Township of Melancthon
Asset Management Plan Report

Prepared By:

R.J. Burnside & Associates Limited
15 Townline Orangeville ON L9W 3R4

Prepared for:

Township of Melancthon

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Executive Summary

This report contains the Asset Management Plan for the Township of Melancthon with respect to their roads and bridges (including culverts over 3 m). The report has been organized as follows:

Chapter 1: Introduction;
Chapter 2: State of Local Infrastructure;
Chapter 3: Expected Levels of Service;
Chapter 4: Asset Management Strategy;
Chapter 5: Financing Strategy; and
Chapter 6: Recommendations.

The "state of local infrastructure" chapter provides an overview of the capital assets owned by the Township. This includes detailed information on the Township's asset inventory, including asset attributes, accounting valuations, replacement costs, useful life, age and asset condition. This information provides the foundation for other sections of the asset management plan.

The Township of Melancthon has been developing their asset inventory for many years to comply with PSAB 3150. The useful lives identified in the PSAB financial statements for Asphalt Road assets were found to be longer than true life experience. Condition information provided by the 2012 Bridge Inspection study and the 2013 Paved Road Condition Assessment enabled for a more accurate asset strategy. However, the Bridge Inspection did not provide a bridge condition index. The age of the bridge was used as a relative condition indication which may be problematic. It is recommended that future bridge studies include MTO model calculated Bridge Condition Indexes. It is believed that this will improve the condition rating and also improve the risk evaluation of these assets.

Township Paved Road Surfaces on average were found to be in good condition.

Township Bridges on average were found to be in average condition.

"Expected levels of service" compares the current level of service provided by the Township to the recommended level of service that will help extend the life of the above mentioned asset types. The Township takes great care in service levels they offer the public. With some additional annual maintenance funding the road and bridge assets will be able to extend their lifecycle, and therefore be more cost effective over the life of these assets.

The "asset management strategy" provides a long term operating and capital forecast for asset related costs, indicating the requirements for maintaining, rehabilitating, replacing/disposing and expanding the Township's assets, while moving towards the specified expected levels of service identified above. The goal of the asset management strategy is to have the Township in (or moving towards) a sustainable asset management position over the forecast period.

The "financing strategy" identifies a funding plan for the asset management strategy, including a review of historical results and recommendations with respect to the required amounts and types of funding (revenue) annually. Also, any infrastructure funding deficits/shortfalls are identified and recommendations are made regarding potential approaches to reduce and mitigate the shortfall over the forecast period.

Overall, this asset management plan is a tool to be used by Township staff for capital and financial decision making. It can be tied to various existing reports (such as the Township's budget, official plan and strategic planning reports) to ensure the asset management plan can be updated to reflect any changes in the municipality’s priorities.

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1.0 Introduction

1.1 Overview

R.J. Burnside & Associates Limited (Burnside) and Ms. Sharon Larmour were retained by the Township of Melancthon (Township) to prepare an asset management plan. This plan is intended to be a tool for Township staff to use during various decision making processes, including the annual budget process and Provincial/Federal capital grant application processes. This plan will serve as a road map for sustainable infrastructure planning going forward.

Assets included in this asset management plan are the following:

- Roads
- Bridges and Culverts (greater than 3 meter).

It is recommended that this plan be updated in the near future for other Township owned capital assets.

1.2 Plan Objectives

The Township's goals and objectives with respect to their capital assets relate to the level of service being provided to Township residents. Services should be provided at expected levels, as defined within this asset management plan. Township infrastructure and other capital assets should be maintained at condition levels that provide for a safe and functional environment for its residents. Therefore, the asset management plan and its implementation will be evaluated based on the Township's ability to meet these goals and objectives.

1.3 Plan Development

The development of the Township's asset management plan was based on the steps summarized below:

1. Develop a complete listing of capital assets to be included in the plan, including attributes such as useful life, age, accounting valuation and current valuation. Update the current valuation to 2013 dollars, and where required, using applicable inflationary indices.
2. Assess current condition of the assets, based on a combination of the following:
    - Existing reports;
    - Asset degradation curves;

- Age analysis; and
- Additional condition inspections

3. Assess the risk of asset failure for each asset, based on determining the probability of each asset failing, as well as the consequence of the asset failing. This risk analysis is one of the components used to identify priority projects for inclusion in the asset management plan, as well as asset risk levels that require mitigation.
4. Determine and document current levels of service, based on discussions with Township staff. Further analysis of the practices and identification of additional maintenance measures that can be applied to the assets to extend their lifecycle.
5. Prepare an asset management strategy (i.e. operating and capital forecast) based on the asset inventory, identified priorities, forecast scenarios, and level of service analysis discussed above.
6. Determine a financial strategy to support the asset management strategy, thus determining how the operating and capital related expenditure forecast will be funded over the plan period.
7. Prepare a Final report, summarizing the process, strategy and results of the asset management plan.

1.4 Maintaining the Asset Management Plan

The asset management plan should be updated as the capital needs and priorities of the Township changes. This can be accomplished in conjunction with the Township's budget process. Township staff will have the tools available to perform updates to the plan when needed.

When updating the asset management plan, note that the state of local infrastructure, expected levels of service, asset management strategy and financing strategy are integrated and impact each other. Looking at these components in reverse order, the financing strategy outlines how the asset management strategy will be funded. The asset management strategy illustrates the costs required to maintain expected levels of service at a sustainable level. The expected levels of service component summarizes and links each service area to specific assets contained in the state of local infrastructure section and thus determines how these assets will be used to provide expected service levels.

This report covers a forecast period of 10 years, however it is suggested that more focus and attention be put on the first 5 years of the asset management plan, to ensure accurate capital planning in the short term.

1.5 Plan Integration

The municipal environment is continually changing and demanding when it comes to legislation and other responsibilities. Integrating the asset management plan with the Township's budget process as well as PSAB 3150 (tangible capital asset) requirements can make updates in all three areas more efficient.

With respect to integrating the Township's budget process with asset management planning, both require a projection of capital and operating costs of a future period. The budget outlines total operating and capital requirements for the Township, while the asset management plan focuses in on specific asset related requirements. With this link to the annual budget, the budget update process can also become an asset management plan update process.

Both asset management and Public Standards Accounting Board Section 3150 (PSAB 3150) require a complete and accurate asset inventory. The significant difference between the two lies in valuation approaches (PSAB 3150 requires historical cost valuation, while asset management requires future replacement cost valuation). Using a single asset inventory as the Township's Asset Management database and software which contains both valuation methods is an effective approach to maintaining the Township's asset data.

2.0 State of Local Infrastructure

2.1 Scope and Process

This section of the plan provides an opportunity to develop a greater understanding of the capital assets owned by the Township. The state of local infrastructure analysis includes:

- An asset database inventory documenting asset types, sub-types including quantities, materials and other similar asset attributes;
- Financial accounting valuation (where available);
- Replacement cost valuation;
- Asset age distribution analysis and asset age as a proportion of expected useful life;
- Asset condition information;
- Data Verification and Asset Condition policies; and
- Documentation of assumptions made in creating the asset inventory.

The Township has a detailed inventory listing, created through years of proactive asset management and budgeting methods. This asset inventory is updated annually and was used as a starting point in fulfilling the requirements for this report. This inventory provides current financial accounting valuations (i.e. historical cost, accumulated amortization and net book value) as well as attributes such as replacement cost, useful life and age. With respect to replacement cost, the Township's asset listing contained various recent valuations, which were inflated in order to estimate current 2013 replacement costs.

The following data and reports were used to supplement the Township's asset inventory during this process:

a. 2013 Paved Road Inspection (completed by Burnside);

b. Recent Bridge Inspection Reports; and

c. Discussions with Township staff.

The Township has been in the process of continuously improving the way their infrastructure assets have been managed. The process began with soliciting engineering advice when necessary and then looking to new technologies to better develop and maintain a complete asset inventory. The Township as a rural municipality has taken full advantage of Federal and Provincial programs wherever possible for capital infrastructure funding and technology development.

The PSAB 3150 process required the valuation of all capital assets and the assessment of useful life for each asset type and sub-type so that proper straight-line amortization was established. The financial reporting was a helpful initiation to better evaluate the complexity of managing all the various asset types across the Township.

Further analysis of the assets revealed that an update to useful life values would better reflect the lifecycle and remaining life of the Township's assets. The Roads Superintendent reviewed and reassessed the useful lives of the asset types identified in this study so that they better reflected conditions, maintenance practices and management of the assets under their supervision.

These useful life changes will be reflected in the Township's Tangible Capital Asset Policy Amendment. The resulting more realistic useful lives will also better establish a general sense of the future capital needs to replace and dispose of the Township's assets.

The review of assets also revealed some updates to the asset inventory and their replacement costs. The Township's recent Bridge Inspection reports contain various recent valuations which need to be further evaluated for true replacement costs. There is still more work that needs to be done but there has been a good effort accomplished for most of the assets reviewed in this study.

2.2 Capital Asset Overview

The Township presently owns road and bridge capital assets with a 2013 replacement value of approximately $51.9 million (excluding land assets as they are not included in this plan). This total is split into $31.9 million of road and $20 million bridge tax supported assets. Table 2.1 outlines the breakdown of these totals.

The capital asset inventory as part of the asset management software was organized in a Microsoft Sequel database. This made for quick extraction of information and processing for this project and report. Each of the asset types were assessed for their age, condition (if available), and for data accuracy and completeness.

Table 2.1: Road and Bridge Assets (Excluding Land)

Asset Type	Historic Cost	2012 Accumulated Amortization	2012 Net Book Value	Replacement Cost 2013 $
Road Surfaces	4,096,047	2,297,804	1,798,243	7,861,473
Road Bases	3,904,808	1,927,590	2,067,712	23,968,401
Bridges & Inspected Culverts	5,220,522	2,020,050	3,007,216	20,083,515
Total	13,221,378	6,245,444	6,873,171	51,913,389

Figure 2.1: Road and Bridge Asset Distribution Replacement Costs

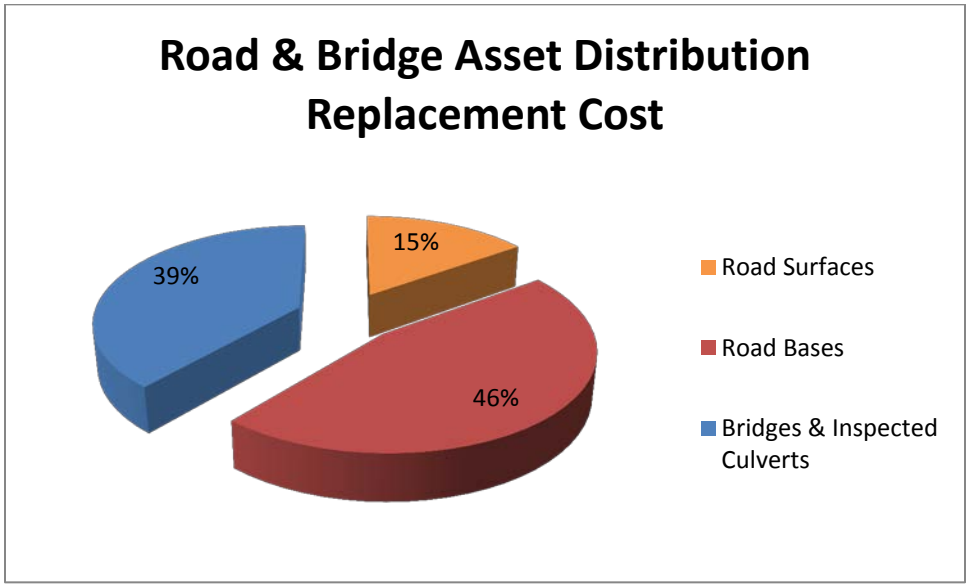


Table 2.1 shows the Township's financial accounting valuation summary by asset type. Since 2009, the Township has been required under the Public Sector Accounting Board section 3150 (PSAB 3150) to maintain asset listings complete with historical cost (i.e. the original cost to purchase or construct an asset), accumulated amortization and net book value. These values are reported on the Township's audited financial statements each year. Including tax supported Road and Bridge assets and water assets, the Township's total tangible capital asset historical cost (excluding land) is approximately $13.2 million. This is approximately 25% of the total replacement cost of these assets. It is expected that historical cost totals are much smaller than replacement cost totals, given inflationary adjustments that would occur between the original asset purchase/construction date and today. Total accumulated amortization for the Township's assets is $6.2 million or 46% of the total asset historical cost. This represents the proportion of tangible capital assets that have been amortized (i.e. used up) to date from a financial valuation perspective.

Road and Bridge assets represent the most significant tax supported asset category of the Township. Appendix A provides a further breakdown of these asset types.

2.3 Asset Age Analysis

Each asset is tracked based on estimated total useful life and remaining service life. Using this information, age analysis of the Townships assets can assist in identifying potential areas of focus for the asset management plan where asset inspected condition is not available.

Table 2.2 provides a summary of the age analysis undertaken including the average useful life and average remaining useful life of road and bridge tax supported assets. This analysis can identify potential short-term priorities within specific asset areas.

Table 2.2: Road and Bridge Assets Age Analysis

	Average		
Asset Type	**Useful Life**	**Remaining Life**	**% Remaining Life**
Road - Asphalt Surface	25 / 30	7	28%
Road - Gravel Surface	3	1	33%
Road Bases	25 / 30 / 60 / 75	11	18%
Bridges	75	43	57%
Inspected Culverts	50	18	36%

While this analysis can be useful in looking at the overall age characteristics of specific asset areas, asset condition (see below) will assist in providing a more accurate assessment of assets reaching the end of their useful life.

2.4 Asset Condition

Including condition assessments in the asset management plan provides for a higher level of accuracy than simply relying on useful life assumptions, especially when it comes to older, highly used, or more financially significant assets. Engineering based condition assessments can provide more realistic estimates of remaining service life, which can then be used to establish rehabilitation or replacement schedules.

A rating out of 100 was provided by Burnside for all assets and was based on a combination of physical inspections, degradation curve analysis, and asset age analysis. This rating was then converted to a condition description of “Very Poor” to “Very Good”. Please refer to the table below:

Table 2.3: Asset Condition Format All Assets

Condition (Provided by Burnside)	Condition
81-100	Very Good
61-80	Good
41-60	Average
21-40	Poor
0-20	Very Poor

The condition of the assets is an important element of any lifecycle assessment process. The condition assessment process also identifies maintenance and operating practices that can be applied to ensure appropriate service, as well as extending the life of the asset to its maximum service life. The Townships undertakes the following regular condition inspections for the studies asset types:

a. Bridges and culverts (larger than 3 metres)

b. Roads and sidewalks.

A new policy has been proposed that will ensure all Townships assets are reviewed using established engineering methods and practices. Appendix B contains the draft Condition Assessment Policy, which identifies how often Township assets will be assessed.

All of the Township's assets, financial valuation, replacement costs, and conditions have been integrated into the Township's asset management software, which is an enterprise cloud hosted system. The software was used during this project to ensure all assets were reviewed. It is vital that one municipal asset inventory is used for all assets and all departments, which provides an efficient managing and reporting process.

A high level summary of the average condition in each studied asset category is as follows:

Table 2.4: Average Condition by Asset Type

Asset Type	Condition
Road Surfaces - Paved	Good
Road Bases	Not Available
Bridges	Average

Further discussion of condition assessment will take place in Chapter 4 when assessing asset risk and identifying asset priorities.

2.5 Data Accuracy and Completeness

An important element of this asset management plan is ensuring that tools and procedures are in place to maintain accuracy and completeness of the asset data and calculations moving forward. As time passes, assets are used, maintained, improved, disposed of, and replaced.

All of these lifecycle events can trigger changes to the asset database used within the asset management plan. Therefore, tools and procedures are essential to ensure the asset data remains accurate and complete. Please refer to Appendix B to this report for the "Data Verification and Condition Assessment Policy" for the Township. This policy illustrates how the asset data will be updated and verified going forward. This includes the timing of condition assessments for each asset area and what should be included within the condition assessment procedures.

3.0 Expected Levels of Service

The Township of Melancthon has been offering and maintaining for its residents excellent service levels, during challenging economic times. As a lower tier rural community, it has been difficult to ensure Township assets are maintained to appropriate service levels. The Province and County have become more demanding of Township residents to invest more and more into replacing older infrastructure.

The road and bridge assets have aged and therefore require greater care in planning for their replacement. Many of these assets once had Provincial programs that offered funding to maintain them. The Township now is responsible for condition inspection assessments and technical reporting that demand aggressive schedules of capital improvements and replacements of assets to maintain the high service levels that Ontarians have grown accustom to.

3.1 Scope and Process

A level of service (LOS) analysis gives the Township an opportunity to document the level of service that is currently being provided and compare it to the level of service that will ensure the asset achieves its full lifecycle. This can be done through a review of current practices and procedures, an examination of trends or issues facing the Township, or through an analysis of performance measures and targets that staff can use to measure performance.

Expected LOS can be impacted by a number of factors, including:

- Legislative requirements;
- Strategic planning goals and objectives;
- Resident expectations;
- Council or Township staff expectations; and
- Financial or resource constraints.

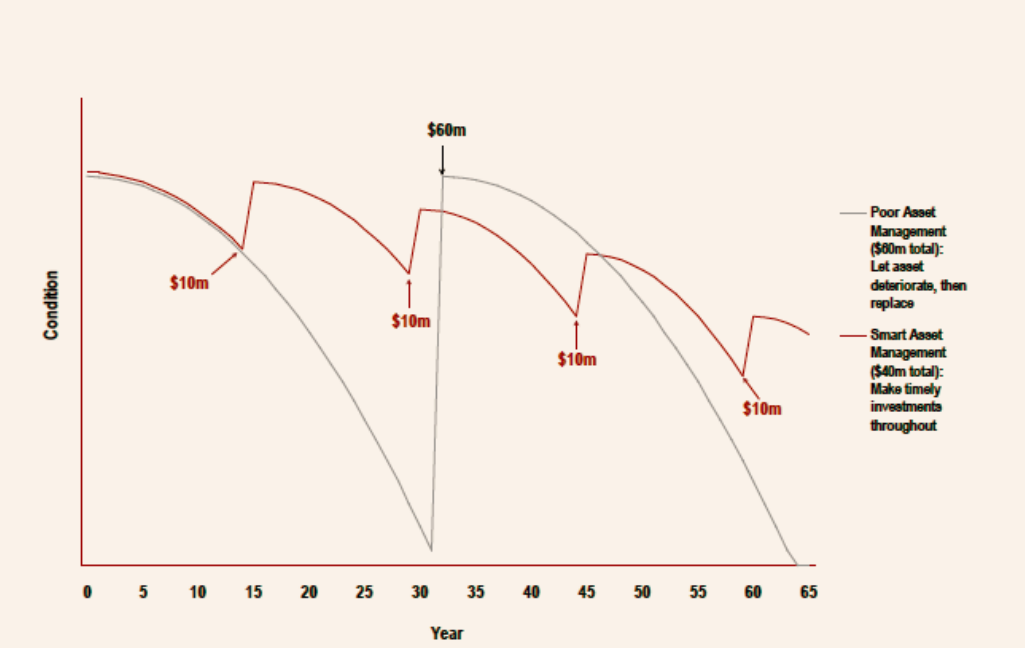
The previous task of determining the state of the Township's local infrastructure established the asset inventory and condition, as well as asset management policies and principles to guide the refinement and upkeep of asset infrastructure. The LOS analysis will utilize this information and factor in the impact of asset service level targets. It is important to document an expected LOS that is realistic to the Township. It is common to strive for the highest LOS, however these service levels usually come at a cost. It is also helpful to consider the risk associated with a certain LOS. Therefore, expected LOS should be determined in a way that balances both level of investment and associated risk to the Township.

The project team reviewed the current maintenance and operations practices being applied to the Township assets. Each asset type had engineering specialists review how the Township achieved their service levels. These maintenance and operations practices were then scrutinized against known best practices as well as the practices of other well run municipalities. It is appropriate to point out that Melancthon Township continues to do a good job of maintaining assets that are under their care.

Once the analysis was complete discussions with the Roads Superintendent were undertaken to outline some additional maintenance processes that would improve and extend the life of some Township assets. Being able to extend the life of a costly asset by ten or more years could save each tax payer hundreds of dollars.

The Levels of Service analysis and discussions resulted in some recommendations that will improve maintenance of various Township assets providing higher levels of service as well as expecting results of extended asset life. The figure below, from The Provincial "Building Together Guideline" illustrates this strategy.

Figure 3.1: Small but Timely Renewal Investments Save Money



3.2 Current Levels of Service versus Expected Levels of Service

The Township's current LOS has resulted in the current state of infrastructure as discussed in the previous section of the report. This current LOS also relates to the risk assessment discussed in later report sections. Regarding the cost of this LOS, the

Township has established an operating and capital budget for the current year that includes the cost of providing this LOS to residents. Therefore in moving from the current LOS to an enhanced LOS, consideration has to be made for the associated cost (or impact on the Township's current budget) in moving to an enhanced LOS.

The table below outlines broad LOS descriptions (both current and enhanced LOS). This analysis was documented through discussions with Township staff.

Table 3.1: Level of Services Analysis

Asset Type	Level of Service	Year to Start	Cost 2013 $
Roads - Asphalt Surface	Maintenance Hot Mix Patching and/or Micro Surface application	2014	180,000
Bridge	More Bridge Washing	2014	Staff

Roads

Department	Level of Service Description	
	Current	**Expected**
Public Works	Meet "Minimum Maintenance Standards" as defined by Ontario Regulation 239/02.	Meet "Minimum Maintenance Standards" as defined by Ontario Regulation 239/02.

Bridges & Culverts

Department	Level of Service Description	
	Current	**Expected**
Public Works	Maintain adequate condition and load limits.	Maintain adequate condition and load limits.
Public Works	Maintenance and rehabilitation completed when needed.	Proactive and planned approach to rehabilitation and maintenance. Increase in bridge monitoring.
Public Works	Bridge inspections required every 2 years.	Bridge inspections using OSIM reports required every 2 years.

Department	Level of Service Description	
	Current	**Expected**
Public Works	No Bridge Washing.	Bridge Washing.

Please refer to Appendix C of this report for a table summarizing the estimated budget impacts associated with implementing the expected LOS over the 10-year forecast period. This impact analysis will be factored into the asset management strategy discussed in chapter 4 of this report.

3.3 Level of Service Performance Measures

As mentioned above, using performance measures in the LOS review can also be helpful in measuring the Township's goals and objectives when it comes to capital assets. The Township currently tracks specific performance measures as part of the Municipal Performance Measurement Program (MPMP) which the province has in place as part of the annual Financial Information Return (FIR) submission. The FIR provides the annual financial results of the Township, while the MPMP provides an evaluation of the Township's "performance".

The Township will continue to calculate and monitor these performance measures, both for MPMP and asset management purposes. As the Township's asset management plan evolves over time, new performance measures can be introduced to further measure the LOS being provided in each service area.

4.0 Asset Management Strategy

4.1 Scope and Process

The asset management strategy provides the recommended course of actions required to maintain (or move towards) a sustainable asset position while delivering the levels of service discussed in the previous chapter. The course of actions, when combined together, form a long-term operating and capital forecast that includes:

a. Non-infrastructure solutions: reduce costs and/or extend expected useful life estimates;

b. Maintenance activities: regularly scheduled activities to maintain existing useful life levels, or repairs needed due to unplanned events;

c. Renewal/Rehabilitation: significant repairs or maintenance planned to increase the useful life of assets;

d. Replacement/Disposal: complete disposal and replacement of assets, when renewal or rehabilitation is no longer an option; and

e. Expansion: given planned growth as outlined in the Township's Development Charge. Background Study, other expansion or due to the introduction of new services.

Priority identification becomes a critical process during the development of an asset management strategy. Priorities have been determined based on assessment of the overall risk of asset failure, which is determined by looking at both the probability of an asset failing, as well as the consequences of failure. The consequences of the Township not meeting desired levels of service must also be considered in determining risk. As discussed in chapter 3, moving to enhanced levels of service results in both operating and capital budget impacts over the 10 year forecast period. This has to be taken into consideration, with the overall objective of reaching sustainable levels while mitigating risk.

4.2 Risk Assessment

The risk of an asset failing is defined by the following calculation:

Risk of Asset Failure = Probability of Failure X Consequence of Failure

Probability of failure has been linked to the condition assessment for each asset, assuming that an asset in "very good" condition would have a "rare" probability of failure. The following table outlines the probability factor tied to each condition rating:

Table 4.1: Probability of Failure Matrix

Condition (Provided by Burnside)	Condition	Probability of Failure
81-100	Very Good	Rare
61-80	Good	Unlikely
41-60	Average	Possible
21-40	Poor	Likely
0-20	Very Poor	Almost Certain

Consequence of failure has been determined by examining each asset type separately. Consequence refers to the impact on the Township if a particular asset were to fail.

Types of impacts include the following:

- Cost Impacts: the cost of failure to the Township (i.e. capital replacement, rehabilitation, fines & penalties, damages, etc.);
- Social impacts: potential injury or death to residents or Township staff;
- Environmental impacts: the impact of the asset failure on the environment;
- Service delivery impacts: the impact of the asset failure on the Township's ability to provide services at desired levels; and
- Location impacts: the varying impact of asset failure based on the asset's location within the Township.

Each type of impact was discussed with Township staff and consequence of failure for each asset type was determined by using the information contained in Table 4.2 as a guide to assess the level of impact. Levels of impact were documented as ranging from "significant" to "insignificant". Location factors were considered when asset failures in specific areas would result in significant impacts to hospitals, schools, and other similar "high impact" areas.

With both probability of failure and consequence of failure documented, total risk of asset failure was determined using the matrix contained in Table 4.3. Total risk has been classified under the following categories:

- Extreme Risk (E): risk beyond acceptable levels;
- High Risk (H): risk slightly beyond acceptable levels;

- Medium Risk (M): risk at acceptable levels, monitoring required to ensure risk does not become high; and
- Low Risk (L): risk at or below acceptable levels.

