



Public Works and Transportation Committee

Anderson Room, City Hall
6911 No. 3 Road

Wednesday, September 19, 2018
4:00 p.m.

Pg. # ITEM

MINUTES

PWT-4 *Motion to adopt the **minutes** of the meeting of the Public Works and Transportation Committee held on July 18, 2018.*



NEXT COMMITTEE MEETING DATE

October 17, 2018, (tentative date) at 4:00 p.m. in the Anderson Room

PLANNING AND DEVELOPMENT DIVISION

1. **TRANSLINK 2019 CAPITAL PROGRAM COST-SHARE
APPLICATIONS**

(File Ref. No. 01-0154-04) (REDMS No. 5915775 v. 4)

PWT-10

See Page PWT-10 for full report

Designated Speaker: Victor Wei

STAFF RECOMMENDATION

- (1) *That the submission of pedestrian, bicycle and transit facility improvement projects for cost-sharing as part of the TransLink 2019 capital cost-share programs as described in the report titled, “TransLink 2019 Capital Program Cost-Share Applications” dated August 24, 2018 from the Director, Transportation, be endorsed; and*

- (2) *That, should the above submissions be successful, the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the funding agreements and the 2019 Capital Budget and the consolidated 5-Year Financial Plan (2019-2023) be updated accordingly.*



ENGINEERING AND PUBLIC WORKS DIVISION

2. **NO. 7 ROAD SOUTH DRAINAGE PUMP STATION DESIGN CONCEPT**

(File Ref. No. 10-6050-01) (REDMS No. 5900126)

PWT-22

See Page PWT-22 for full report

Designated Speaker: Milton Chan

STAFF RECOMMENDATION

That the design concept for the No. 7 Road South Drainage Pump Station, as detailed in Attachment 1 of the staff report titled “No. 7 Road South Drainage Pump Station Design Concept” and dated August 22, 2018, from the Acting Director, Engineering be endorsed.



3. **CITY OF RICHMOND’S RESPONSE TO THE CANADIAN NATIONAL RAILWAY COMPANY’S DEVELOPMENT OF A FIVE YEAR PEST MANAGEMENT PLAN**

(File Ref. No. 10-6000-00) (REDMS No. 5955939)

PWT-27

See Page PWT-27 for full report

Designated Speaker: Chad Paulin

STAFF RECOMMENDATION

That the City’s feedback on the Canadian National Railway Company (CN) proposed Five Year Pest Management, outlined in the report titled “City of Richmond’s Response to the Canadian National Railway Company’s Development of a Five Year Pest Management Plan” from the Senior Manager, Sustainability and District Energy dated August 28, 2018, be endorsed and sent to CN as part of their 5 year Pest Management Plan.



4. **CULTURAL CENTRE EQUIPMENT RENEWAL AND GHG EMISSIONS REDUCTION PROJECT**

(File Ref. No. 10-6125-05-01) (REDMS No. 5838860 v. 22)

PWT-31

See Page PWT-31 for full report

Designated Speaker: Levi Higgs

STAFF RECOMMENDATION

- (1) *That the equipment renewal and upgrade at the Cultural Centre, as described in the report title “Cultural Centre Equipment Renewal and GHG Emissions Reduction Project” from the Senior Manager, Sustainability and District Energy dated August 24, 2018 be endorsed;*
- (2) *That the funding of \$500,000 from the Carbon Tax Provision and \$170,000 from the Energy Operating Provision be approved for use to support the completion of the Cultural Centre equipment renewal project, and that the Consolidated 5 Year Financial Plan (2018-2022) Bylaw be amended accordingly; and*
- (3) *That if incentive funding applications to Fortis BC and/or BC Hydro are successful, the Consolidated 5 Year Financial Plan (2018-2022) Bylaw be amended accordingly and, if applicable, the corresponding internal City funding sources be returned to their source funds.*

☐

5. **MANAGER’S REPORT**

ADJOURNMENT

☐



Public Works and Transportation Committee

Date: Wednesday, July 18, 2018

Place: Anderson Room
Richmond City Hall

Present: Councillor Chak Au, Chair
Councillor Harold Steves
Councillor Carol Day
Councillor Alexa Loo

Absent: Councillor Derek Dang

Also Present: Councillor Linda McPhail

Call to Order: The Chair called the meeting to order at 4:00 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the Public Works and Transportation Committee held on June 20, 2018, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

September 19, 2018, (tentative date) at 4:00 p.m. in the Anderson Room

Public Works & Transportation Committee
Wednesday, July 18, 2018

PLANNING AND DEVELOPMENT DIVISION

1. PUBLIC BIKE SHARE PILOT PROGRAM - RECOMMENDATION TO AWARD CONTRACT

(File Ref. No. 02-0775-50-6286) (REDMS No. 5867201 v. 4)

In reply to queries from Committee, Sonali Hingorani, Transportation Engineer, advised that it is proposed that the Public Bike Share Pilot Program initially be launched on a small scale and gradually expand as demand increases; this will allow adjustments to the Program in an effort to address any issues that may arise. She noted that, as a theft prevention measure, a Smartphone must be utilized to unlock a bicycle, and 19 years of age is commonly set for public bike share programs; however the potential for parents or guardians to grant permission to children to use the bicycles can be examined.

Raviv Litman, Operations Manager, U-bicycle, commented on the rationale for age minimums, noting there is liability comes to renting bicycles.

Victor Wei, Director, Transportation, noted that although the issue of children not being able to rent bicycles has not been addressed currently, he advised that staff can work with the proponent on changes to the software. Mr. Wei noted that the Program is a pilot program and changes to ameliorate it can be accommodated.

In reply to further queries from Committee, Ms. Hingorani advised that most operations for a bike share pilot program start in the down season to test the program on a small scale and to allow for changes to be made to ensure a strong and safe program during the peak months.

It was moved and seconded

- (1) That the City establish a service of a public bike share system as a pilot project;*
- (2) That a contract up to 18 months in length with U-bicycle North America Inc. (U-bicycle), based on the terms as outlined in the staff report titled "Public Bike Share Pilot Program – Recommendation to Award Contract" dated June 28, 2018 from the Director, Transportation, be endorsed;*
- (3) That the Chief Administrative Officer and General Manager, Planning and Development, be authorized to execute the above contract; and*
- (4) That staff be directed to report back on the outcome of the pilot program following its completion.*

CARRIED

2.

Public Works & Transportation Committee
Wednesday, July 18, 2018

2. PROPOSED AMENDMENT TO THE OFFICIAL COMMUNITY PLAN – REMOVAL OF HIGHWAY 99 INTERCHANGE AT BLUNDELL ROAD AND EXTENSION OF BLUNDELL ROAD

(File Ref. No. 08-4050-08) (REDMS No. 5877251)

In reply to queries from Committee, Donna Chan, Manager, Transportation Planning, noted that external agencies as well as the Blundell Road Business Consortium were consulted with regard to the City's decisions on removing the Highway 99-Blundell Road interchange and the extension of Blundell Road as it provided no benefit to the City. Ms. Chan then advised that the funds allotted for this project will remain in the City's Roads Development Cost Charges Program.

