



# City of Richmond

## Report to Committee

**To:** Finance Committee  
**From:** Jerry Chong, CPA, CA  
Director, Finance  
**Re:** 2018 Capital Budget

**Date:** November 17, 2017  
**File:** 03-0985-01/2017-Vol 01

### Staff Recommendation

1. That the 2018 Capital Budget totalling \$160,064,190 be approved and staff authorized to commence the 2018 Capital Projects; and
2. That the 2018 Capital Budget totalling \$160,064,190 and the 2019 - 2022 Capital Projects be included in the 5 Year Financial Plan (2018 - 2022).

Jerry Chong, CPA, CA  
Director, Finance  
(604-276-4064)

App. 13

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER	
CONCURRENCE OF SMT	INITIALS:
APPROVED BY CAO	

## Executive Summary

Capital funds are directed towards infrastructure and asset management programs ranked based on the highest priority projects to respond to Council direction and provide services to the citizens of Richmond. The 2018 Capital Budget totalling \$160.0 million includes significant investment in infrastructure renewal to maintain community viability. A more detailed breakdown of each program is included in the appendices to this report.

The following is an overview of the major program areas funded through the capital budget with selected highlights of proposed 2018 initiatives being recommended to Council.

### Infrastructure – \$71.6M:

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The City's Infrastructure Program includes: dykes, roads, drainage and sanitary pump stations, drainage, water, and sanitary mains.

The 2018 program includes River Parkway Road Extension - Gilbert Road to Cambie Road (\$10.5M), Dike Upgrades (\$5.9M), No. 4 Road Reconstruction from Blundell Road to Granville Ave (\$1.8M), Citywide Street Light Replacement and Sidewalk Repair Program (\$1.1M), Watermain Replacement – River Parkway (\$1.0M), Pilot Sewer Grease and Heat Recovery Facilities (\$3.5M), Water Metering Program (\$6.5M), and re-pavement programs (\$4.5M).

### Building – \$40.8M:

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The Building Program includes major building construction and renovation projects as well as minor facility upgrades.

The 2018 building program includes Phoenix Net Loft Building Stabilization (\$11.5M), Animal Shelter Replacement (\$8.0M), Lawn Bowling Club Replacement (\$4.0M), Advancement of Partial Funding for the Canada Line Capstan Station (\$3.5M), Gateway Theatre Infrastructure Replacements - First Stage (\$3.3M), Works Yard Ageing Mechanical and Building Envelope Infrastructure Replacement (\$2.5M) and Thompson Community Centre Heat Pump Replacements (\$0.5M).

### **Parks – \$11.5M:**



Richmond is renowned for its high quality parks and recreation facilities, with over 145 parks totalling approximately 1,950 acres. In addition to the City's parks, Richmond also has 73 kilometers of recreational trails.

The 2018 program includes strategic Parkland Acquisition (\$4.0M) to satisfy the OCP objective of maintaining the parks provision standard of 7.66 acres/1,000 population, Aberdeen Park Playground and Garden Construction (\$1.3M), Garden City Lands Phase 3 - Park Construction and Community Hub Design (\$1.6M) and London/Steveston Phase 2 (\$0.5M).

### **Land – \$10.0M:**



The 2018 Land Acquisition Program relates to the City's Real Estate Section's acquisition of real property for the City. Funds for land acquisition to meet the Council Approved Strategic Real Estate Investment Plan, other than DCC and other special reserve funded projects, are set aside in the Capital Reserve under the Industrial Use Fund. Council approval is required for each acquisition; funding is in place to act on opportunities as they arise.

### **Equipment – \$10.5M:**



The Equipment Program includes IT hardware and software, fleet and equipment, as well as fire vehicle and equipment replacement.

The 2018 equipment program includes Closed Circuit Television for Signalized Intersections (\$2.2M), 2018 Digital Strategy Implementation (\$1.0M), Vehicle and Equipment Reserve Purchases (\$3.4M), Fire Vehicle Replacement Reserve Purchases (\$1.1M) and Electrical Power Capacity Design for Shore Power & Electrical Vehicle Charging (\$0.4M).

## **Staff Report**

### **Origin**

Subsection 165(1) of the Community Charter requires the City to adopt a 5 Year Financial Plan (5YFP) Bylaw. The 5YFP Bylaw includes operating, utility and capital budgets for year 2018 and provides estimates for the remaining years of the five-year program. The 5YFP (2018 - 2022) Bylaw provides the City with the authority to proceed with spending as outlined in the Bylaw. The 5YFP must be balanced and therefore includes proposed funding sources.

The 5YFP provides authorization for the use of certain funding sources such as Development Cost Charges (DCCs) and Statutory Reserves. The 5YFP will be prepared once Council has approved each of the 2018 components.

The Capital Budget (the “budget”) is one of the main components in preparing the 5YFP. The budget includes all expenditures that improve, replace and extend the useful life of the City’s asset inventory, which has a net book value greater than \$2.2 billion. The Capital Budget allows the City to sustain existing civic infrastructure, while also adding new assets and services to serve the growing community.

The Long Term Financial Management Strategy (LTFMS) is a set of principles created by Council to guide the financial planning process. It is Council policy and a key component of the LTFMS to ensure that sufficient long term capital funding for infrastructure replacement and renewal is in place in order to maintain community viability and generate economic development.

### **Analysis**

This report presents the proposed 2018 Capital Budget and seeks Council review and approval on 2018 recommended projects and the operating expenditures associated with each respective project. The proposed Capital Budget for 2018 is \$160.0 million. This report also presents the projects currently planned for years 2019 - 2022 as required; however the projects will be subject to final approval in each subsequent year.

The City’s capital budget ensures appropriate planning for required projects and their related funding to demonstrate the complete impact of major multi-year projects. Capital requirements are driven by many factors including growth, maintenance of current ageing infrastructure and ensuring that the City is consistently meeting industry standards as well as legislated and regulatory requirements.

The City continues to see sustained population and economic growth. Significant additional growth is projected through 2041 under the Official Community Plan. This new growth requires expansion of City infrastructure in order to maintain the high level of civic services expected by new and current residents. As the City continues to mature, existing infrastructure is nearing the end of its lifespan and/or capacity. Continuous, ongoing investment in replacement and maintenance of ageing infrastructure is required to maintain service levels and protect civic assets. Capital investment allows the City to take advantage of new technology and building practices to improve operational efficiency and accrue environmental benefits from the use of



more sustainable building practices and equipment. Finally, the Capital Budget also includes internal transfers and debt repayment to replenish reserve accounts used to provide interim funding for various projects.

## **2018 Capital Process**

Each division sets priorities specific to their area of expertise. A project submission is completed detailing the scope of work, review of alternatives, financial impact, and proposed funding sources. In addition, the submission is self-ranked using established criteria summarized in Appendix 1. The process behind the 2018 - 2022 Capital Budget is illustrated in Appendix 2.

The Capital Review Committee (CRC) which is comprised of Directors from each City division reviewed and ranked each project submission. To ensure consistent application of the established ranking criteria, the CRC determines the final ranking for each submission giving consideration to strategic and master plans, policies and Council priorities.

The ranked projects are consolidated and the projects are recommended based on funding availability. Project funding recommendations are then reviewed by the Senior Management Team (SMT) and the CAO. The final recommendation is consolidated to form the 2018 Capital Budget presented to Finance Committee for review and approval.

### *Public Input*

In October 2017, a pre-budget planning consultation was held providing an opportunity for the public to submit comments. All comments were reviewed by staff and were considered in the budget process.

### *Finance Committee Input*

Appendix 3 provides a list of the recommended projects. At the Finance Committee's discretion, any Capital project recommended for funding may be removed from the recommended list. In addition, any Capital project that is not recommended for funding may be reconsidered for recommendation, subject to funding availability. Appendix 4 provides a list of those projects not recommended for funding. The details of projects not recommended for funding are included in Appendix 9.

## **Major Facilities Phase 2 Highlights**

### *Animal Shelter*

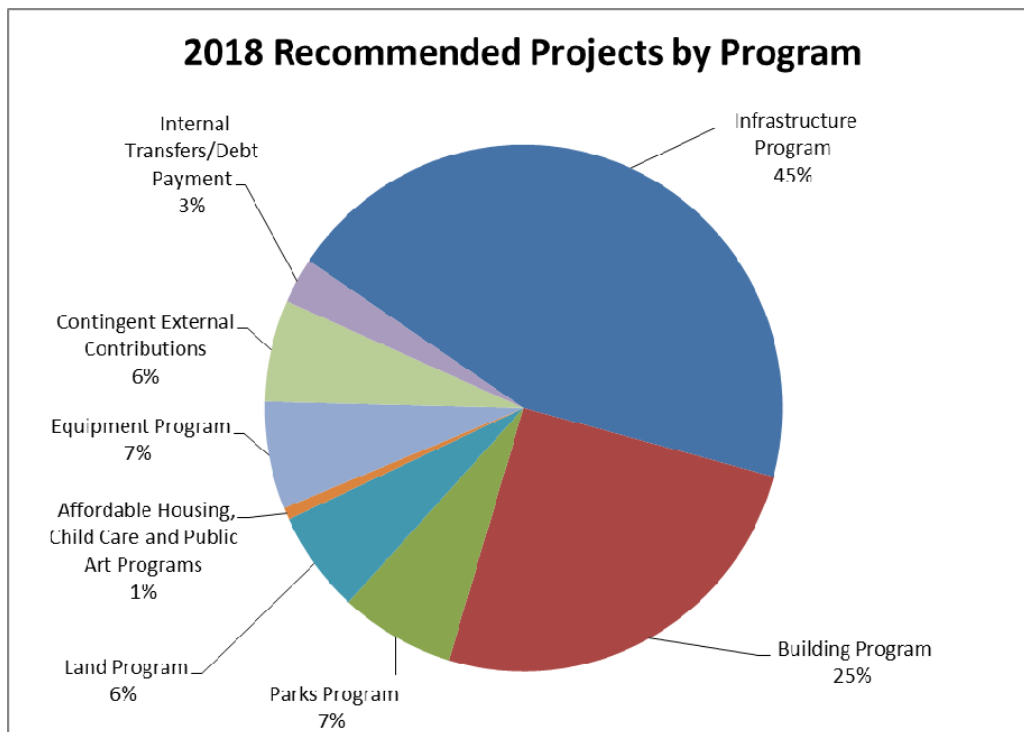
The current Animal Shelter is located at No.5 Road. The one story 4,580 ft<sup>2</sup> facility was built in 1978. Since then, the population of Richmond has grown from approximately 80,000 in 1978 to the current population of over 200,000. This project is for a replacement facility which will both increase the shelter capacity and modernize the facility and operations in order to address both current and future needs in the community. Council approval for the concept design is expected in early 2018 after which the capital budget and operating budget impact will be refined.

### *Lawn Bowling Clubhouse*

This project will replace the current lawn bowling clubhouse in Minoru Park to provide users an improved experience as well as help to attract more provincial and national caliber events as a result of improved amenities and more space. The Richmond Lawn Bowling Club has been actively fundraising to support this project. Council approval for the concept design is expected in early 2018 after which the capital budget and operating budget impact will be refined.

The 2018 recommended capital projects by program are summarized in Figure 1.

**Figure 1 – 2018 Recommended Projects by Program**



The following is an overview of the recommended Capital program that supports new infrastructure needs compared to the replacement of existing infrastructure.

### **New 2018 Capital Costs**

The new capital costs total \$91.4M (57%) of the 2018 Capital Budget, which includes:

- River Parkway Road Extension - Gilbert Road to Cambie Road - \$10.5M (page 38)
- Strategic Land Acquisition - \$10.0M (page 114)
- Water Metering Program - \$6.5M (page 60)
- Pilot Sewer Grease and Heat Recovery Facility - \$3.5M (page 69)
- Public Works Infrastructure Advanced Design - \$2.5M (page 78)
- Closed Circuit Television for Signalized Intersections - \$2.2M (page 131)
- Garden City Lands Phase 3 - Park Construction and Community Hub Design - \$1.6M (page 100)
- Digital Strategy Implementation - \$1.0M (page 124)
- Affordable Housing Projects - City Wide - \$0.4M (page 117)

## **Replacement 2018 Capital Costs**

The replacement capital costs total \$54.1M (34%) of the 2018 Capital Budget, which includes:

- Phoenix Net Loft Building Stabilization - \$11.5M (page 95)
- Animal Shelter Replacement - \$8.0M (page 86)
- Lawn Bowling Club Replacement - \$4.0M (page 90)
- Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet) - \$3.4M (page 119)
- Gateway Theatre Infrastructure Replacements - First Stage - \$3.3M (page 88)
- No. 4 Road Reconstruction from Blundell Road to Granville Ave - \$1.8M (page 37)
- Steveston Gravity Sewer Replacement and Rehabilitation - \$1.8M (page 76)
- Box Culvert Repair - \$1.5M (page 48)
- Parks Strategic Ageing Infrastructure Replacement - \$0.9M (page 107)

## **Contingent External Contributions**

Contingent External Contributions of \$10.0M (6%) (page 140) is an estimate of external grants that may be received throughout the year for various projects. Spending will only incur if funds are confirmed. Including an estimate in the Capital Budget will allow staff to request scope changes to existing projects without having to wait until the Bylaw Amendment, which is typically in the fall of the next budget year.

## **Internal Transfers and Debt Repayment**

Internal Transfer and Debt Repayment total \$4.5M (3%) of the 2018 Capital Budget includes:

- 7080 River Road Repayment – \$2.3M (page 142)
- River Road/North Loop Repayment – \$1.7M (page 145)

The details of each recommended project is attached in Appendix 8.

## **2018 Capital Budget Funding Sources**

The 2018 capital budget uses a variety of funding sources which include:

- Development Cost Charges (DCCs) – These contributions are made through development and are used for growth related projects.
- External Sources – These include grants awarded from Provincial and Federal Governments, developer contributions (other than DCCs) and other non-City related sources.
- Reserves – These are funds established by bylaws for specific purposes and are funded primarily by budgeted contributions from the Operating and Utility Budgets and developer contributions plus interest earned on fund balances.
- Appropriated Surplus – These are funds set aside for specific initiatives.
- Rate Stabilization Account (RSA) – This is a provision account established by Council and funded by prior year's surplus to provide funding to stabilize tax increases or for any one-time expenditure requests without a tax impact.

The funding of the recommended projects has been allocated while maintaining the long-term strategy of building reserve balances to fund future infrastructure replacement and

improvements. Generally, projects are funded up to the annual amount transferred into each available reserve.

For information purposes, Appendix 5 summarizes the projects recommended for funding from the Revolving Fund. The Revolving Fund is used to fund a variety of general projects which do not have dedicated sources of funding such as Development Cost Charges, Watermain Replacement Reserve and Sanitary Sewer Reserve.

For 2018, there are 10 capital projects that were recommended by SMT and the CAO to be partially or fully funded from the Rate Stabilization Account. Appendix 6 summarizes the projects recommended for funding from the Rate Stabilization Account.

Appendix 7 summarizes all the 2018 recommended projects funded by Development Cost Charges, which are monies collected from developers to offset some of the infrastructure costs related to new growth.

The funding sources of the 2018 recommended projects are summarized in Table 1.

**Table 1 – 2018 Funding Sources**

<b>Funding Sources</b>	<b>Amount</b>
Reserves	\$97.0
Provisions	12.1
Rate Stabilization	8.0
<i>Subtotal - Internal</i>	<i>\$117.1</i>
DCCs	31.6
External Sources	11.3
<i>Subtotal - External</i>	<i>\$42.9</i>
<b>Total 2018 Funding</b>	<b>\$160.0</b>

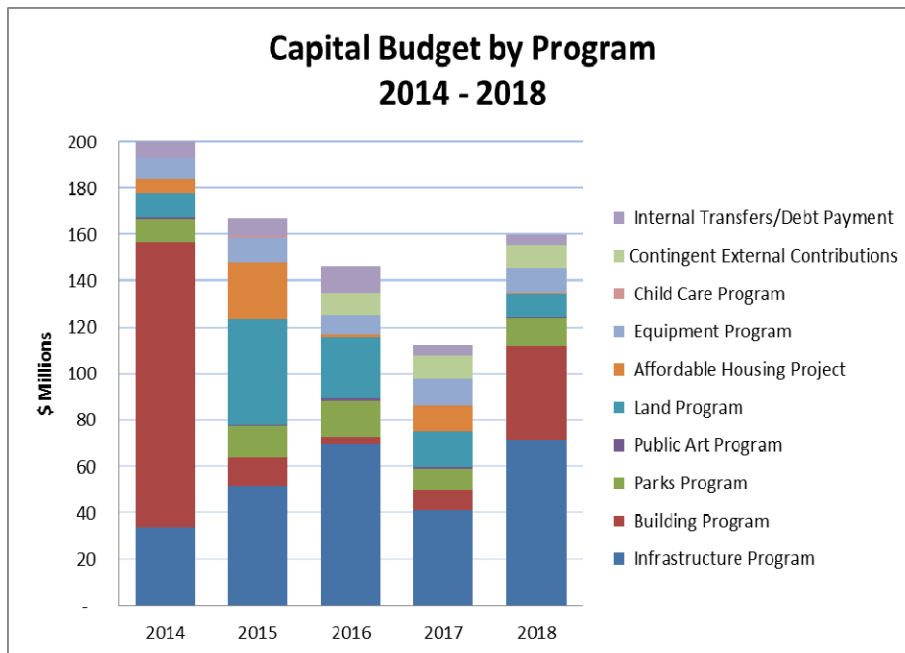
Approximately \$97.0 million of this year's capital plan is funded by the Reserves and \$42.9 million through external sources and DCCs, which are contributed by developers, significantly reducing the potential impact of these projects upon taxpayers.

### **Recommended 2018 versus Historical (2014 - 2017) Capital Budget Analysis**

Figure 2 provides analysis of the program types of the capital budget as amended for the past four years compared to the 2018 recommended capital plan. For the years 2014 - 2017, Capital Budgets as amended average \$127.5 million annually after adjusting for the major facilities approved in the 2014 capital plan.

In 2014, Council approved \$124.1 million for major facilities, of which \$50.0 million was financed through Municipal Finance Authority (MFA). This included funding for the Minoru Centre for Active Living, No.1 Brighthouse Fire Hall and City Centre Community Centre. Appendix 3 includes a legend of the funding sources for each project. Funding details of each individual submission are included in Appendix 8.

**Figure 2 – Capital Budget by Program 2018 vs. Historical**



**Propose 2018 - 2022 Capital Budget**

Figure 3 shows the 5 Year Capital Plan from 2018 to 2022, which proposes to continue to invest an average of \$116.5 million each year in the City's assets.

**Figure 3 – Proposed 5 Year Capital Plan by Program 2018 to 2022**

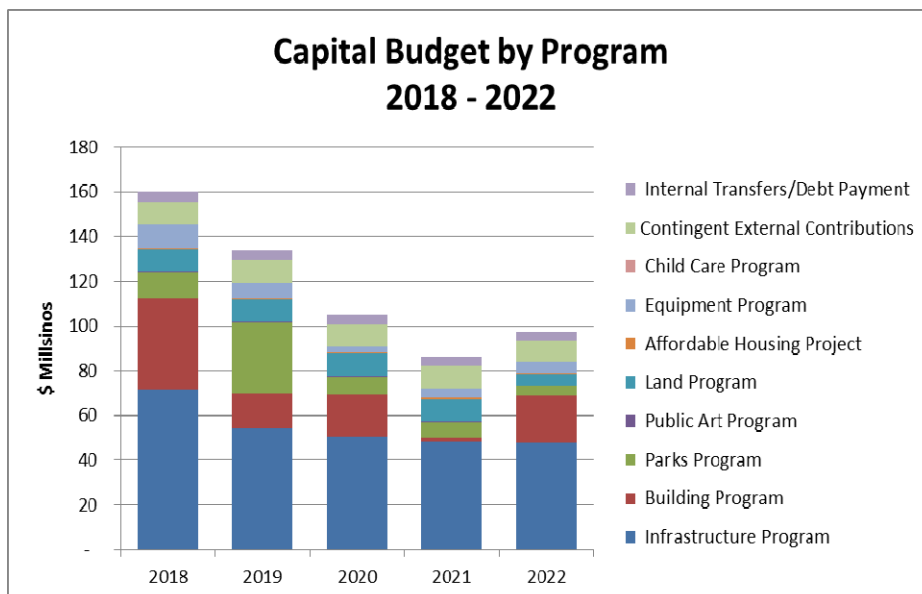


Table 2 presents a summary of the amount of proposed investment for Capital Projects for 2019 - 2022. A listing of the 2018 - 2022 Capital Projects is presented in Appendix 10. A summary of the 5 Year Capital Program and Funding Sources is presented in Appendix 11. Highlights of the 2019 - 2022 projects are summarized in Appendix 11.



**Table 2: Proposed 2019 to 2022 Capital Projects (in millions)**

Year	Amount	OBI
2019	\$133.7	\$1.4
2020	\$104.9	\$0.6
2021	\$86.1	\$0.6
2022	\$97.5	\$0.5

### 2018 Operating Budget Impact

Upon completion of capital projects, new assets are added to the City's inventory. There are costs associated with maintaining these new assets. For example, a new building will require staffing, janitorial services, gas and hydro utility costs; a new park will include annual maintenance and labour costs. This ongoing maintenance cost is the Operating Budget Impact (OBI) associated with the new asset which is added to the operating budget.

OBI's were reviewed by the Capital Review Committee as part of the Capital submission review process. The total OBI relating to the 2018 recommended projects is \$1.2 million. \$0.2 million of the OBI is associated with water and sewer utility projects. If the respective projects are approved, these will be incorporated into the 2019 utility budget, as part of the 5 Year Financial Plan (2018 - 2022). The remaining \$1.0 million will be added to the operating budget if the associated projects are approved. To minimize the budget impact, an OBI phase in plan is adopted each year. For the recommended 2018 Capital Program, the OBI is proposed to be phased in over two years.

Table 3 presents a summary of the recommended Capital Budget and associated OBI by program.

**Table 3: Recommended 2018 Capital and OBI by Program (in millions)**

Program (in millions)	Amount	OBI
Infrastructure Program	\$71.6	\$0.75
Building Program	40.8	0.13
Parks Program	11.5	0.19
Equipment Program	10.5	0.16
Contingent External Grants	10.0	0.00
Land Program	10.0	0.00
Internal Transfer/Debt Payment	4.5	0.00
Affordable Housing Program	0.6	0.00
Public Art Program	0.3	0.01
Child Care Program	0.2	0.00
<b>Total 2018 Capital &amp; OBI</b>	<b>\$160.0</b>	<b>\$1.24</b>

## **Financial Impact**

The 2018 Capital Budget with a total value of \$160.0 million will enable the City to maintain and advance the asset inventory that continues to provide necessities and benefits to the community. The OBI associated with these projects is \$1.2 million and once approved will be incorporated into the 2018 - 2022 5YFP.

## **Conclusion**

The recommended Capital budget for 2018 is \$160.0 million. The Capital Review Committee worked closely with SMT and the CAO to represent the interests of all stakeholders to ensure that the 2018 capital program addresses Council priorities and meets the needs of the community while effectively utilizing available funding.