Table 4.2: Consequence of Failure Matrix

	Cost	Social	Environmental	Service Delivery
Significant	Significant Cost – Difficult to Recover	Death, Serious Injury	Long-term Impact – Permanent	Major Interruptions
Major	Substantial Cost – Multi-year Budget Impacts	Major Injury	Long-term Impact – Fixable	Significant Interruptions
Moderate	Considerable Cost – Requires Revisions to Budget	Moderate Injury	Medium-term Impact – Fixable	Moderate Interruptions
Minor	Small/Minor Cost – within Budget Allocations	Minor Injury	Short-term/Minor Impact – Fixable	Minor Interruptions
Insignificant	Negligible or Insignificant Cost	No Injury	No Impact	No Interruptions

Table 4.3: Total Risk of Asset Failure Matrix

Probability of Failure	**Consequence of Failure**				
	Significant	**Major**	**Moderate**	**Minor**	**Insignificant**
Almost Certain	E	E	H	H	M
Likely	E	H	H	M	M
Possible	E	H	M	M	L
Unlikely	H	M	M	M	L
Rare	H	M	M	L	L

Risk levels can be reduced or mitigated through planned maintenance, rehabilitation and/or replacement. Risk can also be mitigated with better information as obtaining a bridge condition index every two years with the bridge inspection report. This improved information is expected to reduce the risk value currently identified in this study as the bridge condition was approximated with the age of the asset. An objective of this asset management plan is to reduce risk levels where they are deemed to be too high, as well as ensure assets are maintained in a way that keep risk levels at acceptable limits.

4.3 Priority Identification

Through discussions with Township staff and review of the asset risk of failure assessment, the following assets/categories were identified as being priorities of the Township:

Table 4.4: Priorities for the Next Five Years Capital Projects

Asset	GIS ID	Agency ID	Total Risk	Planned Action
Culvert - Main south of 15th Sideroad	949	Culvert 2028	High	Replacement
Culvert - 3rd Line	954	Culvert 2003	High	Replacement
Culvert - 30th Sideroad	945	Culvert 2013	High	Replacement
Culvert - 4th Line NE	967	Culvert 2020	Moderate	Replacement
Culvert - 15TH SIDEROAD	1117	Culvert 2027	Moderate	Replacement
15TH SIDEROAD From: CTY RD 124 To: MAIN ST	194		Moderate	Replacement
2ND LINE SW From: 250 SDRD To: PROTON W BACK LINE	82		High	Replacement
2ND LINE SW From: 260 SDRD To: 250 SDRD	81		High	Replacement
3RD LINE From: HWY 10 To: 5 SR	92		Moderate	Replacement
4TH LINE From: 5TH SR To: CTY RD 17	153		High	Replacement
4TH LINE From: HWY 89 To: HWY 10	1099		Moderate	Replacement
4TH LINE NE From: 240 SDRD To: RD 9 AND CTY RD 2	72		High	Replacement
4TH LINE NE From: 250 SDRD To: 240 SDRD	63		High	Replacement
5TH LINE From: 20 SR To: RD 21 5TH LINE JOG	161		High	Replacement
5TH LINE From: 6TH LINE NE To: 20th SIDEROAD	160		High	Replacement
5TH SIDEROAD From: 3RD LINE OS To: CTY RD 124	207		Moderate	Replacement

4.4 Long-term Forecast

For many years, lifecycle costing has been used in the field of maintenance engineering and to evaluate the advantages of using alternative materials in construction or production design. The method has gained wider acceptance and use recently in the management of capital assets. By definition, lifecycle costs are all the costs which are incurred during the lifecycle of a capital asset, from the time it is purchased or constructed, to the time it is taken out of service for disposal.

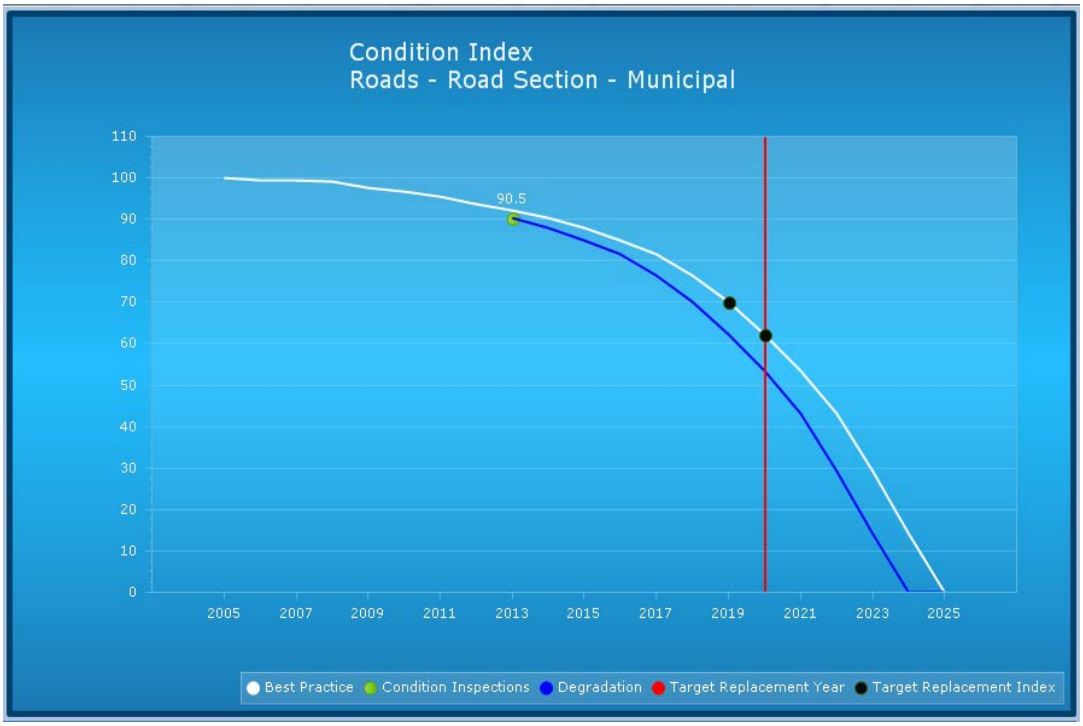
In defining the long-term forecast for the Township's asset management strategy, costs incurred through an asset's lifecycle were considered and documented.

Tax Supported Asset Replacement Analysis In forecasting the Township's asset replacement needs, comparisons were made between the following scenarios:

- Scenario 1: Replacement forecast based on "PSAB 3150 Asset Data"
    - The strategy was to maintain current maintenance levels. The outcome of this scenario was to retain the current asset service levels, and assets had to be replaced more quickly. The degradation of the assets was rapid and would lead to increased infrastructure deficits.
- Scenario 2: Replacement forecast based on "Desktop Condition Data";
    - The levels of service were maintained at current levels and desktop analysis using asset specific degradation curves were applied to identify a "Target Replacement" but the assets were still not extending the expected life.
- Scenario 3: Replacement forecast based on an "Informed Condition Analysis".
    - The strategy was to apply increased maintenance practices and use staff knowledge on how the assets reacted in their environment and under various maintenance programs. The resulting "Informed Condition Analysis" both extended the useful life of many assets beyond the target replacement and was the most cost effective strategy.

Target replacement, is the theoretical best practice replacement schedule for each asset as identified by its degradation curve. Each asset's degradation curve has been defined from literature and/or engineering experience with hundreds of assets in the sample.

Figure 4.1: Degradation Curve



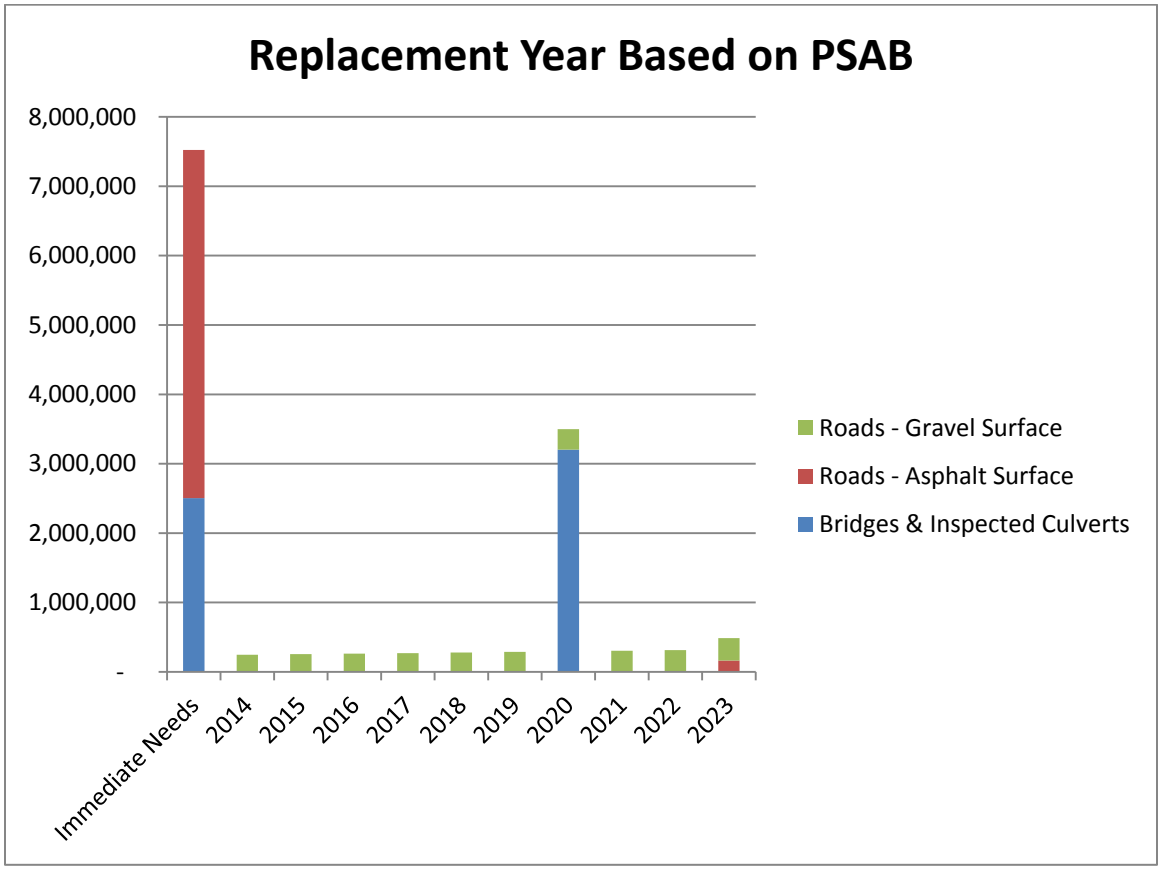
The replacement cost of the road bases under the gravel surface roads is approximately $14.1 million. All of these road bases are well past their expected useful lives. However, there will never be sufficient funds to be able to replace all of these roads. As the surface gravel of these roads continue to settle into the base, it is expected that the continual topping up of gravel every few years has supported the completely used up or limited remaining life of the road base. The continual maintenance gravel application and spot repairs are anticipated to allow these less travelled roads to provide an acceptable level of service. Where increased traffic flows or other unanticipated circumstances warrant substantial capital improvements to one (or more) of these road sections, it will be identified as a special future project. This type of project is beyond the 10 year forecast window of this study.

Scenario 1: Replacement forecast based on "PSAB 3150 Asset Data"

The replacement forecast based on the PSAB 3150 asset data provides a snapshot of assets at or nearing the end of their useful lives from a purely financial accounting perspective. Figure 4.2 below shows the forecast over a 10-year period, where approximately $7.5 million (replacement cost) in capital assets are showing as "immediate needs". For this scenario, these assets have reached the end of their accounting useful lives. This total does not include road base assets worth

approximately $23.9 million. In total, over $13.7 million in assets (inflated to appropriate year) are shown as replacement needs in the 10-year forecast, which would expand to over $37.6 million if road base assets were included.

Figure 4.2: Replacement Forecasted Based on "PSAB 3150 Asset Data"

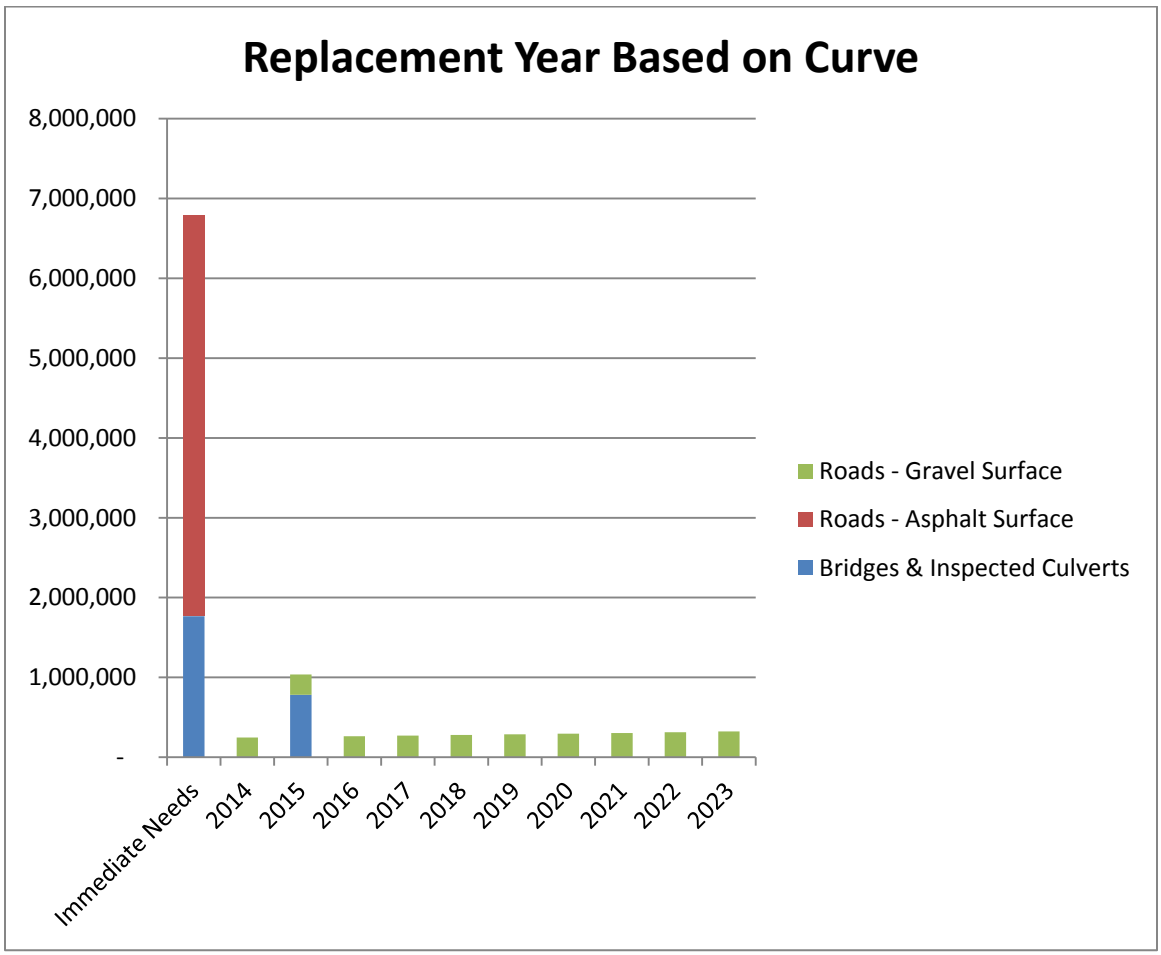


Scenario 2: Replacement forecast based on "Desktop Condition Data"

Figure 4.3 below shows the asset replacement forecast developed using the condition data discussed in Chapter 2. As mentioned earlier, each asset was assigned a condition assessment using a physical inspection, a degradation curve analysis or an asset age analysis.

Under this scenario, approximately $6.8 million in capital assets are showing the need to be immediately replaced (not including road base assets for gravel surfaces). In total, approximately $10.4 million in assets (inflated to appropriate year) are shown as replacement needs in the 10-year forecast.

Figure 4.3: Replacement Forecast Based on "Desktop Condition Data"

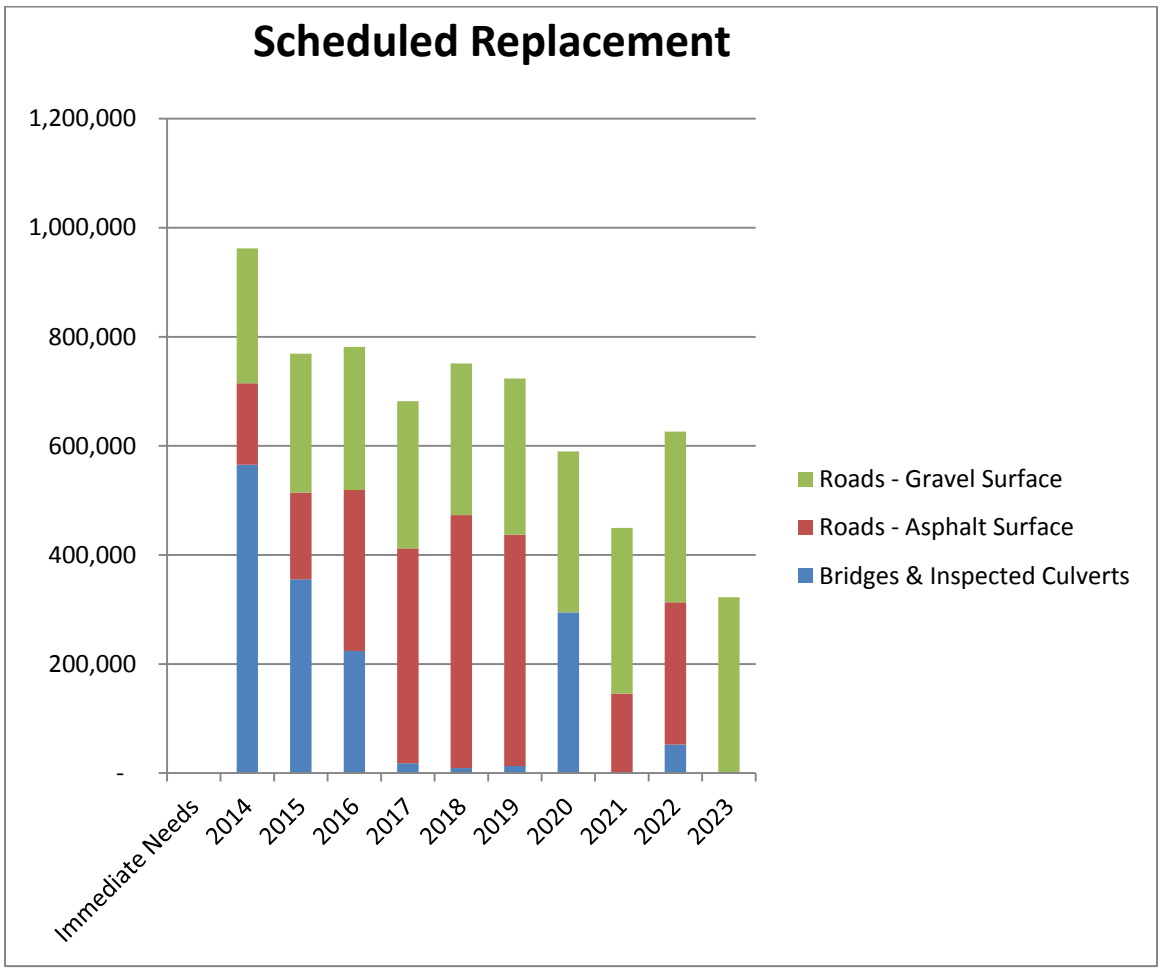


While the condition data scenario above provides a more realistic view of replacement needs over the forecast period, it is not financially feasible, given the Township's current annual capital investment amounts. Significant grant funding would be required to assist in catching up on the immediate capital need requirements.

Scenario 3: Replacement forecast based on an "Informed Condition Analysis"

A capital replacement scenario was developed that takes the condition information and adjusts replacement timing based on identified priorities and Township staff's knowledge and experience with the assets. Figure 4.4 shows the capital needs forecast under this scenario. All immediate needs have been distributed within the forecast period. In total, approximately $6.7 million in assets (inflated to appropriate year) are shown as replacement needs in the 10-year forecast. This is the recommended scenario for the Township.

Figure 4.4: Replacement Schedule Based on an Informed Condition Analysis



Tax Supported Maintenance, Non-Infrastructure Solutions, Renewal & Rehabilitation
For the recommended scenario to be feasible, the level of service adjustments discussed in Chapter 3 are needed in conjunction with the current level of service amounts in order to effectively maintain and rehabilitate the assets as required.

The financing strategy discussed in the next Chapter will incorporate the level of service adjustments into the recommended financing analysis. Please refer to Appendix E for details.

Please refer to Appendix E for a breakdown of each capital forecast scenario by year and by asset type.

4.5 Procurement Methods

Section 270(1) of the Municipal Act, S.O. 2001, provides that municipalities (and local boards) shall adopt and maintain policies with respect to its procurement of goods and services. The Township has a procurement policy in place.

5.0 Financing Strategy

5.1 Scope and Process

The financing strategy outlines the suggested financial approach to funding the recommended asset management strategy outlined in Chapter 4, while utilizing the Township's existing budget structure. This section of the asset management plan will include:

- Annual expenditure forecasts broken down by:
    - Maintenance/non-infrastructure solutions;
    - Renewal/rehabilitation activities;
    - Replacement/disposal activities;
    - Expansion activities.
- Actual expenditures in the above named categories for 2012 and 2013 budgeted amounts;
- A breakdown of annual funding/revenue by source;
- Identification of the funding shortfall, including how the impact will be managed; and
- All key assumptions will be documented within Appendix B.

The long-term financing strategy forecast (including both expenditure and revenue sources) was prepared, consistent with the Township's departmental budget structure, so that it can be used in conjunction with the annual budget process. Various financing options, including taxation, reserves, reserve funds, debt, user fees and grants were considered and discussed with Township staff during the process.

For the recommended asset management strategy scenario, a detailed ten (10) year plan was generated, consistent with the Township's current budget structure. The plan identifies specific maintenance & non-infrastructure solutions, renewal & rehabilitation, replacement & disposal, and expansion activities required for the 10-year forecast period as described in Chapter 4.

Table 5.1 outlines the historical capital results for 2012 and 2013 budgeted results for renewal/rehabilitation, replacement/disposal, and expansion. The capital funding includes the use: of grants, development charges for growth (expansion) related costs, reserve/reserve funds as well as contributions from the operating budget.

Table 5.1: Tax Supported Historical Results

Description	Actual 2012	Budget 2013
Prior Capital Expenses		
Culvert 2005	12,785	127,000
Culvert 250 & 4th Line	5,899	
4th line OS- Patching (Hwy 10-Cty 17)	100,000	
Paving		360,000
Gravel Resurfacing	227,588	240,000
Subtotal	346,272	727,000
Capital Financing		
Provincial MIII Grant		
Grants and Subsidies - Gas Tax	100,000	200,000
Capital Paid from Property Taxes	246,272	347,000
Reserve Fund - Capital Reserve - Roads		
Reserve Fund - Development Charges (All)		100,000
Reserve Fund - Roads		
Debentures		
Reserve Fund - Bridges		80,000
Reserves and Reserve Funds		
Growth Related Debt		
Non-Growth Related Debt		
Other - Developer Contribution		
Other - Transfer from Operating		
Total Capital financing	346,272	727,000
Total Capital Expenses less Capital Financing		

5.2 Financing Strategy

Tax Supported Financing Strategy

Table 5.2 shows the tax supported expenditure forecast summary. While this summary only shows high level cost classifications of maintenance, renewal/rehabilitation, replacement and expansion categories, further detail can be obtained from Appendix E and the asset management model provided to Township staff for future use.

Items in Table 5.2 labelled as “LOS Adjustment” refer to the level of service analysis discussed in Chapter 3. Contributed assets refer to assets that are expected to be assumed from ongoing development within the Township.

Table 5.3 summarizes the recommended strategy to finance only the Township of Melancthon Asset Management Plan is not intended to be a comprehensive operating and capital funding requirement for the Township.

