CITY OF DAYTON, MN - 2023 PAVEMENT CONDITION ASSESSMENT AND REPORTING – FINAL REPORT

January 8, 2024

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ABBREVIATIONS

ABC	Aggregate Base Course
ACP	Asphalt Concrete Pavement
ALG	Alligator Cracking
CL-MI	Centerline Miles
FDR	Full Depth Reclamation
FWD	Falling Weight Deflectometer
GPR	Ground Penetrating Radar
IRI	International Roughness Index
LL-PQI	Lane-Length Weighted PQI
LL-Def.	Lane-Length Weighted Deficiency
LN-MI	Lane Miles
Lon/TCr	Longitudinal /Transverse Cracking
M&R	Maintenance and Rehabilitation
M_R	Subgrade Soil Resilient Modulus
OL	Overlay
PCC	Portland Cement Concrete
PMS	Pavement Management System
PQI	Pavement Quality Index
RCI	Ride Comfort Index
SAI	Structural Adequacy Index
SDI	Surface Distress Index

EXECUTIVE SUMMARY

The City of Dayton, MN (City) is responsible for the administration of a roadway network of approximately 61 centerline-miles (CL-MI) or 124 lane -miles (LN-MI). This network forms a valuable asset to be managed in a cost-effective manner. Providing a desirable level of service to the stakeholders is also important.

The City retained Stantec Consulting Services Inc. (Stantec) in 2023 to conduct a citywide pavement condition assessment and to provide a comprehensive report that summarizes the present condition of the network and recommended work programs for the next five years. This report was prepared based on the 2023 data collection effort. Worth mentioning is that a key component of an effective pavement management system is to regularly (every three years) assess the condition of the road network, which can then be used to assess the performance of the network over time.

The 2023 scope of work included the following tasks:

- Conduct a semi-automated pavement surface distress and roughness survey on approximately 64 survey-miles of the City's paved road network.
- Implement Stantec's RoadMatrix™ Pavement Management System (PMS) internally on Stantec servers to host the City's road inventory and condition data.
- Conduct present status and budget analyses to determine the current condition of the road network and develop 5-year cost effective work programs for various budget scenarios.
- Provide a final report outlining the field-testing procedures, network present status results, recommended work programs, as well as project conclusions and recommendations.

The collected condition data was used to identify the present status of the road network in terms of three (3) performance indicators:

- Ride Comfort Index (RCI) – Represents the smoothness (ride quality) of the road.
- Surface Distress Index (SDI) – Represents the surface condition of the road (cracking, rutting, etc.)
- Pavement Quality Index (PQI) – Overall condition index, a function of the above-noted indices.

It should be noted that the Structural Adequacy Index, which represents the capacity of a road to carry its traffic loading, was not included in the scope of the 2023 work. The SAI was assumed to be at mid-point, i.e., 50, for the calculations of the PQI.

The first three indices are presented on a scale of 0-100. A value of 0 represents a pavement section in the worst possible condition, whereas an index value of 100 represents the best possible condition. The SAI ratings are evaluated based on the mid-point of 50. Sections with an SAI ≥ 50 are considered adequate to carry the anticipated traffic loading, including commercial traffic, whereas pavement sections

with a calculated SAI < 50 are considered inadequate to carry the anticipated traffic loading and will require structural enhancements. The SAI can be collected in the future if needed.

The results of the 2023 Present Status Analysis, weighted by lane-miles are presented below in Table ES.1 and on the following page in Figure ES.1.

Table ES.1: 2023 Present Status Analysis Results – City Paved Sections

Functional Class	No. of Sections	Length (CL-MI)	Lane Length (LN-MI)	LL-RCI	LL-SDI	LL-SAI	LL-PQI
Collector	121	24.0	49.0	72	61	--	56
Local	334	37.2	74.4	58	59	--	52
City-Paved Sections	**455**	**61.2**	**123.4**	**64**	**60**	**--**	**54**

Present Status Results

- The City's road network is in "Fair" overall condition in 2023 as noted by the overall network LL-weighted PQI of 54. Similarly, the network is rated as "Fair" for ride quality (RCI) with a score of 64 and also rated as "Fair" in terms of the surface condition (SDI) with a score of 60.
- The results by functional class indicate that the Collector road network has the best average ride quality rating at 72, followed by Local roads at 58. These results are to be expected considering that roads with more traffic, are usually given more attention in terms of M&R work.

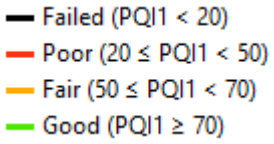


Figure ES.1 below presents the SDI results on the City map. The SDI results exclude the assumed SAI values and hence are more representative of the City's network condition.

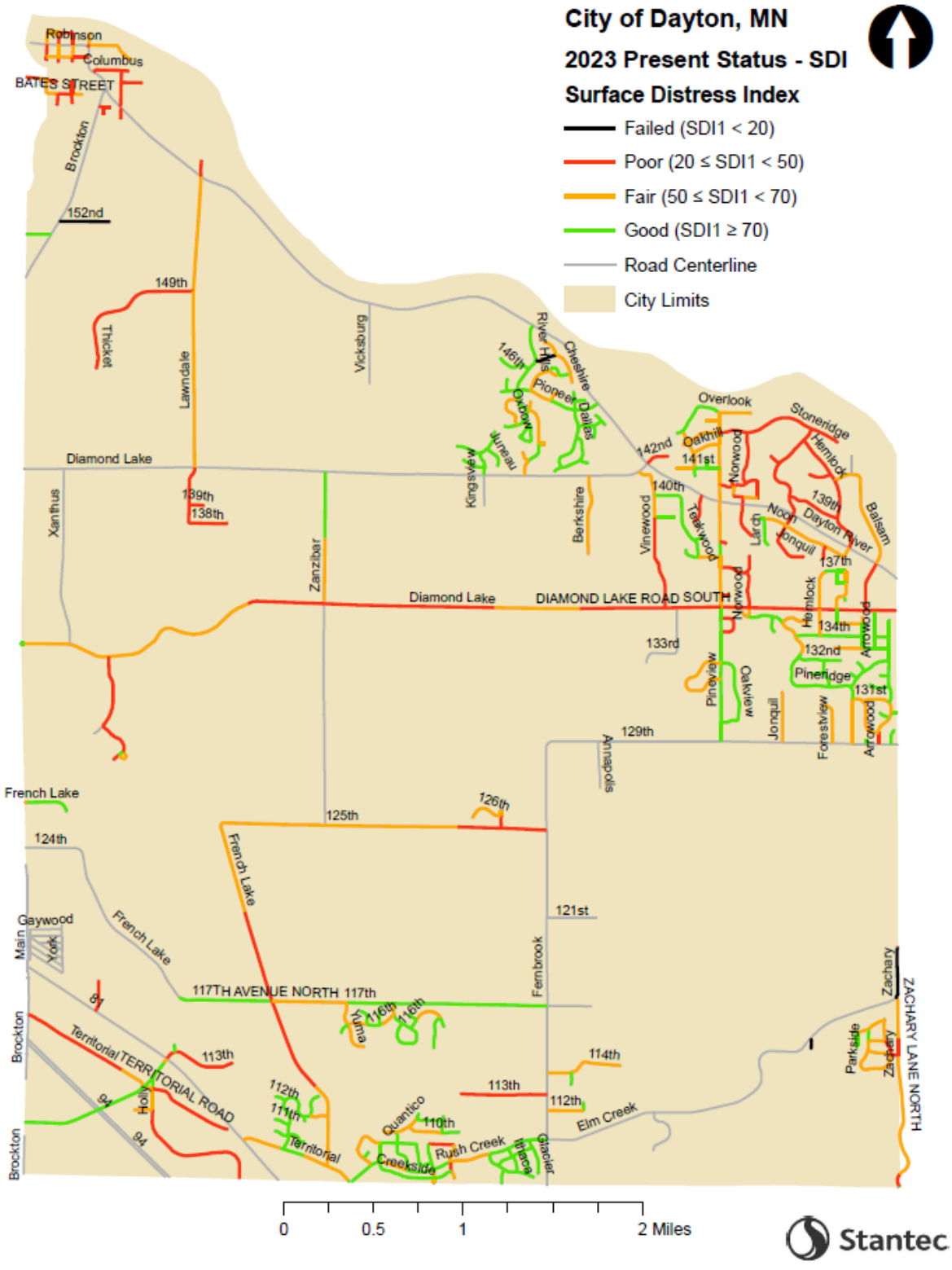


Figure ES.1: City of Dayton 2023 Pavement Surface Distress Condition (SDI)

Budget Analysis Results

A summary of the budget analysis results for three (3) scenarios along with their predicted performance results are presented below in Table ES.2 for the 5-year analysis period from 2024 to 2028. A "Do Nothing" scenario has been also added as a hypothetical case. The "Deficiency" results presented in Table ES.2 represent the percentage of road sections with a PQI less than the minimum acceptable level. The minimum acceptable levels (PQI Min) have been set as follows: **PQI = 60 for Collector roads and PQI = 55 for Local roads.** It is worth mentioning that the analyses were completed based on Super-Sections which were created to aggregate short road sections together based on neighborhoods, pavement type, and functional class so that the recommended work programs are practical.

Table ES.2: Budget Analysis Results 2024 – 2028 – City-Maintained Paved Sections

Budget	Total Cost Over 5 Years ($ million)	LL-PQI[1]		LL-Def.[2] (%)	
		2024	2028	2024	2028
Do Nothing	0.00	50	34	61	92
$1.0M/Year - SS - Committed=Y	4.993	54	50	53	68
$1.5M/Year - SS - Committed=Y	7.493	55	59	50	53
Achieve a PQI of 70 by 2028 - SS - Committed=Y	10.253	57	71	52	33

[1] LL-PQI = Lane-length-weighted PQI; [2] LL-Def. = Lane-length-weighted Deficiency.

The following observations can be made based on the information presented in the table above:

- The City needs $1.5 million per year to improve the network performance to 59 by the end of 2028. The % Deficiency is predicted to slightly increase from 50 % by the end of 2024 to 53 % by the end of 2028.
- To gradually achieve a PQI of 70 by 2028 (A PQI of 71 is actually predicted), the City needs to invest approximately $2.0 million per year over the next 5 years. This performance-based scenario is predicted to decrease the deficiency to 33 % by the end of 2028.

RECOMMENDATIONS

The following recommendations are developed based on our understanding of the City's network condition, available funding, and current practices:

- It is recommended that the City survey the road network once every 3 years (industry standard), to ensure accurate condition data and to validate the benefits of maintenance and rehabilitation (M&R) programs completed by the City.
- It is recommended that the City continue to prioritize preventive maintenance because it is much more cost-effective to keep good roads in good condition as opposed to spending the majority of the available funds on roads that have already deteriorated past the preventive maintenance threshold.

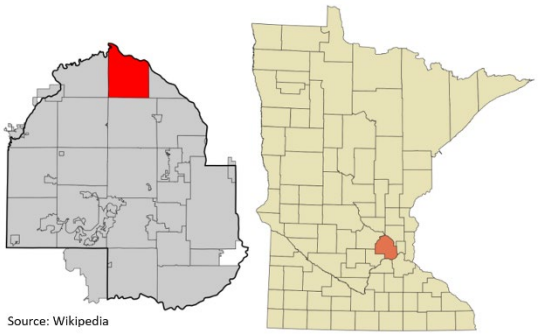
RoadMatrix™ decision trees have been customized for the City to allow them to focus on preventive maintenance.

- It is recommended that the City consider validating the layer thickness information currently in RoadMatrix™ using either as-built drawings or by conducting GPR testing. GPR is used to determine the layer thickness information non-destructively. It is worth noting that the layer thickness information will need to be determined only once, provided that the City keeps updating the work history annually as needed. Furthermore, layer thickness information, along with traffic levels and subgrade stiffness, is used within RoadMatrix™ to determine the rate of pavement performance deterioration. This allows for the prediction of pavement performance over time, which in turn affects the selection and planning of short- and long-term projects.
- Traffic data is one of the elements that helps determine the performance deterioration rate and influences SAI calculations. It is recommended that the City continue to validate traffic data, including AADT and % commercial traffic, and update as needed.
- M&R treatment unit costs, and base year, should be reviewed and updated at the beginning of each calendar year to reflect any changes to those costs. Unit cost information affects the work program recommendations that are possible with the available funding.
- The treatment inflation rate of 2 % that was used for this analysis should be reviewed at the beginning of each calendar year and updated, if needed, for future analyses, in order to reflect anticipated future increases in treatment unit costs. The inflation rate can also be defined independently for each treatment type.
- Pavement management analysis is a network-level analysis that optimizes spending over the entire road network. It is therefore important that recommended treatments are field-verified before implementation to ensure suitability and to consider project specific conditions.

1 PROJECT OVERVIEW

1.1 BACKGROUND

The City of Dayton (City) is located in Hennepin and Wright Counties, Minnesota. The City is committed to fund sustainable infrastructure to improve the quality of life and economic development for its community.


Source: Wikipedia

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1.2 PROJECT SCOPE AND OBJECTIVES

The 2023 project scope included the following tasks:

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The significance of each of these indices is discussed further below in Section 3.1.

1.3 REPORT ORGANIZATION

This report is made up of the following six (6) sections:

- Section 1 contains an introduction and overview of the project scope and objectives as well as a summary of the parametric setup and sources of information.
- The data collection efforts are summarized in Section 2.
- Section 3 contains pavement performance models information.
- Section 4 presents RoadMatrix™ analysis results.
- Conclusions are provided in Section 5.
- Section 6 provides the recommendations based on the work completed in 2023.

1.4 INITIAL DATABASE SETUP

The RoadMatrix™ initial database parametric setup and sources of information for documentation purposes is presented in this section.

- The City's RoadMatrix™ database was created following the same section definitions as found in a GIS shapefile for Hennepin County that was clipped to Dayton's municipal boundary by Stantec. A field called "RM_NO" was added to the GIS shapefile to match the unique section identifier in RoadMatrix™ called "sect_no". These two fields form the link between the RoadMatrix™ database and the GIS layer. This link is used to generate all of the colored maps presented in this report. The final map/road network was reviewed and accepted by the City for accuracy, before beginning the data collection.
- Most mandatory and optional section attributes were provided by our Stantec local office in Plymouth. These include functional class, pavement type, number of lanes, divided or not, AADT, % Commercial, % Traffic Growth, neighborhood, subgrade strength (weak, fair. strong), drain tile presence and geotextile fabric presence.
- Curb presence information on both sides of the road was picked up by the Stantec crew during the survey. For road sections with partial curb presence, the Stantec crew decided whether a curb is present or not based on the estimated coverage.

Project Overview

- Dead-end and Cul-de-Sac assignments were collected in the field by the data collection crew.
- Pavement width information was estimated by Stantec as part of this project using satellite imagery and the GIS Road Centerline layer.
- The Maintenance and Rehabilitation (M&R) Treatments and associated unit costs presented in Table 3.1 were verified by our local Stantec office in Plymouth.
- An inflation rate of 2% was assumed for all treatments in this analysis. This rate was verified by our local Stantec office in Plymouth. The inflation rate can be updated in the future when/if needed to reflect the expected rise in treatment unit costs. In addition, RoadMatrix™ allows for unique inflation rates to be assigned for each individual treatment type, if justified. This can be completed in the Treatments table.
- Default performance deterioration curves were used for this implementation. RoadMatrix™ allows for customized deterioration curves to be created, if needed.

2 DATA COLLECTION

2.1 2023 FIELD SURVEY SCOPE

The 2023 field survey scope consisted of the following:

- Roughness and pavement surface distresses on approximately 64 survey miles of paved roads. Condition data was collected between April 14 and April 18, 2023.

2.2 UNTESTED SECTIONS

The following two sections have been identified in the field as gravel roads and have not been tested:

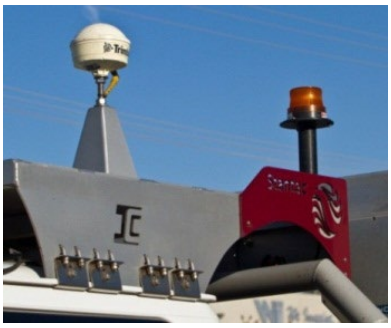
- Section No.: 1680 - 141ST AVENUE NORTH from BALSAM LANE NORTH to END (162 ft).
- Section No: 310 - UNNAMED STREET from 62ND LANE to RICHARSON AVENUE (384.2 ft).

2.3 DATA COLLECTION METHODOLOGY

A Stantec RT-3000 unit equipped with accelerometers, laser sensors, cameras, and inertial global position system (IGPS) was used to conduct the 2023 pavement condition survey for surface distress and roughness. The following subsections summarize the data collection methodologies.

The survey was generally conducted in the outer-most lane of each road segment, with the direction of travel referenced in the observed data, through lane codes: “P” lanes indicate the direction defined in the network definition was followed during the survey; whereas the “M” lanes indicate the survey was conducted in the opposite direction of the network definition limits. Road sections with four or more traffic lanes, and/or divided road sections, were tested in both directions of travel. Where possible, the RT-3000 unit was operated at a minimum speed of 15 mph to ensure the accuracy and reliability of the roughness data. The total surveyed mileage was approximately 64 miles.

2.3.1 Roughness Data Collection



The roughness (ride quality) of each section was measured using a specialized profile measurement system, mounted on the front bumper of the RT-3000 vehicle. The system in the front bumper is equipped with accelerometers and laser sensors which were used to measure the longitudinal profile of the pavement surface in each wheel path of the survey travel lane. The profile data was then used to calculate an International Roughness Index (IRI), in units of inches/mile, summarized at 100-ft intervals.

Data Collection

The profiler is certified according to ASTM E950 as a Class I profilometer. The collection of the longitudinal profile of roughness data is fully automated. The specialized profile measurement system employs two sensing devices:

1. Laser height sensors that measure the distance between the vehicle and the pavement surface, while the vehicle is traveling at up to posted speed limits; and
2. An accelerometer that measures the vertical acceleration of the vehicle as it bounces in response to the pavement surface profile.

These two measurements are used during post-processing, to eliminate the effects of vertical vehicle motion, and thereby define the vertical profile of the pavement surface.

The RT-3000 is also equipped with a distance measurement instrument (DMI) to provide a linear reference measurement of the vehicle as it traverses the road. This measurement provides stationing references for the profile data.

The IRI measurements obtained from the RT-3000 have been correlated with those obtained from other valid profilometers, as well as IRI-calculated values from rod and level, and dipstick surveys. The IRI data is further converted into a Ride Comfort Index (RCI) within the City's RoadMatrix™ pavement management system (PMS) for each road section.

2.3.2 Surface Distress Data Collection

Pavement surface condition is evaluated based on the type, severity, and extent of pavement surface distresses. Each surface distress is evaluated based on two components:

- **Severity**: defined as 'How bad is the defect?' and is expressed in terms of the width or degree of wear associated with a particular pavement condition. An example of a severity measurement includes the opening width of a crack.
- **Extent**: or 'How much is there?' is expressed in terms of the quantity of the surface that a particular defect or distress covers. Examples of measures used for extent would include the number and length of transverse cracks, length of longitudinal cracking, or the pavement area affected by an alligator cracking.

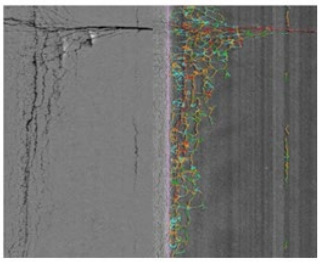
The data collection used for this assignment uses the following RT-3000 sub-systems:

2.3.2.1 LASER CRACK MEASURING SYSTEM (LCMS)

All physical pavement cracks were collected utilizing our RT-3000's Laser Crack Measuring system (LCMS) and downward imaging technology.

Stantec's LCMS uses laser line projectors, high speed cameras, and advanced optics, to acquire high resolution 3D profiles of the road. This unique 3D vision technology allows for automatic pavement condition assessments of asphalt, porous asphalt, chip seal, and concrete surfaces.

The LCMS acquires both 3D and 2D image data of the road surface with 1-mm (0.04 inches) resolution, over a 13-foot lane width, at survey speeds up to 60 mph. This data collection technique does not impact road users as the vehicle travels at posted speeds.



The pavement imagery captured by the RT-3000 is subsequently post-processed through Stantec's imaging workstation. This system was specifically designed for pavement surface analysis, using both the 3D and 2D pavement imagery components of the LCMS, as well as the collected right-of-way (ROW) images. The imaging workstation expedites the distress rating process with built-in tools and synchronized images, from multiple cameras. As a result, each distress is measured, not estimated, and tagged with a linear reference and corresponding GPS coordinates. The distress data is collected continuously and summarized at 100-foot intervals.

Trained technicians categorized, rated, and measured pavement distress information from the linescan imagery captured in the driven pavement lane. Each distress is tagged with a linear reference and corresponding GPS coordinates.. It is worth mentioning that a number of pavement surface deficiencies have been collected visually using a special keyboard inside the vehicle. These deficiencies, e.g., raveling, are difficult to accurately measure with automated techniques.

A total of thirteen (13) distresses were inventoried on asphalt (flexible) pavement as part of the 2023 field distress survey as shown below in Table 2.1. There were no PCC (rigid) pavement roads in the network.

Table 2.1: Distress Types – Flexible Pavement

Flexible Pavement Distresses		
• Patching • Rippling & Shoving • Raveling/Streaking • Flushing & Bleeding • Distortion	• Excessive Crown • Progressive Edge Cracking • Alligator Cracking • Potholes • Block/Map Cracking	• Longitudinal Cracking • Transverse Cracking • Wheel Track Rutting

2.3.3 Laser - Transverse Profile / Rutting Data Collection

Rutting data is simultaneously collected along with surface distress and roughness data. The RT-3000 measures transverse profile and rut depths, using a minimum of five high-precision, laser-based height-measuring sensors. The two lasers on either end of the rut bar are angled, to provide a full width transverse profile across the traveled lane. From the laser measurements, the average rut depths are computed for each wheel path for upload to RoadMatrix™. Calculations of rut depth simulate the straight edge method and are made in accordance with ASTM E 1703E/1703M-95 “Standard Test Method for Measuring Rut Depth of Pavement Surface Using a Straightedge”.

3 ROADMATRIX™ ANALYSIS MODELS

3.1 PAVEMENT PERFORMANCE INDICES

3.1.1 Roughness – Ride Comfort Index (RCI)

One of the primary operating characteristics of a road, from the user's perspective, is the rideability, or the RCI. The RCI represents the traveling public's opinion of the pavement's smoothness and, hence, the quality of service it provides. Rating panels composed of drivers/citizens were used at the onset of the initial implementation of pavement management systems 30+ years ago, to calibrate the public's perspective of ride quality against the roughness measurements obtained from a profiler. The RT-3000 unit was used to determine the longitudinal profile of the pavement surface, reported as an IRI value (inches/mile).

The RCI Analysis within RoadMatrix™ is used to calculate the sectional RCI from IRI measurements that were collected in the field. The following model is used to convert IRI measurements to RCI values:

$$RCI = 10 * (22.993 - 3.281 * Ln(1 * IRI))$$

where, IRI is the International Roughness Index from the longitudinal profile of the average of the left and right wheel paths summarized at 100-ft intervals, collected at a minimum speed of 15 miles per hour.

The RCI value for each section ranges from zero (0) to 100, where 100 is indicative of an extremely smooth pavement and an index of zero is indicative of an extremely rough/bumpy pavement.

3.1.2 Surface Distress – Surface Distress Index (SDI)

The SDI is a performance measure of the physical pavement surface cracking, deformations, and surface defects, collectively referred to as surface distresses. SDI provides an excellent indicator of material deficiency, rate of deterioration, structural adequacy, environment, and subgrade-related issues. The SDI is, therefore, a key indicator of pavement performance. The SDI is assessed by identifying and rating the type, severity, and extent of surface distresses.

The RT3000 surface distress survey provided a rating of the severity and extent for thirteen surface distresses within each station (i.e., 100-ft intervals) of each section of the network. These distress ratings were then transformed into SDI values ranging from zero (0) to 100, for each of the thirteen distress types, and weighted for an overall SDI.

The SDI Analysis is used to calculate the sectional SDI from detailed field collected measurements (a set of distress types) based on the Deduct Value Model (DVM) SDI rating system.

An SDI index of 100 indicates a pavement surface in the best possible condition, whereas an index of zero (0) indicates a pavement surface in the worst possible condition.

3.1.3 Structural Adequacy Index (SAI)

The SAI is a performance measure of the pavement's ability to carry expected traffic loads while providing an acceptable level of service. The structural adequacy of a pavement is assessed by comparing pavement deflection measurements under controlled loading conditions, to the maximum tolerable deflection for the anticipated traffic loading.

Falling Weight Deflectometer (FWD) equipment is typically used to measure the deflection of the pavement sections produced by a series of load applications. This structural testing was not included in the scope but can be performed in the future is needed.

The Structural Adequacy Index (SAI) Analysis is used to calculate the sectional SAI from detailed field collected measurements (FWD), seasonally adjusted deflection measurements, and the specified SAI model.

The SAI is represented by a value on a scale of zero (0) to 100, where a value of 50 represents a structural strength that just adequately supports the current traffic loads; a value less than 50 represents inadequate structural support; and a value greater than 50 represents more than adequate structural support.

3.1.4 Pavement Quality Index (PQI)

PQI is an overall performance index for the pavement section and is a function of the sectional RCI, SDI and SAI values.

During the Pavement Quality Index (PQI) Analysis, the following tasks were performed.

- Calculate PQI based on prescribed models.
- Predict future pavement performance based on pavement deterioration models.
- Determine need year based on prescribed thresholds; and
- Estimate remaining service life (RSL).

Two different RoadMatrix™ default PQI models were implemented for the City's performance analysis:

PQI = f (SDI, RCI, SAI); where SDI has the highest weight in the calculation of PQI

PQI = f (RCI, SDI, SAI); where RCI has the highest weight in the calculation of PQI

The first model (SDI weighted) was used to calculate PQI for all Collector and Local sections, since the surface condition is more critical on these slower roadways.

The second model (RCI weighted) is used to calculate PQI for Arterial roads since ride quality is more pronounced on roads with higher posted speeds. This model was not assigned to any sections.

RoadMatrix™ Analysis Models

Need Year

The Need Year is determined from the current condition of the section, the appropriate PQI deterioration curve, and the established PQI minimum acceptable level (trigger level). The year in which the section will reach the PQI minimum acceptable level is termed the Need Year.

Remaining Service Life (RSL)

The Remaining Service Life (RSL) is calculated based on the current condition of the section, the appropriate PQI deterioration curve, and the PQI terminal value. The difference in years between the current condition and the year that the section will reach its PQI terminal value is estimated to be the RSL.

3.2 PAVEMENT DETERIORATION MODELS

3.2.1 Deterioration Curves

The PQI/RCI/SDI/SAI values of a pavement typically decrease over time. To estimate future rehabilitation requirements of a pavement network, it is necessary to model the deterioration of PQI/RCI/SDI/SAI values. While the rate of deterioration depends on multiple factors, it can be demonstrated that the principal factors are the traffic loading conditions, the properties and thickness of the pavement structure layers, and the stiffness of the underlying subgrade. The factors used to model pavement performance within the RoadMatrix™ PMS are:

- Structure: expressed in Equivalent Granular Thickness (EGT) - 3 levels (thin, medium, thick)
- Traffic: AADT - 3 levels (low, medium, high)
- Subgrade: Subgrade strength - 2 levels (weak/fair, strong)

A deterioration curve is defined for each combination of thickness/subgrade/traffic. There are 18 thickness/subgrade/traffic combination (classes); therefore, there are 18 deterioration curves for each pavement type.

3.3 MAINTENANCE AND REHABILITATION ANALYSIS

3.3.1 Needs Assessment Analysis

The needs assessment analysis is used to determine the optimal rehabilitation strategy for each section in the need year, based on PQI trigger and according to its decision tree. The need year is determined by the appropriate deterioration curve, and the PQI trigger level, while the treatment is chosen based on the selected decision tree. A decision tree is defined in RoadMatrix™ PMS for each combination of pavement type and functional class.

3.3.2 Recommended Treatments Analysis

The recommended treatment analysis determines the optimal rehabilitation strategies and implementation years for each section, according to the selected analysis method and the section's decision tree.

The optimal rehabilitation strategy is determined using life cycle economic analysis techniques, which involves an assessment of both the effectiveness of each strategy (area between the after-rehabilitation performance curve and the do-nothing performance curve) and an estimate of the capital cost to implement the strategy (refer to Figure 3:1 below). The ratio of treatment benefit to cost produces a cost-effectiveness (CE) number (or more accurately a net benefit/cost number), which allows rehabilitation strategies to be compared to each other on a relative basis. Traffic level is also a factor that is considered in the calculation of the CE factor. The higher the AADT, i.e., more users, the higher the CE factor.

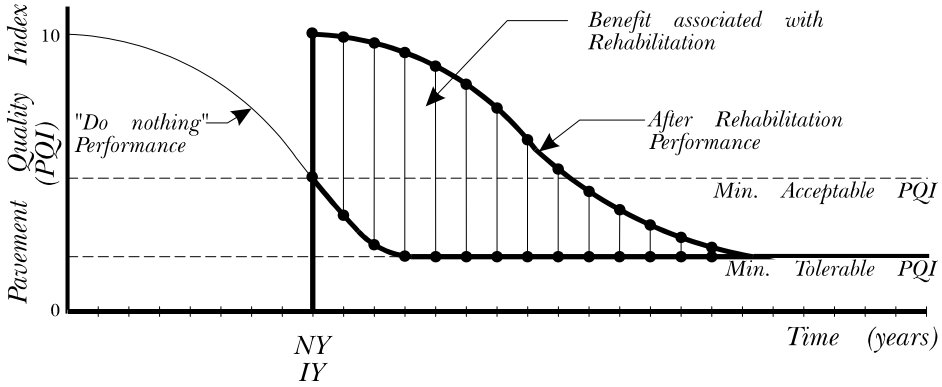


Figure 3:1: Rehabilitation Benefit on Performance Curve

The economic analysis procedure analyzes each potential rehabilitation strategy recommended by the decision trees (also including committed/overridden strategies) for each section in the current network subset. Each strategy is, in turn, analyzed for each possible implementation year since, due to budgetary or performance constraints, it may not be possible to implement a strategy in the implementation year determined from the decision tree.

It should be noted that the "implementation" need year distribution varies from the traditional / PQI need year distribution, since the selected treatment for any road segment can potentially occur before or after the actual need year. The PQI need year is based on the appropriate performance curve and minimum acceptable PQI level defined for each functional class, while the implementation year is based on the analysis methods and the triggers setup through the decision trees. The implementation year will generally occur prior to PQI reaching the PQI Trigger Value when attempting to incorporate pavement preventive maintenance treatments in the recommended work programs.

3.3.2.1 MAINTENANCE AND REHABILITATION (M&R)

The rehabilitation setup within RoadMatrix™ PMS defines treatment strategies (i.e., general maintenance, preventive maintenance, or rehabilitation activities), unit cost of an activity, and the benefit levels (increase/reset/hold values) for each performance index (RCI/SDI/SAI/EGT) as a result of implementing the treatment strategy.

A summary of the maintenance and rehabilitation (M&R) treatments, costs, and benefits (structural and performance) established in the City's RoadMatrix™ database is provided below in Table 3.1. The treatments list and associated unit costs have been provided and verified by the local Stantec office in Plymouth. The benefits of each treatment type have been assigned by Stantec's implementation team.

Table 3.1: City of Dayton – 2023 M&R Treatments Summary

Code	Full Description	Category	Unit Cost ($/ft2)	Base Year	EGT Increase	EGT Value	Increases			Max Value			Hold Years		
							RCI	SDI	SAI	RCI	SDI	SAI	RCI	SDI	SAI
0	Do Nothing		0	2023						85	100	100			
1	Route and Bitumen Crack Seal	GM	0.10	2023				5		85	100	100		1	
30	Chip 1/4" + Fog Seal	PM	0.60	2023			5	35		85	100	100	1	1	1
65	Edge Mill + HMA OL 1.5"	RE	2.10	2023	1.5		29	80	5	85	100	100			
70	Edge Mill + HMA OL 2.0"	RE	2.80	2023	2		38	100	7	85	100	100			
90	Full Mill + HMA OL 1.5"	RE	2.10	2023	0.8		34	80	2	85	100	100			
95	Full Mill + HMA OL 2.0"	RE	2.80	2023	1		46	100	3	85	100	100			
115	HMA OL 1.5"	RE	1.70	2023	3		29	86	8	85	100	100			
120	HMA OL 2.0"	RE	2.30	2023	4		38	100	10	85	100	100			
155	Full Depth Reclamation (FDR) LOC - 3.5" HMA	RE	4.50	2023		15	70	100	75	85	100	100			
156	Full Depth Reclamation (FDR) COL - 5.0" HMA	RE	6.10	2023		22	70	100	75	85	100	100			
160	Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB	CO	9.10	2023		15	85	100	100	85	100	100			
165	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	CO	11.20	2023		20	85	100	100	85	100	100			
170	Full Reconstruction ART-6.0" HMA+12" AB+12" SGB	CO	13.10	2023		24	85	100	100	85	100	100			

3.3.2.2 DECISION TREES

RoadMatrix™ uses a decision tree approach to determine technically feasible rehabilitation strategies for each section requiring maintenance or rehabilitation during the programming period. The decision trees are completely user-defined to ensure that they accurately model the decision process employed by the City. RoadMatrix™ allows for a unique decision tree to be developed for each combination of pavement type and functional class. RoadMatrix™ evaluates the cost-effectiveness (ratio of treatment benefit to cost) to select the most cost-effective treatment and timing.

The decision trees used in this analysis were created by the Stantec implementation team based on our understanding of available treatment types and local practice.

The implemented decision trees are illustrated below in Figure 3:2 for “Local -Flexible Pavement” and in Figure 3:3 for “Collector - Flexible Pavement”.

