

Staff Report to Council

Engineering & Operations

FILE: 01-0620-03/21

REPORT DATE: November 15, 2021

MEETING DATE:

November 29, 2021

TO: Mayor and Council

FROM: Samantha Maki, Director of Engineering & Operations

SUBJECT: 2022 Business Plan - Engineering Division

CHIEF ADMINISTRATIVE OFFICER REVIEW/APPROVAL:



RECOMMENDATION(S):

THAT Council:

- A. Receive for information the Engineering Division 2022 Draft Business Plan and Staff Report as presented at the November 29, 2021 meeting of Council; OR
- B. Other.

PURPOSE

To present the 2022 Draft Business Plan for Engineering.

☒ Information Report

☐ Decision Report

☐ Direction Report

DISCUSSION

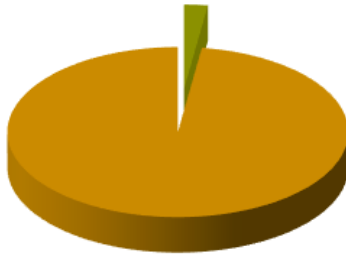
DIVISION OVERVIEW

The Engineering division plans and manages the replacement and/or rehabilitation of essential municipal infrastructure, like roads, bridges, buildings, active transportation network, water mains and sewers. The division also provides municipal services, such as the review and facilitation of soil permits, traffic calming and engineering aspects (storm water management, erosion and sediment control and traffic) of development permit applications.

Operating Budget: \$597,900

Capital Budget: \$16,860,700

% Share of overall City Budget:

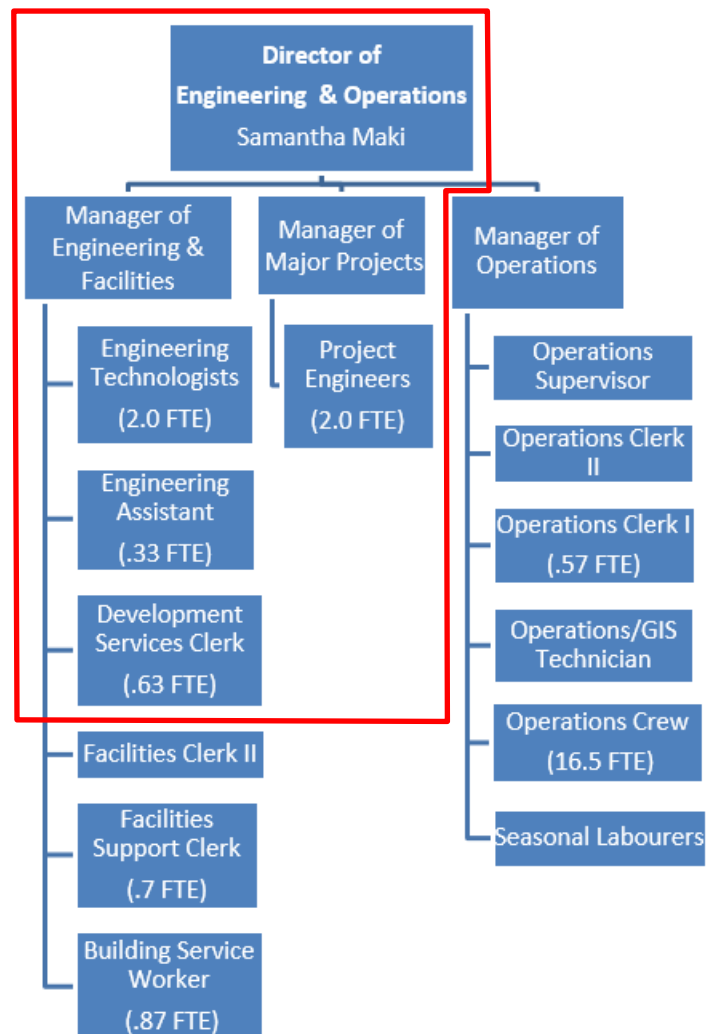


■ Engineering 2.3%

■ Remaining City Budget 97.7%

Staff Complement

ENGINEERING TOTAL
7.96 FTE



Forecasted position adjustments

None.

Deferred Projects

As a result of priorities that emerged throughout the year the following 2021 business plan initiatives were deferred:

- **COTTONWOOD PARK SERVICE CONNECTION.** Need for upgraded service connection to Cottonwood Park is currently being assessed and may not be required, which will be determined in 2022.
- **FRASER DYKE RD WATER MAIN AND ROAD EXTENSIONS DCC PROJECTS.** Fraser Dyke Rd water main and road extension deferred to 2024 to allow for revisions to budget in DCC program and further review of scope.
- **SOIL BYLAW UPDATE.** Deferred due to available resources and included in 2022 key initiatives. Review of bylaw is currently ongoing with the intention to bring amendments to Council for consideration in Q1 of 2022.

