Report to Strategic Priorities & Policy Committee

To: **Chair and Members**
Strategic Priorities and Policy Committee

From: **Anna Lisa Barbon, CPA, CGA**
Deputy City Manager, Finance Supports

Subject: **2023 Corporate Asset Management Plan**

Date: **October 10, 2023**

Recommendation

That, on the recommendation of the Deputy City Manager, Finance Supports, the following actions be taken with respect to 2023 Corporate Asset Management Plan:

a) This report and the "2023 Corporate Asset Management Brochure" attached as Appendix "A" **BE RECEIVED** for information.

b) The "2023 Corporate Asset Management Plan", attached as Appendix "B", **BE APPROVED**;

Executive Summary

The purpose of this report is to provide Council with an overview of the 2023 Corporate Asset Management Plan (CAM Plan) structure, findings, conclusions and recommendations. This report also explains the regulatory context set forth by Ontario Regulation (O.Reg.) 588/17, offers a historical perspective on performance by referencing previous City of London (City) CAM Plans, and a comparison of the City's CAM Plan results to other Ontario municipalities.

The analysis is based on directly owned core and non-core municipal infrastructure assets as of December 31, 2021, and their levels of service (LOS) targets and financial needs for the 10-year planning period of 2022-2031. This CAM Plan achieves compliance with all three phases of O.Reg 588/17 for directly owned assets.

Results indicate that the total replacement value of directly owned City assets stands at an approximate $28.5 billion, and these assets are overall in 'Good' condition. However, over the 10-year planning period the cumulative infrastructure gaps, defined as the difference between infrastructure needs and planned budgets, to maintain current LOS and achieve proposed LOS are forecasted to grow from $100.7 million and $546.3 million to $946.1 million and $1,378.1 million, respectively. The present maintain current LOS infrastructure gap of $100.7 million is deemed manageable, thus, the concern lies in the forecasted growth of this gap and the present and forecasted achieve proposed LOS gaps.

To address these gaps, optional infrastructure gap financing strategies are presented and recommendations are made. Final financing recommendations and associated tax/rate levy impacts are dependent on numerous 2023-2027 Strategic Plan priorities as well as 2024-2027 Multi-Year Budget (MYB) development and Council deliberation and approval.

Linkage to the Corporate Strategic Plan

Council's 2023-2027 Strategic Plan identifies 'Climate Action and Sustainable Growth' and 'Well-Run City' as two of eight strategic areas of focus. The CAM Plan supports these strategic areas of focus through supporting the achievement of the following strategic priorities:

1. "London's infrastructure and systems are built, maintained, and operated to meet the long-term needs of the community." which includes:
   - 'The infrastructure gap is managed for all assets' and

- ‘Infrastructure is built, maintained, and secured to support future growth and protect the environment’.

2. “The City of London is trusted, open, and accountable in service of the community” which includes:
   - ‘London’s finances are maintained in a transparent, sustainable, and well-planned manner, incorporating intergenerational equity, affordability and environmental, social, and governance considerations.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- March 29, 2022 Report to Corporate Services Committee – Corporate Asset Management Plan Development (RFP 2022-049)
- July 26, 2021 Report to Corporate Services Committee – Corporate Asset Management Plan 2021 Review
- May 31, 2021 Report to Corporate Service Committee - Agency, Board, and Commission Asset Management Maturity Assessment Review
- August 26, 2019 Report to Strategic Priorities and Policy Committee - 2019 Corporate Asset Management Plan
- April 8, 2019, Report to Strategic Priorities and Policy Committee – Corporate Asset Management Policy

1.2 Ontario Regulation (O.Reg.) 588/17

O.Reg. 588/17 – Asset Management Planning for Municipal Infrastructure, under the *Infrastructure for Jobs and Prosperity Act, 2015*, came into force on January 1, 2018. It sets out requirements and deadlines for municipal asset management plans and policies. The regulation builds on the progress municipalities have made while bringing consistency and standardization to asset management plans.

As of March 15, 2021, the Ministry of Infrastructure amended O.Reg. 588/17 to extend the phased timelines under the regulation by one year. The regulation now outlines the following timelines:

- Phase 1 due July 1, 2022: an asset management plan in respect of the core municipal infrastructure assets current level of service (LOS);
- Phase 2 due July 1, 2024: an asset management plan in respect of core and non-core municipal infrastructure assets current LOS; and
- Phase 3 – July 1, 2025: an asset management plan in respect of core and non-core municipal infrastructure assets current LOS and proposed LOS.