Table 5.2: Change in Level of Service

Departments	Forecast									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Transportation Services										
Expenditures										
Road Maintenance Hot Mix Patching	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000
More Bridge Washing										
Total Expenditures	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000
Grand Total Expenditures (Inflated)	**183,600**	**187,272**	**191,017**	**194,838**	**198,735**	**202,709**	**206,763**	**210,899**	**215,117**	**219,419**

Table 5.3: Tax Supported Capital Forecast

Description	Actual	Budget	Forecast									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Prior Capital Expenses												
Culvert 2005	12,785	127,000										
Culvert 250 & 4th Line	5,899											
4th line OS- Patching (Hwy 10-Cty 17)	100,000											
Paving		360,000										
Gravel Resurfacing	227,588	240,000										
Subtotal	346,272	727,000	-	-	-	-	-	-	-	-	-	-
Capital Replacement Forecast												
Gray Bridge - 7th Line SW 0007			-	-	-	6,753	-	-	-	-	-	-
RBRIDGE - 7th Line SW 0008			2,060	-	-	-	-	-	-	-	-	-
Hutchinson Bridge - 280 Sideroad 0010			-	-	-	-	3,478	-	-	-	-	-
Riverview East Bridge - 260 Sideroad 0013			-	-	-	11,255	-	-	43,046	-	-	-
Oldfield Bridge - 2nd Line SW 0015			-	-	49,173	-	-	-	-	-	-	-
Jack Bridge - 250 Sideroad 0016			-	-	-	-	5,796	-	-	-	-	-
Culvert - Main south of 15th Sideroad 2028			432,800	-	-	-	-	-	-	-	-	-
Culvert - 240 Sideroad & 4th Line NE 2030			-	-	-	-	-	5,970	-	-	-	-
Culvert - 3rd Line 2003			-	185,658	-	-	-	-	-	-	-	-
Culvert - 15th Sideroad 2008			-	-	-	-	-	-	251,753	-	-	-
Culvert - 30th Sideroad 2013			82,400	-	-	-	-	-	-	-	-	-
Culvert - 4th Line 2014			2,060	-	-	-	-	-	-	-	-	-
Culvert - 4th Line NE 2020			-	-	174,836	-	-	-	-	-	-	-
Culvert - 2nd Line NE 2021			-	-	-	-	-	7,164	-	-	-	-
Culvert - 4th Line NE 2023			15,450	-	-	-	-	-	-	-	-	-
Culvert - 2nd Line East 2024			-	-	-	-	-	-	-	-	52,191	-
Culvert - 15TH SIDEROAD 2027			-	169,744	-	-	-	-	-	-	-	-
15TH SIDEROAD From: CTY RD 124 To: MAIN ST			46,968	-	-	-	-	-	-	-	-	-
2ND LINE SW From: 250 SDRD To: PROTON W BACK LINE			-	-	-	196,964	-	-	-	-	-	-
2ND LINE SW From: 260 SDRD To: 250 SDRD			-	-	163,909	-	-	-	-	-	-	-
3RD LINE From: HWY 10 To: 5 SR			-	132,613	-	-	-	-	-	-	-	-
4TH LINE From: 5TH SR To: CTY RD 17			-	26,523	-	-	-	-	-	-	-	-
4TH LINE From: HWY 89 To: HWY 10			25,750	-	-	-	-	-	-	-	-	-
4TH LINE NE From: 240 SDRD To: RD 9 AND CTY RD 2			-	-	-	-	231,855	-	-	-	-	-
4TH LINE NE From: 250 SDRD To: 240 SDRd			-	-	-	-	231,855	-	-	-	-	-
5TH LINE From: 15TH SIDEROAD To: 270 SIDEROAD			-	-	-	-	-	167,167	-	-	-	-
5TH LINE From: 20 SR To: RD 21 5TH LINE JOG			-	-	-	135,061	-	-	-	-	-	-
5TH LINE From: 280 SDRD To: 4TH LINE NE			-	-	-	-	-	23,881	-	-	-	-
5TH LINE From: 4TH LINE NE To: 15 SIDEROAD			-	-	-	-	-	53,732	-	-	-	-
5TH LINE From: 6TH LINE NE To: 20th SIDEROAD			-	-	-	61,903	-	-	-	-	-	-
5TH LINE From: CTY RD 17 5TH LINE JOG To: 280 SR			-	-	-	-	-	179,108	-	-	-	-
5TH SIDEROAD From: 3RD LINE OS To: CTY RD 124			-	-	131,127	-	-	-	-	-	-	-
HIGH From: MAIN To: 70 M E OF MAIN			-	-	-	-	-	-	-	25,335	-	-
LLOYD From: ADDESON To: MAIN			-	-	-	-	-	-	-	25,335	-	-
MAIN From: 15 SR To: CTY RD 124			76,632	-	-	-	-	-	-	-	-	-
MILL From: MAIN To: END OF ROAD			-	-	-	-	-	-	-	95,008	-	-
RIVER From: Mulmur-Melancthon Townline To: WILLIAM			-	-	-	-	-	-	-	-	260,955	-
Gravel Resurfacing			247,200	254,616	262,254	270,122	278,226	286,573	295,170	304,025	313,146	322,540
Enhanced Level of Service			183,600	187,272	191,017	194,838	198,735	202,709	206,763	210,899	215,117	219,419
Subtotal	-	-	1,114,920	956,425	972,317	876,896	949,944	926,305	796,732	660,602	841,408	541,959
Capital Expansion Forecast												
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-
Total	346,272	727,000	1,114,920	956,425	972,317	876,896	949,944	926,305	796,732	660,602	841,408	541,959
Capital Financing												
Provincial MIII Grant			382,800									
Grants and Subsidies - Gas Tax		200,000	167,699	88,804	88,804	88,804	88,804	88,804	88,804	88,804	88,804	88,804
Capital Paid from Property Taxes	346,272	347,000	346,000	346,000	346,000	346,000	346,000	346,000	346,000	346,000	346,000	346,000
Reserve Fund - Capital Reserve - Roads												
Reserve Fund - Development Charges (All)		100,000										
Reserve Fund - Roads												
Debentures												
Reserve Fund - Bridges		80,000										
Reserves and Reserve Funds												
Growth Related Debt												
Non-Growth Related Debt												
Other - Developer Contribution												
Other - Transfer from Operating												
Annual Growth 1%			16,336	16,663	16,996	17,336	17,683	18,036	18,397	18,765	19,140	19,523
Total Capital financing	346,272	727,000	912,835	451,467	451,800	452,140	452,487	452,840	453,201	453,569	453,944	454,327
Total Capital Expenses less Capital Financing	(0)	-	202,085	504,958	520,517	424,756	497,457	473,464	(453,201)	207,033	387,463	87,632

These lifecycle costs can be recovered through several methods:

- Taxation funding is suggested for all maintenance costs as well as enhanced level of service related costs;
- As the Township has recently applied for provincial grant funding for a high priority project (i.e. Bridge # 2027), grant funding has been removed for this bridge as recent news identified that the Province will not be partnering in this project;
- The portion of newly acquired or constructed assets that are “growth (DC) related” are shown as financed by development charges;
- Federal Gas Tax has been shown as a stable and long-term funding source for eligible capital projects;
- Developer Contributions related to the assets that are anticipated to be contributed (assumed) over the forecast period (i.e. the developers transfer ownership of these assets to the Township at no cost, therefore it is considered contribution related revenue);
- The Township will be dependent upon maintaining healthy capital reserves/reserve funds in order to provide the remainder of the required lifecycle funding over the forecast period. This will require the Township to proactively increase amounts being transferred to these capital reserves during the annual budget process.

While the annual funding requirements may fluctuate, it is important for the Township to implement a consistent, yet increasing annual investment in capital so that the excess annual funds can accrue in capital reserve funds specifically for roads and bridges. In order to fund the recommended non-growth related road and bridge asset requirements over the 10 year forecast period using the Township’s own available funding sources (i.e. using taxation, gas tax funding and debentures), an increase in the Township’s taxation will be required. However, if other funding sources become available (i.e. grant funding) or if maintenance and rehabilitation practices allow for the deferral of capital works, then the impact on Township taxation would decrease.

Please refer to further details provided in Appendix E.

5.3 Funding Shortfall

Assuming the Township maintains adequate capital reserve funds, the recommended asset management strategy discussed in Chapter 4 will be fully funded. It is believed this can be accomplished through each annual budget process. However, the recommended asset management strategy (i.e. scenario 3) does defer significant capital replacements, in comparison to the condition based scenario (i.e. scenario 2). In the event that certain deferred replacements result in increased risks and/or projected asset failures, further funding may be required to address the costs associated with accelerating replacement

timelines. In addition, in the event that the Township is not successful in the recent grant application, additional funding would be required in the short-term.

Under the recommend financing strategy, the Township would be making proactive attempts to mitigate this funding gap over the forecast period. To further mitigate the potential infrastructure funding deficit, the Township could consider:

- Issuing debt for significant and/or unforeseen capital projects (this would have the impact of spreading out the capital repayment over a defined term, constrained by debt capacity limits);
- Actively seeking out and applying for grants;
- Taxation rate increases (where needed); and
- Implementing operating efficiencies (i.e. reduced operating costs to allow more capital investment).

6.0 Recommendations

The following recommendations have been provided for staff (and Council's consideration):

- That this Road and Bridge Asset Management Plan be received and approved by Council;
- That consideration of this Road and Bridge Asset Management Plan be given as part of the annual budgeting process to ensure sufficient funds are available to fund the asset management plan;
- That the Township continues using a "capital reserve fund" for roads and bridges capital purposes, ensuring capital investments accrue interest annually, and that contributions to this roads/bridges capital reserve fund be considered during the budget process.

The current level of funding for asset replacement and renewal at the Township will not sufficiently fund required capital needs or close the infrastructure funding gap. As such, it is recommended that the following road/bridge impacts be considered during the annual budget process:

- Initiation of a road patching and/or micro surfacing maintenance program $180,000 in 2014 (every year);
- A bridge washing program in 2014 (and every year thereafter) at no cost to the Township;
- Annual increase to the Township's taxation levy each year (after inflationary adjustments) to be dedicated to the roads and bridges capital program, starting in 2014 to cover the Capital short fall. This amount is to be allocated to a roads and bridges capital reserve fund, and be used to fund the related capital program.

Substantial investment in roads and bridge capital needs will be required over the 10 year forecast period. Through the recommendations provided above, proactive steps would be taken to increase capital investment as well as reduce the annual infrastructure funding gap for these assets. Enhanced maintenance plans will assist in maintaining adequate asset conditions, mitigate asset risk as well as potentially defer capital needs within the forecast period. In addition, the Township should pursue available capital grants wherever possible to further reduce the infrastructure funding gap.

Through the creation of this plan, Township staff have been provided with a model in which amendments and revisions can be made as needed. It is anticipated that this plan adopted by Council will be monitored and updated frequently by Township staff as part of the budget process, with refinements and specific recommendations being provided with respect to the priority of each individual project.

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Appendix A
Detailed Asset Analysis

APPENDIX A: DETAILED ASSET ANALYSIS

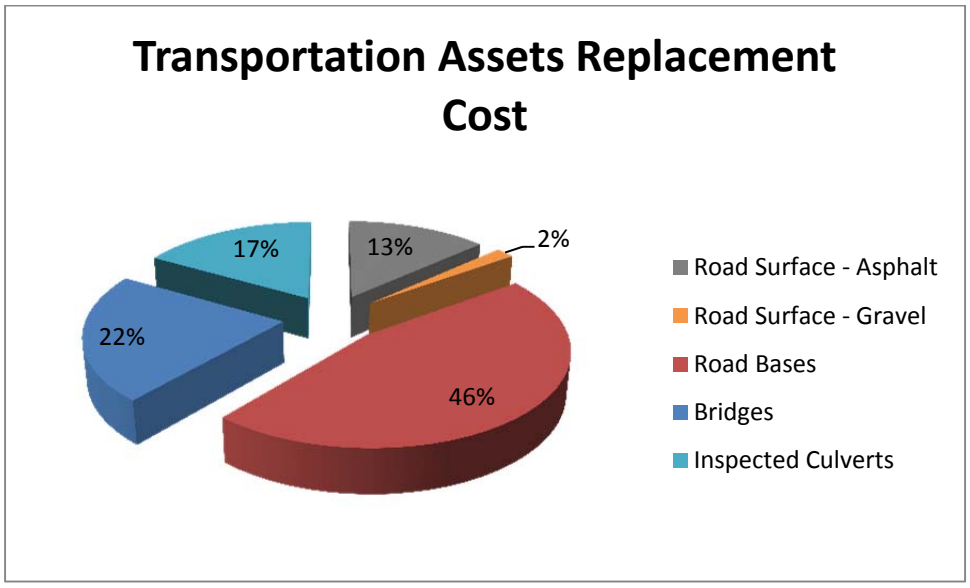
A.1 Transportation Assets

The Township's Transportation Assets make up one of the key services that reflect the economic and social development of the community. The Transportation assets in this study are made up of the following asset types:

- Road Surfaces;
- Road Bases;
- Bridges & Culverts (Greater than 3 meters).

Together at current replacement cost these assets account for $51.9 million dollars of the Township's assets. Further discussion of these assets follows.

Asset Type	Replacement Cost	Total %
Road Surface - Asphalt	6,928,123	**13%**
Road Surface - Gravel	933,350	**2%**
Road Surface Total	**7,861,473**	
Road Bases	23,968,401	**46%**
Road Total	**31,829,874**	
Bridges	11,403,418	**22%**
Inspected Culverts	8,680,097	**17%**
Bridge & Culvert Total	**20,083,515**	
Total	**51,913,389**	



A.1.1 Roads

The Township has a vast network of maintained roads totaling over 314.3 km of roads. To establish more appropriate asset management processes the road assets were split into two asset types as Road Surfaces and Road Bases. Road asset management best practices identify that a paved road will replace the asphalt surface twice before requiring the reconstruction of the road base. Gravel roads are assumed to require a top up of gravel every 3 years.

The Township of Melancthon road surfaces are further grouped into the following categories:

Road Surface Condition & Length				
Asset Type	**Useful Life**	**Average Condition**	**Length (km)**	**Percent Total**
Road Surface Asphalt	25	68.9	**84.6**	**27%**
Road Surface Gravel	3	Not Available	**229.1**	**73%**
Road Length			**313.7**	

The Township has undertaken Road Needs Studies in the past every 5 – 10 years. This practice has provided road surface condition assessments for all road segments of the township. Condition of the hard asphalt road surfaces was reviewed for this project and condition indexes were calculated, based on the Ontario Good Roads approved MTO methodology. This engineering assessment of the hardtop roads inspected for road distress indices and road ride comfort rating, producing a calculated condition index for each road segment (generally intersection to intersection).

The overall average condition rating of the Township's paved road surfaces is 68.9, which is identified as Good. Most of the paved surfaces in the Township have not yet been replaced but are coming due for hot mix patch maintenance or micro surfacing to ensure these roads achieve the greatest value to rate payers. The average remaining life of the hardtop surfaces is 7 years which is less than one third of the asset useful life. This information identifies that the Township's road surfaces have lived their expected lifecycles. It also means that the useful life of asphalt road surfaces may be overestimated and can be reduced to 20.

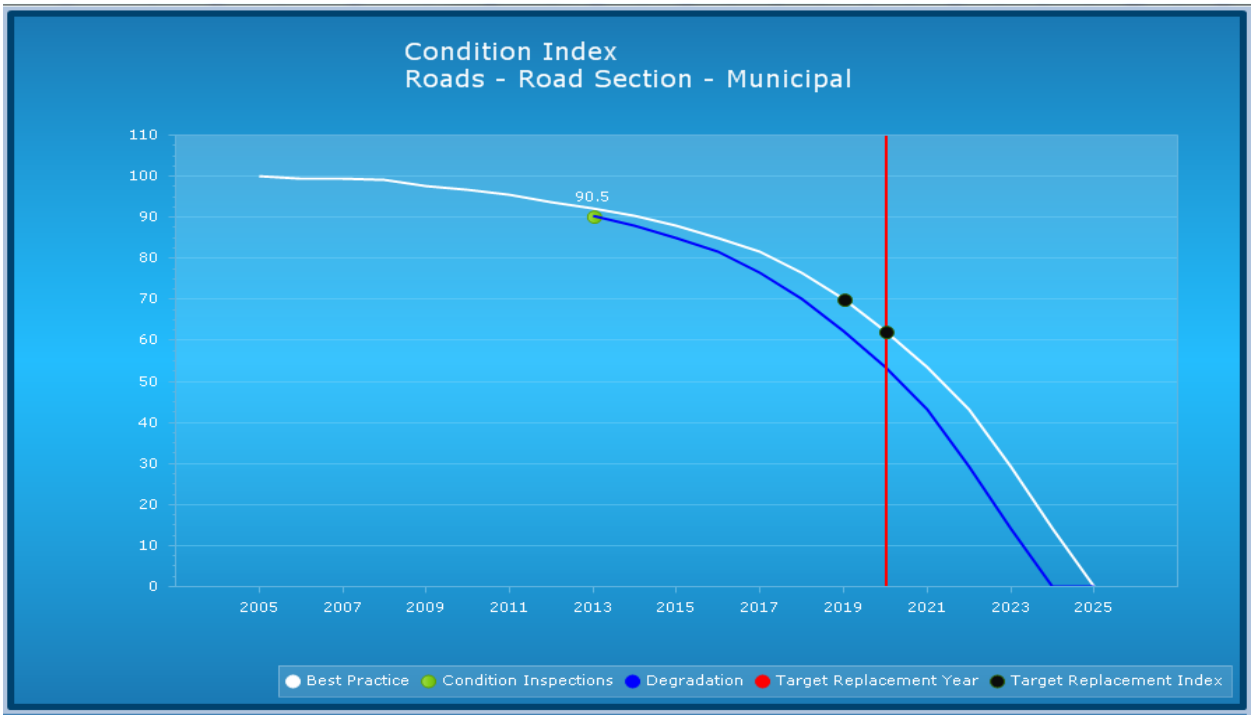
Gravel roads did not have an updated condition assessment as the Township's standard maintenance practices identify and respond to condition deficiencies.

Road bases are very difficult to assess condition without intrusive drilling of bore holes. However, the surface inspections can reveal some potential road base issues which can be addressed via maintenance spot improvement s or small capital road reconstruction betterments.

The Township's greatest infrastructure challenge is with its road bases. Based on the values in the asset database the total replacement of this asset type is over $23 million. We believe that these costs are actually under-estimated and should be reviewed in the future. Almost all the gravel road bases, which account for 58% of all road replacement costs, have exceeded their lifecycle expectancy and report a Net Book Value of $0 and therefore are not expected to be in good condition. This may also lead one to believe that these road bases must be a high priority replacement need. However, the Township maintains these road bases via their gravel resurfacing program and other maintenance practices.

The paved road bases, which are 27% of the road bases based on length, had an estimated condition extracted from the asset management software. The asset management software includes asset degradation curves which help predict what the assets condition may be if the asset was constructed and maintained using existing best practices. The degradation curve figure shows a road asphalt surface with a useful life of 20 years.

The condition assessment of the Township paved roads indicate that the Township is achieving 20-30 years of life depending on traffic volume and weights of trucks using these roads (e.g. high weight/traffic 20, low weight/traffic 30). For example, most sub-division paved roads are expected to reach 30 year life cycle if additional hot mix patch maintenance programs are put in place.



A.1.2 Bridges and Culverts

The Township undertakes bi-annual bridge and large culvert (greater than 3 meter) inspections by qualified engineers. These condition assessments are to be completed using the up to date Ministry of Transportation documented inspection methodology (OSIM), which can then calculate a Bridge Condition Index (BCI) for each structure.

The engineering reports establish the appropriate maintenance needs and timing of capital improvements and replacements of bridge/culvert structures. The average condition of inspected bridges/culverts owned by the Township is Average which is not surprising since the average age is over half of the useful life of these assets. The Township needs to work harder to keep up with the replacement of these structures.

Even with a relatively aggressive bridge replacement program as outlined in this study, this asset type still remains as the most critical with respect to capital replacement program, due to their age and extremely high replacement costs. The Township has been very fortunate to be able to partner with the Province on capital funding programs. It is very important that these capital assistance programs continue to help the Township reach funding sustainability.

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Appendix B

Asset Management Plan Assumptions

APPENDIX B: ASSET MANAGEMENT PLAN ASSUMPTIONS

The following assumptions were made during the creation of the Township's asset management plan.

1. STATE OF LOCAL INFRASTRUCTURE

    a) Indexing: When inflating an asset value to a 2013 replacement value, the Non-Residential Building Construction Price Index (NRBCPI) was used for Road, Bridge/Culvert, related assets.

2. ASSET MANAGEMENT STRATEGY

    a) Capital inflation rate will be assumed to be 2% annually.
    b) Operating budget inflation rate will be assumed to be 2% annually.
    c) Asset condition was estimated based on age where asset inspection assessments were not performed.
    d) Road Bases were not considered in the Capital Replacement plan. However, the cost of replacing a road base if required was included in the road surface reconstruction costs.

3. FINANCING STRATEGY

    a) Development charges rates are assumed to increase at 2% annually.
    b) Gas tax revenue has been identified as a funding source for the purposes of the analysis (i.e. for asset replacement purposes), and has been assumed to continue throughout the forecast period.
    c) Interest rate earned on a Capital Replacement Reserve Fund will be 3% annually.
    d) Contributions to Lifecycle Cost Replacement Reserve Fund will increase annually based on the capital inflation rate of 3% annually.
    e) Assessment growth is assumed to be 1% annually.
    f) In the case where debt financing is needed, the model assumed debt terms of 20 years at 5% annual interest.

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Appendix C
Data Verification and Condition Assessment Policy

APPENDIX C

Township of Melancthon
Data Verification and Condition Assessment Policy

Data Verification

1. The main source of asset data updating and editing will be though the Township's PSAB 3150 compliance procedures.

2. Asset additions, disposals, betterments, and write-offs will be recorded based on the Township's PSAB 3150 Compliance Policies.

3. Verification of the correct treatment of asset revisions will be completed through frequent annual reviews by the Township's Treasurer as well as an annual review by the Township's external auditor.

4. During years in which condition assessments are not being performed, asset replacement cost will be determined based on a combination of inflating previous current values or through the use of the current year's historical invoice data. Where indices are being used, the Non-Residential Building Construction Price Index (NRBCPI) shall be used for construction related assets (i.e. roads related, water, and facilities) and the Consumer Price Index (CPI) shall be used for all other assets (i.e. machinery & equipment).

Condition Assessment

1. Condition assessments shall be performed as outlined in Table C-1 below. Condition assessments shall be performed by qualified individuals (or companies) and shall include a review of the following:
    - Current asset condition (consistent with the rating format use within this report, unless Township staff stipulate a new format);
        i. Identify any unusual wear from asset use that may hinder asset performance and eventually reduce useful life.
        ii. Assess asset performance and identity (if any) capital improvements that can be applied to extend the asset's useful life and/or bring the asset back to proper service levels.
    - Current asset replacement cost. This is to be based on replacing the asset under current legislation/requirements using the Township's specifications; and
    - Remaining service life, assuming current maintenance and usage levels.

Table C-1

Condition Assessment Time Table

Asset Type	Frequency of Condition Assessment	Comments
Road Surface	Every 5 Years	Engineer Inspections along with Minimum Maintenance Standards
Bridges & Culverts (greater than 3m)	Every 2 Years	As per MTO OSIM inspections

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Appendix D

Level of Service Impact

APPENDIX D: LEVEL OF SERVICE IMPACT

Departments	Forecast									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Transportation Services										
Expenditures										
Road Maintenance Hot Mix Patching	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000
More Bridge Washing										
Total Expenditures	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000
Grand Total Expenditures (Inflated)	**183,600**	**187,272**	**191,017**	**194,838**	**198,735**	**202,709**	**206,763**	**210,899**	**215,117**	**219,419**

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Appendix E

Scenario – Capital Forecasts

Scenario 1 - PSAB

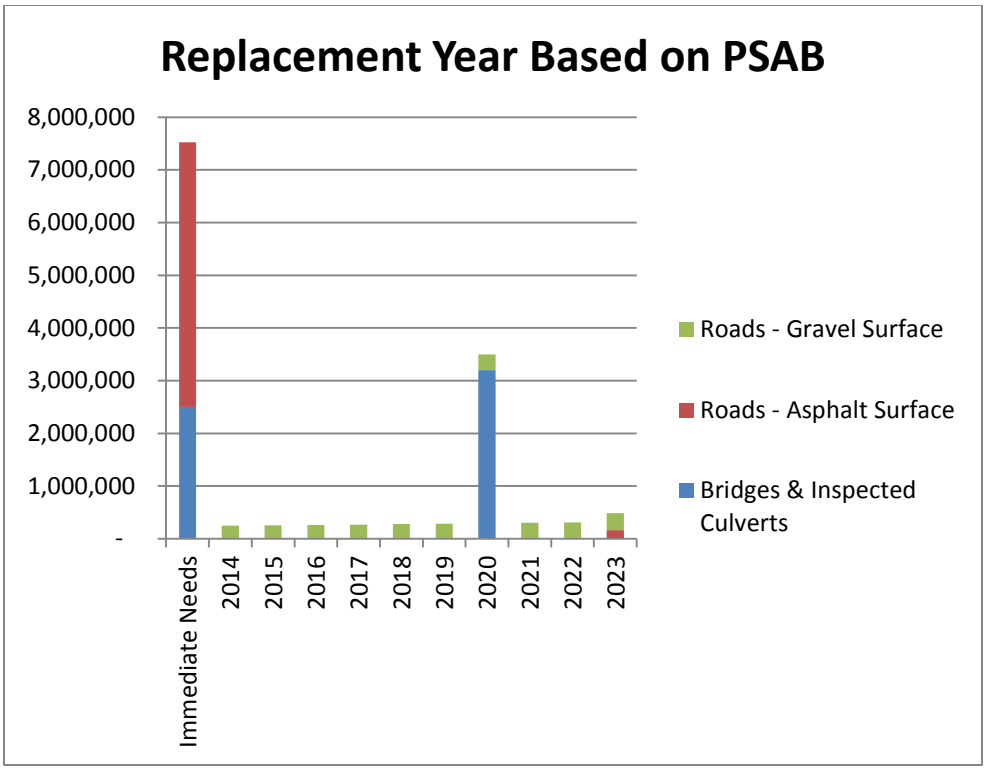
Asset Type	Immediate Needs	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Total Schduled Capital - Inflated	**7,524,014**	**247,200**	**254,616**	**262,254**	**270,122**	**278,226**	**286,573**	**3,498,804**	**304,025**	**313,146**	**485,538**	**13,724,517**
Road Surface	5,020,686	-	-	-	-	-	-	-	-	-	162,998	5,183,684
Gravel		247,200	254,616	262,254	270,122	278,226	286,573	295,170	304,025	313,146	322,540	2,833,871
Bridge	2,503,327	-	-	-	-	-	-	3,203,635	-	-	-	5,706,962

