

2019 “State of the Streets”

Final Report

Prepared for:

**Village of Glenwood, Illinois &
Chicago Metropolitan Agency for Planning**

Prepared by:

Gorrondona and Associates, Inc.
Pavement Engineering Division

4201 West Parmer Lane, Building A, Suite 150 | Austin, Texas 78727
(512) 719-9933 | www.ga-inc.net

In association with:

Urban GIS, Inc. (MBE/DBE/8a)

171 North Aberdeen | Suite 10 | Chicago, Illinois 60607
(312) 525-8400 | www.urbangis.com

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*Assuming Unlimited Funding***

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1 EXECUTIVE SUMMARY

1.1 History

In May of 2019, the Chicago Metropolitan Agency for Planning (CMAP) retained the services of Gorrondona and Associates, Inc. (G&AI) to implement a pavement management system for the Village of Glenwood that will enable the Village to manage its roadway network in a more proactive, cost-effective, and sustainable way. To accomplish this objective, G&AI: 1) assessed the condition of the Village’s roadways, 2) implemented and customized a pavement management system for the Village, and 3) developed near- and long-term pavement maintenance and rehabilitation (M&R) recommendations for the Village’s roadways.

During June of 2019, G&AI’s state-of-the-art PathRunner pavement condition data collection system (shown in Figure 1) was deployed to capture continuous, high-resolution pavement cracking, rutting, and roughness data of the Village’s roads. Collected data were entered into the PAVER Pavement Management System (PAVER), and baseline pavement condition scores were determined for each roadway.

In September of 2019, preliminary results of the condition survey were presented to the Village. G&AI has since worked with the Village to collect additional pavement M&R records and M&R unit cost data with which to calibrate the PAVER system so that it is specific to the Village.

The collected pavement condition data along with both the historical M&R data and unit prices provided by the Village were used to develop network-level M&R recommendations presented herein for the Village’s consideration.

1.2 The PAVER Pavement Management System

PAVER stores two primary “measures” of pavement condition. The most obvious measure of pavement condition is the **International Roughness Index (IRI)**, which describes the rideability (i.e., smoothness) of the roadway as experienced by the driver.

The second measure of pavement condition is the **Pavement Condition Index (PCI)**, which provides an indication of both the structural integrity and surface operational condition of the roadway. PAVER uses PCI values to determine the most cost-effective level of M&R likely needed. PAVER prioritizes funding for life-extending, lower-cost preventive maintenance activities (e.g., crack sealing, slurry seals, and localized patching) above more costly funding of last resort major M&R activities, such as resurfacing and reconstruction. This prioritization in the PAVER algorithm seeks a proactive and cost-effective approach to pavement management with the avoidance of – unless necessary – more costly reactive practices.

In addition to routinely collected IRI and PCI data, PAVER stores pavement inventory information, historical M&R records, and M&R unit cost data. The system uses this information to predict future

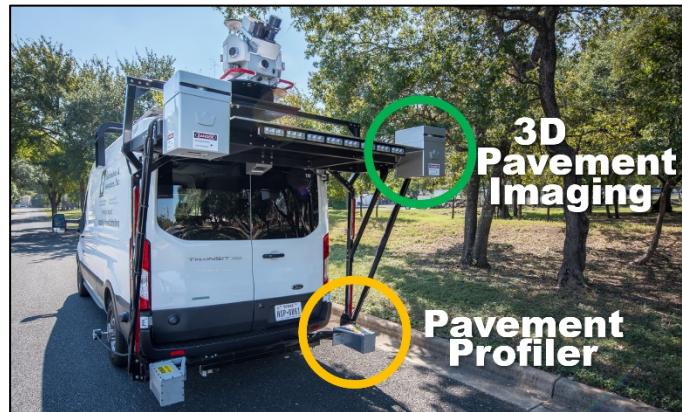


Figure 1. PathRunner pavement condition data collection system.

pavement conditions and identify network-level deterioration trends and M&R needs over time. It will also allow the Village to evaluate if present M&R methods are performing as expected.

1.3 Purpose and scope

The purpose of this project is to implement a comprehensive pavement management system for the Village’s roadways. The scope of this project includes all roadways managed by the Village, which total approximately 29.3 centerline miles. This pavement management system will serve as a primary tool to assist the Village in more efficiently allocating its pavement M&R funding.

To this end, G&AI:

1. Developed an inventory of the Village’s roadways in PAVER. The PAVER inventory contains pavement surface type, functional classification, M&R unit costs, and historical M&R data. *Note: Inventory development is a one-time effort that can be used by the Village if the PAVER system is retained, only requiring updates to address changes to the Village’s roadway network and changes in M&R unit costs.*
2. Performed a pavement condition survey of the Village’s roadways. This survey was used to determine PCI and IRI values for analysis purposes and will serve as an initial baseline of roadway conditions.
3. Used the condition survey with the developed PAVER inventory to determine the impact of different funding levels on the Village’s roadways and identify potential network-level pavement M&R needs.

1.4 Results

Pavement Condition Index (PCI) and **International Roughness Index (IRI)** values were determined for each roadway. PCI values provide an indication of both the structural integrity and surface operational condition of a pavement. PCI values range from 0 (a failed pavement) to 100 (a pavement in excellent condition). Table 1 shows the categories chosen to represent the Village’s PCI assessment criteria, which includes typical pavement distresses and levels of M&R needed within each category.

Table 1. Village’s pavement condition categories.

Category	Typical Distresses and Typical Level of M&R Needed	PCI Range
Good	Longitudinal and transverse cracking and weathering of surface Preventive maintenance: <i>Crack sealing and surface treatments</i>	86-100
Satisfactory	More extensive longitudinal and transverse cracking and weathering of surface Preventive maintenance: <i>Crack sealing and surface treatments</i>	71-85
Fair	Extensive longitudinal and transverse cracking, early stage alligator (fatigue) cracking, early stage rutting, and weathering of surface Global preventive maintenance and localized repairs: <i>Localized surface and/or full-depth patching, surface treatments, and thin overlays</i>	56-70
Poor	More extensive and severe longitudinal and transverse cracking, alligator (fatigue) cracking, rutting, and weathering of surface Major rehabilitation: <i>Localized full-depth patching, mill and overlays, and traditional overlays</i>	41-55
Very Poor	More extensive and more severe longitudinal and transverse cracking, alligator (fatigue) cracking, rutting, weathering of surface, potholes Major rehabilitation: <i>Full-depth patching, mill and overlays, traditional overlays, and reconstruction</i>	26-40
Serious	Extensive and severe failure of pavement surface Major rehabilitation: <i>Reconstruction</i>	11-25
Failed	Complete failure of pavement surface Major rehabilitation: <i>Reconstruction</i>	0-10

At the time of G&AI’s June 2019 inspection, the Village’s pavements were found to have an average PCI of 47, indicating that the Village’s roadways are in overall “poor” condition.

IRI values measure the roughness (vertical displacement over a fixed interval reported in inches per mile) of a roadway pavement:

- IRI values less than 200 inches/mile indicate “smooth” pavement.
- IRI values between 200 and 400 inches/mile indicate a “marginally rough” pavement.
- IRI values greater than 400 inches/mile indicate “rough” pavement.

The Village’s roadways were found to have an average IRI value of 276 inches/mile, which indicates overall “marginally rough” pavement.

Maps 1 and 2, following this executive summary, show PCI and IRI categories for each roadway, respectively.

The causes of pavement deterioration as quantified by the PCI may be divided into three general categories:

- Vehicle load related.
- Climate/durability related.
- Other (construction defects and material issues).

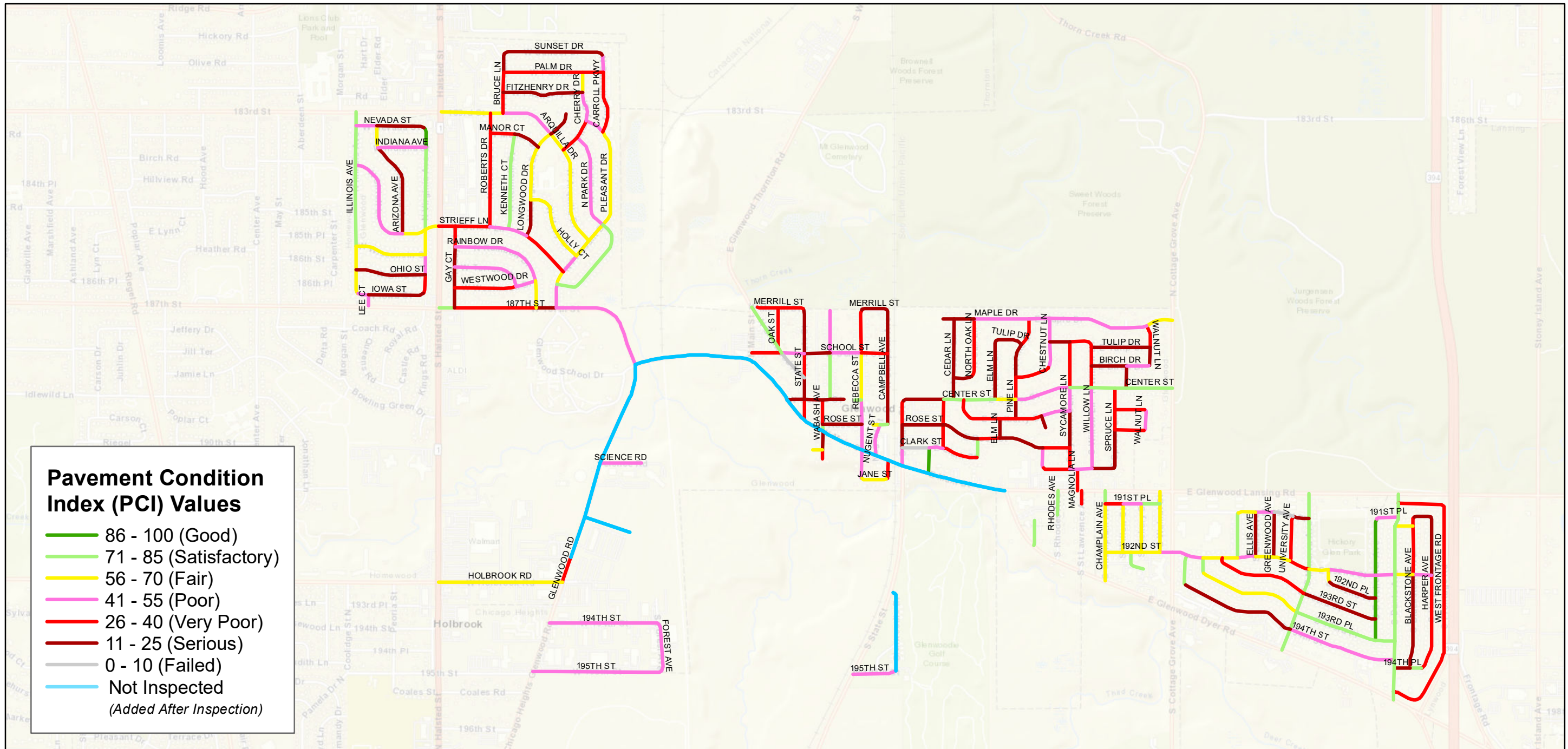
The deterioration observed on the Village’s pavements at the time of inspection was caused by a mixture of vehicle load- and climate-related distresses. Vehicle load-related distresses, including alligator cracking and rutting, were pronounced on many of the Village’s roadways and contributed most to lower PCI values. Significant climate-related distresses, including block cracking and weathering, were also observed on the Village’s roadways.

1.5 Recommendations

For the Village to get the most return on their investment from the PAVER Pavement Management System, the system must be considered a living entity. The Village should:

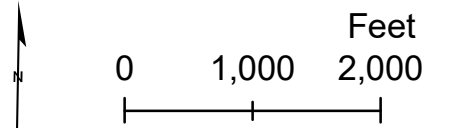
1. Implement pavement preservation techniques to cost-effectively extend the life of its roadways.
2. Determine when resurfacing is no longer a cost-effective option and reconstruction is needed.
3. Annually update M&R activities performed on Village roadways in the PAVER database.
4. Annually update M&R unit costs (or whenever economic conditions cause changes in unit prices).
5. Commit future funding to the routine collection of pavement condition data (all roadways should be inspected on a two- to three-year cycle).
6. Use collected pavement condition data to assess the performance of the roadways and applied M&R activities.

With such attention, PAVER will become a repository of accurate, up-to-date data and the primary tool that the Village uses for more cost-effectively programming M&R funding.



Pavement Condition Index (PCI) Values

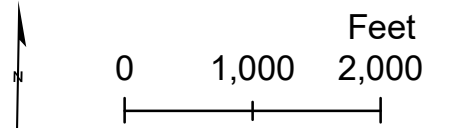
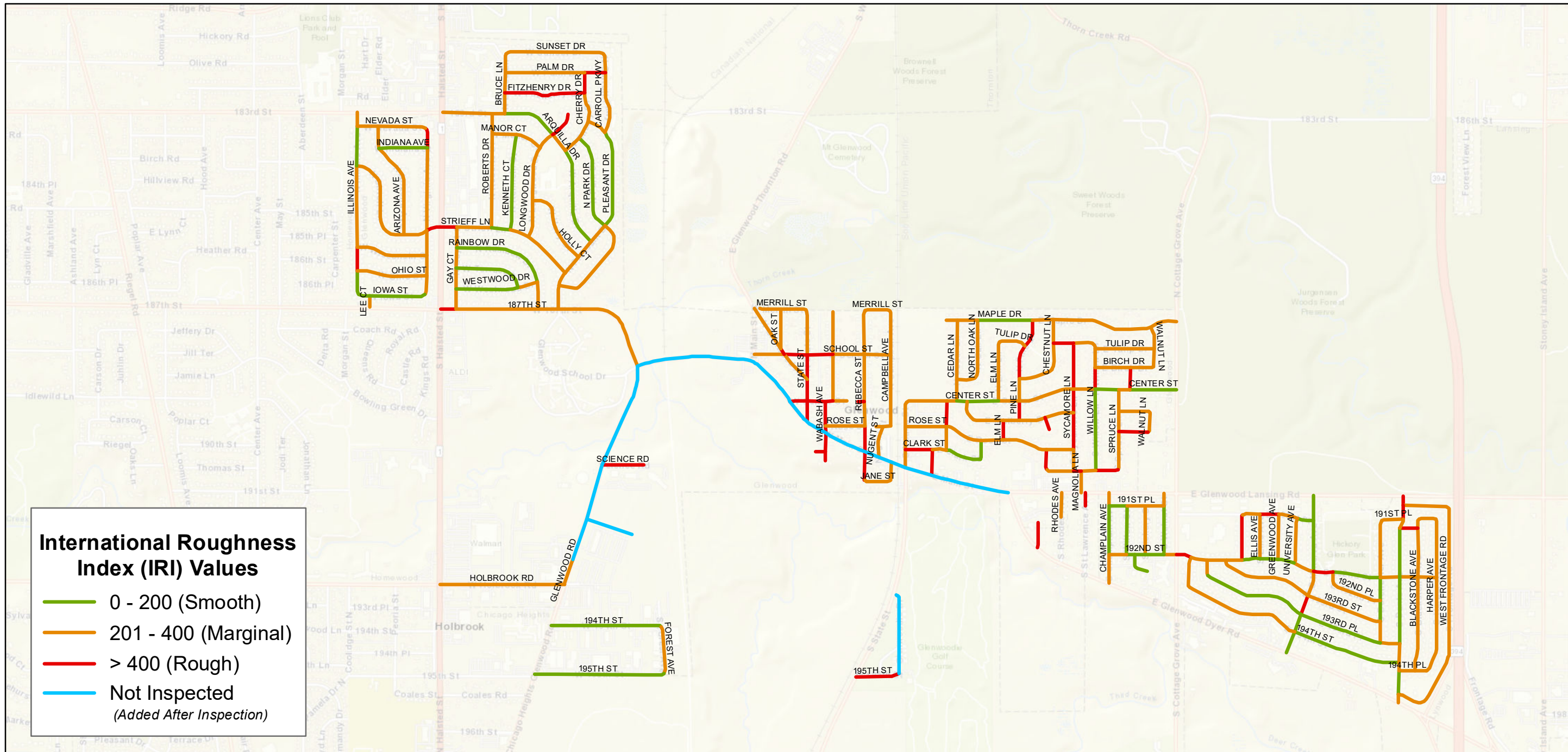
- 86 - 100 (Good)
- 71 - 85 (Satisfactory)
- 56 - 70 (Fair)
- 41 - 55 (Poor)
- 26 - 40 (Very Poor)
- 11 - 25 (Serious)
- 0 - 10 (Failed)
- Not Inspected (Added After Inspection)



Map 1:
Pavement Condition Index (PCI) Values

Village of Glenwood, Illinois
Pavement Management Program





Map 2:
International Roughness
Index (IRI) Values

Village of Glenwood, Illinois
Pavement Management Program



2 INTRODUCTION

2.1 Foreword

This section of the report expands on the Executive Summary and provides the reader with information pertaining to the creation and implementation of this pavement management system for the Village.

At the core of a modern pavement management system is a geocentric database that contains pavement inventory and condition information. Combined with up-to-date M&R unit cost data, calibrated deterioration models, and owner-specific M&R practices, this information is used by analysis tools in the pavement management system to predict future pavement conditions, develop multi-year M&R plans, and forecast anticipated funding needs.

This section provides a conceptual overview of pavement management and follows with the benefits and costs of implementing a pavement management system. Implementation of the Village’s pavement management system is detailed in Sections 3, 4 and 5. This section closes with an overview of effective preventive maintenance strategies that should be considered by the Village.

2.2 Background, scope, and objectives

In May of 2019, the Chicago Metropolitan Agency for Planning (CMAP) retained the services of Gorrondona and Associates, Inc. (G&AI) to assess the existing condition of the roadways maintained by the Village. The primary objectives of this project are to implement a comprehensive and Village-wide pavement management system, perform a network-level pavement condition survey, and identify future pavement M&R needs.

The project will provide the Village with a better understanding of the current condition of its roadways and network-level recommendations for future M&R based on the results of the pavement condition survey. Moving forward, the pavement management system will continue to serve as a repository for pavement condition data, historical M&R records, and pavement condition deterioration trends.

The PAVER Pavement Management System was implemented for the Village, and a state-of-the-art PathRunner pavement condition data collection system was deployed to capture continuous, high-resolution pavement cracking, rutting, and roughness data of the Village’s roadways in June of 2019.

G&AI has since developed the PAVER inventory database and worked with the Village to collect additional pavement maintenance and rehabilitation (M&R) records and M&R unit cost data with which to calibrate the PAVER database so that it is Village specific. These M&R records and M&R unit costs, along with the collected pavement condition data, have been used to identify present network-level M&R needs.

2.3 Project tasks

To successfully accomplish the objectives of this project, G&AI performed the following tasks, which are covered in greater detail in Sections 3, 4, and 5 of this report, respectively:

1. Pavement management system implementation
G&AI developed an inventory of the Village’s roadway pavements and implemented PAVER.
2. Pavement condition survey
G&AI performed a network-level pavement condition survey on the roadway pavements using a state-of-the-art pavement imaging and profiling data collection system. The pavement condition survey was performed in June of 2019.
3. M&R analyses
G&AI reviewed the collected condition data and determined the impact of several funding scenarios on the Village’s roadways and identified potential pavement M&R needs using PAVER.

The 3D pavement imaging and profiling technology used to assess the condition of the Village’s roadway pavements is the most comprehensive available. This technology has evolved rapidly over the past several years, and it is now used across the United States by more than half of the state DOTs. Unlike the inherently subjective windshield pavement condition surveys of years past, high resolution cracking, rutting, and roughness condition data were captured continuously for each of the Village’s roadways surveyed.

The collected data were then analyzed using a hybrid methodology that incorporates both automated crack detection and classification along with manual quality control. This approach yields a complete set of pavement condition data that may be used for both network-level (high-level budgeting) multi-year M&R planning as well as project-level (estimating M&R quantities) analyses. The collected data were then entered into and analyzed using the PAVER Pavement Management System. Continuously developed by the US Army Corps of Engineers, PAVER is a sophisticated, non-proprietary system widely used by municipal agencies across the United States and around the world.

2.4 Conceptual overview of pavement management

The use of a pavement management system is intended to provide municipal agencies with a systematic process for cost-effectively managing their pavement network, which may include roadways, parking lots, and alleys. The American Public Works Association (APWA) defines pavement management in the following way:

Pavement management is a systematic method for routinely collecting, storing, and retrieving the kind of decision-making information needed to make maximum use of limited maintenance (and construction) dollars.

Combined with local knowledge and practical judgment, the recommendations from a pavement management system may be used to help make better pavement M&R decisions.

At the core of a pavement management system is the method for assessing pavement condition. The most widely used method for assessing pavement condition is the Pavement Condition Index (PCI), which is industry standard practice and defined in ASTM D6433. The PCI method outlines a process for more objectively assessing the condition of a pavement based on visual observations and measurements that take place during a field inspection. These observations and measurements are then distilled into a PCI

value that ranges between 0 and 100. A PCI value of 0 indicates a failed pavement, and a PCI value of 100 indicates a pavement in good condition.

PCI values help determine the level of M&R needed to cost-effectively maintain or rehabilitate the pavement. These values may also be used to prioritize roadway improvements for the purpose of developing strategic capital improvement programs. When a pavement is in good condition, preventive maintenance can be applied to extend the life of the pavement. However, once a pavement falls below critical condition, preventive maintenance may no longer be cost effective, and more significant and perhaps more costly rehabilitation strategies should be considered.

The “Critical PCI” value for a pavement is the PCI value below which cost-effective preventive maintenance is no longer a viable option, and more significant rehabilitation and sometimes reconstruction may be necessary. As shown in Figure 2, the primary objective of pavement management is to preserve pavements in good condition above the Critical PCI with less costly preventive M&R rather than allow them to deteriorate below the Critical PCI, resulting in the need for more costly major M&R (rehabilitation or reconstruction).

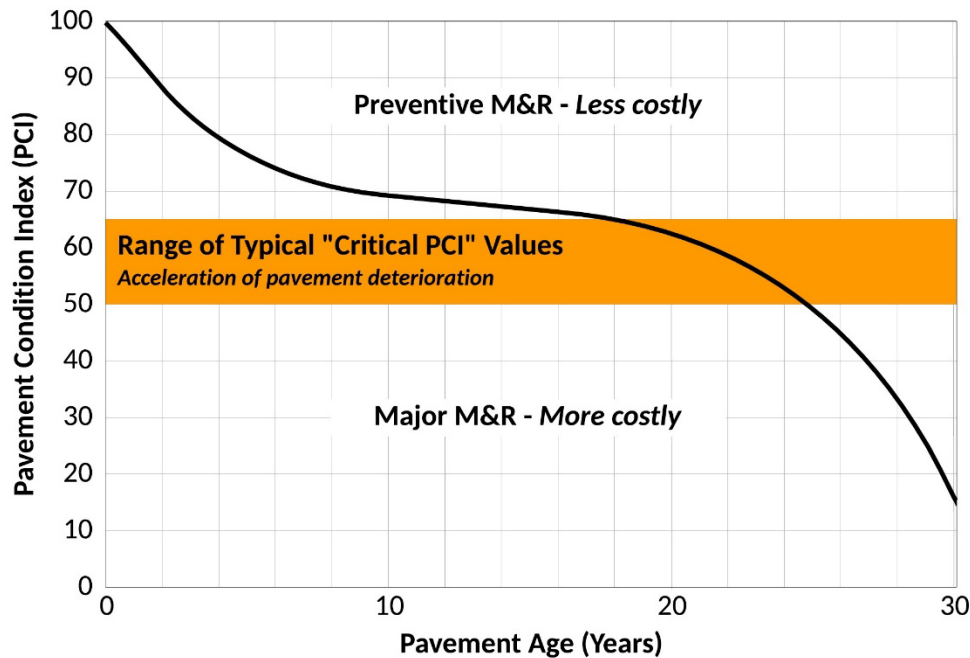


Figure 2. Example of the correct timing of preventive and major M&R relative to the Critical PCI.

The Critical PCI value is determined based on the repeated measurement of pavement condition over time as well as agency-specific M&R policies. Critical PCI values typically range between 50 and 65 (as shown in Figure 2) because the acceleration of pavement deterioration, and subsequent need for more costly M&R, typically occurs then. Setting a higher Critical PCI value simply results in pavements being recommended for major M&R earlier. Some agencies set higher Critical PCI values for their arterial roadways than for their local roadways to ensure that the roadways most heavily traveled (and often at higher speeds) are maintained to a higher standard.

The PAVER system default Critical PCI value of 55 has been used for the Village’s roadways. The Village may change this value as more condition data and historical M&R data are captured and the

deterioration rates of the Village’s roadways are better understood. Typically, two to three PCI inspections are needed to converge on acceptable Critical PCI values. The Village may choose to set Critical PCI values for each functional classification of roadway based on desired policy goals.

When the appropriate preventive maintenance treatments (e.g., crack sealing, seal coats, and patching) are undertaken at the correct times during a pavement’s service life, these relatively inexpensive preventive M&R treatments can extend the service life of the pavement, as shown in Figure 3.

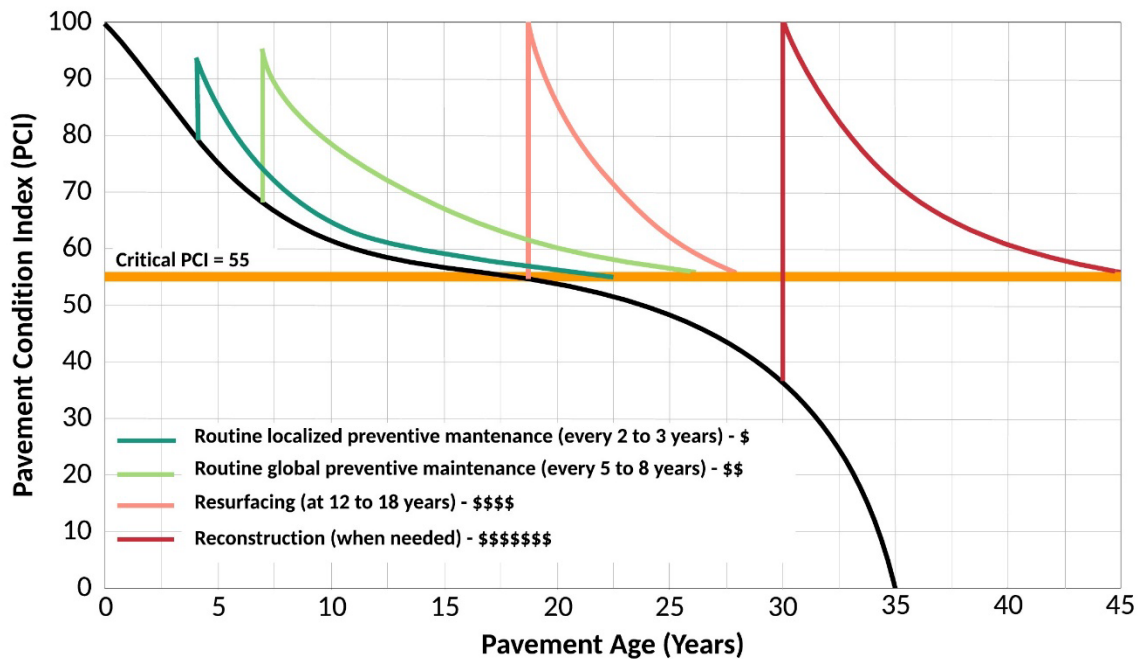


Figure 3. Example of the increasing prices and decreasing benefits of M&R.

It is important to note that the IRI, which provides a useful measure of pavement smoothness, does not correlate well to the level of M&R needed to correct smoothness issues. Consequently, IRI values are not considered when forecasting future M&R needs. Instead, IRI values are used in pavement management systems to identify pavements requiring a special inspection, or they may be used in conjunction with PCI values when prioritizing M&R projects.

As pavement management concepts have gained traction, computer-based pavement management systems have been developed to assist agencies in more optimally managing their pavements. Pavement management systems currently rely on a detailed pavement inventory, routine pavement condition assessments, pavement performance modeling, and sophisticated analysis tools that can forecast future pavement condition and estimate future M&R needs and costs.

2.5 Benefits and costs of implementing a pavement management system

Pavement management systems provide:

- A centralized location for storing pavement condition and inventory data, including construction, maintenance, and rehabilitation records.
- Decision-making support tools for:
 - ✓ Evaluating maintenance and rehabilitation alternatives.
 - ✓ Analyzing the consequences of alternative funding levels on pavement conditions.

- ✓ Improved scheduling and coordination of pavement M&R projects and other infrastructure projects.
- Analysis tools for evaluating the effectiveness of historical methods of rehabilitation.
- Reporting tools for distilling complex data and justifying funding needs to elected officials.

The benefits of implementing and maintaining a pavement management system improve over time as more data are entered into the system. The costs associated with maintaining a pavement management system include:

- Pavement inventory data collection and routine updates (typically performed annually following the end of the paving season).
- Routine pavement condition data collection (arterials and collectors are typically surveyed every other year and local roadways are surveyed on a three-year cycle).
- Evaluating pavement performance and developing M&R plans (typically performed annually following the end of the paving season – or following a condition survey – to determine candidate roadways for the next paving season).
- Software acquisition, installation, system maintenance, and updates.
- Staff training, as needed.

To ensure the success of a pavement management system, agencies should develop a plan for staffing, maintaining, and funding the system appropriately.

2.6 Incorporating pavement preservation strategies

The implementation of a pavement management system has the added benefit of assisting agencies in determining which pavements may be candidates for preventive maintenance. The use of preventive maintenance early in the life of a pavement, before any significant deterioration, has been demonstrated to be a cost-effective way to extend a pavement’s service life.

In the Federal Highway Administration (FHWA) publication, Pavement Preservation, A Road Map to the Future, preventive maintenance is defined as:

“...the 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 FHWA adds that preventive maintenance:

“...is typically applied to pavements in good condition having significant remaining service life. As a major component of pavement preservation, preventive maintenance is a strategy of extending the service life by applying cost-effective treatments to the surface or near-surface of structurally sound pavements.”

The following preventive maintenance treatments have been demonstrated to be effective when applied at the right time during a pavement’s service life:

- Crack sealing, crack filling, and joint sealing of flexible and rigid pavements
- Patching and edge repairs
- Chip seals, fog seals, and slurry seals
- Micro-surfacing
- Thin “functional” and “maintenance” overlay projects

Too frequently these activities are incorrectly applied as “stop-gap” or “cosmetic” treatments for pavements in poor condition rather than as true preservation activities. Preventive maintenance strategies should be applied to pavements that are in relatively good condition, and the activities should be planned and applied systematically following either the resurfacing or reconstruction of a pavement. The following FHWA website provides additional information for pavement preservation:
<https://www.fhwa.dot.gov/pavement/preservation/>.

