

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: June 2, 2010

SUBJECT: PROCUREMENT AUTHORIZATION AMENDMENT
TORONTO-YORK SPADINA SUBWAY EXTENSION PROJECT
CONTRACT NO. A85-75E – YORK UNIVERSITY STATION
CONTRACT AMENDMENT NO. 2

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission authorize Contract Amendment No. 2 to ARUP Canada Inc., in the amount of \$3,700,000 for the completion of detailed design and support during construction for the York University Station, increasing the total upset limit amount to \$14,700,000 from \$11,000,000.

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 the York University 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 A85-75E for the design of York University Station to the design team lead by ARUP Canada Inc. in association with Foster + Partners in the upset limit amount of \$11,000,000. The fee was intended to cover design services for the York University Station including preliminary design, detailed design, design support during construction, and preparation of record drawings.

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At its meeting on September 24, 2009, the Commission approved the conceptual design of the York University Station. Public presentation of the station concept took place on December 3, 2009, with positive feedback.

Contract A85-75E details are as follows:

Original Contract Upset Limit Amount	\$11,000,000
Previous Amendments	\$0
This Contract Amendment	<u>\$ 3,700,000</u>
Total Revised Upset Limit Amount	\$14,700,000

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 \$86 million. 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 with and reviewed concepts with major stakeholders including staff from the City of Toronto Planning and York University.

The report presented at the September 24, 2009 Commission meeting indicated a capital cost of approximately \$115 million, i.e. a cost increase of \$29 million over the amount originally budgeted for this station. Through the Value Engineering process conducted by TTC and the design consultant, the indicated capital cost has been reduced to \$110 million, reducing the increase to \$24 million which is to be covered by the project contingency allowance.

The \$24 million 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, City Planning needs, York University requirements and adoption of updated design criteria. The primary reasons for the increase in the consultant's fees were for scope changes and for concept development to reach a design that was acceptable to the Commission, York University and the City of Toronto. Additional design activities are

summarized as follows:

- High water table requiring special design measures to counteract flotation of the station box and detailed design of a more robust station structure.
- Sustainability and Toronto Green Standard, requiring additional studies and design (e.g. Green roof, energy modelling).
- A major change to the access to the station. The original concept assumed direct underground connection to adjacent buildings that proved prohibitively expensive for passenger flow. The alternate scheme resulted in the development of a new above grade structure that is designed to complement the adjacent Common area and service the passengers' needs.
- In order to maintain the single point of accountability for settlements due to excavation and tunnelling, the shoring and excavation work along with utility work has been incorporated into the northern tunnel contract, requiring preparation of additional tender package information by this designer.
- The station has undergone several iterations and major redesign below ground in order to increase offsets to the adjacent buildings and minimise the potential for settlement damage.
- Design of rough-in for platform edge doors.
- The main entrance and roof were redesigned to reduce costs.
- Additional design scope was added for environmental, landscaping and coordination of artist activities.
- Additional disbursements for the international part of the design team.

Authorization of the Contract Amendment is necessary to allow the design work to continue in order to avoid delays to completion of design work and subsequent delay of the overall project.

JUSTIFICATION

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

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