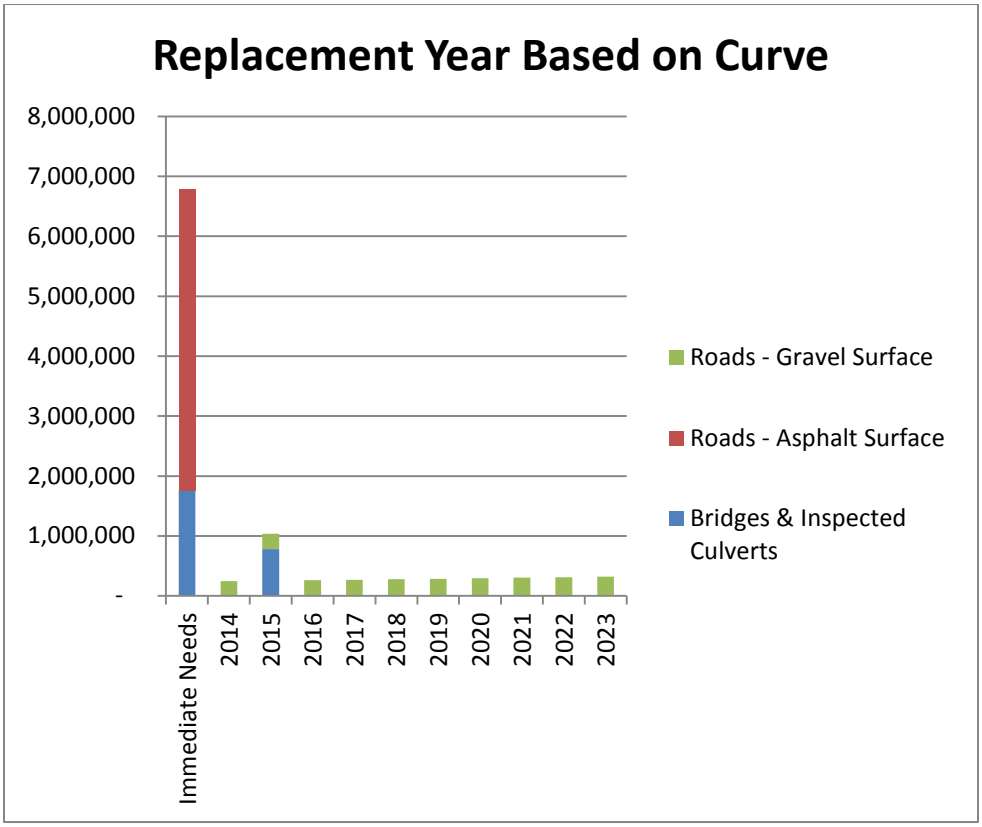
Scenario 2 - Curves & Target Replacement

Asset Type	Immediate Needs	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Total Schduled Capital - Inflated	**6,786,329**	**247,200**	**1,037,225**	**262,254**	**270,122**	**278,226**	**286,573**	**295,170**	**304,025**	**313,146**	**322,540**	**10,402,810**
Road Surface	5,020,686	0	0	0	0	0	0	0	0	0	0	5,020,686
Gravel		247,200	254,616	262,254	270,122	278,226	286,573	295,170	304,025	313,146	322,540	2,833,871
Bridge	1,765,643	-	782,609	-	-	-	-	-	-	-	-	2,548,252

Scenario 3 - Consultant Studies & Staff Consultation

Asset Type	Immediate Needs	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Total Schduled Capital - Inflated	**0**	**962,020**	**769,153**	**781,300**	**682,058**	**751,210**	**723,596**	**589,969**	**449,703**	**626,291**	**322,540**	**6,657,839**
Road Surface	0	149,350	159,135	295,036	393,928	463,710	423,889	0	145,679	260,955	0	2,291,681
Gravel		247,200	254,616	262,254	270,122	278,226	286,573	295,170	304,025	313,146	322,540	2,833,871
Bridge	-	565,470	355,402	224,009	18,008	9,274	13,135	294,799	-	52,191	-	1,532,287


Replacement Year Based on PSAB
8,000,000
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
-
Immediate Needs
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Roads - Gravel Surface
Roads - Asphalt Surface
Bridges & Inspected Culverts


Replacement Year Based on Curve
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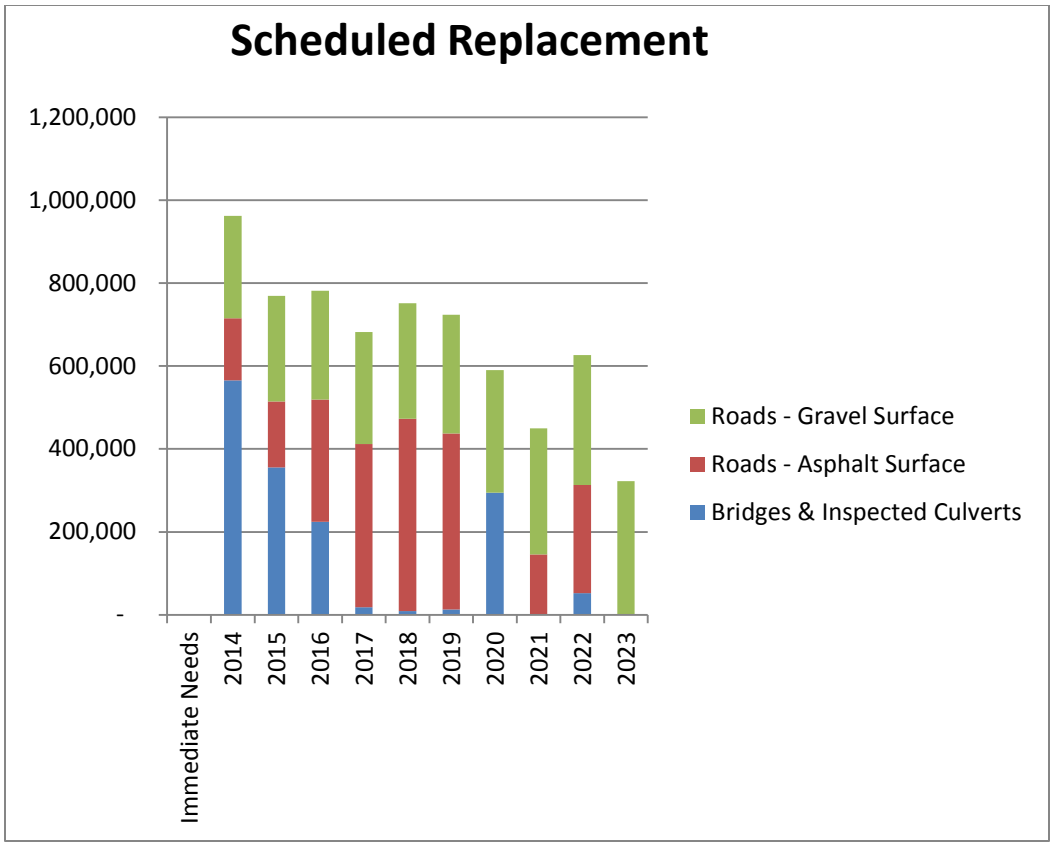
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
-
Immediate Needs
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Roads - Gravel Surface
Roads - Asphalt Surface
Bridges & Inspected Culverts


Scheduled Replacement
1,200,000
1,000,000
800,000
600,000
400,000
200,000
-
Immediate Needs
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Roads - Gravel Surface
Roads - Asphalt Surface
Bridges & Inspected Culverts

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Appendix F
Road and Bridge Asset Management Strategy and Financing Strategy

Description	Actual	Budget	Forecast									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Prior Capital Expenses												
Culvert 2005	12,785	127,000										
Culvert 250 & 4th Line	5,899											
4th line OS- Patching (Hwy 10-Cty 17)	100,000											
Paving		360,000										
Gravel Resurfacing	227,588	240,000										
Subtotal	346,272	727,000	-	-	-	-	-	-	-	-	-	-
Capital Replacement Forecast												
Gray Bridge - 7th Line SW 0007			-	-	-	6,753	-	-	-	-	-	-
RBRIDGE - 7th Line SW 0008			2,060	-	-	-	-	-	-	-	-	-
Hutchinson Bridge - 280 Sideroad 0010			-	-	-	-	3,478	-	-	-	-	-
Riverview East Bridge - 260 Sideroad 0013			-	-	-	11,255	-	-	43,046	-	-	-
Oldfield Bridge - 2nd Line SW 0015			-	-	49,173	-	-	-	-	-	-	-
Jack Bridge - 250 Sideroad 0016			-	-	-	-	5,796	-	-	-	-	-
Culvert - Main south of 15th Sideroad 2028			432,800	-	-	-	-	-	-	-	-	-
Culvert - 240 Sideroad & 4th Line NE 2030			-	-	-	-	-	5,970	-	-	-	-
Culvert - 3rd Line 2003			-	185,658	-	-	-	-	-	-	-	-
Culvert - 15th Sideroad 2008			-	-	-	-	-	-	251,753	-	-	-
Culvert - 30th Sideroad 2013			82,400	-	-	-	-	-	-	-	-	-
Culvert - 4th Line 2014			2,060	-	-	-	-	-	-	-	-	-
Culvert - 4th Line NE 2020			-	-	174,836	-	-	-	-	-	-	-
Culvert - 2nd Line NE 2021			-	-	-	-	-	7,164	-	-	-	-
Culvert - 4th Line NE 2023			15,450	-	-	-	-	-	-	-	-	-
Culvert - 2nd Line East 2024			-	-	-	-	-	-	-	-	52,191	-
Culvert - 15TH SIDEROAD 2027			-	169,744	-	-	-	-	-	-	-	-
15TH SIDEROAD From: CTY RD 124 To: MAIN ST			46,968	-	-	-	-	-	-	-	-	-
2ND LINE SW From: 250 SDRD To: PROTON W BACK LINE			-	-	-	196,964	-	-	-	-	-	-
2ND LINE SW From: 260 SDRD To: 250 SDRD			-	-	163,909	-	-	-	-	-	-	-
3RD LINE From: HWY 10 To: 5 SR			-	132,613	-	-	-	-	-	-	-	-
4TH LINE From: 5TH SR To: CTY RD 17			-	26,523	-	-	-	-	-	-	-	-
4TH LINE From: HWY 89 To: HWY 10			25,750	-	-	-	-	-	-	-	-	-
4TH LINE NE From: 240 SDRD To: RD 9 AND CTY RD 2			-	-	-	-	231,855	-	-	-	-	-
4TH LINE NE From: 250 SDRD To: 240 SDRd			-	-	-	-	231,855	-	-	-	-	-
5TH LINE From: 15TH SIDEROAD To: 270 SIDEROAD			-	-	-	-	-	167,167	-	-	-	-
5TH LINE From: 20 SR To: RD 21 5TH LINE JOG			-	-	-	135,061	-	-	-	-	-	-
5TH LINE From: 280 SDRD To: 4TH LINE NE			-	-	-	-	-	23,881	-	-	-	-
5TH LINE From: 4TH LINE NE To: 15 SIDEROAD			-	-	-	-	-	53,732	-	-	-	-
5TH LINE From: 6TH LINE NE To: 20th SIDEROAD			-	-	-	61,903	-	-	-	-	-	-
5TH LINE From: CTY RD 17 5TH LINE JOG To: 280 SR			-	-	-	-	-	179,108	-	-	-	-
5TH SIDEROAD From: 3RD LINE OS To: CTY RD 124			-	-	131,127	-	-	-	-	-	-	-
HIGH From: MAIN To: 70 M E OF MAIN			-	-	-	-	-	-	-	25,335	-	-
LLOYD From: ADDESON To: MAIN			-	-	-	-	-	-	-	25,335	-	-
MAIN From: 15 SR To: CTY RD 124			76,632	-	-	-	-	-	-	-	-	-
MILL From: MAIN To: END OF ROAD			-	-	-	-	-	-	-	95,008	-	-
RIVER From: Mulmur-Melancthon Townline To: WILLIAM			-	-	-	-	-	-	-	-	260,955	-
Gravel Resurfacing			247,200	254,616	262,254	270,122	278,226	286,573	295,170	304,025	313,146	322,540
Enhanced Level of Service			183,600	187,272	191,017	194,838	198,735	202,709	206,763	210,899	215,117	219,419
Subtotal	-	-	1,114,920	956,425	972,317	876,896	949,944	926,305	796,732	660,602	841,408	541,959
Capital Expansion Forecast												
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-
Total	346,272	727,000	1,114,920	956,425	972,317	876,896	949,944	926,305	796,732	660,602	841,408	541,959
Capital Financing												
Provincial MIII Grant			382,800									
Grants and Subsidies - Gas Tax		200,000	167,699	88,804	88,804	88,804	88,804	88,804	88,804	88,804	88,804	88,804
Capital Paid from Property Taxes	346,272	347,000	346,000	346,000	346,000	346,000	346,000	346,000	346,000	346,000	346,000	346,000
Reserve Fund - Capital Reserve - Roads												
Reserve Fund - Development Charges (All)		100,000										
Reserve Fund - Roads												
Debentures												
Reserve Fund - Bridges		80,000										
Reserves and Reserve Funds												
Growth Related Debt												
Non-Growth Related Debt												
Other - Developer Contribution												
Other - Transfer from Operating												
Annual Growth 1%			16,336	16,663	16,996	17,336	17,683	18,036	18,397	18,765	19,140	19,523
Total Capital financing	346,272	727,000	912,835	451,467	451,800	452,140	452,487	452,840	453,201	453,569	453,944	454,327
Total Capital Expenses less Capital Financing	(0)	-	202,085	504,958	520,517	424,756	497,457	473,464	(453,201)	207,033	387,463	87,632

Asset Type: **Bridge**

GIS ID	Asset Name	Asset Type	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2012 Accumulated Amortization	2012 Net Book Value	Condition Used for Analysis	Replacement Cost (2013$) Inflated RC	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Revised Replacement Year	Revised Replacement Year	Rehabiliation Year	Rehabiliation Cost	Planned Replacement Year
							$ 5,220,522	$ 2,020,050	$ 3,007,216		$ 20,083,515									
942	RBRIDGE - 4th Line SW	Bridge 0001	1960	75	22	53	15,662	10,859	4,803	29.33	$ 194,443.06	Poor	Likely	Major	H	2025	2030			2040
941	Corbetton Bridge - Main	Bridge 0002	1960	75	22	53	28,505	19,763	8,741	29.33	$ 353,894.99	Poor	Likely	Major	H	2025	2030			2040
940	Lyons Bridge - 4th Line	Bridge 0003	1993	75	55	20	209,440	53,058	156,382	73.33	$ 430,660.17	Good	Unlikely	Major	M	2058	2063			2073
939	Curphey Bridge - 5th Sideroad	Bridge 0004	1985	75	47	28	127,665	45,959	81,705	62.67	$ 349,373.06	Good	Unlikely	Major	M	2050	2055			2065
938	Leader Bridge - 2nd Line SW	Bridge 0005	1975	75	37	38	98,546	48,616	49,930	49.33	$ 477,709.79	Average	Possible	Major	H	2040	2045			2055
937	Held Bridge - 4th Line SW	Bridge 0006	2003	75	65	10	146,733	17,608	129,125	86.67	$ 531,596.14	Very Good	Rare	Major	M	2068	2073			2083
936	Gray Bridge - 7th Line SW	Bridge 0007	1960	75	22	53	43,815	30,379	13,437	29.33	$ 543,977.62	Poor	Likely	Major	H	2025	2030	2017	6000	2040
935	RBRIDGE - 7th Line SW	Bridge 0008	1980	75	42	33	165,010	70,404	94,606	56.00	$ 629,033.00	Average	Possible	Major	H	2045	2050	2014	2000	2060
934	Anderson Bridge - 8th Line SW	Bridge 0009	1980	75	42	33	149,123	63,626	85,497	56.00	$ 568,471.42	Average	Possible	Major	H	2045	2050			2060
933	Hutchinson Bridge - 280 Sideroad	Bridge 0010	2000	75	62	13	51,426	8,228	43,198	82.67	$ 195,950.35	Very Good	Rare	Major	M	2065	2070	2018	3000	2080
932	G. Anderson Bridge - 8th Line SW	Bridge 0011	1960	75	22	53	84,769	58,773	25,996	29.33	$ 1,052,425.78	Poor	Likely	Major	H	2025	2030			2040
931	Riverview South Bridge - 7th Line SW	Bridge 0012	2008	75	70	5	570,676	31,106	552,128	93.33	$ 1,477,702.69	Very Good	Rare	Major	M	2073	2078			2088
930	Riverview East Bridge - 260 Sideroad	Bridge 0013	1980	75	42	33	302,200	128,939	173,261	56.00	$ 1,152,015.94	Average	Possible	Major	H	2045	2050	2017	10000	2060
929	Witowski Bridge - 4th Line SW	Bridge 0014	1977	75	39	36	164,283	76,666	87,618	52.00	$ 819,438.70	Average	Possible	Major	H	2042	2047			2057
928	Oldfield Bridge - 2nd Line SW	Bridge 0015	1960	75	22	53	59,438	41,210	18,228	29.33	$ 737,936.13	Poor	Likely	Major	H	2025	2030	2016	45000	2040
927	Jack Bridge - 250 Sideroad	Bridge 0016	1998	75	60	15	94,128	17,571	76,557	80.00	$ 410,849.80	Good	Unlikely	Major	M	2063	2068	2018	5000	2078
958	Isaac Bridge - 250 Sideroad	Bridge 0017	2003	75	65	10	193,629	23,235	170,394	86.67	$ 502,225.12	Very Good	Rare	Major	M	2068	2073			2083
957	Fluney Bridge - 2nd Line NE	Bridge 0018	1960	75	22	53	24,455	16,956	7,499	29.33	$ 303,615.42	Poor	Likely	Major	H	2025	2030			2040
956	Silk Bridge - 3rd Line	Bridge 2001	1989	75	51	24	78,000	23,920	54,080	68.00	$ 216,675.90	Good	Unlikely	Major	M	2054	2059			2069
955	Clark Bridge - 5th Sideraod	Bridge 2002	1988	75	50	25	43,332	13,866	29,466	66.67	$ 455,423.13	Good	Unlikely	Major	M	2053	2058			2068
949	Culvert - Main south of 15th Sideroad	Culvert 2028		50	0	50	247,311	20,339	-	0.00	$ 450,000.00	Very Poor	Almost Certain	Moderate	H	2013	2013			2014
1433	Culvert - 240 Sideroad & 4th Line NE	Culvert 2030	1960	50	0	53	5,900	5,900	-	0.00	$ 150,000.00	Very Poor	Almost Certain	Moderate	H	2008	2013	2019	5000	2024
954	Culvert - 3rd Line	Culvert 2003	1970	50	7	43	22,912	19,246	3,666	14.00	$ 175,000.00	Very Poor	Almost Certain	Moderate	H	2010	2015			2015
953	Culvert - 5th Sideroad	Culvert 2004	1990	50	27	23	502,936	221,292	281,644	54.00	$ 990,518.38	Average	Possible	Moderate	M	2030	2035			2040
952	Culvert - 3rd Line	Culvert 2005	2013	50	50	0	8,937	8,937	-	100.00	$ 282,243.91	Very Good	Rare	Moderate	M	2053	2058			2063
951	Culvert - 3rd Line	Culvert 2006	1990	50	27	23	191,881	84,428	107,454	54.00	$ 377,904.33	Average	Possible	Moderate	M	2030	2035			2040
950	Culvert - 15th Sideroad	Culvert 2008	1970	50	7	43	25,929	21,781	4,149	14.00	$ 204,698.14	Very Poor	Almost Certain	Moderate	H	2010	2015			2020
960	Culvert - 15th Sideroad	Culvert 2009	2008	50	45	5	13,785	12,406	1,378	90.00	$ 250,321.22	Very Good	Rare	Moderate	M	2048	2053			2058
948	Culvert - 3rd Line	Culvert 2010	1985	50	22	28	181,465	97,991	83,474	44.00	$ 496,605.00	Average	Possible	Moderate	M	2025	2030			2035
947	Culvert - 20th Sideroad	Culvert 2011	1985	50	22	28	121,272	65,487	55,785	44.00	$ 331,877.49	Average	Possible	Moderate	M	2025	2030			2035
946	Culvert - 30th Sideroad	Culvert 2012	1960	50	0	53	15,662	15,662	-	0.00	$ 194,443.06	Very Poor	Almost Certain	Moderate	H	2000	2005			2024
945	Culvert - 30th Sideroad	Culvert 2013	1950	50	0	63	8,063	8,063	-	0.00	$ 80,000.00	Very Poor	Almost Certain	Moderate	H	1990	1995			2014
944	Culvert - 4th Line	Culvert 2014	1950	50	0	63	28,198	28,198	-	0.00	$ 512,054.94	Very Poor	Almost Certain	Moderate	H	1990	1995	2014	2000	2024
943	Culvert - 10th Line NE	Culvert 2015	2008	50	45	5	194,843	15,587	179,255	90.00	$ 139,964.55	Very Good	Rare	Moderate	M	2048	2053			2058
965	Culvert - 4th Line NE	Culvert 2016	1980	50	17	33	96,379	63,799	53,740	34.00	$ 367,406.95	Poor	Likely	Moderate	H	2020	2025			2030
966	Culvert - 2nd Line NE	Culvert 2017	1980	50	17	33	144,745	92,637	52,108	34.00	$ 551,783.34	Poor	Likely	Moderate	H	2020	2025			2030
963	Culvert - 2nd Line NE	Culvert 2018	1960	50	0	53	21,853	21,853	-	0.00	$ 271,315.88	Very Poor	Almost Certain	Moderate	H	2020	2025			2024
968	Culvert - 4th Line NE	Culvert 2019	1980	50	17	33	156,438	100,120	56,318	34.00	$ 596,356.73	Poor	Likely	Moderate	H	2020	2025			2030
967	Culvert - 4th Line NE	Culvert 2020	1985	50	22	28	64,914	35,054	29,861	44.00	$ 160,000.00	Average	Possible	Moderate	M	2025	2030			2016
970	Culvert - 2nd Line NE	Culvert 2021	1980	50	17	33	64,606	41,348	23,258	34.00	$ 246,283.78	Poor	Likely	Moderate	H	2020	2025	2019	6000	2030
971	Culvert - 4th Line NE	Culvert 2022	1980	50	17	33	63,547	40,670	22,877	34.00	$ 242,246.34	Poor	Likely	Moderate	H	2020	2025			2030
964	Culvert - 4th Line NE	Culvert 2023	1960	50	0	53	27,317	27,317	-	0.00	$ 339,144.85	Very Poor	Almost Certain	Moderate	H	2000	2005	2014	15000	2024
969	Culvert - 2nd Line East	Culvert 2024	1960	50	0	53	17,301	17,301	-	0.00	$ 40,000.00	Very Poor	Almost Certain	Moderate	H	2000	2005			2022
962	Culvert - 260 Sideroad	Culvert 2025	1970	50	7	43	45,346	38,091	7,255	14.00	$ 357,986.26	Very Poor	Almost Certain	Moderate	H	2010	2015			2024
961	Culvert - 8th Line SW	Culvert 2026	2008	50	45	5	74,755	5,980	68,775	90.00	$ 329,455.03	Very Good	Rare	Moderate	M	2048	2053			2058
1117	Culvert - 15TH SIDEROAD	Culvert 2027	1986	50	23	27	92,989	48,355	44,635	46.00	$ 160,000.00	Average	Possible	Moderate	M	2026	2031			2015
972	Culvert - 15th Sideroad	Culvert 2029	1980	50	17	33	86,424	55,311	31,113	34.00	$ 329,455.03	Poor	Likely	Moderate	H	2020	2025			2030
959	Culvert - 240 Sideroad	Culvert 2031	2005	50	42	8	43,979	6,157	37,822	84.00	$ 53,031.55	Very Good	Rare	Moderate	M	2045	2050			2055

