



City of Richmond

Report to Committee

To: Finance Committee

Date: November 30, 2015

From: Jerry Chong, CPA, CA
Director, Finance

File: 03-0970-01/2015-Vol
01

Re: 2016 Capital Budget

Staff Recommendation

That the 2016 Capital Budget totalling \$104.1M be approved and staff authorized to commence the 2016 Capital Projects.

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

Att. 7

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER	
REVIEWED BY 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 2016 Capital Budget of \$104.1M 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 2016 initiatives being recommended to Council.

Infrastructure – \$43.8M:



The City's Infrastructure Program funds assets that include: dykes, roads, drainage and sanitary pump stations, drainage, water, and sanitary mains.

The 2016 program includes No. 2 Road Widening from Steveston Highway to Dyke Road (\$7.3M), No. 7 Road South Drainage Pump Station Upgrade (\$4.5M), Spires Area Water, Sanitary and Drainage Upgrade (\$4.5M), City Centre Watermain Replacement (\$4.0M), residential water metering, and pavement upgrades.

Land – \$21.2M:



The 2016 land acquisition program relates to the 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.

Parks – \$15.1M:



Richmond is renowned for its high quality parks and recreation facilities, with over 120 parks totaling approximately 1,700 acres. In addition to the City's parks, Richmond also has 50 kilometers of recreational trails.

The 2016 program includes strategic Parkland Acquisition (\$8.0M) to satisfy the OCP objective of maintaining the parks provision standard of 7.66 acres/1000 population, Garden City Lands Phase 2 (\$3.1M), Cambie Avanti Park (\$1.2M), West Cambie Park (\$0.7M) and Richmond High Artificial Turf Field Replacement (\$0.6M).

Equipment – \$8.1M:



The 2016 equipment program includes continued implementation of the digital strategy including Peoplesoft HR and Payroll System Upgrade & Workforce Management, Customer Response Management System (CRM) and Business Process Management Suite (BPMS). It also includes fleet and equipment purchases, as well as fire vehicle replacement purchases.

Building – \$2.1M:



The building program funds major building construction and renovation projects as well as minor facility upgrades.

The 2016 building program activities is scaled down as the City is still in the midst of the \$124.1M Phase 1 of the Major Facilities Replacement Plan approved by Council in 2014 to build a new Minoru Complex, No. 1 Brighthouse Fire Hall and the recently-opened City Centre Community Centre.

The City is in the process of planning for Phase 2 of the Major Facilities Replacement Plan. Significant investment is expected and the Capital Plan will be amended once finalized.

Staff Report

Origin

Subsection 165(1) of the Community Charter requires the City to adopt a Five-Year Financial Plan (5YFP) Bylaw on or before May 15th of each year. The 5YFP Bylaw includes operating, utility and capital budgets for the current year (2016) and provides estimates for the remaining years of the five-year program. The 5YFP (2016-2020) 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 2016 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 \$1.9 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 2016 Capital Budget and seeks Council review and approval on 2016 recommended projects and the operating expenditures associated with each respective project. The proposed Capital Budget for 2016 is \$104.1 million.

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 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.

2016 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 source. In addition, the submission is self-ranked using established criteria summarized in Appendix 1. The process behind the 2016-2020 Capital Budget is illustrated in Appendix 2.

The Capital Review Committee which is comprised of Directors/Senior Managers from each City division reviewed and ranked each project submission. To ensure consistent application of the established ranking criteria, the Capital Review Committee 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 and the final recommendation is consolidated to form the 2016 Capital Budget presented to Finance Committee for review and approval.

Finance Committee Input

At the Committee's discretion, any Capital project recommended for funding may be removed from the recommended list. Appendix 3 provides a list of the recommended projects. In addition, any Capital project that is not recommended for funding may be reconsidered. Appendix 4 provides a list of those projects not recommended for funding.

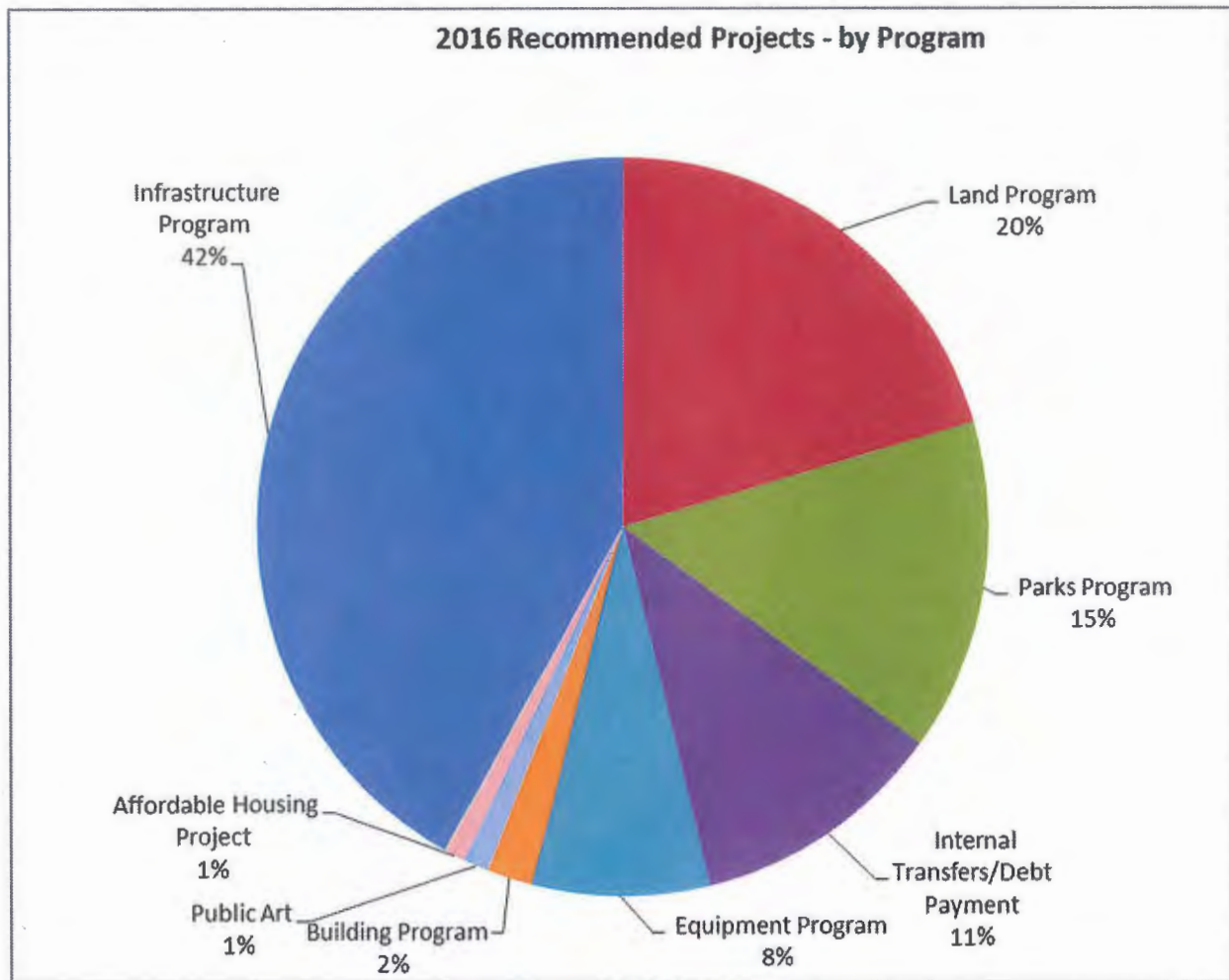
For information purposes, Appendix 5 summarizes the projects recommended for funding from the Revolving Fund.

For 2016, the capital budget includes \$21.2M for Strategic Land Acquisition, which approximates the average of \$19.6M for the years 2012 to 2015. This is to position the City for acquisitions to meet the Council Approved Strategic Real Estate Investment Plan.

The 2016 Building Program has been scaled down as the City is implementing Phase 1 of the Major Facilities Replacement Plan that includes building a new Minoru Complex (Aquatics and Older Adult Centre) and No. 1 Brighthouse Fire Hall, as well as the recently-opened City Centre Community Centre. The City is in the process of planning for Phase 2 of the Major Facilities Replacement Plan. Significant investment is expected and the Capital Plan will be amended once finalized.

The 2016 recommended capital projects by program are summarized in Figure 1.

Figure 1 – 2016 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 2016 Capital Costs

The new Capital costs total \$61.8M (59%) of the 2016 Capital Budget including highlights such as:

- No. 2 Road Widening, Steveston Highway to Dyke Road – \$7.3M (page 31)
- Strategic Land Acquisition – Acquisitions require Council approval – \$21.2M (page 98)
- Parkland Acquisitions – Acquisitions require Council approval – \$8.0M (page 94)
- Garden City Lands Phase 2 – \$3.1M (page 83), Cambie Avanti Park - \$1.2M (page 82) and West Cambie Park – \$0.7M (page 88)
- Water – Residential Water Metering – \$1.9M (page 53)
- Equipment Program – PeopleSoft HR and Payroll System Upgrade & Workforce Management – \$1.8M (page 118) and Customer Relationship Management System – \$0.9M (page 115)
- Infrastructure Advance Design – \$1.3M (page 72)
- Roads – Donald Road Local Area Service Program – \$1.0M (page 25)
- Public Art Program – \$1.0M (page 96)

Replacement 2016 Capital Costs

The Replacement costs total \$30.6M (30%) of the 2016 Capital Budget, which includes:

- Drainage replacement – No. 7 Road South Drainage Pump Station Upgrade – \$4.5M (page 50) and Dike Upgrades \$0.8M (page 44)
- Water Main replacement – Spires Area Water, Sanitary and Drainage Upgrade – \$4.5M (page 54) City Centre
- Lulu Island West Area – \$4.0M (page 56)
- Sanitary Sewer replacement – City Centre Sanitary Sewer Rehabilitation and Granville Avenue Infrastructure Upgrade – \$2.1M (page 58 and 60)
- Annual repaving program – \$3.5M (page 22-23)
- Equipment Program – Annual Fleet Replacement and Fire Vehicle Replacement Reserve Purchases – \$3.2M (page 105 and 108)
- Building Program – Garratt Wellness Centre – \$0.5M (page 79)
- Parks Program – Richmond High Artificial Turf Replacement - \$0.6M (page 87)

Internal Transfers and Debt Repayment

Internal Transfer and Debt Repayment total \$11.7M (11%) of the 2016 Capital Budget includes:

- Transfer of funding from Revolving Fund to Watermain Replacement – \$6.0M (page 128)
- General Parkland Acquisition Repayment – \$2.0M (page 124)
- River Road/North Loop (2005) Repayment – \$1.7M (page 126)
- West Cambie Parkland Acquisition Repayment – \$1.6M (page 129)

The details of each recommended project is attached in Appendix 6.

2016 Capital Budget Funding Sources

The 2016 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.
- Surplus – These refer to appropriated surplus (provisions).

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.

The funding sources of the 2016 recommended projects are summarized in Table 1.

Table 1 – 2016 Funding Sources

Funding Sources	Amount
Reserves	\$61.6
Surplus	11.5
<i>Subtotal - Internal</i>	<i>\$73.1</i>
DCCs	26.9
External Sources	4.1
<i>Subtotal - External</i>	<i>\$31.0</i>
Total 2016 Funding	\$104.1

Approximately \$62 million of this year’s capital plan is funded by the Reserves and \$31 million through external sources and DCCs, which are contributed by developers, significantly reducing the potential impact of these projects upon taxpayers.

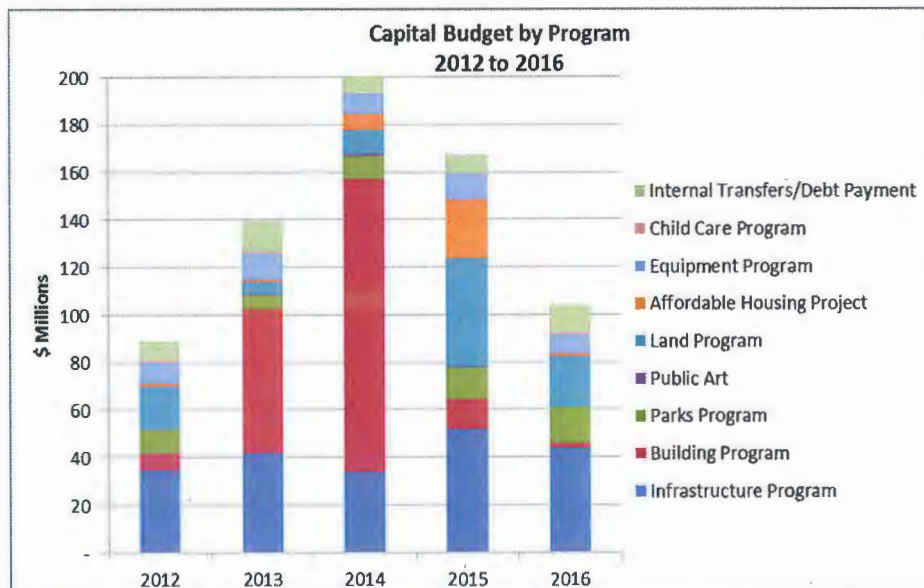
Appendix 3 includes a legend of the funding sources for each project. Funding details of each individual submission are included in Appendix 6.

Recommended 2016 versus Historical (2012-2015) 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 2016 recommended capital plan. For the years 2012-2015, Capital Budgets as amended average \$119.0 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 \$50M was financed through Municipal Finance Authority (MFA). This included funding for the Minoru Complex, new No.1 Brighthouse Fire Hall and City Centre Community Centre.

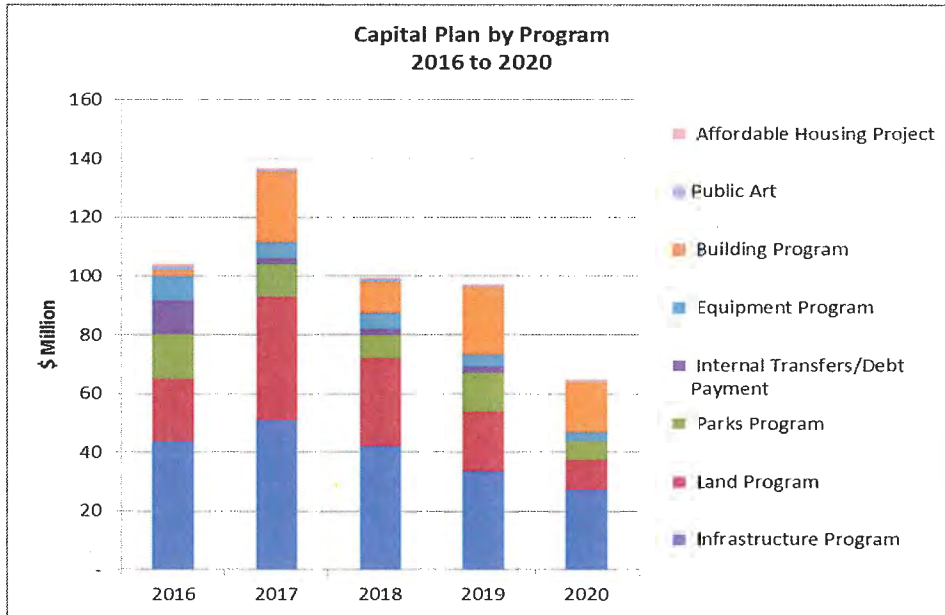
Figure 2 – Capital Budget by Program 2016 vs Historical



Draft 2016-2020 Capital Budget

Figure 3 shows the estimates for the remaining years of the 5 Year Capital Plan, which proposes to continue to invest an average of \$101M each year in the City’s assets. The estimates do not include the next phase of the Major Facilities Replacement Plan.

Figure 3 – Draft 5 Year Capital Plan 2016 to 2020



The year 2017 proposed capital budget includes Strategic Land Acquisition of \$42M.

Details of the 2017-2020 Capital Budgets will be presented as part of the 2016-2020 5YFP Report.

2016 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 2016 recommended projects is \$545K. \$138K of the OBI is associated with water and sewer utility projects and if the respective projects are approved, these will be incorporated into the 2017 utility budget. The remaining \$407K 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 2016 Capital Program, the OBI is proposed to be phased in over two years.

Table 2 presents a summary of the recommended Capital Budget and associated OBI by program.