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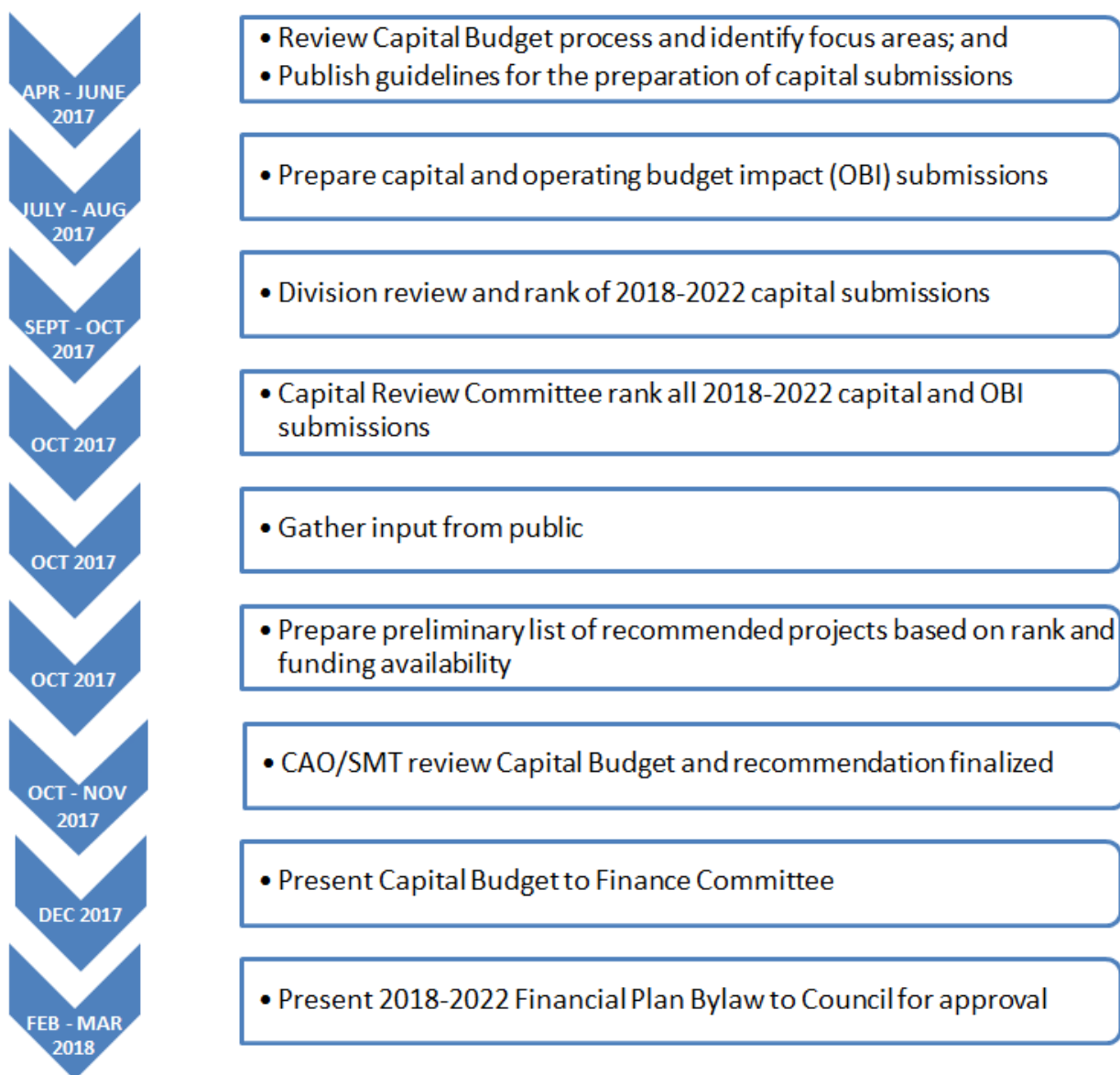
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- Appendix 1: Capital Ranking Criteria
- Appendix 2: 2018 Capital Budget Process
- Appendix 3: 2018 Summary of Capital Projects - RECOMMENDED
- Appendix 4: 2018 Summary of Capital Projects - NOT RECOMMENDED
- Appendix 5: 2018 Summary of Projects Funded by Revolving Fund
- Appendix 6: 2018 Summary of Projects Funded by Rate Stabilization Fund
- Appendix 7: 2018 Summary of Projects Funded by Development Cost Charges
- Appendix 8: 2018 Details of Recommended Projects by Program
- Appendix 9: 2018 Details of Not Recommended Projects by Program
- Appendix 10: 5 Year Capital Plan Summary (2018 - 2022)
- Appendix 11: 5 Year Capital Plan by Funding Sources (2018 - 2022)
- Appendix 12: 5 Year Capital Plan by Program (2018 - 2022)
- Appendix 13: 2019 - 2022 Capital Plan Highlights

## Capital Ranking Criteria



## 2018 Capital Budget Process



Project Name	Funding Source	Total Investment	Total OBI	Ref
<b>INFRASTRUCTURE PROGRAM</b>				
<b>Roads</b>				
Accessible Pedestrian Signal Program	D/R	250,000	11,750	24
Active Transportation Improvement Program	D/R/E	1,000,000	28,609	25
Alderbridge Way Multi-Use Pathway, No. 4 Road to Shell Road	D/R/E	1,200,000	12,047	26
Annual Asphalt Re-Paving Program - MRN	A	1,549,000	-	27
Annual Asphalt Re-Paving Program - Non-MRN	A	2,982,000	-	28
Arterial Roadway Improvement Program	D/R	350,000	17,882	29
Bridge Rehabilitation Program	S	290,000	2,513	30
Cambie Road Improvement, River Road to No. 3 Road	D/R	1,500,000	1,365	31
City Centre Cycling Network Plan	D/R	150,000	-	32
Citywide Street Light Replacement and Sidewalk Repair Program	S	1,080,000	-	33
LED Street Name Sign Program	D/R	200,000	10,625	34
Leslie Road Improvement, River Parkway to approximately 150m to the east	D/R	1,200,000	665	35
Neighbourhood Walkway Program	D/R	500,000	26,202	36
No. 4 Road Reconstruction from Blundell Road to Granville Ave	S	1,786,000	-	37
River Parkway Road Extension - Gilbert Road to Cambie Road	D/R	10,500,000	36,871	38
Special Crosswalk Program	D/R	350,000	16,425	39
Traffic Calming Program	D/R	100,000	11,767	40
Traffic Signal Pre-emption Program	D/R	100,000	5,313	41
Traffic Signal Program	D/R	800,000	33,438	42
Traffic Video and Communication Program	D/R	400,000	25,000	43
Transit-Related Amenity Improvement Program	D/R/A	100,000	7,286	44
Transit-Related Roadway Improvement Program	D/R/E	350,000	11,136	45
Transportation Planning, Functional and Preliminary Design	D/R	265,000	-	46
<b>Total Roads</b>		<b>\$ 27,002,000</b>	<b>\$258,894</b>	
<b>Drainage</b>				
Box Culvert Repair	R	1,500,000	-	48
Burkeville Drainage Improvements	R	2,000,000	12,500	49
Development Coordinated Works - Drainage	R	250,000	25,000	50
Dike Upgrades	R	5,850,000	84,063	51
Drainage Pump Station Generator Upgrade	R	130,000	12,500	52
Drainage Pump Station Rehabilitation	R	300,000	-	53
East Richmond Drainage & Irrigation Upgrades	R	465,600	8,750	54
Headwall Replacement and Ditch Infills	R	500,000	-	55
Horseshoe Slough Dredging	R	1,818,000	-	56
Laneway Drainage Upgrade - Broadmoor Boulevard (North)	R	1,182,720	10,000	57
<b>Total Drainage</b>		<b>\$ 13,996,320</b>	<b>\$ 152,813</b>	

Legend: **A**=Appropriated Surplus; **D**=Development Cost Charges; **E**=External Sources; **R**=Reserves; **S**=Rate Stabilization;



Project Name	Funding Source	Total Investment	Total OBI	Ref
<b>INFRASTRUCTURE PROGRAM</b>				
<b>Water</b>				
Development Coordinated Works - Water	R	250,000	25,000	59
Water Metering Program	R/A	6,506,000	125,000	60
Watermain Replacement Program	D/R	6,276,000	-	61
Watermain Replacement River Parkway	R	1,045,000	12,705	62
Watermain Tie-in and Restoration	R	250,000	-	63
<b>Total Water</b>		<b>\$ 14,327,000</b>	<b>\$ 162,705</b>	
<b>Sanitary Sewer</b>				
Eckersley B Sanitary Pump Station	D/R	2,650,000	25,059	65
Gravity Sewer Assessment Program	R	450,000	-	66
Gravity Sewer Replacement - South of Richmond Street between No. 1 Road and 2nd Avenue	R	825,000	2,500	67
Manhole and Inspection Chamber Replacement Program	R	250,000	-	68
Pilot Sewer Grease and Heat Recovery Facility	R	3,500,000	32,219	69
Pump Station Resiliency - Pilot Project	R	390,000	5,000	70
Sanitary Forcemain Valve Installations	R	100,000	12,414	71
Sanitary Pump Station and Forcemain Assessment, Upgrade and Grease Management	R	600,000	12,414	72
Sanitary Sewer Tie-in and Restoration	R	500,000	-	73
SCADA System Improvements	R	150,000	-	74
Sidaway Yard Trailer and Scale Installation	A	936,000	72,172	75
Steveston Gravity Sewer Replacement and Rehabilitation	R	1,839,000	5,000	76
<b>Total Sanitary Sewer</b>		<b>\$ 12,190,000</b>	<b>\$ 166,778</b>	
<b>Minor Public Works</b>				
Public Works Infrastructure Advanced Design	D/R	2,530,000	-	78
Public Works Minor Capital - Drainage	R	300,000	-	79
Public Works Minor Capital - Roads	S	300,000	-	80
Public Works Minor Capital - Sanitary	R	450,000	-	81
Public Works Minor Capital - Sanitation & Recycling	A	300,000	-	82
Public Works Minor Capital - Traffic	S	250,000	9,167	83
<b>Total Minor Public Works</b>		<b>\$ 4,130,000</b>	<b>\$9,167</b>	
<b>TOTAL INFRASTRUCTURE PROGRAM</b>		<b>\$ 71,645,320</b>	<b>\$750,357</b>	

Legend: **A**=Appropriated Surplus; **D**=Development Cost Charges; **E**=External Sources; **R**=Reserves; **S**=Rate Stabilization;

Project Name	Funding Source	Total Investment	Total OBI	Ref
<b>BUILDING PROGRAM</b>				
<i><b>Building</b></i>				
Advancement of Partial Funding for the Canada Line Capstan Station	R	3,500,000	-	85
Animal Shelter Replacement	R	8,000,000	-	86
City Hall Annex Renovation	R/S	5,700,000	138,750	87
Gateway Theatre Infrastructure Replacements - First Stage	R	3,337,000	-	88
Gateway Theatre Lighting Infrastructure and Systems Renewal	R	673,400	-	89
Lawn Bowling Club Replacement	R	4,000,000	-	90
Thompson Community Centre Heat Pump Replacements	A/S	520,000	(11,500)	91
Watermania System Ageing Mechanical and Building Envelope Infrastructure Replacement	R	1,000,000	-	92
Works Yard Ageing Mechanical and Building Envelope Infrastructure Replacement	R	2,515,000	-	93
<i><b>Total Building</b></i>		<b>\$ 29,245,400</b>	<b>\$ 127,250</b>	
<i><b>Heritage</b></i>				
Phoenix Net Loft Building Stabilization	R	11,500,000	-	95
<i><b>Total Heritage</b></i>		<b>\$ 11,500,000</b>	<b>-</b>	
<b>TOTAL BUILDING PROGRAM</b>		<b>\$ 40,745,400</b>	<b>\$ 127,250</b>	
<b>PARKS PROGRAM</b>				
<i><b>Parks</b></i>				
Aberdeen Park Playground and Garden Construction	D/R	1,250,000	60,507	97
City Tree Planting Program	A	200,000	11,250	98
Garden City Community Park Dog Park	D/R	150,000	15,960	99
Garden City Lands Phase 3 - Park Construction and Community Hub Design	D/R	1,625,000	44,868	100
London/Steveston Phase 2	D/R	480,000	24,709	101
Minoru Park Cultural Precinct Site Improvements	S	800,000	6,008	102
Minoru Park Renewal Phase 1	D/R	250,000	-	103
Parks Advance Planning & Design	D/R	600,000	-	104
Parks General Development	D/R	500,000	5,420	105
Parks Identity Signage Program	D/R	200,000	27,456	106
Parks Strategic Ageing Infrastructure Replacement	R	900,000	-	107
Playground Replacement and Safety Upgrade System	R	500,000	-	108
<i><b>Total Parks</b></i>		<b>\$ 7,455,000</b>	<b>\$196,180</b>	
<i><b>Parkland</b></i>				
Parkland Acquisition	D/R	4,000,000	-	110
<i><b>Total Parkland</b></i>		<b>\$ 4,000,000</b>	<b>-</b>	
<b>TOTAL PARKS PROGRAM</b>		<b>\$ 11,455,000</b>	<b>\$ 196,180</b>	

Legend: A=Appropriated Surplus; D=Development Cost Charges; E=External Sources; R=Reserves; S=Rate Stabilization;

Project Name	Funding Source	Total Investment	Total OBI	Ref
<b>PUBLIC ART PROGRAM</b>				
<i>Public Art</i>				
Public Art Program	R	347,572	6,250	112
<b>TOTAL PUBLIC ART PROGRAM</b>		<b>\$ 347,572</b>	<b>\$6,250</b>	
<b>LAND PROGRAM</b>				
<i>Land</i>				
Strategic Land Acquisition	R	10,000,000	-	114
<b>TOTAL LAND PROGRAM</b>		<b>\$ 10,000,000</b>	<b>-</b>	
<b>AFFORDABLE HOUSING PROGRAM</b>				
<i>Affordable Housing</i>				
Affordable Housing 2018 Operating Initiatives	R	220,000	-	116
Affordable Housing Projects - City Wide	R	400,000	-	117
<b>Total Affordable Housing</b>		<b>\$ 620,000</b>	<b>-</b>	
<b>TOTAL AFFORDABLE HOUSING PROGRAM</b>		<b>\$ 620,000</b>	<b>-</b>	
<b>EQUIPMENT PROGRAM</b>				
<i>Annual Fleet Replacement</i>				
Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	R/A	3,422,777	52,225	119
<b>Total Vehicle</b>		<b>\$ 3,422,777</b>	<b>\$ 52,225</b>	
<i>Fire Dept Vehicles and Equipment</i>				
Fire Vehicle Replacement Reserve Purchases	R	1,112,116	-	121
Richmond Fire Emergency Equipment Replacement	R	126,530	10,000	122
<b>Total Fire Dept Vehicles and Equipment</b>		<b>\$ 1,238,646</b>	<b>10,000</b>	
<i>Information Technology</i>				
2018 Digital Strategy Implementation	A/S	1,023,877	63,474	124
Annual Hardware Refresh	A	426,750	-	125
ePlans for Residential and Commercial Building	A	141,000	12,000	126
Network Infrastructure Core Refresh	R	361,711	-	127
Property Management System (Amanda) Upgrade	A	375,000	25,000	128
Telephone System Equipment Replacement	R/A	402,094	-	129
<b>Total Information Technology</b>		<b>\$ 2,730,432</b>	<b>\$ 100,474</b>	

Legend: *A*=Appropriated Surplus; *D*=Development Cost Charges; *E*=External Sources; *R*=Reserves; *S*=Rate Stabilization;

Project Name	Funding Source	Total Investment	Total OBI	Ref
<b>EQUIPMENT PROGRAM</b>				
<i>Equipment</i>				
Closed Circuit Television for Signalized Intersections	A	2,185,242	-	131
Electrical Power Capacity Design for Shore Power & Electrical Vehicle Charging	A	425,000	-	132
South Arm Boiler Replacement and Domestic Water Repiping	S	540,000	1,500	133
<b>Total Equipment</b>		<b>\$ 3,150,242</b>	<b>\$ 1,500</b>	
<b>TOTAL EQUIPMENT PROGRAM</b>		<b>\$ 10,542,097</b>	<b>\$ 164,199</b>	

<b>CHILD CARE PROGRAM</b>				
<i>Child Care</i>				
Child Care - Research, Studies and City Personnel/Consultant Expenses	R	60,000	-	135
Child Care Projects - City Wide (Capital Grants)	R	50,000	-	136
Child Care Projects - City Wide (Projects)	R	100,000	-	137
Child Care Projects - City Wide Non-Capital Grants	R	10,000	-	138
<b>TOTAL CHILD CARE PROGRAM</b>		<b>\$ 220,000</b>	<b>-</b>	

<b>CONTINGENT EXTERNAL CONTRIBUTION</b>				
Contingent External Contribution	E	10,000,000	-	140
<b>TOTAL CONTINGENT EXTERNAL CONTRIBUTION</b>		<b>\$ 10,000,000</b>	<b>-</b>	

<b>INTERNAL TRANSFERS/DEBT PAYMENT</b>				
<i>Internal Transfers/Debt Payment</i>				
7080 River Road Repayment	D/R	2,341,384	-	142
Lansdowne Rd Extension	D	77,263	-	143
Nelson Road Interchange Repayment	D	385,098	-	144
River Road/North Loop Repayment	D	1,685,056	-	145
<b>TOTAL INTERNAL TRANSFERS/DEBT PAYMENT</b>		<b>\$ 4,488,801</b>	<b>-</b>	

<b>Total 2018 Capital Program</b>		<b>\$ 160,064,190</b>	<b>\$1,244,236</b>	
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<b>OBI Type</b>	
Operating OBI	\$ 991,342
Utility OBI	252,893
<b>Total OBI</b>	<b>\$1,244,236</b>

Legend: *A*=Appropriated Surplus; *D*=Development Cost Charges; *E*=External Sources; *R*=Reserves; *S*=Rate Stabilization;

Project Name	Funding Source	Total Investment	Revolving Fund	Total OBI	Ref
<b>INFRASTRUCTURE PROGRAM</b>					
Asphalt Re-Paving Program - Non-MRN Backlog Management	R	1,000,000	1,000,000	-	147
Monds Neighbourhood Walkway and Roadway Improvements	R	1,000,000	1,000,000	59,600	148
<b>TOTAL INFRASTRUCTURE PROGRAM</b>		<b>\$ 2,000,000</b>	<b>\$ 2,000,000</b>	<b>\$ 59,600</b>	
<b>BUILDING PROGRAM</b>					
Britannia Japanese Duplex & First Nations Bunkhouse	R	3,815,000	3,815,000	413,100	150
City Hall GHG Emissions Reduction through Heat Recovery	R/A	150,000	90,000	(4,000)	151
Library and Cultural Centre Deep Energy Retrofits	R/A/E	860,000	585,000	(19,000)	152
<b>TOTAL BUILDING PROGRAM</b>		<b>\$ 4,825,000</b>	<b>\$ 4,490,000</b>	<b>\$ 390,100</b>	
<b>EQUIPMENT PROGRAM</b>					
Energy Management Projects - Gas Equipment Replacement and Upgrade Phase 1	A	395,000	-	-	154
Public Safety Mobile Command Vehicle	R	992,000	992,000	-	155
Watermania Competition & Entertainment Enhancement	A	748,000	-	-	156
<b>TOTAL EQUIPMENT PROGRAM</b>		<b>\$ 2,135,000</b>	<b>\$ 992,000</b>	<b>-</b>	
<b>Total 2018 Capital Program – Not Recommended</b>		<b>\$8,960,000</b>	<b>\$ 7,482,000</b>	<b>\$ 449,700</b>	

Legend: *A*=Appropriated Surplus; *D*=Development Cost Charges; *E*=External Sources; *R*=Reserves; *S*=Rate Stabilization;



**PURPOSE:** Each year, the Revolving Fund is utilized to fund various capital projects. This summary shows the 2018 capital projects and the corresponding amounts funded by the Revolving Fund.

Project Name	Total Investment	Revolving Fund	Total OBI	Ref
<b><i>Building</i></b>				
City Hall Annex Renovation	5,700,000	992,000	138,750	87
Gateway Theatre Lighting Infrastructure and Systems Renewal	673,400	673,400	-	89
Watermania Ageing Mechanical and Building Envelope Infrastructure Replacement	1,000,000	1,000,000	-	92
<b><i>Total Building</i></b>	<b><i>\$7,373,400</i></b>	<b><i>\$2,665,400</i></b>	<b><i>\$138,750</i></b>	
<b><i>Parks</i></b>				
Garden City Lands Phase 3 - Park Construction and Community Hub Design	1,625,000	625,000	44,868	100
Parks Strategic Ageing Infrastructure Replacement	900,000	900,000	-	107
Playground Replacement and Safety Upgrade System	500,000	500,000	-	108
<b><i>Total Parks</i></b>	<b><i>\$3,025,000</i></b>	<b><i>\$2,025,000</i></b>	<b><i>\$44,868</i></b>	
<b>Total 2018 Projects Funded by Revolving Fund</b>	<b><i>\$10,398,400</i></b>	<b><i>\$4,690,400</i></b>	<b><i>\$183,618</i></b>	

The City Assist Factor on Roads DCC and Parks DCC projects are also funded by the Revolving Fund.

City Assist Factor on Parks Acquisition	\$377,312
City Assist Factor on Parks Development	\$263,585
City Assist Factor on Roads DCC	\$1,093,085
<b>Total Funding from Revolving Fund</b>	<b>\$6,424,382</b>

Project Name	Total Investment	Rate Stabilization	Total OBI	Ref
<b>Roads</b>				
Bridge Rehabilitation Program	290,000	290,000	2,513	30
Citywide Street Light Replacement and Sidewalk Repair Program	1,080,000	1,080,000	-	33
No. 4 Road Reconstruction from Blundell Road to Granville Ave	1,786,000	1,786,000	-	37
<b>Total Roads</b>	<b>\$3,156,000</b>	<b>\$3,156,000</b>	<b>\$2,513</b>	
<b>Minor Capital</b>				
Public Works Minor Capital – Roads	300,000	300,000	-	80
Public Works Minor Capital – Traffic	250,000	250,000	9,167	83
<b>Total Minor Capital</b>	<b>\$550,000</b>	<b>\$550,000</b>	<b>\$9,167</b>	
<b>Building</b>				
City Hall Annex Renovation	5,700,000	2,063,000	138,750	87
Thompson Community Centre Heat Pump Replacements	520,000	420,000	(11,500)	91
<b>Total Building</b>	<b>\$6,220,000</b>	<b>\$2,483,000</b>	<b>\$127,250</b>	
<b>Parks</b>				
Minoru Park Cultural Precinct Site Improvements	800,000	800,000	6,008	102
<b>Total Parks</b>	<b>\$800,000</b>	<b>\$800,000</b>	<b>\$6,008</b>	
<b>Information Technology</b>				
2018 Digital Strategy Implementation	1,023,877	519,771	63,474	124
<b>Total Information Technology</b>	<b>\$1,023,877</b>	<b>\$519,771</b>	<b>\$63,474</b>	
<b>Equipment</b>				
South Arm Boiler Replacement and Domestic Water Repiping	540,000	540,000	1,500	133
<b>Total Equipment</b>	<b>\$540,000</b>	<b>\$540,000</b>	<b>\$1,500</b>	
<b>Grand Total</b>	<b>\$12,289,877</b>	<b>\$8,048,771</b>	<b>\$209,912</b>	

Project Name	Total Investment	DCC Funding	Total OBI	Ref
<b>Road DCCs</b>				
Accessible Pedestrian Signal Program	250,000	235,000	11,750	24
Active Transportation Improvement Program	1,000,000	470,000	28,609	25
Alderbridge Way Multi-Use Pathway, No. 4 Road to Shell Road	1,200,000	564,000	12,047	26
Arterial Roadway Improvement Program	350,000	329,000	17,882	29
Cambie Road Improvement, River Road to No. 3 Road	1,500,000	1,410,000	1,365	31
City Centre Cycling Network Plan	150,000	141,000	-	32
Lansdowne Rd Extension	77,263	77,263	-	143
LED Street Name Sign Program	200,000	188,000	10,625	34
Leslie Road Improvement, River Parkway to approximately 150m to the east	1,200,000	1,128,000	665	35
Neighbourhood Walkway Program	500,000	470,000	26,202	36
Nelson Road Interchange Repayment	385,098	385,098	-	144
Public Works Infrastructure Advanced Design	2,530,000	216,315	-	78
River Parkway Road Extension - Gilbert Road to Cambie Road	10,500,000	9,870,000	36,871	38
River Road/North Loop Repayment	1,685,056	1,685,056	-	145
Special Crosswalk Program	350,000	329,000	16,425	39
Traffic Calming Program	100,000	94,000	11,767	40
Traffic Signal Pre-emption Program	100,000	94,000	5,313	41
Traffic Signal Program	800,000	752,000	33,438	42
Traffic Video and Communication Program	400,000	376,000	25,000	43
Transit-Related Amenity Improvement Program	100,000	47,000	7,286	44
Transit-Related Roadway Improvement Program	350,000	164,500	11,136	45
Transportation Planning, Functional and Preliminary Design	265,000	249,100	-	46
<b>Total Road DCC</b>	<b>\$23,992,417</b>	<b>\$19,274,332</b>	<b>\$256,381</b>	
<b>Water DCC</b>				
Watermain Replacement Program	6,276,000	1,645,050	-	61
<b>Total Water DCC</b>	<b>\$6,276,000</b>	<b>\$1,645,050</b>	<b>\$-</b>	
<b>Sanitary DCC</b>				
Eckersley B Sanitary Pump Station	2,650,000	587,813	25,059	65
<b>Total Sanitary DCC</b>	<b>\$2,650,000</b>	<b>\$587,813</b>	<b>\$25,059</b>	
<b>Park Development DCC</b>				
Aberdeen Park Playground and Garden Construction	1,250,000	1,175,625	60,507	97
Garden City Community Park Dog Park	150,000	141,075	15,960	99
Garden City Lands Phase 3 - Park Construction and Community Hub Design	1,625,000	940,500	44,868	100
London/Steveston Phase 2	480,000	451,440	24,709	101
Minoru Park Renewal Phase 1	250,000	235,125	-	103
Parks Advance Planning & Design	600,000	564,300	-	104
Parks General Development	500,000	470,250	5,420	105
Parks Identity Signage Program	200,000	188,100	27,456	106
<b>Total Park Development DCC</b>	<b>\$5,055,000</b>	<b>\$4,166,415</b>	<b>\$178,920</b>	
<b>Park Land Acquisition DCC</b>				
7080 River Road Repayment	2,341,384	2,202,072	-	142
Parkland Acquisition	4,000,000	3,762,000	-	110
<b>Total Park Land Acquisition DCC</b>	<b>\$6,341,384</b>	<b>\$5,964,072</b>	<b>\$-</b>	
<b>Grand Total</b>	<b>\$44,314,801</b>	<b>\$31,637,682</b>	<b>\$460,360</b>	

## Infrastructure Program 2018

The City's Infrastructure Program assets include: road, drainage and sanitary pump stations, drainage, water, and sanitary mains.

