



Public Works & Transportation Committee

Anderson Room, City Hall
6911 No. 3 Road

Wednesday, March 19, 2014
4:00 p.m.

Pg. # ITEM

MINUTES

PWT-4 *Motion to adopt the **minutes** of the meeting of the Public Works & Transportation Committee held on Wednesday, February 19, 2014.*



NEXT COMMITTEE MEETING DATE

Thursday, April 24, 2014, (tentative date) at 4:00 p.m. in the Anderson Room

ENGINEERING AND PUBLIC WORKS DEPARTMENT

1. **METRO VANCOUVER GILBERT TRUNK SEWER NO. 2 UPDATE**
(File Ref. No. 10-6060-03-01) (REDMS No. 4164217)

PWT-8

See Page PWT-8 for full report

Designated Speaker: Lloyd Bie

STAFF RECOMMENDATION

That the staff report titled Metro Vancouver Gilbert Trunk Sewer No. 2 Update (dated February 25, 2014, from the Director, Engineering), be received for information.



Pg. # ITEM

2. **CLOTHES WASHER REBATE PROGRAM**

(File Ref. No. 10-6650-01) (REDMS No. 4166980 v.6)

PWT-16

See Page PWT-16 for full report

Designated Speaker: Lloyd Bie

STAFF RECOMMENDATION

That:

- (1) *the City partner with BC Hydro for a combined rebate program in May and October 2014, which provides a minimum \$100 and maximum \$200 rebate (equally shared between BC Hydro and the City) for the replacement of an efficient clothes washer;*
- (2) *the scope of the existing toilet rebate program be expanded to include clothes washer rebates; and*
- (3) *the CAO and General Manager, Engineering and Public Works, be authorized to enter into an agreement with BC Hydro to execute this program.*



3. **AGEING FACILITY INFRASTRUCTURE - UPDATE**

(File Ref. No. 06-2050-01) (REDMS No. 3788323 v.6)

PWT-20

See Page PWT-20 for full report

Designated Speaker: Jim Young

STAFF RECOMMENDATION

That the staff report titled Ageing Facility Infrastructure – Update dated March 4, 2014 from the Director, Engineering be utilized as input in the annual capital and operating budget preparation process.



PLANNING & DEVELOPMENT DEPARTMENT

4. **ICBC/CITY OF RICHMOND ROAD IMPROVEMENT PROGRAM – PROPOSED PROJECTS FOR 2014**

(File Ref. No. 01-0150-20) (REDMS No. 4158403)

PWT-24

See Page PWT-24 for full report

Designated Speaker: Victor Wei

STAFF RECOMMENDATION

- (1) *That the list of proposed road safety improvement projects, as described in the staff report titled ICBC/City of Richmond Road Improvement Program – Proposed Projects for 2014, from the Director, Transportation, be endorsed for submission to the ICBC 2014 Road Improvement Program for consideration of cost sharing funding; and*
- (2) *That should the above applications be successful, the Chief Administrative Officer and General Manager, Planning and Development be authorized to negotiate and execute the cost-share agreements and that the 2014 Capital Plan and 5-Year (2014-2018) Financial Plan be amended accordingly.*

☐

5. **MANAGER'S REPORT**

ADJOURNMENT

☐



Public Works & Transportation Committee

Date: Wednesday, February 19, 2014

Place: Anderson Room
Richmond City Hall

Present: Councillor Linda Barnes, Chair
Councillor Chak Au
Councillor Derek Dang (entered at 4:02 p.m.)
Councillor Linda McPhail
Councillor Harold Steves

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 & Transportation Committee held on Wednesday, January 22, 2014, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

Wednesday, March 19, 2014, (tentative date) at 4:00 p.m. in the Anderson Room

ENGINEERING AND PUBLIC WORKS DEPARTMENT

1. AMENDMENT BYLAWS FOR WATER AND SEWER

(File Ref. No. 12-8060-20-009099/009101) (REDMS No. 4123647 v.2)

It was moved and seconded

(1) That Waterworks and Water Rates Bylaw No. 5637, Amendment Bylaw No. 9099 be introduced and given first, second, and third readings; and

Public Works & Transportation Committee

Wednesday, February 19, 2014

- (2) *That Drainage, Dyke and Sanitary Sewer System Bylaw No. 7551, Amendment Bylaw No. 9101 be introduced and given first, second, and third readings.*

CARRIED

Cllr. Dang entered the meeting (4:02 p.m.).

2. **CANADIAN NATIONAL RAILWAY COMPANY AGREEMENTS WITH THE CITY RELATED TO RAILWAY CROSSINGS FOR CITY CAPITAL AND OTHER INFRASTRUCTURE PROJECTS**

(File Ref. No. 10-6340-20-P.11203) (REDMS No. 4134938 v.3)

It was moved and seconded

That:

- (1) *the City enter into agreements related to railway crossings (including, without limitation, Crossing Agreements and Right of Entry Agreements) with Canadian National Railway Company from time to time as needed in connection with the construction and maintenance of current and future City capital and other infrastructure projects; and*
- (2) *the Chief Administrative Officer and the General Manager, Engineering and Public Works be authorized to sign such agreements on behalf of the City.*

The question on the motion was not called as in reply to queries from Committee, Victor Wei, Director, Transportation, spoke of Transport Canada's draft Canadian Railway-Roadway Grade Crossings Standards (CRRGCS). He noted that the proposed introduction of the draft as a standard is concerning, as typical engineering practice is to allow for guidelines, not standards, which provide some flexibility. Also, the proposed CRRGCS would increase the time a train may block a public crossing from five minutes to ten minutes.