Asset Type: Roads

GIS ID	Asset Name	Surface Material	Roadside Environment	Length (m)	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2012 Accumulated Amortization	2012 Net Book Value	Condition Used for Analysis	Replacement Cost (2013$) Inflated RC	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Revised Replacement Year	Revised Replacement Year	Rehabiliation Year	Rehabiliation Cost	Planned Replacement Year
									$ 4,096,047.27	$ 2,297,803.90	$ 1,798,243.37		$ 7,861,473									
176	15TH SIDEROAD From: 3RD LINE OS To: CTY RD 124 - From: 3RD LINE OS To: CTY RD 1:	Asphalt	Rural	1141.584	1986	25	0	27	$ 32,892.76	$ 32,892.76	$ -	83.75	$ 84,736.69	Very Good	Rare	Major	M	2005	2008			2024
194	15TH SIDEROAD From: CTY RD 124 To: MAIN ST - From: CTY RD 124 To: MAIN ST	Asphalt	Rural	227.2405	1983	25	0	30	$ 5,704.35	$ 5,704.35	$ -	89.50	$ 45,600.00	Very Good	Rare	Major	M	2002	2005			2014
177	15TH SIDEROAD From: MAIN ST. To: TL - From: MAIN ST. To: TL	Asphalt	Rural	690.7132	1983	25	0	30	$ 17,338.44	$ 17,338.44	$ -	89.50	$ 51,270.09	Very Good	Rare	Major	M	2002	2005			2024
1345	20TH SIDEROAD - From: 3RD LINE OS To: CTY RD 124	Asphalt	Rural	1377.717	2010	25	22	3	$ 108,016.13	$ 8,641.30	$ 99,374.83	99.50	$ 116,295.61	Very Good	Rare	Major	M	2029	2032			2035
29	260 SIDEROAD From: 2ND LINE SW To: ARGYLE ST - From: 2ND LINE SW To: ARGYLE S	Asphalt	Rural	1525.86	1983	25	0	30	$ 38,302.23	$ 38,302.23	$ -	76.25	$ 113,260.39	Good	Unlikely	Major	M	2002	2005			2024
32	260 SIDEROAD From: 4TH LINE SW To: 2ND LINE SW - From: 4TH LINE SW To: 2ND LIN	Asphalt	Urban	2228.061	1983	25	0	30	$ 55,929.04	$ 55,929.04	$ -	62.50	$ 165,383.19	Good	Unlikely	Major	M	2002	2005			2024
31	260 SIDEROAD From: 7TH LINE SW To: 4TH LINE SW - From: 7TH LINE SW To: 4TH LINE	Asphalt	Rural	2012.823	1983	25	0	30	$ 50,526.16	$ 50,526.16	$ -	62.50	$ 149,406.78	Good	Unlikely	Major	M	2002	2005			2024
158	280 SIDEROAD From: 270 SIDEROAD To: 6th LINE NE - From: 270 SIDEROAD To: 6th LI	Asphalt	Rural	654.0364	2013	25	25	0	$ 16,417.63	$ 16,417.63	$ -	52.50	$ 48,547.24	Average	Possible	Major	H	2032	2035			2038
1279	2ND LINE SW - From: 280 Sideroad To: 270 Sideroad	Asphalt	Rural	418.2049	2009	25	21	4	$ 20,851.69	$ 2,502.21	$ 18,349.48	72.50	$ 22,887.08	Good	Unlikely	Major	M	2028	2031			2034
1351	2ND LINE SW - From: 300m North of 300 SDRD To: 550m North of 300 SDRD	Asphalt	Rural	1981.019	2011	25	23	2	$ 47,830.23	$ 1,913.21	$ 45,917.02	77.25	$ 48,636.16	Good	Unlikely	Major	M	2030	2033			2036
1278	2ND LINE SW - From: CTY RD 17 To: 280 SDRD	Asphalt	Rural	2051.387	2009	25	21	4	$ 102,282.14	$ 12,273.87	$ 90,008.27	98.75	$ 112,266.19	Very Good	Rare	Major	M	2028	2031			2034
82	2ND LINE SW From: 250 SDRD To: PROTON W BACK LINE - From: 250 SDRD To: PROTC	Asphalt	Rural	2349.593	1983	25	0	30	$ 58,979.83	$ 58,979.83	$ -	52.25	$ 175,000.00	Average	Possible	Major	H	2002	2005			2017
81	2ND LINE SW From: 260 SDRD To: 250 SDRD - From: 260 SDRD To: 250 SDRD	Asphalt	Rural	2054.318	1983	25	0	30	$ 51,567.85	$ 51,567.85	$ -	52.25	$ 150,000.00	Average	Possible	Major	H	2002	2005			2016
118	2ND LINE SW From: 270 SDRD To: 260 SDRD - From: 270 SDRD To: 260 SDRD	Asphalt	Rural	2044.681	1983	25	0	30	$ 51,325.72	$ 51,325.72	$ -	72.50	$ 151,771.10	Good	Unlikely	Major	M	2002	2005			2024
117	2ND LINE SW From: 280 Sideroad To: 270 Sideroad - From: 280 Sideroad To: 270 Sider	Asphalt	Rural	1610.507	2006	25	18	7	$ 119,587.37	$ 28,700.97	$ 90,886.40	72.50	$ 150,585.71	Good	Unlikely	Major	M	2025	2028			2031
115	2ND LINE SW From: 300 SDRD To: CTY RD 17 - From: 300 SDRD To: CTY RD 17	Asphalt	Rural	1981.019	1983	25	0	30	$ 49,727.69	$ 49,727.69	$ -	77.25	$ 147,045.68	Good	Unlikely	Major	M	2002	2005			2024
116	2ND LINE SW From: CTY RD 17 To: 280 SDRD - From: CTY RD 17 To: 280 SDRD	Asphalt	Rural	2051.387	1983	25	0	30	$ 51,494.30	$ 51,494.30	$ -	77.25	$ 152,269.59	Good	Unlikely	Major	M	2002	2005			2024
147	2ND LINE SW From: HWY 89 To: 300 SDRD - From: HWY 89 To: 300 SDRD	Asphalt	Rural	1799.466	1983	25	0	30	$ 45,170.61	$ 45,170.61	$ -	77.25	$ 133,570.33	Good	Unlikely	Major	M	2002	2005			2024
102	3RD LINE From: 1.5 KM SOUTH OF 20TH SIDEROAD To: 20TH SIDEROAD - From: 1.5 KM	Asphalt	Rural	3044.971	1983	25	0	30	$ 38,217.58	$ 38,217.58	$ -	61.00	$ 113,048.29	Good	Unlikely	Major	M	2002	2005			2024
1467	3rd Line From: 15th Sideroad To: 1.5km S of 20th Sideroad - From: 15th Sideroad To:	Asphalt	Rural	1522.5	1983	25	0	30	$ 38,217.57	$ 38,217.57	$ -	93.25	$ 113,048.29	Very Good	Rare	Major	M	2002	2005			2024
544	3RD LINE From: 2 KM N OF 5TH SIDEROAD To: CTY RD 17 - From: 2 KM N OF 5TH SIDE	Asphalt	Rural	1048.49	2008	25	20	5	$ 72,286.00	$ 11,565.76	$ 60,720.24	96.75	$ 77,826.75	Very Good	Rare	Major	M	2027	2030			2033
165	3RD LINE From: 20 SR To: RD 21 - From: 20 SR To: RD 21	Asphalt	Rural	3054.667	1983	25	0	30	$ 76,678.73	$ 76,678.73	$ -	71.25	$ 226,740.42	Good	Unlikely	Major	M	2002	2005			2024
93	3RD LINE From: 5 SR To: 2 KM N OF 5TH SIDEROAD - From: 5 SR To: 2 KM N OF 5TH SI	Asphalt	Rural	2010.504	2007	25	19	6	$ 126,502.42	$ 25,300.50	$ 101,201.92	96.75	$ 149,234.51	Very Good	Rare	Major	M	2026	2029			2032
96	3RD LINE From: CTY RD 17 To: 15 SR - From: CTY RD 17 To: 15 SR	Asphalt	Rural	2688.552	2008	25	20	5	$ 185,357.00	$ 29,657.12	$ 155,699.88	98.75	$ 199,564.69	Very Good	Rare	Major	M	2027	2030			2033
545	3RD LINE From: CTY RD 17 To: 15 SR - From: CTY RD 17 To: 15 SR	Asphalt	Rural	362.6135	1983	25	0	30	$ 9,102.50	$ 9,102.50	$ -	98.75	$ 26,916.26	Very Good	Rare	Major	M	2002	2005			2024
92	3RD LINE From: HWY 10 To: 5 SR - From: HWY 10 To: 5 SR	Asphalt	Rural	1650.373	1983	25	0	30	$ 41,428.03	$ 41,428.03	$ -	69.50	$ 125,000.00	Good	Unlikely	Major	M	2002	2005			2015
1274	4TH LINE - From: Railway Tracks To: HWY 10	Asphalt	Rural	956.1871	2009	25	21	4	$ 35,439.72	$ 4,252.77	$ 31,186.95	95.00	$ 38,899.09	Very Good	Rare	Major	M	2028	2031			2034
153	4TH LINE From: 5TH SR To: CTY RD 17 - From: 5TH SR To: CTY RD 17	Asphalt	Rural	3038.469	1983	25	0	30	$ 76,272.03	$ 76,272.03	$ -	50.25	$ 225,537.81	Average	Possible	Major	H	2002	2005	2015	$ 25,000	2030
95	4TH LINE From: CTY RD 17 To: 15 SR - From: CTY RD 17 To: 15 SR	Asphalt	Rural	3051.323	1983	25	0	30	$ 76,594.62	$ 76,594.62	$ -	79.88	$ 226,491.72	Good	Unlikely	Major	M	2002	2005			2024
152	4TH LINE From: HWY 10 To: 5TH SDRD - From: HWY 10 To: 5TH SDRD	Asphalt	Rural	713.377	1998	25	10	15	$ 9,738.97	$ 9,738.97	$ -	50.25	$ 17,857.32	Average	Possible	Major	H	2002	2005			2024
1099	4TH LINE From: HWY 89 To: HWY 10 - From: HWY 89 To: HWY 10	Asphalt	Rural	1264.635	1998	25	10	15	$ 24,502.89	$ 24,502.89	$ -	99.50	$ 44,928.38	Very Good	Rare	Major	M	2002	2005	2014	$ 25,000	2030
72	4TH LINE NE From: 240 SDRD To: RD 9 AND CTY RD 2 - From: 240 SDRD To: RD 9 AND	Asphalt	Rural	2047.753	1983	25	0	30	$ 51,402.91	$ 51,402.91	$ -	45.50	$ 200,000.00	Average	Possible	Major	H	2002	2005			2018
63	4TH LINE NE From: 250 SDRD To: 240 SDRD - From: 250 SDRD To: 240 SDRD	Asphalt	Rural	2446.755	1983	25	0	30	$ 61,418.94	$ 61,418.94	$ -	45.50	$ 200,000.00	Average	Possible	Major	H	2002	2005			2018
65	4TH LINE NE From: 5TH LINE OS To: CTY RD 21 - From: 5TH LINE OS To: CTY RD 21	Asphalt	Rural	3937.157	2007	25	19	6	$ 247,728.80	$ 49,545.75	$ 198,183.05	97.50	$ 292,244.91	Very Good	Rare	Major	M	2026	2029			2032
64	4TH LINE NE From: CTY RD 21 To: 250 SDRD - From: CTY RD 21 To: 250 SDRD	Asphalt	Rural	1633.979	2004	25	16	9	$ 85,731.92	$ 27,434.24	$ 58,297.68	64.25	$ 121,285.75	Good	Unlikely	Major	M	2023	2026			2029
159	5TH LINE From: 15TH SIDEROAD To: 270 SIDEROAD - From: 15TH SIDEROAD To: 270 S	Asphalt	Rural	1930.352	1983	25	0	30	$ 48,455.88	$ 48,455.88	$ -	52.50	$ 140,000.00	Average	Possible	Major	H	2002	2005			2019
161	5TH LINE From: 20 SR To: RD 21 5TH LINE JOG - From: 20 SR To: RD 21 5TH LINE JOG	Asphalt	Rural	1577.138	1983	25	0	30	$ 39,589.69	$ 39,589.69	$ -	52.50	$ 120,000.00	Average	Possible	Major	H	2002	2005			2017
101	5TH LINE From: 280 SDRD To: 4TH LINE NE - From: 280 SDRD To: 4TH LINE NE	Asphalt	Rural	205.4944	1983	25	0	30	$ 5,158.20	$ 5,158.20	$ -	52.50	$ 20,000.00	Average	Possible	Major	H	2002	2005			2019
97	5TH LINE From: 4TH LINE NE To: 15 SIDEROAD - From: 4TH LINE NE To: 15 SIDEROAD	Asphalt	Rural	570.2965	1983	25	0	30	$ 14,315.68	$ 14,315.68	$ -	52.50	$ 45,000.00	Average	Possible	Major	H	2002	2005			2019
160	5TH LINE From: 6TH LINE NE To: 20th SIDEROAD - From: 6TH LINE NE To: 20th SIDERO	Asphalt	Rural	465.7275	1983	25	0	30	$ 11,690.89	$ 11,690.89	$ -	52.50	$ 55,000.00	Average	Possible	Major	H	2002	2005			2017
94	5TH LINE From: CTY RD 17 5TH LINE JOG To: 280 SR - From: CTY RD 17 5TH LINE JOG T	Asphalt	Rural	2292.942	1983	25	0	30	$ 57,557.66	$ 57,557.66	$ -	55.50	$ 150,000.00	Average	Possible	Major	H	2002	2005			2019
207	5TH SIDEROAD From: 3RD LINE OS To: CTY RD 124 - From: 3RD LINE OS To: CTY RD 12	Asphalt	Rural	1487.806	1983	25	0	30	$ 34,409.63	$ 34,409.63	$ -	87.00	$ 120,000.00	Very Good	Rare	Major	M	2002	2005			2016
206	5TH SIDEROAD From: CTY RD 124 To: TL - From: CTY RD 124 To: TL	Asphalt	Rural	1249.74	1983	25	0	30	$ 40,965.26	$ 40,965.26	$ -	80.25	$ 121,135.01	Good	Unlikely	Major	M	2002	2005			2024
1466	7TH Line SW From: 200m S of 260 To: 100m N of 260 - From: 200m S of 260 Sideroad	Asphalt	Rural	282.1	2013	25	25	0	$ 27,000.00	$ -	$ 27,000.00	92.50	$ 27,000.00	Very Good	Rare	Major	M	2032	2035			2038
19	7TH LINE SW From: 270 SDRD To: 200 M S OF 260 SDRD - From: 270 SDRD To: 200 M S	Asphalt	Rural	2047.714	1983	25	0	30	$ 51,402.18	$ 51,402.18	$ -	73.50	$ 151,997.20	Good	Unlikely	Major	M	2002	2005			2024
111	7TH LINE SW From: 280 SDRD To: 270 SDRD - From: 280 SDRD To: 270 SDRD	Asphalt	Rural	2033.383	1983	25	0	30	$ 51,042.45	$ 51,042.45	$ -	73.50	$ 150,933.47	Good	Unlikely	Major	M	2002	2005			2024
142	7TH LINE SW From: CTY RD 17 To: 280 SDRD - From: CTY RD 17 To: 280 SDRD	Asphalt	Rural	2039.693	1983	25	0	30	$ 51,200.83	$ 51,200.83	$ -	73.50	$ 151,401.81	Good	Unlikely	Major	M	2002	2005			2024
143	7TH LINE SW From: HWY 89 To: CTY RD 17 - From: HWY 89 To: CTY RD 17	Asphalt	Rural	852.835	1983	25	0	30	$ 21,407.99	$ 21,407.99	$ -	82.63	$ 63,303.81	Very Good	Rare	Major	M	2002	2005			2024
186	ADDESON From: GEORGE To: LLOYD - From: GEORGE To: LLOYD	Asphalt	Semi-Urban	155.0237	1983	25	0	30	$ 2,904.06	$ 2,904.06	$ -	44.50	$ 8,587.36	Average	Possible	Major	H	2002	2005			2024
201	CHARLES ST W From: MAIN To: END OF ROAD - From: MAIN To: END OF ROAD	Asphalt	Semi-Urban	141.3703	1983	25	0	30	$ 3,548.52	$ 3,548.52	$ -	44.50	$ 10,493.03	Average	Possible	Major	H	2002	2005			2024
200	CHURCH From: MAIN To: END OF ROAD - From: MAIN To: END OF ROAD	Asphalt	Semi-Urban	242.0528	1983	25	0	30	$ 6,076.10	$ 6,076.10	$ -	44.50	$ 17,967.14	Average	Possible	Major	H	2002	2005			2024
182	FIELDWAY From: MAIN To: END OF ROAD - From: MAIN To: END OF ROAD	Asphalt	Semi-Urban	800.483	1983	25	0	30	$ 20,093.95	$ 20,093.95	$ -	94.50	$ 59,418.18	Very Good	Rare	Major	M	2002	2005			2024
188	GEORGE From: ADDESON To: MAIN - From: ADDESON To: MAIN	Asphalt	Semi-Urban	113.5477	1983	25	0	30	$ 2,127.07	$ 2,127.07	$ -	44.50	$ 6,289.79	Average	Possible	Major	H	2002	2005			2024
185	HIGH From: MAIN To: 70 M E OF MAIN - From: MAIN To: 70 M E OF MAIN	Asphalt	Rural	170.3591	1983	25	0	30	$ 4,276.35	$ 4,276.35	$ -	44.50	$ 20,000.00	Average	Possible	Major	H	2002	2005			2021
205	HUNTER From: CTY ROAD 124 To: END OF ROAD - From: CTY ROAD 124 To: END OF RC	Asphalt	Rural	290.5693	1983	25	0	30	$ 7,294.02	$ 7,294.02	$ -	44.50	$ 21,568.54	Average	Possible	Major	H	2002	2005			2024
187	LLOYD From: ADDESON To: MAIN - From: ADDESON To: MAIN	Asphalt	Semi-Urban	110.2986	1983	25	0	30	$ 2,066.27	$ 2,066.27	$ -	44.50	$ 20,000.00	Average	Possible	Major	H	2002	2005			2021
1313	MAIN - From: CHARLES ST W To: GEORGE	Asphalt	Urban	126.4141	2009	30	26	4	$ 43,696.31	$ 4,369.62	$ 39,326.69	44.50	$ 47,961.63	Average	Possible	Major	H	2028	2031			2034
1312	MAIN - From: CHURCH ST To: CHARLES ST W	Asphalt	Urban	152.7844	2009	30	26	4	$ 52,811.44	$ 5,281.14	$ 47,530.30	44.50	$ 57,966.51	Average	Possible	Major	H	2028	2031			2034
1347	MAIN - From: CTY RD 124 To: OLDFIELD CRT	Asphalt	Semi-Urban	692.4268	2010	25	22	3	$ 44,089.08	$ 3,527.12	$ 40,561.96	44.50	$ 47,509.16	Average	Possible	Major	H	2029	2032			2035
1315	MAIN - From: FIELDWAY CRT To: HIGH ST	Asphalt	Semi-Urban	323.3246	2009	30	26	4	$ 111,760.38	$ 11,176.05	$ 100,584.33	44.50	$ 122,669.62	Average	Possible	Major	H	2028	2031			2034
1314	MAIN - From: GEORGE ST To: TO LLOYD ST	Asphalt	Urban	211.734	2009	30	26	4	$ 73,187.98	$ 7,318.80	$ 65,869.18	44.50	$ 80,332.06	Average	Possible	Major	H	2028	2031			2034
1311	MAIN - From: HIGH ST To: MILL ST	Asphalt	Urban	119.9127	2009	30	26	4	$ 41,449.01	$ 4,144.89	$ 37,304.12	44.50	$ 45,494.96	Average	Possible	Major	H	2028	2031			2034
1310	MAIN - From: MILL ST To: CHURCH ST	Asphalt	Urban	214.1004	2009	30	26	4	$ 74,005.94	$ 7,400.59	$ 66,605.35	44.50	$ 81,229.87	Average	Possible	Major	H	2028	2031			2034
1346	MAIN - From: OLDFIELD CRT To: FIELDWAY CRT	Asphalt	Semi-Urban	276.9093	2010	25	22	3	$ 17,631.71	$ 1,410.54	$ 16,221.17	44.50	$ 18,999.44	Average	Possible	Major	H	2029	2032			2035
183	MAIN From: 15 SR To: CTY RD 124 - From: 15 SR To: CTY RD 124	Asphalt	Rural	365.5244	1983	25	0	30	$ 9,175.32	$ 9,175.32	$ -	98.00	$ 74,400.00	Very Good	Rare	Major	M	2002	2005			2014
26	MAIN From: CEDAR ST To: SHOOK ST - From: CEDAR ST To: SHOOK ST	Asphalt	Urban	153.2509	1978	30	0	35	$ 5,072.01	$ 5,072.01	$ -	76.25	$ 23,699.23	Good	Unlikely	Major	M	1997	2000			2024
24	MAIN From: GRIERSON ST To: MANITOBA ST - From: GRIERSON ST To: MANITOBA ST	Asphalt	Urban	158.6058	1978	30	0	35	$ 5,249.20	$ 5,249.20	$ -	76.25	$ 24,527.17	Good	Unlikely	Major	M	1997	2000			2024
25	MAIN From: MANITOBA ST To: CEDAR ST - From: MANITOBA ST To: CEDAR ST	Asphalt	Urban	74.06192	1978	30	0	35	$ 2,451.21	$ 2,451.21	$ -	76.25	$ 11,453.41	Good	Unlikely	Major	M	1997	2000			2024
193	MAIN From: MILL LANE To: 15 SR - From: MILL LANE To: 15 SR	Asphalt	Rural	335.2691	1983	25	0	30	$ 8,415.81	$ 8,415.81	$ -	98.00	$ 24,885.70	Very Good	Rare	Major	M	2002	2005			2024
107	MAIN From: VICTORIA ST RD ALLOW To: HWY 10 - From: VICTORIA ST RD ALLOW To: I	Asphalt	Rural	418.1703	1983	25	0	30	$ 10,497.00	$ 10,497.00	$ -	76.25	$ 31,039.83	Good	Unlikely	Major	M	2002	2005			2024
195	MILL From: MAIN To: END OF ROAD - From: MAIN To: END OF ROAD	Asphalt	Rural	654.7772	1983	25	0	30	$ 16,436.20	$ 16,436.20	$ -	44.50	$ 75,000.00	Average	Possible	Major	H	2002	2005			2021
196	MILL From: MAIN To: WILLIAM - From: MAIN To: WILLIAM	Asphalt	Rural	95.11597	1983	25	0	30	$ 2,387.77	$ 2,387.77	$ -	78.50	$ 7,060.67	Good	Unlikely	Major	M	2002	2005			2024
184	OLDFIELD From: MAIN To: END OF ROAD - From: MAIN To: END OF ROAD	Asphalt	Semi-Urban	643.2597	1983	25	0	30	$ 16,147.11	$ 16,147.11	$ -	82.00	$ 47,747.29	Very Good	Rare	Major	M	2002	2005			2024
189	RIVER From: Mulmur-Melancthon Townline To: WILLIAM - From: Mulmur-Melancthon	Asphalt	Rural	1401.474	1983	25	0	30	$ 35,180.07	$ 35,180.07	$ -	78.50	$ 200,000.00	Good	Unlikely	Major	M	2002	2005			2022
181	WILLIAM From: HIGH To: MILL - From: HIGH To: MILL	Asphalt	Rural	119.8417	1983	25	0	30	$ 3,008.19	$ 3,008.19	$ -	78.50	$ 8,895.29	Good	Unlikely	Major	M	2002	2005			2024
1238	10TH LINE NE - From: 5TH LINE OS To: 240 SDRD	Gravel	Rural	858.5509	2009	3	0	4	$ 1,373.68	$ 1,373.68	$ -	0.00	$ 1,507.77	Very Poor	Almost Certain	Major	E					
56	10TH LINE NE From: 240 SDRD To: Grey Road 9 - From: 240 SDRD To: Grey Road 9	Gravel	Rural	856.1365	2005	3	0	8	$ 2,531.29	$ 2,531.29	$ -	0.00	$ 3,401.29	Very Poor	Almost Certain	Major	E					
1221	10TH LINE SW - From: 280 SDRD To: RD ALLOW	Gravel	Rural	705.6525	2009	3	0	4	$ 1,129.04	$ 1,129.04		0.00	$ 1,239.25	Very Poor	Almost Certain	Major	E					
1448	10TH LINE SW - From: 280 SDRD To: RD ALLOW	Gravel	NULL	705.6525	2012	3	2	1	$ 3,752.20	$ -	$ 3,752.20	0.00	$ 3,752.20	Very Poor	Almost Certain	Major	E					
1270	15TH SIDEROAD - From: 15th Sideroad Bridge To: Mulmur-Melancthon Townline	Gravel	Rural	683.7214	2009	3	0	4	$ 1,093.95	$ 1,093.95	$ -	0.00	$ 1,200.73	Very Poor	Almost Certain	Major	E					