### 2018 Recommended Infrastructure – Roads Program

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<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Roads
<b>Project Name:</b>	Accessible Pedestrian Signal Program		<b>Submission ID:</b>	5447
<b>Location:</b>	Various			
<b>Cost:</b>	\$250,000		<b>OBI:</b>	\$11,750
<b>Funding Sources:</b>	Roads DCC: \$235,000 Roads City Assist: \$15,000			
<b>Scope:</b>	<p>The general scope of work includes the installation of accessible devices at existing signalized intersections that exceed the minimum criteria for prioritized locations as per the 2008 guidelines published by the Transportation Association of Canada, by providing audible messaging, Braille signage, and other accessible friendly features. The proposed funding level and project locations are to allow the City to meet its target to outfit all existing city-owned traffic signals with APS devices by year 2020. To date, all special crosswalks (92) and pedestrian signals (44) as well as 101 of 164 signalized intersections have been upgraded. The standard is for all new traffic signals to include APS.</p> <p>The program is proposed to be funded by the DCC program funding and may be eligible for external funding contributions from ICBC. Some locations may also be funded through development requirements of any relevant applications per Council direction (see report to Council on September 27, 2010).</p> <p>For 2018, approximately 15 to 20 existing signalized intersections are proposed for upgrade to Accessible Signal systems. The actual locations will be determined in early 2018. The exact scope of improvement may be refined due to factors such as priority review, availability of external funding and/or opportunity to pursue these improvements as part of development frontage improvements.</p>			







Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Active Transportation Improvement Program	Submission ID:	5210

Location:	Various Locations		
Cost:	\$1,000,000	OBI:	\$28,609
Funding Sources:	Roads DCC: \$470,000 Roads City Assist: \$30,000 Grant: \$500,000		
Scope:	<p>The general scope involves implementing cycling and rolling improvements included as part of the Council-approved Cycling Network Plan by supporting: 1) the expansion of various on-street cycling routes and off-street multi-use pathways; and 2) cycling and rolling initiatives and on-going enhancements to existing cycling and rolling infrastructure.</p> <p>Typical elements of the program include the construction of new on-street cycling facilities, off-street multi-use pathways primarily for transportation purposes, installation of bike racks, new signage, pavement markings, associated minor road geometric improvements, and other supplementary cycling and rolling amenity improvements required to facilitate the safe and efficient movement of cyclists and users of other wheeled devices.</p> <p>This project is proposed to be funded by the DCC program funding and may be eligible for funding from external agencies such as the provincial government, TransLink and/or ICBC.</p> <p>The following list of improvements is currently being planned for 2018 (subject to factors such as the completion of the detailed design, confirmation of external funding, outcome of public consultation, etc):</p> <ol style="list-style-type: none"><li>1. Westminster Hwy (14,600-block to No. 7 Rd): rebuild of multi-use path on south side.</li><li>2. Parkside Bikeway Extension: multi-use pathway to connect existing northern terminus at Garden City Park to Anderson School and Alberta Road including pavement markings and signage to extend route to Westminster Hwy and Garden City Lands.</li><li>3. Odlin Road Bike Route: establishment of new east-west bike route including upgrade of existing path through Odlin Park to multi-use path, new multi-use pathway with lighting to connect Odlin Road and Brown Road, upgrade of pathway connection at Browngate Road-Hazelbridge Way, pavement markings, and signage.</li></ol>		



<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Roads
<b>Project Name:</b>	Alderbridge Way Multi-Use Pathway, No. 4 Road to Shell Road		<b>Submission ID:</b>	6162
<b>Location:</b>	Alderbridge Way, No. 4 Road to Shell Road			
<b>Cost:</b>	\$1,200,000		<b>OBI:</b>	\$12,047
<b>Funding Sources:</b>	Roads DCC: \$564,000 Roads City Assist: \$36,000 Grant: \$600,000			
<b>Scope:</b>	<p>The general scope includes the provision of a 3.0m wide paved multi-use pathway along the north side of Alderbridge Way, between No. 4 Road and Shell Road, as there is no existing sidewalk at this location. The multi-use pathway is proposed to be built north of the existing two westbound traffic lanes, with a treed/landscaped boulevard and necessary street lighting for pathway users. Crossing enhancements along the north side of the No. 4 Road and Shell Road intersections are proposed to be included as part of the project.</p> <p>The proposed facility would provide a new means for pedestrians and cyclists to access the existing trail along Shell Road and the amenities and services in the West Cambie area west of No. 4 Road. Ultimately, combined with the multi-use pathway from No. 4 Road to Garden City Road that has been implemented or will be pursued through future developments along Alderbridge Way, this project would provide a new key east/west connection for cyclists and pedestrians in the city connecting two major north/south cycling/pedestrian routes along Shell Road and Garden City Road.</p> <p>This project is proposed to be funded by the DCC program funding and may be eligible for funding from external agencies such as the provincial government, TransLink and/or ICBC.</p>			



<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Roads
<b>Project Name:</b>	Annual Asphalt Re-Paving Program - MRN		<b>Submission ID:</b>	5179
<b>Location:</b>	Various			
<b>Cost:</b>	\$1,549,000		<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	MRN Rehabilitation: \$1,549,000			
<b>Scope:</b>	To re-pave MRN roads in alignment with the City's Ageing Infrastructure Strategy. Project list to be determined by the end of 2017.			
<p>The project includes costs associated with ancillary work, including but not limited to, curb and gutter repairs, road base repair, asphalt parking re-paving, manhole and valve box adjustments, line painting, staff inspection time.</p>				
<p>The project includes the pavement component of other water, sanitary and drainage upgrades in the Capital Program that are co-ordinated by the Engineering department.</p>				
				





Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Annual Asphalt Re-Paving Program - Non-MRN	Submission ID:	5178

Location:	City Wide		
Cost:	\$2,982,000	OBI:	\$ -
Funding Sources:	Asphalt Capping: \$2,982,000		
Scope:	To re-pave City owned Non-MRN roads (major & minor roads and lanes) in alignment with the City's Ageing Infrastructure Strategy. Project list to be determined by the end of 2017.		

The project includes costs associated with ancillary work, including but not limited to, curb and gutter repairs, road base repair, asphalt parking re-paving, manhole and valve box adjustments, line painting, staff inspection time.

The project includes the pavement component of other water, sanitary and drainage upgrades in the Capital Program that are co-ordinated by the Engineering department and the maintenance of the Pavement Management Plan.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Arterial Roadway Improvement Program	Submission ID:	5214
Location:	Various Locations		
Cost:	\$350,000	OBI:	\$17,882
Funding Sources:	Roads DCC: \$329,000 Roads City Assist: \$21,000		
Scope:	<p>The general scope includes implementing pedestrian and traffic safety improvements along arterial roads and at arterial road intersections in order to respond in a timely basis to requests from the public and/or Council on issues related to pedestrian and traffic safety. Typical improvements include the construction of new and/or enhancement of existing walkways/sidewalks, new turn lanes, improved channelization, intersection signage enhancement, and installation of pedestrian safety enhancements at intersections. For sidewalks/walkways along arterial roads, priority would be given to those connecting locations with high pedestrian activities, such as schools, neighbourhood service centres, bus stops, recreational service centres, shopping/retail centres, etc., that are along arterial roads with high traffic volumes.</p> <p>This project is proposed to be funded by the DCC program funding and may be eligible for funding from external agencies such as the provincial government, TransLink and/or ICBC.</p> <p>The following list of improvements is currently being planned for 2018 (subject to factors such as the completion of the detailed design, confirmation of external funding, etc):</p> <ul style="list-style-type: none"><li>- A 1.5m wide asphalt walkway along the north side of River Road, from No. 6 Road to Burdette Street, and installation of wheel chair ramps and a marked crosswalk on River Road at Burdette Street to facilitate the crossing of pedestrians originated from/destined to the light industrial area south of River Road.</li></ul>		
			

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Bridge Rehabilitation Program	Submission ID:	5921

Location:	City Wide		
Cost:	\$290,000	OBI:	\$2,513
Funding Sources:	Rate Stabilization:	\$290,000	
Scope:	This project will address bridge improvements to a number of bridges throughout Richmond. The scope of work includes railing improvements, barrier installation, sidewalk repairs, signage installation, crack sealing, utility repair and replacement, erosion repair, expansion joint sealing, and bridge replacement.		


Bridges have been prioritized through bridge condition assessments conducted this year and in consideration of public safety. The scope of work for 2018 includes repair or replacement of the following bridges as well as planning for bridge reparation work in 2019.

The bridges to be repaired or replaced in 2018 include:

- Chatsworth Road Bridge
- Clifton Road Bridge
- Shell Road Trail Bridge
- Jacombs Road Overpass
- Luton Road Bridge
- Bird Road Bridge
- Princess Street Bridge





Program:	Infrastructure Program		Sub-program:	Roads
Project Name:	Cambie Road Improvement, River Road to No. 3 Road		Submission ID:	6163
Location:	Cambie Road- River Road to No. 3 Road			
Cost:	\$1,500,000		OBI:	\$1,365
Funding Sources:	Roads DCC: \$1,410,000 Roads City Assist: \$90,000			
Scope:	<p>This project is to complement the proposed River Parkway extension between Gilbert Road and Cambie Road. Specifically, this project would modify/enhance Cambie Road from River Road to No. 3 Road in anticipation of the changes in traffic patterns in the immediate area associated with the River Parkway project, with the following as the general scope of work:</p> <ul style="list-style-type: none"><li>- Street enhancements to include road widening from No. 3 Road to future River Parkway and road redistribution to enhance pedestrian/cycling experience (due to lower traffic usage) from future River Parkway to River Road;</li><li>- A 3.0m (minimum) to 4.0m (preferred) wide multi-use pathway along the south side for cyclists and pedestrians;</li><li>- Pedestrian/cyclist crossing enhancements along the south side of the River Road, future River Parkway, and No. 3 Road intersections;</li><li>- A new traffic calming measure (curb extension) on the southeast corner of River Road/Cambie Road;</li><li>- Intersection traffic capacity improvements at the No. 3 Road and future River Parkway intersections with new turn lanes;</li><li>- Provision of a new traffic signal at the future River Parkway intersection and modification of the existing traffic signal at the No. 3 Road intersection to manage and enhance traffic operations; and</li><li>- Streetlights along the length of the project where necessary.</li></ul> <p>The project budget of \$1.5M will have a cash flow over two years, i.e., \$750,000 in 2018 and \$750,000 in 2019. This project is proposed to be funded by the DCC program funding and may be eligible for funding from external agencies such as the federal and/or provincial government, TransLink and/or ICBC.</p>			
				

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	City Centre Cycling Network Plan	Submission ID:	6166

Location:

Cost:

Funding Sources:

Scope:

City Centre

\$150,000

Roads DCC: \$141,000  
Roads City Assist: \$9,000



City Centre Cycling Network Plan was originally developed in 1997 and last updated in 2007 and 2009 as part of the City Centre Transportation Plan (CCTP) and City Centre Area Plan (CCAP), respectively. The purpose of this project is to update the existing plan to ensure it is reflective of the current needs and that it continues to support the long-term mobility objectives as identified in the CCTP and CCAP. An implementation strategy to advance the cycling network and cost estimates will also be included. In addition, this project will review and refine existing and/or develop new design concepts for different types of cycling infrastructure so that it is reflective of the latest industry standards. Accordingly, conceptual designs will be developed and associated high-level cost estimate will be prepared for each cycling facility.

The project would be funded entirely by the DCC program funding.

Cycling Network Map (2031)


Bylaw 8841  
2013/02/12




<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Roads
<b>Project Name:</b>	Citywide Street Light Replacement and Sidewalk Repair Program		<b>Submission ID:</b>	6095
<b>Location:</b>	Various			
<b>Cost:</b>	\$1,080,000		<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Rate Stabilization:		\$1,080,000	
<b>Scope:</b>	<p>Over time street lighting infrastructure deteriorates and can become hazards to residents and traffic without proper maintenance and replacement programs. Through the City’s ageing infrastructure assessment program approximately 100 street lights are at the end of their design life and need to be replaced. Sidewalks that have subsided, are damaged from tree roots, or have become misaligned pose tripping hazards to pedestrians. Replacing these sidewalks will improve pedestrian safety and encourage non-vehicular forms of transportation.</p>			
<div></div>				

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	LED Street Name Sign Program	Submission ID:	6152


Location:	Various Locations		
Cost:	\$200,000	OBI:	\$10,625
Funding Sources:	Roads DCC:	\$188,000	
	Roads City Assist:	\$12,000	
Scope:	<p>The general scope of work includes the installation of LED street name signs at various signalized intersections to enhance overall intersection visibility and legibility, allowing drivers more time to plan their actions at intersections. The benefits of this program are especially valuable at major, gateway, high-volume intersections and in tourist areas with a large proportion of visiting drivers and accordingly, priority for implementation will be given to those locations.</p> <p>The program is proposed to be funded by the DCC program funding and may be eligible for external funding contributions from ICBC and TransLink. Some locations may also be funded through development requirements.</p> <p>The following is the preliminary list of potential locations identified for 2018. The exact scope of improvement may be refined due to factors such as priority review, availability of external funding and/or opportunity to pursue these improvements as part of development frontage improvements.</p> <ul style="list-style-type: none"><li>- Russ Baker Way and Miller Road</li><li>- Garden City / Great Canadian Way and Sea Island Way</li><li>- Great Canadian Way and Bridgeport Road</li><li>- Knight Street and Westminster Highway</li><li>- No. 6 Road and Westminster Highway</li><li>- Garden City Road and Westminster Highway</li><li>- Lynas Lane and Westminster Highway</li><li>- Fraserwood Place and Westminster Highway</li><li>- Russ Baker Way and Gilbert Road</li><li>- Minoru Boulevard and Granville Avenue</li></ul>		




<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Roads
<b>Project Name:</b>	Leslie Road Improvement, River Parkway to approximately 150m to the east		<b>Submission ID:</b>	6164
<b>Location:</b>	Leslie Road- River Parkway to approximately 150m to the east			
<b>Cost:</b>	\$1,200,000		<b>OBI:</b>	\$ 665
<b>Funding Sources:</b>	Roads DCC: \$1,128,000 Roads City Assist: \$72,000			
<b>Scope:</b>	<p>This project is to complement the proposed River Parkway extension between Gilbert Road and Cambie Road. Specifically, this project would modify/enhance Leslie Road, with the following as the general scope of work:</p> <ul style="list-style-type: none"><li>- Road widening along Leslie Road to accommodate a typical three traffic lane cross-section, with one traffic lane in each eastbound and westbound direction and an additional lane as a turning lane at the intersection or as a painted median in mid-block;</li><li>- New three-legged intersection at future River Parkway / Leslie Road with one traffic lane at each intersection approach and separate turning lanes to/from Leslie Road;</li><li>- A new traffic signal at the future River Parkway intersection to manage traffic operations; and</li><li>- Provision of an approximately 2.4m wide sidewalk/lighting strip along the length of the project.</li></ul> <p>The project budget of \$1.2M will have a cash flow over two years, i.e., \$600,000 in 2018 and \$600,000 in 2019. This project is proposed to be funded by the DCC program funding and may be eligible for funding from external agencies such as the federal and/or provincial government, TransLink and/or ICBC.</p>			

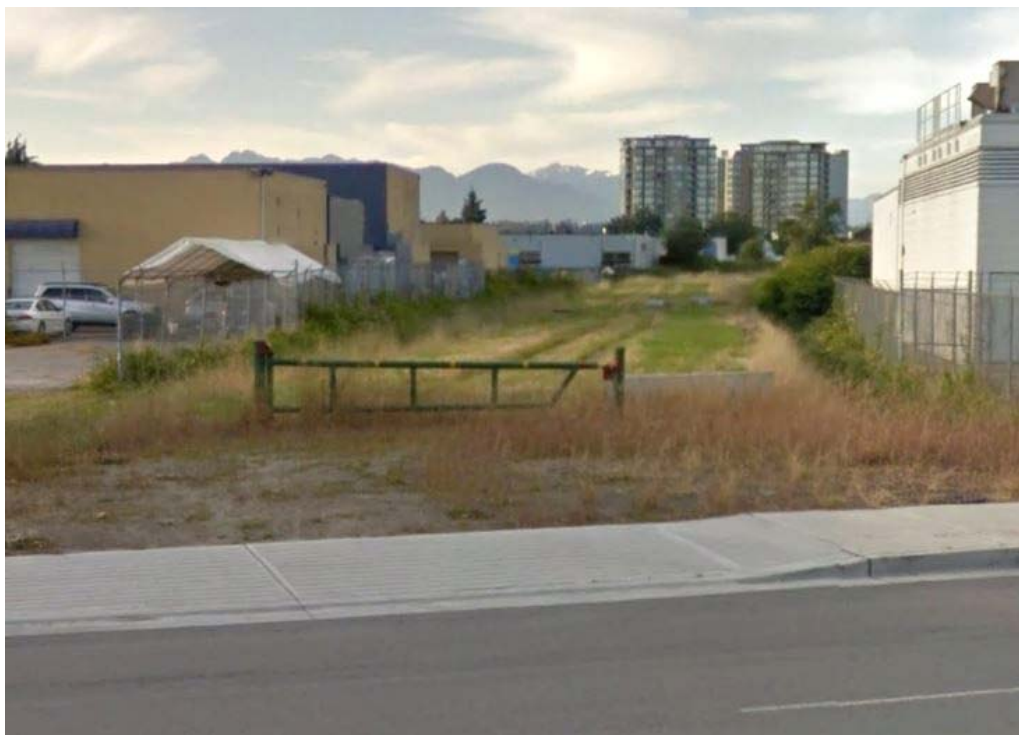


Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Neighbourhood Walkway Program	Submission ID:	5450
Location:	Various Locations		
Cost:	\$500,000	OBI:	\$26,202
Funding Sources:	Roads DCC: \$470,000 Roads City Assist: \$30,000		
Scope:	<p>The general scope of this project includes the construction of new and/or enhancement of existing neighbourhood walkways/sidewalks in response to requests from the public and/or Council. Consistent with OCP goals to encourage the use of sustainable transportation modes, priority would be given to walkways/sidewalks connecting locations with high pedestrian activities such as schools, neighbourhood service centres, bus stops, recreational services centres, shopping/retail centres, etc., particularly roads with high traffic volumes/traffic conflicts. The major cost component of the program is the construction/upgrade of new/existing sidewalks, pathways, wheelchair ramps, minor curb cuts, boulevard modifications, and/or other supplementary improvements. Projects will be subject to neighbourhood residents' consultation, if applicable.</p> <p>The program is proposed to be funded by the DCC program and may be eligible for external funding contributions from ICBC.</p> <p>The exact scope will be determined depending the request and feedback expected to be received by members of public and Council, as well as subject to factors such as outcome of public consultation, availability of external funding, and/or opportunity to pursue these improvements as part of development frontage improvements.</p> <p>The following improvement is currently being planned for 2018 (subject to factors such as the completion of the detailed design, confirmation of external funding, outcome of public consultation, etc):</p> <ul style="list-style-type: none"><li>- An interim 1.5m wide asphalt walkway within the Riverside Industrial Area, including Horseshoe Way, Machrina Way and Coppersmith Way. Connecting with existing walkways in the area, this project would provide a walkway along at least one side of all the internal roads within the industrial area. This project is also proposed to upgrade the (four) bus stops to include accessible bus landing pads of which the proposed walkways connect to.</li></ul>		






Program:	Infrastructure Program		Sub-program:	Roads
Project Name:	No. 4 Road Reconstruction from Blundell Road to Granville Ave		Submission ID:	6104
Location:	4 Rd and Blundell			
Cost:	\$1,786,000		OBI:	\$ -
Funding Sources:	Rate Stabilization: \$1,786,000			
Scope:	<p>Along the 7000 block of No.4 Road at the Blundell Road intersection, roadway conditions have deteriorated to a point where it provides sub-standard service to commuters and neighbouring homes. The roadway was built in the 1970's over the compressible soils and peat of the area. Over many years of use, significant settling has occurred, most prominently on the eastern side of the roadway. This results in water pooling and a slanted, inconsistent surface that increases vibrations which negatively impact road users and neighbouring homes. Due to the substantial difference between the design grade and the current road elevation, it has been determined that the most cost effective solution is to complete the project in a single phase before further deterioration occurs.</p>			
				

Program:	Infrastructure Program		Sub-program:	Roads
Project Name:	River Parkway Road Extension - Gilbert Road to Cambie Road		Submission ID:	5686
Location:	River Parkway- Gilbert Road to Cambie Road			
Cost:	\$10,500,000	OBI:	\$36,871	
Funding Sources:	Roads DCC: \$9,870,000 Roads City Assist: \$630,000			
Scope:	<p>The general scope of this project includes the construction of a two-lane paved road along the former CP Railway corridor, from 200m northeast of Gilbert Road to Cambie Road. The new road is proposed to be built to the interim standard with paved shoulders for cyclists and pedestrians, and streetlights. Note: the new road would connect to existing Leslie Road and Cambie Road, of which a separate capital submission has been prepared for each and submitted for consideration. When completed, this new road would replace the existing River Road between Cambie Road and Gilbert Road and provide a continuous alternate route to No. 3 Road and existing River Road.</p> <p>The first phase of the project has started in 2017 to carry out functional and detailed design tasks, as well as any property negotiation, consultation with affected property owners/business operators, and soil remediation as necessary. This capital submission is for the second phase of the project that involves the actual site preparation and construction, which is proposed to start in 2018.</p> <p>The budget for first phase of the project (\$800,000) was approved in 2017. The project budget for the second phase of the project is \$10.5M and is proposed to have a cash flow over two years, i.e., \$5.25M in 2018 and \$5.25M in 2019. This project is proposed to be funded by the DCC program funding and may be eligible for funding from external agencies such as the federal and/or provincial government, TransLink and/or ICBC.</p>			
				

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Special Crosswalk Program	Submission ID:	5211

Location:	Various Locations		
Cost:	\$350,000	OBI:	\$16,425
Funding Sources:	Roads DCC: \$329,000 Roads City Assist: \$21,000		
Scope:	<p>The general scope involves implementing new traffic control standards that have been endorsed by Council, at existing crosswalks on arterial roads. Typical elements of the program include the upgrade of existing crosswalks on arterial roads (typically four-lane arterials) to include overhead illuminated signs with amber flashers, pedestrian-controlled push buttons, as well as enhanced accessible devices. The upgrade would include hardware such as poles, bases, junction boxes, underground/communication conduits, controller, enhanced accessible devices, related wiring, pavement markings, illuminated crosswalk signs, amber flashers, push buttons, etc.</p> <p>The program is proposed to be funded by the DCC program funding and may be eligible for external funding contributions from ICBC. Some locations may also include funding contribution from nearby developments.</p> <p>The following is the preliminary list of potential locations identified for 2018. The exact scope of improvement may be refined due to factors such as priority review, availability of external funding and/or opportunity to pursue these improvements as part of development frontage improvements.</p> <ul style="list-style-type: none"><li>- Deagle Road and Williams Road</li><li>- Shell Road and Bird Road</li><li>- Railway Avenue and Woodward's Road</li></ul>		




Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Traffic Calming Program	Submission ID:	5213

Location:	Various Locations		
Cost:	\$100,000	OBI:	\$11,767
Funding Sources:	Roads DCC:	\$94,000	
	Roads City Assist:	\$6,000	
Scope:	The general scope involves the implementation of traffic measures to address concerns regarding through (short-cutting) traffic and excessive speed on the City's public roads. Specifically, these measures are intended to address concerns related to speed violations, neighbourhood through traffic intrusions and other traffic safety issues.		

Typical elements of the program include retrofitting existing streets with traffic calming measures to address traffic safety concerns and enhancing neighbourhood livability. The major cost component of the program is the installation of traffic calming related improvements that includes the construction of curb extensions, centre medians, extruded curbs, traffic circles, speed humps, delineated walkways, traffic signage and other traffic reducing measures. In addition, projects contained in this program may also include supplementary streetscape improvements, i.e. planting of trees and other landscaping improvements to enhance the local pedestrian environment and overall street appearance.

The exact scope will be determined pending on the request and feedback expected to be received by members of public and Council, as well as subject to factors such as the availability of external funding, and/or opportunity to pursue these improvements as part of development frontage improvements.


The program is proposed to be funded by the DCC program funding and may be eligible for external funding contributions from TransLink and ICBC.






Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Traffic Signal Pre-emption Program	Submission ID:	6157

Location:	Various Locations		
Cost:	\$100,000	OBI:	\$5,313
Funding Sources:	Roads DCC: \$94,000 Roads City Assist: \$6,000		
Scope:	<p>The general scope of work includes the installation of specialized integrated traffic signal pre-emption hardware, software and communications system, including but not limited to equipment for accredited vehicles and traffic signal interface, vehicle to intersection communications system and master software for managing remote equipment and providing system status information.</p> <p>The program is proposed to be funded by the DCC program funding and may be eligible for external funding from TransLink and ICBC.</p> <p>In 2018, it is proposed that a manufacturer/supplier be retained to supply test equipment at five potential intersections listed below, based on joint discussions with Richmond Fire-Rescue. The exact scope of improvement may be refined based on the test results and also due to factors such as priority review, availability of external funding and/or opportunity to pursue these improvements as part of development frontage improvements.</p> <ol style="list-style-type: none"><li>1. Gilbert Road and Granville Avenue</li><li>2. Gilbert Road and Azure Gate</li><li>3. No. 2 Road and Westminster Highway</li><li>4. No. 2 Road and Garrison Road</li><li>5. No. 2 Road and Granville Avenue</li></ol>		

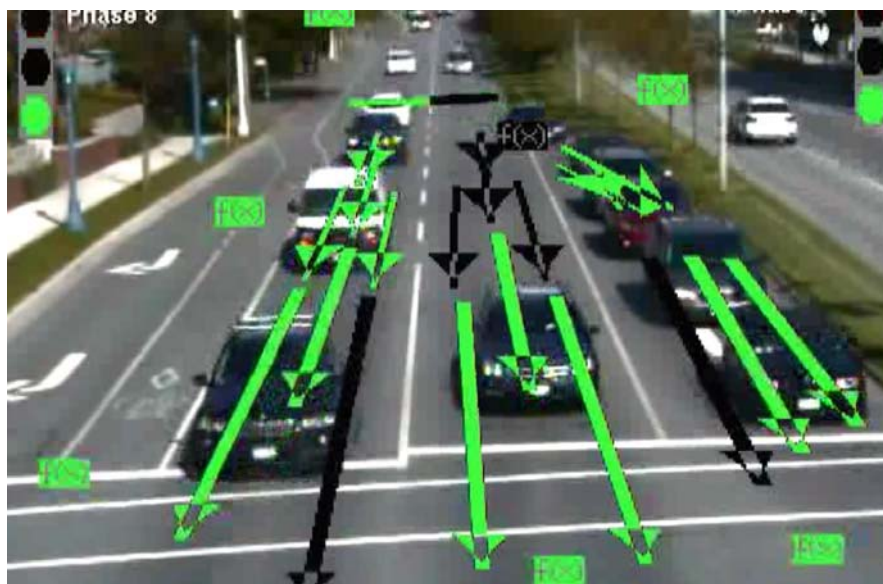


Program:	Infrastructure Program		Sub-program:	Roads
Project Name:	Traffic Signal Program		Submission ID:	5215


Location:	Various Locations		
Cost:	\$800,000	OBI:	\$33,438
Funding Sources:	Roads DCC: \$752,000 Roads City Assist: \$48,000		
Scope:	<p>The general scope of work includes installation of new or upgrade of existing traffic signals to respond to growth in traffic and public requests, to better manage pedestrian, cycling, and vehicular movements and to address traffic safety concerns.</p> <p>The major cost component of the program is the installation of traffic controllers/cabinets, poles, bases, junction boxes, underground conduits, in ground and video detection systems, enhanced accessible devices, wiring and pavement markings, traffic signal communications, minor corner property acquisitions, and minor curb cuts and boulevard modifications as necessary.</p> <p>The program is proposed to be funded by the DCC program funding and may be eligible for external funding from TransLink and ICBC.</p> <p>The exact scope will be determined pending requests from Council and public, as well as subject to factors such as the availability of external funding, and/or opportunity to pursue these improvements as part of development frontage improvements.</p> <p>Currently, three potential sites have been identified for 2018 including:</p> <ol style="list-style-type: none"><li>1. Kwantlen Road and Lansdowne Road</li><li>2. Swallow Drive and Steveston Highway</li><li>3. Kingfisher Gate and Steveston Highway</li></ol>		




<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Roads
<b>Project Name:</b>	Traffic Video and Communication Program		<b>Submission ID:</b>	5902
<b>Location:</b>	Various Locations			
<b>Cost:</b>	\$400,000		<b>OBI:</b>	\$25,000
<b>Funding Sources:</b>	Roads DCC: \$376,000 Roads City Assist: \$24,000			
<b>Scope:</b>	<p>The project includes the following two key components:</p> <ol style="list-style-type: none"> <li>1) Install video detection cameras at select signalized intersections to enhance the detection of vehicles and bicycles, optimize traffic operations, provide real time video of traffic conditions to the Traffic Management Centre (TMC) for observing and enhancing operations, and providing photos (in one minute intervals) of approach traffic conditions for public information access on the City website; and</li> <li>2) Upgrade conduit and cable infrastructure to install higher capacity fibre optic cable and electronics for Ethernet (computer networking technology) to communicate with multiple remote programmable devices at traffic signals. Includes conduit, junction boxes, fibre optic cable and electronic communications switching equipment as required to link multiple traffic signal electronic components to the TMC such as controllers, electronic switches, video cameras, accessible pedestrian devices, intersection power back-up systems (UPS systems), etc.</li> </ol> <p>The program is proposed to be funded by the DCC program funding and may be eligible for external funding contribution from TransLink and ICBC.</p> <p>The exact scope will be determined by staff assessment of priority, requests from Council and public, as well as subject to factors such as the availability of external funding, and/or opportunity to pursue these improvements as part of development frontage improvements.</p> <p>The following is the preliminary list of potential locations identified for 2018:</p> <ul style="list-style-type: none"> <li>- Traffic video locations: along No. 3 Road, at Granville Avenue, Lansdowne Road, Cook Road, Alderbridge Way, and Cambie Road.</li> <li>- Communication (via. the installation of fibre cable): Sections of No. 4 Road, No. 5 Road, Blundell Road, Garden City Road and some traffic signals in the area around these trunk lines.</li> </ul>			



