TOWN OF INNISFIL
TRANSPORTATION NETWORK
ASSET MANAGEMENT PLAN
2022
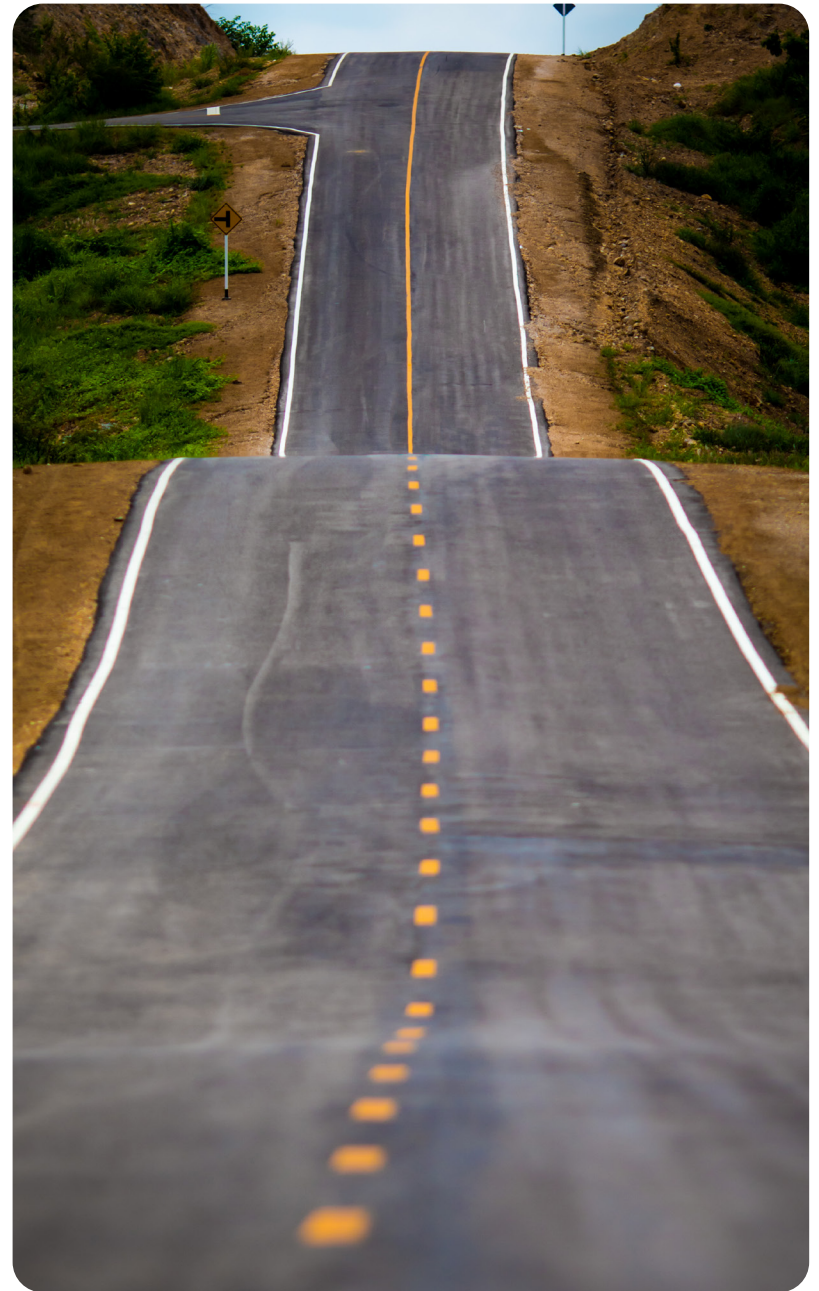
VERSION HISTORY

Version	Date	Description
1.0	June 8, 2022	Council Approval

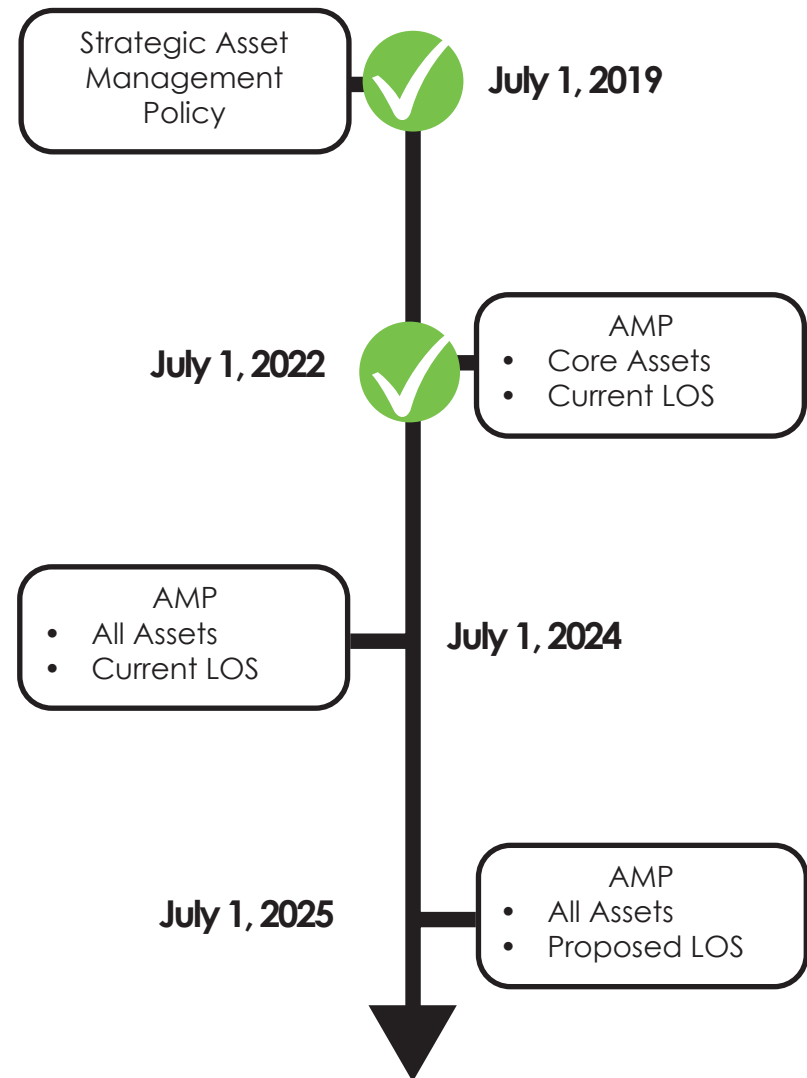# TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Town of Innisfil (Innisfil) owns and manages a large range of assets on behalf of our community. These assets deliver a number of services which must be managed in a cost effective way, while ensuring they continue to meet the needs of the community now and in the future.

