

ISC: UNRESTRICTED

AC2015-0558

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THE CITY OF
CALGARY
CITY AUDITOR'S OFFICE

Contract Procurement - Request for Tenders Process Efficiency Audit

July 8, 2015

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The City Auditor's Office completes all projects in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

Executive Summary

The City's procurement activities represent a major share of The City's annual expenditures. In 2014, The City processed 42,946 purchase orders to acquire goods, services, and construction amounting to approximately \$1 billion. The Supply division has a mission to provide "the most effective and efficient supply chain services to The City." The division's 2015 Work Plan outlines multiple actions intended to further streamline City procurement processes.

The objective of this audit, as included in the approved 2015 Audit Plan, was to evaluate the efficiency of the contract procurement process which supports key capital projects, specifically, to identify opportunities to improve cycle time. The audit focused on the Request for Tender (RFT) process in particular as is used for the purchase of high value (greater than \$200,000) or high risk goods and services when requirements and specifications require clear definition.

We identified through interviews that the majority of RFTs utilized within The City support construction project procurement requirements. Supply has established a process improvement target of 100 days of cycle time for RFTs by 2018¹.

In 2014, as evaluated by Supply, the average process cycle time of RFTs (measured as the time between submission of Procurement Strategy Request and contract award) was 120 days. Although a savings of 20 days may not appear to be a critical difference, a streamlined RFT process ensures timely and appropriate award of contracts. A delayed contract award could cause a chain reaction of delays to other dependent milestones of the project. This is especially important in construction projects where delays in procurement can impact construction timelines, leading in turn to risk of increased project costs, and reputational damage due to missed deadlines. Given the local construction season is typically limited by weather, a seemingly small number of business days saved in cycle time in procuring a contractor can have a significant savings in terms of delivery time and cost effectiveness.

Our audit analyzed three 2014 RFTs supporting major capital projects underway in Transportation, Utilities & Environmental Protection and Community Services & Protective Services. These RFTs were for construction of a recreation centre, maintenance & storage facility, and waste water treatment receiving station. The RFTs were selected based on dollar value (\$9 million - \$42 million), diversity of construction, and representation of cycle time (89 days to 131days).

Our process efficiency audit of the RFT process was designed to identify process improvement opportunities to improve RFT cycle time which aligns to, and builds on, Supply's commitment to continuous improvement. Our audit identified opportunities specific to:

- Potential automation of process steps,
- Group collaboration,
- Expansion of tracking and monitoring, and
- Modifying project start times.

The current RFT process is a manual workflow. Successive steps in the workflow are triggered either by documentation sent through internal mail, or through email. For example, the bid evaluation and award process involves the manual completion and circulation for approval via

¹ Corporate Administration Business Plan and Budget, 2015-2018.

internal mail of the multiple forms. Our analysis of one RFT in our sample, noted the cycle time was extended by 12 additional days due to absence of any electronic tool (such as PeopleSoft) to manage the entire procurement process.

We recommended analysis of automation options. Automating the RFT workflow not only reduces overall cycle time by reducing time and data re-entry between process steps, but also reduces the risk of delays or errors caused by manual steps (for example miss-delivery of mail, inaccuracy in re-entering data).

Our analysis of sample files cycle time showed that one of the longest components of the cycle time (between 30 and 39 days) was the review of draft RFT documentation prior to public posting. Producing a quality document through this review process can impact the subsequent elements of cycle time by reducing addendums which add time to the public posting of the opportunity. The review process involves multiple stakeholders: the business unit's project manager, a buyer from Supply, a lawyer from the City's Law Department, and, dependent on the RFT, an external consultant who has supplied technical expertise. Coordination of formal joint meetings to set expectations for completion and review of documentation, and conducting joint reviews of documentation could reduce the cycle time in both this phase and subsequent phases. There are also opportunities to facilitate the drafting and review of RFT documentation.

Our audit noted a number of initiatives that Supply has recently implemented that support their commitment to continuously improve the procurement processes. In particular Supply introduced a file tracking database in 2014, which captures key dates in the cycle time of each RFT. We recognize the value of tracking this information for ongoing performance measures and recommended Supply extend their tracking process by monitoring and analyzing cycle time data above the threshold of 100 days; and significant delays in the RFT cycle as they occur, so that prompt action can be taken.

Our analysis of cycle time also identified that budgetary approval timing combined with a limited construction season causes staging of major project RFTs at the same time of the year. This rush of competing projects constrains resource availability in business units, Supply, and Law. We recommended the City Manager's Office examine options to minimize resource constraints such as City-wide project prioritization.

