



## Staff Report for Committee of the Whole Meeting

Date of Meeting: May 21, 2019

Report Number: SREIS.19.008

Department: Environment and Infrastructure Services

Division: Asset Management Planning and Environment Services

Subject: **SREIS.19.008 - Asset Management Policy and Strategy**

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### Purpose:

To present the Corporate Asset Management Policy for Council's approval in accordance with *Ontario Regulation 588/17*.

### Recommendation(s):

1. That the Asset Management Policy be approved in accordance with the requirements of *Ontario Regulation 588/17*.
2. That SREIS.19.008 be received for information.

### Contact Person:

Terry Ricketts, Director, Corporate Asset Management and Environment Services, ext. 6504

Grace McLenaghan, Manager, Corporate Asset Management, Corporate Asset Management and Environment Services, ext. 6545

### Report Approval:

**Submitted by:** Italo Brutto, Commissioner of Environment and Infrastructure Services

**Approved by:** Neil Garbe, City Manager

All reports are electronically reviewed and/or approved by the Division Director, Treasurer (as required), City Solicitor (as required), Commissioner, and City Manager. Details of the reports approval are attached.

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### Background:

Asset Management Planning is recognized as an effective approach to address the growing gap between infrastructure needs and the public funding available to support them. Ontario's *Building Together: Guide for Municipal Asset Management Plans, 2012* was introduced as guidance on preparing Asset Management Plans to help inform long-term decisions with respect to the stewardship of municipal assets. The City of Richmond Hill's first Asset Management Plan was completed and adopted by Council in December 2016 (SRCAO.16.36) and made available to the Province to secure Federal Gas Tax funding.

In December 2017, the province released *Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure* as a part of the *Infrastructure for Jobs and Prosperity Act*. Although Richmond Hill's 2016 Asset Management Plan provides a basis for future asset management planning, *O.Reg.588/17* takes a broader, more integrated approach to Asset Management Planning, and requires the City to evolve its practices and processes once more to achieve compliance.

In preparation for the first regulatory deadline for an Asset Management Policy by July 1, 2019, the City approved a project for the development of **Asset Management Policy, Strategy and Governance Framework** (SREIS.18.009). This initiative entailed conducting a maturity assessment of the City's Asset Management processes by comparing them to the internationally recognized principles and best practices of the Institute for Asset Management (IAM) Maturity Scale.

Key findings from the maturity assessment determined the need to build upon existing asset management practices and better align them with organizational objectives, and to integrate many existing or developing business processes to allow for cross-corporate, evidence-based decision-making. The findings also identified approaches that would secure the City's asset management maturity rating as "Competent" within the Maturity Scale (aligned with ISO 55000) and establish an Asset Management System to produce a compliant Asset Management Plan for core infrastructure by July 2021. Recommendations included:

- Enhance and improve system-wide decision making approaches and modeling tools
- Integrate capital planning and renewal activities with future growth projections and development planning functions
- Develop a customer centric levels of service framework
- Develop formalized capital project prioritization methodologies
- Develop a corporate asset information strategy
- Create a collaborative committee to address risk management
- Create a culture of Asset Management
- Build a coordinated Asset Management corporate function

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These recommendations guided the development of the Asset Management Policy, as well as the City's Asset Management Strategy and implementation plans.

### Asset Management Policy

*Ontario Regulation 588/17* requires that each municipality adopt an Asset Management Policy before July 1, 2019. The Policy is presented in Appendix A. In compliance with the Regulation's requirements, once approved by Council the Policy it will be posted electronically and be made available to the public.

#### Policy Commitments and Principles

The purpose of the Asset Management Policy is to establish the City of Richmond Hill's commitment to corporate asset management planning through defined principles and processes, as well as to outline the scope of assets to be included within the City's Asset Management Plan. Key commitments recommended for Richmond Hill's Asset Management Policy aim to satisfy Section 3 of *Regulation 588/17*, and are as follows:

