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# Corporate Real Estate Office Asset Management Plan 2024



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### SUMMARY AND QUICK FACTS

### SERVICE PROFILE



The Corporate Real Estate Office (CREO) is responsible for the management of the City of Hamilton's (the "City") real estate assets and portfolio. CREO business activities include real property transactions, property valuation services, strategic and portfolio planning, and client/program support in conjunction with the delivery of efficient and effective City services.

#### **ASSET SUMMARY**



#### LEVEL OF SERVICE SUMMARY

No customer levels of service were identified in this iteration of the Asset Management Plan.

Technical Levels of Service will be included in the next iteration of the Asset Management Plan.

Asset Highlights					
MAJOR ASSETS	QUANTITY	REPLACEMENT COST	AVERAGE CONDITION	STEWARDSHIP MEASURES	
Land Assets	1,900	N/A*	N/A*	The condition of land assets was not included in this AM Plan.	
Administrative Assets	24	\$56.7 K	GOOD	Computers are replaced at the end of their useful lives.	

\*Replacement costs and Condition were not included for land assets

### DATA CONFIDENCE

VERY GOOD MEDIUM	VERY LOW
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### **Key Demand Drivers**



**Program Requirements**: The Corporate Real Estate Office (CREO) offers services throughout the entire corporation, with demand being dictated by the program requirements of client groups. This encompasses the growing demand for city services and program needs, which may lead to adjustments in CREO's land asset portfolio. Additionally, the housing prioritization directed by Council could potentially necessitate additional staff resources for CREO.



### **RISK**

• No critical assets identified for CREO.



### **CLIMATE CHANGE**

• Currently there are no climate change mitigation and adaptation projects being pursued by CREO.



### LIFECYCLE SUMMARY\*

\*This Lifecycle model includes operational activities (CREO staff salaries), Administrative Assets renewals and some land asset disposals. Acquisitions are excluded from this model.

# CORPORATE REAL ESTATE OFFICE

#### **1. INTRODUCTION**

The Corporate Real Estate Office (CREO) is responsible for the management of the City of Hamilton's (City) real estate assets and portfolio. CREO business activities include real property transactions, property valuation services, strategic and portfolio planning, and client/program support in conjunction with the delivery of efficient and effective City services.

# CORPORATE REAL ESTATE OFFICE

#### 2. BACKGROUND

This Asset Management Plan (AM Plan) intends to communicate the requirements for the sustainable delivery of services through the management of assets, in compliance with the regulatory requirements and required funding to provide the appropriate levels of service over the 2023 - 2052 planning period. The assets covered by this plan include the major components required to deliver effective real estate services to the City.

#### 2.1 SERVICE PROFILE

The service profile consists of four main aspects of the service:

- Service History;
- Service Function;
- Users of the Service; and,
- Unique Service Challenges.

#### 2.1.1 SERVICE HISTORY

After amalgamation in 2001, the Facilities and Real Estate Division underwent restructuring. Following the reorganization of departments and divisions within the new city structure, Facility Management functions were transferred to the Public Works department, while the Real Estate functions moved to the Planning and Economic department.

#### 2.1.2 SERVICE FUNCTION

The Corporate Real Estate Office (CREO) is a corporate function that resides in the Economic Development Division and provides services across the entire corporation. These services include transactions (e.g., property sales, acquisitions, leases, licences, renewals), valuations, portfolio planning, portfolio reviews and strategic project support. CREO offers real estate-related advice to staff and Council members. CREO's primary objective is to efficiently maximize the value of the City's real estate interests while delivering good customer service. CREO has a primary responsibility for the City's real estate inventory and portfolio of properties.

Generally, CREO acquires properties on behalf of a division to support various municipal uses/programs, such as linear infrastructure (e.g., roads), community services (e.g., recreation centre), and corporate services (e.g., office space). Prior to acquisition, property needs are determined with the client division. Once a property is acquired, it is then transferred to the division to operate and maintain.

CREO has responsibility for providing property valuations as required for numerous purposes, including establishing appropriate market value for transactions, parkland dedication, decision making, budget purposes and to support other municipal programs such as downtown incentive programs, development charges, and community benefit charges.

# CORPORATE REAL ESTATE OFFICE Page

CREO also oversees the City's property portfolio strategy. CREO performs ongoing property reviews to ensure properties are used for their intended purpose and efficiently. As part of the review, any identified underutilized properties are evaluated for potential repurposing or disposition.

#### 2.1.3 USERS OF THE SERVICE

The Corporate Real Estate Office's clients and stakeholders include:

- All City Departments, Divisions, and Agencies;
- Senior Leadership Team;
- City Council; and,
- Participants in the Development and Real Estate Industries.

Figure 1: Map of City of Hamilton Corporate Real Estate Properties (Public GIS Data as of Aug 2023)



### 2.2 LEGISLATIVE REQUIREMENTS

The most significant legislative requirements that impact the delivery of the service are outlined in *Table 1.* These requirements are considered throughout the report, and, where relevant, are included in the Levels of Service measurements.

#### Table 1: Legislative Requirements

LEGISLATION OR REGULATION	REQUIREMENT		
Municipal Act, S,O. 2001, c. 25	This outlines the powers and responsibilities of municipalities, including their ability to acquire, hold, and dispose of real property and its obligations related to Anti-bonusing, Municipal Capital Facilities, and Property Taxation.		
Sale of Land Policy By-law 14-204	The City of Hamilton follows this policy for the sale and other dispositions of land.		
Expropriations Act R.S.O. 1990, c. E26.	In Ontario, municipalities under the Expropriations Act have the authority to expropriate land of interest for municipal infrastructure projects.		

#### 2.3 COUNCIL PRIORITIES

As referenced in the AM Plan Overview in **Section 5.4**, Strategic Alignment, the City's strategic goals and objectives are shaped by internal drivers such as Council-approved strategies and plans, as well as external forces such as citizen expectations, and legislative and regulatory requirements. The specific legislative and regulatory requirements for service areas are provided in each AM Plan.

City objectives provide asset owners with direction regarding levels of service and asset investment priorities. This AM Plan will demonstrate how the City's objectives for core assets can influence levels of service and direct asset expenditures.

### 2.4 ASSET HIERARCHY

To deliver effective and adequate real estate services, the Corporate Real Estate Office requires assets. For the purpose of this Asset Management Plan, CREO assets have been divided into two asset classes: Land Assets (including various real property interests), and Administrative assets.

- Land Assets: refers to any city-owned or leased or other interest in land that is used in the provision of a service, such as water, wastewater, parks, cemeteries, recreation centres, road allowance etc.
- Administrative Assets: refers to the type of technology required for the provision of the service, such as laptops and tablets.

