

Public Works and Transportation Committee

Anderson Room, City Hall 6911 No. 3 Road Wednesday, January 24, 2018 4:00 p.m.

PWT-5

MINUTES

Motion to adopt the minutes of the meeting of the Public Works and Transportation Committee held on November 22, 2017.

NEXT COMMITTEE MEETING DATE
February 21, 2018, (tentative date) at 4:00 p.m. in the Anderson Room

PLANNING AND DEVELOPMENT DIVISION

1. ROAD SAFETY ALONG S-CURVE SECTION OF HIGHWAY 91
(File Ref. No. 01-0150-20-THIGI) (REDMS No. 5647980 v.3)

PWT-12

See Page PWT-12 for full report

Designated Speaker: Victor Wei

Pg. # ITEM

STAFF RECOMMENDATION

That the City send a letter to the Ministry of Transportation and Infrastructure requesting consideration of the potential road safety measures to mitigate crashes and improve public safety along the S-Curve section of Highway 91 as described in the report titled "Road Safety along S-Curve Section of Highway 91" dated December 15, 2017 from the Director, Transportation.

2. PROVINCIAL 2018/2019 BIKEBC PROGRAM SUBMISSION

(File Ref. No. 01-0150-20-THIG1) (REDMS No. 5702465)

PWT-16

See Page PWT-16 for full report

Designated Speaker: Victor Wei

STAFF RECOMMENDATION

- (1) That the submission for cost-sharing to the Province's 2018/2019 BikeBC Program for the River Drive multi-use pathway, as described in the report, titled "Provincial 2018/2019 BikeBC Program Submission" dated January 2, 2018, from the Director, Transportation, be endorsed;
- (2) That, should the above application be successful, the Chief Administrative Officer and the General Manager, Planning and Development, be authorized to execute the funding agreement; and
- (3) That the 2018 Capital Plan and the 5-Year Financial Plan (2018-2022) be updated accordingly.

ENGINEERING AND PUBLIC WORKS DIVISION

3. TERMINATION AND RENEWAL OF OUTDATED TELECOMM MUNICIPAL ACCESS AGREEMENTS

(File Ref. No. 10-6000-01) (REDMS No. 5690501)

PWT-21

See Page PWT-21 for full report

Designated Speaker: Lloyd Bie

Pg. # ITEM

STAFF RECOMMENDATION

That the Chief Administrative Officer and the General Manager, Engineering & Public Works be authorized to terminate and execute Municipal Access Agreements between the City and Allstream Corp and between the City and Bell Canada on behalf of the City, containing the material terms and conditions set out in the staff report titled, "Termination and Renewal of Outdated Telecomm Municipal Access Agreements", dated December 13, 2017 from the Director, Engineering.

4. EMILY CARR UNIVERSITY AGREEMENT – TERRA NOVA POLLINATOR MEADOW

(File Ref. No. 10-6125-11-03) (REDMS No. 5670527)

PWT-25

See Page **PWT-25** for full report

Designated Speaker: Chad Paulin

STAFF RECOMMENDATION

That the Chief Administrative Officer and the General Manager, Engineering & Public Works be authorized to enter into an agreement with Emily Carr University of Art + Design to complete the Terra Nova Pollinator Meadow project.

5. LULU ISLAND ENERGY COMPANY – 2017 DISTRICT ENERGY OPERATIONAL UPDATE

(File Ref. No. 10-6600-10-02) (REDMS No. 5693017)

PWT-29

See Page PWT-29 for full report

Designated Speaker: Kevin Roberts

STAFF RECOMMENDATION

That the Lulu Island Energy Company report titled "Lulu Island Energy Company – 2017 District Energy Operational Update" dated December 15, 2017 from the Director, Engineering be received for information.

Public V	Vorks	& Transportation Committee Agenda – Wednesday, January 24, 2018
Pg. #	ITEM	·
	6.	AMENDMENT TO BOULEVARD AND ROADWAY PROTECTION AND REGULATION BYLAW NO. 6366 (File Ref. No. 10-6000-01) (REDMS No. 5694413)
PWT-36		See Page PWT-36 for full report
		Designated Speaker: Milton Chan
		STAFF RECOMMENDATION
		That Boulevard and Roadway Protection and Regulation Bylaw No. 6366, Amendment Bylaw No. 9817 be introduced and given first, second and third readings.
	7.	MANAGER'S REPORT
		ADJOURNMENT



Public Works and Transportation Committee

Date:

Wednesday, November 22, 2017

Place:

Anderson Room

Richmond City Hall

Present:

Councillor Chak Au, Chair

Councillor Harold Steves Councillor Carol Day Councillor Alexa Loo

Absent:

Councillor Derek Dang

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 October 18, 2017, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

December 20, 2017, (tentative date) at 4:00 p.m. in the Anderson Room

PLANNING AND DEVELOPMENT DIVISION

1. **CITY OF** RICHMOND-TRANSLINK TRAVELSMART PARTNERSHIP - COMPLETION OF PILOT PROGRAM

(File Ref. No. 01-0154-04) (REDMS No. 5595141)

Victor Wei, Director, Transportation, provided the following information on the City's partnership with TravelSmart:

- the pilot program focused on three elementary schools and various businesses;
- each School Travel Plan is customized to the school and intended to be a living document that belongs to the school;
- staff provided businesses in the Riverside Business Park with a variety of alternative transportation solutions for employees;
- the private shuttle option emerged as the most feasible, however after further consideration, businesses opted out due to cost; and
- an outcome of this initiative was increased awareness of Richmond businesses' transportation challenge, therefore longer term solutions continue to be developed by the City and TransLink.

It was moved and seconded

- (1) That the staff report titled "City of Richmond-TransLink TravelSmart Partnership Completion of Pilot Program", dated October 20, 2017, from the Director, Transportation be received for information; and
- (2) That a copy of the above report be forwarded to the Richmond Council-School Board Liaison Committee for information.

