



Report to: General Committee

Date Report Authored: November 3, 2015

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<b>SUBJECT:</b>	197-S-15 Supply and Delivery of One (1) Fire Pumper Apparatus
<b>PREPARED BY:</b>	Laurie Canning, Manager, Fleet & Supplies Ext. 4896 Patti Malone, Senior Buyer, Ext. 2239 Phil Alexander, Deputy Fire Chief, Ext. 5960

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**RECOMMENDATION:**

- 1) THAT the report entitled “197-S-15 Supply and Delivery of one (1) Fire Pumper Apparatus” be received;
- 2) AND THAT the supply of one (1) Fire Pumper Apparatus be awarded to Safetek Emergency Vehicles in the total amount of \$856,959.33 CAD dollars inclusive of HST (\$619,190.27 USD), subject to change based on the currency exchange at time of payment;
- 3) AND THAT the Treasurer be authorized to fund any shortfalls due to US dollar exchange fluctuations from the appropriate Reserves;
- 4) AND THAT authority to approve the expenditure to equip one (1) Fire Pumper Apparatus in the amount of \$25,000.00 CAD be provided to the Director of Operations (or designate) or the Fire Chief (or designate) as per the limits in accordance to the Expenditure Control Policy;
- 5) AND THAT the funds for the Fire Pumper Apparatus award and associated equipment be provided from account 057-6150-15240-005 “Corporate Fleet Replacement-Fire” in the amount of \$660,900.00 CAD dollars;
- 6) AND THAT the net shortfall in account 057-6150-15240-005 “Corporate Fleet Replacement-Fire” in the amount of \$221,059.33 be funded from the Life Cycle Replacement and Capital Reserve Fund;
- 7) AND THAT the tender process be waived in accordance with purchasing By-Law 2004-341, Part II, Section 7 Non Competitive Procurement, item 1 (e) which states “Where the City is acquiring specialized equipment, in which case the sources of supply may be identified based on technical specifications prepared by the User Department staff, the Manager of Purchasing may negotiate purchases based on such specifications in consultation with the User Department;”
- 8) AND THAT the Pumper apparatus 9921 (2007 model year) be reassigned to the spare fleet and one existing spare pumper apparatus, upon condition assessment, be disposed of in accordance with Purchasing By-Law 2004-341, Part V, Disposal of Personal Property and the proceeds be posted to account 890-890-9305 “Proceeds of Sale-Other F/A” upon placing the new apparatus into service;
- 9) AND THAT Staff will report back to Council in 2016 on a non competitive procurement report for future pumper truck purchases;

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- 10) 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 obtain Council Approval to award the life cycle replacement of one (1) new fire pumper apparatus.

**BACKGROUND:**

In 2009 (5 years) and 2014 (1 year), Council approved the continuation of standardization of the fire apparatus fleet from the following:

- Safetek Emergency Vehicles (Safetek), as the Canadian sales distributor for Smeal Fire Apparatus
- Spartan is the manufacturer of the cab and chassis
- Smeal Fire Apparatus (Smeal) is the manufacturer of the fire body

With only one pumper required for 2015 and no requirements for 2016, Staff are seeking the approval for the purchase of one pumper vehicle from Safetek through a non-competitive procurement process due to the specialized equipment being purchased. Staff will report back to Council in 2016 with recommendation on future pumper truck purchases.

**OPTIONS/ DISCUSSION:**

The City standardized the fire apparatus in 2001 and since this date the City has purchased twenty fire apparatus vehicles from Safetek through a non competitive procurement process.

This arrangement enables Fire and Emergency Services staff to consider all aspects of apparatus management including post delivery service, original manufacturer resources, factory expertise and the longevity of vendors in the industry. Continuity in the fire apparatus manufacturing industry is a concern where there is a continuous cycle of re-alignment in the business relationships between Canadian and American affiliates. Staff are satisfied with the equipment manufactured by Smeal and continues to work with the distributor Safetek to identify further “value added” opportunities such as technical training for fleet technicians. Smeal apparatus have proven to be a safe and high quality product. As vendor, Safetek has been responsive and an effective advocate on warranty issues with Spartan (builder of the chassis) and Smeal. Safetek/Smeal provides on-going Original Equipment Manufacturer (OEM) training for both our mechanical and training staff.