In reply to further queries from Committee, Mr. Wei advised that as there is no physical road between No. 6 Road and Savage Road, and therefore it was not recommended to show a cycling route that would never have a road. He noted that improvements to the Westminster Highway bike route and other bike routes in the area would accommodate for this change. Mr. Wei then remarked that notification of the Public Hearing will be provided as per the *Local Government Act*.

It was moved and seconded

- (1) *That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 9901, to remove reference to a new interchange at Highway 99 and Blundell Road and the extension of Blundell Road west of Savage Road, be introduced and given first, second and third readings;*
- (2) *That Official Community Plan Bylaw 9000, Amendment Bylaw 9901, having been considered in accordance with Official Community Plan Bylaw Preparation Consultation Policy 5043 is hereby found not to require further consultation; and*
- (3) *That the City request the Port of Vancouver to undertake at its sole cost the timely implementation of proposed interim road improvements within the Fraser Richmond Port Lands to support continued growth in the area, as outlined in Table 1 of the report, regardless of the outcome of its application for cost-share funding to the Government of Canada's National Trade Corridors Fund*

CARRIED

Opposed: Cllr. Loo

Public Works & Transportation Committee
Wednesday, July 18, 2018

ENGINEERING AND PUBLIC WORKS DIVISION

3. **STURGEON BANKS ASSESSMENT AND ENHANCEMENT UPDATE**
(File Ref. No. 10-6160-01) (REDMS No. 5885241 v. 2)

In reply to queries from Committee, staff advised (i) that the intention of the South Arm Jetty Tidal Marsh Project is to create a bank for habitat loss in other projects, (ii) an application has been submitted to the Province for land tenure, and once approved a stakeholder consultation will be carried out, and (iii) that through the dike master planning process, staff are examining how to implement seaburns along the dike.

It was moved and seconded

That the staff report titled "Sturgeon Banks Assessment and Enhancement Update" dated June 21, 2018, from the Senior Manager, Sustainability & District Energy, be received for information.

CARRIED

4. **FRASER RIVER FRESHET AND FLOOD PROTECTION UPDATE 2018**
(File Ref. No. 10-6060-01) (REDMS No. 5863056)

Discussion took place on the information contained in the staff report, and it was noted that a hardcopy and electronic brochure would be valuable.

It was moved and seconded

That the report titled "Fraser River Freshet and Flood Protection Update 2018" dated July 9, 2018 from the Acting Director, Engineering be received for information.

CARRIED

5. **RIPARIAN RESPONSE STRATEGY PHASE ONE**
(File Ref. No. 10-6160-08; 12-8060-20-009871/9882/9883/9884/9885/9881) (REDMS No. 5842647 v. 10; 5838315; 5842645; 5842646; 5843567; 5843328; 5842641)

In reply to queries from Committee regarding the West Dike, it was noted that staff are working to assess options for noxious weeds as there has been positive results managing the Brazilian Elodea issue. Also, staff commented that it is proposed that the Construction Environmental Management Plan requirement for single-family development sites with Riparian Management Areas be replaced with a permit review fee to streamline the process.

In reply to a further query from Committee, staff spoke to the proposed timeline, noting that it allows for implementation and notification to homeowners and builders of the proposed changes.

Public Works & Transportation Committee
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It was moved and seconded

- (1) *That Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9871, which adds Riparian Management Area setbacks as adopted by Council in 2006, be introduced and given first reading;*
- (2) *That Watercourse Protection and Crossing Bylaw No. 8441, Amendment Bylaw No. 9882, which establishes a riparian review fee for the single family building permit process, and inspection and ticketing authority, be introduced and given first, second, and third readings;*
- (3) *That Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9883, which quantifies the riparian permit review and inspection fees established in the Watercourse Protection and Crossing Bylaw No. 8441, be introduced and given first, second, and third readings;*
- (4) *That Municipal Ticket Information Authorization Bylaw No. 7321, Amendment Bylaw No. 9884, which defines fines for non-compliance with the Watercourse Protection and Crossing Bylaw, be introduced and given first, second, and third readings;*
- (5) *That Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 9885, which defines fines for non-compliance with the Watercourse Protection and Crossing Bylaw, be introduced and given first, second, and third readings;*
- (6) *That Boulevard Maintenance Regulation Bylaw No. 7174, Amendment Bylaw No. 9881, which amends content to authorize enhancement of a riparian management area, be introduced and given first, second, and third readings; and*
- (7) *That the 5 Year Financial Plan (2018-2022) be amended to include the costs for the new Environmental Coordinator position, which will be recovered through the collection of permit fees.*

CARRIED

6. MANAGER'S REPORT

None.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:29 p.m.).

CARRIED

5.

Public Works & Transportation Committee
Wednesday, July 18, 2018

Certified a true and correct copy of the Minutes of the meeting of the Public Works and Transportation Committee of the Council of the City of Richmond held on Wednesday, July 18, 2018.

Councillor Chak Au
Chair

Sarah Goddard
Legislative Services Coordinator



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** August 24, 2018
From: Victor Wei, P. Eng. **File:** 01-0154-04/2017-Vol 01
Director, Transportation
Re: TransLink 2019 Capital Program Cost-Share Applications

Staff Recommendation

1. That the submission of pedestrian, bicycle and transit facility improvement projects for cost-sharing as part of the TransLink 2019 capital cost-share programs as described in the report titled, "TransLink 2019 Capital Program Cost-Share Applications" dated August 24, 2018 from the Director, Transportation, be endorsed; and
2. That, should the above submissions be successful, the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the funding agreements and the 2019 Capital Budget and the consolidated 5-Year Financial Plan (2019-2023) be updated accordingly.

Victor Wei, P. Eng.
Director, Transportation
604-276-4131

Att. 2

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance	<input checked="" type="checkbox"/>	
Parks	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

Each year, municipalities may submit road, bicycle and transit-related improvement projects for funding consideration from TransLink's capital cost-share funding programs. This staff report presents the proposed applications from the City to TransLink's 2019 capital cost-share programs, which support the goals of the City's *Official Community Plan*.

This report supports Council's 2014-2018 Term Goal #3 A Well-Planned Community:

Adhere to effective planning and growth management practices to maintain and enhance the livability, sustainability and desirability of our City and its neighbourhoods, and to ensure the results match the intentions of our policies and bylaws.

3.3. *Effective transportation and mobility networks.*

This report supports Council's 2014-2018 Term Goal #5 Partnerships and Collaboration:

Continue development and utilization of collaborative approaches and partnerships with intergovernmental and other agencies to help meet the needs of the Richmond community.