Mr. Wei advised that a staff report on the proposed CRRGCS and its potential impact to the City is anticipated to be presented at an upcoming Public Works and Transportation Committee meeting.

The question on the motion was then called and it was **CARRIED**.

Public Works & Transportation Committee
Wednesday, February 19, 2014

3. **2014 PAVING PROGRAM**

(File Ref. No. 10-6340-20-P.14201) (REDMS No. 4135360)

In reply to queries from Committee regarding future upgrades to No. 2 Road, south of Steveston Highway, Mr. Wei advised that (i) staff anticipate introducing improvements as part of future capital projects; (ii) improvements would not be introduced until approximately 2017; and (iii) the scope of improvements has not been determined.

John Irving, Director, Engineering, advised that through the City's Pavement Management System (PMS), staff have been monitoring the condition of the No. 2 Road, south of Steveston Highway, and it is anticipated that this section of road be maintained in 2015/2016. Also, Mr. Irving commented on the PMS, noting that it regularly tracks the condition of the pavement, then identifies and prioritizes roads that need attention.

Discussion ensued regarding the condition of No. 2 Road, south of Steveston Highway, and it was noted that Committee wished to see improvements, such as the widening of the road, sooner than anticipated.

It was moved and seconded

That the staff report dated January 31, 2014, titled 2014 Paving Program from the Director, Engineering be received for information.

CARRIED

4. **SUSTAINABLE HIGH PERFORMANCE BUILDING POLICY UPDATE**

(File Ref. No. 10-6000-01/2013) (REDMS No. 4060769 v.15)

In reply to a query from Committee, Peter Russell, Senior Manager, Sustainability and District Energy, advised that staff do not anticipate financial implications to future capital projects as a result of the proposed new policy as the current policy also requires that new corporate facilities meet LEED® Gold standards.

Discussion ensued regarding the potential for heat sharing between facilities, and in particular between the future Aquatic and Older Adults' Centres.

It was moved and seconded

(1) That the City's Sustainable "High Performance" Building Policy – City Owned Facilities Policy #2306 be rescinded; and

(2) That the City adopt the revised Sustainable "High Performance" Building Policy – City Owned Facilities as per the attached report from the Director of Engineering dated January 24, 2014.

CARRIED

Public Works & Transportation Committee
Wednesday, February 19, 2014

5. **MANAGER'S REPORT**

(i) Update on Weekly / Bi-Weekly Garbage Collection Pilot Program

Suzanne Bycraft, Manager, Fleet and Environmental Programs, updated Committee on the Weekly / Bi-Weekly Garbage Collection Pilot Program and spoke of its extensive public outreach initiatives.

In reply to a query from Committee regarding Green Carts, Ms. Bycraft noted that the approaching ban of all compostable organics from the waste disposal stream in 2015 acts as a strong motivator for residents who have yet to embrace the Green Cart Program.

(ii) Provincial Sales Tax and District Energy Systems

Mr. Irving referenced a memorandum dated February 19, 2014 regarding Provincial Sales Tax (PST) and District Energy Systems (copy on file, City Clerk's Office), and highlighted that the Ministry of Finance accepted Council's request to maintain the PST exemption on the sale of heat to residential district energy customers.

(iii) Richmond News Article

The Chair made reference to an article titled 'Toxic silt eats into dredging fund' published in the February 19, 2014 *Richmond News*.

In reply to queries from Committee, Robert Gonzalez, General Manager, Engineering and Public Works, commented on the evaluation process for the proper disposal of any dredged material, noting that this is typical practice and there is no cause for concern.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:38 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Public Works & Transportation Committee of the Council of the City of Richmond held on Wednesday, February 19, 2014.

Councillor Linda Barnes
Chair

Hanieh Berg
Committee Clerk



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: February 25, 2014

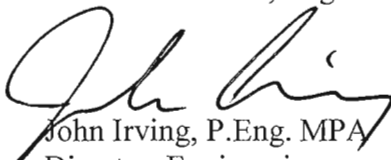
From: John Irving, P.Eng. MPA
Director, Engineering

File: 10-6060-03-01/2014-
Vol 01


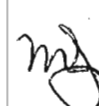

Re: Metro Vancouver Gilbert Trunk Sewer No. 2 Update

Staff Recommendation

That the Metro Vancouver Gilbert Trunk Sewer No. 2 Update report (dated February 25, 2014, from the Director, Engineering) be received for information.


John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 3

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

Staff Report

Origin

In the spring of 2013, Metro Vancouver started construction of the Gilbert Trunk Sewer No. 2 (GTS 2) project. This project is scheduled to be completed in five years and will twin the existing Gilbert Trunk Sewer (GTS). The GTS is critical infrastructure that conveys 80% of Richmond's sanitary sewage to the Lulu Island Waste Water Treatment Plant. The GTS 2 project will improve sanitary system capacity to support growth in Richmond and will provide system redundancy to facilitate future maintenance activities. This report updates Council on progress to date as well as upcoming construction activities.

Findings of Fact

The GTS 2 project is divided into four phases (Attachment 1) that will be constructed over the next five years. Phase 1 construction began in the spring of 2013 and Phase 2 is currently being designed.

Phase 1 Status

Phase 1 construction is divided into three sections to meet various scheduling requirements of impacted stakeholders. The three sections are identified in Attachment 2.

