



Report to: General Committee

Date Report Authored: September 6, 2013

SUBJECT: Acquisition of an Articulated Aerial Ladder Device
PREPARED BY: Phil Alexander, Deputy Fire Chief

RECOMMENDATION:

- 1) THAT the report entitled “Acquisition of an Articulated Aerial Ladder Device” be received; and,
- 2) THAT the approved funding for the Capital Project - 13403 New Fleet Vehicles Fire be increased by \$305,300, inclusive of HST, to reflect current market price for an articulated aerial ladder device; and,
- 3) THAT the increase in the budget in the amount of \$305,300 be 100% funded from Development Charges in accordance with the original budget request;
- 4) AND THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to seek approval to increase funding for the approved Capital Project 13403 “Two New Fleet Vehicles – Fire” for the estimated increase in price for an articulated aerial ladder device based on actual costs for recent deliveries of similar apparatus to other municipalities.

BACKGROUND:

Markham Fire and Emergency Services have achieved efficiencies through the implementation of the standardized fleet model since 2002. During the 2013 capital budget process, Council approved a capital project for an additional aerial apparatus to be funded through Development Charges in the amount of \$1,221,200. It was Staff’s intention to purchase an articulated aerial ladder device apparatus at the time of the capital appropriation request and the funding was deemed sufficient. The expected delivery date is January 15, 2015 and for training of Cornell 2nd crew. Delivery time for an aerial apparatus including specification and preparation of tender documents is typically twelve to eighteen months. Staff is currently working on the specifications and preparing necessary tender documents subject to Council approval of the additional funding.

Since 2002, growth of the City has been reflected in significant changes in urban design and built form. Some particular examples which challenge emergency services delivery

include long rows of town homes and low rise town homes, closely built residences with rear access laneways, and low and high-rise residential and commercial structures with terraced balconies at intermediate levels. Markham Fire and Emergency Services had an articulated aerial ladder device in its' fleet from 1990 to 1995. The apparatus demonstrated the versatility of the articulating concept; however, it was a prototype and during operation exhibited safety and reliability concerns. The articulated device was subsequently sold and replaced with an aerial of standard design. Other municipalities (Toronto, Guelph, and Peterborough) have recently purchased and operated articulated aerial ladder apparatus with success, and without the concerns related to Markham's previous experience.

OPTIONS/ DISCUSSION:

Based on the research of prices of recent deliveries of similar apparatus to other municipalities in Ontario and Quebec, the cost to acquire the articulated aerial apparatus is estimated at \$1,526,500, inclusive of HST, which is an increase of \$305,300 to the original budget request. The original budget estimate was based on the market price for the standard aerial and a demo model for the articulated aerial ladder device. At that time, the price differential between the standard aerial device and an articulated aerial ladder device was minimal and in line with the life cycle estimate for the standard aerial device, which was taken at the time of the original standardized fleet report. Efficiencies relative to the standard fleet design and favourable currency exchange indicated the acquisition would be possible within the approved budget.

Staff has considered options which include:

Option 1: Purchase another aerial consistent with the current standardized fleet design. This option would not require additional budget and the acquisition process would be simplified (standard specification, existing preferred supplier agreement). Also this option would not require significant additional training for operators or mechanical staff. However, the risks associated with this option include continued difficulty accessing overpasses/underpasses, embankments, tiered balconies on high rise buildings, row housing, housing with rear access lanes, and difficulty evacuating persons with limited mobility or assistive devices.

Option 2: Purchase a demonstration unit if available at a lower price which would also expedite the acquisition. The risks associated with this option include reduced life cycle, reduced warranty, and additional training or maintenance costs if the unit does not have the standardized fleet equipment. Additional equipment requirements which are part of the standardized fleet and delivery model may not be available on a pre-existing demonstration unit.

Option 3: Purchase one new articulated aerial ladder device for Markham, which will significantly improve access to the types of structures mentioned previously, and assist people with limited mobility.

Staff recommends proceeding with Option 3 as part of the approved Capital Project 13403 "Two New Fleet Vehicles – Fire".

FINANCIAL CONSIDERATIONS

The Development Charges (DC) background study includes \$1,211,200 for an Articulated Aerial Ladder device. Funds will be reallocated from within the Fire DC component in order to fund the incremental amount of \$305,300.

The Lifecycle Replacement and Capital Reserve Study includes the replacement of an aerial apparatus every 10 years at approximately \$1,200,000. The 2014 study update will reflect the higher cost.

Based on the above, Staff recommend capital project - 13403 New Fleet Vehicles Fire be increased from \$1,221,200 to \$1,526,500 by \$305,300, inclusive of HST, and to be funded from Development Charges.

HUMAN RESOURCES CONSIDERATIONS

Not applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

Growth Management: Additional versatility of the articulated aerial design provides greater access to built form in the City.


Municipal Services: Planned addition of aerial device in January 2015 is described in the previously approved Fire Master Plan.

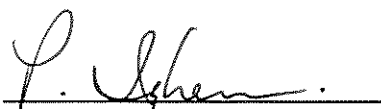
Accessibility: Articulated ladder device has the potential to evacuate persons requiring assistive devices and wheelchairs

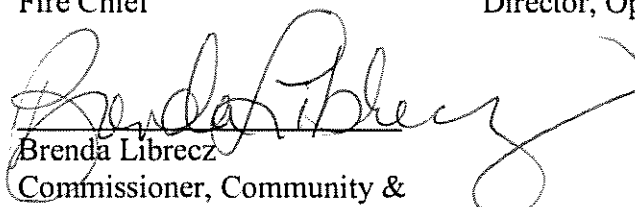
BUSINESS UNITS CONSULTED AND AFFECTED:

Financial Services

Operations - Fleet & Supplies.

RECOMMENDED**BY:**

Bill Snowball
Fire Chief

Paul Ingham
Director, Operations

Brenda Librecz
Commissioner, Community &
Fire Services

ATTACHMENTS:

2013 Capital Project Request Form – 13403 New Fleet Vehicles Fire