

FINANCIAL MANAGEMENT COMMITTEE

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

SUBJECT: ENGINEERING CAPITAL PROJECTS STATUS UPDATE

RECOMMENDATION:

1. THAT Council receive this report for information.

REPORT

The Financial Management Committee, at its meeting held on 2021 October 13, received and adopted the attached report providing Council an update on the current status of Engineering capital projects.

Respectfully submitted,

Mayor M. Hurley
Chair

Councillor S. Dhaliwal
Vice Chair

Copied to:	Chief Administrative Officer Deputy CAO/CFO Director Engineering Director Corporate Services Director Parks, Recreation & Cultural Services Director Planning & Building Manager Engineering Projects Purchasing Manager
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TO: CHAIR AND MEMBERS
FINANCIAL MANAGEMENT COMMITTEE

DATE: 2021 October 06

FROM: DIRECTOR ENGINEERING

FILE: 35000-01

SUBJECT: ENGINEERING CAPITAL PROJECTS STATUS UPDATE

PURPOSE: To provide an update on the current of Engineering capital projects.

RECOMMENDATION:

1. **THAT** the Finance Management Committee forward this report to Council for information.

REPORT

1.0 INTRODUCTION

The purpose of this report is to update the Finance Management Committee and Council on the current status of 20 Engineering capital projects. Projects are selected for this report by value and/or particular interest to Council.

2.0 POLICY SECTION

Goal

- A Thriving Organization
 - Financial viability –
Maintain a financially sustainable City for the provision, renewal and enhancement of City services, facilities and assets
Practice open and transparent communication among staff, Council and the community
 - Reliable services, technology and information –
Protect the integrity and security of City information, services and assets

3.0 BACKGROUND

Engineering capital projects typically progress through the following five phases:

1. Planning – this phase includes identification of the overall scope and need for the project, acquisition of land or statutory rights-of-way, application for long-lead permits, and issuance of a Request for Proposals (RFP) for consulting services;
2. Design – in this phase conceptual designs are refined to a quality that can be issued for tender. Permits and approvals such as environmental permits, Preliminary Plan Approval (PPA), and Building Permits (BP) are obtained during this phase;
3. Tender – in this phase the project is tendered through a competitive bid process with the intent of selecting a contractor to construct the project. Contract documents and project schedule are finalized;
4. Construction – in this phase the successful contractor builds the project through to substantial completion. Engineering projects are typically constructed as per the Master Municipal Construction Documents (MMCD).
5. Closeout – this phase includes the collection of as-constructed drawings and closeout of all purchase orders.

The current status of all Engineering capital projects are available to the public at:

<https://gis.burnaby.ca/capitalworksprogram/>

4.0 RECOMMENDATION

Staff recommend that the Finance Management Committee forward this report on the current status of Engineering capital projects to Council for information.



James Lota
DIRECTOR ENGINEERING

MN/JL/ac

Attachment

Copied to: Chief Administrative Officer
Chief Financial Officer
Director - Parks, Recreation & Cultural Services
Director - Planning & Building
Director Corporate Services
Purchasing Manager
Manager Engineering Projects

