Amendment to Purchase Order 6031903  
Basement Flooding Protection Program  
Assignment No. 30-01  
Tender Call 97-2010, Contract 10FS-73WP  
General Services Contract No. 2, Task Order No. 1

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<td>To:</td>
<td>Public Works and Infrastructure Committee</td>
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| From:          | Executive Director, Technical Services  
Director, Purchasing and Materials Management Division |
| Wards:         | Ward 40 – Scarborough-Agincourt |
| Reference Number: | P:\2011\clusterB\TEC\PW11041 (AFS # 14687) |

**SUMMARY**

The purpose of this report is to request authority to amend Purchase Order 6031903, for the Basement Flooding Protection Program, Assignment No. 30-01, Tender Call 97-2010, Contract 10FS-73WP, General Services Contract (G.S.C.) No. 2, Task Order No. 1 - Sanitary Sewer Replacement on Farmcrest Drive, Meadowacres Drive and Commons Drive.

The amendment is required to cover the cost of additional work for the removal and disposal of additional asphalt pavement containing asbestos, work around poor saturated unstable soil conditions and permanent pavement restoration from curb to curb. The total amendment being requested is $290,000.00 net of HST ($295,104.00 net of HST recoveries, $327,700.00 including HST and all charges) revising the current contract value from $1,345,712.84 to $1,635,712.84 net of HST ($1,664,501.39 net of HST recoveries, $1,848,355.51 including HST and all charges).

This Purchase Order was initially amended by $500,000.00 net of HST from $845,712.84 to $1,345,712.84 net of HST ($1,369,397.39 net of HST recoveries, $1,520,655.51 including HST and all charges) in accordance with the City's Financial Control By-Law, Item 71.11.
RECOMMENDATIONS

The Executive Director of Technical Services and the Director of Purchasing and Materials Management Division recommend that the Public Works & Infrastructure Committee grant authority to:

1. Amend Purchase Order 6031903 for the Basement Flooding Protection Program, Assignment No. 30-01, Tender Call 97-2010, Contract 10FS-73WP, General Services Contract No. 2, Task Order No. 1 - Sanitary Sewer Replacement on Farmcrest Drive, Meadowacres Drive and Commons Drive, with 614128 Ontario Ltd. O/A Trisan Construction (Trisan) by an additional amount of $290,000.00 net of HST ($295,104.00 net of HST recoveries, $327,700.00 including HST and all charges), revising the current contract value from $1,345,712.84 to $1,635,712.84 net of HST ($1,664,501.39 net of HST recoveries, $1,848,355.51 including HST and all charges).

Financial Impact

The amendment for an additional amount of $290,000.00 net of HST ($295,104.00 net of HST recoveries, $327,700.00 including HST and all charges) increases the current contract value from $1,345,712.84 to $1,635,712.84 net of HST ($1,664,501.39 net of HST recoveries, $1,848,355.51 including HST and all charges). Sufficient funding is available in the 2011 Toronto Water Capital Budget under WBS element CWW421-09 (Basement Flooding Relief-Group 1).

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

BACKGROUND

Tender Call 97-2010 for Contract 10FS-73WP, General Services Contract (GSC) No. 2 for the Basement Flooding Protection Program was issued for tender on May 5, 2010 and closed on June 10, 2010. The associated Staff Report (BD180.1) recommended the award of the above mentioned GSC No. 2 to four successful bidders, namely: 614128 Ontario Ltd. O/A Trisan Construction, Drainstar Contracting Ltd., Memme Excavation Company Limited and Comer Group Limited. Staff Report BD180.1 was adopted by the Bid Committee on July 28, 2010 at their Meeting No. 180 and can be found at the following link:

http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2010.BD180.1

Purchase Order (PO) 6031903 related to Task Order Contract (T.O.C.) No. 1, as part of, and under the above noted GSC No. 2 was issued in December 2010 to Trisan being the qualified bidder meeting specifications, in the amount of $845,712.84 net of HST ($860,597.39 net of HST recoveries, $955,655.51 including HST and all charges).
This PO was initially amended for additional work, associated with a deeper sanitary sewer construction on Farmcrest Drive and Meadowacres Drive and for the replacement of an existing 60 year old 150mm diameter cast iron watermain which had a history of breaks. The watermain replacement also helped to reduce the challenges and risks of the construction of the new sanitary sewer.

