	<b>Asset Management Policy</b>	
	<b>Policy Category:</b> <i>corporate-wide</i>	
	<b>Policy No.:</b> <i>(Follow corporate standard, assigned by Clerk's Dept.)</i>	<b>Implementing Procedure No.:</b> <i>(Follow corporate standard, assigned by Policy Author)</i>
<b>Approving Authority:</b> <i>Council</i>		<b>Effective Date:</b> <i>(Date of this policy has been approved to become effective)</i>
<b>Approved or Last Reviewed Date:</b> <i>N/A</i>		<b>Next Review Year: 2024</b> <i>(Every 5 years)</i>
<b>Area(s) this policy applies to:</b> <i>City Wide</i>		<b>Owner Department:</b> <i>Sustainability &amp; Asset Management</i>
<b>Related Policy(ies):</b> <ul style="list-style-type: none"> <li>• <i>O. Reg. 588/17 Asset Management Planning for Municipal Infrastructure made under the Infrastructure For Jobs and Prosperity Act, 2015</i></li> </ul>		

## 1. Policy Statement

The City of Markham will ensure infrastructure are planned, built and maintained effectively through sound Asset Management principles and practices to meet its strategic goals and deliver services in a socially, economically and environmentally responsible manner.

## 2. Purpose

Asset Management in the City is to be guided by the following objectives:

- A.** Align Asset Management practice with the City of Markham's Strategic Plan, *Building Markham's Future Together (BMFT)*, and other key strategic documents, including the *Greenprint*, *Markham's Community Sustainability Plan*, and the *Official Plan*;
- B.** Ensure strong governance, accountability and transparency by:
  - a. Demonstrating to owners, customers and stakeholders that services are delivered effectively and efficiently;
  - b. Providing a transparent and auditable basis for making service/risk/cost trade-off decisions; and
  - c. Improving accountability for use of resources through performance and financial metrics
- C.** Make effective and long term sustainable decisions by:
  - a. Having robust information/documentation to support evidence-based decisions;
  - b. Considering viable options and all aspects of decisions; and
  - c. Ensuring total cost of ownership is the basis of decision making processes, so that emphasis is placed on sustainable long term efficiencies rather than short term gains
- D.** Provide customer service by:
  - a. Defining level of service in consultation with stakeholders; and

- b. Ensuring service delivery meets the defined level of service
- E. Manage risk effectively by:
  - a. Understanding the risks related to asset management and service delivery and applying a framework to prioritize risk mitigation
  - b. Developing and implementing risk management strategies; and
  - c. Demonstrating compliance with legal and regulatory requirements;
- F. Demonstrate fiscal stewardship and financial efficiency through:
  - a. Balancing cost, risk and service performance to achieve the lowest total cost of ownership; and
  - b. Updating the Life Cycle Reserve Study annually to determine if there are sufficient funds in the reserve to sustain the future replacement and rehabilitation requirements of the City's assets for the next 25 years based on known inflows and outflows.
- G. Provide excellent sustainable community planning and infrastructure management to accommodate growth.

### 3. Definitions

For consistency, terminology in all official asset management documents shall be consistent with ISO 55000:2014(E) – International Standard for Asset Management.

For the purpose of this document, the following definitions apply:

**Asset:** Item, thing or entity that has potential or actual value to an organization. Value can be tangible or intangible financial or non-financial, and includes consideration of risks and liabilities.

**Asset Management:** Coordinated activity of an organization to realize value from assets. Realization of value will normally involve an appropriate balancing of costs, performance and risks, opportunities and performance benefits.

**Asset Management Plan:** Documented information that specifies the activities, resources, and timescales required for an individual asset, or grouping of assets, to achieve the organization's asset management objectives.

**Level of Service:** Parameters or a combination of parameters, which reflect social, political, environmental and economic outcomes that an organization delivers from their assets.

**Life Cycle:** Phases involved in the management of an asset.

**Asset Manager:** All employees of the City that have a direct and/or indirect link to assets

#### 4. Guiding Principles

**A. Customer Focused:**

The City will apply asset management practices to promote confidence of customers in how City assets are managed.