2.7 Summary

This section provided the reader with background information pertaining to the creation and implementation of the non-proprietary PAVER Pavement Management System for the Village. The section provided a conceptual overview of pavement management and discussed:

1. The benefits the Village will see from the implementation of the pavement management system.
2. The costs expected to be incurred with the maintenance of the system.
3. The additional functionality beyond the obvious support the system can provide by objectively assisting the Village in optimizing the allocation of its M&R funding.

Implementation of the Village’s pavement management system is detailed in Sections 3, 4, and 5. This section closed with an overview of effective preventive maintenance strategies that should be considered by the Village moving forward.

3 PAVEMENT MANAGEMENT SYSTEM IMPLEMENTATION

3.1 Foreword

This section discusses the first task of this project: Implementing a pavement management system. One of the CMAP’s primary desires was to have a non-proprietary pavement management system for participating agencies. This section provides an overview of the PAVER Pavement Management System, a brief description of the modules available to the Village in PAVER, and insight into the PAVER database development. *(Note: The information presented in the section may be supplemented by the PAVER User Manual, which is available as a navigable PDF file in the PAVER software.)*



3.2 Objective

The objective of this task was to implement a pavement management system for the Village’s roadway pavements. G&AI implemented the PAVER Pavement Management System, which is developed and continually updated by the US Army Corps of Engineers. This task required developing an inventory of the Village’s roadway pavements and collecting current pavement condition data and entering it in PAVER.

3.3 PAVER Pavement Management System overview

The PAVER pavement management system assists agencies in determining when, where, and what level of pavement M&R is required and approximately how much it will cost. The system provides a suite of pavement management tools, or “modules”, that will help the Village with the following tasks:

- Developing and organizing their pavement inventory.
- Assessing the current condition of their pavements.
- Developing models to predict future pavement conditions.
- Reporting on past and future pavement performance.
- Developing scenarios for M&R based on either funding or pavement condition goals.
- Planning M&R projects.

PAVER modules include:

- Inventory
- M&R history
- Inspection
- Prediction modeling
- Condition analysis
- M&R planning
- Project planning
- Reporting

A brief description of these modules is presented in the following sub-sections. The PAVER software and licenses were purchased for the Village from Colorado State University (CSU) and should be renewed annually. Current pricing for PAVER may be found at: www.paver.colostate.edu.

3.3.1 Inventory and maintenance and rehabilitation (M&R) history modules

The PAVER **Inventory** and **M&R History** modules, shown in Figure 4 and Figure 5, are based on a hierarchical structure composed of networks (groups of roadways managed with one source of funding), branches (specific roadways), and sections. Sections are the smallest area for which conditions are reported and M&R activities recommended. Sections typically conform to existing GIS segmentation and are commonly defined from intersection to intersection by default.

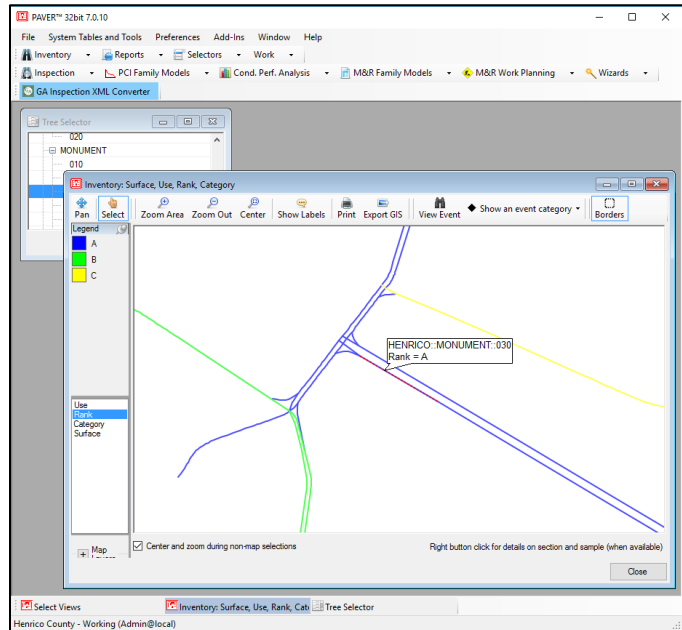


Figure 4. Example roadway functional classifications (ranks) stored in the Inventory module.

One network is defined for the Village and each roadway is a branch. Pavement sections are defined within each branch following the Village’s existing GIS segmentation in the Illinois Roadway Information System (IRIS). This structure allows the Village to easily organize their inventory and historical M&R data and provides a simple and efficient way for rolling-up data to higher levels of the pavement hierarchy. The Village provided G&AI with historical M&R records, and this information was entered in PAVER.

3.3.2 Inspection module

PAVER uses the PCI as the primary measure of pavement condition. The **Inspection** module, shown in Figure 6, enables agencies to store raw pavement condition survey data and then calculate PCI values. IRI values are also stored in the **Inspection** module.

3.3.3 Prediction modeling module

The **Prediction Modeling** module in PAVER enables the user to group pavements of similar construction that are subjected to similar traffic, weather, and any other factors affecting pavement performance into “families.” Historical pavement condition data are used to build models that can be used to predict future pavement performance. The **Prediction Modeling** module is a hands-on module and prediction models should be

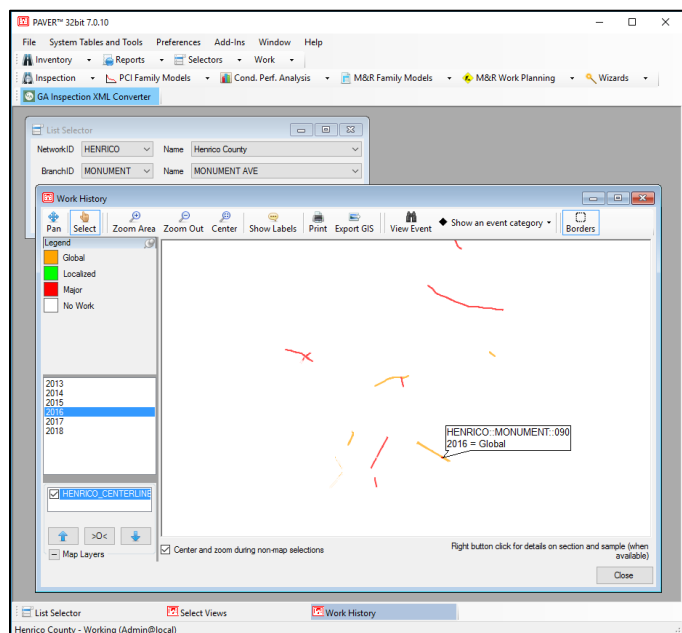


Figure 5. Example historical M&R records stored in the M&R History module.

updated by the Village following each condition survey. If historical pavement condition data are not available, PAVER provides default pavement prediction curves (shown in Figure 7) and allows the user to develop site specific prediction models.

3.3.4 Condition analysis module

The **Condition Analysis** module allows the Village to view the condition of the entire pavement network or any subset of the network over time. The module reports past conditions based on interpolated values between historical condition data, and it reports projected conditions based on the application of prediction models developed using the **Prediction Modeling** module.

3.3.5 M&R planning module

The **M&R Planning** module can determine the consequence of a predetermined funding level on pavement conditions and estimate the resulting backlog of major work. This information assists in determining funding requirements to meet specific Village pavement condition goals. These capabilities will enable the Village to develop more optimal M&R programs based on available resources and to justify M&R needs.

3.3.6 Reporting module

Each previously described module of PAVER can generate various reports that will assist the Village in analyzing, interpreting, and presenting pavement data. In addition to module-specific reports, PAVER also comes equipped with several “canned” reports, which include:

- GIS reports – *Internal/external reporting of inventory and condition data*
- Summary Charts – *Simple graphs and data tables of inventory and inspection data*
- Inspection Reports – *Summary of collected pavement condition data*
- Work History – *Summary of historical maintenance, repair, and rehabilitation data*
- Branch Listing – *Summary of overall pavement inventory data*
- Branch Condition – *Summary of overall pavement condition data*
- Section Condition – *Summary of individual section data*

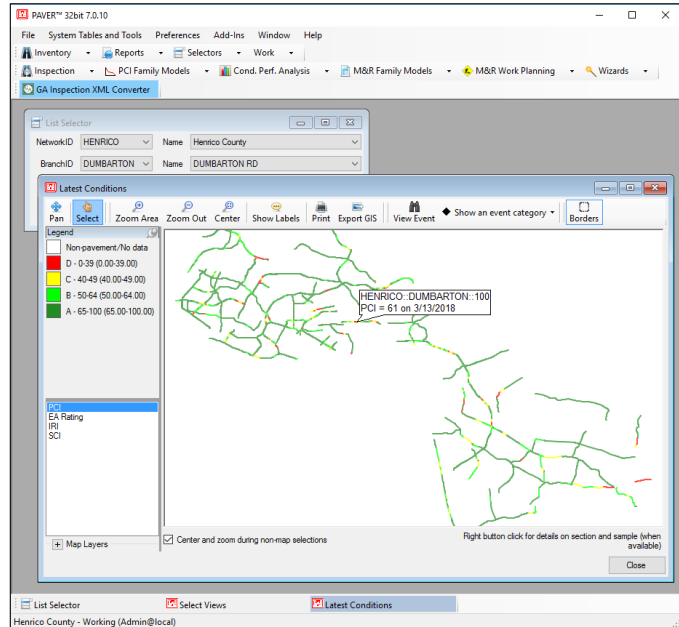


Figure 6. Example PCI values in the Inspection module.

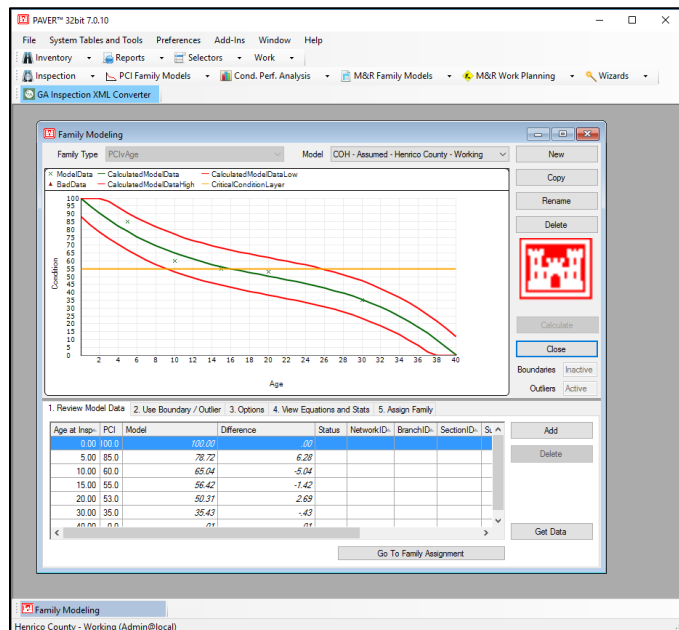


Figure 7. Example deterioration trend developed using the Prediction Modeling module.

PAVER can generate on-the-fly “user-defined” reports, which can be tailored to meet the Village’s specific reporting needs. PAVER’s user-defined reporting capability enables the user to extract any data stored in the system and export it to a GIS shapefile, spreadsheet, or text file.

3.4 Summary

This section discussed the first task of this project: Implementing a pavement management system. This section provided an overview of the non-proprietary PAVER Pavement Management System, a brief description of the modules available to the Village in PAVER, and insight into the PAVER database development. The Village’s PAVER database has been developed to include specific and relevant data pertaining to the Village’s roadway pavement network. PAVER’s suite of analysis and planning tools will enable the Village to more effectively manage its roadway pavement network.

4 PAVEMENT INVENTORY

4.1 Foreword

This section describes the Village’s roadway pavement inventory as it exists in the PAVER Pavement Management System. The data sources used in developing the inventory are discussed in this section, and summary data are presented.

4.2 Objective

The objective of this task was to develop a comprehensive inventory of the Village’s roadway pavements for inclusion in PAVER. The roadway pavement inventory provides the underlying data on which analysis and reporting is performed with PAVER. In addition, the inventory provides the framework in which all routinely collected pavement condition data and historical work data are stored.

Moving forward, the Village should update the pavement inventory in PAVER to reflect the addition, realignment, widening, and/or removal of roadways managed by the Village. Typically, these types of changes are infrequent and may be done annually or prior to performing any analysis or reporting tasks with PAVER.

4.3 PAVER inventory development

The Village’s PAVER inventory was based on the IRIS GIS provided by CMAP. Relevant pavement data available in the IRIS GIS were supplemented with aerial imagery and field observations and entered in the Village’s PAVER database. These data included: number of lanes, pavement surface type, approximate roadway width, and from/to intersections for each pavement section.

Roadways were also assigned “ranks” (i.e., priorities) of primary (P), secondary (S), and tertiary (T). Federal aid eligible roads were assigned the rank of primary, since these tend to be the more heavily trafficked roadways. Residential roads were assigned the rank of secondary, and unpaved roadways and roadways in industrial zones were assigned the rank of tertiary.

A shapefile generated from the Village’s GIS was linked to the PAVER database. This enables the Village to conveniently navigate the roadways within PAVER and generate a variety of map-based inventory and condition reports in PAVER. Historical M&R records provided by the Village were entered in the PAVER database as well as unit cost data.

4.4 Inventory summary

The Village’s roadway network consists of approximately 29.3 centerline miles of predominantly asphalt surfaced, two-lane roadways. Table 2 shows the distribution of the Village’s roadway network in mileage and area by pavement rank, and Table 3 shows the distribution by pavement surface type. *Note: The Village does not have any gravel or industrial roads and therefore no roadways with the rank of tertiary.*

Table 2. Roadway summary data by pavement rank.

Rank	Centerline Miles	Lane Miles	Area (SY)
Primary, P	0.44	0.88	8,566
Secondary, S	28.83	59.17	455,905
Total	29.27	60.06	464,472

Table 3. Roadway summary data by pavement surface type.

Surface Type	Centerline Miles	Lane Miles	Area (SY)
Asphalt, AC	28.67	58.85	455,916
Concrete, PCC	0.61	1.21	8,555
Total	29.27	60.06	464,472

Appendix A maps A-1 and A-2 present pavement rank and surface type data graphically.

5 PAVEMENT CONDITION INSPECTION

5.1 Foreword

This section discusses the second task of this project: Performing a comprehensive pavement condition survey of the Village’s roadways. The condition survey included the collection of high-resolution pavement imagery and profile measurements using a state-of-the-art PathRunner pavement condition survey system. The collected data were analyzed and PCI and IRI values were calculated for each of the Village’s roadways surveyed. This section describes the pavement condition survey system, the data collection methodology, how the collected data were analyzed, and a discussion of field observations. It concludes with several examples of pavement conditions from the Village’s roadways.

5.2 Objective

The objective of the pavement condition survey is to assess the existing structural integrity and surface operational condition of the Village’s roadways. The survey provides a comprehensive snapshot of pavement conditions at the time of data collection.

Moving forward, the Village should perform pavement condition surveys on a routine basis to objectively monitor pavement performance, determine near-term M&R needs, evaluate the effectiveness of M&R activities, develop pavement deterioration trends, and forecast near- and long-term pavement M&R needs.

5.3 Pavement condition data acquisition

G&AI deployed a state-of-the-art PathRunner pavement data collection system to capture high-resolution pavement imagery and surface data necessary to assess the condition of the Village’s roadways. The PathRunner system is shown in Figure 8.

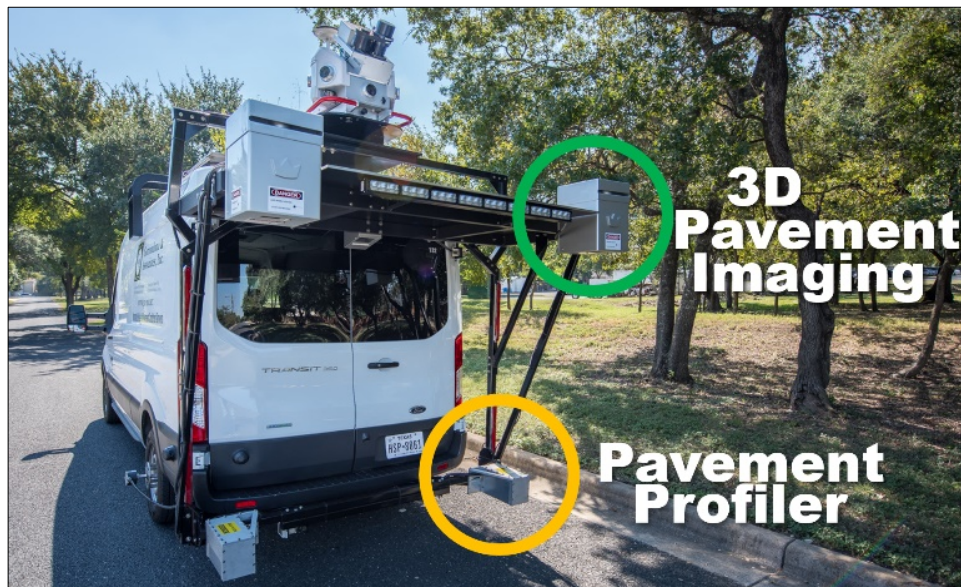


Figure 8. PathRunner pavement condition data collection system.

The PathRunner was driven on all roadways within the Village. By agreement with CMAP, only a single lane of two-lane roadways was collected and only the outmost lanes of four-lane and greater roadways were collected. Based on G&AI’s experience, contiguous lanes are usually of similar character, and this

inspection approach was deemed to be cost effective for the Village while still providing sufficiently detailed information to assess existing pavement conditions. The PathRunner system continuously collected the following data for each roadway:

- High-resolution 2D and 3D pavement images for evaluating pavement distresses and determining Pavement Condition Index (PCI) values.
- Transverse profiles to measure rutting.
- Longitudinal profiles to calculate International Roughness Index (IRI) values.
- High-resolution, forward-facing, right-of-way images for manual review of all data.

These data were processed using automated tools verified by manual review to assess pavement conditions, and the results were entered in the Village’s PAVER database.

5.4 Pavement Condition Index (PCI) method

The pavement condition survey was performed following the PCI method. The PCI method is based on a set of definitions and procedures for measuring pavement distress types, severities, and quantities during a field inspection. This information is then distilled into a PCI value, which provides an indication of the structural integrity and surface operational condition (roughness) for a pavement section. The PCI method is widely used and provides a significantly more objective and repeatable method for assessing pavement condition than inherently subjective windshield surveys commonly used in the past.

The Village’s roadway network consists primarily of asphalt pavements with only a few concrete and gravel roadways. During a PCI inspection, several distress types are identified and evaluated for asphalt pavements, as shown in Table 4. The severity and quantity of each observed distress is recorded, and these data are then input into the PCI algorithm to calculate a PCI value, as shown in Figure 9.

Table 4. Asphalt and concrete pavement distress types.

Asphalt Pavement Distresses		Concrete Pavement Distresses	
Distress	Cause	Distress	Cause
Alligator Cracking	Load	Blowup/Buckling	Climate/Durability
Bleeding	Other	Corner Break	Load
Block Cracking	Climate/Durability	Divided Slab	Load
Bumps and Sags	Other	Durability ("D") Cracking	Climate/Durability
Corrugation	Other	Faulting	Other
Depression	Other	Joint Seal Damage	Climate/Durability
Edge Cracking	Load	Lane/Shoulder Drop-Off	Other
Joint Reflection Cracking	Climate/Durability	Linear Cracking	Load
Lane/Shoulder Drop-Off	Other	Patching, Large and Utility Cuts	Other
Longitudinal and Transverse Cracking	Climate/Durability	Patching, Small	Other
Patching and Utility Cut Patching	Other	Polished Aggregate	Other
Polished Aggregate	Other	Popouts	Other
Pothole	Load	Pumping	Other
Railroad Crossing	Other	Punchout	Load
Rutting	Load	Railroad Crossing	Other
Shoving	Other	Scaling, Map Cracking, and Cracking	Other
Slippage Cracking	Other	Shrinkage Cracks	Climate/Durability
Swell	Other	Spalling, Corner	Climate/Durability
Raveling	Climate/Durability	Spalling, Joint	Climate/Durability
Weathering	Climate/Durability		

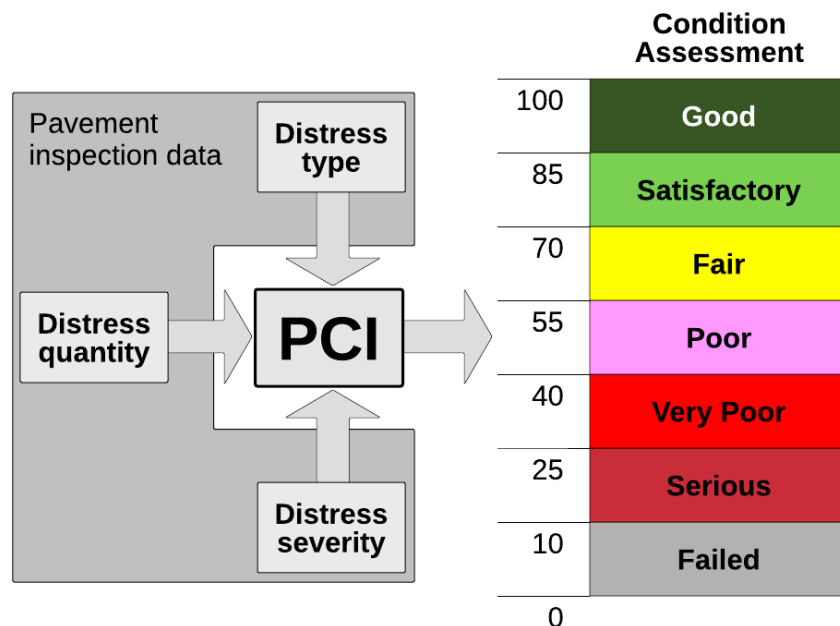


Figure 9. PCI inputs and the Village’s assessment scale.

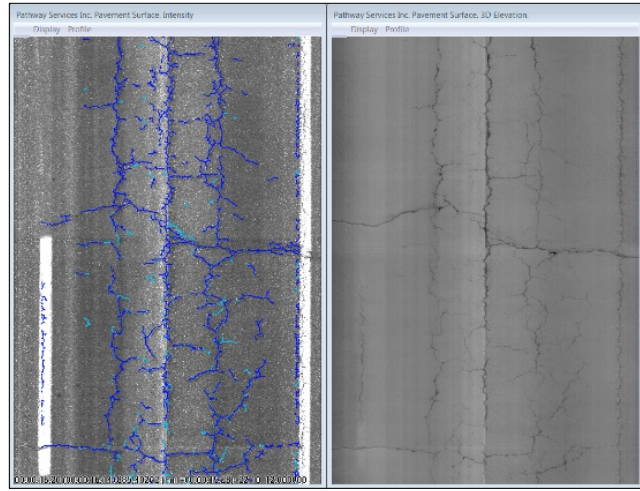
If properly designed and constructed, a new pavement begins its service life with a PCI of 100. Because of distress caused by vehicle loads, environmental factors, and aging, a pavement deteriorates over time. For each combination of distress type, severity level, and quantity observed during the inspection, points

are deducted from the initial value of 100, thereby decreasing the PCI. When multiple distresses are present, the “deduct values” are modified such that the impact of multiple distresses is not unnecessarily compounded. Due to the complexity of the PCI algorithm, PCI values are typically computed using a pavement management software package, such as PAVER. It is important to note that the PCI method does not directly measure the load carrying capacity or the rideability of a pavement. Structural testing combined with coring is needed to determine permissible pavement loadings.

5.5 Pavement Condition Index (PCI) data interpretation

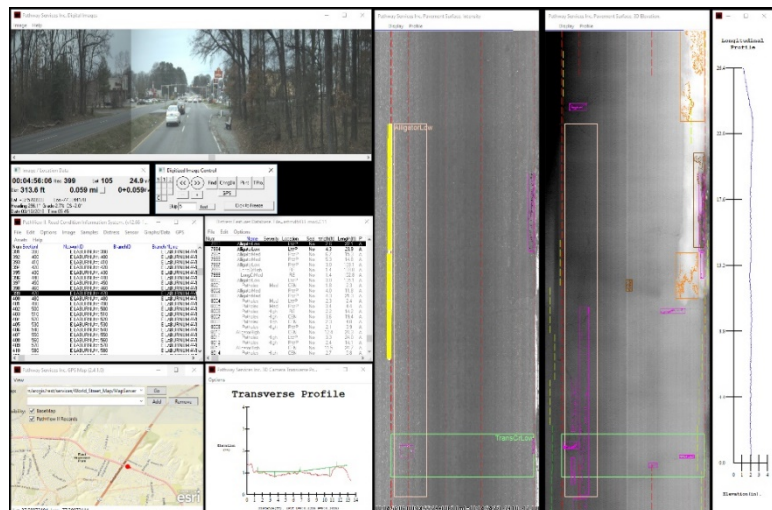
The PathRunner system captures 2D and 3D images of the roadway surface from which pavement surface distresses are evaluated. During the data collection effort, G&AI extracted pavement distress data from georeferenced digital images and rutting measurements from transverse profile measurement to determine PCI values. This process involves four distinct steps:

1. **AutoCrack Software** – This software detects cracking in the pavement imagery.
2. **AutoClass Software** – This software classifies the type of cracking detected.
3. **Manual image rating** – G&AI’s team of trained and experienced raters review the imagery and identify any distress types that the automated crack detection and classification software did not observe or incorrectly identified. Performing this manual image rating is considered the Quality Control (QC) review assuring detailed accuracy and completeness of the ratings.
4. **Quality Assurance (QA) rating** – An independent team of G&AI’s raters and project engineers perform a systematic QA review of the rated data to ensure proper evaluation of the collected imagery prior to import into PAVER.



Steps 1 and 2: Initial Automated Crack Detection and Rutting Analyses

The QC and QA ratings are the most important steps in the project. G&AI uses the PathView software for evaluating distresses using both automated algorithms and manual supplemental rating. All QC/QA is performed by highly trained and experienced engineers and technicians using PathView. The same software system has been used for more than 25 state DOTs and several municipal agency pavement condition survey projects and is a well proven review tool.



Steps 3 and 4: Manual Rating and QC/QA of Pavements using PathView

In addition to capturing 2D and 3D imagery from which pavement surface

distresses are evaluated, the PathRunner system also captures high-resolution longitudinal and transverse profiles of the roadway surface at 2mm intervals. The longitudinal profile data are analyzed to determine the IRI values, or the “roughness” of the roadway, and the transverse profiles are used to measure rutting.

5.6 Existing pavement conditions and field observations

The collected pavement survey data were used to calculate a PCI value for each pavement section in the Village. Table 5 shows the pavement condition assessment criteria used to analyze the pavement network.

Table 5. Village’s pavement condition categories.

Category	Typical Distresses and Typical Level of M&R Needed	PCI Range
Good	Longitudinal and transverse cracking and weathering of surface Preventive maintenance: <i>Crack sealing and surface treatments</i>	86-100
Satisfactory	More extensive longitudinal and transverse cracking and weathering of surface Preventive maintenance: <i>Crack sealing and surface treatments</i>	71-85
Fair	Extensive longitudinal and transverse cracking, early stage alligator (fatigue) cracking, early stage rutting, and weathering of surface Global preventive maintenance and localized repairs: <i>Localized surface and/or full-depth patching, surface treatments, and thin overlays</i>	56-70
Poor	More extensive and severe longitudinal and transverse cracking, alligator (fatigue) cracking, rutting, and weathering of surface Major rehabilitation: <i>Localized full-depth patching, mill and overlays, and traditional overlays</i>	41-55
Very Poor	More extensive and more severe longitudinal and transverse cracking, alligator (fatigue) cracking, rutting, weathering of surface, potholes Major rehabilitation: <i>Full-depth patching, mill and overlays, traditional overlays, and reconstruction</i>	26-40
Serious	Extensive and severe failure of pavement surface Major rehabilitation: <i>Reconstruction</i>	11-25
Failed	Complete failure of pavement surface Major rehabilitation: <i>Reconstruction</i>	0-10

At the time of G&AI’s June 2019 inspection, the Village’s pavements were found be in overall “poor” condition and have an average PCI of 47. The condition distribution of the Village’s pavements at the time of inspection is shown in Figure 10, and detailed condition maps can be found in Appendix A.

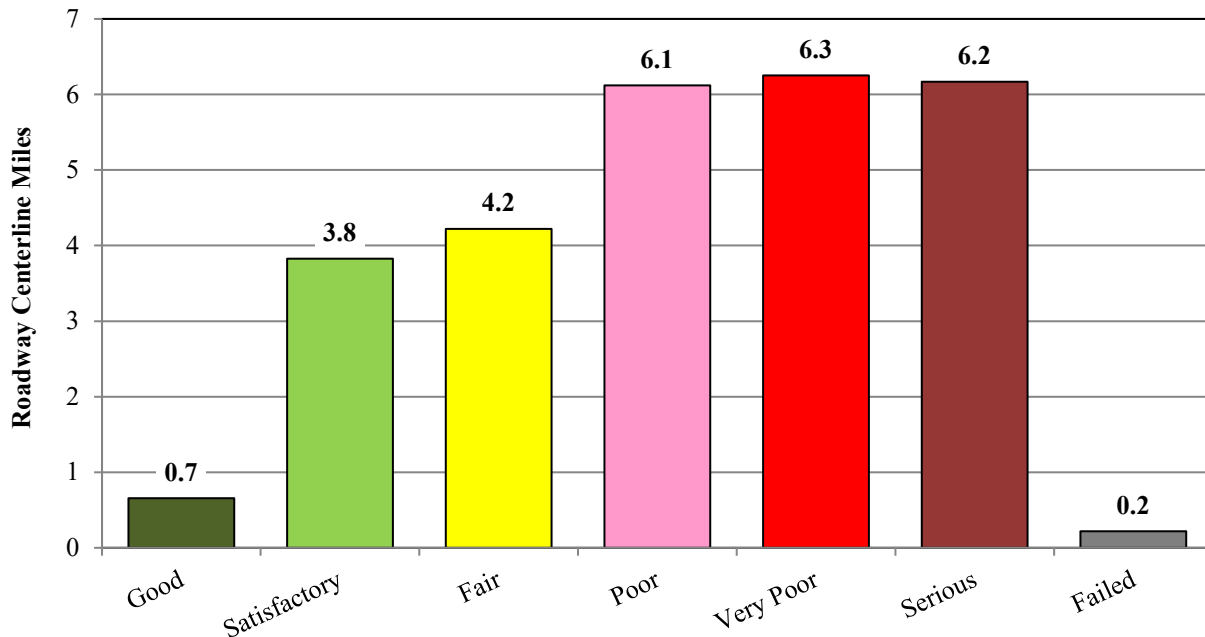


Figure 10. Village's roadway pavement condition distribution by PCI category.