Asset Type: Roads

GIS ID	Asset Name	Surface Material	Roadside Environment	Length (m)	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2012 Accumulated Amortization	2012 Net Book Value	Condition Used for Analysis	Replacement Cost (2013$) Inflated RC	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Revised Replacement Year	Revised Replacement Year	Rehabiliation Year	Rehabiliation Cost	Planned Replacement Year
1338	15TH SIDEROAD - From: 4TH LINE OS To: 3RD LINE OS	Gravel	Rural	1451.361	2010	3	0	3	$ 6,182.85	$ 6,182.85		0.00	$ 6,662.47	Very Poor	Almost Certain	Major	E					
1337	15TH SIDEROAD - From: 5TH LINE OS To: 4TH LINE OS	Gravel	Rural	1421.669	2010	3	0	3	$ 6,665.20	$ 6,665.20		0.00	$ 7,182.23	Very Poor	Almost Certain	Major	E					
1454	15TH SIDEROAD - From: 5TH LINE OS To: 4TH LINE OS	Gravel	NULL	1421.669	2012	3	2	1	$ 9,051.99	$ -	$ 9,051.99	0.00	$ 9,051.99	Very Poor	Almost Certain	Major	E					
1455	15TH SIDEROAD From: 4th Line To: 3rd Line - From: 4th Line To: 3rd Line	Gravel	NULL	1451.361	2012	3	2	1	$ 9,241.05	$ -	$ 9,241.05	0.00	$ 9,241.05	Very Poor	Almost Certain	Major	E					
1342	20TH SIDEROAD - From: 4TH LINE OS To: 3RD LINE OS	Gravel	Rural	1425.916	2010	3	0	3	$ 5,343.39	$ 5,343.39		0.00	$ 5,757.89	Very Poor	Almost Certain	Major	E					
1456	20TH SIDEROAD - From: 4TH LINE OS To: 3RD LINE OS	Gravel	NULL	1425.916	2012	3	2	1	$ 10,789.51	$ -	$ 10,789.51	0.00	$ 10,789.51	Very Poor	Almost Certain	Major	E					
1414	20TH SIDEROAD - From: CTY RD 124 To: TL	Gravel	Rural	1368.221	2011	3	1	2	$ 5,890.38	$ 1,963.46	$ 3,926.92	0.00	$ 5,989.89	Very Poor	Almost Certain	Major	E					
44	20TH SIDEROAD From: 5TH LINE OS To: 4TH LINE OS - From: 5TH LINE OS To: 4TH LINE	Gravel	Rural	1431.01	2008	3	0	5	$ 5,280.43	$ 5,280.43	$ -	0.00	$ 5,685.18	Very Poor	Almost Certain	Major	E					
1242	220 SIDEROAD - From: 2ND LINE NE To: COUNTY ROAD 2	Gravel	Rural	2045.807	2009	3	0	4	$ 3,273.29	$ 3,273.29	$ -	0.00	$ 3,592.80	Very Poor	Almost Certain	Major	E					
1241	220 SIDEROAD - From: COUNTY ROAD 2 To: MELANCTHON-OSPREY TL	Gravel	Rural	1365.762	2009	3	0	4	$ 2,185.21	$ 2,185.21	$ -	0.00	$ 2,398.51	Very Poor	Almost Certain	Major	E					
1235	220 SIDEROAD - From: HWY 10 To: 2ND LINE NE	Gravel	Rural	1526.689	2009	3	0	4	$ 2,442.70	$ 2,442.70	$ -	0.00	$ 2,681.14	Very Poor	Almost Certain	Major	E					
1198	240 SIDEROAD - From: 10TH LINE NE To: 5TH LINE OS	Gravel	Rural	739.0648	2009	3	0	4	$ 1,182.50	$ 1,182.50	$ -	0.00	$ 1,297.93	Very Poor	Almost Certain	Major	E					
1423	240 SIDEROAD - From: 2ND LINE NE To: 4TH LINE NE	Gravel	Rural	2045.53	2011	3	1	2	$ 8,806.29	$ 2,935.43	$ 5,870.86	0.00	$ 8,954.31	Very Poor	Almost Certain	Major	E					
1415	240 SIDEROAD - From: 4TH LINE NE To: 6TH LINE NE	Gravel	Rural	2030.21	2011	3	1	2	$ 8,740.34	$ 2,913.45	$ 5,826.89	0.00	$ 8,887.05	Very Poor	Almost Certain	Major	E					
1326	240 SIDEROAD - From: 6TH LINE NE To: 8TH LINE NE	Gravel	Rural	2039.194	2010	3	0	3	$ 6,239.15	$ 4,159.44	$ 2,079.71	0.00	$ 6,723.13	Very Poor	Almost Certain	Major	E					
1327	240 SIDEROAD - From: 8TH LINE NE To: 10TH LINE NE	Gravel	Rural	2050.227	2010	3	0	3	$ 5,993.68	$ 5,993.68		0.00	$ 6,458.62	Very Poor	Almost Certain	Major	E					
1458	240 SIDEROAD - From: 8TH LINE NE To: 10TH LINE NE	Gravel	NULL	2050.227	2012	3	2	1	$ 7,086.62	$ -	$ 7,086.62	0.00	$ 7,086.62	Very Poor	Almost Certain	Major	E					
1234	240 SIDEROAD - From: HWY 10 To: 2ND LINE NE	Gravel	Rural	1520.596	2009	3	0	4	$ 2,432.95	$ 2,432.95	$ -	0.00	$ 2,670.44	Very Poor	Almost Certain	Major	E					
1204	250 SIDEROAD - From: 2ND LINE NE To: 1.7 KM NE OF 2nd LINE NE	Gravel	Rural	1718.399	2009	3	0	4	$ 2,749.43	$ 2,749.43	$ -	0.00	$ 3,017.81	Very Poor	Almost Certain	Major	E					
1230	250 SIDEROAD - From: 2ND LINE SW To: HWY 10	Gravel	Rural	2339.695	2009	3	0	4	$ 3,743.51	$ 3,743.51		0.00	$ 4,108.92	Very Poor	Almost Certain	Major	E					
1461	250 SIDEROAD - From: 2ND LINE SW To: HWY 10	Gravel	NULL	2339.695	2012	3	2	1	$ 12,470.33	$ -	$ 12,470.33	0.00	$ 12,470.33	Very Poor	Almost Certain	Major	E					
1265	250 SIDEROAD - From: 4TH LINE NE To: 1.7 KM NE of 2nd LINE NE	Gravel	Rural	325.0312	2009	3	0	4	$ 520.04	$ 520.04		0.00	$ 570.80	Very Poor	Almost Certain	Major	E					
1459	250 SIDEROAD - From: 4TH LINE NE To: 1.7 KM NE of 2nd LINE NE	Gravel	NULL	325.0312	2012	3	2	1	$ 1,732.38	$ -	$ 1,732.38	0.00	$ 1,732.38	Very Poor	Almost Certain	Major	E					
1229	250 SIDEROAD - From: 4TH LINE SW To: 2ND LINE SW	Gravel	Rural	2223.45	2009	3	0	4	$ 3,557.51	$ 3,557.51		0.00	$ 3,904.77	Very Poor	Almost Certain	Major	E					
1460	250 SIDEROAD - From: 4TH LINE SW To: 2ND LINE SW	Gravel	NULL	2223.45	2012	3	2	1	$ 11,850.75	$ -	$ 11,850.75	0.00	$ 11,850.75	Very Poor	Almost Certain	Major	E					
1233	250 SIDEROAD - From: HWY 10 To: 2ND LINE NE	Gravel	Rural	1629.443	2009	3	0	4	$ 2,607.10	$ 2,607.10	$ -	0.00	$ 2,861.59	Very Poor	Almost Certain	Major	E					
1228	250 SIDEROAD - From: W OF 4TH LINE SW To: END OF ROAD	Gravel	Rural	303.0287	2009	3	0	4	$ 484.84	$ 484.84	$ -	0.00	$ 532.17	Very Poor	Almost Certain	Major	E					
33	250 SIDEROAD From: 4TH LINE NE To: 6TH LINE NE - From: 4TH LINE NE To: 6TH LINE I	Gravel	Rural	2022.215	2008	3	0	5	$ 7,461.97	$ 7,461.97	$ -	0.00	$ 8,033.93	Very Poor	Almost Certain	Major	E					
55	250 SIDEROAD From: 8TH LINE NE To: 5TH LINE OS - From: 8TH LINE NE To: 5TH LINE (	Gravel	Rural	1042.299	2005	3	0	8	$ 3,081.71	$ 3,081.71	$ -	0.00	$ 4,140.88	Very Poor	Almost Certain	Major	E					
1419	260 SIDEROAD - From: MELANCTHON-PROTON TL To: 7TH LINE SW	Gravel	Rural	1477.379	2011	3	1	2	$ 6,360.33	$ 2,120.11	$ 4,240.22	62.50	$ 6,466.89	Good	Unlikely	Major	M					
1220	270 SIDEROAD - From: .7 KM E OF 8TH LINE To: 7TH LINE SW	Gravel	Rural	1391.534	2009	3	0	4	$ 2,226.45	$ 2,226.45	$ -	0.00	$ 2,443.78	Very Poor	Almost Certain	Major	E					
1203	270 SIDEROAD - From: 2ND LINE NE To: RD ALLOW	Gravel	Rural	1416.817	2009	3	0	4	$ 2,266.90	$ 2,266.90	$ -	0.00	$ 2,488.18	Very Poor	Almost Certain	Major	E					
1216	270 SIDEROAD - From: 4TH LINE SW To: 2ND LINE SW	Gravel	Rural	2235.189	2009	3	0	4	$ 3,576.30	$ 3,576.30	$ -	0.00	$ 3,925.39	Very Poor	Almost Certain	Major	E					
1251	270 SIDEROAD - From: 7TH LINE SW To: 4TH LINE SW	Gravel	Rural	2023.438	2009	3	0	4	$ 3,237.50	$ 3,237.50	$ -	0.00	$ 3,553.52	Very Poor	Almost Certain	Major	E					
1344	270 SIDEROAD - From: 8TH LINE SW To: .7 KM E OF 8TH LINE	Gravel	Rural	724.8051	2010	3	0	3	$ 1,917.12	$ 1,278.08	$ 639.04	0.00	$ 2,065.84	Very Poor	Almost Certain	Major	E					
1212	270 SIDEROAD - From: RD ALLOW W OF HWY 10 To: HWY 10	Gravel	Rural	883.2263	2009	3	0	4	$ 1,413.16	$ 1,413.16		0.00	$ 1,551.10	Very Poor	Almost Certain	Major	E					
1462	270 SIDEROAD - From: RD ALLOW W OF HWY 10 To: HWY 10	Gravel	NULL	883.2263	2012	3	2	1	$ 6,866.05	$ -	$ 6,866.05	0.00	$ 6,866.05	Very Poor	Almost Certain	Major	E					
86	270 SIDEROAD From: 5th LINE To: END - From: 5th LINE To: END	Gravel	Rural	476.6389	2008	3	0	5	$ 1,758.80	$ 1,758.80		0.00	$ 1,893.61	Very Poor	Almost Certain	Major	E					
76	270 SIDEROAD From: HWY 10 To: 2ND LINE NE - From: HWY 10 To: 2ND LINE NE	Gravel	Rural	1746.384	2008	3	0	5	$ 6,444.16	$ 6,444.16		0.00	$ 6,938.11	Very Poor	Almost Certain	Major	E					
134	270 SIDEROAD From: MELANCTHON-PROTON TL To: 8TH LINE SW - From: MELANCTH	Gravel	Rural	1179.064	2005	3	0	8	$ 3,486.08	$ 3,486.08		0.00	$ 4,684.24	Very Poor	Almost Certain	Major	E					
1225	280 SIDEROAD - From: .76 KM NE OF 10TH LINE To: 8TH LINE SW	Gravel	Rural	1301.932	2009	3	0	4	$ 2,083.09	$ 2,083.09		0.00	$ 2,286.43	Very Poor	Almost Certain	Major	E					
1464	280 SIDEROAD - From: .76 KM NE OF 10TH LINE To: 8TH LINE SW	Gravel	NULL	1301.932	2012	3	2	1	$ 3,886.04	$ -	$ 3,886.04	0.00	$ 3,886.04	Very Poor	Almost Certain	Major	E					
1266	280 SIDEROAD - From: 10TH LINE SW To: .76 KM NE OF 10TH LINE	Gravel	Rural	760.8795	2009	3	0	4	$ 1,217.40	$ 1,217.40	$ -	0.00	$ 1,336.23	Very Poor	Almost Certain	Major	E					
1465	280 SIDEROAD - From: 10TH LINE SW To: .76 KM NE OF 10TH LINE	Gravel	NULL	760.8795	2012	3	2	1	$ 2,271.09	$ -	$ 2,271.09	0.00	$ 2,271.09	Very Poor	Almost Certain	Major	E					
1331	280 SIDEROAD - From: 2ND LINE NE To: 5TH LINE OS	Gravel	Rural	1913.36	2010	3	0	3	$ 9,184.47	$ 6,122.98	$ 3,061.49	0.00	$ 9,896.93	Very Poor	Almost Certain	Major	E					
1215	280 SIDEROAD - From: 2ND LINE NE To: HWY 10	Gravel	Rural	2203.084	2009	3	0	4	$ 3,524.93	$ 3,524.93	$ -	0.00	$ 3,869.01	Very Poor	Almost Certain	Major	E					
1273	280 SIDEROAD - From: 4TH LINE SW To: END	Gravel	Rural	310.0803	2009	3	0	4	$ 496.12	$ 496.12	$ -	0.00	$ 544.55	Very Poor	Almost Certain	Major	E					
1226	280 SIDEROAD - From: 8TH LINE SW To: 7TH LINE SW	Gravel	Rural	2045.826	2009	3	0	4	$ 3,273.32	$ 3,273.32		0.00	$ 3,592.84	Very Poor	Almost Certain	Major	E					
1272	280 SIDEROAD - From: END To: 4TH LINE SW	Gravel	Rural	479.872	2009	3	0	4	$ 767.79	$ 767.79	$ -	0.00	$ 842.74	Very Poor	Almost Certain	Major	E					
1205	280 SIDEROAD - From: HWY 10 To: 2ND LINE NE	Gravel	Rural	1752.524	2009	3	0	4	$ 2,804.03	$ 2,804.03	$ -	0.00	$ 3,077.74	Very Poor	Almost Certain	Major	E					
1222	280 SIDEROAD - From: HWY 89 To: 10TH LINE SW	Gravel	Rural	573.3699	2009	3	0	4	$ 917.39	$ 917.39		0.00	$ 1,006.94	Very Poor	Almost Certain	Major	E					
1463	280 SIDEROAD - From: HWY 89 To: 10TH LINE SW	Gravel	NULL	573.3699	2012	3	2	1	$ 1,711.41	$ -	$ 1,711.41	0.00	$ 1,711.41	Very Poor	Almost Certain	Major	E					
1355	2ND LINE NE - From: 220 SDRD To: MELANCTHON-ARTMESIA TL	Gravel	Rural	2047.652	2011	3	1	2	$ 30,577.65	$ 3,057.77	$ 27,519.88	0.00	$ 51,257.17	Very Poor	Almost Certain	Major	E					
1333	2ND LINE NE - From: 240 SDRD To: CTY RD 9	Gravel	Rural	2041.026	2010	3	0	3	$ 7,893.00	$ 7,893.00		0.00	$ 8,505.28	Very Poor	Almost Certain	Major	E					
1438	2ND LINE NE - From: 240 SDRD To: CTY RD 9	Gravel	NULL	2041.026	2012	3	2	1	$ 7,577.17	$ -	$ 7,577.17	0.00	$ 7,577.17	Very Poor	Almost Certain	Major	E					
1332	2ND LINE NE - From: 250 SDRD To: 240 SDRD	Gravel	Rural	2447.683	2010	3	0	3	$ 7,393.11	$ 7,393.11		0.00	$ 7,966.61	Very Poor	Almost Certain	Major	E					
1437	2ND LINE NE - From: 250 SDRD To: 240 SDRD	Gravel	NULL	2447.683	2012	3	2	1	$ 9,086.85	$ -	$ 9,086.85	0.00	$ 9,086.85	Very Poor	Almost Certain	Major	E					
1410	2ND LINE NE - From: 270 SDRD To: CTY RD 21	Gravel	Rural	2042.415	2011	3	1	2	$ 8,792.88	$ 2,930.96	$ 5,861.92	0.00	$ 8,940.86	Very Poor	Almost Certain	Major	E					
1405	2ND LINE NE - From: 280 SDRD To: 270 SDRD	Gravel	Rural	2051.419	2011	3	1	2	$ 8,831.65	$ 2,943.88	$ 5,887.77	0.00	$ 8,980.18	Very Poor	Almost Certain	Major	E					
1412	2ND LINE NE - From: CTY RD 17 To: 280 SDRD	Gravel	Rural	2046.322	2011	3	1	2	$ 8,809.70	$ 2,936.57	$ 5,873.13	0.00	$ 8,957.41	Very Poor	Almost Certain	Major	E					
1330	2ND LINE NE - From: CTY RD 21 To: 250 SDRD	Gravel	Rural	1429.495	2010	3	0	3	$ 12,278.00	$ 12,278.00		0.00	$ 13,230.43	Very Poor	Almost Certain	Major	E					
1436	2ND LINE NE - From: CTY RD 21 To: 250 SDRD	Gravel	NULL	1429.495	2012	3	2	1	$ 5,306.90	$ -	$ 5,306.90	0.00	$ 5,306.90	Very Poor	Almost Certain	Major	E					
1435	2ND LINE NE - From: JOG OF 250 SDRD To: 250 SIDEROAD	Gravel	NULL	202.2165	2012	3	2	1	$ 750.71	$ -	$ 750.71	0.00	$ 757.85	Very Poor	Almost Certain	Major	E					
11	2ND LINE NE - From: MELANCTHON-ARTEMESIA TL To: MELANCTHON-OSPREY TL	Gravel	Rural	289.77	2004	3	0	9	$ 5,127.13	$ 4,101.70	$ 1,025.43	0.00	$ 7,253.39	Very Poor	Almost Certain	Major	E					
1354	2ND LINE NE - From: MELANCTHON-ARTEMESIA TL To: MELANCTHON-OSPREY TL	Gravel	Rural	289.77	2011	3	1	2	$ 4,327.14	$ 432.71	$ 3,894.43	0.00	$ 7,253.39	Very Poor	Almost Certain	Major	E					
114	2ND LINE NE From: 220 SDRD To: MELANCTHON-ARTMESIA TL - From: 220 SDRD To: M	Gravel	Rural	2047.652	2004	3	0	9	$ 36,231.59	$ 28,985.28	$ 7,246.31	0.00	$ 51,257.17	Very Poor	Almost Certain	Major	E					
113	2ND LINE NE From: CTY RD 9 To: 220 SDRD - From: CTY RD 9 To: 220 SDRD	Gravel	Rural	2054.144	2004	3	0	9	$ 36,346.51	$ 29,077.20	$ 7,269.31	0.00	$ 51,419.75	Very Poor	Almost Certain	Major	E					
103	2ND LINE NE From: JOG OF 250 SDRD To: 250 SIDEROAD - From: JOG OF 250 SDRD To	Gravel	Rural	202.2165	2008	3	0	5	$ 746.18	$ 746.18	$ -	0.00	$ 803.38	Very Poor	Almost Certain	Major	E					
1268	300 SIDEROAD - From: 1.8 KM NE OF 4TH LINE SW To: 2ND LINE SW	Gravel	Rural	438.8838	2009	3	0	4	$ 702.21	$ 702.21	$ -	0.00	$ 770.75	Very Poor	Almost Certain	Major	E					
1248	300 SIDEROAD - From: 4TH LINE NE To: 1.8 KM NE OF 4TH LINE SW	Gravel	Rural	1786.71	2009	3	0	4	$ 2,858.73	$ 2,858.73	$ -	0.00	$ 3,137.78	Very Poor	Almost Certain	Major	E					
1227	30TH SIDEROAD - From: 3RD LINE To: CTY RD 124	Gravel	Rural	1383.622	2009	3	0	4	$ 2,213.79	$ 2,213.79	$ -	0.00	$ 2,429.88	Very Poor	Almost Certain	Major	E					
1259	30TH SIDEROAD - From: 4TH LINE OS To: 3RD LINE OS	Gravel	Rural	1457.234	2009	3	0	4	$ 2,331.57	$ 2,331.57	$ -	0.00	$ 2,559.16	Very Poor	Almost Certain	Major	E					
1328	30TH SIDEROAD - From: 5TH LINE OS To: 4TH LINE OS	Gravel	Rural	1433.796	2010	3	0	3	$ 5,510.98	$ 3,673.99	$ 1,836.99	0.00	$ 5,938.48	Very Poor	Almost Certain	Major	E					
168	30TH SIDEROAD From: CTY RD 124 To: TL - From: CTY RD 124 To: TL	Gravel	Rural	1384.485	2008	3	0	5	$ 5,108.75	$ 5,108.75	$ -	0.00	$ 5,500.34	Very Poor	Almost Certain	Major	E					
1411	3RD LINE - From: CTY RD 21 To: 30 SR	Gravel	Rural	3064.932	2011	3	1	2	$ 13,194.95	$ 4,398.32	$ 8,796.63	0.00	$ 13,416.98	Very Poor	Almost Certain	Major	E					
1336	4TH LINE - From: 15 SR To: 20 SR	Gravel	Rural	3050.393	2010	3	0	3	$ 9,184.47	$ 9,184.47		0.00	$ 9,896.93	Very Poor	Almost Certain	Major	E					
1449	4TH LINE - From: 15 SR To: 20 SR	Gravel	NULL	3050.393	2012	3	2	1	$ 11,112.01	$ -	$ 11,112.01	0.00	$ 11,112.01	Very Poor	Almost Certain	Major	E					
1427	4TH LINE - From: 20 SR To: RD 21	Gravel	Rural	3054.523	2011	3	1	2	$ 13,150.15		$ 13,150.15	0.00	$ 13,371.45	Very Poor	Almost Certain	Major	E					
1450	4TH LINE - From: 20 SR To: RD 21	Gravel	NULL	3054.523	2012	3	2	1	$ 11,127.05	$ -	$ 11,127.05	0.00	$ 11,127.05	Very Poor	Almost Certain	Major	E					
1417	4TH LINE - From: 30 SR To: MELANCTHON-OSPREY TL	Gravel	Rural	1104.628	2011	3	1	2	$ 4,755.57	$ 1,585.19	$ 3,170.38	0.00	$ 4,835.16	Very Poor	Almost Certain	Major	E					
1418	4TH LINE - From: CTY RD 21 To: 30 SR	Gravel	Rural	3054.097	2011	3	1	2	$ 13,148.31	$ 4,382.77	$ 8,765.54	0.00	$ 13,369.38	Very Poor	Almost Certain	Major	E					

