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**TO:** CHAIR AND MEMBERS FINANCIAL MANAGEMENT COMMITTEE **DATE:** 2018 January 29

**FROM:** DIRECTOR ENGINEERING **FILE:** 32000-05

**SUBJECT:** 2018 FEBRUARY ENGINEERING CAPITAL INFRASTRUCTURE BYLAW FUNDING REQUEST - TRANSPORTATION

**PURPOSE:** To request funding to finance the 2018 Engineering capital infrastructure transportation projects as outlined in this report.

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**RECOMMENDATIONS:**

1. **THAT** the Financial Management Committee recommend Council authorize the City Solicitor to bring forward a Capital Reserve Fund Bylaw in the amount of \$4,502,300 to finance Engineering capital infrastructure transportation projects as outlined in this report.

**REPORT****INTRODUCTION**

In order to proceed with the award of contracts for design, administration and construction, funding approval is requested for the projects listed below.

**1.0 TRAFFIC****POLICY SECTION**

The Traffic projects below are aligned with the City of Burnaby's Corporate Strategic Plan by supporting the following goals and sub-goals of the Plan.

- Safety – Transportation Safety
- Dynamic – City Facilities and Infrastructure

**1.1 *Light Emitting Diode Streetlight Conversion Ph 4/5 EMH.0020 estimated \$1,300,000***

Phase 4 of a multiphase program to replace high pressure sodium (HPS) streetlights with more energy efficient light emitting diode streetlights. Phase 4 covers the northeast quadrant of the City and is the last phase covering the majority of City owned streetlights. Planned expenditures are anticipated to be in 2018.

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**1.2 Still Creek/Eastbrook Pkwy Intersection Controls EMF.0072 estimated \$600,000**

Upgrades to the existing 3-way stop signs are proposed at this intersection in 2018 due to increasing traffic along Still Creek. Two options are being considered (traffic signal or roundabout) and a staff recommendation will be made to the Public Safety Committee prior to proceeding. Planned expenditures are anticipated to be in 2018.

**1.3 Minor Traffic Management Projects EMF.0076 estimated \$500,000**

Funding for a variety of minor traffic management projects to enhance traffic safety and/or operations in response to requests, staff initiatives or opportunities that arise during the year. Planned expenditures are anticipated to be in 2018.

**1.4 Streetlight Service Panels EMH.0021 estimated \$300,000**

Many streetlight service panels require replacement due to age and exposure to maintain a safe and reliable streetlight system. None have been replaced for many years and the funding in 2018 will initiate the replacement program for this asset. Planned expenditures are anticipated to be in 2018.

**1.5 Traffic Signal Cabinet Replacement EMF.0070 estimated \$260,000**

This program funds the ongoing replacement of old traffic signal control equipment and cabinets to maintain reliable traffic signal operation at all times. Locations are determined based on the age of the equipment as well as problems identified during regular maintenance. Planned expenditures are anticipated to be in 2018.

**1.6 Bus Shelter Program EMF.0075 estimated \$200,000**

This program continues the installation of new or replacement of older bus shelters throughout Burnaby. Installations improve amenities for transit users, increase revenues through their advertising panels, and increase operating/maintenance costs. Planned expenditures are anticipated to be in 2018.

**1.7 Traffic Signal Communication EMF.0069 estimated \$200,000**

This program funds the ongoing replacement of aging communication equipment (e.g. radios) that provides information from all signalized intersections in Burnaby back to City Hall. Reliable communications enables staff to continuously monitor the operation of the signal as well as make signal timing changes remotely. Locations are determined based on the age of the equipment as well as communication problems identified during operations. Planned expenditures are anticipated to be in 2018.

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**1.8 Security Hand Hole Covers for Street Lights EMH.0022 estimated \$200,000**

To help prevent ongoing wire theft from streetlight poles, new secured (lockable) hand hole covers are recommended to replace existing unsecured hand hole covers. Planned expenditures are anticipated to be in 2018.