Pavement condition data summarized by pavement ranks and surface types are presented in the following two tables, respectively.

Table 6. Roadway summary condition data by pavement rank.

Rank	Centerline Miles	Lane Miles	Area (SY)	PCI	IRI
Primary, P	0.44	0.88	8,566	82	215
Secondary, S	28.83	59.17	455,905	46	277
Total	29.27	60.06	464,472	47	276

Table 7. Roadway summary condition data by pavement surface type.

Surface Type	Centerline Miles	Lane Miles	Area (SY)	PCI	IRI
Asphalt, AC	28.67	58.85	455,916	46	274
Concrete, PCC	0.61	1.21	8,555	72	361
Total	29.27	60.06	464,472	47	276

The causes of pavement deterioration as quantified by the PCI may be divided into three general categories:

- Vehicle load related.
- Climate/durability related.
- Other (construction defects and material issues).

Pavement deterioration and ultimate failure is a complex process that often involves a combination of several deterioration mechanisms working together. The deterioration observed on the Village’s pavements was caused primarily by a mixture of load- and climate-related distresses. Vehicle load-related distresses, including alligator cracking and rutting, were pronounced on many of the Village’s roadways

and accounted for most of the distress negatively impacting overall roadway conditions. In addition, climate-related distresses, including longitudinal and transverse cracking and block cracking, were found across the Village’s pavement inventory.

In practice, visually observed pavement distresses collected during a network-level condition survey are used to determine the likely mechanism(s) contributing to the deterioration of a roadway. However, prior to developing a specific M&R strategy, the root cause of pavement deterioration should be determined. Determining the root cause of pavement deterioration may be accomplished through an appropriate combination of traffic load analyses, drainage investigations, structural testing, coring, and material testing.

For example, vehicle load-related distresses such as alligator cracking may be addressed through load analyses and material testing. Contributing root causes may range from the roadway consistently exposed to loads in excess of its design loading to the pavement section having simply reached the end of its design life. Climate/durability-related distresses, such as transverse cracking, may result from a combination of freeze/thaw cycling and oxidation (embrittlement) of the asphalt layer. The cause(s) of “other” distresses may be determined through a combination of coring, boring, and material testing.

In addition to PCI values, IRI values were determined for each of the Village’s roadways. IRI values, reported in inches per mile, describe the amount of roughness in both wheel paths over a given length of pavement. The IRI is a standard measure of roughness used worldwide. The Village’s IRI assessment scale is shown in Table 8.

Table 8: Village’s IRI assessment criteria.

Category	IRI Value
Smooth	0-200
Marginal	201-400
Rough	>401

At the time of G&AI’s June 2019 inspection, the Village’s pavements were found to be in overall “marginally rough” condition, with an average IRI of 276. Detailed condition maps can be found in Appendix A.

It is worth noting that IRI and PCI values do not necessarily correlate with one another. A roadway can ride well yet still be structurally deficient and in need of major M&R, and vice versa. For example, asphalt-surfaced roadways supported by structurally adequate base (e.g., crushed rock) and subgrade (e.g., existing soil) layers may exhibit extensive cracking in the asphalt surface layer due to fatigue failure of the asphalt. In situations such as these, removal of the existing asphalt layer and replacement with a thicker layer may be enough to rehabilitate the pavement. Conversely, a roadway that rides poorly may be structurally adequate and may only require minimal rehabilitation. Poor construction practices may unfortunately lead to roughness being “built into” an otherwise structurally adequate roadway at the time of construction. Roadways exhibiting this type of roughness may require grinding and/or an additional surface course to remedy the issue.

5.7 Example pavement conditions through the Village

Figure 11 illustrates a variety of pavement conditions observed throughout the Village during the June 2019 survey. The figure includes PCI and IRI values for each pavement section along with observed distress types and recommended M&R.

	Location + History	PCI (IRI)	Recommended M&R Activity (Typical)
	<p>Dorchester Ave. <i>North of E. 192nd St. (Section 40)</i></p> <p><i>Last resurfacing date 2019 (Verify)</i></p>	<p>100 (260)</p>	<p>Preventive maintenance</p> <p><i>Seal joints between pavement and curb and gutter</i></p>
	<p>Minerva Ave. <i>South of E. 192nd St. (Section 40)</i></p> <p><i>Last resurfacing date 2012</i></p>	<p>82 (291)</p>	<p>Preventive maintenance</p> <p><i>Seal paving lane joint and joints between pavement and curb and gutter + surface treatment</i></p>
	<p>E. 193rd Pl. <i>West of Minerva Ave. (Section 10)</i></p> <p><i>Last resurfacing date unknown</i></p>	<p>69 (124)</p>	<p>Preventive maintenance</p> <p><i>Seal cracks, paving lane joint and joints between pavement and curb and gutter + surface treatment</i></p>
	<p>E. 194th St. <i>East of Minerva Ave. (Section 30)</i></p> <p><i>Last resurfacing date unknown</i></p>	<p>50 (190)</p>	<p>Major M&R</p> <p><i>Localized structural patching + cold mill and overlay <u>or</u> reconstruction</i></p>
	<p>E. 193rd St. <i>South of 192nd St. (Section 10)</i></p> <p><i>Last resurfacing date unknown</i></p>	<p>37 (243)</p>	<p>Major M&R</p> <p><i>Localized structural patching + cold mill and overlay <u>or</u> reconstruction</i></p>



	<p>E. 194th St. <i>West of Minerva Ave.</i> <i>(Section 20)</i></p> <p><i>Last resurfacing date unknown</i></p>	<p>18 <i>(249)</i></p>	<p>Major M&R</p> <p><i>Localized structural patching + cold mill and overlay <u>or</u> reconstruction</i></p>
	<p>191st Pl. <i>West of University Ave.</i> <i>(Section 60)</i></p> <p><i>Last resurfacing date unknown</i></p>	<p>8 <i>(233)</i></p>	<p>Major M&R</p> <p><i>Localized structural patching + cold mill and overlay <u>or</u> reconstruction</i></p>

Figure 11. Pavement conditions observed during PCI inspection.

A distress observed on some of the Village’s pavements was unsealed paving lane seams (cracks), as shown in several of the photos above. If left unsealed, paving lane seams can deteriorate rapidly and significantly reduce the life of the pavement. By sealing paving lane seams immediately following paving and routinely resealing them, this type of deterioration may be minimized or prevented.

5.8 Summary

This section presented an overview of the methodology used to perform the 2019 pavement condition survey and the results of the survey. A state-of-the-art PathRunner pavement condition survey system was deployed to collect pavement imagery and profile data on the Village’s roadways. The collected data were analyzed, and PCI values and IRI values were determined for each of the roadways surveyed. The Village’s roadways were found to be in overall “poor” condition with an average PCI of 47. Furthermore, the Village’s roadways were found to be in overall “marginally rough” condition, with an average IRI of 276 inches/mile.

6 MAINTENANCE AND REHABILITATION FUNDING ANALYSES

6.1 Foreword

This section discusses the third task of this project: M&R needs analyses. This section discusses the results of the analyses performed for the Village’s consideration, assumptions which shaped the analyses, and results of the analyses. The recommendations of these analyses are provided in this section and in Appendixes A through D.

6.2 Objective

The M&R Planning module in PAVER provides *raw recommendations* of when and where pavement M&R activities are needed and approximately how much they will cost. The Village should use these raw recommendations to develop programmatic M&R plans for the Village’s roadway network. These programmatic plans may be generated based on anticipated annual funding or with the goal of maintaining or achieving a desired pavement condition.

For the Village’s roadways, two preliminary M&R analyses were performed:

- A series of **five-year analyses** was performed to determine the impact of several funding levels on overall roadway conditions. The analyses included:
 - Assessing the impact of the Village’s existing funding level.
 - Determining the annual funding level needed to maintain the Village’s existing overall average roadway condition.
 - Determining the annual funding level needed to modestly increase the Village’s overall average roadway condition to 65.
 - Determining the annual funding level needed to eliminate the Village’s major M&R backlog over a five-year period.
- A **one-year analysis** was performed to identify pavements that may benefit from preventive maintenance activities, such as crack sealing or localized patching. Only pavements with a PCI of 65 or better were considered in this analysis.

The purpose of these analyses is to determine the appropriate funding level needed to manage the Village’s roadways and provide general recommendations that will assist the Village in developing and evolving its M&R program. Additional analyses may be performed to assess either the impact of anticipated funding levels or to determine the funding levels needed to achieve a desired overall, network-average condition.

6.3 Assumptions

The M&R analyses were based on the results of the June 2019 Pavement Condition Index (PCI) survey and the pavement inventory and historical work records provided by the Village and stored in the Village’s PAVER database. The following assumptions were made in our analyses.

- Pavements considered candidates for preventive maintenance were determined based on their overall PCI values and the distresses observed on the pavement at the time of inspection. Pavements with PCI values of 65 or better were considered candidates for preventive maintenance.
- Recommended preventive maintenance policies for asphalt and concrete pavements are shown in Appendix D Tables D-1 and D-2, respectively. The policy tables show what type of repair activity should be applied to each distress type and severity combination. Table D-3

presents estimated unit costs for the maintenance activities recommended in tables D-1 and D-2.

- A pavement deterioration rate of nearly six points per year was assumed based on the performance of the Village’s resurfaced roads, which equates to a pavement life between resurfacings of approximately eight years. This deterioration rate will be refined as more historical work records are entered in PAVER and more PCI inspection data become available over time.
- A Critical PCI value (the PCI value below which a pavement is considered a candidate for major M&R) of 55 was assumed for all pavement sections. Pavements at or below the Critical PCI during the five-year analysis period triggered major M&R recommendations. *(Note: A PCI value of 55 has been initially chosen for all the Village’s roadways as this numerical value straddles the “Fair” to “Poor” condition categories in the Village’s PCI scale. Performing major M&R on pavements that are closer to a PCI of 55, rather than waiting for these pavements to deteriorate further is generally more cost effective.)*
- Unit costs used in these analyses were based on bid tabs provided by the Village and by costs reported by nearby villages.
 - ✓ Asphalt resurfacing ranged from approximately \$1.50 to more than \$5.00 a square foot depending on roadway condition (i.e., lower PCI values may result in more patching and thicker resurfacing). Reconstruction was set at \$6.50 a square foot.
 - ✓ Concrete slab replacement costs ranged from \$5.00 to \$15.00 a square foot depending on roadway condition (i.e., lower PCI values result in more slab replacement). Reconstruction was set at \$20.00 a square foot.
- All analyses began on the first of the year, and an inflation rate of 3% was assumed.

6.4 Results

The results of the PAVER M&R analyses are shown in the following two figures. Figure 12 illustrates the estimated five-year change in pavement condition resulting from the analyzed funding scenarios, and Figure 13 depicts the estimated change in the Village’s major M&R backlog for each funding scenario.

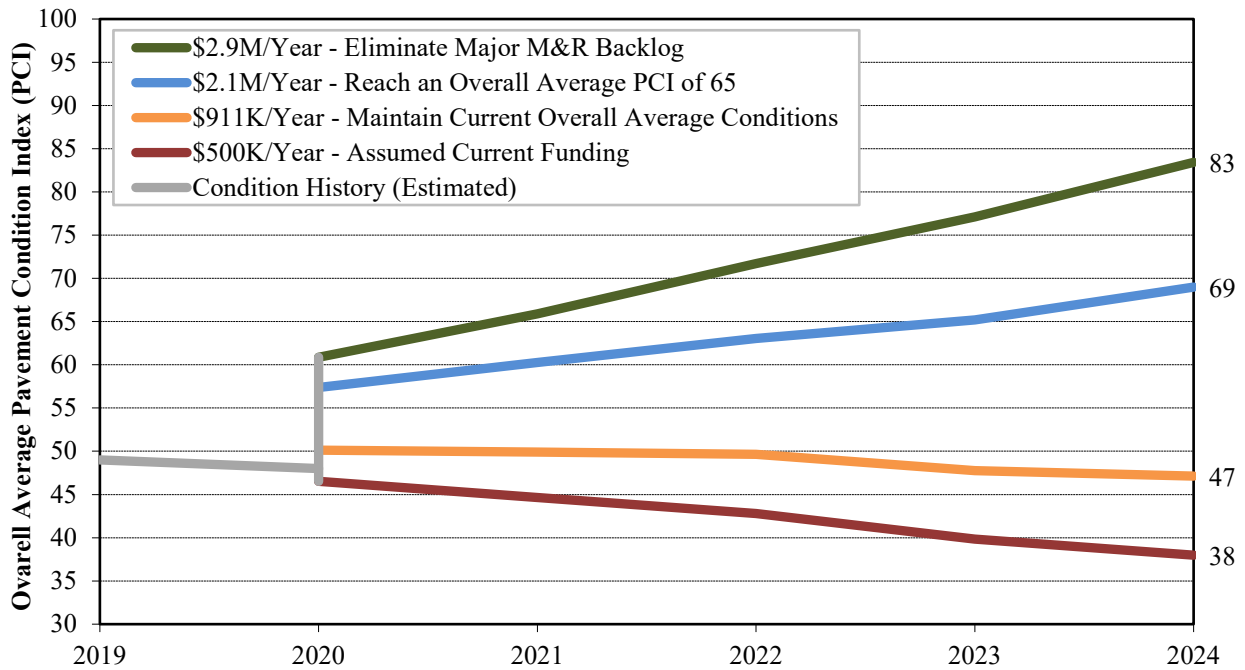


Figure 12: Impact of funding levels on overall pavement conditions by year.

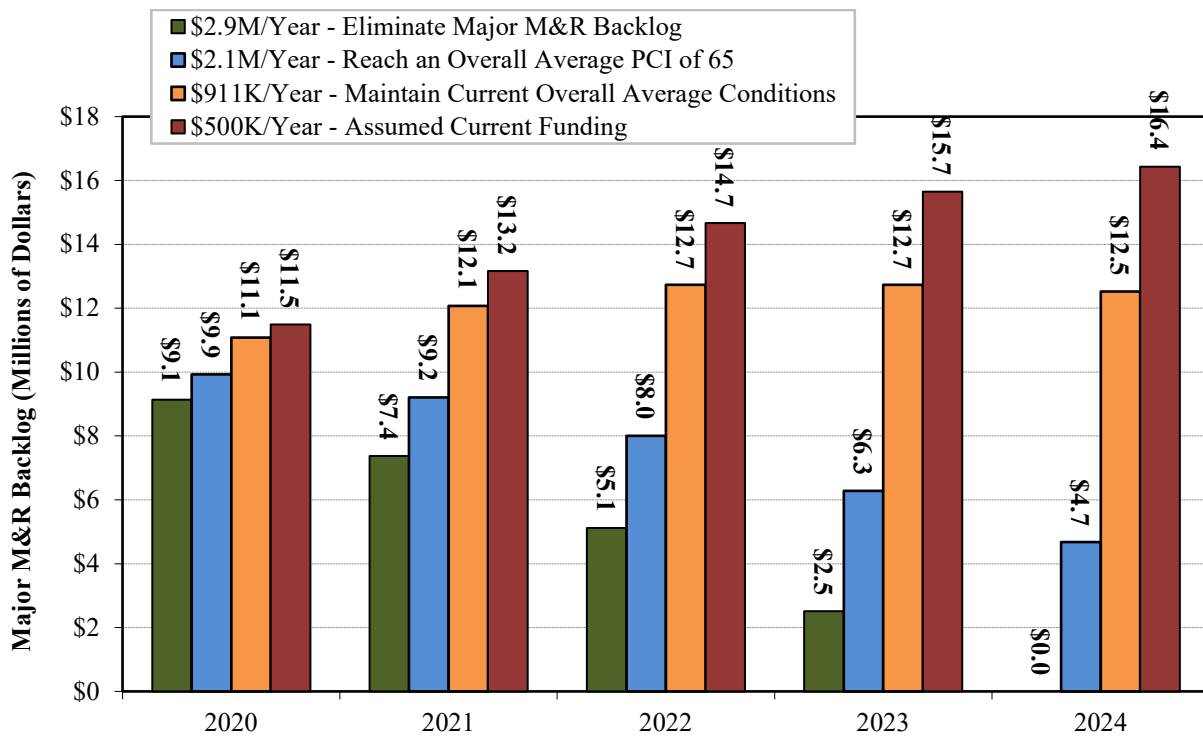


Figure 13: Impact of funding levels on major M&R backlog by year.

The consequences of the annual funding scenarios are shown in Table 9. This table illustrates the concept of “total cost.” By treating both the total annual M&R expenditures and the remaining major M&R backlog at the end of the five-year period as costs to the Village, the benefit of increasing annual funding – which results in a smaller major M&R backlog – is clearly illustrated. Consequently, eliminating the major M&R backlog over a five-year period results in the lowest total cost to the Village.

Table 9. Estimated Five-year Pavement M&R Costs

Funding Scenario	Total Five-Year M&R Costs (2020-2024)	Remaining M&R Backlog ¹⁾ (2024)	Total Five-year Cost ²⁾	Projected PCI (2024)
\$500K/YR (Assumed Current Funding)	\$2.5M	\$16.4M	\$18.9M	38
Maintain Existing Overall Average Conditions (\$911K/YR)	\$4.6M	\$12.5M	\$17.1M	47
Increase Overall Average PCI to 65 (\$2.1M/YR)	\$10.5M	\$4.7M	\$15.2M	69
Backlog Elimination (\$2.9M/YR)	\$14.5M	\$0M	\$14.5M	83

- 1) “M&R Backlog” equals the lump-sum cost to resurface/reconstruct all pavements at or below their critical PCI value.
- 2) “Total five-year cost” equals the sum of the five-year major M&R expenditures plus the remaining major M&R backlog at the end of the five-year analysis period.

Appendix A maps A-5 and A-6 present major M&R recommendations. Map A-5 shows all roadways recommended for major M&R over the upcoming five years based on the Village’s existing funding level. Map A-6 shows all roadways recommended for major M&R over the upcoming five years given an unlimited budget. The maps show which roadways are recommended each year by PAVER. These recommendations do not consider geographic proximity. Consequently, these recommendations should be grouped into practical projects during the Village’s planning process.

Map A-7 shows all roads that are candidates for preventive maintenance, such as crack sealing and localized patching. While crack sealing can be an effective treatment for preserving roadways in good condition, its utility diminishes when applied to roadways that are already in poor condition or are exhibiting signs of structural failure.

Appendix B presents tabular data showing the estimated cost to repair each of the roads recommended for major M&R over the next five years based on the Village’s existing funding level. Appendix C presents similar data assuming unlimited funding. *The costs presented in Appendixes B and C should be considered rough estimates only and should not be considered engineering estimates.* These costs are based on a simple relationship between predicted PCI value and typical level of major M&R. Unit costs used in developing these relationships were based on bid tabs provided by the Village and by costs reported by neighboring Villages.

Appendix E presents tabular data showing one-year estimated costs to apply preventive maintenance to each of the candidate roadways (i.e., roadways with PCI values of 65 or better). The total one-year preventive maintenance cost is estimated to be approximately \$87,000, as shown in Table 10. *The estimated costs presented in Appendix E should be considered rough estimates based on the assumed unit costs only and should not be considered engineering estimates.*

Table 10. Preventive Maintenance Summary

Maintenance Type	Quantity	Units	Est. Cost
Crack Sealing - AC	33,110	FT	\$33,109
Patching - AC Deep	1,519	SF	\$16,711
Patching - AC Shallow	247	SF	\$1,360
Crack Sealing - PCC	844	FT	\$1,266
Joint Seal (Localized)	4,820	FT	\$7,230
Patching - PCC Full Depth	394	SF	\$11,806
Slab Replacement - PCC	766	SF	\$15,317
Total:			\$86,800

7 SUMMARY AND RECOMMENDATIONS

7.1 Summary

A pavement condition survey was performed in June 2019 on the Village’s roadways. The results of the survey provide a snapshot of roadway conditions at the time of the survey. The PAVER Pavement Management System was implemented for the Village’s roadways and was populated with collected pavement condition data and available M&R history data provided by the Village.

For the Village to get the most return on investment out of the PAVER Pavement Management System, the system must be considered a living entity and be updated regularly with M&R activities as they are performed, M&R unit cost data, and routinely collected pavement condition data. With such attention, PAVER becomes a repository of accurate, up-to-date data and can aid the Village in more cost-effectively programming M&R funding and objectively analyzing the true cost-effectiveness of presently employed M&R activities.

Five-year M&R funding analyses were performed on the Village’s roadways using PAVER to: 1) evaluate the adequacy of the Village’s existing funding level, 2) estimate the funding level needed to maintain the Village’s existing roadway conditions, 3) estimate the funding level needed to modestly raise the overall condition of the Village’s roadways, and 4) estimate the funding level needed to eliminate the Village’s backlog of major M&R.

It was determined that the Village’s existing funding level for major M&R is likely inadequate to maintain the current condition of the Village’s roadway pavements. To maintain existing conditions, an increase in funding will likely be needed.

Based on this initial set of PCI data collection and analysis on the Village’s roadways, G&AI respectfully offers the following broad recommendations.

7.2 Recommendations

7.2.1 Implement pavement preservation techniques

As discussed in Section 2.6, preventive maintenance activities, such as crack sealing, localized patching, and surface treatments, can cost-effectively extend the life of a pavement. The Village should incorporate these strategies into its M&R planning.

The Village does not appear to have an active crack sealing program for its roadways. Moisture penetrates unsealed cracks and compromises the base structure of the pavement. Freeze/thaw cycling exacerbates the damage. Sealing cracks on roadways that are in relatively good condition is a simple, cost-effective method for pavement preservation. Crack sealing is a preventive maintenance activity and should not be applied on roadways that require major M&R.

Furthermore, the Village should focus on applying routine preventive maintenance to newly resurfaced or reconstructed roadways. It was observed that some paving lane seams throughout the Village had not been sealed. Like crack sealing, sealing the paving lane seams is a simple method for pavement preservation, and it may be included in construction specifications.

7.2.2 Determine when pavements should be reconstructed rather than resurfaced

As the Village’s asphalt-surfaced pavements age and are resurfaced multiple times, the performance of successive resurfacing projects will diminish. These “diminishing returns” occur because the sublayers of the pavement (the pavement structure below the asphalt surface) continue to deteriorate due to moisture infiltration, freeze-thaw damage, and damage due to vehicular loading. The M&R history and performance of resurfaced roadways should be closely tracked to determine the optimal number of resurfacing projects that may be performed prior to reconstructing the pavement.

7.2.3 Perform regular pavement condition inspections – every three years

To capitalize on the pavement condition survey and better track the condition of its pavements, the Village should continue to perform PCI surveys on a regular, three-year cycle. Doing so will enable the Village to:

1. Better track the deterioration of its pavements over time,
2. Identify pavement deterioration trends and use these trends to better predict future pavement conditions and then strategically apply M&R funding, and
3. Assess and track the effectiveness of its pavement preservation and major M&R activities.

The deterioration trends developed for this project were based on only one set of inspection data. Additional inspection data will help validate these trends and will improve forecasts, which may impact forecasted pavement conditions and recommended future M&R funding needs.

7.2.4 Routinely update the PAVER pavement management system

The PAVER system should be updated annually following the paving season to capture major M&R activities, routine maintenance activities, and pavement inventory changes (new roadways, jurisdictional changes, realignments). PAVER relies on updated inventory and work history data in order to generate meaningful recommendations.

7.2.5 Increase funding for pavement maintenance and rehabilitation

Based on the results of the pavement condition survey and forecasts of future pavement condition, the Village’s current level of funding is likely inadequate to maintain the overall current condition of the Village’s roadways. Managing a pavement network at an overall average PCI between 70 and 80 is more cost effective since funding is spent on less costly preventive maintenance and preservation activities rather than more expensive major M&R. As the Village moves forward, it is recommended that additional funding be allocated for M&R to improve the overall condition of the roadways so that they may be managed more cost-effectively.

7.2.6 Prioritize existing M&R funding to maximize shared benefit

Currently, the Village’s roadway M&R funding needs exceed available funding. The Village should focus major M&R activities on its most trafficked roadways. Doing so will maximize the overall shared benefit of the funds spent.

APPENDIX A – PAVEMENT INVENTORY, CONDITION, AND RECOMMENDED M&R MAPS

Map A-1: Pavement Ranks

Map A-2: Pavement Surface Types

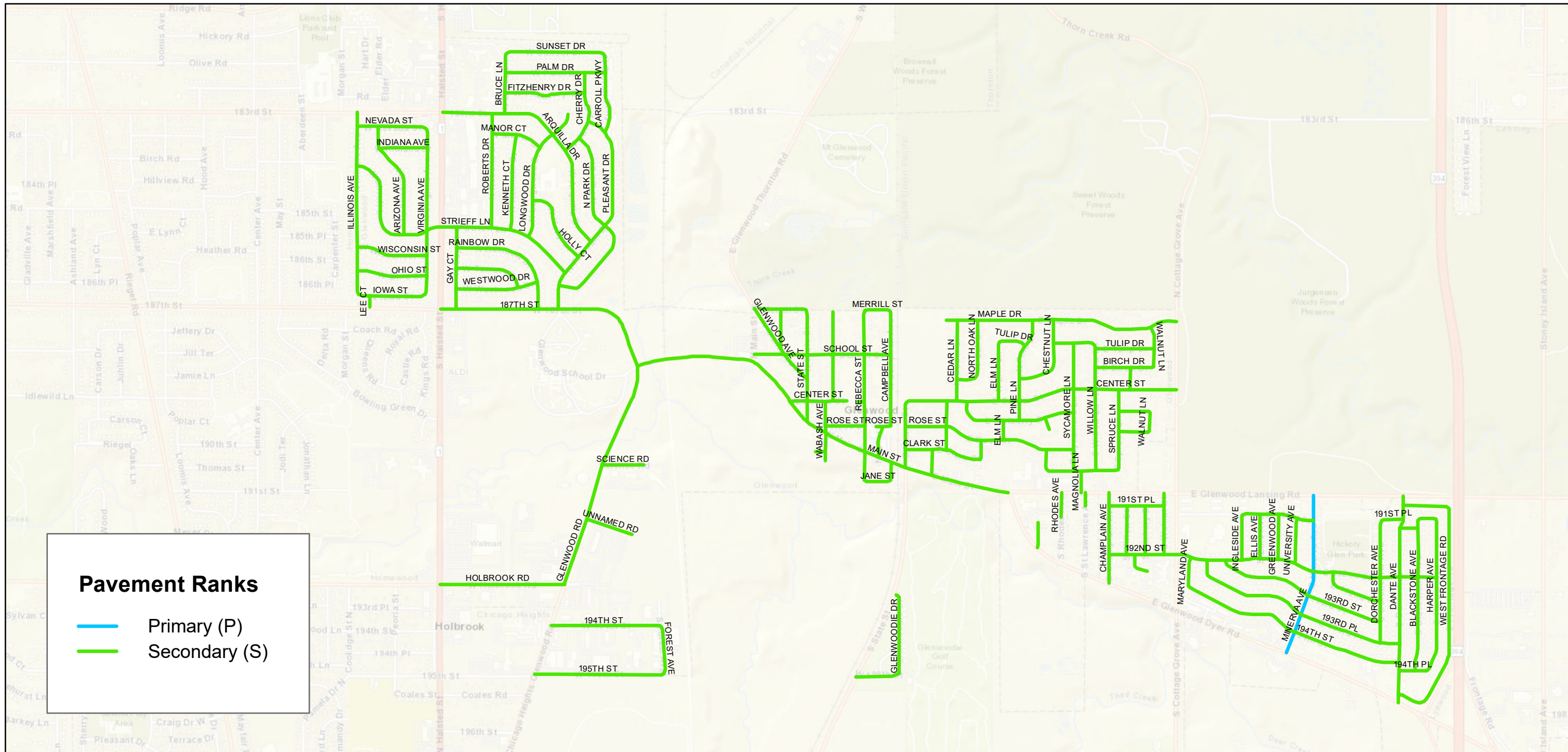
Map A-3: Pavement Condition Index (PCI) values

Map A-4: International Roughness Index (IRI) values

Map A-5: Five-year major M&R recommendations – *Recommendations assuming current funding*

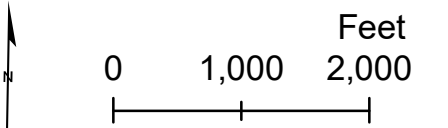
Map A-6: Five-year major M&R recommendations – *Recommendations assuming unlimited funding*