Program:	Infrastructure Program		Sub-program:	Roads
Project Name:	Transit-Related Amenity Improvement Program		Submission ID:	5449
Location:	Various Locations			
Cost:	\$100,000		OBI:	\$7,286
Funding Sources:	Roads DCC: \$47,000 Roads City Assist: \$3,000 Other: \$50,000			
Scope:	<p>The general scope includes transit-related amenity improvements within municipal road right-of-way that are required to support the introduction of various transit service improvements as well as on-going enhancements to existing transit infrastructure. The major cost components are expected to include the installation of new non-advertising bus stop shelters, new benches along transit routes and other pedestrian generators, and other supplementary pedestrian amenity improvements required to facilitate pedestrian traffic generated by transit passengers.</p> <p>The program is proposed to be funded by the DCC program funding and may be eligible for external funding contributions from TransLink and ICBC. Some locations may also include funding contribution from nearby developments.</p> <p>Locations for bus stop shelters will be prioritized based on boarding activity and customer requests subject to sufficient availability of right-of-way. The exact scope of improvements may be refined subject to factors such as the completion of detailed design, availability of external funding, and/or opportunity to pursue these improvements as part of development frontage improvements.</p> <p>Potential improvements of new bus stop shelters and benches identified for 2018 include the following locations and approximately 15 to 20 additional locations based on priority locations to be identified in consultation with Pattison Outdoor, the City's contractor.</p> <ul style="list-style-type: none"><li>- Eastbound Cambie Road far-side Viking Way</li><li>- Westbound Williams Road far-side Seacote Road</li><li>- Northbound No. 2 Road far-side Danube Road</li><li>- Northbound Cooney Road far-side Westminster Highway</li></ul>			





Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Transit-Related Roadway Improvement Program	Submission ID:	5448
Location:	Various Locations		
Cost:	\$350,000	OBI:	\$11,136
Funding Sources:	Roads DCC: \$164,500 Roads City Assist: \$10,500 Grant: \$175,000		
Scope:	<p>The general scope includes municipal road and traffic improvements that are required to support the introduction of various transit service improvements as well as on-going enhancements to existing transit infrastructure. The major cost components are expected to include the installation of new bus stop pads for wheelchair accessibility, minor road geometric improvements (e.g. intersection corner improvements), minor sidewalk/walkway construction, wheelchair ramps, upgrade of existing bus stops to accessible (wheelchair) standards, etc., required to facilitate pedestrian traffic generated by transit.</p> <p>The program is proposed to be funded by the DCC program funding and may be eligible for external funding contributions from TransLink and ICBC. Some locations may also include funding contribution from nearby developments.</p> <p>Locations for bus stop wheelchair accessible improvements will be prioritized based on boarding/alighting activity and customer requests subject to sufficient availability of right-of-way. The exact scope of improvement may be refined subject to factors such as the completion of detailed design, availability of external funding, and/or opportunity to pursue these improvements as part of development frontage improvements.</p> <p>Potential upgrade of bus stops to wheelchair accessible for 2018 include the following locations and approximately 5 additional locations based on priority locations to be identified in consultation with Coast Mountain Bus Company (CMBC) and through public feedback.</p> <ul style="list-style-type: none"><li>- Eastbound and westbound on Westminster Highway at No. 7 Road</li><li>- Southbound Railway Avenue far-side at Linfield Gate</li><li>- Southbound Railway Avenue far-side at Williams Road</li><li>- Northbound No. 6 Road far-side at Mayfield Place</li><li>- Eastbound Williams Road far-side at 2nd Avenue</li><li>- Westbound Machrina Way far-side No. 5 Road</li><li>- Eastbound Machrina Way far-side Horseshoe Way</li><li>- Southbound Horseshoe Way far-side Blacksmith Place</li><li>- Eastbound Coppersmith Way near-side Coppersmith Place</li></ul>		
			

<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Roads
<b>Project Name:</b>	Transportation Planning, Functional and Preliminary Design		<b>Submission ID:</b>	5212
<b>Location:</b>	Various			
<b>Cost:</b>	\$265,000	<b>OBI:</b>	\$ -	
<b>Funding Sources:</b>	Roads DCC: \$249,100 Roads City Assist: \$15,900			
<b>Scope:</b>	<p>The project includes the following two key components:</p> <ol style="list-style-type: none"> <li>1. Project design (functional and preliminary design): Preparing the functional and preliminary designs and cost estimates required for various transportation capital projects identified within the Five-Year Capital Program. Specifically, the necessary functional road elements in horizontal alignment, cross-section, property impacts, etc. as well as high level cost estimates would be determined in order to carry out further detailed engineering design. A major component is for consultant and/or dedicated staff costs for design. The cost estimate is based on 5% of the cost estimate of capital projects included within annual capital programs that require functional designs; design funds for projects with more significant scope are included separately within those projects.</li> <li>2. Project planning and coordination: To assist in the development, leading, coordinating and administering the planning, engineering, and design work on transportation-related capital projects approved as part of the Five-Year Capital Program and off-site improvements for new developments. The cost estimate is based on dedicated staff costs in Transportation to carry out such tasks.</li> </ol> <p>The project would be funded entirely by the DCC program funding.</p>			

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Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Box Culvert Repair	Submission ID:	5915
Location:	City Wide		
Cost:	\$1,500,000	OBI:	\$ -
Funding Sources:	Drainage Utility: \$1,500,000		
Scope:	The City Box Culvert Inspection Program identified settlement, cracking and infiltration in the No. 4 Road Box Culvert in 2017.		
<p>The scope of work for this project includes the rehabilitation of the 3400mm by 1370mm concrete storm box culvert along No. 4 Road between Alderbridge Way and Blundell Road. Repair work will include patching, grouting, and structural lining. This funding will also be used to perform point repairs as identified by the City Box Culvert Inspection Program throughout the year.</p>			
			




Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Burkeville Drainage Improvements	Submission ID:	5595
Location:	Burkeville Area		
Cost:	\$2,000,000	OBI:	\$12,500
Funding Sources:	Drainage Utility: \$2,000,000		
Scope:	<p>Burkeville's drainage system was designed using shallow ditches and small diameter road cross culverts. As the area is redeveloped, ditch infills are becoming common. Ditch infills change the nature of the drainage system in a way that may cause storm water flooding. A new, larger, drainage system is therefore needed to accommodate these changes.</p> <p>The scope of work for this project includes upgrading 187m of 450mm diameter pipe to 600mm diameter pipe under Russ Baker Way.</p>		
			

Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Development Coordinated Works - Drainage	Submission ID:	5604


Location:	City Wide		
Cost:	\$250,000	OBI:	\$25,000
Funding Sources:	Drainage Utility:	\$250,000	
Scope:	This scope of this project includes upgrading and replacing ageing drainage infrastructure through development.		




<b>Program:</b>	<b>Infrastructure Program</b>	<b>Sub-program:</b>	<b>Drainage</b>
<b>Project Name:</b>	<b>Dike Upgrades</b>	<b>Submission ID:</b>	<b>5907</b>
<b>Location:</b>	City Wide		
<b>Cost:</b>	\$5,850,000	<b>OBI:</b>	\$84,063
<b>Funding Sources:</b>	Drainage Utility: \$5,850,000		
<b>Scope:</b>	<p>The 2008 - 2031 Richmond Flood Protection Strategy guides the City to raise dike elevations to accommodate climate change induced sea level rise and ground subsidence.</p> <p>The scope of work for this project includes the following:</p> <ul style="list-style-type: none"> <li>- Raising approximately 2100m section of existing dike east of No. 8 Road along the Fraser River's North Arm by approximately one metre,</li> <li>- Raising approximately 680m section of existing dike between 7920 No. 9 Road and 7611 No. 9 Road along the Fraser River's South Arm by approximately one metre; and</li> <li>- Undertaking other dike upgrades necessary to improve existing flood protection infrastructure, meet medium to long-term flood protection needs and accommodate local area needs.</li> </ul>		
			




<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Drainage
<b>Project Name:</b>	Drainage Pump Station Generator Upgrade		<b>Submission ID:</b>	4801
<b>Location:</b>	No. 6 Road South			
<b>Cost:</b>	\$130,000		<b>OBI:</b>	\$12,500
<b>Funding Sources:</b>	Drainage Utility:		\$130,000	
<b>Scope:</b>	The scope of work for this project includes constructing a concrete pad with a fenced surround, and purchasing and installing a 200kW generator. The generator will be connected using a new transfer switch. The project is estimated be completed before the end of 2018.			




<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Drainage
<b>Project Name:</b>	Drainage Pump Station Rehabilitation		<b>Submission ID:</b>	5883
<b>Location:</b>	City Wide			
<b>Cost:</b>	\$300,000		<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Drainage Utility:		\$300,000	
<b>Scope:</b>	<p>The hardware of some drainage pump stations is at the end of its life expectancy and continually has numerous breakdowns. This project will improve the reliability and efficiency of our drainage pump stations.</p> <p>The scope of work for this project includes partial rehabilitation upgrades at Steveston West and Miller Road drainage pump stations. Rehabilitation will include the upgrade and installation of a motor control center, transfer switch, sonar level controls and the rebuild of the existing two pumps at Miller Road pump station.</p>			






<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Drainage
<b>Project Name:</b>	East Richmond Drainage & Irrigation Upgrades		<b>Submission ID:</b>	5599
<b>Location:</b>	East Richmond			
<b>Cost:</b>	\$465,600		<b>OBI:</b>	\$8,750
<b>Funding Sources:</b>	Drainage Utility:		\$465,600	
<b>Scope:</b>	As per the East Richmond Agricultural Water Supply Update, the scope of work for this project includes: <ul style="list-style-type: none"><li>- Installing 1 new 600mm diameter cross culvert connecting the north and south side ditches along Blundell Road East of Sidaway Road;</li><li>- Installing 1 new 600mm diameter cross culvert to connect the storm sewer east of Victory Street with the existing ditch on the south side of Burrows Street;</li><li>- Installing 3 irrigation gates at Woodward's Slough, Westminster Highway and No. 7 Road, and No. 7 Road and Granville Avenue; and</li><li>- General drainage and irrigation issues.</li></ul>			
				


Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Headwall Replacement and Ditch Infills	Submission ID:	6175
Location:	City Wide		
Cost:	\$500,000	OBI:	\$ -
Funding Sources:	Drainage Utility: \$500,000		
Scope:	<p>The scope of work for this project includes the following:</p> <ul style="list-style-type: none"><li>- Replacing failed headwalls in the Steveston area, No. 9 Road and Dyke Road, and various other locations; and</li><li>- Infilling ditches and/or extending the length of existing ditch infills that pose safety risks to vehicles and pedestrians.</li></ul>		
			



<b>Program:</b>	<b>Infrastructure Program</b>	<b>Sub-program:</b>	<b>Drainage</b>
<b>Project Name:</b>	<b>Horseshoe Slough Dredging</b>	<b>Submission ID:</b>	<b>5380</b>
<b>Location:</b>	Horseshoe Slough		
<b>Cost:</b>	\$1,818,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Drainage Utility: \$1,818,000		
<b>Scope:</b>	<p>The scope of work for this project includes:</p> <ul style="list-style-type: none"> <li>- Surveying 1.15km of Horeseshoe Slough;</li> <li>- Sampling and soil testing at regularly spaced intervals to identify contaminated soils;</li> <li>- Completing a site specific environmental management plan and obtaining associated permits to dredge the slough;</li> <li>- Design and dredging methodology analysis; and</li> <li>- 1.15km of dredging and dredgeate disposal.</li> </ul>		
			



<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Drainage
<b>Project Name:</b>	Laneway Drainage Upgrade - Broadmoor Boulevard (North)		<b>Submission ID:</b>	5930
<b>Location:</b>	Broadmoor			
<b>Cost:</b>	\$1,182,720		<b>OBI:</b>	\$10,000
<b>Funding Sources:</b>	Drainage Utility:		\$1,182,720	
<b>Scope:</b>	<p>The scope of work for this project includes installing drainage infrastructure in 768m of laneway north of Broadmoor Boulevard and south of Afton Drive between 7311 Broadmoor Boulevard and 7891 Broadmoor Boulevard. Does not include the addition of street lighting, curbs or gutters. This project is expected to be completed by October 2018 and is the first priority of 8 laneway projects in the Broadmoor neighbourhood.</p>			



2018 Recommended Infrastructure – Water Program

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Project Name:	Development Coordinated Works - Water	Submission ID:	5312
Location:	City Wide		
Cost:	\$250,000	OBI:	\$25,000
Funding Sources:	Water Utility: \$250,000		
Scope:	This project will enable the City to leverage development over the next year to design and construct water infrastructure outside of what would be required as part of their development.		
These are upgrades and replacement of ageing infrastructure that the City would complete separately but economic and engineering efficiencies can be achieved by having the developer complete this work at the same time the development takes place.			
			

<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Water
<b>Project Name:</b>	Water Metering Program		<b>Submission ID:</b>	5163
<b>Location:</b>	City Wide			
<b>Cost:</b>	\$6,506,000		<b>OBI:</b>	\$125,000
<b>Funding Sources:</b>	Water Utility: \$5,186,000 Water Metering Provision: \$1,320,000			
<b>Scope:</b>	This project consists of an advanced volunteer multi-family water meter program, as well as a three-year program for switching out existing touchpad meters as part of the implementation of a fixed based network for water meter reading.			
<p>Water metering enhances user equity by allowing customers to pay for the water and sewer that they use. By the end of 2017, all single-family and industrial, commercial and institutional (ICI) properties in Richmond will be metered. The advanced volunteer multi-family water meter program will target the last sector that is not metered for water. As part of the program, the City offers a subsidy for the actual installation cost of water meters up to the greater of \$1,200 per unit or \$100,000 per complex, as well as a five-year guarantee for water charges for existing multi-family complexes. The program will also involve active outreach by the City to complexes that will benefit from the water meter program.</p>				
<p>Implementation of the fixed based network within the urban areas of the City allows for automated water meter data collection, enabling users to access real time consumption information and leak notification. In order to maximize the benefits of the fixed base network, existing touchpad meters that are incompatible with the fixed base network need to be replaced with radio meters. The City currently has approximately 9,650 residential touchpad meters and 1,560 ICI touchpad meters. This program involves switching out all existing touchpad meters over 3 years, as well as data storage for real-time metered consumption information.</p>				
				



Program:	Infrastructure Program	Sub-program:	Water
Project Name:	Watermain Replacement Program	Submission ID:	4997

Location:	City Wide		
Cost:	\$6,276,000	OBI:	\$ -
Funding Sources:	Water Utility: \$4,579,728 Water DCC: \$1,645,050 Water City Assist: \$51,222		
Scope:	<p>This project replaces ageing watermain that are at the end of their service life and is in alignment with the City's Ageing Infrastructure Replacement Strategy. Watermain replacement minimizes unplanned maintenance and improves fire protection.</p> <p>This project includes installation of 5360 meters of 200mm diameter watermain and 805 meters of 300mm diameter watermain to replace existing ageing infrastructure.</p> <p>The watermain replacement program is informed by watermain age, material and break history. The primary focus of the current program is the replacement of ageing asbestos cement (AC) water pipes with new PVC or HDPE pipes.</p>		






Program:	Infrastructure Program	Sub-program:	Water
Project Name:	Watermain Replacement River Parkway	Submission ID:	5834

Location:	River Parkway		
Cost:	\$1,045,000	OBI:	\$12,705
Funding Sources:	Water Utility: \$1,045,000		
Scope:	<p>This project involves the installation of 950 meters of 300mm diameter watermain along the new River Parkway that is located along the former CP Railway corridor from 200m northeast of Gilbert Road to Cambie Road. Watermain construction will be completed in conjunction with road construction works that will be taking place in the area to maximize efficiencies in construction.</p> <p>As properties along the River Parkway corridor develop in the future, costs associated with this project may be recovered through rezoning cash-in-lieu contributions or the Works and Services Cost Recovery Bylaw No. 8752. Costs collected for this purpose shall be returned to the Watermain Replacement Reserve.</p>		



Program:	Infrastructure Program	Sub-program:	Water
Project Name:	Watermain Tie-in and Restoration	Submission ID:	5835
Location:	Various		
Cost:	\$250,000	OBI:	\$ -
Funding Sources:	Water Utility: \$250,000		
Scope:	This project involves tie-in and restoration work for watermain and water service installations, including tie-in and restoration of watermain replacements completed as part of prior years' capital programs and restoration of water utility cuts.		
			

2018 Recommended Infrastructure – Sanitary Sewer Program

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Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Eckersley B Sanitary Pump Station	Submission ID:	6073
Location:	Eckersley B		
Cost:	\$2,650,000	OBI:	\$25,059
Funding Sources:	Sanitary Utility: \$2,025,000 Sewer DCC: \$587,813 Sewer City Assist: \$37,187		
Scope:	The existing Eckersley B sanitary pump station serves the rapidly growing City Centre and is currently nearing its design capacity. The pump station must be upgraded to support near term development in the catchment that it serves.		
	This project involves construction of a new pump station to replace the existing, including construction of a new wet well, variable frequency drive pumps, electrical kiosk and the associated gravity pipe and forcemain to connect to the existing sanitary system.		
			

Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Gravity Sewer Assessment Program	Submission ID:	5651
Location:	See Scope		
Cost:	\$450,000	OBI:	\$ -
Funding Sources:	Sanitary Utility: \$450,000		
Scope:	<p>This project is part of a multi-year program to assess gravity sewers on a 10-year cycle. The City currently completes grease cutting and flushing on its gravity sewer system as part of its grease management program. The program will complete CCTV inspections following grease cleaning efforts and will identify defects in the sanitary system, complete minor repairs identified as part of the assessment, and facilitate the archiving of CCTV inspection videos for record-keeping purposes.</p>		
			




Program:	Infrastructure Program		Sub-program:	Sanitary Sewer
Project Name:	Gravity Sewer Replacement - South of Richmond Street between No. 1 Road and 2nd Avenue		Submission ID:	6277
Location:	Steveston			
Cost:	\$825,000		OBI:	\$2,500
Funding Sources:	Drainage Utility: \$450,000 Sanitary Utility: \$375,000			
Scope:	A section of 150mm diameter gravity sewer in the lane south of Richmond Street between No. 1 Road and 2nd Avenue has collapsed and requires replacement. This project includes the replacement of approximately 200 meters of gravity sewer. The project also involves the construction of restoration work and any associated drainage infrastructure as required, and funding for emergency point repair work at adjacent sections of sanitary sewer.			



<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Sanitary Sewer
<b>Project Name:</b>	Manhole and Inspection Chamber Replacement Program		<b>Submission ID:</b>	6082
<b>Location:</b>	Various			
<b>Cost:</b>	\$250,000		<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Sanitary Utility:		\$250,000	
<b>Scope:</b>	This project is part of a 10-year program for replacing or repairing damaged inspection chambers and manholes throughout the City. The program aims to inspect and repair or replace approximately 250 sanitary manholes or inspection chambers each year.			
				

Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Pilot Sewer Grease and Heat Recovery Facility	Submission ID:	6072

Location:	City Centre and East Cambie		
Cost:	\$3,500,000	OBI:	\$32,219
Funding Sources:	Sanitary Utility: \$3,500,000		
Scope:	<p>Grease management has become a major contributing factor to the need for proactive preventative maintenance within the City’s sanitary system. While a number of programs have been implemented to mitigate the impact of grease blockages, there is a growing need for grease management, particularly in City Centre.</p> <p>This project involves the construction of a pilot facility within the City Centre area that integrates sewer grease and heat recovery. Jointly extracting heat and grease from the City’s sanitary system supports the City’s efforts to reduce natural gas and electricity use while reducing maintenance costs due to grease build-up in the sanitary system. If successful, the facility would be the first of its kind in the world. As a similar facility has never been constructed, the estimated construction cost is highly variable.</p>		





Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Pump Station Resiliency - Pilot Project	Submission ID:	6132


Location:	Various Locations		
Cost:	\$390,000	OBI:	\$5,000
Funding Sources:	Sanitary Utility: \$390,000		
Scope:	Install renewable power generation and energy storage capacity at two sanitary pump stations, and monitor their performance to determine further applicability.		

The City of Richmond operates an extensive sanitary pump station system network. This network supports the conveyance of sanitary waste from buildings. Throughout the years the City has increased the resiliency of these systems by installing permanent backup diesel generators at key locations, and using portable diesel generators in the case of an emergency at stations without permanent backup power. The two stations proposed (Works Yard and Graybar), were chosen due to the consistent nature of backup power being required at these stations, and their proximity to City property to enable the close installation of the required equipment. In addition, an installation at the Works Yard station could be used to showcase this and other City sanitary projects during the Public Works Open house.


The planned sizes of the solar PV systems at the two proposed locations would enable both stations to be net zero energy infrastructure, meaning the renewable energy systems would provide to the grid annually as much electricity as they would use.

This project aligns well with the following Council Term Goals, policies, and interim targets;


- Council Term Goal 4.0 "Leadership in Sustainability"
- Council Term Goal 6.0 "Quality Infrastructure Networks"




<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Sanitary Sewer
<b>Project Name:</b>	Sanitary Forcemain Valve Installations		<b>Submission ID:</b>	5644
<b>Location:</b>	Various Locations			
<b>Cost:</b>	\$100,000		<b>OBI:</b>	\$12,414
<b>Funding Sources:</b>	Sanitary Utility: \$100,000			
<b>Scope:</b>	This project involves the installation of line valves on sanitary forcemains, allowing for isolation and control of forcemains in the event of breaks or tie-ins. It would reduce the time required for repairs, and also allow for a smaller section of the sanitary sewer system to be shut down when such work is required, thereby impacting fewer residential and commercial customers.			







Program:	Infrastructure Program		Sub-program:	Sanitary Sewer
Project Name:	Sanitary Pump Station and Forcemain Assessment, Upgrade and Grease Management		Submission ID:	5199
Location:	Various Locations			
Cost:	\$600,000		OBI:	\$12,414
Funding Sources:	Sanitary Utility: \$600,000			
Scope:	<p>This project will perform an assessment of sanitary pump stations and forcemains and implement improvements based on the assessments. A critical part of the assessments will be a quantification of Fat/Oil/Grease issues in the forcemain system and a review of Fat/Oil/Grease mitigation measures. Improvements will likely include:</p> <ul style="list-style-type: none"><li>- Installation and upgrade of pressure monitors;</li><li>- Installation of grease extraction measures;</li><li>- Installation of forcemain bypass and inspection assemblies;</li><li>- Upgrade electrical, control and telemetry kiosks; and</li><li>- Improved pump station access and safety.</li></ul>			
				

Program:	Infrastructure Program		Sub-program:	Sanitary Sewer
Project Name:	Sanitary Sewer Tie-in and Restoration		Submission ID:	5394
Location:	Various Locations			
Cost:	\$500,000		OBI:	\$ -
Funding Sources:	Sanitary Utility: \$500,000			
Scope:	This project involves tie-in and restoration work for sanitary sewer projects completed as part of prior years' capital programs.			




<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Sanitary Sewer
<b>Project Name:</b>	SCADA System Improvements		<b>Submission ID:</b>	5198
<b>Location:</b>	Various Locations			
<b>Cost:</b>	\$150,000		<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Sanitary Utility:		\$150,000	
<b>Scope:</b>	This project involves rehabilitating and upgrading computer, instrument and electrical installations throughout the SCADA network.			
<p>Via its SCADA system, the City monitors and controls over 150 sanitary system sites that contain mechanical and electrical equipment. This project will maintain and improve sanitary sewer system operation, as well as maintain system security and technological viability.</p>				
<p>Failure to complete the work will result in increased risk of sanitary system failure, thereby reducing service levels and increasing cost and disruption of unplanned maintenance and emergency repairs.</p>				
				

<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Sanitary Sewer
<b>Project Name:</b>	Sidaway Yard Trailer and Scale Installation		<b>Submission ID:</b>	6242
<b>Location:</b>	Sidaway Yard			
<b>Cost:</b>	\$936,000		<b>OBI:</b>	\$72,172
<b>Funding Sources:</b>	Sewer Levy: \$468,000 Water Levy: \$468,000			
<b>Scope:</b>	<p>Sidaway yard currently provides services to the City by receiving recyclable construction material from City projects, processing the materials, and producing recycled materials for use in future City projects, such as utility infrastructure upgrades and roadway repairs. However, Sidaway yard is currently unable to accurately take inventory of the materials entering and leaving the yard due to limited yard capabilities. The intent of this project is to improve the level of services provided by Sidaway, by improving the overall effectiveness of the yard by installing a high accuracy scale. The scale will automate the measuring and ticketing process, making the site and operations more efficient and reduce wait times.</p> <p>The high accuracy scale will be installed alongside a new operations trailer to service construction waste dumping and material pickup; improving the flow of traffic and overall yard logistics.</p> <p>This project supports the Council's term goal 4) Leadership in Sustainability and goal 7) Strong Financial Stewardship. Upgrades to the scale and operations centre will organize the site to be purpose-built, reducing idle time and increasing capacity. A more efficient system will encourage increase use of Sidaway yard thus increasing profits from both incoming material and the sale of recycled construction waste.</p>			
				



<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Sanitary Sewer
<b>Project Name:</b>	Steveston Gravity Sewer Replacement and Rehabilitation		<b>Submission ID:</b>	5649
<b>Location:</b>	See Scope			
<b>Cost:</b>	\$1,839,000		<b>OBI:</b>	\$5,000
<b>Funding Sources:</b>	Drainage Utility: \$406,250 Sanitary Utility: \$1,432,750			
<b>Scope:</b>	Inspections identified that sections of gravity sewer within the Steveston sanitary catchment are at the end of their service life. This project involves rehabilitation or replacement of sanitary sewer infrastructure to address deficiencies identified, including replacement or relocation of sanitary mains south of Richmond Street between 2nd Avenue and the Steveston pump station, restoration work including construction of new lanes and the associated drainage infrastructure, and point repairs within the catchment as required.			