RoadMatrix™ Analysis Models

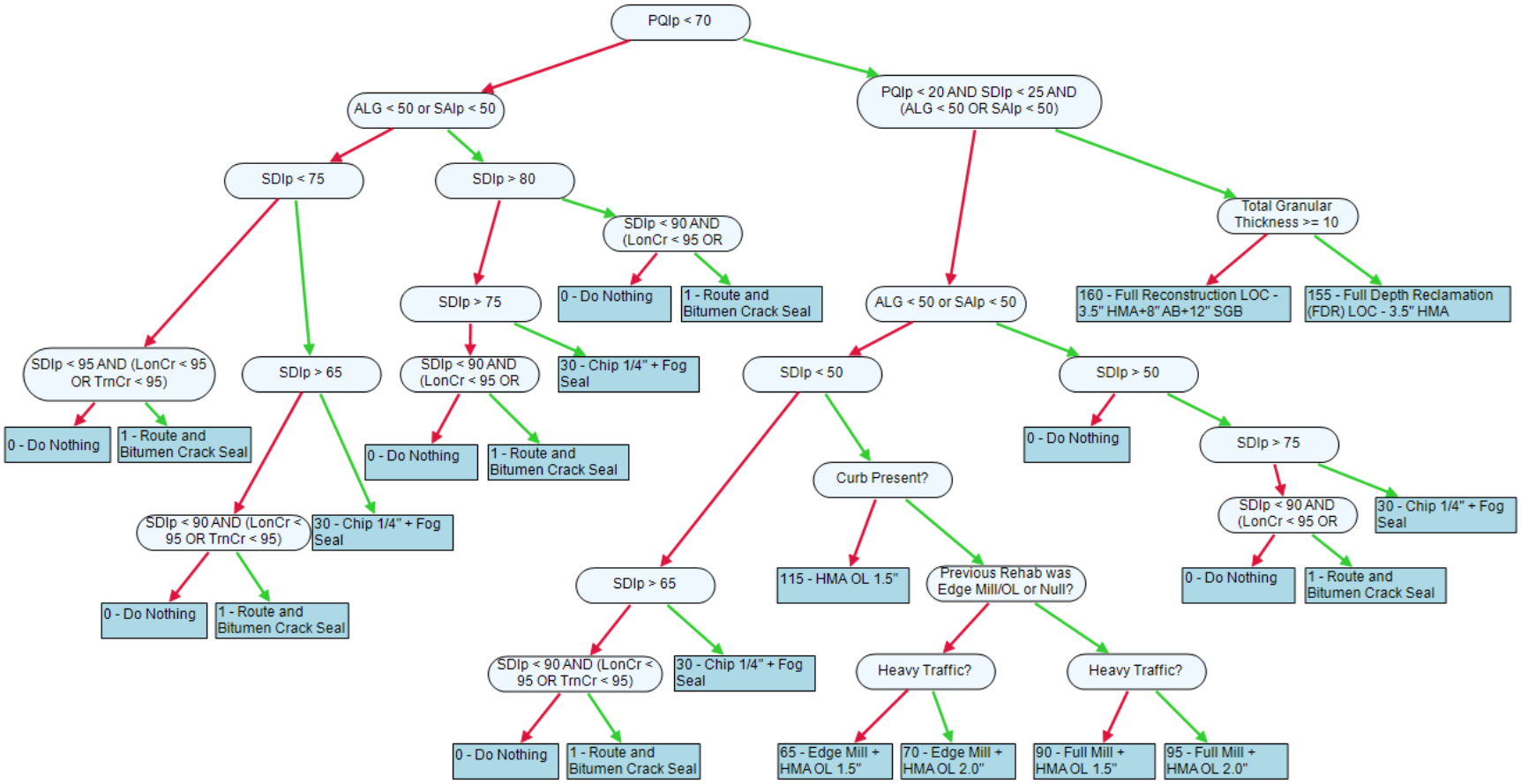


Figure 3:2: Local-Flexible Pavement Decision Tree

RoadMatrix™ Analysis Models

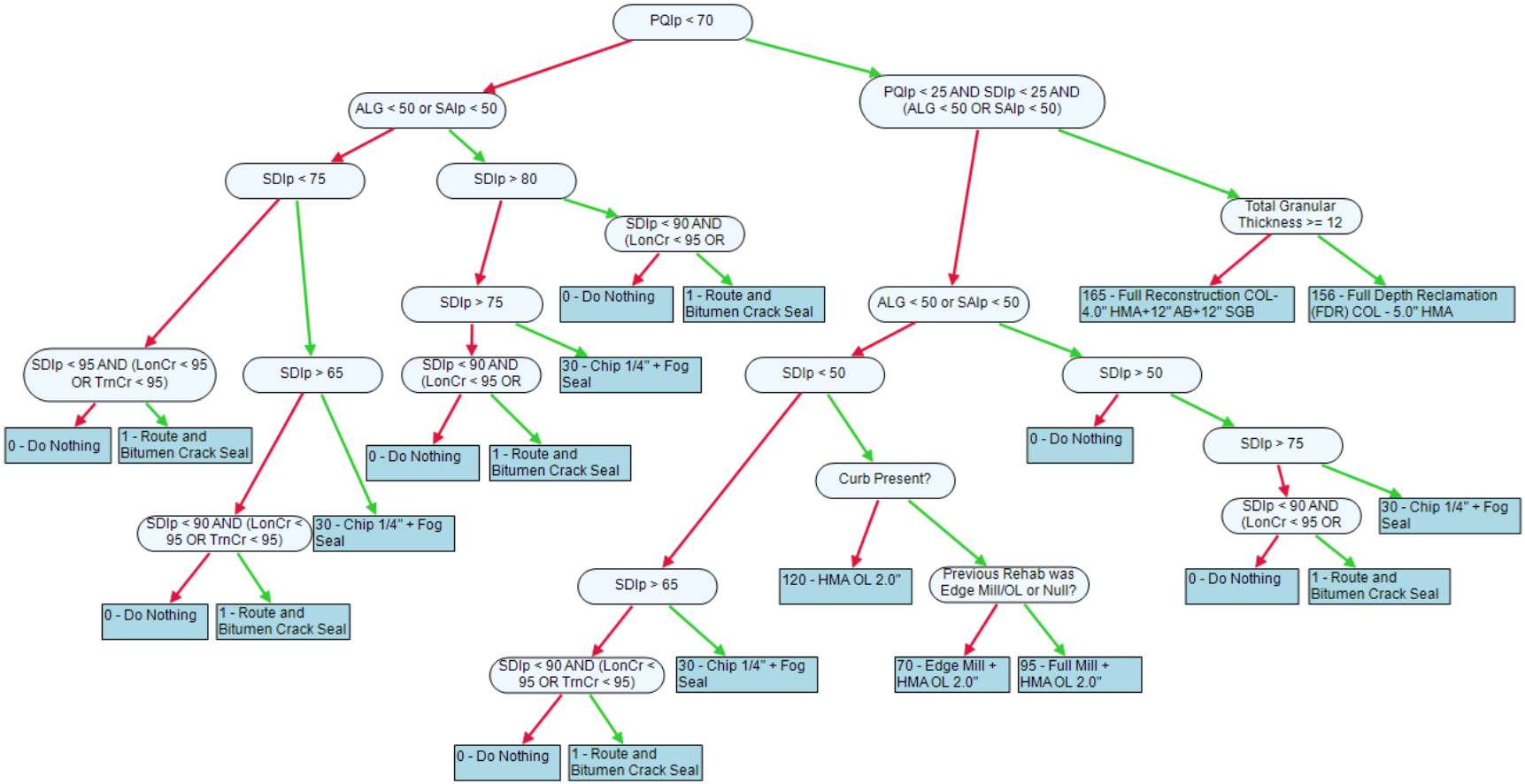


Figure 3:3: Collector-Flexible Pavement Decision Tree

3.4 ANALYSIS TYPES

3.4.1 Overview

In a perfect world, pavement sections would be maintained and/or rehabilitated whenever required. In other words, the optimal rehabilitation strategy determined by economic analysis would be implemented in the “need year”. In the real world, however, budgetary constraints and coordination issues determine the implementation of M&R strategies. To accommodate this real-world requirement, RoadMatrix™ offers various budget and performance-based analysis options to prioritize the implementation of M&R strategies in the most cost-effective manner through a virtually unlimited number of scenarios that users can create.

There are several analysis types available within RoadMatrix™:

1. Budget Limits – used to define specific budget limits for a given subset.
2. Weighted Deficiency – used to define a network performance target based on deficiency (percentage less than PQI minimum acceptable level) weighted by the area, lane-length, length, vehicle-area, vehicle-lane-length, or vehicle-length of the sections.
3. Weighted PQI – used to define network performance target based on PQI (average PQI from all sections) weighted by the area, lane-length, length, vehicle-area, vehicle-lane-length, or vehicle-length of the sections.
4. Need-Driven (based on PQI Trigger) Rehabilitation Cost – used to determine the rehabilitation costs associated with the network needs and decision tree selections. Depending on the analysis mode used, this scenario will report needs based on either PQI trigger or cost-effective rehabilitation selections.
5. Super-Budget – used to combine the results of more than one budget scenario on different subsets. For example, assigning specific budgets for specific functional classes.
6. Super-Budget (Dynamic) – used to combine the results of more than one budget scenario for a specific subset. This analysis type is typically used with treatment constraints. For example, assigning specific funding for specific treatment groups (e.g., preventive maintenance program, overlay program, etc.). This type of analysis is also used to combine funding spending based on a combination of worst-first and cost-effectiveness approaches. For example, the City may have an annual budget of $2M. This analysis allows the City to spend $0.5M on a worst-first basis and $1.5M based on a cost-effectiveness basis.

4 ANALYSIS RESULTS

This section presents a summary of the present status of the City of Dayton's road network based on the 2023 field survey. Also presented in this section are the budget analysis results including the predicted performance and the recommended work programs over the next five (5) years for various analysis scenarios.

4.1 PRESENT STATUS RESULTS

4.1.1 Lane-Length Weighted Performance

The condition of the City of Dayton road network is summarized in this section. A summary of the present status results for 2023 is presented below in Table 4.1. It should be noted that only paved sections are included in the analysis results.

Performance indices (PQI, PCI, RCI) of all road sections are provided in Appendix F.

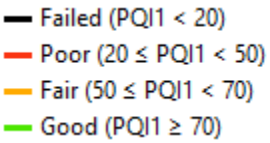
Table 4.1: 2023 Present Status Analysis Results – City Paved Sections

Functional Class	No. of Sections	Length (CL-MI)	Lane Length (LN-MI)	LL[1]-RCI	LL-SDI	LL-SAI	LL-PQI
Collector	121	24.0	49.0	72	61	--	56
Local	334	37.2	74.4	58	59	--	52
City-Paved Sections	**455**	**61.2**	**123.4**	**64**	**60**	**--**	**54**

[1] LL = Lane-length-weighted

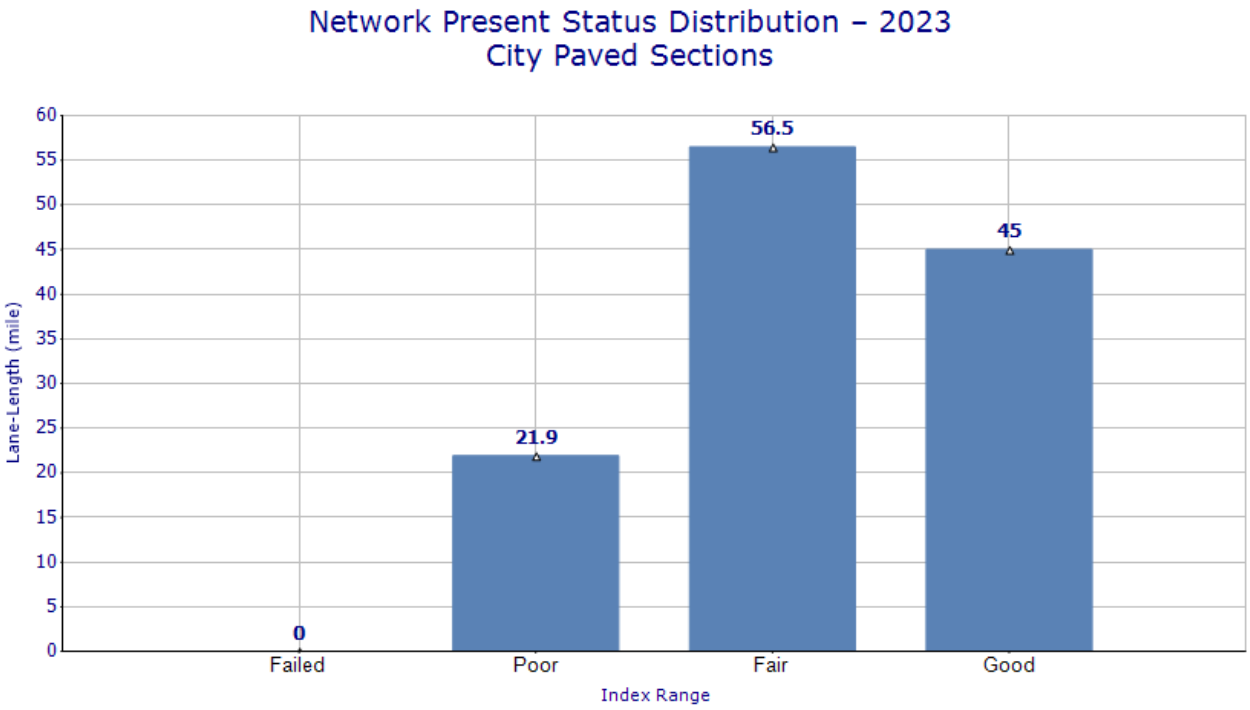
The following observations can be made based on the performance results presented in Table 4.1:

- The City's road network is in "Fair" overall condition in 2023 as noted by the overall network LL-weighted PQI of 54. Similarly, the network is rated as "Fair" for ride quality (RCI) with a score of 64 and also rated as "Fair" in terms of the surface condition (SDI) with a score of 60.
- Collector road sections offer a "Fair" overall performance rating (PQI = 56).
- Local road sections also offer a "Fair" overall performance rating (PQI of 52).
- The results by functional class indicate that the Collector road network has the best average ride quality rating at 72, followed by Local roads at 58. The results are to be expected considering that roads with more traffic, are usually given more attention in terms of M&R work.
- The SDI results indicate that collector and local networks both share a "Fair" surface condition rating as indicated by the LL-weighted SDI of 61 and 59, respectively.



4.1.2 Ride Comfort Index (RCI)

A chart showing the distribution of RCI values, weighted by lane-length miles, is presented below in Figure 4:1.



RCI Range	Failed	Poor	Fair	Good	Total
Sections	1	127	206	121	455
Lane-Length (mile)	0	21.9	56.5	45	123.4
Lane-Length %	0	17.7	45.8	36.5	100
Area (yd^2)	1,092	190,060	488,849	343,386	1,023,387
Area %	0.1	18.6	47.8	33.6	100

Figure 4:1: 2023 RCI Distribution - City Paved Sections

Analysis Results

The distribution of the network RCI values by condition category is shown below in Table 4.2.

Table 4.2: 2023 RCI Distribution – City Paved Sections

RCI Ranges	Ride Quality Rating	# of Sections	Length (LN-MI)	% of Network
RCI < 20	Failed	1	0.05	< 0.1
20 ≤ RCI < 50	Poor	127	21.9	17.7
50 ≤ RCI < 70	Fair	206	56.5	45.8
RCI ≥ 70	Good	121	45.0	36.5

The network RCI results indicate that only one road section (DAYTON PKWY from 120 FT SW OF CO ROAD 81 to COUNTY ROAD 81 & 113TH AVENUE NO) which is approximately 0.05 lane miles (< 0.1 % of the network) exhibit “Failed” ride quality. Approximately 17.7 % of the network exhibit “Poor” ride quality. The majority of the roads (approximately 56.5 lane miles or 45.8 % of the network) exhibit “Fair” ride quality. Approximately 45 lane miles (36.5 %) of the network exhibit “Good” ride quality.

The RCI results are presented by the RCI range on a color-coded map in Appendix A.

A summary of the 2023 RCI distribution by functional class results are provided below in Table 4.3.

Table 4.3: 2023 RCI Distribution – City Paved Sections by Functional Class

Functional Class	LL RCI	RCI Ranges	Ride Quality Rating	# of Sections	Length (LN-MI)	% of Network
Collector	72	RCI < 20	Failed	1	0.05	< 0.1
		20 ≤ RCI < 50	Poor	9	1.3	2.7
		50 ≤ RCI < 70	Fair	51	18.3	37.3
		RCI ≥ 70	Good	60	29.4	60.0
Local	58	RCI < 20	Failed	0	0.0	0.0
		20 ≤ RCI < 50	Poor	118	20.6	27.7
		50 ≤ RCI < 70	Fair	155	38.2	51.3
		RCI ≥ 70	Good	61	15.6	21.0

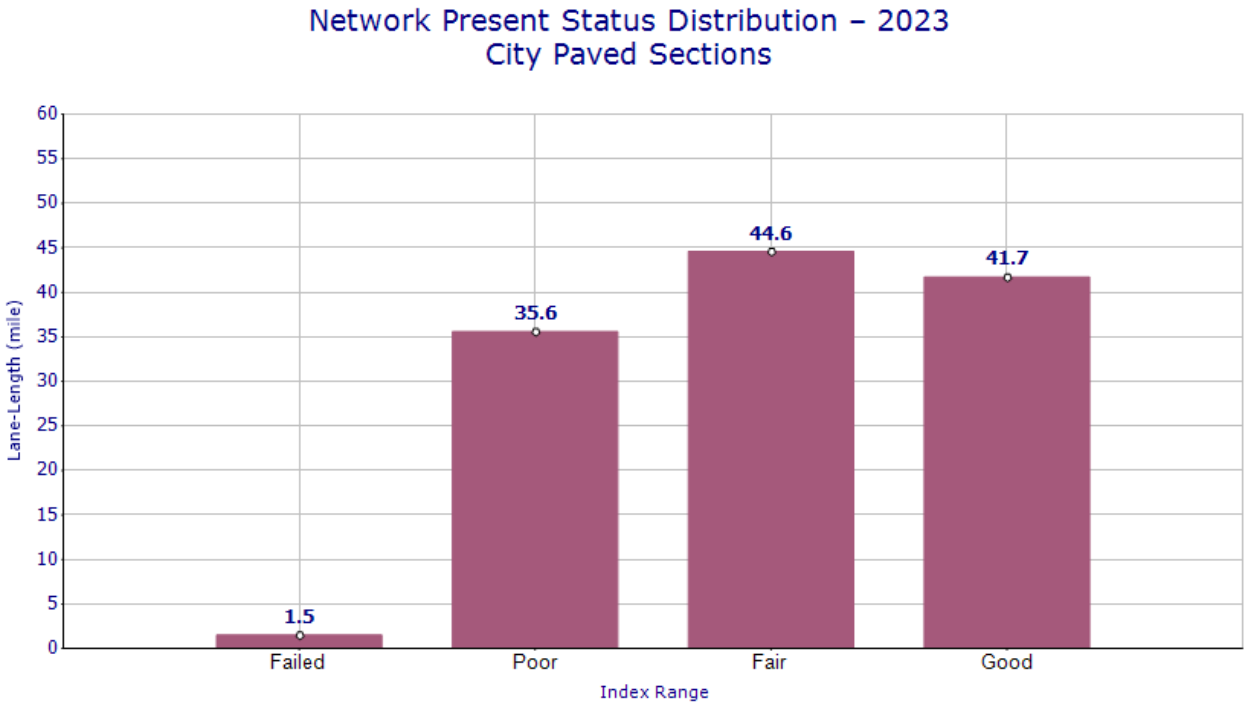
LL-RCI = Lane-length-weighted RCI

Analysis Results

The results by functional class indicate that the majority of Collector roads exhibit either a “Good” ride quality (60 %) or a “Fair” ride quality (37.3 %). There are approximately 1.3 lane miles of Collector roads that exhibit a “Poor” ride quality and only 1 section (DAYTON PKWY from 120 FT SW OF CO ROAD 81 to COUNTY ROAD 81 & 113TH AVENUE NO) that exhibits a “Failed” ride quality. The majority of the Local roads (51.3 %) exhibit a “Fair” ride quality and approximately 21 % exhibit a “Good” ride quality. On the other hand, approximately 28 % of the local roads network exhibit a “Poor” ride quality.

4.1.3 Surface Distress Index (SDI)

A chart showing the distribution of SDI values, weighted by lane-length miles, is presented below in Figure 4:2.



SDI Range	Failed	Poor	Fair	Good	Total
Sections	4	107	145	199	455
Lane-Length (mile)	1.5	35.6	44.6	41.7	123.4
Lane-Length %	1.2	28.8	36.1	33.8	100
Area (yd^2)	10,651	303,632	350,704	358,400	1,023,387
Area %	1	29.7	34.3	35	100

SDI(59.7)

Figure 4:2: 2023 SDI Distribution - City Paved Sections

Analysis Results

The distribution of the network SDI values by condition category is shown in Table 4.4 below.

Table 4.4: 2023 SDI Distribution – City Paved Sections

SDI Ranges	Surface Distress Rating	# of Sections	Length (LN-MI)	% of Network
SDI < 20	Failed	4	1.5	1.2
20 ≤ SDI < 50	Poor	107	35.6	28.9
50 ≤ SDI < 70	Fair	145	44.6	36.1
SDI ≥ 70	Good	199	41.7	33.8

The network SDI results indicate that there are 4 road sections (1.5 lane miles) with a “Failed” pavement surface condition rating. Approximately 35.6 lane miles (28.9 % of the network) exhibit “Poor” surface condition and approximately 36.1 % of the network (44.6 lane miles) exhibits a “Fair” pavement surface condition rating. Approximately a third of the network (33.8 %) exhibits a “Good” pavement surface condition rating.

The SDI results are presented by the SDI range on a color-coded map in Appendix B.

A summary of the 2023 SDI distribution by functional class results are provided below in Table 4.5.

Table 4.5: 2023 SDI Distribution – City Paved Sections by Functional Class

Functional Class	LL-SDI	SDI Ranges	Surface Distress Rating	# of Sections	Length (LN-MI)	% of Network
Collector	61	SDI < 20	Failed	1	0.6	1.2
		20 ≤ SDI < 50	Poor	26	13	26.5
		50 ≤ SDI < 70	Fair	47	20.4	41.6
		SDI ≥ 70	Good	47	15.1	30.7
Local	59	SDI < 20	Failed	3	0.9	1.3
		20 ≤ SDI < 50	Poor	81	22.7	30.5
		50 ≤ SDI < 70	Fair	98	24.2	32.5
		SDI ≥ 70	Good	152	26.6	35.8

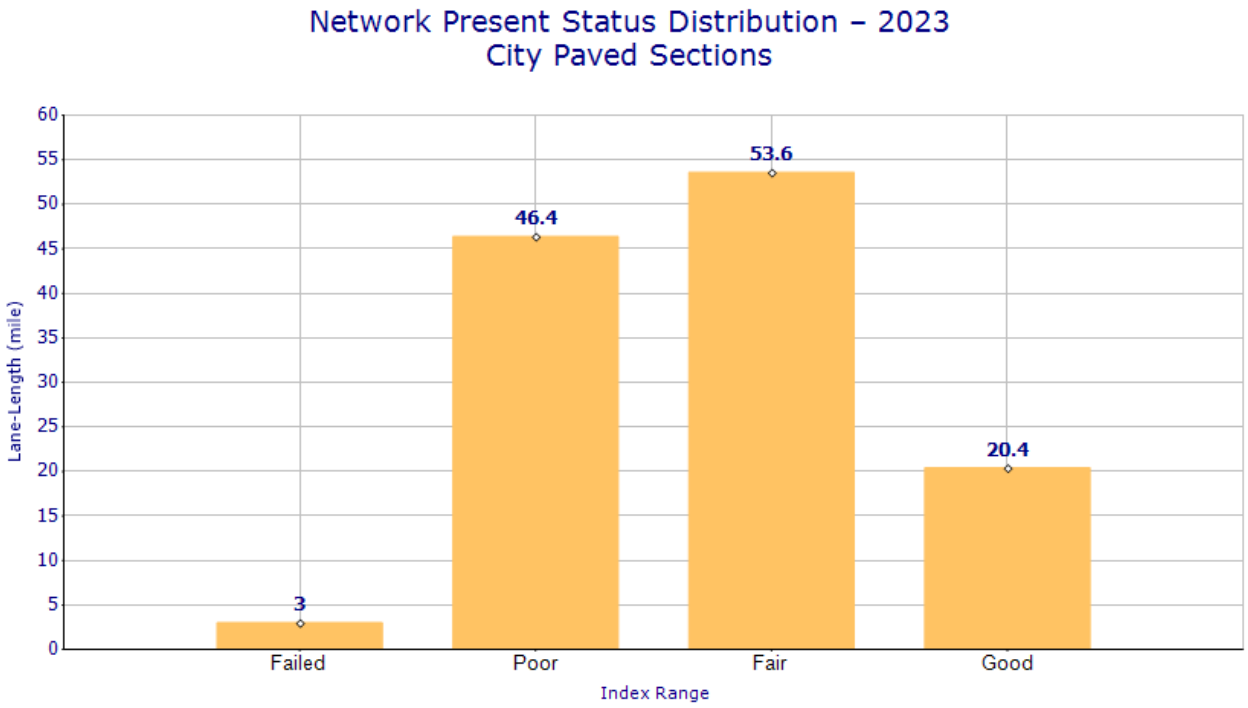
LL-SDI. = Lane-length-weighted SDI

Analysis Results

The results by functional class indicate that the majority of the Collector roads (41.6 %) exhibit a “Fair” surface condition rating (50 ≤ SDI < 70) whereas the majority of the Local roads exhibit a “Good” surface condition rating. Approximately a third of the roads in the Local network exhibit a “Good” surface condition rating. There is 1 Collector road (ZACHARY LANE NORTH from ELM CREEK ROAD to ZACHARY LANE NORTH) that exhibits a “Failed” surface condition rating. There are also 3 Local road sections (0.9 lane miles) that exhibit a “Failed” surface condition rating.

4.1.4 Pavement Quality Index (PQI)

A chart showing the distribution of PQI values, weighted by lane-length miles, is presented below in Figure 4:3.



PQI Range	Failed	Poor	Fair	Good	Total
Sections	8	142	224	81	455
Lane-Length (mile)	3	46.4	53.6	20.4	123.4
Lane-Length %	2.4	37.6	43.4	16.5	100
Area (yd^2)	23,628	390,978	439,380	169,401	1,023,387
Area %	2.3	38.2	42.9	16.6	100

PQI(53.7)

Figure 4:3: 2023 PQI Distribution - City Paved Sections

Analysis Results

The distribution of the network PQI values by condition category is shown in Table 4.6 below.

Table 4.6: 2023 PQI Distribution – City Paved Sections

PQI Ranges	Overall Performance Rating	# of Sections	Length (LN-MI)	% of Network
PQI < 20	Failed	8	3.0	2.4
20 ≤ PQI < 50	Poor	142	46.4	37.6
50 ≤ PQI < 70	Fair	224	53.6	43.5
PQI ≥ 70	Good	81	20.4	16.5

The overall network condition (PQI) results indicate that there are 8 road sections (approximately 3 lane miles) with a “Failed” overall condition rating. Approximately 37.6 % of the network exhibits a “Poor” overall condition rating. Approximately 43.5 % of the network (53.6 lane miles) exhibits a “Fair” overall condition rating and approximately 16.5 % (20.4 lane miles) exhibits a “Good” overall condition rating.

The PQI results are presented by the PQI range on a color-coded map in Appendix C.

A list of the 8 road sections that are classified as “Failed” is provided in Appendix D.

A summary of the 2023 PQI distribution by functional class results are provided below in Table 4.7.

Table 4.7: 2023 PQI Distribution – City Paved Sections by Functional Class

Functional Class	LL-PQI	PQI Ranges	Overall Performance Rating	# of Sections	Length (LN-MI)	% of Network
Collector	56	PQI < 20	Failed	1	0.6	1.2
		20 ≤ PQI < 50	Poor	35	18.6	37.9
		50 ≤ PQI < 70	Fair	55	18.6	38.0
		PQI ≥ 70	Good	30	11.2	22.9
Local	52	PQI < 20	Failed	7	2.4	3.2
		20 ≤ PQI < 50	Poor	107	27.8	37.4
		50 ≤ PQI < 70	Fair	169	35.0	47.1
		PQI ≥ 70	Good	51	9.2	12.3

LL-PQI = Lane-length-weighted PQI

Analysis Results

The results by functional class indicate that the majority of the Local roads (47.1 %) exhibit a “Fair” overall condition rating and approximately 37.4 % exhibit a “Poor” overall rating. Only 12.3 % of the Local roads exhibit a “Good” overall condition rating and approximately 3 % exhibit a “Failed” rating. The Collector road network shows a similar percentage (approximately 38 %) of roads tin “Fair” and “Poor” condition.. Approximately 22.9 % of the Collector roads exhibit a “Good” overall condition rating and only one section exhibits a “Failed” rating.

4.2 BUDGET ANALYSIS RESULTS

4.2.1 Committed Projects

To run a realistic analysis, the City was asked to provide a list of projects that the City is committed to implementing in 2024 and in 2025. Table 4.8 below provides a summary of the committed projects for the next 2 years along with the source of funding for each of the projects.

Table 4.8: List of Committed Projects for 2024 and 2025

Section #	Street	From	To	CL Length (ft)	Rehab Year	Committed Rehab	Estimated Rehab Cost	Funding Source
3100 (SS-S6-130-1)	113TH AVENUE NORTH	COUNTY ROAD 81 & HOLLY LANE NORT	LAWNDALE LANE NORTH	312.1	2025	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	170,930	City
3110 (SS-S6-130-1)	113TH AVENUE NORTH	LAWNDALE LANE NORTH	END	1860	2025	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	768,574	City
4340 (SS-113TH AVE N)	113TH AVENUE NORTH	490 FT E OF END	1782 FT E OF END	1293	2024	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	TBD	Other
4350 (SS-113TH AVE N)	113TH AVENUE NORTH	1782 FT E OF END	FERNBROOK LANE NORTH	1294.3	2024	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	TBD	Other
410 (SS-410)	152ND AVENUE NORTH	BROCKTON LANE NORTH	END	1510.4	2024	Full Mill + HMA OL 2.0"	91,883	City
500	THICKET LANE NORTH	END	149TH AVENUE NORTH	3299.1	2024	Full Mill + HMA OL 2.0"	228,017	City

4.2.2 Super-Sections

In order to have aggregated work program recommendations, super-sections were created in RoadMatrix™ based on neighborhood, functional class, and pavement type. Road sections that are not located within any neighborhood were aggregated based on logical project limits. These super-sections are identified in RoadMatrix™ through a Section ID that starts with the letters “SS”.

In addition to the default “Do Nothing” scenario, three (3) budget and performance-based scenarios have been analyzed as part of this project. A summary of the budget analysis results for each of the 4 scenarios along with their predicted performance results are presented below in Table 4.9 for the 5-year analysis period from 2024 to 2028. Note that the reported analysis results below assume that all of the committed projects presented above in Table 4.8 are completed in the committed rehab year.

The “Deficiency” results presented in Table 4.9 represent the percentage of road sections with a PQI less than the minimum acceptable level. These minimum acceptable levels (PQI Min) have been set as follows: **PQI = 60 for Collector roads and PQI = 55 for Local roads.**

Table 4.9: Budget Analysis Results 2024 – 2028 – City Paved Sections

Budget	Total Cost Over 5 Years ($ million)	LL-PQI[1]		LL-Def.[2] (%)	
		2024	2028	2024	2028
Do Nothing - SS	0.00	50	34	61	92
$1.0M/Year - SS - Committed=Y	4.993	54	50	53	68
$1.5M/Year - SS - Committed=Y	7.493	55	59	50	53
Achieve a PQI of 70 by 2028 - SS - Committed=Y	10.253	57	71	52	33

[1] LL-PQI = Lane-length-weighted PQI; [2] LL-Def. = Lane-length-weighted Deficiency.

The following observations can be made based on the information presented in the table above:

- Should no work be performed on the network for the next 5 years, the average network PQI is predicted to drop from 50 in 2024 to 34 by the end of 2028. The network deficiency is predicted to increase from 61 % in 2024 to 92 % by the end of 2028.
- The $1.0 million per year budget scenario is predicted to decrease the network performance to 50 by the end of 2028. The % Deficiency is predicted to increase from 53 % by the end of 2024 to 68 % by the end of 2028.
- The $1.5 million per year budget scenario is predicted to increase the network performance to 59 by the end of 2028. The % Deficiency is predicted to slightly increase from 50 % by the end of 2024 to 53 % by the end of 2028.
- To gradually achieve a PQI of 70 by 2028 (A PQI of 71 is actually predicted), the City needs to invest approximately $2.0 million per year over the next 5 years. This performance-based scenario is predicted to decrease the deficiency to 33 % by the end of 2028.

4.2.3 Annual Budget Network Performance Results

The annual prioritization targets/limits in terms of budget or performance, the estimated cost, resulting LL-PQI, and the lane length-weighted deficiency percentage (LL-Def. %) are provided below in Table 4.10 through Table 4.13 for each analysis scenario. The costs in the tables are rounded to the nearest $1,000 and PQI and % Deficiency are rounded to the nearest whole number.

Table 4.10: Do Nothing Budget Scenario Results

Year	Cost ($)	LL-PQI	LL-Def. (%)
2024	0	50	61
2025	0	45	77
2026	0	41	82
2027	0	38	92
2028	0	34	92
Total	**$0**		

Table 4.11: $1.0M/Year - SS - Committed=Y

Year	Cost ($)	LL-PQI	LL-Def. (%)
2024	$999,000	54	53
2025	$1,000,000	51	65
2026	$997,000	51	67
2027	$999,000	50	72
2028	$999,000	50	68
Total	**$4,993,000**		

Table 4.12: $1.5M/Year - SS - Committed=Y

Year	Cost ($)	LL-PQI	LL-Def. (%)
2024	$1,499,000	55	50
2025	$1,500,000	55	62
2026	$1,499,000	56	58
2027	$1,499,000	58	57
2028	$1,496,000	59	53
Total	**$7,493,000**		

Table 4.13: Achieve a PQI of 70 by 2028 - SS - Committed=Y

Year	Cost ($)	LL-PQI	LL-Def. (%)
2024	$1,777,000	57	52
2025	$2,840,000	60	54
2026	$2,035,000	63	49
2027	$1,564,000	66	43
2028	$2,036,000	71	33
Total	**$10,253,000**		

The results of the aforementioned analysis scenarios, in terms of both the network LL-PQI and network LL-Def. percentages, are illustrated below in Figure 4:4 and Figure 4:5, respectively.