The Asset Class Hierarchy outlines assets included in this section, as shown below in Table 2:

#### Table 2: Asset Class Hierarchy

SERVICE AREA	CORPORATE REAL ESTATE OFFICE			
ASSET CLASS	LAND ASSETS	ADMINISTRATIVE ASSETS		
	Civic Assets (e.g., City Hall, Offices)			
	Protective/Strategic Assets (e.g., Buffer lands, Future road lands, Vacant lands, Industrial Park,)			
Assat	Public Care/Use Assets (e.g., Cemeteries, Community Centres, Parks, Parking lots)	Lantons and tablets		
A3361	Public Service Delivery Assets (e.g., EMS, Fire, Police stations)	Laptops and tablets		
	Public Service Support Assets (e.g., Service yards, Storage)			
	Utility Infrastructure (e.g., Recycling facilities, Stormwater ponds, Water towers)			

#### 3. SUMMARY OF ASSETS

**Table 3** displays the detailed summary of assets for the CREO service area. The sources for this data are a combination of data provided by CREO and other available data from the City's database information. It is important to note that inventory information does change often, and that this is a snapshot of information available as of August 2023.

The City of Hamilton owns 1,900 properties, equal to 9,423 acres of land. The City also plays dual roles by leasing/licensing out its own land as a landlord/licensor and renting land for its services as a tenant/licensee. Easements and Encroachments are not discussed in this report. Currently, the City has 106 leases and licenses in place where the City is the tenant or licensee and 235 leases and licenses where the City is the landlord or licensor.

Given the complexity of land valuation, the replacement cost for the City's land assets were not examined as part of this AM Plan. Land has an indefinite age and an indefinite Estimated Service Life (ESL), making these traditional asset management parameters difficult to use. Both age and ESL of land were not examined in this AM Plan. This is also consistent with the Tangible Capital Assets (TCA) guidelines which dictate that land is not depreciated over time. The replacement value of land was also not calculated in this iteration of the AM Plan. Real Estate values are constantly changing, and each parcel is unique, as such the value below is only administrative assets. This is consistent with other City of Hamilton AM Plans that have also not calculated a land replacement value. A continuous improvement item has been identified in **Table 14** to Investigate the potential for calculating land replacement values for future AM Plans

The Condition of land assets is also not included in this iteration of the AM Plan as there is not a standard or process to determine the condition of land assets at this time. A continuous improvement item has been identified in *Table 14* to evaluate if a conditioning process could be developed for future AM Plans.

CREO owns **\$56.7K** in administrative assets. CREO's administrative assets are on average in **GOOD** condition. The administrative assets are an average of one year in age, with **70** % Remaining Service Life (RSL).

Data confidence descriptions are outlined on *Page 31* in the AM Plan Overview. For Land assets, the quantities and land size were taken from the CREO property inventory.

Administrative assets were valued by the most recent purchase price for similar assets and were assigned a *MEDIUM* data confidence level.

The Corporate Asset Management Office (CAM) acknowledges that some work and projects are ongoing, and the deficiencies noted may be resolved at the time of publication. As well, the assets included below are assets that are assumed and in service at the time of writing this AM Plan.

# Table 3: Detailed Summary of Assets\*Weighted Average

#### LAND ASSETS

ASSET CATEGORY	NUMBER OF PARCELS	ACRE			
Civic Assets	99	1,139			
Protective / Strategic Assets	280	658			
Public Care / Use Assets	1,128	5,182			
Public Service Delivery Assets	22	24			
Public Service Support Assets	42	1,071			
Utility Infrastructure	329	1,349			
Data Confidence	Medium	Medium			
SUBTOTAL	1,900	9,423			
DATA CONFIDENCE	MEDIUM	MEDIUM			

### ADMINISTRATIVE ASSETS

ASSET CATEGORY	NUMBER OF ASSETS	REPLACEMENT VALUE	AVERAGE AGE (% RSL)	AVERAGE EQUIVALENT CONDITION	
Laptops and tablets	24	\$56.7 K	1 year (70%)	2-GOOD	
Data Confidence High		Medium	Medium	Medium	
SUBTOTAL		\$56.7 K	1 year (70%)	2-GOOD	
DATA CONFIDENCE		MEDIUM	MEDIUM	MEDIUM	

Complete data for Land assets consists of attributes such as parcel location, land size, service area with land use and status and Roll Number and Property Identification Numbers (PIN). Data is formatted per parcel of land. All land parcel data entries contained varying degrees of attribute information.

**Table 3** identifies the implementation of an asset registry for all CREO assets, including the City's Land assets and leases currently missing from the data set, as a continuous improvement item. This work is already underway and will improve the data attributes of parcels.

#### 3.1 LEASED PROPERTIES

The City of Hamilton can lease space for its use (rather than purchasing land), or the City may allow third parties (i.e., businesses) to lease City-owned land (rather than selling the land or where there may be a strategic need to retain ownership). In a few cases where the City is the landlord, the lease in place is a Land Lease (typically a long-term lease where the landlord leases the land to the tenant and the tenant owns the building/facility over the term of the lease and is responsible for the cost of maintenance, and operation of the building/facility). A few examples of the major long-term leases for the City of Hamilton include the lease agreements for the John C. Munro Hamilton International Airport and properties covered under the Hamilton Urban Precinct Entertainment Group (HUPEG) agreement.

In the case of the Hamilton International Airport, Trade Port International Corporation was selected by the City of Hamilton to operate and manage the John C. Munro Hamilton International Airport. In 1996, Trade Port International Corporation signed a 40-year lease agreement with the City and is responsible for the ongoing management and development of the airport including the maintenance, repair and replacement of the airport's assets and improvements.

Similarly, HUPEG, is responsible for the maintenance, repair, upgrade and renovation of First Ontario Arena, Hamilton Convention Centre, and First Ontario Concert Hall along with specific obligations relating to some other properties included in the agreement.

If these lease agreements ended, the City of Hamilton would need to execute new agreements with new service providers or resume Asset Management Lifecycle Activities of the assets at additional costs.

#### 3.2 STRATEGIC LAND BANKING ACQUISITIONS

Land banking is an economic development tool funded by local governments to acquire, develop, and sometimes sell land for residential and non-residential purposes. A land bank can be a powerful locational incentive, which can be used to encourage new developments in the city in both new business parks and redevelopment of older industrial areas where there are no available employment lands, and similarly where the City is trying to stimulate affordable housing opportunities. While a land bank provides long-term economic benefits in terms of assessment and job creation, it can also act as a tool for planning long-term community development.