1. Integrate with the City's Strategic Plan, Official Plan and Master Plans to ensure alignment between asset decision-making and the City's Strategic Objectives, as well as growth and service demand forecasts. (Section 3.7)
2. Manage municipal infrastructure assets using an integrated business approach that delivers desired service results by planning and investing in infrastructure within the context of City-wide responsibilities. (Section 3.1)
3. Enable residents, businesses and other interested parties to provide input in asset management planning. (Section 3.12)
4. Coordinate planning for management of assets shared with other governmental agencies, including the Regional Municipality of York, neighbouring municipalities and the Conservation Authorities. (Section 3.9)
5. Align asset management planning activities to water and wastewater financial plans to ensure that these critical municipal services are appropriately funded over the long term. (Section 3.6)
6. Commit to consider the Asset Management Plan recommendations when developing municipal budgets and long term financial plans. (Section 3.2, 3.4)
7. Commit to consider risks, including those related to climate change, when reporting asset management planning needs. (Section 3.3, 3.5)

In addition to these Commitments, the Policy also lists Asset Management principles (Section 3.8) that the City intends to uphold. These principles are written to adhere to the requirements of *Regulation 588/17*, as well as include responsible practices in Asset Management Planning.

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### Role of Council and Staff

In accordance with Section 3 of the Regulation, the Asset Management Policy must include the role of Council in asset management planning and the persons responsible for asset management planning, including the Executive Lead.

Council is responsible for endorsing the Asset Management Policy and future Asset Management Plans. Council has the authority to approve or modify the Policy, Plans and municipal budgets that support asset management planning, prioritize capital works, and deliver operations and maintenance programs.

By defining the role of Council, the Policy aims to set a transparent process for decision-making, as well as commit to the discussion of infrastructure needs in a public forum, and to both inform Council on the state of infrastructure, and seek public input into future sustainability plans.

The Policy also appoints the City Manager (Executive Lead) as responsible for overseeing the development and implementation the Asset Management Policy and future Asset Management Plans. The City Manager will assign administrative authorities and resources to ensure the Asset Management Policy and Plans are developed, implemented and updated as required.

### Policy Implementation: The Asset Management Strategy

The City's Asset Management System is comprised of three parts:

- The Asset Management Policy, which outlines the City's principles and commitments to Asset Management planning;
- The Asset Management Strategy, which outlines specific business processes and practices that must exist within a municipality to implement the Policy and deliver sound Asset Management planning; and,
- Future Asset Management Plans, which report on the state of infrastructure and disclose operational and financial strategies to meet required service levels.

Over the past year, staff have developed an Asset Management Strategy (as described below) to support evidence-based asset management planning and align infrastructure decisions with the City's overall vision and goals. The Strategy sets out to achieve the commitments and principles of the Asset Management Policy through a set of integrated business processes needed to produce a sound Asset Management Plan.

#### Asset Management Business Processes

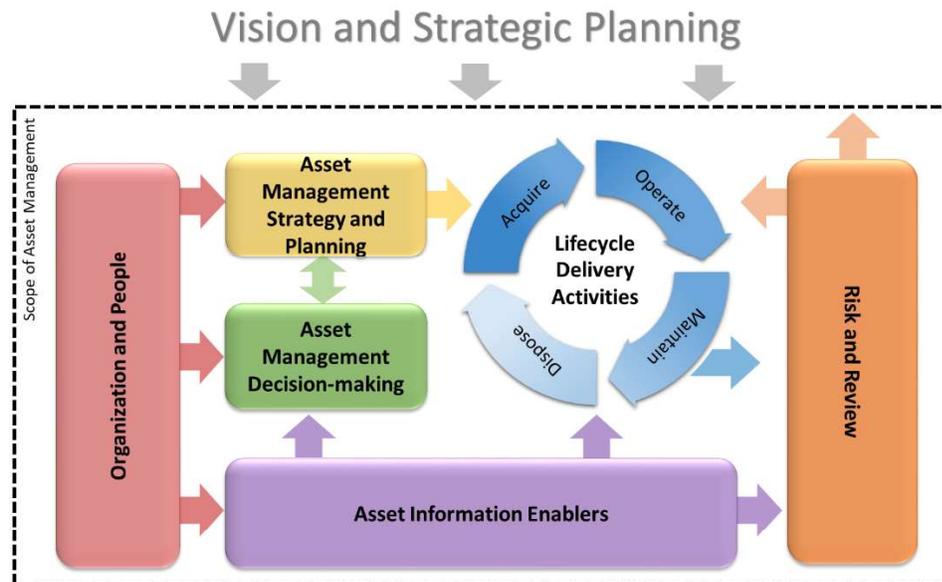
Staff has chosen the IAM Framework as the basis for its Asset Management Strategy. This approach is internationally recognized, and aligned with *Ontario Regulation 588/17*. This Framework was utilized to align current, developing and future asset management planning processes to the six (6) major categories:

1. Asset Management Strategy and Planning;
2. Asset Management Decision-making;
3. Lifecycle Delivery Activities;

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4. Asset Information Enablers;
5. Organization and People; and,
6. Risk and Review.