5.2. *Strengthened strategic partnerships that help advance City priorities.*

Analysis

TransLink Capital Cost-Share Programs

TransLink provides capital cost-share funding to municipalities via the following programs:

- Major Road Network and Bike (MRNB) Upgrade Program: provides allocated funding for capital improvements to the major roads across the region that comprise the MRN and the construction of bicycle facilities both on and off the MRN. The approval of the Phase One Plan of the 10-Year Vision restored funding to the program beginning in 2017 from \$0 in 2016 to \$10 million in 2017 and \$20 million in 2018-2019. Funding is allocated to municipalities based on population and employment growth forecasts from the *Regional Growth Strategy*.
- Bicycle Infrastructure Capital Cost-Sharing (BICCS) Program: provides allocated and competitive-based funding for the construction of bicycle facilities. The approval of the Phase One Plan of the 10-Year Vision also restored allocated funding to the program beginning in 2017 from \$1.55 million (competitive only) in 2016 to \$5 million in 2017 and \$7.55 million in 2018-2019 (competitive and allocated). Two-thirds of the funding is available on an allocated basis, based on 2016 Census population data and employment data, and one-third is available on a competitive basis. Municipalities are permitted to submit up to two projects each for competitive cost-share funding up to a maximum of \$600,000 per project.

- Walking Infrastructure to Transit (WITT) Program: beginning in 2017, this new program provides allocated and competitive-based funding for pedestrian facility upgrades within walking distance of frequent transit stops, stations and exchanges to promote the seamless integration of walking and cycling with transit. Two-thirds of the funding is available on an allocated basis, based on population and employment growth forecasts from the *Regional Growth Strategy*, and one-third is available on a competitive basis. Municipalities are permitted to submit up to two projects each for competitive cost-share funding up to a maximum of \$400,000 per project.
- Transit-Related Road Infrastructure Program (TRRIP): provides funding for roadway infrastructure facilities required for the delivery of transit services in the region. There is no block funding formula and thus no allocated amount of funding for the City.

Municipalities may submit the same eligible project to the MRNB, BICCS and WITT Programs provided the total TransLink funding does not exceed 50% of the total cost (or 75% if eligible). Beginning in 2018, some projects may be eligible for up to 75% cost-share funding (i.e., TransLink funds 75% of the total project cost) as identified in the Mayors' Council Vision. Eligibility criteria for 75% cost-share include: project is located within the City Centre and, for cycling projects; the location is on TransLink's interim Major Bikeway Network.

Projects to Receive Funding from 2018 TransLink Capital Cost-Share Programs

Attachment 1 summarizes the nine pedestrian and cycling facility projects in Richmond that will collectively receive up to \$3.6 million from TransLink as a result of last year's application, which will support projects with a total estimated cost of nearly \$5.8 million. Two projects, the River Parkway bike lanes and the Cambie Road multi-use path, will receive more than 50% cost-share funding (i.e., 71% and 75% cost ratio, respectively). Both projects qualified for a higher amount of cost-share funding per new eligibility criteria introduced in 2018 as directed by the *Mayors' Council Vision*. The pertinent criteria for these two projects are City Centre locations, a high design standard for the bike lanes, and a direct connection to rapid transit for the multi-use path.

Projects Proposed for Submission to 2019 TransLink Capital Cost-Share Programs

Major Road Network and Bike (MRNB) Upgrade Program

For 2019, the MRNB Program has a total of \$20.0 million available (same as 2018). Richmond's allocation is \$1,589,000. The City proposes to submit the following projects for consideration to be included in the 2019 MRNB Program (see Attachment 2 for locations of projects):

- Alderbridge Way Multi-Use Pathway: construction of a two-way off-street paved 3.0 m wide asphalt pathway for pedestrians and cyclists on the north side of Alderbridge Way between Shell Road and No. 4 Road including pedestrian lighting. There are currently no pedestrian or cycling facilities on this road section. The pathway would fill in a gap by providing connections to the existing pathway on Alderbridge Way west of No. 4 Road and the Shell Road Trail at its eastern end. This project is being re-submitted as it was not successful in securing competitive-based funding in 2018.

- Steveston Highway Multi-Use Pathway: as Phase 1, construction of a two-way off-street paved 2.5-3.0 m wide separated shoulder pathway for pedestrians and cyclists on the south side of Steveston Highway between Shell Road and Mortfield Gate where currently there are discontinuous pedestrian facilities. Future phases would extend the pathway westward to No. 2 Road where it would link to the off-street pathway currently being constructed on No. 2 Road south of Steveston Highway. As noted in the following sections, this project would also be submitted to the BICCS Program (both allocated and competitive).
- Garden City Road Bike and Pedestrian Paths: currently, southbound cyclists and two-way pedestrians share the use of a paved shoulder on the west side of Garden City Road between Lansdowne Road and Westminster Highway. This project would construct a delineated off-street southbound bike path and two-way pedestrian path to improve the safety of users.

Bicycle Infrastructure Capital Cost-Sharing (BICCS) Program

For 2019, the BICCS Program has a total of \$13.45 million (same as 2018) with \$9.0 million available on an allocated basis and \$4.45 million available on a competitive basis. Richmond's allocation is \$782,000. The City proposes to submit the following projects for consideration to be included in the allocated component of the 2019 BICCS Program (see Attachment 2 for locations of projects):

- Railway Greenway: upgrade of the remaining intersections to the ultimate standard as exists at Steveston Highway and the north side of Francis Road (i.e., curb and gutter, concrete landing pad, relocated traffic signal pole, pathway markings). The remaining intersections comprise Blundell Road (north and south sides), Francis Road (south side) and Williams Road (north and south sides). As noted below, the project would also be submitted to the allocated component of the WITT Program. This project would also include pavement marking and signage treatment to enhance cyclist safety similar to that provided at Blundell Road.
- No. 6 Road Multi-Use Pathway: construction of a two-way off-street paved 3.0 m wide asphalt pathway for pedestrians and cyclists on the west side of No. 6 Road between Cambie Road and Bridgeport Road. There are currently discontinuous pedestrian and no cycling facilities on this road section, which is a planned cycling route. The pathway would fill in a gap in pedestrian facilities to the north and south, and allow access to/from transit services on Cambie Road and Bridgeport Road.
- Westminster Highway Multi-Use Pathway: in the Hamilton area, cycling and pedestrian facilities on Westminster Highway are continuous except for a gap in the westbound direction between Smith Crescent and Fraserside Gate. This project would address that gap with construction of a delineated off-street paved 3.0 m wide asphalt pathway for two-way pedestrians and westbound cyclists. The pathway would connect to existing facilities at either end. As noted below, this project would also be submitted to the competitive-based BICCS Program as well as the competitive and allocated components of the WITT Program.
- Steveston Highway Multi-Use Pathway: as described above for the MRNB Program.

The City proposes to submit the following projects for consideration to be included in the competitive-based component of the 2019 BICCS Program (see Attachment 2 for locations of projects):

- Westminster Highway Multi-Use Pathway: as described above for the allocated component of the BICCS Program.
- Steveston Highway Multi-Use Pathway: as described above for the MRNB Program.