**B. Service focused:**

The City will consider all the assets in a service context and take into account their inter-relationships as opposed to optimizing individual assets in isolation.

**C. Risk-based**

The City will manage the asset risk associated with attaining the agreed level of service by focusing resources, expenditures and priorities based upon risk assessments and the corresponding cost/benefit, recognizing that public safety is a priority.

**D. Value-based / Affordable**

The City will choose practices that aim at reducing the life cycle cost of asset ownership, while satisfying agreed level of service. Decisions are based on balancing pre-determined service level, acceptable risks, and minimizing costs.

**E. Forward Looking:**

The City will make the appropriate decisions and provisions to better enable its assets to meet future challenges, including changing demographics and populations, customer expectations, legislative requirements, technological and environmental factors.

**F. Holistic**

The City will take a comprehensive approach that looks at the “big picture” and considers the combined impact of managing all aspects of the asset life cycle.

**G. Systematic**

The City will adopt a formal, consistent, repeatable and standardized approach to the management of its assets that will ensure services are provided in the most effective manner.

**H. Innovative**

The City will continually improve its asset management approach, by driving innovation in the development of tools, practices, and solutions.

The City will adopt and adhere to the asset managing planning principles listed in Section 3 of the Infrastructure for Jobs and Prosperity Act, 2015.

**5. Application**

The City of Markham relies on a wide range of diversified assets to provide services to its customers at the agreed Level of Service. Service is critically important to the well being of present and future customers and it drives the implementation of a structured approach to asset management.

This policy applies to all assets related service provision such as Right of Way Assets (Roads, Storm Water Management, Bridges, Streetlight, Traffic Light, Water, and Wastewater), Parks, Facilities, Community Centers, Libraries, Library Collections, Fire Equipment, IT infrastructure, and Fleet.

This policy applies to all departments and employees of the City that have a direct and/or indirect link to assets.

**6. Asset Management Framework**

To meet the objectives of this policy, the City will follow Asset Management Framework in Figure 1. The Framework describes the business processes and asset management activities, and illustrates the relationships between those activities.

The Framework consists of several major elements:

**A. Regulatory Requirements, Business Drivers**

Business Drivers are the external influences that govern how the infrastructures are managed and set overall expectations of how the departments operate, including, but not limited to:

