

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: November 26, 2008

SUBJECT: PROCUREMENT AUTHORIZATION AMENDMENT:
AUTHORIZATION OF FUNDS FOR PHASE 5
"IMPLEMENTATION" OF PO C31PV06860 "CONSULTANT
SERVICES ENGINEERING REVIEW OF AUTOMATIC TRAIN
CONTROL TECHNOLOGY YONGE/UNIVERSITY/SPADINA
SUBWAY LINE"

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission authorize Amendment #5 to the Contract with Parsons Overseas Company of Canada, Ltd. (Parsons) in the upset amount of \$15,843,380 (USD) for the provision of Engineering Consultant Services to provide specialist signal engineering personnel to work as an integral part of the YUS ATC Resignalling Project Delivery Team for five years as specified in Phase 5 of Contract C31PV06860.

FUNDING

Sufficient funds for this expenditure have been included in Project 2.4, YUS ATO Resignalling in the State of Good Repair/Safety category as set out on pages 515-524 of the 2009-2013 TTC Capital Program, as approved by The Commission on August 27, 2008. Funding towards this capacity building project has been provided by Metrolinx.

BACKGROUND

The Resignalling of the YUS subway line utilizing Automatic Train Control will improve safety and capacity throughout the length of the line. Automatic Train Control enforces a minimum safe separation between trains based on the safe braking distance from the last verified location of the rear of a preceding train or any other obstruction such as disturbed switches. This technology allows trains to travel closer together than the traditional fixed block system currently employed on the YUS line. This ability to travel closer together increases the throughput of the service and therefore allows more trains to be scheduled and more passengers to be carried.

Staff have begun design and implementation work to replace the existing traditional signalling system with Automatic Train Control supplemented by a new back-up conventional signalling

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system. Automatic Train Control Systems of this magnitude are very different than the Commission's current signalling technology. The ATC-CBTC Supply RFP is currently out to tender with a closing date of Monday, November 24, 2008 with anticipated award at the end of the first quarter of 2009. The Consultant Services Contract provides for supplementing TTC staff with expert engineering staff to create an integrated project team to ensure a successful completion of this complex project. Parsons was originally awarded a Contract on December 29, 2006 based on a competitive bid process and is currently assisting TTC staff in the management of the ATC proposal process and will be assisting in the technical analysis of the submitted proposals. In addition they are utilising their technical expertise to ensure the Computer Base Interlocking (CBI) technology employed on the South Yonge Resignalling Program is ATC compatible. Staff recommend extending the Consultant Services Contract to encompass the provision of expert personnel to work as an integral part of the project delivery team until 2013 to further the implementation of ATC (including AWS) over the entirety of the YUS line. ATO on the South Yonge Area is scheduled for revenue service in 2013, at which time the project team staffing will be reassessed to determine future needs to complete the implementation.

Contract details are as follows:

Original Contract Amount (awarded in USD)	\$199,500 CAD	\$168,000 USD
Previously Approved Contract Amendments	\$2,225,633 CAD	\$1,874,217 USD
This Contract Amendment	\$18,814,014 CAD	\$15,843,380 USD
Total Revised Contract Amount (Upset Limit)	\$21,239,147 CAD	\$17,885,597 USD

Work under this Contract Amendment is 0% complete.

The currency exchange rate used for this amendment is \$1.00 US = \$1.19 CAD (Bank of Canada Noon Rate on November 3, 2008).

DISCUSSION

The scope of work, for both the base work and optional work is that referenced in the Contract Documents for Consultant Services Engineering Review of Automatic Train Control (ATC) Technology Yonge/University/Spadina Subway Line (Purchase Order No. C31PV06860).

Parsons are currently authorized to work on the scope of work consisting of Phases 1, 2, 3 & 4. Phase 1 includes production of a Work Plan for carrying out the Consulting Services and this phase is complete; Phase 2 covers Conceptual Design and this phase is complete. Phase 3 was to write a Detailed Specification for the provision of ATC on the YUS Line. This was successfully produced and is currently in RFP stage. Phase 4 of the contract covers support during Procurement activities of the ATC system, and is currently in progress.

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The future award of the ATC-CBTC Supply contract and subsequent management of that contract extends the need for ATC Consultant Engineering Services. Phase 5 work was originally specified as an Optional Phase. An outline scope of work was provided in the original Contract Documents; a more detailed scope of work has now been developed for this phase detailing the signalling personnel requirements to complement TTC staff in making up the Project Delivery Team for the next five years and has been used as a basis by Parsons to provide a fully costed and scheduled Work Plan estimate.

The quotation submitted by Parsons for the scope of Phase 5 as detailed by TTC staff has been reviewed and found acceptable.

JUSTIFICATION

Parsons is the recognized world authority on Automatic Train Control Systems and have planned and implemented projects worldwide. Most recently, they are working with New York City Transit to upgrade some of their key subway lines to operate under Automatic Train Control.

Parsons' assistance to TTC staff in the implementation of ATC to the YUS line will ensure a successful and timely implementation of the project. The new system will be phased into implementation with the entire line operating under ATC in 2015.

November 3, 2008
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