



ADMINISTRATION POLICY:

Asset Management

Policy number:	GN-001
ALT report:	ALT2010-056
Approved by:	Administrative Leadership Team (ALT)
Effective date:	2010 / 07 / 27
Next revision due:	2013 / 07 / 27
Department/BU:	Corporate Services / Infrastructure and Information Services (Corporate Asset Management)

BACKGROUND

At the Wednesday, July 30, 2003 Standing Policy Committee (SPC) meeting on Operations and Environment, the SPC approved and endorsed the creation of a Corporate Asset Management Program to be applied to all business units.

In February 2004, the SPC on Land and Asset Management approved “Calgary’s Asset Management Strategy”, which outlines the key principles, elements and high-level objectives of a Council policy and strategy for asset management. This led to the creation of the Corporate Asset Management Division (“Corporate Asset Management”) within the Infrastructure Services Business Unit (“Infrastructure Services”) of the Corporate Services Department. Corporate Asset Management, in partnership with business units, develops and implements asset management best practices within The City.

The 2009-2011 Council priorities, specifically Council Strategic Goal 6 on safe, reliable infrastructure and Priorities 18 and 19, instruct the Corporation of the City of Calgary (“The City”) to create a plan to ensure safe, reliable (business continuity), public infrastructure and improve the quality of The City’s asset information. In order to fulfil this plan, the goals, priorities and strategies are being embedded into corporate administration through the establishment of this administrative policy.

PURPOSE

The purpose of this policy is to govern the practice of asset management within The City of Calgary.

DEFINITIONS

1. Asset Management – The Publicly Available Specification (PAS) 55 defines asset management as: “The systematic and coordinated activities and practices through which an organization optimally and sustainably manages its assets and asset systems, their associated performance, risks and expenditures over their lifecycles for the purpose of achieving its organization strategic plan.” In the document “Calgary’s Asset Management Strategy”, asset management is said to include “...a set of engineering, financial and business tools...to balance limited financial resources for The Corporation’s infrastructure investment based on risk and life-cycle need.”
2. Refer to The City’s “Asset Management Guidelines”, available from Infrastructure Services, Corporate Asset Management, for a list of other definitions.

POLICY

1.0. Scope/Exceptions

1.1. Scope

This policy, at a minimum, applies to those areas or business units within The City that “manage” tangible capital assets or asset systems in the ultimate delivery of services to the citizens of Calgary.

1.2. Exceptions

The asset management system does not replace existing corporate strategy, business planning and budget management system and processes already in place. Instead, the asset management system complements and aligns to these initiatives, with the intent to provide an asset-centric point of view that supports business strategies, objectives and plans.

2.0. Consequences of Non-Compliance

2.1. Failure to adhere to this policy may result in:

- a. The risk that The City is not investing in safe and reliable infrastructure at the most optimal times in the asset’s lifecycle. This

risk potentially compromises the safety and service delivery provided by The City's infrastructure in either the short or long term.

- b. The risk of sub-optimal planning for growth, maintenance and replacement of existing assets and the development of new assets. This risk potentially compromises The City's ability to meet expected levels of service.
- c. Conflicting business unit (BU) investment priorities, issues with the coordination of delivery of service, corporate inefficiencies, and lack of expenditure optimization.
- d. Inconsistency of capital plans with the needs identified in the asset management plans, thus exacerbating the infrastructure gap. This risk potentially compromises the alignment of infrastructure, financial, and land-use goals and objectives and the ability to achieve a sustainable urban form.

3.0. Policies on the Purpose of Having an Asset Management Policy

3.1. The purpose of this policy is to:

- a. Document The City's commitment to asset management
- b. Outline the guiding principles and elements of asset management, and
- c. Highlight the framework that enables an asset management strategy, objectives and plans.

3.2. The three key purposes of this policy are to:

- a. Provide a corporate record as to The City's established principles, business rules and processes of asset management that are logical and reasonable, appropriate and necessary.
- b. Describe the principles that tangible capital asset holding businesses within The City should follow.
- c. Support the establishment of a corporate-wide asset management working network and governance framework.