Core infrastructure consists of a municipalities’ Water, Wastewater, Stormwater, and Transportation assets contained in the consolidated financial statements. Non-core infrastructure consists of all other municipal assets either directly or non-directly owned by a municipality and contained in the consolidated financial statements, noting for the City non-directly owned assets represent the assets of agencies, boards, and commissions (ABC’s).

1.3 Previous Corporate Asset Management Plans

Civic Administration developed two CAM Plans in 2014 and 2019. These strategic plans documented how the City’s municipal infrastructure assets were to be managed over a 10-year period. The 2014 CAM Plan was the City’s first asset management plan developed in accordance with the provincial ‘Building Together: Guide for Municipal Asset Management Plans’ and was a companion document to the State of Infrastructure Report 2013. The 2019 CAM Plan combined these two reports together in one document covering the state of local infrastructure, current LOS, lifecycle management strategies, infrastructure gaps, as well as the financing strategies that set out the approach to ensuring that the appropriate funds are available to support the delivery of

infrastructure services. The 2019 CAM Plan met all of Phase 1 and part of Phase 2 regulation requirements for directly owned core and non-core assets well ahead of O.Reg. 588/17 timelines.

2.0 2023 Corporate Asset Management Plan

2.1 Scope of the CAM Plan

The CAM Plan is the culmination of efforts from staff across the City who are involved with managing municipal infrastructure assets, including engineering, finance, and subject-matter-experts as well as consultants. The process of developing and updating the comprehensive CAM Plan was complex and required multiple meetings and workshops with each of the nineteen service areas included in the CAM Plan. This CAM Plan ensures the City is compliant with all phases of O.Reg. 588/17 requirements for directly owned City assets. To provide the public with a brief summary of the CAM Plan results, a brochure is available online and attached as Appendix A.

2.2 CAM Plan Development Approach

The CAM Plan was developed through several multi-disciplinary stages shown in Figure 1. Each stage is strategically designed and builds on the previous stages to produce a relevant, reliable, and accurate planning document.

Figure 1 CAM Plan Development Framework

In addition to the above technical development processes, the CAM Plan captures and incorporates public engagement as follows:

- LOS and budget information contained in the CAM Plan is collected through the 2023-2027 Strategic Plan, service area specific master plans (examples Mobility Master Plan, Climate Emergency Action Plan, etc.), and MYB to name a few. Each of these processes includes extensive public engagement in both the development and final results of the products. This information is used to inform the CAM Plan and ensure consistent application of public and Council preferences.
- Through the City's websites and YouTube channel, information concerning asset management planning as well as past and current CAM Plans is made available to the public.
- The City also delivers public engagement using a CAM office email address, cam@london.ca. This email address provides a single point of reference for many community partners to inquire and receive information concerning the City's asset management efforts and past reports.

These public engagement efforts continue to evolve as the City's CAM Program matures. As such, future CAM Plans will seek to enhance these practices based on cost benefit analyses with due regard to the time and effort required of community partners, Council, and Civic Administration.

2.3 CAM Plan Structure

As illustrated in Figure 2, the 2023 CAM Plan, attached as Appendix B, covers the following elements:

1. The Introduction section provides an overview of the CAM Plan; its purpose and goals, where it fits with other strategic planning initiatives of the City, the scope and duration, the development methodology with its limitations, and the need for enhancements, and updates and monitoring.
2. A series of separate sections for each service area reviews six major asset management planning components which are:
    - State of Local Infrastructure
    - Levels of Service (Maintain Current LOS and Achieve Proposed LOS)
    - Lifecycle Management Strategy
    - Forecasted Infrastructure Gaps
    - Discussion
    - Conclusions
3. An Infrastructure Gap Financing Strategies section sets out the approach and provides multiple alternatives to ensuring that appropriate funds are available to support the delivery of infrastructure dependent services, which is consistent with the outcomes and expected results of the City's 2023-2027 Strategic Plan.
4. A Conclusion and Recommendations section aggregates the CAM Plan findings into an overall picture and provides monetary and non-monetary recommendations.

