

Date: 2023-10-05

Subject: **State of Local Infrastructure Report - 2022**

Contact: **Amit Gupta, Manager of Corporate Asset Management**

Report Number: Corporate Support Services-2023-859

Recommendations:

1. That the report from Amit Gupta, Manager of Corporate Asset Management, to the Committee of Council Meeting of October 25, 2023, regarding **“State of Local Infrastructure Report – 2022”**, be received;
2. That Council approve the **“State of Local Infrastructure Report – 2022”** attached as Appendix A; and
3. That the **“State of Local Infrastructure Report – 2022”** be posted on the City’s website to comply with the City of Brampton Asset Management Policy.

Overview:

- The State of Local Infrastructure (SOLI) 2022 Report (Appendix A) details a comprehensive state of the City’s physical infrastructure assets, and is a foundational element of the departmental asset management plans which are required to be completed to comply with O.Reg. 588/17
- The City’s total replacement cost of infrastructure assets is currently estimated at \$9.0 billion, distributed across 12 major service areas. About 78% of the assets currently owned and operated by the City are in “Good” to “Very Good” condition, while about 5% of infrastructure assets are considered to be in “Poor” to “Very Poor” condition.
- The annual SOLI data collection and reporting is an important step on the City of Brampton’s journey towards developing and achieving sound Asset Management practices and instilling transparent evidence-based decision-making processes aligned with the City’s strategic priorities.

- In light of the upcoming dissolution of the Region of Peel at the start of 2025, there may be a significant transition of assets to the City of Brampton. This transition will necessitate a comprehensive re-evaluation of our asset management strategies and practices to ensure a smooth and effective integration of these new assets into our portfolio.

Background:

As the fourth largest City in the province and one of the fastest growing communities in Ontario, the City of Brampton owns and operates a substantial portfolio of assets across several service areas. These assets are essential to the well-being of the community and form an integral part of the City's long term financial and service delivery planning.

The City of Brampton has made significant progress on refining and improving its asset management program since the completion of its first Corporate AMP in 2016. The City annually prepares the State of Local Infrastructure Reports which have improved our understanding of asset inventories, replacement cost, useful life and condition.

This report summarizes the findings of the recently completed State of Local Infrastructure Report - 2022 which reflects the progress made on the City's asset base data and key assumptions in all service areas. Overall, the confidence and reliability of the information in this report has increased compared to the previous years. A copy of the 2022 SOLI report is attached in Appendix A.

Similar to previous SOLI reports, the 2022 SOLI report covers all major infrastructure service areas under the direct control of the City, as well as the City's Public Library Board, but exclude indirect services administered by other boards and agencies. The report distributes City services into 12 major infrastructure service areas, namely: Transportation, Stormwater, Transit, Parks, Recreation, Cultural Services, Facilities, Information Technology (IT), Fire Services, Library, Animal Services and City Support Fleet.

In light of the upcoming dissolution of the Region of Peel at the start of 2025, there may be a significant transition of assets to the City of Brampton. This transition will necessitate a comprehensive re-evaluation of our asset management strategies and practices to ensure a smooth and effective integration of these new assets into our portfolio. Future iterations of this report will look to include all assets including the assets acquired from the Region of Peel.

A baseline snapshot of Brampton's assets through the SOLI reports helps decision-makers identify gaps and inform strategies to prioritize investments and allocate resources to deliver services in the most efficient way. Specifically, the SOLI Report answers the following key questions:

Details of the Asset Inventory – What do we own?

It is important to understand what assets we own, and where they belong on the asset hierarchy. City staff have been continuously improving on the identified information gaps and replacing best assumed inventory with the actual collected data.

Valuation of the Asset Base (Replacement Value) – What is it worth?

Replacement Value is defined as a current cost of replacing an asset. The City's area specific subject matter experts apply three basic methods to estimate replacement costs needed for infrastructure renewal planning: 1. Recent acquisition data, 2. Published price indices, and 3. Adjusted historical purchasing estimates.