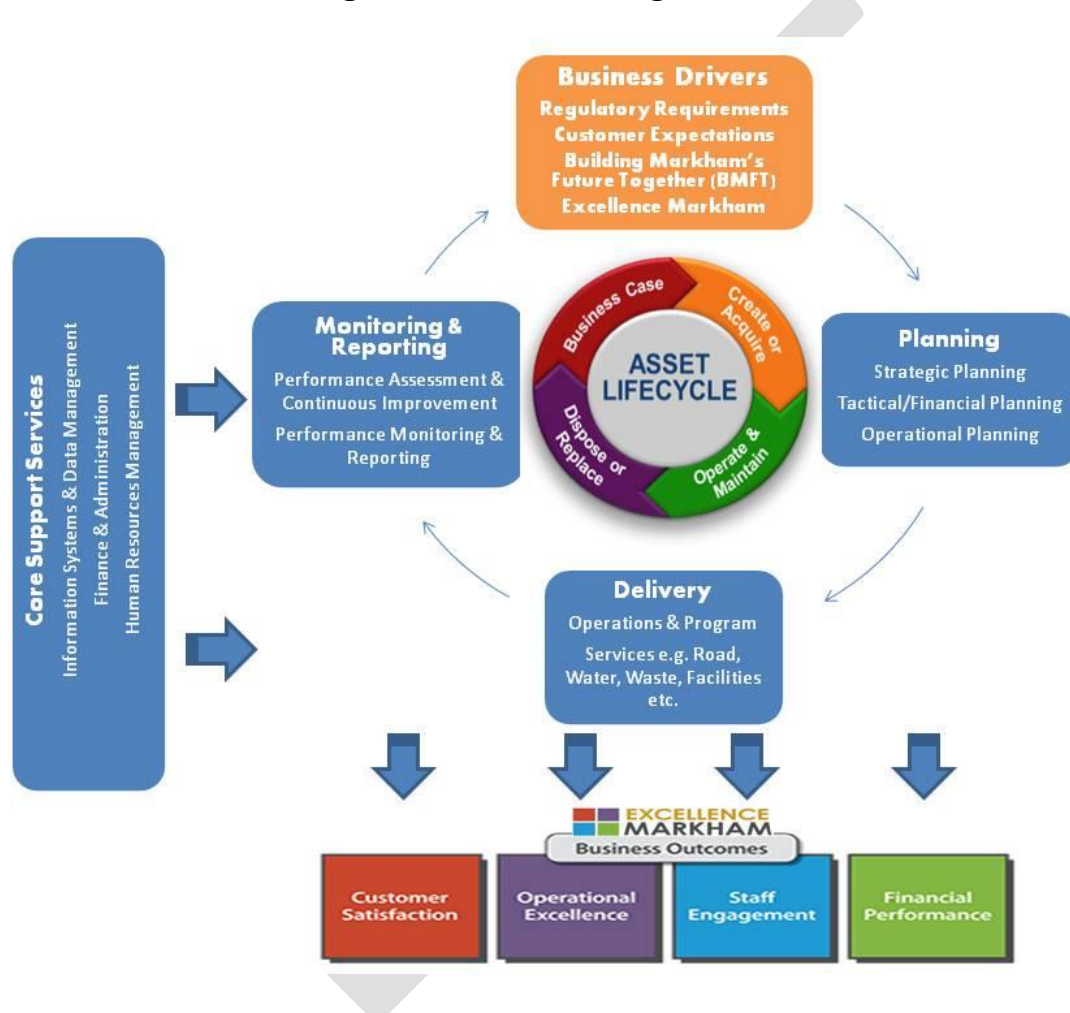
- a. Customer requirements (residents and businesses);
- b. Corporate goals and strategies;
- c. Regulatory requirements, such as the Safe Drinking Water Act, the Ontario Water Resources Act, Fire Code, the Highway Traffic Act, the Municipal Act and provincial regulation Minimum Maintenance Standards for Municipal Highways, Regional By-law requirements, municipal by-laws requirements, the Planning Act and Places to Grow requirements; and

- d. Environmental factors, such as the economy, technology innovations, political and social priorities.

## B. Core Processes supported by Core Support Services

The underlying structure is based on the all encompassing PDCA (Plan Do Check Act) cycle to control and continuously improve on processes and products.

**Figure 1 - Asset Management Framework**



- Planning** - Converts the Business Drivers (Orange) into a set of operational plans that describe how the department will deliver the service.
- Delivery** - Refers to the actual delivery of the services to the customers, both internal and/or external.
- Monitoring and Reporting** - Also known as performance management checks that measures if the department is doing what it intended/planned to do, including:
  - Monitoring and reporting actual results against targets over time;

- ii. Conducting results based benchmarking against internal and external data sets;
- iii. Assessing gaps, and reporting on lessons learned; and
- iv. Assessing if the results meet the Business Drivers (orange) and applying continuous improvement to the Planning and Delivery.

- d. **Core Support Services** - The Core Support Services include finance and administration, information systems and data management, and human resources management, which provide the necessary support to Business units to successfully manage infrastructure.

### **C. Asset Life Cycle**

Centred amongst the Business Drivers, and overlaying the Plan-Do-Check-Act cycle, is the management of physical infrastructure. This Asset Management Cycle describes how the various assets are managed.

The Asset Lifecycle includes:

- a. Asset procurement, creation or acquisition - to provide assets to meet current and future needs while achieving the defined levels of service and risks;
- b. Asset operations, maintain – to maintain an asset to meet the required functional condition and/or extend its life; and
- c. Asset disposal, replace - To rebuild or replace an asset to restore it to a required functional condition.

### **D. Excellence Markham Business Outcomes**

The City use Excellence Canada's Excellence Framework for municipalities to guide how the organization is managed, focusing on areas of Customer Satisfaction, Operational Excellence, Staff Engagement, and Financial Performance. Asset Management Framework aligns to the Excellence Markham Business outcomes.

