

2024

# Facilities Asset Management Plan



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## 1.0 EXECUTIVE SUMMARY

### 1.1 The Purpose of the Plan

This City of Kitchener Facilities Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to maintain current levels of service in a cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required over the 10-year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10-year planning period.

### 1.2 Asset Description

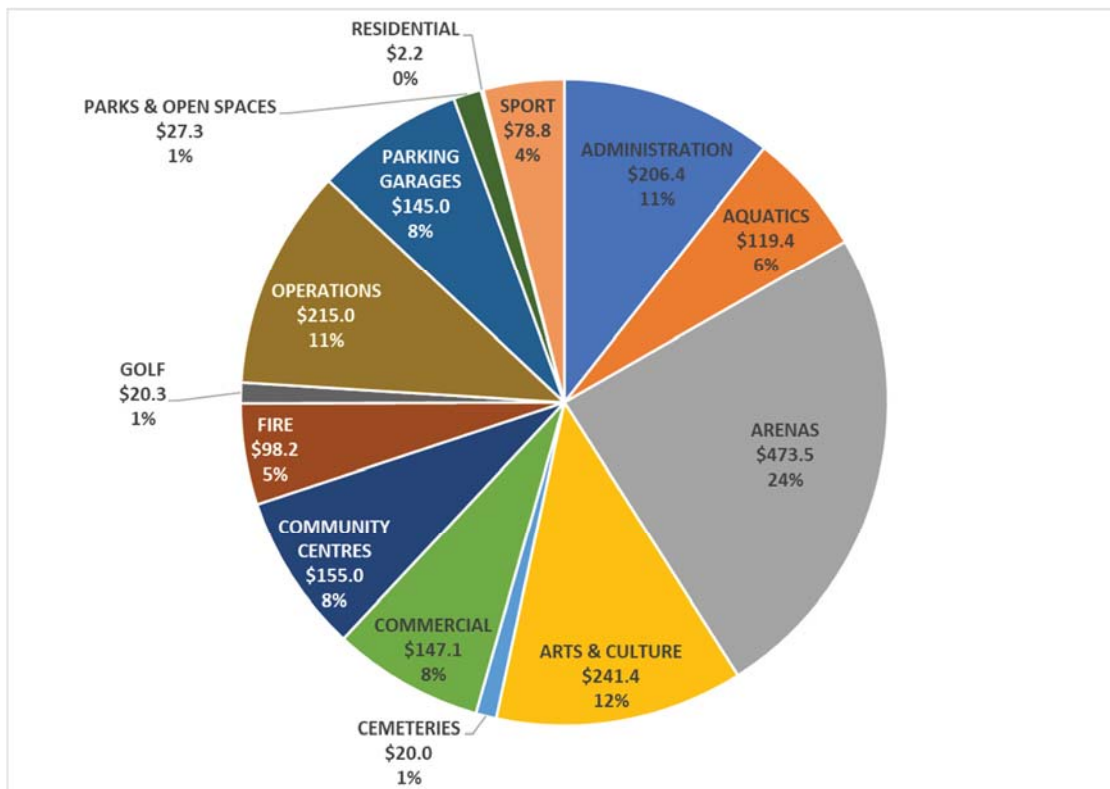
This plan covers the facility assets that provide services including administration services for governance, aquatic facilities and arenas for recreational activities, arts & culture venues for artistic expression, and community centres for public events. Additionally, the municipality provides essential services such as fire protection, operational support, and parking facilities, contributing to the overall well-being, recreation, and safety of its residents.

The largest portion of the asset mix is dedicated to arenas, covering 590,303 square feet (sq ft) with a replacement value of \$473.5 million. A summary of the facilities by Service area is summarized in Table 1.1.

**Table –1.1 – Summary of Facility Inventory by Service Area**

Service Area	Dimension (sq ft)	Replacement Value (\$ millions)
Administration	227,378	\$206.4M
Aquatics	97,636	\$119.4M
Arenas	590,303	\$473.5M
Arts & Culture	278,740	\$241.4M
Cemeteries	34,464	\$20.0M
Commercial	101,473	\$147.1M
Community Centres	185,076	\$155.0M
Fire	62,304	\$98.2M
Golf	45,710	\$20.3M
Operations	387,725	\$215.0M
Parking Garages	518,776	\$145.0M
Parks & Open Spaces	75,701	\$27.3M
Residential	7,828	\$2.2M
Sport	111,432	\$78.8M
<b>TOTAL</b>	<b>2,724,545</b>	<b>\$1,949.5M</b>

The above infrastructure assets have replacement value estimated at \$1.95 billion with a breakdown of this value shown in Figure 1.1.



**Figure 1.1 – Graph of Facility Inventory by Service Area (\$M)**

### 1.3 Levels of Service

The allocation in the planned budget is insufficient to continue to provide the current level of service modelled in this AM Plan, for the planning period.

The main service consequences of the Planned Budget are:

- Facility Condition Index deteriorates from 9.9% to 26.0%, indicating that an increasing portion of facility components fall into the repair backlog
- The average condition of the facility portfolio declines from Fair to Poor condition

### 1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population growth
- Aging population and recreation trends such as moving towards multi-use and multi-generational facilities

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, ensuring against risks and managing failures:

- Additional facilities and expansions of existing facilities
- Consideration of joint-use opportunities with private sector and school boards
- Designing for multi-use and multi-generational facilities

## 1.5 Lifecycle Management Plan

### 1.5.1 What does it Cost?

The forecasted lifecycle costs which are necessary to provide the services covered by this AM Plan include operation, maintenance, renewal, acquisition, upgrade, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10-year total outlays to maintain current service levels, which for the facility portfolio is estimated as \$791 million for the 10-year period or \$79.1 million on average per year.

## 1.6 Financial Summary

### 1.6.1 Planned Budgets and Forecast Costs

Estimated available funding for the 10-year period is \$463 million or \$46.3 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 58% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. The Informed decision making depends on the AM Plan emphasizing the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for City facilities leaves a shortfall of \$32.9 million on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

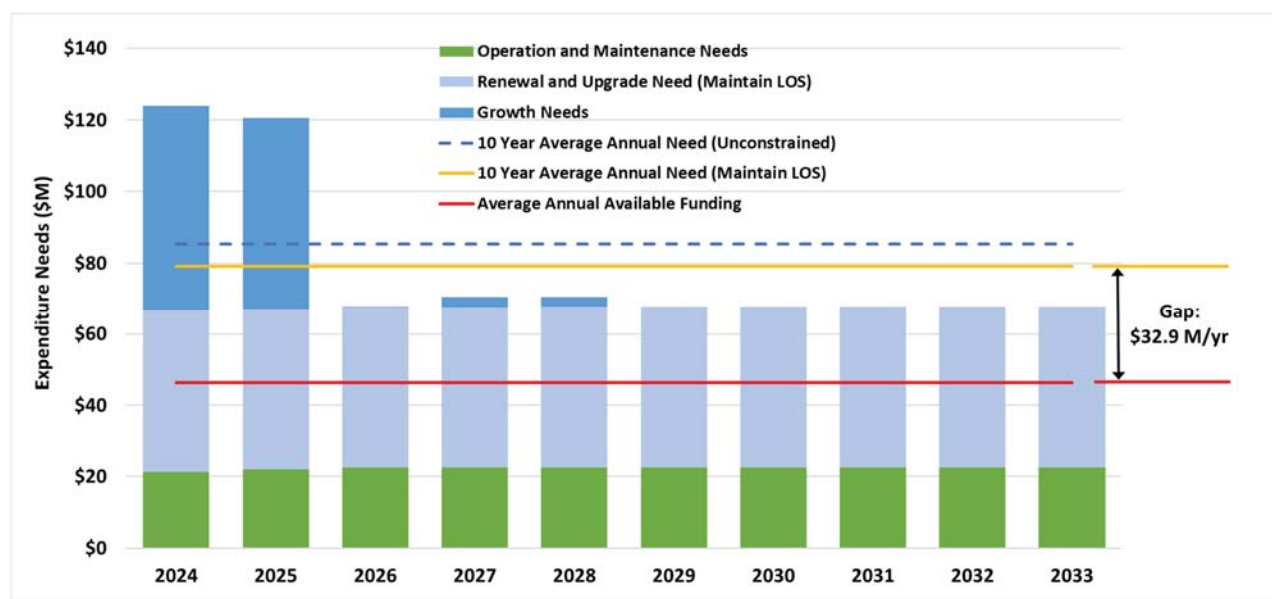


Figure Values are in current dollars.

**Figure 1.2 – Forecast Lifecycle Costs and Planned Budgets**

We plan to provide facility services for the following:

- Operation, maintenance, renewal and acquisition of all service areas to meet service levels set by City in annual budgets. Service areas include Administration, Aquatics, Arenas, Arts & Culture, Cemeteries, Commercial, Community Centres, Fire, Golf, Operations, Parking Garages, Parks & Open Spaces, Residential and Sport
- Renewals are forecasted using three approaches:

- Simple Facility – generally used for less critical facilities, such as sheds or storage buildings, where the entire facility is treated as one asset and renewed at end-of-life.
- A higher-level facility breakdown - City staff condition estimates are used to forecast renewal for buildings without a building condition assessment.
- Capital Plan with BCA recommendations - facilities for which a building condition assessment has been completed and those recommendations have been incorporated into the Facilities Management Capital Plan .
- New and expanded facilities such as Kitchener Indoor Recreation Complex (KIRC) are included in the next 10 year planning period based on recommendations from the 2019 Leisure Master Plan.

### 1.6.2 Infrastructure Gap

We currently do **not** allocate enough budget to sustain the current levels of service. Works and services that cannot be provided under present funding levels are:

- Underfunded planned maintenance (preventive maintenance programs)
- Deferred capital renewal work (estimated average gap of \$32.9 million per year)

### 1.6.3 Managing the Risks

Our present budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Higher lifecycle management costs, deteriorating facilities, and potential facility closures
- As the condition of assets deteriorates, they may become unsafe and pose a danger to the community and the City could be at risk of litigation should an accident occur.
- Insufficient upgrades related to accessibility, energy efficiency, and resiliency to climate change

We will endeavor to manage these risks within available funding by:

- Completing building condition assessments and accessibility audits to improve the accuracy of the renewal forecast and gap
- Continue to apply a risk-based approach to capital planning to focus available funding on critical projects
- Create new policies for acquisition and disposal of facilities to optimize limited funding
- Pursue grants from higher levels of government for projects such as those related to reducing GHG emissions and improving accessibility

## 1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- The potential impacts of climate change on state of good repair and operating costs are not included
- The potential increases in lifecycle costs due to deferred renewal work are not included
- The current operating budget is increased over the next 10 years based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition forecast
- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan

Assets requiring renewal are identified from either the asset register or an alternative method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal,
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge.



Various methodologies under the Alternate Method were used to forecast the renewal lifecycle costs for this AM Plan.

This AM Plan is based on a medium level of confidence information.

## **1.8 Monitoring and Improvement Program**

The next steps resulting from this AM Plan to improve asset management practices are:

- Improve asset database by conducting additional cyclical building condition assessments (BCA) and specialized assessments (roof, skylight, elevators, HVAC, etc.)
- Determine targets for FCI and other levels of service
- Complete accessibility audits and determine accessibility upgrade needs
- Determine funding gap related to planned maintenance and implement formal preventive maintenance activities to reduce risks of unplanned service disruptions
- Develop strategies regarding disposals and acquisitions, temporary facilities, replacement versus rehabilitations of old facilities as part of overall approaches to manage the funding
- Develop asset management framework to improve asset management in the organization

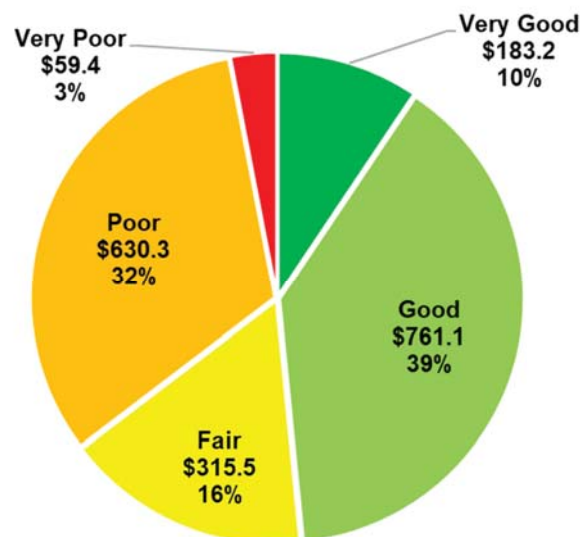
## 2.0 INTRODUCTION

The City of Kitchener (the City) is in Waterloo Region, in the heart of southwestern Ontario. The City covers an area of 137 square kilometers and has a population of approximately 270,000; making it the largest City in the Region and the Grand River Watershed alike. The City has been designated as a growth area through the Provincial Growth Plan: Places to Grow, and has seen significant population growth that is expected to continue through the next decade. The City owns and maintains facilities that provide a wide range of services between City departments and to its residents. This Asset Management Plan (AM Plan) will communicate the requirements for the sustainable delivery of services through efficient management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period. The Plan has been prepared in accordance with Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure, under the Infrastructure for Jobs and Prosperity Act, 2015. The Regulation lays out the requirements for all AM Plans, as well as deadlines to meet to certain milestones. This iteration of the AM Plan meets requirements for Current Levels of Service.

### 2.1 Assets Included in this Plan

This AM Plan covers facilities for which the City is responsible for lifecycle management. Most of these facilities are owned by the City, but some are leased by the City or operated by another organization. Some City-owned facilities are not included, such as water and wastewater facilities which are covered in the City's other AM Plans. The facilities included in this AM Plan are listed in Appendix G. The City's corporate facilities are operated and maintained by the Facilities Management division. All components of these facilities will be included in this AMP. Many of the City's other facilities are jointly operated and maintained by the Facilities Management division and other City departments or service partners (including, but not limited to recreation facilities, fire stations, and libraries). In these cases, the Facilities Management division is responsible for the operation, maintenance, renewal, expansion, and upgrade of the facility structural components, building systems, site works, and utility services including main electrical services, distribution, emergency generators, and uninterruptible power supply (UPS) systems; the department or service partner manages the remaining facility components including but not limited to, processes, equipment, and service operation. This AM Plan will only focus on the assets that are operated and maintained by the Facilities Management division. Process/service area assets are excluded. Facility parking lots that have been assessed through building condition assessments are included in the AM Plan but additional work is required to formalize the governance of these assets with other City divisions. The infrastructure assets included in this plan have a total replacement value of \$1.95 billion.

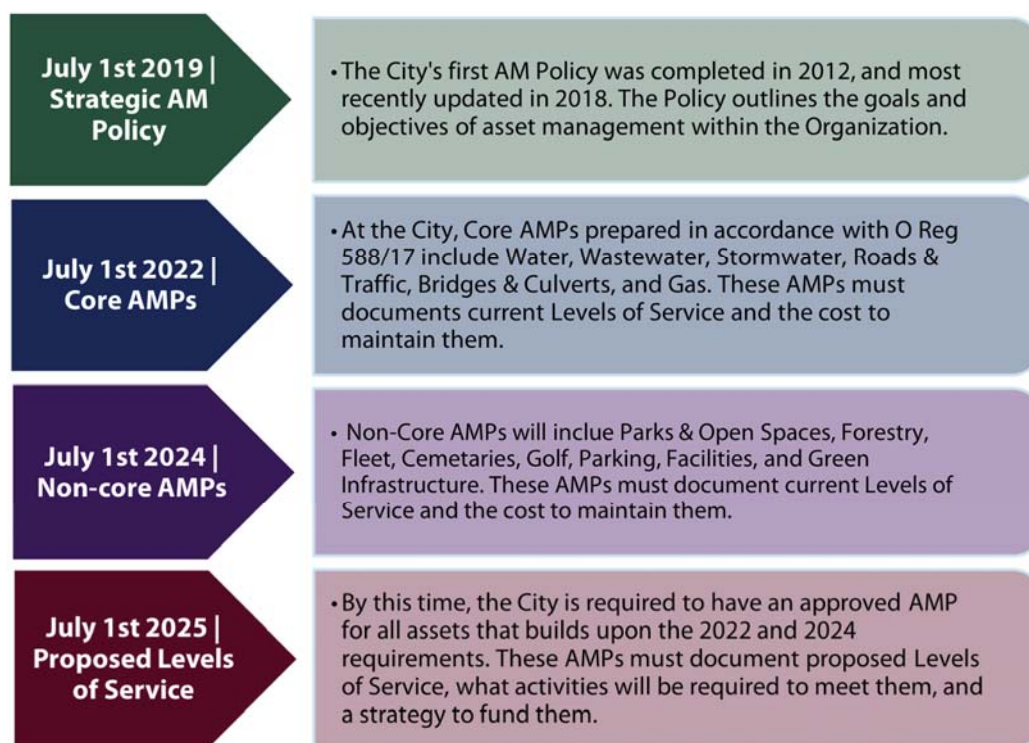
**Figure 2.1 – City of Kitchener Facility Asset Condition and Value (\$M)**



## 2.2 Provincial Asset Management Requirements

The Province of Ontario requires that all municipalities that seek provincial infrastructure funding have an asset management plan, or plans, in place. To encourage a similar approach across municipalities, in 2012 the province introduced Building Together: Guide for Municipal Asset Management Plans, which defined the key components of an effective asset management plan.

More recently in 2017, the province approved O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, under the *Infrastructure for Jobs and Prosperity Act, 2015*. The Regulation mandates the development of an asset management policy, asset management plans, and their content. Additionally, milestones are included for when municipalities must fulfill certain requirements, outlined below in Figure 2.2.

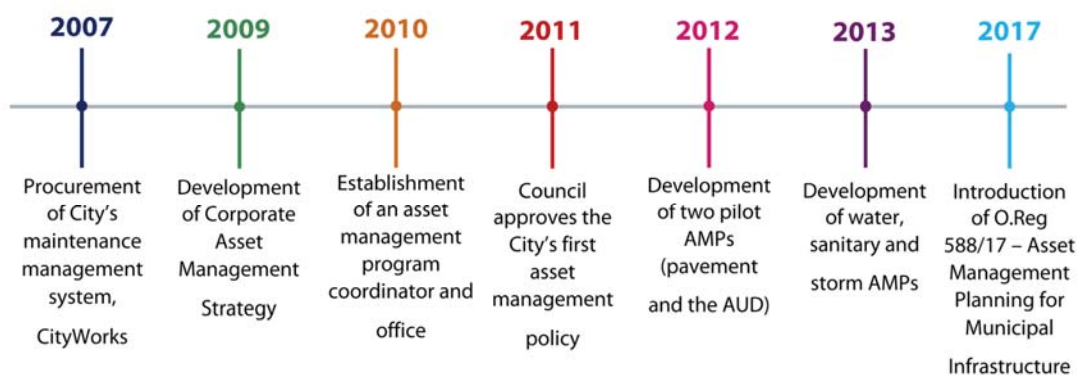


**Figure 2.2 - O.Reg 588/17 Milestones**

## 2.3 Asset Management at the City of Kitchener

The City of Kitchener has been practicing sound asset management planning for at least 15 years, starting with the introduction of Public Sector Accounting Board (PSAB) legislation. Since 2007, several efforts have resulted in well-established asset management programs and procedures, as well as the inclusion of a dedicated Asset Management Division in the City's corporate structure. Figure 2.3 below outlines some key milestones in the City's asset management journey. Kitchener City Council adopted the most recent Corporate Asset Management Strategy in 2016. The goals outlined in the strategy are to extend the useful life of all assets, in the most cost-effective way, while managing risk and meeting the agreed upon levels of service.