2021 Achievements (Top 3)

- **ROAD AND RAIL IMPROVEMENTS.** Ongoing planning, design and community engagement on the Harris Rd Underpass and assessment of components crucial to the City and community. Transportation and Infrastructure – Infrastructure.
- **FIRE HALL REPLACEMENT.** Ongoing construction and project management. Transportation and Infrastructure – Infrastructure.
- **ACTIVE TRANSPORTATION & TRAFFIC CALMING.** Construction of a large improvement project was completed, aided by over \$239,000 in grant funding. Transportation and Infrastructure – Infrastructure.

Key Challenges for 2022

- **AGING INFRASTRUCTURE.** Infrastructure is deteriorating faster than the current rate of replacement and necessary repair, maintenance and replacement of City assets continues to create resource and funding challenges. That said, the City is following the consultant recommendations for asset replacement funding and will achieve annual targets in the coming years.
- **PUBLIC CONCERNS AND INQUIRIES.** Customer service is a priority for the City. Supporting the public is a significant function of our work that is not documented in the

work plan, but requires considerable allocation of staff time. Some of the areas of growing community concern include traffic calming and neighborhood development.

Key Initiatives 2022

Strategic Priority	Initiative
Transportation and Infrastructure – Improved Transportation	ROAD AND RAIL IMPROVEMENTS. Ongoing planning, design and community engagement of the Harris Rd Underpass, including the active transportation components, noise and vibration mitigation and relocation of the heritage buildings.
Transportation and Infrastructure – Improved Transportation	TRAFFIC IMPROVEMENTS ALONG LOUGHEED CORRIDOR. Ongoing planning and feasibility of transportation improvements along Lougheed Highway with the Ministry of Transportation and Infrastructure with particular focus on improvements to relieve congestion at the Lougheed Highway and Harris Road intersection.
Transportation and Infrastructure – Improved Transportation	GOLDEN EARS BUSINESS PARK PHASE 3 & 4 – OFFSITE IMPROVEMENTS. Ongoing coordination of design of various offsite improvements required by the development, including expansion of Airport Way, changes to Harris Rd, Fraser Way and Bonson Rd, associated drainage modifications and active transportation components.
Transportation and Infrastructure – Investment	FIRE HALL REPLACEMENT. Complete construction of the new Fire Hall building including an Emergency Operations Centre. This multi-year project is expected to be completed by the end of 2022.
Transportation and Infrastructure – Infrastructure	DESIGN OF NEW RCMP BUILDING. Continue with design of the new RCMP building, site preparation and progress associated projects while ensuring service continuity of Harris Park and the Art Gallery.
Principled Governance – Advocacy	CP LOGISTICS PARK OPPOSITION STRATEGY. Continue efforts in review of CP's Proposed Logistics Park and associated studies from the City's perspective to ensure the various concerns are highlighted and considered further, with the goal to receive opposition support from the Federal Government.
Transportation and Infrastructure – Investment	LOWER HAMMOND AREA – GROUNDWATER STUDY. Completion of multi-year project of data collection and modelling of the groundwater conditions and development of a decision-support tool for use in assessing groundwater concerns of future development applications.

Strategic Priority	Initiative
Transportation and Infrastructure – Investments	<p>2022 CAPITAL WORKS – PAVING. Various paving of City’s aging road network, including:</p> <ul style="list-style-type: none"> • East end of Ladner Rd; • Neaves Rd from Old Dewdney Trunk Rd to the South Alouette Bridge; • Hammond Rd from Wildwood Cr to City’s eastern boundary; • Design of pedestrian bridge and crossing improvements at Baynes Rd/Airport Way intersection (DCC MJT23); • Fraser Way – Design of parking lot paving and sidewalk east of Harris Rd (DCC MNT4/5); • Old Dewdney Trunk Rd between McKechnie and Sharpe Rd; • South end of Wildwood Cr and associated crossing improvements; • Targeted repairs on Harris Rd between the Old Dewdney Trunk Rds. <p>Pavement Condition Assessment to also be completed, including review of suitability of Woolridge/Ford Rd Detour as a truck route.</p>
Transportation and Infrastructure – Investments	<p>2022 CAPITAL WORKS – WATER. Various replacement of City’s aging asbestos-cement water mains and localized water service connections.</p>
Transportation and Infrastructure – Active Transportation	<p>ACTIVE TRANSPORTATION. Assessment and implementation of recommendations from the Active Transportation Advisory Committee to improve pedestrian and cyclist transportation with the community, such as:</p> <ul style="list-style-type: none"> • Assessment of the City’s active transportation network with a focus on cycling facilities and network gaps, accessibility improvements and wayfinding (partial grant); • Leading Pedestrian Intervals at Harris Rd/McMyn Rd and Harris Rd/122nd Ave; • Bikeway pavement markings and signage improvements on 119 Ave between Harris Rd and Blakely Rd; • Crossing and letdown improvements; • HUB Bike to School Education Program. <p>Grants will be researched for various active transportations projects.</p>

