

FINANCIAL MANAGEMENT COMMITTEE

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

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

RECOMMENDATION:

1. THAT Council authorize the City Solicitor to bring forward a Capital Reserve Fund Bylaw in the amount of \$2,704,000, the use of Sanitary Sewer Reserves in the amount of \$2,311,000 and the use of Water Works Reserves in the amount of \$5,522,900 to finance Engineering capital infrastructure projects, as outlined in this report.

REPORT

The Financial Management Committee, at its meeting held on 2018 February 15, received and adopted the attached report seeking funding for the 2018 Engineering capital infrastructure projects: Watermain Replacement & Road Rehab; Beta Pump Station Upgrade; Combined Sewer Separation Program (Gilmore); Stoney Creek/Storm Service Replacements; Metro Vancouver Douglas Road Main, Kingsgate Pump Station; North Burnaby Watermains and Road Rehab; Metro Vancouver Central Park Main; Lougheed Highway Upgrade (Boundary to Gilmore); Rumble Street Upgrade Project; Pressure Reducing Valve Station Replacement; Burnaby Lake Rowing Pavilion Sewer Line Replacement; and Environment Monitoring.

Respectfully submitted,

Councillor D. Johnston
Chair

Councillor C. Jordan
Vice Chair

| | |
|------------|---|
| Copied to: | City Manager Director Engineering Director Finance City Solicitor Deputy Director Engineering Manager – Public Works Operations Assistant Dir. Eng., Infrastructure and Development |
|------------|---|

TO: CHAIR AND MEMBERS FINANCIAL MANAGEMENT COMMITTEE **DATE:** 2018 February 08

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

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

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

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 \$2,704,000, the use of Sanitary Sewer Reserves in the amount of \$2,311,000 and the use of Water Works Reserves in the amount of \$5,522,900 to finance Engineering capital infrastructure 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 INFRASTRUCTURE**POLICY SECTION**

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

- A Connected Community – these projects have a geographic connection in ensuring that people can move easily through all areas of Burnaby, using any form of transportation.
- A Dynamic Community – Build and maintain infrastructure that meeting the needs of our growing community.
- A Thriving Organization – Protect the integrity and security of City Services and Assets.

1.1 *Watermain Replacement & Road Rehab****estimated \$5,162,600***

These projects include replacement of existing aged watermains and rehabilitation of associated roadways in the South Slopes, Clinton-Glenwood and Willingdon Heights neighbourhood areas. It is anticipated that these projects will include design, tender and construction of both watermains and roadworks, and IT ducts where required.

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Area 1 - South Slopes – Keith Street, MacPherson Avenue and Buller Avenue, Eleanor Street and Marine Drive.

Area 2 - Clinton-Glenwood Area - including Beresford Street, Prenter Street, Irmin Street, Kenneth Avenue and Daisy Avenue.

Area 3 - Willingdon Heights - including Carleton Avenue, Madison Avenue, Kitchener Street, William Street, Eton Street, Brentlawn Drive and Ingleton Avenue.

Planned expenditures are as follows:

| Project Mask | 2018 |
|----------------|--------------------|
| EJA.3008 Water | 3,921,600 |
| EMC.3008 | 785,000 |
| AEC.3008 | 456,000 |
| Total | \$5,162,600 |

1.2 Beta Pump Station Upgrade EKA.3057 estimated \$1,169,500

Upgrades to the existing Beta Pump Station facility are required to accommodate anticipated increases in peak sanitary flows resulting from growth and re-development within the (southern) Brentwood Town Centre area. Construction began in 2017 with council approved funding of \$3,200,500 and will be completed in 2018.

1.3 Combined Sewer Separation Program (Gilmore) estimated \$1,307,100

This sewer separation project is part of the City's ongoing infrastructure renewal program involving separation of combined sewer as required under the Integrated Liquid Waste Management Plan (ILWMP). Sewer separation minimizes volumes of combined sewer over-flow to the environment and the amount of wastewater that needs to be treated resulting in better allocation of resources, lower energy use and reduced environmental impact.