Map A-7: Pavement preservation candidates – *Current recommendations*



Pavement Ranks

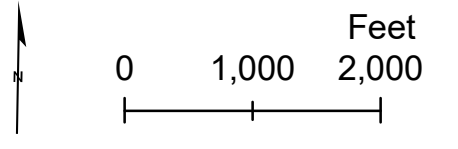
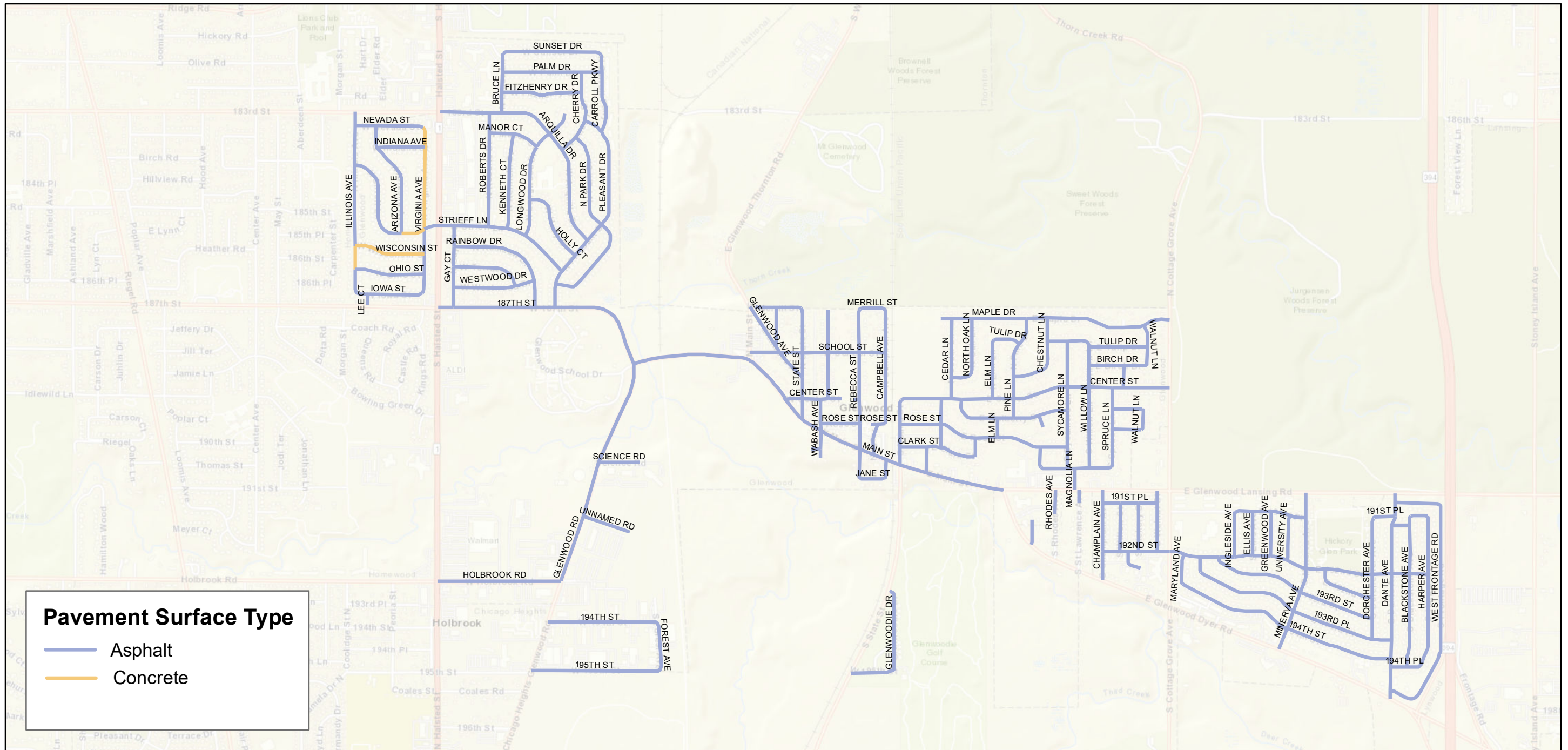
- Primary (P)
- Secondary (S)



Map A-1:
Pavement Ranks

Village of Glenwood, Illinois
Pavement Management Program

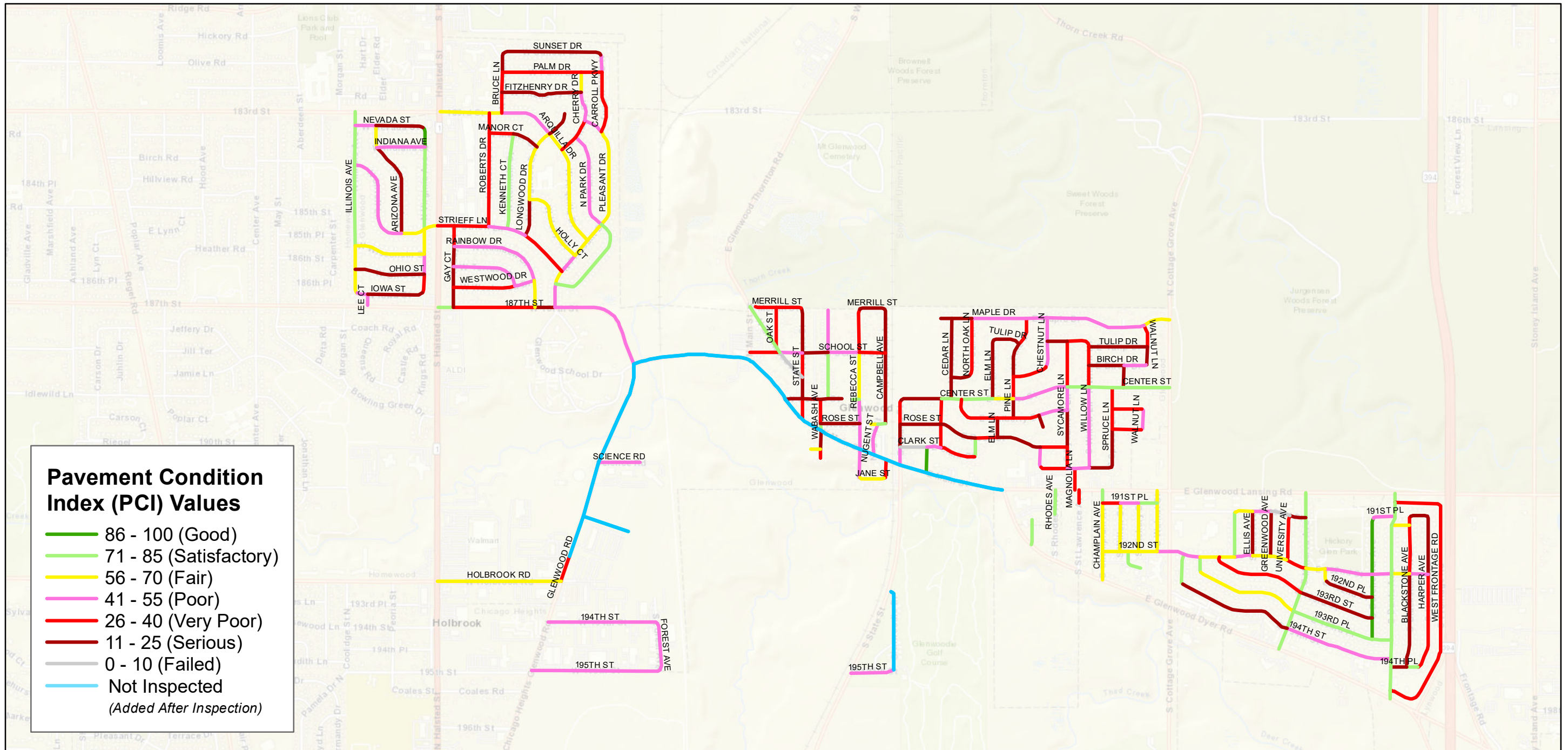




Map A-2:
Pavement Surface Types

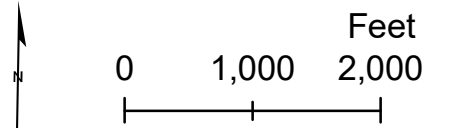
Village of Glenwood, Illinois
Pavement Management Program





Pavement Condition Index (PCI) Values

- 86 - 100 (Good)
- 71 - 85 (Satisfactory)
- 56 - 70 (Fair)
- 41 - 55 (Poor)
- 26 - 40 (Very Poor)
- 11 - 25 (Serious)
- 0 - 10 (Failed)
- Not Inspected (Added After Inspection)

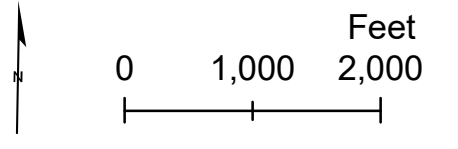
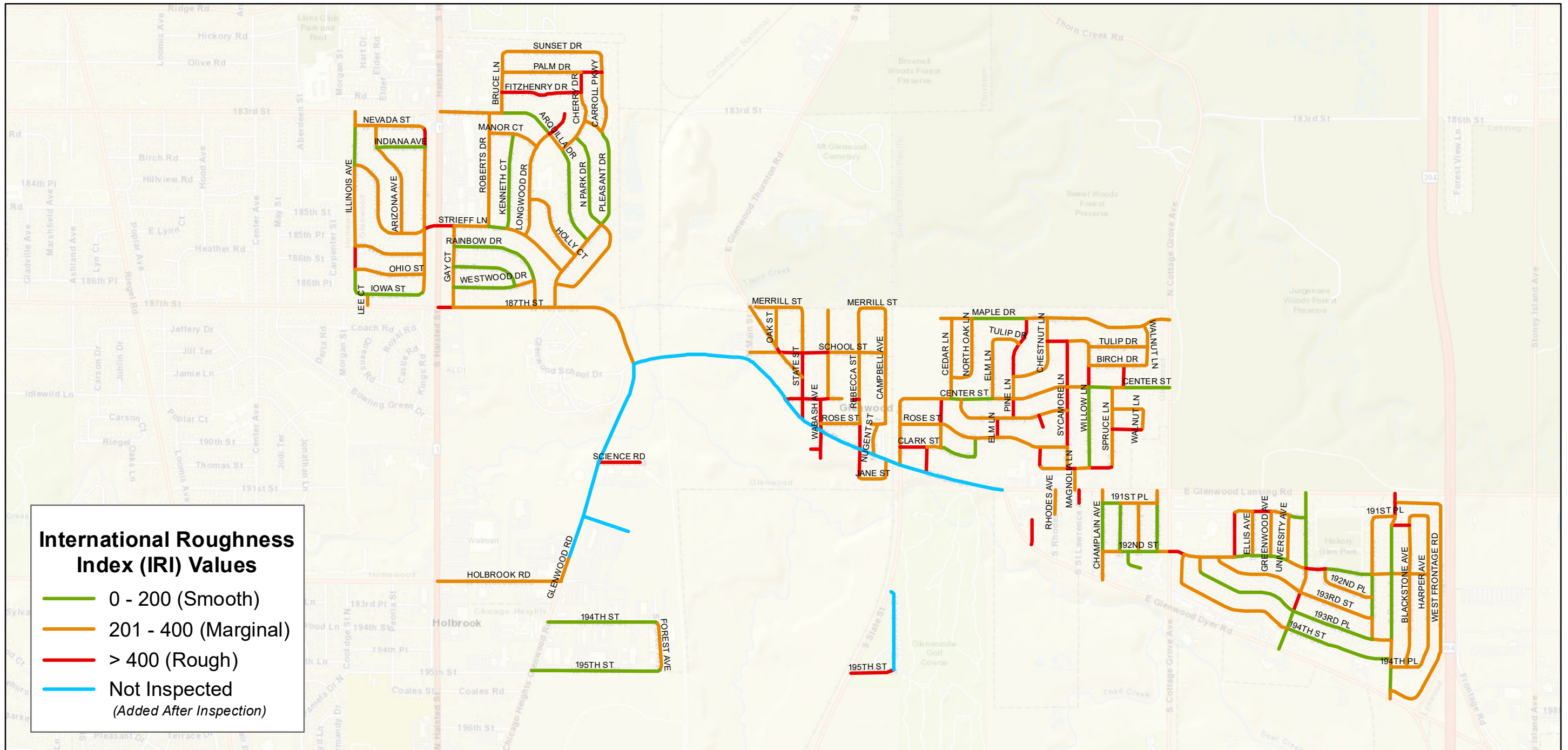


Map A-3:
Pavement Condition Index (PCI) Values

Village of Glenwood, Illinois

Pavement Management Program

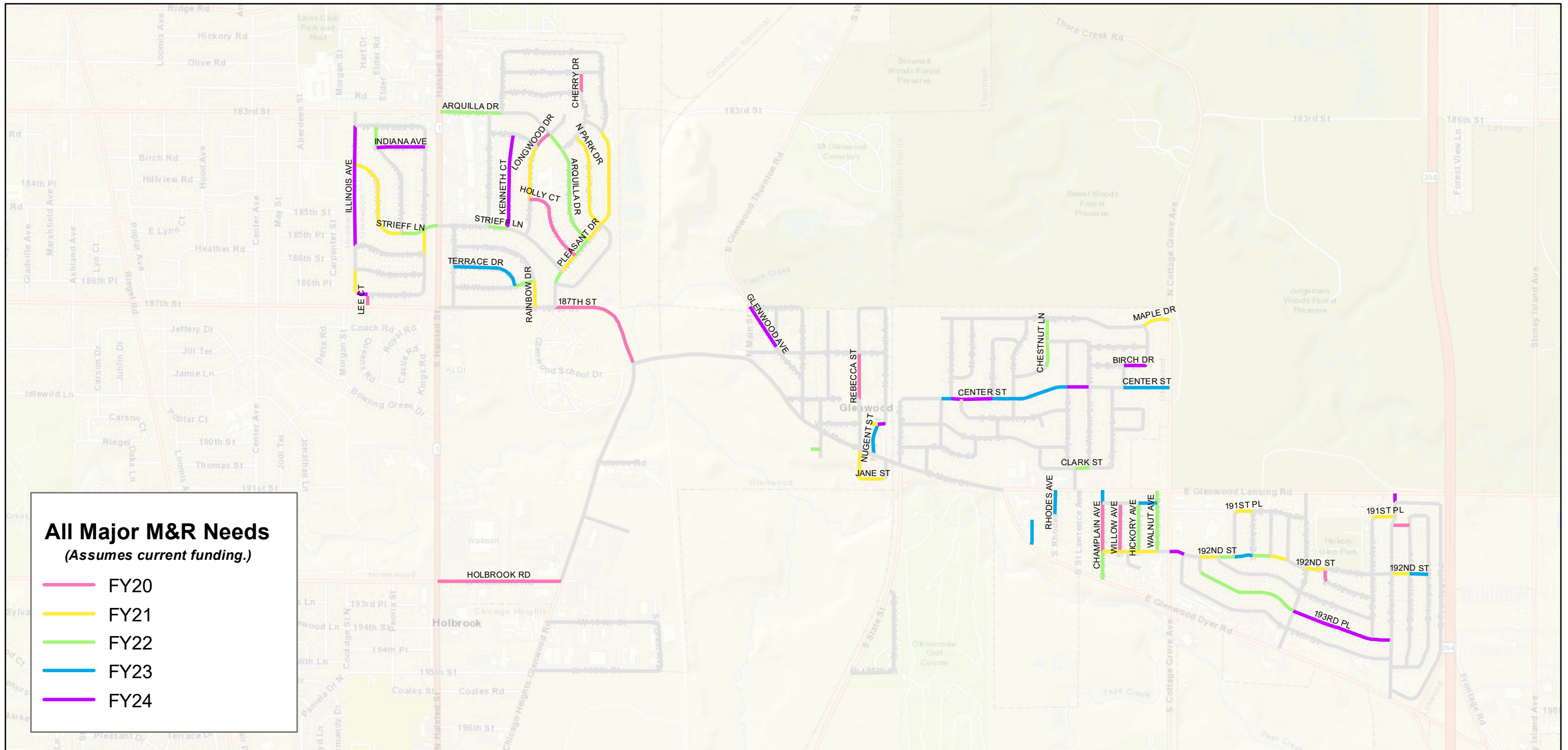




Map A-4:
International Roughness
Index (IRI) Values

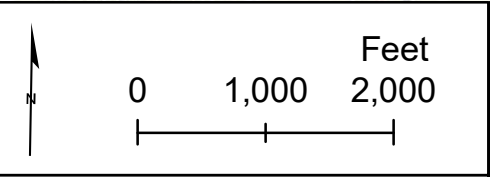
Village of Glenwood, Illinois
Pavement Management Program





All Major M&R Needs
(Assumes current funding.)

- FY20
- FY21
- FY22
- FY23
- FY24

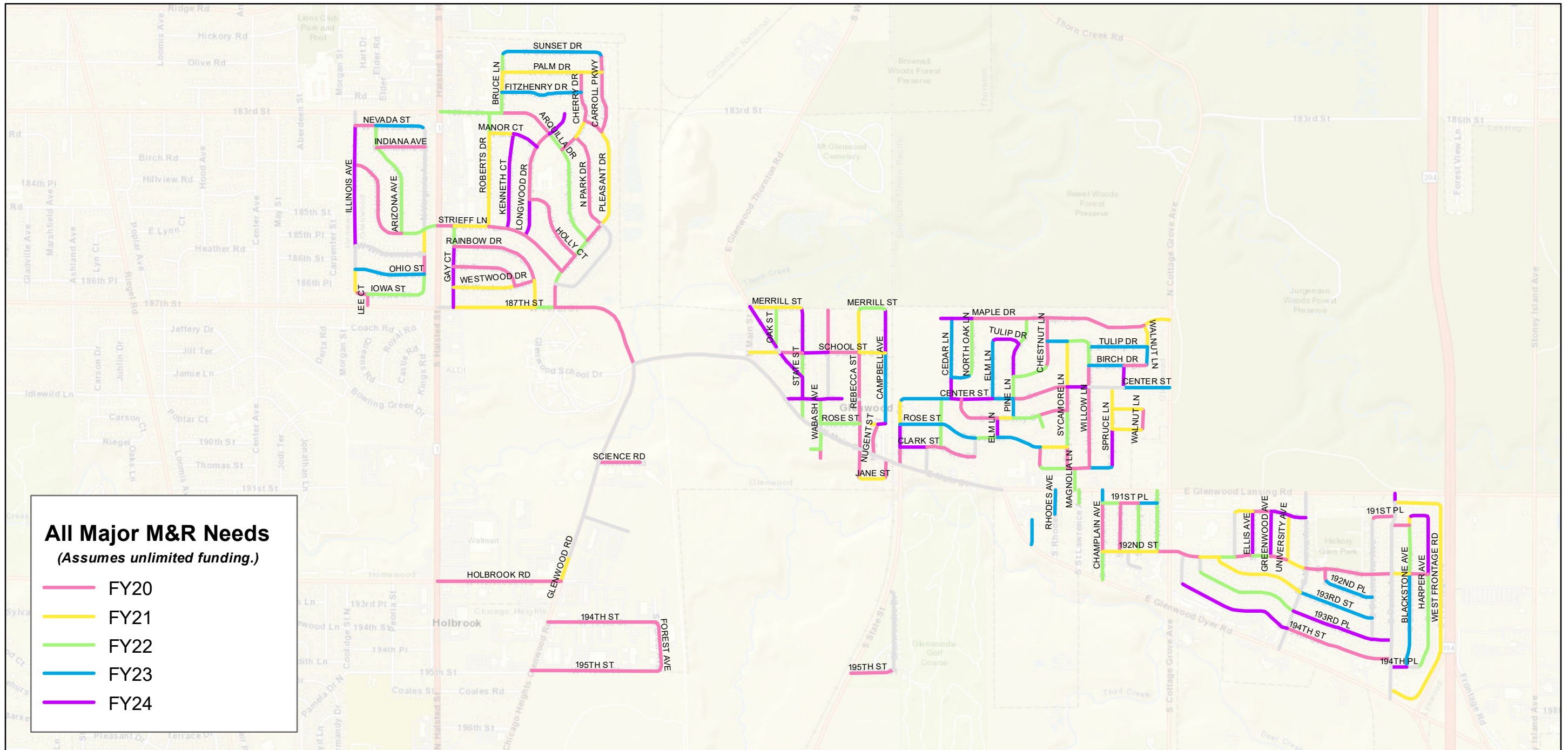


Map A-5:
 All Major M&R Needs
(Assumes current funding.)

Village of Glenwood, Illinois

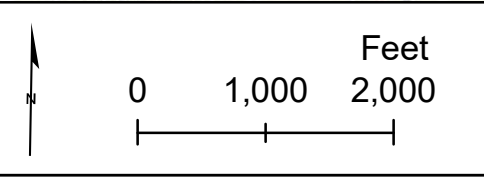
Pavement Management Program





All Major M&R Needs
(Assumes unlimited funding.)

- FY20
- FY21
- FY22
- FY23
- FY24

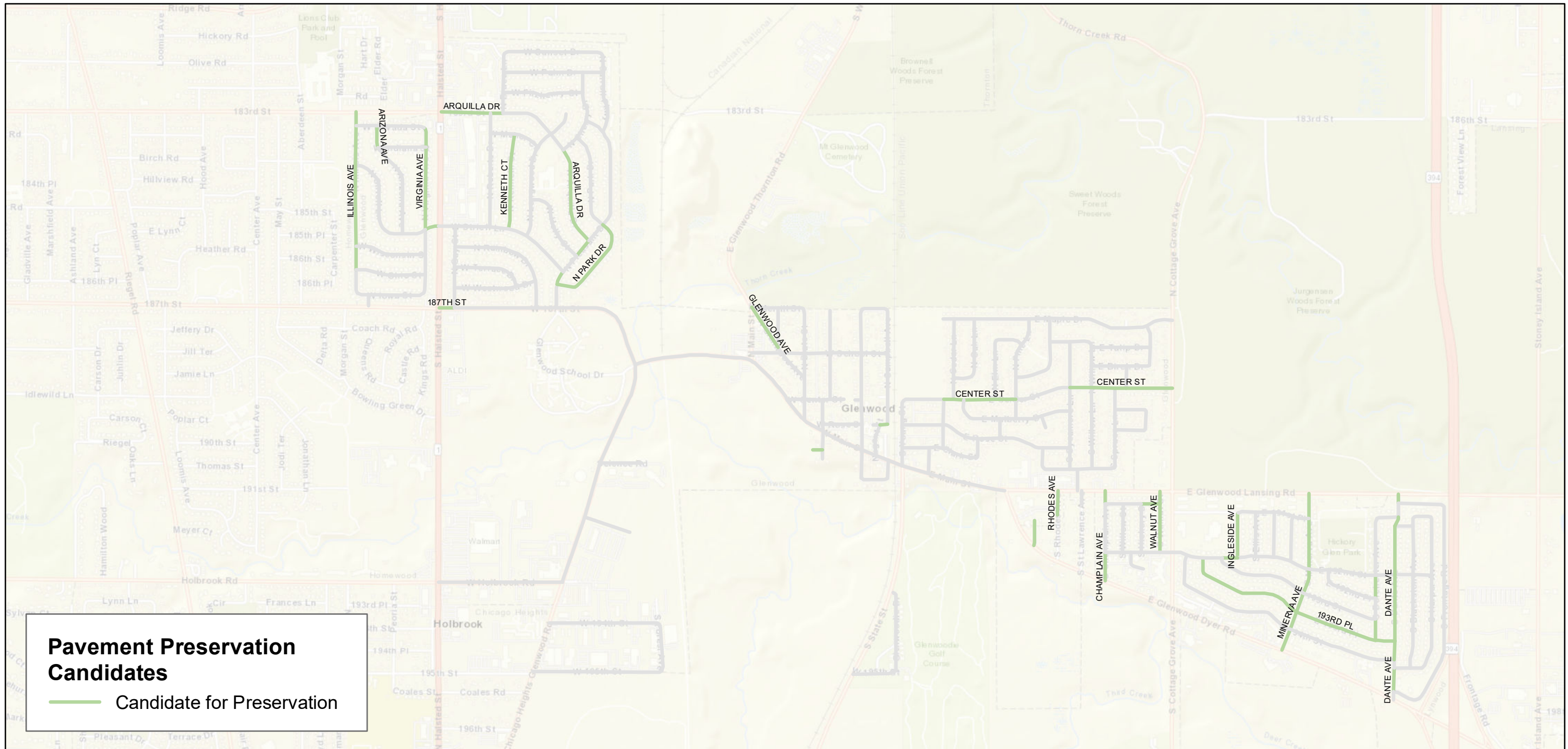


Map A-6:
All Major M&R Needs
(Assumes unlimited funding.)

Village of Glenwood, Illinois

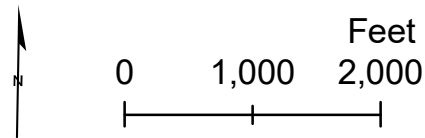
Pavement Management Program





Pavement Preservation Candidates

— Candidate for Preservation



Map A-7:
Pavement Preservation
Candidates

Village of Glenwood, Illinois

Pavement Management Program



**APPENDIX B – TABULATED 5-YEAR MAJOR M&R RECOMMENDATIONS AND
ESTIMATED COSTS – ASSUMING CURRENT FUNDING**

Pavement ID	Road Name	From	To	Area	PCI	Year	Cost
GLNWD::187TH ST::40	187TH STREET	PLEASANT DRIVE	GLENWOOD ROAD	47,438	41	2020	\$ 308,349
GLNWD::191ST PL::90	191ST PLACE	DANTE AVENUE	BLACKSTONE AVENUE	7,364	55	2020	\$ 8,313
GLNWD::CHMPLN AVE::20	CHAMPLAIN AVENUE	192ND STREET	191ST PLACE	20,477	55	2020	\$ 23,114
GLNWD::CHRY DR::40	CHERRY DRIVE	FITZHENRY DRIVE	PALM DRIVE	6,470	54	2020	\$ 7,789
GLNWD::HLBRK RD::10	HOLBROOK ROAD	HALSTED STREET	GLENWOOD ROAD	53,812	55	2020	\$ 60,744
GLNWD::HLLY CT::10	HOLLY COURT	LONGWOOD DRIVE	PLEASANT DRIVE	26,206	55	2020	\$ 29,581
GLNWD::L CT::10	LEE COURT	187TH STREET	IOWA STREET	3,672	52	2020	\$ 4,972
GLNWD::LNGWD DR::30	LONGWOOD DRIVE	MANOR COURT	ARQUILLA DRIVE	7,619	54	2020	\$ 9,173
GLNWD::RBCC ST::40	REBECCA STREET	CENTER STREET	SCHOOL STREET	14,896	55	2020	\$ 16,814
GLNWD::VLN AVE::10	AVALON AVENUE	192ND STREET	192ND PLACE	5,181	54	2020	\$ 6,237
GLNWD::WLLW AVE::10	WILLOW AVENUE	192ND STREET	191ST PLACE	20,236	54	2020	\$ 24,362
GLNWD::191ST PL::40	191ST PLACE	INGLESIDE AVENUE	ELLIS AVENUE	8,508	54	2021	\$ 10,313
GLNWD::191ST PL::80	191ST PLACE	DORCHESTER AVENUE	DANTE AVENUE	8,830	46	2021	\$ 19,518
GLNWD::192ND ST::10	192ND STREET	CHAMPLAIN AVENUE	WILLOW AVENUE	7,409	54	2021	\$ 8,981
GLNWD::192ND ST::120	192ND STREET	GREENWOOD AVENUE	UNIVERSITY AVENUE	7,743	47	2021	\$ 15,720
GLNWD::192ND ST::140	192ND STREET	MINERVA AVENUE	AVALON AVENUE	9,075	47	2021	\$ 18,423
GLNWD::192ND ST::170	192ND STREET	DANTE AVENUE	BLACKSTONE AVENUE	8,860	51	2021	\$ 12,794
GLNWD::192ND ST::20	192ND STREET	WILLOW AVENUE	HICKORY RIDGE	3,419	54	2021	\$ 4,144
GLNWD::192ND ST::30	192ND STREET	HICKORY RIDGE	HICKORY AVENUE	4,280	50	2021	\$ 6,512
GLNWD::192ND ST::40	192ND STREET	HICKORY AVENUE	WALNUT AVENUE	7,734	52	2021	\$ 10,571
GLNWD::192ND ST::80	192ND STREET	DREXEL AVENUE	193RD STREET	8,983	54	2021	\$ 10,888
GLNWD::JN ST::10	JANE STREET	REBECCA STREET	CAMPBELL AVENUE	7,626	50	2021	\$ 11,602
GLNWD::LLNS AVE::10	ILLINOIS AVENUE	IOWA STREET	OHIO STREET	8,029	54	2021	\$ 9,732
GLNWD::LNGWD DR::20	LONGWOOD DRIVE	HOLLY COURT	MANOR COURT	22,527	47	2021	\$ 45,733
GLNWD::MPL DR::60	MAPLE DRIVE	WALNUT LANE	COTTAGE GROVE AVENUE	14,856	50	2021	\$ 22,602
GLNWD::N PK DR::20	N PARK DRIVE	CHERRY DRIVE	PLEASANT DRIVE	32,117	45	2021	\$ 76,774
GLNWD::PLSNT DR::30	PLEASANT DRIVE	STRIEFF LANE	HOLLY COURT	6,788	46	2021	\$ 15,003
GLNWD::PLSNT DR::50	PLEASANT DRIVE	ARQUILLA DRIVE	N PARK DRIVE	6,931	47	2021	\$ 14,070
GLNWD::PLSNT DR::60	PLEASANT DRIVE	N PARK DRIVE	CARROLL PARKWAY	32,463	53	2021	\$ 41,860
GLNWD::RBCC ST::10	REBECCA STREET	MAIN STREET	JANE STREET	7,476	45	2021	\$ 17,872
GLNWD::RNBW DR::20	RAINBOW DRIVE	187TH STREET	WESTWOOD DRIVE	8,965	50	2021	\$ 13,639
GLNWD::RS ST::20	ROSE STREET	NUGENT STREET	NUGENT STREET	3,115	51	2021	\$ 4,499
GLNWD::STRFF LN::10	STRIEFF LANE	ILLINOIS AVENUE	ARIZONA AVE	42,494	46	2021	\$ 93,923
GLNWD::VRGN AVE::30	VIRGINIA AVENUE	WISCONSIN STREET	STRIEFF LANE	8,326	51	2021	\$ 12,023
GLNWD::192ND ST::110	192ND STREET	ELLIS AVENUE	GREENWOOD AVENUE	8,681	50	2022	\$ 14,334
GLNWD::192ND ST::90	192ND STREET	193RD STREET	INGLESIDE AVENUE	7,316	53	2022	\$ 10,084
GLNWD::193RD PL::10	193RD PLACE	DREXEL AVENUE	MINERVA AVENUE	41,752	55	2022	\$ 50,898
GLNWD::CHMPLN AVE::10	CHAMPLAIN AVENUE	GLENWOOD DYER ROAD	192ND STREET	11,958	52	2022	\$ 17,434
GLNWD::CHSTNT LN::20	CHESTNUT LANE	BIRCH DRIVE	TULIP DRIVE	9,781	39	2022	\$ 36,117
GLNWD::CHSTNT LN::30	CHESTNUT LANE	TULIP DRIVE	MAPLE DRIVE	8,758	40	2022	\$ 30,715
GLNWD::CLRK ST::60	CLARK STREET	MAGNOLIA LANE	WILLOW LANE	5,351	40	2022	\$ 18,766
GLNWD::HCKRY AVE::10	HICKORY AVENUE	192ND STREET	191ST PLACE	20,205	50	2022	\$ 33,361
GLNWD::LTT ST::10	LOTTA STREET	WABASH AVENUE	STATE STREET	2,694	54	2022	\$ 3,498
GLNWD::PLSNT DR::20	PLEASANT DRIVE	N PARK DRIVE	STRIEFF LANE	4,781	55	2022	\$ 5,829
GLNWD::PLSNT DR::40	PLEASANT DRIVE	HOLLY COURT	ARQUILLA DRIVE	6,534	52	2022	\$ 9,526
GLNWD::RQLL DR::10	ARQUILLA DRIVE	HALSTED STREET	ROBERTS DRIVE	39,008	55	2022	\$ 47,553
GLNWD::RQLL DR::20	ARQUILLA DRIVE	ROBERTS DRIVE	BRUCE LANE	5,522	52	2022	\$ 8,051
GLNWD::RQLL DR::40	ARQUILLA DRIVE	LONGWOOD DRIVE	CHERRY DRIVE	8,721	50	2022	\$ 14,399
GLNWD::RQLL DR::50	ARQUILLA DRIVE	CHERRY DRIVE	PLEASANT DRIVE	42,756	52	2022	\$ 62,336
GLNWD::RZ AVE::20	ARIZONA AVENUE	INDIANA AVENUE	NEVADA STREET	7,240	53	2022	\$ 9,979
GLNWD::STRFF LN::20	STRIEFF LANE	ARIZONA AVE	VIRGINIA AVENUE	10,416	55	2022	\$ 29,449
GLNWD::STRFF LN::30	STRIEFF LANE	VIRGINIA AVENUE	HALSTED STREET	6,036	54	2022	\$ 7,838
GLNWD::STRFF LN::60	STRIEFF LANE	ROBERTS DRIVE	KENNETH COURT	6,075	39	2022	\$ 22,432
GLNWD::WLNT AVE::10	WALNUT AVENUE	192ND STREET	191ST PLACE	20,261	51	2022	\$ 31,154
GLNWD::WLNT AVE::20	WALNUT AVENUE	191ST PLACE	GLENWOOD LANSING ROAD	5,192	54	2022	\$ 6,743
GLNWD::WSTWD DR::20	WESTWOOD DRIVE	TERRACE DRIVE	RAINBOW DRIVE	6,638	40	2022	\$ 23,281
GLNWD::191ST PL::30	191ST PLACE	HICKORY AVENUE	WALNUT AVENUE	7,737	51	2023	\$ 12,012
GLNWD::192ND ST::100	192ND STREET	INGLESIDE AVENUE	ELLIS AVENUE	8,758	32	2023	\$ 44,398
GLNWD::192ND ST::180	192ND STREET	BLACKSTONE AVENUE	HARPER AVENUE	8,679	33	2023	\$ 42,341
GLNWD::BHRDT AVE::10	EBERHARDT AVENUE	GLENWOOD DYER ROAD	END	5,864	54	2023	\$ 7,661

