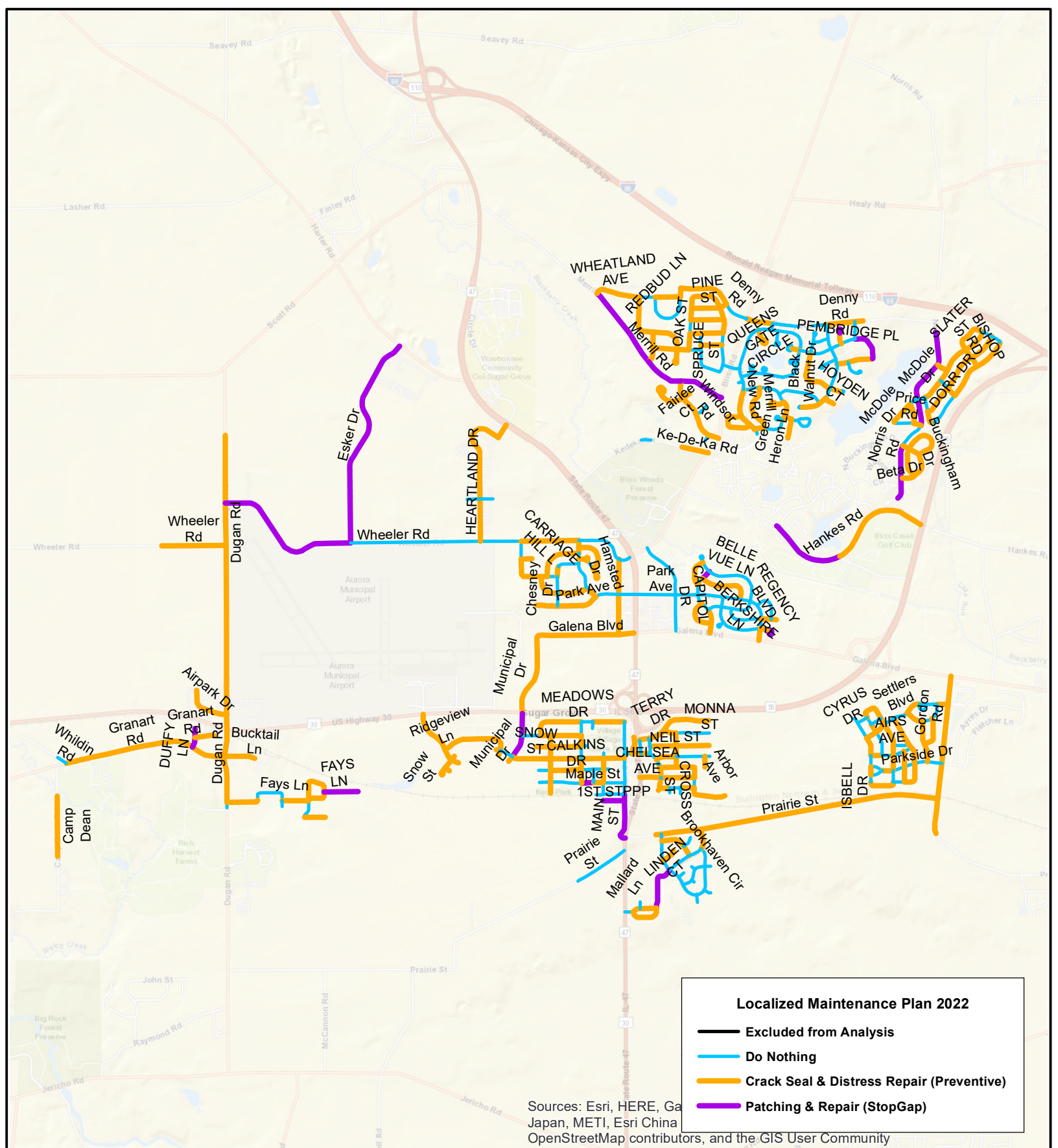
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

0 2,800 5,600 Feet

**Crack Sealing/Patching
Locations in 2022
Based on Current Funding**

**Village
of
Sugar Grove**





0 2,750 5,500 Feet

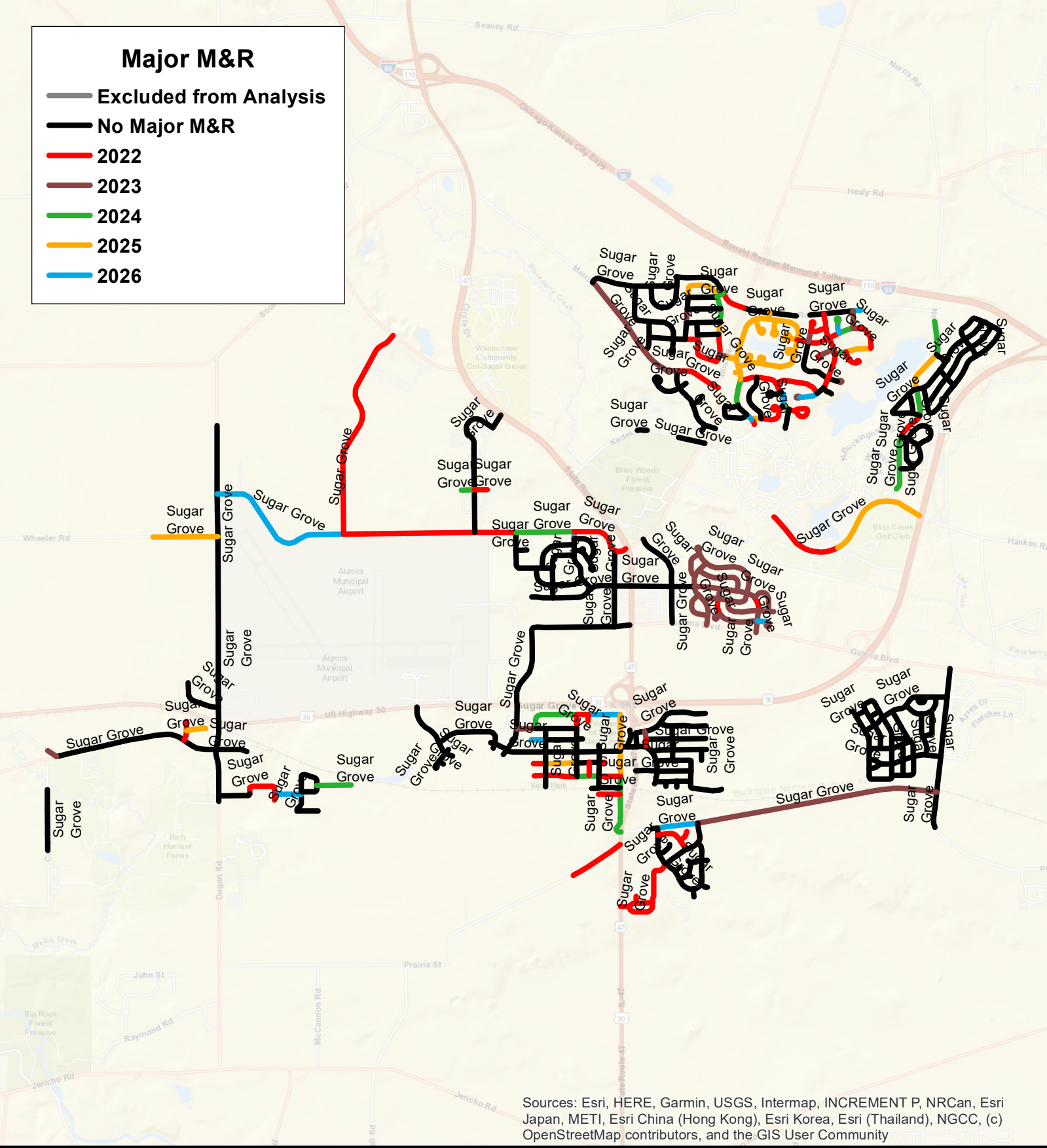
2022 Localized Maintenance Plan
Based on the
Most Recent Inspection

Village of Sugar Grove



Major M&R

-  Excluded from Analysis
-  No Major M&R
-  2022
-  2023
-  2024
-  2025
-  2026



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





0 2,800 5,600 Feet

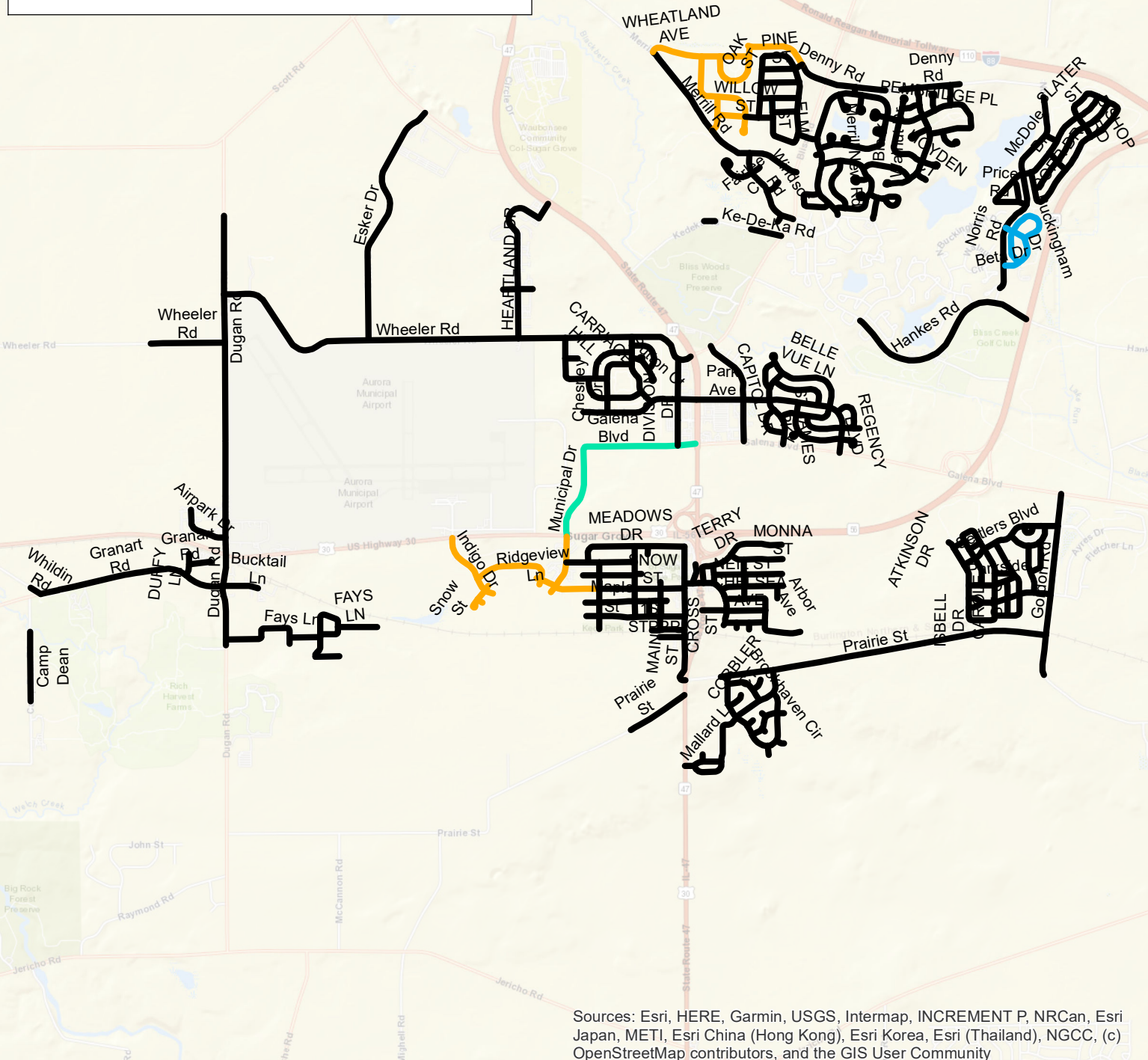
Major M&R 2022-2031
Based on
Eliminate Backlog Funding