Section 1 is currently under construction and is scheduled for completion in June 2014. Work is currently advancing north on No. 3 Road from Capstan Way, and will ultimately terminate at Metro Vancouver's Bridgeport pump station through the route shown in Attachment 2.

Section 2 is confined to the Canadian Pacific Railway corridor and is scheduled for construction from March 2014 to October 2014.

Section 3 was completed in the summer of 2013.

Public Communication

Metro Vancouver developed a Consultation and Community Relations Strategy and a Communications Protocol for the GTS 2 project. The strategy outlines Metro Vancouver's approach for engaging stakeholders impacted by construction activities, project team roles and responsibilities, and key contacts for project inquiries.

To date, Metro Vancouver has carried out the following public communications:

- Created a project webpage with a blog section to post current news and information;
- Posted project information signage, including "Businesses are Open During Construction" signs for Section 1 construction;

- Published GTS 2 construction updates in the Richmond News, Richmond Review and (in Chinese) Ming Pao;
- Conducted follow-up visits with the stakeholders impacted by construction activities in Section 1;
- Issued a project fact sheet (including Chinese translation) and five newsletter updates (most recent newsletter is Attachment 3) to stakeholders impacted by construction activities;
- Issued regular traffic advisories; and
- Emailed the project team regular (weekly) updates on communications and community relations.

In addition to the Metro Vancouver communications activities, the City of Richmond has:

- Created a webpage on the City's website for the GTS 2 (<http://www.richmond.ca/services/rdws/projects/gilbert-trunk.htm>) that includes a link to Metro Vancouver's project webpage;
- Complemented Metro Vancouver's communications through:
 - City of Richmond Twitter account;
 - City of Richmond Facebook page; and
 - City of Richmond employee intranet.

City staff is working with Metro Vancouver to ensure the communications materials and strategies developed for the GTS 2 project are appropriate for Richmond, and to improve the level of public communication where gaps have been identified.

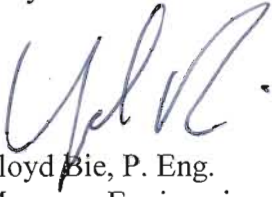
Financial Impact

None.

Conclusion

The GTS 2 project is required to improve capacity and provide redundancy for the existing GTS, which is critical sanitary sewer infrastructure serving 80% of Richmond. Construction on the first of four phases is under way and the overall project is scheduled to take five years. City staff is assisting Metro Vancouver with their Consultation and Community Relations Strategy, which continues to provide the public with information regarding construction activities through the internet, print media, newsletters, traffic advisories, project signage, and personal visits with

stakeholders. City staff will also continue to work with Metro Vancouver and the contractor on a daily basis to ensure impacts to property owners and other stakeholders are minimized.

A handwritten signature in blue ink, appearing to read 'L. Bie', is positioned above the printed name.

Lloyd Bie, P. Eng.
Manager, Engineering Planning
(604-276-4075)

LB:lb

Attachment 1: Gilbert Trunk Sewer No. 2 Alignment
Attachment 2: Phase 1 Map
Attachment 3: Notice of Construction





Notice of Construction

We're working in your neighbourhood to improve sewer system service

Sewer installation on No. 3 Road

January 31, 2014

Gilbert Road Trunk Sewer No. 2

This notice contains important information that may affect you. Please ask someone to translate it for you.

Ce document contient des renseignements importants qui pourraient vous concerner. Veuillez demander à quelqu'un de vous le traduire.

此通告刊載有可能影響閣下的重要資料。請找人為你翻譯。

ਇਸ ਨੋਟਿਸ ਵਿਚ ਮਹੱਤਵਪੂਰਨ ਜਾਣਕਾਰੀ ਹੈ ਜੋ ਕਿ ਤੁਹਾਡੇ ਲਈ ਜ਼ਰੂਰੀ ਹੋ ਸਕਦੀ ਹੈ। ਕਿਰਪਾ ਕਰਕੇ ਕਿਸੇ ਨੂੰ ਇਸ ਦਾ ਉਲੱਥਾ ਕਰਨ ਲਈ ਆਖੋ।

Thông báo này có tin tức quan trọng có thể ảnh hưởng đến quý vị. Xin nhờ người phiên dịch hộ.

Este aviso contiene información importante que puede afectarle personalmente. Pídale a alguien que se lo traduzca.

Project Overview

Metro Vancouver, working in cooperation with the City of Richmond, is upgrading the Gilbert Road Trunk Sewer, a major trunk sewer which runs from the Bridgeport Pump Station at Bridgeport Road and Garden City Road to Metro Vancouver's Lulu Island Wastewater Treatment Plant (LIWWTP). This project is being carried out over several years, starting with construction in your neighbourhood.

Work began on November 18, 2013 at Capstan Way and will progress north along No. 3 Road to Sea Island Way and east along Sea Island Way to Garden City Road. This will be followed by construction along the railway right-of-way, which is anticipated to start in March 2014 and be completed by October 2014 (see map).

For other information on this project, please visit Metro Vancouver's website (www.metrovancouver.org) and search "Gilbert Road".

Sewer pipe installation on No. 3 Road

Crews recently began installing sewer pipe along No. 3 Road from Capstan Way to Sea Island Way. This work is expected to be complete by the end of March 2014.

Traffic impacts

During this construction period, at least one lane in each direction (both northbound and southbound) will remain open on No. 3 Road at all times.