Walking Infrastructure to Transit (WITT) Program

For 2019, the WITT Program has a total of \$5.0 million (same as 2018) with \$3.3 million available on an allocated basis and \$1.7 million available on a competitive basis. Richmond's allocation for 2019 is \$272,000. The City proposes to submit the following projects for consideration to be included in the allocated component of the 2019 WITT Program (see Attachment 2 for locations of projects):

- Railway Greenway: as described above for the BICCS Program.
- Westminster Highway Multi-Use Pathway: as described above for the BICCS Program.

The City proposes to submit the following projects for consideration to be included in the competitive-based component of the 2019 WITT Program (see Attachment 2 for locations of projects):

- Charles Street Multi-Use Pathway: as an extension to the planned multi-use pathway to be constructed on Sexsmith Road between Beckwith Road and Charles Street, the pathway would be extended along the north side of Charles Street to the entrance to the Bridgeport Canada Line Station to provide a continuous pedestrian and cycling facility.
- Westminster Highway Multi-Use Pathway: as described above for the BICCS Program.

Transit-Related Road Infrastructure Program (TRRIP)

For 2019, TRRIP has a total of \$1.0 million available (same as 2018). Projects proposed to be submitted by the City for cost-sharing under the 2019 TRRIP are:

- Bus Stop Upgrades: continued retrofits to various existing bus stops to provide for universal accessibility (i.e., installation of a landing pad and/or connecting sidewalk for wheelchair users) and construction of connecting pathways to provide access to/from the bus stop. The exact bus stop locations for these upgrades will be determined through feedback from transit users and consultation with Richmond Centre for Disability.

As of June 2018, Richmond has 728 active bus stops, of which 550 (75.5%) are accessible, which is an increase from 73.3% in June 2017.

Additional TRRIP projects may be identified for submission to TransLink prior to its annual program deadline (e.g., installation of traffic signal advance left-turn arrows at selected intersections to facilitate turning movements for buses in order to increase service reliability).

Requested Funding and Estimated Project Costs

The total requested funding for the above 2019 submissions to TransLink's capital cost-sharing programs is \$4,063,750 as summarized in Table 2, which will support projects with a total estimated cost of \$6,800,000.

Table 1: Projects to be Submitted to 2019 TransLink Cost-Share Programs

Project	TransLink Funding Sources						Total TransLink Funding ⁽¹⁾
	MRN-Alloc.	BICCS-Alloc.	BICCS-Comp.	WITT-Alloc.	WITT-Comp.	TRRIP	
Alderbridge Way (No. 4 Road-Shell Road): multi-use path	\$600,000	-	-	-	-	-	\$600,000
Steveston Hwy (Shell Road-Mortfield Gate): Phase 1 of multi-use path	\$489,000	\$321,000	\$600,000	-	-	-	\$1,410,000
Garden City Road (Lansdowne Road-Westminster Hwy): bike and pedestrian path	\$500,000	-	-	-	-	-	\$500,000
Railway Greenway: upgrade of Blundell Road, Francis Road and Williams Road intersections	-	\$168,750	-	\$112,500	-	-	\$281,250
No. 6 Road (Cambie Road-Bridgeport Road): multi-use path	-	\$250,000	-	-	-	-	\$250,000
Westminster Hwy (Smith Cr-Fraserside Gate): multi-use path	-	\$42,250	\$287,750	\$159,500	\$170,500	-	\$660,000
Charles St (Sexsmith Rd-Bridgeport Station): multi-use path	-	-	-	-	\$262,500	-	\$262,500
Accessibility upgrades to various existing bus stops	-	-	-	-	-	\$100,000	\$100,000
Total	\$1,589,000	\$782,000	\$887,750	\$272,000	\$433,000	\$100,000	\$4,063,750

(1) The amounts shown represent the maximum funding contribution to be requested from TransLink based on the City's cost estimate for the project. The actual amount invoiced to TransLink follows project completion and is based on incurred costs.

Table 2: City Funding for Projects to be Submitted to 2019 TransLink Cost-Share Programs

Project	Total TransLink Funding	Proposed City Portion & Funding Source ⁽²⁾	Est. Total Project Cost
Alderbridge Way (No. 4 Road-Shell Road): multi-use path	\$600,000	\$600,000 2018 Capital Program	\$1,200,000
Steveston Hwy (Shell Road-Mortfield Gate): Phase 1 of multi-use path	\$1,410,000	\$590,000 2019 Capital Program	\$2,000,000
Garden City Road (Lansdowne Road-Westminster Hwy): bike and pedestrian path	\$500,000	\$500,000 2019 Capital Program	\$1,000,000
Railway Greenway: upgrade of Blundell Road, Francis Road and Williams Road intersections	\$281,250	\$168,750 2019 Arterial Road Improvement Program	\$450,000
No. 6 Road (Cambie Road-Bridgeport Road): multi-use path	\$250,000	\$250,000 2019 Neighbourhood Walkway Program	\$500,000
Westminster Hwy (Smith Cr-Fraserside Gate): multi-use path	\$660,000	\$440,000 2019 Capital Program	\$1,100,000

Project	Total TransLink Funding	Proposed City Portion & Funding Source ⁽²⁾	Est. Total Project Cost
Charles St (Sexsmith Rd-Bridgeport Station): multi-use path	\$262,500	\$87,500 2019 Active Transportation Improvement Program	\$350,000
Accessibility upgrades to various existing bus stops	\$100,000	\$100,000 2019 Transit Related Road Improvement Program	\$200,000
Total	\$4,063,750	\$2,736,250	\$6,800,000

(2) The City's portions of the costs of the projects have either been previously approved by Council or will be considered during the 2019 Capital Budget process.

Should the submissions be successful, the City would enter into funding agreements with TransLink. The agreements are standard form agreements provided by TransLink and include an indemnity and release in favour of TransLink. Staff recommend that the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the agreements. The 2019 Capital Budget and the consolidated 5-Year Financial Plan (2019-2023) would be updated to reflect the receipt of the external grants where required dependant on the timing of the budget process.

Financial Impact

As indicated in Table 2, the City's portions of the costs of the projects have either been previously approved by Council or will be considered during the 2019 Capital Budget process. All projects have operating budget impacts that have been approved or will be incorporated as part of the past or upcoming annual budget processes.