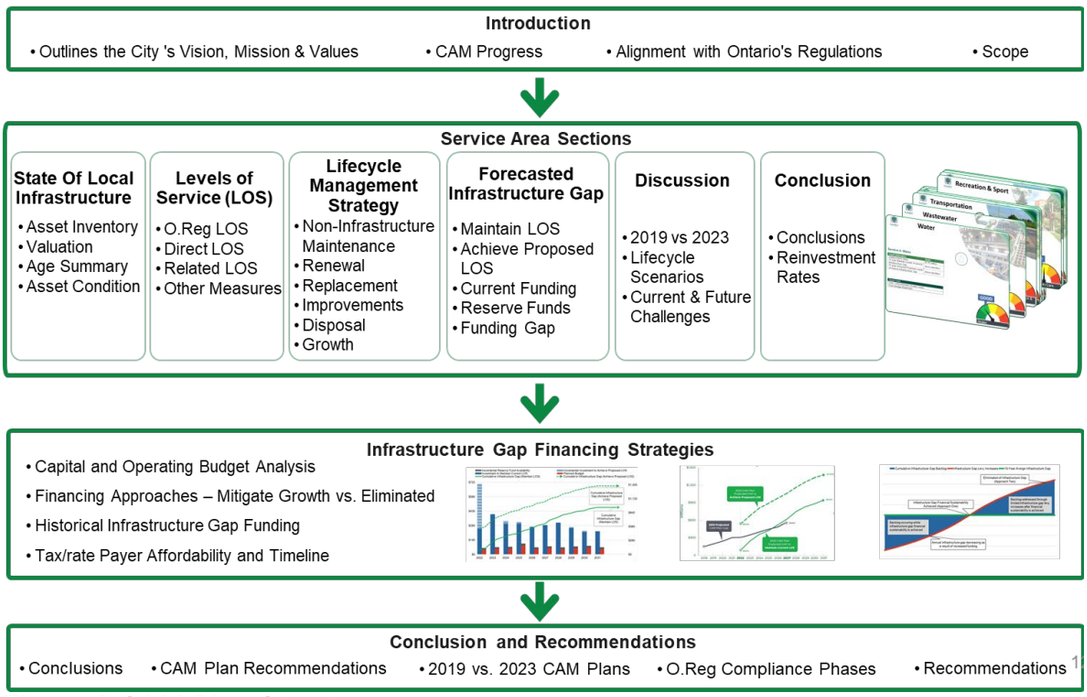

Figure 2 CAM Plan Structure

3.0 Key Findings

3.1 Inventory and Replacement Value

The total replacement value of the directly owned municipal infrastructure assets indicated in the 2019 CAM Plan was $20.1 billion; in the 2023 CAM Plan, it increased to $28.5 billion due to the construction and assumption of new assets, and the recent inflationary increases experienced. Approximately 90% of the 2023 CAM Plan replacement value is attributable to core assets (Water, Wastewater, Stormwater, and Transportation).

3.2 Asset Condition

The results show that the City manages its infrastructure effectively with an overall condition score of 'Good'. 'Good' condition indicates that the infrastructure is adequate

for now with some elements showing general signs of deterioration that require attention. Table 1 provide detailed definition of each condition state. The assets that are of immediate concern to the City are the 2% of assets listed in 'Very Poor' condition. These are the assets at the end of their useful lives for which Civic Administration prioritizes replacement of. Additionally, although the 9% of assets listed in 'Poor' condition may still be functioning, these may be functioning at an unpredictable LOS. As such, the City needs to be prepared to respond to asset failures or proactively address them before these assets fail as these assets have a greater risk of failure due to their age. Figure 3 summarizes the overall condition distribution of the City's 2023 CAM Plan assets.

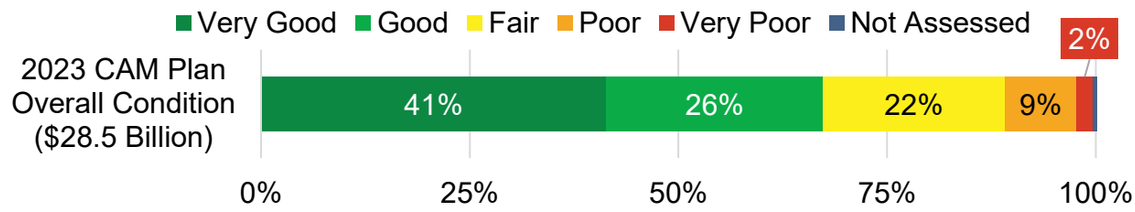

Figure 3 CAM Plan Overall Condition Distribution

Table 1 Condition and Scale Definitions[a]

Summary	Definition
Very Good Fit for the future	The infrastructure in the system or network is generally in very good condition, typically new or recently rehabilitated. A few elements show general signs of deterioration that require attention.
Good Adequate for now	The infrastructure in the system or network is in good condition; some elements show general signs of deterioration that require attention. A few elements exhibit significant deficiencies.
Fair Requires attention	The infrastructure in the system or network is in fair condition; it shows general signs of deterioration and requires attention. Some elements exhibit significant deficiencies.
Poor At risk	The infrastructure in the system or network is in poor condition and mostly below standard, with many elements approaching the end of their service life. A large portion of the system exhibits significant deterioration.
Very Poor Unfit for sustained service	The infrastructure in the system or network is in unacceptable condition with widespread signs of advanced deterioration. Many components in the system exhibit signs of imminent failure, which is affecting service.