For the City of Hamilton, Council may acquire land from time to time and it may then hold, sell, or lease the land for the purpose of various program needs, affordable housing and economic development.

### 3.3 INDUSTRIAL BUSINESS PARKS

The City of Hamilton has ten industrial business parks and employment areas. It is important that the City has an adequate supply of shovel-ready industrial lands to allow industries to locate and expand within our community. Shovel-ready is a site that already has the necessary Official Plan designation, zoning, permits, and municipal servicing/utility infrastructure in place. By working with landowners, municipal departments, agencies, and all levels of government, CREO is committed to obtaining all of the necessary approvals (e.g., Environmental Assessment, Official Plan designations, zoning, etc.) and ensuring that the necessary municipal infrastructure is available to service the industrial lands. In creating shovel-ready City-owned land, the City of Hamilton is responsible for costs of acquisitions and costs associated with making land "shovel-ready" (i.e., costs of servicing, grading, stormwater management), maintenance costs of lands, and other front-end servicing costs.

A status update on shovel-ready industrial land can be found in the 2020 Employment Area Inventory Report<sup>1</sup>. The report includes a snapshot of shovel-ready employment lands inventory in Hamilton.

### 3.4 ASSET CONDITION GRADING

Condition refers to the physical state of CREO assets. It is a measure of the physical integrity of these assets or components and is the preferred measurement for planning lifecycle activities to ensure assets reach their expected useful life. Since condition scores are reported using different scales and ranges depending on the asset, Table 6 below shows how each rating was converted to a standardized 5-point condition category so that the condition could be reported consistently across the AM Plan.

The following conversion assumptions were made:

- For Administrative assets where a condition assessment was not completed, but age information was known, the condition was based on the percent of remaining service life; and,
- For Land assets, the condition was not determined in this iteration of the AM Plan.

<sup>&</sup>lt;sup>1</sup> https://www.hamilton.ca/sites/default/files/2023-05/employment-area-inventory-2020.pdf

#### Table 4: Equivalent Condition Conversion Table

EQUIVALENT CONDITION GRADING CATEGORY	CONDITION DESCRIPTION	% REMAINING SERVICE LIFE	ADMINISTRATIVE ASSETS
1-Very Good	The asset is new, recently rehabilitated, or very well maintained. Preventative maintenance is required only.	>79.5%	Very Good
2-Good	The asset is adequate and has slight defects and shows signs of some deterioration that has no significant impact on the asset's usage. Minor/preventative maintenance may be required.	69.5% – 79.4%	Good
3-Fair	<b>3-Fair</b> The asset is sound but has minor defects. Deterioration has some impact on asset's usage. Minor to significant maintenance is required.		Fair
4-Poor	The asset has significant defects and deterioration. Deterioration has an impact on asset's usage. Rehabilitation or major maintenance is required in the next year.	19.5% -39.4%	Poor
5-Very Poor	The asset has serious defects and deterioration. The asset is not fit for use. Urgent rehabilitation or closure is required.	<19.4%	Very Poor

#### 3.5 ASSET CLASS PROFILE ANALYSIS

This section outlines the Age Profile, Condition Methodology, Condition Profile, and Performance Issues for each of the asset classes.

 The age of an asset is an important consideration in the asset management process as it can be used for planning purposes as assets typically have an estimated service life (ESL) where the asset can be expected to be in service before the condition has degraded and requires replacement. Some lower-cost or lower criticality assets can be planned for renewal based on age as a proxy for condition or until other condition methodologies are established. It should be noted that if an asset's condition is based on age, it is typically considered to be of a low confidence level. Although typically, age is used when projecting replacements beyond the ten-year forecast to predict degradation.

• As previously mentioned, condition refers to the physical state of assets and is a measure of the physical integrity of assets or components and is the preferred measurement for planning lifecycle activities to ensure assets reach their expected useful life. Assets are inspected/assessed at different frequencies and using different methodologies to determine their condition, which is noted in this section.

3.6.1.1 AGE PROFILE

The age of land assets is considered indefinite and is not determined for this AM Plan.

#### 3.6.1.2 CONDITION PROFILE

The condition of land assets was not determined in this AM Plan. A continuous improvement item identified in *Table 33*, is to develop a 5-point condition scale for land assets based on land functionality parameters identified by CREO.



The age profile of CREO Administrative assets is shown in *Figure 2*.

Figure 2: Administrative Assets Age Profile



Generally, laptop and tablet assets that exceed four to five years of age are beyond their estimated service life.

### 3.6.2.2 CONDITION PROFILE

The condition profile of CREO's Administrative assets is shown in *Figure 3*. As mentioned in *section 2.1.2*, the original condition grades were converted to a standardized condition category for report consistency.



Generally, the Laptop and tablet condition profile shows the majority of assets in Fair or better condition.

### 4. MUNICIPALLY DEFINED CURRENT LEVELS OF SERVICE

Levels of service are measures of what the city provides to its customers, residents, and visitors and are best described as the link between providing the service outcomes the customer desires, and the way that the city provides those services.

O. Reg 588/17 does not define Levels of Service for CREO assets and therefore the City has developed municipally defined levels of service. Levels of service are typically defined in three ways, customer values, customer levels of service and technical levels of service which are outlined in this section. An explanation for how these were developed is provided in **Section 7.5** of the AMP Overview.

#### 4.1 CUSTOMER VALUES AND LEVELS OF SERVICE

A customer survey was not conducted for CREO as the department receives requests from internal city staff and has a finite number of internal customers. A future internal survey may be conducted for future versions of the AM Plan. At this time, we are not able to develop customer values or customer levels of service.

#### 4.1.1 TECHNICAL LEVELS OF SERVICE

Technical levels of service are operational or technical measures of performance, which measure how the city plans to achieve the desired customer outcomes and demonstrate effective performance, compliance and management.

A continuous improvement item has been identified in **Table 14** to investigate and identify potential Technical Levels of Service, or Key Performance Indicators (KPI) for CREO that can be developed for the next iteration of the AM Plan.

### 5. FUTURE DEMAND

Demand is defined as the desire customers have for assets or services that they are willing to pay for. These desires are for either new assets/services or current assets.

The ability of the city to be able to predict future demand for services enables the city to plan and identify the best way of meeting the current demand while being responsive to inevitable changes in demand. Demand will inevitably change over time and will impact the needs and desires of the community in terms of the quantity of services and types of services required.

#### 5.1 DEMAND DRIVERS

The demand drivers for CREO services generally come from other divisions and relate to the development and implementation of their master plans and other strategic initiatives. The key demand drivers affecting the need to acquire municipal property or enter into other real estate transactions could include population change, and customer preferences and expectations driven by the need to support the delivery of city programs and services across the corporation.

