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**City Council**

**Council Chambers, City Hall  
6911 No. 3 Road**

**Monday, January 14, 2019  
7:00 p.m.**

Pg. #      ITEM

MINUTES

1. *Motion to:*

- |         |     |  |
|---------|-----|--|
| CNCL-15 | (1) | adopt the <b>minutes</b> of the Regular Council meeting held on December 10, 2018;                         |
| CNCL-31 | (2) | adopt the <b>minutes</b> of the Special Council meeting held on December 19, 2018;                         |
| CNCL-56 | (3) | adopt the <b>minutes</b> of the Regular Council meeting for Public Hearings held on December 17, 2018; and |
| CNCL-72 | (4) | receive for information the Metro Vancouver <b>'Board in Brief'</b> dated December 7, 2018.                |



AGENDA ADDITIONS & DELETIONS

COMMITTEE OF THE WHOLE

2. *Motion to resolve into Committee of the Whole to hear delegations on agenda items.*



3. Delegations from the floor on Agenda items.

**PLEASE NOTE THAT FOR LEGAL REASONS, DELEGATIONS ARE NOT PERMITTED ON ZONING OR OCP AMENDMENT BYLAWS WHICH ARE TO BE ADOPTED OR ON DEVELOPMENT PERMITS/DEVELOPMENT VARIANCE PERMITS – ITEM NO. 25.**

4. *Motion to rise and report.*



## RATIFICATION OF COMMITTEE ACTION

## CONSENT AGENDA

**PLEASE NOTE THAT ITEMS APPEARING ON THE CONSENT AGENDA WHICH PRESENT A CONFLICT OF INTEREST FOR COUNCIL MEMBERS MUST BE REMOVED FROM THE CONSENT AGENDA AND CONSIDERED SEPARATELY.**

## CONSENT AGENDA HIGHLIGHTS

- Receipt of Committee minutes
- One-Year Review and Bylaw Amendments For Short-Term Rentals
- Sister City Advisory Committee Four-Year Activity Plan (2019-2022)
- City Buildings – Building Facilities Design Guidelines and Technical Specifications
- BC Poverty Reduction Coalition’s “ABC” Plan
- Affordable Housing Agreement Bylaw 9952 to Permit the City of Richmond to Secure Affordable Housing Units at 6551 No. 3 Road
- Market Rental Agreement (Housing Agreement) Bylaw 9980 to Permit the City of Richmond to Secure Market Rental Housing Units at 6551 No. 3 Road
- Land use applications for first reading (to be further considered at the Public Hearing on February 19, 2019):
  - 9820 Alberta Road – Rezone from RS1/F to ZT60 (0855855 B.C. Ltd. – applicant)
  - a Portion of 23000 Fraserwood Way (Unit 105, 110 and 115) – Text Amendment to allow a licensed Health Canada Medical Cannabis Production Facility on a site-specific basis in the “Industrial Business Park (IB1) zoning district (Rosebud Productions Inc. – applicant)



## Council Agenda – Monday, January 14, 2019

Pg. #      ITEM

- 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway – Rezone from RS1/B to RS1/E (Interface Architecture Inc. – applicant)
- TransLink Policy for Provision of Washrooms on Transit
- 2019 Submission to the Disaster Mitigation and Adaptation Fund – Richmond Flood Protection Program
- Dike Master Plan – Phases 3 and 5
- 2019 Engaging Artists in Community Public Art Projects
- Proposed Plan for the Future Coordination of Salmon Festival and Richmond Canada Day in Steveston
- Recreation and Sport Strategy 2019-2024

5. *Motion to adopt Items No. 6 through No. 21 by general consent.*

☐

6. **COMMITTEE MINUTES**

*That the minutes of:*

- CNCL-74      (1) the **General Purposes Committee** meetings held on December 17, 2018 and January 9, 2019;
- CNCL-88      (2) the **Finance Committee** meeting held on January 9, 2019;
- CNCL-91      (3) the **Planning Committee** meetings held on December 18, 2018 and January 10, 2019;
- CNCL-104      (4) the **Public Works and Transportation Committee** meeting held on December 19, 2018;
- CNCL-109      (5) the **Parks, Recreation and Cultural Services Committee** meeting held on December 19, 2018;

*be received for information.*

☐

Consent  
Agenda  
Item

7. **ONE-YEAR REVIEW AND BYLAW AMENDMENTS FOR SHORT-TERM RENTALS**

(File Ref. No. 12-8275-09; 12-8060-20-009899/009898) (REDMS No. 5868680 v. 11; 5962960; 5878824; 5878827)

CNCL-114

See Page CNCL-114 for full report

December 17, 2018

GENERAL PURPOSES COMMITTEE RECOMMENDATION

- (1) *That Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 9899, to add penalties related to short-term rentals, be introduced and given first, second and third readings;*
- (2) *That Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9898, to reinstate a provision to allow a 5-room bed and breakfast business at 13333 Princess Street, be introduced and given first reading; and*
- (3) *That staff be instructed to report back on a licencing program, including an analysis of resources for its implementation, to regulate boarding and lodging in order to create a public registry.*



Consent  
Agenda  
Item

8. **SISTER CITY ADVISORY COMMITTEE FOUR-YEAR ACTIVITY PLAN (2019-2022)**

(File Ref. No. 01-0100-30-SCIT1-01) (REDMS No. 6027517)

CNCL-126

See Page CNCL-126 for full report

December 17, 2018

GENERAL PURPOSES COMMITTEE RECOMMENDATION

- (1) *That the staff report titled “Sister City Advisory Committee Four-Year Activity Plan (2019-2022)”, dated November 23, 2018, from the Manager, Customer Service, be received for information;*
- (2) *That the 2019-2022 Sister City Advisory Committee Program Activity budget of \$239,050 be referred to the budget process including timing and the source of funds for consideration; and*
- (3) *That staff liaise with the Sister City Advisory Committee for potential travel including budget and program details and report back.*



Pg. # ITEM

Consent  
Agenda  
Item

9. **CITY BUILDINGS – BUILDING FACILITIES DESIGN GUIDELINES AND TECHNICAL SPECIFICATIONS**

(File Ref. No. 06-2050-01) (REDMS No. 6047006 v. 4)

CNCL-148

See Page CNCL-148 for staff memorandum & revised Guidelines

CNCL-230

See Page CNCL-230 for full report

January 9, 2019

GENERAL PURPOSES COMMITTEE RECOMMENDATION

- (1) *That the proposed “City of Richmond Building Facilities Design Guidelines and Technical Specifications” presented as Attachment 1 and described in the staff report dated January 9, 2019, from the Director, Engineering be endorsed and used in planning for future corporate facilities; and*
- (2) *That the proposed “City of Richmond Building Facilities Design Guidelines and Technical Specifications” presented as Attachment 1 and described in the staff report dated January 9, 2019, from the Director, Engineering, be sent to interested stakeholders including the Richmond Centre for Disability.*



Consent  
Agenda  
Item

10. **BC POVERTY REDUCTION COALITION’S “ABC” PLAN**

(File Ref. No. 07-3000-01) (REDMS No. 6051450 v. 2)

CNCL-234

See Page CNCL-234 for full report

January 9, 2019

GENERAL PURPOSES COMMITTEE RECOMMENDATION

- (1) *That the BC Poverty Reduction Coalition’s proposed Municipal Resolution, “Call for the ABC Plan for an Accountable, Bold and Comprehensive poverty reduction plan for British Columbia,” be endorsed; and*
- (2) *That the resolution be sent to the Premier, the Minister of Social Development and Poverty Reduction, Richmond Members of the Legislative Assembly, Richmond Members of Parliament and the Leader of the Opposition.*



Consent  
Agenda  
Item

11. **AFFORDABLE HOUSING AGREEMENT BYLAW 9952 TO PERMIT THE CITY OF RICHMOND TO SECURE AFFORDABLE HOUSING UNITS AT 6551 NO. 3 ROAD**

(File Ref. No. 08-4057-05; 12-8060-20-009952) (REDMS No. 6061421 v. 2)

CNCL-299

See Page CNCL-299 for full report

January 10, 2019

PLANNING COMMITTEE RECOMMENDATION

*That Affordable Housing Agreement (6551 No. 3 Road) Bylaw 9952 be introduced and given first, second and third readings to permit the City to enter into a Housing Agreement with RC (South) Inc. and 7904185 Canada Inc., together as registered owners, and RCCOM Limited Partnership and AIMCO Realty Investors Limited Partnership, together as beneficial owners, substantially in the form attached hereto, in accordance with the requirements of Section 483 of the Local Government Act, to secure the Affordable Housing Units required by the Official Community Plan (City Centre Area Plan) Amendment CP 16-752923.*



12. **MARKET RENTAL AGREEMENT (HOUSING AGREEMENT) BYLAW 9980 TO PERMIT THE CITY OF RICHMOND TO SECURE MARKET RENTAL HOUSING UNITS AT 6551 NO. 3 ROAD**

(File Ref. No. 08-4057-05; 12-8060-20-009980) (REDMS No. 6061244)

CNCL-337

See Page CNCL-337 for full report

January 10, 2019

PLANNING COMMITTEE RECOMMENDATION

*That Market Rental Agreement (Housing Agreement) (6551 No. 3 Road) Bylaw 9980 be introduced and given first, second and third readings to permit the City to enter into a Market Rental Agreement with RC (South) Inc. and 7904185 Canada Inc., together as registered owners, and RCCOM Limited Partnership and AIMCO Realty Investors Limited Partnership, together as beneficial owners, substantially in the form attached hereto, in accordance with the requirements of Section 483 of the Local Government Act, to secure Market Rental Housing Units required by the Official Community Plan (City Centre Area Plan) Amendment CP 16-752923.*



13. **APPLICATION BY 0855855 B.C. LTD. FOR REZONING AT 9820 ALBERTA ROAD FROM THE “SINGLE DETACHED (RS1/F)” ZONE TO THE “TOWN HOUSING (ZT60) – NORTH MCLENNAN (CITY CENTRE)” ZONE**

(File Ref. No. RZ 16-742260; 12-8060-20-009960) (REDMS No. 5164563)

CNCL-368

See Page CNCL-368 for full report

January 10, 2019

PLANNING COMMITTEE RECOMMENDATION

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9960, for the rezoning of 9820 Alberta Road from the “Single Detached (RS1/F)” zone to the “Town Housing (ZT60) – North McLennan (City Centre)” zone to permit the development of six three-storey townhouse units with vehicle access from 9840 Alberta Road, be introduced and given first reading.*



14. **APPLICATION BY ROSEBUD PRODUCTIONS INC. FOR REZONING A PORTION OF 23000 FRASERWOOD WAY (UNIT 105, 110 AND 115) TO ALLOW A LICENSED HEALTH CANADA MEDICAL CANNABIS PRODUCTION FACILITY**

(File Ref. No. RZ 18-811041; 12-8060-20-009978) (REDMS No. 6044866)

CNCL-394

See Page CNCL-394 for staff memorandum

CNCL-395

See Page CNCL-395 for full report

January 10, 2019

PLANNING COMMITTEE RECOMMENDATION

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9978, for the rezoning a portion of 23000 Fraserwood Way (Units 105, 110 and 115) to allow a licensed Health Canada Medical Cannabis Production Facility on a site-specific basis in the “Industrial Business Park (IB1)” zoning district, be introduced and given first reading.*



15. **APPLICATION BY INTERFACE ARCHITECTURE INC. FOR REZONING AT 5631, 5635, 5651, 5691, 5711, 5731 AND 5751 STEVESTON HIGHWAY FROM “SINGLE DETACHED (RS1/B)” ZONE AND “SINGLE DETACHED (RS1/E)” ZONE TO “MEDIUM DENSITY TOWNHOUSES (RTM2)” ZONE**

(File Ref. No. 12-8060-20-009982; RZ 16-733904) (REDMS No. 5985084)

CNCL-416

See Page CNCL-416 for full report

January 10, 2019

PLANNING COMMITTEE RECOMMENDATION

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9982, for the rezoning of 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway from “Single Detached (RS1/B)” zone and “Single Detached (RS1/E)” zone to “Medium Density Townhouses (RTM2)” zone, be introduced and given first reading.*



16. **TRANSLINK POLICY FOR PROVISION OF WASHROOMS ON TRANSIT**

(File Ref. No. 01-0154-04) (REDMS No. 6032168 v. 3)

CNCL-465

See Page CNCL-465 for full report

December 19, 2018

PUBLIC WORKS AND TRANSPORTATION COMMITTEE RECOMMENDATION

- (1) *That the report titled “TransLink Policy for Provision of Washrooms on Transit” dated December 7, 2018 from the Director, Transportation, be received for information; and*
- (2) *That a letter be sent to Translink encouraging the provision of washrooms at all Canada Line stations as well as the new Richmond-Brighouse bus mall.*



Consent  
Agenda  
Item

17. **2019 SUBMISSION TO THE DISASTER MITIGATION AND ADAPTATION FUND – RICHMOND FLOOD PROTECTION PROGRAM**

(File Ref. No. 10-6060-05-01) (REDMS No. 6037901 v. 7)

CNCL-473

See Page CNCL-473 for full report

December 19, 2018

PUBLIC WORKS AND TRANSPORTATION COMMITTEE  
RECOMMENDATION

- (1) *That the submission to the Disaster Mitigation and Adaptation Fund – Richmond Flood Protection Program requesting funding for up to 40% of the project cost, for a total of \$13,780,000, to upgrade 2.6 kilometers of dike and five pump stations be endorsed;*
- (2) *That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to enter into funding agreements with the Government of Canada for the above mentioned project should it be approved for funding by the Government of Canada; and*
- (3) *That, should the above mentioned project be approved for funding by the Government of Canada, the Consolidated 5 Year Financial Plan (2019-2023) be updated accordingly.*



Consent  
Agenda  
Item

18. **DIKE MASTER PLAN – PHASES 3 AND 5**

(File Ref. No. 10-6060-01) (REDMS No. 5939748 v. 11)

CNCL-477

See Page CNCL-477 for full report

December 19, 2018

PUBLIC WORKS AND TRANSPORTATION COMMITTEE  
RECOMMENDATION

*That the public and key external stakeholders be consulted as identified in the staff report titled “Dike Master Plan – Phases 3 and 5” from the Director, Engineering, dated November 30, 2018.*



Consent  
Agenda  
Item

19. **2019 ENGAGING ARTISTS IN COMMUNITY PUBLIC ART PROJECTS**

(File Ref. No. 11-7000-09-20-089) (REDMS No. 6009795 v. 4)

CNCL-668

See Page CNCL-668 for full report

December 19, 2018

PARKS, RECREATION AND CULTURAL SERVICES COMMITTEE  
RECOMMENDATION

*That the concept proposals and implementation for the community public art projects working in partnership with the Richmond Nature Park Society, Richmond Public Library (Brighthouse Branch) and City Centre Community Association be considered in the City's Consolidated 5 Year Financial Plan as presented in the staff report titled "2019 Engaging Artists in Community Public Art Projects," dated November 15, 2018, from the Director, Arts, Culture and Heritage Services.*



Consent  
Agenda  
Item

20. **PROPOSED PLAN FOR THE FUTURE COORDINATION OF SALMON FESTIVAL AND RICHMOND CANADA DAY IN STEVESTON**

(File Ref. No. 11-7400-01) (REDMS No. 6006424 v. 4)

CNCL-690

See Page CNCL-690 for full report

December 19, 2018

PARKS, RECREATION AND CULTURAL SERVICES COMMITTEE  
RECOMMENDATION

*That the City and the Steveston Salmon Festival Committee co-produce Richmond's Canada Day celebrations under the banner of Steveston Salmon Festival as outlined in the report titled "Proposed Plan for the Future Coordination of Salmon Festival and Richmond Canada Day in Steveston", dated December 1, 2018 from the Director, Arts, Culture and Heritage Services.*





Consent  
Agenda  
Item

21. **RECREATION AND SPORT STRATEGY 2019-2024**  
(File Ref. No. 01-0370-20-002) (REDMS No. 6037135 v. 5)

CNCL-695

See Page CNCL-695 for full report

December 19, 2018

PARKS, RECREATION AND CULTURAL SERVICES COMMITTEE  
RECOMMENDATION

- (1) *That the Recreation and Sport Strategy 2019-2024, and companion documents, as outlined in the report titled “Recreation and Sport Strategy 2019-2024,” dated November 30, 2018, from the Director, Recreation Services, be adopted;*
- (2) *That staff report back at the mid-point and end of the implementation period of the Recreation and Sport Strategy 2019-2024, as outlined in the report titled “Recreation and Sport Strategy 2019-2024,” dated November 30, 2018, from the Director, Recreation Services; and*
- (3) *That the Recreation and Sport Strategy 2019-2024, as outlined in the report titled “Recreation and Sport Strategy 2019-2024, dated November 30, 2018, from the Director, Recreation Services, be presented to Council School Board Liaison Committee meeting.*



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CONSIDERATION OF MATTERS REMOVED FROM THE  
CONSENT AGENDA

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PLANNING & DEVELOPMENT DIVISION

22. **RESPONSE TO REFERRAL: ADDITIONAL DWELLINGS IN THE  
AGRICULTURAL LAND RESERVE**  
(File Ref. No.: 12-8060-20-009984/009985) (REDMS No.6067611 V. 3)

CNCL-783

See Page CNCL-783 for full report

STAFF RECOMMENDATION

- (1) *That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 9984, be introduced and given first reading;*

- (2) *That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 9984, 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 program and plans, in accordance with section. 477(3)(a) of the Local Government Act;*
- (3) *That Richmond Official Community Plan Bylaw No. 9000, Amendment Bylaw No. 9984, having been considered in conjunction with Section 477(3)(b) of the Local Government Act, be referred to the Agricultural Land Commission for comment;*
- (4) *That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw No. 9984, having been considered in accordance with Section 475 of the Local Government Act and the City's Official Community Plan Bylaw Preparation Consultation Policy 5043, is found not to require further consultation; and*
- (5) *That Richmond Zoning Bylaw 8500, Amendment Bylaw 9985, be introduced and given first reading.*



#### PUBLIC DELEGATION ON NON-AGENDA ITEM

23. *Motion to resolve into Committee of the Whole to hear a delegation on non-agenda item.*



**CNCL-790**      Ken Waldman, Richmond resident, to speak on **smoking** in Richmond.

24. *Motion to rise and report.*



#### RATIFICATION OF COMMITTEE ACTION



PUBLIC ANNOUNCEMENTS AND EVENTS

NEW BUSINESS

BYLAWS FOR ADOPTION

- |                 |   |                          |
|-----------------|---|--------------------------|
| <b>CNCL-810</b> | Housing Agreement (4300, 4320, 4340 Thompson Road and 4291, 4331, 4431 and 4451 Boundary Road) <b>Bylaw No. 9916</b><br>Opposed at 1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup> Readings – None.                     | <input type="checkbox"/> |
| <b>CNCL-835</b> | Traffic Bylaw No. 5870, Amendment <b>Bylaw No. 9957</b><br>Opposed at 1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup> Readings – None.  | <input type="checkbox"/> |
| <b>CNCL-837</b> | Parking (Off-Street) Regulation Bylaw No. 7403, Amendment <b>Bylaw No. 9958</b><br>Opposed at 1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup> Readings – None.  | <input type="checkbox"/> |
| <b>CNCL-839</b> | Business Regulation Bylaw No. 7538, Amendment <b>Bylaw No. 9961</b><br>Opposed at 1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup> Readings – None.  | <input type="checkbox"/> |
| <b>CNCL-840</b> | Richmond Zoning Bylaw No. 8500, Amendment <b>Bylaw No. 9727</b><br>(3751 Shuswap Avenue, RZ 16-738465)<br>Opposed at 1 <sup>st</sup> Reading – None.<br>Opposed at 2 <sup>nd</sup> /3 <sup>rd</sup> Readings – Cllr. Day. | <input type="checkbox"/> |

DEVELOPMENT PERMIT PANEL

25. RECOMMENDATION

See DPP Plan Package (distributed separately) for full hardcopy plans

CNCL-842

- (1) *That the **Chair's report** for the Development Permit Panel meeting held on October 24, 2018, be received for information; and*
- (2) *That the recommendation of the Panel to authorize the issuance of a Development Permit (DP 17-794280) for the property at 4008 Stolberg Street be endorsed, and the Permit so issued.*

☐

ADJOURNMENT

☐



**Regular Council**

**Monday, December 10, 2018**

Place: Council Chambers  
Richmond City Hall

Present: Mayor Malcolm D. Brodie  
Councillor Chak Au  
Councillor Carol Day  
Councillor Kelly Greene  
Councillor Alexa Loo  
Councillor Bill McNulty  
Councillor Linda McPhail  
Councillor Harold Steves  
Councillor Michael Wolfe

Acting Corporate Officer – Claudia Jesson

Call to Order: Mayor Brodie called the meeting to order at 7:00 p.m.

RES NO. ITEM

**MINUTES**

- R18/21-1 1. It was moved and seconded  
*That the minutes of the Regular Council meeting held on November 26, 2018, be adopted as circulated.*

**CARRIED**

**COMMITTEE OF THE WHOLE**

- R18/21-2 2. It was moved and seconded  
*That Council resolve into Committee of the Whole to hear delegations on agenda items (7:00 p.m.).*

**CARRIED**



**Regular Council**  
**Monday, December 10, 2018**

3. Delegations from the floor on Agenda items – None.

- R18/21-3 4. It was moved and seconded  
*That Committee rise and report (7:01 p.m.).*

**CARRIED**

**CONSENT AGENDA**

Mayor Brodie noted that Item No. 7 - 2019 Farm Fest at Garden City Lands, Item No. 10 - Application by Maryem Ahbib for Rezoning at 11111 and 11113 Seafield Crescent from Two-Unit Dwellings (RD1) to Single Detached (RS2/B), and Item No. 11 - Application by 1137183 BC Ltd. for Rezoning at 22551 Westminster Highway from “Single Detached (RS1/F)” Zone to “Town Housing (ZT11) – Hamilton” Zone, have been removed from the Consent Agenda.

*Councillor Steves left the meeting (7:02 p.m.).*

- R18/21-4 5. It was moved and seconded  
*That Items No. 6, 8, & 9, with the removal of Items No. 7, 10, & 11, be adopted by general consent.*

**CARRIED**

**6. COMMITTEE MINUTES**

*That the minutes of:*

- (1) the Parks, Recreation and Cultural Services Committee meeting held on November 27, 2018;*
  - (2) the General Purposes Committee meeting held on December 3, 2018; and*
  - (3) the Planning Committee meeting held on December 4, 2018;*
- be received for information.*

**ADOPTED ON CONSENT**



**Regular Council**  
**Monday, December 10, 2018**

**7. 2019 FARM FEST AT GARDEN CITY LANDS**

(File Ref. No. 11-7200-01; 11-7400-20-FFES1) (REDMS No. 5983182 v. 13; 5992415)

Please see Page 5 for action on this matter.

**8. HOUSEKEEPING AMENDMENTS FOR TRAFFIC BYLAW NO. 5870;  
PARKING (OFF-STREET) REGULATION BYLAW NO. 7403**

(File Ref. No. 12-8060-20-009957/009958) (REDMS No. 6012365; 6033588; 6033578)

*That the following bylaws, introducing pay parking to manage parking demand in the Bridgeport area, be introduced and given first, second and third readings:*

- (1) Traffic Bylaw No. 5870, Amendment Bylaw No. 9957; and*
- (2) Parking (Off-Street) Regulation Bylaw No. 7403, Amendment Bylaw No. 9958.*

**ADOPTED ON CONSENT**

**9. HOUSING AGREEMENT BYLAW NO. 9916 TO PERMIT THE CITY  
OF RICHMOND TO SECURE AFFORDABLE HOUSING UNITS AT  
4300, 4320, 4340 THOMPSON ROAD AND 4291, 4331, 4431 AND 4451  
BOUNDARY ROAD (PARC THOMPSON PROJECT INC. (INC. NO.  
BC1058824))**

(File Ref. No. 08-4057-05; 12-8060-20-009916) (REDMS No. 5934156 v. 3; 5934675)

*That Housing Agreement (4300, 4320, 4340 Thompson Road and 4291, 4331, 4431 and 4451 Boundary Road) Bylaw No. 9916 be introduced and given first, second and third readings to permit the City to enter into a Housing Agreement substantially in the form attached hereto, in accordance with the requirements of section 483 of the Local Government Act, to secure the Affordable Housing Units required by the Rezoning Application RZ 15-713048.*

**ADOPTED ON CONSENT**

**10. APPLICATION BY MARYEM AHBIB FOR REZONING AT 11111  
AND 11113 SEAFIELD CRESCENT FROM TWO-UNIT DWELLINGS  
(RD1) TO SINGLE DETACHED (RS2/B)**

(File Ref. No. 12-8060-20-009954; RZ 18-829101) (REDMS No. 5971198 v. 4; 6005550; 2243859)

Please see Page 4 for action on this matter.



**Regular Council**  
**Monday, December 10, 2018**

11. **APPLICATION BY 1137183 BC LTD. FOR REZONING AT 22551 WESTMINSTER HIGHWAY FROM “SINGLE DETACHED (RS1/F)” ZONE TO “TOWN HOUSING (ZT11) – HAMILTON” ZONE**

(File Ref. No. 12-8060-20-009970; RZ 18-800159) (REDMS No. 6010265; 6030673)

Please see Page 6 for action on this matter.

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**CONSIDERATION OF MATTERS REMOVED FROM THE  
CONSENT AGENDA**

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**PLANNING COMMITTEE**

Councillor Linda McPhail, Chair

10. **APPLICATION BY MARYEM AHBIB FOR REZONING AT 11111 AND 11113 SEAFIELD CRESCENT FROM TWO-UNIT DWELLINGS (RD1) TO SINGLE DETACHED (RS2/B)**

(File Ref. No. 12-8060-20-009954; RZ 18-829101) (REDMS No. 5971198 v. 4; 6005550; 2243859)

*Councillor Steves returned to the meeting (7:03 p.m.).*

R18/21-5

It was moved and seconded

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9954, for the rezoning of 11111 and 11113 Seafield Crescent from “Two-Unit Dwellings (RD1)” to “Single Detached (RS2/B)” to facilitate the creation of two new single family lots, be introduced and given first reading.*

The question on the motion was not called as, in response to questions from Council, Wayne Craig, Director, Development advised that (i) if the application were granted first reading, more definitive information regarding potential secondary suite size and vehicle access can be provided to Council prior to Public Hearing, (ii) the applicant has engaged with a home designer to develop house plans for the two lots in order to make an assessment on possible secondary suite size and orientation, and (iii) should the application proceed favourably at Public Hearing, a subdivision approval, a statutory approval related to lot sizes not secondary suites, would then take place.





**Regular Council**  
**Monday, December 10, 2018**

The question on the motion was then called and it was **CARRIED** with Cllr. Greene opposed.

In response to a query, staff confirmed that they are working on reporting back to a general referral regarding the size of secondary suites.

**PARKS, RECREATION AND CULTURAL SERVICES  
COMMITTEE**

Councillor Harold Steves, Chair

7. **2019 FARM FEST AT GARDEN CITY LANDS**

(File Ref. No. 11-7200-01; 11-7400-20-FFES1) (REDMS No. 5983182 v. 13; 5992415)

R18/21-6

It was moved and seconded

*That Option 2 (Additional Farming Activations) be endorsed for the 2019 Farm Fest at Garden City Lands, as outlined in the staff report titled "2019 Farm Fest at Garden City Lands," dated October 2, 2018, from the Director, Parks Services, subject to more detailed program information with funding to be determined as a result.*

The question on the motion was not called as the following **referral motion** was introduced:

R18/21-7

It was moved and seconded

*That the 2019 Farm Fest at Garden City Lands be referred back to staff to provide more detailed program and funding information.*

The question on the referral motion was not called as discussion took place on deferring approval for the event until after consideration of the budget and the receipt of further program information.

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



Regular Council  
Monday, December 10, 2018

PLANNING COMMITTEE

Councillor Linda McPhail, Chair

11. APPLICATION BY 1137183 BC LTD. FOR REZONING AT 22551 WESTMINSTER HIGHWAY FROM “SINGLE DETACHED (RS1/F)” ZONE TO “TOWN HOUSING (ZT11) – HAMILTON” ZONE

(File Ref. No. 12-8060-20-009970; RZ 18-800159) (REDMS No. 6010265; 6030673)

R18/21-8

It was moved and seconded

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9970, for the rezoning of 22551 Westminster Highway from “Single Detached (RS1/F)” to “Town Housing (ZT11) - Hamilton” to permit the development of seven three-storey townhouse units with vehicle access from 22571 Westminster Highway, be introduced and given first reading.*

The question on the motion was not called as discussion took place on utilizing the site for non-residential use and the potential impact of the development to the neighbouring properties.

In response to queries from Council, Mr. Craig noted that (i) the tandem parking on the ground floor is to allow for a flood construction level, as per the Hamilton Area Plan, while still employing the space, (ii) this property is not identified for park purposes in the Hamilton Area Plan, which was reviewed in 2017 and included a review of park requirements in the area, and (iii) the small green space to the south of the property is part of the Westminster Highway road alignment and trees could be placed there for noise buffering through discussions with the Parks and Engineering Departments, as part of the development permit, should the application proceed.

The question on the motion was then called and it was **CARRIED** with Cllr. Wolfe opposed.



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NON-CONSENT AGENDA ITEMS

PARKS, RECREATION AND CULTURAL SERVICES  
COMMITTEE

Councillor Harold Steves, Chair

12. **HOLLYBRIDGE WAY PUBLIC ART LANDMARK CONCEPT**  
(File Ref. No. 11-7000-09-20-244) (REDMS No. 6008389 v. 3; 5903368; 6020773)

R18/21-9

It was moved and seconded

- (1) *That the concept proposal and installation for the Hollybridge Way Landmark public artwork "Typhas" by artists Charlotte Wall and Puya Khalili, as presented in the report titled "Hollybridge Way Public Art Landmark Concept," dated November 1, 2018, from the Director, Arts, Culture and Heritage Services, be endorsed; and*
- (2) *That the proposed location for the "Typhas" public artwork installation be referred back to staff for alternative siting on the Hollybridge Way Public Art Landmark.*

In response to queries from Council, Biliana Velkova, Public Art Planner, clarified that the Hollybridge Way public art landmark concept is part of the Richmond Olympic Oval Precinct Public Art Plan, which approved a number of high profile locations around the Oval for public art. Ms. Velkova further noted that the proposed Flower Tree piece originally proposed for this location was part of the public art contribution from a development in the area as the developer requested the piece be put on City land. She also advised that in lieu of the Flower Tree artwork, the developer has plans for a colourful fountain art piece by artist Douglas Coupland to be constructed on Lot 9, 6111 Pearson Way, through the private development public art program.

In response to queries from Council, Liesl Jauk, Manager, Arts Services, advised the proposed site was identified in the City Centre Public Art Plan as a place for a significant piece of public art. In response to additional questions from Council, Ms. Velkova remarked that if approved, the art concept would be reviewed by a flight path specialist and various City departments for a safety assessment.



**Regular Council**  
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Discussion ensued in regards to alternative placement of the artwork concept on the site and in further response to questions from Council, Ms. Jauk noted that placement along the dyke of the art piece was considered but not ideal due to the impediment to cyclists and pedestrians and emergency vehicle access.

As a result of the discussion, the following **referral motion** was introduced:

R18/21-10

It was moved and seconded

***That the concept proposal and installation for the Hollybridge Way Landmark public artwork be referred back to staff to provide further information regarding the public art installation on Lot 9, 6111 Pearson Way, alternative sites for the Hollybridge Way Public Art Landmark Concept, and the outstanding referral regarding developer contributions for public art.***

**DEFEATED**

Opposed: Mayor Brodie

Cllrs. Au

Loo

McNulty

McPhail

There was agreement that Parts (1) and (2) of the motion be voted separately. The question on Part (1) of the motion was then called and it was **CARRIED** with Cllrs. Day, Greene, Steves, and Wolfe opposed.

The question on Part (2) of the motion was then called and it was **CARRIED** with Cllrs. Au, Day, Loo, and McPhail opposed.

Discussion further took place on directing staff to pursue public art that portrays the history of Richmond and it was noted that the topic be brought forward to the Parks, Recreation, and Cultural Services Committee for further discussion.



**Regular Council**  
**Monday, December 10, 2018**

**PUBLIC DELEGATIONS ON NON-AGENDA ITEMS**

- R18/21-11    13.    It was moved and seconded  
*That Council resolve into Committee of the Whole to hear delegations on non-agenda items (7:45 p.m.).*

**CARRIED**

- (1)    De Whalen, 13611 Blundell Road, introduced Teresa Head, 6200 Blundell Road, and asked that Council approve a resolution in support of the BC Poverty Coalition's ABC Plan and advocate to the provincial government to develop and implement such a plan.

Ms. Head spoke on the ABC Poverty Reduction Plan and offered comments regarding the financial impact of dental services and eyewear for low income individuals.

In response to questions from Council, Ms. Whalen commented that the Richmond Poverty Response Committee has worked with the BC Poverty Reduction Coalition on the development of the ABC plan. She further remarked that a resolution was passed by the City of New Westminster and City of Vancouver, and they hope as many city councils as possible will endorse the plan prior to finalization of the provincial budget.

As a result of the delegations' comments, the following **referral motion** was introduced:

- R18/21-12    It was moved and seconded  
*That staff provide analysis on BC Poverty Reduction Coalition's ABC Plan regarding poverty reduction in BC and report back to a future General Purposes Committee meeting.*

**CARRIED**

- (2)    Douglas Symons, Richmond resident, presented a copy of his metered utility bill and expressed concern regarding how the City calculates sewer charges.



### Regular Council Monday, December 10, 2018

In response to questions from Council regarding the delegation's comments, Jerry Chong, Director, Finance and John Irving, Director, Engineering advised that:

- the majority of single family homes in Richmond are now universally metered, and sewer charges are based on approximately 90% of the water charge in terms of volumetric usage;
- there are flat rate charges for water and sewer, however they are generally more costly as metered utilities typically result in a savings of approximately \$150-200 per year;
- there is a strong correlation between water usage and sewer usage and is the best proxy for determining an equitable sewage rate;
- Mr. Symons has saved an estimated 30% on his sewer bill since switching from a flat rate last year, which is a savings of approximately \$400 this year;
- inclining box structures are utilized in some communities, however staff understand it to be ineffective in encouraging water conservation and reducing usage and therefore staff believe the current metered system provides the most simplicity and equality overall;
- there are fixed costs to maintain the water and sewer systems and metered rates are used on an equity basis to fairly distribute maintenance costs for such utilities;
- monthly billing for equalized payments is possible however, residents are currently billed on a quarterly basis; and
- sewer charges are only incurred if there is a sewage connection to the property.

R18/21-13 14. It was moved and seconded  
*That Committee rise and report (8:20 p.m.).*

**CARRIED**

*Councillor Au left the meeting (8:20 p.m.) and returned (8:22 p.m.).*





**Regular Council**  
**Monday, December 10, 2018**

**PUBLIC ANNOUNCEMENTS AND EVENTS**

Mayor Brodie announced the following 2019 Advisory Committee appointments:

**Richmond Gateway Theatre Society Board**

*Two-year term to expire on December 31, 2020:*

- Wayne Gibson
- Clayton Rubinstein

**Aquatic Services Board**

*One-year term to expire on December 31, 2019:*

- Terry Tinkley

*Two-year term to expire on December 31, 2020:*

- Sonja Dong;
- Rosemary Nygard;
- Bruce Raber
- Duncan Smith.

**Minoru Centre for Active Living Program Committee**

*Two-year term to expire on December 31, 2020:*

- Henry Beh
- Ilario Galano
- James (Jim) Lamond
- Christina Sequeira

**Richmond Public Art Advisory Committee**

*Two-year term to expire on December 31, 2020:*

- Vicki Lingle
- Minghui Yu



### Regular Council Monday, December 10, 2018

#### Richmond Museum Society Board

*One-year term to expire on December 31, 2019:*

- Diane Jubinville
- Jasmine Lai
- Mark Mazzone

*Two-year term to expire on December 31, 2020:*

- Flavia Kajoba
- Denise Dale
- Gail Sumanik

#### Sister City Advisory Committee

*Two-year term to expire on December 31, 2020:*

- Seemah Aaron
- Fan Chun
- Glenn Kishi
- Lisa MacNeil
- Bernard Loh
- Kim Ng
- Polly Tang

#### Richmond Economic Advisory Committee

*Two-year term to expire on December 31, 2020:*

- Diana Dickey
- Nigel Evans
- Howard Jampolsky
- Paul Schaap
- Paul Tilbury

Parm Sandhu has been appointed Chair for the Richmond Economic Advisory Committee for the year 2019.

#### Board of Variance

*Three-year term to expire on December 31, 2021:*

- Kailin Che
- Diana Dickey





### **Regular Council** **Monday, December 10, 2018**

- Sheng Zhong

#### **Richmond Family and Youth Court Committee**

*One-year term to expire on December 31, 2019:*

- Kenny Chiu
- Stephanie Cox
- Hunida Gaweri
- Sarah Gustin
- Heng Yu (Helen) Huang
- Ronald Matthews
- Heather McDonald
- Judith Nixon
- Timothy Osiowy
- Meagan Wells
- Cynthia Zhou

#### **Richmond Seniors Advisory Committee**

*Two-year term to expire on December 31, 2020:*

- Paul Cassidy
- Diane Cousar
- Sandra Gebhardt
- Hans Havas
- Joan Haws
- Mumtaz Nathu
- Yasmin Rahman
- Kelly Sidhu
- Jacqueline Turner
- Becky Wong

#### **Richmond Intercultural Advisory Committee**

*Two-year term to expire on December 31, 2020:*

- Rebeca Avendano
- Phyllis Chan
- Carole Gillam
- Alan Hill
- James Hsieh



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- Michael Ma
- Jenna Park
- Yasmin Rahman
- Kanwarjit Sandhu
- Linda Sum

**Richmond Community Services Advisory Committee**

*Two-year term to expire on December 31, 2020:*

- Rachel Ling
- Deepti Sharma

**Advisory Committee on the Environment**

*Two-year term to expire on December 31, 2020:*

- Winson Cheng
- Sharon Dodd
- Carolyn Prentice
- Karen Tso

**Richmond Heritage Commission**

*Two-year term to expire on December 31, 2020:*

- Taylor Biggar
- Kam Fai Ng
- Larry Traverence

**BYLAW FOR 3<sup>RD</sup> READING**

R18/21-14

It was moved and seconded

- (1) *That third reading of Pollution Prevention and Clean-Up Bylaw No. 8475, Amendment Bylaw No. 9950 be rescinded;*
- (2) *That Pollution Prevention and Clean-Up Bylaw No. 8475, Amendment Bylaw No. 9950 be amended as follows:*

*That the definition for "Dissolved Oxygen" under "MINIMUM DISCHARGE CRITERIA" be revised as follows:*



Regular Council  
Monday, December 10, 2018

MINIMUM  
DISCHARGE  
CRITERIA

Dissolved Oxygen	> or = to 5.0 mg/L
------------------	--------------------

- (3) *That Pollution Prevention and Clean-Up Bylaw No. 8475, Amendment Bylaw No. 9950 be given third reading, as amended.*

**CARRIED**

BYLAWS FOR ADOPTION

R18/21-15

It was moved and seconded

*That Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9951 be adopted.*

**CARRIED**

R18/21-16

It was moved and seconded

*That Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9675 (12320 Trites Road, RZ 16-723761) be adopted.*

The question on the motion was not called as discussion took place on the displacement of commercially zoned land and impact to residents in the area.

The question on the motion was then called and it was **CARRIED** with Cllrs. Day, Greene, Steves, and Wolfe opposed.

DEVELOPMENT PERMIT PANEL

R18/21-17 15.

It was moved and seconded

- (1) *That the minutes of the Development Permit Panel meeting held on November 28, 2018, and the Chair's report for the Development Permit Panel meeting held on November 14, 2018, be received for information; and*
- (2) *That the recommendation of the Panel to authorize the issuance of a Development Permit (DP 18-820582) for the property at 1000 Ferguson Road be endorsed, and the Permit so issued.*

**CARRIED**



Regular Council  
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ADJOURNMENT

R18/21-18

It was moved and seconded  
*That the meeting adjourn (8:29 p.m.).*

**CARRIED**

Certified a true and correct copy of the  
Minutes of the Regular meeting of the  
Council of the City of Richmond held on  
Monday, December 10, 2018.

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Mayor (Malcolm D. Brodie)

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Acting Corporate Officer (Claudia Jesson)



**Special Council  
Wednesday, December 19, 2018**

Place: Anderson Room  
Richmond City Hall

Present: Mayor Malcolm D. Brodie  
Councillor Chak Au  
Councillor Carol Day  
Councillor Kelly Greene  
Councillor Alexa Loo  
Councillor Bill McNulty  
Councillor Linda McPhail  
Councillor Harold Steves  
Councillor Michael Wolfe

Acting Corporate Officer – Claudia Jesson

Call to Order: Mayor Brodie called the meeting to order following the Open Public Works & Transportation Committee meeting (4:30 p.m.) and then recessed the meeting.

RES NO.    ITEM

\*\*\*\*\*

The meeting reconvened at 5:26 p.m. following the Open Public Works & Transportation Committee and Open Parks, Recreation & Cultural Services Committee meetings with all members of Council present.



**Special Council**  
**Wednesday, December 19, 2018**

RES NO.    ITEM

**AGENDA ADDITIONS AND DELETIONS**

Mayor Brodie noted the addition of Item No. 3 – “Richmond Lawn Bowling Clubhouse Site and Program Update” from the December 17, 2018 General Purposes Committee meeting. The Mayor further advised that “Secondary Dwellings on Agricultural Land” from Councillor Steves be added as Item No. 8 and “Council Remuneration” from Councillor Greene be added as Item No. 9.

SP18/6-1

It was moved and seconded

- (1) That “Richmond Lawn Bowling Clubhouse Site and Program Update” be added as a new Item No. 3 and the remaining items be renumbered accordingly;*
- (2) That “Secondary Dwellings on Agricultural Land” be added as Item No. 8; and*
- (3) That “Council Remuneration” be added as Item No. 9.*

**CARRIED**

**COMMUNITY SAFETY COMMITTEE**

- 1. REQUEST FOR PROPOSAL 6225P – AWARD OF SUPPLY AND DELIVERY OF FIRE APPARATUSES FOR RICHMOND FIRE RESCUE (RFR)**

(File Ref. No. 03-1000-20-6225P) (REDMS No. 6021703 v. 8)

SP18/6-2

It was moved and seconded

- (1) That the Contract 6225P for the supply and delivery of one Fire Pumper Apparatus be awarded to Commercial Emergency Equipment Co. at a total cost of \$1,085,258.05 including taxes;*
- (2) That the General Manager, Community Safety be authorized to execute a contract with Commercial Emergency Equipment Co. for the purchase of one Fire Pump Apparatus identified within Request for Proposal (RFP) 6225P;*



**Special Council**  
**Wednesday, December 19, 2018**

RES NO.    ITEM

- (3) *That a Memorandum of Understanding (MOU) be developed between Commercial Emergency Equipment Co. and the City to establish terms of reference for procurements of future apparatus for up to a five-year period; and*
- (4) *That staff be directed to report back with the proposed MOU between Commercial Emergency Equipment Co. and the City for Council approval.*

**CARRIED**

**GENERAL PURPOSES COMMITTEE**

**2. APPLICATION FOR A NEW LIQUOR PRIMARY LIQUOR LICENCE FROM MONSTER L KARAOKE LTD, AT 8400 ALEXANDRA ROAD UNIT 130**

(File Ref. No. 12-8275-30-001) (REDMS No. 6038880)

SP18/6-3

It was moved and seconded

- (1) *That the application from Monster L Karaoke Ltd., for a new Liquor Primary Liquor Licence to operate a karaoke lounge establishment, at premises located at 8400 Alexandra Road Unit 130, with liquor service, be supported for:*
  - (a) *a new Liquor Primary Liquor Licence with primary business focus of entertainment, specifically a karaoke lounge with total person capacity of 50 occupants; and*
  - (b) *liquor service hours for Monday to Sunday, from 9:00 AM to 2:00AM;*
- (2) *That a letter be sent to Liquor Control and Licensing Branch advising that:*
  - (a) *Council supports the applicant's new Liquor Primary Liquor Licence application and the hours of liquor service with the conditions as listed above;*



**Special Council**  
**Wednesday, December 19, 2018**

RES NO.    ITEM

- (b) the total person capacity set at 50 occupants is acknowledged;*
- (c) Council's comments on the prescribed criteria (Section 71 of the Liquor Control and Licencing Regulations) are as follows:*
  - (i) the impact of additional noise and traffic in the area of the establishment was considered;*
  - (ii) the potential impact on the community was assessed through a community consultation process;*
  - (iii) given that this is a new business, there is no history of non-compliance with this establishment;*
- (d) as the operation of a licenced establishment may affect nearby residents, businesses and property owners, the City gathered the views of the community through a community consultation process as follows:*
  - (i) residents, businesses and property owners within a 50 metre radius of the establishment were notified by letter. The letter provided information on the application with instructions on how to submit comments or concerns; and*
  - (ii) signage was posted at the subject property and three public notices were published in a local newspaper. The signage and public notice provided information on the application with instructions on how to submit comments and concerns;*
- (e) Council's comments on the general impact of the views of residents, businesses and property owners are as follows:*
  - (i) the community consultation process was completed within 90 days of the application process; and*
  - (ii) that based on the number of letters sent and no opposed responses received, Council considers that the approval of this application is acceptable to the majority of the residents, businesses and property owners in the area and the community.*

**CARRIED**





**Special Council**  
**Wednesday, December 19, 2018**

RES NO.    ITEM

3.    **RICHMOND LAWN BOWLING CLUBHOUSE SITE AND PROGRAM  
UPDATE**

(File Ref. No. 06-2052-25-LBOW1) (REDMS No. 6030445 v. 54; 6036730; 6045609; 6045312;  
6047970; 6047971)

SP18/6-4

It was moved and seconded

- (1)    *That, subject to the budget process, the lawn bowling greens be resurfaced but not be relocated, as described in the staff report titled “Richmond Lawn Bowling Clubhouse Site and Update,” dated November 29, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development;*
- (2)    *That, subject to the budget process, Clubhouse Site Option 2 as shown in Attachment 3 be selected as the preferred site for the Richmond Lawn Bowling Clubhouse, as described in the staff report titled “Richmond Lawn Bowling Clubhouse Site and Program Update,” dated November 29, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development; and*
- (3)    *That staff report back on additional options for the size of the Lawn Bowling Green Clubhouse and program.*

There was agreement amongst Council that the Parts of the motion be voted separately and the question on Part (1) of the motion was called and it was **CARRIED** with Cllrs. McNulty and McPhail opposed.

The question on Part (2) of the motion was called and it was **CARRIED** with Cllrs. Loo, McNulty, McPhail and Wolfe opposed.

The question on Part (3) of the motion was then called and it was **CARRIED**.



Special Council  
Wednesday, December 19, 2018

RES NO.    ITEM

PLANNING COMMITTEE

4.    **REVISED REZONING CONSIDERATIONS FOR THE APPLICATION BY PIETRO NARDONE FOR REZONING OF THE WEST PORTIONS 7151, 7171, 7191, 7211, 7231, AND 7251 BRIDGE STREET FROM THE "SINGLE DETACHED (RS1/F)" ZONE TO THE "SINGLE DETACHED (ZS14) - SOUTH MCLENNAN (CITY CENTRE)" ZONE; AND TO REZONE THE EAST PORTION OF 7191 BRIDGE STREET FROM THE "SINGLE DETACHED (RS1/F)" ZONE TO THE "SINGLE DETACHED (RS2/C)" ZONE**

(File Ref. No. 12-8060-20-009796; RZ 16-732490) (REDMS No. 6004718; 5500172; 5689249)

SP18/6-5

It was moved and seconded

- (1)    *That Third Reading of Richmond Zoning Bylaw, 8500 Amendment Bylaw 9796 be rescinded; and*
- (2)    *That Richmond Zoning Bylaw 8500, Amendment Bylaw 9796, for the rezoning of the west portions of 7151, 7171, 7191, 7211, 7231, and 7251 Bridge Street from the "Single Detached (RS1/F)" zone to the "Single Detached (ZS14) – South McLennan (City Centre)" zone, and of the east portion of 7191 Bridge Street from the "Single Detached (RS1/F)" zone to the "Single Detached (RS2/C)" zone, be forwarded to a Public Hearing to be held on January 21, 2019.*

**CARRIED**

5.    **APPLICATION BY CHRISTOPHER BOZYK ARCHITECTS FOR A ZONING TEXT AMENDMENT TO THE "VEHICLE SALES (CV)" ZONE TO INCREASE THE FLOOR AREA RATIO TO 0.82 AT 13100 SMALLWOOD PLACE**

(File Ref. No. 12-8060-20-009948; ZT 18-818765) (REDMS No. 6032125 v. 2; 5990457; 6001004; 2221494)

SP18/6-6

It was moved and seconded

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9948, for a Zoning Text Amendment to the "Vehicle Sales (CV)" zone to increase the Floor Area Ratio to 0.82 at 13100 Smallwood Place, be introduced and given first reading.*

**CARRIED**

Opposed: Cllr. Wolfe

6.



**Special Council**  
**Wednesday, December 19, 2018**

RES NO.    ITEM

In accordance with Section 100 of the *Community Charter*, Councillor Linda McPhail declared to be in a conflict of interest as her husband is part of the ownership group of the applicant, and left the meeting – 5:33 p.m.

6.    **APPLICATION BY FARRELL ESTATES LTD. FOR A ZONING TEXT AMENDMENT TO THE INDUSTRIAL BUSINESS PARK (IB1) ZONE TO PERMIT VEHICLE SALE/RENTAL ON A PORTION OF THE PROPERTY AT 6260 GRAYBAR ROAD**  
(File Ref. No. 12-8060-20-009977; ZT 18-841250) (REDMS No. 6050378 v. 3; 6043915)

SP18/6-7

It was moved and seconded

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9977, for a Zoning Text Amendment to the “Industrial Business Park (IB1)” zone to allow “vehicle sale/rental” as a site-specific use limited to a maximum of 926.5 m2 on a portion of the property at 6260 Graybar Road, be introduced and given first reading.*

**CARRIED**

Councillor McPhail returned to the meeting – 5:34 p.m.

7.    **CANNABIS CULTIVATION IN THE AGRICULTURAL LAND RESERVE - COUNCIL REFERRAL RESPONSE**  
(File Ref. No. 08-4430-03-10; XR: 01-0150-20-BCAL1) (REDMS No. 6039195 v. 5)

SP18/6-8

It was moved and seconded

(1)    *That the “Cannabis Cultivation in the Agricultural Land Reserve – Council Referral Response” report dated December 3, 2018 from the Manager, Policy Planning be received for information and endorsed; and*

(2)    *That this report be forwarded along with Richmond City Council’s written request to the Provincial Government that:*

(a)    *a moratorium on the cultivation of cannabis on farmland be established by the Provincial Government;*

(b)    *cannabis be eliminated from the Farm Practices Protection (Right to Farm) Act; and*

7.



**Special Council**  
**Wednesday, December 19, 2018**

RES NO.    ITEM

*(c) local governments be permitted to determine whether or not cannabis should be grown on farmland within the municipality; and*

*(3) That copies of the letter to the Provincial Government be sent to Richmond Members of Parliament, the Premier, Richmond Members of the Legislative Assembly, Leader of the Official Opposition, Vancouver Coastal Health, the Council/School Board Liaison Committee, UBCM, and District of Saanich.*

The question on the motion was not called as discussion took place on forwarding copies of the written request to the Provincial Government to other relevant parties.

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

**COUNCILLOR HAROLD STEVES**

**8. SECONDARY DWELLINGS ON AGRICULTURAL LAND**

(File Ref. No.) (REDMS No.)

A previously distributed staff memorandum regarding amendments to the *Agricultural Land Commission Act* dated December 12, 2018 from the Manager, Policy Planning, was distributed on table (attached to and forming part of these minutes as Schedule 1.)

In response to a query from Council, Barry Konkin, Manager, Policy Planning advised that if a resolution was passed by Council regarding a moratorium on building permits for additional farm dwellings on agricultural land, a grace period until December 27, 2018 would commence after which all building permits would be withheld.

As a result of the discussion, the following **referral motion** was introduced:

SP18/6-9

It was moved and seconded

*(1) That staff be directed to bring back bylaws to the January 14, 2019 Regular Council meeting to amend the City's Official Community Plan Bylaw 9000 and the Richmond Zoning Bylaw 8500 to remove the provisions for an additional dwelling for farm workers on AG1 lots located within the Agricultural Land Reserve (ALR); and*



Special Council  
Wednesday, December 19, 2018

RES NO.    ITEM

- (2) *That staff be directed to withhold building permits for additional farm dwellings on AG1 lots located in the ALR under Section 463 of the Local Government Act and bring forward building permits that conflict with bylaws in preparation for Council consideration.*

CARRIED

NEW BUSINESS

9. **COUNCIL REMUNERATION**

(File Ref. No.) (REDMS No.)

Councillor Greene spoke to Council remuneration and read from her submission that was distributed on table (attached to and forming part of these minutes as Schedule 2.) As a result, the following **motion** was introduced:

SP18/6-10

It was moved and seconded

*To cancel Richmond City Council pay increase in 2019 due to federal taxation changes and to phase in the planned salary increases for elected representatives from 2020–2024.*

The question on the motion was not called as, in response to questions from Council, Bruce Clow, Interim Director, Human Resources, reviewed the staff memorandum dated December 19, 2018 titled “Council Remuneration” (attached to and forming part of these minutes as Schedule 3.)

Mr. Clow advised that staff have reviewed the actions of other BC municipalities, as noted in Attachment 2; he further commented on remaining consistent with employment law. Also, Mr. Clow remarked that, in light of the recent changes to federal legislation, the proposed salary and benefits scenarios were prepared with the intent of keeping Council members’ net current salaries and benefits as status quo. He then provided background information regarding the purpose of the external task force of citizens and the independent compensation.



### Special Council Wednesday, December 19, 2018

RES NO.    ITEM

In response to Council comments, George Duncan, Chief Administrative Officer, spoke to the 2006 process, noting that should Richmond City Council's net salaries and benefits surpass the current 75<sup>th</sup> percentile in comparison to other BC municipalities, the matter could be revisited to make adjustments as necessary in an effort to remain in the same position in the comparative group.

Discussion further took place and the following Council comments were noted:

- the City of Richmond is not responsible to compensate salaries as a result of changes in taxation regulation;
- the matter of salaries and benefits is between an individual employee and the municipality as the employer;
- in the light of the upcoming changes to federal legislation, it would be prudent for the external task force of citizens to reconvene on this matter; and
- Richmond is the 4<sup>th</sup> largest city in B.C. and as such, keeping Council compensation competitive, encourages participation from a broad range of generations.

Discussion further took place and in reply to queries regarding the ability of Council members to negotiate salaries and benefits individually, staff advised that, should Council resolve, individual members could opt to waive a portion of their remuneration at any time; however, if an individual chose to reverse this decision, remuneration would not be retroactive.

The question on the motion was then called and it was **DEFEATED** with Mayor Brodie and Cllrs. Day, Loo, McNulty, McPhail, Steves, and Wolfe opposed.

Councillor Day then spoke to freezing Council's remuneration until the external task force of citizens has had an opportunity to reconvene, as previously done in 1992 and 2006 and distributed material (attached to and forming part of the minutes as Schedule 4).



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RES NO.    ITEM

As a result, the following **motion** was introduced:

SP18/6-11

It was moved and seconded

- (1) *That Council seek a review of the Council remuneration by an independent panel and related compensation management professional; and*
- (2) *That the current unadjusted level of remuneration for Council be maintained until the results of the panel are finalized and approved by Council.*

**DEFEATED**

Opposed: Mayor Brodie  
Cllrs. Loo  
McNulty  
McPhail  
Steves

Discussion further ensued regarding the options for adjustments detailed in the staff memorandum and the option of allowing individual members of Council to decline a portion of their remuneration at any time.

As a result of the discussion, the following **motion** was introduced:

SP18/6-12

It was moved and seconded

- (1) *That the salary adjustment set out in Scenario 2 in Attachment 1 of the staff memorandum dated December 19, 2018 from the Interim Director, Human Resources for the Mayor and Councillors commencing on January 1, 2019 be approved; and*
- (2) *That any Councillor or the Mayor may waive a portion of their remuneration if they so choose at any time.*

**CARRIED**

Opposed: Cllr. Greene



**Special Council**  
**Wednesday, December 19, 2018**

RES NO.    ITEM

**BYLAW FOR ADOPTION**

SP18/6-13

It was moved and seconded

*That Pollution Prevention and Clean-Up Bylaw No. 8475, Amendment  
Bylaw No. 9950 be adopted.*

**CARRIED**

**ADJOURNMENT**

SP18/6-14

It was moved and seconded

*That the meeting adjourn (6:33 p.m.).*

**CARRIED**

Certified a true and correct copy of the  
Minutes of the Special meeting of the  
Council of the City of Richmond held on  
Wednesday, December 19, 2018.

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Mayor (Malcolm D. Brodie)

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Acting Corporate Officer (Claudia Jesson)





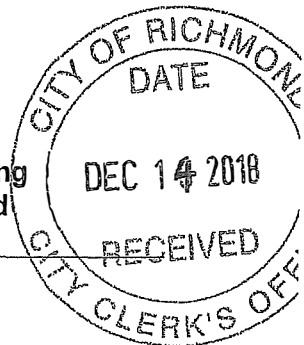
## City of Richmond

### Memorandum Planning and Development Division Policy Planning

**To:** Mayor and Councillors  
**From:** Barry Konkin  
Manager, Policy Planning

**Date:** December 12, 2018  
**File:** 08-4105-01/2018-Vol 01T

James Cooper,  
Director, Building Approvals  
**Re: Bill 52 - *Agricultural Land Commission Amendment Act*, 2018 and Building  
Permits; Additional Farm Dwelling; Withholding of a Building Permit; and  
Considerations for the December 17, 2018 Public Hearing**



#### Purpose

The purpose of this memorandum is to provide Council with information regarding the recently-approved changes to the *Agricultural Land Commission Act* (Bill 52); and implications for Building Permit approvals. Further, this memorandum also provides Council with information on a recently submitted Building Permit Application for an additional residence for farm workers, a potential withholding of a building permit application, and considerations for the December 17, 2018 Public Hearing.

#### Bill 52 – *Agricultural Land Commission Amendment Act*

On November 27, 2018, Bill 52 (*Agricultural Land Commission Amendment Act*, 2018) was given Third Reading and Royal Assent. This legislation:

- establishes a maximum single family house size of 500m<sup>2</sup> (5,382 ft<sup>2</sup>) in total floor area for land located within the Agricultural Land Reserve (ALR); and
- revises the regulation to remove an additional dwelling for farm employees as an outright permitted use.

It is anticipated that the amendments to the *Agricultural Land Commission Act* will come into force in early 2019 when the *Agricultural Land Reserve Use, Subdivision and Procedure Regulation* is amended through an Order-in-Council. An information update from the ALC is attached (Attachment 1).

Any proposal for a dwelling larger than 500m<sup>2</sup> (5,282 ft<sup>2</sup>), or for an additional dwelling on a property within the ALR, would require a non-farm use application to be reviewed and endorsed by Richmond Council and if endorsed, approved by the Agricultural Land Commission (ALC) upon enactment of the amended *Agricultural Land Commission Act*.

#### Building Permit Grandfathering Provisions of the Revised *Agricultural Land Commission Act*

Prior to Third Reading of Bill 52, an amendment to the Bill was moved by the Minister of Agriculture to establish a 'grandfathering' period for in-stream building permits for land in the

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ALR, where the proposed dwelling would be greater than 500m<sup>2</sup> (5,382 ft<sup>2</sup>). If the property owner has a lawfully issued Building Permit from the City, the property owner would have to demonstrate sufficient commencement of construction prior to November 5, 2019 if they wish to proceed. Ministry of Agriculture staff have advised City staff that for the purposes of the amended *Agricultural Land Commission Act*, the commencement of construction is defined as the completion of all concrete foundation work required for the house.

There is no 'grandfathering' period in the revised *Agricultural Land Commission Act* for building permit applications for an additional dwelling for farm workers in the ALR. In those cases, the property owner would have to hold a lawfully issued Building Permit from the City and demonstrate sufficient commencement of construction (concrete foundation poured) prior to the amendments to *Agricultural Land Commission Act* coming into force, which is expected to be in the first quarter of 2019.

### **Bylaws 9965, 9966, 9967 and 9968 – Proposed Zoning Amendments for Principal Dwellings in the AG1 and RS1/F-G Zones**

On November 6, 2018, staff were directed by Richmond City Council to prepare bylaw amendments for residential development in the ALR. The proposed bylaws would do the following:

1. Bylaw 9965 would amend the Agriculture (AG1) zone to limit the maximum size of a house, including garage and residential accessory buildings, to 400 m<sup>2</sup> (4,305 ft<sup>2</sup>).
2. Bylaw 9966 would amend the Agriculture (AG1) zone to:
  - a. revise the maximum area of the farm home plate to 1,000 m<sup>2</sup> (10,763 ft<sup>2</sup>) for lots equal to or greater than 0.2 ha (0.5 acre);
  - b. revise the maximum number of storeys for a house from 2 ½ to 2 storeys and reduce the maximum building height for a house from 10.5 m (34.4 ft.) to 9.0 m (29.5 ft.); and
  - c. introduce a farm house footprint regulation which would limit the maximum farm house footprint to 60% of the maximum house size permitted for the property in the AG1 zone.
3. Bylaw 9967 would amend the definition of 'Farm home plate' to include the entire sewerage septic system, including septic tanks and fields, within the farm home plate.
4. Bylaw 9968 would amend the Single Detached (RS1/F-G) zones in the ALR to limit the maximum size of a house to 400 m<sup>2</sup> (4,305 ft<sup>2</sup>).

### **Implications for Building Permits**

The 400 m<sup>2</sup> maximum house size limit being considered at the December 17, 2018 Public Hearing, together with the amended *Agricultural Land Commission Act*, create a number of scenarios for Building Permits that are already issued but no construction has begun, and for Building Permits that have not been issued, but are under staff review.

For Building Permits that have been issued permitting construction of a house larger than 400 m<sup>2</sup> (4,305 ft<sup>2</sup>), construction activity must start within 180 days of permit issuance to maintain the validity of the building permit. An application for extension is possible, but an extension will not be granted if a change in zoning regulations has taken place after permit issuance, and the project is not in compliance with the new regulation.

Building Permits that are ‘in-stream’ and under staff review, for a house size greater than the 400 m<sup>2</sup> (4,305 ft<sup>2</sup>) size limit being considered by Council, and greater than the new ALC Act limit of 500m<sup>2</sup> (5,282 ft<sup>2</sup>), must be issued prior to the enactment of the amended *Agricultural Land Commission Act* in order to proceed. As stated above, the enactment date will be the date the ALR Regulation is amended, which is expected in the first quarter of 2019.

Table 1 below provides a summary of the various implications to Building Permits.

**Table 1: Building Permit Implications Table**

<b>Building Permit Implication Timeline</b>	<b>House size between 400m<sup>2</sup> and 500m<sup>2</sup></b>	<b>House size greater than 500m<sup>2</sup></b>	<b>Additional house for farm workers</b>
Submitted prior to November 14, 2018 (withholding resolution)	<ul style="list-style-type: none"> <li>No impact</li> </ul>	<ul style="list-style-type: none"> <li>No impact</li> </ul>	<ul style="list-style-type: none"> <li>No impact</li> </ul>
Submitted prior to Council adoption of house size bylaws (late 2018) – subject to withholding	<ul style="list-style-type: none"> <li>New applications are reviewed by Council</li> <li>If BP already issued, no impact</li> </ul>	<ul style="list-style-type: none"> <li>New applications are reviewed by Council</li> <li>If BP already issued, no impact</li> </ul>	<ul style="list-style-type: none"> <li>No impact</li> </ul>
Prior to the enactment of <i>Agricultural Land Commission Act</i> (first quarter of 2019)	<ul style="list-style-type: none"> <li>No impact</li> </ul>	<ul style="list-style-type: none"> <li>BP must be issued</li> </ul>	<ul style="list-style-type: none"> <li>BP must be issued and construction has begun</li> </ul>
Prior to November 5, 2019	<ul style="list-style-type: none"> <li>No impact</li> </ul>	<ul style="list-style-type: none"> <li>Construction must have begun</li> </ul>	<ul style="list-style-type: none"> <li>Would require Council and ALC approval</li> </ul>
Following November 5, 2019	<ul style="list-style-type: none"> <li>No impact</li> </ul>	<ul style="list-style-type: none"> <li>Would require Council and ALC approval</li> </ul>	<ul style="list-style-type: none"> <li>Would require Council and ALC approval</li> </ul>

### **Implications for Issued Building Permits for a Principal Dwelling Prior to Construction**

To date, there are 28 issued Building Permits from the City, where construction has not commenced, to construct a principal single family dwelling within the ALR which would exceed the new Provincial house size limit of 500 m<sup>2</sup> (5,382 ft<sup>2</sup>). Those property owners would have to complete site preparation work, including removing any pre-load, and demonstrate that concrete foundations have been poured before November 5, 2019. If these conditions can be met, the house size would be grandfathered and construction would be allowed to proceed. If the concrete foundation work is not complete by November 5, 2019, staff will complete a site inspection, and if warranted, issue a stop work order and cancel the Building Permit application.

### **Implications for In-Stream Building Permit Applications for a Principal Dwelling**

To date, there are 25 Building Permit applications still under staff review for single family principal dwellings in the ALR which exceed the 500 m<sup>2</sup> (5,382 ft<sup>2</sup>) house size limit. These applications were all received prior to Council’s withholding resolution which took effect on November 14, 2018.

For these applications, the property owner would be required to have a lawfully issued Building Permit from the City prior to the enactment date of the amendments to the *Agricultural Land Commission Act*. If a Building Permit is issued before the enactment date, the owner would have to complete all site preparation work, including pre-load, and have concrete foundation work completed prior to November 5, 2019 in order to proceed.

With a typical pre-load period of 6 to 8 months, there is potential for some of these in-stream permits to miss the November 5, 2019 deadline. In those cases, the owner could re-submit their Building Permit application to be consistent with all Provincial enactments, as well as the requirements of Richmond Zoning Bylaw 8500, or submit a non-farm use application for review by Council, and approval of the ALC. Should the 400 m<sup>2</sup> (4,305 ft<sup>2</sup>) size limit being considered by Council be adopted, a rezoning to allow a larger principal dwelling on a site-specific basis would also be required.

### **Building Permit Application for Additional Dwelling for Farm Workers – 14791 Westminster Highway**

Council adopted amendments to the AG1 zone in June 2018 to allow one additional dwelling provided that:

- the property is 8.0 ha (20 acres) or greater;
- a signed statutory declaration is submitted by the owner of the property;
- the need for the additional dwelling is justified by a certified professional Agrologist;
- the maximum floor area of the house is not greater than 300 m<sup>2</sup> (3,229 ft<sup>2</sup>); and
- the maximum area of the additional farm home plate is not greater than 500 m<sup>2</sup> (6,458 ft<sup>2</sup>).

In addition, the amendments to the *Agricultural Land Commission Act* revises the ALC regulations to remove an additional dwelling for farm employees as an outright permitted use. However this regulation has not yet been enacted.

A building permit application for an additional dwelling for farm workers of 300 m<sup>2</sup> (3,229 ft<sup>2</sup>) for the property located at 14791 Westminster Highway was submitted on November 7, 2018. After detailed staff review and consultation with Legal Services, this building permit application has been cancelled, as the application is incomplete. The applicant did not provide the required statutory declaration attesting to the agricultural use of the property, and no agrologist's report justifying the additional dwelling has been provided.

With the amendments to *Agricultural Land Commission Act* given Royal Assent, Council may wish to direct staff to remove the zoning provisions allowing an additional dwelling for farm workers in Richmond Zoning Bylaw 8500. If so desired, an appropriate wording is:

the January 14, 2019 Regular Council meeting to

\* ① Staff be directed to bring back bylaws to amend the City's Official Community Plan Bylaw 9000 and the Richmond Zoning Bylaw 8500 to remove the provisions for an additional dwelling for farm workers on AG1 lots located within the Agricultural Land Reserve

These amendments will ensure that the City's Zoning Bylaw and Official Community Plan are consistent with the Provincial legislation. A land owner would still be able to make a non-farm use application to Council and the Agricultural Land Commission (ALC) to allow an additional dwelling for farm workers. Should a non-farm use be endorsed by Council and approved by the

② that staff be directed to withhold building permits for additional farm dwellings on AG1 lots located within Section 403 and being forwarded

ALC, a rezoning application to allow the additional dwelling on a site-specific basis would also be required.

### **Withholding of a Building Permit – 11131 Granville Avenue**

On November 6, 2018, Council also passed a resolution to implement a withholding resolution of all building permit applications that would be contrary to the bylaw being prepared, in this case to limit the maximum permitted house size to 400 m<sup>2</sup> (4,305 ft<sup>2</sup>). A building permit for a principal dwelling on the property at 11131 Granville Avenue that would be contrary to the bylaw under consideration was submitted on December 7, 2018. A detailed review of the permit application has confirmed that the design submitted is for a principal dwelling with a floor area of 560 m<sup>2</sup> (6,027 ft<sup>2</sup>), which exceeds the maximum size permitted on the lot of 500 m<sup>2</sup> (5,382 ft<sup>2</sup>) as per the AG1 Zone. As the permit application is non-compliant with the Richmond Zoning Bylaw 8500, the permit application has been cancelled, and a Council resolution to withhold the permit is not required.

### **Public Hearing Considerations**

It is anticipated that there will be considerable public input at the December 17, 2018 Public Hearing on the proposed bylaws for agricultural house regulations. As described on Page 2 of this memorandum, there are 4 bylaws for house regulations being considered at the Public Hearing.

The Deputy Municipal Clerk has advised that the house size limit in Bylaws 9965 and 9968 – to further regulate house size on properties AG1 and RS1/F and RS1/G respectively, currently at 400 m<sup>2</sup> (4,305 ft<sup>2</sup>) – cannot be changed at the Public Hearing, as the house size limit is included under the density provisions of the Bylaw. Any change to the house size limit would require an additional Public Hearing.

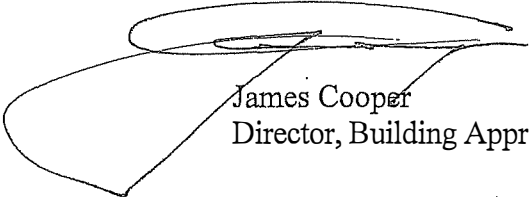
The content of the other 2 bylaws – Bylaw 9966 for farm home plate size and house footprint limit and Bylaw 9967 to require the septic tank and field to be located within the farm home plate – could be amended following the Public Hearing, if Council so desired.

### **Conclusion**

Staff will continue to monitor the implementation of the amendments to the *Agricultural Land Commission Amendment Act*, and will provide Council with an update on the effective date of the legislation and the amendments to the *Agricultural Land Reserve Use, Subdivision and Procedure Regulation*.

If you have any questions, please contact either Mr. Cooper at 604-247-4606 or Mr. Konkin at 604-276-4139.

  
Barry Konkin  
Manager, Policy Planning

  
James Cooper  
Director, Building Approvals

BK:cas

pc: SMT

Wayne Craig, Director of Development

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Att. 1: ALC Information Update: Bill 52 – 2018 Agricultural Land Commission Amendment Act



Agricultural Land Commission  
 201 – 4940 Canada Way, Burnaby, BC V5G 4K6  
 Tel: 604 660-7000  
[www.alc.gov.bc.ca](http://www.alc.gov.bc.ca)

## Dec. 4, 2018 – ALC Information Update: Bill 52 – 2018 Agricultural Land Commission Amendment Act

This ALC information update is to inform local governments, land owners and the general public.

### General Summary:

Bill 52 has received Royal Assent **but will not have force and effect until new ALR Regulations are adopted**. The Provincial Government is currently working on these ALR Regulations. The ALC anticipates that they will be adopted next year.

### Housing Questions:

If your proposed primary house is more than 500m<sup>2</sup> (5,382 sq ft), the following grandfathering provisions may apply:

#### Primary Residence:

To have a primary residence (1<sup>st</sup> house) larger than 500 m<sup>2</sup> grandfathered, you must have:

1. Received your building permit before the new ALR Regulations are adopted (if building permits are required where you live); AND
2. Construction of the foundation or alteration is substantially begun by November 5, 2019.

#### Additional Residence (ie. 2<sup>nd</sup> House):

To have your additional residence grandfathered, you must have:

1. Received your building permit before the new ALR Regulations are adopted (if building permits are required where you live); AND
2. Construction of the Foundation or alteration is substantially begun before the new ALR Regulations are adopted.

Until new Regulations are adopted, the ALC is not able to confirm if a project will meet the grandfathering conditions. This update is intended only to provide information with respect to the timing of the amendments to the ALC Act.

Please refer to the exact language of Bill 52 (3<sup>rd</sup> Reading) on the Legislative Assembly of BC's website: <https://www.leg.bc.ca/parliamentary-business/legislation-debates-proceedings/41st-parliament/3rd-session/bills/progress-of-bills>

NEW BUSINESS – Council Meeting (Special) December 17, 2018

Councillor Kelly Greene

Motion: To cancel Richmond City Council pay increase in 2019 due to federal taxation changes and to phase in the planned salary increases for elected representatives from 2020–2024.

Rationale: Due to significant budgetary pressures in 2019, it would be inappropriate for elected officials for the City of Richmond to realize a significant raise in the coming year. Even though Mayor and Councillors' take home pay would not change after the planned raise due to federal taxation changes, Richmond residents should see their representatives demonstrating personal commitment to fiscal restraint.

It is important for elected representatives to understand that the majority of tax-paying residents do not receive pay or pension increases, even if their costs increase or personal taxation rules change. Through demonstrating our personal understanding of this situation, we can build trust with residents that we are carefully considering all budgetary items, and respect the work residents' undertake to pay their property taxes.



City of  
Richmond

**Memorandum**  
Human Resources

**To:** Mayor and Councillors  
**From:** Bruce Clow  
Director, Human Resources  
**Re:** Council Remuneration

**Date:** December 19, 2018  
**File:** 05-1800-03/2018-Vol 01

**Origin**

Mayor Brodie has requested staff provide legal and technical guidance with respect to the City's plan to administer Council's adjustments as a result of the termination of the 1/3 non-taxable component of their remuneration effective January 1, 2019, and any potential impacts arising from a motion that may be put before Council on a Special Council meeting on December 19, 2018 on the same topic.

**Background**

The Elected Official's remuneration program, which was established in 2006 with the assistance of an external task-force of citizens and members of the business community and guided by an external professional compensation consultant, was designed to be administered on the basis of the following principles:

- Key components of remuneration, including base rate, are determined by external market data acquired from a specified comparator group and maintained at the 75<sup>th</sup> percentile;
- Annual increases will be implemented at the rate of increase of the Vancouver Consumer Price Index (CPI);
- External market surveys will be conducted on a regular basis (ideally every two to three years) and if possible during the final year of the term of the incumbent Council; and
- The Elected Officials remuneration plan will be administered on the basis of relevant and current market data without involvement or participation by incumbent Elected Officials.

The purpose of the external task force of citizens and an independent compensation consultant was to fix an issue around Elected Officials remuneration. The goal was to bring more rigour, transparency and objectivity to the process by which Elected Officials remuneration is determined without the involvement of Elected Officials who would receive the benefit. The process that was established is considered best practice and is a very effective system that clearly defines a specific peer group, market positioning and how salary adjustments are determined and administered.

Emerging Issue

Many Elected Officials in Canada receive 1/3 of their remuneration as non-taxable earnings. The Federal Government will terminate this tax exemption effective January 1, 2019.



### **Legal Perspective**

While the Mayor and Councillors are elected every 4 years as opposed to being appointed, they are legally deemed to be employees of the City. This is validated by the fact that they receive a T4 and are assessed by the Canada Revenue Agency (CRA) for employment income. In order to clarify, staff consulted with professional Legal Counsel.

Elected Officials receive a prescribed rate of pay, prescribed benefits and have income tax deducted from their pay and remitted. They receive a T4 outlining their remuneration.

Historically, the current compensation philosophy for Elected Officials and the process to determine the level of remuneration, which are both considered best practice, were determined by an independent Committee and compensation consultant dating back to 2006 and 1992 respectively. This philosophy includes indexing the annual adjustment to the Vancouver CPI, and a periodic market adjustment if warranted. A portion of the remuneration (1/3) has been tax exempt by CRA. CRA has now rescinded the tax-free portion.

In an employment Law context, this change to a material component of the employee/employer "contract" (remuneration) through no fault of the Employee would be addressed by an effort to "keep the Employee whole". If the Employer were to unilaterally change a material term or condition of the employee/employee contract, it would give rise to a "constructive dismissal". In this context, the Employment contract is between each employee and the employer; it is not a group contract. In this instance, there has been an established range and change process. If the employer decides to take no action (in view of the 1/3 tax exemption ending), all members of Council will experience a reduction in take home pay. An Elected Official could reasonably expect to be paid at least what they were paid in the prior year and in accordance with the established process to determine Elected Officials compensation. To this end, they could also assert that the doctrine of detrimental reliance applies (a reliance on facts or assertions to their detriment). To act in a fashion other than one in which the employee remains whole could create legal issues. Whether the situation at hand is seen as "detrimental reliance" or "constructive dismissal", the remedies would largely be the same. An employer cannot unilaterally change an employee's remuneration that can pose material hardship on an employee. Solutions proposed by staff are intended to address this.

### **Technical Perspective: HR / Compensation and Proposed Remedy**

Based on regular employment and compensation practices and the specific nature of the change imposed by the Federal Government, it is appropriate that the City ensure that the net value of remuneration of Elected Officials remain whole, effective 2019 onwards (*Scenario 2, Attachment 1*). The purpose of the change in Federal Government income tax regulations is to conclude a long practiced subsidy by the Federal Government of municipal governance costs, as opposed to, it being an attempt to regulate the level of remuneration provided to local government Elected Officials.

In order to achieve the "remain whole" objective, Elected Officials' gross remuneration will be increased until the 2019 net remuneration is equal to the value of their 2019 net remuneration if the 1/3 non-taxable component of employment earnings had remained in place.

### **Rationale for Proposed Remedy**

Following are key points of the proposed adjustment:

- Justification – A change has been imposed by a senior-level government that will have a significant impact on local government Elected Officials' compensation. The purpose of this change is to reduce their costs, as opposed to addressing a need to correct or address any real issue concerning the remuneration provided to local government Elected Officials. Majority of municipalities surveyed are adjusting their Council remuneration to keep them whole effective January 1, 2019 (*Attachment 2*). It would be prudent for the City of Richmond to align with the broader local market and keep Elected Officials whole effective 2019, while others are making the salary adjustments rather than delay this into the future when the City's Council rates have fallen significantly behind the market.
- Elected Officials do not realize a net pay increase through the proposed corrective measures.
- As public sector remuneration is established primarily on the basis of their external comparator group and the basis for acceptance is directly related to local market position and the awarding of fair and equitable rates, most if not all municipalities will eventually have to adjust Elected Officials remuneration in response to market pressures.
- Implementing the needed adjustment in incremental increases over an extended period of time (*Scenario 3, Attachment 1*) will not have any impact on the total cost if the principle is to keep them whole (i.e. incorporating retro payments over time). The significant downside and risk factor of this approach is that year over year adjustments become noticeably significant (e.g. 6-7% incremental increase per year for the Mayor, and 4% incremental increase each per year for Councillors). An incremental increase approach only postpones the liability and monies owing into the future years creating significant retro payouts. The cost of Scenario 2 (Keep them whole effective 2019) and Scenario 3 (Keep them whole but with incremental increases and retro payments) is exactly the same. The main difference is that Scenario 3 results in significant annual increases whereas Scenario 2 makes the proper adjustment once, at the same time as other municipalities that are making the change to keep them whole.
- Implementing incremental adjustments until 2024 when Elected Officials reach a point where they are kept whole without retroactive adjustments (*Scenario 4, Attachment 1*) results in less cost than keeping them whole effective 2019. However, incremental increases will still result in significant annual increases for several years.
- Implementing no change and adjusting only by the Vancouver CPI each year (*Scenario 1, Attachment 1*) results in an approximate total annual net income loss of \$21,000 for the Mayor (i.e. 16% reduction in net income), and \$7,500 for each Councillor (i.e., 11% reduction in net income).
- Lessons learned include having to play catch-up with the market on Elected Officials' remuneration if it is allowed to fall behind can be increasingly more difficult and challenging to administer as more time elapses. This was one the of the factors which prompted the 1992 Task Force and 2006 Independent Panel to recommend the program and a process which are presently in place and which were designed deliberately not having the sitting Council involved in determining its remuneration. To have a defensible and objective process in place to administer Elected Officials' remuneration protects the plan and ensures alignment with other municipalities and fairness.



Bruce Clow  
Director, Human Resources

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Mayor	Scenario 1			Scenario 2		Scenario 3		Scenario 4		
	No Adjustment (CPI Increase only)	Net Income Loss	% of Net Income Loss	Keep Whole	YoY Increase %	Keep Whole with Retro Adjustments	YoY Increase %	Proper Level by 2024 No Retro Adjustments	YoY Increase %	Net Income Loss
2019	\$ 155,182	\$ 21,308	16.6%	\$ 194,496	28.7%	\$ 155,182	2.7%	\$ 155,182	2.7%	\$ 21,308
2020	\$ 157,711	\$ 21,656	16.6%	\$ 197,666	1.6%	\$ 171,630	10.6%	\$ 166,320	7.2%	\$ 16,990
2021	\$ 160,282	\$ 22,008	16.6%	\$ 200,888	1.6%	\$ 189,822	10.6%	\$ 177,458	6.7%	\$ 12,699
2022	\$ 162,895	\$ 22,367	16.6%	\$ 204,162	1.6%	\$ 209,942	10.6%	\$ 188,596	6.3%	\$ 8,437
2023	\$ 165,550	\$ 22,731	16.6%	\$ 207,490	1.6%	\$ 232,194	10.6%	\$ 199,734	5.9%	\$ 4,204
2024	\$ 168,248	\$ 23,102	16.6%	\$ 210,872	1.6%	\$ 256,805	10.6%	\$ 210,872	5.6%	\$ -
Total over 6 years	\$ 969,868	\$ 133,172		\$ 1,215,574		\$ 1,215,574		\$ 1,098,162		\$ 63,638

Councilor	Scenario 1			Scenario 2		Scenario 3		Scenario 4		
	No Adjustments (CPI Increase only)	Net Income Loss	% of Net Income Loss	Keep Whole	YoY Increase %	Keep Whole with Retro Adjustments	YoY Increase %	Proper Level by 2024 No Retro Adjustments	YoY Increase %	Net Income Loss
2019	\$ 80,017	\$ 7,847	11.4%	\$ 90,946	16.7%	\$ 80,017	2.7%	\$ 80,017	2.7%	\$ 7,847
2020	\$ 81,321	\$ 7,975	11.4%	\$ 92,428	1.6%	\$ 85,396	6.7%	\$ 83,734	4.6%	\$ 6,242
2021	\$ 82,647	\$ 8,105	11.4%	\$ 93,935	1.6%	\$ 91,137	6.7%	\$ 87,451	4.4%	\$ 4,656
2022	\$ 83,994	\$ 8,237	11.4%	\$ 95,466	1.6%	\$ 97,264	6.7%	\$ 91,168	4.3%	\$ 3,086
2023	\$ 85,363	\$ 8,371	11.4%	\$ 97,022	1.6%	\$ 103,803	6.7%	\$ 94,885	4.1%	\$ 1,534
2024	\$ 86,754	\$ 8,508	11.4%	\$ 98,603	1.6%	\$ 110,782	6.7%	\$ 98,603	3.9%	\$ -
Total per Councilor over 6 years	\$ 500,096	\$ 49,042		\$ 568,400		\$ 568,400		\$ 535,858		\$ 23,365

## Assumptions:

CPI of 2.9% was used for 2019 salary adjustments

CPI of 1.63% was used for 2020 to 2024 salary adjustments based on CPI historical average (2015 to 2018)

Marginal tax rates of 45.8% for the Mayor and 28.2% for Councilors were used from 2019 to 2024

Marginal tax rates will remain unchanged from 2019 to 2024

## Elected Officials & Elimination of Income Tax Exemption Status Effective 1/1/2019

The following municipalities **have made a decision to keep Council members 'whole'** to account for the removal of 1/3 tax free allowance and impact on remuneration (net pay):

- Coquitlam
- Port Coquitlam
- Capital Regional District
- Mission
- Langley (City)
- Lions Bay
- Maple Ridge
- District of North Vancouver
- Kelowna
- Langley (Township)
- Port Moody

The following **will be recommending keeping them 'whole'**:

- Burnaby (to be presented to Council in January 2019)

The following have decided **not to adjust remuneration to keep them 'whole'**:

- Surrey

The following indicate that **no formal decision has been made yet**:

- New Westminster (did not disclose what their recommendation will be)
- Delta

Waiting for a response from the following:

- Abbotsford
- Chilliwack
- West Vancouver
- White Rock

*Note: Municipalities in red font represent comparators for determining Elected Officials' remuneration at Richmond.*

Council Remuneration regarding :

Jan 2019 increase to keep council remuneration whole.

Given that the Federal govt has chosen to withdraw the tax free portion of the salaries of all city councils across Canada adjustments need to be made to the income city council members receive.

In 1992 and 2006 a independent review panel with members of the public where tasked with assessing the remuneration of council and now that the pay structure is fundamentally being changed by the federal govt it is necessary to appoint a independent review panel that can choose to enlist the professional services of a Compensation management professional.

The existing paycheck can be maintained until the review is complete and then adjustments can be made at that time.

MOTION TO AMMEND:

To keep: *"cancel the pay raise in 2019"*

To add: *\*"until we hear back from a volunteer panel evaluating compensation, such as in 1992 and 2006. "*

Carol Day



**Regular Council meeting for Public Hearings  
Monday, December 17, 2018**

Place: Council Chambers  
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair  
Councillor Chak Au  
Councillor Carol Day  
Councillor Kelly Greene  
Councillor Alexa Loo  
Councillor Bill McNulty  
Councillor Linda McPhail  
Councillor Harold Steves (entered at 7:01 p.m.)  
Councillor Michael Wolfe

Claudia Jesson, Acting Corporate Officer

Call to Order: Mayor Brodie opened the proceedings at 7:00 p.m.

**1. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9935  
(RZ 17-771592)**

(Location: 10671, 10691, 10751 Bridgeport Road; Applicant: Interface Architecture Inc.)

*Applicant's Comments:*

The applicant was available to respond to queries.

*Written Submissions:*

Trevor Charles, Richmond resident, (Schedule 1)

*Submissions from the floor:*

Ben Panesar, representing owners of 2408 McKessock Avenue, requested that vehicle access to McKessock Place be constructed for the rear portion of 2408 McKessock Avenue and for adjacent properties facing Shell Road as the subject properties are developed.



**Regular Council meeting for Public Hearings  
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In reply to queries from Council, staff noted that the subject properties could be developed into single-family homes or townhouses with access to McKessock Avenue and Bridgeport Road. Staff added that closing driveway access to Bridgeport Road can be considered in the future if a future townhouse concept is developed on-site.

Trevor Charles, referenced his submission (attached to and forming part of these minutes as Schedule 1). He spoke on the proposed development and expressed concern with regard to (i) the servicing of sewer lines across McKessock Avenue to Shell Road, (ii) the potential for flooding in the area, and (iii) the need for repairs to boulevards and lighting.

PH18/11-1

It was moved and seconded

***That Richmond Zoning Bylaw 8500, Amendment Bylaw 9935 be given second and third readings.***

The question on the motion was not called as the following **referral motion** was introduced:

PH18/11-2

It was moved and seconded

***That the application by Interface Architecture Inc. for Rezoning at 10671, 10691, and 10751 Bridgeport Road from the "Single Detached (RS1/D)" Zone to the "Low Density Townhouses (RTL4)" Zone, be referred back to staff.***

**DEFEATED**

Opposed: Cllrs. Au

Loo

McNulty

McPhail

Steves

Discussion ensued with regard to (i) traffic safety along Bridgeport Road, (ii) right-in-right-out vehicle access to the site, (iii) traffic impacts during construction, and (iv) servicing of existing water and sewer lines.

In reply to queries from Council, staff noted that water, storm and sewer lines to the proposed development will be from Bridgeport Road and that concerns regarding utility lines can be forwarded to the Public Works department.

The question on the motion was then called, and it was **CARRIED** with Cllrs. Day, Greene and Wolfe opposed.



**Regular Council meeting for Public Hearings  
Monday, December 17, 2018**

**2. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9953  
(RZ 15-702486)**

(Location: 6111 and 6091 Dyke Road; Applicant: Oris (Dyke Road) Development Corp.)

*Applicant's Comments:*

The applicant was available to respond to queries.

*Written Submissions:*

(a) William Hartley, Strata Corporation BCS3256 (Schedule 2)

(b) Roy Oostergo, 6168 London Road (Schedule 3)

*Submissions from the floor:*

None.

PH18/11-3

It was moved and seconded

***That Richmond Zoning Bylaw 8500, Amendment Bylaw 9953 be given  
second and third readings.***

**CARRIED**

Opposed: Cllr. Day

**3. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9962  
(ZT 18-840326)**

(Location: 8320 Alexandra Road; Applicant: Spring Communication Development Ltd.)

*Applicant's Comments:*

The applicant was available to respond to queries.

*Written Submissions:*

None.

*Submissions from the floor:*

None.

PH18/11-4

It was moved and seconded

***That Richmond Zoning Bylaw 8500, Amendment Bylaw 9962 be given  
second and third readings.***

**CARRIED**

PH18/11-5

It was moved and seconded

***That Richmond Zoning Bylaw 8500, Amendment Bylaw 9962 be adopted.***

**CARRIED**





**Regular Council meeting for Public Hearings  
Monday, December 17, 2018**

**4. OFFICIAL COMMUNITY PLAN BYLAWS 7100 AND 9000,  
AMENDMENT BYLAW 9892**

(Location: 6551 No. 3 Road; Applicant: GBL Architects)

A memorandum from staff was distributed updating the metric conversion of the proposed floor area of the market rental housing (attached to and forming part of these minutes as Schedule 4).

*Applicant's Comments:*

With the aid of a visual presentation (copy on-file, City Clerk's Office), Josh Thompson and Michelle Paquet, representing the Applicant, briefed Council on the proposed project, highlighting that (i) Richmond Centre Mall will remain open during the construction, (ii) the proposal will include 200 market rental units and 150 affordable housing units, (iii) 50% of the proposed affordable housing units will be family-friendly units, (iv) the proposed development will include pedestrian-friendly retail areas, (v) new road, pedestrian and cycling connections are proposed, (vi) public access through the mall to public transportation is proposed, (vii) public art is included in the proposed development, and (viii) the proposed development will include a low carbon District Energy Plant with ownership transferred to the City.

Discussion ensued with regard to (i) the integration of the proposed affordable housing units throughout the proposed development, (ii) access to the underground parking, and (iii) the potential to increase pedestrian areas and limit site access from Cook Road.

*Written Submissions:*

- (a) Berk and Nicole Aktung, 3980 Regent Street (Schedule 5)
- (b) Nikola Bratanic, 6578 Kitchener Street, Burnaby, BC (Schedule 6)
- (c) Mini Chan, 9399 Odlin Road (Schedule 7)
- (d) Stacey Friedman (Schedule 8)
- (e) Oskar Kwieton, 4055 Regent Street (Schedule 9)
- (f) Simon Lee (Schedule 10)
- (g) Michelle Li, Richmond resident (Schedule 11)
- (h) Melina Lum, 4600 Britannia Drive (Schedule 12)
- (i) Shelley Matsuo, 11480 Blundell Road (Schedule 13)



### **Regular Council meeting for Public Hearings Monday, December 17, 2018**

- (j) Omar Mihirig, Richmond Resident (Schedule 14)
- (k) Gennady Mourzikov, 9871 Gilbert Crescent (Schedule 15)
- (k1) Betty Mejias, Richmond resident (Schedule 15A)
- (l) Teresa Ng (Schedule 16)
- (m) Amy Poon, 6400 Princess Lane (Schedule 17)
- (n) Edwin Poon, 6400 Princess Lane (Schedule 18)
- (o) Zlatko Puljic, 788 Hamilton Street, Vancouver, BC (Schedule 19)
- (p) Cynthia Rautio (Schedule 20)
- (q) Brian Robertson, 6233 Katsura Street (Schedule 21)
- (r) Alisa Sakamoto (Schedule 22)
- (s) Niti Sharma, Richmond resident (Schedule 23)
- (t) Henry So, 10291 Mortfield Road (Schedule 24)
- (u) Sophie So, 10291 Mortfield Road (Schedule 25)
- (v) Cynki Taylor, 9586 Ashwood Drive (Schedule 26)
- (w) Rupert Whiting (Schedule 27)
- (x) Victoria Yang, 5199 Brighthouse Way (Schedule 28)
- (y) Audrey Yeung, 8360 Mirabel Court (Schedule 29)
- (z) Eric Yeung, 7060 Blundell Road (Schedule 30)
- (aa) Kelly Yeung, 10711 Housman Street (Schedule 31)
- (bb) Tat Ki Yeung, 8360 Mirabel Court (Schedule 32)

#### *Submissions from the floor:*

Sam McCulligh, Richmond resident, expressed concern with regard to the number of proposed parking spaces.

Kenny Ng, 4637 Hermitage Drive, was supportive of the application, noting that condominiums are a more affordable housing alternative for immigrants.

Wai Hung Chan, spoke in favour of the proposed project and expressed that the number of affordable housing units should be maximized.

Andrew Mar, 5940 No. 2 Road, was supportive of the proposed project, noting that development in the area will promote growth in businesses in the area.



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Henry So, 10291 Mortfield Road, expressed support for the proposed project and was in favour of the proposed design and the proposed affordable housing component.

Niti Sharma, Richmond resident, expressed concern with the application, noting that the right kind of housing supply needs to be considered and that the proposed development has gaps. She further expressed that the number of proposed affordable housing units and family-friendly units be increased.

Will Li, 7288 Heather Street, expressed support for the proposed project and was of the opinion that the proposed number of affordable housing units is adequate.

Judie Schneider, Richmond resident, was of the opinion that more affordable housing units and a higher mix of family-friendly units be included in the proposed project and that cycling lanes be relocated from No. 3 Road to a side road.

De Whalen, Richmond resident, spoke on housing affordability in the city and expediting development applications involving affordable housing. She expressed that more affordable housing units should be included in the proposed project and suggested that funding from Provincial and Federal levels of government be utilized.

John Roston, 12262 Ewen Avenue, commented on the shortage of affordable housing in the city and expressed that more affordable housing units should be included in the proposed project.

Lyn ter Borg, Richmond resident, spoke on aspects of the Oakridge development in Vancouver that could be applied on the subject site. Also, she expressed that more emphasis should be placed on creating pedestrian zones, limiting the expansion of roads and increasing the number of affordable housing units in the proposed development.

Raman Kooner, 3399 Moresby Drive, expressed support for the proposed project, noting that the site is in proximity to public transit and includes desirable amenities. He added that the proposal includes a mix of family-friendly units and that other developments in the city centre area can contribute to the supply of affordable housing.

Bob Basanti, 11171 Caravel Court, was supportive of the proposed project and remarked that the proposed amenities will be beneficial to the community.



### Regular Council meeting for Public Hearings Monday, December 17, 2018

Patrick Mathot, 10920 Hogart Drive, spoke on the site's proximity to transportation options and that the proposed expansion to cycling and road infrastructure, together with the proposed District Energy Utility will be beneficial to the community.

Benson Chow, 9600 Britannia Drive, expressed support for the project and was in favour of the proposed unit mix.

Jeremy Wong, 5199 Brighthouse Way, spoke in favour of the proposed development and expressed that the proposed project will be positive for the community.

Cythia Rautio, 12282 English Avenue, spoke on the proposed project and expressed that the number of proposed rental and affordable housing be increased and that funding from senior levels of government be utilized towards affordable housing. Also, she commented on the marketing of the proposed project and the need to attract more families to the community.

Alan McNair, Richmond resident, commented on the proposed project's underground infrastructure.

#### *Council Considerations:*

PH18/11-6

It was moved and seconded

- (1) That Official Community Plan Amendment Bylaw 9892 be amended to include the addition of Section 2.23 as set out in Attachment 3 of the staff memorandum dated December 19, 2018;***
- (2) That the OCP Considerations for CP 16-75293 be corrected by deleting the metric value from Section 7.1;***
- (3) That the OCP Considerations for CP 16-75293 be amended to include the addition of Section 5.4.3 and Section 7 as set out in Attachment 4 of the staff memorandum dated December 14, 2018; and***
- (4) That Official Community Plan Bylaws 7100 and 9000, Amendment Bylaw 9892 be given second and third readings, as amended.***



**Regular Council meeting for Public Hearings  
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The question on the motion was not called as discussion ensued with regard to (i) increasing the number of affordable housing and family-friendly units in the proposed development, (ii) utilizing funding from senior levels of government to develop additional affordable housing units, (iii) reconsidering the site's access points and limiting the number of roads on-site, and (iv) including additional environmental features such as utilization of solar energy.

The question on the motion was then called and it was **CARRIED** with Cllrs. Day, Greene and Wolfe opposed.

*Cllr. Au left the meeting (8:51 p.m.) and returned (8:52 p.m.).*

*Cllr. Wolfe left the meeting (8:51 p.m.) and returned (8:54 p.m.).*

**5. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAWS 9965, 9966, 9967 AND 9968**

(Location: City-wide; Applicant: City of Richmond)

*Applicant's Comments:*

The applicant was available to respond to queries.

*Written Submissions:*

- (a) Clive Alladin, 3800 Bayview Street (Schedule 33)
- (b) Alyshah Assar, 22888 Windsor Court (Schedule 34)
- (c) Glen Andersen, 10071 Dyke Road (Schedule 35)
- (d) Patti Barkley, Richmond resident (Schedule 36)
- (e) Hadi Bhatia, 8640 Bennett Road (Schedule 37)
- (f) Daniel Benner, Richmond resident (Schedule 38)
- (g) Karin Biggs, 12262 Ewen Avenue (Schedule 39)
- (h) Steve Bridger, Richmond resident (Schedule 40)
- (i) Marian Bridgman, Richmond resident (Schedule 41)
- (j) Penny Charlebois (Schedule 42)
- (k) Parin Damji, 10231 Bridgeport Road (Schedule 43)
- (l) Charlene de Faye, Richmond resident (Schedule 44)



**Regular Council meeting for Public Hearings  
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- (m) Carey Ditmars, Richmond resident (Schedule 45)
- (n) Brad Dore, Richmond Farmland Association (Schedule 45A)
- (o) Judith Doyle, Richmond resident (Schedule 46)
- (p) Don Flintoff, Richmond resident (Schedule 47)
- (q) Maureen Fowler, Richmond resident (Schedule 48)
- (r) Laura Gillanders, Richmond resident (Schedule 49)
- (s) Eleanor and Mike Girard, Richmond residents (Schedule 50)
- (t) Laura Heroux (Schedule 51)
- (u) Joy Hillier (Schedule 52)
- (v) Roland Hoegler, 6560 No. 4 Road (Schedule 53)
- (w) Randall Isaak, 9371 No. 5 Road (Schedule 54)
- (x) Rahim Jaffer, 22711 Norton Court (Schedule 55)
- (y) Salima Jaffer, 22711 Norton Court (Schedule 56)
- (z) Naizer Kabani, 22646 Fraserbank Crescent (Schedule 57)
- (aa) Ali Khoja, 22888 Windsor Court (Schedule 58)
- (bb) Don King, Richmond resident (Schedule 59)
- (cc) Val King, 10720 Agassiz Court (Schedule 60)
- (dd) Michelle Li (Schedule 61)
- (ee) Judith and Bill Lloyd, Richmond residents (Schedule 62)
- (ff) Teresa Macht, Richmond resident (Schedule 63)
- (gg) Sharon MacGougan, 7411 Ash Street (Schedule 64)
- (hh) James McDowell, 5700 Andrews Road (Schedule 65)
- (ii) Andrew Miloglav, 14331 Westminster Highway (Schedule 66)
- (jj) Omar Mohamoud, 22888 Windsor Court (Schedule 67)
- (kk) Patrice and Donna Morin, Richmond residents (Schedule 68)
- (ll) Dave Murdoch, Richmond resident (Schedule 69)
- (mm) Helmut Pastrick and Teresa Murphy, 9651 Finn Road (Schedule 70)



### **Regular Council meeting for Public Hearings Monday, December 17, 2018**

- (nn) Marie Murtagh, 4771 Dumont Street (Schedule 71)
- (oo) Michael Poon, Richmond resident (Schedule 72)
- (pp) Shannon Power, Richmond resident (Schedule 73)
- (qq) Jenny Pridmore, Richmond resident (Schedule 74)
- (rr) Steven Pridmore (Schedule 75)
- (ss) Teresa Rigg (Schedule 76)
- (tt) Marj Ross, Richmond resident (Schedule 77)
- (uu) Niti Sharma, Richmond resident (Schedule 78)
- (vv) Hanif Samji, 2560 Finlayson Court (Schedule 79)
- (ww) Rizwana Samji, 2560 Finlayson Court (Schedule 80)
- (xx) Salim Shivji, Richmond Resident (Schedule 81)
- (yy) Peter Smith, Richmond resident (Schedule 82)
- (zz) Seong Su Park, 3800 Bayview Street (Schedule 83)
- (aaa) Fateh Sunderji, 8279 Saba Road (Schedule 84)
- (bbb) Marina Szijarto, Richmond resident (Schedule 85)
- (ccc) Karin Tham, 9600 Palmer Road (Schedule 86)
- (ddd) Rahim Valiani, 5900 Muir Drive (Schedule 87)
- (eee) Antonneta Van Dyk and Linda McConnell, 14260 Westminster Highway (Schedule 88)
- (fff) Bruno Vernier, Richmond resident (Schedule 89)
- (ggg) Deirdre and Bruce Whalen, 13631 Blundell Road (Schedule 90)
- (hhh) Hollie Whitehead, Richmond resident (Schedule 91)
- (iii) Derek Williams, Richmond resident (Schedule 92)
- (jjj) Jim Wright, Richmond resident (Schedule 93)
- (kkk) Wes and Grace Wright, 11560 No. 3 Road (Schedule 94)



**Regular Council meeting for Public Hearings  
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*Submissions from the floor:*

With the aid of a visual presentation (copy on-file, City Clerk's Office), Raymond Chan and Al Wong, Richmond residents, provided an analysis on the rise of land values in the Agricultural Land Reserve (ALR).

Sam McCulligh, Richmond resident, spoke in favour of limiting house size on ALR land to 400 m<sup>2</sup>.

Clive Alladin, 5102 8A Avenue, Delta, BC, noted that he is representing a building permit applicant and expressed that the proposed bylaws would negatively impact the permit application since the proposed house size would exceed the proposed maximum floor area.

In reply to queries from Council, staff noted that should the proposed bylaws proceed, they would become effective immediately and that the grandfathering provisions from the *Agricultural Land Commission Act* (Bill 52) would not apply to the application referenced by Mr. Alladin.

Bill McKinney, 11751 Shell Road, spoke in opposition to the proposed bylaws and expressed concern with regard to the potential devaluation of his property. He remarked that there are portions of farms that cannot be farmed and limiting the size of the farm home plate may be unnecessary.

David Smith, 22650 Fraserbank Crescent, read from his submission (attached to and forming part of these minutes as Schedule 95) and commented on the public consultation process and aligning City regulations with the Provincial regulations.

Don McKenzie, 9351 Finn Road, commented on the proposed bylaws and suggested that the proposed maximum house size in the ALR be aligned with the maximum house size in city residential zones.

Nick Kabani, 22646 Fraserbank Crescent, spoke in opposition to the proposed bylaws and expressed that they should be aligned with Provincial regulations. He added that the proposed regulations would restrict his ability to build a home on his property that would accommodate extended family. Also, he expressed concern with the public consultation process and remarked that some sites designated as farmland may not be suitable for farming.

*Cllr. Greene left the meeting (9:47 p.m.) and returned (9:50 p.m.).*

Jim Wright, 8300 Osgood Drive, referenced his submission (attached to and forming part of these minutes as Schedule 96), and spoke in favour of the proposed bylaws.





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Mubina Kabani, Richmond resident, spoke in opposition to the proposed bylaws and read comments from Hollie Whitehead, Richmond resident, (attached to and forming part of these minutes as Schedule 91), expressing concern that the proposed regulations may negatively affect farmers in the community and should be aligned with Provincial regulations.

Niti Sharma, Richmond resident, read from her submission (attached to and forming part of these minutes as Schedule 78) and expressed support for the proposed regulations.

Sunny Dhillon, 4904 Galbraith Street, Delta, BC, spoke in opposition to the proposed bylaws and was of the opinion that the proposed regulations would increase the value of ALR properties with homes built under the former regulations.

Doug Wright, 11540 No. 3 Road, expressed opposition to the proposed bylaws and was of the opinion that the public consultation was insufficient. Also, he spoke in opposition to proposed regulations related to the size of the farm home plate and the inclusion of the septic field within the farm home plate. He encouraged the City to adopt the Provincial regulations and remarked that the proposed regulations may discourage farming in the city.

Linda McConnell, 14260 Westminster Highway, spoke in opposition to the proposed bylaws, noting that properties in Richmond may be in a disadvantage compared to properties in other jurisdictions who adopt the Provincial regulations. Also, she expressed concern that her property value may be negatively impacted and she may have difficulty selling her property.

Judie Schnieder, Richmond resident, was supportive to the proposed regulations and was of the opinion that houses in the ALR should be comparable to houses in residential areas to reduce speculative behaviour. Also, she suggested that application costs for bonafide farmers seeking to build a larger home on ALR property be reduced.

In reply to queries from Council, staff noted that staff can examine options to expedite the building permit application process for farmers applying to build a home on farmland that exceeds the size permitted by City regulations. Also, staff clarified that applicants seeking a larger home would go through a site-specific zoning process and not a variance process.

Roland Hoegler, 6560 No. 4 Road, was opposed to the proposed bylaws and expressed concern on the potential depreciation of farmland. He encouraged the City to continue public consultation and align the proposed regulations with the Province.



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John Roston, Richmond resident, expressed support for the proposed bylaws and encouraged that large homes be developed on residential sites instead of farmland. Also, he remarked that the proposed maximum house size of 400m<sup>2</sup> for new homes on farmland is sufficient to accommodate extended families and that site-specific zoning can be used to apply for a larger home if required.

Steven Easterbrook, 17740 River Road, spoke on potential illegal uses on farmland that may be contributing to speculation and presented a video on money laundering (copy on-file, City Clerk's Office). Also, he spoke on providing access to farm backlands and reviewing land fill regulations on farmland.

Ben Dhiman, 9360 Sidaway Road, expressed opposition to the proposed bylaws, noting that proposed regulations should be aligned with the Province.

*Cllr. Wolfe left the meeting (10:50 p.m.) and returned (10:52 p.m.).*

Baljit Sandhu, 9431 Pinewell Crescent, commented on the potential for speculation by foreign investors and spoke in opposition to the proposed bylaws, noting that some farm properties may depreciate compared to farm properties that have developed homes under previous regulations.

PH18/11-7

It was moved and seconded

***That the Public Hearing proceed past 11:00 p.m. (10:54 p.m.).***

**CARRIED**

Dale Badh, spoke on behalf of the BC Farmland Owner's Association, and expressed opposition to the proposed bylaws. He encouraged the City to align proposed regulations to Provincial regulations and noted that demand to lease affordable farmland by new farmers in the city is very limited. He added that he is of the opinion that properties in Richmond may be in a disadvantage compared to properties in other jurisdictions who adopt the Provincial regulations and that the City should consider approval of in-stream applications.

Navi Boyal, 6620 No. 6 Road, expressed concern with regard to the proposed regulations, suggesting that the City adopt the Provincial regulations. Also, he was of the opinion that the proposed maximum house size is not adequate for extended families and that the septic field should be placed outside the farm home plate.



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Jack Trovato, Richmond resident, spoke in favour of the proposed bylaws, noting that a petition of approximately 8000 signatures supporting the preservation of farmland in Richmond for food production was collected.

Joe Oeser, 12004 No. 2 Road, encouraged that the City adopt the Provincial regulations and that the septic field be excluded from the farm home plate.

Laura Gillanders, Richmond resident, expressed support for the proposed bylaws and noted that other jurisdictions in the province have implemented stricter regulations compared to the Provincial regulations. She commented on the potential illegal activities taking place in large homes on farmland and was the opinion that the proposed maximum house size will protect farmer's equity and reduce speculation.

Don Flintoff, 6071 Dover Road, expressed support for the proposed bylaws, noting that the proposed maximum house size is adequate for extended families.

Peter Muroso, speaking on behalf of Pritam Singh Basi, owner of 11430 Westminster Highway, expressed concern with regard to the possible depreciation of farmland as a result of the proposed bylaws. He added that a larger house would allow extended family members to remain on the property.

Mr. Hoegler commented on the potential litigation should the proposed bylaws proceed.

*Council Considerations:*

PH18/11-8

It was moved and seconded

***That Richmond Zoning Bylaw 8500, Amendment Bylaw 9965 be given second and third readings.***

The question on the motion was not called as discussion ensued with regard to (i) the potential loss of farmland, (ii) the relationship between speculation and illegal activities on farmland, (iii) the inclusion of the septic field within the farm home plate, (iv) the potential effects of restricting the maximum house size on farmland property values, and (v) the public consultation process.

In reply to queries from Council, staff noted that there is an application process for farmers seeking to build a new home on farmland exceeding the proposed allowable floor area of 400m<sup>2</sup>.

The question on the motion was then called and it was **CARRIED** with Mayor Brodie, and Cllrs. Loo and McPhail opposed.



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PH18/11-9      It was moved and seconded  
*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9966 be given  
second and third readings.*

**CARRIED**

Opposed: Mayor Brodie  
Cllrs. Loo  
McPhail

PH18/11-10      It was moved and seconded  
*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9967 be given  
second and third readings.*

**CARRIED**

Opposed: Mayor Brodie  
Cllrs. Loo  
McPhail

PH18/11-11      It was moved and seconded  
*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9968 be given  
second and third readings.*

**CARRIED**

Opposed: Mayor Brodie  
Cllrs. Loo  
McPhail

PH18/11-12      It was moved and seconded  
*That the following bylaws be adopted:*  
*Richmond Zoning Bylaw 8500, Amendment Bylaw 9965*  
*Richmond Zoning Bylaw 8500, Amendment Bylaw 9966*  
*Richmond Zoning Bylaw 8500, Amendment Bylaw 9967*  
*Richmond Zoning Bylaw 8500, Amendment Bylaw 9968*

**CARRIED**

Opposed: Mayor Brodie  
Cllrs. Loo  
McPhail



Regular Council meeting for Public Hearings  
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ADJOURNMENT

PH18/11-13

It was moved and seconded

*That the meeting adjourn (12:09 a.m.).*

**CARRIED**

Certified a true and correct copy of the  
Minutes of the Regular meeting for Public  
Hearings of the City of Richmond held on  
Monday, December 17, 2018.

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Mayor (Malcolm D. Brodie)

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Acting Corporate Officer (Claudia Jesson)

## For Metro Vancouver meetings on Friday, December 7, 2018

*Please note these are not the official minutes. Board in Brief is an informal summary. Material relating to any of the following items is available on request from Metro Vancouver. For more information, please contact [Greg.Valou@metrovancover.org](mailto:Greg.Valou@metrovancover.org) or [Kelly.Sinoski@metrovancover.org](mailto:Kelly.Sinoski@metrovancover.org)*

## Metro Vancouver Regional District – Joint Special Meeting

### Metro Vancouver 2019 Appointments to External Agencies

The Board the following persons as the 2019 Metro Vancouver representatives to external agencies:

- Harold Steves, Richmond, to the Agricultural Advisory Committee
- Darrell Penner, Port Coquitlam, to the Board of Trustees of the Sasamat Volunteer Fire Department
- Lois Jackson, Delta, to the Delta Heritage Airpark Management Committee;
- Bill Dingwall, Pitt Meadows, as the nominee to the E-Comm Board of Directors (to take effect at the time of its Annual General Meeting)
- Lois Jackson, Delta, Steven Pettigrew, Surrey, and Petrina Arnason, Township of Langley, to the Flood Control and River Management Committee of the Lower Mainland Local Government Association
- Justin LeBlanc, Electoral Area A, to the Fraser Valley Regional Library Board
- Val van den Broek, Langley City, and Brenda Locke, Surrey (as the Alternate Representative), to the Fraser Basin Council
- David Hocking, Bowen Island, and Christine Boyle, Vancouver, to the Fraser Basin Council - Lower Mainland Flood Management Strategy Leadership Committee
- Mike Little, North Vancouver District, to the Lower Mainland Local Government Association
- Malcolm Brodie, Richmond, and Craig Hodge, Coquitlam (as the Alternate Representative), to the National Zero Waste Council
- John McEwen, Anmore, and Ron McLaughlin, Lions Bay, to the Pacific Parklands Foundation
- Darryl Walker, White Rock, and Mike Little, North Vancouver District (as the Alternate Representative), to the Western Transportation Advisory Council

The Board also appointed the following ten directors as representatives, and the following ten directors as alternate representatives, to the Municipal Finance Authority for 2019, and assign a total of 50 votes with a representative having up to five votes each, as follows:

Representative	Alternate Representative	Votes
Malcolm Brodie, Richmond	Bryce Williams, Tsawwassen	5
Jonathan Coté, New Westminster	Ron McLaughlin, Lions Bay	5
Jack Froese, Township of Langley	Darryl Walker, White Rock	5
George Harvie, Delta	Mary-Ann Booth, West Vancouver	5
Mike Hurley, Burnaby	Val van den Broek, Langley Township	5
Doug McCallum, Surrey	Mike Little, North Vancouver District	5
Kennedy Stewart, Vancouver	Bill Dingwall, Pitt Meadows	5
Richard Stewart, Coquitlam	Neil Belenkie, Belcarra	5



## **Election of the MVRD Representative on the 2018-2019 Union of British Columbia Municipalities Executive**

The Board elected Director Craig Hodge from City of Coquitlam by acclamation to serve as the MVRD representative on the Union of British Columbia Municipalities (UBCM) Executive Board for 2018-2019.

## **Notices of Motion**

Two notices of motion were received, paraphrased below.

### **Director Mary-Ann Booth of West Vancouver:**

To review the 2019 – 2023 Financial Plan for the Aboriginal Relations Committee dated September 19, 2018, regarding an increase of \$193,035 for a new staff position of Program Manager.

### **Director Lois Jackson of City of Delta:**

That the Board remove the Regional Prosperity Initiative from the 2019 budget and direct staff to provide a budget that reflects an increase of under 3%.



## General Purposes Committee

Date: Monday, December 17, 2018

Place: Anderson Room  
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair  
Councillor Chak Au  
Councillor Carol Day  
Councillor Kelly Greene  
Councillor Alexa Loo  
Councillor Bill McNulty  
Councillor Linda McPhail  
Councillor Harold Steves  
Councillor Michael Wolfe

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 General Purposes Committee held on December 3, 2018, be adopted as circulated.*

**CARRIED**

### COUNCILLOR ALEXA LOO

1. **BYLAWS REGULATING MASSAGE PARLOURS**  
(File Ref. No. 12-8060-01)

Councillor Loo spoke to potential changes to bylaws that would render operating massage parlours challenging. As a result, the following **referral motion** was introduced:

It was moved and seconded

*That staff be directed to review existing bylaws for unregulated massage service providers and report back with recommendations.*

**CARRIED**



**General Purposes Committee**  
**Monday, December 17, 2018**

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**COMMUNITY SAFETY DIVISION**

In accordance with Section 100 of the *Community Charter*, Councillor Carol Day declared to be in a conflict of interest as her husband owns a bed and breakfast and left the meeting (4:05 p.m.)

**2. ONE-YEAR REVIEW AND BYLAW AMENDMENTS FOR SHORT-TERM RENTALS**

(File Ref. No. 12-8275-09; 12-8060-20-009899/009898) (REDMS No. 5868680 v. 11; 5962960; 5878824; 5878827)

In reply to queries from Committee, Carli Williams, Manager, Community Bylaws and Licencing, advised that (i) all short-term rental complaints, including those in multi-family dwellings, are received through a centralized complaints line that allows staff to examine a variety of enforcement options depending on the alleged contravention, (ii) residents of multi-family dwellings are encouraged to seek solutions through their Strata Corporations and (iii) tickets issued under the City's Notice of Bylaw Violation Dispute Adjudication bylaw are capped at a maximum of \$500 in accordance with the *Community Charter*.

It was moved and seconded

- (1) That Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 9899, to add penalties related to short-term rentals, be introduced and given first, second and third readings;*
- (2) That Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9898, to reinstate a provision to allow a 5-room bed and breakfast business at 13333 Princess Street, be introduced and given first reading; and*
- (3) That staff be instructed to report back on a licencing program, including an analysis of resources for its implementation, to regulate boarding and lodging in order to create a public registry.*

**CARRIED**

Councillor Day returned to the meeting (4:09 p.m.)

**General Purposes Committee**  
**Monday, December 17, 2018**

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**3. APPLICATION FOR A NEW LIQUOR PRIMARY LIQUOR LICENCE FROM MONSTER L KARAOKE LTD, AT 8400 ALEXANDRA ROAD UNIT 130**

(File Ref. No. 12-8275-30-001) (REDMS No. 6038880)

It was moved and seconded

**(1) *That the application from Monster L Karaoke Ltd., for a new Liquor Primary Liquor Licence to operate a karaoke lounge establishment, at premises located at 8400 Alexandra Road Unit 130, with liquor service, be supported for:***

**(a) *a new Liquor Primary Liquor Licence with primary business focus of entertainment, specifically a karaoke lounge with total person capacity of 50 occupants; and***

**(b) *liquor service hours for Monday to Sunday, from 9:00 AM to 2:00AM;***

**(2) *That a letter be sent to Liquor Control and Licensing Branch advising that:***

**(a) *Council supports the applicant's new Liquor Primary Liquor Licence application and the hours of liquor service with the conditions as listed above;***

**(b) *the total person capacity set at 50 occupants is acknowledged;***

**(c) *Council's comments on the prescribed criteria (Section 71 of the Liquor Control and Licencing Regulations) are as follows:***

**(i) *the impact of additional noise and traffic in the area of the establishment was considered;***

**(ii) *the potential impact on the community was assessed through a community consultation process;***

**(iii) *given that this is a new business, there is no history of non-compliance with this establishment;***

**(d) *as the operation of a licenced establishment may affect nearby residents, businesses and property owners, the City gathered the views of the community through a community consultation process as follows:***

**(i) *residents, businesses and property owners within a 50 metre radius of the establishment were notified by letter. The letter provided information on the application with instructions on how to submit comments or concerns; and***

**General Purposes Committee**  
**Monday, December 17, 2018**

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- (ii) signage was posted at the subject property and three public notices were published in a local newspaper. The signage and public notice provided information on the application with instructions on how to submit comments and concerns;*
- (e) Council's comments on the general impact of the views of residents, businesses and property owners are as follows:*
  - (i) the community consultation process was completed within 90 days of the application process; and*
  - (ii) that based on the number of letters sent and no opposed responses received, Council considers that the approval of this application is acceptable to the majority of the residents, businesses and property owners in the area and the community.*

**CARRIED**

**FINANCE AND CORPORATE SERVICES DIVISION**

**4. SISTER CITY ADVISORY COMMITTEE FOUR-YEAR ACTIVITY PLAN (2019-2022)**

(File Ref. No. 01-0100-30-SCIT1-01) (REDMS No. 6027517)

In reply to queries from Committee, Mike Romas, Manager, Customer Services, provided the following information:

- a recommendation on a proposed additional Sister City from the Sister City Advisory Committee is anticipated in early 2019;
- the Sister City Advisory Committee recognizes the need to expand the sport exchange program, and has presented to the Richmond Sports Council on this initiative;
- in addition to funding provided, the Sister City Advisory Committee supports school exchanges by facilitating programming events like receptions and tours; and
- there is an opportunity to highlight the City's 140<sup>th</sup> anniversary through the annual City-to City recognition program activity.

Discussion took place and the Sister City Advisory Committee's efforts on the proposed art and photo exchange programs were recognized; also, it was noted that staff be mindful of the current political climate between Canada and China.

## General Purposes Committee

### Monday, December 17, 2018

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In response to queries regarding the proposed financial impact, Andrew Nazareth, General Manager, Finance and Corporate Services, advised that the Sister City Program has an annual operating budget of \$11,000, which is part of the City's annual base budget and allocated from property taxes; as the Sister City Advisory Committee's activity plan is on a four-year cycle, the remainder of the proposed program budget has been considered as part of surplus allocations, thereby preventing a tax increase in the year the program budget is considered by Council.

Discussion ensued on potentially increasing the annual operating budget in an effort to move away from utilizing surplus allocations to fund the Sister City Program; the Chair directed staff take Committee's comments under advisement and examine how the Program's budget is administered.

Discussion then took place on sourcing corporate sponsorships to offset costs and it was noted that discounts were extended by organizations for travel costs in the past.

As a result of the discussions, the following **motion** was introduced:

It was moved and seconded

- (1) *That the staff report titled "Sister City Advisory Committee Four-Year Activity Plan (2019-2022)", dated November 23, 2018, from the Manager, Customer Service, be received for information;*
- (2) *That the 2019-2022 Sister City Advisory Committee Program Activity budget of \$239,050 be referred to the budget process including timing and the source of funds for consideration; and*
- (3) *That staff liaise with the Sister City Advisory Committee for potential travel including budget and program details and report back.*

**CARRIED**

## COMMUNITY SERVICES DIVISION

### 5. RICHMOND LAWN BOWLING CLUBHOUSE SITE AND PROGRAM UPDATE

(File Ref. No. 06-2052-25-LBOW1) (REDMS No. 6030445 v. 54; 6036730; 6045609)

Elizabeth Ayers, Director, Recreation and Sport Services, accompanied by Jim Young, Senior Manager, Capital Buildings Project Development, remarked that staff is seeking Council direction on three matters: (i) the location of the lawn bowling greens, (ii) the location of the replacement Clubhouse, and (iii) programming for the replacement Clubhouse.

## **General Purposes Committee**

### **Monday, December 17, 2018**

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In reply to queries from Committee, staff provided the following information:

- the Richmond Lawn Bowling Club pledged \$90,000 towards the construction of the replacement Clubhouse; however staff are unaware of the Club's fundraising capacity for additional funds;
- the Club prefers a 4,900 square foot Clubhouse as they would like additional space to host banquets and increase the number of lockers; however, staff believe that this can be achieved through thoughtful design with a 4,300 square foot Clubhouse;
- each of the proposed options can accommodate the Club's current membership; however the Club prefers the largest option for its Clubhouse in order to accommodate special events; in an effort to address the Club's desire to host special events, staff have suggested utilizing the Minoru Centre for Active Living, which has a full service catering kitchen;
- the pan-abode structure poses challenges in expanding the current Clubhouse;
- relocating the two lawn bowling greens is estimated to cost approximately \$980,000; resurfacing the two lawn bowling greens is estimated to cost approximately \$350,000;
- the existing lawn bowling facility does not accommodate the Club's current membership; for instance, there are no change facilities, lockers are inadequate with some being situated in sheds;
- staff support upgrading lawn bowling amenities as the sport is popular among the City's growing older adult population and meets several of the City's recreation framework initiatives as it is a very social sport, and provides community connections particularly for older adults;
- it is anticipated that a larger Clubhouse will present opportunities to expand on the Club's current membership;
- through the design process, any future Clubhouse layout would be more efficient, thereby accommodating more people; and
- the current Clubhouse's pan-abode structure does not lend itself well to renovations or expansions.

Discussion took place and the following Committee comments were noted:

- the proposed updates for the existing lawn bowling amenities present the City an opportunity to build a first class facility that can attract provincial and international events;
- the relocation or replacement of approximately 19 trees is concerning;

## General Purposes Committee

### Monday, December 17, 2018

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- the need for the largest Clubhouse option cannot be justified in light of the Club's membership numbers and the proximity of the Minoru Centre for Active Living as an alternate space for the Club to host large events; and
- there is a need to examine the overall plan for Minoru Park in conjunction with the lawn bowling amenities.

Ivan Wong, Vice-President of the Richmond Lawn Bowling Club, stated that the current Clubhouse was built in 1963 and is very small as it can only accommodate 60 people comfortably. The Club prefers a larger Clubhouse in an effort to attract and host provincial and international events.

As a result of the discussions, the following **referral motion** was introduced:

It was moved and seconded

*That the staff report titled "Richmond Lawn Bowling Clubhouse Site and Update," dated November 29, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development be referred back to staff to examine more green options that would allow for the potential re-use and expansion of the Clubhouse and avoid removing trees.*

**DEFEATED**

Opposed: Mayor Brodie  
Cllrs. Au  
Loo  
McPhail  
McNulty

It was moved and seconded

*That, subject to the budget process,*

- (1) *Attachment 1 – South Green Relocated be selected as the preferred location for the lawn bowling greens, as described in the staff report titled "Richmond Lawn Bowling Clubhouse Site and Update," dated November 29, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development;*
- (2) *the Clubhouse to the east of the relocated lawn bowling greens as shown in Attachment 1 be selected as the preferred site for the Richmond Lawn Bowling Clubhouse, as described in the staff report titled "Richmond Lawn Bowling Clubhouse Site and Program Update," dated November 29, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development; and*

**General Purposes Committee**  
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- (3) *That Program Option 3 be selected as the preferred program for the Richmond Lawn Bowling Clubhouse, as described in the staff report titled "Richmond Lawn Bowling Clubhouse Site and Program Update," dated November 29, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development.*

The question on the motion was not called as discussion took place on the preferred location for the lawn bowling greens and program options for the Clubhouse.

The question on Part (1) of the motion was then called and it was **DEFEATED** with Cllrs. Au, Day, Green, Loo, Steves and Wolfe opposed.

It was moved and seconded

*That, subject to the budget process, the lawn bowling greens be resurfaced but not be relocated, as described in the staff report titled "Richmond Lawn Bowling Clubhouse Site and Update," dated November 29, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development.*

**CARRIED**

Opposed: Cllrs. McNulty  
McPhail

It was moved and seconded

*That, subject to the budget process, Clubhouse Site Option 2 as shown in Attachment 3 be selected as the preferred site for the Richmond Lawn Bowling Clubhouse, as described in the staff report titled "Richmond Lawn Bowling Clubhouse Site and Program Update," dated November 29, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development*

The question on the motion was not called as discussion took place on the footprint of the proposed new Clubhouse and in particular, whether a narrower building would allow for pedestrian circulation around the Clubhouse. The Chair remarked that the final configuration of the Clubhouse would be of interest to Council.

The question on the motion was then called and it was **CARRIED** with Cllrs. Loo, McNulty, McPhail and Wolfe opposed.

**General Purposes Committee**  
**Monday, December 17, 2018**

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The following **amendment motion** was introduced:

It was moved and seconded

*That Part (3) of the main motion be amended to read as follows:*

*“That Program Option 2 be selected as the preferred program for the Richmond Lawn Bowling Clubhouse, as described in the staff report titled “Richmond Lawn Bowling Clubhouse Site and Program Update,” dated November 29, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development.”*

**DEFEATED**

Opposed: Cllrs. Au  
Day  
Greene  
Steves  
Wolfe

The following **amendment motion** was introduced:

It was moved and seconded

*That Part (3) of the main motion be amended to read as follows:*

*“That Program Option 1 be selected as the preferred program for the Richmond Lawn Bowling Clubhouse, as described in the staff report titled “Richmond Lawn Bowling Clubhouse Site and Program Update,” dated November 29, 2018, from the Director, Recreation Services and the Senior Manager, Capital Buildings Project Development.”*

**DEFEATED**

Opposed: Mayor Brodie  
Cllrs. Loo  
McNulty  
McPhail  
Wolfe

The question on Part (3) of the main motion was then called and it was **DEFEATED** with Mayor Brodie and Cllrs. Au, Day, Greene, Steves, and Wolfe opposed.

It was moved and seconded

*That staff report back on additional options for the size of the Lawn Bowling Green Clubhouse and program.*

The question on the referral motion was not called as Committee requested that staff provide information regarding what other municipalities have for lawn bowling amenities.



**General Purposes Committee**  
**Monday, December 17, 2018**

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

**ADJOURNMENT**

It was moved and seconded

*That the meeting adjourn (5:22 p.m.).*

**CARRIED**

Certified a true and correct copy of the  
Minutes of the meeting of the General  
Purposes Committee of the Council of the  
City of Richmond held on Monday,  
December 17, 2018.

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Mayor Malcolm D. Brodie  
Chair

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Hanieh Berg  
Legislative Services Coordinator



## General Purposes Committee

Date: Wednesday, January 9, 2019

Place: Anderson Room  
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair  
Councillor Carol Day  
Councillor Kelly Greene  
Councillor Alexa Loo  
Councillor Bill McNulty  
Councillor Harold Steves  
Councillor Michael Wolfe

Absent: Councillor Chak Au  
Councillor Linda McPhail

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

### MINUTES

It was moved and seconded

*That the minutes of the meeting of the General Purposes Committee held on December 17, 2018, be adopted as circulated.*

**CARRIED**

### ENGINEERING AND PUBLIC WORKS DIVISION

#### 1. **CITY BUILDINGS – BUILDING FACILITIES DESIGN GUIDELINES AND TECHNICAL SPECIFICATIONS**

(File Ref. No. 06-2050-01) (REDMS No. 6047006 v. 4)

Jim Young, Senior Manager, Capital Buildings Project Development, provided background information and noted that the proposed Building Facilities Design Guidelines and Technical Specifications (the “Guidelines”) consolidate Council-approved guidelines for child care, affordable housing, enhance accessibility and so forth to name a few.

## General Purposes Committee

### Wednesday, January 9, 2019

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In reply to queries from Committee, Mr. Young stated that the proposed Guidelines is a living document and therefore, the addition of other components, such as embedded carbon, may be incorporated. Also, he remarked that the Guidelines will act as a resource with regard to understanding chain of authority for various approval processes.

In response to further queries from Committee, Peter Russell, Senior Manager, Sustainability and District Energy, advised that in light of the introduction of the BC Step Code, staff are re-examining the City's Sustainable "High Performance" Building Policy for City Owned Facilities and that a staff report is forthcoming. Also, Mr. Russell highlighted that the City's Official Community Plan was amended to reflect the target date of 2025 for buildings to be net-zero energy ready – seven years ahead of the Step Code's target of 2032.

In light of Committee's discussion, the Chair directed staff to make minor edits to the proposed Guidelines and comment on feedback from the City's capital buildings' contractors.

It was moved and seconded

- (1) *That the proposed "City of Richmond Building Facilities Design Guidelines and Technical Specifications" presented as Attachment 1 and described in the staff report dated January 9, 2019, from the Director, Engineering be endorsed and used in planning for future corporate facilities; and*
- (2) *That the proposed "City of Richmond Building Facilities Design Guidelines and Technical Specifications" presented as Attachment 1 and described in the staff report dated January 9, 2019, from the Director, Engineering, be sent to interested stakeholders including the Richmond Centre for Disability.*

**CARRIED**

## COMMUNITY SAFETY DIVISION

### 2. NON-FARM USE FILL APPLICATION FOR THE PROPERTY LOCATED AT 21800 RIVER ROAD (YEE)

(File Ref. No. 12-8080-12-01) (REDMS No. 5981518 v. 10)

In reply to queries from Committee, Carli Williams, Manager, Community Bylaws and Licencing, advised that (i) City-led inspections will be carried out daily until the process is well established, (ii) the Applicant will maintain a daily log of trucks depositing soil on the property, and (iii) the City may require the Applicant to provide a topographic survey in order to establish the volume of soil deposited.

## General Purposes Committee

### Wednesday, January 9, 2019

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Discussion ensued and Committee expressed concern regarding the City's soil deposit protocol and the amount of the security bond.

Dr. John Paul, Professional Agrologist, stated that he has been retained by the Applicant to assist with the proposed project. In reply to queries from Committee, Dr. Paul advised that cranberries could be grown with the soil currently on the subject property, and soil to be deposited on the subject site has not been inspected as its source is not known at this stage of the application process.

It was moved and seconded

*That the non-farm use fill application submitted by Joanna Yee for the property located at 21800 River Road for the purposes of developing a vegetable farm and the corresponding staff report titled "Non-Farm Use Fill Application for the Property Located at 21800 River Road (Yee)" dated November 14, 2018, be referred to the Agricultural Land Commission (ALC) for the ALC's review and decision.*

The question on the motion was not called as discussion took place and in reply to further queries from Committee, Ms. Williams, accompanied by Mike Morin, Soil Bylaw Officer, provided the following information:

- staff's costs are typically recovered through permit fees and revenues generated by enforcement activities;
- based on current market conditions, the Applicant will likely be compensated for accepting soil onto the subject site; and
- a load of fill can result in approximately \$150 to \$200 in tipping fees and factors such as the season and type of soil affect said amounts.

As a result, the following **referral motion** was introduced:

It was moved and seconded

*That the non-farm use fill application submitted by Joanna Yee for the property located at 21800 River Road for the purposes of developing a vegetable farm and the corresponding staff report titled "Non-Farm Use Fill Application for the Property Located at 21800 River Road (Yee)" dated November 14, 2018, be referred back to staff for information on (i) water drainage issues, (ii) permit fees, (iii) the standard of soils deposited, and (iv) inspection protocols.*

**CARRIED**

Opposed: Cllrs. Greene  
Loo  
Steves

**General Purposes Committee**  
**Wednesday, January 9, 2019**

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COMMUNITY SERVICES DIVISION

3. **BC POVERTY REDUCTION COALITION'S "ABC" PLAN**

(File Ref. No. 07-3000-01) (REDMS No. 6051450 v. 2)

Discussion took place and it was suggested that the resolution also be forwarded to local Members of Parliament and the Leader of the Opposition.

As a result, the following **motion** was introduced:

It was moved and seconded

- (1) *That the BC Poverty Reduction Coalition's proposed Municipal Resolution, "Call for the ABC Plan for an Accountable, Bold and Comprehensive poverty reduction plan for British Columbia," be endorsed; and*
- (2) *That the resolution be sent to the Premier, the Minister of Social Development and Poverty Reduction, Richmond Members of the Legislative Assembly, Richmond Members of Parliament and the Leader of the Opposition.*

**CARRIED**

ADJOURNMENT

It was moved and seconded

*That the meeting adjourn (4:54 p.m.).*

**CARRIED**

Certified a true and correct copy of the Minutes of the meeting of the General Purposes Committee of the Council of the City of Richmond held on Wednesday, January 9, 2019.

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Mayor Malcolm D. Brodie  
Chair

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Hanieh Berg  
Legislative Services Coordinator



## Finance Committee

Date: Wednesday, January 9, 2019

Place: Anderson Room  
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair  
Councillor Carol Day  
Councillor Kelly Greene  
Councillor Alexa Loo  
Councillor Bill McNulty  
Councillor Harold Steves  
Councillor Michael Wolfe

Absent: Councillor Chak Au  
Councillor Linda McPhail

Call to Order: The Chair called the meeting to order at 4:55 p.m.

### MINUTES

It was moved and seconded

*That the minutes of the meeting of the Finance Committee held on October 1, 2018, be adopted as circulated.*

**CARRIED**

### FINANCE AND CORPORATE SERVICES DIVISION

1. **FINANCIAL INFORMATION – 3<sup>RD</sup> QUARTER SEPTEMBER 30, 2018**  
(File Ref. No. 03-0970-09-01) (REDMS No. 5999628 v. 5)

In reply to queries from Committee, Cindy Gilfillan, Manager, Financial Reporting, advised that (i) the funds from the Capital Reserves may be allocated towards a range of Capital projects whereas funds from the Capital Building Infrastructure Reserve are allocated toward City facilities only, (ii) the City's surplus can be attributed to building permit and development revenues, and (iii) funds from vacant positions accumulate throughout the year, which carries through to the City's surplus.

**Finance Committee**  
**Wednesday, January 9, 2019**

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It was moved and seconded

*That the staff report titled, "Financial Information – 3<sup>rd</sup> Quarter September 30, 2018", dated November 30, 2018 from the Director, Finance be received for information.*

**CARRIED**

**2. ACTIVE CAPITAL PROJECTS INFORMATION – 3<sup>RD</sup> QUARTER SEPTEMBER 30, 2018**

(File Ref. No. 03-1200-05) (REDMS No. 6011060 v. 6)

It was moved and seconded

*That the staff report titled, "Active Capital Projects Information – 3<sup>rd</sup> Quarter September 30, 2018", dated December 10, 2018 from the Director, Finance be received for information.*

**CARRIED**

**RICHMOND OLYMPIC OVAL CORPORATION**

**3. RICHMOND OLYMPIC OVAL – 3<sup>RD</sup> QUARTER FINANCIAL INFORMATION**

(File Ref. No.) (REDMS No. 6034579)

It was moved and seconded

*That the report on Financial Information for the Richmond Olympic Oval Corporation for the third quarter ended September 30, 2018 from the Controller of the Richmond Olympic Oval Corporation be received for information.*

**CARRIED**

**LULU ISLAND ENERGY COMPANY**

**4. LULU ISLAND ENERGY COMPANY – 3<sup>RD</sup> QUARTER FINANCIAL INFORMATION**

(File Ref. No. 10-6600-10-01) (REDMS No. 6040158 v. 4)

It was moved and seconded

*That the Lulu Island Energy Company report titled "Lulu Island Energy Company – 3<sup>rd</sup> Quarter Financial Information" dated November 28, 2018 from the Chief Executive Officer and Chief Financial Officer, Lulu Island Energy Company be received for information.*

**CARRIED**

**Finance Committee**  
**Wednesday, January 9, 2019**

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5.    **2019 OPERATING BUDGET FOR THE LULU ISLAND ENERGY COMPANY**

(File Ref. No. 10-6600-10-01) (REDMS No. 6011863 v. 10)

It was moved and seconded

*That the Lulu Island Energy Company report titled “2019 Operating Budget for the Lulu Island Energy Company” dated October 26, 2018 from the Chief Executive Officer and Chief Financial Officer, Lulu Island Energy Company be received for information.*

**CARRIED**

**ADJOURNMENT**

It was moved and seconded

*That the meeting adjourn (5:12 p.m.).*

**CARRIED**

Certified a true and correct copy of the Minutes of the meeting of the Finance Committee of the Council of the City of Richmond held on Wednesday, January 9, 2019.

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Mayor Malcolm D. Brodie  
Chair

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Hanieh Berg  
Legislative Services Coordinator





## Planning Committee

Date: Tuesday, December 18, 2018

Place: Anderson Room  
Richmond City Hall

Present: Councillor Linda McPhail, Chair  
Councillor Bill McNulty  
Councillor Carol Day  
Councillor Alexa Loo  
Councillor Harold Steves

Also Present: Councillor Chak Au (entered at 4:01 p.m.)  
Councillor Michael Wolfe (entered at 4:47 p.m.)

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 Planning Committee held on December 4, 2018, be adopted as circulated.*

**CARRIED**

### NEXT COMMITTEE MEETING DATE

January 10, 2019, (tentative date) at 4:00 p.m. in the Anderson Room

**PLANNING AND DEVELOPMENT DIVISION**

1. **REVISED REZONING CONSIDERATIONS FOR THE APPLICATION BY PIETRO NARDONE FOR REZONING OF THE WEST PORTIONS 7151, 7171, 7191, 7211, 7231, AND 7251 BRIDGE STREET FROM THE "SINGLE DETACHED (RS1/F)" ZONE TO THE "SINGLE DETACHED (ZS14) - SOUTH MCLENNAN (CITY CENTRE)" ZONE; AND TO REZONE THE EAST PORTION OF 7191 BRIDGE STREET FROM THE "SINGLE DETACHED (RS1/F)" ZONE TO THE "SINGLE DETACHED (RS2/C)" ZONE**

(File Ref. No. 12-8060-20-009796; RZ 16-732490) (REDMS No. 6004718)

Jordan Rockerbie, Planning Technician, advised that the Applicant has requested that the construction of a through-road between Sills Avenue and General Currie Road be removed from the rezoning considerations as the other related rezoning application has been withdrawn, and therefore, the Applicant can no longer meet this requirement. He advised that the Applicant has proposed to provide a turnaround area for vehicles accessing the subject site in the interim.

*Councillor Chak Au entered the meeting – 4:01 p.m.*

In reply to queries from Committee, Wayne Craig, Director, Development, advised that staff are recommending this application to go through the Public Hearing process again, although it is not required, to ensure that the surrounding residents have the opportunity to provide any feedback they may have. He then noted that traffic enforcement and on-street parking assessments were conducted and no on-street parking or speeding issues were observed.

It was moved and seconded

- (1) *That Third Reading of Richmond Zoning Bylaw, 8500 Amendment Bylaw 9796 be rescinded; and*
- (2) *That Richmond Zoning Bylaw 8500, Amendment Bylaw 9796, for the rezoning of the west portions of 7151, 7171, 7191, 7211, 7231, and 7251 Bridge Street from the "Single Detached (RS1/F)" zone to the "Single Detached (ZS14) – South McLennan (City Centre)" zone, and of the east portion of 7191 Bridge Street from the "Single Detached (RS1/F)" zone to the "Single Detached (RS2/C)" zone, be forwarded to a Public Hearing to be held on January 21, 2019.*

**CARRIED**

**Planning Committee**  
**Tuesday, December 18, 2018**

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2. **APPLICATION BY CHRISTOPHER BOZYK ARCHITECTS FOR A ZONING TEXT AMENDMENT TO THE “VEHICLE SALES (CV)” ZONE TO INCREASE THE FLOOR AREA RATIO TO 0.82 AT 13100 SMALLWOOD PLACE**

(File Ref. No. 12-8060-20-009948; ZT 18-818765) (REDMS No. 6032125 v. 2)

David Brownlee, Planner 2, noted that this application was referred back to staff to examine (i) adding rooftop solar panels, (iii) reducing the proposed building height, (iii) not enclosing the parkade, and (iv) monitoring and addressing bird strike concerns.

Mr. Brownlee then highlighted the following proposed revisions to the application in an effort to address Council’s concerns:

- revised plans to accommodate 107 solar panels on the building’s lower rooftop level;
- revised plans for reduction of the parapet and overall building height while retaining the two additional parkade floors;
- revised parkade plans to minimize floor-to-floor heights;
- a shadow study indicates that shading of the periphery of that park will occur at several times through the year, limited to early mornings;
- the zoning text amendment considerations have been modified to include a requirement for the registration of an agreement on title ensuring that the parkade will not be enclosed unless the owner has successfully obtained a Development Permit; and
- a report prepared by an ornithologist indicates that the proposed parkade addition does not pose a collision risk to birds as no glass or reflective material has been proposed.

In reply to a query from Committee, Mr. Craig advised that data regarding the use of solar panels on this development can be shared with Committee.

Discussion took place on the potential for a policy on solar panels to provide standards and guidelines.

In response to a further query from Committee, Mr. Brownlee advised that various perspectives were examined with regard to the placement of the solar panels.

It was moved and seconded

***That Richmond Zoning Bylaw 8500, Amendment Bylaw 9948, for a Zoning Text Amendment to the “Vehicle Sales (CV)” zone to increase the Floor Area Ratio to 0.82 at 13100 Smallwood Place, be introduced and given first reading.***

**CARRIED**

3.

3. **APPLICATION BY FARRELL ESTATES LTD. FOR A ZONING TEXT AMENDMENT TO THE INDUSTRIAL BUSINESS PARK (IB1) ZONE TO PERMIT VEHICLE SALE/RENTAL ON A PORTION OF THE PROPERTY AT 6260 GRAYBAR ROAD**

(File Ref. No. 12-8060-20-009977; ZT 18-841250) (REDMS No. 6050378 v. 3)

In accordance with Section 100 of the *Community Charter*, Councillor Linda McPhail declared to be in a conflict of interest as her husband is part of the ownership group of the applicant and left the meeting – 4:17 p.m.

Vice-Chair Bill McNulty assumed the role of Chair.

Jessica Lee, Planning Technician, highlighted that the Applicant proposes to keep the exterior of the building and site in its current state and the remainder of the site is intended to continue for general industrial and office uses.

It was moved and seconded

*Application by Farrell Estates Ltd. for a Zoning Text Amendment to the Industrial Business Park (IB1) Zone to Permit Vehicle Sale/Rental on a Portion of the Property at 6260 Graybar Road*

**CARRIED**

Councillor McPhail returned to the meeting – 4:19 p.m.

Chair McPhail re-assumed the role of Chair.

4. **CANNABIS CULTIVATION IN THE AGRICULTURAL LAND RESERVE - COUNCIL REFERRAL RESPONSE**

(File Ref. No. 08-4430-03-10) (REDMS No. 6039195 v. 5)

Barry Konkin, Manager, Policy Planning, provided background information.

In response to Committee concerns, staff remarked that, as per Council's direction the City supports food-based farming on agricultural land.

Discussion took place regarding the previous motion and letter to various ministries and organizations and it was suggested that Richmond's MP's and other relevant ministries also be provided a copy of the letter.

In reply to further queries from Committee, Mr. Konkin advised that the Agricultural Advisory Committee (AAC) has been updated on the City's regulations on cannabis production on agricultural land and noted that members of the AAC expressed concerns regarding limiting farmer's options.

Discussion further took place, and it was suggested that the City's efforts to curb cannabis production on agricultural land not be further emphasised.

**Planning Committee**  
**Tuesday, December 18, 2018**

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It was moved and seconded

- (1) *That the “Cannabis Cultivation in the Agricultural Land Reserve – Council Referral Response” report dated December 3, 2018 from the Manager, Policy Planning be received for information and endorsed; and*
- (2) *That this report be forwarded along with Richmond City Council’s written request to the Provincial Government that:*
  - (a) *a moratorium on the cultivation of cannabis on farmland be established by the Provincial Government;*
  - (b) *cannabis be eliminated from the Farm Practices Protection (Right to Farm) Act; and*
  - (c) *local governments be permitted to determine whether or not cannabis should be grown on farmland within the municipality.*

**CARRIED**

Discussion returned to solar panels and the potential for a policy including guidelines with regard to the location, quantity, opportunities within the city, incentives, and environmental and economic impacts.

In reply to queries from Committee, Nicholas Heap, Professional 3, Sustainability, reference past referrals related to solar power and highlighted that staff are currently exploring different options for solar power in conjunction with other sustainable initiatives.

*Councillor Michael Wolfe entered the meeting – 4:47 p.m.*

As a result of the discussion, the following **referral motion** was introduced:

It was moved and seconded

*That staff examine the potential of a comprehensive policy on solar panels, in particular including the options for incentives, and the environmental and economic impacts and report back.*

The question on the referral motion was not called as discussion ensued regarding incentives for solar panels on new developments, the benefits and drawbacks of solar panels and the feasibility of incorporating them in Richmond.

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

**Planning Committee**  
**Tuesday, December 18, 2018**

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5. **MANAGER'S REPORT**

None.

**ADJOURNMENT**

It was moved and seconded

*That the meeting adjourn (4:52 p.m.).*

**CARRIED**

Certified a true and correct copy of the  
Minutes of the meeting of the Planning  
Committee of the Council of the City of  
Richmond held on Tuesday, December 18,  
2018.

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Councillor Linda McPhail  
Chair

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Sarah Goddard  
Recording Secretary



## Planning Committee

Date: Thursday, January 10, 2019

Place: Anderson Room  
Richmond City Hall

Present: Councillor Bill McNulty, Vice-Chair  
Councillor Carol Day – entered at 4:02 p.m.  
Councillor Alexa Loo  
Councillor Harold Steves  
Mayor Malcolm Brodie

Absent: Councillor Linda McPhail, Chair

Also Present: Councillor Michael Wolfe

Call to Order: The Vice-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 Planning Committee held on December 18, 2018, be adopted as circulated.*

**CARRIED**

## NEXT COMMITTEE MEETING DATE

January 22, 2019, (tentative date) at 4:00 p.m. in the Anderson Room.

## COMMUNITY SERVICES DIVISION

1. **AFFORDABLE HOUSING AGREEMENT BYLAW 9952 TO PERMIT THE CITY OF RICHMOND TO SECURE AFFORDABLE HOUSING UNITS AT 6551 NO. 3 ROAD**

(File Ref. No. 08-4057-05; 12-8060-20-009952) (REDMS No. 6061421 v. 2)

**Planning Committee**  
**Thursday, January 10, 2019**

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Cody Spencer, Program Manager, Affordable Housing, reviewed the Affordable Housing Agreement, noting that the agreement is to secure a 5% affordable housing contribution comprised of 150 units at the CF Richmond Centre development, to be delivered in two 75 unit stand-alone buildings with one in each of the two phases of the development. Mr. Spencer further remarked that the applicant has agreed to partner a non-profit operator for the management of the affordable housing units. He further noted that amongst the two buildings, 50% units will be provided as family appropriate (2 or 3 bedroom units) split between the two buildings at 38% and 61% respectively. Mr. Spencer also commented that each stand-alone building will feature indoor and outdoor amenity space with exclusive use of the affordable housing tenants. He further noted that the Affordable Housing Agreement defines household income thresholds and maximum rental rates and also prohibits age restrictions for affordable housing tenants.

It was moved and seconded

***That Affordable Housing Agreement (6551 No. 3 Road) Bylaw 9952 be introduced and given first, second and third readings to permit the City to enter into a Housing Agreement with RC (South) Inc. and 7904185 Canada Inc., together as registered owners, and RCCOM Limited Partnership and AIMCO Realty Investors Limited Partnership, together as beneficial owners, substantially in the form attached hereto, in accordance with the requirements of Section 483 of the Local Government Act, to secure the Affordable Housing Units required by the Official Community Plan (City Centre Area Plan) Amendment CP 16-752923.***

**CARRIED**

*Councillor Day entered the meeting (4:02 p.m.).*

**2. MARKET RENTAL AGREEMENT (HOUSING AGREEMENT)  
BYLAW 9980 TO PERMIT THE CITY OF RICHMOND TO SECURE  
MARKET RENTAL HOUSING UNITS AT 6551 NO. 3 ROAD**

(File Ref. No. 08-4057-05; 12-8060-20-009980) (REDMS No. 6061244)

Suzanne Carter-Huffman, Senior Planner, Urban Design, reviewed the Market Rental Agreement, noting that it would secure 200 market rental units in phase two of the CF Richmond Centre development site with 40% family friendly (2 or 3 bedroom) units, all designed to basic universal housing standards. Ms. Carter-Huffman further remarked that the market rental housing is part of the developer contribution identified as part of the development's Official Community Plan amendment application. Ms. Carter-Huffman also noted that all of the market rental units in phase 2 would be completed prior to occupancy of 50% of the ownership units and a minimum of 40 units may be included in a strata. She further advised that the detailed design of the market rental units and related amenities will be addressed in the phase 2 development permit application.

2.



**Planning Committee**  
**Thursday, January 10, 2019**

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Discussion took place regarding potential investment opportunities in relation to the market rental units and it was noted that the market rental agreement and covenant includes a prohibition on the sale of individual market rental units to discourage owner- occupation of any market rental units.

It was moved and seconded

***That Market Rental Agreement (Housing Agreement) (6551 No. 3 Road) Bylaw 9980 be introduced and given first, second and third readings to permit the City to enter into a Market Rental Agreement with RC (South) Inc. and 7904185 Canada Inc., together as registered owners, and RCCOM Limited Partnership and AIMCO Realty Investors Limited Partnership, together as beneficial owners, substantially in the form attached hereto, in accordance with the requirements of Section 483 of the Local Government Act, to secure Market Rental Housing Units required by the Official Community Plan (City Centre Area Plan) Amendment CP 16-752923.***

**CARRIED**

## PLANNING AND DEVELOPMENT DIVISION

3. **APPLICATION BY 0855855 B.C. LTD. FOR REZONING AT 9820 ALBERTA ROAD FROM THE “SINGLE DETACHED (RS1/F)” ZONE TO THE “TOWN HOUSING (ZT60) – NORTH MCLENNAN (CITY CENTRE)” ZONE**

(File Ref. No. RZ 16-742260; 12-8060-20-009960) (REDMS No. 5164563)

Minhee Park, Planner 2, provided an overview of the application and noted that (i) the subject site is an orphan property surrounded by existing three storey townhouse developments to the east, west and south, (ii) access to the development would be provided by the existing driveway on the neighbouring site to the east, (iii) the proposed outdoor amenity area will be combined with the outdoor amenity area on the neighbouring property, and (iv) the developer has spoken with the neighbouring strata about the driveway access and use of the outdoor amenity area and will continue to work with the strata to further develop details of the amenity area design.

Discussion took place regarding identifying convertible units and direction was given to staff to explore options for advertising convertible units available in new developments such as placing a notation on title or creating a registry that could be shared with other organizations such as the Richmond Centre for Disability.

**Planning Committee**  
**Thursday, January 10, 2019**

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In response to questions from Committee, Wayne Craig, Director, Development advised that (i) there is legal agreement registered on title regarding the shared driveway access with the property to the east, (ii) prospective buyers can inquire with the City regarding any development of adjacent properties that may affect a location they were interested in purchasing, and (iii) the cross access easement is registered as a separate document.

It was moved and seconded

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9960, for the rezoning of 9820 Alberta Road from the “Single Detached (RS1/F)” zone to the “Town Housing (ZT60) – North McLennan (City Centre)” zone to permit the development of six three-storey townhouse units with vehicle access from 9840 Alberta Road, be introduced and given first reading.*

**CARRIED**

**4. APPLICATION BY ROSEBUD PRODUCTIONS INC. FOR REZONING A PORTION OF 23000 FRASERWOOD WAY (UNIT 105, 110 AND 115) TO ALLOW A LICENSED HEALTH CANADA MEDICAL CANNABIS PRODUCTION FACILITY**

(File Ref. No. RZ 18-811041; 12-8060-20-009978) (REDMS No. 6044866)

Kevin Eng, Planner 2, reviewed the application, noting that the application is for a medical cannabis production facility encompassing 3 units in the existing building. Mr. Eng further remarked that the facility is also subject to Health Canada licencing and approval and accordingly, an application is currently under review by Health Canada. Mr. Eng also commented that all access of cannabis cultivation, processing, and storage activities will be within the existing building. Mr. Eng also advised that the applicant has provided staff with information regarding the onsite security provisions and other details to address potential impacts of facility operations related to noise and odour control.

In response to queries from Committee, Mr. Eng remarked that:

- the applicant is required to submit a mechanical engineering consultancy report as part of the rezoning consideration which details how the facility will address and mitigate any noise or odour issues;
- a letter of assurance by the consulting engineer confirming operation of noise and odour control systems is also required as part of the future building permit for any tenant improvements;
- Council previously granted third reading preliminary approval for a medical cannabis facility near No. 6 Road and Westminster Highway which is still ongoing; and
- staff are unaware of any complaints regarding odour from the facility that was located near Ironwood and it is no longer in operation.

4.

## Planning Committee

### Thursday, January 10, 2019

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Discussion took place regarding (i) the approval of additional medicinal cannabis production facilities in the city beyond the application already granted third reading, (ii) the potential volume of plant production in medicinal cannabis facilities, and (iii) addressing potential noise and odour issues resulting in the production of medicinal cannabis.

In response questions from Committee, Justin Dhaliwal, applicant, commented on their licencing application to Health Canada, noting they have applied for a production limit of 75 kilograms per month. Mr. Dhaliwal further remarked that prior to recreational legalization, Health Canada issued licencing with a quota based on number of patients however, due to a supply shortage, licencing is being granted with production limitations based on the square footage of the operation.

In further reply to Committee's comments regarding odour concerns, the applicant advised that the facility would adhere to strict guidelines from Health Canada and that the mechanical engineers hired by the applicant have had two other facilities inspected and improved by Health Canada. Mr. Dhaliwal also noted that they would ensure that the mechanical engineering report provides as many details as possible on the metrics of the facility's HVAC and odour control systems, including charcoal and carbon filters within the building with separate rooms on their own air filtration systems.

In response to questions from Committee regarding plant capacity within the facility, Mr. Dhaliwal estimated the range could be from 500 to 1000 plants but more definitive information could be provided. Mr. Dhaliwal further remarked that, if the application were approved, the facility would be required to keep a detailed plant inventory once operations commence. Direction was given to staff to provide further information regarding the number of plants to be grown in the facility.

Discussion further ensued in regards to gathering further information on other approved facilities in operation including the potential of a site tour.

Correspondence received by Committee from a neighbouring tenant in the building (copy on file, City Clerk's Office) initially opposed to the application but now in support was referenced. In response to comments from Committee regarding communication with the other units on the property, Mr. Dhaliwal advised that every unit in the strata had been approached and made aware of the applicant's proposal, noting the importance of remaining accessible and transparent.

It was moved and seconded

***That Richmond Zoning Bylaw 8500, Amendment Bylaw 9978, for the rezoning a portion of 23000 Fraserwood Way (Units 105, 110 and 115) to allow a licensed Health Canada Medical Cannabis Production Facility on a site-specific basis in the "Industrial Business Park (IB1)" zoning district, be introduced and given first reading.***

**CARRIED**

5.

**Planning Committee**  
**Thursday, January 10, 2019**

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5. **APPLICATION BY INTERFACE ARCHITECTURE INC. FOR REZONING AT 5631, 5635, 5651, 5691, 5711, 5731 AND 5751 STEVESTON HIGHWAY FROM “SINGLE DETACHED (RS1/B)” ZONE AND “SINGLE DETACHED (RS1/E)” ZONE TO “MEDIUM DENSITY TOWNHOUSES (RTM2)” ZONE**

(File Ref. No. 12-8060-20-009982; RZ 16-733904) (REDMS No. 5985084)

Edwin Lee, Planner 1, reviewed the application, noting that the application is to allow 28 townhouse units to be developed and that the site is designated for townhouse use under the arterial road land use policy. Mr. Lee further remarked that vehicle access will be provided by a new driveway on Steveston Highway, designed to allow only right in and right out vehicle movement. Mr. Lee also noted that two secondary suites at approximately 290 square feet each are included in the proposal and each unit will have two designated parking spaces with one additional stall provided for each of the secondary suites. Mr. Lee further commented that the applicant is proposing to protect eight trees along the rear of the property and 14 trees on the neighbouring properties.

In response to questions from Committee, Mr. Craig commented that the 2 metre road dedication would be required at the east edge of the site along Steveston Highway to relocate the sidewalk and to provide additional road width to potentially add additional travel lanes and the proximity of the buildings to the existing curb along Steveston Highway is relatively consistent throughout the development. Mr. Craig also advised that the proposed right in right out vehicle access is similar to other developments on arterial roads and a previous application proposing a full movement driveway with a lighted intersection was not supported by the community in the past.

It was moved and seconded

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 9982, for the rezoning of 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway from “Single Detached (RS1/B)” zone and “Single Detached (RS1/E)” zone to “Medium Density Townhouses (RTM2)” zone, be introduced and given first reading.*

**CARRIED**

6. **MANAGER’S REPORT**

**Planning Committee**  
**Thursday, January 10, 2019**

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Barry Konkin, Manager, Policy Planning, distributed a map on table (copy on file, City Clerk's Office) and provided an update with regards to recent land use designation changes. Mr. Konkin advised that in October 2017 the Port of Vancouver (Port) purchased the property located at 11480 River Road, currently occupied by two building with 216,000 square feet of warehouse. Mr. Konkin further commented that in July 2018 the Port advised the City of proposed changes to the Port Land Use Plan to identify 11480 River Road as an industrial property, the same as the current Official Community Plan designation, at which time staff provided comment noting no concerns. Mr. Konkin also advised the Port has now notified staff that the Land Use Plan update has been adopted for the area.

**ADJOURNMENT**

It was moved and seconded  
*That the meeting adjourn (4:50 p.m.).*

**CARRIED**

Certified a true and correct copy of the  
Minutes of the meeting of the Planning  
Committee of the Council of the City of  
Richmond held on Thursday, January 10,  
2019.

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Councillor Bill McNulty  
Vice-Chair

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Amanda Welby  
Legislative Services Coordinator



## Public Works and Transportation Committee

Date: Wednesday, December 19, 2018

Place: Anderson Room  
Richmond City Hall

Present: Councillor Chak Au, Chair  
Councillor Linda McPhail, Vice-Chair  
Councillor Kelly Greene  
Councillor Alexa Loo  
Councillor Michael Wolfe (entered at 4:01 p.m.)  
Mayor Malcolm Brodie

Also Present: Councillor Carol Day  
Councillor Bill McNulty  
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 and Transportation Committee held on November 21, 2018, be adopted as circulated.*

**CARRIED**

### NEXT COMMITTEE MEETING DATE

January 23, 2019, (tentative date) at 4:00 p.m. in the Anderson Room

### PLANNING AND DEVELOPMENT DIVISION

**Public Works & Transportation Committee**  
**Wednesday, December 19, 2018**

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**1. TRANSLINK POLICY FOR PROVISION OF WASHROOMS ON TRANSIT**

(File Ref. No. 01-0154-04) (REDMS No. 6032168 v. 3)

*Councillor Wolfe entered the meeting (4:01 p.m.).*

In response to questions from Committee, Sonali Hingorani, Transportation Engineer commented that TransLink has not yet identified which specific Sky Train stations will include facilities, just the criteria to identify key locations to maximize coverage and capture as many customers as possible. Ms. Hingorani further remarked that the next phase will include identifying locations for washroom facilities along the transit network based on TransLink's criteria along with an implementation strategy in 2019 and staff will provide input and feedback regarding the needs of Richmond at this stage.

