



Staff Report for Committee of the Whole Meeting

Date of Meeting: April 23, 2018

Report Number: SREIS.18.005

Department: Environment and Infrastructure Services

Division: Asset Management Planning and Environment Services

Subject: Corporate Asset Management Update

Purpose:

The purpose of this report is to provide Council with a progress update on the implementation of the Town's Asset Management Plan and to provide an overview of new legislation that has established formal requirements for municipal corporate asset management practices across Ontario.

Recommendation(s):

- a) That staff report SREIS.18.005 be received for information.

Contact Person:

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Report Approval:

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

Approved by: Neil Garbe, Chief Administrative Officer

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

Background:

Policy drivers and incentives at the Provincial level have evolved quickly to support corporate asset management planning

In July 2014, Richmond Hill signed a federal gas tax funding agreement that stipulated a requirement for municipalities to create a comprehensive Asset Management Plan consistent with the requirements of Ontario's *Building Together: Guide for Municipal Asset Management Plans, 2012*¹. This requirement follows general recognition from the Province that a significant and growing gap exists between the condition of Ontario's infrastructure and public funding strategies required to maintain those assets in a state of good repair.

Asset management planning, as defined by the *Building Together* guide, is: "the process of making the best possible decisions regarding the building, operating, maintaining, renewing, replacing and disposing of infrastructure assets. The objective is to maximize benefits, manage risk, and provide satisfactory levels of service to the public in a sustainable manner. Asset management requires a thorough understanding of the characteristics and condition of infrastructure assets, as well as the service levels expected from them. It also involves setting strategic priorities to optimize decision making about when and how to proceed with investments. Finally, it requires the development of a financial plan, which is the most critical step in putting the plan into action."

On that basis, the Town undertook to create an Asset Management Plan as per the requirements of the *Building Together* guide. This work was completed in December of 2016, and the Plan adopted by Council in SRCAO.16.36.

During the same timeframe, the *Infrastructure for Jobs and Prosperity Act, 2015* was proclaimed and included authority for the Province to regulate municipal asset management planning.

Given this new authority, the Ministry of Economic Development, Employment and Infrastructure posted a *Proposed Municipal Asset Management Planning Regulation* on the Environmental Bill of Rights Registry in 2017. The purpose of the proposed regulation was to introduce best practices throughout Ontario's municipal sector and provide consistency, building on the success of *Building Together* guide. Although the Town agreed with the principles and direction of the proposed regulation, the scope and implementation timing put forward were too aggressive. The Town provided comments to the Province on that basis as outlined in SREIS17.017.

¹ Following the publication of Ontario's 10-year Infrastructure Plan, *Building Together (2011)*, the Province released *Building Together: Guide For Municipal Asset Management Plans (2012)* as an element of Ontario's *Municipal Infrastructure Strategy (2012)*.

Most recently, in December of 2017, the province released *Ontario Regulation 588/17 Asset Management Planning for Municipal Infrastructure*. This regulation outlines formal municipal responsibilities for asset management planning throughout Ontario. It includes requirements for an Asset Management Policy, as well as a phased approach for expanding and improving municipal Asset Management Plans (more detail provided below).

Richmond Hill's Asset Management Plan provides a basis for future asset management planning, however new regulatory requirements will result in substantial changes to the Plan and significant work will be needed to bring the Town's practices and processes into compliance

The Town's current Asset Management Plan seeks to answer seven key questions about our assets:

- What assets do we own and what is their condition?
- What are they worth?
- How are they performing?
- What actions do we need to take?
- When do we need to do it?
- How much will it cost?
- How will we fund it?

The scope of the Plan includes infrastructure in the Roadway System, Buildings, Storm water Management, Water Network, Wastewater Network, Parks & Outdoor Recreation, Parking Lots, Fleet & Equipment, Information Technology, Environmental Assets and Other Equipment & Materials. The Plan provides information about the State of Local Infrastructure, levels of service, asset management strategies, and financial strategies

The Plan further provides a series of practical implementation actions that will help advance the Town's Asset Management systems and ensure infrastructure is maintained at desired service levels for the lowest total lifecycle cost.