Conclusion

A number of pedestrian and bicycle route improvement projects are proposed for submission to TransLink's various cost-sharing programs for 2019 that would support the Council Term Goal with respect to "A Well Planned Community" as well as the goals of the Official Community Plan. The proposed projects capitalize on the expanded external cost-share funding available from TransLink as part of the implementation of Phase One of the 10-Year Investment Plan. In addition to maximizing external funding in implementing local transportation improvements, significant benefits for those using sustainable travel modes in terms of new infrastructure that provides safety and accessibility enhancements would also be achieved should these projects be approved by TransLink and Council.



for Joan Caravan
Transportation Planner
(604-276-4035)
JC:jc

Att. 1: Projects to Receive Funding from 2018 TransLink Cost-Share Programs

Att. 2: Locations of Proposed 2019 Cost-Share Pedestrian and Cycling Infrastructure Projects

Projects to Receive Funding from 2018 TransLink Cost-Share Programs

Project	MRNB-Allocated	BICCS-Allocated	BICCS-Competitive	Est. City Portion & % of Total Cost	Est. Total Project Cost
River Parkway (Gilbert Road-Cambie Road): protected bike lanes	\$1,014,000	\$652,000	\$600,000	\$924,000 (29%)	\$3,190,000
Westminster Hwy (14,600-block-No. 7 Road): multi-use path rebuild	\$360,000	-	-	\$360,000 (50%)	\$720,000
Odlin Road Bike Route (East End-No. 3 Road): multi-use paths, pavement markings and signage	\$140,000	-	-	\$140,000 (50%)	\$280,000
Midtown (Off-Gilbert) Bikeway: upgrade of two off-street pathways south of Francis Rd	\$75,000	-	-	\$75,000 (50%)	\$150,000
Parkside Bikeway (Garden City Park-Westminster Hwy): multi-use path, pavement markings and signage	-	\$50,000	-	\$50,000 (50%)	\$100,000
Crosstown Bikeway: Lucas Road-No. 3 Road intersection modifications	-	\$80,000	-	\$80,000 (50%)	\$160,000
Subtotal	\$1,589,000	\$782,000	\$600,000	\$1,629,000	\$4,600,000
Project	WITT-Allocated	WITT-Competitive	TRRIP	Est. City Portion & % of Total Cost	Est. Total Project Cost
Cambie Road (River Road-No. 3 Road): multi-use path	-	\$288,750	-	\$96,250 (25%)	\$385,000
Riverside Industrial Park: connecting paths to bus stops	\$272,000	-	-	\$362,000 (57%)	\$634,000
Accessibility upgrades to existing bus stops: various locations	-	-	\$76,650	\$76,650 (50%)	\$153,300
Subtotal	\$272,000	\$288,750	\$76,650	\$534,900	\$1,172,300
Total			\$3,608,400 (62.5%)	\$2,163,900 (37.5%)	\$5,772,300

Note: The amounts shown represent the maximum funding contribution to be requested from TransLink based on the City's cost estimate for the project. The actual amount invoiced to TransLink follows project completion and is based on incurred costs.

Proposed 2019 MRNB, BICCS and WITT Program Projects
(Yellow Outlined Boxes)



Alderbridge Way (No. 4 Road-Shell Road): Multi-Use Pathway



Steveston Highway (Mortfield Gate-Shell Road): Phase 1 - Multi-Use Pathway

Proposed 2019 MRNB, BICCS and WITT Program Projects
(Yellow Outlined Boxes)



Garden City Road (Lansdowne Road-Westminster Hwy):
Separate Off-Street Pedestrian & Bike Paths



Blundell Road-Railway Ave
Upgrade of Railway Greenway Intersections: Curb, Gutter, Sidewalk, Relocate Signal Pole,



Francis Road-Railway Ave
Upgrade of Railway Greenway Intersections: Curb, Gutter, Sidewalk, Relocate Signal Pole,



Williams Road-Railway Ave
Upgrade of Railway Greenway Intersections: Curb, Gutter, Sidewalk, Relocate Signal Pole,

Signage, and Pavement Markings

Proposed 2019 MRNB, BICCS and WITT Program Projects
(Yellow Outlined Boxes)

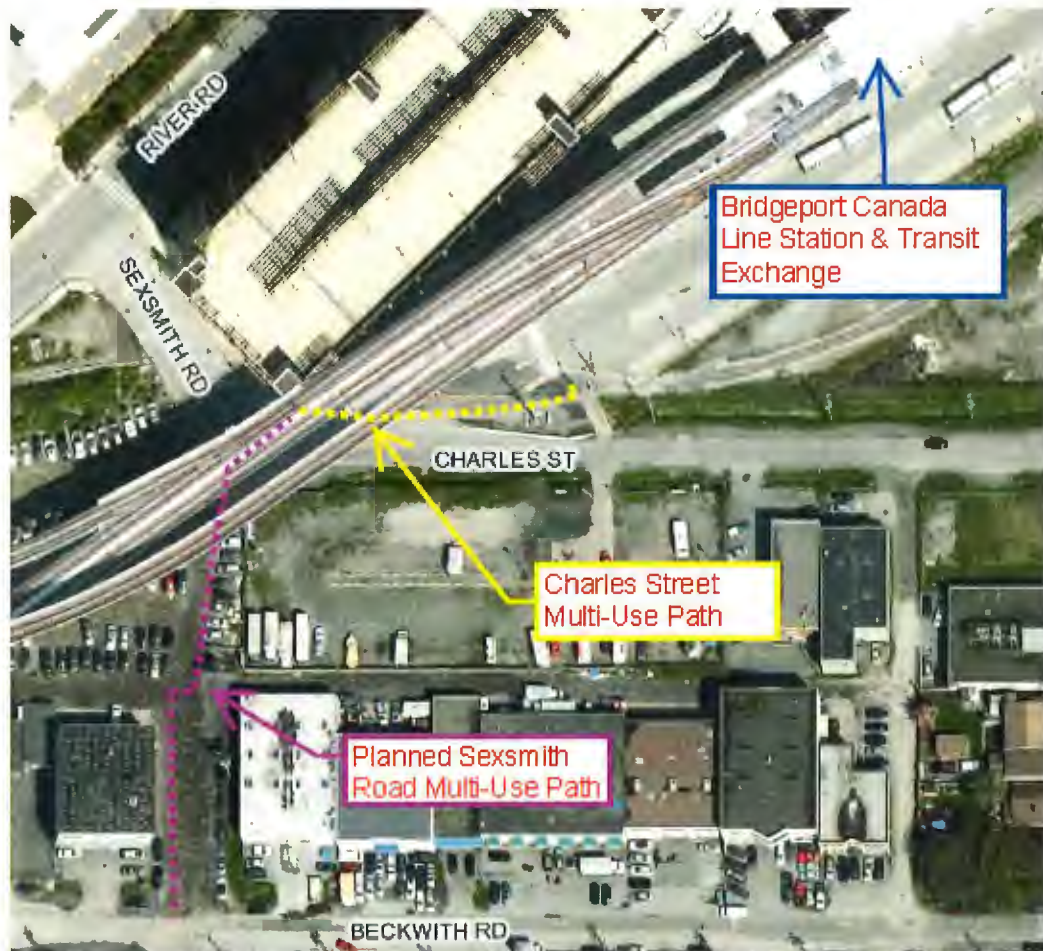


Westminister Hwy (Smith Cr-Fraserside Gate): Multi-use Path on West Side



No. 6 Road (Cambie Road-Bridgeport Road): Multi-use Path on West Side

**Proposed 2019 MRNB, BICCS and WITT Program Projects
(Yellow Outlined Boxes)**



Charles Street (Sexsmith Road-Bridgeport Station Entrance): Multi-use Path on North Side



City of Richmond

Report to Committee

To: Public Works and Transportation Committee
From: Milton Chan, P. Eng.
Acting Director, Engineering
Date: August 22, 2018
File: 10-6050-01/2018-Vol
01
Re: No. 7 Road South Drainage Pump Station Design Concept

Staff Recommendation

That the design concept for the No. 7 Road South Drainage Pump Station, as detailed in Attachment 1 of the staff report titled "No. 7 Road South Drainage Pump Station Design Concept" and dated August 22, 2018, from the Acting Director, Engineering be endorsed.