Table 2: Recommended 2016 Funding and OBI by Program (in millions)

Program (in millions)	Amount	OBI
Infrastructure Program	\$43.8	\$0.36
Land Program	21.2	0.00
Parks Program	15.1	0.11
Internal Transfer/Debt Repayment	11.7	0.00
Equipment Program	8.1	0.07
Building Program	2.1	0.00
Public Art Program	1.1	0.01
Affordable Housing Project	0.9	0.00
Child Care Program	0.1	0.00
Total 2016 Funding & OBI	\$104.1	\$0.55

Financial Impact

The 2016 Capital Budget with a total value of \$104.1 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 \$545K and once approved will be incorporated into the 2016-2020 5YFP.

Conclusion

The recommended Capital budget for 2016 is \$104.1 million. The Capital Review Committee worked closely with SMT and the CAO to represent the interests of all stakeholders to ensure that the 2016 capital program addresses City priorities and meets the needs of the community while effectively utilizing available funding.



Melissa Shiau, CPA, CA
Manager, Financial Planning and Analysis
(604-276-4231)

MS:jgt

- Appendix 1: Capital Ranking Criteria
- Appendix 2: Capital Budget Process
- Appendix 3: 2016 Summary of Recommended Projects
- Appendix 4: 2016 Summary of Unfunded Projects
- Appendix 5: 2016 Summary of Projects Funded by the Revolving Fund
- Appendix 6: 2016 Details of Recommended Projects by Program
- Appendix 7: 2016 Details of Unfunded Projects by Program

Capital Ranking Criteria



Capital Budget Process



2016 Summary of Capital Projects - RECOMMENDED

Project Name	Source	Total Investment	Total OBI	Ref
INFRASTRUCTURE PROGRAMS				
Roads				
Accessible Pedestrian Signal Program	D/R	250,000	17,710	20
Active Transportation Improvement Program	D/R	320,000	9,592	21
Annual Asphalt Re-Paving Program - MRN	E	914,000	-	22
Annual Asphalt Re-Paving Program - Non-MRN	A	2,610,000	-	23
Arterial Roadway Improvement Program	D/R	300,000	16,955	24
Donald Road - Local Area Service Program	R	1,011,000	9,183	25
Dyke Road Fraserwood Road Widening and Trail Connection	D/R	1,000,000	-	26
Functional and Preliminary Design (Transportation)	D/R	25,000	-	27
Granville Avenue Lighting Upgrade	R	140,000	-	28
LED Street Light Replacement Plan	R	375,000	-	29
Neighbourhood Walkway Program	D/R	250,000	12,287	30
No. 2 Road Widening, Steveston Highway to Dyke Road	D/E/R	7,300,000	34,321	31
Root Damaged Surfaces	R	460,000	-	32
Shell Road Walkway	R	621,000	5,876	33
Sidaway Road Street Lighting	R	250,000	17,625	34
Special Crosswalk Program	D/R	350,000	17,680	35
Street Light Pole Replacement - Seafair & Richmond Gardens - Phase 2	R	120,000	-	36
Traffic Calming Program	D/R	100,000	10,882	37
Traffic Signal Program	D/R	600,000	25,480	38
Transit-Related Amenity Improvement Program	E/D/R	250,000	6,917	39
Transit-Related Roadway Improvement Program	E/D/R	200,000	6,807	40
Total Roads		\$17,446,000	\$191,315	
Drainage				
Aquatic Invasive Species Management	R	175,000	-	42
Development Coordinated Works in Capital	R	200,000	-	43
Dike Upgrades	R	750,000	-	44
Drainage System and Irrigation Upgrades - South Sidaway Area Phase 2	R	450,000	1,250	45
Gilley and Westminster Hwy Culvert Replacement	R	1,250,000	1,570	46
Laneway Drainage - Dennis Crescent (West)	R	245,000	3,344	47
Laneway Drainage - Swinton Cr (East)	R	240,000	3,298	48
No. 4 Road Box Culvert Section Replacement	R	630,000	-	49
No. 7 Road South Drainage Pump Station Upgrade	R	4,500,000	10,465	50
Total Drainage		\$8,440,000	\$19,927	
Watermain Replacement				
Development Coordinated Works in Capital	R	250,000	-	52
Residential Water Metering	A/R	1,920,000	96,250	53
Spires Area Water, Sanitary, and Drainage Upgrade	R/D/E	4,500,000	2,493	54
Watermain Installation - Lulu Island East Area	R	370,000	6,250	55
Watermain Replacement - Lulu Island West Area	R/D	4,040,000	-	56
Total Watermain Replacement		\$11,080,000	\$104,993	

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

Project Name	Source	Total Investment	Total OBI	Ref
INFRASTRUCTURE PROGRAMS				
<i>Sanitary Sewer</i>				
City Centre Sanitary Sewer Rehabilitation	R	1,160,000	1,246	58
Development Coordinated Works in Capital	R	150,000	2,493	59
Granville Ave Infrastructure Upgrade	R	900,000	1,838	60
Miscellaneous SCADA System Improvements	R	250,000	18,785	61
Sanitary Pump Replacements	R	150,000	2,493	62
Sanitary Pump Station Rehabilitation	R	300,000	2,493	63
Steveston Sanitary Sewer Rehabilitation	R	410,000	1,246	64
Total Sanitary Sewer		\$3,320,000	\$30,594	
<i>Minor Public Works</i>				
Drainage Minor Capital	R	450,000	1,250	66
Public Works Minor Capital - Sanitary	R	300,000	1,838	67
Public Works Minor Capital - Water	R	560,000	-	68
PW Minor Capital - Traffic	R	250,000	8,250	69
Roads Minor Capital	R	250,000	1,250	70
Total Minor Public Works		\$1,810,000	\$12,588	
<i>Infrastructure Advanced Design</i>				
PW Infrastructure Advanced Design	R/D	1,255,000	-	72
Total Infrastructure Advanced Design		\$1,255,000	\$0	
<i>District Energy Utility</i>				
City Centre District Energy Utility	A	400,000	-	74
Total District Energy Utility		\$400,000	\$0	
TOTAL INFRASTRUCTURE PROGRAM		\$43,751,000	\$359,417	
BUILDING PROGRAMS				
<i>Building</i>				
Brighthouse Park Fieldhouse & Caretaker - Roof & Deck Repairs	R	250,000	-	76
Direct Digital Control Upgrade and Consolidation	A	250,000	-	77
Energy Management Projects - 2016	A	754,500	-	78
Garratt Wellness Centre - Renewals & Upgrades	R/E	525,000	-	79
Project Development Advanced Design 2016	R	300,000	-	80
TOTAL BUILDING PROGRAM		\$2,079,500	\$0	

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

Project Name	Source	Total Investment	Total OBI	Ref
PARKS PROGRAM				
<i>Major Parks/Streetscapes</i>				
Cambie Avanti Park	D/R	1,200,000	-	82
Garden City Lands - Phase 2	D/R/E	3,100,000	77,515	83
Park Characterization - Terra Nova	D/R	150,000	3,544	84
Parks Advance Planning & Design	D/R	550,000	-	85
Parks and Open Space Resource Management Planning Project	D/R	150,000	-	86
Richmond High Artificial Turf Field Replacement	R	600,000	-	87
West Cambie Park	D/R	700,000	12,559	88
Total Major Parks/Streetscapes		\$6,450,000	\$93,618	
<i>Minor Parks</i>				
Parks Ageing Infrastructure Replacement Program	R	140,000	-	90
Parks General Development	D/R	350,000	6,166	91
Playground Improvement Program	R	200,000	8,349	92
Total Minor Parks		\$690,000	\$14,515	
<i>Parkland Acquisition</i>				
Parkland Acquisition	D/R	8,000,000	-	94
Total Parkland Acquisition		\$8,000,000	\$0	
TOTAL PARKS PROGRAM		\$15,140,000	\$108,134	
PUBLIC ART PROGRAM				
Public Art Program	R	1,119,813	12,500	96
TOTAL PUBLIC ART PROGRAM		\$1,119,813	\$12,500	
LAND PROGRAM				
<i>Land Acquisition</i>				
Strategic Land Acquisition	R	21,200,000	-	98
TOTAL LAND PROGRAM		\$21,200,000	\$0	
AFFORDABLE HOUSING PROJECT				
Affordable Housing 2016 Operating Initiatives	R	130,000	-	100
Affordable Housing Projects - City Wide	R	400,000	-	101
Affordable Housing Projects - West Cambie	R	225,000	-	102
Affordable Housing Strategy Update	R	175,000	-	103
TOTAL AFFORDABLE HOUSING PROJECT		\$930,000	\$0	

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

Project Name	Source	Total Investment	Total OBI	Ref
EQUIPMENT PROGRAM				
<i>Annual Fleet Replacement</i>				
Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	R/A	1,612,000	-	105
Total Annual Fleet Replacement		\$1,612,000	\$0	
<i>Fire Dept Vehicles</i>				
Fire Equipment Replacement	R	25,500	-	107
Fire Vehicle Replacement Reserve Purchases	R	1,629,500	-	108
Total Fire Dept Vehicles and Equipment		\$1,655,000	\$0	
<i>Technology</i>				
2016 Server Replacements	A	303,000	-	110
Anderson Room Improvements	A	105,000	-	111
Annual Computer Hardware Refresh	A	408,919	-	112
Business Process Management Suite (BPMS)	A	600,000	55,000	113
Bylaws License Plate Recognition (LPR) System	A	197,120	(161,405)	114
Customer Relationship Management System (CRM)	A	900,000	100,000	115
Developing Asset Models for Eng. & Public Works	R	150,000	-	116
Log Management Implementation - Payment Card Industry Compliance	A	120,000	-	117
PeopleSoft HR and Payroll System Upgrade & Workforce Management	A	1,751,000	82,000	118
Software Deployment Replacement Solution	A	115,000	(12,000)	119
WiFi Network Expansion Phase II	A	204,500	1,000	120
Total Technology		4,854,539	\$64,596	
TOTAL EQUIPMENT PROGRAM		\$8,121,539	\$64,596	
CHILD CARE PROGRAM				
<i>Child Care Program</i>				
Child Care Projects - City Wide	R	50,000	-	122
TOTAL CHILD CARE PROGRAM		\$50,000	\$0	
INTERNAL TRANSFERS/DEBT PAYMENT				
<i>Internal Transfers/Debt Payment</i>				
General Parkland Acquisition Repayment	D/R	1,992,825	-	124
Nelson Road Interchange Repayment	D	385,098	-	125
River Rd/North Loop (2005) Repayment	D	1,685,056	-	126
Shovel - Ready Grant (2009) Repayment Lansdowne Rd Extension	D	77,263	-	127
Transfer of funding to Revolving Fund from Watermain Replacement	D	6,000,000	-	128
West Cambie Parkland Acquisition Repayment	D	1,600,000	-	129
Total Internal Transfers/Debt Payment		\$11,740,242	\$0	
TOTAL INTERNAL TRANSFERS/DEBT PAYMENT		\$11,740,242	\$0	
Total 2016 Capital Program		\$104,132,094	\$544,647	

OBI Type	
Operating OBI	\$407,222
Utility OBI	137,425
Total OBI	\$544,647

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

2016 Summary of Capital Projects - NOT RECOMMENDED

Project Name	Source	Total Investment	Revolving Fund	Total OBI	Ref
BUILDING PROGRAM					
<i>Building</i>					
Interurban Tram Restoration	R	396,000	396,000	-	131
London Heritage Farm Outbuildings	R	389,360	389,360	12,702	132
Works Yard Survey Inspector System Renewals	R	315,000	315,000	-	133
TOTAL BUILDING PROGRAM		\$1,100,360	\$1,100,360	\$12,702	
EQUIPMENT PROGRAM					
<i>Miscellaneous Equipment</i>					
Emergency Supply Cabinets Project	R	125,000	125,000	-	135
Emergency Supplies Container Project	R	515,400	515,400	53,910	136
Meeting Room Evergreen & Media Distribution Network Phase 1	A	337,200	0	-	137
TOTAL EQUIPMENT PROGRAM		\$977,600	\$640,400	\$53,910	
Total 2016 Capital Program - Unfunded		\$2,077,960	\$1,740,760	\$66,612	

PURPOSE: Each year, the Revolving Fund is utilized to fund various capital projects. This summary shows the 2016 capital projects and the corresponding amounts funded by the Revolving Fund.

Project Name	Total Investment	Revolving Fund	Total OBI	Ref
Roads				
Granville Avenue Lighting Upgrade	140,000	140,000	-	28
LED Street Light Replacement Plan	375,000	375,000	-	29
Root Damaged Surfaces	460,000	460,000	-	32
Shell Road Walkway	621,000	621,000	5,876	33
Sidaway Road Street Lighting	250,000	250,000	17,625	34
Street Light Pole Replacement-Seafair & Richmond Gardens - Phase 2	120,000	120,000	-	36
Total Roads	\$1,966,000	\$1,966,000	\$23,501	
Minor Public Works				
PW Minor Capital - Traffic	250,000	250,000	8,250	69
Roads Minor Capital	250,000	250,000	1,250	70
Total Minor Public Works	\$500,000	\$500,000	\$9,500	
Major Building				
Brighthouse Park Fieldhouse & Caretaker - Roof & Deck Repairs	250,000	250,000	-	76
Garratt Wellness Centre - Renewals & Upgrades	525,000	334,000	-	79
Project Development Advanced Design 2016	300,000	300,000	-	80
Total Major Building	\$1,075,000	\$884,000	\$0	
Minor Parks				
Parks Ageing Infrastructure Replacement Program	140,000	140,000	-	90
Playground Improvement Program	200,000	200,000	8,349	92
Total Minor Parks	\$340,000	\$340,000	\$8,349	
Total 2016 Projects Funded by Revolving Fund	\$3,881,000	\$3,690,000	\$41,350	
The City Assist Factor on Roads DCC and Parks DCC projects are also funded by the Revolving Fund.				
City Assist Factor on Parks Acquisition		\$595,651		
City Assist Factor on Parks Development		\$352,538		
City Assist Factor on Roads DCC		\$405,000		
Total Funding from Revolving Fund		\$5,043,189		

Infrastructure Program 2016

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

2016 Recommended Infrastructure – Roads Program

Table of Contents

Accessible Pedestrian Signal Program	20
Active Transportation Improvement Program	21
Annual Asphalt Re-Paving Program - MRN	22
Annual Asphalt Re-Paving Program - Non-MRN	23
Arterial Roadway Improvement Program	24
Donald Road - Local Area Service Program	25
Dyke Road – Fraserwood Road Widening and Trail Connection.....	26
Functional and Preliminary Design (Transportation).....	27
Granville Ave Lighting Upgrade.....	28
LED Street Light Replacement Plan.....	29
Neighbourhood Walkway Program.....	30
No. 2 Road Widening, Steveston Highway to Dyke Road.....	31
Root Damaged Surfaces	32
Shell Road Walkway	33
Sidaway Road Street Lighting	34
Special Crosswalk Program.....	35
Street Light Pole Replacement - Seafair & Richmond Gardens - Phase 2 of 5	36
Traffic Calming Program.....	37
Traffic Signal Program.....	38
Transit-Related Amenity Improvement Program	39
Transit-Related Roadway Improvement Program	40

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Accessible Pedestrian Signal Program	Submission ID:	5438

Location: Various

Cost: \$250,000 **OBI:** \$17,710

Funding Sources: Roads DCC: \$235,000
Roads City Assist: \$15,000

Scope: 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 goal to outfit all existing city-owned traffic signals with APS devices by year 2020.

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 by developer funding contribution.

For 2016, approximately 15 existing signalized intersections are proposed for upgrade to Accessible Signal systems. The actual locations will be determined in early 2016. 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.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Active Transportation Improvement Program	Submission ID:	4691

Location: Various Locations

Cost: \$320,000

OBI: \$9,592

Funding Sources: Roads DCC: \$300,800
Roads City Assist: \$19,200

Scope: 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.

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.

The following list of improvements is currently being planned for 2016 (subject to factors such as the completion of the detailed design, and confirmation of external funding):

1. Great Canadian Way (Bridgeport Road-Van Horne Way): upgrade of existing pathway and sidewalk on the west side to provide a 2-way off-street multi-use pathway;
2. Upgrade of intersections along the Railway Greenway to facilitate the crossing of pathway users (e.g., relocation of signal poles, installation of curb and gutter).

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.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Annual Asphalt Re-Paving Program - MRN	Submission ID:	4866

Location: City Wide

Cost: \$914,000 **OBI:** \$ -

Funding Sources: MRN Rehab Reserve: \$914,000

Scope: This annual funding request is to re-pave MRN roads (Richmond's Major Road Network funded by Translink). A project list will be determined by the end of 2015. The project includes the cost of essential ancillary work such as curb and gutter repairs, sidewalk and road base repair, manhole and valve box adjustments, line painting, staff inspection time and similar.

