



Report to: General Committee

Meeting Date: April 20, 2020

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**SUBJECT:** Tender 060-T-20 Thornhill Community Centre Parking Lot  
Light Poles Replacement  
**PREPARED BY:** Khwaja Waker, Facility Engineer, Ext. 2636

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**RECOMMENDATION:**

1. That the report entitled “Tender 060-T-20 Thornhill Community Centre Parking Lot Light Poles Replacement” be received; and,
2. That the contract for Tender 060-T-20 Thornhill Community Centre Parking Lot Light Poles Replacement be awarded to the lowest priced bidder, CM Lighting Maintenance Ltd., in the amount of \$151,113.60, inclusive of HST; and,
3. That the estimated cost of \$18,000 (including HST) for temporary light towers starting from January 2020 until completion of project in October 1, 2020 along with the above tender award for a total cost of \$169,113.60 be funded from the Life Cycle Replacement & Capital Reserve; and further,
4. 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 approval to replace the existing light poles that are in poor condition at Thornhill Community Centre parking lot at a cost of \$169,113.60 (Incl. of HST) to be funded from the Life Cycle Replacement & Capital Reserve.

**BACKGROUND:**

On October 31<sup>st</sup>, 2019, one of 14 light poles collapsed on a parked vehicle near the west entrance of the Thornhill Community Centre parking lot. As a result, the vehicle was damaged. Fortunately, there were no injuries as no one was inside or near the vehicle. At the time of the incident, the weather was extremely windy with high wind gusts. The collapsed pole was estimated to be between 45 to 50 years old. A condition assessment of all 14 light poles was performed in 2017 and the consultant recommended replacement of the majority of the poles in 2022.

After the incident, the collapsed pole was removed along with 2 additional poles as a precaution based on a contractor inspection. Temporary light towers were rented after removing these poles to maintain sufficient lighting levels in the parking lot.

After the pole failure, Staff engaged a consultant to determine the cause(s) of failure, review the condition of the remaining light poles and recommend an action plan. The report from the consultant stipulated that ‘the light pole fell due to a combination of cyclical wind load, low base installation and corrosion to the light pole’.

The consultant recommended immediate replacement of 13 of the 14 poles. The addition of one new light pole was recommended to provide sufficient lighting at the southwest corner of the parking lot. The one pole not being replaced was installed in 2018. These poles will have new LED luminaires to match the 2018 pole.

The consultant also recommended constructing raised concrete bases for the new light poles to limit the metal poles' exposure to de-icing salt, and snowmelt that can lead to premature corrosion.

#### **OPTIONS/ DISCUSSION:**

The majority of the poles in this parking lot were scheduled for replacement in 2024 as part of the Asset Life Cycle Program. However, the failure of one pole suggests rapid deterioration of the remaining poles and warrants accelerating the replacement of these poles sooner than 2024.

As reviewed by Staff and the consultant, 13 of 14 light poles will require immediate replacement and one new pole is required to be added to the southwest corner. As a result, a total of 14 new poles are recommended to be installed at this parking lot. These new poles will have concrete bases to minimize the impact of salt and all 14 new poles will be LED and dark sky compliant.

#### **Tender Information (060-T-20)**

Bid closed on	March 12, 2020
Number picking up bid document	13
Number responding to bid	10

#### **FINANCIAL CONSIDERATIONS**

Recommended bidder	CM Lighting Maintenance Ltd. (lowest priced bidder)	
Less cost of award	\$137,376.00	Bid Price (Incl. of HST)
	<u>\$13,737.60</u>	Contingency (10%)
	\$151,113.60	Total cost of award (Incl. of HST)*

\*The amount of \$151,113.60 will be funded from the Life Cycle Replacement and Capital Reserve Fund.

The rental cost for temporary light towers starting from January 2020 until completion of projection October 1, 2020, is \$18,000.00, including HST impact. Total budget request for light poles replacement and temporary light towers is \$169,113.60, inclusive of HST impact.

#### **OPERATING BUDGET AND LIFE CYCLE IMPACT**

Staff recommend the total estimated amount of \$169,113.60 (inclusive of HST impact) to be funded from Life Cycle Replacement & Capital Reserve. The Life Cycle Reserve Study planned for the replacement of the original poles in 2024. The Study will be updated upon project completion. The as built drawings will be entered into the corporate GIS database upon completion and acceptance. The incremental operating budget impact would be a cost saving of approximately \$3,600 per year due to the energy efficiency of the LED lights.

**ENVIRONMENTAL CONSIDERATIONS**

All luminaires will be LED and Dark Sky compliant. The new system is expected to reduce energy consumption by 23,000 kWh per year.

**HUMAN RESOURCES CONSIDERATIONS**

Not Applicable

**ALIGNMENT WITH STRATEGIC PRIORITIES:**

This project aligns with City's 'Building Markham's Future Together' goal #3 (Safe, Sustainable and Complete Community) through promoting retrofits to our existing infrastructures in order to achieve our Net Zero plan.

**BUSINESS UNITS CONSULTED AND AFFECTED:**

The comments from Operations, Recreation & Finance have been incorporated into this report.

**RECOMMENDED BY:**

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Graham Seaman, P.Eng  
Director of Sustainability &  
Asset Management

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Trinela Cane,  
Commissioner, Corporate Services

**ATTACHMENTS:**

Not Applicable