#	Project Name	Scope	Project Status	Project Start	Target Finish	Sidewalk and MUP (in Meters)	Trees Impacted	Trees to be Planted	Tender Award Amount	Contractor Invoiced To Date	Progress Status
1	3006 INF Lougheed Hwy Upgrades - Austin to Underhill	The City has identified road improvements on Lougheed Highway, between Austin to Underhill, to provide street beautification, improve the flow of vehicle traffic, and improve bicycle and pedestrian accessibility and safety.	Construction	15-Apr-20	31-Dec-21	1530	108	85	\$10,446,940	\$10,073,343	Scope added scope (bus jump lane at Gaglardi/ Broadway, additional electrical work), and changes due to the new town center standard, traffic signal required under skytrain guideway. Substantial completion to be expected in November 2021.
2	3031 INF Broadway Improvements Bainbridge to Underhill	Road upgrades on Broadway (Bainbridge Av to Underhill Av) will be upgraded with widened pavement, urban trail, sidewalks, and treed boulevards to improve the street for all users. Storm sewers and water mains requiring condition or capacity upgrades in this section will also be addressed in this project. Installation of the City's IT network conduit will also be completed along the full length of the project.	Construction	04-Aug-20	31-Dec-21	3000	150	20	\$8,628,241	\$7,378,624	Unknown 3rd party utilities found during construction caused multiple design changes and construction change orders. This also resulted in one delay claim. Projected final cost to be approximately \$12M.
3	3056 INF Fraser Foreshore Dyke Reach 8	This project is intended to improve flood protection at the Reach 8 dike section and public access along the unpaved sections of previously constructed Fraser River foreshore dikes.	Construction	01-Jun-19	31-Aug-21	947	33	190	\$5,787,906	\$5,911,492	On track and on budget project is substantially completed in April/21. Currently in Closeout stage.
4	3191A INF 2021 Sidewalks and Full Road Upgrades	Selected sidewalk construction locations based on prioritization (for example near schools/community centres/parks/transit, most cost effective first, network gaps, and neighbourhoods without sidewalks). Boulevard trees would also be replaced and added as necessary, in order to complete the public realm. This planned program would include new sidewalks and full road upgrades with curb & gutter.	Construction	03-May-21	31-May-22	4200	14	28	\$5,558,911	\$1,046,401	On track and on budget. Construction started July 2021. Substantial completion expected by December 2021.
5	3040A INF Marine Dr: Boundary Road to Greenall Ave.	This project is to upgrade Marine Drive from Boundary Road to Patterson Avenue and from Sussex Avenue to Byrne Road. The conceptual design will provide geometrics for road upgrade of these interim standard streets to provide curb and gutter and sidewalks. Intersection improvements including geometry and signalization will be determined in concept.	Construction	12-Aug-21	01-Mar-22	805	0	0	\$3,986,286	\$301,955.98	Minimal spending. Contract recently received notice to proceed on August 12, 2021. Substantial Completion expected for Feb. 2022.
6	3151 INF South Burnaby Upgrades	This is a construction package with roadworks in South Burnaby. This project is part of the City's ongoing infrastructure renewal strategy to sustainably maintain roads, sidewalks, and street lighting. Roadworks in this package include street paving, street upgrades (i.e. with curb & gutter, boulevard, sidewalk, etc.), sidewalk improvements, and pathway lighting. Project locations include streets in the Riverside, East Burnaby, and South Slope neighborhoods and provide lighting as part of this project. Projects also captured opportunities for installation of Civic communications conduit and safety improvements. Projects were selected based on condition data and input from Operations.	Construction	20-Jul-20	01-Oct-21	100	1	2	\$3,977,500	\$3,588,128	On track and on budget. Substantial completion expected by end of September 2021.
7	3164 INF Gilmore Diversion Trail - Still Creek to Dominion	Completion of the pedestrian and cycle connection between the existing urban trail on the west side of Gilmore Avenue at Still Creek Drive to the urban trail on the west side of Gilmore Diversion at Dominion Street. It is proposed that a 580m long section of urban trail be constructed across the Gilmore Overpass, including necessary upgrades to the pedestrian and cycling facilities and transit stops.	Construction	01-Jul-20	30-Sep-21	325	10	18	\$3,187,701	\$2,732,538	On track and on budget. Encountered knotweed on site. Project is progressing with construction completion in August 2021.
8	3193A INF Burnaby Heights CSS	This project is part of the City's ongoing infrastructure renewal program involving separation of combined sewers as required under the local Liquid Waste Management Plan (LWRMP). 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.	Construction	05-Apr-21	31-Mar-22	0	3	0	\$3,098,748	\$2,259,226	On track and on budget. Construction completion to be expected end of March 2022.
9	3147B INF 2021 North Burnaby Road Rehabilitation & Upgrade	This is a roads rehabilitation package including 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. Southlawn lane paving and Warwick RRFB have been added to scope.	Construction	12-Apr-21	17-Dec-21	1800	44	88	\$3,000,000	\$801,547	On track and on budget. Construction completion to be expected end of 2021.
10	3137B INF Rosser Avenue Road Upgrades	This project consists of 5 packages - utility upgrades and road rehabilitation in conjunction with a Metro Vancouver capital works program associated with their Douglas Road Main (DRM2) replacement project.	Construction	01-Jun-19	31-Dec-21	200	17	0	\$2,950,238	\$404,467	On track and on budget. Construction completion to be expected end of 2021.