3.3 Infrastructure Gap

An optimal amount of funding is required to manage the current and proposed infrastructure supported LOS and the associated risks reported in the CAM Plan. The difference between the optimal amounts of infrastructure funding and planned budgets are the infrastructure gaps. This CAM Plan defines the maintain current LOS and achieve proposed LOS infrastructure gaps as follows:

Maintain Current LOS Infrastructure Gap
It is defined as the persistent efforts of an organization to manage its assets through comprehensive lifecycle activities and effectively allocating necessary financial resources with the aim of consistently delivering its services at the current established service levels. The CAM Plan analysis reveals that the 2022 infrastructure gap to maintain current LOS is approximately $100.7 million. Based on the City's 2022 Annual Budget Update, this gap is expected to grow to $946.1 million by 2031, which is 3.32% of the $28.5 billion replacement value.

Achieve Proposed LOS Infrastructure Gap
O.Reg. 588/17 mandates municipalities to evaluate the affordability of proposed LOS. The achieve proposed level of service is defined as the strategic initiatives undertaken by an organization to modify its service levels. Achieving this proposed level of service

[a] definition based on National Infrastructure Report Card

involves modifying the asset condition, scope, accessibility, etc. of services beyond their current levels based on strategic goals. The achievement of these proposed LOS may require changes in frequency and/or scope of asset lifecycle activities and investment needs. When defining the proposed level of service, staff considered only Council approved service levels, collected from each service area's master plans, regulation requirements, or Council Strategic Plan targets The CAM Plan analysis reveals that the 2022 infrastructure gap to achieve proposed LOS is approximately $546.3 million. Based on the City's 2022 Annual Budget Update, this gap is expected to grow to $1,378.1 million by 2031, which is 4.84% of the $28.5 billion replacement value.

Figure 4 provides a visual depiction of these gaps along with the annual investment needs versus the planned budgets and reserve fund availability for 2022-2031.

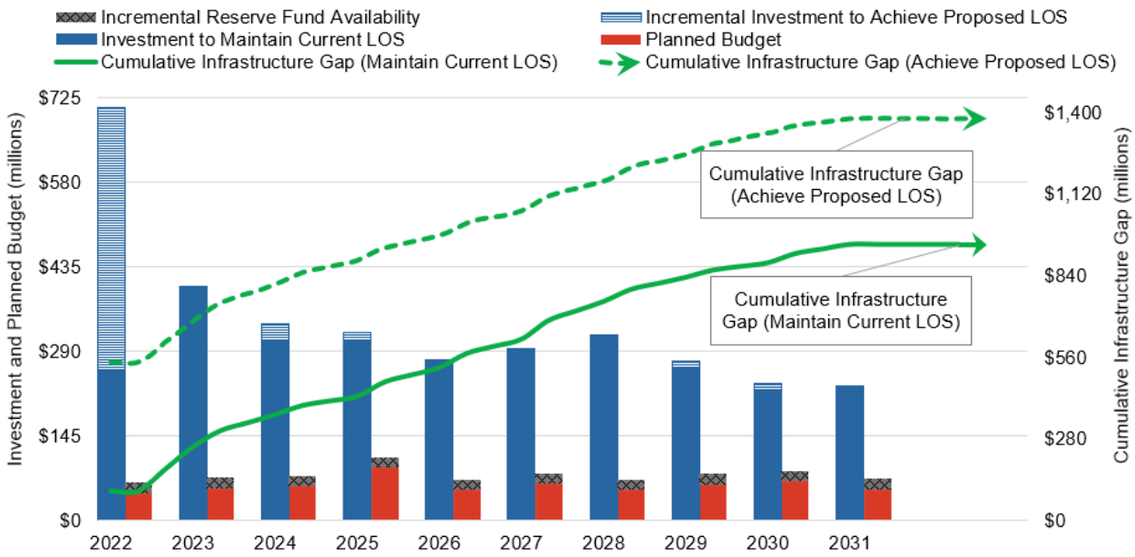

Figure 4 Cumulative Infrastructure Gaps (millions)

The 2022 maintain current LOS gap to replacement value is a low percentage and demonstrates a strong commitment to asset management practices on the part of community partners, Council, and Civic Administration. However, the growth of this gap between 2022-2031 is a concern as such existing and enhanced asset management practices are required to achieve Council's 2023-2027 Strategic Plan priorities.