The following graphic, based on the IAM Asset Management Framework, illustrates these six (6) categories, including their inter-relation as part of an Asset Management System.



Processes within the Asset Management **Strategy and Planning** category focus on coordination between the City's Strategic Plan, Official and Master Plans, and the Asset Management System to better inform infrastructure investment priorities. High priority activities include establishing the Asset Management System, defining sustainable customer-centric levels of service, and coordinating the Asset Management Plan.

The Asset Management **Decision-making** category includes methodologies to enable evidence-based prioritization of projects, with consideration to achieving the best value from asset lifecycle investment, reducing risk exposure and meeting customer demand and technical standards. High priority activities recommended within this category include asset lifecycle modeling to predict long-term asset condition, and risk and service level scenarios to arrive at sustainable capital investment strategies.

**Lifecycle Delivery** processes pertain to the asset lifecycle, including acquisition, operations, maintenance and disposal. High priority Strategy Implementation activities centre on refinement of technical standards for assets to ensure the best value over their useful life, as well as determination of asset specific risk and criticality, to identify asset priorities.

**Asset Information Enablers** relate to data management, as well as the creation of systems and tools to store robust evidence to inform decisions. High priority activities within this category closely align with the IT Strategy, and include utilization of existing

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systems and future tools to allow for better analysis of long term infrastructure needs and impacts.

**Organization and People** focuses on establishing a Governance Framework for Asset Management, and ensuring its success through building a culture of Asset Management. High priority activities within this category pertain to creating working groups of inter-department staff to better leverage expertise, continue to share knowledge, and take a collaborative approach to the Strategy implementation plan.

The **Risk and Review** category relates to both the establishment of common Corporate Risk Management tools, as well as to the continual improvement of the Asset Management System. High priority activities in this category will entail creating enhanced Risk Assessment tools to support asset management related decisions.

The City will need to continue to perform, improve or establish various business processes to achieve a compliant Asset Management Plan in time to meet Regulatory deadlines, including the development of a Core Infrastructure Asset Management Plan by July 2021. As this work proceeds, priority activities will be streamlined and bundled to optimize the use of resources. Synergies with existing processes and ongoing initiatives will be identified to help meet implementation timelines and leverage existing resources and roles where possible.

### **Benefits of Integrated Asset Management Planning**

The Strategy described above sets out to define Asset Management as a means to deliver sustainable services to the community, and to ensure asset-related decision-making and investments are approached in a coordinated manner, informed by evidence and guided by the City's overall strategic direction. The primary business driver is one of service delivery that balances risk, levels of service, and affordability.

In addition to achieving compliance with the Regulations, benefits arising from the activities identified within the Asset Management Strategy include better coordination of capital planning and delivery activities with growth, a better understanding of asset needs, and enhancement of evidence for decision-making activities that support delivery of services. Integration of Asset Management with the Capital Budget process will enable better definition of project priorities, and forecast infrastructure needs to support fiscal sustainability analyses, and predict the resulting State of the Infrastructure given different funding scenarios.

### **Financial/Staffing/Other Implications:**

There are no immediate financial implications associated with this report at the present time.

Moving forward, implementation of the business processes and activities necessary to support a compliant Asset Management System will require a nominal time commitment (<5%) from a large number of staff. It is expected that a large portion of incremental demands can be managed by approaching current practices differently; for example,

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field staff collecting condition assessment data may need to collect new or different information while undertaking the same assessments.

Staff in capital planning roles or subject matter expert staff will experience moderate demands on their time (~20%). Key staff members will need to participate in committees that collectively establish capital priorities, however, these tasks can likely be accommodated within existing staff resources and by streamlining existing processes.

Finally, some divisions will see increased workloads (>50%) due to the introduction of new processes.

The vast majority of implementation activities will fall to the City's Corporate Asset Management section, which is currently staffed to initiate Asset Management planning activities required by *Ontario Regulation 588/17*. Based on a maturity assessment recently conducted to compare the City's Asset Management processes to best practices outlined by the Institute for Asset Management (IAM), it was recognized that additional staff will be required to achieve compliance with the timelines and requirements specified by the provincial Regulation. Future resourcing needs will be brought forward as part of ongoing Operating and Capital budget cycles, together with a business cases outlining any business requirements and associated risks.