CARRIED

2. TRANSLINK SOUTHWEST AREA TRANSPORT PLAN – RESULTS OF PHASE 2 CONSULTATION AND PREPARATION OF DRAFT FINAL PLAN

(File Ref. No. 01-0154-04) (REDMS No. 5491921 v.10)

Mr. Wei introduced Matt Craig, Manager, TransLink System Plans. With the aid of a PowerPoint presentation (copy on file, City Clerk's Office) Mr. Craig provided the following information:

- the Southwest Area Transport Plan includes Richmond, South Delta (Ladner and Tsawwassen) and Tsawwassen First Nation;
- from May 23 to June 19, 2017, TransLink sought input from the public, stakeholders and municipal partners in the engagement for Phase 2: Identifying Priorities;
- feedback was gathered via an online survey on the TransLink website with paper surveys (in English and Chinese);
- feedback was responded through review of survey results and comments, modification of 17 proposals based on feedback, reviews with advisory committee and stakeholders to discuss options and revised proposals advanced to evaluation stage;

- finalized routing proposals underwent a multiple account evaluation (MAE) in consultation with staff to ensure that the proposed changes were aligned with regional and local goals and to help prioritize the investments and inform decision-making;
- key objectives for the transit service recommendations are:
 - improving Frequent Transit Network (FTN) service along key corridors;
 - providing more reliable and convenient bus service;
 - expanding bus service for growing communities and large areas of employment, including industrial areas; and
 - making NightBus more direct for service to Richmond City Centre and YVR;
- additional transit service, facilities and infrastructure initiatives within the sub-area that have been identified in the Mayors' Council 10-Year Vision include: improving access via park and ride, improving customer amenities at stations and exchanges, Canada Line upgrades, developing opportunities for application of flexible on-demand transit services, and identifying opportunities for transit priority, including approaches to the Queensborough Bridge; and
- moving forward, TransLink will incorporate feedback from the Draft Plan review, report back to Councils with a final plan in the new year, and conduct additional public engagement prior to implementation for significant changes.

In reply to queries from Committee, Mr. Craig noted that there were multiple factors that identified certain projects as top priority and the Mayors' Council 10-Year Vision for Transit and Transportation identifies priority investments for rail transit expansion, which includes extending certain SkyTrain lines.

It was moved and seconded

- (1) That as described in the report titled "TransLink Southwest Area Transport Plan Results of Phase 2 Consultation and Preparation of Draft Final Plan" dated November 1, 2017 from the Director, Transportation:
 - (a) The comments from the Senior Advisory Committee and staff be forwarded to TransLink staff for incorporation into the draft final Plan; and
 - (b) TransLink's draft recommendations for transit service and regionally significant cycling corridors for the Southwest Area Transport Plan be endorsed for the purpose of public consultation on the draft final TransLink Southwest Area Transport Plan.

(2) That staff be directed to report back with the draft final TransLink Southwest Area Transport Plan in January 2018.

CARRIED

ENGINEERING AND PUBLIC WORKS DIVISION

3. UPDATE ON 2017/2018 SNOW AND ICE RESPONSE PREPARATIONS

(File Ref. No.)(REDMS No. 5593501 v.3)

In reply to queries from Committee, Larry Ford, Manager, Roads and Construction Services, advised that long range forecasts for Richmond are difficult to predict. Mr. Ford advised that staff are examining the potential to engage with the University of British Columbia's Weather Forecast Research Team for aid in better predicting local weather. Also, he stated that leniency for residents that may have difficulty clearing ice from their properties should be directed to Community Bylaws.

It was moved and seconded

That the staff report titled "Update on 2017/2018 Snow and Ice Response Preparations", dated October 20, 2017, from the Director, Public Works Operations, be received for information.

CARRIED

4. BURKEVILLE DRAINAGE

(File Ref. No. 10-6060-04-01) (REDMS No. 5617890 v.2)

In reply to queries from Committee, Lloyd Bie, Manager, Engineering Planning, advised that staff will implement a public information program on the drainage issue including mail outs to residents and a public open house and will include a time frame as well as what residents can expect throughout the project.

Mr. Bie advised that Burkeville ditches are not deep enough to accommodate City standard piping and cannot be improved in a manner that will increase capacity to the required levels. He noted that ditch infills reduce the drainage system's capacity for percolation, thereby increasing the drainage system flows which will ultimately cause flooding in the neighbourhood. Mr. Bie stated that the moratorium on ditch infills will be lifted on a block by block basis as the piped drainage system is installed.

In reply to queries from Committee, Mr. Bie noted that ditches in Burkeville could be widened, however that would result in less space in residents yards and would not solve the long term problem.

It was moved and seconded

That a moratorium on ditch infills in the Burkeville neighbourhood, until a piped drainage network is implemented as outlined in the report titled "Burkeville Drainage" dated October 27, 2017, from the Director, Engineering, be endorsed.

CARRIED

5. 2017 UNION OF BC MUNICIPALITIES COMMUNITY EMERGENCY PREPAREDNESS FUND

(File Ref. No. 10-6060-05-01) (REDMS No. 5649642 v.3)

It was moved and seconded

- (1) That the Dike Master Plan Phase 5 submission to the 2017 Union of BC Municipalities (UBCM) Community Emergency Preparedness Fund be endorsed; and
- (2) That should the Dike Master Plan Phase 5 submission be successful, the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to negotiate and execute the funding agreements with UBCM.

CARRIED

6. ELECTRIC VEHICLE CHARGING INFRASTRUCTURE REQUIREMENTS FOR NEW DEVELOPMENTS

(File Ref. No. 10-6125-07-02) (REDMS No. 5496295 v.10)

In reply to queries from Committee, Brendan McEwen, Sustainability Manager, advised that the "Right to Charge" legislation would require that Electric Vehicle (EV) drivers be able to charge their vehicles with appropriate means of reconciling building owners or strata council common expenses. He noted that there a few models in terms of paying for electricity for the EV and the cost would be significantly less than that of gasoline.

John Roston, Coordinator, Plug-In Richmond, spoke in support of EV's in the City and urged Committee to adopt the bylaw. He noted that driving an EV has made a difference in his life. Mr. Roston remarked that he was pleased with the response he has received from staff on the matter and stated that Richmond has the opportunity to be a leader in Canada for cost effective solutions.