Discussion took place on advocating to TransLink for the inclusion of washrooms at key Richmond transit locations and as a result, the following **motion** was introduced:

It was moved and seconded

- (1) That the report titled "TransLink Policy for Provision of Washrooms on Transit" dated December 7, 2018 from the Director, Transportation, be received for information; and*
- (2) That a letter be sent to Translink encouraging the provision of washrooms at all Canada Line stations as well as the new Richmond-Brighouse bus mall.*

**CARRIED**

**ENGINEERING AND PUBLIC WORKS DIVISION**

**2. 2019 SUBMISSION TO THE DISASTER MITIGATION AND ADAPTATION FUND - RICHMOND FLOOD PROTECTION PROGRAM**

(File Ref. No. 10-6060-05-01) (REDMS No. 6037901 v. 7)

It was moved and seconded

- (1) That the submission to the Disaster Mitigation and Adaptation Fund – Richmond Flood Protection Program requesting funding for up to 40% of the project cost, for a total of \$13,780,000, to upgrade 2.6 kilometers of dike and five pump stations be endorsed;*
- (2) That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to enter into funding agreements with the Government of Canada for the above mentioned project should it be approved for funding by the Government of Canada;*

**Public Works & Transportation Committee**  
**Wednesday, December 19, 2018**

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- (3) *That, should the above mentioned project be approved for funding by the Government of Canada, the Consolidated 5 Year Financial Plan (2019-2023) be updated accordingly; and*
- (4) *That copies of the submission be sent to Richmond Members of Parliament.*

The question on the motion was not called as discussion took place on forwarding the submission to local federal representatives.

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

**3. STREET LIGHTING CONVERSION PLAN STATUS UPDATE**

(File Ref. No. 10-6125-05-01) (REDMS No. 6022368 v. 15)

In response to queries from Committee, Levi Higgs, Corporate Energy Manager advised that (i) a capital request for \$430,000 has been submitted for phase 3 and approximately \$460,000 will be requested for phase 4 in 2020, (ii) staff can provide updates regarding electricity cost savings from the conversion to Committee as available, (iii) phases 1 and 2 included all arterial roads identified in the northwest and southwest areas of the City, done on a quadrant by quadrant basis and phase 3 is centered around the City Centre and Cambie areas, and (iv) light pollution is addressed by staff on a case by case basis for any issues noted by residents.

It was moved and seconded

*That the staff report titled "Street Lighting Conversion Plan Status Update" from the Director, Engineering dated November 16, 2018, be received for information.*

**CARRIED**

**4. DIKE MASTER PLAN - PHASES 3 AND 5**

(File Ref. No. 10-6060-01) (REDMS No. 5939748 v. 11)

In response to questions from Committee, Beata Ng, Acting Manager, Engineering Planning, remarked that the implementation of the Dike Master Plan is dependent on sea level rise and staff will continue to observe the rate and make adjustments accordingly. Ms. Ng further advised that superdikes have been implemented in Richmond including at the Richmond Olympic Oval and Imperial Landing in Steveston, and noted that this generally makes future dike development easier as the development is built up to where the dike is built. In response to further questions from Committee, Ms. Ng commented that the open houses are planned for mid to late January 2019, with the final report anticipated in March 2019.



**Public Works & Transportation Committee**  
**Wednesday, December 19, 2018**

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It was moved and seconded

*That the public and key external stakeholders be consulted as identified in the staff report titled "Dike Master Plan – Phases 3 and 5" from the Director, Engineering, dated November 30, 2018.*

**CARRIED**

**5. MANAGER'S REPORT**

**(i) Recent Heavy Rainfalls**

John Irving, Director, Engineering, and Tom Stewart, Director, Public Works Operations provided an update to Committee regarding the recent heavy rainfalls and extreme weather events and noted that extreme events are becoming more frequent with climate change and that the system performed well in response. They further commented that the pump stations were operating at a higher capacity than normal, 80-90% on the north side of Richmond.

In response to questions from Committee, Mr. Irving remarked that new residential developments are required to build higher to mitigate flooding and owners of older properties can improve drainage by connecting to the storm drainage system and creating additional barriers. Mr. Stewart, in response to further queries, noted that staff continually monitor and accumulate data to ensure that the City is proactive in its approach to pump station monitoring and that staff are able to respond to any issues that may arise during major events or address any component failures. Mr. Stewart further commented that approximately 100 calls were received regarding localized flooding.

**(ii) FortisBC Update**

Mr. Irving provided an update regarding the disruption to the FortisBC natural gas supply from the rupture of the Enbridge pipeline and advised that with recent warm weather, Enbridge is back up to 85% capacity with adequate storage for customers over the next couple of months.

**ADJOURNMENT**

It was moved and seconded

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

**CARRIED**

**Public Works & Transportation Committee**  
**Wednesday, December 19, 2018**

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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, December 19, 2018.

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Councillor Chak Au  
Chair

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Amanda Welby  
Legislative Services Coordinator



## Parks, Recreation and Cultural Services Committee

Date: Wednesday, December 19, 2018

Place: Anderson Room  
Richmond City Hall

Present: Councillor Harold Steves, Chair  
Councillor Chak Au, Vice-Chair  
Councillor Bill McNulty  
Councillor Linda McPhail  
Councillor Michael Wolfe  
Mayor Brodie

Also Present: Councillor Day  
Councillor Greene  
Councillor Loo

Call to Order: The Chair called the meeting to order at 4:36 p.m.

### MINUTES

It was moved and seconded

*That the minutes of the meeting of the Parks, Recreation and Cultural Services Committee held on November 27, 2018, be adopted as circulated.*

**CARRIED**

### NEXT COMMITTEE MEETING DATE

January 29, 2019, (tentative date) at 4:00 p.m. in the Anderson Room

### COUNCILLOR HAROLD STEVES, CHAIR

1. **POTENTIAL CONVERSION OF MINORU AQUATIC CENTRE**  
(File Ref. No. 06-2050-20-AQ) (REDMS No. 6051118)

**Parks, Recreation & Cultural Services Committee**  
**Wednesday, December 19, 2018**

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Councillor Steves spoke on referring the potential conversion of the Minoru Aquatic Centre pool to staff to examine utilizing the space for other uses and as a result, the following **referral motion** was introduced:

It was moved and seconded

***That staff investigate the costs of converting the pool at the Minoru Aquatic Centre for uses that do not require major changes and report back.***

Councillor Steves further noted that should the referral be supported, a motion to rescind the previous Council resolution regarding the demolition of the pool would be put forth and discussion took place on referring the matter back to staff for further review.

Jagroop and Arjan Bhullar, Bhullar Wrestling Club, spoke to Committee regarding the practice of converting decommissioned swimming pools into wrestling spaces. They commented that such a space could be converted for wrestling use by filling the pool area with Styrofoam and padding and referenced examples from Universities that have gone through the process. The delegation further remarked that their wrestling club had been unsuccessful in finding a new space in the city and that converting the Minoru Aquatic Centre for other uses would allow use of the space by community groups.

In response to a question from Committee regarding the time line of vacating and issuing tenders for demolition of the Minoru Aquatic Centre, Jim Young, Senior Manager, Capital Buildings Project Development, advised it is dependent on the opening of the Minoru Centre for Active Living and would most likely be in the first quarter of 2019.

Discussion further took place regarding analyzing potential uses for the pool space and addressing the need for more community group spaces.

In response to a query from Committee, Jamie Esko, Manager, Parks Planning, Design and Construction, advised that the Minoru Park Vision Plan report is expected to come to Committee in the first quarter of 2019.

In response to further questions from Committee, the delegation commented that other activities could coexist with a dedicated wrestling space such as yoga, pilates, and self-defense classes. They further remarked that they were of the opinion that any space conversion for wrestling completed in the pool area could be converted back for other uses.

Discussion further took place on the variety of options for converting the Minoru Aquatic Centre space including reverting the area back to green space. Direction was given to staff to provide information regarding the lifespan of the building when reporting back.

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

**COMMUNITY SERVICES DIVISION**

**2. RESILIENT STREETS OUTREACH PROGRAM**

(File Ref. No. 11-7000-01) (REDMS No. 6040603 v. 13)

It was moved and seconded

*That the staff report titled “Resilient Streets Outreach Program” dated November 29, 2018, from the Director, Recreation Services, be received for information.*

**CARRIED**

*Councillor Greene left the meeting (5:05 p.m.).*

**3. 2019 ENGAGING ARTISTS IN COMMUNITY PUBLIC ART PROJECTS**

(File Ref. No. 11-7000-09-20-089) (REDMS No. 6009795 v. 4)

It was moved and seconded

*That the concept proposals and implementation for the community public art projects working in partnership with the Richmond Nature Park Society, Richmond Public Library (Brighthouse Branch) and City Centre Community Association be considered in the City’s Consolidated 5 Year Financial Plan as presented in the staff report titled “2019 Engaging Artists in Community Public Art Projects,” dated November 15, 2018, from the Director, Arts, Culture and Heritage Services.*

**CARRIED**

**4. PROPOSED PLAN FOR THE FUTURE COORDINATION OF SALMON FESTIVAL AND RICHMOND CANADA DAY IN STEVESTON**

(File Ref. No. 11-7400-01) (REDMS No. 6006424 v. 4)

In response to questions from Committee, Bryan Tasaka, Manager, Major Events and Film, advised that the event would be co-produced between the City and the Steveston Salmon Festival Committee (SSFC). In further response to queries, Kristine Dickson, Co-Chair, SSFC and Brenda Yttri, Co-chair, SSFC, advised that the board does not reconvene until January and would vote on the matter then, and expressed support for the proposed plan.

*Councillor Greene returned to the meeting (5:09 p.m.).*

**Parks, Recreation & Cultural Services Committee**  
**Wednesday, December 19, 2018**

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It was moved and seconded

*That the City and the Steveston Salmon Festival Committee co-produce Richmond's Canada Day celebrations under the banner of Steveston Salmon Festival as outlined in the report titled "Proposed Plan for the Future Coordination of Salmon Festival and Richmond Canada Day in Steveston", dated December 1, 2018 from the Director, Arts, Culture and Heritage Services.*

**CARRIED**

**5. RECREATION AND SPORT STRATEGY 2019-2024**

(File Ref. No. 01-0370-20-002) (REDMS No. 6037135 v. 5)

It was moved and seconded

- (1) That the Recreation and Sport Strategy 2019-2024, and companion documents, as outlined in the report titled "Recreation and Sport Strategy 2019-2024," dated November 30, 2018, from the Director, Recreation Services, be adopted;*
- (2) That staff report back at the mid-point and end of the implementation period of the Recreation and Sport Strategy 2019-2024, as outlined in the report titled "Recreation and Sport Strategy 2019-2024," dated November 30, 2018, from the Director, Recreation Services; and*
- (3) That the Recreation and Sport Strategy 2019-2024, as outlined in the report titled "Recreation and Sport Strategy 2019-2024, dated November 30, 2018, from the Director, Recreation Services, be presented to Council School Board Liaison Committee meeting.*

**CARRIED**

**6. MANAGER'S REPORT**

*(i) Tree, Bench, and Picnic Table Dedication Program*

Paul Brar, Manager, Parks Programs provided Committee with an update regarding the dedication program, noting that 318 bench dedications were up for renewal and 64 have been renewed or are in the process of renewing.

In response to questions from Committee, Mr. Brar remarked that (i) staff are working with each dedication renewal to accommodate any financial hardship by setting up payment plans, (ii) dedications that have been discontinued are removed and plaques are given to the donors, (iii) staff make a dedicated effort to contact the original donor for any plaques removed and those not claimed are stored, and (iv) staff are keeping detailed logs and records of communications with donors for removed plaques.

**Parks, Recreation & Cultural Services Committee**  
**Wednesday, December 19, 2018**

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**ADJOURNMENT**

It was moved and seconded

*That the meeting adjourn (5:17 p.m.).*

**CARRIED**

Certified a true and correct copy of the Minutes of the meeting of the Parks, Recreation and Cultural Services Committee of the Council of the City of Richmond held on Wednesday, December 19, 2018.

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Councillor Harold Steves  
Chair

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Amanda Welby  
Legislative Services Coordinator



# City of Richmond


## Report to Committee

**To:** General Purposes Committee  
**From:** Cecilia Achiam,  
General Manager, Community Safety  
**Re:** One Year Review and Bylaw Amendments for Short-term Rentals

**Date:** November 26, 2018  
**File:** 12-8275-09/Vol 01

### Staff Recommendation

1. That Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 9899, to add penalties related to short-term rentals, be introduced and given first, second and third readings;
2. That Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9898, to reinstate a provision to allow a 5-room bed and breakfast business at 13333 Princess Street, be introduced and given first reading; and
3. That staff be instructed to report back on a licencing program, including an analysis of resources for its implementation, to regulate boarding and lodging in order to create a public registry.

  
Cecilia Achiam,  
General Manager, Community Safety  
(604-276-4122)

Att. 1

REPORT CONCURRENCE			
<b>ROUTED TO</b>	<b>CONCURRENCE</b>	<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b>
Law	<input checked="" type="checkbox"/>		CT
Policy Planning	<input checked="" type="checkbox"/>		
Economic Development	<input checked="" type="checkbox"/>		
		<b>APPROVED BY CAO</b>	
			



## Staff Report

### Origin

During the March 27, 2017 Council meeting, the following staff referrals were made:

- 1) *That:*
  - a. *the information regarding tax requirements including whether a hotel tax should apply to short-term rentals provided in this report be received for information; and*
  - b. *staff be directed to engage the Province of British Columbia to discuss regulatory changes to the Provincial Sales Tax in regards to the Municipal and Regional District Tax, including the definition of accommodation providers;*
- 2) *That staff conduct a one-year review of the City's proposed short-term rental regulation, and include issues surrounding a requirement for the operator of the short-term rental to be the owner of the property and report back to Council; and*
- 3) *That staff consider options and report back on the issue of short-term rentals for multi-family dwellings.*

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

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

### Findings of Fact

Issues related to short-term rentals were discussed at several meetings of Council in 2017. In consideration of the issues related to regulation of short-term rentals, Council considered the following impacts:

- **Effect on Rental Housing Stock** – residential units offered for short-term rental can decrease the availability of long term rentals.
- **Land Use Conflicts** – short-term rentals may have a number of impacts on residential neighbourhoods, including parking and noise.
- **Level Playing Field** – Hotels pay taxes and fees whereas short-term rentals are not subject to the same regulations.
- **Health, Fire and Safety** – Hotels must comply with certain building and fire code standards whereas short-term rentals are located in houses or strata lots and not subjected to the same requirements.
- **Economic Benefits** – Short-term rentals can provide economic benefits to residents and the local economy.

In consideration of the impacts and benefits of short-term rentals, Council established the following principles to guide the development of regulations:

- Preserve affordable long-term housing;
- Provide opportunities for revenue to assist in home ownership;
- Continue to enable sport hosting and cultural exchanges; and
- Prohibit illegal hotel operations and “party houses”.

As a result, staff were directed to limit short-term rentals to boarding and lodging and bed and breakfast businesses, as already permitted in Richmond Zoning Bylaw No. 8500. Staff were further directed to enhance regulations related to bed and breakfasts and strengthening the enforcement against illegal operations.

In order to implement these changes, there were a number of changes to the regulations for bed and breakfast businesses, including the addition of buffer distances, allowing only owner-operators and limiting the number of rooms to three in the ALR. There were also increases made to the penalties for operating a bed and breakfast outside of the regulations. A summary of all of the changes adopted in 2017 plus those proposed in this report is provided in Attachment 1.

Along with changes to the rules governing bed and breakfast businesses, staff also undertook a targeted enforcement campaign to identify illegal short-term rentals. Staff resources devoted to enforcement of short-term rentals were temporarily increased in 2017 in order to identify as many addresses as possible and develop a procedure to investigate and enforce all suspected illegal operations. Since that time, the enforcement of illegal short-term rentals is being handled by regular full time staff.

## **Analysis**

### **Enforcement**

Enforcement of illegal short-term rentals in Richmond is both proactive (inspectors look for listings on web sites or follow up on known addresses) and reactive (inspectors responding to specific complaints). In all cases the goal is compliance with all of the City’s bylaws.

Table 1: Enforcement of Illegal Short-term Rentals

Action	2017	2018 Jan-Oct	Total
Number of Addresses identified	289	252	541
Home Inspections	404	670	1074
MTI issued	87	75	162
Order to comply (verbal or written)	286	236	522
Operations that have ceased short-term rental	285	239	524

Since the start of the campaign, staff have identified 541 addresses and issued 162 MTI tickets to illegal short-term rental operations. These statistics are reported monthly to the Community Safety Committee but the full summary of enforcement action from 2017 until the end of October 2018 is noted in Table 1.

Enforcement of illegal short-term rentals is generally more time consuming than other investigations undertaken by staff. Inspectors must attend an address several times in order to collect sufficient evidence to write a ticket or contemplate prosecution in court. There is sufficient staff in Community Bylaws and Licencing to deliver the current level of service as described in this section of the report. Should Council feel that enforcement needs to be increased or if the allowable number of short-term rentals increases, due to either market forces or changes in City regulations, staffing levels should be reconsidered at that time.

### Data on Short-Term Rentals

The practice of short-term rentals was brought forward to Council as an emerging issue in 2016. When staff began the analysis, approximately 1,586 short-term rental listings in Richmond were discovered online on numerous websites during the initial analysis in November 2016. The same short-term rentals units were often listed on multiple sites.

Table 2 – Statistics on Short-Term Rental Listings

<b>Annual Average Metrics</b>	
Monthly Number of Listings	610
Monthly Number of Hosts	340
Listings by a Host	1.80
Listing Composition	Private Room: 55% Entire Unit: 42% Shared Room: 3%
Percentage of Listings in ALR	3%
Price per Night (Excludes fees)	Entire Unit: \$148.83 Private Room: \$62.53
Estimated Total Annual Bookings	3,255 (44.4% booking rate)
Forecasted Monthly Listings	620 to 800

There are several on-line platforms that provide listings for short-term rentals. While Airbnb is the site most often referred to in the media, other sites include booking.com, Expedia, VanSky, Craigslist and HomeAway. The City has been using data from Airbnb (the most easily accessible platform) to track trends for short-term rentals in Richmond. Based on Airbnb data, it appears that the number of listings for short-term rentals has stabilized and that it varies throughout the year, roughly correlating to the availability of hotel rooms. In 2018, the average number of short-term rental listings in Richmond is approximately 610. However, during times when hotel rooms are fully booked, the Airbnb listings were as high as 800 (shown in Table 2).

One gap in information is whether a short-term rental listing is legal or not. With the exception of “Entire Unit” listings which are not legal in Richmond, Airbnb does not provide data on whether a listing is for legal short-term rentals (licensed bed and breakfasts or boarding and lodging) or illegal operations. Moving forward, with the recommendations in this report, staff propose to create a licensing requirement that would make it easier to differentiate between legal and illegal operations. Staff are also exploring other platforms for getting listing data from operators other than just Airbnb. This information could then be reported out monthly along with the enforcement data.

Upon review of the 2018 files and investigations that have been completed, approximately two-thirds of short-term rentals investigated by staff have obtained compliance by converting a short-term rental to a long-term tenant (greater than 30 days). In other cases the houses are put up for sale, the owner moves back in or the property owner applies to run a legal bed and breakfast business. Staff will continue to monitor the outcomes of investigations and are working to improve reporting, especially as the number of rooms returned to long-term rental affects the housing supply.

#### Licensed Bed and Breakfast

As part of the campaign to raise public awareness about the Richmond specific rules governing short-term rentals, staff produced communications material to explain the regulatory regime and options for offering legal short-term rentals. Since the beginning of 2017, the number of licensed bed and breakfasts has increased from 19 to 52. Staff continue to receive applications for additional businesses but most are turned away as there are very few areas in the City that are beyond 500m from an existing business. The locations of the licensed bed and breakfasts are now published directly on the City’s website at <https://map2.richmond.ca/BnB/> for public viewing prior to making an application.

Council established the 500m buffer in 2017 in order to preserve the residential neighbourhood character envisioned in the Official Community Plan for single family zones. At this point, staff are not recommending a change to the 500m buffer between licensed bed and breakfast (B&B) businesses. While most, if not all, of the licensed bed and breakfasts comply with City bylaws, the City still receives complaints from neighbours for issues such as parking and noise. These complaints are investigated by staff who also undertake regular inspections. A reduction in the 500m buffer may lead to more B&B businesses being established and increase nuisance and have a negative impact to area residents.

#### Enhancement of Enforcement Tools

The bylaw amendments made in 2017 related to short-term rentals also included amendments to the Municipal Ticket Information Authorization (MTI) Bylaw No 7321. This provided enforcement officers with the authority to issue \$1,000 tickets for a variety of offences related to illegal short-term rentals or operating bed and breakfast businesses contrary to the regulations established by Council. Any disputes of these tickets are forwarded to Provincial Court for adjudication; a process which can take longer than a year and involves several court appearances by City staff. A summary of fines issued and collected is shown in Table 3.

Table 3 – Revenue collected from tickets issued to Illegal Short-Term Rentals

Year	Tickets Issued	Revenue Collected
2017	87	\$ 41,800
2018 YTD	75	\$36,000

In order to expand enforcement options and speed up the process of adjudicating any disputes, it is recommended that amendments are made to the Notice of Bylaw Violation Dispute Adjudication Bylaw. Tickets under this bylaw (BVN's) are permitted to include a maximum fine of \$500 and the offences would mirror those in the MTI Bylaw. This would offer the benefit of having escalating fines (\$500 for BVN then \$1000 for MTI) and minimize the time required in Provincial Court.

#### Housekeeping Changes to Bylaws

Several changes were made to the Zoning Bylaw in 2017 to address the proliferation of illegal short-term rentals. This amendment unintentionally removed zoning provisions to allow up to five bedrooms as part of a bed and breakfast business at a designated heritage home at 13333 Princess Street. This exception (of five bedrooms) was granted by Council in exchange for formal heritage protection as result of negotiations for a heritage restoration project predating the implementation of the Zoning Bylaw amendments in 2017 related to short-term rentals. It was not the intent of the bylaw amendment to remove this exception. Staff recommend reinstating the provision to allow five rooms at this address to restore the original intent of the site specific rezoning.

#### Consideration for Short-term Rentals in Multi-Family Buildings

Under the current bylaws, the only type of short-term rental that can be legally offered in multi-family buildings is boarding and lodging. This is defined in the Zoning Bylaw as:

*“...sleeping unit accommodation, without cooking facilities in the sleeping units, that is supplied for remuneration for not more than 2 boarders, and which may or may not include meal service...”*

Similar to bed and breakfast businesses, boarding and lodging is a “hosted” rental and the Zoning bylaw does not allow any other types of residential rentals shorter than 30 days. “Hosted” means that the host of the short-term rental resides at the same home, in addition to the renter(s), and it is an accessory to the primary purpose of residential use. Empty residential units (unhosted) whether they are apartments, basement suites or houses cannot be rented for less than 30 days in the City of Richmond.

In addition to the City bylaw regulations, the Provincial government recently changed the legislation governing strata corporations to give them the authority to set bylaws that prohibit short-term rentals. If they choose to pass a bylaw, stratas were also given the authority to issue fines from the strata corporation to any strata member using their unit as a short-term rental.

Given the concerns about housing affordability, security issues inside condo buildings and the recent change to strata regulations, it is not recommended that the City change its approach to allowing short-term rentals. To provide more certainty for users and better record keeping for the City, staff recommend moving forward with a licencing regime that would clarify the rules for boarding and lodging (hosted rentals only) in multi-family buildings. Richmond's current approach, including expansion of the licencing program to include boarding and lodging, is consistent with recent recommendations from the Hotel Association of Canada and the British Columbia Hotel Association.

#### Proposed Licencing Program for Boarding and Lodging

While bed and breakfast businesses are permitted in single family zones only, boarding and lodging is permitted in nearly all residential zones including multi-family residents. There is currently no requirement for boarding and lodging to be licenced which poses problems for tracking the locations and verifying legal operations.

It is recommended that staff be directed to bring forward a licencing program specific to boarding and lodging, including bylaw amendments and fees to recover the cost of administering the program. The new program would have to consider that not all types of boarding and lodging are for-profit, for example, sport hosting and cultural exchanges would be exempt. The new program would also set expectations for regular inspections. This will not affect the number of residential units available but it will increase transparency throughout the community around what is permitted related to short-term rentals and provide assurance to visitors that they are staying in legal accommodation.

Additionally, the existence of a short-term rental licencing program would enable the City to pursue agreements with willing internet providers, such as Airbnb, to publish business licence numbers to confirm legal operations. Fees for the licencing program would be set as low as possible in order to encourage compliance while still recovering the costs of inspecting the units and keeping a public registry.

Any licencing program put in place by the City would not exempt individual owners from the requirement to comply with their strata bylaws or renters from getting the permission of the property owner to provide boarding and lodging. The proposed licencing program would simply provide additional transparency without adding any barrier to hosting legal short-term rentals. Any new program would include consultation with key stakeholders including sport hosting and cultural exchange programs.

#### Consultation with the Province on Tax Requirements and Impact on the Hotel Industry

Staff advised Council through a series of memos earlier this year of their advocacy to senior staff at the Ministry of Finance and changes to the three per cent Municipal and Regional District Tax (MRDT) as part of the 2018 BC Budget. The changes to the MRDT accomplished a number of goals, including enabling on-line platforms to collect taxes, but they did not amend the threshold for collecting the MRDT. Currently, only operators providing four or more rooms are required to remit the tax.



Also in 2018, the Tourism Industry Association of BC and the British Columbia Hotel Association released a paper titled “Developing a Modern Approach to Short-term Rentals in a Digital Economy. In this paper, the associations outlined eight regulatory tools that should be applied to the regulation of short-term rentals. They include:

- Host Registration Fees;
- Platform Registration and Fees;
- Principle Residence Restriction;
- Cap on Usage;
- Health and Safety Standards;
- Reporting;
- Taxation/Levies; and
- Enforcement/Penalties.

The regulatory changes implemented in 2017, plus those proposed in this report, consider the hoteliers feedback and further reinforce the direction from Council on regulation of short-term rentals.

### **Financial Impact**

None.

### **Conclusion**

Several amendments were made to bylaws in 2017 to address the proliferation of short-term rentals. This report provides an update on enforcement activity and recommends bylaw amendments to enhance enforcement provisions and reinstate an unintended change to a site specific zone. Also recommended is Council direction to establish a licencing program for boarding and lodging that will clarify the regulations and allow staff to track the locations.



Carli Williams, P.Eng.  
Manager, Community Bylaws and Licencing  
(604-276-4136)

Att. 1: Summary of Adopted and Proposed changes to Bylaws Related to Short Term Rentals

## **Bylaw Changes adopted in 2017**

<b>Bylaw change</b>	<b>Highlight</b>
Enhance Existing Bed and Breakfast business regulations	<ul style="list-style-type: none"> <li>• B&amp;B must be operated by property owner or an immediate <b>family member</b> (spouse, child or spouse's child)</li> <li>• Property owner must be <b>an individual</b>, and not a corporation</li> <li>• B&amp;B must be <b>principal residence</b> of owner-operator and operator must provide annual verification of residency as part of licence renewal process</li> <li>• B&amp;B operators must notify neighbours of the operation and provide contact information as condition of licence</li> <li>• B&amp;B's limited to maximum 3 rooms with 2 guests maximum per room</li> <li>• Explicitly prohibit B&amp;Bs in homes with secondary suites, granny flats or coach houses, or with boarding and lodging</li> <li>• Encourage B&amp;B operators to carry adequate liability and property damage insurance in the Richmond B&amp;B Code of Conduct</li> </ul>
Enhance Regulations Related to Short-Term Rentals	<ul style="list-style-type: none"> <li>• Add explicit prohibition of "short-term rental" (less than 30 days) of Dwelling Units</li> <li>• Require site specific rezoning for "agri-tourism accommodation" in Agricultural Land Reserve (ALR)</li> </ul>
Increase Fines and Penalties	<ul style="list-style-type: none"> <li>• Add rental for less than 30 days without a Licence as an offence for ticketing</li> <li>• Increase daily Municipal Ticketing fines related to B&amp;B's from \$250 to \$1,000 per offence</li> <li>• Increase the maximum fine for conviction for an Offence under the Business Licence Regulations through prosecution in Court from \$2,000 to \$10,000</li> </ul>
500m buffer between B&B's	<ul style="list-style-type: none"> <li>• Mitigate over commercialization of single family residential neighbourhood</li> </ul>

## **Proposed changes**

Expand Penalties	Add penalties for illegal short term rentals to the Notice of Bylaw Violation Dispute Adjudication Bylaw
Housekeeping Changes	Restore intent of site specific zone
Investigate Licencing Program for Boarding and Lodging	<ul style="list-style-type: none"> <li>• Licence/register locations providing boarding and lodging</li> <li>• Ensure operators have permission of strata and owner</li> <li>• Recover fees to fund inspection program</li> <li>• Provide transparently for neighbourhoods and tourists</li> </ul>





**Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122,  
Amendment Bylaw No. 9899**

The Council of the City of Richmond enacts as follows:

1. Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, as amended, is further amended at Part One – Application by adding the following to the list in Section 1.1 in alphabetical order:  
  
“Richmond Zoning Bylaw No. 8500, as amended;”.
2. Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, as amended, is further amended by adding, the table in Schedule A attached to and forming part of this Bylaw to Schedule A of Bylaw No. 8122 as a new “Schedule – Richmond Zoning Bylaw No. 8500”.
3. This Bylaw is cited as “**Notice of Bylaw Violation Dispute Adjudication Bylaw No. 8122, Amendment Bylaw No. 9899**”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER

CITY OF RICHMOND
APPROVED for content by originating dept.
<i>[Signature]</i>
APPROVED for legality by Solicitor
<i>[Signature]</i>

**SCHEDULE A to BYLAW NO. 9899**

<b>Schedule - Richmond Zoning Bylaw No. 8500</b> <b>Designated Bylaw Contraventions and Corresponding Penalties</b>							
A1 Bylaw	A2 Description of Contravention	A3 Section	A4 Compliance Agreement Available	A5 Penalty	A6 Early Payment Option	A7 Late Payment Amount	A8 Compliance Agreement Discount
Richmond Zoning Bylaw No. 8500	Period of Time from Receipt (inclusive)		n/a	29 to 60 days	1 to 28 days	61 days or more	n/a
	Bed and Breakfast - not operator's principal residence	5.5.3	No	\$ 500.00	\$ 450.00	\$ 525.00	n/a
	Bed and Breakfast - operator not owner or family member	5.5.3A	No	\$ 500.00	\$ 450.00	\$ 525.00	n/a
	Bed and Breakfast - excess guest rooms	5.5.5	No	\$ 500.00	\$ 450.00	\$ 525.00	n/a
	Bed and Breakfast - excess guest capacity	5.5.5A	No	\$ 500.00	\$ 450.00	\$ 525.00	n/a
	Bed and Breakfast - excess guest room capacity	5.5.6	No	\$ 500.00	\$ 450.00	\$ 525.00	n/a
	Dwellings – rentals for less than 30 days	5.20.1	No	\$ 500.00	\$ 450.00	\$ 525.00	n/a



**Richmond Zoning Bylaw No. 8500  
Amendment Bylaw No. 9898  
(ZS11 London Landing Amendment)**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Richmond Zoning Bylaw No. 8500, as amended, is further at Part 15.11 [Single Detached Heritage (ZS11) – London Landing (Steveston)] by deleting and replacing subsection 15.11.11.1 with the following:  
  
“1. A **bed and breakfast use** may have up to five (5) **guest** rooms, is limited to accommodation of a maximum of ten (10) **guests** at one time, and may have two (2) **facia** signs each with a maximum dimension of 0.6m by 1.2 m.”.
2. This Bylaw is cited as “**Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9898**”.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

ADOPTED

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER





# City of Richmond

## Report to Committee

**To:** General Purposes Committee

**Date:** November 23, 2018

**From:** Mike Romas  
Manager, Customer Service

**File:** 01-0100-30-SCIT1-  
01/2016-Vol 01

**Re:** **Sister City Advisory Committee Four Year Activity Plan (2019-2022)**

### Staff Recommendation

That:

- 1) the report titled "Sister City Advisory Committee Four Year Activity Plan (2019-2022)", dated November 23, 2018, from the Manager, Customer Service, be received for information; and,
- 2) the 2019-2022 Sister City Advisory Committee Program Activity budget of \$239,050 be referred to the budget process for consideration.

Mike Romas  
Manager, Customer Service  
(604-204-8663)

Att. 1

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

## **Staff Report**

### **Origin**

The Richmond Sister City Advisory Committee (SCAC) currently has a Two Year Activity Plan (2017-2018) which concludes on December 31, 2018. As Council terms are now four years, the SCAC will provide four year plans to align with Council terms starting in 2019.

This report supports Council's 2014-2018 Term Goal #2 A Vibrant, Active and Connected City:

*Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond's demographic, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.*

#### *2.4 Vibrant arts, culture and heritage opportunities.*

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

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

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

### **Background**

The specific objectives of the Sister City Program are:

- To establish and maintain relationships with designated Sister/Friendship Cities that are meaningful and sustained through on-going activity;
- To develop a broad base of activity for Sister/Friendship City relationships in which many people and organizations in the community participate through planned and ongoing contact; and
- To engage the Richmond community and the Sister/Friendship Cities in projects and exchanges that promote cultural awareness and joint learning opportunities.

The City of Richmond has had a Sister City relationship with Pierrefonds, Quebec since 1967, Wakayama, Japan since 1973 and Xiamen, China since 2012. The City of Richmond formed a Friendship City relationship with Qingdao, China in 2008.

### **Summary of 2017-2018 SCAC Activity Plan**

The SCAC completed an active 2017-2018 program which was supported with a Program Activity Budget of \$43,500 and the annual Sister City Program (SCP) Administration Operating Budget of \$11,000. Some of the SCAC activities during this period included:

- Celebrated Sister and Friendship City relationship milestones
  - Xiamen, China – 5 years (2017)
  - Qingdao, China – 10 years (2018)
  - Wakayama, Japan – 45 years (2018)
- (2017) 36 Richmond Secondary students participated in the school exchange with students in Wakayama, Japan.
- (2017) Shared Canada 150 greetings with Sister and Friendship Cities.
- (2018) 30 Wakayama students participated in the school exchange with students in Richmond.
- (2018) Participated in the Steveston Canada Day Parade with entry of more than 100+ participants.
- (2018) Supported Steveston Judo Club members (15) to travel to Wakayama.
- (2018) Hosted unofficial delegations from Wakayama and Taiwan.

The next four year plan (2019-2022) offers many opportunities to further develop and strengthen our Sister/Friendship City relationships through official visits and student, sport and cultural exchanges.

#### 2019-2022 Goals and Focus of the SCAC

In accordance with the SCP Objectives, the primary focus for the proposed SCP activities with Richmond's sister cities and friendship cities will be to foster activities with the Richmond community and its sister/friendship cities in projects and youth exchanges that promote cultural awareness and joint learning opportunities.

The proposed SCAC 2019-2022 Program Activity Budget is \$239,050, along with the annual SCP Administration Operating Budget of \$11,000. This proposed activity budget was recently endorsed by the SCAC for presentation to Council (Attachment 1).

#### Sister/Friendship City Anniversary Milestones

The SCAC is proposing an allocation of \$750 to be used in commemorating some or all of the following anniversary milestones:

- Pierrefonds – 2022 will be the 55<sup>th</sup> Anniversary
- Xiamen – 2022 will be 10<sup>th</sup> Anniversary

#### Pierrefonds

In 2002 the City of Pierrefonds ceased to be a separate municipality and instead became a borough of Montreal. Following a period of inactivity, the SCAC initiated discussions in 2018 with the office of the Mayor of Pierrefonds, regarding their interest in retaining and developing an active Sister City relationship. The SCAC reported that there appears to be strong interest from Pierrefonds to plan future activities with Richmond, including the opening of a new library and interest from the Mayor and Council to visit Richmond. These activities are reflected in the attached 2019-2022 program activities and budget.

### Wakayama

The City, through the SCAC, has contributed financially each year to support the very successful annual Wakayama/Richmond student exchange program. This year marks the 38<sup>th</sup> year for the Wakayama/Richmond student exchange. Since its inception, Richmond has had approximately 500 participants in this program. The exchange has immense cultural significance for the students of Richmond as past students have travelled back to Japan to visit new friends while a number of teachers who facilitate this program also participated in their youth. In 2019, 36 Richmond students will be participating in the cultural exchange between Wakayama and Richmond.

This program is proposed to continue for the 2019-2022 period with an annual contribution of up to \$10,000.

### Xiamen and Qingdao

One of the challenges in nurturing the relatively new China relationships is the emphasis of their government officials to initiate business related activities, as opposed to community and educational type of activities. For this reason, the SCAC plans to foster more youth related sport and cultural exchange initiatives to allow community relationships to develop.

The SCAC wishes to continue to host a Sister-Friendship Cities Table Tennis Tournament every second year. The two day tournament was first held at the Richmond Olympic Oval in 2016. The SCAC invited teams from Qingdao and Xiamen to send high school students to Richmond to compete with our local students. Teams from Qingdao, Xiamen, Wakayama and Pierrefonds were invited to the event in 2017 and 2018 but all cities declined participation citing budget restrictions. The SCAC continues to pursue this event for 2019 and is proposing an annual contribution of \$5,000/per participating City for this event. In addition, the SCAC is proposing to provide \$7,500 to support the Steveston Judo Club who will be hosting a group of 15 students from Qingdao in 2019.

### Annual Salmon Festival and Canada Day Parade

Each year the SCAC organizes community members to join them in marching in the Canada Day Parade. The SCAC is proposing an annual allocation of \$2,500 towards the cost of flags, banners, t-shirts and multi-cultural giveaways that are used for this event.

### Arts & Culture Initiatives

The SCAC is proposing several new arts and culture initiatives including:

- Art exchanges – art show exchanging a collection of works by local artists from sister/friendship cities.
- Photo exchange – photographers from Richmond and Sister/Friendship Cities to share landscape pictures of their community. Option to include 3D Lithophanes printing and gallery viewing.

- Richmond Public Library – coordinate sharing of books and a bookmark exchange.

The Richmond School Board has reviewed and endorsed the SCAC Four Year Activity Plan (Attachment 2).

### **Financial Impact**

The SCP has had an annual Administration Operating Budget of \$11,000, which is part of the City's annual base budget. The 2019-2022 Administration Operating Budget remains at \$11,000 annually.

The SCAC 2014-2016 Program Activity Budget of \$220,000 was funded from surplus from the 2013 budget. The 2017-2018 SCAC Program Activity budget was \$56,500. It is being recommended that the 2019-2022 Sister City Advisory Committee Program Activity budget of \$239,050 be referred to the budget process for consideration.

### **Conclusion**

The Sister City Program is a valued and long-standing City initiative. The program is supported by the Sister City Advisory Committee, a dedicated group of community volunteers who are committed to achieving the SCP goals. The approval of the 2019-2022 Four Year Plan will set clear direction for the Sister City Advisory Committee to maintain robust and meaningful Sister and Friendship City relationships.



Mike Romas  
Manager, Customer Service  
(604-204-8663)

MR:mr

Att. 1: Four Year (2019-2022) Activity Plan Budget

Att. 2: Four Year (2019-2022) Activity Plan



## Sister City Advisory Committee Four Year (2019 – 2022) Activity Plan Budget

The next four year (2019 – 2022) offers many opportunities to further develop and strengthen our Sister/Friendship City relationships through official visits, student, sport and cultural exchanges.

An activity budget allocation of \$239,050 is proposed for this period. The following sections provide budget information for engagement activities that the SCAC plans to carry out for 2019 - 2022.

### Richmond Sister City Advisory Committee Four Year (2019 -2022) Program Activity Budget

#### SUMMARY OF 2019 – 2022 SCAC PROGRAM ACTIVITY BUDGET

Annual Program Activities	2019	2020	2021	2022
<b>Educational Activities</b>				
• Student exchanges	\$12,000	\$22,000	\$22,000	\$22,000
• Non-visit classroom exchange				
<b>Sports Activities</b>				
• Team/Athlete exchanges	\$22,500	\$20,000	\$25,000	\$10,000
• Table Tennis event				
<b>Art &amp; Cultural Activities</b>				
• Art exchanges				
• Photo exchange/display	\$19,000	\$20,000	\$17,000	\$12,000
• Richmond Public Library book club and bookmark exchange				
<b>Canada Day Parade</b>	\$2,500	\$2,500	\$2,500	\$2,500
<b>Annual City-to-City Recognition</b>	\$1,200	\$1,200	\$1,200	\$1,200
<b>Anniversary Milestones</b>				
• Pierrefonds				\$750
• Xiamen				
<b>Total SCAC Program Activity Budget</b>	<b>\$57,200</b>	<b>\$65,700</b>	<b>\$67,700</b>	<b>\$48,450</b>
Administration Operating Budget	\$11,000	\$11,000	\$11,000	\$11,000
<b>TOTAL</b>	<b>\$68,200</b>	<b>\$76,700</b>	<b>\$78,700</b>	<b>\$59,450</b>



Sister City Advisory Committee

Four Year Activity Plan Proposal  
2019 - 2022

2018 Sister City Advisory Committee Members:

Chair

Lisa MacNeil

Vice-Chairs

Ed Gavstie  
Glenn Kishi  
Helen Quan  
Eden Jiang Zhang  
Melissa Zhang

Members

Allen Chan  
Charan Gill  
Ihsan Malik

Kim Ng

Razzak Paracha

School Board

Donna Sargent



# Sister City Advisory Committee

Mandate: to provide advice to and assist the City in the promotion of the City's culture and values, delivery of the Sister City Program and the pursuit of the City's specific goal to establish and sustain cultural and educational ties with approved Sister/Friendship Cities.



Wakayama 45<sup>th</sup> Anniversary  
Tree Planting Ceremony

## 2017 – 2018 Achievements

- ✓ Hosted delegations from Japan & Taiwan
- ✓ Celebrated sister city relationship milestones
  - Wakayama, Japan – 45 years (2018)
  - Qingdao, China – 10 years (2018)
  - Xiamen, China – 5 years (2017)
- ✓ 66 Richmond high school students participated in school exchange with students from Wakayama, Japan
- ✓ Supported Steveston Judo Club members (15) to travel to Wakayama
- ✓ Participated in 2018 Canada Day Parade with entry of more than 100+ participants
- ✓ Shared Canada 150 greetings with Sister & Friendship Cities
- ✓ Researched potential friendship cities for future consideration



2018 Canada Day Parade

## 2019 – 2022 Activity Goals

- ✓ Celebrate harmonious relationship with Pierrefonds
- ✓ Build on current relationships with sister/friendship cities
- ✓ Increase # of school visits
- ✓ Explore non-visit activities and showcase innovative programs around the city
- ✓ Consider activities for ALL age groups
- ✓ Begin path towards twinning with a Friendship city

## Sister City

a city that is linked to another,  
usually for the purposes of  
cultural exchange

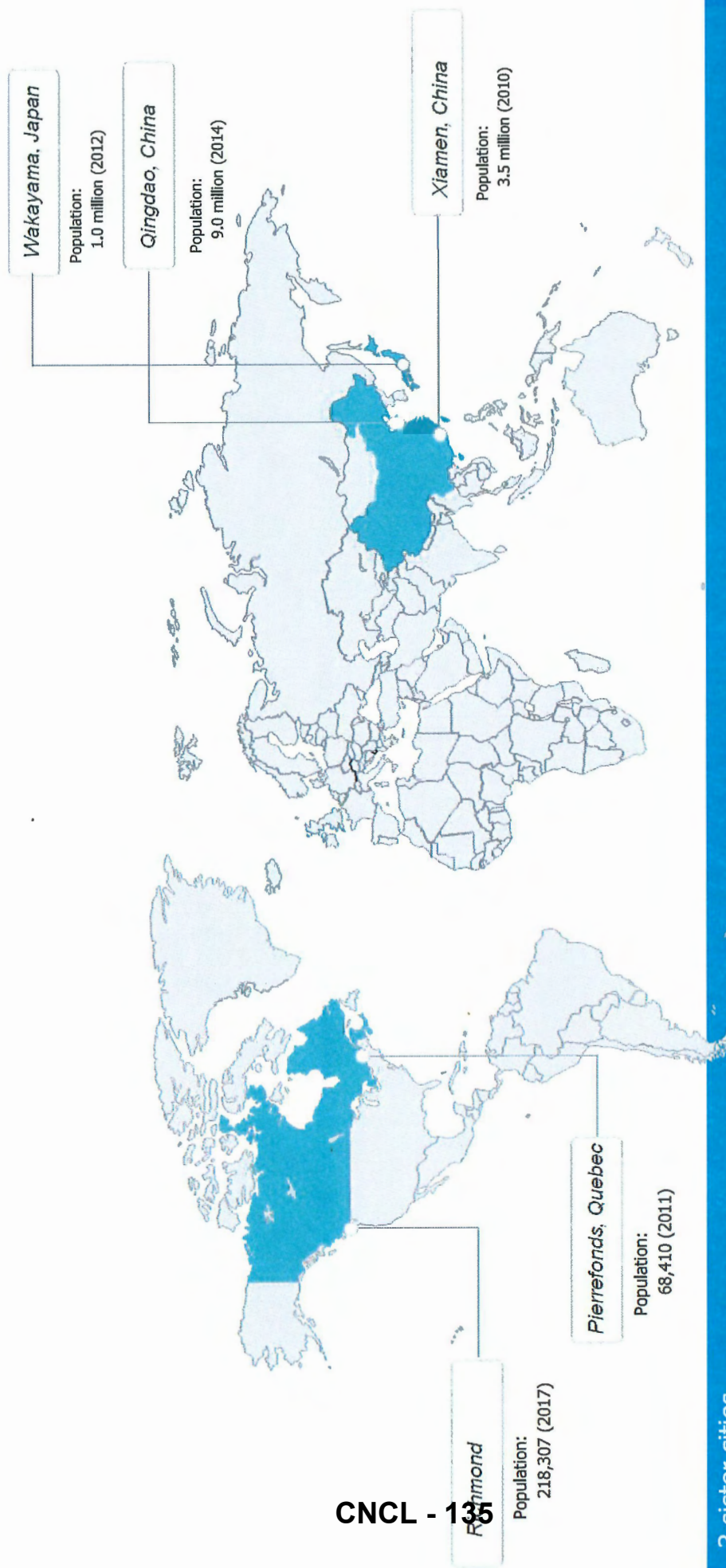
CNCL - 134

## Friendship City

less formal relationship than  
sister city

# Definition





CNCL - 135

3 sister cities

**Pierrefonds, Quebec | Wakayama, Japan | Xiamen, China**

1 friendship city

**Qingdao, China**

# Activity Summary

Outbound Activity

		2019	2020	2021	2022
<b>Annual Base Program Activities (Visit)</b>					
Education	Wakayama		Wakayama	Wakayama	Wakayama
			Pierrefonds (Pilot)	Pierrefonds	Pierrefonds
	Steveston Judo Club		Xiamen Youth Rugby	Steveston Kendo Club	Hockey Tournament
Sports	Table Tennis		Steveston Kendo Club	Table Tennis	
<b>Annual Base Program Activities (Non-Visit)</b>					
Annual "state of the city" letter	X		X	X	X
Exchanges of cities' annual reports and city plans	X		X	X	X
SAC Annual Summary	X		X	X	X
Canada Day Parade	X		X	X	X
Art/Culture & Education	X		X	X	X
<b>Relationship Activities</b>					
Annual City-to-City Recognition	X		X	X	X
Anniversary Milestones					Pierrefonds (55 years) Xiamen (10 years)
City Council/Delegation Visits			to be scheduled		
Activity Plan Relationship Review					X
<b>Future Twinnings</b>					
Explore new Sister City Relationship	X		X		

# Budget Summary

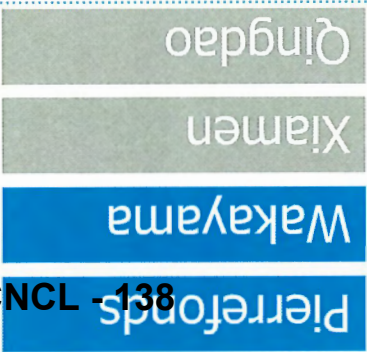
CNCL - 137

	2019	2020	2021	2022
<b>Annual Base Program Activities</b>				
Education	\$12,000	\$22,000	\$22,000	\$22,000
Sports	\$22,500	\$20,000	\$25,000	\$10,000
Art/Culture	\$19,000	\$20,000	\$17,000	\$12,000
Canada Day Parade	\$2,500	\$2,500	\$2,500	\$2,500
<b>Relationship Activities</b>				
Annual City-to-City Recognition	\$1,200	\$1,200	\$1,200	\$1,200
Anniversary Milestones				\$750
City Council/Delegation Visits				
<b>Administration</b>				
Administration Costs	\$11,000	\$11,000	\$11,000	\$11,000
<b>SUBTOTAL (year total)</b>	\$68,200	\$76,700	\$78,700	\$59,450
<b>GRAND TOTAL</b>	\$283,050			



# Education

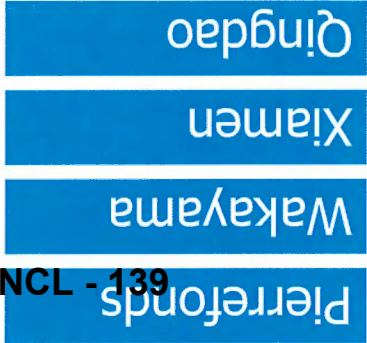
## Student Exchanges

 <p>inbound &amp; outbound</p>	<p>✓ Student exchanges include opportunities to inbound/outbound to sister/friendship cities</p> <ul style="list-style-type: none"> <li>• Continue annual exchanges with Wakayama, Japan</li> <li>• Explore school exchanges to Montreal (Pierrefonds) &amp; China (Qingdao &amp; Xiamen)               <ul style="list-style-type: none"> <li>○ 2018/2019 school year: no current school exchanges planned to Montreal.</li> <li>○ Pilot Montreal (Pierrefonds) visit in 2019/2020 school year</li> </ul> </li> </ul>	<p><b>Budget Breakdown:</b></p> <ul style="list-style-type: none"> <li>• <b>\$500</b> per student participant</li> <li>• up to maximum <b>\$10,000</b> for each student exchange</li> </ul>
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# Education

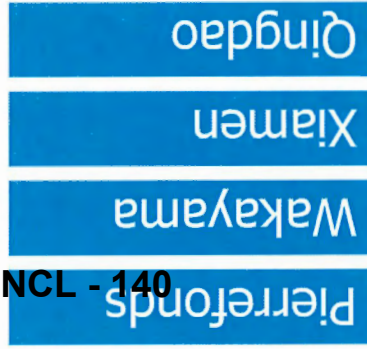
## NEW! Non-visit Activities

<p>CNCL - 139</p>  <p>up to 1 activity annually</p>	<p>✓ Non-visit activities to engage students &amp; teachers</p> <ul style="list-style-type: none"> <li>• Pilot sharing of lesson plans with educator in sister city               <ul style="list-style-type: none"> <li>◦ 2019: Art lesson plans targeting elementary school aged children</li> </ul> </li> </ul>	<p>Budget Breakdown:</p> <ul style="list-style-type: none"> <li>• <b>\$2,000</b> per activity – cover costs of supplies and shipping costs</li> </ul>
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# Sports

## Sport Exchanges

CNCL - 140



up to  
2 activities annually  
inbound & outbound

- ✓ Sport exchanges open to ALL age groups
- ✓ Competitions or Skills Clinics
- ✓ Inbound activities:
  - February 2019: Steveston Judo Club - Qingdao
  - 2019 & 2021: Table Tennis Tournament
  - 2021: Steveston Kendo Club - Wakayama
  - 2022: Richmond Hockey Tournament
- ✓ Outbound activities:
  - July/August 2020: Xiamen Youth Rugby
  - 2020: Steveston Kendo Club

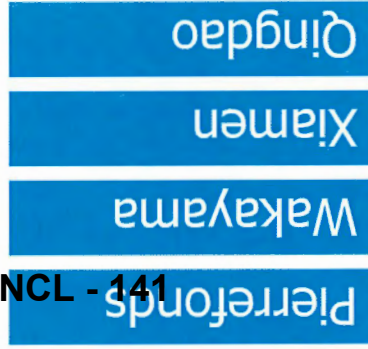
### Budget Breakdown:

- **\$500** per participant
- up to maximum **\$10,000** for each sport exchange

# Art & Culture

## NEW! Art Exchanges

CNCL - 141



up to

**1 activity biannually**  
inbound

- ✓ Art show exchanging a collection of works by local artists from sister/friendship city
  - 3 - 30 pieces of art shown at City Hall
  - Art could be:
    - Traditional
    - Modern
    - Visual
    - Photography

### Budget Breakdown:

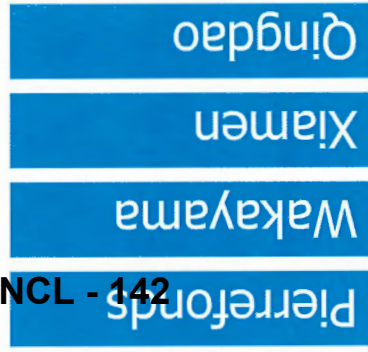
- Shipping
- Opening Night activities for larger show including art show program, appetizers & drinks



# Art & Culture

## NEW! 3D Lithophanes Photo Show

CNCL - 142



pilot in 2020

- ✓ Photographers from Richmond & Sister Cities to share landscape pictures of their community. All photos will be gathered to create a photo show. Photo show will visit each community participating.
- ✓ 2019 show to feature high school students from local photography classes & include senior photo club
- ✓ 3D Lithophanes Photo Show to have a gallery opening night
- ✓ Credit to Richmond Public Library for recommendation to print photos as 3D Lithophanes

3D Lithophanes -  
<https://www.instructables.com/id/Lithophanes-How-to-3D-Print-your-photos/>

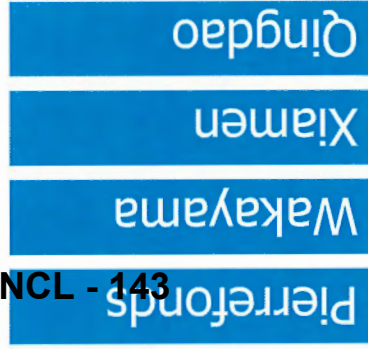
### Budget Breakdown:

- Funds to cover printing, in case sister cities do not have access to 3D printers
- Shipping costs
- Light panels (TBC)
- Opening Night function

# Art & Culture

## NEW! Richmond Public Library - Book Club

CNCL - 143



**1 book club program  
yearly**  
inbound & outbound

Launch various programs to coordinate sharing of information with sister city libraries. The activity plan would be to continue or expand on successful activities:

✓ 1 Book, up to 4 Cities book club (annually) with

various audiences:

- Adults
- Seniors
- Youth

✓ Bookmarks to be exchanged with sister city libraries to commemorate milestone anniversary celebrations in 2022

- local artists to design OR leverage city street banner artwork

### Budget Breakdown:

- Sister Cities to participate in Richmond Public Library book club program
- Bookmarks: printing & distribution



# Art & Culture

## NEW! Richmond Public Library - Assets

Pierrefonds - 144  
CNCL

Wakayama

Xiamen

Qingdao

2019 exchange  
inbound

✓ Sister City Libraries to coordinate exchange of assets

(ex. recordings from Xiamen Public Library)

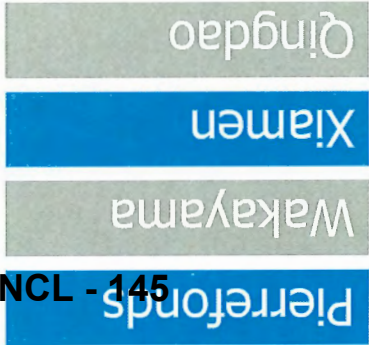
- explore opportunities with other Sister/Friendship Cities

### Budget Breakdown:

- costs involved to bring assets into Richmond Public Library

# Milestone Celebrations

## Occurring in 2022

<p><b>CNCL - 145</b></p>  <p>2 milestone celebrations</p>	<p>✓ Two major milestones will be celebrated in 2022</p> <ul style="list-style-type: none"> <li>• Pierrefonds: 55 year anniversary - plaque</li> <li>• Xiamen: 10 year anniversary - congratulatory note from Mayor</li> </ul>	<p><b>Budget Breakdown:</b></p> <ul style="list-style-type: none"> <li>• Pierrefonds: <b>\$750</b></li> </ul>
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# Canada Day Parade

## Participation in Steveston Salmon Festival

<div>CNCL - 146</div> <div><div>Pierrefonds</div><div>Wakayama</div><div>Xiamen</div><div>Qingdao</div></div>	<div>✓ Sister City Advisory Committee members participate in Steveston Salmon Festival Canada Day parade</div> <div>Budget Breakdown:</div> <div><ul style="list-style-type: none"><li>• T-shirts for parade participants</li><li>• Parade entry decorations</li><li>• Handouts to parade attendees</li></ul></div>
--	--



# Administration

## Operational & Relationship Activities

CNCL - 147

<div><div>Pierrefonds</div><div>Wakayama</div><div>Xiamen</div><div>Qingdao</div></div>	<div><div>✓ Annual administrative costs</div><div>✓ Annual City to City gift - \$300/city</div><div>✓ Letters between Mayors - annual "state of the city" letter</div><div>✓ Exchanges of City Annual Reports</div></div>	<div><div>Budget Breakdown:</div><div>• <b>\$11,000</b> annually administrative costs</div><div>• <b>\$1,200</b> annually for city to city gifts</div></div>
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**To:** Mayor and Councillors  
**From:** Jim V. Young, P. Eng.  
Senior Manager, Capital Buildings Project  
Development  
**Date:** January 11, 2019  
**File:** 10-6000-01/2019-Vol 01  
**Re:** **Building Facilities Design Guidelines and Technical Specifications – Additional Information**

---

Attached please find a revised “Building Facilities Design Guidelines and Technical Specifications”, which has incorporated the comments made at the January 9, 2019 General Purposes Committee meeting.

- Committee identified that the Guidelines refer to different BC Energy Code “Levels”.

The intent of presenting the Guidelines with reference to the BC Energy Step Code was to identify Level 3 (Pages GP 28 and 40) as the target and Level 4 (GP 31) as a stretch “target” for projects with residential development. It was intended that the Level 4 target would be encouraged for the present time and become mandatory when Council adopts future policies or bylaws that support this higher level for private development. Further analysis and policy options recommendations on the BC Energy Step Code, as it will be applied to City facilities, will be brought forward in 2019 with further development of the High Performance Building Policy.

Given the comments by Committee, staff have provided greater clarity to the Guidelines by deleting and adding the following sentences on GP Page 28 (Page 8).

**Deleted:** It is the City of Richmond’s desire to show leadership in the transition to net-zero energy by constructing its new City-owned buildings to the highest applicable step, with Level 3 being the present target goal.

**Added:** It is the City of Richmond’s desire to show leadership in the transition to net-zero energy by constructing its new City-owned buildings to the highest applicable step, with Level 3 being the target and Level 4 being the stretch “target”.

- Section 3.4 on GP 31 (Page 11) of the Guidelines has been revised to include the following regarding embedded carbon emissions.
  - Consider embedded energy, carbon emissions and the lifecycle of the product in building products; prioritizing products with recycled contents supports the objective of reducing the embedded energy of building products.

Following the GP Committee meeting on January 9, 2019 staff sent the Guidelines to Stuart Olson (the City's Construction Manager) for comment. At the time of preparing this memo, comments had not been received from Stuart Olson. Staff will advise Council should any comments be received.

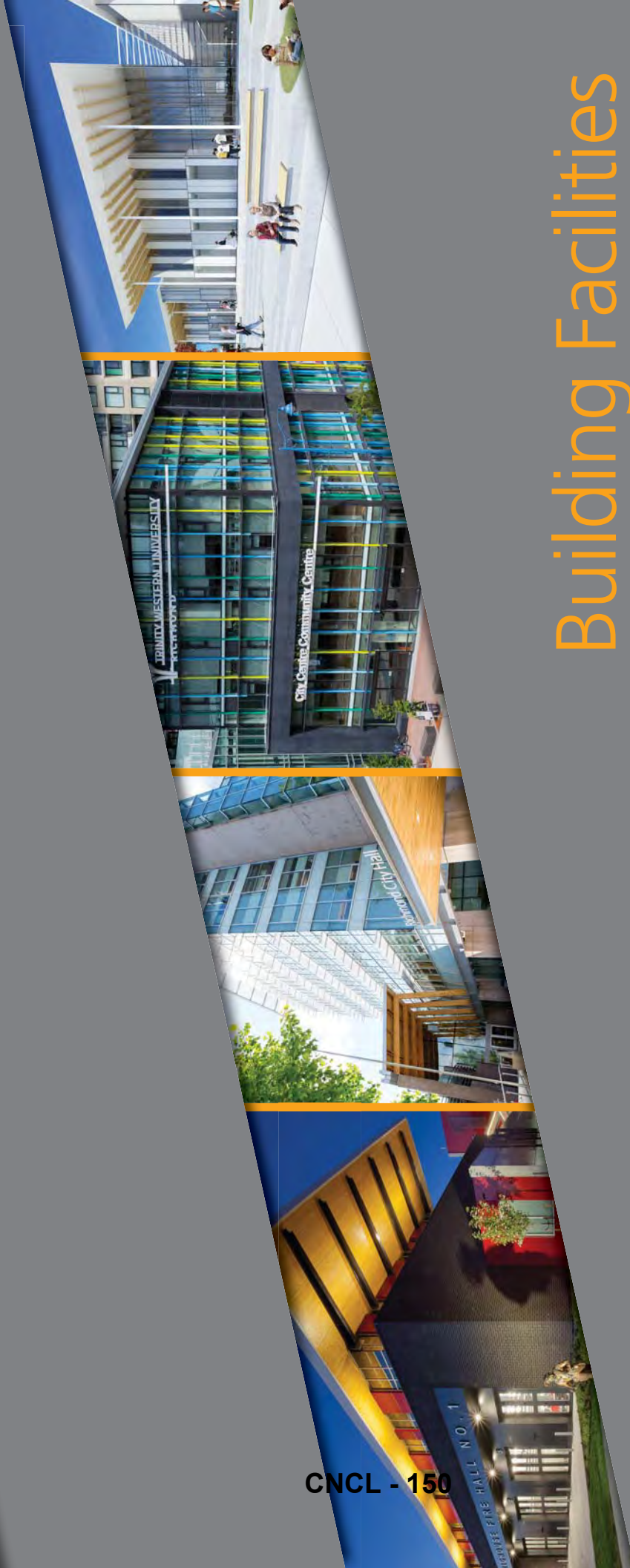
Please contact the undersigned should you have any questions or require further information.



Jim V. Young, P. Eng.  
Senior Manager, Capital Buildings Project Development  
(604-246-4610)

Att: 1

pc: SMT  
John Irving, P.Eng., MPA, Director, Engineering



# Building Facilities

DESIGN GUIDELINES AND TECHNICAL SPECIFICATIONS

Attachment 1



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*These City of Richmond Building Facilities Design Guidelines and Technical Specifications [“The Guidelines”] were approved by City Council on (mm/dd/yyyy) as an administrative document to be updated from (TBD by council).*

*The City of Richmond provides these Guidelines to assist City staff and the development community with a better understanding of what City expectations are for the design and construction of City-owned or City-leased premises. The Guidelines are provided to the public as well as a resource on an information only basis.*

*Therefore, while the content is thought to be accurate on the publication date shown, the Guidelines are provided on an “as is” basis, and without warranty of any kind, either expressed or implied.*

*The City of Richmond, its elected officials, officers, agents, employees and contractors will, in no event, be liable or responsible for losses or damages of any kind arising out of the use of the Guidelines. Additionally, changes may be made to the Guidelines without prior notice.*

*The information contained in the Guidelines is always subject to the provisions of all governing legislation and bylaws including, without limitation, the BC Building Code, the City of Richmond Zoning Bylaw 8500, the City of Richmond Building Regulation Bylaw 7230, and the City of Richmond Subdivision and Development Bylaw 8751, Transportation Association Canada (TAC) regulations, City of Richmond Engineering Design Specifications, Master Municipal Construction Documents (MMCD), the City of Richmond MMCD Supplementary Specifications and Detailed Drawings, including all as they may be amended or replaced from time to time.*

# Executive Summary



*Richmond City Hall exemplifies a civic building with good design quality and the use of durable materials.*

Construction of new City-owned facilities in Richmond, or the renovation of existing City-owned ones, represents a significant investment of public resources for the municipality. Further, ongoing upkeep of City buildings requires additional resources, to ensure that the original investments in City building assets are well-maintained and operating with optimum efficiency.

It has been City Council policy for many years, to set out administrative procedures and guidelines that provide appropriate direction for the design and development of City building assets, in order to promote a good return on investment in civic infrastructure and better serve the community. The City continues to be keenly interested in fostering a high level of design quality in its buildings and open space and engineering infrastructure, but also in ensuring that the design of these built assets is such that operation and maintenance goals are met, and that upkeep costs are minimized as much as possible.

The intent of these Design Guidelines and Technical Specifications is to organize into a single resource document, what the City's general expectations are for the design and delivery of the various components that make up a City-owned construction project. It is not intended to provide barriers or limit the creative inputs of designers or constructors that work on the City's behalf, but rather to delineate in a general way, what aspects of design and materiality the City wishes to see delivered in its buildings and associated public works.

Construction of a new build, renovation of a City-owned or leased building, maintenance of City facilities or development of civic infrastructure can, generally be a complex undertaking. With this resource document, the intent is that with City expectations for design and construction of civic assets clearly identified, the task of delivering functional, resilient and quality civic infrastructure can be better facilitated.



# 1 Introduction

## 1.0 Introduction

### 1.1 Mission Statement

It is the intent of The City of Richmond to standardize requirements for City-owned construction projects, both for new builds and for the renovation of existing buildings. The goal is to provide clear direction to developers, architects, contractors, material suppliers, installers, and others in the development industry, regarding the City's expectations for the design and delivery of the various components that make up City-owned construction projects.

### 1.2 Intent of Guidelines and Technical Specifications and How They Are to be Applied

In the City of Richmond, the construction of new buildings and the renovation of existing ones is mandated through the development and buildings approval process. The intent of these Guidelines and Technical Specifications is to provide general performance and specification requirements for the various components that make up a City-owned building project. It is intended that this information will provide assistance to the contractors and vendors involved in the building project to gain project approvals, as well as deliver the appropriate building assemblies, service systems and material finishes that the City expects in completed buildings.

### 1.3 City of Richmond's Commitment to Quality and Resilience in City Buildings

The City wants to facilitate quality construction, and optimize life-cycle benefits and overall building resilience in its new builds and building renovations, and in its new and rehabilitated public spaces. This initiative is based on the following core planning principles:

- meeting the needs of the community.
- commitment to public engagement in the delivery of useful and resilient City-owned and City-leased buildings and public spaces.
- optimally meeting program and functional requirements for the visiting public and for staff in civic buildings.
- embodying principles of sustainability in City new builds and renovations that minimize maintenance costs over the life of the facility.
- commitment to sound public finance economic practice.
- commitment to working pro-actively with all stakeholders in the delivery of quality buildings and public spaces.
- commitment to partnering with other civic bodies or community organizations.
- commitment to delivering public buildings and open spaces that enhance accessibility and independence for all building users.



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Contemporary new builds and renovations typically feature complex mechanical and electrical systems. These Guidelines and Technical Specifications provide direction for delivering appropriate service systems and building assemblies for City-owned buildings.



# 1 Introduction

## 1.4 How the Development Process in the City of Richmond Works, and How Principles to Incorporate Quality Construction and Resilience in Buildings and Open Spaces Can be Integrated into the Development Process

### 1.4.1 Overview of the Process

The City wants to work with the public, the development community, the various players in the non-profit sector, and with other involved groups, to help create high quality, fully resilient and accessible buildings and open spaces.

To facilitate this process, it is important for building and public space project proposal applicants to follow an appropriate development methodology in order to promote applications that successfully meet City and Provincial guidelines and requirements for new development.

An overview of the types of approvals process involved is as follows:

#### City Approvals

- a) Zoning
  - confirm whether proposed use is permitted under the sites existing zoning
  - if not, a rezoning application and review process is required. This involves staff review, a Public Hearing, and adoption by City Council.
- b) Development Permit (DP)
  - A DP regulates building form and character. Staff reviews the process for compliance with approved design guidelines (includes landscape plan.)
- c) Building Permit
  - City approval that allows construction to begin. It is comprised of working drawings and specifications that demonstrate compliance with the Building Code, Development Permit requirements, and these Design Guidelines and Technical Specifications.
- d) Final Building Permit
  - City final approval and commissioning of the constructed facility, indicating that it is ready for use.



*The City of Richmond is committed to constructing high quality, resilient and fully accessible buildings, for new builds, tenant improvements and renovated City facilities.*

# Definitions Pertaining to City-Owned Buildings and Public Spaces

## 2

### 2.0 Glossary

Developments incorporating Building Resilience and Construction Quality have a descriptive and regulatory language that is specific to the requirements of this design and construction strategy:

#### **Accessibility**

A design standard that allows for persons with disabilities to approach, enter, pass to and from, and make use of an area and its facilities, without the assistance of a third party or caregiver. Accessibility allows for independence of use and movement by individuals who have a loss or a reduction of functional ability, including persons in wheelchairs or those with a sensory disability, such as visual or hearing impairment.

#### **Active Transportation Routes**

Human-powered transportation modes such as walking, cycling or rollerblading. Providing a barrier-free design typically enhances the functionality of Active Transportation Routes, as well as improves accessibility for people with diverse abilities.



Active Transportation Routes.

#### **Adaptable Buildings and Public Spaces**

Anticipating future needs, or changing aspects of existing buildings and public spaces to make them more functionally useful, to people with diverse abilities. For example, bathrooms without grab bars can be constructed with backing in the wall framing, to enable the addition of grab bars in the future.

#### **Aging in Place**

The ability to live in one's home for as long as possible. Often this will depend on the living space being adaptable in order to assist with livability and health and wellness goals.

#### **ANSI**

The American National Standards Institute [ANSI] is a standards organization that oversees the development of voluntary consensus standards for a large variety of products, services, systems, and personnel in the United States. In addition, the organization coordinates U.S. standards with international standards to try to ensure consistency.

#### **ARCNet**

Attached Resource Computer Network [ARCNet] is a communications protocol for local area networks of mechanism, through coaxial cabling.

#### **ASHRAE**

The American Society of Heating, Refrigerating and Air-Conditioning [ASHRAE] is an international standards organization for numerous building related systems. It is the organization's mission to advance the arts and sciences of heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world. The Society and its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability within the industry.

# Definitions Pertaining to City-Owned Buildings and Public Spaces

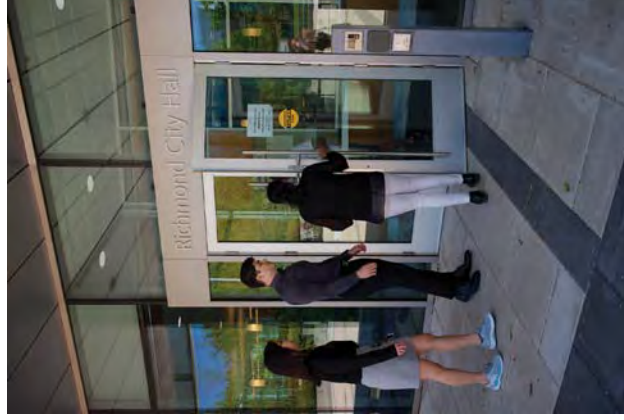
## 2

### **Assistive Listening Device**

Wireless sound transmission systems that improve sound reception for persons with hearing disabilities. Such systems provide adjustable amplification for the user, while blocking out background noise disturbances.

### **Automatic Door / Power-Assisted Door**

A door equipped with power-operation and controls that open and close the door without manually touching the door. Switches for such doors typically are push plates to enable accessibility, but can also include photoelectrical devices, or floor mat actuators.



*Power - assisted doors to promote accessibility should be installed at building entrances and key interior doors, such as public washroom doors.*

### **BACNet**

Is an ANSI / ASHRAE standard communications protocol for direct digital control networks and automated building mechanisms. It was designed to be used for applications such as heating, ventilation, and air-conditioning control, lighting, access control, and fire detection systems and their associated equipment.

### **Barrier-Free Design**

A design philosophy that looks to eliminate physical barriers on the ground plane that impede freedom of movement. Primarily concerned with avoiding curbs, steps or changes in grade that make movement in a wheelchair difficult or impossible, barrier-free design also helps the average person's ease of mobility, since trip hazards are avoided or eliminated.

### **BC Building Code**

The legislation that governs the design and construction of new buildings, additions to buildings, alterations to existing buildings, and the occupancy of any building. The BC Building Code sets out the minimum requirements for accommodating accessibility in buildings.

### **Block Programming**

Is a pre-programmed set of instructions (block) that can be used in a Direct Digital Control (DDC) system to control a specific action or transfer function. To understand the specific action that the block programming can accomplish, it is crucial that the pre-programmed instructions are able to be interpreted.

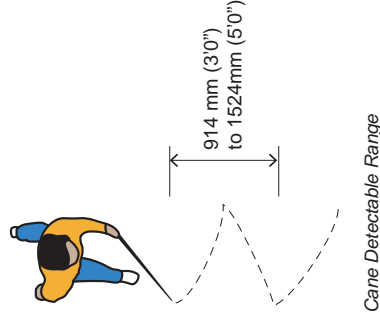
### **Canadian 2017 NECB**

The National Energy Code of Canada for Buildings (NECB) 2017 provides minimum requirements for the design and construction of energy-efficient buildings and covers the building envelope, systems and equipment for heating, ventilating and air-conditioning, service water heating, lighting, and the provision of electrical power systems and motors.



# City-Owned Buildings and Public Spaces

## Definitions Pertaining to



### Cane Detectable

The condition of an object being within the detection range of a user's cane as it is swept or tapped.

### Circulation Path

Way of passage for pedestrians, including walkways, hallways, courtyards, stairways and stair landings. Accessible circulation paths must meet minimum regulatory standards in order to comply with building code requirements.

### Clear Space

The minimum unobstructed floor area or ground space required to accommodate a single stationary wheelchair, scooter, or other mobility device, including the user of the device.

### Closed-Circuit Telephone [Enterphone]

A house or courtesy phone, or a telephone to gain entrance to a building. The telephone should be installed at an appropriate mounting height to provide accessibility.

### Colour Contrast and Conspicuity

Must be provided on building elements like stair nosings or signage, to promote legibility for persons with low vision challenges. Research shows that elements are more conspicuous when there is a colour contrast of at least 70%, with light-coloured characters on a dark background providing the best readability.

### Crime Prevention through Environmental Design [CPTED]

An approach to building and urban design which can foster feelings of security for residents and users. CPTED principles should also endeavor to accommodate principles of Enhanced Accessibility.

### Detectable Warning and Indicator Surface

A surface treatment on pedestrian walkways, ramps and stairs, that provides a warning for persons with visual impairments of obstructions on the circulation path. As well, when providing for colour contrasts, indicator surfaces must be textured differently in order to be cane-detectable.

### Direct Digital Control [DDC]

Refers to the building automation system that will typically be used to control lighting and HVAC mechanical systems in a building.

### Disability

A limitation occurring when an individual's physical environment fails to accommodate their functional needs. The experience of a disability can be alleviated by designing environments that accommodate a range of physical and sensory capabilities.

### Egress, Means of

A continuous and unobstructed path of exit travel, in a vertical or horizontal travel direction, or a combination of both, that provides for the ability to safely leave a building. On upper floors of a building, an accessible means of egress allows for exit to be accommodated without the use of stairs, elevators or escalators, by means of providing areas of rescue assistance, such as areas of refuge or protected lobbies.

# City-Owned Buildings and Public Spaces

## Definitions Pertaining to

**Energy Star® and Energy Star® Certified [Also, Energy Star® Portfolio Manager®]**  
Energy Star® is an international standard for energy efficient consumer products. Energy Star® qualified products meet strict technical specifications for energy performance --- tested and certified.

Energy Star® Certified refers to products and buildings that meet strict North American energy performance standards. Typically these products and buildings use 20-30% less energy than required by comparable federal standards.

Energy Star® Portfolio Manager® is an online tool that can be used to measure and track energy use, water consumption, and greenhouse gas emissions, and to benchmark your building's performance against similar type buildings in Canada. A certification is provided when a building scores above the 75th percentile on the Energy Star® performance scale.

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### Floor Area Ratio [FAR]

A calculation where the total floor area of a building or development is divided by the area of the site. With respect to building accessibility issues, since providing enhanced accessibility is often about providing more space in a building --- which often can often encroach into the maximum FAR permitted --- a municipality can provide floor space exclusions so that economics of development of a building with a level of enhanced accessibility is not as negatively impacted.

### Front End Software

Typically refers to a direct digital control graphical package and user interface that the building operator will usually interact with to review operating building systems, change scheduling, and access system use data.

### Gateways

Pre-programmed hardware devices in a direct digital control system that act as communication protocol translators for different protocols, such as from BACNet to ARCNet and Tridium.

### General Control Language

Refers to a direct digital control system programming language that is textual.

### HVAC

Heating, Ventilation and Air Conditioning [HVAC] is the technology of indoor environmental comfort. HVAC system design is a sub-discipline of mechanical engineering, based on the principles of thermodynamics, fluid mechanics, and heat transfer.

### HVI

The Home Ventilating Institute [HVI] is a non-profit association offering a variety of services for manufacturers including, but not limited to, test procedures, certification and verification programs for airflow, sound and energy performance, and market support. Its mission is to advance residential ventilation practices for healthy, energy-efficient homes.

### IESNA

The Illuminating Engineering Society of North America [IESNA] is a non-profit organization that publishes standards for the lighting industry.

### IP

Refers to Internet Protocol, the principal communications protocol in the Internet protocol suite for relaying datagrams across network boundaries.

# Definitions Pertaining to City-Owned Buildings and Public Spaces 2

## MERV

The minimum efficiency reporting value [MERV], is an ASHRAE measurement scale designed to rate the effectiveness of air filters, based on a rating scale of 1 to 16. Higher MERV ratings correspond to a greater percentage of air particles being captured on each pass through a filter. A MERV 16 filter will capture more than 95% if particles sized from 0.3 to 10 micrometers.

## Mixed-Use Development

A building or development that contains two or more uses, such as retail, office, institutional and residential uses. Mixed-use developments are more urban in character and must incorporate barrier-free design attributes to help foster the establishment of complete and accessible communities.

## MSTP

Multiple Spanning Tree Protocol [MSTP] is an open source communications protocol language connecting terminal controllers to a main direct digital control processing system, and is defined by the applicable networking standard IEEE 802.1Q.

## Multi-Use Pathway

Paths that typically accommodate both bicycle and pedestrian use on the same path system. Both uses benefit from a continuous barrier-free design without curbs or steps, but care must be taken to design the multi-use path in order to avoid conflicts between pedestrians, and pedestrians who use mobility-assisting devices such as wheelchairs or strollers, and cyclists.

## NRCan

Natural Resources Canada [NRCan] works with other government departments, the provinces and territories, and other Canadian and international partners to address energy needs and potential, while considering new policies, practices, and technologies.

## Operable Portion of Piece of Equipment

The part of a piece of equipment that is used to activate, de-activate or adjust how it performs. These include door handles, push buttons, and coin slots.

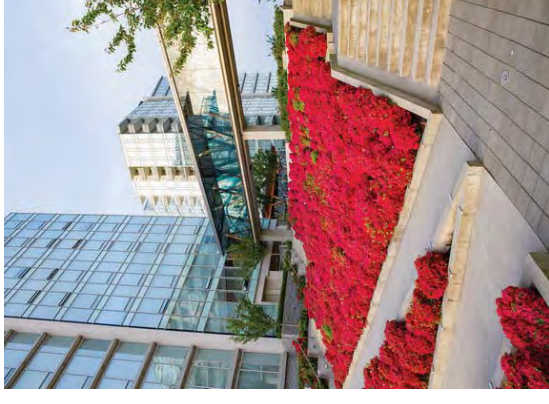
## Ramp, including Ramp Slope and Cross Slope

A ramp could be less than 1 in 20 [5%]. The City's Engineering Design Specifications specifies that the "maximum slope of the wheelchair ramp should not exceed 6% and appropriate landing pads be provided (as per TAC). Cross slopes at ramps must be minimized to allow for surface drainage [maximum 6.35 mm (¼") in one foot], while not compromising the safety of the ramp.

Handrails and guards are required by code to accommodate safe use of ramps.

Regulations for ramps at street curb cuts differ from typical walking surface ramps.

Refer to City of Richmond Engineering Design Specifications for regulations concerning curb cut- related ramps at street sidewalks.



*Stairs and ramps can be integrated to enhance the public realm.*

## Resilient Cities and Neighbourhoods

An urban planning strategy that encourages new development to be built for the long term, with an emphasis on a high level of energy utilization, and a reduction in the need to replace buildings systems or components. Elements that provide accessibility in buildings must be designed with the same level of resilience in mind.

# City-Owned Buildings and Public Spaces

## 2

### SEER

The Seasonal Energy Efficiency Ratio [SEER] rating of a unit is the cooling output during a typical cooling season divided by the total electric energy input during the same period. The higher the unit's SEER rating, the more energy efficient it is. In North America, the SEER is the ratio of cooling in British Thermal Units (BTU's) to the energy consumed in watt-hours.

### Service Entrance

Typically a non-public entrance, provided for the delivery of goods and services. As such entrances often also provide entry for staff, principles of accessibility should also be considered.

### Signage

Providing for general information or way-finding in buildings and in the public realm, signage should provide for a wide range of effectiveness in communication, and include an appropriate combination of written word, pictorial, and tactile information, including Braille.

### Speaking Port

A piece of security equipment that provides for effective two-way communication. Often amplification of voice levels is required to deliver effective communication at speaking ports.

### Step Code

The BC Energy Step Code is a Provincial standard enacted in April 2017 that provides an incremental and consistent performance-based approach to achieving more energy-efficient buildings that go beyond the requirements of the basic BC Building Code. The Province has set a requirement that all new buildings must be net-zero energy ready by the year 2032.

It is the City of Richmond's desire to show leadership in the transition to net-zero energy by constructing its new City-owned buildings to the highest applicable step, with Level 3 being the target and Level 4 being the stretch "target".

### Sustainability

Meeting present needs without compromising the ability of future generations to meet their needs. Sustainability is described as having three main components: economic, social and environmental. Providing for accessibility and barrier-free design enhances the social sustainability of urban places for the long term.

*The BC Energy Step Code emerged from a desire to provide a consistent set of higher-efficiency standards for the building industry, while offering local governments a simple and effective set of standards to support their efforts to meet targets for energy efficiency and greenhouse gas emissions. The Energy Step Code Council is keenly interested in ensuring the BC Energy Step Code is adopted in a coordinated and thoughtful manner to ensure these benefits come to fruition for all parties. For that reason, it is important that local governments follow the guidance offered in this document.*

*The Energy Step Code Council is also encouraging local government leadership by requiring the Upper Steps for any public-building project that may be on the horizon, such as a community centre or public-safety complex. These buildings will serve as high-profile case studies – building local capacity while demonstrating to the market what can be accomplished.*

*By referencing one or more steps of the standard, your community is doing more than just accessing co-benefits and ensuring your industry has a head start on changes to the BC Building Code. It is contributing to a growing national effort to dramatically reduce energy demand in buildings across the country.*

**BC Energy Step Code**  
**A Best Practices Guide for Local Governments**  
 Version 1.2 September 15, 2017



# Definitions Pertaining to City-Owned Buildings and Public Spaces

## 2

### TCP/IP

Transmission Control Protocol / Internet Protocol. It is the principal communication protocol in the Internet protocol suite for relaying datagrams across network boundaries.

### Technically Not Feasible [Building Renovations and Alterations]

When an existing building is being altered, at times a building upgrade cannot be contemplated because of structural or building services considerations. In some instances building upgrades that promote use of the building by persons with disabilities should be contemplated, even though they do not provide complete compliance with minimum code requirements for new construction, and are “technically not feasible”.

An example of such a condition would be the installation of a wheelchair lift in a building that cannot accommodate installation of a code-compliant elevator.

Note: inadequate budget is not a reason to relax full code compliance].

### Transit-Oriented Development [TOD]

An urban planning strategy the looks at encouraging pedestrian-oriented developments by clustering higher density urban developments around public transit infrastructure in transit-oriented developments, such as rapid transit stations.

Transit-oriented developments must incorporate accessible design and further benefit from barrier-free and enhanced accessibility strategies.

### Truncated Domes

Small domes with flattened tops that are inset into paving as tactile warnings at hazardous places such as transit platforms or at stair and ramp landings. They also can act as directional cues for pedestrians at curb edges at curb ramps.

### Universal Design

The design of spaces, environments and products to be usable by all people, including those with disabilities, without the need of specialized design. Universal Design is linked to “Enhanced Accessibility” and barrier-free design, as well as the concept of Visitability.

### Virtual Metering

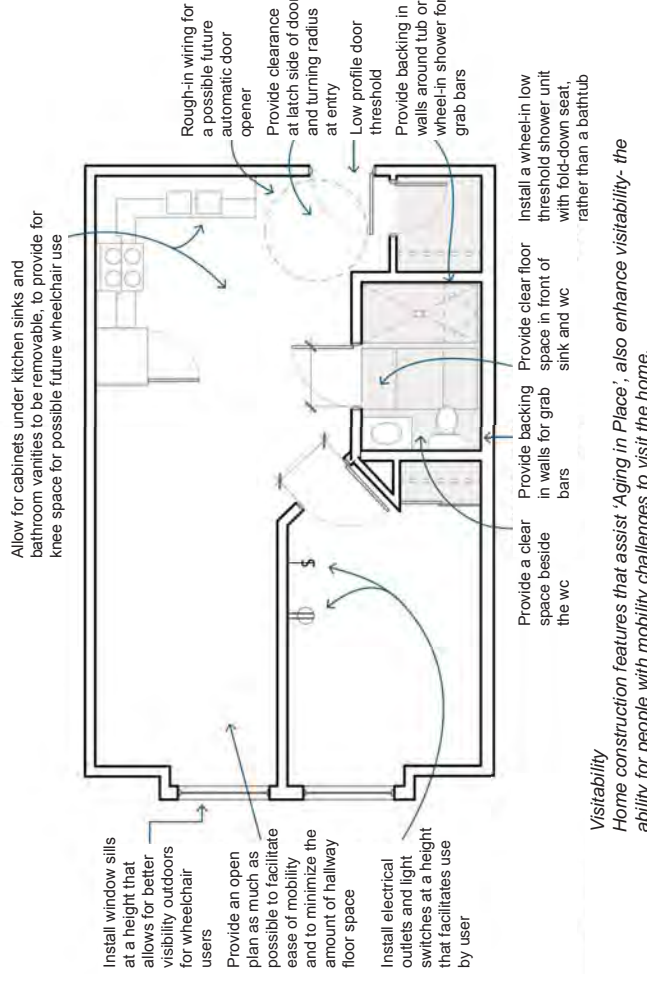
Function of monitoring energy use of specific systems or pieces of equipment, based on demand and run time, through a building’s direct digital control system and analog current transducers.

### Visitability

A strategy to change home construction practices, so that all new housing incorporates features that improve access and functional comfort for people with mobility challenges, both in their own homes and in other dwelling units that they may visit.

### Wayfinding

The spatial problem-solving process that a person uses to reach a destination. Wayfinding is assisted by orientation clues that can be made available in the local setting, and includes signage, surface textures, colours, illumination, acoustic treatments, and other architectural features.



### Basic Universal Housing Unit (also known as adaptable housing unit)

Features to assist "aging in place"  
 One bedroom unit shown - minimum unit size 535 sq. ft.



# Principles Guiding The Design for City-Owned Facilities

## 3

### 3.0 Principles Guiding Design for City-Owned Facilities

The City of Richmond's goal is to have its buildings reflect design choices that enhance overall construction quality, embody best practices in construction technology, work to minimize long-term operations and maintenance costs, and promote building usefulness, resilience and longevity. These principles should be applied to all types of City-owned construction projects, whether new builds, renovations or alterations, heritage projects, or tenant improvements.

#### 3.1 Functional Program

- identify building areas and functional components that are to be included in the civic asset.
- identify functional inter-relationships for the proposed spaces along with area requirements.

#### 3.2 Site Planning and Building Form

- review site opportunities and constraints, and take into account building orientation and how the public will access and use the building.
- assume that wall assemblies will have a high level of energy utilization.
- review solar orientation impacts, and formulate early design options for glazing based on general principles of solar orientation and façade design:
  - North Façade - minimize glazed areas and heat loss as much as possible.
  - East Façade - provide for potential early morning heat gain with glazing, but limit late morning heat gain by the use of shading devices.
  - South Façade - provide for shading devices at glazed areas.
  - West Façade - provide for shading devices at glazed areas, especially relating to late afternoon sun and associated heat gain.

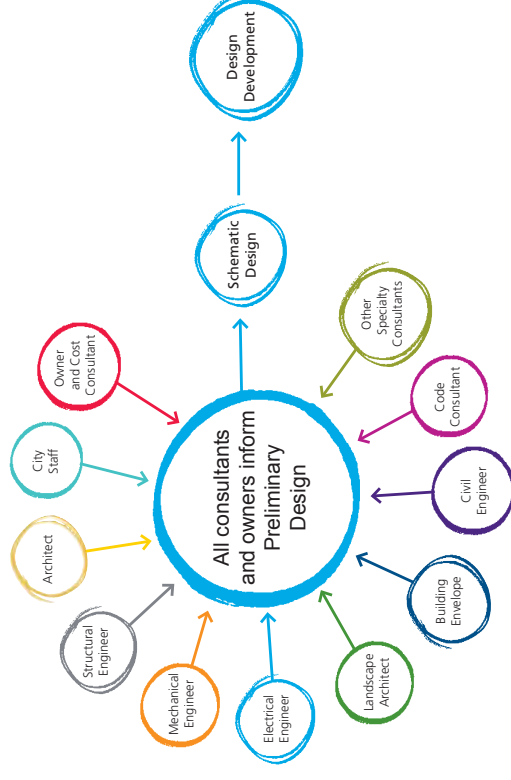
#### 3.3 Integrated Design Process

- early on in the design process, involve all building design consultants in a design charrette where the design goals for the civic asset are clearly articulated.
- create a well-defined set of performance objectives for the new building or

renovated space, and associated outdoor spaces, and identify strategies for achieving desired outcomes.

- identify general building systems that are expected to be incorporated in the building early on at the schematic design stage, for the benefit of all consultants.
- clarify consultants', and staff and user group representatives' roles and responsibilities.

INTEGRATED DESIGN - THE TEAM APPROACH



# Principles Guiding The Design for City-Owned Facilities

3

**3.4 Energy Efficiency and Reducing Greenhouse Gas Emissions**  
Ensure that City buildings or spaces are built with occupant safety, comfort, and indoor environmental quality in mind. Refer to the following documents:

- Sustainable “High Performance Building Policy for City-Owned Facilities Policy 2307, adopted by Council 24 February 2014.
- Optimizing Maintenance and Energy Performance. (City Administrative Procedure Reference - see Appendices)
- Requirements over BC Building Code - implementation of British Columbia “Step Code” provisions at a high level [Target of Level 4].

Also, consider the following:

- Building Commissioning.
- on-site renewable energy systems.
- Consider embedded energy, carbon emissions and the lifecycle of the product in building products; prioritizing products with recycled contents supports the objective of reducing the embedded energy of building products.

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## 3.5 Integration of Building Automation Systems

- optimize the City’s Building control and energy monitoring capacity to maximize efficiencies.
- standardize the City’s DCC systems and graphic Interface in new and existing buildings. (City Administrative Procedure Reference - see Appendices)

## 3.6 Optimizing Building Lighting Systems (City Administrative Procedure References)

- standardize lighting types in relation to function.
- optimize performance in building exterior and interior lighting through specification of appropriate lighting fixtures and controls.

## 3.7 Air Quality

- reduce emissions and particulate pollutants into the environment.

## 3.8 Indoor Air Quality

- optimize the design of indoor environments to promote occupant comfort, health, and enjoyment. (City Administrative Procedure Reference - see Appendices).

## 3.9 Water Usage and Quality

### 3.9.1 Indoor Use

- reduce indoor potable water use, reducing the burden on local water supply and wastewater demands.
- optimize water efficiency (City Administrative Procedure Reference)

### 3.9.2 General Environmental Water Quality Considerations

- stormwater balance
  - stormwater retained on site to the same level of annual volume allowable under redevelopment conditions.
- stormwater retention and re-use
  - look to recycle stormwater where feasible for sanitary flushing purposes or irrigation for landscaping.
- removal of suspended solids before dispersal into the sewer system.
- control E.coli
- create drought-tolerant landscapes

## 3.10 Solid Waste Management - See City of Richmond Waste Management Guidelines

- waste streams and collection.
- deal with bulk waste.
- deal with and recycling construction and demolition debris.
- elimination of waste through education and performance tracking.
- use of recycled construction materials.

## 3.11 Ecological and Pedestrian and Public Realm Considerations

- connectivity of pedestrian areas.
- weather protection.
- lighting of pedestrian areas and shielding exterior lighting.
- reduction of glare and reducing light spillage and pollution.
- existing tree protection.
- tree planting requirements on street frontages and in parking lots.
- reduction of urban heat island effect.
- biodiversity in the landscape and limitation of invasive species.
- bird friendly design and limitations to glazing near the ground plane.
- roof reflectivity and design.
- roof vegetation issues.
- ground-scape porosity and limiting the speed of site drainage.

# Design Guidelines and Technical Specifications 4

## 4.0 Design Guidelines and Technical Specification References

### 4.1 Purpose

- organize the design, construction, material and building system requirements for City-Owned Projects into industry-standard specification system nomenclature.
- to be used as a tool for preparing cost estimates early in the design process.
- for use by consultants who are ultimately responsible for ensuring that the completed Project meets the standards and conforms to the regulations of all authorities having jurisdiction.

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*MasterFormat, published by CSI and CSC, is a master list of numbers and titles classified by work results. It is primarily used to organize project manuals and detailed cost information, and to relate drawing notations to specifications.*

### 4.2 Applicable Regulations and Policies

- British Columbia Building Code
- City of Richmond Zoning and Development Bylaws
  - Official Community Plan
  - Applicable Area Plans
  - Redevelopment Permit Guidelines
  - Richmond Social Development Strategy
  - Affordable Housing Strategy
  - Enhanced Accessibility Design Guidelines
  - Child Care Design Guidelines
- Sustainability
  - Stand-alone and Mixed Use Projects
  - Tenant Improvement
- Building Envelope Standards
- Energy Utilization and Building Performance
  - BC Step Code
  - references to ASHRAE Standards

### 4.3 Technical Specification Sections

Consultants for City-owned building projects should use the Divisions and Sections annotations in this document, as a basic guideline for the formulation of construction specification document packages accompanying construction drawings.

Specification packages will vary from project to project, and it is the consultant's responsibility to ensure that the specification requirements adequately describe the scope of work associated with the specific project.

Note: the following specification references are organized according to the construction industry standard Masterformat Specification System.

# Design Guidelines and Technical Specifications

## 4

### 4.4 Outline Specification - General Requirements

#### 4.4.1 Procurement and Contracting Requirements

- a) Instructions to Bidders
  - refer to documents distributed by the City of Richmond or its agents
  - the Bidder will comply with all bidding requirements and will ensure that the Work will be performed in accordance with the Bid Documents without exception.
  - any proposed alternate wordings to the Bid Documents or Form of Contract, must be submitted with the Bid Submission, and the City of Richmond or its agents, reserve the right to accept any or none of the proposed alternate wordings.
- b) Form of Agreement and General Conditions of the Construction Contract
  - standard CCDC contracts will be utilized.
- c) Supplementary General Conditions of the Construction Contract
  - the City of Richmond reserves the right to include Supplementary General Conditions to the standard forms of contract as may be required to identify City objectives for the specific construction contract.
- d) Division 01 - General Requirements
  - the number of General Requirements Sections will vary from project to project, but typically, the number of Sections is extensive in order to fully delineate the responsibilities of the General Contractor or Construction Manager who is contracted to construct the work.

#### 4.4.2 Overview of New Construction General Design Requirements

- provide new buildings that respond to the City's needs and those of the anticipated users and tenants of the buildings.
- provide designs for new durable buildings, that are efficient and cost effective. Designs should stress simplicity and ease of construction, as well as ease of maintenance. Building siting, form, and choice of building materials and systems should consider life cycle costs in response to the site's location, orientation and context.

#### 4.4.3 Overview of Conversion of Existing Buildings

- Confirm the proposed use is permitted under the City's Official Community Plan, Area Plans and Zoning Bylaw 8500
- assess the design and condition of the existing building in order to determine whether the existing building can accommodate the proposed uses and functional program within the constraints of available budgets.
- incorporate the recommendations of a structural engineering consultant and code consultant regarding meeting change of use structural capacity and fire and life safety requirements.
- ascertain how a proposed renovation can best meet BC Step Code energy utilization targets.
- determine the optimal approach to addressing building envelope concerns without compromising the integrity of existing building assemblies in the long term.
- meet requirements for access for people with disabilities, including the provision of an accessible elevator in multi-floor buildings.



Branscombe House, City of Richmond.



# Design Guidelines and Technical Specifications

## 4

### 4.4.4 Overview of Location Considerations, Building Form and Site Planning

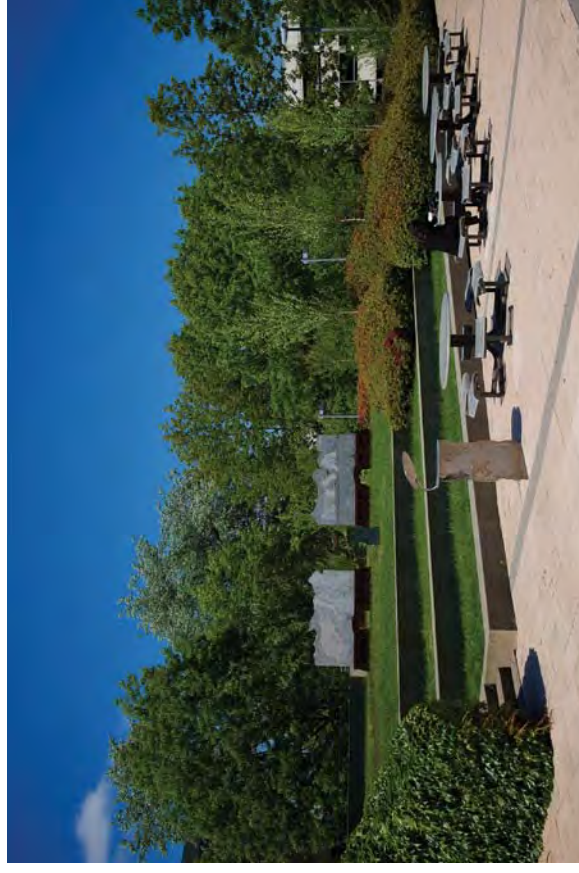
- Refer to any applicable design guidelines for the area in the Official Community Plan and associated Area Plans
  - take into account opportunities for solar access, and use by the public including access to transit and pedestrian routes. If ambient noise is an issue, consider acoustic mitigation measures as part of site planning.
  - incorporate sustainability features and siting criteria.
  - building form should be simple, efficient and easy to build, but not ignore neighbourhood context in its design or the benefits of articulation in the exterior appearance of the building.
- Foundation plans should be simple and the continuity of load-bearing elements should be maintained between floors. Avoid constructing heated space over unheated space (exposed floors). Provide simple roof designs that drain rainwater efficiently and avoid ice-damming. Avoid numerous projects or recesses in façade articulation.
- the building design and its exterior spaces should promote accessibility of use for persons with disabilities, including access from parking areas. Exterior spaces should accommodate ease of snow removal.
  - Project design should also incorporate CPTED [Crime Prevention Through Environmental Design] strategies.

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### 4.4.5 Overview of Design and Specification Requirements

(to Pre-Building Permit Application Stage)

- Conform Zoning and whether a rezoning application is required. (Note: only Council can approve a change in land use)
- Preliminary Review Stage, including vehicle parking and loading.
- Pre-Development Permit Application Stage / Checklist.
  - includes Building Code review, compliance with BC Energy Step Code, Building Envelope Standards, Civil Engineering and Landscaping.
- requirements for specialist consultants, including acoustic, security, hardware, energy modeling and food services [kitchen] consultants.
- Development Permit Application Stage.
- Pre-Building Permit Application Stage, including Draft of Construction Documents and referring to Checklists.  
(Refer to City Administrative Procedure References)
  - includes Energy Performance Standards compliance and Building Envelope specifications.



*Site Planning opportunities can provide possibilities for extending on-site open space into the public realm, to create small plazas and pedestrian amenity areas.*

# Design Guidelines 4 and Technical Specifications

## 4.5 Outline Specification

- **Construction Standards and Notes on Best Practices**  
- with reference to Masterformat Sections

### 4.5.1 Consultant Inspector - Terms of Reference

The City of Richmond will provide or appoint an Owner's Representative or Consultant Inspector with the purpose of:

- reviewing construction contract documents to advise on consistency with the City's objectives for the project, including conformity with the Design Guidelines and Technical Specifications.
- reviewing construction work to establish compliance with City objectives. Note that the role of this Inspector does not assume any of the contractual or professional responsibilities of the design consultants or contractors who are engaged on the project.

#### Sample Site Visit Report

The Consultant Inspector will attend job and site meetings when construction is in progress, and provide reports of same.

- A Sample Site Visit Report is included in the Appendix of this document.

### 4.5.2 Subsurface Investigation

The City of Richmond will provide for a geotechnical investigation report for the City-owned or leased project site, that indicates the following:

- identifies soil conditions.
- provides recommendations for excavation, dewatering, pre-loading, and foundation design for the building and associated site development.
- provides recommendations for backfill and compaction.
- provides curb, pavement and hard surfacing design, including loadings from heavy vehicles that may utilize the paved areas.

The geotechnical report is provided for information only, and no guarantee of subsurface conditions is made, other than those documented at exact borehole investigation locations. Any Contractor engaged by the City to make improvements or install new construction on the site is required to make him or herself familiar with all existing conditions and with the findings of the geotechnical report.

Specification Reference - Section 00 31 32 - Soils Investigation Data

### 4.5.3 Excavation, Backfill and Compaction

The Contractor will comply with all municipal bylaws and applicable building codes as well as all Master Municipal Construction Documents and Richmond Supplements to these, especially as they relate to subsurface and paving work.

Comply with the recommendations of the project's Geotechnical Engineer for all excavation and shoring, fills and backfill, and drainage for the project.

The Contractor will engage and pay for independent testing as specified by the Geotechnical Engineer.

Specification Reference - Section 01 35 43 - Environmental Protection

Section 01 57 13 - Erosion and Sediment Control

Section 31 00 00 - Earthwork

# Design Guidelines and Technical Specifications

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## 4.5.4 Exterior Surface Finishes - Hard and Soft Surfaces / Landscaping

- Provide well-designed exterior surface and landscape areas that are simple in design and layout and that require lower amounts of maintenance.
- Provide parking areas as required by the City of Richmond, and that meet accessibility and parking area delineation standards.
- Under-building structured parking should be designed to meet building and occupant security requirements. Provide for visibility into stair and elevator vestibules with rated glass assemblies within the requirements of applicable codes, and provide for safe lighting levels.
- Landscaping over building and parkade structures requires careful attention in order to avoid ongoing maintenance. Avoid small areas of sod and trees and shrubs with aggressive root systems.
- Locate trees to avoid maintenance resulting from falling leaves in gutters or catch basins, or tree root issues at building foundations.
- Specify plantings that require little or no irrigation. Generally employ native plant species.

Specification Reference - Section 03 35 00 - Concrete Finishing

- Section 31 22 13 - Rough Grading (Landscape)
- Section 32 01 90 - Landscape Establishment Maintenance
- Section 32 05 23 - Concrete for Exterior Improvements
- Section 32 14 13 - Precast Concrete Unit Paving
- Section 32 12 16 - Asphalt Paving
- Section 32 17 23 - Pavement Markings
- Section 32 91 21 - Growing Medium and Finish Grading
- Section 32 93 10 - Trees, Shrubs and Groundcovers

## 4.5.5 Building Envelope

The City of Richmond requires that a registered architect or engineer licensed to practice in the province of BC be engaged to provide building envelope consulting services on any City building project, preferably as a sub-consultant to the architect for the project.

The building envelope consultant should have at least five years relevant local building envelope experience, and provide a scope of services consistent with best practice local industry standards. They should ensure that the assemblies specified for the proposed building possess acceptable water management characteristics, and are designed to meet the intent and requirements of the BC Building Code, the BC Energy Utilization Step Code, and other applicable standards.

Specification Reference - Section 01 40 00 - Quality Requirements  
Section 01 43 39 - Mock Ups  
Division 07 - Thermal and Moisture Protection  
Division 08 - Openings



Ensure building envelope detailing sheds the weather in an appropriate manner, and meets energy utilization performance standards.



# Design Guidelines and Technical Specifications

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### 4.5.6 Environmental Design Rating Systems

The City of Richmond typically requires certification by third party environmental rating systems or agencies, such as LEED or Passive House, unless indicated as such by the city or another authorized sponsor organization. Review pertinent requirements with city staff.

Specification Reference - Section 01 33 16 - Design Submittal Requirements (Performance Design Criteria)  
Section 01 33 29 - General LEED Requirements  
Section 01 60 13 - LEED Product Requirements  
Section 01 60 14 - Passive House Standards and Project Requirements

### 4.5.7 Basic Concrete Materials and Methods

Architectural and/or structural concrete specifications should be prepared by the Project's architect and/or structural engineer.

The Contractor will appoint and pay for a CSA certified inspection agency to review concrete mix designs and perform concrete testing in accordance with latest CAN/CSA and other relevant industry standards.

The architect should prepare concrete topping specifications to ensure compatibility with floor finish materials, including specification of moisture content requirements. Repairs to defective concrete must be done as soon as possible after the removal of formwork, and after the consultant has established a material and methods schedule for concrete repair. The consultant reserves the right to reject concrete installations with defects comprising over 1% of the area of the concrete or if defects are in close proximity. Defective concrete will be removed and replacement concrete will be installed at no additional cost to the project.

Floors that are left exposed, or that receive carpeting, resilient flooring, or sheet membrane waterproofing, should be finished flat, free from defects that would telegraph through finish materials.

Provide control joints at required locations to control cracking.

Concrete sidewalks and paving should meet municipal engineering standards.

Specification Reference - Section 03 33 00 - Cast-In-Place Concrete  
Section 03 35 00 - Concrete Finishing  
Section 03 54 00 - Concrete Self-Leveling Topping

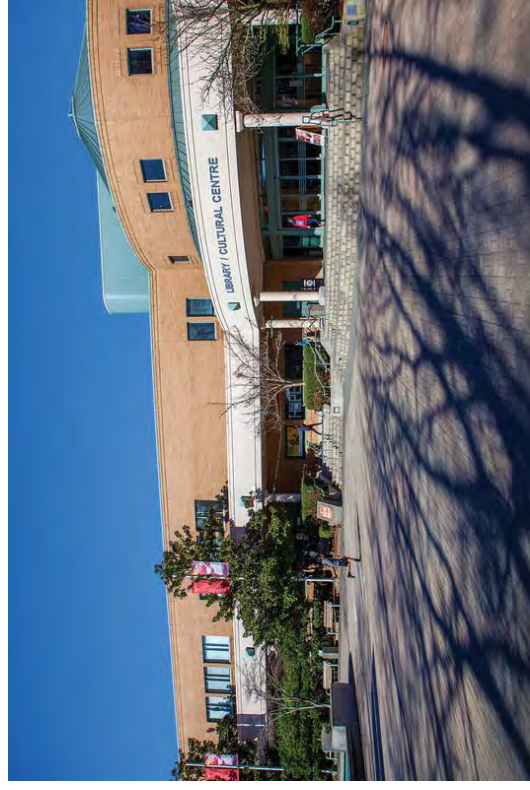
### 4.5.8 Basic Masonry Materials and Methods

A pre-construction meeting is required with the masonry contractor and the consultant to review specifications, submittals and construction issues. A site mock-up of masonry construction will be made for review by the design consultant and City inspector before construction begins.

Meet all BC Masonry Guide specifications as well as industry standards for brick veneer, concrete block, all connectors metal flashings and thru-wall membrane flashings, and mortar mixes.

Concrete unit paving is not preferred, owing to differential settlement problems that are typical in the City of Richmond.

Specification Reference - Section 04 21 13 - Brick Masonry  
Section 04 22 00 - Concrete Unit Masonry  
Section 04 50 00 - Masonry Restoration and Cleaning [Existing Buildings]



Ensure masonry assemblies are detailed to the technical standards of the Masonry Institute of BC.



# Design Guidelines and Technical Specifications

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### 4.5.9 Basic Metals Materials and Methods

Steel Structural design should be provided by the structural engineer and architect.

#### Cold-Formed Metal Framing

- provide complete wind load-bearing steel stud system with accessories, to design loads specified on the structural drawings. Install insulation and vapour barrier in areas that will become inaccessible as construction progresses, and protect these installations from the weather as required.

#### Miscellaneous Metals

- The Contractor will retain a structural engineer registered in the Province of BC to prepare signed and sealed shop drawings for guardrails, handrails and other miscellaneous metal fabrications.  
Finish for miscellaneous aluminum or steel metals should be powder coat paint.  
Anchoring systems to be typically vertically mounted base plates with neoprene gaskets.

Specification Reference	-	Section	05 10 00	-	Structural Steel
		Section	05 40 00	-	Cold-Formed Metal Framing
		Section	05 50 00	-	Metal Fabrications
		Section	05 58 00	-	Historic Metalwork Restoration [Existing Buildings]



Miscellaneous metals should have a powder coat paint finish.

### 4.5.10 Rough Carpentry

Provide lumber grades and products as shown on the structural drawings.

Minimum standards for Rough Carpentry Products:

#### Interior Floor Sheathing:

- use T&G D.Fir or Spruce plywood, glue and screw.

#### Floor Underlayment:

- 3 ply, 9mm (11/32") thick spruce plywood with the finish face double-sanded and the back face lightly sanded. Prior to installation, confirm that the finish product will be acceptable to the resilient flooring manufacturer.

#### Exterior Deck Sheathing:

- Sheathing grade, D.Fir T&G plywood. If PVC deck waterproofing is to be installed, use select tight face plywood.

#### Exterior Fascias and Trims:

- No.2, S-P-F textured (combed) finish, pre-primed, not less than 51mm (2") nominal thickness for new builds. For heritage buildings, typically nominal 51mm (2") thick D.Fir select pre-primed S4S material is required.

#### Exterior Heavy Timber Construction, Landscaping:

- No.2, S-P-F pressure-treated material.

#### Fencing:

- cedar with Hem-Fir treated posts set in concrete, all stained.

#### Wire Mesh (Fencing or Storage Lockers):

- 76x76mm (3"x3") x 10 gauge welded wire mesh, galvanized.

#### Sill Gaskets:

- close cell polyethylene foam.

#### Cavity Furring:

- cedar or pressure-treated Hem-Fir.

#### Grab-Bar and Railing Blocking:

- 38x235mm (2x10) typical. See BC Building Code and City of Richmond Accessibility Standards for locations of grab bars. Provide blocking or backing for all fixtures and fittings, in addition to that for grab bars and railings.

#### Wood Preservatives:

- ACQ preservative typical for all exterior wood locations in contact with concrete, masonry, or where moisture may occur, at roof upstands in flat roofs, planters, heavy timber construction, fence posts and cavity furring. Important: Treat all field cut surfaces of pressure-treated wood with two brush coats of ACQ preservative.

Specification Reference - Section 06 10 00 - Rough Carpentry

# Design Guidelines and Technical Specifications 4

## 4.5.11 Finish Carpentry

Workmanship must conform to the Quality Standards for Architectural Woodwork as published by the Architectural Woodwork Manufacturers Association of Canada [AWMAC], latest edition.

For Child Care Facility millwork, refer to City of Richmond Child Care Design Guidelines and Technical Specifications.

Minimum standards for Finish Carpentry Products:

*Baseboards, Trims and Window Sills:*

- typically these are to be solid wood, pre-primed. No MDF products allowed for these installations.

*Casework*

AWMAC custom grade typical:

- Wood cabinets for Transparent Finish—Grade A face veneer, with adjustable shelving veneer plywood core.

- Plastic Laminate Cabinets—all surfaces P.Lam, with adjustable shelving veneer plywood core.

*Countertops*

- Composite acrylic polymer type non-porous countertops, with integral monolithic splash (e.g. "Corian")

*Cabinet Hardware*

- D-pulls, polished or brushed chrome finish.

*Wall Protection:*

- 9mm (3/8") veneer face plywood with solid wood trims and battens is acceptable, as is plastic laminate or PVC wainscoting.

*Shelving:*

- typically veneer finish plywood similar to cabinet gable and cabinet door finishes for office millwork. In selected storage closets, plastic-coated wire shelving, full width between walls, with wall and intermediate supports is acceptable.

Specification Reference - Section 06 20 00 - Finish Carpentry

Section 06 20 11 - Landscape Finish Carpentry

Section 06 40 00 - Architectural Woodwork

Section 06 42 00 - Restoration of Existing

Architectural Woodwork

[Existing Buildings]



Finish carpentry and exposed wood structure should be detailed and finished to provide for long-term resilience, as well as add to the aesthetic appeal of the building.



Resilient and wipeable, easily cleaned finish surfaces are required for architectural millwork. Note the lower counter with knee space for wheelchair users.



# Design Guidelines and Technical Specifications

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### 4.5.12 Dampproofing and Waterproofing

Refer to the Geotechnical Report regarding subsurface drainage requirements and requirements for waterproofing below finish grade habitable spaces.

All dampproofing and waterproofing products and detailing to be reviewed by the Building Envelope Consultant, who will also review installations of same in the field, including (but not limited to):

- waterproofing materials for suspended parkade slabs and decks over habitable spaces.
- waterproofing for balconies over non-habitable spaces.
- dampproofing, composite drainage mats and protection board.

Specification Reference - Section 07 11 13 - Bituminous Dampproofing  
Section 07 14 00 - Fluid-Applied Waterproofing  
Section 07 16 16 - Crystalline Waterproofing

### CNC 4.5.13 Insulation

Insulation, thermal bridging and air-tightness construction assemblies and values must be engineered to meet the minimum requirements of Level 3 of the BC Energy Step Code. Energy modeling and Building Envelope Consultants to verify that proposed construction assembly details meet all requirements.

For existing buildings, ensure that insulation upgrades are not deleterious to the integrity of the existing building assemblies in the long term. Modify and relax energy utilization upgrades as required in order not to negatively impact the longevity of the existing building structure or exterior or interior finishes.

Acoustic insulation to be included in wall and floor assemblies in order to meet code-required STC ratings. [In existing heritage buildings, maximize meeting STC requirements while respecting the integrity of existing heritage interior and exterior finishes that are to be retained].

Specification Reference - Section 07 21 00 - Thermal Insulation and Poly Vapour Barrier  
Section 07 21 29 - Foamed-In-Place Insulation  
Section 07 26 00 - Vapour Retarders  
Section 07 27 00 - Self Adhesive Air-Vapour Barrier / Membrane Flashing

Section 07 27 10 - Sheathing Membrane

### 4.5.14 Exterior Finishes

Select exterior building finishes and provide appropriate detailing to achieve long term durability, and functional and aesthetic design quality for the civic building asset. Consider neighbourhood context and overall community character when selecting exterior finishes. Refer to any applicable design or heritage conservation area guidelines for guidance on exterior bushes and landscaping.

Specification References - Division 04 Masonry  
Section 07 42 13 - Metal Composite Material Wall Panels  
Section 07 44 53 - Fibre Reinforced Cementitious Panels  
Section 07 46 23 - Wood Siding and Shingles



Select exterior finishes that will provide long-term building resilience.

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### 4.5.15 Roofing, including Roof Hatch

Acceptable Products - dependent on design objectives and building resilience goals (all to be reviewed with the Building Envelope Consultant):

- Asphalt or Wood Shingles
- Low slope membrane roofing
- Sheet metal roofing

All material and workmanship standards must conform to the guarantee standards of the Roofing Contractors Association of BC [RCABC], as published in the RCABC Roofing Practices Manual, latest edition.

- provide a minimum 5 year Roofing Warranty from the RCABC
- provide roof edge safety barriers, fall protection and fall arrest as per the BC Building Code and WCB requirements.
- provide roof drain, rainwater leader and gutter and downspout systems that effectively shed the weather without creating undue wear or staining on adjacent finish materials.
- provide roof hatches with high performance insulation values.

Specification References - Section 07 31 13 - Asphalt Shingles  
Section 07 31 14 - Wood Shingles  
Section 07 52 11 - SBS Modified Bituminous Roofing and Waterproofing Membrane  
Section 07 61 00 - Sheet Metal Roofing  
Section 07 62 00 - Sheet Metal Flashing, Trims, Gutters and Downspouts  
Section 07 72 33 - Roof Hatches



### 4.5.16 Fire-Stopping and Smoke Seals

- Furnish and install all required fire-stopping and smoke seals within fire resistive wall and floor assemblies.
- All fire-stopping and smoke seals should be listed by Underwriters' Laboratories of Canada [ULC], and should form a draft tight barrier to retard the passage of smoke, flame and hose stream, as noted in the appropriate ULC classification.
- Mechanical and electrical penetrations through rated floor, roof and wall assemblies are to be fully coordinated with the Mechanical and Electrical Divisions, and all penetrations will be fire-stopped with the appropriate ULC-listed fire-stopping system, to the satisfaction of the consultant and the authority having jurisdiction.
- Strict sequencing protocols for the installation of fire-stopping should be followed:
  - no installation is to proceed unless review and return of fire-stopping shop drawings has been completed.
  - fire-stopping to floor and roof slab penetrations must precede drywall track installation.
  - fire-stopping must precede fireproofing installations.
  - fire-stopping at slab edge detail to exterior wall panels and at window panels must be done with all panel installations.
  - fire-stopping must precede mechanical pipe insulation (ensure air and vapour barriers are continuous also).

Specification References - Section 07 81 16 - Cementitious Spray Fireproofing  
Section 07 84 00 - Fire-stopping



*Underwriters Laboratories of Canada (ULC) is an independent product safety testing, certification and inspection organization that is accredited by the Standards Council of Canada (SCC), and which supports governmental product safety initiatives.*

# Design Guidelines and Technical Specifications

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### 4.5.17 Joint Sealants

Install as required by the BC Building Code, the Building Envelope Sections of these Guidelines, or as directed by the Building Envelope Consultant.

Select the type of joint sealant, or tape sealant, to suit the requirements of the specific construction assembly.

Colour of the joint sealant to be selected by the consultant, from the manufacturer's complete range of available colours.

Install acoustic sealant in sound-rated gypsum wallboard assemblies. Seal all lapped and end joints in polyethylene vapour barriers.

Pay strict attention to workmanship aspects of sealant installations:

- establish correct depth to width relationships for installation of backer materials and sealants. Control the depth of the joint to the sealant manufacturer's recommended thickness.
- apply sealant in continuous beads, without open joints, voids, air pockets or embedded impurities.
- finished caulking must be smooth, free from ridges, wrinkles, sags and air pockets, and have a slightly concave shape.
- remove excess caulking promptly as work progresses, and do not damage adjacent finished surfaces.

Specification References - Section 07 92 00 - Joint Sealing



*Joint sealants are an important part of the building envelope, in particular at the juncture of dissimilar exterior finishing materials.*

*There are a wide variety of different sealant systems available, and care must be taken to specify the appropriate system for the particular building condition.*



## 4.5.18 Doors

Install doors as required by the BC Building Code and as directed by the Building Envelope Consultant for exterior doors.  
To maximize building resilience and service longevity, select doors and hardware to suit function and location.

### 4.5.18.1 Metal Doors and Frames *Steel Doors and Frames*

- doors and frames to exit stairs, service rooms and suite entrance frames from public corridors must conform to the Canadian Steel Door and Frame Manufacturer's Association's Specifications.
- fire-rated doors should be fabricated in accordance with underwriter's requirements, labeled as required.

for corridor fire doors, provide smoke seal and maximum area of wired glass permitted by code.  
doors in elevator vestibules and stairs at parking garages should provide maximum glazing allowed by code.

- for exterior doors provide flush panel design with polyurethane core insulation, extruded aluminum low profile (accessible) sills with width to match frame depth, and mechanically fastened, extruded aluminum weatherstripping with neoprene inserts, and an adjustable sweep at the sill.

### *Exterior Steel Glazed Panel (Swing) Doors in Wood Frames*

- double-glazed stile and rail insulated door with prefinished baked enamel sheet steel.  
Low profile (accessible) aluminum sill, door weatherproofing and adjustable door sweep at the sill.

### *Exterior Aluminum Entrances and Storefront Doors [and Curtain Wall]*

- sealed glazing thermal aluminum fabrications meeting all best practices for quality assurance.
- main building entries should be equipped with automatic door openers with operating devices located in accessible locations. Sliding doors with "electric eye" are preferred, but double swing doors are acceptable. Automatic, power-operated doors should be provided and serviced by local installers.

### *Overhead Doors and Gates*

- electrically operated overhead metal doors and gates with heavy-duty hardware and high security and safety features.

### 4.5.18.2 Wood Doors and Frames

Wood doors must conform to the Quality Standards for Architectural Woodwork as published by AWMAC, commercial grade.

- wood doors with clear finish should be solid core, with solid wood frames for matching clear finish.
- painted wood doors should be solid core, and typically have flush tempered hardboard faces, pre-primed. Frames will be finger-jointed PSF frames, pre-primed for paint.
- avoid bi-fold and sliding bypass doors.

### 4.5.18.3 Stacking Partition Systems, Security Grilles and Acoustic Folding Doors

These door systems should be locally sourced and maintained. Provide for all door clearances and structural supports to ensure doors operate freely and are resilient in operation for the long term.

Provide good one side 13mm (1/2") plywood as the wall finish in door recess pockets.  
Acoustic Folding [Accordion] doors will have a minimum STC rating of 35.

Specification Reference - Section 08 11 13 - Hollow Metal Doors and Frames  
Section 08 14 00 - Wood Doors

Section 08 21 00 - Restoration of Existing Wood Doors [Renovations]

Section 08 32 13 - Sliding Glass Doors

Section 08 33 23 - Overhead Doors and Gates

Section 08 35 00 - Stacking Partition System and Security Grilles

Section 08 35 13 - Acoustic Folding Doors

Section 08 41 13 - Aluminum-Framed Thermal Entrance Doors

Section 08 43 13 - Aluminum-Framed Storefronts

Section 08 44 13 - Glazed Aluminum Curtain Wall

Section 08 81 00 - Glass and Glazing

# Design Guidelines and Technical Specifications

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### 4.5.19 Windows

In specifying windows and the ratings for air and water tightness and wind load resistance, the Consultant will refer to energy utilization and Step Code design standards that deliver required performance levels, as well as conforming to the following minimum ratings as noted in CSA A440-98:

- Air Tightness: A-3
- Water Tightness: B-3
- Wind load resistance: C-3

Confirm all requirements with the energy modeling and building envelope consultants.

- Operable windows should meet or exceed the requirements for sash strength stiffness, and ease of operation noted in CAN/CSA A440. Opening windows should be equipped with glass fibre mesh screens in an aluminum frame.
- Windows should be EnergyStar rated for the local BC climate zone.

Detail window installations to maintain the continuity of the air barrier at rough openings, as well as at junctions with other structural assemblies or at entrances and storefronts.

- Correctly locate and install flashings, deflectors and weep holes to ensure proper drainage of moisture to the building exterior.

Provide flashing with end dams over window heads and sill flashing with end dams at window sills.

- All installations to be field tested to confirm compliance with CSA A440 required ratings.



*High performance windows are becoming more readily available, and can greatly enhance achievement of a building's energy utilization objectives.*

### Products:

#### Vinyl Window Assemblies

- awning or casement windows only; sliders are not acceptable.
- provide a certification for required performance levels for U-factor, SHGC and air leakage.
- the PVC frames should be continuous multi-chambered tubular vinyl extrusions with internal steel reinforcement.

#### Wood Windows

- typically will be specified only when new windows are installed in a building with existing wood windows.
- perform work in accordance with AWMAC Quality Standards, custom grade.

#### Metal Windows and Curtain Wall

- typically, vinyl frames are preferred over metal for energy utilization reasons.
- provide a certification for required performance levels for U-factor, SHGC and air leakage.

#### Glass and Glazing

- install heat strengthened and tempered glass where required for fire and life safety.
- install sealed units in accordance with Insulating Glass Manufacturers of Canada guidelines and CAN/CGSB guidelines.

Specification References - Section 08 44 13 - Glazed Aluminum Curtain Walls  
 Section 08 51 13 - Aluminum Windows  
 Section 08 52 00 - Wood Windows  
 Section 08 53 10 - Plastic (PVC) Windows  
 Section 08 61 00 - Restoration of Existing Wood Windows [Renovations]  
 Section 08 80 50 - Glass and Glazing



# Design Guidelines and Technical Specifications

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## 4.5.20 Finish Hardware, Architectural and Security

### Architectural Hardware

Provide a detailed finish hardware schedule prepared by an Architectural Hardware Consultant [AHC] showing each separate type of hardware item, including make, model, material, function, size, finish, or other pertinent information.

The Schedule should also include a door by door description of all hardware items to be supplied with each door specified for the project. This Schedule will also incorporate all security door hardware items specified in the Security specification.

#### Typical Products:

- lever handles
- Schlage locking devices with C1, C2, or C3 cylinders.
- no mag-locks.

### Security System and Hardware

Engage a Security Consultant to delineate security requirements for the building, including door security items.

The Security Contractor must be provincially licensed by the Security Programs Division of the Ministry of Public Safety and the Solicitor General, to install and provide commissioning for security systems.

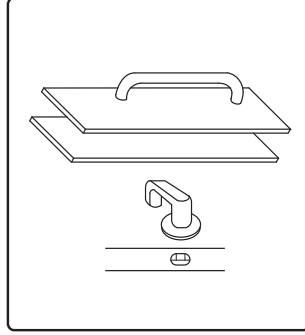
#### Specification References - Division 08 - Openings

Section 08 70 00 - Door Hardware

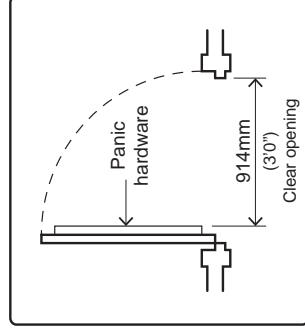
Section 08 70 01 - Door Hardware Schedule

Division 27 - Communications

Division 28 - Electronic Safety and Security



Example of accessible hardware.



Minimum clear opening at doors.



Extensive glazing at doorways into interior lobbies enhances wayfinding and building security. Install security hardware with ease of use and accessibility in mind.

# Design Guidelines and Technical Specifications

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### 4.5.21 Interior Finishes

#### Floors

- provide resilient flooring typically in general use and wet areas. High durability flooring is required at entries and high traffic areas. All work to be installed as per the National floor Covering Association Specification Standards Manual, current edition.
- vinyl tile or sheet vinyl floor goods with welded seams are acceptable. With sheet vinyl, install flash coving in wet areas, in lieu of standard vinyl base. Avoid natural fibre "linoleum" type products in wet areas.
- if ceramic floor tile is used, a larger tile size is preferred, with a darker colour of grout. Provide ceramic tile base.
- provide walk-off mats at entries.
- carpet tile is a preferred product compared to wall-to-wall carpet.
- avoid carpet with underlay.

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Specification References - Section 09 30 13 - Ceramic Tiling  
Section 09 65 10 - Resilient Flooring  
Section 09 65 16 - Athletic Flooring  
Section 09 68 00 - Carpeting  
Section 10 90 00 - Miscellaneous Specialties  
(Walk-Off Mats)



Flooring materials in new builds and renovations should be resilient and highly durable. Vinyl tiles and carpet tiles are preferred to sheet goods, to facilitate replacement and repair. Ensure that 5% extra stock of the total flooring area material is supplied and retained for maintenance purposes.

#### Walls and Ceilings

##### Walls and Partitions

- painted drywall is the typical finish.
- consider acoustic requirements and fire-rated assemblies and shaftwalls.
- in lieu of abuse-resistance drywall, install wall protection board or wainscoting. Provide corner guards in high traffic areas.
- provide for water-resistant drywall or cementitious panel board behind ceramic wall tile.
- provide all required access panels. Coordinate with mechanical and electrical consultants and contractors to ensure access panels locations allow for all required maintenance operations.
- where sound absorptive panels are fixed to walls, integrate these so as not to conflict with service access requirements.

# Design Guidelines and Technical Specifications

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### Ceilings

- commercial quality T-Bar acoustic ceilings are required in lieu of finished drywall ceilings. Provide an acoustical NRC rating of 70 or better.
- in order to access services in ceiling areas, ensure the acoustical tile ceiling systems are designed for ease of removal and replacement without damage to the ceiling tile.
- provide washable ceiling tiles in kitchens and washrooms.
- provide fire-taped gypsum wallboard assemblies as required above T-bar ceilings.

Specification References - Section 09 21 16 - Gypsum Board Assemblies  
Section 09 22 16 - Metal Stud Framing  
Section 09 30 13 - Ceramic Tiling  
Section 09 51 13 - Acoustic Panel Ceilings  
Section 09 84 13 - Fixed Sound Absorptive Panels  
Section 10 90 00 - Miscellaneous Specialties  
(Corner Guards, Wall Protection)

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### Painting

- all work should conform to the latest edition of the Architectural Painting Specification Manual of the Master Painters Institute [MPI]. All painting and decorating work should be inspected by a Paint Inspection Agency (inspector) acceptable to the specifying authority and the local MPI Accredited Quality Assurance Association.
- the painting work will include surface preparation of substrates as required for the acceptance of painting, including cleaning, small crack repair, patching, caulking, making good surfaces and areas of existing assemblies, priming and back-priming as required under MPI Manual preparation procedures.  
Note: It will be the general contractor or construction manager's responsibility to ensure that all trades preparing finished surfaces and materials, do so in a workmanlike manner that does not unduly add scope to preparation work of the painting trade.
- all surfaces requiring painting should be inspected by the Paint Inspection Agency prior to commencing painting. The inspector will notify the Consultant of any defects or problems requiring additional preparation work.

- all drywall areas will receive a coat of sealing primer.
- in addition, if defects in the substrate become apparent after a prime coat is applied, the inspector will advise in writing what additional preparation work is required, before the go-ahead to apply finish coatings is provided.

### General Paint Product Notes:

- use low VOC paints and sealants.
- gloss levels:
  - G5 (semi-gloss) - Kitchen, Washrooms, Laundry, Janitor's Room and all doors, door frames and interior trims.
  - G3 (eggshell) - typical for walls [Matte finishes not acceptable]
- refer to City of Richmond Corporate Standards for City Colour Palette requirements.

Specification References - Section 09 21 16 - Gypsum Board Assemblies  
Section 09 91 10 - Painting  
Section 07 92 11 - Joint Sealants



For acceptable colour palettes for City buildings' exteriors and interiors, refer to the Corporate Colours Memorandum included in the Appendices section of this document.

# Design Guidelines and Technical Specifications

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### 4.5.22 Washrooms and Accessories

#### Common and Accessible Washrooms

Refer to BC Building Code and City of Richmond Enhanced Accessibility Standards

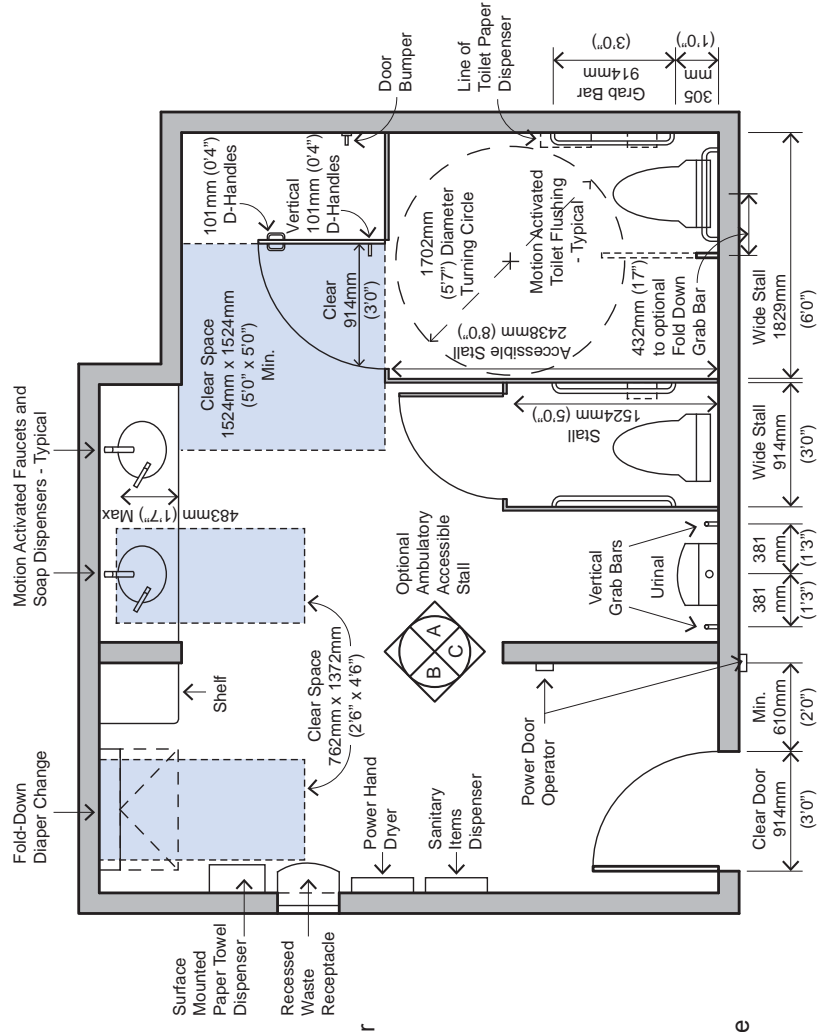
- Plumbing Fixtures
    - accessible height wall-hung or tank style WC's with bolted tops.
    - self-rimming drop-in sinks in accessible vanities with accessible type plumbing brass preferred to single wall-hung sinks.
    - wheel-in showers where required rather than bathtubs.
  - Washroom Accessories
    - grab bars (or future adaptability for same in housing units to accommodate aging-in-place).
    - hand dryers are preferred to paper towel dispensers.
    - if paper towels are used, accommodate requirements for outside paper towel contractors.
- Include recessed refuse containers, or under-counter receptacle with opening in washroom countertop.
- provide toilet paper dispensers, soap dispensers and wall mirrors rated for use by people with disabilities.
- provide a dry counter area, or separate shelf, for temporary storage of purses or books.

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- Lighting should be installed at sufficient levels to accommodate use by individuals with lower vision. Combine over mirror lighting over vanities with general room lighting.
- Toilet Partitions - should be ceiling-hung, with no supports to floor level.
  - Acceptable products
    - plastic laminate covered high density particle board
    - metal with baked enamel finish
  - Hardware - heavy duty polished chrome or brushed nickel with tamper-proof screws.
- Diaper change table are typical in Washrooms.

Note: Common Washrooms should also incorporate Accessibility features to promote Enhanced Accessibility and Visibility.

**Typical Accessible Washroom Plan**





## Washrooms in Child Care Facilities

Refer to City of Richmond Child Care Design Guidelines and Technical Specifications

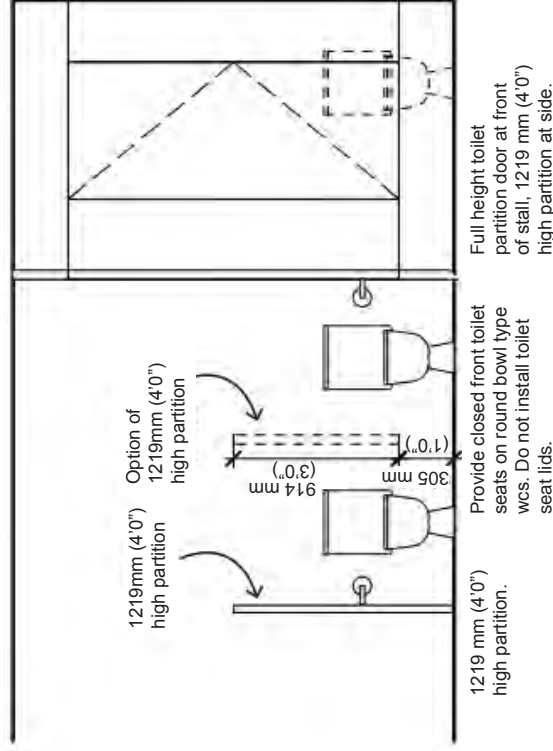
- Toilets - tank style WC's with round bowls. Remove lids from toilet seats.
- Sinks - wall-mounted sinks preferred, or self-rimming drop in vanity sinks.
  - faucets to have temperature control (120 degree F maximum).

Generally, for Washroom Specifications

Specification References - Section 10 21 14 - Toilet Compartments  
 Section 10 28 14 - Toilet and Bath Accessories  
 Division 22 - Plumbing  
 Division 25 - Lighting

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Washroom for Group Child Care 30 Months to School Age



Source: City of Richmond Child Care Design Guidelines and Technical Specifications  
 Review all design details with City of Richmond Child Care Coordinator.

## 4.5.23 Staff and Common Area Kitchens and Kitchenettes.

Millwork - see 4.5.11 Finish Carpentry

- for staff and common area kitchens - millwork standards:
  - accessible design standards required.
  - plywood carcass construction.
  - "corian" countertop with all outside corners eased.
  - AWMAC requirements.
- double bowl stainless steel kitchen sink preferred.
- accessible design standards required.
- provide an additional stainless steel hand sink in community serving kitchens

Appliances

- Provide an "Energy Star" rating
- Dishwasher
  - residential quality typical
  - for community serving kitchens consider a commercial style under-counter dishwasher with a sani-cycle.
- Refrigerator
  - 21.5 cu. ft. refrigerator preferred.
  - pull-out bottom freezer type is preferred for enhanced accessibility.
- consider separate refrigerator only and freezer for serving the community.
- Microwave-countertop unit is preferred for accessibility.
  - 2.0 cu.ft. 1100 watt.
- Range [typically not required; microwave is satisfactory unless noted otherwise] 30 inch wide 4 burner stove with oven, with controls out of reach of children in child care facilities or where children might be present. Where children will not be users (e.g. Staff Kitchenettes), provide a cooktop set in a counter with knee space under, and with front of counter range controls, for enhanced accessibility.
  - range hood.

Note: for Affordable Housing Units - see City of Richmond Affordable Housing Resource Guide

Specification References - Section 06 40 00 - Architectural Woodwork  
 Section 11 31 00 - Residential and Commercial Appliances  
 Division 22 - Plumbing

# Design Guidelines and Technical Specifications4

## 4.5.24 Laundry Room

- for Child Care Facilities in City-Owned buildings
- see City of Richmond Child Care Design Guidelines and Technical Specifications.
- other City-owned buildings
- provide all required clearances for wheelchair users.

Specification References - Section 06 40 00 - Architectural Woodwork  
Section 11 31 00 - Residential and Commercial Appliances  
Division 22 - Plumbing

## 4.5.25 Staff Areas in City-Owned Buildings

### Staff Office

- provide desk/work table.
- countertop has room for photocopier, if stand-alone photocopier not provided.

### Staff Room

- provide kitchenette as per 4.5.24 over.
- provide lockers for staff.
- accessible washroom for staff-use is preferred. Confirm if low-threshold accessible wheel-in shower is required.

Specification References - Section 06 40 00 - Architectural Woodwork  
Section 10 90 00 - Miscellaneous Specialties (Metal Lockers)  
Division 22 - Plumbing

## 4.5.26 Janitorial, Maintenance, and Storage Areas

### Janitor's and Maintenance Rooms

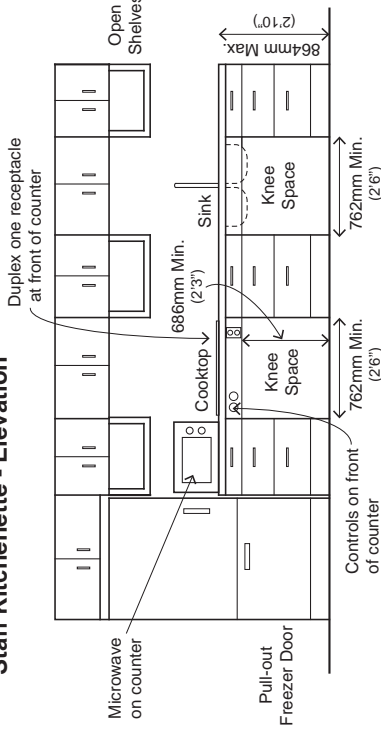
- provide resilient flooring and consider flash coving
- provide mop sink with splash protection on walls
- provide maintenance equipment racks for mops, etc., and storage shelves

### General Storage in City-Owned Facilities

- configure as per specific program requirements.
- provide storage racks - "Interlok" no-bolt shelving as the design standard.

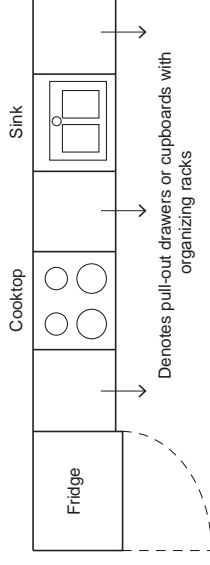
Specification References - Section 06 20 00 - Rough Carpentry  
Section 06 40 00 - Architectural Woodwork  
Section 10 90 00 - Miscellaneous Specialties

### Staff Kitchenette - Elevation



### Staff Kitchenette - Plan

Note: Cooktop may not be required. Review with staff.



# Design Guidelines and Technical Specifications

## 4

### 4.5.27 Additional Interior Design Considerations

#### General Finish Requirements

- no rough surfaces and corners eased.
- see Section 08 80 50 - Glass and Glazing.
- unframed type fixed to walls using concealed clips (number as recommended by the mirror manufacturer).
- use low VOC Mirror adhesive.

#### Window Blinds

- see Section 12 21 00 - Window Coverings.
- determine requirements and window blind preferences from City Facilities staff for the specific building installation.

[Note safety requirements for Child Care Facilities - see City of Richmond Child Care Design Guidelines].

- supply and install horizontal and vertical louvre blinds, or draperies, as required.

#### Mailboxes

- provide front-loading gang type mail boxes, aluminum finish.
- confirm capacity requirements for mailbox design, and acceptability with Canada Post, and meet requirements for enhanced accessibility.

#### Notice Boards and Tackboards

- tack boards with hardwood backing typical.
- provide all backing in walls as required to install boards.

#### Signage

- see Section 10 14 19 - Signage.
  - includes (unless programmed otherwise):
    - exterior wall-mounted and free-standing building signage.
    - emergency exit and fire plan signage.
    - wall-mounted acrylic room identification signage, including Building Accessibility-related signage.
- (Note: do not use peelable lettering).

Typical Specification Reference is Section 10 90 00 - Miscellaneous Specialties, Unless noted otherwise.

#### Elevator Design Considerations

- see Section 14 24 23 - Hydraulic Passenger Elevators
- select an elevator installation and maintenance company with a good history of service with the City of Richmond. Consult with City of Richmond facilities staff.
- elevator and accessory design must comply with Building Code mandated standards for accessibility, as well as for enhanced accessibility, as per the City Richmond Design Guidelines for Enhanced Accessibility.
- consider acoustic separation requirements to minimize perceived elevator noise concerns.

#### Seismic Bracing

- provide seismic bracing as required for all fixtures, furniture and equipment.
- provide letters of assurance for seismic bracing of mechanical and electrical items.

#### Garbage and Recycling Area Specifications - Refer to City of Richmond Waste Management Design Guidelines

- for general building facilities, locate in a functionally appropriate location, near an elevator, and also easily accessible for pick-up by garbage and recycling vehicles and trucks.
- base required garbage and recycling handling areas on anticipated loads, and numbers of required bins and totes.
- provide for interior recycling and trash receptacles at recycling stations.
- Provide appropriate signage to guide separation of recyclables and trash by the visiting public and by staff.
- review all environmental program requirements as identified by City staff.

#### Bird Control

- see Section 10 81 13 - Bird Control Devices
- provide devices to prevent birds from landing and roosting on specified surfaces, like roof edges and under roof eaves.
- bird spike strips is the preferred device.



# Design Guidelines 4

## and Technical Specifications

### *Fall Arrest and Restraint*

- see Section 11 24 10 - Fall Arrest and Restraint Devices.
- custom design, supply and installation of a roof and building mounted safety tie back and lifeline anchor system incorporating a fall arrest and fall restraint safety system.
- comply with Workers Compensation Board [WCB] requirements.
- allow for any additional structural members in the building framing to enable the structural system to accept the additional load.

### *Food Service Equipment*

- see Section 11 40 00 - Food Service Equipment.
- consult with a Kitchen Consultant to determine requirements.
- coordinate with the Mechanical Sections for supply and exhaust fans, exhaust ductwork and fire-rating of same, service rough-ins and fittings, fire-suppression systems, and other items required to complete the food service installation.
- coordinate with the Electrical Sections for connections to fire alarm systems, service requirements, wiring, disconnects, and other electrical materials required to complete the food service equipment installation.
- coordinate with Section 06 40 00 - Architectural Woodwork for kitchen millwork requirements.

### **4.5.28 Additional Exterior Design and Landscaping Considerations**

Refer to any applicable design guidelines for guidance on exterior design and landscaping (note: Landscape Plan is required as per of a Development Permit).

- see Section 12 93 00 - Exterior Site Furnishings
- materials and installation of standard manufactured catalog items including but not limited to waste containers, benches, and bike racks.
- consult with City of Richmond Facilities and Parks staff regarding models and requirements for exterior site furnishings.

#### *Bike Racks*

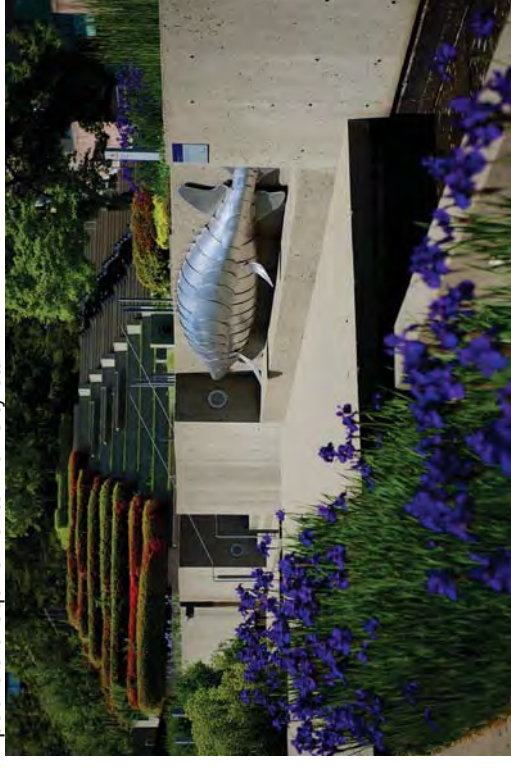
- comply with City of Richmond's Zoning Bylaw 8500, Section 7 Parking and Loading regarding requirements for bicycle parking.
- install bike racks under cover if feasible.

#### *Scooters and Strollers*

- provide space in City buildings inside front entries for scooter and stroller storage
- provide a scooter changing station.

#### *Public Art*

- review public art requirements with City staff.



*Consider integrating public art into public landscaping.*

## 4.5.29 General Mechanical Considerations

Refer to City Administrative Procedures in the Appendix of this Document

- City of Richmond Building Equipment, Monitoring, and Integration Requirements (15 pages)
- Sustainable “High Performance” Building Policy - City-Owned Facilities [Policy 2307, adopted by Council 24 February 2014] (2 pages)

## 4.5.29.1 Incorporation of Best Practices in Design and Construction to Optimize Building Performance

- follow sustainable design, and operation and maintenance best practices in the design and delivery of mechanical systems for new and existing buildings, in the context of approved budgets.
- emphasize conservation, optimized building performance, and continued improvement in energy use, water efficiency, and indoor environmental quality.

maximize efficiency of mechanical systems by providing a system of controls and building automation system for optimal programming capability of the mechanical system. Allow for measurement and verification systems that provide for continuous optimization.

provide an Operations Plan that maximizes the operational efficiency of the mechanical system. Ensure that all servicing, maintenance, and replacement parts can be installed in a functional and workmanlike manner. Demonstrate on the Mechanical Consultant's drawings, and on the As-Built Project Record drawings, that all maintenance procedures can be undertaken without extraordinary or costly effort.



## City of Richmond

Page 1 of 15	<b>ADMINISTRATIVE PROCEDURE</b>
File Ref:	City of Richmond Building Equipment, Monitoring, and Integration Requirements

City of Richmond Administrative Procedures for integrating mechanical and electrical requirements in City-owned buildings are included in the Appendices of this document.

## 4.5.29.2 General Mechanical Sections

Availability of Equipment, Servicing and Replacement Parts.

- all equipment, devices and controls support from a knowledgeable local technical support staff, including local sales representatives and local field service/factory trained representatives, especially regarding servicing of all equipment.
- all replacement parts and components need to be readily available (preferred less than 10 day delivery wait time), and cost effective.

### Fire Suppression

- see Division 21 - Fire Suppression.
- provide fire suppression systems throughout the Building including:
  - wet sprinkler systems in heated areas.
  - dry sprinklers in exterior and unheated areas including covered parking, attics, concealed spaces, balconies, and other similar locations.
  - standpipe systems.
  - portable fire extinguishers. [Typically, locate these in recessed cabinets in corridor locations].

### Plumbing

- see Division 22 - Plumbing.
  - for piping requirements see Section 22 11 00 - Facility Water Distribution and Equipment.
    - City preference is for ball valves at piping terminations. Provide valve tags.
    - City preference is for clear lamacoid labeling on all piping, identifying piping function and flow direction.
- Refer to City “Equipment Naming” protocols [See Appendix]
- provide floor drains in all wet areas.
  - City preference is for hard-wired touchless wash-basin faucets and automatic toilet flushing mechanisms. Sinks should be of the drop-in, self-rimming variety (no trough sinks). Plumbing brass should be polished chrome.
  - City preference is for wall-hung W/C's.
  - for Child Cares, provide for reduced hot water temperatures at all child accessible faucets.
  - for special uses, such as Art Studios and Firehalls, include separate hot and cold water controls.
  - provide Grease Traps to reduce the discharge of fats, oils and grease [FOG] into the City's sanitary systems. Fully automatic “grease recovery devices” are a preferred product.

# Design Guidelines and Technical Specifications

## 4

### *Heating, Ventilation and Air Conditioning [HVAC]*

- see Division 23 - HVAC
- for acoustic issues also refer to:
  - Section 06 20 00 - Rough Carpentry (Acoustic Control Framing)
  - Section 07 21 00 - Insulation (Noise Stop)
  - Section 07 92 00 - Joint Sealants (Acoustic Sealant)
- if not a stand-alone facility, the City-owned facility should have its own HVAC systems, separate from the rest of the building of which it is a part.

### *Controls*

- see Division 25 - Integrated Automation
- Refer to the following City of Richmond Administrative Procedures in the Appendix of this Document:
- Direct Digital Control (for Buildings) and Energy Monitoring Guidelines [Appendix 6.3]
  - Direct Digital Control (for Buildings) and Energy Monitoring Guidelines.
  - non City managed new construction for City maintained spaces [Appendix 6.2].



*Mechanical and electrical equipment should be installed to facilitate ease of long-term maintenance. Avoid installing equipment in confined spaces or configurations, or in locations that have access problems. All City facilities must have a detailed Operations and Maintenance Plan detailed on the Consultants' Project Documents and on the Contractor's As-Built Documents, that demonstrates that all mechanical and electrical equipment can be accessed and maintained in a functional and workmanlike manner.*

### **4.5.30 General Electrical Considerations**

**Refer to City Administrative Procedures in the Appendix of this Document**

- *City of Richmond Building Equipment, Monitoring and Integration Requirements [Appendix 6.4]*
- *Sustainable "High Performance" Building Policy - City-Owned Facilities [Policy 2307, adopted by Council 24 February 2014] [Appendix 6.1]*

### **4.5.30.1 Incorporation of Best Practices in Design and Construction to Optimize Building Performance**

- as for mechanical systems design, follow sustainable design, and operation and maintenance best practices for electrical systems in new and existing buildings, in the context of approved budgets.
- emphasize conservation, optimized building performance and continued improvement in energy use, building systems efficiency and indoor environmental quality.
- provide a system of controls and building automation that allows for optimal programming capability for all building systems, electrical and mechanical. Include measurement and verification systems that allow for continuous optimization.
- provide and Operations Plan that allows for the maximum operational efficiency of the electrical system.

### **4.5.30.2 General Electrical Sections**

*Coordination with Mechanical HVAC Systems [See Division 23]*

- specify equipment with Energy Star certification whenever possible.
  - use high efficiency motors and pumps.
- Availability of Equipment, Servicing and Replacement Parts*
- all equipment, devices and controls require support from a knowledgeable local technical support staff, including local sales representatives and local field service/factory trained representatives, especially regarding servicing of all equipment.
  - all replacement parts and components need to be readily available (preferred less than 10 day delivery wait time), and cost effective.



- Integrated Automation [See Division 24]*
- optimize the City's building control and energy monitoring capacity to maximize maintenance and operational efficiency.
  - only City-prequalified Supply and Installation Contractors for Direct Digital Controls [DDC] systems will be contracted for this work.
  - meet City requirements for DDC graphics and operator interface (which will run on the City's web servers).
  - Coordinate all work through the City's IT department to arrange loading of graphics, databases, and security requirements.

### *Power and Distribution [See Division 26]*

- lighting, mechanical and plug loads need to be segregated on separate electrical panels for energy monitoring purposes.

### *Optimize Building Lighting Systems [See Division 26]*

Lighting design should incorporate sustainability principles and products and systems should be energy conserving, long life, have a low cost of ownership and be accessible for service and maintenance. daylight harvesting opportunities should be implemented in areas where natural daylight is available.

all lighting should be designed to suit the task and location.

in general, where feasible and economical, LED lighting is preferred, and is the typical project standard.

[See City of Richmond Administrative Procedures for lighting system Requirements.]

### *Maintenance of Lighting Fixtures and Electrical Equipment*

- consideration must be given to ensure access for maintenance activities. Luminaires and equipment should be accessible from ladders on flat surfaces such as floors or stair landings, or from powered lifts with a maximum lift of 6.1m [20 feet].

[Note: Building access, floor construction, and elevators should be designed to permit entry and use of standard lift equipment for proper and safe maintenance.]

### *Fire Detection and Alarm [See Division 28]*

- all battery pack lighting, remote heads and exit lights should be LED type and manufactured by an approved local supplier [e.g. "Ready-Lite" or approved equal].

### *Electronic Safety and Security [See Division 27 - Communications]*

- review requirements with operations and maintenance, and City IT staff, for access, surveillance, and after-hours security.

### 5.0 Checklists

- 5.1 Preliminary Design Stage Checklist for an Integrated Design Process and Schematic Design
- 5.2 Design Development / Pre-Development Permit Application Checklist
- 5.3 Final Detail Design and Pre-Building Permit Application and Construction Tender Drawings Checklist

#### 5.1 Preliminary Design Stage Checklist for an Integrated Design

##### Process and Schematic Design

###### Design Action Component

###### 1. Functional Program

###### Implementation Detail

- city representatives identify building areas and functional components that are to be included.
- identify functional inter-relationships for the proposed spaces, along with area requirements.
- identify project goals and project budget targets.

###### 2. Pre-Design

- architect / Coordinating Consultant meets with City representatives to establish project goals, including site opportunities and constraints, and energy utilization and high performance building targets, as well as working within budget constraints.
- architect / Coordinating Consultant creates sketch plans to inform the Integrated Design Process, including preliminary exterior wall assemblies that locate thermal and air barrier locations in principle.

###### 3. Integrated Design Process

- engage experienced consultants for the work.
- have all consultant roles clearly identified.
- ensure that consultants are familiar with City requirements for high performance buildings, especially mechanical and electrical systems.
- ensure all consultants are fully involved in the integrated design process.
- respond to site constraints and site orientation issues to inform the schematic design.
- engage stakeholders

###### 4. Schematic Design

- define building areas and functional inter-relationships.
- identify building structure and cladding systems.
- identify glazing percentages and window shading, and bird-friendly design strategies.
- identify possible thermal bridging conditions.

- create an energy model to inform the design process.
- identify options for heating and cooling and domestic hot water systems.
- create a short-list of all building components, including all assemblies and junctions.
- confirm all schematic design strategies by means of a design charrette with all city representatives and consultants.
- confirm the schematic design meets project budget targets.

### 5.2 Design Development / Pre-Development Permit Application Checklist

Design Action Component		Implementation Detail
Detailing		- detail all building assemblies and components, including all building systems. Identify mechanical equipment and controls and lighting selections.
Modeling		- model all assemblies and thermal bridges, utilizing standard program models. Model environmental conditions, such as internal heat gains, over-heating and moisture path issues.
		- confirm all proposed assemblies or required revisions.
		- confirm energy utilization standards are on target.
3. Cost Control		- engage a cost consultant, or a construction manager to provide a detail costing.
		- confirm project budgeting is on target.
4. Drawings and Outline Specification		- prepare the Design Development Documents package.
5. Certification Submission		- if required, submit the Design Development package to the certifying authority or consultant.
		- incorporate required design adjustments in the Design Development package.

### 5.3 Final Detail Design and Pre-Building Permit Application and Construction Tender Drawings Checklist

Design Action Component		Implementation Detail
1. Finalize Detailing		- confirm all building assemblies and systems, and finishing material schedules and equipment schedules.
		- refer to City of Richmond Design Guidelines for Enhanced Accessibility, and for Housing Projects to the Affordable Housing Resource Guide.
		- For Child Cares, refer to the Child Care Design Guidelines.
2. Quality Control		- confirm detailing and equipment incorporates City of Richmond materials and systems requirements. [These Design Guidelines and Technical Specifications].
		- confirm energy utilization, and building performance requirements.
3. Confirm Consistency between Consultants' Documents		- confirm that Architectural documents are consistent with the document packages of the other consultants work, especially the Structural, Mechanical and Electrical packages. [Note: ensure that the consultants' work does not incorporate standard details that do not reflect the designed construction assemblies for the project. Check all dimensional requirements for specified products and systems, and ensure there is consistency between all of the consultants' drawings and specifications].
4. Cost Control		- with the assistance of a cost consultant or construction manager, confirm that budget targets are being met, before the project is issued for tender.

# 6

## Appendices

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### 6.0 *Appendices*

- 6.1 Sustainable “High Performance” Building Policy - City-Owned Facilities [Policy 2307, adopted by Council 24 February 2014]
- 6.2 City of Richmond Direct Digital Control (for Buildings) and Energy Monitoring Guidelines - Non-City managed new construction for City maintained spaces. [January 2016]
- 6.3 City of Richmond Direct Digital Control for Buildings) and Energy Monitoring Guidelines
- 6.4 City of Richmond Building Equipment Monitoring and Integration Requirements [July 2018]
- 6.5 City of Richmond General Lighting Guidelines [January 2016]
- 6.6 City of Richmond Entrance, Intercom/Video Systems Specifications for City of Richmond Buildings [28 January 2016]
- 6.7 City of Richmond Security, Fire Alarm, Access and Video Systems Specifications for City of Richmond Buildings [January 2018]
- 6.8 City of Richmond Waste Management [January 2016]
- 6.9 City of Richmond Roof-Top Playground Design Guidelines [August 2016]
- 6.10 City of Richmond Irrigation Design Guidelines for Roof-Top and Grade Related City Owned Projects [November 2016]
- 6.11 City of Richmond Mechanical Systems Naming Protocol
- 6.12 City of Richmond Standard Colour Palette



# 6 Appendices

## 6.1 Sustainable “High Performance” Building Policy - City-Owned Facilities [Policy 2307, adopted by Council 24 February 2014]

### POLICY 2307:

It is Council policy to:

1. Ensure that newly constructed civic buildings or spaces are built with consideration of occupant safety, comfort and indoor environmental quality, in the context of approved budgets.
2. Ensure effective internal stakeholder engagement is carried out through an integrated design process during the planning, design, implementation, and completion of new facilities or spaces and associated outdoor areas. An integrated design process utilizes a collaborative design approach, involving consultants, staff and user group representatives, to set a well-defined vision and performance objectives for new building or spaces, and to identify strategies for achieving the desired outcomes.
3. Incorporate high performance attributes into new civic facility or space design and construction to the maximum extent that relate to:
  - The most current Leadership in Energy and Environmental Design (LEED®) New Construction (NC) classification will be used as the standard by which to assess new facility construction. LEED® Gold certification be set as the desired target of building performance for new City buildings.
  - That at a minimum score of 10 points be targeted from LEED® Optimize Energy Performance criteria where a lifecycle assessment demonstrates reductions in operational costs and/or payback periods are within acceptable levels.
  - For other criteria of LEED® for NC, consideration will be given to measures that reduce energy and water use, reduce maintenance and operational costs, reduce greenhouse gas emissions, and optimize indoor environmental quality.
4. Follow sustainable operation and maintenance best practices guidelines for new and existing buildings, which emphasize conservation, optimized building performance, and continued improvement in energy use, water efficiency, and indoor environmental quality.
5. Maximize energy and operational efficiency through the selective re-commissioning of civic facilities on an on-going basis. Re-commissioning is a form of quality assurance testing that is carried out to ensure that building physical plant systems operate as effectively as possible given occupancy patterns and building function.
6. Target no net increase in corporate building energy use and related greenhouse gas emissions, as compared to 2012 levels by:
  - Aiming to not increase energy demand or GHG emissions when constructing replacement infrastructure; and/or
  - Striving to offset increased energy demand and GHG emissions through reductions at other civic facilities.
7. Aim to construct net zero energy and carbon neutral corporate buildings by 2030.