#### 5.2 DEMAND FORECASTS

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented in **Table 22**. Growth projections have been shown on **page 45** of the AM Plan Overview document. Where costs are known, these additional demands as well as anticipated operations and maintenance costs have been encompassed in the Lifecycle Models in **Section 8**.

CREO relies on the following tools to forecast demand:

- Program, capital and operating budgets;
- Program strategic/master plans;
- Program asset management plans;
- Infrastructure Environmental Assessments;
- Portfolio Planning Initiatives;
- City's Strategic and Official Plan; and,
- Council priorities and directed initiatives.

#### 5.3 DEMAND IMPACT AND DEMAND MANAGEMENT PLAN

The impact of demand drivers that may affect future service delivery and use of assets are shown in **Table 5.** Demand for new services will be managed through a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks, and managing failures.

Opportunities identified to date for demand management are shown in *Table 5*. Climate change adaptation is included in *Table 23*.

#### Table 5: Demand Management Plan

DEMAND DRIVER	CURRENT POSITION	PROJECTION	IMPACT ON SERVICES	DEMAND MANAGEMENT PLAN
Program Requirements	98 new property files assigned in 2022	Increasing demand for city services and program requirements (LRT (Light Rail Transit), water and wastewater, Parks etc), resulting in changes to the portfolio of land assets.	No impact if the department is fully staffed	Minimize Duration of Staff Vacancies (this may be inconsistent with gapping targets)
Program Requirements	Housing prioritization	Supply of affordable housing is an urgent societal issue for which Council has directed action respecting City- owned properties.	1-3 additional staff resources will be required to work on this portfolio	A program has been established to review the city real estate portfolio to identify opportunities to achieve affordable housing.

### 6. RISK MANAGEMENT

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk<sup>2</sup>.

The City has released a formalized risk assessment process to identify credible risks associated with service delivery and to implement proactive strategies to mitigate risk to tolerable levels. The risk assessment process will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. The risk assessment process also identifies the likelihood of those risks occurring, and the consequences should the event occur which calculates a risk rating. Risk options are then evaluated, and a risk treatment plan is created which will be initiated after the release of this plan and has been identified as a continuous improvement item in **Table 13**.

#### 6.1 CRITICAL ASSETS

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. There were no critical assets identified for CREO.

Where there are risks identified with critical program infrastructure and/or service delivery that involves the respective property, those risks and related mitigation measures are addressed in commensurate program AM Plans where identified by the service area. CREO is typically engaged by the respective program area to support efforts to manage the land assets and related risks.

#### 6.2 **RISK ASSESSMENT**

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, the development of a risk rating, the evaluation of the risk and the development of a risk treatment plan for non-acceptable risks.

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.

#### Table 6: Risks And Treatment Plans

Note \* The Residual Risk Is the Risk Remaining After the Selected Risk Treatment Plan Is Implemented.

SERVICE OR ASSET AT RISK	WHAT CAN HAPPEN	RISK RATING	RISK TREATMENT PLAN	RESIDUAL RISK *	TREATMENT COSTS
Land parcel	Land contamination	High	SOP development for standardizing Environmental Assessment for new land purchases	Medium	TBD
Land parcel	Trespassing, dumping, or encampment	High	High Surveillance		TBD
Land parcel	Encroachment	Medium	Patrolling (done by other service areas)	Medium	TBD
Staffing risk	Insufficient staff resources leading to missed opportunities	High	Staff retention plan and compensation policies	High	TBD
Service risk	The current process requires council approval for transactions over \$250K leading to missed opportunities.	High	Increase delegated authority level.	Medium	TBD
<b>Service risk*</b> *City-wide risk not unique to CREO	Inconsistent oversight on lease contracts under different departments may result in failure to ensure contractual obligations are met.	High	CREO is in the process of establishing a consolidated Lease Administration program that would see all Lease/License work be brought under one streamlined process and system.	Medium	TBD

### 6.3 INFRASTRUCTURE RESILIENCE APPROACH

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions the City needs to understand its capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience covers the capacity of the City to withstand any service disruptions, act appropriately and effectively in a crisis, absorb shocks and disturbances as well as adapting to ever-changing conditions. Resilience is built on aspects such as response and recovery planning, financial capacity, climate change risk, assessment, and crisis leadership.

We do not currently measure our resilience in service delivery and this will be included in the next iteration of the AM Plan.

#### 6.4 SERVICE AND RISK TRADE-OFFS

The decisions made in AM Plans are based on the objective of achieving the optimum benefits using the available resources.

The following table outlines what activities CREO cannot afford to do over the next 10 years with their existing budget and provides the associated service and risk tradeoffs.

#### Table 7: Service and Risk Trade-Offs

WHAT WE CANNOT DO (WHAT CAN WE NOT AFFORD OVER THE NEXT 10 YEARS?)	SERVICE TRADE- OFF (HOW WILL NOT COMPLETING THIS AFFECT OUR SERVICE?)	RISK TRADE-OFF (WHAT RISK CONSEQUENCES ARE WE UNDERTAKING?)
Not acquiring required properties due to budgets and resource limitations	Fewer acquisitions completed; priorities not being met	Delayed property acquisitions which may delay capital projects

### 7. CLIMATE CHANGE AND MITIGATION

Cities have a vital role to play in reducing the emission of greenhouse gases (mitigation), as well as preparing assets for the accelerating changes we have already begun to experience (adaptation). At a minimum, the City must consider how to manage our existing assets given the potential climate change impacts for our region.

Changes to Hamilton's climate will impact City assets in the following ways:

- Affect the asset lifecycle.
- Affect the levels of service that can be provided and the cost to maintain.
- Increase or change the demand on some of our systems; and
- Increase or change the risks involved in delivering service.

To quantify the above asset/service impacts due to climate change in the Asset Management Plan, climate change is considered as both a future demand and a risk for both mitigation and adaptation efforts. These demands and risks should be quantified and incorporated into the lifecycle models as well as levels of service targets.

If climate change mitigation/adaptation projects have already been budgeted, these costs have been incorporated into the lifecycle models. However, many asset owners have not yet quantified the effects of the proposed demand management and risk adaptation plans described in this section, and so associated levels of service and costs will be addressed in future revisions of the plan.

