



# CITY OF ST. ALBERT CITY COUNCIL POLICY

NUMBER	TITLE
<b>C-P&amp;E-02</b>	<b>Capital Project Management</b>
ORIGINAL APPROVAL DATE	DATE LAST REVISED
July 4, 2006	January 21, 2019

## Purpose

1. To define and mandate a corporate-wide approach that will establish a professionally accepted framework for the efficient management and delivery of capital projects while minimizing the risk to the City.
2. To provide a framework for managing the scope, quality, time, cost, risk and human resources of corporate projects to increase the probability that optimal solutions will be selected and that capital projects will be implemented at the “right” time and at the “right” cost.
3. To establish clear lines of responsibility/accountability for project management decisions and the achievement of project objectives and deliverables. Clear lines of accountability/responsibility facilitate optimal decision-making, minimize misunderstandings and delays, and identify and explain the causes of problems as they arise.
4. To identify project management principles and concepts that provide a foundation for the development of a corporate project management framework.

## Policy Statement

Council expects its capital projects program to be conducted within a comprehensive multi-step approach to enhance effectiveness, efficiency and clarity. Council requires that an effective program be delivered in the context of a broad range of resources and competencies working together.

The project management framework model shall be flexible and adaptable to the nature of each operating unit within the corporation and to the work being done. The project manager shall apply the mandated processes to each project and shall determine which remaining processes would enhance the outcome of the project.

## Definitions

*“Analogous cost estimate”* is an estimate that uses the values of parameters such as scope, cost, budget and duration from a previous similar activity as the basis for estimating the parameter when there is a limited amount of detailed information about the project (i.e. in the early phases). Analogous estimating is a form of expert judgment and is most reliable when previous activities are similar in fact and not just in appearance and the project team members preparing the estimates have the needed expertise. An example of analogous estimating would be using the construction cost of the Lacombe Park Reservoir or recently constructed reservoir build in the region to estimate the construction cost of a similar sized reservoir.

*“Budget”* is the project cost estimate applied over a period of defined time for both design and or construction of the deliverable.

*“10 Year Capital Plan”* or *“The Plan”* is a comprehensive 10 Year corporate plan which identifies the proposed Municipal and Utility capital project requirements. Approval of the 10 Year Capital Plan results in City Council's commitment to the indicated priority and staging of projects.

*“Capital Budget”* refers to the budgeted expenditures and financing of constructing, acquiring or improving new or existing facilities and equipment, and of items which substantially increase the estimated service lives of existing facilities and equipment. These expenditures are financed through sources other than the Operating Budget.

*“Capital Project”* is any undertaking with a defined starting point and defined objectives by which completion is identified, and is of a non-recurring nature with a cost of \$10,000 or more and an estimated service life of three years or more.

*“Capital Projects Office (CPO)”* is the common name in the City of St. Albert for the Project Management Office (PMO).

*“Change Request”* is a request to expand or reduce the project scope, modify costs, budgets, or revised schedules.

*“Contingency Reserve”* or *“Contingency”* is the amount of funds, budget, or time accounted for within the originally approved estimate to reduce the risk of overruns of the project objectives to a level acceptable to the organization.

*“Parametric cost estimate”* is an estimating technique that uses a statistical relationship between historical data and other variables (i.e. square footage in construction, lines of code in software development) to calculate an estimate for activity parameters, such as scope, cost, budget and duration. This technique can produce higher levels of accuracy depending on the sophistication and the underlying data built into the model. An example of parametric estimating would be using the costs per square metre of the Ray Gibbon Drive construction.

*“Procurement Documents”* are the documents utilized in bid and proposal activities, which include the buyer’s Invitation for Bid, Invitation for Negotiations, Requests for Information, Request for Quotation, Tenders, Request for Proposal and vendors responses.

*“Project”* is any undertaking with a defined starting point and defined completion objectives.

*“Project Charter”* is a document issued by the Project Initiator that formally authorizes the existence of a project, and provides the Project Manager with the authority to apply organizational resources. The charter is further defined for the purposes of the City of St Albert needs as a tool to be used to request a project move forward for budget review and be placed in the 10 Year Capital Plan. It acts as both the project charter and statement of work.

