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REQUEST FOR ADDITIONAL FUNDING FOR DETAILED DESIGN, CONTRACT ADMINISTRATION AND SITE INSPECTION SERVICES FOR THE NEWMARKET EQUALIZATION TANK TOWN OF NEWMARKET – PROJECT 75170

The Transportation and Works Committee recommends the adoption of the recommendation contained in the following report, November 21, 2008, from the Commissioner of Environmental Services:

1. RECOMMENDATION

It is recommended that:

1. Blanket Purchase Order number P-03-70 issued to R.V. Anderson Limited for the detailed design, contract administration and site inspection for the Newmarket Equalization Tank be increased from \$825,940.80 to \$1,025,811.00, excluding GST, for additional engineering services outside of the original scope of work and in excess of the 15% contingency and 20% additional scope allowances provided for in the Region's Purchasing By-law.

2. PURPOSE

This report seeks Council authorization to increase the purchase order issued to R.V. Anderson Limited for the detailed design, contract administration and site inspection for the Newmarket Equalization Tank.

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. As both of these limits have already been reached, Council authorization is required for this purchase order increase.

3. BACKGROUND

Additional project activities have exhausted the PO's 15% contingency and 20% additional scope allowances provided for in the Purchasing By-law

In January 2003 R.V. Anderson Limited (RVA) was retained to provide engineering services for the detailed design, contract administration and site inspection of a new Equalization Tank located at the site of the Newmarket Pumping Station. Accordingly, Purchase Order (PO) Number P-03-70 was issued to RVA for the assignment at an approved upset fee limit of \$611,808, plus GST.

In May 2005 the PO was increased by \$55,000 for out of scope activities related to the geotechnical investigation required to identify buried reinforced concrete structures and to determine if a Ministry of the Environment Permit To Take Water would be required during construction.

In June 2005 the PO was increased by \$11,000 for on site testing activities required to determine the actual pumping capacity of the Newmarket pumping station.

In November 2005 the PO was increased by \$13,556 for out of scope design work required by the Town of Newmarket to secure Site Plan approval.

In January 2007 the PO was increased by \$6,577 for out of scope design work for additional landscaping requested by area residents.

Also in January 2007 the PO was increased by \$128,000 for 32 weeks of additional contract administration and site supervision services not provide for in the original scope for this project. This value was established by RVA's proposal which stipulated that the fee for all "out of scope" contract administration and site inspection services would be \$4,000 per week.

The additional design, contract administration and site inspection services outlined above have exhausted the 15% contingency and 20% additional scope allowances provided for in the Region's Purchasing By-law.

Further additional services provided by RVA on this project are outlined below.

4. ANALYSIS AND OPTIONS

Additional design work required during construction

During construction the existing driveway access to the various facilities on the Newmarket Pumping Station property needed to be reconfigured to better meet the requirements of Regional Operations staff. This necessitated some minor site plan redesign work as well as a resubmission to the Lake Simcoe Regional Conservation Authority for an amendment to their permit. This design work was not included in the original scope for this project, and the fee associated with completion of this work is \$15,870.

Actual duration of construction required additional contract administration and site inspection services

During the excavation activities the contractor encountered a significant number of large abandoned underground reinforced concrete structures that were not identified by the

additional geotechnical investigation carried out by RVA. The contractor then encountered further difficulties with the control of water entering the excavation as well as the erection of the extensive shoring and tieback system. Once the excavation was completely secured, the concrete and mechanical works went very well and were completed within the original period of time identified for those activities. Nevertheless, the extensive time lost to complete the excavation was never regained ultimately resulting in a significant delay in the completion of construction phase of the project. The fee for additional contract administration and site inspection services provided by RVA associated with this delay is \$184,000 (ie. 46 weeks at \$4,000 per week).

5. FINANCIAL IMPLICATIONS

The total additional cost for the above additional detailed design, contract administration and site inspection services provided by RVA on this assignment which are in excess of the contingency and additional scope allowances, equals \$199,870.

Given that the duration of construction was far greater than anticipated, no funds were budgeted for this project in 2008. This additional project expenditure, however, can be accommodated from the anticipated under expenditure in the overall 2008 Capital Program.

It should be noted that, even though some of the delay in the completion of this construction contract is related to the issues noted above, a total of 30 days were attributed to contractor inefficiency. Accordingly, \$90,000 has been recovered from the construction contractor on this project in the form of assessed Liquidated Damages set at \$3,000 per day in the construction contract. This results in a net expenditure of 109,870 for the additional scope items.

All outstanding expenditures on this project will be funded 93% from development charges and 7% from wastewater rate reserve.

6. LOCAL MUNICIPAL IMPACT

This work provides a higher capacity of the Newmarket sewage pumping station to pass peak flow events and reduces the probability of spills to the Holland River at the Newmarket and Aurora pumping stations.

7. CONCLUSION

R.V. Anderson Limited has completed additional services on their detailed design, contract administration and site inspection assignment for the Newmarket Equalization Tank which are excess of the contingency and additional scope allowances provided for

in the Region's Purchasing By-law. Accordingly, it is recommended that their Purchase Order for this assignment be increased from \$825,940.80 to \$1,025,811.00, excluding GST, required to fund these additional services. Taking into consideration the recovered Liquidated Damages, the net increase in fees for this engineering assignment will be from \$825,940.80 to \$935,811.00, excluding GST.

It should be noted that the construction contract for the Newmarket Equalization Tank project has a current limit of approximately \$9.5 million. As such, taking into account the recovered Liquidated Damages, this budget increase will result in the final fees for RVA's detailed design, contract administration and site inspection services equalling approximately 9.9% of the value of construction. This is generally in line with the amount of fees for the engineering services for these types of projects involving underground structures.

For more information on this report, contact Bala Araniyasundaran, Director of Capital Planning and Delivery, Environmental Services, at extension 5131.

The Senior Management Group has reviewed this report.