Strategic Priority	Initiative
Transportation and Infrastructure – Improved Transportation	TRAFFIC CALMING ENGAGEMENT & IMPLEMENTATION. Review of various traffic calming requests and implementation of traffic calming measures, where appropriate. Continued implementation of the speed-reader board pilot program.
Community Spirit and Wellbeing – Pride and Spirit	CITY ENTRANCE SIGN NEAR PITT BRIDGE - DESIGN. Design of new City Entrance sign near the Pitt River Bridge for construction in 2023.
Corporate Excellence - Responsive	VARIOUS POLICY AND BYLAW REVIEWS. <ul style="list-style-type: none"> - DCC Bylaw and Program Review. Continuation of a multi-year project to assess the DCC program, update the associated projects, consolidate and amend the DCC bylaws. - Soil Bylaw Update. Add clarity around authority renewals, exemptions and process, review volume thresholds and levies/fees, require dust mitigation plans and review exporting cultivable soil from the City. - Latecomer Policy Creation. Creation of a new policy to outline the process, fee structure, conditions and requirements for Latecomer Agreements.

1. PROPOSED OPERATING BUDGET

	2021 Adopted Budget	2022 Proposed Budget	Proposed Changes for 2022		2023 Proposed Budget	2024 Proposed Budget	2025 Proposed Budget	2026 Proposed Budget
Revenue	\$ (14,700)	\$ (15,700)	\$ (1,000)	-6.8%	\$ (16,700)	\$ (17,700)	\$ (18,700)	\$ (19,700)
Expenses								
Engineering	592,800	613,600	20,800	3.5%	630,000	647,800	664,000	677,100
	592,800	613,600	20,800	3.5%	630,000	647,800	664,000	677,100
Net Operating Expenses	\$ 578,100	\$ 597,900	\$ 19,800	3.4%	\$ 613,300	\$ 630,100	\$ 645,300	\$ 657,400
Key Budget Changes for 2022:								
Salary and Benefits			16,700					
Consulting, Repairs, & Maintenance			2,000					
Other			1,100					
Change in Net Operating Expenses			\$ 19,800					

