

Core Infrastructure Asset Management Plan

Date: September 23, 2021
To: Executive Committee
From: City Manager and Chief Financial Officer and Treasurer
Wards: All

SUMMARY

This report presents the City of Toronto's Core Infrastructure Asset Management Plan for City Council's approval, in accordance with Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure (the "Regulation"). The regulations were subsequently amended in March of 2021 under Ontario Regulation 193/21 to change the timing of reporting requirements under the Act. The report will address the infrastructure elements as outlined in the regulation and include water, wastewater, stormwater, roads, bridges and culvert asset groups.

The Core Infrastructure Asset Management Plan is aligned with Corporate Asset Management Policy approved by Council in 2019 and incorporates key principles and strategic directions that enhance asset management practices and ensure that asset management activities are continuously improved and integrated across the organization. The asset management plans in this report are based on the work used to develop the annual Capital Budget and Plan for the core infrastructure asset groups managed by Toronto Water and Transportation Services Divisions.

Asset management integrates planning, finance, engineering and operations to realize value from assets, reduce risks and provide expected levels of service to the community in a socially, environmentally and economically sustainable manner. Effective asset management requires an overarching framework to establish and guide its practice so that asset management becomes central to strategic, financial and operational decision-making at all levels of the organization.

The Core Infrastructure Asset Management Plans in Appendix 1 and 2 of the attached report, provides the foundation that will support an integrated approach at the City as it develops and matures its asset management practice and ensure the sustainability of assets and related services; optimize infrastructure investment decisions; and support reliable service delivery. The Asset Management Plans provide an inventory by asset category, asset conditions, service levels and asset life cycle activities and costs required to maintain current service levels. The Plan also identifies the impacts of growth including costs to accommodate demand and the operating costs required to

maintain current service levels in accordance with the first-phase requirements of Ontario Regulation 588/17.

Staff are recommending that, given the scale of assets being presented in the attached plans, the General Managers of Toronto Water and the Transportation Services Divisions be provided the authority to make non-material amendments to the plans as required, such as minor changes to asset inventory or condition, prior to the July 1, 2022 regulatory deadline for Core Infrastructure Asset Plans.

RECOMMENDATIONS

The City Manager and Chief Financial Officer and Treasurer recommend that:

1. City Council adopt the Core Infrastructure Asset Management Plans as set out in the attached report and provide authority to the General Managers of Toronto Water and the Transportation Services Divisions to make any required non-material amendments to the plans prior to the July 1, 2022 regulatory deadline.
2. City Council direct the City Manager to make available the final approved Core Infrastructure Asset Management Plans as amended to the public via the City website and to distribute printed copies as requested.

FINANCIAL IMPACT

Adoption of the recommended Core Infrastructure Asset Management Plan does not result in immediate financial implications. However, compliance with the legislative requirements may result in the need for an additional investment in resources corporately to establish an organization-wide practice of integrated asset management.

DECISION HISTORY

At its final wrap-up meeting on February 20, 2019, Budget Committee requested that the Chief Financial Officer and Treasurer continue efforts to update and improve the City's asset management policies, standards and practices and report back together with the City's asset management policy for Council's consideration and approval by July 1, 2019, as required by Provincial legislation.

At its meeting on June 18, 2019, City Council adopted the Corporate Asset Management Policy. The purpose of this policy is to guide the development and implementation of the City of Toronto's asset management framework and asset management plans and applies to the lifecycle management activities of municipal infrastructure assets that are owned and/or controlled by the City of Toronto for the provision of services <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.EX6.11>

This policy was developed in response and in accordance with *Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure* and it is used to guide the development of the Core Infrastructure Asset Plan presented in this report.

BACKGROUND

In 2017 the Province of Ontario enacted *Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure* (O. Reg. 588/17), under the *Infrastructure for Jobs and Prosperity Act*, to support improvements in municipal asset management.