Pavement ID	Road Name	From	To	Area	PCI	Year	Cost
GLNWD::CHMPLN AVE::30	CHAMPLAIN AVENUE	191ST PLACE	GLENWOOD LANSING ROAD	5,348	52	2023	\$ 7,864
GLNWD::CNTR ST::100	CENTER STREET	ELM LANE	PINE LANE	10,259	50	2023	\$ 16,770
GLNWD::CNTR ST::110	CENTER STREET	PINE LANE	SYCAMORE LANE	27,286	33	2023	\$ 133,114
GLNWD::CNTR ST::150	CENTER STREET	HICKORY LANE	COTTAGE GROVE AVENUE	21,968	53	2023	\$ 30,502
GLNWD::CNTR ST::70	CENTER STREET	CEDAR LANE	CEDAR LANE	5,033	54	2023	\$ 6,576
GLNWD::NGNT ST::10	NUGENT STREET	MAIN STREET	ROSE STREET	14,618	32	2023	\$ 74,111
GLNWD::RHDS AVE::10	RHODES AVENUE	START	GLENWOOD LANSING ROAD	6,706	53	2023	\$ 9,312
GLNWD::TRRC DR::10	TERRACE DRIVE	GAY COURT	WESTWOOD DRIVE	23,578	33	2023	\$ 115,022
GLNWD::192ND ST::60	192ND STREET	COTTAGE GROVE AVENUE	MARYLAND AVENUE	7,398	26	2024	\$ 46,093
GLNWD::193RD PL::20	193RD PLACE	MINERVA AVENUE	DORCHESTER AVENUE	34,191	50	2024	\$ 56,497
GLNWD::193RD PL::30	193RD PLACE	DORCHESTER AVENUE	DANTE AVENUE	7,675	52	2024	\$ 11,384
GLNWD::BRCH DR::40	BIRCH DRIVE	HICKORY LANE	WALNUT LANE	8,521	26	2024	\$ 53,088
GLNWD::CNTR ST::120	CENTER STREET	SYCAMORE LANE	WILLOW LANE	10,451	54	2024	\$ 13,737
GLNWD::CNTR ST::80	CENTER STREET	CEDAR LANE	MULBERRY DRIVE	4,917	51	2024	\$ 7,709
GLNWD::CNTR ST::90	CENTER STREET	MULBERRY DRIVE	ELM LANE	15,355	52	2024	\$ 22,777
GLNWD::GLNWD AVE::10	GLENWOOD AVENUE	MAIN STREET	OAK STREET	20,006	54	2024	\$ 26,297
GLNWD::KNNTH CT::10	KENNETH COURT	STRIEFF LANE	MANOR COURT	31,808	49	2024	\$ 57,284
GLNWD::LLNS AVE::30	ILLINOIS AVENUE	WISCONSIN STREET	STRIEFF LANE	26,766	51	2024	\$ 41,965
GLNWD::LLNS AVE::40	ILLINOIS AVENUE	STRIEFF LANE	NEVADA STREET	13,121	53	2024	\$ 18,355
GLNWD::NDN AVE::10	INDIANA AVENUE	ARIZONA AVE	VIRGINIA AVENUE	15,947	25	2024	\$ 102,049
GLNWD::RS ST::30	ROSE STREET	NUGENT STREET	CAMPBELL AVENUE	3,694	50	2024	\$ 6,104
GLNWD::W FRNTG RD::20	WEST FRONTAGE ROAD	WEST FRONTAGE ROAD	GLENWOOD LANSING ROAD	4,450	54	2024	\$ 5,849
GLNWD::W ST::10	IOWA STREET	ILLINOIS AVENUE	LEE COURT	3,602	26	2024	\$ 22,440

**APPENDIX C – TABULATED 5-YEAR MAJOR M&R RECOMMENDATIONS AND
ESTIMATED COSTS – ASSUMING UNLIMITED FUNDING**

Pavement ID	Road Name	From	To	Area	PCI	Year	Cost
GLNWD::187TH ST::40	187TH STREET	PLEASANT DRIVE	GLENWOOD ROAD	47,438	41	2020	\$ 308,349
GLNWD::191ST PL::20	191ST PLACE	WILLOW AVENUE	HICKORY AVENUE	7,674	48	2020	\$ 14,266
GLNWD::191ST PL::50	191ST PLACE	ELLIS AVENUE	GREENWOOD AVENUE	8,672	42	2020	\$ 25,222
GLNWD::191ST PL::80	191ST PLACE	DORCHESTER AVENUE	DANTE AVENUE	8,830	52	2020	\$ 11,956
GLNWD::191ST PL::90	191ST PLACE	DANTE AVENUE	BLACKSTONE AVENUE	7,364	55	2020	\$ 8,313
GLNWD::192ND ST::100	192ND STREET	INGLESIDE AVENUE	ELLIS AVENUE	8,758	49	2020	\$ 14,748
GLNWD::192ND ST::120	192ND STREET	GREENWOOD AVENUE	UNIVERSITY AVENUE	7,743	53	2020	\$ 9,903
GLNWD::192ND ST::140	192ND STREET	MINERVA AVENUE	AVALON AVENUE	9,075	53	2020	\$ 11,606
GLNWD::192ND ST::150	192ND STREET	AVALON AVENUE	DORCHESTER AVENUE	22,877	43	2020	\$ 62,539
GLNWD::192ND ST::160	192ND STREET	DORCHESTER AVENUE	DANTE AVENUE	8,981	44	2020	\$ 22,980
GLNWD::192ND ST::180	192ND STREET	BLACKSTONE AVENUE	HARPER AVENUE	8,679	50	2020	\$ 13,098
GLNWD::192ND ST::50	192ND STREET	WALNUT AVENUE	COTTAGE GROVE AVENUE	5,221	48	2020	\$ 9,706
GLNWD::192ND ST::60	192ND STREET	COTTAGE GROVE AVENUE	MARYLAND AVENUE	7,398	49	2020	\$ 12,459
GLNWD::192ND ST::70	192ND STREET	MARYLAND AVENUE	DREXEL AVENUE	7,788	46	2020	\$ 17,202
GLNWD::194TH ST::10	194TH STREET	GLENWOOD ROAD	FOREST AVENUE	41,323	47	2020	\$ 84,047
GLNWD::194TH ST::30	194TH STREET	MINERVA AVENUE	DANTE AVENUE	52,076	47	2020	\$ 105,919
GLNWD::195TH ST::10	195TH STREET	GLENWOOD ROAD	FOREST AVENUE	44,852	40	2020	\$ 146,150
GLNWD::195TH ST::20	195TH STREET	STATE STREET	GLENWOODIE DRIVE	66,379	49	2020	\$ 111,786
GLNWD::BRCH DR::40	BIRCH DRIVE	HICKORY LANE	WALNUT LANE	8,521	49	2020	\$ 14,349
GLNWD::CHMPLN AVE::20	CHAMPLAIN AVENUE	192ND STREET	191ST PLACE	20,477	55	2020	\$ 23,114
GLNWD::CHRY DR::10	CHERRY DRIVE	ARQUILLA DRIVE	N PARK DRIVE	6,237	37	2020	\$ 23,598
GLNWD::CHRY DR::30	CHERRY DRIVE	PLEASANT DRIVE	FITZHENRY DRIVE	9,776	48	2020	\$ 18,174
GLNWD::CHRY DR::40	CHERRY DRIVE	FITZHENRY DRIVE	PALM DRIVE	6,470	54	2020	\$ 7,789
GLNWD::CHSTNT LN::10	CHESTNUT LANE	CLARK STREET	ROSE STREET	7,599	46	2020	\$ 16,785
GLNWD::CHSTNT LN::20	CHESTNUT LANE	BIRCH DRIVE	TULIP DRIVE	9,781	50	2020	\$ 14,760
GLNWD::CHSTNT LN::30	CHESTNUT LANE	TULIP DRIVE	MAPLE DRIVE	8,758	51	2020	\$ 12,516
GLNWD::CLRK ST::20	CLARK STREET	PICKENS STREET	CEDAR LANE	4,176	39	2020	\$ 14,337
GLNWD::CLRK ST::30	CLARK STREET	CEDAR LANE	SOUTH OAK LANE	13,405	35	2020	\$ 55,411
GLNWD::CLRK ST::50	CLARK STREET	SYCAMORE LANE	MAGNOLIA LANE	2,975	45	2020	\$ 7,093
GLNWD::CLRK ST::60	CLARK STREET	MAGNOLIA LANE	WILLOW LANE	5,351	51	2020	\$ 7,647
GLNWD::CMPBLL AVE::10	CAMPBELL AVENUE	JANE STREET	MAIN STREET	4,973	36	2020	\$ 19,687
GLNWD::CNTR ST::110	CENTER STREET	PINE LANE	SYCAMORE LANE	27,286	50	2020	\$ 41,178
GLNWD::CRRLL PKY::10	CARROLL PARKWAY	PLEASANT DRIVE	PALM DRIVE	25,420	37	2020	\$ 96,177
GLNWD::CRRLL PKY::20	CARROLL PARKWAY	PALM DRIVE	SUNSET DRIVE	7,496	48	2020	\$ 13,934
GLNWD::FRST AVE::10	FOREST AVENUE	195TH STREET	194TH STREET	19,015	43	2020	\$ 51,982
GLNWD::HLBRK RD::10	HOLBROOK ROAD	HALSTED STREET	GLENWOOD ROAD	53,812	55	2020	\$ 60,744
GLNWD::HLLY CT::10	HOLLY COURT	LONGWOOD DRIVE	PLEASANT DRIVE	26,206	55	2020	\$ 29,581
GLNWD::L CT::10	LEE COURT	187TH STREET	IOWA STREET	3,672	52	2020	\$ 4,972
GLNWD::LNGWD DR::20	LONGWOOD DRIVE	HOLLY COURT	MANOR COURT	22,527	53	2020	\$ 28,811
GLNWD::LNGWD DR::30	LONGWOOD DRIVE	MANOR COURT	ARQUILLA DRIVE	7,619	54	2020	\$ 9,173
GLNWD::MLBRRY DR::10	MULBERRY DRIVE	CENTER STREET	ELM LANE	18,950	37	2020	\$ 71,699
GLNWD::MLBRRY DR::40	MULBERRY DRIVE	CHESTNUT COURT	SYCAMORE LANE	10,751	39	2020	\$ 36,915
GLNWD::MPL DR::30	MAPLE DRIVE	NORTH OAK LANE	PINE LANE	20,584	48	2020	\$ 38,266
GLNWD::MPL DR::40	MAPLE DRIVE	PINE LANE	CHESTNUT LANE	7,832	47	2020	\$ 15,930
GLNWD::MPL DR::50	MAPLE DRIVE	CHESTNUT LANE	WALNUT LANE	37,101	44	2020	\$ 94,931
GLNWD::N PK DR::20	N PARK DRIVE	CHERRY DRIVE	PLEASANT DRIVE	32,117	51	2020	\$ 45,897
GLNWD::NDN AVE::10	INDIANA AVENUE	ARIZONA AVE	VIRGINIA AVENUE	15,947	48	2020	\$ 29,645
GLNWD::NGNT ST::10	NUGENT STREET	MAIN STREET	ROSE STREET	14,618	49	2020	\$ 24,618
GLNWD::NVD ST::10	NEVADA STREET	ILLINOIS AVENUE	ARIZONA AVE	6,924	48	2020	\$ 12,872
GLNWD::PLSNT DR::10	PLEASANT DRIVE	187TH STREET	N PARK DRIVE	7,895	47	2020	\$ 16,058
GLNWD::PLSNT DR::30	PLEASANT DRIVE	STRIEFF LANE	HOLLY COURT	6,788	52	2020	\$ 9,191
GLNWD::PLSNT DR::50	PLEASANT DRIVE	ARQUILLA DRIVE	N PARK DRIVE	6,931	53	2020	\$ 8,864
GLNWD::PLSNT DR::70	PLEASANT DRIVE	CARROLL PARKWAY	CHERRY DRIVE	6,626	48	2020	\$ 12,317
GLNWD::RBCC ST::10	REBECCA STREET	MAIN STREET	JANE STREET	7,476	51	2020	\$ 10,684
GLNWD::RBCC ST::20	REBECCA STREET	MAIN STREET	ROSE STREET	10,699	47	2020	\$ 21,762
GLNWD::RBCC ST::30	REBECCA STREET	ROSE STREET	CENTER STREET	10,160	48	2020	\$ 18,888
GLNWD::RBCC ST::40	REBECCA STREET	CENTER STREET	SCHOOL STREET	14,896	55	2020	\$ 16,814
GLNWD::RNBW DR::10	RAINBOW DRIVE	GAY COURT	WESTWOOD DRIVE	32,303	40	2020	\$ 105,259
GLNWD::RQLL DR::30	ARQUILLA DRIVE	BRUCE LANE	LONGWOOD DRIVE	24,348	46	2020	\$ 53,781
GLNWD::SCHL ST::20	SCHOOL STREET	GLENWOOD AVENUE	STATE STREET	6,957	46	2020	\$ 15,368
GLNWD::SCHL ST::40	SCHOOL STREET	WABASH AVENUE	REBECCA STREET	8,544	45	2020	\$ 20,366

Pavement ID	Road Name	From	To	Area	PCI	Year	Cost
GLNWD::SCNC RD::10	SCIENCE ROAD	GLENWOOD ROAD	END	14,216	46	2020	\$ 31,402
GLNWD::STRFF LN::10	STRIEFF LANE	ILLINOIS AVENUE	ARIZONA AVE	42,494	52	2020	\$ 57,537
GLNWD::STRFF LN::40	STRIEFF LANE	HALSTED STREET	GAY COURT	9,489	36	2020	\$ 37,563
GLNWD::STRFF LN::60	STRIEFF LANE	ROBERTS DRIVE	KENNETH COURT	6,075	50	2020	\$ 9,167
GLNWD::STRFF LN::70	STRIEFF LANE	KENNETH COURT	LONGWOOD DRIVE	6,527	40	2020	\$ 21,269
GLNWD::STRFF LN::80	STRIEFF LANE	LONGWOOD DRIVE	PLEASANT DRIVE	17,074	36	2020	\$ 67,590
GLNWD::SYCMR LN::10	SYCAMORE LANE	CLARK STREET	ROSE STREET	7,901	37	2020	\$ 29,894
GLNWD::SYCMR LN::30	SYCAMORE LANE	MULBERRY DRIVE	CENTER STREET	8,801	39	2020	\$ 30,218
GLNWD::TRRC DR::10	TERRACE DRIVE	GAY COURT	WESTWOOD DRIVE	23,578	50	2020	\$ 35,582
GLNWD::VLN AVE::10	AVALON AVENUE	192ND STREET	192ND PLACE	5,181	54	2020	\$ 6,237
GLNWD::VRGN AVE::20	VIRGINIA AVENUE	OHIO STREET	WISCONSIN STREET	6,781	38	2020	\$ 24,470
GLNWD::W ST::10	IOWA STREET	ILLINOIS AVENUE	LEE COURT	3,602	49	2020	\$ 6,065
GLNWD::WBSH AVE::10	WABASH AVENUE	LOTTA STREET	END	2,458	29	2020	\$ 12,677
GLNWD::WBSH AVE::60	WABASH AVENUE	SCHOOL STREET	END	10,979	42	2020	\$ 31,933
GLNWD::WLLW AVE::10	WILLOW AVENUE	192ND STREET	191ST PLACE	20,236	54	2020	\$ 24,362
GLNWD::WLLW LN::10	WILLOW LANE	CLARK STREET	CENTER STREET	30,451	38	2020	\$ 109,885
GLNWD::WLLW LN::20	WILLOW LANE	CENTER STREET	BIRCH DRIVE	8,116	37	2020	\$ 30,706
GLNWD::WLNT LN::10	WALNUT LANE	ROSE COURT	MULBERRY COURT	8,207	43	2020	\$ 22,436
GLNWD::WSTWD DR::20	WESTWOOD DRIVE	TERRACE DRIVE	RAINBOW DRIVE	6,638	51	2020	\$ 9,487
GLNWD::YNG ST::10	YOUNG STREET	MAIN STREET	CLARK STREET	7,548	47	2020	\$ 15,353
GLNWD::187TH ST::20	187TH STREET	GAY COURT	RAINBOW DRIVE	34,430	23	2021	\$ 212,909
GLNWD::191ST PL::40	191ST PLACE	INGLESIDE AVENUE	ELLIS AVENUE	8,508	54	2021	\$ 10,313
GLNWD::192ND ST::10	192ND STREET	CHAMPLAIN AVENUE	WILLOW AVENUE	7,409	54	2021	\$ 8,981
GLNWD::192ND ST::130	192ND STREET	UNIVERSITY AVENUE	MINERVA AVENUE	10,108	25	2021	\$ 59,385
GLNWD::192ND ST::170	192ND STREET	DANTE AVENUE	BLACKSTONE AVENUE	8,860	51	2021	\$ 12,794
GLNWD::192ND ST::20	192ND STREET	WILLOW AVENUE	HICKORY RIDGE	3,419	54	2021	\$ 4,144
GLNWD::192ND ST::30	192ND STREET	HICKORY RIDGE	HICKORY AVENUE	4,280	50	2021	\$ 6,512
GLNWD::192ND ST::40	192ND STREET	HICKORY AVENUE	WALNUT AVENUE	7,734	52	2021	\$ 10,571
GLNWD::192ND ST::80	192ND STREET	DREXEL AVENUE	193RD STREET	8,983	54	2021	\$ 10,888
GLNWD::193RD ST::10	193RD STREET	192ND STREET	MINERVA AVENUE	37,878	28	2021	\$ 204,968
GLNWD::BLKSTN AVE::30	BLACKSTONE AVENUE	191ST PLACE	191ST PLACE	3,660	24	2021	\$ 22,068
GLNWD::BRC LN::20	BRUCE LANE	FITZHENRY DRIVE	PALM DRIVE	8,382	23	2021	\$ 51,833
GLNWD::CHRY DR::20	CHERRY DRIVE	N PARK DRIVE	PLEASANT DRIVE	6,401	24	2021	\$ 38,593
GLNWD::GLNWD RD::10	GLENWOOD ROAD	HOLBROOK ROAD	END	13,398	23	2021	\$ 82,849
GLNWD::JN ST::10	JANE STREET	REBECCA STREET	CAMPBELL AVENUE	7,626	50	2021	\$ 11,602
GLNWD::LLNS AVE::10	ILLINOIS AVENUE	IOWA STREET	OHIO STREET	8,029	54	2021	\$ 9,732
GLNWD::MLBRRY CT::10	MULBERRY COURT	SPRUCE LANE	WALNUT LANE	11,210	26	2021	\$ 64,125
GLNWD::MLBRRY DR::20	MULBERRY DRIVE	ELM LANE	PINE LANE	5,993	24	2021	\$ 36,132
GLNWD::MNR CT::10	MANOR COURT	ROBERTS DRIVE	KENNETH COURT	8,311	29	2021	\$ 43,687
GLNWD::MPL DR::60	MAPLE DRIVE	WALNUT LANE	COTTAGE GROVE AVENUE	14,856	50	2021	\$ 22,602
GLNWD::MRRLL ST::10	MERRILL STREET	GLENWOOD AVENUE	OAK STREET	5,697	26	2021	\$ 32,590
GLNWD::MRRLL ST::20	MERRILL STREET	OAK STREET	STATE STREET	6,998	24	2021	\$ 42,195
GLNWD::NVSTY AVE::10	UNIVERSITY AVENUE	192ND STREET	191ST PLACE	18,294	27	2021	\$ 101,821
GLNWD::PLM DR::10	PALM DRIVE	BRUCE LANE	CHERRY DRIVE	26,322	23	2021	\$ 162,773
GLNWD::PLM DR::20	PALM DRIVE	CHERRY DRIVE	CARROLL PARKWAY	6,776	23	2021	\$ 41,900
GLNWD::PLSNT DR::60	PLEASANT DRIVE	N PARK DRIVE	CARROLL PARKWAY	32,463	53	2021	\$ 41,860
GLNWD::RBCC ST::50	REBECCA STREET	SCHOOL STREET	MERRILL STREET	11,969	23	2021	\$ 74,014
GLNWD::RBRTS DR::10	ROBERTS DRIVE	STRIEFF LANE	MANOR COURT	39,125	26	2021	\$ 223,806
GLNWD::RNBW DR::20	RAINBOW DRIVE	187TH STREET	WESTWOOD DRIVE	8,965	50	2021	\$ 13,639
GLNWD::RS CT::10	ROSE COURT	SPRUCE LANE	WALNUT LANE	10,926	25	2021	\$ 64,186
GLNWD::RS ST::20	ROSE STREET	NUGENT STREET	NUGENT STREET	3,115	51	2021	\$ 4,499
GLNWD::RS ST::80	ROSE STREET	CHESTNUT LANE	SYCAMORE LANE	10,015	22	2021	\$ 63,478
GLNWD::SCHL ST::10	SCHOOL STREET	MAIN STREET	GLENWOOD AVENUE	9,016	22	2021	\$ 57,146
GLNWD::SCHL ST::50	SCHOOL STREET	REBECCA STREET	CAMPBELL AVENUE	7,172	29	2021	\$ 37,703
GLNWD::SPRC LN::20	SPRUCE LANE	ROSE COURT	MULBERRY COURT	7,698	24	2021	\$ 46,412
GLNWD::SPRC LN::30	SPRUCE LANE	MULBERRY COURT	CENTER STREET	7,975	29	2021	\$ 41,923
GLNWD::STRFF LN::50	STRIEFF LANE	GAY COURT	ROBERTS DRIVE	20,642	28	2021	\$ 111,698
GLNWD::SYCMR LN::40	SYCAMORE LANE	CENTER STREET	TULIP DRIVE	17,301	23	2021	\$ 106,988
GLNWD::VRGN AVE::30	VIRGINIA AVENUE	WISCONSIN STREET	STRIEFF LANE	8,326	51	2021	\$ 12,023
GLNWD::W FRNTG RD::10	WEST FRONTAGE ROAD	DANTE AVENUE	DANTE AVENUE	82,576	30	2021	\$ 420,653
GLNWD::WLNT LN::30	WALNUT LANE	TULIP DRIVE	MAPLE DRIVE	8,210	27	2021	\$ 45,696

Pavement ID	Road Name	From	To	Area	PCI	Year	Cost
GLNWD::WSTWD DR::10	WESTWOOD DRIVE	GAY COURT	TERRACE DRIVE	20,602	22	2021	\$ 130,584
GLNWD::YNG ST::30	YOUNG STREET	ROSE STREET	CENTER STREET	9,697	26	2021	\$ 55,469
GLNWD::187TH ST::30	187TH STREET	RAINBOW DRIVE	PLEASANT DRIVE	8,322	11	2022	\$ 57,388
GLNWD::191ST PL::10	191ST PLACE	CHAMPLAIN AVENUE	WILLOW AVENUE	7,475	16	2022	\$ 51,549
GLNWD::192ND ST::110	192ND STREET	ELLIS AVENUE	GREENWOOD AVENUE	8,681	50	2022	\$ 14,334
GLNWD::192ND ST::90	192ND STREET	193RD STREET	INGLESIDE AVENUE	7,316	53	2022	\$ 10,084
GLNWD::193RD PL::10	193RD PLACE	DREXEL AVENUE	MINERVA AVENUE	41,752	55	2022	\$ 50,898
GLNWD::BLKSTN AVE::20	BLACKSTONE AVENUE	192ND STREET	191ST PLACE	19,695	12	2022	\$ 135,821
GLNWD::BRC LN::10	BRUCE LANE	ARQUILLA DRIVE	FITZHENRY DRIVE	8,680	15	2022	\$ 59,858
GLNWD::BRC LN::30	BRUCE LANE	PALM DRIVE	SUNSET DRIVE	7,630	11	2022	\$ 52,619
GLNWD::BRCH DR::20	BIRCH DRIVE	PINE LANE	CHESTNUT LANE	13,104	14	2022	\$ 90,371
GLNWD::CDR LN::10	CEDAR LANE	CLARK STREET	ROSE STREET	8,731	15	2022	\$ 60,215
GLNWD::CDR LN::20	CEDAR LANE	ROSE STREET	CENTER STREET	9,501	16	2022	\$ 65,522
GLNWD::CHMPLN AVE::10	CHAMPLAIN AVENUE	GLENWOOD DYER ROAD	192ND STREET	11,958	52	2022	\$ 17,434
GLNWD::CHSTNT CT::10	CHESTNUT COURT	MULBERRY DRIVE	END	4,518	11	2022	\$ 31,159
GLNWD::CLRK ST::40	CLARK STREET	CHESTNUT LANE	SYCAMORE LANE	9,900	17	2022	\$ 68,272
GLNWD::GY CT::40	GAY COURT	RAINBOW DRIVE	STRIEFF LANE	7,028	12	2022	\$ 48,465
GLNWD::HCKRY AVE::10	HICKORY AVENUE	192ND STREET	191ST PLACE	20,205	50	2022	\$ 33,361
GLNWD::HRPR AVE::10	HARPER AVENUE	194TH PLACE	192ND STREET	38,502	12	2022	\$ 265,524
GLNWD::K ST::10	OAK STREET	GLENWOOD AVENUE	MERRILL STREET	10,824	14	2022	\$ 74,647
GLNWD::LTT ST::10	LOTTA STREET	WABASH AVENUE	STATE STREET	2,694	54	2022	\$ 3,498
GLNWD::MGNL LN::10	MAGNOLIA LANE	GLENWOOD LANSING ROAD	CLARK STREET	8,114	16	2022	\$ 55,954
GLNWD::MLBRRY DR::30	MULBERRY DRIVE	PINE LANE	CHESTNUT COURT	9,831	12	2022	\$ 67,797
GLNWD::MRRLL ST::30	MERRILL STREET	REBECCA STREET	CAMPBELL AVENUE	6,895	11	2022	\$ 47,552
GLNWD::N OK LN::10	NORTH OAK LANE	BIRCH DRIVE	MAPLE DRIVE	21,939	14	2022	\$ 151,298
GLNWD::PLSNT DR::20	PLEASANT DRIVE	N PARK DRIVE	STRIEFF LANE	4,781	55	2022	\$ 5,829
GLNWD::PLSNT DR::40	PLEASANT DRIVE	HOLLY COURT	ARQUILLA DRIVE	6,534	52	2022	\$ 9,526
GLNWD::PN LN::20	PINE LANE	CENTER STREET	BIRCH DRIVE	8,408	13	2022	\$ 57,985
GLNWD::PN LN::40	PINE LANE	TULIP DRIVE	MAPLE DRIVE	10,539	13	2022	\$ 72,683
GLNWD::RBRTS DR::20	ROBERTS DRIVE	MANOR COURT	ARQUILLA DRIVE	8,350	12	2022	\$ 57,582
GLNWD::RQLL DR::10	ARQUILLA DRIVE	HALSTED STREET	ROBERTS DRIVE	39,008	55	2022	\$ 47,553
GLNWD::RQLL DR::20	ARQUILLA DRIVE	ROBERTS DRIVE	BRUCE LANE	5,522	52	2022	\$ 8,051
GLNWD::RQLL DR::40	ARQUILLA DRIVE	LONGWOOD DRIVE	CHERRY DRIVE	8,721	50	2022	\$ 14,399
GLNWD::RQLL DR::50	ARQUILLA DRIVE	CHERRY DRIVE	PLEASANT DRIVE	42,756	52	2022	\$ 62,336
GLNWD::RS ST::10	ROSE STREET	WABASH AVENUE	REBECCA STREET	11,211	11	2022	\$ 77,314
GLNWD::RS ST::60	ROSE STREET	SOUTH OAK LANE	ELM LANE	8,218	16	2022	\$ 56,673
GLNWD::RZ AVE::10	ARIZONA AVENUE	STRIEFF LANE	INDIANA AVENUE	31,644	11	2022	\$ 218,229
GLNWD::RZ AVE::20	ARIZONA AVENUE	INDIANA AVENUE	NEVADA STREET	7,240	53	2022	\$ 9,979
GLNWD::STLRNC AVE::10	ST LAWRENCE AVENUE	START	GLENWOOD LANSING ROAD	3,651	14	2022	\$ 25,175
GLNWD::STRFF LN::20	STRIEFF LANE	ARIZONA AVE	VIRGINIA AVENUE	10,416	55	2022	\$ 29,449
GLNWD::STRFF LN::30	STRIEFF LANE	VIRGINIA AVENUE	HALSTED STREET	6,036	54	2022	\$ 7,838
GLNWD::STT ST::20	STATE STREET	MAIN STREET	CENTER STREET	5,461	13	2022	\$ 37,662
GLNWD::STT ST::40	STATE STREET	GLENWOOD AVENUE	SCHOOL STREET	6,574	15	2022	\$ 45,339
GLNWD::SYCMR LN::20	SYCAMORE LANE	ROSE STREET	MULBERRY DRIVE	13,790	11	2022	\$ 95,101
GLNWD::TLP DR::30	TULIP DRIVE	SYCAMORE LANE	WILLOW LANE	9,499	14	2022	\$ 65,511
GLNWD::VRGN AVE::10	VIRGINIA AVENUE	IOWA STREET	OHIO STREET	6,267	12	2022	\$ 43,218
GLNWD::W ST::20	IOWA STREET	LEE COURT	VIRGINIA AVENUE	18,386	10	2022	\$ 126,798
GLNWD::WBSH AVE::20	WABASH AVENUE	MAIN STREET	LOTTA STREET	4,996	9	2022	\$ 34,455
GLNWD::WBSH AVE::40	WABASH AVENUE	ROSE STREET	CENTER STREET	6,825	17	2022	\$ 47,070
GLNWD::WLLW LN::30	WILLOW LANE	BIRCH DRIVE	TULIP DRIVE	7,111	13	2022	\$ 49,040
GLNWD::WLNT AVE::10	WALNUT AVENUE	192ND STREET	191ST PLACE	20,261	51	2022	\$ 31,154
GLNWD::WLNT AVE::20	WALNUT AVENUE	191ST PLACE	GLENWOOD LANSING ROAD	5,192	54	2022	\$ 6,743
GLNWD::191ST PL::30	191ST PLACE	HICKORY AVENUE	WALNUT AVENUE	7,737	51	2023	\$ 12,012
GLNWD::192ND PL::10	192ND PLACE	AVALON AVENUE	DORCHESTER AVENUE	19,865	3	2023	\$ 141,107
GLNWD::193RD ST::20	193RD STREET	MINERVA AVENUE	DORCHESTER AVENUE	31,102	3	2023	\$ 220,927
GLNWD::BHRDT AVE::10	EBERHARDT AVENUE	GLENWOOD DYER ROAD	END	5,864	54	2023	\$ 7,661
GLNWD::BLKSTN AVE::10	BLACKSTONE AVENUE	194TH PLACE	192ND STREET	37,848	4	2023	\$ 268,841
GLNWD::BRCH DR::10	BIRCH DRIVE	CEDAR LANE	NORTH OAK LANE	6,810	4	2023	\$ 48,376
GLNWD::BRCH DR::30	BIRCH DRIVE	WILLOW LANE	HICKORY LANE	13,042	1	2023	\$ 92,638
GLNWD::CDR LN::40	CEDAR LANE	BIRCH DRIVE	MAPLE DRIVE	22,144	3	2023	\$ 157,295
GLNWD::CHMPLN AVE::30	CHAMPLAIN AVENUE	191ST PLACE	GLENWOOD LANSING ROAD	5,348	52	2023	\$ 7,864

