

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: May 11, 2011

SUBJECT: PROCUREMENT AUTHORIZATION AMENDMENT
TORONTO-YORK SPADINA SUBWAY EXTENSION PROJECT
CONTRACT NO. A85-75F – SHEPPARD WEST STATION
CONTRACT AMENDMENT NO. 4

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission authorize Contract Amendment No. 4 to AECOM Canada Ltd. (AECOM), in the amount of \$2,047,500.00, increasing the total upset limit amount to \$15,797,500.00. This will provide for complete design services from preliminary to design support during construction for Sheppard West Station and associated works.

FUNDING

Sufficient funds for this expenditure are included in the Toronto-York Spadina Subway Extension Project, as set out on pages 1447 to 1449R of the TTC 2011-2015 Capital Program (Category - Expansion) which was approved by City Council on February 23, 2011.

BACKGROUND

The TTC is implementing the design and construction of an underground subway line from the existing Downsview Station on the Spadina line to the proposed Vaughan Corporate Centre Station located in the City of Vaughan, Region of York. The 8.6 km extension includes six new subway stations, one of which is the Sheppard West Station.

The Toronto-York Spadina Subway Extension (TYSSE) project is being funded by the Federal Government, the Province of Ontario, the Regional Municipality of York and the City of Toronto. The TTC is managing the design and construction of the YYSSE project and will own and operate the subway extension.

At the Commission meeting of October 23, 2008, the Commission approved YYSSE's recommendation to award Contract A85-75F for the design of Sheppard West Station to the design team lead by Earth Tech Canada Inc. (now doing business as AECOM Canada Ltd.), in

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the upset limit amount of \$8,000,000.00. The fee was subsequently increased by the Commission at its meeting on March 24, 2010 by \$5,750,000.00, bringing the total authorized to \$13,750,000.00.

Public presentation of the station concept took place on November 17, 2009, with overall positive feedback. The Sheppard West Station was tendered as part of Contract A35-25 on August 9, 2010. The contract was awarded to the successful low bidder on November 17, 2010.

Contract A85-75F details are as follows:

Original Contract Upset Limit Amount	\$8,000,000.00
Previous Amendments (Detailed Design and Construction Documentation of various additional design activities detailed in the March 24, 2010 Commission Report)	\$5,750,000.00
Current Total Contract Amount	\$13,750,000.00
This Contract Amendment	\$2,556,000.00
De-authorization of GO Transit Amount	-\$508,500.00
Total Revised Upset Limit Amount:	\$15,797,500.00

The current total contract amount included approximately \$750,000 of fees for the design of GO Transit Rail Platforms at Sheppard West Station. Design was completed to the 30% stage at a cost of approximately \$241,500.00 leaving \$508,500.00 to be deauthorized. The remainder of the GO Rail Platform design will be undertaken by GO Transit directly.

To date there has been no expenditure beyond the previously authorized \$13,750,000.00.

DISCUSSION

Subsequent to the amendment per the March 24, 2010 Commission report, a number of changes have materialized. This necessitated additional design and redesign work, the extent of which is summarized below. This work included addressing permitting issues and incorporating stakeholder requirements. It should be noted that to maintain the project schedule, Sheppard West Station was the first station of the Spadina Subway extension to be tendered for construction. For this reason many of the items described below have been addressed in the design development of the other stations.

In addition, the incremental costs of HST on all previously approved fees, which have been expended since July 1, 2010 will be addressed as part of this amendment.

1. HST Adjustment (\$200,000)

The incremental cost of HST applied to the portion of the \$13,750,000 design fee used after July 1, 2010 is estimated to be \$200,000. However, it should be noted that \$172,920 (approximately 86%) will be reimbursed.

It should be further noted that the costs associated with this contract amendment include HST in the amount of approximately \$271,044, of which \$234,349 will be reimbursed.

2. Addressing Third Party Requirements (\$275,000)

Subsequent to the previous increase in fees, additional design effort was required to address requirements as part of the approval process with the City of Toronto and other stakeholders. The revisions included: modifications to Bakersfield Extension and adjacent subway station plaza layout, landscape plan changes, re-design of Bakersfield and Chesswood intersections with Sheppard Avenue and update to the traffic analysis report.

3. Project Environmental Task (\$80,000)

This task involved conducting field work and reviewing the impact of groundwater dewatering discharge from construction activities on receiving natural bodies of water in order to mitigate negative impact to fish habitat for the southern portion of the project.

4. Additional Design Requirements

A number of additional design requirements were established after March 2010. These included:

- Substation grounding study and design (\$17,500);
- Development and design of fully wrapped waterproofing for enhanced performance and lower long term maintenance costs (\$170,000);
- Optimization of the fire ventilation system to reduce capital costs (\$235,000);
- Additional design work associated with the permanent structures within the east and west tunnel boring machine launch shafts (\$163,500);
- Revisions to elevating devices to improve performance and maintainability (\$140,000);
- Implementation of design requirements including: implementation of Fire Department request to pressurize fire fighters' accesses; measures to minimize water ingress by

preventing concrete cracking to improve station serviceability; provisions for future installation of platform edge doors; revisions to station service road (\$345,000);

- Provision of air conditioning redundancy to increase service availability of elevators (\$15,000);
- Additional station signage (\$15,000);
- Electrical requirements to interface with follow-on Systems contracts under development (\$150,000); and
- Revisions to address Electrical Safety Authority review comments (\$50,000).

5. Additional design support services during construction (\$700,000)

The original design services budget for Sheppard West Station included an allowance for design support during construction equal to 1% of the estimated subway station construction cost. A review of the requirements has revised this allowance to 1.9% of the estimated construction cost. This percentage allowance is within the range that was realized during the construction of the stations on the Sheppard Subway extension.

The total authorization being requested as an upset limit, including design support during construction, is \$15,797,500.00. Work will only proceed on the basis of work plans approved by staff.

The Contract Amendment is being requested at this time to ensure that sufficient authorization is in place for the design work and design support during construction.

JUSTIFICATION

The Contract Amendment is required to pay for the additional engineering costs associated with the increased project work.

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