This project includes separation of combined sewers, including general arrangement and sizing of sanitary and storm sewers, replacement of aged watermains and road rehabilitation in the following four areas:

Area 1 - Lanes north of Trinity Street & Yale Street from Ingleton Avenue to Gilmore Avenue.

Area 2 - Lanes north of Oxford Street & Cambridge St, from Esmond Avenue to Gilmore Avenue.

Area 3 - Lanes north of Union Street, Georgia Street & Francis Street; from MacDonald to Carleton Avenue.

Area 4 - 17th Avenue from Canada Way to 6th Street.

A total of 2.3km of combined sewer main will be separated (replaced).

To optimize the combined sewer separation program, this project also includes replacement of aged watermain alongside the affected sewers, where applicable. A total of 2.2km of watermain replacement is anticipated.

Planned expenditures are as follows:

| Project Mask | 2018 |
|---------------------|--------------------|
| EKA.3014 Sewer | 700,000 |
| EMC.3014 | 285,300 |
| EJA.3014 Water | 283,500 |
| AEC.3014 | 38,300 |
| Total | \$1,307,100 |

1.4 Stoney Creek/ Storm Service Replacements ELD.0012 estimated \$350,000

Resolve contract disputes on Stoney Creek project as a result of an incident in 2015. Engineering has engaged in the MMCD contract dispute resolution process for this project to settle claims due to unforeseen conditions during construction.

1.5 MetroVancouver Douglas Road Main Project #2 Coordination Project estimated \$730,000

This project consists of utility upgrades and road rehabilitation in conjunction with a Metro Vancouver capital works program associated with their Douglas Road Main (DRM2) replacement project. There are two areas that are anticipated in this project.

M1: Still Creek Area - Beginning at Delta Avenue at Lougheed Highway, project runs south along Royal Oak Avenue alignment, under the Trans Canada Highway to and along Kincaid Street.

M4: Burnaby Heights area - Beginning at McGill Street at Ingleton Avenue heading east through to Rosser Avenue. South on Rosser Avenue to Albert Street and then east to Alpha Avenue.

Planned expenditures are as follows:

| Project Mask | 2018 | 2019 | Total |
|---------------------|------------------|------------------|------------------|
| EMC.3137 | 215,000 | 215,000 | 430,000 |
| EKA.3137 Sewer | 150,000 | 150,000 | 300,000 |
| Total | \$365,000 | \$365,000 | \$730,000 |

1.6 Kingsgate Pump Station EJA.3003 estimated \$317,800

Investigate, design and make repairs or upgrades to existing water pump station components. Planned expenditures are anticipated to be in 2018.

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1.7 North Burnaby Watermains and Road Rehab

estimated \$550,000

This is a watermain replacement and roads rehabilitation package involves replacement of existing watermain and services, complete with pavement rehabilitation on local/collector streets in various locations of north Burnaby. This project will be designed by an engineering consultant(s) and constructed through a tendered contract. Planned expenditures are as follows:

| Project Mask | 2018 | 2019 | Total |
|----------------|------------------|------------------|------------------|
| EJA.3147 Water | 275,000 | 275,000 | 550,000 |
| Total | \$275,000 | \$275,000 | \$550,000 |

**1.8 MetroVancouver Central Park Main
 Project #2 Coordination Project**

estimated \$550,000

This project consists of utility upgrades and road rehabilitation designated for coordination with Metro Vancouver capital works program associated with their Central Park Main (CPM2) replacement project.

There are two areas that are anticipated in this project.