Condition/Performance of the Asset Base – What condition is it in?

The condition of each service area and asset groups within the service area are evaluated to determine the current state of the City's infrastructure. Consistent with the Canadian National Infrastructure Report Card as well as other major organizations and institutions reporting formats, a five-point rating scale, as per Figure 1, is used and is consistent across all 12 service areas. The condition of assets is determined using one of the three methods based on availability and accuracy of information:

1. Existing condition rating system based on actual inspections benchmarked against industry standard as required by legislative or regulatory requirements on service and condition where applicable;
2. Age and remaining useful life; and
3. Expert opinion.

Figure 1 Five Point Infrastructure Condition Rating Scale

Rank	Condition	Definition
1	Very Good	The asset is fit for the future. It is well maintained, in good condition, new or recently rehabilitated.
2	Good	The asset is adequate. It is acceptable and generally within the mid-stage of its expected service life.
3	Fair	The asset requires attention. The asset shows signs of deterioration and some elements exhibit deficiencies.
4	Poor	There is an increasing potential for its condition to affect the service it provides. The asset is approaching the end of its service life, the condition is below the standard and a large portion of the system exhibits significant deterioration.
5	Very Poor	The asset is unfit for sustained service. It is near or beyond its expected service life and shows widespread signs of advanced deterioration. Some assets may be unusable.

Asset Management Maturity - How accurate and complete is our program?

An asset management maturity assessment measures and tracks the progress of the City's asset management practices and activities. The results of the assessment are intended to be used to further inform the Asset Management Roadmap and guide the City towards best practices in asset management.

The assessment considers a few key components:

- The City's current position relative to the requirements of the legislation;
- Existing data confidence and reliability; and
- Overall asset management strategies and programs.

The maturity assessment of the City's progress is informed by several key factors, including the ISO 55000 assessment framework, MFOA Maturity level framework and Corporate AMP. In the currently on-going Service Area AMPs, there have been a series of discussions with the CAMO team and various service areas to assess the current maturity and these AMPs will include an updated maturity diagram.

Current Situation:

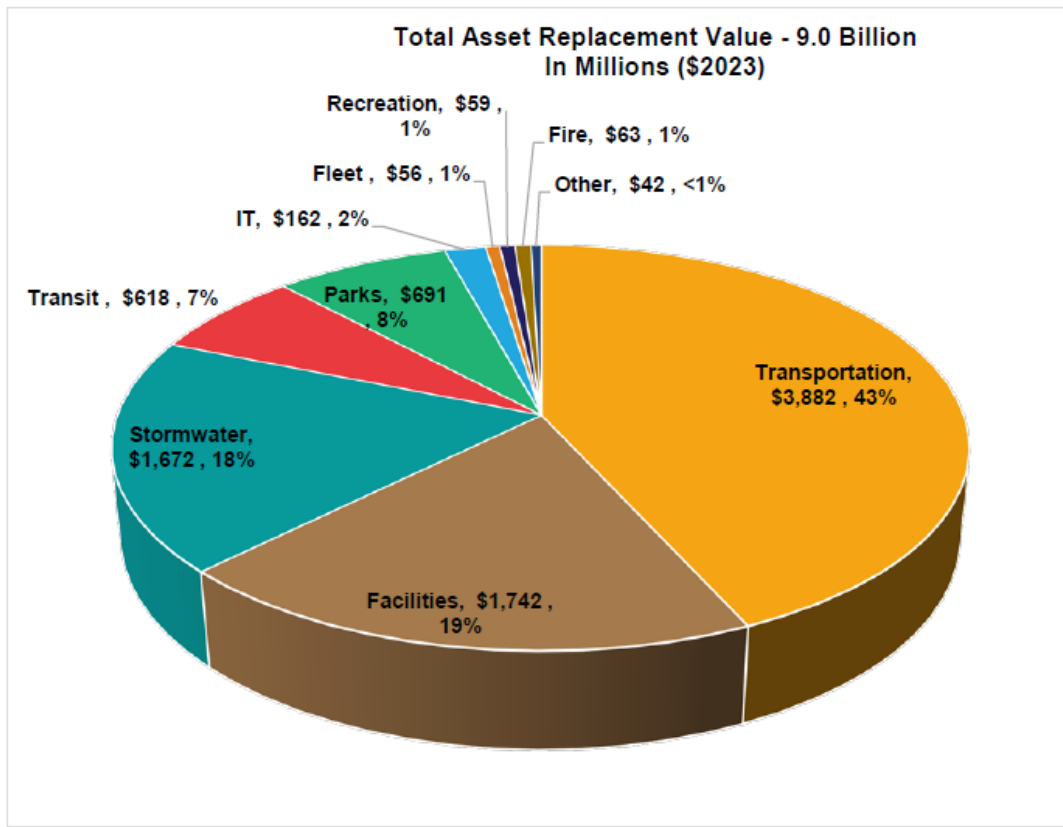
State of Local Infrastructure (SOLI) 2022 Report is intended to expand upon the data identified in the previous iteration and documents the best and most recent available information. The complete 2022 SOLI Report is attached as **Appendix A** and the following sections provide highlights of the findings.