Although Richmond Hill's Asset Management Plan provides a basis for future asset management planning, the requirements of O.Reg.588/17 will result in substantial changes to the plan, and significant work will be needed to bring the Town's practices and processes into compliance.

This report outlines implementation progress made throughout 2017 and provides an overview of new regulation (O.Reg.588/17) that has established requirements for municipal corporate asset management practices.

Asset Management Planning Update 2017:

Asset Management Policy: New Ontario regulation defines extensive asset management responsibilities for municipalities

Provincial legislation, *Ontario Regulation 588/17 Asset Management Planning for Municipal Infrastructure*, has defined new responsibilities for Asset Management in municipalities. All Town departments will need to work closely together to meet these requirements. Generally speaking, the regulation allows for a phased approach, addressing core assets initially, followed by all assets. Core assets include water/wastewater/storm water assets, roads and bridges. The regulation includes four main areas of responsibility, as follows.

1. Asset Management Policy - by July 2019

The regulation requires municipalities to develop an asset management Policy with 12 specific elements, such as processes by which asset management planning is to be considered in the development of the municipal budget, process to ensure asset management planning aligns with water and wastewater financial plans, and process to ensure asset management planning alignment with Ontario's land use planning framework.

Although a basis for policy development was established through experience gained in assembling in the Town's first Asset Management Plan, there is a need to more clearly define and document these business processes and approaches in order to comply with this requirement. Municipal Asset Management Policies are to be completed by July of 2019.

2. Asset Management Plans & Current Levels of Service - by July 2021 for core assets, and July 2023 for all assets

Current Level of Service.

The Asset Management Plan must clearly define the current levels of service provided by municipal infrastructure, both from a community-facing perspective and in the form of a technical measure. For example, for roads, a community-facing level of service might describe pavement conditions by road class, whereas a technical level of service would involve measuring the average pavement condition index value of the same roads. This information must be based on data collected within the previous two years.

To accomplish this task, the Town will need to define levels of service differently than we do today. Currently, not all asset classes have defined levels of service, and of those that do, not all meet the new requirements. Further, the Town will need to undertake significant work effort over the next few years to complete the required condition

assessments. In some cases, current condition assessment cycles are less frequent or address a more limited scope than will be required going forward.

Current Performance

The Asset Management Plan must include the current performance of each asset category, as determined by performance measures established by the municipality and based on data collected within the prior two years. Generally speaking, a performance measure compares the service/work provided by an asset against the resources required to maintain it. For example, with buildings, the cost per square foot to maintain the building at the desired condition index is a measure of performance. Currently, the Town's Asset Management Plan does not address performance for most assets. Performance measures will need to be established and current performance data obtained.

Replacement Cost and Condition

The Asset Management Plan must provide information on the replacement cost of assets, the average age of assets, condition of assets, and also describe the process by which asset condition is assessed. These records must be assembled for core assets by 2021, and all assets by 2023. The Town's current Asset Management Plan is based on high level estimates for replacement cost; more accurate information will be required. Further, the Plan uses infrastructure age as a proxy for condition in many cases, whereas actual condition data will be required to yield more accurate financial projections regarding the projected timing and cost of capital replacement. Finally, the Town will need to define and document processes for collecting information about the condition of assets for all asset classes, and collect/analyze the data.

Lifecycle Activities

The Asset Management Plan must determine the 10-year lifecycle activities needed to maintain current service levels. More importantly, through a process of data analysis, the Plan must identify the best combination of maintenance and capital replacement activities that will yield the lowest capital and operating costs necessary to maintain current levels of service over the lifecycle of assets, in consideration of risk. This type of analysis has not yet been done by the Town, and significant effort will be required to collect relevant data and establish processes for optimization analysis. This work will most likely require new software capable of integrating with the Town's other enterprise systems and databases.

