

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: March 24, 2010

SUBJECT: PROCUREMENT AUTHORIZATION AMENDMENT
TORONTO-YORK SPADINA SUBWAY EXTENSION PROJECT
CONTRACT NO. A85-75D – HIGHWAY 407 STATION
CONTRACT AMENDMENT NO. 1

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission authorize Contract Amendment No. 1 to AECOM Canada Ltd. (AECOM), in the amount of \$7,550,000.00 for the completion of detailed design and support during construction for the Highway 407 Station, increasing the total upset limit amount to \$19,550,000.00 from \$12,000,000.00.

FUNDING

Sufficient funds for this expenditure are included in the Toronto-York Spadina Subway Extension (TYSSE) Project, as set out on pages 1439 to 1442 of the TTC 2010-2014 Capital Program (Category - Expansion) which was approved by City Council on December 8, 2009.

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 Highway 407 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 A85-75D for the design of Highway 407 Station to the design team lead by Earth Tech Canada Inc. (now doing business as AECOM Canada Ltd.), in the upset limit amount of \$12,000,000.00. The fee was intended to cover design services for Highway 407 Station preliminary design, detailed design; design support during construction and preparation of record drawings.

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At the November 17, 2009 Meeting, the Commission approved the conceptual design of the Highway 407 Station. Public presentation of the Highway 407 Station took place on March 10, 2010, along with the Vaughan Corporate Centre Station.

Contract A85-75D details are as follows:

Original Contract Amount (including GST)	\$12,000,000.00
This Contract Amendment	<u>\$7,550,000.00</u>
Total Revised Upset Limit Amount	\$19,550,000.00

The additional amount being requested includes approximately \$1,000,000.00 of design fees that will be reimbursed by MTO for the design of their share of the station infrastructure. The amount also includes \$550,000.00 for environmental work.

No work has been done on this Contract Amendment.

DISCUSSION

The original upset limit was based on the conceptual station design in the Environmental Assessment report in 2006 with an estimated final cost of \$95M. The design consultant was presented with the TYSSE station design philosophy which emphasizes key elements in the TTC design standards, including bright open spaces maximizing the use of natural light, strong aesthetics and public artwork, column free structures, where possible, with high ceilings, and sustainable design to meet the Toronto Green Standard.

In developing this concept, staff, and the station designer have met and reviewed concepts with major stakeholders including staff from YRRTC, GO Transit/Metrolinx, MTO, and the City of Vaughan.

The report presented at the November 17, 2009 Commission meeting indicated a revised capital cost of approximately \$134M, i.e. a cost increase of \$39M over the amount originally budgeted for this station, which is to be covered by the Project contingency allowance. Negotiations are also ongoing with Metrolinx/MTO/GO for funding of additional elements relating to the bus terminal and future Transitway connections over and above the cost of the subway station.

The \$39M cost increase accounted for several conditions not foreseen when the original project budget was established. The station concept presented in the Environmental Assessment required significant modification to fully address field conditions, environmental requirements relating to the Black Creek floodplain, the needs of multiple stakeholders, and adoption of updated design criteria. The most significant adjustments requiring additional

design work include:

- High water table requiring special design measures to counteract floatation of the station box, and detailed design of a more robust station structure.
- During preliminary design it became apparent that the Environmental Assessment approved alignment of the subway tunnels impacted a 500kV Hydro Tower owned by Hydro One Networks Incorporated (HONI). This hydro tower is located just south of the Highway 407 Station site. This necessitated the alignment of the tunnels to be relocated easterly, impacting the proposed EA location of Highway 407 Station shifting it easterly towards Black Creek. This shift allowed the depth of Highway 407 Station to be reduced but necessitated additional design effort to address the impacts on Black Creek and the associated river valley system.
- Extensive co-ordination and development of alternative designs in conjunction with the Ministry of Transportation of Ontario (MTO,), to ensure that the Highway 407 Station infrastructure interfaces with the future Highway 407 Transitway Station that is being planned by the MTO for the same site.
- A 50% enlargement of the bus terminal, and extensive discussion with the main users, GO Transit and YRRTC to determine their design requirements.
- Development of an advance contract package to allow a number of site preparation works to be tendered ahead of the main subway station construction contract. This includes the construction of a new 6 lane road bridge over Black Creek. This advance contract required additional design effort to accelerate selected portions of the overall design.
- Addition of “project” tasks to AECOM’s scope to fulfil commitments made by the project in the approved Environmental Assessments. These include an Air Quality Analysis for the section of the project in York Region and the co-ordination and preparation of Environmental Management Plans required to fulfil a commitment made by the Project as a whole as part of the approved Environmental Assessment.

The total upset limit, including support during construction, will be \$19,550,000.00, which is in line with the Professional Engineers Ontario (PEO) guidelines for this type of project, and consistent with previous TTC costs.

The actual fees paid will be based on work plans as approved by staff.

JUSTIFICATION

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

March 2, 2010
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