The AM Plan is a key tactical (medium-term) planning document that relies on input from strategic planning activities and informs shorter-term decision making. The AM Plan provides a framework to validate the City's budgeting processes and assist- in prioritizing work activities, including capital projects, based on risk. It discusses levels of service that also support goals in the 2023 to 2026 Strategic Plan and lifecycle management strategies intended to reduce the overall cost of asset ownership.

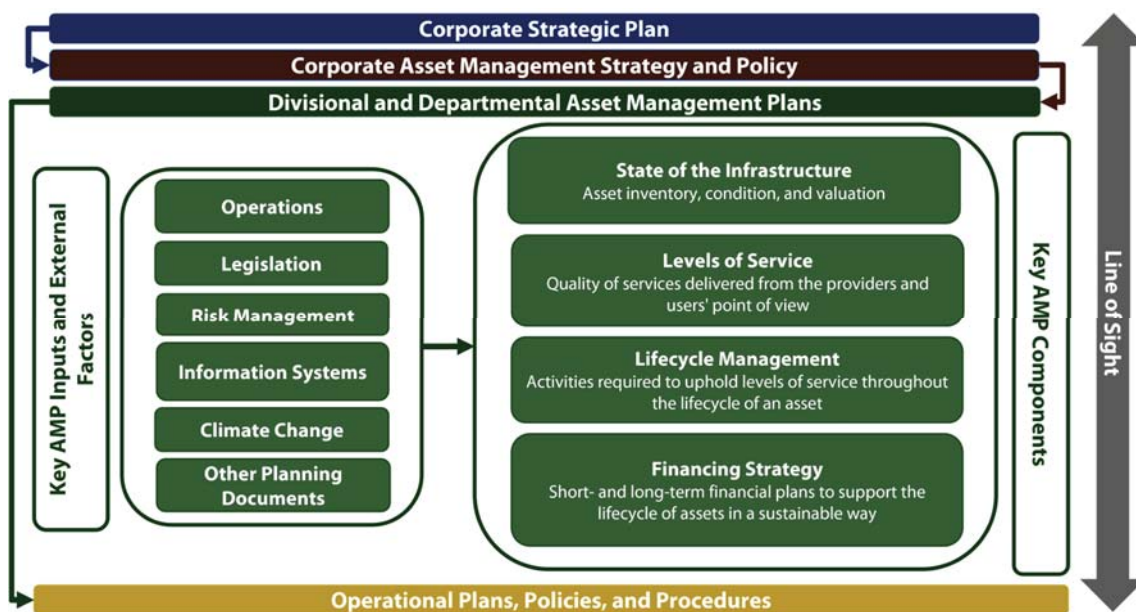


**Figure 2.3 - City of Kitchener Asset Management Timeline**

### 2.3.1 Corporate Asset Management System

An asset management system should aim to achieve a line of sight between corporate strategic goals outlined in the strategic plan, and operational plans, policies and procedures, as illustrated in Figure 2.4. Two guiding documents in this system are the Asset Management Strategy and Asset Management Policy, most recently updated in 2016 and 2018, respectively. The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy. The 2018 update puts a focus on climate change given the impact that it is expected to have on municipal assets. Section 5.3 – Climate Change Impacts of this AM plan discusses these impacts specific to the City and strategies to build and maintain assets through the lens of resiliency, sustainability, adaption, and mitigation. The Asset Management Strategy defines how the principles of the policy will be put into practice and the three guiding principles of asset management at the City of Kitchener which are to:

- 1 Balance asset condition and levels of service,
- 2 Allocate financial resources among priorities and,
- 3 Shift how we do business – such as introducing programs to support the requirement for high-quality data services.



**Figure 2.4 - City of Kitchener Asset Management System**

In addition to the Asset Management Strategy and Policy, this AMP should be read in conjunction with other planning documents relevant to facilities, outlined in Table 2.1 below.

**Table 2.1: Key Planning Documents**

Key Planning Document	Document Description
<b>2023-2026 Corporate Strategic Plan</b>	The document outlines the strategic goals that are to be championed by Council and staff across the City.
<b>Official Plan (2014)</b>	The Official Plan is a legal document that contains goals, objectives and policies to manage and direct physical and land use change and their effects on the cultural, social, economic and natural environment within the City. This Plan provides a framework for decision-making and plays several essential roles in the future planning of the City.
<b>Corporate Asset Management Strategy (2016)</b>	The AM strategy outlines the Asset Management program at the City, the three guiding principles of where the program intends to go, and the value gained by forming consistent practices throughout the asset groups.
<b>2019 Leisure Facilities Master Plan (currently being updated)</b>	<p>The 2019 Leisure Facilities Master Plan includes recommendations to support the City's commitment to providing quality recreation facilities, programs and services. The plan focuses on three primary areas:</p> <ul style="list-style-type: none"> <li>• Aging recreation infrastructure</li> <li>• Partnerships with school boards and public/private community partners</li> <li>• Funding models for recreation facilities and service delivery</li> </ul> <p>In addition, the LFMP includes a prioritized list of indoor and outdoor recreation facilities which staff are recommending be funded through development charges.</p>
<b>Kitchener, Changing for Good - Corporate Climate Action Plan (2019)</b>	The City's Corporate Climate Action Plan aims to achieve meaningful and measurable carbon emission reductions throughout its operation, while also adapting to impacts resulting from climate change.
<b>Energy Conservation &amp; Demand Management Plan (2019-2023)</b>	Under Ontario Regulations 25/23, public sector agencies in Ontario must report annual energy consumption and develop a five - year conservation and demand management plan intended to reduce energy consumption and greenhouse gas emissions.
<b>Development Charges Background Study (2022)</b>	The DC Study includes preparing a development forecast, establishing historical service levels, determining the increase in need for services arising from development and appropriate shares of costs and attribution to development types (residential and non-residential).

The City's facilities provide important services across many City departments, and therefore this AM Plan has a wide range of key stakeholders. Key stakeholders are summarized in Table 2.2.

**Table 2.2 - Key Stakeholders in the AM Plan**

Key Stakeholder	Role in Asset Management Plan
<b>City of Kitchener Elected Council</b>	City Council are the overall owners of the City's assets. Council approves asset management policies and asset funding allocation through the annual corporate budget process. An overarching expectation of a standard of care is required by Council to ensure commitment to effective asset Management practices.
<b>Corporate Leadership Team</b>	The Leadership Team provides corporate oversight to the program to ensure that the goal and directions of the Corporate Asset Management program are maintained, and the program remains consistent with the overall Strategic Plan.
<b>Asset &amp; Information Management Committee</b>	This committee provides leadership and strategic direction for supporting systems/processes specific to the delivery of asset/work management information for the City of Kitchener. Further, in support of the city-wide asset management strategies, the committee provides leadership and governance to the Asset Management Policy statement through the provision of information necessary for the long-range forecasts of asset investment needs, services levels, risks, costs and other performance measures.
<b>Facilities Management</b>	Facilities Management is a division with Infrastructure Services and is responsible for the renewal and lifecycle planning for maintaining facility assets in a state of good repair.
<b>Community Services</b>	Community Services is a department of the City and is responsible for the operation and maintenance of community centres, swimming pools, arenas, sports facilities, as well as the Kitchener Fire Department stations.
<b>Finance</b>	The Finance division within Financial Services prepares an annual operating budget and 10-year capital forecast for Council's consideration. The annual budget helps identify the spending plans and priorities for the City for the upcoming year and is informed by the City's Strategic Plan, various master plans, and feedback from the community.

### 2.3.2 Asset Management Plan Methodology

The information presented in the AM Plan is based on O.Reg. 588/17 requirements, the Guide for Municipal Asset Management Plans, originally issued by the Ontario Ministry of Infrastructure, and leading asset management practices. Costs and replacement values in this AM Plan are estimated in 2023 dollars.

The AM Plan was developed by SLBC Inc. in collaboration with City staff through:

- Review of background materials available on the City's web site and provided by the City's project team including asset inventories, planning documents, and budgets
- Workshops with internal stakeholders
- Various interim meetings with the City's project team
- Numerous data and information transfers
- Review of interim outputs by the City's project team and other stakeholders, and incorporation of comments into the final AM Plan

### 3.0 STATE OF LOCAL INFRASTRUCTURE

#### 3.1 Background Data

##### 3.1.1 Asset Inventory and Valuation

The asset mix for this municipality reflects a diverse range of services supported by its facilities. The largest portion of the asset mix is dedicated to arenas, covering 590,303 sq ft with a replacement value of \$473.5 million. The assets covered by this AM Plan are shown in Table 3.1.

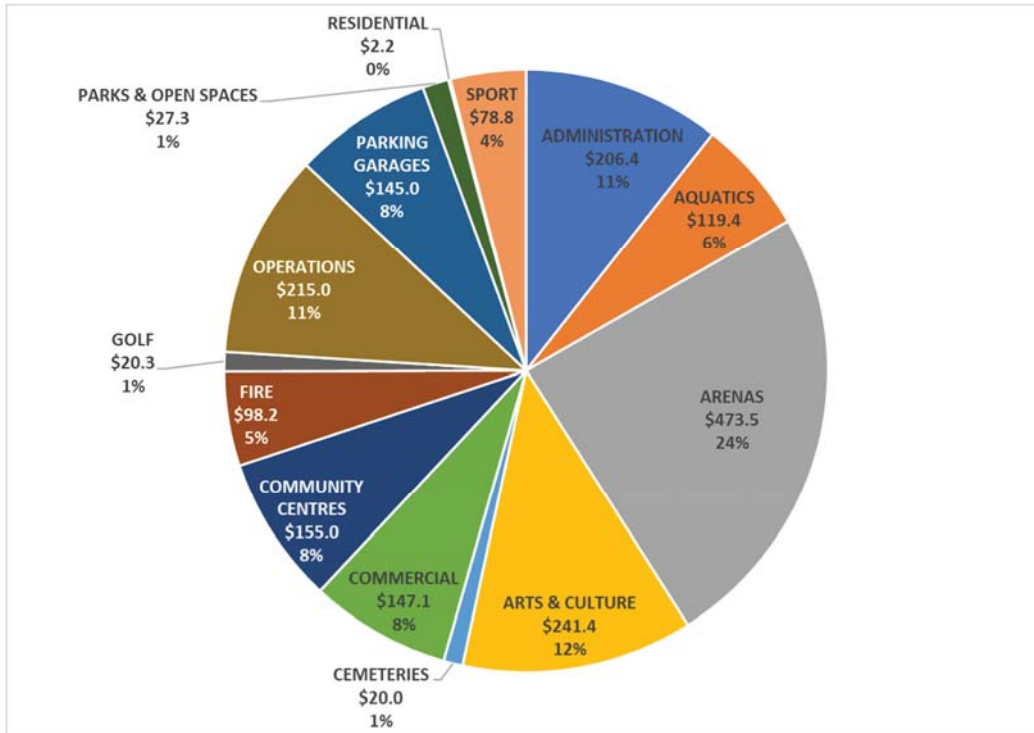
**Table 3.1: Assets covered by this Plan**

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<b>TOTAL</b>	<b>2,724,545</b>	<b>\$1,949.5M</b>

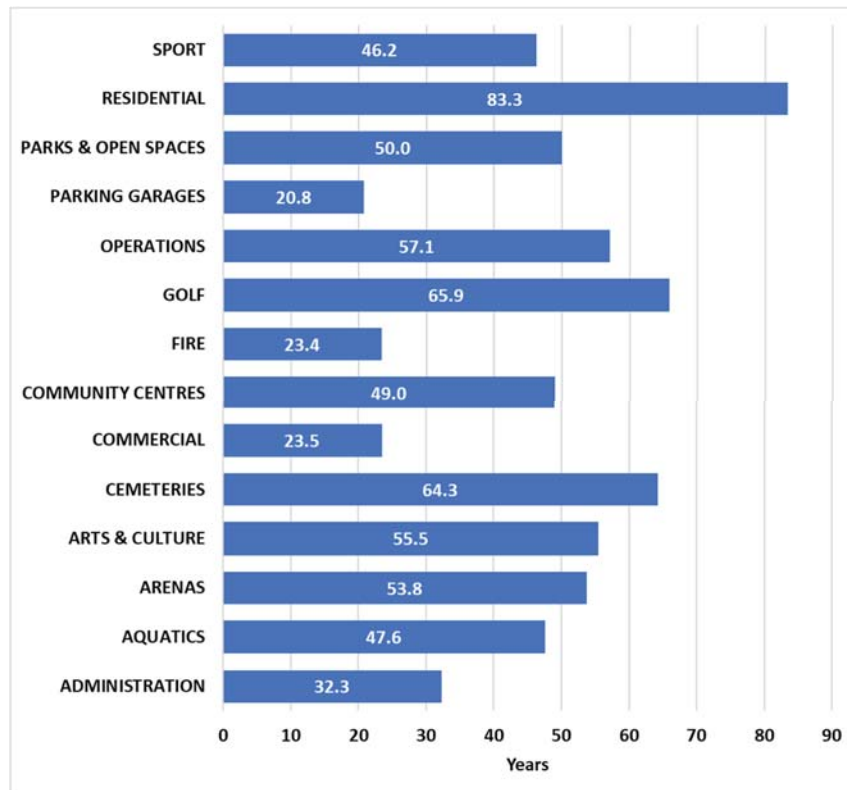
The asset valuation distribution for this AM Plan is shown in Figure 3.1 and the age profile of the assets included in this AM Plan are shown in Figure 3.2



**Figure 3.1: Asset Valuation**



**Figure 3.2: Asset Age Profile**



Asset Age Profile was calculated using a weighted average age of assets based on current replacement value (CRV). All table and figure values are shown in current day dollars.



Residential assets are the oldest City facilities with an average age of 83.3 years against a useful life expectancy of 80 years. Additionally, Parks & Open Spaces assets have an average age of 50 years compared to a useful life expectancy of 50 years. This suggests that these assets have, on average, met or exceeded their anticipated lifespan, potentially warranting closer attention and investment in maintenance, refurbishment, or disposal to ensure the continued well-being and safety of residents. In contrast, parking garages exhibit a notably lower average age of 20.8 years against a useful life expectancy of 80 years, emphasizing recent investments in this area.

### 3.1.2 Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown in Table 3.2.

**Table 3.2: Asset Service Hierarchy**

Service Hierarchy	Service Level Objective
Administration	Manage and coordinate various municipal functions, including governance, finance, human resources, and communication, ensuring efficient and effective overall operation.
Aquatics	Provide safe and accessible aquatic facilities and programs, promoting water safety, recreation, and fitness within the community.
Arenas	Operate and maintain indoor sports arenas, offering spaces for sports activities, events, and recreational programs for residents.
Arts & Culture	Support and promote artistic and cultural initiatives within the community, fostering creativity, heritage preservation, and community engagement.
Cemeteries	Manage and maintain burial grounds, ensuring respectful and dignified final resting places for community members.
Commercial	Oversee and regulate commercial activities within the municipality, promoting economic development, business growth, and a vibrant local economy.
Community Centres	Provide spaces and programs that foster community engagement, social interaction, and the well-being of residents through recreational and educational programs.
Fire	Ensure the safety and well-being of residents by providing fire protection, emergency response services, and community education on fire safety.
Golf	Manage and maintain golf courses, promoting recreational opportunities, sportsmanship, and a healthy outdoor lifestyle.
Operations	Oversee the day-to-day municipal operations, including public works, infrastructure maintenance, and logistical support to ensure the proper functioning of the City.
Parking Garages	Provide safe and accessible parking facilities, managing parking infrastructure, and implementing policies that address the parking needs of residents and visitors.
Parks & Open Spaces	Create and maintain public parks, green spaces, and recreational areas, enhancing the quality of life for residents and providing opportunities for outdoor activities.
Residential	Originally acquired to support expansion of adjacent city facilities.
Sport	Promote and facilitate sports and physical activities, supporting the development of sports programs, facilities, and events that contribute to the health and well-being of the community.

### 3.1.3 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 3.3.

**Table 3.3: Known Service Performance Deficiencies**

Location / Service Area	Service Deficiency
Community Centres	Based upon estimated population growth and public survey results, the City plans to address the deficiency in community and recreation infrastructure through the following projects: Mill Courtland Community Centre Addition, Rosenberg Community Centre, Forest Heights Community Centre Expansion and Kitchener Indoor Recreation Complex (KIRC).
Fire	To ensure adequate emergency response and protection services, the City has identified the need for an 8th fire station in order to respond to the significant growth occurring within the City.
General State of Good Repair backlog	The City currently has a significant renewal backlog across the facility portfolio.

The capacity-related service deficiencies were identified from the City's 2019 Leisure Master Plan and the 2022 Development Charges Study. The backlog is identified from the Facilities Management Capital Plan and the forecasting methods described in the following subsection.

### 3.1.4 Asset condition

Assets can be inspected and monitored through various means. The City employs both internal staff and contractors to perform inspections on City owned assets. The results of these assessment programs provide the City with meaningful imperial data that can be used to gauge the condition of assets and needs for asset maintenance or renewal. The costs for these condition assessments are funded through the City's Capital Plan.

**Table 3.4: Condition Assessments**

Asset Category	Condition Assessment Description	Frequency in Years
Facilities with Higher Criticality	Building Condition Assessment	5 years for facilities with SFU of 3, 4 or 5

Condition is measured using a 1 – 5 grading system as detailed in Table 3.5. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AM plan results are translated to a 1 – 5 grading scale for ease of communication. The Facility Condition Index is calculated based on the following formula:

$$\text{FCI} = \frac{\text{Renewal Needs over Next 3 Years}}{\text{Replacement Value}}$$

To determine the FCI for each facility, the renewal needs over the next 3 years including backlog was determined by different forecasting methods depending on the criticality of the facility and the data available:

- Simple Facility – generally used for less critical facilities, such as sheds or storage buildings, where the entire facility is treated as one asset and renewed at end-of-life.
- High-Level Facility Breakdown – facilities for which a building condition assessment has not yet been completed. The facility is broken down into 27 elements (Unifomat) with estimated costs (based on typical percentage breakdowns) and estimated condition ratings by City staff.