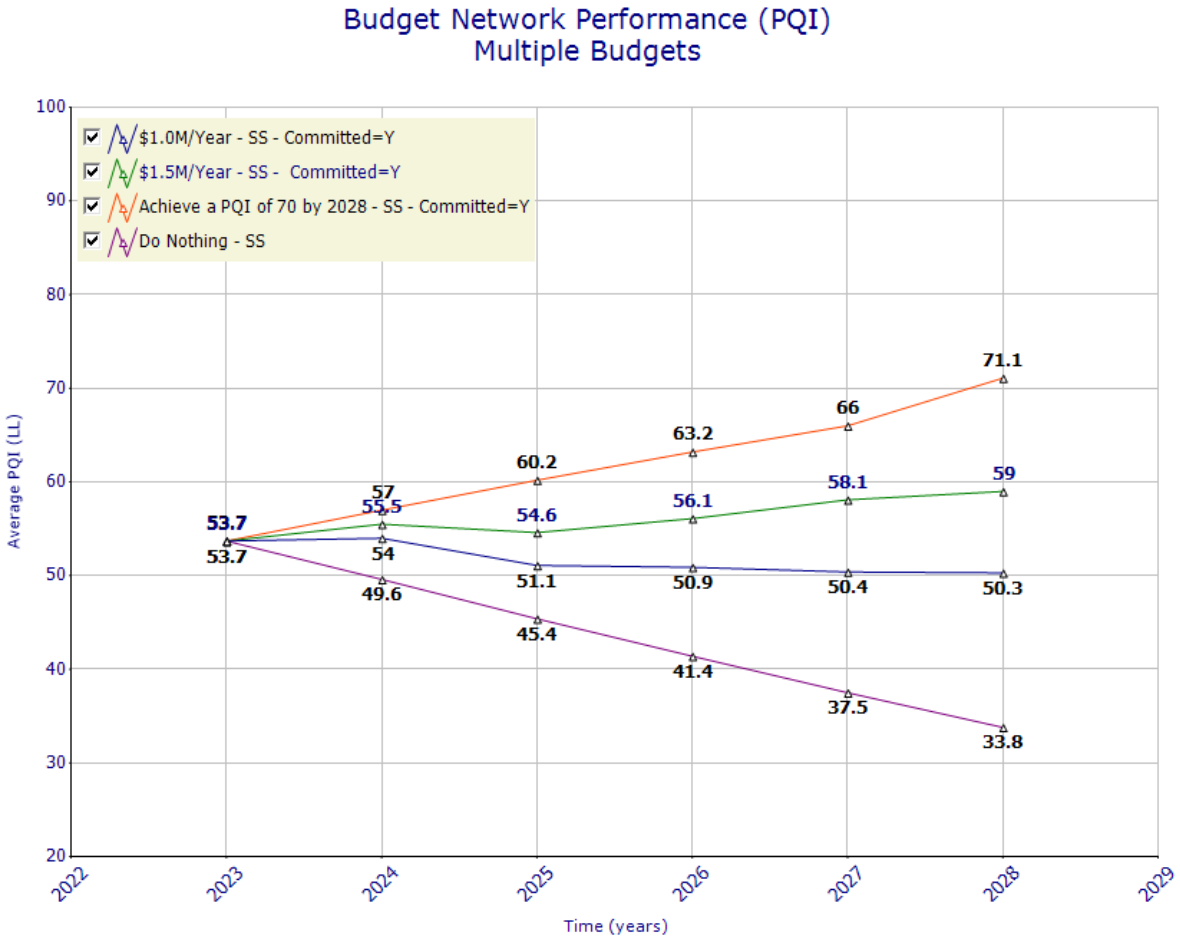


Figure 4:4: Funding Impact on Network Predicted PQI

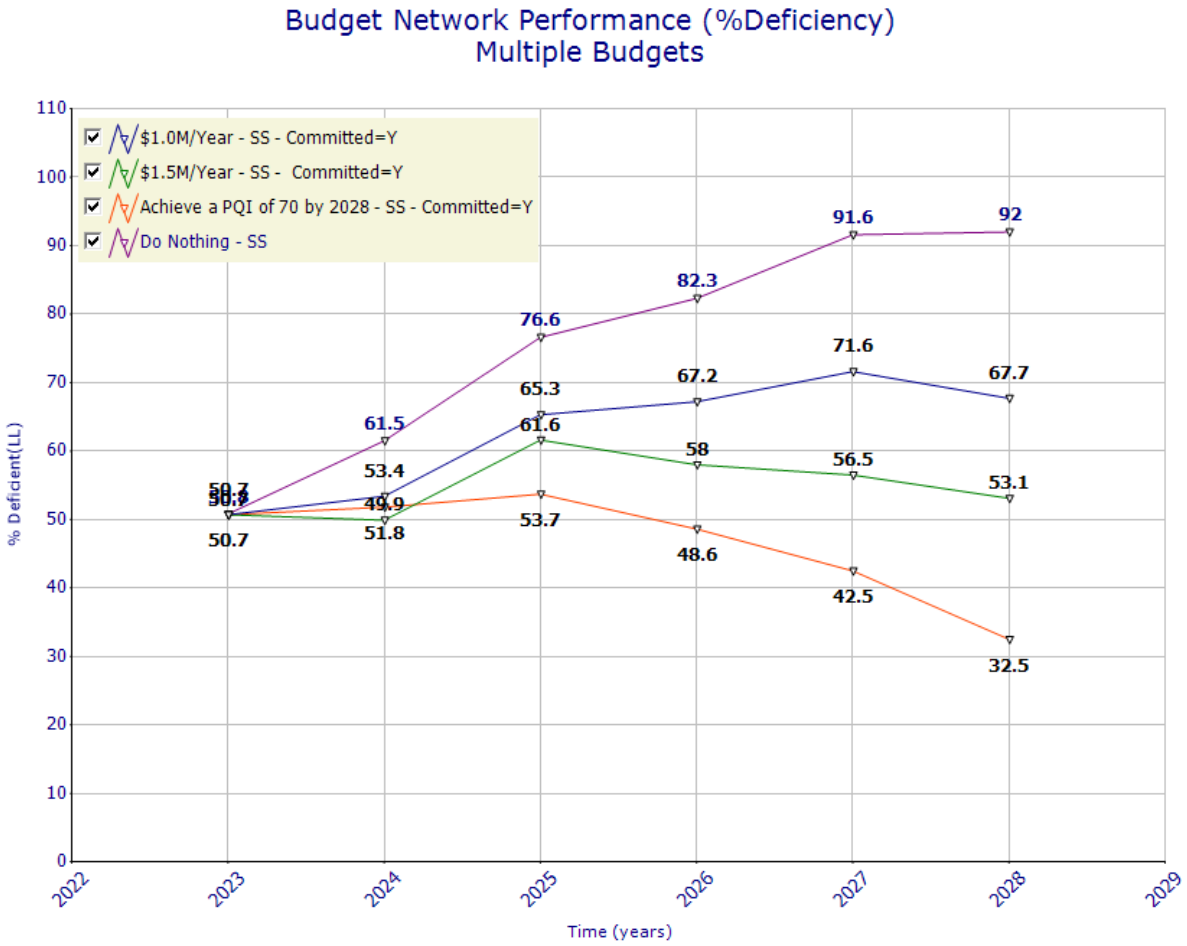


Figure 4:5: Funding Impact on Network Predicted % Deficiency

4.2.4 Budget Recommended Rehabilitations

The distribution of the M&R treatments for each analysis scenario, in terms of both the lane length and total cost over the 5-year analysis period are presented below in Figure 4:6 through Figure 4:8. The results indicate that the “HMA OL 2.0” and the “Chip 1/4" + Fog Seal” are the top recommended treatments in terms of lane-length and cost.

The detailed recommended work programs are provided in tabulated and graphical formats under Appendix E.

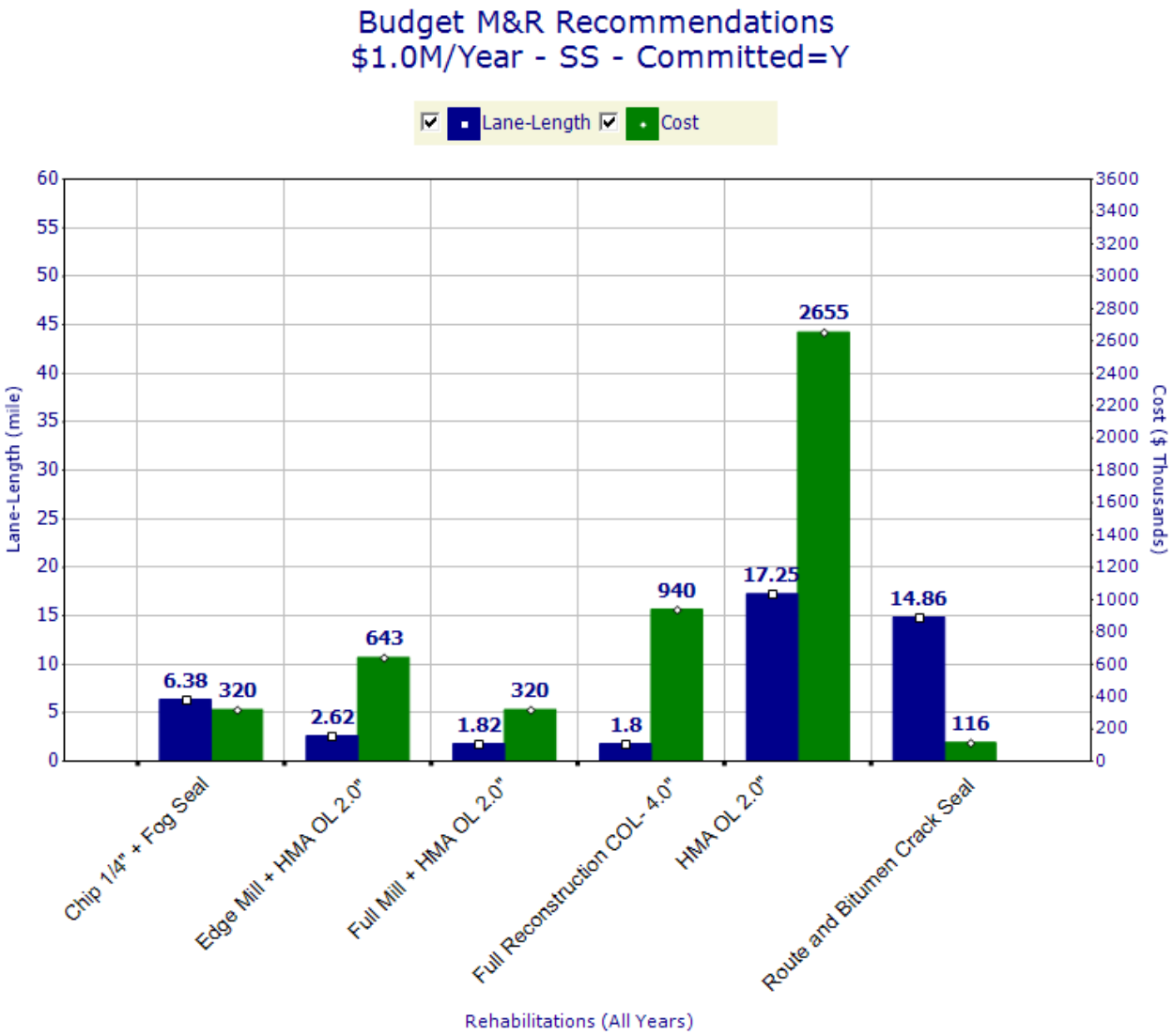


Figure 4:6: Recommended Rehabilitations by Treatment - $1.0M/Year–SS–Committed=Y

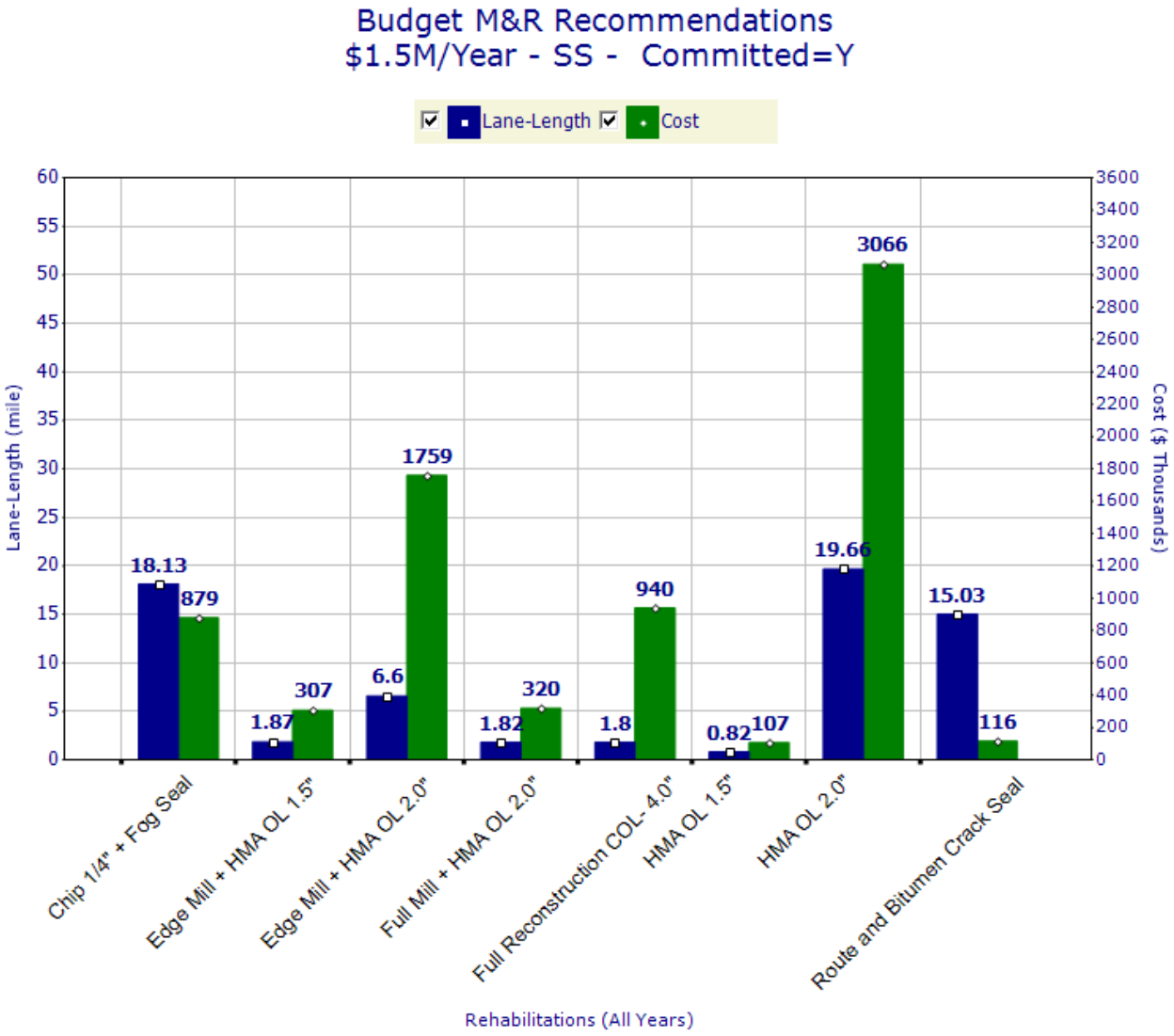


Figure 4:7: Recommended Rehabilitations by Treatment - $1.5M/Year–SS–Committed=Y

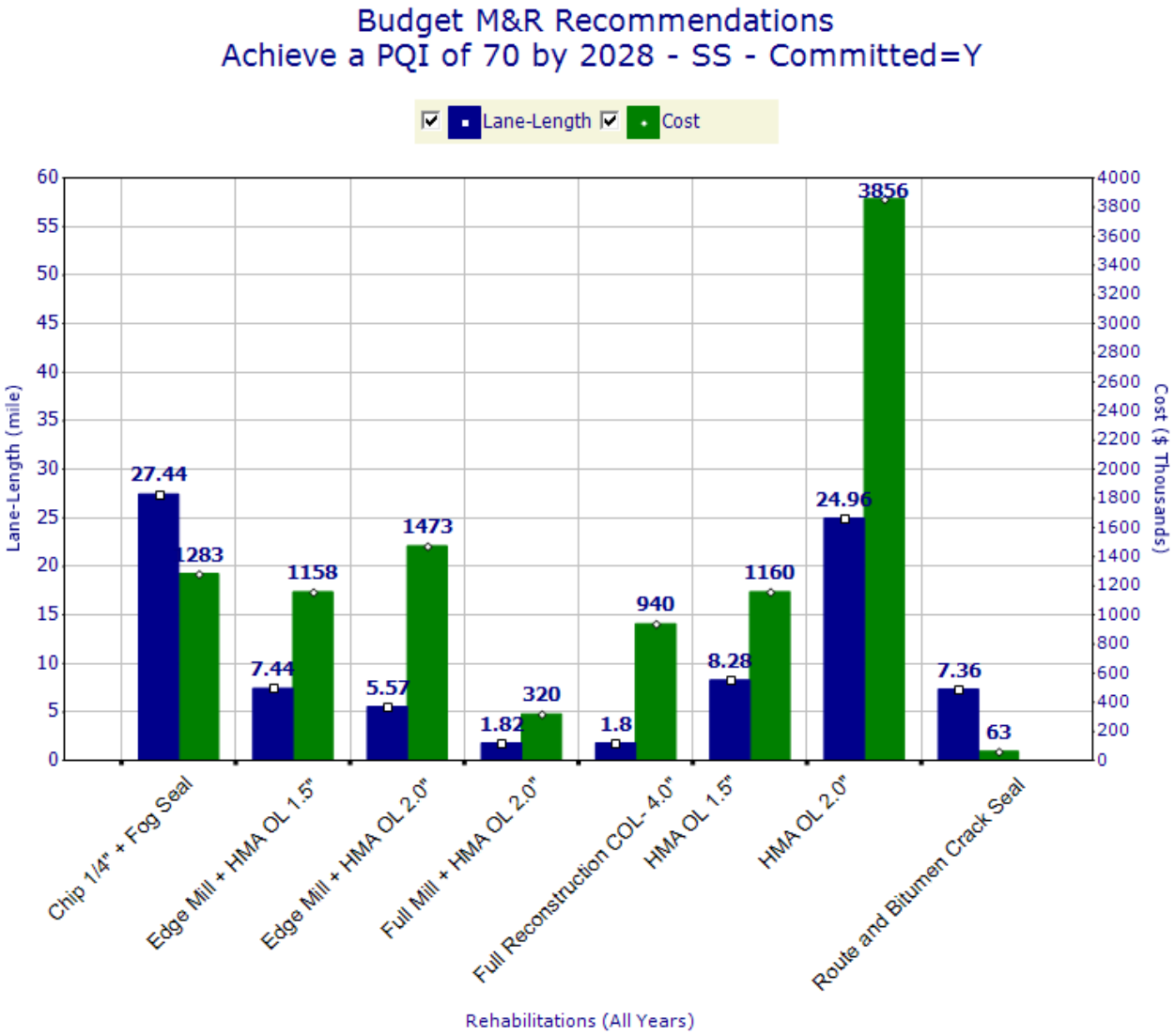


Figure 4:8: Recommended Rehabilitations by Treatment – Achieve a PQI of 70 by 2028

5 CONCLUSIONS

As part of the 2023 City of Dayton Pavement Condition Assessment and Reporting project, the City's road network, approximately 64 survey-miles (62 centerline miles) were surveyed for roughness and surface distress. Stantec's RoadMatrix™ PMS was implemented locally on Stantec's servers and was used to host the City's network information and to run analyses. Section attributes were obtained through field data collection and input from the local Stantec office in Plymouth. A summary of this project's findings is provided in the following sub-sections.

5.1 PRESENT STATUS

- The City's road network is in "Fair" overall condition in 2023 as noted by the overall network LL-weighted PQI of 54. Similarly, the network is rated as "Fair" for ride quality (RCI) with a score of 64 and also rated as "Fair" in terms of the surface condition (SDI) with a score of 60.
- Collector road sections offer a "Fair" overall performance rating (PQI = 56).
- Local road sections also offer a "Fair" overall performance rating (PQI of 52).
- The results by functional class indicate that the Collector road network has the best average ride quality rating at 72, followed by Local roads at 58. The results are to be expected considering that roads with more traffic, are usually given more attention in terms of M&R work.
- The SDI results indicate that collector and local networks both share a "Fair" surface condition rating as indicated by the LL-weighted SDI of 61 and 59, respectively.
- The network RCI results indicate that only one road section (DAYTON PKWY from 120 FT SW OF CO ROAD 81 to COUNTY ROAD 81 & 113TH AVENUE NO) which is approximately 0.05 lane miles (< 0.1 % of the network) exhibits a "Failed" ride quality. Approximately 17.7 % of the network exhibits "Poor" ride quality. The majority of the roads (approximately 56.5 lane miles or 45.8 % of the network) exhibit "Fair" ride quality. Approximately 45 lane miles (36.5 %) of the network exhibits a "Good" ride quality.
- The network SDI results indicate that there are 4 road sections (1.5 lane miles) with a "Failed" pavement surface condition rating. Approximately 35.6 lane miles (28.9 % of the network) exhibit "Poor" surface condition and approximately 36.1 % of the network (44.6 lane miles) exhibits a "Fair" pavement surface condition rating. Approximately a third of the network (33.8 %) exhibits a "Good" pavement surface condition rating.
- The network overall condition (PQI) results indicate that there are 8 road sections (approximately 3 lane miles) with a "Failed" overall condition rating. Approximately 37.6 % of the network exhibits a "Poor" overall condition rating. Approximately 43.5 % of the network (53.6 lane miles) exhibits a "Fair" overall condition rating and approximately 16.5 % (20.4 lane miles) exhibits a "Good" overall condition rating.

5.2 BUDGET ANALYSIS

The following observations can be made based on the budget analysis results:

- Should no work be performed on the network for the next 5 years, the average network PQI is predicted to drop from 50 in 2024 to 34 by the end of 2028. The network deficiency is predicted to increase from 61 % in 2024 to 92 % by the end of 2033.
- The $1.0 million per year budget scenario is predicted to decrease the network performance to 50 by the end of 2028. The % Deficiency is predicted to increase from 53 % by the end of 2024 to 68 % by the end of 2028.
- The $1.5 million per year budget scenario is predicted to increase the network performance to 59 by the end of 2028. The % Deficiency is predicted to slightly increase from 50 % by the end of 2024 to 53 % by the end of 2028.
- To gradually achieve a PQI of 70 by 2028 (A PQI of 71 is actually predicted), the City needs to invest approximately $2.0 million per year over the next 5 years. This performance-based scenario is predicted to decrease the deficiency to 33 % by the end of 2028.

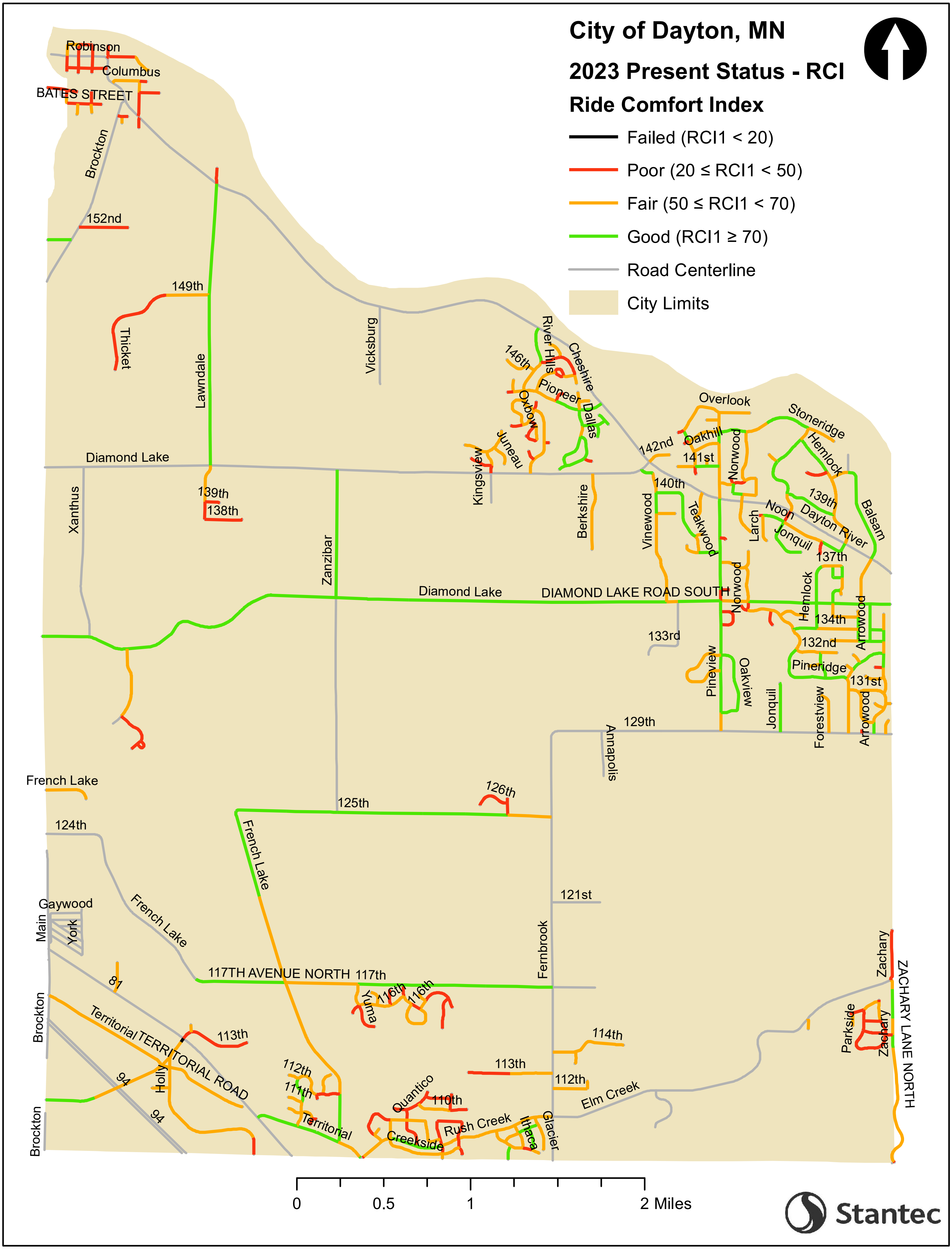
6 RECOMMENDATIONS

The following recommendations are developed based on our understanding of the City's network condition, available funding, and current practices:

- It is recommended that the City survey the road network once every 3 years (industry standard), to ensure accurate condition data and to validate the benefits of maintenance and rehabilitation (M&R) programs completed by the City.
- It is recommended that the City continue to prioritize preventive maintenance because it is much more cost-effective to keep good roads in good condition as opposed to spending the majority of the available funds on roads that have already deteriorated past the preventive maintenance threshold. RoadMatrix™ decision trees have been customized for the City to allow them to focus on preventive maintenance.
- It is recommended that the City consider validating the layer thickness information currently in RoadMatrix™ using either as-built drawings or by conducting GPR testing. GPR is used to determine the layer thickness information non-destructively. It is worth noting that the layer thickness information will need to be determined only once, provided that the City keeps updating the work history annually as needed. Furthermore, layer thickness information, along with traffic levels and subgrade stiffness, is used within RoadMatrix™ to determine the rate of pavement performance deterioration. This allows for the prediction of pavement performance over time, which in turn affects the selection and planning of short and long-term projects.
- Traffic data is one of the elements that helps determine the performance deterioration rate and influences SAI calculations. It is recommended that the City continue to validate traffic data, including AADT and % commercial traffic, and update as needed.
- M&R treatment unit costs, and base year, should be reviewed and updated at the beginning of each calendar year to reflect any changes to those costs. Unit cost information affects the work program recommendations that are possible with the available funding.
- The treatment inflation rate of 2 % that was used for this analysis should be reviewed at the beginning of each calendar year and updated, if needed, for future analyses, to reflect anticipated future increases in treatment unit costs. The inflation rate can also be defined independently for each treatment type.
- Pavement management analysis is a network-level analysis that optimizes spending over the entire road network. It is therefore important that recommended treatments are field-verified before implementation to ensure suitability and to consider project specific conditions.

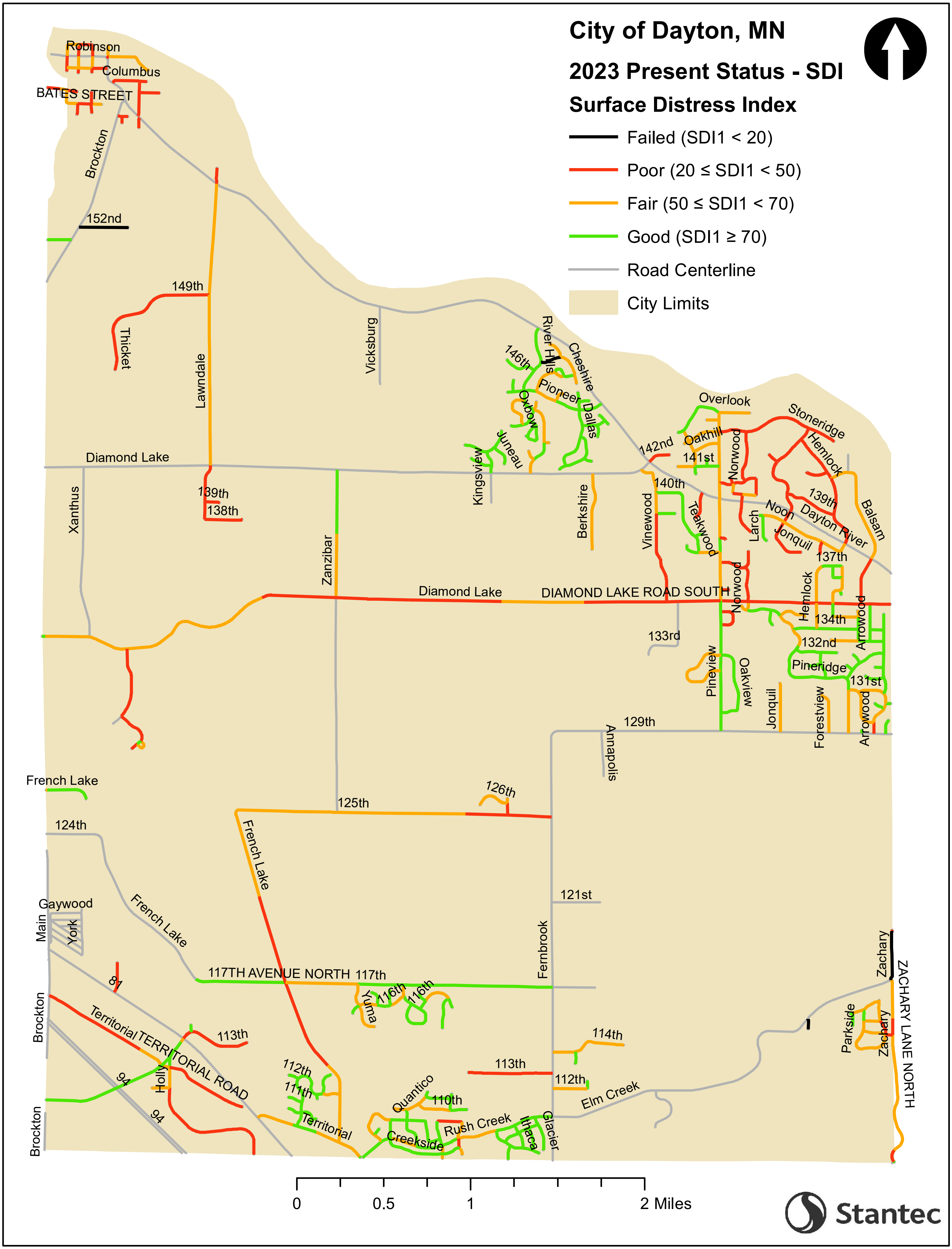
APPENDIX A

Ride Comfort Index Map


City of Dayton, MN
2023 Present Status - RCI
Ride Comfort Index
Failed (RCI1 < 20)
Poor (20 ≤ RCI1 < 50)
Fair (50 ≤ RCI1 < 70)
Good (RCI1 ≥ 70)
Road Centerline
City Limits
Robinson
Columbus
BATES STREET
Brockton
152nd
149th
Thicket
Lawndale
Vicksburg
Diamond Lake
Xanthus
139th
138th
Zanzibar
Diamond Lake
DIAMOND LAKE ROAD SOUTH
River Hills
Cheshire
146th
Pioneer
Oxbow
Dallas
Juneau
Kingsview
Berkshire
Overlook
Oakhill
142nd
141st
140th
Norwood
Stoneridge
Hemlock
139th
Noon
Dayton River
Balsam
Larch
Jonquil
Teakwood
Vinewood
137th
Norwood
Hemlock
134th
Arrowood
132nd
133rd
Pineridge
131st
Pineview
Oakview
Jonquil
Forestview
Arrowood
129th
Annapolis
French Lake
125th
126th
124th
French Lake
121st
Gaywood
Main
York
French Lake
Fernbrook
117TH AVENUE NORTH 117th
81
Yuma
116th
116th
Zachary
ZACHARY LANE NORTH
Brockton
Territorial TERRITORIAL ROAD
113th
114th
113th
112th
Parkside
Zachary
Holly
94
112th
111th
Quantico
110th
Elm Creek
94
Territorial
Rush Creek
Creekside
Ithaca
Glacier
Brockton
0
0.5
1
2 Miles
Stantec

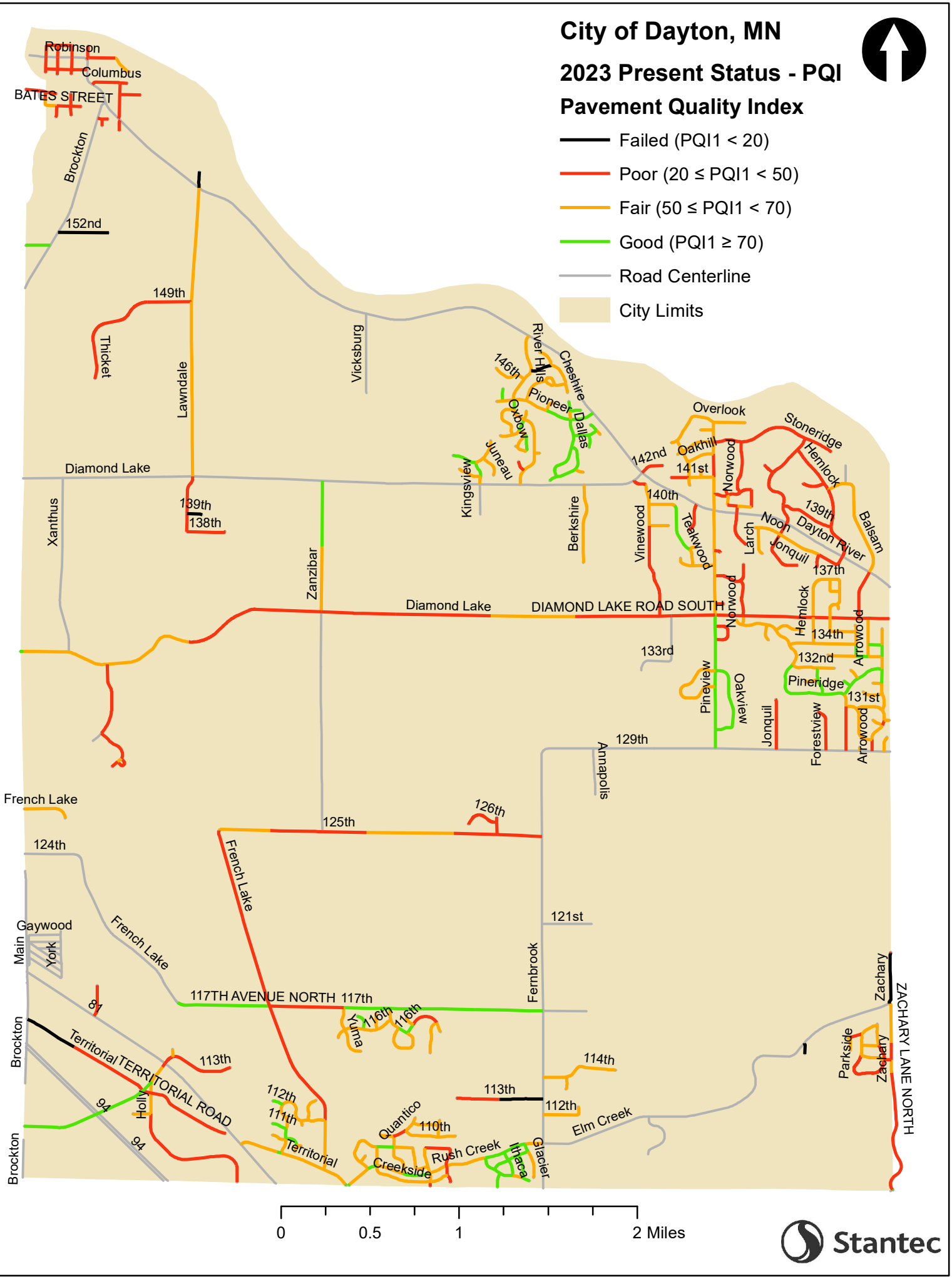
APPENDIX B

Surface Distress Index Map


City of Dayton, MN
2023 Present Status - SDI
Surface Distress Index
Failed (SDI1 < 20)
Poor (20 ≤ SDI1 < 50)
Fair (50 ≤ SDI1 < 70)
Good (SDI1 ≥ 70)
Road Centerline
City Limits
Robinson
Columbus
BATES STREET
Brockton
152nd
149th
Thicket
Lawndale
Vicksburg
River Hills
Cheshire
146th
Pioneer
Oxbow
Dallas
Juneau
Kingsview
Diamond Lake
Xanthus
139th
138th
Zanzibar
Berkshire
142nd
Vinewood
140th
Teakwood
Overlook
Oakhill
141st
Norwood
Stoneridge
Hemlock
139th
Noon
Larch
Dayton River
Jonquil
Balsam
137th
Diamond Lake
DIAMOND LAKE ROAD SOUTH
Norwood
Hemlock
134th
Arrowood
133rd
132nd
Pineview
Oakview
Pineridge
131st
Jonquil
Forestview
Arrowood
129th
Annapolis
French Lake
126th
125th
124th
French Lake
121st
Gaywood
Main
York
French Lake
Fernbrook
Zachary
ZACHARY LANE NORTH
117TH AVENUE NORTH 117th
81
Yuma
116th
116th
Brockton
Territorial TERRITORIAL ROAD
113th
114th
Parkside
Zachary
94
Holly
112th
111th
113th
112th
Quantico
110th
Elm Creek
94
Territorial
Rush Creek
Creekside
Ithaca
Glacier
Brockton
0
0.5
1
2 Miles
Stantec