Milton Chan, P. Eng.
Acting Director, Engineering
(604) 276-4377

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Parks Services Sewer and Drainage	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

The No. 7 Road South Drainage Pump Station was constructed in the 1960's. Council approved an upgrade to this drainage pump station as part of the 2016 Capital Program. Staff have advanced the design to the point whereby the general layout and architectural features been identified.

The purpose of this report is to provide Council information regarding the intended pump station layout, including potential architectural features.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

Analysis

The City's extensive flood protection and drainage system includes 49 kilometres of dikes, a series of ditches/canals, underground pipe and 41 drainage pump stations. The drainage system is designed to prevent the City from flooding during up to a 1:10 year rainfall event.

The existing No. 7 Road South Drainage Pump station services the area approximately bounded by the midpoint between No. 6 Road and No. 7 Road to the west, the midpoint between No. 7 Road and No. 8 Road to the east, the midpoint between Highway 91 and Westminster Highway to the north, and the Dyke Road to the south. This station was constructed in the 1960's and contains old, antiqued equipment that is in need of replacement to bring pumping capacity levels to current flood protection standards.

Design of the upgraded No. 7 Road South Drainage Pump Station has advanced to a point whereby the general layout and architectural features have been identified (Attachment 1).

The architecture reflects the function of the building. As the location is remote (see Location Map in Attachment 1) and not often visited by the general public, architectural features were designed to allow for low maintenance in response to potential vandalism. The proposed architectural materials include precast concrete panels, perforated metal panels, metal railings and metal doors thus minimizing construction and maintenance costs.

The station is also incorporated into the existing and future dike trail system along the south dike. Accordingly, the pump station maintenance accesses will be appealing and complimentary to the existing and future trails while at the same time providing the necessary means for pump station operation and maintenance activities. It is also proposed that short sections of the adjacent dike be raised to 4.7 meters, which is consistent with the City's Long Term Flood Management Strategy to address sea level rise. The pump station components will be designed to accommodate future dike raising to 5.5 meters. The current elevation of the dike is approximately 4.0 meters.

It is anticipated that design will be completed by Fall 2018, with construction to follow thereafter.

Financial Impact

None

Funding to complete the No. 7 Road South Drainage Pump Station upgrades has been approved by Council as part of the 2016 Capital Program.

This project of \$5,800,000 is included in the 2016 Flood Protection Program. The Province of British Columbia is providing the City with \$16.6M for the replacement of 4 drainage pump stations and approximately 1.2km of dike upgrades. The provincial funding is based on a 2/3 to 1/3 provincial to municipal share of eligible costs.

Conclusion

The No. 7 Road South Drainage Pump Station has been approved in the 2016 Capital Program. Design has progressed to the point where the general layout and architectural features/opportunities have been identified. Subject to Council's support, the design concept will be advanced to a full detailed design.



Mike Maxwell
Project Manager
(604) 276-4054



Eric Sparolin, P. Eng.
Acting Manager, Engineering Design & Construction
(604) 247-4915