2. PROPOSED CAPITAL BUDGET

GL Category	Project	2022	2023	2024	2025	2026	Total
DV301 - ENGINEERING							
8200 - POLICE SERVICES CAPITAL							
	220040 - NEW RCMP DETACHMENT	\$ 6,500,000	\$ 11,700,000	\$ 1,800,000	\$ -	\$ -	\$ 20,000,000
8200 - POLICE SERVICES CAPITAL Total		\$ 6,500,000	\$ 11,700,000	\$ 1,800,000	\$ -	\$ -	\$ 20,000,000
8220 - FIRE SERVICES CAPITAL							
	110014 - FIREHALL MTG RM/OFF FURN #15-FS-064	\$ 280,000	\$ -	\$ -	\$ -	\$ -	\$ 280,000
	170032 - MAIN FIRE HALL REPLACEMENT #17-FA-107	\$ 1,460,000	\$ -	\$ -	\$ -	\$ -	\$ 1,460,000
	200008 - FIREHALL TEMPORARY SITE #20-FS-002	\$ 216,200	\$ -	\$ -	\$ -	\$ -	\$ 216,200
8220 - FIRE SERVICES CAPITAL Total		\$ 1,956,200	\$ -	\$ -	\$ -	\$ -	\$ 1,956,200
8300 - TRANSPORTATION CAPITAL							
	060005 - NEAVES ROAD #16-TR-116	\$ 922,000	\$ -	\$ 744,000	\$ 2,100,000	\$ -	\$ 3,766,000
	080012 - ACTIVE TRANSPORTATION #09-TR-028	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000
	120018 - PAVEMENT MANAGEMENT PLAN #16-TR-115	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
	160012 - NEAVES RD BIKE LANES #16-TR-117	\$ -	\$ -	\$ 288,000	\$ 672,000	\$ -	\$ 960,000
	160013 - WILDWOOD CRES-HAMMOND TO BNSN #15-TR-034	\$ 440,000	\$ -	\$ -	\$ -	\$ -	\$ 440,000
	180007 - TRAFFIC CALM ENGAGE & IMPL #18-TR-001	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000
	180008 - OLD DEWDNEY TRUNK ROAD - REPAVE	\$ 1,068,000	\$ -	\$ -	\$ -	\$ 507,000	\$ 1,575,000
	180040 - ADVENT RD MILL & REPAVE #15-TR-096	\$ -	\$ -	\$ -	\$ -	\$ 145,000	\$ 145,000
	180041 - PARK RD REPAVE #15-TR-097	\$ -	\$ -	\$ 373,000	\$ -	\$ -	\$ 373,000
	180042 - HARRIS RD PAVING (URBAN AREA) #16-TR-111	\$ -	\$ -	\$ 887,000	\$ 1,500,000	\$ -	\$ 2,387,000
	180044 - HARRIS RD BETWEEN 2 DEWDNEYS #16-TR-118	\$ 50,000	\$ -	\$ -	\$ -	\$ 250,000	\$ 300,000
	190028 - HAMMOND RD PAVING (HARRIS-BLAKELY)#19-TR-001	\$ -	\$ -	\$ -	\$ 400,000	\$ -	\$ 400,000
	190029 - 5 YR BRIDGE INSPEC #19-TR-002	\$ -	\$ -	\$ 40,000	\$ -	\$ -	\$ 40,000
	190031 - 188 ST S. ADVENT RD #19-TR-007	\$ -	\$ 205,000	\$ -	\$ -	\$ -	\$ 205,000
	190033 - DCC MJT2-HARRIS (HAMM-AIRPORT) #19-TR-016	\$ 1,210,500	\$ -	\$ -	\$ -	\$ -	\$ 1,210,500
	190036 - DCC MNT4/MNT5-FRSEY WY PED/PKG#19-TR-024	\$ 1,078,500	\$ -	\$ -	\$ -	\$ -	\$ 1,078,500
	190038 - DCC MJT23-AIRPRT WAY AT BAYNES#19-TR-032	\$ 30,000	\$ 110,000	\$ -	\$ -	\$ -	\$ 140,000
	190039 - DCC MJT24-FRASER DIKE RD EXT #19-TR-033	\$ -	\$ -	\$ 1,312,000	\$ -	\$ -	\$ 1,312,000
	190095 - 119B WEST OF BLAKELY RD #19-TR-0008	\$ -	\$ -	\$ -	\$ -	\$ 137,000	\$ 137,000
	190097 - BONSON RD PAVEMENT REHAB (NORTH) #19-TR-006	\$ -	\$ -	\$ -	\$ -	\$ 188,000	\$ 188,000
	190098 - SOMMERSET DR (CHESTNUT TO MAPLE) #19-TR-008	\$ -	\$ -	\$ -	\$ -	\$ 95,000	\$ 95,000
	190099 - MCMYN ROAD (191 TO HARRIS) #19-TR-009	\$ -	\$ -	\$ -	\$ 180,000	\$ -	\$ 180,000
	190100 - MCNEIL S-CURVE PAVEMENT REHAB #19-TR-010	\$ -	\$ -	\$ -	\$ -	\$ 672,000	\$ 672,000
	190105 - DCC MNT6 - HARRIS SIDEWALK FRASER TO AIRPORT #19-TR-025	\$ -	\$ -	\$ -	\$ 572,000	\$ -	\$ 572,000
	200010 - WOOLRIDGE PAVEMENT REHAB #19-TR-004	\$ -	\$ -	\$ 1,135,000	\$ -	\$ -	\$ 1,135,000