Safetek distributes Smeal fire apparatus with the following municipalities:

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|----------------------|---------------------------------|-----------------------------|
| 1. City of Barrie    | 4 apparatus since 2008          | non competitive procurement |
| 2. City of Calgary   | ordered 25 for the next 5 years | non competitive procurement |
| 3. City of Vancouver | ordered 25 for the next 5 years | non competitive procurement |
| 4. Town of Ajax      | 12 delivered or on order        | non competitive procurement |

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|----------------------|---------------------------|-----------------------------|
| 5. City of Pickering | 8 delivered since 2007    | competitive Process         |
| 6. City of Burnaby   | 10 delivered since 2004   | non competitive procurement |
| 7. City of Surrey    | 6 to be delivered by 2015 | competitive Process         |

The practice of standardizing fire fleet and apparatus and the use of a non competitive procurement provides the City the following benefits:

**Training efficiency costs** – Eliminated the need for apparatus specific training. Training for 24 firefighters is reduced to a 4 hour in-service review from a 24 hour course. Existing training manuals and lecture notes can be updated, eliminating the requirement for new manuals and significantly reducing administrative time of training staff. Efficiency in this area means the Training Division can redeploy their efforts toward other training programs. This translates into approximately \$50,000 in efficiency savings.

**Improved staff utilization** – Reduced staff movements (mileage) and overtime paid to maintain specialized qualifications on unique apparatus. Mileage costs associated with the standardized fleet have been eliminated resulting in a \$5,000 of cost avoidance.

**Reduced downtime** – Standardization of vehicles allow Fire mechanical staff to undertake repairs and subsequently recover costs from the manufacturer for warranty work performed in-house.

**Reduced inventory levels** - Standardization of vehicles results in common parts such as emergency lighting, filters, windshields and brakes has resulted in reduced inventory levels and committed funds.

**Reliability** - Smeal fire apparatus have generally averaged less than half the annual downtime (40 hours) for major services/inspections compared to other previous manufactured units. The City attributes a savings of \$125/hr for the downtime period (i.e. \$125 x 40 hours = \$5,000 annually per unit). Minimized downtime results in greater availability of “front run” apparatus for emergency responses, less downtime of suppression crews for vehicle changeovers and station cover-ups.

**Improved Process Management** – Standardization eliminated the need to have an individual tender developed, issued, and administered (minimum 100 hours of staff time per tender), thereby allowing staff to reinvest their efforts into other projects and work commitment. Without standardization, since 2001, Fire, Operations, and Purchasing staff would have administered twelve tenders.

**Planning and Operational Management** – The preferred supplier approach has realized business operation benefits and represented good business practice for delivering on the outcome of a safe community.

**Supplier and Partner Focus** – The preferred supplier approach maximizes the supplier relationship by selecting a highly qualified supplier to deliver products and services that meet Markham’s quality requirements and prices. Furthermore, waste is minimized by having requirements incorporated at the outset of any product design.

**FINANCIAL CONSIDERATIONS AND TEMPLATE:**

The following table summarizes the financial considerations:

<b>Details</b>	<b>\$'s</b>
Award of Pumper Truck	856,959.33
Award of Pumper Apparatus	<u>25,000.00</u>
Total award	881,959.33
Budget - project #15240, "Corporate Fleet Replacement-Fire"	<u>660,900.00</u>
<b>Budget Shortfall</b>	<b>(221,059.33)</b>

The budget shortfall of (\$221,059.33) is a result of two factors:

- 1) The major contributor to the variance is the US to Canadian dollar exchange rate difference, from a budgeted 1.10 to actual of 1.384 (rate as of December 31, 2015). This exchange rate difference contributed to an unfavourable variance of (\$175,850.03).
- 2) The variance of (\$45,209.30) is the result of price escalation from the manufacturer due to increased material and labour costs of \$22,427.90 and secondly, the remaining price variance of \$22,781.40 is due to the fact that the budget in project # 15240 was based on 2013 pricing which was available at the time of budget development.