Att. 1: No. 7 Road South Drainage Pump Station Design Concept

Attachment 1: No. 7 Road South Drainage Pump Station Design Concept

1. 3D Rendering – Looking North West

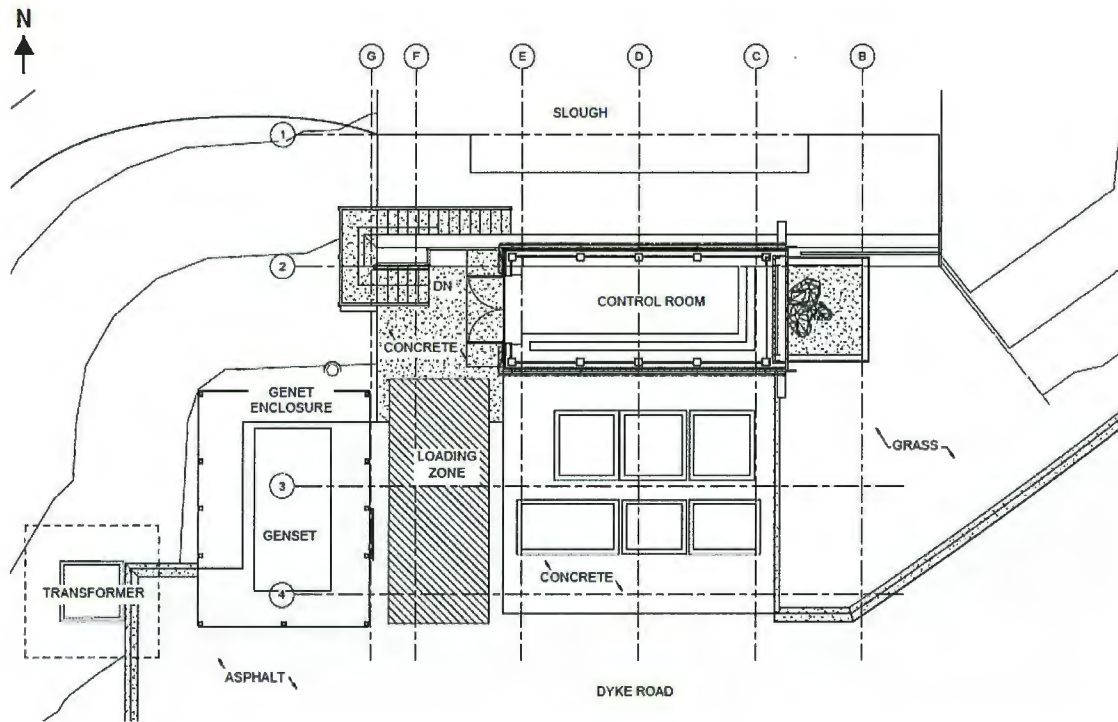


2. 3D Rendering – Looking South West

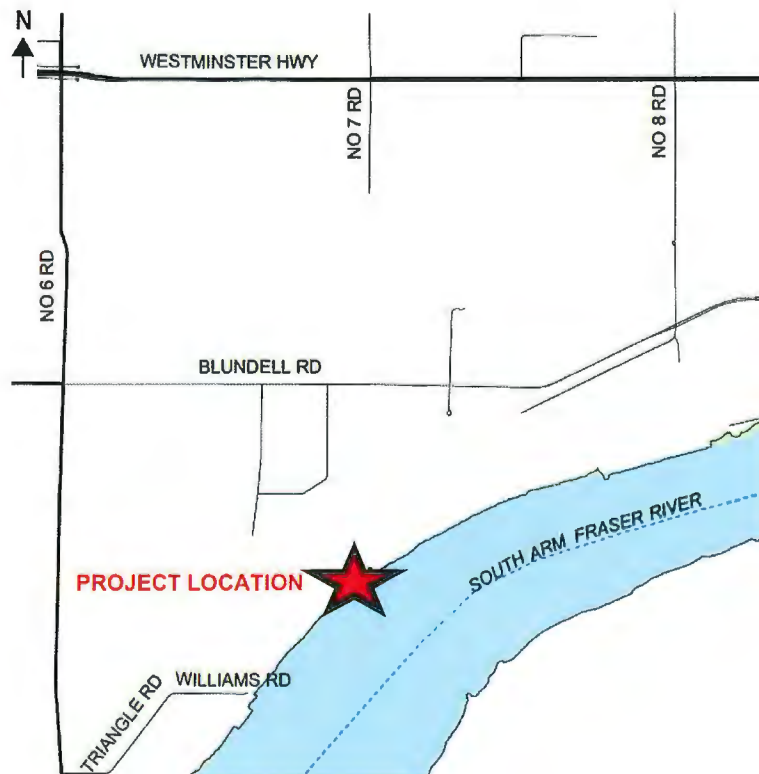


PWT - 25

3. Plan View



4. Location Map





City of Richmond

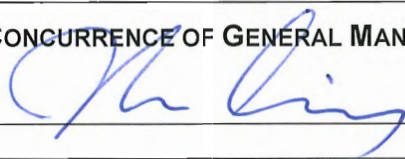


Report to Committee

To: Public Works and Transportation Committee
From: Peter Russell, MCIP, RPP
Senior Manager, Sustainability and District Energy
Date: August 28, 2018
File: 10-6000-00/Vol 01
Re: **City of Richmond's Response to the Canadian National Railway Company's Development of a Five Year Pest Management Plan**

Staff Recommendation

That the City's feedback on the Canadian National Railway Company (CN) proposed Five Year Pest Management, outlined in the report titled "City of Richmond's Response to the Canadian National Railway Company's Development of a Five Year Pest Management Plan" from the Senior Manager, Sustainability and District Energy dated August 28th, 2018, be endorsed and sent to CN as part of their 5 year Pest Management Plan.

Peter Russell
Senior Manager, Sustainability and District Energy
(604-276-4130)

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 
APPROVED BY CAO 	

Staff Report

Origin

Canadian National Railway Company (CN) placed an advertisement in the Vancouver Sun on July 13, 2018 that invited comments on their pest management activities, including pesticides and application methods proposed under their proposed five year Pest Management Plan (PMP). Following the publication, staff reviewed CN's PMP and held a teleconference with two CN representatives to discuss concerns within the plan. CN requested that the City draft a formal letter of comments as a record of the City's input to the draft PMP.

This report supports Council's 2014-2018 Term Goal #1 A Safe Community:

Maintain emphasis on community safety to ensure Richmond continues to be a safe community.

1.4. Effective interagency relationships and partnerships.

This report supports Council's 2014-2018 Term Goal #4 Leadership in Sustainability:

Continue advancement of the City's sustainability framework and initiatives to improve the short and long term livability of our City, and that maintain Richmond's position as a leader in sustainable programs, practices and innovations.

4.1 Continued implementation of the sustainability framework

Background

Council adopted the *Enhanced Pesticide Management Program* (EPMP) in 2009 and is dedicated to the judicious use of pesticides. Under the *Pesticide Use Control Bylaw No. 8514*, the City has restricted the use of traditional pesticides for cosmetic purposes on City and residential properties. For the management of noxious weeds, the City employs an integrated pest management approach and uses selective application when other management options are deemed inadequate.

Provincially designated noxious weeds listed under the provincial *Weed Control Act* as well as species identified under the *Early Detection, Rapid Response Plan* can impact infrastructure, biodiversity and human health and safety. The CN railway poses a risk as a vector for the spread and introduction of new invasive species in Richmond. Common reed and yellow nutsedge, two *Early Detection, Rapid Response* species located on CN property, are currently being managed by the Provincial government. Additionally, significant knotweed infestations have been reported by the City to CN with no operational response to date.

Pursuant to the Community Charter, Spheres of Concurrent Jurisdiction – Environment and Wildlife Regulation, the City may not regulate, prohibit or impose requirements on the application of pesticides on land used for transportation. As such, the City has engaged CN to work with the City to apply best management practices (BMPs) in Richmond.

Analysis

CN has created a proposed PMP for the management of vegetation within property owned or operated by CN including track ballasts, right-of-ways (ROW) and station grounds. The plan covers all CN lands from Northeastern BC to the Greater Vancouver area. The City has reviewed the PMP and identified concerns regarding the lack of information provided in the document. The PMP is vague on noxious/invasive species management and does not contain strategies for treating persistent, rapidly spreading, noxious weeds such as hogweed and knotweed. Staff have reviewed the plan and note that it should be revised to include the following:

- Detailed procedures for noxious weed treatment recordkeeping including vegetation maps, documentation of known sites, and a publicly available inventory of treatment sites;
- BMPs should include the use of broadcast spraying of pesticides only when all other treatment options have been considered. Broadcast spraying of ballasts can result in a 16 ft wide swath of pesticide applications;
- Qualifications and training programs for personnel responsible for weed identification, site selections, and pesticide application; and
- Communication strategies for planned treatment programs, including notifications to local governments, and sites adjacent to treated areas.

The PMP should be revised to reflect CN's responsibility to control the spread of weeds designated as noxious (as per provincial Weed Control Act) and not only when weeds conflict with CN operations.

The City recently had a meeting with CN personnel where it was identified that CN does not have a dedicated budget or staff personnel for the management of noxious weeds, and depends on community information to identify areas of concern. Additionally, CN does not operate or populate a database to identify and/or track noxious weeds. Lastly, supervisors who inspect vegetation are not trained in the identification of noxious weeds. The City is requesting that CN appropriately resource their PMP with staff and qualified environmental professionals to ensure BMPs are practiced. The City offered solutions for applying an integrated pest management approach that should be considered and proposed meeting in the future to establish a more effective working relationship with CN.

With the support of the staff recommendation, staff will provide the above feedback to CN as part of their proposed 5 year PMP.

Financial Impact

None.

August 28, 2018

- 4 -

Conclusion

This report provides an overview of the City's comments on CN's 5 year PMP.



Chad Paulin
Manager, Environment
(604-247-4672)



City of Richmond

Report to Committee

To: Public Works and Transportation Committee
From: Peter Russell
Senior Manager, Sustainability and District Energy
Date: August 24, 2018
File: 10-6125-05-01/2018-Vol 01
Re: Cultural Centre Equipment Renewal and GHG Emissions Reduction Project

Staff Recommendations

1. That the equipment renewal and upgrade at the Cultural Centre, as described in the report title "Cultural Centre Equipment Renewal and GHG Emissions Reduction Project" from the Senior Manager, Sustainability and District Energy dated August 24, 2018 be endorsed.
2. The funding of \$500,000 from the Carbon Tax Provision and \$170,000 from the Energy Operating Provision be approved for use to support the completion of the Cultural Centre equipment renewal project, and that the Consolidated 5 Year Financial Plan (2018-2022) Bylaw be amended accordingly.
3. That if incentive funding applications to Fortis BC and/or BC Hydro are successful, the Consolidated 5 Year Financial Plan (2018-2022) Bylaw be amended accordingly and, if applicable, the corresponding internal City funding sources be returned to their source funds.