Village of Sugar Grove



Pavement Preservation Plan

-  No Microsurfacing
-  2022
-  2024
-  2026



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

0 2,800 5,600 Feet

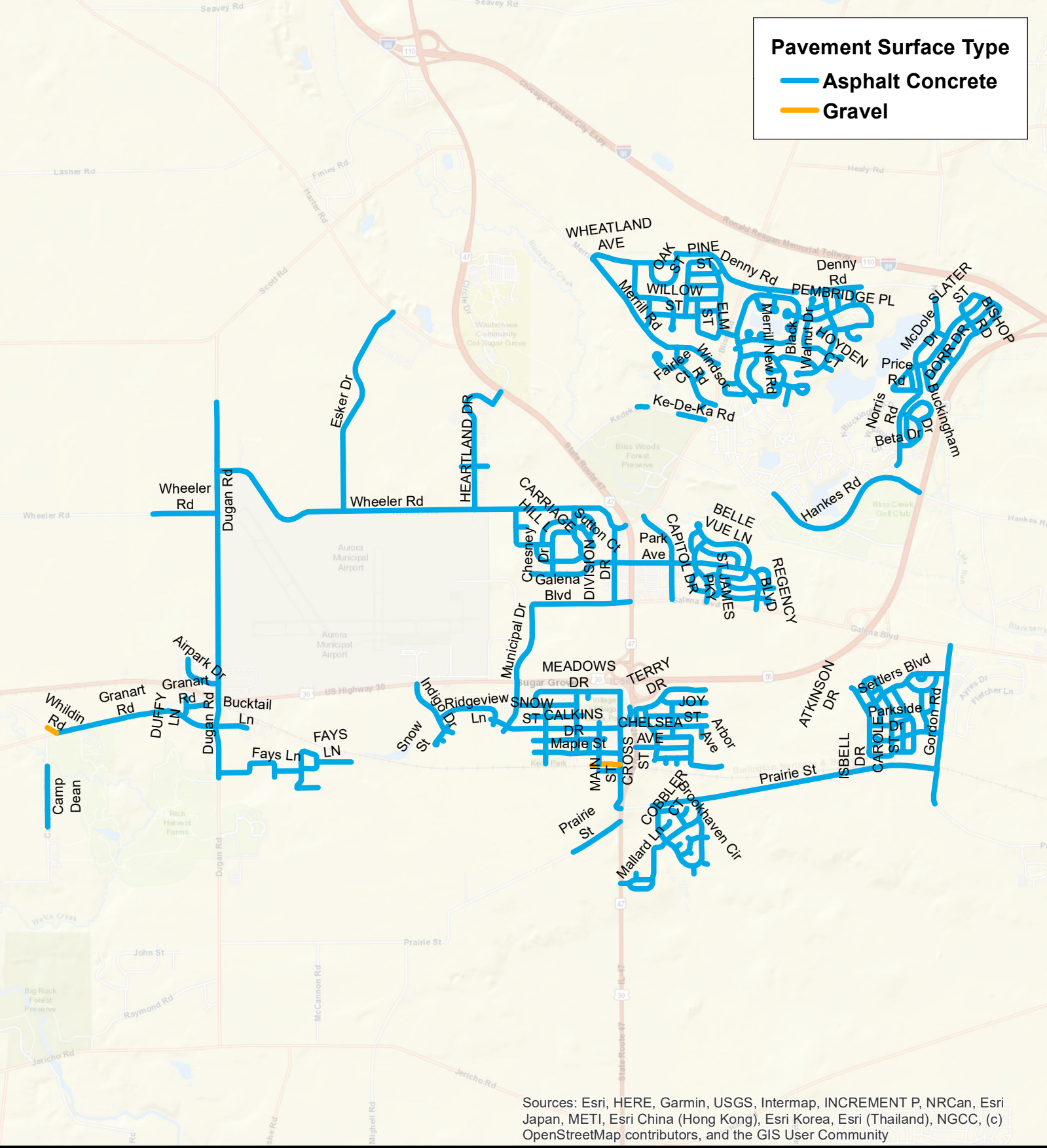
Pavement Preservation
2022-2026 Based on
Current Funding

Village of Sugar Grove



Pavement Surface Type

- Asphalt Concrete
- Gravel



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

0 2,800 5,600 Feet

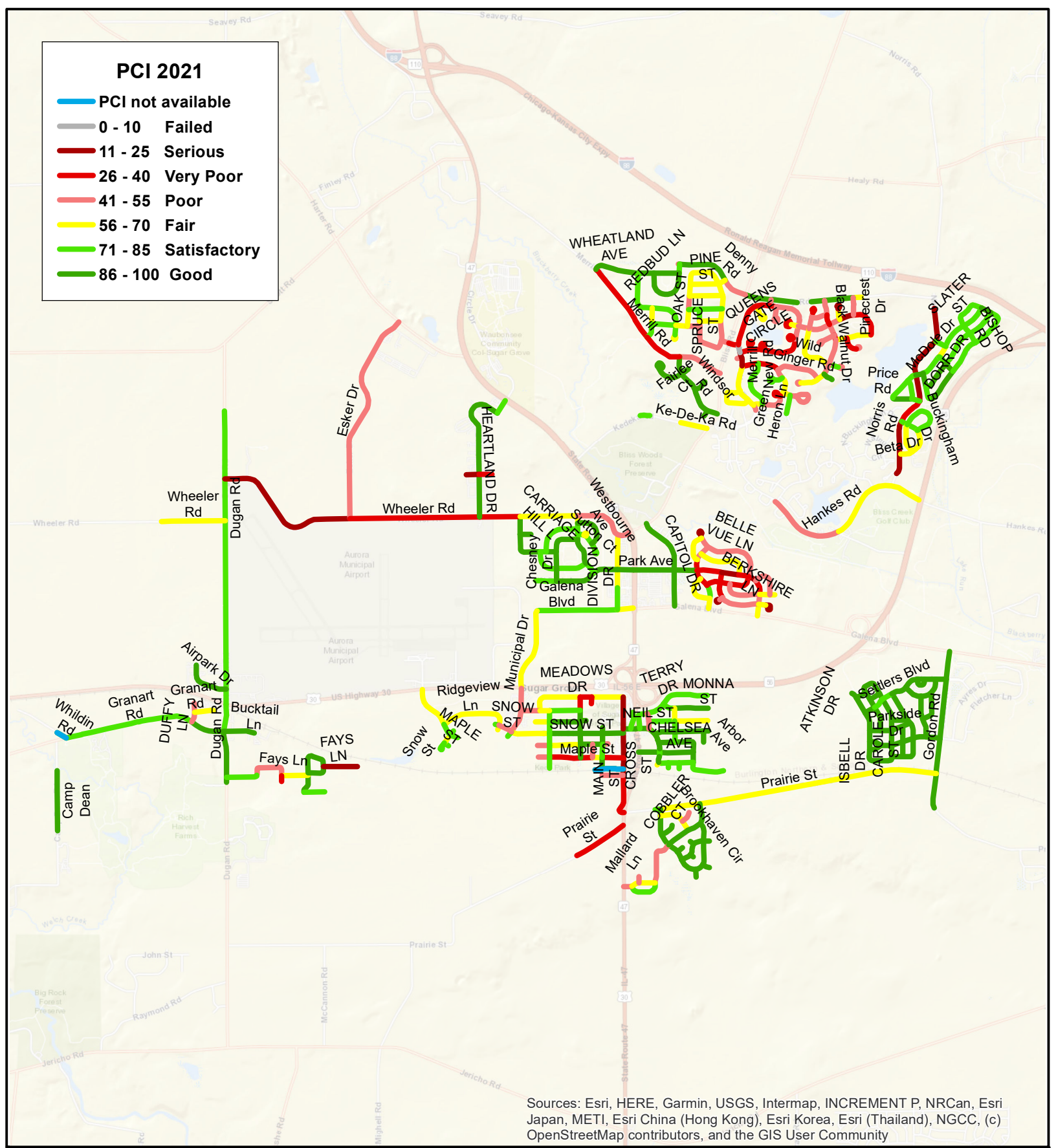
Pavement Surface Type

Village of Sugar Grove



PCI 2021

- PCI not available
- 0 - 10 Failed
- 11 - 25 Serious
- 26 - 40 Very Poor
- 41 - 55 Poor
- 56 - 70 Fair
- 71 - 85 Satisfactory
- 86 - 100 Good



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

0 2,800 5,600 Feet

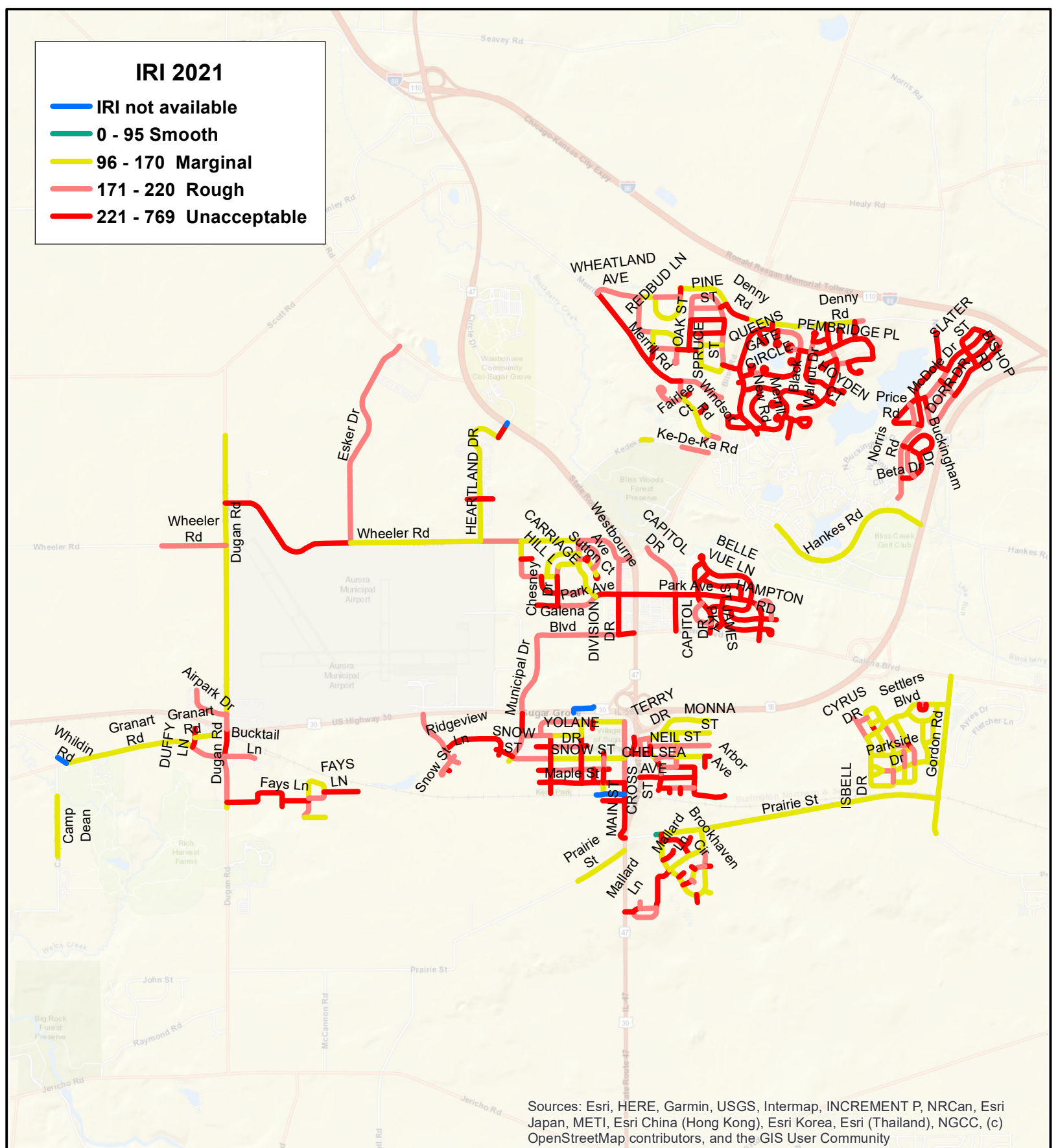
PCI 2021

Village of Sugar Grove



IRI 2021

- IRI not available
- 0 - 95 Smooth
- 96 - 170 Marginal
- 171 - 220 Rough
- 221 - 769 Unacceptable