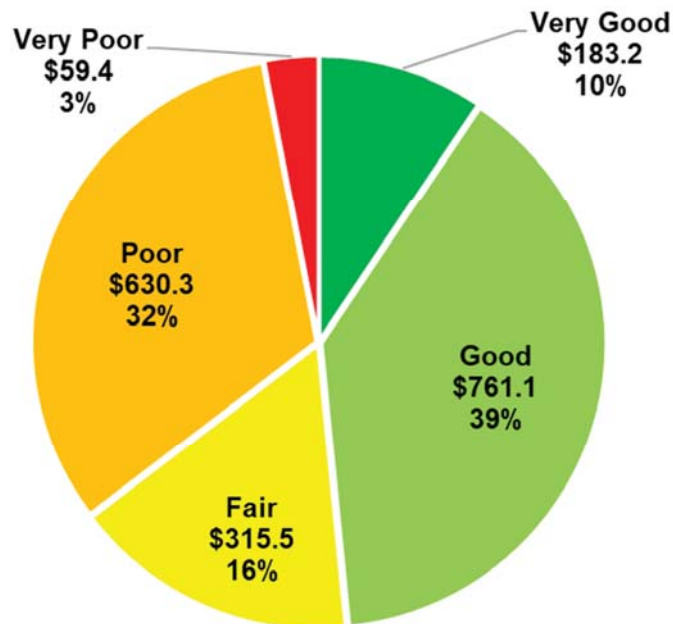
- Capital Plan with BCA recommendations – facilities for which a building condition assessment has been completed and those recommendations have been incorporated into the Facilities Management Capital Plan

**Table 3.5: Condition Grading System**

Condition Grading	Description of Condition	Facility Condition Index
<b>1 – Very Good</b>	free of defects, only planned and/or routine maintenance required	0 to 2%
<b>2 – Good</b>	minor defects, increasing maintenance required plus planned maintenance	>2 to 5%
<b>3 – Fair</b>	defects requiring regular and/or significant maintenance to reinstate service	>5 to 10%
<b>4 – Poor</b>	significant defects, higher order cost intervention likely	>10 to 30%
<b>5 – Very Poor</b>	physically unsound and/or beyond rehabilitation, immediate action required	Over 30%

The condition profile of our assets is shown in Figure 3.3 and Table 3.6.

**Figure 3.3: Asset Condition Profile (\$M)**



All figure values are shown in current day dollars.

**Table 3.6: Asset Condition by Service Area**

Service Area	Average Facility Condition Index	Category
Administration	18.2%	Poor
Aquatics	22.4%	Poor
Arenas	4.8%	Good
Arts & Culture	12.8%	Poor
Cemeteries	8.2%	Fair
Commercial	3.7%	Good
Community Centres	13.5%	Poor
Fire	8.7%	Fair
Golf	6.7%	Fair
Operations	6.3%	Fair
Parking Garages	9.9%	Fair
Parks & Open Spaces	8.1%	Fair
Residential	6.0%	Fair
Sport	8.6%	Fair
<b>Overall Average</b>	<b>9.9%</b>	<b>Fair</b>

The condition assessment of the municipality's assets provides some perspective on the overall health of its infrastructure. While arenas and commercial assets have an overall good condition (FCI of 4.8% and 3.7%, respectively), a significant portion of the assets, including administration, aquatics, arts & culture, and community centres, are categorized with an average poor condition, with FCIs ranging from 12.8% to 22.4%. Overall, the weighted average condition of the facilities included in this AM Plan falls within the fair category at 9.9%.

### 3.2 Asset Registry Completeness & Assumptions

In compiling this AM Plan, a thorough review of the asset registries is required. The purpose of this review to identify if all asset categories under the leadership and stewardship of the responsible stakeholders are represented in a singular or combined asset registry. The review also looks to ensure that for those registries that do exist, that fields that are critical to the assets' lifecycle and financial management are populated with accurate values. These values will provide that basis for meaningful asset management planning

The following categories have been employed to assess the completeness of asset registries:

Rating	Description
<b>Good</b>	Data based on sound records, procedures, investigations and analysis, documented properly but may have minor shortcomings. Dataset is complete and estimated to be accurate $\pm 10\%$ .
<b>Fair</b>	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated $\pm 25\%$
<b>Poor</b>	Dataset may not exist or be fully complete, and most data is estimated or extrapolated

**Table 3.7: Asset Registry Assessment**

Forecasting Approach	Completeness of Asset Registry		Completeness of Existing Asset Registry Fields				
		Defined Level of Service	Initial Construction Costs	Installation Year	Condition	Estimated Service Life	Description
Simple Facility	Good	Fair	Good	Good	Fair	Fair	Good
High-Level Facility Breakdown	Good	Fair	Good	Good	Fair	Fair	Good
Capital Plan with BCA recommendations	Good	Good	Good	Good	Good	Good	Good

Where asset registries are missing or critical data fields are found to be incomplete, there may be assumptions of the data that have to be made to complete this AM Plan. While these assumptions are listed below, they will be put into more context as needed through this AM Plan. The facilities currently based on the high-level facility breakdown are expected to be updated with more accurate forecasts when their building condition assessments are completed and incorporated into the Capital Plan.

Key assumptions related to the asset registries made in this AM Plan are described below for each of the three forecasting approaches:

- Simple Facility approach:
  - Non-residential facilities are replaced as one asset at end-of-life (50 years)
  - Residential facilities are forecasted based on an average 2% annual investment rate
  - 13 facilities were not included due to missing construction year data
- High-level facility breakdown approach:
  - Replacement costs for 27 elements (Unifomat) are estimated based on costing breakdown provided through a facility costing software (RS Means).
  - Each facility is assumed to consist of each of the Unifomat elements
  - For elements not assigned a condition score by City staff, an average annual renewal amount is assumed to be required based on the current replacement value of the element divided by its estimated total service life
- Capital Plan approach:
  - All forecasted values entered into the Capital Plan are assumed to be in current year dollars

## 4.0 LEVELS OF SERVICE

In the State of Infrastructure Section, the value, age, and condition of the City's infrastructure assets were discussed. The Levels of Service (LOS) chapter builds on the State of Infrastructure by defining the performance the City's assets are intended to deliver over their service lives. For example, the City's recreation facilities are expected to be maintained in a state of good repair such that residents can access suitable facilities and participate in various sports activities.

LOS are statements that describe the outputs and objectives the City intends to deliver to its residents, businesses, and other stakeholders. In general, LOS are guided by a combination of customer expectations, legislative requirements, internal policies and procedures, and affordability. Effective asset management requires that LOS be formalized and supported through a framework of performance measures, performance levels, and timeframes to achieve performance levels, such that the activities and costs to deliver the documented LOS can be determined.

The City's facilities play a role in ensuring the continued delivery of essential services to the community. These facilities provide a wide range of spaces, such as offices for City staff as well as critical operations facilities that oversee environmental services, roads, and parks operations. The City's recreation and culture facilities, including recreation centres, community centres, the museum and theatre, support community participation in physical and social activities to enhance the lives of residents. Finally, libraries and parks facilities, including parks washrooms, contribute to the community's overall quality of life.

Figure 4.1 shows the LOS framework and line of sight from high-level Corporate initiatives to detailed asset-specific Technical LOS. Corporate commitments & legislated LOS guide the development of community LOS. The community LOS outline the services that the assets need to deliver to the City's residents and businesses.

Community LOS can typically be categorized to one of the following service attributes:

- **Capacity & Use:** Services have enough capacity and are available to the customers
- **Function:** Services meet customer needs while limiting health, safety, security, natural and heritage impacts
- **Quality & Reliability:** Services are reliable and responsive to customers
- **Financial Sustainability:** Services are affordable and provided at the lowest cost

Community LOS are translated into Customer LOS, which measure services from a resident perspective, and Technical LOS that define asset performance levels. These LOS in turn define asset needs and drive the required lifecycle activities and associated funding to mitigate risks. As shown in Figure 4.1.

- Capacity & Use LOS informs **Acquisition** needs
- Function LOS informs **Upgrade** needs
- Quality & Reliability LOS informs **Renewal, Operations and Maintenance** needs
- Financial Sustainability LOS informs **Funding** needs

This Line of Sight establishes the connection of how the day-to-day management of City assets supports the achievement of higher-level strategic priorities.

As part of the City's 2023 to 2026 Strategic Plan, a key goal is to ensure accountability and transparency to support 'stewarding a better city together'. Developing, monitoring, and reporting on LOS are all integral parts of an overall performance management program which support efficient provision of services to City stakeholders.

Figure 4.1: Levels of Service Framework



#### 4.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the City of Kitchener. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

The City completed a preliminary survey in 2023 with internal staff as a starting point to understanding perspectives from the public. Table 4.1 summarizes the results from our Customer Satisfaction Survey with internal City staff regarding their general experience and understanding of public satisfaction regarding facility cleanliness and condition.

**Table 4.1: Customer Satisfaction Survey Levels**

Performance Measure	Satisfaction Level				
	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not satisfied
Satisfaction with facility cleanliness		✓			
Satisfaction with facility condition		✓			

#### 4.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Corporate Asset Management Strategy which is in alignment with the City of Kitchener's Strategic Plan (2023 – 2026). The City of Kitchener's Strategic Plan was developed with the consultation of residents, community organizations, businesses and councilors. Further to this, the plan supports the United Nations Sustainability Goals (SDGs) which outline the ways to achieve a better and more sustainable future for all.

The City's vision is:

"Building a city for everyone where, together, we take care of the world around us – and each other"

Strategic goals have been set by the City of Kitchener. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 4.2.

**Table 4.2: Goals and how these are addressed in this Plan**

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Cultivating a Green City Together	We follow a sustainable path to a greener, healthier city. We work together to enhance and protect our parks and natural environment while transitioning to a low-carbon future. We support businesses and residents to make more climate-positive choices.	The City's commitment to monitor and reduce GHG emissions and energy consumption are discussed in this AM Plan.
Fostering a Caring City Together	We welcome residents of all ages, backgrounds and lived experiences. We work together on the decisions that matter to us and have a meaningful influence in our community. We're healthy and thriving as we easily access the diverse and inclusive programs and services we need to succeed.	The AM Plan discusses how the City manages its facilities to meet population growth, changing demographics and recreational trends, accessibility, and state of good repair needs to provide a facility portfolio that enable delivery of diverse and inclusive services.



Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Stewarding a Better City Together	We, the City's employees, are stewards of Kitchener's present and its future. We're responsive, innovative, diverse and accountable public servants who work together efficiently to serve residents. We remove barriers and champion residents' collective vision for a better city and a better world.	The AM Plan demonstrates the City's commitment to financial sustainability and how available funds are managed efficiently while providing the required services and managing the associated risks.

These goals set a framework for the required actions that enable the City to provide relevant and high-quality services to the community. The goals are supported by other City planning documents including the following:

#### 2014 Official Plan

- The provision of community infrastructure and facilities is essential for the enhancement of the quality of life for residents in Kitchener. There are a wide range of facilities that are required to meet the physical, social, cultural and recreational needs of its residents. While the City may not be directly involved in the provision of all community and cultural facilities and services, it can help ensure the provision and expansion of some of these facilities and services through facilitation. Objectives include:
  - To provide and maintain a balanced distribution and sufficient supply of accessible and inclusive parks, open space and community facilities for both active and passive recreational uses to satisfy the needs of all residents of Kitchener.
  - To ensure that the city has sufficient community infrastructure and facilities to meet the current and projected needs of all its population.
  - To ensure that community infrastructure uses and facilities are appropriately and conveniently located throughout our city to support a complete community.
  - To provide parks and community facilities in an efficient and sustainable manner that optimizes their use, minimizes environmental impacts, supports intensification and promotes flexibility to adapt to changing needs

#### Corporate Climate Action Plan (currently being updated)

Through its Climate Change Action Plan, the City focuses on three main approaches to managing GHG emissions in the community, the organization and service delivery:

- energy conservation – use less energy and use it more efficiently
- fuel switching – use lower carbon fuels, "clean fuels"
- generate energy – make renewable "clean energy"

#### 2019 Leisure Facilities Master Plan (currently being updated)

**The City's Leisure Facilities and Master Plan furthers objectives related to active living, equity diversity and inclusion, and sustainability:**

- Lifelong Participation: Support lifelong participation in physical and social activities
- Access for All: Encourage equitable and safe participation in recreation, regardless of sex, culture, socioeconomic status, race, gender, ability, sexual orientation, Indigenous status or geographic location
- Sustainable Environments, Infrastructure & Partnerships: Re-invest in existing infrastructure and use spaces for multiple purposes to ensure financial and environmental sustainability.

### 4.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Some of the legislative requirements that impact the delivery of the services provided by the City's facilities are outlined in Table 4.3.

This AMP is prepared in accordance with O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, which lays out the requirements for Asset Management Plans prepared by municipalities across Ontario and milestones that all municipalities are required to meet. This Plan meets the July 1<sup>st</sup> 2024 requirements. Please note that this list of legislative requirements for facilities is not exhaustive.

**Table 4.3: Legislative Requirements**

Legislation	Requirement
Ontario Regulation 588/17	Establishes strategic, long-term, sustainable plans to manage core and non-core capital infrastructure assets by 2024. The Regulation requires: <ul style="list-style-type: none"> <li>• Municipal governments to adopt AM Plans for all infrastructure assets including identifying levels of service and costs of maintaining services.</li> <li>• Municipal governments to set technical metrics and qualitative descriptions for each asset</li> </ul>
Ontario Building Code	Ontario Building Code is a regulation under the Building Code Act. It establishes detailed technical and administrative requirements, as well as minimum standards for building construction. The Ontario Building Code promotes public health and safety, fire protection, resource conservation, environmental integrity, and accessibility.
The Accessibility for Ontarians with Disabilities Act, 2005 (AODA)	The purpose of the AODA is to develop, implement and enforce standards for accessibility related to goods, services, facilities, employment, accommodation and buildings.
Technical Standards and Safety Act, 2000	Facilities must comply with technical standards and safety regulations depending on the industry or equipment, such as elevating devices or generators.
Fire Protection and Prevention Act, 1997	Facilities, especially public spaces, must comply with fire safety regulations.

#### 4.4 Customer Values and Community Levels of Service

The LOS discussed in this AM Plan are focused on measures developed to support achievement of the City's higher level strategic priorities and key areas of investment. The City will be completing key planning documents, such as an update to the Leisure Facilities Master Plan that will discuss additional service levels for input into future updates of this AM Plan.

This AM Plan summarizes the performance on the measures based on the most current data available. As required by O. Reg 588/17, the City will determine proposed service levels by 2025. The proposed service levels will be aligned with the necessary planning documents.

As discussed in Section 4.0, service levels are defined in three ways: community levels of service, customer levels of service and technical levels of service. Community LOS are qualitative statements categorized by service values and attributes.

**Service Values and attributes** indicate what aspects of the service is important to the customer.

**Table 4.4: Service Values and Community LOS**

Service Value	Service Attribute	Customer Satisfaction Measure	Community LOS (Customer Satisfaction Measure)
<b>Capacity &amp; Use</b>	<b>Capacity/Use</b>	Is the service over or under used? do we need more or less of these assets?	Ensure adequate facilities to meet growing population and community needs
	<b>Available</b>	The service can be used/reached at convenient times	
	<b>Scope</b>	The service is broad enough that it serves the entire population	
<b>Functional</b>	<b>Function</b>	Services meet customer needs while limiting health, safety, security, natural and heritage impacts	Provide accessible facilities for inclusion and meeting diverse resident needs
	<b>Safety</b>	The service is provided in a manner that protects users from harm	
	<b>Resilience</b>	Considers future impacts such as climate change that may put stress on the system.	Promote Environmental Sustainability by maximizing facility-level efficiency. Prioritization of three main approaches to reducing GHGs in our community, our organization and service delivery: -energy conservation -fuel switching -generate energy
<b>Quality &amp; Reliability</b>	<b>Quality</b>	The standard to which the service is provided	Provide facilities in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections
	<b>Reliable</b>	Consistently good in quality or performance - works when service users expect it to work	Maintain facilities proactively to minimize unexpected failures
<b>Financial Sustainability</b>	<b>Affordable</b>	How much does the service cost? Is it fair and is the service provided worth this cost?	Provide facilities management services in an efficient and cost-effective manner
	<b>Efficient</b>	Service is provided with maximum productivity and minimal wasted effort	

Service values for Customer LOS and Technical LOS are summarized in section 4.5 and 4.6, respectively. For each relevant service value there is a summary of the performance measure being used, the past and current performance, and the expected performance or trend based on the current budget allocation. It is important to note that not all service values are applicable to all asset categories.

#### 4.5 Customer Levels of Service

Customer Levels of Service can be identified as community expectations on certain services as well as how the more technical work activities are impacting customer experiences. The Customer Levels of Service performance measures highlight data that has direct impact on a citizen.

**Table 4.5: Customer Level of Service Measures**

Customer Focused Levels of Service					
Value of Service	Community LOS	Performance Measure	2023	2022	2021
Quality & Reliability	Provide facilities in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections	% Fair or Better Condition	65%	Not available	Not available
		Average satisfaction level for external customers based on condition and cleanliness service levels (internal staff survey)*	3.7 (out of 5)	Not available	Not available

\*City Staff were surveyed across the entire portfolio and results from 17 facilities were obtained.

In September of 2023, City staff were surveyed regarding facility condition and cleanliness from a customer perspective. The average rating was a 3.7 out of 5 on satisfaction across 17 facilities. The City would like to increase this level of satisfaction over the next 10 years. However, based on the current backlog, current condition of the facilities and the current available budget, the satisfaction level is expected to decrease.

#### 4.6 Technical Levels of Service

Operational or technical measures of performance are used to demonstrate delivery of customer service values (i.e., the achievement of Customer Levels of Service). These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance. Technical service measures are linked to the activities and annual budgets covering:

<b>Acquisition</b>	The activities to provide a new service that did not exist previously, or an expansion of an existing service.
<b>Upgrade</b>	The activities to provide a higher level of service than previously provided.
<b>Operation</b>	The regular activities to provide services.
<b>Maintenance</b>	The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life.
<b>Renewal</b>	The activities that return the service capability of an asset up to that which it had originally provided.

Acquisition-related LOS refer to Facility assets which ensure that there is sufficient community infrastructure and facilities to meet the current and projected needs of the population. Considering the City's growing population, evolving demographics, and recreation trends, the City maintains a suitable number of indoor ice pads, indoor pools, and community centres per resident to ensure that the City's portfolio is aligned with current and future needs.

Upgrade-related measures relate to providing services that meet customer needs while limiting impacts to health, safety, security, and the environment. One of the key initiatives for the City is environmental sustainability. To monitor the City's energy performance, the City measures energy consumption, natural gas consumption, and GHG emissions both in terms of total usage and on a per square meter basis. Natural gas is monitored separately from overall energy to track progress on reducing reliance on this energy source (and promote fuel switching). For each of these measures, the goal is to reduce consumption and emissions over time. The overarching corporate goal is to achieve 80% GHG reduction by 2050, and more specific goals will be documented in future updates to this AM Plan. Generation of energy is currently based on the solar panel system installed at the Operations Centre, with a goal to increase generation in future years as other potential sites are identified for energy generation.

Currently, the City performs accessibility audits to meet legislation requirements. As the City continues to develop its accessibility standards, audits will be conducted against these standards. As of 2023, the City has completed accessibility audits for 31.7% of its 82 facilities with a functional service rating of 3 or higher, which are the City's more critical facilities.

In addition to maintaining accessible and environmentally sustainable facilities, the City strives to provide safe facilities that minimize safety incidents including vandalism. The City plans for facility upgrades as required to address incidents and on-going issues specific to a facility. These solutions range from adding security cameras to installing stainless steel fixtures in park washrooms to curb vandalism incidents. A future improvement initiative for the City is to consider past safety issues and incorporate added safety elements into corporate facility design standards.