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## 6.2 City of Richmond Direct Digital Control (for Buildings) and Energy Monitoring Guidelines - Non-City managed new construction for City maintained spaces. [January 2016]

### 1. REQUIREMENTS:

- i. One of the City's two prequalified Supply and Installation Contractors for Direct Digital Controls (DDC) Systems must be used for the mechanical and lighting control of City owned and/or operated space – currently either ESC Automation or Control Solutions.
- ii. Lighting control is to be tied into separate DDC controllers, which will be provided by one of the prequalified contractors, with the location and number to be specified by the Electrical Design Consultant as part of the electrical design tender package.
- iii. Graphics for the operator interface must be prepared to meet City requirements, which highlight energy efficiency and comfort. Graphic functionality for energy use monitoring will include, but is not limited to, energy use breakdown between electricity and natural gas, further segregation of each fuel type into energy use of separate end uses, to further segregation of energy use of specific systems and equipment. The operator interface for City will run on the City's web-servers.
- iv. The DDC system will be remotely accessed by the City's web based operator interface. Data will be collected at a maximum of 15 second intervals for all points during the commissioning process to ensure system stability and tuning. VPN network connectivity will be provided by the Supply and Installation Contractor for secure access of sufficient bandwidth to support this.
- v. Any energy use monitoring and billing of a City space, which is located within a building that is not City owned and managed, will be done through sub-meters that are BACnet enabled and not on a pro-rated basis.
- vi. A water meter that is BACnet enabled is required to monitor use of any mechanical makeup water system such as cooling tower, chill water system, heating water system, heat pump system, Geo/ground loop and Solar system.
- vii. A BTU meter that is BACnet enabled is required for the heat pump loop to monitor the energy usage of City space.
- viii. Once the mechanical and lighting DDC points list for the space has been initially defined, the City requests that they are provided to the City along with the mechanical and electrical specifications, to allow for the timely opportunity to review and comment before finalization.
- ix. Lighting, mechanical, and plug loads need to be segregated on separate electrical panels for energy monitoring purposes.
- x. Once the preliminary electrical directories for each electrical panel have been defined, the City requests that they are provided to the City, to allow for a timely opportunity to review and comment before finalization.
- xi. City personnel or the City's DDC consultant will conduct its own inspections of the system design, installation and functionality, and will prepare its own deficiency lists during the construction process and final inspection. The deficiency lists will need to be corrected prior to City sign off on completion.

### 6.3 City of Richmond Direct Digital Control for Buildings) and Energy Monitoring Guidelines

#### 1. DEFINITIONS:

##### ARCNet:

- Attached Resource Computer Network (ARCNet) is a communications protocol for local area network of mechanism, through coaxial cabling.

##### ASHRAE:

- The American Society of Heating, Refrigerating and Air-Conditioning (ASHRAE) is an international standards organization for numerous building related systems. It is the organization's mission to advance the arts and sciences of heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world. The Society and its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability within the industry.

##### ANSI:

The American National Standards Institute (ANSI) is a standards organization that oversees the development of voluntary consensus standards for a large variety of products, services, systems, and personnel in the United States. In addition, the organization coordinates U.S. standards with international standards to try to ensure consistency.

##### ANSI/ASHRAE:

Is an ANSI/ASHRAE standard communication protocol for direct digital control networks and automated building mechanisms. It was designed to be used for applications such as heating, ventilation, and air-conditioning control, lighting, access control, and fire detection systems and their associated equipment.

##### Block Programming:

- Block programming, is a pre-programmed set of instructions (block) that can be used in a Direct Digital Control (DDC) system to control a specific action or transfer function. To understand the specific action that the block programming can accomplish, it is crucial that the pre-programmed instructions are able to be interpreted.

##### DDC:

- Direct Digital Control (DDC), refers to the automation system that will typically be used to control lighting and HVAC mechanical systems in a building.

##### Front End Software:

- Typically refers to a direct digital control graphical package and user interface that the building operator will usually interact with to review operating building systems, change scheduling, and access system use data.

##### Gateways:

- Are pre-programmed hardware devices in a direct digital control system that act as communication protocol translators for different protocols, such as from BACNet to ARCNet and Tridium.

##### General Control Language:

- Refers to a direct digital control system programming language that is textual and is somewhat straightforward to use.

##### IP:

- Internet Protocol (IP) is the principal communications protocol in the Internet protocol suite for relaying datagrams across network boundaries.

##### MSTP:

- Multiple Spanning Tree Protocol (MSTP) is an open source communication protocol language connecting terminal controllers to main direct digital control processing system, and is defined by the applicable networking standard IEEE 802.1Q.

##### Virtual Metering:

- Refers to the function of monitoring energy use of specific systems or pieces of equipment, based on demand and run time, through a building's direct digital control system and analog current transducers.

# 6

## Appendices

### 6.3 Continued

#### 2. DIRECT DIGITAL CONTROL KEY REQUIREMENT STRATEGIES:

The City of Richmond has identified fundamental key requirements that should act as an overarching strategy for its direct digital control systems at existing and new facilities. These requirements will allow for the increased optimization of maintenance time and funding, more effective integration of new facilities to the City's existing building control systems, and increased capacity to monitor building equipment and system run time and energy use.

The following key requirements are to be applied when replacing existing DDC systems or installing new DDC systems:

- i. Ensure interoperability of DDC products through a non-proprietary communication protocol:

Utilize the communication protocol standard BACNet, as currently defined in the ANSI/ASHRAE standard 135 – 2010, to ensure that DDC products from various manufacturers can be used throughout the City's DDC system, and the City is not bound to use a specific manufacturer's proprietary systems.

- ii. Eliminate the need for DDC gateway infrastructure:

Generally DDC systems consist of the groups of primary controls and terminal unit controls, which are connected through high and low speed networks to the user interface computer and management system. Utilizing the non-proprietary communication protocol BACNet to connect controls to the interface computer, removes the need for gateway hardware to be installed as part of a DDC system when various products with different communication protocols are used.

- iii. Reduce the use of proprietary programming languages:

The City prefers the use of basic textual languages, such as General Control Language, for the programming of its DDC systems. Block programming would be considered if the internal operation of each block was easily obtained when necessary and effective training was provided by the manufacturer as needed.

- iv. Ensure user interface graphics are customizable:

The City prefers the use of user interface graphics that can be customized to the needs of the City and its operators, and can allow for some level of consistency between different DDC systems.

- v. Enable effective in-house programming:

The City prefers to have trained and knowledgeable in-house staff and operators complete desired changes to DDC systems programming, such as equipment scheduling and set point adjustments, in all DDC equipped City facilities.

- vi. Ensure the equipment and energy use can be monitored effectively through the DDC system:

The ability to track energy use of each DDC equipped facility should be enabled through the DDC system. The energy use profile of each facility needs to be able to be broken down to its end use, e.g. electricity, gas, lighting, space heating, cooling, ventilation, plug loads, domestic hot water heating, building processes, etc., and will be specific to the facility and its function. The monitoring of energy usage needs to also be able to be provided on an equipment by equipment basis, e.g. HVAC Unit #1, lighting for the multipurpose room, etc.

- vii. Enable the opportunity for data analytics and fault detection and diagnostics:

The City's DDC systems need to allow for future incorporation of data analytic software tools, and fault detection and diagnostic programs. These tools and programs, if established carefully, will allow for the quick assessment and diagnosis of mechanical system anomalies and/or failures.

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## Appendices

### 6.3 Continued

#### 3. DDC REPLACEMENT OR NEW INSTALLATION GUIDELINES:

This section is intended to provide more specific requirement guidelines when considering the replacement of an existing DDC system, designing a new facility, or the City is taking ownership of a new facility. These guidelines highlight key interoperability, energy use monitoring and basic operation aspects of a DDC system, and are not meant to cover all aspects of a DDC system's functionality.

##### 1. General

1.1. DDC systems comprise of all aspects of monitoring and control of the specified systems and must include an operator control language which is either textual (TCL) or block (BPL) as specified.

##### 2. Communication Protocol

2.1. The DDC System panels shall consist of native BACnet, microprocessor based, peer to peer, networked devices with the BACnet stack embedded in every controller. The controller connected to the input or output device shall deliver the associated BACnet point directly to the BACnet network without passing through any other device. Gateways are not permitted.

2.2. The control system shall consist of a high-speed, peer-to-peer network of DDC System panels and a web-based operator interface. Depict each mechanical system, lighting system, and building floor plan on a system graphic accessible by mouse click. A web server with a network interface shall gather data from this system and generate web pages accessible through a conventional web browser on any PC connected to the local network or through VPN over the Internet. Operators shall be able to perform all operator functions through the web browser interface.

2.3. System shall use the BACnet protocol for communication to the operator workstation, web server and for communication between control panels and modules. Schedules, setpoints, trends, multipoint trends, alarms and other required data shall be BACnet objects. Controller and operator interface communications shall conform to the latest BACnet ANSI/ASHRAE Standard (Current ANSI/ASHRAE Standard 135).

2.4. Complete DDC system programming language, programming tools and sequence of operation development environment will be provided to the City so that the City operators are able to write their own Sequences of Operation and load the programs into the controllers in the future. All programming tools and software available to an installing contractor shall be provided to the Owner.

##### 3. DDC System Data

3.1. City DDC systems should be able to stream all data at five second intervals for short term storage and dynamic tuning, and at 5 minute intervals for permanent storage and later analysis.

3.2. DDC system data that is stored should be easily transferable to all common databases and cloud database services, and should support data tagging.

3.3. DDC system data that is stored should be easily exportable in CSV, Excel and XML format.

3.4. DDC system data should be stored and structured to allow interrogation by queries running on third party tools.

##### 4. Installation

4.1. All installations shall conform both to manufacturer's recommended procedures and all applicable codes and regulations to the approval of authorities having jurisdiction including but not limited to the Canadian Electrical Code.

4.2. All equipment installed shall be mechanically stable and, as necessary, fixed to wall, ceiling or floor. Seismic restraint and anti-vibration mounts to be provided, if required, for the proper securing and isolation of the equipment.

4.3. All panels, enclosures and components shall be positioned to provide easy access for maintenance, replacement or expansion. All devices shall be neatly aligned vertically and horizontally. Wiring shall be concealed within Panduit in the enclosure. All terminations shall be made on labelled termination blocks. Each cover of any gutter box or electrical box containing terminations shall have a laminated photograph showing the interior of the box affixed to the outside of the box. Transducers and other accessory items shall not be mounted in the field. They shall be mounted in groups in centrally located control enclosures for ease of maintenance.

4.4. Equipment shall be installed in locations providing proper ambient conditions for its specified functioning, including adequate ventilation.

##### 5. Wiring

5.1. All conduit, wiring, and cabling shall be installed to the applicable Codes and Regulations including the Canadian Electrical Code, and specified class, size, and type shall be approved by the City.

5.2. All wiring and cables shall be rated for the environment they are used in.

##### 6. Labeling

6.1. All labeling identifying hardware and/or wiring throughout the project must match the as-built drawings.

6.2. Manufacturers' nameplates and UL or CSA labels shall be visible and legible after equipment is installed.



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## Appendices

### 6.3 Continued

6.3. At every power supply serving a control panel, electronic actuator or other device, provide a lamacoid label that identifies the panel and breaker serving it. At the breaker panel mark each breaker that serves a power supply for the DDC system and indicate which DDC panel that breaker serves.

#### 7. Field Devices

7.1. All sensors provided under this contract shall be installed in accordance with the manufacturer's prescribed procedure in addition to the specified requirements.

7.2. Pipe mounted sensors shall be rigidly mounted and mountings shall be adequate for the environment within which the sensor operates. Electrical boxes shall be properly tightened down on top of wells so that they cannot be spun by hand.

7.3. Temperature wells shall of the appropriate size and type for sensing water temperatures, as required in the graphics and/or points list.

7.4. All conduits attached to sensors shall be sealed to stop air transmitted from other areas affecting sensor readings. Wire penetration to wall mounted sensors shall also be sealed.

7.5. Locate all ductwork point type sensors 6 (six) feet down stream of coil if possible and at least 6 (six) inches from edge of duct. Point sensors shall only be used in return air plenums, and in ducts under 2.0 square feet in cross-section.

7.6. Averaging duct sensors shall be suspended on laminated aircraft cable or similar strung across the duct to prevent stress on the sensing element or as prescribed by the sensor manufacturer's best practice.

7.7. Install room temperature sensors at 5 (five) foot heights.

7.8. Locate all ductwork point type sensors 6 (six) feet down stream of coil if possible and at least 6 (six) inches from edge of duct. Point sensors shall only be used in return air plenums, and in ducts under 2.0 square feet in cross-section.

7.9. The location of all devices and panels require approval of the City prior to installation. The north outdoor air sensor shall be located on the north side of a facility in an area that is always shaded, away from the influence of exhaust air or other sources of heat. The south outdoor air sensor shall be located on the south side of a facility in an area exposed to the sun. The south sensor shall have a metal housing which shall be painted flat black. Where a facility has two sections, such as a high rise and low rise, the north and south sensors shall be installed for each of the two sections.

7.10. All conduits attached to sensors shall be sealed to stop air transmitted from other areas affecting sensor readings. Wire penetration to wall mounted sensors shall also be sealed.

7.11. All conduits attached to sensors shall be sealed to stop air transmitted from other areas affecting sensor readings. Wire penetration to wall mounted sensors shall also be sealed.

7.12. Freeze stats shall be installed in strict accordance with manufacturer's best practice and supported on laminated aircraft cable or similar, without stress on any portion of the sensing element. Observe relative mounting height of vapour tension element to control box.

7.13. All panel mounted devices shall be neatly aligned and secured.

7.14. Field electrical boxes shall be mounted securely and parallel or perpendicular to building lines

#### 8. As-Built Drawings

8.1. As-Built drawings shall be self-contained and shall not reference other legacy control drawings.

#### 9. DDC Panel Programmability

9.1. The following features shall be included to support the creation and maintenance of the system database. The features shall be intrinsic to each panel and manipulated through the operator interface.

##### 9.1.1. Database

- Provide means for adding, deleting, defining and modifying points and point types through the operator interface.
- Provide user definable scale ranges for analog points including non-linear relationships.
- Provide user definable units for analog and digital points.
- Provide ability to assign normal position of digital points.
- Provide links in the database such that if a point name is changed in the database, all database occurrences of that point will change automatically.

##### 9.1.2. Trend Logs and Graphs

- Provide trend log reporting of user selected points (any input, output or virtual point), with adjustable sample time and sample period. Provide capability and implement the display of four or more points simultaneously on one graph. Provide automatic and manual scaling capability of horizontal and vertical axes. Provide normalized time base on the abscissa of all trend graphs so that hour and minute grid marks fall on normal time based intervals of 5, 10, 15, 30 and 60.

# 6 Appendices

## 6.3 Continued

- All controllers shall sample and store trend data locally at the panel level, and transmit the trend data in bursts over the BACNet network for central storage. The DDC panel buffering and periodic burst transmission is a requirement to prevent network congestion and to meet the network performance specifications.
- 9.1.3. User Configurable Trend Logs
  - The system shall allow the operator to configure trend sample or change of value (COV) interval, start time, and stop time for each system data object and shall be able to retrieve data for use in spread sheets and SQL database programs.
  - The operator interface shall allow review of trend information stored at the controller level as well as in the central storage. Provide a means to seamlessly include controller stored trend data with centrally stored trend data. This means shall not require additional effort by the operator.

## 9.1.4. Alarm Processing

- Operator defined alarms for all real and virtual points with adjustable alarm entry and exit limits, custom messages and graphics links.
- Automatic logging of alarms and acknowledgements.
- User definable routing of alarms to printer, screen and email.
- Alarms to process within 10 seconds regardless of system states.
- Any critical alarm which may be specified for items such as generator, sump level alarm, freeze protection, high domestic hot water temperature, high transformer room temperature, primary equipment failures or alarms and other critical alarms shall be emailed to designated individuals.

## 9.1.5. Totalization

- Provide ability to count digital occurrences and totalize analog values through time.

## 9.1.6. Scheduling

- Provide scheduling feature for creation of start / stop schedules.

### Weekly

- Minimum 20 schedules per system panel type BC, three schedules schedule per AAC.

- 8 start stops per day on each weekly schedule

### Annually

- Provide annual schedule to define holidays

### Extended Hours

- Provide over-ride schedule to permit extended operation on a particular date. When this schedule is used there shall be no need for the operator to undo the extended hours schedule as it is scheduled for a particular date.

## 9.1.7. (Proportional-Integral-Derivative) PID Controllers

- Provide resident 3 mode software controllers in each DDC panel and include the following tuning parameters:
  - Setpoint
  - Measured variable
  - Control Action - direct or reverse
  - Proportional Gain
  - Integral Gain
  - Derivative Gain
  - Bias
  - Sampling Time
  - Output from 0 to 100%
  - Dead-band

- Provide the ability to modify the values of the above attributes from the TCL or BPL as well as through PID setup template.

## 9.1.8. TCL and BPL Functions

- Provide the programming language and user interface to allow programming of the DDC panel sequence of operations. Each panel shall have resident and proven TCL or BPL which shall be capable of reading the value and/or status of all system points and initiating both digital and analog control actions from any user defined combination of calculations and logical expressions which shall at a minimum include:
  - Addition, subtraction, multiplication and division.
  - Square roots, summations, absolute differences.
  - Logical "and", "or", "less than" and "greater than".
  - Time delays, in seconds, minutes or hours.
  - Ability to embed comments in system generated documentation.
  - Ability to use time of day and day of year in algebraic calculations.
  - Ability for nested "if-then-else" logic statements.
  - Efficient method of discarding a number of highest or lowest readings from a group of samples.

## 10. Operator Interface

- 10.1. Provide a BACnet Advanced Operator Workstation B-AOWS to be installed on site or as directed by the Owner. Provide a web server to allow operator interface through their web browsers. Internet connectivity will be provided by the Owner. Coordinate with the Owner's IT group for provisioning of secure connections. The web server shall be accessible using a standard Internet Explorer, Netscape, Chrome, Firefox and Safari browser.

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## Appendices

### 6.3 Continued

10.2. If any Flash, Multimedia or third party plug-ins or similar are required for the browser, then the system shall be compatible with the most up to date versions of these plug-ins to ensure compatibility with other browser functions, and to satisfy security updates of plug-ins. Future releases of the software required to maintain compatibility with these plug-ins shall be provided free of charge for 5 years from Total Completion. Programming of the system sequences of operation through the browser is not a requirement of this specification but is desirable. Provide full details in your proposal.

10.3. Web server shall reside on the Ethernet network with peer building controllers. Each standard browser connected to server via the Ethernet LAN, Internet or through VPN shall be able to access all system information and graphic functionality from the complete BACNet LAN including Ethernet and MS/TP sections.

10.4. Web server and BC controllers shall communicate using BACnet IP protocol. Web server workstation and control network backbone shall communicate using ISO 8802-3 (Ethernet) Data Link/Physical layer protocol and BACnet/IP addressing as specified in the most current ANSI/ASHRAE 135, BACnet Annex J.

10.5. The workstation environment may reside on the web browser physical computer providing that practice performance standards are achieved as defined in the performance specification.

10.6. The software interface shall allow each authorized operator to execute the typical best practice functions as defined in the performance specification.

10.7. In addition to the capabilities of the B-OWS the Advanced Operator Workstation shall provide the typical best practice functions as defined in the performance specification.

10.8. DDC Panels, Addressable Sensors and Actuators: Provide Building Controllers (BC) and Advanced Application Controllers (AAC). Application Specific Controllers (ASC) are not permitted. Provide Smart Actuators (SA), and Smart Sensors (SS) as required to achieve specified performance or interface with existing actuators. Every device in the system which executes control logic and controls HVAC equipment must conform to a standard BACnet Device profile as specified in the most current ANSI/ASHRAE 135, BACnet Annex L standard. All BCs and AACs shall have hand-off-auto switches on binary outputs.

10.9. Building Controllers (BCs): Each BC shall conform to BACnet Building Controller (B-BC) device profile as specified in the most current ANSI/ASHRAE 135, BACnet Annex L and shall be listed as a certified B-BC in the BACnet Testing Laboratories (BTL) Product Listing. Provide BCs for each piece or group of mechanical equipment with high point count or where memory and programming capacity is required for complex or global sequences of operation.

10.10. Advanced Application Controllers (AACs): Each AAC shall conform to BACnet Advanced Application Controller (B-AAC) device profile as specified in the most current ANSI/ASHRAE 135, BACnet Annex L and shall be listed as a certified B-AAC in the BACnet Testing Laboratories (BTL) Product Listing. Provide AACs for pieces of mechanical equipment such as unitary air handlers, heat pumps, fan coil units, variable air volume boxes and induction units.

10.11. Application Specific Controllers (ASCs): ASCs are not permitted.

10.12. Smart Actuators (SAs): Each SA shall conform to BACnet Smart Actuator (B-SA) device profile as specified in the most current ANSI/ASHRAE 135, BACnet Annex L and shall be listed as a certified B-SA in the BACnet Testing Laboratories (BTL) Product Listing.

10.13. Smart Sensors (SSs): Each SS shall conform to BACnet Smart Sensor (B-SS) device profile as specified in the most current ANSI/ASHRAE 135, BACnet Annex L and shall be listed as a certified B-SS in the BACnet Testing Laboratories (BTL) Product Listing.

10.14. BACnet Communication

10.14.1. Each BC shall reside on or be connected to a BACnet network using ISO 8802-3 (Ethernet) Data Link/Physical layer protocol and BACnet/IP addressing.

10.14.2. BACnet routing shall be performed by BCs or other BACnet device routers as necessary to connect BCs to networks of AACs over MS/TP or Ethernet.

10.14.3. Each AAC shall reside on a BACnet network using ISO 8802-3 (Ethernet) Data Link/Physical layer protocol with BACnet/IP addressing, or it shall reside on a BACnet network using the MS/TP Data Link/Physical layer protocol.

10.14.4. Each SA shall reside on a BACnet network using the ARCNET or MS/TP Data Link/Physical layer protocol.

10.14.5. Each SS shall reside on a BACnet network using ISO 8802-3 (Ethernet) Data Link/Physical layer protocol with BACnet/IP addressing, or it shall reside on a BACnet network using MS/TP Data Link/Physical layer protocol.

10.14.6. Select BACnet addressing so as to be compatible and fully interoperable with any existing BACnet systems in the facility.

10.14.7. Data Sharing. All controller firmware shall allow distributed controllers to share real and virtual object information seamlessly across networks.



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## Appendices

### 6.3 Continued

- 10.15. Stand-Alone Operation: Each controller shall operate independently from the network and other controllers in the event communication is lost. Global variables shared from other panels shall be maintained at their last value until communication is resumed. Each BC and AAC shall have its own time clock synchronized to the others but capable of maintaining correct time in the event of network communication loss. All I/O points specified for a piece of equipment shall be integral to its controller and associated expansion I/O. Loops shall not be closed across the network.
- 10.16. Environment:
- 10.16.1. Electronic hardware shall be suitable for anticipated ambient conditions.
- 10.16.2. Electronic hardware used outdoors or in wet ambient conditions shall be mounted in waterproof enclosures and shall be rated for operation at -29°C to 60°C (-20°F to 140°F).
- 10.16.3. Electronic hardware used in conditioned space shall be mounted in dust-protective enclosures and shall be rated for operation at 0°C to 50°C (32°F to 120°F) and 0 – 95% RH non-condensing.
- 10.17. Real-Time Clock: BCs and AACs shall have a real-time clock.
- 10.18. Serviceability:
- 10.18.1. Controllers shall have diagnostic LEDs for power, communication, and processor.
- 10.18.2. Wires shall be connected to a field-removable modular terminal strip or to a termination card connected by a ribbon cable.
- 10.18.3. Each BC and AAC shall continually check its processor and memory circuit status and shall generate an alarm on abnormal operation. System shall continuously check controller network and generate alarm for each controller that fails to respond.
- 10.19. Memory:
- 10.19.1. Controller memory shall support operating system, database, trend log storage and programming requirements.
- 10.19.2. Each BC and AAC shall retain BIOS and application programming for at least 72 hours in the event of power loss.
- 10.19.3. Trend Logs – Provide enough controller memory to handle the specified trend logs in addition to all other memory requirements while meeting specified performance.

- 10.19.4. PID Controllers – One controller CO for each output point connected to the panel.
- 10.19.5. Software Points - Three variables for each output point connected to the panel.
- 10.19.6. Textual Control Language – 60 (sixty) lines with 4 operators each, for each output point connected to the panel; or the equivalent using BPL.
- 10.19.7. Descriptors - Provide 1 (one) descriptor for each real or virtual point.
- 10.19.8. Totalizers - Provide 1 (one) Totalizer TZ for each digital input, output or binary virtual point in the panel.
- 10.20. Immunity to Power and Noise: Controllers shall be able to operate at 90% to 110% of nominal voltage rating and shall perform an orderly shutdown below 80% nominal voltage. Operation shall be protected against electrical noise, RFI, EMI and specifically and from keyed radios up to 5 W at 1 m (3 ft.).
- 10.21. Backup and Restore: Provide a means of automated system backup and restore so that all control language, databases, system state and trend log information is backed up to long term storage. Provide means of system restore so that a panel or entire system can be restored from the backup without operator intervention beyond initiation of the restore. Include any backup for databases supporting any gateways to legacy systems.

### 11. Effective Execution Time

- 11.1. The maximum permissible execution time is 1 (one) seconds and is defined as follows:
- 11.1.1. The time required for the CPU in the controller to execute all application software in the panel, from a point in the software back to the same point, assuming full memory usage, as defined in these specifications while simultaneously responding to normal operator or terminal display requests and carrying on normal inter-panel communications averaged over a 1 (one) minute period.

- 11.1.2. The execution time may be verified by setting up a counter in each panel and monitoring the counting rate. The counter will not be interrupt driven but shall count each scan.

### 12. Effective System Speed Testing

- This test is intended to address overall data throughput including inter-panel communications and display and will be monitored by evaluating system display response. The test will be carried out with the system fully commissioned and implemented including all specified trend logs. A complex graphic with 30 (thirty) points comprised of inputs and outputs from different panels will be assembled onto a single graphic.

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## Appendices

### 6.3 Continued

- The system will pass the performance test if the screen display of the graphic fully displays the graphics and all real time point values within 6 (six) seconds of clicking the selection button for the graphic. The contractor will take whatever steps are required including installing additional equipment, bandwidth and software to meet the performance requirements specified. The installation and project may be considered incomplete unless this performance standard is reasonably met. The web browser cache will be cleared prior to the test.

#### 13. Spare Capacity Identification

- Identify spare point capacity by type for each panel on the network diagram to be submitted with the proposal. The system configuration shall be described in the network diagram provided with the proposal, and the spare point capacity shall be noted on a panel by panel basis for each point type by identifying the quantity of used points compared to total point capacity for that point type expressed as a fraction, e.g. 7/12 AI, 7/8 AO.

#### 14. System Expansion Capabilities

- The system shall have expansion capabilities to accommodate 3000 hardware points plus 6,000 software points without requiring additional licensing. It is anticipated that the terminal equipment will be added to the system over time with the potential for integrated lighting control.

#### 15. Power Supplies and Line Filtering

- 15.1. Power Supplies
  - Control transformers shall be ULC listed. Furnish Class 2 current-limiting type or furnish over-current protection in primary and secondary circuits for Class 2 service in accordance with CEC requirements. Limit connected loads to 80% of rated capacity.
  - Transformers shall be contained inside separate electrical box enclosures adjacent to or below the DDC electronics and ancillary device panels.
  - DC power supply output shall exceed the output current and voltage requirements by 10% to allow for expansion of output devices. Unit shall not exceed output ripple of 5.0 mV maximum peak-to-peak. Regulation shall be 1.0% line and load combined, with 100-microsecond response time for 50% load changes. Unit shall have built-in over-voltage and over-current protection and shall be able to withstand 150% current overload for at least three seconds without trip-out or failure.
  - Unit shall operate between 0°C and 50°C (32°F and 120°F). EMR/RF shall meet FCC Class B and VDE 0871 for Class B and MILSTD 810C for shock and vibration.
  - Line voltage units shall be ULC recognized and CSA listed.

#### 15.2. Power Line Filtering

Provide internal or external transient voltage and surge suppression for workstations and controllers. Surge protection shall have

- Dielectric strength of 1000 V minimum.
- Response time of 10 nanoseconds or less.

- Transverse mode noise attenuation of 65 dB or greater.
- Common mode noise attenuation of 150 dB or greater at 40-100 Hz.

#### 16. Field Devices

##### 16.1. General

16.1.1. Sensors, relays, current transducers and other input/output devices shall be neatly labelled at the time of installation with a durable tag as specified elsewhere.

16.1.2. All field devices shall be selected to have full compatibility with the DDC panels.

16.1.3. Any field device proposed for use which is not one of the products listed under "Standard of Acceptance" in the design specifications will be evaluated by the Consultant against the specified technical performance and the quality and characteristics of the products which are listed. If any proposed field device is deemed not equivalent to the specification, then the Contractor shall provide another device which does meet specification.

16.1.4. Devices shall meet the specific requirements listed, and shall be compatible with respect to power supply, signal characteristics, and other factors with the DDC system being proposed. Power supplies shall be provided as required for all devices.

##### 17. Hardware Point Type Definition

The nomenclature for Hardware Point types needs to adhere to the project design specifications.

##### 18. Hardware Point Requirements

The DDC system shall include all DDC hardware points specified in the points lists and graphics, and shall include all virtual points necessary to carry out the sequences of operation to be provided by the Owner.

##### 19. Software Point Definitions

The nomenclature for Software Point types needs to adhere to the project design specifications.

##### 20. Point Tags

Luggage tag style identification of field points shall be provided as per the project design specifications.

##### 21. Sequence of Operation

The sequence of operations shall adhere to the project design objectives, and shall be commissioned at the time of installation and maintained and fine-tuned during the Warranty year.

# 6

## Appendices

### 6.4 City of Richmond Building Equipment Monitoring and Integration Requirements

[July 2016]

#### 1. DEFINITIONS:

##### ASHRAE:

- The American Society of Heating, Refrigerating and Air-Conditioning (ASHRAE) is an international standards organization for numerous building related systems. It is the organization's mission to advance the arts and sciences of heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world. The Society and its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability within the industry.

##### BACNet:

- Is an ANSI/ASHRAE standard communication protocol for direct digital control networks and automated building mechanisms. It was designed to be used for applications such as heating, ventilation, and air-conditioning control, lighting, access control, and fire detection systems and their associated equipment.

##### Canadian 2017 NECB:

- The National Energy Code of Canada for Buildings (NECB) 2017 provides minimum requirements for the design and construction of energy-efficient buildings and covers the building envelope, systems and equipment for heating, ventilating and air-conditioning, service water heating, lighting, and the provision of electrical power systems and motors.

##### Energy Star®:

- Is an international standard for energy efficient consumer products. The Energy Star ® name and symbol are administered and promoted in Canada by Natural Resources Canada. Energy Star® qualified products meet strict technical specifications for energy performance—tested and certified. Devices carrying the Energy Star® identification, such as computer products and peripherals, kitchen appliances, buildings and other products, generally use 15–30% less energy than required by federal standards.

##### Energy Star® Certified:

- Refers to Energy Star ® certified products and buildings that meet strict North American energy performance standards. Typically these products and buildings use 15–30% less energy and cause fewer greenhouse gas emissions than comparable products and buildings.

##### Energy Star® Portfolio Manager™:

- Is an online tool you can use to measure and track energy use, water consumption, and greenhouse gas emissions, and benchmark your building's performance against similar type buildings in Canada. Portfolio Manager™ uses a 1–100 Energy Star® performance scale: a score of 50 indicates average energy performance (50th percentile) while a score of 75 or more indicates top performance (75th percentile). A score of 75 or more in a particular year allows for the facility to be Energy Star® Certified. The Canadian version of the benchmarking tool is applicable to Financial Office, K–12 school, Hospitals, Ice/Curling Rink, Medical office, office, Residential Care Facility, Senior Care Community, Supermarket/Grocery Store.

##### HVAC:

- Heating Ventilation and Air Condition (HVAC) is the technology of indoor environmental comfort. HVAC system design is a subdiscipline of mechanical engineering, based on the principles of thermodynamics, fluid mechanics, and heat transfer.

##### HVI:

- Home Ventilating Institute (HVI) is a nonprofit association offering a variety of services for manufacturers including, but not limited to, test procedures, certification and verification programs for airflow, sound and energy performance, and market support. Its mission is to serve consumers and members by advancing residential ventilation for healthy, energy-efficient homes.

##### IESNA:

- The Illuminating Engineering Society of North America (IESNA) is a non-profit organization that publishes standards for the lighting industry. The mission of the organization is to advance knowledge and disseminate information for the improvement of the lighted environment to the benefit of society. The IESNA lighting standards are developed through technical committees that include hundreds of qualified individuals from the lighting and user communities.

##### MERV:

- The minimum efficiency reporting value (MERV), is an ASHRAE measurement scale designed to rate the effectiveness of air filters. The scale is designed to represent the worst case performance of a filter when dealing with particles in the range of 0.3 to 10 micrometers. The MERV rating is from 1 to 16. Higher MERV ratings correspond to a greater percentage of particles captured on each pass, with a MERV 16 filter capturing more than 95% of particles over the full range.

##### MSTP:

- Multiple Spanning Tree Protocol (MSTP) is an open source communication protocol language connecting terminal controllers to main direct digital control processing system, and is defined by the applicable networking standard IEEE 802.1Q.

## 6.4 Continued

### NRCan:

- Natural Resources Canada (NRCan) works with other government departments, the provinces and territories, and other Canadian and international partners to address energy needs and potential while considering new policies, practices, and technologies.
- NRCan's expertise in the areas of energy efficiency, and energy sources and distribution allows us to provide useful energy resources and help Canadians benefit economically, environmentally, and socially from the secure and sustainable production and use of Canada's energy resources.

### SEER:

- The Seasonal Energy Efficiency Ratio (SEER) rating of a unit is the cooling output during a typical cooling-season divided by the total electric energy input during the same period. The higher the unit's SEER rating the more energy efficient it is. In North America, the SEER is the ratio of cooling in British thermal unit (BTU) to the energy consumed in watt-hours.

### TCP/IP:

- Transmission Control Protocol/Internet Protocol (TCP/IP) is the principal communications protocol in the Internet protocol suite for relaying datagrams across network boundaries.

### Visual Metering:

- Refers to the function of monitoring energy use of specific systems or pieces of equipment, based on demand and run time, through a building's direct digital control system and analog current transducers.

## 2. OPTIMIZE MAINTENANCE AND ENERGY PERFORMANCE:

This section is intended to provide a basis by which corporate facilities can be maintained and monitored to maximize efficient resource use, and reduced maintenance and operational costs.

- Operation Plan: Each facility should have an operational plan developed that at a minimum includes an occupancy schedule, equipment run-time schedule, design set points for HVAC equipment, and design lighting levels. This plan should be regularly reviewed and optimized as needed.
- Measuring Energy Efficiency: Two options can be used to measure energy efficiency performance in comparison to typical buildings of similar type and function:
  - Option 1: Target an Energy Star® rating of 75% or higher, if eligible to receive an energy performance rating using the U.S. EPA's Energy Star® Portfolio Manager Tool (Canadian edition).
  - Option 2: If a building is not eligible to receive an energy performance rating using the U.S. EPA's Energy Star® Portfolio Manager Tool (Canadian edition), target increased energy efficiency of 20% as compared to typical buildings of similar type and function using national average energy data (National Resources Canada, Energy Star, et al).
- Measurement and Verification: Track the energy and water use of specific systems, and uses (i.e. lighting, HVAC, plug loads, etc.), and the building overall, to allow for continuous optimization. If possible, accomplish this requirement using the building automation system.
- Benchmarking and Tracking Building Energy Consumption: Regularly compare energy performance data with previous years' energy performance data, to ensure operational energy efficiency is being maintained.
- Ongoing Commissioning: Complete re-commissioning activities on an approximately five year cycle to address changes in facility occupancy, use, maintenance and repair. Make periodic adjustments and review of building operating systems and procedures essential for optimal energy efficiency and service provision.
- Building Automation System: Employ full building automation system for increased control and programming capability of mechanical system and lighting systems. It is required that City of Richmond pre-qualified building automation system supply and install contractors be used for new and replacement installations. Please see Section 5.0 for more details.
- Local Thermostat: If applicable, use programmable thermostat that include energy efficient options including but not limited to: night set back, programmability for each day, optimal start, and zones separated by function.



# 6 Appendices

## 6.4 Continued

viii. Heat Recovery Ventilation Systems: Heat recovery ventilation systems used in corporate facilities need to be Home Ventilating Institute (HVI) certified with 85% efficiency.

ix. Air or Ground Source Heat Pumps: Air or ground source heat pumps used in corporate facilities should be Energy Star® certified with a minimum target for energy efficiency of SEER 16.

x. Gas Fired Rooftop unit: Gas fired rooftop units used in corporate facilities will target a minimum energy efficiency rating of SEER 13.

xi. Heat Pump Rooftop units: Heat Pump rooftop units used in corporate facilities will target a minimum energy efficiency rating of SEER 15.

xii. Rooftop units: Economizer should be used for all rooftop units 5 tons or greater. All rooftop units, air handling units, Energy recovery ventilators (ERV), Heat recovery ventilators (HRV) and makeup air units, and shall use industry standard sized filters.

xiii. Natural Gas Boiler: Natural gas boilers used in corporate facilities will target a minimum efficiency rating of 95%.

xiv. Air Compressor: All pneumatic air compressors should be equipped utilizing automatic condensate drain system. Air compressors for corporate truck maintenance activities, require a minimum of 200 PSI operating pressure.

xv. Domestic Hot Water: Domestic natural gas hot water boilers used in corporate facilities and Domestic electric hot water boilers used in corporate facilities should be Energy Star® certified with a target minimum efficiency rating of 90%.

xvi. Appliances: Appliances (Air purifiers, , Laundry machines, Dishwashers, Freezers, Refrigerators, Pool pumps, Water coolers, Commercial food service equipment) used in corporate facilities should be Energy Star® certified.

xvii. Ozone Depleting Compounds: Refrain from using Ozone Depleting Substances. Ozone Depleting Substances include CFCs, HCGCs, halons and others used in refrigerants, fire extinguishing systems and chemicals (sterilants and solvents).

xviii. Electric motor and pump: Use high efficiency motors and pumps, whenever possible. Targeting 25% better than Canadian 2011 NECB performance curves for motors and pumps.

xix. Improved Lighting Efficiency: As budgets allow, high efficiency lighting technology and controls is preferred for all new installations, please refer to Section 6.0 Optimize Lighting System for further guidance on lighting guidelines.

xx. Lighting Levels: Refer to the IESNA standards for target lighting levels depending on building type and room function. In addition, please refer to Section 6.0 Optimize Lighting System for further guidance on lighting guidelines.

xxi. On-Site Renewable Energy: Implement renewable energy generation project, when lifecycle costs are effective at facilities to further reduce conventional energy purchases. Refer to NRCan website.

xxii. Equipment: All equipment, devices, controls needs be well supported by a knowledgeable local technical support staff, local sales representatives and local field service/factory trained representatives to assist in the selection, application and servicing of all equipment. All replacement parts and components need to be readily available (preferred less than 5 day delivery wait time) and cost effective.

# 6 Appendices

## 6.4 Continued

### OPTIMIZE WATER EFFICIENCY:

This section is intended to provide a basis by which corporate facilities can reduce indoor potable water use, reducing the burden on local water supply and wastewater.

- i. Water metering: New corporate facilities will include water meters. Where feasible, these meters will be remotely monitored by the building's automation and monitoring system. Where possible, it is preferred that an additional water meter is installed to monitor the water consumption for outdoor activities, and that this meter also be monitored through the building's automation system.
- ii. Indoor plumbing fixture and fitting efficiency: The following table outlines the targeted water fixture efficiency flush/flow rates for civic facilities for both new construction and replacement projects, and the maximum flush/flow rates as per current BC building codes. Where feasible, it is preferred that purchased fixture products water usage is on the lower end of the range to maximize water conservation.

Table 1 – Targeted Fixture Flush/Flow rates for the City of Richmond

Fixture Type	Flow Rate (Litres per minute [LPM] or Litres per flush [LPF])
Dual-flush toilets	High flush = 6.0 LPF Low flush = 3.4 to 4.1 LPF
Urinals	1.9 LPF
Lavatory faucet	1.9 to 8.3 LPM
Kitchen faucet	5.7 to 8.3 LPM
Showers	5.7 to 7.6 LPM

- iii. Water-Efficient Products: Where applicable reduce the use of potable water through the use of fixtures with automatic controls. In addition, for water using appliances it is required that Energy Star® certified products are used where ever possible.
- iv. Water Harvesting: Whenever possible and practicable re-use storm water for landscaping and irrigation.

### ENHANCE INDOOR ENVIRONMENTAL QUALITY:

The intent of this section is to provide a basis for optimizing indoor environments to promote occupant comfort, health, and enjoyment of the space.

- i. Minimum IAQ Performance: Meet or exceed most current ASHRAE Standard 62.1, Ventilation for Acceptable Indoor Air Quality.
- ii. Ventilation and Thermal Comfort: Meet or exceed most current ASHRAE Standard 55, Thermal Environmental Conditions for Human Occupancy.
- iii. Filtration Media: Utilize Minimum Efficiency Reporting Value (MERV) of at least 11 for equipment that requires filtration material. Where applicable, GeoPleat or Mini-Pleat filter with MERV 13 must be used. Filter media used in all HVAC equipment needs to be of standard sizing.
- iv. Day lighting and lighting Controls: Automated lighting controls (occupancy/vacancy sensors with manual-off capability) are provided for appropriate spaces including restrooms, conference and meeting rooms, employee lunch room, training rooms and offices. Where ever possible and feasible there should be no on schedule for DDC controlled lighting and occupancy sensors should be used to solely recognize inactivity, with switches used to turn lights on.
- v. Low-Emitting Materials: Use low emitting materials for building modifications, maintenance, and cleaning. In particular, specify the following materials and products to have low pollutant emissions: composite wood products, adhesives, sealants, interior paints and finishes, solvents, carpet systems, janitorial supplies and furnishings.
- vi. Environmental Tobacco Smoke Control: Prohibit smoking within and in the vicinity of the building as per the City of Richmond Public Health Protection Bylaw, Worker Compensation Board (WCB) Occupational Health and Safety Regulations, and Vancouver Coastal Health Authority regulations.

# 6

## Appendices

### 6.4 Continued

#### INTEGRATE BUILDING AUTOMATION SYSTEMS:

The intent of this section is to provide a basis for optimizing the City's building control and energy monitoring capacity to maximize maintenance and operational efficiency, and efficient building resource use. In addition, this section will be used to standardize the City's DDC systems and graphic interface in new and existing buildings.

- i. Prequalified Supply and Installation Contractors: One of the City's prequalified Supply and Installation Contractors for Direct Digital Controls (DDC) Systems must be used for the mechanical and lighting control of City owned and/or operated space.
- ii. Lighting Control: Lighting control is to be tied into separate DDC controllers (unless exempted by the City where in they may be tied in to HVAC DDC controllers), which will be provided by one of the prequalified contractors, with the location and number to be specified by the Electrical Design Consultant as part of the electrical design tender package. The electrical engineer will specify exact model numbers of luminaires and physically test the control interface prior to tender to ensure that the luminaires are compatible with the prequalified DDC systems.
- iii. DDC Graphics and Monitoring: Graphics for the operator interface must be prepared to meet requirements, which highlight energy efficiency and comfort. Graphic functionality for energy monitoring will include, but is not limited to, energy use breakdown between electricity and natural gas, further segregation of each fuel type by each functional end use (e.g. ventilation, cooling, heating, pumping, lighting, plug loads, etc. – note that this requires tagging of end use into multiple categories), and by specific systems and equipment. The operator interface for the City will run on the City's web-servers. This work must be coordinated through the City's IT group to arrange loading of graphics, databases, and for security requirements.
- iv. Energy Data: All energy data collected will be stored on the City's Sequel Server. The City will provide connection credentials so that the supplied system can store the data. The system must also be capable of delivering this data using BACnet over Ethernet, BACnet over MSTP and BACnet over TCP/IP to third party data repositories capable of accepting BACnet data.
- v. DDC Access and Data points: The DDC system will be remotely accessed by the City's web based operator interface. Data will be collected at intervals not to exceed 15 seconds for all points during the commissioning process to ensure system capacity, stability and control loop tuning. These data points must include measurable variable, manipulated variable, and setpoint variable for each loop, as well as other variables, measurements and outputs as required to demonstrate the performance of the system. VPN network connectivity will be provided by the Supply and Installation Contractor for secure access of sufficient bandwidth to support this.

- vi. Energy Use Monitoring: Any energy use monitoring shall be done through sub-meters that are BACnet enabled, or through virtual metering.
- vii. Water Metering and Monitoring: A water meter will provide instantaneous and aggregated water consumption information of each mechanical makeup water system such as cooling tower, chilled water system, heating water system, heat pump system, Geo/ground loop and Solar system. The information will be delivered using BACnet over MSTP, BACnet over Ethernet, or BACnet over TCP/IP.
- viii. Hydronic Energy Monitoring: All hydronic that introduce or extract energy flows to the subject premises will be monitored. These will include measurement of flow and differential temperature. The calculation of energy and power will be performed at the meter or within the DDC system. The supply and return temperatures will be transmitted along with the flow information to the DDC system. The information will be delivered using BACnet over MSTP, BACnet over Ethernet, or BACnet over TCP/IP.
- ix. Points List Review: Once the mechanical and lighting DDC points list has been initially defined, the City requests that they are provided to the City along with the mechanical and electrical specifications, to allow for the timely opportunity to review and comment before finalization.
- x. Segregated Electrical Panels: Lighting, mechanical, and plug loads need to be segregated on separate electrical panels for energy monitoring purposes.
- xi. Electrical Directory Review: Once the preliminary electrical directories for each electrical panel have been defined, the City requests that they are provided to the City, to allow for a timely opportunity to review and comment before finalization.
- xii. Inspections: City personnel or the City's DDC consultant will conduct its own inspections of the system design, installation and functionality, and will prepare its own deficiency lists during the construction process and final inspection. The deficiency lists will need to be corrected prior to City sign off on completion.
- xiii. Documentation: In addition to hard copies of documents that may be specified, electronic copies of system documentation in PDF format are required.



# 6 Appendices

## 6.4 Continued

### OPTIMIZE BUILDING LIGHTING SYSTEMS:

Corporate lighting guidelines and requirements are intended to provide the basis for optimizing building interior and exterior lighting controls and associated electrical use, and to standardize the type of lighting used depending on its function.

#### General Guidelines

- i. All interior building lighting shall be supplied from 120 volt power systems.
- ii. Lighting design shall incorporate the principles of sustainability and its products and systems shall be energy conserving, long life, have a low cost of ownership and be accessible for service and maintenance.
- iii. For interior building lighting solutions, Light Emitting Diode (LED) lighting is preferred.
- iv. For exterior lighting applications (wall mounted fixtures, low mast light fixtures in parking lot), LED lighting is preferred.

Daylight harvesting opportunities shall be implemented in areas where natural daylight is available.

Uniformity and low brightness contrast shall be achieved by judicious use of luminaires and their locations.

All lighting shall be designed to suit the task and task location rather than the general lighting. The most current NECB1 or ASHRAE 90.1, IESNA and WorkSafeBC standards shall be taken into consideration and photometric calculations submitted where requested. The light loss factor (LLF) which is used in these calculations, shall take into consideration the lamp lumen depreciation factor and dirt depreciation factors associated with the light source and environment.

When mounting luminaires in high ceiling spaces, consideration must be given to ensure access for maintenance activities. Indoor lighting shall be accessible either from ladders on flat surfaces such as floors or stair landings or from powered lifts with a maximum lift of 6.1 m. Building access, floor construction, and elevators shall permit entry and use of existing standard lift equipment for proper and safe maintenance. If special equipment is required for lighting maintenance, then the consultant shall, prior to tender, prepare and submit a Lighting System Maintainability Plan to the City of Richmond for review and approval and it shall contain documentation describing the special equipment, access arrangements for special equipment, and a maintenance schedule and spare parts list.

The lighting design proposed for all public areas such as corridors and stairways shall ensure the life safety of building occupants at all times and shall also minimize lighting energy required to zero, if possible, when the building is un-occupied. (i.e. lights off until occupancy has been detected or an emergency has occurred). A portion of the lighting fixtures shall be wired to an emergency power panel if an emergency generator is available. Lighting circuits fed from emergency power panels shall be arranged so that they may be switched or dimmed.

- x. In general, where feasible and economical LED lighting is preferred for all interior spaces. It is preferred for interior LED luminaires, such as troffers, that the driver be mounted in an easily accessible location i.e. not behind the luminaire, so as to reduce maintenance time if replacement is needed.  
If there is not a strong business case for interior LED lighting, then linear fluorescent lighting is preferred. Linear fluorescent luminaires shall be equipped with 120 volt electronic ballasts and T8-25 watt lamps or with T8-32 watt lamps in low temperature locations. Bent 'U' tube fluorescent luminaires are not acceptable. Lighting solution proposals using T5 linear fluorescent systems are not acceptable.
- xi. Non-linear specialty fixtures such as pot lights, cylinders, wall sconces, wall washers and other decorative lighting shall be minimized. If using fluorescent fixtures, a maximum of 10% of the total quantity of fixtures in the building project is recommended.
- xii. HID fixtures such as Metal Halide (MH) or High Pressure Sodium (HPS) are not acceptable

#### Lamp, Ballast/Driver & Fixture Guidelines

- i. 2700° K to 3000° K shall be the typical color temperature range used for theatrical applications or highlighting any artwork.
- ii. 3500° K shall be the typical color temperature used for all interior applications.
- iii. 4000° K shall be the typical color temperature used for all exterior applications.
- iv. The use of LED lamps is encouraged and as substitutes for traditional applications involving CFL, MR-16, PAR 20, PAR 30, BR30, PAR 38 lamps, and linear fluorescent lamps. LED lamps shall be Energy Star rated.
- v. The use of LED fixtures is encouraged, and shall be DLC (Design Lighting Consortium) listed. The drivers shall have either 0-10V or phase dimming capability (for buildings where it is not practical to run low voltage wiring).
- vi. Lamps shall be the longest life available. Preference will be given to lamps and lighting containing the lowest amount of mercury and other toxic components.
- vii. If applicable, it is preferred that T5-HO and T8 fluorescent lamps be extra-long life or extended life lamps rated for 40,000+ hours operation with 3 hours per start
- viii. Where T5 HO lamps are used in enclosed fixtures, lamps rated for higher temperatures shall be used.
- i. All fluorescent lighting ballasts shall operate from 120 volt input voltage and shall be either instant start (when used with LED lamps) or program start electronic type (when used with fluorescent lamps) with normal ballast factor. All ballasts shall have parallel lamp operation. Acceptable manufacturers are Philips Advance, GE Lighting, Sylvania Lighting and Universal Lighting.
- ii. Ballast output frequency shall be greater than 42 kHz.
- iii. Dimming ballasts shall be program start with either line voltage or 0-10 volt control.
- iv. Ballasts shall have lamp end-of-life detection and shutdown circuitry that meets the most current ANSI standards.

## 6.4 Continued

### Energy Allowances

- i. All interior lighting shall not exceed the energy density limits as defined in the most current NECB or ASHRAE 90.12 lighting power densities standard, using either the whole building area method or the space by space evaluation method. For the whole building area evaluation method, the standard is currently 0.90 watt per square foot.
- ii. All exterior building lighting shall not exceed the lighting power density limits as defined in the most current NECB2 or ASHRAE 90.12 standard.

### Lighting Controls

- i. All interior lighting (including stairwells) shall have controls such that when the lighting is not needed, it will automatically be either turned off or dimmed to a low output condition, and shall conform to the most current relevant NECB2 or ASHRAE 90.12 standard.
- ii. All lighting control systems shall be fully tested and commissioned and a Lighting System Commissioning Report shall be prepared and certified by a responsible professional as per the most current relevant NECB2 or ASHRAE 90.12 standard.
- iii. As per the DDC integration requirements, where low voltage relay controls are provided for new building projects they shall include a BACnet compatible DDC interface device to allow for all scheduling functions related for the lighting systems to be controlled by the building's DDC system.
- iv. All exterior building mounted lighting and exterior building area lighting shall be controlled by photocell or astronomical time clock. Lighting which is powered from the building electrical system shall be controlled by the building's DDC system.
- v. Occupancy sensors shall be dual technology type with both Passive Infrared (PIR) and acoustic/ultra-sonic sensors, and may be either line voltage or low voltage types. Low voltage occupancy sensors with 1 or 2 poles and local power packs are preferred. Slave power packs are not acceptable.
- vi. Offices shall have light control switches at all entrances, exits and vestibules. These interior spaces shall also have occupancy sensors integrated with the control switch or mounted at a high level in a corner and arranged for semi-automatic operation such that manual operation of the local switches is required to energize the lighting while occupancy sensors and local switches will de-energize the lighting. Large spaces may need more than one sensor.
- vii. Corridors, lobbies, washrooms and similar public spaces shall have occupancy sensors, mounted at high levels, and arranged for full automatic operation to dim the light fixtures to a level which meets the minimum requirements for emergency egress during periods of vacancy.
- viii. Occupancy sensors are not permitted in interior spaces that may be or may become hazardous, such as electrical and mechanical service rooms.
- ix. Where feasible, all offices, corridors, stairways and other public spaces shall incorporate daylight harvesting via use of interior mounted photocells and arranged to take advantage of free illumination while maintaining acceptable minimum illumination levels within the space.
- x. LED dimmers shall be compatible with the LED lamps used and their drivers.

### Exit Signage

- i. Exit lighting shall be provided in accordance with the BC Building Code and the Canadian Electrical Code as amended by BC Electrical Safety regulations.
- ii. All exit signs shall be illuminated by LED light sources and shall have an emergency power NiCad battery.
- iii. Exit signs shall be powered at 120 volts from emergency power panels, if available.
- iv. The "Running Man" style EXIT sign that conforms to the CAN/ULC-S572 standard is required as set out by the BC Building Code.

### Emergency Lighting

- i. Emergency lighting must be installed in accordance with the latest revision of the B.C. Building Code and City of Richmond's Bylaw No. 8306 (Fire Protection and Life Safety).
- ii. Provide standby emergency generator if motor loads require emergency power.
- iii. All battery pack lighting, remote heads and exit lights shall be LED type and manufactured by 'Ready-Lite' or an approved equal. 'Ready-Lite' products are available from local suppliers and shall be stocked by City of Richmond. It is important that City of Richmond have stock so that repairs can be done quickly and effectively as required for the life safety system.
- iv. The battery packs shall be long life type and either 12 volts DC or 24 volts DC and shall be in accordance with CSA C22.2 No. 141.
- v. All battery packs shall be mounted on the wall using anchors capable of supporting the weight, or mounted on an appropriately sized shelf, supplied from 'Ready-Lite' or an approved equal.
- vi. Generator and Electrical rooms shall be provided with an emergency battery lighting pack.
- vii. If a 12 volt DC battery lighting pack is used for emergency lighting power, it shall be rated for 36 watt to 360 watt and should not be self-testing.
- viii. If a 24 volt DC battery lighting pack is used for emergency lighting power, it shall be either a 360 watt unit or a 720 watt unit, and should not be self-testing.
- ix. For both 12 volt DC and 24 volt DC systems, the heads and remote heads shall be 9 watts each.
- x. Battery packs that are fed from a 120 volt AC source shall have a 120 volt duplex receptacle mounted adjacent so that the battery pack can be plugged into the receptacle, to facilitate testing and replacement when needed.

**6.5 City of Richmond General Lighting Guidelines**  
[January 2016]

## 1.0 GENERAL

## 1.1 Related City of Richmond Guidelines

- 1 High Performance Building Policy
- 2 City of Richmond Sustainable Operation and Maintenance Requirements

## 1.2 Coordination Requirements

- 1 City of Richmond Facilities
- 2 City of Richmond Project Development
- 3 City of Richmond Information Technology

## 2.0 MATERIAL AND DESIGN REQUIREMENTS

General

1. All interior building lighting shall be supplied from 120 volt power systems.
2. Lighting design shall incorporate the principles of sustainability and its products and systems shall be energy conserving, long life, have a low cost of ownership and be accessible for service and maintenance.
3. For interior building lighting solutions, preference shall be given to Light Emitting Diode (LED) and linear fluorescent light sources.

4. For exterior lighting applications (wall mounted fixtures, low mast light fixtures in parking lot), preference shall be given to LED light sources. Fluorescent light sources may be used selectively.
5. Daylight harvesting opportunities shall be implemented in areas where natural daylight is available.
6. Uniformity and low brightness contrast shall be achieved by judicious use of luminaires and their locations.

7. All lighting shall be designed to suit the task and task location rather than the general lighting. ASHRAE 90.1-2010, IESNA and WorkSafeBC guidelines shall be taken into consideration and photometric calculations submitted where requested.

8. The designer shall take into account 4 to 5 year fluorescent lighting group re-lamping program. All maintenance factors shall be maximized because of the expected clean environment in the facilities.

9. When mounting luminaires in high ceiling spaces, consideration must be given to ensure access for maintenance such as lamp and ballast changing. Indoor lighting shall be accessible either from ladders on flat surfaces such as floors or stair landings or from powered lifts with a maximum lift of 6.1 m. Building access, floor construction, and elevators shall permit entry and use of existing standard lift equipment for proper and safe maintenance. If special equipment is required for lighting maintenance, then the consultant shall, prior to tender, prepare and submit a Lighting System Maintainability Plan to the City of Richmond for review and approval and it shall contain documentation describing the special equipment, access arrangements for special equipment, and a maintenance schedule and spare parts list.
10. The lighting design proposed for all public areas such as corridors and stairways shall ensure the life safety of building occupants at all times and shall also minimize lighting energy required to zero, if possible, when the building is un-occupied. (i.e. lights off until occupancy has been detected or an emergency has occurred). A portion of the lighting fixtures shall be wired to an emergency power panel if an emergency generator is available. Lighting circuits fed from emergency power panels shall be arranged so that they may be switched or dimmed.
11. In general, where feasible and economical LED lighting is preferred for interior spaces. It is preferred for interior LED luminaires, such as troffers, that the driver be mounted in an easily accessible location i.e. not behind the luminaire, so as to reduce maintenance time if replacement is needed.
12. If there is not a strong business case for interior LED lighting, then linear fluorescent lighting is preferred. Linear fluorescent luminaires shall be equipped with 120 volt program start electronic ballasts and T8-25 watt lamps or with T8-32 watt lamps in low temperature locations. Bent 'U' tube fluorescent luminaires are not acceptable. Lighting solution proposals using T5 linear fluorescent systems are not acceptable. When required in high ceiling areas, T5 High Output (HO) solutions are acceptable. Suspended luminaires shall be direct/indirect. Full indirect suspended luminaires are not acceptable.
13. Non-linear specialty fixtures such as pot lights, cylinders, wall sconces, wall washers and other decorative lighting shall be minimized and shall not exceed 10% of the total quantity of fixtures in the building project. When used, it is preferred that these luminaires not be enclosed and incorporate vertically aligned medium base screw-in LED lamps.
14. HID fixtures such as Metal Halide (MH) or High Pressure Sodium (HPS) are not acceptable.

# 6 Appendices

## 6.5 Continued

<b>2.2 Lamps</b>	<b>2.4</b>	<b>Energy Allowances</b>
<ol style="list-style-type: none"><li>.1 Lamps shall be the longest life available. Preference will be given to fluorescent lamps containing the lowest amount of mercury.</li><li>.2 It is preferred that T8 fluorescent lamps be Extra Long Life or Extended Life lamps rated for 40,000 hours operation with 3 hours per start.</li></ol>		<ol style="list-style-type: none"><li>.1 All interior lighting shall not exceed the energy density limits as defined in ASHRAE 90.1-2010 section 9.5 (Building Area Method) or 9.6 (Space by Space Method).</li></ol>
<p>Preferred manufacturers are: General Electric, Osram Sylvania, or Philips</p>		<p>For the Building Area Method, the energy density limit is 0.90 watt per square foot.</p>
<ol style="list-style-type: none"><li>.3 T8 - 25 watt lamps with 3500° K color temperature shall be the typical lamp used for linear fluorescent lighting.</li></ol>		<ol style="list-style-type: none"><li>.2 All exterior building lighting shall not exceed the energy density limits as defined in ASHRAE 90.1-2010 section 9.4.3.</li></ol>
<ol style="list-style-type: none"><li>.4 T8 - 32 watt High Lumen fluorescent or LED lamps shall be the typical lamp used in low temperature locations.</li></ol>	<b>2.5</b>	<b>Lighting Controls</b>
<ol style="list-style-type: none"><li>.5 T5 HO fluorescent lamps shall be Extra Long Life or Extended Life lamps. Preferred manufacturers are: General Electric, Osram Sylvania, or Philips.</li></ol>		<ol style="list-style-type: none"><li>.1 All interior lighting (including stairwells) shall have controls such that when the lighting is not needed, it will automatically be either turned off or dimmed to a low output condition, and shall conform to the new ASHRAE 90.1-2010 standard (sections 9.4.1, 9.4.2).</li></ol>
<ol style="list-style-type: none"><li>.6 Where T5 HO lamps are used in enclosed fixtures, lamps rated for higher temperatures shall be used.</li></ol>		<ol style="list-style-type: none"><li>.2 All lighting control systems shall be fully tested and commissioned and a Lighting System Commissioning Report shall be prepared and certified by a responsible professional as per ASHRAE 90.1-2010 standard (section 9.4.4)</li></ol>
<p>Preferred manufacturers are Philips Extreme Temperature series or Sylvania Constant series.</p>		<ol style="list-style-type: none"><li>.3 Where low voltage relay controls are provided for new building projects they shall include a BACnet compatible Building Management System (BMS) interface device which shall be wired to the local BMS control panel. This will ensure that all scheduling functions related to lighting systems will be under the control of the BMS system.</li></ol>
<ol style="list-style-type: none"><li>.7 Use of LED lamps is encouraged and as substitutes for traditional applications involving CFL, MR-16, PAR 20, PAR 30, BR30, PAR 38 lamps, and linear fluorescent lamps when economical. LED lamps shall be Energy Star rated.</li></ol>		<ol style="list-style-type: none"><li>.4 All exterior building mounted lighting and exterior building area lighting shall be controlled by photocell or astronomical time clock. Lighting which may be powered from the building project electrical system shall be under the control of the BMS scheduling system.</li></ol>
<b>2.3 Ballasts</b>		
<ol style="list-style-type: none"><li>.1 All fluorescent lighting ballasts shall operate from 120 volt input voltage and shall be program start electronic type with standard ballast factor. Ballasts shall have parallel lamp operation. Acceptable manufacturers are: General Electric, Osram Sylvania, Philips/Advance or Universal.</li></ol>		
<ol style="list-style-type: none"><li>.2 Ballast output frequency shall be greater than 42 kHz.</li></ol>		
<ol style="list-style-type: none"><li>.3 Dimming ballasts shall be program start with either line voltage or 0-10 volt control.</li></ol>		
<ol style="list-style-type: none"><li>.4 Ballasts shall have lamp end-of-life detection and shutdown circuitry that meets ANSI standards.</li></ol>		<ol style="list-style-type: none"><li>.5 Occupancy sensors shall be dual technology type with both Passive Infrared (PIR) and acoustic/ultra-sonic sensors, and may be either line voltage or low voltage types. Low voltage occupancy sensors with 1 or 2 poles and local power packs are preferred. Slave power packs are not acceptable.</li></ol>
		<p>Preferred manufacturers are Watt stopper, Sensor Switch, Leviton, or Hubbell</p>



# 6 Appendices

## 6.5 Continued

- .6 Offices shall have light control switches at all entrances, exits and vestibules. These interior spaces shall also have occupancy sensors integrated with the control switch or mounted at a high level in a corner and arranged for semi-automatic operation such that manual operation of the local switches is required to energize the lighting while occupancy sensors and local switches will de-energize the lighting. Large spaces may need more than one sensor.
- .7 Corridors, lobbies and similar public spaces shall have occupancy sensors, mounted at high levels, and arranged for full automatic operation.
- .8 Occupancy sensors are not permitted in interior spaces that may be or may become hazardous, such as electrical and mechanical service rooms.
- .9 All, offices, corridors, stairways and other public spaces shall incorporate daylight harvesting via use of interior mounted photocells and arranged to take advantage of free illumination while maintaining acceptable minimum illumination levels within the space.
- .10 LED dimmers shall be compatible with the LED lamps used and their drivers.

### Exit Signage

- .1 Exit lighting shall be provided in accordance with the BC Building Code and the Canadian Electrical Code as amended by BC Electrical Safety regulations.
- .2 All exit signs shall be illuminated by LED light sources and shall have an emergency power NiCad battery.
- .3 Exit signs shall be powered at 120 volts from emergency power panels, if available.
- .4 The "Running Man" style EXIT sign which conforms to the CAN/ULC-S572 standard shall be used.

## 2.7 Emergency Lighting

- .1 Emergency lighting must be installed in accordance with the latest revision of the B.C. Building Code and City of Richmond's Bylaw No. 8306 (Fire Protection and Life Safety).
- .2 Provide standby emergency generator if motor loads require emergency power.

- .3 All battery pack lighting, remote heads and exit lights shall be LED type and manufactured by 'Ready-Lite' or approved equal. 'Ready-Lite' is available from local suppliers and shall be stocked by City of Richmond. It is important that City of Richmond have stock in standard sizes so that repairs can be done quickly and effectively as required for the life safety system.
- .4 The battery packs shall be long life type and either 12 volts DC or 24 volts DC and shall be in accordance with CSA C22.2 No. 141.
- .5 All battery packs shall be mounted on the wall using anchors capable of supporting the weight, or mounted on an appropriately sized shelf, supplied from 'Ready-Lite' or approved equal.
- .6 Generator and Electrical rooms shall be provided with an emergency battery lighting pack.
- .7 If 12 volt DC is used they shall be rated for 36 watt to 360 watt and should not be self testing as clients do not understand the self test and call in a trouble call unnecessarily.
- .8 If 24 volts DC are used they shall be either a 360 watt unit or a 720 watt unit only. They shall also be a basic model without meters or self testing.
- .9 For both 12 volt DC and 24 volt DC systems, the heads and remote heads shall be 9 watts each.
- .10 Battery packs that are fed from a 120 volt AC source shall have a 120 volt duplex receptacle mounted adjacent so that the battery pack can be plugged into the receptacle. This is to facilitate testing and replacement when needed.

## 6.6 City of Richmond Entrance, Intercom/Video Systems Specifications for City of Richmond Buildings [28 January 2016] [1 page]

### 1. ENTRANCE/VIDEO SYSTEMS SPECIFICATIONS

- 1.1 All specified entry doors shall be controlled by an entry audio intercom which will communicate via a supplied phone line, existing phone line may be used if one exists. Acceptable part numbers are Viking K-1200 or K-1200EWP, no exceptions allowed.

All entry door stations will require a home run, minimum 1" conduit from the K1200 unit to a predetermined location as per the specified drawings.

The entry door unit will require a single gang box flush mount at a height of no higher than 44".

In applications where flush mounting is not an option, then a surface mount conduit stubbed to the top of the surface mount K1200 unit will suffice.

The system will be programmed to allow communication to staff via locals or specified phone number as per instructions from location coordinator.

All required entry door locations shall have a 12-volt electric strike installed to release the door. Accepted brands are RCI S6514 series and/or Von Dupron, model number will be determined by the type of door installed and hardware operating such door and code requirements.

All strikes will require a home run, via a minimum 1/2" conduit supplied to a predetermined location as per the specified drawings. All conduit for strikes must terminate in the frame that houses the strike or directly to the device.

- 1.3 The video monitoring system for each entry door will consist of a camera at the entry door location. Acceptable brand and part numbers will be Hikvision DC-2CD2122FWD-IS Armored Dome cameras, if using IP cameras or Hikvision DS-2CE55C2N if using Analogue camera. All cameras will be home run via a minimum 3/4" conduit to a determined location as per specified drawings.

- 1.4 All cameras shall terminate to a Hikvision NVR or similar distribution hub located in an acceptable location for the project. **The NVR will not contain a hard drive or allow recording of any images, unless proper procedures and authority is given by the City of Richmond, and all Guidelines of the Privacy Impact Assessment are met.**

**All video camera installations must adhere to the specifications of the personal information protection act, regarding video camera installations.**

- 1.5 A video monitor shall be supplied at the locations determined by the specified drawings. The acceptable brand and part numbers of the monitors will be Wbox 19 or 22led or similar brand CSA approved led monitor.
- 1.6 Each monitor must be wall mounted with an approved monitor wall bracket, model shall be determined by the size and weight of the monitor at the specified location and height in drawing. A mounting plate of no less than 19mm plywood or similar product must be supplied at the monitor locations, sufficient in size to support the weight and size of supplied monitor, drywall anchors not permitted. All monitors will require a home run via a minimum 3/4" conduit to the determined location as per the specified drawings.
- 1.7 No wiring may be exposed to the outside of a building unless in approved conduit for outdoor use.
- 1.8 A 120 VAC circuit must be supplied at each monitor location, all outdoor locations must have a GFI circuit installed as per electrical code.
- 1.9 A 120 VAC circuit must be supplied at the determined hub or home run location as determined by the specified drawings.



# 6

## Appendices

### 6.7 City of Richmond Security, Fire Alarm, Access and Video Systems Specifications for City of Richmond Buildings [January 2018]

#### 1. SECURITY ALARM SYSTEMS

- 1.1 All external doors shall be hardwired with a single, station Z 22AWG 4 conductor wire, or a minimum 1/2" conduit from each location to the security panel termination point.
- 1.2 The Security system must be a Napco brand, model number will depend on size of building and location requirements, no substitutions. Gem1632, Gem3200, Gem9600, GemX255.
- 1.3 All buildings will require a minimum of one Napco RP1CAE2 keypad at or near a specified entry door or doors, each keypad will require a minimum Cat V 24AWG 8 conductor wire to that location to at the security panel termination point, and/or a minimum 1/2" conduit connecting to that location.
- 1.4 All rooms exposed to outer windows, or doors or rooms of sensitive nature shall require a commercial grade motion sensor, a Bosch PPR1-W16 or similar detector mounted at a maximum of 8 feet. Each of these locations shall require a minimum station Z 22AWG 4 conductor or preferably a CAT V 24AWG or a 1/2" conduit if required and shall be terminated at the security panel termination point.
- 1.5 All cabling and /or conduit shall be home run to the security panel termination point and conduit runs can be combined as long as size as conduit is increased based on size an amount of cable does not exceed the maximum allowed.
- 1.6 A minimum of 24" X 24" space is required for the security alarm panels at the wiring termination point, this may increase in size depending on the with size of building and equipment required.
- 1.7 No wiring may be exposed to the outside of a building unless in approved conduit, all access points must be supervised for tampering.
- 1.8 A 120 VAC circuit, with an individual breaker and a double gang box shall be required to allow hardwiring of transformers. Plug in transformers/power bars are not accepted.
- 1.9 A minimum of 1 dedicated telephone line shall be required at the panel termination point for communications to the monitoring station.

#### 2. ULC FIRE ALARM MONITORING SYSTEMS FOR CITY OF RICHMOND BUILDINGS

- 2.1 All fire alarm panels must be monitored for Alarm, Supervisory/Trouble & Tamper.
- 2.2 The Fire alarm monitoring system panel must be a DSC ULC Fire alarm monitoring panel, no substitutions, proprietary equipment not accepted.
- 2.3 Alarm monitoring panel must be mounted at a height of no higher than 72" and have unobstructed access to the panel at all times.
- 2.4 All cabling shall be home run to the monitoring panel termination point and must be in conduit no exposed wiring shall be allowed; conduit runs can be combined as long as size as conduit is increased depending on how many conduit runs are combined. The use of Cat 5 or 6 cabling is prohibited as per ULC specifications.
- 2.5 A 24" X 30" approximate space is required for the alarm monitoring panels at the wiring termination point
- 2.6 No wiring may be exposed to the outside of a building unless in approved conduit, all exposed panels must be tamper proof. All conduit must run into the monitoring panel through the designates conduit knockouts.
- 2.7 A 120 VAC circuit, with an individual marked breaker must be directly wired to the panel, with either Bx or conduit. No plug-in transformers/power bars are allowed.
- 2.8 A minimum of 1 dedicated telephone line phone line shall be required at the panel termination point for communications. All telephone lines must be in conduit and must be a direct line that does not connect to PBX or phone switch, the line cannot be shared with a burglar alarm panel or other device.
- 2.9 System must meet or exceed current ULC specifications
- 2.10 Monitoring station must be ULC AA approved.

# 6 Appendices

## 6.7 Continued

### 3. ACCESS SYSTEMS SPECIFICATIONS FOR CITY OF RICHMOND BUILDINGS

- 3.1 All specified entry doors shall be controlled via a HID proximity card reader mounted outside the specified entry door or doors.
- 3.2 The Access system must be a Honeywell Webs AX System consisting of a minimum 1 controller and expansion devices as deemed necessary to complete the system. This is the only system that can be specified for the COR access system, no substitutions Allowed.
- 3.3 Each controlled door shall require the following:
  - 3.4 Door contact mounted at the top of each opening on the opening edge of each door, a hinged controlled contact is acceptable, 1 station Z 22AWG wire to each door contact.
  - 3.5 Honeywell IS310 request to exit sensor mounted at the top of each door, station Z 22AWG or Cat V to each sensor.
  - 3.6 Hid brand RP40 or similar Proximity card reader on the outside of each door controlled, at a height of the strike mechanism or no higher than 36", a minimum of 1 - 22 AWG shielded 6 conductors to each card reader in the system, no substitutions.
  - 3.7 12 or 24-volt DC electronic strikes, or similar locking hardware acceptable, no mag-locks will be approved, minimum 18AWG gauge 2 conductors to every electronic door lock in the system, wire size may increase with cable length.
  - 3.8 A 24" X 48" space is required for the access panels at the wiring termination point, this could change depending on size of building or system required.
  - 3.9 No wiring may be exposed to the outside of a building unless in approved conduit, all outer access points must be tamper proof.
  - 3.10 A 120 VAC circuit, with an individual breaker and a double gang box shall be required to allow hardwiring of transformers. Plug in transformers and or power bars are not allowed.
  - 3.11 A network drop with a specified static IP address on the City intranet network is required at the Access panel location. This connection will be supplied by the City of Richmond IT Dept.

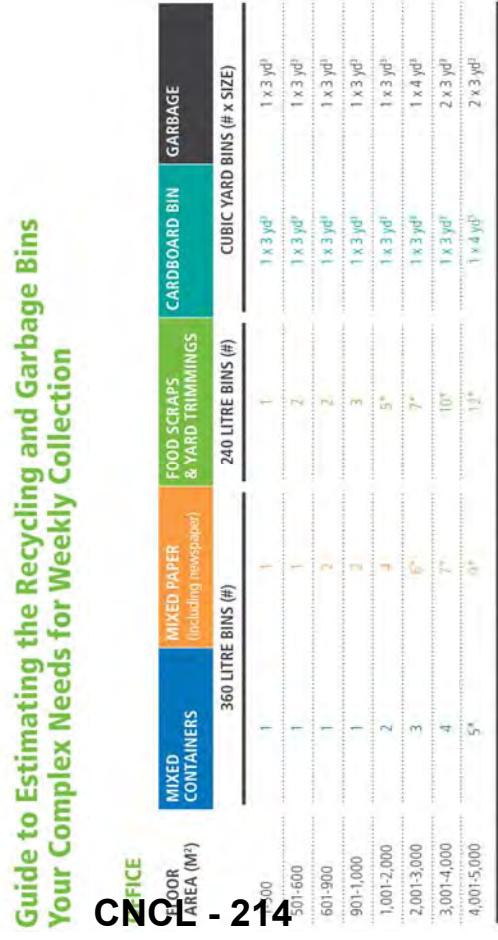
### 4. VIDEO SYSTEM SPECIFICATIONS FOR CITY OF RICHMOND BUILDINGS

- 4.1 All digital video cameras must be a Hikvision or similar, no proprietary equipment or devices allowed.
- 4.2 All analogue video cameras must be non-proprietary devices.
- 4.3 All video cameras must be designated for their appropriate application, outdoor cameras for outdoor applications, indoor cameras for indoor applications etc.
- 4.4 All recording devices must be Hikvision or Milestone, selection of equipment will be determined on scope of work and size of project, no proprietary equipment or software allowed.
- 4.5 No Cameras can view sensitive or private areas and all installations must adhere to the strict provisions of the privacy act.
- 4.6 All equipment must have factory default password removed and changed to specified password determined by City of Richmond.
- 4.7 No access to the video playback files is allowed by City Staff unless special authorization from the City of Richmond Legal Dept. and access to these files must always be locked out.
- 4.8 All video equipment installations must have the authorization by the City of Richmond Facilities dept. No installations to any City buildings is allowed without this written authorization, No exception to this rule.
- 4.9 All installations must be done by a licensed contractor, licensed in the Province of BC. for the installations and servicing of Video surveillance systems, no exceptions allowed.
- 4.10 A 120-vac. circuit must be supplied at the NVR or DVR head end location.
- 4.11 A network drop with a specified static IP address on the City intranet network is required at the Access panel location, and will be supplied by the City of Richmond IT Dept.

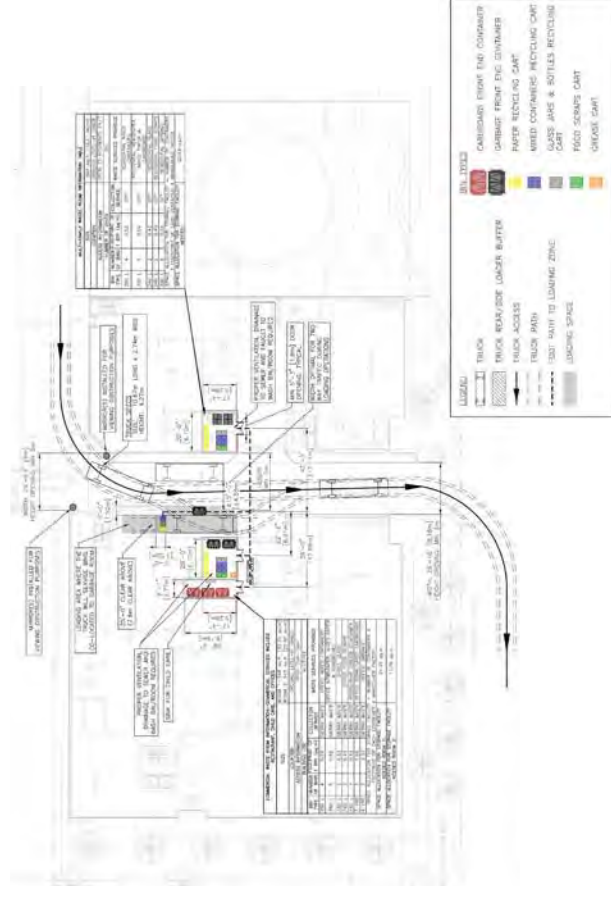
# 6 Appendices

## 6.8 City of Richmond Waste Management “Let’s Trim Our Waste” – Waste Management Design Guidelines

The Guidelines present key strategies and general advice for meeting the City's requirements for garbage and recycling management, and provides recommendations and formulas for calculating space needs for collection bins and loading areas.



- It is more space efficient to use bins at this point. Please consult with a waste services provider to discuss which containers are suitable.



# 6

## Appendices

### 6.9 City of Richmond Roof-Top Playground Design Guidelines

[August 2016]

Below are notes for the developer and consultant team for guidance in designing the outdoor play areas on slab. Note that these are intended to supplement, and should be read in conjunction with the City of Richmond Child Care Design Guideline.

- 1) Minimum Growing Medium Depths on slab:
  - a. 900mm for trees
  - b. 450mm for shrubs and perennials
  - c. 300mm for lawn

Note: Wherever possible, the slab should be dropped in order to achieve the above required minimum soil depths as a means to minimize use of retaining walls. All planters should be a minimum of 900mm width and include high efficiency irrigation. Soil loading to be reviewed by and co-ordinated with the project Structural Engineer. Inspection chambers are to be included at all slab drains located within planters. Ensure that all planters include drainage through inclusion of planter drains or block outs in planter walls located at the drainage layer below finished grade.

- 2) Growing media to meet the current BC Landscape Standard for Level 2 "Groomed" and Level 3 "Moderate" Areas. A soil analysis report is to be provided to the Landscape Consultant and City for review prior to placement on site. Soil analysis report to be performed on the proposed growing medium from samples taken at the supply source within three weeks prior to placement on site.

- 3) The top of slab should be a minimum of 250-300mm below the proposed finished grade in order to accommodate landscape build up (drainage and paving materials). The proposed exterior finished grade should match the proposed interior finished floor elevation i.e. there should not be a step up or down to the exterior spaces from the building interior.

- 4) Wherever possible, bi-level drains should be used. Sand interceptors are to be included at all drains.

- 5) Preferred resilient surfacing on slab:
  - a. Pour in Place Rubber Surfacing. Dark colours such as black, red, or dark tinted colours should not be used.
  - b. Artificial turf.
  - c. Sand is recommended for play value, but not permitted for use as a resilient surface at play or climbing structures.

Note: All resilient surfacing to meet CAN/CSA-Z614-14 guidelines. Engineered wood fibre and pea gravel are not permitted for use on slab.

- 6) Play equipment / elements to be fastened to a housekeeping slab(s) in order to protect the structural slab and membrane.
- 7) A raised edge that is 100mm minimum and 300mm maximum height is to be provided around sand play areas in order to retain the sand. The raised edge should be either rounded concrete, or logs on side or end (peeled and free of splinters), or a combination of the two. Access to the sand area for the age group that is servicing should be considered.
- 8) All exposed edges on hardscape and furnishings to be rounded or eased.
- 9) Landscape to be maintained at Level 4 "Open Space / Play" as outlined in the current version of the BC Landscape Standard.

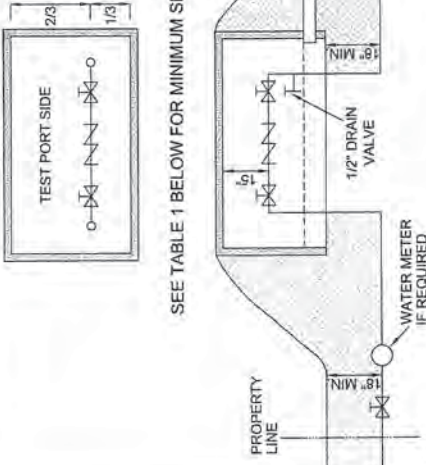


### 6.10 City of Richmond Irrigation Design Guidelines for Roof-Top and Grade Related City Owned Projects [November 2016] [10 pages]

- 1.1 The requirements for both roof top and grade related details are that the:
    - Controller to be Toro Sentinel Satellite SSK-12-XXX-6-N-S (Note that the XXX is a placeholder for wall mounted vs. pedestal Developer / Consultant to determine mounting based on project).
    - Developer / Consultant to provide irrigation shop drawings to the City for review.
  - 1.2 The following irrigation valve and sprinkler details are applicable for grade applications.
    - Above Ground Chamber for Reduced Pressure & Double Check Valve Assemblies
    - IR-B-1
    - IR-C-1
    - IR-C-3
    - IR-C-4
    - IR-S-1
    - IR-S-2
    - IR-S-3
- Only the following irrigation valve and sprinkler details are applicable in roof top applications.
- IR-C-2
  - IR-C-3
  - IR-C-4
  - IR-S-2

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### Above Ground Backflow Assembly Chamber




SEE TABLE 1 BELOW FOR MINIMUM SIZE

**The following installation practices are common to all backflow assemblies:**

1. Unless the backflow assembly has been evaluated and approved for vertical installation by an approved testing agency, it shall only be installed in a horizontal configuration.

Table 1: The minimum required size for a box installed in a berm for backflow assembly installation	
a. 3/4" - 1" assemblies:	250mm x 330mm
b. 1 1/2" - 2" assemblies:	360mm x 500mm
c. 2 1/2" - 6" assemblies:	600mm x 1500mm
d. For larger installation, submit drawings for review	

2. An approved air gap is required on an RPBA between the dump port and the daylight drain.
3. "Y" pattern backflow assemblies must not have test cocks falling downwards.
4. Sufficient drainage must be provided to prevent the assembly from being submerged.



City of Richmond  
Utility & Heavy Infrastructure Development

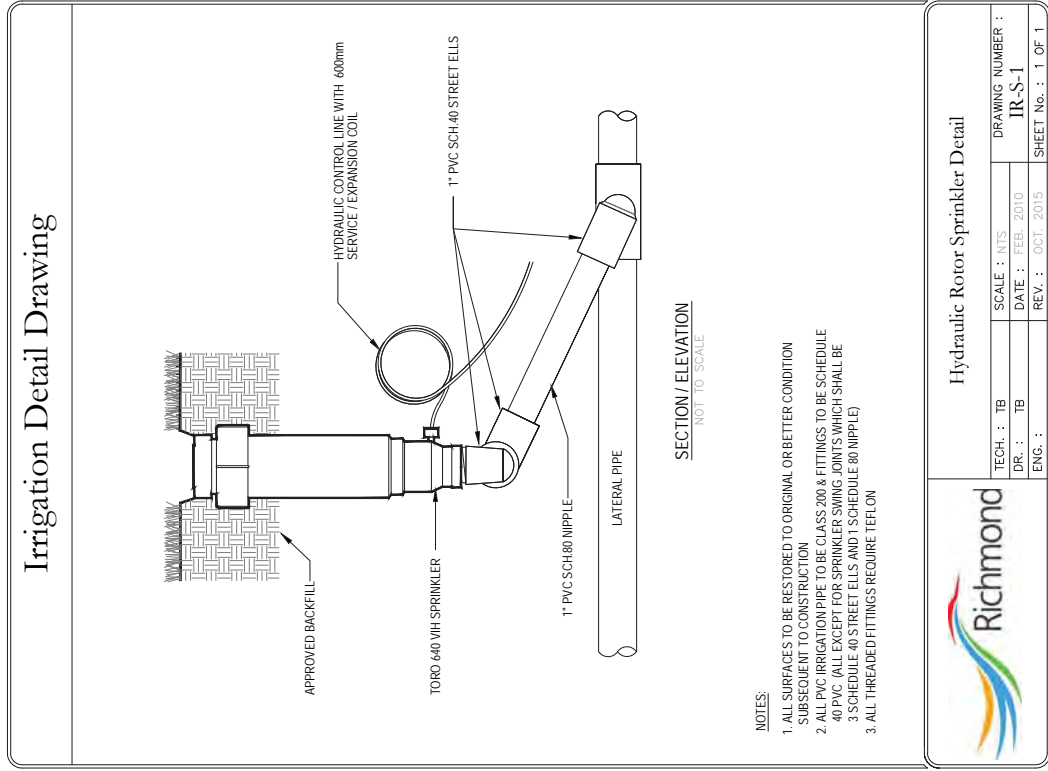
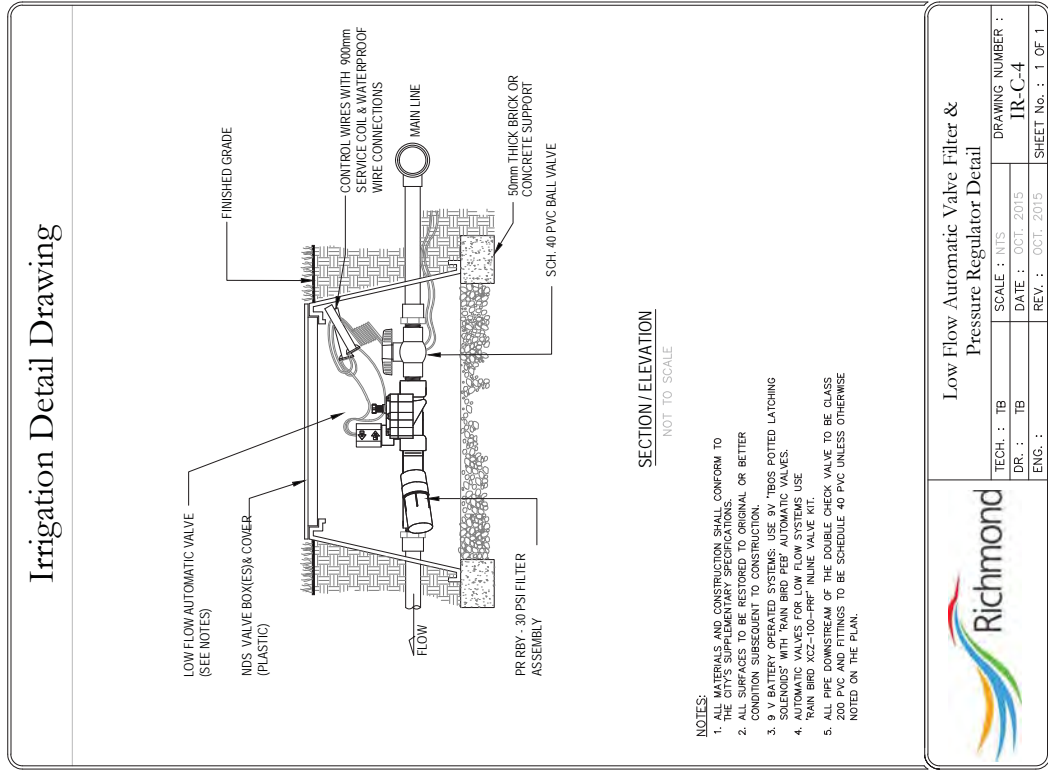
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Rev.: 2009/04/02

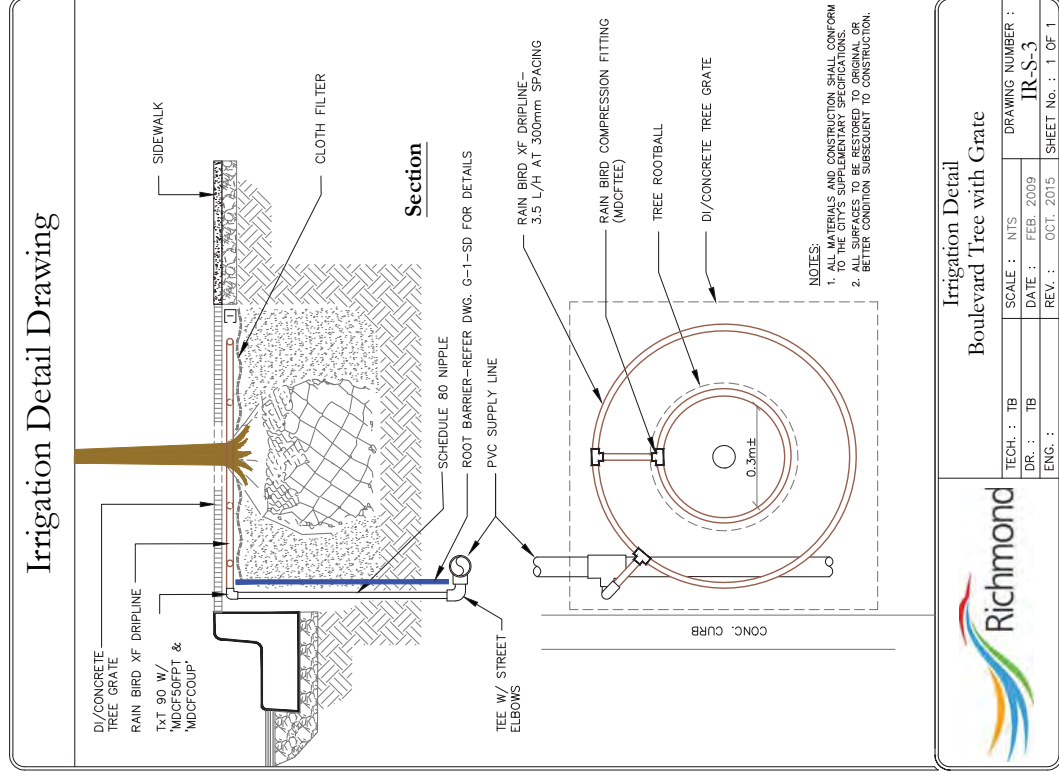
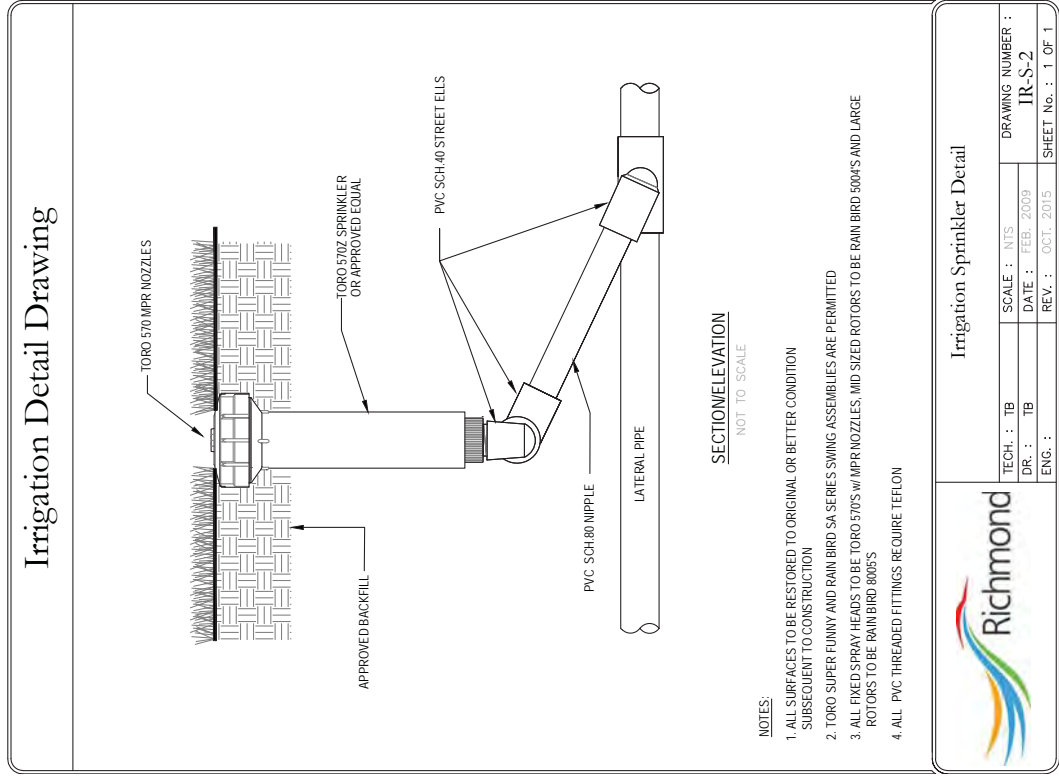




TECH. : TB	SCALE : NTS	DRAWING NUMBER : <b>IR-C-3</b>
DR. : TB	DATE : FEB. 2010	
ENG. :	REV. : OCT. 2015	

SHEET No. : 1 OF 1





# Appendices

# 6

## 6.11 City of Richmond Mechanical Systems Naming Protocol

City of Richmond Labelling Standard Example	Notes
<p>If there are 4 Air Conditioners, 2 on the first floor of a building and 2 on the second floor of a building, they will be labelled as follows:</p> <p>AC-1.001.000 AC-1.002.000 AC-2.001.000 AC-2.002.000</p> <p>If there are 4 Air Handling Units located on the roof, they will be labelled as follows:</p> <p>AHU-R.001.000 AHU-R.002.000 AHU-R.003.000 AHU-R.004.000</p>	<p>*This indicates the level the unit is on (e.g. Level 1; Level 2; Level 3; Roof; Basement)</p> <p>*This number refers to the number of units on the specific Level/Floor</p> <p>* This indicates how many times the unit has been replaced. "000" indicates that the unit is new and has not yet been replaced.</p>
System	Label
Air Compressor	ACOM
Air Conditioner	AC
Air Handler	AHU
Air Separator	AS
Alarm Detector	AD
Backflow Preventer	BP
Baseboard Heater	BBH
Boiler System	BLR
Boiler System Modulating	BLRC
Boiler System One Stage	(BLRA)
Boiler System Two Stage	(BLRB)
Boiler Tank	BT
Cabinet Unit Heater	CAB
Ceiling Fan	CF
Chilled Water System	CLR
Chiller	CH
Circulation Pump	CP
Combustion Air Supply	CAS
Compressed Air System - Controls	CMPC
Compressed Air System - Medical	CMPM
Compressed Air System - Process	CMPP
Condenser Cold Water System	DCW
Condenser Water System	CWS
Constant Air Volume	CAV
Cooling System	CLG
Cooling Tower	CT
Dehumidifier	DEH
Direct Expansion Cooling	DX
Domestic Cold Water System	DCW
Domestic Hot Water Storage Tank	DHWST
Domestic Hot Water Tank	DHW
Dry Cooler	DC
Dual Duct Air System	DD
Electric Coil	EC
Electric Duct Heater	EDH
Electric Entrance Heater	EEH
Electric Heating System	EH
Electric Meter	KWH
Electric Unit Heater	EUH
Energy Recovery Ventilator	ERV
Entrance Heater	EH
Exhaust Fan	EF
Expansion Tank	ET

Fan Coil System	FC
Fluid Cooler	
Forced Flow Convactor	FF
Forced Flow Heater	FFH
Furnace Single Zone	FUR
Generator	GEN
Geo-exchange System	GEOX
Glycol System	GLY
Heat Exchanger	HE
Heat Pump System	HP
Heat Recovery Ventilator	HRV
Heating Coils	HC
Heating Water System	HTG
Hpt Water Heating System	HW
Humidifier	HUM
Infrared Heater	IPR
Make-up Air System	MAU
Mixing System	MB
Multi-Zone Air System	MZ
Outdoor Air (Ambient) Temperature	OA
Pool Equipment	PE
Preheat System	PHT
Pressurized Fans	PFAN
Pump	P
Radiant Panel System	HRP
Radiation System	
Reheat System	
Roof Top Unit	RTU
Single Zone System	SZ
Snow Detector	SD
Solar System	SOL
Split AC	
Steam Generator	SG
Storage Tank	ST
Terminal Reheat System	TP
Temperature Predictor	
Unit Heater (Gas)	UH
Unit Heater (Infrared)	UHI
Variable Air Volume Systems	VAV
Variable Air Volume Temperature Systems	VVT
Variable Frequency Drive	VFD
Variable Exhaust System	VES
Ventilation Systems	VTL
Water Metering System	H2O
Water to Water Heater	WWH

# 6 Appendices

6.12 City of Richmond Standard Colour Palette



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Corporate Colours  
City Of Richmond

Interior Colour Palette #1		
Main Walls	OC-9 Ballet White	Ballet White OC-9
Accent Walls	HC-105 Rockport Gray	Rockport Gray HC-105
Doors & Trim	HC-164 Puritan Gray	Puritan Gray HC-164

# 6

## Appendices

### 6.12 Continued

#### Corporate Colours City Of Richmond

Interior Colour Palette #2

Main Walls	OC-52 Gray Owl	Gray Owl OC-52
Accent Walls	2140-50 Gray Horse	Gray Horse 2140-50
Doors & Trim	2140-40 Storm Cloud Gray	Storm Cloud Gray 2140-40

#### Corporate Colours City Of Richmond

Interior Colour Palette #3

Main Walls	HC-173 Edgecomb Gray	Edgecomb Gray HC-173
Accent Walls	2140-50 Gray Horse	Gray Horse 2140-50
Doors & Trim	CC-810 Hudson Bay	Hudson Bay CC-810

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# 6

## Appendices

6.12 Continued

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Corporate Colours  
City Of Richmond

Interior Colour Palette #4

Main Walls	CC-80 Gray Mist	Gray Mist CC-80
Accent Walls	AF-100 Pashmina	Pashmina AF-100
Doors & Trim	CC-810 Hudson Bay	Hudson Bay CC-810

Corporate Colours  
City Of Richmond

Interior Colour Palette #5

Main Walls	OC-12 Muslin	Muslin OC-12
Accent Walls	CC-336 Wild Mushroom	Wild Mushroom CC-336
Doors & Trim	HC-76 Davenport Tan	Davenport Tan HC-76

# 6

## Appendices

6.12 Continued

### Corporate Colours City Of Richmond

Interior Colour Palette #6		
Main Walls	OC-14 Natural Cream	Natural Cream OC-14
Accent Walls	HC-172 Revere Pewter	Revere Pewter HC-172
Doors & Trim	HC-108 Sandy Hook Gray	Sandy Hook Gray HC-108

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# 6

## Appendices

6.12 Continued

Corporate Colours  
City Of Richmond

Exterior Colour Palette #1

Main Body	HC-83 Grant Beige	Grant Beige HC-83
Accent 1	HC-107 Gettysburg Gray	Gettysburg Gray HC-107
Accent 2	HC-155 Newburyport Blue	Newburyport Blue HC-155

Corporate Colours  
City Of Richmond

Exterior Colour Palette #2

Main Body	AF-680 Wish	Wish AF-680
Accent 1	CC-546 Metropolis	Metropolis CC-546
Accent 2	HC-155 Newburyport Blue	Newburyport Blue HC-155

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# 6 Appendices

## 6.12 Continued

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Corporate Colours  
City Of Richmond

Exterior Colour Palette #3

Main Body	AF-100 Pashmina	<b>Pashmina</b> AF-100
Accent 1	2135-30 Nocturnal Gray	<b>Nocturnal Gray</b> 2135-30
Accent 2	2134-20 Midsummer Night	<b>Midsummer Night</b> 2134-20

Corporate Colours  
City Of Richmond

Exterior Colour Palette #4

Main Body	CC-90 Natural Linen	<b>Natural Linen</b> CC-90
Accent 1	AF-155 Weimarner	<b>Weimarner</b> AF-155
Accent 2	2112-10 Mink HC-155 Newburyport Blue	<b>Mink</b> 2112-10
		<b>Newburyport Blue</b> HC-155

# 6

## Appendices

6.12 Continued

### Corporate Colours City Of Richmond

Exterior Colour Palette #5

Main Body	HC-108 Sandy Hook Gray	<b>Sandy Hook Gray</b> HC-108
Accent 1	OC-14 Natural Cream	<b>Natural Cream</b> OC-14
Accent 2	HC-100 Gloucester Sage	<b>Gloucester Sage</b> HC-100

### Corporate Colours City Of Richmond

Exterior Colour Palette #6

Main Body	CC-500 Ranchwood	<b>Ranchwood</b> CC-500
Accent 1	138 Mack Green Rust Scat	<b>Mack Green</b> 138
Accent 2	CC-90 Natural Linen	<b>Natural Linen</b> CC-90

CNCL - 228



City of Richmond

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[www.richmond.ca](http://www.richmond.ca)





# City of Richmond

## Report to Committee

**To:** General Purposes Committee

**Date:** January 9, 2019

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

**File:** 06-2050-01/2018-Vol 01

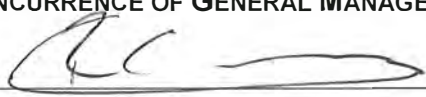


**Re:** **City Buildings – Building Facilities Design Guidelines and Technical Specifications**

### Staff Recommendation

That the proposed “City of Richmond Building Facilities Design Guidelines and Technical Specifications” presented as Attachment 1 of this report, and as described in the report dated January 9, 2019, from the Director, Engineering be endorsed and used in planning for future corporate facilities.

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

Att. 1

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

## **Staff Report**

### **Origin**

This report proposes to provide the “City of Richmond Building Facility Design Guidelines and Technical Specifications” to City staff, stakeholders, and the general public, presented as Attachment 1.

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

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

This report supports Council’s 2014-2018 Term Goal #2 A Vibrant, Active and Connected City:

*Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond’s demographics, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.*

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

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

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.*

In parallel with the Council adopted Child Care Guidelines, Affordable Housing Guidelines and Enhanced Accessibility Design Guidelines, the Building Facilities Guidelines will assist City staff in providing Contractors, Consultants, Developers and the Public with a better understanding of what City expectations are for the design and construction of City-owned or City-leased buildings.

The proposed Guidelines will be used for future City building projects and renovation of existing City buildings. The preparation of the guidelines was coordinated by the Capital Building Project Development department in consultation with various other City departments.

### **Analysis**

#### **Consultation on Guidelines**

The proposed “City of Richmond Building Facilities Design Guidelines and Technical Specifications” were developed to assist the design of new building construction and tenant improvements to existing buildings.

The architectural design, form and character of any given project is not addressed in these Guidelines. The Guidelines address the layer of technical detail that exists below these more recognizable elements.

During the process of developing the guidelines and technical specifications, a number of internal stakeholder meetings were held to solicit input for the consultant's initial and final drafts. An internal Stakeholder Committee was created to lead and endorse the process and was comprised of City staff from the following departments:

- Building Approvals;
- Planning and Development;
- Facility Services;
- Sustainability;
- Public Works Administration;
- Community Services; and
- Transportation

### **Benefits**

The proposed “City of Richmond Building Facilities Design Guidelines and Technical Specifications” will help reduce staff time spent guiding developers, contractors and consultants about what to consider when building new facilities or renovating the existing buildings. The document provides a reference tool that can be used to assist with preparing design elements that are expected by the City and offers direction about how to incorporate these features.

The proposed document supports the City's goals to design and build sustainable buildings and reduce environmental impacts by including features and performance requirements that are leading edge and encourage innovative designs. By referencing the City's High Performance Building Policy, green building techniques and innovative building materials would be incorporated into the design of buildings which would help reduce GHG emissions, create greater efficiencies within buildings, and make them sustainable. As a result, the proposed guidelines would improve building operational efficiencies, reduce the City's total carbon footprint, and increase building resiliency. This would also ensure the City remains a leading municipal government in sustainability and environmental design.

### **Implementation**

Once approved, the “City of Richmond Building Facilities Design Guidelines and Technical Specifications” document will be referenced by City staff to guide the design of all City facilities. The guidelines will be posted on the City's web site, available to developers contemplating making a community amenity contribution as part of a rezoning application.

### **Next Steps**

As a reference document for consultants and contractors, the Guidelines will be distributed to industry and provided through the planning and procurement process. It is expected that the guidelines will need to be revised from time to time based on potential changes to the BC Building Code, sustainable building practices and lessons learned from the various facility

projects. Staff will continue to collect this information and engage external stakeholders in further enhancement of the guidelines which will be brought forward to Council in future revisions as required.

### **Financial Impact**

None.

### **Conclusion**

Staff recommend that the proposed “City of Richmond Building Facilities Design Guidelines and Technical Specifications”, be approved and used for future City facilities either constructed or renovated by the City as capital projects or by developers as community amenity contributions.



Martin Younis, B.Eng., M.Eng.  
Senior Project Manager  
(604-204-8501)  
JK-jk

Att. 1: Building Facilities Design Guidelines and Technical Specifications (September 2018)



# City of Richmond

## Report to Committee

**To:** General Purposes Committee  
**From:** Kim Somerville  
Manager, Community Social Development  
**Re:** BC Poverty Reduction Coalition's "ABC" Plan

**Date:** December 11, 2018  
**File:** 07-3000-01/2018-  
Vol 01

### Staff Recommendation

1. That the BC Poverty Reduction Coalition's proposed Municipal Resolution, "Call for the ABC Plan for an Accountable, Bold and Comprehensive poverty reduction plan for British Columbia", be endorsed and
2. That the resolution be sent to the Premier, the Minister of Social Development and Poverty Reduction and Richmond Members of the Legislative Assembly.

Kim Somerville  
Manager, Community Social Development  
(604-247-4671)

Att. 6

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

## **Staff Report**

### **Origin**

At the December 10, 2018 Regular Council Meeting, the Richmond Poverty Response Committee delegated to Council about a non-agenda item, the BC Poverty Reduction Coalition's proposed resolution regarding the forthcoming provincial Poverty Reduction Strategy. It was moved:

*That staff provide analysis on BC Poverty Reduction Coalition's ABC Plan regarding poverty reduction in BC and report back to a future General Purposes Committee Meeting.*

This report supports Council's 2014-2018 Term Goals:

#2 A Vibrant, Active and Connected City:

*2.2. Effective social service networks.*

#5 Partnerships and Collaboration:

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

This report also supports the following Social Development Strategy Action:

*Action 5 - Acknowledging that income data from Statistics Canada and other sources alone do not present a complete or fully reliable picture of poverty in Richmond, work with community-based organizations, senior governments and other partners to initiate a culturally-sensitive process to:*

*5.2 Support initiatives to help individuals and families move out of poverty, specifying the roles that the City and other partners and jurisdictions can play in pursuing viable solutions (e.g. job readiness programs, affordable housing measures).*

### **Findings of Fact**

The Richmond Poverty Response Committee provided three documents for consideration at the December 10, 2018 regular Council Meeting. These documents were all prepared by the BC Poverty Reduction Coalition, of which the Richmond Poverty Response Committee is a member:

- A proposed municipal resolution, "Call for the ABC Plan for an Accountable, Bold and Comprehensive poverty reduction plan for British Columbia" (Attachment 1);
- An explanation of the ABC Plan, "An Effective Poverty Reduction Plan: It's as simple as ABC" (Attachment 2); and



- A booklet outlining proposed roles for municipalities in addressing poverty, “What Municipalities Can and Can’t Do to Prevent and Reduce Poverty in our Communities” (Attachment 3).

On October 2, 2018, the Province announced the introduction of legislation to guide the development of BC’s first Poverty Reduction Strategy, Bill 39 – *2018 Poverty Reduction Strategy Act*. A staff memorandum dated October 2, 2018, “BC Poverty Reduction Strategy Act”, provided Council with background information about the Act on which the provincial Strategy will be based (Attachment 4). As indicated in the memorandum, noteworthy aspects of the legislation include:

- The use of Statistics Canada’s Market Basket Measure to measure poverty rates;
- A commitment to reduce BC’s overall poverty rate by 25 per cent and child poverty rate by 50 per cent in the next five years;
- The establishment of an independent advisory committee, including those with lived experience, to advise the Province regarding poverty reduction and prevention;
- An annual report identifying actions, impact and progress toward targets;
- Topics to address will include, but not be limited to housing; families, children and youth; education; employment; income supports; and social supports; and
- Thirteen populations will be considered, including youth, seniors, those with disabilities, immigrants and refugees, LGBTQ2S+, those with mental illness or addiction, and others.

The BC Poverty Reduction Strategy is anticipated to be released in February 2019. The BC Poverty Reduction Coalition is requesting advocacy to the Province at the earliest possible date to help ensure that the Strategy will be comprised of the strongest possible actions to reduce poverty.

#### Previous City Actions

On May 24, 2016, Council received a delegation from the Richmond Poverty Response Committee and the BC Poverty Reduction Coalition requesting that Council endorse the Coalition’s open letter on poverty reduction and forward the resolution to the Union of BC Municipalities (UBCM) requesting the development of a provincial poverty reduction plan, including concrete target and timelines. The resulting resolution was sent to the Province as well as the UBCM (Attachment 5). A similar resolution was passed at the September 2016 meeting, as endorsed by Council and other municipalities.

On February 27, 2017, Council considered a report from the Richmond Community Services Advisory Committee (RCSAC), “Municipal Responses to Child and Youth Poverty” and resolved to forward the report to the Premier, Leader of the Opposition, Richmond Members of Parliament, Richmond Members of the Legislative Assembly and Richmond Members of the Legislative Assembly candidates” (Attachment 6). The resulting letter to the Province includes a request to consider preparing a BC Poverty Reduction Plan.

## **Analysis**

Now that a provincial poverty reduction strategy is imminent, the BC Poverty Reduction Coalition (BCPRC) is urging municipalities to forward a resolution to the Province emphasizing the importance of making the forthcoming plan “Accountable, Bold and Comprehensive” (Attachment 1). The BCPRC’s explanation of these criteria is found in Attachment 2, “An Effective Poverty Reduction Plan: It’s as simple as ABC”. A summary of the three components are as follows:

### Accountable

The Poverty Reduction Strategy Act indicates that the province must reduce the poverty rate by at least 25 per cent and for those under 18 years of age by at least 50 per cent. The BCPRC proposes targets exceeding these minimum limits, include

- reducing the rate by 30 per cent within four years, and 75 per cent within 10 years,
- ensuring that particularly marginalized groups are included in these reductions,
- within two years, ensuring that all incomes are at least 75 per cent of the poverty line, and
- within two years, ensuring that no one has to sleep outside and ensuring that all homelessness is ended within eight years.

### Bold

The BCPRC is proposing that:

- the province increase income supports, including raising welfare and disability rates to 75 per cent of the poverty line immediately (for others, a two-year time frame is requested as indicated above) and to 100 per cent in two years, and
- rent control be tied to the unit (not the tenant) and build and protect affordable social and rental housing.

### Comprehensive

The BCPRC identifies seven policy areas for the province to address. Highlights include:

- Income Assistance: Increase rates and earnings exemptions while removing unnecessary reductions and barriers (no rates other than the above are mentioned),
- Employment: Increase the minimum wage to \$15 an hour for no exemptions and indexed to the cost of living; enhance and restore the coverage and enforcement of employment standards,
- Equity: Better address the needs of indigenous people, provide access to income assistance regardless of citizenship status, and provide free transit for children 0-18 years and a low-income pass for adults,

- Housing: Build 10,000 new social and co-op housing units per year and introduce stronger tenant protections, including unit rent controls, limits on annual rent increases and enforcement of the Residential Tenancy Act,
- Child Care: Improve early childhood educators wages, increase the number of licensed spaces and prioritize expanding the fee reduction program,
- Education and Training: Reduce tuition fees by 50 per cent and increase the availability of grants for low-income students; allow welfare recipients to attend post-secondary education and get apprenticeships; adequately fund K-12 education to mitigate inequalities,
- Health and Food Security: Expand community mental health and homes supports services and expand essential health services to include dental and optical care.

To date, the Cities of New Westminster and Vancouver have passed the proposed BCPRC resolution and anticipate that Port Moody, Powell River and Nanaimo will be reviewing it in the near future.

### Richmond Context

For Metro Vancouver, including Richmond, the Market Basket Measure for poverty has been set at an income of approximately \$40,000 per year for a family of four and for an individual, at approximately \$20,000 per year. It is estimated that 21.5 per cent of Richmond residents live below the Market Basket Measure threshold. This amount is considerably less than that determined to be a 2018 Living Wage by the Canadian Centre for Policy Alternatives, estimated as approximately \$76,112 for a family of four in Metro Vancouver. The Living Wage incorporates additional expenses above and beyond those in the Market Basket measure, including the cost of child care, fees for two college courses and a minimal recreation budget.

Given the profound challenges faced by Richmond residents and others throughout the Province struggling to make ends meet with incomes at or below the poverty line, it is hoped that the Provincial strategy will provide significant opportunities to improve the quality of life for low-income Richmond individuals and families. While the BCPRC resolution will present significant challenges for the Province to meet, given the ambitious targets and timelines, staff recommend its endorsement as strong measures are required to reverse harmful trends such as the increasing gap between the rich and poor and the commensurate depth of poverty experienced by the most vulnerable.

### **Financial Impact**

There is no financial impact.

### **Conclusion**

Staff recommends the endorsement of the BCPRCs proposed resolution as significant steps must be taken to improve the circumstances of those living on the edge of or below a sufficient income to maintain health, dignity and the ability to participate in and contribute to society. Staff

also recommends that the resolution be conveyed by letter to the Premier, Minister of Social Development and Poverty Reduction and Richmond Members of the Legislative Assembly.

Once the BC Poverty Reduction Strategy is released in February 2019, staff will advise Council of its directions, actions and timeframes, with particular attention paid to proposed municipal roles.

A handwritten signature in black ink, appearing to read 'LSherlock'.

Lesley Sherlock  
Planner 2  
(604-276-4220)

- Att. 1: Municipal resolution: Call for the ABC Plan
- 2: An Effective Poverty Reduction Plan
  - 3: What Municipalities Can and Can't Do To Prevent and Reduce Poverty
  - 4: Memorandum: BC Poverty Reduction Strategy Act
  - 5: Letter Re: BC Poverty Reduction Coalition
  - 6: Letter Re: Richmond Community Services Advisory Committee Report

**Municipal resolution: Call for the ABC Plan for an Accountable, Bold and Comprehensive poverty reduction plan for BritishColumbia**

**WHEREAS:**

1. The poverty rate in British Columbia continues to be among the highest in Canada at approximately 1 in 8 using Canada's official poverty line (Market Basket Measure), and child poverty rates in BC are still 1 in 5;
2. Many impacts of poverty are experienced at the local level, and local residents pay for poverty in increased health care costs, higher crime, higher demand for community, social and charitable services, lack of school readiness, reduced school success, and lower economic productivity;
3. 4 people are dying every day in BC due to the opioid epidemic that the Provincial Health Officer of BC has declared a Public Health Emergency. Many more are sick from poverty with cancer, heart disease, diabetes, depression or other health issue; and the health of everyone is worse from living in such an unequal society;
4. A poverty reduction plan will save lives and money as it is a social and economic investment in our province;
5. There was unanimous support from all three provincial parties for legislated targets and timelines to reduce poverty in Bill 39: Poverty Reduction Strategy Act when it was passed on November 5, 2018;
6. BC is the last province in Canada to have a poverty reduction plan and is now developing a plan to be launched in March 2019;
7. The BC Poverty Reduction Coalition (the "Coalition") is a broad-based network of over 400 organizations including community and non-profit groups, faith groups, health organizations, indigenous organizations, businesses, labour organizations, and social policy groups;
8. The Coalition has renewed its call for a strong poverty reduction plan for BC by launching the ABC Plan, which outlines an accountable, bold and comprehensive poverty reduction plan to prevent and reduce poverty in BC.

**THEREFORE BE IT RESOLVED:**

THAT this council support the Coalition's ABC Plan for an accountable, bold and comprehensive poverty reduction plan for BC; and

**BE IT FURTHER RESOLVED:**

THAT this council advocate to the provincial government to develop and implement a provincial poverty reduction strategy that includes the measures within the ABC Plan before February 2019, with the commitment that this council will work with the provincial government in implementing this plan.

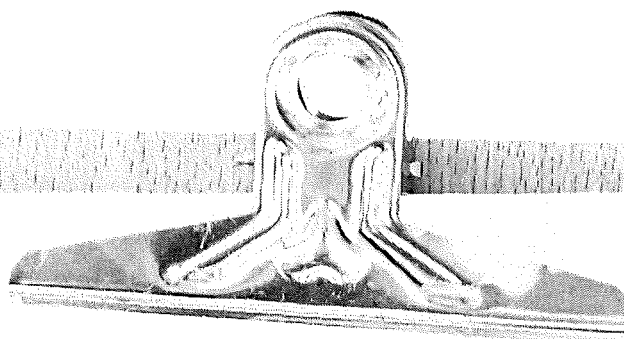
**For more information:**

Contact: Trish Garner, Community Organizer, BC Poverty Reduction Coalition

Email: [trish@bcpovertyreduction.ca](mailto:trish@bcpovertyreduction.ca)

Phone: 604-877-4553

Website: [bcpovertyreduction.ca](http://bcpovertyreduction.ca) / [ABCplan.ca](http://ABCplan.ca)



## **An Effective Poverty Reduction Plan: It's as simple as ABC**

First Steps for an Accountable, Bold and Comprehensive Poverty Reduction Plan for BC

Over half a million British Columbians live in poverty; from youth aging out of care to sleeping on the streets to seniors struggling to buy food; from low-wage workers having to commute hours every day to people on income assistance trying to survive day by day; from newcomers to indigenous people who we welcome and acknowledge with words but not with enough financial support; from the homeless to those living one paycheque away from joining them; and from people with disabilities facing a lifetime of poverty to families trying to give their children the lives they never had.

### **In a wealthy province like BC, we can do better.**

And the good news is that British Columbians want to do better. The majority of voters in BC's 2017 provincial election voted for bold action on poverty; and with all three major political parties now publicly committed to a poverty reduction plan, British Columbians can finally look forward to action to tackle poverty and the increasing levels of homelessness and inequality that we see in our communities.

This is a crisis that requires urgent action. 4 people are dying every day in BC due to the opioid epidemic that the Provincial Health Officer of BC has declared a Public Health Emergency. Many more are sick from poverty with cancer, heart disease, diabetes, depression or other health issue; and the health of all of us is worse from living in such an unequal society.

### **A poverty reduction plan will save lives.**

It will also save money. It's an economic investment in our province. Initial funding should be provided by restoring tax fairness. Then, over the long term, a poverty reduction plan that puts in place strong, preventative measures to tackle both the depth and breadth of poverty costs far less than the cost of poverty, at \$8 to 9 billion per year for health and criminal justice costs, as well as lost tax revenue. Let's stop mopping the floor and fix the roof.

### **An Accountable, Bold and Comprehensive poverty reduction plan for BC is the solution to save lives and promote equality.**

So far, the government has undertaken a poverty reduction consultation from October 2017 to March 2018. They visited communities throughout the province and heard consistent themes about the issues and the necessary solutions. They now plan to table legislation in the fall and launch the full plan in February 2019.

Now British Columbians expect action with an accountable, bold and comprehensive poverty reduction plan that reflects those themes. A plan needs to tackle immediate affordability challenges but, more importantly, go upstream to enhance our universal basic services to prevent these challenges in the first place and ensure healthy people and healthy communities throughout our province.



The over-arching vision and first steps matter in leading in the right direction.

That is why the BC Poverty Reduction Coalition with over 400 supporting organizations recommend the following first steps for the government's legislation and plan:

## ☒ **A is for Accountable.**

Embed strong accountability measures

- ◆ **Ensure long-term sustainability through legislated targets, timelines and accountability measures:**
  - ◆ Reduce BC's poverty rate by 30% within four years, and by 75% within 10 years.
  - ◆ Recognize that poverty is concentrated in particular marginalized groups and ensure concurrent declines in the poverty rates for these groups by 30% in four years, and by 75% in ten years.
  - ◆ Within two years, ensure that every British Columbian has an income that reaches at least 75% of the poverty line.
  - ◆ Within two years, ensure no one has to sleep outside, and end all homelessness within eight years (ensuring all homeless people have good quality, appropriate housing).
  - ◆ Commit to United Nations Sustainable Development Goal #1: "End poverty in all its forms everywhere" by 2030.
  - ◆ Create an independent, funded Office/Advocate to monitor the plan's implementation.
- ◆ **Make sure all Ministries are working together, including:**
  - ◆ Legislate a Poverty/Equity Lens at Treasury Board to ensure no Ministry can make decisions that will hurt people in poverty.
  - ◆ The Minister of Social Development and Poverty Reduction should present mandatory annual reports (including reports from all relevant Ministries) to the Legislature and to the public about actions taken, outcomes and advocacy to other levels of government.
- ◆ **Embed strong fundamental principles in the legislation and plan:**
  - ◆ Respect the human rights of people living in poverty.
  - ◆ Upstream approach focusing on the social determinants of health.
  - ◆ Poverty reduction as a social and economic investment for our province.

## ☒ **B is for Bold.**

Take bold, immediate action

- ◆ **Increase income supports, including raising welfare and disability rates to 75% of the poverty line (Market Basket Measure) immediately and to 100% of the MBM in 2 years.**

*The first step would cost \$365 million while lifting everyone on income assistance to the poverty line would cost \$1.16 billion, only 2% of the provincial budget*
- ◆ **Tie rent control to the unit (not the tenant), and build and protect affordable social and rental housing.**

*Affordable is defined as 30% of income. An appropriate percentage of the housing to be built should be at welfare shelter rates and another set target should be tied to the senior shelter level.*

## ✓ **C is for Comprehensive.**

Develop a comprehensive poverty reduction plan with short, medium and long-term actions in 7 policy areas:

- ◆ **Income assistance:** Provide adequate and accessible income support for the non-employed.
  - ◆ Increase and index income and disability assistance.
  - ◆ Increase earnings exemptions, and remove clawbacks and arbitrary barriers that discourage, delay and deny people in need.
- ◆ **Employment:** Improve the earnings & working conditions of those in the low-wage workforce.
  - ◆ Increase the minimum wage to \$15 an hour for all workers with no exemptions and index it to the cost of living.
  - ◆ Enhance and restore the coverage and enforcement of employment standards.
- ◆ **Equity:** Address the needs of those most likely to be living in poverty, including:
  - ◆ Restructure federal and provincial funding to better address the needs of all Indigenous people, including the large off-reserve population.
  - ◆ Guarantee access to income assistance for all regardless of citizenship status.
  - ◆ Provide free transit for children 0-18 years of age and a low-income transit pass for adults.
- ◆ **Housing:** End homelessness and adopt a comprehensive affordable housing and supportive housing plan.
  - ◆ Build 10,000 new social & co-op housing units per year that low income people can afford.
  - ◆ Introduce stronger tenant protections, including rent control on the unit (not the tenant), tighter limits on annual rent increases, adequately enforcing the Residential Tenancy Act (RTA) and the Manufactured Home Park Tenancy Act, and extending tenant rights to include all non-profit social housing currently exempt from the RTA.
- ◆ **Child care:** Provide universal, high quality, publicly-funded child care.
  - ◆ Improve the wages of early childhood educators.
  - ◆ Continue to increase the number of licensed spaces.
  - ◆ Prioritize expanding the fee reduction program so that the affordable child care benefit can be reduced over time, and ensure that low income families have access to free, high quality child care.
- ◆ **Education and training:** Enhance support for training and education for low-income people.
  - ◆ Reduce tuition fees by 50% and increase the availability of post-secondary grants for low-income students; allow welfare recipients to attend post-secondary education and get apprenticeships.
  - ◆ Adequately fund K-12 education to mitigate inequalities and to ensure adequate library staff and resources, and special needs assessment and support
- ◆ **Health and food security:** Enhance community mental health and home support services, and expand integrated approaches to prevention and health promotion services.
  - ◆ Expand essential health services in the public system, such as dental and optical care and community mental health services.

More information and take action at [ABCplan.ca](http://ABCplan.ca)

For more information, visit:

**ABCplan.ca**

The **BC Poverty Reduction Coalition** is a coalition that includes community and non-profit groups, faith groups, health organizations, indigenous organizations, immigrant service agencies, businesses, labour organizations, and social policy groups. We have come together around a campaign aimed at seeing the introduction of a bold and comprehensive poverty reduction plan from the government of British Columbia that would include legislated targets and timelines to significantly reduce poverty, inequality and homelessness. We have over **80 Coalition Members** and over **400 supporting organizations** that have joined the call for a poverty reduction plan.

**Vancity**



vancouver  
foundation

**Vancity**  
Community Foundation

## What Municipalities *Can* and *Can't* Do To Prevent and Reduce Poverty in our Communities

You're seeing increasing levels of homelessness in your community and you are turning to your local government to take action. However, solving the challenges of poverty requires all three levels of government working in collaboration. Municipal councils cannot address these pressing social issues alone and yet they face them daily as they show up at the local level within our communities. This is why it is so important to align municipal commitments with provincial and federal strategies.

Government budgets show the scale of responsibility and investment each level of government should be taking:

- Municipal: \$1.8 billion<sup>1</sup>
- Provincial: \$50 billion
- Federal: \$340 billion

Local governments can play an important role in poverty reduction but much of that role must include strong advocacy to senior levels of government to impact their priorities and necessary investments.

**Now is an especially critical time to advocate to the provincial government because they are developing a poverty reduction plan for BC for the first time!**

Before the plan is launched in February 2019, municipal governments can join the call for the ABC Plan, which highlights that an effective poverty reduction plan must be Accountable, Bold and Comprehensive.

We've developed this resource to share what Local Governments and School Boards can do to combat poverty in our communities; and what they can't do. You can use this to hold your newly elected officials accountable to bold action *and* advocacy after they have been elected.

*The BC Poverty Reduction Coalition (BCPRC) is an alliance of over 400 organizations throughout the province that have come together in the call for the provincial government to implement a strong poverty reduction strategy with legislated targets and timelines to significantly reduce poverty, inequality, and homelessness in BC. Our work is grounded in the foundation of universal human rights. We advocate for an accountable, bold and comprehensive plan that will take action in seven policy areas: income assistance, employment, housing, child care, education, health, and equity.*

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<sup>1</sup> maximum, using Vancouver as example

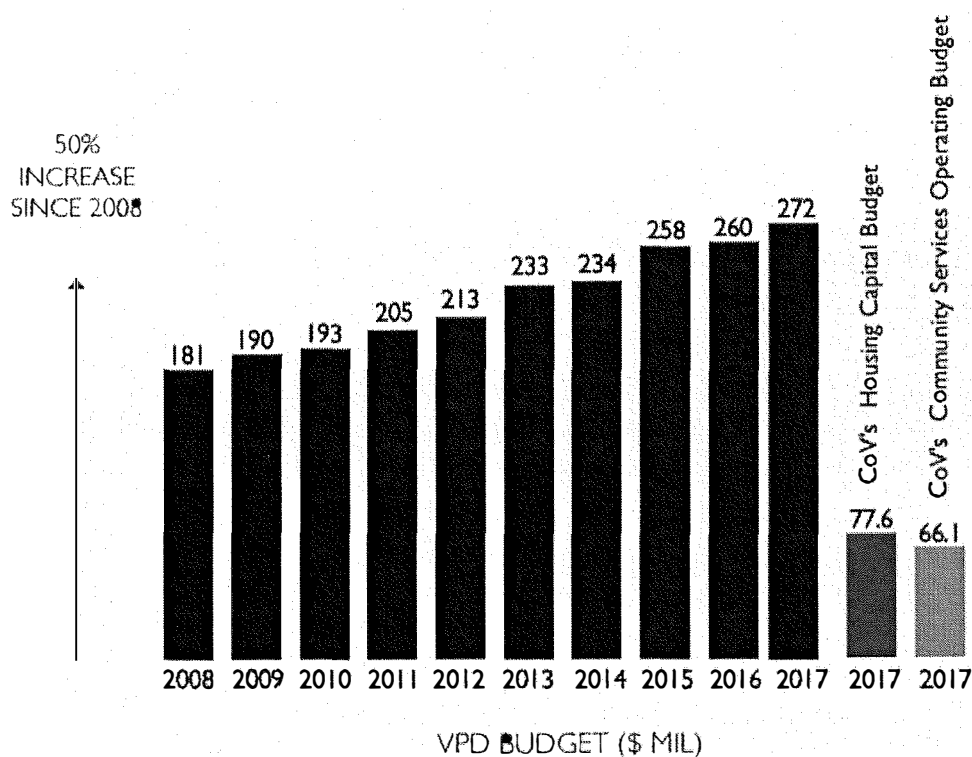
## Human Rights

### **Municipalities are primarily responsible for the criminalization of poverty.**

Many local governments across British Columbia have bylaws and local law enforcement practices that violate the human rights of people living in poverty. They have the potential to criminalize people who live in public space, increase stigma and restrict the delivery of harm reduction programs, emergency shelter, and other services for marginalized people. Local governments should listen to people living in poverty and address the ways that their bylaws infringe on their human rights and increase stigma and discrimination.

**We recommend that municipal governments stop criminalizing poverty by revoking laws that penalize or discriminate against people for engaging in behavior necessary for survival because of homelessness and poverty, such as sleeping and erecting shelter in public spaces.**

The best way to see government priorities is not by what politicians are saying but what they are spending our money on. That's exactly what the Carnegie Community Action Project did in their analysis of the Vancouver Police Department funding within the City of Vancouver's budget.<sup>2</sup> Here you can see the dramatic increase of almost \$100 million over 10 years, and the comparison to the City's housing investment and community services budget, which is far below public spending on the police.



<sup>2</sup> Carnegie Community Action Project, *No Pill For This Ill: Our Community Vision of Mental Health*, <http://www.carnegieaction.org/wp-content/uploads/2018/04/MH-REPORT-FINAL-1.compressed.pdf>

In addition to stopping the criminalization of poverty, municipal governments have an important role to play in combating discrimination against people in poverty. In particular, improperly managed public municipal consultations have become a forum for inappropriate language, harassment and the silencing of marginalized people. Having monitored and learned of countless attacks at public hearings against people with addictions and other disabilities, and people experiencing homelessness, Pivot Legal Society argues that “it is incumbent on municipalities to ensure that all people feel safe and welcome at public hearings on issues that matter to them and they have duties to protect people from discriminatory statements and ensure hearings do not become forums for abuse.”

Municipal planners and human rights advocates have developed special procedures for how councils should carry out public consultations concerning new affordable housing projects including:

- Layout clear ground rules.
- State that the only issues open for discussion are legitimate land use issues such as location, size, setback and parking requirements.
- Advise attendees that the meeting will not be a forum to make negative comments about the people who will be living there.
- Be clear that they will actively interrupt and object to discriminatory language or prejudicial comments.

**We recommend local governments take these proactive measures to ensure that everyone is treated with respect.**

Read more:

*Pivot Legal Society submission on Human Rights in Canada*

[https://d3n8a8pro7vhmx.cloudfront.net/pivotlegal/pages/1850/attachments/original/1455843171/UN\\_submission.pdf?1455843171](https://d3n8a8pro7vhmx.cloudfront.net/pivotlegal/pages/1850/attachments/original/1455843171/UN_submission.pdf?1455843171)

*“Community outcry should not block health and safety measures for people who are homeless” Pivot Legal Society Blogpost*

[http://www.pivotlegal.org/community\\_outcry\\_should\\_not\\_block\\_health\\_and\\_safety\\_measures\\_for\\_people\\_who\\_are\\_homeless](http://www.pivotlegal.org/community_outcry_should_not_block_health_and_safety_measures_for_people_who_are_homeless)

*“In the zone: Housing, Human Rights and Municipal Planning” Ontario Human Rights Commission*

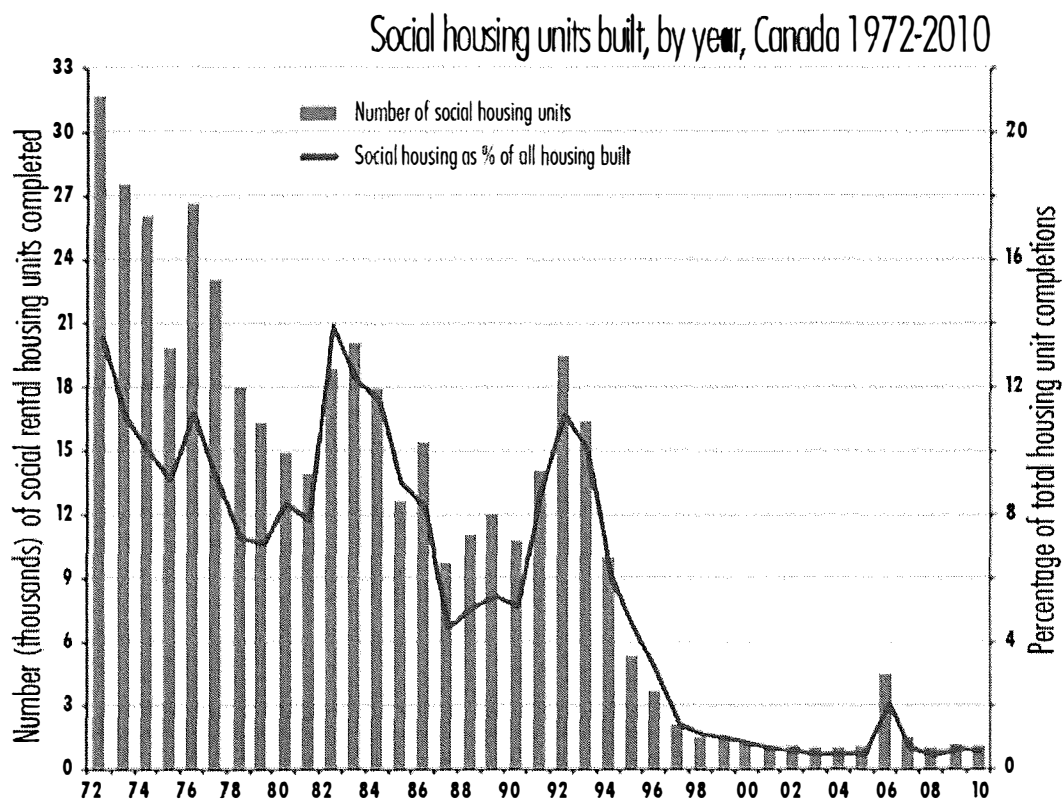
<http://www.ontla.on.ca/library/repository/mon/26002/315300.pdf>

## Housing

BC has a housing crisis throughout the province with thousands of homeless and people facing housing insecurity struggling to survive in our communities, spending a huge share of their income on rent and/or living in sub-standard, over-crowded housing. According to the BC Non-Profit Housing Association, 45% of renters in BC are living in housing insecurity, spending more than 30 per cent of their income on rent; and 1 in 5 renters are spending more than half their income on rent leaving them with little left over to support themselves and their families.

Much of the focus is on municipal governments at the moment as we are seeing increasing levels of visible homelessness within our communities and we look to our closest level of government for action. However, the root causes of homelessness and the responsibility primarily lies with senior levels of government, which have not invested the resources they have over the last decades. The graph below shows the dramatic decline in federal housing investment since the 1970s.<sup>3</sup>

This level of federal funding in partnership with provincial funding provided between 1500-2000 new housing units per year in BC, and the number of homeless people was much lower.



<sup>3</sup> Calculate by Walks, Alan from CMHC Canadian Housing Observer, various years; Figure 2 in Walks, Alan and Clifford, B. (2015), "The Political Economy of Mortgage Securitization and the Neoliberalization of Housing Policy in Canada," Environment and Planning A. 47(8): 1624-1642



**Local governments can still play an important role in building and protecting affordable housing through partnerships with local non-profits, co-operatives, and, in particular, other levels of government, which have the necessary resources.** Municipal contributions can include:

- providing public land and funds toward the creation of non-profit affordable housing
- protecting existing affordable housing supply through retention and replacement policies including policies that protect against the demolition of existing affordable housing and replacement with more expensive homes
- zoning specifically to retain and encourage rental housing in their communities, and through inclusionary zoning, they can require developers to create non-market housing as a condition for new development sites
- streamlining permitting and rezoning processes specifically for non-profit affordable housing

In all this work, it is important to emphasize that affordable housing must meet a diversity of needs. A set percentage of the housing to be built should be at welfare shelter rates and another set target should be tied to the senior shelter level. There also is a dire need for specific units for accessible, adaptable housing options and 3 and 4 bedroom units suitable for families with children.

Read more:

*BC Non-Profit Housing Association's Make Housing Central Campaign*

[https://housingcentral.ca/SITES/HousingCentral/2018\\_Civic\\_Campaign/HousingCentral/2018\\_Civic\\_Campaign.aspx](https://housingcentral.ca/SITES/HousingCentral/2018_Civic_Campaign/HousingCentral/2018_Civic_Campaign.aspx)

*BC Society of Transition Houses: BC Municipal Election Toolkit*

<https://bcsth.ca/wp-content/uploads/2018/09/municipal-election-toolkit-2018-09-24.pdf>

*Vancouver Tenants' Union's Renters Report Card*

[https://d3n8a8pro7vhmx.cloudfront.net/vancouvertenantsunion/pages/135/attachments/original/1538619170/Renters\\_Report\\_Card\\_-\\_Website\\_Information.pdf](https://d3n8a8pro7vhmx.cloudfront.net/vancouvertenantsunion/pages/135/attachments/original/1538619170/Renters_Report_Card_-_Website_Information.pdf)

## **Health and Food Security**

Poverty is a fundamental determinant of health, and the health care costs of poverty add up to \$1.2 billion per year in BC. So, all of the other policy recommendations outlined here will have a direct impact on improving the health of low-income people.

However, local government can enhance and expand access to health initiatives, including:

- providing free or discounted recreational services and access to programs for low-income children, youth, families and individuals
- if people are not being housed, supporting them where they are, including developing public amenities like water fountains, public washrooms and public showers – careful consideration needs to happen to ensure these amenities are universally accessible and safe
- increasing food security through zoning that would ensure low-income neighbourhoods have access to reasonably priced, quality fruits and vegetables
- supporting community gardens and community kitchens to provide affordable, nutritious food; schools can also provide healthy meals and nutritional information to students

The epidemic of opioid overdose deaths, at a rate of 4-5 overdose deaths each day is a public health emergency. While federal laws often get the most attention, municipal bylaws and local law enforcement practices also have the potential to increase stigma and restrict the delivery of harm reduction programs, emergency shelter, and other services for marginalized people.

**Local governments need to ensure that they do not restrict access to health services including harm reduction programs and addiction treatment options in their communities.**

Read more:

*First Call Municipal Election Toolkit (See page 8)*

<https://firstcallbc.org/wordpress/wp-content/uploads/2018/09/2018-Municipal-Election-Toolkit.pdf>

*Municipal Election Engagement Toolkit for Food Security Advocates*

<https://gateway2.phabc.org/wp-content/uploads/sites/2/2018/10/Municipal-Election-Toolkit-revised-Oct-1-2018.pdf>

*BC Poverty Reduction Letter about water fountains to the City of Vancouver*

<http://bcpovertyreduction.ca/wp-content/uploads/2018/10/2016-COV-Water-Fountains.pdf>

*Open Letter to the Government of BC about the need for an Opioid Action Plan*

<http://bcpovertyreduction.ca/2017/11/bc-needs-an-opioid-action-plan-open-letter-to-the-government-of-bc>

## **Equity**

There are multiple ways that municipal governments can address the over-representation of poverty amongst particular groups to ensure equity. These are just a couple of examples:

1. Marginalized groups often rely on public transportation and face high costs and long travel times as unaffordable housing causes people to move further and further away from work. However, responsibilities for transit may vary depending on your local community. Your municipality may be one of the 60 local governments that pays into BC transit and shares responsibilities for developing and maintaining the province-wide transit system. Within Metro Vancouver, Mayors, the Chief of the Tsawwassen First Nation, and the elected representative of Electoral Area "A" sit on the Mayors' Council on Regional Transportation, which provides accountability to Translink.

**We recommend that mayors advocate for provincial funding to ensure equitable access to our public transit system including affordable transit measures such as free transit for all children and youth and reduced transit fares for low-income individuals and families.**

2. Indigenous people are far more likely than non-indigenous people to live in poverty and experience homelessness. The Truth and Reconciliation Commission of Canada has five Calls to Action that directly apply to municipal governments:
  - fully adopt and implement the United Nations Declaration on the Rights of Indigenous Peoples as the framework for reconciliation
  - repudiate concepts used to justify European sovereignty over Indigenous peoples and lands, such as the Doctrine of Discovery and terra nullius, and reform those laws, government policies, and litigation strategies that continue to rely on such concepts
  - provide education to public servants on the history of Aboriginal peoples, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, Indigenous law, and Aboriginal–Crown relations
  - work with other levels of governments, churches, Aboriginal communities, former residential school students and current landlords to develop and implement strategies and procedures for the ongoing identification, documentation, maintenance, commemoration, and protection of residential school cemeteries or other sites at which residential school children were buried
  - work collaboratively with the National Centre for Truth and Reconciliation to identify and collect copies of all records relevant to the history and legacy of the residential school system, and provide these to the National Centre for Truth and Reconciliation

These actions are just a starting point to address the ongoing effects of colonialism.

Read more:

*#AllOnBoard Campaign Website*

<https://www.allonboard.ca>

*Truth and Reconciliation Commission of Canada: Calls to Action*

[http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls\\_to\\_Action\\_English2.pdf](http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls_to_Action_English2.pdf)

## **Childcare**

Local governments are responsible for many local regulations, such as development zoning, and can require that child care spaces be included in new buildings. School Boards can ensure stability for the many child care programs that operate on school sites.

**Given that senior levels of government have far more responsibility and potential to invest, local governments can also endorse the \$10aDay Child Care Plan calling on the provincial government to begin building a better child care system.** The \$10aDay Child Care Plan is the community's solution to BC's child care crisis. 32 local BC governments support the Plan but they do not have the resources or mandate to implement it alone. The provincial government has made significant investments in child care and needs to keep moving towards universal child care. Local governments who have already endorsed the Plan support the next steps the campaign is calling for at the provincial level.

Read more:

*First Call Municipal Election Toolkit (See page 4)*

<https://firstcallbc.org/wordpress/wp-content/uploads/2018/09/2018-Municipal-Election-Toolkit.pdf>

*\$10aDay Child Care Plan Website*

<https://www.10aday.ca>

## **Education**

The under-funding of public education has meant an increase in school fees, such as those now collected for field trips, supplies, sports and arts, and specific course materials. This causes great family stress, and children from low-income families often exclude themselves from activities and programs. The role of public education in giving every child an equal chance is seriously undermined by the inequity created by school fees. Public school boards can reduce or eliminate fees that act as barriers to inclusion for low-income students as well as continuing to advocate to the provincial government for adequate funding.

Almost 1 in 4 LGBT youth in BC are forced out of their homes so, without guaranteed family support, school safety and inclusion can have a direct impact on reducing queer and trans homelessness and long-term poverty. **School Boards should publicly support the SOGI curriculum and implement strong gender identity and sexual orientation policies to allow schools to fully support queer and transgender students and ensure their safety and inclusion.**

Read more:

*First Call Municipal Election Toolkit (see page 8)*

<https://firstcallbc.org/wordpress/wp-content/uploads/2018/09/2018-Municipal-Election-Toolkit.pdf>

*BC Confederation of Parent Advisory Councils Submission on Provincial Public Education Funding*

[https://bccpac.bc.ca/images/Documents/Resources/BCCPAC\\_SSC-Submission\\_Oct-11-2018.pdf](https://bccpac.bc.ca/images/Documents/Resources/BCCPAC_SSC-Submission_Oct-11-2018.pdf)

*Poverty is an LGBTQ Issue, BC Poverty Reduction Coalition (see submission to Vancouver School Board)*

<http://bcpovertyreduction.ca/campaigns/lgbtq>

## **Low Wages**

Despite public perception, poverty in BC is primarily working poverty. The majority of poor children in BC live in families with parents in the paid labour force, many of them working full-time and often multiple jobs. Local governments have a responsibility to avoid contributing to the problem of low-wage poverty.

**We recommend that local governments and school boards becoming living wage employers to embed the responsibility to pay all their employees a living wage and only contract for services with companies that pay a living wage.**

However, the provincial government is responsible for legislating the minimum wage and exemptions to that wage (for example, piece rate farmworkers who harvest fruit and vegetables) so local governments should advocate to them to increase the incomes of low wage workers. The provincial government is also responsible for employment standards, which desperately need to be enhanced and adequately enforced; for example, BC is the only province without the provision of paid sick leave.

Read more:

*First Call Municipal Election Toolkit (see pages 8-9)*

<https://firstcallbc.org/wordpress/wp-content/uploads/2018/09/2018-Municipal-Election-Toolkit.pdf>

*Living Wage for Families Campaign Website*

<http://www.livingwageforfamilies.ca>

*BC Employment Standards Coalition*

<http://bcemploymentstandardscoalition.com>

*Level the Playing Field campaign for paid sick leave*

[https://www.leveltheplyingfield.ca/sick\\_leave\\_petition](https://www.leveltheplyingfield.ca/sick_leave_petition)

## **Income assistance**

The current income assistance system in BC is fundamentally broken. People in desperate need are being denied assistance, and if lucky enough to navigate all the structural and administrative barriers to welfare and have their application accepted, they are subjected to a life of “survival,” struggling to meet the most basic needs of shelter and food.

**Local governments do not have jurisdiction over income and disability assistance. They should advocate to the provincial government for increased income and disability assistance rates as part of the ABC Plan for an effective poverty reduction plan.** Other measures suggested in this document can help reduce costs for people living on deeply inadequate income and disability rates.

Read More:

*First Call Municipal Election Toolkit (see page 7)*

<https://firstcallbc.org/wordpress/wp-content/uploads/2018/09/2018-Municipal-Election-Toolkit.pdf>

*Raise the Rates Campaign Website*

<https://www.raisetherates.org>



**City of  
Richmond**

**Memorandum**  
Community Services Division  
Community Social Development

**To:** Mayor and Councillors

**Date:** October 2, 2018

**From:** Lesley Sherlock  
Planner 2

**File:** 07-3000-00/Vol 01

**Re:** BC Poverty Reduction Strategy Act

Background

On October 2, 2018, the Province announced the introduction of legislation to guide the development of BC's first Poverty Reduction Strategy (Attachment 1). This draft legislation, Bill 39 – 2018 Poverty Reduction Strategy Act (Attachment 2), defines the scope of the Strategy to be released by March 31, 2019. Noteworthy aspects of the proposed legislation include:

- A commitment to reduce BC's overall poverty rate by 25% and child poverty rate by 50% in the next five years;
- The establishment of an independent advisory committee, including those with lived experience, to advise the Province regarding poverty reduction and prevention;
- An annual report identifying actions, impact and progress toward targets;
- Topics to address will include, but not be limited to housing; families, children and youth; education; employment; income supports; and social supports; and
- Thirteen populations will be considered, including youth, seniors, those with disabilities, immigrants and refugees, LGBTQ2S+, those with mental illness or addiction, and others.

Community Consultation

The draft BC Poverty Reduction Strategy is already under development, based on community consultations held between October 2017 and March 2018 with the groups identified above. Consultations were held in 28 communities around the Province, including one held in Richmond attended by 80 to 90 participants as well as the Minister for Social Development and Poverty Reduction, the Honourable Shane Simpson. Attendees included those with lived experience of poverty, front line workers, advocates, non-profit and business representatives, and a wide range of community members. A transcript of the Richmond meeting is attached (Attachment 3).

Affordable housing emerged as the top concern in all communities consulted, as noted in the report "What We Heard About Poverty in BC" (2018, Province of British Columbia). Other key issues identified in Richmond and elsewhere included mental health and addictions, child care, legal aid, employment, income, education and training, food security, transportation and access to services. A myriad of actions to address poverty and related issues were proposed to the Province, based on the key issue areas identified.

### Targets

Statistics Canada's Market Basket Measure will be used by the Province to measure poverty rates and will become Canada's Official Poverty Line once legislated, (see August 28, 2018 Staff Memo to Mayor and Councillors regarding Opportunity for All: Canada's First Poverty Reduction Strategy [Attachment 4]). The proposed Provincial targets aim to reduce overall poverty by 25 per cent and child poverty by 50 per cent in the next five years, compared with the Federal strategy which aims to reduce poverty at the national level by 20 per cent by 2020 and 50 per cent by 2030. A key difference is that the Provincial strategy specifies a separate rate for child poverty reduction that is more ambitious than that proposed by both Provincial and Federal governments for the overall population.

While questioned due to possible unreported offshore income based on Canadian and foreign income tax laws, Richmond's poverty rate based on the 2016 Census (living with low after-tax income based on average household needs) is 22.4 per cent, higher than the overall rate for Metro Vancouver (16.5 per cent). Its child poverty rate is 25.6 per cent, the highest in the region. Regardless of the veracity of these statistics, it is hoped that the Provincial strategy will provide significant opportunities to improve the quality of life for low-income Richmond individuals and families.

### Municipal Role

While specific roles for local governments are not referenced, the legislation, if enacted, will require that consideration be given to coordinating supports provided by provincial, federal, indigenous and local governments. The pending 2019 BC Poverty Reduction Strategy may include more explicit roles and actions for mutual engagement and implementation. Staff will provide further information as it becomes available and will actively pursue any opportunities to work collaboratively with Provincial and Federal governments, statutory organizations and local service providers as these strategies unfold.

Please contact me if you would like further information.



Lesley Sherlock  
Social Planner  
(604-276-4220)

Att. 4

pc: SMT  
Ted Townsend, Director, Corporate Communications and Marketing  
Kim Somerville, Manager, Community Social Development  
Denise Tambellini, Manager, Intergovernmental Relations and Protocol Unit  
Barry Konkin, Manager, Policy Planning



British Columbia News

## Historic legislation sets targets, timelines to reduce poverty

<https://news.gov.bc.ca/18173>

Tuesday, October 2, 2018 10:35 AM

**Victoria** - British Columbia's first Poverty Reduction Strategy, guided by legislation introduced today, will lift thousands of people out of poverty, create more opportunities to break the cycle of poverty and make it easier for people to participate in their community.

The Poverty Reduction Strategy Act will define the scope of the strategy, which will be released in early 2019, and sets poverty reduction targets and timelines that government must meet.

"A strong province is built on a foundation of equity, inclusion and opportunity for everyone," said Shane Simpson, Minister of Social Development and Poverty Reduction. "We know that poverty is a serious issue in our province. That was driven home throughout the consultation as thousands of people told us about the impossible challenges they face each day. Social issues have been ignored for too long and that is why we are committing this government, and future governments, to break the cycle of poverty and improve people's lives."

The legislation is shaped by the experiences, voices and hopes of more than 8,500 people who took part in a broad public engagement on poverty from November 2017 to March 2018. If passed, the legislation will:

- Commit government to reduce B.C.'s overall poverty rate by 25% and child poverty rate by 50% in the next five years.
- Establish an independent advisory committee that will represent the breadth and depth of personal and professional experiences of poverty in B.C. and advise the minister on matters relating to poverty reduction and prevention.
- Require government to report annually on its progress to reduce poverty.
- Require government to release its first poverty reduction strategy by March 31, 2019. The strategy must focus on the key issues faced by people living in poverty including housing, education, employment, income supports and social inclusion.

The commitment to a poverty reduction strategy, in addition to addressing liveable wages under B.C.'s new Fair Wages Commission and exploring basic income, is a component of the Confidence and Supply Agreement with the B.C. Green Party caucus. The work of the Fair Wages Commission and the basic income expert panel will inform future updates to the poverty reduction strategy.

"It is our shared responsibility to make sure that everyone has the tools, resources and social supports they need to improve their lives," said Mable Elmore, Parliamentary Secretary for Poverty Reduction. "Hundreds of thousands of people in our province experience poverty, and this kind of long-term government commitment is what is required to lift people up and achieve real progress."

### Quotes:

**Adrienne Montani, provincial co-ordinator, First Call –**

"First Call's Child Poverty Report Card shows one in five B.C. children live in poverty and we have called for a 50% reduction in B.C.'s child poverty rate since 2009. We are pleased that government has listened and has this target and timeline in legislation. Reaching this target will benefit the health and well-being of thousands of children and youth, and may well reduce the number of children coming into government care. Our coalition looks forward to working with government to deliver on this target and help more children, youth and families thrive."

**CNCL - 256**

**Dawn Hemingway, co-chair, Minister's Poverty Reduction Advisory Forum –**

“The only way to seriously tackle the complex issue of poverty reduction is to have a meaningful and ambitious strategy that enforces targets and deadlines. This legislation is a significant step forward in making poverty reduction a reality in British Columbia.”

**Quick Facts:**

- British Columbia is the only province in Canada without a poverty reduction strategy despite having the second-worst rate of poverty.
- Based on the latest statistics available, in 2016 approximately 557,000 people were living in poverty in B.C., including 99,000 children.
- Between November 2017 and March 2018, government engaged in a provincewide consultation about how to reduce poverty and inequity and provide opportunities for people to be successful. Thousands of people participated in the consultation, more than half had lived experience.

**Learn More:**

To read the legislation: <https://www.leg.bc.ca/parliamentary-business/bills-and-legislation>

Learn more about B.C.'s commitment to reduce poverty for the people of B.C.:

<https://engage.gov.bc.ca/bcpovertyreduction>

**Media Contacts**

**Ministry of Social Development and Poverty Reduction**

Communications

250 387-6490

**2018 Legislative Session: 3rd Session, 41st Parliament  
FIRST READING**

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The following electronic version is for informational purposes only.  
The printed version remains the official version.

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**HONOURABLE SHANE SIMPSON  
MINISTER OF SOCIAL DEVELOPMENT  
AND POVERTY REDUCTION**

**BILL 39 – 2018  
POVERTY REDUCTION STRATEGY ACT**

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**Explanatory Note**

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of British Columbia, enacts as follows:

**PART 1 – DEFINITIONS**

**Definitions**

- 1 In this Act:

**CNCL - 258**

**"advisory committee"** means the committee under section 10;

**"annual report"** means a report under section 8;

**"strategy"** means the strategy under section 2.

## **PART 2 – POVERTY REDUCTION STRATEGY**

### **Division 1 – Development of Strategy**

#### **Minister to develop strategy**

- 2 (1) The minister must develop a strategy to reduce and prevent poverty in British Columbia.
- (2) The minister must
- (a) post the strategy in accordance with section 9 (a) by March 31, 2019, and
  - (b) review and update the strategy at least once every 5 years after that date.

#### **Poverty reduction and prevention initiatives**

- 3 (1) The strategy must include initiatives intended, over the 5-year period beginning on January 1, 2019, to reduce the poverty rate for 2024 below the poverty rate for 2016 by at least
- (a) 25% among all persons, and
  - (b) 50% among persons under 18 years of age.
- (2) The strategy must include initiatives intended to reduce and prevent poverty by increasing the following:
- (a) the affordability of goods, services and housing to persons living in poverty and other low-income British Columbians;
  - (b) the opportunities for persons living in poverty to move out of poverty;
  - (c) the inclusion of persons living in poverty in community life and in systems of supports.
- (3) For the purposes of subsection (1), the poverty rate must be measured using the market basket measure published by Statistics Canada as the "Market Basket Measure" or "Canada's Official Poverty Line".
- (4) The minister must review the targets set in subsection (1) before December 31, 2023 and, after doing so, may lay a report before the Legislative Assembly respecting future targets for the reduction of poverty.

#### **Commitment to Indigenous peoples**

**CNCL - 259**

**4** The strategy must reflect a commitment to

- (a) reconciliation with Indigenous peoples,
- (b) the Calls to Action of the Truth and Reconciliation Commission, and
- (c) the United Nations Declaration on the Rights of Indigenous Peoples.

**Scope of strategy****5** (1) In developing and updating the strategy, the minister must consider

- (a) the breadth and depth of poverty, and
- (b) the full range of persons living in poverty.

(2) Without limiting subsection (1), the minister must consider the following topics:

- (a) housing;
- (b) families, children and youth;
- (c) education;
- (d) employment;
- (e) income supports;
- (f) social supports.

(3) Without limiting subsection (1), the minister must consider the following groups:

- (a) children;
- (b) youth;
- (c) persons of all genders;
- (d) Indigenous peoples;
- (e) persons living with disabilities;
- (f) persons living in rural and remote communities;
- (g) immigrants and refugees;
- (h) LGBTQ2S+ persons;
- (i) seniors;
- (j) persons and families working and earning low incomes;
- (k) persons living with or fleeing abuse;
- (l) persons living with mental illness or addiction;
- (m) persons of colour.

**Accessibility and coordination****6** In developing and updating the strategy, the minister must consider the accessibility and coordination of**CNCL - 260**

- (a) initiatives included in the strategy, and
- (b) supports provided to or for persons living in poverty by or on behalf of the following:
  - (i) the government;
  - (ii) the government of Canada;
  - (iii) Indigenous governments;
  - (iv) local governments.

### **Description of effects**

- 7 The strategy must include a description of the effects that the minister intends poverty reduction and prevention to have on British Columbians as a whole.

## **Division 2 – Reporting and Publication**

### **Annual reporting**

- 8 (1) The minister must prepare, by October 1 of each calendar year, beginning in 2020, a report on the previous calendar year that describes the following:
- (a) the actions taken to implement the strategy;
  - (b) the effects of the strategy on poverty reduction;
  - (c) any progress made towards the targets set in section 3 (1).
- (2) An annual report on a calendar year must include the comments provided under section 10 (4) (a) in relation to that calendar year.
- (3) The minister must lay each annual report before the Legislative Assembly as soon as practicable and, promptly after doing so, must post the annual report in accordance with section 9 (a).

### **Publication**

- 9 The minister must
- (a) post the strategy and the annual reports on a publicly accessible website maintained by or on behalf of the minister, and
  - (b) make the strategy and the annual reports available in accessible formats.

## **PART 3 – COMMUNITY INVOLVEMENT**

### **Advisory committee**

- 10 (1) The minister must establish a committee to advise the minister on matters relating to poverty reduction and prevention.
- (2) At least half of the members of the advisory committee must be women.

**CNCL - 261**

(3) The advisory committee must include a representative from at least each of the following groups:

- (a) Indigenous peoples;
- (b) persons living in poverty;
- (c) persons living with disabilities;
- (d) local governments;
- (e) organizations that advocate for persons living in poverty;
- (f) the business community;
- (g) unions;
- (h) academics;
- (i) persons living in rural and remote communities.

(4) Without limiting subsection (1), the advisory committee has the following duties:

- (a) to give the minister comments in relation to a calendar year on the matters referred to in section 8 (1);
- (b) to advise the minister in relation to consultations under section 11.

(5) Members of the advisory committee must be

- (a) reimbursed for reasonable travelling and out-of-pocket expenses necessarily incurred by them in discharging their duties under this Act, and
- (b) if they are living in poverty, paid an honorarium.

## Consultations

11 (1) In developing and updating the strategy, the minister must consult with representatives of at least the groups referred to in section 10 (3).

(2) Consultations under subsection (1) must be carried out in a manner that is intended to

- (a) ensure the strategy is informed by the experiences of persons living in poverty, and
- (b) uphold the commitment under section 4 to Indigenous peoples.

## Supports for participation

12 The minister may provide monetary or other supports to or for persons living in poverty to enable them to

- (a) serve on the advisory committee, or
- (b) participate in consultations under section 11 (1).