To maximize cost efficiencies, road projects are co-ordinated with water, sanitary and drainage projects that are located within City roads and lanes.

Construction is scheduled to be completed by the end of 2016.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Arterial Roadway Improvement Program	Submission ID:	4699

Location: Various Locations

Cost: \$300,000 **OBI:** \$16,955

Funding Sources: Roads DCC: \$282,000
Roads City Assist: \$18,000

Scope: 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, installation of pedestrian safety enhancements at intersections, and illuminated street name signs. For sidewalks/walkways along arterial roads, priority would be given to walkways/sidewalks 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.

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.

The following list of improvements is currently being planned for 2016/2017 (subject to factors such as the completion of the detailed design, confirmation of external funding, etc):

1. A new walkway along the north side of Bridgeport Road, from Viking Way to No. 6 Road;
2. A new southbound-to-eastbound left-turn lane at Garden City Road / Odlin Road;
3. A new walkway along the eastside of No. 2 Road, from Granville Avenue to Westminster Highway.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Dyke Road – Fraserwood Road Widening and Trail Connection	Submission ID:	5618

Location: Dyke Road and Fraserwood Road

Cost: \$1,000,000

OBI: -

Funding Sources:

Roads DCC:	\$470,000
Roads City Assist:	\$30,000
Parks DCC:	\$470,250
Parks City Assist:	\$29,750

Scope: Extend the width of the existing road and include a multi-use pathway along the north side of Dyke Road, between the 22,000 and 24,000 block of Dyke Road located in the Fraserwood waterfront area (East Richmond).

Purpose of this project is to address public concerns expressed by area residents regarding the movement of pedestrians and trail users in the area by improving the driving width and providing extended trail connection along this stretch of Dyke Road in east Richmond. The scope includes the widening of approximately 700 linear metres of existing road where necessary to better accommodate opposing large commercial vehicles passing each other, and to provide a separate multi-use trail pathway along Dyke Road. In association with road widening being proposed, the trail will provide improved passage for pedestrians and cyclists along this corridor. The land (north) side of Dyke Road is home to light industrial land uses, whereas the river (south) side of the road includes a mixture of marine and residential land uses.

This program supports Council Term Goal 2: A Vibrant, Active and Connected City and Goal 6: Quality Infrastructure Networks.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Functional and Preliminary Design (Transportation)	Submission ID:	4389

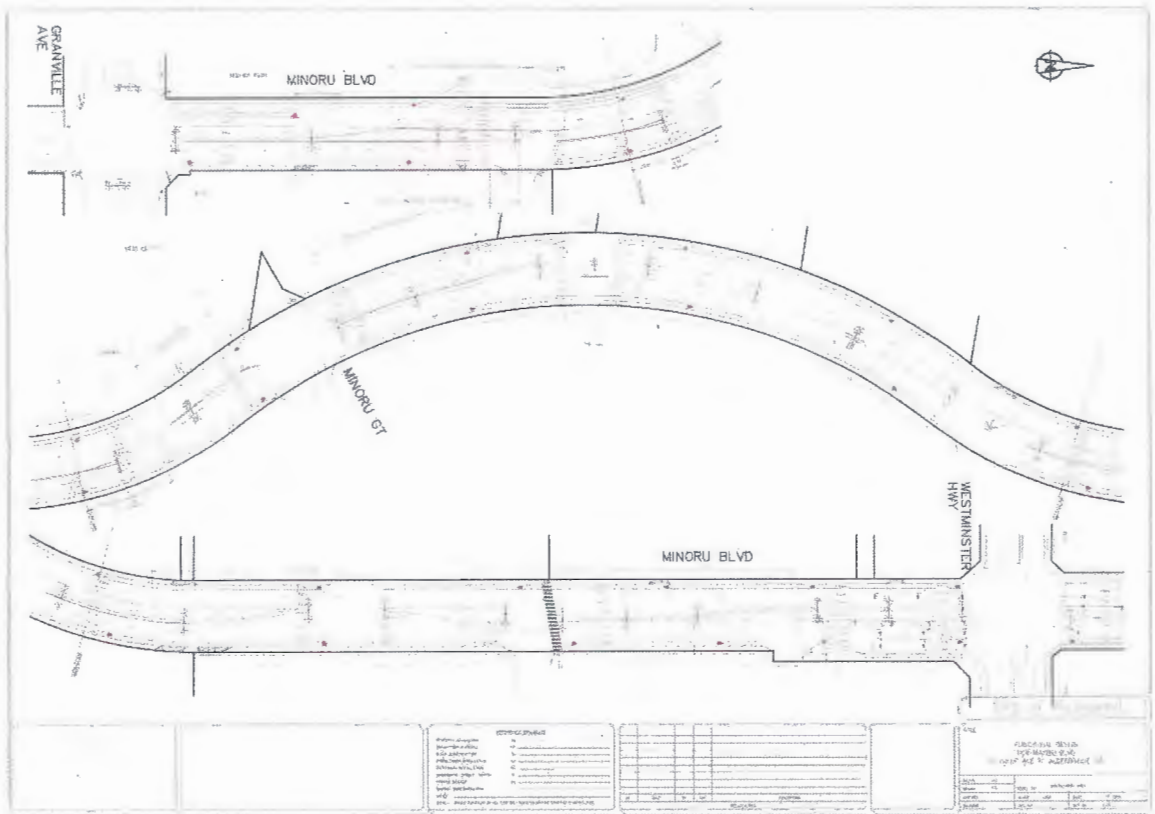
Location: Various locations

Cost: \$25,000 **OBI:** \$ -

Funding Sources: Roads DCC: \$23,500
Roads City Assist: \$1,500

Scope: Project scope includes preparing the functional and preliminary designs and cost estimates required for various transportation capital projects identified within the Five-Year Capital Program. Specifically, with this project, 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.

The project would be funded entirely by the DCC program funding. A major component of the project is for consultant and/or auxiliary staff costs for design. Note: The cost estimate is based on 2% 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.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Granville Ave Lighting Upgrade	Submission ID:	5744
Location:	Granville Ave, between Gilbert Rd and Minoru Blvd		
Cost:	\$140,000	OBI:	\$ -
Funding Sources:	Capital Revolving: \$140,000		
Scope:	Add 15 pedestrian lights to Granville Ave area, between Gilbert Rd and Minoru Blvd.		



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	LED Street Light Replacement Plan	Submission ID:	5660

Location:	City Wide		
Cost:	\$375,000	OBI:	(\$21,500)
Funding Sources:	Capital Revolving:	\$375,000	
Scope:	<p>The City has 3,780 HPS (high pressure sodium) light fixtures that are past the end of their useful life. Replacing these less efficient HPS light fixtures with LEDs (Light-emitting diodes) would reduce annual energy consumption and improve energy efficiency.</p> <p>Phase 1 of this project proposes to replace approximately 950 of the 3,780 HPS fixtures (~25%), starting with the fixtures that are the oldest and most in need of replacement. Additional capital submissions will be brought forward for consideration in subsequent years to replace the remaining fixtures.</p>		



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Neighbourhood Walkway Program	Submission ID:	5441

Location:	Various Locations		
Cost:	\$250,000	OBI:	\$12,287
Funding Sources:	Roads DCC:	\$235,000	
	Roads City Assist:	\$15,000	

Scope: The general scope of this project includes the construction of new and/or enhancement of existing neighbourhood walkways/sidewalks in the City, 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 residents' consultation, if applicable.

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

For 2016, the following has been proposed as a potential location: New walkway along the east side of Seacote Road, from the lane north of Williams Road to approximately 150m north, to fill the only gap in sidewalk along Seacote Road north of Williams Road. There may be additional walkways identified through requests by the public and Council.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	No. 2 Road Widening, Steveston Highway to Dyke Road	Submission ID:	5476

Location: No. 2 Road, from Steveston Highway to Dyke Road

Cost: \$7,300,000 **OBI:** \$34,321

Funding Sources: Roads DCC: \$3,572,000
 Roads City Assist: \$228,000
 Grant: \$3,500,000

Scope: The general scope of this project includes widening sections of No.2 Road between Steveston Highway and Dyke Road and provision of a shared continuous cycling/pedestrian pathway along No.2 Road. Major components of the project are:

- At Steveston Highway and Moncton Road intersections, upgrade to arterial road standard with selective widening and appropriate intersection tapers, additional traffic (turning) lane as warranted;
- Moncton Road to Dyke Road: upgrade the road to collector standard and maintain parking on the east side (no parking will be provided on the west side as per existing conditions);
- A new traffic signal at Moncton Road;
- A shared cycling/pedestrian pathway along No.2 Road (east side from Steveston Highway to the existing crosswalk located approximately 260m south of Andrews Road then swing over to the west side to Dyke Road); and
- Hydro/Tel/cable portion of cost estimate includes pole relocation and potential cost to acquire lands along east side of No. 2 Road, where required

In July 2015, the federal government (Transport Canada) announced that this project was selected to receive funding from the Asia-Pacific Gateway and Corridor Transportation Infrastructure Fund (APGCTIF), up to \$3.5M of the eligible project costs (i.e., not including land acquisition costs).

This project is proposed to be phased over 2016 and 2017, with the first phase to complete the detailed design works in early 2016. Once the design is completed, site preparation and construction will commence accordingly and the project is anticipated to be substantially completed by end of 2017.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Shell Road Walkway	Submission ID:	5592

Location: Shell Road from Alderbridge to Westminster Hwy

Cost: \$621,000 **OBI:** \$5,876

Funding Sources: Capital Revolving: \$621,000

Scope: Replace an 800 metre failing walkway with a widened 3.0m wide asphalt walkway along Shell Rd between Alderbridge Way and Westminster Hwy. Extruded curbs to separate the walkway from the traveled portion of the roadway. This is a two directional walkway shared between pedestrians and cyclists.

Construction is scheduled to be completed by the end of 2016.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Sidaway Road Street Lighting	Submission ID:	5589

Location: Sidaway Road South from Westminster Hwy to Steveston Hwy

Cost: \$250,000 **OBI:** \$17,625

Funding Sources: Capital Revolving: \$250,000

Scope: This is a stand-alone project to install additional street lighting on Sidaway Road South from Westminster Hwy to Steveston Hwy. 10 city street lights and 37 BC Hydro leased lights will be installed. Construction is scheduled for completion by the end of 2016.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Special Crosswalk Program	Submission ID:	4669

Location: Various Locations

Cost: \$350,000 **OBI:** \$17,680

Funding Sources: Roads DCC: \$329,000
Roads City Assist: \$21,000

Scope: The general scope involves implementing new traffic control standards that have been adopted 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.

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.

The following is the preliminary list of potential locations identified for 2016/2017. The exact scope of improvement may be refined due to factors such as priority review, availability of external funding, etc.:

- No 4 Rd. & Dayton Rd.
- Garden City Rd. & Jones Rd.
- Westminster Hwy & Tiffany Blvd.
- Williams Rd. & Deagle Rd.
- Williams Rd. & Lassam Rd.
- Granville Ave. & Bridge St.
- St. Albans Rd. & Jones Rd.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Street Light Pole Replacement - Seafair & Richmond Gardens - Phase 2 of 5	Submission ID:	5174

Location: Seafair and Richmond Gardens

Cost: \$120,000 **OBI:** \$ -

Funding Sources: Capital Revolving: \$120,000

Scope: Remove and replace approximately 200 existing streetlights poles and retrofit concrete bases to allow for the proper installation of new street light poles in the Seafair and Richmond Gardens subdivisions. This is phase 2 of the 5 year project, totaling \$600,000.
Construction of phase 2 is scheduled for completion by the end of 2016.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Traffic Calming Program	Submission ID:	4700

Location:	Various Locations		
Cost:	\$100,000	OBI:	\$10,882
Funding Sources:	Roads DCC:	\$94,000	
	Roads City Assist:	\$6,000	
Scope:	<p>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.</p> <p>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.</p> <p>The exact scope will be determined pending on the request and complaints 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.</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.</p>		



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Traffic Signal Program	Submission ID:	4692

Location:	Various Locations		
Cost:	\$600,000	OBI:	\$25,480
Funding Sources:	Roads DCC:	\$564,000	
	Roads City Assist:	\$36,000	

Scope: The project includes the following three key components:

- 1) Install new or upgrade existing traffic signals to respond to growth in traffic and public requests, to better manage pedestrian and vehicular movements and to address safety concerns;
- 2) 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 Traffic Management Centre (TMC) for observing and enhancing operations, and providing photos (in one minute intervals) of approach traffic for public information access on the City web site;
- 3) Upgrade conduit and cable infrastructure to install higher capacity fibre optic cable and electronics for Ethernet 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.


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.

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

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. Currently, two potential candidate sites for new traffic signals in 2016/2017 are Buswell St/Park Rd and Cooney Rd/Park Rd.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Transit-Related Amenity Improvement Program	Submission ID:	5440

Location:	Various Locations		
Cost:	\$250,000	OBI:	\$6,917
Funding Sources:	Roads DCC:	\$94,000	
	Roads City Assist:	\$6,000	
	Developer Contribution:	\$150,000	
Scope:	<p>The general scope includes transit-related amenity improvements within municipal road right-of-ways 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 (\$100,000) and developer contribution (\$150,000) 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. Potential locations identified for 2016 and 2017 include:</p> <ul style="list-style-type: none"> - Southbound No. 3 Rd far-side Williams Rd - Northbound No. 2 Rd far-side Danube Rd - Northbound Cooney Rd far-side Westminster Hwy - Northbound Garden City Rd far-side Ferndale Rd - Eastbound Blundell Rd far-side Moffatt Rd - Westbound Cook Rd far-side Garden City Rd - Eastbound Granville Ave far-side Gilbert Rd - Westbound Cambie Rd far-side Shell Rd - Northbound Garden City Rd far-side Williams Rd - Eastbound Cambie Rd far-side Viking Way - Southbound Garden City Rd far-side Lansdowne Rd - Westbound Chatham Street near-side 2nd Avenue - Eastbound Granville Ave far-side Minoru Blvd - Westbound Steveston Hwy far-side Seaward Gate <p>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>		
			

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Transit-Related Roadway Improvement Program	Submission ID:	5439

Location:	Various Locations		
Cost:	\$200,000	OBI:	\$6,807
Funding Sources:	Roads DCC:	\$94,000	
	Roads City Assist:	\$6,000	
	Grant:	\$100,000	

Scope: 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, 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 passengers.

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.

Locations for bus stop landing pad improvements will be prioritized based on boarding/alighting activity and customer requests subject to sufficient availability of right-of-way. Potential locations for 2016 include: Railway Ave/Francis Rd, Railway Ave/Linfield Gate, Steveston Hwy/Roseland Gate, Horseshoe Way/Horseshoe Pl, Gilbert Rd/Lucas Rd, Steveston Hwy/Bonavista Gate and approximately 20 additional locations based on priority locations to be identified by Coast Mountain Bus Company.

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.



2016 Recommended Infrastructure – Drainage Program

Table of Contents

Aquatic Invasive Species Management.....42

Development Coordinated Works in Capital.....43

Dike Upgrades44

Drainage System and Irrigation Upgrades - South Sidaway Area Phase 245

Gilley and Westminster Hwy Culvert Replacement.....46

Laneway Drainage Upgrade - Dennis Crescent (West)47

Laneway Drainage Upgrade - Swinton Cr (East)48

No. 4 Road Box Culvert Section Replacement49

No. 7 Road South Drainage Pump Station Upgrade.....50

Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Aquatic Invasive Species Management	Submission ID:	5707

Location:	City Wide		
Cost:	\$175,000	OBI:	\$ -
Funding Sources:	Drainage Utility:	\$175,000	
Scope:	<p>The general scope includes the identification, mapping, research, removal and/or control of priority invasive species from the City drainage system and City lands, with a view to maintain the required performance of the drainage system. Typical activities will include control techniques to eliminate or minimize the spread of aggressive invasive species such as Parrot's feather and purple loosestrife, mapping and control treatments for knotweed species which pose a threat to City infrastructure (i.e. pump stations) and biodiversity, and removal of wild chervil from roadside right-of-ways and City drainage infrastructure. The intent of this program is to reduce the spread of invasive species in order to reduce the impacts on the City drainage system.</p>		



Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Drainage System and Irrigation Upgrades - South Sidaway Area Phase 2	Submission ID:	5585

Location:	Sidaway Road and Steveston Hwy		
Cost:	\$450,000	OBI:	\$1,250
Funding Sources:	Drainage Utility: \$450,000		

Scope: Replace and lower culvert watercourse crossings and reprofile watercourses along Steveston Highway between Sidaway Road and Palmberg Road and on Sidaway Road between Steveston Highway and the Francis Road Right-of-Way for approximately 1,800m. The work is being undertaken in 3 phases to balance other drainage funding priorities. Construction for the first two phases is scheduled to be completed by the end of 2016.



Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Gilley and Westminster Hwy Culvert Replacement	Submission ID:	5586

Location: Gilley Road and Westminster Hwy

Cost: \$1,250,000

OBI: \$1,570

Funding Sources: Drainage Utility: \$1,250,000

Scope: Replace the existing 25 metres long drainage culvert with 2x 85 metres 1500mm diameter High Density Polyethylene (HDPE) pipes at the intersection between Westminster Hwy and Gilley road. Construction is scheduled to be completed by the end of 2016.



Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	No. 4 Road Box Culvert Section Replacement	Submission ID:	5760

Location: South of the No 7 Road Right-of-Way

Cost: \$630,000 **OBI:** \$-

Funding Sources: Drainage Utility: \$630,000

Scope: Scope of work includes upgrade of approximately 30 metres of 1.52m x 3.4m box culvert at No. 4 road by Tuttle Ave. The existing culvert has undergone repairs in the past couple of years and there are signs of deterioration due to the end of service life. Completion of this work will upgrade the overall condition and performance of the drainage system.

Construction is scheduled to be completed by Summer of 2016.



Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	No. 7 Road South Drainage Pump Station Upgrade	Submission ID:	4809

Location: South of the No 7 Road Right-of-Way

Cost: \$4,500,000 **OBI:** \$10,465

Funding Sources: Drainage Utility: \$4,500,000

Scope: Demolish the existing pump station and rebuild it to a modern standard, make local dike upgrades, and landscape the construction area. Construction is scheduled to be completed by the end of 2017.



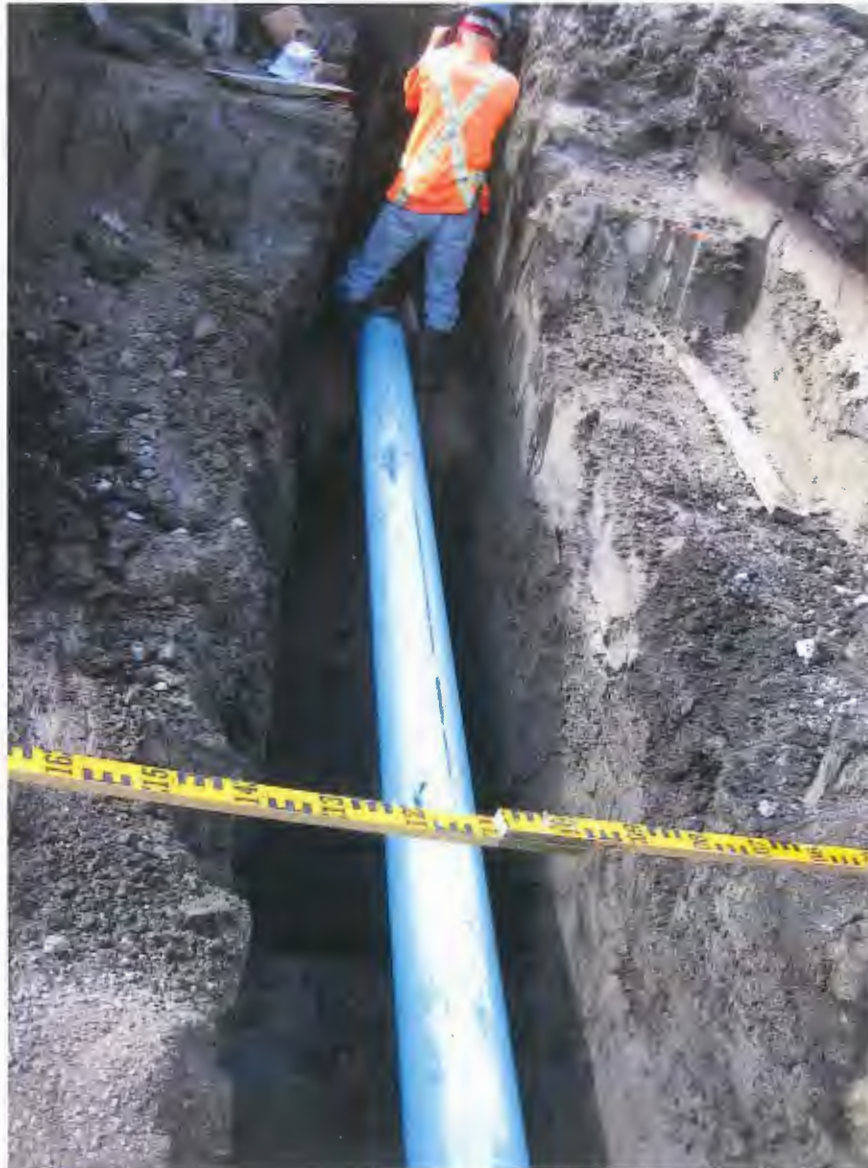
2016 Recommended Infrastructure – Water Main Replacement Program

Table of Contents

Development Coordinated Works in Capital.....	52
Residential Water Metering	53
Spires Area Water, Sanitary, and Drainage Upgrade	54
Watermain Installation - Lulu Island East Area	55
Watermain Replacement - Lulu Island West Area	56

Program:	Infrastructure Program	Sub-program:	Water Main Replacement
Project Name:	Development Coordinated Works in Capital	Submission ID:	5310

Location:	City Wide		
Cost:	\$250,000	OBI:	\$ -
Funding Sources:	Water Utility:	\$250,000	
Scope:	<p>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.</p> <p>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.</p>		



Program:	Infrastructure Program	Sub-program:	Water Main Replacement
Project Name:	Spires Area Water, Sanitary, and Drainage Upgrade	Submission ID:	5587

Location: Cooney Rd, Spires Gate, Cook Gate and Cook Rd

Cost: \$4,500,000 **OBI:** \$2,493

Funding Sources:

Drainage Utility:	\$947,000
Water Utility:	\$1,378,124
Sanitary Utility:	\$994,005
Water DCC:	\$424,876
Sewer DCC:	\$581,873
Developer Contribution:	\$174,122

Scope: Watermain, sanitary sewer, drainage sewer replacement and upgrades will be constructed in the Cooney Rd. and Cook Rd. area as follows:

Watermain (1500metres):	\$1,803,000
Sanitary Sewer (390metres):	\$1,750,000
Drainage Sewer (400metres):	\$947,000

Where possible costs will be recovered through rezoning cash-in-lieu contributions. Construction is scheduled to be completed by the end of 2016.



Program:	Infrastructure Program	Sub-program:	Water Main Replacement
Project Name:	Watermain Installation - Lulu Island East Area	Submission ID:	4796

Location: See Scope

Cost: \$370,000

OBI: \$6,250

Funding Sources: Water Utility: \$370,000

Scope: This project includes the installation of 370m of 300mm diameter watermain to connect two dead ends on Sidaway Rd, between Blundell Rd and Westminster Hwy.



Program:	Infrastructure Program	Sub-program:	Water Main Replacement
Project Name:	Watermain Replacement - Lulu Island West Area	Submission ID:	5302

Location: See scope

Cost: \$4,040,000

OBI: \$ -

Funding Sources: Water Utility: \$3,503,580
 Water DCC: \$531,109
 Water City Assist: \$5,311

Scope: This project includes the installation of 4700 meters of 200mm diameter watermain to replace the existing infrastructure.

The Waterworks Capital Program is based on watermain age, material, break history and the proposed road-paving program.

The program replaces ageing infrastructure prior to failure and improves fire protection.



2016 Recommended Infrastructure – Sanitary Sewer Program

Table of Contents

City Centre Sanitary Sewer Rehabilitation58

Development Coordinated Works in Capital.....59

Granville Ave Infrastructure Upgrade60

Miscellaneous SCADA System Improvements.....61

Sanitary Pump Replacements62

Sanitary Pump Station Rehabilitation63

Steveston Sanitary Sewer Rehabilitation64

Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	City Centre Sanitary Sewer Rehabilitation	Submission ID:	5013

Location: Various Locations

Cost: \$1,160,000

OBI: \$1,246

Funding Sources: Sanitary Utility: \$1,160,000

Scope: This project involves rehabilitation (trenchless point repairs, external point repairs, and concrete grouting) of sanitary sewer mains in various locations of the City Centre Sanitary Sewer Area. The rehabilitation work is based on deficiencies identified through the sanitary sewer CCTV inspection program.

Rehabilitation will extend the service life of sanitary sewers, lower their lifecycle costs and prevent related infrastructure failures, such as sinkholes.

If ageing sanitary sewers are not rehabilitated, service levels will decrease, operation and maintenance costs will increase and the risk of damage to local road and utility infrastructure will increase.

The project supports an objective in the Official Community Plan (OCP) to maintain an efficient sewage system to protect public health and safety.



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Development Coordinated Works in Capital	Submission ID:	5316

Location: Various Locations

Cost: \$150,000

OBI: \$2,493

Funding Sources: Sanitary Utility: \$150,000

Scope: This project will enable the City to leverage development over the next year to design and construct sanitary 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.



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Granville Ave Infrastructure Upgrade	Submission ID:	5742

Location: Granville Ave, between Gilbert Rd and Minoru Blvd

Cost: \$900,000 **OBI:** \$1,838

Funding Sources:

Drainage Utility:	\$210,000
Water Utility:	\$190,000
Sanitary Utility:	\$500,000

Scope: Water, sanitary and drainage upgrades to Granville Ave area, between Gilbert Rd and Minoru Blvd, as follows:

- Water \$190,000
- Sanitary \$500,000
- Drainage \$210,000



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Sanitary Pump Replacements	Submission ID:	5392

Location:	Various Locations		
Cost:	\$150,000	OBI:	\$2,493
Funding Sources:	Sanitary Utility:	\$150,000	
Scope:	<p>This project includes replacing existing sanitary pumps with new energy-efficient models. The existing pumps have been in service for up to 43 years, which is significantly over the manufacturer's suggested service life. The new pumps would reduce maintenance costs, energy consumption, and service disruptions.</p> <p>Planned upgrades include the following pump stations: Colbeck, Cheviot, Donald, Livingstone, McLennan, Piggott East, Piggott West, Utah North, Utah South, Berry, Daniels, Gabriola, Lurgan, Minler, Palmer</p>		



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Sanitary Pump Station Rehabilitation	Submission ID:	5630

Location:	Various Locations		
Cost:	\$300,000	OBI:	\$2,493
Funding Sources:	Sanitary Utility:	\$300,000	
Scope:	This project involves the rehabilitation of existing sanitary pump stations, including Burkeville, Bennett East, and Edgemere. Scope of work includes electrical kiosk replacement, power supply upgrade, new motor control center (MCC) installation, pump rewinding, and concrete slab and aluminum hatch installation.		



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Steveston Sanitary Sewer Rehabilitation	Submission ID:	5391

Location: Various Locations

Cost: \$410,000

OBI: \$1,246

Funding Sources: Sanitary Utility: \$410,000

Scope: This project involves rehabilitation (trenchless point repairs, external point repairs, and concrete grouting) of sanitary sewer mains in various locations of the Steveston Sanitary Sewer Area. The rehabilitation work is based on deficiencies identified through the sanitary sewer CCTV inspection program.

Rehabilitation will extend the service life of sanitary sewers, lower their lifecycle costs and prevent related infrastructure failures, such as sinkholes.

If ageing sanitary sewers are not rehabilitated, service levels will decrease, operation and maintenance costs will increase and the risk of damage to local road and utility infrastructure will increase.

The project supports an objective in the Official Community Plan (OCP) to maintain an efficient sewage system to protect public health and safety.



2016 Recommended Infrastructure – Minor Public Works Program

Table of Contents

Drainage Minor Capital66

Public Works Minor Capital - Sanitary67

Public Works Minor Capital - Water.....68

PW Minor Capital - Traffic.....69

Roads Minor Capital70

Program:	Infrastructure Program	Sub-program:	Minor Public Works
Project Name:	Drainage Minor Capital	Submission ID:	4765

Location: City Wide
Cost: \$450,000 **OBI:** \$1,250

Funding Sources: Drainage Utility: \$450,000

Scope: Complete minor drainage infrastructure upgrades or rehabilitation that includes inspection, chamber installation, sewer pipe and manhole rehabilitation, minor pump station projects, installation of monitoring equipment, safety upgrades, testing of new technologies to improve efficiencies and responding to resident service requests. Although not currently scheduled, construction is expected to proceed through 2016.



Program:	Infrastructure Program	Sub-program:	Minor Public Works
Project Name:	Public Works Minor Capital - Sanitary	Submission ID:	4831

Location:	Various Locations		
Cost:	\$300,000	OBI:	\$1,838
Funding Sources:	Sanitary Utility:	\$300,000	
Scope:	<p>This project involves minor work related to the sanitary infrastructure, including pump station upgrades, 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.</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 Public Works
Project Name:	Public Works Minor Capital - Water	Submission ID:	789

Location: Various Locations

Cost: \$560,000

OBI: \$ -

Funding Sources: Water Utility: \$560,000

Scope: This project involves minor work related to the water infrastructure, including minor watermain repairs and replacements, operational efficiencies, changes to safety requirements, testing of new technologies, and response to resident complaints that require minor upgrades.

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.



Program:	Infrastructure Program	Sub-program:	Minor Public Works
Project Name:	PW Minor Capital - Traffic	Submission ID:	4705

Location:	Various Locations		
Cost:	\$250,000	OBI:	\$8,250
Funding Sources:	Capital Revolving:	\$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 (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>		



Program:	Infrastructure Program	Sub-program:	Minor Public Works
Project Name:	Roads Minor Capital	Submission ID:	4895

Location: City Wide

Cost: \$250,000 **OBI:** \$1,250

Funding Sources: Capital Revolving: \$250,000

Scope: Complete minor road related infrastructure upgrades or rehabilitation that include, but are not limited to, the installation of wheel chair ramps, the replacement of uneven sidewalks, curbs and small road sections (e.g. that are damaged through tree root ingress or settlement), street light repair, and responding to resident service requests.



2016 Recommended Infrastructure – Infrastructure Advanced Design Program

Table of Contents

PW Infrastructure Advanced Design72

Program:	Infrastructure Program	Sub-program:	Infrastructure Advanced Design & Land
Project Name:	PW Infrastructure Advanced Design	Submission ID:	5041

Location:	City-Wide		
Cost:	\$1,255,000	OBI:	\$ -
Funding Sources:	Drainage Utility:	\$500,000	
	Water Utility:	\$430,000	
	Sanitary Utility:	\$270,000	
	Roads DCC:	\$51,700	
	Roads City Assist:	\$3,300	
Scope:	The scope of work includes hiring consultants and contractors to plan and design the 2017 capital plan and deliver reports that define long-term infrastructure upgrades.		
	Sanitary Project Design and Planning	\$220,000	
	Sanitary System Modelling	\$50,000	
	Water Project Design and Planning	\$380,000	
	Water System Modelling	\$50,000	
	Drainage Project Design and Planning	\$500,000	
	Roads	\$55,000	
	Total	\$1,255,000	



2016 Recommended Infrastructure – District Energy Utility Program

Table of Contents

City Centre District Energy Utility74

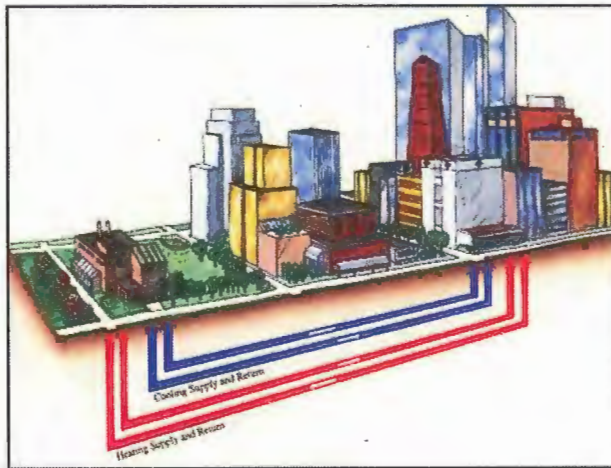
Program:	Infrastructure Program	Sub-program:	District Energy Utility
Project Name:	City Centre District Energy Utility	Submission ID:	5601

Location: City Centre

Cost: \$400,000 **OBI:** \$ -

Funding Sources: Water Utility: \$400,000

Scope: Advanced design of the district energy ready (DE-ready) developments in the City Centre neighbourhoods, including DEU corridors. Coordinating design with the incoming new developments. Legal fees for negotiation, development and registration of DE-ready covenants. Coordinating negotiation of DEU servicing agreements, and implementation of City Centre DEU. Negotiation and implementation of a Request for Expressions of Interest (RFEOI) to execute the plan to provide district energy services in the City Centre North (Capstan) area. Professional fees for transfer of the Alexandra DEU assets under the Lulu Island Energy Corporation (LIEC).



