

2

FEE INCREASE FOR ADDITIONAL CONTRACT ADMINISTRATION AND SITE INSPECTION SERVICES FOR KLEINBURG WATER SUPPLY PROJECT CITY OF VAUGHAN, PROJECT 77480

The Environmental Services Committee recommends the adoption of the recommendations contained in the following report dated September 20, 2011, from the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council authorize an increase to Blanket Purchase Order B00010538 issued to Conestoga-Rovers & Associates for the detailed design, contract administration and site inspection services of the Kleinburg Water Supply Project from \$1,065,268.02 to \$1,655,176.02 excluding taxes, for additional contract administration and site inspection services outside the original scope of work and in excess of the contingency and scope change allowances in the Purchasing By-law.
2. The Commissioner of Environmental Services be authorized to adjust the contract administration and site inspection fee using the competitive unit price of \$7,682.40 per week, excluding taxes, to match actual construction duration in the event future unforeseen delays are encountered within the total project budget authority for this work.

2. PURPOSE

This report seeks Council authorization to increase Blanket Purchase Order B00010538 issued to Conestoga-Rovers & Associates for additional consulting services related to contract administration and site inspection outside the original scope of work and beyond the additional contingency and scope change allowances provided in the Purchasing By-law for the Kleinburg Water Supply Project.

3. BACKGROUND

Detailed design, contract administration and site inspection services assignment awarded to Conestoga-Rovers & Associates in 2007

In accordance with the Purchasing By-law, the Region invited proposals (P-07-37) from the following pre-qualified consultants to provide engineering services to complete

detailed design, contract administration and site inspection for the Kleinburg Water Supply System Project.

1. Conestoga-Rovers & Associates
2. KMK Consultants Ltd.
3. The Municipal Group Limited

Conestoga-Rovers & Associates had the highest technical score and the lowest financial bid. As a result, on October 18, 2007 Conestoga-Rovers & Associates was awarded the assignment. The original project scope included the following:

- A connection to the existing York-Peel Feedermain at Rutherford Road and Huntington Road in the City of Vaughan.
- A 400 mm watermain on Huntington Road from Rutherford Road to Nashville Road.
- A 400 mm watermain on Islington Avenue from Sunset Ridge to Bindertwine Boulevard.
- A booster pumping station, valve and metering chamber and an electrical/chemical feed building at the existing elevated tank.

Additional infrastructure requirements and third party delays have increased project scope and costs

The scope of the Kleinburg Water Supply Project has changed significantly since the original engineering agreement was first executed in October 2007. A summary of the major changes is provided below:

1. To accommodate changes in projected service population increases, the size of the Huntington Road watermain increased from 400mm to 750mm diameter. The size of associated valve chambers and structures also increased. Additional servicing connections were also identified to accommodate City of Vaughan requests for additional future development along Huntington Road.
2. Two additional meter chambers were added to verify flows and act as billing meters for the City of Vaughan's water supply.
3. The existing watermain along Nashville Road will be upgraded from 300 mm to 600mm to accommodate ultimate flow requirements for the community of Kleinburg. Although this project is scheduled to start in 2014, it was recently identified that a portion of this watermain should be upgraded as soon as possible to provide improved near-term reliability of water supply to residences and businesses north of Nashville Road. Since work is already occurring in this area, adding the Nashville Road Watermain upgrade, not only will be a net savings in the overall construction administration and site inspection fees, but will also reduce the duration of construction in the community of Nashville.

4. The Huntington Road Developers Group is currently installing a local sanitary sewer along Huntington Road. The Region's contractor for installing the watermain cannot commence work on the sanitary sewer construction area until the sewer contractor has completed their work. The sanitary sewer construction work is currently expected to be completed approximately 108 days behind schedule. Due to this delay, the Region's contractor will also require a contract extension to complete the watermain works. The Region may recover some of the delay costs from the letter of credit deposited by the Huntington Road Developers Group to York Region on February 23, 2011. This was agreed to as a result of the sewer installation work advancing before the watermain contract.
5. The original Terms of Reference for the Kleinburg Water Supply Project proposed a single contract to be implemented during the construction phase of the project. Due to the increased size and complexity of the project, it became appropriate to split the work into two separate contracts to attract more competitive bids; one for linear works and the other for the booster pumping station. This approach allowed for separately pre-qualifying contractors specialized in large watermains and booster pumping stations, ultimately ensuring that the Region receives a quality end product.