**1.9 Parking Meter Equipment EMG.0009 estimated \$175,000**

This program funds new or replacement parking meter equipment as required. New installations would generally occur in high demand locations within the Council approved parking meter areas. In 2018 the use of multi-space pay stations and/or new single space parking meters will be explored. Replacements would occur where meters are damaged or stolen. Planned expenditures are anticipated to be in 2018.

**1.10 Traffic Camera Replacement EMF.0067 estimated \$150,000**

This program funds the ongoing replacement of aging traffic signal cameras that become less reliable. They are used to detect vehicles stopped at signalized intersections and to trigger the appropriate traffic signal control changes. Locations are determined primarily on the age of the equipment. Planned expenditures are anticipated to be in 2018.

**1.11 Streetlight Pole Replacement/Local Road Network EMH.0019 estimated \$150,000**

This program replaces streetlight poles along the Local Road Network (LRN) that are beyond their useful life or damaged. This program ensures the poles are structurally sound and may include the replacement of pole bases if required. Planned expenditures are anticipated to be in 2018.

**1.12 Rapid Rectangular Flashing Beacons / Oakland EMF.0074 estimated \$100,000**

The installation of a pedestrian crosswalk with rapid rectangular flashing beacons (RRFB) on Oakland at Dufferin is planned in 2018. The crosswalk will enhance the safety of pedestrian crossings at this location. Planned expenditures are anticipated to be in 2018.

**1.13 Traffic Management Centre** **EMF.0077** **estimated \$100,000**

This project will initiate the creation of a Traffic Management Centre for Burnaby. This would allow staff to comprehensively collect and assess traffic data, monitor traffic conditions in real-time, improve response time to incidents, proactively adjust signal timings where required, and provide traffic information to the public. The initial steps would be to undertake a review of best practices and implement a centralized traffic monitoring centre. Planned expenditures are anticipated to be in 2018.

**1.14 Streetlight Pole Replacement/Major Road Network** **estimated \$132,300**

This program replaces streetlight poles along the Major Road Network (MRN) that are beyond their useful life or damaged. This program ensures the poles are structurally sound and may include the replacement of pole bases if required. Planned expenditures are anticipated to be in 2018.

<b>Project Mask</b>	
EMH.0018	100,000
EMH.0017	32,300
<b>Total</b>	<b>\$132,300</b>

**1.15 Traffic Signal Uninterrupted Power Supply** **EMF.0066** **estimated \$55,000**

The installation of Uninterrupted Power Supply (UPS) at an additional 16 traffic signal locations was planned for installation in 2017 to improve traffic safety and operations during power outages. Planned expenditures are anticipated to be in 2018.

**1.16 Audible Signals** **EMF.0068** **estimated \$50,000**

This program funds the ongoing replacement of aging audible signals that provide crossing guidance at signalized intersections for people with visual impairments. Locations are determined based on the age of the equipment or where they have malfunctioned. Planned expenditures are anticipated to be in 2018.

**1.17 Special Crosswalk / Kincaid at Macdonald** **EMF.0073** **estimated \$30,000**


The existing overhead down lit crosswalk on Kincaid at MacDonald is proposed to be upgraded to a special crosswalk with the addition of pedestrian push buttons and flashing beacons. This will address pedestrian safety concerns while walking in the vicinity of Burnaby General Hospital. Planned expenditures are anticipated to be in 2018.

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These expenditures will be included in the 2018 – 2022 Provisional Financial Plan and sufficient Capital Reserve Funds, are available to finance the capital projects outlined in this report.

## RECOMMENDATION

It is recommended that the Financial Management Committee recommend Council authorize the City Solicitor to bring forward a Capital Reserve Fund Bylaw in the amount of \$4,502,300 to finance the Engineering capital infrastructure transportation projects as outlined in this report.

  
Leon A. Gous, P.Eng., MBA  
DIRECTOR ENGINEERING

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Copied to: City Manager  
Director Finance  
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