It was moved and seconded

(1) That Richmond Zoning Bylaw 8500, Amendment Bylaw No. 9756, which adds Section 7.15 Electric Vehicle Charging Infrastructure, identified in the report titled "Electric Vehicle Charging Infrastructure – Requirements for New Developments" dated October 15, 2017, from the Director, Engineering, be introduced and given first reading;

- (2) That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw No. 9520, which amends Section 8.5 Transportation Capacity and Demand Management and Section 14.2.7.E Electric Vehicle Charging both regarding electric vehicles, identified in the report titled "Electric Vehicle Charging Infrastructure Requirements for New Developments" dated October 15, 2017, from the Director, Engineering, be introduced and given first reading;
- (3) That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw No. 9520, having been considered in conjunction with:
 - (a) The City's Financial Plan and Capital Program; and
 - (b) The Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;

is hereby found to be consistent with said programs and plans, in accordance with Section 477(3)(a) of the Local Government Act; and

(4) That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw No. 9520, having been considered in accordance with Official Community Plan Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation.

CARRIED

7. OVAL VILLAGE DISTRICT ENERGY UTILITY BYLAW NO. 9134, AMENDMENT BYLAW NO. 9778

(File Ref. No. 10-6600-10-02) (REDMS No. 5563539 v.7)

It was moved and seconded

- (1) That the staff recommendation to amend the Oval Village District Energy Utility rate for services as presented in Option 2 of the report titled "Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 9778" be endorsed; and
- (2) That the Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 9778 be introduced and given first, second and third readings.

CARRIED

8. ALEXANDRA DISTRICT ENERGY UTILITY BYLAW NO. 8641, AMENDMENT BYLAW NO. 9777

(File Ref. No. 10-6600-10-02) (REDMS No. 5563441 v.9)

It was moved and seconded

(1) That the staff recommendation to amend the Alexandra District Energy Utility rate for services as presented in Option 2 of the report titled "Alexandra District Energy Utility Bylaw No. 8641, Amendment Bylaw No. 9777" be endorsed; and

(2) That the Alexandra District Energy Utility Bylaw No. 8641, Amendment Bylaw No. 9777 be introduced and given first, second and third readings.

CARRIED

9. MANAGER'S REPORT

None.

ADJOURNMENT

It was moved and seconded *That the meeting adjourn (4:47 p.m.).*

CARRIED

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, November 22, 2017.

Councillor Chak Au Chair Sarah Kurian Legislative Services Coordinator



Report to Committee

To:

Public Works and Transportation Committee

Date:

December 15, 2017

From:

Victor Wei, P. Eng.

File:

01-0150-20-

Director, Transportation

THIG1/2017-Vol 01

Re:

Road Safety along S-Curve Section of Highway 91

Staff Recommendation

That the City send a letter to the Ministry of Transportation and Infrastructure requesting consideration of the potential road safety measures to mitigate crashes and improve public safety along the S-Curve section of Highway 91 as described in the report titled "Road Safety along S-Curve Section of Highway 91" dated December 15, 2017 from the Director, Transportation.



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

REPORT CONCURRENCE							
ROUTED TO:	CONCURRENC	CONCURRENCE OF GENERAL MANAGER					
RCMP Fire-Rescue		- pe Evreg					
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	Initial	APPROVED BY CAO					

Staff Report

Origin

At the January 10, 2017 Community Safety Committee meeting, the following referral was carried:

That staff examine potential measures to increase safety along the S-Curve section of Highway 91 and report back.

This report summarizes the results of staff's investigation of the crash history of this provincial highway segment.

Analysis

Highway 91 S-Curve

Highway 91 is a provincial highway under the jurisdiction of the Ministry of Transportation and Infrastructure (the Ministry). As shown in Figures 1 through 3, the subject highway section is 2.3 km in length (between the No. 8 Road underpass and the CN Railway overpass) and has two lanes in each direction with the opposing directions physically separated by centre median barriers. The highway speed is posted at 90 km/hr.



Figure 1: Aerial View of Highway 91 S-Curve



Figure 2: Westbound in S-Curve



Figure 3: Eastbound in S-Curve

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Crash History

Staff reviewed the five-year RCMP collision reports, which were provided by the Ministry, and ICBC claims data for the period between January 1, 2011 and December 31, 2015. Key findings as identified by the Ministry are:

- a total of 77 reported collisions over the five-year span, which equates to approximately 15 collisions per year;
- 31 (40 per cent) reported collisions resulted in personal injury and 46 (60 per cent) resulted in property damage only over \$1,000;
- rear-end collisions are the predominate type of reported collision (65 per cent);
- over 60 per cent of all reported collisions feature driver action/condition as contributing factors, including driver inattentiveness (33 per cent) as the primary cause followed by driver following too closely (nine per cent);
- less than two percent of all collisions are related to road and weather conditions;
- collision frequency is measurably higher in the morning peak period, followed by the afternoon peak period; and
- the directional distribution of collisions is heavily weighted in the westbound direction with over two-thirds of all reported collisions involving traffic destined towards west Richmond. This trend is in line with the traffic flow conditions with the westbound direction experiencing slow-downs in the morning commuter rush periods.

In addition to the above documented crash history, staff observations during typical weekday AM peak periods in the westbound direction suggest that some unsafe and/or last-minute lane changing at the approach to the S-Curve may also be a driver action to avoid slow-downs that could contribute to collisions.

Potential Mitigation Measures

Staff recognize that the Ministry has qualified transportation engineers who may assess crash data in this area on an on-going basis; notwithstanding, the Ministry may benefit from staff's observations. Accordingly, as the majority of reported collisions appear to be due to driver actions, staff recommend that the City send a letter to the Ministry requesting consideration of the following potential mitigation measures to improve road safety along the S-Curve section of Highway 91:

- Advisory Signage: dynamic advisory signage facing westbound drivers approaching the Scurve to inform drivers of the presence of any traffic congestion and static advisory signage to reinforce no distracted driving for motorists approaching the S-Curve in each direction.
- Deterrent/Restriction to Lane Changes: installation of revised pavement markings and traffic signage to discourage/restrict lane changes for westbound drivers approaching the S-Curve.
- Enforcement and Education: RMCP enforcement of distracted driving and education campaigns, possibly in partnership with ICBC.

Financial Impact

None.

Conclusion

As Highway 91 is a provincial responsibility, staff recommend that a letter be sent to the Ministry of Transportation and Infrastructure requesting consideration of several potential road safety measures to mitigate crashes and improve public safety along the S-Curve section of Highway 91.

Joan Caravan

Transportation Planner

(604-276-4035)

JC:jc

Fred Lin, P.Eng., PTOE Senior Transportation Engineer

(604-247-4627)



Report to Committee

To:

Public Works and Transportation Committee

Date:

January 2, 2018

From:

Victor Wei, P. Eng.