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

0 2,800 5,600 Feet



IRI 2021

Village of Sugar Grove



Sugar Grove Major M&R Plan (2022-2026) Based on Current Funding

Year	Branch ID	Section ID	PCI Before	Cost	Functional Class	Surface Type	Length (ft)	Width (ft)	Work Type
2022	COBBLERCT	0079	51.5	\$27,999.40	Residential	AC	358	30	2.0 in Mill & Overlay*
2022	COBBLERLN	0077	55.5	\$60,248.67	Residential	AC	769	30	2.0 in Mill & Overlay*
2022	COBBLERLN	0078	63.5	\$26,305.78	Residential	AC	336	30	2.0 in Mill & Overlay*
2022	DennyRd	0187	48.5	\$67,292.08	Residential	AC	806	32	2.0 in Mill & Overlay
2022	GLENDR	0098	41.5	\$15,376.87	Residential	AC	196	30	2.0 in Mill & Overlay
2022	MallardLn	0082	44.5	\$111,828.33	Residential	AC	1428	30	2.0 in Mill & Overlay
2022	MallardLn	0084	69.5	\$79,195.86	Residential	AC	1011	30	2.0 in Mill & Overlay*
2022	ROLLINGOAK	0095	43.5	\$19,652.42	Residential	AC	251	30	2.0 in Mill & Overlay
2022	ROLLINGOAK	0096	57.5	\$39,771.98	Residential	AC	508	30	2.0 in Mill & Overlay*
2022	ROLLINGOAK	0097	61.5	\$19,360.21	Residential	AC	247	30	2.0 in Mill & Overlay*
2023	BELLEVUELN	0180	46.2	\$144,032.15	Residential	AC	1971	28	2.0 in Mill & Overlay
2023	BELLEVUELN	0181	39.2	\$25,678.08	Residential	AC	351	28	3.0 in Mill & Overlay
2023	BELLEVUELN	0182	10.2	\$107,070.84	Residential	AC	299	28	Reconstruction
2023	BERKSHIREC	0162	19.2	\$173,309.58	Residential	AC	484	28	Reconstruction
2023	BERKSHIREL	0157	25.2	\$26,937.44	Residential	AC	316	28	3.0 in Mill & Overlay
2023	BERKSHIREL	0159	37.2	\$87,725.03	Residential	AC	1200	28	3.0 in Mill & Overlay
2023	BROMPTONDR	0171	62.2	\$77,801.59	Residential	AC	1065	28	2.0 in Mill & Overlay*
2023	CARLTONMEW	0160	13.2	\$109,435.14	Residential	AC	306	28	Reconstruction
2023	CARLTONMEW	0161	39.2	\$7,506.21	Residential	AC	103	28	3.0 in Mill & Overlay
2023	CHATSWORTH	0184	57.2	\$117,829.92	Residential	AC	1612	28	2.0 in Mill & Overlay*
2023	EXETERLN	0172	27.2	\$38,006.08	Residential	AC	447	28	3.0 in Mill & Overlay
2023	EXETERLN	0173	34.2	\$22,622.58	Residential	AC	310	28	3.0 in Mill & Overlay
2023	EXETERLN	0174	29.2	\$64,557.44	Residential	AC	758	28	3.0 in Mill & Overlay
2023	HAMPTONRD	0175	49.2	\$86,314.43	Residential	AC	1181	28	2.0 in Mill & Overlay
2023	HAMPTONRD	0176	52.2	\$23,655.63	Residential	AC	324	28	2.0 in Mill & Overlay*
2023	HAMPTONRD	0177	55.1	\$11,179.35	Residential	AC	153	28	2.0 in Mill & Overlay*
2023	ParkAve	0404	23.2	\$71,497.76	Residential	AC	784	30	Reconstruction
2023	ParkAve	0406	19.2	\$204,722.82	Residential	AC	534	30	Reconstruction
2023	ParkAve	0407	20.2	\$28,603.36	Residential	AC	314	30	Reconstruction
2023	REGENCYBLV	0153	19.2	\$101,639.34	Residential	AC	265	30	Reconstruction
2023	REGENCYBLV	0154	37.2	\$24,336.14	Residential	AC	311	30	3.0 in Mill & Overlay
2023	REGENCYBLV	0155	59.2	\$28,144.77	Residential	AC	359	30	2.0 in Mill & Overlay*
2023	SOMERSETDR	0178	39.2	\$71,903.30	Residential	AC	984	28	3.0 in Mill & Overlay
2023	STJAMESPKY	0164	47.2	\$22,614.04	Residential	AC	309	28	2.0 in Mill & Overlay
2023	STJAMESPKY	0165	33.2	\$25,228.96	Residential	AC	296	28	3.0 in Mill & Overlay
2023	STJAMESPKY	0166	27.2	\$27,855.52	Residential	AC	327	28	3.0 in Mill & Overlay
2023	STJAMESPKY	0167	44.2	\$16,038.23	Residential	AC	219	28	2.0 in Mill & Overlay
2023	STJAMESPKY	0168	71.2	\$32,293.03	Residential	AC	442	28	2.0 in Mill & Overlay*
2023	STJAMESPKY	0169	63.2	\$32,176.67	Residential	AC	308	40	2.0 in Mill & Overlay*
2023	STJAMESPKY	0170	29.2	\$24,225.76	Residential	AC	285	28	3.0 in Mill & Overlay
2023	WHITFIELDDD	0183	57.2	\$63,104.13	Residential	AC	863	28	2.0 in Mill & Overlay*
2025	ABBEYCT	0444	33.5	\$55,324.31	Residential	AC	707	30	3.0 in Mill & Overlay
2025	ASBERRYCT	0426	34.5	\$10,569.02	Residential	AC	135	30	3.0 in Mill & Overlay
2025	CORNWALLCI	0273	18.9	\$5,118.94	Residential	AC	56	30	Reconstruction
2025	CORNWALLCI	0274	25.5	\$36,693.18	Residential	AC	402	30	3.0 in Mill & Overlay
2025	MerrillNew	0446	29.5	\$15,734.10	Residential	AC	201	30	3.0 in Mill & Overlay
2025	MerrillNew	0448	0.5	\$63,454.59	Residential	AC	166	30	Reconstruction
2025	MerrillNew	0450	18.5	\$38,708.27	Residential	AC	424	30	Reconstruction
2025	MerrillNew	0451	0.0	\$95,195.98	Residential	AC	248	30	Reconstruction
2025	MerrillNew	0454	20.5	\$127,301.71	Residential	AC	1396	30	Reconstruction
2025	MerrillNew	0455	5.5	\$97,850.71	Residential	AC	255	30	Reconstruction
2025	PEMBRIDGEP	0231	15.5	\$48,853.35	Residential	AC	536	30	Reconstruction
2025	PEMBRIDGEP	0232	51.5	\$17,775.66	Residential	AC	227	30	2.0 in Mill & Overlay*
2025	QUEENSGATE	0220	22.5	\$17,218.49	Residential	AC	189	30	Reconstruction

* An exception to the treatment matrix to accommodate committed projects.

Sugar Grove Major M&R Plan (2022-2026) Based on Current Funding

Year	Branch ID	Section ID	PCI Before	Cost	Functional Class	Surface Type	Length (ft)	Width (ft)	Work Type
2025	QUEENSGATE	0221	29.5	\$32,023.80	Residential	AC	409	30	3.0 in Mill & Overlay
2025	QUEENSGATE	0222	23.5	\$120,881.36	Residential	AC	1325	30	Reconstruction
2025	QUEENSGATE	0223	33.5	\$87,945.66	Residential	AC	1123	30	3.0 in Mill & Overlay
2025	QUEENSGATE	0224	20.5	\$29,745.17	Residential	AC	326	30	Reconstruction
2025	QUEENSGATE	0225	24.5	\$34,104.82	Residential	AC	374	30	Reconstruction
2025	STAMFORDPL	0445	46.5	\$56,375.35	Residential	AC	720	30	2.0 in Mill & Overlay
2025	STONEHILLC	0432	26.5	\$45,694.67	Residential	AC	501	30	3.0 in Mill & Overlay
2025	TUDORCT	0226	30.5	\$6,645.71	Residential	AC	85	30	3.0 in Mill & Overlay
2025	TUDORCT	0227	24.5	\$36,541.51	Residential	AC	401	30	Reconstruction
2025	WINDSTONER	0425	20.5	\$46,209.26	Residential	AC	304	50	Reconstruction

* An exception to the treatment matrix to accomodate committed projects.

Sugar Grove Microsurfacing Plan (2022-2026) Based on Current Funding

Year	Branch ID	Section ID	PCI Before	PCI After	Cost	Functional Class	Surface Type	Section Length	Section Width	Work Type
2022	BetaDr	0306	67.5	84.2	\$11,922	Residential	AC	377	28	Surface Treatment - Micro Surface
2022	Buckingham	0303	74.5	91.2	\$6,827	Residential	AC	216	28	Surface Treatment - Micro Surface
2022	Buckingham	0304	75.5	92.2	\$11,537	Residential	AC	365	28	Surface Treatment - Micro Surface
2022	Buckingham	0305	61.5	78.2	\$24,504	Residential	AC	774	28	Surface Treatment - Micro Surface*
2022	GLENWOODCI	0308	71.5	88.2	\$50,763	Residential	AC	1604	28	Surface Treatment - Micro Surface
2022	WOODRIDGED	0307	65.5	82.2	\$29,069	Residential	AC	919	28	Surface Treatment - Micro Surface
2024	GalenaBlvd	0001	65.8	82.5	\$186,984	Collector	AC	2507	66	Surface Treatment - Micro Surface
2024	GalenaBlvd	0002	52.8	69.5	\$36,059	Collector	AC	483	66	Surface Treatment - Micro Surface*
2024	MunicipalD	0003	60.8	77.5	\$190,837	Collector	AC	2559	66	Surface Treatment - Micro Surface*
2026	CHESTNUTHI	0194	65.2	81.8	\$49,022	Residential	AC	1446	30	Surface Treatment - Micro Surface
2026	CHESTNUTHI	0195	63.2	79.8	\$37,232	Residential	AC	1098	30	Surface Treatment - Micro Surface*
2026	CHESTNUTHI	0196	44.6	61.2	\$11,016	Residential	AC	325	30	Surface Treatment - Micro Surface*
2026	CHESTNUTHI	0197	64.2	80.8	\$10,216	Residential	AC	301	30	Surface Treatment - Micro Surface*
2026	DennyRd	0186	28.6	45.2	\$1,428	Residential	AC	39	32	Surface Treatment - Micro Surface*
2026	DennyRd	0188	74.2	90.8	\$59,724	Residential	AC	1652	32	Surface Treatment - Micro Surface
2026	HANNAFORDD	0218	51.2	67.8	\$16,530	Residential	AC	488	30	Surface Treatment - Micro Surface*
2026	HANNAFORDD	0219	66.2	82.8	\$16,109	Residential	AC	475	30	Surface Treatment - Micro Surface
2026	IndigoDr	0317	46.2	62.8	\$54,548	Residential	AC	1341	36	Surface Treatment - Micro Surface*
2026	IndigoDr	0318	59.2	75.8	\$9,535	Residential	AC	234	36	Surface Treatment - Micro Surface*
2026	IndigoDr	0319	58.2	74.8	\$16,056	Residential	AC	395	36	Surface Treatment - Micro Surface*
2026	MAPLEST	0053	62.2	78.8	\$5,283	Residential	AC	156	30	Surface Treatment - Micro Surface*
2026	MunicipalD	0038	34.2	50.8	\$54,358	Collector	AC	729	66	Surface Treatment - Micro Surface*
2026	MunicipalD	0039	30.2	46.8	\$51,582	Collector	AC	692	66	Surface Treatment - Micro Surface*
2026	MunicipalD	0465	67.2	83.8	\$13,856	Residential	AC	186	66	Surface Treatment - Micro Surface
2026	REDBUDLN	0189	79.2	95.8	\$60,003	Residential	AC	1770	30	Surface Treatment - Micro Surface
2026	REDBUDLN	0190	57.2	73.8	\$8,699	Residential	AC	275	28	Surface Treatment - Micro Surface*
2026	RidgeviewL	0312	53.2	69.8	\$71,561	Residential	AC	2111	30	Surface Treatment - Micro Surface*
2026	RidgeviewL	0313	53.2	69.8	\$4,993	Residential	AC	147	30	Surface Treatment - Micro Surface*
2026	SNOWST	0043	53.2	69.8	\$40,893	Collector	AC	1206	30	Surface Treatment - Micro Surface*
2026	SnowSt	0314	62.2	78.8	\$4,677	Residential	AC	138	30	Surface Treatment - Micro Surface*
2026	SnowSt	0315	52.2	68.8	\$10,913	Residential	AC	322	30	Surface Treatment - Micro Surface*
2026	SnowSt	0316	55.2	71.8	\$12,882	Residential	AC	380	30	Surface Treatment - Micro Surface*
2026	SNOWST	0469	59.2	75.8	\$4,075	Residential	AC	120	30	Surface Treatment - Micro Surface*
2026	SNOWST	0470	37.2	53.8	\$14,884	Residential	AC	439	30	Surface Treatment - Micro Surface*
2026	WHEATLANDA	0191	73.2	89.8	\$47,415	Residential	AC	1399	30	Surface Treatment - Micro Surface
2026	WHEATLANDA	0192	83.2	99.9	\$16,746	Residential	AC	494	30	Surface Treatment - Micro Surface
2026	WHEATLANDA	0193	72.2	88.8	\$26,404	Residential	AC	779	30	Surface Treatment - Micro Surface
2026	WILLOWST	0198	58.2	74.8	\$25,224	Residential	AC	744	30	Surface Treatment - Micro Surface*

* An exception to the treatment matrix to accomodate committed projects.

2021 PCI and IRI Values

Branch ID	Section ID	Surface Type	Functional Class	Length (ft)	Width (ft)	Last Inspection	IRI (in/mile)	PCI	PCI Category
1STSTPPP	0344	AC	Residential	666	30	06-02-2021	328.67	47.0	Poor
ABBEYCT	0444	AC	Residential	707	30	06-02-2021	272.00	46.0	Poor
AirparkDr	0396	AC	Residential	1422	32	06-02-2021	185.00	98.0	Good
AIRSAVE	0110	AC	Residential	486	26	06-02-2021	177.50	96.0	Good
ANNETTECIR	0052	AC	Residential	1179	34	06-02-2021	158.60	98.0	Good
ANNETTESLN	0050	AC	Residential	78	34	06-02-2021	397.00	100.0	Good
ANNETTESLN	0051	AC	Residential	568	34	06-02-2021	201.33	100.0	Good
ArborAve	0054	AC	Residential	505	30	06-02-2021	209.00	89.0	Good
ArborAve	0055	AC	Residential	322	30	06-02-2021	230.00	87.0	Good
ArborAve	0056	AC	Residential	1148	30	06-02-2021	224.60	85.0	Satisfactory
ArborAve	0057	AC	Residential	875	30	06-02-2021	231.50	90.0	Good
ASBERRYCT	0426	AC	Residential	135	30	06-02-2021	368.00	47.0	Poor
ATKINSONDR	0112	AC	Residential	928	26	06-02-2021	100.00	88.0	Good
ATKINSONDR	0113	AC	Residential	853	26	06-02-2021	115.50	91.0	Good
ATKINSONDR	0114	AC	Residential	340	26	06-02-2021	138.50	100.0	Good
ATKINSONDR	0115	AC	Residential	151	26	06-02-2021	233.00	86.0	Good
ATKINSONDR	0116	AC	Residential	500	26	06-02-2021	181.50	93.0	Good
BASTIANDR	0378	AC	Residential	596	30	06-02-2021	206.00	54.0	Poor
BASTIANDR	0379	AC	Residential	954	30	06-02-2021	163.00	71.0	Satisfactory
BASTIANDR	0380	AC	Residential	301	30	06-02-2021	177.00	67.0	Fair
BEDFORDAVE	0060	AC	Residential	306	30	06-02-2021	416.00	82.0	Satisfactory
BEDFORDAVE	0061	AC	Residential	437	30	06-02-2021	198.00	83.0	Satisfactory
BEDFORDAVE	0062	AC	Residential	326	30	06-02-2021	180.50	85.0	Satisfactory
BELLEVUELN	0179	AC	Residential	106	28	06-02-2021	330.00	24.0	Serious
BELLEVUELN	0180	AC	Residential	1971	28	06-02-2021	238.50	52.0	Poor
BELLEVUELN	0181	AC	Residential	351	28	06-02-2021	346.00	45.0	Poor
BELLEVUELN	0182	AC	Residential	299	28	06-02-2021	300.00	16.0	Serious
BERKSHIREC	0162	AC	Residential	484	28	06-02-2021	372.00	25.0	Serious
BERKSHIREC	0163	AC	Residential	225	28	06-02-2021	477.00	64.0	Fair
BERKSHIREL	0157	AC	Residential	316	28	06-02-2021	344.00	31.0	Very Poor
BERKSHIREL	0158	AC	Residential	502	28	06-02-2021	278.00	35.0	Very Poor
BERKSHIREL	0159	AC	Residential	1200	28	06-02-2021	275.60	43.0	Poor
BetaDr	0306	AC	Residential	377	28	06-02-2021	220.50	70.0	Fair
BIRCHST	0212	AC	Residential	659	26	06-02-2021	143.67	68.0	Fair
BISHOPRD	0298	AC	Residential	318	24	06-02-2021	505.50	81.0	Satisfactory
BISHOPRD	0299	AC	Residential	287	24	06-02-2021	353.00	83.0	Satisfactory
BISHOPRD	0300	AC	Residential	318	24	06-02-2021	452.00	75.0	Satisfactory
BlackWalnu	0245	AC	Residential	467	30	06-02-2021	365.00	47.0	Poor
BlackWalnu	0246	AC	Residential	369	30	06-02-2021	216.00	42.0	Poor
BlackWalnu	0247	AC	Residential	147	30	06-02-2021	277.00	36.0	Very Poor
BlackWalnu	0248	AC	Residential	312	30	06-02-2021	298.00	37.0	Very Poor
BlackWalnu	0249	AC	Residential	787	30	06-02-2021	281.33	52.0	Poor
BLACKWALNU	0265	AC	Residential	265	30	07-14-2021	260.00	54.0	Poor
BLACKWALNU	0266	AC	Residential	559	30	06-02-2021	265.67	64.0	Fair
BLACKWALNU	0267	AC	Residential	347	30	06-02-2021	287.50	48.0	Poor
BLACKWALNU	0268	AC	Residential	248	30	06-02-2021	246.00	67.0	Fair
BOYCERD	0301	AC	Residential	433	24	06-02-2021	245.00	88.0	Good
BOYCERD	0302	AC	Residential	364	24	06-02-2021	212.50	85.0	Satisfactory
BRIDGESTON	0431	AC	Residential	1486	30	06-02-2021	315.17	75.0	Satisfactory
BRISTOLCT	0065	AC	Residential	181	30	06-02-2021	250.00	79.0	Satisfactory