Asset Type: Roads

GIS ID	Asset Name	Surface Material	Roadside Environment	Length (m)	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2012 Accumulated Amortization	2012 Net Book Value	Condition Used for Analysis	Replacement Cost (2013$) Inflated RC	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Revised Replacement Year	Revised Replacement Year	Rehabiliation Year	Rehabiliation Cost	Planned Replacement Year
1231	4TH LINE NE - From: CTY RD 2 To: OSPREY E BACK LINE	Gravel	Rural	331.159	2009	3	0	4	$ 529.85	$ 529.85	$ -	0.00	$ 581.57	Very Poor	Almost Certain	Major	E					
1426	4TH LINE SW - From: 250 SDRD To: PROTON W BASE LINE	Gravel	Rural	3268.302	2011	3	1	2	$ 14,070.50	$ 4,690.17	$ 9,380.33	0.00	$ 14,306.82	Very Poor	Almost Certain	Major	E					
1422	4TH LINE SW - From: 260 SDRD To: 250 SDRD	Gravel	Rural	2057.545	2011	3	1	2	$ 8,858.01	$ 2,952.67	$ 5,905.34	0.00	$ 9,007.08	Very Poor	Almost Certain	Major	E					
1334	4TH LINE SW - From: 270 SDRD To: 260 SDRD	Gravel	Rural	2045.624	2010	3	0	3	$ 7,282.70	$ 7,282.70		0.00	$ 7,847.63	Very Poor	Almost Certain	Major	E					
1443	4TH LINE SW - From: 270 SDRD To: 260 SDRD	Gravel	NULL	2045.624	2012	3	2	1	$ 7,451.82	$ -	$ 7,451.82	0.00	$ 7,451.82	Very Poor	Almost Certain	Major	E					
1421	4TH LINE SW - From: 300 SDRD To: CTY RD 17	Gravel	Rural	1979.522	2011	3	1	2	$ 8,522.12	$ 2,840.71	$ 5,681.41	0.00	$ 8,665.63	Very Poor	Almost Certain	Major	E					
1324	4TH LINE SW - From: CTY RD 17 To: 270 SR	Gravel	Rural	4068.038	2010	3	0	3	$ 9,673.31	$ 9,673.31		0.00	$ 10,423.69	Very Poor	Almost Certain	Major	E					
1442	4TH LINE SW - From: CTY RD 17 To: 270 SR	Gravel	NULL	4068.038	2012	3	2	1	$ 14,819.10	$ -	$ 14,819.10	0.00	$ 14,819.10	Very Poor	Almost Certain	Major	E					
144	4TH LINE SW From: HWY 89 To: 300 Sideroad - From: HWY 89 To: 300 Sideroad	Gravel	Rural	269.9066	2007	3	0	6	$ 908.96	$ 908.96		0.00	$ 1,072.30	Very Poor	Almost Certain	Major	E					
1202	5TH LINE - From: 10TH LINE NE To: 30th Sideroad	Gravel	Rural	317.3759	2009	3	0	4	$ 507.80	$ 507.80		0.00	$ 557.37	Very Poor	Almost Certain	Major	E					
1451	5TH LINE - From: 10TH LINE NE To: 30th Sideroad	Gravel	NULL	317.3759	2012	3	2	1	$ 2,354.25	$ -	$ 2,354.25	0.00	$ 2,354.25	Very Poor	Almost Certain	Major	E					
1209	5TH LINE - From: 240 SDRD To: MELANCTHON-OSPREY TL	Gravel	Rural	298.403	2009	3	0	4	$ 477.44	$ 477.44	$ -	0.00	$ 524.04	Very Poor	Almost Certain	Major	E					
1208	5TH LINE - From: 250 SDRD To: 10TH LINE NE	Gravel	Rural	1545.696	2009	3	0	4	$ 2,473.11	$ 2,473.11		0.00	$ 2,714.52	Very Poor	Almost Certain	Major	E					
1452	5TH LINE - From: 250 SDRD To: 10TH LINE NE	Gravel	NULL	1545.696	2012	3	2	1	$ 11,465.71	$ -	$ 11,465.71	0.00	$ 11,465.71	Very Poor	Almost Certain	Major	E					
1201	5TH LINE - From: 30 SR To: 240 SR	Gravel	Rural	815.5723	2009	3	0	4	$ 1,304.91	$ 1,304.91	$ -	0.00	$ 1,432.29	Very Poor	Almost Certain	Major	E					
1245	5TH LINE - From: CTY RD 21 5TH LINE JOG To: 250 SR	Gravel	Rural	1239.102	2009	3	0	4	$ 1,982.56	$ 1,982.56		0.00	$ 2,176.08	Very Poor	Almost Certain	Major	E					
1453	5TH LINE - From: CTY RD 21 5TH LINE JOG To: 250 SR	Gravel	NULL	1239.102	2012	3	2	1	$ 9,191.45	$ -	$ 9,191.45	0.00	$ 9,191.45	Very Poor	Almost Certain	Major	E					
1340	5TH LINE - From: HWY 10 To: CTY RD 17	Gravel	Rural	2603.389	2010	3	0	3	$ 17,154.82	$ 11,436.55	$ 5,718.27	0.00	$ 18,485.56	Very Poor	Almost Certain	Major	E					
1255	5TH LINE - From: MELANCTHON-OSPREY TL To: CTY RD 9	Gravel	Rural	52.82444	2009	3	0	4	$ 84.51	$ 84.51	$ -	0.00	$ 92.76	Very Poor	Almost Certain	Major	E					
538	5TH LINE From: 2.3 KM N OF HIGHWAY 89 To: HWY 10 - From: 2.3 KM N OF HIGHWAY	Gravel	Rural	576.6161	2005	3	0	8	$ 1,704.85	$ 1,704.85	$ -	0.00	$ 2,290.80	Very Poor	Almost Certain	Major	E					
148	5TH LINE From: HWY 89 To: 2.3 KM N OF HIGHWAY 89 - From: HWY 89 To: 2.3 KM N O	Gravel	Rural	2314.88	2005	3	0	8	$ 6,844.29	$ 6,844.29	$ -	0.00	$ 9,196.65	Very Poor	Almost Certain	Major	E					
1269	5TH SIDEROAD - From: HIGHWAY 10 To: END	Gravel	Rural	475.765	2009	3	0	4	$ 761.22	$ 761.22	$ -	0.00	$ 835.52	Very Poor	Almost Certain	Major	E					
154	5TH SIDEROAD From: .47 KM HIGHWAY 10 To: 4TH LINE OS - From: .47 KM HIGHWAY	Gravel	Rural	880.2662	2005	3	0	8	$ 2,602.64	$ 2,602.64	$ -	0.00	$ 3,497.15	Very Poor	Almost Certain	Major	E					
91	5TH SIDEROAD From: 4TH LINE OS To: 3RD LINE OS - From: 4TH LINE OS To: 3RD LINE	Gravel	Rural	1455.248	2008	3	0	5	$ 5,369.87	$ 5,369.87	$ -	0.00	$ 5,781.47	Very Poor	Almost Certain	Major	E					
1407	6TH LINE NE - From: 240 SDRD To: CTY RD 9	Gravel	Rural	2048.982	2011	3	1	2	$ 8,821.15	$ 2,940.38	$ 5,880.77	0.00	$ 8,969.83	Very Poor	Almost Certain	Major	E					
1232	6TH LINE NE - From: 5TH LINE OS To: END	Gravel	Rural	1552.169	2009	3	0	4	$ 2,483.47	$ 2,483.47		0.00	$ 2,725.89	Very Poor	Almost Certain	Major	E					
1439	6TH LINE NE - From: 5TH LINE OS To: END	Gravel	NULL	1552.169	2012	3	2	1	$ 4,436.38	$ -	$ 4,436.38	0.00	$ 4,436.38	Very Poor	Almost Certain	Major	E					
1408	6TH LINE NE - From: CTY RD 9 T To: MELANCTHON-OSPREY TL	Gravel	Rural	1604.303	2011	3	1	2	$ 6,906.75	$ 2,302.25	$ 4,604.50	0.00	$ 7,022.52	Very Poor	Almost Certain	Major	E					
59	6TH LINE NE From: 250 Sideroad To: 240 Sideroad - From: 250 Sideroad To: 240 Sider	Gravel	Rural	2449.139	2008	3	0	5	$ 9,037.32	$ 9,037.32		0.00	$ 9,730.03	Very Poor	Almost Certain	Major	E					
1325	7TH LINE SW - From: 260 SDRD To: MELANCTHON-PROTON TL	Gravel	Rural	1581.736	2010	3	0	3	$ 4,297.30	$ 4,297.30		0.00	$ 4,630.65	Very Poor	Almost Certain	Major	E					
1444	7TH LINE SW From: 100 M NORTH OF 260 To: MELANCTHON-PROTON TL - From: 100	Gravel	NULL	1581.736	2012	3	2	1	$ 5,854.05	$ -	$ 5,854.05	0.00	$ 5,854.05	Very Poor	Almost Certain	Major	E					
1413	8TH LINE NE - From: 240 SDRD To: CTY RD 9	Gravel	Rural	2039.865	2011	3	1	2	$ 8,781.90	$ 2,927.30	$ 5,854.60	0.00	$ 8,929.48	Very Poor	Almost Certain	Major	E					
1329	8TH LINE NE - From: 250 SDRD To: 240 SR	Gravel	Rural	2032.805	2010	3	0	3	$ 7,788.90	$ 7,788.90		0.00	$ 8,393.10	Very Poor	Almost Certain	Major	E					
1441	8TH LINE NE - From: 250 SDRD To: 240 SR	Gravel	NULL	2032.805	2012	3	2	1	$ 10,930.23	$ -	$ 10,930.23	0.00	$ 10,930.23	Very Poor	Almost Certain	Major	E					
1335	8TH LINE NE - From: CTY RD 21 5TH LINE JO To: 250 SR	Gravel	Rural	1219.148	2010	3	0	3	$ 7,016.00	$ 7,016.00		0.00	$ 7,560.25	Very Poor	Almost Certain	Major	E					
1440	8TH LINE NE - From: CTY RD 21 5TH LINE JO To: 250 SR	Gravel	NULL	1219.148	2012	3	2	1	$ 6,555.26	$ -	$ 6,555.26	0.00	$ 6,555.26	Very Poor	Almost Certain	Major	E					
1199	8TH LINE NE - From: CTY RD 9 T To: MELANCTHON-OSPREY TL	Gravel	Rural	228.1476	2009	3	0	4	$ 365.03	$ 365.03	$ -	0.00	$ 400.66	Very Poor	Almost Certain	Major	E					
1447	8TH LINE SW - From: 270 SDRD To: MELANCTHON-PROTON TL	Gravel	NULL	1390.473	2012	3	2	1	$ 7,476.47	$ -	$ 7,476.47	0.00	$ 7,476.47	Very Poor	Almost Certain	Major	E					
1339	8TH LINE SW - From: 280 SDRD To: 270 SDRD	Gravel	Rural	1906.019	2010	3	0	3	$ 5,349.70	$ 5,349.70		0.00	$ 5,764.69	Very Poor	Almost Certain	Major	E					
1446	8TH LINE SW - From: 280 SDRD To: 270 SDRD	Gravel	NULL	1906.019	2012	3	2	1	$ 10,248.52	$ -	$ 10,248.52	0.00	$ 10,248.52	Very Poor	Almost Certain	Major	E					
1425	8TH LINE SW - From: HWY 89 To: 280 SDRD	Gravel	Rural	1664.594	2011	3	1	2	$ 7,166.31	$ 2,388.77	$ 4,777.54	0.00	$ 7,286.37	Very Poor	Almost Certain	Major	E					
1254	8TH LINE SW - From: JOG AT 270 SR To: 270 SIDEROAD	Gravel	Rural	130.3586	2009	3	0	4	$ 208.57	$ 208.57		0.00	$ 228.93	Very Poor	Almost Certain	Major	E					
1445	8TH LINE SW - From: JOG AT 270 SR To: 270 SIDEROAD	Gravel	NULL	130.3586	2012	3	2	1	$ 700.93	$ -	$ 700.93	0.00	$ 700.93	Very Poor	Almost Certain	Major	E					
536	CEDAR From: MAIN To: END - From: MAIN To: END	Gravel	Rural	54.33565	2005	3	0	8	$ 160.65	$ 160.65		0.00	$ 215.87	Very Poor	Almost Certain	Major	E					
543	HUNTER From: CTY ROAD 124 To: END OF ROAD - From: CTY ROAD 124 To: END OF RO	Gravel	Rural	232.3696	2007	3	0	6	$ 782.54	$ 782.54	$ -	0.00	$ 923.16	Very Poor	Almost Certain	Major	E					
1207	MAIN ST - From: MAIN ST To: END	Gravel	Rural	220.3333	2009	3	0	4	$ 352.53	$ 352.53	$ -	0.00	$ 386.94	Very Poor	Almost Certain	Major	E					
169	MELANCTHON-NOTTAWASAGA TL - From: CTY RD 124 To: 1 KM E OF CTY RD 124	Gravel	Rural	1036.597	2005	3	0	8	$ 1,532.43	$ 1,532.43	$ -	0.00	$ 2,059.12	Very Poor	Almost Certain	Major	E					
546	MELANCTHON-NOTTAWASAGA TL From: 1 KM E OF CTY RD 124 To: TL - From: 1 KM E	Gravel	Rural	582.2845	2005	3	0	8	$ 860.80	$ 860.80	$ -	0.00	$ 1,156.66	Very Poor	Almost Certain	Major	E					
1264	MELANCTHON-OSPREY TL - From: 8TH LINE NE To: CTY RD 9	Gravel	Rural	427.5714	2009	3	0	4	$ 684.11	$ 684.11	$ -	0.00	$ 750.89	Very Poor	Almost Certain	Major	E					
49	MELANCTHON-OSPREY TL From: 6TH LINE NE To: OSPREY S VIEW LN - From: 6TH LINE	Gravel	Rural	2454.966	2008	3	0	5	$ 9,058.83	$ 9,058.83	$ -	0.00	$ 9,753.19	Very Poor	Almost Certain	Major	E					
1406	MELANCTHON-OSPREY TOWNLINE - From: 220 SR To: 6TH LINE NE	Gravel	Rural	814.2335	2011	3	1	2	$ 3,505.39	$ 1,168.46	$ 2,336.93	0.00	$ 3,564.55	Very Poor	Almost Certain	Major	E					
1250	MELANCTHON-OSPREY TOWNLINE - From: RD ALLOW To: 220 SR	Gravel	Rural	329.9601	2009	3	0	4	$ 527.93	$ 527.93		0.00	$ 579.46	Very Poor	Almost Certain	Major	E					
1197	MELANCTHON-PROTON TL - From: 270 SDRD To: PROTON CON 2	Gravel	Rural	1342.112	2009	3	0	4	$ 2,147.37	$ 2,147.37	$ -	0.00	$ 2,356.98	Very Poor	Almost Certain	Major	E					
1420	MELANCTHON-PROTON TL - From: 8TH LINE SW To: 260 SDRD	Gravel	Rural	876.7519	2011	3	1	2	$ 3,774.53	$ 1,258.18	$ 2,516.35	0.00	$ 3,837.71	Very Poor	Almost Certain	Major	E					
1271	MELANCTHON-PROTON TL - From: CONCESSION ROAD 2 To: 270 SDRD	Gravel	Rural	681.2128	2009	3	0	4	$ 1,089.94	$ 1,089.94	$ -	0.00	$ 1,196.33	Very Poor	Almost Certain	Major	E					
1218	MELANCTHON-PROTON TL - From: PROTON CON 2 To: 8TH LINE SW	Gravel	Rural	475.9001	2009	3	0	4	$ 761.44	$ 761.44	$ -	0.00	$ 835.77	Very Poor	Almost Certain	Major	E					
1261	MULMUR-MELANCHTON TL - From: 15 SR To: 20 SR	Gravel	Rural	3051.213	2009	3	0	4	$ 4,881.94	$ 4,881.94	$ -	0.00	$ 5,358.48	Very Poor	Almost Certain	Major	E					
1343	MULMUR-MELANCTHON TL - From: 20 SR To: RD 21	Gravel	Rural	3052.179	2010	3	0	3	$ 17,025.20	$ 11,350.14	$ 5,675.06	0.00	$ 18,345.88	Very Poor	Almost Certain	Major	E					
170	MULMUR-MELANCTHON TL From: CTY RD 21 To: 30 SR - From: CTY RD 21 To: 30 SR	Gravel	Rural	3061.175	2008	3	0	5	$ 11,295.73	$ 11,295.73	$ -	0.00	$ 12,161.55	Very Poor	Almost Certain	Major	E					
179	MULMUR-MELANCTHON TL From: RIVER ROAD To: END OF ROAD - From: RIVER ROAD	Gravel	Rural	535.8531	2005	3	0	8	$ 1,584.33	$ 1,584.33	$ -	0.00	$ 2,128.86	Very Poor	Almost Certain	Major	E					
109	SHOOK From: MAIN To: END - From: MAIN To: END	Gravel	Rural	96.14	2005	3	0	8	$ 284.25	$ 284.25	$ -	0.00	$ 381.95	Very Poor	Almost Certain	Major	E					

Asset Type: **Road Base**

GIS ID	Asset Name	Surface Material	Length (m)	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2012 Accumulated Amortization	2012 Net Book Value	Condition Used for Analysis	Replacement Cost (2013$) Inflated RC	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Desktop Replacement Year	Degredation Replacement Year	Planned Replacement Year
								$ 3,904,807.99	$ 1,927,589.88	$ 2,067,711.70		$ 23,968,401							
1352	2nd Line SW Road Base	Asphalt	0	2011	60	58	2	71745.35	1195.76	70549.59	0.00	$ 72,951.65	Very Poor	Almost Certain	Major	E			60
701	Municipal Road Base - 15TH SIDEROAD	Asphalt	1141.58	1983	60	30	30	45634.32	22056.53	23577.79	92.50	$ 134,941.52	Very Good	Rare	Major	M			60
702	Municipal Road Base - 15TH SIDEROAD	Asphalt	690.71	1983	60	30	30	27610.96	13345.23	14265.73	93.25	$ 81,646.10	Very Good	Rare	Major	M			60
718	Municipal Road Base - 15TH SIDEROAD	Asphalt	227.24	1983	60	30	30	9083.84	4390.6	4693.24	0.00	$ 26,861.08	Very Poor	Almost Certain	Major	E			60
567	Municipal Road Base - 260 SIDEROAD	Asphalt	1525.86	1983	60	30	30	60995.58	29481.14	31514.44	0.00	$ 180,365.04	Very Poor	Almost Certain	Major	E			60
569	Municipal Road Base - 260 SIDEROAD	Asphalt	2012.82	1983	60	30	30	80461.7	38889.87	41571.83	0.00	$ 237,926.74	Very Poor	Almost Certain	Major	E			60
570	Municipal Road Base - 260 SIDEROAD	Asphalt	2228.06	1983	60	30	30	89065.77	43048.47	46017.3	0.00	$ 263,369.12	Very Poor	Almost Certain	Major	E			60
683	Municipal Road Base - 280 sideroad	Asphalt	654.04	1983	60	30	30	26144.82	12636.73	13508.09	0.00	$ 77,310.70	Very Poor	Almost Certain	Major	E			60
684	Municipal Road Base - 280 SIDEROAD	Asphalt	1930.35	1983	60	30	30	77164.98	37296.35	39868.63	0.00	$ 228,178.28	Very Poor	Almost Certain	Major	E			60
619	Municipal Road Base - 2ND LINE SW	Asphalt	1981.02	1983	60	30	30	79190.36	38275.36	40915	0.00	$ 234,167.34	Very Poor	Almost Certain	Major	E			60
620	Municipal Road Base - 2ND LINE SW	Asphalt	2051.39	1983	60	30	30	82003.28	39634.88	42368.4	0.00	$ 242,485.21	Very Poor	Almost Certain	Major	E			60
621	Municipal Road Base - 2ND LINE SW	Asphalt	2028.71	1986	60	33	27	93086.55	40337.44	52749.11	0.00	$ 239,804.92	Very Poor	Almost Certain	Major	E			60
622	Municipal Road Base - 2ND LINE SW	Asphalt	2044.68	1983	60	30	30	81735.21	39505.31	42229.9	0.00	$ 241,692.54	Very Poor	Almost Certain	Major	E			60
623	Municipal Road Base - 2ND LINE SW	Asphalt	2054.32	1983	60	30	30	82120.47	39691.55	42428.92	0.00	$ 242,831.74	Very Poor	Almost Certain	Major	E			60
624	Municipal Road Base - 2ND LINE SW	Asphalt	2349.59	1983	60	30	30	93923.95	45396.6	48527.35	0.00	$ 277,734.84	Very Poor	Almost Certain	Major	E			60
673	Municipal Road Base - 2ND LINE SW	Asphalt	1799.47	1983	60	30	30	71932.86	34767.52	37165.34	0.00	$ 212,706.79	Very Poor	Almost Certain	Major	E			60
634	Municipal Road Base - 3RD LINE	Asphalt	1650.37	1983	60	30	30	65972.94	31886.95	34085.99	0.00	$ 195,083.19	Very Poor	Almost Certain	Major	E			60
635	Municipal Road Base - 3RD LINE	Asphalt	2010.5	1987	60	34	26	102464.42	42693.5	59770.92	0.00	$ 237,652.64	Very Poor	Almost Certain	Major	E			60
638	Municipal Road Base - 3RD LINE	Asphalt	2688.55	1988	60	35	25	147744.59	59097.84	88646.75	0.00	$ 317,801.69	Very Poor	Almost Certain	Major	E			60
644	Municipal Road Base - 3RD LINE	Asphalt	3044.97	1983	60	30	30	121721.35	58832.01	62889.34	0.00	$ 359,932.29	Very Poor	Almost Certain	Major	E			60
690	Municipal Road Base - 3RD LINE	Asphalt	3054.67	1983	60	30	30	122108.98	59019.35	63089.63	0.00	$ 361,078.50	Very Poor	Almost Certain	Major	E			60
900	Municipal Road Base - 3RD LINE	Asphalt	1048.49	1988	60	35	25	57617.91	23047.2	34570.71	62.50	$ 123,937.31	Good	Unlikely	Major	M			60
901	Municipal Road Base - 3RD LINE	Asphalt	362.61	1983	60	30	30	14495.32	7006.11	7489.21	62.50	$ 42,862.92	Good	Unlikely	Major	M			60
637	Municipal Road Base - 4TH LINE	Asphalt	3051.32	1983	60	30	30	121975.3	58954.68	63020.62	0.00	$ 360,683.22	Very Poor	Almost Certain	Major	E			60
678	Municipal Road Base - 4TH LINE	Asphalt	3038.47	1983	60	30	30	121461.45	58706.44	62755.01	0.00	$ 359,163.75	Very Poor	Almost Certain	Major	E			60
1100	Municipal Road Base - 4TH LINE	Asphalt	1264.63	1983	25	0	30	7528.41	7528.41		52.50	$ 22,261.65	Average	Possible	Major	H			25
677	Municipal Road Base - 4TH LINE	Asphalt	713.38	1983	25	0	30	31383.35	31383.35		0.00	$ 92,801.15	Very Poor	Almost Certain	Major	E			25
599	Municipal Road Base - 4TH LINE NE	Asphalt	2446.76	1983	60	30	30	97807.96	47273.78	50534.18	0.00	$ 289,219.94	Very Poor	Almost Certain	Major	E			60
600	Municipal Road Base - 4TH LINE NE	Asphalt	1633.98	1984	60	31	29	67240.69	31379.04	35861.65	0.00	$ 193,145.29	Very Poor	Almost Certain	Major	E			60
601	Municipal Road Base - 4TH LINE NE	Asphalt	3937.16	1987	60	34	26	200655.39	83606.47	117048.92	0.00	$ 465,393.60	Very Poor	Almost Certain	Major	E			60
608	Municipal Road Base - 4TH LINE NE	Asphalt	2047.75	1983	60	30	30	81858.02	39564.7	42293.32	0.00	$ 242,055.68	Very Poor	Almost Certain	Major	E			60
636	Municipal Road Base - 5TH LINE	Asphalt	2292.94	1983	60	30	30	91659.36	44302.06	47357.3	0.00	$ 271,038.41	Very Poor	Almost Certain	Major	E			60
639	Municipal Road Base - 5TH LINE	Asphalt	570.3	1983	60	30	30	22797.35	11018.75	11778.6	0.00	$ 67,412.18	Very Poor	Almost Certain	Major	E			60
643	Municipal Road Base - 5TH LINE	Asphalt	205.49	1983	60	30	30	8214.55	3970.39	4244.16	77.25	$ 24,290.57	Good	Unlikely	Major	M			60
685	Municipal Road Base - 5TH LINE	Asphalt	465.73	1983	60	30	30	18617.25	8998.41	9618.84	0.00	$ 55,051.56	Very Poor	Almost Certain	Major	E			60
686	Municipal Road Base - 5TH LINE	Asphalt	1577.14	1983	60	30	30	63045.38	30471.98	32573.4	0.00	$ 186,426.35	Very Poor	Almost Certain	Major	E			60
729	Municipal Road Base - 5TH SIDEROAD	Asphalt	1249.74	1983	60	30	30	65236.42	31530.9	33705.52	98.00	$ 192,905.29	Very Good	Rare	Major	M			60
730	Municipal Road Base - 5TH SIDEROAD	Asphalt	1487.81	1983	60	30	30	54796.67	26485.12	28311.55	89.50	$ 162,034.77	Very Good	Rare	Major	M			60
559	Municipal Road Base - 7TH LINE SW	Asphalt	2047.71	1983	60	30	30	81856.47	39563.95	42292.52	0.00	$ 242,051.08	Very Poor	Almost Certain	Major	E			60
653	Municipal Road Base - 7TH LINE SW	Asphalt	2033.38	1983	60	30	30	81283.58	39287.11	41996.47	0.00	$ 240,357.04	Very Poor	Almost Certain	Major	E			60
668	Municipal Road Base - 7TH LINE SW	Asphalt	2039.69	1983	60	30	30	81535.8	39408.97	42126.83	0.00	$ 241,102.88	Very Poor	Almost Certain	Major	E			60
669	Municipal Road Base - 7TH LINE SW	Asphalt	852.84	1983	60	30	30	34091.7	16477.66	17614.04	82.63	$ 100,809.79	Very Good	Rare	Major	M			60
710	Municipal Road Base - ADDESON	Asphalt	155.02	1983	60	30	30	4624.63	2235.31	2389.32	52.50	$ 13,675.12	Average	Possible	Major	H			60
895	Municipal Road Base - CEDAR	Asphalt	54.34	1853	30	0	160	22.25	22.25		76.25	$ 3,487.34	Good	Unlikely	Major	M			30
725	Municipal Road Base - CHARLES ST W	Asphalt	141.37	1983	60	30	30	5651.21	2731.48	2919.73	44.50	$ 16,710.74	Average	Possible	Major	H			60
724	Municipal Road Base - CHURCH	Asphalt	242.05	1983	60	30	30	9675.95	4676.74	4999.21	0.00	$ 28,611.97	Very Poor	Almost Certain	Major	E			60
706	Municipal Road Base - FIELDWAY	Asphalt	800.48	1983	60	30	30	31998.95	15466.19	16532.76	50.25	$ 94,621.50	Average	Possible	Major	H			60
712	Municipal Road Base - GEORGE	Asphalt	113.55	1983	60	30	30	3387.33	1637.23	1750.1	71.25	$ 10,016.39	Good	Unlikely	Major	M			60
709	Municipal Road Base - HIGH	Asphalt	170.36	1983	60	30	30	6810.03	3291.5	3518.53	52.50	$ 20,137.38	Average	Possible	Major	H			60
728	Municipal Road Base - HUNTER	Asphalt	290.57	1983	60	30	30	11615.38	5614.11	6001.27	73.50	$ 34,346.89	Good	Unlikely	Major	M			60
899	Municipal Road Base - HUNTER	Asphalt	232.37	1853	30	0	160	152.26	152.26		76.25	$ 23,862.04	Good	Unlikely	Major	M			30
711	Municipal Road Base - LLOYD	Asphalt	110.3	1983	60	30	30	3290.4	1590.36	1700.04	52.50	$ 9,729.78	Average	Possible	Major	H			60
564	Municipal Road Base - MAIN	Asphalt	158.61	1978	75	40	35	14769.91	6695.62	8074.29	0.00	$ 69,013.23	Very Poor	Almost Certain	Major	E			75
565	Municipal Road Base - MAIN	Asphalt	74.06	1978	75	40	35	6896.9	3126.64	3770.26	0.00	$ 32,226.14	Very Poor	Almost Certain	Major	E			75
566	Municipal Road Base - MAIN	Asphalt	153.25	1978	75	40	35	14271.24	6469.56	7801.68	0.00	$ 66,683.18	Very Poor	Almost Certain	Major	E			75
649	Municipal Road Base - MAIN	Asphalt	418.17	1983	60	30	30	16716.17	8079.42	8636.75	0.00	$ 49,430.03	Very Poor	Almost Certain	Major	E			60
707	Municipal Road Base - MAIN	Asphalt	365.52	1983	60	30	30	14611.68	7062.37	7549.31	0.00	$ 43,206.99	Very Poor	Almost Certain	Major	E			60
717	Municipal Road Base - MAIN	Asphalt	335.27	1983	60	30	30	13402.24	6477.73	6924.51	89.50	$ 39,630.66	Very Good	Rare	Major	M			60
714	Municipal Road Base - MAIN	Asphalt	276.91	1983	60	30	30	11069.32	5350.21	5719.11	0.00	$ 32,732.20	Very Poor	Almost Certain	Major	E			60
715	Municipal Road Base - MAIN	Asphalt	323.32	1983	60	30	30	12924.76	6246.9	6677.86	0.00	$ 38,218.74	Very Poor	Almost Certain	Major	E			60
716	Municipal Road Base - MAIN	Asphalt	692.43	1983	60	30	30	27679.45	13378.38	14301.07	83.75	$ 81,848.65	Very Good	Rare	Major	M			60
721	Municipal Road Base - MAIN	Asphalt	214.1	1978	75	40	35	19937.76	9038.53	10899.23	98.00	$ 93,160.29	Very Good	Rare	Major	M			75

