

COMMITTEE OF THE WHOLE JUNE 20, 2005

CONTRACT AWARD – RFP05-002 PUMP STATION UPGRADE CONTROL SYSTEM (SCADA) AND ADDITIONAL FUNDING REQUEST

Recommendation

The Commissioner of Engineering & Public Works, in consultation with the Director of Purchasing Services, and the Director of Reserves and Investments recommends:

1. That Contract RFP05-002 Pump Station Upgrade Control System (SCADA) be awarded to Pump System Interfacing Inc. at an estimated contract value of \$250,000.00 plus GST;
2. That additional funding in the amount of \$16,000 be approved and allocated to project 4956-0-01 with \$8,000 funded from the Water Reserve and \$8,000 funded from the Sewer Reserve and;
3. That the inclusion of the matter on a public Committee or Council agenda for the additional funding request identified as Contract Award – RFP05-002 Pump Station Upgrade Control System (SCADA) and Request for Additional Funding is deemed sufficient notice pursuant to Section 2(1) (c) of By-law 394-2002 and;
4. That the Mayor and Clerk be authorized to sign the necessary documents.

Economic Impact

This is a Capital Project (4956-0-01) approved in 2001 with a funding of \$250,000. The selected proposal is over budget by \$16,000, \$7,500 being required for Administration and \$8,500 having been spent on consulting fees and as such, additional funding will be required to implement the project.

Purpose

To award Capital Project 4956-0-01 Pump Station Upgrade Control System (SCADA) contract and request additional funding.

Background - Analysis and Options

Public Works is currently responsible for the operation of ten sewage pump stations, two water booster pump stations, and a methane flare at the old Vaughan landfill site. All stations are capable of “stand alone” operation; however, staff has to attend to each site on a regular basis to ensure its continued operation. The stations currently incorporate a relay alarm system alerting staff of a problem. The alarm is communicated on leased Bell Canada line circuits and staff attends to the site.

In requesting this Capital Budget, Public Works’ intent was to acquire a Supervised Control and Data Acquisition (SCADA) system utilizing Programmable Logic Controls (PLC) at each site as well as implementing a wireless communication network to replace the existing leased lines of Bell Canada. The rationale for the implementation of a SCADA system for the remote sites includes the use of standardized equipment for alarming, the capability of offsite control, monitoring and data acquisition (reports), the elimination of needing to rely on Bell Canada’s communication network, and the monthly line fees associated with the network.

The following key results are expected with the installation of a new SCADA system: increased reliability, reduced maintenance costs through standardization of hardware and software, capability of offsite remedies for certain emergencies such as pump restart or rotation made possible by the remote control features, reduced communication costs and increased reliability by replacing existing Bell lines with radio modems, automated reporting capabilities facilitated by the information capture features of the SCADA system, and increased monitoring and control capability.

Public Works opted for the Request For Proposal format to allow the proponents more flexibility in their solutions and the possibility of working closer to the budget. Staff hired the services of Eramosa Engineering Inc. to create a set of criteria guidelines that could assist in formulating part of City standards to be incorporated in our RFP document. Eramosa Engineering Inc. has designed SCADA systems for Halton Region, Niagara Region, Waterloo Region and the City of Ottawa and is well versed in network solutions.

The RFP was advertised on the Electronic Tendering Network (ETN) and the Daily Commercial News on January 11, 2005. It closed on February 15, 2005. A total of thirty-one documents were issued by the Purchasing Department. An optional site visit to all pumping stations and to the methane station was scheduled for interested participants on January 28, 2005, to provide a better comprehension of the locales involved. A total of six responses were received: two no bids from Science Applications, of Harrisburg PA and Dakins Engineering, of Mississauga, and one bid was deemed non-compliant (JMP Engineering). The remaining three proposals proceeded to the evaluation stage.

In order to qualify, proponents had to demonstrate their ability to respond to any Vaughan site within one hour of being called out for an alarm and had to have prior experience in York Region for projects of similar magnitude. Staff have checked the bids for mathematical errors, and have contacted references.

The following are the results of the RFP opening:

BID RESULTS FOR RFP05-002 PUMP STATION UPGRADE CONTROL SYSTEM (SCADA)		
Bid Rating	Contractor	Total Including G.S.T.
1.	Pump System Interfacing Inc.	\$267,500.00
2.	Summa Engineering Ltd.	\$352,600.00
3.	American Water Services	\$372,070.61

The Evaluation Team consisted of appropriate Public Works and Purchasing staff and was advised by the consultant, Eramosa Engineering. The proposals received the following rating:

EVALUATION RESULTS FOR RFP05-002 PUMP STATION UPGRADE CONTROL SYSTEM (SCADA)	
Contractor	Proposal's Rating
Pump System Interfacing Inc.	84.7 %
American Water Services	78.2 %
Summa Engineering Ltd.	76.9 %

Pump System Interfacing's proposal meets with the general spirit of the project, establishes their ability to respond within one hour of being called for an alarm and their experience working in York Region on projects of a similar nature. Pump System Interfacing is the only proponent to include a licensed frequency in their network solution that reduces competitive interference, which permits data transmission more efficiently, provides exclusivity of the channel, and does not require as many relays to function. The proposal's cost of implementation is also more inline with the allocated budget.

Relationship to Vaughan Vision 2007

This report is consistent with the priorities previously set by Council, specifically Vaughan Vision's A-1 "Pursue Excellence in the Delivery of Core Services", A-3 "Safeguard Our Environment", and D-1 "Enhance Productivity & Cost Effectiveness".

Conclusion

Based on the evaluation of the proposal and the positive reputation of Pump System Interfacing Inc., it is recommended that RFP05-002 for Pump Station Upgrade Control System (SCADA) be awarded to Pump System Interfacing Inc. and that an additional funding of \$16,000 be approved with \$8,000 funded from the Water Reserve and \$8,000 funded from the Sewer Reserve to proceed with the installation of the system.

Should Council concur with the proposed additional funding request, this action would be considered as an amendment to the Capital Budget. Pursuant to the Municipal Act 2001, Section 291(1)(c) before amending a budget, a municipality shall give notice of its intention to amend the budget at a Council meeting. When a capital project has been subject to a meeting during the adoption of the approved capital budget and where additional funding is required to complete the approved works, inclusion of the matter in a staff report requesting additional funding on a public committee or Council agenda is deemed to be sufficient notice pursuant to Section 2(1)(c) of By-law 384-2002. Therefore, no additional notice period is required.

Attachments

N/A

Report prepared by:

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Respectfully submitted,

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Commissioner of Engineering and Public Works

Brian T. Anthony, CRS-S, C. Tech
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