

## **Status Update on Project Management Practices and Capital Budget Process**

### **EXECUTIVE SUMMARY**

This report provides an update on the most recent direction from Council to Administration related to questions posed by Council on 2016 July 25 pertaining to report TT2016-0578 and the progress report provided on 2016 December 19.

During discussion regarding RouteAhead, Council requested a progress report and recommendations related to the use and reporting of project estimates, contingency and changes to the capital budgeting process including Council's approval.

While this work is not complete, progress has been made through development and implementation of foundational pieces including standards for stage gating, project risk management and project estimation, contingency and scheduling. Other efforts include developing tools to support the capital budgeting process.

With Infrastructure Calgary established, as well as 2019-2022 service planning and budgeting efforts (One Calgary) underway, Administration is well positioned to continue this work and bring it to completion.

#### **ADMINISTRATION RECOMMENDATION:**

That Council:

1. Receive this status update for information.
2. Direct that Administration bring further updates on the capital budget process through the One Calgary program.

#### **RECOMMENDATION OF THE PRIORITIES AND FINANCE COMMITTEE, DATED 2017 DECEMBER 05:**

That the Administration Recommendations contained in Report PFC2017-1131 be approved.

### **PREVIOUS COUNCIL DIRECTION / POLICY**

The most recent direction Administration received from Council was in report PFC2016-0853, presented to the Priorities and Finance Committee on 2016 December 13 and subsequently to Council on 2016 December 19. The direction received at that time was for:

“Administration to continue its work regarding the implementation of a capital budgeting process that aligns to the stage gating, project risk management, estimation and contingency standards and report back to the Priorities and Finance Committee prior to the end of December 2017.”

The above-mentioned progress report provided an update and recommendations to address previous direction received from Council on 2016 July 25 for Administration to:

“... Report back with recommendations to Council through the Priorities and Finance Committee with a progress report no later than 2016 December 31 with:

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- a) Changes to the City's capital budgeting process, including but not limited to consideration of Class 1-5 cost estimating process;
- b) Criteria used to rank capital projects;
- c) Criteria for determining the appropriate contingencies for projects; and
- d) The Council approval process in relation to cost estimates, contingencies, budgets and scope changes."

The full report PFC2016-0853 is included as an attachment to this report for reference (Attachment 1).

### **BACKGROUND**

Having robust and effective practices to identify, evaluate, prioritize and deliver investments in infrastructure is critical to meeting strategic goals and results as directed by City Council. While Administration has existing processes and tools in place to accomplish this, it is important to continuously evaluate and improve how infrastructure investments are identified, evaluated, prioritized and delivered to ensure maximum value for citizens.

The need for continuous improvement has been previously highlighted. In 2011, the opportunity to improve investment delivery and project management practices was identified by internal audits and Notices of Motion including the following:

1. Audit Committee report AC2011-54, "16th Avenue North Urban Corridor,"
2. Audit Committee report AC2011-60, "Fire Department Facilities Construction,"
3. Notice of Motion NM2011-33, "Improvements to the Project Management Process,"
4. An amendment to LPT2011-99, "West LRT – Project Update and Completion Plan"

On 2015 March 17, Administration presented its final report to the Priorities and Finance Committee (PFC) outlining the various deliverables that were developed to meet the audit and Notice of Motion requirements through the development and implementation of the Corporate Project Management Framework (CPMF). The Corporate Project Management Framework established policy, practices and standards to ensure successful delivery of projects and the best possible outcomes for Council and citizens. The work on the CPMF included development of standards and practices for project planning, reporting, and, estimating and contingency, among other key elements of project management.

Administration provided a status update regarding improvement of project management practices to Council on 2015 September 14 in report C2015-0484, "Green Sheet Response, Project Management on City Projects". The direction received from Council was that:

"Administration continue with improvements to the Corporate Project Management Framework, including implementation of value management, stage gating and a more comprehensive approach for quality management for capital projects."

Council also approved The Corporation's Capital Infrastructure Investment Strategy (CIIS) (Attachment 3) at the meeting held on 2015 November 25. This document laid the foundation for establishing enterprise wide infrastructure investment management and is serving as the basis for improvements to capital budget processes and practice development. As the City-wide approach is maturing and being integrated with One Calgary, an update to the CIIS will be developed and returned to Council in 2018.

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### **INVESTIGATION: ALTERNATIVES AND ANALYSIS**

The improvement of infrastructure investment and project management maturity is an evolutionary journey that requires a careful and thorough approach. Undertaking business process improvements in complex organizations such as The City of Calgary involves a significant change management effort that does take time. The work with respect to the capital budgeting process is well underway.

#### Capital Budgeting Process

A significant milestone regarding updating the capital budget process was to establish a City-wide approach to infrastructure investment through Infrastructure Calgary (IC). Infrastructure Calgary is now providing a means by which investments can be evaluated and coordinated to achieve the most value for citizens.