Businesses on Capstan Way and No. 3 Road are currently open, however access may be restricted due to lane closures.

Work on Capstan Way

There are currently no turns onto Capstan Way permitted from No. 3 Road. As of February 2, 2014, we expect lanes on Capstan Way to be restored, thereby allowing southbound traffic on No. 3 Road to turn right onto Capstan Way westbound. Please note that left turns off No. 3 Road onto Capstan Way will still be prohibited for northbound traffic.

During construction, businesses on Capstan Way can be accessed via Cambie Road and River Road.

Detour signage will be in place and motorists and cyclists are asked to pay close attention to all signage, and to follow the direction of traffic control personnel.

...continued from previous.

Hours of Work and Noise

Work generally occurs from Monday to Saturday, during the hours of 7 a.m. to 7 p.m.; however in order to expedite the schedule and reduce traffic impacts, crews will work 24 hours a day, up to 6 days a week, beginning on February 3, 2014.

Metro Vancouver will provide information regarding hours of work on Sea Island Way and Garden City Road as it becomes available.

All work will comply with the City of Richmond's noise bylaws or granted bylaw variances.

Site Activities

Activities associated with this project will include:

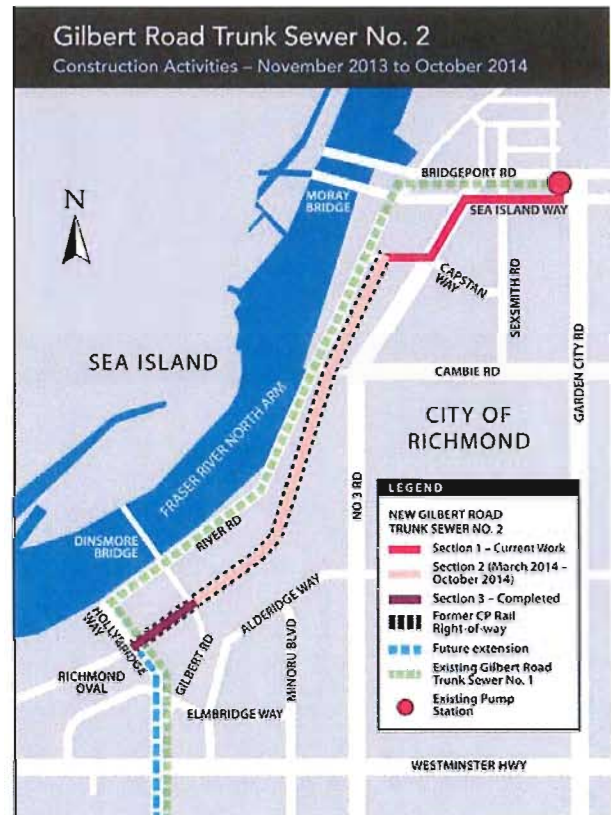
- Utility re-locations
- Trench excavation and shoring
- Pipe storage
- Pipe installation
- Pumping, to keep trench dry
- Backfilling
- Traffic control
- Increased noise from equipment

Community Liaison Officer

A Community Liaison Officer (CLO) has been assigned to this project whose duties include communicating with the public regarding safety. The CLO's contact information can be found below. In addition, Metro Vancouver has a full-time site inspector on the project whose duties include monitoring construction and public safety.

Public Involvement

Metro Vancouver provides more information regarding construction of this new sewer as details become available. Ongoing schedule and information updates are provided to affected residents and businesses through fact sheets, project update newsletters, email, on-site signage and Metro Vancouver's website.



CONTACT US

Community Liaison Officer: 604-436-6986
(Monday to Friday from 8 a.m. to 4:30 p.m.)

Metro Vancouver Information Centre: 604-432-6200
(Monday to Friday from 8 a.m. to 4:30 p.m.)

After-Hours Emergency: 604-451-6610

Email: icentre@metrovancover.org
(Please include "Gilbert Road Trunk Sewer" in the subject line of your email)





City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: March 3, 2014

From: John Irving, P.Eng. MPA
Director, Engineering

File: 10-6650-01/2014-Vol
01

Re: **Clothes Washer Rebate Program**

Staff Recommendation

That:

1. the City partners with BC Hydro for a combined rebate program in May and October, 2014, which provides a minimum \$100 and maximum \$200 rebate (equally shared between BC Hydro and the City) for the replacement of an efficient clothes washer;
2. the scope of the existing toilet rebate program be expanded to include clothes washer rebates; and
3. the CAO and General Manager, Engineering and Public Works, be authorized to enter into an agreement with BC Hydro to execute this program.

John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

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

Staff Report

Origin

BC Hydro is offering local governments an opportunity to participate in a combined rebate offer to promote the purchase of energy- and water-efficient clothes washers.

The program supports the 2041 Official Community Plan (OCP), the Corporate Sustainability Framework, as well as the 2014 Community Energy and Emissions Plan, which includes “promoting building efficiency through outreach and education and providing incentives for building retrofit action.”

This report provides information on the program for Council’s consideration.

Analysis

BC Hydro and local governments across the province have an interest in encouraging the conservation of energy and water. Through PowerSmart, BC Hydro offers a variety of incentive programs that encourage uptake of energy-efficient technologies, including energy-efficient appliances.