2021 PCI and IRI Values

Branch ID	Section ID	Surface Type	Functional Class	Length (ft)	Width (ft)	Last Inspection	IRI (in/mile)	PCI	PCI Category
BROMPTONDR	0171	AC	Residential	1065	28	06-02-2021	203.25	68.0	Fair
Brookhaven	0068	AC	Residential	214	30	06-02-2021	309.00	98.0	Good
Brookhaven	0069	AC	Residential	579	30	06-02-2021	191.33	100.0	Good
Brookhaven	0070	AC	Residential	358	30	06-02-2021	134.50	100.0	Good
Brookhaven	0071	AC	Residential	279	30	06-02-2021	170.00	100.0	Good
Brookhaven	0072	AC	Residential	745	30	06-02-2021	139.33	100.0	Good
Brookhaven	0073	AC	Residential	596	30	06-02-2021	105.00	100.0	Good
Brookhaven	0074	AC	Residential	377	30	06-02-2021	119.00	100.0	Good
Brookhaven	0075	AC	Residential	280	30	06-02-2021	126.00	100.0	Good
Brookhaven	0076	AC	Residential	559	30	06-02-2021	130.67	100.0	Good
BROOKHAVEN	0080	AC	Residential	458	30	06-02-2021	225.00	93.0	Good
Buckingham	0303	AC	Residential	216	28	06-02-2021	283.00	77.0	Satisfactory
Buckingham	0304	AC	Residential	365	28	06-02-2021	258.00	78.0	Satisfactory
Buckingham	0305	AC	Residential	774	28	06-02-2021	239.00	64.0	Fair
BucktailLn	0394	AC	Residential	955	30	06-02-2021	183.75	97.0	Good
Caledonian	0437	AC	Residential	1472	30	06-02-2021	150.50	82.0	Satisfactory
CALKINSDR	0334	AC	Residential	376	30	06-02-2021	238.50	45.0	Poor
CALKINSDR	0335	AC	Residential	957	30	06-02-2021	180.50	62.0	Fair
CALKINSDR	0336	AC	Residential	171	30	06-02-2021	340.00	46.0	Poor
CALKINSDR	0337	AC	Residential	376	30	06-02-2021	218.00	94.0	Good
CALKINSDR	0338	AC	Residential	309	30	06-02-2021	195.50	100.0	Good
CampDean	0228	AC	Residential	1866	26	06-02-2021	148.38	97.0	Good
CAPITOLDR	0151	AC	Residential	1815	30	06-30-2021	202.00	100.0	Good
CAPITOLDR	0152	AC	Residential	1119	30	06-30-2021	454.20	100.0	Good
CardinalDr	0483	AC	Residential	392	36	06-02-2021	639.00	23.0	Serious
CardinalDr	0484	AC	Residential	406	36	06-02-2021	255.00	40.0	Very Poor
CARLTONMEW	0160	AC	Residential	306	28	06-02-2021	417.00	19.0	Serious
CARLTONMEW	0161	AC	Residential	103	28	06-02-2021	272.00	45.0	Poor
CARMENRD	0294	AC	Residential	278	24	06-02-2021	244.00	76.0	Satisfactory
CARMENRD	0295	AC	Residential	307	24	06-02-2021	218.00	83.0	Satisfactory
CARMENRD	0296	AC	Residential	318	24	06-02-2021	237.00	86.0	Good
CAROLEST	0149	AC	Residential	470	26	06-02-2021	158.50	99.0	Good
CARRIAGEHI	0409	AC	Residential	550	30	06-02-2021	127.50	96.0	Good
CARRIAGEHI	0410	AC	Residential	1127	30	06-02-2021	174.60	87.0	Good
CARRIAGEHI	0411	AC	Residential	175	30	06-02-2021	154.00	82.0	Satisfactory
CARRIAGEHI	0412	AC	Residential	315	30	06-02-2021	128.50	87.0	Good
CARRIAGEHI	0413	AC	Residential	327	30	06-02-2021	303.00	89.0	Good
CHAPMANRD	0288	AC	Residential	315	24	06-02-2021	322.50	81.0	Satisfactory
CHAPMANRD	0289	AC	Residential	316	24	06-02-2021	201.50	87.0	Good
CHATSWORTH	0184	AC	Residential	1612	28	06-02-2021	264.00	63.0	Fair
CHELSEAAVE	0058	AC	Residential	659	30	06-02-2021	254.67	88.0	Good
CHELSEAAVE	0059	AC	Residential	1041	30	06-02-2021	237.00	86.0	Good
CHERRYST	0217	AC	Residential	1027	26	06-02-2021	227.00	70.0	Fair
ChesneyDr	0433	AC	Residential	307	30	06-02-2021	196.00	87.0	Good
ChesneyDr	0434	AC	Residential	393	30	06-02-2021	220.50	96.0	Good
ChesneyDr	0435	AC	Residential	524	30	06-02-2021	256.50	94.0	Good
CHESTNUTHI	0194	AC	Residential	1446	30	06-02-2021	172.33	81.0	Satisfactory
CHESTNUTHI	0195	AC	Residential	1098	30	06-02-2021	146.50	79.0	Satisfactory
CHESTNUTHI	0196	AC	Residential	325	30	07-14-2021	180.00	60.0	Fair
CHESTNUTHI	0197	AC	Residential	301	30	06-02-2021	180.50	80.0	Satisfactory

2021 PCI and IRI Values

Branch ID	Section ID	Surface Type	Functional Class	Length (ft)	Width (ft)	Last Inspection	IRI (in/mile)	PCI	PCI Category
CHIPPEWATR	0133	AC	Residential	346	26	06-02-2021	152.50	99.0	Good
CLOVERDR	0146	AC	Residential	968	26	06-02-2021	137.50	95.0	Good
COBLERCT	0079	AC	Residential	358	30	06-02-2021	424.00	54.0	Poor
COBLERLN	0077	AC	Residential	769	30	06-02-2021	307.33	58.0	Fair
COBLERLN	0078	AC	Residential	336	30	06-02-2021	275.00	66.0	Fair
CONEFLOWER	0130	AC	Residential	197	26	06-02-2021	195.00	94.0	Good
CONEFLOWER	0131	AC	Residential	542	26	06-02-2021	191.00	96.0	Good
CORNELLCIR	0143	AC	Residential	569	26	06-02-2021	107.00	100.0	Good
CORNELLCIR	0144	AC	Residential	490	26	06-02-2021	118.50	96.0	Good
CORNELLCIR	0145	AC	Residential	301	26	06-02-2021	166.50	100.0	Good
CORNWALLCI	0273	AC	Residential	56	30	07-14-2021	350.00	31.0	Very Poor
CORNWALLCI	0274	AC	Residential	402	30	06-02-2021	347.00	38.0	Very Poor
COURTNEYCI	0419	AC	Residential	1362	26	06-02-2021	195.20	98.0	Good
CROSSCT	0063	AC	Residential	95	30	06-02-2021	334.00	67.0	Fair
CROSSST	0036	AC	Collector	232	42	06-02-2021	174.0	92.0	Good
CROSSST	0037	AC	Collector	149	50	06-02-2021	252.0	97.0	Good
CROSSST	0321	AC	Residential	208	30	06-02-2021	165.00	87.0	Good
CROSSST	0381	AC	Residential	118	30	06-02-2021	394.00	78.0	Satisfactory
CROSSST	0382	AC	Residential	138	30	06-02-2021	304.00	83.0	Satisfactory
CROSSST	0383	AC	Residential	179	30	06-02-2021	334.00	87.0	Good
CROSSST	0384	AC	Residential	118	30	06-02-2021	294.00	86.0	Good
CROSSST	0385	AC	Residential	178	30	06-02-2021	179.00	96.0	Good
CROSSST	0386	AC	Residential	177	30	06-02-2021	243.00	90.0	Good
CYRUSDR	0132	AC	Residential	339	26	06-02-2021	179.00	99.0	Good
DennyRd	0007	AC	Collector	816	24	06-02-2021	112.7	99.0	Good
DennyRd	0008	AC	Collector	814	24	06-02-2021	127.3	96.0	Good
DennyRd	0009	AC	Collector	418	30	06-02-2021	114.5	100.0	Good
DennyRd	0010	AC	Collector	254	30	06-02-2021	205.0	69.0	Fair
DennyRd	0011	AC	Collector	899	30	06-02-2021	111.8	100.0	Good
DennyRd	0186	AC	Residential	39	32	07-14-2021	140.00	44.0	Poor
DennyRd	0187	AC	Residential	806	32	06-02-2021	319.67	51.0	Poor
DennyRd	0188	AC	Residential	1652	32	06-02-2021	141.86	90.0	Good
DIANADR	0129	AC	Residential	775	26	06-02-2021	135.67	100.0	Good
DIVISIONDR	0397	AC	Residential	1089	30	06-02-2021	196.00	67.0	Fair
DIVISIONDR	0398	AC	Residential	563	30	06-02-2021	252.67	69.0	Fair
DIVISIONDR	0399	AC	Residential	687	30	06-02-2021	263.67	73.0	Satisfactory
DORRDR	0291	AC	Residential	1072	24	06-02-2021	229.80	82.0	Satisfactory
DORRDR	0292	AC	Residential	1179	24	06-02-2021	177.60	89.0	Good
DORRDR	0293	AC	Residential	1149	24	06-02-2021	224.40	81.0	Satisfactory
DOVERCT	0064	AC	Residential	146	30	06-02-2021	656.00	82.0	Satisfactory
DUFFYLN	0395	AC	Residential	593	26	06-02-2021	368.67	52.0	Poor
DuganRd	0004	AC	Collector	343	22	06-02-2021	620.0	76.0	Satisfactory
DuganRd	0020	AC	Collector	497	66	06-02-2021	243.0	83.0	Satisfactory
DuganRd	0021	AC	Collector	1442	22	06-02-2021	195.2	90.0	Good
DuganRd	0022	AC	Collector	160	22	06-02-2021	108.0	100.0	Good
DuganRd	0023	AC	Collector	2111	22	06-02-2021	99.8	82.0	Satisfactory
DuganRd	0024	AC	Collector	5201	22	06-02-2021	99.8	84.0	Satisfactory
DuganRd	0025	AC	Collector	470	22	06-02-2021	199.0	76.0	Satisfactory
DuganRd	0026	AC	Collector	1308	22	06-02-2021	104.6	80.0	Satisfactory
EDGEWATERC	0091	AC	Residential	140	30	06-02-2021	457.00	100.0	Good