Table 2 lists each service area in scope of the CAM Plan by replacement value and 10-year infrastructure gaps (maintain current LOS and achieve proposed LOS).

Table 2 Asset Replacement Value and 10-Year Infrastructure Gaps ($Thousands)

Service	Replacement Value	Maintain Current LOS 10-Year Infrastructure Gap	Achieve Proposed LOS 10-Year Infrastructure Gap
Water Rate Supported	7,653,185	None Identified	None Identified
Wastewater (Sanitary)	6,759,752	57,685	58,185
Wastewater (Stormwater)	6,335,485	9,158	11,358
Wastewater Rate Supported (Subtotal)	13,095,237	66,843	69,543
Transportation and Mobility (Roadways, Structures, Traffic)	4,761,691	677,525	994,527
Parking	7,097	None Identified	None Identified
Corporate Facilities	324,320	9,887	24,919
Fleet	70,864	None Identified	8,983
Information Technology	39,697	None Identified	None Identified
Culture Services	122,528	1,016	12,209
Waste Management	136,442	None Identified	None Identified
Recreation and Sport	533,610	72,430	111,679
Parks	236,144	65,719	87,448
Forestry	443,083	None Identified	9,024

Service	Replacement Value	Maintain Current LOS 10-Year Infrastructure Gap	Achieve Proposed LOS 10-Year Infrastructure Gap
Emergency Management and Security Services	9,129	None Identified	None Identified
London Fire Department	175,989	41,836	47,542
Municipal Housing Development	21,223	None Identified	None Identified
Long Term Care	75,631	10,815	12,208
Land	759,240	Not Applicable	Not Applicable
Tax Supported (Subtotal)	7,716,688	879,228	1,308,539
Total	28,465,110	946,071	1,378,082

Figure 5 illustrates the projected 2023 CAM Plan infrastructure gaps versus the 2019 CAM Plan maintain current LOS infrastructure gap, noting the 2019 CAM Plan did not assess an achieve proposed LOS infrastructure gap. It demonstrates the progress realized in managing the maintain current LOS gap while representing the continued need for investment to sustain municipal service delivery.

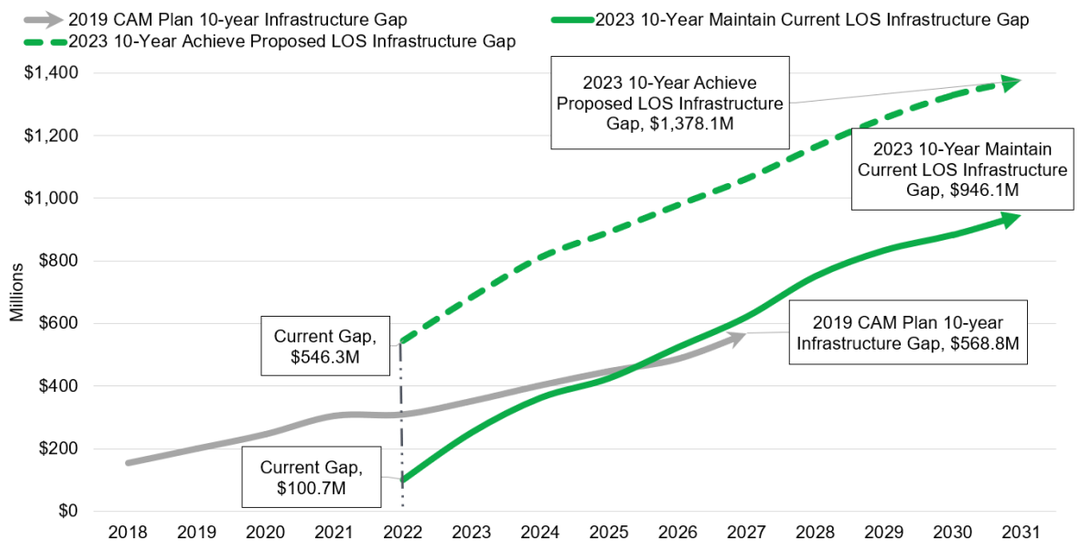

Figure 5 Infrastructure Gap Comparisons – 2019 versus 2023 CAM Plans

3.4 Infrastructure Gap Financing Strategy

The Infrastructure Gap Financing Strategies section is perhaps the most important element of the CAM Plan as it provides the forecasted approach to funding the needs of the asset base to achieve Council approved service delivery goals. It does this by providing various options to either mitigate or eliminate the funding gaps, noting the mitigate approach is recommended. Realizing that faster tax/rate levy increases have a larger impact on community affordability of municipal taxation plus considering the impracticality and unaffordability of completely eliminating the gap, the CAM Plan provides options to mitigate the growth of the gap over the next 10, 22 ,27, 52, and 77 years. Lastly, recognizing the trends of non-tax/rate supported sources of financing and consistent with 2022-2031 capital plan, the CAM Plan recommends financing 80% of Tax Supported infrastructure gap through tax levy supported sources of financing, noting the CAM Plan assumes that updating the Wastewater 20-year financial plans will address the Wastewater (Sanitary and Stormwater) infrastructure gaps.