The City has water demand management programs, including the Toilet Rebate Program and Rain Barrel Program, with the purpose of reducing water consumption and deferring, reducing, or eliminating the need for infrastructure capacity upgrading. In addition, the OCP includes objectives to pursue water demand management strategies, continue water conservation initiatives, and support broad-base community greenhouse gas emissions (GHG) emission reduction, as part of providing sustainable infrastructure and resources, and climate change mitigation.

There is an opportunity to combine BC Hydro’s and the City’s initiatives and offer residents a joint rebate program for fixtures that generate both electrical and water savings (i.e. clothes washers). A joint program would increase overall participation rates, reduce the amount of energy and water residents consume, save residents money, and reduce GHG emissions.

Program Details

Dates:

The proposed program offered by BC Hydro will be applicable May 1 to 31 and October 1 to 31 of this year.

Rebate Amount:

For the May campaign, BC Hydro is offering a two-tiered incentive, where either a \$50 or \$100 rebate is provided depending on the energy and water consumption rating of the clothes washer. Staff recommend that the City partners with BC Hydro and contribute matching rebates of \$50 and \$100.

Estimated Savings

Clothes washers rank second in indoor water use (after toilets), accounting for approximately 21% of indoor household water consumption. Table 1 outlines the estimated annual reduction in electrical consumption, water consumption, and GHG per clothes washer replacement. Electrical savings are mainly due to reduced hot water use. The \$100 rebate would be offered to clothes washers with a minimum modified energy factor (MEF) of 2.6 and maximum water factor (WF) of 4.0; the \$200 rebate would be offered to clothes washers with a minimum MEF of 2.8 and WF of 4.0. MEF and WF are the energy and water performance metrics for clothes washers.

Table 1. Estimated Energy, Water, and GHG Savings

Total Rebate Amount	City Contribution	BC Hydro Contribution	Electricity Savings	Water Savings	GHG Savings
\$100	\$50	\$50	139 kWh/year	62,000 litres/year	0.04 tCO ₂ e/year
\$200	\$100	\$100	240 kWh/year	62,000 litres/year	0.07 tCO ₂ e/year

Program Funding

The scope of the existing toilet rebate account could be expanded to include clothes washer rebates. The budget of the existing toilet rebate account is \$100,000, which Staff anticipate will be sufficient to fund both rebate programs, given year-to-date participation levels. So far this year, 134 toilet rebates have been issued, and the projected toilet rebate expenditures for 2014 is approximately \$80,000. As a result, it is anticipated that there will be approximately \$20,000 available, which would allow for approximately 250 clothes washer rebates.

The City of Abbotsford and District of Mission are the only other municipalities in the lower mainland that have participated in this partnership program with BC Hydro. Abbotsford and Mission started their program in 2011, and have received an average of 75 applications per month. As the proposed program for Richmond would only be offered for two months (May and October), it is anticipated that the funding available in the toilet rebate account would be sufficient to fund the rebates.

The City's agreement with BC Hydro would stipulate the maximum level of City contribution at \$20,000. As with the past administration of the Toilet Rebate Program, Staff will monitor participation levels and report back to Council with any revised funding level recommendations.

Roles and Responsibilities

City and BC Hydro roles and responsibilities are outlined in Table 2. BC Hydro would be responsible for carrying out program administration and associated activities, and the City would

be responsible for providing funding to supplement the BC Hydro rebate and advertising the rebate program within Richmond.

Table 2. City and BC Hydro Roles and Responsibilities

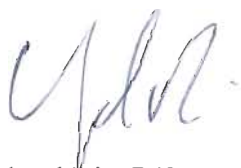
City of Richmond	BC Hydro
<ul style="list-style-type: none"> • Provide funding to supplement the existing BC Hydro rebate • Advertise the rebate offer locally 	<ul style="list-style-type: none"> • Answer email and phone inquiries about the program • Receive and process online applications • Verify applicants' eligibility, as determined by the City • Provide rebate directly to applicants, and invoice the City for its portion

Financial Impact

Staff recommend that the rebates be funded from the approved Toilet Rebate Program. BC Hydro will cover all costs associated with program administration.

Conclusion

The City has an opportunity to partner with BC Hydro in providing rebate incentives to residents for purchasing efficient clothes washers. BC Hydro would be responsible for administering the rebates, which would be offered for May and October of this year. Staff recommend that the City participates in this combined rebate program that provides a minimum \$100 and maximum \$200 rebate (equally shared between BC Hydro and the City), and that the scope of the existing toilet rebate account be expanded to include clothes washer rebates.



Lloyd Bie, P.Eng.
Manager, Engineering Planning
(4075)

LB:jh



Jason Ho, P.Eng.
Project Engineer
(1281)



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: March 4, 2014

From: John Irving MPA, P. Eng.
Director, Engineering

File: 06-2050-01/2013-Vol
01

Re: Ageing Facility Infrastructure - Update

Staff Recommendation

That staff utilize the attached "Ageing Facility Infrastructure – Update" report dated March 4, 2014 from the Director, Engineering as input in the annual capital and operating budget preparation process.

John Irving MPA, P. Eng.
Director, Engineering
(604-276-4140)

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

Staff Report

Origin

On September 21, 2011 staff submitted an ageing facility infrastructure report to Council for information. The report provided a facility condition summary and options to better maintain the City's inventory of 150 buildings comprising approximately 1,606,000 square feet of total building area.

This report responds to a Council referral dated September 19, 2012 and provides a current update to the overall condition of City facilities and building maintenance/replacement programs currently in place.