The Information Technology team will be tasked with the development of the Enterprise Asset Management (EAM) solution, as well as with improvement to existing information, such as the Geographical Information System (GIS) asset repository. The EAM system will draw data from all major corporate databases for the purpose of analysis and evidence-based decision-making about operating, maintenance and capital programs, as well as risk management. Implementation and on-going maintenance of an EAM system, as well as the task of improving asset information within GIS, may require additional resources in future. The need for these resources will be assessed in concert with other initiatives within the IT Strategy and through future operating budget cycles supported by business cases.

In the short term, external consulting support will be required to deliver several of the high priority activities tied to legislative deadlines and to provide specialty expertise, such as developing capital project prioritization tools and risk frameworks, or completing level of service studies and lifecycle strategies for various asset classes. It is anticipated that these projects will qualify for gas tax funding.

As part of the IT Strategy, capital funding was previously approved to initiate an Enterprise Asset Management software solution in 2019. The solution's purchase and implementation will require additional funding, which has been forecasted as part of the 2020 Information Technology budget.

Funding requirements for the noted external consultant support and solution purchase will be included within future budget cycles.

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### Relationship to the Strategic Plan:

Progressing the City's Asset Management Program aligns with the Strategic Plan Goal Four: Wise Management of Resources. Asset management allows the City to make the right investments at the right time to maintain or improve our services while managing our risks.

### Conclusion:

Ongoing collaboration between City Departments will be necessary to ensure that Asset Management practices become embedded into day-to-day planning activities, and will be essential to the continual improvement approach prescribed within the Regulation. In some cases, new or enhanced processes will be accommodated with expansion of existing roles, or additional tasks and responsibilities. In other cases, consideration will be given between adjustment of work task, additional training to meet additional demands, and the possibility of expanding the existing team to meet the added workload.

The Asset Management Policy is the first milestone towards achieving compliance with *Regulation 588/17*. Overall, the Asset Management Strategy will position the City towards sound management of its infrastructure assets, by increasing the health of the asset base and optimizing the support that infrastructure provides to service delivery.

### Attachments:

The following attached documents may include scanned images of appendixes, maps and photographs. If you require an alternative format please call contact person listed in this document.

- Appendix A - Asset Management Policy

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### Report Approval Details

Document Title:	SREIS.19.008 Asset Management Policy and Strategy.docx
Attachments:	- AppendixA_DraftAMPolicy.docx
Final Approval Date:	May 1, 2019

This report and all of its attachments were approved and signed as outlined below:

**Terry Ricketts - May 1, 2019 - 11:33 AM**

**Italo Brutto - May 1, 2019 - 2:05 PM**

**David Dexter - May 1, 2019 - 3:07 PM**

**Neil Garbe - May 1, 2019 - 4:06 PM**





## Policy

**Policy Name:** Strategic Asset Management Policy  
**Policy Owner:** Director, Corporate Asset Management & Environment Services  
**Approved by:** Council  
**Effective Date:**  
**Date Last Revision:**  
**Review Date:** July 1, 2024  
**Policy Status:**

### Purpose:

The purpose of this Asset Management Policy is to outline the City of Richmond Hill's commitment to corporate asset management planning through defined principles and processes, and to ensure alignment and integration of asset management into strategic planning processes. This Policy is established to embed asset management principles into ongoing capital, operations, and maintenance activities, through the City's Asset Management Strategy and Asset Management Plan (AMP).

This Asset Management Policy conforms to prescribed requirements from *Ontario Regulation 588/17 (O. Reg. 588/17)*, as amended.

### Policy Commitments:

Strategic municipal asset management involves planning for and investing in municipal infrastructure assets used for the delivery of public services, while ensuring sound stewardship of public resources.

This Policy provides a foundation to identify and prioritize investments in existing and future infrastructure assets, and to ensure each investment is capable of supporting the quality of life desired in the community.

The City of Richmond Hill shall:

- 1. Integrate with the City's Strategic Plan, Official Plan and Master Plans** to ensure alignment between asset decision-making and the City's Strategic Objectives, as well as growth and service demand forecasts.
- 2. Manage municipal infrastructure assets using an integrated business approach** that delivers desired service results by planning and investing in infrastructure within the context of City-wide responsibilities.
- 3. Enable residents, businesses and other interested parties** to provide input in asset management planning.
- 4. Coordinate planning for management of assets shared with other governmental agencies**, including the Regional Municipality of York, neighbouring municipalities and the Conservation Authorities.
- 5. Align asset management planning activities to water and wastewater financial plans** to ensure that these critical municipal services are appropriately funded over the long term.