### 7.1 CLIMATE CHANGE MITIGATION

**Climate Mitigation** refers to human intervention to reduce GHG emissions or enhance GHG removals (e.g., electric vehicles, net-zero buildings). The City of Hamilton's Community Energy + Emissions Plan (CEEP includes five Low-carbon Transformations necessary to achieve the City's target of net-zero GHG emissions by 2050:

- Innovating our industry;
- Transforming our buildings;
- Changing how we move;
- Revolutionizing renewables; and
- Growing Green.

#### Mitigation Demand Analysis

These transformations were incorporated into the climate mitigation demand analysis for this service area by:

- Identifying the City's modelled targets for the low carbon transformations that applied to the service/asset;
- Discussing the impact, the targets would have on the service/asset; and
- Proposing a preliminary demand management plan for how this modelled target will be achieved by 2050.

As previously mentioned, due to the high level of uncertainty with the demand management plans for climate change, the cost of the demand impacts below may not have been included in the lifecycle models or levels of service at this time unless they were previously identified. The demand management plans discussed in this section should be explored by asset owners in more detail following the AM Plan, and new projects should incorporate GHG emissions reduction methods, and changes which will be incorporated into future iterations of the AM Plan.

Moving forward, the Climate Lens tool discussed in the AM Plan Overview will assess projects based on these targets and will assist with the prioritization of climate mitigation projects.

Since CREO acquires and possesses real property assets on behalf of corporate and program needs and plans, CREO will be required to respond to the land requirements identified by its client groups. At the time of this plan preparation, the following climate change mitigation transformations that have been identified, as an example are shown in *Table 8* below.

#### Table 8: Climate Change Mitigation Transformation

CLIMATE CHANGE MITIGATION TRANSFORMATION	MODELLED TARGET	IMPACT TO SERVICE/ASSET	DEMAND MANAGEMENT PLAN
Growing Green	Planting 50,000 trees a year through 2020	Trees will be incorporated in new build landscapes, without comprising security.	The requesting division can identify the location, size, and acceptable land conditions to plant trees.
Growing Green	Planting 50,000 trees a year through 2020	Acquisitions completed to conserve land	The demand to acquire property for land conservation is directed by Council.

#### **CURRENT MITIGATION PROJECTS**

Currently, there are no climate change mitigation projects being pursued by CREO.

### 7.2 CLIMATE CHANGE ADAPTATION

**Climate Adaptation** refers to the process of adjusting to actual or expected climate and its effects (e.g. building facilities that can handle new climate loads).

The impacts of climate change may have a significant impact on the assets we manage and the services they provide. Climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which those impacts are responded to and managed.<sup>3</sup>

In 2021, the City of Hamilton completed a Vulnerability and Risk Assessment Report guided by ICLEI's Building Adaptive and Resilient Communities (BARC) Framework as part of the Climate Change Impact Adaptation Plan (CCIAP) (ICLEI, 2021). The BARC Framework identified 13 high-impact areas.

#### Adaptation Demand Analysis

The impact areas were incorporated into the climate change adaptation analysis for this service area by:

- Identifying the asset-specific adaptation impact statements that affected the service areas;
- Discussing the potential impacts on the asset/service using the projected change in climate using the RCP4.5 Scenario; and,
- Proposing preliminary demand management plans to adapt to these impacts.

It is important to note that due to the high level of uncertainty with the demand management plans, the cost of the demand impacts below has not been included in the lifecycle and financial models at this time. The demand management plans discussed in this section should be explored by asset owners in more detail following the AM Plan, and new projects should consider these adaptation impacts during the planning and design processes. Once the demand management plans are finalized, the information will be incorporated into future iterations of the AM Plan.

Moving forward, a Climate Lens tool is currently being developed which will assess projects based on these targets and will assist with the prioritization of climate adaptation projects.

The adaptation impact statements identified by CREO staff which will have a potential impact on assets and services include temperature increases, and ice storms as shown in *Table 9* on the next page.

<sup>&</sup>lt;sup>3</sup> IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

#### Table 9: Managing the Demand of Climate Change on Assets and Services

ADAPTATION IMPACT STATEMENT	BASELINE** (1976 - 2005)	AVERAGE PROJECTED** CHANGE IN 2021-2050 (ASSUMING RCP4.5* SCENARIO)	POTENTIAL IMPACT ON ASSETS AND SERVICES	DEMAND MANAGEMENT PLAN
Changes in the frequency of extreme rainfall events will result in increased instances of flooding on private and public properties.	6.7 heavy precipitation days (20mm)	7.7 heavy precipitation days (20mm)	Properties located near floodplains may be more prone to future flooding	The property Acquisition process ensures circulation to subject matter experts who can comment on flood risk concerns, if any, as part of their regular review.
More frequent and intense heatwaves will increase instances of heat-related health and safety issues, particularly for households without access to reliable air- conditioning and the homeless	2.1 average annual heat waves	4.7 average annual heat waves	Increasing demand to build public amenities (such as recreation centers, and libraries) that can be used as cooling centers. Increasing demand to build more social housing.	Support the City in implementing cooling centers and social housing by completing Real Estate Tasks related to acquiring properties or real estate agreements for these purposes.

\*RCP4.5 Scenario: Moderate projected GHG concentrations, resulting from substantial climate change mitigation measures. It represents an increase of 4.5 W/m2 in radiative forcing to the climate system. RCP 4.5 is associated with 580-720ppm of CO2 and would more than likely lead to 3°C of warming by the end of the 21st century.

\*\*Baseline and Projected numbers based on the 2021 Climate Science Report.

#### ADAPTATION RISK ANALYSIS

Additionally, the City should consider the risks for the asset or service as a result of climate change and consider ways to adapt to reduce the risk. Adaptation can have the following benefits:

- 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.

Similar to the exercise above and using the risk process in **Section 1.6**, asset owners:

- Reviewed the likelihood scores in the Vulnerability and Risk Assessment Report for the adaptation impact occurring;
- Identified the consequence to the asset/service if the event did happen to develop a risk rating; and,
- If the risk was identified as high, the asset owner came up with a preliminary risk adaptation plan shown below in *Table 10.*

It is important to note that due to the high level of uncertainty with the climate change risk adaptation plans, the cost of mitigating the risks below has not been included in the lifecycle and financial models at this time. The adaptation plans discussed in this section should be explored by asset owners in more detail following the AM Plan, and new projects should consider these risks during the planning and design processes. Future changes will be incorporated into future iterations of the AM Plan. Moving forward, the Climate Lens tool will assess projects based on these targets and will assist with the prioritization of climate adaptation projects.

Adaptation Impact Statement	Service or Asset at Risk Due to Impact	What Can Happen	Risk Rating	Risk Adaptation Plan
Changes in the frequency of extreme rainfall events will result in increased instances of flooding on private and public properties.	Land assets	Land situated in flood plains may experience flooding during extreme rainfall events.	High	Property Management processes ensure that subject matter experts are consulted on flood risk concerns, if any, as part of their regular portfolio reviews and decision-making respecting the use of City properties.