The Transportation Network Asset Management Plan (AMP) focuses on Innisfil's Transportation Network and specifies the requirements for effective management of this asset group and the corresponding financial implications. Transportation Network assets include roads, structures and sidewalks and are an important part of Innisfil's infrastructure, providing safe and efficient movement of people and goods within the municipality and to and from adjacent communities.

Innisfil is committed to public transparency and open communication. In this spirit, and in compliance with Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure (O. Reg. 588/17), the AMP will be accessible through the Town of Innisfil website. Background information and reports used in the preparation of the AMP will also be made available publicly through Innisfil's website or upon request.

The AMP will be updated periodically to meet legislative requirements and ensure the information remains current. The information and figures within this plan have been developed based on the best available data at the time of the plan's development. The AMP will assist Innisfil to make appropriate decisions regarding the acquisition, operation, maintenance, renewal, and disposal of core infrastructure assets.

Figure 1: O. Reg. 588/17 Timeline

Strategic Asset Management Policy — July 1, 2019 ✓

July 1, 2022 ✓ — AMP
- Core Assets
- Current LOS

AMP
- All Assets
- Current LOS — July 1, 2024

July 1, 2025 — AMP
- All Assets
- Proposed LOS

INTRODUCTION

In 2015, the Ontario government, introduced the Infrastructure for Jobs and Prosperity Act. The purpose of this Act is to establish mechanisms to encourage principled, evidence-based and strategic long-term infrastructure planning that supports job creation and training opportunities, economic growth and protection of the environment, and incorporates design excellence into infrastructure planning.

Under this Act, the Ontario government also introduced O. Reg. 588/17 which requires that every municipality shall prepare an AMP in respect of its core municipal infrastructure assets by July 1, 2022. The Regulation further defines core municipal infrastructure assets to include roads, bridges, structural culverts, stormwater, water and wastewater.

The AMP has, in part, been prepared to meet the 2022 regulatory requirements of O. Reg. 588/17. Any gaps or weaknesses in compliance are addressed in the Monitoring & Improvement section of the AMP.

The Transportation Network asset category is a major component of Innisfil's core infrastructure assets. These assets provide valuable services to the public including accessible and efficient connection options for movement and active transportation throughout Innisfil and adjoining communities. Effective maintenance and renewal of these assets is critical to ensuring that they continue to deliver adequate levels of service and provide benefits to current and future generations.

The AMP demonstrates Innisfil's responsible and systematic approach to asset management, compliance with regulatory requirements and commitment to fulfilling the following objectives of the Community Strategic Plan:

- Plan for and Manage Growth
- Improve Service Offerings
- Maintain and Protect Existing Infrastructure
- Ensure Financial Stability

The AMP achieves this outcome by delivering on the following key elements of effective asset management planning:

- Developing and maintaining a complete and accurate database of inventory and state of infrastructure information.
- Defining levels of service that consider the public's expectations and meet the strategic needs of Innisfil.
- Employing a lifecycle approach.
- Reviewing current and future demands.
- Managing risks associated with the assets and the services they provide.
- Ensuring continuous improvement in the asset management practice and plans.

The reader will further benefit by consulting the following documentation:

- Municipal Bridge Inspection Report
- Road Needs Study Report
- Sidewalk Needs Study Report
- Transportation Master Plan
- Approved Budgets
- The Official Plan (Our Place)

FREQUENTLY ASKED QUESTIONS

What is an asset?
An asset is an item of property owned by Innisfil that is deemed to have value. Innisfil's assets include core infrastructure assets (i.e. roads, bridges, structural culverts, and stormwater elements), and non-core assets (i.e. buildings, land, vehicles, and playground equipment).

What is an asset category?
An asset category refers to a set of assets that have similar characteristics or purpose. For example "Transportation Network" asset types include roads, structures, and sidewalks.

What are the objectives of asset management?
The objectives of asset management is to intervene at strategic points in an asset's lifecycle to extend the expected service life, and thereby maintain its performance. When maintenance activities are scheduled strategically it helps decrease costs by avoiding expensive unplanned or excessive maintenance.

What is an Asset Management Plan?
An Asset Management Plan (AMP) is a strategic document that provides summary level information about the quantity, quality, average age, and replacement value for a particular asset category. It identifies the levels of service to be delivered by the assets and the lifecycle activities required to maintain the assets in a condition that will adequately support this deliverable. Finally, the plan provides a summary of the required investment over the next 10 years.

Why does Innisfil need an AMP?
Under the Infrastructure for Jobs and Prosperity Act, 2015, and Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure, each municipality in Ontario has a legislative requirement to develop and maintain AMP's. In addition to the legislative requirement, Innisfil benefits from maintaining an effective AMP to help ensure that limited resources are being invested effectively in the assets that need it most to ensure the ongoing delivery of services.

How does Innisfil include community feedback into the Plan?
Innisfil will endeavour to provide opportunities for community engagement in asset management planning. Innisfil will provide information on the corporate website to facilitate transparency in asset management planning.

STATE OF INFRASTRUCTURE

The State of Infrastructure section provides summary level information about Innisfil's Transportation Network assets, which include:
- Roads - arterial, collector and local
- Structures - vehicle bridges, structural culverts, and pedestrian bridges
- Sidewalks - asphalt and concrete

In compliance with O. Reg. 588/17, the following information is provided for each asset type:
- Inventory (quantity)
- Replacement Value
- Expected Life and Average Age
- Average Condition

This information provides the foundation of the Town's asset management plan as having a complete and current understanding of the Town's state of infrastructure is critical to efficient and effective lifecycle management and financial planning.