File:

01-0150-20-

Director, Transportation

THIG1/2018-Vol 01

Re:

Provincial 2018/2019 BikeBC Program Submission

Staff Recommendation

- 1. That the submission for cost-sharing to the Province's 2018/2019 BikeBC Program for the River Drive multi-use pathway, as described in the report, titled "Provincial 2018/2019 BikeBC Program Submission" dated January 2, 2018, from the Director, Transportation, be endorsed;
- 2. That, should the above application be successful, the Chief Administrative Officer and the General Manager, Planning and Development, be authorized to execute the funding agreement; and
- 3. That the 2018 Capital Plan and the 5-Year Financial Plan (2018-2022) be updated accordingly.

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

Att. 2

REPORT CONCURRENCE							
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER					
Finance Parks Engineering		- De Enreg					
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	Initials:	APPROVED BY CAO					

Staff Report

Origin

The Province of BC's BikeBC Program is a 50-50 cost-share program between the Province and local governments to support the construction of new bike lanes, trails and pathways to promote cycling as a means of reducing traffic congestion and greenhouse gas emissions. This report presents the proposed submission from the City for consideration of cost-share funding under BikeBC program for the 2018/2019 funding cycle.

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

3.3. *Effective transportation and mobility networks.*

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

5.2. Strengthened strategic partnerships that help advance City priorities.

Analysis

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

There is an existing two-way multi-use pathway for pedestrians and cyclists on the north side of Alderbridge Way between Garden City Road and just west of No. 4 Road, which connects to the bike lanes on Garden City Road at its western terminus. This project would extend the multi-use pathway on the north side to the east from No. 4 Road to Shell Road, where no pedestrian or cycling facilities currently exist. At its eastern terminus the pathway would connect to the existing paved Shell Road Trail thereby significantly improving cycling connectivity in this area and enhancing access to/from the City Centre (Attachments 1 and 2).

The project would also enhance access to the separated bike and pedestrian paths currently being constructed around the perimeter of the Garden City Lands bounded by Alderbridge Way, No. 4 Road, Westminster Hwy, and Garden City Road.

The pathway would also serve the adjacent residential area to the north and enable walking access to existing transit service on No. 4 Road north of Alderbridge Way (405 and C96). The pathway would also facilitate pedestrian and cycling access to planned new bus stops on Alderbridge Way at May Drive (served by 301, 405 and C96) in response to customer requests and as identified in TransLink's *Southwest Area Transport Plan*.

In October 2017, Council approved the submission of the Alderbridge Way multi-use pathway to TransLink for consideration of cost-share funding as part of its 2018 Bicycle Infrastructure Capital Cost-Sharing (BICCS) Regional Needs Program. That application is seeking up to \$600,000 towards the project. The total cost of the project is currently estimated at \$1,200,000.

TransLink has not yet confirmed the funding the City may receive under the 2018 Program, which may be less than \$600,000. The project will proceed in 2018 only if the City is successful in securing at least \$600,000 combined external cost-share funding from either or both of the applications to TransLink and BikeBC; otherwise, the project will be deferred to 2019 for further consideration.

PWT - 17

Financial Impact

Table 1 below summarizes the estimated project cost, the proposed internal funding sources and the requested external funding sources. Should the BikeBC submission be successful, the amount requested from TransLink would be reduced to \$300,000, as TransLink's capital cost-share funding program requires the deduction of any senior government grant funding with the balance then cost-shared between the City and TransLink on a 50-50 basis. Under this scenario, the City's cost would be reduced from \$600,000 to \$300,000.

In addition, if the BikeBC submission is successful, the City would enter into a funding agreement with the Province. The agreement is a standard form agreement provided by the Province and includes an indemnity and release in favour of the Province. Staff recommend that the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the agreement.

Project Name/Scope	Proposed City's Portion & Funding Source for 2018 ⁽¹⁾	Proposed TransLink 2018 Funding ⁽²⁾	Proposed BikeBC 2018/2019 Funding ⁽³⁾	Estimated Total Project Cost
Alderbridge Way (No. 4 Road-Shell Road): new multi-use pathway on north side including pedestrian	Roads DCC \$600,000 (With no BikeBC grant) \$300,000	\$600,000 (With no BikeBC grant) \$300,000 (With full BikeBC grant)	\$600,000	\$1,200,000

Table 1: Project to be Submitted to 2018/2019 BikeBC Program

- (1) The City's portion shown is based on available Roads DCC funding over the next five years and at least \$600,000 to be secured from combined current external cost-share applications. The City's actual portion (i.e., balance of remaining estimated cost after external grants) will be determined upon confirmation of the approved amounts to be received from external agencies.
- (2) The amount shown represents the maximum 50% funding contribution to be received from the external agency based on the City's cost estimate for the project. If the BikeBC application is successful, the TransLink 2018 funding would be reduced to \$300,000.
- (3) The amount shown represents the maximum 50% funding contribution to be received from the external agency based on the City's cost estimate for the project. The actual approved amount may be lower than requested. The actual invoiced amount follows project completion and is based on incurred costs.

Conclusion

The pedestrian and bicycle facility improvement project proposed for submission to the provincial 2018/2019 BikeBC cost-sharing program would support the goals of the *Official Community Plan* to improve community mobility and reduce greenhouse gas emissions by encouraging more walking and cycling trips rather than driving. The potential receipt of external funding would enable the City to expedite the provision of sustainable transportation infrastructure and improve healthy and active travel options for the community.