Building Program 2016

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.

2016 Recommended Building Program

Table of Contents

Brighthouse Park Fieldhouse & Caretaker - Roof & Deck Repairs	76
Direct Digital Control Upgrade and Consolidation	77
Energy Management Projects - 2016	78
Garratt Wellness Centre - Renewals & Upgrades	79
Project Development Advanced Design 2016	80

Program:	Building Program	Sub-program:	Major Building
Project Name:	Brighthouse Park Fieldhouse & Caretaker - Roof & Deck Repairs	Submission ID:	5405

Location: 7840 Granville Ave.

Cost: \$250,000

OBI: \$ -

Funding Sources: Capital Revolving: \$250,000

Scope: The facility currently is in poor condition with a Facility Condition Index (FCI) of 33%. Performing the life-cycle renewals will correct identified requirements reducing maintenance costs and reduce the FCI to 10% ensuring many more years of service to the community.

Existing wood observation deck is rotten and affecting the integrity of the roof underneath. The membrane underneath is deteriorating and will be replaced. The roof with concrete pavers has deteriorated and some pavers are cracked with vegetation growing. Metal roofing requires inspection, screws, fasteners, and grommets, which will be replaced as needed.

Miscellaneous upgrades identified as work proceeds.



Program:	Building Program	Sub-program:	Major Building
Project Name:	Direct Digital Control Upgrade and Consolidation	Submission ID:	5621

Location: Various City Facilities

Cost: \$250,000 **OBI:** \$ -

Funding Sources: Enterprise: \$250,000

Scope: The general scope of work for this Phase 2 of 3 project is to replace and upgrade direct digital control systems associated with HVAC and lighting controls at select City facilities, as per the DDC Upgrade and Management Plan.

There are approximately 25 City buildings that have direct digital control (DDC) systems that control mechanical and lighting functions. These systems are used to monitor and adjust comfort parameters, equipment performance, and building scheduling, as well as remotely diagnose problems. Currently the City has seven different types of control applications, with some of the systems having reached their end of life. The number of different systems and the fact that some systems are now obsolete, makes it challenging to effectively and efficiently manage, program, monitor, and operate the comfort systems in those City buildings.

The replacement and upgrading of these systems will allow for more efficient building operation, increased ability for effective and timely in-house programming, reduced training requirements for multiple legacy systems, and increased ability for energy use monitoring and system anomaly notification. (See associated spreadsheet for the timing and estimate costs, REDMS # 4307751)

The DDC upgrade plan will be phased over 3 years with a funding breakdown of:

- Year 1: \$290,000 (2015 capital submission - being implemented)
- Year 2: \$241,500
- Year 3: \$195,000

Similar to Phase 1 of this project, it is proposed for Phase 2 to be funded from the Enterprise Fund, with the anticipated energy utility cost savings (~\$38,000/year) from increased energy efficient operation of these buildings used to re-pay the fund.

In addition to internal funding, external incentives opportunities will be explored to potentially offset the capital cost of the project or repay the Enterprise fund sooner.



Program:	Building Program	Sub-program:	Minor Building
Project Name:	Energy Management Projects - 2016	Submission ID:	4837

Location: Various Locations

Cost: \$754,500 **OBI:** \$ -

Funding Sources: Enterprise: \$754,500

Scope: Reduce the energy used at City infrastructure through the following energy conservation measures at City locations;

1. Fire Hall No.4, Fire Hall No.5, and Fire Hall No.6 - Optimize heating and cooling systems
2. Community Safety Building - Optimize heating, control, and lighting systems.
3. Thompson Community Centre - Re-commission and optimize the geo-exchange system
4. East Richmond Community Hall - Optimize heating, cooling and lighting systems
5. City Hall - Install a solar photovoltaic system at City Hall
6. South Arm Community Centre - Optimize heating and cooling systems
7. Lighting Retrofits - Conduct 2-4 lighting retrofit and upgrade projects at needed facilities

Upon project completion, these measures are anticipated to save \$101,000 in energy cost avoidance, reduce GHG emissions, and help to maintain the City of Richmond's Power Smart Leadership status. The Enterprise Fund will be repaid from the anticipated savings.



Program:	Building Program	Sub-program:	Major Building
Project Name:	Garratt Wellness Centre - Renewals & Upgrades	Submission ID:	5406

Location: 7504 Chelsea Place

Cost: \$525,000 **OBI:** \$ -

Funding Sources: Capital Revolving: \$334,000
Grant: \$191,000

Scope: Exterior:
Exterior walls require repairs to stucco and wood. Wood window frames have rotten members which will be repaired or replaced.
Exterior doors are original to building (1960's) and are aged and deteriorating and will be replaced and door hardware modernized.
Mechanical:
The Perimeter Heat System, original to the building, is still operational but has reached the end of expected service life. The facility was originally a grade 1 - 4 elementary school but is now being used as a rehabilitative fitness and wellness centre. There is no mechanical ventilation nor air conditioning in the building. A heat pump AC system will be installed to provide comfort cooling during the summer and more efficient heating during the winter. This heating and cooling system upgrade will eliminate the green house gas emissions associated with the existing boiler, which would no longer be necessary.
Electrical and Lighting:
Light fixtures in the building are aged, damaged and past their life expectancy. Significant increases to the lighting effectiveness and reductions in electricity can be realized with the replacement of these inefficient lights. Electrical panels and wiring are aged and past their useful life, and will also be replaced.
The fire alarm system does not conform to the Barrier-Free requirements of the BC Building Code which requires both audio and visual devices to be installed as part of the fire alarm system. The fire alarm panel is beyond life and will be replaced.
The existing exit signs are antiquated and beyond life expectancy. Exit signs within the building use inefficient incandescent or fluorescent lamps. New LED type fixtures will be installed.
Miscellaneous:
Required upgrades identified as the work proceeds.



Program:	Building Program	Sub-program:	Major Building
Project Name:	Project Development Advanced Design 2016	Submission ID:	5697

Location:	City Wide		
Cost:	\$300,000	OBI:	\$ -
Funding Sources:	Capital Revolving:	\$300,000	
Scope:	Engage the appropriate consultants (i.e. Architects, engineers, cost consultants) for a variety of proposed facility projects to provide a range of professional services from project concept to completion.		



Parks Program 2016

Richmond is renowned for its high quality parks and recreation facilities. The City's park system has over 120 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.

2016 Recommended Parks – Major Parks/Steetscapes Program

Table of Contents

Cambie Avanti Park.....	82
Garden City Lands - Phase 2	83
Park Characterization – Terra Nova	84
Parks Advance Planning & Design.....	85
Parks and Open Space Resource Management Planning Project	86
Richmond High Artificial Turf Field Replacement.....	87
West Cambie Park.....	88

Program:	Parks Program	Sub-program:	Major Parks/Streetscapes
Project Name:	Cambie Avanti Park	Submission ID:	5755

Location: Cambie Road & Hazelbridge

Cost: \$1,200,000

OBI: -

Funding Sources: Parks Development DCC: \$1,128,600
Parks Development City Assist: \$71,400

Scope: The creation of a new neighbourhood park in the City Centre’s Capstan Village area is the result of residential development to the north of the park by Polygon Homes. The Cambie Avanti Park plan was approved by Council in October 2013. The total cost of the park construction is estimated at \$ 4.2 million. Phase one construction is valued at \$ 2.7 million, and will include base development such as grading the land; installing drainage, sanitary sewer, water, irrigation, lighting and power services; building pathways; and planting landscape features. Special items such as a dog off-leash area; a plaza; feature walls; pedestrian bridge; and an ornamental water feature will also be completed in this phase. Funding sources include \$ 1.5 million in Park capital approved in 2014, and this new \$ 1.2 million in Park Development dccs payable by the developer.

This phase of park development will begin in 2015 with completion anticipated in spring 2016.



Program:	Parks Program	Sub-program:	Major Parks/Streetscapes
Project Name:	Garden City Lands - Phase 2	Submission ID:	5461

Location: Garden City Road & Westminster Hwy.

Cost: \$3,100,000

OBI: \$77,515

Funding Sources:

Drainage Utility:	\$500,000
Parks Development DCC:	\$2,186,662
Parks Development City Assist:	\$138,338
Developer Contribution:	\$275,000

Scope: Garden City Lands Phase 2 Water Management Infrastructure and Public Amenities

This is Phase Two of the Garden City Lands project and includes construction of water management infrastructure which will support the sustainability of the bog ecosystem on the site at the same time as enabling agricultural uses. Extensive tree planting around the perimeter will support both the ecological objectives of the Garden City Lands ("GCL") Legacy Landscape Plan and create a buffer between the perimeter trails and the major streets surrounding the site. In addition, development of public amenities such as trails, a picnic area and parking will provide expanded public access to the 136.5 acre site.

After an extensive public process, City Council adopted the GCL Legacy Landscape Plan on June 9, 2014 as the guide for developing these public lands for community use (File Ref. No. 06-2345-20 REDMS No. 4219968). The Legacy Plan outlines over 25 City policies and objectives that development of the GCL supports within a variety of focus areas such as sustainability, agricultural, ecological health, community wellness, arts and culture, and city vibrancy.



Program:	Parks Program	Sub-program:	Major Parks/Streetscapes
Project Name:	Park Characterization – Terra Nova	Submission ID:	317

Location: Terra Nova

Cost: \$150,000

OBI: \$3,544

Funding Sources: Parks Development DCC: \$141,075
 Parks Development City Assist: \$8,925

Scope: The purpose of this capital program is to enhance the overall function and character of existing parks within the City's Park and Open Space system. The proposed project for 2016 is the creation of a detailed program, interpretation, and restoration plan for the heritage buildings and cultural landscapes on the north side of Terra Nova Rural Park. The plan will focus on Parsons House, Mellis House and the Cannery Store and will result in an increased level of service for Richmond residents.

The Council-endorsed Terra Nova Concept Plan (2004) calls for the preservation and adaptive reuse of the park's heritage buildings and for interpretation of the farming and fishing history of Terra Nova. The Edwardian Cottage was completed and is now successfully operating as the Terra Nova Nature Preschool. Potential uses for the site's other buildings include an interpretive centre, multi-purpose program space, artist or farmer in residence, caretaker suite, retail space, and/or office space. The Terra Nova Conservation Review (2014) details the heritage value and character defining elements of both the landscape and the buildings addressed in this project.



Program:	Parks Program	Sub-program:	Major Parks/Streetscapes
Project Name:	Parks Advance Planning & Design	Submission ID:	835

Location: Various Locations

Cost: \$550,000

OBI: \$ -

Funding Sources: Parks Development DCC: \$517,275
Parks Development City Assist: \$32,725

Scope: This annual project submission for Parks Advance 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 are both community and opportunity driven. This includes working with developers with the design and preparation of a new park that will serve a new development area within the City.

For 2016, projects include the design and consultation for Minoru Park and Britannia National Historical Park master planning process.

This program supports Council Term Goals of a Well Planned Community and is relative to multiple Strategic Initiatives including: Placemaking (Creating Experiences, Unique Parks & Open Spaces, Parkland Acquisition Plan, World Class Waterfront, Excellence in Design, Connected Neighbourhoods, Event Friendly City); Financial Strategies (Infrastructure Replacement), and Sustainability (Vibrant Communities). It contributes towards the City's vision of being the most appealing and livable city in Canada.

2016 Projects may also include:

- Conceptual Park & Open Space Planning for various sites.
- Topographical Surveys (engineering site survey pick-up)
- Waterfront & Trails Strategy Implementation projects
- Park Characterization projects
- GIS implementation for Parkland Inventory
- Best practices research



Program:	Parks Program	Sub-program:	Major Parks/Streetscapes
Project Name:	Parks and Open Space Resource Management Planning Project	Submission ID:	5628

Location: City Wide

Cost: \$150,000

OBI: \$ -

Funding Sources: Parks Development DCC: \$141,075
 Parks Development City Assist: \$8,925

Scope: The Parks and Open Space Strategy, adopted by Council in 2013, included several actions for improving the planning for parks capital projects and management of parks infrastructure. As Richmond's parks and open space system expands, greater capacity for planning for that expansion and improved tracking of new infrastructure is required. Through this project a comprehensive review of the methods and systems used for planning and management (e.g., analysis of service gaps in the parks and open space system) will be conducted and recommendations for changes will be implemented. The project will also include planning for expanded use of the City's Geographical Information System. A consultant team will be retained to assist staff in completing this project (e.g., to perform data collection and analysis).



Program:	Parks Program	Sub-program:	Major Parks/Streetscapes
Project Name:	Richmond High Artificial Turf Field Replacement	Submission ID:	5240

Location: Richmond High, Granville Ave and Minoru Blvd.

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

Funding Sources: Special Sports: \$600,000

Scope: The purpose of this project is the removal, disposal and replacement of the artificial turf surface at Richmond High.

Richmond High artificial turf field was constructed in 2005 as a joint partnership between the School District and the City. Since the field serves as the only "green space" available for the school, it is used for all purposes and activities during school hours including sports, gathering areas and special events until 6:00 pm. After 6:00 pm the fields are consistently booked for both public and organized programmed use.

Artificial turf fields generally have a lifecycle of up to 10 years before the turf layer starts to breakdown due to wear and tear. Since this field has extended demands from both the School and public use year round on a daily basis, its surface has deteriorated more rapidly than other artificial turf fields in the City.

This project will be funded through the Special Sports Reserve account (collection from the sports fields user fees program).

This project supports Council Term Goals of a vibrant, active, and connected city and maintaining quality infrastructure for the sports and schools community.

Scope of work involves the removal, replacement and disposal of the artificial turf layer at Richmond High.

Estimated cost:

Removal and disposal of existing turf	\$80,000
Replacement and installation of new turf	\$450,000
Design and contingencies for base preparation	\$70,000



Program:	Parks Program	Sub-program:	Major Parks/Streetscapes
Project Name:	West Cambie Park	Submission ID:	3858

Location: West Cambie Area

Cost: \$700,000 **OBI:** \$12,559

Funding Sources: Parks Development DCC: \$658,350
Parks Development City Assist: \$41,650

Scope: This park and greenway are the main open spaces for the Alexandra neighbourhood of West Cambie. The park is six acres in size, and is centrally located within the area. It is unique because it contains stands of large trees, and remnants of garden landscapes from the original single family lots. The greenways will complete the connection to other sites within the overall City network, particularly to the Garden City Lands to the south. A major objective will be to preserve existing natural features while introducing new open space and recreational amenities, as well as district energy utility features to the park site.

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."

Work on the park has been deferred until expansion of the Alexandra District Energy Utility centre and installation of the geo-exchange field are completed in late fall of 2015. Park planning will include community consultation. This phase will focus on works including: installation of storm drainage and other underground utilities; completion of grading; construction of a pathway system; first phase implementation of the play environment; landscape planting; and installation of site furniture.



2016 Recommended Parks – Minor Parks Program

Table of Contents

Parks Ageing Infrastructure Replacement Program	90
Parks General Development	91
Playground Improvement Program.....	92

Program:	Parks Program	Sub-program:	Minor Parks
Project Name:	Parks Ageing Infrastructure Replacement Program	Submission ID:	4722

Location: Various Locations

Cost: \$140,000 **OBI:** \$ -

Funding Sources: Capital Revolving: \$140,000

Scope: The purpose of this replacement program consists of a multi-year phased approach to replace failed hard surfaces, parks and open space infrastructure. These include outdoor tennis, basketball, lacrosse, and hockey courts, baseball backstops, sports lighting fixtures and other amenities that cannot be funded through Parks DCCs because of the DCC Bylaw Restrictions for Capital Construction eligibility.

Many of these types of amenities have not been replaced for over 40 years and are in severely damaged condition. As a result, City Staff, Community Centres and their Associations are consistently being contacted to address the safety concerns from the public and sports groups. This program addresses the Council term goals of providing Quality Infrastructure Networks and a Safe Community.

For 2016, Thompson lacrosse box and tennis courts will be resurfaced. Blundell tennis courts also require repair. Also included are various chainlink fencing retrofits to backstops and park perimeter fencing.