Peter Russell
Senior Manager, Sustainability and District Energy
(604-276-4130)

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance	<input checked="" type="checkbox"/>	
Arts, Culture & Heritage	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

The purpose of this report is to update Council on a grant application the City submitted to the Federation of Canadian Municipalities' (FCM) Municipal Climate Innovation (MCI) program and to seek support for an enhanced equipment renewal and greenhouse (GHG) emission reduction project at the Cultural Centre.

The enhanced project and grant application supports the following Council 2014-2018 Term Goals:

#4 Leadership in Sustainability:

Continue advancement of the City's sustainability framework and initiatives to improve the short and long term livability of our City, and that maintain Richmond's position as a leader in sustainable programs, practices and innovations.

4.1 *Continued implementation of the Sustainability Framework.*

4.2 *Innovative projects and initiatives to advance sustainability.*

#5 Partnerships and Collaboration:

Continue development and utilization of collaborative approaches and partnerships with intergovernmental and other agencies to help meet the needs of the Richmond community.

5.1 *Advancement of City priorities through strong intergovernmental relationships.*

5.2 *Strengthened strategic partnerships that help advance City priorities*

#6 Quality Infrastructure Networks:

Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

6.1 *Safe and sustainable infrastructure.*

Background

In May 2016 Council endorsed a target of reducing greenhouse gas (GHG) emissions at corporate buildings by 65% from 2007 levels by 2020. To meet this target the City needs to review GHG emissions reduction opportunities when planned equipment renewals occur.

In November 2017 Council endorsed a grant application submission to the FCM MCI program for support funding to help complete a comprehensive equipment replacement and upgrade at the Cultural Centre. The project scope included the integration of a renewable energy system. The grant request was for \$960,000 or approximately 51% of the total anticipated costs.

The City was notified in May 2018 by FCM that it was successful in its application for funding, with the program committing \$750,000 to the project. The FCM program received significant interest from Municipalities across the country, and had more requests for support funding than what was available. The grant program was originally estimated to last for approximately three

years, but was fully subscribed before the end of the first year and was closed in November 2017.

In accordance with Council approvals in November 2017, City staff are now in the process of finalizing a project timeline and a funding agreement with FCM, contingent on further funding be allocated to the project.

Completing this project at the Cultural Centre would reduce the GHG emissions by over 90% and energy use by over 35%. The potential GHG emission reductions at the Cultural Centre are crucial for attaining the City's target as it represents over 6% of the corporate building emissions reduction target.

Analysis

The Cultural Centre is viewed as a long term essential facility for the southeast Arts and Cultural District of Minoru Park that is planned on being retained and enhanced, as indicated in the recent Minoru Park Vision Plan report. The Cultural Centre was constructed in 1992 and some of its major mechanical systems and equipment have reached their end of life and are scheduled to be replaced. The proposed equipment renewal and GHG emissions reduction project includes the upgrade and replacement of aging mechanical systems and the incorporation of a renewable energy system. This project met FCM's MCI program criteria readily, whereby an existing project could benefit from additional funding to significantly reduce GHG emissions and provide greater long term environmental benefits.

Council previously approved minor capital projects for some of the needed equipment replacement at the Cultural Centre in 2017 with a total of \$450,000 in funding. Soon after, the MCI program was announced allowing the City to consider the approved capital funding as City contribution for the FCM MCI program application. The City has the opportunity to enhance the original minor equipment replacement projects and complete the full replacement and renewal of major mechanical equipment at the Cultural Centre. The expanded project is in line with the objectives of the City's High Performance Building Policy, which includes focus on continued improvement, optimization of energy use in existing City buildings, and moving towards net zero energy and GHG emission corporate buildings.

The enhanced project plan at the Cultural Centre includes the following general scope of work;

- Replace the large chiller plant and mid-efficiency boilers with an outdoor 4-pipe air source heat recovery chiller and high efficiency condensing boilers;
- Replace the interior perimeter radiant panel heating system with variable air volume (VAV) terminal reheat units, to reduce the heating system supply temperature and improve interior thermal comfort;
- Install heat reclaim capacity in the main air-handling units to reduce waste heat;
- Add variable speed drives on the heating and cooling loop pumps and supply fans to reduce electricity use; and
- Install new domestic hot water tanks with connections to the new high efficiency condensing boilers.

The enhanced project as outlined above is expected to reduce GHG emissions at the Cultural Centre by over 90% and energy use by over 35%. The GHG emissions reduction are equal to over 250 tonnes of CO₂e annually, or equal to taking 75 Richmond vehicles off the road. The conventional energy use at the facility will be reduced by over 1.0 gigawatt hour annually, or equal to the annual energy consumption of 25 Richmond homes. The emissions and energy reductions will also provide the City with approximately \$35,000 annually in cost avoidance savings, based on carbon credit and energy utility costs.

As a base case estimate, the City projected that the GHG emissions reductions and energy savings from completing the renewal and replacement of the current equipment with similar technology and systems would be minimal, with reductions of approximately 17% in GHG emissions and 11% in energy use at the facility. The base case project would have had an estimated budget of \$1,025,000, and would have achieved approximately \$15,000 annually in cost avoidance savings. A project with the base case level of emissions reduction and energy savings would not have qualified for support funding through the FCM's MCI program.

The payback on the incremental funding required (\$95,000) to complete the proposed comprehensive project as compared to the base case estimate is approximately 4.5 years.

The City is also applying to Fortis BC and BC Hydro to support the project through their incentive programs, and will know shortly if further incentive funding will be provided to this project. If successful, the funding from Fortis or BC Hydro could be used to offset the City's additional capital contribution, further improving the project's business case.

Financial Impact

The City will receive \$750,000 from FCM to support the completion of this project. Current approved capital funding is \$450,000. The total estimated cost to complete the project is \$1,870,000.

Staff recommend that an additional \$500,000 in capital funding be allocated from the Carbon Tax Provision and \$170,000 in capital funding be allocated from the Energy Operating Provision, and that the Consolidated 5 Year Financial Plan (2018-2022) Bylaw be amended accordingly.

Conclusion

The completion of this project will replace and upgrade aging mechanical infrastructure at an important civic facility with significant funding support from FCM's MCI program, and will help the City achieve its ambitious GHG emissions reduction target of 65% reduction in corporate building emissions by 2020. Through the implementation of these types of deep GHG emissions reduction and energy savings projects at existing facilities, the City of Richmond will provide further needed services to its growing community while reducing its overall environmental footprint.



Levi Higgs, CEM, PMP
Corporate Energy Manager
(604-244-1239)

LH:lh