Joan Caravan Transportation Planner (604-276-4035)

Att. 1: Proposed Alderbridge Way Multi-Use Pathway: Context Maps

Att. 2: Proposed Alderbridge Way Multi- Parthway: Cross-Section and Photos

Proposed Alderbridge Way Multi-Use Pathway (MUP): Context Maps



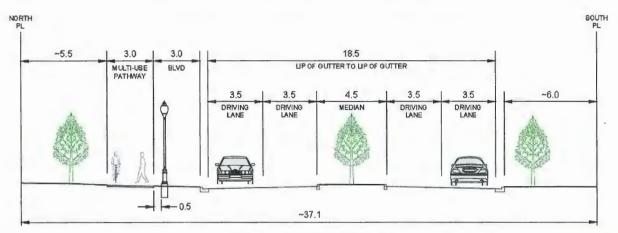


Cycling Facility: Existing

Cycling Facility: Under Current Construction
Cycling Facility: Proposed Multi-Use Path

Cycling Facility: Proposed Green Painted Pavement at Crossings

Proposed Alderbridge Way Multi-Use Pathway



Conceptual Cross-Section



Before: North side (westbound) Alderbridge Way west of Shell Road





Report to Committee

To:

Public Works and Transportation Committee

Date:

December 13, 2017

From:

John Irving, P.Eng. MPA

Director, Engineering

File:

10-6000-01/2017-Vol

01

Re:

Termination and Renewal of Outdated Telecomm Municipal Access

Agreements

Staff Recommendation

That the Chief Administrative Officer and the General Manager, Engineering & Public Works be authorized to terminate and execute Municipal Access Agreements between the City and Allstream Corp and between the City and Bell Canada on behalf of the City, containing the material terms and conditions set out in the staff report titled, "Termination and Renewal of Outdated Telecomm Municipal Access Agreements", dated December 13, 2017 from the Director, Engineering.

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

REPORT CONCURRENCE							
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER					
Law		20					
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY CAO					

Staff Report

Origin

Allstream Corp and Bell Canada both currently have Interim Municipal Access Agreements executed with the City of Richmond in 2001 and 2002 respectively. Since that time, a more comprehensive Municipal Access Agreement has been developed and used with eight other companies, including telecommunication firms similar to Allstream Corp and Bell Canada. The proposed changes will bring these two companies into alignment with our other telecommunication agreements.

Analysis

Allstream Corp and Bell Canada are both federally regulated telecommunications companies providing telecommunications services in Canada. These companies have existing telecommunications infrastructure and equipment within the City of Richmond's Service Corridors. They must obtain the City's consent to use the Service Corridors for future installations and this is typically accomplished through a Municipal Access Agreement.

The current agreements do not include a schedule for the City to recover pavement degradation fees like our other Municipal Access Agreements. The permitting fee rates are out of date and there is no clause to allow the City to increase permitting fees by CPI each year as exists in the newer agreements. The City has Municipal Access Agreements with a total of 11 telecommunications companies operating in the city (Attachment 1). The proposed Municipal Access Agreement template is consistent with the City's other MAA's. It will better protect the City's interests and establishes the roles and responsibilities of both parties. The proposed agreement will:

- Specify locations where the agreement will be applicable (i.e. the Service Corridors);
- Specify required consent for constructing, maintaining, operating, repairing and removing the company's equipment, and define the scope of the City's consent;
- Require the companies to pay causal¹ costs to the City;
- Define the conditions under which the companies may carry out work;
- Enable the City to have access to information about the company's equipment;
- Specify cost allocations for the company's equipment to be relocated as a result of any municipal and third party projects;
- Minimize the City's liability due to the company's work or equipment;
- Permit shallow inlay fibre;
- Identify the initial term of the Municipal Access Agreement to be one year, automatically renewable for successive one year periods thereafter;
- Define fees (eg. lost productivity costs, permitting and inspection costs, and pavement degradation) and their annual CPI increase;
- Require the companies to assume environmental liability for any hazardous substances that they bring or cause to be brought to the Service Corridors;

¹ Causal costs are costs incurred as a result of additional effort and materials spent working around a private utility installation while maintaining or constructing public infrastructure

- Identify the insurance requirements the companies must maintain; and
- Include mutual indemnity clauses.

Financial Impact

None. Companies that utilize City property as utility corridors pay an annual 1% tax to the City as per Section 192 of the Community Charter and Section 644 of the Local Government Act.

Conclusion

An updated Municipal Access Agreement between the City and Allstream Corp and between the City and Bell Canada will allow the City to better manage and regulate the installation and presence of these companies' equipment within the City's Service Corridors. These updated agreements will bring the City's requirements for these two companies more in line with the requirements already in place with the other telecommunication companies operating in Richmond. The terms and conditions of the proposed agreement provide cost recovery for the City and protect the City's interests.

Lloyd Bie, P Eng.

Manager, Engineering Planning

(604-276-4075)

Carlos J. Rocha, AScT

Supervisor - Design Services

(604-276-4025)

LB:cjr

Optic Zoo	JET	TeraSpan	A2B Fibre	Rogers	Novus	TELUS	Shaw	Bell	Group Telecom	Alistream	Company
July 28, 2016	December 1, 2014	October 31, 2014	July 25, 2011	January 5, 2010	November 23, 2009	June 12, 2008	November 1, 2006	December 5, 2002	May 11, 2001?	October 29, 2001	MAA signed
1 year	1 year	1 year	1 year	1 year commencing January 1, 2010	1 year	5 year	5 year	1 year after 1st day of 1 year month executed	1 year after 1st day of 1 year month executed	1 year after 1st day of 1 year month executed	initial term
1 year	1 year	1 year	1 year	1 year	1 year	5 year	2 succesive 5 year, then 1 year	f 1 year	f 1 year	f 1 year	renewal term
90 days prior to end of current term	90 days prior to end of current term	90 days prior to end of current term	3 months prior to end of any term	3 months prior to end of any term	3 months prior to end of any term	120 days anytime after initial term	3 months prior to end of any term	3 months prior to end of any term	3 months prior to end of any term	3 months prior to end of any term	Notice to terminate
July 28, 2017	December 1, 2015	October 31, 2015	July 25, 2012	January 1, 2011	November 23, 2010	June 12, 2013	November 1, 2011	December 1, 2003	May 1, 2002	October 1, 2002	Expires
July 28, 2018	December 1, 2018	October 31, 2018	July 25, 2018	January 1, 2018	November 23, 2018	June 12, 2018	November 1, 2018	December 1, 2018	May 1, 2018	October 1, 2018	Next Expiry
\$657.31 each up to 20m + \$12.50/m \$1971.95 each over 20m + \$12.50/m \$81.50/day/block	\$657.31 each up to 20m + \$12.50/m \$1971.95 each over 20m + \$12.50/m \$81.50/day/block	\$6S7.31 each up to 20m + \$12.50/m \$1971.95 each over 20m + \$12.50/m \$81.50/day/block	\$657.31 each up to 20m + \$12/m \$1971.95 each over 20m + \$12/m \$78/day/block	\$657.31 each up to 20m + \$12/m \$1971.95 <mark>each 100m</mark> over 20m + \$12/m \$78/day/block	\$657.31 each up to 20m + \$12/m \$1971.95 <mark>each 100</mark> m over 20m + \$12/m \$78/day/block	\$500 + 15% each up to 30m \$5/m over 30m \$175 + 15% ea pole	\$579.02 + 15% each up to 20m \$579.02/100m over 20m	\$500 each up to 50m \$500 each 100m over 50m	\$500 each up to 50m \$500 each 100m over 50m	\$500 each up to 50m \$500 each 100m over 50m	Permitting Fees
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	900	Ma	· ·	Pvmt Degredation
Yes	Yes	Yes	Yes	Yes	Yes	Ne	Yes	₹	190	Wo	on CPI
Yes	Yes	Yes									Micro-treno