In total, seven recommendations are included in Section 4. Supply has agreed to our recommendations and has indicated in their responses a commitment to implement action plans by December 2016.

1.0 Background

The Supply division has a mandate to manage public procurement processes for the City. Competitive procurement is conducted through the use of different request methods, which result in specific request documents issued for open and closed competitions. Depending on the requirement, Supply recommends which request method (such as request for proposal (RFP), or request for tender (RFT)) is appropriate for the procurement and coordinates the implementation.

All City spending on procurement of goods and services is subject to regional and national trade agreements such as the New West Partnership Trade Agreement (NWPTA), and the Agreement on Internal Trade (AIT). The City's internal supply chain governance and procurement policies describe the principles, authority, roles and responsibilities that govern City procurement. The policies also describe key procurement strategies The City uses to procure goods, services or construction. The primary objective of these policies is to ensure The City conducts fair, open and transparent procurement process to obtain best value for money and to prevent practices contrary to procurement law which may put the organization at reputational and financial risk.

A business unit begins the procurement process by identifying and documenting the specifications and applicable conditions for the goods and services required. The business unit and Supply jointly work together and agree on the specifications and conditions. These criteria are used to select the appropriate vendor and evaluate the goods or services provided. Supply's procurement staff also support City business units to ensure compliance by providing knowledge, direction and guidance throughout The City's procurement process

2.0 Audit Objectives, Scope and Approach

2.1 Audit Objective

The objective of this audit was to evaluate the efficiency of the contract procurement process which supports key capital projects, specifically, to identify opportunities to improve cycle time.

2.2 Audit Scope

The audit analyzed Request for Tender cycle time. The Request for Tender (RFT) process is used for the purchase of high value (greater than \$200,000) or high risk goods and services when requirements and specifications are clearly defined. The majority of RFTs are for construction projects. The audit focused on systems and processes in place during 2014. The total dollar value of City RFTs in 2014 was \$248,153,353².

2.3 Audit Approach

We documented the RFT procurement process in place during 2014, and reviewed actions taken by Supply during 2014 and 2015 to further refine procurement processes.

Three RFT projects from 2014 were selected for review to analyze the components of procurement cycle time for each RFT. These RFTs had a significant dollar value (\$9 million to

² Tender and Consultants Awards Report - 2014 (tender awards greater than \$500,000)

\$42 million, and were from three different areas of The City (Community Services and Protective Services, Utilities & Environmental Protection and Transportation). We confirmed through interviews, walk through and sample files reviews that procurement process steps are followed consistently.

Information from analysis of the RFTs and associated recommendations to reduce cycle time and streamline the RFT process were discussed with Supply, the associated business unit project managers, and Manager of the Corporate Services in Law.

3.0 Results

We reviewed Supply's 2015 Work Plan which confirmed a focus on continuous improvement in procurement processes and practices. During 2014, Supply implemented an in-house file tracking database with the aim of capturing key dates in the RFT cycle time. Supply also piloted new and improved sourcing documents for construction management RFPs and introduced new non construction RFPs. The new documents were prepared by external legal firms and reviewed by Law with the intent to:

- Enhance compliance and efficiency of documents reviews by using locked-in wording;
- Improve process consistency; and
- Include public procurement best practices.

The division's 2015 Work Plan outlines multiple actions intended to further streamline City procurement processes, including:

- A review of the bid evaluation and award recommendation process, including analysis of serial approval workflows; and
- A review, in consultation with Law, of Standard General Conditions, and associated review of RFT and RFP construction suites templates.

Supply obtained Administrative Leadership Team support in April 2015 for a standardized approach to procurement documentation as part of their strategy in support of the Council priority of a "Well Run City"³.

The RFT process is well established, and has been documented on the City's intranet and communicated through training. This communication of process has been effective as we noted our sample RFTs followed the same procedural steps without exception.

The cycle time for procurement process starts with the initiation of the Procurement Strategy Request by the business unit, and concludes with award notification to the successful bidder. In our evaluation of the sample RFT files we tracked the cycle time within each of the four main phases of the process: Phase 1: Specification and Development of the RFT document, Phase 2: Review and approval of RFT documents by multiple partners, Phase 3: Posting and closing of the bid, and Phase 4: Bid evaluation and award. Appendix A details the results of the evaluation.