2021 PCI and IRI Values

Branch ID	Section ID	Surface Type	Functional Class	Length (ft)	Width (ft)	Last Inspection	IRI (in/mile)	PCI	PCI Category
EDGEWATERL	0087	AC	Residential	318	30	06-02-2021	247.00	99.0	Good
EDGEWATERL	0088	AC	Residential	180	30	06-02-2021	243.00	100.0	Good
EDGEWATERL	0089	AC	Residential	324	30	06-02-2021	199.00	100.0	Good
EDGEWATERL	0090	AC	Residential	352	30	06-02-2021	160.00	100.0	Good
EDGEWOODDR	0238	AC	Residential	304	30	06-02-2021	269.00	54.0	Poor
EDGEWOODDR	0239	AC	Residential	158	30	06-02-2021	291.00	44.0	Poor
EDGEWOODDR	0240	AC	Residential	1654	30	06-02-2021	382.86	68.0	Fair
EDGEWOODDR	0241	AC	Residential	302	30	06-02-2021	300.50	73.0	Satisfactory
EDGEWOODDR	0242	AC	Residential	349	30	06-02-2021	193.50	54.0	Poor
EDGEWOODDR	0243	AC	Residential	315	30	06-02-2021	401.00	37.0	Very Poor
ELMST	0209	AC	Residential	380	28	06-02-2021	170.50	71.0	Satisfactory
ELMST	0210	AC	Residential	144	28	06-02-2021	205.00	52.0	Poor
ELMST	0211	AC	Residential	1306	28	06-02-2021	169.60	47.0	Poor
EskerDr	0477	AC	Residential	6715	24	06-02-2021	197.50	45.0	Poor
ESSEXCT	0092	AC	Residential	108	30	06-02-2021	215.00	100.0	Good
EVERGREENL	0257	AC	Residential	514	30	06-02-2021	287.50	35.0	Very Poor
EVERGREENL	0258	AC	Residential	663	30	06-02-2021	307.33	34.0	Very Poor
EVERGREENL	0259	AC	Residential	285	30	06-02-2021	362.00	42.0	Poor
EVERGREENL	0260	AC	Residential	479	30	06-02-2021	273.50	65.0	Fair
EXETERLN	0172	AC	Residential	447	28	06-02-2021	248.00	33.0	Very Poor
EXETERLN	0173	AC	Residential	310	28	06-02-2021	256.00	40.0	Very Poor
EXETERLN	0174	AC	Residential	758	28	06-02-2021	255.00	35.0	Very Poor
FairleeCt	0417	AC	Residential	401	26	06-02-2021	245.50	97.0	Good
FAYSCT	0393	AC	Residential	176	34	07-14-2021	226.00	33.0	Very Poor
FaysLn	0327	AC	Residential	973	34	06-02-2021	226.22	84.0	Satisfactory
FaysLn	0328	AC	Residential	820	34	06-02-2021	318.25	66.0	Fair
FAYSLN	0329	AC	Residential	640	34	06-02-2021	205.00	90.0	Good
FAYSLN	0330	AC	Residential	1059	34	06-02-2021	260.60	24.0	Serious
FaysLn	0485	AC	Residential	1184	34	06-02-2021	226.22	46.0	Poor
FORESTTRAI	0229	AC	Residential	768	30	06-02-2021	318.00	61.0	Fair
FORESTTRAI	0230	AC	Residential	354	30	06-02-2021	215.00	57.0	Fair
FRONTAGERD	0391	AC	Residential	410	30	06-02-2021	177.00	78.0	Satisfactory
GalenaBlvd	0001	AC	Collector	2507	66	06-02-2021	174.9	75.0	Satisfactory
GalenaBlvd	0002	AC	Collector	483	66	06-02-2021	250.5	62.0	Fair
GILLETST	0121	AC	Residential	733	26	06-02-2021	176.67	97.0	Good
GILLETST	0122	AC	Residential	468	26	06-02-2021	137.50	98.0	Good
GILLETST	0123	AC	Residential	355	26	06-02-2021	180.50	87.0	Good
GILLETST	0124	AC	Residential	312	26	06-02-2021	138.00	91.0	Good
GLENDR	0098	AC	Residential	196	30	06-02-2021	219.00	44.0	Poor
GLENWOODCI	0308	AC	Residential	1604	28	06-02-2021	242.00	100.0	Good
GOLDENRODD	0147	AC	Residential	717	26	06-02-2021	150.67	89.0	Good
GOLDENRODD	0148	AC	Residential	575	26	06-02-2021	140.50	90.0	Good
GordonRd	0027	AC	Collector	875	56	06-02-2021	119.7	96.0	Good
GordonRd	0028	AC	Collector	1844	56	06-02-2021	98.1	91.0	Good
GordonRd	0029	AC	Collector	1103	36	06-02-2021	169.3	92.0	Good
GranartRd	0005	AC	Collector	1070	36	06-02-2021	183.8	92.0	Good
GranartRd	0006	AC	Collector	4021	22	06-02-2021	168.2	72.0	Satisfactory
GranartRd	0472	AC	Residential	601	22	06-02-2021	120.67	62.0	Fair
GreenHeron	0461	AC	Residential	581	30	06-02-2021	276.67	73.0	Satisfactory
GREGORYPL	0244	AC	Residential	488	30	06-02-2021	315.50	42.0	Poor

2021 PCI and IRI Values

Branch ID	Section ID	Surface Type	Functional Class	Length (ft)	Width (ft)	Last Inspection	IRI (in/mile)	PCI	PCI Category
GROVEST	0359	AC	Residential	362	18	06-02-2021	169.50	100.0	Good
GROVEST	0360	AC	Residential	175	30	06-02-2021	493.00	88.0	Good
GROVEST	0361	AC	Residential	333	18	06-02-2021	206.00	92.0	Good
GROVESTH	0362	AC	Residential	421	18	06-02-2021	360.00	81.0	Satisfactory
HallStreet	0285	AC	Residential	928	24	06-02-2021	246.00	72.0	Satisfactory
HallStreet	0286	AC	Residential	980	24	06-02-2021	203.50	88.0	Good
HallStreet	0287	AC	Residential	1232	24	06-02-2021	332.20	81.0	Satisfactory
HAMPTONRD	0175	AC	Residential	1181	28	06-02-2021	270.00	55.0	Poor
HAMPTONRD	0176	AC	Residential	324	28	06-02-2021	268.50	58.0	Fair
HAMPTONRD	0177	AC	Residential	153	28	06-02-2021	270.00	60.0	Fair
HamstedDr	0438	AC	Residential	223	30	06-02-2021	267.00	66.0	Fair
HamstedDr	0439	AC	Residential	147	30	06-02-2021	180.00	75.0	Satisfactory
HamstedDr	0440	AC	Residential	388	30	06-02-2021	162.50	75.0	Satisfactory
HamstedDr	0441	AC	Residential	829	30	06-02-2021	145.75	90.0	Good
HamstedDr	0442	AC	Residential	184	30	06-02-2021	199.00	81.0	Satisfactory
HamstedDr	0443	AC	Residential	170	30	06-02-2021	135.00	84.0	Satisfactory
HankesRd	0473	AC	Collector	2421	24	06-02-2021	112.70	55.0	Poor
HankesRd	0474	AC	Collector	3319	24	06-02-2021	109.54	65.0	Fair
HANNAFORDD	0218	AC	Residential	488	30	06-02-2021	149.00	67.0	Fair
HANNAFORDD	0219	AC	Residential	475	30	06-02-2021	261.50	82.0	Satisfactory
HarkisonBl	0290	AC	Residential	350	24	06-02-2021	356.50	76.0	Satisfactory
HaverhillC	0418	AC	Residential	252	26	06-02-2021	364.00	99.0	Good
HEARTLANDD	0047	AC	Residential	3017	36	06-02-2021	130.3	94.0	Good
HEARTLANDD	0482	AC	Residential	1318	36	06-02-2021	149.80	86.0	Good
HICKORYST	0213	AC	Residential	328	28	06-02-2021	249.50	74.0	Satisfactory
HICKORYST	0214	AC	Residential	709	26	06-02-2021	229.00	75.0	Satisfactory
HOYDENCT	0269	AC	Residential	312	30	06-02-2021	336.50	92.0	Good
IndigoDr	0317	AC	Residential	1341	36	06-02-2021	205.60	62.0	Fair
IndigoDr	0318	AC	Residential	234	36	06-02-2021	183.00	75.0	Satisfactory
IndigoDr	0319	AC	Residential	395	36	06-02-2021	172.50	74.0	Satisfactory
ISBELLDR	0117	AC	Residential	587	26	06-02-2021	166.00	90.0	Good
ISBELLDR	0118	AC	Residential	347	26	06-02-2021	165.00	96.0	Good
ISBELLDR	0119	AC	Residential	218	26	06-02-2021	135.00	89.0	Good
ISBELLDR	0120	AC	Residential	251	26	06-02-2021	169.00	94.0	Good
JENNIFERCT	0252	AC	Residential	348	30	06-02-2021	349.00	64.0	Fair
JENNIFERCT	0253	AC	Residential	296	30	06-02-2021	518.00	21.0	Serious
JONESRD	0111	AC	Residential	865	26	06-02-2021	120.75	87.0	Good
JOYCT	0390	AC	Residential	338	30	06-02-2021	281.00	87.0	Good
JOYST	0387	AC	Residential	636	30	06-02-2021	190.33	95.0	Good
JOYST	0388	AC	Residential	892	30	06-02-2021	138.75	94.0	Good
JOYST	0389	AC	Residential	152	30	06-02-2021	280.00	96.0	Good
Ke-De-KaRd	0310	AC	Residential	293	22	06-02-2021	101.00	72.0	Satisfactory
Ke-De-KaRd	0311	AC	Residential	836	22	06-02-2021	173.00	70.0	Fair
LAKERIDGEC	0250	AC	Residential	330	30	06-02-2021	345.00	50.0	Poor
LAKERIDGEC	0251	AC	Residential	400	30	06-02-2021	333.00	55.0	Poor
LINDENCT	0086	AC	Residential	202	30	06-02-2021	240.00	100.0	Good
LONGVIEWCT	0255	AC	Residential	251	30	06-02-2021	414.00	51.0	Poor
LONGVIEWCT	0256	AC	Residential	514	30	06-02-2021	256.50	36.0	Very Poor
MAINST	0031	AC	Collector	127	30	06-02-2021	264.0	25.0	Serious
MAINST	0032	AC	Collector	353	30	06-02-2021	221.5	24.0	Serious

2021 PCI and IRI Values

Branch ID	Section ID	Surface Type	Functional Class	Length (ft)	Width (ft)	Last Inspection	IRI (in/mile)	PCI	PCI Category
MAINST	0033	AC	Collector	769	30	06-02-2021	193.7	14.0	Serious
MAINST	0034	AC	Collector	195	30	06-02-2021	568.0	22.0	Serious
MAINST	0035	AC	Collector	1312	30	06-02-2021	262.8	28.0	Very Poor
MAINST	0468	AC	Residential	998	28	06-02-2021	213.00	20.0	Serious
MallardLn	0081	AC	Residential	629	30	06-02-2021	147.00	97.0	Good
MallardLn	0082	AC	Residential	1428	30	06-02-2021	227.17	47.0	Poor
MallardLn	0083	AC	Residential	755	30	06-02-2021	162.67	100.0	Good
MallardLn	0084	AC	Residential	1011	30	06-02-2021	202.25	72.0	Satisfactory
MallardLn	0085	AC	Residential	434	30	06-02-2021	148.50	100.0	Good
MANORHILLP	0270	AC	Residential	1028	30	06-02-2021	467.50	50.0	Poor
MANORHILLP	0271	AC	Residential	230	30	06-02-2021	375.00	59.0	Fair
MANORHILLP	0272	AC	Residential	179	30	06-02-2021	469.00	41.0	Poor
MAPLEST	0053	AC	Residential	156	30	06-02-2021	234.00	78.0	Satisfactory
MapleSt	0339	AC	Residential	356	30	06-02-2021	277.50	47.0	Poor
MapleSt	0340	AC	Residential	961	30	06-02-2021	225.50	39.0	Very Poor
MapleSt	0341	AC	Residential	662	30	06-02-2021	266.67	36.0	Very Poor
MapleSt	0342	AC	Residential	374	30	06-02-2021	327.50	28.0	Very Poor
MapleSt	0343	AC	Residential	305	30	06-02-2021	337.00	58.0	Fair
MARIEMONTR	0106	AC	Residential	339	26	06-02-2021	148.00	98.0	Good
MARIEMONTR	0107	AC	Residential	350	26	06-02-2021	119.00	96.0	Good
MARIEMONTR	0108	AC	Residential	271	26	06-02-2021	152.00	100.0	Good
MARIEMONTR	0109	AC	Residential	351	26	06-02-2021	116.00	99.0	Good
McCannonSt	0371	AC	Residential	423	30	06-02-2021	150.00	38.0	Very Poor
McCannonSt	0372	AC	Residential	338	30	06-02-2021	318.00	99.0	Good
McCannonSt	0373	AC	Residential	424	30	06-02-2021	350.00	99.0	Good
McCannonSt	0374	AC	Residential	364	30	06-02-2021	302.50	99.0	Good
McCannonSt	0375	AC	Residential	37	30	07-14-2021	250.00	100.0	Good
McCannonSt	0376	AC	Residential	319	30	06-02-2021	272.00	94.0	Good
McDoleDr	0277	AC	Residential	794	24	06-02-2021	261.33	79.0	Satisfactory
McDoleDr	0278	AC	Residential	318	24	06-02-2021	534.00	83.0	Satisfactory
McDoleDr	0279	AC	Residential	874	24	06-02-2021	295.00	81.0	Satisfactory
McDoleDr	0280	AC	Residential	725	24	06-02-2021	255.67	72.0	Satisfactory
McDoleDr	0281	AC	Residential	728	24	06-02-2021	185.00	73.0	Satisfactory
McDoleDr	0282	AC	Residential	228	24	06-02-2021	305.00	87.0	Good
McDoleDr	0283	AC	Residential	386	24	06-02-2021	207.00	69.0	Fair
MEADOWSCT	0377	AC	Residential	208	30	06-02-2021	334.00	40.0	Very Poor
MEADOWSDR	0368	AC	Residential	1613	30	06-02-2021	195.14	59.0	Fair
MEADOWSDR	0369	AC	Residential	982	30	06-02-2021	144.50	66.0	Fair
MEADOWSDR	0370	AC	Residential	358	30	06-02-2021	190.00	39.0	Very Poor
MerrillNew	0446	AC	Residential	201	30	06-02-2021	460.00	42.0	Poor
MerrillNew	0447	AC	Residential	168	30	06-02-2021	460.00	50.0	Poor
MerrillNew	0448	AC	Residential	166	30	06-02-2021	442.00	13.0	Serious
MerrillNew	0449	AC	Residential	805	30	06-02-2021	363.00	60.0	Fair
MerrillNew	0450	AC	Residential	424	30	06-02-2021	281.50	31.0	Very Poor
MerrillNew	0451	AC	Residential	248	30	06-02-2021	241.00	5.0	Failed
MerrillNew	0452	AC	Residential	220	30	06-02-2021	425.00	65.0	Fair
MerrillNew	0453	AC	Residential	401	30	06-02-2021	339.50	70.0	Fair
MerrillNew	0454	AC	Residential	1396	30	06-02-2021	269.00	33.0	Very Poor
MerrillNew	0455	AC	Residential	255	30	06-02-2021	326.00	18.0	Serious
MerrillRd	0013	AC	Collector	2631	22	06-02-2021	232.5	28.0	Very Poor