PWT - 24



Report to Committee

To:

Public Works and Transportation Committee

Date: De

December 20, 2017

From:

John Irving, P.Eng. MPA

Director, Engineering

File:

10-6125-11-03/2017-

Vol 01

Re:

Emily Carr University Agreement - Terra Nova Pollinator Meadow

Staff Recommendation

That the Chief Administrative Officer and the General Manager, Engineering & Public Works be authorized to enter into an agreement with Emily Carr University of Art + Design to complete the Terra Nova Pollinator Meadow project.

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

Att. 1

REPORT CONCURRENCE						
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER				
Parks Services	Ø	(((->				
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY GAO				

Staff Report

Origin

In 2015, the Bridgeport Industrial Park Pollinator Pasture (Bridgeport Pasture) was established in support of the council adopted Bath Slough Revitalization Initiative. A joint project between the City and Emily Carr University's Border Free Bees (BFB), the implementation of the Bridgeport Pasture saw a 1,000 ft. stretch of an otherwise underutilized utility and pedestrian corridor converted to a beautiful wildflower 'earthwork'. Used as a pilot project, the Bridgeport Pasture has received positive attention, most recently helping BFB secure the 2017 Pollinator Advocate Award for Canada. The Bridgeport Pasture continues to thrive as it moves into its third year, providing food and habitat for a wide range of pollinators and an aesthetically pleasing amenity for pedestrians and area residents.

Following the success of the first pasture, the City and the BFB team have reengaged to establish a new wildflower pasture at an underutilized space within Terra Nova Rural Park.

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.

4.2 Innovative projects and initiatives to advance sustainability.

Analysis

The Terra Nova Pollinator Meadow (Terra Nova Meadow) is a partnership project with BFB and is headed by Dr. Cameron Cartiere of Emily Carr University of Art + Design and Associate Professor Nancy Holmes of the University of British Columbia Okanagan. The project's mission is to "raise awareness of the plight of wild pollinators; empowering communities to actively engage in solutions for habitat loss by transforming under-utilized urban sites into pollinator meadows". The project highlights the principles of the City's Ecological Network Management Strategy, which aims to enhance, protect and connect natural space across Richmond through projects and public engagement.

The Terra Nova Meadow will utilize public art strategies to produce an aesthetically pleasing wildflower meadow, engage the surrounding community and create sustainable habitat for the benefit of wild pollinators. The site will feature a plethora of wildflowers along with a central apiary/didactic that will house information about the project and the benefits of pollinators while providing native pollinator habitat.

Additionally, the new Terra Nova Meadow will complement the existing pollinator plantings at Terra Nova provided by the David Suzuki Foundation's Butterflyway Rangers, a citizen-led movement that has successfully provided habitat for bees and butterflies across Canada.

Initial site preparation of the Terra Nova Meadow has commenced with some tilling and solarizing so as to not miss the opportunity to have the site ready for planting in 2018. Construction will wrap up in the spring months with the seeding of the wildflowers and the addition of paths and didactics. Upon Council approval, the City will enter into an agreement with BFB and with them work together to plan, design and construct the site. It is envisioned that the site will be ready for hosting community outreach events and other activations.

Financial Impact

The City will provide in-kind services associated with site-preparation and coordination of the project while the BFB team will fund the construction and programming components via a Partnership Development Grant approved by the Social Sciences and Humanities Research Council.

Conclusion

The City and its partners wish to establish another wildflower meadow within Terra Nova Rural Park. The Terra Nova Meadow is intended to build upon the success of the Bridgeport Pasture by providing suitable habitat for native pollinators, while raising community awareness about the importance of expanding pollinator habitat in Richmond. A key goal for the project is to encourage the same planting strategies for private property.

Chad Paulin, M.Sc. P.Ag. Manager, Environment (604-247-4672)

CP:

Att. 1: Proposed Location for Terra Nova Pollinator Meadow

Att. 1: Proposed Location for Terra Nova Pollinator Meadow





Report to Committee

To:

Public Works and Transportation Committee

Date:

December 15, 2017

From:

John Irving, P.Eng., MPA

File:

10-6600-10-02/2017-Vol 01

Director, Engineering

Re:

Lulu Island Energy Company - 2017 District Energy Operational Update

Staff Recommendation

That the Lulu Island Energy Company report titled "Lulu Island Energy Company – 2017 District Energy Operational Update" dated December 15, 2017 from the Director, Engineering be received for information.

John Irving, P.Eng., MPA Director, Engineering and

Chief Operating Officer, Lulu Island Energy Company

(604-276-4140)

Att. 1

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





6911 NO. 3 ROAD RICHMOND, BC V6Y 2C1

Report

DATE: December 8, 2017

TO: LIEC Board of Directors

FROM: Alen Postolka, P.Eng., District Energy Manager

Re: Lulu Island Energy Company – 2017 District Energy Operational Update

Staff Recommendation

1. That the report titled "Lulu Island Energy Company – 2017 District Energy Operational Update" dated December 8, 2017 be received by the LIEC Board for information; and

2. That staff be directed to present the report titled "Lulu Island Energy Company – 2017 District Energy Operational Update" dated December 8, 2017 to the City of Richmond Council for information.

Background

In operation since 2012, the ADEU is a sustainable energy system which provides a centralized energy source for heating, cooling and domestic hot water heating for residential and commercial customers located in the Alexandra/West Cambie neighbourhood. Currently, almost all of the energy provided to customers is produced locally from the geo-exchange fields that are located within the nearby greenway corridor and in West Cambie Park. The backup and peaking natural gas boilers and cooling towers in the energy centre have operated only for a few hours throughout the system's operation to date. The system currently provides energy to six residential buildings, the "Central at Garden City" commercial development, the Richmond Jamatkhana temple and Fire Hall #3, in total connecting over 1450 residential units and over 1.6 million square feet of floor area.