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Program:	Infrastructure Program	Sub-program:	Minor Capital
Project Name:	Public Works Infrastructure Advanced Design	Submission ID:	5185

Location:

Cost:

Funding Sources:

Scope:

City Wide

\$2,530,000

Drainage Utility:

Water Utility:

Sanitary Utility:

Roads DCC:

Roads City Assist:

\$1,600,000

\$430,000

\$270,000

\$216,315

\$13,685

The scope of work includes hiring consultants and contractors to plan and design the 2019 capital plan and deliver reports that define long-term infrastructure upgrades.

- Sanitary Project Design and Planning

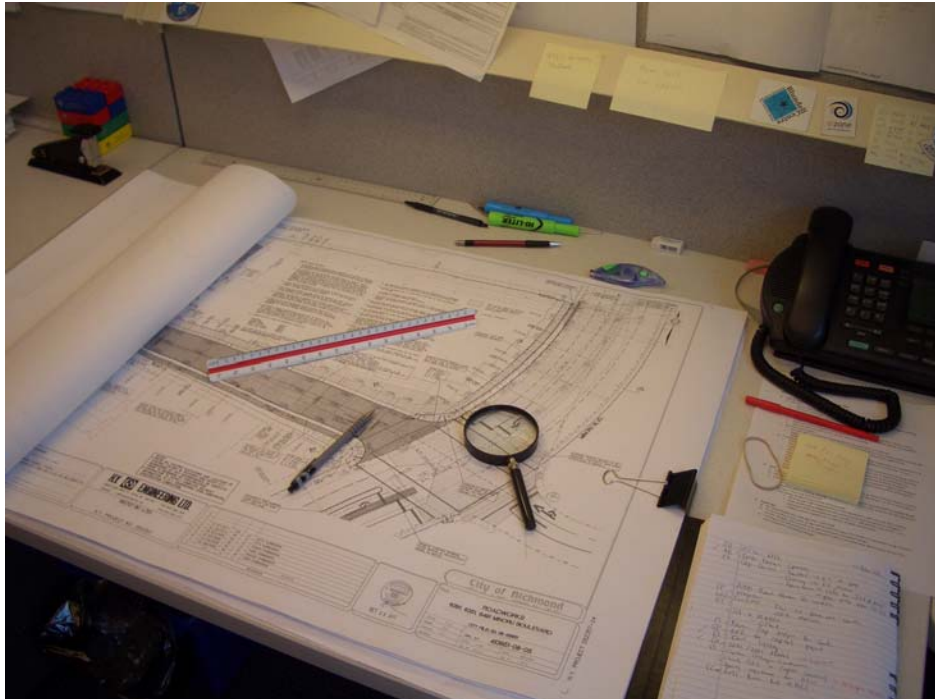
- Sanitary System Modelling


- Water Project Design and Planning

- Water System Modelling

- Drainage Project Design and Planning and Modelling


- Roads




Program:	Infrastructure Program	Sub-program:	Minor Capital
Project Name:	Public Works Minor Capital - Drainage	Submission ID:	5200
Location:	City Wide		
Cost:	\$300,000	OBI:	\$ -
Funding Sources:	Drainage Utility: \$300,000		
Scope:	The scope of work for this project involves minor work related to drainage infrastructure, including installation of inspection chambers, rehabilitation of sewer pipes and manholes, minor repair of pump stations, installation of monitoring equipment, safety upgrades, testing of new technologies to improve efficiencies and responding to resident complaints that require site specific repairs. These works will be undertaken at problem areas identified throughout the City.		
			

Program:	Infrastructure Program	Sub-program:	Minor Capital
Project Name:	Public Works Minor Capital - Roads	Submission ID:	5180


Location:	City Wide		
Cost:	\$300,000	OBI:	\$ -
Funding Sources:	Rate Stabilization: \$300,000		
Scope:	<p>This project involves minor work related to road infrastructure, including installation of wheelchair ramps, replacement of uneven sidewalks, curbs and small road sections that may have been damaged through tree root ingress or settlement, repair of street lights, and response to resident complaints that require site specific repairs.</p> <p>Every year, Engineering and Public Works receives a number of requests for minor projects. The minor capital program allows the department to respond to these requests in a timely and cost effective manner.</p>		



Program:	Infrastructure Program	Sub-program:	Minor Capital
Project Name:	Public Works Minor Capital - Sanitary	Submission ID:	5196
Location:	Various Locations		
Cost:	\$450,000	OBI:	\$ -
Funding Sources:	Sanitary Utility: \$450,000		
Scope:	This project involves minor work related to the sanitary infrastructure, including pump station upgrades, sanitary pump replacements, modifications to improve operational efficiency and functionality, testing of new technologies, forcemain repairs, site-specific repairs in response to resident complaints, and manhole and valve box repairs.		
Every year, Engineering and Public Works receives a number of requests for minor projects. The minor capital program allows the department to respond to these requests in a timely and cost effective manner.			
			




<b>Program:</b>	Infrastructure Program		<b>Sub-program:</b>	Minor Capital
<b>Project Name:</b>	Public Works Minor Capital - Sanitation & Recycling		<b>Submission ID:</b>	6000
<b>Location:</b>	City Wide			
<b>Cost:</b>	\$300,000		<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Solid Waste and Recycling: \$300,000			
<b>Scope:</b>	<p>To provide for Recycling Depot general site upgrades, expansion projects and funding for streetscape recycling containers in public spaces.</p> <p>To provide equipment/vehicle as required to support these program expansions as well as collection of overweight/heavy illegally dumped items.</p>			



Program:	Infrastructure Program	Sub-program:	Minor Capital
Project Name:	Public Works Minor Capital - Traffic	Submission ID:	5216

Location:	Various Locations		
Cost:	\$250,000	OBI:	\$9,167
Funding Sources:	Rate Stabilization: \$250,000		
Scope:	<p>The general scope of this program includes various improvements to traffic systems as required. The program includes the following major components:</p> <p>A. Traffic Improvements: for unforeseen capital improvements of a minor nature including wheelchair ramps, traffic signage, pavement markings and traffic safety improvements. These are separate from the programs which fund specific projects/locations.</p> <p>B. Traffic Signal/Communications Network: infrastructure renewal, physical plant upgrading, ongoing infrastructure development testing and communications network conduit/cable, installation of L/T arrows and related detection, controller upgrades, etc (whereas Roads DCC would fund new traffic signals).</p> <p>This program is an annual recurring program funded by the revenues from non-DCC sources such as general revenue. Funding assistance from ICBC and TransLink’s MRN sources for some of these projects may be available and applications would be submitted to the appropriate agency.</p>		



# Building Program 2018

The building program includes major building construction and renovation projects as well as minor facility upgrades and repairs. The City’s building assets include: arenas, pools, community centres, libraries, heritage buildings, police stations, fire halls and other government facilities.

## 2018 Recommended Building – Building Program

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<b>Program:</b>	Building Program		<b>Sub-program:</b>	Building
<b>Project Name:</b>	Advancement of Partial Funding for the Canada Line Capstan Station		<b>Submission ID:</b>	6275
<b>Location:</b>	Capstan			
<b>Cost:</b>	\$3,500,000		<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Capstan Station Reserve: \$3,500,000			
<b>Scope:</b>	<p>Advancement of funds to TransLink to initiate the Preliminary Design of the Capstan Station. Implementation of the Capstan Station would help achieve the vision of the City Centre Area Plan to support transit-oriented development and maximize the use of the Canada Line as well as support the Official Community Plan objectives to reduce car dependence and greenhouse gas emissions by providing a rapid transit station in a growing area of the City Centre.</p> <p>Funding will be from the Capstan Station Capital Reserve Fund.</p>			





<b>Program:</b>	<b>Building Program</b>	<b>Sub-program:</b>	<b>Building</b>
<b>Project Name:</b>	<b>Animal Shelter Replacement</b>	<b>Submission ID:</b>	<b>6285</b>
<b>Location:</b>	12071 No. 5 Road		
<b>Cost:</b>	\$8,000,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Building and Infrastructure: \$8,000,000		
<b>Scope:</b>	<p>The existing 4,580 ft<sup>2</sup> facility constructed in 1978 was built when the City's population was approximately 80,000. Since then, the City's population has grown to over 200,000 and the number of animals has similarly grown. Additionally, best practices in animal shelters have advanced considerably since 1978 and the current Animal Shelter no longer meets these needs. Replacing this facility will reduce the frequency of equipment related breakdowns, it will provide a space of adequate size to support the current and future program and ensure many more years of service to the community.</p> <p>Scope of work is to demolish the existing animal shelter and replace it with a new more modern facility on the existing site.</p> <p>This submission is an estimate for the 2018 Capital program. It is anticipated the concept level work to replace the Animal Shelter will be complete by early 2018. At that time, there will be sufficient information to develop a concept level capital cost estimate and Operating Budget Impact estimate - the capital cost noted in this submission may require revision once concept level design work is complete.</p>		
			







<b>Program:</b>	<b>Building Program</b>	<b>Sub-program:</b>	<b>Building</b>
<b>Project Name:</b>	<b>City Hall Annex Renovation</b>	<b>Submission ID:</b>	<b>6210</b>
<b>Location:</b>	6900 Minoru Blvd		
<b>Cost:</b>	\$ 5,700,000	<b>OBI:</b>	\$138,750
<b>Funding Sources:</b>	Building and Infrastructure: \$2,645,000 Revolving Fund: \$992,000 Rate Stabilization: \$2,063,000		
<b>Scope:</b>	The renovation and tenant improvement of the City Hall Annex building to include:  <div><div>1. Demolition and Tenant Improvement for the useable portion of the 1st floor</div><div>2. Demolition and Tenant Improvement of the 2nd floor</div><div>3. Tenant improvement of the unoccupied area on the 3rd floor (south side)</div><div>4. Replacement of the waterproof membrane of the upper west plaza</div><div>5. 2nd floor hazardous materials removal</div></div> <div>These renovations will include associated miscellaneous items that will service to prolong the life of the building and ensure the health and safety of its users / inhabitants.</div>		
			


Program:	Building Program	Sub-program:	Building
Project Name:	Gateway Theatre Infrastructure Replacements - First Stage	Submission ID:	6212
Location:	6500 Gilbert Road		
Cost:	\$3,337,000	OBI:	\$ -
Funding Sources:	Building and Infrastructure: \$3,337,000		
Scope:	<p>This project is planned to be completed in two stages. The first stage is to replace critical building systems necessary for public safety and occupancy. This stage will also include building envelope repairs to address areas of advanced deterioration with suspected rot and mold. The second stage (future capital submission) is to complete building envelope repairs/replacement depending on the results from completion of stage 1 work.</p> <p>Envelope: The building envelope as a whole is well past its life expectancy and showing signs of deterioration. Envelope repairs will be completed to respond to areas of advanced deterioration.</p> <p>Mechanical: The heat pumps and cooling tower have exceeded their serviceable life cycle and will be replaced with modern, energy efficient units.</p> <p>The water distribution system has reached the end of its life cycle and is due to be renewed. This system will be assessed and renewed/replaced as necessary.</p> <p>The washrooms will receive an upgrade in the form of autoflush toilets and electrical hand dryers in order to reduce energy consumption and maintenance costs.</p> <p>Life Safety: The Fire Alarm system is past its expected life span and will be replaced with a modern, energy efficient system. Additionally, the exit signs and emergency lights will be upgraded.</p> <p>The Security system requires an upgrade to ensure safe and secure operations.</p>		
			


<b>Program:</b>	<b>Building Program</b>	<b>Sub-program:</b>	<b>Building</b>
<b>Project Name:</b>	<b>Gateway Theatre Lighting Infrastructure and Systems Renewal</b>	<b>Submission ID:</b>	<b>6221</b>
<b>Location:</b>	Gateway Theatre		
<b>Cost:</b>	\$673,400	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Capital Revolving: \$673,400		
<b>Scope:</b>	<p>The scope of work for this submission consists of:</p> <p>1) Upgrading the existing lighting infrastructure, control and equipment to support the new LED stage light fixtures; and</p> <p>2) Upgrading systems to meet current standards and practice.</p> <p>Funding for the new LED stage light fixtures was approved under a separate Capital Submission in 2017. In order to support the LED light fixtures and meet current standards, the power systems and control are required to be extensively upgraded of which is requested through this Capital Submission.</p> <p>The modernization will not only enhance performance but reduce maintenance costs and ensure new equipment parts can be readily sourced.</p> <p>Without these renewals Gateway will become less attractive to user groups and its ability to remain a viable competitor to other performing arts venues and to fulfill its role in the Richmond community will be compromised as a result.</p> <p>A feasibility study is currently being conducted by DWD Theatre Design + Consulting which will include, among other recommendations, specific recommendations to carry out the above work.</p> <p>Gateway was constructed in the early 80's and the infrastructure and equipment have seen little improvements and/or modernization since that time despite remarkable technological progress in the interim. As a result, current audio visual (lighting, sound and video) inventory and infrastructure no longer meets user needs and has fallen out of contemporary best practices. Some inventory is 1960's technology that has been discontinued and is no longer supported, making replacement parts increasingly difficult and expensive to obtain. As the equipment continues to age, it fails more and more frequently, resulting in increasing expense as staff attempt repairs that are increasingly improvised from available parts and generic hardware.</p>		
			

<b>Program:</b>	<b>Building Program</b>	<b>Sub-program:</b>	<b>Building</b>
<b>Project Name:</b>	<b>Lawn Bowling Club Replacement</b>	<b>Submission ID:</b>	<b>6286</b>
<b>Location:</b>	Minoru Park		
<b>Cost:</b>	\$4,000,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Building and Infrastructure: \$4,000,000		
<b>Scope:</b>	<p>The existing 1,930 ft² facility constructed in 1969 is ageing and is an inadequate size based on the current and future demand. Replacing this facility will reduce the frequency of equipment related breakdowns, it will provide a space of adequate size to support the current and future program and ensure many more years of service to the community.</p> <p>Scope of work is the demolition of the existing lawn bowling club facility and replacement with a new more modern facility that meets the needs of the community.</p> <p>This submission is an estimate for the 2018 capital program. It is anticipated the concept level work to replace the Lawn Bowling Club will be complete by early 2018. At that time, there will be sufficient information to develop a concept level capital cost estimate and Operating Budget Impact estimate - the capital cost noted in this submission may require revision once concept level design work is complete.</p>		
			



<b>Program:</b>	Building Program		<b>Sub-program:</b>	Building
<b>Project Name:</b>	Thompson Community Centre Heat Pump Replacements		<b>Submission ID:</b>	6133
<b>Location:</b>	Thompson Community Centre			
<b>Cost:</b>	\$520,000		<b>OBI:</b>	(\$11,500)
<b>Funding Sources:</b>	Rate Stabilization: \$420,000 Enterprise: \$100,000			
<b>Scope:</b>	<p>Renew and upgrade of the Thompson Community Centre's heating and cooling system by completing the following tasks;</p> <ul style="list-style-type: none"><li>- Remediation and/or added capacity to the geo-exchange field</li><li>- Replacement of the rooftop units with more efficient models</li><li>- Addition of one air-source heat pump</li></ul> <p>The main objectives of the project are to complete needed infrastructure renewal with the replacement and upgrade of near or at end of life equipment, and to increase energy efficiency and at Thompson Community Centre. In addition, completing these needed upgrades will enable the City to complete other already approved Energy Management and building automation system related capital measures.</p> <p>If this infrastructure renewal and energy efficiency project is funded and completed, the total annual estimated energy cost avoidance savings would be approximately \$16,000 with approximately \$4,500 additional annual maintenance costs.</p> <p>Over the estimated 20 year life span of the project measures these energy cost avoidance savings will provide approximately \$170,000 total in cost avoidance savings. This project would help to reduce electricity use at the facility by approximately 30% or by 200,000 kWh annually.</p>			
<div><div><p>THOMPSON COMMUNITY CENTRE</p></div><div><p>Operational improvements</p></div><div><p>Geo-exchange system remediation</p></div><div><p>New air-source heat pump, and roof top unit replacement</p></div></div>				

<b>Program:</b>	<b>Building Program</b>	<b>Sub-program:</b>	<b>Building</b>
<b>Project Name:</b>	<b>Watermania Ageing Mechanical and Building Envelope Infrastructure Replacement</b>	<b>Submission ID:</b>	<b>5508</b>
<b>Location:</b>	14300 Entertainment Blvd		
<b>Cost:</b>	\$1,000,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Capital Revolving: \$1,000,000		
<b>Scope:</b>	<p>Multiple building systems have reached the end of their life expectancy and will be replaced with modern energy efficient systems (where possible). These renewals will also include associated miscellaneous items that will prolong the life of the building and ensure the health and safety of its users/inhabitants.</p> <p><b>Roof:</b> The ballasted EPDM has reached the end of its serviceable life span and will be replaced in two phases. There will be a future capital submission to complete phase two.</p> <p>The gutters and downspouts are aged and will be replacement as necessary.</p> <p><b>Mechanical:</b> The lining of the filter tanks has failed and cannot be repaired; the lining will be stripped, cleaned and re-lined with more suitable material.</p> <p><b>Pool Equipment</b> The existing manual bulkhead is exceedingly heavy and has caused health and safety issues for staff operating it. These units will be converted to automatic.</p> <p>The wave pool cason chambers are failing and require replacement.</p> 		


<b>Program:</b>	<b>Building Program</b>	<b>Sub-program:</b>	<b>Building</b>
<b>Project Name:</b>	<b>Works Yard Ageing Mechanical and Building Envelope Infrastructure Replacement</b>	<b>Submission ID:</b>	<b>5515</b>
<b>Location:</b>	5599 Lynas Lane		
<b>Cost:</b>	\$2,515,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Building and Infrastructure: \$2,515,000		
<b>Scope:</b>	<p>Multiple building systems have reached the end of their BOMA life expectancy and will be replaced with modern energy efficient systems (where possible). These system renewals will also include associated miscellaneous items that will prolong the life of the building and ensure the health and safety of its users/inhabitants. This submission also includes the feasibility and location investigation of the Works Yard.</p> <p>Administration Building Interior Renovations - Service/Utility sinks require replacement. Mechanical - Gas fired water heater requires replacement as it is beyond its useful life. Cooling tower and TBAR system are reaching end of life and require replacement.</p> <p>Administration Annex Mechanical - The rooftop units have exceeded their life expectancy and require replacement.</p> <p>Dispersal Building Mechanical - Unit heaters, water distribution and exhaust systems. Interior Renovations - Flooring and door replacements.</p> <p>Covered Parking Mechanical - Unit heaters, controls and gutter systems will all be replaced. Envelope - Metal siding and overhead doors will be replaced as required.</p> <p>Garage Workshops Mechanical - Sprinkler system (wet), gas heaters and water distribution systems will be replaced Electrical - The fire alarm system will be replaced</p> <p>Stores Building Mechanical - Server room AC units, domestic hot water, water distribution and HVAC controls will all be replaced. Interior Renovations - Fire suppression system and gutter systems will be replaced</p> <p>Survey Inspector Mechanical - Water distribution system Envelope - Roofing: cover &amp; ladder Interior Renovations - Flooring, Ceiling system and workstations all require upgrades.</p>		
			

2018 Recommended Building – Heritage Program

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Phoenix Net Loft Building Stabilization ..... 95



Program:	Building Program	Sub-program:	Heritage
Project Name:	Phoenix Net Loft Building Stabilization	Submission ID:	6200
Location:	Imperial Landing		
Cost:	\$11,500,000	OBI:	\$ -
Funding Sources:	Art, Culture and Heritage: \$3,644,516 Building and Infrastructure: \$7,855,484		
Scope:	Sub-structure Preservation - Replacement of wooden pilings and associated pile splicing and bracing.		
	Super-structure Preservation - Replacement and/or retrofit of existing structured elements and code upgrades necessary to bring Phoenix Net Loft up to same preservation standard at Seine Net Loft, with public assembly load rating on both floors. This work would include structural wood beam, joist, column truss replacement/retrofit along with restoration/replacement of all or select areas of the building's exterior cladding and roofing system. Fire suppression, lighting and access/egress upgrades would also be implemented to the same standard as the Seine Net Loft.		
			

## Parks Program 2018

Richmond is renowned for its high quality parks and recreation facilities. The City's park system has over 145 parks that total approximately 1,700 acres. Parks are unique places designed and developed for the enjoyment of all city residents as well as visitors to Richmond. These sites usually contain a wide variety of recreational and sports facilities, play equipment and other specialized facilities. In addition to parks, Richmond has 50 kilometers of recreational trails.

### 2018 Recommended Parks – Parks Program

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Program:	Parks Program	Sub-program:	Parks
Project Name:	Aberdeen Park Playground and Garden Construction	Submission ID:	5243

Location:

Cost:

Funding Sources:

Scope:

Cambie Road & Hazelbridge

\$1,250,000

OBI:

\$60,507

Parks Development DCC:

\$1,175,625

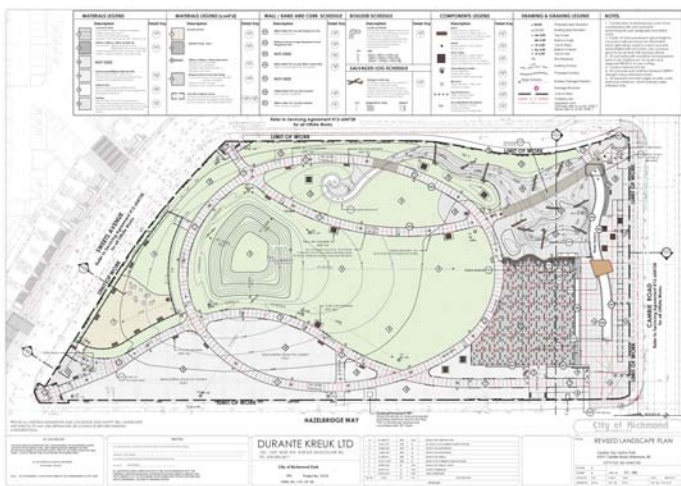
Parks Development City Assist:


\$74,375


This submission is for Phase 2 of Aberdeen Park in Capstan Village. The park will function as a neighbourhood park as well as an urban square for public gatherings and community activities. Phase 2 consists of the development of the playground on the east side of the park and the construction of a garden design contributed by City of Zhengzhou, China as part of the Council approved design exchange with the City of Richmond. It will also include detailed design for the final phase of the park plan, the stage (canopy, infrastructure) and washroom building.

Aberdeen Park will serve the surrounding high density urban neighbourhood offering a diverse mixture of landscapes, programs, activities and amenities for residents and visitors alike to experience and enjoy in a shared setting.



This project supports Council's Term goals including 2.3 - Outstanding places, programs, and services that support active living, wellness and a sense of belonging; and 3.2 - A strong emphasis on physical and urban design.



<b>Program:</b>	<b>Parks Program</b>	<b>Sub-program:</b>	<b>Parks</b>
<b>Project Name:</b>	<b>City Tree Planting Program</b>	<b>Submission ID:</b>	<b>5956</b>
<b>Location:</b>	Various Locations		
<b>Cost:</b>	\$200,000	<b>OBI:</b>	\$11,250
<b>Funding Sources:</b>	Developer Contribution: \$200,000		
<b>Scope:</b>	<p>This program will allow for the planting of trees at various sites within the City's park and open space system, many of which have few or no existing trees. Planting trees provides many benefits to the community, including: adding beauty to parks and increasing neighbourhood livability; storing and sequestering carbon; removing pollutants from the air; providing habitat for wildlife; reducing storm water runoff; stabilizing slopes; providing shade moderating temperatures; and positively affecting public health.</p> <p>This program supports Council Term Goal 3.2 - A strong emphasis on physical and urban design; and 4.2 Innovative projects and initiatives to advance sustainability.</p>		
			

<b>Program:</b>	<b>Parks Program</b>	<b>Sub-program:</b>	<b>Parks</b>
<b>Project Name:</b>	<b>Garden City Community Park Dog Park</b>	<b>Submission ID:</b>	<b>6171</b>
<b>Location:</b>	6620 Garden City Road, Richmond		
<b>Cost:</b>	\$150,000	<b>OBI:</b>	\$15,960
<b>Funding Sources:</b>	Parks Development DCC: \$141,075 Parks Development City Assist: \$8,925		
<b>Scope:</b>	<p>The Garden City Community Park dog off-leash area will be enlarged and upgraded to include permanent fencing, gates, seating and improved drainage and surfacing. The City initiated the Dog Off-Leash Program in 1999. Proposals were approved in 2015 by Council to develop the existing dog park sited on the SW corner of Garden City Park.</p> <p>This submission supports Council's 2014 - 2018 Term Goals:</p> <p>2.3. Outstanding places, programs and services that support active living, wellness and a sense of belonging.</p> <p>6.2. Infrastructure is reflective of and keeping pace with community need.</p> 		




Program:	Parks Program		Sub-program:	Parks
Project Name:	Garden City Lands Phase 3 - Park Construction and Community Hub Design		Submission ID:	5463
Location:	Garden City Road & Westminster Hwy			
Cost:	\$1,625,000	OBI:	\$44,868	
Funding Sources:	Parks Development DCC: \$940,500 Parks Development City Assist: \$59,500 Capital Revolving: \$625,000			
Scope:	This submission is for Phase 3 of the construction of the Garden City Lands (GCL). Design work will begin on the Farm Centre and Community Hub which will be a facility to store farm equipment, process and store produce, support agricultural educational programs and events, and provide public washrooms. In addition, there will be further development of recreational facilities including trails, plantings, a farm-themed play environment, light fixtures, and the creation of an interpretative and directional signage program. These improvements will broaden the range of opportunities for offering public programs and expanding the variety of activities on the site.			
	Farm Centre & Community Hub: Detailed design and Construction Drawings			
	Lamp Standards & Fixtures			
	Playground on The Rise			
	Interpretive & Directional Signage Program			
	<div><div><b>LEGEND</b> <b>THE AGRICULTURAL LANDS</b> 1 Multi-Functional Building and Parking 2 Rainwater Storage for Agricultural Irrigation 3 Farm Drainage Ditch 4 Agricultural Event Field 5 Agricultural Fields 6 Orchard 7 Demonstration Orchard 8 Community Gardens 9 Hedgerows &amp; Beetle Banks 10 Sliding High Tunnels 11 Farm Fields 12 Soil Amendment Trials <b>THE BOG</b> 13 Bog Conservation Area 14 The Fen 15 Boardwalk with Rest Points <b>THE RISE</b> 16 Meadow / Informal Recreation 17 Children's Play <b>THE NODES</b> 18 Garden City Lands Main Entrance 19 Entry Nodes 20 Entry Alley 21 Viewing Platform 22 Crosswalk 23 Parking Lot with Accessible Stalls 24 Parallel Parking with Accessible Stalls <b>THE DYKE</b> 25 Multi-use Path with Farm Access <b>THE PERIMETER TRAILS</b> 26 Native Forest Plantings 27 Street Trees 28 Perimeter Trails - Separated Paths 29 Rain Garden</div></div>			
	<div><div>GARDEN CITY LANDS Park Development Plan</div><div><small>CITY OF RICHMOND   FWL PARTNERSHIP</small></div></div> <div></div>			

Program:	Parks Program	Sub-program:	Parks
Project Name:	London/Steveston Phase 2	Submission ID:	5629

Location:	London Steveston Park		
Cost:	\$480,000	OBI:	\$24,709
Funding Sources:	Parks Development DCC: \$451,440 Parks Development City Assist: \$28,560		
Scope:	<p>The concept plan for London/Steveston Park was approved by Council in May 2015. The focus of the plan is to integrate the portion of the old Steveston High School site, transferred to the City for park purposes, with the existing site of London/Steveston School Park. The public consultation process provided residents the opportunity to comment on the plan which resulted in significant favourable support for park design. In 2018, pathway connections to the 2 previously built greenways will be installed, along with the planting of trees, creation of a large lawn area and stormwater management features. This project supports Council's Term Goals 2.3 - Outstanding places, programs, and services that support active living, wellness and a sense of belonging; and 3.2 - A strong emphasis on physical and urban design.</p>		

### Phase 2

- demolish existing paths in north portion of site
- Install north access path to Williams and Roads and other connections
- Install fences off-leash dog area, including fences, site furnishings and paving.
- Install planting and trees
- Install fitness stations and adjacent rubber paving




Program:	Parks Program	Sub-program:	Parks
Project Name:	Minoru Park Cultural Precinct Site Improvements	Submission ID:	5993
Location:	Minoru Park		
Cost:	\$800,000	OBI:	\$6,008
Funding Sources:	Rate Stabilization: \$800,000		
Scope:	Council approved the decommissioning and demolition of the existing Minoru Aquatics Centre on May 8, 2017. This will result in the creation of a new area of open space near the Cultural Centre. The former building footprint will be redeveloped to provide public open space, improved pedestrian and cyclist circulation, and additional parking.		