Growth

The Asset Management Plan must provide estimated capital and operating costs over 10 years required to maintain current service levels and accommodate increased demand caused by growth. Financial projections and strategies outlined in the Town's current Asset Management Plan consider capital costs exclusively. Going forward,

financial planning for asset management will need to be expanded to (1) incorporate both capital and operating costs, and (2) forecast growth-related operating cost increases over a 10-year timeframe while maintaining consistency with the Development Charges Act.

3. Asset Management Plans & Future Targets - by July 2024

Proposed Level of Service Targets

For each asset category, the Town must define target levels of service proposed for the next 10 years. This must include a discussion of options and risks, whether the targets are achievable, and the municipality's ability to fund the proposed targets.

Proposed Performance Targets

The Asset Management Plan must define target performance for each asset category over the next 10 years, consistent performance measures (efficiency measures) defined by the municipality and as outlined above.

Lifecycle and Financial Strategy for the next 10 Years

The Asset Management Plan must include a lifecycle management strategy that identifies activities necessary to reach target levels of services at the lowest overall lifecycle cost, based on options analysis and risk assessment, and in consideration of growth. The Plan must also propose a financial strategy to support activities required to reach target service levels over the next 10 years, including an estimate of annual operating and capital costs, annual funding available, funding strategies, and identification of funding shortfalls and how these will be managed to mitigate risks.

4. Reporting and Administrative Requirements

The regulation requires municipalities to update the Asset Management Plan in 2021, 2023 and 2024 to include the new phased-in requirements at each stage. After that point, the Plan must be updated every five years. The Plan must be endorsed by the municipality's executive lead (in Richmond Hill's case, the Chief Administrative Officer, CAO) and approved by municipal Council each time it is updated. In addition, each municipality shall conduct an annual review of its asset management progress on or before July 1st, and make the Plan available to the public.

Administration: Realignments in corporate structure and dedicated resources support asset management planning in Richmond Hill

In anticipation of new regulatory pressures, in the summer of 2017, corporate asset management responsibilities were formally assigned to the *Environment and Infrastructure Services Department*, and specifically the *Environment Services Division*, as outlined in SRCAO.16.31 and SRCAO.17.23. The division was renamed the *Corporate Asset Management and Environment Services Division*, thereby establishing

an organizational home for the asset management planning function within the Town. This change was made as part of a larger effort to assess and realign the Town's management structure and services to meet the current and future needs of Richmond Hill. The reports identify that a specific focus within the organization is required for successful implementation of the Asset Management Plan, as well as dedicated resources to advance work in this area.

Further to these reports, and as part of the 2017 Operating Budget, Council approved a full time Manager of Asset Management Planning as well as a Project Manager. Recruitment processes are underway. In addition, the Financial Outlook and Staffing Plan put forward in the 2018 Operating Budget (2019-2021) estimates future resources needed to support the new asset management function. These projections will be revised once a governance framework for the Asset Management function has been established.

Governance Framework: Definition of Corporate Roles and Responsibilities are Under Development

In early 2018, further to the announcement of O.Reg.588/17, key departments involved in assembling the original Asset Management Plan reconvened to review the new regulatory obligations, required timing for phasing-in stages of work and implications to Richmond Hill. Moving forward, a governance framework for asset management functions will be defined and brought forward to the Executive Leadership Team. This framework will identify the corporate roles and responsibilities necessary to fulfill the Town's asset management obligations and make best use of valuable information generated throughout the course of this work.

Improvements to Existing Asset Management Processes: Early Efforts Focused on Improving Asset Inventory Data

The primary goal of the asset management planning team in 2017 has been to improve and better align the Tangible Capital Asset (TCA) inventory data as the foundation for a future asset registry, i.e., a complete inventory of all Town Assets.

Currently, information about tangible capital assets is recorded, tracked and reported in financial statements as required by the Municipal Act and the Public Sector Accounting Board (PSAB) Handbook. Tangible capital assets are physical assets used in the delivery of municipal services such as roads, buildings and water systems. The existing inventory of tangible capital assets maintained by the Town's Finance Division is a good starting point to develop a broader inventory of all Town assets that must be managed under an Asset Management Plan.