	200036 - UPDATED TRANSPORTATION MASTER PLAN #20-TR-004	\$ -	\$ -	\$ -	\$ -	\$ 110,000	\$ 110,000
	210012 - HAMMOND RD REPAVING - WILDWOOD TO PM BOUNDARY	\$ 461,000	\$ -	\$ -	\$ -	\$ -	\$ 461,000
	210032 - DCC BYLAW & PROGRAM REVIEW	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000
	210034 - CITY ENTRANCE SIGN NEAR PITT BRIDGE	\$ 12,500	\$ 45,000	\$ -	\$ -	\$ -	\$ 57,500
	220004 - BONSON RD - WILDWOOD TO AIRPORT	\$ -	\$ -	\$ -	\$ 145,000	\$ -	\$ 145,000
	220006 - BONSON RD & FRASER WAY (EAST)	\$ -	\$ -	\$ 205,000	\$ -	\$ -	\$ 205,000
	220021 - LATECOMER POLICY	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000
	220026 - LADNER ROAD REPAVE - EAST	\$ 648,000	\$ -	\$ -	\$ -	\$ -	\$ 648,000
	220027 - LADNER ROAD REPAVE - WEST END	\$ -	\$ -	\$ -	\$ 236,000	\$ -	\$ 236,000
8300 - TRANSPORTATION CAPITAL Total		\$ 6,210,500	\$ 510,000	\$ 5,134,000	\$ 5,955,000	\$ 2,254,000	\$ 20,063,500
8410 - WATER CAPITAL							
	180059 - AC REP 195A, 195B, 117B AVE #15-WS-049	\$ 345,000	\$ -	\$ -	\$ -	\$ -	\$ 345,000
	180060 - AC REP 195B, 119A, 120B AVE #15-WS-054	\$ -	\$ 660,000	\$ -	\$ -	\$ -	\$ 660,000
	180062 - AC REP 115A AVE, 197A, 197B #15-WS-065	\$ -	\$ 585,000	\$ -	\$ -	\$ -	\$ 585,000
	180065 - AC REP 188A, 189A, 188B, 120B, 120 AVE	\$ 850,000	\$ -	\$ -	\$ -	\$ -	\$ 850,000
	190043 - AC REP-196A, 116B AVE #19-WS-006	\$ 345,000	\$ -	\$ -	\$ -	\$ -	\$ 345,000
	190044 - AC REP-116A, 114B AVE, 198 ST #19-WS-007	\$ 564,000	\$ -	\$ -	\$ -	\$ -	\$ 564,000
	190067 - AC REP - 119 B Ave	\$ -	\$ 326,000	\$ -	\$ -	\$ -	\$ 326,000
	190069 - CL REP-BONSON RD (SOUTH)& 117A#18-WS-002	\$ -	\$ -	\$ 658,000	\$ -	\$ -	\$ 658,000
	190108 - AC REP. - 188 AVE (ADVENT NORTH) #19-WS-001	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ 600,000
	190111 - AC REP. HARRIS ROAD (MCNEIL TO DIKE) #19-WS-008	\$ -	\$ -	\$ -	\$ 800,000	\$ -	\$ 800,000
	190112 - AC REP. - PATRICK ROAD #19-WS-009	\$ -	\$ -	\$ -	\$ -	\$ 312,000	\$ 312,000
	190113 - AC REP. - FENTON ROAD #19-WS-010	\$ -	\$ -	\$ -	\$ -	\$ 660,000	\$ 660,000
	200017 - AC REP 189B ST,120B AVE, 119B, 190 ST#16-WS-081	\$ -	\$ -	\$ -	\$ 700,000	\$ -	\$ 700,000
	210045 - ADVENT AC REPLACEMENT - 188 TO 188A	\$ -	\$ -	\$ 128,000	\$ -	\$ -	\$ 128,000
8410 - WATER CAPITAL Total		\$ 2,104,000	\$ 1,571,000	\$ 786,000	\$ 2,100,000	\$ 972,000	\$ 7,533,000
8430 - SEWER CAPITAL							
	190094 - DCC S4 - ADVENT ROAD MAIN UPSIZE #19-SS-003	\$ -	\$ -	\$ 1,128,800	\$ -	\$ -	\$ 1,128,800
8430 - SEWER CAPITAL Total		\$ -	\$ -	\$ 1,128,800	\$ -	\$ -	\$ 1,128,800
8453 - DRAINAGE AREA #3 CAPITAL							
	210037 - AREA #3 - HYDROGEOLOGICAL STUDY - DATA & MODELLING	\$ 90,000	\$ -	\$ -	\$ -	\$ -	\$ 90,000
8453 - DRAINAGE AREA #3 CAPITAL Total		\$ 90,000	\$ -	\$ -	\$ -	\$ -	\$ 90,000
DV301 - ENGINEERING Total		\$ 16,860,700	\$ 13,781,000	\$ 8,848,800	\$ 8,055,000	\$ 3,226,000	\$ 50,771,500

3. DECISION PACKAGE(S)

None.

PUBLIC PARTICIPATION

☒ Inform ☐ Consult ☐ Involve ☐ Collaborate ☐ Empower

KATZIE FIRST NATION CONSIDERATIONS

Referral ☐ Yes ☒ No

SIGN-OFFS**Written by:**

Samantha Maki,
Director of Engineering & Operations

Reviewed by:

Mark Roberts,
Chief Administrative Officer

ATTACHMENT(S)

None.