*“Project Management Body of Knowledge (PMBOK)”* is an inclusive term that describes the sum of knowledge within the profession of project management. As with other professions, such as law, medicine, and accounting, the body of knowledge rests with the practitioners and academics that apply and advance it. The complete project management body of knowledge includes proven traditional practices that are widely applied and innovative practices that are emerging in the profession. The body of knowledge includes both published and unpublished materials. The body of knowledge is constantly evolving. The Project Management Institutes (PMI’s) PMBOK Guide identifies that subset of the project management body of knowledge that is generally recognized as good practice.

*“Project Management Institute”* is a professional body recognized worldwide (similar to the Association of Professional Engineers and Geoscientists of Alberta) that standardizes and regulates the profession of Project Managers.

*“Project Management Office (PMO)”* is an organizational body or entity assigned various responsibilities related to the centralized and coordinated management of those projects under its domain. The responsibility of a PMO can range from providing project management support functions to actually being responsible for the direct management of a project.

*“Project Management Plan”* means a formal, approved document that defines how the project is executed, monitored and controlled. It may be a summary or detailed and may be composed of one or more subsidiary management plans and other planning documents. Subsidiary management plans would include a quality plan, human resource plan, communications plan, risk management plan and procurement plan.

*“Project Manager”* is the individual authorized and accountable for managing the project and achieving the project objectives.

## Responsibilities

1. City Council is responsible to:
  - a. Approve a Capital Budget for each calendar year as per Section 245 of the Municipal Government Act.
  - b. Approve the content of 10 Year Capital Plan and authorize the first year expenditures as part of the annual Budget process as outlined in the Standards set forth within City Council Policy C-FS-05 Budget and Taxation Guiding Principles.
  - c. Review for decision any adjustments to the approved 10 Year Capital Plan and the Capital Budget outside the limits provided for in the Chief Administrative Officer Bylaw 13/2002 and as outlined in Standard 5 of City Council Policy C-CAO-01 Chief Administrative Officer Delegations.
  
2. Chief Administrative Officer or delegate is responsible to:
  - a. Require a consistent Project Management Body of Knowledge be utilized throughout the corporation as recognized by the Project Management Institute.
  - b. Be authorized and accountable for establishing, implementing and maintaining the project management framework and procedures for the City.
  - c. Be responsible for the review all Capital Project Charters and Change Requests and provide feedback as required, assign Project Managers where required, and assume overall responsibility for the completion of all Capital Projects.
  - d. Establish clear lines of accountability and authority for project management decisions and the achievement of project objectives and deliverables including the roles of Project Director, Project Initiator, and Project Manager.
  - e. Support the use of standardized project management software/systems to estimate costs, develop schedules and report the status of projects.
  - f. Support the formulation and implementation of a standardized education and training program to develop staff in the discipline of project management.
  - g. Be authorized to make adjustments to the approved 10 Year Capital Plan and the Capital Budget within the limits provided for in the Chief Administrative Officer Bylaw 13/2002 and as outlined in Standard 5 of City Council Policy C-CAO-01 Chief Administrative Officer Delegations.

- h. Bring to Council for decision any adjustments to the approved 10 Year Capital Plan and the Capital Budget outside the limits provided for in the Chief Administrative Officer Bylaw 13/2002 and as outlined in Standard 5 of City Council Policy C-CAO-01 Chief Administrative Officer Delegations.
- i. Monitor the implementation, management and control of the 10 Year Capital Plan and the Capital Budget; keep Council informed of significant delays or cost overruns, and proposed action.

### **Service Standards/ Expectations**

#### **1. Adherence to Industry Standards**

The project management framework model used was originally developed by the Project Management Institute. The Project Management Institute is internationally recognized and respected for its philosophies and practice of the project management profession. In its book “The Project Management Body of Knowledge (PMBOK),” the Project Management Institute provides an outline that can be followed for any type of project, large or small.

#### **2. That the City shall maintain a policy on the governance of Capital Projects with responsibilities outlined for City Council and the Chief Administrative Officer based on the following categories of capital projects for all corporate, municipal infrastructure and utility infrastructure:**

- a. RMR: Administration-led by the establishment of Council-approved community service level standards and / or Council Policy C-P&E-07 Asset Management.
- b. Growth: Council-led by the establishment of bylaw and policy with the objective of delivery on a specific statement of scope.
- c. Greenfield Developer-Built Infrastructure: Developer-led based on Council-approved engineering design principles; City front-ended projects governed similar to Growth.

#### **3. Standard Inclusion in Project Charter and Project Management Plan over \$250,000 include the following elements for the duration of the Project, for ongoing Operations and for the Lifecycle of the capital asset:**

- a. Scope which is the work performed to deliver a product, service or result with the specified features and functions.