COMMENTS

The original PO issued for the base contract included the replacement of existing 300mm/350mm diameter asbestos cement sanitary sewers with new 450mm diameter PVC sanitary sewers and temporary road restoration on Farmcrest Drive, Meadowacres Drive and Commons Drive as a measure to mitigate basement flooding through improving the flow and increasing carrying capacity of the sanitary sewers.

During construction, unanticipated poor, soft, saturated and unstable soil conditions were encountered, which required further geotechnical investigations. Test pits were excavated in various locations on Farmcrest Drive and Meadowacres Drive and a visual inspection of the sub-surface conditions as well as taking samples for laboratory analysis of the existing soil were also performed. It was concluded that the unexpected poor, saturated and unstable soil conditions could be attributed to the seepage of perched water from the nearby utility trenches due to the mild winter and early spring wet run-off conditions; this represents changed field conditions from that specified in the geotechnical report as part of the contract specifications as the groundwater was found to be well below the utilities backfill.

On Farmcrest Drive and on a small section of Meadowacres Drive, the following unanticipated issues arose: a) the existing utilities backfill was saturated and unstable; b) greater removal of pavement containing asbestos due to the roadway overbreak because of poor soil conditions; c) sections of the road sub-base were non-existent (that is, no granular sub-base); and d) discovery of existing left-in-place timber shoring; all of which required a change in the base contract construction method for the new sanitary sewer installation. In costing the base contract, the contractor, Trisan, was to utilize a full depth trench box excavation method for the construction of the new sanitary sewer.

To address the unanticipated field conditions, two new methods of construction were investigated from aspects of cost and time; a) tight sheet shoring excavation; and b) a combination of utilizing a trench box at the bottom half of the trench with sloped open cut at the top half of the trench excavation. The City's engineering and geotechnical consultants, CH2M HILL and Coffey Geotechnics, recommended the later construction method. This construction method was highly effective, resulting in lower costs, and time savings, which also negated any potential delay claims from the contractor, Trisan.

In collaboration with Transportation Services and in accordance with the City's Temporary Road Closure By-Law (No. 455-2000), the contractor, Trisan, was allowed 30 calendar days of full road closure on Farmcrest Drive from Victoria Park Avenue to Meadowacres Drive. This allowed Trisan to expeditiously complete the restoration of the roadway overbreak associated with the sanitary sewer construction inclusive of full width permanent road
restoration from curb to curb in-lieu of temporary pavement restoration. Local businesses in the commercial plaza on the east side of Victoria Park Avenue have access from both Farmcrest Drive and Victoria Park Avenue. There was unanimous agreement from the business owners for the road closure. To further ensure that the work was completed in a timely manner thereby avoiding any potential claims for loss of revenue from business owners in the commercial plaza, Change Directives were issued to the contractor, Trisan, based on estimated quantities and cost. This additional work to the base contract was completed within the 30 calendar day road closure. The end result was that there were no claims from the businesses and permanent roadway reconstruction in-lieu of temporary pavement restoration, which avoids further neighbourhood disruption and increased pavement restoration costs.

The final cost of the unexpected additional work is currently under negotiation with Trisan and it is not expected to exceed the City's and CH2M HILL's estimate of $290,000.00 plus HST. The final cost will be dependent on actual field measurements of materials placed, and their associated unit costs.

As the result of the additional work due to unexpected site conditions during construction as described above, it is respectfully requested that Purchase Order 6031903 be amended by an amount not to exceed $290,000.00 net of HST ($295,104.00 net of HST recoveries, $327,700.00 including HST and all charges).

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**SIGNATURE**

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