Replacement Value

The City's total asset replacement cost for 2022 is estimated at \$9.0 billion (in \$2023). This value is comprised of the City's 12 major infrastructure service areas: Transportation, Stormwater, Transit, Parks, Recreation, Cultural Services, Facilities, Information Technology, Fire Services, Library Services, Animal Services and City Support Fleet.

The total replacement value of all assets categorized by service areas is shown in the Figure 2 below.

Figure 2 Total replacement value distributed across 12 major service areas



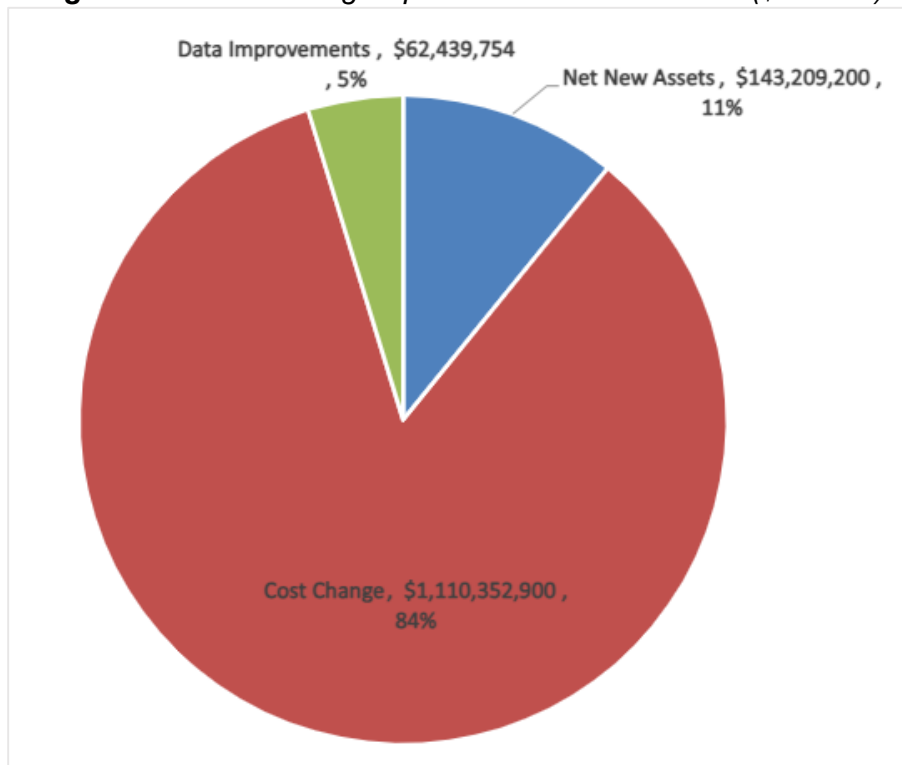
Note: Other category includes Library, Culture and Animal Services