The objectives of this project are:

- To increase park services to accommodate the growing population in the City Centre, especially those living within the 400 metre radius designated for park services in the City Centre;
- To address increasing pedestrian and cycling movements from the street edges into the park, and between the destinations in the park (e.g. between the new Minoru Centre for Active Living and the Cultural Centre) with new pathways and lighting;
- To reduce conflicts between new and existing park uses using planting and fencing to direct circulation across the park; and
- To expand the existing parking lot south of the building.


The open space development will be guided by the Minoru Park Vision Plan and guiding principles approved by Council in May 2017.



http://map2.richmond.ca/htmlsViewer\_2\_0/index.html?viewer=RIM

1/1



<b>Program:</b>	<b>Parks Program</b>	<b>Sub-program:</b>	<b>Parks</b>
<b>Project Name:</b>	<b>Minoru Park Renewal Phase 1</b>	<b>Submission ID:</b>	<b>5842</b>
<b>Location:</b>	Minoru Park		
<b>Cost:</b>	\$250,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Parks Development DCC: \$235,125 Parks Development City Assist: \$14,875		
<b>Scope:</b>	<p>Minoru Park Renewal Phase 1 will entail detailed design for the items that were identified as high priority for (re)development during the Minoru Park Vision Plan public engagement process. These include renewal of Minoru Lakes, upgrades to primary pathway connections and new informal recreation facilities. City staff will engage a team of qualified consultants to develop detailed designs and costing which will inform future Capital submissions.</p> <p>In May of 2017, Council adopted the Minoru Park Vision and Guiding Principles to guide the development of the Minoru Park Vision Plan. The Vision and Guiding Principles were generated from the results of a detailed site analysis and an extensive community engagement process. They build on Minoru Park's existing strengths and the aspects of the park most valued by the community while simultaneously envisioning how the park can be adapted in response to the rapidly growing population in the city centre and changing community needs.</p>		
			

Program:	Parks Program	Sub-program:	Parks
Project Name:	Parks Advance Planning & Design	Submission ID:	5242

**Location:** Various Locations

**Cost:** \$600,000 **OBI:** \$ -

**Funding Sources:** Parks Development DCC: \$564,300  
Parks Development City Assist: \$35,700

**Scope:** This annual project submission for Parks Advance Planning & Design is to provide ongoing planning, research, consultation, project management and construction detailing of both immediate and future projects in park construction or strategic open space planning.


The scope of work includes: researching best practices; collecting data, topographical surveys and geographical information; and securing consultation for landscape architectural and engineering services as part of a planning and design process. The design process includes preparing and producing concept designs, reports, presentations and detailed construction drawings for upcoming major Capital projects. Projects may be community initiated or may serve redeveloping areas of the City.

This program supports Council Term Goals 2.3 - "Outstanding places, programs and services that support active living, wellness, and a sense of belonging"; and 3.2 – "A strong emphasis on physical and urban design."


2018 Projects include:

- Middle Arm Waterfront Park Master Plan
- Steveston Playground
- Resource Management
- Conceptual Park & Open Space Planning for various sites
- Topographical Surveys (engineering site survey pick-up)
- Waterfront & Trails Strategy Implementation projects
- Park Characterization projects
- Best practices research

Lansdowne Village







<b>Program:</b>	<b>Parks Program</b>	<b>Sub-program:</b>	<b>Parks</b>
<b>Project Name:</b>	<b>Parks General Development</b>	<b>Submission ID:</b>	<b>302</b>
<b>Location:</b>	Various Location		
<b>Cost:</b>	\$500,000	<b>OBI:</b>	\$5,420
<b>Funding Sources:</b>	Parks Development DCC: \$470,250 Parks Development City Assist: \$29,750		
<b>Scope:</b>	<p>This ongoing program addresses special opportunities, emergency requests and safety driven concerns from the public. This program funds ongoing improvements of various park amenities and facilities that are not part of other larger Parks Capital Programs. This funding allows the City the flexibility and ability to respond to Council directions, and appropriate public requests in a timely fashion.</p> <p>Examples of projects that have been funded by General Development include new community gardens, new dog off-leash areas, walkways and pathways, benches and picnic tables, and new drainage systems.</p> <p>This project is relative to Council term goals of providing Quality Infrastructure Networks and a Safe Community.</p> 		

<b>Program:</b>	<b>Parks Program</b>	<b>Sub-program:</b>	<b>Parks</b>
<b>Project Name:</b>	<b>Parks Identity Signage Program</b>	<b>Submission ID:</b>	<b>5251</b>

<b>Location:</b>	Various Locations		
<b>Cost:</b>	\$200,000	<b>OBI:</b>	\$27,456
<b>Funding Sources:</b>	Parks Development DCC: \$188,100 Parks Development City Assist: \$11,900		
<b>Scope:</b>	<p>Many of the City's park sites do not have signage to inform the public of the name of the park they are visiting, the amenities within the park, or to assist in locating a specific park during special events. In order to adequately provide park identity, regulatory information and wayfinding for the public and community, a comprehensive signage fabrication and installation program needs to be established to ensure a coordinated approach to site identity.</p> <p>The design/fabrication of parks and wayfinding signage takes into consideration the character, heritage and uniqueness of each park and trail. It also provides information about what each site has to offer, provides consistency in fabrication methods and materials, and takes into consideration the installation and ongoing maintenance of the same.</p> <p>This project supports the following aspects of the Corporate Plan: Placemaking focus area, Special Places pillar, Unique Parks and Open Spaces outcome.</p> <p>This project also addresses the following 2022 Parks and Open Space Strategy focus area of "CONNECTIVITY: Linking People, Community and Nature - Outcome #2: The system is inviting, accessible, and safe, enabling residents and visitors to feel comfortable and connected to the community" and the initiative to "Develop and implement a wayfinding and signage plan for the parks and open space system."</p> <p>Scope of Work Includes:</p> <ul style="list-style-type: none"> <li>- Develop a phasing plan for park ID and wayfinding deployment</li> <li>- Design and analysis per park ID and wayfinding location</li> <li>- Fabrication and coordination with signage vendor and/or in-house services</li> <li>- Coordinate installation deployment of Phase 1 with in-house services</li> <li>- Prepare a resource management plan for the OBI</li> </ul>		

<b>Program:</b>	<b>Parks Program</b>	<b>Sub-program:</b>	<b>Parks</b>
<b>Project Name:</b>	<b>Parks Strategic Ageing Infrastructure Replacement</b>	<b>Submission ID:</b>	<b>5245</b>
<b>Location:</b>	Various Locations		
<b>Cost:</b>	\$900,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Capital Revolving: \$900,000		
<b>Scope:</b>	<p>This program targets the replacement of ageing parks and open space infrastructure. The types of infrastructure include waterparks, waterfront assets (e.g. piers, docks, moorage and boat launch facilities) trails and pathways, drainage systems, outdoor courts (e.g. tennis, basketball, lacrosse, and hockey), baseball backstops, sports lighting fixtures and other amenities that cannot be funded through Parks DCC's. Assets have been identified that have surpassed their respective life cycles and now present potential liability issues with the loss of structural and functional integrity due to wear and age. If not addressed these issues may lead to closure of some parks or park amenities and an increase in service requests to address safety concerns from the public and sports groups.</p> <p>At the July 20, 2017 PRCS meeting, the following was carried:</p> <p>"That the priorities identified in the staff report titled Parks Ageing Infrastructure Plan 2017 from the Senior Manager, Parks, be used as the basis for a submission to the annual 2018 Capital Program process." The report included the list of high priority infrastructure requiring significant repairs to extend the useful life of some assets as well as full replacement for others.</p> <p>2018 Projects include:</p> <ul style="list-style-type: none"><li>- King George Waterpark Surface Retrofit</li><li>- No. 2 Road Pier Repairs</li><li>- Nature Park Boardwalk Replacement</li></ul> <p>This program supports Council Term Goals of providing Quality Infrastructure Networks and a Safe Community.</p>		
			

<b>Program:</b>	<b>Parks Program</b>	<b>Sub-program:</b>	<b>Parks</b>
<b>Project Name:</b>	<b>Playground Replacement and Safety Upgrade Program</b>	<b>Submission ID:</b>	<b>5247</b>
<b>Location:</b>	Various Locations		
<b>Cost:</b>	\$500,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Capital Revolving: \$500,000		
<b>Scope:</b>	<p>This Capital program addresses older playgrounds that do not meet the current safety guidelines according to the industry standard, the Canadian Standards Association's "Children's Playspaces and Equipment", or can no longer be maintained to meet the guidelines due to age, obsolescence or vandalism. The program is directed toward replacing all or part of a playground and includes replacement of playground equipment, playground infrastructure (e.g. resilient surfacing, borders, drainage) and landscape features.</p> <p>This program relates to the following Council Term Goals:</p> <p>Goal 2 - A Vibrant, Active and Connected City</p> <p>Goal 6 - Quality Infrastructure Networks</p> <p>The priority projects for 2018 are the playgrounds located at South Arm Community Park and Palmer/Garden City Neighbourhood School Park.</p>		
			

2018 Recommended Parks – Parkland Program

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Parkland Acquisition..... 110



Program:	Parks Program	Sub-program:	Parkland
Project Name:	Parkland Acquisition	Submission ID:	5270

Location:	As per Parks DCC Land Acquisition Plan		
Cost:	\$4,000,000	OBI:	\$ -
Funding Sources:	Parks Acquisition DCC: \$3,762,000 Parks Acquisition City Assist: \$238,000		
Scope:	The purpose of the Parkland Acquisition program is to acquire land for park requirements to address development and population growth. The program is based on the City's population projections as per the OCP with the objective of maintaining the parks provision standard of 7.66 acres/1000 population. The program is funded through Parkland Acquisition Developer Cost Charges (DCC's) and is guided by the Council approved 2009 Park Land Acquisition Strategy, which provides the criteria for evaluating proposed acquisitions. Funding is required each year to allow the City to be strategic and responsive as properties become available, thus avoiding the need to borrow funding from other City sources, or pass bylaws to release the funds for each acquisition.		

Base Level Parks & Open Space Map (2031)

City Centre Boundary  
Village Centre  
Garden City Lands (Further Study Required)  
Major Park (Future)  
Major Park (Existing)  
Neighbourhood Park (Future to 2031)  
Neighbourhood Park (Future post 2031)  
Neighbourhood Park (Future to 2031) - Configuration & Location to be Determined  
Neighbourhood Park (Existing)  
Greenway (Future - to be upgraded or secured)  
Greenway (Existing)  
Green Link (Future)  
Linear Park (Future)  
Public School Land  
Capstan Station Bonus

# Public Art Program 2018

The Public Art Program is a self-sustaining project funded by private development contributions to the Public Art Reserve. Council approved the updated policy (Policy 8703, adopted July 27, 2010) and the Program is supported by a Council appointed Public Art Advisory Committee. The Public Art Program also supports the initiatives expressed in the Richmond Art Strategy 2012 - 2017, which was presented to and supported by Council in September 2012. The above proposal assists in its annual implementation, which is necessary to its success. Private sector, private donations and community contributions are successfully sought and received.


The public art program contributes to the Council Term Goals for 2014 - 2018, for a vibrant, active and connected city through a commitment to strong urban design, investment in public art and place making.

## 2018 Recommended Public Art Program

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Program:	Public Art Program	Sub-program:	Public Art
Project Name:	Public Art Program	Submission ID:	686
Location:	Various Locations		
Cost:	\$347,572	OBI:	\$6,250
Funding Sources:	Public Art Program: \$347,572		
Scope:	<p>The scope of work consists of a variety of public art projects. The following are proposed projects (with estimated costs) which may change during the project's duration based on the Public Art Program's consideration of public art opportunities and priorities and private development funding.</p> <p>For Community Public Art Projects, with funds from previously received contributions by private developers deposited to the Public Art Reserve, \$100,000 total, as follows:</p> <ul style="list-style-type: none"><li>- Community public art projects: \$30,000</li><li>- Community education and promotion of the public art program: \$15,000</li><li>- Collaboration on educational opportunities with other City cultural facilities and programs, such as the Richmond Art Gallery, Media Lab, Cultural Centre and Richmond Museum: \$15,000</li><li>- Pursuing community public art partnerships as they arrive: \$40,000</li></ul> <p>For the Private Development Program, from Developer Contributions received and deposited to the Public Art Reserve for implementation of projects integrated with new development, on either private lands or City-controlled land, with the expectation that the majority will be on City-controlled sites (parks, streets, greenways) with a majority located in the City Centre. Cost determined based on contributions received in 2016 - 2017, net of transfers to the Public Art Provision Reserve for program administration, \$247,572 total, as follows:</p> <ul style="list-style-type: none"><li>- Polygon Trafalgar Square-9491 Alexandra Road: \$192,088</li><li>- Oval 8 Holdings - 6622 Pearson Way: \$13,175</li><li>- Platform Properties - 3471 Moncton Rd (for Nikkei Memorial and other Steveston projects): \$42,309</li></ul>		




# Land Program 2018

The land acquisition program relates to the acquisition and disposition of real property for the City, as approved by Council.

## 2018 Recommended Land – Land Acquisition Program

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Strategic Land Acquisition..... 114

<b>Program:</b>	<b>Land Program</b>	<b>Sub-program:</b>	<b>Land</b>
<b>Project Name:</b>	<b>Strategic Land Acquisition</b>	<b>Submission ID:</b>	<b>5153</b>
<b>Location:</b>	Various		
<b>Cost:</b>	\$10,000,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Capital Industrial: \$10,000,000		
<b>Scope:</b>	Funds for land acquisition to meet the Council Approved Strategic Real Estate Investment Plan, other than DCC and other special reserve funded projects, are set aside in the Capital Reserve under the Industrial Use Fund. This capital budget submission is to use land acquisition monies from this fund as well as additional general funds approved by Council.		
<p>\$10 million to be invested in investment class real estate.</p>			
			



# Affordable Housing Program 2018

Affordable Housing is responsible for coordinating the implementation of the Richmond Affordable Housing Strategy – a Strategy that was adopted in 2007 which contains recommendations, policies, directions, priorities, definitions and annual targets for affordable housing in the city. The City is working with other levels of government, the non-profit sector, the private sector, local groups and the community in pursuit of the Strategy's goals.

## 2018 Recommended Affordable Housing Program


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Affordable Housing Projects - City Wide ..... 117

<b>Program:</b>	Affordable Housing		<b>Sub-program:</b>	Affordable Housing
<b>Project Name:</b>	Affordable Housing 2018 Operating Initiatives		<b>Submission ID:</b>	6170

<b>Location:</b>	City Wide		
<b>Cost:</b>	\$220,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Affordable Housing: \$220,000		
<b>Scope:</b>	<p>1. Affordable Housing Legal - The scope of work will include the review of operating agreements, housing agreements, and any other legal services required as the administration of these developments occur.</p> <p>2. Printing, Publication, Media and Advertising - Ongoing printing and publication services through the course of the year, including meeting traditional and social media needs as they arise.</p> <p>3. Affordable Housing Economic Analysis (consulting) - Procure the services of a consultant to complete economic analysis of complex development applications as required.</p> <p>4. Rental Housing Inventory Maintenance - Maintain and update the rental housing inventory as required (creation of the inventory was approved by Council in October 2016). A report with the pilot project outcomes will be presented to Council in 2018, confirming the amount needed to maintain and update the inventory.</p> <p>5. Homelessness Liaison and support - Continue the Homelessness Liaison contract (approved by Council in October 2016) and supporting homelessness initiatives in the community (e.g. homelessness data tracking, community tables, information sharing with Metro Vancouver), supporting the Richmond Homelessness Coalition. A report with the pilot project outcomes will be presented to Council, confirming the amount needed to support homelessness initiatives.</p> <p>6. Affordable Housing Strategy Implementation (Immediate/Short-term actions) - support/research/consulting to implement immediate and short-term actions and policies identified in the Affordable Housing Strategy Final Policy Recommendations (approved by Council on July 24, 2017). Examples include initiatives to support implementation of new low-end market rental policies and monitoring/enforcement, and research/further study of family-friendly housing.</p>		



Richmond  
**Affordable Housing**  
**Strategy** *Update*

<b>Program:</b>	Affordable Housing		<b>Sub-program:</b>	Affordable Housing
<b>Project Name:</b>	Affordable Housing Projects - City Wide		<b>Submission ID:</b>	6169
<b>Location:</b>	Various			
<b>Cost:</b>	\$400,000		<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Affordable Housing: \$400,000			
<b>Scope:</b>	The City's Affordable Housing Strategy and Social Development Strategy have outlined the requirement for strategic land acquisition, capital investment, and partnering opportunities to support the acquisition and capital development of affordable housing projects. This can include the coverage of DCC's and other municipal fees for affordable housing projects.			
				

# Equipment Program 2018

The equipment program includes machinery and vehicles for Public Works, Fire Rescue Services, City Hall computer hardware, software, and other miscellaneous equipment.

## 2018 Recommended Equipment – Vehicle Program


Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet) ..... 119

Program:	Equipment Program	Sub-program:	Vehicle
Project Name:	Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	Submission ID:	5734
Location:	Works Yard and Various City Departments		
Cost:	\$3,422,777	OBI:	\$52,225
Funding Sources:	Equipment Replacement: \$2,847,777 Sewer Levy: \$175,000 Water Levy: \$400,000		
Scope:	Involves meeting with user groups to establish needs and develop specifications for vehicle/equipment replacements. Bid documentation is then issued to the marketplace, with purchases combined where possible to achieve best value. Submissions are evaluated with user input, and awards are made accordingly. Scope also includes vehicle outfitting as required to coincide with individual user department needs. The work commences upon receiving Council approval, with timing dependent on delivery timeframes/availability of product from successful vendors.		

Due to inflationary increases associated with vehicle purchases, maintenance costs on new units are increasing (i.e. higher parts costs). This investment in maintenance saves on annual replacement cost requirements by maximizing vehicle life cycles. The investment in maintenance is recovered through vehicle rates charged to users.

This project involves replacement of the following:

2 vans, 7 cars, 10 standard pickups, 3 heavy duty trucks with flatdeck/dumpbox, 3 heavy duty vans, 2 backhoes, 1 tandem truck, 1 chipper truck, 1 vactor truck, 4 trailers.






2018 Recommended Equipment – Fire Vehicle Program


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Richmond Fire Emergency Equipment Replacement..... 122

Program:	Equipment Program	Sub-program:	Fire vehicle
Project Name:	Fire Vehicle Replacement Reserve Purchases	Submission ID:	5229
Location:	Fire Halls		
Cost:	\$1,112,116	OBI:	\$ -
Funding Sources:	Fire Equipment: \$1,112,116		
Scope:	<p>Front line Fire apparatus replacement follows a life cycle replacement schedule based on the industry standards. In addition a condition inspection is conducted annually to evaluate the mechanical status of the vehicles to determine replacement need.</p> <p>To ensure we are able to provide fire services to the community:</p> <ul style="list-style-type: none"><li>- Richmond Fire Rescue (RFR) maintains a fleet of 15 Fire suppression trucks as well as support vehicles.</li><li>- RFR has a designated "Vehicle &amp; Equipment Reserve". The replacement plan for all apparatus is funded through the reserve.</li></ul> <p>In 2011 a report was approved by Council on the status of the Fire Vehicle Replacement Reserve and put forward a replacement schedule for all fire vehicles and some equipment. The replacements requested are aligned with this life cycle replacement plan.</p> <p>This replacement apparatus is contemplated in the scheduled plan of the equipment reserve. To ensure that RFR has a robust modern fleet of fire apparatus to deliver Fire and Rescue services to the community. RFR has developed a replacement plan that maintains financial stability and sustainability of the "Vehicle and Equipment Reserve".</p> <p>RFR strives to maintain a maximum replacement cycle of 20 years with all suppression apparatus.</p>		



<b>Program:</b>	<b>Equipment Program</b>	<b>Sub-program:</b>	<b>Equipment</b>
<b>Project Name:</b>	<b>Richmond Fire Emergency Equipment Replacement</b>	<b>Submission ID:</b>	<b>6270</b>
<b>Location:</b>	Fire Hall		
<b>Cost:</b>	\$126,530	<b>OBI:</b>	\$10,000
<b>Funding Sources:</b>	Fire Equipment:	\$126,000	
<b>Scope:</b>	Front line fire equipment replacement follows a life cycle replacement schedule based on the industry standards. In addition a condition inspection is conducted annually to evaluate the mechanical status of the equipment to determine replacement need. To ensure we are able to provide fire services to the community Richmond Fire Rescue (RFR) maintains a breathing air system and an inventory of hose.		
			

2018 Recommended Information Technology Program

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Annual Hardware Refresh..... 125

ePlans for Residential and Commercial Building ..... 126


Network Infrastructure Core Refresh ..... 127


Property Management System (Amanda) Upgrade..... 128

Telephone System Equipment Replacement..... 129


<b>Program:</b>	<b>Equipment Program</b>	<b>Sub-program:</b>	<b>Information Technology</b>
<b>Project Name:</b>	<b>2018 Digital Strategy Implementation</b>	<b>Submission ID:</b>	<b>6214</b>
<b>Location:</b>	City Wide		
<b>Cost:</b>	\$1,023,877	<b>OBI:</b>	\$63,474
<b>Funding Sources:</b>	Rate Stabilization: \$519,771 Software: \$504,106		
<b>Scope:</b>	<p>The 2018 implementation of the Digital Strategy approved by Council to support Council Term Goal of "Continue to develop and provide programs and services that ensure the Richmond community is well-informed and engaged on City business and decision making". This implementation will build upon the current Digital Strategy foundation and bring on board.</p> <ol style="list-style-type: none"> <li>1) Enhancements to the existing inspections mobile application</li> <li>2) New mobile service request functionality in the RichmondBC mobile application integrated to Infor Public Sector</li> <li>3) New work crew based mobile application for Public Works (Service Request and Work Order Management)</li> <li>4) 2018 Richmond Elections Mobile Application</li> <li>5) Integration of ePlans to Customer Profile</li> <li>6) Establishment of Corporate Data Business Intelligence and Reporting software</li> </ol> <p>The detail scope of work will be defined during project planning process. This process will analyze the current business processes and propose recommendations to improve the workflows and customer interactions with new software, processes and functionalities. Specifically, the project planning process will include:</p> <ul style="list-style-type: none"> <li>- Review existing system architecture &amp; configuration and provide options for enhancement</li> <li>- Review existing customer transactions/interactions and provide options for enhancement</li> <li>- Review existing reporting and provide options for enhancement</li> <li>- Perform software &amp; integration assessment and assist in defining the scope for the new solution.</li> </ul> <p>There is a phase 2 to the Business Intelligence portion of the project in 2019 submitted under title "2019 Digital Strategy Implementation".</p>		
			





<b>Program:</b>	Equipment Program	<b>Sub-program:</b>	Information Technology
<b>Project Name:</b>	Annual Hardware Refresh	<b>Submission ID:</b>	5143
<b>Location:</b>	City Hall		
<b>Cost:</b>	\$426,750	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Hardware Upgrade:	\$426,750	
<b>Scope:</b>	This project scope is to perform the scheduled replacement of end of-lifecycle City computer hardware, which includes computer desktops, laptops, backup printers, monitors, cellular phones and iPads.		
			

Program:	Equipment Program	Sub-program:	Information Technology
Project Name:	ePlans for Residential and Commercial Building	Submission ID:	6235
Location:	City Hall		
Cost:	\$141,000	OBI:	\$12,000
Funding Sources:	Other: \$141,000		
Scope:	<p>The scope of work will include the ability for customers (such as contractors, builders, architects, developers) to submit plans and drawings electronically for building, plumbing, gas, and other construction related permits.</p> <p>The detailed scope will be defined during the project planning process. This process will analyze the current environment and propose recommendations to incorporate into the enhancements. Specifically, the project planning process will include:</p> <ul style="list-style-type: none"><li>- Review existing workflow configuration and provide options for enhancement</li><li>- Review existing online processes and provide options for enhancement</li><li>- Review existing reporting and provide options for enhancement</li><li>- Perform software &amp; integration assessment and assist in defining the tasks to deliver the new functionalities</li></ul> <p>Upon project completion, staff and customers will have a better submission, review and processing experience as a result of integration and streamlining of current business functions, with automation of certain processes.</p>		
			

<b>Program:</b>	Equipment Program	<b>Sub-program:</b>	Information Technology
<b>Project Name:</b>	Network Infrastructure Core Refresh	<b>Submission ID:</b>	6216
<b>Location:</b>	City Hall		
<b>Cost:</b>	\$361,711	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Computer Equipment:	\$361,711	
<b>Scope:</b>	To procure through an RFP process new network core switch technology and implement a new design that provides fully redundant services to all locations on the City network, including City Hall and Works Yard. Existing edge switches located in floor wiring closets and at other facilities will be integrated to the new Network Core infrastructure.		