- b. Estimate costs which is an approximation of the monetary resources needed to complete project activities, including the following categories of costs:
  - i. Capital Costs
  - ii. Lifecycle Costs
  - iii. Annual Operating Costs
- c. Project costs including, but not limited to, engineering and consulting fees, project management costs and project contingency.
- d. Sources of funding including identifying amounts from, but not limited to, Provincial Grants, Federal Grants, City Reserves, and Pay as You Go (PAYG) funds established through the Capital Funding Formula.
- e. Quality standards as identified through Council Policy and / or City of St. Albert established standards.
- f. Timelines for the project including significant project milestones.
- g. Procurement practices as set forth with the City Manger Directive A-PUR-01 Purchasing.
- h. Human Resources Implications which provides guidance on how human resources should be defined, staffed, and managed within the project and on an ongoing basis following the completion of the project.
- i. Communications describes how project communications will be planned, structured, monitored and controlled aligned with the Council-approved Public Engagement Spectrum.
- j. Risk Analysis described how risk management activities will be structured and performed.
- k. Dependencies are clearly identified and describes implications of meeting, or not meeting, those dependencies within the scope of the Project

Project Charters and Project Management Plans under \$250,000 may omit some of these elements when not required for implementation of the capital project.

#### 4. Phases of Capital Cost Estimation for Projects

The estimation of the costs for Capital Projects occur and are revised throughout three phases of a Capital Project, with increasing detail and accuracy achieved in each subsequent stage:

- a. Concept Phase: Preparation of a problem/needs and scope statement and assessment of feasible alternatives allowing analogous and/or parametric cost estimates with a target of  $\pm$  50% level of accuracy.
- b. Design Phase: Post-approval of the Project Charter. A thorough review of scope is completed and technical reports have been completed to understand all criteria and impacts to the approved capital project and may be conducted in multiple stages. Allows for design cost estimates with a target of  $\pm$  25% level of accuracy.
- c. Construction Phase: Contract Tendering, Evaluation and Award, Contract Implementation, contract supervision, Quality Control and Assurance and Construction Completion. Post-tender cost estimates with a target  $\pm$  10% level of accuracy.

Should a project cost estimate fall out of the Original Scope of Projects, as outlined in Section 5 c. vii. of City Council Policy C-CAO-01 Chief Administrative Officer Delegations, in any phase prior to the Construction Phase, the project shall be re-evaluated.

5. Estimation of Costs throughout the 10 Year Capital Plan and Budget

The estimation of costs throughout the 10 Year Capital Plan and Budget shall endeavour to be as accurate as possible to provide an indication of historical, current and future direction of prices relative to municipal capital expenditures by ensuring:

- a. Estimates of all costs in every Project Charter should be in the forecasted year dollars as outlined in the year of activity.
- b. That Administration utilize a Council-approved market-informed long-term cost estimation philosophy based on industry trends and statistically verified data including, but not limited to:
  - i. Regional Construction Price Index
  - ii. Materials Price Index
  - iii. Currency Exchange Rates
  - iv. Technological Cost Indices
  - v. Inflation
  - vi. Comparator Municipal Price Indices
- c. That a mechanism exists to update each Capital Project Charter annually for inclusion in the 10-Year Capital Plan; adjusting annually for inflation, scope and market.
- d. That the annual operating costs of all projects shall be included in the project charter and included as part of the Budget process.

6. That Administration utilize independent third-party cost estimation validation for capital projects of significance where relevant comparator and / or benchmark costing information is not readily available.
  
7. That Administration report to Council quarterly on the status of capital projects, including financial impacts as outlined within C-FS-05 Budget and Taxation Guiding Principles, within Chief Administrative Officer Bylaw13/2002, and within Council Policy C-CAO-01 Chief Administrative Officer Delegations.

**Legal References**

*Municipal Government Act, R.S.A. 2000, c. M-26;*

**Cross References**

*Bylaw 13/2002, Chief Administrative Officer Bylaw  
 City Council Policy C-FS-05 Budget and Taxation Guiding Principles  
 City Council Policy C-CAO-01 Chief Administrative Officer Delegations  
 Council Policy C-P&E-07 Asset Management*

DATE REVIEWED	NEXT REVIEW DATE	REVISIONS
April 2016 - Engineering	2020 - Engineering	April 18, 2016 - C234-2016 January 21, 2019 – AR-19-003