APPENDIX C

Pavement Quality Index Map


City of Dayton, MN
2023 Present Status - PQI
Pavement Quality Index
Failed (PQI1 < 20)
Poor (20 ≤ PQI1 < 50)
Fair (50 ≤ PQI1 < 70)
Good (PQI1 ≥ 70)
Road Centerline
City Limits
Robinson
Columbus
BATES STREET
Brockton
152nd
149th
Thicket
Lawndale
Vicksburg
River Hills
Cheshire
146th
Pioneer
Oxbow
Dallas
Juneau
Kingsview
Overlook
Oakhill
142nd
141st
Norwood
Stoneridge
Hemlock
Diamond Lake
Xanthus
139th
138th
Berkshire
140th
Vinewood
Teakwood
Larch
Noon
Jonquil
Dayton River
Balsam
137th
Zanzibar
Diamond Lake
DIAMOND LAKE ROAD SOUTH
Norwood
Hemlock
134th
Arrowood
133rd
132nd
Pineridge
131st
Pineview
Oakview
Jonquil
Forestview
Arrowood
129th
Annapolis
French Lake
125th
126th
124th
French Lake
Gaywood
Main
York
French Lake
121st
Fernbrook
81
117TH AVENUE NORTH
117th
Yuma
116th
116th
Brockton
Territorial
TERRITORIAL ROAD
113th
94
Holly
112th
111th
Territorial
Quantico
110th
Creekside
Rush Creek
Ithaca
Glacier
113th
114th
112th
Elm Creek
Zachary
ZACHARY LANE NORTH
Parkside
Zachary
Brockton
94
0
0.5
1
2 Miles
Stantec

APPENDIX D

Failed Sections List (PQI < 20)

APPENDIX D: FAILED SECTIONS LIST (PQI < 20)

Table D.1: Failed Sections List (PQI < 20)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI
410	152ND AVENUE NORTH	BROCKTON LANE NORTH	END	1510.4	Local	Flexible	0.5	33.8	0.6
4330	HEMLOCK LANE NORTH	ELM CREEK ROAD	END	332.2	Local	Flexible	11.6	53.5	13.4
2900	CHESHIRE WAY	RIVER HILLS PARKWAY	CHESHIRE COURT	621.4	Local	Flexible	12.1	29.8	15.6
4180	ZACHARY LANE NORTH	ELM CREEK ROAD	ZACHARY LANE NORTH	1520.9	Collector	Flexible	13.2	32.7	16.8
3160	TERRITORIAL ROAD	BROCKTON LANE NORTH	1609 FT E OF BROCKTON LANE	1609.7	Local	Flexible	18.2	57.1	20.7
4350	113TH AVENUE NORTH	1782 FT E OF END	FERNBROOK LANE NORTH	1294.3	Local	Flexible	18.6	55.0	21.4
520	139TH AVENUE NORTH	LAWNDALE LANE NORTH	END	457.3	Local	Flexible	19.1	24.8	25.5
490	LAWNDALE LANE NORTH	DAYTON RIVER ROAD	END	499.7	Local	Flexible	19.3	37.2	24.0

APPENDIX E

5-Year Network Rehabilitation Recommendations

City of Dayton, MN

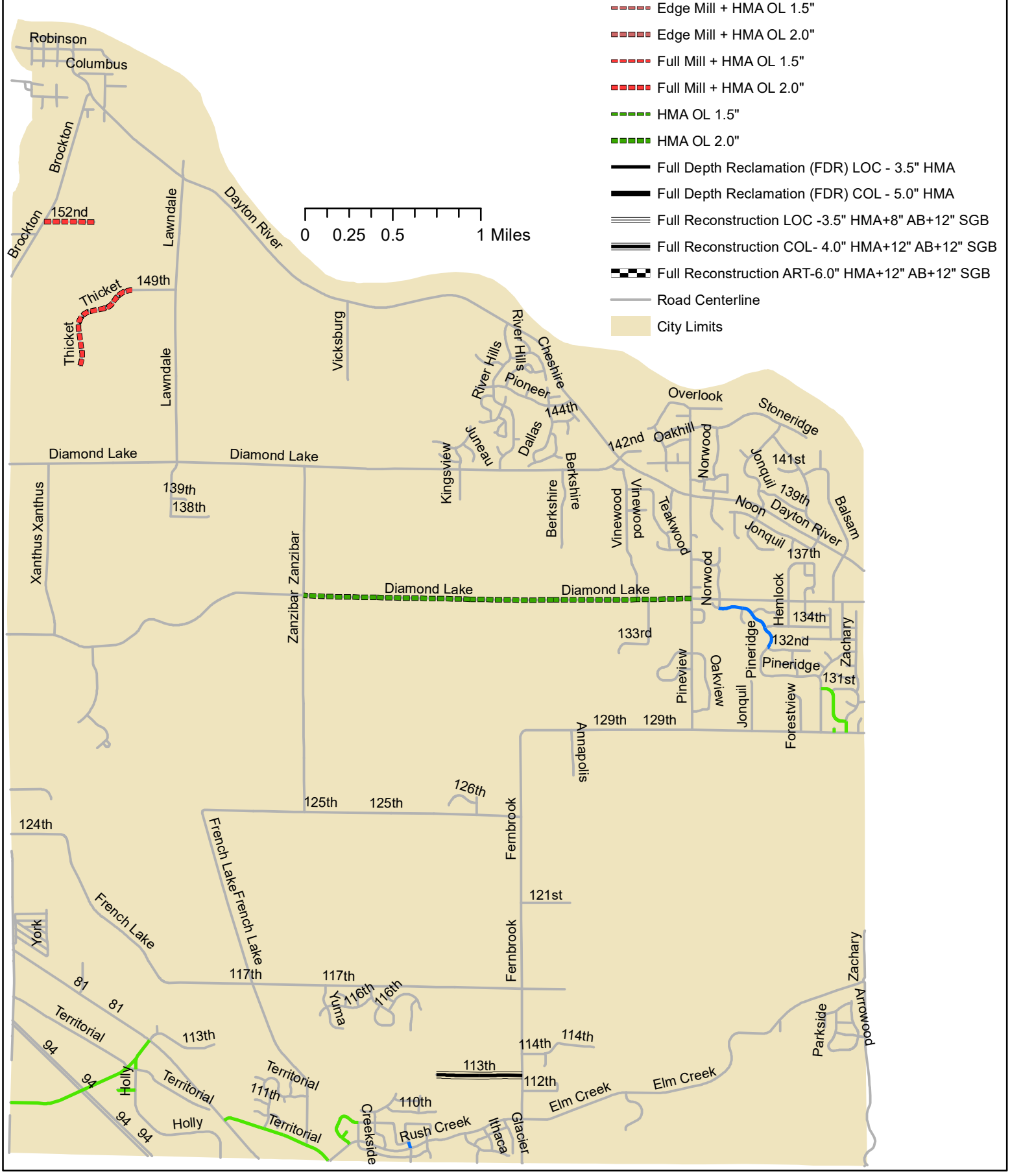
Stantec

$1.0M Work Recommendations - 2024

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

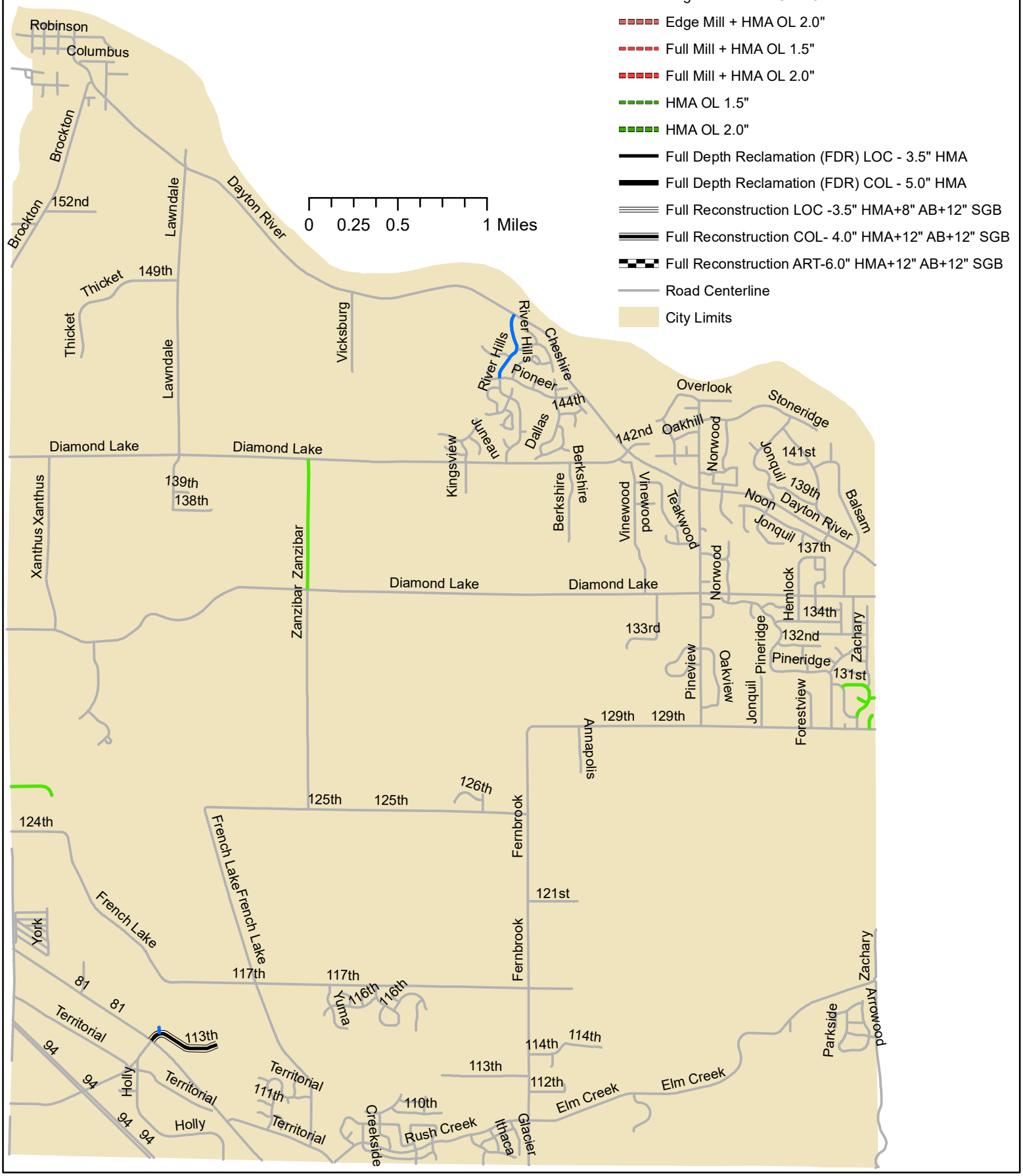
Stantec

$1.0M Work Recommendations - 2025

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

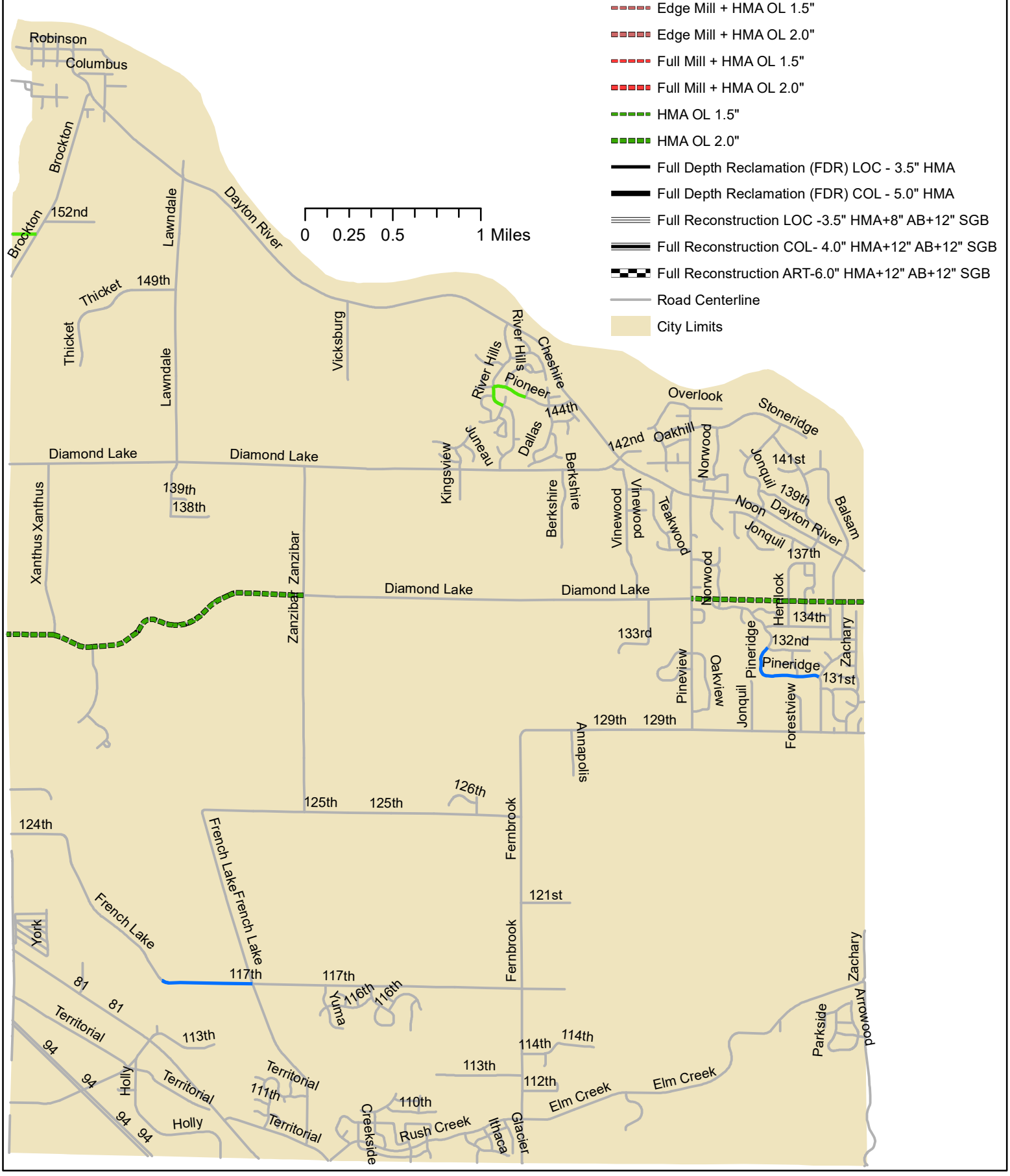
Stantec

$1.0M Work Recommendations - 2026

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

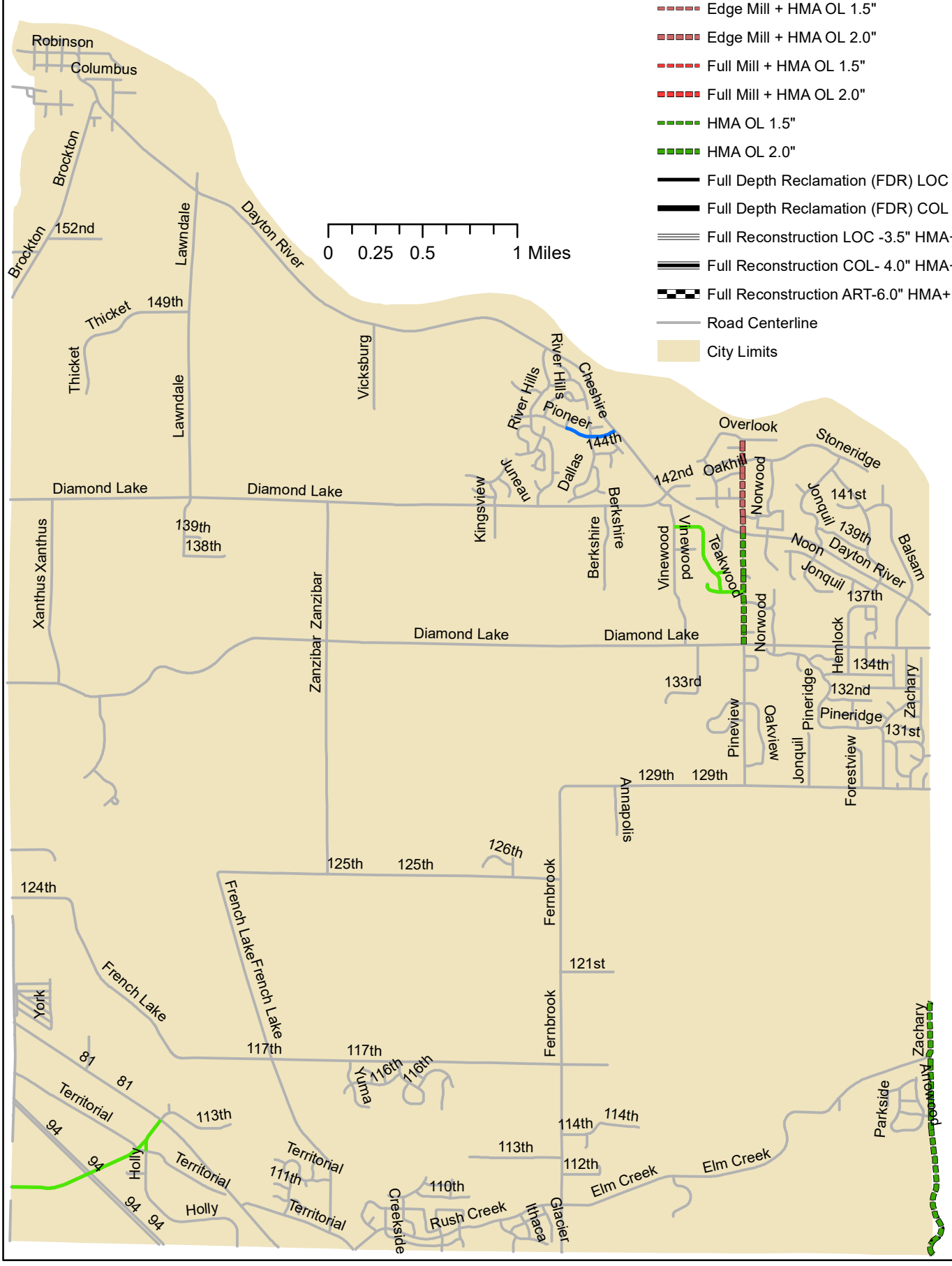
Stantec

$1.0M Work Recommendations - 2027

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

Stantec

$1.0M Work Recommendations - 2028

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits

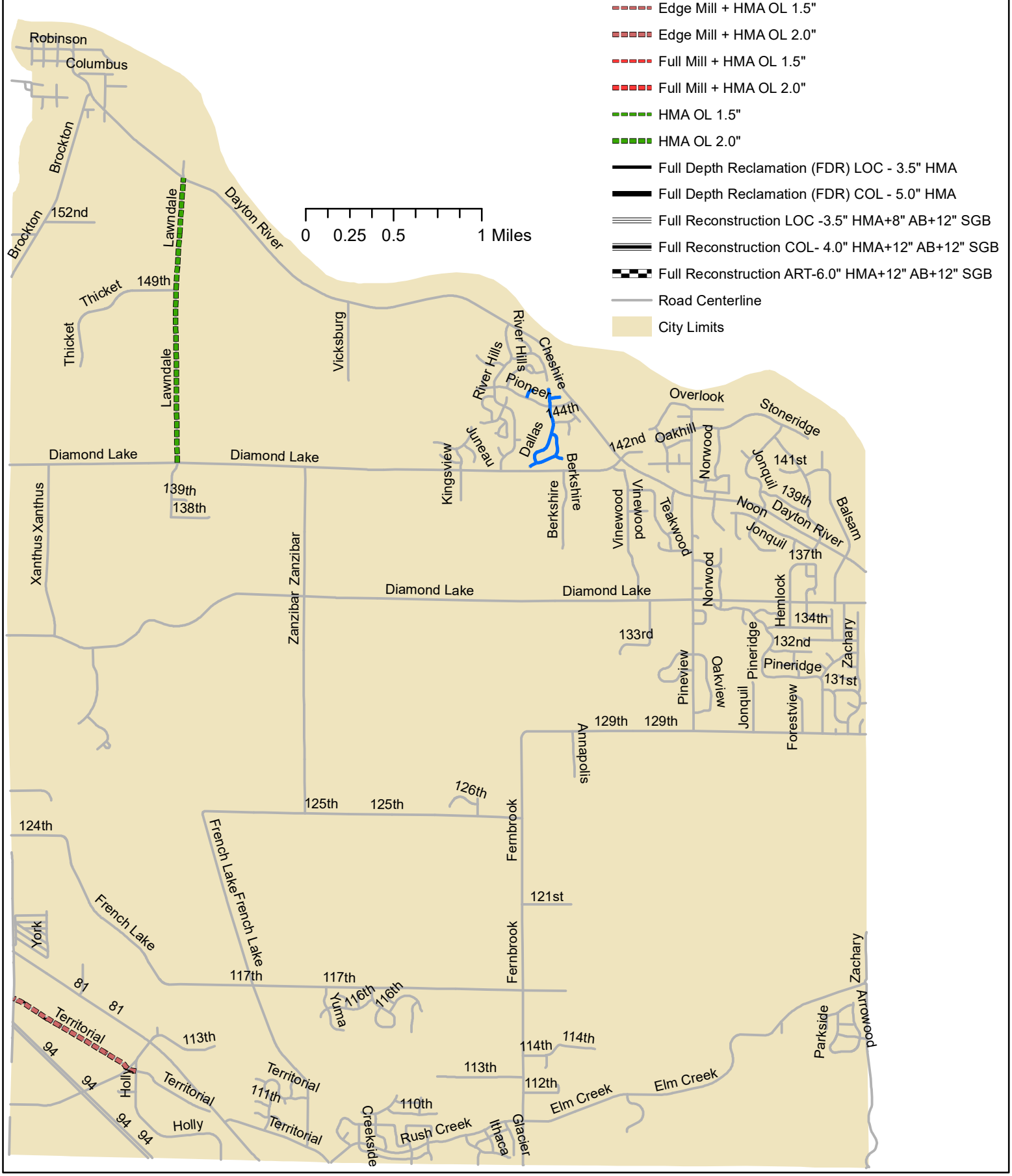


Table E.1: $1.0M/Year - SS - Committed=Y (Sorted by Year-Street)

* Section # starting with "SS" denotes a Super-Section.

*Section #	Street	From	To	CL Length (ft)	Area (yd^2)	Func. Class	Pavement Type	Implement. Year	Treatment Description	Treatment Cost ($)
SS-113TH AVE N	113TH AVENUE NORTH	FIRNBROOK LN N	END	2587.3	8,279	Local	Flexible	2024	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	0
SS-410	152ND AVENUE NORTH	BROCKTON LANE NORTH	END	1510.4	3,575	Local	Flexible	2024	Full Mill + HMA OL 2.0"	91,883
SS-DAYTON PKWY	DAYTON PKWY	BROCKTON LANE	COUNTY ROAD 81 & 113TH AVENUE NO	5162.8	28,516	Collector	Flexible	2024	Route and Bitumen Crack Seal	26,178
SS-DIAMOND LK2	DIAMOND LAKE ROAD SOUTH	ZANZIBAR LANE NORTH	PINEVIEW LANE NORTH	11690	27,861	Collector	Flexible	2024	HMA OL 2.0"	588,262
SS-S6-180-1	DONAHUE DELLS 2ND ADDN	DONAHUE DELLS 2ND ADDN	DONAHUE DELLS 2ND ADDN	2004.9	5,549	Local	Flexible	2024	Route and Bitumen Crack Seal	5,094
SS-S6-220-1	Gove	Gove	Gove	543.5	1,926	Local	Flexible	2024	Route and Bitumen Crack Seal	1,768
SS-S6-455-1	Rush Creek Landing	Rush Creek Landing	Rush Creek Landing	1834.1	5,321	Local	Flexible	2024	Route and Bitumen Crack Seal	4,885
SS-S6-535-2	SUNDANCE WOODS 3RD ADDN	SUNDANCE WOODS 3RD ADDN	SUNDANCE WOODS 3RD ADDN	204.3	602	Collector	Flexible	2024	Chip 1/4" + Fog Seal	3,313
SS-TERRITORIAL2	TERRITORIAL ROAD	COUNTY ROAD 81	END	3453.2	9,849	Collector	Flexible	2024	Route and Bitumen Crack Seal	9,042
SS-S6-596-2	THE PINES AT BLESI FARMS AND 2ND AND 3RD ADDNS	THE PINES AT BLESI FARMS AND 2ND AND 3RD ADDNS	THE PINES AT BLESI FARMS AND 2ND AND 3RD ADDNS	2,368.2	7,281	Collector	Flexible	2024	Chip 1/4" + Fog Seal	40,103
500	THICKET LANE NORTH	END	149TH AVENUE NORTH	3,299.1	8,871	Local	Flexible	2024	Full Mill + HMA OL 2.0"	228,017
3100	113TH AVENUE NORTH	COUNTY ROAD 81 & HOLLY LANE NORT	LAWNDALE LANE NORTH	312.1	1,630	Local	Flexible	2025	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	170,930
3110	113TH AVENUE NORTH	LAWNDALE LANE NORTH	END	1,860.0	7,329	Local	Flexible	2025	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	768,574
SS-S6-185-1	DONAHUE DELLS 3RD ADDN	DONAHUE DELLS 3RD ADDN	DONAHUE DELLS 3RD ADDN	2,797.1	7,866	Local	Flexible	2025	Route and Bitumen Crack Seal	7,366
SS-S6-205-2	FRENCH LAKE INDUSTRIAL CENTER FOUR (GRACO)	FRENCH LAKE INDUSTRIAL CENTER FOUR (GRACO)	FRENCH LAKE INDUSTRIAL CENTER FOUR (GRACO)	1,394.2	6,142	Collector	Flexible	2025	Route and Bitumen Crack Seal	5,751
3120	LAWNDALE LANE NORTH	113TH AVENUE NORTH	END	238.1	616	Local	Flexible	2025	Chip 1/4" + Fog Seal	3,463
SS-S6-431-2	River Hills 7th and 9th Additions	River Hills 7th and 9th Additions	River Hills 7th and 9th Additions	2,122.1	6,300	Collector	Flexible	2025	Chip 1/4" + Fog Seal	35,396
SS-ZANZIBAR LN	ZANZIBAR LANE NORTH	DIAMOND LAKE ROAD SOUTH	DIAMOND LAKE ROAD NORTH	3,895.6	9,025	Collector	Flexible	2025	Route and Bitumen Crack Seal	8,450
SS-4390	117TH AVENUE NORTH	FRENCH LAKE ROAD WEST	FRENCH LAKE ROAD EAST	2,739.9	7,946	Collector	Flexible	2026	Chip 1/4" + Fog Seal	45,533
SS-DIAMOND LK1	DIAMOND LAKE ROAD SOUTH	WEST CITY LIMITS	ZANZIBAR LANE NORTH	9,632.7	26,083	Collector	Flexible	2026	HMA OL 2.0"	572,970
SS-DIAMOND LK3	DIAMOND LAKE ROAD SOUTH	PINEVIEW LANE NORTH	EAST CITY LIMITS	5,179.2	14,634	Collector	Flexible	2026	HMA OL 2.0"	321,468
SS-400	EVERGREEN LANE NORTH	205 FT E OF PARK DRIVE	BROCKTON LANE NORTH	732.0	2,822	Local	Flexible	2026	Route and Bitumen Crack Seal	2,749
SS-S6-433-2	River Hills 5th and 6th Additions	River Hills 5th and 6th Additions	River Hills 5th and 6th Additions	1,779.4	5,366	Collector	Flexible	2026	Route and Bitumen Crack Seal	5,125
SS-S6-581-2	THE ENCLAVE AT HAYDEN HILLS WEST	THE ENCLAVE AT HAYDEN HILLS WEST	THE ENCLAVE AT HAYDEN HILLS WEST	2,599.4	8,607	Collector	Flexible	2026	Chip 1/4" + Fog Seal	49,322
SS-S6-76-2	CYPRESS COVE 3RD and 4TH ADDN	CYPRESS COVE 3RD and 4TH ADDN	CYPRESS COVE 3RD and 4TH ADDN	1,477.9	7,895	Collector	Flexible	2027	Chip 1/4" + Fog Seal	46,149
SS-DAYTON PKWY	DAYTON PKWY	BROCKTON LANE	COUNTY ROAD 81 & 113TH AVENUE NO	5,162.8	28,516	Collector	Flexible	2027	Route and Bitumen Crack Seal	27,780
SS-PINEVIEW LN2	PINEVIEW LANE NORTH	DIAMOND LAKE ROAD SOUTH	DAYTON RIVER ROAD	3,105.8	8,479	Collector	Flexible	2027	HMA OL 2.0"	189,981
SS-PINEVIEW LN3	PINEVIEW LANE NORTH	DAYTON RIVER ROAD	OVERLOOK ROAD	2,618.5	7,279	Collector	Flexible	2027	Edge Mill + HMA OL 2.0"	198,564
SS-S6-361-1	PINEVIEW MEADOWS AND 2ND, 3RD ADDN	PINEVIEW MEADOWS AND 2ND, 3RD ADDN	PINEVIEW MEADOWS AND 2ND, 3RD ADDN	4,134.7	12,409	Local	Flexible	2027	Route and Bitumen Crack Seal	12,088
SS-ZACHARY LANE	ZACHARY LANE NORTH	ROUNDABOUT	END	7,353.9	23,410	Collector	Flexible	2027	HMA OL 2.0"	524,530
SS-S6-70-1	Cypress Cove 2nd Addition	Cypress Cove 2nd Addition	Cypress Cove 2nd Addition	3,847.1	12,589	Local	Flexible	2028	Chip 1/4" + Fog Seal	75,053
SS-S6-76-1	CYPRESS COVE 3RD and 4TH ADDN	CYPRESS COVE 3RD and 4TH ADDN	CYPRESS COVE 3RD and 4TH ADDN	1,251.9	3,650	Local	Flexible	2028	Chip 1/4" + Fog Seal	21,761
SS-LAWNDALE LN1	LAWNDALE LANE NORTH	DIAMOND LAKE ROAD NORTH	DAYTON RIVER ROAD	8,568.6	20,022	Collector	Flexible	2028	HMA OL 2.0"	457,592
SS-TERRITORIAL1	TERRITORIAL ROAD	BROCKTON LANE NORTH	HOLLY LANE NORTH	4,288.6	15,968	Local	Flexible	2028	Edge Mill + HMA OL 2.0"	444,272

City of Dayton, MN

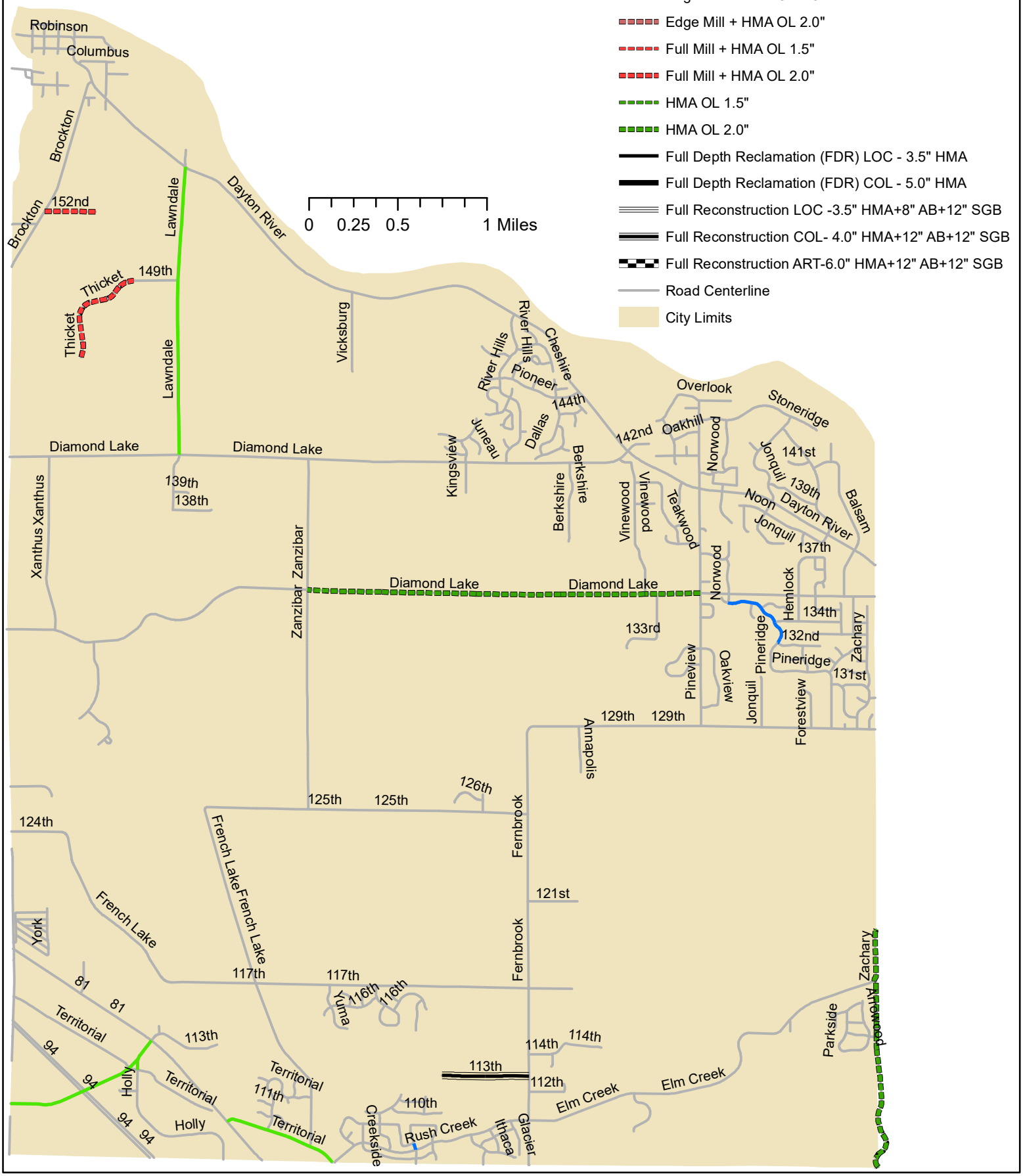
Stantec

$1.5M Work Recommendations - 2024

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

Stantec

$1.5M Work Recommendations - 2025

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
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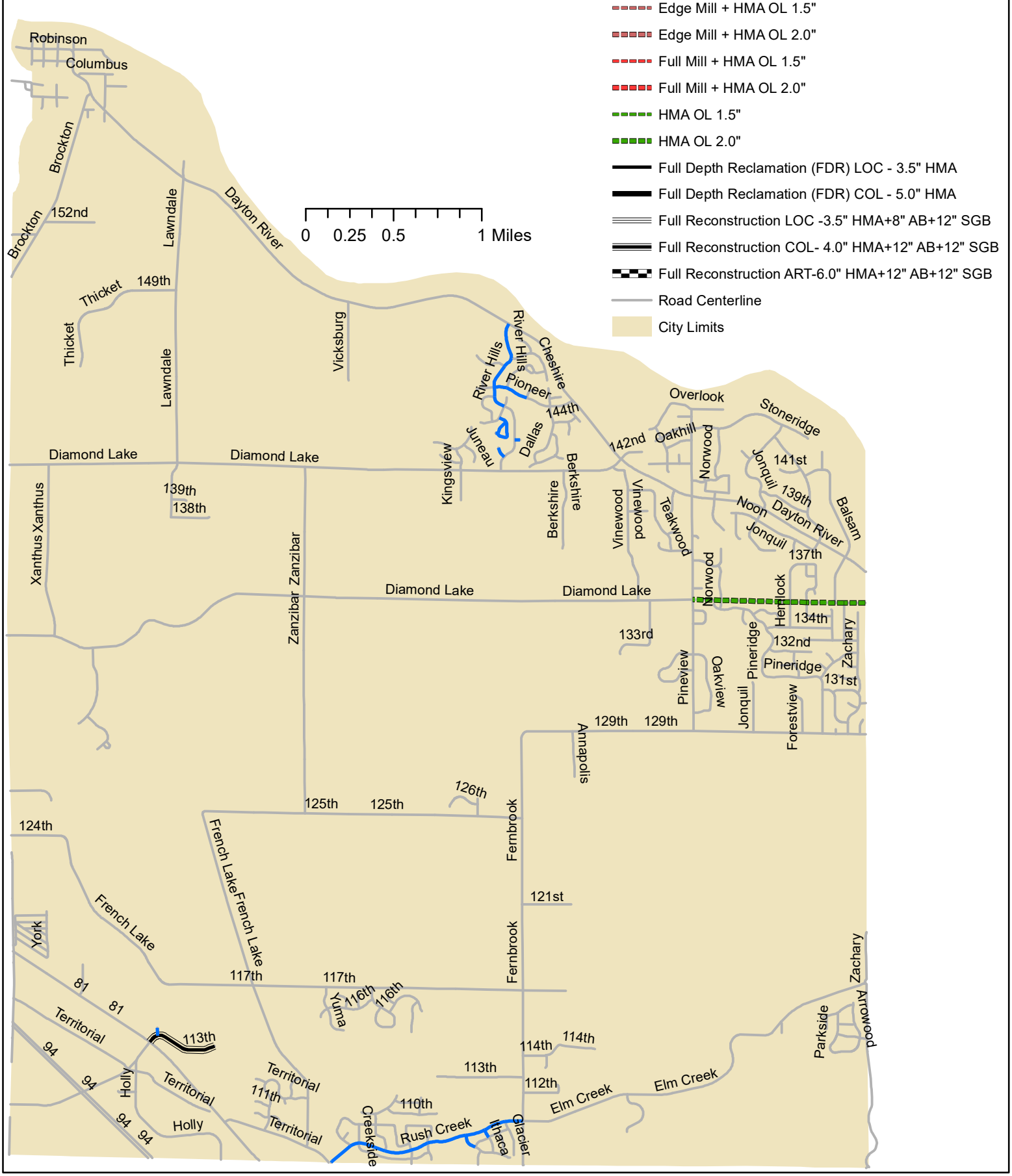
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