To that end, extensive work has been completed in partnership between Environment and Infrastructure Services (EIS) and Corporate and Financial Services (CFS) to convert the Town's existing tangible capital asset inventory to a standardized template and begin validating the information within each asset class. In the past, TCA

information was collected solely for the purpose of financial statements and planning; going forward, the new templates will help staff collect additional information relevant to asset management planning as well. Further, information collected previously (historically) is being reviewed to ensure it meets appropriate quality standards and has been provided using consistent methods and processes. In connection with this work, the Town's Tangible Capital Asset (TCA) Policy has been updated to include improved information on the lifespan of various assets, which in turn will assist in financial planning for the replacement of those assets.

Moving forward, the creation of single asset registry, complete with information to support both financial and asset management functions will help inform lifecycle strategies. Lifecycle strategies involve identifying the right mix of maintenance versus replacement activities that will achieve the lowest cost overall, while keeping the asset in a state of good repair throughout its useful life.

Improved Tools and Resources: New enterprise IT systems will enable asset management planning

The Town's IT Strategy aligns with the tools and resource needs identified in the Asset Management Plan, including direction to develop an Asset Management Systems Strategy to collect, store, analyze and manage data relevant to asset management processes and reporting. Throughout 2017, progress was made with respect to the following key systems that support asset management planning activities.

Enterprise Resource Planning (ERP)

In 2017, the Town initiated a contract to develop a Town-wide ERP solution. This solution will improve financial tracking process and enable access to information necessary for asset management reporting purposes. As detailed under O.Reg.588/17, municipalities are required to collect, analyze and report capital and operating data for all assets, and use this information to develop achievable financial strategies. ERP is a powerful tool that will assist with these requirements in a meaningful way.

Geographic Information System (GIS) Strategy

In 2017 the Town initiated a GIS Strategy for completion in 2018. GIS is a software system used to record data and display information in the form of a map, such as a map showing underground civil infrastructure. Beyond its obvious value as a storehouse for Town mapping records, GIS is used primarily as a tool for identifying and analyzing trends in order to make decisions and direct work. GIS capability is fundamental to analyzing and communicating asset information. For example, GIS could be used to display areas of the road network that provide different service levels, or to display the most critical areas of the water network where investment should be prioritized. Throughout 2017, the Town's GIS capabilities were improved in three ways:

- The Town's work order management system (MAXIMO) was linked to GIS. By linking work orders to a map, it makes it easier for staff to identify precise locations where work needs to take place. It further provides records of the work and related costs necessary for asset management reporting purposes, and can alert staff to trends in work order locations that could indicate a more complex problem.
- Customer self-service requests collected through the Town's Customer Relationship Management (CRM) software used in Access Richmond Hill were connected to GIS location maps. This makes it easier for residents to identify where work needs to take place (for example, by identifying a particular streetlight or tree on a map). It provides staff with coordinates that enable faster response times, and also generates a record of where the work took place for asset management purposes.

Through the development and use of these and other tools, the Town will establish a foundation for asset data management, analysis, decision-making and reporting. These investments are core elements of the Town's future asset management system.

Key Actions Starting in 2018

Staff will develop a work plan to implement the phased requirements of O.Reg.588/17, prioritizing the development of a governance framework for asset management planning within the Town, as well as the development of an Asset Management Policy.

The governance framework will identify corporate roles and responsibilities necessary to fulfill the Town's asset management obligations. Once complete, the Policy will formalize Town processes necessary to support asset management planning, and specifically identify connections between asset management and the Town's strategic plan, land use planning framework, financial plans, and continuous improvement goals.