6. **Commit to consider the Asset Management Plan recommendations** when developing municipal budgets and long term financial plans.
7. **Commit to consider risks, including those related to climate change**, when reporting asset management planning needs.

### Definitions:

For the purpose of this Policy:

**“Asset”** means a physical resource with economic value that a municipality controls with the expectation that it will provide a public service. An asset is specifically defined as property, equipment, vehicles, tools or other resources with a purchase value at or above the Capitalization Threshold.

**“Asset Management” (AM)** means the coordinated activity of an organization to acquire, construct, maintain, rehabilitate, replace or dispose of assets for the purpose of providing public service and value to the community.

**“Asset Management Plan” (AMP)** means a plan developed for the management of infrastructure assets, in compliance with the Strategic Asset Management Plan from *O.Reg.588/17*, that combines multi-disciplinary management techniques (including technical and financial) over the life cycle of the asset in the most cost effective manner to provide a specific level of service.

**“Asset Management Strategy”** means a document that defines business processes for asset management planning decision-making, centered on defined levels of service and risk management.

**“Capitalization Threshold”** means the threshold at or above which a resource is considered an asset, i.e., the value of a municipal infrastructure asset at or above which the value will be capitalized and below which it will be expensed. For the City of Richmond Hill, the capitalization threshold is defined in the Tangible Capital Assets Policy. However, items below the defined threshold may be included into the Asset Management Plan, based on level of risk.

**“Core municipal infrastructure asset”** means any municipal infrastructure asset that is a:

- a) water asset that relates to the collection, production, treatment, storage, supply or distribution of drinking water,
- b) wastewater asset that relates to the collection, transmission, treatment or disposal of wastewater, including any wastewater asset that from time to time manages stormwater,
- c) stormwater management asset that relates to the collection, transmission, treatment, retention, infiltration, control or disposal of stormwater,
- d) road, or
- e) bridge or culvert.

**“Public”** means residents and businesses in the City of Richmond Hill, and other interested parties.

### Scope:

The Policy includes all Assets owned or leased by the City of Richmond Hill, including Assets supporting the provision of City Services, or owned or leased by Boards and Agencies of the City, where these assets rely on or impact City resources.

Strategic Asset Management Policy  
Effective:  
Updated:

The scope of this Policy further includes co-owned assets that require coordination between other governmental agencies, including the Regional Municipality of York, neighbouring municipalities and the Conservation Authorities.

## **Policy:**

### **Asset Management Planning Principles**

The Asset Management Policy is the basis for implementing a City-wide Asset Management Strategy that defines an approach for asset management planning. The Strategy will outline business processes for decision-making, centered on defined levels of service and risk management. These business processes will allow the City to identify the optimal approach for investing in assets over their whole lifecycle. The outcomes of these business processes will be documented along with recommendations in the City's Asset Management Plans.

Both the Asset Management Strategy and future Plans shall adhere to the Policy Commitments above, and will incorporate the following principles:

#### **Prioritization and Sound Financial Management**

A process will be established to integrate asset management planning within the development of municipal budgets and long-term forecasts related to assets. This process will:

1. Clearly identify infrastructure priorities. A clearly defined hierarchy for infrastructure priorities is a critical foundation for an effective Asset Management Plan, as risk-based priorities should inform investment decisions.
2. Take a long-term view in making asset decisions, considering the municipal lifecycle of assets from acquisition to disposal.
3. Practice asset management transparently; base decisions on evidence and information that is current, accurate and available to the public; along with sharing this information with implications for infrastructure planning with other public sector entities.
4. Align with all relevant City of Richmond Hill financial or asset plans prepared in accordance with applicable financial budgeting legislation.

#### **Health, Safety and the Environment**

Infrastructure investment decision-making will be informed by a Risk Management process. The Risk Management process will align with Emergency Management, Business Continuity and related health, safety and environmental legislation.