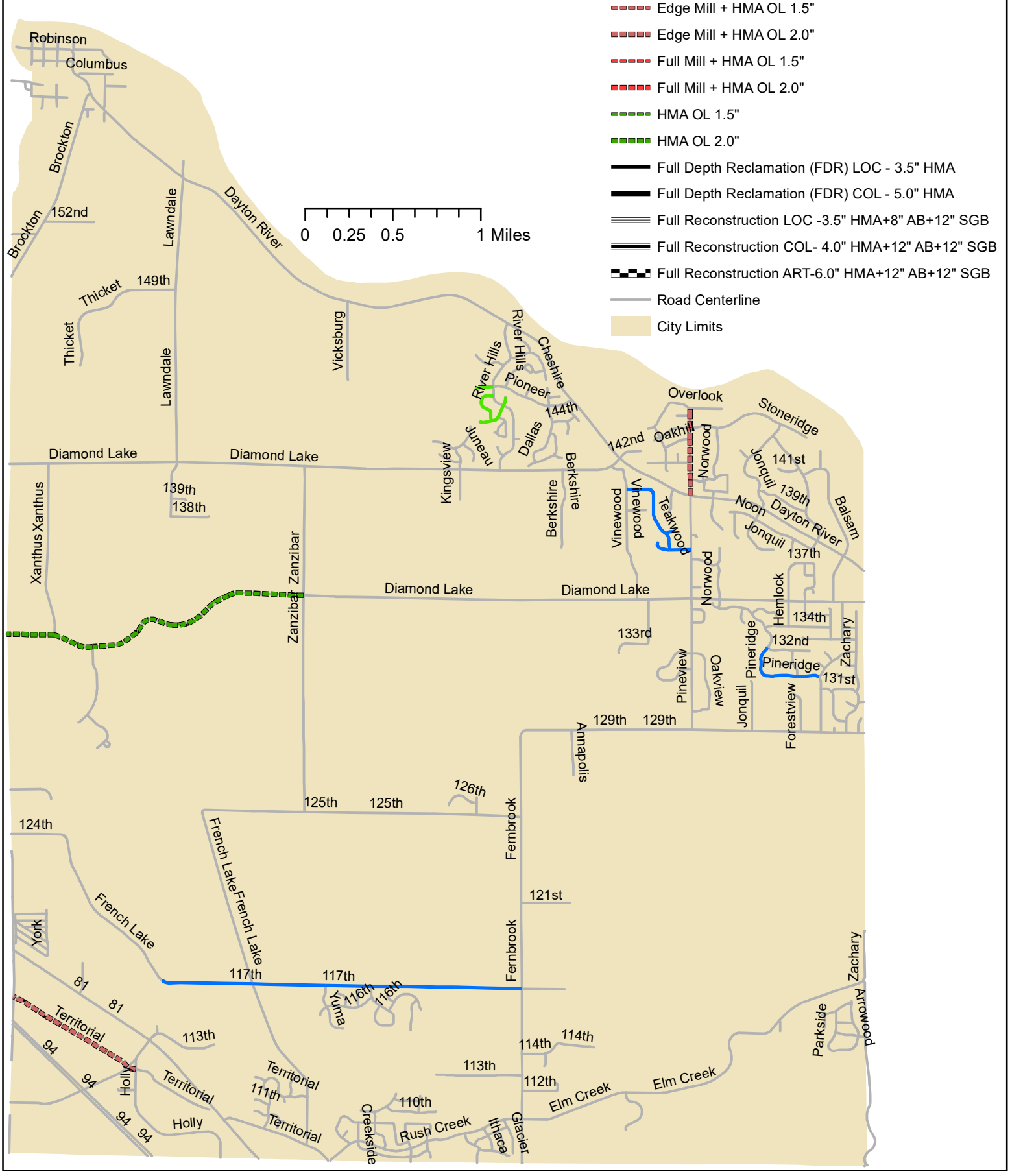
Stantec

$1.5M Work Recommendations - 2026

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

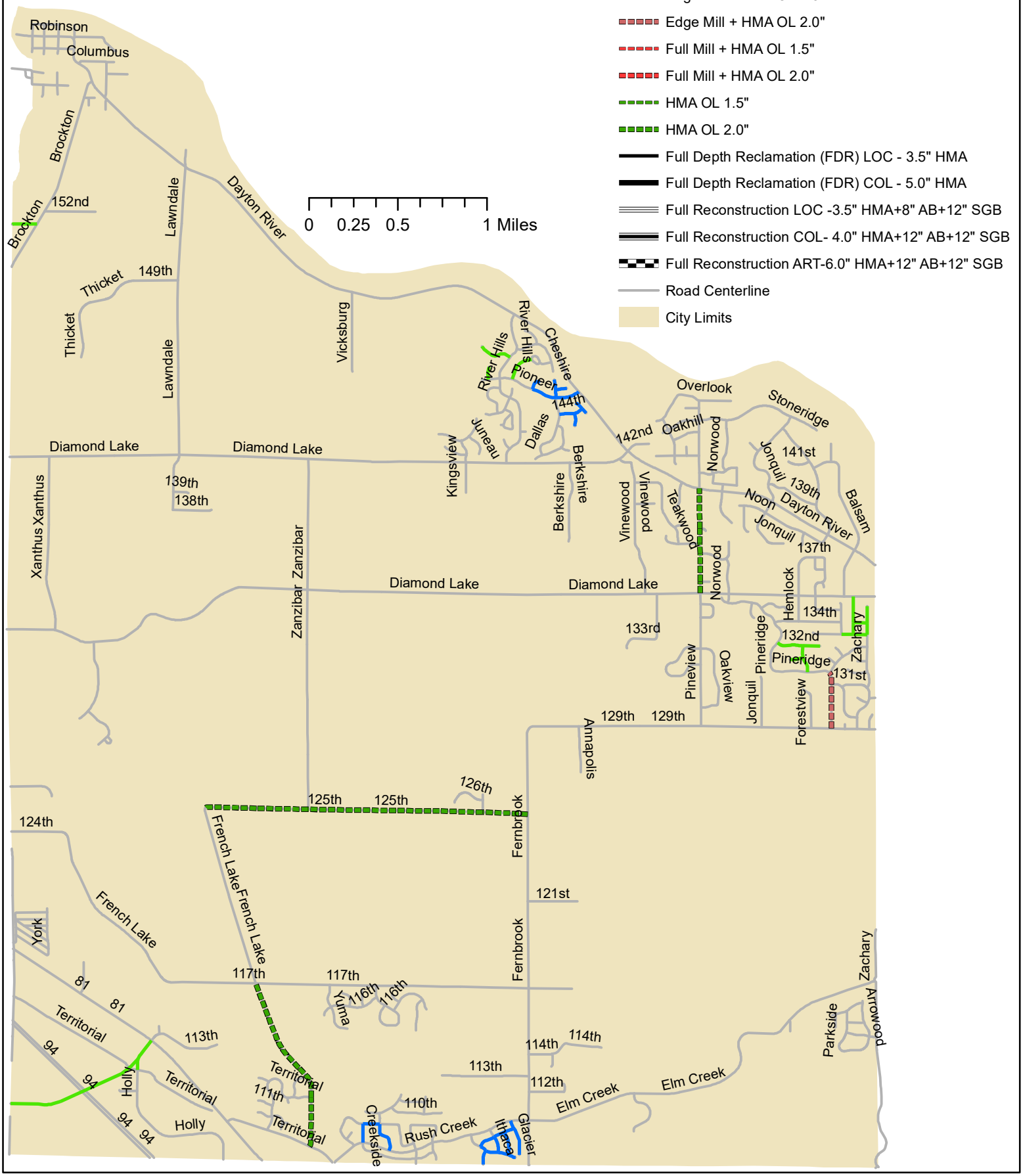
Stantec

$1.5M Work Recommendations - 2027

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

Stantec

$1.5M Work Recommendations - 2028

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
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- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits

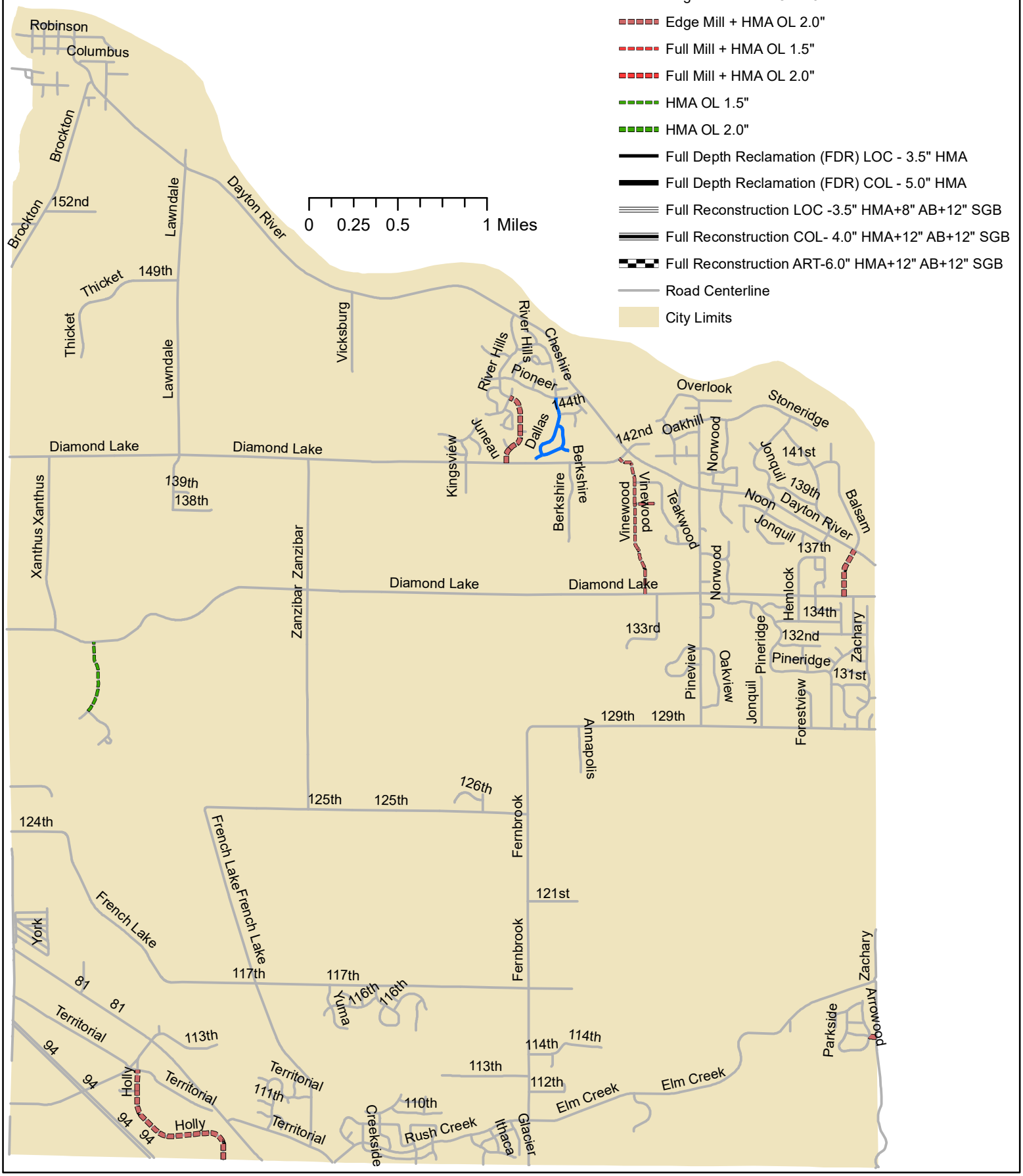


Table E.2: $1.5M/Year - SS - Committed=Y (Sorted by Year-Street)

* Section # starting with "SS" denotes a Super-Section.

*Section #	Street	From	To	CL Length (ft)	Area (yd^2)	Func. Class	Pavement Type	Implement. Year	Treatment Description	Treatment Cost ($)
SS-113TH AVE N	113TH AVENUE NORTH	FIRNBROOK LN N	END	2587.3	8,279	Local	Flexible	2024	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	0
SS-410	152ND AVENUE NORTH	BROCKTON LANE NORTH	END	1510.4	3,575	Local	Flexible	2024	Full Mill + HMA OL 2.0"	91,883
SS-DAYTON PKWY	DAYTON PKWY	BROCKTON LANE	COUNTY ROAD 81 & 113TH AVENUE NO	5162.8	28,516	Collector	Flexible	2024	Route and Bitumen Crack Seal	26,178
SS-DIAMOND LK2	DIAMOND LAKE ROAD SOUTH	ZANZIBAR LANE NORTH	PINEVIEW LANE NORTH	11690	27,861	Collector	Flexible	2024	HMA OL 2.0"	588,262
SS-LAWNDALE LN1	LAWNDALE LANE NORTH	DIAMOND LAKE ROAD NORTH	DAYTON RIVER ROAD	8568.6	20,022	Collector	Flexible	2024	Route and Bitumen Crack Seal	18,380
SS-S6-535-2	SUNDANCE WOODS 3RD ADDN	SUNDANCE WOODS 3RD ADDN	SUNDANCE WOODS 3RD ADDN	204.3	602	Collector	Flexible	2024	Chip 1/4" + Fog Seal	3,313
SS-TERRITORIAL2	TERRITORIAL ROAD	COUNTY ROAD 81	END	3453.2	9,849	Collector	Flexible	2024	Route and Bitumen Crack Seal	9,042
SS-S6-596-2	THE PINES AT BLESI FARMS AND 2ND AND 3RD ADDNS	THE PINES AT BLESI FARMS AND 2ND AND 3RD ADDNS	THE PINES AT BLESI FARMS AND 2ND AND 3RD ADDNS	2368.2	7,281	Collector	Flexible	2024	Chip 1/4" + Fog Seal	40,103
500	THICKET LANE NORTH	END	149TH AVENUE NORTH	3299.1	8,871	Local	Flexible	2024	Full Mill + HMA OL 2.0"	228,017
SS-ZACHARY LANE	ZACHARY LANE NORTH	ROUNDABOUT	END	7,353.9	23,410	Collector	Flexible	2024	HMA OL 2.0"	494,276
3100	113TH AVENUE NORTH	COUNTY ROAD 81 & HOLLY LANE NORT	LAWNDALE LANE NORTH	312.1	1,630	Local	Flexible	2025	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	170,930
3110	113TH AVENUE NORTH	LAWNDALE LANE NORTH	END	1,860.0	7,329	Local	Flexible	2025	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	768,574
SS-DIAMOND LK3	DIAMOND LAKE ROAD SOUTH	PINEVIEW LANE NORTH	EAST CITY LIMITS	5,179.2	14,634	Collector	Flexible	2025	HMA OL 2.0"	315,164
3120	LAWNDALE LANE NORTH	113TH AVENUE NORTH	END	238.1	616	Local	Flexible	2025	Chip 1/4" + Fog Seal	3,463
SS-S6-432-1	River Hills 2nd and 3rd Additions	River Hills 2nd and 3rd Additions	River Hills 2nd and 3rd Additions	2,028.5	5,950	Local	Flexible	2025	Chip 1/4" + Fog Seal	33,429
SS-S6-433-2	River Hills 5th and 6th Additions	River Hills 5th and 6th Additions	River Hills 5th and 6th Additions	1,779.4	5,366	Collector	Flexible	2025	Chip 1/4" + Fog Seal	30,146
SS-S6-431-2	River Hills 7th and 9th Additions	River Hills 7th and 9th Additions	River Hills 7th and 9th Additions	2,122.1	6,300	Collector	Flexible	2025	Chip 1/4" + Fog Seal	35,396
SS-RUSH CREEK	RUSH CREEK RD AND PKWY	TERRITORIAL ROAD	CATTAIL PATH	3,209.3	12,377	Collector	Flexible	2025	Chip 1/4" + Fog Seal	69,537
SS-S6-500-2	SUNDANCE GREENS 2ND ADDN	SUNDANCE GREENS 2ND ADDN	SUNDANCE GREENS 2ND ADDN	3,727.4	12,980	Collector	Flexible	2025	Chip 1/4" + Fog Seal	72,922
SS-117TH AVENUE	117TH AVENUE NORTH	FRENCH LAKE ROAD EAST	FERNBROOK LANE NORTH	8,123.4	22,637	Collector	Flexible	2026	Chip 1/4" + Fog Seal	129,723
SS-4390	117TH AVENUE NORTH	FRENCH LAKE ROAD WEST	FRENCH LAKE ROAD EAST	2,739.9	7,946	Collector	Flexible	2026	Chip 1/4" + Fog Seal	45,533
SS-DIAMOND LK1	DIAMOND LAKE ROAD SOUTH	WEST CITY LIMITS	ZANZIBAR LANE NORTH	9,632.7	26,083	Collector	Flexible	2026	HMA OL 2.0"	572,970
SS-PINEVIEW LN3	PINEVIEW LANE NORTH	DAYTON RIVER ROAD	OVERLOOK ROAD	2,618.5	7,279	Collector	Flexible	2026	Edge Mill + HMA OL 2.0"	194,670
SS-S6-361-1	PINEVIEW MEADOWS AND 2ND, 3RD ADDN	PINEVIEW MEADOWS AND 2ND, 3RD ADDN	PINEVIEW MEADOWS AND 2ND, 3RD ADDN	4,134.7	12,409	Local	Flexible	2026	Chip 1/4" + Fog Seal	71,108
SS-S6-433-1	River Hills 5th and 6th Additions	River Hills 5th and 6th Additions	River Hills 5th and 6th Additions	3,001.7	9,082	Local	Flexible	2026	Route and Bitumen Crack Seal	8,674
SS-TERRITORIAL1	TERRITORIAL ROAD	BROCKTON LANE NORTH	HOLLY LANE NORTH	4,288.6	15,968	Local	Flexible	2026	Edge Mill + HMA OL 2.0"	427,020
SS-S6-581-2	THE ENCLAVE AT HAYDEN HILLS WEST	THE ENCLAVE AT HAYDEN HILLS WEST	THE ENCLAVE AT HAYDEN HILLS WEST	2,599.4	8,607	Collector	Flexible	2026	Chip 1/4" + Fog Seal	49,322
SS-125 AVENUE N	125TH AVENUE NORTH	FRENCH LAKE ROAD EAST	FERNBROOK LANE NORTH	9,596.9	26,359	Collector	Flexible	2027	HMA OL 2.0"	590,619
SS-S6-76-1	CYPRESS COVE 3RD and 4TH ADDN	CYPRESS COVE 3RD and 4TH ADDN	CYPRESS COVE 3RD and 4TH ADDN	1,251.9	3,650	Local	Flexible	2027	Chip 1/4" + Fog Seal	21,335
SS-S6-76-2	CYPRESS COVE 3RD and 4TH ADDN	CYPRESS COVE 3RD and 4TH ADDN	CYPRESS COVE 3RD and 4TH ADDN	1,477.9	7,895	Collector	Flexible	2027	Chip 1/4" + Fog Seal	46,149
SS-S6-126-1	DAYTON HIGHLANDS 1ST ADDN AND ZACHARY VILLAS	DAYTON HIGHLANDS 1ST ADDN AND ZACHARY VILLAS	DAYTON HIGHLANDS 1ST ADDN AND ZACHARY VILLAS	3,157.0	8,969	Local	Flexible	2027	Route and Bitumen Crack Seal	8,738
SS-DAYTON PKWY	DAYTON PKWY	BROCKTON LANE	COUNTY ROAD 81 & 113TH AVENUE NO	5,162.8	28,516	Collector	Flexible	2027	Route and Bitumen Crack Seal	27,780
SS-S6-175-1	DONAHUE DELLS 1ST ADDN	DONAHUE DELLS 1ST ADDN	DONAHUE DELLS 1ST ADDN	1,677.9	4,765	Local	Flexible	2027	Edge Mill + HMA OL 2.0"	129,982
SS-400	EVERGREEN LANE NORTH	205 FT E OF PARK DRIVE	BROCKTON LANE NORTH	732.0	2,822	Local	Flexible	2027	Route and Bitumen Crack Seal	2,749
SS-FRENCH LAKE1	FRENCH LAKE ROAD EAST	TERRITORIAL ROAD	117TH AVENUE NORTH	5,332.2	14,059	Collector	Flexible	2027	HMA OL 2.0"	315,016
SS-S6-260-1	IONE GARDENS	IONE GARDENS	IONE GARDENS	1,552.7	5,039	Local	Flexible	2027	Chip 1/4" + Fog Seal	29,456
SS-PINEVIEW LN2	PINEVIEW LANE NORTH	DIAMOND LAKE ROAD SOUTH	DAYTON RIVER ROAD	3,105.8	8,479	Collector	Flexible	2027	HMA OL 2.0"	189,981
SS-S6-431-1	River Hills 7th and 9th Additions	River Hills 7th and 9th Additions	River Hills 7th and 9th Additions	2,273.0	6,685	Local	Flexible	2027	Route and Bitumen Crack Seal	6,513
SS-S6-500-1	SUNDANCE GREENS 2ND ADDN	SUNDANCE GREENS 2ND ADDN	SUNDANCE GREENS 2ND ADDN	4,959.0	14,508	Local	Flexible	2027	Chip 1/4" + Fog Seal	84,800
SS-S6-530-1	SUNDANCE WOODS 6TH ADDN	SUNDANCE WOODS 6TH ADDN	SUNDANCE WOODS 6TH ADDN	2,016.6	6,516	Local	Flexible	2027	Chip 1/4" + Fog Seal	38,086
SS-S6-581-1	THE ENCLAVE AT HAYDEN HILLS WEST	THE ENCLAVE AT HAYDEN HILLS WEST	THE ENCLAVE AT HAYDEN HILLS WEST	2,510.3	7,676	Local	Flexible	2027	Route and Bitumen Crack Seal	7,478
SS-S6-70-1	Cypress Cove 2nd Addition	Cypress Cove 2nd Addition	Cypress Cove 2nd Addition	3,847.1	12,589	Local	Flexible	2028	Chip 1/4" + Fog Seal	75,053
SS-S6-140-2	Dayton River Commercial Park	Dayton River Commercial Park	Dayton River Commercial Park	1,454.2	8,531	Collector	Flexible	2028	Edge Mill + HMA OL 2.0"	237,366
SS-590	DIAMOND LAKE TRAIL SOUTH	DIAMOND LAKE COURT SOUTH	DIAMOND LAKE ROAD SOUTH	2,152.3	6,337	Local	Flexible	2028	HMA OL 1.5"	107,053
3050	HOLLY LANE NORTH	CITY LIMITS [S]	525.1 FT N OF CITY LIMITS [S]	525.1	2,165	Collector	Flexible	2028	Edge Mill + HMA OL 2.0"	60,224
SS-S6-285-2	NATURES CROSSING	NATURES CROSSING	NATURES CROSSING	216.9	831	Collector	Flexible	2028	Edge Mill + HMA OL 2.0"	23,133
SS-S6-340-1	Old Orchards	Old Orchards	Old Orchards	4,941.9	14,699	Local	Flexible	2028	Edge Mill + HMA OL 1.5"	306,735
SS-S6-432-2	River Hills 2nd and 3rd Additions	River Hills 2nd and 3rd Additions	River Hills 2nd and 3rd Additions	2,255.3	7,901	Collector	Flexible	2028	Edge Mill + HMA OL 2.0"	219,831
SS-S6-610-2	Wicht Industrial Park	Wicht Industrial Park	Wicht Industrial Park	4,149.8	16,770	Collector	Flexible	2028	Edge Mill + HMA OL 2.0"	466,583

City of Dayton, MN

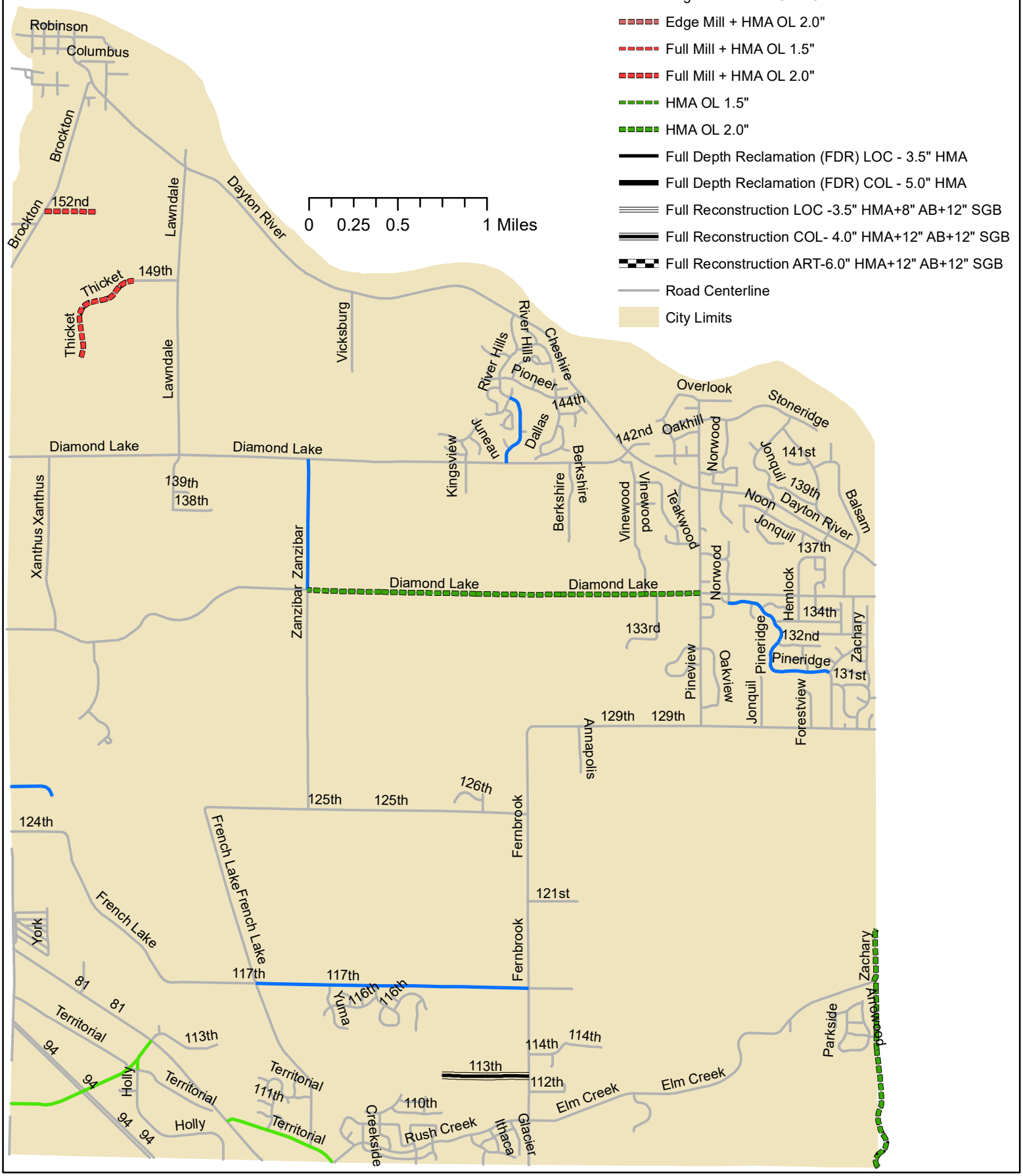
Stantec

Achieve PQI by 2028 - 2024 ($1.78 M)

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

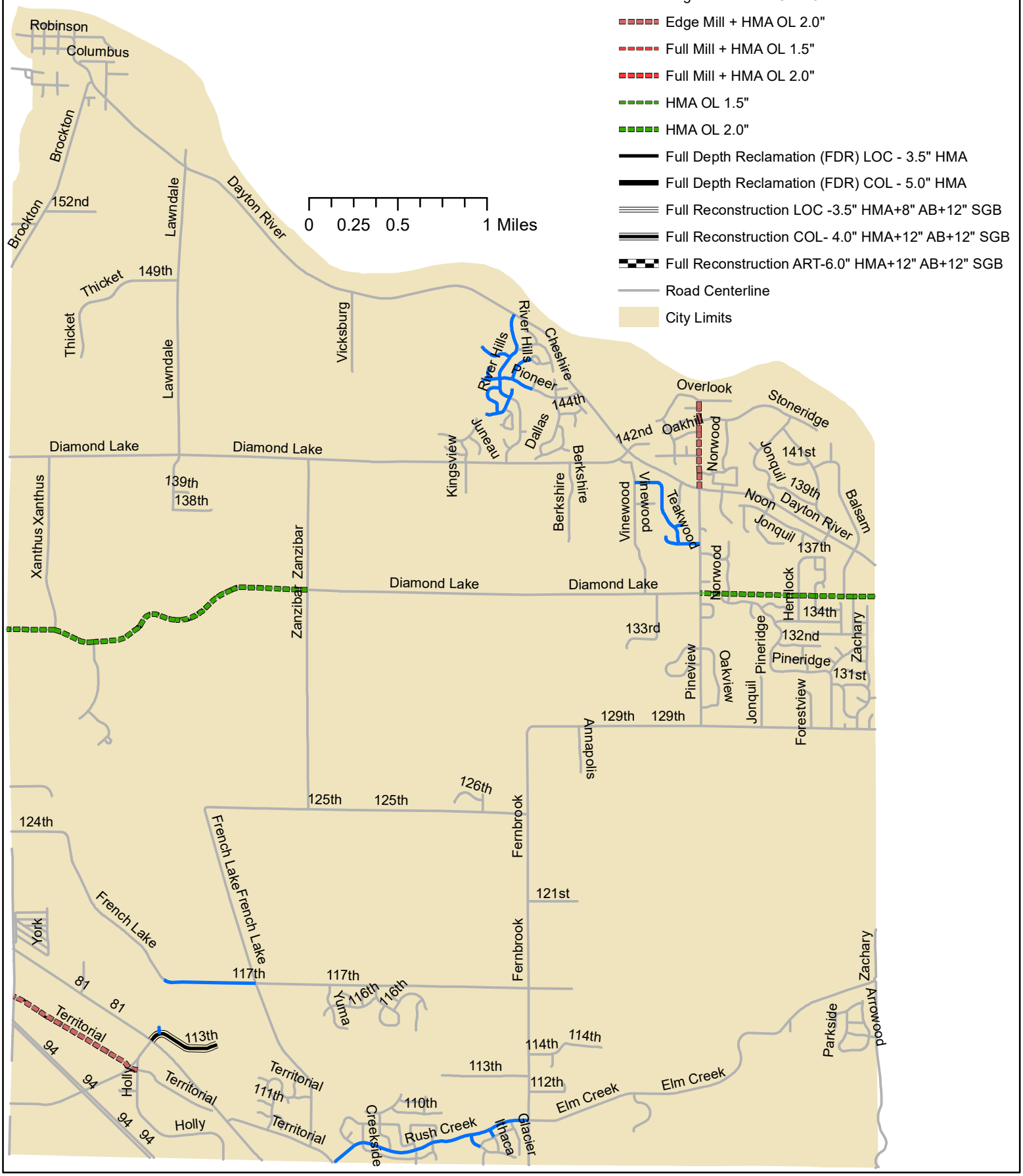
Stantec

Achieve PQI by 2028 - 2025 ($2.84 M)

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

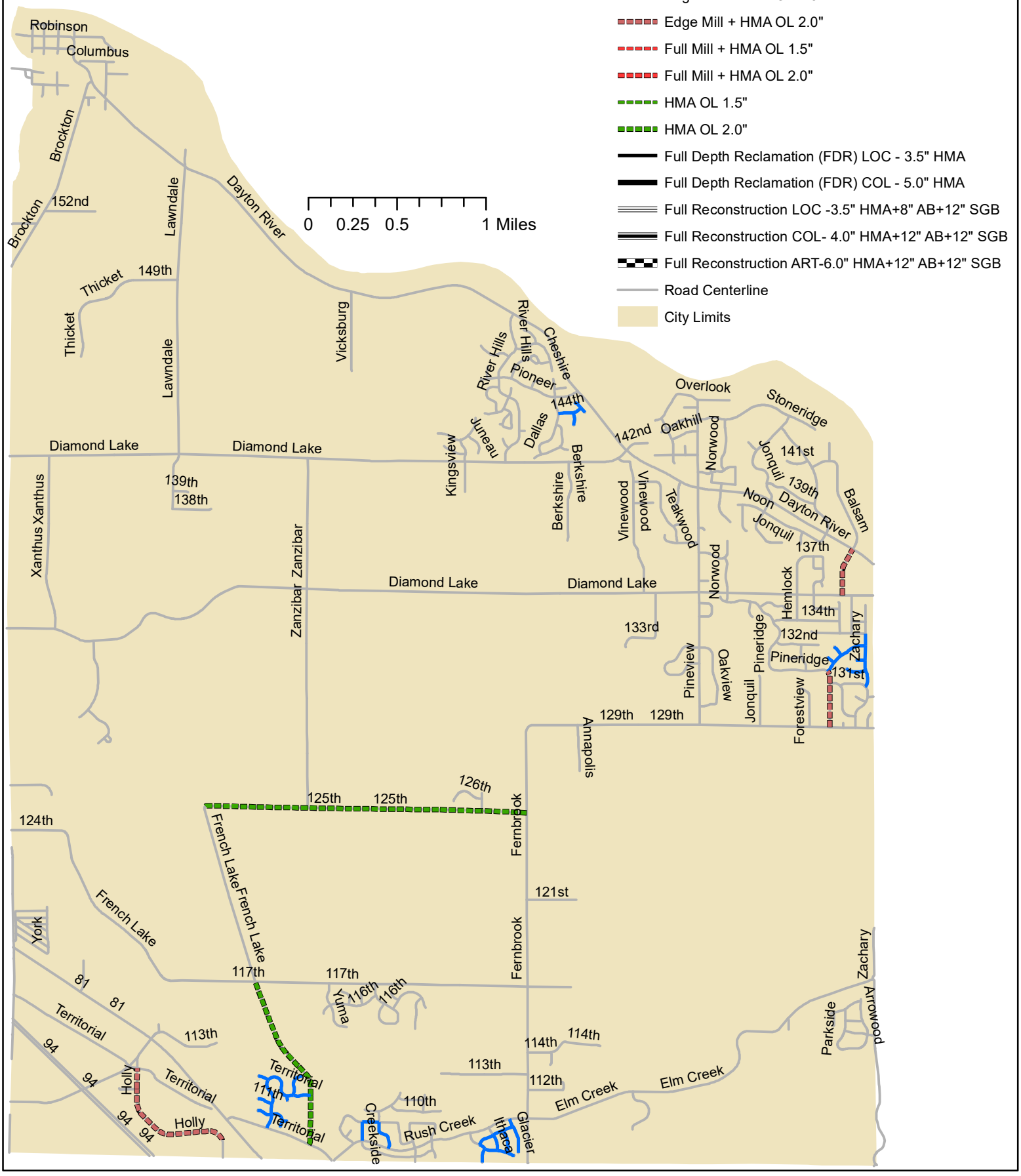
Stantec

Achieve PQI by 2028 - 2026 ($2.03 M)