Background

City facilities are critical to the delivery of a broad range of services to the public for the betterment of the community. Several of the facilities are unique to Richmond and establish an important and positive cultural or iconic identity, examples of which include those with heritage status (i.e., Branscombe House, Seine Net Loft, etc.) and the Richmond Olympic Oval.

Construction of City owned facilities is generally accomplished through Council approved capital programs and/or agreements with developers. For capital projects, staff define a scope of work in consultation with the user groups and the public leading to construction through the public procurement process. A similar process is followed with developer driven facilities whereby the developer assumes the role of design/construction lead and City staff complete a review/approval role.

It is necessary to fund and perform day-to-day operations and maintenance activities at all facilities to enable their intended use, examples of which are janitorial services, minor repairs/replacements such as light bulb replacement, etc. It is also necessary to fund and complete preventative maintenance programs which may include items such as roof replacement, boiler replacement, new paint for the building interior/exterior, etc to ensure continuity of service.

The functional life of a facility is generally 45 years or more provided regular preventive maintenance is completed. The City currently has funded operations/maintenance, preventative maintenance and capital replacement programs in place as approved by Council. The current reserve, the Capital Building and Infrastructure Reserve which funds facility capital repair and replacement has been mainly utilized to fund new facilities. Staff are reviewing the capital process to identify if a comprehensive plan for capital improvements should be developed which assesses the condition of all current infrastructure assets such as buildings and equipment and uses the assessment to plan infrastructure replacement and repair needs in the future within available capital and operating funding levels.

Analysis

The City's current general buildings and leased facilities inventory consists of 150 buildings.

The City currently has Council approved funding of \$4.6M for preventative maintenance programs. In 2014, the City also has one time facility related funding of \$2.6M through the capital program to complete major repair/restorations of Minoru Chapel, Watermania and Richmond Ice Centre.

The City completes annual physical audits of 20% of City facilities through detailed site visits. The findings are used to update past information in the City's facility condition assessment computer model (Vanderwell Facility Advisors (VFA) to develop a Facility Construction Index (FCI) which has become an evaluation tool used by Cities internationally. In 2013, the City of Richmond was awarded the Vanguard Award for Leadership in Capital Planning from VFA in recognition of effective building asset management.

FCI is an industry standard designation of facility condition where 0.00 to 0.05 is good, 0.06 – 0.10 is fair, and higher than 0.10 is considered poor. While this index is an excellent facility management tool, it is not a direct measure of user experience in the building. For example, a boiler that is old, inefficient and at risk of failure will generate a poor condition score, but it may still be providing adequate heat in a building, so a building user today would not be impacted by that poor condition.

The current FCI average for all City facilities is 0.08, indicating an overall fair condition. However, over half of all buildings were constructed in the last 35 years and this later building stock is entering a phase of accelerated ageing. As a result, maintaining the current fair condition score in the future will require greater annual funding than has been allocated in the past.

Consequence of facility deterioration

A generally accepted industry observation related to facilities is that it costs 5 times as much to repair a facility as compared to having a preventative maintenance program, and that it costs 5 times as much to replace a facility than what it would cost to complete repairs, notwithstanding the impacts related to service disruption.

Significant deficiencies are anticipated should City facilities be allowed to deteriorate over the next 20 years. An example that may be typical of facility infrastructure that may no longer be functional after 20 years includes failure of roofs, boilers, HVAC systems etc. The consequence of these items no longer functioning are significant and could lead to facility closure, service level interruption, loss of City revenue and incurrence of significant costs to react to emergency conditions.

In 2013 Richmond Ice Centre experienced a failure of the cooling tower condensing unit – without this unit there is no ability to create ice surfaces. The cooling tower failure resulted in program cancellations and compromises to ice-preparation and replacement was completed on an emergency basis through sourcing replacement equipment from Delaware at relatively high cost.

The current facility condition level can be maintained through increased preventative maintenance funding and capital funding for building rehabilitation and replacement as follows.

Capital Replacement

The Council approved Major Facilities Phase 1 projects including Firehall 3 represent over \$127 Million in capital investment for the replacement of Minoru Aquatics, Older Adults Centre, City Centre Community Centre, and Firehall No. 1. The new facilities will provide short to medium term relief from the increasing cost of maintaining the old facilities. While providing opportunity for service level improvements, investing in the capital replacement of buildings greatly assists with maintaining overall facility condition.

Capital Repair/Rehabilitation

In 2014 Council approved \$7.4M through the 5-Year capital program to complete major facility rehabilitation. The 2014 program includes approximately \$2.6M funding to complete major mechanical renovations at Minoru Chapel, Watermania and Richmond Ice Centre. Staff will continue to prepare 5-Year Capital programs with required levels of funding for Council approval.

Operating Maintenance and Minor Capital

Current Facility infrastructure replacement, improvement and maintenance funding is approximately \$4.6M. Going forward it is estimated that this level of funding would need to increase by approximately \$1M annually to maintain the current facility condition index score.

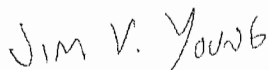
It is recommended that staff utilize the preceding analysis and information outlined in preparation of future operating and capital budgets with the objective of maintaining the current level of overall facility condition.

Financial Impact

None at this time.

Conclusion

Currently the City's building infrastructure is in fair condition. However, our facilities are anticipated to deteriorate at an accelerated rate. To maintain the current average facility condition, additional funding will be required through the City's operating and capital budgets.



