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CONTRACTOR FEE INCREASE FOR STONEBRIDGE POND SEDIMENT REMOVAL MARKHAM, T-07-82

The Transportation and Works Committee recommends the adoption of the recommendation contained in the following report, November 3, 2008, from the Commissioner of Environmental Services:

1. RECOMMENDATION

It is recommended that:

1. The fees for Stonebridge Pond Sediment Removal, T-07-82, carried out by Todd Brothers Contracting Limited, be increased by \$257,198.00 from \$488,900.00 to \$746,098.00, excluding GST.

2. PURPOSE

This report seeks Council authorization to increase the purchase order issued to Todd Brothers Contracting Limited for the removal of silt from Stonebridge Pond in Markham.

The Purchasing By-law requires Council authorization to increase the value of a purchase order in excess of 15% for contingencies and 20% for additional scope activities. The increased amount requested is greater than both of these limits, therefore, Council authorization is required for this purchase order increase.

3. BACKGROUND

The Region committed to cleaning out Stonebridge stormwater management pond in Markham in exchange for use of the pond during the 16th Avenue Trunk Sewer dewatering operation.

Todd Brothers Contracting Limited (Todd Brothers) was awarded contract T-07-82, Stonebridge Pond Sediment Removal, on February 11, 2008 based on their low bid price of \$488,900.00. The contract required Todd Brothers to dewater Stonebridge Pond and remove accumulated sediment from within the pond.

4. ANALYSIS AND OPTIONS

What is the reason for the increase in cost?

The tender for this project was structured as a unit price contract for which the contractor was required to assign unit prices to our estimated quantities for pond dewatering, sediment removal and sediment disposal. Despite having obtained survey data from a boat to estimate the amount of sediment within the pond prior to tendering the project, the actual amount of sediment within the pond was found to be approximately 34% (1,710 m³) greater than our estimates.

Furthermore, although the contract start time was delayed until the summer months to reduce the risk associated with wet weather, several intense precipitation events over the course of June and July resulted in large quantities of runoff draining into the pond. This had a significant impact on the contractor's work and significantly increased the volume of water to be pumped out. The final quantity of water which was pumped out of the pond exceeded our estimates by 386% (40,053m³). It should be noted that June and July 2008 were the wettest ever recorded in this area.

In addition, the original tender envisioned that pond water would be discharged to the storm sewer, and ultimately Eckardt Creek, after sediment removal. Subsequently, site visits with the contractor revealed that it was possible to pipe the pond water to the Region's sanitary sewer several hundred meters away reducing potential impacts to the creek and avoiding the risk of non-compliance with Federal Fisheries legislation. Consequently, the contractor was asked to supply and maintain several hundred meters of piping and pumps to discharge water pumped from the pond into the Region's sanitary sewer.

5. FINANCIAL IMPLICATIONS

The request to increase fees was brought about due to required changes in scope related to the amount of water and sediment requiring removal from Stonebridge Pond in Markham and the Region's decision to discharge pond water to our sanitary sewer system. Heavy rainfall amounts required almost four times the amount of water to be removed than originally anticipated. Sediment quantity removal was originally estimated at a lower quantity than was actually required. The water pumped was discharged directly into the sanitary sewer to minimize environmental impact, and not into the storm sewer and creek as originally envisioned. This required several hundred meters of pipe and pumps to be constructed and maintained. All changes amount to an increase of \$257,198.00.

Because of the significant increase over estimated quantities, reduced unit rates for quantities beyond tender estimates were negotiated with the contractor. The chart below

shows revised unit rates and quantities. There are sufficient funds in the 2008 Capital Budget to pay for the additional works required.

Table 1
Stonebridge Pond Sediment Excavation Contract - Final Quantities

Item #	Item Description	Unit	Bid Quantity	Final Quantity	Unit Price (\$)	Bid Price (\$)	Increase (\$)
1	Insurance and General Items	Lump Sum	1	1	\$25,000	\$25,000	-
2	Pond Dewatering	m ³	14,000	14,000	6	84,000	-
	Pond Dewatering (above estimate)	m ³	0	40,053	3	-	120,159
3	Sediment Excavation	m ³	5,000	5,000	28	140,000	-
	Sediment Excavation (above estimate)	m ³	0	1,710	23	-	39,330
4	Sediment Disposal	tonnes	10,000	10,000	16	160,000	-
	Sediment Disposal (above estimate)	tonnes	0	736	12	-	8,832
5	Street Cleaning	Lump Sum	1	1	43,400	43,400	-
6	Site Restoration	Lump Sum	1	1	36,500	36,500	-
CO1	Safety Fence	Lump Sum	1	1	5,100	-	5,100
C02A	HDPE pipe system setup	Lump Sum	1	1	29,569	-	29,569
C02B	HDPE pipe system rental	Weeks	4	4	13,552	-	54,208
					Total	\$488,900	\$257,198

The Report to the Finance and Administration Committee entitled Project Contingency Review which was adopted by Regional Council on October 23, 2008, examined the 378 contracts valued over \$100,000 awarded by the Region during the period of January 1, 2006 and June 30, 2008. The Report concludes that the application of the contingency allowance and additional work allowance is reasonably managed as the costs related to their implementation is about 4% of what departments could potentially apply under the purchasing by-law. The costs related to applying the contingency and additional work provision are viewed as reasonable since if the Region did not initiate the use of these provisions it could be at risk of project delays and potential claims from the contractors.

6. LOCAL MUNICIPAL IMPACT

The Region committed to cleaning out Stonebridge Pond in exchange for use of the pond during the 16th Avenue Trunk Sewer dewatering operation. The pond has been cleaned out to The Town of Markham's satisfaction.

7. CONCLUSION

The purchase order amount for construction activities related to the water and sediment removal from Stonebridge Pond in Markham, carried out by Todd Brothers Contracting Limited, be increased by \$257,198.00, from \$488,900.00 to \$746,098.00.

For more information on this report, please contact Bala Araniyasundaran, Director, Capital Planning and Delivery, Environmental Services Ext. 5131.

The Senior Management Group has reviewed this report.