## **7. Responsibilities**

### **A. Customers**

Customers include both internal and external customers who receive and experience service delivery.

- a. Participate in stakeholder engagement initiatives, where applicable;
- b. Provide feedback related to levels of service and experience; and
- c. Report concerns related to assets.

### **B. Asset Managing Departments**

Asset managing departments comprise of Environmental Services, Operations, Sustainability & Asset Management, Recreation, Library, Engineering, Information Technology Services, Economic Growth, Culture & Entrepreneurship and Fire. These departments are to:

- a. Lead and implement the asset management process for assets under their accountability including the development, implementation, operation and continuous improvement of departmental asset management programs;
- b. Include all assets in life cycle studies;
- c. Liaise with Finance to update long term financial forecasts, which will ensure that sustainable financial strategies support asset life cycle needs; and provide asset management requirements as inputs to the annual budget process;
- d. Participate in the development of the Asset Management Plans pertaining to assets under each department's accountability and related asset management initiatives; and
- e. Engage customers to obtain feedback on levels of service and asset management planning and incorporate feedback.

### **C. Corporate Asset Management Steering Committee – Executive Lead**

The Corporate Asset Management Steering Committee comprises of Director of Environmental Services, Director of Operations, Director of Sustainability & Asset Management, Director of Engineering, Treasurer, Director of Recreation, and Chief Information Officer. Corporate Asset Management Steering Committee serves as executive lead for asset management planning.

- a. Develop and update Asset Management Policy and Asset Management Plan;
- b. Ensure systematic and uniformity of approach across the organization;
- c. Ensure all Assets identified in Asset Management Plan are included in the City's Life-Cycle Replacement and Capital Reserve Study or the City's Water and Wastewater Reserve Study;
- d. Align asset management planning to address vulnerabilities caused by climate change and to support implementation of the City's Emergency Management Plan;
- e. Encourage information sharing and collaboration across departments;
- f. Disseminate Steering Committee information within applicable departments where necessary;
- g. Ensure organization-wide accountability for achieving and reviewing corporate asset management goals and objectives;
- h. Review asset management programs; and
- i. Consider opportunities to coordinate asset management planning with the Region of York and neighbouring municipalities



- j. Select the Chair from among the committee members and define the process, term(s) and address any other governance matters necessary for the efficient function of the committee.

**D. Executive Leadership Team**

Executive leadership team comprises of Chief Administrative Officer (CAO), Commissioner of Community and Fire Services, Commissioner of Corporate Services, Commissioner of Development Services, City Solicitor and Director of Human Resources.

- a. Endorse Asset Management Policy and Plan;
- b. Ensure alignment of Asset Management Policy and Plan with corporate strategies and objectives;
- c. Champion asset management practices at the corporate level; and
- d. Ensure compliance with the plan for assets within their commission

**E. Council**

- a. Approves Asset Management Policy and Plan;
- b. Serves as the representative of customers; and
- c. Approves funding to meet the objectives and outcomes of the Asset Management Plan.

**8. Reference**

- A. O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure;
- B. Infrastructure for Jobs and Prosperity Act, 2015, S.O. 2015, c. 15;
- C. International Infrastructure Management Manual, Institute of Public Works Engineering Australasia; and
- D. ISO 55000:2014(E) – Asset Management – Overview, Principles and Terminology, International Organization for Standardization (ISO)

**9. Non-Compliance**

Accountability and compliance with this policy is the responsibility of all Asset Managers and the Corporate Asset Management Steering Committee.