The shortfall in the amount of (\$221,059.33) in account 057-6150-15240-005 "Corporate Fleet Replacement-Fire" will be funded from the Life Cycle Replacement and Capital Reserve Fund.

The Lifecycle Reserve Study will be adjusted in 2016 to reflect the current pricing adjusting for the exchange rate impact.

In view of the continued weakness of the Canadian dollar, the Treasurer will be authorized to fund any shortfalls due to US dollar exchange fluctuations from the appropriate Reserves.

**Negotiations**

Under this award the price of the fire pumper apparatus has increased by \$22,427.90 or 3.7% compared to the City's last purchase in May 2014. Staff was able to negotiate a reduction of \$9,019.00 from the original quotation by amending payment terms to 7 – 14 days in lieu of the standard 30 days. These saving have been included in the cost of award.

Additionally, Staff was also able to negotiate up to \$2,500 for any good or service required after delivery has been made (e.g. training courses, parts).

**Comparison (US Dollar impact)**

Staff reviewed the material components of the Fire Pumper Apparatus to understand the impact of the US dollar.

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The cab and chassis (\$367,635.55 or 42.9%) as well as the major components are either manufactured or purchased in the United States and therefore, subject to fluctuations in the US currency. The major components include; the fire pump (Hale), foam suppression system (Foam Pro), cord reels (Hanney), lighting and emergency lighting (Whelen), sirens (Federal Signal).

**Replacement unit**

Unit 9921 (Pumper apparatus) has been included in the 2015 Corporate Fleet Replacement Program. This unit is a front line fire apparatus and has experienced significant usage throughout its lifecycle. Increased maintenance due to severe duty use render this apparatus less reliable as a front run apparatus. This unit meets the criteria specified in the Corporate Fleet Policy with respect to the replacement criteria guidelines. Considering the current number of front run apparatus in the Fire and Emergency Services department, and apparatus availability during Fleet mandatory annual inspections and preventative maintenance programs, it is necessary to maintain a spare fleet of four apparatus. The spare fleet currently consists of three pumpers (units 9831, 9841, 9881) and one aerial (unit 9896). The replaced pumper apparatus 9921 will replace one of the three spare pumpers based on condition assessment.

**ENVIRONMENTAL CONSIDERATIONS:**

The recommended purchase of the Pumper includes a “green option” auxiliary diesel power unit (APU) which was also implemented on recently delivered apparatus (6 purchased since 2013). The APU can potentially reduce operation of the main diesel operating engine by up to 80% during idling periods, leading to significant reductions in emissions and fuel consumption. Fuel consumption is monitored to verify the financial sustainability of the ‘green option.’ To date the average net fuel savings of 4.75% (approximate \$300/year) have been achieved with this APU option.

Additionally, the pumper truck will meet the National Fire Protection Association (N.F.P.A 1901) fuel and emissions standard. The engines will reduce the amount of harmful emissions created by the operation of the truck and provide better fuel economy.

**HUMAN RESOURCES CONSIDERATIONS**

N/A

**ALIGNMENT WITH STRATEGIC PRIORITIES:**

Markham subscribes to the PEP Certification program from Excellence Canada (formerly National Quality Institute (NQI)). By applying its recommended quality framework at increasing level of difficulty, the performance of the organization is assured. The practice of standardizing fire fleet and apparatus and the use of preferred supplier supports Markham’s desire to attain Level IV certification.

**BUSINESS UNITS CONSULTED AND AFFECTED:**

N/A

**RECOMMENDED BY:**

11/01/2016

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Bill Snowball  
Fire Chief

11/01/2016

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Brenda Librecz  
Commissioner, Community and Fire Services