**Section 5 of *Offence Act* does not apply**

**13** Section 5 of the *Offence Act* does not apply to this Act or the regulations.

**Regulations**

**14** The Lieutenant Governor in Council may make regulations referred to in section 41 of the *Interpretation Act*.

**Commencement**

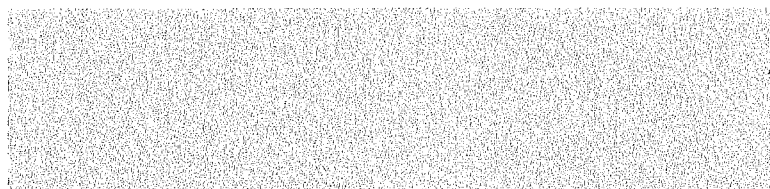
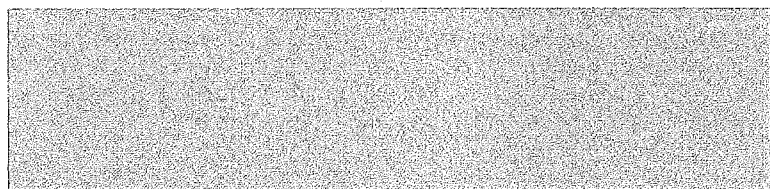
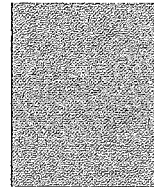
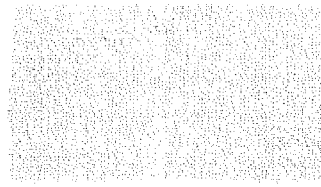
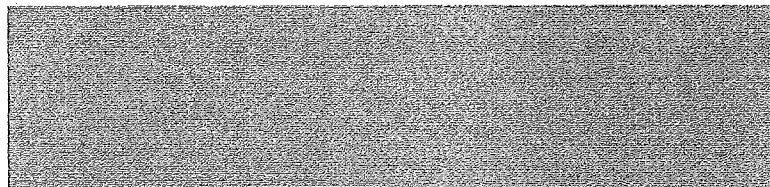
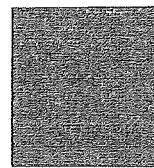
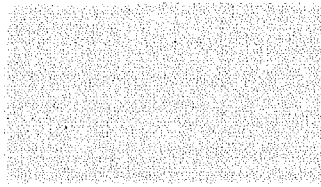
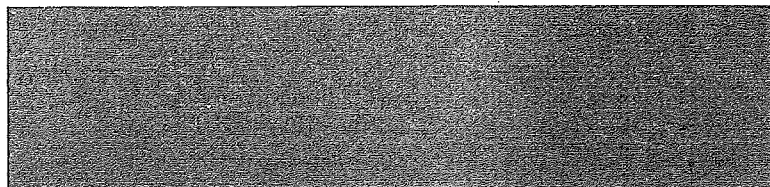
**15** This Act comes into force on the date of Royal Assent.

**Explanatory Note**

This Bill provides for a strategy to reduce and prevent poverty.

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Transcript:  
Community Meeting  
on Poverty Reduction

Richmond, BC  
January 25, 2018

## **Introduction and Event Summary**

On January 25, 2018, the Ministry of Social Development and Poverty Reduction hosted a community meeting in Richmond, BC to discuss poverty and poverty reduction with local residents. The event brought together approximately 80 to 90 participants including people with lived experience of poverty; poverty reduction front line workers and advocates; people from the non-profit and business sectors; and other community members from all walks of life.

The event began with a welcome from Elder Roberta Price, followed by opening remarks from Shane Simpson (Minister for Social Development and Poverty Reduction).

Participants then engaged in round table discussions in groups of 8 to 10 people per table. Each table had a dedicated facilitator from a local community group or from SPARC BC who helped to guide the conversations. Each table also had a dedicated note taker who helped to record the discussion.

There were two rounds of discussion which focused on the following questions:

1. What are the issues facing you and people living in poverty right now?
2. What would address these issues and help you and others out of poverty?

Following the discussions, participants were invited to put a sticky dot beside the strategies or solutions that were most important to them. Each participant received four (4) sticky dots. Following the individual priority setting exercise, participants were asked to determine as a table the top three (3) priorities from the evening and to report these priorities back to the room.

The Minister of Social Development and Poverty Reduction shared some closing remarks.

## **Document Organization**

This document contains the transcripts from the flip chart notes from those in attendance. The flip chart notes have been transcribed verbatim, correcting only for spelling and grammar as needed. The notes are organized according to the feedback received to the two questions beginning with:

1. What are the issues facing you and people living in poverty right now?
2. What would address these issues and help you and others out of poverty?

### Question 1: What are the issues facing you and people in poverty right now?

- Effects of poverty
  - o Stuck/ low mobility
  - o Hard to break out of the cycle of poverty
  - o Malnutrition
- Education
  - o Key to breaking the cycle - opportunity
- People need
  - o Housing
  - o Nutrition
  - o Food Security
  - o Day Care
  - o Unless the system is changed, poverty won't go away
- Challenges
  - o It can be tough on a single parent
  - o Family support can help
  - o We are an individualistic society
  - o Neighbourly support is not always there
  - o Must address the root causes
  - o Requires municipal support as well as all levels of government
  - o Poverty is the result of poor policies
  - o Greed keeps people poor
- Housing
  - o We need money to build more low rental housing
- Kids living in poverty
  - o We know the early years are important
  - o Parents can't afford childcare
  - o Many teachers are feeding hungry children at school –using their own resources
  - o "It used to be that I would bring a box of granola bars and give them out to kids that are hungry, now I am bring 3 boxes and it is not enough"
  - o Kids can't learn if they are hungry
  - o There is also a stigma that kids feel - "I make extra sandwiches but I pretend that I made a mistake and made too many – ask kids to help me out"
- Pressures on families
  - o The pace of life has changed as well as the types of economic opportunities available to people – people are now working 2 to 3 jobs just to get ahead
  - o Some people are working seven day a week
  - o There are fewer sport opportunities for kids unless you have a lot of money –winter sports are very expensive
  - o Most income goes into housing, daycare and transportation – for many families there is very little left over

- Rules for income assistance
  - o People are cut off by the Ministry if you start earning more \$15,000 but at this income level you are still in poverty
  - o People need other supports – i.e. there should be transportation supports
  - o Disabilities should not be at poverty level
  - o Poverty affects people's mental health
- Housing costs are high
  - o A 3 bedroom townhouse rents for \$2,300/ month not including utilities
  - o People need more affordable housing
  - o Childcare costs \$1,700 per month per child
  - o There has been no new social housing built in Richmond in the last 30 years
- Food security
  - o We need a lunch program in the schools like Scandinavian
  - o Some kids only get one (1) meal per day
  - o If there was a lunch program that was equally available for all kids it could be a socially positive experience- there would be no judgment or stigmatizing of poor kids
  - o It is do-able but we are too busy buying stealth bombers
- Community capacity
  - o Corporations are not pitching in
  - o Governments have a role to play
  - o Governments should not rely on charities to do it all
  - o Charities help but the help is not consistent – people get help at Christmas but poverty is all year round
  - o There are not enough social workers and the ones who are there are over worked- people cannot always make the best decisions because they are burnt out
- Incomes
  - o People need a fair or living wage
  - o Minimum wage at \$15 per hour could help but \$15 may still be too low
  - o There are not enough good full time jobs
  - o A lot of people have to go to different part-time jobs
  - o Employers like part-time jobs because they don't have to pay benefits
  - o There need to be more union jobs with benefits
  - o If people lose their jobs they also lose their benefits
- Sense of responsibility
  - o We need to have a sense of responsibility to take care of everyone in the community – including people in poverty
  - o We often hear that "There is no poor people in Richmond"
  - o People at the top need to make a commitment – that's part of the solution
  - o There is stigma around poverty
  - o It can mean that people don't want to talk about it or are too ashamed to seek assistance
- Poverty denial
  - o Poverty is a taboo topic for some cultures

- Some people believe that families and individuals are in poverty because they didn't work hard enough
- "Poverty is in the mind" according to one
- There are examples of programs (i.e. New York) where people are given the opportunity to gain employment skills/ given access to education and help to get their feet on the ground
- These programs work because they help to address the root cause. However, it should also be noted that education and training might not be enough – structural changes to the economy (i.e. automation) has meant that there are fewer full-time jobs.
- Housing
  - Housing is a real issue in Richmond
  - There are too many new towers being built and the community is losing the older more affordable rental housing
  - There has been very little new affordable housing being built – need more co-op housing developments
  - People can't always own a house but they should still have a right to housing – rental housing
  - The issue is people in rental house don't have stability – they need to move a lot – it puts pressure on families
  - There are too many empty houses – too many absentee landlords and foreign buyers
  - The new empty house tax might help to free up housing for higher income people but it won't help low income families and seniors who can't afford housing
  - For most households their wages are still too low to carry the cost of housing at the current price
  - Young people have more barriers
  - To have empty houses is a crime especially with all of the homelessness
- Food security
  - People need access to healthy, nutritious food
  - People with disabilities can't access food
  - There are not enough grocery stores in Richmond
  - The price of food is too high and it continues to go up
  - Wages cannot keep pace with the increase in the cost of food
  - More working people are falling behind
- Housing
  - Need to look at other countries
  - Need to have more social inclusion to solve housing issues
  - Need to see what other countries have done
  - There is not enough affordable/social housing to meet community needs
  - Government develops policy to empower non-profit housing providers to increase the number of social housing units available
  - Builders and developers make a lot of money on every residential unit
  - The City has an Affordable Housing Fund – what do they do with the funding?
  - It takes a long time for new housing

- The zoning process is too long, permitting process
- Need to add more density to make units more affordable
- Child care spaces
  - Need to have more buildings with childcare
  - Kids are left at home alone because there is not enough childcare
  - \$10 day for childcare is not really affordable
- Housing for seniors
  - Long term housing for seniors is a problem
- Income inequality
  - Guaranteed income is needed
  - Basic income and supports
- Transportation
  - Transit is not affordable
  - The compass card is expensive
  - Mobility affects your ability to get a job
  - Not affordable, not accessible, travel too far
  - People having to live far out and travel more
- Education
  - Should be free post-secondary education
  - Tuition fees are too high
  - Need to look at other countries
  - How to make education free at low cost for people who need it
- Other factors
  - Taxes are too high
  - Takes political will
  - Part of the same poverty circle
  - Poverty affects mental health and health in general
- Barriers to employment
  - People with disabilities can work but can't find jobs
  - There is discrimination for all minorities –recent immigrants, people with disabilities, refugees – many of these groups live in poverty because they can't access opportunities
  - Our country brings people to our province but is there really inclusion?
  - Are programs accessible to everyone?
  - Accessibility to diverse population, different gender, race, class, education, sexual orientation, people with diverse sizes
  - The market is so competitive even being overweight could be a reason to discriminate against someone
  - Discrimination or a lack of inclusion a big barriers to employment
  - Age can also be a factor - people have barriers because we are too old or too young
  - Single parents who can't find affordable childcare
  - Recent immigrants face barriers - hard to access employment
  - Childcare is key to removing barriers (1 Vote)



- Food security
  - o People need access to food and water
  - o More water fountains are needed
  - o Food at food bank is often past the expiry date – need access to fresh healthy food choices (2 Votes)
- Health supports
  - o Over counter needed medication not covered (1 Vote)
  - o People do not have access to a family doctor (1 Vote)
  - o So many medications are not covered by Pharmacare (1 Vote)
  - o There are gaps in medical coverage for new immigrants/no status
  - o The waiting period to access MSP is three (3) months – this is unfair, if people need to see the doctor during this period there are high user fees
  - o Dental and orthotics are not covered (1 Vote)
  - o There is a gap in the dental care coverage for kids
- Affordable housing (3 votes)
  - o There is a lack of choices in the rental housing market
  - o There should be restrictions on rental rates – how much landlords can charge or the types of rent increases allowed (1 Vote)
  - o Landlords keep raising rents every year (1 vote)
  - o Landlords see rentals as investments not necessarily as shelter (1 Vote)
  - o The shelter rates are too low relative to the rents = my full cheque (Including support is used for shelter) – it leave nothing else to live off – I have to depend on my family
  - o In addition to rent, other costs like hydro are increasing
  - o Rent supplements are not enough
  - o Rooming Housing / SRO housing are not real housing choices – the quality of the housing and living conditions are poor
  - o The choices are not straight forward
  - o Moving is stressful and expensive
- Income support
  - o The minimum wage is too low
  - o The income assistance rates are too low (1 Vote)
- Low income families
  - o There are too many fees that low income parents cannot afford –i.e. school fees, the cost of field trips – the money is not available without support
- Income assistance
  - o All talk, no action
  - o People get tired of the fight
  - o Should be called the Ministry of Loneliness
  - o Why is the PWD application form so long
  - o Housing – Landlords keep raising rents every year (1 vote)
  - o Landlords see rentals as investments not necessary shelter (1 Vote)

- Low shelter rates = full cheque (Including support is used for shelter and leaves nothing to live off (have to depend on a family)
- Access to health supports
  - Lack of proper and personalized health care
- Recent immigrants
  - Very difficult to transfer education/ degrees for immigrants
  - Lots of red tape and fees and strict timelines (2 Votes)
  - Means difficult to access opportunities to use your training
- Systemic barriers
  - Income supports
  - There are too many constraints that means you are unable to improve your situation
  - Legislated poverty
  - Education helps to improve self-esteem but it is still had to look for work when you are homeless on the streets
  - Public attitudes – have to break them down through advertising, promotions, public meetings
  - Need to show support for people on the street/ on welfare
- Addictions
  - People struggling to pay rent - easier to take drugs
  - Not being able to find a place to sleep – turned to drugs
  - People are vulnerable when you are on the streets
  - People feel alone
  - Drugs are cheap and easy to find –they are always there
- Homelessness
  - The cost of housing is an issue
  - High rents mean that people are unable to find a place to live
  - Have to find a place with other people who abuse drugs (2 Votes)
  - Struggle with working, drugs and finding a place to live (1 Vote)
  - Constant circle – finding a place to live and being evicted (1 Vote)
  - People don't want recovery houses in their backyard
  - It is a struggle being on the streets
  - Poverty results in extreme homelessness
- Transportation
  - Cost
  - Unable to get to appointments/programs
  - UGM able to provide bus passes sometimes
- Cost of poverty
  - People are digging themselves into a hole –it is often too difficult to get out
  - Not enough
- Housing
  - Rent is high
  - Not much is leftover once the rent is paid

- Can't buy quality food, can't get enough
- Rent is so high
- People are renting out uninhabitable places
- The housing is infested with cockroaches, bedbugs etc.
- Homelessness
  - Being homeless is a full time job
  - Extremely difficult
  - Need help meeting basic needs
  - Even help with getting ID is an issue
  - So many barriers and rules – there needs to be a more streamlined process
- Services
  - Need one central place with the different agencies in the same building
  - Need to have relationship between agencies - i.e. income assistance, health services
  - Strong relationships between organizations/agencies
- Stigma
  - There is a stigma to being poor
  - People feel depressed/frustrated with their situation
  - There is the pressure of everything facing them
  - Trying to look for money leads someone to do something illegal
  - Make enough right now but no security for the future- no time for planning
  - Mindset of being poor, facing negative impressions from the society
  - People make assumptions and hold prejudices that are unfair (1 Vote)
- Addiction
  - People are trying to escape, trying to fit in
- Housing prices
  - Losing a place to live for homeless people
  - Can't afford to live in BC
  - Poor quality of life
  - Poor living conditions
  - People are being forced out, more homelessness
  - New buildings are being built but are not helping all of the people who need help
  - Need more housing choices, more places to live
  - Without an address cannot address other issues –i.e. missing out on appointments
  - People need access to basic essentials like food and shelter (1 Vote)
- Hopelessness/Compounding Problems
  - Loss of hope
  - Can't afford to go to school and work
  - Fail at school and problems add up (1 Vote)
  - Have to work multiple jobs
  - Not enough hours (jobs), all part time, not enough full time jobs (1 Vote)
  - Job hours cut, incurs debt, catch up but fall back again (3 Votes)

- Income and supports
  - o Minimum wage is too low
  - o Even if you work full time at minimum wage the rent is too high (3 Votes)
  - o No savings, living pay cheque to paycheque (3 Votes)
  - o Ability to make more and spend less (1 Vote)
  - o The difficulty to transfer credentials over from immigrants (5 votes)
  - o The situation of the parents passes onto kids (2 Votes)
  - o If you can't afford to pay for extracurricular activities –i.e. pets, clubs, sports then it means that kids are not able to participate – have less opportunities to learn
- Housing
  - o Lack of housing
  - o There are expenses (buying and renting)
  - o Cost of living is greater than income
  - o People moving out of their communities because of affordability
  - o Stores closing in the community
  - o Families moving to Surrey due to affordability
  - o Cost of living/affordability is an issue
  - o Everywhere, but why is it a big issue here?
  - o People selling houses just because prices are increasing then they rent also at a high price
- Income
  - o Minimum wage is too low
  - o Incomes are not increasing enough to keep pace with rising costs
  - o There is growing social disparity/inequality – rich versus poor
  - o People need a living wage – people are working 2 jobs but not able to make ends meet
  - o When income increases so does cost of bills
  - o Cannot keep the same standard of living as they cannot afford it any more
- Employment for people with disabilities
  - o Employment for people with disabilities is an issue
  - o Income affects social life, self-esteem, and opportunities
  - o Without employment - no support to get back, loss of friend etc.
  - o Not enough employers with experience employing PWD (excuses: liabilities)
  - o Job creation for PWD with no experience
  - o Challenges for PWD to obtain experience and find employment
- Health Care
  - o Health coverage is limited and many of the services that are needed are expensive –i.e. physio and other therapies
  - o MSP Coverage is too low for these services
  - o Need to be aware of the needs of people receiving PWD assistance – many costs are not covered –i.e. some medication and prescription costs
  - o Over the counter medications are too expensive
  - o People who cannot afford to cover the costs themselves might opt not to take it – can create more harm and more costs over the longer term.

- Childcare
  - o Look at Sweden for a model for childcare
  - o Here the cost of childcare is too high
  - o Income from work – goes to child care
  - o One parent has to give up work for childcare
  - o It should be a right for everyone who want to work and have children
  - o Just want the basic needs to be met
- Education
  - o Post-Secondary education is not affordable
- Transit
  - o Public transit is expensive
- Systemic Challenges
  - o The way the system is set up is hard –some people can't access (i.e. many women face difficulties accessing the system)
  - o You are not able to speak to someone
  - o Sometimes the problem is not sorted out for weeks
  - o The amount of money that people receive is too low
- Income Pressures
  - o Minimum wage too low
  - o Refugees have difficulty upgrade their education
  - o Face food bank/housing issues
  - o Hard to access housing
  - o Impossible to find housing
  - o Single mothers not able to find childcare and can't work
  - o Lots of women in poverty
  - o Women are forced to stay in violent relationships because too expensive to leave
  - o People face difficult choices – harsh environment - much harder more difficult
  - o Hard to cope with the high cost of living
  - o People struggling with addictions because it's hard
- Poverty Reduction
  - o Social Development and Poverty Reduction is a good name
  - o Should not just focus on employment -some people cannot enter the work force because of barriers
  - o People are so desperate due to cost of living
  - o Have to work 2 minimum wage jobs to make ends meet
- Access to services
  - o People have long waiting times to see a doctor
  - o There are waiting lists for programs
  - o There are not enough supports services –i.e. women are trapped in violent relationships but have nowhere to go
  - o Women who are homeless are invisible and many face horrible stressful situations
  - o It can become a vicious cycle

- If you would give her \$1000 this would work attending MCFO appointments
  - Know a woman (Grandma) who is taking care of grandkids because the funding was scaled back
  - People need help meeting basic needs
- Income
  - Ontario pilot looks good
  - Gives you much more power – you don't have to prove it – you are entitled to it
  - Gives more freedom/more control over decisions
  - More help should be given to those who are on the borderline of poverty – they are doing everything to advance their life – a bit of help would change so much
  - It is difficult for single mothers who are going to school
- Cost of Housing
  - Rent is a minimum of \$1000 per month
  - There is a mismatch between income and cost of living
  - Means people have not control over their situation
  - Need to have better rent controls -regulations for amount of rent that can be charged
  - A 1000 sq ft unit on Commercial Drive was renting for \$3,000.
  - People can't afford to live in BC
  - Landlords can behave poorly – i.e. raise the rents due to the housing market
  - Issues are intertwined
  - There is no security for families – too expensive
  - Stability of people's lives – living in poverty – barriers
- Recent immigrants
  - A lot of middle eastern refugees – families like to settle in areas close to each other
  - Large families that need childcare
  - English language learning outback – ESL classes that grade your learning
- Barriers to Housing
  - Landlords are afraid to rent to people with mental health.
  - Discrimination against people receiving disability assistance (1 vote)
  - No access to housing for people who are addicted
  - Need money for affordable housing
  - We need way more affordable housing being built
  - Where do people go to live
  - It takes too long to build housing and shelter
  - Rental housing is too expensive – people are forced to rent rooms and pay board
  - People on disability are so normalized with their circumstances
- Access to social and recreational opportunities
  - Access to recreational and leisure activities costs money
  - Physical activities helps prevent alienation
- Social isolation
  - Isolation/vulnerability makes people a target for crime

- Homeless senior with dementia are vulnerable to theft –i.e. cashing cheque at money mart – people watch - it makes the senior a target for crime
- Income Assistance
  - Housing should be a right for everyone
  - People on assistance only receive shelter if they have housing
  - No security deposit if owner the owner lives there
  - Slow turnaround time to receive shelter cheques for people on assistance
  - SDPR – people all over province dealing with clients
  - Very bad medication coverage – many medications are not covered
  - No one knows what's happening in SDPR
  - There are no straight answers –sometimes it can take weeks for a response
  - The system is very broken
  - Low income seniors cannot afford their medication
  - No dental care, no free clinics, no proper nutrition
- Health supports
  - Health supports are lacking for low income people
  - Senior homes are not healthy places
- Impacts of poverty
  - Your environment can affect your overall being and shortening one's life
  - When you are poor you life is consumed by surviving
  - You feel isolation and alienation
- Income Assistance
  - People live in fear of being cut off of assistance
  - Everyday people are afraid today of what's happening –what would happen if they were to lose their medical assistance?
  - Fear that they will not get assistance because somehow the Ministry thinks that you are not telling the truth - looking for fraud
  - There are so many barriers like the requirement for monthly stubs
  - Having security in the office is intimidating – concern that the office is unsafe
  - The service model is problematic - 1-887 number does not work
  - There are no workers to talk to
  - You call the number and the Ministry staff treat people like they are not human
  - You feel that there is no respect or dignity
  - It feels like a revolving door
  - Sometimes you can call the 1-877 number and you have to wait as long as two hours
  - Sometimes you have to call back next day
  - People need access to an advocate
  - You live in fear that you will say something wrong because you don't know the rules
  - It also feels like the rules are constantly changing
- Stigma and Helplessness
  - The general population does not realize how close people are to poverty
  - In some ways it could happen to anyone



- A lot of people can be one pay cheque away from poverty and homelessness
- There is a stigma placed on people living in poverty
- Some people don't ask for help because of this stigma
- People feel this stigma and live with the constant trauma
- Many people do not have a choice
- A story was offered of a grandmother who was receiving PWD – she was raising her grandson and was trying to find work to pay for his prom tickets. She knew that he couldn't go to the prom because she could not pay the school fees
- RCMP, paramedics, and service people are affected as well – they are traumatized because they see the effects of poverty everyday and feel helpless to create change
- Food insecurity
  - Food security is lacking
  - Most poor people do not have access to healthy nutritious food
  - Their diets do not include fresh food
  - Often they have to ration the food
  - Lack of food can affect people's ability to learn –especially children in school
  - Lack of access to healthy food also has long term consequences for one's health
- The poverty trap
  - Social assistance can trap people in poverty
  - The basic income assistance rates are too low
  - It leave no money left over for food or transportation
  - Without a bus pass it is not possible to get to a job
  - People can't even get ID
  - Rates have stayed low for a long time –they have not kept up with the cost of living
  - The rates don't reflect the fact that BC has a high cost of living.
- Mental Health and Other Supports
  - People are normalized - they don't even know that they have a mental health problem
  - They don't understand their situation; they are so used to living in poverty
  - People are afraid to speak up – it is hard to ask for assistance
  - Sometimes It is hard for people with mental health issues to get assistance if they are not on income assistance already
  - The lack of services pushes people into poverty
  - Need affordable housing
  - Hard for someone earning minimum wage to cover everything
  - Homeless people feel isolated
  - It is difficult for those who have a mental health issues – can get worse
  - There are no centralized resources to turn to
  - It is hard to get to services without transportation
  - There is a need to recognize homelessness and the vulnerability of people with mental health challenges
  - There should be education to help deal with the stigma of homelessness
  - All levels of government should pay more attention to people who are homeless

- Richmond gave more money to animal shelter than to working to address homelessness
- People struggle to keep roof over their heads
- Once you are homeless it affects you health – you have less access to nutritious food
- Government should be proactive rather than reactive
- Richmond City Council is not doing enough to prevent poverty – there needs to be a more proactive response to address poverty
- Need a middle ground to manage – create a stepping stone that can help people out of poverty
- Need to recognize differences across different cultures and be more sensitive
- Need more programs in school
- Start with children, provide breakfast or lunch program for all kids
- Lack of education about drug/addiction and related issues
- Education should start with children at a young age
- Education about mental health needs to start early as well
- There are not enough facilities to help and house people with mental health issues

**Question 2: What would address these issues and help you and people out of poverty?**

- Food security
  - There should be a nutritious food program in every school in BC (2 Votes)
  - The program should not just be bread or soup and a bun
  - It should be available to everyone and just be part of lunch
  - If it is available to everyone it would help to reduce the stigma
- Business
  - Get businesses involved
  - Instead of throwing food out maybe there is a way to make it available
  - There are lost of rules and regulations that could make this difficult but it could make a difference
  - Maybe it is possible to create a school salad bar similar to the types of initiatives that are part of the Farm to Cafeteria program
  - Maybe there could be green houses built on school property and the different aspects of growing and harvesting good could be part of the school curriculum
  - Cooking class can could help to produce food for the salad bars while the school could also enter into partnerships with local farmer
- Employment
  - People need full time jobs with benefits (i.e. sick leave protection) (1 Vote)
- Affordable childcare (1 Vote)
- Affordable housing (2 Votes)
  - All 3 levels of government have to commit to work together
  - Housing decisions are influenced by developers through political donation

- Ensure that the housing meets the needs of those who live in the community (3 Votes)
- Education
  - People need job training and access to free education (1 Vote)
- Health services
  - Need to consider the needs of socially isolated adults especially in minority communities – (i.e. the Chinese) – need to find a way to get them support
- Housing Markets
  - Eliminate speculation in housing (3 Votes)
  - Eliminate the commodification of housing (2 Votes)
  - 40-50% of market pre-sales are done over seas
  - In Richmond there is a lot of speculation –people are purchasing and flipping houses and condos
  - The housing market is not correcting – price just keep going up
- Employment
  - Ensure that people have access to employment and skill training (1 Vote)
- Youth
  - Young people are couch surfing/living with roommates
  - They are having to go to food banks to pay their student loans
- Day Care
  - Provide subsidized daycare that includes a hot meal to fuel kids (4 Votes)
  - Day care costs are too expensive especially for parents who have part time jobs (it is cheaper to stay at home some days to care for children)
  - There are not enough day care spaces - some parents have to go to multiple day cares to fill the gaps.
  - Need day cares that are available on weekends and evenings (2 Votes)
  - Day care should be linked to school locations (2 Votes)
- Minimum Income
  - People should be given a minimum income that is adequate( 4 Votes)
  - Income should be based on a fair wage or living wage
  - People need a guaranteed livable income (3 Votes)
  - There should be no means test
- Affordable Housing
  - There should be rent controls – not only on existing rental units but should remove the ability to re-price the unit when someone moves (2 Votes)
- Income
  - People should be entitled to a liveable, dignified, thriving income
- Child care
  - There should be a universal child care policy – affordable (2 Votes)
  - MSP rates should be eliminated
- Transportation
  - Transit passes should cover more than a single fare should cover more zones

- Transit passes should be cheaper
- There should be more transit accessibility for people in low income
- Housing
  - Build more subsidized housing (1 Vote)
  - Move away from relying on private housing developers
  - Be more strict rent control
  - Consider a tax on speculation
  - Stop building for investment market (2 Votes)
  - Bring sanity to housing prices
  - Encourage municipalities to adopt different approaches to their zoning
  - Adopt stricter rules and requirements on vacation rentals and short term rentals as well as around AirBnB
  - Return to a housing market that is designed to meet the needs of the people who live there – i.e. rental market for locals
  - Encourage more long term rental housing supply and protect the housing stock that is available
- Food Security
  - Food programs for schools, every day in every school -nutritious food (1 Vote)
  - More education around food and how to cook nutritious food at a low cost (1 Vote)
  - More community gardens
  - More food – urban gardens in Richmond
  - Programs to recover food in grocery stores that are going to waste
  - Make it easier for this food to go to charity while the food is still edible (1 Vote)
  - More flexibility around food that is close to or at the expiry date
  - Put controls on food waste
  - Find ways to reduce the amount of food that is wasted (1 Vote)
  - Store owners should have to pay a penalty for any food that they are wasting
  - Zurich is a good model to look at – they have found ways to use food before it is wasted
  - Provide education on how to preserve food –i.e. making jam or other food products
- Support with Income Assistance
  - Make more social workers available for those who want/need one
  - More community navigators
  - Service and supports all in one place
  - Create a resource hub/ centre
  - Information should be available in printed format in plain language
  - There should be one place that you can go to get all of the information that you need
  - Stop strict criteria to get help (1 Vote)
  - There should be coverage for medicine that is prescribed over the counter for things like allergies, lice, pain, gastro problems
  - Make help readily available so that you don't have to fight for it

- There should be more government supports delivered by people who care about the issues instead of through IT and technology – this should be for all areas of the public service –health, income supports, social assistance (1 Vote)
  - Raise income assistance rates (3 Votes)
  - Continue to work to reduce barriers (1 Vote)
- Support for recent immigrants and refugees (1 Vote)
  - Make it easier and cheaper for recent immigrants to transfer their skills and training
  - Provide better supports to refugees
  - Help provide navigation and support for ESL
  - Drop the hard to understand jargon/language (1 Vote)
  - Work to build community
- Service Delivery
  - Government needs to shift away from technology
  - This means creating a whole new way of thinking/focus
  - The focus should be on people not on technology
  - People have to think ahead about preventative solutions– Invest now for a better/cheaper tomorrow
  - There should be better access to services faster. i.e. Methadone treatment.
  - More and better access to harm reduction treatments
- Supports for Families
  - More family support workers (3 Votes)
- Transportation
  - Bus passes should be available to anyone who lives in poverty (3 Votes)
  - Transportation is key
- Other supports
  - There should be public water fountains and cooling stations (Like Vancouver)
- Housing
  - There should be more rent Control
  - Landlords have to stop raising rents every year = people need stable housing
- Public Awareness
  - There is value in getting the concerns/issues out there
  - Making the issues more public and building public awareness and support
  - Videos and news articles help to put a public face to the story
  - Helps to build better understanding with more exposure (1 Vote)
  - Need to educate society to help to break down the myths –remove misconceptions
- Access to Services
  - People need access to counselling – a support system
  - People need someone to help with homelessness
  - People need access to better social housing – longer term
  - Access to stable, affordable housing will allow people to focus on their lives
  - People need security of tenure in their housing (3 Votes)
  - People need counselling/assistance with budgeting etc. (1 Vote)

- Need a resource centres that provides a range of services and that has more hours/availability, more staff that are trained, more follow through (1 Vote)
  - Need to ensure that people are getting the help they need
  - Could be one resource centre with different organizations/representatives
  - Better rehabilitation programs – instead of sending to prison – offer better or more rehabilitation services (1 Vote)
- Minimum Wage
  - There is the need for higher minimum wage
- Training and Skills Development
  - People need to be equipped with skills like resume writing, typing, internet and job, search skills including support in developing these skills
  - More people should be able to take courses, go to school,
  - More encouragement, inspire people to go to school
  - More balance, being able to go to school, being of assistance, same with work (1 Vote)
- Income Assistance
  - Income assistance rates and supplements need to increase (2 Votes)
  - There should be a basic income for everyone (guaranteed income) (1 Vote)
  - Residential tenancy branch – improvements re moving out timelines
- Ministry:
  - Staff need to show empathy
  - Need more staff/more resources
  - More investments in the social services
  - More outreach
  - Build trust
  - Offer more counselling outside of methadone
  - More long term solutions (1 Vote)
- Housing and Supports
  - There should be more integration between housing, employment
  - Housing and supports should be treated more as a package instead of passing person around from one resource to another (2 Votes)
  - We need more shelters, food for the homeless (4 Votes)
- Inequality
  - More privileged people should pay more taxes (13 Votes)
  - Better education, affordable, make education more accessible (4 Votes)
  - Education for lifestyle choices – more choice (2 Votes)
  - For people to know they could do it, to have motivation (1 Vote)
  - Increase affordability, purchase power(1 Vote)
  - Promote more income equity
  - Support small and local businesses (2 Vote)
  - Fair taxation
- Healthy childhood development
  - Create programs for kids that are struggling to reduce stigma (1 Vote)

- Let the kids fit in even if they are on assistance
- Housing Affordability
  - Decrease rent (2 Vote)
- Access to education and opportunities
  - Provide education for all
  - Decrease barriers for students
  - Fair system for people entering the market (Jobs, housing, transport) (10 Votes)
  - Make it more bearable for people trying to get out poverty so they can make it (2 Votes)
  - Make sure immigrants can get proper training in English (4 Votes)
- Income Assistance
  - People on PWD should not be financially penalized for being in a relationship
- Housing
  - Need real housing alternatives
  - How can we change things so that people feel more secure in their housing even if the cost of their housing is going up
- Empathy
  - Decision makers should be people in the field (doctors etc. are not bureaucrats)
  - Decision makers should be more connected to people receiving PWD.
  - Give PWD more decision power or at least allow their opinion to be heard
- Service Delivery
  - Shifting from a medical deficit model to prevention (3 Votes)
  - More funding for prevention and choice
  - Think of community instead of individuals
  - Need a system that looks at the long run rather than a short run solution
  - Basic needs of life should be covered. Universal benefits (6 Votes)
  - The income/assets test for PWD application is degrading
- Transit
  - Different color compass card is not needed if public transit is free – it just makes people stand out
  - The cost of transit would be lower if there were no gates etc. (lower environmental impact)
  - What is the incentive for taking public transit?
- Childcare
  - Universal Childcare
- Health Care
  - Flexible healthcare/ medications
  - Give people credits and let them focus their credits on the medications/ therapies that they each need
  - Transferrable medical coverage
- Building Community
  - Promote a shift to a sharing culture (2 votes)
  - Support tax increases for the greater good of the community (1 Vote)



- Open minded about job creation/ opportunities for PWDs.
- Supports in the Community
  - Mental Health Pathways
  - Assisted living for 18 – 60
  - Make it that people can make their own medical decision (1 vote)
  - Free public transit (3 Votes)
  - Universal childcare (1 vote)
  - Support a guaranteed income – should be universal not means tested
  - Need to support the dignity of the individual
  - Create conditions for people to thrive
- Affordable Housing
  - Rent controls should apply to units
  - \$1700 a month for a 500 sq. ft. place is too much
  - There is not enough publicly funded housing
- Medical Services
  - MSP rates should not to be charged on a monthly basis – pay in taxes
- Transit
  - Reduce transit fares – they are too high – it costs \$180 per month for a 3 Zone
  - Single fares are too high– barrier to get around
  - Subsidized transit – have to live in Surrey but work in Vancouver – expensive
  - There should not be different prices for transit - no more zones – 1 Zone
  - \$9 a day is too much for a transit pass
  - Many of the transit busses are not accessible
  - Buses takes too long to come - too long a wait
- Influence of the Development Industry on Housing Costs
  - Province and city to move away from private developers
  - Issue is cost of housing
  - Empty units – tax – speculation driving up prices
  - Start building – for people not investors
  - Vacancy rate is less than 1%
  - Short controls on vacation rentals – no air b and b's outside of home
  - Long term rental housing
  - Need to find a way to go from 1% to 3% vacancy
- Food Security
  - Cost of Food
  - Should have breakfast program in schools each day
  - Access to healthy, nutritious food should be part of basic education.
  - Provide nutritious food to kids at low cost
  - Educational price – food and education
  - Community gardens can help families
  - Help supermarkets donate food that is close to the expiry date to charities
  - There should be more flexibility on expiry dates on food

- Income Security
  - o There should be a minimum Income for all people
  - o It should be more than \$710 per month
  - o Use media, radio, and advertising to promote the benefits of a guaranteed minimum income – build awareness among the rich
  - o There needs to be a drastic increase in income assistance rates - more for shelter
- Service Delivery
  - o There should be cuts to the bureaucracy
  - o Medical and dental costs should be covered for everyone
  - o There should be more case workers
  - o People need to be able to call the 1-800 number and talk to someone right away
  - o Need more clarity on eligibility requirements for clients and advocates – applied consistently
  - o Services should be centralized -one place to go for help
- Seniors
  - o Seniors need access to a health care plan that covers medical and dental
  - o Seniors shouldn't have to worry about medication costs (1 vote)
  - o More access to seniors housing/ in home support (1 vote)
- Inclusion
  - o Community events that reach across all abilities/ classes/ races/ religions
  - o Mental health – people need support to help their physical well-being
  - o Free community centre programs for people with disabilities, low income (1 Vote)
  - o Communities need to be activated
  - o Expand participation, more eyes would be able to see the problem (4 Votes)
- Access to Services
  - o There should be access to treatment, wrap around services -no waiting
  - o There should be housing that is supportive and accessible
  - o Programs and supports should be geared to where a person is at
  - o Programs should not be isolating/alienating
  - o Need to increase shelter allowance from \$375 or provide housing for that level
- Income Equality
  - o Taxes should be higher for people with more money
  - o There are long-term savings by lifting everyone out of poverty
  - o Helping people out of poverty will save on services (4 Votes)
  - o There needs to be more social and economic inclusion
  - o We need to address the loss of industry = loss of community
  - o Find ways to replace the jobs that we lost from the loss of industry
  - o Retraining people = focus on jobs for the average person
- Housing
  - o Need to increase shelter allowance from \$375 or provide housing for that level
  - o People are renting a room for \$800 per month and have no locks on their door

- Perhaps there is a “billet program” that could be introduced – bring people together organizing and educating – make community a big family
  - Each individual needs to take responsibility (1 Vote)
  - Take much more presence in the press, more positive reports
  - Richmond City Council should accept modular housing (4 Votes)
  - There should be more facilities for treatment (3 Votes)
  - Enhance current educational programs
  - There are many good people in community who would be willing to participate in a billet programs, teamed with media and good positive stories
- School Food Programs
  - Have breakfast program for kids on their way to school to avoid stigma
  - Food allowance program
  - Utilize/ make community food gardens on public land
  - City operates gardens and provide free groceries (1 Vote)
  - Richmond should utilize land for public gardens instead of daffodils and tulips
- Families and Children
  - More funding for early childhood education (1 Vote)
  - CAP universal child bonus (1 Vote)
  - More programs for school on addiction and mental health
  - Free educational program for adults
  - Provide kids with access to education, daycare
  - Support healthy and nutritious access to food
  - Work to break the stigma of poverty
- Services
  - Easy access to treatment
  - Basic needs of life are covered – universal benefit
  - Activation of communities – expansion of programs
  - Make it so that fewer people are blind to poverty.
  - More facilities for treatments, especially in REMP treatment and crisis
  - Ensure that services are available when people decide to go to treatment
  - More programs for schools on addiction and mental health
  - Work to take stigma away from mental illness –break the stereotype
  - More social workers on staff to help people who need help
  - More advocacy
  - Create a resource centre/service hub
  - Shift the focus from the medical deficit model to prevention
  - More funding prevention
  - Show respect for people to make their own decisions
  - People should be encouraged and supported in making their own medical decisions
- Housing
  - Address foreign speculation

- Address the commodification of housing
- It is tough conversation but we have it –We need to ask the question of whether we are building homes and neighbourhoods
- To address the housing crisis we need the commitment of all levels of government
- There are good models like housing co-ops
- People need better access to social housing
- Provide incentives to landlords to reduce rent costs (e.g. tax credit for landlords)
- Addresses soaring rent costs
- Supports
  - People need more support obtaining ID and navigating the process
  - There should be a minimum income for everyone (more than \$710 per month)
  - People should not have to fear being cut off assistance – they should feel supported
  - The basic income assistance rates need to go up
  - There should be trauma-informed training to educate frontline service providers about the effects of trauma
- Community Education
  - Educate communities about homelessness to build buy in for supported housing
  - Build neighbourhood support for use of underutilized lands for temporary housing
- Income Security
  - Help people gain access to employment
  - Focus on greater pay equity
  - Create fair and living wages
  - Support full time employment with benefits
  - Support a guaranteed basic income
- Income Assistance
  - Fund Family Support Workers
  - Provide funding for support programs
  - Have the Ministry see itself as being in “the people business”
  - Raise PWD and income assistant rates
  - Simplify and streamline the process
  - Support people to access services, especially those with low computer literacy
- Transportation
  - Focus on transit accessibility
  - Work to support subsidized bus passes
  - More people should have access to discounted or free bus passes
- Income Support
  - Raise the rates
  - Higher minimum wage
  - Fair pay with benefits
  - There should be a \$15 minimum wage and affordable and available childcare
  - People should be able to have an affordable lifestyle –one that they want to live

- Partnerships
  - o Cities should be allowed to make their own decisions with adequate funding
  - o There should be partnerships across all levels of government
  - o Privatized services should be made public
- Strengthen the current system
  - o We need to strengthen the system (i.e. Income support, taxation, child tax benefit)
  - o So much of the assistance provided is not based on people's current circumstances – they system needs to be more flexible, make it fit, peoples circumstances, not vice versa
- Address the stigma
  - o The current system has stigma and prejudices
  - o There is a lack of quality and quantity of resources
  - o Need to find a way to expand the current resources and programs
- Housing
  - o Have to take steps to drive down housing values
  - o Have to prevent speculation



**City of  
Richmond**

**Memorandum**  
Community Services Division  
Community Social Development

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**To:** Mayor and Councillors  
**From:** Lesley Sherlock  
Social Planner  
**Date:** August 28, 2018  
**File:** 07-3000-01/2018-Vol 01  
**Re:** **Opportunity for All: Canada's First Poverty Reduction Strategy**

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Background

On August 21, The Honourable Jen-Yves Duclos, Minister of Families, Children and Social Development, announced the release of "Opportunity for All: Canada's First Poverty Reduction Strategy". The Executive Summary is included as Attachment 1.

The Strategy consists of three pillars:

*Dignity: Lifting Canadians out of poverty by ensuring basic needs – such as safe and affordable housing, healthy food and health care – are met;*

*Opportunity and Inclusion: Helping Canadians join the middle class by promoting full participation in society and equality of opportunity; and*

*Resilience and Security: Supporting the middle class by protecting Canadians from falling into poverty and by supporting income security and resilience.*

Government initiatives supporting each pillar are identified in the Strategy, including new and pre-existing programs and investments. A list of new programs and expenditures, either implemented or announced since the Liberal government assumed power in late 2015, is included in Attachment 2. For example, the Canada Child Benefit, the National Housing Strategy and the Early Learning and Child Care Plan all represent increased investment that will contribute to poverty reduction. These additional and pre-existing resources will help the government to achieve its stated poverty reduction goals of 20% by 2020 and 50% by 2030 (from 12% in 2015 to 6% by 2030). No new funding announcements were made with the introduction of this Strategy.

Official Poverty Line

To measure poverty reduction progress, this Strategy sets Canada's first "Official Poverty Line". It is a "market basket measure", reflecting the income required to cover the actual cost of goods and services needed to attain a modest standard of living. To reflect variations in the cost of living across the country, the income level has been calculated for 50 different communities based on location and population size. The goods and services considered in this measure include clothing

and footwear, nutritious food, personal care items, household supplies, transportation and shelter costs, including water, heat and electricity. Calculations are based on amounts needed for individuals and families, with the latter calculation based on a “reference” family of four (two adults aged 25–49 years, a 9-year-old girl and a 13-year-old boy). For individuals, the income needed is estimated to be half as high as that required by a family.

For Metro Vancouver, including Richmond, the poverty line has been set at an income of approximately \$40,000 per year for a family of four; therefore, for an individual, at approximately \$20,000 per year. While not referenced in the Federal Strategy, this amount is considerably less than that determined to be a 2018 Living Wage by the Canadian Centre for Policy Alternatives, estimated as approximately \$76,112 for a family of four in Metro Vancouver. The Living Wage incorporates additional expenses including the cost of child care, fees for two college courses and a minimal recreation budget.

#### Measurement

In addition to tracking population level income changes in relation to the Official Poverty Line, a range of other indicators will be tracked over time to monitor progress toward the stated poverty reduction targets. The monitoring of these indicators will be publicly available through an on-line “dashboard” providing data as it becomes available, including both annual and intermittent results, depending on the data source, as well as long-term trends. Data sources to be monitored include the annual Canadian Income Survey, the annual Canadian Community Health Survey, the Census, the National Homelessness Information System, the Labour Force Survey, the Program for the International Student Assessment and Adult Competencies, the Longitudinal Administrative Databank and the Survey of Financial Security.

#### Legislation

Significantly, the country’s first Poverty Reduction Act will be introduced to the legislature at a future sitting (date to be determined). Once passed, the Act will enshrine the adoption of an Official Poverty Line and reduction targets, as well as the formation of a National Advisory Council on Poverty, in legislation.

#### Municipal Role

In this Strategy, the federal government indicates that it will work closely with provinces, territories, municipalities and other entities, including community groups, to ensure that poverty reduction efforts are “aligned and complementary”. Specific roles for municipalities are not identified, but will be embedded in specific undertakings, for example, in the implementation of Canada’s Homelessness Strategy, infrastructure investments and public transit projects.

As the federal government is seeking aligned and complementary initiatives with provinces, territories and municipalities, the introduction of a BC Poverty Reduction Strategy, anticipated to follow the introduction of Provincial poverty reduction legislation later this year, will be significant for BC municipalities including Richmond. As the City has many poverty reduction initiatives underway (e.g., implementation of the new Affordable Housing Strategy, Child Care Needs Assessment and Strategy, Recreation Fee Subsidy Program, Youth and Seniors Service Plans,



August 28, 2018

- 3 -

Community Wellness Strategy and an in-progress Homelessness Strategy Update), staff will be seeking opportunities to work closely with both federal and provincial entities as well as community agencies to support these and other actions, with the goal of measurable and significantly reduced poverty rates for Richmond individuals and families.

For further information, please call me at 604-276-4220.



Lesley Sherlock  
Social Planner

Att. 2

pc: SMT  
Ted Townsend, Director, Corporate Communication and Marketing  
Kim Somerville, Manager, Community Social Development  
Denise Tambellini, Manager, Inter-Governmental Relations and Protocol Unit  
Barry Konkin, Manager, Policy Planning

## EXECUTIVE SUMMARY

Canada is a prosperous country, yet in 2015 roughly one in eight Canadians lived in poverty. The vision of *Opportunity for All – Canada's First Poverty Reduction Strategy* is a Canada without poverty, because we all suffer when our fellow citizens are left behind. We are all in this together, from governments, to community organizations, to the private sector, to all Canadians who are working hard each and every day to provide for themselves and their families.

The Government is committed to poverty reduction and did not wait to release a poverty reduction strategy before taking action. For example, the new Canada Child Benefit gives more money to families who need it most to help with the cost of raising children. The increase to the Guaranteed Income Supplement ensures more seniors can retire in security and dignity. And, starting in 2019, the new Canada Workers Benefit will help Canadians take home more money while they work hard to join the middle class.

The Government has also made longer-term investments in areas such as housing, clean water, health, transportation, early learning and child care, and skills and employment, which will help address multiple dimensions of poverty.

Overall, *Opportunity for All* brings together new investments of \$22 billion that the Government has made since 2015 to support the social and economic well-being of all Canadians. These actions will help lift about 650,000 Canadians out of poverty by 2019, with more expected as the impacts of these investments are realized in the years to come.

*Opportunity for All* also sets the foundation for future government investments in poverty reduction. It is based on three pillars to focus Government actions to reduce poverty:

**Dignity:** Lifting Canadians out of poverty by ensuring basic needs—such as safe and affordable housing, healthy food and health care—are met;

**Opportunity and Inclusion:** Helping Canadians join the middle class by promoting full participation in society and equality of opportunity; and

**Resilience and Security:** Supporting the middle class by protecting Canadians from falling into poverty and by supporting income security and resilience.

*Opportunity for All* offers a bold vision for Canada as a world leader in the eradication of poverty, with progress validated in terms of its alignment with the United Nations Sustainable Development Goal of ending poverty.

For the first time in Canada's history, the Strategy sets an official measure of poverty: Canada's Official Poverty Line, based on the cost of a basket of goods and services that individuals and families require to meet their basic needs and achieve a modest standard of living in communities across the country.

*Opportunity for All* sets, for the first time, ambitious and **concrete poverty reduction targets**: a 20 percent reduction in poverty by 2020 and a 50 percent reduction in poverty by 2030, which, relative to 2015 levels, will **lead to the lowest poverty rate in Canada's history**.

Through *Opportunity for All*, we are putting in place a **National Advisory Council on Poverty** to advise the Minister of Families, Children and Social Development on poverty reduction and to publicly report, in each year, on the progress that has been made toward poverty reduction.

The Government also proposes to introduce the first **Poverty Reduction Act** in Parliament in Canada's history. This Act would entrench the targets, Canada's Official Poverty Line and the Advisory Council into legislation.

*Opportunity for All* is a whole-of-government Strategy that involves actions and investments that span across the federal government. However, the Government recognizes that to be successful, it cannot act alone. Partnerships will be important. The Government will work closely with provinces, territories and municipalities, and will forge strong bonds with Indigenous peoples, stakeholders, charities and community groups on the front lines of tackling poverty in communities across Canada, to ensure our programs and policies are aligned and complementary, as Canadians expect and deserve nothing less. And, finally, the Government will continue to reach out to all Canadians who all have a stake in *Opportunity for All*, particularly those who live in poverty.

The Government will continually track and make improvements to how poverty is measured. Progress will therefore be measured against, and future decisions will be informed by, evidence that is based on the highest statistical standards, building on the Prime Minister's leadership and the commitment G7 leaders made this year to measure growth that works for everyone.

The Government will advance the dialogue with Canadians from all corners of the country, so we can continue to build a Canada without poverty.

*Opportunity for All* will help reduce poverty, support Canadians working hard to join the middle class and build a diverse, prosperous and truly inclusive country where everyone benefits from economic growth—a country where all Canadians can realize their full potential.

**Poverty is:**

*The condition of a person who is deprived of the resources, means, choices and power necessary to acquire and maintain a basic level of living standards and to facilitate integration and participation in society.*

**Key New Investments to Help Lift Canadians out of Poverty and Support the Middle Class,  
Budget 2016, Budget 2017, and Budget 2018**

Initiative	Projected New Investment
Canada Child Benefit	Budget 2016 Introduced the Canada Child Benefit, which represents new Investments of over \$25 billion over five years, including the value of Indexing the benefit beginning in 2018–19.
Guaranteed Income Supplement	Budget 2016 Increased the Guaranteed Income Supplement top-up for single seniors with new Investments of over \$7 billion over ten years.
National Housing Strategy	Budget 2017 Introduced a National Housing Strategy. The 10-year, \$40-billion plan will give more Canadians a place to call home and includes \$16.1 billion in federal Investments in provincial and territorial housing programs, including \$2.1 billion for Reaching Home: Canada's Homelessness Strategy.
Indigenous Housing	Through Investments made in Budget 2017 and Budget 2018, the Government announced dedicated funding of over \$1.7 billion for Indigenous housing, including: <ul style="list-style-type: none"> <li>• \$600 million over three years to support housing on reserve as part of a 10-year First Nations Housing Strategy;</li> <li>• \$240 million over 10 years as announced in Budget 2017 to support housing in Nunavut;</li> <li>• \$400 million over 10 years to support an Inuit-led housing plan in the Inuit regions of Nunavut, Nunatsiavut and Inuvialuit; and</li> <li>• \$500 million over 10 years to support the Métis Nation's housing strategy.</li> </ul>
Public Transit Infrastructure	Budget 2016 announced \$3.4 billion over three years to upgrade and improve public transit systems across Canada. Budget 2017 announced an additional \$20.1 billion over 11 years in public transit infrastructure to transform the way that Canadians live, move and work. A further \$5.0 billion was announced in Budget 2017 for public transit projects that will be funded through the Canada Infrastructure Bank.
Early Learning and Child Care	Budgets 2016 and 2017 announced combined Investments of \$7.5 billion over 11 years to improve the affordability, quality and accessibility of Early Learning and Child Care, including for Indigenous Early Learning and Child Care.
Labour Market Transfer Agreements	Budget 2017 provided additional Investments of \$2.7 billion over six years through agreements with provinces and territories to help Canadians prepare for, find, advance in and keep good jobs.
Indigenous Skills and Employment Training Program	Budget 2018 Introduced the new Indigenous Skills and Employment Training Program to replace the Aboriginal Skills and Employment Training Strategy with an incremental investment of almost \$450 million over five years and nearly \$100 million per year ongoing.
Canada Workers Benefit	Budget 2018 Introduced the new Canada Workers Benefit to strengthen and replace the Working Income Tax Benefit with new Investments of \$3 billion over five years, which includes measures to improve access to the benefit.
Home Care and Mental Health	Budget 2017 provided \$11 billion over 10 years to support better home care mental health initiatives through agreements with provinces and territories.



City of  
Richmond

June 6, 2016

08-400 ATTACHMENT 5  
X2: 01-0150-20-0 PRE1

Malcolm D. Brodie  
Mayor

6911 No. 3 Road,  
Richmond, BC V6Y 2C1  
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Fax No: 604-276-4332  
www.richmond.ca

The Honourable Christy Clark  
Premier of British Columbia  
Office of the Premier  
PO Box 9041 STN PROV GOVT  
Victoria BC V8W 9E1

Dear Premier Clark:

**Re: BC POVERTY REDUCTION COALITION**

At the Regular City Council meeting held on May 24, 2016, Richmond Council heard a delegation from the Richmond Poverty Response Committee (BC PRC) concerning the above matter. At the meeting, Council adopted the following motion:

*Whereas:*

- (1) The poverty rate in British Columbia continues to be among the highest in Canada at approximately 1 in 10 using the most conservative estimate (low Income Cut-Off – After Tax), and child poverty rates in BC are still 1 in 5;*
- (2) Many impacts of poverty are experienced at the local level, and local residents pay for poverty in increased health care costs, higher crime, higher demand for community, social and charitable services, lack of school readiness, reduced school success, and lower economic productivity;*
- (3) 78% of British Columbians want the provincial government to implement a poverty reduction plan;*
- (4) BC is the last province in Canada to have a commitment to a poverty reduction plan.*

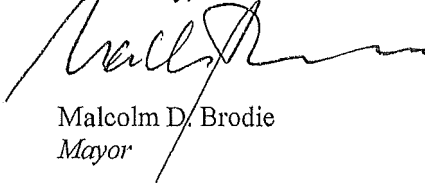
*Therefore be it resolved:*

- (1) That the City of Richmond advocate to the Provincial government to develop and implement a provincial poverty reduction strategy to reduce the number of people living in poverty in BC by setting concrete targets and timelines to reduce poverty.*
- (2) That the City of Richmond urge the Government of BC to adopt a comprehensive and accountable provincial poverty reduction strategy to reduce the number of people living in poverty in BC by setting concrete targets and timelines to reduce poverty; and*
- (3) That these resolutions be forwarded to the Union of BC Municipalities (UBCM).*

The BC PRC is requesting that the Government of British Columbia set legislated targets and timelines as well as specific policy measures and concrete actions as a poverty reduction plan. The Province has a responsibility to provide adequate and accessible support and services to those in poverty as well as remove policy barriers. Richmond City Council endorses the recommendations set forward by the BC PRC on poverty reductions, as indicated in the above resolution.

The City continues to encourage the Province to adopt a strong approach for implementing a comprehensive poverty reduction strategy for British Columbia and urges the Government of British Columbia to implement a plan consistent with the recommendations set forth by the BC Poverty Reduction Coalition.

Yours truly,



Malcolm D. Brodie  
Mayor

pc: The Honourable Rich Coleman, Deputy Premier, Minister of Natural Gas Development, Minister Responsible for Housing and Member of the Legislative Assembly  
The Honourable Michelle Stilwell, Minister of Social Development and Social Innovation and Member of the Legislative Assembly  
The Honourable Linda Reid, Member of the Legislative Assembly for Richmond East and Speaker of the Legislature  
The Honourable Teresa Wat, Member of the Legislative Assembly for Richmond Centre and Minister for International Trade and Minister Responsible for the Asia Pacific Strategy and Multiculturalism  
Mr. John Yap, Member of the Legislative Assembly for Richmond-Steveston and Parliamentary Secretary for Liquor Reform Policy to the Minister of Small Business, Red Tape Reduction and Minister Responsible for the Liquor Distribution Branch

0150-20-UPR-1



City of  
Richmond

Malcolm D. Brodie  
Mayor

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February 28, 2017

The Honourable Christy Clark  
Premier of British Columbia  
PO BOX 9041 STN PROV GOVT  
Victoria, BC V8W 9E1

Dear Premier Clark:

**Re: Richmond Community Services Advisory Committee Report On "Municipal Responses To Child And Youth Poverty"**

At its Regular Council meeting held on Monday, February 27, 2017, Richmond City Council considered the above matter and adopted the following resolution:

*That the Richmond Community Services Advisory Committee (RCSAC) Report on "Municipal Responses to Child and Youth Poverty", identified in Attachment 1 of the staff report titled "RCSAC Municipal Responses to Child and Youth Poverty Report", dated January 30, 2017, from the General Manager, Community Services, be sent to the Premier, Leader of the Opposition, Richmond Members of Parliament, Richmond Members of the Legislative Assembly, and Richmond Members of the Legislative Assembly candidates.*

The Richmond Community Services Advisory Committee (RCSAC) report, "Municipal Responses to Child and Youth Poverty", as well as the associated City staff cover report, has been attached for your reference. The RCSAC report provides a valuable scan of municipal actions to address poverty, including those undertaken by the City of Richmond which the RCSAC notes as comparing favourably with other municipalities.

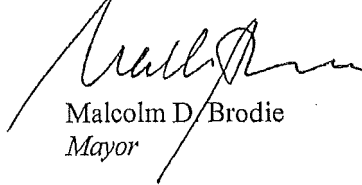
As identified in the enclosed reports, the City of Richmond is devoting considerable resources to initiatives within its mandate that address challenges faced by low-income residents. For example, in 2017 the City is updating its Affordable Housing Strategy, Child Care Needs Assessment and Strategy, Recreation Fee Subsidy Program and Homelessness Strategy. However, only senior governments can substantively address poverty reduction. On May 24, 2016, Richmond City Council endorsed a resolution for submission to the UBCM calling on the Provincial Government to develop a BC Poverty Reduction Strategy, with UBCM endorsing a similar resolution at their 2016 Convention. In spite of repeated UBCM resolutions over the years to this effect, the Province remains the only province or territory in Canada without a poverty reduction strategy.



Given the critical need to improve the living conditions of children, youth and their families struggling to meet basic needs in Richmond as well as throughout the Province, Council respectfully requests that consideration be given to the need for a BC Poverty Reduction Plan as previously resolved by Richmond City Council, repeatedly requested by the UBCM and also recommended by the RCSAC in the enclosed report.

Thank you in advance for your review and consideration of the above City of Richmond requests. Should you have any questions, please contact Lesley Sherlock, Social Planner, at 604-276-4220.

Yours truly,



Malcolm D. Brodie  
Mayor

pc: John Horgan, Leader of the Opposition  
Alice Wong, Member of Parliament – Richmond Centre  
Joë Peschisolido, Member of Parliament – Steveston-Richmond  
Linda Reid, MLA  
John Yap, MLA  
Teresa Wat, MLA  
Chak Au, NDP Candidate  
Lyren Chiu, NDP Candidate  
Kelly Greene, NDP Candidate  
Jas Johal, Liberal Candidate



# City of Richmond

## Report to Committee

**To:** Planning Committee **Date:** December 20, 2018  
**From:** Kim Somerville **File:** 08-4057-05/2018-Vol 01  
Manager, Community Social Development  
**Re:** **Affordable Housing Agreement Bylaw 9952 to Permit the City of Richmond to Secure Affordable Housing Units at 6551 No. 3 Road**

### Staff Recommendation

That Affordable Housing Agreement (6551 No. 3 Road) Bylaw 9952 be introduced and given first, second and third readings to permit the City to enter into a Housing Agreement with RC (South) Inc. and 7904185 Canada Inc., together as registered owners, and RCCOM Limited Partnership and AIMCO Realty Investors Limited Partnership, together as beneficial owners, substantially in the form attached hereto, in accordance with the requirements of Section 483 of the *Local Government Act*, to secure the Affordable Housing Units required by the Official Community Plan (City Centre Area Plan) Amendment CP 16-752923.

Kim Somerville  
Manager, Community Social Development  
(604-247-4671)

Att. 3

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Law	<input checked="" type="checkbox"/>	
Development Applications	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO (Deputy)</b> 

## Staff Report

### Origin

The purpose of this report is to recommend that Council adopt Affordable Housing Agreement Bylaw 9952 (Attachment 1) to secure a five (5) per cent affordable housing contribution comprised of approximately 150 affordable rental housing units in two stand-alone buildings in the proposed development located at 6551 No. 3 Road (CF Richmond Centre) (Attachment 2). The associated Market Rental Agreement for this project is being brought forth under a separate report.

This report and Bylaws support Council's 2014-2018 Term Goal #2 A Vibrant, Active and Connected City:

*Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond's demographics, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.*

This report and Bylaws also support Council's 2014-2018 Term Goal #3 A Well-Planned Community:

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

This report supports the Social Development Strategy Goal #1: Enhance Social Equity and Inclusion:

*Strategic Direction #1: Expand Housing Choices*

Affordable Housing Agreement Bylaw 9952 is consistent with the City's Affordable Housing Strategy 2017–2027, adopted on March 12, 2018, which specifies the creation of affordable rental housing units as a key housing priority for the City.

### Housing Proposal

GBL Architects has applied to the City of Richmond to amend the Official Community Plan, Schedule 2.10 (City Centre Area Plan) at 6551 No. 3 Road to permit a high-rise, mixed use project on roughly 50 per cent of the property occupied by the south end of the CF Richmond Centre shopping centre (CP 16-752923). This OCP Amendment application provides for the subdivision of 6551 No. 3 Road into three lots and the development of approximately 2,200 residential units on Lot 1 (Phase 1) and Lot 2 (Phase 2).

The applicant's housing proposal is summarized in the table below.

**TABLE 1**

HOUSING TYPES	PROPOSED DWELLING UNITS (Estimate)
Market Ownership Housing	1,850
Affordable Housing	150 *
<b>Sub-Total</b>	<b>2,000 units</b>
Market Rental Housing	200 (10% of Sub-Total)
<b>Total</b>	<b>2,200 units</b>

\* As per the subject site's "Downtown Commercial (CDT1)" zone (applicable to development applications submitted prior to July 24, 2017 and considered by Council prior to July 24, 2018), the floor area of the developer's Affordable (low-end-of-market-rental/LEMR) Housing contribution shall equal 5% of the development's combined total floor area of Market Ownership Housing and Affordable Housing in Lot 1 (Phase 1) and Lot 2 (Phase 2) (i.e. at least 25,862 m<sup>2</sup> / 84,850 ft<sup>2</sup>).

The applicant's proposed affordable housing contributions include a five (5) per cent affordable housing contribution comprised of approximately 150 affordable rental housing units secured in perpetuity with an Affordable Housing Agreement and Affordable Housing Covenant registered on title. The proposed affordable housing units represent five (5) per cent of the total combined floor area of the development's affordable housing units and market ownership housing. The Affordable Housing Agreement will secure the developer's affordable housing contribution, together with maximum rental rates and tenant incomes as established by the City's Affordable Housing Strategy, and is a condition of final reading of the Official Community Plan (City Centre Area Plan) Amendment Bylaw.

It is recommended that proposed Affordable Housing Agreement Bylaw 9952 be introduced and given first, second and third readings. Following adoption of the Bylaw, the City will execute the Affordable Housing Agreement and arrange for notice of the agreement to be filed in the Land Title Office.

### Analysis

The affordable housing contribution proposed on Lot 1 (Phase 1) and Lot 2 (Phase 2) represents five (5) per cent of the total combined floor area of the development's affordable housing units and market ownership housing. The affordable housing units will be delivered in two stand-alone buildings, including one on Lot 1 (Phase 1) and one on Lot 2 (Phase 2). As the applicant has agreed to enter into partnership with a non-profit housing operator to manage the development's affordable housing units on Lot 1 (Phase 1) and Lot 2 (Phase 2), the City has accepted lot-by-lot clustering of the required units in the form of stand-alone buildings.

**TABLE 2**

Lots	Proposed Residential Floor Area	Proposed Affordable (LEMR) Housing		
		Rate	Floor Area	Est. # Units
Lot 1 (Phase 1)	85,983 m <sup>2</sup> (925,515 ft <sup>2</sup> )	5%	4,299 m <sup>2</sup> (46,276 ft <sup>2</sup> )	75
Lot 2 (Phase 2)	71,664 m <sup>2</sup> (771,381 ft <sup>2</sup> )	5%	3,583 m <sup>2</sup> (38,569 ft <sup>2</sup> )	75
<b>Total</b>	<b>157,647 m<sup>2</sup> (1,696,896 ft<sup>2</sup>)</b>	<b>5%</b>	<b>7,882 m<sup>2</sup> (84,845 ft<sup>2</sup>)</b>	<b>150</b>

The applicant's OCP Considerations require that at least 50 per cent of the development's affordable housing units shall be family-friendly two and three-bedroom units (i.e., greater than

the OCP minimum of 40 per cent two and three-bedroom affordable housing units). On Lot 1 (Phase 1), 38 per cent of units are proposed to be two and three-bedroom units. In order to deliver a combined total of 50 per cent two and three-bedroom affordable housing units across Lot 1 (Phase 1) and Lot 2 (Phase 2), approximately 61 per cent of the affordable housing units constructed on Lot 2 (Phase 2) will be required to be two and three-bedroom units.

This proposed unit distribution was developed based on the advice of Catalyst Community Developments Society, a non-profit housing provider engaged by the developer to provide advice on the design of the stand-alone affordable housing buildings. Catalyst has recommended a greater proportion of studio and one-bedroom units in Phase 1 to meet the demand for work force housing and seniors housing in Richmond's downtown. In contrast, the higher percentage of two and three-bedroom units in the Phase 2 affordable housing building will enable a strong family and child-friendly orientation. See Attachment 3 for more information. The details of the affordable housing units and related features to be provided on Lot 1 (Phase 1) and Lot 2 (Phase 2) will be finalized, to the satisfaction of the City, through the development's phase-by-phase Development Permit processes.

On Lot 1 (Phase 1), the 75 affordable housing units are anticipated to be delivered as follows:

**TABLE 3**

Unit Type	Affordable Housing Strategy Requirements			Lot 1 (Phase 1) Unit Mix	
	Min. Unit Area Target	Max. Monthly Unit Rent*	Total Max. Household Income*	% of Units	# of Units
Studio	37 m <sup>2</sup> (400 ft <sup>2</sup> )	\$811	\$34,650 or less	19%	14
1-BR	50 m <sup>2</sup> (535 ft <sup>2</sup> )	\$975	\$38,250 or less	43%	32
2-BR	69 m <sup>2</sup> (741 ft <sup>2</sup> )	\$1,218	\$46,800 or less	29%	22
3-BR	91 m <sup>2</sup> (980 ft <sup>2</sup> )	\$1,480	\$58,050 or less	9%	7
<b>TOTAL</b>	<b>4,299 m<sup>2</sup> (46,276 ft<sup>2</sup>)</b>	<b>Varies</b>	<b>Varies</b>	<b>100%</b>	<b>75</b>

\* Denotes the Council-approved rates as of July 24, 2017. Rates may be adjusted periodically, as per City policy.

The Affordable Housing Agreement restricts the annual household incomes and maximum rents for eligible occupants and specifies that the units must be made available at affordable rental housing rates in perpetuity. The Agreement includes provisions for annual adjustment of the maximum annual housing incomes and rental rates in accordance with City requirements.

The Affordable Housing Agreement specifies that occupants of the affordable rental housing units shall have the same access to the outdoor amenity spaces as the development's market-rental and strata-ownership housing units and exclusive use of indoor amenity spaces within their respective stand-alone affordable housing buildings. The exclusive use of the indoor amenity spaces will enable the non-profit housing manager to provide scheduled, customized programming for the occupants of these buildings. The Agreement also specifies that occupants will have secured access to on-site parking and related features (e.g., bike storage and related electric vehicle charging stations) required with respect to the affordable housing units at no charge over and above the Council-approved unit rents (e.g., no move in/move out fees).

The applicant has agreed to the terms and conditions of the attached Affordable Housing Agreement and to register notice of the Affordable Housing Agreement on title to secure the affordable rental housing units.

As per the City's standard approach for multi-phase developments, the developer has also agreed to register legal agreements on title to restrict final Building Permit inspection granting occupancy for the for-profit housing units on Lot 1 (Phase 1) and Lot 2 (Phase 2) until, on a lot-by-lot basis, an occupancy permit has been issued for each lot's affordable housing units and ancillary uses and spaces.

**Financial Impact**

None.

**Conclusion**

In accordance with the *Local Government Act* (Section 483), adoption of Bylaw 9952 is required to permit the City to enter into an Affordable Housing Agreement related to development at CF Richmond Centre (6551 No. 3 Road). The Affordable Housing Agreement, together with an Affordable Housing Covenant, will secure a five (5) per cent affordable housing contribution comprised of approximately 150 affordable rental housing units. This agreement will secure the affordable housing required with respect to the proposed Official Community Plan (City Centre Area Plan) Amendment (CP 16-752923) at 6551 No. 3 Road.



Cody Spencer  
Program Manager, Affordable Housing  
(604-247-4916)

- Att. 1: Schedule A to Bylaw No. 9952
- Att. 2: Map of 6551 No. 3 Road
- Att. 3: Letter from Catalyst Community Developments



# City of Richmond

## Bylaw 9952

### Housing Agreement (6551 No. 3 Road) Bylaw No. 9952

The Council of the City of Richmond enacts as follows:

1. The Mayor and City Clerk for the City of Richmond are authorized to execute and deliver a housing agreement, substantially in the form set out as Schedule A to this Bylaw, with the owner of the lands legally described as:

PID: 017-863-686      Lot A (BF285836) Section 8 Block 4 North Range 6 West New  
Westminster District Plan 31877

This Bylaw is cited as **Housing Agreement (6551 No. 3 Road) Bylaw No. 9952**

FIRST READING

SECOND READING

THIRD READING

ADOPTED

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

CITY OF RICHMOND
APPROVED for content by originating dept. <i>CS</i>
APPROVED for legality by Solicitor <i>[Signature]</i>

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER



Schedule A

To Housing Agreement (6551 No. 3 Road) Bylaw No. 9952

HOUSING AGREEMENT BETWEEN RC (SOUTH) INC. AND 7904185 CANADA INC.  
AND THE CITY OF RICHMOND

**HOUSING AGREEMENT**  
(Section 483, *Local Government Act*)

THIS AGREEMENT is dated for reference \_\_\_\_\_, 2018,

AMONG:

**RCCOM LIMITED PARTNERSHIP**, a limited partnership duly formed under the laws of the Province of Ontario and having its registered office at 20<sup>th</sup> Floor—250 Howe Street, Vancouver, British Columbia V6C 3R8 by its general partner **RCCOM GP INC.**, a corporation duly incorporated under the laws of the Province of Ontario and having its delivery address in British Columbia at 20<sup>th</sup> Floor—250 Howe Street, Vancouver, British Columbia V6C 3R8,

(“**RCCOM**”)

**AIMCO REALTY INVESTORS LIMITED PARTNERSHIP**, a limited partnership duly formed under the laws of the Province of Manitoba and having its registered office at 1700-666 Burrard Street, Vancouver British Columbia V6C 2X8, by its general partner **AIMCO RE GP CORP.**, a corporation duly incorporated under the laws of the Province of Alberta and having its delivery address in British Columbia at 1700-666 Burrard Street, Vancouver British Columbia V6C 2X8,

(“**AIMCO**” and together with RCCOM, the “**Beneficiary**”)

AND:

**7904185 CANADA INC. (INC. NO. 7904185)**, a company duly incorporated under the laws of Canada and having its registered office at 1100 – 10830 Jasper Avenue, Edmonton, Alberta T5J 2B3

(“**7904185**”)

AND:

**RC (SOUTH) INC. (INC. NO. 2510864)**, a company duly incorporated under the laws of the Province of Ontario, and extraprovincially registered in British Columbia, and having its head office at 20 Queen Street West, Suite 500, Toronto, Ontario M5H 3R4

(the Beneficiary and the Nominee are, together, the “**Owner**” as more fully defined in section 1.1 of this Agreement)

Housing Agreement (Section 483, *Local Government Act*)  
6551 No. 3 Road, Richmond, BC  
Application Nos. CP 16-752923 and DP 17-768248  
OCP Amendment Considerations No. 3

AND:

**CITY OF RICHMOND**, a municipal corporation pursuant to the *Local Government Act* and having its offices at 6911 No. 3 Road, Richmond, British Columbia V6Y 2C1

(the “City” as more fully defined in section 1.1 of this Agreement)

WHEREAS:

- A. Section 483 of the *Local Government Act*, permits the City to enter into and, by legal notation on title, note on title to lands, housing agreements which may include, without limitation, conditions in respect to the form of tenure of housing units, availability of housing units to classes of persons, administration of housing units and rent which may be charged for housing units;
- B. The Owner is the owner of the Lands (as hereinafter defined) which are to be subdivided and developed to include the Development (as herein defined) comprised of combination of commercial and residential improvements;
- C. The Owner has agreed to transfer to RCRES LP, or another separate entity (“RCRES”) those portions of the Lands on which the residential improvements (including the Affordable Housing Units (as herein defined)) will be situate prior to the commencement of the Development, and thereafter, RCRES shall carry out such residential portion of the Development and shall for the purposes of this Agreement become the Owner and be subject to the terms hereof;
- D. The City requires that the Affordable Housing Units (as herein defined) will be rented out by the Owner in perpetuity and the Affordable Housing Units will be managed by a Non-Profit Operator (as herein defined);
- E. The Owner and the City intend that the Affordable Housing Units will be managed by a Non-Profit Operator (as herein defined); and
- F. The Owner and the City wish to enter into this Agreement (as herein defined) to provide for affordable housing on the terms and conditions set out in this Agreement.

In consideration of \$10.00 and other good and valuable consideration (the receipt and sufficiency of which is acknowledged by both parties), and in consideration of the promises exchanged below, the Owner and the City covenant and agree as follows:

## **ARTICLE 1 DEFINITIONS AND INTERPRETATION**

1.1 In this Agreement the following words have the following meanings:

Housing Agreement (Section 483, *Local Government Act*)  
6551 No. 3 Road, Richmond, BC  
Application Nos. CP 16-752923 and DP 17-768248  
OCP Amendment Considerations No. 3

- (a) **“Affordable Housing Strategy”** means the Richmond Affordable Housing Strategy approved by the City on March 12, 2018, and containing a number of recommendations, policies, directions, priorities, definitions and annual targets for affordable housing, as may be amended or replaced from time to time;
- (b) **“Affordable Housing Unit”** means a Dwelling Unit or Dwelling Units designated as such in accordance with a building permit and/or development permit issued by the City in accordance with the OCPA Considerations and includes, without limiting the generality of the foregoing, the Dwelling Unit charged by this Agreement;
- (c) **“Affordable Housing Tower”** means a Tower containing only Affordable Housing Units and located within a Building;
- (d) **“Agreement”** means this agreement together with all schedules, attachments and priority agreements attached hereto;
- (e) **“Building”** means any building constructed, or to be constructed, on the Lands, or a portion thereof, and which contains one or more Towers, and if a Building contains an Affordable Housing Tower, such Building will also contain one or more Towers that are not Affordable Housing Towers;
- (f) **“Building Permit”** means the building permit authorizing construction on the Lands, or any portion(s) thereof;
- (g) **“City”** means the City of Richmond;
- (h) **“City Solicitor”** means the individual appointed from time to time to be the City Solicitor of the Law Division of the City, or his or her designate;
- (i) **“Community Charter”** means the *Community Charter*, S.B.C. 2003, c.26, together with all amendments thereto and replacements thereof
- (j) **“CPI”** means the All-Items Consumer Price Index for Vancouver, B.C. published from time to time by Statistics Canada, or its successor in function;
- (k) **“Daily Amount”** means \$100.00 per day as of January 1, 2019 adjusted annually thereafter by adding thereto an amount calculated by multiplying \$100.00 by the percentage change in the CPI since January 1, 2019, to January 1 of the year that a written notice is delivered to the Owner by the City pursuant to section 6.1 of this Agreement. In the absence of obvious error or mistake, any calculation by the City of the Daily Amount in any particular year shall be final and conclusive;
- (l) **“Development”** means the mixed-use residential and commercial development to be constructed on the Lands;

- (m) **“Development Permit”** means the development permit authorizing development on the Lands, or any portion(s) thereof;
- (n) **“Director of Development”** means the individual appointed to be the chief administrator from time to time of the Development Applications Division of the City and his or her designate;
- (o) **“Dwelling Unit”** means a residential dwelling unit or units located or to be located on the Lands whether those dwelling units are lots, strata lots or parcels, or parts or portions thereof, and includes single family detached dwellings, duplexes, townhouses, auxiliary residential dwelling units, rental apartments and strata lots in a Building and includes, where the context permits, an Affordable Housing Unit;
- (p) **“Eligible Tenant”** means a Family having a cumulative annual income of:
  - (i) in respect to a bachelor unit, \$34,650 or less;
  - (ii) in respect to a one-bedroom unit, \$38,250 or less;
  - (iii) in respect to a two-bedroom unit, \$46,800 or less; or
  - (iv) in respect to a three or more bedroom unit, \$58,050 or less

provided that, commencing January 1, 2019, the annual incomes set-out above shall be adjusted annually on January 1<sup>st</sup> of each year this Agreement is in force and effect, by a percentage equal to the percentage of the increase in the CPI for the period January 1 to December 31 of the immediately preceding calendar year. If there is a decrease in the CPI for the period January 1 to December 31 of the immediately preceding calendar year, the annual incomes for the subsequent year shall remain unchanged from the previous year. In the absence of obvious error or mistake, any calculation by the City of an Eligible Tenant’s permitted income in any particular year shall be final and conclusive;

- (q) **“Family”** means:
  - (i) a person;
  - (ii) two or more persons related by blood, marriage or adoption; or
  - (iii) a group of not more than 6 persons who are not related by blood, marriage or adoption;
- (r) **“GST”** means the Goods and Services Tax levied pursuant to the *Excise Tax Act*, R.S.C., 1985, c. E-15, as may be replaced or amended from time to time;

- (s) **“Housing Covenant”** means the agreements, covenants and charges granted by the Owner to the City (which includes covenants pursuant to section 219 of the *Land Title Act*) charging the Lands from time to time, in respect to the use and transfer of the Affordable Housing Units;
- (t) **“Interpretation Act”** means the *Interpretation Act*, R.S.B.C. 1996, Chapter 238, together with all amendments thereto and replacements thereof;
- (u) **“Land Title Act”** means the *Land Title Act*, R.S.B.C. 1996, c.250, together with all amendments thereto and replacements thereof;
- (v) **“Lands”** means PID: 017-863-686, Lot A (BF285836), Section 8, Block 4 North, Range 6 West, New Westminster District Plan 317877, and includes any lot or parcel into which said Lands is or are Subdivided;
- (w) **“Local Government Act”** means the *Local Government Act*, R.S.B.C. 2015, c.1, together with all amendments thereto and replacements thereof;
- (x) **“Lot”** means Lot 1 or Lot 2, as the context may require;
- (y) **“Lot 1”** means the separate legal parcel to be subdivided from the Lands, approximately as shown as “Lot 1” on the subdivision plan attached hereto as Schedule B;
- (z) **“Lot 2”** means the separate legal parcel to be subdivided from the Lands, approximately as shown as “Lot 2” on the subdivision plan attached hereto as Schedule B;
- (aa) **“LTO”** means the New Westminster Land Title Office or its successor;
- (bb) **“Non-Profit Operator”** has the meaning given in section 3.1 of this Agreement;
- (cc) **“Manager, Community Social Development”** means the individual appointed to be the Manager, Community Social Development from time to time of the Community Services Department of the City and his or her designate;
- (dd) **“OCA Considerations”** means the Official Community Plan Amendment Considerations dated September 10, 2018 and issued to the Owner by the City in connection with the Development and as supplemented from time to time;
- (ee) **“Outdoor Amenity Areas”** means, with respect to a particular Building, the outdoor common areas and facilities for such Building intended for use by all owners, occupants and tenants of the Towers comprising the Building;
- (ff) **“Owner”** means the party described on page 1 and Recital C of this Agreement as the Owner and any subsequent owner of the Lands or of any part into which the

Lands are Subdivided, and includes any person who is a registered or beneficial owner in fee simple of an Affordable Housing Unit from time to time;

(gg) “**Permitted Rent**” means no greater than (exclusive of GST):

- (i) \$811.00 a month for a bachelor unit;
- (ii) \$975.00 a month for a one-bedroom unit;
- (iii) \$1,218.00 a month for a two-bedroom unit; and
- (iv) \$1,480.00 a month for a three (or more) bedroom unit,

provided that, commencing January 1, 2019, the rents set-out above shall be adjusted annually on January 1<sup>st</sup> of each year this Agreement is in force and effect, by a percentage equal to the percentage of the increase in the CPI for the period January 1 to December 31 of the immediately preceding calendar year. In the event that, in applying the values set-out above, the rental increase is at any time greater than the rental increase permitted by the *Residential Tenancy Act*, then the increase will be reduced to the maximum amount permitted by the *Residential Tenancy Act*. If there is a decrease in the CPI for the period January 1 to December 31 of the immediately preceding calendar year, the permitted rents for the subsequent year shall remain unchanged from the previous year. In the absence of obvious error or mistake, any calculation by the City of the Permitted Rent in any particular year shall be final and conclusive;

(hh) “**Real Estate Development Marketing Act**” means the *Real Estate Development Marketing Act*, S.B.C. 2004, c.41, together with all amendments thereto and replacements thereof;

(ii) “**Residential Tenancy Act**” means the *Residential Tenancy Act*, S.B.C. 2002, c.78, together with all amendments thereto and replacements thereof;

(jj) “**Strata Property Act**” means the *Strata Property Act* S.B.C. 1998, c.43, together with all amendments thereto and replacements thereof;

(kk) “**Subdivide**” means to divide, apportion, consolidate or subdivide the Lands, or the ownership or right to possession or occupation of the Lands into two or more lots, strata lots, parcels, parts, portions or shares, whether by plan, descriptive words or otherwise, under the *Land Title Act*, the *Strata Property Act*, or otherwise, and includes the creation, conversion, organization or development of “cooperative interests” or “shared interest in land” as defined in the *Real Estate Development Marketing Act*, and “**Subdivided**” and “**Subdivision**” have the corresponding meanings;



- (ll) **“Tenancy Agreement”** means a tenancy agreement, lease, license or other agreement granting rights to occupy an Affordable Housing Unit in a form that complies with the *Residential Tenancy Act*;
- (mm) **“Tenant”** means an occupant of an Affordable Housing Unit by way of a Tenancy Agreement; and
- (nn) **“Tower”** means a tower located within a Building, and includes an Affordable Housing Tower.

1.2 In this Agreement:

- (a) reference to the singular includes a reference to the plural, and *vice versa*, unless the context requires otherwise;
- (b) article and section headings have been inserted for ease of reference only and are not to be used in interpreting this Agreement;
- (c) if a word or expression is defined in this Agreement, other parts of speech and grammatical forms of the same word or expression have corresponding meanings;
- (d) reference to any enactment includes any regulations, orders or directives made under the authority of that enactment;
- (e) any reference to any enactment is to the enactment in force on the date the Owner signs this Agreement, and to subsequent amendments to or replacements of the enactment;
- (f) the provisions of section 25 of the *Interpretation Act* with respect to the calculation of time apply;
- (g) time is of the essence;
- (h) all provisions are to be interpreted as always speaking;
- (i) reference to a "party" is a reference to a party to this Agreement and to that party's respective successors, assigns, trustees, administrators and receivers. Wherever the context so requires, reference to a "party" also includes an Eligible Tenant, agent, officer and invitee of the party;
- (j) reference to a "day", "month", "quarter" or "year" is a reference to a calendar day, calendar month, calendar quarter or calendar year, as the case may be, unless otherwise expressly provided; and
- (k) where the word "including" is followed by a list, the contents of the list are not intended to circumscribe the generality of the expression preceding the word "including".

Housing Agreement (Section 483, *Local Government Act*)  
 6551 No. 3 Road, Richmond, BC  
 Application Nos. CP 16-752923 and DP 17-768248  
 OCP Amendment Considerations No. 3

**ARTICLE 2**  
**USE AND OCCUPANCY OF AFFORDABLE HOUSING UNITS**

- 2.1 The Owner agrees that each Affordable Housing Unit may, in perpetuity, only be used as a permanent residence occupied by one Eligible Tenant at Permitted Rent. An Affordable Housing Unit must not be occupied by the Owner, the Owner's family members (unless the Owner's family members qualify as Eligible Tenants), or any tenant or guest of the Owner, other than an Eligible Tenant. For the purposes of this Article, "permanent residence" means that the Affordable Housing Unit is used as the usual, main, regular, habitual, principal residence, abode or home of the Eligible Tenant.
- 2.2 Within 30 days after receiving notice from the City, the Owner must, in respect of each Affordable Housing Unit, provide to the City a statutory declaration, substantially in the form (with, in the City Solicitor's discretion, such further amendments or additions as deemed necessary) attached as Schedule A, sworn by the Owner, containing all of the information required to complete the statutory declaration. The City may request such statutory declaration in respect to each Affordable Housing Unit no more than once in any calendar year; provided, however, notwithstanding that the Owner may have already provided such statutory declaration in the particular calendar year, the City may request and the Owner shall provide to the City such further statutory declarations as requested by the City in respect to an Affordable Housing Unit if, in the City's absolute determination, the City believes that the Owner is in breach of any of its obligations under this Agreement.
- 2.3 The Owner hereby irrevocably authorizes the City to make such inquiries as it considers necessary in order to confirm that the Owner is complying with this Agreement.
- 2.4 The Owner agrees that notwithstanding that the Owner may otherwise be entitled, the Owner will not:
- (a) be issued with a Development Permit that includes any residential use (excluding parking intended as an ancillary use to non-parking uses) unless the Development Permit includes the Affordable Housing Units;
  - (b) be issued with a Building Permit that includes any residential use (excluding parking intended as an ancillary use to non-parking uses) unless the Building Permit includes the Affordable Housing Units; and
  - (c) with respect to each of Lot 1 and Lot 2, on a lot by lot basis, occupy, nor permit any person to occupy, any Dwelling Unit or any portion of any Building on such Lot, in part or in whole (except for parking) for any residential uses and the City will not be obligated to permit occupancy of any Dwelling Unit or Building on such Lot for any residential uses until all of the following conditions are satisfied:

Housing Agreement (Section 483, *Local Government Act*)  
6551 No. 3 Road, Richmond, BC  
Application Nos. CP 16-752923 and DP 17-768248  
OCP Amendment Considerations No. 3

- (i) the Affordable Housing Units for such Lot and related uses and areas have been constructed to the satisfaction of the City in accordance with the OCPA Considerations and this Agreement;
- (ii) the Affordable Housing Units for such Lot have received final building permit inspection granting occupancy; and
- (iii) the Owner is not otherwise in breach of any of its obligations under this Agreement or any other agreement between the City and the Owner in connection with the Development.

### ARTICLE 3 MANAGEMENT, DISPOSITION AND ACQUISITION OF AFFORDABLE HOUSING UNITS

- 3.1 At all times that this Agreement encumbers the Lands, the Owner shall retain and maintain in place a non-profit organization acceptable to the City (each, a “**Non-Profit Operator**”) to operate and manage the Affordable Housing Units in accordance with this Agreement and in accordance with the Housing Covenant.

Without limiting the foregoing, such Non-Profit Operator retained pursuant to this section 3.1 must have as one of its prime objectives the operation of affordable housing within the City of Richmond and, at the request of the City, from time to time, the Owner shall deliver to the City a copy of the agreement (fully signed and current) with such Non-Profit Operator, to evidence the Owner’s compliance with this section 3.1.

- 3.2 Any Non-Profit Operator(s) retained by the Owner pursuant to section 3.1 must, unless otherwise authorized in writing by the City Solicitor, manage and operate no less than all of the Affordable Housing Units located on two adjacent floors in a Building (the “**Minimum Units Under Management**”). For clarity, a Non-Housing Operator may operate more than the Minimum Units Under Management.
- 3.3 The Owner covenants and agrees that it will furnish good and efficient management of the Affordable Housing Units in accordance with section 3.1 and will permit representatives of the City to inspect the Affordable Housing Units at any reasonable time, subject to the notice provisions in the *Residential Tenancy Act*. The Owner further covenants and agrees that it will maintain or will cause to be maintained the Affordable Housing Units in a good state of repair and fit for habitation and will comply with all laws, including health and safety standards applicable to the Lands. Notwithstanding the foregoing, and without limiting section 3.1, the Owner acknowledges and agrees that the City, in its absolute discretion, may require the Owner, at the Owner's expense, to hire a person or company with the skill and expertise to manage the Affordable Housing Units.
- 3.4 Subject to the requirements of the *Residential Tenancy Act* and applicable privacy laws, the Owner will ensure that each Tenancy Agreement:

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- (a) includes the following provision:

“By entering into this Tenancy Agreement, the Tenant hereby consents and agrees to the collection of the below-listed personal information by the Landlord and/or any operator or manager engaged by the Landlord and the disclosure by the Landlord and/or any operator or manager engaged by the Landlord to the City and/or the Landlord, as the case may be, of the following personal information which information will be used by the City to verify and ensure compliance by the Owner with the City’s strategy, policies and requirements with respect to the provision and administration of affordable housing within the municipality and for no other purpose, each month during the Tenant’s occupation of the Affordable Housing Unit:

- (i) a statement of the Tenant’s annual income once per calendar year;
  - (ii) number of occupants of the Affordable Housing Unit;
  - (iii) number of occupants of the Affordable Housing Unit under 18 years of age;
  - (iv) number of occupants of the Affordable Housing Unit over 65 years of age;
  - (v) a statement of before tax employment income for all occupants over 18 years of age; and
  - (vi) total income for all occupants of the Affordable Housing Unit;
- (b) defines the term “Landlord” as the Owner of the Affordable Housing Unit; and
- (c) includes a provision requiring the Tenant and each permitted occupant of the Affordable Housing Unit to comply with this Agreement.

3.5 The Owner will not permit an Affordable Housing Unit Tenancy Agreement to be subleased or assigned.

3.6 If this Housing Agreement encumbers more than one Affordable Housing Unit, then the Owner may not, without the prior written consent of the City Solicitor, sell or transfer less than all of the Affordable Housing Units located on two adjacent floors located in a Building in a single or related series of transactions with the result that when the purchaser or transferee of the Affordable Housing Units becomes the owner, the purchaser or transferee will be the legal and beneficial owner of not less all of the Affordable Housing Units located on two adjacent floors in a Building. Without limiting the foregoing, the Owner shall not Subdivide the Lands in a manner that creates one or more Affordable Housing Units into a separate air space parcel without the prior written consent of the City.

- 3.7 If the Owner sells or transfers any Affordable Housing Units, the Owner will notify the City Solicitor of the sale or transfer within three (3) days of the effective date of sale or transfer.
- 3.8 The Owner covenants and agrees with the City that upon any sale, transfer or conveyance of any Affordable Housing Unit to any person, trust, corporation, partnership or other entity, as a legal or beneficial owner, the Owner will obtain from such person, trust, corporation, partnership or other entity and deliver to the City a duly executed acknowledgement of the terms of this Agreement and an assumption of the continuing obligations of the Owner pursuant to this Agreement relative to the Affordable Housing Unit sold, transferred or conveyed to such person, trust, corporation, partnership or entity.
- 3.9 Subject to the requirements of the *Residential Tenancy Act*, the Owner must not rent, lease, license or otherwise permit occupancy of any Affordable Housing Unit except to an Eligible Tenant and except in accordance with the following additional conditions:
- (a) the Affordable Housing Unit will be used or occupied only pursuant to a Tenancy Agreement;
  - (b) the monthly rent payable for the Affordable Housing Unit will not exceed the Permitted Rent applicable to that class of Affordable Housing Unit;
  - (c) the Owner will allow the Tenant and any permitted occupant and visitor to have full access to and use and enjoy all Outdoor Amenity Areas for the Building within which the Tenant's Affordable Housing Unit is located;
  - (d) the Owner will allow the Tenant and any permitted occupant and visitor to have full access to and use and enjoy all indoor amenity spaces located within the Affordable Housing Tower within which the Tenant's Affordable Housing Unit is located, or that are located outside the Affordable Housing Tower but designated for the exclusive use of occupants thereof;
  - (e) the Owner will not require the Tenant or any permitted occupant to pay any move-in/move-out fees, strata fees, strata property contingency reserve fees or any extra charges or fees for use of any common property, limited common property, or other common areas, facilities or amenities, including without limitation parking, bicycle storage, electric vehicle charging stations or related facilities, or for sanitary sewer, storm sewer, water, other utilities, property or similar tax; provided, however, that if the Affordable Housing Unit is a strata unit and the following costs are not part of strata or similar fees, an Owner may charge the Tenant the Owner's cost, if any, of providing cable television, telephone, other telecommunications, gas, or electricity fees, charges or rates. For clarity, notwithstanding the foregoing, those occupants of Affordable Housing Units who utilize the electric vehicle charging stations may be required to pay for the cost of their utility usage, but not for their use of the electric vehicle charging equipment or associated parking;

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- (f) the Owner will attach a copy of this Agreement to every Tenancy Agreement;
- (g) the Owner will include in each Tenancy Agreement a clause requiring the Tenant and each permitted occupant of the Affordable Housing Unit to comply with this Agreement;
- (h) subject to any contrary provisions in the *Residential Tenancy Act*, the Owner will include in the Tenancy Agreement a clause entitling the Owner to terminate the Tenancy Agreement if:
  - (i) an Affordable Housing Unit is occupied by a person or persons other than an Eligible Tenant;
  - (ii) the annual income of an Eligible Tenant rises above the applicable maximum amount specified in subsection 1.1(p) of this Agreement;
  - (iii) the Affordable Housing Unit is occupied by more than the number of people the City's building inspector determines can reside in the Affordable Housing Unit given the number and size of bedrooms in the Affordable Housing Unit and in light of any relevant standards set by the City in any bylaws of the City;
  - (iv) the Affordable Housing Unit remains vacant for three consecutive months or longer, notwithstanding the timely payment of rent; and/or
  - (v) the Tenant subleases the Affordable Housing Unit or assigns the Tenancy Agreement in whole or in part,

and in the case of each of the foregoing, such breach is not cured within 10 days of notice from the Owner to the Tenant setting out the particulars of such breach. In the case of each breach, subject to the applicable cure periods and the requirements of the *Residential Tenancy Act*, the Owner hereby agrees with the City to forthwith provide to the Tenant a notice of termination. Except for subsection 3.9(h)(ii) of this Agreement [*Termination of Tenancy Agreement if Annual Income of Tenant rises above amount prescribed in subsection 1.1(p) of this Agreement*], the notice of termination shall provide that the termination of the tenancy shall be effective one (1) month following the date of the notice of termination. In respect to subsection 3.9(h)(ii) of this Agreement, termination shall be effective on the day that is six (6) months following the date that the Owner provided the notice of termination to the Tenant;

- (i) the Tenancy Agreement will identify all occupants of the Affordable Housing Unit and will stipulate that anyone not identified in the Tenancy Agreement will be prohibited from residing at the Affordable Housing Unit for more than 30 consecutive days or more than 45 days total in any calendar year; and

- (j) the Owner will forthwith deliver a certified true copy of the Tenancy Agreement to the City upon demand.
- 3.10 The Owner shall not impose any age-based restrictions on Tenants of Affordable Housing Units.
- 3.11 If the Owner has terminated the Tenancy Agreement, then, , subject to the requirements of the *Residential Tenancy Act*, the Owner shall use commercially reasonable efforts to cause the Tenant and all other persons that may be in occupation of the Affordable Housing Unit to vacate the Affordable Housing Unit on or before the effective date of termination.

#### **ARTICLE 4 DEMOLITION OF AFFORDABLE HOUSING UNIT**

- 4.1 The Owner will not demolish an Affordable Housing Unit unless:
  - (a) the Owner has obtained the written opinion of a professional engineer or architect who is at arm's length to the Owner that it is no longer reasonable or practical to repair or replace any structural component of the Affordable Housing Unit, and the Owner has delivered to the City a copy of the engineer's or architect's report; or
  - (b) the Affordable Housing Unit is damaged or destroyed, to the extent of 40% or more of its value above its foundations, as determined by the City in its sole discretion,

and, in each case, a demolition permit for the Affordable Housing Unit has been issued by the City and the Affordable Housing Unit has been demolished under that permit.

Following demolition, the Owner will use and occupy any replacement Dwelling Unit in compliance with this Agreement and the Housing Covenant both of which will apply to any replacement Dwelling Unit to the same extent and in the same manner as those agreements apply to the original Dwelling Unit, and the Dwelling Unit must be approved by the City as an Affordable Housing Unit in accordance with this Agreement.

#### **ARTICLE 5 STRATA CORPORATION BYLAWS**

- 5.1 This Agreement will be binding upon all strata corporations created upon the strata title Subdivision of the Lands or any Subdivided parcel of the Lands.
- 5.2 Any such strata corporation bylaw which prevents, restricts or abridges the right to use the Affordable Housing Units as rental accommodation will have no force and effect.
- 5.3 No such strata corporation shall pass any bylaws preventing, restricting or abridging the use of the Affordable Housing Units as rental accommodation.

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- 5.4 Further to section 3.10, no such strata corporation shall pass any bylaws restricting the age of occupants of the Affordable Housing Units.
- 5.5 No such strata corporation shall pass any bylaw or approve any levies which would result in only the Owner or the Tenant or any other permitted occupant of an Affordable Housing Unit (and not include all the owners, tenants, or any other permitted occupants of all the strata lots in the applicable strata plan which are not Affordable Housing Units) paying any extra charges or fees for the use of any common property, limited common property or other common areas, facilities, or indoor or outdoor amenities of such strata corporation.
- 5.6 No such strata corporation shall pass any bylaws or approve any levies, charges or fees which would result in the Owner or the Tenant or any other permitted occupant of an Affordable Housing Unit paying for the use of parking, bicycle storage, electric vehicle charging stations or related facilities, notwithstanding that such strata corporation may levy such parking, bicycle storage, electric vehicle charging stations or other related facilities charges or fees on all the other owners, tenants, any other permitted occupants or visitors of all the strata lots in the applicable strata plan which are not Affordable Housing Units; provided, however, that the electricity fees, charges or rates for use of electric vehicle charging stations are excluded from this provision.
- 5.7 No such strata corporation shall pass any bylaw or make any rule which would restrict the Owner or the Tenant or any other permitted occupant of an Affordable Housing Unit from using and enjoying the Outdoor Amenity Areas for the Building which contains the Affordable Housing Tower in which the Owner or Tenant's Affordable Housing Unit is located, except, subject to section 5.6 of this Agreement, on the same basis that governs the use and enjoyment of the Outdoor Amenity Areas by all the owners, tenants, or any other permitted occupants of all the strata lots in the applicable Building which are not Affordable Housing Units.

## **ARTICLE 6 DEFAULT AND REMEDIES**

- 6.1 The Owner agrees that, subject to the requirements of the *Residential Tenancy Act*, in addition to any other remedies available to the City under this Agreement or the Housing Covenant or at law or in equity, if an Affordable Housing Unit is used or occupied in breach of this Agreement or rented at a rate in excess of the Permitted Rent or the Owner is otherwise in breach of any of its obligations under this Agreement or the Housing Covenant (in each case past any applicable cure periods), the Owner will pay the Daily Amount to the City for every day that the breach continues after 10 days' of delivery of written notice by the City to the Owner stating the particulars of the breach. For greater certainty, the City is not entitled to give written notice with respect to any breach of the Agreement until any applicable cure period has expired. The Daily Amount is due and payable five (5) business days' after receipt by the Owner of an invoice from the City for the same.

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- 6.2 The Owner acknowledges and agrees that a default by the Owner of any of its promises, covenants, representations or warranties set-out in the Housing Covenant that is not cured within any applicable cure periods shall also constitute a default under this Agreement.

## **ARTICLE 7 MISCELLANEOUS**

### **7.1 Housing Agreement**

- (a) The Owner acknowledges and agrees that:
- (i) this Agreement includes a housing agreement entered into under section 483 of the *Local Government Act*;
  - (ii) where an Affordable Housing Unit is a separate legal parcel the City may file notice of this Agreement in the LTO against the title to the Affordable Housing Unit and, in the case of a strata corporation, may note this Agreement on the common property sheet; and
  - (iii) where the Lands have not yet been Subdivided to create the separate parcels to be charged by this Agreement, the City may file a notice of this Agreement in the LTO against the title to the Lands. If this Agreement is filed in the LTO as a notice under section 483 of the *Local Government Act* prior to the Lands having been Subdivided, and it is the intention that this Agreement is, once separate legal parcels are created and/or the Lands are subdivided, to charge and secure only the legal parcels or Subdivided Lands which contain the Affordable Housing Units, then the City Solicitor shall be entitled, without further City Council approval, authorization or bylaw, to partially discharge this Agreement accordingly. The Owner acknowledges and agrees that notwithstanding a partial discharge of this Agreement, this Agreement shall be and remain in full force and effect and, but for the partial discharge, otherwise unamended with respect to the lands which remain subject to this Agreement. Further, the Owner acknowledges and agrees that in the event that the Affordable Housing Unit is in a strata corporation, this Agreement shall remain noted on the strata corporation's common property sheet.
- (b) The Owner covenants and agrees with the City that concurrently with its transfer to RCRES of those portions of the Lands on which the portion of the Development that involves the residential improvements will be situate, the Owner will cause RCRES to enter into an agreement pursuant to which RCRES will expressly acknowledge and assume the obligations of the Owner under this Agreement insofar as they relate to the portion of the Lands acquired by RCRES.
- (c) The Owner and the City agree that it is their intention that this Agreement is, once separate legal parcels are created and/or the Lands are Subdivided, to charge and

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secure only the legal parcels or Subdivided Lands which contain the Affordable Housing Towers. Upon such creation of separate legal parcels and/or Subdivision, the City Solicitor shall, upon written request by the Owner, provide partial discharges of this Agreement accordingly, provided that the Owner has made adequate arrangements, satisfactory to the City, through reciprocal easements or otherwise, to ensure that the Owner(s), the Tenants and any other permitted occupants of the Affordable Housing Units have the access necessary to ensure their continued ability to use and enjoy the applicable Outdoor Amenity Areas.

## 7.2 **No Compensation**

The Owner acknowledges and agrees that no compensation is payable, and the Owner is not entitled to and will not claim any compensation from the City, for any decrease in the market value of the Lands or for any obligations on the part of the Owner and its successors in title which at any time may result directly or indirectly from the operation of this Agreement.

## 7.3 **Modification**

Subject to section 7.1 of this Agreement, this Agreement may be modified or amended from time to time, by consent of the Owner and a bylaw duly passed by the Council of the City and thereafter if it is signed by the City and the Owner.

## 7.4 **Indemnity**

The Owner will indemnify and save harmless the City and each of its elected officials, officers, directors, and agents, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities, which all or any of them will or may be liable for or suffer or incur or be put to by reason of or arising out of:

- (a) any negligent act or omission of the Owner, or its officers, directors, agents, contractors or other persons for whom at law the Owner is responsible relating to this Agreement;
- (b) the City refusing to issue a development permit, building permit or refusing to permit occupancy of any Building, or any portion thereof, constructed on the Lands;
- (c) the construction, maintenance, repair, ownership, lease, license, operation, management or financing of the Lands or any Affordable Housing Unit or the enforcement of any Tenancy Agreement; and/or
- (d) without limitation, any legal or equitable wrong on the part of the Owner or any breach of this Agreement by the Owner.

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## 7.5 Release

The Owner hereby releases and forever discharges the City and each of its elected officials, officers, directors, and agents, and its and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, damages, actions, or causes of action by reason of or arising out of or which would or could not occur but for the:

- (a) construction, maintenance, repair, ownership, lease, license, operation or management of the Lands or any Affordable Housing Unit under this Agreement;
- (b) the City refusing to issue a development permit, building permit or refusing to permit occupancy of any Building, or any portion thereof, constructed on the Lands; and/or
- (c) the exercise by the City of any of its rights under this Agreement or an enactment.

## 7.6 Survival

The obligations of the Owner set out in section 7.4 this Agreement will survive termination or discharge of this Agreement.

## 7.7 Priority

The Owner will use all commercially reasonable efforts available to the Owner, at the Owner's expense, to ensure that this Agreement, if required by the City Solicitor, will be noted against title to the Lands in priority to all financial charges and encumbrances which may have been registered or are pending registration against title to the Lands save and except those specifically approved in advance in writing by the City Solicitor or in favour of the City, and that a notice under section 483(5) of the *Local Government Act* will be filed on the title to the Lands.

## 7.8 No Fettering and No Derogation

Nothing contained or implied in this Agreement shall fetter in any way the discretion of the City or the Council of the City. Further, nothing contained or implied in this Agreement shall derogate from the obligation of the Owner under any other agreement with the City or, if the City so elects, prejudice or affect the City's rights, powers, duties or obligation in the exercise of its functions pursuant to the *Community Charter* or the *Local Government Act*, as amended or replaced from time to time, or act to fetter or otherwise affect the City's discretion, and the rights, powers, duties and obligations of the City under all public and private statutes, by-laws, orders and regulations, which may be, if the City so elects, as fully and effectively exercised in relation to the Lands as if this Agreement had not been executed and delivered by the Owner and the City.

#### **7.9 Agreement for Benefit of City Only**

The Owner and the City agree that:

- (a) this Agreement is entered into only for the benefit of the City;
- (b) this Agreement is not intended to protect the interests of the Owner, any Tenant, or any future owner, lessee, occupier or user of the Lands or a Building or any portion thereof, including any Affordable Housing Unit; and
- (c) the City may at any time execute a release and discharge of this Agreement, without liability to anyone for doing so, and without obtaining the consent of the Owner.

#### **7.10 No Public Law Duty**

Where the City is required or permitted by this Agreement to form an opinion, exercise a discretion, express satisfaction, make a determination or give its consent, the Owner agrees that the City is under no public law duty of fairness or natural justice in that regard and agrees that the City may do any of those things in the same manner as if it were a private party and not a public body.

#### **7.11 Notice**

Any notice required to be served or given to a party herein pursuant to this Agreement will be sufficiently served or given if delivered, to the postal address of the Owner set out in the records at the LTO, and in the case of the City addressed:

To: Clerk, City of Richmond  
6911 No. 3 Road  
Richmond, BC V6Y 2C1

And to: City Solicitor  
City of Richmond  
6911 No. 3 Road  
Richmond, BC V6Y 2C1

or to the most recent postal address provided in a written notice given by each of the parties to the other. Any notice which is delivered is to be considered to have been given on the first day after it is dispatched for delivery.

#### **7.12 Enuring Effect**

This Agreement will extend to and be binding upon and enure to the benefit of the parties hereto and their respective successors and permitted assigns.

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### **7.13 Severability**

If any provision of this Agreement is found to be invalid or unenforceable, such provision or any part thereof will be severed from this Agreement and the resultant remainder of this Agreement will remain in full force and effect.

### **7.14 Waiver**

All remedies of the City will be cumulative and may be exercised by the City in any order or concurrently in case of any breach and each remedy may be exercised any number of times with respect to each breach. Waiver of or delay in the City exercising any or all remedies will not prevent the later exercise of any remedy for the same breach or any similar or different breach.

### **7.15 Sole Agreement**

This Agreement, and any documents signed by the Owners contemplated by this Agreement (including, without limitation, the Housing Covenant), represent the whole agreement between the City and the Owner respecting the use and occupation of the Affordable Housing Units, and there are no warranties, representations, conditions or collateral agreements made by the City except as set forth in this Agreement. In the event of any conflict between this Agreement and the Housing Covenant, this Agreement shall, to the extent necessary to resolve such conflict, prevail.

### **7.16 Further Assurance**

Upon request by the City the Owner will forthwith do such acts and execute such documents as may be reasonably necessary in the opinion of the City to give effect to this Agreement.

### **7.17 Covenant Runs with the Lands**

This Agreement burdens and runs with the Lands and every parcel into which it is Subdivided in perpetuity. All of the covenants and agreements contained in this Agreement are made by the Owner for itself, its personal administrators, successors and assigns, and all persons who after the date of this Agreement acquire an interest in the Lands.

### **7.18 Equitable Remedies**

The Owner acknowledges and agrees that damages would be an inadequate remedy for the City for any breach of this Agreement and that the public interest strongly favours specific performance, injunctive relief (mandatory or otherwise), or other equitable relief, as the only adequate remedy for a default under this Agreement.

**7.19 No Joint Venture**

Nothing in this Agreement will constitute the Owner as the agent, joint venturer, or partner of the City or give the Owner any authority to bind the City in any way.

**7.20 Applicable Law**

Unless the context otherwise requires, the laws of British Columbia (including, without limitation, the *Residential Tenancy Act*) will apply to this Agreement and all statutes referred to herein are enactments of the Province of British Columbia.

**7.21 Deed and Contract**

By executing and delivering this Agreement the Owner intends to create both a contract and a deed executed and delivered under seal.

**7.22 Joint and Several**

If the Owner is comprised of more than one person, firm or body corporate, then the covenants, agreements and obligations of the Owner shall be joint and several.

**7.23 Limitation on Owner's Obligations**

The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered owner of the Lands provided however that notwithstanding that the Owner is no longer the registered or beneficial owner of the Lands, the Owner will remain liable for breaches of this Agreement that occurred while the Owner was the registered or beneficial owner of the Lands.

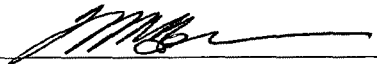
**7.24 Counterparts**

This Agreement may be signed by the parties hereto in counterparts and taken together, shall constitute one and the same instrument and may be compiled for registration, if registration is required, as a single document.

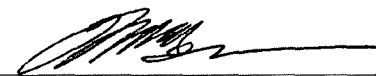
**[Remainder of page intentionally blank]**

**IN WITNESS WHEREOF** the parties hereto have executed this Agreement as of the day and year first above written.

**RC (SOUTH) INC.,**  
by its authorized signatory(ies):

Per:   
Print Name: WAYNE BARLOWE  
Per: ASO  
Print Name: \_\_\_\_\_

**RCCOM LIMITED PARTNERSHIP,** by its  
general partner, **RCCOM GP INC.,**  
by its authorized signatory(ies):

Per:   
Print Name: WAYNE BARLOWE  
Per: ASO  
Print Name: \_\_\_\_\_

**7904185 CANADA INC.,**  
by its authorized signatory(ies):

Per: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Per: \_\_\_\_\_  
Print Name: \_\_\_\_\_

**AIMCO REALTY INVESTORS LIMITED PARTNERSHIP,** by its general partner,  
**AIMCO RE GP CORP.,**  
by its authorized signatory(ies):

Per: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Per: \_\_\_\_\_  
Print Name: \_\_\_\_\_

**CITY OF RICHMOND,** by its authorized  
signatories:

Per: \_\_\_\_\_  
Malcolm Brodie, Mayor  
Per: \_\_\_\_\_  
David Weber, Corporate Officer

CITY OF RICHMOND APPROVED for content by originating dept
APPROVED for legality by Solicitor
DATE OF COUNCIL APPROVAL

**IN WITNESS WHEREOF** the parties hereto have executed this Agreement as of the day and year first above written.

**RC (SOUTH) INC.,**  
by its authorized signatory(ies):

**RCCOM LIMITED PARTNERSHIP, by its**  
**general partner, RCCOM GP INC.,**  
by its authorized signatory(ies):

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

Per: \_\_\_\_\_


Print Name: \_\_\_\_\_

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

**7904185 CANADA INC.,**  
by its authorized signatory(ies):

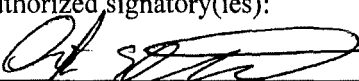
**AIMCO REALTY INVESTORS LIMITED**  
**PARTNERSHIP, by its general partner,**  
**AIMCO RE GP CORP.,**  
by its authorized signatory(ies):

Per: 

Print Name: Erik Dmytruk

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

Per: 

Print Name: Erik Dmytruk

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

**CITY OF RICHMOND, by its authorized**  
**signatories:**

Per: \_\_\_\_\_  
Malcolm Brodie, Mayor

Per: \_\_\_\_\_  
David Weber, Corporate Officer

<b>CITY OF RICHMOND</b>
APPROVED for content by originating dept.
APPROVED for legality by Solicitor
DATE OF COUNCIL APPROVAL



**SCHEDULE A  
STATUTORY DECLARATION  
(Affordable Housing Units)**

	)	IN THE MATTER OF Unit Nos. _____ - _____
	)	(collectively, the “ <b>Affordable Housing Units</b> ”) located
CANADA	)	at
	)	_____
PROVINCE OF BRITISH	)	( <i>street address</i> ), British Columbia, and Housing
COLUMBIA	)	Agreement dated _____, 20____ (the
TO WIT:	)	“ <b>Housing Agreement</b> ”) between
	)	_____ and
	)	the City of Richmond (the “ <b>City</b> ”)

I, \_\_\_\_\_ (*full name*),  
of \_\_\_\_\_ (*address*) in the Province  
of British Columbia, DO SOLEMNLY DECLARE that:

1. ☐ I am the registered owner (the “**Owner**”) of the Affordable Housing Units;  
*or,*  
☐ I am a director, officer, or an authorized signatory of the Owner and I have personal knowledge of the matters set out herein;
2. This declaration is made pursuant to the terms of the Housing Agreement in respect of the Affordable Housing Units for each of the 12 months for the period from January 1, 20\_\_\_\_ to December 31, 20\_\_\_\_ (the “**Period**”);
3. Continuously throughout the Period:
  - a) the Affordable Housing Units, if occupied, were occupied only by Eligible Tenants (as defined in the Housing Agreement); and
  - b) the Owner of the Affordable Housing Units complied with the Owner’s obligations under the Housing Agreement and any housing covenant(s) registered against title to the Affordable Housing Units;

4. The information set out in the table attached as Appendix A hereto (the “**Information Table**”) in respect of each of the Affordable Housing Units is current and accurate as of the date of this declaration; and
5. The Owner obtained the prior written consent from each of the occupants of the Affordable Housing Units named in the Information Table to: (i) collect the information set out in the Information Table, as such information relates to the Affordable Housing Unit occupied by such occupant/resident; and (ii) disclose such information to the City, for purposes of complying with the terms of the Housing Agreement.

And I make this solemn declaration, conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the *Canada Evidence Act*.

DECLARED BEFORE ME at )  
 \_\_\_\_\_ in the )  
 Province of British Columbia, Canada, this )  
 \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ )  
 \_\_\_\_\_ )  
 \_\_\_\_\_ )  
 A Notary Public and a Commissioner for )  
 taking Affidavits in and for the Province of )  
 British Columbia )

\_\_\_\_\_  
 (Signature of Declarant)  
 Name:

*Declarations should be signed, stamped, and dated and witnessed by a lawyer, notary public, or commissioner for taking affidavits.*

**APPENDIX A  
Information Table**

Example

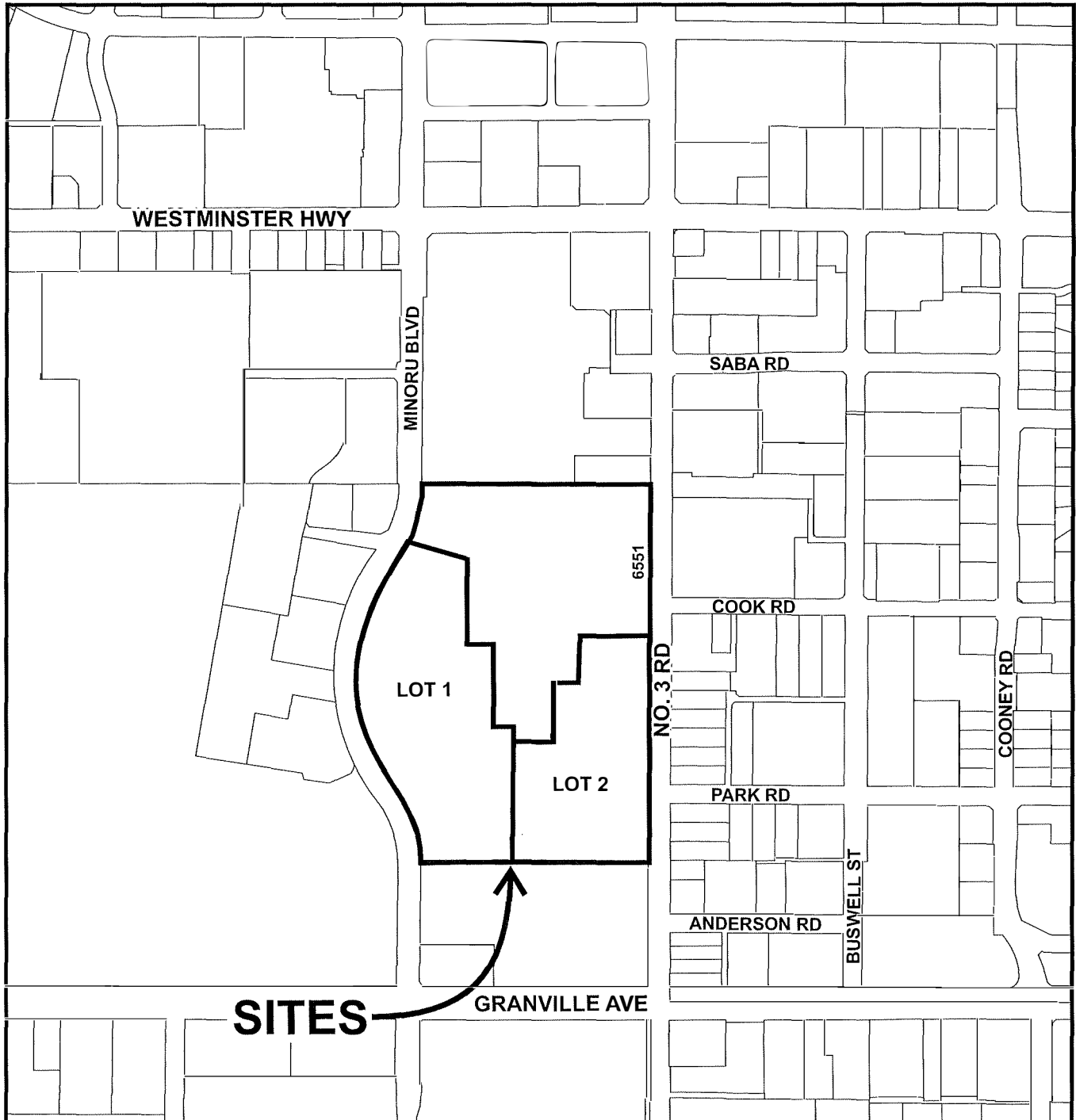
Unit #	Unit Type	# of Occupants	Related to owner	Total under age 18	Total over age 18	Before-tax Employment Income (if tenant is over age 18)	Other Income (if tenant is over age 18)	Income Verification Required	Total Income of Tenant(s)	English Tenant? (Y/N)	Monthly Rent	Paid Rent for past year (20__)	Paid Rent (per month)	Have N/A/No on-site?	Storage Fee(s)	Amenity Lease Fee(s)
1	305	2br	3	N	1	0	\$25,000	NA	Y	\$40,000	Y	\$1,215	\$1,248	\$50/ month	No	No
				N												
				N												
2																
3																
4																
5																

---

**SCHEDULE B**  
**SUBDIVISION PLAN**



City of  
Richmond



6551 No. 3 Road

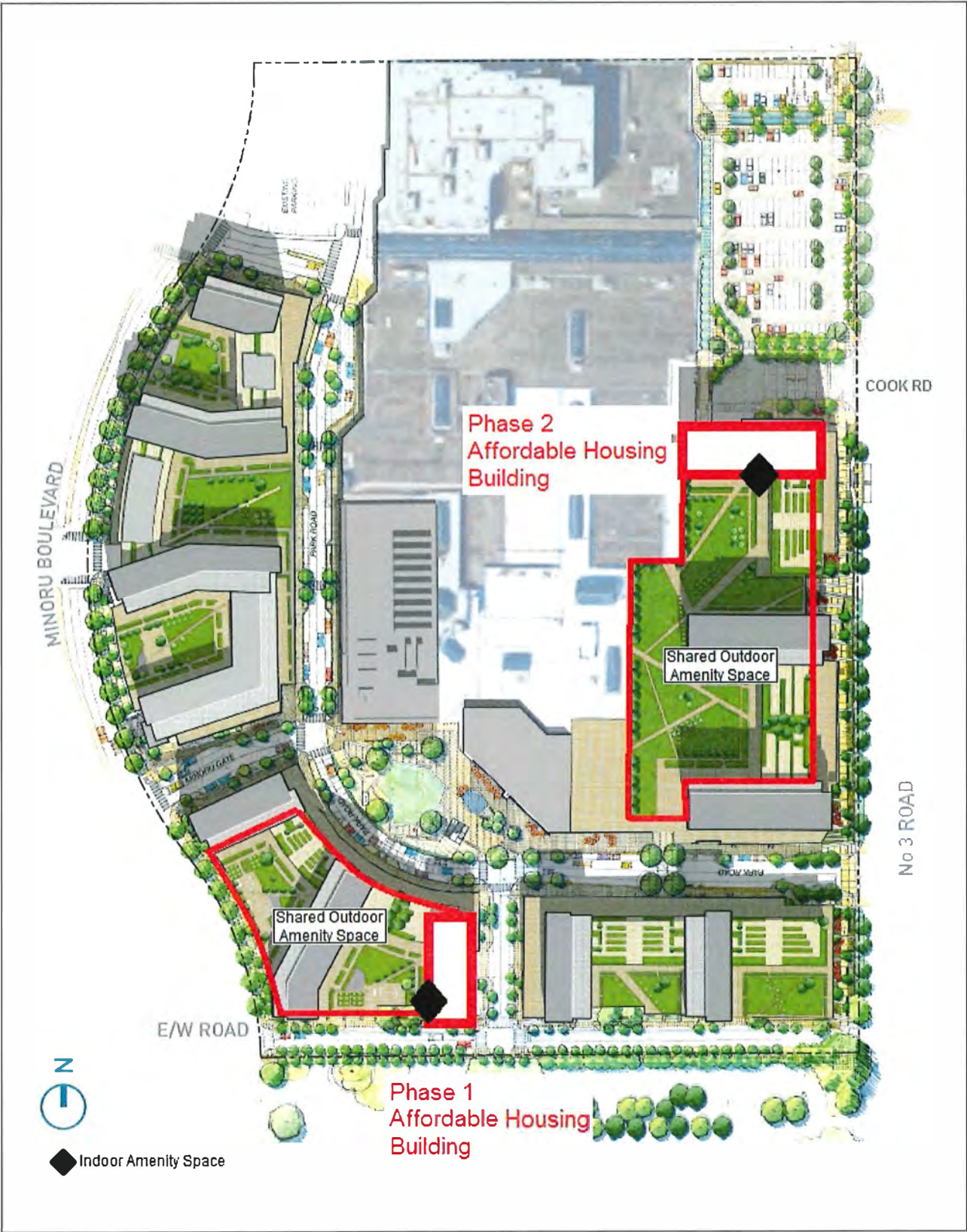
Original Date: 11/19/18

Revision Date:

Note: Dimensions are in METRES

CNCL - 332

Affordable Housing Location Map



Catalyst Community Developments Society  
catalystcommdev.org



December 17th, 2018

Joey Stevens  
GBL Architects  
139 East 8th Avenue  
Vancouver BC  
V5T 1R8

Cc: Josh Thomson, Cadillac Fairview Corporation Limited  
Michelle Paquet, Shape Living

### **To Whom It May Concern**

### **Re: CF Richmond Centre LEMR Housing Recommendation**

Further to our discussions and meetings with City of Richmond staff regarding the proposed low-end of market affordable rental (LEMUR) housing project in Richmond, please accept this letter to outline our organisation, our relationship with the Richmond Centre Project, and our recommendations on the LEMR housing component of the CF Richmond Centre development.

#### About Catalyst

Catalyst Community Development Society (Catalyst) is a BC non-profit society with a mission to develop, own and operate below market rental housing. Catalyst is focused on providing high-quality "workforce rental" housing targeted towards households with gross incomes in the range of \$25,000 to \$60,000 p.a. The tenants within Catalyst projects typically include singles, couples, families and seniors with a wide range of incomes, abilities and ages. Catalyst does not provide direct support services to tenants but often works with other non-profit societies that do.

As a non-profit owner, operator, and developer of affordable housing in the Metro Vancouver area Catalyst is interested in the ownership and operation of the LEMR housing resulting from the CF Richmond Centre development.

#### About Richmond Centre Developers

We understand that Cadillac Fairview Corporation and Shape Living are development managers of the CF Richmond Centre project with a vision to transform CF Richmond Centre into a unique and vibrant mixed use community in the heart of Richmond. The development managers of CF Richmond Centre are interested in collaborating with an

owner/operator with experience in this housing type to ensure the best form and mix of housing is developed.

### Relationship

Our joint view is that a collaborative design approach will ensure the best value for the residents, owners, and operators of the LEMR housing developed, as well as the broader community.

Catalyst Community Developments Society has agreed to review building design drawings, unit layouts and suites mixes to ensure that the building will function efficiently for an operator.

### Recommendations

Catalyst believes that the central Richmond market has a need and demand for a broad demographic range of housing including singles, couples, families, and seniors. We understand that the City has a policy that requires a minimum of 50% of homes suitable for families (i.e. 2-bedroom or larger). At the current time we are seeing a significant need and demand in the below market rental sector from two distinct demographics: seniors on a fixed income and singles and couples on low to moderate incomes (often working in service sector jobs).

Many seniors can qualify for a rent subsidy under the Shelter Aid for Elderly Renters (SAFER) program. Studio homes offer rent levels that are more affordable to those on fixed income. Similarly, the younger working demographic, often employed in retail and service sectors, benefit from smaller more affordably priced homes like studio and one bedroom apartments. The central location of the site offering a range of services and in close proximity to rapid transit will be ideally suited this demographic.

We have found that while there is undoubtedly a need from families for 2 and 3 bedroom homes, there are numerous family-sized households that have more than one income. As a result, these households often exceed the maximum household income threshold (i.e. currently \$46,800 per annum for two bedroom homes and \$58,050 per annum for three bedroom homes) and therefore do not qualify for LEMR housing.

Taking into account the current need and demand in the below-market rental sector Catalyst considers that the proposed unit types and mix as proposed for Phase 1, noted below, will assist in meeting the current need:

Studio:	19%
1 Bedroom:	43%
2 Bedroom:	29%
3 Bedroom:	9%



We understand that the Richmond Centre developers are committed to delivering a mix of housing types across both phases of the proposed development that meet the City's housing policies, including the requirement for 50% of homes suitable for families. As such, Phase 2 is planned to have a higher percentage of family friendly units connected to the shopping centre and closer to public transit. Deferring a higher percentage of family friendly units to Phase 2 provides these added amenity benefits and also allows time for the need and demand for these unit types to increase.

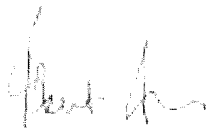
While Catalyst understands the advantages of disbursed LEMR housing within projects such disbursement creates several operational and affordability challenges. Contiguous ownership simplifies operations and provides more affordability to its residents. It also allows Catalyst to control its operating costs and only provide (and pay for) amenities that are used by, and appropriate to, its specific tenants.

Catalyst and the majority of other non-profit LEMR housing owners are not interested in owning affordable rental homes disbursed within a larger market ownership condominium because as a minority strata owner, we would not be in control of costs. Such control is critical to operate and deliver the affordability stipulated under housing agreements that specifically limit rental revenue. Mixing LEMR housing within a market condominium therefore is not a viable option for Catalyst and, as such, we have a requirement that the affordable housing we own and manage is contained in a contiguous building or air space parcel. We therefore strongly recommend against disbursement as it presents a great deal of ownership and operational challenges.

We trust this letter is satisfactory to summarize our recommendations. Please feel free to contact us with any questions.

Regards,

**CATALYST COMMUNITY DEVELOPMENTS SOCIETY**



**Robert Brown**  
President



# City of Richmond

## Report to Committee

**To:** Planning Committee  
**From:** Wayne Craig  
Director, Development

**Date:** December 20, 2018  
**File:** 08-4057-05/2018-Vol 01

**Re:** **Market Rental Agreement (Housing Agreement) Bylaw 9980 to Permit the City of Richmond to Secure Market Rental Housing Units at 6551 No. 3 Road**

### Staff Recommendations

That Market Rental Agreement (Housing Agreement) (6551 No. 3 Road) Bylaw 9980 be introduced and given first, second and third readings to permit the City to enter into a Market Rental Agreement with RC (South) Inc. and 7904185 Canada Inc., together as registered owners, and RCCOM Limited Partnership and AIMCO Realty Investors Limited Partnership, together as beneficial owners, substantially in the form attached hereto, in accordance with the requirements of Section 483 of the *Local Government Act*, to secure Market Rental Housing Units required by the Official Community Plan (City Centre Area Plan) Amendment CP 16-752923.

Wayne Craig  
Director, Development  
(604-247-4625)

Att. 2

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Law	<input checked="" type="checkbox"/>	
Policy Planning	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO (DEPUTY).</b> 

## Staff Report

### Origin

The purpose of this report is to recommend that Council adopt Market Rental Agreement (Housing Agreement) Bylaw 9980 (Attachment 1) to secure a ten (10) per cent market rental housing contribution comprised of a minimum of 200 market rental housing units in one or more unit clusters and/or stand-alone buildings in the proposed development located at 6551 No. 3 Road (CF Richmond Centre) (Attachment 2). An associated Affordable Housing Agreement for this project is being brought forth under a separate report.

This report and Bylaws support Council's 2014-2018 Term Goal #2 A Vibrant, Active and Connected City:

*Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond's demographics, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.*

This report and Bylaws also support Council's 2014-2018 Term Goal #3 A Well-Planned Community:

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

This report supports the Social Development Strategy Goal #1: Enhance Social Equity and Inclusion:

*Strategic Direction #1: Expand Housing Choices*

Market Rental Agreement (Housing Agreement) Bylaw 9980 is a new agreement which functions the same as a standard housing agreement. It is consistent with the City's Official Community Plan (OCP) Market Rental Housing Policy, adopted on September 4, 2018, which seeks to increase the supply of market rental housing in Richmond.

### Housing Proposal

GBL Architects has applied to the City of Richmond to amend the Official Community Plan, Schedule 2.10 (City Centre Area Plan) at 6551 No. 3 Road to permit a high-rise, mixed use project on roughly 50 per cent of the property occupied by the south end of the CF Richmond Centre shopping centre (CP 16-752923). This OCP Amendment application provides for the subdivision of 6551 No. 3 Road into three lots and the development of approximately 2,200 residential units on Lot 1 (Phase 1) and Lot 2 (Phase 2). This includes 150 Affordable Housing units and 200 Market Rental Housing units.

The applicant's housing proposal is summarized in the table below.

**TABLE 1**

<b>HOUSING TYPES</b>	<b>PROPOSED DWELLING UNITS (Estimate)</b>
Market Ownership Housing	1,850
Affordable Housing	150
<b>Sub-Total</b>	<b>2,000 units</b>
Market Rental Housing	200 (10% of Sub-Total)
<b>Total</b>	<b>2,200 units</b>

The applicant's proposed market rental housing contributions include:

- A ten (10) per cent market rental housing contribution comprised of at least 200 market rental housing units secured in perpetuity with a Market Rental Agreement (Housing Agreement) and Market Rental Covenant registered on title.
- The proposed 200 market rental housing units represent a 10% increase over and above the developer's proposed 2,000 affordable housing and market ownership dwellings (i.e. 150 affordable housing units and 1,850 market ownership units).
- The Market Rental Agreement will secure the developer's market rental housing contribution and is a condition of final reading of the Official Community Plan (City Centre Area Plan) Amendment Bylaw.
- As permitted under the OCP Market Rental Housing Policy, the proposed market rental housing units are permitted to be rented at or below prevailing market rates.
- The Market Rental Agreement and Covenant will require that the market rental housing units are not subdivided into any strata lot containing less than the entirety of a stand-alone market rental building or unit cluster (i.e. at least 40 market rental units) in order to prohibit the sale of individual market rental units to individual owners and discourage owner-occupation of the market rental units.

It is recommended that proposed Market Rental Agreement (Housing Agreement) Bylaw 9980 be introduced and given first, second and third readings. Following adoption of the Bylaws, the City will execute the Market Rental Agreement and arrange for notice of the agreement to be filed in the Land Title Office.

### **Analysis**

The developer's market rental housing contribution is proposed to be located entirely on Lot 2 (Phase 2) and will:

- be comprised of a combined total floor area of not less than 46,634 m<sup>2</sup> (153,000 ft<sup>2</sup>);
- include not less than 200 market rental housing units in the form of one or more stand-alone buildings and/or unit clusters, each of which will contain a minimum of 40 market rental units; and
- be constructed to a turnkey level of finish, at the developer's sole cost.

In accordance with the OCP Market Rental Housing Policy, the Market Rental Agreement specifies that:

- the market rental units shall be secured in perpetuity for rental purposes only;
- the 200 market rental housing units will include:
  - a) 40 per cent family-friendly two and three-bedroom units (these units may include inboard bedrooms without windows); and
  - b) 100 per cent Basic Universal Housing (BUH) units (i.e. designed and constructed to facilitate universal access to and use of the market rental units);
- the occupants of the market rental units shall have full use of all residential indoor and outdoor common amenity spaces, parking, electrical vehicle (EV) charging stations, and related features provided on Lot 2 in compliance with the Official Community Plan and Zoning Bylaw, as determined through an approved Development Permit;
- the owner shall not impose any age-based or income-based restrictions on the tenants of the market rental units;
- the market rental units must be rented on a month-to-month basis or longer term (i.e. no short-term rentals);
- the owner shall not impose any fees for the use of bicycle storage; and
- the units shall be rented at prevailing market rent, which means the rent a tenant would pay for a comparable dwelling unit in a comparable location for a comparable period of time and may include additional fees for vehicle parking (but not bicycle storage) and/or the use of on-site amenities or services. For clarity, prevailing market rent will take into account the development's proximity to the Canada Line, the sizes of the market rental units, the level of internal finishes within the market rental units, and the type of residential amenities and services available to the occupants of the market rental units. Market rental rates would therefore be anticipated to increase if significant residential amenities and services are provided to the tenants.

The Market Rental Agreement is consistent with the City's standard housing agreement with the exception of project-specific provisions that:

- restrict the creation of any strata lot containing less than the entirety of a stand-alone market rental building or unit cluster (i.e. at least 40 market rental units) in order to prohibit the sale of individual market rental units to individual owners and discourage owner-occupation of the market rental units;
- require the market rental units to be completed on or before the completion of 50% of the owner-occupied market-ownership units constructed on Lot 2 (Phase 2); and
- require that the market rental units shall be subject to two Development Permit applications, to the City's satisfaction, including:
  - a) the first Development Permit will be for the combined development of Lot 1 (Phase 1) and Lot 2 (Phase 2), which shall, among other things, include the conceptual design of Lot 2 (Phase 2) for the purpose of approving the amount and distribution of

floor area across the developer's two-lot development site, including the developer's market rental housing contribution; and

- b) the second Development Permit will be a subsequent stand-alone Development Permit application for Lot 2 (Phase 2), which shall, among other things:
  - i) describe the form and character of the developer's market rental housing contribution and ancillary use and spaces (e.g., parking, bike storage, residential amenity spaces, circulation, and access);
  - ii) provide for amendments to the Market Rental Covenant registered on title to Lot 2 (Phase 2) to accurately reflect the approved stand-alone Development Permit; and
  - iii) provide for the registration of additional legal agreements, as determined to the satisfaction of the City, to facilitate the detailed design, construction, and/or management of the market rental housing units and/or ancillary spaces and uses for the purpose of ensuring that the operation of the market rental housing is consistent with the intent of the OCP Market Rental Housing Policy and OCP Amendment Considerations (e.g., access to amenity spaces and uses, parking, and Transportation Demand Management measures).

The applicant has agreed to the terms and conditions of the attached Market Rental Agreement and to register notice of the Market Rental Agreement on title to secure the market rental housing units.

### **Financial Impact**

None.

### **Conclusion**

In accordance with the *Local Government Act* (Section 483), adoption of Bylaw 9980 is required to permit the City to enter into a Market Rental Agreement related to development at CF Richmond Centre (6551 No. 3 Road). The Market Rental Agreement, together with a Market Rental Covenant, will secure a ten per cent market rental housing contribution comprised of a minimum of 200 market rental units. The agreement will secure the market rental housing required with respect to the proposed Official Community Plan (City Centre Area Plan) Amendment (CP 16-752923) at 6551 No. 3 Road.



Suzanne Carter-Huffman  
Senior Planner/Urban Design  
(604-276-4228)

Att. 1: Schedule A to Bylaw No. 9980

Att. 2: Map of 6551 No. 3 Road



**Market Rental Agreement (Housing Agreement) (6551 No. 3 Road)**  
**Bylaw 9980**

The Council of the City of Richmond enacts as follows:

1. The Mayor and City Clerk for the City of Richmond are authorized to execute and deliver a market rental agreement (housing agreement), substantially in the form set out as Schedule A to this Bylaw, with the owner of the lands legally described as:

PID: 017-863-686      Lot A (BF285836) Section 8 Block 4 North Range 6 West New  
Westminster District Plan 31877

This Bylaw is cited as **Market Rental Agreement (Housing Agreement) (6551 No. 3 Road)**  
**Bylaw 9980.**

FIRST READING

SECOND READING

THIRD READING

ADOPTED

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CITY OF RICHMOND
APPROVED for content by originating dept. 
APPROVED for legality by Solicitor 

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER

Bylaw 9980

Page 2

**Schedule A**

**To Market Rental Agreement (Housing Agreement) (6551 No. 3 Road) Bylaw 9980**

**MARKET RENTAL AGREEMENT (HOUSING AGREEMENT) BETWEEN RC (SOUTH)  
INC. AND 7904185 CANADA INC. AND THE CITY OF RICHMOND**



**MARKET RENTAL AGREEMENT (HOUSING AGREEMENT)**  
**(Section 483, Local Government Act)**

THIS AGREEMENT is dated for reference the \_\_\_\_\_ day of \_\_\_\_\_, 2018.

AMONG:

RCCOM LIMITED PARTNERSHIP, a limited partnership duly formed under the laws of the Province of Ontario and having its registered office at 20<sup>th</sup> Floor—250 Howe Street, Vancouver, British Columbia V6C 3R8 by its general partner RCCOM GP INC., a corporation duly incorporated under the laws of the Province of Ontario and having its delivery address in British Columbia at 20<sup>th</sup> Floor—250 Howe Street, Vancouver, British Columbia V6C 3R8,

("RCCOM")

AIMCO REALTY INVESTORS LIMITED PARTNERSHIP, a limited partnership duly formed under the laws of the Province of Manitoba and having its registered office at 1700-666 Burrard Street, Vancouver British Columbia V6C 2X8, by its general partner AIMCO RE GP CORP., a corporation duly incorporated under the laws of the Province of Alberta and having its delivery address in British Columbia at 1700-666 Burrard Street, Vancouver British Columbia V6C 2X8,

("AIMCO" and together with RCCOM, the "Beneficiary")

AND:

7904185 CANADA INC. (INC. NO. 7904185), a company duly incorporated under the laws of Canada and having its registered office at 1100 – 10830 Jasper Avenue, Edmonton, Alberta T5J 2B3

("7904185")

AND:

RC (SOUTH) INC. (INC. NO. 2510864), a company duly incorporated under the laws of the Province of Ontario, and extraprovincially registered in British Columbia, and having its head office at 20 Queen Street West, Suite 500, Toronto, Ontario M5H 3R4

(the Beneficiary and the Nominee are, together, the "Owner" as more fully defined in section 1.1(ee) of this Agreement)

AND:

**CITY OF RICHMOND**, a municipal corporation pursuant to the *Local Government Act* and having its offices at 6911 No. 3 Road, Richmond, British Columbia V6Y 2C1

(the "City" as more fully defined in section 1.1(e) of this Agreement)

**WHEREAS:**

- A. Section 483 of the *Local Government Act* permits the City to enter into and, by legal notation on title, note on title to lands, housing agreements which may include, without limitation, conditions in respect to the form of tenure of housing units, availability of housing units to classes of persons, administration of housing units and rent which may be charged for housing units;
- B. The Owner is the owner of the Lands (as hereinafter defined) which are to be subdivided and developed to include the Development (as herein defined) comprised of a combination of commercial and residential improvements;
- C. The Owner has agreed to transfer to RCRES LP, or another separate entity ("RCRES") those portions of the Lands on which the residential improvements (including the Market Rental Housing Units (as herein defined)) will be situate prior to the commencement of the Development, and thereafter, RCRES shall carry out such residential portion of the Development and shall for the purposes of this Agreement become the Owner and be subject to the terms hereof;
- D. The City requires that the Market Rental Housing Units (as herein defined) will be located on Lot 2 (as defined herein) and rented out by the Owner in perpetuity; and
- E. The Owner and the City wish to enter into this Agreement to provide for purpose-built market rental housing on the terms and conditions set out in this Agreement,

**NOW THEREFORE** in consideration of \$10.00 and other good and valuable consideration (the receipt and sufficiency of which is acknowledged by both parties), and in consideration of the promises exchanged below, the Owner and the City covenant and agree as follows:

**ARTICLE 1  
DEFINITIONS AND INTERPRETATION**

1.1 In this Agreement, the following words have the following meanings:

- (a) "Affordable Housing Unit" means a Dwelling Unit or Dwelling Units designated as such in accordance with a Building Permit and/or Development Permit issued by the City in accordance with the OCPA Considerations;
- (b) "Agreement" means this agreement together with all schedules, attachments and priority agreements attached hereto;

Market Rental Agreement (Housing Agreement)  
(Section 483, *Local Government Act*)  
6551 No. 3 Road, Richmond, B.C.  
Application Nos. CP 16-752923 and DP 17-768248  
OCP Amendment Considerations No. 7

- (c) “Building” means any building constructed, or to be constructed, on the Lands, or a portion thereof, and which contains one or more Towers;
- (d) “Building Permit” means the building permit authorizing construction on the Lands, or any portion(s) thereof;
- (e) “City” means the City of Richmond;
- (f) “City Solicitor” means the individual appointed from time to time to be the City Solicitor of the Law Division of the City, or his or her designate;
- (g) “CPI” means the All-Items Consumer Price Index for Vancouver, B.C. published from time to time by Statistics Canada, or its successor in function;
- (h) “Daily Amount” means \$100.00 per day as of January 1, 2019 adjusted annually thereafter by adding thereto an amount calculated by multiplying \$100.00 by the percentage change in the CPI since January 1, 2019, to January 1 of the year that a written notice is delivered to the Owner by the City pursuant to section 6.1 of this Agreement. In the absence of obvious error or mistake, any calculation by the City of the Daily Amount in any particular year shall be final and conclusive;
- (i) “Development” means the mixed-use residential and commercial development to be constructed on the Lands;
- (j) “Development Permit” means the development permit authorizing development on the Lands, or any portion(s) thereof;
- (k) “Director of Development” means the individual appointed to be the chief administrator from time to time of the Development Applications Division of the City and his or her designate;
- (l) “Dwelling Unit” means a residential dwelling unit or units located or to be located on the Lands whether those dwelling units are lots, strata lots or parcels, or parts or portions thereof, and includes single family detached dwellings, duplexes, townhouses, auxiliary residential dwelling units, rental apartments and strata lots in a building strata plan and includes, where the context permits, a Market Rental Housing Unit;
- (m) “GST” means the Goods and Services Tax levied pursuant to the *Excise Tax Act*, R.S.C., 1985, c. E-15, as may be replaced or amended from time to time;
- (n) “*Interpretation Act*” means the *Interpretation Act*, R.S.B.C. 1996, Chapter 238, together with all amendments thereto and replacements thereof;
- (o) “*Land Title Act*” means the *Land Title Act*, R.S.B.C. 1996, Chapter 250, together with all amendments thereto and replacements thereof;
- (p) “Lands” means:

PID: 017-863-686, Lot A (BF285836), Section 8, Block 4  
North, Range 6 West, New Westminster District Plan 317877,  
and including a Building or a portion of a Building, into which  
said Land(s) is or are Subdivided;

- (q) **"Local Government Act"** means the *Local Government Act*, R.S.B.C. 2015, Chapter 1, together with all amendments thereto and replacements thereof;
- (r) **"Lot"** means Lot 1 or Lot 2, as the context may require;
- (s) **"Lot 1"** means the separate legal parcel to be subdivided from the Lands, approximately as shown as "Lot 1" on the subdivision plan attached hereto as Appendix B;
- (t) **"Lot 2"** means the separate legal parcel to be subdivided from the Lands, approximately as shown as "Lot 2" on the subdivision plan attached hereto as Appendix B;
- (u) **"LTO"** means the New Westminster Land Title Office or its successor;
- (v) **"Manager, Community Social Development"** means the individual appointed to be the Manager, Community Social Development from time to time of the Community Services Department of the City and his or her designate;
- (w) **"Market Ownership Unit"** means a Dwelling Unit or Dwelling Units which is not a Market Rental Housing Unit or an Affordable Housing Unit;
- (x) **"Market Rent"** means the amount of rent that a willing tenant would pay to a willing landlord for the rental of a comparable dwelling unit in a comparable location for a comparable period of time. Provided that the Owner will be permitted to charge rents based on the finishing, location and/or amenities of the Market Rental Housing Unit;
- (y) **"Market Rental Covenant"** means the agreements, covenants and charges granted by the Owner to the City (which includes covenants pursuant to section 219 of the *Land Title Act*) charging the Lands from time to time, in respect to the use and transfer of the Market Rental Housing Units;
- (z) **"Market Rental Housing Unit"** means a Dwelling Unit or Dwelling Units located on Lot 2 and designated as such in accordance with a Building Permit and/or Development Permit issued by the City and/or, if applicable, in accordance with the OCPA Considerations applicable to the Development on the Lands and includes, without limiting the generality of the foregoing, the Dwelling Units charged by this Agreement;
- (aa) **"MRH Cluster"** means a group of not less than 40 Market Rental Housing Units which are contiguous, horizontally and/or vertically, within a Building;

- (bb) "MRH Tower" means a Tower containing Market Rental Housing Units and located within a Building;
- (cc) "OCPA Considerations" means the Official Community Plan Amendment Considerations dated September 10, 2018 and issued to the Owner by the City in connection with the Development and as amended by Council from time to time;
- (dd) "Outdoor and Indoor Amenity Areas" means, collectively, the shared indoor and outdoor common spaces and amenities provided for active and passive recreational, cultural, and social purposes, including all related facilities, features, and equipment, for the purpose of satisfying Official Community Plan and/or Zoning Bylaw requirements with respect to residential uses on Lot 2;
- (ee) "Owner" means the party described on page 1 of this Agreement as the Owner and any subsequent owner of the Lands or of any part into which the Lands are subdivided, and includes any person who is a registered owner in fee simple or beneficial owner of a Market Rental Housing Unit from time to time;
- (ff) "*Real Estate Development Marketing Act*" means the *Real Estate Development Marketing Act*, S.B.C. 2004, Chapter 41, together with all amendments thereto and replacements thereof;
- (gg) "*Residential Tenancy Act*" means the *Residential Tenancy Act*, S.B.C. 2002, Chapter 78, together with all amendments thereto and replacements thereof;
- (hh) "*Strata Property Act*" means the *Strata Property Act* S.B.C. 1998, Chapter 43, together with all amendments thereto and replacements thereof;
- (ii) "Subdivide" means to divide, apportion, consolidate or subdivide the Lands, or the ownership or right to possession or occupation of the Lands into two or more lots, strata lots, parcels, parts, portions or shares, whether by plan, descriptive words or otherwise, under the *Land Title Act*, the *Strata Property Act*, or otherwise, and includes the creation, conversion, organization or development of "cooperative interests" or "shared interest in land" as defined in the *Real Estate Development Marketing Act*, and "Subdivided" and "Subdivision" have the corresponding meanings;
- (jj) "Tenancy Agreement" means a tenancy agreement, lease, license or other agreement granting rights to occupy a Market Rental Housing Unit;
- (kk) "Tenant" means an occupant of a Market Rental Housing Unit by way of a Tenancy Agreement; and
- (ll) "Tower" means any low-rise, mid-rise, or high-rise tower located within a Building, and includes a MRH Tower.

1.2 In this Agreement:

- (a) reference to the singular includes a reference to the plural, and *vice versa*, unless the context requires otherwise;
- (b) article and section headings have been inserted for ease of reference only and are not to be used in interpreting this Agreement;
- (c) if a word or expression is defined in this Agreement, other parts of speech and grammatical forms of the same word or expression have corresponding meanings;
- (d) reference to any enactment includes any regulations, orders or directives made under the authority of that enactment;
- (e) any reference to any enactment is to the enactment in force on the date the Owner signs this Agreement, and to subsequent amendments to or replacements of the enactment;
- (f) the provisions of section 25 of the *Interpretation Act* with respect to the calculation of time apply;
- (g) time is of the essence;
- (h) all provisions are to be interpreted as always speaking;
- (i) reference to a "party" is a reference to a party to this Agreement and to that party's respective successors, assigns, trustees, administrators and receivers. Wherever the context so requires, reference to a "party" also includes an agent, officer and invitee of the party;
- (j) reference to a "day", "month", "quarter" or "year" is a reference to a calendar day, calendar month, calendar quarter or calendar year, as the case may be, unless otherwise expressly provided; and
- (k) where the word "including" is followed by a list, the contents of the list are not intended to circumscribe the generality of the expression preceding the word "including".

## ARTICLE 2

### USE AND OCCUPANCY OF MARKET RENTAL HOUSING UNITS

- 2.1 The Owner agrees that each Market Rental Housing Unit may, in perpetuity, only be occupied by a Tenant at or below Market Rent. A Market Rental Housing Unit must not be occupied by any person other than a Tenant.
- 2.2 Within 30 days after receiving notice from the City, the Owner must in respect of each Market Rental Housing Unit, provide to the City a statutory declaration, substantially in the form (with, in the City Solicitor's discretion, such further amendments or additions as deemed necessary) attached as O, sworn by the Owner, containing all of the information required to complete the statutory declaration. The City may request such statutory

declaration in respect to each Market Rental Housing Unit no more than once in any calendar year; provided, however, notwithstanding that the Owner may have already provided such statutory declaration in the particular calendar year, the City may request and the Owner shall provide to the City such further statutory declarations as requested by the City in respect to a Market Rental Housing Unit if, in the City's absolute determination, the City believes that the Owner is in breach of any of its obligations under this Agreement.

2.3 The Owner hereby irrevocably authorizes the City to make such inquiries as It considers necessary in order to confirm that the Owner is complying with this Agreement.

2.4 The Owner covenants and agrees that, notwithstanding that the Owner may otherwise be entitled, the Owner will not:

- (a) Subdivide Lot 2 or any Building located thereon without the prior written consent of the City;
- (b) be issued with a Development Permit that includes any residential use and/or an increase in gross leasable floor area on the lot, as determined in the City's discretion (excluding parking intended as an ancillary use to non-parking uses):
  - (i) with respect to Lot 1, unless the Development Permit application for Lot 1 includes the conceptual design of Lot 2 for the purpose of approving the amount and distribution of floor area across the Lots, including the entirety of the developer's Market Rental Housing Unit contribution, in accordance with the OCPA Considerations; and
  - (ii) with respect to Lot 2, unless the Owner, to the satisfaction of the City in accordance with the OCPA Considerations:
    - (A) submits a stand-alone Development Permit application for Lot 2, which shall, among other things, accurately describe the form and character of the Owner's market rental housing contribution and ancillary use and spaces (e.g., parking, "Class 1" bike storage, residential amenity spaces, circulation and access), as determined to the satisfaction of the Director of Development, Manager of Policy Planning, Manager of Community Social Development, and Director of Transportation;
    - (B) amends or replaces the Market Rental Covenant registered on title to the Lands to accurately reflect the specifics of the Market Rental Housing Units and ancillary spaces and uses as per the approved Development Permit; and
    - (C) as required, registers additional legal agreements on title to the Lands to facilitate the detailed design, construction, operation, and/or management of the Market Rental Housing Units and/or ancillary spaces and uses (e.g., parking, Transportation Demand

Management measures) as determined by the City through the Development Permit processes.

- (c) be issued with a Building Permit in respect of Lot 2, in part or in whole, that includes any residential use and/or an increase in gross leasable floor area on the lot, as determined in the City's discretion (excluding parking intended as an ancillary use to non-parking uses), unless the Owner's Building Permit application provides for the required the Market Rental Housing Units and ancillary spaces and uses to the satisfaction of the City in accordance with the OCPA Considerations; and
- (d) occupy, nor permit any person to occupy any Dwelling Unit or Dwelling Units, in part or in whole, constructed on Lot 2 that comprise more than 50% of the maximum permitted residential floor area on Lot 2 (excluding Affordable Housing Units and Market Rental Housing Units) and the City will not be obligated to permit occupancy of any Dwelling Unit or Dwelling Units, in part or in whole, constructed on Lot 2 (excluding Affordable Housing Units and Market Rental Housing Units) until all of the following conditions are satisfied:
  - (i) the Market Rental Housing Units and all ancillary uses and spaces have been constructed to the satisfaction of the City in accordance with the OCPA Considerations and this Agreement;
  - (ii) the Market Rental Housing Units have received final Building Permit inspection granting occupancy; and
  - (iii) the Owner is not otherwise in breach of any of its obligations under this Agreement or any other agreement between the City and the Owner in connection with the development of the Lands.
- (e) The Owner acknowledges and agrees that any strata lot or air space parcel containing Market Rental Housing Units that is created by a Subdivision permitted pursuant to Section 2.4(a) hereof must contain a minimum of 40 Market Rental Housing Units (the "MRH Unit Group"), and each MRH Unit Group must either comprise a MRH Tower or an MRH Cluster.

### ARTICLE 3

#### DISPOSITION AND ACQUISITION OF MARKET RENTAL HOUSING UNITS

- 3.1 Without limiting section 2.1 and subject to the *Residential Tenancy Act*, the Owner will not rent a Market Rental Housing Unit to a Tenant for short term rental purposes (being rentals for periods shorter than 30 days). Notwithstanding the foregoing and for greater certainty, nothing in this Agreement will prevent the renting of a Market Rental Housing Unit to a Tenant on a "month-to-month" basis.
- 3.2 If this Agreement encumbers more than one Market Rental Housing Unit, then the Owner may not, without the prior written consent of the City Solicitor, sell or transfer less than all of the Market Rental Housing Units located in a MRH Tower or a MRH Cluster in a single or related series of transactions with the result that when the purchaser or transferee of the



Market Rental Housing Unit becomes the owner, the purchaser or transferee will be the legal and beneficial owner of not less than all of the Market Rental Housing Units located in a MRH Tower or a MRH Cluster.

- 3.3 If the Owner sells or transfers any Market Rental Housing Units, the Owner will notify the City Solicitor of the sale or transfer within three (3) days of the effective date of sale or transfer.
- 3.4 The Owner covenants and agrees with the City that upon any sale, transfer or conveyance of any Market Rental Housing Unit in accordance with the terms hereof to any person, trust, corporation, partnership or other entity, as a legal or beneficial owner, the Owner will obtain from such person, trust, corporation, partnership or other entity and deliver to the City a duly executed acknowledgement of the terms of this Agreement and an assumption of the continuing obligations of the Owner pursuant to this Agreement relative to the Market Rental Housing Unit sold, transferred or conveyed to such person, trust, corporation, partnership or entity.
- 3.5 Subject to the requirements of the *Residential Tenancy Act*, the Owner must not rent, lease, license or otherwise permit occupancy of any Market Rental Housing Unit except to a Tenant and except in accordance with the following additional conditions:
  - (a) the Market Rental Housing Unit will be used or occupied only pursuant to a Tenancy Agreement;
  - (b) the monthly rent payable for the Market Rental Housing Unit will be at or below Market Rent applicable to that class of Market Rental Housing Unit;
  - (c) the Owner will allow the Tenant and any permitted occupant and visitor to have full access to and use and enjoyment of Outdoor and Indoor Amenity Areas on Lot 2, in whole or in part, on a shared or exclusive basis, in accordance with an approved Development Permit and secured with the Market Rental Covenant;
  - (d) the Owner will not require the Tenants or any permitted occupant to pay any fees or costs associated with bicycle storage; and
  - (e) the Owner will not require the Tenants or any permitted occupant to pay any strata fees or strata property contingency reserve fees.
- 3.6 The Owner shall not impose any age-based restrictions on Tenants of Market Rental Housing Units.
- 3.7 The Owner will include in the Tenancy Agreement a clause requiring the Tenant and each permitted occupant of the Market Rental Housing Unit to comply with this Agreement.
- 3.8 The Owner will attach a copy of this Agreement to every Tenancy Agreement.
- 3.9 If the Owner has terminated a Tenancy Agreement, subject to the requirements of the *Residential Tenancy Act*, then the Owner shall use commercially reasonable efforts to cause the Tenant and all other persons that may be in occupation of the Rental Housing Unit, as

applicable, to vacate the Market Rental Housing Unit, as applicable, on or before the effective date of termination.

#### ARTICLE 4 DEMOLITION OF MARKET RENTAL HOUSING UNIT

- 4.1 The Owner will not demolish a Market Rental Housing Unit unless:
- (a) the Owner has obtained the written opinion of a professional engineer or architect who is at arm's length to the Owner that it is no longer reasonable or practical to repair or replace any structural component of the Market Rental Housing Unit, and the Owner has delivered to the City a copy of the engineer's or architect's report; or
  - (b) the Owner has obtained the written opinion of a professional engineer or architect who is at arm's length to the Owner that the Market Rental Housing Unit is damaged or destroyed, to the extent of 40% or more of its value above its foundations,
- and, in each case, a demolition permit for the Market Rental Housing Unit has been issued by the City and the Market Rental Housing Unit has been demolished under that permit.
- 4.2 Following any demolition completed in accordance with Section 4.1 hereof, the Owner will use and occupy any replacement Dwelling Unit in compliance with this Agreement and the Market Rental Covenant both of which will apply to any replacement Dwelling Unit to the same extent and in the same manner as those agreements apply to the original Dwelling Unit, and the Dwelling Unit must be approved by the City as a Market Rental Housing Unit, as applicable, in accordance with this Agreement.

#### ARTICLE 5 STRATA CORPORATION BYLAWS

- 5.1 This Agreement will be binding upon all strata corporations created upon the strata title Subdivision of the Lands or any Subdivided parcel of the Lands.
- 5.2 Any such strata corporation bylaw which prevents, restricts or abridges the right to use the Market Rental Housing Units as rental accommodation, or imposes age-based restrictions on Tenants of Market Rental Housing Units, will have no force and effect.
- 5.3 No such strata corporation shall pass any bylaws preventing, restricting or abridging the use of the Market Rental Housing Unit, as applicable, as rental accommodation.
- 5.4 No such strata corporation shall pass any bylaw or make any rule which would restrict the Owner or the Tenant or any other permitted occupant of a Market Rental Housing Unit from using and enjoying the Outdoor and Indoor Amenity Areas, except on the same basis that governs the use and enjoyment of the Outdoor and Indoor Amenity Areas by all the owners, tenants, or any other permitted occupants of all the strata lots in the applicable Building which are not Market Rental Housing Units or Affordable Housing Units.

## ARTICLE 6 DEFAULT AND REMEDIES

6.1 The Owner agrees that, subject to the requirements of the *Residential Tenancy Act*, in addition to any other remedies available to the City under this Agreement or the Market Rental Covenant or at law or in equity, if:

- (a) a Market Rental Housing Unit is used or occupied in breach of this Agreement or rented at a rate in excess of the Market Rent;
- (b) a Market Rental Housing Unit is used or occupied in breach of this Agreement; or
- (c) the Owner is otherwise in breach of any of its obligations under this Agreement or the Market Rental Covenant (in each case past any applicable cure periods),

then the Owner will pay the Daily Amount to the City for every day that the breach continues after ten days' written notice from the City to the Owner stating the particulars of the breach. For greater certainty, the City is not entitled to give written notice with respect to any breach of the Agreement until any applicable cure period, if any, has expired. The Daily Amount is due and payable five business days following receipt by the Owner of an invoice from the City for the same.

6.2 The Owner acknowledges and agrees that a default by the Owner of any of its promises, covenants, representations or warranties set-out in the Market Rental Covenant shall also constitute a default under this Agreement.