Transportation, Facilities, and Stormwater, collectively account for over 80% of the asset portfolio by replacement value. Transportation services, with a replacement value of \$3.9 billion, constitute the largest portion at 43% of the total \$9.0 billion. Facilities represent 19% of the portfolio, equivalent to \$1.7 billion, and serve multiple service areas, including Animal Services, Cultural Services, Recreation, Parks, Transit, Library, Fire, and other corporate services. Please note, Recreation Facilities represent the majority within the Facilities category. Stormwater, valued at \$1.7 billion, constitutes 18% of the total replacement value.

This 2022 SOLI Report represents an increase in value of about \$1.3 billion (in \$2023) or 17%, over the \$7.7 billion in the 2021 SOLI Report. The increase can largely be attributed to the refined costing information, inflationary adjustments to the costs, revised inventories and some inclusion of new assets groups that were not captured in the previous versions of this report, in addition to continuous growth of the City's physical asset base.

Figure 3 illustrates the breakdown of factors that contribute to the change in replacement value.

Figure 3 Factors Driving Replacement Value Increase (\$Millions)



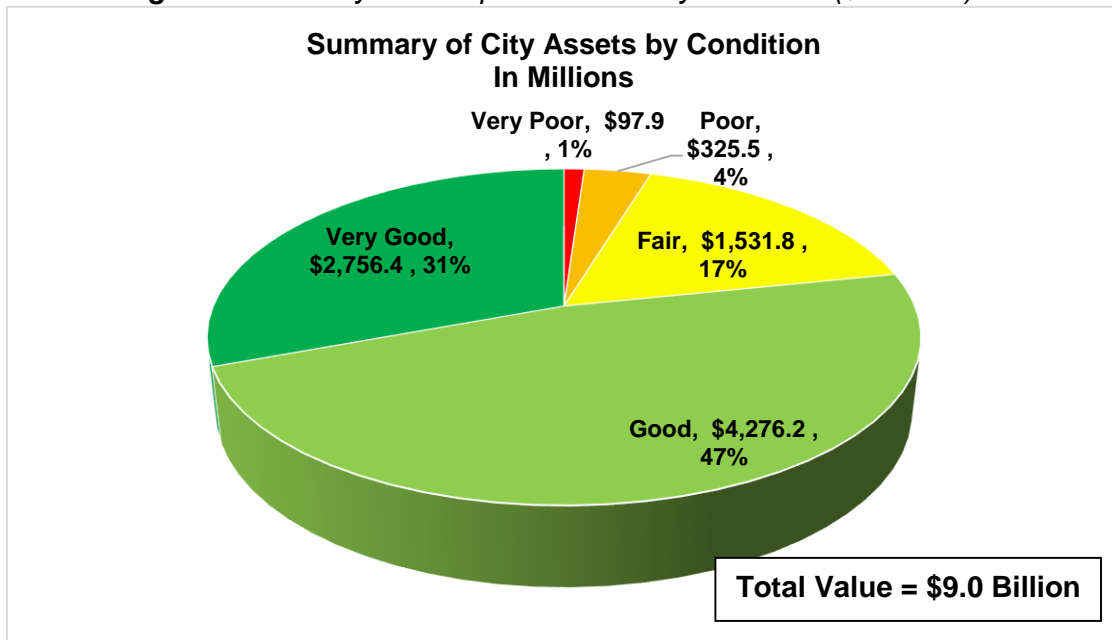
Asset Condition

In terms of asset condition of municipal infrastructure in the City of Brampton, Figure 3 provides a snapshot of the overall condition. About 78% of the assets currently owned and operated by the City are in “Good” to “Very Good” condition with roughly 5% of the asset base measuring “Very Poor” to “Poor”.

Assets categorized as "Poor" and "Very Poor" condition do not necessarily pose immediate safety risks. Instead, this classification often signifies that these assets are approaching the end of their engineered useful life, and may need to be replaced in the nearest future to avoid inflated maintenance costs. Staff closely monitors these assets to guarantee that the expected service levels are maintained. Moreover, we address their condition through budget allocations to ensure continued functionality.