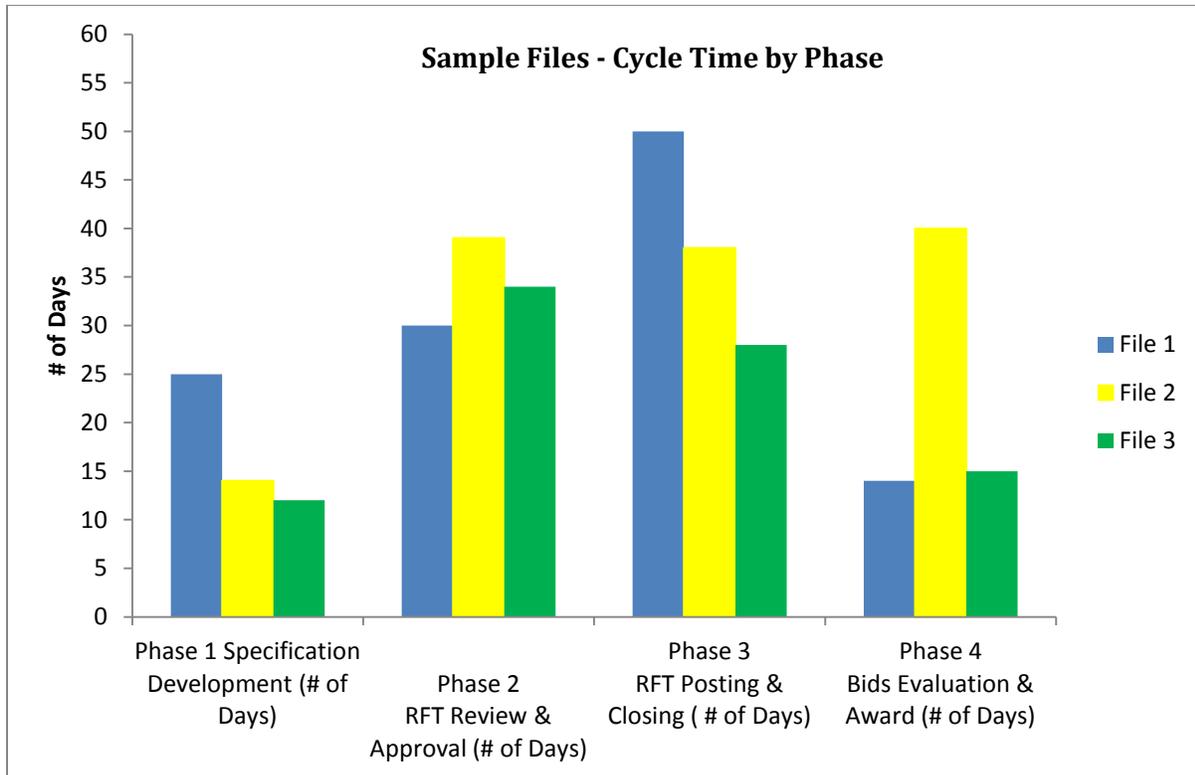
In 2014, the average process cycle time of RFTs calculated by Supply was 120 days. Supply's target RFT process cycle time is 100 days by 2018⁴. Our analysis of the sample RFT files showed cycle times of 89, 119, and 131 days, with an average of 113 days.

³ Action Plan 2015-2018

The RFT process is manual: successive phases are triggered by documents sent in internal mail or via email. In our sample, we identified 5-12 additional days on sample files caused by manual process by measuring number of days documents took in transit or serial approval process. The additional days due to the manual nature of the process could be reduced by automatic work flows (Section 4.1).

The 3 RFTs that we examined showed significant variability in components of cycle time, as shown in Chart 1 below.

Chart 1



The longest components of the cycle time by phases in our sample were phases 2, 3, and 4, discussed in more detail below.

Phase 2- RFT Review and Approval

This phase is the review and approval of draft RFT documentation prior to the public posting of the opportunity. The range of time taken from our sample files for this phase was 30 days – 39 days, with an average time of 34 days. The review process is typically concurrent, involving the business unit’s project manager, a buyer from Supply, and a lawyer from the Law Department.

In our sample, non compliance with The City’s Guidelines for the Preparation of Tender Documents (Guidelines) resulted in numerous iteration of the review process. For example, one file in our

⁴ Corporate Administration Business Plan and Budget, 2015-2018

sample took 11 additional days to review draft documentation as the contract external consultant preparing the draft documentation had not adhered to The City's Guidelines for the Preparation of Tender Documents. As a result Supply and Law had to conduct extra review work to ensure compliance with The City's Guidelines.