## ARTICLE 7 MISCELLANEOUS

### 7.1 Market Rental Agreement (Housing Agreement)

The Owner acknowledges and agrees that:

- (a) this Agreement includes a housing agreement entered into under section 483 of the *Local Government Act*;
- (b) where a Market Rental Housing Unit is a separate legal parcel the City may file notice of this Agreement in the LTO against the title to the Market Rental Housing Unit and, in the case of a strata corporation, may note this Agreement on the common property sheet; and
- (c) where the Lands have not yet been Subdivided to create the separate parcels to be charged by this Agreement, the City may file a notice of this Agreement in the LTO against the title to the Lands. If this Agreement is filed in the LTO as a notice under section 483 of the *Local Government Act* prior to the Lands having been Subdivided, and it is the intention that this Agreement is, once separate legal parcels are created and/or the Lands are subdivided, to charge and secure only the legal parcels or Subdivided Lands which contain the Market Rental Housing Units, then the City

Market Rental Agreement (Housing Agreement)  
(Section 483, *Local Government Act*)  
6551 No. 3 Road, Richmond, B.C.  
Application Nos. CP 16-752923 and DP 17-768248  
OCP Amendment Considerations No. 7

Solicitor shall be entitled, without further City Council approval, authorization or bylaw, to partially discharge this Agreement accordingly. The Owner acknowledges and agrees that notwithstanding a partial discharge of this Agreement, this Agreement shall be and remain in full force and effect and, but for the partial discharge, otherwise unamended with respect to the lands which remain subject to this Agreement. Further, the Owner acknowledges and agrees that in the event that the Market Rental Housing Unit is in a strata corporation, this Agreement shall remain noted on the strata corporation's common property sheet.

- (d) The Owner covenants and agrees with the City that concurrently with its transfer to RCRES of those portions of the Lands on which the portion of the Development that involves the residential improvements will be situate, the Owner will cause RCRES to enter into an agreement pursuant to which RCRES will expressly acknowledge and assume the obligations of the Owner under this Agreement insofar as they relate to the portion of the Lands acquired by RCRES.
- (e) The Owner and the City agree that it is their intention that this Agreement is, once separate legal parcels are created and/or the Lands are Subdivided, to charge and secure only the legal parcels or Subdivided Lands which contain the Market Rental Housing Units. Upon such creation of separate legal parcels and/or Subdivision, the City Solicitor shall, upon written request by the Owner, provide partial discharges of this Agreement accordingly, provided that the Owner has made adequate arrangements, satisfactory to the City, through reciprocal easements or otherwise, to ensure that the Owner(s), the Tenants and any other permitted occupants of the Market Rental Housing Units have the access necessary to ensure their continued ability to use and enjoy the applicable Outdoor and Indoor Amenity Areas.

## 7.2 No Compensation

The Owner acknowledges and agrees that no compensation is payable, and the Owner is not entitled to and will not claim any compensation from the City, for any decrease in the market value of the Lands or for any obligations on the part of the Owner and its successors in title which at any time may result directly or indirectly from the operation of this Agreement.

## 7.3 Modification

Subject to section 7.1 of this Agreement, this Agreement may be modified or amended from time to time, by consent of the Owner and a bylaw duly passed by the Council of the City and thereafter if it is signed by the City and the Owner.

## 7.4 Management

The Owner covenants and agrees that it will furnish good and efficient management of the Market Rental Housing Units and will permit representatives of the City to inspect the Market Rental Housing Units at any reasonable time, subject to the notice provisions in the *Residential Tenancy Act*. The Owner further covenants and agrees that it will maintain the Market Rental Housing Units in a good state of repair and fit for habitation and will comply with all laws, including health and safety standards applicable to the Lands.

## 7.5 Indemnity

The Owner will indemnify and save harmless the City and each of its elected officials, officers, directors, and agents, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities, which all or any of them will or may be liable for or suffer or incur or be put to by reason of or arising out of:

- (a) any negligent act or omission of the Owner, or its officers, directors, agents, contractors or other persons for whom at law the Owner is responsible relating to this Agreement;
- (b) the City refusing to issue a development permit, building permit or refusing to permit occupancy of any building, or any portion thereof, constructed on the Lands;
- (c) the construction, maintenance, repair, ownership, lease, license, operation, management or financing of the Lands or any Market Rental Housing Unit or the enforcement of any Tenancy Agreement; and/or
- (d) without limitation, any legal or equitable wrong on the part of the Owner or any breach of this Agreement by the Owner.

## 7.6 Release

The Owner hereby releases and forever discharges the City and each of its elected officials, officers, directors, and agents, and its and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, damages, actions, or causes of action by reason of or arising out of or which would or could not occur but for the:

- (a) construction, maintenance, repair, ownership, lease, license, operation or management of the Lands or any Market Rental Housing Unit under this Agreement;
- (b) the City refusing to issue a development permit, building permit or refusing to permit occupancy of any building, or any portion thereof, constructed on the Lands; and/or
- (c) the exercise by the City of any of its rights under this Agreement or an enactment.

## 7.7 Survival

The obligations of the Owner set out in Section 7.5 of this Agreement will survive termination or discharge of this Agreement.

## 7.8 Priority

The Owner will do everything necessary, at the Owner's expense, to ensure that this Agreement, if required by the City Solicitor, will be noted against title to the Lands in priority to all financial charges and encumbrances which may have been registered or are pending

registration against title to the Lands save and except those specifically approved in advance in writing by the City Solicitor or in favour of the City, and that a notice under section 483(5) of the *Local Government Act* will be filed on the title to the Lands.

#### 7.9 No Fettering and No Derogation

Nothing contained or implied in this Agreement shall fetter in any way the discretion of the City or the Council of the City. Further, nothing contained or implied in this Agreement shall derogate from the obligation of the Owner under any other agreement with the City or, if the City so elects, prejudice or affect the City's rights, powers, duties or obligation in the exercise of its functions pursuant to the *Community Charter* or the *Local Government Act*, as amended or replaced from time to time, or act to fetter or otherwise affect the City's discretion, and the rights, powers, duties and obligations of the City under all public and private statutes, by-laws, orders and regulations, which may be, if the City so elects, as fully and effectively exercised in relation to the Lands as if this Agreement had not been executed and delivered by the Owner and the City.

#### 7.10 Agreement for Benefit of City Only

The Owner and the City agree that:

- (a) this Agreement is entered into only for the benefit of the City;
- (b) this Agreement is not intended to protect the interests of the Owner, any Tenant, or any future owner, lessee, occupier or user of the Lands or a Building or any portion thereof, including any Market Rental Housing Unit; and
- (c) the City may at any time execute a release and discharge of this Agreement, without liability to anyone for doing so, and without obtaining the consent of the Owner.

#### 7.11 No Public Law Duty

Where the City is required or permitted by this Agreement to form an opinion, exercise a discretion, express satisfaction, make a determination or give its consent, the Owner agrees that the City is under no public law duty of fairness or natural justice in that regard and agrees that the City may do any of those things in the same manner as if it were a private party and not a public body.

#### 7.12 Notice

Any notice required to be served or given to a party herein pursuant to this Agreement will be sufficiently served or given if delivered, to the postal address of the Owner set out in the records at the LTO, and in the case of the City addressed:

- (a) Clerk, City of Richmond  
6911 No. 3 Road  
Richmond, BC V6Y 2C1

And to:

- (b) City Solicitor  
City of Richmond  
6911 No. 3 Road  
Richmond, BC V6Y 2C1

or to the most recent postal address provided in a written notice given by each of the parties to the other. Any notice which is delivered is to be considered to have been given on the first day after it is dispatched for delivery.

#### 7.13 Enuring Effect

This Agreement will extend to and be binding upon and enure to the benefit of the parties hereto and their respective successors and permitted assigns.

#### 7.14 Severability

If any provision of this Agreement is found to be invalid or unenforceable, such provision or any part thereof will be severed from this Agreement and the resultant remainder of this Agreement will remain in full force and effect.

#### 7.15 Waiver

All remedies of the City will be cumulative and may be exercised by the City in any order or concurrently in case of any breach and each remedy may be exercised any number of times with respect to each breach. Waiver of or delay in the City exercising any or all remedies will not prevent the later exercise of any remedy for the same breach or any similar or different breach.

#### 7.16 Sole Agreement

This Agreement, and any documents signed by the Owners contemplated by this Agreement (including, without limitation, the Market Rental Covenant), represent the whole agreement between the City and the Owner respecting the use and occupation of the Market Rental Housing Units, and there are no warranties, representations, conditions or collateral agreements made by the City except as set forth in this Agreement. In the event of any conflict between this Agreement and the Market Rental Covenant, this Agreement shall, to the extent necessary to resolve such conflict, prevail.

#### 7.17 Further Assurance

Upon request by the City the Owner will forthwith do such acts and execute such documents as may be reasonably necessary in the opinion of the City to give effect to this Agreement.

**7.18 Covenant Runs with the Lands**

This Agreement burdens and runs with the Lands and every parcel into which it is Subdivided in perpetuity. All of the covenants and agreements contained in this Agreement are made by the Owner for itself, its personal administrators, successors and assigns, and all persons who after the date of this Agreement, acquire an interest in the Lands.

**7.19 Equitable Remedies**

The Owner acknowledges and agrees that damages would be an inadequate remedy for the City for any breach of this Agreement and that the public interest strongly favours specific performance, injunctive relief (mandatory or otherwise), or other equitable relief, as the only adequate remedy for a default under this Agreement.

**7.20 No Joint Venture**

Nothing in this Agreement will constitute the Owner as the agent, joint-venturer, or partner of the City or give the Owner any authority to bind the City in any way.

**7.21 Applicable Law**

Unless the context otherwise requires, the laws of British Columbia (including, without limitation, the *Residential Tenancy Act*) will apply to this Agreement and all statutes referred to herein are enactments of the Province of British Columbia.

**7.22 Deed and Contract**

By executing and delivering this Agreement the Owner intends to create both a contract and a deed executed and delivered under seal.

**7.23 Joint and Several**

If the Owner is comprised of more than one person, firm or body corporate, then the covenants, agreements and obligations of the Owner shall be joint and several.

**7.24 Limitation on Owner's Obligations**

The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered or beneficial owner of the Lands provided however that notwithstanding that the Owner is no longer the registered or beneficial owner of the Lands, the Owner will remain liable for breaches of this Agreement that occurred while the Owner was the registered or beneficial owner of the Lands.

**7.25 Counterparts**

This Agreement may be signed by the parties hereto in counterparts and taken together shall constitute one and the same instrument and may be compiled for registration, if registration is required, as a single document.



*[Execution blocks follow]*

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

RC (SOUTH) INC.,  
by its authorized signatory(ies):

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

RCCOM LIMITED PARTNERSHIP, by its general  
partner, RCCOM GP INC.,  
by its authorized signatory(ies):

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

7904185 CANADA INC.,  
by its authorized signatory(ies):

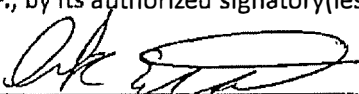
Per: 

Print Name: Erik Dmytruk

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

AIMCO REALTY INVESTORS LIMITED  
PARTNERSHIP, by its general partner, AIMCO RE  
GP CORP., by its authorized signatory(ies):

Per: 

Print Name: Erik Dmytruk

Per: \_\_\_\_\_

Print Name: \_\_\_\_\_

CITY OF RICHMOND  
by its authorized signatory(ies)

Per: \_\_\_\_\_  
Malcolm Brodie, Mayor

Per: \_\_\_\_\_  
David Weber, Corporate Officer

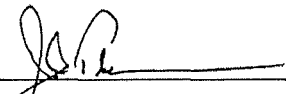
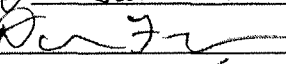
CITY OF RICHMOND
APPROVED for content by originating dept.
APPROVED for legality by Solicitor
DATE OF COUNCIL APPROVAL

*[Execution blocks follow]*

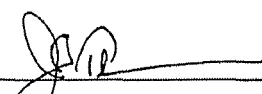
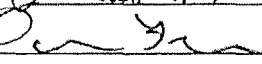
Market Rental Agreement (Housing Agreement)  
(Section 483, *Local Government Act*  
6551 No. 3 Road, Richmond, B.C.  
Application Nos. CP 16-752923 and DP 17-768248  
OCP Amendment Considerations No. 7

**IN WITNESS WHEREOF**, the parties hereto have executed this Agreement as of the day and year first above written.

**RC (SOUTH) INC.,**  
by its authorized signatory(ies):

Per:   
Print Name: JOSH THOMSON  
Per:   
Print Name: David Fenrich

**RCCOM LIMITED PARTNERSHIP**, by its general partner, **RCCOM GP INC.**,  
by its authorized signatory(ies):

Per:   
Print Name: JOSH THOMSON  
Per:   
Print Name: David Fenrich

**7904185 CANADA INC.,**  
by its authorized signatory(ies):

Per: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Per: \_\_\_\_\_  
Print Name: \_\_\_\_\_

**AIMCO REALTY INVESTORS LIMITED PARTNERSHIP**, by its general partner, **AIMCO RE GP CORP.**, by its authorized signatory(ies):

Per: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Per: \_\_\_\_\_  
Print Name: \_\_\_\_\_

**CITY OF RICHMOND**  
by its authorized signatory(ies)

Per: \_\_\_\_\_  
Malcolm Brodie, Mayor  
Per: \_\_\_\_\_  
David Weber, Corporate Officer

CITY OF RICHMOND
APPROVED for content by originating dept.
APPROVED for legality by Solicitor
DATE OF COUNCIL APPROVAL

**APPENDIX A**  
**to Market Rental Agreement (Housing Agreement)**

**STATUTORY DECLARATION**

CANADA	)	IN THE MATTER OF A
	)	MARKET RENTAL AGREEMENT (HOUSING
PROVINCE OF BRITISH COLUMBIA	)	AGREEMENT) WITH
	)	THE CITY OF RICHMOND
		("Housing Agreement")

TO WIT:

I, \_\_\_\_\_ of \_\_\_\_\_, British Columbia, do solemnly declare that:

1. I am the owner or authorized signatory of the owner of \_\_\_\_\_ (the "Market Rental Housing Unit"), and make this declaration to the best of my personal knowledge.
2. This declaration is made pursuant to the Market Rental Agreement (Housing Agreement) in respect of the Market Rental Housing Unit.
3. For the period from \_\_\_\_\_ to \_\_\_\_\_, the Market Rental Housing Unit was used solely for the provision of rental housing for Tenants (as defined in the Market Rental Agreement (Housing Agreement)) at or below Market Rent (as defined in the Market Rental Agreement (Housing Agreement)).
4. I make this solemn declaration, conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and pursuant to the *Canada Evidence Act*.

DECLARED BEFORE ME at the  
 City of \_\_\_\_\_  
 in the Province of British Columbia,  
 this \_\_\_\_\_ day of \_\_\_\_\_,  
 20\_\_\_\_.

\_\_\_\_\_  
 A Commissioner for Taking Affidavits in the  
 Province of British Columbia

\_\_\_\_\_  
 DECLARANT

**APPENDIX B  
SUBDIVISION PLAN**

and 1980's. The 1980's saw a significant increase in the number of people who were employed in the service sector, which was a result of the growth of the economy and the increasing demand for services. This was also a period of significant technological advancement, which led to the development of new products and services. The 1990's saw a period of economic growth, which was driven by the increasing demand for services and the growth of the technology sector. This was also a period of significant technological advancement, which led to the development of new products and services. The 2000's saw a period of economic growth, which was driven by the increasing demand for services and the growth of the technology sector. This was also a period of significant technological advancement, which led to the development of new products and services. The 2010's saw a period of economic growth, which was driven by the increasing demand for services and the growth of the technology sector. This was also a period of significant technological advancement, which led to the development of new products and services. The 2020's saw a period of economic growth, which was driven by the increasing demand for services and the growth of the technology sector. This was also a period of significant technological advancement, which led to the development of new products and services.



DRAFT OCTOBER 19th 2018

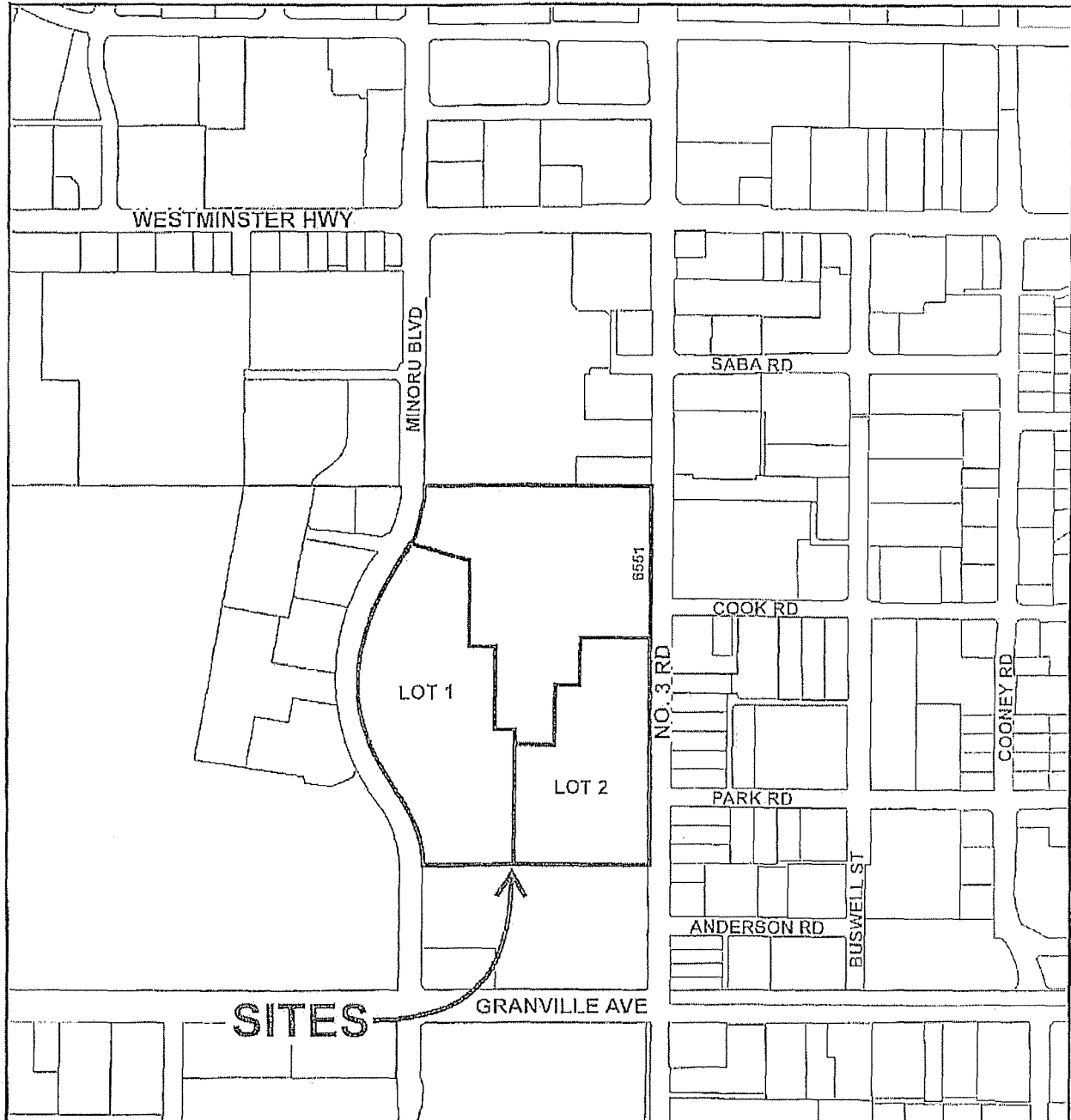
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**THE**

— **ANALYST** —



City of  
Richmond



6551 No. 3 Road

Original Date: 11/19/18

Revision Date:

Note: Dimensions are in METRES





# City of Richmond

## Report to Committee Planning and Development Division

**To:** Planning Committee  
**From:** Wayne Craig  
Director, Development

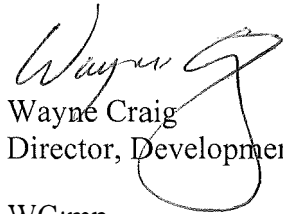
**Date:** December 18, 2018

**File:** RZ 16-742260

**Re:** Application by 0855855 B.C. Ltd. for Rezoning at 9820 Alberta Road from the "Single Detached (RS1/F)" zone to the "Town Housing (ZT60) – North McLennan (City Centre)" zone

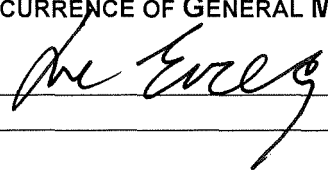
### Staff Recommendation

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9960, for the rezoning of 9820 Alberta Road from the "Single Detached (RS1/F)" zone to the "Town Housing (ZT60) – North McLennan (City Centre)" zone to permit the development of six three-storey townhouse units with vehicle access from 9840 Alberta Road, be introduced and given first reading.



Wayne Craig  
Director, Development

WC:mp  
Att.

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Affordable Housing	<input checked="" type="checkbox"/>	

## **Staff Report**

### **Origin**

0855855 B.C. Ltd. has applied to the City of Richmond to rezone 9820 Alberta Road from the “Single Detached (RS1/F)” zone to the “Town Housing (ZT60) – North McLennan (City Centre)” zone to develop six three-storey townhouse units on the site with vehicle access from 9840 Alberta Road. A location map and an aerial photo are provided in Attachment 1.

A Development Application Data Sheet providing details about the proposed development is provided in Attachment 2. Preliminary plans are provided in Attachment 3.

### **Existing Condition and Site Context**

#### Existing Housing Profile

There is an existing single detached dwelling, which will be demolished. The single detached dwelling is currently rented, and does not contain a secondary suite.

#### Surrounding Development

The subject property is surrounded by the following developments:

- To the North: Across Alberta Road, single detached dwellings zoned “Single Detached (RS1/F)”.
- To the South: A three-storey townhouse development zoned “Town Housing (ZT60) – North McLennan (City Centre)” and A.R. MacNeill Secondary School to the southwest.
- To the East: A three-storey townhouse development zoned “Town Housing (ZT60) – North McLennan (City Centre)”.
- To the West: A three-storey townhouse development zoned “Town Housing (ZT60) – North McLennan (City Centre).”

### **Related Policies & Studies**

#### Official Community Plan/McLennan North Area Plan

In the Official Community Plan (OCP), the subject property is designated “Neighbourhood Residential”, which allows for single family, two-family and multiple family housing including townhouses.

In the McLennan North Sub-Area Plan under the City Centre Area Plan (City Centre), the subject property is designated as Residential Area 3, which allows a 0.65 base Floor Area Ratio (FAR) and two to three storey townhouses. The proposed 0.65 FAR is consistent with this designation. The McLennan North Sub-Area Plan Land Use Map is included in Attachment 4.

The McLennan North Sub-Area Development Permit Guidelines require that new townhouse developments to be of sufficient site assembly size, including area and frontage, to support high quality development. Along local or collector roads, such as Alberta Road, a minimum frontage width of 40 m and a minimum lot area of 2,000 m<sup>2</sup> is required. The guidelines, however, allow for deviation from the minimum site assembly sizes where the lot is isolated and is not able to consolidate with adjacent properties. While the width (20 m) and the area (1,012 m<sup>2</sup>) of the subject property do not meet the minimum requirements, staff support the proposed development as the immediately adjacent properties have already been redeveloped with townhouses and there is no opportunity for lot consolidation in near future.

#### Floodplain Management Implementation Strategy

The proposed redevelopment must meet the requirements of the Richmond Flood Plain Designation and Protection Bylaw 8204. Registration of a flood indemnity covenant on title is required prior to final adoption of the rezoning bylaw.

#### OCP Aircraft Noise Sensitive Development (ANSO) Policy

The subject property is located within Area 4 of the Aircraft Noise Sensitive Development map, which allows consideration of all new aircraft noise sensitive uses, including townhouses. Registration of an Aircraft Noise Sensitive Use Restrictive Covenant on title is required prior to final adoption of the rezoning bylaw. Also, a report for indoor noise mitigation and climate control measures is required at the time of applying for a Development Permit.

#### **Public Consultation**

A rezoning sign has been posted on the site. Staff have not received any written correspondence expressing concerns in response to the placement of the rezoning sign on the property.

Should the Planning Committee endorse this application and Council grant first reading to the rezoning bylaw, the bylaw will be forwarded to a Public Hearing, where any area resident or interested party will have an opportunity to comment. Public notification for the Public Hearing will be provided as per the *Local Government Act*.

#### **Analysis**

##### Built Form and Character

The proposed development consists of six townhouse units arranged in two buildings. Each unit contains two storeys of living space above a tandem garage, individual entrances at grade and private rear yard. The ZT60 zone permits 100% of the proposed residential parking spaces to be provided in a tandem arrangement. The proposed height of the buildings is consistent with the three-storey townhouse buildings on the immediately adjacent properties to the east, west and south. The proposed design, which incorporates gable roofs, is also compatible with the surrounding townhouse developments.

The outdoor amenity area is proposed at the southeast corner of the site and will be combined with the existing outdoor amenity area on the adjacent property to the east. A cross-access

easement was secured as part of the redevelopment of the adjacent property (RZ07-390155) for the shared use of the existing outdoor amenity area. The proposed outdoor amenity area is designed to facilitate children's play with play equipment and a bench to permit observation of children, and also includes a picnic table to create an inviting environment for social activities. Prior to final adoption of the rezoning bylaw, registration of a cross-access agreement on title will be required in favour of the neighbouring property for the shared use of the proposed outdoor amenity space on the subject property between the two properties.

One convertible unit is proposed. The unit includes space designed for the future installation of an elevator, and the tandem garage in this unit is wider to accommodate a larger vehicle.

Further details of the site plan, architectural character of the proposed development, and landscape design including the outdoor amenity area design will be reviewed through the Development Permit application process.

#### Transportation and Site Access

Access to the site will be provided via the existing 6 m driveway on the adjacent property to the east. The Statutory Right-of-Way (SRW) has been registered on title as part of the rezoning requirements of the adjacent development to the east to allow the existing drive aisle to be shared with the subject property. Prior to adoption of the rezoning bylaw, registration of a SRW over the entire drive aisle proposed on the subject property is required in order to:

- widen the northern portion (approximately 20 m in length) of the north-south drive aisle by 0.7 m; and
- allow the east-west drive aisle proposed on the subject site to be shared for a vehicular turnaround.

The applicant has indicated that he met with the strata council of the neighbouring property on July 29, 2018 to discuss the proposed development (Attachment 5), particularly the shared use of the drive aisle and outdoor amenity space. No significant concerns were expressed at the meeting, and the applicant will continue to work with the neighbouring strata during redevelopment of the subject site.

The existing U-shaped driveway for the existing single detached dwelling is required to be removed as part of the development approval process.

The proposed vehicle and bicycle parking spaces meet Zoning Bylaw 8500 requirements. The required number of residential parking spaces is nine (9), and the application includes 12 residential parking spaces. All residential parking spaces are provided in a tandem arrangement, which is permitted in the "Town Housing (ZT60) – North McLennan (City Centre)" zone. Registration of a legal agreement on title prohibiting the conversion of the tandem parking area of each unit into habitable space is required prior to rezoning approval.

Two visitors parking stalls and garbage/recycling collection area are provided and accessed through the internal drive aisle.

### Tree Retention and Replacement

The applicant has submitted a Certified Arborist Report; which identifies on-site and off-site tree species, assesses tree structure and condition, and provides recommendations on tree retention and removal relative to the proposed development. The report assesses two (2) bylaw-sized trees on the subject property, one (1) tree located on the neighbouring A.R. MacNeill Secondary School site, and one (1) street tree on City property.

The City's Tree Preservation Coordinator has reviewed the Arborist's Report and has the following comments:

- One (1) tree (# 96) located on the subject site is in good condition and is to be retained and protected.
- One (1) tree (#97) located on the subject site is in poor condition and should be removed and replaced.
- One (1) tree located on the neighbouring school site to the southwest is identified to be retained and protected. Provide tree protection as per City of Richmond Tree Protection Information Bulletin Tree-03.

Also, the City's Parks staff assessed the condition of the existing street tree. The existing street tree is in poor condition, and should be removed and replaced. One replacement tree is required to be planted as part of the required frontage requirements prior to issuance of Building Permit.

### *Tree Replacement*

The applicant wishes to remove one (1) on-site tree (Trees # 97). The 2:1 replacement ratio would require a total of two (2) replacement trees. The preliminary landscape plan shows that 10 trees will be planted on the site. The size and species of replacement trees, and overall landscape design will be reviewed in detail through the Development Permit process.

### *Tree Protection*

One (1) tree on the subject property and one (1) tree on the neighbouring property to the south are to be retained and protected. The applicant has submitted a tree management plan showing the trees to be retained and the measures taken to protect them during development stage (Attachment 6). To ensure that the trees identified for retention are protected at development stage, the applicant is required to complete the following items:

- Prior to final adoption of the rezoning bylaw, submission of a \$5,000 Tree Survival Security;
- Prior to final adoption of the rezoning bylaw, submission to the City of a contract with a Certified Arborist for the supervision of all works conducted within or in close proximity to tree protection zones. The contract must include the scope of work required, the number of proposed monitoring inspections at specified stages of construction, any special measures required to ensure tree protection, and a provision for the arborist to submit a post-construction impact assessment to the City for review; and
- Prior to demolition of the existing dwelling on the subject site, installation of tree protection fencing around all trees to be retained. Tree protection fencing must be installed to City

standard in accordance with the City's Tree Protection Information Bulletin Tree-03 prior to any works being conducted on-site, and remain in place until construction and landscaping on-site is completed.

#### Requested Variance

The proposed development is generally in compliance with the "Town Housing (ZT60) – North McLennan (City Centre)" zone. The applicant is requesting a variance to the ZT60 zone to reduce the minimum side yard setback along the eastern property line from 3.0 m to 2.25 m. Staff are supportive of this variance request. All three units proposed in the building at the north are oriented towards the internal drive aisle to the east, and the reduction of the east side yard setback is to accommodate a minimum of 30 m<sup>2</sup> of amenity area (rear yard) located on the west side of the property. The east property line is adjacent to the shared drive aisle and would have minimal impacts on the adjacent townhouse buildings. The requested variance will be assessed through review of a development permit.

#### Affordable Housing Strategy

The applicant is required to comply with the City's Affordable Housing Strategy. In accordance with the Strategy, prior to rezoning bylaw adoption, a cash contribution of \$60,180 (\$8.50 per buildable square foot) is required.

#### BC Energy Step Code

On July 16, 2018, Council adopted Bylaw 9769 that requires new buildings to be constructed to meet the energy efficiency targets set under the BC Energy Step Code. Staff anticipates the proposed development would be designed and built in accordance with Part 9 of the BC Building Code. Therefore, this development would be expected to achieve Step 3 of the Energy Step Code for Part 9 construction (Climate Zone 4).

#### Amenity Space

Consistent with the OCP, the applicant is proposing to provide cash contribution in the amount of \$1,000 per unit for a total of \$6,000 in lieu of providing indoor amenity space.

The proposed outdoor amenity space area is 67.5 m<sup>2</sup> in area, which exceeds the minimum requirement of 36 m<sup>2</sup> (6 m<sup>2</sup> per unit) from the Official Community Plan. Also, the outdoor amenity space on the subject property is expected to be combined with the existing outdoor amenity space of the townhouse development to the east, which was secured through a cross-access agreement when the neighbouring site was rezoned. The applicant has indicated that they will be working with the neighbouring strata on the design of the outdoor amenity space through the Development Permit application review.

#### Site Servicing and Frontage Improvements

Frontage improvements will include removal of the existing driveway crossings and replacement of the street tree in front of the site. The required frontage improvements and service

connections will be done through a work order at the developer's cost prior to issuance of a Building Permit.

### Development Permit Application

A Development Permit application is required to be processed to a satisfactory level prior to final adoption of the rezoning bylaw. Further refinements to architectural, landscape, and urban design will be completed as part of the Development Permit application review process, including but limited to the following:

- Compliance with Development Permit Guidelines for multiple-family projects in the 2041 Official Community Plan Bylaw 9000 and the City Centre Area Plan;
- Refinement of the character and form of building elevations including materials to create an interesting streetscape along Alberta Road;
- Review of the size and species of replacement trees, and landscape plan to ensure bylaw compliance and to achieve a mix of conifer and deciduous trees on site and along the frontage;
- Refinement of the outdoor amenity area design; and
- Review of aging-in-place features and the design of the convertible unit;
- Review of a sustainability strategy for the development including measures to achieve BC Energy Step Code requirements.

Additional issues may be identified as part of the Development Permit application review process.

### **Financial Impact or Economic Impact**

The rezoning application results in an insignificant Operational Budget Impact (OBI) for off-site City infrastructure (such as roadworks, waterworks, storm sewers, sanitary sewers, street lights, street trees and traffic signals).

### **Conclusion**

0855855 BC Ltd. has applied to rezone the property at 9820 Alberta Road from the "Single Detached (RS1/F)" zone to the "Town Housing (ZT60) – North McLennan (City Centre)" zone, to develop six townhouse units with vehicle access from Alberta Road.

The rezoning application is consistent with the land use designation and applicable policies contained within the OCP and McLennan North Sub-Area Plan for the subject site.

The list of rezoning considerations is included in Attachment 7; which have been agreed to by the applicant (signed concurrence on file).

Staff recommend that Zoning Bylaw 8500, Amendment Bylaw 9960, be introduced and given first reading.



Minhee Park  
Planner 2

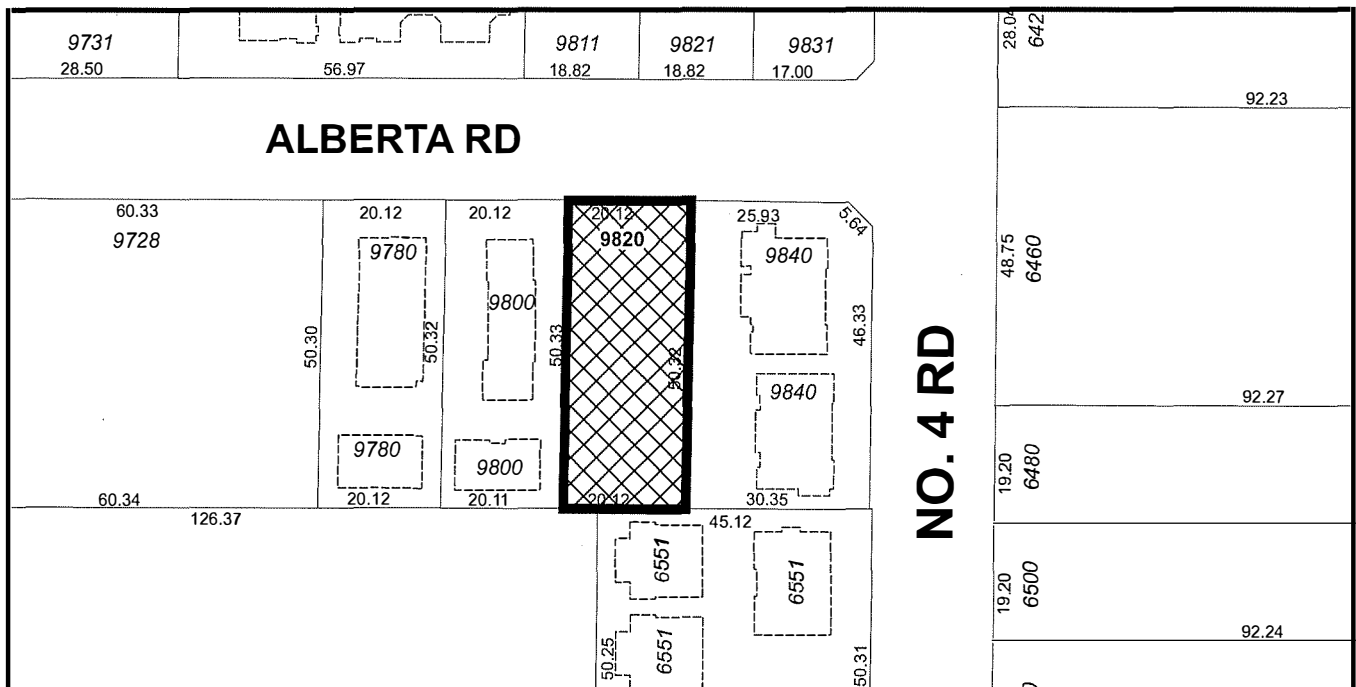
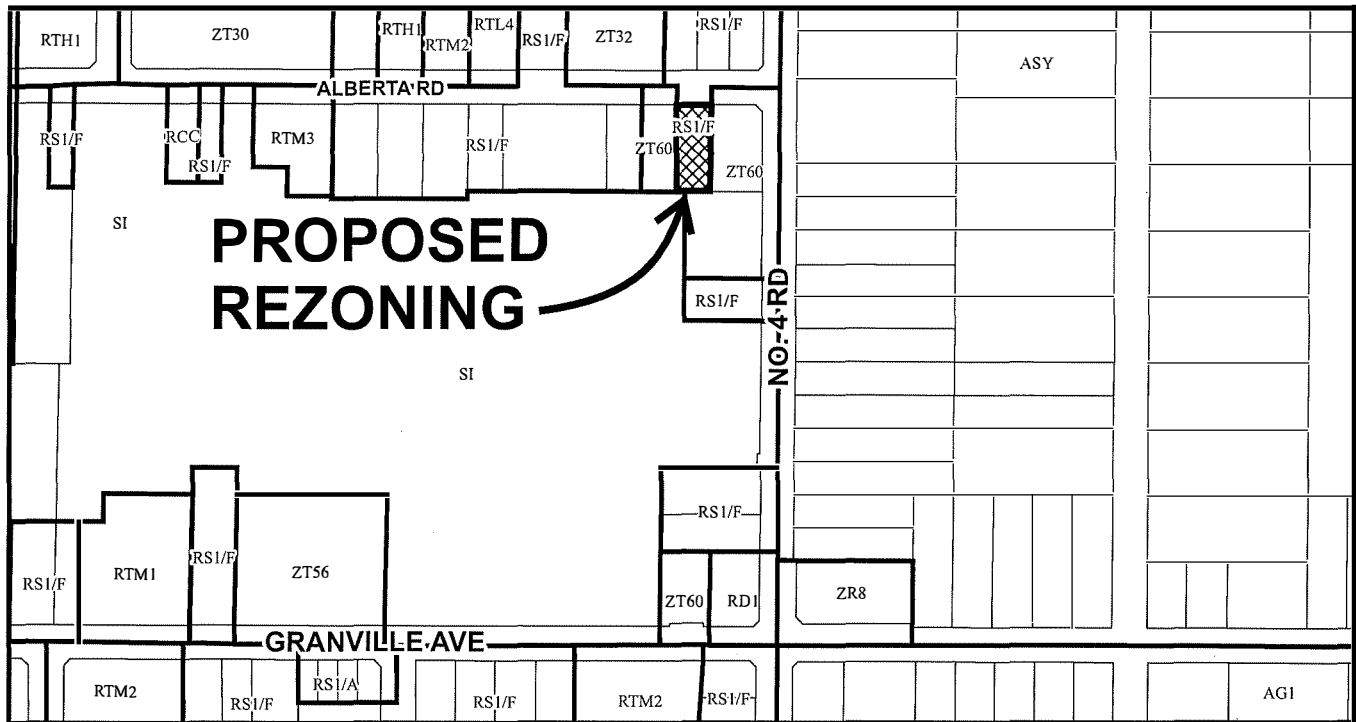
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- Attachment 1: Location Map and Aerial Photo
- Attachment 2: Development Application Data Sheet
- Attachment 3: Preliminary Plans
- Attachment 4: McLennan North Sub-Area Plan Land Use Map
- Attachment 5: Letter from Applicant Documenting Meeting Held on July 29, 2018
- Attachment 6: Tree Management Plan
- Attachment 7: Rezoning Considerations





# City of Richmond



## RZ 16-742260

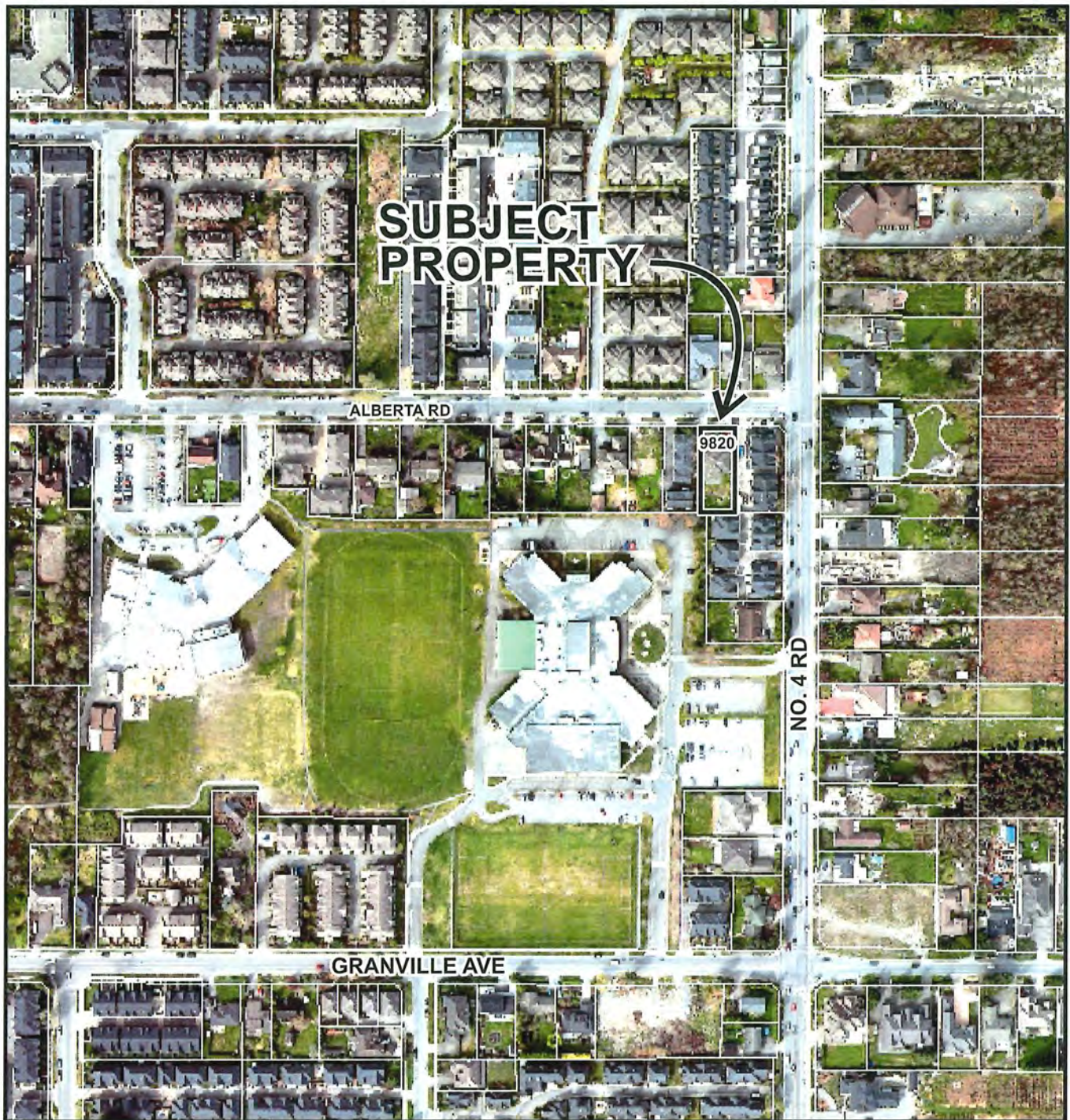
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Revision Date: 12/06/18

Note: Dimensions are in METRES



City of  
Richmond



RZ 16-742260

Original Date: 09/22/16

Revision Date: 12/06/18

Note: Dimensions are in METRES

CNCL - 377





**RZ 16-742260**

**Attachment 2**

Address: 9820 Alberta Road

Applicant: 0855855 BC Ltd.

Planning Area(s): North McLennan (City Centre)

	Existing	Proposed
<b>Owner:</b>	0855855 B.C. Ltd.	No change
<b>Land Uses:</b>	Single Detached Dwelling	Townhouses
<b>OCP Designation:</b>	Neighbourhood Residential	No Change
<b>Area Plan Designation:</b>	Residential Area 3	No Change
<b>Zoning:</b>	Single Detached (RS1/F)	Town Housing (ZT60)
<b>Number of Units:</b>	1	6

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	0.65	0.65	none permitted
Lot Coverage (% of lot area):	Building: Max. 40%	35 %	none
Lot Size:	1,010 m <sup>2</sup>	1,012 m <sup>2</sup>	none
Lot Dimensions (m):	None	Width: 20.1 m Depth: 50.3 m	none
Setback – Front:	Min. 6.0 m	6.0 m	none
Setback – Side (east):	Min. 3.0 m	2.25 m	Variance required
Setback – Side (west):	Min. 3.0 m	3.2 m	none
Setback – Rear:	Min. 3.0 m	6.5 m	none
Height (m):	12.0 m (Max. 3 storeys)	12.0 m (3 storeys)	none
Off-street Parking Spaces – Regular (R) / Visitor (V):	1.4 (R) and 0.2 (V) per unit	2 (R ) per unit and 0.2 (V) per unit	none
Off-street Parking Spaces – Total:	11	14	none
Tandem Parking Spaces:	100% Permitted	100% 6 tandem (12 spaces)	none
Bicycle Parking	Class 1: 1.25 spaces/unit Class 2: 0.2 space/unit	Class 1: 2 spaces/unit Class 2: 0.2 space/unit	none
Amenity Space – Indoor:	Min. 50 m <sup>2</sup>	Cash in lieu (\$6000)	none
Amenity Space – Outdoor:	Shared: Min. 36 m <sup>2</sup> Private: Min. 3.0 m <sup>2</sup> /unit	Shared: 67.5 m <sup>2</sup> Private: Min. 3.0 m <sup>2</sup> /unit	none

# REZONING FOR PROPOSED TOWNHOUSE DEVELOPMENT AT 9820 ALBERTA ROAD, RICHMOND, BC

## DEVELOPMENT DATA

(A) CIVIC ADDRESS:  
9820 ALBERTA ROAD, RICHMOND, BC  
LOT 7, SECTION 10, BLOCK 4 NORTH, RANGE 6 WEST  
NEW WESTMINSTER DISTRICT PLAN 1712

(C) LOT AREA:  
1,012 SM (10,893 SF)

(D) ZONING USE  
CURRENT: RS1/F, (PROPOSED: ZT60)

CURRENT ZONING  
(UNDER RS1/F ZONING)

PROPOSED  
(ZT60)

(E) FLOOR AREA RATIO  
0.55 TO 454.5 SM  
0.3 TO REST OF SITE AREA  
TOTAL FLOOR AREA  
0.65 X 1,012 SM = 657.8 SM  
(7,080 SF)

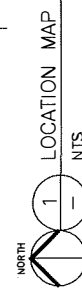
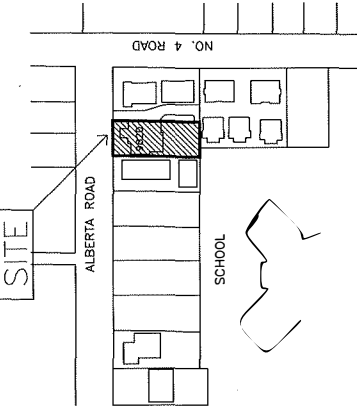
(F) NUMBER OF UNIT:  
1 PER LOT  
MAX - 45%

(H) BUILDING HEIGHT:  
MAX MAIN BUILDING HEIGHT - 12M  
FRONTYARD FACING ALBERTA RD - 6M  
EAST AND WEST SIDEYARD - 3M  
REAR YARD - 3M

(I) SETBACK:  
MAX MAIN BUILDING HEIGHT - 12M  
FRONTYARD FACING ALBERTA RD - 6M  
EAST AND WEST SIDEYARD - 3M  
REAR YARD - 3M

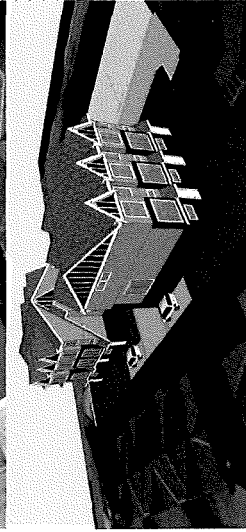
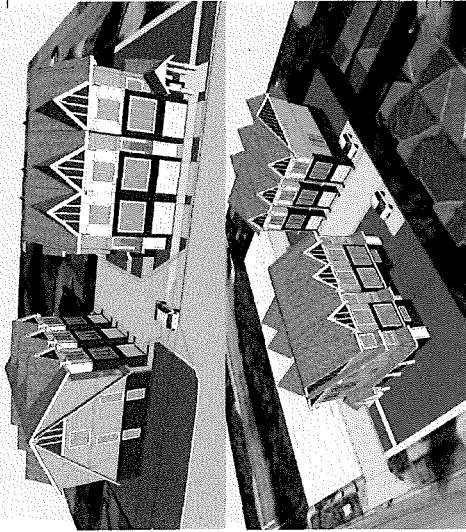
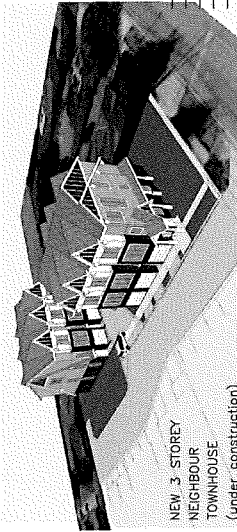
(J) PARKING:  
2 PER DWELLING UNIT

1.4 PER DWELLING UNITS X6 = 9  
0.2 VISITOR PARKING / UNIT X6 = 2  
TOTAL = 11 REQUIRED  
ZT60 ZONING ALLOW TANDEM PARKING



## DRAWING LIST

A1- DEVELOPMENT SUMMARY  
A2- SITE PLAN (1/F)  
A3- SITE PLAN (2/F & 3/F)  
A4- UNIT PLAN  
A5- ELEVATIONS  
A6- AREA DIAGRAM



**ERIC LAW ARCHITECT**

2151 WEST 10TH AVENUE, SUITE 200  
V6L 2G6  
TEL: (604) 261-2000  
FAX: (604) 261-2001

OFFICE: 2151 WEST 10TH AVENUE, SUITE 200  
V6L 2G6  
TEL: (604) 261-2000  
FAX: (604) 261-2001

PROJECT: 9820 ALBERTA ROAD, RICHMOND, BC  
DATE: 10/19/2018  
DRAWN BY: EL  
CHECKED BY: EL  
FILENAME: 18-03\_MAP\_181018-RZ.DWG

NO.	DESCRIPTION
1	181018-18 RZ REZONE APPLICATION
2	181018-18 RZ CITY COUNCIL
3	181018-18 RZ CITY COUNCIL
4	181018-18 RZ CITY COUNCIL
5	181018-18 RZ CITY COUNCIL

NO.	DESCRIPTION
1	181018-18 RZ REZONE APPLICATION
2	181018-18 RZ CITY COUNCIL
3	181018-18 RZ CITY COUNCIL
4	181018-18 RZ CITY COUNCIL
5	181018-18 RZ CITY COUNCIL

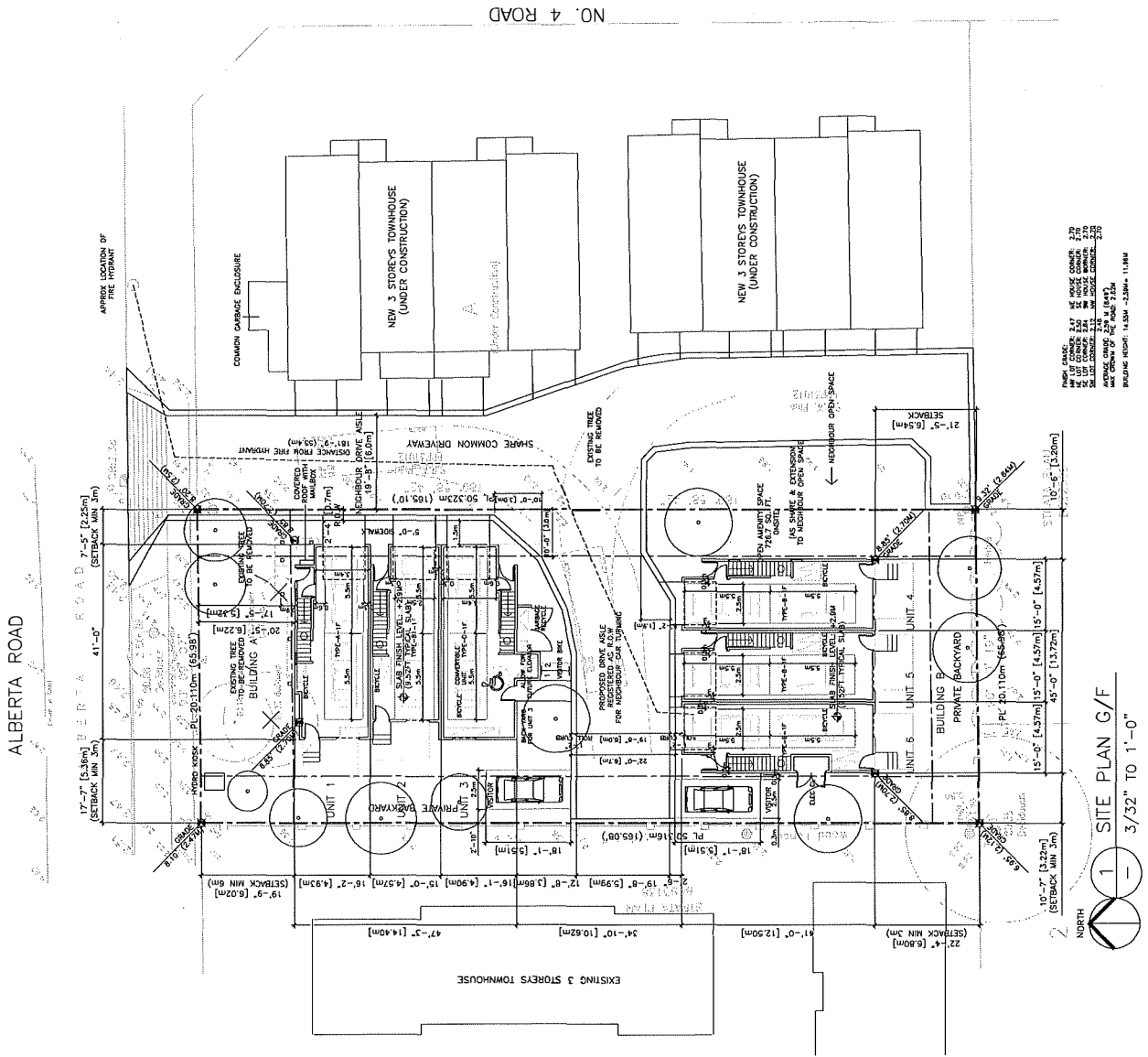
**PROPOSED TOWNHOUSE**  
**9820 ALBERTA ROAD**  
**RICHMOND BC**

## DEVELOPMENT SUMMARY

PROJECT NUMBER: 18-03  
ISSUED: 10/19/2018  
DRAWN BY: EL  
CHECKED BY: EL  
FILENAME: 18-03\_MAP\_181018-RZ.DWG

**A1**

REZONE



1	2018.10.18	FOR SITE PLAN APPLICATION
2	2018.11.10	FOR CITY COUNCIL
3	2018.11.10	FOR CITY COUNCIL
4	2018.11.10	FOR CITY COUNCIL
5	2018.11.10	FOR CITY COUNCIL

1	2018.10.18	FOR SITE PLAN APPLICATION
2	2018.11.10	FOR CITY COUNCIL
3	2018.11.10	FOR CITY COUNCIL
4	2018.11.10	FOR CITY COUNCIL
5	2018.11.10	FOR CITY COUNCIL

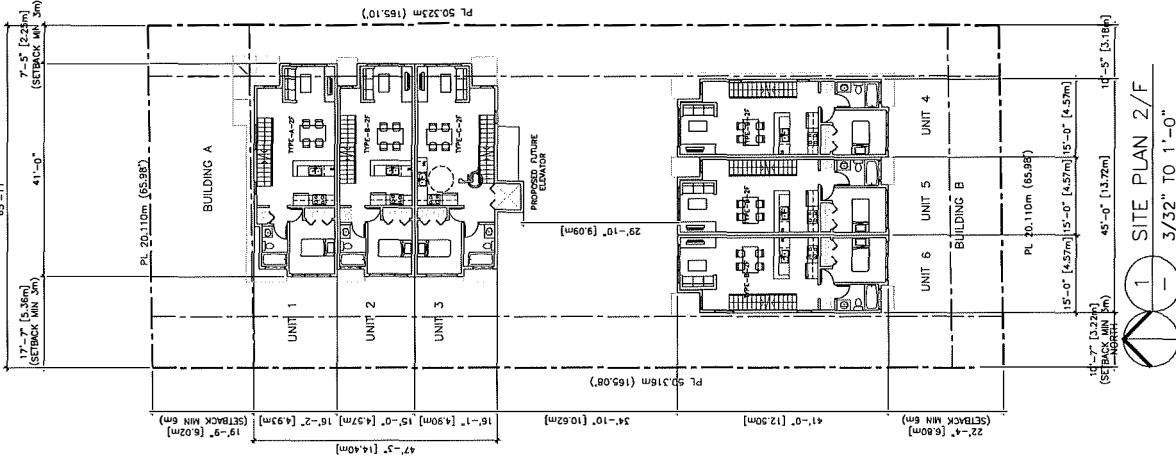
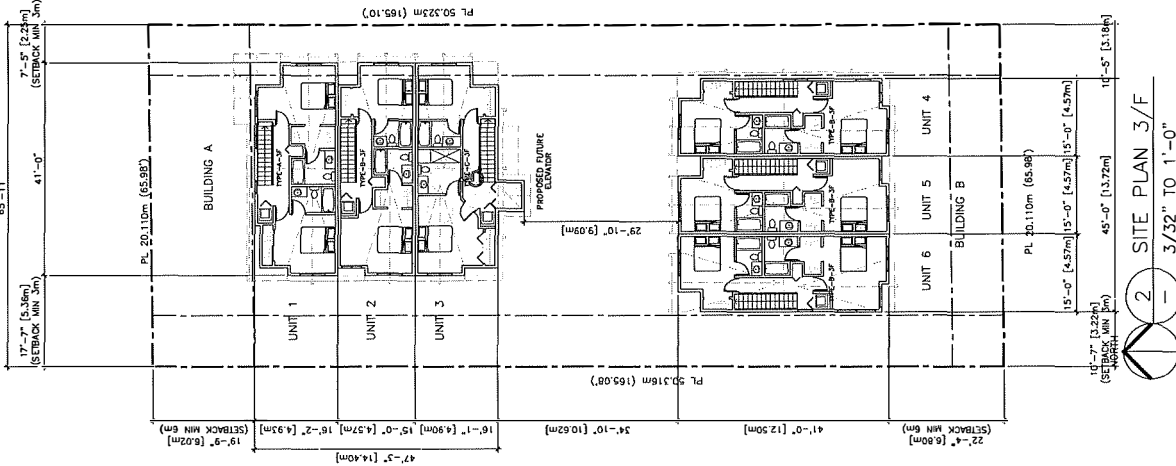
**PROPOSED TOWNHOUSE**  
**8920 ALBERTA ROAD**  
**RICHMOND BC**

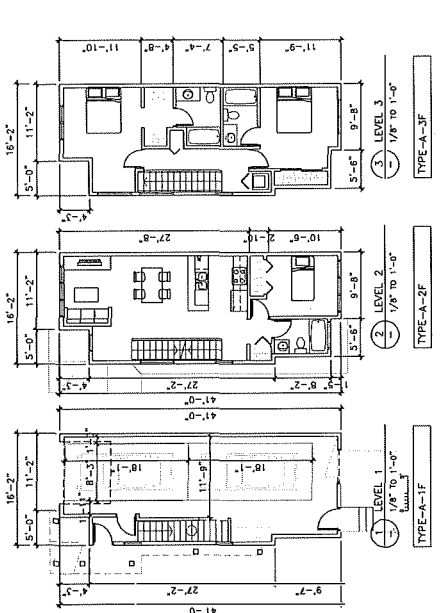
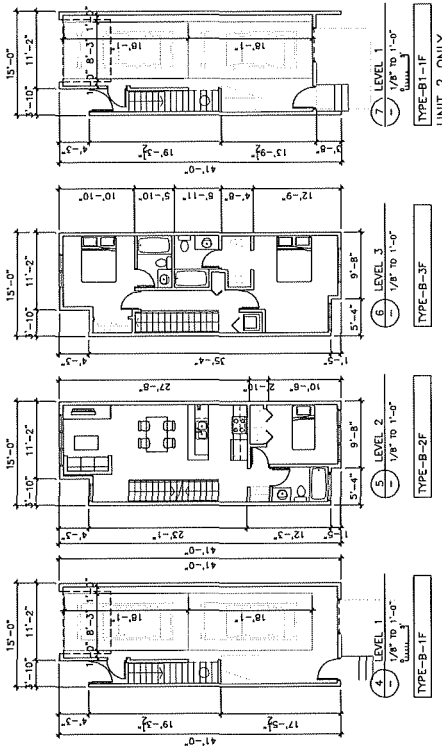
**SITE PLAN (2/F & 3/F)**

PROJECT NUMBER:	03
ISSUED:	10/19/2018
DRAWN BY:	EL
CHECKED BY:	EL
FILENAME:	16-03-LAW-161018-RZ.DWG

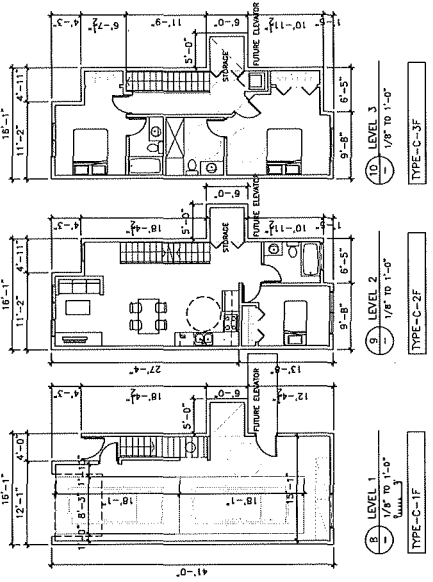
**A3**

REZONE





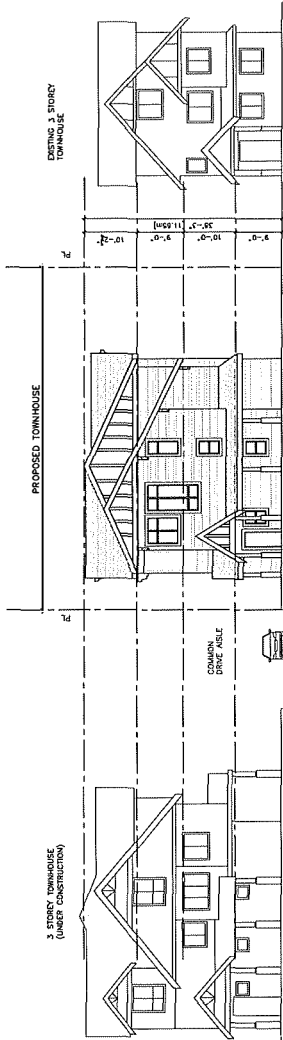
**TYPE A UNIT PLAN**



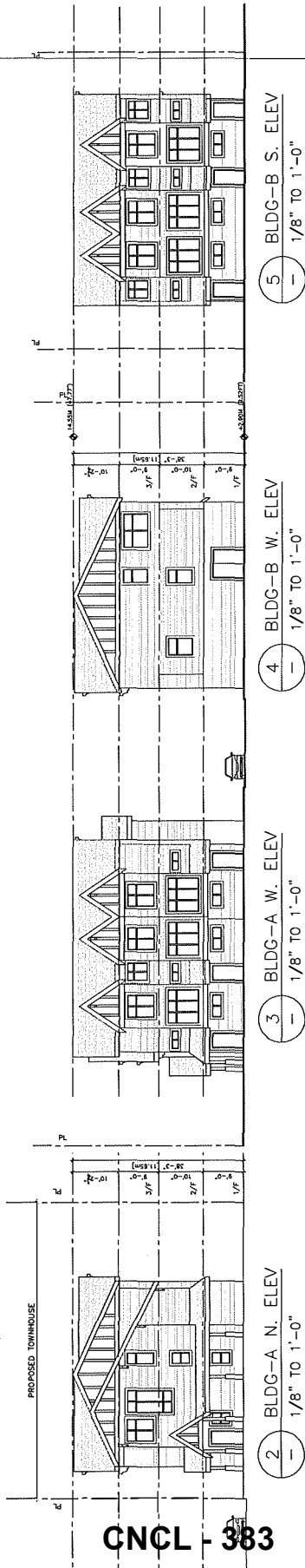
**TYPE C UNIT PLAN**

215-226 WEST AVENUE, SUITE 100  
VANCOUVER, BC V6V 2E6  
TEL: (604) 682-2266  
FAX: (604) 682-2267  
CONTACT: ERIC LAW  
WWW.ERICLAWARCHITECT.COM  
PROJECT: 18-03-ALBERTA RD  
DATE: 10/19/2018  
DRAWN BY: EL  
CHECKED BY: EL  
FILENAME: 18-03-ALBERTA RD-18-03-ALBERTA RD.DWG

NO.	REVISION
1	2018.03.15 FOR PERMIT APPLICATION
2	2018.03.15 FOR CITY COUNCIL
3	2018.03.15 FOR CITY COUNCIL
4	2018.03.15 FOR CITY COUNCIL
5	2018.03.15 FOR CITY COUNCIL



1 STREET ELEVATION (ALONG ALBERTA RD)  
3/32" TO 1'-0"



CNCL - 383

NO.	REVISION
1	2018.03.15 FOR PERMIT APPLICATION
2	2018.03.15 FOR CITY COUNCIL
3	2018.03.15 FOR CITY COUNCIL
4	2018.03.15 FOR CITY COUNCIL
5	2018.03.15 FOR CITY COUNCIL

PROPOSED TOWNHOUSE  
9820 ALBERTA ROAD  
RICHMOND BC

**ELEVATIONS**



NO.	REVISION
1	2018.03.15 FOR PERMIT APPLICATION
2	2018.03.15 FOR CITY COUNCIL
3	2018.03.15 FOR CITY COUNCIL
4	2018.03.15 FOR CITY COUNCIL
5	2018.03.15 FOR CITY COUNCIL

**A5**

REZONE

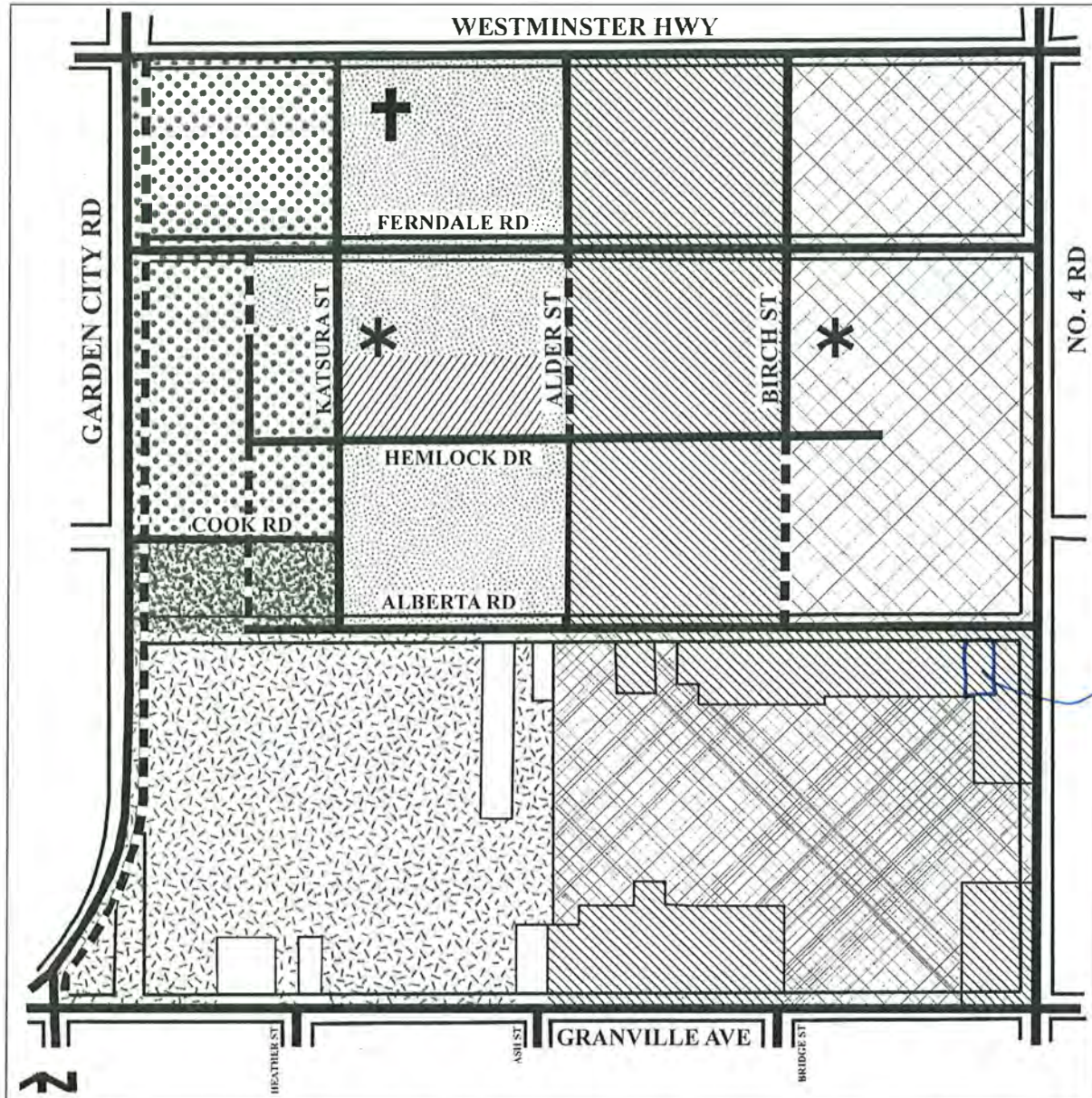






City of Richmond

# Land Use Map

 Bylaw 8630  
 2010/07/19


<b>Residential Area 1</b> 1.6 base F.A.R. 4-storey Th., Low-rise Apts. (4-storeys max.) / Mid-rise Apts. (Up to 8-storeys) / High-rise Apts. (Up to 45 m)	<b>Residential Area 3</b> 0.65 base F.A.R. Two-Family Dwelling / 2 & 3-storey Townhouses	Community Park
<b>Residential Area 2</b> 0.95 base F.A.R. 2, 3 & 4-storey Townhouses, Low-rise Apts. (4-storeys max.)	<b>Residential Area 4</b> 0.55 base F.A.R. One & Two-Family Dwelling & Townhouses (2 1/2-storeys typical, 3-storeys maximum where a maximum 30% lot coverage is achieved)	School
<b>Residential Area 2A</b> 0.95 base F.A.R. 2, 3 & 4 & 5-storey Townhouses, Low-rise Apts. (5-storeys max. Up to 19 m)	<b>Residential Area 5</b> 0.55 base F.A.R. One-Family Dwelling	Neighbourhood Parks
Mixed Residential/ Retail/Community Uses	Trail	Principal Roads
	Church	

December 10, 2018

Meeting Summary for onsite meeting held with residents of 9840 Alberta Rd, Richmond BC.  
The meeting was held on Sunday July 29<sup>th</sup>, 2018. At least one member of each household including the 3 strata corporation representatives were at the meeting.

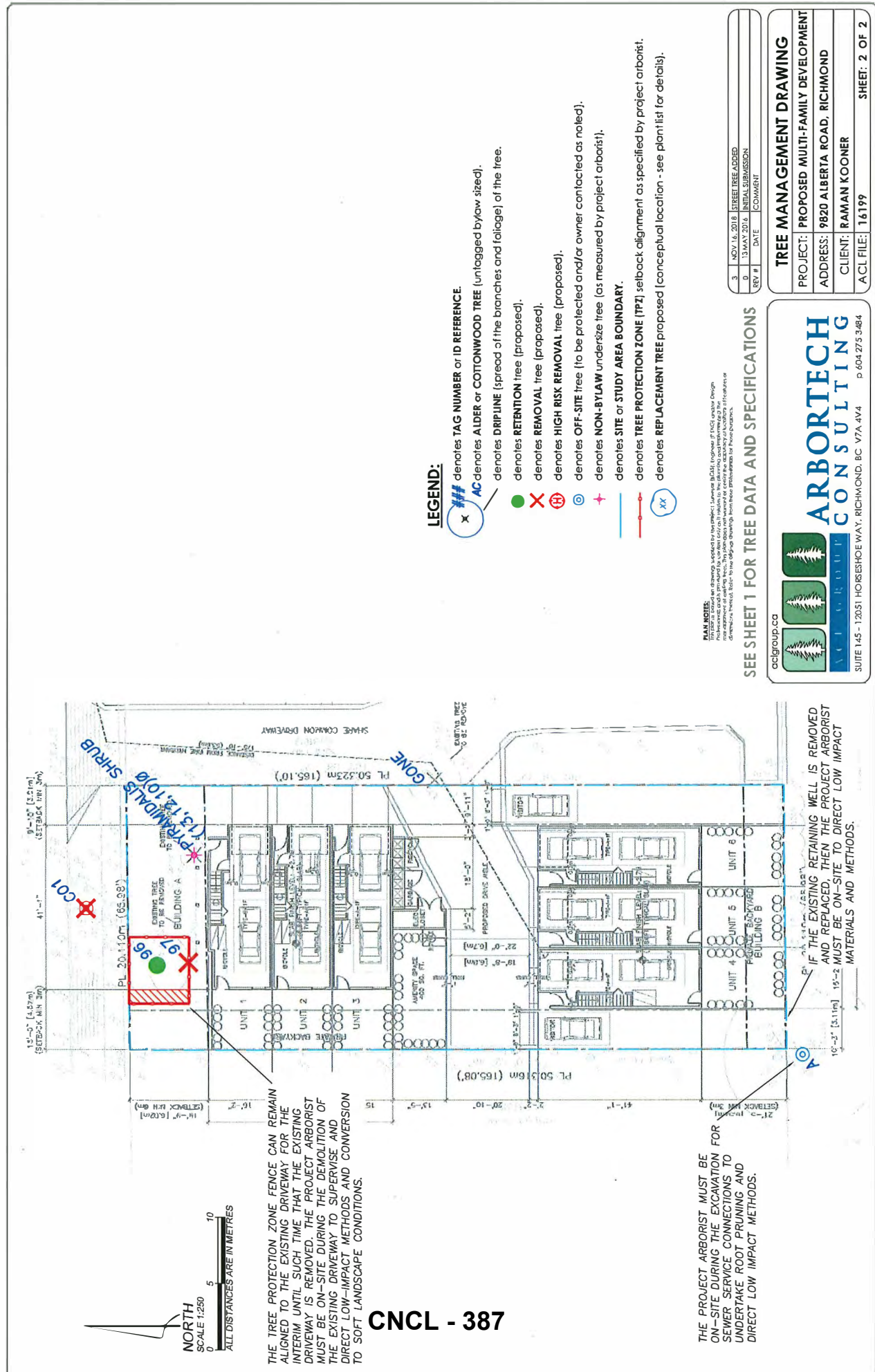
There was a few issues discussed, regarding the amenity space and how it lined up with the current amenity space, if the mail boxes would be shared, if the strata fees would be shared, if it could be one strata, and a few other small items that were addressed right there on site. The one main point that was an issue with the owners in regards to the new building coming next door was the driveway the residents thought that the driveway was not going to be wide enough, they wanted me to confirm with the architect that this driveway met the minimum standards. I did speak with the architect about this and he did confirm that this is what the City of Richmond requires for the driveway width for these types of projects. I had mentioned also that in the property disclosure statements and the title of the property they all had received when they purchased their units that there is an easement that allows for shared use of the drive aisle, and the fence between the two properties that is there now will be coming down to create access to the units and to expand the amenity space. I mentioned the two strata's will share the cost of these spaces, however I will be having the same management company taking care of both so they can have the same maintenance people look after the property so this should bring the strata fees down a little. I have talked with Victor from Citybase about looking after the new units next door as well and since he will be looking after both strata's and he and his company look at a more reasonable management fee. The Strata representatives had confirmed in an email that was sent to the city planner in charge of this file that they were satisfied with all explanations of what was to happen in the adjacent development. They had no further concerns. They had asked me to stay in touch with them through the process which I fully plan on doing.

Thank You

A handwritten signature in black ink, appearing to be 'Raman Kooner', with a long horizontal flourish extending to the right.

Raman Kooner





CNCL - 387



**Address:** 9820 Alberta Road

**File No.:** RZ 16-742260

**Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9960, the developer is required to complete the following:**

1. The submission and processing of a Development Permit\* completed to a level deemed acceptable by the Director of Development.
2. Registration of a flood indemnity covenant on title.
3. Registration of an aircraft noise sensitive land use covenant on title.
4. Registration of a statutory right-of-way (SRW) and/or other legal agreements or measures, as determined to the satisfaction of the Director of Development, over the entire area of the proposed drive aisle in favour of the neighbouring development to the east. The east-west drive aisle is to be shared to allow for a vehicular turnaround and additional 0.7 m wide SRW is to be provided on the subject property along the east property line (approximate length of 20.62 m from the north property line) to widen the existing drive aisle on the neighbouring property to the east. Language should be included in the SRW document that the City will not be responsible for maintenance or liability within the SRW.
5. Registration of a cross-access easement and/or other legal agreements or measures, as determined to the satisfaction of the Director of Development, for the shared use of the outdoor amenity area on the subject site in favour of the neighbouring development to the east.
6. Registration of a legal agreement on title prohibiting the conversion of the tandem parking area into habitable space.
7. Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any on-site works conducted within the tree protection zone of the trees to be retained. The Contract should include the scope of work to be undertaken, including: the proposed number of site monitoring inspections, and a provision for the Arborist to submit a post-construction assessment report to the City for review.
8. Submission of a Tree Survival Security to the City in the amount of \$5,000 for the one (1) tree to be retained.
9. City acceptance of the developer's offer to voluntarily contribute \$8.50 per buildable square foot (\$60,180.00) to the City's affordable housing fund.
10. Contribution of \$6,000 (\$1,000 per dwelling unit) in-lieu of on-site indoor amenity space.

**Prior to a Development Permit\* being forwarded to the Development Permit Panel for consideration, the developer is required to:**

1. Submission of a Landscape Plan, prepared by a Registered Landscape Architect, to the satisfaction of the Director of Development, and deposit of a Landscaping Security based on 100% of the cost estimate provided by the Landscape Architect, including installation costs. The Landscape Plan should:
  - comply with the guidelines of the OCP's Arterial Road Policy and should not include hedges along the front property line;
  - include a mix of coniferous and deciduous trees;
  - include the dimensions of tree protection fencing as illustrated on the Tree Retention Plan attached to this report; and
  - include the two (2) required replacement trees with the following minimum sizes:

No. of Replacement Trees	Minimum Caliper of Deciduous Tree	or	Minimum Height of Coniferous Tree
2	6 cm		3.5 m

2. Complete an acoustical and thermal report and recommendations prepared by an appropriate registered professional, which demonstrates that the interior noise levels and noise mitigation standards comply with the City's Official Community Plan and Noise Bylaw requirements. The standard required for air conditioning systems and their

alternatives (e.g. ground source heat pumps, heat exchangers and acoustic ducting) is the ASHRAE 55-2004 “Thermal Environmental Conditions for Human Occupancy” standard and subsequent updates as they may occur. Maximum interior noise levels (decibels) within the dwelling units must achieve CMHC standards follows:

Portions of Dwelling Units	Noise Levels (decibels)
Bedrooms	35 decibels
Living, dining, recreation rooms	40 decibels
Kitchen, bathrooms, hallways, and utility rooms	45 decibels

**Prior to a Development Permit\* issuance, the developer is required to complete the following:**

1. Submission of a Landscaping Security to the City of Richmond based on 100% of the cost estimates provided by the landscape architect. The security will not be released until an acceptable impact assessment report by the Certified Arborist is submitted and a landscaping inspection has been passed by city staff. The City may retain a portion of the security for a one-year maintenance period.

**Prior to a Demolition Permit\* issuance, the developer is required to complete the following:**

1. Installation of appropriate tree protection fencing around all trees to be retained as part of the development prior to any construction activities, including building demolition, occurring on-site.

**Prior to Building Permit\* Issuance, the developer must complete the following requirements:**

1. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
2. Incorporation of CPTED, sustainability, and accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
3. A Servicing Agreement is not required. Removal of the existing driveway crossing and other frontage improvements including replacement of the street tree in front of the site, and service connections will be done through a work order at the developer's cost. Engineering servicing requirements include:

**Water Works:**

- Using the OCP Model, there is 503 L/s of water available at a 20 psi residual at the hydrant fronting 9840 Alberta Rd. Based on your proposed development, your site requires a minimum fire flow of 220 L/s.
- The Developer is required to:
  - Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm the development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage Building designs.
- At the Developers cost, the City is to:
  - Install 1 new water service connection off of the 200mm PVC watermain on Alberta Rd. Meter to be placed onsite in mechanical room.
  - Cut and cap at main, the existing 20mm water service connection.

**Storm Sewer Works:**

- At the Developers cost, the City is to:
  - Install a new storm service connection off of the existing 600mm storm sewer on Alberta Rd, complete with new inspection chamber.
  - Cut, cap, and remove all existing service leads and inspection chambers along the north property line of the subject site.

**CNCL - 389**

Initial: \_\_\_\_\_

**Sanitary Sewer Works:**

- At the Developers cost, the City is to:
  - Cut and cap at inspection chamber, the existing sanitary service lead at the northeast corner of the subject site.
  - Install a new sanitary service connection off of the existing 200mm PVC sanitary sewer on Alberta Rd.

**Frontage Improvements:**

- The Developer is required to:
  - Coordinate with BC Hydro, Telus and other private communication service providers
    - To underground Hydro service lines.
    - When relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
    - To determine if above ground structures are required and coordinate their locations (e.g. Vista, PMT, LPT, Shaw cabinets, Telus Kiosks, etc.). These should be located onsite.
  - Locate all above ground utility cabinets and kiosks required to service the proposed development within the developments site (see list below for examples). A functional plan showing conceptual locations for such infrastructure shall be included in the Rezoning staff report and the development process design review. Please coordinate with the respective private utility companies and the project's lighting and traffic signal consultants to confirm the right of ways dimensions and the locations for the aboveground structures. If a private utility company does not require an aboveground structure, that company shall confirm this via a letter to be submitted to the City. The following are examples of SRWs that shall be shown in the functional plan and registered prior to SA design approval:
    1. BC Hydro PMT – 4mW X 5m (deep)
    2. BC Hydro LPT – 3.5mW X 3.5m (deep)
    3. Street light kiosk – 1.5mW X 1.5m (deep)
    4. Traffic signal kiosk – 1mW X 1m (deep)
    5. Traffic signal UPS – 2mW X 1.5m (deep)
    6. Shaw cable kiosk – 1mW X 1m (deep) – show possible location in functional plan
    7. Telus FDH cabinet - 1.1mW X 1m (deep) – show possible location in functional plan
- Driveway modifications widened to City standards.
- Close existing single family driveway and reinstate frontage.
- Replacement of the street tree in front of the site. The tree species is to be determined by City's Park staff.

**General Items:**

- a. The Developer is required to:
  - Enter into, if required, additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering, including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
  - Provide, prior to soil densification and preload installation, a geotechnical assessment of preload and soil densification impacts on the existing utilities surrounding the development site and provide mitigation recommendations.

- 4. If applicable, payment of latecomer agreement charges associated with eligible latecomer works.

5. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

**Note:**

- \* This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contain prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

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Signed

---

Date





**Richmond Zoning Bylaw 8500  
Amendment Bylaw 9960 (16-742260)  
9820 Alberta Road**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. The Zoning Map of the City of Richmond, which accompanies and forms part of Richmond Zoning Bylaw 8500, is amended by repealing the existing zoning designation of the following area and by designating it **“TOWN HOUSING (ZT60) – NORTH MCLENNAN (CITY CENTRE)”**.

P.I.D. 011-390-689

Lot 7 Section 10 Block 4 North Range 6 West New Westminster District Plan 1712

2. This Bylaw may be cited as **“Richmond Zoning Bylaw 8500, Amendment Bylaw 9960”**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER

CITY OF RICHMOND
APPROVED by <i>MP</i>
APPROVED by Director or Solicitor <i>R</i>





# City of Richmond

## Memorandum Planning and Development Division Development Applications

**To:** Mayor and Councillors  
**From:** Wayne Craig  
Director, Development  
**Date:** January 11, 2019  
**File:** RZ 18-811041  
**Re:** **Information Requested by Planning Committee – 23000 Fraserwood Way (Units 105, 110 and 115); RZ 18-811041**

### Purpose

This memo provides information requested by Planning Committee on January 10, 2019 for the rezoning application at 23000 Fraserwood Way (Units 105, 110 and 115)(RZ 18-811041). The rezoning proposal is for a Health Canada licensed medical cannabis production facility in a portion of the existing industrial building on the subject site.

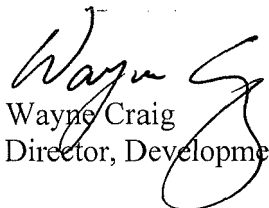
Information was requested on the number of cannabis plants that would be located in the facility for the purpose of cultivating medical cannabis.

### Proposed Number of Cannabis Plants

The proposed medical cannabis production facility and related application with Health Canada involves two phases. The applicant has provided the following information on anticipated number of cannabis plants for Phase 1 and 2 of the project:

- Phase 1 (Strata lot unit 115) – 300 to 400 plants.
- Phase 2 (Strata lot units 105 and 110) – 600 to 800 plants.

Based on the information submitted by the applicant, the total number of cannabis plants ranges between 900 and 1,200 within the whole facility (Phase 1 and 2). The plants are for the production of medical cannabis only. The proposed zoning does not include provisions to regulate the total number of cannabis plants. Total quantity of medical cannabis that can be produced and corresponding volume of plants at this facility is subject to approval by Health Canada.

  
Wayne Craig  
Director, Development

WC:ke

pc: SMT  
Barry Konkin, Manager, Policy Planning  
Joshua Reis, Program Coordinator, Development



# City of Richmond

## Report to Committee

**To:** Planning Committee

**Date:** December 3, 2018

**From:** Wayne Craig  
Director, Development

**File:** RZ 18-811041

**Re:** Application by Rosebud Productions Inc. for Rezoning a Portion of 23000 Fraserwood Way (Unit 105, 110 and 115) to Allow a Licensed Health Canada Medical Cannabis Production Facility

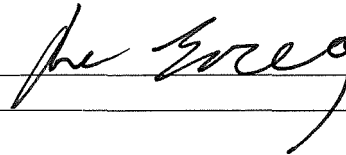
### Staff Recommendation

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9978, for the rezoning a portion of 23000 Fraserwood Way (Units 105, 110 and 115) to allow a licensed Health Canada Medical Cannabis Production Facility on a site-specific basis in the "Industrial Business Park (IB1)" zoning district, be introduced and given first reading.

  
Wayne Craig  
Director, Development  
WC/ke  
Att. 5

### REPORT CONCURRENCE

#### CONCURRENCE OF GENERAL MANAGER



## Staff Report

### Origin

Rosebud Productions Inc. has applied to the City of Richmond for permission to rezone a portion of 23000 Fraserwood Way (Units 105, 110 and 115) (Attachment 1) to allow a licensed Health Canada medical cannabis production facility in the “Industrial Business Park (IB1)” zoning district by adding this as an additional use permitted in this zone on a site-specific basis. The proposal is for the medical cannabis production facility to occupy three units (Strata lots 1, 2 and 3; also known as Units 105, 110 and 115) in an existing 10 unit stratified light industrial building. The total proposed floor area of the medical cannabis production facility would be 1,750 sq. m (18,837 sq. ft.) (Attachment 2 – conceptual development plans).

### Findings of Fact

A Development Application Data Sheet providing details about the development proposal is contained in Attachment 3.

### Surrounding Development

The subject site contains an existing two-storey light industrial building with supporting parking/loading and vehicle drive-aisles surrounding the building. Business license records indicate that other existing businesses within the building consist of warehousing/wholesale of office supplies and food products, and light manufacturing activities. Vehicle access to the site is provided by two driveways off Fraserwood Way.

To the North: Across Fraserwood Way, Industrial buildings zoned “Industrial Business Park (IB1)”

To the South: Across Hamilton Road, an industrial building zoned “Light Industrial (IL)”

To the East: An industrial building zoned “Industrial Business Park (IB1)”

To the West: Across Queens Road, a vegetated/landscape site zoned “School and Institutional (SI)”

### Related Policies & Studies

#### Official Community Plan

The Official Community Plan (OCP) contains policies and requirements applicable to proposals for a Health Canada licensed medical cannabis production facility. The 2018 *Cannabis Act* and supporting *Cannabis Regulations* allow for Health Canada to issue licenses to commercial medical cannabis producers. The OCP policy for medical cannabis production facilities is to manage such proposals through the rezoning process and review these proposals in conjunction with OCP criteria on a case-by-case basis. The subject site is located in the Hamilton Area Plan in an area designated “Mixed Employment”. The proposed rezoning application is consistent with the OCP policies as follows:

- The site is located in an OCP designated “Mixed Employment” area, consistent with the existing OCP location policies for medical cannabis production facilities.
- The site is located in an area that is anticipated to have minimal impacts to surrounding areas and does not negatively impact potential sensitive land uses.
- The proposed medical cannabis production facility complies with the Hamilton Area Plan “Mixed-Employment” land use designation.

The proposal is for the facility to be located in three strata lot units of an existing multi-tenant, stratified industrial building (containing 10 total strata lot units). The applicant has:

- Informed the existing strata of the proposal and obtained written confirmation that they have no objections to the proposal (Attachment 4).

The OCP policy currently limits the number of cannabis related facilities to one in the City. Additional cannabis related production facilities are to be considered on a case-by-case basis. On September 6, 2016, Richmond Council granted 3<sup>rd</sup> Reading to Richmond Zoning Bylaw 8500, Amendment Bylaw 9592 for a medical cannabis production facility proposed at 5960 No. 6 Road (RZ 14-665028). The applicant for that rezoning has indicated to staff that they are continuing to work through the processing of their application to Health Canada to obtain approval to become a commercial medical cannabis producer, which is required prior to final adoption. Upon completion of all rezoning considerations for 5960 No. 6 Road, Richmond Zoning Bylaw 8500, Amendment Bylaw 9592 will be forwarded to Council for consideration of final adoption of the bylaw.

The subject rezoning proposal at 23000 Fraserwood Way, if considered and endorsed by Council, would potentially be the second such facility in the City. An amendment to the OCP is not required in conjunction with the rezoning.

#### Ministry of Transportation and Infrastructure

Approval from the Ministry of Transportation and Infrastructure is required as a rezoning consideration due to the subject site’s proximity to a Ministry controlled highway (i.e., Highway 91). Ministry staff are currently in the process of reviewing the proposal. Any issues or comments on the proposal identified by Ministry staff as part of their review will need to be addressed prior to Ministry approval of the rezoning bylaw, which is a rezoning consideration for this project.

#### Floodplain Management Implementation Strategy

A flood plain covenant identifying a minimum flood construction level of 3.5 m GSC has already been registered on title of the subject site when this industrial subdivision was constructed.

#### **Public Consultation**

A rezoning sign has been installed on the subject property. Staff have received phone calls from the public and businesses operating in the existing industrial building who had general questions about the rezoning application and proposed facility. A letter from the Strata of the subject site has also been submitted noting no objections to the proposal (Attachment 4)

Should the Planning Committee endorse this application and Council grant 1<sup>st</sup> reading to the rezoning bylaw, the bylaw will be forwarded to a Public Hearing, where any area resident or interested party will have an opportunity to comment. Public notification for the Public Hearing will be provided as per the *Local Government Act*.

## **Analysis**

### General Facility Operations Overview

The applicant proposes a medical cannabis production facility with a floor area of 1,750 sq. m (18,837 sq. ft.) in three combined units (Strata lot units 105, 110 and 115) in the existing light industrial building. The applicant notes that development of the facility is intended to occur in two phases, with Phase 1 occurring in Strata lot unit 115 and the Phase 2 to include Strata lot units 105 and 110. The applicant has not indicated the proposed phasing schedule for the production facility.

No retailing or storefront activities are proposed in this facility and will not be permitted in accordance with existing zoning regulations. Medical cannabis produced by the facility will be shipped directly to registered medical patients in accordance with Health Canada regulations.

All proposed activities will be fully contained within the existing industrial building. To address any potential negative impacts, the applicant proposes:

- Heating, ventilation and air conditioning (HVAC) systems to be designed to address odour and moisture through the implementation of charcoal filters and UV lighting.

A report from a registered professional detailing out HVAC, building and mechanical systems to be implemented in the proposed medical cannabis production facility to address odour, moisture and noise generated by operation and to ensure these are implemented through construction of the facility will be required as a rezoning consideration (Attachment 5).

### Proposed Zoning Amendment

The proposed Zoning Bylaw amendment is a site-specific amendment to the “Industrial Business Park (IB1)” zoning district to add a medical cannabis production facility as an additional use on the subject site for Strata lots 1, 2 and 3 only. A maximum floor area (1,800 sq. m or 19,375 sq. ft.) will be specified in the zoning regulations, based on the floor area of the proposed facility.

### Coordination of Health Canada License Process with City Approvals

In addition to approval of the rezoning, a license from Health Canada is required for the proposed medical cannabis production facility to operate. Health Canada has confirmed receipt of a license application from the proponent, which is currently being processed.

The applicant indicates that their application to Health Canada involves Phase 1 (Strata lot unit 115) of their facility only. For Phase 2 (Strata lot units 105 and 110), an amendment to the issued Health Canada license must be approved (subject to approval of the rezoning). To coordinate the Health Canada license approval process with the rezoning, the following provisions are proposed to be incorporated into the rezoning considerations (Attachment 5):

- Submission of documentation from Health Canada confirming the processing of a Health Canada license application authorizing the applicant to proceed with works to develop a medical cannabis production facility.
- Registration of a legal agreement on title identifying that no final inspection granting occupancy will be completed until proof of the issuance of the Health Canada license for medical cannabis cultivation/production and related activities is provided by the applicant.
- A legal agreement registered on title identifying that no cannabis production can occur on strata lot units 105 and 110 until confirmation of a Health Canada license is provided.

#### Proposed Security for Facility

Security measures for the proposed facility must be provided in accordance with the federal regulations for physical security and visual monitoring measures in addition to security clearances needed for personnel working at the facility. Information demonstrating how these security requirements are being met in the facility is part of the Health Canada license application review process. There is no approval role of the City in this aspect of facility operations.

Through the Health Canada license application process, background/security checks are undertaken for all key facility personnel/employees. Health Canada also liaises with RCMP as part of the facility personnel background security checks. Should approval of a license be granted by Health Canada, the local RCMP detachment will be engaged and involved with any enforcement or compliance actions (if necessary) pertaining to the operations of a facility in coordination with Health Canada.

#### Forthcoming Building Permit and Fire Safety Plan

A building permit will be required for any works to convert portions of the existing building to medical cannabis production facility that will be generally limited to interior tenant improvement works. To address fire, life and safety issues as required in Fire Protection and Life Safety Bylaw 8306, a fire safety plan is required to be submitted as part of the building permit application. The fire safety plan is to be prepared by an appropriate fire safety consultant in accordance with Richmond Fire Rescue guidelines and is required to be approved by Richmond Fire Rescue as part of the building permit process.

#### Future Remediation Requirements

If this rezoning application is approved, the facility will contain a number of specific works and building installations to support a medical cannabis production facility. If in the future, the facility ceases operations, the remediation of the building to ensure health and safety standards will be required. To ensure implementation of remediation measures if needed, the following items will be incorporated into a registered legal agreement secured as a rezoning consideration for the proposal:

- Identify that upon cessation of the use of the facility for medical cannabis production and to address any potential environmental health and safety issues arising from this previous activity, final inspection granting occupancy as part of a building permit application



and/or issuance of a business license for a new permitted use would not be permitted until:

- The owner/operator engage a registered professional to assess the building/unit and all related mechanical systems and develop a remediation plan to address any environmental, health, safety and/or occupational safety issues;
- All works to fulfill the remediation plan must be undertaken, with completion verified by the registered professional.

### Transportation and Site Access

The proposed facility will not result in any changes to the existing on-site parking and vehicle circulation area surrounding the existing building. The subject site's two existing driveway accesses to Fraserwood Way will be retained. A Traffic Impact Assessment (TIA) was submitted to identify and assess traffic generation from the proposed use and impacts on the supporting road network. The TIA identified that the existing road infrastructure is able to accommodate traffic generated by the facility. Transportation staff supports the findings of the TIA.

A total of 18 off-street parking stalls are allocated to the proposed facility (as confirmed by the Strata for the subject site), which is consistent with zoning bylaw requirements.

### Site Servicing and Frontage Improvements

No servicing or frontage works or upgrades have been identified for this rezoning application. Through the building permit application process, existing City service connections (storm, water and sanitary) will be reviewed to determine if any servicing works are required.

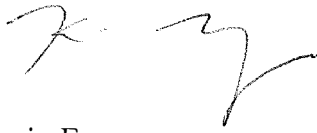
### **Financial Impact or Economic Impact**

The rezoning application results in an insignificant Operational Budget Impact (OBI) for off-site City infrastructure (such as roadworks, waterworks, storm sewers, sanitary sewers, street lights, street trees and traffic signals).

### **Conclusion**

This rezoning application is for a proposed Health Canada licensed medical cannabis production facility in a portion of an existing light industrial building located at 23000 Fraserwood Way (Units 105, 110 and 115) with a total maximum permitted floor area of 1,800 sq. m (19,375 sq. ft.). The "Industrial Business Park (IB1)" zoning applicable to the subject site is proposed to be amended to permit a medical cannabis production facility on this site. OCP policy also identifies that Council can consider cannabis related facilities, in addition to ones that have already been approved, on a case-by-case basis. The rezoning proposal is consistent with the OCP policy identifying Mixed Employment designated areas as being suitable for this type of use.

On this basis, it is recommended that Richmond Zoning Bylaw 8500, Amendment Bylaw 9978 be introduced and given first reading.

A handwritten signature in black ink, appearing to read 'Kevin Eng', with a stylized flourish at the end.

Kevin Eng  
Planner 2

KE:cas

Attachment 1: Location Map

Attachment 2: Conceptual Development Plans

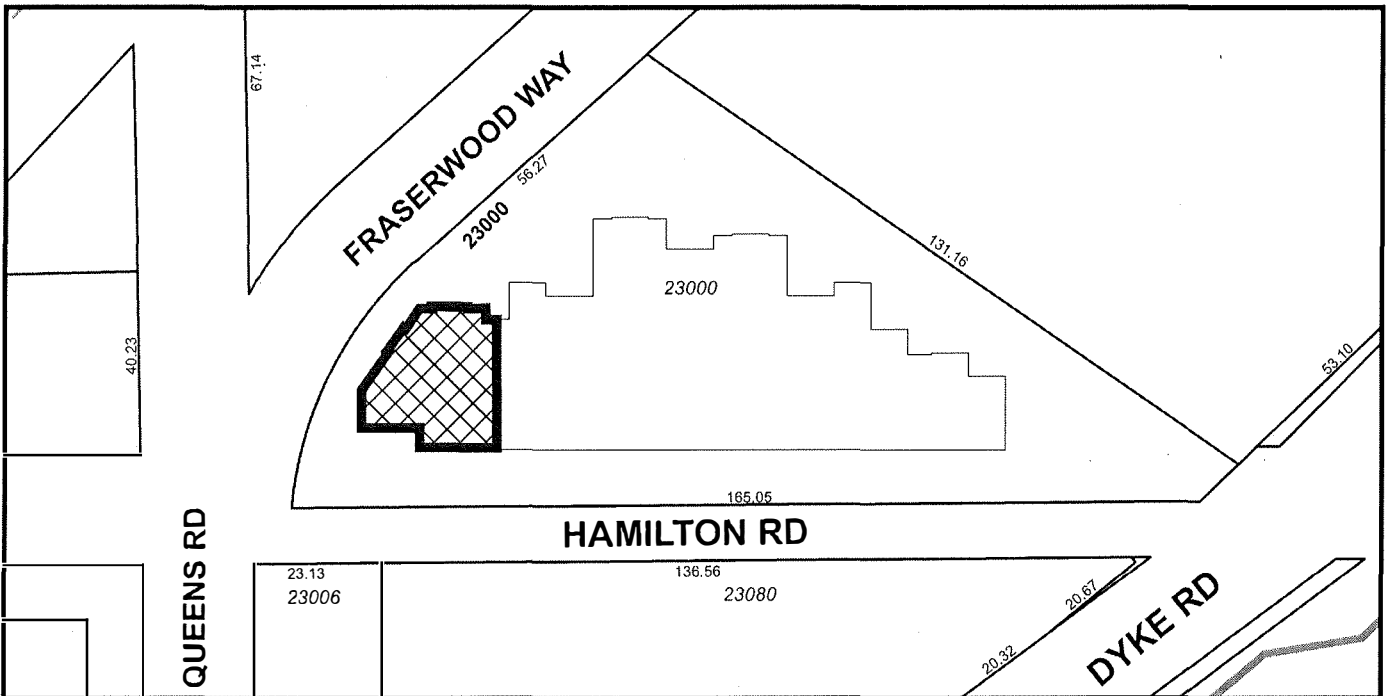
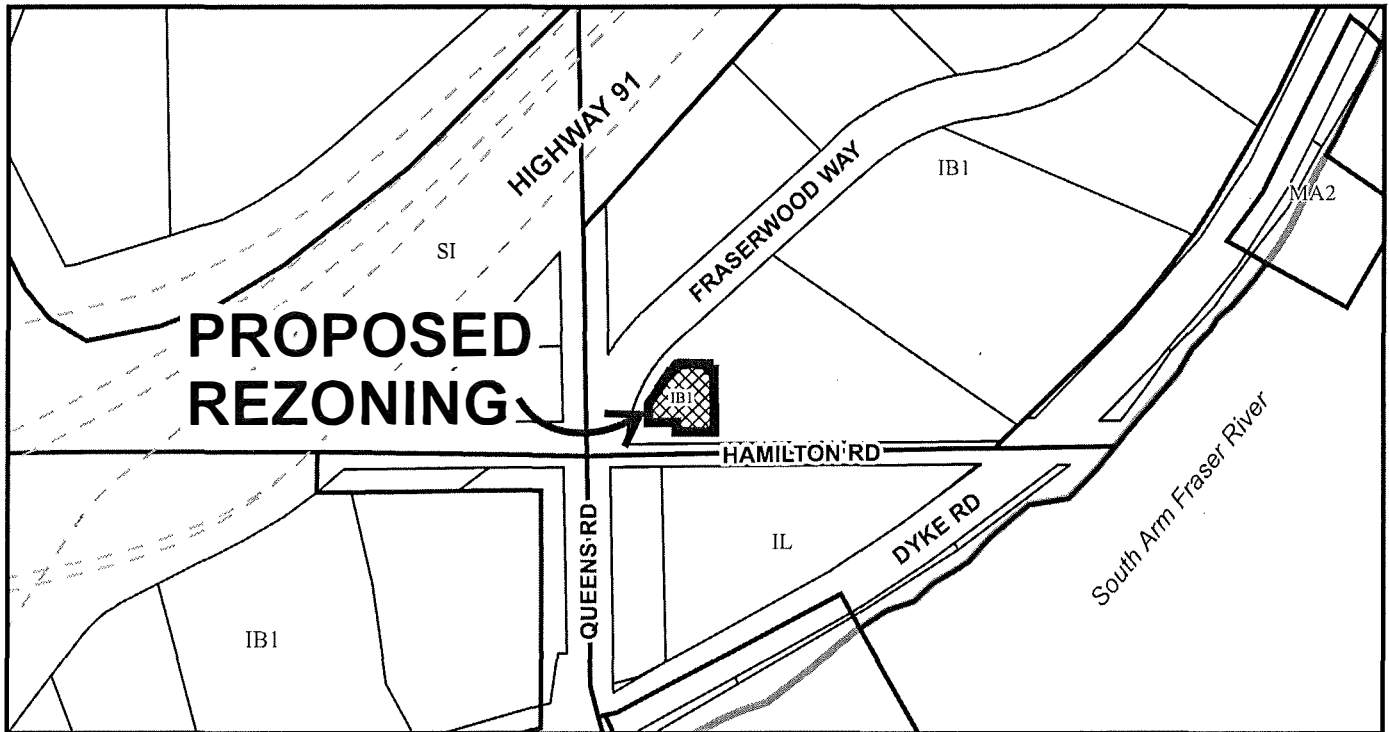
Attachment 3: Development Application Data Sheet

Attachment 4: Letter from Strata of Subject Site (BCS2986)

Attachment 5: Rezoning Considerations



City of  
Richmond



RZ 18-811041

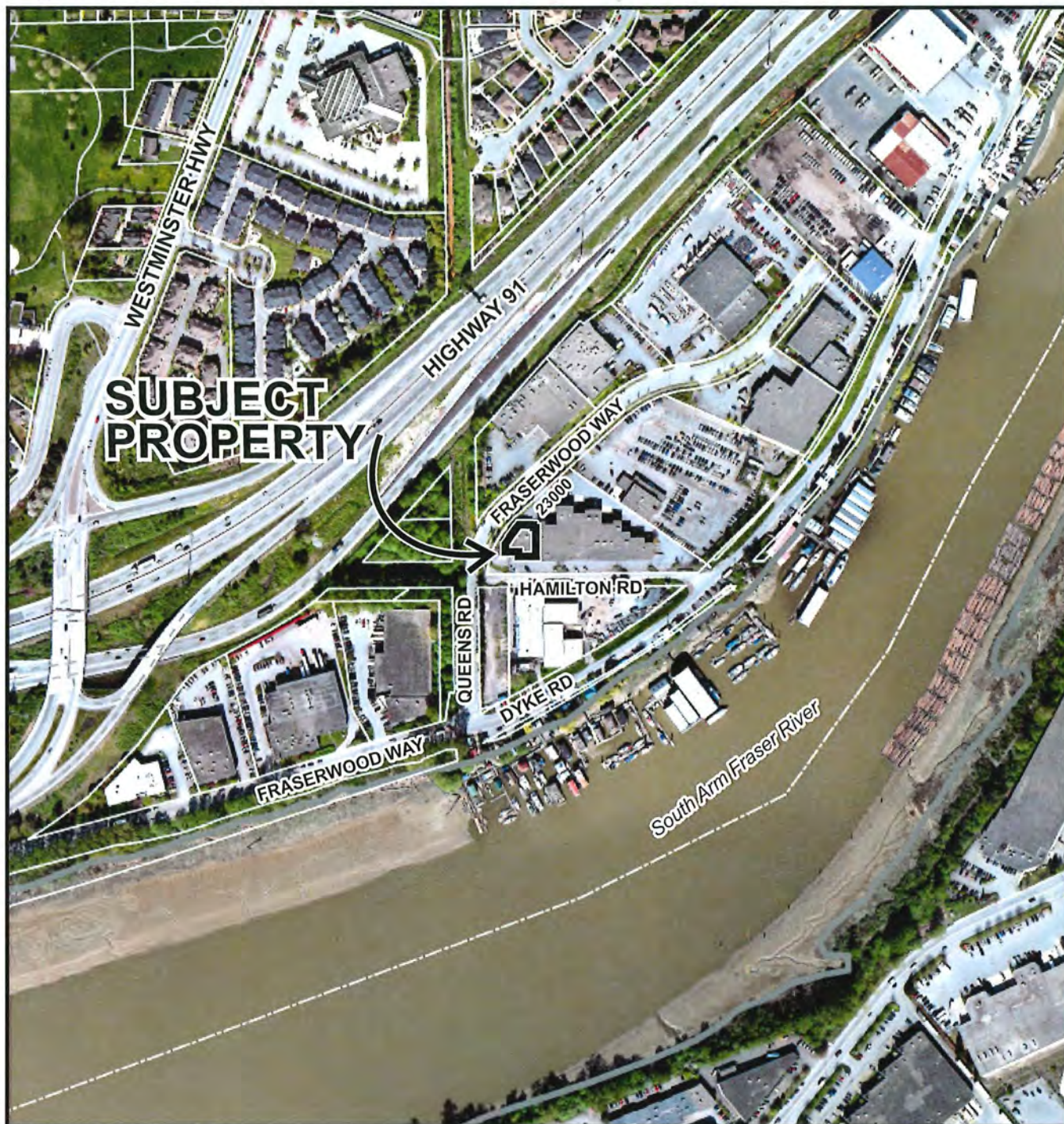
Original Date: 03/02/18

Revision Date: 12/03/18

Note: Dimensions are in METRES



City of  
Richmond



RZ 18-811041

CNCL - 403

Original Date: 03/02/18

Revision Date: 12/03/18

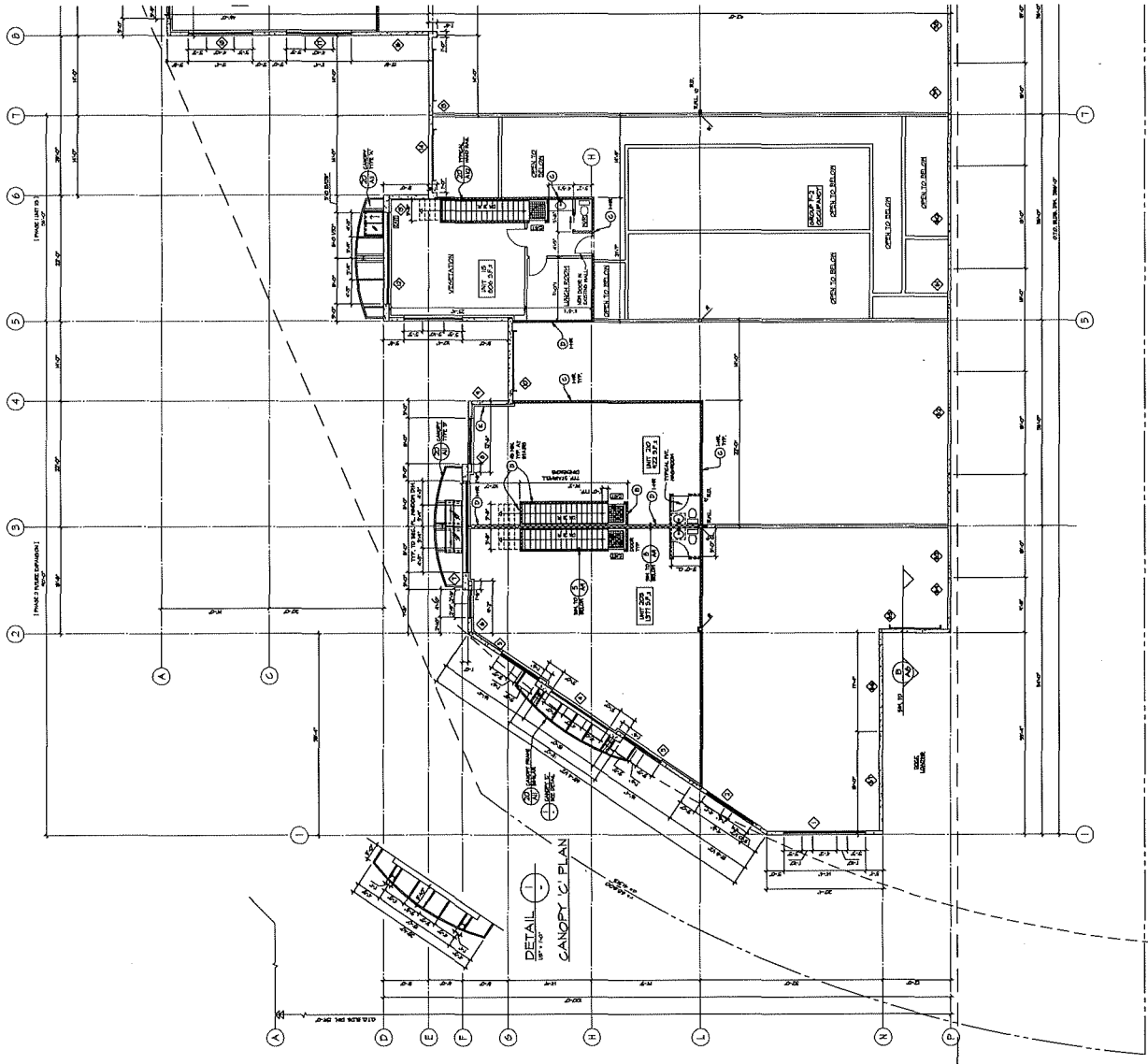
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REVISIONS	
NO.	DATE
1	11/11/19
2	11/11/19
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4	11/11/19
5	11/11/19
6	11/11/19
7	11/11/19
8	11/11/19
9	11/11/19
10	11/11/19



CNCL - 406

LO STUDIO

architecture inc.

200 - 101 ACADIE ROAD - RICHMOND, B.C.

604-271-1234 - TEL 604-271-1234 - FAX 604-271-1234

PROPOSED TENANT IMPROVEMENTS

FOR: ROZEMOND PRODUCTIONS

UNIT 115

SECOND FLOOR PLAN

17-017-A3

DATE: 11/11/19

SCALE: 1/8" = 1'-0"

BY: J. L. LEE

CHECKED: J. L. LEE

DATE: 11/11/19

17-017-A3

DATE: 11/11/19

SCALE: 1/8" = 1'-0"

BY: J. L. LEE

CHECKED: J. L. LEE

DATE: 11/11/19



**RZ 18-811041**

**Attachment 3**

Address: 23000 Fraserwood Way (Unit 105, 110 and 115)(Strata Lots 1, 2 and 3 of BCS2986)

Applicant: Rosebud Productions Inc.

Planning Area(s): Hamilton Sub Area Plan

	Existing	Proposed
Owner:	C-Pac Products of Canada Ltd. (Inc. No. BC0374463)	No change
Site Size (m <sup>2</sup> ):	8118 m <sup>2</sup>	No change
Land Uses:	Light Industrial	Light Industrial Medical Cannabis Production Facility
OCP Designation:	Mixed Employment	No change
Hamilton Area Plan Designation:	Mixed Employment	No change
Zoning:	Industrial Business Park (IB1)	Industrial Business Park (IB1) with provisions to allow a medical cannabis production facility in 3 strata units in an existing building on the subject site
Other Regulations:	N/A	1,800 m <sup>2</sup> maximum floor area restriction applied to the medical cannabis production facility.



December 17th, 2018

City of Richmond  
Development Applications Department  
6911 No. 3 Road  
Richmond BC V6Y 2C1

**RE: Rosebud Productions Inc.**

To whom it may concern;

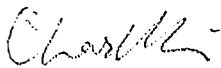
We, the Council of Strata BCS2986, 23000 Fraserwood Way, Richmond, BC, are aware of Justin Dhaliwal's current proposal for a Medical Cannabis production facility at units 105, 110, and 115 of the Strata. We are also aware of the Rezoning Application to the City of Richmond. We have no objections to this proposal.

Furthermore, we confirm that 3 additional parking stalls on-site are available, bringing the total number of parking stalls available for this proposed facility to 18.

There are no objections to the operations of Rosebud Productions Inc.

Should you require any additional information, please do not hesitate to contact the writer.

Regards,



Mr. Charles Lui  
President  
Strata BCS2986



**Address:** 23000 Fraserwood Way (Unit 105, 110 and 115) (Strata Lots 1, 2 and 3 of BCS2986)

**File No.:** RZ 18-811041

**Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9978, the developer is required to complete the following:**

1. Provincial Ministry of Transportation & Infrastructure Approval
2. Submission of documentation, to the satisfaction of the Director of Development, from Health Canada confirming the processing of a Health Canada license application (as per the *Cannabis Act* and supporting *Cannabis Regulations*) authorizing the applicant to proceed with works to develop a medical cannabis production facility on the subject site. The proponent/applicant will provide any necessary authorizations/consent for the City to contact Health Canada to obtain information on the status of the license application.
3. Registration of a legal agreement on title identifying that no final inspection granting occupancy on a building permit application will be granted in Strata lot units 105, 110 or 115 (Strata Lots 1, 2 and 3 of BCS2986) until approval and issuance of an appropriate Health Canada license for medical cannabis cultivation/production and related activities.
4. Registration of a legal agreement on title identifying that no cannabis production can occur on Strata lot units 105 and 110 (Strata Lots 1 and 2 of BCS2986) until confirmation of a Health Canada approved and issued license or amended license is provided confirming the allowance of the production/cultivation of cannabis in Strata lot units 105 and 110 (Strata Lots 1 and 2 of BCS2986).
5. Registration of a legal agreement on title that will:
  - a) Identify that upon cessation of the use of the facility for medical cannabis production and to address any potential environmental health and safety issues arising from this previous activity, final inspection granting occupancy as part of a building permit application and/or issuance of a business license for a new permitted use would not be permitted until:
    - (1) The owner/operator engage a registered professional to assess the building/unit and all related mechanical systems and develop a remediation plan to address any environmental, health, safety and/or occupational safety issues;
    - (2) All works to fulfill the remediation plan must be undertaken, with completion verified by the registered professional.
6. Submission of a report from a registered professional detailing out specific building measures and mechanical systems to be implemented in the proposed medical cannabis production facility to ensure that all noise, odour and other potential negative operational aspects generated from the facility will be fully contained and compliant with applicable City bylaws (i.e., Noise Regulation Bylaw 8856)

**Prior to Building Permit Issuance, the developer must complete the following requirements:**

1. Submission of a fire safety plan to the satisfaction of Richmond Fire Rescue staff in accordance with Fire Protection and Life Safety Bylaw 8306 of which the following requirements will apply:
  - a) Fire safety plan prepared by an appropriate fire safety consultant, with supporting information from a building code consultant where deemed necessary. The fire safety plan submission is to be in compliance with Richmond Fire Rescue guidelines.
  - b) Demonstrate compliance with current applicable BC Building Code, BC Fire Code, Building Regulation Bylaw 7230 and other applicable federal, provincial and municipal regulations.
  - c) Emergency Procedures to be used in case of fire

**ENCL - 409**

Initial: \_\_\_\_\_

- d) Training and appointment of a designated supervisory staff to carry out fire safety duties.
  - e) Documents showing the type, location and operation of fire emergency system(s).
  - f) The scheduling and holding of fire drills, supported with documentation.
  - g) The control of fire hazards.
  - h) Inspection and maintenance of facilities for the safety of the building's occupants.
  - i) Richmond Fire Rescue must approve the fire safety plan prior to final inspection occurring for the Building Permit on the subject site.
2. Submission of a letter of assurance from the registered professional building consultant confirming that the building permit submission includes the building measures and mechanical systems detailed out in the submitted and approved report (outlined in rezoning considerations Item #6). Prior to final inspection of the building permit, submission of a letter of assurance from the registered professional building consultant confirming implementation and installation of all works referenced in the consultant report.
3. Site servicing connections, utilities and general items:
- a) Water Works:
    - (1) Using the OCP Model, there is 200 L/s of water available at a 20 psi residual at the Hamilton Road frontage and 199 L/s of water available at a 20 psi residual at the Fraserwood Way frontage. Based on the Fire Underwriter Survey fire flow calculations you provided, your site requires a fire flow of 200 L/s.
    - (2) At Developer's cost, the Developer is required to:
      - (a) At building permit stage, submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage building designs.
    - (3) At Developer's cost, the City will:
      - (a) Confirm the size, location, condition, and material of the existing water connection serving the site. If the existing water connection is adequate to serve the proposed development, it may be retained; if not, it shall be replaced by the City at the developer's cost.
      - (b) Install a water meter on the existing/proposed water connection, as applicable.
  - b) Storm Sewer Works:
    - (1) At Developer's cost, the City will:
      - (a) Confirm the condition and capacity of the existing storm connection serving the site. If the existing storm connection is adequate to serve the proposed development, it may be retained; if not, it shall be replaced by the City at the developer's cost.
      - (b) Provide an inspection chamber on the existing storm connection serving the development site, if it is to be retained.
  - c) Sanitary Sewer Works:
    - (1) At Developer's cost, the City will:
      - (a) Confirm the condition and capacity of the existing sanitary connection serving the site. If the existing storm connection is adequate to serve the proposed development, it may be retained; if not, it shall be replaced by the City at the developer's cost.
  - d) Utilities:
    - (1) At Developer's cost, the Developer is required to:
      - (a) Coordinate with BC Hydro, Telus and other private communication service providers:
        - (i) Before relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
        - (ii) To underground overhead service lines.
        - (iii) Locate/relocate all above ground utility cabinets and kiosks required to service the proposed development, and all above ground utility cabinets and kiosks located along the development's frontages, within the development site (see list below for examples). A functional plan showing

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conceptual locations for such infrastructure shall be included in the development design review process. Please coordinate with the respective private utility companies and the project's lighting and traffic signal consultants to confirm the requirements (e.g., statutory right-of-way dimensions) and the locations for the aboveground structures. If a private utility company does not require an aboveground structure, that company shall confirm this via a letter to be submitted to the City. The following are examples of statutory right-of-ways that shall be shown on the architectural plans/functional plan:

1. BC Hydro PMT – 4.0 x 5.0 m
2. BC Hydro LPT – 3.5 x 3.5 m
3. Street light kiosk – 1.5 x 1.5 m
4. Traffic signal kiosk – 2.0 x 1.5 m
5. Traffic signal UPS – 1.0 x 1.0 m
6. Shaw cable kiosk – 1.0 x 1.0 m
7. Telus FDH cabinet – 1.1 x 1.0 m

e) General Items:

(1) At Developer's cost, the Developer is required to:

- (a) Not encroach into City rights-of-ways with any proposed trees, retaining walls, or other non-removable structures.
- (b) Enter into, if required, additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering, including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

4. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
5. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contain prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

SIGNED COPY ON FILE

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Signed

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Date



**Richmond Zoning Bylaw 8500  
Amendment Bylaw 9978 (RZ 18-811041)  
23000 Fraserwood Way (Units 105, 110 and 115)**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Richmond Zoning Bylaw 8500 is amended by:
  - i. Inserting the following text into Section 12.3.3. B – Additional Uses  
**“medical cannabis production facility”** in accordance with provisions contained in 12.3.11.7”
  - ii. Inserting the following text into Section 12.3.11 – Other Regulations and renumbering subsequent zoning regulations accordingly  
**“7. A medical cannabis production facility shall only be permitted at the following sites and subject to a maximum of 1,800 m<sup>2</sup> floor area for a medical cannabis production facility**  
  
23000 Fraserwood Way (Strata lots 1, 2 and 3 of BCS2986)  
P.I.D. 027-570-428  
P.I.D. 027-570-436  
P.I.D. 027-570-444  
Strata Lot 1, 2 and 3 Section 1 Block 4 North Range 4 West New Westminster District Strata Plan BCS2986 Together with an Interest in the Common Property in Proportion to the Unit Entitlement of the Strata Lot as shown on Form V”
2. This Bylaw may be cited as **“Richmond Zoning Bylaw 8500, Amendment Bylaw 9978”**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

MINISTRY OF TRANSPORTATION AND  
INFRASTRUCTURE APPROVAL

ADOPTED

\_\_\_\_\_  
MAYOR

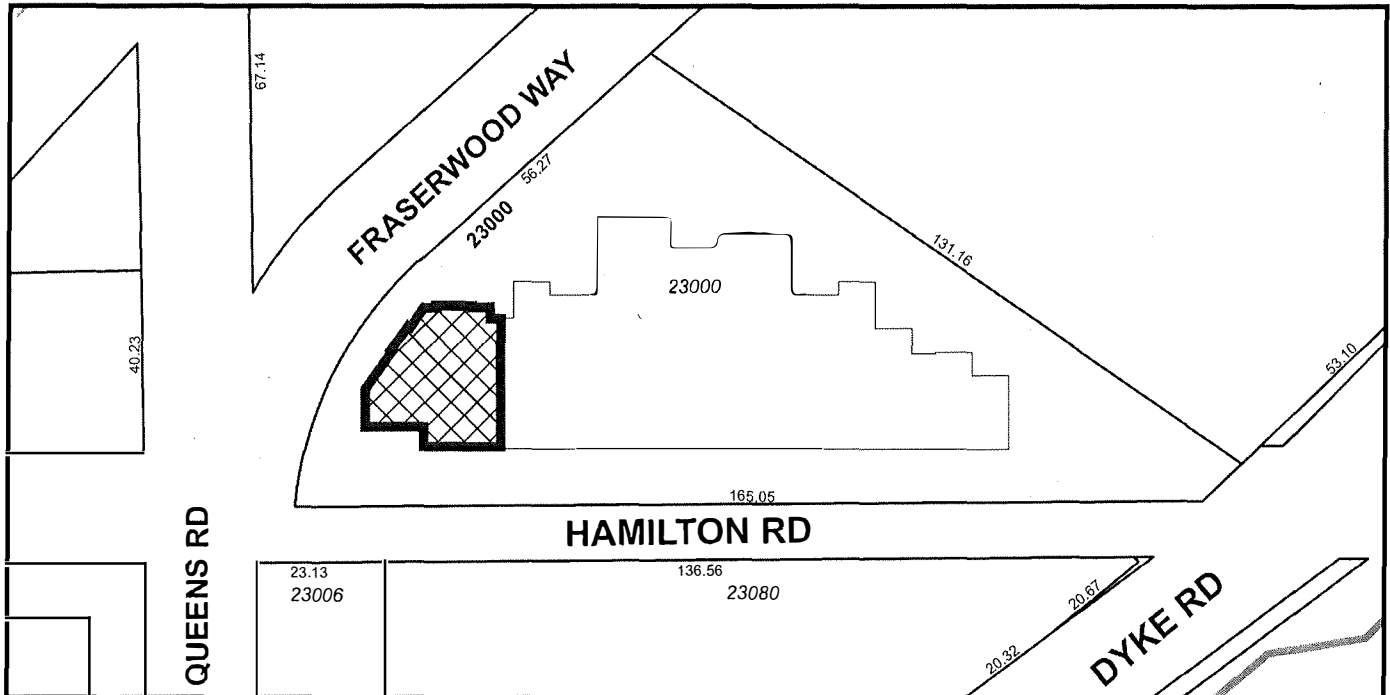
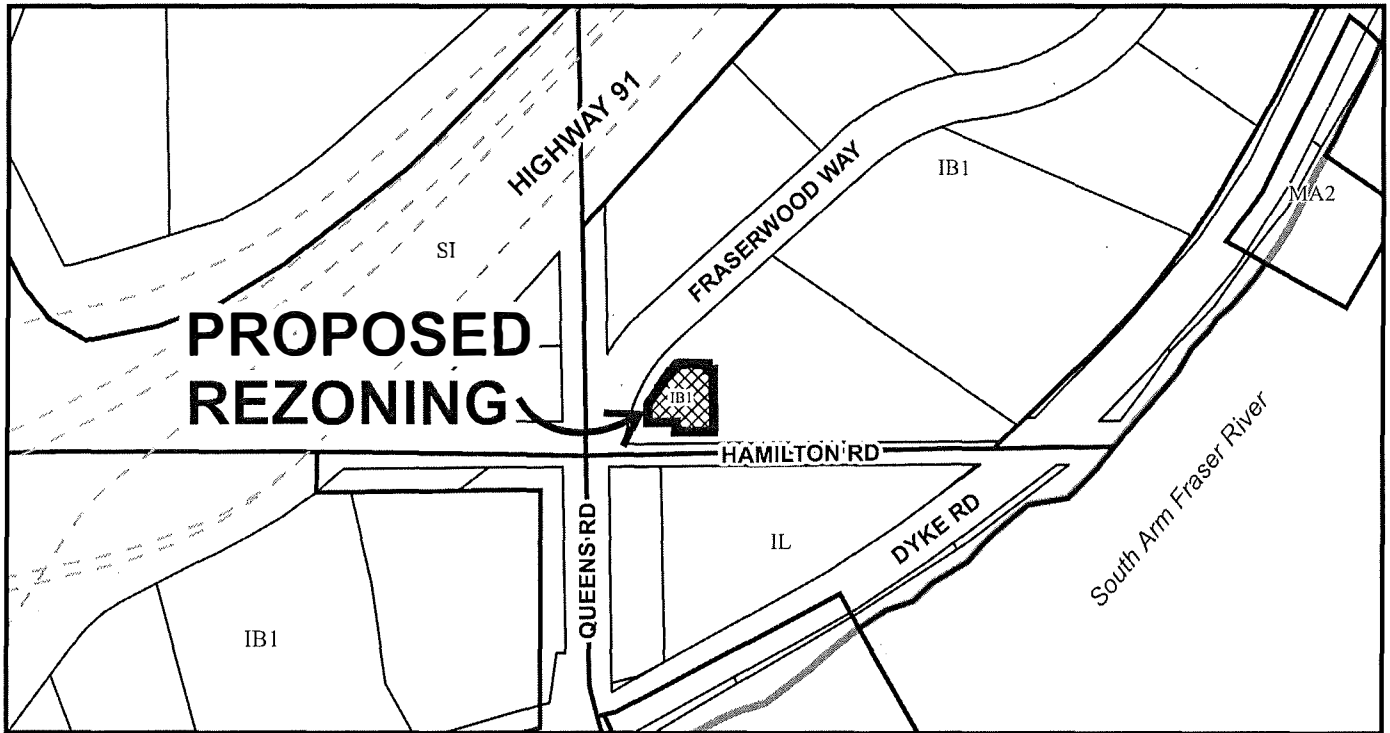
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CITY OF RICHMOND
APPROVED by <i>ke</i>
APPROVED by Director or Solicitor <i>ke</i>

\_\_\_\_\_  
CORPORATE OFFICER



# City of Richmond



## RZ 18-811041

GNCL - 415

Original Date: 03/02/18

Revision Date: 12/03/18

Note: Dimensions are in METRES





# City of Richmond

## Report to Committee

**To:** Planning Committee  
**From:** Wayne Craig  
Director, Development

**Date:** December 18, 2018

**File:** RZ 16-733904

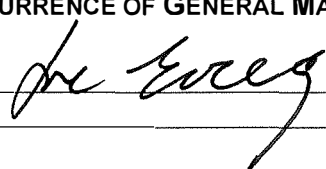
**Re:** Application by Interface Architecture Inc. for Rezoning at 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway from "Single Detached (RS1/B)" Zone and "Single Detached (RS1/E)" Zone to "Medium Density Townhouses (RTM2)" Zone

### Staff Recommendation

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9982, for the rezoning of 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway from "Single Detached (RS1/B)" zone and "Single Detached (RS1/E)" zone to "Medium Density Townhouses (RTM2)" zone, be introduced and given First Reading.

  
Wayne Craig  
Director, Development  
(604-247-4625)

WC:el  
Att. 6

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Affordable Housing	<input checked="" type="checkbox"/>	

## **Staff Report**

### **Origin**

Interface Architecture Inc. has applied to the City of Richmond for permission to rezone 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway (Attachment 1) from “Single Detached (RS1/B)” zone and “Single Detached (RS1/E)” zone to “Medium Density Townhouses (RTM2)” zone in order to permit the development of 28 townhouse units and two secondary suites with vehicle access from Steveston Highway.

### **Project Description**

The seven properties under this application have a total combined frontage of approximately 129 m, and is required to be consolidated into one development parcel prior to final adoption of the rezoning bylaw. The proposed density is 0.65 floor area ratio (FAR). The site layout includes 12 two-storey units and 16 three-storey units in 10 townhouse clusters. Two secondary suites and three convertible units are included in this proposal. Vehicle access is provided by a single driveway access to Steveston Highway.

A preliminary site plan, building elevations, and landscape plan are contained in Attachment 2.

### **Findings of Fact**

A Development Application Data Sheet providing details about the development proposal is attached (Attachment 3).

### **Subject Site Existing Housing Profile**

Three of the seven houses on site have already been demolished. The applicant has advised that there are no secondary suites in the remaining four houses. The remaining houses were tenanted at the time the developer acquired the properties, but will be demolished soon for site preparation.

### **Surrounding Development**

To the North: Existing single family dwellings on lots zoned “Single Detached (RS1/B)”.

To the South: Across Steveston Highway, existing single family dwellings on lots zoned “Single Detached (RS1/E)”.

To the East: A 10-unit two-storey townhouse complex on a lot zoned “Low Density Townhouses (RTL1)”.

To the West: A number of single family homes and duplexes on lots zoned “Single Detached (RS1/B)”, “Single Detached (RS1/E)” or “Two-Unit Dwellings (RD1)”, which are all identified for townhouse development under the Arterial Road Land Use Policy.

**Related Policies & Studies**Official Community Plan/Steveston Area Plan

The 2041 Official Community Plan (OCP) Land Use Map designation for the subject site is “Neighbourhood Residential”. The Steveston Area Land Use Map designation for the subject site is “Multiple-Family”. This redevelopment proposal for 28 townhouses is consistent with these designations.

Arterial Road Policy

The Arterial Road Land Use Policy in the City’s 2041 OCP (Bylaw 9000), directs appropriate townhouse development onto certain arterial roads outside the City Centre. The subject site is identified for “Arterial Road Townhouse” on the Arterial Road Housing Development Map and the proposal is in compliance with the Townhouse Development Requirements under the Arterial Road Policy.

Floodplain Management Implementation Strategy

The proposed redevelopment must meet the requirements of the Richmond Flood Plain Designation and Protection Bylaw 8204. Registration of a flood indemnity covenant on Title is required prior to final adoption of the rezoning bylaw.

**Public Consultation**

A rezoning sign has been installed on the subject property. Staff have not received any comments from the public about the rezoning application in response to the placement of the rezoning sign on the property.

The developers have also consulted with the owners/residents of the neighbouring properties on the proposed development; concerns related to security and fencing were raised. The developers will address these concerns through detailed architectural and landscaping design at the Development Permit stage. A consultation summary package prepared by the developers and a map of the consultation area can be found in Attachment 4.

Should the Planning Committee endorse this application and Council grant First Reading to the rezoning bylaw, the bylaw will be forwarded to a Public Hearing; where any area resident or interested party will have an opportunity to comment.

Public notification for the Public Hearing will be provided as per the *Local Government Act*.

## **Analysis**

### **Built Form and Architectural Character**

The applicant proposes to consolidate the seven properties into one development parcel, with a total net site area of 5,756.7 m<sup>2</sup>. The proposal consists of 28 townhouses, in a mix of two-storey and three-storey townhouse units in 10 clusters. The layout of the townhouse units is oriented around a single driveway providing access to the site from Steveston Highway and an east-west internal manoeuvring aisle providing access to the unit garages. The outdoor amenity area will be situated in a central open courtyard at the rear (north) of the site.

All three-storey units are proposed along Steveston Highway; a minimum 7.5 m side yard setback is provided to the third floor of these buildings to minimize potential privacy concerns. Two-storey duplexes are proposed along the rear (north) lot lines to serve as a transition to the single-family homes to the north. The proposed building forms, heights and setbacks are in compliance with the design guidelines for arterial road townhouse developments.

Two ground level secondary suites are proposed to be included in the development. These suites will be contained in two of the three-storey units (unit type “C-F”) proposed on site (see Attachment 2). The size of each secondary suite is approximately 27 m<sup>2</sup> (290 ft<sup>2</sup>) and the total net floor area of each of these “C-F” units is approximately 129 m<sup>2</sup> (1,387 ft<sup>2</sup>). Each secondary suite contains an open living/dining/sleeping area, a kitchenette and a bathroom. A surface parking stall will be assigned to each of the secondary units.

To ensure that these secondary suites will not be stratified or otherwise held under separate title, registration of a legal agreement on Title is required prior to final adoption of the rezoning bylaw.

To ensure that the secondary suites are built, registration of a legal agreement on Title, stating that no final Building Permit inspection will be granted until the secondary suites are constructed to the satisfaction of the City in accordance with the BC Building Code and the City’s Zoning Bylaw, is required prior to final adoption of the rezoning bylaw.

To ensure that the parking stalls assigned to the secondary suites are for the sole use of each of the secondary suites, registration of a legal agreement on Title is required prior to final adoption of the rezoning bylaw.

### **Existing Legal Encumbrances**

There are existing 3.0 m wide utility Right-of-Ways (ROWs) along the north property line of all seven subject properties for two existing sanitary sewer lines. The developer is aware that no construction is permitted in these areas.

### Transportation and Site Access

One vehicular access from Steveston Highway is proposed, this access will be restricted to right-in/right-out traffic movements. The proposed vehicle access will also be utilized by adjacent properties to the east and west if they apply to redevelop. A Public Right-of-Passage (PROP) Statutory Right-of-Way (SRW) over the entire area of the proposed entry driveway from Steveston Highway and the internal east-west manoeuvring aisle will be secured as a condition of rezoning.

There are considerable transportation improvements required as part of this application. Prior to final adoption of the rezoning bylaw, the developer required to:

- Dedicate a 2.0 m wide of land along the Steveston Highway frontages of 5711, 5731 and 5751 Steveston Highway for future road widening.
- Design and construction of frontage improvements including, but not limited to a new 1.5 m wide concrete sidewalk along the new Steveston Highway property line and a minimum 1.5 m wide grass boulevard with street trees.
- Construct a concrete bus pad (3.0 m x 9.0 m) with electrical pre-ducting conduits at the Steveston Highway/No. 2 Road westbound bus stop. The bus pad is to be constructed to meet accessible bus stop design standards.
- Contribute \$25,000 towards the purchase and installation of a City standard bus shelter. This bus shelter will be placed at the westbound bus stop on Steveston Highway far-side of No. 2 Road or at an alternative bus stop in the vicinity.
- Contribute \$100,000 towards the future upgrade of the special crosswalk at Lassam Road/Steveston Highway to a full traffic signal. The traffic signal works shall include, but are not limited to: traffic signal heads, traffic poles and bases, vehicle detection, UPS (Uninterruptable Power Supply) system, controller cabinet/controller, illuminated street name signs and APS (Accessible Pedestrian signals).

### Tree Retention and Replacement

The applicant has submitted a Certified Arborist's Report; which identifies on-site and off-site tree species, assesses tree structure and condition, and provides recommendations on tree retention and removal relative to the proposed development. The Report assesses 83 bylaw-sized trees on the subject property, 14 trees on neighbouring properties, and seven street trees on City property.

The City's Tree Preservation Coordinator and Parks Operations staff have reviewed the Arborist's Report and supports the Arborist's findings, with the following comments:

- Two trees (tag# 2159 and 2160); specifically 46cm and 45cm caliper Norway Maples are in very good condition and should be retained and protected.
- Eight trees (tag# 864-872) location along the rear property line and 14 trees (tag# 788-791, 882, 884, 2013-2105, 2174 -2178) located on adjacent neighbouring properties are identified to be retained and protected. Provide tree protection as per City of Richmond Tree Protection Information Bulletin Tree-03.

- 52 trees located on site are all in poor condition - either dying (sparse canopy foliage), have been historically topped, or exhibit significant structural defects. As a result, these trees are not good candidates for retention and should be replaced. Replacement trees should be specified at 2:1 ratio as per the OCP.
- Parks Operations staff has authorized the removal of seven Sycamore Maple trees (tag# 512, 513, 516, 519, 521, 821 and 954) and a number of Cedar and Boxwood hedge rows located along the Steveston Highway frontage due to their poor condition and conflicts with proposed frontage improvements. Compensation of \$9,100 is required for the removal of the Sycamore Maple trees.

### *Tree Replacement*

The applicant wishes to remove 52 on-site trees. The 2:1 replacement ratio would require a total of 104 replacement trees. According to the Preliminary Landscape Plan provided by the applicant (Attachment 2), the developer is proposing to plant 53 new trees on-site. The size and species of replacement trees will be reviewed in detail through Development Permit and overall landscape design. The applicant has agreed to provide a voluntary contribution of \$25,500 to the City's Tree Compensation Fund in lieu of planting the remaining seven replacement trees should they not be accommodated on the site.

### *Tree Protection*

Two trees on the subject development site, eight trees location along the rear property line, and 14 trees on neighbouring properties are to be retained and protected. The applicant has submitted a tree protection plan showing the trees to be retained and the measures taken to protect them during development stage (Attachment 5). To ensure that the trees identified for retention are protected at development stage, the applicant is required to complete the following items:

- Prior to final adoption of the rezoning bylaw, submission to the City of a contract with a Certified Arborist for the supervision of all works conducted within or in close proximity to tree protection zones. The contract must include the scope of work required, the number of proposed monitoring inspections at specified stages of construction, any special measures required to ensure tree protection, and a provision for the arborist to submit a post-construction impact assessment to the City for review.
- Prior to Development Permit issuance, submission to the City of a Tree Survival Security as part of the Landscape Letter of Credit. No Landscape Letter of Credit will be returned until the Post-Construction Assessment Report, prepared by the Arborist, confirming the protected trees survived the construction, is reviewed by staff.
- Prior to demolition of the existing dwellings on the subject site, installation of tree protection fencing around all trees to be retained. Tree protection fencing must be installed to City standard in accordance with the City's Tree Protection Information Bulletin Tree-03 prior to any works being conducted on-site, and remain in place until construction and landscaping on-site is completed.

### Variance Requested

The proposed development is generally in compliance with the “Medium Density Townhouses (RTM2)” zone; with one proposed variance to reduce the front yard setback from 6.0 m to 4.5 m for proposed Buildings #1 and #2 on the eastern half of the site, and from 6.0 m to 5.6 m for proposed Buildings #9 and #10 on the western half of the site. Staff support the requested variance recognizing that a 2.0 wide road dedication along the frontage of the eastern half of the site is required, and that the Arterial Road Guidelines for Townhouses in the OCP support reduced front yard setback where a 6.0 rear yard setback is provided, on condition that there is an appropriate interface with neighbouring properties. This variance will be reviewed in the context of the overall detailed design of the project; including architectural form, site design and landscaping at the Development Permit stage.

### Impacts of Traffic Noise

To protect the future dwelling units at the subject site from potential noise impacts generated by traffic on Steveston Highway, a restrictive covenant is required to be registered on Title prior to final adoption of the rezoning bylaw to ensure that noise attenuation is required to be incorporated into dwelling unit design and construction.

Prior to a Development Permit application being considered by the Development Permit Panel, the applicant is required to submit an acoustical and thermal report and recommendations, prepared by a registered professional, to comply with the requirements of the restrictive covenant.

### Affordable Housing Strategy

In addition to the provision of two secondary suite on site, the applicant proposes to make a cash contribution to the Affordable Housing Reserve Fund in accordance to the City’s Affordable Housing Strategy. As the proposal is for townhouses, the applicant will make a cash contribution of \$8.50 per buildable square foot as per the Strategy; for a contribution of \$342,356.62.

### Public Art

In response to the City’s Public Art Program (Policy 8703), the applicant will provide a voluntary contribution at a rate of \$0.83 per buildable square foot to the City’s Public Art Reserve fund; for a total contribution in the amount of \$33,430.12.

### Energy Efficiency & Renewable Energy

The subject rezoning application and the associated Development Permit application were received prior to the introduction of the BC Energy Step Code (approved by Council on July 16, 2018). The subject development will have until December 31, 2019 to submit an acceptable Building Permit application in order to build under previous energy efficiency requirements. Should the deadline pass the proposed development would then be subject to the Energy Step Code.

The applicants have committed to achieving an EnerGuide Rating System (ERS) score of 82 and all units will be pre-ducted for solar hot water for the proposed development. Registration of a legal agreement on Title to ensure that all units are built and maintained to this commitment is required prior to rezoning bylaw adoption. As part of the Development Permit Application review process; the developers will be required to retain a certified energy advisor (CEA) to complete an Evaluation Report to confirm details of construction requirements needed to achieve the rating.

The developer has also reviewed the feasibility of incorporating solar photovoltaic (PV) installations into the proposed development to provide an alternative energy source. Based on research conducted by the developer and their energy consultant, implementing solar PV installations is suitable on this site. The developer is proposing to install four solar panels per unit, on the south-facing sloped roofs. The size and placement of the solar panels will be reviewed in detail through Development Permit and overall architectural design. The provision of PV panels will be secured through a restrictive covenant, which will be registered on Title prior to final adoption of the rezoning bylaw.

#### Amenity Space

The applicant is proposing a cash contribution in-lieu of providing the required indoor amenity space on site, as per the OCP. As the rezoning application was submitted prior to the Amenity Contribution rates were updated, this townhouse development application will have to comply with the previous Council's Policy 5041 (Cash in Lieu of Indoor Amenity Space). The Policy requires that a cash contribution of \$1,000 per unit up to 19 units, plus \$2,000 per unit over 19 units be provided in lieu of indoor amenity space. The total cash contribution required for this 28-unit townhouse development is \$37,000.00.

Outdoor amenity space will be provided on-site. Based on the preliminary design, the size of the proposed outdoor amenity space complies with the Official Community Plan (OCP) requirements of 6 m<sup>2</sup> per unit. Staff will work with the applicant at the Development Permit stage to ensure the configuration and design of the outdoor amenity space meets the Development Permit Guidelines in the OCP.

#### Site Servicing and Frontage Improvements

Prior to final adoption of the rezoning bylaw, the applicant is required to enter into the City's standard Servicing Agreement to design and construct frontage beautification works and service connections (see Attachment 6 for details). All works are at the client's sole cost (i.e., no credits apply). The developer is also required to pay Development Cost Charges (DCC's) (City & GVS & DD), School Site Acquisition Charge and Address Assignment Fee.



### Development Permit

A Development Permit processed to a satisfactory level is a requirement of zoning approval. Through the Development Permit, the following issues are to be further examined:

- Compliance with Development Permit Guidelines for multiple-family projects in the 2041 Official Community Plan (OCP).
- Refinement of the proposed building form to achieve sufficient variety in design to create a desirable and interesting streetscape along Steveston Highway and along the internal drive aisles, to reduce visual massing of the three-storey units along Steveston Highway, and to address potential adjacency issues.
- Refinement of the proposed site grading to ensure survival of all proposed protected trees and appropriate transition between the proposed development to the public sidewalk on Steveston Highway, and to the adjacent existing developments.
- Refinement of the outdoor amenity area design, including the choice of play equipment, to create a safe and vibrant environment for children's play and social interaction.
- Review of size and species of on-site replacement trees to ensure bylaw compliance and to achieve an acceptable mix of conifer and deciduous trees on-site.
- Refinement of site layout and landscape design to maximize planting areas along internal drive aisles, to maximize permeable surface areas, and to better articulate hard surface treatments on site.
- Review of aging-in-place features in all units and the provision of convertible units.
- Review of the sustainability strategy for the development proposal, including measures to achieve an EnerGuide Rating System (ERS) score of 82, as well as size and locations of the proposed solar panels.

Additional issues may be identified as part of the Development Permit application review process.

### **Financial Impact or Economic Impact**

The rezoning application results in an insignificant Operational Budget Impact (OBI) for off-site City infrastructure (such as roadworks, waterworks, storm sewers, sanitary sewers, street lights, street trees and traffic signals).

## **Conclusion**

The proposed 28-unit townhouse development is generally consistent with the Official Community Plan (OCP) and the Arterial Road Policy in the OCP. Further review of the project design is required to ensure a high quality project and design consistency with the existing neighbourhood context, and this will be completed as part of the Development Permit application review process. The list of rezoning considerations is included as Attachment 6; which has been agreed to by the applicants (signed concurrence on file). On this basis, staff recommend support of the application.

It is recommended that Richmond Zoning Bylaw 8500, Amendment Bylaw 9982 be introduced and given First Reading.