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

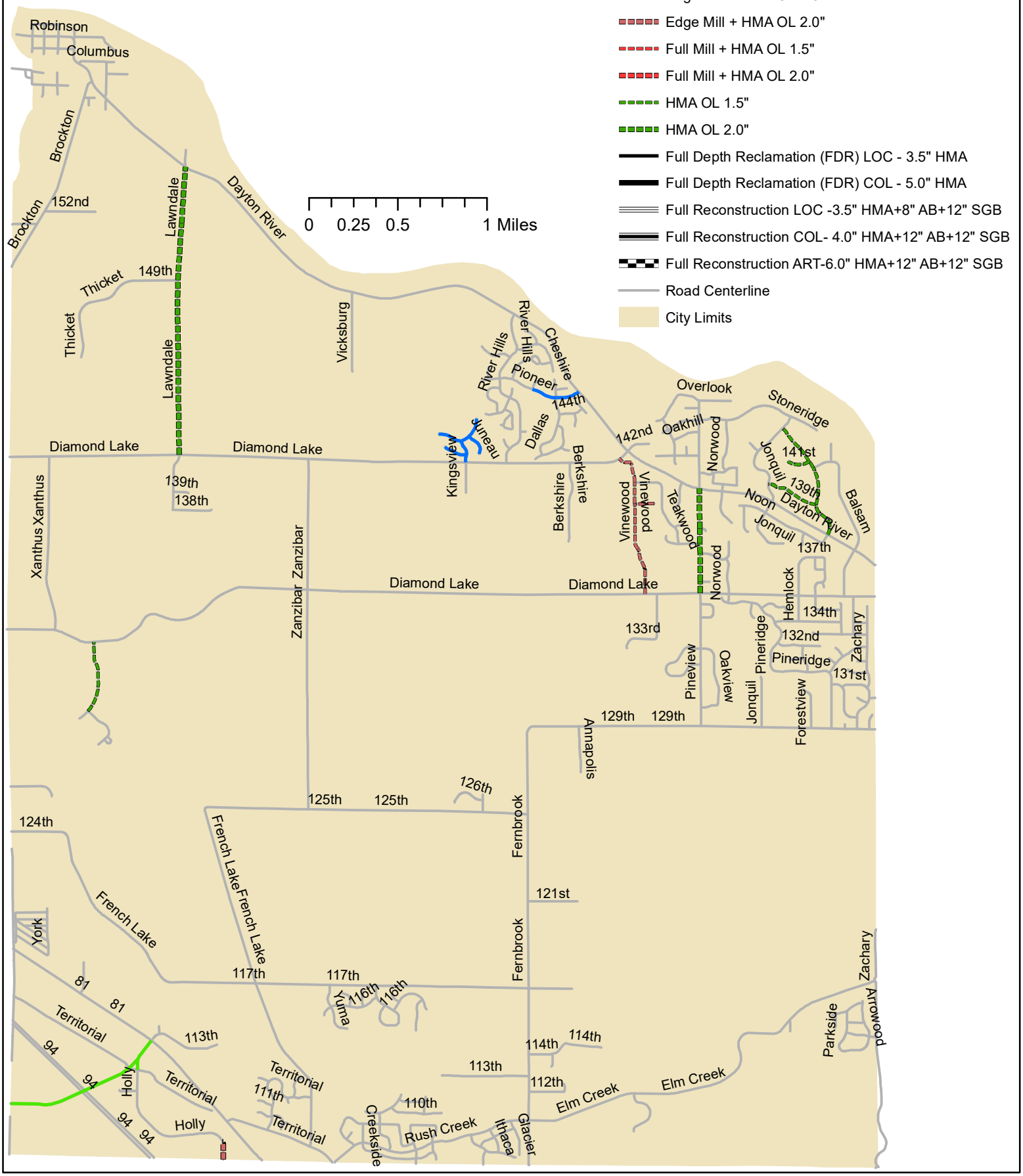
Stantec

Achieve PQI by 2028 - 2027 ($1.56 M)

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits



City of Dayton, MN

Stantec

Achieve PQI by 2028 - 2028 ($2.04 M)

Program

M&R Treatment Description

- Route and Bitumen Crack Seal
- Chip 1/4" + Fog Seal
- Edge Mill + HMA OL 1.5"
- Edge Mill + HMA OL 2.0"
- Full Mill + HMA OL 1.5"
- Full Mill + HMA OL 2.0"
- HMA OL 1.5"
- HMA OL 2.0"
- Full Depth Reclamation (FDR) LOC - 3.5" HMA
- Full Depth Reclamation (FDR) COL - 5.0" HMA
- Full Reconstruction LOC -3.5" HMA+8" AB+12" SGB
- Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB
- Full Reconstruction ART-6.0" HMA+12" AB+12" SGB
- Road Centerline
- City Limits

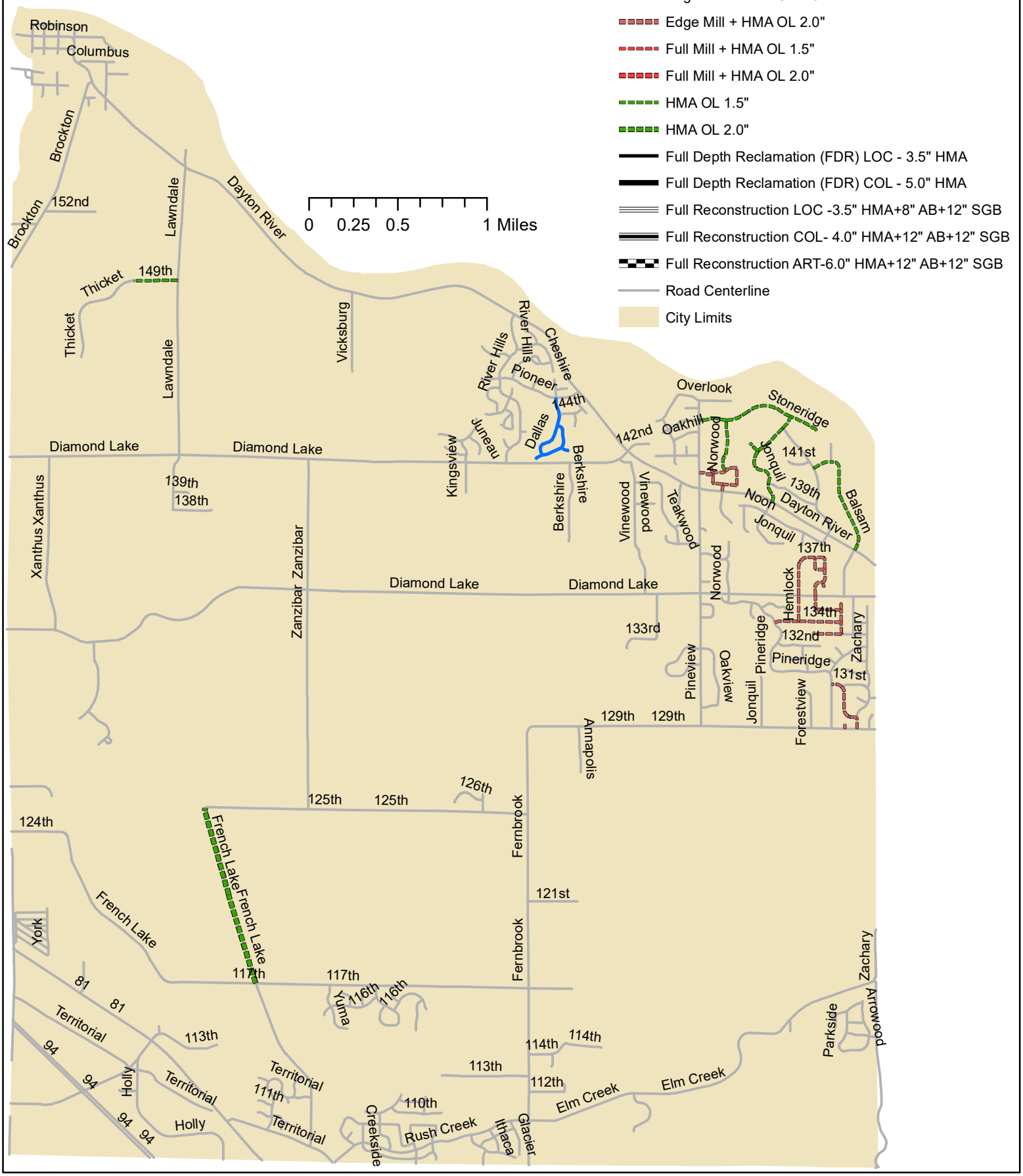


Table E.3: Achieve a PQI of 70 by 2028 - SS - Committed=Y (Sorted by Year-Street)

* Section # starting with "SS" denotes a Super-Section.

*Section #	Street	From	To	CL Length (ft)	Area (yd^2)	Func. Class	Pavement Type	Implement. Year	Treatment Description	Treatment Cost ($)
SS-113TH AVE N	113TH AVENUE NORTH	FIRNBROOK LN N	END	2587.3	8,279	Local	Flexible	2024	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	0
SS-117TH AVENUE	117TH AVENUE NORTH	FRENCH LAKE ROAD EAST	FERNBROOK LANE NORTH	8123.4	22,637	Collector	Flexible	2024	Chip 1/4" + Fog Seal	124,686
SS-410	152ND AVENUE NORTH	BROCKTON LANE NORTH	END	1510.4	3,575	Local	Flexible	2024	Full Mill + HMA OL 2.0"	91,883
SS-DAYTON PKWY	DAYTON PKWY	BROCKTON LANE	COUNTY ROAD 81 & 113TH AVENUE NO	5162.8	28,516	Collector	Flexible	2024	Route and Bitumen Crack Seal	26,178
SS-DIAMOND LK2	DIAMOND LAKE ROAD SOUTH	ZANZIBAR LANE NORTH	PINEVIEW LANE NORTH	11690	27,861	Collector	Flexible	2024	HMA OL 2.0"	588,262
SS-S6-205-2	FRENCH LAKE INDUSTRIAL CENTER FOUR (GRACO)	FRENCH LAKE INDUSTRIAL CENTER FOUR (GRACO)	FRENCH LAKE INDUSTRIAL CENTER FOUR (GRACO)	1394.2	6,142	Collector	Flexible	2024	Chip 1/4" + Fog Seal	33,831
SS-S6-432-2	River Hills 2nd and 3rd Additions	River Hills 2nd and 3rd Additions	River Hills 2nd and 3rd Additions	2255.3	7,901	Collector	Flexible	2024	Chip 1/4" + Fog Seal	43,519
SS-TERRITORIAL2	TERRITORIAL ROAD	COUNTY ROAD 81	END	3453.2	9,849	Collector	Flexible	2024	Route and Bitumen Crack Seal	9,042
SS-S6-581-2	THE ENCLAVE AT HAYDEN HILLS WEST	THE ENCLAVE AT HAYDEN HILLS WEST	THE ENCLAVE AT HAYDEN HILLS WEST	2599.4	8,607	Collector	Flexible	2024	Chip 1/4" + Fog Seal	47,407
SS-S6-596-2	THE PINES AT BLESI FARMS AND 2ND AND 3RD ADDNS	THE PINES AT BLESI FARMS AND 2ND AND 3RD ADDNS	THE PINES AT BLESI FARMS AND 2ND AND 3RD ADDNS	2,368.2	7,281	Collector	Flexible	2024	Chip 1/4" + Fog Seal	40,103
500	THICKET LANE NORTH	END	149TH AVENUE NORTH	3,299.1	8,871	Local	Flexible	2024	Full Mill + HMA OL 2.0"	228,017
SS-ZACHARY LANE	ZACHARY LANE NORTH	ROUNDABOUT	END	7,353.9	23,410	Collector	Flexible	2024	HMA OL 2.0"	494,276
SS-ZANZIBAR LN	ZANZIBAR LANE NORTH	DIAMOND LAKE ROAD SOUTH	DIAMOND LAKE ROAD NORTH	3,895.6	9,025	Collector	Flexible	2024	Chip 1/4" + Fog Seal	49,708
3100	113TH AVENUE NORTH	COUNTY ROAD 81 & HOLLY LANE NORT	LAWNDALE LANE NORTH	312.1	1,630	Local	Flexible	2025	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	170,930
3110	113TH AVENUE NORTH	LAWNDALE LANE NORTH	END	1,860.0	7,329	Local	Flexible	2025	Full Reconstruction COL- 4.0" HMA+12" AB+12" SGB	768,574
SS-4390	117TH AVENUE NORTH	FRENCH LAKE ROAD WEST	FRENCH LAKE ROAD EAST	2,739.9	7,946	Collector	Flexible	2025	Chip 1/4" + Fog Seal	44,640
SS-DIAMOND LK1	DIAMOND LAKE ROAD SOUTH	WEST CITY LIMITS	ZANZIBAR LANE NORTH	9,632.7	26,083	Collector	Flexible	2025	HMA OL 2.0"	561,736
SS-DIAMOND LK3	DIAMOND LAKE ROAD SOUTH	PINEVIEW LANE NORTH	EAST CITY LIMITS	5,179.2	14,634	Collector	Flexible	2025	HMA OL 2.0"	315,164
3120	LAWNDALE LANE NORTH	113TH AVENUE NORTH	END	238.1	616	Local	Flexible	2025	Chip 1/4" + Fog Seal	3,463
SS-PINEVIEW LN3	PINEVIEW LANE NORTH	DAYTON RIVER ROAD	OVERLOOK ROAD	2,618.5	7,279	Collector	Flexible	2025	Edge Mill + HMA OL 2.0"	190,853
SS-S6-361-1	PINEVIEW MEADOWS AND 2ND, 3RD ADDN	PINEVIEW MEADOWS AND 2ND, 3RD ADDN	PINEVIEW MEADOWS AND 2ND, 3RD ADDN	4,134.7	12,409	Local	Flexible	2025	Chip 1/4" + Fog Seal	69,714
SS-S6-433-1	River Hills 5th and 6th Additions	River Hills 5th and 6th Additions	River Hills 5th and 6th Additions	3,001.7	9,082	Local	Flexible	2025	Chip 1/4" + Fog Seal	51,023
SS-S6-433-2	River Hills 5th and 6th Additions	River Hills 5th and 6th Additions	River Hills 5th and 6th Additions	1,779.4	5,366	Collector	Flexible	2025	Chip 1/4" + Fog Seal	30,146
SS-S6-431-1	River Hills 7th and 9th Additions	River Hills 7th and 9th Additions	River Hills 7th and 9th Additions	2,273.0	6,685	Local	Flexible	2025	Chip 1/4" + Fog Seal	37,558
SS-S6-431-2	River Hills 7th and 9th Additions	River Hills 7th and 9th Additions	River Hills 7th and 9th Additions	2,122.1	6,300	Collector	Flexible	2025	Chip 1/4" + Fog Seal	35,396
SS-RUSH CREEK	RUSH CREEK RD AND PKWY	TERRITORIAL ROAD	CATTAIL PATH	3,209.3	12,377	Collector	Flexible	2025	Chip 1/4" + Fog Seal	69,537
SS-S6-500-2	SUNDANCE GREENS 2ND ADDN	SUNDANCE GREENS 2ND ADDN	SUNDANCE GREENS 2ND ADDN	3,727.4	12,980	Collector	Flexible	2025	Chip 1/4" + Fog Seal	72,922
SS-TERRITORIAL1	TERRITORIAL ROAD	BROCKTON LANE NORTH	HOLLY LANE NORTH	4,288.6	15,968	Local	Flexible	2025	Edge Mill + HMA OL 2.0"	418,647
SS-125 AVENUE N	125TH AVENUE NORTH	FRENCH LAKE ROAD EAST	FERNBROOK LANE NORTH	9,596.9	26,359	Collector	Flexible	2026	HMA OL 2.0"	579,038
SS-S6-140-2	Dayton River Commercial Park	Dayton River Commercial Park	Dayton River Commercial Park	1,454.2	8,531	Collector	Flexible	2026	Edge Mill + HMA OL 2.0"	228,149
SS-S6-175-1	DONAHUE DELLS 1ST ADDN	DONAHUE DELLS 1ST ADDN	DONAHUE DELLS 1ST ADDN	1,677.9	4,765	Local	Flexible	2026	Edge Mill + HMA OL 2.0"	127,434
SS-FRENCH LAKE1	FRENCH LAKE ROAD EAST	TERRITORIAL ROAD	117TH AVENUE NORTH	5,332.2	14,059	Collector	Flexible	2026	HMA OL 2.0"	308,839
SS-S6-260-1	IONE GARDENS	IONE GARDENS	IONE GARDENS	1,552.7	5,039	Local	Flexible	2026	Chip 1/4" + Fog Seal	28,878
SS-S6-500-1	SUNDANCE GREENS 2ND ADDN	SUNDANCE GREENS 2ND ADDN	SUNDANCE GREENS 2ND ADDN	4,959.0	14,508	Local	Flexible	2026	Chip 1/4" + Fog Seal	83,137
SS-S6-530-1	SUNDANCE WOODS 6TH ADDN	SUNDANCE WOODS 6TH ADDN	SUNDANCE WOODS 6TH ADDN	2,016.6	6,516	Local	Flexible	2026	Chip 1/4" + Fog Seal	37,339
SS-S6-550-1	TERRITORIAL TRAIL	TERRITORIAL TRAIL	TERRITORIAL TRAIL	6,176.7	18,564	Local	Flexible	2026	Chip 1/4" + Fog Seal	106,384
SS-S6-582-1	THE ENCLAVE AT HAYDEN HILLS EAST	THE ENCLAVE AT HAYDEN HILLS EAST	THE ENCLAVE AT HAYDEN HILLS EAST	4,523.4	15,224	Local	Flexible	2026	Chip 1/4" + Fog Seal	87,240
SS-S6-610-2	Wicht Industrial Park	Wicht Industrial Park	Wicht Industrial Park	4,149.8	16,770	Collector	Flexible	2026	Edge Mill + HMA OL 2.0"	448,465
SS-S6-76-2	CYPRESS COVE 3RD and 4TH ADDN	CYPRESS COVE 3RD and 4TH ADDN	CYPRESS COVE 3RD and 4TH ADDN	1,477.9	7,895	Collector	Flexible	2027	Chip 1/4" + Fog Seal	46,149
SS-DAYTON PKWY	DAYTON PKWY	BROCKTON LANE	COUNTY ROAD 81 & 113TH AVENUE NO	5162.8	28,516	Collector	Flexible	2027	Route and Bitumen Crack Seal	27,780
SS-590	DIAMOND LAKE TRAIL SOUTH	DIAMOND LAKE COURT SOUTH	DIAMOND LAKE ROAD SOUTH	2152.3	6,337	Local	Flexible	2027	HMA OL 1.5"	104,954
SS-S6-165-1	DIAMOND VIEW ESTATES	DIAMOND VIEW ESTATES	DIAMOND VIEW ESTATES	3637.2	11,174	Local	Flexible	2027	Chip 1/4" + Fog Seal	65,315
3050	HOLLY LANE NORTH	CITY LIMITS [S]	525.1 FT N OF CITY LIMITS [S]	525.1	2,165	Collector	Flexible	2027	Edge Mill + HMA OL 2.0"	59,043
SS-LAWNDALE LN1	LAWNDALE LANE NORTH	DIAMOND LAKE ROAD NORTH	DAYTON RIVER ROAD	8568.6	20,022	Collector	Flexible	2027	HMA OL 2.0"	448,620
SS-S6-340-1	Old Orchards	Old Orchards	Old Orchards	4941.9	14,699	Local	Flexible	2027	Edge Mill + HMA OL 1.5"	300,721
SS-PINEVIEW LN2	PINEVIEW LANE NORTH	DIAMOND LAKE ROAD SOUTH	DAYTON RIVER ROAD	3105.8	8,479	Collector	Flexible	2027	HMA OL 2.0"	189,981
SS-S6-623-1	Wildwood Springs and Wildrose East	Wildwood Springs and Wildrose East	Wildwood Springs and Wildrose East	5935.4	19,435	Local	Flexible	2027	HMA OL 1.5"	321,869
510	149TH AVENUE NORTH	THICKET LANE NORTH	LAWNDALE LANE NORTH	1311.4	3,410	Local	Flexible	2028	HMA OL 1.5"	57,598
SS-S6-70-1	Cypress Cove 2nd Addition	Cypress Cove 2nd Addition	Cypress Cove 2nd Addition	3,847.1	12,589	Local	Flexible	2028	Chip 1/4" + Fog Seal	75,053
SS-S6-101-1	DAYTON HIGHLANDS 2ND AND 3RD ADDN	DAYTON HIGHLANDS 2ND AND 3RD ADDN	DAYTON HIGHLANDS 2ND AND 3RD ADDN	5,713.0	16,168	Local	Flexible	2028	Edge Mill + HMA OL 1.5"	337,375
SS-S6-180-1	DONAHUE DELLS 2ND ADDN	DONAHUE DELLS 2ND ADDN	DONAHUE DELLS 2ND ADDN	2,004.9	5,549	Local	Flexible	2028	Edge Mill + HMA OL 1.5"	115,794
SS-FRENCH LAKE2	FRENCH LAKE ROAD EAST	117TH AVENUE NORTH	125TH AVENUE NORTH	5,428.0	16,200	Collector	Flexible	2028	HMA OL 2.0"	370,232
SS-S6-316-1	Nicole Lachinski and Northland Holding Additions	Nicole Lachinski and Northland Holding Additions	Nicole Lachinski and Northland Holding Additions	3,877.7	10,763	Local	Flexible	2028	Edge Mill + HMA OL 1.5"	224,588
SS-S6-330-1	Norwood Meadow	Norwood Meadow	Norwood Meadow	3,108.8	8,608	Local	Flexible	2028	Edge Mill + HMA OL 1.5"	179,622
SS-S6-450-1	Rolling River Estates	Rolling River Estates	Rolling River Estates	3,502.7	9,909	Local	Flexible	2028	HMA OL 1.5"	167,383

Table E.3: Achieve a PQI of 70 by 2028 - SS - Committed=Y (Sorted by Year-Street)

* Section # starting with "SS" denotes a Super-Section.

*Section #	Street	From	To	CL Length (ft)	Area (yd^2)	Func. Class	Pavement Type	Implement. Year	Treatment Description	Treatment Cost ($)
SS-S6-622-1	Wildwood Springs and Wildrose Central	Wildwood Springs and Wildrose Central	Wildwood Springs and Wildrose Central	3,610.8	12,180	Local	Flexible	2028	HMA OL 1.5"	205,757
SS-S6-621-1	Wildwood Springs and Wildrose West	Wildwood Springs and Wildrose West	Wildwood Springs and Wildrose West	5,355.7	17,918	Local	Flexible	2028	HMA OL 1.5"	302,675