2021 PCI and IRI Values

Branch ID	Section ID	Surface Type	Functional Class	Length (ft)	Width (ft)	Last Inspection	IRI (in/mile)	PCI	PCI Category
MerrillRd	0014	AC	Collector	1406	22	06-02-2021	210.3	53.0	Poor
MerrillRd	0475	AC	Collector	1246	22	06-02-2021	256.40	29.0	Very Poor
MONNAST	0350	AC	Residential	386	30	06-02-2021	141.50	85.0	Satisfactory
MONNAST	0351	AC	Residential	1052	30	06-02-2021	119.75	98.0	Good
MunicipalD	0003	AC	Collector	2559	66	06-02-2021	192.3	70.0	Fair
MunicipalD	0038	AC	Collector	729	66	06-02-2021	194.3	50.0	Poor
MunicipalD	0039	AC	Collector	692	66	06-02-2021	228.8	46.0	Poor
MunicipalD	0465	AC	Residential	186	66	06-02-2021	167.00	83.0	Satisfactory
MYERSRD	0284	AC	Residential	605	24	06-02-2021	219.00	84.0	Satisfactory
MYERSST	0150	AC	Residential	479	26	06-02-2021	203.50	90.0	Good
NEILRD	0322	AC	Residential	137	50	06-02-2021	663.00	93.0	Good
NEILRD	0323	AC	Residential	234	50	06-02-2021	255.00	98.0	Good
NEILST	0348	AC	Residential	804	30	06-02-2021	175.67	78.0	Satisfactory
NEILST	0349	AC	Residential	1027	30	06-02-2021	202.25	70.0	Fair
NorrisRd	0015	AC	Collector	1676	24	06-02-2021	205.3	21.0	Serious
NorrisRd	0016	AC	Collector	1035	24	06-02-2021	234.5	23.0	Serious
NorrisRd	0017	AC	Collector	823	24	06-02-2021	227.5	19.0	Serious
NorrisRd	0018	AC	Collector	858	24	06-02-2021	185.8	32.0	Very Poor
NorrisRd	0019	AC	Collector	1312	24	06-02-2021	259.8	11.0	Serious
OAKST	0201	AC	Residential	1371	28	06-02-2021	207.50	61.0	Fair
OAKST	0202	AC	Residential	420	28	06-02-2021	235.00	55.0	Poor
OAKST	0203	AC	Residential	515	30	06-02-2021	235.50	67.0	Fair
OAKST	0204	AC	Residential	364	28	06-02-2021	188.50	69.0	Fair
OTTAWACIRC	0125	AC	Residential	282	26	06-02-2021	260.00	96.0	Good
OTTAWACIRC	0126	AC	Residential	198	26	06-02-2021	155.00	93.0	Good
OTTAWACIRC	0127	AC	Residential	250	26	06-02-2021	144.00	92.0	Good
OTTAWACIRC	0128	AC	Residential	867	26	06-02-2021	111.25	93.0	Good
OxfordAve	0414	AC	Residential	866	30	06-02-2021	248.75	73.0	Satisfactory
OxfordAve	0415	AC	Residential	956	30	06-02-2021	179.75	84.0	Satisfactory
ParkAve	0400	AC	Residential	639	30	06-02-2021	242.00	78.0	Satisfactory
ParkAve	0401	AC	Residential	1283	30	06-02-2021	170.80	94.0	Good
ParkAve	0402	AC	Residential	708	30	06-30-2021	274.67	100.0	Good
ParkAve	0403	AC	Residential	1260	30	06-30-2021	280.80	100.0	Good
ParkAve	0404	AC	Residential	784	30	06-02-2021	307.33	29.0	Very Poor
ParkAve	0405	AC	Residential	496	30	06-30-2021	341.50	100.0	Good
ParkAve	0406	AC	Residential	534	30	06-02-2021	243.00	25.0	Serious
ParkAve	0407	AC	Residential	314	30	06-02-2021	274.00	26.0	Very Poor
ParkAve	0408	AC	Residential	740	30	06-30-2021	253.33	100.0	Good
ParksideDr	0099	AC	Residential	379	26	06-02-2021	130.50	92.0	Good
ParksideDr	0100	AC	Residential	365	30	06-02-2021	101.50	92.0	Good
ParksideDr	0101	AC	Residential	402	30	06-02-2021	154.00	99.0	Good
ParksideDr	0102	AC	Residential	334	30	06-02-2021	131.00	95.0	Good
ParksideDr	0103	AC	Residential	343	30	06-02-2021	188.00	94.0	Good
ParksideDr	0104	AC	Residential	445	30	06-02-2021	163.00	94.0	Good
PATRICIALN	0353	AC	Residential	346	30	06-02-2021	343.50	82.0	Satisfactory
PATRICIALN	0354	AC	Residential	369	30	06-02-2021	290.00	84.0	Satisfactory
PATRICIALN	0355	AC	Residential	364	30	06-02-2021	344.50	71.0	Satisfactory
PATRICIALN	0356	AC	Residential	349	30	06-02-2021	488.50	75.0	Satisfactory
PATRICIALN	0357	AC	Residential	365	30	06-02-2021	286.50	77.0	Satisfactory
PEBBLEBROO	0094	AC	Residential	245	30	06-02-2021	263.00	100.0	Good

2021 PCI and IRI Values

Branch ID	Section ID	Surface Type	Functional Class	Length (ft)	Width (ft)	Last Inspection	IRI (in/mile)	PCI	PCI Category
PEMBRIDGEP	0231	AC	Residential	536	30	06-02-2021	342.00	28.0	Very Poor
PEMBRIDGEP	0232	AC	Residential	227	30	06-02-2021	217.00	64.0	Fair
PEMBRIDGEP	0233	AC	Residential	349	30	06-02-2021	379.00	52.0	Poor
PEMBRIDGEP	0234	AC	Residential	661	30	06-02-2021	230.33	53.0	Poor
PEMBRIDGEP	0235	AC	Residential	360	30	06-02-2021	335.50	46.0	Poor
PEMBRIDGEP	0236	AC	Residential	1005	30	06-02-2021	266.25	38.0	Very Poor
PEMBRIDGEP	0237	AC	Residential	454	30	06-02-2021	259.50	23.0	Serious
PinecrestD	0254	AC	Residential	544	30	06-02-2021	292.00	54.0	Poor
PINEST	0215	AC	Residential	887	26	06-02-2021	181.50	67.0	Fair
PINEST	0216	AC	Residential	227	28	06-02-2021	353.00	58.0	Fair
PrairieSt	0030	AC	Collector	1089	20	06-02-2021	116.6	87.0	Good
PrairieSt	0040	AC	Collector	169	22	06-02-2021	88.0	76.0	Satisfactory
PrairieSt	0041	AC	Collector	1246	22	06-02-2021	106.8	68.0	Fair
PrairieSt	0042	AC	Collector	7450	22	06-02-2021	111.1	60.0	Fair
PrairieSt	0467	AC	Residential	1739	22	06-02-2021	155.71	31.0	Very Poor
PriceRd	0275	AC	Residential	613	24	06-02-2021	287.00	88.0	Good
PriceRd	0276	AC	Residential	249	24	06-02-2021	257.00	75.0	Satisfactory
QUEENSGATE	0220	AC	Residential	189	30	06-02-2021	172.00	35.0	Very Poor
QUEENSGATE	0221	AC	Residential	409	30	06-02-2021	245.50	42.0	Poor
QUEENSGATE	0222	AC	Residential	1325	30	06-02-2021	234.40	36.0	Very Poor
QUEENSGATE	0223	AC	Residential	1123	30	06-02-2021	205.40	46.0	Poor
QUEENSGATE	0224	AC	Residential	326	30	06-02-2021	249.50	33.0	Very Poor
QUEENSGATE	0225	AC	Residential	374	30	06-02-2021	189.00	37.0	Very Poor
RAILROADST	0066	GR	Residential	227	25	N/A	N/A	N/A	N/A
RAILROADST	0067	GR	Residential	663	25	N/A	N/A	N/A	N/A
REDBUDLN	0189	AC	Residential	1770	30	06-02-2021	147.29	95.0	Good
REDBUDLN	0190	AC	Residential	275	28	06-02-2021	306.00	73.0	Satisfactory
REGENCYBLV	0153	AC	Residential	265	30	06-02-2021	262.00	25.0	Serious
REGENCYBLV	0154	AC	Residential	311	30	06-02-2021	251.00	43.0	Poor
REGENCYBLV	0155	AC	Residential	359	30	06-02-2021	329.50	65.0	Fair
REGENCYBLV	0156	AC	Residential	448	30	06-02-2021	223.00	30.0	Very Poor
RICHARDSST	0363	AC	Residential	254	30	06-02-2021	216.00	54.0	Poor
RICHARDSST	0364	AC	Residential	231	30	06-02-2021	468.00	47.0	Poor
RICHARDST	0324	AC	Residential	47	30	06-02-2021	188.00	99.0	Good
RICHARDST	0325	AC	Residential	52	30	07-14-2021	165.00	80.0	Satisfactory
RidgeviewL	0312	AC	Residential	2111	30	06-02-2021	227.88	69.0	Fair
RidgeviewL	0313	AC	Residential	147	30	06-02-2021	273.00	69.0	Fair
ROLLINGOAK	0095	AC	Residential	251	30	06-02-2021	383.00	46.0	Poor
ROLLINGOAK	0096	AC	Residential	508	30	06-02-2021	190.50	60.0	Fair
ROLLINGOAK	0097	AC	Residential	247	30	06-02-2021	234.00	64.0	Fair
ROSEAVE	0105	AC	Residential	392	26	07-14-2021	130.00	96.0	Good
SADDLEBROO	0093	AC	Residential	225	30	06-02-2021	147.00	100.0	Good
SettlersBl	0134	AC	Residential	345	30	06-02-2021	125.00	94.0	Good
SettlersBl	0135	AC	Residential	343	30	06-02-2021	118.00	83.0	Satisfactory
SettlersBl	0136	AC	Residential	363	30	06-02-2021	146.50	83.0	Satisfactory
SettlersBl	0137	AC	Residential	340	30	06-02-2021	170.00	96.0	Good
SettlersBl	0138	AC	Residential	493	30	06-02-2021	169.50	97.0	Good
SettlersBl	0139	AC	Residential	478	30	06-02-2021	111.00	87.0	Good
SettlersBl	0140	AC	Residential	345	30	06-02-2021	137.00	100.0	Good
SettlersBl	0141	AC	Residential	199	30	06-02-2021	179.00	99.0	Good