Service Level Agreements (SLAs) have not been established across all business units to align dedicated buyers. We observed the review and approval time for an RFT in our sample where non-dedicated resources were utilized took 9 extra days compare to a file where Supply resources were aligned with the business unit. We also conducted an analysis of all 2014 RFTs over \$500,000 in value. We calculated that the cycle time of the RFTs where a Supply resource is aligned to the business unit ranges from 87-149 days, compared to 137-272 days for RFTs with standard Supply support.

Refining the review process will assist in reducing the cycle time, and will also help produce high quality RFT documentation to be publically posted. Ensuring that the RFT is "right first time" through the review process has a carry forward effect on phases 3 and 4 of the cycle, helping to reduce overall cycle time. For example, an effective review process will assist in reducing the incidences of addendums that extend both the public posting period and overall cycle time. Opportunities to streamline the review process steps and associated documentation are set out in Sections 4.2, 4.3, 4.5 and 4.6.

Phase 3-RFT Posting and Closing

This phase is the public posting of the RFT, including any addendums. The range of time taken from our sample files for this phase was 28 days – 50 days. Supply posts the opportunity for a minimum of 21 days to allow sufficient time to encourage all interested parties to submit comprehensive bids.

Two of three of the RFTs reviewed had complex addendums which required the posting of the tender to be extended. One RFT had 9 addendums, 2 of which extended the posting of the tender for an additional 28 calendar days. A second RFT had 7 addendums, 2 of which extended the posting of the tender for an additional 15 calendar days. A high number of addendums can imply an issue with the quality of the specifications in the RFT.

Phase 4-Bids Evaluation and Award

This phase is the evaluation of bids by the Project Manager, and award of the contract.

Our review noted the bid evaluation and award process involves the manual completion and circulation for approval via internal mail of the following forms:

- Bid Summary and Approval form,
- Award Recommendation Summary form; and
- Award Letter

These forms need multiple approvals and require the input of similar data such as name of recommended bidder and total award value.

The range of time taken from our sample files for this phase was 14 days – 40 days. One file in our sample had a bid evaluation duration lasting 40 days (compared to 14 and 15 days for the other sample RFTs). We identified that this anomaly was due to the tender price being higher than the Project Manager had budgeted for and therefore the Project Manager had to obtain additional

budgetary approval before the bid evaluation process could be completed. This took an additional three weeks. Ensuring that the RFT is “right first time” through the review process (see phase 2 above) may assist in reducing the risk of this situation reoccurring.

The audit identified areas to improve RFT cycle time which align to, and build on, Supply’s commitment to continuous improvement in procurement. These observations and recommendations are set out in more detail in Section 4.

We would like to thank staff from Finance & Supply, Community Services and Protective Services, Corporate Properties and Buildings, Water Resources, Transportation Infrastructure and Law for their assistance and support throughout this audit.

4.0 Observations and Recommendations

4.1 Potential Automation of Process Steps

The RFT contract procurement process is a manual workflow. We observed that key components of this process (initiation of the RFT process, review and approval, and evaluation of bids and award of tender) all occur through staff initiated e-mails or via internal mail. A manual workflow process increases cycle time by extending document transit time, and also increases the risk of delays due to staff input error as process are duplicated or staff unavailability. Our review noted the bid evaluation and award process involves the manual completion and circulation for approval via internal mail of the following forms:

- Bid Summary and Approval form (signatures indicating approval by the project manager and Dept ID owner), followed by:
- Award Recommendation Summary form (signed by up to four members of Supply depending on award dollar value), and finally:
- Award Letter (signed by Manager Supply/Designate)

While there are a number of different ways of automating the work flow that could be considered by Supply, an automation application in alignment with the City’s existing financial system may facilitate integration of process steps and elimination of process duplication.

Recommendation 1

Supply to:

- a. Identify non value added components of the procurement process;
- b. Reduce or eliminate non value add components as necessary; and then
- c. Work with Information Technology to identify options to automate process components with the goal to reduce manual RFT workflow.