<b>Program:</b>	Equipment Program	<b>Sub-program:</b>	Information Technology
<b>Project Name:</b>	Property Management System (Amanda) Upgrade	<b>Submission ID:</b>	6219
<b>Location:</b>	City Hall		
<b>Cost:</b>	\$375,000	<b>OBI:</b>	\$25,000
<b>Funding Sources:</b>	Other:		\$375,000
<b>Scope:</b>	<p>The scope of work encompasses installing and upgrading the Amanda software from the current version 4.7 to 7.0, creating interfaces to intergrate and interact with other enterprise systems used in the City, and add more online and automated services for residents and businesses. Detailed scope will be further defined during upgrade project planning process, including analyzing the current environment and proposing recommendations to incorporate into the upgrade. Specifically, the planning process will include:</p> <ul style="list-style-type: none"><li>- Review existing workflow configuration and provide options for enhancement</li><li>- Review existing online processes and provide options for enhancement</li><li>- Review existing reporting and provide options for enhancement</li><li>- Perform Amanda 7 upgrade assessment and implement the upgrade</li></ul> <p>Upon completion the upgrade will provide a more streamlined and efficient utlization of e-Government applications and services.</p>		
			

<b>Program:</b>	Equipment Program	<b>Sub-program:</b>	Information Technology
<b>Project Name:</b>	Telephone System Equipment Replacement	<b>Submission ID:</b>	6230
<b>Location:</b>	City Hall		
<b>Cost:</b>	\$402,094	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Computer Equipment: \$362,263 Hardware Upgrade: \$39,831		
<b>Scope:</b>	Replacement of existing user desk phones with Cisco Unified Communications equipment at City Hall, Works Yard and other City facilities:		
	<ul style="list-style-type: none"><li>- 1105 Cisco 8851 Handsets</li><li>- 70 Cisco 8811 Handsets</li></ul>		
			




2018 Recommended Equipment Program


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Closed Circuit Television for Signalized Intersections ..... 131


Electrical Power Capacity Design for Shore Power & Electrical Vehicle Charging ..... 132

South Arm Boiler Replacement and Domestic Water Repiping..... 133

<b>Program:</b>	<b>Equipment Program</b>	<b>Sub-program:</b>	<b>Equipment</b>
<b>Project Name:</b>	<b>Closed Circuit Television for Signalized Intersections</b>	<b>Submission ID:</b>	<b>6283</b>
<b>Location:</b>	City Wide		
<b>Cost:</b>	\$2,185,242	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Other: \$2,185,242		
<b>Scope:</b>	Currently there are 175 signalized intersections in Richmond, among which 60 intersections are equipped with non-recording traffic detection cameras. The existing traffic cameras function primarily to detect vehicles, manage traffic flow and respond to real-time traffic incidents.		
<p>This request is in response to the referral made by Council at the October 23, 2017 Council meeting that Traffic Recording Capabilities at Intersections be submitted in the 2018 budget process for Council consideration.</p> <p>The RCMP Richmond Detachment and the City's Transportation Department have initiated discussions to upgrade all existing traffic cameras, to allow for live video feed recording and to have additional video recording cameras at all signalized intersections.</p> <p>The installation of CCTV cameras at all 175 traffic intersections would enhance public safety in the City of Richmond. Proper use of this surveillance technology could deter crime, reduce traffic accidents and provide an additional tool in crime and accident investigations.</p>			
			

Program:	Equipment Program	Sub-program:	Vehicle
Project Name:	Electrical Power Capacity Design for Shore Power & Electrical Vehicle Charging	Submission ID:	6222
Location:	City Hall, City Hall Annex, Works Yard, Sidaway		
Cost:	\$425,000	OBI:	\$ -
Funding Sources:	Carbon Tax: \$200,000 Gas Tax: \$225,000		
Scope:	Detailed design of four City facilities (noted below) to provide electric power to serve the City's planned electrical vehicle expansion, shore power provision for City service vehicles to reduce idling requirements/fuel consumption, and other planned upgrades.		
City facilities include:			
a. City Hall (6911 No.3 Road)			
b. City Hall Annex (6900 Minoru Boulevard)			
c. Works Yard (5599 Lynas Lane)			
d. Sidaway Works Yard (6711 Sidaway Road)			
Following electrical renovation design as part of this capital project submission, a future capital submission will be made to fund capital upgrades, as deemed appropriate/required.			
			

<b>Program:</b>	Equipment Program	<b>Sub-program:</b>	Equipment
<b>Project Name:</b>	South Arm Boiler Replacement and Domestic Water Repiping	<b>Submission ID:</b>	6203
<b>Location:</b>	8880 Williams Road		
<b>Cost:</b>	\$540,000	<b>OBI:</b>	\$1,500
<b>Funding Sources:</b>	Capital Revolving:	\$540,000	
<b>Scope:</b>	The scope of this project is to replace the existing five boilers and one hot water storage tank and to repipe the domestic hot and cold water copper pipes at South Arm Community Centre. Multiple systems in this facility constructed in 1992 have reached the end of their life expectancy and will be replaced with modern energy efficient systems (where possible). These system renewals will also include miscellaneous items that will service to prolong the life of the building and ensure the health and safety of its users/inhabitants.		



# Child Care Program 2018

To address child care needs, the City plans the development of and partners with organizations to support a range of quality and affordable child care facilities.


## 2018 Recommended Child Care Program

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Child Care Projects - City Wide (Projects) .....	137
Child Care Projects - City Wide Non-Capital Grants.....	138




<b>Program:</b>	Child Care Program	<b>Sub-program:</b>	Child Care
<b>Project Name:</b>	Child Care - Research, Studies and City Personnel/Consultant Expenses	<b>Submission ID:</b>	6147
<b>Location:</b>	City Hall		
<b>Cost:</b>	\$60,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Child Care Development Reserve: \$60,000		
<b>Scope:</b>	<p>Child Care - Research, Studies, and City Personnel/Consultant Expenses: A source of funding is required to assist the implementation of specific actions adopted by Council in the 2017 - 2022 Richmond Child Care Needs Assessment and Strategy. These funds will be used to pay for costs related to but not limited to: staff expenses to support the child care work program; the purchase of 2016 Canada Census data, research, production of reports, to hire consultants to provide advice for updating the City's child care design guidelines and terms of reference used at rezoning to detail the City expectations for turnkey child care and ECD Hub amenities. The Child Care Operating Reserve is an appropriate source of funding for such expenses. It was established to support grants, conduct research, and fund expenses such as: "Remuneration and costs, including without limitation expenses and travel costs, for consultants and City personnel to support the development and quality of child care within the City."</p>		




<b>Program:</b>	Child Care Program	<b>Sub-program:</b>	Child Care
<b>Project Name:</b>	Child Care Projects - City Wide (Capital Grants)	<b>Submission ID:</b>	5267
<b>Location:</b>	Various		
<b>Cost:</b>	\$50,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Child Care Development Reserve: \$50,000		
<b>Scope:</b>	To ensure sufficient funding is available to administer the City's Child Care Capital Grants Program.		



Program:	Child Care Program	Sub-program:	Child Care
Project Name:	Child Care Projects - City Wide (Projects)	Submission ID:	6148
Location:	Various		
Cost:	\$100,000	OBI:	\$ -
Funding Sources:	Child Care Development Reserve: \$100,000		
Scope:	<p>The City is committed to facilitating the establishment of quality child care facilities in Richmond (e.g. by purchasing land, coordinating construction, partnering with developers, advocating to senior governments).</p> <p>The purpose of this request is to transfer funds from the City Wide Child Care Reserve to Projects, thereby enabling the City to respond when opportunities arise for future child care facility development (e.g. contributing to land acquisition costs, construction costs, or related expenses).</p> <p>The funds may also be used as a source of contingency funding to pay for additional capital expenses related to City wide child care facility development projects being provided to the City as community amenities and require funding for legal fees to complete the purchase, conveyance, advertising costs re: nominal leases, purchase of specialized equipment required by the City and/or retrofits.</p>		



<b>Program:</b>	Child Care Program	<b>Sub-program:</b>	Child Care
<b>Project Name:</b>	Child Care Projects - City Wide Non-Capital Grants	<b>Submission ID:</b>	6137
<b>Location:</b>	Various		
<b>Cost:</b>	\$10,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Child Care Development Reserve: \$10,000		
<b>Scope:</b>	To ensure there is sufficient funding to support the 2018 Child Care Professional and Program Development Grants (non-capital). Grants are advertised in the September 2017 and then with Council approval awarded in February 2018.		



# Contingent External Contributions 2018

Contingent external contributions is an estimate of external grants that may be received throughout the year for a variety of approved capital projects.

## 2018 Recommended Contingent External Contributions

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<b>Program:</b>	<b>Internal Transfers/Debt Payment</b>	<b>Sub-program:</b>	<b>Internal Transfers/Debt Payment</b>
<b>Project Name:</b>	<b>Contingent External Contribution</b>	<b>Submission ID:</b>	<b>5810</b>
<b>Location:</b>	City Wide		
<b>Cost:</b>	\$10,000,000	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Grant: \$10,000,000		
<b>Scope:</b>	5 YEAR CONSOLIDATED FINANCIAL PLAN (2016 - 2020) BYLAW NO. 9521		
	<p>The Financial Plan includes an estimate for external grants that may be received throughout the year for various projects. Spending will only incur if the funds are confirmed. Including an estimate in the Financial Plan will allow staff to request scope changes to existing projects without having to wait until the Bylaw Amendment, which is typically adopted in the fall.</p>		

# Internal Transfers/Debt Payment Program 2018

The internal transfers/debt program relates to the use of capital funding for repayment of capital funds borrowed from other internal sources of funding.

## 2018 Recommended Internal Transfers/Debt Payment Program

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<b>Program:</b>	<b>Internal Transfers/Debt Payment</b>	<b>Sub-program:</b>	<b>Internal Transfers/Debt Payment</b>
<b>Project Name:</b>	<b>7080 River Road Repayment</b>	<b>Submission ID:</b>	<b>6015</b>
<b>Location:</b>	7080 River Road		
<b>Cost:</b>	\$2,341,384	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Parks Acquisition DCC: \$2,202,072 Parks Acquisition City Assist: \$139,312		
<b>Scope:</b>	The purpose of this submission is to repay the Capital Reserve - Industrial Use Fund for previous Parkland Acquisitions from Parkland Acquisition Developer Cost Charges (DCC's).		

<b>Program:</b>	Internal Transfers/Debt Payment	<b>Sub-program:</b>	Internal Transfers/Debt Payment
<b>Project Name:</b>	Lansdowne Rd Extension	<b>Submission ID:</b>	3783
<b>Location:</b>	Finance		
<b>Cost:</b>	\$77,263	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Roads DCC: \$77,263		
<b>Scope:</b>	A total of \$626,666 is to be repaid from Roads DCC to the Watermain Replacement Reserve over 10 years.		

<b>Program:</b>	Internal Transfers/Debt Payment	<b>Sub-program:</b>	Internal Transfers/Debt Payment
<b>Project Name:</b>	Nelson Road Interchange Repayment	<b>Submission ID:</b>	5300
<b>Location:</b>	Finance		
<b>Cost:</b>	\$385,098	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Roads DCC: \$385,098		
<b>Scope:</b>	A total of \$2.54M is to be repaid from Roads DCC to Surplus over 8 years.		



<b>Program:</b>	Internal Transfers/Debt Payment	<b>Sub-program:</b>	Internal Transfers/Debt Payment
<b>Project Name:</b>	River Road/North Loop Repayment	<b>Submission ID:</b>	5295
<b>Location:</b>	Finance		
<b>Cost:</b>	\$1,685,056	<b>OBI:</b>	\$ -
<b>Funding Sources:</b>	Roads DCC: \$1,685,056		
<b>Scope:</b>	A total of \$18.2M is to be repaid from Roads DCCs to Surplus over 18 years.		

# Infrastructure Program 2018 – Not Recommended


Due to funding constraints and higher priority projects, the following infrastructure projects are not recommended for funding.


## 2018 Not Recommended Infrastructure - Road Program

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Monds Neighbourhood Walkway and Roadway Improvements .....	148

NOT RECOMMENDED

Program:	Infrastructure Program		Sub-program:	Roads
Project Name:	Asphalt Re-Paving Program - Non-MRN Backlog Management		Submission ID:	6091
Location:	Various			
Cost:	\$1,000,000		OBI:	\$ -
Funding Sources:	Capital Revolving: \$1,000,000			
Scope:	<p>Roadways are consistently worn down and require repair to be maintained at a serviceable level. Allowing roadways to deteriorate beyond a controlled standard will result in significant escalation of costs as surface repairs will no longer be sufficient. This program will focus on repairing roadways to reduce the need for complete roadway replacement and minimize long-term repair costs.</p> <p>This program will be for non-MRN routes throughout Richmond and is in addition to the current Annual Asphalt Re-paving Program - non-MRN. It is envisaged that such an additional program will be required from time to time to supplement the annual program and control backlogs in paving needs. Works include curb and gutter repairs, road base repair, asphalt parking re-paving, manhole and valve box adjustments, line painting, and staff inspection time.</p>			
				

Program:	Infrastructure Program		Sub-program:	Roads
Project Name:	Monds Neighbourhood Walkway and Roadway Improvements		Submission ID:	6241
Location:	Monds			
Cost:	\$1,000,000		OBI:	\$59,600
Funding Sources:	Capital Revolving: \$1,000,000			
Scope:	<p>This project is for new walkways and roadway improvements in the Monds neighbourhood at the request of the public. Currently, the neighbourhood is lacking designated walkways and pedestrians feel vulnerable. Supporting the OCP goals to encourage the use of sustainable modes of transportation; new walkway infrastructure in the neighbourhood will improve both pedestrian and vehicle level of service when accessing Alfred B Dixon Elementary school. Other work included in this project would be road widening and drainage upgrades which may be performed together with the walkway improvements.</p>			
				

# Building Program 2018

Due to funding constraints and higher priority projects, the following building projects are not recommended for funding.


## 2018 Not Recommended Building - Building Program

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City Hall GHG Emissions Reduction through Heat Recovery.....	151
Library and Cultural Centre Deep Energy Retrofits .....	152

NOT RECOMMENDED



Program:	Building Program	Sub-program:	Building
Project Name:	Britannia Japanese Duplex & First Nations Bunkhouse	Submission ID:	5994
Location:	Britannia Heritage Shipyard		
Cost:	\$3,815,000	OBI:	\$413,100
Funding Sources:	Capital Revolving:	\$3,815,000	
Scope:	<p>Japanese Duplex: repair and renovate the building to accommodate a Visitor's Centre with exhibition space, retail and support spaces. Capital request includes fire safety systems, exterior and interior finishes as well as the design, installation and interpretation of exhibits. Some substructure work required on the foundation. Some stabilization work was completed in 2004.</p> <p>First Nations Bunkhouse: repair and renovate the building to include program and exhibition space, including detailed working drawings and implementation of TI's for exhibit, programming, events and learning, support spaces.</p> <p>Allowance for open space planning and landscaping of arrival plaza at west entry to site.</p> <p>Please note: estimates are not based on final program and design, Class D estimate only.</p>		
			

Program:	Building Program	Sub-program:	Building
Project Name:	City Hall GHG Emissions Reduction through Heat Recovery	Submission ID:	6232
Location:	City Hall		
Cost:	\$150,000	OBI:	(\$4,000)
Funding Sources:	Capital Revolving: \$90,000 Enterprise: \$50,000 Carbon Tax: \$10,000		
Scope:	This capital project builds on the planned 2017 improvements at City Hall by installing a heat recovery loop and connecting the new IT server room AC unit and to the new City Hall tower boilers. This heat recovery connection will displace natural gas used at City Hall.		

Council set a target to reduce building related GHG emissions by 65% by 2020 from 2007 levels. In 2017 Council approved the replacement and upgrade of the City Hall tower and low-rise boilers and the IT server room air-conditioning unit. These 2017 approved upgrades will reduce GHG emissions by approximately 5% or 0.3% of the corporate GHG emissions 2020 target. Given additional investment and additions to the scope of the original projects, further efficiency and emissions reduction of between 15 - 20% (equal to an additional 1.0% of the overall corporate 2020 target) can be achieved at City Hall.

Expected energy cost savings for this project is approximately \$4,000 annually.






IT Server Room AC Unit



New heat recovery loop,  
energy waste reduction



High efficient condensing boiler

Program:	Building Program		Sub-program:	Building
Project Name:	Library and Cultural Centre Deep Energy Retrofits		Submission ID:	6122
Location:	Library Cultural Center			
Cost:	\$860,000		OBI:	(\$19,000)
Funding Sources:	Capital Revolving: \$585,000 Enterprise: \$200,000 Carbon Tax: \$45,000 Grant: \$30,000			
Scope:	<p>The capital project tasks listed below build on the planned 2017 improvements at LCC by adding items to renew and re-configure the facility's heating and cooling system. These additional measures will further reduce GHG emissions, help the City meet its GHG emissions reduction target, complete further infrastructure renewal at the facility, and allow for the future integration of a renewable energy if warranted;</p> <ul style="list-style-type: none"><li>- Replace all three mid-efficiency boilers with high efficient condensing boilers;</li><li>- Install a heat recovery chiller;</li><li>- Replace the domestic hot water boiler with a heat pump;</li></ul> <p>Council set a target to reduce building related GHG emissions by 65% by 2020 from 2007 levels. In 2017 Council approved equipment replacements at the Library Cultural Centre (LCC) of the main chiller and one of three boilers. These 2017 approved upgrades will reduce GHG emissions by approximately 10-15% or 1% of the corporate GHG emissions 2020 target. Given additional investment and additions to the scope of the original projects, further infrastructure renewal of near or at end of life equipment can be completed, which will provide overall greater efficiency and emissions reductions at LCC.</p> <p>This proposed additional scope will help to further reduce GHG emissions at the facility to 45-60%, equal to 4.0% of the overall corporate 2020 target (~150 tCo2e). Expected energy cost savings for this project is approximately \$19,000 annually. These planned deep retrofits to the facility would allow for a future connection to a renewable energy system to displace significantly more natural gas, e.g. a geo-exchange system. If the future integration of a renewable energy system is implemented, GHG emissions at LCC could be reduced by 85% as compared to 2007 levels, equal to 6.0% of the overall corporate 2020 target (230 tCo2e).</p>			
<div></div>				

# Equipment Program 2018 – Not Recommended


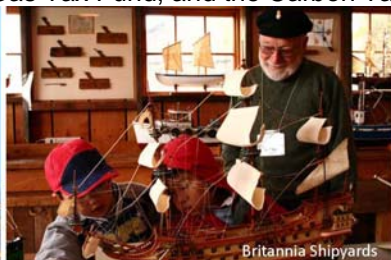


Due to funding constraints and higher priority projects, the following equipment projects are not recommended for funding.

## 2018 Not Recommended Equipment – Equipments Program

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NOT RECOMMENDED

Program:	Equipment Program	Sub-program:	Equipment
Project Name:	Energy Management Projects - Gas Equipment Replacement and Upgrade Phase 1	Submission ID:	6276
Location:	Various Locations		
Cost:	\$395,000	OBI:	\$ -
Funding Sources:	Enterprise: \$200,000 Carbon Tax: \$50,000 Gas Tax: \$95,000 Other: \$50,000		
Scope:	<p>Reduce GHG emissions and energy used at City infrastructure through the equipment renewal/energy conservation measures, at three facilities:</p> <p>1) Works Yard - \$310,000</p> <p>- Replace and upgrade aging equipment, and improve gas equipment controls</p> <p>2) East Richmond Community Hall - \$50,000</p> <p>- Replace and upgrade aging equipment</p> <p>3) Britannia Heritage Complex - \$2,000</p> <p>- Replace and upgrade heating controls</p> <p>4) Overall project contingency amount - \$33,000</p> <p>Council set a target to reduce building related GHG emissions by 65% by 2020 from 2007 levels. These planned measures are anticipated to reduce GHG emissions by approximately 170 tCO<sub>2</sub>e annually - equal to 4.0% of the corporate 2020 target, and are estimated to save \$15,000 annually in energy cost avoidance savings.</p> <p>This project mostly consists of replacing and upgrading heating equipment at the select facilities that is near its end of life. As compared to the costs of replacing this equipment with similar efficiency gas using models (\$280,000), the estimated incremental costs to replace this equipment with higher efficient and less natural gas using equipment is \$115,000, which provides a payback of approximately 7.5 years.</p> <p>The value of these emissions reductions to the City is at a minimum \$5,000 annually, using a cost of \$30/tonne of GHG emissions. This value is expected to rise over the coming years, through increases to the Provincial carbon tax.</p> <p>The project is requesting \$200,000 of funding from the Enterprise Fund with the remaining funding requested from, the Gas Tax Fund, and the Carbon Tax Fund.</p>		
<div><div><p>City Hall</p></div><div><p>Britannia Shipyards</p></div><div><p>BC CLIMATE ACTION COMMUNITY 2016</p></div><div><p>Public Works Yard</p></div></div>			




Program:	Equipment Program	Sub-program:	Equipment
Project Name:	Public Safety Mobile Command Vehicle	Submission ID:	6211

Location:	Various Locations		
Cost:	\$992,000	OBI:	\$ -
Funding Sources:	Capital Revolving: \$992,000		
Scope:	Public Safety Mobile Command Vehicle is required to replace the vehicle that is currently fulfilling this role for the City of Richmond.		

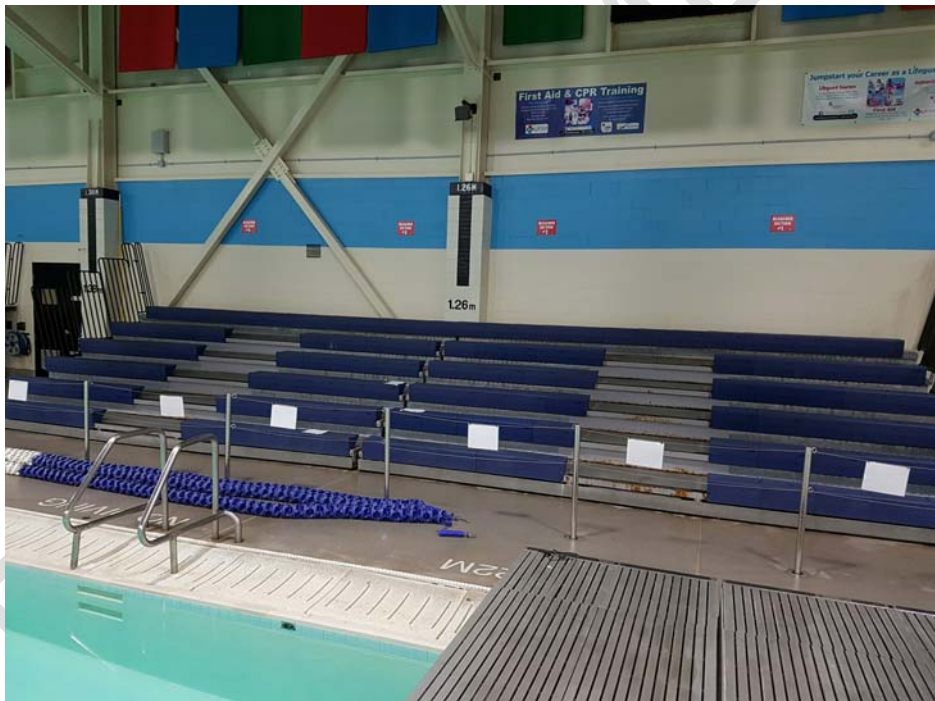
The current vehicle is a 1997 retrofitted camper van, now 20 years old, which is beyond the end of its current life cycle and rapidly deteriorating.

Replacing it with a new vehicle will permit a unified command at a scene or event. A new vehicle will provide reliability over a longer term, lower emission standards and more efficient community safety service.

The van has been used as a 'pop up' detachment, and at major events but is no longer functional as an integrated command vehicle.