Chainlink fencing retrofit (various sites)	\$70,000
Tennis Courts	\$30,000
Lacrosse box retrofit	<u>\$40,000</u>
Total	\$140,000



Program:	Parks Program	Sub-program:	Minor Parks
Project Name:	Parks General Development	Submission ID:	4685

Location: Various

Cost: \$350,000

OBI: \$6,166

Funding Sources: Parks Development DCC: \$329,175
 Parks Development City Assist: \$20,825

Scope: This ongoing program addresses special opportunities, emergency requests, and safety driven concerns from the public. As per City Council, this program funds new improvements of various park amenities and facilities that are not part of other larger park capital programs. This funding allows the City the flexibility and ability to respond to Council directions and appropriate public requests in a timely fashion.

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.

This project is relative to Council term goals of providing Quality Infrastructure Networks and a Safe Community.



Program:	Parks Program	Sub-program:	Minor Parks
Project Name:	Playground Improvement Program	Submission ID:	300

Location: Various Locations

Cost: \$200,000

OBI: \$8,349

Funding Sources: Revolving Fund: \$200,000

Scope: 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.

This program relates to the following Council Term Goals :

Goal 2 - A Vibrant, Active and Connected City

Goal 6 - Quality Infrastructure Networks

The preliminary priority projects for 2016 are two playgrounds at Palmer Garden City Neighbourhood School Park.



2016 Recommended Parks – Parkland Acquisition Program

Table of Contents

Parkland Acquisition94

Program:	Parks Program	Sub-program:	Parkland Acquisition
Project Name:	Parkland Acquisition	Submission ID:	4741

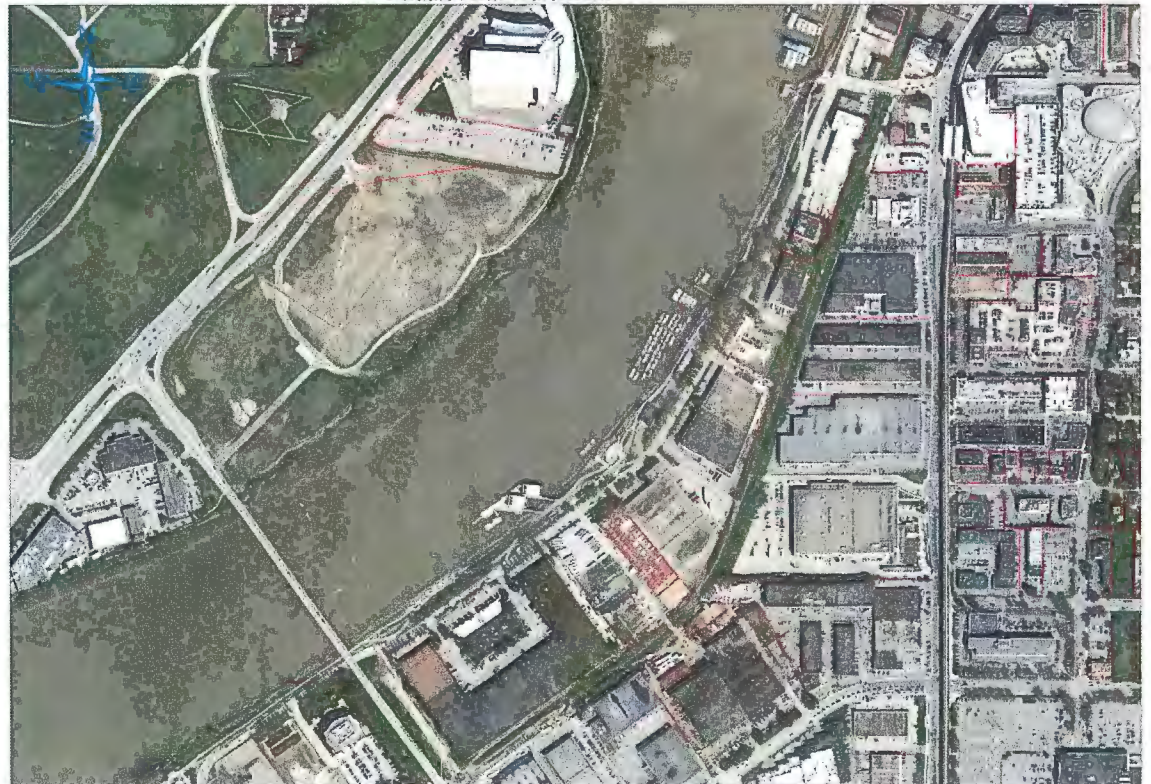
Location: As per Parks DCC Land Acquisition Plan

Cost: \$8,000,000 **OBI:** \$ -

Funding Sources: Parks Acquisition DCC: \$7,524,000
 Parks Acquisition City Assist: \$476,000

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 the funding from other City sources or pass bylaws to release the funds for each acquisition. The funding is typically allocated to an acquisition or acquisitions by year end.

Middle Arm Waterfront



Public Art Program 2016

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.

2016 Recommended Public Art Program

Table of Contents

Public Art Program.....96

Program:	Parks Program	Sub-program:	Public Art
Project Name:	Public Art Program	Submission ID:	4870

Location: Various Locations

Cost: \$1,119,813

OBI: \$10,000

Funding Sources: Public Art Program: \$1,119,813

Scope: The scope of work consists of a variety of public art projects.

City initiated public art projects of \$100,000 are funded by private developers contributions to the Public Art Reserve.

- Artwork located within City streets, parks and buildings: \$10,000
- Community public art projects: \$50,000
- Public education and promotion of the public art program: \$20,000
- Collaboration with other City cultural programs: \$10,000
- Community public art partnerships: \$10,000

Private development public art projects for \$1,019,813 are funded by private developer contributions to the Public Art Reserve for artwork that will be integrated with new development throughout the City.



Land Program 2016

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

2016 Recommended Land – Land Acquisition Program

Table of Contents

Strategic Land Acquisition	98
----------------------------------	----

Program:	Land Program	Sub-program:	Land Acquisition
Project Name:	Strategic Land Acquisition	Submission ID:	4922

Location: Various

Cost: \$21,200,000 **OBI:** \$ -

Funding Sources: Capital Industrial: \$21,200,000

Scope: 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.



Affordable Housing Project Program 2016

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.

2016 Recommended Affordable Housing Project Program

Table of Contents

Affordable Housing 2016 Operating Initiatives	100
Affordable Housing Projects - City Wide	101
Affordable Housing Projects - West Cambie	102
Affordable Housing Strategy Update	103

Program:	Affordable Housing Project	Sub-program:	Affordable Housing Project
Project Name:	Affordable Housing 2016 Operating Initiatives	Submission ID:	5703

Location: City Wide

Cost: \$130,000

OBI: \$ -

Funding Sources: Affordable Housing: \$130,000

- Scope:**
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 \$50,000.
 2. Single family rezoning accessory dwelling survey - At the direction of Planning Committee complete a survey of accessory dwelling units provided through single family rezonings to determine: are they rented/occupied; to whom; and for how much. The strategy will include hiring a consultant to survey a percentage of the accessory dwellings that have been created as a result of this rezoning requirement and gauge how the units are currently being used. The information gathered will inform future Council decisions with respect to the success of the requirement/supply of accessory dwellings through single family rezonings and whether this initiative is providing affordable housing solutions for residents of Richmond \$30,000.
 3. Video Production - A videographer is required to periodically film key benchmarks during the construction of the Storeys development (129 subsidized rental units targeted towards individuals at-risk of or experiencing homelessness, and community programming space). The end deliverable will be a video which will be submitted for award(s)/grant applications \$15,000.
 4. 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 \$15,000.
 5. Richmond Homelessness Coalition (meeting expense) - The RHC's goal is to bring stakeholders together on a bi-monthly basis to discuss and enact initiatives to address the immediate and future needs of Richmond's homeless and at-risk/vulnerable population \$10,000
 6. Affordable Housing Economic Analysis (Consulting) - Procure the services of a consultant to complete economic analysis of complex development applications as required Amount \$10,000



Program:	Affordable Housing Project	Sub-program:	Affordable Housing Project
Project Name:	Affordable Housing Projects - City Wide	Submission ID:	4862

Location: Various

Cost: \$400,000

OBI: \$ -

Funding Sources: Affordable Housing: \$400,000

Scope: To purchase land and financially contribute to various affordable housing projects as needs are identified, in accordance with the Council-adopted Affordable Housing Strategy.



Program:	Affordable Housing Project	Sub-program:	Affordable Housing Project
Project Name:	Affordable Housing Projects - West Cambie	Submission ID:	4868

Location: Various

Cost: \$225,000

OBI: \$ -

Funding Sources: Affordable Housing: \$225,000

Scope: To purchase land and financially contribute to various affordable housing projects as needs are identified in West Cambie, in accordance with the Council-adopted Affordable Housing Strategy.



Program:	Affordable Housing Project	Sub-program:	Affordable Housing Project
Project Name:	Affordable Housing Strategy Update	Submission ID:	5675

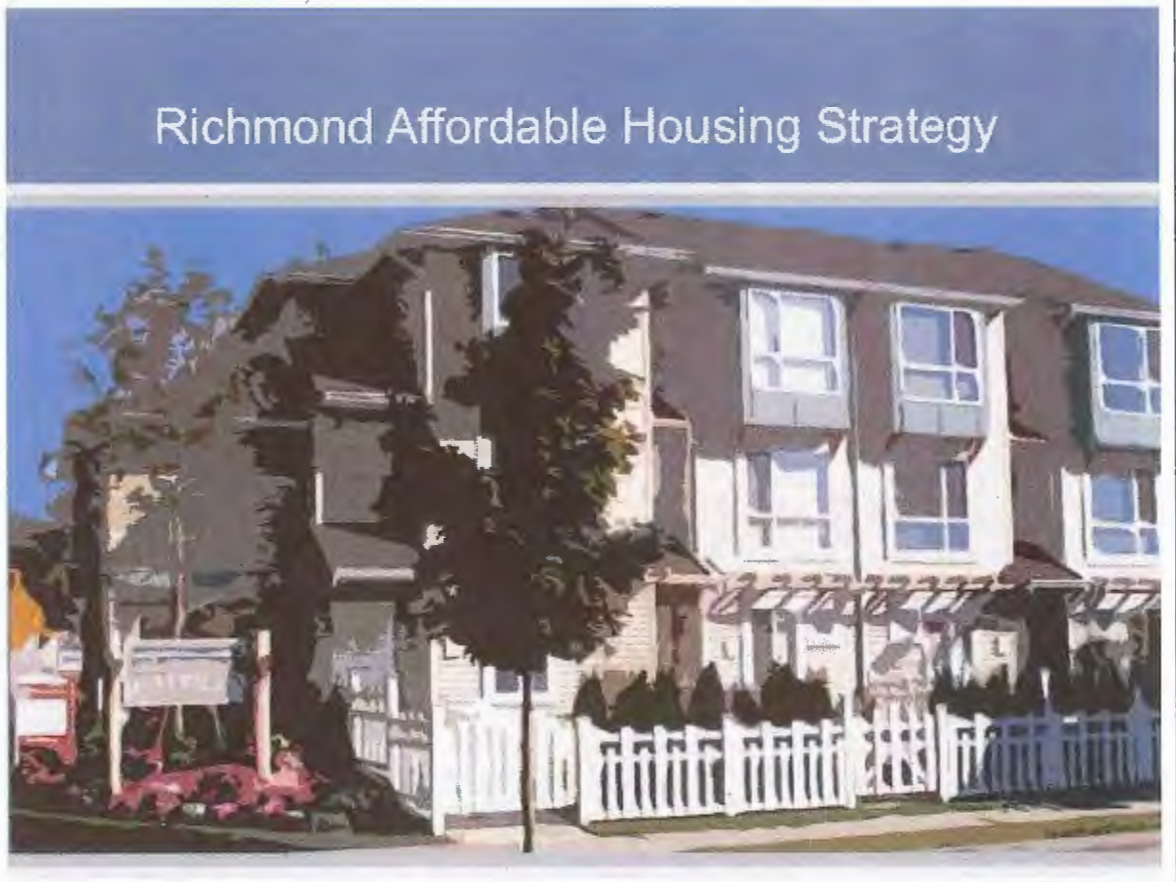
Location: City Wide

Cost: \$175,000

OBI: \$ -

Funding Sources: Affordable Housing: \$175,000

Scope: The scope of work will include: reviewing the existing Affordable Housing Strategy (AHS), its stated community priorities, and updating policies; stakeholder consultation on affordable housing issues/solutions; information gathering and drafting of input received/findings; creation of draft Housing Action Plan (HAP); presentation of updated AHS and draft HAP to stakeholders from comment; presentation of updated AHS and draft HAP to Council for consideration/adoption.



2016 Recommended Equipment – Annual Fleet Replacement Program

Table of Contents

Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet).....105

Program:	Equipment Program	Sub-program:	Annual Fleet Replacement
Project Name:	Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	Submission ID:	5664

Location: Works Yard and Various City Departments

Cost: \$1,612,000 **OBI:** \$ -

Funding Sources: Water Utility: \$400,000
 Sanitary Utility: \$260,000
 Public Works Equipment: \$952,000

Scope: Annual replacement of vehicles eligible due to age and condition in accordance with Sustainable Green Fleet Policy 2020.

Vehicle replacements in 2016 include 1 aerator, 1 trailer, 1 minivan, 1 sedan, 1 pickup, 4 Grumman style vans, 2 tandem dump trucks, 1 single axle dump truck and 1 crane truck.

Process for replacement of aging fleet is to establish needs and develop specifications for vehicle/equipment replacements. Send bid information out to the marketplace, evaluate submissions and award accordingly.



2016 Recommended Equipment – Fire Department Vehicles Program

Table of Contents

Fire Equipment Replacement.....	107
Fire Vehicle Replacement Reserve Purchases.....	108

Program:	Equipment Program	Sub-program:	Fire Dept Vehicles
Project Name:	Fire Equipment Replacement	Submission ID:	4673

Location: Fire-Rescue

Cost: \$25,500

OBI: \$ -

Funding Sources: Fire Equipment: \$25,500

Scope: To ensure we are able to provide fire services to the community Richmond Fire Rescue (RFR) maintains an inventory of hose.

Hose Replacement planned and funded by the Fire Equipment Reserve for 2016 is 30 lengths of hose.

Richmond Fire maintains an inventory of fire hose. This hose is inspected and tested annually and failing hose is replaced.

The objective is to maintain an adequate inventory of fire hose to effectively maintain the services.

Richmond Fire expects to continue with replacing 30 lengths of hose per year to maintain the hose inventory.



Program:	Equipment Program	Sub-program:	Fire Dept Vehicles
Project Name:	Fire Vehicle Replacement Reserve Purchases	Submission ID:	4672

Location: Fire-Rescue

Cost: \$1,629,500 **OBI:** \$ -

Funding Sources: Fire Equipment: \$1,629,500

Scope: To ensure we are able to provide fire services to the community

Richmond Fire Rescue (RFR) maintains a fleet of 15 Fire suppression trucks as well as support vehicles.

RFR has a designated "Vehicle & Equipment Reserve". The replacement plan for all apparatus is funded through the reserve.

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.

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".

RFR strives to maintain a maximum replacement cycle of 20 years with all suppression apparatus.



Equipment Program 2016

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

2016 Recommended Equipment – Technology Program

Table of Contents

2016 Server Replacements	110
Anderson Room Improvements	111
Annual Computer Hardware Refresh	112
Business Process Management Suite (BPMS)	113
Bylaws License Plate Recognition (LPR) System	114
Customer Relationship Management System (CRM)	115
Developing Asset Models for Eng. & Public Works	116
Log Management Implementation Payment Card Industry Compliance	117
PeopleSoft HR and Payroll System Upgrade & Workforce Management	118
Software Deployment Replacement Solution	119
WiFi Network Expansion Phase II	120

Program:	Equipment Program	Sub-program:	Computer Capital
Project Name:	2016 Server Replacements	Submission ID:	5716

Location: City Hall & Works Yard

Cost: \$303,000

OBI: \$ -

Funding Sources: Hardware Upgrade: \$303,000

Scope: In order to maintain our services, data centre server infrastructure is refreshed on a five to six year cycle. After that period of time, manufacturers will no longer provide service agreements due to the age of equipment. Equipment begins to fail more frequently after this period of use. These failures can cause extended outages of applications that the public and staff rely on daily.

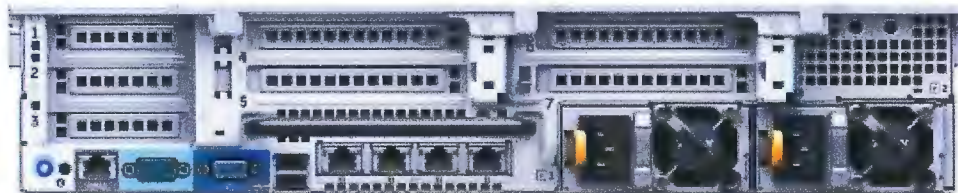
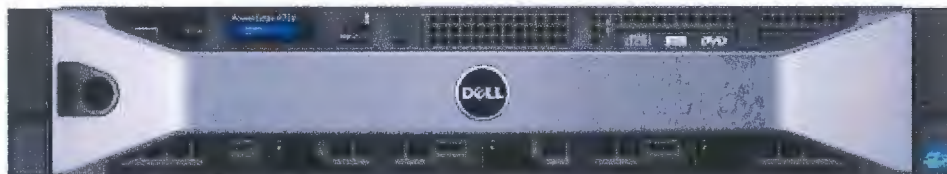
This capital request covers servers used for the following purposes:

Corporate database servers which support applications including Emergency Notification System, City web site, City GIS, and Sharepoint sites.

Servers responsible for managing all of the City's access accounts, passwords, and security information.

File servers which are used by staff in all departments to store files of various types, including "home" drives. There have been a few recent failures of these servers, which run PeopleSoft Financial and Human Resources systems.

Storage controllers, which manage the high-capacity disk storage arrays. These storage arrays are used by virtually every application in the entire City.



Program:	Equipment Program	Sub-program:	Computer Capital
Project Name:	Anderson Room Improvements	Submission ID:	5709

Location:	City Hall		
Cost:	\$105,000	OBI:	\$ -
Funding Sources:	Hardware Provision:	\$105,000	

Scope: The audio-visual equipment in Anderson Room and other meeting rooms is now fifteen years old. It was provided when City Hall was built. Fifteen years greatly exceeds the life expectancy of the equipment.

The technology has advanced considerably in those fifteen years, to the point where virtual meeting facilities with wireless collaboration tools are expected. Instead, we provide users with podiums that contain VCR and Cassette equipment, which is rarely if ever used.

Shaw has discontinued distribution of analog broadcast. This necessitates equipment replacement with HD-capable distribution equipment in many areas of City Hall

The old analog audio equipment that requires replacing has been heavily modified and maintained by a number of contractors over the last fifteen years. As a result, the conduits that carry the signal cables are now full and extensive re-cabling will be required.

Council Chambers equipment was replaced in 2013 at a cost of \$377K. The remaining equipment needing replacement includes that in the Anderson Room, other public meeting rooms, and staff meeting rooms in City Hall tower.

With a proper distribution network, Anderson Room, Council Chamber, and M2.004 could be used for "spillovers" during issues such as the Land Use Contract discussions.

Anderson Room 2016: Acoustical upgrade, paging equipment & sound system, audio-visual upgrade, audio system upgrade \$80K
 Analog to digital CATV distribution system replacement \$25K



Program:	Equipment Program	Sub-program:	Computer Capital
Project Name:	Annual Computer Hardware Refresh	Submission ID:	4901

Location: City Hall

Cost: \$408,919

OBI: \$ -

Funding Sources: Hardware Upgrade Provision: \$408,919

Scope: The IT Department Annual Computer Hardware Refresh is an equipment program where corporate computer equipment is replaced on a fixed schedule; it also provides a marginal replacement inventory for unexpected equipment failures. This approach maintains business productivity, reduces maintenance costs and ensures corporate desktop computers are technically appropriate for the software applications used in its City business services and practices.

The planned equipment list for the 2016 Annual Computer Hardware Evergreen includes:

- 277 Desktops
- 13 Workstations
- 28 Laptops
- 4 Laptops w/Docking station
- 212 Monitors
- 13 iPads
- 3 Large Footprint Printers
- 8 Small Footprint Printers



Program:	Equipment Program	Sub-program:	Computer Capital/Software
Project Name:	Business Process Management Suite (BPMS)	Submission ID:	5725

Location: City Hall

Cost: \$600,000

OBI: \$55,000

Funding Sources: Software Provision: \$600,000

Scope: As part of the Digital Strategy, the City of Richmond is implementing technology that will enable the city to optimize and support processes across business units. This technology will enable customers to easily request services through a common web and/or mobile application interface.

The process management system will interface to each of our lines of business systems using the digital nervous ecosystem and enable an integrated approach in how services are managed for our customers. Through the integration of business process and customer relationship management, our customers will have an easy and consistent view of their interactions with the City.

Processes will be created, automated and optimized across business units for enhancing the customer experience.

Through continued use of this system, business processes can be easily documented permitting ongoing best practice reviews which enables the City to prepare for rapid change and innovation.



Program:	Equipment Program	Sub-program:	Technology
Project Name:	Bylaws License Plate Recognition (LPR) System	Submission ID:	5695

Location:	City Hall		
Cost:	\$197,120	OBI:	(\$161,404.50)
Funding Sources:	Enterprise:	\$197,120	

Scope: The License Plate Recognition (LPR) system is a multi-faceted solution providing an immediate increase in revenue for the City of Richmond (approximately \$261,920 annually) and a potential to reallocate resources to other needs in the City. This project will have a payback within 3 years. The LPR system moves the City to a licensed-enabled parking solution that seamlessly integrates with the City's new parking meters.

Users enter their license plate number and time required at the meter. Data is communicated to a Parking enforcement vehicle equipped with an LPR camera and system. As the vehicle patrols streets and parking lots the camera reads license plates identifying license plates that are paid, have no permit or are unpaid. A citation is printed using a mobile printer in the LPR vehicle and the officer places the citation on the windshield of the vehicles in violation.

This solution can use either a smart phone to issue parking tickets or handheld device similar to the one being used by staff today. They are linked to a portable thermal printer. Benefits are a significant decrease in the original purchase costs of handhelds, these devices are also cheaper to repair or replace.

This system provides efficiencies, cost savings and improved customer service. Real-time information allows customers 24/7 access to handle parking business on-line. The ability to pay and appeal violations and purchase parking permits like the City tags and decals. Reports for statistical and audit purposes are available to save staff time and can be used to print evidence related to infractions. Other benefits include the importation of violation tickets, customer information and vehicle data, and interfaces with ICBC to obtain vehicle owner information, the Tempest system as well as the City's current collections agency.



Program:	Equipment Program	Sub-program:	Computer Capital/Software
Project Name:	Customer Relationship Management System (CRM)	Submission ID:	5723

Location: City Hall

Cost: \$900,000

OBI: \$100,000

Funding Sources: Software Provision: \$900,000

Scope: As part of the Digital Strategy, the City is implementing technology to enable a customer centric focus which includes Customer Relationship Management software, and a personalized Customer Web Portal.

The vision is to provide software that will connect individuals, improve communication, and build relationships with the City's customers. The system acts as a single point of view to engage and manage customer expectations across various business units..

The benefits of a CRM includes:

- Citizens will have a single view of all their requests, case history and real time status on the City's website or mobile app.

- Operational entities will set performance standards for use in responding to service requests. Actual performance will be measured and monitored.



Program:	Equipment Program	Sub-program:	Technology
Project Name:	Developing Asset Models for Eng. & Public Works	Submission ID:	5726

Location: City Wide

Cost: \$150,000

OBI: \$ -

Funding Sources: Computer Equipment: \$150,000

Scope: Public Works is proposing to engage an external consultant who can recommend and apply current financial and engineering standards and best practices as per the Canadian Municipal Data Model (CMDM) to our asset models (i.e. hierarchical structuring of Public Works and Facilities asset types). Deliverables include a project plan and budget to convert our assets and/or perform data collection and analysis. The project will also include planning for expanded use of the City's Geographical Information System.



Program:	Equipment Program	Sub-program:	Computer Capital/Software
Project Name:	Log Management Implementation Payment Card Industry Compliance	Submission ID:	5731

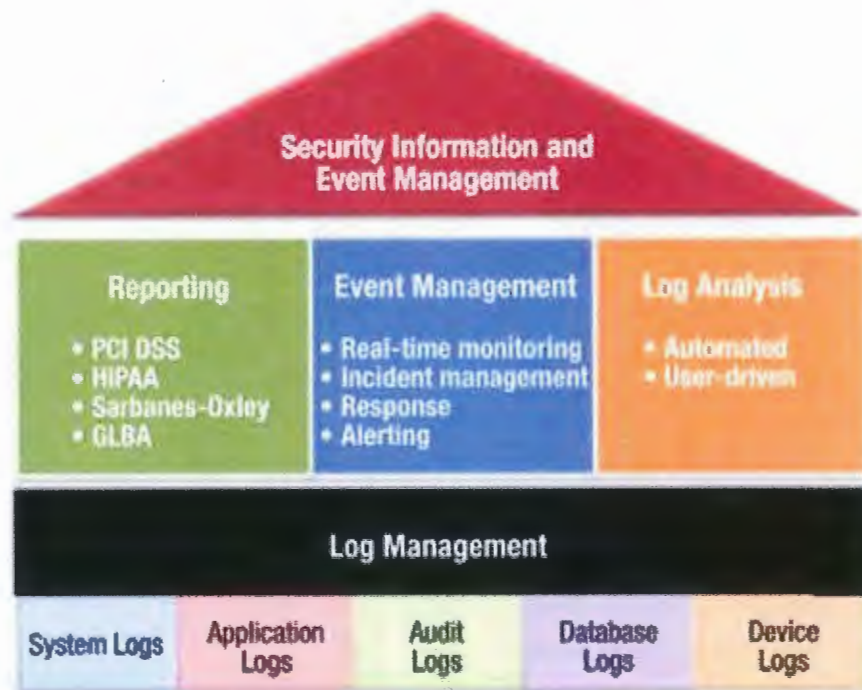
Location: City Hall

Cost: \$120,000

OBI: \$ -

Funding Sources: Other Equipment: \$120,000

Scope: Payment Card Industry Data Security Standard (PCI DSS) is a set of information security standards to ensure that organizations that process, store or transmit credit card information are to maintain a secure environment. These standards were created to increase controls around cardholder data to reduce fraud and theft involving payment cards. As part of the compliancy process to meet these standards, the City is to implement an electronic log management system to proactively and centrally track system user activities which will enhance security, detect and minimize the impact of a data compromise.



Program:	Equipment Program	Sub-program:	Computer Capital/Software
Project Name:	PeopleSoft HR and Payroll System Upgrade & Workforce Management	Submission ID:	5724

Location:	City Hall		
Cost:	\$1,751,000	OBI:	\$82,000
Funding Sources:	Software Provision:	\$951,000	
	Other:	\$800,000	
Scope:	<p>The City is implementing technology to improve and streamline the management of its workforce. The vision is to provide software that will automate staff scheduling, time and labour entries, and generate statistics and analytics that will assist in better managing and improving operational efficiencies.</p> <p>Technology automation will include web-based portal for employee self service, automated time clocks for time entry, telephone access to schedule, automated confirmation of shifts configurations, and mobile app for schedule change requests and time entry.</p> <p>This project will be a 2-year undertaking. The funding request is for 2 years.</p> <p>The first year focused on upgrading the City’s Human Resources and Payroll System (Peoplesoft Human Capital Management System).</p> <p>The second year will be the implementation of the Workforce Management System to a select number of business units.</p>		



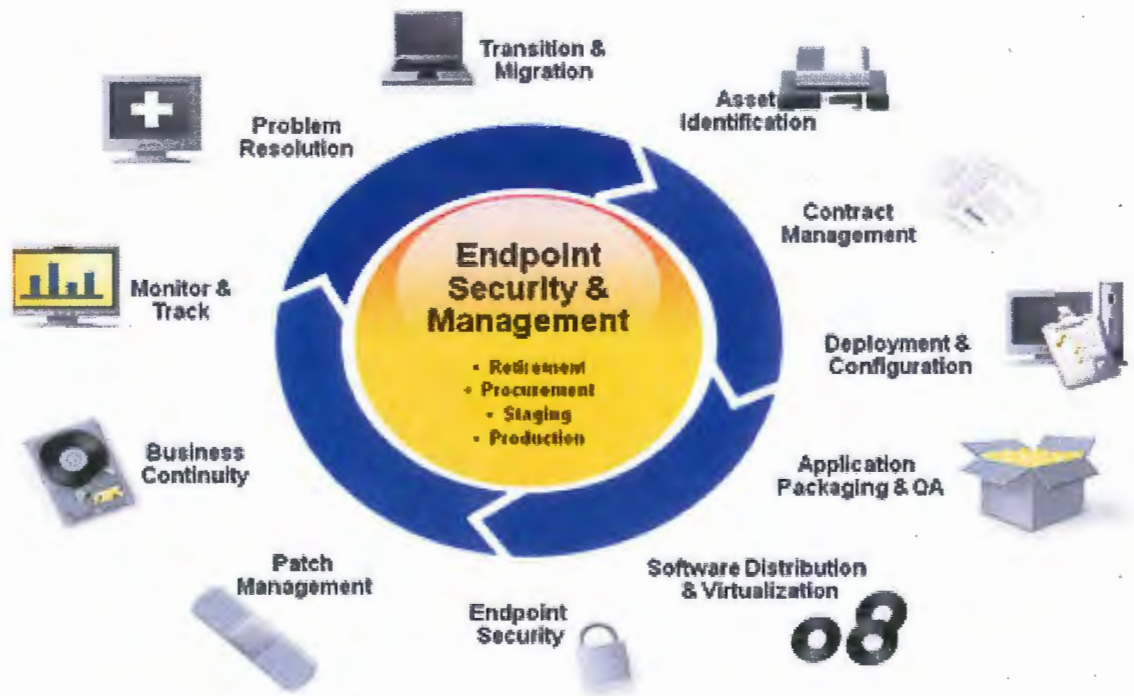
Program:	Equipment Program	Sub-program:	Computer Capital/Software
Project Name:	Software Deployment Replacement Solution	Submission ID:	5730

Location: City Hall

Cost: \$115,000 **OBI:** (\$12,000.00)

Funding Sources: Software Provision: \$115,000

Scope: The IT Department requests funding to replace its obsolete software deployment tool, which has increasing support costs as the manufacturer has decided to no longer support this software. Replacing this tool with a newer technology will represent a decrease in the current operating costs (maintenance and support) for the existing tool of approximately \$12,000 per year. Newer technologies and capabilities will minimize the time and effort required to deploy and manage software on users' computers.



Program:	Equipment Program	Sub-program:	Technology
Project Name:	WiFi Network Expansion Phase II	Submission ID:	5468

Location: Firehall/Community Centres/Parks/Heritage Sites

Cost: \$204,500

OBI: \$1,000

Funding Sources: Hardware Provision: \$204,500

Scope: As part of the Digital Strategy vision, this project will extend the City's public Wi-Fi network to indoor areas in the following civic buildings and adjacent outdoor areas.

This service will allow the guests to obtain internet access on demand, and staff will have coverage for business purposes such as mobile card scanning, and telephone portability. Coverage would be extended to all publicly accessible areas in these buildings.

- Richmond Ice Centre
- Watermania
- Cambie CC
- Branscombe House
- East Richmond Community Hall
- Steveston JCC & Martial Arts Building
- Hamilton CC
- Lang CC



Child Care Program 2016

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.

2016 Recommended Child Care Program

Table of Contents

Child Care Projects - City Wide	122
---------------------------------------	-----

Program:	Child Care Program	Sub-program:	Child Care Program
Project Name:	Child Care Projects - City Wide	Submission ID:	4888

Location: Various

Cost: \$50,000

OBI: \$ -

Funding Sources: Child Care Development Reserve: \$50,000

Scope: To provide sufficient funding to administer the City's 2016 Child Care Capital Grants Program. These grants support non-profit child care operators with capital improvements to enhance their child care programs, e.g., minor renovations, outdoor playground upgrades, the purchase of equipment and furnishings.