Management Response

Action Plan	Responsibility
<p>Agreed.</p> <p>Supply will review the existing RFT process and document areas of non-value added activities. From those areas a list of activities will be reduced or eliminated or identified as options to automate.</p>	<p><u>Lead</u>: Procurement Lead, Supply</p> <p><u>Support</u>: IT and Law</p> <p><u>Commitment Date</u>: June 30, 2016</p>

4.2 Review Process

The RFT documents review process duration was 25%-38% of the RFT cycle time for our sample files. We observed opportunities to streamline the review process, which would shorten the overall RFT cycle time. The review process involves the business unit’s project manager, a buyer from Supply, and a lawyer from the Law Department. Business unit project managers often hire external Consultants to prepare RFT draft documents, and these consultants are then also involved in the review process. Reviews are frequently conducted concurrently.

Inefficiencies identified in the review process in our sample were:

- Different expectations of allocation and prioritization of resources to the review process from the different teams involved,
- Difficulties in determining document status during concurrent reviews conducted via email, and challenges in addressing multiple sets of comments arising from the concurrent reviews, and
- Inclusion of personal writing style/minor commentary in the review process.

Production of quality draft documentation (“right first time”) assists in minimizing the review time. Early and interactive communication between all parties in the review process assists in communication of expectations and facilitates the review process.

Quality documentation also assists in reducing the cycle time later in the RFT process. During the posting of a procurement opportunity, addendums are added to the posting in response to questions from potential bidders. Where addendums are considered by the business unit project manager to materially affect potential responses, the posting time of the RFT is extended. Two of three of the RFT reviewed had complex addendums which required the posting of the tender to be extended. Quality documentation reduces cycle time by minimizing the RFT review period and number of addendums, particularly those which extend the posting time.

Recommendation 2

Supply to enhance communication and collaboration through the RFT review process by incorporating into procedures the opportunity to establish formal joint meetings for major projects between the representatives from the business unit, external consultants (where utilized), Supply and Law such as:

- An initial meeting prior to the production of draft specifications to highlight Tender Guidelines and expectation with respect to quality of the draft;

- A meeting of key contacts following the receipt of the PSR to discuss expectations, priority of the project, and resource allocation; and
- Review meetings to conduct joint concurrent review of the draft RFT documentation

Management Response

Action Plan	Responsibility
<p>Agreed.</p> <p>Supply will revise RFT processes to provide opportunities for formal meetings for major projects; Pre-procurement kick-off meeting and RFT review meeting.</p>	<p><u>Lead</u>: Procurement Lead, Supply</p> <p><u>Support</u>: Law</p> <p><u>Commitment Date</u>: December 31, 2015</p>

4.3 Alignment of Resources

Our analysis shows that RFTs where a Supply resource is aligned to the business unit have, on average, a shorter cycle time than RFTs with standard Supply support. Currently, some Supply resources are aligned to business units through SLAs.

Where Supply resources are aligned to business units, a buyer gets involved in the project right from the start and provides support in RFT documents development (such as consistency and order of general & special conditions and procurement strategy selection). This early support and coordination from Supply reduces RFT documents review and approval time.

Recommendation 3

Supply to conduct a workload analysis to align resources with business units and to reassess periodically as business needs change.

Management Response

Action Plan	Responsibility
<p>Agreed.</p> <p>Supply will design and develop a Sourcing & Procurement Buyer workload analysis to determine the right loading of resources aligned to support business units. A process will be developed for monitoring and sustainment.</p>	<p><u>Lead</u>: Procurement Coordinator, Supply</p> <p><u>Support</u>:</p> <p><u>Commitment Date</u>: December 31, 2015</p>

4.4 Cycle Time Analysis

Supply collects RFT cycle time data in a file tracker following the completion of the RFT. In our review we observed that collected data is not analyzed formally to identify efficiency improvement actions. Specifically:

- A threshold to identify outliers and initiate cycle time analysis has not been established; and
- There is no formal report or tool used to track on-going RFT file status.

Data analysis will help to identify root causes of RFTs processing delays and to plan continuous improvement actions accordingly.

Recommendation 4

Supply to utilize existing cycle time data collected to conduct on-going data analysis by establishing:

1. A process to analyze available cycle time data above the threshold of 100 days of cycle time (Supply's KPI target by 2018) to identify process improvement opportunities.
2. A process for monitoring any significant delays in the RFT cycle as they occur so that prompt action can be taken.