Ontario Regulation 588/17 which came into effect in January 2018 provides the authority for the Province to regulate municipal asset management planning. It reflects the province's commitment to guide investments in public infrastructure that was first initiated in 2011 (and subsequently reconfirmed in 2017), when the Province of Ontario released *'Building Together'* as its long-term infrastructure plan and strategic framework. It also builds on consultations with the municipal sector, including the City of Toronto, which were conducted in 2016. The regulatory timelines were subsequently amended effective March 15th, 2021.

The Regulation facilitates asset management best practices throughout the municipal sector, provides a degree of consistency to asset management plans, and leverages asset management planning to optimize infrastructure investment decisions. The requirements of the Regulation were phased in as follows with amendments (as filed under O.Reg 193/21 on March 15, 2021):

1. *July 1, 2019*: Every municipality in Ontario must have a strategic asset management policy approved by Council. The policy is to be reviewed, and if necessary updated, at least every five years.
2. *July 1, 2022*: Every municipality in Ontario must have -approved asset management plans for core infrastructure assets (water, wastewater, storm water, roads, bridges and culverts) at the current levels of service.
3. *July 1, 2024*: Every Municipality in Ontario must have -approved asset management plans for all infrastructure assets at the current levels of service.
4. *July 1, 2025*: Every -asset management plan-must include proposed levels of service for each category of infrastructure assets.

The Regulation defines detailed information requirements for each phase. These requirements are outlined throughout this report as applicable.

Additionally, the Regulation requires that the strategic asset management policy and asset management plans be approved by a resolution passed by Council and made available to the public via the city's website and to persons who request a copy.

Current Status

The strategic asset management policy requirement of the Regulation was met through the City Council's adoption of the Corporate Asset Management Policy Report in June of 2019. This report addresses the asset management plans for the core infrastructure assets and the requirements as defined by the Regulation for water, wastewater, stormwater (Appendix 1) and roads, bridges and culvert (Appendix 2) asset groups, and

it is required to be approved by Council and submitted to the Province of Ontario no later than July 1, 2022 (extended from July 1, 2021).

COMMENTS

Corporate Asset Management

The City of Toronto has a large, complex and diverse range of infrastructure assets with an estimated asset value of \$101.5 billion, on which it relies to deliver essential services. The scale and criticality of the City's asset portfolio requires an approach to asset management that integrates planning, finance, engineering and operations to *ensure that value from assets is realized, risks reduced and expected levels of service* to the community provided in a socially, environmentally and economically sustainable manner.

The application of asset management principles and practices at a corporate level is intended to ensure a coordinated, consistent, effective and sustainable Corporate Asset Management approach across diverse asset groups. These principles and practices need to be systematically developed, embedded and integrated across the organization, and be continuously improved. Effective asset management requires an overarching framework to establish and guide its practice so that asset management becomes central to strategic, financial and operational decision-making at all levels of the organization. This framework has been established by the Corporate Asset Management Policy adopted by Council in 2019.

In 2021 and 2022, work will continue to develop a corporate wide reporting standard across all City asset groups that is systematic, repeatable and that will feed into the annual Capital Budget and Planning process as well as meet the future reporting requirements in Ontario Regulation 588/17. The work currently underway in financial modernization initiatives including Financial Systems Transformation and Capital Modernization will inform and guide the corporate wide asset reporting standards.

Corporate Asset Management Policy

The Corporate Asset Management Policy presents the framework that is intended to promote a consistent and integrated approach to asset management of municipal infrastructure assets that are owned and/or controlled by the City of Toronto; facilitate logical and evidence-based decision-making for the management of infrastructure assets, and support the delivery of sustainable community services now and in the future, through the adoption of appropriate asset management practices.

The Corporate Asset Management Framework, as illustrated in Figure 1 Corporate Asset Management Framework, represents the integrated relationship between elements of an effective asset management system, and provides a structure for standardization and consistency of asset management practices and plans across the organization.