The following icons are used throughout the AMP to identify the asset types:

Roads   Structures   Sidewalks

Table 1: Transportation Network Asset Summary

Asset Type	Quantity	Replacement Value	Average Age	Average Condition*
(Roads)	755 lane km	$185.6 million	26 years	68.1 (Good)
(Structures)	42	$33.9 million	20 years	76.9 (Good)
(Sidewalks)	96 km	$15.2 million	19 years	87.4 (Good)

*Average condition measured from 0 - 100 with larger numbers indicating better condition.

Inventory

Asset inventory was determined through the review of data in the 2021 Tangible Capital Assets (TCA) file and cross referenced with the County of Simcoe's Geographic Information System (GIS) database. Innisfil's TCA and GIS database are updated frequently to ensure all assets are kept current and information is available to staff. Table 2 summarizes Innisfil's Transportation Network assets, with asset sub-types listed below in further detail:

Road assets are classified into three sub-types:
- **Arterial** - major transportation routes carrying heavy volumes of inter-municipal traffic
- **Collector** - collect traffic from individual local roads and direct it to arterial roads, County roads or Provincial highways.
- **Local** - move traffic throughout a settlement area as defined in the Town's Official Plan and provide access to properties.

Structure assets are classified into three sub-types:
- **Vehicle Bridges** - a roadway or walkway for the passage of vehicles, pedestrians or cyclists across an obstruction, gap or facility.
- **Structural Culverts** - similar to a vehicle bride, however the main purpose is to provide drainage under a road or passage accessed by vehicles, pedestrians or cyclists and which is greater than or equal to three metres in span.
- **Pedestrian Bridges** - a walkway for the passage of pedestrians, cyclists, and maintenance vehicles, such as those used for snow clearing.

Sidewalk assets are classified into two sub-types:
- **Asphalt Sidewalk** - walkway comprised of aggregates, binder and filler.
- **Concrete Sidewalk** - walkway comprised of cement, water, aggregate and sand.

Table 2: Inventory - Transportation Network Assets

Asset Type	Asset Sub-Type	Quantity	Total
	Arterial	8	
	Collector	235	755 lane km
	Local	512	
	Vehicle Bridges	12	
	Structural Culvert	23	42
	Pedestrian Bridges	7	
	Asphalt Sidewalk	6	96 km
	Concrete Sidewalk	90	

Replacement Value

Asset replacement value is determined by estimating the total replacement cost of the assets within each asset category. For roads and structures, consultant estimates provided to Innisfil through the most recent Road Needs Study and Municipal Bridge Inspection Report have been used. Sidewalk replacement value was determined through an analysis of the initial value data detailed in the 2021 TCA file. Figure 2 shows the breakdown and total replacement value for Transportation Network assets.

Figure 2: Replacement Value - Transportation Network Assets
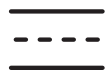

$15.2 M

$33.9 M

$234.7 M

$185.6 M

8
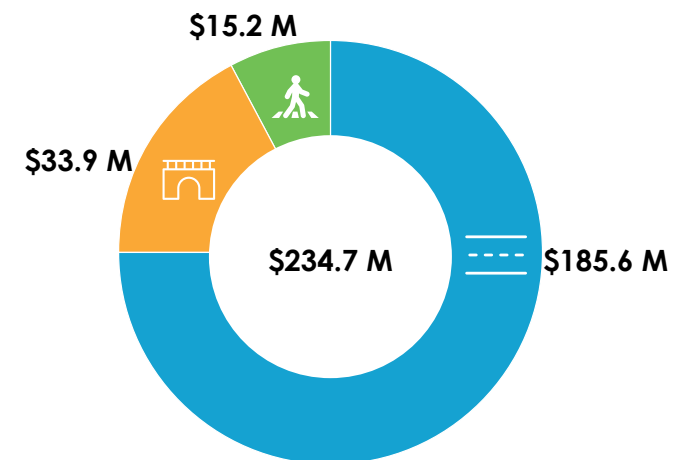
Expected Life

The expected life of assets is the length of time that assets are designed to provide safe, reliable, and useful service. In many cases, the service life of an asset can be extended well beyond the original expected life with proactive lifecycle management, but the cost of ownership generally increases as condition worsens and the frequency and costs of repairs increases. Table 3 provides the life expectancies of various Transportation Network asset types as defined in Innisfil's TCA Policy (2016).

Average Age

Average Age is determined by analyzing the Year Built data detailed in the 2021 TCA file. As shown in Table 3 below, road assets have an average age of 26 years, structure assets have an average age of 20 years, and sidewalks have an average age of 19 years.

Table 3: Expected Life & Average Age - Transportation Network Assets

Asset Type	Asset Sub-Type	Expected Life (Years)	Average Age (Years)
	High Class Bituminous (HCB) Surface*	20	26
	Low Class Bituminous (LCB) Surface*	10	
	Gravel Road	20	
	Road Sub-Base	50	
	Vehicle Bridge	75	20
	Structural Culvert - Concrete	75	
	Structural Culvert - Metal	20	
	Pedestrian Bridge	25	
	Asphalt Sidewalk	15	19
	Concrete Sidewalk	25	

*High Class Bituminous (HCB) (hot mix), is a surface treatment comprising of hot mixed, hot laid asphalic mixtures manufactured and placed within specified tolerances. Low Class Bituminous (LCB) (surface treated roads), are surface treatments consisting of emulsified or liquid asphalt and select aggregate over a prepared granular base or an existing surface. Associated with light to medium volume roads. (Ministry of Transportation Inventory Manual for Municipal Roads, February 1991).

