



STAFF REPORT ACTION REQUIRED

Procurement Authorization to Implement Pre-Boarding Announcements (PBA) on TTC Buses

Date:	November 23, 2015
To:	TTC Board
From:	Chief Executive Officer

Summary

As part of the TTC's long-term commitment to achieving a transit system which is accessible to customers of all abilities by 2025, the TTC intends to retrofit all its modes with electronic systems to externally announce the route, direction, destination, or next major stop as a Pre-Boarding Announcement (PBA). This is consistent with the goals and objectives of the [2014-2018 TTC Multi-Year Accessibility Plan](#). It is also consistent with section 51 of the [Accessibility for Ontarians with Disabilities Act \(AODA\)](#), [Integrated Accessibility Standards Regulation \(IASR\)](#), which comes into effect on January 1, 2017.

The purpose of this report is to obtain authorization for the award of a contract to Luminator Holding, L.P. for the supply of Pre-Boarding Announcement (PBA) kits on the basis of sole source, for installation on the TTC's entire bus fleet. There are four different types of kits required to complete this work.

Recommendations

It is recommended that the Board authorize:

1. The award of a contract to Luminator Holding, L.P. for the supply of Pre-Boarding Announcement kits in the total amount of \$4,271,934.75 U.S. (USD), which converts to \$5,565,049.40 Canadian (CAD) based on an exchange rate of 1.3027 dated October 20, 2015 and is inclusive of HST, brokerage, duty fees, etc., on the basis of sole source. This amount is in addition to the \$331,343.75 USD (which converts to \$431,641.50 CAD) for a partial delivery of 125 kits for the Orion VII 1201 and 1274 model buses that has already been authorized by the Chief Executive Officer (CEO).

Financial Summary

Sufficient funds are included in the 2015-2024 TTC Capital Budget under Capital Program 4.13 – Bus Overhaul - AODA Requirements/TTC Buses, as noted on pages 725-726, which was approved by City Council on March 10/11, 2015.

The Chief Financial & Administration Officer has reviewed this report and agrees with the financial impact information.

Accessibility/Equity Matters

The TTC has a strong organizational commitment to accessibility, and is making continuous progress towards making all of its vehicles, facilities, and services accessible, consistent with Provincial AODA legislation. The TTC's implementation of accessibility improvements is guided by the *2014-2018 TTC Multi-Year Accessibility Plan*, which was adopted by the Board in April, 2014. That document outlines the TTC's long-term vision for an accessible transit system. Item 6.4.1 of the *Multi-Year Accessibility Plan* explains the TTC's commitment to provide PBA's on all vehicle modes by 2017. PBAs are currently provided on the TTC's new generation of low-floor accessible streetcars. Work will begin in 2016 to implement PBAs on both subway and legacy streetcars, and this will be the subject of separate reports to the Board.

The recommendations in this report have been influenced by advice provided by ACAT, to ensure that the selected PBA arrangement will meet the needs of all customers, including people with disabilities and seniors.

Issue Background

Presently, TTC buses do not have the ability to audibly announce, on the exterior of the bus, routes, directions, destinations, or next major stop information at the point of boarding, and we must rectify this in order to meet our corporate commitment to implement PBAs, and to comply with the PBA legislative requirements of the AODA, IASR which take effect on January 1, 2017.

Benefits of Pre-Boarding Announcement Systems

Audible PBA systems are a recent and increasingly-standard component of public transit vehicles. Similar to the PBA system currently in operation on the TTC's new low-floor accessible streetcars, bus PBAs will provide audible route and destination information to customers waiting to board, every time the front door of a bus is opened. Similar announcements are already provided on buses operated by other GTA and Canadian transit agencies, including Brampton Transit, MiWay(Mississauga), Translink (Vancouver, B.C.), and Winnipeg Transit.

PBAs improve the boarding experience for all customers, and are an important accessibility feature for customers who cannot see the visual destination signs of an approaching transit vehicle. Emitted from speakers located beside the front doorway of each bus, audible PBAs will assist people with vision impairments with locating the vehicle entrance, and will help to ensure

that they are boarding the correct vehicle, especially in large bus terminals where numerous bus routes terminate.