It integrates land use, service and master planning to ensure that multi-year service plans account for the capital assets required to support existing service levels/delivery, increased service demand and to address projected growth. The Corporate Asset Management Framework also illustrates the interaction of key strategies of asset

management planning that include all stages of the asset lifecycle, levels of service, risk and financial management.

Figure 1: Corporate Asset Management Framework



This framework is used to guide development and implementation of the Core Infrastructure Asset Management Plans included in this report and it is intended to ensure long-term core asset sustainability; demonstrate a commitment to good stewardship and support improved accountability and transparency to the community.

The Corporate Management Policy is presented in Appendix 3 of this report.

The Asset Planning and Capital Budget Review Process

Asset planning is a key component of the capital planning and budgeting decision making process and identifies areas of investment in operational, maintenance, and renewal activities to ensure the reliability of the assets based on an understanding of the lifecycle costs. Each year through the budget process Divisions and Agencies ensure that the assets supporting services are managed in a way that balances service levels, risks, and affordability – all elements that form part of the asset management plans as prescribed by Ontario Regulation 588/17.

The Capital Budget process seeks to achieve a balance between maintaining existing City assets and growth; focusing on investment in health and safety, legislative compliance, state of good repair while addressing service gaps and priorities on a citywide basis for service improvements and growth related projects responsive to Council directions. Focus and priority is given to projects that maintain existing assets in a state of good repair (SOGR) and, in particular, those that reduce/address SOGR backlog. Other considerations influencing the Capital Budget and timing of projects can include but are not limited to funding availability, market capability of delivering on capital works, coordination required with 3rd parties or other orders of government and design constraints.

The budget process also helps identify areas of under investment in assets where affordability impacts Divisions and Agencies ability to continue maintaining the existing asset base at prescribed service level standards while also addressing the growth needs of the City. City Programs and Agencies include the insurance and/or the replacement costs of capital assets along with the best estimates of the SOGR backlog in the capital budget submission. Expressing the SOGR backlog as a percent of related asset values both at the City Program / Agency level, and at the corporate level, provides the information which is crucial to effective management of the City's assets by ensuring that limited resources are allocated in a manner that optimizes utility of those assets.

The Core Infrastructure Plans although not specifically required under the legislation will include the state of good repair backlog that aligns with current service level standards of assets to provide context as to investment required to maintain City assets as well as inform future funding models and requests for investment by other orders of government.

Core Infrastructure Asset Management Plans

The legislation requires the City to provide to the Province asset management plans July 1, 2022 (extended from July 1, 2021) for the City's Core Infrastructure Assets. The Core Infrastructure Assets addressed in this report include water, wastewater, stormwater, roads, bridges and culverts asset groups. This phase of reporting requirements will focus on core assets managed by Toronto Water and Transportation Services. There are similar ancillary asset types managed by other Divisions and Agencies, for example bridges and roadways in City parks and they will be included in future asset management plans as part of the Provincial requirements to provide the balance of the asset management plans under City management in July of 2024.

Core Infrastructure Asset Management Plans presented in this report are aligned with Corporate Asset Management Policy and incorporate key principles and strategic directions that enhance asset management practices and ensure that asset management activities are continuously improved and integrated across the organization.

The long-term outcome is to ensure the sustainability of assets and related services; optimize infrastructure investment decisions; and support reliable service delivery while fulfilling the first-phase requirements of meeting Ontario Regulation 588/17.

This report seeks to inform Council and residents on the current condition of assets and asset categories, the service levels, identify the average estimated useful life of assets, quantify the current replacement value of the core infrastructure group of tangible capital assets guided by the principles of City's Corporate Asset Management Policy. It also provides the 10-year forecast of lifecycle activities and costs to maintain current service levels and addresses impact of growth on the current service levels.