Pavement ID	Road Name	From	To	Area	PCI	Year	Cost
GLNWD::CLRK ST::70	CLARK STREET	WILLOW LANE	SPRUCE LANE	8,567	2	2023	\$ 60,851
GLNWD::CMPBL AVE::20	CAMPBELL AVENUE	ROSE STREET	SCHOOL STREET	19,453	3	2023	\$ 138,182
GLNWD::CNTR ST::100	CENTER STREET	ELM LANE	PINE LANE	10,259	50	2023	\$ 16,770
GLNWD::CNTR ST::150	CENTER STREET	HICKORY LANE	COTTAGE GROVE AVENUE	21,968	53	2023	\$ 30,502
GLNWD::CNTR ST::60	CENTER STREET	YOUNG STREET	CEDAR LANE	13,814	2	2023	\$ 98,123
GLNWD::CNTR ST::70	CENTER STREET	CEDAR LANE	CEDAR LANE	5,033	54	2023	\$ 6,576
GLNWD::FTZHNRY DR::10	FITZHENRY DRIVE	BRUCE LANE	CHERRY DRIVE	26,572	4	2023	\$ 188,745
GLNWD::H ST::10	OHIO STREET	ILLINOIS AVENUE	VIRGINIA AVENUE	23,243	1	2023	\$ 165,099
GLNWD::LM LN::20	ELM LANE	CENTER STREET	TULIP DRIVE	22,448	1	2023	\$ 159,451
GLNWD::NVD ST::20	NEVADA STREET	ARIZONA AVE	VIRGINIA AVENUE	15,810	3	2023	\$ 112,302
GLNWD::PN LN::10	PINE LANE	MULBERRY DRIVE	CENTER STREET	7,357	4	2023	\$ 52,258
GLNWD::RHDS AVE::10	RHODES AVENUE	START	GLENWOOD LANSING ROAD	6,706	53	2023	\$ 9,312
GLNWD::RS ST::40	ROSE STREET	YOUNG STREET	CEDAR LANE	10,616	1	2023	\$ 75,404
GLNWD::RS ST::50	ROSE STREET	CEDAR LANE	SOUTH OAK LANE	14,422	1	2023	\$ 102,446
GLNWD::RS ST::70	ROSE STREET	ELM LANE	CHESTNUT LANE	16,830	3	2023	\$ 119,545
GLNWD::SNST DR::10	SUNSET DRIVE	BRUCE LANE	CARROLL PARKWAY	41,655	2	2023	\$ 295,881
GLNWD::TLP DR::20	TULIP DRIVE	CHESTNUT LANE	SYCAMORE LANE	7,500	4	2023	\$ 53,277
GLNWD::TLP DR::40	TULIP DRIVE	WILLOW LANE	WALNUT LANE	21,925	1	2023	\$ 155,736
GLNWD::WLNT LN::20	WALNUT LANE	BIRCH DRIVE	TULIP DRIVE	6,934	4	2023	\$ 49,254
GLNWD::191ST PL::100	191ST PLACE	BLACKSTONE AVENUE	HARPER AVENUE	7,025	0	2024	\$ 51,399
GLNWD::191ST PL::60	191ST PLACE	GREENWOOD AVENUE	UNIVERSITY AVENUE	9,295	0	2024	\$ 68,004
GLNWD::191ST PL::70	191ST PLACE	UNIVERSITY AVENUE	MINERVA AVENUE	7,849	0	2024	\$ 57,427
GLNWD::193RD PL::20	193RD PLACE	MINERVA AVENUE	DORCHESTER AVENUE	34,191	50	2024	\$ 56,497
GLNWD::193RD PL::30	193RD PLACE	DORCHESTER AVENUE	DANTE AVENUE	7,675	52	2024	\$ 11,384
GLNWD::194TH PL::10	194TH PLACE	DANTE AVENUE	BLACKSTONE AVENUE	6,493	0	2024	\$ 47,502
GLNWD::194TH ST::20	194TH STREET	MARYLAND AVENUE	MINERVA AVENUE	55,803	0	2024	\$ 408,274
GLNWD::CDR LN::30	CEDAR LANE	CENTER STREET	BIRCH DRIVE	7,948	0	2024	\$ 58,147
GLNWD::CLRK ST::10	CLARK STREET	YOUNG STREET	PICKENS STREET	8,206	0	2024	\$ 60,040
GLNWD::CMPBL AVE::30	CAMPBELL AVENUE	SCHOOL STREET	MERRILL STREET	12,158	0	2024	\$ 88,950
GLNWD::CNTR ST::10	CENTER STREET	MAIN STREET	STATE STREET	4,673	0	2024	\$ 34,192
GLNWD::CNTR ST::120	CENTER STREET	SYCAMORE LANE	WILLOW LANE	10,451	54	2024	\$ 13,737
GLNWD::CNTR ST::20	CENTER STREET	STATE STREET	WABASH AVENUE	4,998	0	2024	\$ 36,567
GLNWD::CNTR ST::30	CENTER STREET	WABASH AVENUE	WABASH AVENUE	2,103	0	2024	\$ 15,387
GLNWD::CNTR ST::40	CENTER STREET	WABASH AVENUE	END	4,582	0	2024	\$ 33,524
GLNWD::CNTR ST::80	CENTER STREET	CEDAR LANE	MULBERRY DRIVE	4,917	51	2024	\$ 7,709
GLNWD::CNTR ST::90	CENTER STREET	MULBERRY DRIVE	ELM LANE	15,355	52	2024	\$ 22,777
GLNWD::GLNWD AVE::10	GLENWOOD AVENUE	MAIN STREET	OAK STREET	20,006	54	2024	\$ 26,297
GLNWD::GLNWD AVE::30	GLENWOOD AVENUE	SCHOOL STREET	STATE STREET	10,159	0	2024	\$ 74,328
GLNWD::GRNWD AVE::10	GREENWOOD AVENUE	192ND STREET	191ST PLACE	18,118	0	2024	\$ 132,554
GLNWD::GY CT::10	GAY COURT	187TH STREET	WESTWOOD DRIVE	6,832	0	2024	\$ 49,988
GLNWD::GY CT::20	GAY COURT	WESTWOOD DRIVE	TERRACE DRIVE	6,816	0	2024	\$ 49,868
GLNWD::GY CT::30	GAY COURT	TERRACE DRIVE	RAINBOW DRIVE	6,604	0	2024	\$ 48,319
GLNWD::HCKRY LN::10	HICKORY LANE	CENTER STREET	BIRCH DRIVE	8,162	0	2024	\$ 59,714
GLNWD::HRPR AVE::20	HARPER AVENUE	192ND STREET	191ST PLACE	23,478	0	2024	\$ 171,773
GLNWD::KNNTH CT::10	KENNETH COURT	STRIEFF LANE	MANOR COURT	31,808	49	2024	\$ 57,284
GLNWD::LLNS AVE::30	ILLINOIS AVENUE	WISCONSIN STREET	STRIEFF LANE	26,766	51	2024	\$ 41,965
GLNWD::LLNS AVE::40	ILLINOIS AVENUE	STRIEFF LANE	NEVADA STREET	13,121	53	2024	\$ 18,355
GLNWD::LLS AVE::10	ELLIS AVENUE	192ND STREET	191ST PLACE	18,535	0	2024	\$ 135,607
GLNWD::LM LN::10	ELM LANE	ROSE STREET	MULBERRY DRIVE	7,230	0	2024	\$ 52,894
GLNWD::LNGWD CT::10	LONGWOOD COURT	ARQUILLA DRIVE	END	9,112	0	2024	\$ 66,668
GLNWD::LNGWD DR::10	LONGWOOD DRIVE	STRIEFF LANE	HOLLY COURT	15,254	0	2024	\$ 111,603
GLNWD::MNR CT::20	MANOR COURT	KENNETH COURT	LONGWOOD DRIVE	9,575	0	2024	\$ 70,051
GLNWD::MPL DR::10	MAPLE DRIVE	CEDAR LANE	END	4,173	0	2024	\$ 30,534
GLNWD::MPL DR::20	MAPLE DRIVE	CEDAR LANE	NORTH OAK LANE	7,626	0	2024	\$ 55,790
GLNWD::PN LN::30	PINE LANE	BIRCH DRIVE	TULIP DRIVE	12,628	0	2024	\$ 92,393
GLNWD::RS ST::30	ROSE STREET	NUGENT STREET	CAMPBELL AVENUE	3,694	50	2024	\$ 6,104
GLNWD::SCHL ST::30	SCHOOL STREET	STATE STREET	WABASH AVENUE	7,090	0	2024	\$ 51,873
GLNWD::SPRC LN::10	SPRUCE LANE	CLARK STREET	ROSE COURT	14,196	0	2024	\$ 103,862
GLNWD::STT ST::30	STATE STREET	CENTER STREET	GLENWOOD AVENUE	6,010	0	2024	\$ 43,971
GLNWD::STT ST::50	STATE STREET	SCHOOL STREET	MERRILL STREET	12,340	0	2024	\$ 90,283
GLNWD::TLP DR::10	TULIP DRIVE	ELM LANE	PINE LANE	9,878	0	2024	\$ 72,270

Pavement ID	Road Name	From	To	Area	PCI	Year	Cost
GLNWD::W FRNTG RD::20	WEST FRONTAGE ROAD	WEST FRONTAGE ROAD	GLENWOOD LANSING ROAD	4,450	54	2024	\$ 5,849
GLNWD::YNG ST::20	YOUNG STREET	CLARK STREET	ROSE STREET	8,884	0	2024	\$ 64,996

APPENDIX D – PAVEMENT MAINTENANCE POLICIES AND UNIT COSTS

Table D-1. Recommended Asphalt Pavement Maintenance Policy.

Pavement Distress	Severity	Recommended Maintenance Type	Units
Alligator Cracking	Medium	Patching - AC Deep	SF
Alligator Cracking	High	Patching - AC Deep	SF
Block Cracking	Low	Crack Sealing - AC	FT
Block Cracking	Medium	Crack Sealing - AC	FT
Block Cracking	High	Patching - AC Shallow	SF
Bumps and Sags	Medium	Patching - AC Shallow	SF
Bumps and Sags	High	Patching - AC Deep	SF
Corrugation	Medium	Patching - AC Shallow	SF
Corrugation	High	Patching - AC Deep	SF
Depressions	Medium	Patching - AC Deep	SF
Depressions	High	Patching - AC Deep	SF
Edge Cracking	Low	Crack Sealing - AC	FT
Edge Cracking	Medium	Crack Sealing - AC	FT
Edge Cracking	High	Patching - AC Shallow	SF
Joint Reflection Cracking	Low	Crack Sealing - AC	FT
Joint Reflection Cracking	Medium	Crack Sealing - AC	FT
Joint Reflection Cracking	High	Patching - AC Shallow	SF
Lane/Shoulder Dropoff	Medium	Shoulder leveling	FT
Lane/Shoulder Dropoff	High	Shoulder leveling	FT
Long. and Trans. Cracking	Low	Crack Sealing - AC	FT
Long. and Trans. Cracking	Medium	Crack Sealing - AC	FT
Long. and Trans. Cracking	High	Patching - AC Shallow	SF
Patching and Utility Cuts	High	Patching - AC Deep	SF
Potholes	Low	Patching - AC Deep	SF
Potholes	Medium	Patching - AC Deep	SF
Potholes	High	Patching - AC Deep	SF
Rutting	Medium	Patching - AC Shallow	SF
Rutting	High	Patching - AC Deep	SF
Shoving	Medium	Grinding (Localized)	FT
Shoving	High	Grinding (Localized)	FT
Slippage Cracking	Low	Crack Sealing - AC	FT
Slippage Cracking	Medium	Patching - AC Shallow	SF
Slippage Cracking	High	Patching - AC Shallow	SF
Blow ups	Medium	Patching - PCC Full Depth	SF
Blow ups	High	Patching - PCC Full Depth	SF

Table D-2. Recommended Concrete Pavement Maintenance Policy.

Pavement Distress	Severity	Recommended Maintenance Type	Units
Corner Breaks	Low	Crack Sealing - PCC	FT
Corner Breaks	Medium	Patching - PCC Full Depth	FT
Corner Breaks	High	Patching - PCC Full Depth	SF
Divided (Shattered) Slabs	Low	Crack Sealing - PCC	FT
Divided (Shattered) Slabs	Medium	Slab Replacement - PCC	SF
Divided (Shattered) Slabs	High	Slab Replacement - PCC	SF
Durability (D) Cracking	Medium	Patching - PCC Full Depth	SF
Durability (D) Cracking	High	Slab Replacement - PCC	SF
Faulting	Medium	Grinding (Localized)	FT
Faulting	High	Grinding (Localized)	FT
Joint Seal Damage	Medium	Joint Seal (Localized)	FT
Joint Seal Damage	High	Joint Seal (Localized)	FT
Lane/Shoulder Dropoff	Medium	Shoulder leveling	FT
Lane/Shoulder Dropoff	High	Shoulder leveling	FT
Linear Cracking	Low	Crack Sealing - PCC	FT
Linear Cracking	Medium	Crack Sealing - PCC	FT
Linear Cracking	High	Patching - PCC Partial Depth	SF
Patches, Large	High	Patching - PCC Full Depth	SF
Patches, Small	High	Patching - PCC Partial Depth	SF
Punchouts	Medium	Patching - PCC Full Depth	SF
Punchouts	High	Slab Replacement - PCC	SF
Scaling	High	Slab Replacement - PCC	SF
Corner Spalls	Medium	Patching - PCC Partial Depth	SF
Corner Spalls	High	Patching - PCC Partial Depth	SF
Joint Spalls	Medium	Patching - PCC Partial Depth	SF
Joint Spalls	High	Patching - PCC Partial Depth	SF

Table D-3. Estimate Unit Cost for Maintenance Activities.

Maintenance Type	Est. Unit Cost	Units
Crack Sealing - AC	\$1.00	FT
Joint Seal - Silicon	\$2.75	FT
Crack Sealing - PCC	\$1.50	FT
Grinding (Localized)	\$4.00	FT
Joint Seal (Localized)	\$1.50	FT
Patching - AC Deep	\$11.00	SF
Patching - AC Leveling	\$1.20	SF
Patching - AC Shallow	\$5.50	SF
Patching - PCC Full Depth	\$30.00	SF
Patching - PCC Partial Depth	\$7.00	SF
Shoulder leveling	\$1.20	FT
Slab Replacement - PCC	\$20.00	SF

APPENDIX E – TABULATED PREVENTIVE MAINTENANCE RECOMMENDATIONS

Pavement ID	Road Name	From	To	Area	Distress Type	Density	Maint. Activity	Cost
GLNWD::187TH ST::10	187TH STREET	HALSTED STREET	GAY COURT	12,040	L & T CR	0.5%	Crack Sealing - AC	\$60
GLNWD::187TH ST::10	187TH STREET	HALSTED STREET	GAY COURT	12,040	L & T CR	0.5%	Crack Sealing - AC	\$60
GLNWD::191ST PL::30	191ST PLACE	HICKORY AVENUE	WALNUT AVENUE	7,737	L & T CR	1.1%	Crack Sealing - AC	\$87
GLNWD::191ST PL::30	191ST PLACE	HICKORY AVENUE	WALNUT AVENUE	7,737	ALLIGATOR CR	2.8%	Crack Sealing - AC	\$85
GLNWD::191ST PL::30	191ST PLACE	HICKORY AVENUE	WALNUT AVENUE	7,737	L & T CR	4.5%	Crack Sealing - AC	\$351
GLNWD::192ND ST::90	192ND STREET	193RD STREET	INGLESIDE AVENUE	7,316	BLOCK CR	22.0%	Crack Sealing - AC	\$489
GLNWD::192ND ST::90	192ND STREET	193RD STREET	INGLESIDE AVENUE	7,316	ALLIGATOR CR	0.8%	Crack Sealing - AC	\$28
GLNWD::192ND ST::90	192ND STREET	193RD STREET	INGLESIDE AVENUE	7,316	L & T CR	7.8%	Crack Sealing - AC	\$568
GLNWD::192ND ST::90	192ND STREET	193RD STREET	INGLESIDE AVENUE	7,316	L & T CR	0.5%	Crack Sealing - AC	\$33
GLNWD::193RD PL::10	193RD PLACE	DREXEL AVENUE	MINERVA AVENUE	41,752	ALLIGATOR CR	1.1%	Crack Sealing - AC	\$164
GLNWD::193RD PL::10	193RD PLACE	DREXEL AVENUE	MINERVA AVENUE	41,752	L & T CR	2.6%	Crack Sealing - AC	\$1,084
GLNWD::193RD PL::10	193RD PLACE	DREXEL AVENUE	MINERVA AVENUE	41,752	EDGE CR	0.1%	Crack Sealing - AC	\$48
GLNWD::193RD PL::10	193RD PLACE	DREXEL AVENUE	MINERVA AVENUE	41,752	L & T CR	2.3%	Crack Sealing - AC	\$968
GLNWD::193RD PL::20	193RD PLACE	MINERVA AVENUE	DORCHESTER AVENUE	34,191	L & T CR	5.5%	Crack Sealing - AC	\$1,880
GLNWD::193RD PL::20	193RD PLACE	MINERVA AVENUE	DORCHESTER AVENUE	34,191	EDGE CR	0.1%	Crack Sealing - AC	\$18
GLNWD::193RD PL::20	193RD PLACE	MINERVA AVENUE	DORCHESTER AVENUE	34,191	ALLIGATOR CR	0.3%	Crack Sealing - AC	\$41
GLNWD::193RD PL::20	193RD PLACE	MINERVA AVENUE	DORCHESTER AVENUE	34,191	L & T CR	1.1%	Crack Sealing - AC	\$370
GLNWD::193RD PL::30	193RD PLACE	DORCHESTER AVENUE	DANTE AVENUE	7,675	L & T CR	5.2%	Crack Sealing - AC	\$400
GLNWD::CHMPLN AVE::10	CHAMPLAIN AVENUE	GLENWOOD DYER ROAD	192ND STREET	11,958	BLOCK CR	12.4%	Crack Sealing - AC	\$453
GLNWD::CHMPLN AVE::10	CHAMPLAIN AVENUE	GLENWOOD DYER ROAD	192ND STREET	11,958	L & T CR	4.6%	Crack Sealing - AC	\$554
GLNWD::CHMPLN AVE::10	CHAMPLAIN AVENUE	GLENWOOD DYER ROAD	192ND STREET	11,958	ALLIGATOR CR	4.1%	Crack Sealing - AC	\$177
GLNWD::CHMPLN AVE::10	CHAMPLAIN AVENUE	GLENWOOD DYER ROAD	192ND STREET	11,958	L & T CR	0.5%	Crack Sealing - AC	\$58
GLNWD::CHMPLN AVE::30	CHAMPLAIN AVENUE	191ST PLACE	GLENWOOD LANSING RO	5,348	L & T CR	1.5%	Crack Sealing - AC	\$80
GLNWD::CHMPLN AVE::30	CHAMPLAIN AVENUE	191ST PLACE	GLENWOOD LANSING RO	5,348	L & T CR	4.5%	Crack Sealing - AC	\$242
GLNWD::CHMPLN AVE::30	CHAMPLAIN AVENUE	191ST PLACE	GLENWOOD LANSING RO	5,348	ALLIGATOR CR	2.0%	Crack Sealing - AC	\$47
GLNWD::CNTR ST::100	CENTER STREET	ELM LANE	PINE LANE	10,259	L & T CR	5.7%	Crack Sealing - AC	\$588
GLNWD::CNTR ST::100	CENTER STREET	ELM LANE	PINE LANE	10,259	EDGE CR	1.3%	Crack Sealing - AC	\$137
GLNWD::CNTR ST::100	CENTER STREET	ELM LANE	PINE LANE	10,259	L & T CR	0.7%	Crack Sealing - AC	\$69
GLNWD::CNTR ST::100	CENTER STREET	ELM LANE	PINE LANE	10,259	ALLIGATOR CR	0.7%	Crack Sealing - AC	\$35
GLNWD::CNTR ST::120	CENTER STREET	SYCAMORE LANE	WILLOW LANE	10,451	L & T CR	4.8%	Crack Sealing - AC	\$501
GLNWD::CNTR ST::120	CENTER STREET	SYCAMORE LANE	WILLOW LANE	10,451	L & T CR	0.3%	Crack Sealing - AC	\$33
GLNWD::CNTR ST::130	CENTER STREET	WILLOW LANE	SPRUCE LANE	11,133	L & T CR	3.0%	Crack Sealing - AC	\$334
GLNWD::CNTR ST::140	CENTER STREET	SPRUCE LANE	HICKORY LANE	5,316	L & T CR	2.0%	Crack Sealing - AC	\$108
GLNWD::CNTR ST::150	CENTER STREET	HICKORY LANE	COTTAGE GROVE AVENUE	21,968	ALLIGATOR CR	1.0%	Crack Sealing - AC	\$89
GLNWD::CNTR ST::150	CENTER STREET	HICKORY LANE	COTTAGE GROVE AVENUE	21,968	L & T CR	2.1%	Crack Sealing - AC	\$467
GLNWD::WLNT AVE::10	WALNUT AVENUE	192ND STREET	191ST PLACE	20,261	ALLIGATOR CR	5.1%	Crack Sealing - AC	\$354
GLNWD::WLNT AVE::10	WALNUT AVENUE	192ND STREET	191ST PLACE	20,261	L & T CR	8.9%	Crack Sealing - AC	\$1,797
GLNWD::WLNT AVE::10	WALNUT AVENUE	192ND STREET	191ST PLACE	20,261	EDGE CR	0.2%	Crack Sealing - AC	\$49
GLNWD::WLNT AVE::10	WALNUT AVENUE	192ND STREET	191ST PLACE	20,261	L & T CR	0.9%	Crack Sealing - AC	\$175
GLNWD::WLNT AVE::20	WALNUT AVENUE	191ST PLACE	GLENWOOD LANSING RO	5,192	L & T CR	1.5%	Crack Sealing - AC	\$79
GLNWD::WLNT AVE::20	WALNUT AVENUE	191ST PLACE	GLENWOOD LANSING RO	5,192	L & T CR	7.1%	Crack Sealing - AC	\$367
GLNWD::WLNT AVE::20	WALNUT AVENUE	191ST PLACE	GLENWOOD LANSING RO	5,192	ALLIGATOR CR	2.7%	Crack Sealing - AC	\$59
GLNWD::CNTR ST::70	CENTER STREET	CEDAR LANE	CEDAR LANE	5,033	L & T CR	3.1%	Crack Sealing - AC	\$153
GLNWD::CNTR ST::70	CENTER STREET	CEDAR LANE	CEDAR LANE	5,033	L & T CR	4.1%	Crack Sealing - AC	\$204
GLNWD::CNTR ST::80	CENTER STREET	CEDAR LANE	MULBERRY DRIVE	4,917	L & T CR	1.5%	Crack Sealing - AC	\$75

Pavement ID	Road Name	From	To	Area	Distress Type	Density	Maint. Activity	Cost
GLNWD::CNTR ST::80	CENTER STREET	CEDAR LANE	MULBERRY DRIVE	4,917	L & T CR	5.1%	Crack Sealing - AC	\$250
GLNWD::CNTR ST::90	CENTER STREET	MULBERRY DRIVE	ELM LANE	15,355	L & T CR	7.4%	Crack Sealing - AC	\$1,143
GLNWD::DNT AVE::20	DANTE AVENUE	WEST FRONTAGE ROAD	194TH PLACE	11,267	L & T CR	0.6%	Crack Sealing - AC	\$67
GLNWD::DNT AVE::20	DANTE AVENUE	WEST FRONTAGE ROAD	194TH PLACE	11,267	L & T CR	0.3%	Crack Sealing - AC	\$33
GLNWD::DNT AVE::40	DANTE AVENUE	194TH PLACE	193RD PLACE	8,930	L & T CR	0.4%	Crack Sealing - AC	\$33
GLNWD::DNT AVE::50	DANTE AVENUE	193RD PLACE	192ND STREET	31,602	L & T CR	0.1%	Crack Sealing - AC	\$33
GLNWD::DNT AVE::50	DANTE AVENUE	193RD PLACE	192ND STREET	31,602	L & T CR	3.5%	Crack Sealing - AC	\$1,106
GLNWD::DNT AVE::50	DANTE AVENUE	193RD PLACE	192ND STREET	31,602	ALLIGATOR CR	0.0%	Crack Sealing - AC	\$6
GLNWD::DNT AVE::60	DANTE AVENUE	192ND STREET	191ST PLACE	23,205	L & T CR	1.7%	Crack Sealing - AC	\$402
GLNWD::DNT AVE::70	DANTE AVENUE	191ST PLACE	191ST PLACE	4,742	ALLIGATOR CR	0.4%	Crack Sealing - AC	\$13
GLNWD::LTT ST::10	LOTTA STREET	WABASH AVENUE	STATE STREET	2,694	L & T CR	1.0%	Crack Sealing - AC	\$27
GLNWD::MNRV AVE::10	MINERVA AVENUE	GLENWOOD DYER ROAD	194TH STREET	10,562	L & T CR	3.8%	Crack Sealing - AC	\$402
GLNWD::MNRV AVE::10	MINERVA AVENUE	GLENWOOD DYER ROAD	194TH STREET	10,562	ALLIGATOR CR	0.4%	Crack Sealing - AC	\$21
GLNWD::MNRV AVE::20	MINERVA AVENUE	194TH STREET	193RD PLACE	8,988	ALLIGATOR CR	0.3%	Crack Sealing - AC	\$16
GLNWD::MNRV AVE::20	MINERVA AVENUE	194TH STREET	193RD PLACE	8,988	L & T CR	2.2%	Crack Sealing - AC	\$200
GLNWD::DRCHST AVE::10	DORCHESTER AVENUE	193RD PLACE	193RD STREET	8,615	L & T CR	0.7%	Crack Sealing - AC	\$61
GLNWD::DRCHST AVE::30	DORCHESTER AVENUE	192ND PLACE	192ND STREET	9,375	L & T CR	0.3%	Crack Sealing - AC	\$28
GLNWD::DRCHST AVE::30	DORCHESTER AVENUE	192ND PLACE	192ND STREET	9,375	L & T CR	0.3%	Crack Sealing - AC	\$28
GLNWD::DRCHST AVE::30	DORCHESTER AVENUE	192ND PLACE	192ND STREET	9,375	ALLIGATOR CR	0.3%	Crack Sealing - AC	\$15
GLNWD::DRXL AVE::10	DREXEL AVENUE	192ND STREET	193RD PLACE	6,389	L & T CR	1.9%	Crack Sealing - AC	\$124
GLNWD::DRXL AVE::10	DREXEL AVENUE	192ND STREET	193RD PLACE	6,389	ALLIGATOR CR	0.4%	Crack Sealing - AC	\$15
GLNWD::GLNWD AVE::10	GLENWOOD AVENUE	MAIN STREET	OAK STREET	20,006	L & T CR	0.3%	Crack Sealing - AC	\$61
GLNWD::KNNTH CT::10	KENNETH COURT	STRIEFF LANE	MANOR COURT	31,808	L & T CR	1.9%	Crack Sealing - AC	\$613
GLNWD::KNNTH CT::10	KENNETH COURT	STRIEFF LANE	MANOR COURT	31,808	ALLIGATOR CR	2.1%	Crack Sealing - AC	\$239
GLNWD::LLNS AVE::30	ILLINOIS AVENUE	WISCONSIN STREET	STRIEFF LANE	26,766	L & T CR	3.2%	Crack Sealing - AC	\$843
GLNWD::LLNS AVE::30	ILLINOIS AVENUE	WISCONSIN STREET	STRIEFF LANE	26,766	ALLIGATOR CR	0.3%	Crack Sealing - AC	\$40
GLNWD::LLNS AVE::40	ILLINOIS AVENUE	STRIEFF LANE	NEVADA STREET	13,121	EDGE CR	1.1%	Crack Sealing - AC	\$148
GLNWD::LLNS AVE::40	ILLINOIS AVENUE	STRIEFF LANE	NEVADA STREET	13,121	L & T CR	4.8%	Crack Sealing - AC	\$631
GLNWD::LLNS AVE::40	ILLINOIS AVENUE	STRIEFF LANE	NEVADA STREET	13,121	ALLIGATOR CR	0.2%	Crack Sealing - AC	\$18
GLNWD::LLNS AVE::50	ILLINOIS AVENUE	NEVADA STREET	183RD STREET	4,587	EDGE CR	2.6%	Crack Sealing - AC	\$121
GLNWD::LLNS AVE::50	ILLINOIS AVENUE	NEVADA STREET	183RD STREET	4,587	L & T CR	1.5%	Crack Sealing - AC	\$70
GLNWD::MNRV AVE::30	MINERVA AVENUE	193RD PLACE	193RD STREET	9,581	L & T CR	0.7%	Crack Sealing - AC	\$66
GLNWD::MNRV AVE::40	MINERVA AVENUE	193RD STREET	192ND STREET	11,786	L & T CR	3.4%	Crack Sealing - AC	\$401
GLNWD::MNRV AVE::40	MINERVA AVENUE	193RD STREET	192ND STREET	11,786	L & T CR	0.3%	Crack Sealing - AC	\$33
GLNWD::MNRV AVE::50	MINERVA AVENUE	192ND STREET	191ST PLACE	24,155	ALLIGATOR CR	0.6%	Crack Sealing - AC	\$57
GLNWD::MNRV AVE::50	MINERVA AVENUE	192ND STREET	191ST PLACE	24,155	L & T CR	0.1%	Crack Sealing - AC	\$33
GLNWD::MNRV AVE::50	MINERVA AVENUE	192ND STREET	191ST PLACE	24,155	L & T CR	0.1%	Crack Sealing - AC	\$33
GLNWD::MNRV AVE::60	MINERVA AVENUE	191ST PLACE	GLENWOOD LANSING RO	12,024	L & T CR	1.8%	Crack Sealing - AC	\$219
GLNWD::PLSNT DR::20	PLEASANT DRIVE	N PARK DRIVE	STRIEFF LANE	4,781	L & T CR	5.9%	Crack Sealing - AC	\$280
GLNWD::PLSNT DR::20	PLEASANT DRIVE	N PARK DRIVE	STRIEFF LANE	4,781	L & T CR	1.9%	Crack Sealing - AC	\$92
GLNWD::PLSNT DR::20	PLEASANT DRIVE	N PARK DRIVE	STRIEFF LANE	4,781	BLOCK CR	9.8%	Crack Sealing - AC	\$143
GLNWD::PLSNT DR::20	PLEASANT DRIVE	N PARK DRIVE	STRIEFF LANE	4,781	EDGE CR	1.1%	Crack Sealing - AC	\$53
GLNWD::PLSNT DR::20	PLEASANT DRIVE	N PARK DRIVE	STRIEFF LANE	4,781	ALLIGATOR CR	0.3%	Crack Sealing - AC	\$9
GLNWD::PLSNT DR::40	PLEASANT DRIVE	HOLLY COURT	ARQUILLA DRIVE	6,534	ALLIGATOR CR	1.0%	Crack Sealing - AC	\$30
GLNWD::PLSNT DR::40	PLEASANT DRIVE	HOLLY COURT	ARQUILLA DRIVE	6,534	L & T CR	6.5%	Crack Sealing - AC	\$421