Edwin Lee  
Planner 1  
(605-276-4121)

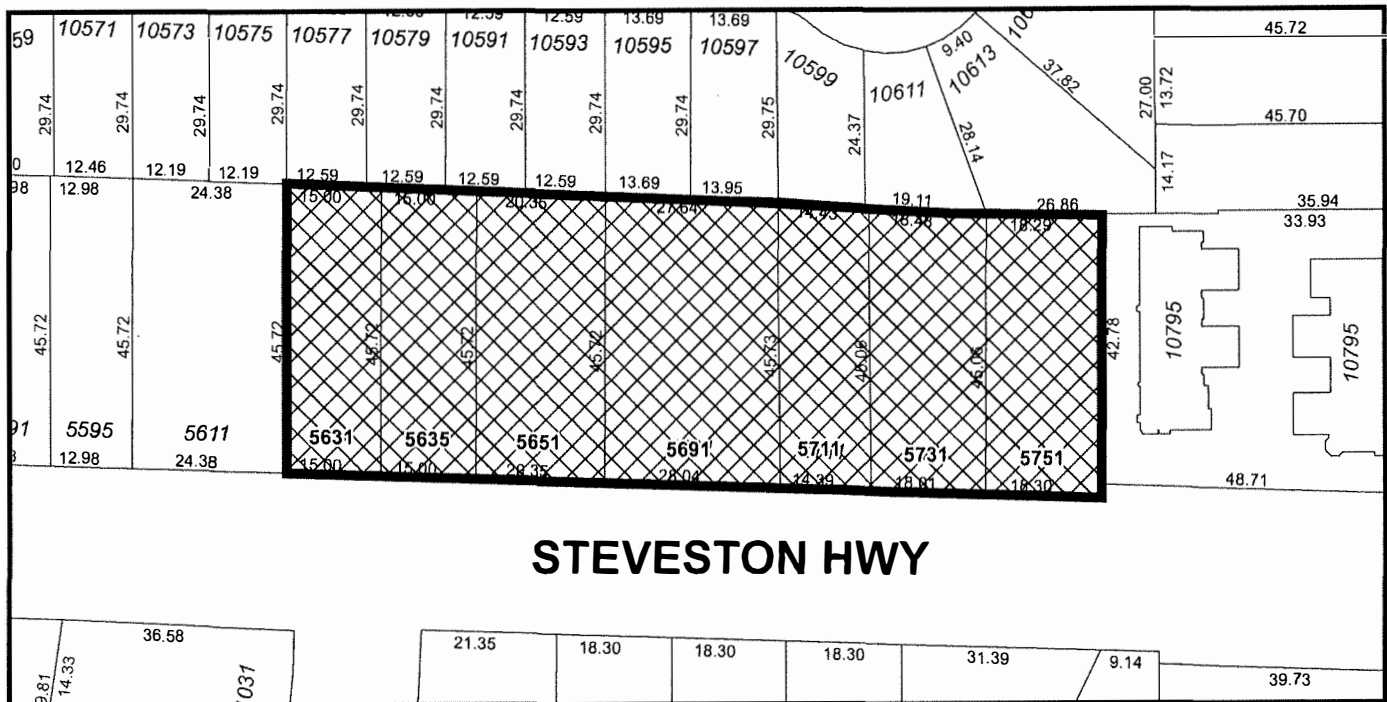
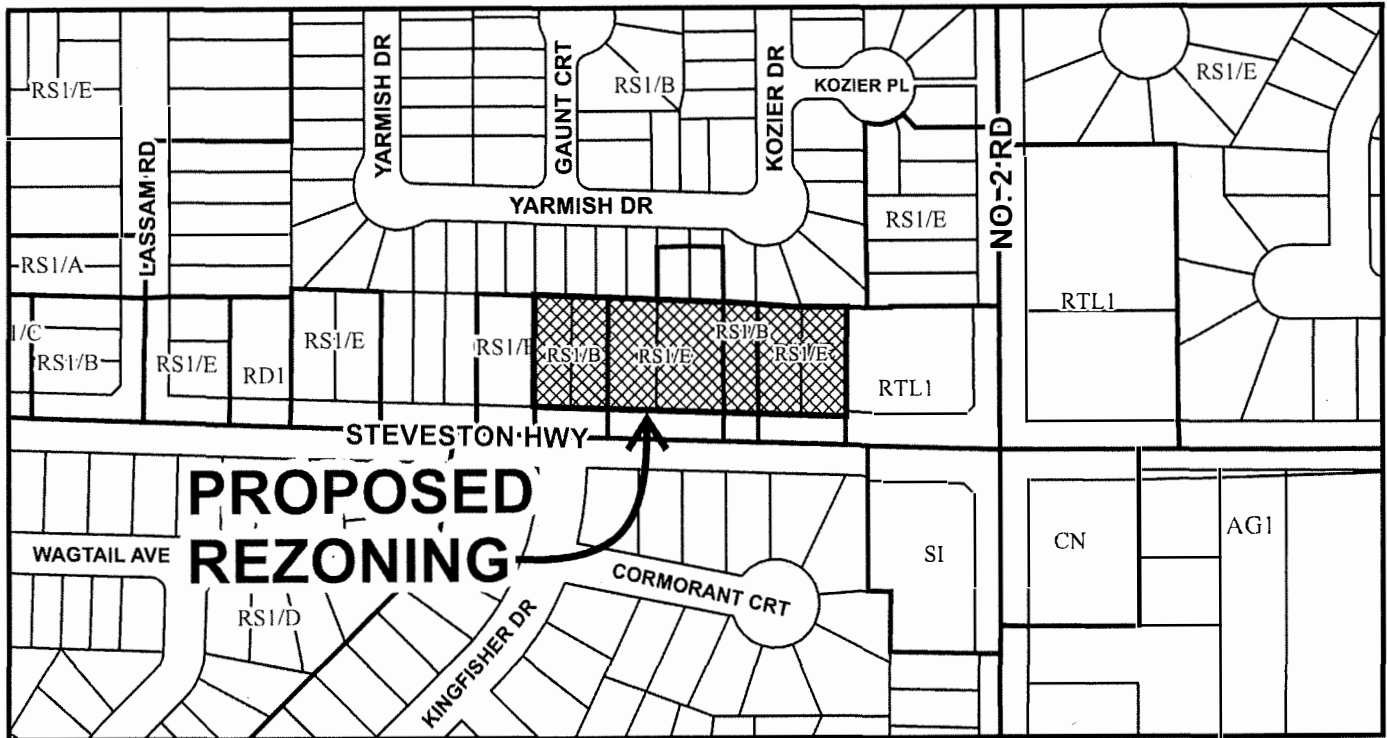
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Attachment 1: Location Map  
Attachment 2: Conceptual Development Plans  
Attachment 3: Development Application Data Sheet  
Attachment 4: Consultation Summary  
Attachment 5: Tree Management Plan  
Attachment 6: Rezoning Considerations



# City of Richmond

ATTACHMENT 1



## RZ 16-733904

Original Date: 07/07/16

Revision Date: 01/02/18

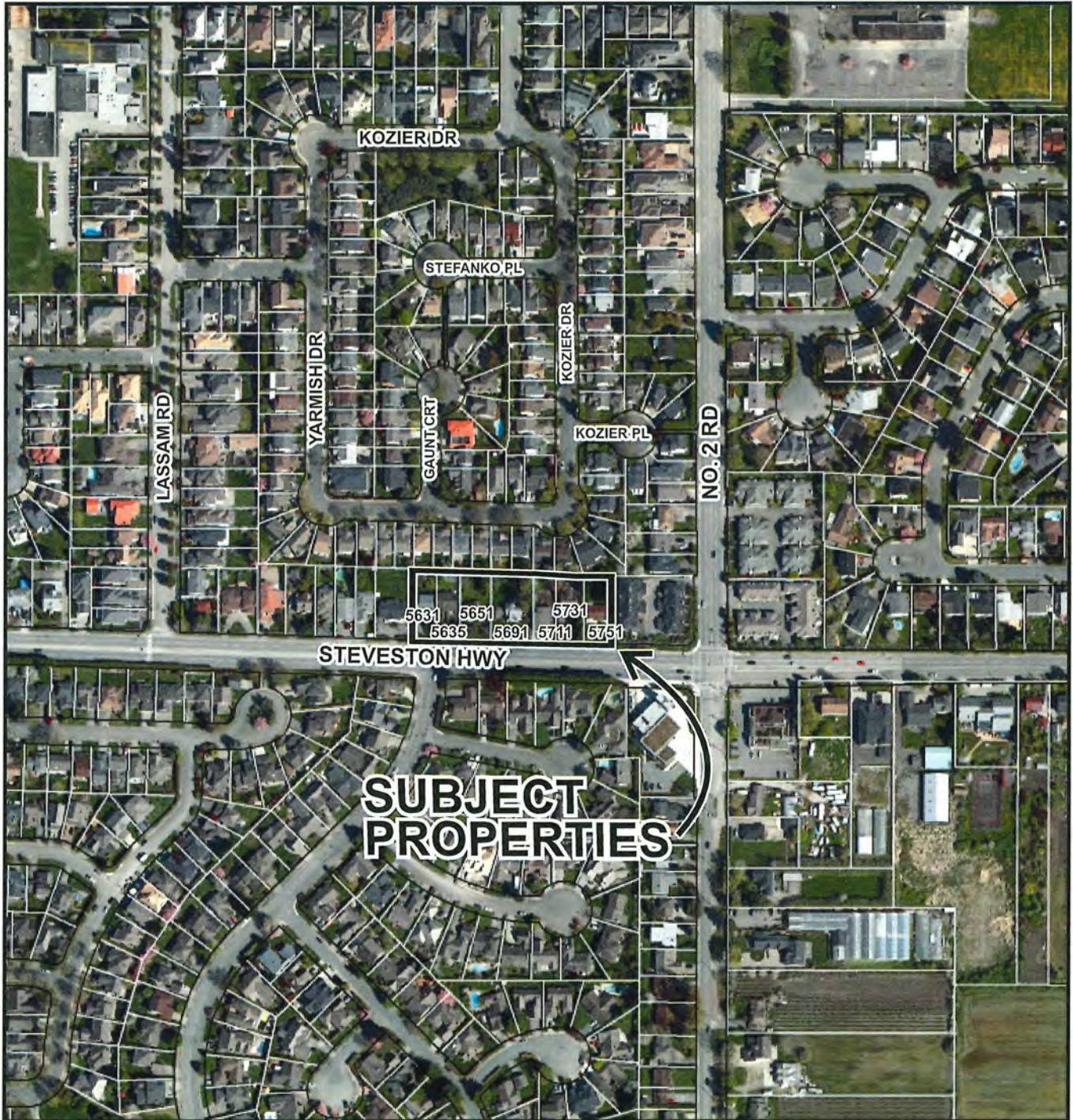
Note: Dimensions are in METRES

CNCL - 426





City of  
Richmond



RZ 16-733904

Original Date: 07/07/16

Revision Date: 01/02/18

Note: Dimensions are in METRES

GNCL - 427



**RZ RESUBMISSION - 28 UNIT TOWNHOMES (RZ16-733904)**

**LEGAL DESCRIPTIONS:**

(1) LOT 17A, PLAIN 5600Z  
(2) PARCELS 1, (DEP 17A) LOT 39, EXCEPT PART SUBDIVIDED BY PLAIN 5701A1 PLAIN 17A 194E  
(3) PARCELS 2, (DEP 17A) LOT 39, EXCEPT PART SUBDIVIDED BY PLAIN 5701A1 PLAIN 17A 194E  
(4) LOT 17B, PLAIN 5600Z  
(5) LOT 17C, PLAIN 5600Z  
(6) LOT 17D, PLAIN 5600Z  
(7) LOT 17E, PLAIN 5600Z  
(8) LOT 17F, PLAIN 5600Z  
(9) LOT 17G, PLAIN 5600Z  
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DRAWING LIST	
Architectural	
A1.1	PROJECT DATA AND SITE PLAN
A1.2	FIRE ACCESS & PARKING / TRUCK TURNING PLAN
A1.4	P.A.S. CURBS & V.F.
A1.5	FLOOR AREA BREAKDOWN
A2.1	BUILDING PLANS AND ELEVATIONS
A2.2	BUILDING 2 & 3 PLUMBING & HEATING
A2.3	MECHANICAL & ELECTRICAL
A2.4	STREETSCAPE & SITE SECTIONS
Landscape	
L1	LANDSCAPE PLAN
L2	LANDSCAPE DETAILS
L3	PLANTING PLAN
L4	LANDSCAPE DETAILS
Artist	
REPORT DATED AUGUST 27, 2018	
Survey	
SURVEY DATED JULY 10, 2017	

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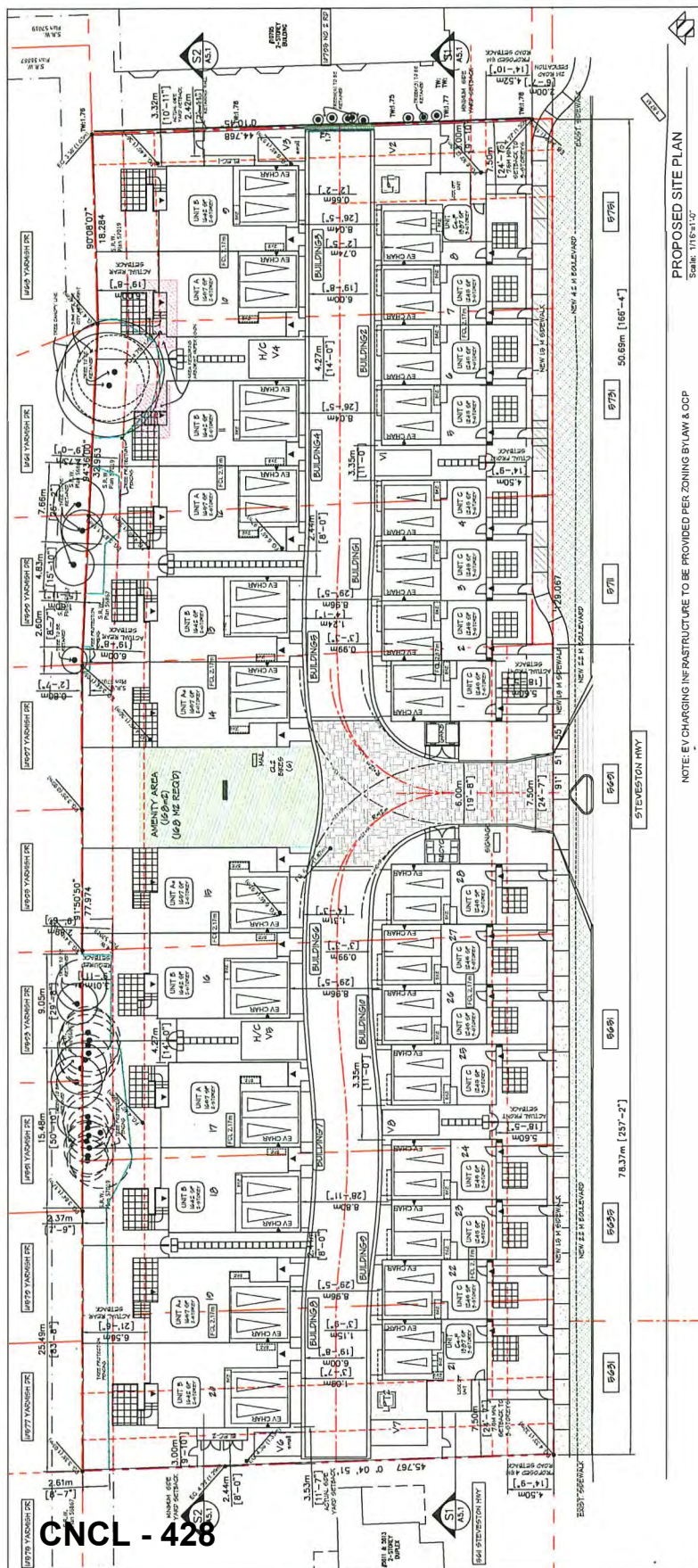
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 SUITE 110 - 11100 KENNEDY DRIVE  
 VANCOUVER, BC V6X 3X7  
 Tel: (604) 272-0672  
 Fax: (604) 272-0672  
 Email: [pang@pang-landscape.com](mailto:pang@pang-landscape.com)

**Arboreal**

**FRIGGERS CREEK TREE CONSULTANTS**  
 11000 OLD KENNEDY DRIVE  
 SUITE 110 - VANCOUVER  
 TEL: (604) 272-0602  
 FAX: (604) 272-0602  
 Email: [friggers@friggers.com](mailto:friggers@friggers.com)

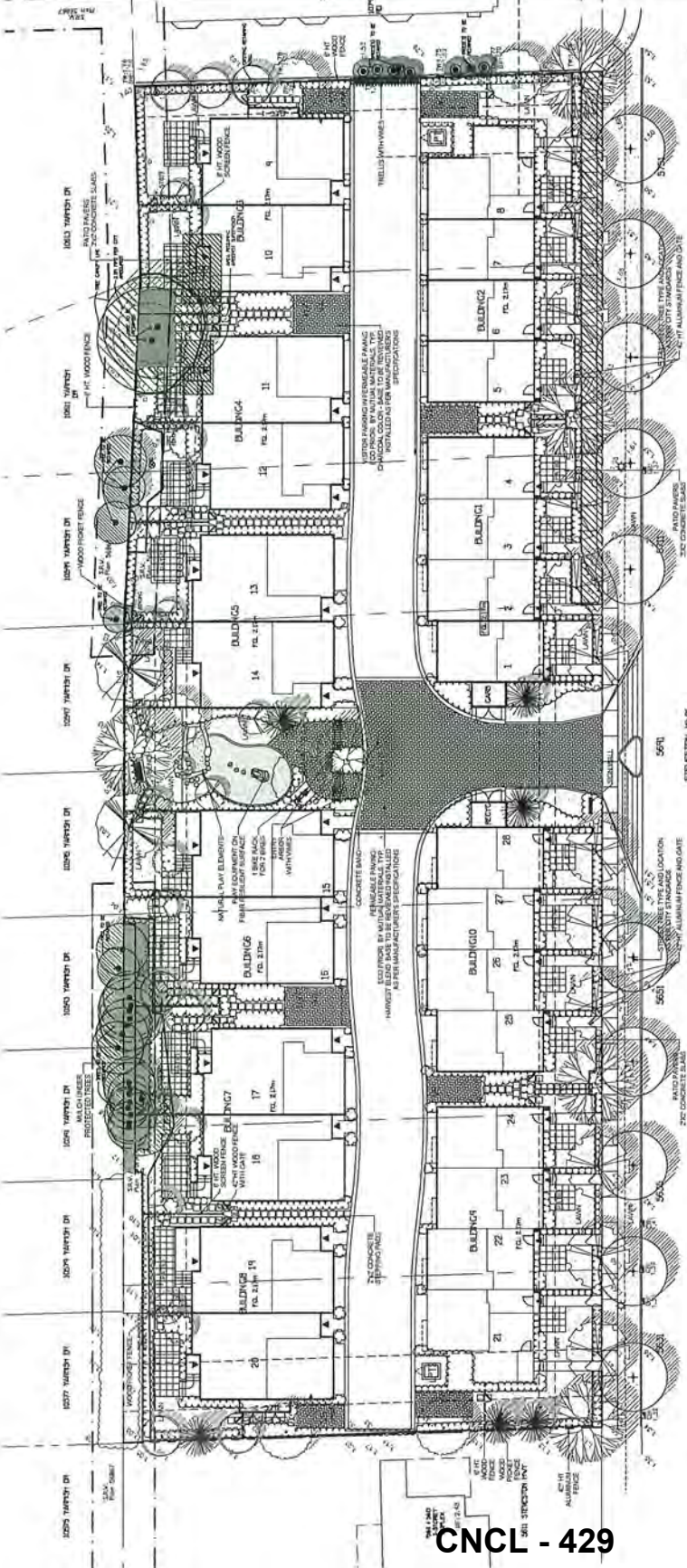




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**pms**  
LANDSCAPE  
ARCHITECTS  
Suite C202 • 4185 SW 10th Ave  
Boca Raton, FL 33431  
P: 561-994-0071 F: 561-994-0022

5601



CNCL - 429

PLANT SCHEDULE			
QTY	SYMBOL	COMMON NAME	PLANT PROJECT NUMBER: 16073
1	Q1	RED TIDE PALM	PLANTED 277 RESIDUES
2	Q2	RED TIDE PALM	PLANTED 277 RESIDUES
3	Q3	RED TIDE PALM	PLANTED 277 RESIDUES
4	Q4	RED TIDE PALM	PLANTED 277 RESIDUES
5	Q5	RED TIDE PALM	PLANTED 277 RESIDUES
6	Q6	RED TIDE PALM	PLANTED 277 RESIDUES
7	Q7	RED TIDE PALM	PLANTED 277 RESIDUES
8	Q8	RED TIDE PALM	PLANTED 277 RESIDUES
9	Q9	RED TIDE PALM	PLANTED 277 RESIDUES
10	Q10	RED TIDE PALM	PLANTED 277 RESIDUES
11	Q11	RED TIDE PALM	PLANTED 277 RESIDUES
12	Q12	RED TIDE PALM	PLANTED 277 RESIDUES
13	Q13	RED TIDE PALM	PLANTED 277 RESIDUES
14	Q14	RED TIDE PALM	PLANTED 277 RESIDUES
15	Q15	RED TIDE PALM	PLANTED 277 RESIDUES
16	Q16	RED TIDE PALM	PLANTED 277 RESIDUES
17	Q17	RED TIDE PALM	PLANTED 277 RESIDUES
18	Q18	RED TIDE PALM	PLANTED 277 RESIDUES
19	Q19	RED TIDE PALM	PLANTED 277 RESIDUES
20	Q20	RED TIDE PALM	PLANTED 277 RESIDUES
21	Q21	RED TIDE PALM	PLANTED 277 RESIDUES
22	Q22	RED TIDE PALM	PLANTED 277 RESIDUES
23	Q23	RED TIDE PALM	PLANTED 277 RESIDUES
24	Q24	RED TIDE PALM	PLANTED 277 RESIDUES
25	Q25	RED TIDE PALM	PLANTED 277 RESIDUES
26	Q26	RED TIDE PALM	PLANTED 277 RESIDUES
27	Q27	RED TIDE PALM	PLANTED 277 RESIDUES

PLANT SCHEDULE			
QTY	SYMBOL	COMMON NAME	PLANT PROJECT NUMBER: 16073
1	Q1	RED TIDE PALM	PLANTED 277 RESIDUES
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5	Q5	RED TIDE PALM	PLANTED 277 RESIDUES
6	Q6	RED TIDE PALM	PLANTED 277 RESIDUES
7	Q7	RED TIDE PALM	PLANTED 277 RESIDUES
8	Q8	RED TIDE PALM	PLANTED 277 RESIDUES
9	Q9	RED TIDE PALM	PLANTED 277 RESIDUES
10	Q10	RED TIDE PALM	PLANTED 277 RESIDUES
11	Q11	RED TIDE PALM	PLANTED 277 RESIDUES
12	Q12	RED TIDE PALM	PLANTED 277 RESIDUES
13	Q13	RED TIDE PALM	PLANTED 277 RESIDUES
14	Q14	RED TIDE PALM	PLANTED 277 RESIDUES
15	Q15	RED TIDE PALM	PLANTED 277 RESIDUES
16	Q16	RED TIDE PALM	PLANTED 277 RESIDUES
17	Q17	RED TIDE PALM	PLANTED 277 RESIDUES
18	Q18	RED TIDE PALM	PLANTED 277 RESIDUES
19	Q19	RED TIDE PALM	PLANTED 277 RESIDUES
20	Q20	RED TIDE PALM	PLANTED 277 RESIDUES
21	Q21	RED TIDE PALM	PLANTED 277 RESIDUES
22	Q22	RED TIDE PALM	PLANTED 277 RESIDUES
23	Q23	RED TIDE PALM	PLANTED 277 RESIDUES
24	Q24	RED TIDE PALM	PLANTED 277 RESIDUES
25	Q25	RED TIDE PALM	PLANTED 277 RESIDUES
26	Q26	RED TIDE PALM	PLANTED 277 RESIDUES
27	Q27	RED TIDE PALM	PLANTED 277 RESIDUES

PROJECT  
27 UNIT TOWNHOUSE  
DEVELOPMENT

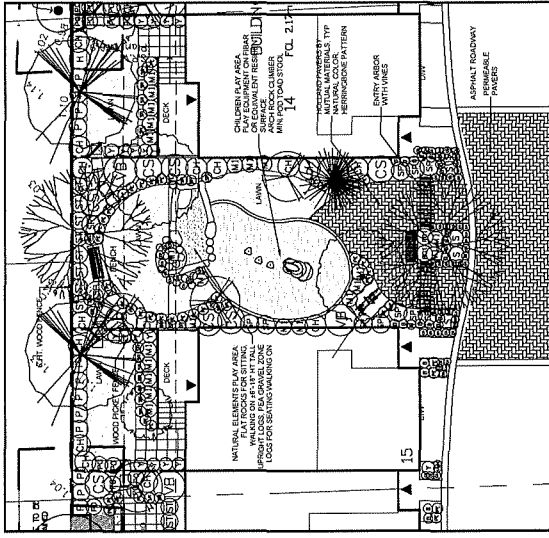
5601 STEVENSON HIGHWAY  
RICHMOND

DRAWING TITLE  
LANDSCAPE  
PLAN

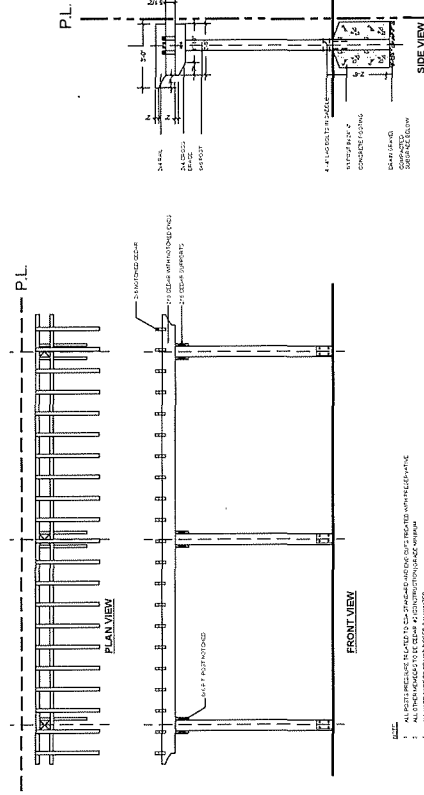
DATE: APR 07 2017  
SCALE: 1/8"=1'-0"  
DRAWN: DD  
DESIGN: DD  
CHECK: MCT  
PROJECT NUMBER: 16-072

L1

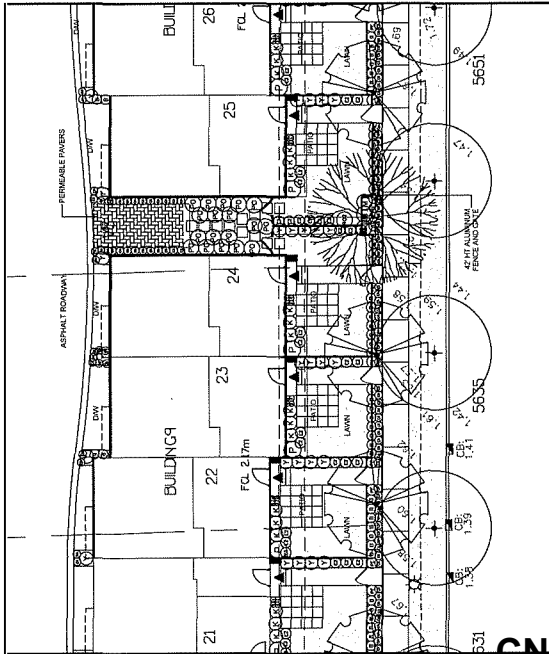




## ENLARGEMENT 2 - AMENITY AREA



5 TRELLIS STRUCTURE

$$\underline{3/8'' = 1'-0''}$$


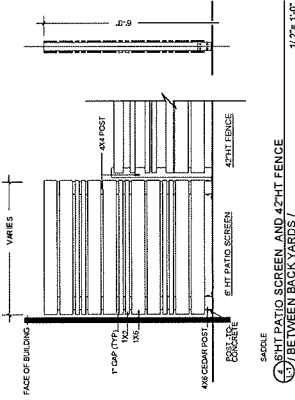
## ENLARGEMENT 1 - TYPICAL STREET FRONT

**CNCL - 430**

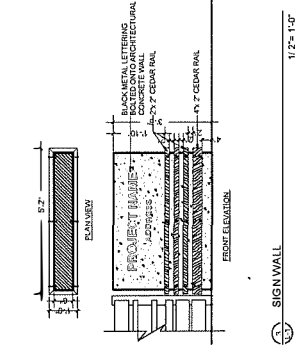
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SEAL

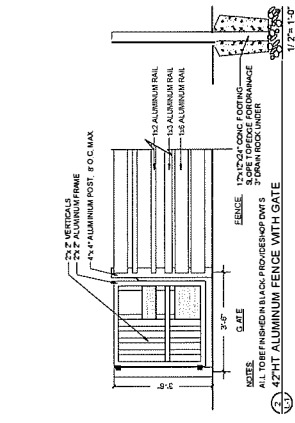
- NOTES**
1. ALL POSTS PRESURE TREATED TO CSA STANDARD AND ENCL 015
  2. ALL POSTS PRESURE TREATED TO CSA STANDARD AND ENCL 015
  3. ALL WOODS NOT EXPOSED TO OTHER ELEMENTS TO BE CEDAR. IF CONSTRUCTION GRADE MINIMUM
  4. ALL WOODS NOT EXPOSED TO OTHER ELEMENTS TO BE CEDAR. IF CONSTRUCTION GRADE MINIMUM
  5. ALL WOODS NOT EXPOSED TO OTHER ELEMENTS TO BE CEDAR. IF CONSTRUCTION GRADE MINIMUM
  6. ALL WOODS NOT EXPOSED TO OTHER ELEMENTS TO BE CEDAR. IF CONSTRUCTION GRADE MINIMUM
  7. ALL WOODS NOT EXPOSED TO OTHER ELEMENTS TO BE CEDAR. IF CONSTRUCTION GRADE MINIMUM
  8. ALL WOODS NOT EXPOSED TO OTHER ELEMENTS TO BE CEDAR. IF CONSTRUCTION GRADE MINIMUM
  9. ALL WOODS NOT EXPOSED TO OTHER ELEMENTS TO BE CEDAR. IF CONSTRUCTION GRADE MINIMUM
  10. ALL WOODS NOT EXPOSED TO OTHER ELEMENTS TO BE CEDAR. IF CONSTRUCTION GRADE MINIMUM



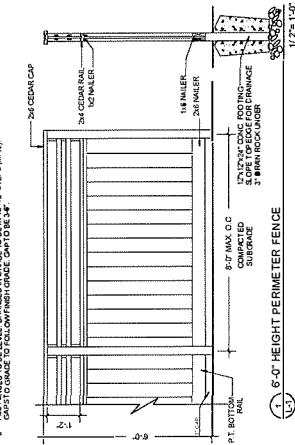
**4' x 4' PATIO SCREEN AND 4' x 4' FENCE**  
1/2" = 1'-0"



**SIGNAL WALL**  
1/2" = 1'-0"

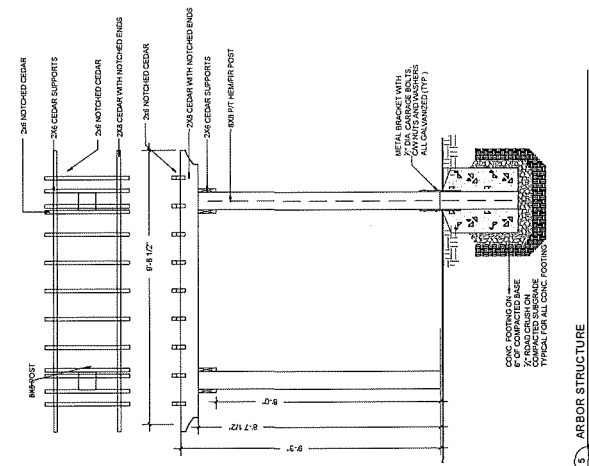


**4' x 4' ALUMINUM FENCE WITH GATE**  
1/2" = 1'-0"

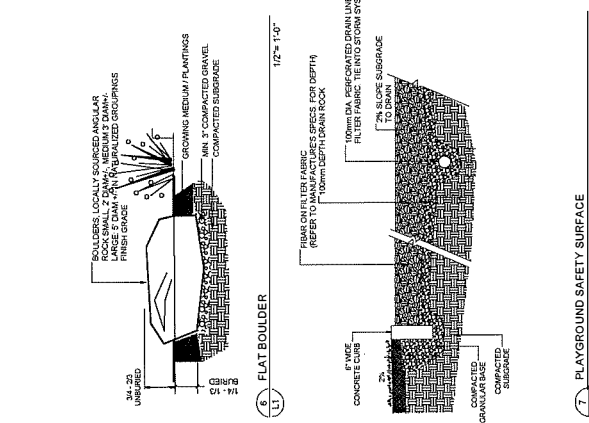


**6' x 0' HEIGHT PERIMETER FENCE**  
1/2" = 1'-0"

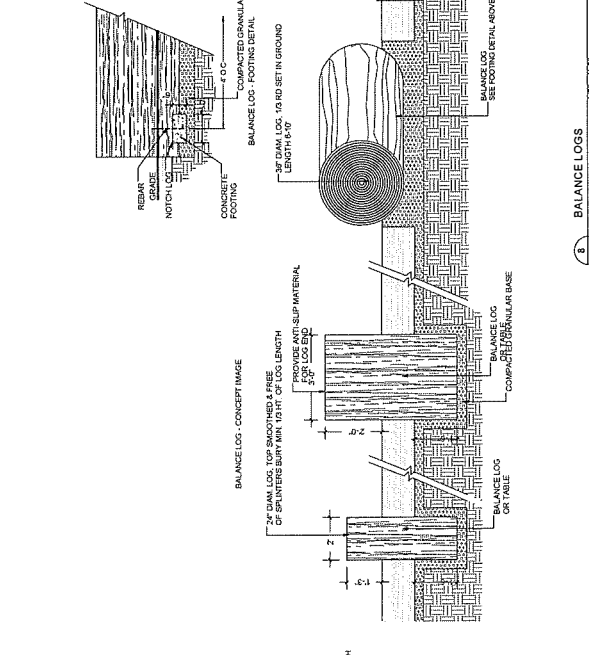
**CNCL - 431**



**ARBOR STRUCTURE**  
1/2" = 1'-0"



**FLAT BOULDER**  
1/2" = 1'-0"



**BALANCE LOGS**  
1/2" = 1'-0"

**PROJECT**  
27 UNIT TOWNHOUSE  
DEVELOPMENT  
5831-5751 STEVESTON HIGHWAY  
RICHMOND

**DRAWING TITLE**  
LANDSCAPE  
DETAILS

**DATE** April 07, 2017  
**SCALE** AS SHOWN  
**DRAWN BY** [Name]  
**DESIGNED BY** [Name]  
**CHECKED BY** [Name]  
**PNC PROJECT NUMBER** 16074-429

**DRAWING NUMBER** L5  
**OF 5**

**16074-429**



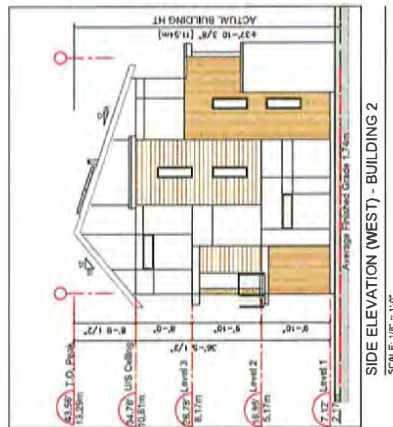
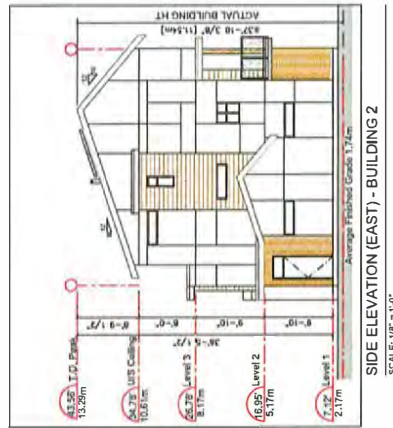
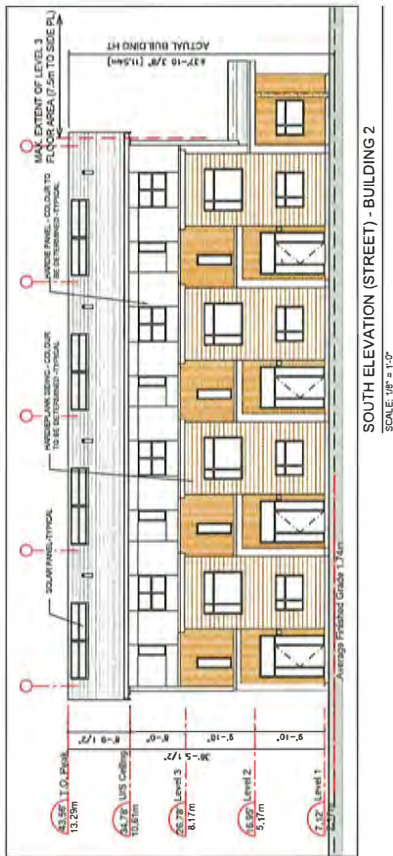
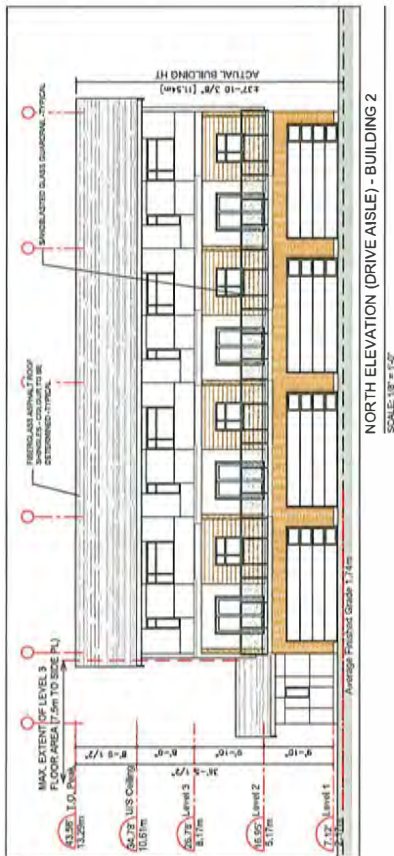
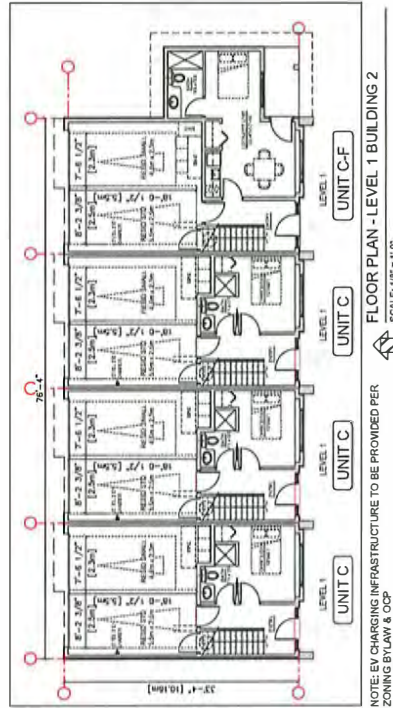
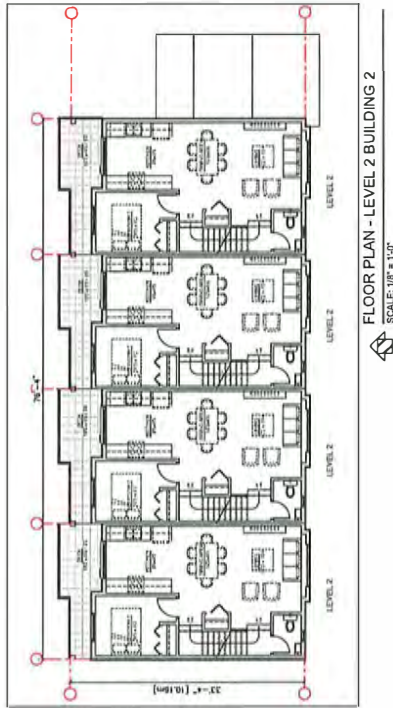
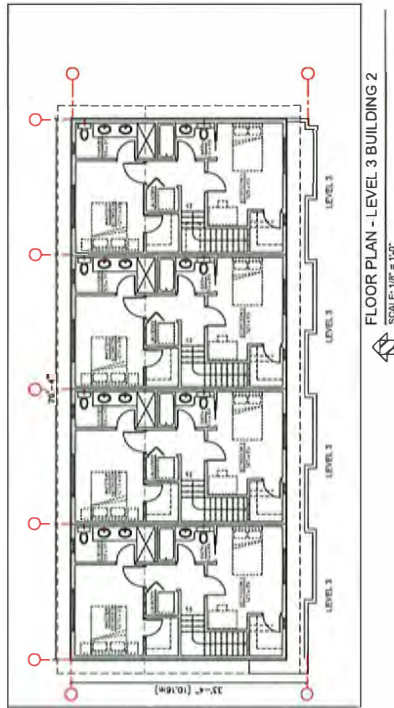
## A5.1

**CNCL - 432**







[illegible]







**RZ 16-733904**

**Attachment 3**

Address: 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway

Applicant: Interface Architecture Inc.

Planning Area(s): Steveston (Schedule 2.4)

	Existing	Proposed
<b>Owner:</b>	1104773 BC Ltd. & Enrich Properties Steveston Ltd.	No Change
<b>Site Size (m<sup>2</sup>):</b>	5,858.6 m <sup>2</sup>	5,756.7 m <sup>2</sup>
<b>Land Uses:</b>	Single-Family Residential	Multiple-Family Residential
<b>OCP Designation:</b>	Low-Density Residential	No Change
<b>Area Plan Designation:</b>	Multiple-Family	No Change
<b>702 Policy Designation:</b>	N/A	No Change
<b>Zoning:</b>	Single Detached (RS1/B) and Single Detached (RS1/E)	Medium Density Townhouses (RTM2)
<b>Number of Units:</b>	7	28
<b>Other Designations:</b>	N/A	No Change

On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.65	0.65 Max.	none permitted
Lot Coverage – Building:	Max. 40%	40% Max.	none
Lot Coverage – Non-porous Surfaces:	Max. 65%	65% Max.	none
Lot Coverage – Landscaping:	Min. 25%	25% Min.	none
Setback – Front Yard (m):	Min. 6.0 m	4.5 m Min. @ Buildings 1 & 2 5.6 m Min. @ Buildings 9 & 10	<b>Variance Requested</b>
Setback – East Side Yard (m):	Min. 3.0 m	3.0 m Min.	none
Setback – West Side Yard (m):	Min. 3.0 m	3.0 m Min.	none
Setback – Rear Yard (north) (m):	Min. 3.0 m	6.0 m Min.	none
Height (m):	Max. 12.0 m (3 storeys)	12.0 m (3 storeys) Max.	none
Lot Width:	Min. 50.0 m	129.06 m	none
Lot Depth:	Min. 35.0 m	44.76 m	none

On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Off-street Parking Spaces – Regular (R) / Visitor (V):	2 (R) and 0.2 (V) per unit + 1 (R) per secondary suite	2 (R) and 0.21 (V) + 1 (R) per secondary suite	none
Off-street Parking Spaces – Total:	58 (R) and 6 (V)	58 (R) and 6 (V)	none
Tandem Parking Spaces:	Max. 50% of proposed residential spaces in enclosed garages (56 x Max. 50% = 28)	0	none
Small Car Parking Spaces	Max. 50% when 31 or more spaces are provided on-site (64 x Max. 50% = 32)	16	none
Handicap Parking Spaces:	Min. 2% when 11 or more spaces are required (64 x 2% = 2 spaces)	2	none
Bicycle Parking Spaces – Class 1 / Class 2:	1.25 (Class 1) and 0.2 (Class 2) per unit	1.25 (Class 1) and 0.21 (Class 2) per unit	none
Off-street Parking Spaces – Total:	35 (Class 1) and 6 (Class 2)	35 (Class 1) and 6 (Class 2)	none
Amenity Space – Indoor:	Min. 70 m <sup>2</sup> or Cash-in-lieu	Cash-in-lieu	none
Amenity Space – Outdoor:	Min. 6 m <sup>2</sup> x 28 units = 168 m <sup>2</sup>	168 m <sup>2</sup>	none

Other: Tree replacement compensation required for removal of bylaw-sized trees.

## Enrich Properties Steveston Consultation Summary

Over the period of October 10 – 19, our consultation team from Enrich Properties Steveston Ltd consisting of primarily Ken Tsang and William Yang has been reaching out to the neighbouring properties of our development project to introduce our company, issue out the information flyer (attached for your reference), and to address any issues or feedback they may have via door to door visits. These neighbouring properties included all the units in the 10795 No 2. Road townhouse, 10575-10613 Yarmish Dr. single residential homes, and 5611/5613 Steveston Hwy.

Our first day of contact was on October 10 starting from 6:00pm and ending at 8:30pm. On this initial visit, Ken was able to contact Unit # 1, 2, 4, 5, 8 at 10795 No.2 Rd, 5611/5613 Steveston Hwy, and 10575, 10577, 10579, 10591, 10597, 10599, 10613 Yarmish Rd. This visit involved the discussion of the information flyer and spending time with each individual homeowner to address the rezoning and development of a 28-unit townhouse project on lots 5631 – 5751 Steveston Highway. During this consultation, we focused on the discussion of the rezoning and development of a 28-unit townhouse project on lots 5631-5751 Steveston Highway which included our estimated construction start date of late 2019, the construction of new privacy fences separating our townhouse from their property, the flow of traffic entering from the site entry located on the current 5691 Steveston Highway, the retention and removal of trees, and the number of storeys of each unit.

With each individual consultation, residences were given the opportunity to share any of their thoughts, concerns or feedback. Majority of residences had no concerns. Of those that did express concern, 10575 Yarmish Dr. was concerned with security and privacy and requested for higher fencing and trees. 10577 Yarmish Dr. requested for replacement of rear fencing and tree trimming. Unit #5 10795 No.2 Rd, the owner expressed no concerns and acknowledged the development but did not wish to sign at the moment. Unit #4 10795 No.2 Rd, were tenants and has forwarded Enrich Properties Steveston and the information provided during our visit to the homeowners. 10613 Yarmish Rd, was provided with the information flyer and will reply at a later date. All feedback sheets of our consultation have been signed and approved by the homeowners (attached for reference).

The second visit on October 16 between 6:00 pm to 6:30pm, we revisited the homeowners we were able to come in contact with to provide them with a copy of the information flyer and the contact information for both Enrich Properties Steveston and Edwin Lee at the City of Richmond. On this same visit, we continued to reach out to those we have missed on the first day and were able to contact 10611 Yarmish Dr. whom expressed concerns of security, privacy fencing provided, trees to be retained/removed, and overall more information.

## **Enrich Properties Steveston Consultation Summary**

The third visit on October 18 from 7:00 pm to 7:30pm, we continued to visit the neighbors we were unable to contact. On this visit, we were able to reach Unit #6 10795 No.2 Road who was not aware of the development, did not express interest in knowing more nor signoff on the flyer.

To conclude, during our three consultation visits to the neighboring properties, we were able to reach out to the majority of the neighbors and were successful in providing information in regards to the rezoning and development of our 5631-5751 Steveston Highway project. Of those that expressed concerns, security and fencing were the most stated. We were unable to reach out to Unit# 3, 7, 9 10795 No.2 Road and 10593, 10595 Yarmish Drive.



# Neighbour Feedback Sheet

Address	Unit	Note	Feedback	Status
10795 No. 2 Rd	1	Able to contact owner	No comments	Flyer attached
	2	Able to contact owner	No comments	Flyer attached
	3	Unable to contact owner		Three attempts 10/Oct 16/Oct 18 Oct
	4	Able to contact tenant	Renting Only	No Flyer
	5	Able to contact owner	Acknowledge the construction but not willing to sign	No Flyer
	6	Able to contact owner	Does not know anything about the construction and not willing to sign	Flyer attached
	7	Unable to contact owner		Three attempts 10/Oct 16/Oct 18 Oct
	8	Able to contact owner	No comments	Flyer attached
	9	Unable to contact owner		Three attempts 10/Oct 16/Oct 18 Oct
5611 Steveston Hwy		Able to contact owner	Cut the trees	Flyer attached
5613 Steveston Hwy		Able to contact owner	No comments	Flyer attached
10575 Yarmish Rd		Able to contact owner	Higher Fencing for better security, more trees for privacy	Flyer attached
10577 Yarmish Rd		Able to contact owner	Replacement of rear fencing/Tree trimming	Flyer attached
10579 Yarmish Rd		Able to contact owner	No comments	Flyer attached
10591 Yarmish Rd		Able to contact owner	No comments	Flyer attached
10593 Yarmish Rd		Unable to contact owner		Three attempts 10/Oct 16/Oct 18 Oct
10595 Yarmish Rd		Unable to contact owner		Three attempts 10/Oct 16/Oct 18 Oct
10597 Yarmish Rd		Able to contact owner	No comments	Flyer attached
10599 Yarmish Rd		Able to contact owner	No comments	Flyer attached
10611 Yarmish Rd		Able to contact owner	Security/Need for info/Fence height/Trees, did not sign	Flyer attached
10613 Yarmish Rd		Able to contact owner	Owner will replay later	No Flyer

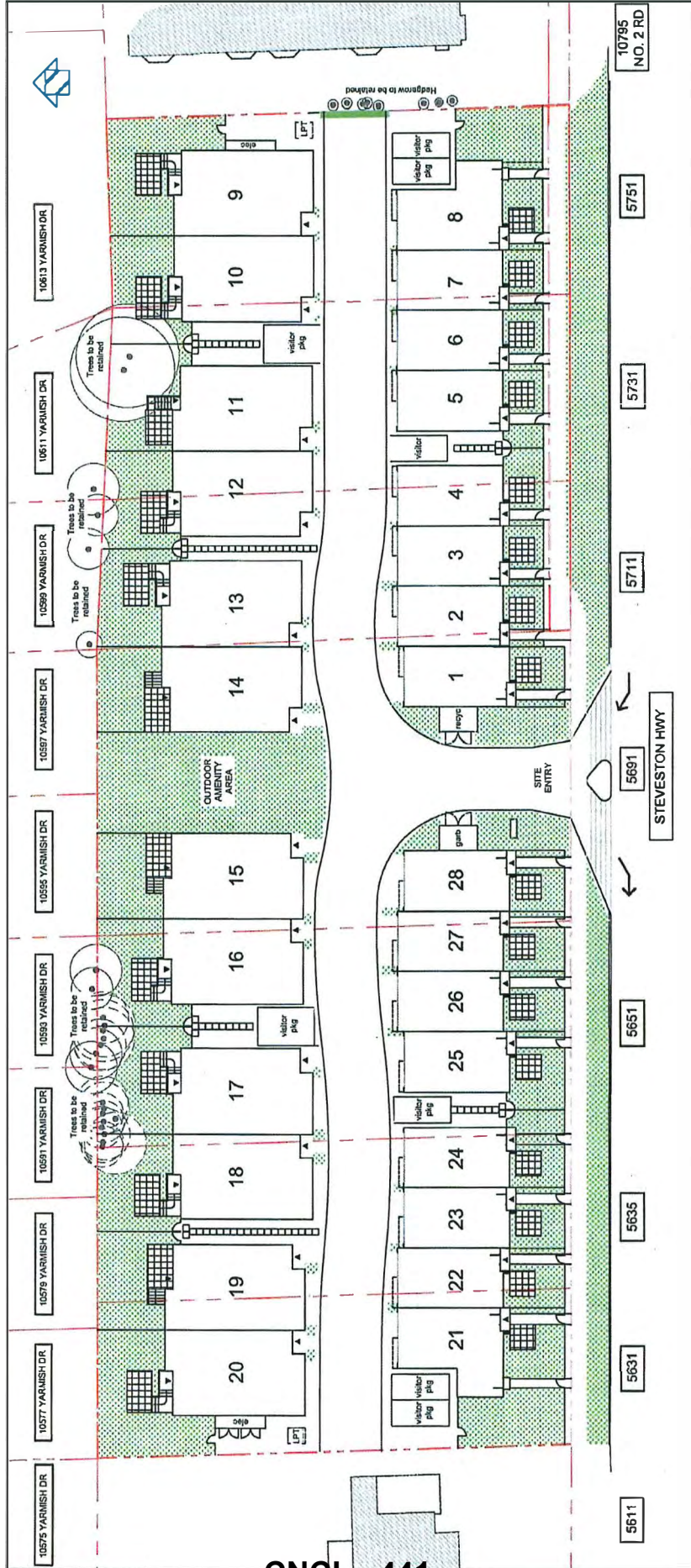
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
Architect: Interface Architecture  
Landscape: PMG Landscape Architects

No. of Units: 28 units  
Floor Area Ratio: 0.65 FAR  
Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
Parking Spaces: Complies with OCP  
Variances: None requested



CNCL - 441

Comments: \_\_\_\_\_

Neighbour Address: 1-10298 No 2 Road

Name: Stevenson, N/A (print)

Signature: [Signature] Date: OCT 10, 2018

☒ Owner Resident or ☐ Rental Resident

☒ I Have No Issues With The Proposal

☐ I Have Concerns With The Proposal



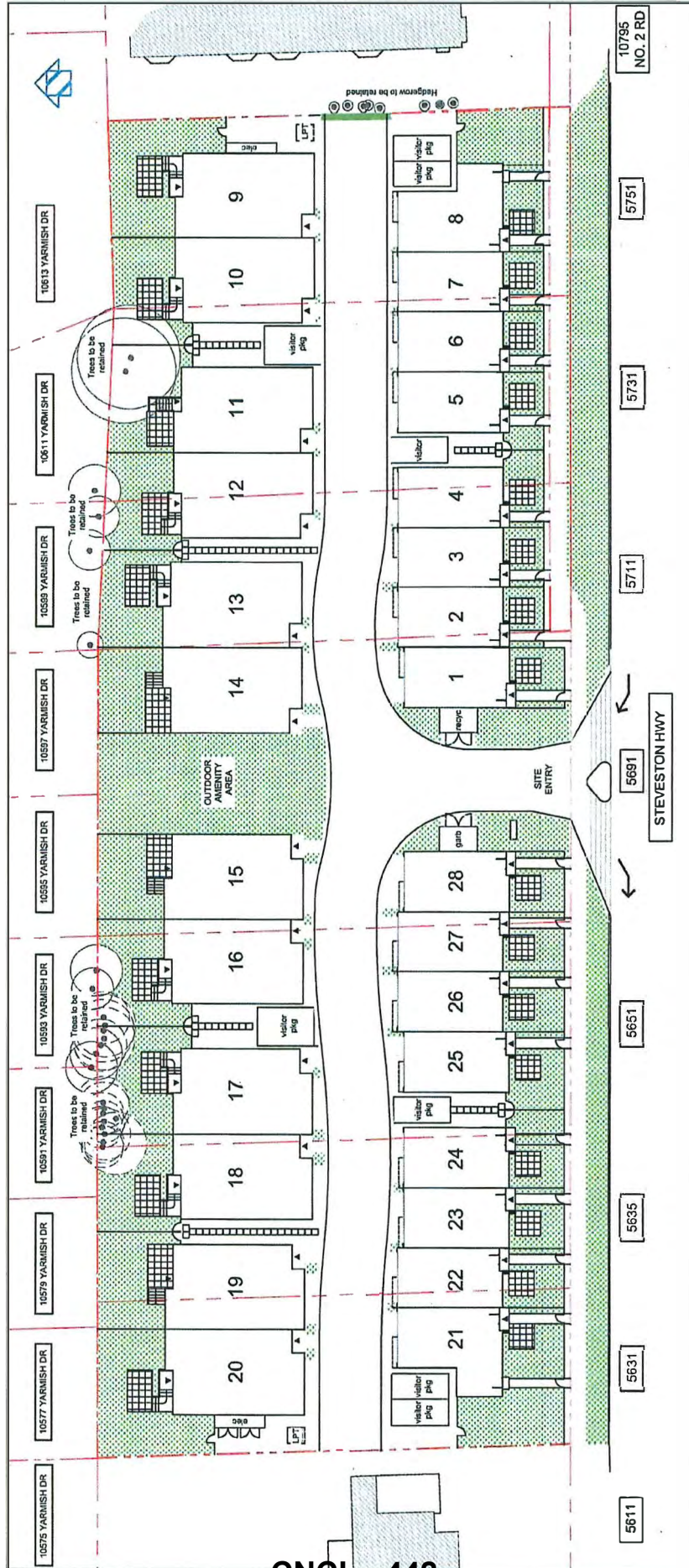
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
 Architect: Interface Architecture  
 Landscape: PMG Landscape Architects

No. of Units: 28 units  
 Floor Area Ratio: 0.65 FAR  
 Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
 Parking Spaces: Complies with OCP  
 Variances: None requested



CNCL - 442

Neighbour Address: #2-10795 No. 2 Rd Comments: \_\_\_\_\_

Name: Ying Biu (print)

Signature: Biu

☒ Owner Resident or ☐ Rental Resident

☒ I Have No Issues With The Proposal

☐ I Have Concerns With The Proposal

Date: OCT 10, 2018



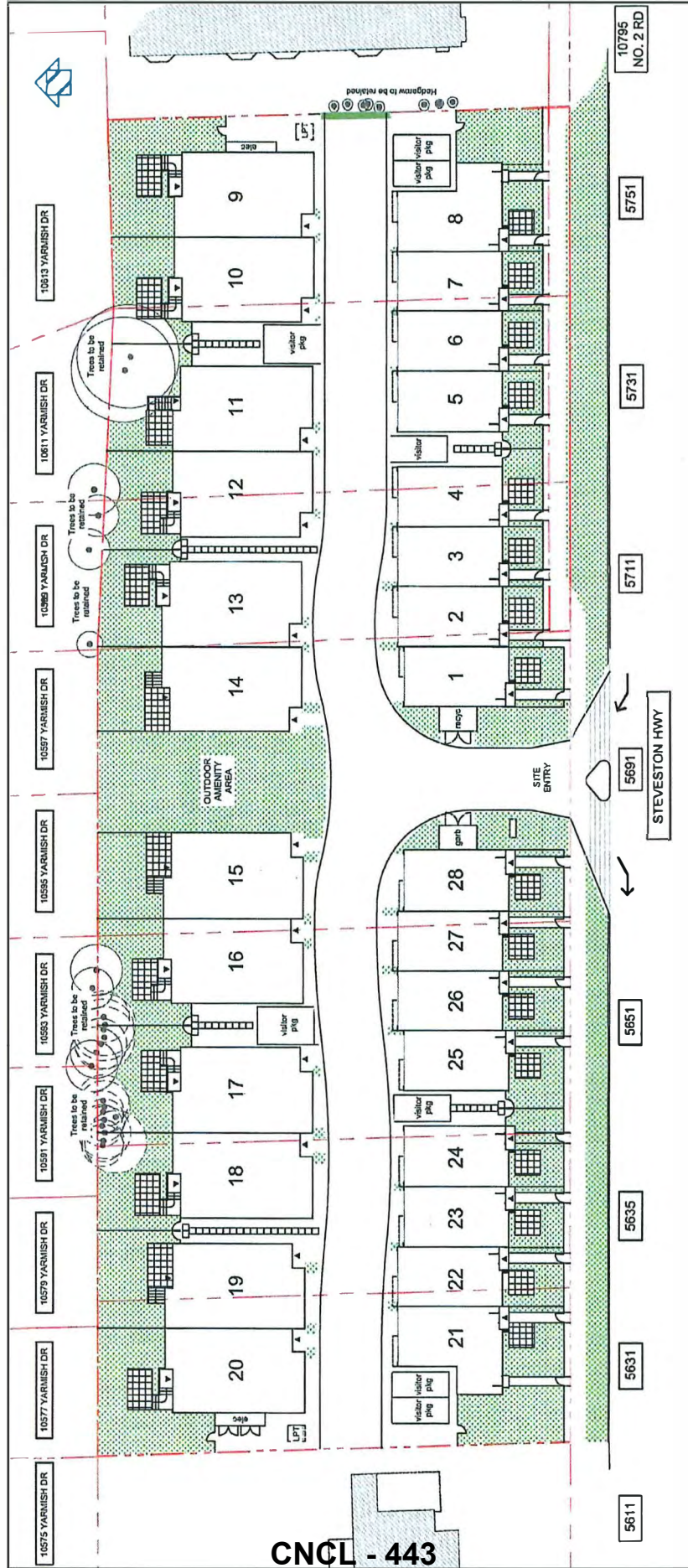
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
Architect: Interface Architecture  
Landscape: PMG Landscape Architects

No. of Units: 28 units  
Floor Area Ratio: 0.65 FAR  
Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
Parking Spaces: Complies with OCP  
Variances: None requested



Neighbour Address: 6

Name: Wilson (print)

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Comments: Do not know anything about the project

☒ Owner Resident or ☐ Rental Resident

☐ I Have No Issues With The Proposal

☐ I Have Concerns With The Proposal



5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent:	Enrich Properties Steveston	No. of Units:	28 units	Building Setbacks:	Complies with OCP
Architected:	Interface Architecture	Floor Area Ratio:	0.65 FAR	Parking Spaces:	Complies with OCP
Landscape:	PMG Landscape Architects	Building Height	2 & 3 Storeys	Variances:	None requested



☒ Owner Resident or ☐ Rental Resident ☒ I Have No Issues With The Proposal ☐ I Have Concerns With The Proposal



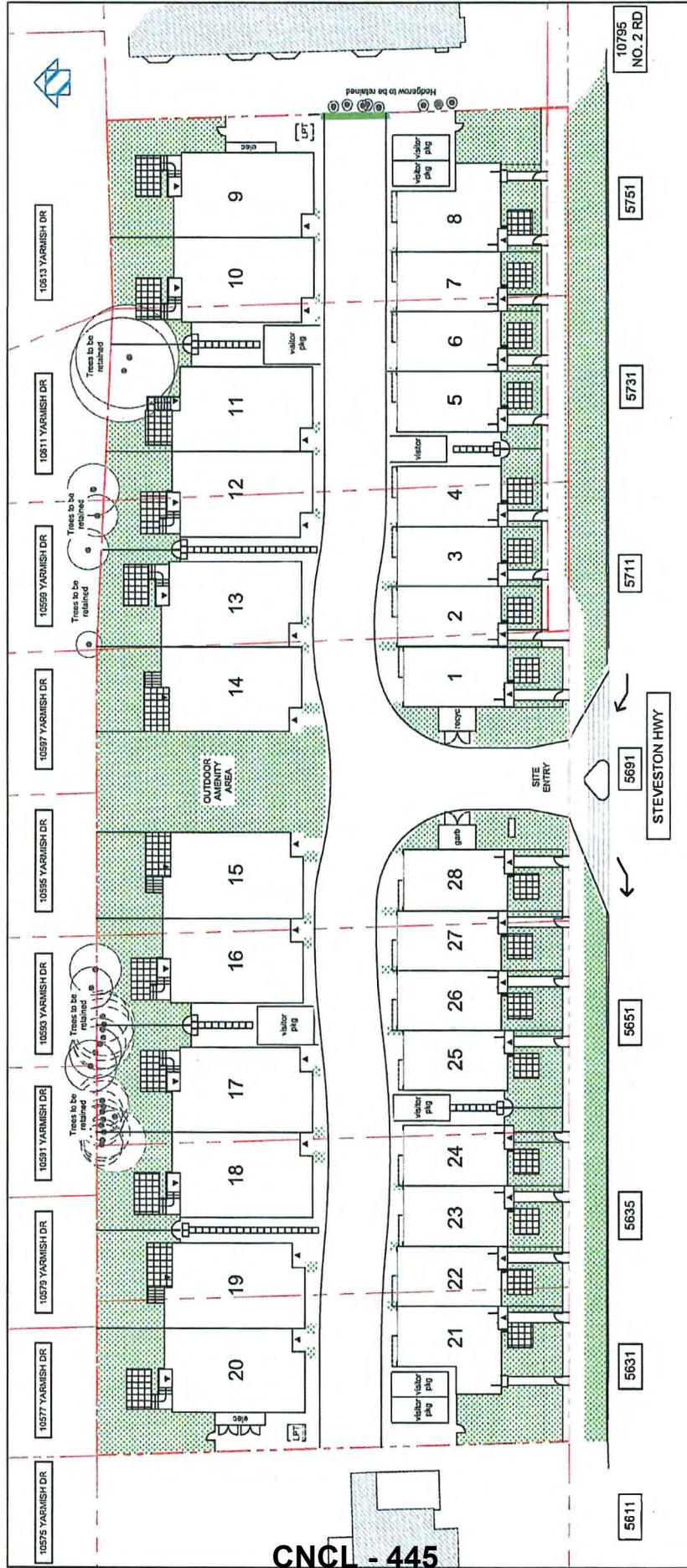
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
 Architect: Interface Architecture  
 Landscape: PMG Landscape Architects

No. of Units: 28 units  
 Floor Area Ratio: 0.65 FAR  
 Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
 Parking Spaces: Complies with OCP  
 Variances: None requested



Comments: Cut the trees

Neighbour Address: 5611 Steveston Hwy

Name: ALBERT OH (print)

Signature: [Signature]

☒ Owner Resident or ☐ Rental Resident

☒ I Have No Issues With The Proposal ☐ I Have Concerns With The Proposal

Date: OCT 10, 2018



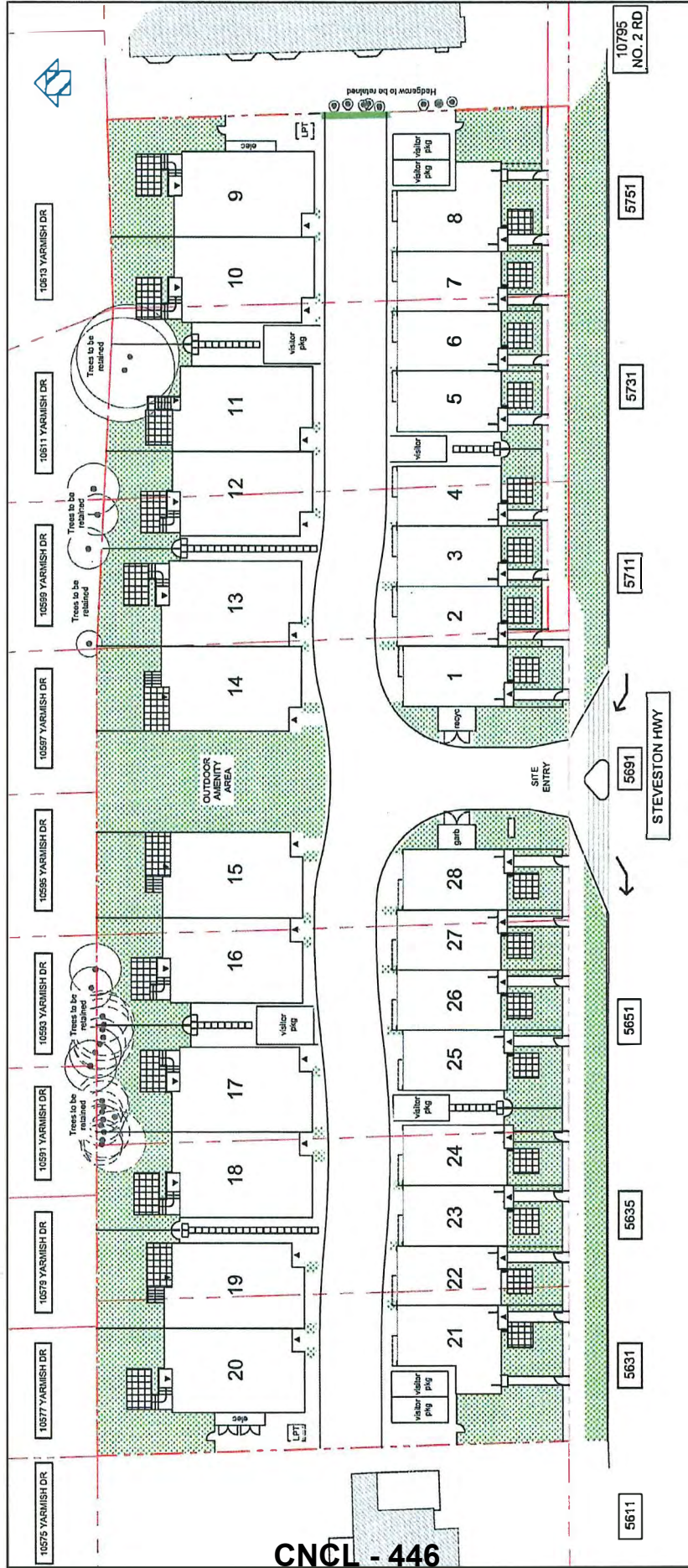
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
 Architect: Interface Architecture  
 Landscape: PMG Landscape Architects

No. of Units: 28 units  
 Floor Area Ratio: 0.65 FAR  
 Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
 Parking Spaces: Complies with OCP  
 Variances: None requested



Neighbour Address: 7015 Steveston

Name: Michael Yu (print)

Signature: [Signature]

☒ Owner Resident or ☐ Rental Resident

Comments:

Date: OCT 10, 2018

☒ I Have No Issues With The Proposal ☐ I Have Concerns With The Proposal



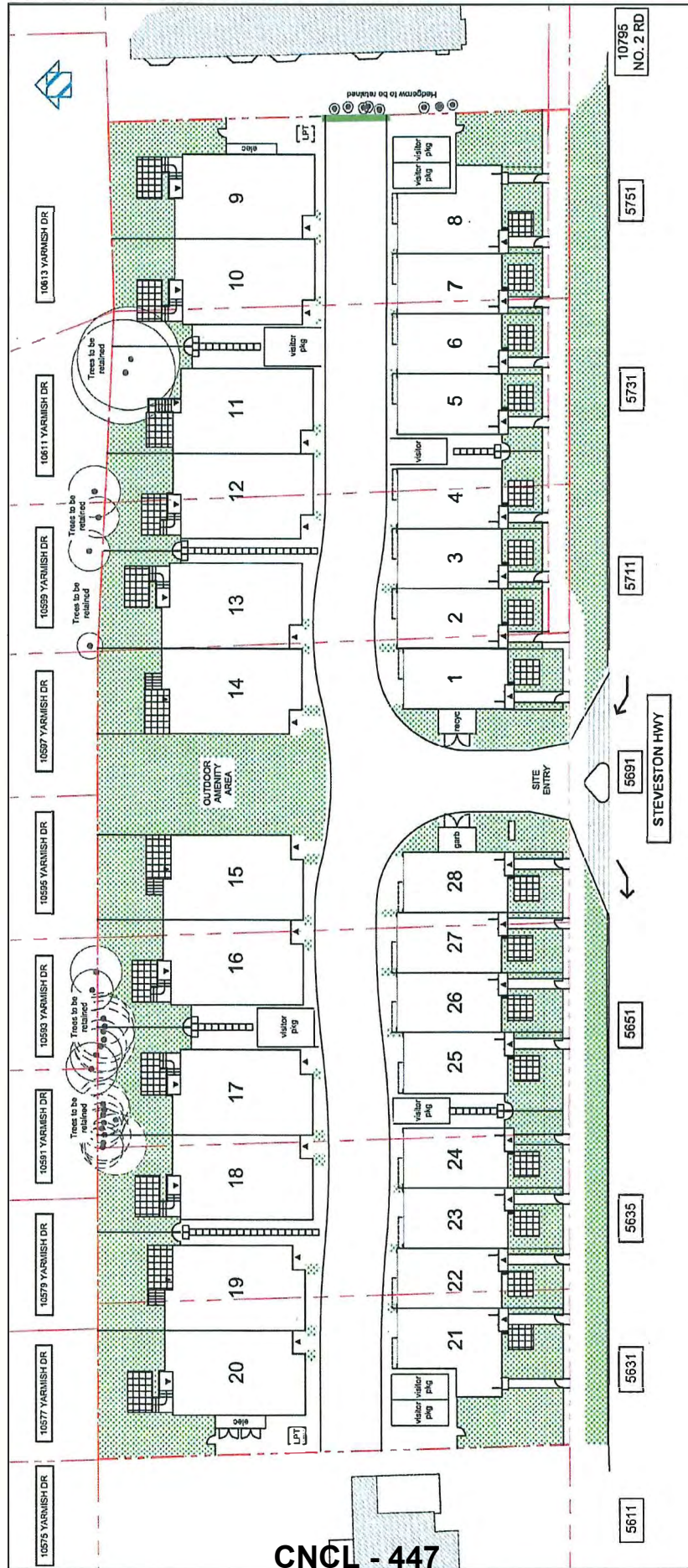
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5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
Architect: Interface Architecture  
Landscape: PMG Landscape Architects

No. of Units: 28 units  
Floor Area Ratio: 0.65 FAR  
Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
Parking Spaces: Complies with OCP  
Variances: None requested



Neighbour Address: 10575 Yarmish Dr.

Comments: Higher fencing for better security, More trees for privacy.

Name: Marc Magan (print)

Signature: Marc Magan

Date: OCT 10, 2018

☒ Owner Resident or ☐ Rental Resident

☐ I Have No Issues With The Proposal

☒ I Have Concerns With The Proposal



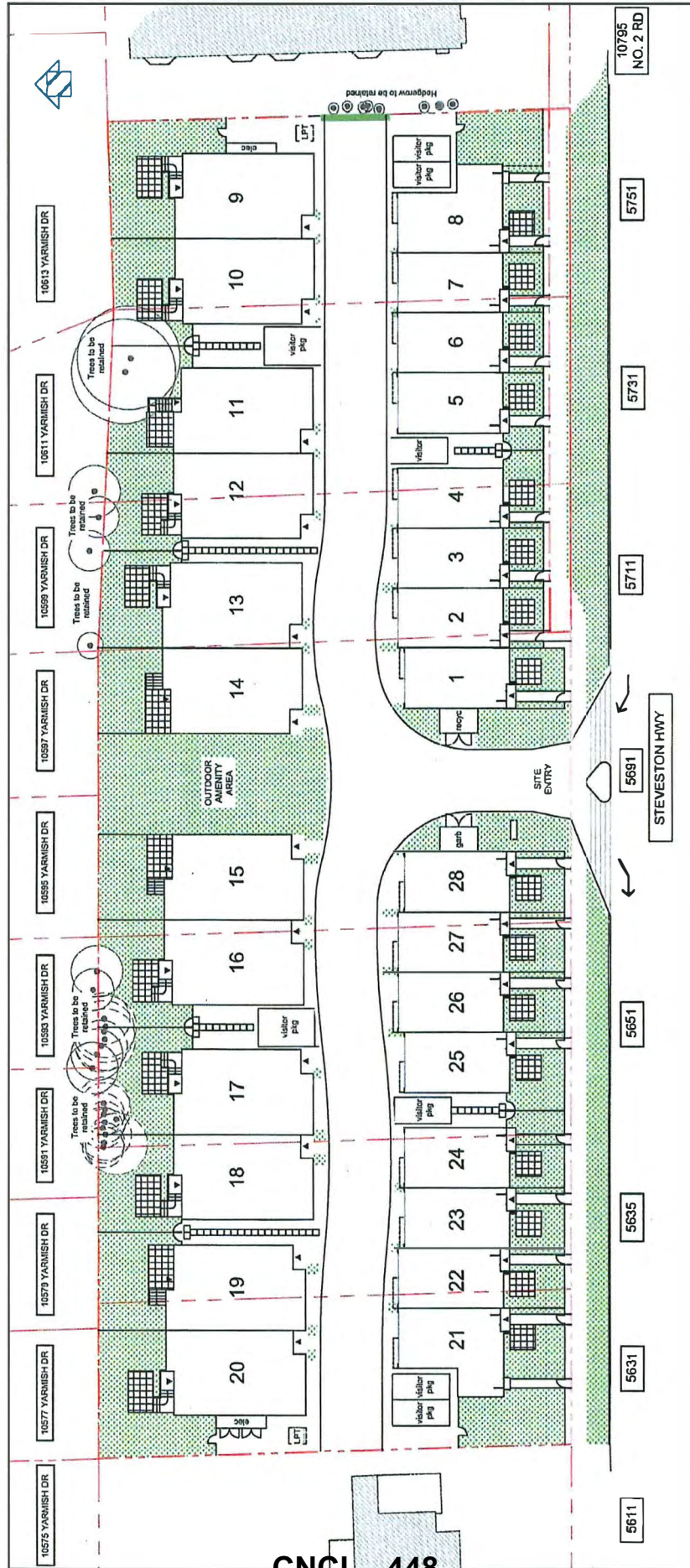
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
Architect: Interface Architecture  
Landscape: PMG Landscape Architects

No. of Units: 28 units  
Floor Area Ratio: 0.65 FAR  
Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
Parking Spaces: Complies with OCP  
Variances: None requested



Comments: Replacement of existing / tree trimming

Neighbour Address: 10577

Name: Shirley Elksley (print)

Signature: \_\_\_\_\_

Date: OCT 10, 2010

☒ Owner Resident or ☐ Rental Resident

☒ I Have No Issues With The Proposal ☐ I Have Concerns With The Proposal



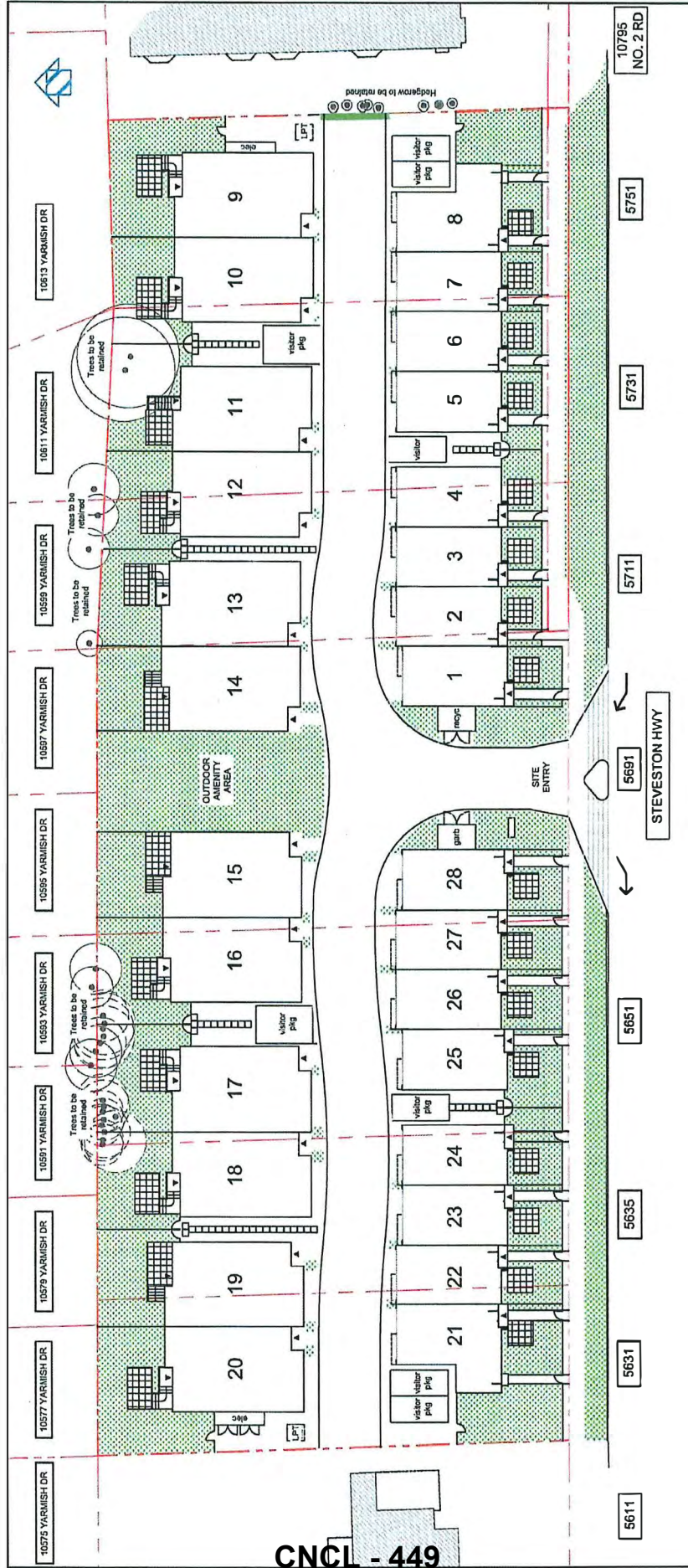
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
Architect: Interface Architecture  
Landscape: PMG Landscape Architects

No. of Units: 28 units  
Floor Area Ratio: 0.65 FAR  
Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
Parking Spaces: Complies with OCP  
Variances: None requested



CNCL - 449

Neighbour Address: 10579

Name: ALISA KWONG (print)

Signature: [Signature]

☒ Owner Resident or ☐ Rental Resident

Comments:

Date: OCT 10, 2018

☒ I Have No Issues With The Proposal ☐ I Have Concerns With The Proposal



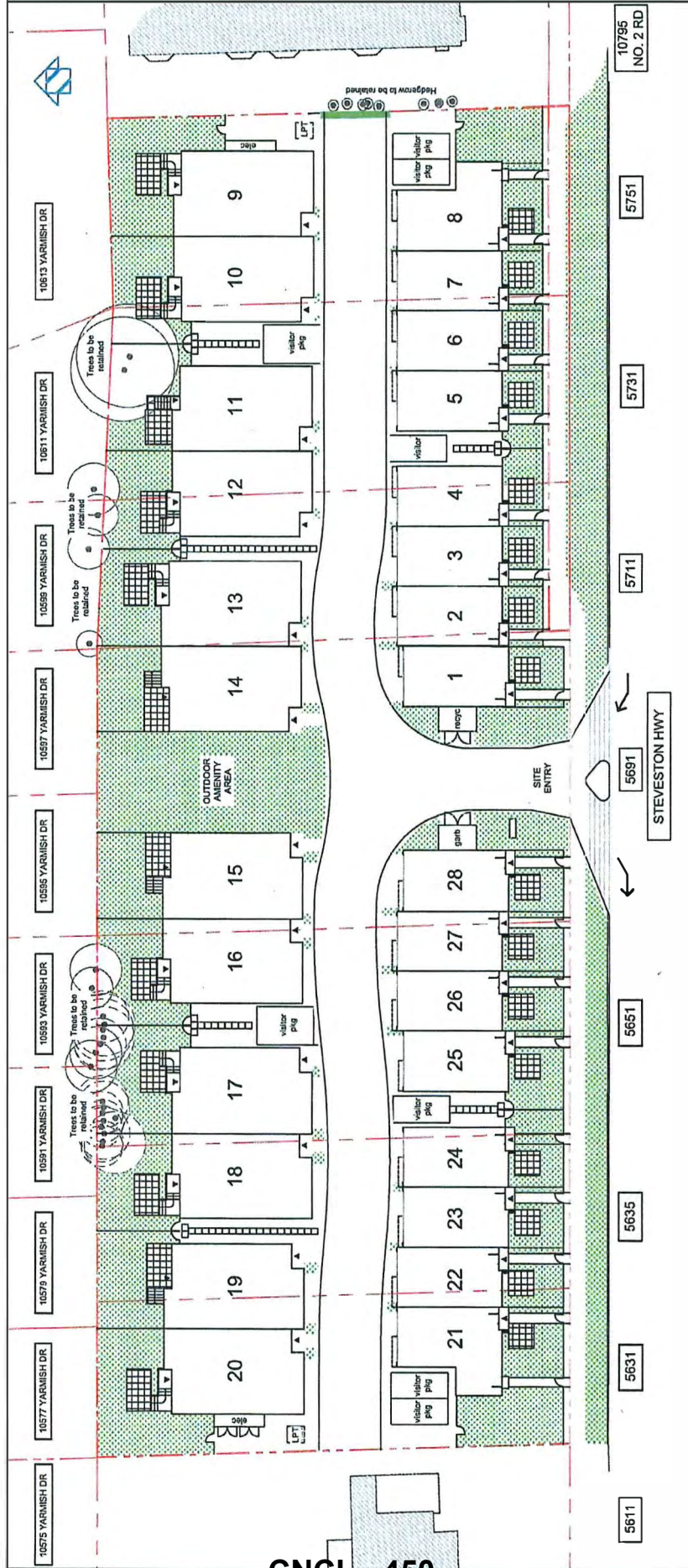
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
 Architect: Interface Architecture  
 Landscape: PMG Landscape Architects

No. of Units: 28 units  
 Floor Area Ratio: 0.65 FAR  
 Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
 Parking Spaces: Complies with OCP  
 Variances: None requested



CNCL - 450

Neighbour Address: 10591 Yarmish Dr.

Name: Edith Chan (print)

Signature: [Signature]

☒ Owner Resident or ☐ Rental Resident

Comments: \_\_\_\_\_

Date: OCT 10 2018

☒ I Have No Issues With The Proposal ☐ I Have Concerns With The Proposal



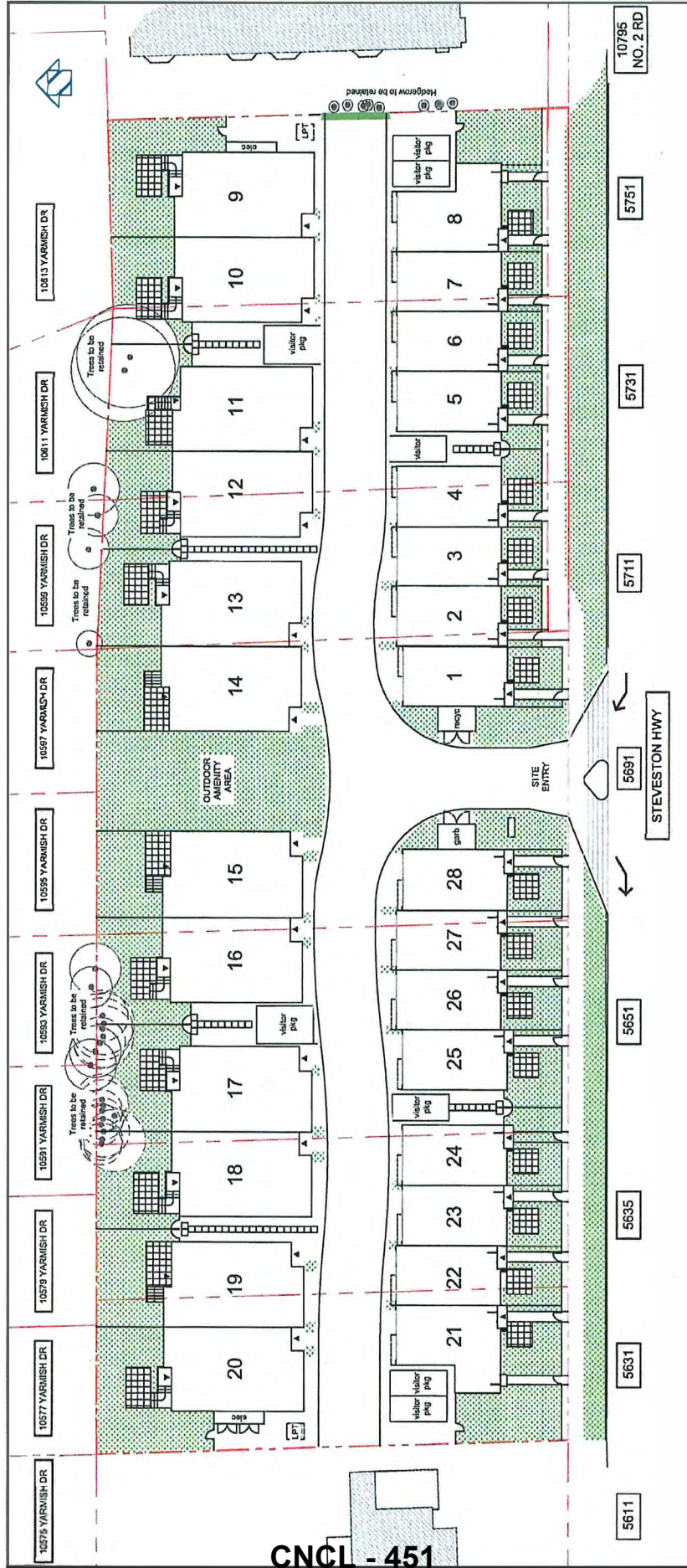
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
Architect: Interface Architecture  
Landscape: PMG Landscape Architects

No. of Units: 28 units  
Floor Area Ratio: 0.65 FAR  
Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
Parking Spaces: Complies with OCP  
Variances: None requested



CNCL - 451

Neighbour Address: 10597 Yarmish

Name: Michael Ford (print)

Signature: [Signature]

☒ Owner Resident or ☐ Rental Resident

Comments: None

Date: OCT 10, 2018

☒ I Have No Issues With The Proposal ☐ I Have Concerns With The Proposal



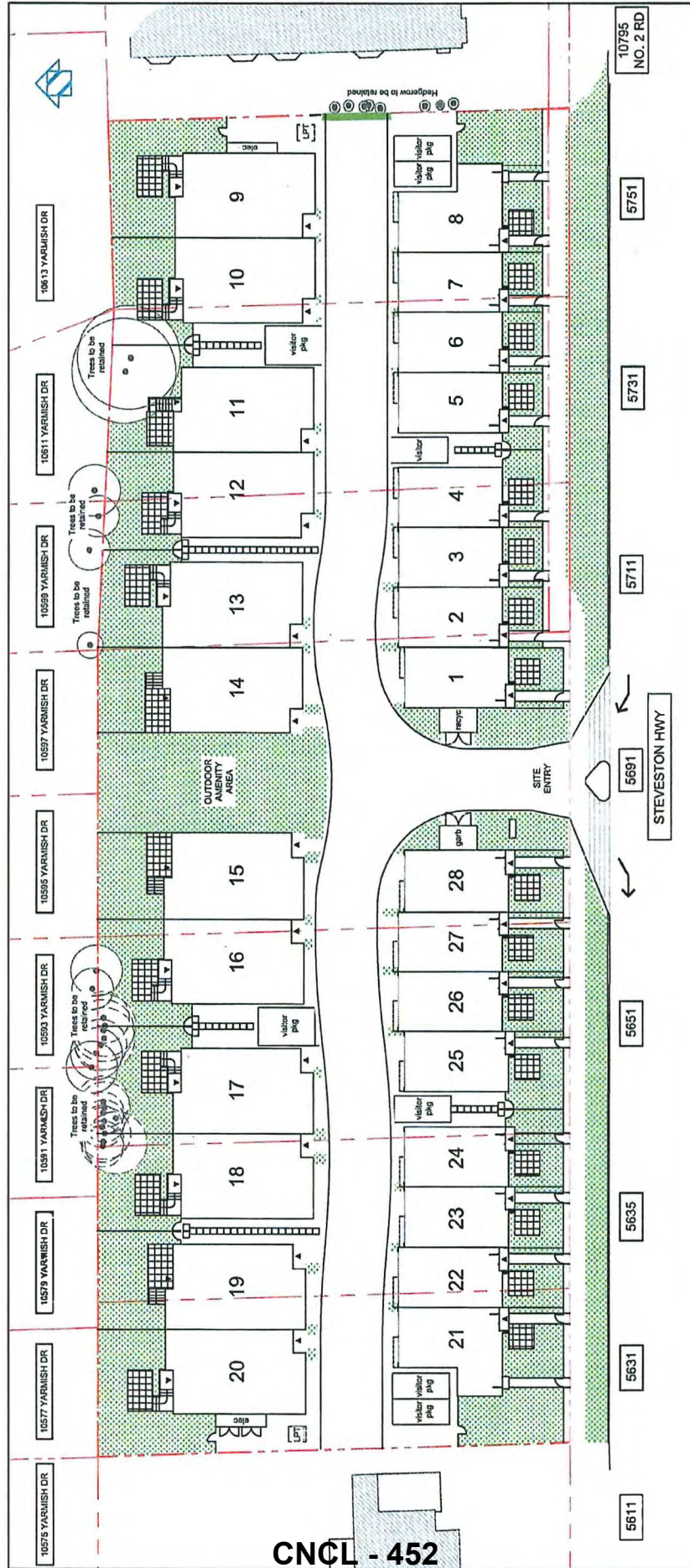
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
 Architect: Interface Architecture  
 Landscape: PMG Landscape Architects

No. of Units: 28 units  
 Floor Area Ratio: 0.65 FAR  
 Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
 Parking Spaces: Complies with OCP  
 Variances: None requested



CNCL - 452

Neighbour Address: 10599 YARMISH DR Comments: \_\_\_\_\_

Name: WYKLE WONG (print)

Signature: \_\_\_\_\_

Date: OCT 10, 2018

☒ Owner Resident or ☐ Rental Resident

☒ I Have No Issues With The Proposal

☐ I Have Concerns With The Proposal



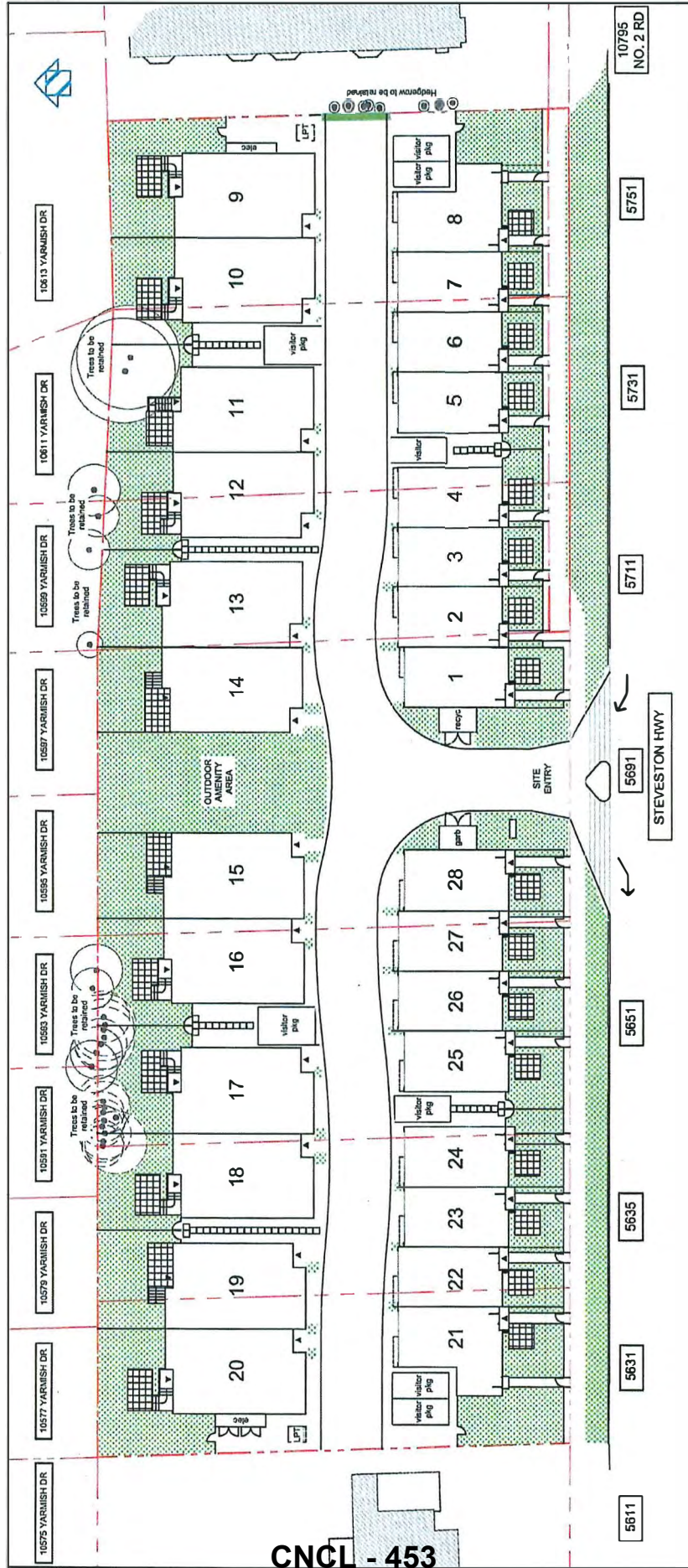
# Townhouse Proposal

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 Steveston Hwy

Proponent: Enrich Properties Steveston  
Architect: Interface Architecture  
Landscape: PMG Landscape Architects

No. of Units: 28 units  
Floor Area Ratio: 0.65 FAR  
Building Height: 2 & 3 Storeys

Building Setbacks: Complies with OCP  
Parking Spaces: Complies with OCP  
Variances: None requested



CNCL - 453

Neighbour Address: 10611.

Name: DONNA SARGENT (print)

Signature: \_\_\_\_\_

☒ Owner Resident or ☐ Rental Resident

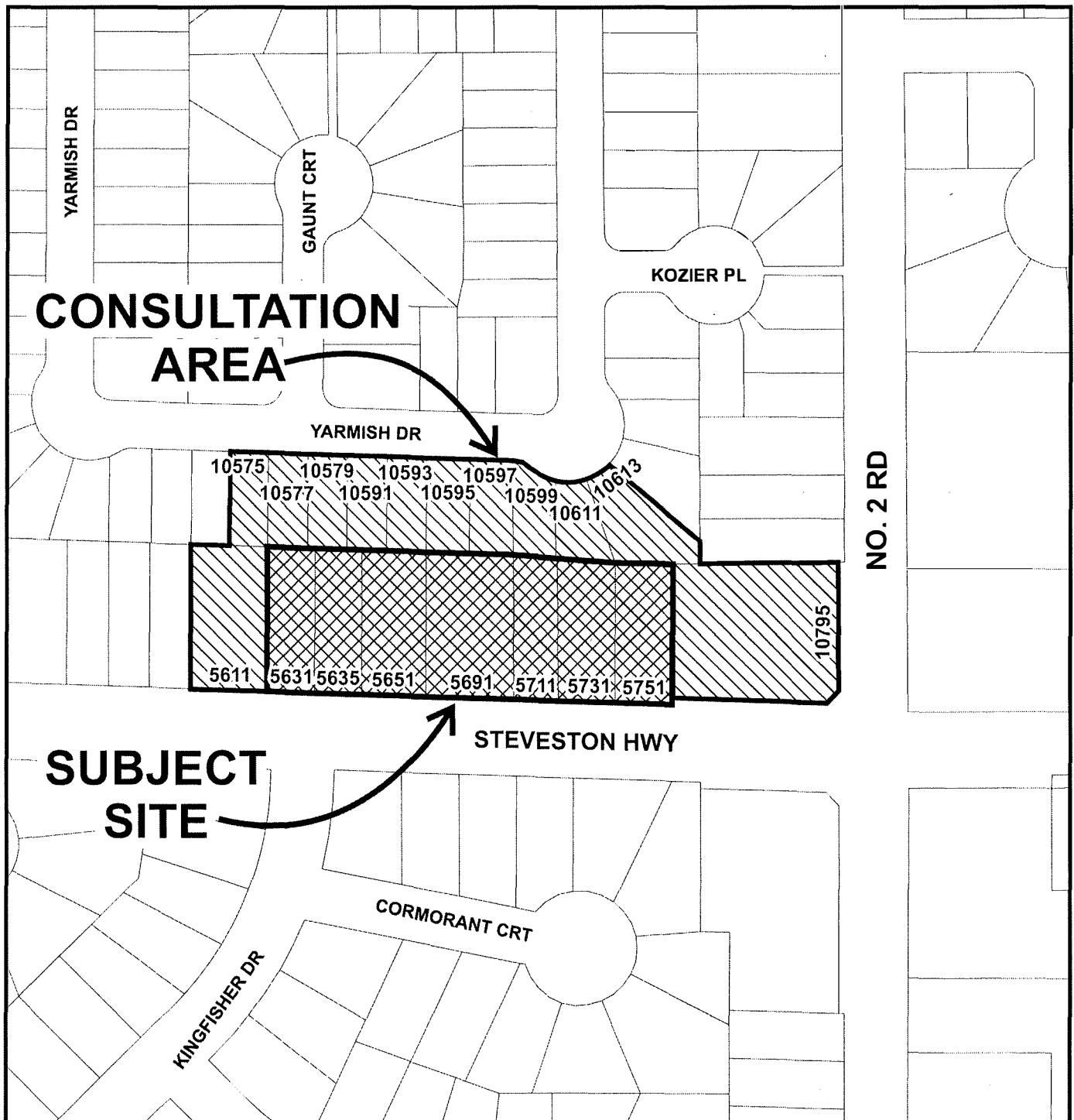
Comments: Security / more info. / Fence height  
Trees.

Date: Oct 16

☐ I Have No Issues With The Proposal ☒ I Have Concerns With The Proposal



City of  
Richmond



Consultation Area  
RZ 16-733904

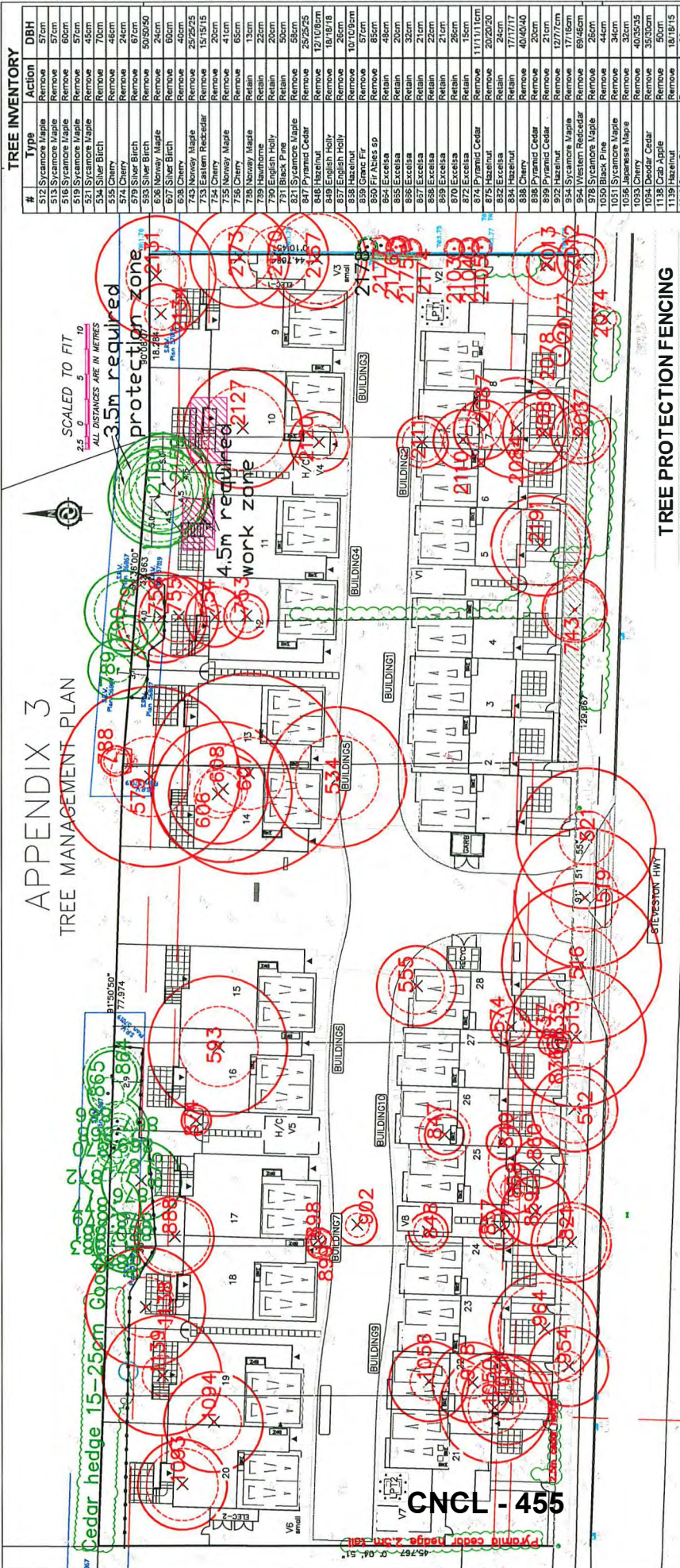
GNCL - 454

Original Date: 12/17/18

Revision Date:

Note: Dimensions are in METRES









# City of Richmond

## Rezoning Considerations

Development Applications Department  
6911 No. 3 Road, Richmond, BC V6Y 2C1

**Address:** 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway **File No.:** RZ 16-733904

**Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9982, the developer is required to complete the following:**

1. Consolidation of all the lots into one development parcel (which will require the demolition of all existing dwellings).  
Note: All references to the terminated Land Use Contract should be discharged prior to consolidation.
2. 2.0 m wide road dedication along the Steveston Highway frontages of 5711, 5731 and 5751 Steveston Highway for future road widening. Further road dedications may be required if the existing width between the property line and the north curb of Steveston Highway along the site frontage is not sufficient to support the frontage improvements noted below. The exact road dedication is to be determined based on legal surveys and the road functional plan.
3. Registration of a flood indemnity covenant on Title.
4. Registration of a legal agreement on Title or other measures, as determined to the satisfaction of the Director of Development, to ensure that:
  - a) no final Building Permit inspection is granted until two secondary suites are constructed on site, to the satisfaction of the City in accordance with the BC Building Code and the City's Zoning Bylaw;
  - b) one surface parking stall is assigned to each of the units with a secondary suite, and that the parking stall will be for the sole use of the secondary suite of the unit; and
  - c) the secondary suites cannot be stratified or otherwise held under separate title.
5. Registration of a statutory right-of-way (SRW), and/or other legal agreements or measures; as determined to the satisfaction of the Director of Development, over the entire area of the proposed entry driveway from Steveston Highway and the internal east-west manoeuvring aisle, in favour of future residential development to the east and west. Language should be included in the SRW document that the City will not be responsible for maintenance or liability within the SRW and that utility SRW under the drive aisle is not required.
6. Registration of a legal agreement on Title, identifying that the proposed development must be designed and constructed to meet or exceed EnerGuide 82 criteria for energy efficiency and that all dwellings are pre-ducted for solar hot water heating. Language should be included in the legal agreement that if an acceptable Building Permit application for the proposed development is not submitted to the City by December 31, 2019, the proposed development would be subject to the Energy Step Code.
7. Registration of a legal agreement on Title identifying that the proposed development must be designed and constructed in a manner that mitigates traffic noise from Steveston Highway to the proposed dwelling units. Dwelling units must be designed and constructed to achieve:
  - a) CMHC guidelines for interior noise levels as indicated in the chart below:

Portions of Dwelling Units	Noise Levels (decibels)
Bedrooms	35 decibels
Living, dining, recreation rooms	40 decibels
Kitchen, bathrooms, hallways, and utility rooms	45 decibels

- b) The ASHRAE 55-2004 "Thermal Environmental Conditions for Human Occupancy" standard for interior living spaces.
8. Registration of a legal agreement on Title, identifying that the proposed development must be designed and constructed with at least four solar photovoltaic (PV) panels per unit to provide an alternative energy source.
9. Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any on-site works conducted within the tree protection zone of the trees to be retained on site and on adjacent properties. The Contract should include the scope of work to be undertaken, including: the proposed number of site monitoring inspections, and a provision for the Arborist to submit a post-construction assessment report to the City for review.

Initial: \_\_\_\_\_

10. City acceptance of the developer's offer to voluntarily contribute \$100,000.00 towards the future upgrade of the special crosswalk at Lassam Road/Steveston Highway to a full traffic signal. The traffic signal works shall include, but are not limited to: traffic signal heads, traffic poles and bases, vehicle detection, UPS (Uninterruptable Power Supply) system, controller cabinet/controller, illuminated street name signs and APS (Accessible Pedestrian signals).
11. City acceptance of the developer's offer to voluntarily contribute \$25,000.00 towards the purchase and installation of a City standard bus shelter. This bus shelter will be placed at the westbound bus stop on Steveston Highway far-side No. 2 Road or at an alternative bus stop in the vicinity.
12. City acceptance of the developer's offer to voluntarily contribute \$8.50 per buildable square foot (e.g. \$342,356.62) to the City's affordable housing fund.
13. City acceptance of the developer's offer to voluntarily contribute \$0.83 per buildable square foot (e.g. \$33,430.12) to the City's Public Art fund.
14. Contribution of \$37,000.00 in-lieu of on-site indoor amenity space.
15. City acceptance of the developer's offer to voluntarily contribute \$25,500.00 to the City's Tree Compensation Fund for the planting of 51 replacement trees within the City. If additional replacement trees (over and beyond the 53 replacement trees as proposed at the rezoning stage) could be accommodated on-site (as determined at Development Permit stage), the above cash-in-lieu contribution would be reduced in the rate of \$500 per additional replacement trees to be planted on-site.

Note: Should the applicant wish to begin site preparation work after third reading of the rezoning bylaw, but prior to final adoption of the rezoning bylaw and issuance of the Development Permit, the applicant will be required to obtain a Tree Permit and submit landscaping security (i.e. \$52,000.00 in total) to ensure the replacement planting will be provided.

16. City acceptance of the developer's offer to voluntarily contribute \$9,100.00 to Parks Division's Tree Compensation Fund for the removal of seven Sycamore Maple trees (tag# 512, 513, 516, 519, 521, 821 and 954) and a number of Cedar and Boxwood hedge rows located on the City's boulevard in front of the site.

Note: Developer/contractor must contact the Parks Division (604-244-1208 ext. 1342) four business days prior to the removal to allow proper signage to be posted. All costs of removal and compensation are the responsibility borne by the applicant.

17. The submission and processing of a Development Permit\* completed to a level deemed acceptable by the Director of Development.
18. Enter into a Servicing Agreement\* for the design and construction of frontage improvements. A Letter of Credit for the Service Agreement will be required prior to adoption of the rezoning bylaw. Works include, but may not be limited to,

Water Works:

- Using the OCP Model, there is 985 L/s of water available at a 20 psi residual at the Steveston Hwy frontage. Based on your proposed development, your site requires a minimum fire flow of 220 L/s.
- The Developer is required to:
  - Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm the development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage Building designs.
  - Obtain approval from Richmond Fire Rescue for all fire hydrant relocations and installations.
  - Provide a right-of-way for the water meter and meter chamber. Exact right-of-way dimensions to be finalized during the servicing agreement process.
- At the Developers cost, the City is to:
  - Install one new water service connection off of the existing 400mm AC watermain on Steveston Hwy. Meter to be placed on site.
  - Cut and cap at main, all existing water service connections to the development site and remove meters.
  - Install an additional fire hydrant along Steveston Highway to meet City spacing requirements for multifamily land use.

- Relocate the fire hydrant at the southwest corner of the development site as required by the proposed sidewalk alignment.

Storm Sewer Works:

- At Developer's cost, the City is to:
  - Install a new storm service connection off of the existing 750mm storm sewer along Steveston Hwy complete with inspection chamber.
  - Cut, cap and remove the existing service connection and inspection chambers STIC51033, STIC55027, and STIC61170 to the development site.
  - Cut and cap, at property line, the northwest lead at inspection chamber STIC50997 at the southeast corner of the development site. The inspection chamber and northeast lead are to be retained to serve 10795 No 2 Road.

Sanitary Sewer Works:

- The Developer is required to not start onsite building construction prior to completion of rear yard sanitary works.
- At Developer's cost, the City is to:
  - Install a new sanitary service connection off of the existing manhole SMH3899 at the common property line of 5851 and 5891 Steveston Highway.
  - Cut and cap all existing sanitary service leads to the development site and remove inspection chambers SIC15979, SIC2000, and SIC1985. The existing inspection chambers SIC11602 and SIC5139 shall be retained to serve the neighboring properties.

Frontage Beautification Works:

*Frontage improvements required for 5631/5635/5651/5691 Steveston Highway*

1. Construct a new 1.5 m wide concrete sidewalk at the property line along these Steveston Highway development frontages. The new sidewalk is to connect to the existing sidewalks east and west of the subject site. The new sidewalk may have to be designed to go around trees that have been identified for retention. Consult Parks on the design of the new sidewalk to ensure that tree root systems are not compromised and natural irrigation can be maintained.
2. Remove the existing sidewalk and backfill the remaining area between the curb and the new sidewalk to provide a minimum 1.5 m wide grass boulevard with street trees. The boulevard width is exclusive of the 0.15 m wide curb.

*Frontage improvements required for 5711/5731/5751 Steveston Highway*

3. Construct a new 1.5 m wide concrete sidewalk at the new property line along these Steveston Highway development frontages. The new sidewalk is to connect to the existing sidewalks east and west of the subject site. The new sidewalk may have to be designed to go around trees that have been identified for retention. Consult Parks on the design of the new sidewalk to ensure that tree root systems are not compromised and natural irrigation can be maintained.
4. Remove the existing sidewalk and construct a new grass/tree boulevard over the remaining width between the new sidewalk and the north curb of Steveston Highway. The first 2.0 m wide boulevard strip (for future road widening) measured from the curb is to be free of any tree planting. The boulevard width is exclusive of the 0.15 m wide curb.

*Frontage improvements required for entire Steveston Highway development frontage*

5. All existing driveways along the Steveston Highway development frontage are to be closed permanently. The Developer is responsible for the removal of the existing driveway let-downs and the replacement with barrier curb/gutter, boulevard and concrete sidewalk per standards described under Items 1/2 and 4/5 above.
6. The site access is restricted to right-in/right-out vehicle movements. A raised island with rollover curb is required to channelize and enforce the no left turn access restrictions. The right-in/right-out driveway design is to follow the following standards:
  - a) Driveway letdown (not curb return).

- b) The width of the driveway is to be 7.5 m wide at the PL. The driveway width can be tapered from the property line at 5:1 to a minimum drive aisle width of 6.0 m (driving surface excluding curb/gutter).
- c) Dimensions at the curb:
  - 0.9 m flares at the curb and 45° offsets to meet existing grade of sidewalk/boulevard.
  - 6.4 m wide channelization for both right-in and right-out vehicle movements.
  - 5.0 m wide concrete island.
- d) To increase the size of the island, use a passenger car as the design vehicle to define the right-in/right-out channelization.
- e) Use rollover curb around the edges of the island. Trucks are allowed to climb the rollover curb.  
(Note: The design of this driveway is to follow that contained in SA 06-347587).
- 7. Consult Parks on the requirements for tree protection/placement including tree species and spacing as part of the frontage works.
- 8. Consult Engineering on lighting and other utility requirements as part of the frontage works.

#### *Transit Amenities*

- 9. Construct a concrete bus pad (3.0 m x 9.0 m) with electrical pre-ducting conduits at the Steveston Highway/No. 2 Road westbound bus stop. The bus pad is to be constructed to meet accessible bus stop design standards. Confirm the location and dimensions of the bus stop pad with City Traffic Operations staff prior to construction.

#### Other Improvements

- Coordinate with BC Hydro, Telus and other private communication service providers
  - To underground Hydro service lines.
  - To relocate overhead lines and poles as required by the proposed sidewalk and boulevard. This may require a rights-of-ways onsite in favor of BC Hydro, Telus, and/or other private communication service providers.
  - When relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
  - To determine if above ground structures are required and coordinate their locations (e.g. Vista, PMT, LPT, Shaw cabinets, Telus Kiosks, etc.). These should be located onsite, as described below.
- Locate all above ground utility cabinets and kiosks required to service the proposed development within the developments site (see list below for examples). A functional plan showing conceptual locations for such infrastructure shall be included in the Rezoning staff report and the development process design review. Please coordinate with the respective private utility companies and the project's lighting and traffic signal consultants to confirm the right of ways dimensions and the locations for the aboveground structures. If a private utility company does not require an aboveground structure, that company shall confirm this via a letter to be submitted to the City. The following are examples of SRWs that shall be shown in the functional plan and registered prior to SA design approval:
  - BC Hydro PMT – 4mW X 5m (deep)
  - BC Hydro LPT – 3.5mW X 3.5m (deep)
  - Street light kiosk – 1.5mW X 1.5m (deep)
  - Traffic signal kiosk – 1mW X 1m (deep)
  - Traffic signal UPS – 2mW X 1.5m (deep)
  - Shaw cable kiosk – 1mW X 1m (deep) – show possible location in functional plan
  - Telus FDH cabinet - 1.1mW X 1m (deep) – show possible location in functional plan
- Review the street lighting levels along Steveston Highway frontage and upgrade to City standards, as required.
- Relocate streetlights as required by the proposed sidewalk alignment.

General Items:

- The Developer is required to:
  - Enter into, if required, additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering, including, but not limited to, site investigation, testing, monitoring, site preparation, dewatering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
  - Provide, within the first servicing agreement submission, a geotechnical assessment of preload and soil densification impacts on the existing utilities surrounding the development site and provide mitigation recommendations.

**Prior to a Development Permit\* being forwarded to the Development Permit Panel for consideration, the developer is required to:**

1. Complete a proposed townhouse energy efficiency report and recommendations prepared by a Certified Energy Advisor which demonstrates how the proposed construction will meet or exceed the required townhouse energy efficiency standards (EnerGuide 82 or better), in compliance with the City's Official Community Plan.
2. Complete an acoustical and thermal report and recommendations prepared by an appropriate registered professional, which demonstrates that the interior noise levels and noise mitigation standards comply with the City's Official Community Plan and Noise Bylaw requirements. The standard required for air conditioning systems and their alternatives (e.g. ground source heat pumps, heat exchangers and acoustic ducting) is the ASHRAE 55-2004 "Thermal Environmental Conditions for Human Occupancy" standard and subsequent updates as they may occur. Maximum interior noise levels (decibels) within the dwelling units must achieve CMHC standards follows:

Portions of Dwelling Units	Noise Levels (decibels)
Bedrooms	35 decibels
Living, dining, recreation rooms	40 decibels
Kitchen, bathrooms, hallways, and utility rooms	45 decibels

**Prior to a Development Permit\* issuance, the developer is required to complete the following:**

3. Submission of a Landscaping Security based on 100% of the cost estimate provided by the landscape architect.
4. Submission of a Tree Survival Security to the City as part of the Landscape Letter of Credit to ensure that all trees identified for retention will be protected. No Landscape Letter of Credit will be returned until the post-construction assessment report, confirming the protected trees survived the construction, prepared by the Arborist, is reviewed by staff.

**Prior to Building Permit Issuance, the developer must complete the following requirements:**

1. Installation of appropriate tree protection fencing around all trees and hedges to be retained as part of the development prior to any construction activities, including building demolition, occurring on-site.  
Should the applicant wish to begin site preparation work after third reading of the rezoning bylaw, but prior to final adoption of the rezoning bylaw and issuance of the Development Permit, the applicant will be required to obtain a Tree Permit and submit landscaping security (i.e. \$32,000 in total) to ensure the replacement planting will be provided.
2. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
3. Incorporation of energy efficiency, CPTED, sustainability, and accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
4. If applicable, payment of latecomer agreement charges, plus applicable interest associated with eligible latecomer works.

5. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

**Note:**

- \* This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contain prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

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Signed

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Date



**Richmond Zoning Bylaw 8500  
Amendment Bylaw 9982 (RZ 16-733904)  
5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. The Zoning Map of the City of Richmond, which accompanies and forms part of Richmond Zoning Bylaw 8500, is amended by repealing the existing zoning designation of the following area and by designating it **“MEDIUM DENSITY TOWNHOUSES (RTM2)”**.

P.I.D. 004-306-481

Lot 909 Section 36 Block 4 North Range 7 West New Westminster District Plan 56866

P.I.D. 004-866-029

Lot 910 Section 36 Block 4 North Range 7 West New Westminster District Plan 56866

P.I.D. 003-761-100

Lot 774 Section 36 Block 4 North Range 7 West New Westminster District Plan 56002

P.I.D. 012-346-004

Parcel A (Reference Plan 9132) Lot 38 Except: Part Subdivided by Plan 57874 Section 36 Block 4 North Range 7 West New Westminster District Plan 1748

P.I.D. 004-869-834

Lot 911 Section 36 Block 4 North Range 7 West New Westminster District Plan 56866

P.I.D. 004-287-096

Lot 773 Section 36 Block 4 North Range 7 West New Westminster District Plan 56002

P.I.D. 002-561-557

Lot 97 Section 36 Block 4 North Range 7 West New Westminster District Plan 32685

2. This Bylaw may be cited as **“Richmond Zoning Bylaw 8500, Amendment Bylaw 9982”**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

\_\_\_\_\_  
\_\_\_\_\_

CITY OF RICHMOND
APPROVED by <i>E.I.</i>
APPROVED by Director or Solicitor <i>[Signature]</i>



SECOND READING

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THIRD READING

---

OTHER CONDITIONS SATISFIED

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ADOPTED

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MAYOR

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CORPORATE OFFICER





# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee

**Date:** December 7, 2018

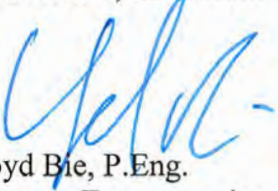
**From:** Lloyd Bie, P.Eng.  
Director, Transportation

**File:** 01-0154-04/2018-Vol  
01

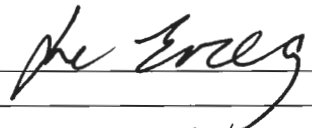

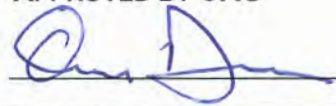
**Re:** TransLink Policy for Provision of Washrooms on Transit

### Staff Recommendation

That the report titled "TransLink Policy for Provision of Washrooms on Transit" dated December 7, 2018 from the Director, Transportation, be received for information.

  
Lloyd Bie, P.Eng.  
Director, Transportation  
(604-276-4131)

Att. 1

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

## Staff Report

### Origin

The TransLink Board approved a new policy for the provision of washrooms on transit at its December 6, 2018 meeting in response to customer and other external requests for clarity regarding its position on washroom provision (e.g., to inform Millennium Line Broadway Extension station design). This report provides an overview of the new policy, which was developed in consultation with municipalities, and its potential application in Richmond.

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

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

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

### Analysis

#### Current Provision of Washrooms on Transit

Signed customer washrooms are available within fare paid zones at the SeaBus terminals and the West Coast Express stations as required by federal regulations. Unsigned staff washrooms are accessible from the public areas at many rapid transit stations; however, customers must request access that is given at the discretion of station staff. Most new and retrofitted rapid transit stations have sufficient space and basic plumbing to enable the potential installation of some form of customer washroom.

TransLink recognizes that the need for washrooms is anticipated to increase as the population ages, and as more people take transit with some trips taking more time. A TransLink survey administered in February 2018 indicated that washrooms are seen as a priority by customers for improving their experience (i.e., rated as second priority after increasing service to minimize overcrowding and pass-ups).

The City has demonstrated past support for improved passenger access to washrooms on transit. In October 2012, Council sent a letter to TransLink advising of its support for the implementation of a pilot initiative proposed by the Richmond Seniors Network whereby seniors, people living with disabilities and families with young children would be provided with special access to the staff washrooms in the Richmond-Brighouse Canada Line Station.<sup>1</sup> TransLink did not implement the pilot initiative but did advise the Richmond Seniors Network that staff washrooms would be made available upon request.

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<sup>1</sup> The report can be accessed at:

[https://www.richmond.ca/shared/assets/Washrooms\\_Brighouse\\_Station\\_CNCL\\_10-22-201234022.pdf](https://www.richmond.ca/shared/assets/Washrooms_Brighouse_Station_CNCL_10-22-201234022.pdf).

### Approved Policy Framework

TransLink's approved approach is to provide washrooms at high demand transit hubs in Metro Vancouver and seek partnerships to deliver access at other locations. The key components of the policy framework (Attachment 1) are:

- Overarching Policy Statement: summarizes TransLink's position to enable and support washroom access for transit riders.
- Objectives: provides a framework for making future decisions related to enabling and supporting washroom access for transit riders.
- Priority Locations: identifies criteria for selecting which passenger facilities TransLink will look to enable and support washroom access for transit riders.
- Actions: lists potential actions TransLink will consider when expanding washroom access for transit riders at priority locations.
- Implementation: approach for putting the policy framework into practice.
- Monitoring and Reporting: monitoring effectiveness, risks and issues and indicating need for future review and updates of policy

### *Objectives*

TransLink will determine the appropriate action for establishing and maintaining washrooms at transit passenger facilities by evaluating available alternatives against the following objectives. An appropriate action will:

- Maximize accessibility: washrooms will be universally accessible and inclusive for transit riders of all ages, abilities and identities.
- Ensure safety and security: washrooms will be designed and delivered to ensure safety and personal security for customers and staff.
- Foster cleanliness, comfort and convenience: these key customer needs and expectations will be a focus of design, operations and maintenance decisions.
- Be affordable: washrooms will be provided and operated in a manner that meets the objectives and guidelines through the most cost effective approach available.
- Keep risks manageable: risks will be identified, considered and managed for both TransLink and our operating companies.

### *Priority Locations*

In addition to providing washroom facilities for transit riders where required by provincial or federal regulations, TransLink will seek to enable access to washrooms for transit riders at, adjacent to, or in close proximity of key transit passenger facilities across the regional transit network that demonstrate all of the following criteria:

1. Are, or are expected to be, a major transfer or connection point for a high number of transit passengers connecting between multiple transit services or connecting between transit and other modes, throughout the service day;
2. Have, or are expected to have, high levels of passengers experiencing long elapsed journey times on the transit network;

3. Contributes to developing a network of transit passenger facilities with washroom access that are relatively evenly spaced in terms of travel time on the system; and,
4. Does not have an existing adequate publicly accessible washroom facility readily available for transit riders located in close proximity to the transit passenger facility.

The criteria are designed to provide a network of washrooms for the greatest number of customers with the most need to have a washroom available as part of their journey. TransLink will not independently pursue the provision of washrooms at locations that do not meet the criteria but will monitor opportunities at those locations and encourage partners or other providers to provide access to washrooms.

#### Potential Applications in Richmond

As a preliminary analysis to help prioritize locations for washrooms and inform an implementation strategy, TransLink staff developed and applied a washroom demand index to all system stations and bus exchanges. A draft score was calculated based on the number of visits per day to the site and the elapsed travel time on transit of the visits (based on Compass card data). The analysis indicated that both Richmond-Brighouse and Bridgeport Canada Line stations would place within the top 10 locations region-wide. This ranking is consistent with the feedback received in the past from the City's Senior Advisory Committee relating to requests for washroom facilities particularly at the Richmond-Brighouse Canada Line station.

The development of the Mandarin Residences adjacent to the Richmond-Brighouse Canada Line station includes interim washrooms for bus operators. As part of the Richmond-Brighouse bus mall that will be built by TransLink, permanent washrooms for bus operators and the public are to be provided as part of any future development of the residual property of 6411 Buswell Street. Through the implementation strategy, staff will request that the public washrooms be located closer to the station to better serve transit users in line with the new policy.

#### Next Steps

Following approval of the policy, TransLink will develop an implementation strategy in 2019 to put the policy into practice. The strategy will identify:

- a network of priority locations;
- phasing, timeline and costs;
- design, layout and siting considerations;
- guidance for wayfinding, operations and maintenance; and
- opportunities to coordinate with other amenities (e.g., bike parkades).

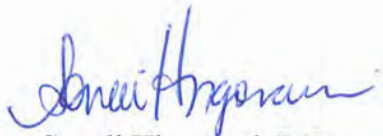
Municipalities will continue to be involved in the development of the implementation strategy for the purpose of identifying a network of passenger facilities to increase the availability of washrooms for transit riders. Staff have indicated to TransLink that community stakeholder consultation should also be a part of the implementation strategy for the policy.

#### **Financial Impact**

None.

**Conclusion**

TransLink Board approval of the new policy is the first step towards the provision of washrooms at rapid transit stations and bus exchanges, which aligns with City objectives to enhance the appeal of transit service with supporting amenities. Given that TransLink's preliminary analysis indicates that two Canada Line stations in Richmond rate as high demand areas, staff will continue to work closely with TransLink to pursue the implementation washrooms at these locations as well other sites as opportunities arise (e.g., through the development application process).



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Transportation Planner  
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SH:jc

Att. 1: TransLink Policy for Provision of Washrooms on Transit



## CUSTOMER WASHROOMS ON TRANSIT POLICY

Date: November 2018

### 1. PURPOSE

The purpose of this policy is to outline the process and considerations that will guide TransLink actions to increase the availability of washrooms for transit riders at key transit passenger facilities along the network.

### 2. OVERARCHING POLICY STATEMENT

TransLink is committed to increasing the availability of safe, clean, well-maintained and accessible washrooms for transit riders at key transit passenger facilities in ways that are affordable and effectively manage risks as part of on-going efforts to enhance customer experience and facilitate movement throughout Metro Vancouver.

### 3. OBJECTIVES

TransLink will determine the appropriate action for establishing and maintaining washrooms at transit passenger facilities by evaluating opportunities and available alternatives against the following objectives:

- **Increase the availability of washrooms for customers towards a long-term network:** increase opportunities for most customers to have a washroom available as part of their transit journey.
- **Maximize accessibility:** washrooms should be universally accessible and inclusive for transit riders of all ages, abilities and identities.
- **Foster safety and security:** washrooms should be designed and delivered to foster safety and security for customers and staff who use or work at the washrooms.
- **Foster cleanliness, comfort and convenience:** these key customer needs and expectations should be a focus of provision, operation and maintenance decisions.
- **Be affordable:** washrooms should be provided and operated in the manner that meets the objectives and other guidelines through the most cost effective approach available.
- **Keep risks manageable:** risks should be identified, considered and managed for both TransLink and our operating companies.

### 4. POLICIES AND DIRECTION

#### A. **Priority Locations for Washroom Access**

TransLink will continue to provide washroom facilities for transit riders where it is required by provincial or federal regulations. Currently, these locations include SeaBus terminals at both Waterfront Station and Lonsdale Quay, and on-board West Coast Express trains.

In addition to these locations, TransLink will seek to enable access to washrooms for transit riders at, adjacent to, or in close proximity of key transit passenger facilities across the regional transit network that demonstrate all of the following criteria:

1. Are, or are expected to be, a **major transfer or connection** point for a **high** number of transit passengers connecting between multiple transit services or connecting between transit and other modes, throughout the service day;
2. Have, or are expected to have, high levels of passengers experiencing **long elapsed journey times** on the transit system (including considering time to get to/from transit); and
3. Contributes to developing a network of transit passenger facilities with washroom access that are relatively **evenly spaced** in terms of travel time on the system.

Where an existing adequate publicly accessible washroom facility is readily available for transit riders located in close proximity to a transit passenger facility, this will be considered in terms of the design of the network and the desire to have a relatively evenly spaced system. A network of washrooms accessible to transit riders that meet these criteria provides opportunities for the greatest number of customers with the most need to have a washroom available as part of their journey.

TransLink will monitor opportunities at transit passenger facilities not meeting all of these criteria and encourage partners or other providers to provide access to washrooms at these locations. TransLink will not independently pursue the provision of washrooms at locations that do not meet the above criteria.

#### **B. Potential Actions**

Transit passenger facilities across the region are subject to differing opportunities and constraints due to unique design, layout, siting and other factors. This diversity requires that TransLink consider a variety of potential actions for washroom access depending on individual facility contexts. Siting, design and layout of facilities will be subject to applicable standards, the guidance contained in the *Transit Passenger Facility Design Guidelines* and other industry best practices. TransLink will work over time and as financial resources allow towards increasing the availability of washrooms available to transit riders at priority locations identified using this policy through a combination of the following actions:

##### Actions to support the provision of washroom facilities:

- **Activating or repurposing** existing underutilized or vacant opportunity spaces within a passenger facility footprint to allow for a washroom facility.
- **Delivering** washroom facilities within the passenger facility footprint as part of comprehensive station or transit exchange upgrade projects or the development of new passenger facilities.
- **Partnering** with developers, municipalities, or private commercial parties to deliver or provide access to a washroom facility adjacent, or in close proximity, to the passenger facility footprint through the Adjacent and Integrated Development program or other initiatives and opportunities.

As part of the above decision making processes, TransLink will give **high priority** to washrooms for customers in space allocation decisions for existing, upgraded or new passenger facilities.

##### Actions to support the operation and maintenance of washroom facilities:

- **Developing** protocols and procedures to provide consistency of experience and keeping the washrooms open to users, safe, clean, well-functioning and properly stocked as well as establish work safe procedures for staff or contractors where a TransLink operating company is the washroom operator or oversees a contractor.

- **Establishing** agreements with third party operators to operate and maintain washroom facilities available to transit riders provided by TransLink or in partnership with other parties. These agreements will address requirements and expectations for operation and maintenance protocols like hours of operation, cleaning and upkeep, attendants, and other considerations to foster a positive and consistent customer experience.
- **Developing** and tracking performance indicators to ensure both the availability and quality of washroom facilities accessible to transit riders that are provided by TransLink or in partnership with other parties meet acceptable standards for quality, cleanliness and safety.

Actions to increase rider awareness of washrooms along the transit network:

- **Providing** consistent wayfinding, maps and supporting information to direct customers to available and readily-accessible washrooms located within, adjacent, or in close proximity to passenger facilities.

4. IMPLEMENTATION

TransLink will develop an implementation strategy in consultation with partners for the purposes of identifying a network of passenger facilities that meet the criteria for actions to increase the availability of washrooms outlined in this policy. The implementation will focus on delivering a program that is sustainable over time, within available resources, enhances the customer experience and is done well. The implementation strategy should identify and address:

- A network of priority locations for washrooms accessible to transit riders
- Identification of most appropriate action of each location
- Design, layout and siting guidelines and related considerations to support achieving a consistent customer experience
- Phasing of implementation, timelines and costs
- Guidance for wayfinding, operations and maintenance
- Monitoring program to track progress and adjust implementation as needed

5. MONITORING AND REPORTING

TransLink will regularly monitor the demand for washrooms, progress towards implementation of actions, and the use of available washrooms to identify and understand risks, opportunities, and challenges. TransLink will review this policy as needed in consultation with partners or as directed for potential changes.



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee **Date:** November 29, 2018  
**From:** John Irving, P.Eng. MPA **File:** 10-6060-05-01/2018-Vol 01  
Director, Engineering  
**Re:** **2019 Submission to the Disaster Mitigation and Adaptation Fund —  
Richmond Flood Protection Program**

### Staff Recommendation

1. That the submission to the Disaster Mitigation and Adaptation Fund – Richmond Flood Protection Program requesting funding for up to 40% of the project cost, for a total of \$13,780,000, to upgrade 2.6 kilometers of dike and five pump stations be endorsed.
2. That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to enter into funding agreements with the Government of Canada for the above mentioned project should it be approved for funding by the Government of Canada; and
3. That, should the above mentioned project be approved for funding by the Government of Canada, the Consolidated 5 Year Financial Plan (2019-2023) be updated accordingly.

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

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

## Staff Report

### Origin

In May 2018, Infrastructure Canada announced a call for Expressions of Interest from local governments for the Disaster Mitigation and Adaptation Fund. This program is intended for projects that help Canadian communities address current infrastructure needs while strengthening overall resilience to future environmental hazards through investments in large-scale infrastructure projects. The City of Richmond submitted an Expression of Interest in July 2018 for the Richmond Flood Protection Program, and was invited to submit a grant application in October 2018. The complete grant application is due to Infrastructure Canada on January 11, 2019.

The purpose of this report is to seek Council's endorsement on the submission to the Infrastructure Canada Disaster Mitigation and Adaptation Fund for grant funding for up to 40% of the project cost, for a total of \$13,780,000. The project involves upgrading 5 drainage pump stations and 2.6 km of dikes that form part of the City's critical flood protection system.

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

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

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

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

*6.1. Safe and sustainable infrastructure.*

This report supports Council's 2014-2018 Term Goal #7 Strong Financial Stewardship:

*Maintain the City's strong financial position through effective budget processes, the efficient and effective use of financial resources, and the prudent leveraging of economic and financial opportunities to increase current and long-term financial sustainability.*

*7.4. Strategic financial opportunities are optimized.*

### Analysis

The City of Richmond is approximately 1.0 meter above mean sea level and Lulu Island is protected from flooding by 49 kilometer of dikes and 39 drainage pump stations. Climate change scientists estimate that sea level will rise approximately 1.0 meter by the year 2100 and 0.2 meters of land subsidence is forecast during that same time period for a combined 1.2 meters of relative sea level rise. Dike and infrastructure improvements, guided by the City's

2008-2031 Flood Protection Strategy and various phases of the Dike Master Plan, are completed through the Council approved Capital Program and through development partnerships in order to address Richmond's future flood risks in advance of climate change induced sea level rise.

The Richmond Flood Protection Program, submitted by staff as an Expression of Interest to Infrastructure Canada for the Disaster Mitigation and Adaptation Fund, includes nine infrastructure projects to upgrade five drainage pump stations and 2.6 kilometer of dikes. These projects, totalling \$34,450,000, have been approved by Council as part of the 2018-2022 Capital Plan. Richmond's Expression of Interest has been approved by Infrastructure Canada and the City has been invited to submit a grant application for the Richmond Flood Protection Program.

If the City of Richmond is successful through this application, a funding agreement will be executed between Infrastructure Canada and the City of Richmond; Infrastructure Canada will provide funding through disbursements for the projects identified as part of the program. All projects are to be completed by 2028.

### **Funding Details**

The Government of Canada is investing \$2 billion over 10 years to support large-scale infrastructure projects to help communities manage risks from natural hazards. The Disaster Mitigation and Adaptation Fund is a program under the Investing in Canada Plan to support the Government of Canada's objectives to create long-term economic growth, support a low carbon green economy, and build inclusive communities. The fund operates through a maximum Federal contribution of 40% of project costs towards large-scale infrastructure projects.

Should the funding request be successful, the City would be required to enter into a funding agreement with the Government of Canada. The agreements are standard form agreements provided by senior levels of government and include an indemnity and release in favour of the Federal Government. As with any submission for funding to external sources, funding is not guaranteed to be granted to assist with this project.

### **Financial Impact**

The City of Richmond will be requesting up to \$13,780,000 to fund the Richmond Flood Protection Program from the Infrastructure Canada Disaster Mitigation and Adaptation Fund.

There is existing capital funding for the Richmond Flood Protection Program in the Council approved 2018-2022 Capital Plan for a total cost of \$34,450,000 funded by the Drainage Improvement Reserve and Development Cost Charges. Should the grant be successful, the funding source of the project will be adjusted to utilize the grant funding and reduce the contributions from the Drainage Improvement Reserve funding source; the Consolidated 5 Year Financial Plan (2019-2023) will be updated accordingly.

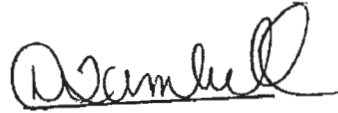
## Conclusion

Staff are seeking Council's endorsement on the submission to the Infrastructure Canada Disaster Mitigation and Adaptation Fund for the Richmond Flood Protection Program. Richmond is requesting up to the maximum grant amount of 40% funding for this project for a total of \$13,780,000.



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and Protocol Unit  
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# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee  
**From:** John Irving, P.Eng. MPA  
Director, Engineering  
**Re:** **Dike Master Plan – Phases 3 and 5**

**Date:** November 30, 2018  
**File:** 10-6060-01/2018-Vol  
01

### Staff Recommendation

That the public and key external stakeholders be consulted as identified in the staff report titled “Dike Master Plan – Phases 3 and 5” from the Director, Engineering, dated November 30, 2018.

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

Att. 2

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Parks Services	<input checked="" type="checkbox"/>	
Roads & Construction	<input checked="" type="checkbox"/>	
Real Estate Services	<input checked="" type="checkbox"/>	
Sewer & Drainage	<input checked="" type="checkbox"/>	
Development Applications	<input checked="" type="checkbox"/>	
Policy Planning	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

**CNCL - 477**

## Staff Report

### Origin

The Council endorsed 2008 – 2031 Richmond Flood Protection Strategy identified the need to prepare and implement a comprehensive dike improvement program. Dike Master Plan Phase 1, adopted by Council on April 22, 2013, focussed on Steveston and a portion of the West Dike south of Williams Road. Dike Master Plan Phase 2, adopted by Council on April 23, 2018 focussed on the north portion of Richmond's west dike between Williams Road and Terra Nova Rural Park and part of Richmond's north dike between Terra Nova Rural Park and No. 6 Road. Preparation of Dike Master Plan Phase 4, focusing on the North Dike between No. 6 Road and Boundary Road, is underway and will be brought forward to Council in early 2019.

This staff report presents the recommended dike upgrading concepts that are required to address climate change induced sea level rise along the following dike reaches:

- Dike Master Plan Phase 3
  - South dike between No. 2 Road and Boundary Road
- Dike Master Plan Phase 5
  - Sea Island between the Sea Island Connector Bridge to the south end of 3800 Cessna Drive, Mitchell Island and Richmond Island

On October 24, 2016, Council endorsed the City's submission to the National Disaster Mitigation Program requesting funding for Dike Master Plan Phase 3. The project was approved and is 100% funded through the grant to a maximum of \$250,000. The funding deadline for completion of Dike Master Plan Phase 3 is March 31, 2019.

On December 11, 2017, Council approved \$200,000 through the 2018 Capital Budget to prepare Dike Master Plan Phase 5 which was subsequently approved to be 100% funded by the Province of British Columbia through the 2017 Flood Risk Assessment, Flood Mapping & Flood Mitigation Planning Program. The funding deadline for completion of Dike Master Plan Phase 5 is March 31, 2019.

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

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

#### *6.1. Safe and sustainable infrastructure.*

The purpose of this staff report is to present the recommended dike upgrading concepts to address climate change induced sea level rise for the reaches described in Dike Master Plan Phases 3 and 5 and seek Council's endorsement to engage the public and key stakeholders for feedback on the proposed concepts.

## Analysis

### Background

The City of Richmond is approximately 1.0 meter above mean sea level and protected by 49 kilometers of dike on Lulu Island, 1.1 kilometers of dike on Sea Island and 3.5 kilometers of flood protection structural works on Mitchell Island. Climate change scientists estimate that sea level will rise approximately 1.0 meters by the year 2100 and 0.2 meters of land subsidence is forecast during that same time period, for a combined 1.2 meters of relative sea level rise. The 2008 – 2031 Richmond Flood Protection Strategy identifies the perimeter dike system as the primary flood protection system to protect against climate change induced sea level rise. The City's target dike elevation for 2100 is 4.7 meters geodetic west of Nelson Road and increases linearly from 4.7 meters geodetic to 5.0 meters geodetic between Nelson Road and Boundary Road. All new dikes are designed for a further height increase of 0.8 meters to address sea level rise beyond 2100.

Dike improvements are ongoing through the Council approved Capital Program and through development partnerships. Climate change forecasts have a high degree of variability in terms of timing and magnitude of sea level rise; the current forecasts indicate that dike raising will need to be completed in the next 25 to 75 years. This range will be refined over time as sea level rise is realized and climate change forecasts converge. Staff will continue to monitor actual sea level rise and climate change forecasts and report significant updates to Council as required.

The Dike Master Plan is intended to be a comprehensive guide to upgrade the City's dikes to:

- Protect Richmond from both storm surges and Fraser River freshet events;
- Adapt to sea level rise;
- Be seismically resilient;
- Integrate the Ecological Network Management Strategy principles and goals;
- Follow the five strategic directions of the City's 2009 Waterfront Strategy (Working Together, Amenities and Legacy, Thriving Eco-Systems and Community, Economic Vitality, Responding to Climate Change and Natural Hazards); and
- Prioritize dike improvement phasing to efficiently use resources.

Dike Master Plan Phase 1 and Phase 2 have been adopted by Council; preparation of Dike Master Plan Phase 4 is underway. Figure 1 shows the study areas of Dike Master Plan Phases 3 and 5 as described below:

- Dike Master Plan Phase 3
  - South dike between No. 2 Road and Boundary Road
- Dike Master Plan Phase 5
  - Sea Island from the Sea Island Connector Bridge to the south end of 3800 Cessna Drive, Mitchell Island and Richmond Island.

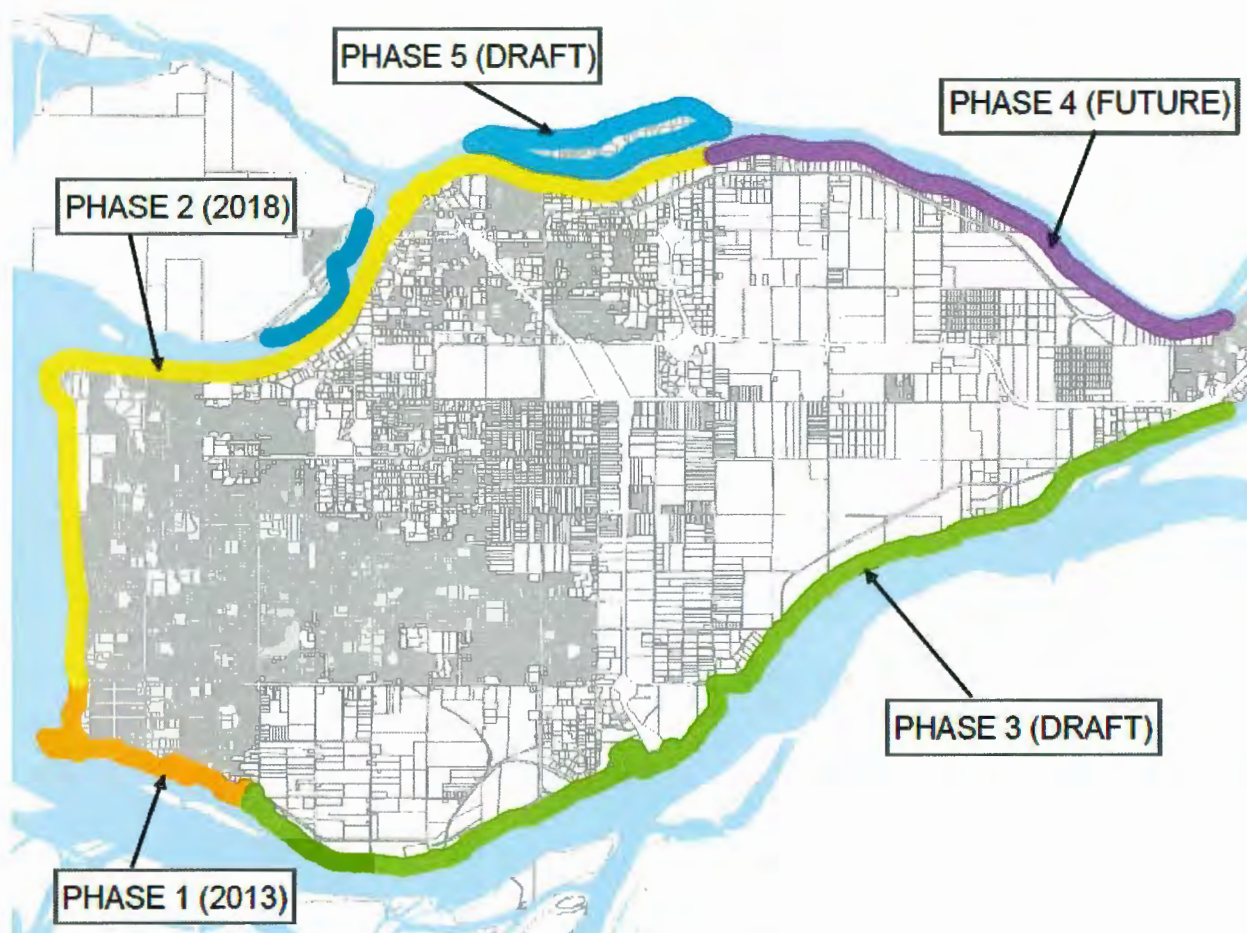


Figure 1: Dike Master Plan Phases 3 and 5 Study Areas

The City engaged Kerr Wood Leidal (KWL) as the lead consultant to complete Dike Master Plan Phases 3 and 5 (Attachments 1 and 2). In order to meet grant funding conditions, the final report for Dike Master Plan Phase 3 is due to the Province of British Columbia and Public Safety Canada no later than March 31, 2019. Similarly, the final report for Dike Master Plan Phase 5 is due to the Province of British Columbia through the Union of BC Municipalities (UBCM) on March 31, 2019 to meet grant funding conditions.

#### Typical Dike Upgrade Options

The Dike Master Plan recommends diking improvements based on a number of factors including adjacent land use, available land for diking, environmental conditions, and potential amenity improvements. Dike configurations generally fall within 3 categories: dike with roadway, dike with development or planned development, and standard dike (no roadway). The following are typical dike upgrade concepts recommended in Dike Master Plan Phases 3 and 5.

#### *Separated Dike and Road*

There are a significant number of dike reaches on Lulu Island where a roadway is currently situated on top of the dike. Staff generally recommend separating the road from the dike as an objective of the dike upgrading program identified in Dike Master Plan Phases 3 and 5 (Figure 2). This option relocates the road from the top of the dike to a location inland, adjacent to the dike.

Road elevations can be adjusted to facilitate access to adjacent properties or be at a similar elevation as the improved dike, which would provide additional stability for the dike.

Advantages to this option include:

- improved dike stability;
- the ability to develop the new road in advance of upgrading the dike, which significantly lowers the impact to vehicle traffic during construction;
- allows for future dike upgrading without impacting the road;
- the ability to adjust road elevation to facilitate access to existing adjacent properties;
- an opportunity to separate cyclists and pedestrians from roadway traffic;
- aligns with the 2010 Richmond Trail Strategy; and
- removal of utilities from the dike core for improved dike reliability.

Disadvantages to this option include:

- higher capital cost; and
- larger land requirement.

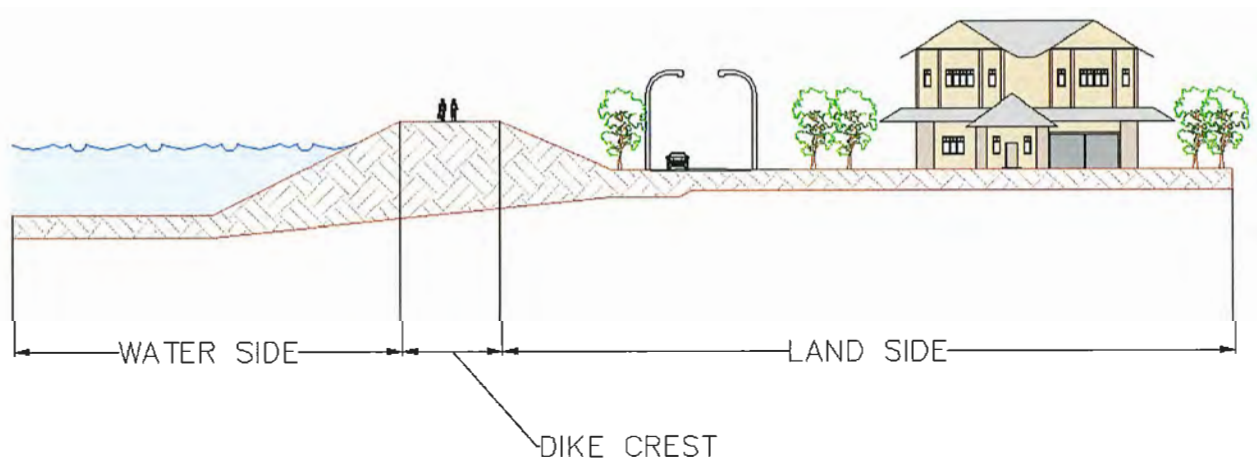


Figure 2: Separated Dike and Road

### *Superdike*

Superdikes are dikes where the land behind the dike is built up to the same elevation as the dike. The City has been successful in implementing superdikes through development and superdikes are recommended where land adjacent to the dike is likely to re-develop.

Advantages to this option include:

- robust and wide dike crests;
- multi-functional landscapes that can be tailored to area requirements including industrial, multi-family, and commercial developments;
- can accommodate separated road and dike;



- aligns with the 2010 Richmond Trail Strategy;
- lower impact and fewer visual obstructions to development when implementing future dike upgrades; and
- reduced grading issues.

Disadvantages to this option include:

- requires significant design and planning to customize for each eligible site; and
- dike upgrades need to be timed with development and lease agreements for eligible properties.



Figure 3: Superdike

### *Standard Dike*

This concept is recommended where there is no road on top of the dike. A standard dike raises the dike crest to design elevation and extends the footprint to either the land side or water side. Standard dikes can incorporate multi-use pathways and green space.

Advantages of this option are:

- lowest site preparation and installation cost compared to other long term options;
- established construction procedures with City crews who are familiar with the work;
- easiest to repair due to the lightest infrastructure footprint and land usage out of the recommended long term options; and
- aligns with the 2010 Richmond Trail Strategy.

Disadvantages of this option are:

- limited development and construction options on the dike; and
- larger grade differences adjacent to the dike when upgrades occur.

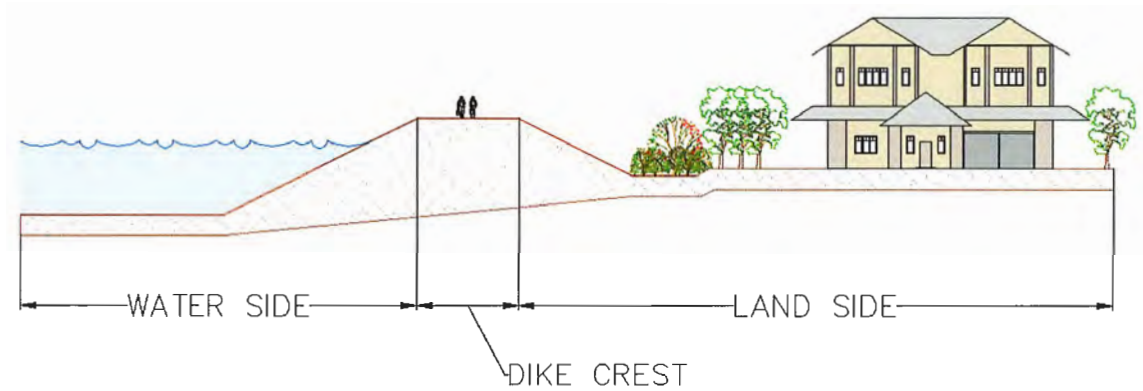


Figure 4: Standard Dike

*Interim Dike Upgrade*

Interim dike upgrade options are considered in areas where there is not enough space (due to existing land use) to build one of the other options listed above. They are intended to function as medium term temporary measures until land becomes available or re-development occurs. The two interim options include setback sheet pile walls (Figure 5) and riverside sheet pile walls (Figure 6).

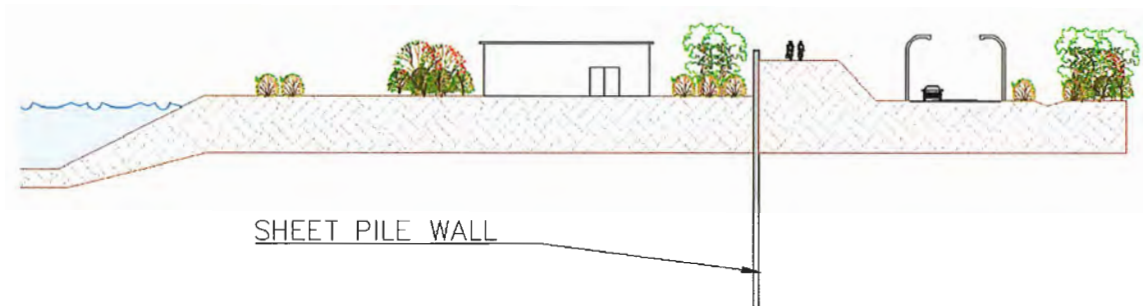


Figure 5: Setback Sheet Pile Wall

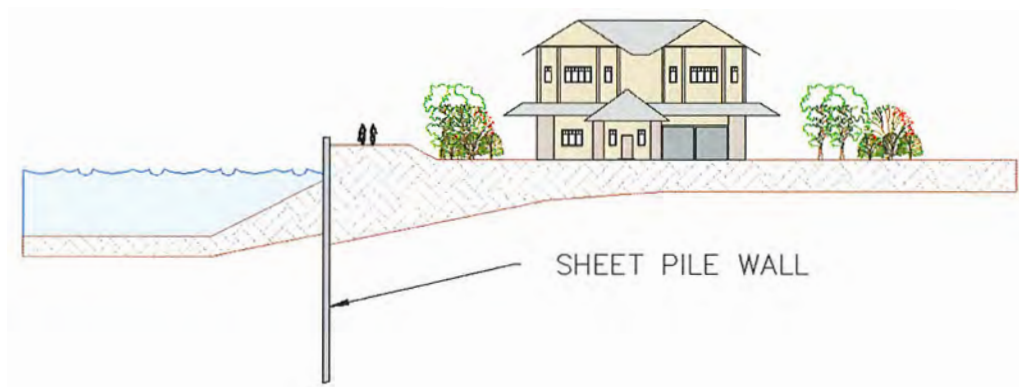


Figure 6: Riverside Sheet Pile Wall



### Dike Master Plan Phase 3

The Dike Master Plan Phase 3 study area is from No. 2 Road to Boundary Road along Richmond's south dike. Land use adjacent to the dike in Phase 3 includes single and multi-family residential, industrial and agricultural. There are marine-based industries along the Phase 3 study area that either require access to the river over the dike or may be outside of the City's dike. The adjacent land use in the Phase 3 study area is:

- residential from No. 2 Road to Gilbert Road;
- parks and agricultural land from Gilbert Road to No. 5 Road; and
- industrial from No. 5 Road to Boundary Road.

Staff recommends a separated dike and road from No. 2 Road to Highway 99 and from Graybar Road to Boundary Road as these segments are currently road on dike. The separated dike and road will facilitate improved traffic safety for motorists, cyclists and pedestrians along these sections.

Between Highway 99 and Graybar Road, there are a number of sites that require specific, non-standard strategies. These locations and the recommended strategies are outlined in Table 1 below.

**Table 1: Phase 3 Non-Standard Reaches**

<b>Location</b>	<b>Interim and Long-Term Dike Upgrade Solution</b>
Crown Packaging	The recommended interim dike upgrade solution is a combination of earth dike and sheet pile walls that allow continued operation of the current business. Crown Packaging's lease on the property expires in 2035 and the site will likely re-develop at that time. Staff recommends pursuing a superdike as part of future re-development. A separate Report to Council on this matter is forthcoming.
Finn Slough	There are a number of buildings on and outside of the dike at Finn Slough. The recommended interim dike upgrade solution is to build a sheet pile wall along the south edge of the dike crest, parking on the land side of the dike and pedestrian access to Finn Slough.
Mainland Sand and Gravel	Mainland Sand and Gravel have an agreement with the City to maintain a given elevation of material on their property to provide flood protection. The City will set higher elevations for this site ahead of sea level rise and require Mainland Sand and Gravel to achieve those elevations through the current agreement. Should Mainland Sand and Gravel cease operation or refuse to improve the site when requested, a standard dike with a 4.7 m crest elevation will be built in the City's existing road dedication.
Deas Dock (BC Ferries)	Staff have been working with BC Ferries on their long-term redevelopment strategy which includes a flood protection strategy.

George Massey Tunnel	The George Massey Tunnel Replacement project is on hold with an announcement expected before the end of 2018. Staff will continue to work with the Ministry of Transportation and Infrastructure to ensure future dike improvements are consistent with the future George Massey Tunnel transportation solution.
Canadian Fishing Company	The interim dike upgrade solution is to build a dike using a setback sheet pile wall. This will allow the property to maintain business operations and use of their docking facility. The long-term diking solution here is to raise the property through redevelopment and build a superdike.
Fraser Wharves (Port of Vancouver)	The property is an active works yard and barge facility. The dike is located in an active port facility and has restricted maintenance access. The dike will be raised through redevelopment.
Lafarge	The City is actively working with Lafarge to coordinate dike upgrades fronting the property. In 2018, City crews performed maintenance activity along approximately 600 meters of dike fronting Lafarge. City crews will be raising the dike along this same stretch by 1.3 meters in 2019.

### Dike Master Plan Phase 5

The Dike Master Plan Phase 5 study area includes Sea Island from the Sea Island Connector Bridge to the south end of 3800 Cessna Drive, Mitchell Island and Richmond Island. Each of these islands has distinctly different diking issues and are individually addressed below.

#### *Sea Island*

The City shares flood protection responsibility on Sea Island with the Vancouver Airport Authority. The City's is responsible for the dike on the eastern edge of Sea Island between BCIT (3800 Cessna Drive) and the Airport Connector Bridge.

The dike adjacent to the Pacific Autism Centre at 3600 Lysander Lane was improved to the 4.7 m geodetic standard through a recent development, and the dike adjacent to the BCIT Aerospace Campus was upgraded to 4.0 m through development.

A standard dike upgrade is recommended for the majority of dikes on Sea Island as there is enough space for this option on the land side. The dike adjacent to the Pacific Gateway Hotel is an exception, given the existing hotel's location and connection to a marina. The recommended interim solution for the hotel frontage is a sheet pile wall that will be in place until such time as the hotel re-develops, with a superdike to be secured should the hotel re-develop.

The Moray Bridge deck is below the recommended 4.7 m geodetic dike level and will need to be considered as part of the dike raising program. The bridge belongs to the Ministry of Transportation and it is recommended that the City pursue replacement of this bridge with the ministry.

*Mitchell Island*

Ground level on Mitchell Island is currently above typical King Tide/storm surge high water levels (2.2 m geodetic) and does not currently have a protective dike. However, there are a number of properties on the island that are below the City's flood elevation level (3.5 m geodetic) and are prone to flooding during long return period high water level events.

Development of a standard dike on Mitchell Island would require significant land acquisition around the perimeter of the island, which would significantly reduce the amount of property available for industrial or commercial utilization. Additionally, most of the properties are water front properties and some businesses on Mitchell Island use the waterfront to support their business activities. Separating these businesses from the water could be detrimental to their economic activity.

Given the type of activity on Mitchell Island, the size of the island and the current lack of a protective dike, staff's recommended Mitchell Island climate change induced sea level rise adaptation program includes raising Mitchell Island to 4.7 m geodetic and acquiring right of ways that will facilitate a future dike to 5.5 m geodetic through re-development. The current flood construction level required by Bylaw 8204 for Mitchell Island is 4.35 m geodetic. Should Council endorse Dike Master Plan Phase 5, staff will bring forward an amendment bylaw that updates this level to 4.7 m geodetic. Staff further recommends maintaining the roadways on Mitchell Island at an elevation that is above the flood plain and maintaining access to all of the properties on the island regardless of the state of re-development of each individual property.

*Richmond Island*

Richmond Island is above the City's current and 100 year flood elevation of 4.7 m. The island is a single lot owed by North Fraser Terminals Inc. and leased to Milltown Marina & Boatyard Ltd. There is a registered covenant on title that acknowledges the risk of flooding and erosion on Richmond Island, identifies that the City has no plans to protect the island from flood and erosion and releases the City from any damage or losses caused by flooding or erosion.

Land Acquisition

There are a number of areas where the existing dike corridor is confined on both sides by private property and will likely require land acquisition to facilitate dike raising. Land acquisition will primarily be achieved through re-development, however, where re-development does not occur; Staff will recommend strategic land purchases to advance the necessary flood protection measures. The Dike Maintenance Act allows the City, through the Provincial Inspector of Dikes, to access the entire dike protecting Lulu Island for the purpose of dike maintenance or improvement, regardless of land ownership. However, long term strategic acquisition of land and cooperative work with the development community will reduce the impact of dike improvements on the community as compared to reliance on the Dike Maintenance Act.

### Public Consultation - Next Steps

Staff recommend consultation with key external stakeholders and the public on the preferred diking upgrade concepts in the Phases 3 and 5 study areas. Key stakeholders include:

- Adjacent residences and the general public
- Agricultural Advisory Committee
- CN Rail
- Environment Canada
- Port of Vancouver
- Department of Fisheries and Oceans
- BC Inspector of Dikes
- Advisory Committee on the Environment
- Urban Development Institute
- Lafarge
- BC Ferries
- Ministry of Transportation and Infrastructure
- City of New Westminster
- Crown Packaging
- Canadian Fishing Company
- Finn Slough Heritage & Wetland Society
- Mitchell Island Businesses
- Vancouver Airport Authority
- Milltown Marina
- Translink
- City of Vancouver
- Sea Island Community Association

The key external stakeholder group will be engaged through ongoing meetings, social media, and LetsTalkRichmond.ca. Public consultation will include two public open houses. The results of external stakeholder consultation and any updates to Dike Master Plan Phases 3 and 5 will be presented to Council in a subsequent report for Council's consideration.

### Flood Protection Financing

The City has three basic sources for funding the implementation of the Dike Master Plan:

- The Drainage and Diking Utility;
- Senior government grant funding; and
- Development.

The City's Drainage and Diking Utility currently dedicates \$11.9 million per year for drainage and diking improvements. Staff will continue to assess utility funding requirements through ageing infrastructure studies and the utility rates budgeting process and provide recommendations to Council for consideration on an annual basis.

The 2008-2031 Richmond Flood Protection Strategy indicates that the City should pursue a minimum of 50% funding for dike raising from senior government to assist with this program. The

City has successfully secured over \$18 million in senior government grants in the last three years for drainage and diking improvements. Staff will continue to pursue senior government grants as they become available.

The City has successfully partnered with a number of developments to build superdikes. Staff estimates that up to 20% of Dike Master Plan implementation will be completed through development.

### **Financial Impact**


Project costs will be presented for Council consideration as individual initiatives and programs through the annual budget process. Funding for this program will be dependent on how quickly climate change induced sea level rise occurs through the year 2100.

### **Conclusion**

Consistent with the City's 2008 – 2031 Richmond Flood Protection Strategy, Phases 3 and 5 of Dike Master Plans has been drafted to address climate change induced sea level rise. Dike Master Plan Phases 3 and 5 present the City's preferred dike upgrade concepts for:

- the south dike from No. 2 Road to Boundary Road;
- Sea Island from the Sea Island Connector Bridge to the south end of 3800 Cessna Drive;
- Mitchell Island; and
- Richmond Island.

Staff request Council's endorsement to consult public and external stakeholders regarding the recommended dike upgrading concepts and obtain their feedback. Feedback will be utilized to update and finalize the Dike Master Plans, which will subsequently be presented to Council for consideration.



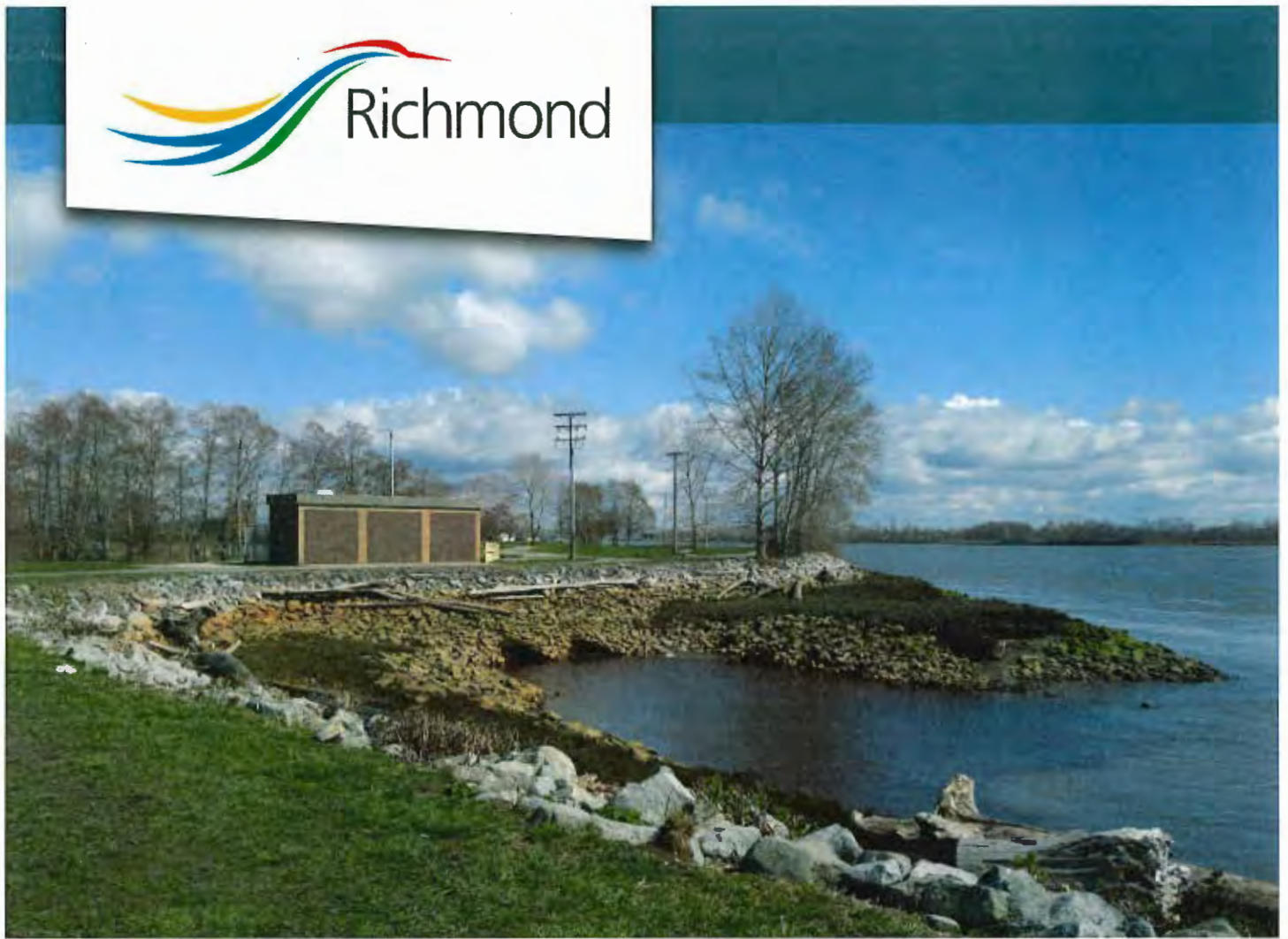
Beata Ng, P. Eng  
Acting Manager, Engineering Planning  
(604-276-4257)

BN:cc

Att. 1: Dike Master Plan – Phase 3 Draft

Att. 2: Dike Master Plan – Phase 5 Draft





Draft Report

## Richmond Dike Master Plan - Phase 3

November 2018  
KWL File No. 0651.110-300

Submitted by:



KERR WOOD LEIDAL  
consulting engineers

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- Appendix B: Richmond Dike Master Plan Landscape Concepts and Dike Typologies
- Appendix C: Geotechnical Engineering Analysis Report (Thurber)



## Executive Summary

The City of Richmond uses a Dike Master Planning program to guide future dike upgrading projects, and to ensure that land development adjacent to the dike is compatible with flood protection objectives. The program includes 4 phases for the 49 km of the Lulu Island perimeter dike that is within Richmond, plus another phase for Sea Island, Mitchell Island, and Richmond Island. The goal is to raise the dikes to allow for 1 m of sea level rise plus 0.2 m of land subsidence, and to allow for further upgrading in the future. The ultimate goal is to provide the City with a world class level of flood protection to keep pace with the rapidly growing community that relies on the dikes.

Dike Master Plan Phase 3 covers approximately 20 km of the Lulu Island perimeter dike along the Fraser River, on the south side of the island between Gilbert Road and Boundary Road. The dike within Phase 3 crosses through a variety of land uses, including roads, parks, and industrial land. Challenges along the dike alignment include conflicts with roads, drainage channels, utilities, and industrial development. There are also challenges with residential and commercial development outside the dike, and liquefiable soils beneath the dike. There are opportunities to construct at least some dike works through redevelopment, and to create linked trail networks for a full trail loop around Lulu Island.

This report describes existing conditions, develops an ideal vision for dike upgrading, presents design criteria, identifies options for dike upgrading, and presents recommended dike upgrading options that appropriately address the challenges. This work can be used as a basis for design of dike upgrading projects, recognizing that site-specific refinement of recommended options will be required in some areas. This work can also be used to assist with land use planning activities along the dike corridor. The main features of the recommended options to dike upgrading in Phase 3 are described below.

- Raise the dike crest to allow for 1 m of sea level rise plus 0.2 m of land subsidence. West of Nelson Road, the raised dike crest would be 4.7 m (CGVD28). East of Nelson Road, the raised dike crest would increase to 5.1 m at Boundary Road. The plan also allows for longer term upgrading to accommodate a further 1 m of sea level rise (i.e. 2 m of sea level rise).
- Widen the dike on the land side rather than into the Fraser River.
- Move Dyke Road inside the dike to facilitate short-term and long-term dike upgrading. This will require the road to be reconfigured and reconstructed, with some additional need for land tenure. Moving the road will allow removal of utilities within the dike.
- Raise the relocated Dyke Road to the dike crest elevation. This will facilitate driveway access over the dike to riverside properties. It will also be compatible with the desire to raise land inside the dike.
- Pursue individual industrial site strategies depending on the existing rights and agreements, the urgency of the works, and opportunities for redevelopment for each site.
- Replace the drainage channels immediately inside the dike with storm sewers and swales. This will improve dike stability, and will provide some of the land needed to relocate Dyke Road.
- Raise land and roads immediately inside the dike (during redevelopment) to improve seismic resilience. This will also improve liveability by allowing residents to look down over the water.
- Improve pedestrian and cyclist safety by constructing a separate multi-use path along the dike. This would be consistent with the City Parks vision for a perimeter trail system.
- Construct the south section of a secondary dike near Boundary Road.

It is also recommended that the City prepare a comprehensive implementation plan for dike upgrading that incorporates the elements of the Phase 3 Dike Master Plan, and the elements of the other Dike Master Plans.

To address habitat compensation issues associated with dike upgrading, it is further recommended that the City consider development of a habitat banking program that could provide effective large-scale compensation.



## 1. Introduction

Flood protection in Richmond is guided by the City's 2008-2031 Flood Protection Management Strategy which includes a comprehensive suite of measures including structural measures (e.g., dikes and pump stations), non-structural measures (e.g., flood construction levels), and flood response and recovery plans.

Dike Master Plans are critical components of the City's 2008-2031 Flood Protection Management Strategy, and are used to guide the implementation of long-term dike upgrades.

The City of Richmond (City) has retained Kerr Wood Leidal (KWL) to prepare the Richmond Dike Master Plan Phase 3.

Phase 3 covers the south-eastern portion of the Lulu Island perimeter dike from No. 2 Road to Boundary Road (City of New Westminster). Figure 1-1 presents the extent of the City's Dike Master Plan phases. Figure 1-2 shows the reaches of the Phase 3 Dike Master Plan.

### 1.1 Background

Richmond has a population of about 220,000 and is situated entirely on islands within the overlapping Fraser River and coastal floodplains (Lulu Island, Sea Island, Mitchell Island, Richmond Island, etc.). The City's continued success is due in part to its flat, arable land and its strategic location at the mouth of the Fraser River and on the seashore. The low elevation of the land and its proximity to the water comes with flood risks.

Lulu Island is the most heavily developed part of Richmond. Lulu Island is bounded by the Fraser River and the Strait of Georgia, and is subject to flood risks from the Fraser River and the sea. Lulu Island is also subject to other flood-related hazards, including dike breach, seismic effects, extreme rainfall, wave action, and river instability. The typical natural ground elevation is in the range of 1 m to 2 m as shown on Figure 1-1.

The cornerstone of the Lulu Island flood defenses is a 49 km long perimeter dike. Internal drainage is provided by an integrated system of channels and storm sewers that drain to 39 pump stations / floodboxes. Richmond occupies over 90% of Lulu Island. The balance of Lulu Island (the upstream end) is occupied by the Queensborough neighbourhood of the City of New Westminster.

As Richmond is fully situated within the river/coastal floodplain, there is no option to locate development out of the floodplain. The continued success of the City depends on providing a high level of structural and non-structural flood protection measures. Without continued improvements, the flood risk within the City would progressively rise as a result of rising flood levels (due to sea level and climate change), subsiding land, and increasing development.

The 2008-2031 Flood Protection Management Strategy guides the City's flood risk reduction activities across the City's organizational structure and across the spectrum of structural and non-structural flood protection measures.

The Lulu Island perimeter dike is the most critical structural flood protection measure, and improvement of this asset is identified as the priority action in the Flood Protection Management Strategy.





## 1.2 Purpose and Objectives

The purpose of the Dike Master Plan is to guide the implementation of dike upgrades and provide a starting point for the City to work with proposed developments adjacent to the dike. The master plan defines the City's preferred and minimum acceptable dike upgrading concepts.