The City tracks the ratio of scheduled to unscheduled work as an indication of effective lifecycle management of its facility assets and to minimize unexpected asset failures. In general, a higher planned work ratio indicates that the City has effective preventive maintenance plans in place that reduce unplanned failures resulting in lower lifecycle costs and improved service reliability. From July of 2022 to June of 2023, the City had 28.3% of total maintenance costs spent on planned work. This performance is expected to improve to a higher ratio of planned work in future years. Facilities are currently maintained in fair condition, with an average Facility Condition Index of 9.9% (Fair condition).

One of the key indicators of efficiency is monitoring the costs of operating and maintenance activities and energy costs on a per area basis. The City tracks costs for operational and maintenance costs separately from the energy costs. The reduced usage of facilities in 2021 during the pandemic resulted in an increase of energy costs per square metre from 2021 to 2022. Though proposed targets are not set in this AM Plan, the overall goal is to reduce energy costs and operating and maintenance costs on a per area basis over time.

The asset reinvestment rate measures the percentage of capital investment divided by the replacement value of the portfolio. Per industry benchmarks, such as the Canadian Infrastructure Report Card (2016), it is recommended that municipalities invest 1.7% to 2.5% of their facility asset portfolio value into capital renewal each year. Based on the analysis in Section 6 (Lifecycle Strategy), this AM Plan recommends an average annual investment of 2.3% to maintain current service levels. Historically, the City has only been investing approximately 0.4% in capital renewal over the past few years. This shortfall is discussed further in Section 8.0 (Financial Summary).

Technical LOS have been measured and reported on over the past 3 years in some cases. It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on data availability, existing resource provision and work efficiencies.

**Table 4.6: Technical Levels of Service**

Technical Focused Levels of Service						
Lifecycle Activity	Performance Measure	2023	2022	2021	2020	2019
Acquisition	Number of residents per facility type	Ice Pads (1 : 27,000) Pools (1 : 67,500) Community Centres (1: 20,770) Gymnastics/Judo centre (1 : 270,000)	Not available	Ice Pads (1 : 25,690) Pools (1 : 64,220) Community Centres (1: 19,760) Gymnastics/Judo centre (1 : 256,885)	Not available	Ice Pads (1 : 24,180) Pools (1 : 60,450) Community Centres (1: 18,600) Gymnastics/Judo centre (1 : 241,800)
	Percentage of facilities with accessibility audits completed (facilities with supporting functional use rating 3,4,5)	36.6%	32.9%	26.8%	25.6%	-
Operation	Annual building energy consumption (natural gas and electric combined)	204,198 GJ	214,390 GJ	167,687 GJ	147,230 GJ	181,140 GJ
	Annual building energy consumption (natural gas and electric combined) per sq.m.	1.01 GJ/m <sup>2</sup>	1.06 GJ/m <sup>2</sup>	0.95 GJ/m <sup>2</sup>	0.95 GJ/m <sup>2</sup>	1.17 GJ/m <sup>2</sup>
	Annual building natural gas consumption	2,722,482 m <sup>3</sup>	3,053,873 m <sup>3</sup>	2,308,879 m <sup>3</sup>	2,100,799 m <sup>3</sup>	2,526,062 m <sup>3</sup>
	Annual building natural gas consumption per sq.m.	13.45 m <sup>3</sup> /m <sup>2</sup>	15.08 m <sup>3</sup> /m <sup>2</sup>	12.75 m <sup>3</sup> /m <sup>2</sup>	13.32 m <sup>3</sup> /m <sup>2</sup>	16.27 m <sup>3</sup> /m <sup>2</sup>

Technical Focused Levels of Service						
Lifecycle Activity	Performance Measure	2023	2022	2021	2020	2019
	GHG emissions for buildings	6133 tCO2e	6685 tCO2e	5123 tCO2e	4548 tCO2e	5571 tCO2e
	GHG emissions for buildings per sq.m.	30.29 kgCO23/m <sup>2</sup>	33.02 kgCO23/m <sup>2</sup>	26.35 kgCO23/m <sup>2</sup>	29.26 kgCO23/m <sup>2</sup>	35.88 kgCO23/m <sup>2</sup>
	Annual renewable energy generated	615,216	612,098 kWh	632,306 kWh	649,502 kWh	627,903 kWh
<b>Renewal</b>	Facility Condition Index	9.9% (2023)	Not available	Not available	Not available	Not available
<b>Maintenance</b>	Ratio of Planned vs Unplanned Maintenance Work (by COST)	28.3% planned (July 2022 - June 2023)	Not available	Not available	Not available	Not available
<b>Affordable</b>	Facility asset renewal budget as a % of replacement value	Not available	Not available	Not available	Not available	Not available
<b>Efficient</b>	Operating cost to provide services per sq.m.	\$17.30/m <sup>2</sup> (July 2022 to June 2023)	Not available	Not available	Not available	Not available
	Energy cost per sq.m.	\$26.56/ m <sup>2</sup>	\$27.52/m <sup>2</sup>	\$21.87/m <sup>2</sup>	Not available	Not available

#### Notes

- Operating costs to provide services are shown per square meter. This does not include energy costs.
- The energy cost (per square meter) is based on facilities with measurement information available (not all facilities currently measured).

The City's ability to maintain current service levels may be impacted by external trends and factors. Future updates to the AMP will consider such factors as they occur and incorporate them into the reporting and setting of appropriate service levels.

- **Demographic Factors:** Population and employment changes can impact the intensity and frequency of infrastructure use, resulting in the need for additional infrastructure or more frequent asset renewal strategies.
- **Social and Economic Factors:** Increases in environmentally conscious behaviour and attitudes among residents and businesses can lead to infrastructure that lasts longer and is more efficient. From an economic perspective, higher costs due to increases to the cost of materials and energy can reduce the ability to maintain the same level of service. Population and demographic changes, as well as tourism initiatives will also have potential impacts on required service levels.
- **Technological Factors:** Changes in technology or asset construction, operation, or maintenance methods may lead to the replacement of obsolete equipment or materials, helping to achieve higher quality service levels and reduced costs during the asset's lifecycle.
- **Regulatory Factors:** The City is subject to various policies, programs, and legislative decisions issued by other levels of government (i.e., federal, provincial, and regional), and such legislative changes can impact the City's strategic direction and demand for services. Specific asset-related legislation can also impact the required performance levels of assets.
- **Environmental Factors:** Recognizing the increasing urgency of climate action work, on June 24, 2019, City Council declared a climate emergency. Mitigation and adaptation strategies to climate change will continue to be developed and implemented by the City as climate change impacts on service levels are better understood. The City is furthering its commitment to climate change action through its Corporate Climate Action Plan, which focuses on guiding the City in making progress on three goals:
  - to accelerate a corporate and community energy transition
  - to reduce corporate greenhouse gas (GHG) emissions both in corporate demand for and supply of energy
  - to support integrated climate change adaptation efforts across the organization



## 5.0 FUTURE DEMAND

### 5.1 Demand Impact and Demand Management Plan

Population growth and its geography can have major impacts on the scale of services delivered by the City and the assets that support service delivery. The City's approaches to accommodate growth needs are described in the Official Plan. The 2014 Official Plan provides policies for guiding and directing growth and development to enable the City's success of achieving the vision to be a complete and healthy community. This section focuses on the capital growth expenditures planned by the City to meet growing demands and manage the risks to the service levels. Growth also results in an increasing asset portfolio over the forecast period with associated impacts on the operating budget, discussed further in Section 6.0 as part of the Lifecycle Strategy.

The population of the City of Kitchener and surrounding areas has been rapidly growing over the past few decades and is expected to continue to grow at a similar pace in the coming years. The City monitors trends in its population to ensure that the associated impacts on service levels are well understood and that strategies are developed to manage risks related to the additional demands due to growth and changes in demographics. The 2014 Official Plan sets out the estimated population and employment forecasts to 2031. Updated forecasts are provided in the City's 2022 Development Charge Study, which forecasts that the City's population will increase from 250,247 in 2021 to 309,120 in 2036 (the current population (2023) is estimated at 270,000). Employment was estimated at 99,662 jobs in 2021, and is expected to reach 123,825 jobs by 2036.

Demand drivers are circumstances that may impact future service delivery and use of assets. These drivers can include things such as population change, climate change, regulations, changes in demographics, seasonal factors, consumer preferences and expectations, technological changes, economic factors, environmental considerations, etc.

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 5.1.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-infrastructure solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 5.1. Further opportunities will be developed in future revisions of this AM Plan.

**Table 5.1: Demand Management Plan**

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population Growth	270,000 (2023)	309,120 (2036)*	There will be a deficiency in community and recreation facilities, as well as increased pressures on emergency response times	Expansion and addition of community and recreation facilities, as well as construction of a new fire station. Consideration of joint-use opportunities with private sector and school boards.
Aging population	Population 70 years and older (9% in 2021)**	Population 70 years and older (16% projection in 2041)**	The need for older adult and senior-focused activities, programs, and facilities will continue to increase	Consideration of multi-use and multi-generational facilities as part of a 'community-hub' model (rather than stand-alone seniors' centres).

\*2022 Development Charge Study

\*\*2019 Leisure Facilities Master Plan

## 5.2 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 6.4.

Acquiring new assets will commit the City of Kitchener to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations and maintenance costs for inclusion in the long-term financial plan (Refer to Section 8).

## 5.3 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets under management and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a demand driver and a risk.

The City of Kitchener's Corporate Climate Action Plan (CorCAP) is the City's guiding policy document on climate change in accordance with the Region of Waterloo's "A Climate Action Plan for Waterloo Region". The City of Kitchener's mitigation and adaptation strategy for the Corporate Climate Action Plan is to lead by example with action on climate change to reduce corporate greenhouse gas emissions and promote inclusive environmental sustainability and resilience. This supports the City's corporate mission of 'proudly providing valued services for our community, and strategic goals of environmental leadership, by working to ensure we can safeguard the City's assets and stakeholders.<sup>1</sup>

We must consider how to manage our existing assets given potential climate change impacts for our region of Ontario.

Risk and opportunities identified to date are shown in Table 5.2.

**Table 5.2: Managing the Impact of Climate Change on Assets and Services**

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
More extreme precipitation events	More flooding events	Physical damage to city facilities as they become increasingly unsuited to the changing climate and more frequent climate hazards, resulting in costly repairs, loss of functionality and reduced lifecycle	Continue to conduct building condition assessments. Consider additional costs to state of good repair needs forecasts as City gains further data on asset deterioration rates.
Gradual increase in average temperature, extreme heat events	Increased demand on cooling systems in city	Buildings used as a refuge by citizens due to more extreme heat events resulting in higher energy use, increased costs and potential energy brown-outs in peak demand periods	Develop HVAC assessment program (already in progress) and complete mechanical studies.

Additionally, the way in which we construct new assets should recognize that there is opportunity to build in resilience and adaptation to climate change impacts. Climate-resilient assets can accommodate or quickly recover from disruptions caused by severe climate events or chronic climate stresses, reducing the likelihood of a damaging or irreversible impact.<sup>2</sup> Building resilience can have the following benefits:

<sup>1</sup> Kitchener Changing for Good, Our Climate Strategy Action Plan, Sec 1.1

<sup>2</sup> United Nations, Managing Infrastructure Assets for Sustainable Development, Sec 6.1, p 206

- Assets will withstand the impacts of climate change;
- Services can be sustained; and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint

Table 5.3 summarizes some asset climate change resilience opportunities.

***Table 5.3: Building Asset Resilience to Climate Change***

Driver	Climate Change impact These assets?	Build Resilience in New Works
More extreme precipitation events	Damages to facilities	Consider conducting vulnerability assessments on critical facilities to increase their resiliency to climate change events

## 6.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City of Kitchener plans to manage and operate the assets to maintain current levels of service (Refer to Section 4) while managing life cycle costs.

### 6.1 Operations and Maintenance Plan

Operations include regular activities to provide services and may not have a direct impact to the overall health of the asset. Examples of typical operational activities include cleaning, street sweeping, and asset inspection.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate condition including regular ongoing day-to-day work necessary to keep assets operating. As well, maintenance activities strive to ensure that the asset's degradation follows the expected lifecycle rather than accelerating towards an earlier disposal or replacement cycle. Examples of typical maintenance activities waterproofing, brick and masonry block repairs, repainting, HVAC component replacements and repairs, generator testing, and walkway repairs.

The City of Kitchener uses Trimble's Cityworks as their asset centric, centralized work management software solution. The software is an important tool for the City's Infrastructure Services divisions to plan and execute work orders and inspections, tracking costs as they relate to labour, material and equipment. A comprehensive list of workorder templates for this asset category can be found in Appendix A.

The trend in operations and maintenance budgets are shown in Table 6.1.

**Table 6.1: Operations & Maintenance Budget Trends**

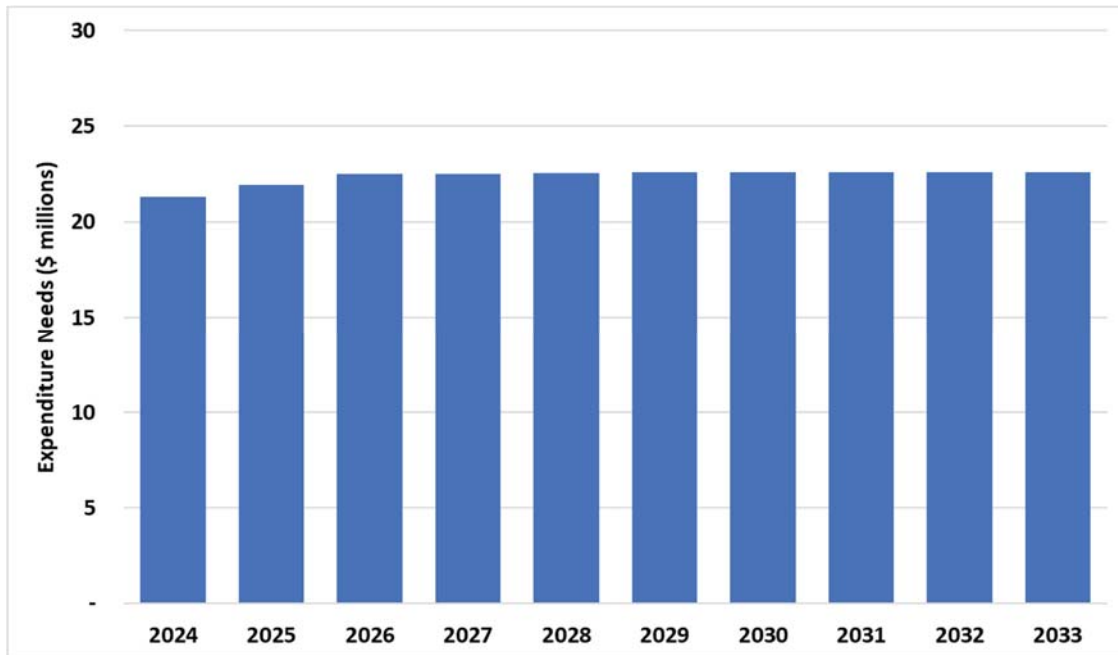
Year	Operations & Maintenance Budget \$
2019	\$14.5 million
2020	\$14.9 million
2021	\$15.4 million
2022	\$15.9 million
2023	\$20.6 million
2024	\$21.3 million

Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan. Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

#### Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset inventory. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 6.1 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.

**Figure 6.1: Operations and Maintenance Summary**



All figure values are shown in current day dollars.

The operations and maintenance costs are forecasted to increase over the next 10 years in line with the additional and expanded facilities planned to be built. The current operations and maintenance budget is insufficient to proactively pursue planned maintenance. Maintenance is generally unplanned as demonstrated by the low planned to unplanned maintenance work ratio shown in Section 4.6. As the City develops maintenance programs and focuses on planned maintenance, it is expected that the need for unplanned repairs will decrease and result in overall lower lifecycle costs.

## 6.2 Renewal Plan

Renewal is typically carried out through major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. There are instances where renewal is carried out by Infrastructure Services staff on an as needed basis (e.g. replacing a sanitary service or water valve). Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

**Table 6.2: Renewal Activities**

Renewal Activity	Budget
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	To be provided in future version of AM Plan
2022	To be provided in future version of AM Plan
2023	To be provided in future version of AM Plan
2024	\$15.0

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

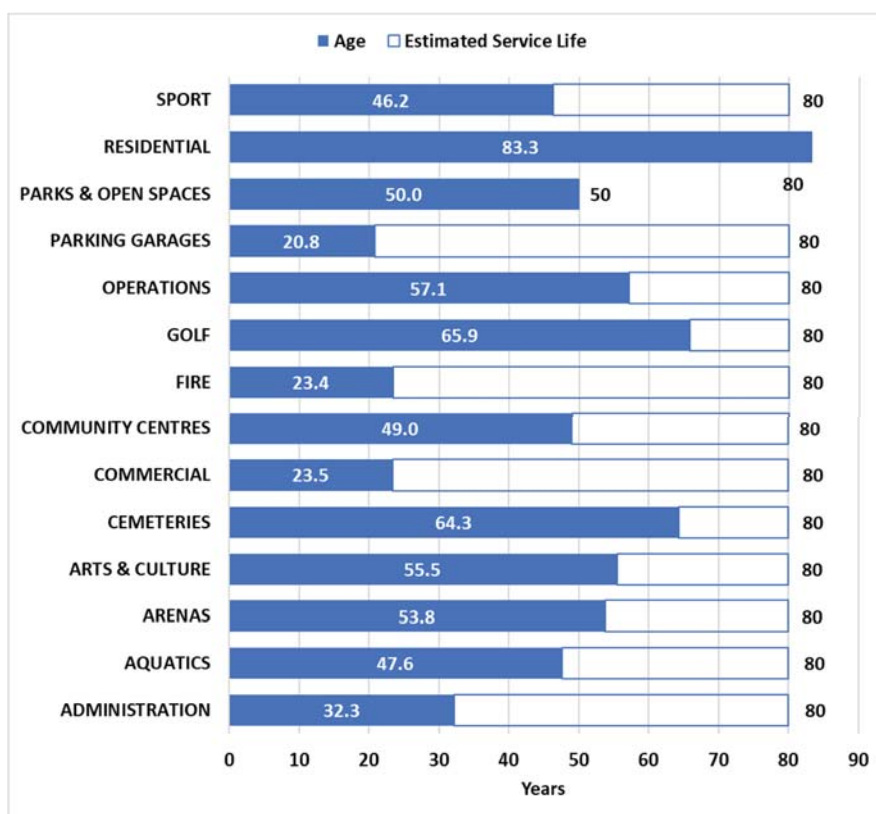
- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

Various methodologies under the Alternate Method were used to forecast the renewal lifecycle costs for this AM Plan, as described in Section 3.1.4:

**Table 6.3: Useful Lives of Assets**

Asset (Sub)Category	Useful life (Years)
Substructure	40 (Rehabilitation at 5% cost of substructure value)
Floor Construction	40 (Rehabilitation at 5% cost of substructure value)
Roof Construction	40 (Rehabilitation at 5% cost of substructure value)
Exterior Walls	40 (Rehabilitation at 5% cost of substructure value)
Exterior Windows	30
Exterior Doors and Grilles	30
Exterior Horizontal Enclosures	20
Interior Partitions	50
Interior Doors	30
Interior Specialties	10
Stairs	50
Wall Finishes	20
Flooring	20
Ceiling Finishes	20
Stair Finishes	20
Conveying	25
Plumbing	30
HVAC	30
Fire Protection	30
Electrical Service	30
Lighting	30
Other Electrical	30
Communications, Electronic Safety and Security and Integrated Automation	10
Equipment and Furnishings	10
Special Construction	50
Sitework	30

**Figure 6.2: Age Distribution of Assets**



### 6.2.1 Renewal ranking criteria

Asset renewals are typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the expected service it was constructed to, or
- To ensure the infrastructure is of sufficient quality to meet the service requirements.

