



Report to: General Committee

Meeting Date: June 15, 2020

SUBJECT: Supply and Delivery of Two (2) Street Sweepers
PREPARED BY: Raymond Law, Sr. Manager – Business, Fleet & Public
Realm, Ext. 4852
Peter Englezakos, Supervisor – Fleet and Supplies, Ext. 4896
Melita Lee, Senior Buyer, Ext. 2239

RECOMMENDATION:

1. That the report entitled “057-S-20 Supply and Delivery of Two (2) Street Sweepers” be received; and,
2. That the contract for the supply and delivery of two (2) Tymco brand, model DST-6 regenerative (waterless, dustless) type street sweepers be awarded to The Equipment Specialists Inc. (an authorized Tymco dealer), in the amount of \$814,080.00, inclusive of HST; and,
3. That the costs of \$814,080.00 be funded from account 057-6150-19207-005 (Corporate Fleet Replacement) with a budget available of \$726,240.00; and,
4. That the budget shortfall in the amount of \$87,840.00 (\$814,080.00 - \$726,240.00 or \$43,920 per unit) be funded from the Life Cycle Replacement and Capital Reserve Fund; and,
5. That the tendering process be waived in accordance with Purchasing By-Law 2017-18, Part II, Section 11 (1) (b) which states, where there is only one source of supply for the goods to be purchased and (e) “where the City is acquiring specialized vehicles in which case the sources of supply may be identified based on technical specifications prepared by the User Department; and,
6. That the units being replaced (1234 and 1235) be sold upon delivery of the new units in accordance with Purchasing By-Law 2017-8, Part V, Disposal of Personal Property. Proceeds will be posted to account 890 890 9305 (Proceeds from the Sale of Other Fixed Assets); and further,
7. 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 purchase two (2) Tymco brand, model DST-6 regenerative (waterless, dustless) street sweepers to replace existing units # 1234 and 1235.

BACKGROUND:

The City has been successfully using the Tymco brand, model DST-6 regenerative (waterless, dustless) street sweepers since their initial purchase in 2010. These units have reached the end of their useful lives and their replacement is required to ensure reliable operation and continued service delivery.

The rationale for this type and model of sweeper has been that it is independently certified as the optimum product for the maximum pickup and containment of particulate matter. The ability to sweep in a waterless condition allows the City to perform sweeping operations in seasonal periods when temperatures may be below zero degrees Celsius, and reduces contamination and particulates from entering the storm water management system. The City's street sweepers remove approximately 1,800 tons of road pollution per year.

In 2016, the International Organization for Standardization (ISO) published a new internationally recognized standard for Environmental Management (ISO 14034). Using this standard as the framework for evaluation, Environmental Technology Verification Canada (ETV) is able to measure and assess the environmental claims of equipment manufacturers and ensure they are true and verifiable. ETV has carried out testing on the Tymco DST-6. The findings of the testing indicated that the Tymco DST-6 has a surface pick up efficiency to capture 95% of particulate down to 0.3 micron while performing dustless sweeping without the use of water.

Alternatives to the Tymco DST-6 was the next most efficient unit, an Elgin brand, model Crosswind NX, which had a published pick up efficiency of 81% as tested by EVT. Based on average sweeper collection volumes for the City of Markham, a reduction in sweeping pick up efficiency of 10 per cent would equate to approximately 80-100 tons per unit per year of fine toxic particulate matter left on the roads. However, this competing unit is no longer in production. The Tymco DST-6 remains as the only available option for a street sweeper using waterless, dustless regenerative filtration technologies with the desired levels of pick up efficiency of greater than 90%.

Distributor

Tymco do not directly sell their units, the only distributor of the Tymco unit in Ontario is "The Equipment Specialist". The distributor also provides parts and other support as needed while owning the Tymco units

Based on the aforementioned technical specifications, Fleet Services recommends replacing the existing street sweepers with the equivalent units, by waiving the tendering process in accordance with Purchasing By-Law 2017-18, Part II, Section 11 (1) (b) and (e).

FINANCIAL CONSIDERATIONS

Recommended bidder	The Equipment Specialists Inc. (non-competitive procurement)	
Current budget available	\$726,240.00	057-6150-19207-005 Corporate Fleet Replacement
Less cost of award	\$814,080.00	Total Award (inclusive of HST) \$407,040/unit x 2 units
Budget remaining after award	(\$ 87,840.00)	(\$43,920/unit x 2 units)

The budget shortfall in the amount of \$87,840.00 will be funded from the Life Cycle Replacement and Capital Reserve Fund. The units are purchased in Canadian Dollar (CAD) from a Canadian distributor. However, they are manufactured in the US and as such, the deteriorating US exchange has increased the market price.

The units being replaced (1234 and 1235) will be sold upon delivery of the new units in accordance with Purchasing By-Law 2017-8, Part V, Disposal of Personal Property. Proceeds will be posted to account 890 890 9305 (Proceeds from the Sale of Other Fixed Assets).

At this time, Fleet Services do not recommend the deferral of this purchase. The useful life of the units is 8 years and they were originally scheduled to be replaced in 2018, however, a decision was made to defer the replacement until 2019. As the units age, the maintenance and repair costs also increase year over year. In anticipation of a higher replacement cost, Fleet opted to change from a dual drive specification to a single drive model (operated from right-hand side only). This specification change results in savings of approximately \$20,000 per unit (for a total of \$40,000 savings).

OPERATING BUDGET AND LIFE CYCLE IMPACT

There is no incremental operating budget impact as the vehicles being purchased are replacements for existing units. The Life Cycle Reserve Study will be reviewed and updated accordingly.

ENVIRONMENTAL CONSIDERATIONS

In a study published by Atmospheric Environment, nearly half of road pollution is attributed to non-exhaust sources such as brake wear, road surface wear, and particles launched in the air by the movement of road. In another study conducted by the University of London, brake dust is identified as producing more harmful pollution than vehicle exhausts. The use of the high efficiency street sweepers allows the City to reduce pollutants on the roads in its efforts to protect the health and wellbeing of the community and local air quality.

The units in this award utilize the most current technology, and has Tier-4 diesel emissions compliant engines capable of operating with bio-diesel, reducing overall engine emissions.

HUMAN RESOURCES CONSIDERATIONS

Not applicable.

ALIGNMENT WITH STRATEGIC PRIORITIES:

This purchase aligns with the City's goal of "Safe, Sustainable, & Complete Community".

BUSINESS UNITS CONSULTED AND AFFECTED:

Not applicable.

RECOMMENDED BY:

Morgan Jones
Director, Operations

Brenda Librecz
Commissioner, Community & Fire
Services

ATTACHMENTS:

Not applicable.