

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON OCTOBER 24, 2017
FROM:	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR – ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER
SUBJECT:	PHASE 1 IMPLEMENTATION OF CITYWORKS CMMS SOLUTION FOR WATER, SANITARY AND STORMWATER INFRASTRUCTURE

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services & City Engineer the following actions **BE TAKEN** with respect to the procurement of the Computerized Maintenance Management System (CMMS) – Cityworks - Esri Canada Limited, to support operational activities including field work in the City of London:

- a) That the funding for Phase 1 Implementation of Cityworks CMMS solution for Water, Sanitary and Stormwater Infrastructure, estimated price, **\$1,985,400**, HST excluded, **BE APPROVED**, noting that;
 - **\$1,244,400** is for Capital as set out in the Source of Financing Report attached hereto as Appendix A.
 - **\$741,000** (\$247,000 per year) for software licenses over three (3) years which is funded from the Operating budget.
- b) That Civic Administration **BE DIRECTED** to proceed with Phase 1 of the CMMS project, in accordance with the Procurement of Goods and Services Policy;
- c) Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with the purchase and implementation of the Phase 1 of the CMMS project and;
- d) Approval hereby given **BE CONDITIONAL** upon the Corporation entering into a formal contract, service agreement(s) or having a purchase order, or contract record relating to the subject matter of this approval and;
- e) That the outcome of the Discovery Phase **BE RECEIVED** for information, and the Strategic Plan Dashboard **BE UPDATED** accordingly.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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- **2016-06-08, Report to Civic Works Committee** - Computerized Maintenance Management System Subject: Acquisition Esri Canada Limited Cityworks
- **2016-2019 Multi-Year Budget** – Additional Investments Business Case #12 (BC12-CMMS)
- **2013-06-17, Report to Civic Works Committee** - Single Source Supply and Implementation of a Computerized Maintenance Management System

COUNCIL'S 2015-19 STRATEGIC PLAN

Municipal Council has recognized the importance of proactive financial management and excellent service delivery. The implementation of CMMS is identified in Council's Strategic Plan - "Leading in Public Service" Strategic Area of Focus. The CMMS will allow for the implementation of a new technology to assist in the management of corporate assets, financial and reporting systems, and billing systems.

BACKGROUND

Purpose

The purpose of this report is to support the purchase of professional services from Esri Canada to undertake Phase 1 Implementation of the Cityworks CMMS solution (Water, Sanitary, and Stormwater) and purchase the yearly software licenses for Azteca Cityworks Premium Enterprise for which Esri Canada is the agent.

Implementation of the Cityworks software will ultimately support operations & maintenance activities for Water, Sanitary, Stormwater, Forestry, Parks Operations, Transportation & Roadside Operations and Solid Waste.

Context

The pre-implementation Discovery Phase resolved by Municipal Council June 14th, 2016 has been completed. A Discovery Phase was required as the Implementation Phase (Phase 1) was known to be complex, and properly scoping the work to better define costs and schedules would be important. Clarified Phase 1 attributes now better define the project in the following areas; *business needs, resources, interfaces with existing systems*.

Some key attributes identified in the Discovery Phase

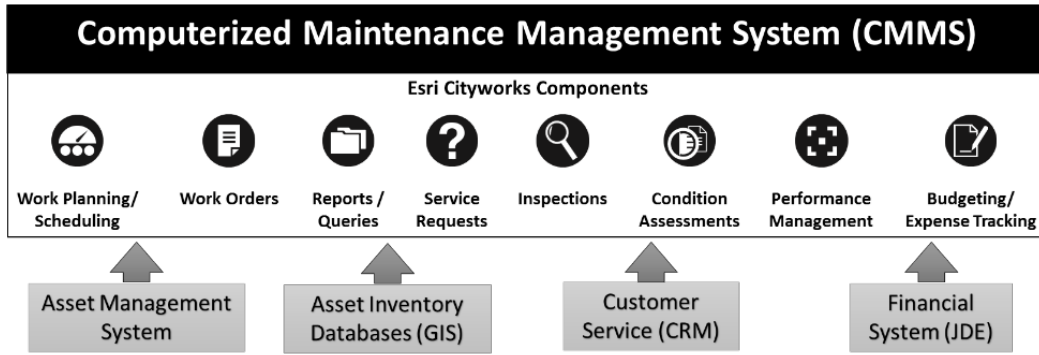
- detailed requirements for the JD Edwards interface - technical requirements and operational procedures
- the need for 7 interfaces with JD Edwards instead of 1
- interfaces to be excluded from project – SAP, Amanda, RoadMatrix, and Kronos
- better understanding of Automated Vehicle Locating and Geographic Information Systems requirements