3.3. This policy is aligned to the Council-approved guiding document, "Calgary's Asset Management Strategy" (2004).

3.4. The policy intends to allow business units the latitude to develop, implement, operate and continually improve asset management best practices for their particular asset types and businesses within a common

framework and an asset management system. In this sense, the intent of the policy is to demonstrate what a comprehensive asset management framework should include.

- 3.5.** The policy may be used to:
- a. Benchmark asset management practices at The City with international / national / provincial standards on asset management.
 - b. Demonstrate due diligence with respect to the management of assets within The City.
 - c. Demonstrate due diligence with respect to the alignment of asset management to other applicable legislative, regulatory and statutory requirements to which The City subscribes. Notably, it is aligned with The City's suite of policies related to tangible capital assets (Tangible Capital Asset Roles and Responsibilities (Administration Policy FA-TCA-001), Identification Capitalization of Tangible Capital Assets (Administration Policy FA-TCA-002), Administration of Tangible Capital Assets (Administration Policy FA-TCA-003), and Financial Reporting of Tangible Capital Assets (Administration Policy FA-TCA-004).
- 3.6.** This policy is based upon Publicly Available Specification (PAS) 55, an asset management practice developed by the Institute for Asset Management and the British Standards Institute.
- 3.7.** This policy relies on the detail specified in the "Asset Management Guidelines" for implementation of asset management throughout The City.

4.0. Accountability Policies

- 4.1.** The Administrative Leadership Team (ALT) is accountable for this asset management policy, as well as the supporting asset management system.
- 4.2.** The ALT will delegate responsibility to the General Manager of Corporate Services to act as asset management champion within the ALT.
- 4.3.** Corporate Asset Management will be responsible for monitoring and reporting corporate-wide progress of implementing the policy as well as improvement and refinement as necessary.

5.0. General Policies

- 5.1.** The goal of asset management is to meet a desired level of service for present and future citizens in an optimized way. This occurs through the lifecycle (i.e. planning, creation, acquisition, maintenance, operation, rehabilitation and disposal) of assets.
- 5.2.** Successful implementation and operation of asset management requires the continual improvement of an asset management system, including a multi-faceted approach across the disciplines of finance, economics, engineering and business management.

6.0. Policy on the Key Principles of Asset Management

- 6.1.** In order to attain the goal of asset management, the Administration should ensure the following principles are applied within an asset management system:
 - a. Holistic – take a comprehensive approach that looks at the “big picture” (i.e. the combined implications of managing all aspects rather than a compartmental approach). This includes the functional interdependencies and contributions of assets within asset systems and the different management of assets across all lifecycle phases.
 - b. Systematic – take a methodical approach (i.e. formal, repeatable and consistent) to the management of assets.
 - c. Systemic – make asset investment decisions in an asset system context, not just to optimize the individual asset itself.
 - d. Risk-based – manage asset risk associated with attaining levels of service and focussing resources, expenditures and priorities based on risk and associated cost/benefit.
 - e. Optimal – make asset investment decisions based on trade-offs between the competing factors of service level (including asset performance), risk and cost.
 - f. Sustainable – take a long-term, lifecycle-based approach in estimating asset investment and activities, thus developing effective asset management strategies for the long term. The foundation for effective asset management decisions is the Triple Bottom Line Policy (Council Policy LUP003, EM003 & CS003).
 - g. Integrated – coordinate the above principles to ensure the delivery of justified services and well-defined outcomes.

- h. Aligned – ensure that the asset management system complements the strategic objectives of The City, as well as other key business systems, legislation and regulation.

7.0. Policies on the Establishment of an Asset Management System

- 7.1. It is highly recommended that organizations that are heavily dependent on physical assets in the creation or delivery of their services create an asset management system. The fact that The City relies on a very large and diverse asset portfolio supports the need for a systemic approach to managing that portfolio.
- 7.2. The City should develop, operate, monitor and continually improve an asset management system for the management of its assets.
- 7.3. This asset management system is not necessarily a technological system, but a business model or standard management approach outlining the linkages between the key elements and practices of an effective asset management program.
- 7.4. This asset management system should be able to accommodate the various levels at which asset units may be managed, ranging from the operational level where discrete assets are managed up to the corporate level where integration across asset systems, networks or portfolios is desired.