The overall “Good” condition rating can largely be attributed to the City’s infrastructure being relatively new in age combined with the sound asset management practices the City has employed to date.

Figure 3 Summary of Brampton's Assets by Condition (\$ Millions)



Financing Strategy

In June 2022, the City of Brampton adopted its second Corporate Asset Management Plan at the City-wide level that formed a comprehensive update to the City's first Corporate AMP completed in 2016. Importantly, this 2022 SOLI Report maintains most of the key assumptions and methodology derived through the recent Corporate AMP process. The City is currently in the process of undertaking independent Service Area AMPs for the remaining City assets. The Service Area AMP will represent a significant step to maturing the City's overall asset management program, which includes a more in depth look at each lifecycle activity to strengthen and improve the expenditure outlook. As a result, the financing strategy section has been omitted from this 2022 SOLI report, as the Service Area AMP will present the updated long-term financing strategy.

A growing community such as the City of Brampton faces the challenge of rehabilitating or replacing existing infrastructure while at the same time, investing in new infrastructure. Like many municipalities across Canada, the current levels of financial contributions fall short of the optimal level of capital requirements which contributes to the infrastructure gap. The concern over an infrastructure gap is not so much that it exists, but how this gap changes over the long-term and if the change affects levels of service, asset conditions and the delivery of services.

There are several ways the City can address the current funding gap. The various strategies that the City has available to them in order to close the gap are detailed in **Appendix A**. The strategies combine both financial and other non-budgetary solutions.

Data Confidence

To achieve the objectives of asset management planning, the City utilizes various types of assessments to optimize resource allocation, reduce risks and ensure the efficient and effective management of their diverse portfolio of assets. The Asset Management reports provided so far, including the State of Local Infrastructure Reports, should be considered in the context of the data's confidence level. The data confidence rating serves as a measure of the accuracy of data and reliability of the information for decision-making purposes. Typically, organizations begin with age-based assessments (low confidence) as an initial step to establish a basic understanding of asset conditions. They then progress to condition-based assessments (medium confidence) with the goal of eventually reaching risk-based assessments (high confidence).

The current City-wide data confidence is assessed as **Medium (Condition Based)**. Based on a weighted replacement value of all services and their condition assessments, 79% of assets have utilized inspection-based assessments. For certain asset classes, inspection programs with full condition assessments is not feasible and these assets will continue to use an age-based approach. Therefore, the City is targeting a maturity rating based on inspection assessments of approximately 91%. Over the long-term, the City will move towards the use of risk-based assessments to prioritize resources and efforts toward assets with the greatest potential impact on safety, service delivery and financial sustainability.

Asset Management Maturity Assessment

As shown below in Figure 4, the City's overall maturity level rating is approximately three (3), which correlates to a medium ("competent") State of Asset Management maturity. The scores are reflective of the quality and type of data available, current processes and management strategies.