The Asset Management Plans in Appendix 1 and 2 are comprised of 9 sections presented in a standardized format for each Division/Core Infrastructure Asset Category and aligned to specific Regulation requirements (presented in Appendix 4) for easier reference and include:

1. Introduction - Overview including asset information, network extent, definition and basic history.

2. Asset Inventory - Categorization assets in further detail including asset inventory by each category that aligns to the requirements in Regulation 5 (2) 3.
3. Asset Valuations - Valuation of assets at replacement that aligns to the requirements in Regulation 5 (2) 3.ii.
4. Average Asset Age - Information on average asset age by category that aligns to the requirements in Regulation 5 (2) 3.iii.
5. Asset Condition - Examines the asset condition based on the information currently available and details approaches used for condition assessments by asset category that aligns to the requirements in Regulation 5 (2) 3.iv and 5 (2) 3.v.
6. Levels of Service - Provides qualitative descriptions in terms of scope and/or reliability and quality of current community levels of service, as well as technical metrics for current technical levels of service, by asset category, based on the past 2 years of historical data in order to fulfill specific Regulation requirements for water, wastewater and stormwater assets (tables 1, 2 and 3), and roads, bridges and culverts (tables 4 and 5).

Also provides the current performance by asset category based on the past 2 years of historical data, in accordance with the performance measures established by the City of Toronto, including those that measure energy usage and operating efficiency of water, wastewater and stormwater assets and aligns to the requirements in Regulation 5.(2) 1.i and 5.(2) 2

7. Lifecycle Activities - Describes lifecycle of assets and provides a future outlook by assessing lifecycle activities and options to maintain the current levels of service for the assets by category over the 10 year time frame and aligns to the requirements in Regulation 5.(2) 4.i and 5.(2) 4.ii..
8. Life Cycle Costs and Risk - Provides lifecycle costs for activities that can be undertaken at lowest cost to maintain the assets at current levels of service over the 10 year time frame, and also highlights the risks associated with assets failing to meet current levels of service and aligns to the requirements in Regulation 5.(2) 4.iv Costs and 5.(2) 4.iii
9. Impact and Response to Growth - Identifies the impact and response to growing population and employment forecast for the City of Toronto included in the Greater Golden Horseshoe 2017 Growth Plan, including the estimated 10 year capital expenditures and significant operating costs related to new construction or to upgrading of existing City of Toronto infrastructure assets required to accommodate projected increases in demand caused by growth, while maintaining the current levels of service and aligns to the requirements in Regulation 5.(2) 6. i and 5.(2) 6..

Next Steps

The City is currently in the process of transforming its capital financial management practices and is undertaking a series of modernization initiatives that will address governance, asset management, capital planning, and program delivery to allow for a single view of assets across City divisions and agencies and better inform long-term investment strategies.

Initiatives that are in progress include; conducting asset inventories; standardizing language on asset classes that will enable portfolio integration; aligning service based outcomes to capital investments; development of a capital budget governance and prioritization framework and standardization of condition needs assessments on similar asset groups. These initiatives are the foundation for the City developing an organization-wide practice of integrated asset management that will support asset management reporting to meet PSAB tangible capital asset reporting requirements, Ontario Regulation 588/17 asset reporting requirements and the capital budget process.

Future reporting on asset management to Council includes:

- July 2024, all other City Programs, Agencies (except Toronto Parking Authority) and the TCHC will be required to submit their respective asset management plans to City Council for approval.
- July 2025 (revised from July 2024), it will be expected that all City Programs, Agencies and the TCHC will be able to also identify the proposed service levels and asset performance that will result in asset investments as well as the financial strategies required to fund those asset investments.

CONTACT

Stephen Conforti
Executive Director, Financial Planning
Tel: 416-397-4229
Email: Stephen.Conforti@toronto.ca

SIGNATURE

Chris Murray
City Manager

Heather Taylor
Chief Financial Officer and Treasurer

ATTACHMENTS

City of Toronto Core Infrastructure Asset Management Report 2021