Condition

Asset condition can be determined through modeling or direct measurement. The modeling approach uses standardized deterioration curves and assigns condition based on the percentage of expected life remaining. Direct measurement involves inspection of the assets against technical standards to directly determine the current condition. For Transportation Network assets, the Town employs the more accurate approach of direct measurement and conducts inspections on a regular basis to obtain this data.

Road Condition

Condition data of gravel roads was obtained from the 2018 Road Needs Study that gathered data in accordance with the Ministry of Transportation (MTO) Inventory Manual for Municipal Roads. Condition of paved roads was obtained from the 2021 Streetscan Survey that gathered data in accordance with the American Society for Testing Materials (ASTM) D6433 Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys. Road condition is measured using a Pavement Condition Index (PCI).

Structure Condition

Condition data was obtained from the 2020 Municipal Bridge Inspection Report, that gathered data through visual inspections carried out on an element-by-element basis in accordance with the Ministry of Transportation (MTO) Ontario Structure Inspection Manual (OSIM), under the direct supervision of a Professional Engineer. Structure condition is measured using a Bridge Condition Index (BCI).
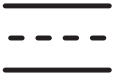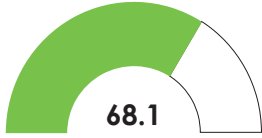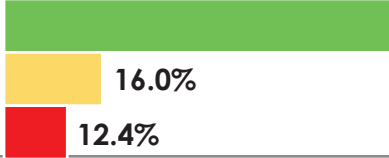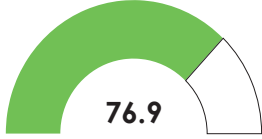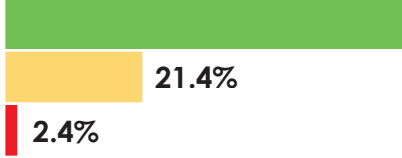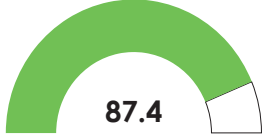
Sidewalk Condition

Condition data was gathered through the 2017 Sidewalk Needs Study and the 2021 Streetscan Survey. In both cases, data was gathered in accordance with customized rating systems due to the absence of an available standard. The 2017 study also gathered data to assess compliance with the Accessibility for Ontarians with Disabilities Act (AODA). Sidewalk condition is measured using a Sidewalk Condition Index (SCI).

Table 4: Transportation Network Asset Condition

| Asset Type | Transportation Network Asset Condition | | | |
	Condition Index & Ratings		Average Condition	Condition Summary
▬ ▬ ▬ (Pavement)	Pavement Condition Index (PCI)		68.1	71.6% / 16.0% / 12.4%
	0-39 Poor	40-59 Fair	60-100 Good	
🌉 (Bridge)	Bridge Condition Index (SCI)		76.9	76.2% / 21.4% / 2.4%
	0-49 Poor	50-69 Fair	70-100 Good	
🚶 (Sidewalk)	Sidewalk Condition Index (SCI)		87.4	92.0% / 5.5% / 2.5%
	0-39 Poor	40-59 Fair	60-100 Good	

Good News!
Transportation Network asset types have an average condition of "good".

LEVELS OF SERVICE

Levels of Service (LOS) describe the quantity and performance of services that assets should support during their service life. They provide a direct link between Innisfil's strategic objectives, the public's service expectations and the measured performance of the delivered service and enable a greater understanding of the cost-benefit implications of adjusting the services provided.

To be effective, LOS must be documented in ways that are meaningful to both the customers using the service and to the municipal staff that are delivering the services and managing the infrastructure that underlies the service. To ensure effectiveness, three types of LOS have been defined below:

Strategic

Qualitative statements that describe the primary service delivery objectives and provide links with one or more objectives of Innisfil's Community Strategic Plan.

Community

Simple qualitative descriptions, in non-technical terms, or images, that describe the public's perception or understanding of a service.

Technical

Quantitative metrics that enable staff to measure, track and report on various service attributes such as scope, quality and reliability.

The specific LOS defined by Innisfil are summarized in the following tables. These will be used to:

- Identify LOS that service recipients can expect to receive and Innisfil's current performance in meeting these.
- Identify assets that require attention to ensure that LOS can be delivered and maintained.
- Enable Staff and Council to discuss and assess the suitability, affordability and equality of the existing service levels and to determine the effect of increasing or decreasing these levels over time.

It should be noted that the Community and Technical LOS listed here exceed the current LOS requirements of O. Reg. 588/17.

Strategic LOS

Strategic LOS performance measures are aligned with Innisfil's strategic goals and objectives in the Community Strategic Plan, Innovative Innisfil 2030. For Innisfil's Transportation Network asset categories, strategic LOS are summarized in the following table:

Table 5: Strategic LOS

Asset Type	Performance Measure	Strategic Objectives Supported
(roadway icon)	Provide comfortable, safe and efficient roadways.	*Grow Connect Sustain* (logo) 1.1 Plan for and Manage Growth 1.3 Improve Service Offerings 2.2 Enhance Movement of People 3.1 Maintain and Protect Existing Infrastructure 3.3 Ensure Fiscal Responsibility
(bridge icon)	Provide safe and reliable bridges and road culverts.	
(pedestrian icon)	Provide comfortable and accessible pedestrian walkways.	

Community LOS

Community LOS performance measures are designed to help the community better understand the services they are receiving and how varying LOS will impact their service experience. Where possible, images are used to further enhance this understanding.

For this version of the AMP, compliance with O. Reg. 588/17 has been the driving force for defining Community LOS. All service attributes and performance measures defined in the regulation for roads and structures have been included. These have been augmented with additional Community LOS covering the scope and quality of sidewalks.