Asset Type: **Road Base**

GIS ID	Asset Name	Surface Material	Length (m)	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2012 Accumulated Amortization	2012 Net Book Value	Condition Used for Analysis	Replacement Cost (2013$) Inflated RC	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Desktop Replacement Year	Degredation Replacement Year	Planned Replacement Year
722	Municipal Road Base - MAIN	Asphalt	119.91	1978	75	40	35	11166.68	5062.26	6104.42	82.00	$ 52,176.92	Very Good	Rare	Major	M			75
723	Municipal Road Base - MAIN	Asphalt	152.78	1978	75	40	35	14227.8	8953.24	33437.3	0.00	$ 66,480.19	Very Poor	Almost Certain	Major	E			75
726	Municipal Road Base - MAIN	Asphalt	126.41	1978	75	40	35	11772.11	7407.92	27666.11	0.00	$ 55,005.87	Very Poor	Almost Certain	Major	E			75
727	Municipal Road Base - MAIN	Asphalt	211.73	1978	75	40	35	19717.39	12407.84	46338.48	78.50	$ 92,130.62	Good	Unlikely	Major	M			75
551	Municipal Road Base - MANITOBA ST	Asphalt	220.33	1853	30	0	160	124.2	124.2		73.50	$ 19,075.53	Good	Unlikely	Major	M			30
719	Municipal Road Base - MILL LN	Asphalt	654.78	1983	60	30	30	26174.43	12650.96	13523.47	0.00	$ 77,398.27	Very Poor	Almost Certain	Major	E			60
720	Municipal Road Base - MILL ST	Asphalt	95.12	1983	60	30	30	3802.22	1837.73	1964.49	94.50	$ 11,243.23	Very Good	Rare	Major	M			60
708	Municipal Road Base - OLDFIELD	Asphalt	643.26	1983	60	30	30	25714.02	12428.51	13285.51	52.50	$ 76,036.83	Average	Possible	Major	H			60
713	Municipal Road Base - RIVER	Asphalt	1401.47	1983	60	30	30	56023.31	27077.88	28945.43	0.00	$ 165,661.96	Very Poor	Almost Certain	Major	E			60
705	Municipal Road Base - WILLIAM	Asphalt	119.84	1983	60	30	30	4790.62	2315.43	2475.19	50.25	$ 14,165.95	Average	Possible	Major	H			60
592	Municipal Road Base - 10TH LINE NE	Gravel	856.14	1853	30	0	160	490.86	490.86		0.00	$ 76,927.11	Very Poor	Almost Certain	Major	E			30
582	Municipal Road Base - 20TH SIDEROAD	Gravel	1431.01	1853	30	0	160	937.68	937.68		0.00	$ 146,950.46	Very Poor	Almost Certain	Major	E			30
571	Municipal Road Base - 250 SIDEROAD	Gravel	2022.22	1853	30	0	160	1159.43	1159.43		0.00	$ 181,703.71	Very Poor	Almost Certain	Major	E			30
591	Municipal Road Base - 250 SIDEROAD	Gravel	1042.3	1853	30	0	160	256.11	256.11		0.00	$ 40,137.64	Very Poor	Almost Certain	Major	E			30
595	Municipal Road Base - 250 SIDEROAD	Gravel	2449.14	1853	30	0	160	1303.91	1303.91		0.00	$ 204,345.55	Very Poor	Almost Certain	Major	E			30
612	Municipal Road Base - 270 SIDEROAD	Gravel	1746.38	1853	30	0	160	1001.29	1001.29		72.50	$ 156,919.22	Good	Unlikely	Major	M			30
628	Municipal Road Base - 270 SIDEROAD	Gravel	476.64	1853	30	0	160	253.76	253.76		0.00	$ 39,768.69	Very Poor	Almost Certain	Major	E			30
660	Municipal Road Base - 270 SIDEROAD	Gravel	1179.06	1853	30	0	160	338.01	338.01		62.50	$ 52,971.68	Good	Unlikely	Major	M			30
645	Municipal Road Base - 2ND LINE NE	Gravel	202.22	1853	30	0	160	132.5	132.5		0.00	$ 20,765.63	Very Poor	Almost Certain	Major	E			30
552	Municipal Road Base - 2ND LINE NE	gravel	289.77	1996	25	8	17	19770.93	12653.42	7117.51	0.00	$ 37,695.68	Very Poor	Almost Certain	Major	E			25
617	Municipal Road Base - 2ND LINE NE	gravel	2054.14	1996	25	8	17	140152.42	89697.57	50454.85	44.50	$ 267,217.69	Average	Possible	Major	H			25
618	Municipal Road Base - 2ND LINE NE	gravel	2047.65	1996	25	8	17	139709.46	89414.08	50295.38	44.50	$ 266,373.13	Average	Possible	Major	H			25
693	Municipal Road Base - 30TH SIDEROAD	Gravel	1384.48	1853	30	0	160	793.79	793.79		0.00	$ 124,401.20	Very Poor	Almost Certain	Major	E			30
670	Municipal Road Base - 4TH LINE SW	Gravel	269.91	1853	30	0	160	165.8	165.8		0.00	$ 25,984.43	Very Poor	Almost Certain	Major	E			30
674	Municipal Road Base - 5TH LINE	Gravel	2314.88	1853	30	0	160	853.22	853.22		0.00	$ 133,714.77	Very Poor	Almost Certain	Major	E			30
892	Municipal Road Base - 5TH LINE	Gravel	576.62	1853	30	0	160	212.53	212.53		0.00	$ 33,307.16	Very Poor	Almost Certain	Major	E			30
633	Municipal Road Base - 5TH SIDEROAD	Gravel	1455.25	1853	30	0	160	774.77	774.77		0.00	$ 121,419.61	Very Poor	Almost Certain	Major	E			30
679	Municipal Road Base - 5TH SIDEROAD	Gravel	880.27	1853	30	0	160	324.45	324.45		0.00	$ 50,846.95	Very Poor	Almost Certain	Major	E			30
694	Municipal Road Base - MELANCTHON-NOTTAWASAGA TL	Gravel	1036.6	1853	30	0	160	212.26	212.26		0.00	$ 33,265.07	Very Poor	Almost Certain	Major	E			30
902	Municipal Road Base - MELANCTHON-NOTTAWASAGA TL	Gravel	582.28	1853	30	0	160	95.39	95.39		0.00	$ 14,948.71	Very Poor	Almost Certain	Major	E			30
586	Municipal Road Base - MELANCTHON-OSPREY TL	Gravel	2454.97	1853	30	0	160	703.78	703.78		0.00	$ 110,294.02	Very Poor	Almost Certain	Major	E			30
695	Municipal Road Base - MULMUR-MELANCTHON TL	Gravel	3061.17	1853	30	0	160	940.24	940.24		0.00	$ 147,352.58	Very Poor	Almost Certain	Major	E			30
696	Municipal Road Base - MULMUR-MELANCTHON TL	Gravel	961.73	1853	30	0	160	236.32	236.32		0.00	$ 37,035.00	Very Poor	Almost Certain	Major	E			30
704	Municipal Road Base - MULMUR-MELANCTHON TL	Gravel	535.85	1853	30	0	160	76.81	76.81		0.00	$ 12,037.11	Very Poor	Almost Certain	Major	E			30
651	Municipal Road Base - SHOOK	Gravel	96.14	1853	30	0	160	55.49	55.49		0.00	$ 8,695.94	Very Poor	Almost Certain	Major	E			30
632	Municipal Road Base - 10TH LINE NE	NULL	858.55	1853	30	0	160	492.25	492.25		0.00	$ 77,144.06	Very Poor	Almost Certain	Major	E			30
666	Municipal Road Base - 10TH LINE SW	NULL	705.65	1853	30	0	160	288.99	288.99		0.00	$ 45,289.69	Very Poor	Almost Certain	Major	E			30
641	Municipal Road Base - 15TH SIDEROAD	NULL	1421.67	1853	30	0	160	873.33	873.33		44.50	$ 136,866.79	Average	Possible	Major	H			30
642	Municipal Road Base - 15TH SIDEROAD	NULL	1451.36	1853	30	0	160	891.57	891.57		44.50	$ 139,725.35	Average	Possible	Major	H			30
903	Municipal Road Base - 15TH SIDEROAD	NULL	683.72	1853	30	0	160	448.01	448.01		0.00	$ 70,211.39	Very Poor	Almost Certain	Major	E			30
689	Municipal Road Base - 20TH SIDEROAD	NULL	1425.92	1853	30	0	160	934.34	934.34		0.00	$ 146,427.37	Very Poor	Almost Certain	Major	E			30
698	Municipal Road Base - 20TH SIDEROAD	NULL	1368.22	1853	30	0	160	840.5	840.5		0.00	$ 131,721.24	Very Poor	Almost Certain	Major	E			30
699	Municipal Road Base - 20TH SIDEROAD	NULL	1377.72	1983	60	30	30	55073.64	26618.9	28454.74	0.00	$ 162,853.78	Very Poor	Almost Certain	Major	E			60
578	Municipal Road Base - 220 SIDEROAD	NULL	1365.76	1853	30	0	160	671.19	671.19		0.00	$ 105,187.64	Very Poor	Almost Certain	Major	E			30
579	Municipal Road Base - 220 SIDEROAD	NULL	2045.81	1853	30	0	160	1005.39	1005.39		0.00	$ 157,562.99	Very Poor	Almost Certain	Major	E			30
648	Municipal Road Base - 220 SIDEROAD	NULL	1526.69	1853	30	0	160	750.28	750.28		0.00	$ 117,581.81	Very Poor	Almost Certain	Major	E			30
575	Municipal Road Base - 240 SIDEROAD	NULL	2045.53	1853	30	0	160	1089.03	1089.03		0.00	$ 170,670.19	Very Poor	Almost Certain	Major	E			30
576	Municipal Road Base - 240 SIDEROAD	NULL	2039.19	1853	30	0	160	1085.66	1085.66		0.00	$ 170,141.50	Very Poor	Almost Certain	Major	E			30
577	Municipal Road Base - 240 SIDEROAD	NULL	2050.23	1853	30	0	160	1091.53	1091.53		0.00	$ 171,062.04	Very Poor	Almost Certain	Major	E			30
605	Municipal Road Base - 240 SIDEROAD	NULL	739.06	1853	30	0	160	393.47	393.47		0.00	$ 61,664.36	Very Poor	Almost Certain	Major	E			30
607	Municipal Road Base - 240 SIDEROAD	NULL	2030.21	1853	30	0	160	1080.87	1080.87		0.00	$ 169,391.94	Very Poor	Almost Certain	Major	E			30
647	Municipal Road Base - 240 SIDEROAD	NULL	1520.6	1853	30	0	160	809.56	809.56		0.00	$ 126,871.97	Very Poor	Almost Certain	Major	E			30
572	Municipal Road Base - 250 SIDEROAD	NULL	303.03	1853	30	0	160	141.47	141.47		0.00	$ 22,171.60	Very Poor	Almost Certain	Major	E			30
573	Municipal Road Base - 250 SIDEROAD	NULL	2223.45	1853	30	0	160	1220.18	1220.18		0.00	$ 191,223.16	Very Poor	Almost Certain	Major	E			30
574	Municipal Road Base - 250 SIDEROAD	NULL	2339.69	1853	30	0	160	1092.33	1092.33		0.00	$ 171,187.65	Very Poor	Almost Certain	Major	E			30
609	Municipal Road Base - 250 SIDEROAD	NULL	1718.4	1853	30	0	160	985.24	985.24		0.00	$ 154,404.65	Very Poor	Almost Certain	Major	E			30
646	Municipal Road Base - 250 SIDEROAD	NULL	1629.44	1853	30	0	160	533.85	533.85		0.00	$ 83,663.81	Very Poor	Almost Certain	Major	E			30
890	Municipal Road Base - 250 SIDEROAD	NULL	325.03	1853	30	0	160	159.73	159.73		0.00	$ 25,033.10	Very Poor	Almost Certain	Major	E			30
568	Municipal Road Base - 260 SIDEROAD	NULL	1477.38	1853	30	0	160	689.74	689.74		0.00	$ 108,094.92	Very Poor	Almost Certain	Major	E			30
557	Municipal Road Base - 270 SIDEROAD	NULL	883.23	1853	30	0	160	470.23	470.23		72.50	$ 73,692.58	Good	Unlikely	Major	M			30
562	Municipal Road Base - 270 SIDEROAD	NULL	2235.19	1853	30	0	160	915.39	915.39		0.00	$ 143,457.29	Very Poor	Almost Certain	Major	E			30
650	Municipal Road Base - 270 SIDEROAD	NULL	2023.44	1853	30	0	160	828.67	828.67		0.00	$ 129,866.84	Very Poor	Almost Certain	Major	E			30
665	Municipal Road Base - 270 SIDEROAD	NULL	1391.53	1853	30	0	160	512.89	512.89		0.00	$ 80,379.40	Very Poor	Almost Certain	Major	E			30
682	Municipal Road Base - 270 SIDEROAD	NULL	1416.82	1853	30	0	160	1160.47	1160.47		0.00	$ 181,866.22	Very Poor	Almost Certain	Major	E			30

Asset Type: **Road Base**

GIS ID	Asset Name	Surface Material	Length (m)	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2012 Accumulated Amortization	2012 Net Book Value	Condition Used for Analysis	Replacement Cost (2013$) Inflated RC	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Desktop Replacement Year	Degredation Replacement Year	Planned Replacement Year
893	Municipal Road Base - 270 SIDEROAD	NULL	724.81	1853	30	0	160	267.15	267.15		80.25	$ 41,867.03	Good	Unlikely	Major	M			30
1115	Municipal Road Base - 280 SIDEROAD	NULL	310.08	1853	30	0	160	97.3	97.3		0.00	$ 15,248.85	Very Poor	Almost Certain	Major	E			30
1116	Municipal Road Base - 280 SIDEROAD	NULL	479.87	1853	30	0	160	150.58	150.58		99.50	$ 23,598.70	Very Good	Rare	Major	M			30
561	Municipal Road Base - 280 SIDEROAD	NULL	2203.08	1853	30	0	160	721.79	721.79		0.00	$ 113,117.39	Very Poor	Almost Certain	Major	E			30
610	Municipal Road Base - 280 SIDEROAD	NULL	1913.36	1853	30	0	160	1253.74	1253.74		0.00	$ 196,483.08	Very Poor	Almost Certain	Major	E			30
611	Municipal Road Base - 280 SIDEROAD	NULL	1752.52	1853	30	0	160	1148.35	1148.35		98.75	$ 179,966.74	Very Good	Rare	Major	M			30
658	Municipal Road Base - 280 SIDEROAD	NULL	1301.93	1853	30	0	160	533.19	533.19		0.00	$ 83,559.66	Very Poor	Almost Certain	Major	E			30
659	Municipal Road Base - 280 SIDEROAD	NULL	2045.83	1853	30	0	160	837.84	837.84		0.00	$ 131,303.71	Very Poor	Almost Certain	Major	E			30
667	Municipal Road Base - 280 SIDEROAD	NULL	573.37	1853	30	0	160	234.81	234.81		0.00	$ 36,799.62	Very Poor	Almost Certain	Major	E			30
891	Municipal Road Base - 280 SIDEROAD	NULL	760.88	1853	30	0	160	311.61	311.61		0.00	$ 48,834.23	Very Poor	Almost Certain	Major	E			30
603	Municipal Road Base - 2ND LINE NE	NULL	1429.5	1853	30	0	160	936.68	936.68		0.00	$ 146,794.97	Very Poor	Almost Certain	Major	E			30
604	Municipal Road Base - 2ND LINE NE	NULL	2051.42	1853	30	0	160	1344.2	1344.2		0.00	$ 210,660.38	Very Poor	Almost Certain	Major	E			30
613	Municipal Road Base - 2ND LINE NE	NULL	2046.32	1853	30	0	160	1374.38	1374.38		44.50	$ 215,390.30	Average	Possible	Major	H			30
614	Municipal Road Base - 2ND LINE NE	NULL	2042.42	1853	30	0	160	1338.3	1338.3		44.50	$ 209,735.71	Average	Possible	Major	H			30
615	Municipal Road Base - 2ND LINE NE	NULL	2447.68	1853	30	0	160	1603.86	1603.86		44.50	$ 251,352.70	Average	Possible	Major	H			30
616	Municipal Road Base - 2ND LINE NE	NULL	2041.03	1853	30	0	160	1337.39	1337.39		44.50	$ 209,593.10	Average	Possible	Major	H			30
672	Municipal Road Base - 300 SIDEROAD	NULL	1786.71	1853	30	0	160	585.38	585.38		0.00	$ 91,738.66	Very Poor	Almost Certain	Major	E			30
894	Municipal Road Base - 300 SIDEROAD	NULL	438.88	1853	30	0	160	143.79	143.79		87.00	$ 22,534.50	Very Good	Rare	Major	M			30
583	Municipal Road Base - 30TH SIDEROAD	NULL	1433.8	1853	30	0	160	763.35	763.35		0.00	$ 119,629.73	Very Poor	Almost Certain	Major	E			30
584	Municipal Road Base - 30TH SIDEROAD	NULL	1457.23	1853	30	0	160	775.82	775.82		0.00	$ 121,585.26	Very Poor	Almost Certain	Major	E			30
692	Municipal Road Base - 30TH SIDEROAD	NULL	1383.62	1853	30	0	160	736.63	736.63		0.00	$ 115,443.40	Very Poor	Almost Certain	Major	E			30
691	Municipal Road Base - 3RD LINE	NULL	3064.93	1853	30	0	160	2008.31	2008.31		0.00	$ 314,738.03	Very Poor	Almost Certain	Major	E			30
555	Municipal Road Base - 4TH LINE	NULL	1104.63	1853	30	0	160	588.1	588.1		0.00	$ 92,165.33	Very Poor	Almost Certain	Major	E			30
556	Municipal Road Base - 4TH LINE	NULL	3054.1	1853	30	0	160	1625.99	1625.99		72.50	$ 254,820.62	Good	Unlikely	Major	M			30
640	Municipal Road Base - 4TH LINE	NULL	3050.39	1853	30	0	160	1998.79	1998.79		99.50	$ 313,245.04	Very Good	Rare	Major	M			30
675	Municipal Road Base - 4TH LINE	NULL	382.07	1983	25	0	30	2274.47	2274.47		0.00	$ 6,725.64	Very Poor	Almost Certain	Major	E			25
688	Municipal Road Base - 4TH LINE	NULL	3054.52	1853	30	0	160	1626.21	1626.21		0.00	$ 254,856.20	Very Poor	Almost Certain	Major	E			30
897	Municipal Road Base - 4TH LINE	NULL	574.12	1983	60	30	30	22950.15	11092.5	11857.65	0.00	$ 67,864.02	Very Poor	Almost Certain	Major	E			60
602	Municipal Road Base - 4TH LINE NE	NULL	331.16	1853	30	0	160	108.5	108.5		0.00	$ 17,003.37	Very Poor	Almost Certain	Major	E			30
558	Municipal Road Base - 4TH LINE SW	NULL	4068.04	1853	30	0	160	1899.24	1899.24		0.00	$ 297,644.73	Very Poor	Almost Certain	Major	E			30
625	Municipal Road Base - 4TH LINE SW	NULL	3268.3	1853	30	0	160	1525.87	1525.87		0.00	$ 239,130.78	Very Poor	Almost Certain	Major	E			30
626	Municipal Road Base - 4TH LINE SW	NULL	2057.55	1853	30	0	160	960.6	960.6		0.00	$ 150,543.72	Very Poor	Almost Certain	Major	E			30
627	Municipal Road Base - 4TH LINE SW	NULL	2045.62	1853	30	0	160	955.04	955.04		0.00	$ 149,671.48	Very Poor	Almost Certain	Major	E			30
671	Municipal Road Base - 4TH LINE SW	NULL	1979.52	1853	30	0	160	1216.02	1216.02		0.00	$ 190,572.38	Very Poor	Almost Certain	Major	E			30
553	Municipal Road Base - 5TH LINE	NULL	1545.7	1853	30	0	160	1012.83	1012.83		0.00	$ 158,727.63	Very Poor	Almost Certain	Major	E			30
554	Municipal Road Base - 5TH LINE	NULL	298.4	1853	30	0	160	195.53	195.53		77.25	$ 30,643.01	Good	Unlikely	Major	M			30
587	Municipal Road Base - 5TH LINE	NULL	52.82	1853	30	0	160	34.61	34.61		0.00	$ 5,424.54	Very Poor	Almost Certain	Major	E			30
630	Municipal Road Base - 5TH LINE	NULL	815.57	1853	30	0	160	534.41	534.41		0.00	$ 83,751.17	Very Poor	Almost Certain	Major	E			30
631	Municipal Road Base - 5TH LINE	NULL	317.38	1853	30	0	160	207.96	207.96		0.00	$ 32,591.35	Very Poor	Almost Certain	Major	E			30
676	Municipal Road Base - 5TH LINE	NULL	2603.39	1853	30	0	160	1492.43	1492.43		0.00	$ 233,889.43	Very Poor	Almost Certain	Major	E			30
687	Municipal Road Base - 5TH LINE	NULL	1239.1	1853	30	0	160	811.93	811.93		0.00	$ 127,243.47	Very Poor	Almost Certain	Major	E			30
898	Municipal Road Base - 5TH SIDEROAD	NULL	475.76	1853	30	0	160	233.81	233.81		76.25	$ 36,642.25	Good	Unlikely	Major	M			30
596	Municipal Road Base - 6TH LINE NE	NULL	1552.17	1853	30	0	160	826.37	826.37		0.00	$ 129,506.25	Very Poor	Almost Certain	Major	E			30
597	Municipal Road Base - 6TH LINE NE	NULL	2048.98	1853	30	0	160	1090.87	1090.87		0.00	$ 170,958.21	Very Poor	Almost Certain	Major	E			30
598	Municipal Road Base - 6TH LINE NE	NULL	1604.3	1853	30	0	160	854.12	854.12		0.00	$ 133,856.06	Very Poor	Almost Certain	Major	E			30
560	Municipal Road Base - 7TH LINE SW	NULL	1581.74	1853	30	0	160	738.46	738.46		0.00	$ 115,730.31	Very Poor	Almost Certain	Major	E			30
593	Municipal Road Base - 8TH LINE NE	NULL	2032.81	1853	30	0	160	1332.01	1332.01		0.00	$ 208,748.89	Very Poor	Almost Certain	Major	E			30
594	Municipal Road Base - 8TH LINE NE	NULL	2039.87	1853	30	0	160	1336.63	1336.63		0.00	$ 209,473.87	Very Poor	Almost Certain	Major	E			30
606	Municipal Road Base - 8TH LINE NE	NULL	228.15	1853	30	0	160	121.46	121.46		0.00	$ 19,035.65	Very Poor	Almost Certain	Major	E			30
629	Municipal Road Base - 8TH LINE NE	NULL	1219.15	1853	30	0	160	798.85	798.85		0.00	$ 125,194.35	Very Poor	Almost Certain	Major	E			30
654	Municipal Road Base - 8TH LINE SW	NULL	1664.59	1853	30	0	160	777.15	777.15		0.00	$ 121,792.78	Very Poor	Almost Certain	Major	E			30
655	Municipal Road Base - 8TH LINE SW	NULL	1906.02	1853	30	0	160	889.86	889.86		0.00	$ 139,457.07	Very Poor	Almost Certain	Major	E			30
656	Municipal Road Base - 8TH LINE SW	NULL	130.36	1853	30	0	160	60.86	60.86		0.00	$ 9,537.91	Very Poor	Almost Certain	Major	E			30
657	Municipal Road Base - 8TH LINE SW	NULL	1390.47	1853	30	0	160	649.17	649.17		0.00	$ 101,736.25	Very Poor	Almost Certain	Major	E			30
580	Municipal Road Base - MELANCTHON-ARTMESIA TL	NULL	1843.06	1853	30	0	160	490.62	490.62		0.00	$ 76,888.67	Very Poor	Almost Certain	Major	E			30
581	Municipal Road Base - MELANCTHON-OSPREY TL	NULL	812.27	1853	30	0	160	232.86	232.86		0.00	$ 36,492.99	Very Poor	Almost Certain	Major	E			30
585	Municipal Road Base - MELANCTHON-OSPREY TL	NULL	700.5	1853	30	0	160	200.81	200.81		0.00	$ 31,471.08	Very Poor	Almost Certain	Major	E			30
588	Municipal Road Base - MELANCTHON-OSPREY TL	NULL	1386.55	1853	30	0	160	397.49	397.49		0.00	$ 62,293.47	Very Poor	Almost Certain	Major	E			30
889	Municipal Road Base - MELANCTHON-OSPREY TL	NULL	427.57	1853	30	0	160	87.55	87.55		78.50	$ 13,721.04	Good	Unlikely	Major	M			30
680	Municipal Road Base - MELANCTHON-OSPREY TOWNLINE	NULL	329.96	1853	30	0	160	67.57	67.57		0.00	$ 10,588.63	Very Poor	Almost Certain	Major	E			30
681	Municipal Road Base - MELANCTHON-OSPREY TOWNLINE	NULL	814.23	1853	30	0	160	166.73	166.73		0.00	$ 26,129.27	Very Poor	Almost Certain	Major	E			30
1102	Municipal Road Base - MELANCTHON-PROTON TL	NULL	2786.44	1853	30	0	160	513.41	513.41		61.00	$ 80,460.67	Good	Unlikely	Major	M			30
1103	Municipal Road Base - MELANCTHON-PROTON TL	NULL	705.85	1853	30	0	160	164.74	164.74		0.00	$ 25,817.29	Very Poor	Almost Certain	Major	E			30
1104	Municipal Road Base - MELANCTHON-PROTON TL	NULL	657.22	1853	30	0	160	188.37	188.37		76.25	$ 29,520.83	Good	Unlikely	Major	M			30

Asset Type: **Road Base**

GIS ID	Asset Name	Surface Material	Length (m)	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2012 Accumulated Amortization	2012 Net Book Value	Condition Used for Analysis	Replacement Cost (2013$) Inflated RC	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Desktop Replacement Year	Degredation Replacement Year	Planned Replacement Year
661	Municipal Road Base - MELANCTHON-PROTON TL	NULL	681.21	1853	30	0	160	125.52	125.52		73.50	$ 19,670.54	Good	Unlikely	Major	M			30
662	Municipal Road Base - MELANCTHON-PROTON TL	NULL	1342.11	1853	30	0	160	247.29	247.29		0.00	$ 38,754.52	Very Poor	Almost Certain	Major	E			30
663	Municipal Road Base - MELANCTHON-PROTON TL	NULL	475.9	1853	30	0	160	136.4	136.4		0.00	$ 21,376.41	Very Poor	Almost Certain	Major	E			30
664	Municipal Road Base - MELANCTHON-PROTON TL	NULL	876.75	1853	30	0	160	251.29	251.29		0.00	$ 39,381.82	Very Poor	Almost Certain	Major	E			30
700	Municipal Road Base - MULMUR-MELANCHTON TL	NULL	3051.21	1853	30	0	160	874.7	874.7		0.00	$ 137,081.52	Very Poor	Almost Certain	Major	E			30
697	Municipal Road Base - MULMUR-MELANCTHON TL	NULL	3052.18	1853	30	0	160	999.98	999.98		0.00	$ 156,714.20	Very Poor	Almost Certain	Major	E			30
703	Municipal Road Base - MULMUR-MELANCTHON TL	NULL	3072.69	1853	30	0	160	943.78	943.78		77.25	$ 147,906.78	Good	Unlikely	Major	M			30
731	Municipal Road Base - MULMUR-MELANCTHON TL	NULL	2975.46	1853	30	0	160	913.91	913.91		0.00	$ 143,226.55	Very Poor	Almost Certain	Major	E			30