APPENDIX F

Performance Indices of All Sections

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
3420	109TH AVENUE NORTH	KINGSVIEW LANE NORTH	ITHACA LANE NORTH	521	Local	Flexible	74.9	63.7	83.3	1,394	04/17/2023
3430	109TH AVENUE NORTH	ITHACA LANE NORTH	HARBOR LANE NORTH	334	Local	Flexible	76.5	70.3	83.2	965	04/17/2023
3440	109TH AVENUE NORTH	HARBOR LANE NORTH	GLACIER LANE NORTH	303	Local	Flexible	81.1	72.9	87.5	868	04/17/2023
3760	110TH AVENUE NORTH	QUANTICO LANE NORTH	NIAGARA LANE NORTH	1,022	Local	Flexible	56.7	52.1	65.9	3,372	04/17/2023
3900	110TH AVENUE NORTH	110TH CIRCLE	END	152	Local	Flexible	57.2	32.9	72.7	392	04/17/2023
3770	110TH AVENUE NORTH	NIAGARA LANE NORTH	END	531	Local	Flexible	61.2	36.9	76.2	1,540	04/17/2023
3890	110TH AVENUE NORTH	TERRITORIAL TRAIL	END	446	Local	Flexible	64.0	57.8	72.7	1,129	04/17/2023
3880	110TH AVENUE NORTH	110TH CIRCLE	TERRITORIAL TRAIL	446	Local	Flexible	71.0	65.9	78.4	1,244	04/17/2023
3870	110TH CIRCLE	END	110TH AVENUE NORTH	207	Local	Flexible	68.5	49.3	80.5	833	04/17/2023
3780	111TH AVENUE NORTH	QUANTICO LANE NORTH	NIAGARA LANE NORTH	775	Local	Flexible	61.1	49.2	71.8	2,161	04/17/2023
3910	111TH AVENUE NORTH	TERRITORIAL TRAIL	END	461	Local	Flexible	70.7	60.1	79.7	1,178	04/17/2023
3500	112TH AVENUE NORTH	FERNBROOK LANE NORTH	CHESHIRE LANE NORTH	1,051	Local	Flexible	55.0	61.8	61.6	2,850	04/17/2023
3940	112TH AVENUE NORTH	TERRITORIAL TRAIL	END	334	Local	Flexible	73.0	53.7	84.3	790	04/17/2023
4350	113TH AVENUE NORTH	1782 FT E OF END	FERNBROOK LANE NORTH	1,294	Local	Flexible	18.6	55.0	21.4	3,940	04/17/2023
3110	113TH AVENUE NORTH	LAWNDALE LANE NORTH	END	1,860	Local	Flexible	22.7	44.4	27.2	7,329	04/18/2023
4340	113TH AVENUE NORTH	490 FT E OF END	1782 FT E OF END	1,293	Local	Flexible	24.1	49.2	28.3	4,339	04/17/2023
3100	113TH AVENUE NORTH	COUNTY ROAD 81 & HOLLY LANE NORT	LAWNDALE LANE NORTH	312	Local	Flexible	35.4	36.2	44.2	1,630	04/18/2023
4360	114TH AVENUE NORTH	FERNBROOK LANE NORTH	DALLAS LANE NORTH	690	Local	Flexible	56.2	55.8	64.3	1,762	04/17/2023
4370	114TH AVENUE NORTH	DALLAS LANE NORTH	END	1,608	Local	Flexible	60.5	63.7	67.3	5,332	04/17/2023
4580	116TH AVENUE NORTH	RANCHVIEW LANE NORTH	POLARIS LANE NORTH	860	Local	Flexible	48.2	34.5	60.7	2,188	04/17/2023
4500	116TH AVENUE NORTH	UPLAND LANE NORTH	BRAYBURN TRAIL	489	Local	Flexible	55.6	51.8	64.7	1,368	04/17/2023
4590	116TH AVENUE NORTH	POLARIS LANE NORTH	END	312	Local	Flexible	57.8	37.0	71.9	1,063	04/17/2023
4470	116TH AVENUE NORTH	END	YUMA LANE NORTH	327	Local	Flexible	58.9	38.0	72.9	1,565	04/17/2023
4480	116TH AVENUE NORTH	YUMA LANE NORTH	WESTON LANE NORTH	562	Local	Flexible	59.3	53.0	68.6	1,487	04/17/2023
4490	116TH AVENUE NORTH	WESTON LANE NORTH	UPLAND LANE NORTH	423	Local	Flexible	67.9	56.0	77.7	1,129	04/17/2023
4570	116TH AVENUE NORTH	BRAYBURN TRAIL	RANCHVIEW LANE NORTH	310	Local	Flexible	70.0	54.9	80.4	878	04/17/2023
4400	117TH AVENUE NORTH	FRENCH LAKE ROAD EAST	YUMA LANE NORTH	2,210	Collector	Flexible	48.2	68.5	52.8	5,745	04/17/2023
4390	117TH AVENUE NORTH	FRENCH LAKE ROAD WEST	FRENCH LAKE ROAD EAST	2,740	Collector	Flexible	73.4	85.0	76.4	7,946	10/30/2023
4440	117TH AVENUE NORTH	2504 FT E OF BRAYBURN TRAIL	FERNBROOK LANE NORTH	2,033	Collector	Flexible	76.2	81.5	80.1	6,437	04/17/2023
4420	117TH AVENUE NORTH	BRAYBURN TRAIL	476 ft e of brayburn trail	476	Collector	Flexible	77.9	78.1	82.7	1,238	04/17/2023
4410	117TH AVENUE NORTH	YUMA LANE NORTH	BRAYBURN TRAIL	1,376	Collector	Flexible	78.5	76.1	83.8	3,579	04/17/2023
4430	117TH AVENUE NORTH	476 ft e of brayburn trail	2504 FT E OF BRAYBURN TRAIL	2,028	Collector	Flexible	81.0	81.4	85.2	5,634	04/17/2023
4060	125TH AVENUE NORTH	KINGSVIEW LANE NORTH	FERNBROOK LANE NORTH	1,337	Collector	Flexible	40.4	69.9	44.0	5,198	04/17/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
4050	125TH AVENUE NORTH	3904 FT E OF ZANZIBAR LANE	KINGSVIEW LANE NORTH	1,283	Collector	Flexible	44.4	80.7	46.8	3,321	04/17/2023
4020	125TH AVENUE NORTH	ZANZIBAR LANE NORTH	1316 ft e of zanzibar lane	1,317	Collector	Flexible	47.3	75.6	50.6	3,832	04/17/2023
4010	125TH AVENUE NORTH	1530 E OF FRENCH LAKE ROAD	ZANZIBAR LANE NORTH	1,541	Collector	Flexible	49.7	75.8	53.1	3,647	04/17/2023
4040	125TH AVENUE NORTH	2612 FT E OF ZANZIBAR LANE	3904 FT E OF ZANZIBAR LANE	1,293	Collector	Flexible	50.5	73.3	54.4	3,246	04/17/2023
4030	125TH AVENUE NORTH	1316 ft e of zanzibar lane	2612 FT E OF ZANZIBAR LANE	1,297	Collector	Flexible	50.7	81.4	53.3	3,458	04/17/2023
4000	125TH AVENUE NORTH	FRENCH LAKE ROAD EAST	1530 E OF FRENCH LAKE ROAD	1,531	Collector	Flexible	51.2	77.4	54.5	3,657	04/17/2023
4090	126TH AVENUE NORTH	KINGSVIEW LANE NORTH	END	1,043	Local	Flexible	47.0	44.4	56.4	3,772	04/17/2023
1080	130TH AVENUE NORTH	ARROWOOD LANE NORTH	END	170	Local	Flexible	65.7	61.0	73.8	467	04/14/2023
840	130TH AVENUE NORTH	OAKVIEW LANE NORTH	PINEVIEW LANE NORTH	495	Local	Flexible	82.1	76.3	87.6	1,436	04/14/2023
1100	131ST AVENUE NORTH	DEERWOOD LANE NORTH	BALSAM LANE NORTH	336	Local	Flexible	53.7	55.8	61.5	955	04/14/2023
1070	131ST AVENUE NORTH	ARROWOOD LANE NORTH & ZACHARY LA	BALSAM LANE NORTH	785	Local	Flexible	56.4	69.6	61.5	2,207	04/14/2023
1350	131ST CIRCLE NORTH	END	ZACHARY LANE NORTH	611	Local	Flexible	68.8	62.4	76.9	723	04/14/2023
820	132 1/2 AVENUE NORTH	PINEVIEW LANE NORTH & GRANSTROM	OAKVIEW LANE NORTH	312	Local	Flexible	81.8	72.7	88.3	903	04/14/2023
1280	132ND AVENUE NORTH	EVERGREEN LANE NORTH	END	517	Local	Flexible	68.0	68.6	74.4	1,962	04/14/2023
1270	132ND AVENUE NORTH	PINERIDGE WAY NORTH	EVERGREEN LANE NORTH	769	Local	Flexible	68.3	69.7	74.4	2,434	04/14/2023
1360	132ND CIRCLE NORTH	END	ZACHARY LANE NORTH	280	Local	Flexible	62.6	48.1	73.9	1,626	04/14/2023
1420	133RD AVENUE NORTH	END	BALSAM LANE NORTH	854	Local	Flexible	61.4	69.6	67.0	1,620	04/14/2023
1440	133RD AVENUE NORTH	ARROWOOD LANE NORTH	ZACHARY LANE NORTH	410	Local	Flexible	69.7	74.1	74.9	1,184	04/14/2023
1430	133RD AVENUE NORTH	BALSAM LANE NORTH	ARROWOOD LANE NORTH	360	Local	Flexible	72.3	73.0	78.0	1,020	04/14/2023
600	133RD AVENUE NORTH	1200 FT E OF BROCKTON LANE	1300 FT E OF BROCKTON LANE	103	Collector	Flexible	76.7	95.3	77.6	258	04/14/2023
1610	134 1/2 AVENUE NORTH	EVERGREEN LANE NORTH	BALSAM LANE NORTH	770	Local	Flexible	60.2	66.8	66.2	2,232	04/14/2023
1520	134TH AVENUE NORTH	HEMLOCK LANE NORTH	BALSAM LANE NORTH	1,262	Local	Flexible	64.1	66.6	70.6	3,465	04/14/2023
1510	134TH AVENUE NORTH	PINERIDGE WAY NORTH	HEMLOCK LANE NORTH	725	Local	Flexible	65.3	71.8	70.7	2,136	04/14/2023
1450	134TH AVENUE NORTH	ARROWOOD LANE NORTH	ZACHARY LANE NORTH	410	Local	Flexible	71.0	71.7	76.9	1,139	04/14/2023
1700	135 1/2 AVENUE NORTH	PINEVIEW LANE NORTH	END	278	Local	Flexible	39.8	49.0	46.8	1,476	04/14/2023
1630	136TH AVENUE NORTH	EVERGREEN LANE NORTH	FORESTVIEW LANE NORTH	285	Local	Flexible	68.2	74.5	73.2	776	04/14/2023
1710	137TH AVENUE NORTH	PINEVIEW LANE NORTH	NORWOOD LANE NORTH	811	Local	Flexible	39.3	66.1	43.3	2,488	04/14/2023
1840	137TH AVENUE NORTH	TEAKWOOD LANE NORTH	END	510	Local	Flexible	62.0	56.0	70.9	1,882	04/18/2023
1550	137TH AVENUE NORTH	HEMLOCK LANE NORTH	FORESTVIEW LANE NORTH	334	Local	Flexible	63.5	63.1	70.8	929	04/14/2023
1830	137TH AVENUE NORTH	PINEVIEW LANE NORTH	TEAKWOOD LANE NORTH	648	Local	Flexible	63.5	70.3	69.1	1,952	04/18/2023
1560	137TH AVENUE NORTH	FORESTVIEW LANE NORTH	EVERGREEN LANE NORTH	278	Local	Flexible	65.9	68.3	72.2	719	04/14/2023
1820	138TH AVENUE NORTH	PINEVIEW LANE NORTH	END	197	Local	Flexible	39.0	34.8	49.1	1,213	04/18/2023
420	138TH AVENUE NORTH	LAWNDALE LANE NORTH	END	1,158	Local	Flexible	41.2	49.2	48.4	3,242	04/18/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
1880	138TH AVENUE NORTH	TEAKWOOD LANE NORTH	END	259	Local	Flexible	67.3	53.3	77.8	1,177	04/18/2023
520	139TH AVENUE NORTH	LAWNDALE LANE NORTH	END	457	Local	Flexible	19.1	24.8	25.5	1,907	04/18/2023
2070	139TH AVENUE NORTH	JONQUIL LANE NORTH	HEMLOCK LANE NORTH	1,590	Local	Flexible	28.6	72.5	30.9	5,300	04/14/2023
1810	139TH AVENUE NORTH	VINEWOOD LANE NORTH	END	579	Local	Flexible	69.1	68.3	75.7	2,311	04/18/2023
2150	140TH AVENUE NORTH	NORWOOD LANE NORTH	OAKVIEW LANE NORTH	298	Local	Flexible	46.8	83.0	49.0	811	04/14/2023
2140	140TH AVENUE NORTH	MAGNOLIA LANE NORTH	NORWOOD LANE NORTH	423	Local	Flexible	52.1	69.4	56.8	1,474	04/14/2023
1870	140TH AVENUE NORTH	TEAKWOOD LANE NORTH	VINEWOOD LANE NORTH	774	Local	Flexible	67.8	75.8	72.5	2,459	04/18/2023
2200	141ST AVENUE NORTH	END	ROSEWOOD LANE NORTH	550	Local	Flexible	48.2	62.8	53.8	1,496	04/14/2023
1670	141ST AVENUE NORTH	BALSAM LANE NORTH	HEMLOCK LANE NORTH	563	Local	Flexible	54.5	57.0	62.1	1,971	04/14/2023
2750	141ST AVENUE NORTH	CHESHIRE LANE NORTH	END	263	Local	Flexible	63.3	47.9	74.8	795	04/18/2023
2210	141ST AVENUE NORTH	ROSEWOOD LANE NORTH	QUINWOOD LANE NORTH	357	Local	Flexible	68.3	70.1	74.3	1,050	04/14/2023
2220	141ST AVENUE NORTH	QUINWOOD LANE NORTH	PINEVIEW LANE NORTH	373	Local	Flexible	68.3	76.6	72.8	1,004	04/14/2023
1990	141ST CIRCLE NORTH	END	HEMLOCK LANE NORTH	660	Local	Flexible	24.8	49.7	29.1	2,799	04/14/2023
1800	142ND AVENUE NORTH	DAYTON RIVER ROAD & DIAMOND LAKE	END	704	Local	Flexible	26.5	56.0	30.3	2,850	04/18/2023
2420	142ND AVENUE NORTH	END	KINGSVIEW LANE NORTH	705	Local	Flexible	62.1	47.3	73.6	2,668	04/18/2023
2430	143RD AVENUE NORTH	END	KINGSVIEW LANE NORTH	726	Local	Flexible	71.1	61.8	79.6	2,160	04/18/2023
2700	144TH AVENUE NORTH	BERKSHIRE LANE NORTH	ANNAPOLIS LANE NORTH	272	Local	Flexible	79.5	75.7	85.0	853	04/18/2023
2690	144TH AVENUE NORTH	DALLAS LANE NORTH	BERKSHIRE LANE NORTH	457	Local	Flexible	79.6	74.7	85.4	1,503	04/18/2023
2550	146TH AVENUE	END	RIVER HILLS PARKWAY	987	Local	Flexible	65.8	68.7	72.0	2,939	04/18/2023
2670	146TH AVENUE NORTH	DALLAS LANE NORTH	END	342	Local	Flexible	75.0	54.6	86.3	1,294	04/18/2023
510	149TH AVENUE NORTH	THICKET LANE NORTH	LAWNDALE LANE NORTH	1,311	Local	Flexible	43.1	63.3	48.0	3,410	04/18/2023
410	152ND AVENUE NORTH	BROCKTON LANE NORTH	END	1,510	Local	Flexible	0.5	33.8	0.6	3,575	04/18/2023
280	62ND LANE	END	UNNAMED STREET	399	Local	Flexible	30.5	37.0	37.9	878	04/18/2023
290	62ND LANE	UNNAMED STREET	RICHARDSON AVENUE	219	Local	Flexible	49.0	40.1	60.0	482	04/18/2023
2760	ANNAPOLIS LANE NORTH	END	144TH AVENUE NORTH	183	Local	Flexible	69.8	91.0	71.4	607	04/18/2023
2770	ANNAPOLIS LANE NORTH	144TH AVENUE NORTH	END	251	Local	Flexible	81.0	74.4	87.0	1,288	04/18/2023
1090	ARROWOOD CIRCLE NORTH	ARROWOOD LANE NORTH	END	343	Local	Flexible	64.3	53.6	74.2	1,702	04/14/2023
4280	ARROWOOD LANE NORTH	PARKSIDE TRAIL NORTH & GOOSE LAK	BASSWOOD LANE NORTH	454	Local	Flexible	38.2	47.1	45.3	1,330	04/17/2023
1030	ARROWOOD LANE NORTH	129TH AVENUE NORTH	BALSAM LANE NORTH	346	Local	Flexible	39.3	71.5	42.6	960	04/14/2023
1050	ARROWOOD LANE NORTH	ARROWOOD CIRCLE NORTH	130TH AVENUE NORTH	153	Local	Flexible	49.7	58.6	56.3	426	04/14/2023
4300	ARROWOOD LANE NORTH	HACKBERRY LANE NORTH	END	65	Local	Flexible	50.9	35.9	63.7	606	04/17/2023
4290	ARROWOOD LANE NORTH	BASSWOOD LANE NORTH	HACKBERRY LANE NORTH	580	Local	Flexible	57.9	51.2	67.5	1,733	04/17/2023
1040	ARROWOOD LANE NORTH	BALSAM LANE NORTH	ARROWOOD CIRCLE NORTH	560	Local	Flexible	59.1	68.7	64.6	1,543	04/14/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
1060	ARROWOOD LANE NORTH	130TH AVENUE NORTH	ZACHARY LANE NORTH & 131ST AVENU	328	Local	Flexible	59.1	66.1	65.2	948	04/14/2023
1460	ARROWOOD LANE NORTH	133RD AVENUE NORTH	134TH AVENUE NORTH	350	Local	Flexible	66.9	74.0	71.9	1,035	04/14/2023
1470	ARROWOOD LANE NORTH	134TH AVENUE NORTH	DIAMOND LAKE ROAD SOUTH	782	Local	Flexible	68.3	75.7	73.0	2,216	04/14/2023
1650	BALSAM LANE NORTH	DIAMOND LAKE ROAD SOUTH	DAYTON RIVER ROAD	1,454	Collector	Flexible	34.3	61.0	38.5	8,531	04/14/2023
1660	BALSAM LANE NORTH	DAYTON RIVER ROAD	141ST AVENUE NORTH	2,940	Local	Flexible	53.6	72.5	57.9	7,937	04/14/2023
1110	BALSAM LANE NORTH	131ST AVENUE NORTH	ARROWOOD LANE NORTH	1,195	Local	Flexible	60.0	56.1	68.6	3,187	04/14/2023
1500	BALSAM LANE NORTH	134 1/2 AVENUE NORTH	END	213	Local	Flexible	62.9	68.7	68.8	1,139	04/14/2023
1490	BALSAM LANE NORTH	134TH AVENUE NORTH	134 1/2 AVENUE NORTH	360	Local	Flexible	69.3	73.4	74.6	1,011	04/14/2023
1480	BALSAM LANE NORTH	133RD AVENUE NORTH	134TH AVENUE NORTH	360	Local	Flexible	72.9	77.4	77.6	1,019	04/14/2023
4240	BASSWOOD LANE NORTH	PARKSIDE TRAIL NORTH	ARROWOOD LANE NORTH	513	Local	Flexible	57.8	48.3	68.2	1,475	04/17/2023
350	BATES STREET	BAXTER AVENUE	DAYTON AVENUE	423	Local	Flexible	41.2	43.5	49.7	1,007	04/18/2023
360	BATES STREET	DAYTON AVENUE	END	314	Local	Flexible	45.5	32.8	57.8	726	04/18/2023
340	BATES STREET	BATES STREET	BAXTER AVENUE	318	Local	Flexible	52.8	35.0	66.4	746	04/18/2023
40	BAXTER AVENUE	END	DAYTON STREET	166	Local	Flexible	28.4	37.4	35.3	439	04/18/2023
60	BAXTER AVENUE	ROBINSON STREET	LEVEE STREET	357	Local	Flexible	36.4	37.9	45.0	1,112	04/18/2023
50	BAXTER AVENUE	DAYTON STREET	ROBINSON STREET	358	Local	Flexible	47.6	47.7	56.3	1,114	04/18/2023
370	BAXTER AVENUE NE	END	BATES STREET	350	Local	Flexible	32.8	57.6	37.3	1,150	04/18/2023
2390	BERKSHIRE LANE NORTH	END	DIAMOND LAKE ROAD NORTH	2,355	Local	Flexible	54.8	68.6	59.9	7,326	04/18/2023
2710	BERKSHIRE LANE NORTH	END	144TH AVENUE NORTH	390	Local	Flexible	77.2	72.2	83.5	1,322	04/18/2023
3930	BLACK OAKS COURT NORTH	TERRITORIAL TRAIL	END	736	Local	Flexible	66.4	51.0	77.5	2,423	04/17/2023
1230	BLUE SPRUCE COURT NORTH	PINERIDGE WAY NORTH	END	873	Local	Flexible	59.4	57.3	67.6	2,672	04/14/2023
4540	BRAYBURN TRAIL	116TH AVENUE NORTH	117TH AVENUE NORTH	347	Local	Flexible	50.8	45.2	60.8	1,606	04/17/2023
4510	BRAYBURN TRAIL	BRAYBURN TRAIL	116TH AVENUE NORTH	1,555	Local	Flexible	68.5	59.5	77.3	3,748	04/17/2023
4530	BRAYBURN TRAIL	BRAYBURN TRAIL	116TH AVENUE NORTH	338	Local	Flexible	69.5	59.1	78.6	970	04/17/2023
4520	BRAYBURN TRAIL	116TH AVENUE NORTH	BRAYBURN TRAIL	309	Local	Flexible	72.6	44.2	87.2	998	04/17/2023
3640	CATTAIL PATH	RUSH CREEK PARKWAY	CREEKSIDE LANE	273	Local	Flexible	24.8	41.8	30.1	828	04/17/2023
3630	CATTAIL PATH	FAIR MEADOWS LANE	RUSH CREEK PARKWAY	529	Local	Flexible	41.9	45.8	50.0	1,556	04/17/2023
3650	CATTAIL PATH	CREEKSIDE LANE	END	249	Local	Flexible	46.6	31.4	59.7	1,175	04/17/2023
2320	CEDARWOOD COURT NORTH	END	PINEVIEW LANE NORTH	400	Local	Flexible	59.6	63.1	66.4	1,403	04/14/2023
2930	CHESHIRE COURT	CHESHIRE WAY	END	579	Local	Flexible	57.3	59.8	64.6	2,071	04/18/2023
3510	CHESHIRE LANE NORTH	112TH AVENUE NORTH	END	242	Local	Flexible	66.4	54.7	76.3	1,304	04/17/2023
2730	CHESHIRE LANE NORTH	DALLAS LANE NORTH	141ST AVENUE NORTH	621	Local	Flexible	79.1	73.0	85.3	1,930	04/18/2023
2740	CHESHIRE LANE NORTH	141ST AVENUE NORTH	DALLAS LANE NORTH	761	Local	Flexible	80.7	75.0	86.5	2,258	04/18/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
2720	CHESHIRE LANE NORTH	END	DALLAS LANE NORTH	232	Local	Flexible	86.8	70.4	94.4	1,058	04/18/2023
2900	CHESHIRE WAY	RIVER HILLS PARKWAY	CHESHIRE COURT	621	Local	Flexible	12.1	29.8	15.6	2,002	04/18/2023
2910	CHESHIRE WAY	CHESHIRE COURT	CLOQUET STREET	749	Local	Flexible	50.5	43.9	60.8	2,172	04/18/2023
2920	CHESHIRE WAY	CLOQUET STREET	END	276	Local	Flexible	51.6	50.7	60.3	1,360	04/18/2023
2830	CLOQUET COURT	RIVER HILLS PARKWAY & CLOQUET ST	END	274	Local	Flexible	51.4	48.5	60.6	1,294	04/18/2023
2870	CLOQUET STREET	CLOQUET STREET	CLOQUET STREET	300	Local	Flexible	57.1	41.3	69.5	823	04/18/2023
2880	CLOQUET STREET	CLOQUET STREET	CLOQUET STREET	426	Local	Flexible	61.0	47.0	72.4	1,368	04/18/2023
2800	CLOQUET STREET	END	OXBOW LANE	367	Local	Flexible	61.9	49.5	72.7	1,564	04/18/2023
2860	CLOQUET STREET	PIONEER PARKWAY	CLOQUET STREET	909	Local	Flexible	62.6	66.8	68.9	2,606	04/18/2023
2890	CLOQUET STREET	CLOQUET STREET	CHESHIRE WAY	366	Local	Flexible	66.3	63.4	73.8	1,122	04/18/2023
2810	CLOQUET STREET	OXBOW LANE	ITASCA BAY	247	Local	Flexible	68.7	54.1	79.2	675	04/18/2023
2820	CLOQUET STREET	ITASCA BAY	RIVER HILLS PARKWAY & CLOQUET CO	377	Local	Flexible	71.7	67.0	78.8	1,060	04/18/2023
200	COLUMBUS STREET	SHADYVIEW LANE NORTH	END	233	Local	Flexible	30.3	26.9	39.9	512	04/18/2023
190	COLUMBUS STREET	DIVISION STREET & DAYTON RIVER R	SHADYVIEW LANE NORTH	848	Local	Flexible	39.8	52.8	46.1	3,089	04/18/2023
3920	COMSTOCK LANE NORTH	TERRITORIAL TRAIL	END	154	Local	Flexible	61.1	46.8	72.6	391	04/17/2023
790	COTTONWOOD CIRCLE NORTH	129TH AVENUE NORTH	END	128	Local	Flexible	60.3	34.9	75.8	874	04/14/2023
210	COUNTY STREET	SHADYVIEW LANE NORTH	END	628	Local	Flexible	29.9	37.0	37.2	1,892	04/18/2023
300	COUNTY STREET NE	RICHARDSON AVENUE	END	346	Local	Flexible	32.8	27.8	42.9	803	04/18/2023
3670	CREEKSIDE LANE	SUNDANCE WOODS BOULEVARD	RUSH CREEK PARKWAY	1,786	Local	Flexible	61.3	56.1	70.1	4,962	04/17/2023
3660	CREEKSIDE LANE	CATTAIL PATH	SUNDANCE WOODS BOULEVARD	565	Local	Flexible	64.7	52.6	75.0	1,727	04/17/2023
3680	CREEKSIDE LANE	RUSH CREEK PARKWAY	FAIR MEADOWS LANE	566	Local	Flexible	67.6	51.4	78.8	2,031	04/17/2023
4380	DALLAS LANE NORTH	END	114TH AVENUE NORTH	382	Local	Flexible	67.9	68.0	74.4	1,468	04/17/2023
2650	DALLAS LANE NORTH	PIONEER PARKWAY	146TH AVENUE NORTH	238	Local	Flexible	68.1	58.3	77.2	734	04/18/2023
2640	DALLAS LANE NORTH	144TH AVENUE NORTH	PIONEER PARKWAY	503	Local	Flexible	76.5	80.7	80.6	1,504	04/18/2023
2630	DALLAS LANE NORTH	CHESHIRE LANE NORTH	144TH AVENUE NORTH	347	Local	Flexible	76.8	68.9	83.9	1,204	04/18/2023
2620	DALLAS LANE NORTH	CHESHIRE LANE NORTH	CHESHIRE LANE NORTH	1,120	Local	Flexible	80.5	70.4	87.5	4,230	04/18/2023
2660	DALLAS LANE NORTH	146TH AVENUE NORTH	END	307	Local	Flexible	81.5	51.0	95.1	1,256	04/18/2023
390	DAYTON AVENUE	BATES STREET	END	379	Local	Flexible	22.4	36.7	27.9	910	04/18/2023
120	DAYTON AVENUE	END	DAYTON STREET	147	Local	Flexible	32.6	39.9	39.9	248	04/18/2023
140	DAYTON AVENUE	ROBINSON STREET	LEVEE STREET	356	Local	Flexible	40.7	44.6	48.8	1,143	04/18/2023
380	DAYTON AVENUE	END	BATES STREET	284	Local	Flexible	41.0	57.7	46.6	274	04/18/2023
130	DAYTON AVENUE	DAYTON STREET	ROBINSON STREET	359	Local	Flexible	41.8	43.7	50.3	1,316	04/18/2023
3090	DAYTON PKWY	120 FT SW OF CO ROAD 81	COUNTY ROAD 81 & 113TH AVENUE NO	128	Collector	Flexible	44.5	19.9	61.5	1,092	04/17/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
3080	DAYTON PKWY	TERRITORIAL ROAD	120 FT SW OF CO ROAD 81	879	Collector	Flexible	66.9	62.1	74.8	5,179	04/17/2023
3020	DAYTON PKWY	BROCKTON LANE	1499 FT E OF BROCKTON LANE	1,499	Collector	Flexible	75.9	72.9	81.9	7,663	04/17/2023
3030	DAYTON PKWY	1499 FT E OF BROCKTON LANE	HOLLY LANE	2,656	Collector	Flexible	85.8	65.7	94.8	14,579	04/17/2023
30	DAYTON STREET	DAYTON AVENUE	DIVISION STREET	467	Local	Flexible	35.2	39.7	43.2	1,680	04/18/2023
20	DAYTON STREET	BAXTER AVENUE	DAYTON AVENUE	424	Local	Flexible	41.6	32.7	52.9	1,324	04/18/2023
10	DAYTON STREET	RICHARDSON AVENUE	BAXTER AVENUE	347	Local	Flexible	44.2	39.2	54.4	1,068	04/18/2023
1400	DEERWOOD CIRCLE NORTH	DEERWOOD LANE NORTH	END	252	Local	Flexible	81.6	51.3	95.1	1,216	04/14/2023
1120	DEERWOOD LANE NORTH	129TH AVENUE NORTH	131ST AVENUE NORTH	1,318	Local	Flexible	49.6	69.7	54.1	3,661	04/14/2023
4200	DEERWOOD LANE NORTH	END	HACKBERRY LANE NORTH	394	Local	Flexible	62.5	51.6	72.8	1,458	04/17/2023
1130	DEERWOOD LANE NORTH	131ST AVENUE NORTH	PINERIDGE WAY NORTH	360	Local	Flexible	68.7	63.4	76.5	1,104	04/14/2023
1370	DEERWOOD LANE NORTH	PINERIDGE WAY NORTH	DEERWOOD CIRCLE NORTH	322	Local	Flexible	70.6	68.6	77.2	985	04/14/2023
1380	DEERWOOD LANE NORTH	DEERWOOD CIRCLE NORTH	HAYDEN CIRCLE NORTH	306	Local	Flexible	70.9	77.9	75.3	897	04/14/2023
1390	DEERWOOD LANE NORTH	HAYDEN CIRCLE NORTH	ZACHARY LANE NORTH	807	Local	Flexible	74.8	82.9	78.3	2,475	04/14/2023
570	DIAMOND LAKE COURT SOUTH	DIAMOND LAKE COURT SOUTH	DIAMOND LAKE TRAIL SOUTH	1,047	Local	Flexible	34.0	44.1	40.9	2,860	04/14/2023
550	DIAMOND LAKE COURT SOUTH	END	DIAMOND LAKE COURT SOUTH	232	Local	Flexible	34.5	33.3	43.8	1,352	04/14/2023
3010	DIAMOND LAKE COURT SOUTH	DIAMOND LAKE COURT SOUTH	DIAMOND LAKE COURT SOUTH	458	Local	Flexible	43.7	40.5	53.4	1,242	04/14/2023
560	DIAMOND LAKE COURT SOUTH	DIAMOND LAKE COURT SOUTH	DIAMOND LAKE COURT SOUTH	140	Local	Flexible	57.3	32.0	73.2	393	04/14/2023
1790	DIAMOND LAKE ROAD NORTH	VINEWOOD LANE NORTH	DIAMOND LAKE ROAD	380	Local	Flexible	48.4	71.6	52.4	1,073	04/18/2023
710	DIAMOND LAKE ROAD SOUTH	TEAKWOOD LANE NORTH	PINEVIEW LANE NORTH	1,290	Collector	Flexible	33.2	71.9	35.9	2,981	04/14/2023
660	DIAMOND LAKE ROAD SOUTH	ZANZIBAR LANE NORTH	2207 FT E OF ZANZIBAR LANE	2,207	Collector	Flexible	33.4	90.0	34.3	5,126	04/14/2023
690	DIAMOND LAKE ROAD SOUTH	2486 W OF VINEWOOD LANE	VINEWOOD LANE NORTH	2,506	Collector	Flexible	34.9	72.9	37.7	6,041	04/14/2023
700	DIAMOND LAKE ROAD SOUTH	VINEWOOD LANE NORTH	TEAKWOOD LANE NORTH	352	Collector	Flexible	36.8	67.9	40.4	818	04/14/2023
730	DIAMOND LAKE ROAD SOUTH	NORWOOD LANE NORTH	HEMLOCK LANE NORTH	2,079	Collector	Flexible	37.0	82.9	38.7	5,290	04/14/2023
670	DIAMOND LAKE ROAD SOUTH	2207 FT E OF ZANZIBAR LANE	5025 FT E OF ZANZIBAR LANE	2,819	Collector	Flexible	39.1	86.8	40.5	6,827	04/14/2023
770	DIAMOND LAKE ROAD SOUTH	ARROWOOD LANE NORTH	633 E OF ARROWOOD LANE	634	Collector	Flexible	39.4	76.6	42.0	1,408	04/14/2023
720	DIAMOND LAKE ROAD SOUTH	PINEVIEW LANE NORTH	NORWOOD LANE NORTH	842	Collector	Flexible	39.8	66.1	43.9	3,490	04/14/2023
650	DIAMOND LAKE ROAD SOUTH	2245 FT W OF ZANZIBAR LANE	ZANZIBAR LANE NORTH	2,260	Collector	Flexible	39.9	77.2	42.5	6,103	04/14/2023
750	DIAMOND LAKE ROAD SOUTH	EVERGREEN LANE NORTH	BALSAM LANE NORTH	859	Collector	Flexible	39.9	78.7	42.3	2,481	04/14/2023
760	DIAMOND LAKE ROAD SOUTH	BALSAM LANE NORTH	ARROWOOD LANE NORTH	271	Collector	Flexible	43.7	74.6	46.9	680	04/14/2023
740	DIAMOND LAKE ROAD SOUTH	HEMLOCK LANE NORTH	EVERGREEN LANE NORTH	495	Collector	Flexible	44.0	77.6	46.8	1,286	04/14/2023
640	DIAMOND LAKE ROAD SOUTH	2755 FT E OF DIAMOND LAKE TRAIL	2245 FT W OF ZANZIBAR LANE	1,954	Collector	Flexible	48.2	83.5	50.4	5,731	04/14/2023
610	DIAMOND LAKE ROAD SOUTH	1300 FT E OF BROCKTON LANE	XANTHUS LANE NORTH	1,341	Collector	Flexible	53.8	82.1	56.4	3,486	04/14/2023
630	DIAMOND LAKE ROAD SOUTH	DIAMOND LAKE TRAIL SOUTH	2755 FT E OF DIAMOND LAKE TRAIL	2,755	Collector	Flexible	54.2	78.3	57.5	7,561	04/14/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
680	DIAMOND LAKE ROAD SOUTH	5025 FT E OF ZANZIBAR LANE	2486 W OF VINEWOOD LANE	2,516	Collector	Flexible	55.4	89.6	56.9	6,067	04/14/2023
620	DIAMOND LAKE ROAD SOUTH	XANTHUS LANE NORTH	DIAMOND LAKE TRAIL SOUTH	1,220	Collector	Flexible	60.3	79.9	63.7	2,941	04/14/2023
590	DIAMOND LAKE TRAIL SOUTH	DIAMOND LAKE COURT SOUTH	DIAMOND LAKE ROAD SOUTH	2,152	Local	Flexible	41.5	53.7	47.9	6,337	04/14/2023
180	DIVISION STREET	ROBINSON STREET	LEVEE STREET	364	Local	Flexible	45.9	30.7	59.1	1,180	04/18/2023
2680	EMPIRE COURT NORTH	PIONEER PARKWAY	END	365	Local	Flexible	56.1	42.8	67.8	1,392	04/18/2023
1620	EVERGREEN CIRCLE NORTH	EVERGREEN LANE NORTH	END	156	Local	Flexible	63.9	52.3	74.2	914	04/14/2023
1260	EVERGREEN CIRCLE NORTH	END	EVERGREEN LANE NORTH	409	Local	Flexible	68.0	61.7	76.2	1,616	04/14/2023
1580	EVERGREEN LANE NORTH	136TH AVENUE NORTH	EVERGREEN CIRCLE NORTH	409	Local	Flexible	60.6	61.4	68.0	1,103	04/14/2023
1590	EVERGREEN LANE NORTH	EVERGREEN CIRCLE NORTH	DIAMOND LAKE ROAD SOUTH	558	Local	Flexible	63.0	70.5	68.5	1,549	04/14/2023
1570	EVERGREEN LANE NORTH	137TH AVENUE NORTH	136TH AVENUE NORTH	344	Local	Flexible	63.5	71.4	68.8	994	04/14/2023
1600	EVERGREEN LANE NORTH	DIAMOND LAKE ROAD SOUTH	134 1/2 AVENUE NORTH	404	Local	Flexible	65.2	65.0	72.2	1,110	04/14/2023
1250	EVERGREEN LANE NORTH	EVERGREEN CIRCLE NORTH	132ND AVENUE NORTH	348	Local	Flexible	70.5	79.9	74.4	1,049	04/14/2023
1240	EVERGREEN LANE NORTH	PINERIDGE WAY NORTH	EVERGREEN CIRCLE NORTH	467	Local	Flexible	72.0	75.1	77.1	1,417	04/14/2023
400	EVERGREEN LANE NORTH	205 FT E OF PARK DRIVE	BROCKTON LANE NORTH	732	Local	Flexible	75.4	87.8	77.9	2,822	04/18/2023
3690	FAIR MEADOWS COURT	FAIR MEADOWS LANE	END	249	Local	Flexible	62.5	54.7	71.9	1,181	04/17/2023
3620	FAIR MEADOWS LANE	SUNDANCE WOODS BOULEVARD	CATTAIL PATH	736	Local	Flexible	41.2	49.6	48.4	3,401	04/17/2023
3530	FAIR MEADOWS LANE	FAIR MEADOWS COURT	CREEKSIDE LANE	1,290	Local	Flexible	56.2	47.4	66.6	3,871	04/17/2023
3520	FAIR MEADOWS LANE	RUSH CREEK PARKWAY & RUSH CREEK	FAIR MEADOWS COURT	295	Local	Flexible	57.4	52.2	66.6	734	04/17/2023
3550	FAIR MEADOWS LANE	SUNDANCE RIDGE	SCHERBER LANE	559	Local	Flexible	64.6	54.5	74.3	2,968	04/17/2023
3540	FAIR MEADOWS LANE	CREEKSIDE LANE	SUNDANCE RIDGE	499	Local	Flexible	71.9	61.3	80.7	1,628	04/17/2023
800	FORESTVIEW CIRCLE NORTH	129TH AVENUE NORTH	END	1,277	Local	Flexible	48.6	58.6	55.0	5,375	04/14/2023
1640	FORESTVIEW LANE NORTH	136TH AVENUE NORTH	137TH AVENUE NORTH	343	Local	Flexible	67.2	74.0	72.3	971	04/14/2023
3980	FRENCH LAKE ROAD EAST	117TH AVENUE NORTH	2739 FT NW OF 117TH AVENUE	2,740	Collector	Flexible	31.5	60.4	35.4	8,553	04/17/2023
3970	FRENCH LAKE ROAD EAST	1008 ft nw of territorial trail	117TH AVENUE NORTH	2,861	Collector	Flexible	35.9	55.9	41.1	6,612	04/17/2023
3990	FRENCH LAKE ROAD EAST	2739 FT NW OF 117TH AVENUE	125TH AVENUE NORTH	2,689	Collector	Flexible	47.0	75.7	50.3	7,647	04/17/2023
3960	FRENCH LAKE ROAD EAST	TERRITORIAL TRAIL	1008 ft nw of territorial trail	1,009	Collector	Flexible	47.7	68.1	52.3	3,351	04/17/2023
3950	FRENCH LAKE ROAD EAST	TERRITORIAL ROAD	TERRITORIAL TRAIL	1,463	Collector	Flexible	60.0	73.3	64.6	4,095	04/17/2023
530	FRENCH LAKE ROAD WEST	END	46 FT E OF END	46	Collector	Flexible	58.6	65.6	64.7	285	04/14/2023
540	FRENCH LAKE ROAD WEST	46 FT E OF END	END	1,348	Collector	Flexible	64.6	64.5	71.6	5,856	04/14/2023
3480	GLACIER LANE NORTH	END	109TH AVENUE NORTH	825	Local	Flexible	69.0	64.0	76.7	2,392	04/17/2023
3490	GLACIER LANE NORTH	109TH AVENUE NORTH	RUSH CREEK PARKWAY	237	Local	Flexible	75.8	63.2	84.5	748	04/17/2023
4320	GOOSE LAKE PARKWAY	ARROWOOD LANE NORTH & PARKSIDE T	ZACHARY LANE NORTH	217	Collector	Flexible	37.0	35.7	46.3	831	04/17/2023
4310	GOOSE LAKE PARKWAY	PARKSIDE TRAIL NORTH	ARROWOOD LANE NORTH & PARKSIDE T	699	Local	Flexible	52.6	33.4	66.7	1,942	04/17/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
810	GRANSTROM CIRCLE	PINEVIEW LANE NORTH & 132 1/2 AV	PINEVIEW LANE NORTH	2,666	Local	Flexible	61.6	58.4	69.8	7,967	04/14/2023
4220	HACKBERRY LANE NORTH	DEERWOOD LANE NORTH	PARKSIDE TRAIL NORTH	335	Local	Flexible	48.7	45.3	58.2	965	04/17/2023
4230	HACKBERRY LANE NORTH	PARKSIDE TRAIL NORTH	ARROWOOD LANE NORTH	551	Local	Flexible	54.7	52.3	63.5	1,572	04/17/2023
4210	HACKBERRY LANE NORTH	END	DEERWOOD LANE NORTH	104	Local	Flexible	69.0	26.2	91.3	301	04/17/2023
3470	HARBOR LANE NORTH	KINGSVIEW LANE NORTH	109TH AVENUE NORTH	698	Local	Flexible	78.4	73.2	84.5	1,916	04/17/2023
1410	HAYDEN CIRCLE NORTH	DEERWOOD LANE NORTH	END	343	Local	Flexible	67.5	53.5	78.0	1,511	04/14/2023
2000	HEMLOCK CIRCLE NORTH	END	NOON DRIVE	376	Local	Flexible	39.7	48.2	46.9	1,600	04/14/2023
4330	HEMLOCK LANE NORTH	ELM CREEK ROAD	END	332	Local	Flexible	11.6	53.5	13.4	849	04/17/2023
1950	HEMLOCK LANE NORTH	DAYTON RIVER ROAD & NOON DRIVE	139TH AVENUE NORTH	1,056	Local	Flexible	31.2	69.3	34.1	3,461	04/14/2023
1980	HEMLOCK LANE NORTH	141ST CIRCLE NORTH	JONQUIL LANE NORTH	1,271	Local	Flexible	32.8	71.1	35.6	4,179	04/14/2023
1960	HEMLOCK LANE NORTH	139TH AVENUE NORTH	141ST AVENUE NORTH	1,125	Local	Flexible	39.6	68.2	43.4	3,500	04/14/2023
1970	HEMLOCK LANE NORTH	141ST AVENUE NORTH	141ST CIRCLE NORTH	234	Local	Flexible	42.4	60.1	47.8	720	04/14/2023
1530	HEMLOCK LANE NORTH	134TH AVENUE NORTH	DIAMOND LAKE ROAD SOUTH	765	Local	Flexible	58.9	70.2	64.1	2,177	04/14/2023
1540	HEMLOCK LANE NORTH	DIAMOND LAKE ROAD SOUTH	137TH AVENUE NORTH	1,171	Local	Flexible	60.4	70.8	65.6	3,318	04/14/2023
3060	HOLLY LANE NORTH	1164 FT N OF DUNKIRK LANE	MAPLE COURT	3,525	Collector	Flexible	35.2	56.6	40.2	13,472	04/17/2023
3050	HOLLY LANE NORTH	CITY LIMITS [S]	525.1 FT N OF CITY LIMITS [S]	525	Collector	Flexible	41.7	49.4	49.0	2,165	04/17/2023
3070	HOLLY LANE NORTH	MAPLE COURT	TERRITORIAL ROAD	625	Collector	Flexible	57.0	66.7	62.7	3,300	04/17/2023
2940	ITASCA BAY	END	ITASCA BAY	80	Local	Flexible	52.5	23.0	70.9	711	04/18/2023
2980	ITASCA BAY	ITASCA BAY	CLOQUET STREET	242	Local	Flexible	60.3	41.9	73.2	731	04/18/2023
2950	ITASCA BAY	ITASCA BAY	ITASCA BAY	321	Local	Flexible	62.1	47.1	73.6	948	04/18/2023
2970	ITASCA BAY	ITASCA BAY	ITASCA BAY	423	Local	Flexible	63.0	49.9	73.8	1,415	04/18/2023
2960	ITASCA BAY	ITASCA BAY	ITASCA BAY	466	Local	Flexible	70.0	58.8	79.2	1,280	04/18/2023
3460	ITHACA LANE NORTH	109TH AVENUE NORTH	RUSH CREEK PARKWAY	260	Collector	Flexible	71.8	50.2	84.1	701	04/17/2023
3450	ITHACA LANE NORTH	KINGSVIEW LANE NORTH	109TH AVENUE NORTH	491	Local	Flexible	75.6	60.7	85.0	1,379	04/17/2023
250	JOHNSON STREET	BROCKTON LANE NORTH	MARIA AVENUE	137	Local	Flexible	26.4	28.3	34.4	355	04/18/2023
260	JOHNSON STREET	MARIA AVENUE	END	182	Local	Flexible	37.4	46.7	44.4	463	04/18/2023
2190	JONQUIL CIRCLE NORTH	JONQUIL LANE NORTH	END	354	Local	Flexible	23.7	52.7	27.5	1,715	04/14/2023
2050	JONQUIL LANE NORTH	JONQUIL CIRCLE NORTH	HEMLOCK LANE NORTH	994	Local	Flexible	26.9	71.8	29.1	3,391	04/14/2023
2040	JONQUIL LANE NORTH	139TH AVENUE NORTH	JONQUIL CIRCLE NORTH	1,272	Local	Flexible	29.8	72.6	32.2	4,268	04/14/2023
2030	JONQUIL LANE NORTH	DAYTON RIVER ROAD	139TH AVENUE NORTH	565	Local	Flexible	30.6	59.3	34.6	1,839	04/14/2023
2060	JONQUIL LANE NORTH	HEMLOCK LANE NORTH	STONERIDGE ROAD & STONERIDGE CIR	426	Local	Flexible	34.8	68.2	38.1	1,482	04/14/2023
2020	JONQUIL LANE NORTH	NOON DRIVE	DAYTON RIVER ROAD	385	Local	Flexible	40.0	47.2	47.4	1,092	04/14/2023
2010	JONQUIL LANE NORTH	100 FT W OF NOON DRIVE	NOON DRIVE	1,512	Local	Flexible	43.5	70.1	47.3	5,388	04/14/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
1020	JONQUIL LANE NORTH	129TH AVENUE NORTH	END	1,500	Local	Flexible	47.8	72.9	51.6	5,067	04/14/2023
2460	JUNEAU LANE NORTH	END	KINGSVIEW LANE NORTH	666	Local	Flexible	69.3	59.8	78.2	2,624	04/18/2023
3360	JUNEAU LANE NORTH	END	KINGSVIEW LANE NORTH	435	Local	Flexible	75.9	70.8	82.4	1,873	04/17/2023
4070	KINGSVIEW LANE NORTH	125TH AVENUE NORTH	126TH AVENUE NORTH	371	Local	Flexible	37.6	37.7	46.6	1,092	04/17/2023
4080	KINGSVIEW LANE NORTH	126TH AVENUE NORTH	END	153	Local	Flexible	39.8	33.8	50.3	377	04/17/2023
2400	KINGSVIEW LANE NORTH	DIAMOND LAKE ROAD NORTH	142ND AVENUE NORTH	223	Local	Flexible	65.4	47.5	77.4	834	04/18/2023
2440	KINGSVIEW LANE NORTH	143RD AVENUE NORTH	JUNEAU LANE NORTH	264	Local	Flexible	67.4	55.5	77.3	773	04/18/2023
2450	KINGSVIEW LANE NORTH	JUNEAU LANE NORTH	END	586	Local	Flexible	69.0	53.4	79.7	1,804	04/18/2023
3400	KINGSVIEW LANE NORTH	ITHACA LANE NORTH	HARBOR LANE	271	Local	Flexible	69.4	40.7	84.7	814	04/17/2023
2410	KINGSVIEW LANE NORTH	142ND AVENUE NORTH	143RD AVENUE NORTH	468	Local	Flexible	70.3	60.5	79.1	1,415	04/18/2023
3390	KINGSVIEW LANE NORTH	JUNEAU LANE NORTH	ITHACA LANE NORTH	378	Local	Flexible	72.7	58.5	82.4	1,059	04/17/2023
3370	KINGSVIEW LANE NORTH	RUSH CREEK PARKWAY	109TH AVENUE NORTH	490	Collector	Flexible	72.9	69.1	79.6	1,475	04/17/2023
3410	KINGSVIEW LANE NORTH	HARBOR LANE	END	266	Local	Flexible	77.3	65.3	85.5	1,083	04/17/2023
3380	KINGSVIEW LANE NORTH	109TH AVENUE NORTH	JUNEAU LANE NORTH	201	Local	Flexible	78.5	68.9	85.8	590	04/17/2023
1900	LARCH LANE NORTH	END	NOON DRIVE	827	Local	Flexible	67.0	57.0	76.3	1,985	04/14/2023
490	LAWNDALE LANE NORTH	DAYTON RIVER ROAD	END	500	Local	Flexible	19.3	37.2	24.0	1,210	04/18/2023
440	LAWNDALE LANE NORTH	139TH AVENUE NORTH	DIAMOND LAKE ROAD NORTH	1,141	Collector	Flexible	38.1	51.7	44.3	3,295	04/18/2023
430	LAWNDALE LANE NORTH	138TH AVENUE NORTH	139TH AVENUE NORTH	540	Collector	Flexible	40.5	43.3	48.8	1,668	04/18/2023
480	LAWNDALE LANE NORTH	1705 FT N OF 149TH AVENUE	DAYTON RIVER ROAD	1,691	Collector	Flexible	60.4	79.5	63.9	4,246	04/18/2023
470	LAWNDALE LANE NORTH	149TH AVENUE NORTH	1705 FT N OF 149TH AVENUE	1,688	Collector	Flexible	60.8	80.5	64.1	3,752	04/18/2023
450	LAWNDALE LANE NORTH	DIAMOND LAKE ROAD NORTH	2592 FT N OF DIAMOND LAKE ROAD	2,593	Collector	Flexible	61.0	82.3	64.0	6,511	04/18/2023
460	LAWNDALE LANE NORTH	2592 FT N OF DIAMOND LAKE ROAD	149TH AVENUE NORTH	2,597	Collector	Flexible	61.7	77.4	65.6	5,511	04/18/2023
3120	LAWNDALE LANE NORTH	113TH AVENUE NORTH	END	238	Local	Flexible	66.4	61.8	74.3	616	04/18/2023
110	LEVEE STREET	BAXTER AVENUE	DAYTON AVENUE	426	Local	Flexible	36.6	40.8	44.7	1,032	04/18/2023
100	LEVEE STREET	RICHARDSON AVENUE	BAXTER AVENUE	346	Local	Flexible	49.3	51.4	57.4	818	04/18/2023
2130	MAGNOLIA LANE NORTH	PINEVIEW TRAIL	140TH AVENUE NORTH	517	Local	Flexible	43.9	65.1	48.6	1,477	04/14/2023
3130	MAPLE COURT	HOLLY LANE NORTH	END	544	Local	Flexible	55.2	60.0	62.2	2,521	04/17/2023
270	MARIA AVENUE	END	JOHNSON STREET	218	Local	Flexible	38.1	55.1	43.7	693	04/18/2023
3800	NIAGARA LANE NORTH	111TH AVENUE NORTH	END	173	Local	Flexible	61.7	46.5	73.4	700	04/17/2023
3790	NIAGARA LANE NORTH	110TH AVENUE NORTH	111TH AVENUE NORTH	345	Local	Flexible	67.4	47.6	79.8	1,130	04/17/2023
1940	NOON DRIVE	HEMLOCK CIRCLE NORTH	DAYTON RIVER ROAD & HEMLOCK LANE	883	Local	Flexible	47.5	71.5	51.5	2,788	04/14/2023
1920	NOON DRIVE	LARCH LANE NORTH	JONQUIL LANE NORTH	684	Local	Flexible	60.3	74.4	64.7	1,900	04/14/2023
1930	NOON DRIVE	JONQUIL LANE NORTH	HEMLOCK CIRCLE NORTH	1,317	Local	Flexible	60.5	69.0	66.1	3,645	04/14/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
1910	NOON DRIVE	125 ft w of larch lane north	LARCH LANE NORTH	126	Local	Flexible	68.5	48.2	80.9	876	04/14/2023
2080	NORWOOD LANE NORTH	END	DAYTON RIVER ROAD	1,060	Local	Flexible	23.0	57.9	26.1	4,068	04/14/2023
2180	NORWOOD LANE NORTH	PINEVIEW TRAIL	STONERIDGE ROAD	1,558	Local	Flexible	27.2	67.0	29.9	5,592	04/14/2023
1720	NORWOOD LANE NORTH	137TH AVENUE NORTH	END	522	Local	Flexible	32.6	63.1	36.3	2,333	04/14/2023
2090	NORWOOD LANE NORTH	DAYTON RIVER ROAD	140TH AVENUE NORTH	220	Local	Flexible	33.6	58.0	38.1	604	04/14/2023
1740	NORWOOD LANE NORTH	DIAMOND LAKE ROAD SOUTH	137TH AVENUE NORTH	1,080	Collector	Flexible	36.7	67.0	40.4	3,863	04/14/2023
1730	NORWOOD LANE NORTH	PINERIDGE WAY NORTH	DIAMOND LAKE ROAD SOUTH	268	Local	Flexible	50.5	42.0	61.3	1,214	04/14/2023
2280	OAKHILL TRAIL NORTH	ROSEWOOD LANE NORTH	PINEVIEW LANE NORTH	817	Local	Flexible	52.2	67.1	57.4	2,341	04/14/2023
2170	OAKVIEW LANE NORTH	PINEVIEW TRAIL	END	195	Local	Flexible	39.5	45.8	47.1	1,125	04/14/2023
2160	OAKVIEW LANE NORTH	140TH AVENUE NORTH	PINEVIEW TRAIL	283	Local	Flexible	53.1	70.2	57.8	836	04/14/2023
830	OAKVIEW LANE NORTH	132 1/2 AVENUE NORTH	130TH AVENUE NORTH	1,683	Local	Flexible	88.8	79.1	94.0	5,611	04/14/2023
2310	OVERLOOK ROAD	PINEVIEW LANE NORTH	END	948	Local	Flexible	55.9	67.8	61.3	3,141	04/14/2023
2290	OVERLOOK ROAD	END	ROSEWOOD LANE NORTH	199	Local	Flexible	61.9	36.2	77.3	562	04/14/2023
2300	OVERLOOK ROAD	ROSEWOOD LANE NORTH	PINEVIEW LANE NORTH	1,511	Local	Flexible	65.9	65.9	72.7	4,466	04/14/2023
2850	OXBOW COURT	PIONEER PARKWAY	END	377	Local	Flexible	72.2	52.8	83.6	1,538	04/18/2023
2840	OXBOW LANE	CLOQUET STREET	RIVER HILLS PARKWAY	1,207	Local	Flexible	60.0	53.6	69.3	3,582	04/18/2023
4270	PARKSIDE TRAIL NORTH	GOOSE LAKE PARKWAY	GOOSE LAKE PARKWAY	1,704	Local	Flexible	45.8	41.6	55.7	5,168	04/17/2023
4260	PARKSIDE TRAIL NORTH	BASSWOOD LANE NORTH	GOOSE LAKE PARKWAY	302	Local	Flexible	53.1	39.2	65.3	895	04/17/2023
4250	PARKSIDE TRAIL NORTH	HACKBERRY LANE NORTH	BASSWOOD LANE NORTH	340	Local	Flexible	60.7	44.9	72.7	1,028	04/17/2023
1210	PINERIDGE WAY NORTH	NORWOOD LANE NORTH	END	264	Local	Flexible	54.4	43.1	65.7	1,238	04/14/2023
1180	PINERIDGE WAY NORTH	134TH AVENUE NORTH	BLUE SPRUCE COURT NORTH	602	Collector	Flexible	62.3	62.3	69.6	1,805	04/14/2023
1170	PINERIDGE WAY NORTH	130 FT N OF 132ND AVENUE	134TH AVENUE NORTH	576	Collector	Flexible	63.5	67.4	69.7	1,844	04/14/2023
1200	PINERIDGE WAY NORTH	WHITE PINE COURT NORTH	NORWOOD LANE NORTH	728	Collector	Flexible	64.6	63.7	71.9	2,216	04/14/2023
1190	PINERIDGE WAY NORTH	BLUE SPRUCE COURT NORTH	WHITE PINE COURT NORTH	332	Collector	Flexible	66.0	65.6	72.9	1,026	04/14/2023
1160	PINERIDGE WAY NORTH	132ND AVENUE NORTH	130 FT N OF 132ND AVENUE	130	Collector	Flexible	66.6	55.8	76.3	390	04/14/2023
1150	PINERIDGE WAY NORTH	EVERGREEN LANE NORTH	132ND AVENUE NORTH	1,931	Collector	Flexible	70.5	74.4	75.7	5,966	04/14/2023
1140	PINERIDGE WAY NORTH	DEERWOOD LANE NORTH	EVERGREEN LANE NORTH	668	Collector	Flexible	74.8	76.5	79.8	2,643	04/14/2023
1690	PINEVIEW COURT NORTH	PINEVIEW LANE NORTH	PINEVIEW LANE NORTH	1,029	Local	Flexible	41.2	48.5	48.6	3,157	04/14/2023
980	PINEVIEW LANE NORTH	141ST AVENUE NORTH	OAKHILL TRAIL NORTH	689	Collector	Flexible	45.3	65.2	50.1	1,937	04/14/2023
1000	PINEVIEW LANE NORTH	STONERIDGE ROAD	CEDARWOOD COURT NORTH	358	Collector	Flexible	50.6	65.2	56.0	983	04/14/2023
970	PINEVIEW LANE NORTH	PINEVIEW TRAIL	141ST AVENUE NORTH	517	Collector	Flexible	51.2	63.1	57.1	1,418	04/14/2023
910	PINEVIEW LANE NORTH	DIAMOND LAKE ROAD SOUTH	135 1/2 AVENUE NORTH	336	Collector	Flexible	53.3	45.3	63.7	844	04/14/2023
1010	PINEVIEW LANE NORTH	CEDARWOOD COURT NORTH	OVERLOOK ROAD	230	Collector	Flexible	55.2	69.4	60.2	638	04/14/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
990	PINEVIEW LANE NORTH	OAKHILL TRAIL NORTH	STONERIDGE ROAD	355	Collector	Flexible	57.3	72.3	61.9	998	04/14/2023
960	PINEVIEW LANE NORTH	DAYTON RIVER ROAD	PINEVIEW TRAIL	470	Collector	Flexible	57.9	63.0	64.6	1,306	04/14/2023
930	PINEVIEW LANE NORTH	137TH AVENUE NORTH	137TH AVENUE NORTH	304	Collector	Flexible	59.0	77.0	62.8	821	04/14/2023
950	PINEVIEW LANE NORTH	138TH AVENUE NORTH	DAYTON RIVER ROAD	1,196	Collector	Flexible	60.4	80.9	63.6	3,189	04/14/2023
920	PINEVIEW LANE NORTH	135 1/2 AVENUE NORTH	137TH AVENUE NORTH	834	Collector	Flexible	60.6	73.5	65.3	2,492	04/14/2023
940	PINEVIEW LANE NORTH	137TH AVENUE NORTH	138TH AVENUE NORTH	436	Collector	Flexible	68.8	82.3	72.2	1,134	04/14/2023
850	PINEVIEW LANE NORTH	129TH AVENUE NORTH	130TH AVENUE NORTH	549	Collector	Flexible	76.5	56.2	87.4	1,800	04/14/2023
900	PINEVIEW LANE NORTH	PINEVIEW COURT NORTH	DIAMOND LAKE ROAD SOUTH	330	Collector	Flexible	77.2	73.7	83.1	1,148	04/14/2023
890	PINEVIEW LANE NORTH	PINEVIEW COURT NORTH	PINEVIEW COURT NORTH	396	Collector	Flexible	83.3	72.2	90.1	1,030	04/14/2023
880	PINEVIEW LANE NORTH	132 1/2 AVENUE NORTH & GRANSTROM	PINEVIEW COURT NORTH	931	Collector	Flexible	88.3	73.3	95.1	2,513	04/14/2023
870	PINEVIEW LANE NORTH	GRANSTROM CIRCLE	GRANSTROM CIRCLE & 132 1/2 AVENU	471	Collector	Flexible	89.9	77.4	95.7	1,319	04/14/2023
860	PINEVIEW LANE NORTH	130TH AVENUE NORTH	GRANSTROM CIRCLE	1,278	Collector	Flexible	91.4	84.9	95.1	3,591	04/14/2023
2100	PINEVIEW TRAIL	PINEVIEW LANE NORTH	OAKVIEW LANE NORTH	419	Local	Flexible	33.1	56.3	37.8	1,137	04/14/2023
2120	PINEVIEW TRAIL	NORWOOD LANE NORTH	MAGNOLIA LANE NORTH	348	Local	Flexible	34.4	63.0	38.4	1,290	04/14/2023
2110	PINEVIEW TRAIL	OAKVIEW LANE NORTH	NORWOOD LANE NORTH	405	Local	Flexible	36.8	49.8	43.1	1,048	04/14/2023
2590	PIONEER PARKWAY	CLOQUET STREET	EMPIRE COURT NORTH	672	Collector	Flexible	61.0	68.9	66.7	1,874	04/18/2023
2560	PIONEER PARKWAY	END	OXBOW COURT	194	Local	Flexible	64.3	43.9	77.3	528	04/18/2023
2570	PIONEER PARKWAY	OXBOW COURT	RIVER HILLS PARKWAY	335	Local	Flexible	65.1	55.2	74.7	1,230	04/18/2023
2580	PIONEER PARKWAY	RIVER HILLS PARKWAY	CLOQUET STREET	374	Collector	Flexible	65.4	63.4	72.8	1,294	04/18/2023
2610	PIONEER PARKWAY	DALLAS LANE NORTH	DAYTON RIVER ROAD	718	Collector	Flexible	70.9	75.4	75.9	4,189	04/18/2023
2600	PIONEER PARKWAY	EMPIRE COURT NORTH	DALLAS LANE NORTH	760	Collector	Flexible	74.8	76.5	79.8	3,706	04/18/2023
4610	POLARIS LANE NORTH	END	116TH AVENUE NORTH	991	Local	Flexible	57.8	41.8	70.2	3,248	04/17/2023
3730	QUANTICO LANE NORTH	SUNDANCE RIDGE	110TH AVENUE NORTH	412	Local	Flexible	46.4	32.7	59.0	1,337	04/17/2023
3740	QUANTICO LANE NORTH	110TH AVENUE NORTH	111TH AVENUE NORTH	316	Local	Flexible	54.0	42.1	65.5	1,006	04/17/2023
3720	QUANTICO LANE NORTH	END	SUNDANCE RIDGE	418	Local	Flexible	55.1	37.0	68.5	1,803	04/17/2023
3750	QUANTICO LANE NORTH	111TH AVENUE NORTH	END	163	Local	Flexible	67.6	48.8	79.6	117	04/17/2023
2230	QUINWOOD LANE NORTH	141ST AVENUE NORTH	END	264	Local	Flexible	64.5	55.3	74.0	1,365	04/14/2023
4600	RANCHVIEW LANE NORTH	116TH AVENUE NORTH	END	302	Local	Flexible	68.2	50.4	79.8	1,260	04/17/2023
80	RICHARDSON AVENUE	DAYTON STREET	ROBINSON STREET	360	Local	Flexible	39.3	46.1	46.8	1,159	04/18/2023
70	RICHARDSON AVENUE	END	DAYTON STREET	117	Local	Flexible	39.4	36.3	49.2	506	04/18/2023
90	RICHARDSON AVENUE	ROBINSON STREET	LEVEE STREET	351	Local	Flexible	44.2	51.4	51.5	1,169	04/18/2023
320	RICHARDSON AVENUE NE	62ND LANE	UNNAMED STREET	195	Local	Flexible	48.3	32.7	61.5	469	04/18/2023
330	RICHARDSON AVENUE NE	UNNAMED STREET	BATES STREET	200	Local	Flexible	55.9	52.7	64.8	479	04/18/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
2780	RIVER HILLS COURT	RIVER HILLS PARKWAY	END	336	Local	Flexible	49.4	39.8	60.6	1,430	04/18/2023
2470	RIVER HILLS PARKWAY	DIAMOND LAKE ROAD NORTH	RIVER HILLS COURT	459	Collector	Flexible	58.0	50.0	67.9	2,652	04/18/2023
2480	RIVER HILLS PARKWAY	RIVER HILLS COURT	VALLEY VIEW	650	Collector	Flexible	60.8	53.3	70.3	1,833	04/18/2023
2490	RIVER HILLS PARKWAY	VALLEY VIEW	CLOQUET STREET & CLOQUET COURT	1,147	Collector	Flexible	61.9	61.2	69.5	3,415	04/18/2023
2500	RIVER HILLS PARKWAY	CLOQUET COURT & CLOQUET STREET	OXBOW LANE	451	Collector	Flexible	64.6	57.1	73.6	1,359	04/18/2023
2520	RIVER HILLS PARKWAY	PIONEER PARKWAY	146TH AVENUE	718	Collector	Flexible	64.7	63.3	72.1	2,217	04/18/2023
2530	RIVER HILLS PARKWAY	146TH AVENUE	CHESHIRE WAY	327	Collector	Flexible	66.2	60.2	74.5	1,007	04/18/2023
2540	RIVER HILLS PARKWAY	CHESHIRE WAY	DAYTON RIVER ROAD	1,077	Collector	Flexible	68.3	71.1	74.1	3,076	04/18/2023
2510	RIVER HILLS PARKWAY	OXBOW LANE	PIONEER PARKWAY	282	Collector	Flexible	83.5	59.9	94.1	840	04/18/2023
170	ROBINSON CIRCLE	ROBINSON STREET	END	610	Local	Flexible	55.0	58.6	62.3	2,167	04/18/2023
150	ROBINSON STREET	DIVISION STREET	DIVISION STREET	64	Local	Flexible	37.9	37.3	47.0	208	04/18/2023
160	ROBINSON STREET	DIVISION STREET	ROBINSON CIRCLE	804	Local	Flexible	44.4	48.0	52.5	2,420	04/18/2023
1890	ROSEWOOD LANE NORTH	END	DAYTON RIVER ROAD	844	Local	Flexible	35.2	65.4	38.9	3,149	04/18/2023
2250	ROSEWOOD LANE NORTH	141ST AVENUE NORTH	OAKHILL TRAIL NORTH	472	Local	Flexible	50.0	62.3	55.9	1,362	04/14/2023
2260	ROSEWOOD LANE NORTH	OAKHILL TRAIL NORTH	STONERIDGE ROAD	342	Local	Flexible	53.9	56.4	61.6	958	04/14/2023
2270	ROSEWOOD LANE NORTH	STONERIDGE ROAD	OVERLOOK ROAD	364	Local	Flexible	58.1	80.6	61.2	1,078	04/14/2023
2240	ROSEWOOD LANE NORTH	END	141ST AVENUE NORTH	250	Local	Flexible	65.1	43.2	78.6	1,302	04/14/2023
3320	RUSH CREEK PARKWAY	CATTAIL PATH	KINGSVIEW LANE NORTH	1,186	Collector	Flexible	54.8	63.1	61.1	4,085	04/17/2023
3290	RUSH CREEK PARKWAY	CREEKSIDE LANE	SUNDANCE RIDGE	815	Collector	Flexible	62.0	72.7	66.9	3,394	04/17/2023
3310	RUSH CREEK PARKWAY	SUNDANCE WOODS BOULEVARD	CATTAIL PATH	543	Collector	Flexible	62.6	62.0	70.0	2,182	04/17/2023
3350	RUSH CREEK PARKWAY	GLACIER LANE NORTH	FERNBROOK LANE NORTH & ELM CREEK	539	Collector	Flexible	64.9	61.5	72.7	2,145	04/17/2023
3300	RUSH CREEK PARKWAY	SUNDANCE RIDGE	SUNDANCE WOODS BOULEVARD	805	Collector	Flexible	71.6	73.6	77.1	3,284	04/17/2023
3280	RUSH CREEK PARKWAY	FAIR MEADOWS LANE & RUSH CREEK P	CREEKSIDE LANE	281	Collector	Flexible	72.6	56.7	82.8	1,112	04/17/2023
3330	RUSH CREEK PARKWAY	KINGSVIEW LANE NORTH	ITHACA LANE NORTH	582	Collector	Flexible	75.0	66.4	82.6	2,127	04/17/2023
3340	RUSH CREEK PARKWAY	ITHACA LANE NORTH	GLACIER LANE NORTH	671	Collector	Flexible	77.0	66.2	84.9	2,445	04/17/2023
3270	RUSH CREEK ROAD	103 NE OF TRADITIONAL ROAD	FAIR MEADOWS LANE & RUSH CREEK P	718	Collector	Flexible	67.5	64.2	74.9	2,258	04/17/2023
3260	RUSH CREEK ROAD	55 FT NE OF TRADITIONAL ROAD	103 NE OF TRADITIONAL ROAD	48	Collector	Flexible	77.2	42.6	93.4	147	04/17/2023
3560	SCHERBER LANE	FAIR MEADOWS LANE	SCHERBER LANE	611	Local	Flexible	61.7	51.5	71.9	3,077	04/17/2023
3570	SCHERBER LANE	SCHERBER LANE	SUNDANCE WOODS BOULEVARD	367	Local	Flexible	67.3	61.9	75.3	1,065	04/17/2023
220	SHADYVIEW LANE NORTH	END	DAYTON RIVER ROAD	323	Local	Flexible	24.3	43.2	29.3	1,008	04/18/2023
240	SHADYVIEW LANE NORTH	COUNTY STREET	COLUMBUS STREET	343	Local	Flexible	30.4	51.3	35.4	1,151	04/18/2023
230	SHADYVIEW LANE NORTH	DAYTON RIVER ROAD	COUNTY STREET	711	Local	Flexible	31.6	32.8	40.2	2,345	04/18/2023
2380	STONERIDGE CIRCLE NORTH	JONQUIL LANE NORTH	END	883	Local	Flexible	36.5	60.6	41.0	3,385	04/14/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
2350	STONERIDGE ROAD	PINEVIEW LANE NORTH	NORWOOD LANE NORTH	831	Local	Flexible	20.2	74.2	21.7	2,796	04/14/2023
2360	STONERIDGE ROAD	NORWOOD LANE NORTH	710 FT E OF NORWOOD LANE	711	Local	Flexible	22.5	66.3	24.8	2,457	04/14/2023
2370	STONERIDGE ROAD	710 FT E OF NORWOOD LANE	JONQUIL LANE NORTH	1,374	Local	Flexible	30.0	71.4	32.5	4,289	04/14/2023
2330	STONERIDGE ROAD	END	ROSEWOOD LANE NORTH	187	Local	Flexible	53.3	42.2	64.6	1,128	04/14/2023
2340	STONERIDGE ROAD	ROSEWOOD LANE NORTH	PINEVIEW LANE NORTH	997	Local	Flexible	54.4	64.6	60.3	2,790	04/14/2023
3700	SUNDANCE RIDGE	RUSH CREEK PARKWAY	FAIR MEADOWS LANE	952	Local	Flexible	63.0	36.2	78.7	2,857	04/17/2023
3710	SUNDANCE RIDGE	FAIR MEADOWS LANE	QUANTICO LANE NORTH	323	Local	Flexible	65.0	39.7	79.8	947	04/17/2023
3580	SUNDANCE WOODS BOULEVARD	END	CREEKSIDE LANE	155	Local	Flexible	48.9	64.6	54.2	463	04/17/2023
3590	SUNDANCE WOODS BOULEVARD	CREEKSIDE LANE	RUSH CREEK PARKWAY	255	Local	Flexible	50.3	43.0	60.7	704	04/17/2023
3600	SUNDANCE WOODS BOULEVARD	RUSH CREEK PARKWAY	SCHERBER LANE	204	Collector	Flexible	58.4	38.1	72.2	602	04/17/2023
3610	SUNDANCE WOODS BOULEVARD	SCHERBER LANE	FAIR MEADOWS LANE	551	Local	Flexible	59.3	41.5	72.1	2,967	04/17/2023
1850	TEAKWOOD LANE NORTH	137TH AVENUE NORTH	138TH AVENUE NORTH	504	Local	Flexible	66.0	67.6	72.4	1,600	04/18/2023
1860	TEAKWOOD LANE NORTH	138TH AVENUE NORTH	140TH AVENUE NORTH	1,440	Local	Flexible	75.2	79.8	79.4	4,032	04/18/2023
3160	TERRITORIAL ROAD	BROCKTON LANE NORTH	1609 FT E OF BROCKTON LANE	1,610	Local	Flexible	18.2	57.1	20.7	5,920	04/17/2023
3170	TERRITORIAL ROAD	1609 FT E OF BROCKTON LANE	823 FT W OF DAYTON INDUSTRIAL BL	1,601	Local	Flexible	30.8	53.3	35.6	5,977	04/17/2023
3190	TERRITORIAL ROAD	HOLLY LANE NORTH	COUNTY ROAD 81	2,576	Local	Flexible	38.7	58.3	43.9	10,417	04/17/2023
3180	TERRITORIAL ROAD	823 FT W OF DAYTON INDUSTRIAL BL	HOLLY LANE NORTH	1,078	Local	Flexible	45.7	65.3	50.6	4,072	04/17/2023
3240	TERRITORIAL ROAD	FRENCH LAKE ROAD EAST	43 FT NW OF END	797	Collector	Flexible	57.3	62.3	64.0	2,125	04/17/2023
3200	TERRITORIAL ROAD	COUNTY ROAD 81	110 FT W OF TERRITORIAL TRAIL	1,139	Collector	Flexible	57.6	71.8	62.4	3,265	04/17/2023
3230	TERRITORIAL ROAD	626 FT E OF TERRITORIAL TRAIL	FRENCH LAKE ROAD EAST	722	Collector	Flexible	59.9	72.3	64.7	2,030	04/17/2023
3220	TERRITORIAL ROAD	TERRITORIAL TRAIL	626 FT E OF TERRITORIAL TRAIL	627	Collector	Flexible	66.6	70.9	72.3	1,992	04/17/2023
3210	TERRITORIAL ROAD	110 FT W OF TERRITORIAL TRAIL	TERRITORIAL TRAIL	125	Collector	Flexible	72.9	72.6	78.7	321	04/17/2023
3250	TERRITORIAL ROAD	43 FT NW OF END	END	44	Collector	Flexible	82.0	75.5	87.8	115	04/17/2023
3860	TERRITORIAL TRAIL	BLACK OAKS COURT NORTH	FRENCH LAKE ROAD EAST	526	Local	Flexible	56.9	49.9	66.7	2,038	04/17/2023
3850	TERRITORIAL TRAIL	COMSTOCK LANE NORTH	BLACK OAKS COURT NORTH	181	Local	Flexible	61.2	37.8	75.8	551	04/17/2023
3810	TERRITORIAL TRAIL	TERRITORIAL ROAD	110TH AVENUE NORTH	438	Local	Flexible	63.8	60.9	71.7	1,848	04/17/2023
3840	TERRITORIAL TRAIL	112TH AVENUE NORTH	COMSTOCK LANE NORTH	1,008	Local	Flexible	66.6	56.1	76.2	3,091	04/17/2023
3830	TERRITORIAL TRAIL	111TH AVENUE NORTH	112TH AVENUE NORTH	769	Local	Flexible	69.7	70.7	75.7	2,307	04/17/2023
3820	TERRITORIAL TRAIL	110TH AVENUE NORTH	111TH AVENUE NORTH	321	Local	Flexible	70.5	60.0	79.5	1,025	04/17/2023
500	THICKET LANE NORTH	END	149TH AVENUE NORTH	3,299	Local	Flexible	21.2	47.6	25.1	8,871	04/18/2023
3140	TROY LANE NORTH	COUNTY ROAD 81	END	939	Local	Flexible	26.4	56.9	30.1	4,240	04/17/2023
4550	UPLAND LANE NORTH	116TH AVENUE NORTH	END	487	Local	Flexible	58.7	32.5	74.8	1,821	04/17/2023
2790	VALLEY VIEW	RIVER HILLS PARKWAY	END	160	Local	Flexible	52.2	26.9	68.7	448	04/18/2023