Table 6: Community LOS - Roads

Service Attribute	Performance Measure	Current LOS		
Scope	Description, which may include maps, of the road network in the municipality and its level of connectivity.	Innisfil maintains 755 lane kilometers of roads over a total land area of 262.7 square kilometers. Integrated with the Provincial and County grid-based road network, Town-owned roads provide for travel within and between settlement areas and access to regional arteries and provincial highways, including County Road 27 and Highways 400 and 89. See Appendix A for a map of Innisfil's road network.		
Quality	Description or images that illustrate different levels of road class pavement condition.	**Good**	**Fair**	**Poor**

Table 7: Community LOS - Structures
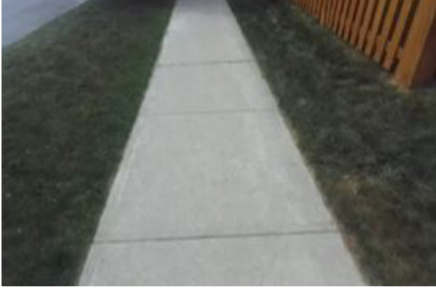
Service Attribute	Performance Measure	Current LOS		
Scope	Description of the traffic supported by municipal bridges.	Innisfil maintains 42 structures including 12 vehicle bridges, 7 pedestrian bridges, and 23 structural culverts. Vehicle bridges and structural culverts support the passage of all vehicle types including heavy transport, emergency service, non-commercial as well as bicycles and pedestrians. Pedestrian bridges support the passage of pedestrians, bicycles, and light utility vehicles. There are currently no load limits on vehicle bridges located in Innisfil.		
Quality	Description or images of the condition of bridge assets and how this would affect their use.	**Good**	**Fair**	**Poor**
Quality	Description or images of the condition of structural culvert assets and how this would affect their use.	**Good**	**Fair**	**Poor**

Table 8: Community LOS - Sidewalks

Service Attribute	Performance Measure	Current LOS		
Scope	Description of the traffic that is supported by municipal sidewalks.	Innisfil maintains 96 kilometers of sidewalks. These provide safe access for pedestrians and bicycles.		
Quality	Description or images of the condition of asphalt sidewalk assets and how this would affect their use.	**Good**	**Fair**	**Poor**
Quality	Description or images of the condition of concrete sidewalk assets and how this would affect their use.	**Good**	**Fair**	**Poor**

Technical LOS

Technical LOS are designed to translate Community LOS into quantitative performance measures, and results that can assist staff responsible for delivering the services and supporting the assets that fulfill the Community LOS.

For this version of the Transportation Network AMP, compliance with O. Reg. 588/17 is the driving force for defining Technical LOS. All service attributes and performance measures defined in the regulation for roads and structures have been included. These have been augmented with additional Technical LOS covering the scope and quality of sidewalks.

> 91.2% of Transportation Network assets are in fair or better condition.

Table 9: Technical LOS

Asset Type	Service Attribute	Performance Measure	Current Performance
	Scope	Number of lane-kilometers of arterial roads as a portion of 262.7 square kilometers of land area in Innisfil.	0.03
	Scope	Number of lane-kilometers of collector roads as a portion of 262.7 square kilometers of land area in Innisfil.	0.90
	Scope	Number of lane-kilometers of local roads as a portion of 262.7 square kilometers of land area in Innisfil.	1.95
	Quality	For paved roads in the municipality, the average surface condition.	68.4 (Good)
	Quality	For unpaved roads in the municipality, the average surface condition.	64.5 (Good)
	Reliability	Percentage of roads in Fair or better condition.	87.6% (Good)
	Scope	Percentage of bridges in the municipality with loading or dimensional restrictions.	0%
	Quality	For bridges in the municipality, the average bridge condition index value.	78.1 (Good)
	Quality	For structural culverts in the municipality, the average bridge condition index value.	76.0
	Reliability	Percentage of structures in Fair or better condition.	97.6% (Good)
	Scope	Number of kilometers of sidewalks as a proportion of 262.7 square kilometers of land area of the municipality.	0.02
	Quality	For asphalt sidewalks in the municipality, the average sidewalk condition index value.	58.6 (Fair)
	Quality	For concrete sidewalks in the municipality, the average sidewalk condition index value.	89.9 (Good)
	Reliability	Percentage of sidewalks in Fair or better condition.	97.4% (Good)

RISK MANAGEMENT

In the context of municipal asset management, a risk is an event that, if it occurred, would have an undesirable effect on the delivery of service. Risk can be defined as the product of the likelihood and impact of the event:

⚠️ **Risk = Likelihood x Impact**

Likelihood - measures the probability of the event occurring.
Impact - measures the severity of the consequence.

As illustrated in Figure 3, risk increases as the likelihood and/or impact of an event increases.

Figure 3: Risk Matrix

Impact	Unlikely	Possible	Likely
Severe	MEDIUM	HIGH	HIGH
Moderate	LOW	RISK	HIGH
Minor	LOW	LOW	MEDIUM

Managing Risk

Risk is managed through a process of identification, assessment, treatment, and monitoring to ensure that Innisfil is adequately prepared for what events may happen and have plans in place to react to events appropriately. This process is outlined in Figure 4 below, with descriptions to follow:

Figure 4: Risk Management Process

1. **Identification**
Write down all the threats and risks you can think of and ask for ones from other stakeholders.

2. **Assessment**
Evaluate each risk by determining the likelihood of it happening and the level of impact it would have.

3. **Treatment**
Implement process changes to reduce the impact of each risk and a response plan for if it happens.

4. **Monitoring**
Review the progress of the plan and ensure assessments and treatments are adequately addressing identified risks.

Identifying Risks

Risk are identified through a number of data sources, including:

- Routine inspections
- Reports and complaints from the public
- Information obtained from past incidents
- Advice from professional bodies
- Past experience of Town staff

Once risks have been identified, assessed and assigned a risk rating, a treatment plan needs to be determined. The choice of treatment depends on the level of risk that can be reasonably managed and accepted by Innisfil (i.e. the risk tolerance). Risk tolerance is informed not just by the likelihood and impact of the risk event, but also the cost of treatment and the urgency of the risk in comparison to other priorities.

Depending on the nature of the risk event and the level of risk tolerance, treatment can include:

 Elimination – process of removing the risk event entirely.

 Mitigation – process of reducing the likelihood and/or impact of the risk event.

 Acceptance – process of retaining the risk as is.

In Table 10 below, staff have identified a number of risks associated with Transportation Network assets to demonstrate the application of the risk management methodology.