2021 PCI and IRI Values

Branch ID	Section ID	Surface Type	Functional Class	Length (ft)	Width (ft)	Last Inspection	IRI (in/mile)	PCI	PCI Category
SETTLERSCT	0142	AC	Residential	480	26	06-02-2021	224.00	97.0	Good
SHEFFIELDC	0261	AC	Residential	1417	30	06-02-2021	272.17	69.0	Fair
SHELBURNEL	0416	AC	Residential	199	26	06-02-2021	189.00	100.0	Good
SLATERST	0297	AC	Residential	552	24	06-02-2021	247.00	80.0	Satisfactory
SNOWST	0043	AC	Collector	1206	30	06-02-2021	195.8	69.0	Fair
SNOWST	0044	AC	Collector	955	30	06-02-2021	128.8	97.0	Good
SNOWST	0045	AC	Collector	648	30	06-02-2021	150.7	94.0	Good
SNOWST	0046	AC	Collector	688	30	06-02-2021	142.0	95.0	Good
SnowSt	0314	AC	Residential	138	30	06-02-2021	178.00	78.0	Satisfactory
SnowSt	0315	AC	Residential	322	30	06-02-2021	209.50	68.0	Fair
SnowSt	0316	AC	Residential	380	30	06-02-2021	173.50	71.0	Satisfactory
SNOWST	0469	AC	Residential	120	30	06-02-2021	254.00	75.0	Satisfactory
SNOWST	0470	AC	Residential	439	30	06-02-2021	278.50	53.0	Poor
SOMERSETDR	0178	AC	Residential	984	28	06-02-2021	214.50	45.0	Poor
SPRUCEST	0205	AC	Residential	384	28	06-02-2021	207.00	59.0	Fair
SPRUCEST	0206	AC	Residential	373	28	06-02-2021	195.00	61.0	Fair
SPRUCEST	0207	AC	Residential	623	28	06-02-2021	171.33	51.0	Poor
SPRUCEST	0208	AC	Residential	422	28	06-02-2021	264.00	57.0	Fair
STAMFORDPL	0445	AC	Residential	720	30	06-02-2021	299.33	59.0	Fair
STANLEYRD	0365	AC	Residential	403	30	06-02-2021	161.50	70.0	Fair
STANLEYRD	0366	AC	Residential	329	30	06-02-2021	191.00	85.0	Satisfactory
STANLEYRD	0367	AC	Residential	327	30	06-02-2021	196.50	83.0	Satisfactory
STJAMESPKY	0164	AC	Residential	309	28	06-02-2021	293.00	53.0	Poor
STJAMESPKY	0165	AC	Residential	296	28	06-02-2021	232.00	39.0	Very Poor
STJAMESPKY	0166	AC	Residential	327	28	06-02-2021	326.00	33.0	Very Poor
STJAMESPKY	0167	AC	Residential	219	28	06-02-2021	316.00	50.0	Poor
STJAMESPKY	0168	AC	Residential	442	28	06-02-2021	222.50	77.0	Satisfactory
STJAMESPKY	0169	AC	Residential	308	40	06-02-2021	352.50	69.0	Fair
STJAMESPKY	0170	AC	Residential	285	28	06-02-2021	247.50	35.0	Very Poor
STOCKBRIDG	0427	AC	Residential	284	30	06-02-2021	293.00	62.0	Fair
STOCKBRIDG	0428	AC	Residential	764	30	06-02-2021	317.00	47.0	Poor
STOCKBRIDG	0429	AC	Residential	152	30	06-02-2021	327.00	67.0	Fair
STONEHILLC	0432	AC	Residential	501	30	06-02-2021	378.00	39.0	Very Poor
SuttonCirc	0462	AC	Residential	207	30	06-02-2021	320.00	70.0	Fair
SuttonCt	0456	AC	Residential	286	30	06-02-2021	311.00	74.0	Satisfactory
SuttonCt	0457	AC	Residential	201	30	06-02-2021	193.00	77.0	Satisfactory
SuttonCt	0458	AC	Residential	233	30	06-02-2021	166.00	80.0	Satisfactory
SuttonCt	0459	AC	Residential	294	30	06-02-2021	141.00	76.0	Satisfactory
SuttonCt	0460	AC	Residential	73	30	06-02-2021	116.00	72.0	Satisfactory
SWCORNER/S	0326	AC	Residential	534	30	06-02-2021	292.50	76.0	Satisfactory
TERRYDR	0345	AC	Residential	289	30	06-02-2021	192.00	84.0	Satisfactory
TERRYDR	0346	AC	Residential	1497	30	06-02-2021	127.00	83.0	Satisfactory
TERRYDR	0347	AC	Residential	592	30	06-02-2021	169.33	77.0	Satisfactory
TUDORCT	0226	AC	Residential	85	30	06-02-2021	317.00	43.0	Poor
TUDORCT	0227	AC	Residential	401	30	06-02-2021	332.00	37.0	Very Poor
ValeAve	0436	AC	Residential	664	30	06-02-2021	137.67	95.0	Good
WASHFORDPL	0430	AC	Residential	434	30	06-02-2021	380.50	30.0	Very Poor
WaubonseeD	0049	AC	Residential	459	36	06-02-2021	308.00	82.0	Satisfactory
Westbourne	0463	AC	Residential	1157	30	06-02-2021	177.20	93.0	Good
WESTST	0358	AC	Residential	415	30	06-02-2021	263.50	42.0	Poor

2021 PCI and IRI Values

Branch ID	Section ID	Surface Type	Functional Class	Length (ft)	Width (ft)	Last Inspection	IRI (in/mile)	PCI	PCI Category
WHEATLANDA	0191	AC	Residential	1399	30	06-02-2021	216.83	89.0	Good
WHEATLANDA	0192	AC	Residential	494	30	06-02-2021	155.00	99.0	Good
WHEATLANDA	0193	AC	Residential	779	30	06-02-2021	175.00	88.0	Good
WheelerRd	0309	AC	Residential	1992	18	06-02-2021	183.00	61.0	Fair
WheelerRd	0476	AC	Collector	4682	22	06-02-2021	338.39	12.0	Serious
WheelerRd	0478	AC	Collector	4036	22	06-02-2021	131.31	40.0	Very Poor
WheelerRd	0479	AC	Collector	1267	22	06-02-2021	171.00	31.0	Very Poor
WheelerRd	0480	AC	Collector	1792	22	06-02-2021	141.86	61.0	Fair
WheelerRd	0481	AC	Collector	1937	22	06-02-2021	188.00	44.0	Poor
WhildinRd	0471	GR	Collector	329	12	N/A	N/A	N/A	N/A
Whispering	0392	AC	Residential	642	34	06-02-2021	148.33	74.0	Satisfactory
WHITFIELD	0183	AC	Residential	863	28	06-02-2021	281.50	63.0	Fair
WildGinger	0264	AC	Residential	1414	30	06-02-2021	326.50	48.0	Poor
WILLOWST	0198	AC	Residential	744	30	06-02-2021	213.67	74.0	Satisfactory
WILLOWST	0199	AC	Residential	367	30	06-02-2021	290.50	67.0	Fair
WILLOWST	0200	AC	Residential	380	30	06-02-2021	223.50	46.0	Poor
WindsorRd	0420	AC	Residential	541	26	06-02-2021	218.00	96.0	Good
WindsorRd	0421	AC	Residential	337	26	06-02-2021	214.00	94.0	Good
WindsorRd	0422	AC	Residential	648	26	06-02-2021	130.67	95.0	Good
WindsorRd	0423	AC	Residential	784	26	06-02-2021	134.00	96.0	Good
WINDSTONER	0424	AC	Residential	244	38	06-02-2021	286.00	54.0	Poor
WINDSTONER	0425	AC	Residential	304	50	06-02-2021	322.00	33.0	Very Poor
WOODBURYCT	0262	AC	Residential	400	30	06-02-2021	285.50	73.0	Satisfactory
WOODBURYCT	0263	AC	Residential	281	30	06-02-2021	309.00	82.0	Satisfactory
WOODRIDGED	0307	AC	Residential	919	28	06-02-2021	215.25	68.0	Fair
YOLANECTP	0333	AC	Residential	176	30	06-02-2021	383.00	95.0	Good
YOLANEDR	0331	AC	Residential	445	30	06-02-2021	320.00	66.0	Fair
YOLANEDR	0332	AC	Residential	954	30	06-02-2021	209.50	94.0	Good

Details of 2022 Localized Distress Maintenance Plan Based on the Most Recent Inspection

BranchID	SectionID	Description	Severity	Distress Qty	Distress Unit	Percent Distress	Work Description	Functional Class	Surface Type	Width (ft)	Length (ft)	Work Qty	Work Unit	Unit Cost	Work Cost
GROVESTH	0362	ALLIGATOR CR	Medium	37	SqFt	0.49	Patching - AC Deep	Residential	AC	18	421	66	SqFt	\$ 5.00	\$329
GROVESTH	0362	L & T CR	Medium	13	Ft	0.17	Crack Sealing - AC	Residential	AC	18	421	13	Ft	\$ 1.50	\$19
GROVESTH	0362	L & T CR	High	2	Ft	0.02	Patching - AC Shallow	Residential	AC	18	421	6	SqFt	\$ 2.78	\$17
DuganRd	0024	RUTTING	Medium	24	SqFt	0.02	Patching - AC Shallow	Collector	AC	22	5201	25	SqFt	\$ 2.78	\$67
DuganRd	0024	L & T CR	Medium	67	Ft	0.06	Crack Sealing - AC	Collector	AC	22	5201	67	Ft	\$ 1.50	\$100
FAYSLN	0329	L & T CR	Medium	6	Ft	0.03	Crack Sealing - AC	Residential	AC	34	640	6	Ft	\$ 1.50	\$9
FAYSLN	0329	L & T CR	High	1	Ft	0.00	Patching - AC Shallow	Residential	AC	34	640	3	SqFt	\$ 2.78	\$9
FAYSLN	0329	RUTTING	Medium	81	SqFt	0.37	Patching - AC Shallow	Residential	AC	34	640	81	SqFt	\$ 2.78	\$224
HICKORYST	0214	L & T CR	Medium	2	Ft	0.01	Crack Sealing - AC	Residential	AC	26	709	2	Ft	\$ 1.50	\$4
CARRIAGEHI	0411	L & T CR	Medium	4	Ft	0.07	Crack Sealing - AC	Residential	AC	30	175	4	Ft	\$ 1.50	\$6
SnowSt	0316	L & T CR	Medium	392	Ft	3.44	Crack Sealing - AC	Residential	AC	30	380	392	Ft	\$ 1.50	\$588
SnowSt	0316	L & T CR	High	31	Ft	0.27	Patching - AC Shallow	Residential	AC	30	380	102	SqFt	\$ 2.78	\$283
CHESTNUTHI	0195	L & T CR	High	5	Ft	0.02	Patching - AC Shallow	Residential	AC	30	1098	18	SqFt	\$ 2.78	\$49
CHESTNUTHI	0195	L & T CR	Medium	285	Ft	0.86	Crack Sealing - AC	Residential	AC	30	1098	285	Ft	\$ 1.50	\$427
JENNIFERCT	0253	RUTTING	High	21	SqFt	0.23	Patching - AC Shallow	Residential	AC	30	296	20	SqFt	\$ 2.78	\$57
OxfordAve	0414	L & T CR	Medium	62	Ft	0.24	Crack Sealing - AC	Residential	AC	30	866	62	Ft	\$ 1.50	\$94
BucktailLn	0394	RUTTING	Medium	13	SqFt	0.04	Patching - AC Shallow	Residential	AC	30	955	13	SqFt	\$ 2.78	\$35
BucktailLn	0394	L & T CR	Medium	7	Ft	0.02	Crack Sealing - AC	Residential	AC	30	955	7	Ft	\$ 1.50	\$10
WindsorRd	0420	L & T CR	Medium	33	Ft	0.23	Crack Sealing - AC	Residential	AC	26	541	33	Ft	\$ 1.50	\$49
HANNAFORDD	0219	L & T CR	High	5	Ft	0.03	Patching - AC Shallow	Residential	AC	30	475	15	SqFt	\$ 2.78	\$43
HANNAFORDD	0219	L & T CR	Medium	101	Ft	0.71	Crack Sealing - AC	Residential	AC	30	475	101	Ft	\$ 1.50	\$151
IndigoDr	0317	L & T CR	High	110	Ft	0.23	Patching - AC Shallow	Residential	AC	36	1341	362	SqFt	\$ 2.78	\$1,007
IndigoDr	0317	RUTTING	Medium	195	SqFt	0.40	Patching - AC Shallow	Residential	AC	36	1341	196	SqFt	\$ 2.78	\$543
IndigoDr	0317	L & T CR	Medium	1807	Ft	3.74	Crack Sealing - AC	Residential	AC	36	1341	1807	Ft	\$ 1.50	\$2,711
GalenaBlvd	0002	RUTTING	Medium	28	SqFt	0.09	Patching - AC Shallow	Collector	AC	66	483	28	SqFt	\$ 2.78	\$78
GalenaBlvd	0002	L & T CR	Medium	305	Ft	0.96	Crack Sealing - AC	Collector	AC	66	483	305	Ft	\$ 1.50	\$457
GalenaBlvd	0002	L & T CR	High	171	Ft	0.54	Patching - AC Shallow	Collector	AC	66	483	561	SqFt	\$ 2.78	\$1,560
GalenaBlvd	0002	RUTTING	High	84	SqFt	0.26	Patching - AC Deep	Collector	AC	66	483	84	SqFt	\$ 5.00	\$422
GranartRd	0005	POTHOLE	Low	2	Count	0.01	Patching - AC Shallow	Collector	AC	36	1070	6	SqFt	\$ 2.78	\$17
GranartRd	0005	L & T CR	Medium	18	Ft	0.05	Crack Sealing - AC	Collector	AC	36	1070	18	Ft	\$ 1.50	\$27
GranartRd	0005	L & T CR	High	43	Ft	0.11	Patching - AC Shallow	Collector	AC	36	1070	140	SqFt	\$ 2.78	\$389
CARMENRD	0294	L & T CR	Medium	76	Ft	1.14	Crack Sealing - AC	Residential	AC	24	278	76	Ft	\$ 1.50	\$114
HankesRd	0474	L & T CR	Medium	1358	Ft	1.70	Crack Sealing - AC	Collector	AC	24	3319	1358	Ft	\$ 1.50	\$2,037
HankesRd	0474	L & T CR	High	28	Ft	0.04	Patching - AC Shallow	Collector	AC	24	3319	93	SqFt	\$ 2.78	\$257
HallStreet	0285	L & T CR	High	2	Ft	0.01	Patching - AC Shallow	Residential	AC	24	928	9	SqFt	\$ 2.78	\$23
HallStreet	0285	RUTTING	Medium	37	SqFt	0.16	Patching - AC Shallow	Residential	AC	24	928	37	SqFt	\$ 2.78	\$102
HallStreet	0285	L & T CR	Medium	4	Ft	0.02	Crack Sealing - AC	Residential	AC	24	928	4	Ft	\$ 1.50	\$6
NorrisRd	0017	RUTTING	High	18	SqFt	0.09	Patching - AC Shallow	Collector	AC	24	823	18	SqFt	\$ 2.78	\$51
WILLOWST	0198	L & T CR	Medium	5	Ft	0.02	Crack Sealing - AC	Residential	AC	30	744	5	Ft	\$ 1.50	\$8

Details of 2022 Localized Distress Maintenance Plan Based on the Most Recent Inspection