Table F.1: Performance Indices of All Sections (Sorted by Street Name and PQI)

Section #	Street	From	To	CL Length (ft)	Fun. Class	PaveType	PQI	RCI	SDI	Area (yd^2)	Performance Date
1750	VINEWOOD LANE NORTH	DIAMOND LAKE ROAD SOUTH	1367 FT N OF DIAMOND LAKE ROAD S	1,367	Local	Flexible	42.5	64.7	47.1	4,298	04/18/2023
1760	VINEWOOD LANE NORTH	1367 FT N OF DIAMOND LAKE ROAD S	139TH AVENUE NORTH	1,382	Local	Flexible	43.7	59.0	49.4	4,285	04/18/2023
1770	VINEWOOD LANE NORTH	139TH AVENUE NORTH	140TH AVENUE NORTH	630	Local	Flexible	50.5	72.4	54.6	1,730	04/18/2023
1780	VINEWOOD LANE NORTH	140TH AVENUE NORTH	DIAMOND LAKE ROAD NORTH	603	Local	Flexible	56.0	68.9	61.2	1,723	04/18/2023
4190	WEST HAYDEN LAKE ROAD	ZACHARY LANE NORTH	END	31	Collector	Flexible	24.8	40.2	30.3	73	04/17/2023
4560	WESTON LANE NORTH	116TH AVENUE NORTH	END	522	Local	Flexible	70.3	54.1	81.0	1,773	04/17/2023
1220	WHITE PINE COURT NORTH	END	PINERIDGE WAY NORTH	490	Local	Flexible	62.0	47.7	73.3	1,755	04/14/2023
4450	YUMA LANE NORTH	END	116TH AVENUE NORTH	931	Local	Flexible	55.4	48.3	65.4	3,182	04/17/2023
4460	YUMA LANE NORTH	116TH AVENUE NORTH	117TH AVENUE NORTH	684	Collector	Flexible	58.1	54.0	67.0	1,924	04/17/2023
780	ZACHARY CIRCLE NORTH	129TH AVENUE NORTH & FRENCH LAKE	END	457	Local	Flexible	67.3	66.1	74.2	1,994	04/14/2023
4180	ZACHARY LANE NORTH	ELM CREEK ROAD	ZACHARY LANE NORTH	1,521	Collector	Flexible	13.2	32.7	16.8	4,225	04/17/2023
4120	ZACHARY LANE NORTH	109TH AVENUE NORTH	404 FT N OF 109TH AVENUE	405	Collector	Flexible	32.5	52.4	37.7	1,259	04/17/2023
4150	ZACHARY LANE NORTH	GOOSE LAKE PARKWAY	500 FT N OF GOOSE LAKE	501	Collector	Flexible	37.9	68.1	41.5	1,548	04/17/2023
4130	ZACHARY LANE NORTH	404 FT N OF 109TH AVENUE	380 FT S OF GOOSE LAKE PKWY	3,290	Collector	Flexible	46.1	66.0	50.9	11,625	04/17/2023
4170	ZACHARY LANE NORTH	270 FT S OF ELM CREEK ROAD	ELM CREEK ROAD	289	Collector	Flexible	55.3	63.2	61.6	814	04/17/2023
4160	ZACHARY LANE NORTH	500 FT N OF GOOSE LAKE	270 FT S OF ELM CREEK ROAD	900	Collector	Flexible	58.2	75.4	62.3	2,649	04/17/2023
4140	ZACHARY LANE NORTH	380 FT S OF GOOSE LAKE PKWY	GOOSE LAKE PARKWAY	385	Collector	Flexible	64.2	76.7	68.5	1,154	04/17/2023
1290	ZACHARY LANE NORTH	131ST AVENUE NORTH & ARROWOOD LA	131ST CIRCLE NORTH	501	Local	Flexible	64.3	62.1	71.9	1,409	04/14/2023
1320	ZACHARY LANE NORTH	DEERWOOD LANE NORTH	133RD AVENUE NORTH	362	Local	Flexible	65.5	50.6	76.6	1,089	04/14/2023
1300	ZACHARY LANE NORTH	131ST CIRCLE NORTH	132ND CIRCLE NORTH	309	Local	Flexible	68.2	65.2	75.5	1,252	04/14/2023
1340	ZACHARY LANE NORTH	134TH AVENUE NORTH	END	495	Local	Flexible	68.9	57.3	78.4	2,167	04/14/2023
1310	ZACHARY LANE NORTH	132ND CIRCLE NORTH	DEERWOOD LANE NORTH	431	Local	Flexible	74.2	80.5	78.2	1,748	04/14/2023
1330	ZACHARY LANE NORTH	133RD AVENUE NORTH	134TH AVENUE NORTH	350	Local	Flexible	75.3	70.2	81.9	984	04/14/2023
4110	ZACHARY LANE NORTH	ROUNDABOUT	109TH AVENUE NORTH	33	Collector	Flexible	75.5	45.5	90.2	64	04/17/2023
2990	ZANZIBAR LANE NORTH	DIAMOND LAKE ROAD SOUTH	1940 FT NORTH OF DIAMOND LAKE RO	1,941	Collector	Flexible	63.2	74.3	67.9	4,788	04/18/2023
3000	ZANZIBAR LANE NORTH	1940 FT NORTH OF DIAMOND LAKE RO	DIAMOND LAKE ROAD NORTH	1,955	Collector	Flexible	73.2	77.0	78.0	4,235	04/18/2023