Table 10: Sample Risks - Transportation Network Assets

Risk	Likelihood	Impact	Risk Rating	Treatment
Risk of road potholes	Likely	Minor	Low	Accept and resolve as reported
Risk of snow/ice covered roads	Possible	Moderate	Medium	Mitigate through winter operations activities
Minor damage due to accident, vandalism, weather, etc.	Possible	Minor	Low	Accept
Moderate damage due to accident, vandalism, weather, etc.	Possible	Moderate	Medium	Accept
Severe damage due to accident, vandalism, weather, etc.	Unlikely	Severe	Medium	Accept
Premature road/structure failure	Unlikely	Severe	Medium	Mitigate through frequent inspection and maintenance
Premature sidewalk failure	Unlikely	Minor	Low	Mitigate through periodic inspection and maintenance

FUTURE DEMAND

Demand Forecast
Per the 2021 census, the Town of Innisfil has a population of approximately 43,326 people. This is forecast to increase to 54,970 by 2031. This includes roughly 420 new housing units per year which will require the acquisition of new infrastructure assets to ensure that service levels are maintained.

Future Growth
As we look towards the future, it is important that we align asset management planning with local land-use planning and provincial policies. Ontario's Place to Grow Plan sets minimum targets for growth and the Municipal Comprehensive Review (MCR) currently underway by the County of Simcoe will establish the minimum growth (residents and jobs) for Innisfil. Innisfil is expecting its current population to double over the next 30 years. Innisfil's Official Plan "Our Place" guides where Innisfil will direct growth to achieve complete and sustainable communities and will be updated to align with the outcome of the County MCR process.

Challenges and Opportunities
Growth generates both challenges and opportunities as we navigate and balance the ongoing needs of existing residents while addressing the pressures associated with growth and the incremental increases in costs for operational needs. As we look to the future in addressing the longer term financial requirements related to asset renewal and replacement, careful and prudent planning is necessary to ensure the community remains stable, sustainable and affordable. Innisfil's Transportation Master Plan (TMP) is reviewed and updated every 5 years to respond to changes in growth, both within Innisfil and in adjacent municipalities.

The Orbit
The Orbit is a new proposed transit-oriented community to be built around a future GO Station at 6th Line and east of 20th Sideroad. The Orbit will be developed as a sustainable, higher density complete community with new residential, recreational and commercial development opportunities, cutting-edge technology and an active transportation network. The Orbit is expected to house a population of more than 20,000 people in the next 30 years. For more information on this project and other future development with Innisfil, please visit https://www.getinvolvedinnisfil.ca/

CLIMATE DEMAND

Innisfil is working towards the development of an Integrated Sustainability Master Plan which will identify the risks and impacts that climate change has on core infrastructure assets. Changes to our climate can create challenges for municipalities to meet the desired levels of service and can decrease the service life and functionality of these assets. To ensure Innisfil's assets are safe and reliable, climate change and the consideration of sustainable materials must be incorporated into the decisions and long-term planning for the municipality.

All of Innisfil's Transportation Network assets are designed to resist the effects of weathering due to rain, ice, wind, and snow. Due to the nature of the construction materials used for these assets (i.e. concrete and steel), they are by nature resistant to many of the effects of climate change. During periods of extreme weather such as a major rain event or high water levels due to flooding from other regions, Transportation Network assets are inspected and monitored more frequently to ensure the safety of the public and staff.

LIFECYCLE MANAGEMENT

Lifecycle Management

All municipal infrastructure assets progress through a series of stages referred to as the asset lifecycle. Management of this lifecycle is critical for delivering consistent and reliable service and achieving the lowest possible cost over the expected life of the assets. A fundamental principle of lifecycle management is that maintaining an asset in good condition costs significantly less than reconstructing an asset in poor condition. The overall goal is to extend the expected life of the assets while managing risks and minimizing the total lifecycle costs. The stages of lifecycle management are as follows:

Acquisition

Municipal infrastructure assets are acquired primarily through assumption of ownership from developers but can also be constructed directly by Innisfil through approved capital projects.

Operations

Planned, periodic activities such as inspection, assessment, cleaning, and servicing to fulfill LOS commitments and detect defects before failures occur.

Maintenance

Routine activities, planned and unplanned, to resolve minor defects and delay future defects.
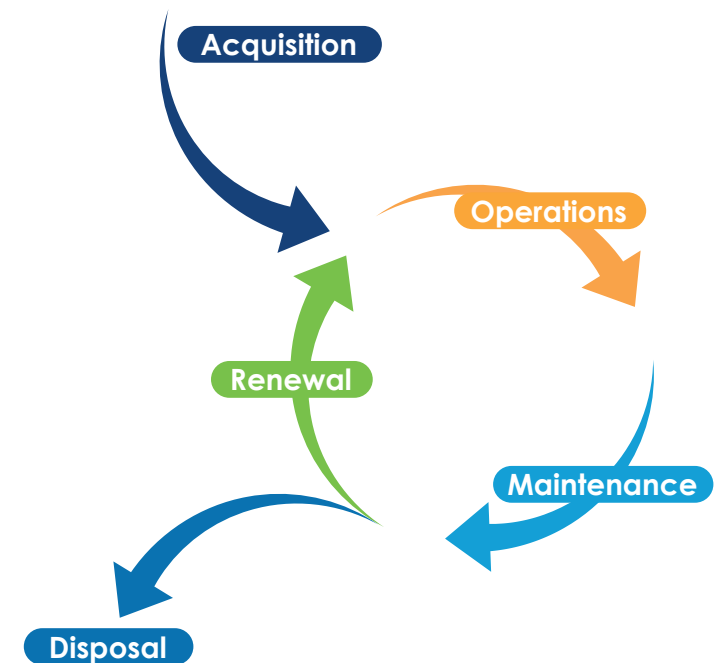
Renewal

Capital activities that are beyond the scope of routine maintenance including reconstruction and rehabilitation of assets to enhance their condition and extend the expected life of the asset.