Program:	Equipment Program	Sub-program:	Equipment
Project Name:	Watermania Competition & Entertainment Enhancement	Submission ID:	6226
Location:	Watermania		
Cost:	\$748,000	OBI:	\$ -
Funding Sources:	Gas Tax: \$748,000		
Scope:	<p>Opened in 1997, Watermania currently serves nearly 500,000 visitors annually at its location in the Riverport Entertainment Complex. In order to continue to serve Richmond residents and visitors, there is a need to invest in Watermania by enhancing and modernizing the equipment to make it more attractive for swimming competitions, as well as leisure swimming for families and youth. The current lease expires in 2027. New enhancements will continue to attract residents and visitors from across the Lower Mainland to this premier destination facility. Enhancements will include replacement of the score clock, starting blocks, and bleachers to better serve and increase the number of competitive events at Watermania. It will also include enhancements to the waterslides and five metre board in order to improve the overall customer experience which is immensely valued by the City of Richmond.</p>		



**CITY OF RICHMOND**  
**5 YEAR CAPITAL PLAN SUMMARY (2018 - 2022)**  
(in \$000s)

	2018	2019	2020	2021	2022
<b>Infrastructure Program</b>					
Roads	27,002	15,504	17,861	12,289	12,759
Drainage	13,996	16,351	12,835	12,510	13,434
Water	14,327	10,793	9,520	10,139	12,309
Sanitary Sewer	12,190	7,200	5,670	7,350	4,570
Minor Capital	4,130	4,480	4,480	5,791	4,480
<b>Total Infrastructure Program</b>	<b>\$71,645</b>	<b>\$54,328</b>	<b>\$50,366</b>	<b>\$48,079</b>	<b>\$47,552</b>
<b>Building Program</b>					
Building	29,245	15,547	19,065	2,199	21,231
Heritage	11,500	-	-	-	-
<b>Total Building Program</b>	<b>\$40,745</b>	<b>\$15,547</b>	<b>\$19,065</b>	<b>\$2,199</b>	<b>\$21,231</b>
<b>Parks Program</b>					
Parkland	4,000	4,000	4,000	3,400	1,100
Parks	7,455	27,320	3,650	3,400	3,400
<b>Total Parks Program</b>	<b>\$11,455</b>	<b>\$31,320</b>	<b>\$7,650</b>	<b>\$6,800</b>	<b>\$4,500</b>
<b>Public Art Program</b>	<b>\$348</b>	<b>\$742</b>	<b>\$600</b>	<b>\$100</b>	<b>\$100</b>
<b>Land Program</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$5,000</b>
<b>Affordable Housing</b>	<b>\$620</b>	<b>\$625</b>	<b>\$625</b>	<b>\$625</b>	<b>\$625</b>
<b>Equipment Program</b>					
Annual Fleet Replacement	3,423	1,498	1,415	1,735	2,547
Fire Dept. Vehicles and Equipment	1,239	2,431	182	1,466	1,183
Information Technology	2,730	2,125	365	455	460
Equipment	3,150	550	550	550	550
<b>Total Equipment Program</b>	<b>\$10,542</b>	<b>\$6,604</b>	<b>\$2,512</b>	<b>\$4,206</b>	<b>\$4,740</b>
<b>Child Care Program</b>	<b>\$220</b>	<b>\$60</b>	<b>\$60</b>	<b>\$60</b>	<b>\$60</b>
<b>Internal Transfers/Debt Payment</b>	<b>\$4,489</b>	<b>\$4,489</b>	<b>\$4,061</b>	<b>\$4,061</b>	<b>\$3,676</b>
<b>Contingent External Contributions</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$10,000</b>
<b>Total Capital Program</b>	<b>\$160,064</b>	<b>\$133,715</b>	<b>\$104,939</b>	<b>\$86,130</b>	<b>\$97,484</b>

**CITY OF RICHMOND**  
**5 YEAR CAPITAL PLAN BY FUNDING SOURCES (2018 - 2022)**  
(in \$000s)

	2018	2019	2020	2021	2022
<b>DCC Reserves</b>					
Drainage DCC	-	1,154	97	97	-
Park Development DCC	4,167	4,421	2,586	2,257	2,210
Park Land Acquisition DCC	5,964	5,964	5,964	5,400	3,237
Roads DCC	19,274	6,305	5,739	5,505	5,123
Sanitary DCC	588	1,223	103	1,436	150
Water DCC	1,645	708	498	900	1,710
<b>Total DCC</b>	<b>\$31,638</b>	<b>\$19,775</b>	<b>\$14,987</b>	<b>\$15,595</b>	<b>\$12,430</b>
<b>Statutory Reserves</b>					
Affordable Housing	620	625	625	625	625
Arts Culture Heritage	3,645	-	-	-	-
Capital Building and Infrastructure	28,351	1,000	-	1,311	-
Capital Reserve	19,924	52,162	39,262	17,061	31,470
Child Care	220	60	60	60	60
Drainage Improvement	16,753	16,213	14,538	14,213	15,234
Equipment Replacement	4,810	4,080	1,237	2,951	3,480
Neighbourhood Improvement	-	94	-	-	-
Public Art Program	348	464	100	100	100
Sanitary Sewer	10,530	6,697	6,367	6,634	5,140
Waterfront Improvement	-	1,000	-	-	-
Watermain Replacement	11,792	10,385	8,632	8,849	10,209
<b>Total Statutory Reserves</b>	<b>\$96,993</b>	<b>\$92,780</b>	<b>\$70,821</b>	<b>\$51,804</b>	<b>\$66,318</b>
<b>Rate Stabilization</b>					
Rate Stabilization	8,049	-	-	-	-
<b>Total Rate Stabilization</b>	<b>\$8,049</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Other Sources</b>					
Enterprise Fund	100	550	550	550	550
Grant and Developer Contribution	11,275	11,825	11,125	11,125	11,125
Other Sources	8,878	6,835	5,556	5,186	5,191
Sewer Levy	643	-	-	-	-
Solid Waste and Recycling	300	300	300	300	300
Water Levy	2,188	1,650	1,600	1,570	1,570
<b>Total Other Sources</b>	<b>\$23,384</b>	<b>\$21,160</b>	<b>\$19,131</b>	<b>\$18,731</b>	<b>\$18,736</b>
<b>Total Capital Program</b>	<b>\$160,064</b>	<b>\$133,715</b>	<b>\$104,939</b>	<b>\$86,130</b>	<b>\$97,484</b>

**City of Richmond**  
**5 Year Capital Plan by Program**  
**(in \$000s)**

	2018	2019	2020	2021	2022
<b>Infrastructure Program</b>					
<b>Roads</b>					
Accessible Pedestrian Signal Program	250	250	250	-	-
Active Transportation Improvement Program	1,000	1,000	1,000	1,000	1,000
Alderbridge Way Multi-Use Pathway, No. 4 Road to Shell Road	1,200	-	-	-	-
Annual Asphalt Re-Paving Program - MRN	1,549	1,549	1,549	1,549	1,549
Annual Asphalt Re-Paving Program - Non-MRN	2,982	2,982	2,982	2,982	2,982
Arterial Roadway Improvement Program	350	350	350	350	350
Bridge Rehabilitation Program	290	570	275	286	643
Cambie Road Improvement, River Road to No. 3 Road	1,500	-	-	-	-
City Centre Cycling Network Plan	150	-	-	-	-
City-wide Cycling Network Plan	-	150	-	-	-
Citywide Street Light Replacement and Sidewalk Repair Program	1,080	1,025	975	950	1,060
LED Street Light Replacement Plan (Phase 3 of 4)	-	460	-	-	-
LED Street Light Replacement Plan (Phase 4 of 4)	-	-	460	-	-
LED Street Name Sign Program	200	200	200	200	200
Leslie Road Improvement, River Parkway to approximately 150m to the east	1,200	-	-	-	-
Local Road Asphalt Re-Paving	-	-	4,850	-	-
Neighbourhood Walkway Program	500	500	500	500	500
No. 4 Road Reconstruction from Blundell Road to Granville Ave	1,786	-	-	-	-
River Parkway Road Extension - Gilbert Road to Cambie Road	10,500	-	-	-	-
Special Crosswalk Program	350	350	350	350	350
Traffic Calming Program	100	100	100	100	100
Traffic Signal Pre-emption Program	100	100	100	100	100
Traffic Signal Program	800	800	800	800	800
Traffic Video and Communication Program	400	400	400	400	400
Transit-Related Amenity Improvement Program	100	100	100	100	100
Transit-Related Roadway Improvement Program	350	350	350	350	350
Transportation Planning, Functional and Preliminary Design	265	268	270	272	275
Undergrounding - City Centre	-	-	-	-	2,000
Undergrounding - Ferndale Rd	-	-	-	2,000	-
Undergrounding - Garden City Rd	-	-	2,000	-	-
Undergrounding - Hydro/Telus No. 3 Rd	-	2,000	-	-	-
Undergrounding - No.3 Rd Granville to Blundell	-	2,000	-	-	-
<b>Total Roads</b>	<b>\$27,002</b>	<b>\$15,504</b>	<b>\$17,861</b>	<b>\$12,289</b>	<b>\$12,759</b>
<b>Drainage</b>					
Aquatic Invasive Species Management	-	175	-	-	175
Box Culvert Repair	1,500	1,000	-	-	-



	2018	2019	2020	2021	2022
Burkeville Drainage Improvements	2,000	1,000	1,000	1,000	1,000
Canal Stabilization	-	1,630	-	-	-
Development Coordinated Works - Drainage	250	250	250	250	250
Dike Upgrades	5,850	3,300	3,300	3,300	3,300
Drainage Pump Station Generator Upgrade	130	130	130	130	-
Drainage Pump Station Rehabilitation	300	300	300	300	300
East Richmond Drainage & Irrigation Upgrades	466	480	300	1,379	2,055
Ewen Road Pump Station Upgrade	-	-	-	-	3,000
Headwall Replacement and Ditch Infills	500	-	-	-	-
Heather Street Water and Drainage Upgrades and Neighbourhood Improvements	-	1,364	-	-	-
Horseshoe Slough Dredging	1,818	-	-	-	-
King Road Area Drainage Upgrades	-	-	-	-	1,600
Laneway Drainage Upgrade - 10,000 Blk No. 4 Road	-	-	-	-	374
Laneway Drainage Upgrade - Afton Drive (North)	-	1,372	-	-	-
Laneway Drainage Upgrade - Aintree Crescent (East)	-	-	-	-	578
Laneway Drainage Upgrade - Ashwood Drive/Francis Road	-	-	-	-	803
Laneway Drainage Upgrade - Bates Road - East Lane	-	-	-	740	-
Laneway Drainage Upgrade - Bates Road - South Lane	-	-	-	597	-
Laneway Drainage Upgrade - Broadmoor Boulevard (North)	1,183	-	-	-	-
Laneway Drainage Upgrade - Greenlees East Lane	-	-	313	-	-
Laneway Drainage Upgrade - Herbert East Lane	-	-	542	-	-
Laneway Drainage Upgrade - Reeder Road	-	-	-	433	-
Laneway Drainage Upgrade - Second Ave (East)	-	-	-	182	-
McCallan Rd North Pump Station Upgrade	-	-	4,200	-	-
No. 6 Road South Pump Station Upgrade	-	-	-	4,200	-
Steveston Hwy & Gilbert Rd Pump Station Upgrade	-	2,000	-	-	-
Steveston Hwy & No. 3 Rd Pump Station Upgrade	-	-	2,000	-	-
Williams Road 3000 Block Drainage Pipe Upgrade	-	3,350	-	-	-
Williams Road 6000 Block Drainage Pipe Upgrade	-	-	500	-	-
<b>Total Drainage Water</b>	<b>\$13,996</b>	<b>\$16,351</b>	<b>\$12,835</b>	<b>\$12,510</b>	<b>\$13,434</b>
Development Coordinated Works - Water	250	250	250	250	250
Pressure Reducing Valve Upgrades	-	-	-	-	1,000
Water Metering Program	6,506	4,379	2,720	1,920	1,920
Watermain Replacement Program	6,276	5,664	6,050	7,469	8,639
Watermain Replacement River Parkway	1,045	-	-	-	-
Watermain Tie-in and Restoration	250	500	500	500	500
<b>Total Water Sanitary Sewer</b>	<b>\$14,327</b>	<b>\$10,793</b>	<b>\$9,520</b>	<b>\$10,139</b>	<b>\$12,309</b>
Aquila Road Sanitary Sewer Replacement	-	-	-	-	160
Bennett West Pump Station Replacement	-	-	1,700	-	-
Development Coordinated Works - Sanitary	-	250	250	250	250

	2018	2019	2020	2021	2022
Eckersley B Sanitary Pump Station	2,650	-	-	-	-
FRP Gravity Sewer Replacement	-	-	-	-	1,800
Gravity Sanitary Sewer Upgrade on River Rd / Beckwith Rd / Charles St	-	-	-	2,500	-
Gravity Sewer Assessment Program	450	250	250	250	250
Gravity Sewer Replacement - South of Richmond Street between No. 1 Road and 2nd Avenue	825	-	-	-	-
Leslie Road Forcemain Replacement	-	-	-	-	560
Leslie Sanitary Pump Station	-	1,550	-	-	-
Manhole and Inspection Chamber Replacement Program	250	250	250	250	250
Pilot Sewer Grease and Heat Recovery Facility	3,500	-	-	-	-
Pump Station Resiliency - Pilot Project	390	-	-	-	-
Sanitary Facility Land Acquisition for Grease Management	-	2,500	-	-	-
Sanitary Forcemain Valve Installations	100	100	100	100	100
Sanitary Pump Station and Forcemain Assessment, Upgrade and Grease Management	600	600	600	600	600
Sanitary Pump Station Rehabilitation	-	300	300	300	300
Sanitary Sewer Tie-in and Restoration	500	150	150	150	150
SCADA System Improvements	150	150	150	150	150
Sidaway Yard Trailer and Scale Installation	936	-	-	-	-
Steveston and Broadmoor Forcemain Replacements	-	1,100	-	-	-
Steveston Gravity Sewer Replacement and Rehabilitation	1,839	-	-	-	-
Van Horne Pump Station Upgrade	-	-	-	2,800	-
Williams Road Sanitary Forcemain Replacement	-	-	1,920	-	-
<b>Total Sanitary Sewer</b>	<b>\$12,190</b>	<b>\$7,200</b>	<b>\$5,670</b>	<b>\$7,350</b>	<b>\$4,570</b>
<b>Minor Capital</b>					
City Centre Community Centre (C4) North	-	-	-	1,311	-
Public Works Infrastructure Advanced Design	2,530	2,430	2,430	2,430	2,430
Public Works Minor Capital - Drainage	300	300	300	300	300
Public Works Minor Capital - Roads	300	250	250	250	250
Public Works Minor Capital - Sanitary	450	450	450	450	450
Public Works Minor Capital - Sanitation & Recycling	300	300	300	300	300
Public Works Minor Capital - Traffic	250	250	250	250	250
Public Works Minor Capital - Water	-	500	500	500	500
<b>Total Minor Capital</b>	<b>\$4,130</b>	<b>\$4,480</b>	<b>\$4,480</b>	<b>\$5,791</b>	<b>\$4,480</b>
<b>Total Infrastructure Program</b>	<b>\$71,645</b>	<b>\$54,328</b>	<b>\$50,366</b>	<b>\$48,079</b>	<b>\$47,552</b>
<b>Building Program</b>					
<b>Building</b>					
Advancement of Partial Funding for the Canada Line Capstan Station	3,500	-	-	-	-
Animal Shelter Replacement	8,000	-	-	-	-
Britannia Shipyards Complex Rehabilitation	-	-	2,200	-	-
City Hall - Electrical and Interior Renovations	-	-	11,100	-	-

	2018	2019	2020	2021	2022
City Hall Annex Renovation	5,700	-	-	-	-
East Richmond Library System Renewals	-	115	-	-	186
Fire Hall 4 Fuel Tank	-	125	-	-	-
Fire Hall 7 Roofing	-	234	-	-	-
Fire Hall 7 System Renewals	-	-	-	-	125
Gateway Theatre HVAC Renewals	-	-	-	1,300	-
Gateway Theatre Infrastructure Replacements - First Stage	3,337	-	-	-	-
Gateway Theatre Lighting Infrastructure and Systems Renewal	673	-	-	-	-
Kwantlen Courthouse - System Renewals	-	-	-	-	2,500
Lang Centre System Renewals	-	-	-	-	120
Lawn Bowling Club Replacement	4,000	-	-	-	-
Library Cultural Centre - System Renewals	-	-	-	-	1,600
Minoru Aquatics Demolition	-	3,200	-	-	-
Minoru Arena Stadium Rink System Renewals	-	1,988	-	-	-
Minoru Place Activity Centre Reuse - Advanced Planning & Design	-	350	-	-	-
Minoru Place Activity Centre Reuse - Implementation	-	3,260	-	-	-
Richmond Ice Centre - System Renewals	-	-	-	-	13,700
Richmond Ice Centre Envelope and Interior Upgrades	-	-	5,765	-	-
South Arm CC - System Renewals	-	-	-	-	800
Thompson Community Centre - System Renewals	-	-	-	-	1,100
Thompson Community Centre Heat Pump Replacements	520	-	-	-	-
Watermania Ageing Mechanical and Building Envelope Infrastructure Replacement	1,000	-	-	-	1,100
West Richmond CC - System Renewals	-	-	-	175	-
West Richmond Community Centre Interior Finishes	-	1,567	-	-	-
Works Yard Administration Annex Interior Renewals	-	-	-	724	-
Works Yard Garage Workshop System Renewals	-	4,708	-	-	-
Works Yard Ageing Mechanical and Building Envelope Infrastructure Replacement	2,515	-	-	-	-
<b>Total Building</b>	<b>\$29,245</b>	<b>\$15,547</b>	<b>\$19,065</b>	<b>\$2,199</b>	<b>\$21,231</b>
<b>Heritage Program</b>					
<b>Heritage</b>					
Phoenix Net Loft Building Stabilization	11,500	-	-	-	-
<b>Total Heritage</b>	<b>\$11,500</b>	<b>\$-</b>	<b>\$-</b>	<b>\$-</b>	<b>\$-</b>
<b>Total Building Program</b>	<b>\$40,745</b>	<b>\$15,547</b>	<b>\$19,065</b>	<b>\$2,199</b>	<b>\$21,231</b>
<b>Parks Program</b>					
<b>Parkland</b>					
Parkland Acquisition	4,000	4,000	4,000	3,400	1,100
<b>Total Parkland</b>	<b>\$4,000</b>	<b>\$4,000</b>	<b>\$4,000</b>	<b>\$3,400</b>	<b>\$1,100</b>
<b>Parks</b>					
Aberdeen Park Playground and Garden Construction	1,250	750	-	-	-

	2018	2019	2020	2021	2022
City Tree Planting Program	200	200	200	200	200
Garden City Community Park Dog Park	150	-	-	-	-
Garden City Lands Phase 3 - Park Construction and Community Hub Design	1,625	-	-	-	-
Garden City Lands Phase 4	-	12,700	-	-	-
Garden City Lands Phase 5	-	-	400	-	-
Garden City Lands Phase 6	-	-	-	500	-
Garden City Lands Phase 7	-	-	-	-	500
Garry Point Waterfront Development	-	2,500	-	-	-
Hollybridge Pier Phase 2	-	2,000	-	-	-
Hugh Boyd Artificial Turf Sports Fields	-	1,800	-	-	-
Lang Park Redevelopment	-	-	150	-	-
London/Steveston Phase 2	480	-	-	-	-
London/Steveston Phase 3: Off-Leash Dog Park	-	150	-	-	-
Lulu Island Park	-	-	500	500	500
Minoru Park Cultural Precinct Site Improvements	800	-	-	-	-
Minoru Park Phase 2 Construction and Phase 3 Design	-	-	-	-	650
Minoru Park Renewal Major Trail Upgrades	-	-	-	500	-
Minoru Park Renewal Phase 1	250	-	-	-	-
Minoru Park Renewal Phase 1 Construction	-	1,750	-	-	-
Parks Advance Planning & Design	600	600	600	400	400
Parks Ageing Infrastructure Replacement Program	-	1,920	300	350	350
Parks General Development	500	400	300	500	300
Parks Identity Signage Program	200	-	-	-	-
Parks Strategic Ageing Infrastructure Replacement Program	900	-	-	-	-
Playground Replacement and Safety Upgrade Program	500	450	400	450	500
Steveston Community Park Playground Renewal	-	600	-	-	-
Tait Central Park	-	-	800	-	-
Waterfront Improvement Program - Dredging & Repairs	-	1,000	-	-	-
West Cambie Park	-	500	-	-	-
<b>Total Parks</b>	<b>\$7,455</b>	<b>\$27,320</b>	<b>\$3,650</b>	<b>\$3,400</b>	<b>\$3,400</b>
<b>Total Parks Program</b>	<b>\$11,455</b>	<b>\$31,320</b>	<b>\$7,650</b>	<b>\$6,800</b>	<b>\$4,500</b>
<b>Public Art Program</b>					
<b>Public Art</b>					
Oval Precinct Public Art Program	-	278	500	-	-
Public Art Program	348	464	100	100	100
<b>Total Public Art Program</b>	<b>\$348</b>	<b>\$742</b>	<b>\$600</b>	<b>\$100</b>	<b>\$100</b>
<b>Land Program</b>					
<b>Land</b>					
Strategic Land Acquisition	10,000	10,000	10,000	10,000	5,000
<b>Total Land Program</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$5,000</b>

	2018	2019	2020	2021	2022
<b>Affordable Housing</b>					
Affordable Housing 2018 Operating Initiatives	220	-	-	-	-
Affordable Housing Projects - City Wide	400	400	400	400	400
Affordable Housing Projects - West Cambie	-	225	225	225	225
<b>Total Affordable Housing</b>	<b>\$620</b>	<b>\$625</b>	<b>\$625</b>	<b>\$625</b>	<b>\$625</b>
<b>Equipment Program</b>					
<b>Annual Fleet Replacement</b>					
Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	3,423	1,498	1,415	1,735	2,547
<b>Total Annual Fleet Replacement</b>	<b>\$3,423</b>	<b>\$1,498</b>	<b>\$1,415</b>	<b>\$1,735</b>	<b>\$2,547</b>
<b>Fire Dept. Vehicles and Equipment</b>					
Fire Equipment Replacement - Fire Hose	-	27	28	29	30
Fire Equipment Replacement from Reserve - Self Contained Breathing Apparatus Equipment	-	-	-	350	-
Richmond Fire Emergency Equipment Replacement	127	-	-	-	-
Fire Vehicle Replacement Reserve Purchases	1,112	2,404	154	1,087	1,153
<b>Total Fire Dept. Vehicles and Equipment</b>	<b>\$1,239</b>	<b>\$2,431</b>	<b>\$182</b>	<b>\$1,466</b>	<b>\$1,183</b>
<b>Information Technology</b>					
Annual Hardware Refresh	427	468	365	455	460
Digital Strategy Implementation	1,024	1,176	-	-	-
ePlans for Residential and Commercial Building	141	-	-	-	-
Network Infrastructure Core Refresh	362	481	-	-	-
Property Management System (Amanda) Upgrade	375	-	-	-	-
Telephone System Equipment Replacement	402	-	-	-	-
<b>Total Information Technology</b>	<b>\$2,731</b>	<b>\$2,125</b>	<b>\$365</b>	<b>\$455</b>	<b>\$460</b>
<b>Equipment</b>					
Closed Circuit Television for Signalized Intersections	2,185				
Electrical Power Capacity Design for Shore Power & Electrical Vehicle Charging	425	-	-	-	-
Energy Management Projects	-	550	550	550	550
South Arm Boiler Replacement and Domestic Water Repiping	540	-	-	-	-
<b>Total Equipment</b>	<b>\$3,150</b>	<b>\$550</b>	<b>\$550</b>	<b>\$550</b>	<b>\$550</b>
<b>Total Equipment Program</b>	<b>\$10,542</b>	<b>\$6,604</b>	<b>\$2,512</b>	<b>\$4,206</b>	<b>\$4,740</b>
<b>Child Care Program</b>					
<b>Child Care</b>					
Child Care - Research, Studies and City Personnel/Consultant Expenses	60	-	-	-	-
Child Care Projects - City Wide (Capital Grants)	50	50	50	50	50
Child Care Projects - City Wide (Projects)	100	-	-	-	-
Child Care Projects - City Wide Non-Capital Grants	10	10	10	10	10
<b>Total Child Care Program</b>	<b>\$220</b>	<b>\$60</b>	<b>\$60</b>	<b>\$60</b>	<b>\$60</b>



	2018	2019	2020	2021	2022
<b>Internal Transfers/Debt Payment</b>					
<b>Internal Transfers/Debt Payment</b>					
7080 River Road Repayment	2,341	2,341	2,341	2,341	2,341
Lansdowne Road Extension	77	77	-	-	-
Nelson Road Interchange Repayment	385	385	385	385	-
River Road/North Loop Repayment	1,685	1,685	1,335	1,335	1,335
<b>Total Internal Transfers/Debt Payment</b>	<b>\$4,488</b>	<b>\$4,489</b>	<b>\$4,061</b>	<b>\$4,061</b>	<b>\$3,676</b>
<b>Contingent External Contribution</b>					
<b>Contingent External Contribution</b>					
Contingent External Contribution	10,000	10,000	10,000	10,000	10,000
<b>Total Contingent External Contribution</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$10,000</b>
<b>Grand Total</b>	<b>\$160,064</b>	<b>\$133,715</b>	<b>\$104,939</b>	<b>\$86,130</b>	<b>\$97,484</b>

The following is an overview of the major Capital programs proposed for the years 2019 to 2022.

## INFRASTRUCTURE PROGRAM

- **Leslie Sanitary Pump Station (2019: \$1,550,000)**

This project involves the construction of a sanitary pump station, including wet well, pumps, electrical kiosk, generator set, 100 meters of 350mm forcemain and 65 meters of 200mm to 400mm gravity main.

The purpose of this project is to replace the existing Leslie sanitary pump station in advance of the adjacent site redevelopment. The existing pump station is approaching the end of its service life, and replacing it in advance of development will be more cost-effective for the City. In addition, engineering and construction efficiencies will be achieved, and public disruptions will be minimized.

## BUILDING PROGRAM

- **West Richmond Community Centre Interior Finishes (2019: \$1,566,833)**

Multiple building systems have reached the end of their BOMA life expectancy and will be replaced with modern energy efficient systems (where possible). These system renewals will also include associated miscellaneous items that will service to prolong the life of the building and ensure the health and safety of its users/inhabitants.

System renewals included replacement of acoustic ceiling tile and grid, drywall, fire protection (sprinklers), lighting and electrical distribution.

## PARKS PROGRAM

- **Garden City Lands Phase 4 to 7 (2019 - 2022: \$14,100,000)**

**Phase 4** of the GCL project will focus on the construction of the Community Hub and Farm Centre, associated site and landscape improvements, and the further development of park wide infrastructure. The previous phases were focussed on the elements that would provide public access, enable farming, and provide recreational opportunities to the community. This phase is required to more fully achieve the vision of the Council approved plan to add more support facilities for farming (e.g., a barn), public programs (e.g., an educational and interpretive centre), and a greater diversity of activities.

**Phase 5** of the construction of the GCL is the continuation of the construction of community facilities including amenities such as boardwalks thru the bog conservation area, directional and interpretive signage and community gardens. The previous four phases provide the foundational work required to allow public access, enable farming, and increase recreational access. This phase is required to more fully achieve the vision of the Council approved plan and will add a greater diversity of activities and experiences to more fully serve Richmond residents and visitors.

**Phase 6** of the development of the GCL is the continuation of the construction of community facilities including amenities such as a site observation tower, interpretive signage and public art. The previous phases provide the foundational work required to allow public access, enable farming, and enhance recreational opportunities. This phase is required to more fully achieve the vision of the Council approved plan and will add a greater diversity of activities and experiences to more fully serve Richmond residents and visitors.

**Phase 7** of the construction of the GCL is the continuation of the construction of site infrastructure and improvements including interpretive and directional signage, planting and public art. The previous phases provide the foundational work required to allow public access, enable farming, increase recreational access and enhance the visitor's experience of the site. This phase is required to more fully achieve the vision of the Council approved plan and will add a greater diversity of activities and experiences to more fully serve Richmond residents and visitors.

**LAND PROGRAM**

- **Strategic Land Acquisition (2019 - 2022: \$35,000,000)**

Funds for land acquisition to meet the Council Approved Strategic Real Estate Investment Plan. Availability of funds in the capital budget provides the ability to act quickly when necessary and avoid costs incurred to repay the Revolving Fund.

**EQUIPMENT PROGRAM**

- **Digital Strategy Implementation (2019: \$1,175,966)**

Continued implementation of Digital Strategy initiatives to modernize Richmond's systems and services to be at the leading edge of technology adoption and use, the following initiatives would be included by building upon the 2018 Digital Strategy:

- Data Analytics and Reporting - Phase II
- Enhancements to Website