Jim V. Young, P. Eng.
Acting Sr. Manager, Project Development
(604-247-4610)



City of Richmond

Report to Committee

To: Public Works and Transportation Committee
From: Victor Wei, P. Eng.
Director, Transportation
Date: February 20, 2014
File: 01-0150-20-ICBC1-
01/2014-Vol 01
Re: ICBC/CITY OF RICHMOND ROAD IMPROVEMENT PROGRAM – PROPOSED
PROJECTS FOR 2014

Staff Recommendation

1. That the list of proposed road safety improvement projects, as described in the report, be endorsed for submission to the ICBC 2014 *Road Improvement Program* for consideration of cost sharing funding.
2. That should the above applications be successful, the Chief Administrative Officer and General Manager, Planning and Development be authorized to negotiate and execute the cost-share agreements, and the 2014 Capital Plan and 5-Year (2014-2018) Financial Plan be amended accordingly.

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

Att. 1

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

Staff Report

Origin

At the March 25, 2013 and September 23, 2013 Council meetings, Council endorsed a number of proposed joint ICBC-City of Richmond road safety improvement projects for 2013. This report summarizes the projects implemented in 2013 with funding from ICBC and presents a list of projects proposed to be implemented with funding contributions from ICBC as part of the 2014 ICBC-City of Richmond *Road Improvement Program* partnership.

Analysis

1. Partnership with ICBC on Road Improvement Program

The City has been in partnership with ICBC in the *Road Improvement Program* since 1994. This partnership is a vital component of the City's traffic safety program as it enables the City not only to undertake more traffic safety enhancements than it could alone, but also to expedite some of these road safety improvement projects. Each year, a list of potential capital projects is developed for inclusion in the *Road Improvement Program* based on community requests and input from the Traffic Safety Advisory Committee and other stakeholders.

2. 2013 ICBC/City of Richmond Road Improvement Projects

As shown in Table 1 below, a number of City projects substantially completed in 2013 will receive a total of \$252,000 in funding from ICBC's *Road Improvement Program*. Projects initiated in 2013 but not substantially completed will be re-submitted in 2014.

Table 1: 2013 Road Improvement Projects Receiving ICBC Funding

Location	Project Description	ICBC Contribution
• No. 2 Road-Woodwards Road	Upgrade of existing pedestrian signal to full traffic signal	\$26,000
• No. 4 Road-Odlin Road		\$29,000
• EB No. 4 Road-Alderbridge Way	Installation of left-turn arrows	\$13,000
• NB No. 4 Road-Cambie Road		\$14,000
• NB Railway Avenue-Steveston Hw		\$10,000
• NB Railway Avenue-Williams Road		\$12,000
• NB Railway Avenue-Francis Road		\$8,000
• NB Railway Avenue-Blundell Road		\$12,000
Russ Baker Way: Inglis Drive-Hudson Ave	Installation of intersection cameras	\$93,000
• Ryan Rd • Georgia St • Maddocks Rd • 2 nd Ave	Installation of traffic calming measures (speed humps) in school zones	\$9,000
Westminster Hwy: Gilley Road-Smith Cr	Minor shoulder widening to create walkway separated by extruded curb	\$18,000
Ash Street: Williams Road-Bakerview Dr	Construction of neighbourhood pathway	\$5,000
Westminster Hwy: No. 6 Road-No. 8 Road	Removal of bollards from off-street pathway	\$3,000
Total		\$252,000

3. Proposed 2014 ICBC-City of Richmond Road Improvement Projects

Attachment 1 identifies a range of projects proposed for submission to the 2014 *Road Improvement Program* for funding contribution from ICBC that would provide benefits for all road users (i.e., motorists, cyclists, pedestrians, transit users). In support of one of

Richmond RCMP's key community objectives to increase pedestrian safety and reduce fatalities and injuries, a majority of the proposed projects focus on pedestrian-related improvements, particularly at intersections, including eight special crosswalks, four pedestrian signals on high volume arterial roadways, two raised crosswalks, and a neighbourhood walkway. The total estimated cost of the pedestrian-related projects is nearly \$1.5 million.

ICBC's potential funding contribution to these projects will be determined by historical traffic crash rates at these locations and the estimated reduction in ICBC claim costs resulting from the proposed traffic safety improvements as well as eligibility of the project vis-à-vis the funding guidelines. The outcome of ICBC's review of the projects will be reported back as part of 2015 ICBC *Road Improvement Program*.

Upon approval of a project by ICBC, the City would be required to enter into a funding agreement with ICBC. The agreement is provided by ICBC and generally includes an indemnity in favour of ICBC. Staff recommend that the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the funding agreements for approved projects and the 2014 Capital Plan and 5-Year (2014-2018) Financial Plan be amended accordingly to reflect the receipt of external grants.

Financial Impact

None.

The funding sources for the City's portion of the costs of the projects have been previously approved or endorsed by Council as indicated in Attachment 1 to this report. Several of the identified projects have additional external grants either approved or pending approval from other agencies such as TransLink.

Conclusion

ICBC is a significant long-time partner working with the City to promote traffic safety in Richmond. The traffic safety initiatives jointly implemented by ICBC and the City, including various road and traffic management enhancements, educational efforts and enforcement measures, have resulted in safer streets for all road users in Richmond. Therefore, staff recommend that Council endorse the various local road safety improvement projects for submission to the 2014 joint ICBC-City of Richmond *Road Improvement Program*. Upon approval by ICBC of any projects, cost-share agreements will be executed by staff with ICBC.