#	Project Name	Scope	Project Status	Project Start	Target Finish	Sidewalk and MUP (in Meters)	Trees Impacted	Trees to be Planted	Tender Award Amount	Contractor Invoiced To Date	Progress Status
11	3189 INF Central Burnaby Water & Roads Package	This project package includes watermain replacements in which City forces will construct, road rehabilitation/upgrades and communication ducting for various project sites in Central Burnaby. The project involves replacement of existing aged AC or CI watermains and services, hydrants for enhanced fire fighting and capacity upgrades, and is then completed with pavement rehabilitation and/or upgrades on local and collector streets to be tendered out to retain a contractor over multiple years and contracts. Interim strip roads and traffic	Construction	01-May-20	30-Dec-22	1900	8	16	\$2,680,000	\$1,046,401	On track and on budget.
12	31888 INF 2021 Sidewalk Program - Package B	The scope consist of about 4km of sidewalk and 2 crosswalks. Council instructed staff to accelerate net new sidewalk construction in various locations. Boulevard trees would also be replaced and added as necessary, in order to complete the public realm.	Tender	01-Sep-21	31-Dec-22	0	0	0	\$2,610,170	\$0	No spending. Construction contract awarded at 2021 September 27 Council meeting.
13	31938 INF Burnaby Heights CSS	This project is part of the City's ongoing infrastructure renewal program involving separation of combined sewers as required under the local Liquid Waste Management Plan (LWRMP). 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.	Construction	01-Jan-21	31-Mar-22	0	0	0	\$2,490,181	\$1,287,239	Overspent. Unknown ground conditions. Project completion Dec 2021. Projected final costs to be approximately \$3M.
14	3223 FM Electric Vehicle Charging Stations	The project aims to support the City's Climate Emergency goals with GHG emissions reductions by providing new EV (Electric Vehicle) charging infrastructure for fleet vehicles stationed at the City Hall Lower Compound. The project will involve undergrounding the existing overhead power lines to the property, adding a new pad-mount transformer and service kiosk to energize up to 100 parking stalls in the Lower Compound including installation of up to 100 level 2 fleet EV Charging Station ports.	Construction	01-Aug-20	31-May-22	0	0	0	\$2,250,000	\$0	Minimal spending. Construction was awarded July 2021. No progress payments yet. Works starting August 23. Project completion June 2022.
15	3188A INF Sidewalk Program Package A	On June 24, 2019 Council instructed staff to accelerate net new sidewalk construction at a value of \$10M per year. Boulevard trees would also be replaced and added as necessary, in order to complete the public realm.	Construction	01-Jul-20	31-Dec-21	12300	45	90	\$1,811,807	\$1,786,223	On track and on budget. Package A sidewalk construction (in industrial/commercial areas) started in the fall of 2020 and reached Substantial Completion in February 2021. Minor spending in 2021 for restoration/repair/finish-up.
16	3123 INF Norland Materials Handling Works Yard	Expansion and modernization of the Norland works yard to ensure it complies with current environmental best practices, has an efficiently operating de-cant facility for material recycling, and provides enough space for safe operation of the materials handling facility.	Construction	01-Jun-20	31-Dec-22	0	0	0	\$1,788,182	\$147,795	On track, however bids came in \$450k higher than original estimate .
17	3093C INF Environmental Rehabilitation – Creeks and Culverts (Guichon Creek at Deer Lake Pkwy)	This is an environmental rehabilitation projects related to culverts, creeks and slopes at various locations throughout the City. Projects include rehabilitation of culverts, improvement of a storm sewer outfall, erosion control, installation of a detention pond, slope remediation, and replacement of a safety fence.	Construction	09-Aug-21	31-Dec-21	0	18	54	\$1,694,000	\$438,215	Minimal spending. Construction started in August and to be completed by December 2021.
18	3197 TR EMF.0080 Major Traffic Management Projects Package 1	Major Traffic Management Project program provides enhancements in traffic safety and/or operations. This project includes intersection improvements to conduit installation. Cardston/Government, Enterprise/Lake City, Canada Way/Elwell, Byrne/Market Crossing, Byrne/Marine Way, Moscrop/Barker and 200m of MUP	Construction	22-Jun-20	31-Dec-21	200	0	0	\$1,662,199	\$1,993,380	On track and on budget. Contract value increased to \$2.1M to expedite installation of traffic various traffic calming and safety measures (e.g. ped signal at Moscrop/Barker). Substantial completion expected by November 2021
19	3168 INF Sunset PRV	Investigate, design and construct a replacement for the existing Sunset PRV, located at Sunset and Boundary Road, as part of the City's ongoing infrastructure renewal program. Include replacement of 250m of CI watermain on Sunset, with a new 300mm DI main from Boundary to Smith as part of the upgrade. PRV replacement is envisaged to improve service to Burnaby Hospital.	Construction	01-Mar-21	31-Dec-21	0	0	0	\$1,178,000.00	\$35,000.00	Minimal spending. Pipe shortage delayed delivery of long lead time material and equipment procurement.
20	3183 INF Culvert Rehabilitation Program	The City has completed an inventory review and general visual inspections of culverts and storm outfalls throughout the City. Seventeen culverts, storms sewers, and outfalls were prioritized for rehabilitation or replacement within the one to five year horizon due to the results from the general visual inspections.	Construction	20-Jul-20	01-May-22	0	0	0	\$1,025,102	\$57,721	On track and on budget. The project received notice to proceed in June 2021.