#### Table 10: Adapting to Climate Change

#### **CURRENT ADAPTATION PROJECTS**

Currently, CREO does not have any current or past climate change adaptation-specific projects identified. The impact of climate change on assets and how the City will adapt is a new and complex discussion and further opportunities will be developed in future revisions of this AM Plan.

### 8. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City plans to manage these assets at the agreed levels of service and at the accepted lifecycle costs while excluding inflationary values. The costs included in this plan are from the Capital and Operating budget. Asset management focuses on how taxpayer or ratepayer dollars are invested by lifecycle activities and not by budget allocation. Since both budgets contain various lifecycle activities, they have been consolidated and separated by lifecycle activity in this section.

As a result of this new process, there may be some areas where the budget was not able to be broken down perfectly by lifecycle activity. Future AM Plans will focus on improving the understanding of Whole Life Costs and funding options. However, at this time the plan is limited in those aspects. Expenditure on new assets and services will be accommodated in the longterm financial plan but only to the extent that there is available funding.

#### 8.1 ACQUISITION PLAN

Acquisition reflects new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its current capacity. They may result from growth, demand, legal obligations or social or environmental needs.

#### **ACQUISITION PROCESS**

Any land acquisition goes through a process which involves Council approval (or Delegated Authority for real estate market value transactions less than \$250,000). Typically, the client divisions work with CREO to identify property needs and financial requirements from which funding approval is sought and obtained prior to initiating the acquisition process. Once the project funding has been approved, the CREO team initiates the acquisition process. The acquisition process includes property searches, due diligence (e.g., site visits, reviews, comparisons, market research), negotiations, and obtaining authority for the transaction itself. Each transaction will have a different timeline depending on the requirements and complexity of the file. With today's dynamic real estate market, there is a risk that the initial funding approved is no longer sufficient to purchase the desired property. The funding for acquisitions is typically held in the budgets of the area requesting the property as such acquisition costs and forecast needs are generally represented in those other individual AM Plans.

#### **SELECTION CRITERIA**

Proposed acquisition of new property assets are identified from various sources such as council priorities, divisional requests, proposals identified by strategic plans (master plans) or partnerships with third parties.

### 8.2 OPERATIONS AND MAINTENANCE PLAN

Operations include all regular activities to provide services. Daily, weekly, seasonal, and annual activities are undertaken by staff to ensure the assets perform within acceptable parameters and to monitor the condition of the assets for safety and regulatory reasons. Examples of typical operational activities include the following:

- **\$2.74M** allocated for employee-related costs in 2023 (i.e., salaries, wages, benefits, contractual agreement etc.); and,
- **\$0.21M** allocated annually starting in 2023 for materials, third-party services and administrative assets operating costs.

There are no maintenance activities identified for CREO as it is an operationally focused group.





CREO budgets consist mainly of operation activities and have sufficient operating budget for these activities, there is no funding gap identified for operational activities.

### 8.3 RENEWAL PLAN

Renewal is major works which does not increase the asset's design capacity but restores, rehabilitates, replaces, or renews an existing asset to its original service potential. Works over and above restoring an asset to its original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs

Asset renewals are typically undertaken to either ensure the asset's reliability or quality will meet the service requirements set out by the City. Renewal projects are often triggered by service quality failure and can often be prioritized by those that have the highest consequence of failure, have high usage, have high operational and maintenance costs and other deciding factors.

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in *Table 11* and are based on the estimated design life for this iteration. Future iterations of the plan will focus on the Lifecycle approach to ESL which can vary greatly from design life.

#### Table 11: Useful Lives of Assets

ASSET SUBCATEGORY	ESTIMATED SERVICE LIFE (YEARS)
Land Assets	N/A
Laptops and Tablets	4-5

The estimates for renewals in this AM Plan were based on the register method which utilizes the data from the City's asset registry to analyze all available lifecycle information and then determine the optimal timing for renewals based on the ESL.

#### **RENEWAL RANKING CRITERIA**

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g., Facilities can process required volumes); or,
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g., Vehicles are reliable).<sup>4</sup>

Future methodologies may be developed to optimize and prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure;
- Have high use and the subsequent impact on users would be significant;
- Have higher than expected operational or maintenance costs; and,
- Have the potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.<sup>5</sup>

<sup>&</sup>lt;sup>4</sup> IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

<sup>&</sup>lt;sup>5</sup> Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

#### SUMMARY OF FUTURE RENEWAL COST

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in *Figure 5.* 

In the figure below, Generation 1 (Gen 1) costs refer to renewals that occur for the first time in the model based on the estimated service life and Generation 2+ (Gen 2+) costs refer to renewals that have occurred twice or more based on the estimated service life.



#### *Figure 5: Forecast Renewal Costs* All figure values are shown in 2023 dollars.

The amount in the model above highlighted in red in 2023 represents the cumulative backlog of deferred renewals. The backlog represents \$1,803 of deferred renewals.

The renewal costs, backlog and forecast relate to Administrative Assets only. There is a sufficient budget to support the planned renewals.

### 8.4 DISPOSAL PLAN

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, possible closure of service, decommissioning, or relocation.

CREO regularly reviews all City-owned properties and evaluates which of these assets should be repurposed and if no suitable use is available, disposed of through sale or lease. The property is also reviewed to determine whether any action is required such as Official Plan amendments, rezoning, servicing, or other activities that would be appropriate and necessary to achieve the highest and best use of the land and to maximize the highest net return. If a land parcel has been identified as surplus to the current department's needs, the land parcel listing is circulated to all City Departments to determine interest. The feedback received from the circulation is discussed at the Portfolio Management Committee and a direction is determined by that committee. If the decision is to dispose of the property, a report is submitted to the General Issues Committee and Council, seeking approval to declare the property surplus. The report will also include a recommended manner of disposal (e.g., sell the property on the open market at fair market value, sell to the adjacent property owner, etc.).

### 8.5 LIFECYCLE COST SUMMARY

For ongoing projects, the assumption was that the projected funding requirements match the available funding, resulting in no identified gap between the forecasted needs and the proposed budget. While there could be a potential funding shortfall or gap for the service area, due to data constraints, it is not able to be populated for this iteration of AM Plan.

There is sufficient budget to address the planned lifecycle activities for the 2023-2052 planning period, under current assumptions. The City will continue to improve its lifecycle data, and this will allow for informed choices as to how best to estimate the planned budget required for acquisitions, how to expedite transactions for high priority projects and to improve overall business process to aid in smooth transactions.