It is possible to prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a condition score that is less than the threshold to provide an expected level of service
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.

The preliminary ranking criteria used to determine priority of identified renewal proposals is detailed in Table 6.4. Risk assessments are performed at both the facility-level and the facility component level (described in Section 7.2).

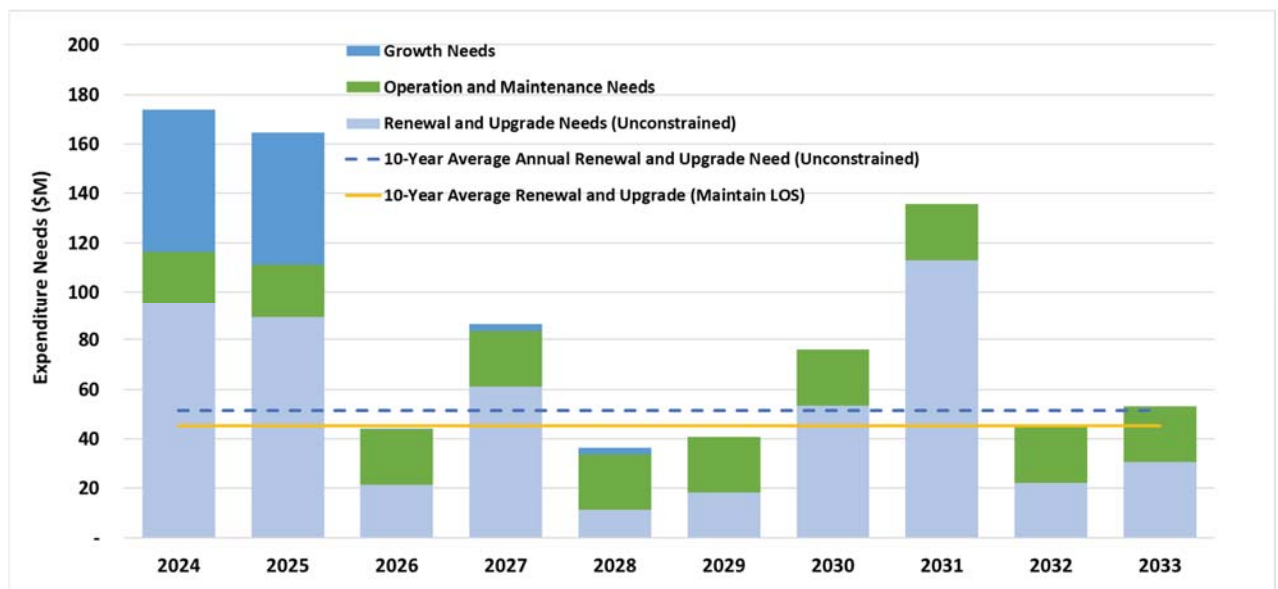
**Table 6.4: Renewal Priority Ranking Criteria**

Criteria	Weighting
Consequence of failure -Financial Impact -Health & Safety Impact -Service Delivery Impact -Environmental Impact	50%
Probability of Failure -Physical Condition Rating -Performance Rating	50%
<b>Total</b>	<b>100%</b>

### 6.3 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset inventory increases, renewal schedules are delayed and/or budgets are reprioritized. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 6.3. A detailed summary of the forecast renewal costs is shown in Appendix E.

**Figure 6.3: Forecast Renewal Costs**



All figure values are shown in current day dollars.



**Table 6.5: Forecast Renewal Activities**

Year	Current Budget*	Renewal Forecast Required to Maintain LOS**	Unconstrained Renewal Forecast
2024	\$12.3M	\$45.2M	\$95.1M
2025	\$12.3M	\$45.2M	\$89.3M
2026	\$12.3M	\$45.2M	\$21.2M
2027	\$12.3M	\$45.2M	\$61.1M
2028	\$12.3M	\$45.2M	\$11.1M
2029	\$12.3M	\$45.2M	\$18.1M
2030	\$12.3M	\$45.2M	\$53.4M
2031	\$12.3M	\$45.2M	\$113.0M
2032	\$12.3M	\$45.2M	\$22.0M
2033	\$12.3M	\$45.2M	\$30.7M

\*Funding shown is averaged on an annual basis from the 10-year current budget

\*\*Renewal need shown is averaged on an annual basis for the next 10 years

The unconstrained renewal forecast requires an average of \$51.5 million annually. In this scenario, the backlog is eliminated and the FCI improves from 9.9% to 6.7% by the end of 2033. The current budget is equal to an average of \$12.3 million annually for renewal and upgrades. With this current budget, the FCI increases from 9.9% to 26.0% as the backlog continues to increase significantly over the 10-year forecast period.

To maintain the service level (FCI ~9.9%), it is estimated that the average annual renewal need is \$45.2 million. Table 6.6 shows the FCI forecast with \$45.2 million allocated across the Service Areas to maintain similar FCIs by the end of the 10-year forecast.

**Table 6.6: Forecast Renewal Activities**

Service Area	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
ADMINISTRATION	18.2%	19.9%	18.7%	17.3%	22.7%	22.2%	20.8%	21.1%	19.7%	18.7%	17.3%
AQUATICS	22.4%	21.2%	19.6%	18.1%	20.9%	19.8%	19.5%	18.5%	17.0%	19.6%	18.1%
ARENAS	4.8%	5.4%	3.0%	1.0%	0.0%	5.6%	3.5%	2.7%	0.7%	7.5%	4.9%
ARTS & CULTURE	12.8%	13.2%	11.8%	12.4%	12.3%	13.9%	13.3%	14.2%	12.7%	12.6%	11.7%
CEMETERIES	8.2%	8.7%	7.2%	7.8%	8.8%	9.9%	8.4%	7.0%	6.0%	10.5%	9.2%
COMMERCIAL	3.7%	11.7%	9.8%	7.7%	5.5%	7.6%	5.1%	2.7%	1.7%	3.5%	1.0%
COMMUNITY CENTRES	13.5%	14.4%	14.6%	14.1%	14.8%	14.5%	13.9%	13.3%	12.5%	12.8%	13.1%
FIRE	8.7%	8.2%	8.6%	9.2%	9.4%	8.9%	9.0%	8.2%	8.4%	9.9%	9.2%
GOLF	6.7%	10.9%	7.4%	3.9%	2.1%	1.3%	0.0%	0.0%	0.0%	13.5%	9.9%
OPERATIONS	6.3%	4.1%	1.1%	0.0%	0.4%	15.3%	16.3%	14.9%	11.3%	7.9%	10.0%
PARKING GARAGES	9.9%	12.0%	10.0%	9.8%	9.1%	12.3%	10.4%	10.5%	8.7%	11.6%	9.9%
PARKS & OPEN SPACES	8.1%	8.2%	7.3%	6.2%	6.2%	6.9%	5.8%	5.8%	5.3%	9.3%	8.4%
RESIDENTIAL	6.0%	6.4%	6.8%	7.1%	7.5%	7.9%	8.3%	8.6%	9.0%	9.4%	9.8%
SPORT	8.6%	8.1%	5.8%	2.7%	2.2%	3.9%	2.4%	0.4%	0.0%	11.2%	9.7%
Overall	9.9%	10.8%	9.1%	7.8%	8.2%	11.8%	10.7%	10.0%	8.3%	10.9%	9.7%

The average annual investment of \$45.2 million means that some portion of projects are deferred outside the 10-year forecast, which poses a potential risk of higher required lifecycle activities which are difficult to estimate and are not considered in this forecast analysis. The higher risks are managed by using risk-based project prioritization and capital funding allocation, as managing the FCI (condition) and investment across Service Areas can be aligned with facility criticality. For example, Community Centres are generally more critical and may be maintained consistently to a lower FCI (better condition/higher investment) while Parks & Open Spaces may be maintained at a higher FCI (lower condition/less investment). This approach minimizes the risk associated to the backlog of renewal work carried over each year.

## 6.4 Acquisition Plan

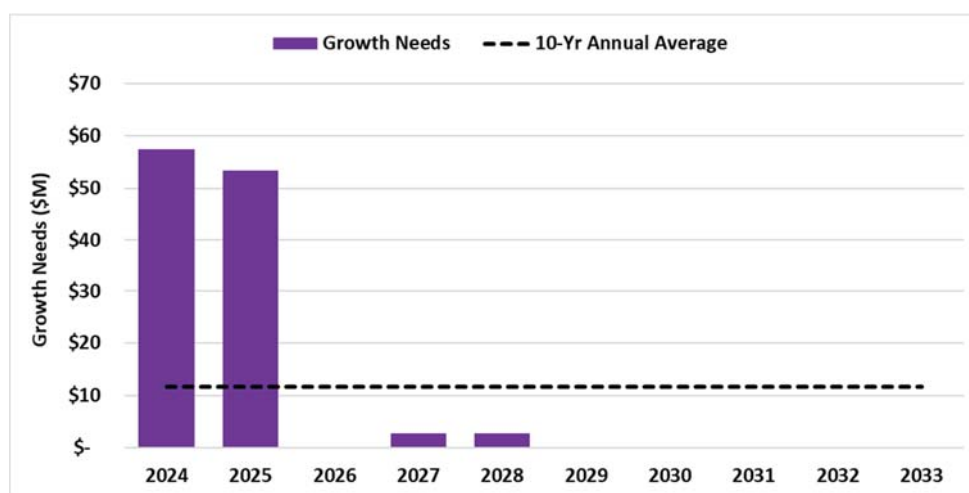
Acquisition reflects new assets that did not previously exist within the inventory. They may result from growth, demand, social or environmental needs. Assets may also be donated to the City of Kitchener through various means including subdivision development and expansion of existing services or the inclusion of new services.

### 6.4.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests; proposals identified by strategic plans or master plans; and partnerships with others. Potential upgrades and new works should be reviewed to verify that they are essential to the City's needs and fits long range planning. Proposed upgrades and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals by asset Leads can then be ranked by priority and available funds and scheduled in future works programs. Currently, no ranking criteria has been established for facility acquisitions, however this will be developed in future revision of this AM Plan.

Forecast acquisition asset costs are summarized in Figure 6.4 and is equal to the proposed acquisition budget. The forecast acquisition capital works program is shown in Appendix B.

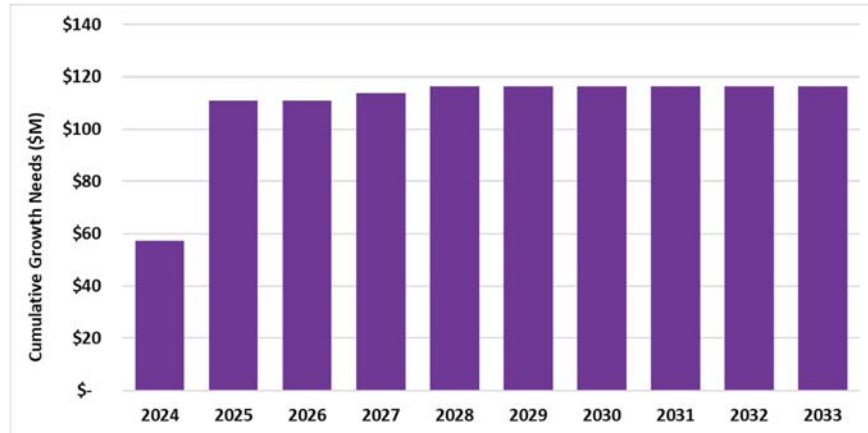
**Figure 6.4: Acquisition (Constructed) Summary**



All figure values are shown in current day dollars.

When the City introduces new assets, there must be a recognition for the need for future operational funding for service, maintenance and renewal costs. Future depreciation must be accounted for when reviewing long term sustainability, lifecycle and total cost of ownership. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the asset steward. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 6.5.

**Figure 6.5: Acquisition Summary**



All figure values are shown in current dollars.

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding.

The City plans for growth such that there is sufficient community infrastructure and facilities to meet the current and projected needs of the population. In the City's 2019 Leisure Master Plan, the City recommended growth-related indoor recreation facilities considering factors such as existing/projected usage rates, estimated population growth, existing facility coverage based on geography, and public survey results:

- Mill Courtland Community Centre Addition, year 2024 (\$4.0M): Mill-Courtland is on the outer edge of the downtown and serves neighbouring communities like Rockway and Southdale, and therefore serves a wide Williamsburg demographic with varying interests. Mill Courtland will continue to experience programming and facility constraints as the downtown area intensifies.
- Rosenberg Community Centre, year 2024 (\$2.8M) – An additional community centre in the City's southwest area is a priority based on significant growth expected over the next 20 years. The current Williamsburg Community Centre is leased and does not provide enough space to meet current programming needs.
- Forest Heights Community Centre Expansion, year 2028 (\$6.0M) - Increased pressure from surrounding neighbourhoods in the northwest corner of the city suggest the Forest Heights community centre would benefit from additional space for the City. The expansion also provides an opportunity to integrate age-friendly recreation amenities and programming offered by the City.
- Kitchener Indoor Recreation Complex (KIRC), year 2025 (Aquatic Centre and Indoor Turf \$94.1M) – The 2005 and 2013 Leisure Facilities Master Plan recommended an aquatic facility in the southwest area of the City. All of the City's indoor pools are operating at or near maximum capacity, and during public consultation, residents expressed a strong interest in a pool, supporting a location in the southwest end of the City. The City also made a previous public commitment to an indoor turf facility at Kitchener Indoor Recreation Complex (KIRC) through the 2013 Leisure Facilities Master Plan. The new indoor turf supports the continued growth of soccer and indoor training and development for other field sports.
- 91 Moore Avenue, year 2024 (\$2.3M)

In addition to the new recreation facilities and library space, the Kitchener Fire Department (KFD) has conducted studies to ensure adequate emergency response and protection services across the City, which have identified the need for an additional 8<sup>th</sup> fire station in order to respond to the significant growth occurring within the City (increased population, more tall buildings), and to help improve response times to increasing fire rescue and medical calls. The fire station has a budget of \$7.3 million over 2024 and 2025 in the Capital Plan.

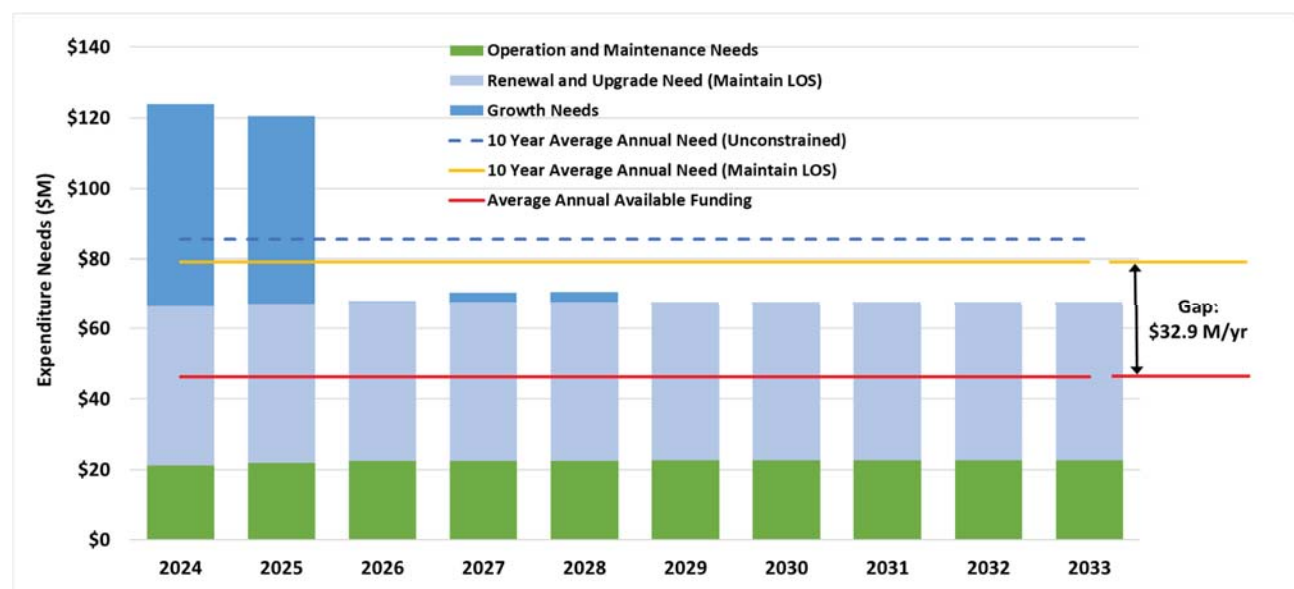
Acquiring these new assets will commit the funding of ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required.

### Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 6.6. These projections include forecast costs for acquisition, operation, maintenance, renewal, and upgrades. These forecast costs are shown relative to the proposed budget.

The bars in the graphs represent the forecast costs needed to cost-effectively allocate the life cycle costs associated with the service provision. The proposed budget line (Average Annual Available Funding) indicates the estimate of available funding. The gap between the forecast work (10 Year Average Annual Need (Maintain LOS)) and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

**Figure 6.6: Lifecycle Summary**



All figure values are shown in current day dollars.

The operating and maintenance needs covered by the Operating budget is required to increase annually as new assets are acquired. Though there is no current funding shortfall identified for acquisition needs, there is an average annual estimated gap of \$32.9 million for renewal and upgrade needs. The pressures on the operating budget have been qualitatively noted in Section 6.1 but the gap has not been quantified in this AM Plan. The forecasts and estimated gap will be refined as the City incorporates more building condition assessments into the Capital Plan in place of the High Level Facility Breakdown approach.

## 6.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Currently, the City has no facilities formally identified for decommissioning and disposal, but will be considering these options for certain facilities as part of the strategy to reduce the funding gap.

## 6.6 Non-Infrastructure Solutions

Non-Infrastructure solutions are infrastructure related costs that may not be associated with any one specific asset in the City's asset registry but are important in the planning and execution of the previous five asset lifecycle categories. Some of the non-infrastructure solutions can include the consultant costs in the creation of a master plan, working with partner organizations, customer surveys, and inventory updates.

**Table 6.7: Non-Infrastructure Solutions Associated Project List**

PROJECT NAME	TIMING	COST	SOURCE BUDGET
Facilities Designated Substances Survey (DSS) Program	2024-2025	\$200,000	Funded
AM Improvement Roadmap Implementation	2024-2027	\$1,000,000	Funded
GHG Pathways	2024	\$300,000	Funded
Building Condition Assessment program	On-going	\$100,000/yr	Partially Funded

The City is conducting multiple studies, assessments and programs to understand specific needs and upgrades required at facilities. Additionally, the City began to address gaps in current asset management processes as well as address the growing deferred maintenance, escalating costs, and growing funding gap. The focus in 2024 is to develop an RFP for consulting services including funding for resource support. Master Plans and other studies related to facilities in individual Service Areas such as Fire and Library that are outside the Facility Management scope of work are not included in Table 6.7.