Based on the 2023 net tax levy, Table 3 provides the average annual tax levy increases necessary to mitigate the gap by 2033 (10-years), 2045 (22-years), 2050 (27-years), 2075 (52-years), and 2100 (77-years). The CAM Plan recommends mitigating the maintain current LOS infrastructure gap between 22 and 27 years. However, these recommendations are subject to revision as part of 2024-2027 MYB development as final tax levy increase recommendations will consider the numerous 2023-2027 Strategic Plan priorities and community affordability. Nevertheless, the figures presented illustrate the differing average annual tax levy increases that would occur if

the City decided to mitigate the gaps (maintain current LOS and achieve proposed LOS) over these time horizons.

Table 3 Tax Supported Optional Infrastructure Gap Mitigation Average Annual Tax Levy Increases and Timeframes

Year Financial Sustainability Realized	Maintain Current LOS Average Annual Tax Levy Impact	Achieve Proposed LOS Average Annual Tax Levy Impact
2033 (Year 10)	0.78%	1.11%
2045 (Year 22)	0.36%	0.48%
2050 (Year 27)	0.30%	0.39%
2075 (Year 52)	0.16%	0.19%
2100 (Year 77)	0.11%	0.13%

In addition to seeking new tax/rate supported funding, the City will continue to utilize existing Council approved financing policies and explore new opportunities to address the gaps. This includes pursuing non-tax/rate supported sources of financing; incorporating infrastructure reinvestment rates into assessment growth and service improvement business cases; and continuing to utilize one-time funding to address the gap (e.g., Surplus/Deficit Policy and Assessment Growth Policy).

3.5 Comparable Municipal Infrastructure Gaps

Civic Administration conducted a comprehensive review of publicly available data from neighboring municipalities' asset management plans. This analysis compared the City's replacement value with the infrastructure gap identified to maintain current LOS and involved seven other municipal entities. The data is presented as an average annual infrastructure gap, as not all municipalities disclosed a 10-year infrastructure gap. Presenting the 10-year infrastructure gap as a percentage of replacement value allows for a meaningful comparison among municipalities.

As outlined in Table 4, the City's infrastructure gap as a percentage of replacement value is the lowest, which is an encouraging sign and is evidence of the strong support from Municipal Council to continue to invest in the City’s Assets. However, regardless of the size of the infrastructure gap, it is recommended to continually evolve asset management practices. This will continue to inform Council and facilitate ongoing communication with the public, offering insights on how to optimally maintain the City's asset portfolio.

Table 4 Municipal Comparators of Replacement Value and Infrastructure Gap

Municipal Entity	Replacement Value (millions)	Average Annual Infrastructure Gap (millions)	10-Year infrastructure gap as a percentage of replacement value
London	$28,465	$94.6	3.32%
Kingston	$3,343	$14.3	4.28%
Windsor	$6,121	$23.6[b]	5.51%
Waterloo	$3,400	$28.2	8.29%
Hamilton	$21,300	$195.9	9.20%
Burlington	$5,181	$51.8	9.90%
Guelph	$4,400	$48.7[c]	11.08%

4.0 Next Steps

Over the next 4-years, implementation and enhancement of the CAM Plan and Program will focus on the following areas:

- Continue to advance the broader CAM Program, which is inclusive of public engagement.
- Continue to improve and align the CAM Plan with the 2023-2027 Strategic Plan, 2024-2027 MYB, and O.Reg. 588/17.

[b] City of Windsor calculates a seven-year infrastructure gap only, 10-year gap is inferred.
[c] This excludes a growth funding gap as identified by the City of Guelph.