The Dike Master Plan facilitates the City's annual dike upgrading program by providing critical information for the design of dike upgrades, including:

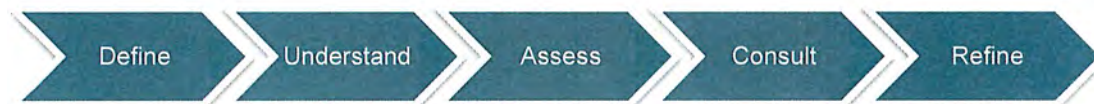
- general design concept;
- alignment;
- typical cross-section (conceptual design);
- footprint and land acquisition and tenure needs;
- design and performance criteria;
- infrastructure changes required for dike upgrading;
- operation and maintenance considerations;
- environmental features and potential impacts;
- social and public amenity considerations;
- guidance for future development adjacent to the dike; and
- guidance on interaction with other structural flood protection measures (e.g. secondary dikes).

The Dike Master Plan is intended to guide dike upgrading over the next 20 to 30 years.

Other flood protection measures, including non-structural measures, are identified in the City's 2008-2031 Flood Protection Management Strategy.

## 1.3 Approach and Methodology

The Dike Master Plan has been developed using a 5-step approach presented and described below.



**Define:** Confirm Dike Master Plan objectives and design/performance criteria.

**Understand:** Collect and compile relevant information, including spatial data and background reports from the City and several other parties (City of New Westminster, provincial regulators, the port, etc.).

**Assess:** Develop dike upgrading options and identification of constraints and potential impacts. Desktop and field review of options with City staff to identify preferred options.

**Consult:** Present to and gather feedback from council and stakeholders on preferred options.

**Refine:** Develop the master plan informed by consultation and review by the City.

The scope for the Dike Master Plan includes the following main tasks:

- goals and objectives development;
- background data collection and review;
- design criteria development and identification of constraints;
- options development and review;
- site visits;



- drainage impacts assessment;
- desktop habitat mapping and impacts review;
- geotechnical assessment;
- public amenity review;
- stakeholder consultation; and
- report preparation.

## 1.4 Report Format

This report is organized as follows:

- The executive summary provides a high-level overview of the master plan and key features;
- Section 1 introduces the master plan context and process;
- Section 2 documents the existing conditions;
- Section 3 documents the options development and assessment, and presents the recommended options;
- Section 4 is a compilation of 2-page summary sheets highlighting existing conditions and key features of the preferred option for each reach; and
- Section 5 provides implementation strategy, including costs, phasing, and coordination; and
- Section 6 provides general and reach specific recommendations for next steps and implementation.

Appendix A provides figures showing conditions along the existing dike alignment, and the preliminary design footprint for the recommended upgrading options discussed in Section 3.

## 1.5 Project Team

The KWL project team includes the following key individuals:

- Colin Kristiansen, P.Eng., MBA – Project Manager;
- Mike Currie, M.Eng., P.Eng., FEC – Senior Engineer and Technical Reviewer;
- Sarah Lawrie, M.A.Sc., P.Eng. – Project Engineer;
- Laurel Morgan, M.Sc., P.Eng., P.E. – Drainage Engineer;
- Daniel Brown, B.Sc., B.Tech., BIT – Project Biologist; and
- Jack Lau - GIS/CAD Analyst.

This report was primarily written by Sarah Lawrie. The report was reviewed by Mike Currie and Colin Kristiansen.

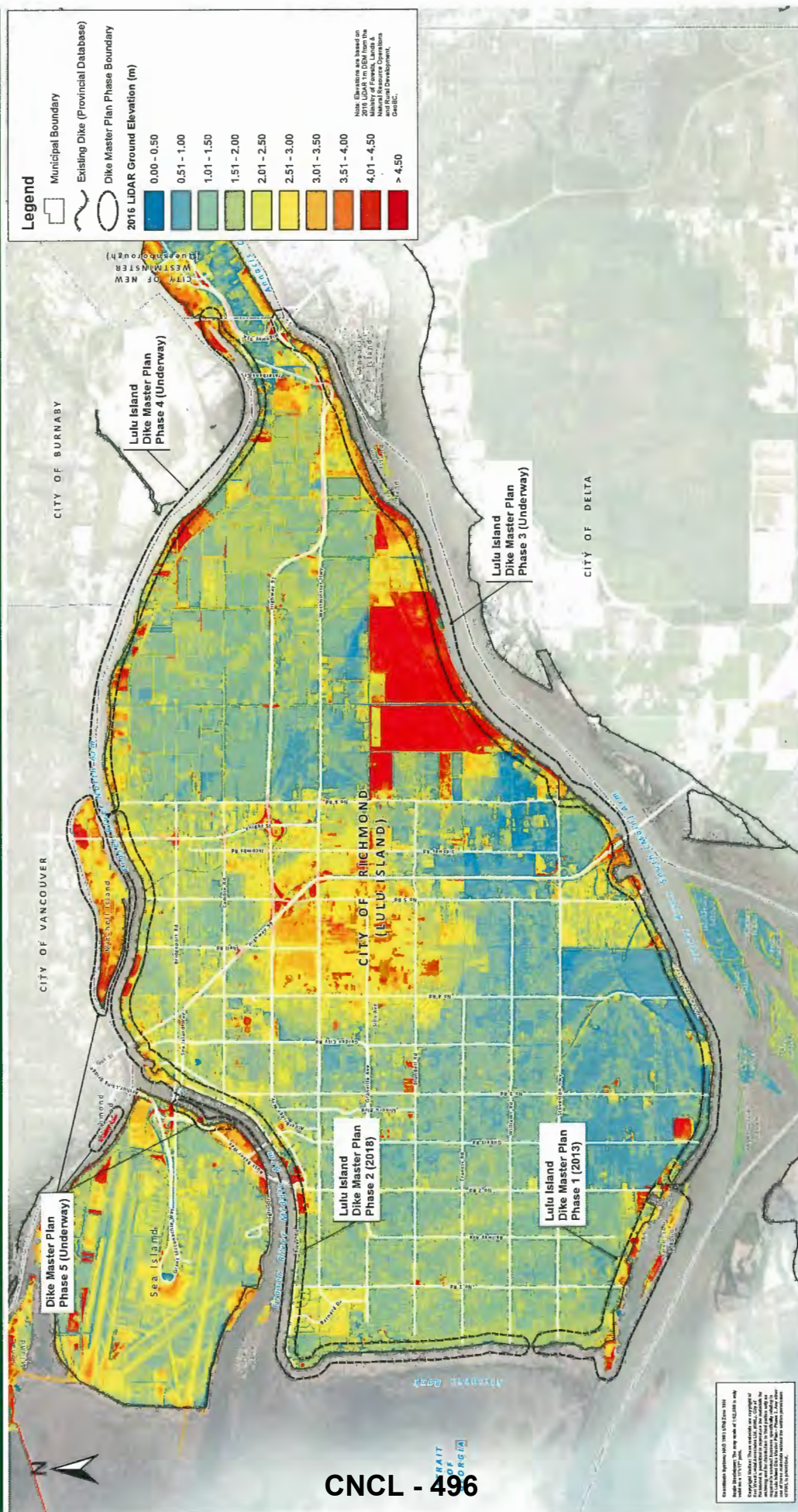
Thurber Engineering Ltd. (Steven Coulter, M.Sc., P.Eng.) provided geotechnical engineering services and Hapa Collaborative (Joseph Fry, BCSLA) provided landscape architecture services.

The project was guided on behalf of the City by:

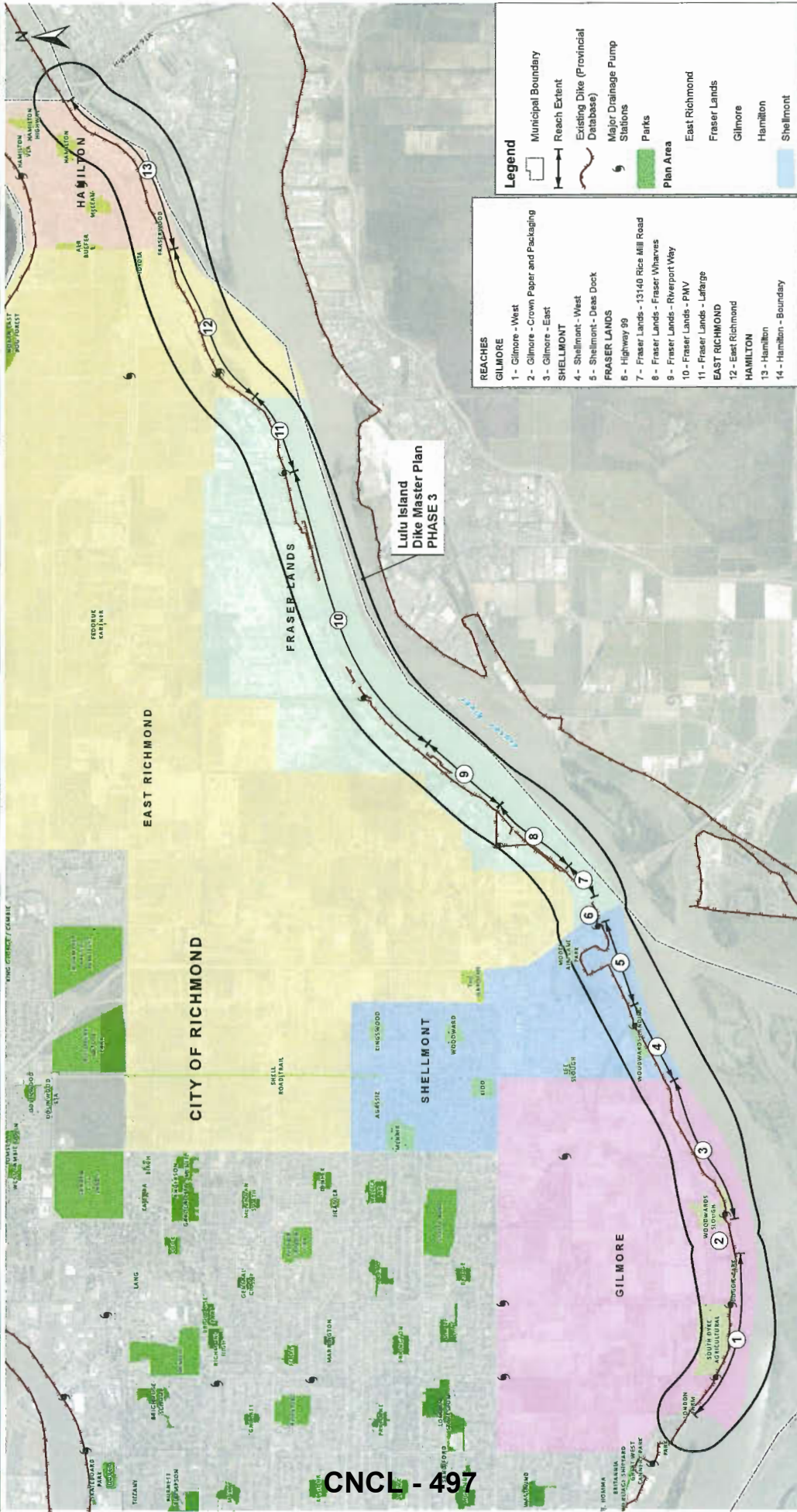
- Lloyd Bie, P.Eng. – Manager, Engineering Planning;
- Corrine Haer, P.Eng. – Project Engineer, Engineering Planning; and
- Pratima Milaire, P.Eng., PMP - Project Engineer, Engineering Planning.

Many additional City staff contributed to the project during workshops, site visits, and in reviewing draft report materials.









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## 2. Existing Conditions

This section summarizes the options development process undertaken, including the following components:

- review of existing conditions;
- design considerations;
- upgrading strategies; and
- preferred options and concepts.

### 2.1 Reaches and Major Features

The dike in Phase 3 is characterized as a dike in the road alignment (predominantly in Dyke Road), a dike through park space and a dike through industrial lands. A variety of land uses, structures and infrastructure are located on either side of the road/dike.

Space is limited in the road corridor presenting unique challenges for the master plan. City staff has identified road safety, including pedestrian and cyclist safety, as an important consideration for the Dike Master Plan.

In the active works yards and port facilities, space can be limited and industrial activities, such as the need for river access and site grading constraints due to specialized machinery, present unique challenges for the master plan. City staff has identified access for dike maintenance and inspection as an important consideration for the Dike Master Plan.

Land uses adjacent to the dike in Phase 3 comprise industrial, agricultural, and single and multi-family residential. The setback between the river bank and the dike varies from more than 15 m to none where the edge of the dike/road is the river bank and riprap bank protection is in place.

There are marine-based industries in Phase 3, including shipbuilding and repair, barge on/off-loading, port facilities, tour operations, and marinas. These operations typically require access to the river over the dike, or they are set outside of the dike and are unprotected.

There are residential settlements on the river-side of the dike. Finn Slough heritage community is a residential community situated on the river, outside of the protection of the dike (Reach 3). And, a recent townhome development (23740 and 23580 Dyke Road, Reach 13) is on the river, outside of the protection of the dike.

Phase 3 has been subdivided into 14 reaches with relatively uniform conditions. Reach extents are presented on Figure 1-2.

Table 2-1 describes the existing conditions and features of each reach. It is anticipated that these defined reaches can be subsequently used for dike upgrading implementation phasing.



Table 2-1: Phase 3 Reaches and Features

Reach # and Name	Extent / Length	Existing Dike Alignment	Major Features
1 – Gilmore West	No. 2 Road to Crown Packaging (2.7 km)	Dyke Road Dyke Trail Dog Park (trail)	<ul style="list-style-type: none"> <li>Dike in road with utilities</li> <li>Habitat, trail, and park amenities on water side</li> <li>Farms, residences, and channels on land side</li> <li>London Heritage Farm, a historical site featuring a 19th-century farmhouse and barn, is located on the landside of the dike at approximate chainage 68+500. Dike upgrades need to protect this area without impacting the existing structures</li> <li>South Dyke Trail runs along the crest of the dike from No. 2 Road to No. 5 Road</li> <li>No. 3 Road Pier, a public amenity on the water side of the dike, at chainage 67+400</li> <li>Lulu Island Waste Water Treatment Plant is located approximately 200 m inland of the dike at chainage 68+100</li> <li>Dike upgrade project between Gilbert Road and No. 3 Road under construction 2018 (approximate chainage 68+100 to 67+300)</li> <li>Fish habitat compensation site at the base of Gilbert Road</li> <li>Drainage channel along the landside toe of the road/dike</li> <li>Gilbert Road South pump station</li> <li>No. 3 Road South pump station</li> </ul>
2 – Crown Packaging	66+500 to 66+150 (350m)	Adjacent to the River Riverside of Crown Packaging	<ul style="list-style-type: none"> <li>Active industrial site and barge facility with restricted maintenance access</li> <li>Rail and road access issues limit options to go around the site</li> <li>Property is leased to Crown Packaging with 18 years left on the lease</li> <li>Restricted City maintenance access</li> <li>Dike crest elevation is approximately 2.75 m to 3.5 m</li> <li>Crown Packaging operates a large cardboard production plant on the site (60 to 65 m from top of bank)</li> <li>Rail line is located on the property (below the dike crest elevation) with rail access from the east</li> </ul>



Reach # & Name	Extent / Length	Existing Dike Alignment	Major Features
3 – Gilmore East	Crown Packaging to Shell Road (1.75 km)	Dyke Road	<ul style="list-style-type: none"> <li>Dike in road with utilities</li> <li>Habitat and Finn Slough on water side</li> <li>Farms and residences on land side</li> <li>Woodwards Slough pump station</li> <li>South Dyke Trail runs along the crest of the dike from No. 2 Road to No. 5 Road</li> <li>Drainage channel on the land side adjacent to the existing road/dike</li> <li>Large, newly built homes and farm structures (barns etc.) near the toe of the existing dike/road</li> </ul>
4 – Shellmont West	Shell Road to No. 5 Road (1 km)	Dyke Road	<ul style="list-style-type: none"> <li>Dike in road with utilities</li> <li>Industrial/commercial buildings and parks on land side</li> <li>South Dyke Trail runs along the crest of the dike from No. 2 Road to No. 5 Road and provides connection to the Horseshoe Slough Trail</li> <li>Woodward's Landing park space</li> <li>Horseshoe Slough pump station</li> <li>Existing drainage channel along the landside toe of the road/dike</li> <li>Habitat, trail, and park amenities on water side</li> </ul>
5 – Shellmont Deas Dock	No. 5 Road to Rice Mill Road (1 km) (1.6 km of dike)	Adjacent to the River	<ul style="list-style-type: none"> <li>Port facilities under redevelopment</li> <li>Active marine work yard and shipyard facilities with restricted maintenance access</li> <li>Rail and road access issues limit options to go around the site</li> <li>Active redevelopment activities</li> <li>Mainland Sand and Gravel have an agreement with the City to maintain a given elevation of the material to provide flood protection (not a defined dike structure on the site)</li> <li>Fish habitat compensation site (plantings along Deas Dock area)</li> <li>BC Ferries, Deas Pacific Marine, have a flood response plan for high water events</li> </ul>



Reach # and Name	Extent / Length	Existing Dike Alignment	Major Features
			<ul style="list-style-type: none"> <li>Mainland Sand and Gravel have an agreement with the City to maintain a given elevation of the material to provide flood protection (not a defined dike structure on the site)</li> <li>Fish habitat compensation site (plantings along Deas Dock area)</li> <li>BC Ferries, Deas Pacific Marine, have a flood response plan for high water events</li> </ul>
6 – Highway 99	Rice Mill Road (250 m)	Adjacent to the River	<ul style="list-style-type: none"> <li>Dike in road</li> <li>Peace Arch (Hwy 99) pump station</li> <li>Flood protection needs to integrate with the George Massey Tunnel</li> <li>Unique risks associated with having a tunnel under the dike</li> </ul>
7 – Fraser Lands – 13140 Rich Mill Road	Rice Mill Road to Fraser Wharves (500 m)	Adjacent to the River	<ul style="list-style-type: none"> <li>Active industrial site, dock and barge facility with restricted maintenance access</li> <li>Rail and road access issues limit options to go around the site</li> <li>Fish habitat compensation site (plantings on the river-side of the property)</li> <li>Dike crest elevation ranges from less than 3 m to up to 3.5 m</li> </ul>
8 – Fraser Lands Fraser Wharves	Fraser Wharves to Steveston Hwy (1 km)	Adjacent to the River	<ul style="list-style-type: none"> <li>Active ship to land car unloading facilities</li> <li>Habitat on water side with limited or no community access</li> <li>Near-term potential redevelopment</li> <li>Active redevelopment activities</li> <li>No. 6 Road South pump station</li> </ul>
9 – Fraser Lands Riverport Way	Steveston Hwy to Williams Road (1 km)	Adjacent to the River	<ul style="list-style-type: none"> <li>Dike in road with utilities and dike trail</li> <li>Residential and commercial development</li> <li>Some recently constructed improvements challenging to raise</li> <li>Redevelopment offers opportunity to raise site (superdikes) and provide community amenities</li> <li>Fish habitat compensation site in front of the Riverport Way development</li> </ul>





Reach # and Name	Extent / Length	Existing Dike Alignment	Major Features
10 – Fraser Lands Port Metro Vancouver	Williams Road to Nelson Road (3.5 km)	Adjacent to the River	<ul style="list-style-type: none"> <li>• PMV development, barge facilities, dredged material and construction material stockpiles on extensive high ground due to historic landfill</li> <li>• Stability concerns due to proximity to narrow section of river with deep dredging</li> <li>• Development offers opportunities for creating superdike improvements and raising the land behind the dike</li> <li>• Opportunities for dike material stockpile areas, and increased public amenities</li> <li>• Three (3) Fish habitat compensation sites: front face of the loading area in the Port, and two (2) intertidal areas near No. 8 Road</li> <li>• City-owned property along the waterfront provides recreational opportunities</li> <li>• No. 7 Road South pump station</li> <li>• Nelson Road South pump station</li> </ul>
11 – Fraser Lands Lafarge	Nelson Road to Dyke Road (1.5 km)	Adjacent to the River	<ul style="list-style-type: none"> <li>• Active industrial site and barge facility with restricted maintenance access</li> <li>• Rail and road access issues limit options to go around the site</li> <li>• Dike upgrade project under construction 2018</li> </ul>
12 – East Richmond	Dyke Road to Fraserwood Way (1.8 km)	Dyke Road	<ul style="list-style-type: none"> <li>• Dike in the road with utilities</li> <li>• Commercial development on land side</li> <li>• Existing drainage channel along the landside toe of the road/dike</li> <li>• Marinas with access over dike on water side</li> <li>• Shelter Island Marina and Boatyard needs low gradient access across the dike for the Travelifts to haul out or launch boats</li> <li>• East Richmond Trail and Fraserwood Trail run along the dike crest, or adjacent to the road from No. 9 Road to Boundary Road</li> <li>• Ewen Road Irrigation pump station</li> </ul>
13/14 – Hamilton/Boundary	Fraserwood Way to Boundary Road	Fraserwood Way Dyke Road	<ul style="list-style-type: none"> <li>• Dike in the road with utilities</li> <li>• Commercial development on land side</li> <li>• Existing drainage channel along the landside toe of the road/dike</li> </ul>



Reach # and Name	Extent / Length	Existing Dike Alignment	Major Features
	(1.7 km)		<ul style="list-style-type: none"><li>• Marinas and float homes with river access over the dike on both the land side and river side</li><li>• East Richmond Trail and Fraserwood Trail run along the dike crest, or adjacent to the road from No. 9 Road to Boundary Road</li><li>• Final 500 m of dike is set back on the land side of Fraserwood Way (Fraserwood Trail) and road and buildings are on the river side of the dike</li><li>• Townhome complex at 23740 and 23580 Dyke Road outside of the dike</li><li>• Fish habitat compensation site on either side of the Queensborough Connector</li><li>• Highway 91 and City of New Westminster dike interface</li></ul>



## 2.2 Land Tenure

The majority of the existing dike footprint is located within the City's road dedication, on a right-of-way, or on City-owned land parcels. However, there are several areas where the existing dike footprint encroaches onto private property or where space is very limited such that any upgrading would encroach onto private property.

The existing land tenure in Phase 3 is presented on Figure 2-1 and in more detail in Appendix A.

## 2.3 Infrastructure

There are considerable infrastructure and utilities associated with the existing dike corridor in Phase 3. In addition to the road that runs along the top of the dike for much of the reach, there are also watermains, sanitary mains and forcemains, drainage channels, and storm mains that run parallel to the dike, predominantly at the landside toe. This infrastructure will need to be moved to accommodate any increases to the dike footprint.

There are nine (9) pump stations that cross through the dike in Phase 3. The pump stations and the associated reach are summarized in Table 2-2. The condition of the pump stations was not assessed as part of preparing the master plan.

**Table 2-2: Phase 3 Pump Stations and Reach Locations**

Pump Station	Reach
Gilbert Road South	1
No. 3 Road South	1
Woodwards Slough	3
Horseshoe Slough	4
Peace Arch (Hwy 99)	6
No. 6 Road South	8
No. 7 Road South	10
Nelson Road South	10
Ewen Road Irrigation	12

There are a number of parks and public spaces associated with the existing dike (Table 2-3). The dike crest provides recreation opportunities and connection for the public to the waterfront. The South Dyke Trail runs along the crest of the dike from No. 2 Road to No. 5 Road (Reaches 1 through 4), with a short detour around Crown Packaging (Reach 2). The South Dyke Trail provides connection to inland trails, including the Horseshoe Slough Trail.

The East Richmond Trail and Fraserwood Trail run along the dike crest, or adjacent to Fraserwood Way and Dyke Road, from No. 9 Road to Boundary Road (Reaches 12 and 13).

In addition to the official City parks and trails, there are portions of the dike which is City-owned land and is used by the public as an unofficial trail and recreational area (Reach 10).





**Table 2-3: Phase 3 Parks and Reach Locations**

Park Name	Reach
No. 2 Road Pier/London's Landing	1
Gilbert Beach	1
London Heritage Farm	1
Dyke Trail Dog Park	1
No. 3 Road Waterfront Park / No. 3 Road Fishing Pier	1
Woodward's Landing	4

## 2.4 Habitat

### Methodology

A desktop review was conducted to the ecological setting along and adjacent to the length of proposed dike upgrades. The Phase 3 study area includes the existing dike and adjacent land or intertidal area on the south side of Lulu Island between Princess Lane and Boundary Road and is split into 14 reaches. Spatial data were used to identify overlap of known environmental values with the Phase 3 study area, which will inform development of the detailed design for dike improvements.

Spatial data reviewed in the desktop study includes:

- Fraser River Estuary Management Program mapping (FREMP 2012, 2007) mapping used to identify riparian and intertidal habitat types and quality;
- iMapBC web application (iMapBC 2017);
- Richmond Interactive Map web application (City of Richmond 2018) and
- City of Richmond aerial photographs (Richmond Interactive Map 2017).

The location and extent of high quality Fraser River riparian and intertidal habitat was identified to inform development of dike upgrade options and their potential impacts. FREMP habitat polygons were assigned the following categories: high quality riparian, high quality intertidal, or other. Deciduous tree woodland polygons were categorized as high quality riparian habitat because these communities provide cover and nutrients to fish using nearshore habitat. Mud, sand, and marsh polygons were categorized as high quality intertidal habitat because of the foraging and nesting habitat they provide for bird species and the foraging, egg deposition and rearing habitat they provide for fish species. Aquatic and riparian habitat on the land side of the existing dike was identified and mapped using the Riparian Area Regulation buffer layers from the Richmond Interactive Map (City of Richmond 2018) and interpretation of recent aerial photography (City of Richmond 2017).



### **Fish and Aquatic Habitat**

High quality intertidal and riparian habitat is present in 12 of 13 Phase 3 reaches on the Fraser River side of the dike. This important habitat provides forage and cover habitat as well as a staging area for anadromous salmonids transitioning from saltwater to freshwater. Conversely, armoured sections of shoreline on the Fraser River side of the existing dike are present in Reaches 1, 2, 3, 7, 8, 9, 11, and 12. These sections provide limited habitat value and construction here would have less of a negative impact on fish.

On the land-side of the dike, drainage channels are present in 7 of 13 reaches (Reaches 1, 3, 4, 5, 10, 12, 13). These channels provide low to moderate quality aquatic and riparian habitat for fish and amphibians.

Seven fish habitat compensation are present in the Phase 3 study area. Completed between 1979 and 2004, these projects included the creation of intertidal marsh habitat to compensate for damage to habitat elsewhere. The reaches where these habitat compensation projects are located are listed in Table 2-4.

### **Wildlife and Terrestrial Habitat**

Terrestrial habitat types in Phase 3 include deciduous tree woodland, tall shrub woodland, low shrub woodland, and vascular plant meadow, as well as uncategorized sections (e.g. paved lots; FREMP 2007). These habitat types have potential to provide nesting habitat to migratory birds in all reaches of Phase 3. Orthoimagery review identified potential raptor nesting trees in all reaches of the Phase 3 study area.

The internal drainage channels that are mentioned above and are present in six of the thirteen reaches of Phase 3 (Reaches 1, 3, 4, 10, 12, and 13) are likely used by native amphibian species as breeding habitat as well as by fish species. It is possible that additional amphibian habitat is present in small ponds or channels along the dike that were not identified in the desktop review.

### **Species and Ecological Communities at Risk**

No known occurrences of terrestrial wildlife species at risk are present in the Phase 3 study area but several occurrences exist nearby, on islands in the Fraser River or on the river banks across from Richmond. It is possible that individuals of these species also occur on the Richmond side of the Fraser River. The Lower Fraser River population of White Sturgeon (*Acipenser transmontanus* pop. 4) is known to occur in the Fraser River next to the dike. Mapped critical habitat for at-risk species is not present within 500 m of the study area.

FREMP mapping (2007) shows the presence of intertidal marsh communities in eight of thirteen reaches of the Phase 3 study area (Reaches 1, 2, 3, 8, 9, 10, 12, and 13). Many of these communities in British Columbia are considered at-risk (i.e. Blue-Listed; special concern, or Red-Listed; threatened, or endangered). No ecological communities at-risk are shown in either the study area on BC iMap (2017), but it is likely that some are present in the Phase 3 study area.

Table 2-4 presents the findings of the desktop review on a reach-by-reach basis and separates Fraser River side results from land-side results.

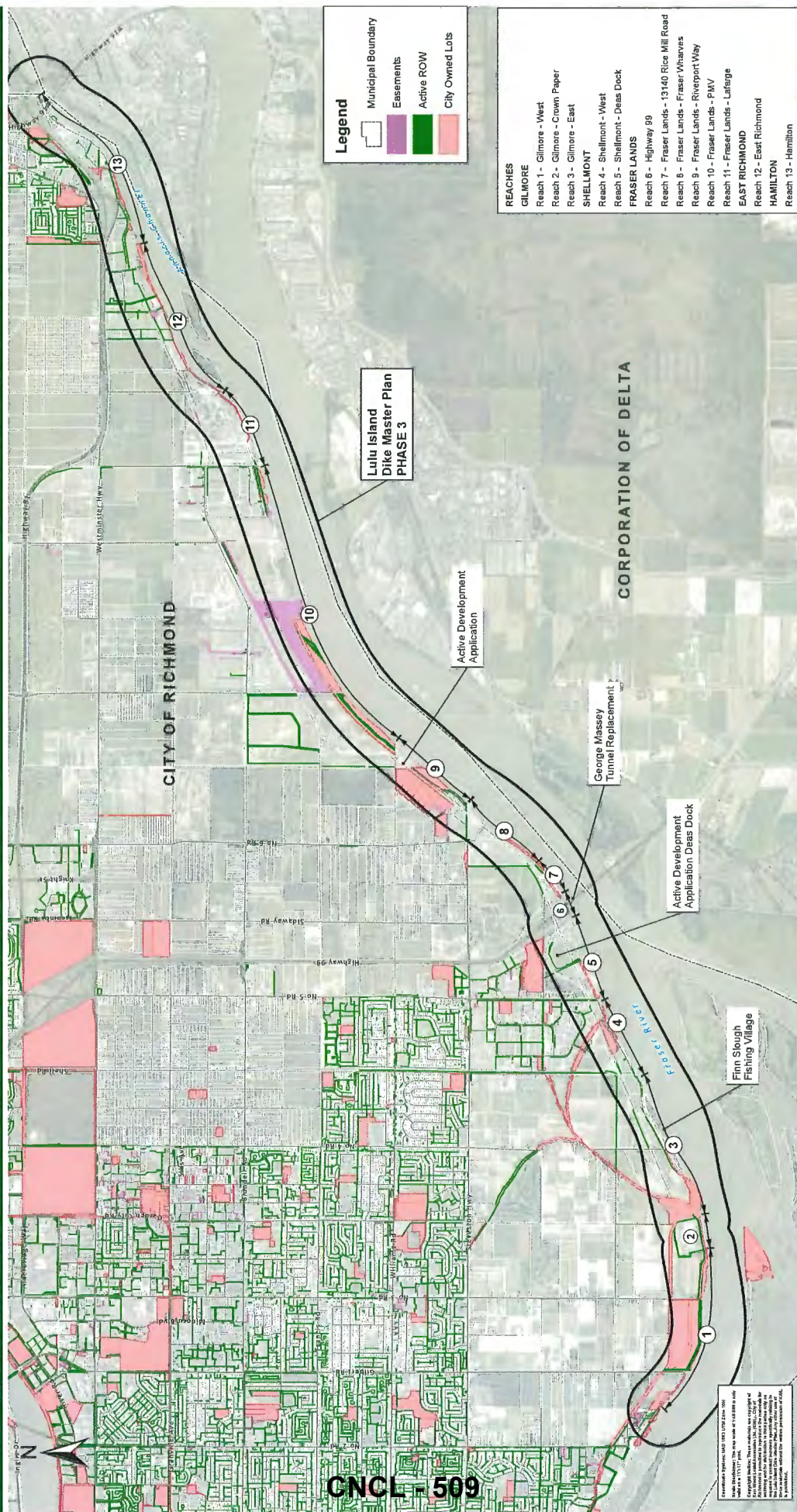
Table 2-4: Environmental Values

Reach #	Location	Environmental setting (organized by inland side and shoreline side of existing dike)	Construction Constraints	Construction Opportunities	FREMP Habitat Types	Known Species at Risk Occurrence Near Dike Alignment	Potential Raptor Nesting Trees	Potential Migratory Bird Nesting Habitat	Existing Habitat Compensation Sites Present
1 Gillmore - West	Land Side	<ul style="list-style-type: none"> <li>Most of reach bordered by low-quality fish-bearing, and amphibian habitat drainage channel</li> <li>Moderate quality deciduous woodland, tall shrub woodland, and meadow present on inland bank of drainage channel</li> </ul>	Drainage channel full length of reach	East end of reach, dike is set back from watercourse	Deciduous free woodland Tall shrub woodland Meadow	Henderson's Checker-mallow ( <i>Sidalcea hendersonii</i> ) Joe-pye Weed ( <i>Eurochium maculatum</i> var. <i>bruneri</i> ) Vancouver Island bogpatrik ( <i>Boerhaavia angustifolia</i> ) White Sturgeon (Lower Fraser River population) ( <i>Acipenser transmontanus</i> pop. 4)	Y	Y	Project: Lulu Island Sewage Treatment Plant Replacement Year Created: 1993
	Fraser River Side	<ul style="list-style-type: none"> <li>Western third of reach is bordered by high quality marsh and mudflat habitat</li> <li>Middle third of reach is low quality habitat armoured bank</li> <li>Eastern third of reach has narrow strip of marsh habitat</li> </ul>	High quality habitat at west end	Existing dike is set back from the shoreline in portions of this reach	Marsh Meadow Mudflat				
2 Gillmore - Crown Paper	Land Side	<ul style="list-style-type: none"> <li>Paved parking lot</li> </ul>	Private property	n/a	Unvegetated	White Sturgeon (Lower Fraser River population) ( <i>Acipenser transmontanus</i> pop. 4)	Y	Y	N
	Fraser River Side	<ul style="list-style-type: none"> <li>Armoured bank with small area of high quality riparian deciduous tree woodland habitat</li> </ul>	Small area of high quality habitat	n/a	Marsh Meadow				
3 Gillmore - East	Land Side	<ul style="list-style-type: none"> <li>Drainage channel bordering agricultural fields along entire length of reach (Potential amphibian breeding habitat)</li> <li>Fish species presence not recorded</li> </ul>	Drainage channel bordering dike	n/a	Meadow Low shrub woodland Deciduous free woodland	Flowering Quillwort ( <i>Utricularia scilloides</i> ) White Sturgeon (Lower Fraser River population) ( <i>Acipenser transmontanus</i> pop. 4)	Y	Y	N
	Fraser River Side	<ul style="list-style-type: none"> <li>Habitat in West quarter of reach is low quality (landscaped grasses and walking trails, set back from armoured slope)</li> <li>Middle section adjacent to Gilmore Slough, (records of threespine stickleback and carp)</li> <li>Habitat on banks of Gilmore slough is high quality marsh</li> <li>Riparian habitat on south side of Gilmore slough is high quality (tall shrubby woodland)</li> </ul>	Gilmore slough (high quality habitat) bordering dike	Dike is set back from shoreline at west end	Meadow Marsh Deciduous free woodland Mud flat				
4 Shellmont - West	Land Side	<ul style="list-style-type: none"> <li>Low quality habitat, walking path and maintained lawn at east and west end of reach</li> <li>Drainage channel adjacent to middle of reach (Threespine stickleback, amphibian habitat)</li> </ul>	Drainage channel in middle of reach	Absence of watercourses in east and west ends	Deciduous free woodland Meadow	White Sturgeon (Lower Fraser River population) ( <i>Acipenser transmontanus</i> pop. 4)	Y	Y	N
	Fraser River Side	<ul style="list-style-type: none"> <li>Very West end of reach is set back from Fraser River</li> <li>High quality marsh habitat in Fraser River in east half of Reach</li> </ul>	High quality riparian habitat at west end. Marsh at east half	Low quality riparian habitat in middle third	Deciduous free woodland Sand Meadow				
5 Shellmont - Deas Dock	Land Side	<ul style="list-style-type: none"> <li>Mostly paved, some low quality herbaceous habitat present</li> </ul>	n/a	Low quality habitat and absence of watercourses along full length	Meadow Unvegetated	White Sturgeon (Lower Fraser River population) ( <i>Acipenser transmontanus</i> pop. 4)	Y	Y	Project: Richmond Plywood Year Created: 1989
	Fraser River Side	<ul style="list-style-type: none"> <li>Dike is set back approx. 100 m from High Quality marsh habitat in west half of reach</li> <li>High quality mudflats and marsh bordering dike in east third of reach</li> </ul>	High quality habitat at east end	Absence of riparian habitat on east side of bay Dike is set back from riparian habitat on west end	Sand Meadow Mud flat				
6 Highway 99	Land Side	<ul style="list-style-type: none"> <li>Low quality gravel parking lots</li> </ul>	n/a	Low quality habitat along full length	Deciduous free woodland	White Sturgeon (Lower Fraser River population) ( <i>Acipenser transmontanus</i> pop. 4)	Y	Y	N
	Fraser River Side	<ul style="list-style-type: none"> <li>High quality deciduous free riparian woodland, mostly at west end</li> </ul>	High quality riparian habitat	n/a	Deciduous free woodland				
7 Fraser Lands - 13140 Rice Mill Road	Land Side	<ul style="list-style-type: none"> <li>Some deciduous trees, but mostly paved of buildings</li> </ul>	Private property, buildings Some trees at east end	Mostly low quality paved	Meadow Unvegetated	Pointed Rush ( <i>Juncus oxymeris</i> ) White Sturgeon (Lower Fraser River population) ( <i>Acipenser transmontanus</i> pop. 4)	Y	Y	Project: Ocean Fisheries Limited Year Created: 1987
	Fraser River Side	<ul style="list-style-type: none"> <li>Low quality habitat armoured slope or pier</li> </ul>	Pier	Low quality riparian habitat	Meadow Unvegetated				



Reach #	Location	Environmental setting (organized by inland side and shoreline side of existing dike)	Construction Constraints	Construction Opportunities	FREMP Habitat Types	Known Species at Risk Occurrence Near Dike Alignment	Potential Raptor Nesting Trees	Potential Migratory Bird Nesting Habitat	Existing Habitat Compensation Sites Present
8 Fraser Lands - Riverport Wharves	Land Side	<ul style="list-style-type: none"> <li>Paved Parking Lot, some low quality shrub habitat between dike and pavement</li> <li>High quality deciduous forest riparian habitat in east half and small patch in west half-armed slope and pier in middle of reach</li> </ul>	n/a	Low quality habitat along full length	Meadow Unvegetated	White Sturgeon (Lower Fraser River population) (Acipenser transmontanus pop. 4)	Y	Y	N
	Fraser River Side	<ul style="list-style-type: none"> <li>Maintained lawn or gravel lot, low quality habitat</li> </ul>	Private property	Low quality habitat along full length	Meadow Unvegetated				
	Land Side	<ul style="list-style-type: none"> <li>High quality deciduous forest riparian habitat in middle of reach</li> <li>Low quality habitat armoured bank at east and west ends</li> </ul>	High quality riparian habitat in middle of reach	Low quality riparian habitat at east and west ends of reach	Meadow, deciduous tree woodland Unvegetated	White Sturgeon (Lower Fraser River population) (Acipenser transmontanus pop. 4)	Y	Y	Project: Legacy Park Lands Year Created: 2003
9 Fraser Lands - Riverport Way	Fraser River Side	<ul style="list-style-type: none"> <li>Drainage channel at east end (Slickleback, amphibian habitat)</li> <li>Paved lots at east and west ends</li> <li>Large, seasonally flooded area in middle of reach (Potential for overwintering habitat creation)</li> </ul>	Drainage channel at east end flooded area in middle of reach	Sections of low quality habitat at west end and east ends	Meadow Tall shrub woodland				Project: Range Facility Year Created: 2003
	Land Side	<ul style="list-style-type: none"> <li>Large areas of high quality riparian forest, intertidal marsh along full length of reach</li> </ul>	Large areas of high quality riparian habitat intertidal marsh along full length of reach	n/a	Deciduous tree woodland Marsh Sand bar Meadow	Three-flowered ( <i>Waterwort Elatine rubella</i> ) White Sturgeon (Lower Fraser River population) (Acipenser transmontanus pop. 4)	Y	Y	Project: Fraser Richmond Landfill Compensation Sites (2) Year Created: 1979
	Fraser River Side	<ul style="list-style-type: none"> <li>Low quality habitat paved lots and buildings</li> </ul>	Private property	Low quality habitat, absence of watercourses	None (Paved)				
10 Fraser Lands - PMV	Land Side	<ul style="list-style-type: none"> <li>Some high quality forested riparian habitat at east end</li> <li>Low quality habitat armoured bank at west end</li> </ul>	High quality habitat at east end of reach	Low quality armoured bank at west end of reach	Meadow Deciduous tree woodland Sand	Three-flowered ( <i>Waterwort Elatine rubella</i> ) White Sturgeon (Lower Fraser River population) (Acipenser transmontanus pop. 4)	Y	Y	N
	Fraser River Side	<ul style="list-style-type: none"> <li>Drainage channels adjacent to dike at east and west ends of reach (amphibian habitat)</li> <li>Low quality habitat paved or maintained lawn in middle of reach</li> </ul>	Drainage channel at east and west ends	Paved or maintained lawn in middle of reach	Meadow Low shrub woodland Deciduous tree woodland Unvegetated				
	Land Side	<ul style="list-style-type: none"> <li>High quality habitat mud flats at middle and east end of reach</li> <li>Deciduous forest woodland high quality habitat at west end of reach</li> </ul>	High quality habitat along almost full length of reach	Small section of low quality armoured bank in western portion of reach	Deciduous tree woodland Meadow Mud flat Marsh	White Sturgeon (Lower Fraser River population) (Acipenser transmontanus pop. 4)	Y	Y	N
11 East Richmond	Fraser River Side	<ul style="list-style-type: none"> <li>Drainage channels at very west end and in middle of reach (amphibian habitat)</li> <li>Low quality paved or landscaping shrubs at west end of reach</li> <li>High quality shrubland habitat at east end of reach</li> </ul>	Drainage channel at very west end and in middle of reach	Low quality habitat in west end of reach	Meadow				Project: Former Queensborough Shipyard Restoration Year Created: 2004
	Land Side	<ul style="list-style-type: none"> <li>High quality mud flats and marsh at west end of reach</li> <li>Patches of high quality marsh and riparian deciduous woodland along east end of reach</li> <li>Small patches of unvegetated low quality habitat along reach</li> </ul>	High quality habitat at west end of reach	Small patches of low quality habitat	Deciduous tree woodland Marsh Mudflat Meadow Sandbar	White Sturgeon (Lower Fraser River population) (Acipenser transmontanus pop. 4)	Y	Y	
	Fraser River Side								
12 East Richmond	Land Side								
13/14 Hamilton/Bo undary	Fraser River Side								





**Figure 2-1**



### 3. Options Assessment

This section summarizes the options development process, including the following components:

- design considerations and design criteria;
- upgrading strategies;
- upgrading options and concepts; and
- recommended options for implementation

The next version of the draft report will include a summary of external stakeholder engagement results.

#### 3.1 Design Considerations

This section summarizes the main themes and issues that have informed the development of upgrading strategies and options for Phase 3.

##### Dike Performance, Maintenance, and Upgrading

Dike performance, maintenance, and upgrading are the most important design considerations for the Dike Master Plan.

The following themes define the ideal vision for dike upgrading:

1. **Level of Protection:** The City's 2008-2031 Flood Protection Management Strategy sets a target level of protection for structural measures. The City is presently developing an updated flood protection management strategy that will have an even more ambitious flood protection level target. The level of protection translates to a hazard-based design flood scenario to be incorporated into the Dike Master Plan. At this time, the proposed design flood scenario for the Lulu Island perimeter dike is the 500-year return period flood event (0.2 % annual exceedance probability, AEP) with climate change allowances including 1 m of sea level rise. However, the Dike Master Plan should be flexible to accommodate a future change in the design flood scenario.
2. **Form and Performance:** The preferred form of the dike is a continuous, compacted dike fill embankment with standard or better geometry. Walls and other non-standard forms are less reliable and are not preferred. The level of performance of the dike should be in line with the significant population and assets that the dike protects. The dike should meet all relevant design guidelines of the day and in some cases, exceed guidelines to provide a higher level of performance. Dike performance can be expressed in terms of freeboard above the design flood scenario water level and factors of safety against various failure processes, including flood conditions and internal erosion (piping).
3. **Passive Operation:** Minimal human or mechanical intervention or operation should be required to achieve full dike performance. To achieve this, the dike should not have any gaps, gates, or stop log structures.
4. **Enhance Performance (slow failure):** The likelihood of a catastrophic dike failure causing significant flood damages can be reduced by design features that aim to slow down failure processes, provide redundancy, and provide time to implement emergency repairs. In general, failure can be slowed or controlled with additional setback, crest width, and armouring of the river side slope, crest, and land-side slope. Such measures can slow the impacts of river erosion, overtopping erosion, and stability failures. Increased monitoring approaches and technology may also be helpful.





5. **Post-earthquake Protection:** The dike should provide adequate protection following a major earthquake until permanent repairs can be implemented. In general, this means avoiding dike conditions where a major earthquake would result in a sudden and full failure of the dike cross-section into the river, referred to as a 'flow-slide failure'. Other conditions where the dike crest settles, but still provides sufficient freeboard and factors of safety until repairs can be conducted may be tolerable. In general, increased crest width, crest elevation, and setback from the river may be undertaken to help achieve adequate post-earthquake protection. In some cases, improved seismic performance will also require ground improvement and densification works.
6. **Future Upgrading:** Uncertainty in climate change, particularly sea level rise timing, may require the City to further upgrade the dike sooner or higher than anticipated by current guidelines and policies. Sufficient space should be reserved under secured land tenure for future upgrading based on standard geometry. Conceptual design is provided for design flood levels which incorporate 1 m of sea level rise, and proof-of-concept design is provided for design flood levels which incorporate another 1 m water level increase for further climate change impacts (i.e. 2 m of sea level rise).

Some specific design considerations related to the above principles are presented in Table 3-1.

**Table 3-1: Ideal Dike Design Principles and Considerations**

Design Principle	Ideal Design Principles and Considerations
Level of Protection	<ul style="list-style-type: none"><li>• Based on 2008-2031 Flood Protection Management Strategy</li><li>• Currently proposed: 500-year return period (0.2% AEP) with climate change allowances as per provincial studies</li></ul>
Form and Performance	<ul style="list-style-type: none"><li>• Continuous, compacted dike fill with standard or better geometry</li><li>• Crest elevation and adequate freeboard</li><li>• Factors of safety for stability</li><li>• Minimal infrastructure within the dike corridor</li><li>• Adequate bank protection or setback</li></ul>
Passive operation	<ul style="list-style-type: none"><li>• No gaps, gates, or stop logs</li><li>• Passive monitoring (e.g. SCADA water levels)</li></ul>
Enhance Performance (slow failure)	<ul style="list-style-type: none"><li>• Wide dike crest</li><li>• Armoured river-bank slope to resist erosion</li><li>• Paved/armoured crest and/or land-side slope to resist overtopping</li><li>• Wide setback from the river</li></ul>
Post-earthquake Protection	<ul style="list-style-type: none"><li>• No loss of full dike geometry into the river ("flowslide failure") up to a return period to be determined</li><li>• Adequate post-earthquake freeboard and stability until repairs</li><li>• Wide dike crest and/or wide setback from the river</li></ul>
Future upgrading	<ul style="list-style-type: none"><li>• Space and tenure for upgrading (standard or better geometry)</li><li>• Avoid need for future infrastructure relocation or land acquisition</li></ul>





## Road Safety and Access

The safety of drivers, cyclists, and pedestrians using Dyke Road, Fraserwood Way and the dike trail system in south Richmond is a significant consideration in Phase 3. City transportation engineering staff were consulted during the master plan development to provide input on dike upgrading concepts that will also improve road safety. The City's preferred concept for Dyke Road is to provide wider vehicle travel lanes and separated multi-use paths, which may be located on the dike crest. Preferred travel lane and multi-use path widths are documented in the design criteria in Section 3.2.

Vehicle access to the properties located on both sides of Dyke Road is also a significant consideration. Dike raising alignments will impact driveway access for both residential and commercial landowners. Land use on these properties includes industrial / port-related uses, residential, and agricultural. As such, a variety of vehicles, including semi-trailer trucks, need safe access from Dyke Road to these properties. Currently, these properties are generally at grade with or slightly below the road and access is provided via asphalt or gravel driveways.

Driveway access was considered in options development by identifying several access upgrading concepts including upgrading driveways, land filling to raise sites to the dike / road level, and providing vehicle parking at the dike / road level.

## Land Raising and Acquisition

Land acquisition is an important consideration for the development and evaluation of dike upgrading options. In many areas, the existing dike corridor is confined on both sides by private property with no room for expansion of the dike footprint.

The figures in Appendix A present the overlap between the proposed dike footprint and private property for select upgrading options discussed in Section 3. This overlap can be used to produce a land acquisition plan.

In some locations, an alternative to land acquisition may be to raise private property lots up to the dike elevation to create a much wider land raising platform (similar to recent developments along the Middle Arm (e.g. Olympic Oval). The active redevelopment activities through the Fraser Lands (Reaches 7 – 11) offer opportunities for land raising to create so-called "superdikes".

## Industrial Operations and River Access

South Richmond (Phase 3) is an important industrial area in the City. Existing industrial operations and river access for marine operations is an important consideration for developing and evaluating the dike upgrading options. In particular, landowners and leaseholders at Crown Packaging (Reach 2), Mainland Sand and Gravel (Reach 5), BC Ferries Richmond (Reach 5), Canadian Fishing Company (Reach 7), Fraser Wharves ship-to-land car unloading facilities (Reach 8), Port Metro Vancouver (Reach 10), Lafarge (Reach 11), Shelter Island Marina and Boatyard (Reach 12), and various small marine operations (Reach 12 and Reach 13).

In these locations, alternative dike geometries may be considered in the interim until redevelopment allows for land acquisition or land raising activities.



## Internal Drainage System

As with any diked area, drainage for the interior protected area must be integrated with the flood protection measures such that the protected area does not experience flooding due to conflicting functions between the drainage of water from the interior area and prevention of flooding from water exterior to the dike system.

There are several smaller drainage channels and drainage pipes located at the landside toe of the existing dike providing local surface drainage for the area. As part of any upgrades, the existing drainage channel along the landside toe will need to be moved out of the proposed dike section or replaced with a pipe and inlets for local drainage. Additionally, the existing drainage pipes located within the proposed dike section may need to be relocated or upgraded to accommodate the proposed dike section.

The existing intakes and outfalls for the pump stations may need to be modified or extended and the pump station piping should be reviewed to consider structural impacts of the preferred dike section.

## Tie-in with City of New Westminster Dike

The Phase 3 dike needs to tie into the City of New Westminster portion of the Lulu Island perimeter dike.

Approximately 500 m of the current dike in the boundary area is set back from Dyke Road so that the road and riverside townhomes (23740 and 23580 Dyke Road) are outside of the protection of the dike. The dike then ties back into the road at the Boundary Road and continues as part of South Dyke Road in the City of New Westminster.

Coordination between the City and the City of New Westminster is needed to confirm the dike tie-in design at the boundary.

## Potential Future Secondary Dikes

The City's 2008-2031 Flood Protection Management Strategy identifies potential secondary dike concepts which are important considerations for Phase 3, including the proposed mid-island dike and the proposed Richmond-New Westminster boundary dike. The purpose of these secondary dikes is to limit flood damages by creating flood cells on Lulu Island which would contain flooding to smaller areas and prevent complete flooding of the island if dike breaches were to occur.

The Phase 3 Dike Master Plan has been developed to allow tie-ins with the possible mid-island dike and the proposed Richmond-New Westminster boundary dike. The possible mid-island dike is not addressed because it is linked to changes to the George Massey Tunnel and the tunnel's potential replacement. It is understood the City is also considering the implementation of both of these proposed dikes through gradual land raising through development as opposed to a dedicated dike corridor. The City's 2008-2031 Flood Protection Management Strategy provides additional information regarding potential future secondary dikes.

## Environmental Considerations

The City's Official Community Plan (OCP) bylaw (2011) includes an Environmental Management Strategy (ENMS) that identifies ecologically important areas in the City's Ecological Network (EN). These areas include Environmentally Sensitive Areas (ESAs) and Riparian Management Areas (RMAs), and EN components (hubs, sites, and corridors, shoreline, city parks).



ESAs are designated as Development Permit Areas (DPAs) with specific restrictions and guidelines for development controlled through a review and permitting process (HB Lanarc-Golder and Raincoast Applied Ecology 2012). There are five ESA types, based on habitat, each with specific management objectives. These are summarized in Table 3-2 and more detailed guidelines can be found in HB Lanarc-Golder and Raincoast Applied Ecology (2012). According to Richmond's OCP dike maintenance is exempt from development permits in ESAs. However, the guidelines provide useful direction that can be used to minimize impacts to these areas and provincial and federal legislation (see below) still applies to these areas.

RMAs are setbacks that were implemented in accordance with the Provincial *Riparian Areas Protection Act* and act as pre-determined Streamside and Protection Areas (SPEAs) under the Act. They extend 5 m or 15 m back from the top of bank of the City's channelized watercourses and are to remain free from development unless authorized by the City (City of Richmond, 2017). RMAs are present in 10 of 13 Phase 3 reaches (Reaches 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13).

Hubs, sites, and corridors are components of the City of Richmond's EN, which are not specifically afforded protection, but often overlap ESAs and RMAs, which are protected. These components are present in 11 of 13 reaches of Phase 3 (Reaches 1, 2, 3, 4, 5, 6, 8, 9, 10, 12, and 13).

Dike upgrade options will consider the potential impacts to these areas.

**Table 3-2: City of Richmond ESA Type Management Objectives**

ESA Type	Reaches Where Present	Management Objectives
Intertidal	All	<ul style="list-style-type: none"><li>• Prevent infilling or direct disturbance to vegetation and soil in the intertidal zones</li><li>• Maintain ecosystem processes such as drainage or sediment that sustain intertidal zones</li></ul>
Shoreline	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12	<ul style="list-style-type: none"><li>• Preserve existing shoreline vegetation and soils, and increase natural vegetation in developed areas during development or retrofitting</li></ul>
Upland Forest	1, 10, 12, 13	<ul style="list-style-type: none"><li>• Maintain stands or patches of healthy upland forests by preventing or limiting tree removal or damage, and maintaining ecological processes that sustain forests over the long term</li></ul>
Old Fields and Shrublands	None	<ul style="list-style-type: none"><li>• Maintain the extent and condition of old fields and shrublands, while recognizing the dynamic nature of these ecosystems</li><li>• Preservation should recognize the balance between habitat loss and creation with the overall objective of preventing permanent loss of old fields and shrublands</li></ul>
Freshwater Wetland	3, 4	<ul style="list-style-type: none"><li>• Maintain the areal extent and condition of freshwater wetland ESAs by preserving vegetation and soils, and maintaining predevelopment hydrology, drainage patterns, and water quality</li></ul>

Source: (HB Lanarc-Golder and Raincoast Applied Ecology 2012)





### Fish Habitat and Offsetting

Fish and aquatic habitat is protected by the federal *Fisheries Act*. Under the Act, *serious harm to fish* must be authorized by the Minister of Fisheries and Oceans and impacts that cannot be avoided or mitigated must be balanced through offsetting. Offsetting plans are negotiated on a case-by-case basis and may require consultation with aboriginal groups and the Province. Offsetting options include habitat restoration, enhancement, habitat creation (or a combination of the three) and must be proportional to the loss caused by the project. The area of offsetting may need to be increased to account for uncertainty of effectiveness and time lag between impacts and offsetting. Often, the offset area is equal to an area greater than that of the impacted area.

### Wildlife Considerations

Migratory birds, their eggs, and active nests are protected by the *Migratory Birds Convention Act* and appropriate measures must be taken to avoid incidental take. The most effective and efficient of these measures includes scheduling vegetation clearing outside of the migratory bird nesting season. If this is not possible, bird nest surveys can be completed immediately prior to vegetation clearing to identify active nests and delay vegetation clearing until the nest is no longer active.

The nests of Bald Eagles, herons and other raptors (both active and inactive) are protected under the Provincial *Wildlife Act*. It is also prohibited under the *Wildlife Act* to harm an active bird nest, birds, and their eggs. The detailed design stage for dike upgrading should attempt to avoid the removal of trees where bald eagle nests are located.

Native amphibian species are likely use the drainage channels at the toes of the land side of the dike. These species are protected by the provincial *Wildlife Act* and detailed design should consider potential impacts to these species.

### Public Realm and Ecological Enhancement

The dike is a major existing public realm feature providing a variety of recreation opportunities. The Dike Master Plan provides an opportunity to significantly enhance the public amenity of the dike system. Additionally, the dike upgrading provides an opportunity to enhance ecological value through the landscaping treatments that will define the dike surface and edges.

Appendix B presents a suite of landscape concepts prepared by landscape architects at Hapa to supplement the Dike Master Plan. These include landscape design principles, an overall network connectivity concept for the Lulu Island perimeter dike trail, and design toolkits for ecological enhancement and public realm features. Additionally, the Appendix B presents a suite of landscape concepts to supplement the upgrading options presented in Section 3.6.



## 3.2 Design Criteria

This section describes the main design criteria used in the Dike Master Plan.

Table 3-3 presents a summary of the criteria and is followed by additional discussion. The criteria are presented in terms of both what is the minimum acceptable level and the preferred level.

**Table 3-3: Design Criteria Summary**

Item	Value and Description	
	Minimum Acceptable	Preferred
Proposed Dike Crest Elevation	4.7 m CGVD28 downstream of Nelson Road 4.7 m CGVD28 to 5.0 m CGVD28 between Nelson Road and Boundary Road	
Future Dike Crest Elevation (for proof-of-concept design)	5.5 m CGVD28 downstream of Nelson Road 5.5 m CGVD28 to 6.0 m CGVD28 between Nelson Road and Boundary Road	
Geometry and Stability	4 m wide crest with dike fill core 3H:1V land-side slope 3H:1V river-side slope (or 2H:1V with riprap revetment) Retaining walls minimized Sheetpile walls acceptable only with minimum 4 m wide dike fill core behind wall No standalone flood walls Meet minimum geotechnical factors of safety	Meets or exceed provincial dike standard and City dike standard
Land Tenure	Registered standard right-of-way	Dike located on City-owned land
Infrastructure in Dike	Crossings designed with seepage control Locate parallel infrastructure to land-side away from dike core	No infrastructure in dike
Vegetation on the Dike Slopes and Crest	Minimize shrubs and trees on the dike crest and slopes Operation and maintenance procedures need to deal with excessive vegetation	With overwide dike, it may be appropriate to allow for some relaxation of vegetation guidelines
Land Adjacent to Dike	Land is raised as much as is practical	Land is raised to meet or exceed dike crest elevation



Item	Value and Description	
	Minimum Acceptable	Preferred
Seismic Performance	Minimum 3.2 m CGVD28 post-earthquake dike crest elevation and maintain dike core integrity	No damage to dike from earthquakes up to a return period to be determined
River-side Slope and Setback	2H:1V bank slope with riprap revetment	>10 m setback between river top of bank and dike river-side slope toe 3H:1V river-side bank slope with acceptable vegetation
Crest Surfacing and Land-side Slope Treatment	Crest surfacing: 150 mm thick road mulch Land-side slope treatment: hydraulically seeded grass	Meet or exceed provincial dike standard and City dike standard Consider paved crest and land-side slope vegetation/armouring to add robustness against overtopping
Dyke Road Design Width	From river-side to land-side: 0.5 m allowance for barrier 0.6 m min horizontal clearance Two 3.7 m travel lanes 0.6 m min horizontal clearance 0.5 m allowance for barrier Total width: 9.6 m	From river-side to land-side: 4.0 m multi-use path 0.5 m min horizontal clearance 0.5 m allowance for barrier 0.6 m min horizontal clearance Two 3.7 m travel lanes 0.6 m min horizontal clearance 0.5 m allowance for barrier 2.0 m pedestrian walkway Total width: 16.1 m

## Dike Crest Elevation

At this time, the Province has not established a Fraser River flood profile and dike design profile that considers sea level rise and climate change. It is understood that the Fraser Basin Council's Lower Mainland Flood Management Strategy project may produce a recommended future flood profile. The most recent available flood profile information is provided in the Province's 2014 study of climate change and sea level rise effects on the Fraser River flood hazard.

The designated flood profile for developing the master plan is proposed as the maximum of the following flood scenarios:

- 500-year return period coastal water level with 1 m of sea level rise (no wave effects); and
- 500-year return period freshet with moderate climate change impacts and 1 m of sea level rise.

Figure 3-1 shows the estimated flood profile water levels (in CGVD28 vertical datum, excluding freeboard) along the river in the study area. As shown on the figure, the coastal flood scenario governs from the ocean upstream to approximately Nelson Road.



Dike crest elevations are derived by adding freeboard and an allowance for land subsidence to the flood level. Table 3-4 presents the components that sum to the proposed dike crest elevation.

**Table 3-4: Flood Levels and Dike Crest Elevations**

Item	Downstream of Nelson Road (flat profile)	Upstream of Nelson Road (sloped profile)		
		Nelson Road	Boundary Road (Border with City of New Westminster)	Eastern Tip of Lulu Island
Governing Flood Hazard	tide + storm surge	Fraser River freshet		
Level of Performance	500-year return period (0.2% annual exceedance probability)			
Climate Change Allowance	1 m sea level rise	1 m sea level rise and 20% freshet flow increase		
Design Flood Level (m, CGD28) <sup>1</sup>	3.8	4.2	4.6	
Wave Effects Allowance	None			
Freeboard (m)	0.6			
Land Subsidence Allowance (m)	0.2			
Dike Crest Elevation <sup>2</sup> (m)	4.6	5.0	5.4	
Notes: 1. From (BC MFLNRO, 2014). 2. The City's adopted downstream design crest elevation (4.7 m) exceeds the minimum required elevation (4.6 m). This is a result of updated coastal water level analysis methods (joint probability analysis) that result in a discrepancy when compared to previous methods (additive method).				

The master plan also allows for further upgrading by providing proof of concept for raising to between 5.5 m downstream of Nelson Road and 6.0 m at the boundary with the City of New Westminster.

## Seismic Performance *guidelines*

The current provincial seismic performance criteria for dikes are generally difficult to meet without costly and impractical ground improvement works. Additionally, the guidelines are considered very conservative in some situations because they require performance under extremely rare scenarios. For example, the guidelines require dikes to maintain 0.3 m freeboard in the event of a 10-year return period flood occurring following a 2,475-year return period earthquake which has a probability of 0.004% in a 1-year period. This is significantly rarer than the design event for the dike crest elevation (500-year return period event has a 0.2% annual exceedance probability). It is understood that the Province is conducting a review of the current criteria and associated guidelines.

An alternative seismic performance approach that focuses on failure mechanisms and post-earthquake level of protection is proposed, subject to any higher-level direction that may be forthcoming in the ongoing Richmond 2008-2031 Flood Protection Management Strategy Update. The alternative criteria are presented in Table 3-5.





**Table 3-5: Proposed Alternative Seismic Performance Criteria**

Criteria	Description / Value
Failure Mechanisms	Flowslides (resulting in full loss of dike cross-section into the river or channel) are not acceptable up to a return period to be determined (e.g. 2,475-year return period)
Maximum post-earthquake overtopping probability	0.2% Annual exceedance probability Calculate probability through comparison of various post-earthquake dike crest elevations and future flood levels + 0.3 m freeboard Assume a minimum 1-year exposure period for dike repairs, or longer if local site conditions warrant. In general, this results in a minimum post-earthquake dike crest elevation of 3.2 m which corresponds to the governing scenario of an average annual maximum coastal water level (1.9 m) with 1 m of sea level rise occurring within 1 year of a 475-year return period earthquake.

This approach would make the service level of the dike in a seismic scenario consistent with the service level for the dike crest elevation which is set based on a 500-year return period flood or a 0.2% annual exceedance probability.

For the coastal design dike crest elevation of 4.7 m CGVD28, this approach would allow for up to 1.5 m of vertical settlement, as long as core dike integrity is maintained.

The length of time between earthquake and dike repair will be a critical assumption for analysis to support this approach. The City may wish to specify consistent assumptions through the Dike Master Plan to ensure consistent analyses. For example, reconstruction of a dike that has failed into the river channel following a flowslide failure from an extreme earthquake may take up to 2 years or more, whereas more straightforward compaction and raising of a settled dike could be done in less than a year after an earthquake.

In addition, it should be noted that meeting the seismic performance criteria through increasing the dike crest elevation and crest width, as opposed to ground densification, has the added benefit of increasing the level of protection against flood events.

### 3.3 Alternative Upgrading Strategies

Several high-level dike upgrading strategies, summarized in Table 3-6, were considered to inform the development of specific options for the Dike Master Plan.



**Table 3-6: High-level Dike Upgrading Strategies**

Strategy	Advantages	Disadvantages
<b>Road Dike</b> <i>Raise road to dike crest elevation</i>	<ul style="list-style-type: none"> <li>Smaller footprint</li> <li>Wider crest (more robust)</li> <li>Smaller impacts to habitat</li> </ul>	<ul style="list-style-type: none"> <li>Operation and maintenance challenges</li> <li>Infrastructure within dike</li> <li>High cost to raise dike in the future</li> <li>Possible conflicts with recreational cyclists/pedestrians and vehicles – recreational users may need to be rerouted along inland routes</li> </ul>
<b>Separated Dike and Road</b> <i>Conventional dike adjacent to road</i>	<ul style="list-style-type: none"> <li>Operation and maintenance separated from road</li> <li>No infrastructure within dike</li> </ul>	<ul style="list-style-type: none"> <li>Larger footprint and impact to infrastructure and habitat</li> </ul>
<b>Raise River-side Dike</b> <i>Conventional dike along riverbank</i>	<ul style="list-style-type: none"> <li>Minimize footprint</li> </ul>	<ul style="list-style-type: none"> <li>Limited space</li> <li>Impacts to Fraser River riparian and intertidal habitat and drainage channel side riparian and aquatic habitat</li> <li>Reduced seismic performance</li> <li>Erosion hazard</li> </ul>
<b>Fill River-side Dike</b> <i>Build into river to achieve conventional dike</i>	<ul style="list-style-type: none"> <li>Less impacts to existing development and on-shore infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Impacts to Fraser River riparian and intertidal habitat</li> <li>Reduced seismic performance</li> <li>Erosion hazard</li> </ul>
<b>Setback Dike</b> <i>Realign significantly away from river</i>	<ul style="list-style-type: none"> <li>Increased seismic performance</li> <li>Reduced erosion hazard</li> <li>Increased opportunities for riparian and intertidal habitat enhancement</li> </ul>	<ul style="list-style-type: none"> <li>Increase in unprotected development</li> <li>High infrastructure impacts</li> <li>High cost to construct new dike alignment</li> <li>Would result in 2 dikes (existing and setback) to maintain</li> </ul>
<b>Land Raising (“superdike”)</b> <i>Raise development and roads adjacent to dike</i>	<ul style="list-style-type: none"> <li>Wider crest (more robust)</li> <li>Reduced grading issues (after implementation)</li> <li>Less impacts to raise a dike in the future</li> </ul>	<ul style="list-style-type: none"> <li>Timing and phasing depends on development</li> <li>High cost to raise large lots with low density land use</li> <li>Grading and access issues for water-oriented developments</li> <li>Impacts to Fraser River riparian and intertidal habitat and drainage channel side riparian and aquatic habitat</li> </ul>



### 3.4 Options and Concepts

Through a series of meetings and site visits with City staff, the high-level upgrading strategies have been narrowed down to a set of options and concepts for each reach.

The main options developed for Phase 3 Dike Master Plan include:

- Option 1: Separated dike and road (Figure 3-2): raise dike and road, extend land-side;
- Option 2: Riverbank dike (Figure 3-3): raise dike only and extend land-side; and
- Option 3: Superdike (Figure 3-4): raise land behind the dike.

In addition to the above long-term options, additional interim options are being considered for areas where there is not enough space to build a standard dike and/or current operations at the site preclude the landowner from constructing a standard dike. These options are intended to function as temporary measures until the land behind the dike can be raised to an appropriate level, or leaseholders and landowners change, and the site can be redeveloped. These interim options are:

- Option 4: Road dike (Figure 3-5): keep the dike within the road footprint and raise the road and associated dike, extend land-side;
- Option 5: Setback sheetpile wall (Figure 3-6): raise the dike with sheetpile retaining wall behind existing development to minimize footprint and allow for access to the water;
- Option 6: Riverside sheetpile wall (Figure 3-7): raise the dike with sheetpile retaining wall along the riverside to minimize footprint

Table 3-7 presents a summary of the options for each reach. Appendix B includes landscape concepts prepared by Hapa associated with the cross-section options.

**Table 3-7: Dike Upgrading Options**

Reach # and Name	Options
1 – Gilmore West	<ul style="list-style-type: none"><li>• Option 1: Separated dike and road</li><li>• Option 2: Riverbank dike</li><li>• Option 3: Superdike</li></ul>
2 – Crown Packaging	<ul style="list-style-type: none"><li>• Option 2: Riverbank dike</li><li>• Option 3: Superdike</li></ul> <p><u>Site-specific interim options:</u></p> <ul style="list-style-type: none"><li>• Option 6: Riverside sheetpile wall</li><li>• Combined with site grading and Option 2</li></ul>
3 – Gilmore East	<ul style="list-style-type: none"><li>• Option 1: Separated dike and road</li><li>• Option 2: Riverbank dike</li><li>• Option 3: Superdike</li></ul> <p><u>Site-specific interim options:</u></p> <ul style="list-style-type: none"><li>• Option 4: Road Dike</li></ul>
4 – Shellmont West	<ul style="list-style-type: none"><li>• Option 1: Separated dike and road</li></ul>



Reach # and Name	Options
5 – Shellmont Deas Dock	<ul style="list-style-type: none"> <li>Option 1: Riverbank dike</li> <li>Option 3: Superdike</li> </ul> <p><u>Site-specific interim options:</u></p> <ul style="list-style-type: none"> <li>Option 5: Setback sheetpile wall</li> <li>Combined with site grading and Option 1</li> <li>Combined with site-specific flood response</li> </ul>
6 – Highway 99	<ul style="list-style-type: none"> <li>Option 1: Separated dike and road</li> <li>Option 3: Superdike</li> <li>Note: the link to the potential mid-island secondary dike is not shown or addressed because it is dependent on changes to the George Massey Tunnel</li> </ul>
7 – Fraser Lands – 13140 Rice Mill Road	<ul style="list-style-type: none"> <li>Option 2: Riverbank dike</li> <li>Option 3: Superdike</li> </ul> <p><u>Site-specific interim options:</u></p> <ul style="list-style-type: none"> <li>Option 5: Setback sheetpile wall</li> <li>Combined with site grading and Option 1</li> </ul>
8 – Fraser Lands Fraser Wharves	<ul style="list-style-type: none"> <li>Option 2: Riverbank dike</li> <li>Option 3: Superdike</li> </ul>
9 – Fraser Lands Riverport Way	<ul style="list-style-type: none"> <li>Option 2: Riverbank dike</li> <li>Option 3: Superdike</li> </ul>
10 – Fraser Lands Port Metro Vancouver	<ul style="list-style-type: none"> <li>Option 2: Riverbank dike</li> <li>Option 3: Superdike</li> </ul>
11 – Fraser Lands Lafarge	<ul style="list-style-type: none"> <li>Option 2: Riverbank dike</li> <li>Option 3: Superdike</li> </ul>
12 – East Richmond	<ul style="list-style-type: none"> <li>Option 1: Separated dike and road</li> <li>Option 2: Riverbank dike</li> <li>Option 3: Superdike</li> </ul> <p><u>Site-specific interim options:</u></p> <ul style="list-style-type: none"> <li>Option 4: Road Dike</li> </ul>
13– Hamilton	<ul style="list-style-type: none"> <li>Option 1: Separated dike and road</li> <li>Option 2: Riverbank dike</li> <li>Option 3: Superdike</li> </ul> <p><u>Site-specific interim options:</u></p> <ul style="list-style-type: none"> <li>Option 4: Road Dike</li> <li>Option 6: Riverside sheetpile wall around townhomes outside of the current dike</li> </ul>
14 – Boundary	<ul style="list-style-type: none"> <li>Option 1: Separated dike and road</li> <li>Option 3: Superdike</li> <li>Site-specific option to include a secondary dike to tie into the higher elevations of the Hwy 91 interchange</li> </ul> <p><u>Site-specific interim options:</u></p> <ul style="list-style-type: none"> <li>Option 4: Road Dike (tie into New Westminster's dike system at South Dyke Road)</li> </ul>

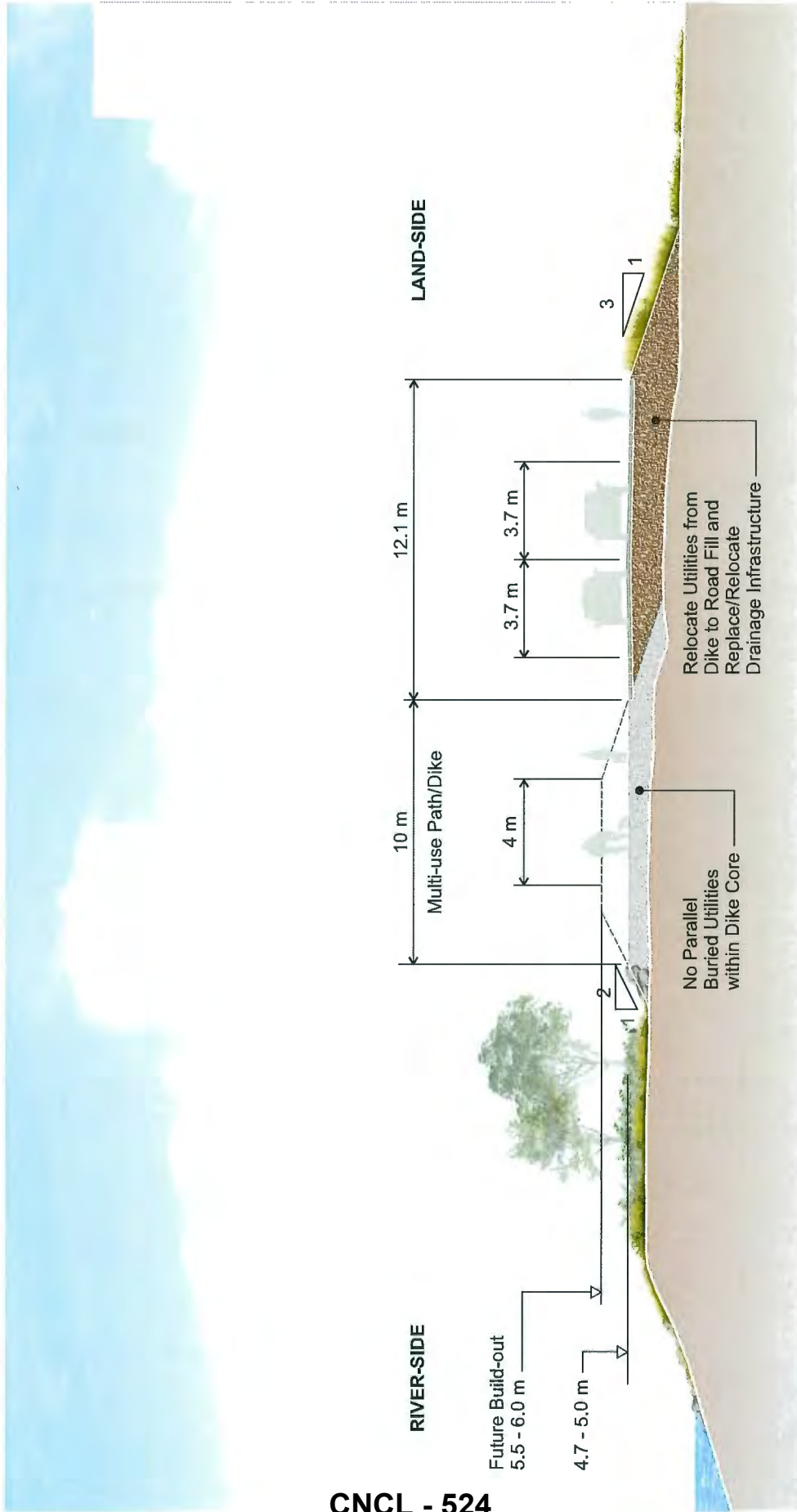
The plan view and typical sections on a reach-by-reach basis are shown in Appendix A.





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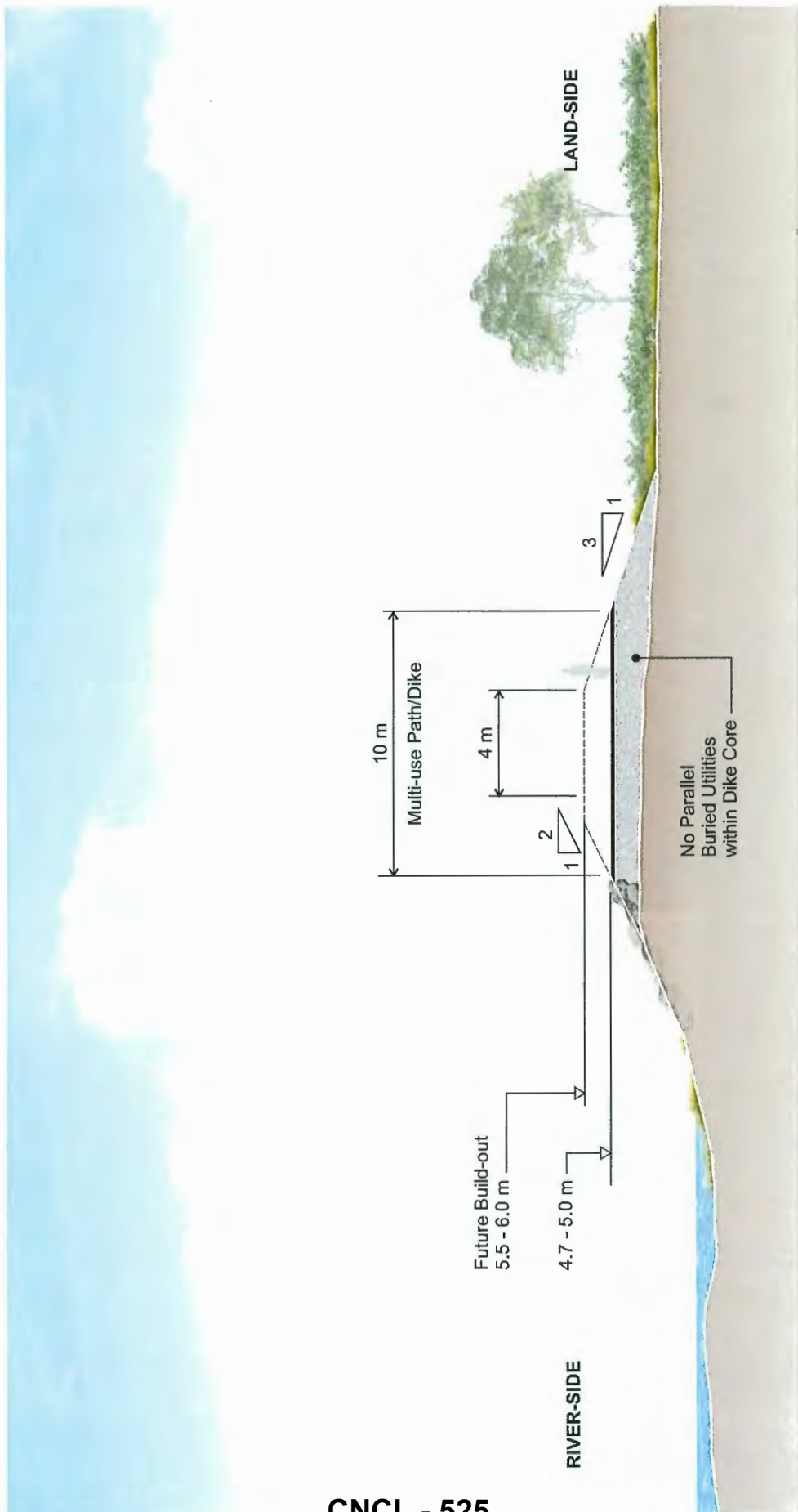
Project No.	651.110
Date	October 2018
Scale	Not to Scale

**Option 1: Separated Dike and Road  
Raise Dike and Road, Extend Land-side**

**Figure 3-2**



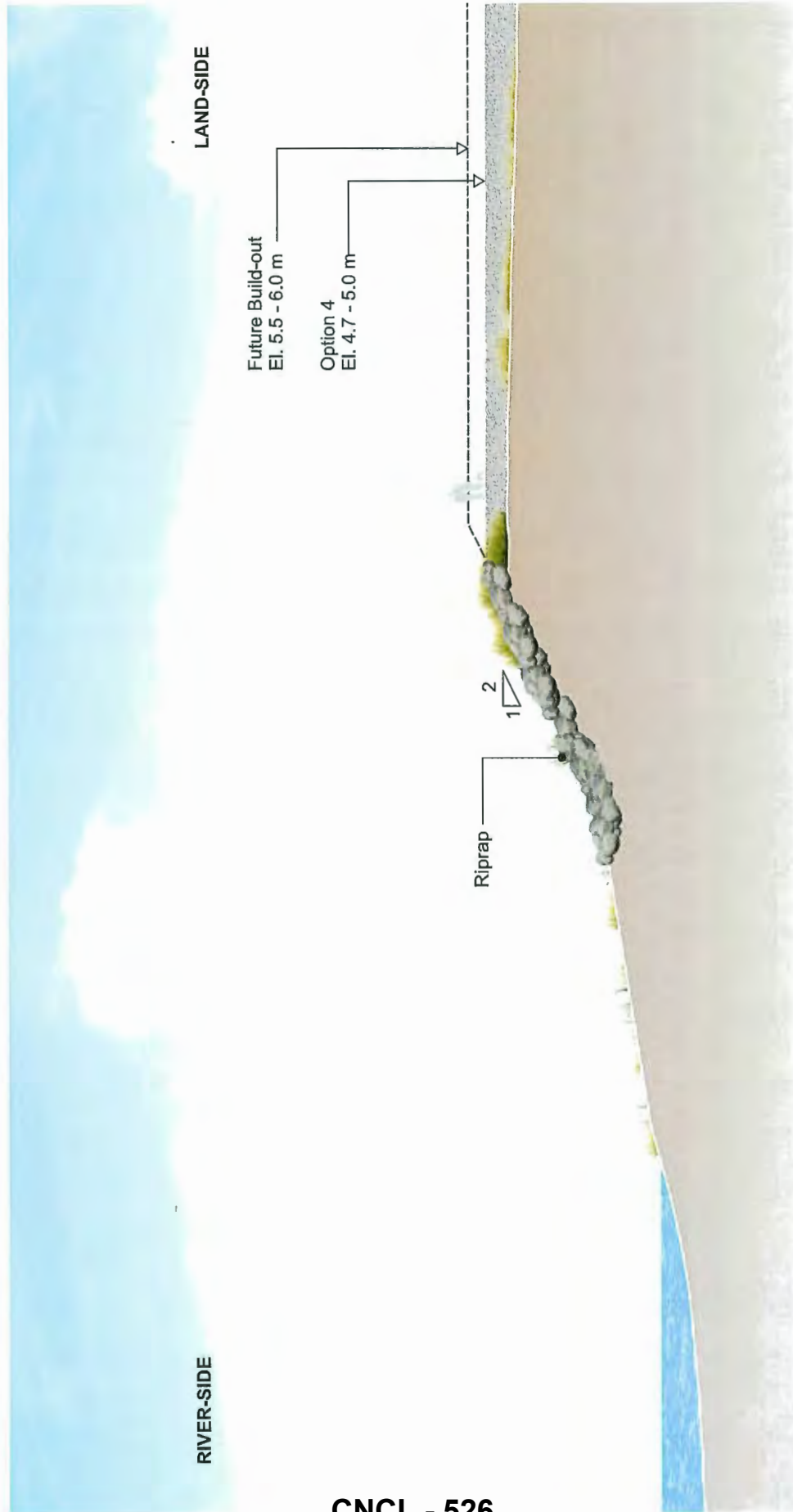
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Project No.	651.110
Date	October 2018
Scale	Not to Scale

Option 2: Riverbank Dike  
Raise Dike Only and Extend Land-side

Figure 3-3



CNCL - 526

Project No.	651.110
Date	October 2018
Scale	Not to Scale

Option 3: Superdike  
Raise Land Behind Dike

Figure 3-4

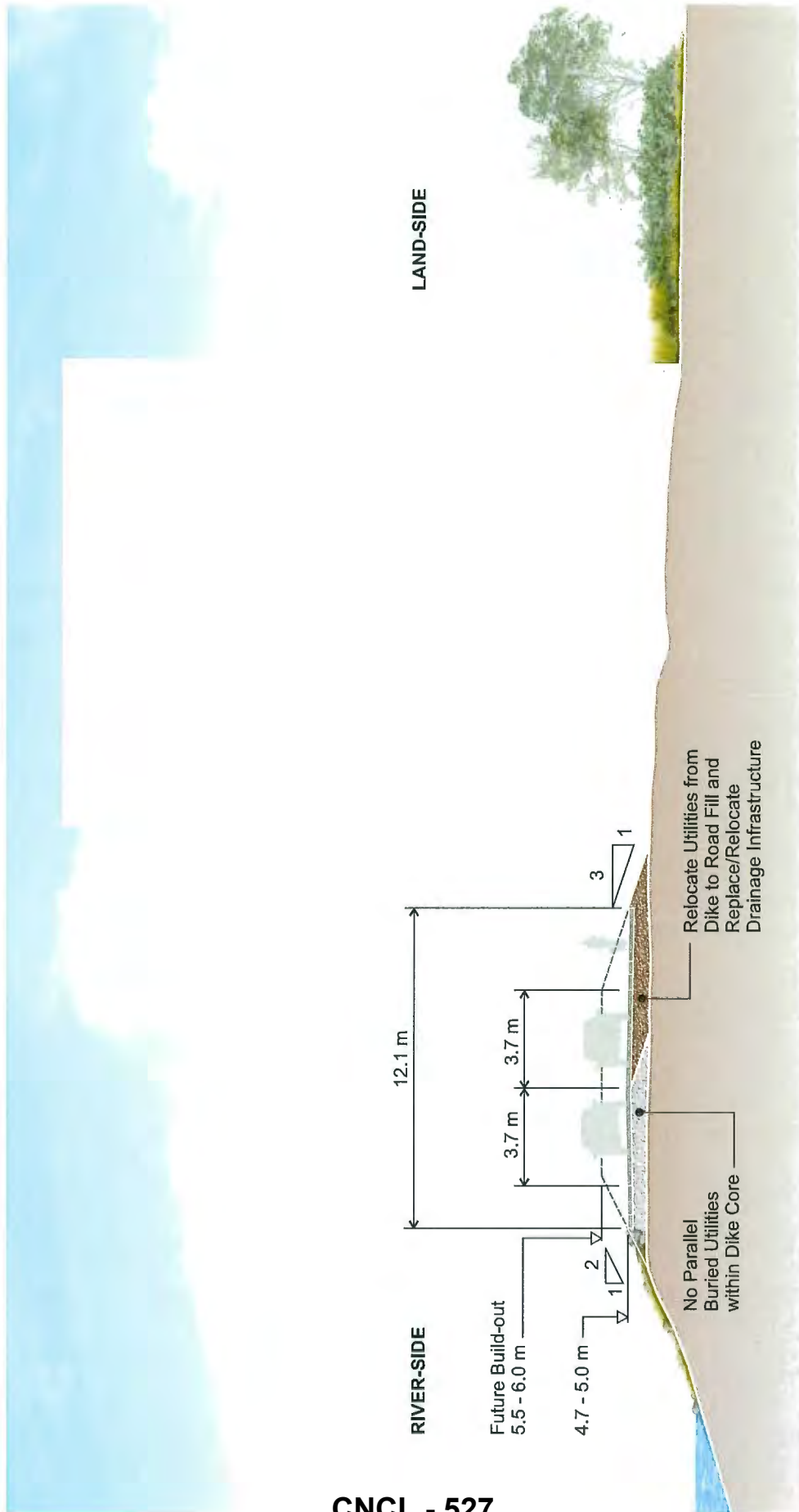
## City of Richmond

Lulu Island Dike Master Plan - Phase 3



KERR WOOD LEIDAL  
consulting engineers

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Project No. 651.110  
Date October 2018  
Scale Not to Scale

Option 4: Road Dike  
Raise the Existing Dike within the Road (Interim Option )

Figure 3-5

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RIVER-SIDE

LAND-SIDE

Sheetpile  
Wall Setback

4 m

Project No. 651.110

Date October 2018

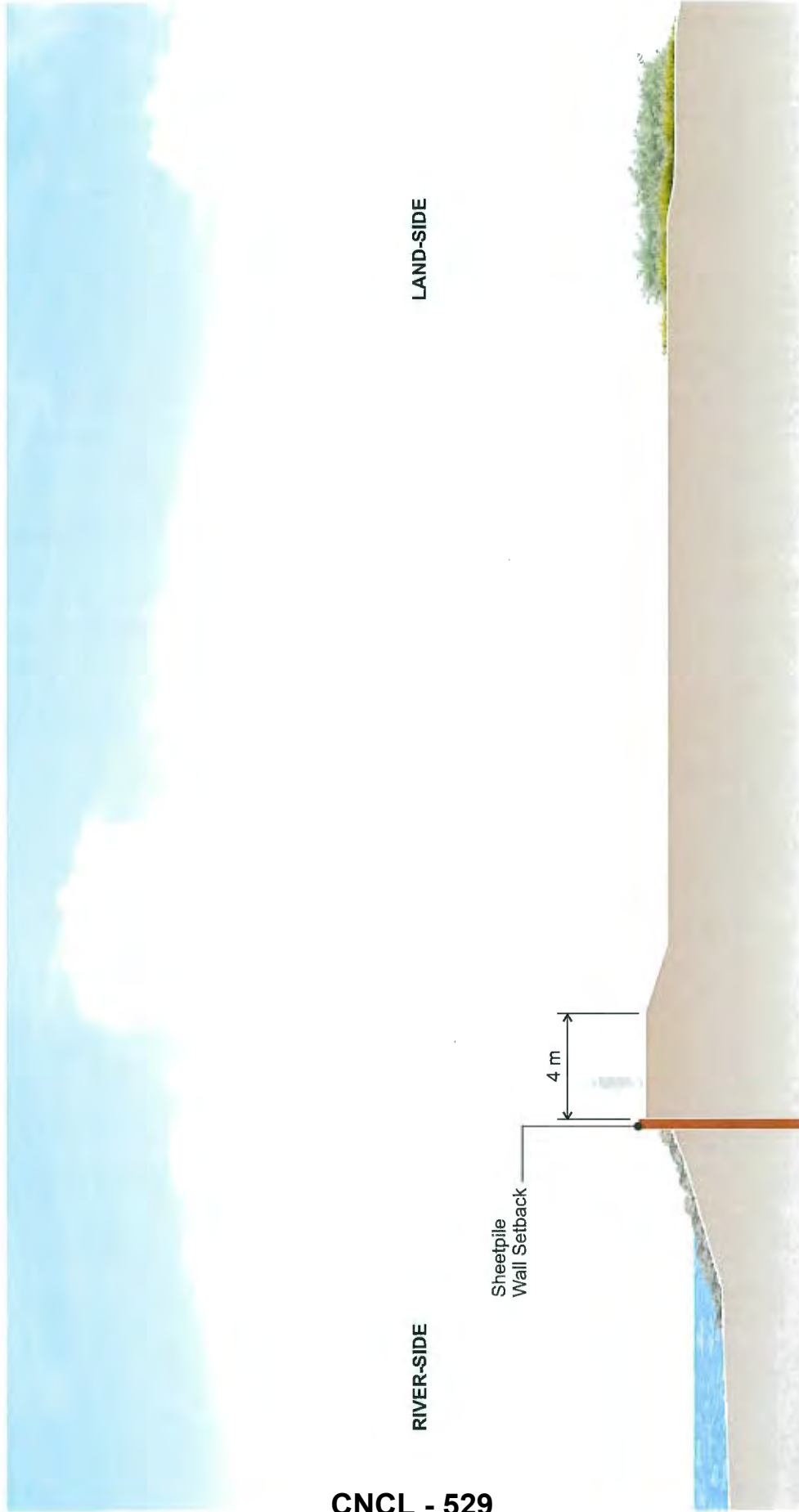
Scale Not to Scale

Option 5: Setback Sheetpile Wall (Interim Option)

Figure 3-6



CNCL - 529



Project No. 651.110

Date October 2018

Scale Not to Scale

Option 6: Riverside Sheetpile Wall (Interim Option)

Figure 3-7



## Option 1: Separated Dike and Road: Separate Dike and Road, Raise Dike and Road, and Extend Land-side

The primary option developed for Phase 3 involves separating the dike and Dyke Road, raising both to the dike crest elevation, and extending the footprint of the fill towards the land-side. Figure 3-2 presents a typical cross-section for this option.



This option addresses several of the main design considerations including providing a substantially wide dike and improving road safety by separating vehicles and cyclists/pedestrians.

In some reaches, extending the footprint towards the land-side requires filling in the existing channel and replacing or relocating the drainage conveyance and storage. The preferred approach is to replace the channels with pipes. This will result in a loss of aquatic and riparian habitat and will require habitat creation, restoration, or enhancement (or a combination of the three) to be completed elsewhere to offset the loss.

Extending the footprint towards the land-side will require land acquisition where the existing corridor width is insufficient. In general, this would affect a narrow strip of land on the frontage of large lots and should be feasible to implement.




However, there are also areas on both the land-side and the river-side where the upgrade will result in access issues. The areas with the most severe space limitations and potential options to address the access issues are presented in Table 3-8.

**Table 3-8: Space Limitations and Access Issues**

Reach / Location / Description	Photo	Options to Address Footprint and Access
Reach 3 Finn Slough		<ul style="list-style-type: none"> <li>• Steeper driveway access</li> <li>• Provide parking on land-side</li> <li>• Steeper or longer road ramps up to the new road elevation</li> </ul>
Reach 11 Shelter Island Marina and Boatyard		<ul style="list-style-type: none"> <li>• Steeper driveway access</li> <li>• Steeper or longer road ramps up to the new road elevation</li> <li>• Coordinate with industry to raise the site or to raise the ship crane and associated river access infrastructure</li> <li>• Raise land at time of redevelopment</li> </ul>





Reach / Location / Description	Photo	Options to Address Footprint and Access
Reach 13 Intersection with Fraserwood Way		<ul style="list-style-type: none"> <li>• Steeper or longer road ramps up to the new road elevation</li> <li>• Raise land at time of redevelopment</li> </ul>
Reach 13 - Hamilton		<ul style="list-style-type: none"> <li>• Steeper driveway access</li> <li>• Provide parking on land-side (instead of driveway down to lot)</li> <li>• Raise land at time of redevelopment</li> <li>• Steeper or longer road ramps up to the new road elevation</li> <li>• Managed retreat (buy-out, relocate, or do not allow redevelopment)</li> </ul>
Reach 13 – Hamilton 23700 blk of Dyke Road		<ul style="list-style-type: none"> <li>• Steeper driveway access</li> <li>• Provide parking on land-side (instead of driveway down to lot)</li> <li>• Leave existing road as a low “local road” and provide access to the new road at an intersection near Boundary Road</li> <li>• Managed retreat (buy-out, relocate, or do not allow redevelopment)</li> </ul>

Note: Images from Google Street View

## Option 2: Riverbank Dike: Raise Dike, and Extend Land-Side

The primary option developed for Phase 3 where there is no road associated with the dike, is to raise the dike crest elevation and extend the footprint of fill towards the land-side. Figure 3-3 presents a typical cross-section for this option.

Extending the footprint towards the land-side will require land acquisition where the existing corridor width is insufficient. In general, this would affect a narrow strip of land on the frontage of large lots and should be feasible to implement. Extending the dike footprint to the land-side decreases the amount of Fraser River riparian and river habitat that is impacted, but may result in the loss aquatic and riparian habitat from drainage channels on the land side of the dike.



### **Option 3: Superdikes: Land Raising**

Another option that is being considered for Phase 3 is the raising of lands behind the dike to the dike crest elevation. This creates a more robust flood protection structure and has the potential to improve site grading issues and river access constraints. The option to raise the land behind the dike is most appropriate for areas that are contemplated for short-term redevelopment.

This option will result in a loss of aquatic and riparian habitat and will require habitat creation or enhancement to be completed elsewhere to offset the loss.

### **Option 4: Road Dike: Raise Dike and Road, and Extend Land-side (Interim Solution)**

An interim option is being considered where the existing development encroaches on the dike/road corridor such that separating the dike from the road and raising both structures is not immediately feasible. This option is to continue to have the dike in the road, while raising the road to the design dike crest elevation and extending the footprint of fill towards the land-side.

This option addresses several of the main design considerations; however, it does not allow for complete separation of pedestrians and bikes from the roadway and does not address concerns of complexities of future dike raising if the road infrastructure is integrated into the dike structure.

This option will result in a loss of aquatic and riparian habitat and will require habitat creation or enhancement to be completed elsewhere to offset the loss.

### **Option 5 & 6: Sheetpile Walls (Interim Solution)**

Site-specific interim solutions are considered where a site is not scheduled for short-term redevelopment and site constraints such as rail lines, barge access and site grading for specialized equipment do not allow for constructing a standard dike as per the options discussed previously. Two sheetpile wall configurations (Figure 3-6 and Figure 3-7) are considered to address short-term flood protection at two sites:

- Crown Packaging (Reach 2); and
- 13140 Rice Mill Road, Canfisco (Reach 7).

For both of these sites, the sheetpile wall would bring the dike crest to the design elevation. The dike width would be narrower than the preferred options but could allow for raising the dike to an acceptable level where there is minimal room on the site for additional dike footprint. For those locations where a setback dike is constructed, the landowner would need to develop and implement a flood response plan and reasonable floodproofing measures would be required. Retaining walls should consider the need for handrails for safety, in accordance with applicable regulations. Loss of aquatic and riparian habitat may be reduced with this option.



### 3.5 Stakeholder Engagement

Stakeholder engagement for Phases 3, 4, and 5 of the Dike Master Plan is being completed jointly in two stages. Prior to City Council review, initial stakeholder engagement was completed that included meetings with internal City departments and government agencies. This initial stakeholder engagement allows for input from City groups on options developed, additional background, and future coordination, with the goal of informing the recommended upgrade options. Following Council review, additional stakeholder engagement is planned, which will include meetings with specific stakeholder groups and a public consultation event. The second stage of stakeholder engagement is intended to inform the public on the draft preferred options and seek any feedback the City may wish to consider in finalizing the Dike Master Plan to implementation.

For Phase 3, the parties consulted to date include the following.

- City of Richmond Transportation;
- City of Richmond Parks, Planning, and Sustainability;
- City of New Westminster; and
- Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (MFLNRORD)
  - Included Inspector of Dikes, Flood Safety, and Water Authorizations staff

Meetings were held following options development.

The City requested a meeting with the Department of Fisheries and Oceans (DFO) who declined, stating that their input would be provided during later stages in the established review and approvals process.

Additional stakeholder consultation following Council review for Phase 3 is planned to include the following parties, which will be confirmed with the City following review:

- Port Metro Vancouver,
- Lafarge and Armtec,
- Ministry of Transportation and Infrastructure (MOTI),
- Crown Paper,
- Deas Dock (BC Ferries),
- Canfisco (13140 Rice Mill Road),
- Finn Slough Heritage and Wetland Society, and
- General public

### 3.6 Options Evaluation and Selection

#### General Recommendations

The options described in Section 3.4 have been assessed considering the feedback from the stakeholder meetings and the following:

- dike design criteria;
- impacts to habitat;
- cost implications;
- robustness of flood protection;
- impacts to existing properties and operations; and
- ability to accommodate further long-term upgrading.





The recommended options are based on a vision of Richmond progressively improving its level of flood protection ahead of the pace of development and rising sea level. Recommended dike design features include the following for Phase 3.

**High and Wide Earth Fill** – Favour earth fill dike construction where possible since it is more robust, flexible, and expandable than other types of structures. Build to 4.7 m crest elevation (higher upstream), expandable to 5.5 m to accommodate additional sea level rise. Build the 4.7 m crest elevation with a crest width of 10 m to make it expandable to 5.5 m crest elevation without the need for further road reconstruction or land acquisition.

**Separate Roads and Utilities** – Utilities pose an unnecessary risk to the dikes. Along with roads, they also increase the complexity and cost of dike maintenance and expansion. The City should seek to separate roads with utilities away from the dike structure, preferably on the land-side the dike, and put the road elevation at dike crest height to be compatible with raised land use behind the dike and road.

**Raised Development** – Raise the land on the land-side of the dike to facilitate existing and future raised land use. This supports a vision of a waterfront community that has adjacent development above and looking down over the dike instead of behind it. It also reduces the amount of land acquisition required to support dike raising by eliminating the land-side slope.

**Land Acquisition for Full Future Needs** - Acquire enough land or rights-of-way at first reasonable opportunity to facilitate full width of the future 5.5 m crest height. Land acquisition and rights-of-way may be a condition of redevelopment, or land could be purchased specifically for planned dike construction. For industrial sites, access for inspection, maintenance and future raising is required. For other sites, public use of the dike is also needed. Where land acquisition opportunities can not keep pace with dike requirements, interim narrower dike options may be considered.

**Habitat Balance** – Dike widening is typically recommended to be on the land-side of the existing dike, as opposed to projecting further toward the river. This is due to a preference to preserve or enhance river riparian habitat. However, there are some cases where inland channel habitat may be impacted or where moving the dike towards the river may be the best option to reduce large impacts to roads. Where habitat and drainage channels would be impacted by dike upgrading, their hydraulic function and habitat value is recommended to be compensated by other means. This may include storm sewers, channels relocated inland, and separate habitat enhancement projects.

## Recommended Options

The various high-level dike upgrading strategies and potential dike upgrading options have been distilled to two main recommended options for long-term dike planning, as described below.

- **Separated dike and road (Option 1):**
  - Use in locations where there is a road associated with the dike.
  - Separate the dike and roadway such that there is an over-wide dike and separate travel areas for vehicles and cyclists/pedestrians.
  - Raise the dike crest and road surface to the design dike crest elevation and extend the footprint of fill towards the land-side.
  - Install bank protection works on the river side to match existing.



- **Riverbank dike (Option 2):**
  - Use in locations where there is no road associated with the dike.
  - Raise the dike crest to the design elevation and extend the footprint of fill towards the land-side.
  - Install bank protection works on the river side to match existing.

In general, the two above options are recommended because they are the most robust of the options considered. They produce a wide dike crest at a stable geometry that is set back from the river. The dike portion of the overall crest would be 10 m wide to accommodate future dike raising without having to modify the road. The “separated dike and road” option is recommended in areas where there is currently a road associated with the dike because it is the most robust of the options considered as it produces an earth fill embankment (dike and road) that is approximately 22 m wide at the crest. This is a significant increase above the standard dike crest width of 4 m and is expected to reduce the likelihood of failure across a variety of processes.

Additionally, separating the dike and road provides several community benefits including improved pedestrian, cyclist, and vehicle safety, and the opportunity for a linear park / multi-use path. Other interim options are recommended in areas which are constrained and do not allow for the separated dike and road option.

In addition to the two options listed above, another recommendation for flood protection in all areas of Phase 3 is to target land raising of the areas behind the dike. This is shown as Option 3: Superdike. It should be considered for all reaches.

## Interim Options

The two recommended options will require land acquisition and phased implementation as existing development and current land use limit the existing dike corridor and some existing industries need access to the river for operations. To address this phased implementation, additional interim options are recommended, as described below.

- **Road Dike (Option 4):**
  - Use at sites not scheduled for short-term redevelopment.
  - Continue to have the dike in the road where existing development encroaches on the corridor.
  - Raise the road surface to the design dike crest elevation and extend the footprint of fill towards the land-side.
  - Install bank protection works on the river side to match existing.
- **Setback Sheetpile Wall (Option 5):**
  - Use at sites not scheduled for short-term redevelopment where site constraints such as rail lines, barge access and site grading for specialized equipment do not allow for construction of a standard dike.
  - Raise the dike to the design dike crest elevation using sheetpile walls to minimize the encroachment of fill on the property.
  - Use site specific flood response plans to address flood hazards on the site.



- **Riverside Sheetpile Wall (Option 6):**
  - Use at sites not scheduled for short-term redevelopment where site constraints such as rail lines, barge access and site grading for specialized equipment do not allow for construction of a standard dike.
  - Raise the dike to the design dike crest elevation using sheetpile walls to minimize the encroachment of fill on the property.

### Summary of Recommended Options by Reach

Table 3-9 presents a summary of the recommended options for each reach as well as the recommended interim options to address site specific concerns. For all reaches, Option 3: Superdike, raising the land for approximately 200 m inland of the dike, is recommended for related flood protection and seismic stability reasons. Because Option 3 is a global recommendation for Phase 3 Dike Master Plan, it has not been included in Table 3-9. The recommended options are shown in Appendix A.

**Table 3-9: Recommended Dike Upgrading Options (Phase 3)**

Reach # and Name	Recommended Options
1 – Gilmore West	<ul style="list-style-type: none"><li>• Option 1: Separated dike and road</li><li>• Option 2: Riverbank dike (park area)</li></ul>
2 – Crown Packaging	<ul style="list-style-type: none"><li>• Option 2: Riverbank dike</li></ul> <p><u>Site specific interim options:</u></p> <ul style="list-style-type: none"><li>• Option 6: Riverside sheetpile wall</li><li>• Combined with site grading and Option 2</li></ul>
3 – Gilmore East	<ul style="list-style-type: none"><li>• Option 1: Separated dike and road</li><li>• Option 2: Riverbank dike (park area)</li></ul> <p><u>Site specific interim options:</u></p> <ul style="list-style-type: none"><li>• Option 4: Road dike (Finn Slough)</li></ul>
4 – Shellmont West	<ul style="list-style-type: none"><li>• Option 1: Separated dike and road</li></ul>
5 – Shellmont Deas Dock	<ul style="list-style-type: none"><li>• Option 2: Riverbank dike</li></ul> <p><u>Site specific interim options:</u></p> <ul style="list-style-type: none"><li>• Option 5: Setback sheetpile wall</li><li>• Combined with site grading and Option 2</li><li>• Combined with site specific flood response</li></ul>
6 – Highway 99	<ul style="list-style-type: none"><li>• Option 2: Riverbank dike</li></ul> <p>Note: the link to the potential mid-island secondary dike is not shown or addressed because it is dependent on changes to the George Massey Tunnel</p>
7 – Fraser Lands – 13140 Rice Mill Road	<ul style="list-style-type: none"><li>• Option 2: Riverbank dike</li></ul> <p><u>Site specific interim options:</u></p> <ul style="list-style-type: none"><li>• Option 5: Setback sheetpile wall</li><li>• Combined with site grading and Option 2</li></ul>
8 – Fraser Lands Fraser Wharves	<ul style="list-style-type: none"><li>• Option 2: Riverbank dike</li></ul>





Reach # and Name	Recommended Options
9 – Fraser Lands Riverport Way	<ul style="list-style-type: none"><li>Option 2: Riverbank dike</li></ul>
10 – Fraser Lands Port Metro Vancouver	<ul style="list-style-type: none"><li>Option 2: Riverbank dike</li></ul>
11 – Fraser Lands Lafarge	<ul style="list-style-type: none"><li>Option 2: Riverbank dike</li></ul>
12 – East Richmond	<ul style="list-style-type: none"><li>Option 1: Separated dike and road</li><li>Option 2: Riverbank dike</li></ul> <p><u>Site specific interim options:</u></p> <ul style="list-style-type: none"><li>Option 4: Road dike</li></ul>
13– Hamilton	<ul style="list-style-type: none"><li>Option 1: Separated dike and road</li></ul> <p><u>Site specific interim options:</u></p> <ul style="list-style-type: none"><li>Option 4: Road dike</li></ul>
14 – Boundary	<ul style="list-style-type: none"><li>Option 1: Separated dike and road</li><li>Site specific option to include a secondary dike to tie into the higher elevations of the Hwy 91 interchange</li></ul> <p><u>Site specific interim options:</u></p> <ul style="list-style-type: none"><li>Option 4: Road dike (tie into New Westminster's dike system at South Dyke Road)</li></ul>

## Drainage Impact Assessment

The internal drainage system of Lulu Island provides irrigation service as well as drainage service. The system of channels allows water from intakes on the Fraser River to flow into Lulu Island and distribute through the drainage conveyance system to provide irrigation water to the farmlands. This use of the drainage conveyance system relies on the storage capacity within the channels to provide adequate water to the farmlands.

There are two large, agricultural drainage channels adjacent to Dyke Road that would potentially be impacted by the proposed increase in road and dike footprint. These include the area adjacent to Finn Slough and the area near London Heritage Farm. The option expected to be both the simplest to implement and the least cost is to replace the existing channels that would be impacted by the dike and road upgrades along Dyke Road with pipes. The replacement pipes would be located within the cross-section of the road and outside of the dike cross-section.

The approach of filling the existing drainage channel and replacing it with a pipe is limited by the size of the pipe that can fit within the road cross-section and the invert elevations of the existing internal agricultural drainage infrastructure (culverts, drainage channels and drain tiles). Multiple connections and or inlets to the pipe may be required to replace existing drainage and irrigation functions for the adjacent agricultural fields. The new pipes would drain to the existing north-south channels that convey runoff to the pump stations.

No detailed drainage assessment has been completed for this study and further work would be needed to assess if replacing the existing drainage channels with pipes is feasible and to size and design the pipes. If feasible, drainage from both Dyke Road and the interior lots adjacent to the road would be directly connected to the new drainage pipes. If the required capacity or depth cannot be provided in a pipe, then replacement open channels would have to be located adjacent to the toe of the upgraded road section.



## Habitat Impact Assessment

In total, the estimated impact for the selected Phase 3 options is 19,300 m<sup>2</sup> of high-quality Fraser River intertidal habitat, 27,500 m<sup>2</sup> high quality Fraser River riparian habitat, 14,200 m<sup>2</sup> drainage channel aquatic habitat, and 48,500 m<sup>2</sup> drainage channel riparian habitat.

These areas reflect an estimate of impact area based on FREMP habitat mapping from 2007, and orthoimagery interpretation. Not all Fraser River riparian and intertidal habitat was quantified. The desktop review only quantified high-quality riparian and intertidal habitat types on the Fraser River side of the existing dike. The remaining habitat area, while not calculated here, would also be required in calculations for determining offsetting requirements. A detailed aquatic effects assessment is required to calculate the actual area of impact to fish habitat and to determine potential offsetting requirements.

The impact area presented above represents a significant area of impact that will require major offsetting effort. Estimated reach-by-reach impact areas are presented below.

**Table 3-10: Reach-by-Reach Summary of Habitat Impacts**

Reach # and Name	High-Quality Fraser River Intertidal (m <sup>2</sup> )	High Quality Fraser River Riparian (m <sup>2</sup> )	Drainage Channel Aquatic (m <sup>2</sup> )	Drainage Channel Riparian (m <sup>2</sup> )
1 – Gilmore West	9,900	-	4,400	21,000
2 – Crown Packaging	600	-	-	-
3 – Gilmore East	6,700	2,400	3,100	14,200
4 – Shellmont West	-	200	1,200	4,400
5 – Shellmont Deas Dock	1,000	-	< 100	< 100
6 – Highway 99	-	200	-	-
7 – Fraser Lands – 13140 Rice Mill Road	-	-	-	-
8 – Fraser Lands Fraser Wharves	200	100	-	-
9 – Fraser Lands Riverport Way	100	100	-	-
10 – Fraser Lands Port Metro Vancouver	700	17,000	1,300	900
11 – Fraser Lands Lafarge	-	900	-	-
12 – East Richmond	-	2,500	3,200	5,500
13/14– Hamilton/Boundary	100	4,200	1,100	2,400



## Geotechnical Considerations for Recommended Options

The proposed dike improvements were assessed with consideration for the BC Seismic Design Guidelines for Dikes.

Thurber Engineering Ltd. (Thurber) assessed three sample cross-sections to estimate the potential deformation resulting from seismic events. The cross-sections were based on the recommended cross-section at what was judged to be the most susceptible areas for deformation. Soil conditions were determined by cone penetration tests. Seismic performance was assessed on the basis of existing foundation conditions, (i.e. no additional ground improvement/densification) to determine the need for ground improvement or alternative approaches. The analysis included seismic events representing 100, 475 and 2,475-year return period events. Seismic performance was assessed using two methods: 1-D (i.e. flat ground) liquefaction assessment to estimate reconsolidation settlements, and 2-D numerical deformation assessment to estimate dynamic deformations. The methods are complimentary, and the results are interpreted together.

The preliminary geotechnical report is attached in Appendix C.

The key results of the geotechnical analysis are summarized below.

- Proposed dike cross-sections will not meet the performance requirements of the seismic design guidelines, without ground improvement or alternative approaches, based on the results of both assessment methods.
- The liquefaction hazard is considered insignificant for earthquakes up to the 100-year return period event.
- The liquefaction hazard is considered moderate and high for the 475 and 2,475-year return period events respectively. The resulting deformations would be large.
- Liquefaction may result in a flowslide into the river for dike alignments along the river-bank due to lateral spreading, whereas it would result only in vertical deformation for dike alignments significantly set back from the river bank.
- The deformation analysis indicates that dikes may meet the performance requirements of the seismic design guidelines if they are typically set back 50 m to 100 m from the river-bank and have flat slopes or some localized ground improvement.

Options to address seismically induced deformations, and opinions on each, include:

- **Densification** – The typical approach to densification is to install stone columns. To be effective against the liquefaction expected to follow the 2,475-year return period event, densification would have to extend the depth of the liquefaction zone, and for a similar width. In a typical scenario, this can be considered as a 30 m (width) by 30 m (depth) densification located at the river-side toe of the dike. Densification can be very costly (e.g. \$9,000 to \$18,000 per lineal metre of dike). Alternate experimental techniques are being tested by the City that may offer a more economic solution.
- **Higher Crest** – For the 100-year return period event, additional crest elevation may compensate for deformations caused by settlement. For events that cause liquefaction, added height results in added deformation, so it would be less effective. This is not an effective strategy by itself for return periods above 100-year due to lateral spreading and large vertical deformations.



- **Setback and Slope** – Flatter side slopes on the dike improves seismic stability. However, to prevent large deformations in the 2,475-year return period event, the maximum acceptable slope between the river channel invert and the dike crest would need to be approximately 2%, which would require a significant setback between the dike and river.
- **Wide Crest** (“superdikes”) – A very wide dike (e.g. crest width of 100 m to 200 m) could be used to extend the dike beyond the limit of significant lateral spreading due to liquefaction. A portion of the wide crest could be considered sacrificial in the event of major lateral spreading. Raising the land for approximately 200 m inland of the dike is desirable for related flood protection reasons, and may be desired by the City for other reasons such as land use planning. It has already been done as part of multiple family, commercial, and industrial development projects along the waterfront. Buildings within this area must already account for liquefaction in their foundation design.
- **Dike Relocation / Secondary Dikes** – Place the dike inland of the liquefaction lateral spreading zone (similar to set back approach) or place a secondary dike inland of the liquefaction lateral spreading zone. The wider option above would essentially include a secondary dike. Relocating the primary dike inland would be a form of retreat and would leave existing property and buildings exposed outside of the dike.
- **Post-earthquake Dike Repair** – Dike reach specific plans could be developed for post-earthquake dike repairs. These would need to consider the feasibility of dike repair construction following a major earthquake. In general, it is likely not feasible to quickly repair a dike that has failed due to a flowslide induced by liquefaction lateral spreading, especially if the breach results in flooding from regular high tides. However, it may be feasible to prepare dike repair plans for dikes where a flowslide is not anticipated.

Additionally, the City may wish to use alternative seismic performance criteria, such as the criteria discussed in section **Error! Reference source not found.** which aims to develop a consistent level of performance between seismic scenarios and flood level scenarios (i.e. an overall 0.2% annual exceedance probability of failure across all hazards).

Recommendations to manage the seismic risk include:

- Consider the proposed alternative seismic performance criteria provided in Section **Error! Reference source not found.**. Review the criteria if/when the Province issues updated guidelines for seismic performance of dikes.
- Fill land for approximately 200 m inland of the dike to dike crest elevation. Buildings in this zone should be built above the dike crest elevation and have densified foundations capable of withstanding liquefaction. The required distance requires some additional evaluation and may be addressed in the pending update to the Flood Protection Management Strategy.
- Continue to investigate practical densification options and consider earthquake induced dike deformations in emergency response and recovery planning.





### 3.7 Cost Opinions

Cost opinions for the recommended option in each reach are provided to help the City consider the financial implications for planning and comparing options. A breakdown is provided to help understand the proportional cost for recommendations such as separating and raising the road.

Costs are based on unit rate cost estimates and tender results for similar works. The most relevant rates are from the City's Gilbert Road dike project. The City provided a summary of the cost estimate prepared by WSP for this project.

Rates from recent tenders for diking on the Lower Fraser River and other locations within the Lower Mainland were used to check the reasonableness of the rates and estimate other features such as sheet piles or large diameter drain pipes.

The costs were broken down by reach so that unit rates could be applied to similar typical cross-sections. They were also broken down into the main features that coincide with options that the City may wish to consider further. These features are described below.

- **Dike Raising** – this is the core element required to provide flood protection. It includes a 10 m crest width at 4.7 m elevation that can be raised while still achieving a 4 m crest width for future raising to 5.5 m. This includes site preparation, fill, and erosion protection.
- **Road Structure and Utilities** – this includes stripping, subgrade preparation, pavement structure, drainage and utilities. Where the existing road is atop the dike, most of this cost would be incurred regardless of where it gets relocated.
- **Road Raising to Dike Crest** – this includes the additional fill required to raise the road to the dike crest elevation.
- **Other** – features such as landscaping, habitat improvements, multi-use paths, driveway ramps and other amenities typically have a combined impact of less than 10%, so are lumped together for conciseness.
- **Contingency** – A 40% contingency is provided because the costs are based on concept plans only.
- **Interim Measures** – some industrial sites may not redevelop within the time frame that dike improvements are planned for. The City can either proceed with the improvements with accompanying disruptions to the existing land use, or proceed with interim measures that provide a reasonable level of protection until the recommended high level of protection can be achieved during redevelopment. These costs are listed separately because they may or may not be needed depending on the timing of redevelopment.

Table 3-11 presents a summary of all reaches with cost breakdowns for the items described above. Costs for each reach are also provided in the Reach Summary Sheets in Section **Error! Reference source not found.** Table 3-13 presents a summary of the potential interim measures.



Table 3-11: Summary of Construction Costs (\$ in Millions)

Item	Reach 1	Reach 2	Reach 3	Reach 4	Reach 5	Reach 6	Reach 7	Reach 8	Reach 9	Reach 10	Reach 11	Reach 12	Reach 13/14	Total
Dike Raising	\$12.5 Million	\$1.5 Million	\$7.9 Million	\$4.5 Million	\$7.2 Million	\$1.1 Million	\$2.3 Million	\$4.5 Million	\$4.5 Million	\$15.8 Million	\$6.8 Million	\$8.1 Million	\$7.7 Million	\$04.3 Million
Road Structure & Utilities	\$16.8 Million		\$4.9 Million	\$3.9 Million		\$ .7 Million						\$3.9 Million	\$6.6 Million	\$36.7 Million
Raise Road to Dike Height	\$4.4 Million		\$6.6 Million	\$5.3 Million								\$5.3 Million	\$9. Million	\$30.6 Million
Driveways, Ramps or Road Intersection Reconstruction	\$0.4 Million		\$0.3 Million	\$0.4 Million	\$0.3 Million	\$0.1 Million		\$0.8 Million	\$0.1 Million	\$0.2 Million	\$0.4 Million	\$0.4 Million	\$1.2 Million	\$4.5 Million
Other*	\$3.8 Million	\$1.0 Million	\$2.9 Million	\$1.2 Million	\$6.8 Million	\$1.1 Million	\$1.5 Million	\$2.9 Million	\$2.9 Million	\$10.2 Million	\$4.4 Million	\$3.5 Million	\$ .5 Million	\$41.5 Million
Contingency (40%)	\$15.1 Million	\$1. Million	\$9. Million	\$6.1 Million	\$5.7 Million	\$8. Million	\$1.5 Million	\$3.3 Million	\$3. Million	\$10.5 Million	\$4.6 Million	\$6.5 Million	\$10. Million	\$79. Million
Total	\$53.0 Million	\$3.6 Million	\$31.5 Million	\$21.3 Million	\$20. Million	\$2.7 Million	\$5.2 Million	\$11.5 Million	\$10.5 Million	\$36.6 Million	\$16.1 Million	\$29.7 Million	\$35. Million	\$276.6 Million

Table 3-12: Summary of Costs for Interim Measures (\$ in Millions)

Item	Reach 2	Reach 3	Reach 5	Reach 7	Reach 12	Reach 13/14	Total
Dike Raising	\$1.5 Million	\$5.5 Million	\$2.5 Million	\$0.5 Million	\$0.7 Million	\$0.9 Million	\$53.7 Million
Road Structure & Utilities		\$6.8 Million	\$2.9 Million	\$0.9 Million	\$7. Million	\$6.6 Million	\$20.5 Million
Raise Road to Dike Height		\$9.3 Million			\$9.5 Million	\$9. Million	\$27.8 Million
Driveways, Ramps or Road Intersection Reconstruction		\$0.3 Million	\$0.3 Million		\$0.4 Million	\$1.2 Million	\$2.1 Million
Other*	\$1.5 Million	\$0.5 Million	\$6.8 Million	\$2.1 Million	\$0.5 Million	\$0.5 Million	\$12. Million
Contingency (40%)	\$1.2 Million	\$10.5 Million	\$4. Million	\$1.2 Million	\$10.9 Million	\$10.6 Million	\$38.4 Million
Total	\$4.3 Million	\$36.9 Million	\$13.9 Million	\$4.2 Million	\$38.1 Million	\$37.1 Million	\$134.5 Million





Costs that are not included are noted below.

- Land acquisition is not included. Ideally, land will be acquired during redevelopment. Similarly, there may be opportunities to have dike improvements tied to adjacent development.
- Densification is not included. The recommendation is to fill 200 m back from the dike face as a preferred strategy to deal with liquefaction. If the road and land behind the dike is not raised, then densification is recommended. Current techniques such as stone columns would cost approximately \$9,000 to \$18,000 per metre of dike.
- Off-site habitat projects (that may be needed beyond the habitat enhancement provided along the dike corridor) are not included. Such cost could be roughly 5% of the construction cost. It is understood that a separate Dike Master Plan may be prepared to address habitat compensation by identifying and developing medium to large habitat compensation concepts.
- Raising the land behind the dike is not included. This is proposed to be a condition of development behind the dike, with the cost and benefit attributed to the property owner.
- Professional fees (engineering, surveying, environmental, archeological, etc.) are not included. Such costs could be in the range of 10% to 15% of the construction cost.



## 4. Implementation Strategy

The implementation strategy has three parts:

- Pre-design measures;
- Construction sequencing for a typical reach; and
- Prioritization of reaches for construction.

### 4.1 Pre-design Measures

Before construction can be implemented, the following steps are recommended:

- Use the Dike Master Plan as a planning tool with City land use planning to acquire land during redevelopment, and to rezone land with conditions for land raising inland of the dike.
- Acquire land prior to construction.
- Seek habitat compensation projects to bank credits in preparation for drainage channel and associated riparian area impacts. A separate master plan for habitat compensation could be prepared to identify and develop medium to large habitat enhancement concepts to serve as compensation for multiple reaches.
- Assess required drainage system modifications (e.g. filling drainage channels and constructing a piped drainage system) in additional detail.
- Design with consideration for construction sequencing noted below.
- Advance public space and multi-use path design concepts further.
- Consider the need for an appropriate building setback from the land-side toe of any future flood protection works in view of the current BC setback guideline of 7.5 m. This should consider the planned dike upgrade to 4.7 m CGVD28, as well as future buildout to 5.5 m CGVD28. This may require consultation with the Inspector of Dikes.

### 4.2 Construction Sequence

The construction sequence for a typical reach is provided below. A typical reach currently has a road atop the dike, and utilities within the dike.

1. Secure land.
2. Coordinate third party utility relocations. This is mainly hydro on poles, Fortis gas infrastructure, and CN and local rail lines.
3. Install storm sewer (diameter to be confirmed at detailed design) in proximity to existing channel.
4. Fill over storm sewer to underside of road structure. The fill placement may be followed by a settlement period depending on geotechnical recommendations. If so, this fill may include a preload depth in excess of the road fill.
5. Install new utilities (typically water and hydro, with some sewer).
6. Construct new road with parking where access outside the dike will be impacted.
7. Divert traffic to new road.
8. Remove existing road and utilities. Do not abandon utilities within dike.



9. Fill dike to crest elevation. Excavation of sub-grade may be required to remove unsuitable materials.
10. Complete armouring, trail, and landscaping.

Larger projects will result in less temporary road diversion works. As an alternate, the entire road could be reconstructed first, in phases, before the dike is built later. This would work with the new road being raised to dike crest elevation.

### 4.3 Prioritization

Priority for construction will depend on which section is the lowest and therefore most urgent to raise, opportunities such as site development or road improvement plans, level of preparedness for issues such as land acquisition and habitat offsets, and adjacent residents' receptiveness to a higher dike. A preliminary priority list is provided below. Opportunities may shift the order, and the reaches may be broken down into smaller or larger projects.

**Table 4-1: Priority by Reach**

Priority	Reach # and Name	Extent / Length	Major Features
1	1 – Gilmore West	No. 2 Road to Crown Packaging (2.7 km)	<ul style="list-style-type: none"> <li>Designed and tendered.</li> </ul>
2	2 – Crown Packaging	66+500 to 66+150 (350m)	<ul style="list-style-type: none"> <li>Low section. Interim measures planned.</li> </ul>
3	7 – Fraser Lands – 13140 Rich Mill Road	Rice Mill Road to Fraser Wharves (500 m)	<ul style="list-style-type: none"> <li>Low section. Interim measures likely.</li> </ul>
4	3 – Gilmore East	Crown Packaging to Shell Road (1.75 km)	<ul style="list-style-type: none"> <li>Relatively straightforward</li> </ul>
5	6 – Highway 99	Rice Mill Road (250 m)	<ul style="list-style-type: none"> <li>Await MOTI opportunity.</li> </ul>
6	8 – Fraser Lands Fraser Wharves	Fraser Wharves to Steveston Hwy (1 km)	<ul style="list-style-type: none"> <li>Seek redevelopment opportunities with Port Metro Vancouver (PMV)</li> </ul>
7	4 – Shellmont West	Shell Road to No. 5 Road (1 km)	<ul style="list-style-type: none"> <li>Seek redevelopment opportunities for land acquisition and to resolve access issues.</li> </ul>
8	5 – Shellmont Deas Dock	No. 5 Road to Rice Mill Road (1 km) (1.6 km of dike)	<ul style="list-style-type: none"> <li>Seek redevelopment opportunities with BC Ferries.</li> </ul>
9	11 – Fraser Lands Lafarge	Nelson Road to Dyke Road (1.5 km)	<ul style="list-style-type: none"> <li>Seek redevelopment opportunities with Lafarge, else install interim measures.</li> </ul>
10	12 – East Richmond	Dyke Road to Fraserwood Way (1.8 km)	<ul style="list-style-type: none"> <li>Seek redevelopment opportunities for land acquisition and to resolve access issues.</li> </ul>
11	13/14 – Hamilton/Boundary	Fraserwood Way to Boundary Road (1.7 km)	<ul style="list-style-type: none"> <li>Seek redevelopment opportunities for land acquisition and to resolve access issues.</li> </ul>
12	10 – Fraser Lands Port Metro Vancouver	Williams Road to Nelson Road (3.5 km)	<ul style="list-style-type: none"> <li>Most Land is high. Coordinate with PMV</li> </ul>
13	9 – Fraser Lands Riverport Way	Steveston Hwy to Williams Road (1 km)	<ul style="list-style-type: none"> <li>This is newer and higher section.</li> </ul>
14	Boundary Secondary Dike	Dike Road to Hwy 91	<ul style="list-style-type: none"> <li>This is a back up to New Westminster dikes</li> </ul>



## 5. Reach Summary Sheets

The following section contains 2-page, reach-by-reach summary sheets that summarize the existing conditions, design considerations and potential constraints for each reach of Phase 3. The second sheet will summarize the features of the master plan through each reach including typical cross-sections, plan features, costs and priority for upgrade. The second sheet will be completed after stakeholder consultation and option selection.

## Reach 1: Gilmore West



### Existing Conditions

This reach of the dike is characterized as a dike in the roadway (Dyke Road). There is riparian habitat on the water side of the dike along with a public trail and park amenities. The land side of the dike is predominantly farmland with a drainage channel adjacent to the road. There are utilities (a watermain) within the land side toe of the road between chainage 69+000 to No 3 Road at chainage 67+100.

The final approximately 550 m of dike is along the river through the Dyke Trail Dog Park. This section of dike does not include a road, it is a multi-use trail.

The master plan must balance road, habitat interests, trail and park amenities, while still providing room to expand and minimizing utility risks.

### Unique Features

- London Heritage Farm, a historical site featuring a 19<sup>th</sup>-century farmhouse and barn, is located on the landside of the dike at approximate chainage 68+400. Dike upgrades need to protect this area without impacting the existing structures
- No 3 Road Waterfront Park and Fishing Pier, a public amenity on the water side of the dike, at chainage 67+150
- South Dyke Trail on the dike crest from No. 2 Road to Crown Packaging (then detours inland)
- Lulu Island Waste Water Treatment Plant is located approximately 200 m inland of the dike at chainage 67+950
- Dike upgrade project between Gilbert Road and No 3 Road under construction 2018 (approximate chainage 68+000 to 67+000)
- FREMP habitat compensation site at the base of Gilbert Road
- Gilbert Road South pump station
- No. 3 Road South pump station



## Considerations



### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



### Industrial and Infrastructure

Infrastructure in the dike  
Dyke Road  
Dike cross-section at the pump station will have to be expanded and modified.  
Future pump station upgrades need to consider the planned dike upgrades to allow enough room for pumping infrastructure



### Social

No. 2 Road Pier / London's Landing  
Gilbert Beach  
London Heritage Farm historical site  
Dyke Trail Dog Park  
South Dyke Trail  
No. 3 Road Waterfront Park/Pier  
Wayfinding and public information signs  
Traffic and road safety

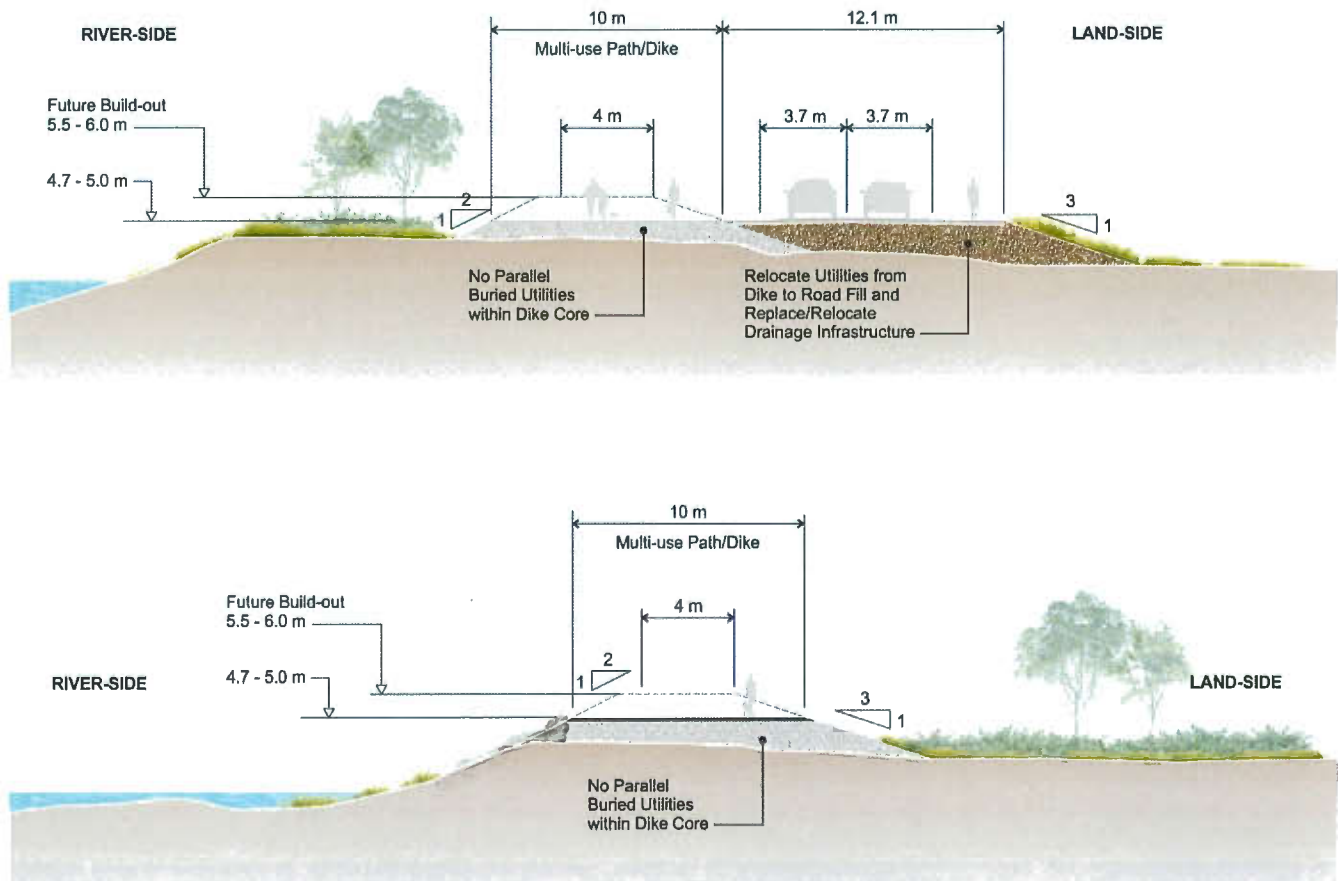


### Environmental

Land side is bordered by a drainage channel that is fish bearing with amphibian habitat.  
Moderate quality deciduous woodland, tall shrub woodland, and meadow present on inland bank of the drainage channel.  
Fraser River side habitat includes:

- high quality marsh and mudflat habitat,
- low quality habitat armoured bank, and
- a narrow strip of marsh habitat.

## Reach 1: Gilmore West - Recommended Improvements





## Reach 1: Gilmore West - Recommended Improvements

### Master Plan Features



#### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m  
Dike side slopes: 2H:1V on waterside (with erosion protection) and 3H:1V on landside  
Structure will be over-wide with the adjacent Dyke Road, and to accommodate future dike raising to 5.5 m



#### Industrial and Infrastructure

Relocate parallel infrastructure in the dike corridor to landside, outside of the dike footprint  
Infrastructure crossing the dike will be designed with seepage control  
Separate the dike from the road  
Dyke Road to be relocated to the land side of the dike, and the dike crest will be a dedicated dike/multi-use path  
Relocate and reduce the landside drainage channel, while maintaining internal drainage



#### Social

Align with 2009 Waterfront Strategy  
Traffic and road safety – separate Dyke Road from the multi-use path and include allowances for barricades and road shoulders  
Construct multi-use path separate from road  
Link to parks, trails, public amenities, and wayfinding, per Lululoop concept



#### Environmental

Building the dike to the landside, where possible, to minimize impact to Fraser River aquatic and riparian habitat  
The proposed footprint would impact an estimated 9,900 m<sup>2</sup> of high-quality Fraser River intertidal habitat, 4,400 m<sup>2</sup> of drainage channel aquatic habitat, and 21,100 m<sup>2</sup> drainage channel riparian habitat\*  
Relocating the drainage channel further inland and including appropriate plantings to the land side  
\*NOTE: This is an estimate based on 2007 FREMP mapping and 2017 orthoimagery interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment



#### Priority

This section is first priority due to relative preparedness to proceed. The works are already designed and tendered. The road is planned to remain atop the dike, but utilities are being removed. Road relocation can be reconsidered at a future date as a low priority.



#### Construction Cost

Costs below are for 2700 m of dike similar to cross-sections above.

Item	Cost per metre	Cost
Dike Raising	\$5,400	\$12.5 Million
Road Structure and Utilities	\$7,300	\$16.8 Million
Raise Road to Dike Height	\$1,900	\$4.4 Million
Driveways, Ramps or Road Intersection Reconstruction		\$4 Million
Other*		\$3.8 Million
<b>Contingency (40%)</b>		<b>\$15.1 Million</b>
<b>Total</b>		<b>\$53 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.

## Reach 2: Gilmore Crown Packaging



### Existing Conditions

This reach of the dike is characterized as a dike through an active works yard with barge facilities. The land side of the dike consists of paved areas with offices, warehouses and loading facilities. A warehouse structure sits at the landside toe of the dike and there is a barge loading/unloading facility on the river side of the dike.

Site grading needs to accommodate specialized vehicle traffic on the site (*i.e.*, forklifts, semi-trucks, rail cars).

The master plan must balance existing operations and access to barge facilities with improved City maintenance access, while still providing room to expand and minimizing utility risks.

### Unique Features

- Active works yard and barge facility
- Restricted City maintenance access with dike crest elevation below 3.5 m
- Rail and road access issues limit options to go around the site
- Property is leased to Crown Packaging with 18 years left on the lease
- Crown Packaging operates a large cardboard production plant on the site (60 to 65 m from top of bank)
- Rail line is located on the property (below the dike crest elevation) with rail access from the east
- Sub-leased shore area to a shipping/receiving company that uses sea-cans, large forklifts, semi-trucks and rail cars as part of their operations

### Considerations



#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial and Infrastructure

Marine operations and access to the Fraser River  
Forklift, rail and semi-truck access to warehouses  
Site grading constraints for vehicle traffic



#### Social

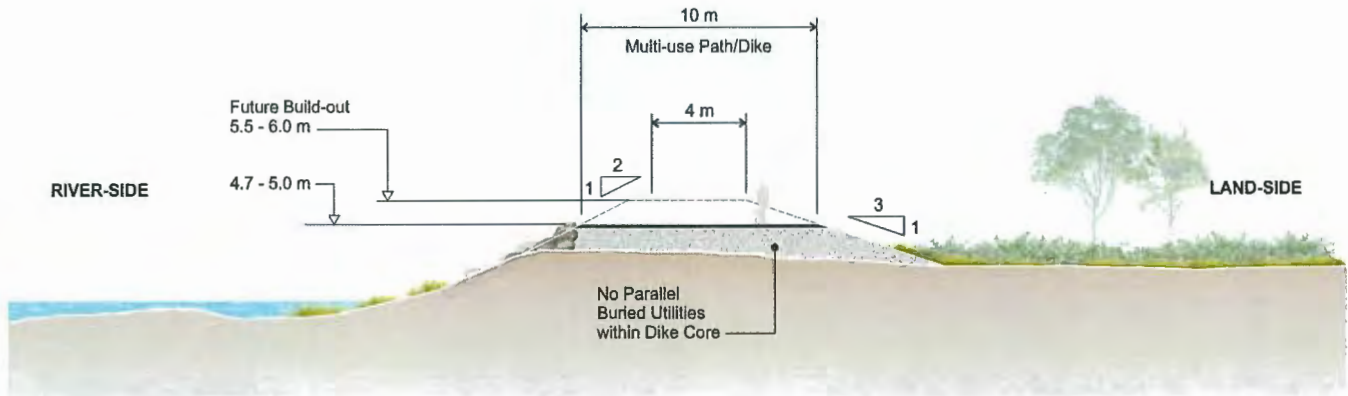


#### Environmental

Land-side is a paved parking lot. Fraser River-side habitat includes:

- low quality habitat armoured bank, and
- small area of high quality riparian deciduous treed woodland habitat

## Reach 2: Gilmore Crown Packaging - Recommended Improvements



### Master Plan Features



#### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m  
Dike side slopes: 2H:1V on waterside (with erosion protection) and 3H:1V on landside  
Structure will be over-wide to accommodate future dike raising to 5.5 m  
**This site will include a phased plan to increase flood protection to a minimum of 3.9 m in the near-term with long-term flood mitigation to include construction of a standard dike to 4.7 m design elevation at the end of the current lease (2036)**



#### Industrial and Infrastructure

- Short term phasing (to 2036):**
- construct a standard dike (where possible) on the west side of the property
  - construct a steel sheetpile wall to 3.9 m elevation to accommodate the narrow area
  - construct a narrow (approx. 2 m wide), paved access ramp with 12% grade to allow for barge access by forklifts
- Long term (2036)**
- Raise dike and full site to 4.7 m with redevelopment



#### Social

Align with 2009 Waterfront Strategy  
Maintain and improve multi-use path around the site



#### Environmental

Building the dike to the landside, where possible, to minimize impact to Fraser River aquatic and riparian habitat  
The proposed footprint would impact an estimated 600 m<sup>2</sup> of high-quality Fraser River intertidal habitat \*  
\*NOTE: This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment



## Reach 2: Gilmore Crown Packaging - Recommended Improvements

### Priority

Interim improvements to 3.9 m are high priority due to low elevation of this section of dike.

Full raising to 4.7 m is planned for 2036.

### Construction Cost

Costs below are for 350 m of dike similar to cross-section above.

Item	Cost per metre	Cost
Dike Raising	\$4,500	\$1.6 Million
Other*	\$2,900	\$1 Million
<b>Contingency (40%)</b>		<b>\$1 Million</b>
<b>Total</b>		<b>\$3.6 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

#### Interim

Item	Cost per metre	Cost
Dike Material	\$1,800	\$.6 Million
Other*	\$4,240	\$1.5 Million
<b>Contingency (40%)</b>		<b>\$.8 Million</b>
<b>Total</b>		<b>\$3 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.

## Reach 3: Gilmore East



### Existing Conditions

The first approximately 500 m of this reach is characterized as a dike only section through a City park from Crown Packaging by Woodward's Slough pump station to Dyke Road.

The second portion of this reach of the dike is characterized as a dike in the roadway (Dyke Road). There is riparian habitat on the water side of the dike along with the historical community of Finn Slough. The land side of the dike is predominantly farmland with a drainage channel adjacent to the road.

There are utilities (a watermain) within the land side toe of the road from No. 4 Road (approximate chainage 65+300) onwards.

The master plan must balance drainage and community needs, road, habitat interests, and trail and park amenities, while still providing room to expand and minimizing utility risks.

### Unique Features

- Woodward's Slough pump station
- South Dyke Trail runs along the dike crest to No. 5 Road
- Finn Slough heritage community sits on the river side of the dike. The community consists of homes on piles, floating homes, boats, docks and storage sheds with access by a pedestrian-only, wooden draw-bridge
- Drainage channel adjacent to the existing road/dike
- Homes and farm structures (barns etc.) on the land side near the toe of the existing dike/road

### Considerations

#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves

#### Industrial and Infrastructure

Infrastructure in the dike  
Dyke Road  
Dike cross-section at the pump station will have to be expanded and modified  
Future pump station upgrades need to consider the planned dike upgrades to allow enough room for pumping infrastructure

#### Social

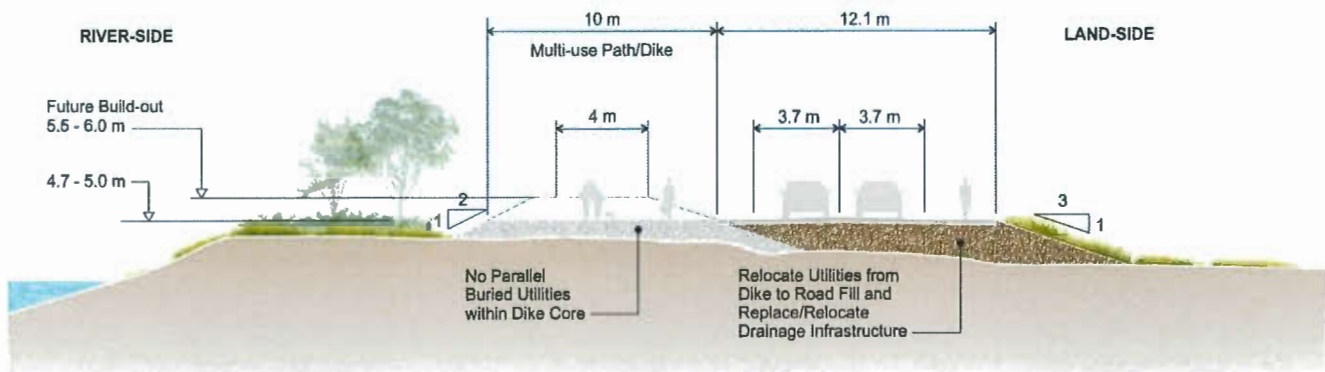
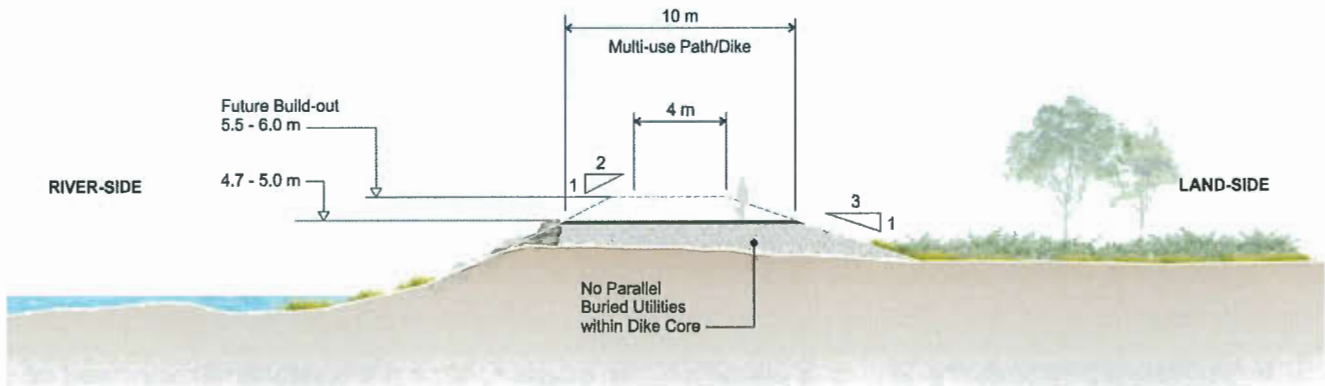
South Dyke Trail  
Traffic and road safety  
Finn Slough heritage values

#### Environmental

Land-side is bordered by a drainage channel that is potential amphibian breeding habitat. Fish species presence not recorded.  
Fraser River-side habitat includes:

- low quality landscaped grasses and walking trails setback from armoured slopes
- high quality marsh habitat on the banks of Finn Slough, and
- high quality riparian habitat on the south side of Finn Slough (tall shrubby woodland)

## Reach 3: Gilmore East - Recommended Improvements



## Master Plan Features



### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m  
Dike side slopes: 2H:1V on waterside (with erosion protection) and 3H:1V on landside  
Structure will be over-wide to accommodate future dike raising to 5.5m



### Industrial and Infrastructure

Separate the dike from the road  
Dyke Road to be relocated to the land side of the dike, and the dike crest will be a dedicated dike/multi-use path  
Relocate parallel infrastructure in the dike corridor to landside, outside of the dike footprint  
Infrastructure crossing the dike will be designed with seepage control  
Relocate and reduce the landside drainage channel, while maintaining internal drainage  
**Short term phasing:**  
Combine Dyke Road with the dike to minimize the footprint of the proposed master plan



### Social

Align with 2009 Waterfront Strategy  
Construct multi-use path separate from road  
Link to parks, trails, public amenities, and wayfinding, per Lululoop concept  
Finn Slough habitat and heritage features preserved



### Environmental

Building the dike to the landside, where possible, to minimize impact to Fraser River aquatic and riparian habitat  
The proposed footprint would impact and estimated 2,400 m<sup>2</sup> of high-quality Fraser River riparian habitat, 6,700 m<sup>2</sup> of high-quality Fraser River intertidal habitat, 3,100 m<sup>2</sup> of drainage channel aquatic habitat, and 14,200 m<sup>2</sup> drainage channel riparian habitat\*  
Relocating the drainage channel further inland and including appropriate plantings to the land side  
**\*NOTE:** This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment



## Reach 3: Gilmore East - Recommended Improvements

### Priority

High priority due to relative preparedness to proceed. There are driveway coordination details, and there would be some benefit to waiting for adjacent redevelopment. However, redevelopment is likely too far off and the dike and road can be raised without impacting structures. The Finn Slough and housing can remain, although access will change.

### Construction Cost

Costs below are for 1750 m of dike similar to cross-section above.

Item	Cost per metre	Cost
Dike Raising	\$4,500	\$7.9 Million
Road Structure and Utilities	\$3,900	\$4.9 Million
Raise Road to Dike Height	\$5,300	\$6.6 Million
Driveways, Ramps or Road Intersection Reconstruction		\$3.3 Million
Other*	\$1,150	\$2.9 Million
<b>Contingency (40%)</b>		<b>\$9 Million</b>
<b>Total</b>		<b>\$31.5 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

#### Interim

Item	Cost per metre	Cost
Dike Raising	\$5,400	\$9.5 Million
Road Structure and Utilities	\$3,900	\$6.8 Million
Raise Road to Dike Height	\$5,300	\$9.3 Million
Driveways, Ramps or Road Intersection Reconstruction		\$3.3 Million
Other*	\$300	\$5.5 Million
<b>Contingency (40%)</b>		<b>\$10.5 Million</b>
<b>Total</b>		<b>\$36.9 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.

## Reach 4: Shellmont West



### Existing Conditions

This reach of the dike is characterized as a dike in the roadway (Dyke Road). The land side of the dike is predominantly light industrial for the first and last approximately 300 m of the reach. These sites do not have river access as part of their operations; however, they do require semi-trailer access to the sites from Dyke Road.

The middle portion of the reach on the landside of the dike is characterized as a park or greenspace called: Woodward's Landing Campground.

There are utilities (a watermain and a stormdrain) within the land side toe of the road. There is also a small surface drainage channel along the Woodward's Landing Campground property.

The master plan must balance road, trail and park amenities, and habitat interests, while still providing room to expand and minimizing utility risks.

### Unique Features

- Horseshoe Slough pump station
- South Dyke Trail runs along the dike crest to No. 5 Road and provides connection to Horseshoe Slough Trail
- Log boom mooring dolphins in the Fraser River from Shell Road to No 5 Road
- First and last 300 m (approx.) of the reach is light industrial with no river operations, but building access required for semi-trailers
- Middle 300 m (approx.) of the reach is Woodward's Landing Campground on the landside of Dyke Road

### Considerations



#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial and Infrastructure

Infrastructure in the dike  
Dyke Road  
Dike cross-section at the pump station will have to be expanded and modified  
Future pump station upgrades need to consider the planned dike upgrades to allow enough room for pumping infrastructure



#### Social

South Dyke Trail (provides connection to inland trail system)  
Woodward's Landing Park  
Wayfinding and public information signs  
Traffic and road safety



#### Environmental

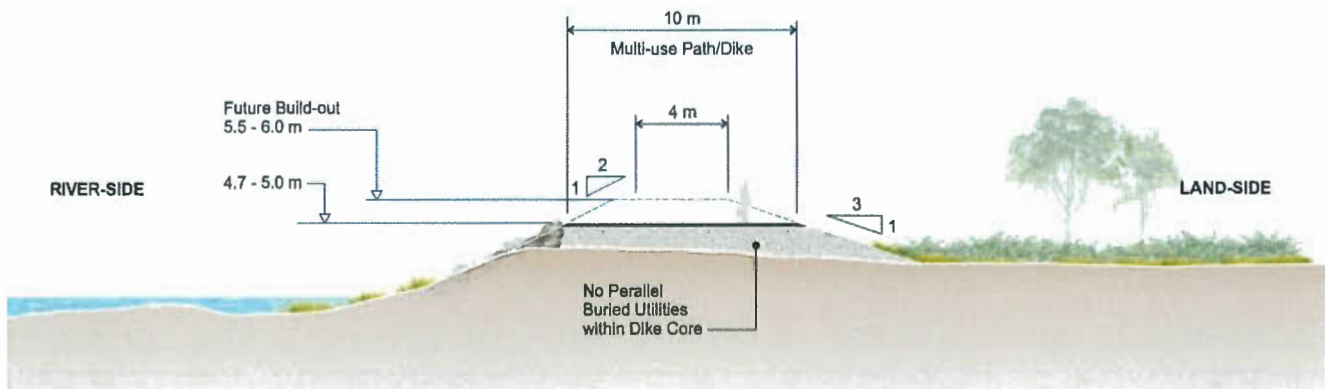
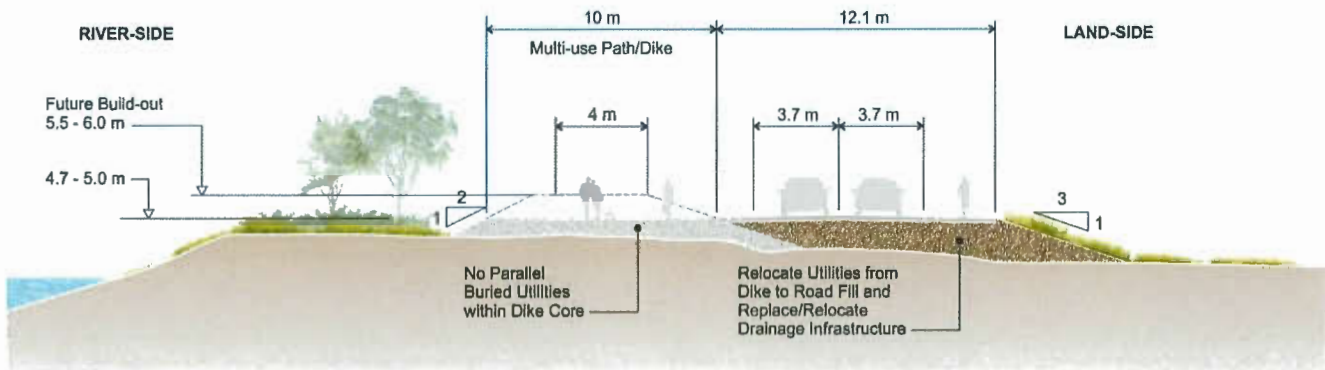
Land-side habitat includes:

- low quality habitat (walking path and lawn) at east and west end of reach
- drainage channel adjacent to middle of reach (Threespine stickleback, amphibian habitat)

Fraser River-side habitat includes:

- low quality paved or gravel surfaces setback from armoured slopes
- very west end of reach is set back from Fraser River
- high quality marsh habitat in Fraser River in east half of reach

## Reach 4: Shellmont West - Recommended Improvements



## Master Plan Features



### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m  
Dike side slopes: 2H:1V on waterside (with erosion protection) and 3H:1V on landside  
Structure will be over-wide with the adjacent Dyke Road and to accommodate future dike raising to 5.5m



### Industrial and Infrastructure

Relocate parallel infrastructure in the dike corridor to landside, outside of the dike footprint  
Infrastructure crossing the dike will be designed with seepage control  
Relocate and reduce the landside drainage channel, while maintaining internal drainage  
Dike cross-section at the pump station will have to be expanded and modified  
Future pump station upgrades need to consider the planned dike upgrades to allow enough room for pumping infrastructure



### Social

Align with 2009 Waterfront Strategy  
Construct multi-use path separate from road  
Link to parks, trails, public amenities, and wayfinding, per Lululoop concept



### Environmental

Building the dike to the landside, where possible, to minimize impact to aquatic and riparian habitat  
The proposed footprint would impact an estimated 200 m<sup>2</sup> of high-quality Fraser River riparian habitat, 1,200 m<sup>2</sup> of drainage channel aquatic habitat, and 4,400 m<sup>2</sup> drainage channel riparian habitat\*  
Relocating the drainage channel further inland and including appropriate plantings to the land side  
\* NOTE: This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment



## Reach 4: Shellmont West - Recommended Improvements

### Priority

High priority due to relative preparedness to proceed. There are driveway coordination details, and there would be some benefit to waiting for adjacent redevelopment. However, redevelopment is likely too far off and the dike and road can be raised without impacting structures.

### Construction Cost

Costs below are for 1000 m of dike similar to cross-sections above.

Item	Cost per metre	Cost
Dike Raising	\$4,500	\$4.5 Million
Road Structure and Utilities	\$3,900	\$3.9 Million
Raise Road to Dike Height	\$5,300	\$5.3 Million
Driveways, Ramps or Road Intersection Reconstruction		\$1.2 Million
Other*	\$1,150	\$ .4 Million
<b>Contingency (40%)</b>		<b>\$6.1 Million</b>
<b>Total</b>		<b>\$21.3 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.

## Reach 5: Shellmont Deas Dock



### Existing Conditions

This reach of the dike is characterized as a dike through an active port facility. The land side of the dike consists of paved areas with offices, warehouses and loading facilities.

Current stakeholders include: Mainland Sand and Gravel (No. 5 Rd Depot) and BC Ferries Richmond (Deas Pacific Marine).

The master plan must balance existing operations and access to the river with improved City maintenance access, while still providing room to expand and minimizing utility risks.

Redevelopment offers the opportunity to raise the site (super-dikes) and improve access.

### Unique Features

- Port facilities under redevelopment
- Active marine work yard and shipyard facilities with restricted maintenance access
- Rail and road access issues limit options to go around the site
- Active redevelopment activities
- FREMP habitat compensation site (plantings) in the Deas Dock area

### Considerations



#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial and Infrastructure

Marine operations and access to the Fraser River  
Forklift, rail and semi-truck access to warehouses  
Site grading constraints for vehicle traffic  
No defined dike structure in Mainland Sand and Gravel depot with the active movement of material and loading of barges



#### Social

Connect to existing and planned trails and public amenities  
Wayfinding and public information signs

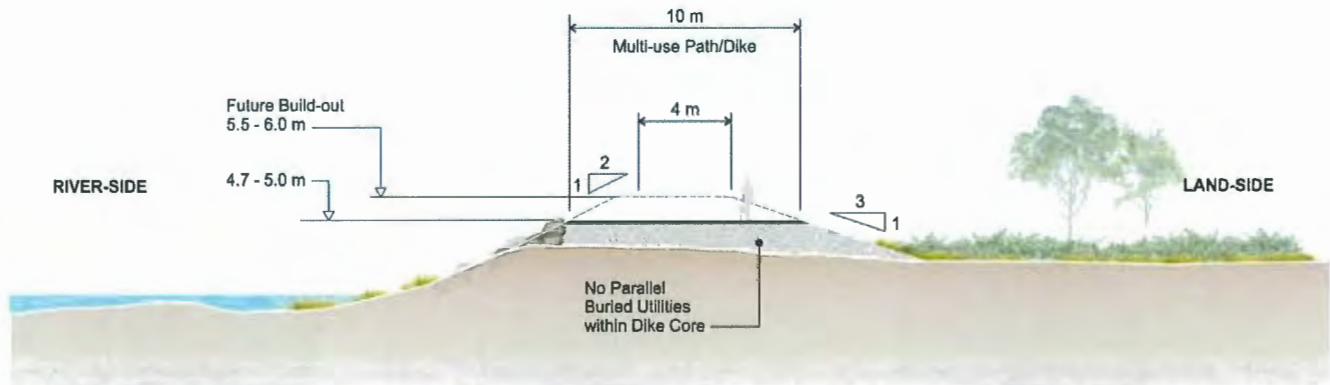


#### Environmental

Land-side is mostly paved with some low-quality herbaceous habitat present  
Fraser River-side habitat includes:

- high quality marsh habitat where the dike is setback approx. 100 m in west half of reach
- high quality mudflats and marsh habitat bordering dike in the east third of reach

## Reach 5: Shellmont Deas Dock - Recommended Improvements



### Master Plan Features



#### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m  
This site will include an interim measure for non-standard cross-section (setback sheetpile wall) to accommodate space constraints and operations until site can be raised to final elevation



#### Industrial and Infrastructure

##### Short term phasing:

- construct a standard dike (where possible); and
- construct a steel sheetpile wall to 4.7 m elevation to accommodate the narrow area
- potential for building a structure around the site and allow the stakeholder to address the flood hazards with site-specific response plans



#### Social

Align with 2009 Waterfront Strategy  
Maintain and improve multi-use path around the site  
This path will divert around the Deas Dock



#### Environmental

The proposed footprint would impact an estimated 1,000 m<sup>2</sup> of high-quality Fraser River intertidal habitat, less than 100 m<sup>2</sup> of drainage channel aquatic habitat, and less than 100 m<sup>2</sup> drainage channel riparian habitat\*

\* NOTE: This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment



## Reach 5: Shellmont Deas Dock - Recommended Improvements

### Priority

Medium priority. Timing will depend on coordination with BC Ferries and the potential raising of the dike and site along with redevelopment of Deas Dock. If improvements don't proceed in a reasonable timeframe, interim measures such as raising the road around the site, may need to proceed before site redevelopment.

### Construction Cost

Costs below are for 1600 m of dike similar to cross-section above.

Item	Cost per metre	Cost
Dike Raising	\$4,500	\$7.2 Million
Driveways, Ramps or Road Intersection Reconstruction		\$.3 Million
Other*	\$2,900	\$4.6 Million
<b>Contingency (40%)</b>		<b>\$4.8 Million</b>
<b>Total</b>		<b>\$17 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

#### Interim

Item	Cost per metre	Cost
Dike Raising	\$1,800	\$2.9 Million
Driveways, Ramps or Road Intersection Reconstruction		\$.3 Million
Other*	\$4,240	\$6.8 Million
<b>Contingency (40%)</b>		<b>\$4 Million</b>
<b>Total</b>		<b>\$13.9 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.