8.0. Policies on the Elements and Practices of the Asset Management System

- 8.1. The City will ensure alignment of its asset management system to its overall organizational strategic plan.
- 8.2. The City will develop, maintain and continually improve the Asset Management Policy (Administration Policy GN-001), strategy and guidelines, detailing the necessary elements of the asset management system.
- 8.3. The asset management system should be aligned to the Deming Cycle (Plan, Do, Check, Act).
- 8.4. The City will make the commitment to maintain, within reason, the necessary corporate capacity (including, but not limited to, resourcing, financial support, staff competencies, business processes, data and

integrated information systems) to support the following elements and practices of an asset management system:

a. **PLAN**

1. Asset management strategy and objectives

- i. The City creates and maintains a framework, as established in the “Asset Management Guidelines”, for an asset management strategy or strategies.
- ii. These strategies define the objectives of the business (including asset and service performance) and set out the most appropriate long-term course of action for implementing asset management.
- iii. These strategies will align, and thereby support, the delivery of the organizational strategic plan.
- iv. The City of Calgary’s ALT periodically reviews the asset management strategy, systems and processes to ensure suitability, adequacy, and effectiveness.
- v. Changes to policy, strategy, and objectives should be completed regularly and need to be assessed in light of: changing circumstances; asset management system results; a commitment to continual improvement of asset management; and, a commitment to the improvement of asset management competency.

2. Asset management planning

- i. The City creates and maintains a framework of asset management plans, as defined in the “Asset Management Guidelines”, to coincide with the financial planning periods.
- ii. Asset management plans typically identify desired services and service levels, the necessary performance of both the business and infrastructure to facilitate this service, the trade off of risk and costs across the assets lifecycle to sustain this service and how the business will facilitate infrastructure performance and service provision in the identified time period.
- iii. Asset management plans will align to the asset strategy, corporate and business unit business plans and strategy.
- iv. Asset management plans may serve to document business continuity and contingency planning.
- v. The creation of an asset management plan and strategy works towards implementing, managing and continually improving the principles of asset management.
- vi. Asset management plans are used to support optimization of The City of Calgary’s infrastructure investment and integration across asset systems.

3. Infrastructure investment planning

- i. The City creates and maintains a framework, as described in the “Asset Management Guidelines”, which links asset management planning to diligent financial planning and management practice.
- ii. The intent of the framework is to link asset management plan priorities to current and future financial capacity.
- iii. The desired result of the framework is a long-term infrastructure investment plan that influences both capital and operating budgets.
- iv. The analysis required to create the investment priorities within the infrastructure investment plan will attempt to balance desired social/cultural, environmental and economic outcomes, service levels, business risk and cost.
- v. This analysis required to create the investment priorities within the infrastructure investment plan, and the resulting infrastructure investment plan, will occur at both the business unit and corporate level. The latter will identify opportunities to integrate infrastructure investment across asset systems and corporate portfolios.

b. DO

1. Implementation, operation and maintenance

- i. The City delivers on, operates and maintains the priorities established within asset management plans, which identify activities across the whole life of the asset. This includes, but is not limited to: creation, acquisition or enhancement; disposal of assets; utilization of assets; and maintenance of assets.
- ii. During the lifecycle phase of asset creation, business units should coordinate the planning, design and delivery of assets to ensure that design criteria are met and to optimize operational / asset lifecycle costs.
- iii. Business units should align project delivery with effective project management techniques (i.e. The City’s Corporate Project Management Centre (CPMC) resources and The City’s resource document entitled “Project Management Guidelines”) and may also wish to consider value engineering techniques in order to ensure that the projects are delivered in a cost effective manner that will best meet the desired outcome.
- iv. Major project strategies and processes may be defined and considered (e.g. Private Public Partnership, or P3, including Design / Build / Own / Operate schemes) to share risk with third parties across the asset’s lifecycle.