- Continue to address existing gaps through 2024-2027 MYB business case(s) submission(s) plus apply one-time operating budget and assessment growth surpluses in accordance with Council approved financing policies.
- For growth related assets, continue to avoid infrastructure gap escalation through the submission of an annual assessment growth business case equal to the infrastructure reinvestment rates of newly constructed and assumed assets.
- For 2023-2027 Strategic Plan service improvement assets, as best as possible, continue to identify and secure lifecycle renewal funding based on infrastructure reinvestment rates.
- Continue working with ABC's to develop their asset management plans in compliance with O.Reg. 588/17 requirements by the July 1, 2024.

Conclusion

The CAM Plan is a tactical outcome of the CAM Program, setting out the current plan for the City to manage its $28.5 billion worth of infrastructure. There are no easy solutions to how the entire infrastructure system works together to achieve an optimal delivery of infrastructure supported services. Nevertheless, additional efforts are required to address the infrastructure gaps beyond what is currently budgeted for. Thus, this CAM Plan, among others, will help guide efforts to address these infrastructure needs while developing 2024-2027 MYB capital plans, applying and enhancing financing policies, and monitoring and reporting against the progress of the 2023-2027 Strategic Plan priority outcomes.

Finally, this CAM Plan continues to meet O.Reg. 588/17 requirements while enabling the City to move continually towards asset management best practices, noting Civic Administration and ABC's are collaboratively working towards the completion of ABC's asset management plans by July 1, 2024.

Prepared by:	**Khaled Shahata, PhD., P.Eng.** **Manager III, Corporate Asset Management**
Submitted by:	**Greg Clark, CPA, CMA** **Director, Capital Assets and Projects**
Recommended by:	**Anna Lisa Barbon, CPA, CGA** **Deputy City Manager, Finance Supports**

Attached:
Appendix A- 2023 Corporate Asset Management Plan Brochure
Appendix B- 2023 Corporate Asset Management Plan

Overview

The **2023 Corporate Asset Management (CAM) Plan** is a comprehensive document that outlines the management of the City's close to $28.5 billion worth of infrastructure assets and enables informed decisions regarding the building, operating, maintaining, renewing, replacing and disposing of assets to ensure the City can provide and maintain the many services Londoners rely on every day.

The Plan meets the new provincial regulations O.Reg 588/17 and outlines:

- **State of Local Infrastructure**
- **Levels of Service (LOS) - Maintain Current and Achieved Proposed**
- **Asset Lifecycle Management Strategies**
- **Infrastructure Gaps**
- **Financing Strategies**

Asset Inventory Highlights

Asset	Inventory
Watermains	1,634 km
Water Storage Reservoirs	5 total
Sanitary Sewers	1,498 km
Storm Sewers	1,441 km
Wastewater Treatment Plants	5 total
Roads	3,746 lane-km
Sidewalks	1,597 km
Cycling Facilities	186 km
Bridges	104 total
Street Lights, Traffic Signs, Signals	47,406 total
Pathways & Trails	249 km
Arenas	10 total
Aquatic Facilities	40 total
Community Centres	14 total
Trees (Street Trees, Manicured Parks, and Woodland Trees)	1,770,632 total
Fire Stations	14 total

This is a high level overview of the 2023 Corporate Asset Management Plan.

For more information contact:
Visit **london.ca/CAM** or
Corporate Asset Management
Phone: **519-661-CITY (2489)**
Email: **CAM@london.ca**

2023

Corporate Asset Management Plan

City of London

BluePlan Engineering

london.ca/CAM

London CANADA

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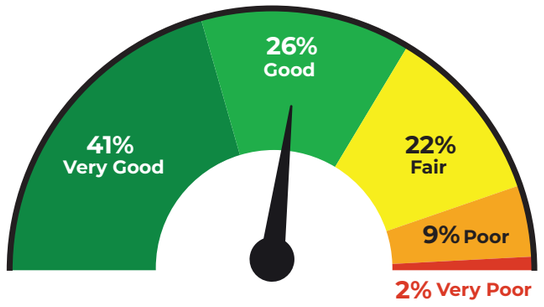
London CANADA