## 7.0 RISK MANAGEMENT PLAN

The City of Kitchener is committed to identifying, assessing, and mitigating risks to ensure that corporate objectives are achieved. To this end, the City will maintain a long-term, robust Enterprise Risk Management strategy. Risk management is an integral part of management across the City. It forms part of strategic planning, business planning and project approval procedures. In addition, the policy assists in decision-making processes that will allocate resources to areas of highest risk. Identifying and managing risk is everyone's responsibility and is one component of good corporate governance<sup>3</sup>.

### 7.1 Critical Assets

Critical assets are defined as those assets that provide life safety and public health and well-being to the community at large based on Provincial standards. Assets found in this category may be included for having a high consequence of failure causing significant loss or reduction of service directly impacting services to the community. The City classifies each of its facilities with a Supporting Functional Use (SFU) rating, using the following criteria:

- 5 – Critical – For delivery of life safety, emergency and vital City functions
- 4 – Essential – For infrastructure and service delivery
- 3 – Necessary – For delivery of community programs, services and recreation
- 2 – Important – Supports delivery of community programs, services and recreation
- 1 – Ancillary – Minor structures / Mothballed assets / Non-functional for core services

Critical assets are identified as those facilities with a SFU rating 3 and greater, and are summarized in Table 7.1 along with their typical failure mode and the impact on service delivery. Failure modes may include physical failure, collapse or essential service interruption.

**Table 7.1 Critical Assets**

Critical Asset(s)	Failure Mode	Impact
Kitchener City Hall	Physical Failure, Service Delivery	Disruption of critical services
Kitchener Operation Facility	Physical Failure, Service Delivery	Disruption of City-wide and critical services such as snow removal
Fire Stations	Physical Failure, Service Delivery	Disruption of critical emergency services resulting in safety impacts to the community
The AUD	Physical Failure, Service Delivery	Disruption of major services including hockey games and concerts
Control Station (Snow Storage)	Physical Failure, Service Delivery	Environmental impacts when snow cannot be stored resulting in runoff and salt entering waterways
Leisure Facilities – Community Centres, Arenas, Pools	Physical Failure, Service Delivery	Significant localized service disruption related to recreational activities for the community

<sup>3</sup> City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2

By identifying critical assets and failure modes the City can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

## 7.2 Risk Assessment

The City of Kitchener has adopted an impact criteria and risk category matrix that quantifies the impact and likelihood criteria and assigns a numerical value to the resulting score. Facilities Management division is currently implementing a modified version of the City's enterprise risk framework, and will be working to align with the enterprise framework in the future such that risk registers use the same terminology to ensure consistency in understanding across the City's assets.

The risk registrar is an assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating and evaluation of the risk. The City will develop a risk treatment plan for non-acceptable risks as part of future improvement.

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. Consequence of failure is determined based on the average rating across the four consequence categories in the following matrix:

**Table 7.2 Consequence of Failure Rating Scale**

Consequence Categories (Triple Bottom Line)		C1	C2	C3	C4	C5
		Insignificant	Minor	Moderate	Major	Extreme
<b>Economic</b>	<b>Financial</b>	Damages, losses, or fines of under \$30,000	Damages, losses, or fines of \$30,000-\$120,000	Damages, losses, or fines of \$120,000-\$500,000	Damages, losses, or fines of \$500,000-\$1,000,000	Damages, losses, or fines of over \$1,000,000
<b>Social</b>	<b>Health &amp; Safety</b>	No obvious potential for injury or affects to health.	Potential for minor injury or affects to health of an individual.	Potential for serious injury or affects to health of one or more individuals with a possibility of short term disability or hospitalization.	Potential for serious injury or affects to health of one or more individuals with a possibility of loss of a life.	Potential for death or multiple deaths with probable permanent damage.
	<b>Service Delivery</b>	Small number of customers experience disruption or impact and no media exposure is experienced.	Localized service disruption or impact and minor or no media exposure is experienced.	Significant localized disruption or impact or there will likely be moderate local media exposure which may last several days.	Major or Critical service disruption or impact, or there will likely be significant, negative, local or provincial media exposure which may last several days.	City-wide or Critical service disruption or impact, or there will likely be significant, negative, national or international media exposure lasting several days or weeks.
<b>Environmental</b>	<b>Environment</b>	Asset degradation/failure has negligible impact on environment, emissions, and pollution.	Asset degradation/failure has minor impact to the environment including potential for increased emissions or pollution.	Asset degradation/failure has significant short-term impact to the environment including a likely increase of emissions or pollution.	Asset degradation/failure poses risk of environmental contamination and/or has significant long-term impact. Likely a substantial increase to emissions or pollution.	Asset degradation/failure poses significant risk to environment including a major long-term impact. Likely to result in contamination. May become of Provincial or Federal importance.

Probability of Failure of a building component is determined by the average of the physical condition and performance ratings per the following tables:

**Table 7.3 Probability of Failure Rating Scale**

Physical Condition Rating		Performance Rating	
Score	Description	Score	Description
1	Excellent / New	1	Asset is functioning as intended with no issues identified
2	Good	2	Asset is functioning but could use minor maintenance
3	Fair	3	Asset is functioning with difficulty and requires some repairs/maintenance to correct function
4	Poor	4	Asset is barely functioning and will require replacement in the near future
5	Very Poor	5	Asset has failed

The City is currently completing building condition assessments to obtain more complete condition and risk scores at the building component level. This AM Plan estimates a risk score at the higher facility-level based on the SFU rating as a proxy for the Consequence of Failure rating and the FCI condition as the Probability of Failure for the overall facility. The forecasted work required on each facility forms the risk mitigation plan, and prioritization of projects is informed by the risk scores. The residual risk and mitigation costs of implementing the selected treatment plan for facilities in the Very High risk category are shown in Table 7.2.

**Table 7.4: Risks and Mitigation Plans**

Asset Risk	Risk	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs (Total 10-yr Cost)
Kitchener City Hall	Poor facility condition resulting in facility closure and disruption of critical services	Very High	Renewal work including:  Major rehabilitation of Berlin Tower (glass curtain walls), replacement of lighting, elevator modernization, replacement of exterior aluminum wall panels	High	\$61.8M
Fire Station 3 and Ambulance Station	Poor facility condition resulting in facility closure and disruption in emergency services	Very High	Renewal work including:  Roof replacement, LED lighting	Moderate	\$1.2M
Fire Station 1	Poor facility condition resulting in facility closure and disruption in emergency services	Very High	Renewal work including:  Roof replacement, HVAC replacements	High	\$7.8M

Note \* The residual risk is the risk remaining after the selected risk mitigation plan is implemented.



### 7.3 Infrastructure Resilience Approach

The resilience of our infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to ‘withstand a given level of stress or demand’, and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership are key components to consistency.

Currently, the City has identified risks in the Corporate Climate Action Plan, such as increased extreme precipitation events leading to more infrastructure failures and increased freezing rain and winter storm events leading to infrastructure damage. For a comprehensive approach to mitigating climate change and adapting to its impacts, the City is following industry frameworks from the Federation of Canadian Municipalities (FCM) ‘Partners for Climate Protection’ (PCP) and Local Governments for Sustainability (ICLEI) ‘Building Adaptive and Resilient Communities’ (BARC) frameworks. Recommended actions over the next few years include:

- Continue to reduce GHG building emissions
- Update and develop emergency management plans and procedures to include extreme weather protocol.
- Complete risk assessment and associated modeling to safeguard critical infrastructure and prevent damage, and achieve structural integrity to withstand high winds, snow loads, etc.
- Explore anti-icing technologies, particularly for public facility entranceways and spaces

### 7.4 Service and Risk Trade-Offs

The decisions made in balancing the costs and resource requirements for maintaining expected levels of service to addressing risk are based on the objective to achieve the optimum benefits from the available resources.

#### 7.4.1 Potential Gaps

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work (\$32.9 million per year)

#### 7.4.2 Service trade-off

If there is forecasted work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- If some of the planned maintenance is not completed, this typically results in more unplanned service disruptions
- Deferred capital renewal work may result in lower facility condition that does not meet user expectations and potential facility closures
- Insufficient upgrades related to accessibility, energy efficiency, and resiliency to climate change

#### 7.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- An increase in unplanned repairs and associated service disruptions
- Higher lifecycle management costs, deteriorating facilities, and potential facility closures
- Deteriorating facilities may be unsafe and expose the City of Kitchener to potential liabilities

The added potential costs due to underfunded planned maintenance and deferral of renewal work is not estimated in the forecasts of this Asset Management Plan.

## 8.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

### 8.1 Financial Sustainability and Projections

#### 8.1.1 Sustainability of service delivery

##### Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall or surpluses.

The forecasted acquisition, operations, maintenance and renewal costs over the 10 year planning period is \$79.1M on average per year.

The proposed (budget) operations, maintenance and renewal funding is \$46.3 million on average per year giving a 10 year funding shortfall of \$32.9 million per year. This indicates that 58% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget.

#### 8.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 8.1 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the long-term financial plan).

We will manage the 'gap' by developing this AM Plan to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Forecast costs are shown in 2023-dollar values (millions).

**Table 8.1: Forecast Costs (Outlays) for the Long-Term Financial Plan**

Year	Acquisition	Operation & Maintenance	Renewal & Upgrade (Maintain LOS)	Disposal
2024	\$57.5M	\$21.3M	\$45.2M	-
2025	\$53.4M	\$21.9M	\$45.2M	-
2026	\$0.1M	\$22.5M	\$45.2	-
2027	\$2.7M	\$22.5M	\$45.2M	-
2028	\$2.8M	\$22.5M	\$45.2M	-
2029	-	\$22.6M	\$45.2M	-
2030	-	\$22.6M	\$45.2M	-

Year	Acquisition	Operation & Maintenance	Renewal & Upgrade (Maintain LOS)	Disposal
2031	-	\$22.6M	\$45.2M	-
2032	-	\$22.6M	\$45.2M	-
2033	-	\$22.6M	\$45.2M	-

## 8.2 Funding Strategy

The proposed funding for assets is outlined in the City's budget and Long-Term financial plan.

The financial strategy of the City determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

## 8.3 Valuation Forecasts

### 8.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued by various methods based on available information including unit construction costs, insurance valuations, and building condition assessment reports.

Replacement Cost (Current)                      \$1.95 billion

### 8.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added from service.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

## 8.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions related to the financial forecasts made in this AM Plan are:

- Acquisition Forecast:
  - Growth projects are based on projects and associated costs identified in the City's Capital Plan. Most of these projects were also identified in the City's 2022 Development Charges Study and 2019 Leisure Master Plan.
- Renewal forecast:
  - The potential impacts of climate change on state of good repair costs are not included
  - The potential increases in lifecycle costs due to deferred renewal work are not included
- Operations & Maintenance Forecast
  - The potential impacts of climate change on maintenance costs are not included
  - The current operating budget is increased based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition forecast

- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan

## 8.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale<sup>4</sup> in accordance with Table 8.2.

**Table 8.2: Data Confidence Grading System**

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate $\pm 2\%$
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate $\pm 10\%$
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated $\pm 25\%$
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy $\pm 40\%$
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 8.3.

**Table 8.3: Data Confidence Assessment for Data used in AM Plan**

Data	Confidence Assessment	Comment
Demand drivers	High	Population growth was updated in the City's 2022 Development Charges Study, and demographic drivers are provided in the 2019 Leisure Facilities Master Plan.
Growth projections	High	Refer to demand drivers
Acquisition forecast	High	In addition to the new fire station, new leisure facilities and expansions were recommended in the 2019 Leisure Facilities Master Plan.
Operation forecast	Medium	The operations and maintenance forecast does not quantify current shortfalls such as underfunding for planned maintenance
Maintenance forecast	Medium	Refer to Operation forecast
Renewal forecast - Asset values	Medium	Three approaches as described in more detail in Section 6.2: <ul style="list-style-type: none"> <li>• Simple Facility – generally used for less critical facilities, such as sheds or storage buildings.</li> <li>• High-Level Facility Breakdown – facilities for which a building condition assessment has not yet been completed.</li> <li>• Capital Plan with BCA recommendations</li> </ul>
- Asset useful lives		<ul style="list-style-type: none"> <li>• Simple Facility – assumes 50 years life</li> <li>• High Level Facility Breakdown - typical useful lives summarized in Section 6.2</li> <li>• Capital Plan with BCA recommendations – remaining life based on the BCA forecast</li> </ul>
- Condition modelling		Condition is based on FCI, which is calculated based on the forecasted renewal needs
Disposal forecast	n/a	Disposal strategy is to be developed

The estimated confidence level for and reliability of data used for the financial analysis in this AM Plan is considered to be medium.

## 9.0 PLAN IMPROVEMENT AND MONITORING

### 9.1 Status of Asset Management Practices

#### 9.1.1 Accounting and financial data sources

This AM Plan does not include the depreciation valuation and therefore does not utilize the City's accounting data source (Tangible Capital Asset data set).

#### 9.1.2 Asset management data sources

This AM Plan also utilizes asset management data. The source of the data is:

- Facilities Management Master List of Facilities
  - List of facilities included and not included in this AM Plan
  - 2023 current replacement values
  - Other facility parameters such as type of building, number of storeys, square foot area, and building perimeter
- Informal City staff survey conducted in September 2023
- Cityworks
- Facilities Management Capital Plan, including forecast of renewal, upgrade, growth, and studies

### 9.2 Improvement Plan

It is vital in any AM Plan to recognize areas of future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 9.1.

**Table 9.1: Improvement Plan**

Task	Task	Responsibility	Prerequisite Task	Timeline
1	Complete building condition assessments for remaining facilities (excluding those identified as less critical 'simple facilities')	Facilities Management	None	2024
2	Incorporate building condition assessments into Capital Plan and renewal forecasts	Facilities Management	Building condition assessments	2024
3	Re-assess FCI and state of infrastructure	Facilities Management	Updated Capital Plan	2024
4	Determine targets for FCI	Facilities Management	Updated Capital Plan	2024
5	The overarching corporate goal is to achieve 80% GHG reduction by 2050. Develop specific goals related to GHG reduction and energy consumption.	Energy Management	Updated Corporate Climate Action Plan	2025
6	Consider past safety issues and incorporate added safety elements into corporate facility design standards	Facilities Management	None	2025

Task	Task	Responsibility	Prerequisite Task	Timeline
7	Complete accessibility audits and determine accessibility upgrade needs	Facilities Management	Updated Capital Plan	2026
8	Determine funding gap related to planned maintenance and implement formal preventive maintenance activities as required to lower unplanned maintenance and risk of unexpected service disruptions	Facilities Management	Develop preventive maintenance program needs	2025
9	Monitor potential impacts on accelerated deterioration of facility elements due to extreme weather events, and account for added costs in renewal forecasts	Facilities Management	Building condition assessments	2026
10	Align AM Plan risk assessment with Enterprise risk framework	Facilities Management	Building condition assessments	2025
11	Develop strategies regarding disposals, acquisitions, temporary facilities, replacement versus rehabilitations of old facilities as part of overall approaches to manage the funding gap	Facilities Management and Finance	None	2025
12	Formalize governance between other City divisions for assets such as parking lots and EV charging stations	Facilities Management and other City Divisions (Parking, Parks)	None	2025

### 9.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated on at a maximum of every 5 years to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets.



## 10.0 REFERENCES

- United Nations, Managing Infrastructure Assets for Sustainable Development
- Kitchener Changing for Good, Our Climate Strategy Action Plan
- City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2
- O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure

## 11.0 APPENDICES

### Appendix A Work Order Templates

**Table A1 – Work Order Templates**

Work Orders for Entire Facility:

Template Name	Asset	Lifecycle Category
<b>Accessibility Audit</b>	Use for: Accessibility Audits	<b>SERVICE</b>
<b>Asbestos Inspections</b>	Used for: Asbestos inspections. Attach to appropriate facility.	<b>SERVICE</b>
<b>Building Condition Assessment</b>	Use for: Building Condition Assessments, structural inspections, assessments related to condition.	<b>SERVICE</b>
<b>Building Renovations / New Construction</b>	Attach to Cityworks projects only. Use for multi-asset renovations and new construction, where costs are not specific to an asset type, e.g. architectural specifications for an area renovation. Group work orders as project work orders. Once project is complete, inventory/update objects in Cityworks.	<b>BETTERMENT</b>
<b>Carpenter Shop Maintenance</b>	Use for : Carpenter Shop Maintenance. Cleaning, tool maintenance, stocking, organization.	<b>ROUTINE</b>
<b>Consulting Services &amp; Studies</b>	Use for: Studies and consulting services not related to new construction or BCAs, energy audits or accessibility audits.	<b>SERVICE</b>
<b>Corporate Security Activities</b>	Used for: Daily FM Security activities, court dates. For Event support - attach to Events (Security). Miscellaneous support to specific facilities- attach this template to correct facility.	<b>SERVICE</b>
<b>Custom Item Fabrication</b>	Use for: Building/modifying/installing items related to another divisions business, <u>not related to a facility or any asset in Cityworks</u> , e.g. working on a fleet truck interior, parade floats, events related items.	<b>SERVICE</b>
<b>Energy Audit</b>	Use for: Work related to sustainability & energy audits.	<b>SERVICE</b>
<b>Events (FM Custodial)</b>	Use for: Custodial timesheets - Support for events, typically FM staff.	<b>SERVICE</b>
<b>Events (FM Trades)</b>	Use for: FM Trade activity that supports a special event. Use for special construction items like parade floats. Use for hanging event flags & banners.	<b>SERVICE</b>
<b>Events (Security)</b>	Use for: FM Security activity that specifically supports a special event.	<b>SERVICE</b>
<b>Facility Custodial Activities</b>	Use for: Custodial timesheets - Regular cleaning activities and contracted custodial (e.g. Cheema or other contractor).	<b>SERVICE</b>
<b>Facility Custodial Supplies</b>	Use for: Cleaning supplies, paper products, custodial chemicals.	<b>SERVICE</b>
<b>Facility Outside Maintenance</b>	Use for: Custodial timesheets - Any outside work, e.g. snow removal, splash pad cleaning, litter pick up, etc.	<b>ROUTINE</b>
<b>Facility Programming Support</b>	Use for: Custodial timesheets - Set-ups or support for facility programming during normal working hours.	<b>SERVICE</b>