Area 1:

| Street | From | To | Scope of Work & Details |
|-------------------------|----------------|-------------------------|--------------------------|
| Salisbury Avenue | Elwell Street | Edmonds Street | Watermain replacement |
| 18 th Street | Edmonds Street | 10 th Avenue | Watermain, new & upsized |

Area 2:

| Street | From | To | Scope of Work & Details |
|------------------------------|-------------------|--------------------|----------------------------|
| Willingdon/Hurst/Dow Avenues | Willingdon Avenue | Imperial Street | Watermain replacement |
| Maywood Street | Patterson Avenue | Willingdon Avenue | Watermain replacement |
| Imperial Street | Sussex Avenue | Royal Oak Avenue | Watermain replacement |
| Maywood Street | Willingdon Avenue | Sussex/Dow Avenues | Future 300mm DI (optional) |
| Imperial Street | Randolph Avenue | Brantford Avenue | Watermain replacement |
| Imperial and Elwell Streets | Sperling Avenue | Hall Avenue | Watermain replacements |

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Planned expenditures are as follows:

| Project Mask | 2018 | 2019 | 2020 | Total |
|----------------|------------------|------------------|-----------------|------------------|
| EJA.3138 Water | 175,000 | 175,000 | - | 350,000 |
| EKA.3138 Sewer | 50,000 | - | 50,000 | 100,000 |
| EMC.3138 | 50,000 | 50,000 | - | 100,000 |
| Total | \$275,000 | \$225,000 | \$50,000 | \$550,000 |

1.9 Loughed Highway Upgrade *estimated \$162,900*
Boundary Road to Gilmore Avenue

This project includes a coordinated program of road upgrades and twinned watermain along Loughed Highway, Boundary Road to Gilmore Avenue, and a watermain replacement and related road rehabilitation on Boundary Road, Loughed Highway to Myrtle Street. Planned expenditures are as follows:

| Project Mask | 2018 | 2019 | 2020 | Total |
|--------------|-----------------|----------|------------------|------------------|
| EMC.3038 | 62,900 | - | 100,000 | 162,900 |
| Total | \$62,900 | - | \$100,000 | \$162,900 |

1.10 Rumble Street Upgrade Project – Phase 1, 2 of 3 *estimated \$108,000*

Complete project closeout, resolve deficiencies and complete plantings for Rumble Street phases 1 and 2. Planned expenditures are as follows:

| Project Mask | 2018 |
|----------------|------------------|
| ERA.0049 | 66,500 |
| EKA.0014 Sewer | 41,500 |
| Total | \$108,000 |

1.11 Pressure Reducing Valve (PRV) Station Replacement *estimated \$100,000*

Investigate, design and construct a replacement for the existing Price PRV, as part of the City's ongoing infrastructure renewal program. Manage capital expenditure for City forces based upgrades to other PRV's, as required. Planned expenditures are as follows:

| Project Mask | 2018 | 2019 | Total |
|----------------|-----------------|-----------------|------------------|
| EJA.3149 Water | 50,000 | 50,000 | 100,000 |
| Total | \$50,000 | \$50,000 | \$100,000 |

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**1.12 Burnaby Lake Rowing Pavilion
Sewer Line Replacement ENX.3059**

estimated \$20,000

This is completion of the construction phase of the Facility Sewer Line replacement project. Portions of the existing Sewer Forcemain servicing the Rowing Pavilion have failed and have been temporarily repaired and require flushing. Replacement of complete sanitary sewer forcemain is necessary to ensure no environmental damage to Burnaby Lake is caused due to aging infrastructure. Burnaby Lake Rowing Pavilion is a multi-use facility replacement of sanitary sewer lines will allow facility to operate at full capacity. Planned expenditures are anticipated to be in 2018.

1.13 Environmental Monitoring

ELA.3135

estimated \$10,000

Fulfill environmental monitoring requirements as stipulated by the BC Ministry of Forests, Lands, and Natural Resource Operations for capital projects that require environmental compensation. Planned expenditures are anticipated to be in 2018.

These expenditures will be included in the 2018 – 2022 Provisional Financial Plan and sufficient Capital Reserve Funds, Water Works Reserves, and Sanitary Sewer Reserves 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 \$2,704,000, the use of Sanitary Sewer Reserves in the amount of \$2,311,000 and the use of Water Works Reserves in the amount of \$5,522,900 to finance the Engineering capital infrastructure projects as outlined in this report.



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

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Attachments

Copied to: City Manager
Director Finance
Deputy Director, Engineering
Manager, Public Works
Assistant Director, Infrastructure and Development