Management Response

Action Plan	Responsibility
<p>Agreed.</p> <p>Supply will improve its Key Performance indicator (KPI) reporting; collect data, analyze, report RFT cycle time, monitor RFT cycle times during the process so that prompt action can be taken and identify process improvement opportunities. All updates to be communicated to stakeholders.</p>	<p><u>Lead:</u> Procurement Coordinator, Supply</p> <p><u>Support:</u></p> <p><u>Commitment Date:</u> March 31, 2016</p>

4.5 RFT Templates Review

There is an opportunity to reduce cycle time by reviewing RFT templates. A key part of the template is the City's Standard General Conditions.

Interviews indicated the following common non compliances with Guidelines:

- Insertion of Standard General Conditions under special conditions,
- Alteration of Standard General Conditions, and
- Insertion of Standard General Condition and special conditions into specifications.

This indicates that the RFT templates, including Standard General Conditions, are leading to additional rework and therefore extending the cycle time. Standardization of documentation and setting clear expectations through preparation guidelines will assist in reducing cycle time by further streamlining the review process.

Recommendation 5

Supply to review and revise RFT templates (including Standard General Conditions, and Guidelines for the Preparation of Tender Documents) in consultation with Law, and consider the option of additional locked-in template wording to accelerate the RFT review and approval process.

Management Response

Action Plan	Responsibility
<p>Agreed.</p> <p>Supply will conduct a RFT template and Guidelines for the Preparation of Tender Documents review/replacement with Law and create a standard document with functional efficiency from lessons learned on newer RFX templates where applicable.</p> <p>Review of the Standard General Conditions is already underway. Progress reports will be provided to the Audit Office at the appropriate time interval.</p>	<p><u>Lead</u>: Procurement Coordinator, Supply</p> <p><u>Support</u>: Law</p> <p><u>Commitment Date</u>: December 31, 2016</p>

4.6 Documents and Training

Supply's RFT documents are not fully consistent. In mapping the RFT process and reviewing associated policies and documents, we observed:

- Discrepancies between documented process flow charts posted on intranet and current procurement practices;
- Procurement Policy (FA-044) refers to an obsolete document; and
- The cycle time description on the intranet (My City) is not consistent with the cycle time definition employed by Supply.

Updated documents help to ensure consistent, efficient processes. Communicating these expected processes to stakeholders involved (business unit Project Managers, Law, Supply) and providing training where needed may assist in reducing cycle times.

Recommendation 6

Supply to review and revise RFT process flow charts, related policies, and metrics, and to provide associated training to stakeholders in the RFT process where required.

Management Response

Action Plan	Responsibility
<p>Agreed.</p> <p>Supply will complete a review of the policies, processes, and measures related to the RFT process as per the current review cycles. All updates to be communicated to stakeholders as per a communications plan.</p> <p>Progress reports will be provided to the Audit Office at the appropriate time interval.</p>	<p><u>Lead:</u> Procurement Quality Management Coordinator, Supply</p> <p><u>Support:</u> Law</p> <p><u>Commitment Date:</u> December 31, 2016</p>

4.7 Staging of projects

Budget approval and project management practices combined with a limited construction season causes staging of major project RFTs at a specific time of the year. We observed through file review and interviews that:

- Project Managers initiate work on their projects as soon as City budgetary approval is provided.
- Generally the requirement is for the RFT to be complete by the start of construction season.
- This rush of competing projects constrains resource availability in business units, Supply and Law.
- Constraints on resource availability can lead to increases in RFT cycle time.

This staging of projects poses a risk to the quality of tenders. Opportunities for improvement to cycle times noted above (Sections 4.1 – 4.6) will to some extent mitigate this risk by streamlining the RFT process and therefore reducing the bulge in workload.

However, to further mitigate the risk caused by this issue, Administration could investigate additional actions to alleviate the resource availability constraint. Additional actions could include workload analysis (consideration of whether other tasks could be moved to different times of the year), or consideration of a City wide prioritization of project RFTs (implementation of a tiered system whereby certain projects are given priority).

Recommendation 7

Administration discussion of options to further minimize resource constraints, such as workload analysis and project prioritization, with key stakeholders.

Management Response

Action Plan	Responsibility
<p>Agreed.</p> <p>The Deputy City Manager's Office will work with stakeholders to complete an analysis, investigate actions and recommend potential improvements related to recommendation #7, to the ALT and implement the proposed process improvements.</p>	<p><u>Lead:</u> Director, Infrastructure & Information Services</p> <p><u>Support:</u> Capital Planning and Project Management Business Unit staff, Infrastructure & Information Services, Finance and Supply, Law</p> <p><u>Commitment Date:</u> 2016 March 31</p>

Appendix A