BranchID	SectionID	Description	Severity	Distress Qty	Distress Unit	Percent Distress	Work Description	Functional Class	Surface Type	Width (ft)	Length (ft)	Work Qty	Work Unit	Unit Cost	Work Cost
HamstedDr	0438	L & T CR	High	1	Ft	0.02	Patching - AC Shallow	Residential	AC	30	223	4	SqFt	\$ 2.78	\$12
HamstedDr	0438	L & T CR	Medium	34	Ft	0.51	Crack Sealing - AC	Residential	AC	30	223	34	Ft	\$ 1.50	\$51
HamstedDr	0438	RUTTING	Medium	14	SqFt	0.21	Patching - AC Shallow	Residential	AC	30	223	14	SqFt	\$ 2.78	\$38
BISHOPRD	0300	L & T CR	Medium	14	Ft	0.18	Crack Sealing - AC	Residential	AC	24	318	14	Ft	\$ 1.50	\$21
PATRICIALN	0357	L & T CR	Medium	55	Ft	0.50	Crack Sealing - AC	Residential	AC	30	365	55	Ft	\$ 1.50	\$83
PATRICIALN	0357	RUTTING	Medium	12	SqFt	0.11	Patching - AC Shallow	Residential	AC	30	365	12	SqFt	\$ 2.78	\$33
PATRICIALN	0357	L & T CR	High	1	Ft	0.01	Patching - AC Shallow	Residential	AC	30	365	3	SqFt	\$ 2.78	\$8
WheelerRd	0476	RUTTING	High	1107	SqFt	1.07	Patching - AC Shallow	Collector	AC	22	4682	1107	SqFt	\$ 2.78	\$3,077
Buckingham	0304	L & T CR	Medium	45	Ft	0.44	Crack Sealing - AC	Residential	AC	28	365	45	Ft	\$ 1.50	\$67
HamstedDr	0442	L & T CR	Medium	27	Ft	0.48	Crack Sealing - AC	Residential	AC	30	184	27	Ft	\$ 1.50	\$40
HEARTLANDD	0482	L & T CR	High	1	Ft	0.00	Patching - AC Shallow	Residential	AC	36	1318	3	SqFt	\$ 2.78	\$10
HEARTLANDD	0482	L & T CR	Medium	115	Ft	0.24	Crack Sealing - AC	Residential	AC	36	1318	115	Ft	\$ 1.50	\$172
SPRUCEST	0208	L & T CR	Medium	6	Ft	0.05	Crack Sealing - AC	Residential	AC	28	422	7	Ft	\$ 1.50	\$10
DennyRd	0011	L & T CR	Medium	1	Ft	0.00	Crack Sealing - AC	Collector	AC	30	899	1	Ft	\$ 1.50	\$2
NELRD	0323	L & T CR	Medium	5	Ft	0.04	Crack Sealing - AC	Residential	AC	50	234	5	Ft	\$ 1.50	\$7
ATKINSONDR	0115	L & T CR	High	0	Ft	0.00	Patching - AC Shallow	Residential	AC	26	151	1	SqFt	\$ 2.78	\$2
WHEATLANDA	0191	L & T CR	Medium	27	Ft	0.07	Crack Sealing - AC	Residential	AC	30	1399	27	Ft	\$ 1.50	\$41
WHEATLANDA	0191	L & T CR	High	0	Ft	0.00	Patching - AC Shallow	Residential	AC	30	1399	1	SqFt	\$ 2.78	\$4
WHEATLANDA	0191	RUTTING	Medium	11	SqFt	0.03	Patching - AC Shallow	Residential	AC	30	1399	11	SqFt	\$ 2.78	\$31
BERKSHIREC	0162	RUTTING	High	28	SqFt	0.21	Patching - AC Shallow	Residential	AC	28	484	28	SqFt	\$ 2.78	\$77
COBBLERLN	0077	L & T CR	Medium	183	Ft	0.79	Crack Sealing - AC	Residential	AC	30	769	182	Ft	\$ 1.50	\$274
SNOWST	0044	RUTTING	Medium	10	SqFt	0.03	Patching - AC Shallow	Collector	AC	30	955	10	SqFt	\$ 2.78	\$27
IndigoDr	0319	L & T CR	High	17	Ft	0.12	Patching - AC Shallow	Residential	AC	36	395	55	SqFt	\$ 2.78	\$152
IndigoDr	0319	L & T CR	Medium	89	Ft	0.63	Crack Sealing - AC	Residential	AC	36	395	89	Ft	\$ 1.50	\$133
HarkisonBl	0290	L & T CR	Medium	12	Ft	0.14	Crack Sealing - AC	Residential	AC	24	350	12	Ft	\$ 1.50	\$18
HarkisonBl	0290	L & T CR	High	40	Ft	0.47	Patching - AC Shallow	Residential	AC	24	350	129	SqFt	\$ 2.78	\$361
HarkisonBl	0290	RUTTING	Medium	10	SqFt	0.12	Patching - AC Shallow	Residential	AC	24	350	10	SqFt	\$ 2.78	\$27
HarkisonBl	0290	RUTTING	High	10	SqFt	0.12	Patching - AC Deep	Residential	AC	24	350	10	SqFt	\$ 5.00	\$49
MEADOWSDR	0369	L & T CR	High	29	Ft	0.10	Patching - AC Shallow	Residential	AC	30	982	94	SqFt	\$ 2.78	\$260
MEADOWSDR	0369	L & T CR	Medium	973	Ft	3.30	Crack Sealing - AC	Residential	AC	30	982	972	Ft	\$ 1.50	\$1,459
MerrillRd	0013	RUTTING	High	8	SqFt	0.01	Patching - AC Shallow	Collector	AC	22	2631	9	SqFt	\$ 2.78	\$23
MAINST	0035	RUTTING	High	114	SqFt	0.29	Patching - AC Shallow	Collector	AC	30	1312	114	SqFt	\$ 2.78	\$316
HICKORYST	0213	L & T CR	Medium	32	Ft	0.35	Crack Sealing - AC	Residential	AC	28	328	32	Ft	\$ 1.50	\$48
MONNAST	0350	RUTTING	High	24	SqFt	0.21	Patching - AC Deep	Residential	AC	30	386	24	SqFt	\$ 5.00	\$119
MONNAST	0350	L & T CR	Medium	82	Ft	0.71	Crack Sealing - AC	Residential	AC	30	386	82	Ft	\$ 1.50	\$123
DuganRd	0004	RUTTING	Medium	9	SqFt	0.12	Patching - AC Shallow	Collector	AC	22	343	9	SqFt	\$ 2.78	\$24
DuganRd	0004	L & T CR	High	19	Ft	0.25	Patching - AC Shallow	Collector	AC	22	343	61	SqFt	\$ 2.78	\$172
DuganRd	0004	L & T CR	Medium	48	Ft	0.63	Crack Sealing - AC	Collector	AC	22	343	48	Ft	\$ 1.50	\$72
DuganRd	0004	RUTTING	High	17	SqFt	0.23	Patching - AC Deep	Collector	AC	22	343	17	SqFt	\$ 5.00	\$87

Details of 2022 Localized Distress Maintenance Plan Based on the Most Recent Inspection

BranchID	SectionID	Description	Severity	Distress Qty	Distress Unit	Percent Distress	Work Description	Functional Class	Surface Type	Width (ft)	Length (ft)	Work Qty	Work Unit	Unit Cost	Work Cost
JONESRD	0111	L & T CR	Medium	109	Ft	0.48	Crack Sealing - AC	Residential	AC	26	865	109	Ft	\$ 1.50	\$163
PrairieSt	0041	RUTTING	Medium	8	SqFt	0.03	Patching - AC Shallow	Collector	AC	22	1246	9	SqFt	\$ 2.78	\$23
PrairieSt	0041	L & T CR	Medium	199	Ft	0.72	Crack Sealing - AC	Collector	AC	22	1246	199	Ft	\$ 1.50	\$298
PrairieSt	0041	L & T CR	High	1	Ft	0.00	Patching - AC Shallow	Collector	AC	22	1246	2	SqFt	\$ 2.78	\$6
EVERGREENL	0260	RUTTING	Medium	12	SqFt	0.08	Patching - AC Shallow	Residential	AC	30	479	12	SqFt	\$ 2.78	\$34
EVERGREENL	0260	L & T CR	High	1	Ft	0.01	Patching - AC Shallow	Residential	AC	30	479	4	SqFt	\$ 2.78	\$12
EVERGREENL	0260	L & T CR	Medium	15	Ft	0.11	Crack Sealing - AC	Residential	AC	30	479	15	Ft	\$ 1.50	\$23
SLATERST	0297	L & T CR	Medium	4	Ft	0.03	Crack Sealing - AC	Residential	AC	24	552	4	Ft	\$ 1.50	\$6
DennyRd	0188	L & T CR	High	1	Ft	0.00	Patching - AC Shallow	Residential	AC	32	1652	3	SqFt	\$ 2.78	\$9
DennyRd	0188	L & T CR	Medium	12	Ft	0.02	Crack Sealing - AC	Residential	AC	32	1652	11	Ft	\$ 1.50	\$17
STAMFORDPL	0445	L & T CR	Medium	171	Ft	0.79	Crack Sealing - AC	Residential	AC	30	720	171	Ft	\$ 1.50	\$257
STAMFORDPL	0445	POTHOLE	Low	8	Count	0.03	Patching - AC Shallow	Residential	AC	30	720	23	SqFt	\$ 2.78	\$63
STAMFORDPL	0445	RUTTING	Medium	12	SqFt	0.06	Patching - AC Shallow	Residential	AC	30	720	13	SqFt	\$ 2.78	\$35
STAMFORDPL	0445	L & T CR	High	4	Ft	0.02	Patching - AC Shallow	Residential	AC	30	720	13	SqFt	\$ 2.78	\$36
JOYST	0387	L & T CR	Medium	6	Ft	0.03	Crack Sealing - AC	Residential	AC	30	636	6	Ft	\$ 1.50	\$9
OxfordAve	0415	L & T CR	Medium	8	Ft	0.03	Crack Sealing - AC	Residential	AC	30	956	9	Ft	\$ 1.50	\$13
McDoleDr	0283	RUTTING	Medium	163	SqFt	1.76	Patching - AC Shallow	Residential	AC	24	386	164	SqFt	\$ 2.78	\$454
McDoleDr	0283	L & T CR	High	13	Ft	0.14	Patching - AC Shallow	Residential	AC	24	386	43	SqFt	\$ 2.78	\$118
McDoleDr	0283	L & T CR	Medium	22	Ft	0.24	Crack Sealing - AC	Residential	AC	24	386	22	Ft	\$ 1.50	\$34
McDoleDr	0283	RUTTING	High	9	SqFt	0.10	Patching - AC Deep	Residential	AC	24	386	10	SqFt	\$ 5.00	\$48
EskerDr	0477	RUTTING	High	59	SqFt	0.04	Patching - AC Shallow	Residential	AC	24	6715	59	SqFt	\$ 2.78	\$164
SPRUCEST	0205	L & T CR	Medium	22	Ft	0.21	Crack Sealing - AC	Residential	AC	28	384	22	Ft	\$ 1.50	\$34
STANLEYRD	0367	L & T CR	Medium	0	Ft	0.00	Crack Sealing - AC	Residential	AC	30	327	0	Ft	\$ 1.50	\$1
COURTNEYCI	0419	L & T CR	Medium	2	Ft	0.01	Crack Sealing - AC	Residential	AC	26	1362	2	Ft	\$ 1.50	\$4
COURTNEYCI	0419	RUTTING	Medium	10	SqFt	0.03	Patching - AC Shallow	Residential	AC	26	1362	10	SqFt	\$ 2.78	\$28
BetaDr	0306	L & T CR	Medium	39	Ft	0.37	Crack Sealing - AC	Residential	AC	28	377	39	Ft	\$ 1.50	\$58
BetaDr	0306	RUTTING	Medium	11	SqFt	0.10	Patching - AC Shallow	Residential	AC	28	377	11	SqFt	\$ 2.78	\$30
CROSSST	0384	L & T CR	Medium	8	Ft	0.23	Crack Sealing - AC	Residential	AC	30	118	8	Ft	\$ 1.50	\$12
HankesRd	0473	RUTTING	High	9	SqFt	0.02	Patching - AC Shallow	Collector	AC	24	2421	9	SqFt	\$ 2.78	\$25
OTTAWACIRC	0126	L & T CR	Medium	5	Ft	0.10	Crack Sealing - AC	Residential	AC	26	198	5	Ft	\$ 1.50	\$7
WindsorRd	0421	L & T CR	Medium	17	Ft	0.19	Crack Sealing - AC	Residential	AC	26	337	17	Ft	\$ 1.50	\$25
PATRICIALN	0356	L & T CR	High	1	Ft	0.01	Patching - AC Shallow	Residential	AC	30	349	4	SqFt	\$ 2.78	\$12
PATRICIALN	0356	RUTTING	Medium	39	SqFt	0.37	Patching - AC Shallow	Residential	AC	30	349	39	SqFt	\$ 2.78	\$108
PATRICIALN	0356	L & T CR	Medium	173	Ft	1.65	Crack Sealing - AC	Residential	AC	30	349	173	Ft	\$ 1.50	\$260
PATRICIALN	0356	RUTTING	High	13	SqFt	0.12	Patching - AC Deep	Residential	AC	30	349	13	SqFt	\$ 5.00	\$65
WILLOWST	0199	L & T CR	Medium	6	Ft	0.05	Crack Sealing - AC	Residential	AC	30	367	6	Ft	\$ 1.50	\$9
WILLOWST	0199	L & T CR	High	1	Ft	0.01	Patching - AC Shallow	Residential	AC	30	367	2	SqFt	\$ 2.78	\$6
SuttonCt	0458	L & T CR	Medium	8	Ft	0.12	Crack Sealing - AC	Residential	AC	30	233	8	Ft	\$ 1.50	\$12
ArborAve	0057	L & T CR	Medium	1	Ft	0.00	Crack Sealing - AC	Residential	AC	30	875	1	Ft	\$ 1.50	\$2