Template Name	Asset	Lifecycle Category
Facility Rentals	Use for : Custodial timesheets - All VPP & City Hall & other facility rental set-ups / support are logged here, including any extra hours.	SERVICE
FM Asset Inventory Collection	Use for: Time spent collecting FM asset inventory during targeted collection activities, not related to a Service Request or a Work Order. A generic work order has been created for this activity.	SERVICE
FM Equipment Reconciliation	Use for: Year-end equipment reconciliation. For use by Administrative staff only.	SERVICE
General Services	<p>Use for: General maintenance activities that <u>do not</u> relate specifically to an asset / Unifomat code. Includes providing access to facilities, clean up after a flood, clean up after a tenant move, checking hazardous waste bins, moving items like BBQs from one location to another, delivering sand bags, moving Christmas trees from one location to another, assisting with staff moves, moving boxes.</p> <p><b>For graffiti removal or other vandalism repairs, please use the appropriate Unifomat code for the object being worked on.</b></p> <p><b>When moving items- attach work order to building where request originated - don't use Guelph St Storage for everything!</b></p>	ROUTINE
Interior Plant Maintenance	Use for: Interior Plant Maintenance- used by Horticulture staff only.	ROUTINE
Locks/Keys - Lock Shop Maintenance	Used for: Re-stocking, organizing, etc. lock shop. <u>Does not</u> include the repair of locks or door hardware - see B2050.90 Exterior Door Supplementary Components or C1030.90 Interior Door Supplementary Components. Does not include cutting keys - Facility - Locks/Keys - New/Replace Keys.	SERVICE
Locks/Keys - New/Replace Keys	Use for: New and replacement keys only. <u>Does not</u> include the repair of locks or door hardware - see B2050.90 Exterior Door Supplementary Components or C1030.90 Interior Door Supplementary Components .	SERVICE
Locks/Keys - Re-Key Building	Use for: Re-keying a building.	SERVICE
Pest Control	Use for: Pest Control.	SERVICE
Shop/Vehicle Maintenance	Use for : Shop/Vehicle maintenance, cleaning, tool maintenance, stocking, organization.	ROUTINE
Snow Removal - Site	Use for: Operations snow removal at facility sites. Does not include roof snow removal- see B30> Service Roof Snow Removal B30.	SERVICE
Waste - Hazardous Waste Removal	Use for: Hazardous waste removal.	SERVICE
Waste Audit	Use for: Waste Audits - attach to specific facility.	SERVICE
Mat Service	Use for: Winter mat service.	SERVICE

#### Object Work Order Descriptions with Unifomat Code

Template Name	Asset	Lifecycle Category
Investigate	<p>Time spent investigating issue, determining work required, responsibility, quotes, consultations, etc. May include time spent testing objects / components as part of troubleshooting. Includes time spent prior to starting actual work. Attach WO to object where issue has originated, e.g. if a leak investigation involves roof, HVAC equipment and plumbing, and the issue is determined to be plumbing, attach the work order to the correct plumbing object.</p> <p>E.g. Investigate plumbing leak &gt; WO type: <i>Investigate Dom Water Piping D2010.40</i></p>	SERVICE
Plan/Procure	<p>Design, consulting, purchase. Typically used for specifications, tender preparation, consulting fees to support capital maintenance projects. Should also be used when designing / planning in-house projects or work.</p> <p>E.g. Specifications to support roof tender &gt; WO type: <i>Plan/Procure Roofing B3010.00</i></p> <p>E.g. Designing custom cabinetry &gt; WO type: <i>Plan/Procure Casework E2010.30</i></p>	SERVICE
Install	<p>Installation of new equipment or objects, e.g. install new furnace, or construction of custom items for installation. Does not include installing new components on or in an object- this would be considered a Repair(React), Maintain(Plan) or Rehabilitation.</p> <p>E.g. Installing a new furnace &gt; WO type: <i>Install Heat Generation D3020.10</i></p> <p>E.g. Carpenter building custom window frame for operating window (i.e. opens) &gt; WO type: <i>Install Operng Window B2020.10</i></p>	SERVICE
Repair(React)	<p>Reactive / unplanned repair to equipment or object. Includes replacing broken components of the object. Use this for unexpected repairs or those resulting from vandalism. Maintains the lifecycle of the object.</p> <p>E.g. Repair a broken pipe &gt; <i>Repair(React) Dom Water Piping D2010.40</i></p> <p>E.g. Replacing a broken component in a cooling tower &gt; <i>Repair(React) Central Cooling D3030.10</i></p> <p>E.g. Repair broken glass in an exterior entrance door or window &gt; <i>Repair(React) Ext Ent Door B2050.10</i></p> <p>E.g. Repair a broken exterior window &gt; <i>Repair(React) Fix Window B2020.20</i></p>	ROUTINE
Maintain(Plan)	<p>Planned / preventative maintenance to equipment or object. Use this for preventative maintenance activities only. Maintains the lifecycle of the object.</p> <p>E.g. Filter replacement in a furnace &gt; WO type: <i>Maintain(Plan) Heat Generation D3020.10</i></p> <p>E.g. Replacing a belt in a cooling tower &gt; WO type: <i>Maintain(Plan) Central Cooling D3030.10</i></p>	ROUTINE
Inspect	<p>Inspection or testing of equipment or object. Relates to mandatory or legislated inspections, typically part of an inspection program. Note- use <u>Investigation</u> when time is spent</p>	SERVICE

Template Name	Asset	Lifecycle Category
	<p>investigating an issue- this may include testing components but would not be considered an Inspection.</p> <p>E.g. Generator testing &gt; WO type: <i>Inspect Generators D5010.10</i>  E.g. Elevator inspections &gt; WO type: <i>Inspect Elevator D1010.10</i>  E.g. Boiler water testing &gt; WO type: <i>Inspect Heat Generation D3020.10</i></p>	
Rehabilitate	<p><b>Rehabilitation / Retrofit.</b> Work that extends lifecycle of equipment or object, and returns the object to its original state (e.g. roof replacement, wall painting as part of cyclical re-painting schedule). This is typically a capital maintenance project but can also include work such as re-painting a room if on a re-painting schedule. <u>Does not include</u> planned preventative maintenance activities - this is Maintain(Plan). <u>Does not include</u> work that is required due to an unexpected issue- this is Repair(React).</p> <p>E.g. Domestic hot water tank rehabilitation (relined, replaced anodes) &gt; WO type: <i>Rehabilitate Dom Water Equip D2010.20</i>  E.g. Roof replacement &gt; WO type: <i>Rehabilitate Roofing B3010.00</i>  E.g. Re-painting a room as part of a cyclical re-painting schedule, e.g. we re-paint every 10 year &gt; WO type: <i>Rehabilitate Fix Partition C1010.10</i></p>	BETTERMENT
Decommission	<p><b>Decommission equipment but leave in place.</b></p> <p>E.g. Decommission an air-handling unit &gt; WO type: <i>Decommission AHU D3050.50</i></p>	ROUTINE
Commission	<p><b>Commissioning HVAC equipment. This workorder template is only available on HVAC equipment.</b></p> <p>E.g. Commissioning a cooling tower &gt; WO type: <i>Commission Central Cooling D3030.10</i></p>	ROUTINE
Remove	<p><b>Removal of equipment or object.</b></p> <p>E.g. Removing a cooling tower prior to installation of new cooling tower &gt; WO type: <i>Remove Central Cooling D3030.10</i></p>	ROUTINE
Service	<p><b>A service provided that is <u>not</u> related to repair or planned maintenance or inspection of an object. Typically facilitates the work being done. Does not impact the asset lifecycle or change the value of an asset.</b></p> <p>E.g. Towing of lifts, provision of lifts to access objects, duct cleaning, resetting a breaker in an electrical panel, resetting a GFI receptacle, moving furniture, cleaning windows, removing plumbing fixtures to facilitate a tiling job, winterizing / summerizing water piping.  E.g. Exterior window cleaning &gt; WO type: <i>Service Ext Window Cleaning B2020.00</i></p>	SERVICE
Supplies	<p><b>Bulk supplies purchase for facilities / object / equipment maintenance. Materials for individual jobs / projects should be captured on the job work order, e.g. if parts are required for a reactive repair, the cost of materials can be charged to the Repair (React) work order.</b></p>	ROUTINE

Template Name	Asset	Lifecycle Category
	<p>E.g. Pool chemicals, softener salt, custodial chemicals, including any labour to deliver or distribute supplies, filters, etc. &gt; WO template type: <b><i>Supplies AHU F3050.50</i></b></p> <p>Note that in some instances, bulk purchases for all facilities will use a generic WO- please coordinate through Support Services / FM (Beatrice or Michele)</p>	
PM & Fees	<p><b>Project management labour, permits, fees, consultants performing project management on behalf of City. Note- Consulting services that support capital projects should use the Plan/Procure work order template type.</b></p> <p>E.g. IRC manages a roofing project &gt; WO type: <b><i>PM &amp; Fees Roofing B3010.00</i></b></p>	SERVICE

## Appendix B Acquisition Forecast

### B.1 – Acquisition Forecast Assumptions and Source

Growth projects are based on projects and associated costs identified in the City's Capital Plan. Most of these projects were also identified in the City's 2022 Development Charges Study and 2019 Leisure Facilities Master Plan.

### B.2 – Acquisition Project Summary

The project titles included in the lifecycle forecast are included here.

PROJECT NAME	TIMING & COST
Mill Courtland Community Centre Addition	2023 - \$4.0M
Rosenberg Community Centre	2024 - \$2.8M
91 Moore Avenue (Structural projects for niches)	2024 - \$2.3M
Kitchener Indoor Recreation Complex (KIRC)	2025 - \$94.1M
Fire Station 8	2025 - \$7.3M
Forest Heights Community Centre Expansion	2028 - \$6.0M

### B.3 – Acquisition Forecast Summary

*Table B3 - Acquisition Forecast Summary*

Year	Constructed	Donated	Growth
2024	\$57.5M	-	\$57.5M
2025	\$53.4M	-	\$53.4M
2026	\$0.1M	-	\$0.1M
2027	\$2.7M	-	\$2.7M
2028	\$2.8M	-	\$2.8M
2029	-	-	-
2030	-	-	-
2031	-	-	-
2032	-	-	-
2033	-	-	-

## Appendix C      Operation & Maintenance Forecast

### C.1 – Operation & Maintenance Forecast Assumptions and Source

- The current operating budget is increased based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition forecast
- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan

### C.2 – Operation & Maintenance Forecast Summary

*Table C2 – Operation & Maintenance Forecast Summary*

Year	Operation & Maintenance Forecast	Additional Operation & Maintenance Forecast	Total Operation & Maintenance Forecast
2024	\$21.3M	-	\$21.3M
2025	\$21.3M	\$0.6M	\$21.9M
2026	\$21.3M	\$1.2M	\$22.5M
2027	\$21.3M	\$1.2M	\$22.5M
2028	\$21.3M	\$1.2M	\$22.5M
2029	\$21.3M	\$1.3M	\$22.6M
2030	\$21.3M	\$1.3M	\$22.6M
2031	\$21.3M	\$1.3M	\$22.6M
2032	\$21.3M	\$1.3M	\$22.6M
2033	\$21.3M	\$1.3M	\$22.6M



## Appendix D     Renewal Forecast Summary

### D.1 – Renewal Forecast Assumptions and Source

- The potential impacts of climate change on state of good repair costs are not included
- The potential increases in lifecycle costs due to deferred renewal work are not included
- The forecast is based on three approaches:
  - Simple Facility – generally used for less critical facilities, such as sheds or storage buildings. Residential facilities are treated as one asset and assumed to require an average annual investment rate of 2% of facility replacement value. Non-residential facilities are also treated as one asset and renewed at end-of-life.
  - High-Level Facility Breakdown – facilities for which a building condition assessment has not yet been completed. The facility is broken down into 27 elements (Unifomat) with estimated costs (based on typical percentage breakdowns provided through the facility costing software RS Means) and estimated condition ratings by City staff. The useful lives of assets used to develop projected asset renewal forecasts are shown in Table 6.3.
  - Capital Plan with BCA recommendations – facilities for which a building condition assessment has been completed and those recommendations have been incorporated into the Facilities Management Capital Plan
- Forecast will improve as additional BCAs are completed and incorporated into Capital Plan, replacing High-Level Facility Breakdown approach
- Renewal forecast also includes upgrades which are typically included as part of state of good repair projects (such as energy efficiency upgrades as part of HVAC and lighting replacements)

### D.2 – Renewal Project Summary

Project titles are only available for facilities with BCAs completed. Projects are listed in the Capital Plan developed by Facilities Management.

### D.3 – Renewal Forecast Summary

**Table D3 - Renewal Forecast Summary**

Year	Renewal Forecast (Maintain LOS)	Renewal Budget
2024	\$45.2M	\$12.3M
2025	\$45.2M	\$12.3M
2026	\$45.2	\$12.3M
2027	\$45.2M	\$12.3M
2028	\$45.2M M	\$12.3M
2029	\$45.2M M	\$12.3M
2030	\$45.2M	\$12.3M
2031	\$45.2M	\$12.3M
2032	\$45.2M	\$12.3M
2033	\$45.2M	\$12.3M

#### D.4 – FCI Forecast (Renewal Budget)

The FCI increases (lowers condition) from 9.9% to 26.0% with the available funding of \$12.3M/yr.

Service Area	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
ADMINISTRATION	18.2%	21.0%	20.8%	20.5%	26.9%	27.4%	27.1%	28.4%	28.1%	28.2%	27.8%
AQUATICS	22.4%	22.4%	22.1%	21.7%	25.8%	25.9%	26.7%	26.9%	26.7%	30.5%	30.2%
ARENAS	4.8%	7.3%	7.0%	7.0%	7.7%	15.4%	15.4%	16.5%	16.5%	25.2%	24.7%
ARTS & CULTURE	12.8%	14.5%	14.5%	16.3%	17.5%	20.5%	21.2%	23.4%	23.3%	24.5%	24.9%
CEMETERIES	8.2%	10.0%	9.7%	11.6%	13.9%	16.3%	16.0%	15.8%	16.1%	21.9%	21.9%
COMMERCIAL	3.7%	13.6%	13.5%	13.3%	13.0%	17.0%	16.3%	15.8%	16.6%	20.3%	19.7%
COMMUNITY CENTRES	13.5%	15.1%	16.0%	16.2%	17.6%	18.0%	18.1%	18.2%	18.1%	19.1%	20.0%
FIRE	8.7%	8.9%	10.1%	11.4%	12.4%	12.6%	13.4%	13.3%	14.3%	16.6%	16.6%
GOLF	6.7%	13.5%	12.6%	11.8%	12.5%	14.3%	13.4%	12.7%	11.8%	36.9%	36.0%
OPERATIONS	6.3%	6.7%	6.4%	6.2%	11.0%	28.6%	32.3%	33.5%	32.6%	31.8%	36.6%
PARKING GARAGES	9.9%	13.7%	13.4%	14.8%	15.8%	20.7%	20.5%	22.3%	22.2%	26.8%	26.7%
PARKS & OPEN SPACES	8.1%	9.0%	9.0%	8.9%	9.7%	11.2%	11.1%	11.9%	12.3%	17.2%	17.1%
RESIDENTIAL	6.0%	7.5%	9.1%	10.6%	12.2%	13.7%	15.3%	16.8%	18.4%	19.9%	21.5%
SPORT	8.6%	10.4%	10.4%	9.6%	11.3%	15.3%	16.1%	16.4%	15.8%	31.8%	32.6%
Overall	9.9%	12.4%	12.3%	12.6%	14.7%	19.9%	20.4%	21.4%	21.3%	25.5%	26.0%

## **Appendix E     Disposal Summary**

No disposals identified in this AM Plan. Disposal strategy to be developed.

## Appendix F      Budget Summary by Lifecycle Activity

The budget for acquisition is equal to the forecast, which is based on the Capital Plan.

The budget for operations and maintenance is based on the current 2024 budget with increases assumed over the next 10 years to align with growth in the asset portfolio.

For renewal, which includes currently planned upgrades related to accessibility and GHG emission reductions, the budget is based on funding specific to renewal and green projects. Renewal for parking garages is also included at an average annual amount of \$1.3M.

**Table F1 – Budget Summary by Lifecycle Activity**

Year	Acquisition	Operation & Maintenance	Renewal & Upgrade	Disposal	Total
2024	\$57.5M	\$21.3M	\$15M	-	\$93.8M
2025	\$53.4M	\$21.9M	\$14.4M	-	\$89.8M
2026	\$0.1M	\$22.5M	\$10.3M	-	\$32.9M
2027	\$2.7M	\$22.5M	\$10.7M	-	\$36M
2028	\$2.8M	\$22.5M	\$11.1M	-	\$36.4M
2029	\$0M	\$22.6M	\$11.5M	-	\$34.1M
2030	\$0M	\$22.6M	\$11.6M	-	\$34.2M
2031	\$0M	\$22.6M	\$13.9M	-	\$36.4M
2032	\$0M	\$22.6M	\$12M	-	\$34.6M
2033	\$0M	\$22.6M	\$12.2M	-	\$34.8M

**Appendix G List of Facilities included in Asset Management Plan**

FACILITYID	LOCATION	SERVICE AREA
2049996	181 PATRICIA AVENUE RESIDENTIAL	RESIDENTIAL
2022518	181 PATRICIA AVENUE RESIDENTIAL ACCESSORY	RESIDENTIAL
2023879	187 PATRICIA AVENUE RESIDENTIAL	RESIDENTIAL
2021552	191 PATRICIA AVENUE RESIDENTIAL	RESIDENTIAL
2015251	2 KING ST W	ADMINISTRATION
2006579	20 DAVID STREET RESIDENTIAL	RESIDENTIAL
2019878	285 VICTORIA STREET SOUTH RESIDENTIAL	RESIDENTIAL
2015422	44-50 GAUKEL STREET COMMERCIAL	ARTS & CULTURE
2016224	79 JOSEPH STREET COMMERCIAL	COMMERCIAL
2008287	91 MOORE AVE	CEMETERIES
2084489	ACTIVA SPORTSPLEX	ARENAS
2053780	ADMIRAL PARK RINK SHACK	PARKS & OPEN SPACES
2151054	BATTLER YARD - SSDF DISCHARGE CONTROL STATION	OPERATIONS
2145214	BATTLER YARD WASHROOM BUILDING	OPERATIONS
2053781	BELMONT PARK RINK SHACK	PARKS & OPEN SPACES
2011452	BRAMM STREET SAND/SALT BUILDING	OPERATIONS
2015841	BRAMM STREET STORAGE SHED	OPERATIONS
2085696	BRAMM STREET TRAFFIC SHOP	OPERATIONS
2014762	BRAMM STREET VEHICLE WASH BUILDING	OPERATIONS
2004558	BREITHAUP CENTRE POOL	AQUATICS
2005702	BREITHAUP PARK COMFORT STATION	PARKS & OPEN SPACES
2004567	BREITHAUP PARK GARAGE	PARKS & OPEN SPACES
2004130	BREITHAUP PARK PICNIC SHELTER	PARKS & OPEN SPACES
2132011	BREITHAUP PARK RINK SHACK	PARKS & OPEN SPACES
2085202	BREITHAUP PARK SPLASH PAD AND PUMP HOUSE	PARKS & OPEN SPACES
2007156	BRIDGEPORT CHILD CARE CENTRE	COMMERCIAL
2007374	BRIDGEPORT COMMUNITY CENTRE	COMMUNITY CENTRES
2085701	BRIDGEPORT COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2007418	BRIDGEPORT MEMORIAL CEMETERY CHURCH	CEMETERIES
2053072	BUDD PARK SPORTS FACILITY	SPORT
2086072	BUDD PARK UTILITY BUNKER	PARKS & OPEN SPACES
2019323	CAMERON HEIGHTS COLLEGIATE INSTITUTE & POOL	AQUATICS
2011031	CENTRE IN THE SQUARE	ARTS & CULTURE
2033722	CENTREVILLE CHICOPEE COMMUNITY CENTRE	COMMUNITY CENTRES
2132012	CENTREVILLE CHICOPEE COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2158414	CENTREVILLE CHICOPEE COMMUNITY CENTRE SPLASH PAD SHACK	COMMUNITY CENTRES
2038759	CHANDLER MOWAT COMMUNITY CENTRE	COMMUNITY CENTRES
2153154	CHANDLER MOWAT COMMUNITY CENTRE GARDEN SHED	COMMUNITY CENTRES