Work to be initiated in 2018 includes:

- A work plan to comply with Ontario's regulation for asset management planning
- A governance framework for asset management activities across the Town
- An Asset Management Policy
- Exploration of various IT approaches that could be used to collect, store and analyze asset-related data
- Planning for a formal Town asset registry (inventory of assets)
- Further development and integration of IT systems such as the Financial system (Enterprise Resource Planning-ERP), the mapping database (Geographic Information System-GIS) and the Town's work order management system (MAXIMO) as critical supports to asset management planning

Staff will report back on asset management plan implementation progress annually.

Financial/Staffing/Other Implications:

There are no immediate financial, staffing or other implications related to this report. However, Ontario's new asset management regulations will require substantial staff efforts to reach compliance. This work will be required on an accelerated schedule and covering a broader scope than first envisioned by the Town's Asset Management Plan and recommended implementation approach.

The Financial Outlook and Staffing Plan put forward in the 2018 Operating Budget (2019-2021), which pre-dates the new regulation, forecast three additional staff to support corporate asset management processes. This early estimate will need to be revised once the governance framework has been established and a work plan to reach compliance with the regulation has been developed. It is likely that staff and/or capital resources will be required in both the central Corporate Asset Management group in EIS, as well as participating departments as new responsibilities are added, for example, regular asset condition assessments, or risk analysis requiring software. Staff will report back to Council during regular budget processes regarding resources necessary to fulfill these duties.

Moving forward, as corporate asset management processes at the Town evolve, Richmond Hill will receive significant financial benefit from this work. In particular, lifecycle strategies will be developed to identify the right combination of operating and capital activities that will result in the lowest lifecycle costs required to keep public assets in a state of good repair and manage risk. Early investment in corporate asset management planning will result in long-term cost avoidance.

Relationship to the Strategic Plan:

By implementing asset management planning processes, the Town aligns with Strategic Plan Goal Four, Wise Management of Resources. Asset management planning will assist with decision-making related to management of our infrastructure assets, long term funding strategies, and service delivery.

Conclusion:

The purpose of this report is to provide Council with a progress update on the implementation of the Town's Asset Management Plan and to provide an overview of new legislation that has established formal requirements for municipal corporate asset management practices across Ontario.

Policy drivers and incentives at the Provincial level have evolved quickly in recent years to support corporate asset management planning. Most recently, the Province released *Ontario Regulation 588/17 Asset Management Planning for Municipal Infrastructure*, which outlines formal municipal responsibilities for asset management planning throughout Ontario. Although Richmond Hill's Asset Management Plan provides a basis

for future asset management planning, the new regulatory requirements are more comprehensive and prescriptive, which will result in changes to the existing Asset Management Plan and significant work will be needed to bring the Town's practices and processes into compliance.

Dedicated resources in EIS only have taken place to support asset management planning in Richmond Hill. Specifically, the Asset Management Planning and Environment Services Division was created, thereby establishing an organizational home for corporate asset management planning. Moving forward, a governance framework for asset management functions will be defined and brought forward the Executive Leadership Team. This framework will identify the corporate roles and responsibilities necessary to fulfill the Town's asset management obligations.

Priorities to be initiated in 2018 include a work plan to comply with Ontario's regulation for asset management planning, a governance framework for asset management activities across the Town, and an Asset Management Policy.

There are no immediate financial, staffing or other implications related to this report. Resourcing forecasts, currently contained within the 2018 Operating Budget, will need to be revised once the governance framework has been established and a work plan to reach compliance with the regulation has been developed.

Moving forward, as corporate asset management processes at the Town evolve, Richmond Hill will receive significant financial benefit from this work. In particular, lifecycle strategies will identify the right combination of operating and capital activities resulting in the lowest lifecycle costs required to keep public assets in a state of good repair and manage risk. As such, this work aligns with the Goals of the Strategic Plan and helps the Town to deliver exceptional public service.

Report Approval Details

Document Title:	SREIS.18.005 Corporate Asset Management Update.docx
Attachments:	
Final Approval Date:	Apr 5, 2018

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

Terry Ricketts - Apr 5, 2018 - 9:42 AM

Italo Brutto - Apr 5, 2018 - 2:14 PM

Neil Garbe - Apr 5, 2018 - 2:32 PM