At the OVDEU, energy for space heating and domestic hot water heating is currently being supplied from two interim energy centres which use natural gas boilers. When enough buildings are connected to the system, a permanent energy centre will be built which will produce low carbon energy, expected to be harnessed from the Gilbert Trunk sanitary force main sewer. At the present time, there are eight buildings with over 1,675 residential units and 1.8 million square feet of floor are receiving energy from the OVDEU.

Both systems continue to experience rapid growth in order to meet the growing demand of the neighbourhood's they service.

The purpose of this report is to provide an operational update for the ADEU and OVDEU for the period of October 2016 to September 2017

Analysis

As part of regular reporting, this report provides information about the operation of both the Oval Village District Energy Utility (OVDEU) and the Alexandra District Energy Utility (ADEU). Specifically, this report analyzes and compares the Utilities' performance on a year over year basis, with each year in this comparison spanning from September until October of the following year in order to allow for a full 12 month comparison. This comparison takes into account the energy use of connected buildings as well as the impact of seasonal temperatures through the analysis of heating and cooling degree days. Details on the heating and cooling degree day data is included in Attachment 1.

ADEU Operational Report

Figure 1 below shows a year over year comparison of energy delivered by the ADEU to customer buildings. This includes space heating, cooling and domestic hot water heating energy. Analysis of heating degree day data shows that the 2016/17 period was colder than the 2015/16 period. Additionally, the cooling degree data shows that 2016/17 had a hotter summer season than 2015/16. However, the main factor contributing to the increased energy illustrated in Figure 1 is the fact that the ADEU has seen significant growth over the past years with the addition of several new building connections. During the 2016/17 season, the ADEU provided continuous service to customer buildings and did not experience any service outages that impacted customers. Planned, preventive maintenance and unplanned, corrective work activities were conducted while the system maintained service.

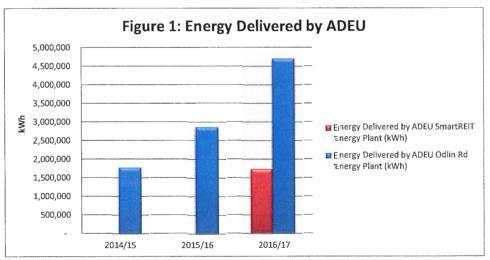


Figure 1: ADEU Operations

Figure 1 also shows the energy delivered to commercial customers by the ADEU SmartREIT plant. As 2016/17 was the first year of operation for this plant, it is the only data shown on this chart.

To date, it is estimated that ADEU has eliminated 2336 tonnes of GHG emissions¹ to the community when compared to the business-as-usual scenario with no DEU connection. The cumulative GHG emission reduction estimate is summarized in Figure 2 below.

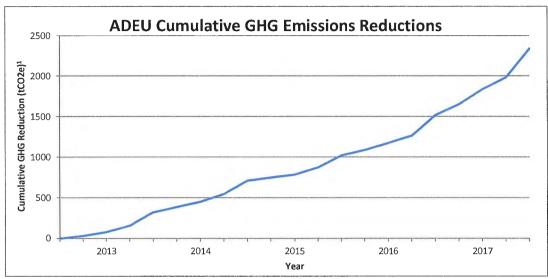


Figure 2: ADEU Cumulative GHG Emissions Reductions

OVDEU Operational Report

Figure 2 below shows a year over year comparison of energy delivered by OVDEU to customer buildings. This includes heating energy for space conditioning and domestic hot water.

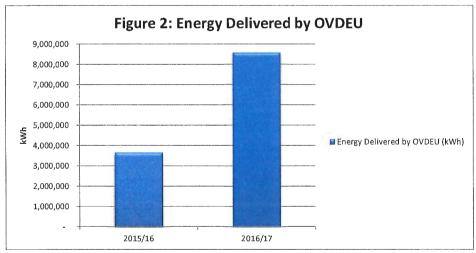


Figure 3: OVDEU Operations

As indicated in the chart, the building energy use increased during the 2016/17 period compared to the previous year. Analysis of heating degree days shows that 2016/17 was notably colder than the 2015/16 season.

¹ Assume that all energy was provided for heating. The business-as-usual (BAU) assumed that 40% of the building heating load would be provided from electricity and the remaining 60% would be from gas make-up air units.

Although this colder weather would contribute to the increase in energy use, the main factor behind this increase was the connection of four additional buildings to the district energy system since the end of the 2015/16 summer season, bringing the total number of connected buildings to eight.

During the 2016/17 season, the OVDEU provided continuous heating service to the customer buildings and did not experience significant service outages. Planned, preventive maintenance and unplanned, corrective work activities were conducted while the system maintained service. Over the course of the year, there were two unplanned interruptions due to an electrical service outage and a mechanical issue. Both these interruptions lasted less than 3 hours in length did not result in a noticeable service disruption to any OVDEU customers.

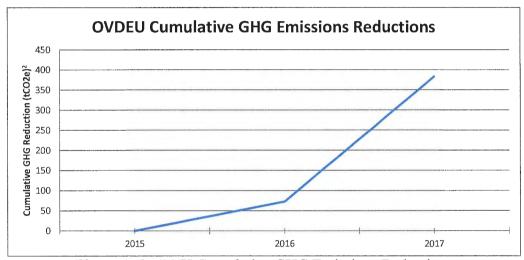


Figure 4: OVDEU Cumulative GHG Emissions Reductions

To date, it is estimated that the OVDEU has eliminated 383 tonnes of GHG emissions² to the community when compared to the business-as-usual scenario with no DEU connection. The cumulative GHG emission reduction estimate is summarized in Figure 4 above. These GHG emission reductions will increase greatly upon implementation of a sewer heat recovery energy source.

Financial Impact

None.

² The business-as-usual (BAU) assumes the use of hybrid heat pumps and natural gas boilers to provide space and domestic hot water heating

Conclusion

This report analyzes and compares the Utilities' performance during the several seasons between 2014 and the end of September 2017. The data shows that there has been a year over year increase in customer energy use over this period for both the OVDEU and ADEU. As illustrated by the heating and cooling degree day data this is due in part to climate factors, however, the main factor contributing to the increased energy use was the connection of additional buildings to the district energy systems.