Pavement ID	Road Name	From	To	Area	Distress Type	Density	Maint. Activity	Cost
GLNWD::PLSNT DR::40	PLEASANT DRIVE	HOLLY COURT	ARQUILLA DRIVE	6,534	EDGE CR	0.5%	Crack Sealing - AC	\$33
GLNWD::PLSNT DR::40	PLEASANT DRIVE	HOLLY COURT	ARQUILLA DRIVE	6,534	L & T CR	1.8%	Crack Sealing - AC	\$116
GLNWD::RS ST::30	ROSE STREET	NUGENT STREET	CAMPBELL AVENUE	3,694	L & T CR	0.5%	Crack Sealing - AC	\$18
GLNWD::RZ AVE::20	ARIZONA AVENUE	INDIANA AVENUE	NEVADA STREET	7,240	EDGE CR	0.3%	Crack Sealing - AC	\$20
GLNWD::RZ AVE::20	ARIZONA AVENUE	INDIANA AVENUE	NEVADA STREET	7,240	BLOCK CR	23.6%	Crack Sealing - AC	\$521
GLNWD::RZ AVE::20	ARIZONA AVENUE	INDIANA AVENUE	NEVADA STREET	7,240	L & T CR	2.9%	Crack Sealing - AC	\$208
GLNWD::RZ AVE::20	ARIZONA AVENUE	INDIANA AVENUE	NEVADA STREET	7,240	L & T CR	1.3%	Crack Sealing - AC	\$93
GLNWD::RZ AVE::20	ARIZONA AVENUE	INDIANA AVENUE	NEVADA STREET	7,240	ALLIGATOR CR	0.4%	Crack Sealing - AC	\$17
GLNWD::STRFF LN::30	STRIEFF LANE	VIRGINIA AVENUE	HALSTED STREET	6,036	L & T CR	6.1%	Crack Sealing - AC	\$365
GLNWD::STRFF LN::30	STRIEFF LANE	VIRGINIA AVENUE	HALSTED STREET	6,036	ALLIGATOR CR	3.7%	Crack Sealing - AC	\$87
GLNWD::NGLSD AVE::10	INGLESIDE AVENUE	192ND STREET	191ST PLACE	21,344	ALLIGATOR CR	0.1%	Crack Sealing - AC	\$16
GLNWD::RHDS AVE::10	RHODES AVENUE	START	GLENWOOD LANSING RO	6,706	L & T CR	0.3%	Crack Sealing - AC	\$19
GLNWD::RQLL DR::10	ARQUILLA DRIVE	HALSTED STREET	ROBERTS DRIVE	39,008	L & T CR	5.7%	Crack Sealing - AC	\$2,219
GLNWD::RQLL DR::10	ARQUILLA DRIVE	HALSTED STREET	ROBERTS DRIVE	39,008	ALLIGATOR CR	0.3%	Crack Sealing - AC	\$46
GLNWD::RQLL DR::10	ARQUILLA DRIVE	HALSTED STREET	ROBERTS DRIVE	39,008	L & T CR	3.3%	Crack Sealing - AC	\$1,277
GLNWD::RQLL DR::20	ARQUILLA DRIVE	ROBERTS DRIVE	BRUCE LANE	5,522	L & T CR	2.0%	Crack Sealing - AC	\$111
GLNWD::RQLL DR::20	ARQUILLA DRIVE	ROBERTS DRIVE	BRUCE LANE	5,522	EDGE CR	0.8%	Crack Sealing - AC	\$47
GLNWD::RQLL DR::20	ARQUILLA DRIVE	ROBERTS DRIVE	BRUCE LANE	5,522	L & T CR	0.5%	Crack Sealing - AC	\$28
GLNWD::RQLL DR::20	ARQUILLA DRIVE	ROBERTS DRIVE	BRUCE LANE	5,522	BLOCK CR	38.2%	Crack Sealing - AC	\$642
GLNWD::RQLL DR::20	ARQUILLA DRIVE	ROBERTS DRIVE	BRUCE LANE	5,522	ALLIGATOR CR	1.0%	Crack Sealing - AC	\$27
GLNWD::RQLL DR::50	ARQUILLA DRIVE	CHERRY DRIVE	PLEASANT DRIVE	42,756	L & T CR	2.5%	Crack Sealing - AC	\$1,058
GLNWD::RQLL DR::50	ARQUILLA DRIVE	CHERRY DRIVE	PLEASANT DRIVE	42,756	ALLIGATOR CR	1.0%	Crack Sealing - AC	\$157
GLNWD::RQLL DR::50	ARQUILLA DRIVE	CHERRY DRIVE	PLEASANT DRIVE	42,756	EDGE CR	0.4%	Crack Sealing - AC	\$152
GLNWD::RQLL DR::50	ARQUILLA DRIVE	CHERRY DRIVE	PLEASANT DRIVE	42,756	L & T CR	7.3%	Crack Sealing - AC	\$3,133
GLNWD::LLNS AVE::20	ILLINOIS AVENUE	OHIO STREET	WISCONSIN STREET	7,962	LINEAR CR	23.8%	Crack Sealing - PCC	\$228
GLNWD::LLNS AVE::20	ILLINOIS AVENUE	OHIO STREET	WISCONSIN STREET	7,962	LINEAR CR	9.5%	Crack Sealing - PCC	\$91
GLNWD::LLNS AVE::20	ILLINOIS AVENUE	OHIO STREET	WISCONSIN STREET	7,962	DIVIDED SLAB	4.8%	Crack Sealing - PCC	\$91
GLNWD::VRGN AVE::40	VIRGINIA AVENUE	STRIEFF LANE	INDIANA AVENUE	27,218	DIVIDED SLAB	4.2%	Crack Sealing - PCC	\$276
GLNWD::VRGN AVE::40	VIRGINIA AVENUE	STRIEFF LANE	INDIANA AVENUE	27,218	CORNER BREAK	1.4%	Crack Sealing - PCC	\$30
GLNWD::VRGN AVE::40	VIRGINIA AVENUE	STRIEFF LANE	INDIANA AVENUE	27,218	LINEAR CR	5.6%	Crack Sealing - PCC	\$184
GLNWD::VRGN AVE::40	VIRGINIA AVENUE	STRIEFF LANE	INDIANA AVENUE	27,218	LINEAR CR	9.9%	Crack Sealing - PCC	\$322
GLNWD::VRGN AVE::50	VIRGINIA AVENUE	INDIANA AVENUE	NEVADA STREET	6,776	LINEAR CR	5.6%	Crack Sealing - PCC	\$45
GLNWD::LLNS AVE::20	ILLINOIS AVENUE	OHIO STREET	WISCONSIN STREET	7,962	JT SEAL DMG	100.0%	Joint Seal (Localized)	\$1,357
GLNWD::VRGN AVE::40	VIRGINIA AVENUE	STRIEFF LANE	INDIANA AVENUE	27,218	JT SEAL DMG	100.0%	Joint Seal (Localized)	\$4,723
GLNWD::VRGN AVE::50	VIRGINIA AVENUE	INDIANA AVENUE	NEVADA STREET	6,776	JT SEAL DMG	100.0%	Joint Seal (Localized)	\$1,150
GLNWD::192ND ST::90	192ND STREET	193RD STREET	INGLESIDE AVENUE	7,316	ALLIGATOR CR	0.2%	Patching - AC Deep	\$406
GLNWD::193RD PL::10	193RD PLACE	DREXEL AVENUE	MINERVA AVENUE	41,752	ALLIGATOR CR	0.5%	Patching - AC Deep	\$3,083
GLNWD::BHRDT AVE::10	EBERHARDT AVENUE	GLENWOOD DYER ROAD	END	5,864	RUTTING	0.1%	Patching - AC Deep	\$63
GLNWD::CNTR ST::100	CENTER STREET	ELM LANE	PINE LANE	10,259	ALLIGATOR CR	0.5%	Patching - AC Deep	\$930
GLNWD::CNTR ST::150	CENTER STREET	HICKORY LANE	COTTAGE GROVE AVENUE	21,968	ALLIGATOR CR	0.7%	Patching - AC Deep	\$2,160
GLNWD::LTT ST::10	LOTTA STREET	WABASH AVENUE	STATE STREET	2,694	ALLIGATOR CR	1.8%	Patching - AC Deep	\$894
GLNWD::KNNTH CT::10	KENNETH COURT	STRIEFF LANE	MANOR COURT	31,808	ALLIGATOR CR	0.1%	Patching - AC Deep	\$611
GLNWD::LLNS AVE::30	ILLINOIS AVENUE	WISCONSIN STREET	STRIEFF LANE	26,766	ALLIGATOR CR	0.3%	Patching - AC Deep	\$1,322
GLNWD::PLSNT DR::20	PLEASANT DRIVE	N PARK DRIVE	STRIEFF LANE	4,781	ALLIGATOR CR	0.1%	Patching - AC Deep	\$182
GLNWD::PLSNT DR::40	PLEASANT DRIVE	HOLLY COURT	ARQUILLA DRIVE	6,534	ALLIGATOR CR	0.3%	Patching - AC Deep	\$449

Pavement ID	Road Name	From	To	Area	Distress Type	Density	Maint. Activity	Cost
GLNWD::RS ST::30	ROSE STREET	NUGENT STREET	CAMPBELL AVENUE	3,694	ALLIGATOR CR	0.4%	Patching - AC Deep	\$386
GLNWD::RZ AVE::20	ARIZONA AVENUE	INDIANA AVENUE	NEVADA STREET	7,240	ALLIGATOR CR	0.8%	Patching - AC Deep	\$1,009
GLNWD::N PK DR::10	N PARK DRIVE	PLEASANT DRIVE	PLEASANT DRIVE	32,336	ALLIGATOR CR	0.0%	Patching - AC Deep	\$150
GLNWD::NGLSD AVE::10	INGLESIDE AVENUE	192ND STREET	191ST PLACE	21,344	ALLIGATOR CR	0.2%	Patching - AC Deep	\$695
GLNWD::RHDS AVE::10	RHODES AVENUE	START	GLENWOOD LANSING RO	6,706	ALLIGATOR CR	0.3%	Patching - AC Deep	\$477
GLNWD::RQLL DR::10	ARQUILLA DRIVE	HALSTED STREET	ROBERTS DRIVE	39,008	ALLIGATOR CR	0.1%	Patching - AC Deep	\$974
GLNWD::RQLL DR::50	ARQUILLA DRIVE	CHERRY DRIVE	PLEASANT DRIVE	42,756	ALLIGATOR CR	0.5%	Patching - AC Deep	\$2,809
GLNWD::RQLL DR::50	ARQUILLA DRIVE	CHERRY DRIVE	PLEASANT DRIVE	42,756	RUTTING	0.0%	Patching - AC Deep	\$109
GLNWD::BHRDT AVE::10	EBERHARDT AVENUE	GLENWOOD DYER ROAD	END	5,864	RUTTING	0.7%	Patching - AC Shallow	\$221
GLNWD::W FRNTG RD::20	WEST FRONTAGE ROAD	WEST FRONTAGE ROAD	GLENWOOD LANSING RO	4,450	BLOCK CR	2.7%	Patching - AC Shallow	\$649
GLNWD::GLNWD AVE::10	GLENWOOD AVENUE	MAIN STREET	OAK STREET	20,006	RUTTING	0.1%	Patching - AC Shallow	\$106
GLNWD::LLNS AVE::30	ILLINOIS AVENUE	WISCONSIN STREET	STRIEFF LANE	26,766	RUTTING	0.0%	Patching - AC Shallow	\$41
GLNWD::RHDS AVE::10	RHODES AVENUE	START	GLENWOOD LANSING RO	6,706	L & T CR	0.3%	Patching - AC Shallow	\$344
GLNWD::LLNS AVE::20	ILLINOIS AVENUE	OHIO STREET	WISCONSIN STREET	7,962	CORNER BREAK	14.3%	Patching - PCC Full Depth	\$7,058
GLNWD::VRGN AVE::40	VIRGINIA AVENUE	STRIEFF LANE	INDIANA AVENUE	27,218	CORNER BREAK	2.8%	Patching - PCC Full Depth	\$4,748
GLNWD::VRGN AVE::40	VIRGINIA AVENUE	STRIEFF LANE	INDIANA AVENUE	27,218	DIVIDED SLAB	2.8%	Slab Replacement - PCC	\$15,317

APPENDIX F – PAVEMENT INVENTORY AND CONDITION TABULAR DATA

Pavement ID	Road Name	From	To	Surface	Rank	Length (FT)	Width (FT)	Area (SF)	PCI	IRI
GLNWD::187TH ST::10	187TH STREET	HALSTED STREET	GAY COURT	Asphalt	S	215	56	12,040	83	421
GLNWD::187TH ST::20	187TH STREET	GAY COURT	RAINBOW DRIVE	Asphalt	S	1,187	29	34,430	32	203
GLNWD::187TH ST::30	187TH STREET	RAINBOW DRIVE	PLEASANT DRIVE	Asphalt	S	287	29	8,322	25	396
GLNWD::187TH ST::40	187TH STREET	PLEASANT DRIVE	GLENWOOD ROAD	Asphalt	S	1,636	29	47,438	44	207
GLNWD::191ST PL::10	191ST PLACE	CHAMPLAIN AVENUE	WILLOW AVENUE	Asphalt	S	258	29	7,475	30	195
GLNWD::191ST PL::100	191ST PLACE	BLACKSTONE AVENUE	HARPER AVENUE	Asphalt	S	251	28	7,025	17	374
GLNWD::191ST PL::20	191ST PLACE	WILLOW AVENUE	HICKORY AVENUE	Asphalt	S	265	29	7,674	51	217
GLNWD::191ST PL::30	191ST PLACE	HICKORY AVENUE	WALNUT AVENUE	Asphalt	S	267	29	7,737	71	277
GLNWD::191ST PL::40	191ST PLACE	INGLESIDE AVENUE	ELLIS AVENUE	Asphalt	S	258	33	8,508	63	233
GLNWD::191ST PL::50	191ST PLACE	ELLIS AVENUE	GREENWOOD AVENUE	Asphalt	S	263	33	8,672	45	443
GLNWD::191ST PL::60	191ST PLACE	GREENWOOD AVENUE	UNIVERSITY AVENUE	Asphalt	S	282	33	9,295	8	233
GLNWD::191ST PL::70	191ST PLACE	UNIVERSITY AVENUE	MINERVA AVENUE	Asphalt	S	238	33	7,849	21	156
GLNWD::191ST PL::80	191ST PLACE	DORCHESTER AVENUE	DANTE AVENUE	Asphalt	S	315	28	8,830	55	399
GLNWD::191ST PL::90	191ST PLACE	DANTE AVENUE	BLACKSTONE AVENUE	Asphalt	S	263	28	7,364	58	603
GLNWD::192ND PL::10	192ND PLACE	AVALON AVENUE	DORCHESTER AVENUE	Asphalt	S	709	28	19,865	23	223
GLNWD::192ND ST::10	192ND STREET	CHAMPLAIN AVENUE	WILLOW AVENUE	Asphalt	S	255	29	7,409	63	263
GLNWD::192ND ST::100	192ND STREET	INGLESIDE AVENUE	ELLIS AVENUE	Asphalt	S	265	33	8,758	52	128
GLNWD::192ND ST::110	192ND STREET	ELLIS AVENUE	GREENWOOD AVENUE	Asphalt	S	263	33	8,681	64	139
GLNWD::192ND ST::120	192ND STREET	GREENWOOD AVENUE	UNIVERSITY AVENUE	Asphalt	S	235	33	7,743	56	141
GLNWD::192ND ST::130	192ND STREET	UNIVERSITY AVENUE	MINERVA AVENUE	Asphalt	S	306	33	10,108	34	214
GLNWD::192ND ST::140	192ND STREET	MINERVA AVENUE	AVALON AVENUE	Asphalt	S	275	33	9,075	56	401
GLNWD::192ND ST::150	192ND STREET	AVALON AVENUE	DORCHESTER AVENUE	Asphalt	S	693	33	22,877	46	184
GLNWD::192ND ST::160	192ND STREET	DORCHESTER AVENUE	DANTE AVENUE	Asphalt	S	272	33	8,981	47	281
GLNWD::192ND ST::170	192ND STREET	DANTE AVENUE	BLACKSTONE AVENUE	Asphalt	S	268	33	8,860	60	246
GLNWD::192ND ST::180	192ND STREET	BLACKSTONE AVENUE	HARPER AVENUE	Asphalt	S	263	33	8,679	53	225
GLNWD::192ND ST::20	192ND STREET	WILLOW AVENUE	HICKORY RIDGE	Asphalt	S	118	29	3,419	63	136
GLNWD::192ND ST::30	192ND STREET	HICKORY RIDGE	HICKORY AVENUE	Asphalt	S	148	29	4,280	59	106
GLNWD::192ND ST::40	192ND STREET	HICKORY AVENUE	WALNUT AVENUE	Asphalt	S	267	29	7,734	61	152
GLNWD::192ND ST::50	192ND STREET	WALNUT AVENUE	COTTAGE GROVE AVENUE	Asphalt	S	180	29	5,221	51	266
GLNWD::192ND ST::60	192ND STREET	COTTAGE GROVE AVENUE	MARYLAND AVENUE	Asphalt	S	224	33	7,398	52	488
GLNWD::192ND ST::70	192ND STREET	MARYLAND AVENUE	DREXEL AVENUE	Asphalt	S	236	33	7,788	49	206
GLNWD::192ND ST::80	192ND STREET	DREXEL AVENUE	193RD STREET	Asphalt	S	272	33	8,983	63	313
GLNWD::192ND ST::90	192ND STREET	193RD STREET	INGLESIDE AVENUE	Asphalt	S	222	33	7,316	67	214
GLNWD::193RD PL::10	193RD PLACE	DREXEL AVENUE	MINERVA AVENUE	Asphalt	S	1,491	28	41,752	69	125
GLNWD::193RD PL::20	193RD PLACE	MINERVA AVENUE	DORCHESTER AVENUE	Asphalt	S	1,221	28	34,191	76	177
GLNWD::193RD PL::30	193RD PLACE	DORCHESTER AVENUE	DANTE AVENUE	Asphalt	S	274	28	7,675	78	235
GLNWD::193RD ST::10	193RD STREET	192ND STREET	MINERVA AVENUE	Asphalt	S	1,353	28	37,878	37	243
GLNWD::193RD ST::20	193RD STREET	MINERVA AVENUE	DORCHESTER AVENUE	Asphalt	S	1,111	28	31,102	23	209
GLNWD::194TH PL::10	194TH PLACE	DANTE AVENUE	BLACKSTONE AVENUE	Asphalt	S	232	28	6,493	17	392
GLNWD::194TH PL::20	194TH PLACE	BLACKSTONE AVENUE	HARPER AVENUE	Asphalt	S	163	28	4,573	81	333
GLNWD::194TH ST::10	194TH STREET	GLENWOOD ROAD	FOREST AVENUE	Asphalt	S	1,589	26	41,323	50	176
GLNWD::194TH ST::20	194TH STREET	MARYLAND AVENUE	MINERVA AVENUE	Asphalt	S	1,691	33	55,803	18	249
GLNWD::194TH ST::30	194TH STREET	MINERVA AVENUE	DANTE AVENUE	Asphalt	S	1,578	33	52,076	50	190

Pavement ID	Road Name	From	To	Surface	Rank	Length (FT)	Width (FT)	Area (SF)	PCI	IRI
GLNWD::195TH ST::10	195TH STREET	GLENWOOD ROAD	FOREST AVENUE	Asphalt	S	1,869	24	44,852	43	160
GLNWD::195TH ST::20	195TH STREET	STATE STREET	GLENWOODIE DRIVE	Asphalt	S	632	105	66,379	52	492
GLNWD::BHRDT AVE::10	EBERHARDT AVENUE	GLENWOOD DYER ROAD	END	Asphalt	S	367	16	5,864	74	528
GLNWD::BLKSTN AVE::10	BLACKSTONE AVENUE	194TH PLACE	192ND STREET	Asphalt	S	1,352	28	37,848	24	273
GLNWD::BLKSTN AVE::20	BLACKSTONE AVENUE	192ND STREET	191ST PLACE	Asphalt	S	703	28	19,695	26	252
GLNWD::BLKSTN AVE::30	BLACKSTONE AVENUE	191ST PLACE	191ST PLACE	Asphalt	S	131	28	3,660	33	284
GLNWD::BRC LN::10	BRUCE LANE	ARQUILLA DRIVE	FITZHENRY DRIVE	Asphalt	S	299	29	8,680	29	328
GLNWD::BRC LN::20	BRUCE LANE	FITZHENRY DRIVE	PALM DRIVE	Asphalt	S	289	29	8,382	32	262
GLNWD::BRC LN::30	BRUCE LANE	PALM DRIVE	SUNSET DRIVE	Asphalt	S	263	29	7,630	25	277
GLNWD::BRCH DR::10	BIRCH DRIVE	CEDAR LANE	NORTH OAK LANE	Asphalt	S	262	26	6,810	24	345
GLNWD::BRCH DR::20	BIRCH DRIVE	PINE LANE	CHESTNUT LANE	Asphalt	S	504	26	13,104	28	310
GLNWD::BRCH DR::30	BIRCH DRIVE	WILLOW LANE	HICKORY LANE	Asphalt	S	502	26	13,042	21	393
GLNWD::BRCH DR::40	BIRCH DRIVE	HICKORY LANE	WALNUT LANE	Asphalt	S	328	26	8,521	52	268
GLNWD::CDR LN::10	CEDAR LANE	CLARK STREET	ROSE STREET	Asphalt	S	336	26	8,731	29	385
GLNWD::CDR LN::20	CEDAR LANE	ROSE STREET	CENTER STREET	Asphalt	S	365	26	9,501	30	467
GLNWD::CDR LN::30	CEDAR LANE	CENTER STREET	BIRCH DRIVE	Asphalt	S	306	26	7,948	16	309
GLNWD::CDR LN::40	CEDAR LANE	BIRCH DRIVE	MAPLE DRIVE	Asphalt	S	852	26	22,144	23	223
GLNWD::CHMPLN AVE::10	CHAMPLAIN AVENUE	GLENWOOD DYER ROAD	192ND STREET	Asphalt	S	412	29	11,958	66	213
GLNWD::CHMPLN AVE::20	CHAMPLAIN AVENUE	192ND STREET	191ST PLACE	Asphalt	S	706	29	20,477	58	120
GLNWD::CHMPLN AVE::30	CHAMPLAIN AVENUE	191ST PLACE	GLENWOOD LANSING ROAD	Asphalt	S	184	29	5,348	72	204
GLNWD::CHRY DR::10	CHERRY DRIVE	ARQUILLA DRIVE	N PARK DRIVE	Asphalt	S	271	23	6,237	40	269
GLNWD::CHRY DR::20	CHERRY DRIVE	N PARK DRIVE	PLEASANT DRIVE	Asphalt	S	278	23	6,401	33	233
GLNWD::CHRY DR::30	CHERRY DRIVE	PLEASANT DRIVE	FITZHENRY DRIVE	Asphalt	S	425	23	9,776	51	226
GLNWD::CHRY DR::40	CHERRY DRIVE	FITZHENRY DRIVE	PALM DRIVE	Asphalt	S	281	23	6,470	57	447
GLNWD::CHSTNT CT::10	CHESTNUT COURT	MULBERRY DRIVE	END	Asphalt	S	174	26	4,518	25	501
GLNWD::CHSTNT LN::10	CHESTNUT LANE	CLARK STREET	ROSE STREET	Asphalt	S	292	26	7,599	49	504
GLNWD::CHSTNT LN::20	CHESTNUT LANE	BIRCH DRIVE	TULIP DRIVE	Asphalt	S	376	26	9,781	53	256
GLNWD::CHSTNT LN::30	CHESTNUT LANE	TULIP DRIVE	MAPLE DRIVE	Asphalt	S	337	26	8,758	54	269
GLNWD::CLRK ST::10	CLARK STREET	YOUNG STREET	PICKENS STREET	Asphalt	S	391	21	8,206	7	708
GLNWD::CLRK ST::20	CLARK STREET	PICKENS STREET	CEDAR LANE	Asphalt	S	199	21	4,176	42	319
GLNWD::CLRK ST::30	CLARK STREET	CEDAR LANE	SOUTH OAK LANE	Asphalt	S	516	26	13,405	38	186
GLNWD::CLRK ST::40	CLARK STREET	CHESTNUT LANE	SYCAMORE LANE	Asphalt	S	381	26	9,900	31	388
GLNWD::CLRK ST::50	CLARK STREET	SYCAMORE LANE	MAGNOLIA LANE	Asphalt	S	114	26	2,975	48	436
GLNWD::CLRK ST::60	CLARK STREET	MAGNOLIA LANE	WILLOW LANE	Asphalt	S	206	26	5,351	54	385
GLNWD::CLRK ST::70	CLARK STREET	WILLOW LANE	SPRUCE LANE	Asphalt	S	329	26	8,567	22	509
GLNWD::CMPBLL AVE::10	CAMPBELL AVENUE	JANE STREET	MAIN STREET	Asphalt	S	276	18	4,973	39	376
GLNWD::CMPBLL AVE::20	CAMPBELL AVENUE	ROSE STREET	SCHOOL STREET	Asphalt	S	1,024	19	19,453	23	326
GLNWD::CMPBLL AVE::30	CAMPBELL AVENUE	SCHOOL STREET	MERRILL STREET	Asphalt	S	640	19	12,158	16	314
GLNWD::CNTR ST::10	CENTER STREET	MAIN STREET	STATE STREET	Asphalt	S	246	19	4,673	12	585
GLNWD::CNTR ST::100	CENTER STREET	ELM LANE	PINE LANE	Asphalt	S	302	34	10,259	70	271
GLNWD::CNTR ST::110	CENTER STREET	PINE LANE	SYCAMORE LANE	Asphalt	S	803	34	27,286	53	229
GLNWD::CNTR ST::120	CENTER STREET	SYCAMORE LANE	WILLOW LANE	Asphalt	S	317	33	10,451	80	286
GLNWD::CNTR ST::130	CENTER STREET	WILLOW LANE	SPRUCE LANE	Asphalt	S	337	33	11,133	83	142