Disposal

Removal of assets that have reached the end of their effective service life.
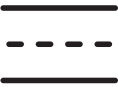
Figure 5: Asset Lifecycle

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Lifecycle Activities

Building on the state of infrastructure and levels of service content, lifecycle activities are the actions utilized by Innisfil to operate, maintain, and renew Transportation Network assets in the manner most appropriate to ensure the long-term performance of the assets.

Determination of the specific action to be taken in the Maintenance and Renewal stages is based on careful consideration of the asset condition, remaining life, and available budget. The timing of the activity also considers competing priorities and related project activities to minimize the risk of having to redo work that is disturbed by a related project. All this helps to ensure that Innisfil is performing the most appropriate and cost effective activity to optimize the lifecycle for each asset.

Table 11: Lifecycle Activities - Transportation Network Assets

Activity	(road)	(bridge)	(sidewalk)
Monitoring	• Road patrol	• Road patrol	• Road patrol
Inspection & Assessment	• Roads Needs Study (RNS) Report prepared every 5 years	• Municipal Bridge Inspection Report prepared every 2 years	• Sidewalk Needs Study (SNS) Report prepared every 5 years
Operations	• Sweeping • Plowing • Sanding and salting • Debris removal • Pot-hole repair	• Sweeping • Debris removal	• Sweeping • Debris Removal
Maintenance	• Crack-sealing • Rout-and-seal • Grading • Dust Control • Gravel addition	• Deck drain and bearing seat flushing • Expansion joint cleaning	• Crack-sealing • Patching • Overlay • Jacking
Renewal	• Slurry seal • Overlay • Pulverize-and-pave • Reconstruction	• Reconstruction	• Reconstruction

FINANCIAL SUMMARY

The Budget Process

The Town of Innisfil prepares a multi-year budget every two years that includes a two-year operating budget and two-year capital budget to address immediate needs and an eight-year capital forecast to address expected future needs. The budget is informed by Innisfil's community strategic plan, extensive community engagement, various master plans and infrastructure needs studies, and asset lifecycle requirements.

Operating Budget

Innisfil's operating budget quantifies the expenditures needed to provide municipal programs, services, governance and administration, maintain financial reserves for future projects and fund the operation and maintenance activities required to maintain current service levels.

Funding for operating expenditures is provided from property taxes and various non-tax revenue sources including:

- Development fees
- Program and license fees
- Fines and penalties
- Interest
- Dividends

Capital Budget and Forecast

Consistent with the provincial and federal mandates for ten-year capital plans to properly address asset management planning and qualify for grant opportunities, Innisfil prepares a two-year capital budget and an eight-year capital forecast. The proposed budget and forecast provide the public, Council and staff with a longer-term path for capital initiatives, recognizing immediate and future needs that include existing asset replacements and growth required infrastructure demands.

The 2021/2022 capital budget and forecast have been developed within the COVID lens and utilizing the recent community needs assessment study, existing master plans, development charges background study, asset management planning and other input documents that guide the focus to where and when financial resources are needed. The capital budget and forecast also fund the acquisition, renewal and disposal activities required to maintain current service levels. Funding for capital expenditures is more involved and has been summarized in Table 12 below:

Table 12: Capital Revenue Sources

Revenue Source	Description	Growth or Renewal
Alternative Revenue Sources (ARS)	Money received from the Ontario Lottery & Gaming Corporation (OLG) generated from Gateway Casinos Innisfil, formerly known as Georgian Downs, is transferred in accordance with policy CP.07-11-05 to the Alternative Revenue Source (ARS) Reserve Fund. The utilization of ARS is intended for the "benefit to existing taxpayers" (non-growth) portion of growth related capital projects, and one-time strategic initiatives.	Growth
Capital Tax Levy	The amounts collected annually through the operating budget for the 1% capital levy are transferred into this reserve. These funds are used to fund the repair and replacement of existing assets, or to fund new assets/projects that are not eligible for funding from development charges.	Renewal
Development Charges	Development charges are collected on new construction. These funds are restricted in use through provincial legislation and can be used solely for the purpose of growth related capital projects, such as new vehicles required for operational activities, facilities needed to accommodate various services throughout Innisfil, new parks and amenities, and various growth studies. These funds must be reported annually on how they were used.	Growth
Restricted Reserve Funds	This fund is used primarily to fund the urbanization of 7th and 8th Line and is developer funded. Funds in this category are restricted in how they can be utilized, either by legislation or agreement. The largest reserve fund in this category is the 7/8th line reserve fund. Innisfil collects funds through the 7/8th line developer's agreement at time of building permit issuance. The funds collected are transferred to a reserve fund and used as a funding source for capital works related to the 7/8th line agreement.	Growth & Renewal
Tax Supported Reserves	Through the operating budget, amounts are collected annually and set aside in defined reserves. This category is comprised largely of fleet reserve revenues. These fleet reserves are used for the replacement of Town fleet. Also Included in this category are funds utilized from library and building inspection capital reserves.	Renewal
Grants & Other Recoveries	Grant funds received from federal and provincial government related programs, such as the Federal Gas Tax program and the Ontario Community Infrastructure Fund (OCIF). Other recoveries include amounts received from external parties.	Renewal