Kevin Roberts

Acting Senior Project Manager Lulu Island Energy Company

Att. 1: Heating and Cooling Degree Day Summary

Attachment 1 – Heating and Cooling Degree Day Summary

Heating Degree Days (HDD) is a standardized measure that assesses how much below a baseline temperature (18°C) the outdoor temperature is over a period of time, which allows for a comparison of heating energy production and demand over a specified period. Cooling Degree Days (CDD) is a similar measure that assesses how much above a balance temperature (18°C) the outdoor temperature is over a period of time, allowing for a comparison of cooling energy production and demand over different time periods. Degree days are a measure of how much, in degrees, and for how long, in days, the outside air temperature was below or above a certain level. They are not a measure of calendar days.

As a baseline comparison, Figure 1 shows the HDD for each of the September to October periods from 2014 to 2017. Figure 2 shows the annual summer CDD for these same periods.

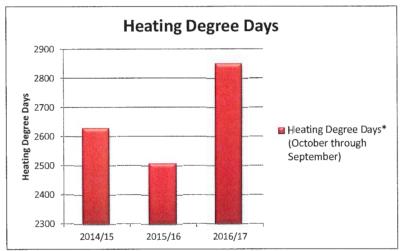


Figure 1: HDD Comparison

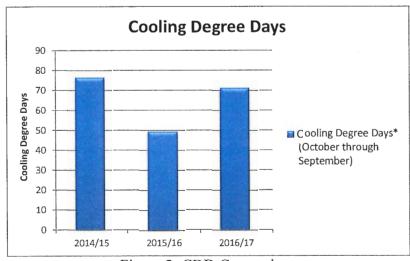


Figure 2: CDD Comparison

This data shows that the 2016/17 period was cooler than 2014/15 and 2015/16. Similarly, in the summer periods of these timeframes, 2015/15 and 2016/17 were hotter than 2015/16.



Report to Committee

To:

Public Works and Transportation Committee

Date: December 19, 2017

From:

John Irving, P.Eng. MPA Director, Engineering

File: 10-6000-01/2017-Vol

01

Re:

Amendment to Boulevard and Roadway Protection and Regulation Bylaw No.

6366

Staff Recommendation

That Boulevard and Roadway Protection and Regulation Bylaw No. 6366, Amendment Bylaw No. 9817 be introduced and given first, second and third readings.

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

Att. 1

REPORT CONCURRENCE						
ROUTED TO:	Concurrence	CONCURRENCE OF GENERAL MANAGER				
Finance Department Law	☑	<u> </u>				
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	Initials:	APPROVED BY CAO				

Staff Report

Origin

Boulevard and Roadway Protection and Regulation Bylaw No. 6366 regulates the use and restoration of roadways and boulevards during the construction of buildings and/or structures, and during some transportation activities.

This report recommends that an administrative fee be created for securities collected for single and two family demolition and construction activities to address securities that remain unclaimed for a significant length of time.

Analysis

Bylaw No. 6366 contains provisions that allow the City to obtain securities from property owners or agents to ensure that boulevards and roadways are properly maintained and restored during and after construction and transport activities. These securities are fully refundable, however, the City may draw on these securities if the property owner or agent is non-compliant with the maintenance or restoration required in the Bylaw.

For single or two family dwellings, securities are collected for demolition and construction activities. The current security amounts are \$500 for demolition and \$1500 for construction, as described in section 5.(a) of Bylaw No. 6366. Currently, it is the responsibility of the property owner or agent to call the City to request the return of any refundable securities remitted under Bylaw No. 6366 once the demolition and/or construction activity is complete. However, there are a large number of securities that remain unclaimed.

Staff have been contacting holders of securities collected prior to 2015 in an effort to return these funds. The year 2015 was chosen as a cutoff date because demolition/construction activities for single or two family housing is typically completed within two years. In many cases, the contact information provided by the property owner or agent is incorrect and further effort is required by staff to attempt to identify and verify to whom the funds should be returned. Staff are continuing with efforts to address these outstanding securities.

To mitigate this issue going forward, staff will be pro-actively investigating locations once a security has been held for two years (i.e. in 2018, staff will investigate locations for which securities were collected in 2016). This process will include attempting to contact the security holder as well as visiting the site to confirm that the demolition/construction activity is complete and the process for releasing the security can proceed.

Even with this new process, staff anticipate that in a small number of cases the contact information will be incorrect and staff will be unable to determine to whom the funds should be returned. To address this situation, staff recommend that an annual \$500 Administrative Fee be implemented on single or two family dwelling demolition and construction securities. The fee would begin to be assessed two years after collection of the security. Prior to assessing the fee, staff would attempt to contact the security holder.

This fee would only apply to securities collected after the adoption of Amendment Bylaw 9817, and would not be retroactively applied to existing securities.

Financial Impact

None at this time.

Conclusion

Amendment Bylaw No. 9817 proposes the creation of an annual Administrative Fee on securities collected for single and two family demolition and construction activities that remain unclaimed for extended lengths of time.

Milton Chan, P.Eng

Manager, Engineering Design and Construction

(604-276-4377)

Att. 1: Boulevard and Roadway Protection and Regulation Bylaw No. 6366, Amendment Bylaw No. 9817



Bylaw 9817

Boulevard and Roadway Protection and Regulation Bylaw No. 6366 Amendment Bylaw No. 9817

The Council of the City of Richmond enacts as follows:

- 1) The Boulevard and Roadway Protection and Regulation Bylaw No. 6366, as amended, is further amended:
 - a) By re-numbering section 11 to section 12.
 - b) By re-numbering section 12 to section 13.
 - c) By re-numbering section 13 to section 14.
 - d) By adding a new section 11:
 - "11. For securities collected under subsections 5(a)(i), 5(a)(ii) and 5(a)(iii), the City will assess an annual \$500 Administrative Fee for each full year the security remains unclaimed after the date that is two years from issuance of the permit."
- 2) This Bylaw is cited as "Boulevard And Roadway Protection And Regulation Bylaw No. 6366, Amendment Bylaw No. 9817".

FIRST READING		CITY OF RICHMOND
SECOND READING		APPROVED for content by originating dept.
THIRD READING		APPROVED
ADOPTED		for legality by Solicitor
MAYOR	CORPORATE OFFICER	