FACILITYID	LOCATION	SERVICE AREA
2132014	CHANDLER MOWAT COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2088369	CHARLES AND BENTON PARKING GARAGE	PARKING GARAGES
2149074	CHERRY PARK PICNIC SHELTER	PARKS & OPEN SPACES
2132015	CHERRY PARK RINK SHACK	PARKS & OPEN SPACES
2132315	CIVIC DISTRICT PARKING GARAGE	PARKING GARAGES
2016639	CLOCK TOWER	PARKS & OPEN SPACES
2015113	CONRAD CENTRE FOR THE PERFORMING ARTS	ARTS & CULTURE
2017132	CONWAY PARK RINK SHACK	PARKS & OPEN SPACES
2132016	COUNTRY CLAIR PARK RINK SHACK	PARKS & OPEN SPACES
2046092	COUNTRY HILLS COMMUNITY CENTRE	COMMUNITY CENTRES
2132017	COUNTRY HILLS COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2025660	COURTLAND AVENUE STORAGE BUILDING (HYDRO SUBSTATION)	PARKS & OPEN SPACES
2012733	CROSBY PARK FIELD HOUSE	PARKS & OPEN SPACES
2009868	DON MCLAREN ARENA	ARENAS
2050466	DOON PIONEER PARK COMMUNITY CENTRE AND LIBRARY	COMMUNITY CENTRES
2137858	DOON PIONEER PARK COMMUNITY GARDEN SHED	COMMUNITY CENTRES
2133434	DOON VALLEY GOLF CART STORAGE	GOLF
2050427	DOON VALLEY GOLF CLUB HOUSE	GOLF
2085568	DOON VALLEY GOLF COMFORT STATION	GOLF
2133431	DOON VALLEY GOLF COMFORT STATION 4TH HOLE	GOLF
2053787	DOON VALLEY GOLF CONCESSION BUILDING	GOLF
2050702	DOON VALLEY GOLF MAINTENANCE BUILDING	GOLF
2050145	DOON VALLEY GOLF PUMP HOUSE	GOLF
2053769	DOON VALLEY GOLF RAIN SHELTER 1	GOLF
2085569	DOON VALLEY GOLF RAIN SHELTER 2	GOLF
2085570	DOON VALLEY GOLF RAIN SHELTER 3	GOLF
2140872	DOON VALLEY GOLF RAIN SHELTER 4	GOLF
2140873	DOON VALLEY GOLF RAIN SHELTER 5	GOLF
2141037	DOON VALLEY GOLF RAIN SHELTER 6	GOLF
2133436	DOON VALLEY GOLF STARTER SHED 1	GOLF
2140852	DOON VALLEY GOLF STARTER SHED 2	GOLF
2053785	DOON VALLEY GOLF STORAGE BUILDING	GOLF
2053786	DOON VALLEY GOLF STORAGE SHED	GOLF
2011368	DOWNTOWN COMMUNITY CENTRE	COMMUNITY CENTRES
2014592	DUKE AND ONTARIO STREET PARKING GARAGE	PARKING GARAGES
2053788	EBY PARK FIELD HOUSE	PARKS & OPEN SPACES
2014036	EBY PARK PICNIC SHELTER	PARKS & OPEN SPACES
2149151	EDEN OAK PARK RINK SHACK	PARKS & OPEN SPACES
2037557	FIRE STATION 1	FIRE
2158538	FIRE STATION 1 - DIRECT DETECT OFFICE	FIRE
2158540	FIRE STATION 1 - EQUIPMENT/TRACTOR SHED	FIRE

FACILITYID	LOCATION	SERVICE AREA
2158536	FIRE STATION 1 - STORAGE SHED	FIRE
2005513	FIRE STATION 2	FIRE
2054504	FIRE STATION 3 AND AMBULANCE STATION	FIRE
2033616	FIRE STATION 4	FIRE
2035460	FIRE STATION 5 FOREST HEIGHTS COMMUNITY CENTRE	FIRE
2050710	FIRE STATION 6	FIRE
2084490	FIRE STATION 7	FIRE
2156714	FOREST HEIGHTS COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2036689	FOREST HEIGHTS POOL AND LIBRARY	SPORT
2007821	GEORGE LIPPERT PARK RINK SHACK	PARKS & OPEN SPACES
2053790	GLENDALE PARK RINK SHACK	PARKS & OPEN SPACES
2008927	GRAND RIVER ARENA	ARENAS
2009494	GRAND RIVER RECREATION COMPLEX	AQUATICS
2087188	GRAND RIVER TRANSIT FOUNTAIN BUNKER	PARKS & OPEN SPACES
2132018	GUELPH STREET PARK RINK SHACK	PARKS & OPEN SPACES
2085694	GUELPH STREET STORAGE	OPERATIONS
2026087	GYMNASTICS/JUDO CENTRE	SPORT
2022815	HARRY CLASS POOL	AQUATICS
2023427	HARRY CLASS POOL PUMPHOUSE	AQUATICS
2149311	HIBNER PARK FOUNTAIN VAULT	PARKS & OPEN SPACES
2024389	HIGHLAND COURTS PARK LAWN BOWLING OFFICE	SPORT
2024295	HIGHLAND COURTS PARK TENNIS COURT CLUB HOUSE	SPORT
2050353	HOMER WATSON HOUSE AND GALLERY	ARTS & CULTURE
2050345	HOMER WATSON HOUSE AND GALLERY CLASSROOM/STORAGE BUILDING	ARTS & CULTURE
2050213	HOMER WATSON HOUSE AND GALLERY COACH HOUSE (ARTIST STUDIO)	ARTS & CULTURE
2085576	HOMER WATSON HOUSE AND GALLERY COTTAGE 1	ARTS & CULTURE
2085575	HOMER WATSON HOUSE AND GALLERY COTTAGE 2	ARTS & CULTURE
2085574	HOMER WATSON HOUSE AND GALLERY COTTAGE 3	ARTS & CULTURE
2154451	HURON COMMUNITY CENTRE	COMMUNITY CENTRES
2082128	HURON NATURAL AREA COMFORT STATION	PARKS & OPEN SPACES
2024568	IDLEWOOD POOL	AQUATICS
2053795	KAUFMAN PARK FIELD HOUSE 1	PARKS & OPEN SPACES
2033076	KINGSDALE COMMUNITY CENTRE	COMMUNITY CENTRES
2013795	KITCHENER CITY HALL	ADMINISTRATION
2059159	KITCHENER MARKET	COMMERCIAL
2011198	KITCHENER MOUNT HOPE CEMETERY OFFICE AND GARAGE	CEMETERIES
2153814	KIWANIS PARK ADMISSIONS BOOTH	PARKS & OPEN SPACES
2000002	KIWANIS PARK CHANGE ROOMS/FIRST AID	AQUATICS
2000004	KIWANIS PARK CONCESSION BUILDING	AQUATICS
2000008	KIWANIS PARK GATE HOUSE	PARKS & OPEN SPACES

FACILITYID	LOCATION	SERVICE AREA
2000003	KIWANIS PARK PICNIC SHELTER 1	PARKS & OPEN SPACES
2136634	KIWANIS PARK PICNIC SHELTER 2	PARKS & OPEN SPACES
2000000	KIWANIS PARK PICNIC SHELTER TIM HORTONS	PARKS & OPEN SPACES
2000001	KIWANIS PARK PUMP HOUSE	AQUATICS
2132019	KIWANIS PARK RINK SHACK	PARKS & OPEN SPACES
2000005	KIWANIS PARK STORAGE BUILDING	PARKS & OPEN SPACES
2148631	KIWANIS PARK WATER DISTRIBUTION BUNKER	AQUATICS
2149051	KIWANIS WINTERIZATION BUNKER	AQUATICS
2085197	KMAC ARENA STORAGE SHED	ARENAS
2138155	KMAC ARENA STORAGE SHED 2	ARENAS
2140737	KMAC HYDRO BUNKER	ARENAS
2171310	KMAC JACK COUCH SHED	PARKS & OPEN SPACES
2017627	KMAC JACK COUCH SUPPORT BUILDING	PARKS & OPEN SPACES
2171309	KMAC WATER DISTRIBUTION BUNKER	PARKS & OPEN SPACES
2140698	KNOLLWOOD PARK SHADE PAVILLION	PARKS & OPEN SPACES
2138709	KOF - DEWATERING CANOPY	OPERATIONS
2133892	KOF - DEWATERING SHED	OPERATIONS
2087704	KOF - GREENHOUSE	OPERATIONS
2146733	KOF - GREYWATER CONTROL SHED	OPERATIONS
2043761	KOF - KITCHENER OPERATIONS FACILITY	OPERATIONS
2102586	KOF - SALT HOPPER	OPERATIONS
2102585	KOF - SALT STORAGE	OPERATIONS
2138707	KOF - STORAGE CANOPY	OPERATIONS
2053796	LAKESIDE PARK RINK SHACK	PARKS & OPEN SPACES
2044564	LIONS ARENA	ARENAS
2141391	LUDOLPH PARK RINK SHACK	PARKS & OPEN SPACES
2132024	MAX BECKER COMMONS RINK SHACK	PARKS & OPEN SPACES
2128575	MCLENNAN PARK COMFORT STATION	PARKS & OPEN SPACES
2167401	MCLENNAN PARK GAZEBO	PARKS & OPEN SPACES
2150811	MCLENNAN PARK SHADE PAVILLION	PARKS & OPEN SPACES
2033385	MEINZINGER PARK STORAGE	PARKS & OPEN SPACES
2025281	MILL COURTLAND COMMUNITY CENTRE	COMMUNITY CENTRES
2087574	MILL COURTLAND COMMUNITY CENTRE PORTABLE	COMMUNITY CENTRES
2053797	MILL COURTLAND COMMUNITY CENTRE RINK SHACK 1	PARKS & OPEN SPACES
2132191	MILL COURTLAND COMMUNITY CENTRE SHED 1	COMMUNITY CENTRES
2140391	MILL COURTLAND COMMUNITY CENTRE SHED 2	COMMUNITY CENTRES
2140851	MILL COURTLAND COMMUNITY CENTRE SHED 3	COMMUNITY CENTRES
2143921	MILL COURTLAND COMMUNITY CENTRE SHED 4	COMMUNITY CENTRES
2132020	MORRISON PARK RINK SHACK	PARKS & OPEN SPACES
2150671	OKTOBERFEST PLATZ FOUNTAIN BUNKER	PARKS & OPEN SPACES
2132431	PARKING LOT 19 SHED 1	PARKING GARAGES
2132432	PARKING LOT 19 SHED 2	PARKING GARAGES



FACILITYID	LOCATION	SERVICE AREA
2085698	PETER HALLMAN BALL YARD ELECTRICAL BUILDING	PARKS & OPEN SPACES
2085697	PETER HALLMAN BALL YARD MAINTENANCE BUILDING	PARKS & OPEN SPACES
2085699	PETER HALLMAN BALL YARD TOURNAMENT BUILDING	PARKS & OPEN SPACES
2156674	PIONEER GROVE PARKETTE SHED	PARKS & OPEN SPACES
2053791	PIONEER PARK RINK SHACK	PARKS & OPEN SPACES
2139211	QUEENSMOUNT PARK GARAGE	PARKS & OPEN SPACES
2029799	QUEENSMOUNT SPORTS BUILDING	SPORT
2160095	KITCHENER INDOOR RECREATION COMPLEX (KIRC) - BUNKER	PARKS & OPEN SPACES
2052291	KITCHENER INDOOR RECREATION COMPLEX (KIRC) - HERITAGE WASHROOM BUILDING	PARKS & OPEN SPACES
2153654	KITCHENER INDOOR RECREATION COMPLEX (KIRC) - MAINTENANCE BUILDING	PARKS & OPEN SPACES
2159538	KITCHENER INDOOR RECREATION COMPLEX (KIRC) - UTILITY BUILDING 1	PARKS & OPEN SPACES
2159537	KITCHENER INDOOR RECREATION COMPLEX (KIRC) - UTILITY BUILDING 2	PARKS & OPEN SPACES
2024390	ROCKWAY CENTRE	COMMUNITY CENTRES
2021955	ROCKWAY CENTRE POTTERY SHED	COMMUNITY CENTRES
2024530	ROCKWAY CENTRE STORAGE BUILDING (HYDRO SUBSTATION)	COMMUNITY CENTRES
2026294	ROCKWAY GOLF CART STORAGE	GOLF
2086003	ROCKWAY GOLF CHEMICAL STORAGE BUILDING	GOLF
2025685	ROCKWAY GOLF CLUB HOUSE	GOLF
2053768	ROCKWAY GOLF COMFORT STATION	GOLF
2053773	ROCKWAY GOLF CONCESSION BUILDING	GOLF
2030050	ROCKWAY GOLF EQUIPMENT STORAGE SHED	GOLF
2086004	ROCKWAY GOLF GASOLINE STORAGE BUILDING	GOLF
2030152	ROCKWAY GOLF MAINTENANCE/STORAGE BUILDING	GOLF
2053800	ROCKWAY GOLF PUMP HOUSE	GOLF
2085567	ROCKWAY GOLF RAIN SHELTER 1	GOLF
2053801	ROCKWAY GOLF RAIN SHELTER 2	GOLF
2085566	ROCKWAY GOLF RAIN SHELTER 3	GOLF
2085565	ROCKWAY GOLF STARTER SHED	GOLF
2053802	ROSENBERG PARK FIELD HOUSE	PARKS & OPEN SPACES
2009229	ROSENBERG PARK HERITAGE GREENS COMFORT STATION	SPORT
2084844	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 1	SPORT
2084853	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 10	SPORT
2084854	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 11	SPORT
2084855	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 12	SPORT
2140699	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 13	SPORT
2140700	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 14	SPORT
2140701	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 15	SPORT
2140702	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 16	SPORT

FACILITYID	LOCATION	SERVICE AREA
2084845	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 2	SPORT
2084846	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 3	SPORT
2084849	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 4	SPORT
2084848	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 5	SPORT
2084847	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 6	SPORT
2084850	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 7	SPORT
2084851	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 8	SPORT
2084852	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 9	SPORT
2084843	ROSENBERG PARK HERITAGE GREENS STORAGE SHED 1	SPORT
2086254	ROSENBERG PARK HERITAGE GREENS STORAGE SHED 2	SPORT
2086253	ROSENBERG PARK HERITAGE GREENS STORAGE SHED 3	SPORT
2132021	SALVATION ARMY CHURCH RINK SHACK	PARKS & OPEN SPACES
2059181	SPORTSWORLD ARENA	ARENAS
2053776	ST ALOYSIUS PUBLIC SCHOOL RINK SHACK	PARKS & OPEN SPACES
2085497	ST PETER'S LUTHERAN CEMETERY MAINTENANCE BUILDING	CEMETERIES
2016307	STANLEY PARK COMMUNITY CENTRE	COMMUNITY CENTRES
2134594	STANLEY PARK COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2053777	STANLEY PARK PUBLIC SCHOOL RINK SHACK	PARKS & OPEN SPACES
2016930	THE AUD	ARENAS
2017655	THE BOATHOUSE	COMMERCIAL
2013884	THE REGISTRY THEATRE	ARTS & CULTURE
2015184	THEMUSEUM	ARTS & CULTURE
2053772	TIMBERLANE PARK RINK SHACK	PARKS & OPEN SPACES
2158535	UNIROYAL -GOODRICH PARK GARDEN SHED	PARKS & OPEN SPACES
2158434	UNIROYAL -GOODRICH PARK PICNIC SHELTER	PARKS & OPEN SPACES
2050419	UPPER CANADA PARK SPORTSFIELD CLUBHOUSE	PARKS & OPEN SPACES
2050382	UPPER CANADA PARK SPORTSFIELD PICNIC SHELTER	PARKS & OPEN SPACES
2050351	UPPER CANADA PARK SPORTSFIELD STORAGE SHED 1	PARKS & OPEN SPACES
2156134	UPPER CANADA PARK SPORTSFIELD STORAGE SHED 2	PARKS & OPEN SPACES
2085338	UPPER CANADA PARK SPORTSFIELD STORAGE SHED 3	PARKS & OPEN SPACES
2053771	VANIER PARK RINK SHACK	PARKS & OPEN SPACES
2020403	VICTORIA HILLS COMMUNITY CENTRE	COMMUNITY CENTRES
2058940	VICTORIA HILLS COMMUNITY CENTRE GARDEN STORAGE SHED 1	COMMUNITY CENTRES
2058941	VICTORIA HILLS COMMUNITY CENTRE GARDEN STORAGE SHED 2	COMMUNITY CENTRES
2132022	VICTORIA HILLS COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2017888	VICTORIA PARK BANDSTAND	PARKS & OPEN SPACES
2131631	VICTORIA PARK COMFORT STATION JUBILEE	PARKS & OPEN SPACES
2019376	VICTORIA PARK COMFORT STATION SEASONAL	PARKS & OPEN SPACES
2016906	VICTORIA PARK FRONT GARAGE	PARKS & OPEN SPACES
2020042	VICTORIA PARK MACHINE SHOP	PARKS & OPEN SPACES

FACILITYID	LOCATION	SERVICE AREA
2018874	VICTORIA PARK PAVILION	COMMERCIAL
2011535	VICTORIA PARK PERGOLA 1 BY BOATHOUSE	PARKS & OPEN SPACES
2085157	VICTORIA PARK PERGOLA 2 JUBILEE	PARKS & OPEN SPACES
2019818	VICTORIA PARK PICNIC SHELTER	PARKS & OPEN SPACES
2132023	VICTORIA PARK RINK SHACK	PARKS & OPEN SPACES
2166761	VICTORIA PARK SHED	PARKS & OPEN SPACES
2019870	VICTORIA PARK SUMMER KITCHEN	PARKS & OPEN SPACES
2166762	VICTORIA PARK UTILITY SHED PARK ST	PARKS & OPEN SPACES
2008244	WEBER PARK RINK SHACK	PARKS & OPEN SPACES
2053778	WEST AVENUE STORAGE FACILITY	PARKS & OPEN SPACES
2051543	WILLIAMSBURG CEMETERY DEDICATION CENTRE AND CREMATORIUM	CEMETERIES
2051584	WILLIAMSBURG CEMETERY OFFICE AND MAINTENANCE	CEMETERIES
2085760	WILLIAMSBURG COMMUNITY CENTRE	COMMUNITY CENTRES
2087659	WILSON PARK CONCESSION BUILDING	PARKS & OPEN SPACES
2121720	WILSON PARK STORAGE SHED	PARKS & OPEN SPACES
2033597	WILSON POOL	AQUATICS
2026261	WOODLAND CEMETERY CATHOLIC MAUSOLEUM	CEMETERIES
2053770	WOODLAND CEMETERY OFFICE	CEMETERIES
2026922	WOODLAND CEMETERY PROTESTANT MAUSOLEUM	CEMETERIES
2172282	WOODLAND STORAGE SHED	CEMETERIES
2023702	WOODSIDE PARK FIELD HOUSE	PARKS & OPEN SPACES