#### Figure 6: Lifecycle Summary

All Figure Values are shown in 2023 Dollars.



### 9. FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. Effective asset and financial management will enable the City to ensure CREO provides the appropriate level of service for the City to achieve its goals and objectives. Reporting to stakeholders on service and financial performance ensures the City is transparently fulfilling its stewardship accountabilities.

It is key to understand that CREO budgets only relate to its service delivery activities. Costs and budgets related to meeting demand, ensuring supply, quality, suitability, and ongoing maintenance of real property are managed within client/program budgets. Henceforth, maintaining appropriate levels of CREO services to enable the City to achieve its goals and objectives is not addressed in this AM Plan, rather is a function of annual operating and capital budgeting processes.

#### 9.1 SUSTAINABILITY OF SERVICE DELIVERY

There are two key indicators of sustainable service delivery that are considered within the AM Plan for this service area. The two indicators are the:

- Asset renewal funding ratio (proposed renewal budget for the next ten years/forecast renewal costs for next ten years); and,
- Medium-term forecast costs/proposed budget (over ten years of the planning period).

#### ASSET RENEWAL FUNDING RATIO

#### Asset Renewal Funding Ratio<sup>6</sup> 98%

The Asset Renewal Funding Ratio is used to determine if the City is accommodating asset renewals in an **optimal** and **cost-effective** manner from a timing perspective and relative to financial constraints, the risk the City is prepared to accept and targeted service levels it wishes to maintain. The target renewal funding ratio should be ideally between **90% - 110%** over the entire planning period. A low indicator result generally indicates that service levels are achievable, however, the expenditures are below this level in some service areas predominantly due to underinvestment, including a lack of permanent infrastructure funding from senior levels of government, as well as large spikes of growth throughout the years.

If assets are not renewed at the appropriate time, it will inevitably require difficult trade off choices that could include:

- A reduction of the level of service and availability of assets;
- Increased complaints and reduced customer satisfaction;
- Increased reactive maintenance and renewal costs; and,
- Damage to the City's reputation and risk of fines or legal costs.

<sup>&</sup>lt;sup>6</sup> AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p9.

Asset renewal funding ratio is based only on Administrative assets for CREO as property assets have an indefinite estimated service life and do not undergo a usual asset lifecycle, as discussed in **Section 1.1.** 

#### MEDIUM-TERM – 10 YEAR FINANCIAL PLANNING PERIOD

10-Year Operating, Maintenance & Renewal Ratio **100%** 

Although this AM Plan includes forecast projections to 30 years, the higher confidence numbers are typically within the first ten (10) years of the lifecycle forecast. The 10-year Lifecycle Financial Ratio compares the Planned Budget with the Lifecycle Forecast for the optimal operation, maintenance, and renewal of assets to provide an agreed level of service over the next 10-year period. Similarly, to the AARF, the optimal ratio is also between 90-110%. A low ratio would indicate that assets are not being funded at the rate that would meet the organization's risk and service level commitments.

The forecast operations, maintenance and renewal costs over the 10-year planning period is **\$3.75M** on average per year. Over time as improved information becomes available, it is anticipated to see this number change. The proposed (budget) operations, maintenance and renewal funding is **\$3.75M** on average per year giving a 10-year funding shortfall of **\$0** per year. This indicates that 100% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget, which is inside of the 90-110% range. Therefore, it can be concluded that CREO is funding its assets at an acceptable rate. Note, that these calculations exclude acquired assets and land values at this time.

While no funding gap has been identified in the current iteration of the AM Plan, it's acknowledged that a potential gap may emerge in future iterations. CREO is actively enhancing its asset lifecycle data, forecasting needs, and estimating planned budgets to address this. Over the next three years, efforts will be directed at refining this potential gap, aiming to boost confidence and accuracy to align with O. Reg. 588/17 requirements. The goal is to present proposed levels of service and a funding strategy in the subsequent iteration of the AM Plan.

If the funding shortfall or funding gap is identified, it does not need to be addressed immediately. The overall gap in funding city-wide will require vetting, planning and resources to begin to incorporate gap management into the future budgets for all City services. This gap will need to be managed over time to reduce it in a sustainable manner and limit financial shock to customers. Options for managing the gap include.

- Financing strategies increased funding, block funding for specific lifecycle activities, long-term debt utilization;
- Adjustments to lifecycle activities increase/decrease maintenance or operations, increase/decrease frequency of renewals, limit acquisitions or dispose of underutilized assets; and,
- Influence level of service expectations or demand drivers.

These options and others will allow Hamilton to ensure the gap is managed appropriately and ensure the level of service outcomes the customers desire.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to eventually achieve a financial indicator of **90-110%** for the first years of the AM Plan and ideally over the ten-year life of the Long-Term Financial Plan

#### 9.2 FORECAST COSTS (OUTLAYS) FOR THE LONGTERM FINANCIAL PLAN

*Table 11* 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 operational and capital budget. The city will begin developing its long-term financial plan (LTFP) to incorporate both the operational and capital budget information and help align the LTFP to the AM Plan which is critical for effective asset management planning.

These options will be explored in the next AM Plan and the city will provide analysis and options for Council to consider going forward.

YEAR	ACQUISITION	OP	ERATION	MAINTENANCE	REN	IEWAL	DISF	OSAL
2023	\$ -	\$	3,687,234	\$ -	\$	11,942	\$	262,741
2024	\$ -	\$	3,762,270	\$ -	\$	12,060	\$	183,233
2025	\$ -	\$	3,770,390	\$ -	\$	12,179	\$	9,299
2026	\$ -	\$	3,866,099	\$ -	\$	12,217	\$	9,299
2027	\$ -	\$	3,741,197	\$ -	\$	12,217	\$	9,299
2028	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2029	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2030	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2031	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2032	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2033	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2034	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2035	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2036	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2037	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2038	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2039	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299

#### Table 12: Forecast Costs (Outlays) For the Long-Term Financial Plan \*\* Forecast Costs Are Shown In 2023 Dollar Values

YEAR	ACQUISITION	OP	ERATION	MAINTENANCE	REN	IEWAL	DISP	OSAL
2040	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2041	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2042	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2043	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2044	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2045	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2046	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2047	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2048	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2049	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2050	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2051	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299
2052	\$ -	\$	3,708,608	\$ -	\$	12,217	\$	9,299

CREO council approved net budget is \$415K but as CREO is a revenue-generating service area, its \$3.48 M is generated by CREO through the sale of municipal assets, reported in-house cost savings, administrative cost recoveries from capital projects and, a portion of the Planner's cost, through the Development Fee Stabilization Reserve. These offsetting revenues and cost allocations self-fund CREO operational costs as \$2.7M employee-related costs shown in *Section 8.2.* 

#### 9.3 FUNDING STRATEGY

The proposed funding for assets is outlined in the city's operational budget and capital budget.