Internal Transfers/Debt Payment Program 2016

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

2016 Recommended Internal Transfers/Debt Payment Program

Table of Contents

General Parkland Acquisition Repayment.....	124
Nelson Road Interchange Repayment	125
River Rd/North Loop (2005) Repayment.....	126
Shovel - Ready Grant (2009) Repayment Lansdowne Rd Extension.....	127
Transfer of funding to Revolving Fund from Watermain Replacement Reserve.....	128
West Cambie Parkland Acquisition Repayment.....	129

Program:	Internal Transfers/Debt Payment	Sub-program:	Internal Transfers/Debt Payment
Project Name:	General Parkland Acquisition Repayment	Submission ID:	5752
Location:	Finance		
Cost:	\$1,992,825	OBI:	\$ -
Funding Sources:	Parks DCC: \$1,873,174 Parks City Assist: \$119,651		
Scope:	<p>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).</p> <p>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 the funding from other City sources or pass bylaws to release the funds for each acquisition.</p> <p>Acquisition of land as prioritized in the Council approved 2009 Park Land Acquisition strategy for the purposes of creating or completing parks and open spaces to meet the needs of the city's growing population. The funding is typically allocated to an acquisition or acquisitions by year end.</p>		

Program:	Internal Transfers/Debt Payment	Sub-program:	Internal Transfers/Debt Payment																																																						
Project Name:	Nelson Road Interchange Repayment	Submission ID:	5298																																																						
Location:	Finance																																																								
Cost:	\$385,098	OBI:	\$ -																																																						
Funding Sources:	Roads DCC: \$385,098																																																								
Scope:	<p>A total of \$2.54M is to be repaid from Roads DCC to Surplus over 8 years. The 2016 payment of \$385,098 is the 3rd of eight equal payments.</p> <table border="1"> <thead> <tr> <th>Payment</th> <th>Year</th> <th>Balance</th> <th>Payment</th> <th>Interest</th> <th>Principal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2014</td> <td>\$2,540,065</td> <td>\$(385,098)</td> <td>114,303</td> <td>270,795</td> </tr> <tr> <td>2</td> <td>2015</td> <td>\$2,269,270</td> <td>\$(385,098)</td> <td>102,117</td> <td>282,981</td> </tr> <tr> <td>3</td> <td>2016</td> <td>\$1,986,289</td> <td>\$(385,098)</td> <td>89,383</td> <td>295,715</td> </tr> <tr> <td>4</td> <td>2017</td> <td>\$1,690,574</td> <td>\$(385,098)</td> <td>76,076</td> <td>309,022</td> </tr> <tr> <td>5</td> <td>2018</td> <td>\$1,381,552</td> <td>\$(385,098)</td> <td>62,170</td> <td>322,928</td> </tr> <tr> <td>6</td> <td>2019</td> <td>\$1,058,624</td> <td>\$(385,098)</td> <td>47,638</td> <td>337,460</td> </tr> <tr> <td>7</td> <td>2020</td> <td>\$ 721,164</td> <td>\$(385,098)</td> <td>32,452</td> <td>352,646</td> </tr> <tr> <td>8</td> <td>2021</td> <td>\$ 368,518</td> <td>\$(385,098)</td> <td>16,583</td> <td>368,515</td> </tr> </tbody> </table>			Payment	Year	Balance	Payment	Interest	Principal	1	2014	\$2,540,065	\$(385,098)	114,303	270,795	2	2015	\$2,269,270	\$(385,098)	102,117	282,981	3	2016	\$1,986,289	\$(385,098)	89,383	295,715	4	2017	\$1,690,574	\$(385,098)	76,076	309,022	5	2018	\$1,381,552	\$(385,098)	62,170	322,928	6	2019	\$1,058,624	\$(385,098)	47,638	337,460	7	2020	\$ 721,164	\$(385,098)	32,452	352,646	8	2021	\$ 368,518	\$(385,098)	16,583	368,515
Payment	Year	Balance	Payment	Interest	Principal																																																				
1	2014	\$2,540,065	\$(385,098)	114,303	270,795																																																				
2	2015	\$2,269,270	\$(385,098)	102,117	282,981																																																				
3	2016	\$1,986,289	\$(385,098)	89,383	295,715																																																				
4	2017	\$1,690,574	\$(385,098)	76,076	309,022																																																				
5	2018	\$1,381,552	\$(385,098)	62,170	322,928																																																				
6	2019	\$1,058,624	\$(385,098)	47,638	337,460																																																				
7	2020	\$ 721,164	\$(385,098)	32,452	352,646																																																				
8	2021	\$ 368,518	\$(385,098)	16,583	368,515																																																				

Program:	Internal Transfers/Debt Payment	Sub-program:	Internal Transfers/Debt Payment
Project Name:	River Rd/North Loop (2005) Repayment	Submission ID:	2305

Location: Finance

Cost: \$1,685,056 **OBI:** \$ -

Funding Sources: Roads DCC: \$1,685,056

Scope: A total of \$18.2M is to be repaid from Roads DCCs to Surplus over 18 years. The 2016 payment of \$1,685,056 is the 11th of 18 payments.

Payments	Year	Balance	Payment	Interest	Principal
1	2006	17,100,000	(1,769,576)	598,500	1,171,076
2	2007	15,928,924	(1,200,000)	557,512	642,488
3	2008	16,236,436	(1,867,000)	568,275	1,298,725
4	2009	14,937,712	(1,867,000)	522,820	1,344,180
5	2010	13,593,532	(468,210)	475,774	(7,564)
6	2011	13,601,095	(300,000)	476,038	(176,038)
7	2012	13,777,133	(200,000)	482,200	(282,200)
8	2013	14,059,333	(1,939,202)	492,077	1,477,125
9	2014	12,612,208	(1,317,000)	441,427	875,573
10	2015	11,736,635	(1,685,056)	410,782	1,274,274
11	2016	10,462,361	(1,685,056)	366,183	1,318,873
12	2017	9,143,566	(1,685,056)	320,022	1,365,034
13	2018	7,778,454	(1,685,056)	272,246	1,412,810
14	2019	6,365,644	(1,685,056)	222,798	1,462,258
15	2020	4,903,386	(1,334,953)	171,618	1,163,334
16	2021	3,488,258	(1,334,953)	130,902	1,204,051
17	2022	2,023,601	(1,334,953)	88,760	1,246,193
18	2023	507,681	(1,334,955)	45,143	1,289,812

Program:	Internal Transfers/Debt Payment		Sub-program:	Internal Transfers/Debt Payment		
Project Name:	Shovel - Ready Grant (2009) Repayment Lansdowne Rd Extension		Submission ID:	3781		
Location:	Finance					
Cost:	\$77,263		OBI:	\$ -		
Funding Sources:	Roads DCC: \$77,263					
Scope:	<p>A total of \$626,666 is to be repaid from Roads DCC to the Watermain Replacement Reserve over 10 years.</p> <p>The 2016 payment of \$77,263 is the 7th of 10 equal payments</p> <p>The loan amortization schedule is:</p>					
	Payment	Year	Balance	Payment	Interest	Principal
	1 -	2010	626,666	\$(77,263)	25,067	52,196
	2 -	2011	574,470	\$(77,263)	22,979	54,284
	3 -	2012	520,185	\$(77,263)	20,807	56,456
	4 -	2013	463,730	\$(77,263)	18,549	58,714
	5 -	2014	405,016	\$(77,263)	16,201	61,062
	6 -	2015	343,954	\$(77,263)	13,758	63,505
	7 -	2016	280,449	\$(77,263)	11,218	66,045
	8 -	2017	214,404	\$(77,263)	8,576	68,687
	9 -	2018	145,717	\$(77,263)	5,829	71,434
	10 -	2019	74,283	\$(77,254)	2,971	74,283

Program:	Internal Transfers/Debt Payment	Sub-program:	Internal Transfers/Debt Payment
Project Name:	Transfer of funding to Revolving Fund from Watermain Replacement Reserve	Submission ID:	5758
Location:	Finance		
Cost:	\$6,000,000	OBI:	\$ -
Funding Sources:	Revolving Fund		\$6,000,000
Scope:	<p>The purpose of this submission is to change the funding source for previously approved capital projects related to the Alexandra District Energy Utility program.</p> <p>The Alexandra District Energy Utility assets will be transferred to the Lulu Island Energy Corporation in 2016. In preparation of this transfer, the project will be funded from the Revolving Fund with future repayments to be deposited back into the Revolving Fund.</p>		

Program:	Internal Transfers/Debt Payment	Sub-program:	Internal Transfers/Debt Payment
Project Name:	West Cambie Parkland Acquisition Repayment	Submission ID:	5753
Location:	Finance		
Cost:	\$1,600,000	OBI:	\$ -
Funding Sources:	Parks DCC: \$1,600,000 Parks City Assist: -		
Scope:	<p>West Cambie Parkland Acquisition DCC is repaying General Parkland Acquisition DCC for previous Parkland Acquisitions.</p> <p>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 the funding from other City sources or pass bylaws to release the funds for each acquisition.</p> <p>Acquisition of land as prioritized in the Council approved 2009 Park Land Acquisition strategy for the purposes of creating or completing parks and open spaces to meet the needs of the city's growing population. The funding is typically allocated to an acquisition or acquisitions by year end.</p>		

Building Program Unfunded Projects 2016

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

2016 Unfunded Building Program

Table of Contents

Interurban Tram Restoration.....	131
London Heritage Farm Outbuildings.....	132
Works Yard Survey Inspector System Renewals.....	133

Program:	Building Program	Sub-program:	Major Building
Project Name:	Interurban Tram Restoration	Submission ID:	5671

Location: Steveston Park

Cost: \$396,000 **OBI:** \$ -

Funding Sources: Capital Revolving: \$396,000

Scope: The BC Electric Railway Interurban Tram #1220, built in 1912, is the largest and most valuable artefact in the City’s collection. The first phase of restoration, funded through the Steveston Road Ends account, will be completed by mid 2016 and includes extensive mould remediation, a hazardous materials assessment, an inventory of parts, review of best practices, and a draft restoration plan. Phase 2 is the final stage of restoration and will include exterior bodywork, roof repair, detailed electrical and mechanical assessment, stabilization and repair (if necessary) of all systems including the undercarriage and trucks as well as interior finishes and furnishings. Full restoration of this artefact ensures optimum preservation for future generations while delayed restoration will risk further deterioration. Phase 2 funding was approved for 2011 but was subsequently diverted in 2012 to the Tram building completion. The OBI was approved as part of the 2011 submission.



Program:	Building Program	Sub-program:	Major Building
Project Name:	London Heritage Farm Outbuildings	Submission ID:	5708

Location: London Heritage Farm

Cost: \$389,360

OBI: \$13,611

Funding Sources: Capital Revolving: \$389,360

Scope: Repair the out buildings (barn, toolsheds, chicken coop and bee house) at London Farm and provide ongoing maintenance. London Heritage Farm (LHF) is owned by the City and operated by the London Heritage Farm Society (LHFS). LHF, designated a Heritage Site in 1979, encompasses 4.06 acres of land including gardens, a heritage building, a caretaker's residence, public washrooms and various outbuildings. Over 15,000 visitors come to LHF each year and rentals for weddings, picnics and other private functions have increased.

As demands on the site grow, there has been a challenge meeting the maintenance requirements for the outbuildings, for which historically the LHFS had assumed responsibility. This includes but is not limited to tool sheds, a gazebo, barn, chicken and bee house. LHFS does not have the resources to maintain the site as many of the maintenance issues are beyond the skill set of their staff and volunteers and exceed their resources. This has resulted in outbuilding systems reaching the end of their life-cycle without the resources to fix or replace them. Subsequently, deteriorating buildings pose a risk to public health and safety and to the heritage site.

The objective of this request is to invest in LHF to improve the outbuildings and bring them up to current safety standards, and to provide ongoing support to maintain the buildings ensuring a safe environment for visitors and volunteers. This is an opportunity to provide support for LHFS so that they may focus their work on heritage interpretation and providing the community and tourists with a unique visitor experience of a valued City heritage asset.



Program:	Building Program	Sub-program:	Minor Building
Project Name:	Works Yard Survey Inspector System Renewals	Submission ID:	5502

Location: 5599 Lynas Lane

Cost: \$315,000

OBI: \$ -

Funding Sources: Capital Revolving: \$315,000

Scope: Replacement and renewal of outdated and obsolete mechanical, electrical, building envelope and finishes that have reached the end of their useful service life.

Mechanical to include water heater and exhaust system replacement.

Electrical to include lighting upgrades and security system replacement.

Envelope and finishes to include: exterior windows, door assemblies, roofing system, ceramic tiling, flooring and ceilings. Exterior painting will also be performed.

Miscellaneous upgrades as required as the work progresses.



Equipment Program Unfunded Projects 2016

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

2016 Unfunded Equipment Program

Table of Contents

Emergency Supply Cabinets Project	135
Emergency Supplies Container Project.....	136
Meeting Room Evergreen & Media Distribution Network Phase I.....	137

Program:	Equipment Program	Sub-program:	Miscellaneous Equipment
Project Name:	Emergency Supply Cabinets Project	Submission ID:	5722

Location: City Wide

Cost: \$125,000

OBI: \$ -

Funding Sources: Capital Revolving: \$125,000

Scope: This Capital Project is for the supply and installation of thirty cabinets of emergency supplies in City facilities for immediate short term response to emergencies. The cabinets are of sturdy steel construction containing emergency supplies for staff that are containerized for immediate deployment.

Cabinets would be located:

1. On each floor of City Hall
2. On the occupied floors of the Annex
3. In one of the Minoru complex buildings
4. At the Richmond Olympic Oval
5. In nine cabinets at the Works Yard for the staff based there
6. Eight other locations around Richmond for staff working in those areas.

Cabinets would contain:

1. Rescue and safety equipment such as hard hats, work gloves and safety goggles.
2. Emergency supplies such as emergency blankets, radio, flashlights and whistles.
3. Emergency food bars and drinking water.
4. First aid kits to assist until advanced medical personnel arrive.

This project provides critical resources and supplies at the onset of an emergency or disaster for staff to respond to the incident and provide critical services to the community. The intent of this project is for short term immediate emergency response.

An additional Capital Project proposal has also been submitted for the supply and installation of sea containers and emergency supplies (Emergency Supplies Container / Disaster Staging Area project) located around the City. The intent of this project is for more robust supplies in sea containers to provide staff with a physical muster point, critical emergency supplies, food, water, portable sanitation stations and additional equipment and resources to provide for a sustained response by staff for larger emergencies or disasters such as an earthquake



Program:	Equipment Program	Sub-program:	Miscellaneous Equipment
Project Name:	Emergency Supplies Container Project	Submission ID:	5694

Location: City Wide

Cost: \$515,400

OBI: \$53,910

Funding Sources: Capital Revolving: \$515,400

Scope: This Capital Project is for the supply and installation of ten sea containers containing sufficient emergency supplies for a sustained long term response to major emergencies or disasters. Located strategically around the city, these will serve as:

1. Dedicated physical muster points for staff out working around the City to gather and establish staff accountability
2. Provision of emergency supplies including first aid, food, water, portable sanitation and rescue response equipment to support staff efforts post a disaster

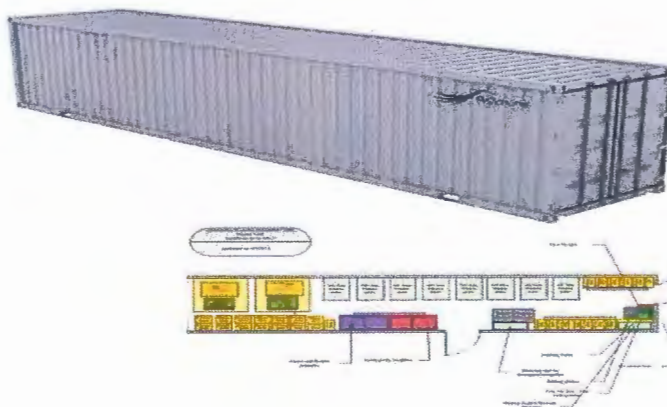
The ten containers will require insulation, heating, cooling and lighting and would be located on City property at City centre, the Works Yard and eight other strategic locations around the City.

During a large scale emergency or disaster, supply chain management may be impacted. These caches of emergency response supplies would bridge the time period between the onset of the emergency and the re-establishment of the supply chain.

Staff emergency supplies would include items such as work gloves, flash lights, safety goggles, tarps, portable sanitation stations and first aid equipment. Emergency food and water solutions would be selected to have a longer term shelf life (5 years), meet nutritional requirements and be ready to eat with no additional resource requirements.

This project provides critical resources and supplies at the onset of a major emergency or disaster for staff to respond and provide critical services to the community until supply chains can be re-established. The intent of this project is for the longer term sustained response by staff for larger emergencies or disasters such as an earthquake.

An additional Capital Project proposal has also been submitted for the supply and installation of thirty emergency supplies cabinets located around the City. The intent of this project is for short term immediate emergency response.



Program:	Equipment Program	Sub-program:	Computer Capital
Project Name:	Meeting Room Evergreen & Media Distribution Network Phase I	Submission ID:	5759

Location: City Hall

Cost: \$337,200 **OBI:** \$ -

Funding Sources: Hardware Upgrade Provision: \$337.200

Scope: Public Meeting Rooms paging equipment & sound system
 Public Meeting Rooms video distribution network
 Fibre cabling for media distribution
 Analog-to-digital cable TV system upgrade
 Cat-6e or fibre cabling for digital TV
 Public Meeting Rooms podium & presentation systems upgrade
 Upgrade the video distribution network, include conferencing for council chambers to meeting rooms (cameras in each room)