The better understanding created by the Discovery Phase has led to a more realistic schedule going into the implementation phases. The resulting **Business Requirements Document** and **Interface Specifications Document** combine with the **Esri Proposal** to form a **Statement of Work** outlining objectives, tasks and deliverables for Phase 1 Implementation of the Cityworks CMMS solution (Water, Sanitary, and Stormwater). Due to the complexity of the project the consultant requested that the Discovery Phase schedule be extended from March, 2017 to June 2017 to ensure a more accurately defined project scope. Despite the extension the Discovery Phase remained within budget.

The procurement process identified that Esri was the only vendor who met RFQUAL 12-10 prescribed Mandatory Requirements. These Mandatory Requirements provided Administration with a level of confidence that, at a minimum, qualified vendors were capable of providing:

- A product that was compatible with our current ITS platforms,
- Alignment with the City's ITS strategy,

- Utilization of the City’s current Enterprise GIS Geodatabase,



- A map based interface as the main screen of the CMMS for ease of use

DISCUSSION

The objective for the implementation of CityWorks is to provide the Water, Sanitary, Stormwater, Forestry, Parks Operations, Transportation & Roadside Operations and Solid Waste Divisions with a flexible and easy to use solution enabling staff to plan, record and report on work activities to deliver a timely, effective, efficient, and economical service. Further, the CMMS will provide critical information to support the Corporate Asset Management program.

Some important business goals include:

- Enhance work planning, tracking of resources and scheduling
- Improve budgeting and expenditure tracking
- Increase productivity and reduce downtime
- Promote better communication and planning between departments
- Provide timely and accurate information

A significant attribute of an effective CMMS system is the ability to interface with existing City systems to utilize our valuable information with maximum efficiency. The Discovery phase of the project identified and addressed potential interface needs with key City applications including CRM, JD Edwards, City Hub, and Geographic Information Systems. The majority of the interfaces are created in Phase 1, relieving future phases of some effort and cost by leveraging Phase 1 efforts. Future phases include **Transportation & Roadside Operations, Forestry, Parks Operations, and Solid Waste Divisions**. With the completion of the *Discovery Phase* milestone, the end date for Phase 1 of the CMMS implementation is now accurately defined. Subsequent Phases are estimates and may require revision with lessons learned in Phase 1.

Table 1: Strategic Plan Dashboard

Milestone	Revised Milestone	Revised End Date
Design and build interfaces with existing City of London Systems for the new computerized maintenance system	Discovery (design) Phase has been successfully <u>completed</u> .	10/05/2017
Implement computerized maintenance practices for water, Sanitary, Stormwater service areas	Phase 1: Implementation of Cityworks CMMS solution for Water, Sanitary and Stormwater Infrastructure	09/30/2019
Implement computerized maintenance practices for Roads and Forestry	Phase 2: Implementation of Cityworks CMMS solution for Roads and Forestry	05/31/2020
Implement computerized maintenance practices for Solid Waste, Parks Operations	Phase 3: Implementation of Cityworks CMMS solution for Solid Waste, Parks Operations	09/30/2020

Project risks will be mitigated under the direction of the CMMS Steering Team using contract management, milestone-based scheduling, approvals and payments, and

project management best practices.

Project Cost

The acquisition of the Cityworks system Phase 1 has been included in the approved Capital budget.

Phase 1 Implementation of Cityworks for Water, Sanitary, and Stormwater

Table 2: Cost Breakdown

Description	Capital Cost	Operating Cost
Implementation	\$1,037,000	
Year 1 License		\$247,000
Year 2 License		\$247,000
Year 3 License		\$247,000
Subtotal	\$1,037,000	
Contingency 20%	\$207,400	
Total	\$1,244,400	\$741,000
Grand Total		\$1,985,400

Future detailed licensing and implementation costs for Transportation, Parks & Recreation and Solid Waste Phases, will be brought forward in reports pending the results of implementation of this first phase.

The funding for Phase 1 Implementation of the Cityworks CMMS solution will come from sources identified in the attached **Source of Financing**.

Acknowledgements

This report has been prepared by Lois Burgess, Khaled Shahata, Jason Davies, Scott Koshowski, Dean Thompson, and Gary Stronghill.

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REVIEWED & CONCURRED BY:	REVIEWED & CONCURRED BY:
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Attach: Appendix A – Source of Financing

cc: Ian Collins
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Edward Soldo