

Date: July 7, 2020

To: Mayor and Members of Council

From: Geoff Wright, P.Eng, MBA, Commissioner of  
Transportation and Works

Originator's files:

Meeting date:  
July 22, 2020

## Subject

**Single Source Contract Extension for Bridge Management System and Biennial Inspections PRC001936, Contract No. 46000014279 - All Wards**

## Recommendations

1. That the report titled "Single Source Contract Extension for Bridge Management System and Biennial Inspections PRC001936, Contract No. 46000014279 – All Wards" dated June 24, 2020, from the Commissioner of Transportation and Works be received; and
2. That Contract No. PRC001936 (original FA.578-12) with Engineering Management Systems Inc. ending August 31, 2022 be extended for a five-year period ending August 31, 2027 for services related to the Bridge Management System and biennial inspections of the City's bridges and large culverts.

## Background

Since 2007, the City has been using a software solution called Bridge Total Management System (TMS) in tandem with an engineering consulting assignment to manage its bridges and large culverts. In accordance with Ontario Regulation 472/10, made under the Public Transportation and Highway Improvement Act, as amended, the structural integrity, safety and condition of every bridge shall be determined through the performance of at least one inspection in every second calendar year under the direction of a professional engineer and in accordance with the *Ontario Structure Inspection Manual* (OSIM).

In 2012, the City went out to the marketplace and discovered that there were only three vendors that offered a management system to go along with engineering services for biennial inspections of its bridges and large culverts. Two of those vendors were qualified to submit cost proposals. Engineering Management Systems Inc. (EMSi) was the successful vendor and was awarded a 5-year contract with optional extensions expiring on August 31, 2022. At that time, Community Services partnered with Transportation and Works on the procurement to support the management system and inspection requirements for its bridge structures as well.

In addition to maintaining detailed bridge and culvert inventory data and OSIM inspection reports, these management systems monitor and track the overall performance of the assets under a variety of funding and risk scenarios over the lifecycle of the assets. The analysis and scheduling tools built into the Bridge TMS are proprietary and allow the City to develop lifecycle strategies, manage risk and chart progress towards target service levels while assessing various funding scenarios.

## Comments

The current contract with EMSi for the bridge management system and engineering services expires on August 31, 2020, after which will begin the final 2-year extension until August 31, 2022.

With the August 31, 2022 contract end in mind, staff began planning for the procurement and integration of a new system and engineering consulting services, in accordance with the Purchasing By-law 374-06. Through this process, it was found that it would be more cost effective for the City to seek an extension of the contract with its current vendor, EMSi, than it would be to enter into a contract with a new vendor for similar services to provide a bridge management system and supporting engineering services. This is due to a number of factors, including:

- No additional labour costs would be incurred to integrate the system;
- No additional staff training resources would be required;
- No fees to purchase or license the new solution would be required; and
- Cost savings on engineering services would be realized as the current vendor has detailed knowledge and experience with the City's bridge/culvert structures and their site conditions.

There is an opportunity to extend the contract with the existing vendor for an additional 5-year period, ending August 31, 2027. This involves extending the existing contract by a total of 7 years (2 years as per the original contract plus 5 additional years). Based upon the factors noted above, this approach would yield an estimated cost savings of \$1.8 million over the five-year contract extension, as discussed in the Options section below.

Council approval is required to enter into this contract extension as the term with the vendor would exceed ten (10) years, and as it would represent a high value single source acquisition. Schedule 'A' item 1(b)(iv) of Purchasing By-law No. 374-2006 allows for single source contract awards when the solicitation of competitive bids would not be economical to the City.

## Options

The City has two options to procure a bridge management system and engineering consulting services needed to satisfy the requirements of O. Reg. 472/10, as follows:

1. Extend the existing contract with the current vendor, EMSi ; or
2. Seek competitive bids for a new bridge management system and engineering services from qualified vendors.

Table 1 below provides a comparison of the City's options.

**Table 1: Estimated Costs of Options 1 and 2**

Services and related resource requirements over 5-year contract	Option 1: Extend contract with current vendor	Option 2: Procure a new system and services from a new vendor
Labour Costs – IT staffing pressures <sup>1</sup>	\$ 0	\$ 100,000
Engineering Services – T&W assets	\$ 267,000	\$ 845,000 <sup>2</sup>
Engineering Services – CMS assets	\$ 55,000	\$ 315,000 <sup>2</sup>
System Solution – Capital costs <sup>3</sup>	\$ 0	\$ 750,000
System Solution – Operational Costs <sup>4</sup>	\$ 80,000	\$ 230,000
Total costs over 5-year contract	\$ 402,000	\$ 2,240,000

<sup>1</sup> Includes support from an IT Project Lead for 6 months and a GIS/Infor developer for 3 months.

<sup>2</sup> Based on market research with other municipalities and previous procurement results.

<sup>3</sup> Includes solution cost, training for business leads and field inspectors, customization, servers, operating systems.

<sup>4</sup> Includes maintenance and support, annual license and outsource analysis reporting.

Based on staff's analysis, the cost to procure a new bridge management system and services from a new vendor is estimated to be approximately \$1.8 million higher over a 5-year period than it would to continue with the City's current vendor through a contract extension.

## Strategic Plan

This procurement supports the City's Strategic Pillar of *Connect* and its strategic goal to *Build and Maintain Infrastructure*.

## Financial Impact

The 2021 Capital Plan is requesting \$0.2M in funding for the existing contract (and final 2-year extension to 2022) in Project Number 005153 Bridge & Structure Biennial Appraisal. There is cash flow funding of \$0.75M available in Project Number 005155 Bridge & Structure Biennial Appraisal for the new contract term from September 2022 to August 2027. Both projects are funded from Federal Gas Tax Reserve Fund Account # 35182. There is sufficient funding in the forecast for Option 1. Option 2 would require additional funds to be budgeted.

## Conclusion

An extension to the current contract with Engineered Management Systems Inc. until 2027 is recommended as the solicitation of competitive bids would not yield a cost-effective result for the City. Council approval is required for this contract extension.



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Geoff Wright, P.Eng, MBA, Commissioner of Transportation and Works

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