As a result of the above changes, staff authorized consulting fee increases to the Purchase Order to a total of \$1,065,268.02 in accordance with authority provided in the Purchasing By-Law to address design changes. However, the noted design and schedule scope changes result in increased duration of construction and associated construction inspection and contract administration services and costs beyond the scope and contingency adjustment provisions provided in the purchasing by-law, despite the resultant overall project financial, quality and schedule coordination benefits. Consequently this approach will require council authority to increase the Purchase Order to address these additional services.

4. ANALYSIS AND OPTIONS

Conestoga-Rovers & Associates provided quotes for an increase in its labour force for contract administration and site inspection services as a result of the required additional activities and construction delays. Staff reviewed the quotations received from Conestoga-Rovers & Associates to ensure the level of effort was reasonable and was in-line with their original financial proposal for the assignment. Furthermore, since Conestoga-Rovers & Associates continues to provide services on this project for the original scope of work, extending their assignment is compatible with their existing work and represents the best value to the Region for completing the above additional activities and mitigating delays.

These noted items have resulted in additional working days required by the consultant to provide additional site inspection and contract administration ensuring delivery of a quality project.

The original Terms of Reference indicated 180 working days for site inspection and 240 working days for contract administration of a single construction contract. Table 1 summarizes the additional contract days now required based on the additional work scope and delay in delivery of the sanitary sewer.

Table 1
Summary of Additional Working Days and Fees

	Site Inspection		Contract Administration	
	Watermain	Booster Pumping Station	Watermain	Booster Pumping Station
Construction days for additional infrastructure requirements (increased pipe diameter, additional valve chambers, additional metering chambers)	57	0	57	0
Additional days for separation of work into two contracts	95	95	125	125
Additional days required for third party delays	108	0	108	0
Total Additional Days	260	95	290	125
Total Overall Days	355		415	
Total Additional Fee	\$282,409.60		\$307,498.40	

5. FINANCIAL IMPLICATIONS

The construction estimate at the pre-tender stage for this project was \$23,908,287 (\$20,671,425 for the watermain and \$3,236,862 for the booster pumping station).

Booster pumping station and watermain contracts were tendered to pre-qualified bidders. The booster station contract was awarded at the tender price of \$1,996,264.00 and the watermain contract was awarded at the tender price \$13,963,447.66, both excluding taxes. The combined tender price for both contracts is \$15,959,711.66 which is approximately \$8,000,000 lower than the capital cost estimate at the pre-tender stage.

The total requested fee increase for consulting services associated with contract administration and site inspection is \$589,908 exclusive of taxes.

The Region may recover some delay costs from the letter of credit deposited by the Huntington Road Developers Group.

Sufficient funding is available in the approved 2011 Total Project Budget Authority to complete additional scope detailed in this report

The total cost for the Kleinburg Water Supply Project is \$20,614,887.68 excluding taxes. This includes the revised consultant fee of \$1,655,176.02 the current construction cost of the watermain project at \$13,963,447.66, the current construction cost of the booster pumping station at \$1,996,264 and the estimated cost of \$3,000,000 for the Nashville Road watermain upgrade. The approved 2011 Total Project Budget Authority for this project is \$22,424,178. Incorporating the portion of the Nashville Road Watermain also represents approximately \$160,000 in savings by avoiding separate contract administration and site inspection services.

Total cost of construction contracts for the above projects amount to \$18,959,711.66, excluding taxes. The revised total consulting services related to additional work would bring the total consulting fee to 8.7% of the construction cost, which is typical for this type of project.

Since 2002, approximately 960 purchase orders with a total value of approximately \$1.8 billion have been issued to secure engineering, consulting and construction services on water and wastewater projects. Of these, approximately 97 or 10% of the purchase orders have required increases beyond the increases allowed in the Regional Purchasing By-law. The total value of such increases is approximately \$85 million or 4.8 % of the total original value of the purchase orders.

6. LOCAL MUNICIPAL IMPACT

The Kleinburg water supply project is required to provide water capacity to service future growth in Kleinburg and Nashville.

The proposed construction of the 600mm Nashville Road watermain is imperative to the future development of Kleinburg. Incorporating a portion of the Nashville Road watermain into the current project will allow operational efficiencies in relation to the current upgrades and will minimize future construction impacts and costs.