These operational and capital budgets determine how funding will be provided, whereas the AM Plan typically communicates how and when this will be spent, along with the service and risk consequences. Future iterations of the AM plan will provide more detailed service delivery options and alternatives to optimize limited financial resources.

### 9.4 VALUATION FORECAST

Asset values are forecast to increase as additional assets are added into service. As projections improve and can be validated with market pricing, the net valuations will likely increase significantly despite some assets being programmed for disposal that will be removed from the register over the 30-year planning horizon

Additional assets will 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. Any disposals of assets would decrease the operations and

maintenance needs in the longer term and remove the high costs of renewal obligations. At this time, it is not possible to separate the disposal costs from the renewal or maintenance costs however this will be improved for the next iteration of the plan.

9.5 ASSET VALU	ATION
Replacement Cost (Current/Gross)	\$56,739*
Depreciable Amount	\$56,739*
Depreciated Replacement Cost <sup>7</sup>	\$31,045*
Depreciation	\$13,930*
*Those valuations do not include la	nd assot valuo

The current replacement cost is the most common valuation approach for specialized infrastructure assets. The methodology includes establishing a comprehensive asset registry, assessing replacement costs (based on market pricing for the modern equivalent assets) and useful lives, determining the appropriate depreciation method, testing for impairments, and determining remaining useful life.

As the City matures its asset data, it is highly likely that these valuations will fluctuate significantly over the next three years, and they should increase over time based on improved market equivalent costs as well as anticipated cost changes due to climate change mitigation and adaptation strategies.

#### 9.6 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 made in this AM Plan are:

- For this iteration of the AM Plan, future needs were assumed to be equal to the planned budget, and no funding gap was identified; and,
- Operational forecasts are based on the current budget and are the basis for the projections for the 10-year horizon and encompass additional operational needs that were known and on anticipated budget proportions when unknown.

<sup>&</sup>lt;sup>7</sup> Also reported as Written Down Value, Carrying or Net Book Value.

#### 9.7 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 defined on **Page 31** in the AM Plan Overview.

The estimated confidence level for and reliability of data used in this AM Plan is considered to be a **Medium** confidence level.

DATA	CONFIDENCE ASSESSMENT	COMMENT	
Demand Drivers	Low	Expected demand drivers of program area growth are implemented in the report.	
Operation Forecast	Low	The first four years are accurate, the remaining 26 are projected forward based on the 2024-2026 multi-year operation budget.	
Renewal Forecast – Asset Values	High	Asset Values are based on information from the IT group.	
-Asset Useful Lives	High	Useful Lives are based on information from the IT group.	
-Condition Modelling	Low	Administrative Assets are based on age only.	
Disposal Forecast	Low	High-level disposal forecast estimated for this AM Plan. A good understanding of disposal forecast will improve future iterations of this AM Plan.	
Asset Useful Lives	Medium	Administrative Assets are not always replaced per their renewal schedule, and so these may need to be reviewed in future.	

#### Table 13: Data Confidence Assessment for Data Used in AM Plan

### **10. PLAN IMPROVEMENT AND MONITORING**

### **10.1 STATUS OF ASSET MANAGEMENT PRACTICES<sup>®</sup>**

#### ACCOUNTING AND FINANCIAL DATA SOURCES

This AM Plan utilizes accounting and financial data. The sources of the data are:

- 2023 Capital & Operating Budgets;
- 2024 2026 Multi-Year Operating Forecast;
- Various internal reports;
- Asset Management Data Collection Templates;
- Financial Exports from internal financial systems; and,
- Historical cost and estimates of budget allocation based on Subject Matter Expert (SME) experience.

#### ASSET MANAGEMENT DATA SOURCES

This AM Plan also utilizes asset management data. The sources of the data are:

- Data extracts from various city databases;
- Asset Management Data Collection Templates;
- Development Charges Collection Template; and,
- Subject matter Expert Opinion and Anecdotal Information.

#### **10.2 IMPROVEMENT PLAN**

It is important that the city recognize areas of the AM Plan and planning processes that require future improvements to ensure both effective asset management and informed decision-making. The tasks listed below are essential to improving the AM Plan and the city's ability to make evidence-based and informed decisions. These tasks span from improved lifecycle activities and improved financial planning to physically improving the assets.

The Improvement Plan **Table 14** below highlights proposed improvement items that will require further discussion and analysis to determine feasibility, resource requirements and alignment to current work plans. Future iterations of this AM Plan will provide updates on these improvement plans. The costs and resources to complete each of these tasks have not been included in the lifecycle models to data, and resource requirements would need to be reviewed for internal resource-driven projects.

<sup>&</sup>lt;sup>8</sup> ISO 55000 Refers to this as the Asset Management System

# Table 14: Improvement Plan\*- per annum

#	TASK	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
1.	Develop Technical Levels of Service (KPIs) in the future iteration of the AM Plan	CREO/CAM	\$2000 Internal Resources or 15 FTE hours Management	2024-2025
2.	Investigate the potential for calculating land replacement values for future AM Plans	CREO	TBD	TBD
3.	Reconcile Real Estate portfolio in GIS to ensure all properties are captured in one dataset	CREO	\$40,000 Internal Resources or 1000 FTE hours and student hours	2024-2025
4.	Implement a Lease Administration Management program	CREO	TBD	2025
5.	Request an Increase in Delegated Authority levels from Council	CREO	TBD	TBD
6.	Identify any additional risks and trade-offs/shortfalls and develop detailed risk management plans with treatment costs through an annual risk review process	CAM / CREO	TBD	TBD
7.	Alignment of asset management with a portfolio management framework	CAM / CREO	TBD	TBD
8.	Develop a 5-point condition scale for land assets based on land functionality parameters identified by CREO	CREO	TBD	TBD

#### **10.3 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 a regular basis to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets. These forecast costs and proposed budget will be incorporated into the Long-Term Financial Plan once completed.

#### **10.4 PERFORMANCE MEASURES**

The effectiveness of this AM Plan can be measured in the following ways:

- The degree to which the required forecast costs identified in this AM Plan are incorporated into the long-term financial plan; and,
- The degree to which the one to ten-year detailed works programs, budgets, business plans and corporate structures consider the 'global' work program trends provided by the AM Plan.

The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans.