

## **Report to Committee**

To:

**Finance Committee** 

Date:

January 20, 2015

From:

Jerry Chong, CA Director, Finance File:

03-0970-25-2015-

01/2014-Vol 01

1 10111

Re:

2015 Capital Budget

## **Staff Recommendation**

#### That:

1. The 2015 Capital Budget totalling \$92.5M be approved and staff authorized to commence the 2015 Capital Projects; and

2. The Five-Year Financial Plan (2015-2019) be prepared for presentation to Council incorporating the 2015 Capital Budget.

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

Att. 5

CONCURRENCE OF GENERAL MANAGER

REPORT CONCURRENCE

CONCURRENCE OF SMT

le Culu le

APPROVED BY CAO

#### **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 (2015) and provides estimates for the remaining years of the five-year program. The 5YFP (2015-2019) 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 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 \$1.8 billion. The Capital budget allows the City to sustain existing civic infrastructure, while also adding new facilities and services to serve the growing community.

This budget acts as a tool where capital projects (e.g. parks, trails, facilities, roads, etc.) are prioritized and capital resources evaluated over a 5-year time horizon. 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.

The 5YFP provides authorization for the use of certain funding sources such as Development Cost Charges (DCCs) and Statutory Reserves for internal transfers, transfers to the operating budget for non-tangible capital assets and debt re-payments.

#### **Analysis**

This report presents the proposed 2015-2019 Capital Budget and seeks Council review and approval on 2015 recommended projects and the operating expenditures associated with each respective project. The proposed Capital Budget for 2015 is \$92.5 million. In comparison, the approved 2014 Capital program was \$192.1 million featuring \$129.1 million for the Minoru Complex and City Centre Community Centre. Consistent with historical trends, in the years following major capital investment, the capital program returns to a basic replacement program to ensure existing infrastructure is kept in excellent condition.

Capital funds are directed towards infrastructure and asset management programs and the highest priority projects to meet Council direction and the needs of the citizens of Richmond. The priorities are aligned with City priorities such as the Sustainability Framework, Parks and Open Space Strategy and Social Development Strategy. Examples of these are:

- Alexandra District Energy Utility Expansion Phase 3 (2015).
- Garden City Lands Phase 1 of the design and construction of the City's largest recent land acquisition for public open space.

• Middle Arm / Hollybridge Pier waterfront park system, which continues to evolve with new features being added.

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.

Over the past decade, Council has used the capital budget to fund construction of three new fire halls, acquisition and retrofitting of the new Community Safety building, purchase of the Garden City Lands and other park and strategic lands, purchase of environmentally sensitive Grauer lands and Northeast Bog Forest, completion of a major expansion of Hamilton Community Centre, Highway 91/Nelson Road Interchange, 20 pump stations, the Richmond Olympic Oval, City Centre Community Centre and the new Minoru Complex among various other projects.

## 2015 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 Figure 1.

Figure 1 – Capital Ranking Criteria

· Does this support a Council Term Goal or Alignment with City Vision an approved City strategy? Is there a legal or regulatory compliance requirement and/or a risk that needs to Risk Management be managed? • Will this enhance social equity, vibrancy and/or health and wellness of the Social community? Will this improve environmental Environmental conditions or reduce waste? Will there be a payback of capital costs and/or economic benefit to the Economic community?

Figure 2 – Capital Budget Process

Figure 2 outlines the process behind the 2015-2019 Capital Budget.

Review Capital Budget process and identify focus areas; and
 Publish guidelines for the preparation of capital submissions

 Prepare capital and operating budget impact (OBI) submissions

 Division review and ranking of 2015-2019 capital submissions

 Capital Review Committee ranking of all 2015-2019 capital and OBI submissions

 Prepare preliminary list of recommended projects based on rank and funding availability

 SMT and CAO review of Capital Budget and recommendation finalized

 Present 2015-2019 Capital Budget to Finance Committee

Present 2015-2019 Financial Plan Bylaw to Council for approval

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 2015 Capital Budget presented to Finance Committee for review and approval.

At the Committee's discretion, any Capital project recommended for funding may be removed from the recommended list; Appendix 1 provides a list of the recommended projects. In addition, any Capital project that is not recommended for funding may be reconsidered for recommendation, subject to funding availability. Appendix 2 provides a list of those projects not recommended for funding.

For information purpose, Appendix 3 summarizes the projects recommended for funding from the Revolving Fund.

## 2015 Capital Highlights

The following is an overview of the major program areas funded through the capital budget with selected highlights of proposed 2015 initiatives being recommended to Council. The 2015 budget 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.

#### Infrastructure – \$49.6M:



The City's Infrastructure Program funds assets that include: road, drainage and sanitary pump stations, drainage, water, and sanitary mains. For 2015 it encompasses investing \$49.6 million on improving the City's civic infrastructure.

The 2015 program includes Horseshoe Slough Pump Station Rebuild, No 1 Road Box Culvert rehabilitation, Burkeville drainage, Vulcan Way Sanitary Forcemain Replacement, watermain replacements, residential water metering, and pavement upgrades, including resurfacing the Bridgeport Overpass.

#### Parks - \$12.3M:



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 2015 program includes work on Lang Park Redevelopment, development of the Garden City Lands Phase 1, Middle Arm/Hollybridge Pier, Seine Net Loft Deck Repair and The Gardens Agricultural Park.

#### Land - \$10.0M:



The 2015 land acquisition program relates to the acquisition of real property for the City. This is funded by surplus from previous land sales and not through general revenue. Council approval is required for each acquisition; funding is in place to act on opportunities as they arise.

## Equipment - \$7.9M:



The 2015 equipment program includes phase 1 implementation of the digital strategy including Master Customer Data, Middleware Deployment, Planning and Development Business Transformation, fleet and equipment purchases, as well as fire vehicle replacement purchases.

## Buildings – \$3.5M:



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

For 2015 the building program includes upgrades for South Arm Community Centre, City Hall, the Works Yard, Gateway and Trailer installation for the Animal Shelter.

#### **Affordable Housing – \$1.2M:**



Affordable Housing is responsible for coordinating the implementation of the Richmond Affordable Housing Strategy adopted in 2007.

The 2015 program includes building up the West Cambie reserve for future land or units costs; offsetting costs related to updating the affordable housing strategy and policy updates, the Housing Action Plan and offsetting the difference in the Kiwanis project disbursement from the proposed amount to actual amount at substantial completion.

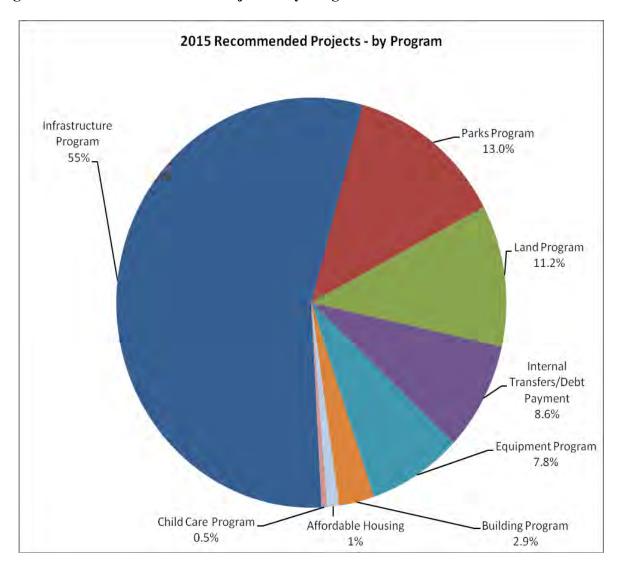
#### Child Care - \$0.4M:



To address child care needs, the City's 2015 Child Care program will provide upgrades to four City-owned child care facilities and supports the child care grants program.

The 2015 recommended capital projects by program are summarized in Figure 3.

Figure 3 – 2015 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 2015 Capital Costs

The new Capital costs total \$48.4M (52%) of the 2015 Capital Budget including highlights such as:

- ➤ District Energy Utility expansion Phase 3 \$12.1M (page 72)
- ➤ Strategic Land Acquisition Acquisitions require Council approval \$10.0M (page 104)
- ➤ Major Parks Garden City Lands Phase 1 (page 87), The Gardens Agricultural Park (page 91), Middle Arm Hollybridge Pier (page 89)–\$4.7M
- ➤ Parkland Acquisitions Acquisitions require Council approval \$4.7M (page 98)
- ➤ Roads Various traffic and road improvements \$3.2M (page 21)
- ➤ Equipment Program Phase 1 of the Digital Strategy Implementation Master Customer Data (page 124), Middleware Deployment (page 125) and Planning & Development Business Transformation (page 126) 3.0M
- ➤ Water Residential Water Metering \$1.9M (page 54)
- ➤ Sanitary Sewer Phase 3 of the Hamilton Sanitary Sewer \$1.5M (page 61)
- ➤ Building Program Richmond Animal Shelter Trailer Installation \$0.1M (page 82)

## Replacement 2015 Capital Costs

The Replacement costs total \$36.4M (40%) of the 2015 Capital Budget, which include:

- ➤ Drainage replacement Horseshoe Slough Pump Station Rebuild (*page 45*), No. 1 Road Box Culvert Rehabilitation (*page 51*), Burkeville Drainage \$9.2M (*page 41*)
- ➤ Water Main replacement Lulu Island North and West Watermain Replacement \$6.9M (page 55 and 56)
- ➤ Sanitary Sewer replacement Leslie Sanitary Pump Station and Vulcan Way Sanitary Forcemain Replacement \$5.8M (page 62 and 65)
- ➤ Annual repaving program (page 24-25) and Bridgeport Overpass resurfacing \$5.0M Roads (page 21)
- ➤ Equipment Program Annual Fleet Replacement and Fire Vehicle Replacement Reserve Purchases \$3.8M (page 110 and 113)
- ➤ Building Program South Arm Community Centre Renewals (page 83) & Upgrade, City Hall Main Elevators Modernization (page 76) and Gateway Theatre HVAC Renewals & Upgrade \$2.7M (page 79)
- ➤ Parks Program Lang Park Redevelopment (page 88) and Seine Net Loft Deck Repair (page 97) \$2.0M

#### *Internal Transfers and Debt Repayment*

Internal Transfer and Debt Repayment total \$7.7M (8%) of the 2015 Capital Budget includes:

- ➤ Parkland Acquisition Repayment \$5.5M (page 134)
- ➤ River Road/North Loop (2005) Repayment \$1.7M (page 135)

The details of each recommended project is attached in Appendix 4.

## 2015 Capital Budget Funding Sources

The 2015 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 cash contributions (other than DCCs) and other non-City related sources.
- Utilities These are funds collected through utility bills and are specified for waterworks, sanitary sewer and drainage.
- City Sources This includes all other sources of City funding such as statutory reserves, and 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 2015 recommended projects are summarized in Table 1.

**Funding Sources** Amount City Sources \$32.7 Utilities 25.9 Subtotal - Internal \$58.6 **DCCs** 23.6 **External Sources** 10.3 \$33.9 Subtotal - External Total 2015 Funding \$92.5

**Table 1 – 2015 Funding Sources** 

Approximately \$34 million of this year's capital plan is being funded through external sources and DCCs, which are contributed by developers, significantly reducing the potential impact of these projects upon taxpayers.

Appendix 1 includes a legend of the funding sources for each project. Funding details of each individual submission are included in Appendix 4.

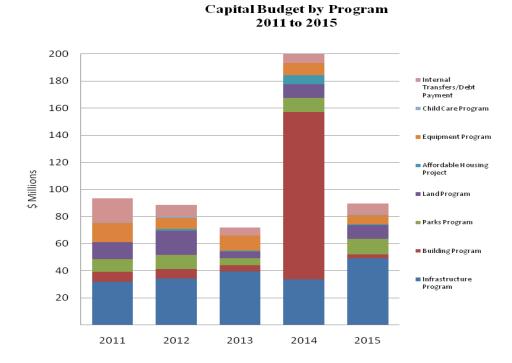
#### Recommended 2015 Versus Historical (2011-2014) Capital Budget Analysis

Figure 4 provides analysis of the program types of the capital budget for the past four years compared to the 2015 recommended capital plan.

For the years 2011-2015, Capital Budgets average \$84.3 million annually after adjusting for the major facilities approved in the 2014 capital plan

In 2014, Council approved \$129.1 million for major facilities, of which \$50M was financed through Municipal Finance Authority (MFA). This included funding for the Minoru Complex, new No.1 Brighouse Fire Hall and City Centre Community Centre.

Figure 4 – Capital Budget by Program (2011-2015)

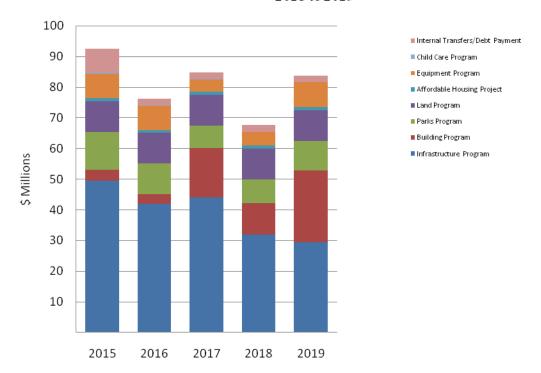


## Proposed 2015-2019 Capital Budget

Figure 5 shows the 5 Year Capital Plan proposes to continue to invest an average of \$81.0M each year in the City's assets.

Figure 5 – Proposed Capital Budget by Program 2015 to 2019

## Proposed Capital Budget by Program 2015 to 2019



In the years 2015-2017, Infrastructure submissions total over \$40M, but return to the \$30-\$35M range in 2018, which is comparable to the trend from 2011-2014.

Details of the 2016-2019 Capital Budgets will be presented as part of the 2015-2019 5YFP Report.

## 2015 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 car added to the City's fleet will require insurance and maintenance costs while a new building will require staffing, janitorial services, gas and hydro utility costs. This ongoing maintenance cost is the Operating Budget Impact (OBI) associated with the new asset which is added to the operating budget.

OBIs were reviewed by the Capital Review Committee as part of the Capital submission review process. The total OBI relating to the 2015 recommended projects is \$637K. \$126K of the OBI is associated with water and sewer utility projects and if the respective projects are approved, these will be incorporated into the 2016 utility budget. The remaining \$511K 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 2015 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 2015 Funding and OBI by Program (in millions)

Program (in millions)	Amount	OBI
Infrastructure Program	\$49.6	\$0.30
Parks Program	12.3	0.11
Land Program	10.0	0.00
Equipment Program	7.9	0.22
Internal Transfer/Debt Repayment	7.6	0.00
Building Program	3.5	0.01
Affordable Housing Project	1.2	0.00
Child Care Program	<u>0.4</u>	<u>0.00</u>
Total 2015 Funding & OBI	\$92.5	\$0.64

## **Financial Impact**

The 2015 Capital Budget with a total value of \$92.5 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 \$637K and once approved will be incorporated into the 2015-2019 5YFP.

#### Conclusion

The recommended Capital budget for 2015 is \$92.5 million. This recommendation reflects a return within the 10-year average range for the Capital budget. The Capital Review Committee worked closely with SMT and the CAO to represent the interests of all stakeholders to ensure that the 2015 capital program addresses City priorities and meets the needs of the community while effectively utilizing available funding.

Melissa Shiau, CA

Manager, Financial Planning and Analysis (604-276-4231)

#### MS:ms

Att. 1: 2015 Summary of Recommended Projects

- 2: 2015 Summary of Unfunded Projects
- 3: 2015 Summary of Projects Funded by the Revolving Fund
- 4: 2015 Details of Recommended Projects by Program
- 5: 2015 Details of Unfunded Projects by Program

Project Name	Funding	<b>Total Investment</b>	Total OBI	Page
A. INFRASTRUCTURE PROGRAMS				
Roads				
Accessible Pedestrian Signal Program	D/C	250,000	13,624	22
Active Transportation Improvement Program	E/D/C	650,000	29,921	23
Annual Asphalt Re-Paving Program - MRN	E	914,000	· -	24
Annual Asphalt Re-Paving Program - Non-MRN	E	2,458,600	-	25
Arterial Roadway Improvement Program	D/C	300,000	12,478	26
Bridge Rehabilitation - No. 4 Rd Bridge and Fraserside Gate Bridge	C	110,000	-	27
Bridgeport Overpass Resurfacing	E	1,100,000	-	28
Functional and Preliminary Design (Transportation)	D/C	30,000	-	29
Neighbourhood Walkway Program	D/C	450,000	18,600	30
Special Crosswalk Program	D/C	350,000	13,600	31
Street Light Pole Replacement - Seafair & Richmond Gardens-				
Phase 1 of 5	C	132,000	-	32
Street Light Security and Wire Theft Prevention - Phase 4 of 5	C	140,000	-	33
Traffic Calming Program	D/C	350,000	28,718	34
Traffic Signal Program	D/C	600,000	19,660	35
Transit-Related Amenity Improvement Program	E/D/C	250,000	4,092	36
Transit-Related Roadway Improvement Program	E/D/C	100,000	4,092	37
Total Roads		\$8,184,600	\$144,786	
Drainage				
Aquatic Invasive Species Management	U	150,000	-	39
Automated Irrigation Gate Installation and Local Ditch Upgrades	U	300,000	2,000	40
Burkeville Drainage	U	1,000,000	1,000	41
Canal Stabilization - No. 3 Road and No. 8 Road Phase 4 of 5	U	300,000	-	42
Dike Upgrades	U	750,000	-	43
Drainage Minor Capital	U	300,000	-	44
Horseshoe Slough Pump Station Rebuild	U/D/C	4,200,000	13,000	45
Laneway Drainage and Asphalt Upgrade-Seabrook Crescent (East)	U/E	340,000	1,000	46
Laneway Drainage and Asphalt Upgrade-Steveston Highway 100m	U/E	163,000	1,000	47
Laneway Drainage and Asphalt Upgrade - Swinton Crescent (West)	U/E	430,000	1,000	48
Long Shaft Drainage Pump Replacement Program	U	300,000	· -	49
Nelson Road South Pump Station Generator	U	120,000	3,000	50
No. 1 Rd Box Culvert Rehabilitation	U	2,150,000	-	51
Queens Road North Pump Station Generator	U	120,000	3,000	52
Total Drainage		\$10,623,000	\$25,000	
Water Main Replacement				
Residential Water Metering	U	1,920,000	77,000	54
Watermain Replacement - Lulu Island North Area	U/D/C	2,160,000	-	55
Watermain Replacement - Lulu Island West Area	U/D/C	3,590,000	-	56
Watermain/Drainage Replacement-Beecham Rd and Marrington Rd	U/E	1,180,000	-	57
Total Water Main Replacement		\$8,850,000	\$77,000	

 $\textit{Legend: C=City Sources; \textbf{D}=Development Cost Charges; \textbf{E}=External Sources; \textbf{U}=Utilities}$ 

Project Name	Funding	<b>Total Investment</b>	Total OBI	Page
A. INFRASTRUCTURE PROGRAMS				
Sanitary Sewer				
Blundell Rd Forcemain Tie-Ins	U	400,000	-	59
Development Coordinated Works in Capital - Sanitary	U	350,000	-	60
Hamilton Sanitary Sewer Phase 3	D/C/U	1,520,000	17,000	61
Leslie Sanitary Pump Station	D/C/U	1,550,000	17,084	62
Miscellaneous SCADA System Improvements	U	192,000	15,000	63
Public Works Minor Capital - Sanitary	U	242,000	-	64
Vulcan Way Sanitary Forcemain Replacement	U	3,060,000	-	65
Total Sanitary Sewer		\$7,314,000	\$49,084	
Minor Public Works		,		
Minor Capital Waterworks Program	U	400,000	-	67
PW Minor Capital - Traffic	E	225,000	6,345	68
Total Minor Public Works		\$625,000	\$6,345	
Infrastructure Advanced Design & Land		,	,	
PW Infrastructure Advanced Design	U/D/C	1,586,000	-	70
Total Infrastructure Advanced Design & Land		\$1,586,000	\$0	
District Energy Utility				
Alexandra District Energy Utility Expansion Phase 3 (2015)	C/E	12,100,000	-	72
City Centre District Energy Utility	U	300,000	-	73
Total District Energy Utility		\$12,400,000	\$0	
TOTAL INFRASTRUCTURE PROGRAM		\$49,582,600	\$302,215	
B. BUILDING PROGRAM				
Major Building				
City Hall - Lighting Upgrade	C	110,000	=	75
City Hall - Main Elevators Modernization	C	600,000	6,600	76
Direct Digital Control Upgrade and Consolidation	C	290,000	, -	77
Energy Management - 2015 Projects	C	585,000	-	78
Gateway Theatre - HVAC Renewals & Upgrades	C	250,000	-	79
Minoru Arena Silver - Evaporative Condenser Replacement	C	121,000	-	80
Project Development Advanced Design 2015	C	300,000	-	81
Richmond Animal Shelter - Trailer Installation	C	136,200	4,360	82
South Arm Community Centre - Renewals & Upgrades	C	650,000	, -	83
Works Yard Administration - Envelope Repairs	C	250,000	-	84
Works Yard Stores - Roof Replacement	C	200,000	-	85
TOTAL BUILDING PROGRAM		\$3,492,200	\$10,960	

Legend: C=City Sources; D=Development Cost Charges; E=External Sources; U=Utilities

Project Name	Funding	<b>Total Investment</b>	Total OBI	Page
C. PARKS PROGRAM				
Major Parks/Streetscapes	5.40	• 400 000	• • • • • •	0.5
Garden City Lands Phase 1	D/C	2,100,000	35,000	86
Lang Park Redevelopment - Park Characterization	D/C	800,000	-	87
Middle Arm/Hollybridge Pier	E/C	1,000,000	10,420	88
Parks Advance Planning & Design	D/C	500,000	-	89
The Gardens Agricultural Park	D/C	1,100,000	37,852	90
Total Major Parks/Streetscapes		\$5,500,000	\$83,272	
Minor Parks				
City Tree Planting Program	Е	300,000	13,830	93
Parks Ageing Infrastructure Replacement Program	E	175,000	-	94
Parks General Development	D/C	500,000	3,000	95
Playground Improvement Program	E	200,000	-	96
Seine Net Loft - Deck Repair	С	572,000		97
Total Minor Parks		\$1,747,000	\$16,830	
Parkland Acquisition				
Parkland Acquisition	D/C	3,330,000	-	99
Parkland Acquisition - West Cambie	D/C	1,300,000	-	100
Total Parkland Acquisition		\$4,630,000	\$0	
Public Art				
Public Art Program	E	407,941	10,000	102
Total Public Art		\$407,941	\$10,000	
TOTAL PARKS PROGRAM		\$12,284,941	\$110,102	
D. LAND PROGRAM				
Land Acquisition				
Strategic Land Acquisition	C	10,000,000	=	104
TOTAL LAND PROGRAM		\$10,000,000	\$0	
E. AFFORDABLE HOUSING PROJECT				
Affordable Housing Project				
Affordable Housing Projects - West Cambie	E	125,000	_	106
Affordable Housing Strategy Funded by Operating Reserves	E	750,000	_	107
Kiwanis Towers	E	283,640	_	108
TOTAL AFFORDABLE HOUSING PROJECT	L	\$1,158,640	\$0	100
TOTAL ALTORDADEL HOUSING PROJECT		Ψ1,130,040	Ψ	
F. EQUIPMENT PROGRAM				
Annual Fleet Replacement				
Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	C/U	2,851,200	_	110
Total Annual Fleet Replacement		\$2,851,200	\$0	
Fire Dept Vehicles		, ,,	F 0	
Fire Equipment Replacement	C	25,000	_	112
Fire Vehicle Replacement Reserve Purchases	C	971,630	_	113
Total Fire Dept Vehicles		·	¢Λ	113
Total Fire Dept venicles		\$996,630	\$0	

Legend: C=City Sources; D=Development Cost Charges; E=External Sources; U=Utilities

Project Name	Funding	<b>Total Investment</b>	Total OBI	Page
F. EQUIPMENT PROGRAM				
Miscellaneous Equipment				
Multi-Family Food Scraps/Organics Recycling and Optional Solid				
Waste Collection Services	U	700,000	-	115
Snow Shed Doors/Salt Covers	C	200,000	-	116
Weigh Scale for Large Commercial Vehicles	U	100,000	-	117
Total Miscellaneous Equipment		\$1,00,000	\$0	
Technology				
2015 Microsoft Licensing & Storage	C	136,000	-	119
2015 Server Infrastructure Upgrades	C	281,600	44,900	120
Emergency Operations Centre Information Management System	C	178,500	19,000	121
Existing Operational Desktop Computer Hardware Funding	C	419,936	-	122
Integrated Payment Approval	C	100,000	-	123
Master Customer Data	C	900,000	100,000	124
Middleware Deployment	C	600,000	50,000	125
Planning & Development Business Transformation	C	300,000	-	126
WorkSafe BC Claims/Incident Management System	C	105,925	-	127
Total Technology		\$3,021,961	\$213,900	
TOTAL EQUIPMENT PROGRAM		\$7,869,791	\$213,900	
G. CHILD CARE PROGRAM				
Child Care Program				
Child Care Projects - City Wide (non-capital grants)	Е	10,000		129
	C	400,000	-	130
Upgrade Four Child Care Facilities			<u>-</u>	130
TOTAL CHILD CARE PROGRAM		\$410,000	\$0	
H. INTERNAL TRANSFERS/DEBT PAYMENT				
Internal Transfers/Debt Payment				
2015 Equipment Lease Payments	C	12,153	_	132
Nelson Road Interchange Repayment	D	385,098	_	133
Parkland Acquisition Repayment	D	5,500,000	_	134
River Rd/North Loop (2005) Repayment	D	1,685,056	_	135
Shovel - Ready Grant (2009) Repayment Lansdowne Rd Extension	D	77,263	_	136
Total Internal Transfers/Debt Payment		\$7,659,570	\$0	
TOTAL INTERNAL TRANSFERS/DEBT PAYMENT		\$7,659,570	\$0	
Total 2015 Capital Program		\$92,457,742	\$637,177	

Legend: C=City Sources; D=Development Cost Charges; E=External Sources; U=Utilities

Project Name	Funding	<b>Total Investment</b>	Total OBI	Page
A. INFRASTRUCTURE PROGRAMS				
Roads				
Roads Minor Capital	С	250,000	-	138
Undergrounding - Lansdowne Rd	C/E	1,000,000	-	139
TOTAL INFRASTRUCTURE PROGRAM		\$1,250,000	\$0	
B. BUILDING PROGRAM				
Major Building				
City Hall - IT Room Optimization	С	541,430	-	141
Interurban Tram Restoration	С	396,000	-	142
Library and Cultural Centre - Arts Centre Lapidary				
Studio/Cultural Centre Kitchen Renovations	С	372,200	-	143
TOTAL BUILDING PROGRAM		\$1,309,630	\$0	
C. EQUIPMENT PROGRAM				
Computer Capital				
Network Link to Hamilton CC & FH 5	С	222,000	2,900	145
Total Computer Capital		\$222,000	\$2,900	
Computer Capital/Software				
Miscellaneous Equipment				
Read-o-Graph Boards at Firehalls No 4, 6 and 7	С	304,800	6,000	146
Total Miscellaneous Equipment		\$304,800	\$6,000	
Technology				
Vehicle Equipment	_			
Public Safety Mobile Command Vehicle	С	992,000	<del>-</del>	147
Total Vehicle Equipment		\$992,000	\$0	
TOTAL EQUIPMENT PROGRAM		\$1,518,800	\$8,900	
Total 2015 Capital Programs - Unfunded		\$4,078,430	\$8,900	

Legend: C=City Sources; D=Development Cost Charges; E=External Sources; U=Utilities

## FOR INFORMATION PURPOSES ONLY

Project Name	<b>Total Investment</b>	Total OBI	Page
Roads	110,000		27
Bridge Rehabilitation - No. 4 Rd Bridge and Fraserside Gate Bridge	110,000	-	27
Street Light Pole Replacement - Seafair & Richmond Gardens Phase 1 of 5	132,000	-	32
Street Light Security and Wire Theft Prevention - Phase 4 of 5	140,000	-	33
Total Roads	\$382,000	\$0	
Major Building			
City Hall - Lighting Upgrade	110,000	=	75
City Hall - Main Elevators Modernization	600,000	6,600	76
Direct Digital Control Upgrade and Consolidation	290,000	, -	77
Gateway Theatre - HVAC Renewals & Upgrades	250,000	=	79
Minoru Arena Silver - Evaporative Condenser Replacement	121,000	=	80
Project Development Advanced Design 2015	300,000	-	81
Richmond Animal Shelter - Trailer Installation	136,200	4,360	82
South Arm Community Centre - Renewals & Upgrades	650,000	· -	83
Works Yard Administration - Envelope Repairs	250,000	-	84
Works Yard Stores - Roof Replacement	200,000	-	85
Total Major Building	\$2,907,200	\$10,960	
Technology			
Emergency Operations Centre Information Management System	178,500	19,000	121
Total Technology	\$178,500	\$19,000	
Minor Parks			
Seine Net Loft - Deck Repair	572,000	-	97
Total Minor Parks	\$572,000		
Child Cano Duoman			
Child Care Program Upgrade Four Child Care Facilities	400,000		130
			130
Total Child Care Program	\$400,000		
Total 2015 Projects Funded by Revolving Fund	\$4,439,700	\$29,960	

# **Infrastructure Program 2015**

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

## 2015 Recommended Infrastructure - Roads Program

#### **Table of Contents**

Accessible Pedestrian Signal Program	22
Active Transportation Improvement Program	23
Annual Asphalt Re-Paving Program - MRN	24
Annual Asphalt Re-Paving Program - Non-MRN	25
Arterial Roadway Improvement Program	26
Bridge Rehabilitation - No. 4 Rd Bridge and Fraserside Gate Bridge	27
Bridgeport Overpass Resurfacing	28
Functional and Preliminary Design (Transportation)	29
Neighbourhood Walkway Program	30
Special Crosswalk Program	31
Street Light Pole Replacement - Seafair & Richmond Gardens - Phase 1 of 5	32
Street Light Security and Wire Theft Prevention - Phase 4 of 5	33
Traffic Calming Program	34
Traffic Signal Program	35
Transit-Related Amenity Improvement Program	36
Transit-Related Roadway Improvement Program	37

Program: Infrastructure Program Sub-program: Roads
Project Name: Accessible Pedestrian Signal Program Submission ID: 5434

Location: Various

Cost: \$250,000 OBI: \$13,624

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 includes audible messaging, Braille signage, and other accessible features to allow the City to meet its goal to outfit all existing City-owned traffic signals with APS devices by

year 2020.

For 2015, approximately 15 existing signalized intersections are proposed for upgrade to Accessible Signal systems. The actual locations will be determined in early 2015.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Active Transportation Improvement Program	Submission ID:	4390

Location: Various Locations

Cost: \$650,000 OBI: \$29,921

Funding Sources: Roads DCC: \$305,500

Roads City Assist: \$19,500 Grant: \$325,000

Scope: The general scope involves implementing cycling and rolling improvements included as part of the

Council-approved Cycling Network Plan by supporting the expansion of new and on-going

enhancements to existing on-street cycling routes and off-street multi-use pathways.

Typical elements 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, and other supplementary 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 2015:

Continuation of Crosstown Neighbourhood Bikeway (new east-west route between Blundell Rd & Francis Rd) with: 1) upgrade of off-street pathway through Blundell Park to connect Dorval Rd and Lucas Rd; 2) upgrade of existing special crosswalk to a pedestrian signal at Lucas Rd-Gilbert Rd.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Annual Asphalt Re-Paving Program - MRN	Submission ID:	4654

Location: City Wide

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

Funding Sources: Other: \$914,000

Scope: This annual funding request is to re-pave MRN roads (Richmond's Major Road Network funded by

Translink). The locations are as per the Report to Committee dated November 21, 2014 from the Director of Engineering titled 2015 Paving Program. 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.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Annual Asphalt Re-Paving Program - Non-MRN	Submission ID:	4853

Location: City Wide

Cost: \$2,458,600 OBI: \$ -

Funding Sources: Other: \$2,458,600

Scope: This annual funding request is to re-pave City owned Non-MRN roads (major & minor City roads

and lanes) in alignment with the City's Ageing Infrastructure Strategy. The locations are as per the Report to Committee dated November 21, 2014 from the Director of Engineering titled 2015 Paving

Program.

Funding from this project will be used to update the existing City of Richmond Pavement Model and collect survey data required to input into the model (Approximate cost \$150,000). Results from the model will help in priortization of re-paving requirements for roads.

The project does not include the cost of essential ancillary work typically completed by City crews (curb and gutter repairs, road base repair, manhole and valve box adjustments, line painting, staff

inspection time and similar).

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



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Arterial Roadway Improvement Program	Submission	4340

Location: Various Locations

Cost: \$300,000 OBI: \$12,478

Funding Sources: Roads DCC: \$282,000

Roads City Assist: \$18,000

Scope: The general scope includes implementing pedestrian and traffic safety improvements on arterial

roads. Typical improvements include the construction of new and/or enhancement of existing walkways/sidewalks, new turn lanes, pedestrian safety and intersection signage enhancements,

and illuminated street name signs.

The following list of improvements is currently being planned for 2015 (subject to factors such as the completion of the detailed design, confirmation of external funding, etc): 1) new sidewalk on east side of Minoru Boulevard from Alderbridge Way to Elmbridge Way; 2) new walkway on north side of Bridgeport Road from Viking Way to No. 6 Road; and 3) Blundell Road frontage road improvements east of No. 5 Road to improve local access.



Program: Infrastructure Program Sub-program: Roads
Project Name: Bridge Rehabilitation - No. 4 Rd Bridge and Submission ID: 5376

Fraserside Gate Bridge

Location: No. 4 Rd Bridge over Woodward Slough; and

Fraserside Gate Bridge

Cost: \$110,000 OBI: \$-

Funding Sources: Capital Revolving: \$110,000

Scope: No. 4 Road Bridge: Remedial work is required to improve pedestrian safety and traffic

containment. Project scope includes the installation of new guardrails, traffic barriers, hazard

markers and related minor work items.

Fraserside Gate Bridge: Project scope includes asphalt repair, sealing of expansion gaps, erosion

control measures and mitigating sidewalk trip hazards.



Program: Infrastructure Program Sub-program: Roads
Project Name: Bridgeport Overpass Resurfacing Submission ID: 5377

Location: Bridgeport Overpass at Knight Street

Cost: \$1,100,000 OBI: \$-

Funding Sources: Other: \$1,100,000

Scope: Scope of work includes 900 m2 of deck rehabilitation and resurfacing for Bridgeport Overpass at

Knight Street.



Program: Project Name:	Infrastructure Program Functional and Preliminary (Transportation)	/ Design	Sub-program: Submission ID:	Roads 4710
Location:	Various Locations			
Cost:	\$30,000		OBI:	\$ -
Funding Sources:	Roads DCC: Roads City Assist:	\$28,200 \$1,800		
Scope:	Project scope includes preparations transportation capital the necessary functional roal etc. as well as high level cost engineering design.	I projects identified w d elements in horizor	rithin the Five-Year Ca ntal alignment, cross-s	pital Program. Specifically, ection, property impacts,

MINORU BLVD

THE STANSON TOO STANSON TOO STANSON TO STA

Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Neighbourhood Walkway Program	Submission ID:	5437

Location: Various

Cost: \$450,000 OBI: \$18,600

Funding Sources: Roads DCC: \$423,000

Roads City Assist: \$27,000

Scope: The general scope of this project includes the construction of new and/or enhancement of existing

neighbourhood walkways/sidewalks, including wheelchair ramps, minor curb cuts, boulevard modifications, and other supplementary improvements, in response to requests from the public. 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.

The program includes funding to be diverted back to the Roads DCC from the cancelled Belair Drive walkway, which was not supported by the majority of the affected residents. For 2015, the following preliminary locations are proposed: walkway along Shell Road, from the lane south of Williams Road to 90m south of Sealord Road. There may be additional walkways identified through requests by the public.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Special Crosswalk Program	Submission ID:	4338

**Location:** Various Locations

Cost: \$350,000 OBI: \$13,600

Funding Sources: Roads DCC: \$329,000

Roads City Assist: \$21,000

Scope: The general scope of the program includes 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 following is the preliminary list of potential locations identified for 2015/2016: Chatham St & 1st Ave; Railway Ave & Hollymount Gate; Shell Rd & Bird Rd; No 4 Rd & Dayton Rd; Elmbridge Way & WCB Building.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Street Light Pole Replacement - Seafair & Richmond Gardens - Phase 1 of 5	Submission ID:	5173

Location: Seafair and Richmond Gardens

Cost: \$132,000 OBI: \$-

Funding Sources: Rate Stabilization: \$132,000

Scope: Remove and replace approximately 200 existing streetlights poles and retrofit concrete bases to

allow for replacement of street light poles in the Seafair and Richmond Gardens subdivisions.

Estimated costs per pole:

Hardware, materials and equipment \$2,200
Labour \$800
Sub-total per pole \$3,000
Total program cost \$600,000
Annual program cost (5 years) \$132,000



Program: Infrastructure Program Sub-program: Roads
Project Name: Street Light Security and Wire Theft Prevention Submission ID: 4778

- Phase 4 of 5

Location: City Wide

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

Funding Sources: Capital Revolving: \$140,000

Scope: This project is the fourth year of a five year program. The project includes two staff, removing

approximately 2,000 existing street light access covers per year for five years and replacing them with reinforced access covers. The estimated cost breakdown of the project is as follows:

Cost of labour \$36,000/year

Cost of equipment \$4,000/year

Cost of replacement panels \$100,000/year

Total cost \$140,000/year approximately



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Traffic Calming Program	Submission ID:	4341

Location: Various locations

Cost: \$350,000 OBI: \$28,718

Funding Sources: Roads DCC: \$329,000

Roads City Assist: \$21,000

Scope: The general scope involves the implementation of traffic measures to address concerns regarding

through (short-cutting) traffic and excessive speed on public roads. Typical elements include retrofitting existing streets with traffic calming measures including the construction of curb extensions, centre medians, installation of delineated walkways, extruded curbs, traffic circles, speed humps, traffic signage and other traffic reducing measures. In addition, supplementary streetscape improvements may include tree planting and other landscaping improvements to

enhance the local pedestrian environment and overall street appearance.

For 2015, a proposed improvement is to pave and provide improved walking conditions on lanes that lead from Wellington Crescent and Hudson Avenue up to the Sea Island Community Centre and provide speed bumps and traffic calming signs if warranted.



Program:	Infrastructure Program		Sub-program:	Roads
Project Name:	Traffic Signal Program		Submission ID:	4347
Location:	Various locations			
Cost:	\$600,000		OBI:	\$19,660
Funding Sources:	Roads DCC: Roads City Assist:	\$564,000 \$36,000		
Scope:	The general scope involves the following three key components:			
	1) Installation of new or upgrade of existing traffic signals to address growth in traffic, public requests, better management of pedestrian and vehicular movements, and safety concerns.			
	2) Installation of video detection comore systems at colored signalized interpoetions to enhance			

2) Installation of video detection camera systems at selected 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), and providing photos of approach traffic for public

information access on the City web site.

3) Upgrade of the communications infrastructure to higher capacity to better link multiple traffic signal electronic components to the TMC.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Transit-Related Amenity Improvement Program	Submission ID:	5436

Location: Various

Cost: \$250,000 OBI: \$4,092

Funding Sources: Roads DCC: \$94,000

Roads City Assist: \$6,000

Developer Contribution \$150,000

Scope: The general scope includes transit-related amenity improvements within the municipal road right-

of-way to support the introduction of various transit service improvements as well as on-going enhancements to existing transit infrastructure. Components include the installation of new non-advertising bus stop shelters, new benches along transit routes and other pedestrian generators, and other supplementary improvements required to facilitate pedestrian traffic generated by transit

passengers.

Locations for bus stop shelters will be prioritized based on boarding activity and customer requests subject to sufficient availability of right-of-way.



Program:	Infrastructure Program	Sub-program:	Roads
Project Name:	Transit-Related Roadway Improvement	Submission ID:	5435

**Program** 

Location: Various

Cost: \$100,000 OBI: \$4,092

Funding Sources: Roads DCC: \$47,000

Roads City Assist: \$3,000 Grant: \$50,000

Scope: The general scope includes the installation of new bus stop landing pads, minor road geometric

improvements, minor sidewalk/walkway construction, wheelchair ramps, upgrade of existing bus stops to accessible (wheelchair) standards, etc to facilitate pedestrian traffic generated by transit

passengers.

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 identified for 2015 and 2016 include: westbound Railway Avenue, Garden City Road at Blundell Road, Bridgeport Road at Sweden Way, Cambie Road at Shell Road, and No. 1 Road at Osmond Ave.



# **2015 Recommended Infrastructure – Drainage Program**

#### **Table of Contents**

Aquatic Invasive Species Management	39
Automated Irrigation Gate Installation and Local Ditch Upgrades	40
Burkeville Drainage	41
Canal Stabilization - No. 3 Road and No. 8 Road Phase 4 of 5	42
Dike Upgrades	43
Drainage Minor Capital	44
Horseshoe Slough Pump Station Rebuild	45
Laneway Drainage and Asphalt Upgrade - Seabrook Crescent (East)	46
Laneway Drainage and Asphalt Upgrade - Steveston Highway 100m	47
Laneway Drainage and Asphalt Upgrade - Swinton Crescent (West)	48
Long Shaft Drainage Pump Replacement Program	49
Nelson Road South Pump Station Generator	50
No. 1 Rd Box Culvert Rehabilitation	51
Queens Road North Pump Station Generator	52

Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Aquatic Invasive Species Management	Submission ID:	5483

**Location:** City wide

Cost: \$150,000 OBI: \$-

Funding Sources: Drainage Utility: \$150,000

Scope: Scope of work for this project involves the management and control of invasive plants such as

Parrot Feather, Eurasian Milfoil, Brazilian Elodea, Common Reed, etc. from existing ditches and watercourses. This project is part of a long term strategy to control aquatic invasive species that reduce the capacity of City's drainage ditches, increase maintenance costs, worsens water quality

and reduces biodiversity.



Program: Infrastructure Program Sub-program: Drainage
Project Name: Automated Irrigation Gate Installation and Submission ID: 5373

Local Ditch Upgrades

**Location:** Gate located at Steveston Hwy at Palmberg Rd

and ditch along Steveston Hwy

Cost: \$300,000 OBI: \$2,000

Funding Sources: Drainage Utility: \$300,000

Scope: Install an automated irrigation gate at Steveston Hwy at Palmberg road and local ditch upgrades

along Steveston Hwy.



Program: Infrastructure Program Sub-program: Drainage
Project Name: Burkeville Drainage Submission ID: 5375

Location: Miller Rd and Russ Baker Way

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

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

Scope: Scope of work includes 500 m of ditch upgrades along Miller Road (\$150,000) and installation of

twin 1200 mm diameter culverts crossing Russ Baker Way (\$845,000)



Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Canal Stabilization - No. 3 Road and No. 8 Road	Submission ID:	4786

Phase 4 of 5

Location: No. 3 Road and No. 8 Road Canals

Cost: \$300,000 OBI: \$-

Funding Sources: Drainage Utility: \$300,000

Scope: Implement canal bank stabilization solutions at various locations south of Steveston Hwy on No. 3

Road and No. 8 Road. This will include partial re-profiling of the canal and construction of a

retaining wall or similar stabilization structure.

This is a 5-year program that will be used to deal with canal and ditch wall stabilization issues in

Richmond.



Program:Infrastructure ProgramSub-program:DrainageProject Name:Dike UpgradesSubmission ID:5158

Location: City Wide

Cost: \$750,000 OBI: \$-

Funding Sources: Drainage Utility: \$750,000

Scope: Raise a 250 m section of existing dike by approximately one metre, along the Fraser River's North

Arm, immediately west of No. 2 Road North Pump Station. The project will improve existing infrastructure, meet medium to long-term needs and accommodate local areas needs such as the

provision of basic recreational trails.



Program: Infrastructure Program Sub-program: Drainage
Project Name: Drainage Minor Capital Submission ID: 4825

Location: City Wide

Cost: \$300,000 OBI: \$-

Funding Sources: Drainage Utility: \$300,000

Scope: Funds 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

response to resident complaints that require site specific repairs.



Program: Project Name:	Infrastructure Program Horseshoe Slough Pump	Station Rebuild	Sub-program: Submission ID:	Drainage 4980
Location:	Horseshoe Slough			
Cost:	\$4,200,000		OBI:	\$13,000
Funding Sources:	Drainage Utility: Drainage DCC: Drainage City Assist:	\$3,550,000 \$643,500 \$6,500		
Scope:	Partially demolish the existi making local dike upgrades	• .		ndard. This includes project is estimated to take

six months.

Major Cost Components:

• Civil (65%) - \$2,600,000

Mechanical (19%) - \$860,000

• Electrical (16%) - \$740,000



Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Laneway Drainage and Asphalt Upgrade -	Submission ID:	5169

Seabrook Crescent (East)

Location: East of Seabrook Crescent

Cost: \$340,000 OBI: \$1,000

Funding Sources: Drainage Utility: \$170,000

Other: \$170,000

Scope: Install drainage and upgrade 260 m of pavement. Does not include the addition of street lighting,

curbs or gutters. The project is estimated to take two to three months and will be completed by

October 2015.

Funding is requested from the Drainage Utility and the Annual Asphalt Paving Program (Asphalt

Capping Provision).

Costs will be recovered through City Bylaw 8752 as development occurs.

Major Cost Components:

• Drainage \$170,000

Pavement \$170,000



Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Laneway Drainage and Asphalt Upgrade -	Submission ID:	5374

**Steveston Highway 100m** 

Location: Steveston Hwy between 6th and 7th Ave

Cost: \$163,000 OBI: \$1,000

Funding Sources: Drainage Utility: \$82,000

Other: \$81,000

Scope: Install drainage and upgrade 100 m of pavement on Steveston Hwy between Sixth Avenue and

Seventh Avenue. The project includes lane reconstruction and tie-ins/transitions but does not include the addition of street lighting, curbs or gutters. The project is estimated to take two to three

months to complete.

Funding is requested from the Drainage Utility and the Annual Asphalt Paving Program (Asphalt

Capping Provision).

Costs will be recovered through City Bylaw 8752 as development occurs.

Major Cost Components:

Drainage \$82,000

Pavement \$81,000



Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Laneway Drainage and Asphalt Upgrade - Swinton Crescent (West)	Submission ID:	4788

Location: Swinton Cr West from Maddocks Rd to Swinton

Crescent

Cost: \$430,000 OBI: \$1,000

Funding Sources: Drainage Utility: \$215,000

Other: \$215,000

Scope: Install drainage and upgrade 326 m of pavement. Does not include the addition of street lighting,

curbs or gutters. The project is estimated to take two to three months and will be completed by

October 2015.

Funding is requested from the Drainage Utility and the Annual Asphalt Paving Program (Asphalt

Capping Provision).

Costs will be recovered through City Bylaw 8752 as development occurs.

Major Cost Components:

Drainage \$215,000

Pavement \$215,000



Program: Infrastructure Program Sub-program: Drainage
Project Name: Long Shaft Drainage Pump Replacement Submission ID: 4814

Program

Location: City Wide

Cost: \$300,000 OBI: \$-

Funding Sources: Drainage Utility: \$300,000

Scope: Replace two longshaft drainage pumps with modern submersible pumps as required to maintain

drainage system capacity.



Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Nelson Road South Pump Station Generator	Submission ID:	4806

Location: South end of Nelson Road

Cost: \$120,000 OBI: \$3,000

Funding Sources: Drainage Utility: \$120,000

Scope: Construct a concrete pad with fenced surround. Purchase and install a 200 kW generator and

connect via a new transfer switch.

The project is estimated to take one month and be completed before the 2015 year-end.

Cost breakdown:

 Civil
 \$15,000

 Equipment
 \$85,000

 Installation
 \$20,000



Program: Infrastructure Program Sub-program: Drainage
Project Name: No. 1 Rd Box Culvert Rehabilitation Submission ID: 5372

Location: No.1 Rd., North of Westminister Hwy

Cost: \$2,150,000 OBI: \$-

Funding Sources: Drainage Utility: \$2,150,000

Scope: Sink holes are currently appearing on No.1 Rd., north of Westminister Hwy. This project is

intended to rehabilitate approximately 270m of existing 1.52m x 2.7m box culvert on No. 1 Rd

using grouted in place Segmental Glass Reinforced Plastic (GRP) liner.



Program:	Infrastructure Program	Sub-program:	Drainage
Project Name:	Queens Road North Pump Station Generator	Submission ID:	4805

Location: North end of Queens Road

Cost: \$120,000 OBI: \$3,000

Funding Sources: Drainage Utility: \$120,000

Scope: Construct a concrete pad with fenced surround. Purchase and install a 200 kW generator and

connect via a new transfer switch.

The project is estimated to take one month and be completed before the 2015 year-end.

Cost breakdown:

 Civil
 \$15,000

 Equipment
 \$85,000

 Installation
 \$20,000



## **Details of Recommended Projects by Program**

### Appendix 4

### 2015 Recommended Infrastructure – Water Main Replacement Program

#### **Table of Contents**

Residential Water Metering	54
Watermain Replacement - Lulu Island North Area	55
Watermain Replacement - Lulu Island West Area	56
Watermain/Drainage Replacement - Beecham Rd and Marrington Rd	57

Program:	Infrastructure Program	Sub-program:	Water Main Replacement
Business Manager	Burthautal Mateu Mateubau	0 1 1 1 10	7404

Project Name: Residential Water Metering Submission ID: 5161

Location: City-Wide

Cost: \$1,920,000 OBI: \$77,000

Funding Sources: Water Utility: \$600,000 Water Metering Provision: \$1,320,000

Scope: This project consists of a five-year universal metering program for single-family dwellings, and a

volunteer metering program for multi-family dwellings.

Operating Budget Impact will be recovered through an increase in revenue collected through the meter maintenance charge associated with each new water meter install.



Program:	Infrastructure Program	Sub-program:	Water Main Replacement
Project Name:	Watermain Replacement - Lulu Island North Area	Submission ID:	4797
Location:	See Scope		
Cost:	\$2,160,000	OBI:	\$ -

Funding Sources: Water Utility: \$1,810,216 Water DCC: \$346,321

Water DCC: \$346,321 Water City Assist: \$3,463

Scope: This project includes the installation of 1835 meters of 200 mm diameter watermain and 170

meters of 300 mm diameter watermain to replace the existing ageing infrastructure.

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



Program:	Infrastructure Program		Sub-program:	Water Main Replacement
Project Name:	Watermain Replacement - Lu Area	lu Island West	Submission ID:	4795
Location:	See Scope			
Cost:	\$3,590,000		OBI:	\$ -
Funding Sources:	Water Utility: Water DCC: Water City Assist:	\$3,027,094 \$557,333 \$5,573		
Scope:	This project includes the installation existing ageing infrastructure.	ation of 3810 meters	s of 200 mm diamete	r watermain to replace the

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

Program: Infrastructure Program Sub-program: Water Main Replacement

Project Name: Watermain/Drainage Replacement - Beecham Submission ID: 5425

Rd and Marrington Rd

Location: Beecham Rd and Marrington Rd

Cost: \$1,180,000 OBI: \$-

Funding Sources: Drainage Utility: \$370,000

Water Utility: \$569,590 NIC: \$240,410

Scope: This project includes the installation of 90 meter of 200 mm diameter watermain, drainage

catchment basins, inspection chambers, curb and gutter to replace the existing ageing

infrastructure, in addition to local area improvements.



## **Details of Recommended Projects by Program**

### Appendix 4

### **2015** Recommended Infrastructure – Sanitary Sewer Program

#### **Table of Contents**

Blundell Rd Forcemain Tie-Ins	59
Development Coordinated Works in Capital - Sanitary	60
Hamilton Sanitary Sewer Phase 3	61
Leslie Sanitary Pump Station	62
Miscellaneous SCADA System Improvements	63
Public Works Minor Capital - Sanitary	64
Vulcan Way Sanitary Forcemain Replacement	65

Program: Infrastructure Program Sub-program: Sanitary Sewer

Project Name: Blundell Rd Forcemain Tie-Ins Submission ID: 5531

Location: Blundell Rd, McCallan Rd, Railway Ave

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

Funding Sources: Sanitary Utility: \$400,000

Scope: This project involves tie-ins for the Blundell Road sanitary sewer forcemain to the McCallan Road,

Railway Avenue, and Claybrook Road forcemains. This includes an access chamber installation

and temporary bypasses.



Program: Infrastructure Program Sub-program: Sanitary Sewer

Project Name: Development Coordinated Works in Capital - Submission ID: 5548

Sanitary

**Location:** Various

Cost: \$350,000 OBI: \$-

Funding Sources: Sanitary Utility: \$350,000

Scope: This project will set aside funding for the City and private development to complete infrastructure

works that are currently not identified in the capital program, but will benefit the City. Infrastructure

works are more cost-effective when completed in conjunction with development.

This project will enable the City to leverage development to design and construct sanitary infrastructure outside of what would be required as part of their development. This includes upgrades and replacement of ageing infrastructure that can be completed by the developer simultaneously with development, thereby achieving economic and engineering efficiencies for the City.



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
----------	------------------------	--------------	----------------

Project Name: Hamilton Sanitary Sewer Phase 3 Submission 5027

ID:

**Location:** Between Westminster Hwy and Hwy 91A, north

of Gilley Rd and south of Gates Ave

Cost: \$1,520,000 OBI: \$17,000

Funding Sources: Sanitary Utility: \$4,746

 Sewer DCC:
 \$1,425,096

 Sewer City Assist:
 \$90,158

Scope: This project includes the construction of a new sanitary pump station, including wet well, variable

frequency drive (VFD) pumps, electrical kiosk, 25 meters of gravity pipe and 60 meters of 150 mm

forcemain. This project will require land acquisition.

The purpose of the project is to provide sanitary service to the Hamilton area between Westminster Hwy and Highway 91A, to the north of Gilley Road and south of Gates Avenue. This area does not have an existing City sanitary system and is currently serviced by septic systems. Septic systems are not adequate to support population densities projected by Hamilton Official Community Plan Update. The Hamilton pump station will provide the required level of service to support higher-density redevelopment in the area.

Subsequent development will be assessed improvement costs at the time of development as per Cost Recovery Bylaw 8752.



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer
Project Name:	Leslie Sanitary Pump Station	Submission ID:	5547

Location: Leslie Rd, East of No. 3 Rd

Cost: \$1,550,000 OBI: \$17,084

Funding Sources: Sanitary Utility: \$315,000

Sewer DCC: \$1,222,650 Sewer City Assist: \$12,350

Scope: This project involves the construction of a sanitary pump station, including wet well, pumps,

electrical kiosk, generator set, 100 meters of 350mm forcemain and 65 meters of 200mm to

400mm gravity main.

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



Program:	Program: Infrastructure Program		Sanitary Sewer

Project Name: Miscellaneous SCADA System Improvements Submission ID: 4542

Location: Various

Cost: \$192,000 OBI: \$15,000

Funding Sources: Sanitary Utility: \$192,000

Scope: This project involves rehabilitating and upgrading computer, instrument and electrical installations

throughout the SCADA network.

Via its SCADA system, the City monitors and controls over 200 sanitary system sites that contain mechanical and electrical equipment. This project will maintain and improve sanitary sewer

system operation, as well as maintain system security and technological viability.

Failure to complete the work will result in increased risk of sanitary system failure, thereby reducing service levels and increasing cost and disruption of unplanned maintenance and emergency

repairs.



Program: Infrastructure Program Sub-program: Sanitary Sewer
Project Name: Public Works Minor Capital - Sanitary Submission ID: 4826

Location: Various locations

Cost: \$242,000 OBI: \$ -

Funding Sources: Sanitary Utility: \$242,000

Scope: This project involves minor work related to the sanitary infrastructure, including pump station

upgrades, operational efficiency and functionality improvements, new technology testing, forcemain repairs, site-specific repairs in response to resident complaints, and manhole and valve

box repairs.

Every year, Engineering and Public Works receives a number of requests for minor projects. The minor capital program allows the department to respond to these requests in a timely and cost effective manner.



Program:	Infrastructure Program	Sub-program:	Sanitary Sewer

Project Name: Vulcan Way Sanitary Forcemain Replacement Submission ID: 4540

Location: Vulcan Way, from No. 6 Rd to Bridgeport Rd

Cost: \$3,060,000 OBI: \$-

Funding Sources: Sanitary Utility: \$3,060,000

Scope: The purpose of this project is to replace an ageing sanitary forcemain that is at the end of its

service life. The project includes the construction of 1,300 meters of forcemain to replace existing

infrastructure.

The project corresponds with the City's Ageing Infrastructure Report, and supports an objective in the Official Community Plan (OCP) to proactively plan infrastructure upgrades and replacements due to age and growth. Replacement will reduce the risk of pipe failure and minimize the cost and disruption of unplanned maintenance and emergency repairs.



## **Details of Recommended Projects by Program**

### Appendix 4

### 2015 Recommended Infrastructure – Minor Public Works Program

3

Minor Capital Waterworks Program	67
PW Minor Capital - Traffic	68

Program:	Infrastructure Program	Sub-program:	Minor Public Works
Project Name:	Minor Capital Waterworks Program	Submission ID:	5533

**Location:** Various Locations

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

Funding Sources: Water Utility: \$400,000

Scope: This project involves minor work related to the water infrastructure, including minor watermain repairs and replacements, operational efficiency improvements, safety requirement changes, new

technology testing, 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: 4258

Location: Various locations

Cost: \$225,000 OBI: \$6,345

Funding Sources: Gaming: \$225,000

Scope: The general scope of this program includes various improvements to traffic systems as required

with the following major components:

A. Traffic Improvements: unforeseen capital improvements of a minor nature including wheelchair ramps, traffic signage, pavement markings, and traffic safety improvements.

B. Traffic Signal/Communications Network: infrastructure renewal, physical plant upgrading, ongoing infrastructure development testing, and communications network conduit/cable.



<b>Details</b>	of Recom	mended	Proi	ects	by	Prog	ran

### Appendix 4

2015	Recommended	Infrastructure –	Infrastructure A	dvanced	Design	<b>Program</b>

<b>T</b> -	1. 1	١	_ £	<b>^</b> -	4-	4-
ı a	D	ıe	ОТ	LO	nte	nts

Program:	Infrastructure Program		Sub-program:	Infrastructure Advanced Design		
Project Name:	PW Infrastructure Advanced Desig	jn .	Submission ID:	5040		
Location:	City-Wide					
Cost:	\$1,586,000		OBI:	\$ -		
Funding Sources:	Water Utility: \$ Sanitary Utility: \$	780,000 470,000 261,000 \$70,500 \$4,500				
Scope:	This project includes hiring consultants and contractors to plan and design the 2016 capital and develop reports that define long-term infrastructure upgrades. The breakdown is as fo					
	Sanitary Project Design and	Planning	\$211,000			
	Sanitary System Modelling		\$50,000			
	Water Project Design and Pl	anning	\$420,000			
	Water System Modelling	iter System Modelling				
	Drainage Project Design and	l Planning	\$530,000			
	Drainage System Modelling		\$50,000			
	Dike Master Plan Phase 3	;	\$200,000			
	Roads		\$75,000			
	Total	\$1	1,586,000			



## **Details of Recommended Projects by Program**

### Appendix 4

### **2015** Recommended Infrastructure – District Energy Utility Program

	-	_	_		
Tah	le.	Ωf	Co	nte	nts

Alexandra District Energy Utility Expansion Phase 3 (2015)	72
City Centre District Energy Utility	73

Program: Sub-program: District Energy Utility

Project Name: Alexandra District Energy Utility Expansion Submission ID: 5432

Phase 3 (2015)

Location: Alexandra neighbourhood

Cost: \$12,100,000 OBI: \$-

Funding Sources: Other: \$10,500,000

Developer Contribution: \$1,600,000

Scope: Expand the energy capacity and distribution network of the existing ADEU to meet the needs of

development in the service area. The portion of the energy required to service new customers will be provided by an additional geo-exchange field along the eastern edges of the West Cambie Neighbourhood Park. Additional natural gas boilers and cooling towers will be installed for supplement and backup. SmartCentres will receive heating and cooling from an air source heat pump system with excess heat delivered to buildings connected to ADEU. The existing energy

centre will be expanded to accommodate all equipment necessary



Program:	Infrastructure Program	Sub-program:	District Energy Utility
Project Name:	City Centre District Energy Utility	Submission ID:	5424

Location: City Centre Area

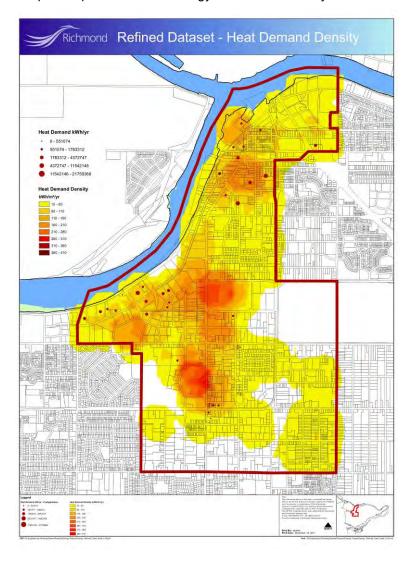
Cost: \$300,000 OBI: \$-

Funding Sources: Water Utility: \$300,000

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. Development, design and execution of a Request for Expressions of Interest (RFEOI) to execute

the plan to provide district energy services in the City Centre North (Capstan) area.



# **Building Program 2015**

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.

### 2015 Recommended Building Program

#### **Table of Contents**

City Hall - Lighting Upgrade	75
City Hall - Main Elevators Modernization	76
Direct Digital Control Upgrade and Consolidation	77
Energy Management – 2015 Projects	78
Gateway Theatre - HVAC Renewals & Upgrades	79
Minoru Arena Silver - Evaporative Condenser Replacement	80
Project Development Advanced Design 2015	81
Richmond Animal Shelter - Trailer Installation	82
South Arm Community Centre - Renewals & Upgrades	83
Works Yard Administration - Envelope Repairs	84
Works Yard Stores - Roof Replacement	85

Program: Building Program Sub-program: Major Building

Project Name: City Hall - Lighting Upgrade Submission ID: 5409

Location: City Hall, 6911 No. 3 Road

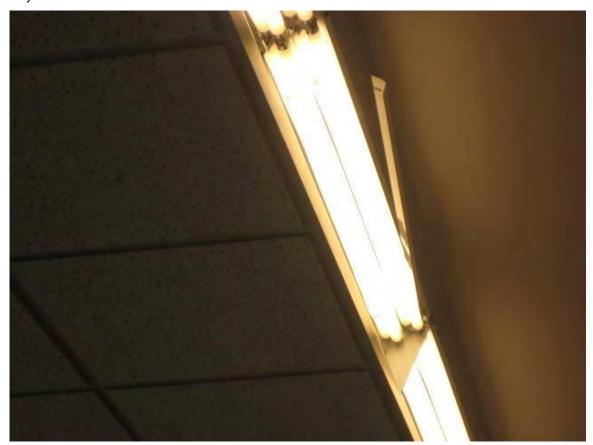
Cost: \$110,000 OBI: \$-

Funding Sources: Capital Revolving: \$110,000

Scope: Replace and upgrade various lighting systems, controls, and switches at City Hall, which are

outdated and at end of life. This upgrade will result in cost aviodance and energy savings to the

City of Richmond.



Program:	Building Program	Sub-program:	Major Building
----------	------------------	--------------	----------------

Project Name: City Hall - Main Elevators Modernization Submission ID: 5418

Location: 6911 No. 3 Road, Richmond BC, V6Y 2C1

Cost: \$600,000 OBI: \$6,600

Funding Sources: Capital Revolving: \$600,000

Scope: The elevators modernization entails replacing the following:

Machines and motors

Controllers

• Car fixtures (buttons and position indicators)

Hall fixtures

Door equipment

Seismic box and displacement kit



Project Name: Direct Digital Control Upgrade and Submission ID: 5413

Consolidation

Location: Various City Facilities

Cost: \$290,000 OBI: \$ -

Funding Sources: Capital Revolving: \$290,000

Scope: Replace and upgrade direct digital control systems associated with HVAC and lighting controls at

select City facilities. This allows 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

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

Year 1: \$290,000Year 2: \$250,000Year 3: \$195,000



Program: Infrastructure Program Sub-program: District Energy Utility

Project Name: Energy Management – 2015 Projects Submission ID: 5482

Location: Various

Cost: \$585,000 OBI: \$-

Funding Sources: Enterprise Fund

Scope: The City of Richmond's Energy Management Program has proven that well developed and

designed energy management projects can provide strong cost saving returns - since 2007 approximately 35.0 GWh of cumulative energy has been saved. These savings have resulted in the avoidance of approximately \$1,750,000 in operational costs and 5,000 tonnes of greenhouse gas emissions. Partly due to the program, the City has received approximately \$1,000,000 in external funding for its energy conservation efforts, which is used to further the program and repay

the internal corporate Enterprise Fund.

This program is also critical to maintaining the City's leadership status among Lower Mainland municipalities in terms of energy management best practices, including the City's current BC Hydro Power Smart Leader standing.



\$250,000

Cost:

Program:	Building Program	Sub-program:	Major Building
Project Name:	Gateway Theatre - HVAC Renewals & Upgrades	Submission ID:	5403
Location:	6500 Gilbert Road		

Funding Sources: Capital Revolving: \$250,000

Scope: The main air handling unit and condensing unit are currently leaking refrigerant and is in need of immediate replacement. These units are well beyond their serviceable life of 25 years having been

installed in 1984. Replacement with a modern unit will improve the energy efficiency of the building due to technological improvements to this type of equipment since original installation. In conjunction with the City's Energy Management Program achieving further energy efficiency gains

OBI:

\$ -

will be examined, including researching external funding sources.



Program: Sub-program: Major Building

Project Name: Minoru Arena Silver - Evaporative Condenser Submission ID: 5407

Replacement

**Location:** 7551 Minoru Gate

Cost: \$121,000 OBI: \$-

Funding Sources: Capital Revolving: \$121,000

Scope: The evaporative condenser is required in order for the facility to generate and maintain ice. The

evaporative condenser is aged and will be replaced. Without replacement of this equipment, the

condenser may fail and the facility runs the risk of being shutdown.

The automatic entrance doors to this facility are aged and have become problematic. These doors will be replaced with newer technology models, which will also be more energy efficient.



Program: Sub-program: Major Building

Project Name: Project Development Advanced Design 2015 Submission ID: 5390

**Location:** City Wide

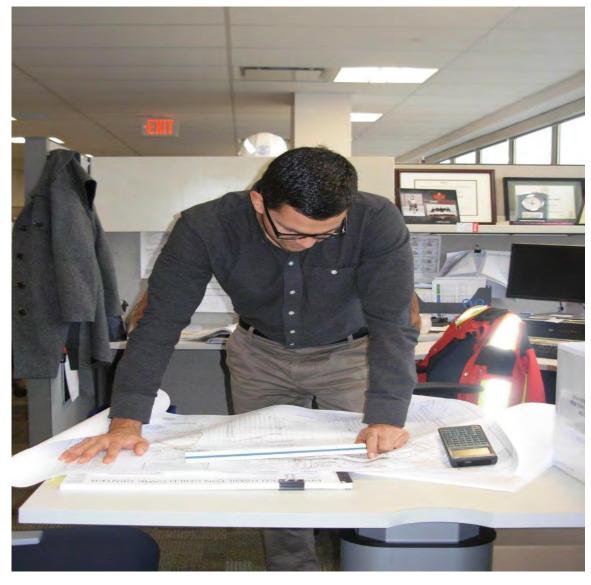
Cost: \$300,000 OBI: \$-

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 professional services and to determine the feasibility of each project. The consultants would develop conceptual plans, and provide preliminary estimates and

schedules for each proposed project.



Program:	Building Program	Sub-program:	Minor Building

Project Name: Richmond Animal Shelter - Trailer Installation Submission ID: 5478

Location: 12071 No. 5 Road

Cost: \$136,200 OBI: \$4,360

Funding Sources: Gaming Revolving: \$136,200

Scope: The purchase and installation of a 20' x 20' mobile site office trailer that will be able to

accommodates 60 - 75 animals on a monthly basis will significantly reduce overcrowding at the Richmond Animal Shelter. The shelter was designed to house approximately 70 animals but regularly accommodates over 200 animals on a monthly basis. The installtion of a trailer is a cost

effective means to provide much needed shelter space.



Program:	Building Program	Sub-program:	Major Building

Project Name: South Arm Community Centre - Renewals & Submission ID: 5402

**Upgrades** 

Location: 8880 Williams Road

Cost: \$650,000 OBI: \$-

Funding Sources: Capital Revolving: \$650,000

Scope: Roof:

Portions of the existing roof are leaking and will be repaired.

Mechanical:

Numerous HVAC components (rooftops units) have reached the end of their serviceable life and will be replaced with energy efficient models.



Program: Sub-program: Major Building

Project Name: Works Yard Administration - Envelope Repairs Submission ID: 5398

**Location:** 5599 Lynas Lane

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

Funding Sources: Capital Revolving: \$250,000

Scope: A building envelope assessment has shown that the administration building is in a highly

deteriorated condition with several leakage and life safety issues. While it is recognized the works yard may be relocated, the minimal envelope repairs are required to address life safety issues.



Program: Building Program Sub-program: Major Building

Project Name: Works Yard Stores - Roof Replacement Submission ID: 5396

Location: Works Yard Stores Warehouse

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

Funding Sources: Capital Revolving: \$200,000

Scope: The metal roof is rusted, aged and past its life expectancy and leaking. In order to increase the life

of the existing roof and protect the building interior, the roof will be repainted all penetrations will be

repaired.



# Parks Program 2015

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.

#### 2015 Recommended Parks - Major Parks/Steetscapes Program

#### **Table of Contents**

Garden City Lands Phase 1	87
Lang Park Redevelopment - Park Characterization	88
Middle Arm/Hollybridge Pier	89
Parks Advance Planning & Design	90
The Gardens Agricultural Park	91

Scope:

Program:	Parks Program	Sub-program:	Major Parks/ Streetscapes
Project Name:	Garden City Lands Phase 1	Submission ID:	5430
Location:	Garden City Lands - Garden City Road and Westminster		
Cost:	\$2,100,000	OBI:	\$35,000
Funding Sources:	Parks Development DCC: \$1,975,050 Parks Development City Assist: \$124,950		

This project is Phase One of the design and construction of the City's largest recent land acquisition (\$59.1 million) the Garden City Lands (GCL), for public open space. On June 9, 2014

City Council adopted the GCL Legacy Landscape Plan as the guide for developing these public lands for community use. There was extensive public process (File Ref.No.06-2345-20 REDMS

No. 4219968). As Richmond is emerging into a dynamic urban center with a focus of

sustainability, as per the 2041 OCP Vision statement, Council determined that the development of GCL would meet many community and environmental needs for now and the future. The Legacy Plan outlines over 25 City policies and objectives that the development of the GCL supports within a variety of focus areas such as sustainability agriculture; ecological health; community wellness; arts and culture; and city vibrancy. The number one request through the public process was for immediate access to the lands and for protection of the bog environment.

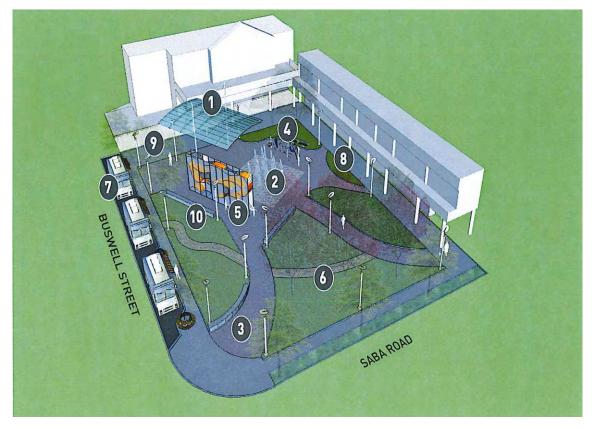
This capital submission project is for Phase 1 design construction of a 2.5 kilometer perimeter trail, preliminary water management infrastructure, signage and landscaping.



Program:	Parks Program	Sub-program:	Major Parks/ Streetscapes
Project Name:	Lang Park Redevelopment - Park Characterization	Submission ID:	5034
Location:	Saba Road and Buswell Street		
Cost:	\$800,000	OBI:	\$ -
Funding Sources:	Parks Development DCC: \$752,400 Parks Development City Assist: \$47,600		

Scope:

Lang Park is well used, particularly by people who live in City Centre. However, the park has several deficiencies including: the lack of a covered area for use of the park during inclement weather; an overly large water feature that obstructs pedestrian circulation through the park, gets quite dirty, is expensive to maintain, and lacks opportunities for interaction; poor lighting; damaged paving; and outdated seating. Of particular concern is that the park lacks opportunities for children to play, even though more children live in the neighbourhood than did when the park was originally developed. The main objective of the project is to work with the community to renovate the park and address the noted deficiencies. The project is also consistent with Council Term Goals related to Community Wellness and enhancing "social connectedness, positive lifestyle traits and physical health".



Program:	Parks Program	Sub-program:	Major Parks/
			Streetscapes

Project Name: Middle Arm/Hollybridge Pier Submission ID: 5252

Location: Hollybridge Way and Middle Arm

Cost: \$1,000,000 OBI: \$10,420

Funding Sources: Parks Development DCC: \$500,000

Waterfront Improvement: \$500,000

The City's Middle Arm waterfront park system continues to evolve with new features being added as time and budget allow. The proposed Hollybridge Pier will become a landmark along the Middle Arm, and an integral part of the parks and open space plan associated with ASPAC's River Green Village development that Council approved in 2013. The estimated cost of constructing the Hollybridge Pier is \$1,500,000. In 2013, ASPAC provided \$1,000,000 towards the construction of the pier. This submission includes \$500,000 towards the design and construction of the pier and \$500,000 for further Middle Arm park planning improvements, as well as development at the Oval

Plaza.

Scope:





Program:	Parks Program		Sub-program:	Major Parks/ Streetscapes
Project Name:	Parks Advance Planning & Des	ign	Submission ID:	834
Location:	Various Locations			
Cost:	\$500,000		OBI:	\$ -
Funding Sources:	Parks Development DCC: Parks Development City Assist:	\$470,250 \$29,750		
Scope:	This annual program 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. The projects are both community and opportunity driven.

#### 2015 projects include:

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



Program:	Parks Program	Sub-program:	Major Parks/ Streetscapes
Project Name:	The Gardens Agricultural Park	Submission ID:	4714
Location:	No. 5 Road & Steveston Hwy		
Location.	No. 5 Road & Stevestoff Twy		
Cost:	\$1,100,000	OBI:	\$37,852
Funding Sources:	Parks Development DCC: \$1,034,550 Parks Development City Assist: \$65,450		

Scope:

The Gardens Agricultural Park is a 12.2 acre city wide park that will serve the residential growth occurring in the Shellmont area and the existing community park service gap identified in the 2022 Parks and Open Space Strategy. The former botanical garden and theme park (the former "Fantasy Gardens") site is being restored and developed to: provide recreational amenities (walking paths, playground, gardens); agricultural uses (small scale farming and community gardens); and serve as a location for community events. Phase 3 of the Council approved park master plan will encompass:

- Walking trails and vehicle access;
- Planting and landscaping;
- Community gardens and a farm program area; and
- Site furnishings and lighting.



## **Details of Recommended Projects by Program**

### Appendix 4

# 2015 Recommended Parks – Minor Parks Program

#### **Table of Contents**

City Tree Planting Program	93
Parks Ageing Infrastructure Replacement Program	94
Parks General Development	95
Playground Improvement Program	96
Seine Net Loft - Deck Repair	97

Program:	Parks Program	Sub-program:	Minor Parks
Project Name:	City Tree Planting Program	Submission ID:	5234

Location: Various Locations

Cost: \$300,000 OBI: \$13,830

Funding Sources: Developer Contribution: \$300,000

Scope: This program will allow for the planting of tree

This program will allow for the planting of trees at various sites within the City's park and open space system, many of which have no or few existing trees. Planting trees provides many benefits to the community, including: adding beauty to park sites and increasing neighbourhood liveability; storing and sequestering carbon; removing pollutants from the air; providing habitat for wildlife; reducing storm water runoff; stabilizing slopes; providing shade/moderating temperatures; and positively affecting public health. This program supports Council's Term Goal to improve Community Wellness by creating liveable urban environments and supporting development of the City's parks and trails system.

Approximately 461 trees will be planted as part of this program.

The Funding Source for this submission is from "Tree Compensation" account# 2242.

OBI calculations are based on the City of Richmond's Urban Forest (trees on City properties). This consists of an estimated 55 thousand trees. The City's current costs of maintaining the Urban Forest is approximately \$1.7 million annually or approximately \$30 per tree.

This submission for the planting of 461 trees  $(461 \times 30)$  = \$13,830 for the OBI annual costs.



Program:	Parks Program		Sub-program:	Minor Parks	
Project Name:	Parks Ageing Infrast Program	ructure Replacement	Submission ID:	3894	
Location:	Various				
Cost:	\$175,000		OBI:	\$ -	
Funding Sources:	Gaming:	\$175,000			
Scope:	This replacement program consists of a multi-year phased approach to replace failed				

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 amenities have not been replaced for over 40 years and are in severe damaged condition. As a result, City Staff, Community Centres and its Associations are consistently being contacted to address the safety concerns from the public and sports groups.

This program is relative to the Strategic Initiatives including Placemaking (Creating Experiences, Unique Parks & Open Spaces, Neighbourhoods, Safe & Event Friendly City).

For 2015, projects will include: various chainlink fencing; retrofit to backstops; and perimeter park fencing. The Blundell tennis courts are also in need of repair.

Chainlink fencing retrofit (various sites) \$ 70,000

Blundell Tennis Courts \$ 30,000

McDonald Beach Float Replacement \$100,000



Program: Parks Program Sub-program: Minor Parks

Project Name: Parks General Development Submission ID: 299

**Location:** Various Location

Cost: \$500,000 OBI: \$3,000

Funding Sources: Parks Development DCC: \$470,250

Parks Development City Assist: \$29,750

Scope: This ongoing program addresses special opportunities, emergency requests, and safety driven

concerns from the public, as per City Council and SMT's direction. This program focuses on ongoing 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

direction 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.

drainage systems.

For 2015, additional projects include improvements to several components at Minoru Park to support hosting major special events and sport tournaments at the site.



Program:	Parks Program	Sub-program:	Minor Parks
----------	---------------	--------------	-------------

Project Name: Playground Improvement Program Submission ID: 4269

Location: Various Locations

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

Funding Sources: Gaming: \$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 Play Spaces 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 equipments, playground infrastructure (e.g. Resilient surfacing,

borders, drainage); and landscape features.

This program supports Council's Term Goal to improve Community Wellness by helping children and youth build healthy habits, creating liveable urban environments and supporting development of the City's park and trails system.

The preliminary priority project for 2015 is Jesse Wowk School Park.



Program: Parks Program	Sub-program:	Minor Parks
------------------------	--------------	-------------

Project Name: Seine Net Loft - Deck Repair Submission ID: 5490

Location: Britannia Shipyards

Cost: \$572,000 OBI: \$ -

Funding Sources: Capital Revolving: \$572,000

Scope: In 2013 the Seine Net Loft at Britannia was substantially restored and has now become a popular

new amenity for bookings, events and artifact displays. However, the exterior decking located over

water surrounding the building is in immediate need of replacement.

Based on previous partial beam repair done for the Seine Net Loft, it costs approximately \$10,000 to repair a beam. The Seine Net Loft has approximately 40 deck beams.

Deck beams ~ \$400,000

Deck board replacement (selective) ~ \$20,000

• Consulting fees ~\$20,000

• Contingency 30%

Estimate cost = \$572,000



## **Details of Recommended Projects by Program**

### Appendix 4

### 2015 Recommended Parks – Parkland Acquisition Program

т.	<b>L</b> I	_	ء ـ	0-	4-	nts
ıа	nı	e	OΤ	(:0	nte	nts

Parkland Acquisition	99
Parkland Acquisition – West Cambie	100

Program:	Parks Program	Sub-program:	Parkland Acquisition	
Project Name:	Parkland Acquisition	Submission ID: 4264		
Location:	As per Parks DCC Land Acquisition Plan			
Cost:	\$3,330,000	OBI:	\$ -	
Funding Sources:	Parks Acquisition DCC: \$3,131,865 Parks Acquisition City Assist: \$198,135			
Scope:	The purpose of the Parkland Acquisition program address development and population growth. The projections, as per the Official Community Plan provision standard of 7.66 acres/1000 population Acquisition Developer Cost Charges (DCC's) are Land Acquisition Strategy which provides the crisis required each year to allow the City to be strated available, thus avoiding the need to borrow the freelease the funds for each acquisition.	ne program is based on (OCP) with the objective in. The program is fundered is guided by the Courteria for evaluating propertegic and responsive as	the City's population of maintaining the parks of through Parkland noil approved 2009 Park nosed acquisitions. Funding properties become	
	Acquisition of land as prioritized in the Council a the purposes of creating or completing parks an growing population. The funding is typically allog	d open spaces to meet	the needs of the city's	



Program:	Parks Program	Sub-program:	Parkland Acquisition	
Project Name:	Parkland Acquisition – West Cambie	Submission ID:	5551	
Location:	As per Parks DCC Land Acquisition Plan			
Cost:	\$1,300,000	OBI:	\$ -	
Funding Sources:	Parks Acquisition DCC: \$1,222,650 Parks Acquisition City Assist: \$77,350			
Scope:	The purpose of the Parkland Acquisition program address development and population growth. The projections as per the OCP with the objective of n acres/1000 population. The program is funded thr Charges (DCC's) and is guided by the Council ap which provides the criteria for evaluating propose allow the City to be strategic and responsive as p need to borrow the funding from other City source acquisition.	e program is based on naintaining the parks p rough Parkland Acquis proved 2009 Park Lan d acquisitions. Funding roperties become avai	the City's population rovision standard of 7.66 ition Developer Cost d Acquisition Strategy g is required each year to lable thus avoiding the	

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.



Details of	Recommended	Pro	iects b	v Pr	ogran

### Appendix 4

2	<b>N</b> 1	15	Recomme	boba	Doules	Dublia	A set D	rogram
Z١	U J	LO	Recomme	mueu	Parks –	Public	Artr	rogram

<b>T</b> -	-	١	- 4	_		4 -	4-
ıa	DI	ıe	ОΤ		on	ıτe	nts

Program:	Parks Program	Sub-program:	Public Art			
Project Name:	Public Art Program	Submission ID:	4309			
Location:	Various Locations					
			440.000			
Cost:	\$407,941	OBI:	\$10,000			
Funding Sources:	Public Art Program: \$407,941					
Scope:	The scope of work consists of a variety of public art projects. The following are proposed projects (with estimated costs) which may change during the project's duration based on the Public Art Program's consideration of public art opportunities and priorities and private development funding. The Public Art Program is a self-sustaining project funded by private development contributions to the Public Art Reserve. This request is to move \$407,941 from the Public Art Reserve to the Public Art Provisional to be expended as follows:					
	For Community Public Art Projects, \$100,000 tot	al, as follows:				
	<ul> <li>City streets, parks and buildings: \$10,000 (additional funding for public works and facilities public art are included with Capital Submissions for these works)</li> </ul>					
	Community public art projects: \$30,000					
	Community education and promotion of the public art program: \$10,000					
	<ul> <li>Collaboration on educational opportunities with the Richmond Art Gallery, Media Lab, Cultural Centre and Richmond Museum: \$15,000</li> <li>Pursuing community public art partnerships as they arrive: \$10,000</li> </ul>					
	<ul> <li>Prepare public art opportunities as part of major City initiatives: \$25,000</li> </ul>					
	For the Private Development Program, the cost determined is based on contributions received in 2013-2014, as follows (budgets reflect actual developer contribution less 15% of funds deposited to Public Art Provision for Program Administration or to Public Art Consultants for Project Administration):					
	CCM Investments, 8380 Lansdowne Roa	d \$74,474				
	The Gardens, 10880 No. 5 Road	\$64,378				
	Khalid Hassan, 9500 Granville Ave	\$13,610				
	Amacon Tempo, 7680 Alderbridge Way	\$131,796				
	Am-Pri, 7691 Bridge Street	<u>\$ 23,683</u>				



# **Land Program 2015**

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

### 2015 Recommended Land - Land Acquisition Program

<b>T</b> - 1-1	4	- 0	4	4
Tabl	ല വ	เนด	nte	nts

Strategic Land Acquisition	m
Oli alegie Laria Acquisition	10-

Program: Land Program Sub-program: Land Acquisition

Project Name: Strategic Land Acquisition Submission ID: 4921

Location: Various

Cost: \$10,000,000 OBI: \$-

Funding Sources: Capital Industrial: \$10,000,000

Scope: Funds for land acquisition to meet City needs, 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 well as additional general funds

approved by Council, for a variety of Council approved acquisitions.



# **Affordable Housing Project Program 2015**

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.

#### 2015 Recommended Affordable Housing Project Program

#### **Table of Contents**

Affordable Housing Projects - West Cambie	106
Affordable Housing Strategy Funded By Operating Reserves	107
Kiwanis Towers	108

Program: Affordable Housing Project Sub-program: Affordable Housing

**Project** 

Project Name: Affordable Housing Projects - West Cambie Submission ID: 4867

Location: Various

Cost: \$125,000 OBI: \$-

Funding Sources: Affordable Housing: \$125,000

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 Funded By Submission ID: 4861

**Operating Reserves** 

Location: Various

Cost: \$750,000 OBI: \$-

Funding Sources: Affordable Housing: \$750,000

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: Kiwanis Towers Submission ID: 5552

**Location:** City Centre

Cost: \$283,640 OBI: \$-

Funding Sources: Affordable Housing: \$283,640

Scope: Additional funds specifically for Kiwanis that has already been collected from Affordable Housing

Capital Reserves and approved by Council to be disbursed to the project. The disbursement will be issued to Kiwanis upon substantial completion of Tower 1 to be applied towrds constructions costs

(approved by Council).



2015	Recommended	Equi	pment – A	Annual	Fleet 1	Rep	lacement	Program

Ta	h		٥f	2	nto	nts
14	U	ш		CO	ше	

Program:	Equipment Program	Sub-program:	Annual Fleet Replacement
Project Name:	Vehicle and Equipment Reserve Purchases (PW and Corporate Fleet)	Submission ID:	606
Location:	Works Yard and Various City Departments		
Cost:	\$2,851,200	OBI:	\$ -

OBI: Cost: \$2,851,200

**Funding Sources:** Water Utility: \$592,700 Sanitary Utility: \$405,000

Public Works Equipment: \$1,853,500

Fleet Reserve:(\$1,853,500) Scope:

> This project is to replace and outfit various vehicles and equipment within the City's fleet to ensure appropriate resources are available to support a wide range of functional areas within the City. Vehicles are replaced at the end of their useful life and in accordance with the objectives of the City's Sustainable Green Fleet Policy 2020 and Green Fleet Action Plan. This project also includes upgrades to supporting systems such as the fuel dispensing and fleet maintenance systems.



## **Details of Recommended Projects by Program**

## Appendix 4

## 2015 Recommended Equipment – Fire Department Vehicles Program

_			-	_	- 4	-
Та	h	e	Ot.	(:0	nte	nts

Fire Equipment Replacement	112
Fire Vehicle Replacement Reserve Purchases	113

Program: Equipment Program Sub-program: Fire Dept Vehicles

Project Name: Fire Equipment Replacement Submission ID: 4670

Location: Fire-Rescue

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

Funding Sources: Fire Equipment: \$25,000

Scope: Equipment replacement:

Fire fighting hose - 30 lengths (Cost of hose ranges from \$300-\$500 per length depending on

diameter- \$25,000)



Program: Equipment Program Sub-program: Fire Dept Vehicles

Project Name: Fire Vehicle Replacement Reserve Purchases Submission ID: 3874

Location: No 1 Fire Hall

Cost: \$971,630 OBI: \$-

Funding Sources: Fire Equipment: \$971,630

Scope: A Fire Pumper will take approximately 10 months from date of order to deployment.

Estimated replacement cost is \$873,630 CDN.

Estimated replacement of the support vehicles (1 @ \$48,000 and 2 @ \$25,000 for a total of

\$98,056 CDN)



## 2015 Recommended Equipment – Miscellaneous Equipment Program

Multi-Family Food Scraps/Organics Recylcing and Optional Solid Waste Collection Services	115
Snow Shed Doors/Salt Covers	116
Weigh Scale for Large Commercial Vehicles	117

Program:	Equipment Program		Sub-program:	Miscellaneous Equipment
Project Name:	Multi-Family Food Scraps/Orga and Optional Solid Waste Colle		Submission ID:	5553
Location:	Various multi-family sites			
Cost:	\$700,000		OBI:	\$ -
<b>Funding Sources:</b>	Sanitary Utility	\$700,000		
Scope:	This project is to provide food scr	aps recycling servi	ces to residents in n	nulti-family complexes.

This project is to provide food scraps recycling services to residents in multi-family complexes. The project includes the necessary items to deliver the service including the acquisition of carts, liners, kitchen catchers, delivery costs, education/outreach and a vehicle to support implementation requirements. This project is required to meet regional waste diversion targets and is in response to the regional disposal ban on organics, which came into effect January 1, 2015. This project also supports the City's sustainability initiatives and solid waste and recycling framework.



Program: Equipment Program Sub-program: Miscellaneous Equipment

Project Name: Snow Shed Doors/Salt Covers Submission ID: 5487

Location: Works Yard/Sidaway

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

Funding Sources: Other: \$200,000

Scope: To enclose snow shed to prevent salt freezing in truck inserts at the Works Yard and to construct

covers for the salt storage bays at the Sidaway Yard.



Program:	Equipment Program	Sub-program:	Miscellaneous
			Equipment

Project Name: Weigh Scale for Large Commercial Vehicles Submission ID: 5526

**Location:** Sidaway

Cost: \$100,000 OBI: \$-

Funding Sources: Water Utility: \$50,000 Sanitary Utility: \$50,000

Scope: To install large commercial vehicle weigh scale at Sidaway Yard. Includes installation of ground

improvements/infrastructure necessary to support installation of the scale and computer system to

generate scale tickets within the existing office unit at the Sidaway Yard.



# **Equipment Program 2015**

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

## 2015 Recommended Equipment - Technology Program

2015 Microsoft Licensing & Storage	119
2015 Server Infrastructure Upgrades	120
Emergency Operations Centre Information Management System	121
Existing Operational Desktop Computer Hardware Funding	122
Integrated Payment Approval	123
Master Customer Data	124
Middleware Deployment	125
Planning & Development Business Transformation	126
WorkSafe BC Claims/Incident Management System	127

Program:	Equipment Program		Sub-program:	Technology		
Project Name:	2015 Microsoft Licensing & Storage		Submission ID:	5471		
Location:	Public Works Yard					
Cost:	\$136,000		OBI:	\$ -		
<b>Funding Sources:</b>	Other Equipment:	\$136,000				
Scope:	Purchase Windows Datacentre licenses with Software Assurance for the City's 5 Vmware servers at Works Yard. (\$73K)					
	VMESX14 - 4 sockets					
	VMESX15 - 4 sockets					
	VMESX16 - 4 sockets					
	VMESX10 - 2 sockets					
	VMESX9 - 2 sockets					
	Purchase MS Office 365 devices for iPads for MS license compliance (\$26,235) 55 iPads x 36 months x \$13.25					
	Purchase additional storage for	Compellent SAN. (	\$63K)			
	N / !		C			



Dua wasan	Environment Durante		Out and and	Taskuslami			
Program:	Equipment Program		Sub-program:	Technology			
Project Name:	2015 Server Infrastructu	re Upgrades	Submission ID:	5417			
Location:	City Hall						
Cost:	\$281,600		OBI:	\$44,900			
Funding Sources:	Other Equipment:	\$281,600					
Scope:	Server Infrastructure Upgr Interactive Map service (it databases include People new high-availability Orac	ems 1 and 2), the perform Soft, Hansen, and Geogra	nance of major Oracl aphic Information Sy	e databases (Item 3 – stem), and support for the			
		l ArcGIS Servers - 2 x Do , 300GB disk + 1.2TB SS		with 2 x 4core Intel Xeon			
		Server - Dell PowerEdge 1.2TB SSD - \$38,500	R720 with 2 x 6core	e Intel Xeon CPU, 256GB			
	<ol> <li>Database-specific SA require an RFP - \$80</li> </ol>		B Fibre Channel SAN	N using all-flash array - will			
	4a. Oracle Solaris test servers - 2 x Oracle Sparc T4-1 with 1 8core Sparc CPU, 128GB memory 1.5TB disk + SSD - \$76,500						
	4b. Oracle Standard Edition database licenses - 2 x 1 core processor licenses - \$25,000						
	5. Contingency that hardware prices may increase by time of order - 10% - \$25,600						
	<u>Items 1 and 2:</u> Dell PowerEdge R720	Next-generation power and flexibility in a 2S/2U rack server.  Keep pace with the exponential change of the virtual age using the state-of-the-art feature flexibility of the PowerEdge**  R720.		•			
	Item 4a: Oracle Sparc T4-1	SPARC T4-1 Server  High Performance Web Infrastructure Middleware, and Application Develor Oracle's SPARC T4-1 server running Oracle S high performance in a compact and secure sin server. It provides a highly integrated platform security and speed for a wide range of single of threaded enterprise and mission-critical applic	pment  iolaris delivers  igle-socket  with maximum  and multi-				
	<u>Item 3:</u> All-flash Storage Array						

Program:	Equipment Program	Sub-program:	Technology
----------	-------------------	--------------	------------

Project Name: Emergency Operations Centre Information Submission ID: 5416

Management System

Location: Various Locations

Cost: \$178,500 OBI: \$19,000

Funding Sources: Rate Stabilization: \$178,500

Scope: This project is to source, install and facilitate the use of an Emergency Information Management System to improve information management, analysis, display, sharing and archiving for the City's

Emergency Operation Centre and first responders. This software would assist decision makers to support emergency sites, improve situational awareness, document the allocation and tracking of resources and assist in the archiving and creating of reports required for Disaster Financial

Assistance from the Provincial and/or Federal Governments.

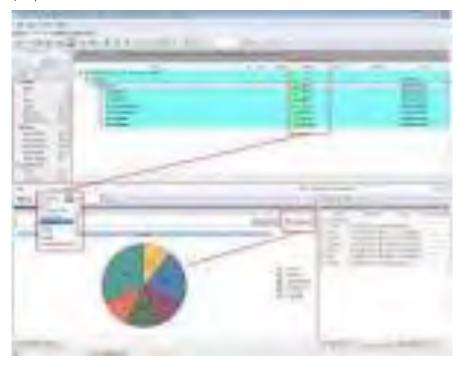
Total project cost is estimated to be \$228,500 and would be completed over two years.

\$155,000 initial software purchase

\$34,500 IT Project Manager

\$20,000 Hardware

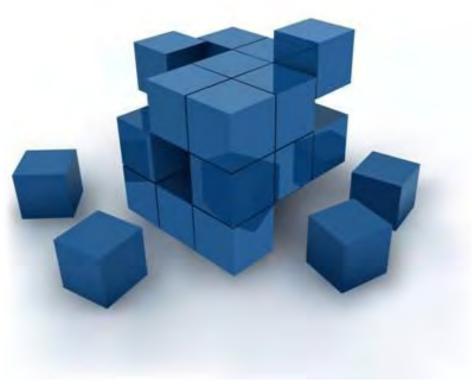
\$19,000 Estimated cost of annual maintenance



Program:	Equipment Program		Sub-program:	Technology			
Project Name:	Existing Operational Desktop Hardware Funding	Computer	Submission ID:	4899			
Location:	City Hall						
Cost:	\$419,936		OBI:	\$ -			
<b>Funding Sources:</b>	Computer Equipment:	\$419,936					
Scope:	To replace City owned desktop and an appropriate repair inver printers, laptops, scanners, mo	ntory. Equipment to b	e replaced includes	City desktop computers,			
	2015 Desktop Computer Equip	ment Replacement F	Plan				
	240 Desktop (Scheduled)						
	20 Desktop (Breakfix)						
	10 Workstation						
	1 Workstation (Breakfix)						
	15 Laptop						
	10 Laptop w/docking station						
	171 Monitors						
	20 Monitors (Breakfix)						
	35 iPads						
	400 Cellular Handset (Schedu	led)					
			1				



Program:	Equipment Program		Sub-program:	Technology			
Project Name:	Integrated Payment Approval		Submission ID:	5497			
Location:	Various Locations						
Cost:	\$100,000		OBI:	\$ -			
Funding Sources:	Other:	\$100,000					
Scope:	routing and approval for vendor in information flow. IPA will leverage	To develop and implement an Integrated Payment Approval (IPA) system, providing electronic routing and approval for vendor invoices, which will replace physical paper flow with electronic information flow. IPA will leverage on improvements made to the PeopleSoft Financial system in 2014, when IPA was identified as an opportunity for improvement to Richmond's procurement, approval and payment workflow.					
	IPA will: mitigate risk of inappropriate approval outside of spending authority limits; improve expense reporting cut-off for financial statements; improve cash flow projections with better data; and strengthen internal controls on expenditure approval and financial coding.						
	Within the scope of this improvement are all invoices incurred and paid by Richmond, except for expenditures for items such as: Hired Equipment, Employee Reimbursement, and Customer Refunds where IPA would not be applicable.						
	This project is expected to begin i between Finance and Information include external Consultant time,	Technology Depart	tments. The compo	onents of the project will			



Program: Equipment Program Sub-program: Technology

Project Name: Master Customer Data Submission ID: 5428

**Location:** City Hall

Cost: \$900,000 OBI: \$100,000

Funding Sources: Other Equipment: \$900,000

Scope: The City of Richmond is looking for future opportunities on how technology can enable the City to

better support their Master Customer Data Management which includes Customer Response Management software, Customer Web Portal and Operational Centre. The vision is to provide software that allows for a single point of entry for dispatch and follow-through of externally or internally generated requests for service or complaints. By providing a Customer Response workflow tracking system, the City can be assured that constituents' requests or complaints are recorded and managed in order to mitigate risk and ensure timely follow up thus, improving customer service and responsiveness. The system can be integrated with other business applications where requests can be managed from call entry through dispatch, follow-up, work

completion and resolution.



Program:	Equipment Program	Sub-program:	Technology			
Project Name:	Middleware Deployment	Submission ID:	5427			
Location:	City Hall					
Cost:	\$600,000	OBI:	\$50,000			
Funding Sources:	Other Equipment:	\$600,000	. ,			
Scope:	The City of Richmond is looking for future opportunities on how technology can enable the City to better support their business and community. The vision is to build intelligent communications between the various City of Richmond business applications to eliminate repetitive and manual effort so enterprise data is automated, online and accessible. This eco system could be extended out to the City of Richmond's constituents and business community to leverage this information in real-time.					
	The COR roadmap for the future in	ncludes:				
	A single source of the data	a - seamlessly connect the City's diffe	rent business applications			
	Bi-directional access and	update of city information in real-time				
	<ul> <li>Provide constituents with virtual access to the city allowing them to make a payment or report an incident anytime.</li> </ul>					
	<ul> <li>Extend applications to mobile devices allowing people in the field to have online access and be able to communicate real-time with the rest of the city.</li> </ul>					
	communications througho	an integration platform that will facilita ut the City that has the capability of ex stituents and the business community	ktending that real-time			



Program:	<b>Equipment Program</b>		Sub-program:	Technology
Project Name:	Planning & Development Business Transformation		Submission ID:	5429
Location:	City Hall			
Cost:	\$300,000		OBI:	\$ -
Funding Sources:	Other Equipment:	\$300,000		
Scone:	The City of Richmond is Id	ooking for future opportu	inities on how technologic	nay can enable the City to

Scope:

The City of Richmond is looking for future opportunities on how technology can enable the City to better support their Planning and Development Processes. The vision is to provide software that automates workflow associated with building, planning, engineering, code enforcement and other land management activities.