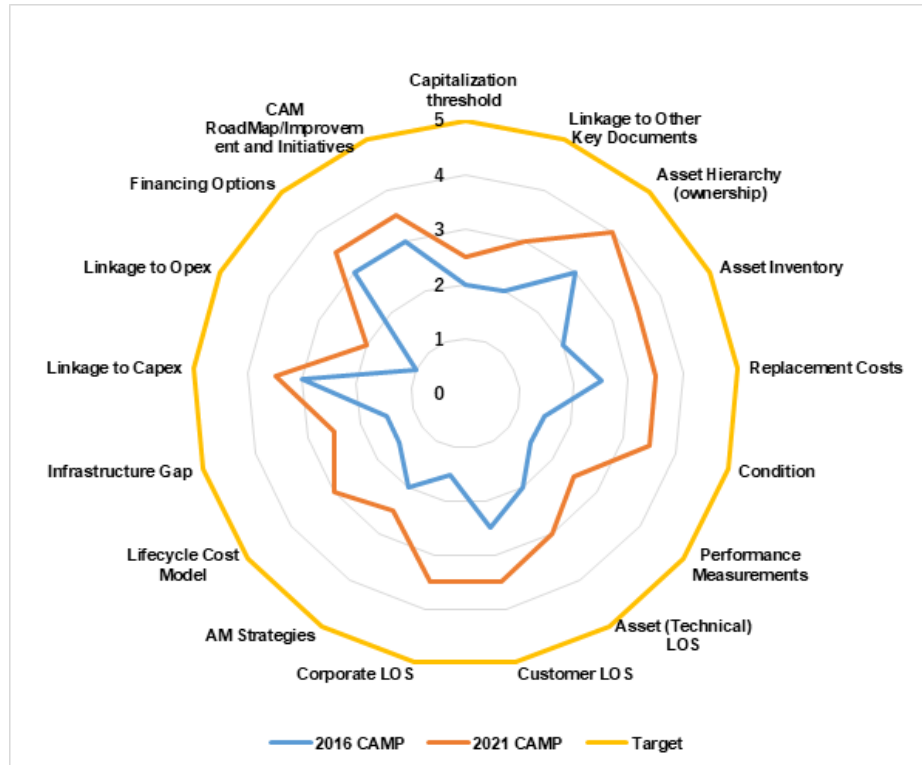
Since the completion of the 2016 Corporate AMP, the City has made significant progress in further developing various components of their Asset Management program including the datasets and assumptions required to complete this SOLI report.

Despite the progress made, further work is currently underway and planned to be undertaken over the next few years that will move the City towards the targeted "level 5" assessment in all categories. Some of these activities include but are not limited to:

- a. Completion of Departmental Asset Management Plans;
- b. Update to the City's Long-term Financial Master Plan;
- c. Updated condition assessments and replacement valuations;
- d. Level of Service tracking and consultation regarding proposed/target levels of service; and

- e. Improved understanding of advanced asset management strategies including asset risk, full lifecycle activities etc.
- f. Integration of various AM strategies to inform investment needs

Figure 4 Asset Management Maturity Assessment 2016 vs. 2021



Please note, as the City recently adopted the Corporate AMP in June 2022, this maturity level is considered relevant for the purposes of this 2022 SOLI Report. Currently on-going SA AMPs will advance AM maturity and will include updated maturity diagram. The target identified in the Figure 4 above is anticipated to be achieved after full implementation of the regulatory requirements in July 2025.

Future Improvements

Moving forward, the City’s Corporate Asset Management Office aims to continue to improve upon a number of different areas in collaboration with the stakeholders, with initiatives that will improve data quality and confidence while driving corporate change:

The Report (Appendix A) identifies few key areas for improvement of Asset Management practices that will contribute to enhancement of the State of Local Infrastructure Reporting.

Corporate Implications:

Financial Implications:

The 2022 SOLI report identifies current asset replacement values and condition. The report will be used as a tool to inform coming 2024 budget and long-term financial planning.

Other Implications:

The Municipal Asset Management Planning Regulation O.Reg. 588/17 came into effect in January 2018, under the Infrastructure for *Jobs and Prosperity Act*, 2015. The annual State of Local Infrastructure Report is one of the key input documents that helps in complying with the Regulation and supports the City’s budgeting process as well as a long-term financial planning. Council approval of this 2022 SOLI report allows the City to meet strategic AM Policy requirements and supports in preparing the departmental asset management plans to meet the legislated requirements.

Strategic Focus Area:

This report aligns with the strategic focus area of Government & Leadership by following best practices for effective asset management and ensuring sustainable asset management.

Conclusion:

This report provides an update of the state of infrastructure and is intended to act as an input to the asset management plans to meet the legislated requirements.

The City staff are seeking the approval of the 2022 SOLI report prepared in accordance with the City’s Strategic Asset Management Policy and post the report on the City’s website.

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Attachments:

Appendix A - 2022 State of Local Infrastructure Report