Figure 6: 10-Year Lifecycle Activities Forecast - Transportation Network
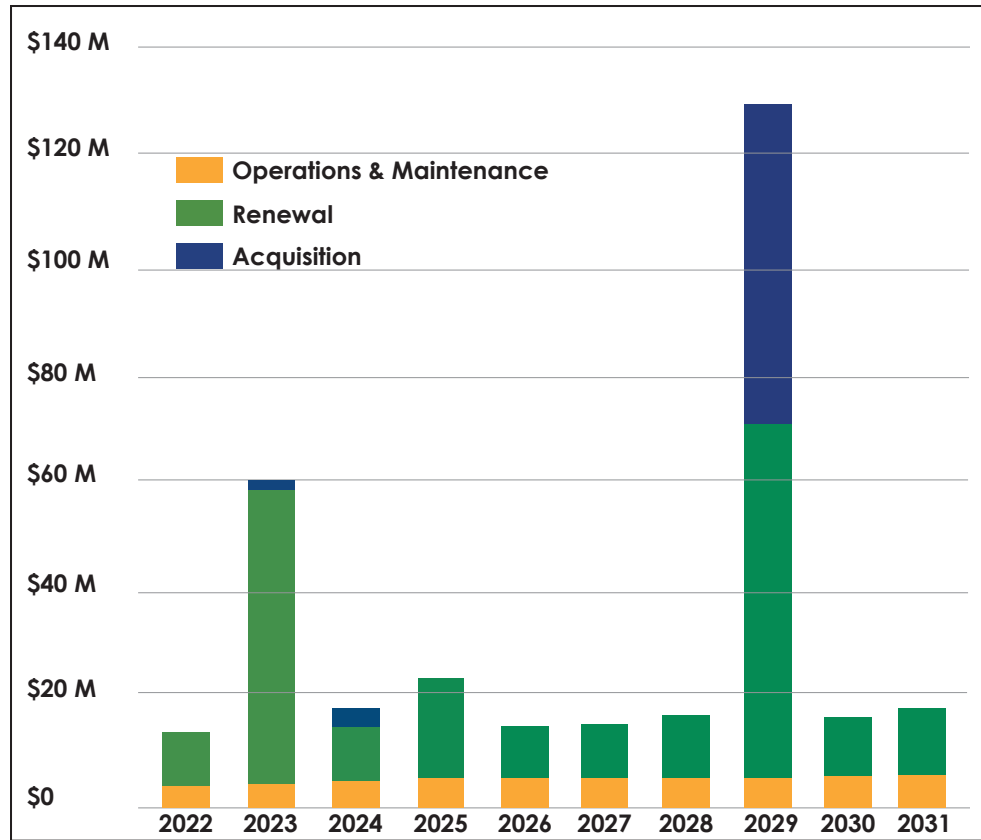
10-Year Lifecycle Activities Forecast

O. Reg. 588/17 requires municipalities to provide a 10-year forecast that estimates the annual costs of lifecycle activities that will need to be undertaken to maintain the current LOS and accommodate expected growth. This forecast is presented in Figure 6 and Table 14 and has been prepared from the 2021/2022 budget and forecast extrapolated to 2031 using an inflation rate of 3%.

The following significant projects are identified to explain the increased funding requirement in 2023, 2025, and 2029:

Table 13: Significant Projects - Transportation Network

Capital Project #	Cost	Year
RDS309	$20 M	2023
RDS276	$24 M	2023
RDS356	$7 M	2025
RDS316	$6 M	2029
RDS312	$7 M	2029
RDS338	$43 M	2029
RDS248	$59 M	2029

Table 14: 10-Year Financial Summary - Transportation Network

Lifecycle Phase	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Operations & Maintenance	$4.95 M	$5.00 M	$5.27 M	$5.10 M	$5.15 M	$5.20 M	$5.25 M	$5.31 M	$5.36 M	$5.41 M
Renewal	$9.37 M	$54.87 M	$11.19 M	$19.98 M	$10.91 M	$11.26 M	$11.83 M	$67.88 M	$12.27 M	$12.64 M
Acquisition	$0	$185 K	$2.37 M	$0	$0	$0	$0	$59.12 M	$0	$0
Total	$14.32 M	$60.05 M	$18.84 M	$25.08 M	$25.08 M	$16.47 M	$17.09 M	$132.32 M	$17.64 M	$18.06 M

MONITORING & IMPROVEMENT

In this final section, opportunities for improvement of Innisfil's asset management program, including AMP content, are identified along with planned activities to strengthen both. These planned activities will ensure that Innisfil continues to comply with O. Reg. 588/17 and that the utility of the AMP and the level of data confidence continuously improves over the short to medium term.

Continuous Improvement
The overall approach to monitoring and improving the asset management program and AMP will be consistent with the Plan-Do-Check-Act (PDCA) model. Following this model, staff will monitor the performance of the asset management program and continue to plan and implement corrective actions to ensure that the program and AMP continue to improve and mature over time.

Improvement Plan
Table 15 on the following page, summarizes the improvement opportunities currently identified and the corrective actions planned for the next three years. A term of three years has been selected to align with the AMP deliverables detailed in O. Reg. 588/17 and summarized in Figure 1 of the AMP.

Table 15: Improvement Plan

Opportunity	Actions	Priority
Improve completeness and accuracy of state of infrastructure data for core assets.	Complete condition assessments of all stormwater mains and ponds.	High
	Validate remaining useful life data for core assets missing construction dates.	Medium
	Complete mapping of tangible capital assets data into GIS inventory for core assets.	High
	Improve replacement cost information for stormwater assets.	Medium
Improve asset management processes for creation, maintenance, and disposal of asset records throughout the asset lifecycle.	Complete mapping of processes.	High
	Prepare standard operating procedure documentation for core and non-core asset records management.	Medium
Improve maturity of level of service reporting for core and non-core assets.	Expand LOS definitions for core and non-core assets.	Medium
	Establish LOS targets.	High
	Formalize data gathering and reporting procedures for each LOS.	Medium
Improve maturity of risk identification and treatment.	Establish risk management committee.	Medium
	Prepare risk management register for Town of Innisfil.	High
Expand asset management program to include non-core assets.	Define non-core asset categories and types.	High
	Establish inventory systems for each non-core asset type.	High
	Gather state of infrastructure data for all non-core assets.	High
	Expand asset management standard operating procedures to cover non-core assets.	Medium
	Complete mapping of tangible capital asset data to inventories for non-core assets.	High
Enhance long term financial planning for asset lifecycle.	Identify costs associated with target levels of service and scenarios to achieve same.	High
Enhance strategic asset management policy.	Complete review and release of updated policy.	Low
Enhance public reporting of asset management information.	Enhance asset management content on Town of Innisfil website.	Low
Enhance asset management links to climate change planning.	Expand climate change coverage in 2024 and 2025 AMP's.	Medium

APPENDIX A - INNISFIL ROAD NETWORK