Administration has also undertaken to implement tools that support the capital budgeting process. These include the implementation of Hyperion, a new capital budgeting system, and the Corporate Level Infrastructure Investment Plan (CLIIP) tool that facilitates coordination of capital investments.

#### Stage Gating

Administration has also taken steps to improve internal project management and infrastructure investment practices, by developing and implementing a Stage Gate Standard as part of the Corporate Project Management Framework. Stage gating provides basic structure for evaluating and prioritizing investments and facilitates risk management for capital investments. Stage gating incorporates an approach of releasing project funds as a project progresses through various "gates" that are aligned to major project milestones. Departments within The City are at different points with respect to implementation of stage gating. Most have now completed an initial implementation and are putting the method into practice. Further work is required to implement stage gating at the City-wide or Corporate level. This work is proceeding under the guidance of Infrastructure Calgary.

#### Project Risk Management, Estimation and Contingency

To continue efforts to improve project management capabilities and maturity, standards for Project Risk Management and Project Estimation, Contingency and Schedule were reviewed, updated and approved in early 2017.

These standards provide the foundation for determining appropriate contingency for projects. The Project Estimation, Contingency and Schedule Standard defines classes of estimates based on project phase. Project estimates are subject to higher degrees of variance depending on the phase due to the inherent process of refining knowledge and requirements over the course of the project. Projects will most often start with at least some degree of uncertainty which translates into risk. This means there is less certainty at the start of a project and progressively more accuracy as the project progresses. The Project Risk Management Standard provides a model for identifying and classifying risks for consideration in determining the appropriate level of contingency to manage risk. Having these standards in place is fundamental for making the Council-directed adjustments to the capital budgeting process.

Work is underway regarding 2019-2022 service planning and budgeting through One Calgary and specifically capital investment planning and budgeting. The Council approval process will

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be reviewed as part of this work. This review will seek opportunities to better time and provide the information that Council requires to approve the capital investment portion of the budget. The review will also ensure the necessary changes to the capital budget process are made to support decision-making.

Attachment 2 provides additional detail regarding the process and practices that Administration have completed per Council's direction, including the criteria used to develop the appropriate levels of contingency for projects. The attachment further outlines progress in stage gating, risk management, and, estimating and contingency.

Infrastructure Calgary will continue to work with One Calgary, Finance, the Corporate Project Management Centre and the Corporate Project Management Framework Steering Committee to review and improve capital investment planning and budgeting processes. This will be done in partnership and alignment with One Calgary. This will ensure that changes to the capital budget process will be part of 2019-2022 service planning and budgeting for the next business cycle. It is through this work that criteria used to rank capital projects and the Council approval process will be reviewed and addressed.

### **Stakeholder Engagement, Research and Communication**

The following stakeholders have been identified in previous reports as having provided input and assistance with respect to the work discussed in this report:

- Managers within the Corporate Project Management Framework (CPMF) Steering Committee;
- Infrastructure Calgary and its members within the Senior Management Team; and,
- Members of the Administrative Leadership Team.

As this work moves forward, engagement with the above stakeholders along with One Calgary and Finance will continue.

A communication plan and associated tactics will be developed and implemented to support this work.

### **Strategic Alignment**

This work supports sound decision-making to ensure alignment to strategy and efficient achievement of strategic goals and outcomes. It specifically aligns with the Council Priority of "a well-run city".

Administration continues to explore innovative ideas that will improve The City's capital management practices and decrease time to deliver investments in infrastructure that support public service delivery.

### **Social, Environmental, Economic (External)**

This work enables sound decision-making to achieve social, environmental and economic goals.

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### **Financial Capacity**

#### ***Current and Future Operating Budget:***

This work will be completed within current operating budget allocations.

#### ***Current and Future Capital Budget:***

This work will be completed within current capital budget allocations.

### **Risk Assessment**

The major risks associated with this program are:

- Resource constraints that could result in slowing of the Infrastructure Calgary and Corporate Project Management Framework programs and,
- Resistance to change may be encountered from stakeholders.

Having appropriate governance as well as a change management and communications plan in place are key to mitigating these risks. Ongoing collaboration with previously mentioned stakeholders will be pursued to minimize the likelihood of these risks occurring.

#### **REASON(S) FOR RECOMMENDATION(S):**

These recommendations will support Administration's work to fully address Council's direction by making the necessary changes to the capital budgeting process and project management practices to ensure the most value from investments is realized for the benefit of citizens.

### **ATTACHMENTS**

1. PFC2016-0853 Progress Report Update – Stage Gating, Capital and Contingency
2. Capital Budget Process, Stage Gating, Estimating and Contingency and Risk Management Update
3. Capital Infrastructure Investment Strategy