Climate change introduces new risks and vulnerabilities for infrastructure assets. To identify and take into account these risks in asset management planning, the Risk Assessment process will consider climate change risks in defining asset investment priorities. A Risk Assessment process is further described in the Asset Management Plan, and will:

5. Ensure compliance with Health & Safety Legislation and Regulations for work undertaken during the construction and maintenance of assets, as well as safeguard Public safety.
6. Ensure compliance with environmental legislation during the planning, construction, maintenance and disposal of assets through the implementation of the City's ISO 14001 registered Environmental Management System (EMS)

7. Ensure infrastructure is designed to be resilient to the effects of climate change, by:
  - a. Identifying the vulnerabilities of our assets caused by climate change,
  - b. Considering the costs and means to address those vulnerabilities,
  - c. Considering adaptation opportunities that may be undertaken to manage the vulnerabilities,
  - d. Considering mitigation approaches to limit the magnitude or rate of long-term climate change (such as greenhouse gas emission reduction objectives), and
  - e. Considering disaster planning and contingency funding.
8. Minimize the impact of infrastructure on the environment, and respect and help maintain ecological and bio-diversity.
9. Endeavour to make use of acceptable recycled aggregates where appropriate.
10. Promote water resource management through Water, Wastewater, and Storm water asset management planning, financial management and water conservation promotion.

#### **Alignment with Internal Vision and Plans**

The asset management planning process will ensure that the AMP aligns with significant planning documents. The City will:

11. Align with Ontario's land-use planning framework as well as Richmond Hill's Official Plan, Development Charge By-Law, Water/Wastewater Financial Plan, and other Master Plans related to asset management planning, as applicable.
12. Coordinate infrastructure investment and planning efforts with other government agencies, where appropriate.

#### **Community and the People**

The City will provide opportunities for community and stakeholder input into asset management planning. Consultation and communication processes will be described in the Asset Management Plan. The City will:

13. Strive to ensure continuity of core public services and define clear level of service expectations.
14. Consider broader community benefits in making asset investment decisions, including indirect social and economic benefits that improve community well-being and quality of life.
15. Provide opportunities for community input into asset management planning, such as public consultation on the Strategic Plan, Official Plan, Master Plans and annual budget process.
16. Consider the changing needs, demographics and trends within the community when making asset investment decisions.
17. Support economic development and foster innovation through opportunities to make use of innovative local technologies, practices and services where possible.
18. Adhere to accessibility legislation and consider persons with disabilities when making asset investment decisions.

Strategic Asset Management Policy  
Effective:  
Updated:

### **Continual Improvement**

The City's Asset Management Strategy will outline a process for continual improvement. This will be accomplished by improving the City's strategic approach to asset management planning, and by strengthening data management tools and enablers.

This policy shall be posted on the City website and provided to anyone who requests it. It shall be reviewed and updated as required every 5 years or in response to any significant changes.

### **Roles and Responsibilities:**

The City's Asset Management Strategy outlines the interconnected business processes that the City will use to undertake asset management planning. To implement the Strategy, the City will develop a governance framework outlining roles and responsibilities associated with asset management business processes. Per the requirements of *O.Reg.588/17*, the following outlines municipal Council and senior staff roles related to asset management planning, including the executive lead:

**Council** is responsible for ensuring the Strategic Asset Management Policy and Plan are established. Council has the authority to approve or modify the Policy, Plan and municipal budgets that support asset management planning, prioritize capital works, and deliver operations and maintenance programs consistent with the Asset Management Plan.

**The City Manager (Executive Lead)** is responsible for overseeing the development and implementation of the Asset Management Policy and Plan. The City Manager will assign administrative authorities and resources to ensure the Asset Management Policy and Plan are developed, implemented and updated as required.

**The Commissioner of Environment and Infrastructure Services** is assigned administrative responsibility to develop and implement the Asset Management Policy and Plan, ensuring both are suitable to meet the needs of the organization and are reviewed/updated as required.

**Members of the community** are entitled to provide input regarding community services delivered through assets, thereby informing corporate asset management planning, and to have access to information such as the City's Asset Management Policy, Plan and municipal budgets.

### **Related Documents:**

- *Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure*
- *Infrastructure for Jobs and Prosperity Act, 2015*
- Richmond Hill's Strategic Plan
- Richmond Hill's Official Plan
- Richmond Hill's Asset Management Plan
- Richmond Hill's Tangible Capital Assets Policy
- Richmond Hill's Development Charges By-Law
- Water and Waste Water long term financial plans
- Capital Asset Replacement Study (CARS)
- Capital Asset Sustainability Strategy
- Relevant Master Plans