City of London Overall Condition

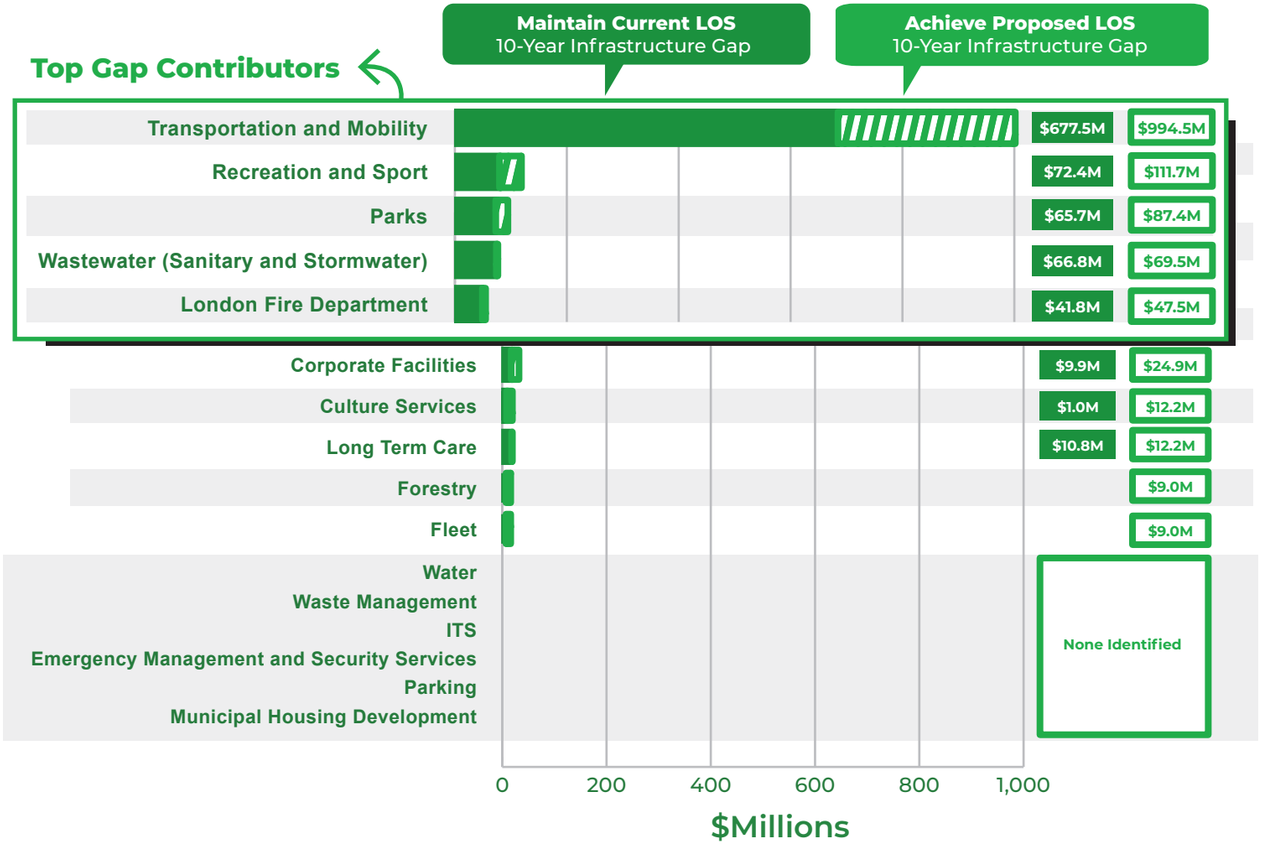


less than 1% not assessed

The 2023 CAM Plan is part of the City's overall CAM Program designed to enable the management of infrastructure assets in a way that connects strategic community objectives to day-to-day decisions related to when, why and how investments are made in infrastructure systems

Infrastructure Gaps

(Maintain Current and Achieve Proposed Levels of Service)



Managing the Infrastructure Gap

The City will continue to manage its $28.5 billion asset portfolio to provide sustainable service delivery to residents and comply with the Ontario Regulations of Asset Management Planning. The 2023 CAM Plan proposes exploring opportunities to address the infrastructure gaps through different financing strategies, including pursuing funding from external sources; updating the Water and Wastewater 20-Year Financial Plans; incorporating the reinvestment rate concept in assessment growth and service improvement business cases; and continuing to utilize one-time funding to address the gaps. In addition, it suggests the City should target financial sustainability to mitigate the growth of the infrastructure gap between 22 years to 27 years.

Infrastructure Gap (Maintain Current LOS)

The City invests in the renewal of its infrastructure through capital budget projects.

An optimal amount of funding is required to manage current and future asset risks. The difference between the optimal amount and available budget is the infrastructure gap.

Based on the existing City budget plans, this infrastructure gap is forecasted to grow to $946.1 million over the next decade.

Infrastructure Gap (Achieve Proposed LOS)

Ontario Regulation 588/17 mandates municipalities to evaluate the appropriateness and affordability of proposed levels of service. The City has reviewed key strategic documents for potential investment in areas like climate change initiatives, condition, and accessibility. These assessments have never been included in a City of London CAM Plan.

Based on the existing City budget plans, this infrastructure gap is forecasted to grow to $1,378.1 million over the next decade.