The COR roadmap for the future includes:

- This will include web applications for internal staff, external agencies, contractors and citizens.
- Enable the hardware and software for the City to accept and review digital plans.
- Extend applications to mobile devices allowing people in the field to have online access and be able to communicate real-time with the rest of the city.
- Integration with GIS information that manages and seamlessly connects to land based development information

Planning and Development transformation will integrates four key business needs: Work Management, Data Management, Project Management and Document Management. These business functions will be integrated together, thus allowing for e-Government applications that provides complete business process automation.



Program: Equipment Program Sub-program: Technol	ogy
---	-----

Project Name: WorkSafe BC Claims/Incident Management Submission ID: 5383

System

Location: City Hall

Cost: \$105,925 OBI: \$-

Funding Sources: Other: \$105,925

Scope: To source, purchase and implement a method to record, track and trend incident data in a

centralized on-line system with configurable security for individual users or groups of users to

ensure incidents are quickly responded to investigated and closed.



# **Child Care Program 2015**

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.

### 2015 Recommended Child Care Program

Child Care Projects - City Wide (non-capital grants)	. 129
Upgrade Four Child Care Facilities	. 130

Program: Child Care Program Sub-program: Child Care Program

Project Name: Child Care Projects - City Wide (non-capital Submission ID: 5532

grants)

**Location:** Various

Cost: \$10,000 OBI: \$-

Funding Sources: Other: \$10,000

Scope: To ensure there is sufficient funding to support the 2015 Child Care Professional and Program

Development Grants (non-capital). Grants are advertised in October 2014 and then with Council

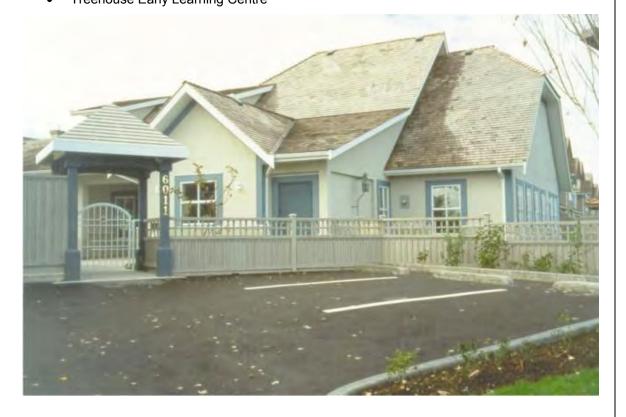
approval, awarded in February 2015.



Program:	Child Care Program		Sub-program:	Child Care Program
Project Name:	Upgrade Four Child Care Facilities		Submission ID:	5538
Location:	Various			
Cost:	\$400,000		OBI:	\$ -
<b>Funding Sources:</b>	Capital Revolving:	\$400,000		
Scope:	A significant amount of work i good state of repair. The four		e existing City's 1990	s child care facilities into a
	Cook Road Children's	s Centre		
	Riverside Child Deve	lopment Centre		

Terra Nova Children's Centre

Treehouse Early Learning Centre



# **Internal Transfers/Debt Payment Program 2015**

The internal transfers/debt program relates to the use of capital funding for items that do not result in tangible capital assets. This includes: the repayment of capital funds borrowed from other internal sources of funding, external debt repayment and transfers to the operating budget for items that do not meet the asset capitalization criteria.

### 2015 Recommended Internal Transfers/Debt Payment Program

2015 Equipment Lease Payments	132
Nelson Road Interchange Repayment	133
Parkland Acquisition Repayment	134
River Rd/North Loop (2005) Repayment	135
Shovel - Ready Grant (2009) Repayment Lansdowne Rd Ext	136

Program:	Internal Transfers/Debt Payment	Sub-program:	Internal Transfers/Debt
			Payment

Project Name: 2015 Equipment Lease Payments Submission ID: 5138

**Location:** City Hall

Cost: \$12,153 OBI: \$-

Funding Sources: Other: \$12,153

**Scope:** MFA leases #9262, #9273

Program:	Internal Transfers/Debt Payment			Sub-prog	gram:	Internal Transfers/Debt Payment	
Project Name:	Nelson Road Interchange Repay		yment	Submiss	ion ID:	5297	
Location:	Finance						
Cost:	\$385,098				OBI:		\$ -
Funding Sources:	Roads DO	CC:		\$385,098			
Scope:	A total of	\$2.54M	is to be repaid f	rom Roads DC0	C to Surplus ov	er 8 yea	rs.
	The 2019 payment of \$385,098 is the 6th of eight equal payments.						
	Payment	Year	Balance	Payment	Interest	Princ	sipal
	1 2	2014 2015	\$2,540,065 \$2,269,270	\$(385,098) \$(385,098)	114,303 102,117	270,7 282,9	
	3	2016	\$1,986,289	\$(385,098)	89,383	295,7	
	4	2017	\$1,690,574	\$(385,098)	76,076	309,0	)22
	5	2018	\$1,381,552	\$(385,098)	62,170	322,9	
	6	2019	\$1,058,624	\$(385,098)	47,638	337,4	
	7	2020	\$721,164	\$(385,098)	32,452	352,6	
	8	2021	\$368,518	\$(385,098)	16,583	368,	515

Program:	Internal Transfers/Debt Payment	Sub-program:	Internal Transfers/Debi Payment	
Project Name:	Parkland Acquisition Repayment	Submission ID:	5545	
Location:	As per Parks DCC Land Acquisition Plan	1		
Cost:	\$5,500,000	OBI:	\$ -	
Funding Sources:	Parks Acquisition DCC: \$5,500	,000		
Scope:	To repay the Industrial Use Reserve for due to the Parkland Acquisition DCC's nare repaid with interest to the original fur	ot being sufficient at the time of		

Program:	Internal Transfers/Debt Payment			Sub-pro	gram:	Internal Transfers/Debt Payment	
Project Name:	River Rd/	North L	oop (2005) Re	payment	Submiss	sion ID:	2304
Location:	Finance						
Cost:	\$1,685,05	56			OBI:		\$ -
Funding Sources:	Roads DO	CC:		\$1,685,056			
Scope:	A total of	\$18.2M	is to be repaid t	from Roads DC0	Cs to Surplus	over 18 y	ears.
	The 2015	paymer	it of \$1,685,056	is the 10th of 1	8 payments.		
	Payment	Year	Balance	Payment	Interest	Princ	sipal
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023	17,100,000 15,928,924 16,236,436 14,937,712 13,593,532 13,601,095 13,777,133 14,059,333 12,612,208 11,736,635 10,462,361 9,143,488 7,778,454 6,365,644 4,903,386 3,488,258 2,023,601 507,681	(1,769,576) (1,200,000) (1,867,000) (1,867,000) (468,210) (300,000) (200,000) (1,939,202) (1,317,000) (1,685,056) (1,685,056) (1,685,056) (1,685,056) (1,685,056) (1,334,953) (1,334,953) (1,334,953) (1,334,955)	598,500 557,512 568,275 522,820 475,774 476,038 482,200 492,077 441,427 410,782 366,183 320,022 272,246 222,798 171,618 130,902 88,760 45,143	1,171,6 642,4 1,298,7 1,344,7 (7,5 (176,0 (282,2 1,477,875,5 1,274,2 1,318,8 1,365,6 1,412,8 1,462,2 1,163,5 1,204,6 1,246,7 1,289,8	488 725 180 64) 38) 00) 125 573 274 373 034 310 258 334 051

Program:	Internal T	ransfer	s/Debt Paymer	nt	Sub-prog	gram:	Internal Transfers/Debt Payment
Project Name:	Shovel - Lansdow		Grant (2009) Re Ext	payment	Submiss	ion ID:	3780
Location:	Finance						
Cost:	\$77,263				OBI:		\$ -
<b>Funding Sources:</b>	Roads DC	CC:		\$77,263			
Scope:	A total of \$626,666 is to be repaid from Roads DCC to the Watermain Replacement Reserve ove 10 years.			eplacement Reserve over			
	The 2015 payment of \$77,263 is the 6th of 10 equal payments						
	The loan amortization schedule is:						
	Payment	Year	Balance	Payment	Interest	Princi	ipal
	1 2 3 4 5 6 7 8 9	2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	626,666 574,470 520,185 463,730 405,016 343,954 280,449 214,404 145,717 74,283	\$(77,263) \$(77,263) \$(77,263) \$(77,263) \$(77,263) \$(77,263) \$(77,263) \$(77,263) \$(77,263) \$(77,254)	25,067 22,979 20,807 18,549 16,201 13,758 11,218 8,576 5,829 2,971	52,1 54,2 56,4 58,7 61,0 63,5 66,0 68,6 71,4 74,2	284 256 114 262 205 45 87 34

# **Infrastructure Program Unfunded Projects 2015**

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

## 2015 Unfunded Infrastructure Program

Roads Minor Capital	138
Undergrounding - Lansdowne Rd	139

Program: Infrastructure Program Sub-program: Roads
Project Name: Roads Minor Capital Submission ID: 4894

Location: City Wide

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

Funding Sources: Capital Revolving: \$250,000

Scope: This project will fund minor road and sidewalk related infrastructure upgrades and the capital replacement of failing infrastructure. Projects 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 the response to resident

service requests that require site specific repairs.



Program: Infrastructure Program Sub-program: Roads
Project Name: Undergrounding - Lansdowne Rd Submission ID: 5005

Location: Lansdowne Rd from Cedar Bridge to Minoru Blvd

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

Funding Sources: Capital Revolving: \$840,000

Grant: \$160,000

Scope: Undergrounding - Hydro/Tel will take place along Lansdowne Road from Cedar Bridge to Minoru

Blvd.

This project will include the removal of poles, overhead cables/wires and the placement of kiosks in rights-of-way. 1/3 funding (\$160,000) from BC Hydro could be available for Hydro's portion of work

(approximately \$500,000)

This is a single year project that is part of an ongoing program.



# **Building Program Unfunded Projects 2015**

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

### **2015 Unfunded Building Program**

City Hall - IT Room Optimization	141
Interurban Tram Restoration	142
Library and Cultural Centre - Arts Centre Lapidary Studio/Cultural Centre Kitchen Renovations	143

Program:	Building Program	Sub-program:	Minor Building
Project Name:	City Hall - IT Room Optimization	Submission ID:	5475
Location:	6911 No. 3 Road		
Cost:	\$541,430	OBI:	\$ -
Funding Sources:	Capital Revolving: \$541,430		
Funding Sources: Scope:	Capital Revolving: \$541,430  The IT Room system optimization entails installing / re  UPS power supply  Controllers  HVAC air handling units and compressors  Gas suppression system   Mixed air  Outside air  damper  Linkage  Motorized  actuator  Return air	eplacing the follow	

Program: Building Program Sub-program: Major Building

Project Name: Interurban Tram Restoration Submission ID: 4693

**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 Steveston Road Ends

account, was recently completed and included 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 as approved by Council on July 25, 2011. The OBI was

approved as part of project #4259 - phase 1.



Program:	Building Program	Sub-program:	Major Building
Droject Name:	Library and Cultural Contro. Arta Contro	Submission ID:	E420

Renovations

Location: Richmond Cultural Centre

Cost: \$372,200 OBI: \$-

**Lapidary Studio/Cultural Centre Kitchen** 

Funding Sources: Capital Revolving: \$372,200

Scope: 1. Conversion of the Arts Centre's Lapidary Studio into a Performing Arts studio:

- · Remove all cabinetry including sink area
- Remove industrial air ducts above machinery
- · Renovate closet area
- Add wood sprung floor and mirrors in south, west and east walls
- 2. Conversion of the Silversmithing Room into an office:
  - Remove all cabinetry
  - Remove industrial air ducts above machinery
  - Add a one-way glass door to Performing Arts Studio
  - Change flooring to match with Atrium
- 3. Conversion of the Cultural Centre Kitchen into a Multipurpose/Lapidary Studio:
  - Remove all industrial kitchen equipment
  - Remove tiles on walls
  - Replace exterior exit door with glass door
  - Add cabinetry to secure Lapidary equipment when not in use; add cabinetry for storage
  - · Add water lines and traps for Lapidary machines
  - Add appropriate air ducts by machinery
  - Add bench/cabinetry for Silversmithing



# **Equipment Program Unfunded Projects 2015-2019**

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

## 2015 Unfunded Equipment Program

Network Link to Hamilton CC & FH 5	145
Read-o-Graph Boards at Firehalls	146
Public Safety Mobile Command Vehicle	147

Program:	Equipment Program	Sub-program:	Technology
----------	-------------------	--------------	------------

Project Name: Network Link to Hamilton CC & FH 5 Submission ID: 5470

Location: Hamilton & FH 5

Cost: \$222,000 OBI: \$2,900

Funding Sources: Other Equipment: \$222,000

Scope: The Telus Munilink service that connects the Hamilton CC will be discontinued.

Civil infrastructure (ducts) for City-owned fibre (as is being done at other halls) does not exist at this point. The new connection will use a combination of fibre (where ducts exist) and wireless

links.

This project would involve the following phases:

1. Site survey \$5K

2. Site preparation (2 sites) \$10K

3. Connect to City network using a fibre or wireless link \$72K

4. Connect Fire Hall 5 by fibre to Hamilton Community Centre - \$135 K



Program: Equipment Program Sub-program: Miscellaneous Equipment

Project Name: Read-o-Graph Boards at Firehalls 4, 6 and 7 Submission ID: 5194

**Location:** Firehalls 4,5,6,7

Cost: \$304,800 OBI: \$6,000

Funding Sources: Capital Revolving: \$304,800

Scope: This request is for four reader boards to be installed at Fire Halls 4, 5, 6 and 7. They are estimated

at \$76,200 each for supply and installation. There are on-going annual maintenance costs.



Program: Equipment Program Sub-program: Vehicle Equipment

Project Name: Public Safety Mobile Command Vehicle Submission ID: 5414

Location: Various Locations

Cost: \$992,000 OBI: \$-

Funding Sources: Capital Revolving: \$992,000

Scope: The City must endeavour to provide up-to-date, reliable and safe equipment in order to contribute

to the liveability of the community and the City's commitment to good management and community safety. An aging and high-maintenance Public Safety Mobile Command Vehicle is not in keeping with the City's vision. This project goal is to replace the current 1997 vehicle as it is beyond the end of its current life cycle and rapidly deteriorating. Replacing it with an industrial construction vehicle will improve its durability, reliability over a longer term, emission standards and provide

higher quality community safety service.

Total project cost \$992,000

Vehicle replacement reserves \$9,000

Vehicle purchase \$655,000

Communications and data infrastructure equipment and interior completion \$328,000