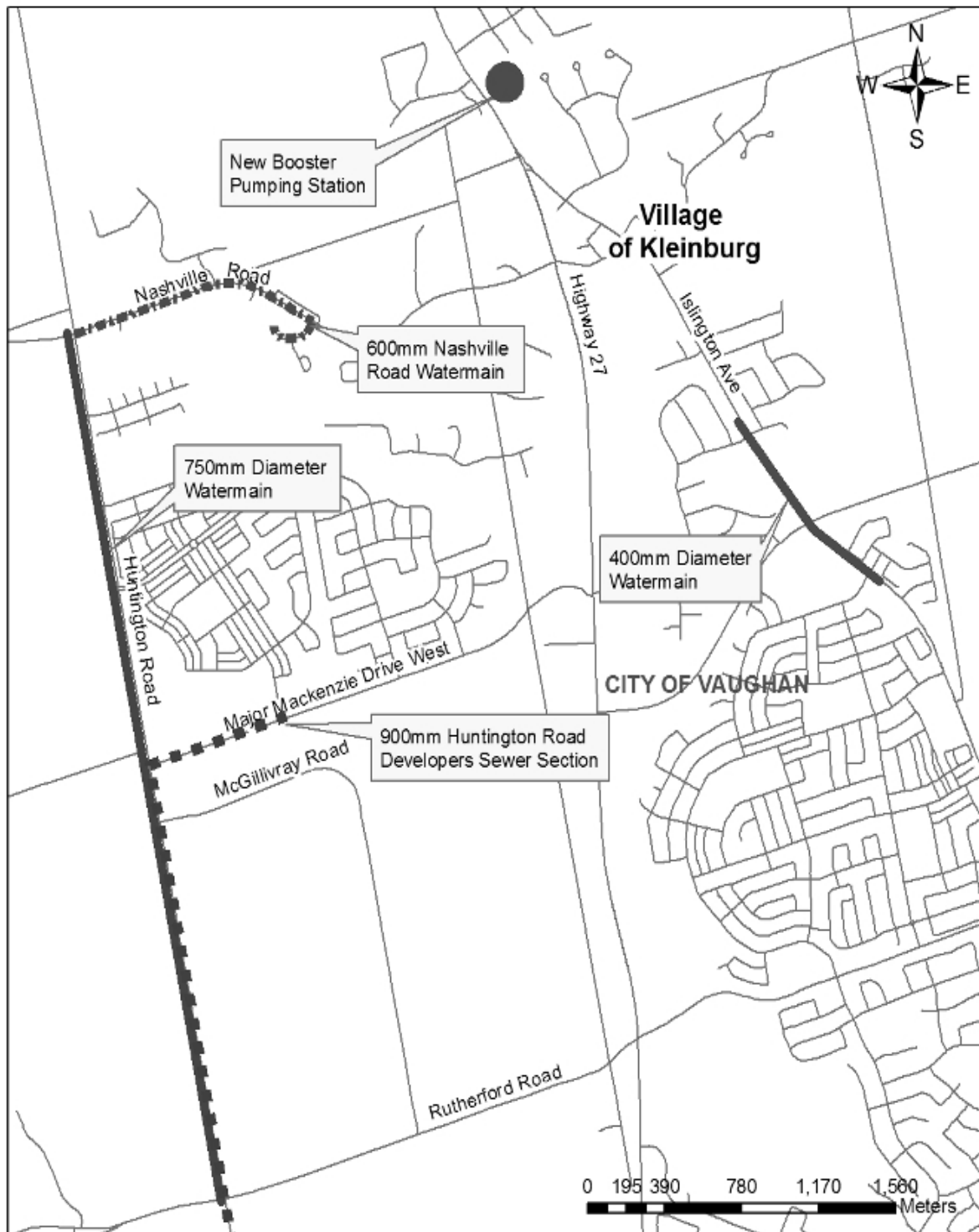
7. CONCLUSION

It is recommended that Regional Council authorize an increase to Blanket Purchase Order B00010538 issued to Conestoga-Rovers & Associates for the detailed design, contract administration and site inspection services for the Kleinburg Water Supply Project from \$1,065,268.02 to \$1,655,176.02 excluding taxes, for additional contract administration and site inspection services outside the original scope of work and in excess of the contingency and scope change allowance in the Purchasing By-law.

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services at (905) 830-4444 Extension 5070.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)



LOCATION PLAN

Fee Increase for Additional Contract Administration and
Site Inspection Services for Kleinburg Water Supply Project,
City of Vaughan, Project 77480



ENVIRONMENTAL SERVICES

York# 3522100