Pavement ID	Road Name	From	To	Surface	Rank	Length (FT)	Width (FT)	Area (SF)	PCI	IRI
GLNWD::CNTR ST::140	CENTER STREET	SPRUCE LANE	HICKORY LANE	Asphalt	S	161	33	5,316	83	334
GLNWD::CNTR ST::150	CENTER STREET	HICKORY LANE	COTTAGE GROVE AVENUE	Asphalt	S	666	33	21,968	73	168
GLNWD::CNTR ST::20	CENTER STREET	STATE STREET	WABASH AVENUE	Asphalt	S	263	19	4,998	17	549
GLNWD::CNTR ST::30	CENTER STREET	WABASH AVENUE	WABASH AVENUE	Asphalt	S	111	19	2,103	18	460
GLNWD::CNTR ST::40	CENTER STREET	WABASH AVENUE	END	Asphalt	S	199	23	4,582	13	383
GLNWD::CNTR ST::50	CENTER STREET	REBECCA STREET	END	Asphalt	S	91	20	1,814	85	964
GLNWD::CNTR ST::60	CENTER STREET	YOUNG STREET	CEDAR LANE	Asphalt	S	576	24	13,814	22	322
GLNWD::CNTR ST::70	CENTER STREET	CEDAR LANE	CEDAR LANE	Asphalt	S	148	34	5,033	74	281
GLNWD::CNTR ST::80	CENTER STREET	CEDAR LANE	MULBERRY DRIVE	Asphalt	S	145	34	4,917	77	169
GLNWD::CNTR ST::90	CENTER STREET	MULBERRY DRIVE	ELM LANE	Asphalt	S	452	34	15,355	78	189
GLNWD::CRRLL PKY::10	CARROLL PARKWAY	PLEASANT DRIVE	PALM DRIVE	Asphalt	S	877	29	25,420	40	203
GLNWD::CRRLL PKY::20	CARROLL PARKWAY	PALM DRIVE	SUNSET DRIVE	Asphalt	S	258	29	7,496	51	283
GLNWD::DNT AVE::10	DANTE AVENUE	GLENWOOD DYER ROAD	WEST FRONTAGE ROAD	Asphalt	S	116	33	3,837	85	263
GLNWD::DNT AVE::20	DANTE AVENUE	WEST FRONTAGE ROAD	194TH PLACE	Asphalt	S	341	33	11,267	83	125
GLNWD::DNT AVE::30	DANTE AVENUE	194TH PLACE	194TH STREET	Asphalt	S	121	33	3,993	85	222
GLNWD::DNT AVE::40	DANTE AVENUE	194TH PLACE	193RD PLACE	Asphalt	S	271	33	8,930	85	225
GLNWD::DNT AVE::50	DANTE AVENUE	193RD PLACE	192ND STREET	Asphalt	S	958	33	31,602	81	173
GLNWD::DNT AVE::60	DANTE AVENUE	192ND STREET	191ST PLACE	Asphalt	S	703	33	23,205	84	200
GLNWD::DNT AVE::70	DANTE AVENUE	191ST PLACE	191ST PLACE	Asphalt	S	144	33	4,742	83	282
GLNWD::DNT AVE::80	DANTE AVENUE	191ST PLACE	WEST FRONTAGE ROAD	Asphalt	S	197	33	6,510	85	80
GLNWD::DRCHST AVE::10	DORCHESTER AVENUE	193RD PLACE	193RD STREET	Asphalt	S	308	28	8,615	98	221
GLNWD::DRCHST AVE::20	DORCHESTER AVENUE	193RD STREET	192ND PLACE	Asphalt	S	302	28	8,465	100	134
GLNWD::DRCHST AVE::30	DORCHESTER AVENUE	192ND PLACE	192ND STREET	Asphalt	S	335	28	9,375	94	187
GLNWD::DRCHST AVE::40	DORCHESTER AVENUE	192ND STREET	191ST PLACE	Asphalt	S	811	28	22,717	100	260
GLNWD::DRXL AVE::10	DREXEL AVENUE	192ND STREET	193RD PLACE	Asphalt	S	228	28	6,389	81	235
GLNWD::FRST AVE::10	FOREST AVENUE	195TH STREET	194TH STREET	Asphalt	S	679	28	19,015	46	291
GLNWD::FTZHNRY DR::10	FITZHENRY DRIVE	BRUCE LANE	CHERRY DRIVE	Asphalt	S	1,155	23	26,572	24	405
GLNWD::GLNWD AVE::10	GLENWOOD AVENUE	MAIN STREET	OAK STREET	Asphalt	S	690	29	20,006	80	246
GLNWD::GLNWD AVE::20	GLENWOOD AVENUE	OAK STREET	SCHOOL STREET	Asphalt	S	96	21	2,018	85	595
GLNWD::GLNWD AVE::30	GLENWOOD AVENUE	SCHOOL STREET	STATE STREET	Asphalt	S	484	21	10,159	10	390
GLNWD::GLNWD RD::10	GLENWOOD ROAD	HOLBROOK ROAD	END	Asphalt	S	372	36	13,398	32	249
GLNWD::GRNWD AVE::10	GREENWOOD AVENUE	192ND STREET	191ST PLACE	Asphalt	S	647	28	18,118	15	374
GLNWD::GY CT::10	GAY COURT	187TH STREET	WESTWOOD DRIVE	Asphalt	S	297	23	6,832	16	368
GLNWD::GY CT::20	GAY COURT	WESTWOOD DRIVE	TERRACE DRIVE	Asphalt	S	296	23	6,816	17	364
GLNWD::GY CT::30	GAY COURT	TERRACE DRIVE	RAINBOW DRIVE	Asphalt	S	287	23	6,604	16	336
GLNWD::GY CT::40	GAY COURT	RAINBOW DRIVE	STRIEFF LANE	Asphalt	S	306	23	7,028	26	240
GLNWD::H ST::10	OHIO STREET	ILLINOIS AVENUE	VIRGINIA AVENUE	Asphalt	S	1,011	23	23,243	21	277
GLNWD::HCKRY AVE::10	HICKORY AVENUE	192ND STREET	191ST PLACE	Asphalt	S	697	29	20,205	64	200
GLNWD::HCKRY LN::10	HICKORY LANE	CENTER STREET	BIRCH DRIVE	Asphalt	S	314	26	8,162	20	487
GLNWD::HCKRY RIDG::10	HICKORY RIDGE	192ND STREET	END	Asphalt	S	360	19	6,848	85	-
GLNWD::HLBRK RD::10	HOLBROOK ROAD	HALSTED STREET	GLENWOOD ROAD	Asphalt	S	1,794	30	53,812	58	250
GLNWD::HLLY CT::10	HOLLY COURT	LONGWOOD DRIVE	PLEASANT DRIVE	Asphalt	S	1,139	23	26,206	58	204
GLNWD::HRPR AVE::10	HARPER AVENUE	194TH PLACE	192ND STREET	Asphalt	S	1,375	28	38,502	26	323

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GLNWD::HRPR AVE::20	HARPER AVENUE	192ND STREET	191ST PLACE	Asphalt	S	839	28	23,478	13	217
GLNWD::JN ST::10	JANE STREET	REBECCA STREET	CAMPBELL AVENUE	Asphalt	S	363	21	7,626	59	336
GLNWD::K ST::10	OAK STREET	GLENWOOD AVENUE	MERRILL STREET	Asphalt	S	570	19	10,824	28	381
GLNWD::KNNTH CT::10	KENNETH COURT	STRIEFF LANE	MANOR COURT	Asphalt	S	1,383	23	31,808	75	124
GLNWD::L CT::10	LEE COURT	187TH STREET	IOWA STREET	Asphalt	S	160	23	3,672	55	342
GLNWD::LLNS AVE::10	ILLINOIS AVENUE	IOWA STREET	OHIO STREET	Asphalt	S	349	23	8,029	63	179
GLNWD::LLNS AVE::20	ILLINOIS AVENUE	OHIO STREET	WISCONSIN STREET	Concrete	S	346	23	7,962	65	459
GLNWD::LLNS AVE::30	ILLINOIS AVENUE	WISCONSIN STREET	STRIEFF LANE	Asphalt	S	1,164	23	26,766	77	269
GLNWD::LLNS AVE::40	ILLINOIS AVENUE	STRIEFF LANE	NEVADA STREET	Asphalt	S	570	23	13,121	79	178
GLNWD::LLNS AVE::50	ILLINOIS AVENUE	NEVADA STREET	183RD STREET	Asphalt	S	199	23	4,587	81	259
GLNWD::LLS AVE::10	ELLIS AVENUE	192ND STREET	191ST PLACE	Asphalt	S	639	29	18,535	12	227
GLNWD::LM LN::10	ELM LANE	ROSE STREET	MULBERRY DRIVE	Asphalt	S	278	26	7,230	21	694
GLNWD::LM LN::20	ELM LANE	CENTER STREET	TULIP DRIVE	Asphalt	S	863	26	22,448	21	223
GLNWD::LNGWD CT::10	LONGWOOD COURT	ARQUILLA DRIVE	END	Asphalt	S	380	24	9,112	20	428
GLNWD::LNGWD DR::10	LONGWOOD DRIVE	STRIEFF LANE	HOLLY COURT	Asphalt	S	526	29	15,254	13	290
GLNWD::LNGWD DR::20	LONGWOOD DRIVE	HOLLY COURT	MANOR COURT	Asphalt	S	777	29	22,527	56	208
GLNWD::LNGWD DR::30	LONGWOOD DRIVE	MANOR COURT	ARQUILLA DRIVE	Asphalt	S	263	29	7,619	57	310
GLNWD::LTT ST::10	LOTTA STREET	WABASH AVENUE	STATE STREET	Asphalt	S	142	19	2,694	68	637
GLNWD::MGNL LN::10	MAGNOLIA LANE	GLENWOOD LANSING ROAD	CLARK STREET	Asphalt	S	312	26	8,114	30	381
GLNWD::MLBRRY CT::10	MULBERRY COURT	SPRUCE LANE	WALNUT LANE	Asphalt	S	431	26	11,210	35	383
GLNWD::MLBRRY DR::10	MULBERRY DRIVE	CENTER STREET	ELM LANE	Asphalt	S	729	26	18,950	40	329
GLNWD::MLBRRY DR::20	MULBERRY DRIVE	ELM LANE	PINE LANE	Asphalt	S	230	26	5,993	33	310
GLNWD::MLBRRY DR::30	MULBERRY DRIVE	PINE LANE	CHESTNUT COURT	Asphalt	S	378	26	9,831	26	308
GLNWD::MLBRRY DR::40	MULBERRY DRIVE	CHESTNUT COURT	SYCAMORE LANE	Asphalt	S	414	26	10,751	42	348
GLNWD::MNR CT::10	MANOR COURT	ROBERTS DRIVE	KENNETH COURT	Asphalt	S	346	24	8,311	38	267
GLNWD::MNR CT::20	MANOR COURT	KENNETH COURT	LONGWOOD DRIVE	Asphalt	S	399	24	9,575	21	319
GLNWD::MNRV AVE::10	MINERVA AVENUE	GLENWOOD DYER ROAD	194TH STREET	Asphalt	P	320	33	10,562	81	138
GLNWD::MNRV AVE::20	MINERVA AVENUE	194TH STREET	193RD PLACE	Asphalt	P	272	33	8,988	82	182
GLNWD::MNRV AVE::30	MINERVA AVENUE	193RD PLACE	193RD STREET	Asphalt	P	290	33	9,581	84	402
GLNWD::MNRV AVE::40	MINERVA AVENUE	193RD STREET	192ND STREET	Asphalt	P	357	33	11,786	82	291
GLNWD::MNRV AVE::50	MINERVA AVENUE	192ND STREET	191ST PLACE	Asphalt	P	732	33	24,155	82	195
GLNWD::MNRV AVE::60	MINERVA AVENUE	191ST PLACE	GLENWOOD LANSING ROAD	Asphalt	P	364	33	12,024	84	126
GLNWD::MPL DR::10	MAPLE DRIVE	CEDAR LANE	END	Asphalt	S	161	26	4,173	12	209
GLNWD::MPL DR::20	MAPLE DRIVE	CEDAR LANE	NORTH OAK LANE	Asphalt	S	293	26	7,626	18	325
GLNWD::MPL DR::30	MAPLE DRIVE	NORTH OAK LANE	PINE LANE	Asphalt	S	792	26	20,584	51	188
GLNWD::MPL DR::40	MAPLE DRIVE	PINE LANE	CHESTNUT LANE	Asphalt	S	301	26	7,832	50	333
GLNWD::MPL DR::50	MAPLE DRIVE	CHESTNUT LANE	WALNUT LANE	Asphalt	S	1,427	26	37,101	47	213
GLNWD::MPL DR::60	MAPLE DRIVE	WALNUT LANE	COTTAGE GROVE AVENUE	Asphalt	S	391	38	14,856	59	300
GLNWD::MRRLL ST::10	MERRILL STREET	GLENWOOD AVENUE	OAK STREET	Asphalt	S	300	19	5,697	35	344
GLNWD::MRRLL ST::20	MERRILL STREET	OAK STREET	STATE STREET	Asphalt	S	368	19	6,998	33	249
GLNWD::MRRLL ST::30	MERRILL STREET	REBECCA STREET	CAMPBELL AVENUE	Asphalt	S	363	19	6,895	25	372
GLNWD::MRYLND AVE::10	MARYLAND AVENUE	192ND STREET	194TH STREET	Asphalt	S	442	33	14,574	85	244
GLNWD::N OK LN::10	NORTH OAK LANE	BIRCH DRIVE	MAPLE DRIVE	Asphalt	S	844	26	21,939	28	216

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GLNWD::N PK DR::10	N PARK DRIVE	PLEASANT DRIVE	PLEASANT DRIVE	Asphalt	S	1,406	23	32,336	85	233
GLNWD::N PK DR::20	N PARK DRIVE	CHERRY DRIVE	PLEASANT DRIVE	Asphalt	S	1,396	23	32,117	54	149
GLNWD::NDN AVE::10	INDIANA AVENUE	ARIZONA AVE	VIRGINIA AVENUE	Asphalt	S	693	23	15,947	51	175
GLNWD::NGLSD AVE::10	INGLESIDE AVENUE	192ND STREET	191ST PLACE	Asphalt	S	647	33	21,344	81	67
GLNWD::NGNT ST::10	NUGENT STREET	MAIN STREET	ROSE STREET	Asphalt	S	457	32	14,618	52	364
GLNWD::NVD ST::10	NEVADA STREET	ILLINOIS AVENUE	ARIZONA AVE	Asphalt	S	301	23	6,924	51	319
GLNWD::NVD ST::20	NEVADA STREET	ARIZONA AVE	VIRGINIA AVENUE	Asphalt	S	687	23	15,810	23	352
GLNWD::NVSTY AVE::10	UNIVERSITY AVENUE	192ND STREET	191ST PLACE	Asphalt	S	653	28	18,294	36	282
GLNWD::PCKNS ST::10	PICKENS STREET	MAIN STREET	CLARK STREET	Asphalt	S	368	21	7,724	100	703
GLNWD::PLM DR::10	PALM DRIVE	BRUCE LANE	CHERRY DRIVE	Asphalt	S	1,144	23	26,322	32	275
GLNWD::PLM DR::20	PALM DRIVE	CHERRY DRIVE	CARROLL PARKWAY	Asphalt	S	295	23	6,776	32	442
GLNWD::PLSNT DR::10	PLEASANT DRIVE	187TH STREET	N PARK DRIVE	Asphalt	S	343	23	7,895	50	325
GLNWD::PLSNT DR::20	PLEASANT DRIVE	N PARK DRIVE	STRIEFF LANE	Asphalt	S	208	23	4,781	69	317
GLNWD::PLSNT DR::30	PLEASANT DRIVE	STRIEFF LANE	HOLLY COURT	Asphalt	S	295	23	6,788	55	265
GLNWD::PLSNT DR::40	PLEASANT DRIVE	HOLLY COURT	ARQUILLA DRIVE	Asphalt	S	284	23	6,534	66	232
GLNWD::PLSNT DR::50	PLEASANT DRIVE	ARQUILLA DRIVE	N PARK DRIVE	Asphalt	S	301	23	6,931	56	272
GLNWD::PLSNT DR::60	PLEASANT DRIVE	N PARK DRIVE	CARROLL PARKWAY	Asphalt	S	1,411	23	32,463	62	180
GLNWD::PLSNT DR::70	PLEASANT DRIVE	CARROLL PARKWAY	CHERRY DRIVE	Asphalt	S	288	23	6,626	51	204
GLNWD::PN LN::10	PINE LANE	MULBERRY DRIVE	CENTER STREET	Asphalt	S	283	26	7,357	24	592
GLNWD::PN LN::20	PINE LANE	CENTER STREET	BIRCH DRIVE	Asphalt	S	323	26	8,408	27	374
GLNWD::PN LN::30	PINE LANE	BIRCH DRIVE	TULIP DRIVE	Asphalt	S	486	26	12,628	20	402
GLNWD::PN LN::40	PINE LANE	TULIP DRIVE	MAPLE DRIVE	Asphalt	S	405	26	10,539	27	549
GLNWD::RBCC ST::10	REBECCA STREET	MAIN STREET	JANE STREET	Asphalt	S	415	18	7,476	54	715
GLNWD::RBCC ST::20	REBECCA STREET	MAIN STREET	ROSE STREET	Asphalt	S	369	29	10,699	50	463
GLNWD::RBCC ST::30	REBECCA STREET	ROSE STREET	CENTER STREET	Asphalt	S	350	29	10,160	51	212
GLNWD::RBCC ST::40	REBECCA STREET	CENTER STREET	SCHOOL STREET	Asphalt	S	677	22	14,896	58	217
GLNWD::RBCC ST::50	REBECCA STREET	SCHOOL STREET	MERRILL STREET	Asphalt	S	630	19	11,969	32	377
GLNWD::RBRTS DR::10	ROBERTS DRIVE	STRIEFF LANE	MANOR COURT	Asphalt	S	1,349	29	39,125	35	279
GLNWD::RBRTS DR::20	ROBERTS DRIVE	MANOR COURT	ARQUILLA DRIVE	Asphalt	S	288	29	8,350	26	330
GLNWD::RHDS AVE::10	RHODES AVENUE	START	GLENWOOD LANSING ROAD	Asphalt	S	353	19	6,706	73	337
GLNWD::RNBW DR::10	RAINBOW DRIVE	GAY COURT	WESTWOOD DRIVE	Asphalt	S	1,404	23	32,303	43	143
GLNWD::RNBW DR::20	RAINBOW DRIVE	187TH STREET	WESTWOOD DRIVE	Asphalt	S	390	23	8,965	59	321
GLNWD::RQLL DR::10	ARQUILLA DRIVE	HALSTED STREET	ROBERTS DRIVE	Asphalt	S	709	55	39,008	69	270
GLNWD::RQLL DR::20	ARQUILLA DRIVE	ROBERTS DRIVE	BRUCE LANE	Asphalt	S	184	30	5,522	66	294
GLNWD::RQLL DR::30	ARQUILLA DRIVE	BRUCE LANE	LONGWOOD DRIVE	Asphalt	S	812	30	24,348	49	192
GLNWD::RQLL DR::40	ARQUILLA DRIVE	LONGWOOD DRIVE	CHERRY DRIVE	Asphalt	S	291	30	8,721	64	380
GLNWD::RQLL DR::50	ARQUILLA DRIVE	CHERRY DRIVE	PLEASANT DRIVE	Asphalt	S	1,425	30	42,756	66	159
GLNWD::RS CT::10	ROSE COURT	SPRUCE LANE	WALNUT LANE	Asphalt	S	420	26	10,926	34	633
GLNWD::RS ST::10	ROSE STREET	WABASH AVENUE	REBECCA STREET	Asphalt	S	561	20	11,211	25	371
GLNWD::RS ST::20	ROSE STREET	NUGENT STREET	NUGENT STREET	Asphalt	S	97	32	3,115	60	287
GLNWD::RS ST::30	ROSE STREET	NUGENT STREET	CAMPBELL AVENUE	Asphalt	S	115	32	3,694	76	396
GLNWD::RS ST::40	ROSE STREET	YOUNG STREET	CEDAR LANE	Asphalt	S	590	18	10,616	21	394
GLNWD::RS ST::50	ROSE STREET	CEDAR LANE	SOUTH OAK LANE	Asphalt	S	555	26	14,422	21	254

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GLNWD::RS ST::60	ROSE STREET	SOUTH OAK LANE	ELM LANE	Asphalt	S	316	26	8,218	30	399
GLNWD::RS ST::70	ROSE STREET	ELM LANE	CHESTNUT LANE	Asphalt	S	647	26	16,830	23	374
GLNWD::RS ST::80	ROSE STREET	CHESTNUT LANE	SYCAMORE LANE	Asphalt	S	385	26	10,015	31	358
GLNWD::RZ AVE::10	ARIZONA AVENUE	STRIEFF LANE	INDIANA AVENUE	Asphalt	S	1,376	23	31,644	25	224
GLNWD::RZ AVE::20	ARIZONA AVENUE	INDIANA AVENUE	NEVADA STREET	Asphalt	S	315	23	7,240	67	278
GLNWD::S OK LN::10	SOUTH OAK LANE	CLARK STREET	ROSE STREET	Asphalt	S	270	26	7,015	85	15
GLNWD::SCHL ST::10	SCHOOL STREET	MAIN STREET	GLENWOOD AVENUE	Asphalt	S	429	21	9,016	31	288
GLNWD::SCHL ST::20	SCHOOL STREET	GLENWOOD AVENUE	STATE STREET	Asphalt	S	331	21	6,957	49	478
GLNWD::SCHL ST::30	SCHOOL STREET	STATE STREET	WABASH AVENUE	Asphalt	S	373	19	7,090	13	520
GLNWD::SCHL ST::40	SCHOOL STREET	WABASH AVENUE	REBECCA STREET	Asphalt	S	450	19	8,544	48	368
GLNWD::SCHL ST::50	SCHOOL STREET	REBECCA STREET	CAMPBELL AVENUE	Asphalt	S	377	19	7,172	38	331
GLNWD::SCNC RD::10	SCIENCE ROAD	GLENWOOD ROAD	END	Asphalt	S	592	24	14,216	49	402
GLNWD::SNST DR::10	SUNSET DRIVE	BRUCE LANE	CARROLL PARKWAY	Asphalt	S	1,436	29	41,655	22	294
GLNWD::SPRC LN::10	SPRUCE LANE	CLARK STREET	ROSE COURT	Asphalt	S	546	26	14,196	18	296
GLNWD::SPRC LN::20	SPRUCE LANE	ROSE COURT	MULBERRY COURT	Asphalt	S	296	26	7,698	33	225
GLNWD::SPRC LN::30	SPRUCE LANE	MULBERRY COURT	CENTER STREET	Asphalt	S	307	26	7,975	38	357
GLNWD::STLRNC AVE::10	ST LAWRENCE AVENUE	START	GLENWOOD LANSING ROAD	Asphalt	S	192	19	3,651	28	750
GLNWD::STRFF LN::10	STRIEFF LANE	ILLINOIS AVENUE	ARIZONA AVE	Asphalt	S	1,416	30	42,494	55	219
GLNWD::STRFF LN::20	STRIEFF LANE	ARIZONA AVE	VIRGINIA AVENUE	Concrete	S	347	30	10,416	56	374
GLNWD::STRFF LN::30	STRIEFF LANE	VIRGINIA AVENUE	HALSTED STREET	Asphalt	S	201	30	6,036	68	476
GLNWD::STRFF LN::40	STRIEFF LANE	HALSTED STREET	GAY COURT	Asphalt	S	237	40	9,489	39	492
GLNWD::STRFF LN::50	STRIEFF LANE	GAY COURT	ROBERTS DRIVE	Asphalt	S	503	41	20,642	37	220
GLNWD::STRFF LN::60	STRIEFF LANE	ROBERTS DRIVE	KENNETH COURT	Asphalt	S	264	23	6,075	53	181
GLNWD::STRFF LN::70	STRIEFF LANE	KENNETH COURT	LONGWOOD DRIVE	Asphalt	S	284	23	6,527	43	213
GLNWD::STRFF LN::80	STRIEFF LANE	LONGWOOD DRIVE	PLEASANT DRIVE	Asphalt	S	742	23	17,074	39	225
GLNWD::STT ST::20	STATE STREET	MAIN STREET	CENTER STREET	Asphalt	S	287	19	5,461	27	594
GLNWD::STT ST::30	STATE STREET	CENTER STREET	GLENWOOD AVENUE	Asphalt	S	316	19	6,010	13	497
GLNWD::STT ST::40	STATE STREET	GLENWOOD AVENUE	SCHOOL STREET	Asphalt	S	346	19	6,574	29	412
GLNWD::STT ST::50	STATE STREET	SCHOOL STREET	MERRILL STREET	Asphalt	S	649	19	12,340	14	397
GLNWD::SYCMR LN::10	SYCAMORE LANE	CLARK STREET	ROSE STREET	Asphalt	S	304	26	7,901	40	347
GLNWD::SYCMR LN::20	SYCAMORE LANE	ROSE STREET	MULBERRY DRIVE	Asphalt	S	530	26	13,790	25	484
GLNWD::SYCMR LN::30	SYCAMORE LANE	MULBERRY DRIVE	CENTER STREET	Asphalt	S	338	26	8,801	42	481
GLNWD::SYCMR LN::40	SYCAMORE LANE	CENTER STREET	TULIP DRIVE	Asphalt	S	665	26	17,301	32	418
GLNWD::TLP DR::10	TULIP DRIVE	ELM LANE	PINE LANE	Asphalt	S	380	26	9,878	14	269
GLNWD::TLP DR::20	TULIP DRIVE	CHESTNUT LANE	SYCAMORE LANE	Asphalt	S	288	26	7,500	24	411
GLNWD::TLP DR::30	TULIP DRIVE	SYCAMORE LANE	WILLOW LANE	Asphalt	S	365	26	9,499	28	230
GLNWD::TLP DR::40	TULIP DRIVE	WILLOW LANE	WALNUT LANE	Asphalt	S	843	26	21,925	21	256
GLNWD::TRRC DR::10	TERRACE DRIVE	GAY COURT	WESTWOOD DRIVE	Asphalt	S	1,025	23	23,578	53	159
GLNWD::VLN AVE::10	AVALON AVENUE	192ND STREET	192ND PLACE	Asphalt	S	185	28	5,181	57	323
GLNWD::VRGN AVE::10	VIRGINIA AVENUE	IOWA STREET	OHIO STREET	Asphalt	S	272	23	6,267	26	305
GLNWD::VRGN AVE::20	VIRGINIA AVENUE	OHIO STREET	WISCONSIN STREET	Asphalt	S	295	23	6,781	41	200
GLNWD::VRGN AVE::30	VIRGINIA AVENUE	WISCONSIN STREET	STRIEFF LANE	Asphalt	S	362	23	8,326	60	287
GLNWD::VRGN AVE::40	VIRGINIA AVENUE	STRIEFF LANE	INDIANA AVENUE	Concrete	S	1,183	23	27,218	82	336

Pavement ID	Road Name	From	To	Surface	Rank	Length (FT)	Width (FT)	Area (SF)	PCI	IRI
GLNWD::VRGN AVE::50	VIRGINIA AVENUE	INDIANA AVENUE	NEVADA STREET	Concrete	S	295	23	6,776	92	412
GLNWD::W FRNTG RD::10	WEST FRONTAGE ROAD	DANTE AVENUE	DANTE AVENUE	Asphalt	S	3,932	21	82,576	39	315
GLNWD::W FRNTG RD::20	WEST FRONTAGE ROAD	WEST FRONTAGE ROAD	GLENWOOD LANSING ROAD	Asphalt	S	135	33	4,450	80	491
GLNWD::W ST::10	IOWA STREET	ILLINOIS AVENUE	LEE COURT	Asphalt	S	157	23	3,602	52	182
GLNWD::W ST::20	IOWA STREET	LEE COURT	VIRGINIA AVENUE	Asphalt	S	799	23	18,386	24	183
GLNWD::WBSH AVE::10	WABASH AVENUE	LOTTA STREET	END	Asphalt	S	137	18	2,458	32	614
GLNWD::WBSH AVE::20	WABASH AVENUE	MAIN STREET	LOTTA STREET	Asphalt	S	263	19	4,996	23	471
GLNWD::WBSH AVE::30	WABASH AVENUE	MAIN STREET	ROSE STREET	Asphalt	S	98	28	2,740	85	708
GLNWD::WBSH AVE::40	WABASH AVENUE	ROSE STREET	CENTER STREET	Asphalt	S	359	19	6,825	31	455
GLNWD::WBSH AVE::50	WABASH AVENUE	CENTER STREET	SCHOOL STREET	Asphalt	S	670	19	12,736	85	315
GLNWD::WBSH AVE::60	WABASH AVENUE	SCHOOL STREET	END	Asphalt	S	610	18	10,979	45	284
GLNWD::WLLW AVE::10	WILLOW AVENUE	192ND STREET	191ST PLACE	Asphalt	S	698	29	20,236	57	157
GLNWD::WLLW LN::10	WILLOW LANE	CLARK STREET	CENTER STREET	Asphalt	S	1,171	26	30,451	41	160
GLNWD::WLLW LN::20	WILLOW LANE	CENTER STREET	BIRCH DRIVE	Asphalt	S	312	26	8,116	40	425
GLNWD::WLLW LN::30	WILLOW LANE	BIRCH DRIVE	TULIP DRIVE	Asphalt	S	274	26	7,111	27	383
GLNWD::WLNT AVE::10	WALNUT AVENUE	192ND STREET	191ST PLACE	Asphalt	S	699	29	20,261	65	191
GLNWD::WLNT AVE::20	WALNUT AVENUE	191ST PLACE	GLENWOOD LANSING ROAD	Asphalt	S	179	29	5,192	68	313
GLNWD::WLNT LN::10	WALNUT LANE	ROSE COURT	MULBERRY COURT	Asphalt	S	316	26	8,207	46	323
GLNWD::WLNT LN::20	WALNUT LANE	BIRCH DRIVE	TULIP DRIVE	Asphalt	S	267	26	6,934	24	220
GLNWD::WLNT LN::30	WALNUT LANE	TULIP DRIVE	MAPLE DRIVE	Asphalt	S	316	26	8,210	36	229
GLNWD::WSCNSN ST::10	WISCONSIN STREET	ILLINOIS AVENUE	VIRGINIA AVENUE	Concrete	S	1,026	24	24,624	63	337
GLNWD::WSTWD DR::10	WESTWOOD DRIVE	GAY COURT	TERRACE DRIVE	Asphalt	S	896	23	20,602	31	129
GLNWD::WSTWD DR::20	WESTWOOD DRIVE	TERRACE DRIVE	RAINBOW DRIVE	Asphalt	S	289	23	6,638	54	233
GLNWD::YNG ST::10	YOUNG STREET	MAIN STREET	CLARK STREET	Asphalt	S	260	29	7,548	50	395
GLNWD::YNG ST::20	YOUNG STREET	CLARK STREET	ROSE STREET	Asphalt	S	329	27	8,884	20	313
GLNWD::YNG ST::30	YOUNG STREET	ROSE STREET	CENTER STREET	Asphalt	S	359	27	9,697	35	251