Joan Caravan
Transportation Planner
(604-276-4035)



Fred Lin, P.Eng., PTOE
Senior Transportation Engineer
(604-247-4627)

Att. 1: Proposed 2014 City-ICBC Road Improvement Projects

Proposed 2014 City-ICBC Road Improvement Projects

Proposed 2014 ICBC-City of Richmond Road Improvement Program Projects	Estimated Total Cost	Source of City Funds ⁽¹⁾	External Agency Funding ⁽²⁾
Video Detection Cameras & Controllers: 6 intersections along Steveston Hwy corridor between No. 2 Road and Coppersmith Pl	\$335,000	\$335,000 2014 Traffic Signal Program	\$111,000 TransLink (pending)
Installation of traffic calming measures in various locations pending results of traffic studies ⁽³⁾	\$100,000	\$100,000 2014 Neighbourhood Traffic Safety Program	-
Installation of special crosswalks: <ul style="list-style-type: none"> Francis Road-Ash Street⁽⁴⁾ Garden City Road-General Currie Rd⁽⁴⁾ 7400-block River Road 8200-block No. 5 Road 8000-block St. Albans Road Williams Road-Freshwater Drive Steveston Hwy-Bonavista Gate Granville Ave-McCallan Road Other locations to be determined⁽⁵⁾ 	<ul style="list-style-type: none"> \$55,000 \$60,000 \$50,000 \$76,000 \$69,000 \$69,000 \$69,000 \$55,000 \$503,000 	<ul style="list-style-type: none"> \$475,500 2012 Misc Intersection Improvements (\$60,000) 2012 Traffic Signal Program (\$138,000) 2013 Crosswalk Improvement Program (\$55,000) 2014 Crosswalk Improvement Program (\$222,500) 	<ul style="list-style-type: none"> \$27,500 TransLink (confirmed) \$27,500 TransLink (pending)
Installation of pedestrian signals: <ul style="list-style-type: none"> Francis Road-St Albans Road Kwantlen Street-Kwantlen University Westminster Hwy-McCallan Road Blundell Road-Ash Street Other locations to be determined⁽⁵⁾ 	<ul style="list-style-type: none"> \$82,000 \$137,000 \$120,000 \$120,000 \$459,000 	<ul style="list-style-type: none"> \$394,000 2013 Traffic Signal Program (\$82,000) 2014 Traffic Signal Program (\$72,000) 2014 Active Transportation Program (\$240,000) 	<ul style="list-style-type: none"> \$120,000 TransLink (pending) \$65,000 Kwantlen Polytechnic University (confirmed)
Installation of full traffic signal: <ul style="list-style-type: none"> Cambie Road-Stolberg Road Other locations to be determined⁽⁵⁾ 	\$175,000	\$175,000 2014 New Traffic Signal Installation at Cambie Road-Stolberg Road	-
Extension of Lansdowne Road: Minoru Blvd-Alderbridge Way	\$3,000,000	\$3,000,000 2012-2013 Capital Project	-
Parkside Neighbourhood Bike Route: paved pathway connection on Granville Ave between Ash St and Garden City Park ⁽⁴⁾	\$90,000	<ul style="list-style-type: none"> \$45,000 2012 Cycling Network Expansion Program (\$8,500) 2012 Misc Cycling Safety Enhancement Program (\$25,000) 2013 Active Transportation Program (\$11,500) 	<ul style="list-style-type: none"> \$45,000 TransLink (confirmed)
Delineation of on-street bike lanes with green anti-skid surface at conflict zones: <ul style="list-style-type: none"> Garden City Road-Alderbridge Way Granville Ave-Railway Ave Other locations to be determined⁽⁵⁾ 	\$34,000	\$34,000 2014 Active Transportation Program	\$17,000 TransLink (pending)
Delineation of Railway Greenway crossings with green anti-skid surface ⁽⁴⁾ : <ul style="list-style-type: none"> West of Britannia Dr Garry Street Steveston Hwy Williams Road Princeton St Francis Rd Blundell Rd Granville Ave 	\$75,000	\$37,500 2013 Active Transportation Program	\$37,500 TransLink (confirmed)
Construction of raised crosswalks ⁽⁴⁾ : <ul style="list-style-type: none"> Granville Ave-McCallan Road Railway Ave west of Britannia Dr 	\$67,000	\$33,500 2013 Neighbourhood Traffic Safety Program	\$33,500 TransLink (confirmed)
Construction of neighbourhood path/sidewalk: <ul style="list-style-type: none"> Belair Dr (Gilbert Road-Broadmoor Blvd) Other locations to be determined⁽⁵⁾ 	\$450,000	\$450,000 2014 Neighbourhood Traffic Safety Program	-
Bus stop upgrade and/or construction of connecting sidewalk/pathway: <ul style="list-style-type: none"> Multiple locations city-wide 	\$186,000	\$186,000 2014 Pedestrian & Roadway Improvement Program	\$93,000 TransLink (pending)

(1) Should the submitted project receive funding from ICBC, the City's portion of the total cost would be reduced accordingly.

(2) Should the project receive funding from an external agency, the City's portion of the total cost would be reduced accordingly.

(3) Implementation is subject to consultation with and support from affected residents.

(4) Project was originally submitted to the 2013 Program and is being re-submitted to the 2014 Program as it was not substantially completed in 2013.

(5) Additional locations may be identified for submission to ICBC prior to the annual program deadline.