- v. Project management and asset delivery, operation and maintenance should consider a more optimal approach to supply chain management, environment, planning, health, and safety goals.
- vi. Business units responsible for the operation and maintenance of assets should ensure their functional policies and procedures, standards, technology and resources (i.e. staff, energy, financing) are optimized and effectively use the assets to deliver the required service outcomes.
- vii. Business units responsible for the operation and maintenance of assets should have a business function that integrates operation and maintenance across asset systems and portfolios (e.g. Right-of-Way management).
- viii. All service outcomes, either within business units or across asset systems, must align with the legislation or regulation identified within the asset management plan.
- ix. Business units responsible for the operation and maintenance of assets should continually monitor, benchmark and report the cost and risk of service provision, as well as the functionality, physical condition and capacity of assets to sustain service delivery.
- x. In order to anticipate and manage the necessary operational and maintenance activities identified in the asset management plan, business units may use computerized maintenance and work-management technologies to track performance, identify intervention activities and anticipate future lifecycle costs.
- xi. Business units should establish processes to ensure that their operation and maintenance staff sustain the required competencies.
- xii. Business units should establish the necessary processes, including asset inspection programs, to ensure that the asset information is at the appropriate level to effectively enable decision making.
- xiii. Both the operational and maintenance functions should take an active role in the creation of asset management plans (including the adjustment of service levels based on performance indicators) and the delivery of assets to ensure that they actually enable service delivery and are functionally correct.

c. CHECK

1. Managing the performance of asset management

- i. The City creates and maintains a framework, as defined in the “Asset Management Guidelines”, for reviewing, reporting and

adjusting the relevancy, effectiveness, efficiency of asset management efforts, service provision and the status of the assets themselves. This reporting focuses on the performance of the asset management system, as well as the performance of assets and/or asset systems with respect to the provision of service and service levels. This effort will occur at a business unit, department and corporate level and will recommend future investment, risk or service adjustments as necessary.

- ii. The performance management framework undertakes to identify past non-conformances and forecasting to anticipate adjustment to the asset management system, levels of service, assets and/or asset systems.
- iii. The performance management framework relies on the establishment of leading and lagging performance indicators (both qualitative and quantitative) for the benchmarking and adjustment of the above items.
- iv. The City should make a commitment to monitor the customer perspective as to desired level of service and asset performance and link it to the required performance of assets and the true cost of service provision.
- v. The City should monitor asset performance (including function, capacity and physical condition), the risks related to the performance, the required lifecycle costs to support that asset, and the ability for that asset to enable the required service(s).
- vi. Asset and business performance should be aligned with the larger and more comprehensive corporate business objectives established within a corporate strategy and business plans. This framework measures, benchmarks, reports and recommends adjustment to, The City's service outcomes as well as the asset management system itself.
- vii. Asset performance reporting helps prove attainment of corporate and underlying business-unit goals, as well as ensure future sustainability of these goals. It shows how asset performance is linked to the attainment of intended outcomes. This reported performance guides the development of asset management plans to address asset non-performance or deficiency.

d. **ACT**

1. Management review and continual improvement

- i. The City will maintain a framework, as defined in the "Asset Management Guidelines", where the ALT, departments and business units will regularly benchmark and make adjustments to the asset management system as a corporate whole. This

- strives to ensure its continued suitability, adequacy and effectiveness.
- ii. The management review process ensures that the necessary information is documented to allow management to carry out this evaluation.
 - iii. The management review process will identify potential changes to policy, strategy, and objectives of the corporate asset management system in light of asset management commitment to continual improvement.
 - iv. Continual improvement should be encouraged through the acquisition and evaluation of new asset management technologies, best practices (e.g. PAS 55), and techniques by The City.
 - v. Ultimately, ALT will act as the group accountable for the management review and continual improvement of the asset management policy, strategy and system. This should include the need to communicate, and advocate for, the shared responsibility for infrastructure sustainability and municipal service provision between the citizens of Calgary, the private sector and other levels of government.

REVISION HISTORY

Review Date	Description
2010 07 27	New Policy