**10. Contact**

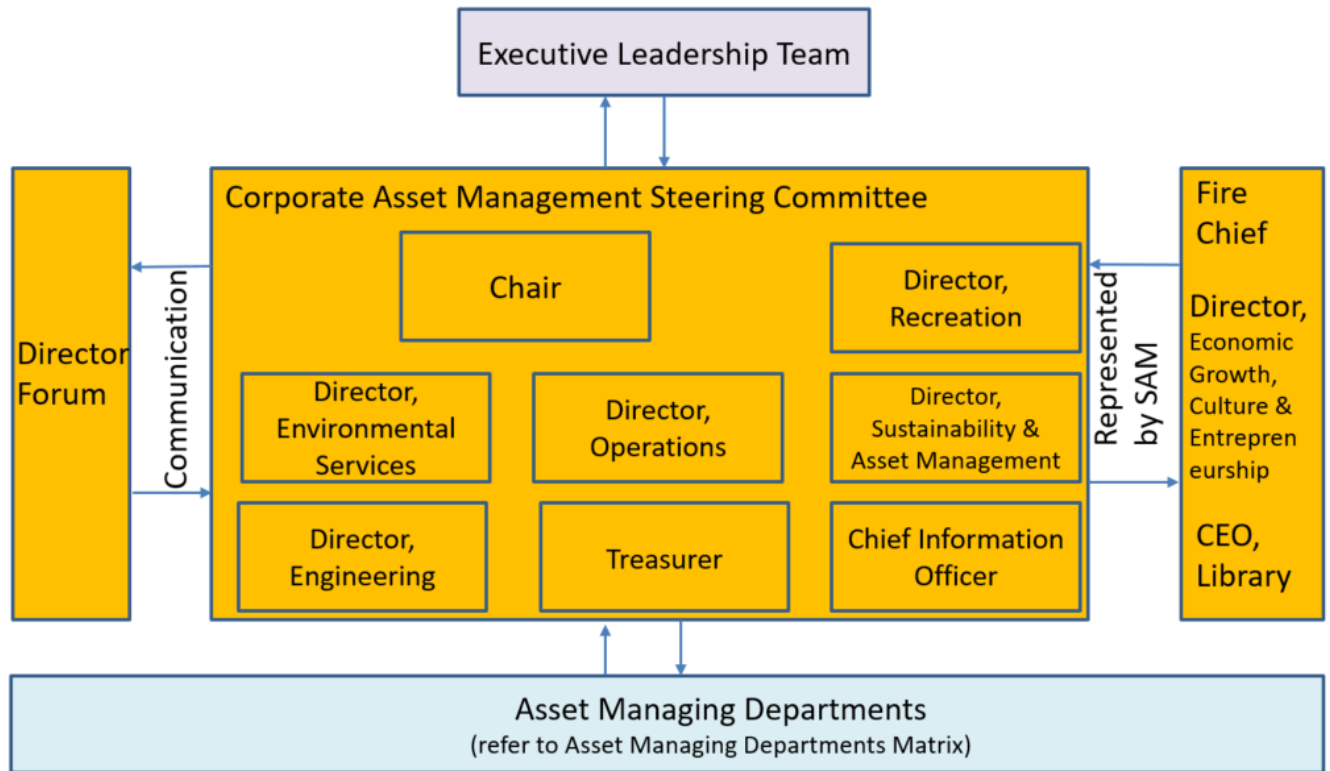
Director, Sustainability and Asset Management

**11. Appendix**

Asset Management Organization Structure



## Appendix: Asset Management Organization Structure





## Asset Management Policy

Policy No.:

Implementing Procedure No.:

### Asset Managing Departments Matrix

Asset	Asset Construction / Procurement	Asset Operation & Maintenance	Asset Rehabilitation/Replacement (Life Cycle)
Water / wastewater	ENG	ES	ES
Storm Water Management			
Bridges / Culverts			
Streetlight			
Roads	ENG	OP	OP
Parks	UD		
Fleet	OP		
Traffic Light	ENG	ENG	ENG
IT infrastructure	ITS	ITS	ITS
Libraries	SAM	LIB/REC	SAM/LIB/REC
Facility Buildings (including Fire Stations, Culture and others)		SAM	SAM
Community Centres		REC	REC/SAM
Library / Facility / Community Center Exterior Property*	SAM	OP/others*	OP/others*
Library Collections	LIB	LIB	LIB
Fire Equipment	FIRE	FIRE	FIRE

Note:

\* Refer to detailed roles and responsibilities for each fire station / library / facility / community center exterior property within SAM

ES: Environmental Services

OP: Operations

SAM: Sustainability and Asset Management

ITS: IT Services

ENG: Engineering

LIB: Library

REC: Recreation

UD: Urban Design

Fire