PBAs will also reassure tourists and other customers who are unfamiliar with the TTC that they are travelling on the correct route, in the correct direction. In short, PBAs will enable all customers to reliably ascertain that the vehicle they are about to board will be travelling to their intended destination.

Comments

Consultation

In order to design a PBA solution that will deliver a consistent wayfinding experience on all modes for all customers and is also consistent with IASR requirements, consultations were held with ACAT's Design Review Subcommittee. During the consultations, ACAT recommended that the PBA solution for the bus fleet consist of audible announcements of the information already displayed visually on the destination signs of the vehicle, including route number, route name, destination, and any short-turn or detour information. ACAT made additional recommendations regarding volume of the announcements, repetition frequency, "not in service" buses, and other considerations.

A prototype system was tested with ACAT members in May, 2015. Further recommendations were made and have been implemented to improve the system to ensure it meets the needs of all customers. To date, favourable feedback has been received from ACAT, customers with disabilities, and the general public on the prototype bus PBA system.

Technical and Cost Considerations

Early in 2014, TTC staff began preparing for implementation of the PBA accessibility feature by investigating potential technology available for installation on the bus fleet. The investigation revealed that external announcement systems were only offered as an optional part of much larger Computer Aided Dispatching/Automatic Vehicle Location (CAD/AVL) route management systems. CAD/AVL systems involve an extensive retrofit of the bus fleet. While TTC now has approved funding to purchase a CAD/AVL system that is expected to be substantially implemented by 2018, waiting for this would deprive TTC customers of this accessibility feature and would result in a period of non-compliance with AODA legislation. Therefore, another solution is needed -- one which minimizes interim costs and maximizes compatibility with the CAD/AVL system that is ultimately implemented.

All TTC buses are already equipped with an external visual route and destination display system that is used to help passengers know which bus to board. This system is manufactured and supplied by Luminator Holding LP (Luminator). Modifications to this system would allow it to also act as an external announcement system, announcing the same information as the signs display. Most of the required technology is already contained within the Luminator visual display system, so the costs to modify this system would be lower than the design, manufacture, and installation of a completely new external announcement system.

The modification of the Luminator visual display system to include external announcement capability involves proprietary technology. Therefore, on August 22, 2014, authorization was obtained from the CEO to issue a sole source contract to Luminator to design an external announcement system. Subsequently, in November 2014, a Purchase Order was issued to Luminator for the manufacture and supply of five prototype external announcement systems in the amount of \$56,545.20 USD (or \$63,669.90 CAD, at an exchange rate of 1.126, as of November 2014). Luminator completed the prototypes, which were tested and approved for installation by TTC personnel. Testing was conducted throughout 2015 and included consultation with ACAT. Finalization of design and acceptance of the external announcement system from various stakeholders was received in September 2015. If the TTC proceeds with production system orders, the cost of the prototypes will be credited back to TTC. The cost of the production systems was fixed at the time of negotiation of the contract for the prototype systems.

Staff issued a Request for Bid (RFB) to Luminator on the basis of sole source for the supply of four types of PBA kits to be suitable for installation on the entire TTC bus fleet. Below is a table outlining the quantities and bus models for the required kits.

Kit No.	Bus Model	Total Quantity Required
1	Orion VII 1201 & 1274	812 Kits
2	Orion VII NG 1308, 1329, & 1336	661Kits
3	Orion VII NG 1358, 1359 & Flyer D40LF	147 Kits
4	Nova Buses	258 Kits

Luminator did not state any exceptions or qualifications to the TTC's terms and conditions, and is considered compliant.

Staff obtained authorization from the CEO for a partial order of 125 of the 812 kits for the Orion VII 1201 and 1274 model buses listed above (\$331,343.75 USD, which converted to \$431,641.50 CAD) in order to accommodate Bus Maintenance's installation schedule. Resources to commence with the installation of these kits became available as of November 1, 2015 and additional resources will become available to install the balance of the kits as of January 4, 2016. Authorization for the balance of the order is required from the Board.

A price comparison is not available because this is the first time the TTC has purchased all four types of PBA kits.

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