## Reach 6: Highway 99



### Existing Conditions

This reach of the dike is characterized as a dike and a dike in a road (Rice Mill Road). The land side of the dike consists of gravel parking lots and infrastructure for the George Massey Tunnel.

The master plan must balance the unique risks of having a tunnel through the dike with habitat interests, trail and park amenities, while still providing room to expand.

### Unique Features

- Flood protection needs to integrate with the George Massey Tunnel
- Unique risks associated with having a tunnel under the dike
- Peace Arch (Hwy 99) pump station

### Considerations



#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial and Infrastructure

Dike cross-section at the pump station will have to be expanded and modified  
Future pump station upgrades need to consider the planned dike upgrades to allow enough room for pumping infrastructure



#### Social

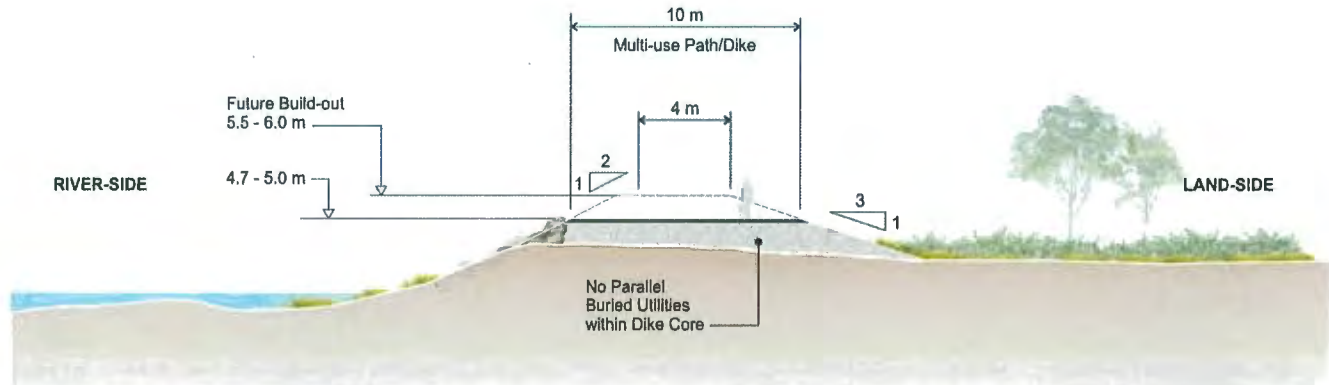
Connect to existing and planned trails and public amenities  
Wayfinding and public information signs



#### Environmental

Land-side is mostly low-quality gravel parking lots  
Fraser River-side habitat includes high quality deciduous tree riparian woodland (at the west end)

## Reach 6: Highway 99 - Recommended Improvements



### Master Plan Features



#### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m  
Design to respond to Massey tunnel replacement. Previous plans included sealing off the tunnel and constructing a bridge



#### Industrial and Infrastructure

Relocate parallel infrastructure in the dike corridor to landside, outside of the dike footprint  
Infrastructure crossing the dike will be designed with seepage control  
Relocate and reduce the landside drainage channel, while maintaining internal drainage  
Dike cross-section at the pump station will have to be expanded and modified  
Future pump station upgrades need to consider the planned dike upgrades to allow enough room for pumping infrastructure  
If a bridge is selected to replace the tunnel, seal off the tunnel  
If a tunnel is selected, the approach should rise to 4.7m with berms leading up to it as a barrier to tunnel collapse and flooding



#### Social

Align with 2009 Waterfront Strategy  
Construct multi-use path separate from road  
Link to parks, trails, public amenities, and wayfinding, per Lululoop concept



#### Environmental

The proposed footprint would impact an estimated 200 m<sup>2</sup> of high-quality Fraser River riparian habitat\*  
\* NOTE: This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment

## Reach 6: Highway 99 - Recommended Improvements

### Priority

Medium priority. Timing will depend on coordination with BC Ministry of Transportation and Infrastructure.

If improvements don't proceed in a reasonable timeframe, interim measures such as sheetpile walls, may need to proceed before the tunnel replacement.

### Construction Cost

Costs below are for 250 m of dike similar to cross-section above.

Item	Cost per metre	Cost
Dike Raising	\$4,500	\$1.1 Million
Road Structure and Utilities	\$2,600	\$.7 Million
Driveways, Ramps or Road Intersection Reconstruction		\$.1 Million
Other*	\$300	\$.1 Million
<b>Contingency (40%)</b>		<b>\$.8 Million</b>
<b>Total</b>		<b>\$2.7 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.



## Reach 7: Fraser Lands 13140 Rice Mill Road



### Existing Conditions

This reach of the dike is characterized as a dike through an active works yard with barge facilities (Canadian Fishing Company). The land side of the dike consists of paved areas with offices, warehouses and loading facilities. Current buildings are located on the dike, with no access for City maintenance crews to inspect or maintain the area.

Rail lines are located north of the property and limit the options for routing a standard dike around the property.

Site grading needs to accommodate specialized vehicle traffic on the site (*i.e.*, forklifts and semi-trucks).

The master plan must balance existing operations and access to barge facilities with improved City maintenance access, while still providing room to expand and minimizing utility risks.

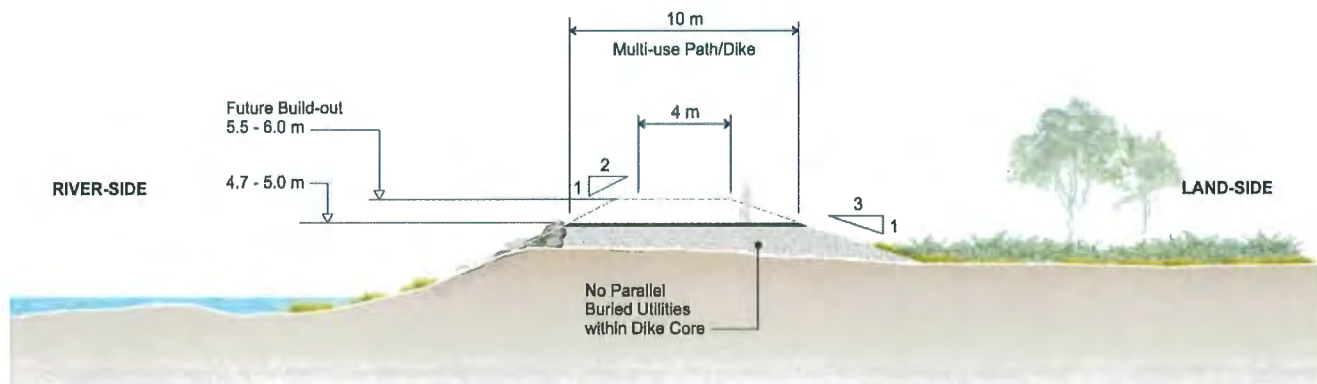
### Unique Features

- Active works yard and barge facility
- Restricted City maintenance access with dike crest elevation below 3.5 m
- Rail and road access issues limit options to go around the site
- FREMP habitat compensation site in the area

### Considerations

 <b>Flood Protection</b>	 <b>Industrial and Infrastructure</b>	 <b>Social</b>	 <b>Environmental</b>
<ul style="list-style-type: none"> <li>Dike alignment</li> <li>Dike crest elevation</li> <li>Erosion protection</li> <li>Seismic performance</li> <li>Static stability and seepage</li> <li>River toe stability and setbacks</li> <li>Boat waves</li> </ul>	<ul style="list-style-type: none"> <li>Marine operations and access to the Fraser River</li> <li>Forklift, rail and semi-truck access to warehouses</li> <li>Site grading constraints for vehicle traffic</li> </ul>	<ul style="list-style-type: none"> <li>Connect to existing and planned trails and public amenities</li> <li>Wayfinding and public information signs</li> <li>Traffic and road safety</li> </ul>	<ul style="list-style-type: none"> <li>Land-side has some deciduous trees, but most of the area is paved or has buildings</li> <li>Fraser River-side habitat is low quality habitat with armoured slope or pier</li> </ul>

## Reach 7: Fraser Lands 13140 Rice Mill Road - Recommended Improvements



### Master Plan Features



#### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m  
Dike side slopes: 2H:1V on waterside (with erosion protection) and 3H:1V on landside  
Structure will be over-wide to accommodate future dike raising to 5.5 m  
This site will include a phased plan to increase flood protection to a minimum of 3.9 m in the near-term with long-term flood mitigation to include construction of a standard dike to 4.7 m design elevation at the end of the current lease



#### Industrial and Infrastructure

##### Short term phasing:

- construct a standard dike (where possible); and
- Interim
- construct a steel sheetpile wall to 3.9 m elevation to accommodate the narrow area north of the site, between it and the rail ROW
  - potential for building a structure around the site and allow the stakeholder to address the flood hazards with site-specific response plans
  - Relocate site access to the west in order to install dike across current entrance



#### Social

Align with 2009 Waterfront Strategy

Construct multi-use path separate from road

Link to parks, trails, public amenities, and wayfinding, per Lululoop concept

This path will divert north around this site



#### Environmental

Building the dike to the landside, where possible, to minimize impact to Fraser River aquatic and riparian habitat

The proposed footprint would not impact fish or aquatic habitat



## Reach 7: Fraser Lands 13140 Rice Mill Road - Recommended Improvements

### Priority

High priority due to low elevations. This may be limited to interim measures until the full standard dike can be coordinated with future site redevelopment.

### Construction Cost

Costs below are for 500 m of dike similar to cross-section above.

Item	Cost per metre	Cost
Dike Raising	\$4,500	\$2.3 Million
Driveways, Ramps or Road Intersection Reconstruction		\$. Million
Other*	\$2,900	\$1.5 Million
<b>Contingency (40%)</b>		<b>\$1.5 Million</b>
<b>Total</b>		<b>\$5.2 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

#### Interim

Item	Cost per metre	Cost
Dike Raising	\$1,800	\$ .9 Million
Other*	\$4,240	\$2.1 Million
<b>Contingency (40%)</b>		<b>\$1.2 Million</b>
<b>Total</b>		<b>\$4.2 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.

## Reach 8: Fraser Lands Fraser Wharves



### Existing Conditions

This reach of the dike is characterized as a dike through an active port facility. The land side of the dike consists of paved areas with offices, warehouses and loading facilities.

The master plan must address existing operations and access to unloading facilities, and balance existing operations and access to the river with improved City maintenance access, while still providing room to expand and minimizing utility risks.

Redevelopment offers the opportunity to raise the site (super-dikes) and improve access, habitat and community amenities.

### Unique Features

- Active ship-to-land car unloading facilities
- Active redevelopment activities
- No 6 Road South pump station

### Considerations



#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial and Infrastructure

Marine operations and access to the Fraser River  
Site grading constraints for vehicle traffic  
No defined dike structure in Mainland Sand and Gravel depot with the active movement of material and loading of barges  
Dike cross-section at the pump station will have to be expanded and modified  
Future pump station upgrades need to consider the planned dike upgrades to allow enough room for pumping infrastructure



#### Social

Connect to existing and planned trails and public amenities  
Wayfinding and public information signs

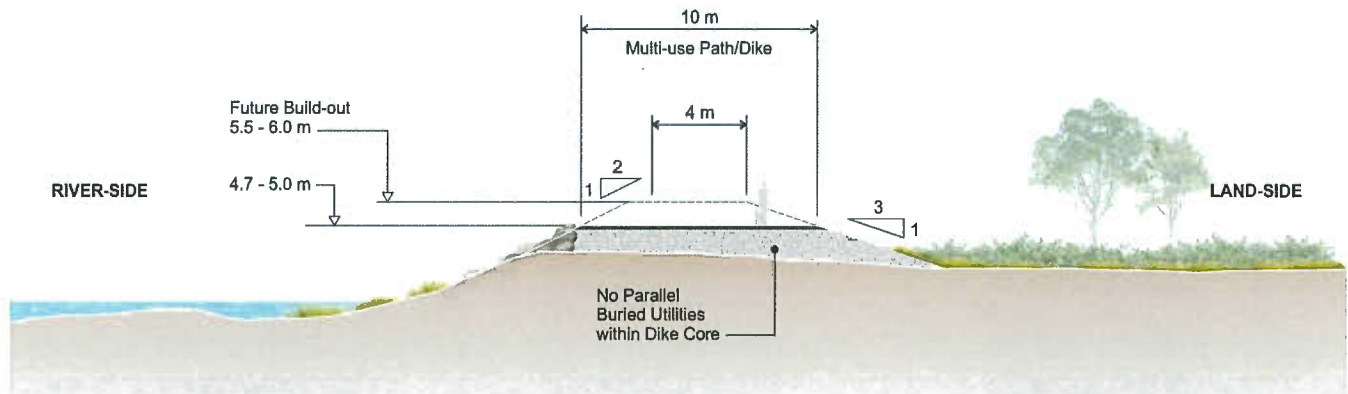


#### Environmental

Land-side is mostly paved with some low-quality shrub habitat between dike and pavement.  
Fraser River-side habitat includes:

- high quality deciduous treed riparian habitat in east half and small patch in west half
- armoured slope and pier in middle of reach

## Reach 8: Fraser Lands Fraser Wharves - Recommended Improvements



### Master Plan Features

#### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m

#### Industrial and Infrastructure

Coordinate improvements with Port Metro Vancouver  
Dike runs through active port operations, so is expected to be gated

#### Social

Align with 2009 Waterfront Strategy  
Construct multi-use path separate from road  
Link to parks, trails, public amenities, and wayfinding, per Lululoop concept  
This path will divert north around this site

#### Environmental

The proposed footprint would impact an estimated less than 100 m<sup>2</sup> of high-quality Fraser River riparian habitat, and 200 m<sup>2</sup> of high-quality Fraser River intertidal habitat\*  
\*NOTE: This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment

#### Priority

Medium priority due to need to coordinate with PMV. Improvements may be achieved through site redevelopment.

#### Construction Cost

Costs below are for 1000 m of dike similar to cross-section above.

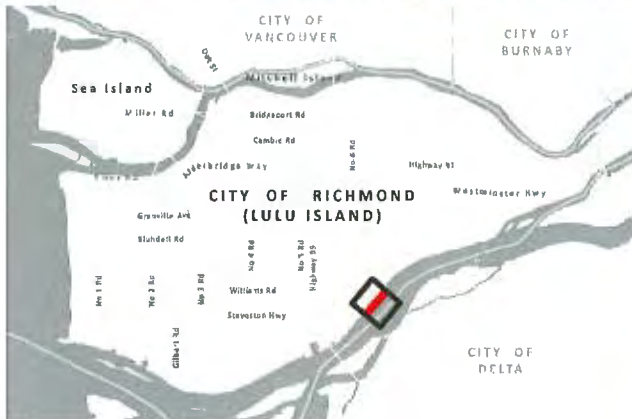
Item	Cost per metre	Cost
Dike Raising	\$4,500	\$4.5 Million
Driveways, Ramps or Road Intersection Reconstruction		\$ .8 Million
Other*	\$2,900	\$2.9 Million
<b>Contingency (40%)</b>		<b>\$3.3 Million</b>
<b>Total</b>		<b>\$11.5 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.



## Reach 9: Fraser Lands Riverport Way



### Existing Conditions

This reach of the dike is characterized as a dike with a pedestrian walkway and path. There is riparian habitat on the water side of the dike along with a public trail and park amenities.

The master plan must balance recent development, habitat interests, trail and park amenities, while still providing room to expand.

### Unique Features

- FREMP habitat compensation site in front of the Riverport Way development
- Recent Riverport Way development includes some recently constructed improvements (paved pedestrian pathway) that are challenging to raise
- Redevelopment activities along the eastern portion of the reach

### Considerations



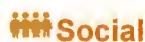
#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial and Infrastructure

Pedestrian pathway in front of Riverport Way development is paved and buildings open directly onto the dike



#### Social

Connect to existing and planned trails and public amenities  
Wayfinding and public information signs

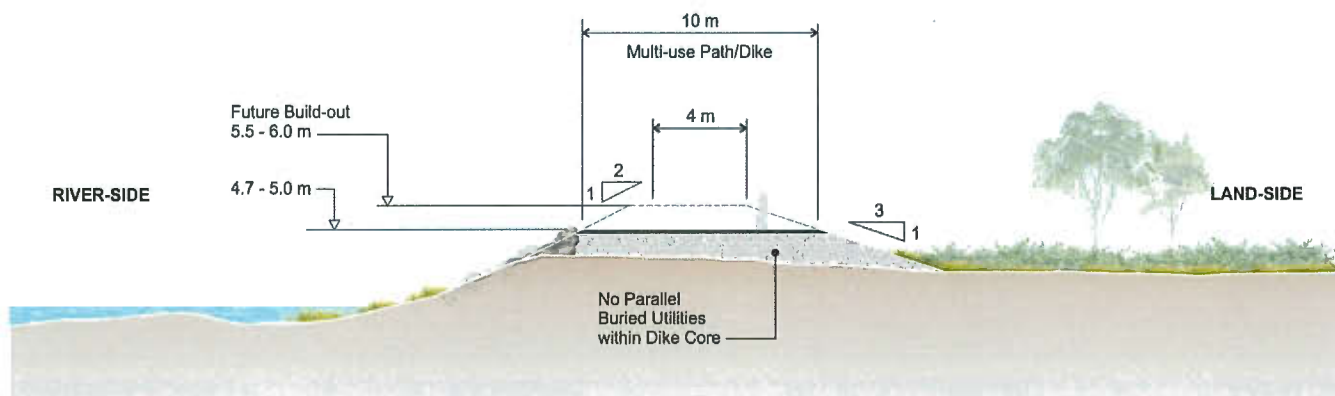


#### Environmental

Land-side is characterized by lawn or gravel lot with low quality habitat. Fraser River-side habitat includes:

- high quality deciduous forest riparian habitat in middle of reach
- low quality habitat armoured bank at east and west ends a narrow strip of marsh habitat

## Reach 9: Fraser Lands Riverport Way - Recommended Improvements



### Master Plan Features



#### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m  
Dike side slopes: 2H:1V on waterside (with erosion protection) and 3H:1V on landside  
Structure will be over-wide to accommodate future dike raising to 5.5m.



#### Industrial and Infrastructure

No existing infrastructure within the dike



#### Social

Align with 2009 Waterfront Strategy  
Construct multi-use path separate from road  
Link to parks, trails, public amenities, and wayfinding, per Lululoop concept



#### Environmental

Building the dike to the landside, where possible, to minimize impact to aquatic and riparian habitat  
The proposed footprint would impact an estimated 100 m<sup>2</sup> of high-quality Fraser River riparian habitat, and 100 m<sup>2</sup> of high quality Fraser River intertidal habitat \*  
\* NOTE: This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment



#### Priority

Low priority. This portion of dike is newer and relatively high. Improvements can be deferred until the higher priority sections are addressed.



#### Construction Cost

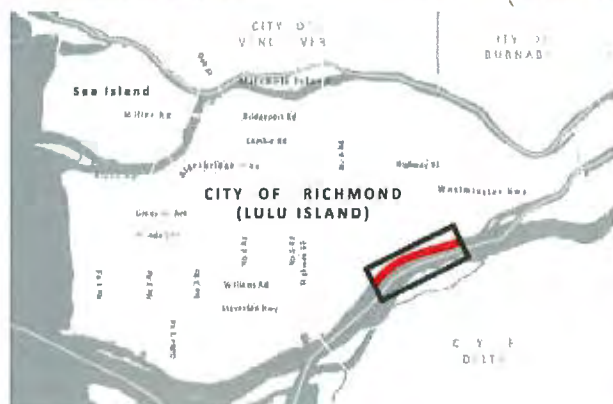
Costs below are for 1000 m of dike similar to cross-section above.

Item	Cost per metre	Cost
Dike Raising	\$4,500	\$4.5 Million
Driveways, Ramps or Road Intersection Reconstruction		\$ .1 Million
Other*	\$2,900	\$2.9 Million
<b>Contingency (40%)</b>		<b>\$3 Million</b>
<b>Total</b>		<b>\$10.5 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.

## Reach 10: Fraser Lands Port Metro Vancouver (PMV)



### Existing Conditions

Much of this reach of the dike is characterized as a dike through an active port facility. Some locations within the reach have the dike in the road (Dyke Road) and in some locations, the dike is a trail through area.

The master plan must balance existing operations and access to the river with improved City maintenance access, while still providing room to expand and minimizing utility risks.

Redevelopment offers the opportunity to raise the site (super-dikes) and improve access. Continued development offers opportunities for dike material stockpile areas and some public amenities.

### Unique Features

- Port facilities under redevelopment
- Active marine work yard and shipyard facilities with restricted maintenance access
- Active redevelopment activities
- City-owned waterfront between Williams Road and Coast 2000 terminals
- Three (3) FREMP habitat compensation sites: front face of the loading area in the Port, and two (2) intertidal areas near No. 8 Rd
- No. 7 Road South pump station
- Nelson Road South pump station

### Considerations



#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial and Infrastructure

Marine operations and access to the Fraser River  
Forklift, rail and semi-truck access to warehouses  
Site grading constraints for vehicle traffic  
No defined dike structure or rights of way in some areas



#### Social

City owns portion of the waterfront that is used as an unofficial recreation area  
Connect to existing and planned trails and public amenities  
Wayfinding and public information signs



#### Environmental

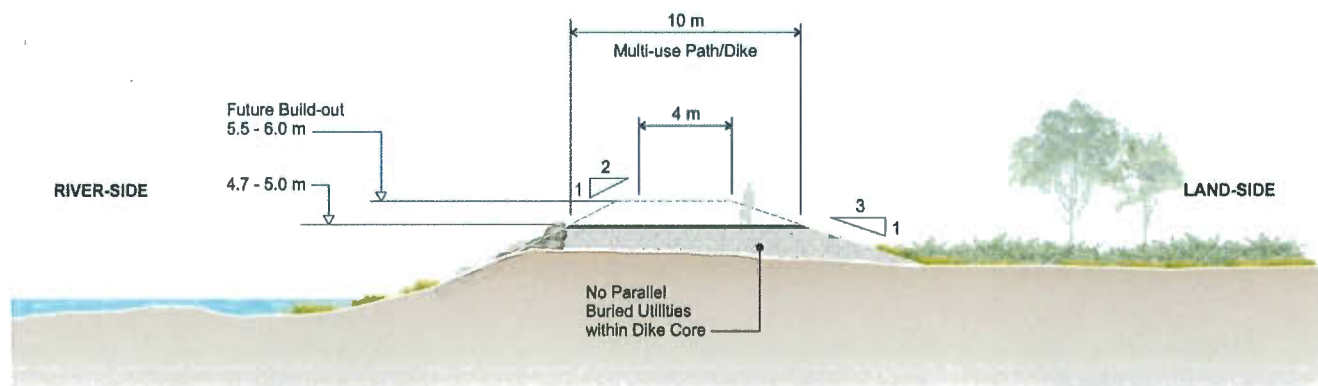
Land side has:

- drainage channel at east end (Stickleback, amphibian habitat),
- paved lots at east and west ends, and
- large, seasonally flooded area in middle of reach (Potential for overwintering habitat creation).

Fraser River side habitat includes large areas of high-quality riparian forest, intertidal marsh along full length of reach



## Reach 10: Fraser Lands PMV - Recommended Improvements



### Master Plan Features

 Flood Protection	 Industrial and Infrastructure	 Social	 Environmental
<p>Maintain existing alignment</p> <p>Dike crest elevation: 4.7 m, with future buildout to 5.5 m</p> <p>Dike crest width: 10 m, future buildout to 4 m</p>	<p>Most of the Port Metro Vancouver lands are high and above the proposed dike crest height</p> <p>Fill remaining low areas above dike elevations during redevelopment</p> <p>Seek rights of way or agreement for inspection, maintenance, and construction of dikes or erosion protection along section that isn't within the City's jurisdiction</p>	<p>Align with 2009 Waterfront Strategy</p> <p>Construct multi-use path separate from road</p> <p>Link to parks, trails, public amenities, and wayfinding, per Lululoop concept</p> <p>This path will divert north up the east bank of the No. 7 Rd. drainage channel and north around the PMV lands</p>	<p>The proposed footprint would impact an estimated 17,000 m<sup>2</sup> of high-quality Fraser River riparian habitat, 700 m<sup>2</sup> of high quality Fraser River intertidal habitat, 1,300 m<sup>2</sup> of drainage channel aquatic habitat, and 900 m<sup>2</sup> drainage channel riparian habitat*</p> <p>Opportunities for habitat improvements or creation of overwintering habitat in the middle of the reach</p> <p>*NOTE: This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment</p>

### Priority

Low priority because most of the land and dikes are high. Coordinated planning with PMV should proceed earlier to develop and plan to deal with future site development, land raising, and responsibility or rights of way over federal portion of waterfront.

### Construction Cost

Costs below are for 3500 m of dike similar to cross-section above.

Item	Cost per metre	Cost
Dike Raising	\$4,500	\$15.8 Million
Driveways, Ramps or Road Intersection Reconstruction		\$2.2 Million
Other*	\$2,900	\$10.2 Million
<b>Contingency (40%)</b>		<b>\$10.5 Million</b>
<b>Total</b>		<b>\$36.6 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.

## Reach 11: Fraser Lands Lafarge



### Existing Conditions

Much of this reach of the dike is characterized as a dike through an active port facility.

The master plan must balance existing operations and access to the river with improved City maintenance access, while still providing room to expand and minimizing utility risks.

### Unique Features

- Active works yard and barge facilities with restricted maintenance access.
- Restricted access for City maintenance
- Rail and road access issues limit options to go around the site
- Dike upgrades designed 2018

### Considerations



#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial and Infrastructure

Marine operations and access to the Fraser River  
Forklift, rail and semi-truck access to warehouses  
Site grading constraints for vehicle traffic  
No defined dike structure in some areas



#### Social

Connect to existing and planned trails and public amenities  
Wayfinding and public information signs



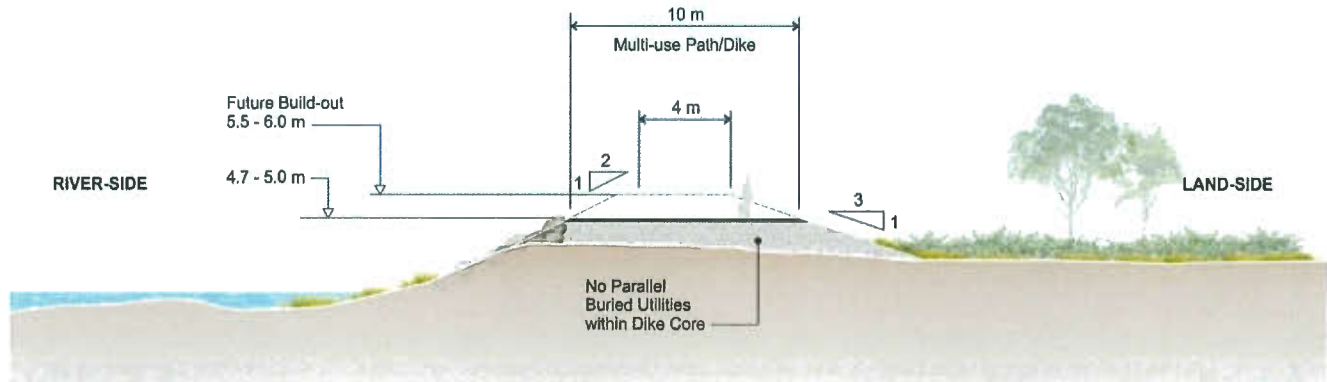
#### Environmental

Land-side has low quality habitat with paved lots and buildings.





Fraser River-side habitat includes some:


- high quality forested riparian habitat at the east end, and
- low quality habitat armoured bank at the west end

## Reach 11: Fraser Lands Lafarge - Recommended Improvements




### Master Plan Features

 <b>Flood Protection</b>	 <b>Industrial and Infrastructure</b>	 <b>Social</b>	 <b>Environmental</b>
<p>Maintain existing alignment through site, or negotiate a change in alignment that is favourable to the City and adjacent land owner</p> <p>Dike crest elevation: 4.7 m, with future buildout to 5.5 m</p> <p>Dike crest width: 10 m, future buildout to 4 m</p>	<p>Raising the dike in its current location will be very disruptive to Lafarge</p> <p>Relocation to the water's edge would provide better control over erosion inspection and maintenance</p> <p>Alternatively, relocation along the north perimeter of their site would limit the conflict of land use to access ramps</p>	<p>Align with 2009 Waterfront Strategy</p> <p>Construct multi-use path separate from road. Link to parks, trails, public amenities, and wayfinding, per Lululoop concept. This path will run along the north side of the Lafarge lands</p>	<p>The proposed footprint would impact an estimated 900 m<sup>2</sup> of high-quality Fraser River riparian habitat *</p> <p>Opportunities for habitat improvements or creation of overwintering habitat in the middle of the reach</p> <p>* NOTE: This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment</p>



Priority

Medium to low priority because the land is relatively high. However, raising the land and dike will be challenging with the current operations, so negotiated changes may take time. Seek redevelopment opportunities. Consider interim measures if opportunities not forthcoming.



Construction Cost

Costs below are for 1500 m of dike similar to cross-section above.

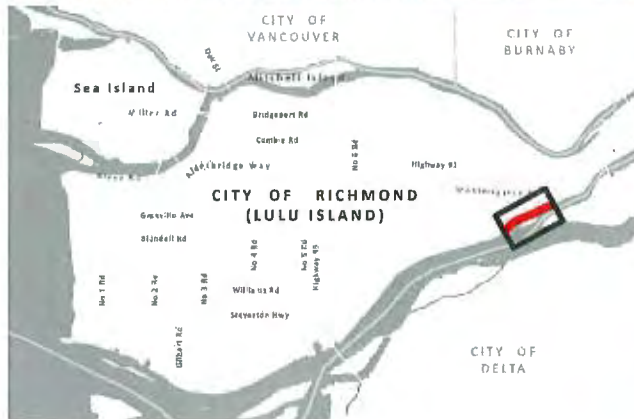
Item	Cost per metre	Cost
Dike Raising	\$4,500	\$6.8 Million
Driveways, Ramps or Road Intersection Reconstruction		\$ .4 Million
Other*	\$2,900	\$4.4 Million
Contingency (40%)		\$4.6 Million
Total		\$16.1 Million

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.



## Reach 12: East Richmond



### Existing Conditions

This reach of the dike is characterized as a dike in the roadway (Dyke Road).



There are utilities (a watermain and storm main) within the land side toe of the road as well as local drainage provided by surface channels at the toe of the slope.

The master plan must balance drainage and community needs, road, habitat interests, and trail and park amenities, while still providing room to expand and minimizing utility risks.

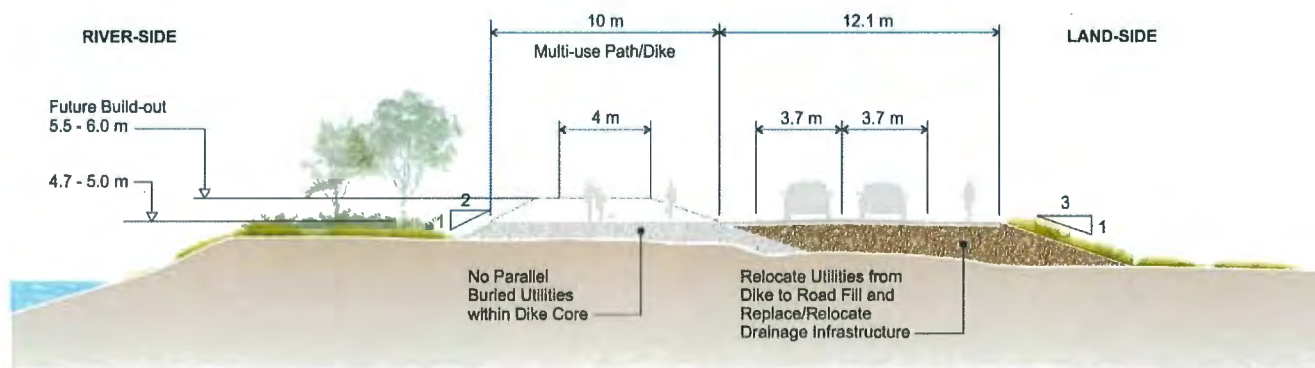
### Unique Features

- Ewen Road Irrigation pump station
- Commercial development on the land side
- East Richmond Trail runs along the dike crest adjacent to Dyke Road from No. 9 Road
- Very little room for dike works
- Multiple marinas with access over the dike on the water side
- Shelter Island Marina and Boatyard needs low gradient access across the dike for the Travelifts to haul out or launch boats

### Considerations

 <b>Flood Protection</b>	 <b>Industrial and Infrastructure</b>	 <b>Social</b>	 <b>Environmental</b>
<ul style="list-style-type: none"> <li>Dike alignment</li> <li>Dike crest elevation</li> <li>Erosion protection</li> <li>Seismic performance</li> <li>Static stability and seepage</li> <li>River toe stability and setbacks</li> <li>Boat waves</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure in the dike</li> <li>Dyke Road</li> <li>Dike cross-section at the pump station will have to be expanded and modified</li> <li>Future pump station upgrades need to consider the planned dike upgrades to allow enough room for pumping infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>East Richmond Trail</li> <li>Connect to existing and planned trails and public amenities</li> <li>Wayfinding and public information signs</li> <li>Traffic and road safety</li> </ul>	<ul style="list-style-type: none"> <li>Land-side includes: <ul style="list-style-type: none"> <li>• drainage channel adjacent to dike at east and west ends of reach (amphibian habitat)</li> <li>• low quality habitat paved or maintained lawn in middle of reach</li> </ul> </li> <li>Fraser River-side habitat includes: <ul style="list-style-type: none"> <li>• high quality habitat mud flats at middle and east end of reach</li> <li>• deciduous treed woodland high quality habitat at west end of reach</li> </ul> </li> </ul>

## Reach 12: East Richmond - Recommended Improvements



### Master Plan Features

#### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m  
Dike side slopes: 2H:1V on waterside (with erosion protection) and 3H:1V on landside  
Structure will be over-wide to accommodate future dike raising to 5.5m

#### Industrial and Infrastructure

Relocate parallel infrastructure in the dike corridor to landside, outside of the dike footprint  
Infrastructure crossing the dike will be designed with seepage control  
Relocate and reduce the landside drainage channel, while maintaining internal drainage  
Combine Dyke Road with the dike to minimize the footprint of the proposed master plan

#### Social

Align with 2009 Waterfront Strategy  
Construct multi-use path separate from road  
Link to parks, trails, public amenities, and wayfinding, per Lululoop concept

#### Environmental

Building the dike to the landside, where possible, to minimize impact to aquatic and riparian habitat  
The proposed footprint would impact an estimated 2,500 m<sup>2</sup> of high-quality Fraser River riparian habitat, 3,200 m<sup>2</sup> of drainage channel aquatic habitat, and 5,500 m<sup>2</sup> drainage channel riparian habitat\*  
Relocating the drainage channel further inland and including appropriate plantings to the land side  
\* NOTE: This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment

## Reach 12: East Richmond - Recommended Improvements

### Priority

Medium to low priority due to the many property access conflicts to be resolved. Raise and acquire land over time along with redevelopment to prepare for dike raising and road relocation and raising.

### Construction Cost

Costs below are for 1800 m of dike similar to cross-section above.

Item	Cost per metre	Cost
Dike Raising	\$4,500	\$8.1 Million
Road Structure & Utilities	\$3,900	\$3.9 Million
Raise Road to Dike Height	\$5,300	\$5.3 Million
Driveways, Ramps or Road Intersection Reconstruction		\$4 Million
Other*	\$1,150	\$3.5 Million
<b>Contingency (40%)</b>		<b>\$8.5 Million</b>
<b>Total</b>		<b>\$29.7 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

#### Interim

Item	Cost per metre	Cost
Dike Raising	\$5,400	\$9.7 Million
Road Structure & Utilities	\$3,900	\$7 Million
Raise Road to Dike Height	\$5,300	\$9.5 Million
Driveways, Ramps or Road Intersection Reconstruction		\$4 Million
Other*	\$300	\$5 Million
<b>Contingency (40%)</b>		<b>\$10.9 Million</b>
<b>Total</b>		<b>\$38.1 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.



## Reach 13/14: Hamilton/Boundary



### Existing Conditions

This reach of the dike is characterized as a dike in the roadway (Fraserwood Way and Dyke Road) with utilities. The land side of the dike is predominantly commercial developments with marinas, businesses and houses with river access over the dike.

There are utilities (a watermain and storm main) within the land side toe of the road as well as local drainage provided by surface channels at the toe of the slope.

The master plan must balance drainage and community needs, road, marina, habitat interests, and trail and park amenities, while still providing room to expand and minimizing utility risks.

### Unique Features

- Dike is set back for the final 500 m before the connection with New Westminster
- Newly developed townhouses on the river, outside of the dike (23740 and 23580 Dyke Road)
- FREMP habitat compensation site plantings in front of Townhome complex at 23740 and 23580 Dyke Road
- Commercial development on land side
- Marinas and float homes with river access over the dike on both the land side and river side
- East Richmond Trail and Fraserwood Trail run along the dike crest on or adjacent to the roadway to Boundary Road
- Highway 91 and City of New Westminster dike interface

### Considerations



#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial and Infrastructure

Infrastructure in the dike  
Fraserwood Way



#### Social

East Richmond Trail  
Fraserwood Trail  
Connect to existing and planned trails and public amenities  
Wayfinding and public information signs  
Traffic and road safety  
Finn Slough heritage values



#### Environmental

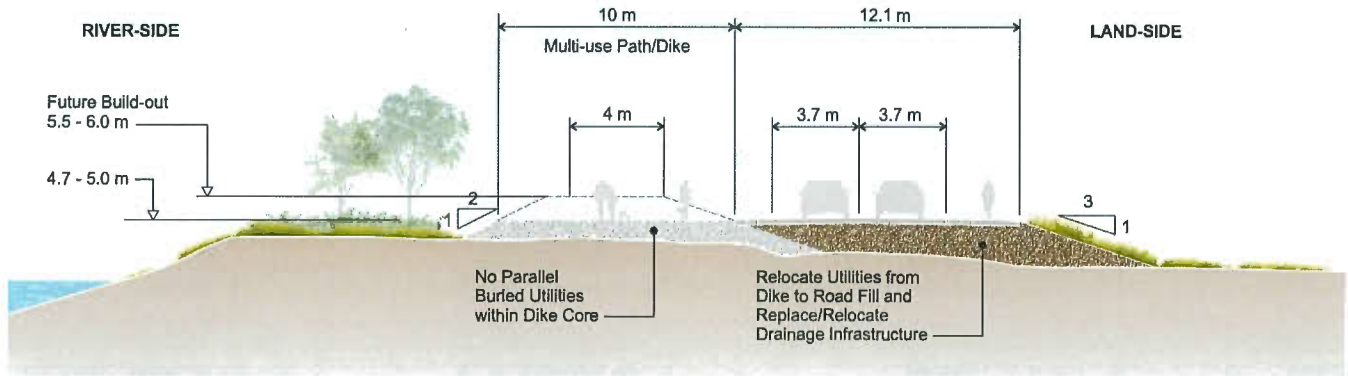
Land-side includes:

- drainage channels at very west end and in middle of reach (amphibian habitat)
- low quality paved or landscaping shrubs at west end of reach habitat
- high quality shrubland habitat at east end of reach

Fraser River-side habitat includes:

- high quality mud flats and marsh at west end of reach
- patches of high quality marsh and riparian deciduous woodland along east end of reach
- small patches of unvegetated low quality habitat along reach

## Reach 13/14: Hamilton/Boundary - Recommended Improvements



### Master Plan Features



#### Flood Protection

Maintain existing alignment  
Dike crest elevation: 4.7 m, with future buildout to 5.5 m  
Dike crest width: 10 m, future buildout to 4 m  
Dike side slopes: 2H:1V on waterside (with erosion protection) and 3H:1V on landside  
Structure will be over-wide to accommodate future dike raising to 5.5m



#### Industrial and Infrastructure

Separate the dike from the road  
Road to be relocated to the land side of the dike, and the dike crest will be a dedicated dike/multi-use path  
Relocate parallel infrastructure in the dike corridor to landside, outside of the dike footprint  
Infrastructure crossing the dike will be designed with seepage control  
Relocate and reduce the landside drainage channel, while maintaining internal drainage  
**Short term phasing:**  
Combine Fraserwood Way and Dyke Road with the dike to minimize the footprint of the proposed master plan



#### Social

Align with 2009 Waterfront Strategy  
Construct multi-use path separate from road  
Link to parks, trails, public amenities, and wayfinding, per Lululoop concept



#### Environmental

Building the dike to the landside, where possible, to minimize impact to aquatic and riparian habitat  
The proposed footprint would impact an estimated 4,200 m<sup>2</sup> of high quality Fraser River riparian habitat, 100 m<sup>2</sup> of high quality Fraser River intertidal habitat, 1,100 m<sup>2</sup> of drainage channel aquatic habitat, and 2,400 m<sup>2</sup> drainage channel riparian habitat\*.  
Relocating the drainage channel further inland and including appropriate plantings to the land side  
\* NOTE: This is an estimate based on air photo interpretation. Exact numbers will require an aquatic habitat survey and aquatic effects assessment

## Reach 13/14: Hamilton/Boundary - Recommended Improvements

### Priority

Low priority due to the many property access conflicts to be resolved inside and outside the dike. Raise and acquire land over time along with redevelopment to prepare for dike raising and road relocation and raising.

The proposed secondary dike near Boundary road is a low priority because it provides back-up to the primary defenses. However, it is relatively simple to construct, but requires coordination and agreement with MoTI.

### Cost

Costs below are for 1700 m of dike similar to cross-section above.

Item	Cost per metre	Cost
Dike Raising	\$4,500	\$7.7 Million
Road Structure & Utilities	\$3,900	\$6.6 Million
Raise Road to Dike Height	\$5,300	\$9 Million
Driveways, Ramps or Road Intersection Reconstruction		\$1.2 Million
Other*	\$1,150	\$2 Million
<b>Contingency (40%)</b>		<b>\$10.6 Million</b>
<b>Total</b>		<b>\$37 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Interim

Item	Cost per metre	Cost
Dike Raising	\$5,400	\$9.2 Million
Road Structure & Utilities	\$3,900	\$6.6 Million
Raise Road to Dike Height	\$5,300	\$9 Million
Driveways, Ramps or Road Intersection Reconstruction		\$1.2 Million
Other*	\$300	\$0.5 Million
<b>Contingency (40%)</b>		<b>\$10.6 Million</b>
<b>Total</b>		<b>\$37.1 Million</b>

\*Other – Pathways, Utilities, Furnishings & Bollards

Cost opinions are in 2018 Canadian Dollars.





## 6. Recommendations

It is recommended that the City adopt the Phase 3 Dike Master Plan as documented in this report, including the main features described below.

- Raise the dike crest to allow for 1 m of sea level rise. West of Nelson Road, the raised dike crest would be 4.7 m (CGVD28). East of Nelson Road, the raised dike crest would increase to 5.1 m at Boundary Road. The plan also allows for longer term upgrading to accommodate a further 1 m of sea level rise (i.e. 2 m of sea level rise).
- Widen the dike on the land side rather than into the Fraser River.
- Move Dyke Road inside the dike to facilitate short-term and long-term dike upgrading. This will require the road to be reconfigured and reconstructed, with some additional need for land tenure. Moving the road will allow removal of utilities within the dike.
- Raise the relocated Dyke Road to the dike crest elevation. This will facilitate driveway access over the dike to riverside properties. It will also be compatible with the desire to raise land inside the dike.
- Pursue individual industrial site strategies depending on the existing rights and agreements, the urgency of the works, and opportunities for redevelopment for each site. These include:
  - Crown Packaging – construct interim improvements to 3.5 m to correct low spot. Raise dike and full site to 4.7m during redevelopment expected in 18 years.
  - Deas Dock – seek improvement opportunities with BC Ferries. Raise full site, else raise road behind the site.
  - Canfisco 13140 Rice Mill Road – determine redevelopment opportunities with owner. Plan for interim improvements within limited space including new access from west and sheet pile wall between site and rail ROW.
  - Port Metro Vancouver Lands – Where rights exist, coordinate improvements with adjacent PMV operations. Where no rights exist, collaborate with PMV to either acquire rights or develop agreement on responsibility to inspect, maintain, and improve dikes and shoreline protection.
  - Lafarge – Either raise the dike within the current City property that bisects their site, or negotiate land swap to place and build dike improvements at the riverside. Raise entire site with future redevelopment.
- Replace the drainage channel immediately inside the dike with storm sewers and swales. This will improve dike stability, and will provide some of the land needed to relocate Dyke Road.
- Raise land and roads immediately inside the dike (during redevelopment) to improve seismic resilience. This will also improve liveability by allowing residents to look down over the water, rather than at the backside of a dike.
- Improve pedestrian and cyclist safety by constructing a separate multi-use path along the dike. This would be consistent with the City Parks vision for a perimeter trail system (“Lululoop” perimeter trail network envisioned in Appendix B)
- Construct the south section of a secondary dike near Boundary Road.



It is also recommended that the City prepare a comprehensive implementation plan for dike upgrading that incorporates the elements of the Phase 3 Dike Master Plan, and the elements of the other Dike Master Plans.

To address habitat compensation issues associated with the Dike Master Plans, it is further recommended that the City consider development of a habitat banking program that could provide effective large-scale compensation for the environmental impacts of dike upgrading.



## Report Submission

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## Revision History

Revision #	Date	Status	Revision	Author
D	November 21, 2018	DRAFT		SJL
C	October 30, 2018	DRAFT	Updated based on City comments on Version 2 and geotechnical input	SJL/ATAL
B	August 7, 2018	DRAFT	Updated based on City comments on Version 1 (pre-consultation)	SJL/ATAL



**KERR WOOD LEIDAL ASSOCIATES LTD.**  
consulting engineers





Draft Report  
Dike Master Plan - Phase 5

November 2018  
KWL File No. 0651.129-300

Submitted by:



KERR WOOD LEIDAL  
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CNCL - 585



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## Executive Summary

The City of Richmond uses a Dike Master Planning program to guide future dike upgrading projects, and to ensure that land development adjacent to the dike is compatible with flood protection objectives. The program includes 4 phases for the 49 km of the Lulu Island perimeter dike in Richmond and an additional 5<sup>th</sup> phase for Sea Island, Mitchell Island, and Richmond Island. The goal is to raise the dikes to 4.7 m CGVD28 to allow for 1 m of sea level rise and 0.2 m of land subsidence, while allowing for further upgrading in the future. The vision is to provide the City with a world-class level of flood protection to keep pace with the rapidly growing population and assets within the dikes.

Phase 5 covers Sea Island, Mitchell Island, and Richmond Island. The Sea Island 15 km perimeter ring dike is shared with Vancouver Airport Authority (YVR), with the City managing a 1.1 km section south of the Moray Channel Bridge plus three road rights-of-way through the YVR sections of the dike. Mitchell Island is not currently protected by a dike, although most of the island is above 2.5 m CGVD28. Richmond Island is a single property that is above the floodplain with flood protection responsibility remaining with the property owner.

This report describes existing conditions, develops an ideal vision for dike upgrading, presents design criteria, identifies options for dike upgrading, and presents recommended dike upgrading options that appropriately address the challenges. This work can be used as a basis for design of dike upgrading projects, recognizing that site-specific refinement of recommended options will be required in some areas. This work can also be used to assist with land use planning activities along the dike corridor. The main features of the recommended options to dike upgrading in Phase 5 are described below.

### Mitchell Island

- Raise all land on the island above flood levels including private property and roadways.
- Raise all roadways to dike elevation to provide emergency egress (consider partial raises in low areas).
- During redevelopment, require private properties to be raised to dike elevation and acquire rights-of-way along the river bank. Such rights-of-way will allow for a future dike and/or bank protection works.
- Work with low elevation properties in the short term to mitigate flood and associated contamination risks.

### Sea Island

- Widen the dike on the land side rather than into the Fraser River Middle Arm. Retaining walls or extending the dike towards the riparian area may be considered in site-specific constrained areas.
- Coordinate upgrades to the dike with upgrades to Miller Road Pump Station and the Moray Channel Bridge.
- As an interim measure along the Pacific Gateway Hotel, raise the dike to 4.7 m CGVD 28 with a sheetpile wall embedded along the river bank and a land-side retaining wall, until the site redevelops.
- Coordinate dike improvements with YVR and establish agreed upon dike jurisdictions.

### Richmond Island

- No changes by the City are proposed as the island is almost entirely above the future dike elevation (5.5 m CGVD28). Flood protection responsibility is recommended to remain with the property owner.

For all phases of the Dike Master Plan, the City should continue to research alternative densification strategies for seismic stability, consider the proposed alternative seismic performance criteria in Section 3.2, and plan to fill land for approximately 200 m inland of the dike to dike elevation. The required fill distance requires additional evaluation and may be addressed in the pending update to the Flood Protection Management Strategy.



## 1. Introduction

Flood protection in Richmond is guided by the City's 2008-2031 Flood Protection Strategy which includes a comprehensive suite of measures including structural measures (e.g. dikes and pump stations), non-structural measures (e.g. flood construction levels), and flood response and recovery plans.

Dike Master Plans are critical components of the City's 2008-2031 Flood Protection Strategy and are used to guide the implementation of long-term dike upgrades.

The City of Richmond (City) has retained Kerr Wood Leidal (KWL) to prepare the Richmond Dike Master Plan Phase 5.

Phase 5 encompasses the islands on the north side of Lulu Island within the City of Richmond, along the Fraser River North Arm. This includes Richmond Island, Mitchell Island, and Sea Island (primarily under Vancouver Airport Authority (YVR) jurisdiction). These are three distinct islands that require consideration of separate constraints and opportunities, independent of each other, but within the overall context of the Dike Master Plan. Figure 1-1 presents the extent of the City's Dike Master Plan phases and existing ground elevation, based on Emergency Management BC (EMBC) 2016 LiDAR. Figure 1-2 shows the reaches of the Phase 5 Dike Master Plan.

### 1.1 Background

Richmond has a population of about 220,000 and is situated entirely on islands within the overlapping Fraser River and coastal floodplains (Lulu Island, Sea Island, Mitchell Island, Richmond Island). The City's continued success is due in part to its flat, arable land and its strategic location at the mouth of the Fraser River and on the seashore. The low elevation of the land and its proximity to the water comes with flood risks.

As Richmond is fully situated within the river/coastal floodplain, there is no option to locate development out of the floodplain. The continued success of the City depends on providing a high level of structural and non-structural flood protection measures. Without continued improvements, the flood risk within the City would progressively rise as a result of rising flood levels (due to climate change), subsiding land, and increasing development.

The 2008-2031 Flood Protection Strategy guides the City's flood risk reduction activities across the City's organizational structure and across the spectrum of structural and non-structural flood protection measures. The Flood Protection Strategy is currently in the process of being updated.

While Lulu Island is the most populous and developed Richmond island, Mitchell Island and Sea Island are also very important to the success of Richmond and the region. Mitchell Island and Sea Island are economic and employment hubs with light to medium industrial uses on Mitchell Island and the Vancouver International Airport and associated industries located on Sea Island. There is also a residential community (Burkeville) located on Sea Island. Richmond Island is currently occupied by a single business operating a marina and a pub.





## 1.2 Purpose and Objectives

The purpose of the Dike Master Plan is to guide the implementation of dike upgrades and provide a starting point for the City to work with proposed developments adjacent to dikes. Unlike the previous Dike Master Plan phases, which focus on the Lulu Island perimeter dike, Phase 5 focuses on areas outside of Lulu Island, including both diked and undiked islands. In diked areas (Sea Island), the Phase 5 Dike Master Plan will focus on upgrading of the City's portion of the existing perimeter dike. In undiked areas (Mitchell Island and Richmond Island), alternative flood protection strategies may be warranted, such as land raising or relying only on non-structural measures (Flood Construction Levels (FCLs), covenants, flood insurance).

The master plan defines the City's preferred and minimum acceptable structural flood protection works upgrading concepts (dikes, land raising, erosion protection). The Dike Master Plan facilitates the City's annual dike upgrading program by providing critical information for the design of dike upgrades, including:

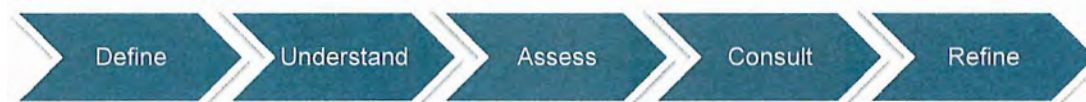
- general design concept;
- alignment;
- typical cross-section (conceptual design);
- footprint and land acquisition and tenure needs;
- design and performance criteria;
- infrastructure changes required for dike upgrading/construction;
- operation and maintenance considerations;
- environmental features and potential impacts;
- social and public amenity considerations;
- guidance for future development adjacent to the dike; and
- guidance on interaction with other structural flood protection measures (e.g. secondary dikes).

The Dike Master Plan is intended to guide dike upgrading over the next 20 to 30 years.

Other flood protection measures, including non-structural measures, are addressed in the City's 2008-2031 Flood Protection Strategy.

## 1.3 Approach and Methodology

The Dike Master Plan has been developed using a 5-step approach presented and described below.



**Define:** Confirm Dike Master Plan objectives and design/performance criteria.

**Understand:** Collect and compile relevant information, including spatial data and background reports from the City and several other parties (Vancouver Airport Authority, provincial regulators, the port, etc.).

**Assess:** Develop dike upgrading options and identification of constraints and potential impacts. Desktop and field review of options with City staff to identify preferred options.

**Consult:** Present to and gather feedback from council and stakeholders on preferred options.

**Refine:** Develop the master plan informed by consultation and review by the City.



The scope for the Dike Master Plan includes the following main tasks:

- goals and objectives development;
- background data collection and review;
- design criteria development and identification of constraints;
- options development and review;
- site visits;
- drainage impacts assessment;
- desktop habitat mapping and impacts review;
- geotechnical assessment;
- public amenity review;
- stakeholder consultation; and
- report preparation.

## 1.4 Report Format

This report is organized as follows:

- The executive summary provides a high-level overview of the master plan and key features;
- Section 1 introduces the master plan context and process;
- Section 2 documents the existing conditions;
- Section 3 documents the options development and assessment, and presents the recommended options;
- Section 4 provides implementation strategy, including costs, phasing, and coordination;
- Section 5 is a compilation of 2-page summary sheets highlighting existing conditions and key features of the preferred option for each reach; and
- Section 6 provides general and reach specific recommendations for next steps and implementation.

Appendix A provides figures showing conditions along the existing dike alignment, and the preliminary design footprint for a number of upgrading options discussed in Section 3.

## 1.5 Project Team

The KWL project team includes the following key individuals:

- Colin Kristiansen, P.Eng., MBA – Project Manager;
- Mike Currie, M.Eng., P.Eng., FEC – Senior Engineer and Technical Reviewer;
- Amir Taleghani, M.Eng., P.Eng. – Water Resources Engineer;
- Allison Matfin, EIT – Project Engineer
- Laurel Morgan, M.Sc., P.Eng., P.E. – Drainage Engineer;
- Daniel Brown, B.Sc., B.Tech., BIT – Project Biologist; and
- Jack Lau - GIS/CAD Analyst.

This report was primarily written by Allison Matfin with direction from Amir Taleghani. The report was reviewed by Mike Currie and Colin Kristiansen.

Thurber Engineering Ltd. (Steven Coulter, M.Sc., P.Eng.) provided geotechnical engineering services.



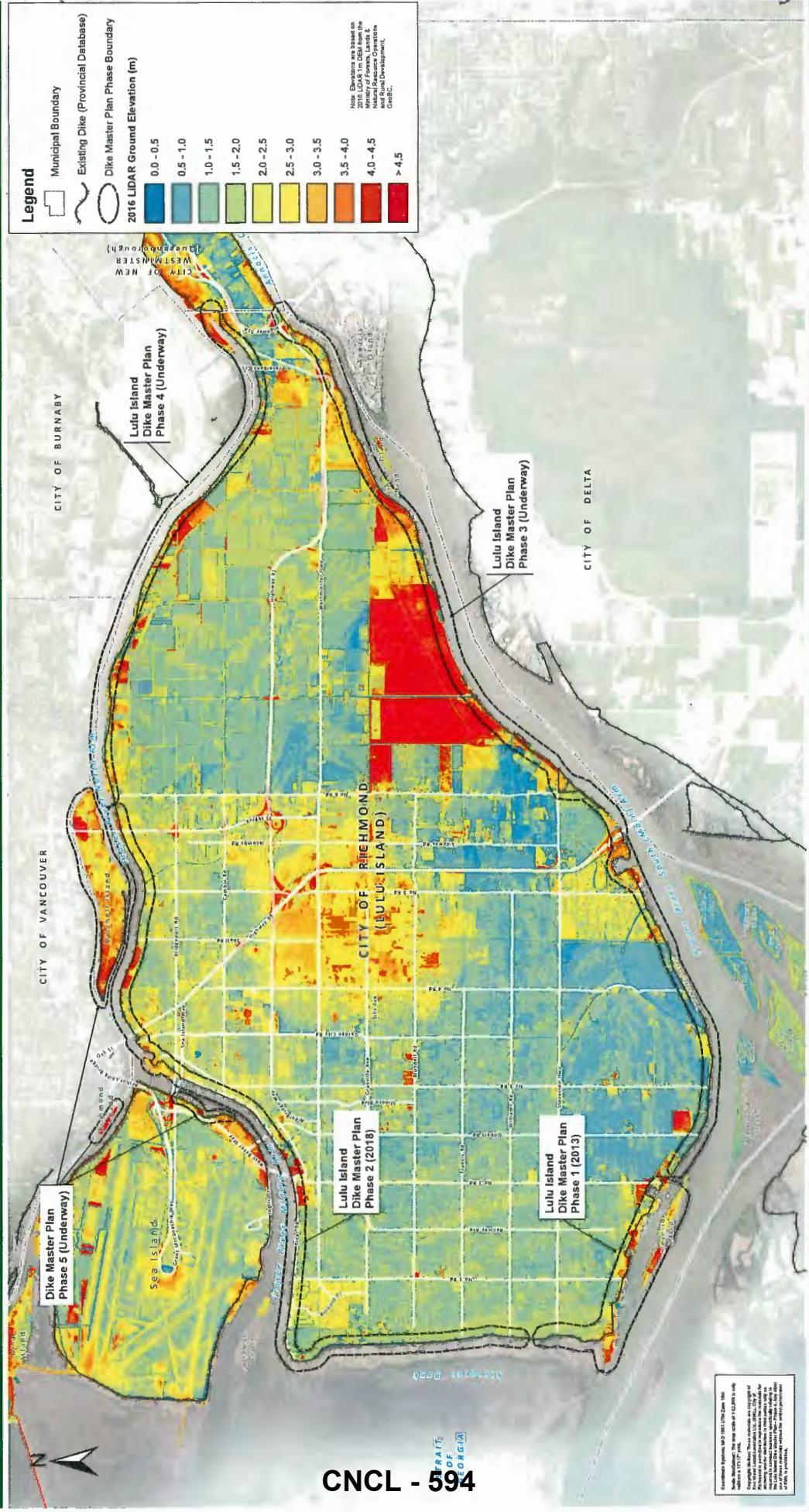
The project was guided on behalf of the City by:

- Lloyd Bie, P.Eng. – Manager, Engineering Planning; and
- Corrine Haer, P.Eng. - Project Engineer, Engineering Planning.

Many additional City staff contributed to the project during workshops, site visits, and in reviewing draft report materials.



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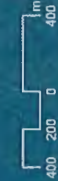


**City of Richmond**  
**Lulu Island Dike Master Plan - Phase 5**



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Project No. 651-129  
Date November 2018  
Scale 1:25,000



**Phase 5 Dike Master Plan Study Area**

**DRAFT**  
**Figure 1-2**



## 2. Existing Conditions

This section summarizes the options development process undertaken, including the following components:

- review of existing conditions;
- design considerations;
- upgrading strategies; and
- preferred options and concepts.

### 2.1 Reaches and Major Features

Mitchell Island, Sea Island, and Richmond Island are unique areas with varying types and degrees of flood protection. Mitchell Island has an old and unmaintained private dike along the western extent, with areas of private erosion protection and small sections of sheetpile elsewhere on the island. Conversely, Richmond Island has no flood protection works, though private bank protection works is in place. Sea Island is protected by an approximately 15 km long perimeter dike, though diking responsibility largely rests with the Vancouver Airport Authority (YVR) with one eastern reach as the City's responsibility. As a result, these three distinct islands require consideration of separate constraints and opportunities, independent of each other, but within the overall context of the Dike Master Plan.

Phase 5 is divided by Island as each Island has relatively uniform conditions with several locations with unique constraints. Islands/reaches are presented on Figure 1-2.

The sections below and Table 2-1 describe the existing conditions and features of each island. Mitchell Island may need to be further subdivided for future dike upgrading implementation phasing.

Appendix A provides a set of figures showing the existing dike alignment, proposed standard dike raise/construction, adjacent land tenure, municipal infrastructure, and existing habitat.

#### Reach 1 - Mitchell Island

Mitchell Island was created by filling in the river between three separate islands (Twigg, Eburne, and Mitchell Islands).

Mitchell Island is densely developed with industrial and commercial businesses, and some residences that are not in compliance with current zoning. The City's Official Community Plan (OCP) indicates that Mitchell Island will be maintained as industrial and commercial zoning, to preserve space in the City for these types of economic activities. A private dike was constructed on the western end of Mitchell Island many decades ago and was passed to the City by the Province of British Columbia (the Province); however, the dike has been unmaintained and uninspected and is no longer apparent on the island. The elevation of the island ranges from 2.5 to 4.5 m CGVD28 generally, and private bank protection works and sheetpile walls are in place in many locations.

Implementing structural flood protection works on Mitchell Island would have a significant impact on the existing conditions, as no access or rights-of-way currently exists for the City to complete these works. However, flood protection for Mitchell Island is beneficial as not implementing flood protection would result in economic loss for the region, risk public life at current residences, and could result in contamination from flooding of industrial sites.





## Reach 2 - Sea Island

Sea Island has an existing perimeter dike that is largely under the responsibility of YVR. Only one eastern reach is under the City's responsibility, from the Moray Channel Bridge to the southern property boundary of BCIT (approximately 1.1 km). The exact extent boundaries are not clearly defined, and the City and YVR are expected to discuss agreed upon boundaries as part of the consultation for the Phase 5 Dike Master Plan. Dike crest elevation in this reach ranges from 4.7 m to as low as 2.7 m CGVD28 and is set back from the river in a few locations. Little to no bank protection is in place, and ongoing knotweed treatment is resulting in damage to the river bank near the setback dike. The current dike alignment ties into the Moray Channel Bridge, owned by the City of Richmond. Based on 2016 EMBC LiDAR data, the bridge deck on Sea Island is below 4.7 m CGVD28 and would not be sufficient for dike upgrades. The dike borders four large commercial lots with major transportation corridors and the community of Burkeville located behind the commercial areas.

The City also owns the land the dike traverses at McDonald Beach Park road, the No. 2 Road Bridge, and Shannon Road, though YVR is responsible for the dike in these locations. In addition to these noted locations of Richmond ownership with YVR dike responsibility, there may be additional locations where Richmond owns the land the dike crosses (such as Grauer Road or Ferguson Road). This mixed ownership and uncertainty is the result of historic proposed and completed land exchanges with the federal government on Sea Island, as part of the development of the airport. The Phase 5 Dike Master Plan is not expected to resolve long-standing land ownership uncertainties on Sea Island; however, known locations of Richmond ownership will be noted in the final report and consultation may contribute to the process of resolving dike land ownership.

## Reach 3 - Richmond Island

No existing dike is in place on Richmond Island. The only flood protection works is riprap bank protection works along the southern bank. The total perimeter of Richmond Island is approximately 1.2 km. The land elevation of Richmond Island ranges from 6.4 m CGVD28 at the north end to 3.4 m CGVD28 at the south end, where the Island is connected to the City of Vancouver. The entire island is one lot leased by Milltown Marina & Boatyard Ltd. which includes a restaurant, marina, and private utilities. Richmond Island is not included in the current OCP.

A covenant<sup>1</sup> was created in November 27, 2012 with North Fraser Terminals Inc., the Milltown Marina & Boatyard Ltd., and the City of Richmond that:

- acknowledges the risk of flooding and erosion on Richmond Island;
- notes that the City has no plans to protect the island from flood and erosion; and
- releases the City from any damage or losses caused by flooding or erosion.

As a result of the terms of this covenant, the City may consider implementing no flood protection measures for Richmond Island.

<sup>1</sup> CA2885848. RCVD: 2012-11-27.



Table 2-1: Phase 5 Reaches and Features

Reach ID and Name	Extent / Length	Existing Dike Alignment	Major Features
1- Mitchell Island	Entire Island (7.8 km perimeter)	None	<ul style="list-style-type: none"> <li>Condition and elevation of existing dike and bank protection on western half of Mitchell Island is unknown (no available background information, no inspections or maintenance)</li> <li>Dense industrial development on the entire island</li> <li>Mitchell Road South Drainage Pump Station</li> <li>Tipping Road South Drainage Pump Station</li> <li>Large number of industries and businesses as stakeholders</li> <li>Active water lots used by industry</li> <li>Two City watermains to Mitchell Island from Lulu Island</li> <li>Metro Vancouver Twigg Island Forcemain underneath existing dike on north side</li> <li>Land elevation generally between 2.5 m and 4.5 m CGVD28 but as low as 1.5 m CGVD28</li> <li>Intermittent bank protection works in some locations</li> <li>Two City parks along the river bank, no other public access to the river bank</li> <li>Bathymetry suggests potential scour on the foreshore and scour holes on the north side</li> </ul>
2 - Sea Island	South end of BCIT to south side of Airport Connector Bridge (1.1 km)	Walking and cycling trail	<ul style="list-style-type: none"> <li>Dike is a pedestrian path</li> <li>Miller Road Drainage Pump Station</li> <li>Commercial development directly abuts existing dike in several locations</li> <li>Marina and restaurant access on the river-side</li> <li>Tie in and jurisdiction boundaries with YVR adjacent to the Airport Connector Bridge and South of BCIT</li> <li>Lowest area of dike north of Lysander Lane (&lt;3.5 m CGVD28 elevation)</li> <li>Low area directly adjacent to Cessna Drive with no established dike right-of-way</li> <li>One section of dike already upgraded to 4.7 m CGVD28 elevation at 3600 Lysander Lane</li> <li>Drainage outfall with flap gate at North end of BCIT campus not identified in City drainage utilities</li> </ul>



Reach ID and Name	Extent / Length	Existing Dike Alignment	Major Features
			<ul style="list-style-type: none"> <li>Sanitary forermain crossing near BCIT</li> <li>Little to no bank protection</li> <li>High value marsh habitat from BCIT to hotel</li> <li>North of BCIT, there is an old water connection to the foreshore where industrial activity used to take place on the river</li> <li>The Moray Channel Bridge that the dike currently connects to is below 4.7 m CGVD28 (based on 2016 EMBC LIDAR).</li> </ul>
3 - Richmond Island	Entire Island (0.55 km length)	None	<ul style="list-style-type: none"> <li>No existing dike</li> <li>Connected to City of Vancouver via a short causeway, which provides utilities from Vancouver</li> <li>Majority of the land is higher than the current dike elevation of 4.7 m CGVD28 and future elevation of 5.5 m CGVD28. The only exception is the causeway to Vancouver.</li> <li>Existing private bank protection works visible on the south side</li> <li>The north arm of the Fraser River along Richmond Island is a location of channel scour, with elevations as low as -11 m CGVD28.</li> <li>All of the land on Richmond Island is one lot and is owned by Milltown Marina Moorage Co Ltd.</li> <li>Restrictive covenant in place as of 2012 (CA2885848):               <ul style="list-style-type: none"> <li>"the City currently does not have any plans to install a Dike system on or near the Lands or to otherwise protect the lands from flooding and/or erosion."</li> </ul> </li> </ul>





## 2.2 Land Tenure

Land tenure on each island in Phase 5 includes a mixture of rights-of-way, private property, and City-owned land. Flood and erosion covenants have been established in the past for various properties in Phase 5, which are summarized in Table 2-2. Land tenure along the river bank or existing dike is described below for each island and shown on Figure 2-1.

### Mitchell Island

Though a private dike was constructed in the past, no land tenure is established on Mitchell Island for a dike. The majority of the river bank is located on either private property or on aquatic Crown land (designated as Fraser River foreshore) where the City has no existing right-of-way. The City owns land along the river bank at two small parks and at the Knight Street Bridge off-ramps, and there is a short right-of-way immediately west of the Knight Street Bridge on the south side of the island.

### Sea Island

Sea Island is protected by an approximately 15 km long perimeter dike, but diking responsibility largely rests with the Vancouver Airport Authority (YVR). Only one eastern reach is under the City's responsibility, from the Moray Channel Bridge to the southern property boundary of BCIT (approximately 1.1 km). The exact extent boundaries are not clearly defined, and the City and YVR are expected to discuss agreed upon boundaries as part of the consultation with YVR for the Phase 5 Dike Master Plan. An active right-of-way is in place from BCIT to Lysander Lane, with one gap north of BCIT, but there is no right-of-way north of Lysander Lane.

The City also owns the land the dike traverses at McDonald Beach Park road, the No. 2 Road Bridge, and Shannon Road, though YVR is responsible for the dike in these areas. In addition to these noted locations of Richmond ownership with YVR dike responsibility, there may be additional locations where Richmond owns the land the dike crosses (such as Grauer Road or Ferguson Road). This mixed ownership and uncertainty is the result of historic proposed and completed land exchanges with the federal government on Sea Island, as part of the development of the airport. The Phase 5 Dike Master Plan is not expected to resolve long-standing land ownership uncertainties on Sea Island, however consultation may contribute to the process of resolving dike land ownership.

### Richmond Island

Richmond Island has no existing land tenure in favour of the City (ownership or right-of-way). Richmond Island is one lot owned by North Fraser Terminals Inc., which is leased by Milltown Marina & Boatyard Ltd. The development is connected to the City of Vancouver and its utility network.

A covenant<sup>2</sup> was created in November 27, 2012 with North Fraser Terminals Inc., the Milltown Marina & Boatyard Ltd., and the City of Richmond that:

- acknowledges the risk of flooding and erosion on Richmond Island;
- notes that the City has no plans to protect the island from flood and erosion; and
- releases the City from any damage or losses caused by flooding or erosion.

<sup>2</sup> CA2885848. RCVD: 2012-11-27.



## Flood and Erosion Covenants

The City provided a title and covenant information for properties along the Phase 5 dike sections under their authority. This information was provided to the City by Dye and Durham. The following table summarizes the covenants that pertain to flood and erosion protection, for future awareness and consideration while developing flood protection works.

**Table 2-2: Existing Flood and/or Erosion Covenants**

Covenant ID	Date Established	PIDs	Address
<b>Mitchell Island</b>			
BB2020219	2012/08/22	None	11060 & 11200 Twigg Place
BK187446	1996/06/17	003-684-539 003-684-547 003-684-652 003-684-687	Group 1 New Westminster District Lots: 528, 5587, 1014, 459, 5091, 5782
BP304365	2000/12/19	008-591-857	Group 1 New Westminster District Lots 459, 1014
BX10111	2005/09/06	003-679-837	Group 1 New Westminster District Lot 459
<b>Sea Island</b>			
BB843923	2006/03/25	017-560-616	3800 Cessna Drive
CA3630774	2014/03/13	None	3600 Lysander Lane
CA3630776	2014/03/13	026-601-621	3600 Lysander Lane
<b>Richmond Island</b>			
CA2885848	2012/11/27	025-409-018 003-335-232	Richmond Island and Group 1 New Westminster District Lots 3869 and 3871

## 2.3 Infrastructure

There is limited municipal infrastructure along the existing dike corridor / island perimeters. This includes pump stations summarized in the table below.

**Table 2-3: Phase 5 Pump Stations and Locations**

Pump Station	Location
Miller Road	Sea Island - North end of City reach
Tipping Road South	Mitchell Island – South end of Tipping Road
Mitchell Road South	Mitchell Island – South end of Mitchell Road

On Mitchell Island, there may be private infrastructure associated with industrial uses, particularly water-oriented industries, which may conflict with potential diking options. This will be explored through stakeholder consultation.



## 2.4 Habitat

### Desktop Review

A desktop review was conducted the ecological setting along and adjacent to the existing dikes in Phase 5. The study area includes the existing dike alignment and adjacent land or intertidal area. Spatial data were used to identify overlap of known environmental values with the study area.

Spatial data reviewed in the desktop study includes:

- Fraser River Estuary Management Program mapping (FREMP 2012, 2007) mapping used to identify riparian and intertidal habitat types and quality,
- iMapBC web application (iMapBC 2017), and
- City of Richmond aerial photographs and Riparian Area Regulation 5 m and 15 m buffer layers (Richmond Interactive Map 2017).

For the purposes of the desktop review, and to allow for a concise description of the different habitat types in the locations within the Phase 5 study area, seven discrete focal areas were defined. Results of the desktop review are presented below and listed by focal area in Table 2-3.

The location and extent of high-quality Fraser River riparian and intertidal habitat were identified to inform the development of dike upgrade options and their potential impacts. FREMP habitat polygons were assigned the following categories: high quality riparian, high quality intertidal, or other. Deciduous tree woodland polygons were categorized as high-quality riparian habitat because these communities provide cover and nutrients to fish using nearshore habitat. Mud, sand, and marsh polygons were categorized as high-quality intertidal habitat because of the foraging and nesting habitat they provide for bird species and the foraging, egg deposition and rearing habitat they provide for fish species. Aquatic and riparian habitat on the land side of the existing dike was identified and mapped using the Riparian Area Regulation buffer layers and interpretation of recent aerial photography (City of Richmond 2017).

### Aquatic and Riparian Habitat

High quality intertidal and riparian habitat is present in all three Phase 5 reaches on the Fraser River side of the dike. This important habitat provides forage and cover habitat as well as a staging area for anadromous salmonids transitioning from saltwater to freshwater. Conversely, armoured sections of shoreline on the Fraser River side of the existing dike are present in Reaches 1 and 3. These sections provide limited habitat value and construction here would have less of a negative impact on fish.

Seven fish habitat compensation projects have been completed between 1988 and 2007 in the Phase 5 study area. These included the creation of intertidal marsh and mudflat habitat and riparian habitat to compensate for damage to habitat elsewhere. More information on these compensation projects is provided in Table 2-4.





### Wildlife and Terrestrial Habitat

Terrestrial habitat types in Phase 4 include deciduous tree woodland, tall shrub woodland, low shrub woodland, and vascular plant meadow, as well as uncategorized sections (e.g. paved lots; FREMP 2007). These habitat types have potential to provide nesting habitat to migratory birds in all six reaches of Phase 4. Orthoimagery review identified potential raptor nesting trees in all three reaches of the Phase 5 study area.

Drainage channels that may serve as amphibian breeding habitat were not identified in orthoimagery used for the desktop review. It is possible that amphibian habitat is present in small ponds or ditches along the dike that were not identified in the desktop review.

### Species and Ecological Communities at Risk

No known occurrences of terrestrial wildlife species at risk are present in the Phase 5 study area, but several occurrences exist on nearby islands in the Fraser River or on the river banks across from Richmond. It is possible that individuals of these species also occur on the Richmond side of the Fraser River. The Lower Fraser River population of White Sturgeon (*Acipenser transmontanus* pop. 4) is known to occur in the Fraser River next to the dike. Mapped critical habitat for at-risk species is not present within 500 m of the Phase 5 study area.

FREMP mapping (2007) indicates the presence of intertidal marsh communities in Reaches 2 and 3. Many of these communities in British Columbia are considered at-risk (i.e. Blue-Listed; special concern, or Red-Listed; threatened, or endangered). No ecological communities at-risk are shown in either the study area on BC iMap (2017), but it is likely that some are present.

Table 2-4 presents the findings of the desktop review on a reach-by-reach basis and separates Fraser River side results from land-side results.

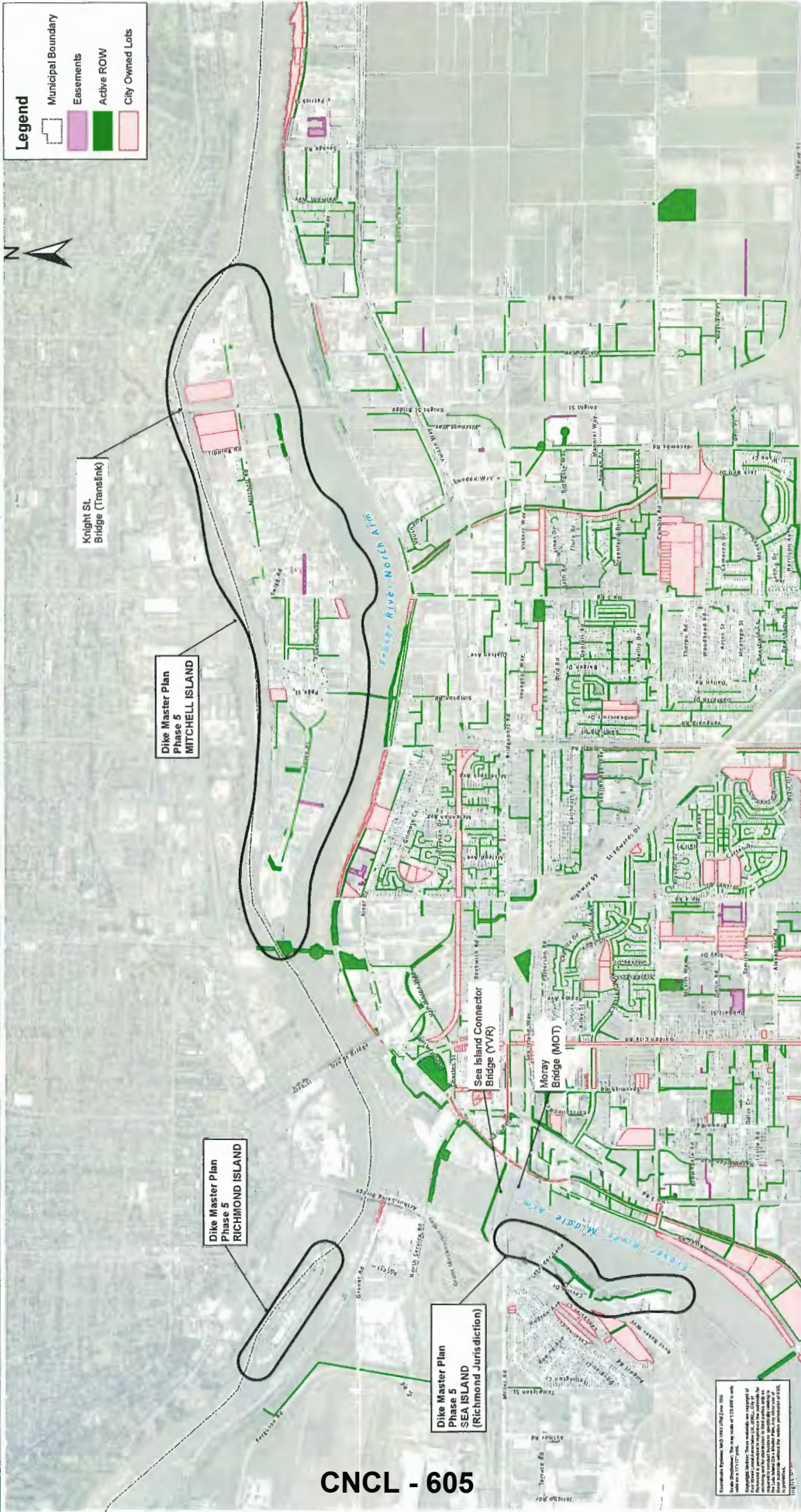
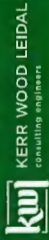


Table 2-4: Environmental Values

Table 2-4: Environmental Values									
Reach ID and Name	Location	Environmental Setting (organized by inland side and shoreline side of existing dike)	Construction Constraints	Construction Opportunities	FREM Habitat Types	Known Species at Risk Occurrence Near Dike Alignment	Potential Raptor Nesting Trees	Potential Migratory Bird Nesting Habitat	Existing Habitat Compensation Sites Present
1 - Mitchell Island	Inland Side	<ul style="list-style-type: none"><li>Low-quality herbaceous habitat at the west end of the island</li><li>Small patch of deciduous treed woodland near centre of south side</li><li>Sections with no existing dike</li><li>Low quality disturbed habitat or paved (no habitat value) along rest of reach</li></ul>	Existing infrastructure Existing habitat compensation site	n/a	Paved Vascular meadow Deciduous tree woodland				Project: Canada Line Year Created: 2005  Industrial development Year Created: 2007
	Fraser River Side	<ul style="list-style-type: none"><li>High quality deciduous tree riparian habitat in patches along length north side of island</li><li>Moderate quality low shrub riparian habitat for most of length north side of island</li><li>Sections of moderate quality riparian habitat along south-east side of island (low shrub woodland, deciduous tree woodland)</li><li>Sections of high quality mudflat and sandflat intertidal habitat along north and south sides of island</li><li>High quality intertidal marsh, on southwest side of island</li><li>Low quality armored bank along south west side of island</li></ul>	Moderate-quality riparian habitat along most of length of shoreline on north side of island High-quality intertidal habitat along majority of length of shoreline	n/a	Paved Mud Sand Marsh Graminoids and forbs Vascular meadow Low shrub woodland Tall shrub woodland Deciduous tree woodland	White Sturgeon (Lower Fraser River population) (Acipenser transmontanus pop. 4)	Y	Y	McQueen's Boat Works Year Created: 1989  Project: Miller Road Pump Station Year Created: 1991  Bridgeport Market Year Created: 1988  Project: Arrow Transportation Soil Remediation Year Created: 2007
2-Sea Island	Inland Side	<ul style="list-style-type: none"><li>Sections of low quality lawn</li><li>Sections of paved parking lots with no habitat value</li></ul>	Existing infrastructure	n/a	Mowed grass Mostly parking lot				
	Fraser River Side	<ul style="list-style-type: none"><li>Sections high quality marsh and mudflat intertidal habitat concentrated around centre of reach</li><li>High quality deciduous woodland riparian habitat at south half of reach</li></ul>	High-quality riparian and intertidal habitat in centre of reach Existing habitat compensation site at north end of reach	n/a	Mud Marsh Deciduous tree woodland Shoreline in front of Marina not included in FREMP mapping	White Sturgeon (Lower Fraser River population) (Acipenser transmontanus pop. 4)	Y	Y	
3 - Richmond Island	Inland Side	<ul style="list-style-type: none"><li>No existing dike</li></ul>	No existing dike	n/a	Not included in FREMP mapping				
	Fraser River Side	<ul style="list-style-type: none"><li>High quality mudflat intertidal habitat along full length on north side</li><li>Moderate quality low shrub woodland riparian habitat above armored bank on south side low quality armored bank along full length of south side</li></ul>	High-quality intertidal habitat along full length north side Moderate-quality riparian habitat along south side Existing habitat compensation site	n/a	Mud Low shrub woodland Sand	White Sturgeon (Lower Fraser River population) (Acipenser transmontanus pop. 4)	Y	Y	Project: Canfor Year Created: 1988



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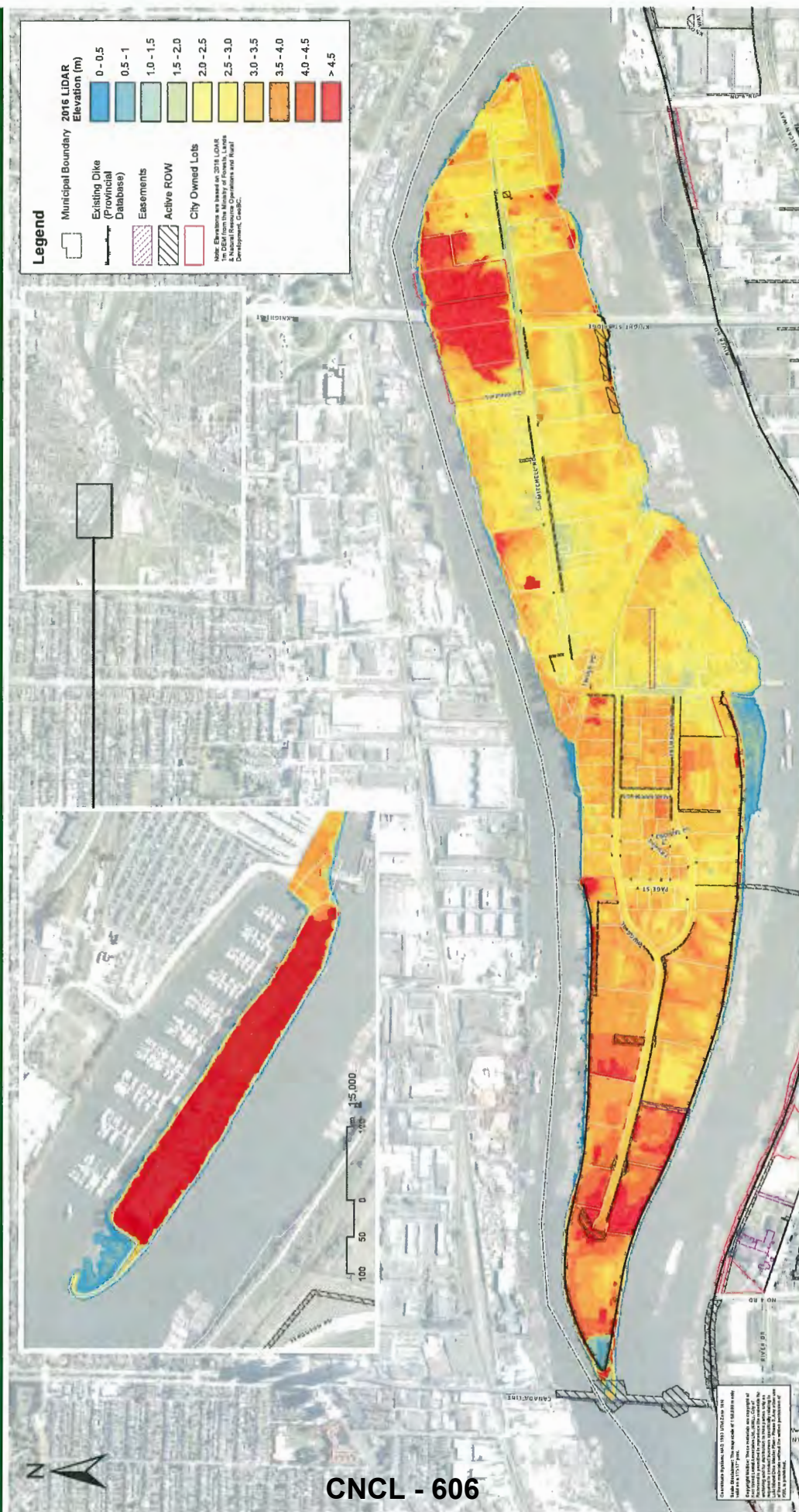
**Existing Land Tenure**

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**Figure 2-1**



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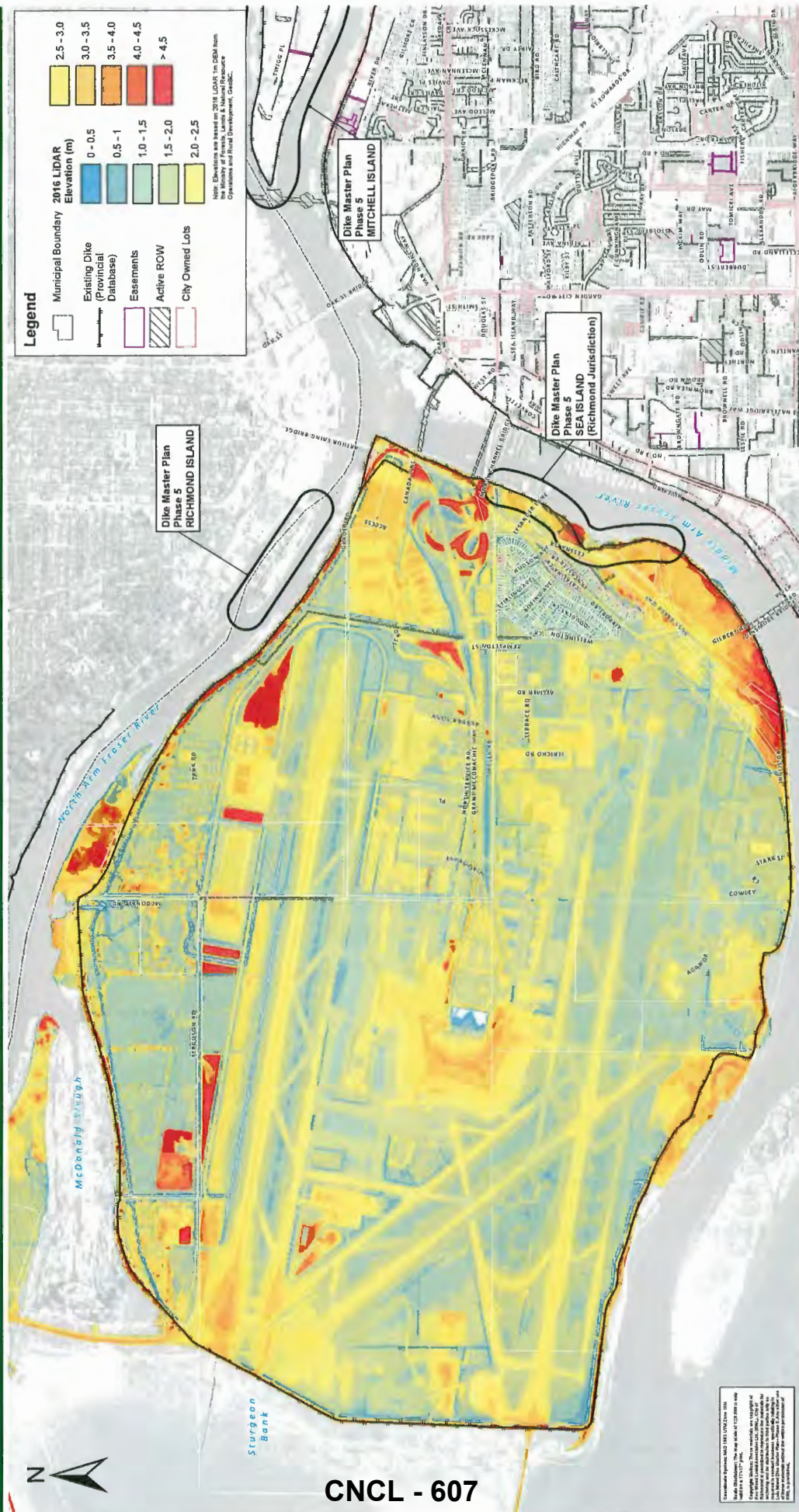


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Figure 2-2

Mitchell Island and Richmond Island Existing Ground Elevations

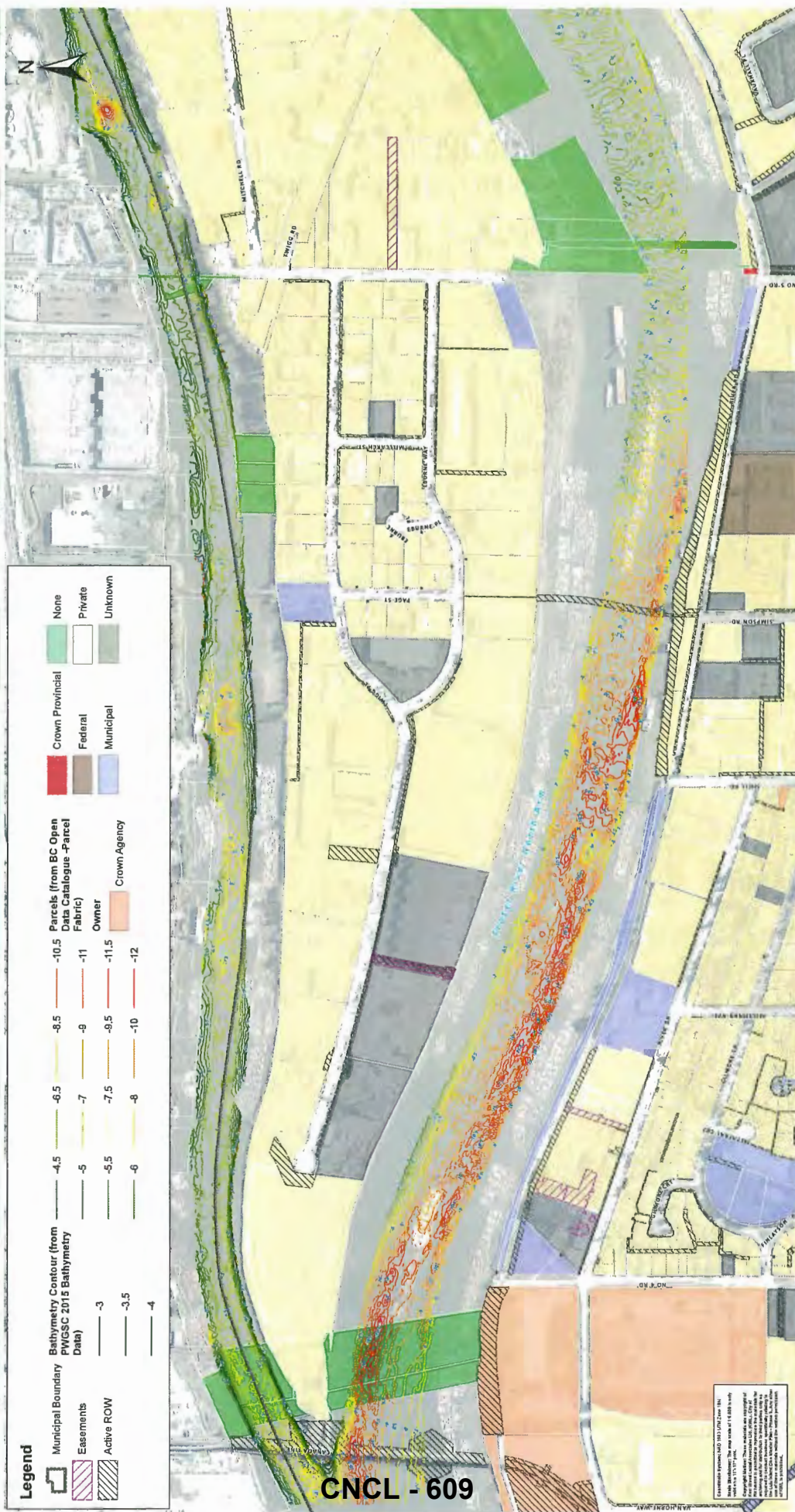












Bathymetry Contours - Mitchell Island

**Figure 2-5**











### 3. Options Assessment

This section summarizes the options development process, including the following components:

- design considerations and design criteria;
- upgrading strategies;
- upgrading options and concepts;
- options evaluation; and
- recommended options for implementation.

The next version of the draft report will include a summary of external stakeholder engagement results.

#### 3.1 Design Considerations

This section summarizes the main themes and issues that have informed the development of upgrading strategies and options for Phase 5. This includes general design considerations applicable for all three islands, and site-specific considerations for each island as described below.

##### Dike Performance, Maintenance, and Upgrading

Dike performance, maintenance, and upgrading are the most important design considerations for the Dike Master Plan.

The following themes define an ideal vision for dike upgrading:

1. **Level of Protection:** The City's 2008-2031 Flood Protection Management Strategy sets a target level of protection for structural measures. The City is presently developing an updated flood protection management strategy that will have an even more ambitious flood protection level target. The level of protection translates to a hazard-based design flood scenario to be incorporated into the Dike Master Plan. At this time, the proposed design flood scenario for the City's perimeter dikes is the 500-year return period flood event (0.2 % annual exceedance probability, AEP) with climate change allowances including 1 m of sea level rise. However, the Dike Master Plan should be flexible to accommodate a future change in the design flood scenario in the future.
2. **Form and Performance:** The preferred form of a dike is a continuous, compacted dike fill embankment with standard or better geometry. Walls and other non-standard forms are less reliable and are not preferred. Phase 5 considers alternative structural flood protection options apart from a dike in undiked areas. The level of performance of flood protection works for Sea Island, Richmond Island, and Mitchell Island should be in line with the moderate population (mainly Sea Island) and assets that the dike protects. The dike should meet all relevant design guidelines of the day and in some cases, exceed guidelines to provide a higher level of performance. Dike performance can be expressed in terms of freeboard above the design flood scenario water level and factors of safety against various failure processes, including flood conditions and internal erosion (piping).
3. **Passive Operation:** Minimal human or mechanical intervention or operation should be required to achieve full dike performance. To achieve this, the dike should not have any gaps, gates, or stop log structures.





4. **Enhance Performance (slow failure):** There will always be uncertainties in dike design and performance, and completely preventing any dike failures cannot be guaranteed. However, the likelihood of a catastrophic dike failure causing significant flood damages can be reduced by design features that aim to slow down failure processes, provide redundancy, and provide time to implement emergency repairs. In general, failure can be slowed or controlled with additional setback, crest width, and armouring of the river-side slope, crest, and land-side slope. Such measures can slow the impacts of river erosion, overtopping erosion, and stability failures. Increased monitoring approaches and technology may also be helpful.
5. **Post-earthquake Protection:** The dike should provide adequate protection following a major earthquake until permanent repairs can be implemented. In general, this means avoiding dike conditions where a major earthquake results in a sudden and full failure of the dike cross-section into the river, referred to as a 'flowslide failure'. Other conditions where the dike crest settles, but still provides sufficient freeboard and factors of safety until repairs can be conducted may be acceptable. In general, increased crest width, crest elevation, and setback from the river may be undertaken to help achieve adequate post-earthquake protection. In some cases, improved seismic performance will also require ground improvement and densification works.
6. **Future Upgrading:** Uncertainty in climate change, particularly sea level rise timing, may require the City to further upgrade the dike sooner or higher than anticipated by current guidelines and policies. Sufficient space should be reserved under secured land tenure for future upgrading based on standard geometry. Conceptual design is provided for design flood levels which incorporate 1 m of sea level rise, and proof-of-concept design is provided for design flood levels which incorporate another 1 m water level increase for further climate change impacts (i.e. 2 m of sea level rise).

Some specific design considerations related to the above principles are presented in Table 3-1.

**Table 3-1: Ideal Dike Design Principles and Considerations**

Design Principle	Ideal Design Principles and Considerations
Level of Protection	<ul style="list-style-type: none"><li>• Based on 2008-2031 Flood Protection Management Strategy</li><li>• Currently proposed: 500-year return period (0.2% AEP) with climate change allowances as per provincial studies</li></ul>
Form and Performance	<ul style="list-style-type: none"><li>• Continuous, compacted dike fill with standard or better geometry</li><li>• Crest elevation and adequate freeboard</li><li>• Factors of safety against stability</li><li>• Minimal infrastructure within the dike corridor</li><li>• Adequate bank protection works or setback</li></ul>
Passive operation	<ul style="list-style-type: none"><li>• No gaps, gates, or stop logs</li><li>• Passive monitoring (e.g. SCADA water levels)</li></ul>
Enhance Performance (slow failure)	<ul style="list-style-type: none"><li>• Wide dike crest</li><li>• Armoured river-bank slope to resist erosion</li><li>• Paved/armoured crest and/or land-side slope to resist overtopping</li><li>• Wide setback from the river</li></ul>



Design Principle	Ideal Design Principles and Considerations
Post-earthquake Protection	<ul style="list-style-type: none"><li>• No loss of full dike geometry into the river ("flowslide failure") up to a return period to be determined</li><li>• Adequate post-earthquake freeboard and stability until repairs</li><li>• Wide dike crest and/or wide setback from the river</li></ul>
Future upgrading	<ul style="list-style-type: none"><li>• Space and tenure for upgrading (standard or better geometry)</li><li>• Avoid need for future infrastructure relocation or land acquisition</li></ul>

### Road Safety and Access

The safety of drivers, cyclists, and pedestrians on existing roadways is a consideration in Phase 5, though to a lesser extent than Phases 3 and 4, which are located along River Road or Dyke Road. In Phase 5, some design options consider relocating the dike to an existing roadway (Sea Island) or raising roads to provide emergency egress (Mitchell Island). This includes Cessna Drive, Russ Baker Way, Lysander Lane, and Hudson Avenue on Sea Island, and potentially the entire road network on Mitchell Island.

City transportation engineering staff were consulted during the master plan development to provide input on dike upgrading concepts that will also improve road safety. Current options include providing the same level of service for vehicles, pedestrians, and cyclists as already provided. Travel lane and multi-use path widths are documented in the design criteria in Section 3.2.

Vehicle access to properties located along proposed upgrade areas is also an important consideration. Dike raising alignments that raise roadways will impact driveway access for commercial and industrial landowners. Land-use on these properties includes industrial and commercial. As such, a variety of vehicles, including semi-trailer trucks, need safe access from the roadways to these properties. Currently, these properties are generally at grade with and access is provided via asphalt or gravel driveways.

Driveway access was considered in options development by identifying several access upgrading concepts including land filling to raise sites to the dike/road level and raising driveways to tie-in with the upgraded roadways.

### Shared Dike Responsibility with YVR on Sea Island

As previously noted, YVR and the City of Richmond share responsibility for the Sea Island perimeter dike. The options development and assessment only include concepts for the reach of the dike the City is responsible for: from the Moray Channel Bridge to the southern property boundary of BCIT (approximately 1.1 km). The boundaries of YVR and Richmond jurisdiction should be further discussed during consultation before finalization of the Dike Master Plan. Shared responsibility requires coordination with YVR at tie-in locations, and to ensure consistent dike upgrade criteria are used for the dike system.

Other reaches of the dike where the City owns land (discussed in Section 2) are understood to be YVR's responsibility, and the City will be consulted as YVR plans upgrades to the dike on City land. YVR has met with the City and noted its plans and progress to upgrade the Sea Island dike to 4.7 m CGVD28. YVR has already upgraded portions of the dike to this elevation along the south airfield and near Grauer Road. YVR plans to complete its own Dike Master Plan in the coming years to guide long-term dike upgrades.





## Existing Commercial and Industrial Developments

### Sea Island

The dike on the eastern side of Sea Island is closely hemmed in by the river and existing development. Dike improvements will impact waterfront access, the existing developments, and pedestrian access. Major developments along the dike include BCIT, Pacific Autism Family Center, Lysander Holdings Ltd, and the Pacific Gateway Hotel (Van-Ari Holdings Ltd). In addition, the dike closely parallels Cessna Drive in one location with no established dike right-of-way and a low crest elevation. Dike upgrading options consider limiting impacts to these developments while maintaining flood protection.

### Mitchell Island

Mitchell Island is tightly constrained by industrial and commercial facilities, including private water-oriented industries and other commercial and industrial sites along the river bank with little setback or access. Dike construction would require significant land acquisition (discussed further below), and consideration of the functionality of industrial sites.

Future dike construction on Mitchell Island may be challenging due to conflicts with site functionality for water-oriented industries as the dike height increases, lack of existing or need for new dike rights-of-way, and limited access to the river bank. The Dike Master Plan considers non-standard dike structures to reduce space required, opportunities to separate the dike alignment from water-oriented industries, and land raising by property owners to allow for continued use of the industrial spaces.

## Internal Drainage System

As with any diked area, the drainage for the protected interior area must be integrated with the flood protection measures such that the protected area does not experience flooding due to conflicting functions between the drainage of water from the interior area and prevention of flooding from water exterior to the dike system.

The Phase 5 islands have limited locations where drainage infrastructure is located within likely dike upgrade / construction areas. Drainage infrastructure along the current or potential future dike alignment is limited to pump stations with associated drainage ditches and several drainage pipes that cross the dike with outfalls in the Fraser River. Existing drainage pipes that cross dike upgrades may need to be relocated or upgraded to accommodate the proposed section. As part of upgrades at pump stations, the existing intakes, associated ditch, and outfall may need to be modified or extended, and the pump station piping should be reviewed to consider structural impacts of the preferred dike section. In addition, pump station upgrades in the future should consider higher outfall water levels due to sea level rise and the associated higher required pump capacity.

## Land Raising and Acquisition

Land acquisition is an important consideration for the development and evaluation of dike upgrading options. In many areas, the existing dike corridor and river bank (in undiked areas) is confined on both sides by private property with little to no room for expansion of the dike footprint or construction of a new dike. On Mitchell Island in particular, the river bank is very densely developed with no existing dike corridor and minimal land tenure in favour of the City. In options development, the City noted it would prefer securing rights-of-way over acquiring land.

The master plan identifies land acquisition needs for various upgrading options for comparison.

An alternative to land acquisition may be to raise private property lots up to the dike elevation to create a much wider land raising platform (similar to recent developments along the Middle Arm (e.g. Olympic Oval).



## River Scour

Dike design along the Fraser River should consider the potential for scour that may undermine the dike. Bathymetry data is collected by the Vancouver Fraser Port Authority (“Port”) in the main channel of the river to ensure navigation is unimpeded. Due to the navigational focus of the data collection, near-shore bathymetry along the islands in the Fraser River is not collected. In further stages of design beyond the Dike Master Plan, dike upgrades should consider local scour risks and potential collection of additional near-shore bathymetry data where the Port data indicates scour may be occurring. Due to the large size of the river, constructing bank protection works (riprap or other), below the scour depth is often not practical. Design could consider filling scour holes (see existing scour holes on Figures 2-4 to 2-7), or investigation of site-specific scour protection.

## Sea Island Bridges

The Sea Island dike alignment at the north end of the City’s reach ties into the Moray Channel Bridge (Ministry of Transportation ownership). The land between the Moray Channel Bridge and the Airport Connector Bridge (YVR ownership) is above the current dike level of 3.5 m CGVD28, based on 2016 EMBC LiDAR data. For future raises, the land between the bridges would need to be raised, but more significantly, the Moray Channel Bridge deck is below 4.7 m CGVD28 and poses a gap in the dike for the future design flood level. In the long term, it would be preferred if the bridge was replaced with a higher deck structure that at least meets the upgrade dike elevation of 4.7 m CGVD28 and exceeds the future dike elevation of 5.5 m CGVD28. In the interim, the City could consider raising the dike and the land between the two bridges until the bridge is replaced.

## Mitchell Island Contamination

As a result of the long history of industry and fill from unknown sources, it is expected that a significant portion of Mitchell Island may be contaminated (according to City staff). This has implications for dike design in that material excavated may be contaminated and land acquisition would have greater cost and liability to address potential contamination. In addition, current land use on the island includes industries with oil, fuel, metals, and other potential pollutants, which present an environmental risk if the island were flooded.

## Environmental Considerations

### City of Richmond Bylaws

The City’s Official Community Plan (OCP) bylaw (2011) includes an Ecological Network Management Strategy (ENMS) that identifies ecologically important areas in the City’s Ecological Network (EN). These areas include Environmentally Sensitive Areas (ESAs), Riparian Management Areas (RMAs), and EN components (hubs, sites, and corridors, shoreline, city parks).

ESAs are designated as Development Permit Areas (DPAs) with specific restrictions and guidelines for development controlled through a review and permitting process (HB Lanarc-Golder and Raincoast Applied Ecology 2012). There are five ESA types, based on habitat, each with specific management objectives. These are summarized in Table 3-2 and more detailed guidelines can be found in HB Lanarc-Golder and Raincoast Applied Ecology (2012). According to Richmond’s OCP, dike maintenance is exempt from development permits in ESAs. However, the guidelines provide useful direction that can be used to minimize impacts to these areas and provincial and federal legislation (see below) still applies to these areas.



RMAs are setbacks that were implemented in accordance with the provincial *Riparian Areas Protection Act* and act as pre-determined Streamside and Protection Areas (SPEAs) under the Act. They extend 5 m or 15 m back from the top of bank of the City's higher value drainage channels or more natural watercourses and are to remain free from development unless authorized by the City (City of Richmond, 2017). RMAs are not present in Phase 5 reaches.

Hubs, sites, and corridors are components of the City of Richmond's EN, which aren't specifically afforded protection, but often overlap ESAs and RMAs, which are protected. These components are present on Sea Island and Richmond Island.

Dike upgrade options will consider the potential impacts to these areas.

**Table 3-2: City of Richmond ESA Type Management Objectives**

ESA Type	Reaches Where Present	Management Objectives
Intertidal	All	<ul style="list-style-type: none"><li>• Prevent infilling or direct disturbance to vegetation and soil in the intertidal zones</li><li>• Maintain ecosystem processes such as drainage or sediment that sustain intertidal zones</li></ul>
Shoreline	All	<ul style="list-style-type: none"><li>• Preserve existing shoreline vegetation and soils, and increase natural vegetation in developed areas during development or retrofitting</li></ul>
Upland Forest	None	<ul style="list-style-type: none"><li>• Maintain stands or patches of healthy upland forests by preventing or limiting tree removal or damage, and maintaining ecological processes that sustain forests over the long-term</li></ul>
Old Fields and Shrublands	None	<ul style="list-style-type: none"><li>• Maintain the extent and condition of old fields and shrublands, while recognizing the dynamic nature of these ecosystems</li><li>• Preservation should recognize the balance between habitat loss and creation with the overall objective of preventing permanent loss of old fields and shrublands</li></ul>
Freshwater Wetland	None	<ul style="list-style-type: none"><li>• Maintain the areal extent and condition of freshwater wetland ESAs by preserving vegetation and soils, and maintaining predevelopment hydrology, drainage patterns, and water quality</li></ul>

Source: (HB Lanarc-Golder and Raincoast Applied Ecology 2012)





### Fish Habitat and Offsetting

Fish and aquatic habitat is protected by the federal *Fisheries Act*. Under the Act, *serious harm to fish* must be authorized by the Minister of Fisheries and Oceans and impacts that cannot be avoided or mitigated must be balanced through offsetting. Offsetting plans are negotiated on a case-by-case basis and may require consultation with aboriginal groups and the Province. Offsetting measures include habitat restoration or enhancement and habitat creation and must be proportional to the loss caused by the project.

Often, the amount of offsetting habitat created is greater than the area of habitat impacted. The area of offsetting may need to be increased to account for uncertainty of effectiveness and time lag between impacts and offsetting. Selecting offsetting locations and beginning habitat creation works prior to all impacts occurring can help to reduce requirements for additional offsetting area required due to lag time. Creation of a smaller number of larger area habitat restoration, enhancement, or creation sites would allow for a more efficient use of resources and potentially reduce uncertainty.

### Wildlife Considerations

Migratory birds, their eggs, and active nests are protected by the *Migratory Birds Convention Act* and appropriate measures must be taken to avoid incidental take. The most effective and efficient of these measures includes scheduling vegetation clearing outside of the migratory bird nesting season. If this is not possible, bird nest surveys can be completed immediately prior to vegetation clearing to identify active nests and delay vegetation clearing until the nest is no longer active.

The nests of Bald Eagles, herons and other raptors (both active and inactive) are protected under the provincial *Wildlife Act*. It is also prohibited under the *Wildlife Act* to disturb or harm birds and their eggs. The detailed design stage for dike upgrading should attempt to avoid the removal of trees where bald eagle nests are located.

Native amphibian species may use the drainage channels on the land side of the dike at certain times of year. These species are protected by the provincial *Wildlife Act* and detailed design should also consider potential impacts to these species

## 3.2 Design Criteria

This section describes the main design criteria used in the Phase 5 Dike Master Plan. These criteria were developed and reviewed by the City in KWL's memorandum *Richmond Dike Master Plan – Phase 5: Objectives, Key Issues, and Criteria*.

Table 3-3 presents a summary of the criteria and is followed by additional discussion. The criteria are presented in terms of both what is the minimum acceptable level and the preferred level.



**Table 3-3: Phase 5 Design Criteria Summary**

Item	Value and Description	
	Minimum Acceptable	Preferred
Proposed Dike Crest Elevation	4.7 m CGVD28 downstream of Nelson Road (all of Phase 5)	
Future Dike Crest Elevation (for proof-of-concept design)	5.5 m CGVD28 downstream of Nelson Road (all of Phase 5)	
Geometry and Stability	4 m wide crest with dike fill core 3H:1V land-side slope 3H:1V river-side slope (or 2H:1V with riprap revetment) Retaining walls minimized Sheetpile walls acceptable only with minimum 4 m wide dike fill core behind wall No standalone flood walls Meet minimum geotechnical factors of safety	Meets or exceed provincial dike standard and City dike standard
Land Tenure	Registered standard right-of-way	Dike located on City-owned land
Infrastructure in Dike	Crossings designed with seepage control Locate parallel infrastructure to land-side away from dike core	No infrastructure in dike
Land Adjacent to Dike	Land is raised as much as is practical	Land is raised to meet or exceed dike crest elevation
Seismic Performance	Minimum 3.2 m CGVD28 post-earthquake dike crest elevation and maintain dike core integrity	No damage to dike from earthquakes up to a return period to be determined
River-side Slope and Setback	2H:1V bank slope with riprap revetment designed for freshet flow velocities and vessel-generated waves	>10 m setback between river top of bank and dike river-side slope toe 3H:1V river-side bank slope with acceptable vegetation
Crest Surfacing and Land-side Slope Treatment	Crest surfacing: 150 mm thick road mulch Land-side slope treatment: hydraulically seeded grass	Meet or exceed provincial dike standard and City dike standard Consider paved crest and land-side slope vegetation/armouring to add robustness against overtopping
Road Design Width <sup>a</sup>  <b>To be Confirmed with City Staff</b>	0.5 m allowance for barrier & 0.6 m min horizontal clearance on road shoulders 3.5 m travel lanes (to existing service level) 3.0 m multi-use path for non-industrial Total width (2-lanes): 9.2 m	0.5 m allowance for barrier & 0.6 m min horizontal clearance on road shoulders 1.5 m min. boulevard along shoulders 1.5 m sidewalks or 3 m two-way path <sup>b</sup> 3.0 m two-way cycling path to replace existing facilities <sup>b</sup> 3.5 m travel lanes (to existing service level)
<p>a. Based on City of Richmond Engineering Design Specifications for Roadworks (2008).  <a href="https://www.richmond.ca/shared/assets/Roadworks20127.pdf">https://www.richmond.ca/shared/assets/Roadworks20127.pdf</a></p> <p>b. For industrial areas (Mitchell Island), cycling facilities and two-way paths are not included (maintains current level of service).</p>		





## Dike Crest Elevation

At this time, the Province has not established a Fraser River flood profile and dike design profile that considers sea level rise and climate change. It is understood that the Fraser Basin Council's Lower Mainland Flood Management Strategy project may produce a recommended future flood profile. The most recent available flood profile information is provided in the Province's 2014 study of climate change and sea level rise effects on the Fraser River flood hazard.

The designated flood profile for developing the master plan is proposed as the maximum of the following flood scenarios:

- 500-year return period coastal water level with 1 m of sea level rise (no wave effects); and
- 500-year return period freshet with moderate climate change impacts and 1 m of sea level rise.

Figure 3-1 shows the estimated flood profile water levels (in CGVD28 vertical datum, excluding freeboard) along the river in the study area. As shown on the figure, the coastal flood scenario governs from the Ocean upstream to approximately Nelson Road.

Dike crest elevations are derived by adding freeboard and an allowance for land subsidence to the flood level. Table 3-4 presents the components that sum to the proposed dike crest elevation for Phase 5, which is entirely located in the area governed by the coastal flood hazard.

**Table 3-4: Phase 5 Flood Levels and Dike Crest Elevations**

Item	Downstream of Nelson Road
Governing Flood Hazard	Tide + storm surge
Level of Performance	500-year return period (0.2% annual exceedance probability)
Climate Change Allowance	1 m sea level rise
Designated Flood Level (m, CGVD28) <sup>a</sup>	3.8
Wave Effects Allowance (m)	None
Freeboard (m)	0.6
Land Subsidence Allowance (m)	0.2
Minimum Dike Crest Elevation (m, CGVD28) <sup>b</sup>	4.7
Future Dike Crest Elevation (m, CGVD28) <sup>c</sup>	5.5
Notes:	
a) From (BC MFLNRO, 2014).	
b) The City's adopted downstream design crest elevation (4.7 m) exceeds the minimum required elevation (4.6 m). This is a result of updated coastal water level analysis methods (joint probability analysis) that result in a discrepancy when compared to previous methods (additive method).	
c) Expandable for an additional 1 m of sea level rise (no additional freeboard or land subsidence allowance).	

The master plan also allows for further upgrading by providing proof of concept for raising to between 5.5 m downstream of Nelson Road (coastal).



## Seismic Performance

The current provincial seismic performance criteria for dikes are generally difficult to meet without costly and impractical ground improvement works. Additionally, the guidelines are considered very conservative in some situations because they require performance under extremely rare scenarios. For example, the guidelines require dikes to maintain 0.3 m freeboard in the event of a 10-year return period flood occurring following a 2,475-year return period earthquake which has a probability of 0.004% in a 1-year period. This is significantly rarer than the design event for the dike crest elevation (500-year return period event has a 0.2% annual exceedance probability). It is understood that the Province is conducting a review of the current criteria and associated guidelines.

An alternative seismic performance approach that focuses on failure mechanisms and post-earthquake level of protection is proposed. The alternative criteria are presented below.

**Table 3-5: Proposed Alternative Seismic Performance Criteria**

Criteria	Description / Value
Failure Mechanisms	Flowslides (resulting in full loss of dike cross-section into the river or ditch) are not acceptable up to a return period to be determined (e.g. 2475-year return period).
Maximum post-earthquake overtopping probability	0.2% Annual exceedance probability. Calculate probability through comparison of various post-earthquake dike crest elevations and future flood levels + 0.3 m freeboard. Assume a minimum 1-year exposure period for dike repairs, or longer if local site conditions warrant. In general, this results in a minimum post-earthquake dike crest elevation of 3.2 m which corresponds to the governing scenario of an average annual maximum coastal water level (1.9 m) with 1 m of sea level rise occurring within 1 year of a 475-year return period earthquake.

This approach would make the service level of the dike in a seismic scenario consistent with the service level for the dike crest elevation which is based on a 500-year return period flood or a 0.2% annual exceedance probability.

For the coastal design dike crest elevation of 4.7 m CGVD28, this approach would allow for up to 1.5 m of vertical settlement, as long as core dike integrity is maintained.

The length of time between earthquake and dike repair will be a critical assumption for analysis to support this approach. The City may wish to specify consistent assumptions through the Dike Master Plan to ensure consistent analyses. For example, reconstruction of a dike that has failed into the river channel following a flowslide failure from an extreme earthquake may take up to 2 years or more, whereas more straightforward compaction and raising of a settled dike could be done in less than a year after an earthquake.

The seismic performance criteria may need to be further reviewed if/when the Province issues updated guidelines for seismic performance of dikes.



### 3.3 Alternative Upgrading Strategies

Several high-level upgrading strategies, summarized in Table 3-6, were considered to inform the development of specific options for the Dike Master Plan.

**Table 3-6: High-level Dike Upgrading Strategies**

Strategy	Advantages	Disadvantages
<b>Road Dike</b> <i>Raise road to dike crest elevation</i>	<ul style="list-style-type: none"> <li>• Smaller footprint</li> <li>• Wider crest (more robust)</li> <li>• Smaller impacts to habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Operation and maintenance challenges</li> <li>• Infrastructure within dike</li> <li>• High cost to raise dike in the future</li> </ul>
<b>Raise Riverbank Dike</b> <i>Conventional dike along riverbank extending land-side</i>	<ul style="list-style-type: none"> <li>• Minimize footprint</li> </ul>	<ul style="list-style-type: none"> <li>• Limited space</li> <li>• Impacts to river side riparian and intertidal habitat and land side riparian and aquatic habitat</li> <li>• Reduced seismic performance</li> <li>• Erosion hazard</li> </ul>
<b>Fill River-Side Dike</b> <i>Build into river to achieve conventional dike</i>	<ul style="list-style-type: none"> <li>• Less impacts to existing development and on-shore infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Larger impacts to river side riparian and intertidal habitat</li> <li>• Reduced seismic performance</li> <li>• Erosion hazard</li> </ul>
<b>Setback Dike</b> <i>Realign significantly away from river</i>	<ul style="list-style-type: none"> <li>• Increased seismic performance</li> <li>• Reduced erosion hazard</li> <li>• Increased opportunities for riparian and intertidal habitat enhancement</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in unprotected development</li> <li>• High infrastructure impacts</li> <li>• High cost to construct new dike alignment</li> </ul>
<b>Land Raising (“superdike”)</b> <i>Raise development and roads adjacent to dike</i>	<ul style="list-style-type: none"> <li>• Wider crest (more robust)</li> <li>• Reduced grading issues (after implementation)</li> <li>• Less impacts to raise a dike in the future</li> </ul>	<ul style="list-style-type: none"> <li>• Timing and phasing depends on development</li> <li>• High cost to raise large lots with low-density land use</li> <li>• Grading and access issues for water-oriented developments</li> </ul>
<b>Bank Protection Works Only</b> <i>Protect the river bank from erosion</i>	<ul style="list-style-type: none"> <li>• No City responsibility for a dike</li> <li>• Reduced impacts to industrial and commercial activities</li> </ul>	<ul style="list-style-type: none"> <li>• Reliance on private development reliance for land raising</li> <li>• Acceptance by property owners of flood risk</li> <li>• Environmental impact (river works and flooding related contamination)</li> </ul>





### 3.4 Options and Concepts

Through a series of meetings and site visits with City staff, the high-level upgrading strategies have been narrowed down to a set of options and concepts that may be appropriate for each island. The broad overall options developed for Phase 5 are listed below, with specific options by island in the following sections.

- Option 1: Build/raise dike
  - Option 1a: Build/raise standard river dike and extend land-side
  - Option 1b: Build/raise standard river dike and extend river-side
  - Option 1c: Build/raise dike with land-side retaining wall
- Option 2: Raise land
  - Option 2a: Raise land to dike elevation
  - Option 2b: Raise land to acceptable level of flood protection
- Option 3: Maintain/install bank protection works only
- Option 4: No structural improvements

In addition to the above general options, the following options have been developed to address site-specific issues at water-oriented industries and at select other locations.

- Option 1d: Build/raise dike with sheetpile wall on river-side
- Option 1e: Build setback dike along Cessna Drive North of BCIT
- Option 1f: Build setback dike around hotel
- Option 1g: Raise dike with river-side sheetpile wall and land-side retaining wall (interim option)
- Option 2c: Raise roadways with required land raising on private property

Table 3-7 presents a summary of the options as applied to each island based on discussions with City staff and is followed by a discussion of the options.

**Table 3-7: Major Dike Alignment and Cross-section Options**

Reach ID & Name	Alignment and Cross-section Options
Mitchell Island: General	<ul style="list-style-type: none"><li>• Option 1a: Build standard river dike and extend land-side</li><li>• Option 1b: Build standard river dike and extend river-side</li><li>• Option 1c: Build dike with land-side retaining wall</li><li>• Option 2a: Raise land to dike elevation</li><li>• Option 2b: Raise land to acceptable flooding level</li><li>• Option 2c: Raise roadways with required land raising on private property</li><li>• Option 3: Maintain/install bank protection works only</li><li>• Option 4: No structural improvements</li></ul>
Mitchell Island: Water Oriented Industries	<ul style="list-style-type: none"><li>• Option 1d: Build dike with sheetpile wall on river-side</li></ul>
Sea Island: General	<ul style="list-style-type: none"><li>• Option 1a: Raise standard river dike and extend land-side</li><li>• Option 1b: Raise standard river dike and extend river-side</li><li>• Option 1c: Raise dike with land-side retaining wall (at constrained locations)</li><li>• Option 2a: Raise land to dike elevation</li></ul>



Reach ID & Name	Alignment and Cross-section Options
Sea Island: Pacific Gateway Hotel and at Cessna Drive north of BCIT	<ul style="list-style-type: none"><li>• Option 1e: Build setback dike on Cessna Drive North of BCIT</li><li>• Option 1f: Build setback dike around hotel</li><li>• Option 1g: Raise dike with sheetpile wall on river-side and land-side retaining wall (interim option)</li></ul>
Richmond Island: General	<ul style="list-style-type: none"><li>• Option 2a: Raise land to dike elevation</li><li>• Option 2b: Raise land to acceptable flooding level</li><li>• Option 4: No structural improvements</li></ul>

### Option 1A: Build/Raise Standard River Dike and Extend Land-side

The primary option developed for Mitchell Island and Sea Island involves raising or constructing a standard dike and extending the footprint of the fill towards the land-side. Figure 3-2 presents a typical cross-section for this option, and Appendix A contains plan and section views of the footprint of this option for Sea Island.

Figure 3-2 shows a 10 m wide dike crest for a dike elevation of 4.7 m CGVD28. This overwide dike allows for raising to 5.5 m CGVD28 without additional dike footprint needs. Alternatively, the dike could be narrowed to a 4 m crest initially, which would require additional land for future raises. The river bank slope of the dike would include riprap bank protection works. This option is favourable as it would provide a standard dike as per the provincial dike design guidelines without impacting the foreshore beyond the installation of bank protection works. Where bank protection works is not already present, its installation will result in the loss of riparian habitat, which will require offsetting. There is no loss of riparian or aquatic habitat anticipated on the land side of the dike.




On Sea Island, this option is feasible for the majority of the City's dike reach and requires on average an additional 10 to 12 m beyond the current dike toe. However, there are several locations where this dike option could not currently be constructed due to limited space available for the dike (near hotel buildings/infrastructure, the marina, and Cessna Drive immediately north of BCIT). There may also be insufficient space in some additional locations for the future raise to 5.5 m CGVD28 (along BCIT and near Lysander Lane). Rights-of-way or land acquisition is required north of Lysander Lane and for a small section immediately north of the BCIT property. The dike upgrade may require upgrades at the Miller Road Drainage Pump Station, and relocation existing utilities and lighting along the dike path. The existing multi-use path would be maintained at the crest.

On Mitchell Island, there is currently no dike (or the previous dike has not been maintained or inspected). As a result, building a standard dike would require land acquisition or right-of-way for the entire perimeter of the island, with the exception of one small section where a right-of-way already exists. On average, this option would require 7 to 8 m of land from the riverbank landwards. There are several locations on Mitchell Island where construction of a dike would impact permanent or temporary structures, and many more where it would impact industrial operations. For some industrial sites, water access is required, and a standard dike may not be preferable. Any dike upgrade would require upgrades at the Tipping Road South and Mitchell Road South drainage pump stations. For all options, the Twigg Island sanitary forcemain (north side) and a watermain south of Paige Street underly the proposed dike and would need to be considered during detailed design. As Mitchell Island is industrial, a multi-use path would not be included along the dyke crest.




The areas with the most severe space limitations and potential options to address the access issues are presented in Table 3-8.



**Table 3-8: Significant Space Limitations and Access Issues**

Reach / Location / Description	Photo	Options to Address Footprint and Access
<p>Sea Island</p> <p>Cessna Road north of BCIT property</p> <p>STA 0+430 to 0+460 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>Retaining wall on landside</li> <li>Move dike towards River (see Option 1B)</li> <li>Replace pump station during dike upgrades</li> </ul>
<p>Sea Island</p> <p>Pacific Gateway Hotel and Marina</p> <p>STA 0+850 to 1+000 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>Retaining walls and raised Marina access (see Option 1C)</li> <li>Relocation of existing utilities and movement of temporary infrastructure</li> </ul>
<p>Sea Island</p> <p>Moray Channel Bridge and Airport Connector Bridge</p> <p>STA 1+070 to 1+130 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>Consider dike elevation in future bridge replacement deck elevation</li> <li>Raise the land between the two bridges to dike elevation in the interim</li> </ul>






Reach / Location / Description	Photo	Options to Address Footprint and Access
<p>Mitchell Island</p> <p>Lafarge</p> <p>13340-13360 Mitchell Rd</p> <p>STA 0+320 to 0+520 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>• Raise parcel of land at time of redevelopment (see Option 2)</li> <li>• Install sheetpile wall on the riverbank to allow continued river access (see Option 1D)</li> </ul>
<p>Mitchell Island</p> <p>Terminal Forest Products Ltd. (south side)</p> <p>12480-12380 Mitchell Rd</p> <p>STA 1+200 to 1+350 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>• Raise parcel of land at time of redevelopment (see Option 2)</li> <li>• Install sheetpile wall on the riverbank to allow continued river access (see Option 1D)</li> </ul>
<p>Mitchell Island</p> <p>Richmond Steel Recycling - Broadway Properties Ltd</p> <p>11760 Mitchell Road</p> <p>STA 1+400 to 1+450 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>• Raise parcel of land at time of redevelopment (see Option 2)</li> <li>• Install sheetpile wall on the riverbank to allow continued river access (see Option 1D)</li> </ul>
<p>Mitchell Island</p> <p>Ontrack Systems Inc. (Container West &amp; Platinum Marine)</p> <p>11660-11580 Mitchell Rd</p> <p>STA 1+900 to 1+700 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>• Raise parcel of land at time of redevelopment (see Option 2)</li> <li>• Install sheetpile wall on the riverbank to allow continued river access (see Option 1D)</li> </ul>





Reach / Location / Description	Photo	Options to Address Footprint and Access
<p>Mitchell Island</p> <p>Tipping Road South Drainage Pump Station</p> <p>STA 2+000 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>Replace pump station during dike upgrades</li> </ul>
<p>Mitchell Island</p> <p>Mitchell Road South Drainage Pump Station</p> <p>STA 2+000 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>Replace pump station during dike upgrades</li> </ul>
<p>Mitchell Island</p> <p>Grand Hale Marine Products Ltd. 11551-11571 Twigg Pl</p> <p>STA 5+150 to 5+400 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>Raise existing access points and provide dike crest access</li> <li>Raise parcel of land at time of redevelopment (see Option 2)</li> <li>Install sheetpile wall on the riverbank to allow continued river access (see Option 1D)</li> </ul>
<p>Mitchell Island</p> <p>Terminal Forest Products Ltd. (south side) 12191 Mitchell Rd</p> <p>STA 5+800 to 5+950 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>Raise parcel of land at time of redevelopment (see Option 2)</li> <li>Install sheetpile wall on the riverbank to allow continued river access (see Option 1D)</li> </ul>



Reach / Location / Description	Photo	Options to Address Footprint and Access
<p>Mitchell Island</p> <p>Lehigh Hanson Materials Ltd. 12571 Mitchell Rd</p> <p>STA 6+150 to 6+350 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>• Raise parcel of land at time of redevelopment (see Option 2)</li> <li>• Install sheetpile wall on the riverbank to allow continued river access (see Option 1D)</li> </ul>
<p>Mitchell Island</p> <p>Goldwood Industries Ltd. 12691 Mitchell Rd</p> <p>STA 6+350 to 6+520 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>• Raise parcel of land at time of redevelopment (see Option 2)</li> <li>• Install sheetpile wall on the riverbank to allow continued river access (see Option 1D)</li> </ul> <p>*currently operating partially on City of Richmond road dedication</p>
<p>Mitchell Island</p> <p>Savo Lazarian (owner) 13611 Mitchell Rd</p> <p>STA 7+300 to 7+400 (refer to Appendix A)</p>		<ul style="list-style-type: none"> <li>• Raise existing access points and provide dike crest access</li> <li>• Raise parcel of land at time of redevelopment (see Option 2)</li> <li>• Install sheetpile wall on the riverbank to allow continued river access (see Option 1D)</li> </ul>





### Option 1B: Build/Raise Standard River Dike and Extend River-Side

A secondary option developed for Mitchell Island and Sea Island involves raising or constructing a dike by extending the footprint of the fill towards to the river-side (onto the Fraser River foreshore in some locations. Figure 3-3 presents a typical cross-section for this option.

Figure 3-3 shows a 10 m wide dike crest, which would be wide enough to accommodate a dike upgrade to 5.5 m CGVD28 without increasing the footprint. This approach would reduce the frequency of impact to the riparian or intertidal habitat by disturbing it more initially to prevent disturbance again when it is upgraded. Alternatively, the dike could be only 4 m wide initially, and require extension for future upgrades. Option 1B would result in the loss of aquatic habitat, which would need to be offset. The river bank slope of the dike would include riprap bank protection works at a minimum, but it could also include a riparian planting bench, saltmarsh, or bioengineering bank protection works to offset riparian habitat impacts. Work in the foreshore would require land acquisition, rights-of-way, or lease from the Province. This option provides a standard dike as per the provincial dike design guidelines and reduces impacts to adjacent properties; however, it would have negative environmental impacts and is not preferred for stability considerations building onto the river foreshore.

On Sea Island, this option could be considered in specific locations that are presently constrained (Cessna Drive north of BCIT), or locations that will be constrained in the future (Lysander Lane and BCIT). This option is generally not preferred for the entire dike reach, due to constraints near the hotel and at the Miller Road pump station, stability building on the foreshore, and habitat impacts. At Cessna Drive north of BCIT, only a small length of the dike runs directly along Cessna Drive and the dike is set back from the river bank. As a result, Option 1B could be selected for a short length in this location with relatively limited environmental impacts and without requiring any construction down the river bank itself. The existing multi-use path would be maintained at the crest.

On Mitchell Island, this option would reduce the need for land acquisition but the need for rights-of-way and access remains the same, given the present lack of access to the riverbank. Option 1B could be considered to reduce impacts to existing operations, though it was not preferred by the City in options development. As Mitchell Island is industrial, a multi-use path would not be included along the dike crest.

The significant access and space constraints described in Table 3-8 are generally applicable to Option 1B as well.

### Option 1C: Build/Raise Dike with Land-Side Retaining Wall

Option 1C involves building a dike with a landside retaining wall. This option was developed for specific locations on Mitchell Island and Sea Island where space is constrained by existing buildings on the land-side. No habitat impacts are anticipated on the land side of the dike in these locations. Riprap installation would, however, impact riparian habitat on the river side. Figure 3-4 presents a typical cross-section for this option.

Figure 3-4 shows a 7 m wide dike crest and retaining wall, which would be wide enough to accommodate a dike upgrade to 5.5 m CGVD28 without increasing the footprint. Alternatively, a narrower (~4.5 m) retaining wall dike could be considered as an interim measure and an alternative option be implemented when a site is redeveloped. Retaining walls should consider the need for handrails for safety, in accordance with applicable regulations.

On Sea Island, this option could be considered in several locations, as described below. The existing multi-use path would be maintained at the crest.





- Along the northern end of the BCIT building where the existing space may not be sufficient for a future raise to 5.5 m CGVD28.
- Immediately north of the BCIT property at Cessna Dr, where the existing space is not sufficient for a dike upgrade without impacting Cessna Dr. or moving the dike towards the river side. A retaining wall would likely not be sufficient to raise to 5.5 m without moving the dike towards the river.

On Mitchell Island, retaining walls are commonly used, and the City has recently approved a development with lock block walls used to reach the required elevation for flood protection. Dikes with retaining walls could be considered as an interim measure until redevelopment, or in locations where water access for industry is not required but the footprint needs to be narrower than a standard dike. As Mitchell Island is industrial, a multi-use path would not be included along the dyke crest.

The significant access and space constraints described in Table 3-8 are generally applicable to Option 1B as well, though it may be able to address some of the concerns on Sea Island.

### Option 1D: Build/Raise Dike with Sheetpile Wall on River-Side

Option 1D involves building a dike with a river-side sheetpile wall. This option is only considered for specific locations on Mitchell Island where access is required for water-oriented industries (see Table 3-8), or potentially at pump stations to reduce space requirements. Figure 3-5 presents a typical cross-section for this option.

Figure 3-5 shows a 4 m wide dike crest and sheetpile wall, which would require raising and an increase in footprint for future upgrades. This approach reduces the overall footprint at first. Alternatively, the dike could be widened to a 7 m crest initially, which would allow for future upgrading to 5.5 m CGVD28 without extending the footprint. The sheetpile wall could provide a vertical surface for easier barge access (as it is in several locations currently on Mitchell Island), or it could be setback and the existing river bank slope maintained. A sheetpile wall could also be considered in conjunction with land raising (Option 2). This option would limit impacts to riparian and aquatic habitat. As Mitchell Island is industrial, a multi-use path would not be included along the dyke crest.

### Option 1E: Build Setback Dike on Cessna Drive North of BCIT (Sea Island)

This option considers an alternative dike alignment on Sea Island that follows Cessna Drive from the northern end of the BCIT property to Miller road and ties back into the dike at the Miller Road drainage pump station. Figure 3-6 presents a typical cross-section and Figure 3-7 presents a plan conceptual alignment.

Cessna Drive directly parallels Russ Baker Way with only a concrete no-post barrier between, and as a result, creating a setback dike along Cessna Drive would also require raising Russ Baker Way. An alternative to raising Russ Baker Way would be to construct a retaining wall for Cessna Drive, which has not been shown in the attached figures. Figure 3-6 shows Cessna Drive raised with an 11.7 m wide crest, with two driving lanes and a sidewalk on the east side, to match existing amenities. The existing utilities that run along Cessna Drive would need to be relocated. Russ Baker Way would be raised to the 4.7 m CGVD28, with three lanes of traffic on either side of the road and a 1.2 m wide median dividing the road. The raised road would tie into the existing high-ground/berm that around the eastern side of Burkeville. To better allow for future raises on Cessna Drive and to improve cycling safety, this option proposes that the north and southbound bike lanes be separated from the roadway and located on the berm above Burkeville. This option would require realignment of the existing drainage ditch and pump station, or relocation closer to Russ Baker Way.



The benefits of this option are that it creates a wide “superdike” (more stable), reduces the risk of dike erosion by setting it back from the river bank, does not require impacts to aquatic or riparian vegetation, and raises an important transportation corridor that could provide egress in a dike breach scenario. However, this option has significant drawbacks as it would be a significant cost to raise such a major roadway and relocate utilities, disrupt traffic on a busy corridor, and it would leave four properties outside of the dike without City flood protection, one of which recently built a 4.7 m CGVD dike.

### **Option 1F: Build Setback Dike around Hotel (Sea Island)**

Option 1F considers an alternative dike alignment on Sea Island around the Pacific Gateway Hotel, which would place the hotel outside of the dike. The existing dike is closely hemmed in by the hotel and the marina and restaurant on the landside. There is no room for a standard dike raise in this location without relocating buildings and infrastructure or constructing a non-standard dike with a retaining wall or similar. In the long term (to achieve 5.5 m CGVD28), maintaining the current dike alignment would require removal or relocation of some buildings and on-site infrastructure, which could occur when the site is eventually redeveloped. In addition, ongoing work along this section has installed infrastructure in or along the dike without consideration of impacts to the dike. Figure 3-7 presents a plan conceptual alignment for the setback dike.

Figure 3-7 shows the setback dike following Lysander Lane, connecting to Cessna Drive, and tying back into the existing dike alignment at the Miller Road drainage pump station. Land acquisition on the border of the hotel property could be considered to avoid raising Cessna Drive where it is directly adjacent to Russ Baker Way, to avoid also needing to raise Russ Baker Way. Alternatively, Russ Baker Way could also be raised, similar to the description in Option 1E. The existing utilities that run along Cessna Drive, and Lysander Lane would need to be relocated to the water or landside toe. This option would require realignment of the existing drainage ditch and pump station or relocation closer to Russ Baker Way.

This option could provide a wider and more stable dike setback from the river and associated erosion risk and impacts to riparian and aquatic habitat would be limited. However, the dike in its current location is already afforded some protection by the adjacent Marina and setting back the dike leaves the hotel property unprotected from flooding.

### **Option 1G: Raise Dike with River-Side Sheetpile Wall and Land-Side Retaining Wall (Interim Option on Sea Island by Hotel and Marina)**

Option 1G involves an interim non-standard dike raise to 4.7 m CGVD28 with a sheetpile wall on the along the river bank and a landside retaining wall. This option would only be appropriate for the Sea Island dike along the Pacific Gateway Hotel and adjacent marina, where the developments limit raising a standard dike without redevelopment. When the site is developed, a standard dike (Option 1A) could be established. An interim option is considered for this location as it is currently one of the lowest elevation areas on the Sea Island dike, with several locations below the current dike design elevation of 3.5 m CGVD28. Figure 3-8 presents a conceptual cross-section for the interim dike.

Figure 3-8 shows a 4 m wide dike crest with sheetpile wall along the top of the existing river bank and a landside retaining wall. Retaining walls should consider the need for handrails for safety, in accordance with applicable regulations. The existing multi-use path would be maintained at the crest. This option would require raising the access ramps to the marina restaurant. This reduced footprint would result in less loss of riparian and aquatic habitat area.





## Option 2: Raise Land to Dike Elevation (2A) or Lower Acceptable Level (2B)

Option 2A and 2B both involve raising the land adjacent to the riverbank, rather than building a dike. For option 2A, land would be raised to the dike elevation or higher, and in Option 2B land would be raised to a lower level that would result in an acceptable level of flood protection, which could be determined by the City during the Dike Master Plan and through stakeholder consultation. It is expected that land raising would either be required by the City when sites redevelop (cost to owners) or that the City would purchase land, raise it, and resell it as improved land. This could be considered on Mitchell Island or Richmond Island. Option 2B would not be considered for Sea Island. Figure 3-9 shows a typical section of land raising.

In both options, bank protection works would be recommended, and it could be installed and maintained by property owners or by the City. The benefit of this option is that it would provide more robust flood protection by raising all of the land on the river bank rather than constructing only a perimeter dike; however, the City would likely need to stipulate acceptable fill and compaction standards to avoid the use of unacceptable or contaminated fill. The downside of this option is that it would likely delay flood protection upgrades until a site develops (in some instances this may not occur for a significant length of time. In such instances, the City may need to consider interim flood protection options or purchasing of the land to expedite upgrades. Riprap bank protection works would result in the loss of riparian habitat which will need to be offset.

On Sea Island, Option 2A could be considered along the entire reach in the long-term, but it might be particularly applicable for the hotel property due to the tight constraints for the existing dike alignment. In this location, the dike could be raised with a retaining wall or similar in the short-term, with a long-term plan to raise the property. On Mitchell Island, raising the land is favourable as the City does not have access or a right-of-way to establish a dike. In addition, land raising by owners would likely have fewer impacts on water-oriented industries than a perimeter dike, which would require appropriate access for the industrial activities. Land raising in these instances could be considered with a sheetpile wall along the waterfront, as exists in several locations already.

## Option 2C: Raise Roadways with Required Land Raising on Private Property (Mitchell Island)

Option 2C involves raising the entire road network on Mitchell Island to the dike elevation or lower level and providing access to property owners, with the requirement for private properties to raise their land to dike elevation through redevelopment. This would provide flexibility to properties where land raising is in conflict with industrial activities, but it would maintain an egress route (raised road) for all properties. In addition, this option would include progressive right-of-way acquisition for a future perimeter dike as properties redevelop. Figures 3-10 and 3-11 show a conceptual plan and section of raising the roads on Mitchell Island to 4.1 m CGVD28 (dike elevation less freeboard of 0.6 m); raising roads to the full dike elevation of 4.7 m CGVD28 could be considered in the longer term as sites raise land. Figure 3-12 shows a typical cross-section for right-of-way acquisition along the river.

Figures 3-10 and 3-11 show a 12 m wide roadway with sidewalks and boulevards on both sides, to match existing conditions, which results in an approximately 18 m wide roadway, as per the City of Richmond Engineering Design Specifications for Roadworks. No cycling facilities would be provided given the industrial zoning of Mitchell Island. Driveway accesses would be 13 m wide at a maximum grade of 8%. The current road elevations are 2 to 3 m CGVD28, and as a result raising the roads to the dike elevation would 1 to 2 m of road raising, as shown on Figure 3-10. For road raising with adjacent low properties, the design would need to consider narrowing roadways or constructing retaining walls to avoid impacting private property. Right-of-way acquisition around the riverbank would allow for



maintenance or construction of bank protection works if required and construction of a perimeter dike in the future for dike elevations beyond 4.7 m CGVD28.

The most challenging aspects of this option would be balancing road raising with site access and existing building located along the roadways. As the island is largely industrial, acceptable grades and widths are important for industrial traffic and operations, and there are many locations where current buildings are located directly along the roads with little to no setback. As a result, the implementation would need to consider impacts to adjacent properties, timing of property redevelopment with roadways, and acceptable access. However, this option would provide a raised emergency egress in the event of a flood and allows property owners to raise lands to meet the road over time. Fraser River riparian or aquatic habitat are not anticipated to be impacted by this option, though impacts of private property raising would need to be assessed by land owner.

### **Option 3: Maintain/Install Bank Protection Works Only (Mitchell Island)**

Option 3 considers the alternative where the only flood protection works the City is responsible for is installation and maintenance of bank protection works. This is only considered an option for Mitchell Island, as Sea Island has an existing dike, and Richmond Island is one private lot. On Mitchell Island, all bank protection works are private works and there is no requirement for owners to protect their properties from erosion. However, erosion starting at one unprotected property may place adjacent properties at risk as erosion progresses. City installation and maintenance of bank protection works would provide consistent protection around the island and reduce the risk of erosion and damage to adjacent property as a result of a neighbouring property's negligence. Figure 3-13 shows a section of Option 3.

This option could be considered in conjunction with other flood protection strategies, such as land raising and FCL's or covenants (covered in the 2008-2031 Flood Protection Strategy and not the Dike Master Plan). Bank protection works in areas where not already present would result in impact to riparian habitat and require offsetting.

### **Option 4: No Structural Improvements**

Option 4 is considered to be the status quo for Mitchell Island and Richmond Island, both of which only have private flood protection infrastructure in place. The Province's dike database indicates an unregulated dike on Mitchell Island under Richmond's authority, though no evidence of a dike is apparent on the island.

On Richmond Island, as described previously, a covenant is in place that acknowledges that the City has no plans to protect the Island from flooding and releases the City from any damage or losses caused by flooding or erosion. In addition, the majority of Richmond Island is located above 5.5 m CGVD28, with the exception of the causeway that connects the island to the City of Vancouver. The more significant flooding and erosion concern is expected to be the ongoing scour along the Fraser River North Arm in this location, which the City may wish to notify the owner of, if they are not already aware.

On Mitchell Island, this option would maintain status quo and would not infringe on industrial and commercial operations. In the absence of structural flood mitigation works, consideration could still be given to non-structural measures such as increasing FCL's or covenants that acknowledge that the property is not protected against flooding or erosion. For Mitchell Island, this option is not expected to be preferred as it does not meet the City's general vision of not allowing any part of Richmond to flood. In addition, flooding of the island would have economic and property losses and may cause environmental contamination.





### 3.5 Stakeholder Engagement

Stakeholder engagement for Phases 3, 4, and 5 of the Dike Master Plan is being completed jointly in two stages. Prior to City Council review, initial stakeholder engagement was completed that included meetings with internal City departments and government agencies. This initial stakeholder engagement allows for input from City groups on options developed, additional background, and future coordination, with the goal of informing the preferred upgrade options. Following Council review, additional stakeholder engagement is planned, which will include meetings with specific stakeholder groups and a public consultation event. The second stage of stakeholder engagement is intended to inform the public on the draft recommended options and seek any feedback the City may wish to consider in finalizing the Dike Master Plan and moving toward implementation.

For Phase 5, the parties consulted to date include the following.

- Vancouver Airport Authority (YVR);
- City of Richmond Transportation;
- City of Richmond Parks, Planning, and Sustainability; and
- Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (MFLNRORD), including Inspector of Dikes, Flood Safety, and Water Authorizations staff.

The Department of Fisheries and Oceans (DFO) declined to meet with the City, stating that input would be provided during later stages in the established review and approvals process. Additional stakeholder consultation following Council review is planned to include the public and specific groups and properties who may be uniquely impacted by dike upgrades.

### 3.6 Options Evaluation and Selection

The options described in Section 3.4 have been evaluated based on the design considerations and feedback from the stakeholder meetings held to date. Draft recommended options have been identified and are described below. As noted previously, the recommended options are intended to provide a basis for dike upgrades and planning, with the immediate goal is to raise the dikes to allow for 1 m of sea level rise, and to allow for further upgrading in the future. Environmental impacts, drainage impacts, and geotechnical considerations associated with the recommended options are also summarized below.

It is understood that the recommended options will be confirmed through Council, and additional stakeholder consultation.

The recommended options are summarized in Table 3-9 and Figure 3-14, and further described in the following sub-sections.





**Table 3-9: Recommended Dike Upgrading Options (Phase 5)**

Reach # and Name	Recommended Options
1 – Mitchell Island	<ul style="list-style-type: none"><li>• Option 2C: Raise roadways with required land raising on private property</li></ul>
2 – Sea Island	<ul style="list-style-type: none"><li>• Option 1A: Raise standard river dike and extend land-side</li></ul> <p><i>Site specific options in constrained locations:</i></p> <ul style="list-style-type: none"><li>• Option 1B: Raise standard river dike and extend river-side</li><li>• Option 1C: Raise dike with land-side retaining wall</li></ul> <p><i>Site specific interim option at hotel and marina:</i></p> <ul style="list-style-type: none"><li>• Option 1G: Raise dike with river-side sheetpile wall and land-side retaining wall</li></ul>
3 – Richmond Island	<ul style="list-style-type: none"><li>• Option 4: No flood protection works</li></ul>

### **Recommended Option: Reach 1 - Mitchell Island**

Mitchell Island has no existing flood protection works other than private bank protection works (riprap and sheetpiles) around most of the island. Due to this, the City is in a position to consider alternatives to diking. There are many locations around the perimeter of the island that are well below the current design dike crest elevation of 3.5 m CGVD28 (in some locations as low as approximately 2.5 m). The island is densely developed with industrial and commercial operations, many of which actively access the Fraser River for their businesses.

As a result, a perimeter dike would be highly disruptive to business and would require significant right-of-way or land acquisition. Alternatively, progressive land raising by redevelopment would provide the benefit of flood protection at a timeline that is not disruptive to business. By raising roadways and providing driveways, the City can provide emergency egress and access for properties as they are gradually raised. This would also reduce cost to the City by requiring developments to cover the cost of raising the majority of the land. The drawback to this approach is that in the short term, low properties below the current dike elevation will continue to be at risk of flooding and related environmental contamination. This may warrant short-term collaboration with owners to reduce these risks. Raising roads in advance of property raising would also require trade-offs between reduced road size and amenities, or infringement onto private properties. To partially address this, road raising could initially be conducted to 4.1 m CGVD28 (dike elevation less freeboard) or a lower elevation selected by the City.

The following option is recommended for Mitchell Island.

- **Raise Roadways with Required Land Raising on Private Property (Option 2C):**
  - Raise all roadways to dike elevation by the City to provide emergency egress (considering partial raises in low areas to reduce impacts to operations).
  - Require owners to raise parcels to dike elevation during redevelopment.
  - Acquire rights-of-way and access during redevelopment along the riverbank for a future dike to 5.5 m CGVD28 and bank protection works.
  - Work with low elevation (below current dike crest elevation of 3.5 m CGVD28) property owners in the short term to mitigate flood and related environmental contamination risks.

The recommended approach, and properties below the current dike elevation of 3.5 m CGVD28, are shown in Figures 3-10, 3-11, and 3-12. Appendix A shows potential right-of-way acquisition around the perimeter of the island.



## Recommended Option: Reach 2 - Sea Island

Responsibility for flood protection on Sea Island is shared by YVR and the City. Jurisdictional boundaries and land ownership along the dike are unclear in some locations, including several spots where the City either owns land or has a road dedication along a section of the dike that YVR has assumed responsibility for. The City's portion of the Sea Island dike is generally agreed to be along the eastern portion of the island from BCIT to the Airport Connector Bridge.

The dike within this reach can be upgraded with a standard dike, with the exception of a few locations where space is constrained by existing buildings or roadways. In these locations, moving the dike alignment towards the river, or using retaining walls can be considered. This would limit infrastructure impacts and cost. In particular, the dike between the hotel and marina is below the current dike crest elevation of 3.5 m CGVD28, and there is not enough space to raise any standard form of dike to 4.7 m or 5.5 m CGVD28. As a result, an interim solution would be required for this location until the site redevelops. This could include either a setback dike around the building or a narrower dike with retaining walls.

The following option is recommended for the majority of City's portion of the Sea Island dike.

- **Raise Standard River Dike and Extend Land-Side (Option 1A):**
  - Work with a legal land surveyor and YVR to establish clear jurisdiction boundaries for the dike.
  - Raise the existing dike along the current alignment with a standard dike wide enough to accommodate a raise to 5.5 m CGVD28 (except in the short-term along the hotel and marina). At the northern end of the BCIT building, at Cessna Drive, and at Lysander Lane, this would require either moving the dike towards the river (Option 1B), building retaining walls (Option 1C), and/or raising the road for short sections.
  - When the Miller Road Drainage Pump Station is upgraded (planned for 10 to 15 years in the future), provide structural capacity for loading due to the dike raise and ensure there is sufficient space for the dike raise.
  - Consult with MOT to have the Moray Channel Bridge replaced with a higher structure that is above 5.5 m CGVD28 (when it is at the end of its design life) and raise the land between the two bridges.
  - Acquire and widen existing rights-of-way for City access to the dike.

The following option is recommended as an interim solution at the hotel and marina.

- **Raise Dike with River-Side Sheetpile Wall and Land-Side Retaining Wall (Options 1G):**
  - At the hotel and marina, raise the dike to 4.7 m CGVD 28 with a sheetpile wall embedded along the river-side and a land-side retaining wall.
  - When the hotel area is redeveloped, establish a standard dike in accordance with the remainder of the reach.

The recommended options are shown in Figures 3-2, 3-3, 3-4, and 3-8. Appendix A contains plans and sections of the long-term upgrading recommendation.

A general recommendation for flood protection on Sea Island is to target land raising of the areas behind the dike. For areas where City property is located on the YVR portion of the dike, it is recommended that the City works with YVR to raise the dike at Richmond road crossings.



## Recommended Option: Reach 3 - Richmond Island

The majority of Richmond Island is currently above the 5.5 m CGVD28 future dike crest elevation. Richmond Island is a single lot owned by North Fraser Terminals Inc., and leased to Milltown Marina & Boatyard Ltd. The development is connected to the City of Vancouver and its utility network and does not pay the City of Richmond Drainage Utility tax.

A covenant<sup>3</sup> was registered against the land title in November 27, 2012 (between North Fraser Terminals Inc., the Milltown Marina & Boatyard Ltd., and the City of Richmond) that:

- acknowledges the risk of flooding and erosion on Richmond Island;
- notes that the City has no plans to protect the island from flood and erosion; and
- releases the City from any damage or losses caused by flooding or erosion.

The following option is recommended for Richmond Island.

- **No Structural Flood Protection Works (Option 4)**
  - The covenant appropriately addresses the existing situation. In the event of future redevelopment, flood protection on Richmond Island could be reconsidered.

The City may wish to inform/consult with the owners regarding scour in the North Arm.

## Drainage Impact Assessment

### Mitchell Island

The Mitchell Road South and Tipping Road South Drainage Pump Stations may be impacted by the road upgrades. Considerations for these two pump stations may include structural review and upgrade of the inlet bays and piping, as well as the outfall elevations of the pumps relative to projected sea level rise.

The drainage system within Mitchell Island would also be affected by the proposed road upgrades. The increase in road surface elevations would require adjustments to catch basin inlets and manholes on all roads where the surface would be raised. Some roads currently have drainage in roadside ditches with culverts at driveway crossings. These ditches would likely be required to be either replaced with storm sewer pipes beneath the roadway and additional catch basin inlets to collect runoff or be filled in and moved to be outside the new toe of the raised roadway.

### Sea Island

The drainage system on Sea Island is not complete in the City's GIS database and the full range of potential impacts from proposed dike upgrading are not known at this time. The Miller Road Drainage Pump Station will be impacted by dike upgrades, where structural changes may be required to accommodate the increased dike section. In addition, extension of the pump station outlet and review of outfall elevations relative to projected sea level rise should be completed. There may also be impacts to the drainage system where the dike is constrained by Cessna Drive between chainage 0+400 and 0+450, but there is no drainage shown for the road in this location.

### Richmond Island

On Richmond Island, no changes are proposed and there is therefore no impact on drainage.

<sup>3</sup> CA2885848. RCVD: 2012-11-27.





## Habitat Impact Assessment

### Mitchell Island

Based on initial desktop review, road raising on Mitchell Island is not anticipated to result in impacts to riparian or aquatic habitat. Future raising of land parcels by landowners will need to consider environmental impacts including impacts to riparian and aquatic habitat, and the need for offsetting.

### Sea Island

The recommended option for Sea Island will result in an estimated impact of 1,100 m<sup>2</sup> of high-quality Fraser River intertidal habitat and 1,900 m<sup>2</sup> of high-quality Fraser River riparian habitat. These areas represent an estimate based on FREMP habitat mapping (2007), and City of Richmond orthoimagery interpretation (2017). Not all Fraser River riparian and intertidal habitat was quantified. The desktop review only quantified high-quality riparian and intertidal habitat types on the Fraser River side of the existing dike. The remaining habitat area, while not calculated, would also be required in calculations for determining offsetting requirements. A more precise calculation of the area of impact would require an aquatic habitat survey, and an aquatic effects assessment.

### Richmond Island

As no structural flood protection works are proposed for Richmond Island, no associated impacts to riparian and aquatic habitat will occur.

## Geotechnical Considerations for Recommended Options

The proposed dike improvements were assessed with consideration for the BC Seismic Design Guidelines for Dikes.

Thurber Engineering Ltd. (Thurber) assessed 2 sample river dike cross-sections (one for Sea Island and one for Mitchell Island) to estimate the potential deformation resulting from seismic events. The cross-sections were provided by KWL based on a standard river dike cross-section at what was judged to be the most susceptible areas for deformation. Soil conditions were determined by cone penetration tests conducted by Thurber. The analysis included seismic events representing 100, 475 and 2475-year return period events. Seismic performance was assessed using 2 methods: 1-D (i.e. flat ground) liquefaction assessment to estimate reconsolidation settlements, and 2-D numerical deformation assessment to estimate dynamic deformations. The methods are complimentary, and the results are interpreted together.

The preliminary geotechnical report is attached in Appendix B.

The key results of the geotechnical analysis are summarized below.

- Proposed dike cross-sections will not meet the performance requirements of the seismic design guidelines, without ground improvement or alternative approaches, based on the results of both assessment methods.
- The liquefaction hazard is considered insignificant for earthquakes up to the 100-year return period event.
- The liquefaction hazard is considered moderate and high for the 475 and 2475-year return period events respectively. The resulting deformations would be large.



- Liquefaction may result in a flowslide into the river for dike alignments along the river-bank due to lateral spreading, whereas it would result only in vertical deformation for dike alignments significantly set back from the river bank.
- The deformation analysis indicates that dikes may meet the performance requirements of the seismic design guidelines if they are typically set back 50 m to 100 m from the river-bank and have flat slopes or some localized ground improvement.

Options to address seismically induced deformations, and opinions on each, include:

- **Densification** – The typical approach to densification is to install stone columns beneath a dike. To be effective against the liquefaction expected to follow the 2475-year return period event, densification would have to extend the depth of the liquefaction zone, and for a similar width. In a typical scenario, this can be considered as a 30 m (width) by 30 m (depth) densification located at the river-side toe of the dike. Such densification can be very costly (e.g. \$9,000 to \$18,000 per lineal metre of dike). Alternate experimental techniques are being tested by the City that may offer a more economic solution.
- **Higher Crest** – For the 100-year return period event, additional crest elevation may compensate for deformations caused by settlement. For events that cause liquefaction, added height just results in added deformation, so it is less effective. This is not an effective strategy by itself for return periods above 100-year due to lateral spreading and large vertical deformations.
- **Setback and Slope** – Flatter dike side slopes improve seismic stability. However, to prevent large deformations in the 2475-year return period event, the maximum acceptable slope between the river channel invert and the dike crest would need to be approximately 2%, which would require a significant setback between the dike and river.
- **Wide Crest (“superdikes”)** – A very wide dike (e.g. crest width of 100 m to 200 m) could be used to extend the dike beyond the limit of significant lateral spreading due to liquefaction. A portion of the wide crest could be considered sacrificial in the event of major lateral spreading. Raising the land for approximately 200 m inland of the dike is desirable for related flood protection reasons, and may be desired by the City for other reasons such as land use planning. It has already been done as part of multiple family, commercial, and industrial development projects in some waterfront areas. Buildings within such areas must account for liquefaction in foundation design.
- **Dike Relocation** – Place the dike inland of the liquefaction lateral spreading zone (a setback dike approach) or place a secondary dike inland of the liquefaction lateral spreading zone. The wider option above would essentially include a secondary dike. Relocating the dike inland would be a form of retreat and would leave property and buildings exposed outside the dike.

Additionally, the City may wish to use alternative seismic performance criteria, such as the criteria discussed in section 3.2 which aims to develop a consistent level of performance between seismic scenarios and flood level scenarios (i.e. an overall 0.2% annual exceedance probability of failure across all hazards).





Recommendations to manage the seismic risk include:

- Consider the proposed alternative seismic performance criteria provided in Section 3.2. Review the criteria if/when the Province issues updated guidelines for seismic performance of dikes.
- Fill land for approximately 200 m inland of the dike to dike crest elevation. Buildings in this zone should be built above the dike crest elevation and have densified foundations capable of withstanding liquefaction. The required distance requires some additional evaluation and may be addressed in the pending update to the Flood Protection Management Strategy.
- Continue to investigate practical densification options, and consider earthquake induced dike deformations in emergency response and recovery planning.

### 3.7 Cost Opinions

Cost opinions for the recommended option in each reach are provided to help the City consider the financial implications for planning and comparing options. A breakdown is provided to help understand the proportional cost for items such as separating and raising the road.

Costs are based on unit rate cost estimates and tender results for similar works. The most relevant rates are from the City's Gilbert Road dike project. The City provided a summary of the cost estimate prepared by WSP for this project.

Rates from recent tenders for diking on the Lower Fraser River and other locations within the Lower Mainland were used to check the reasonableness of the rates and estimate other features such as sheet piles or large diameter drain pipes.

The costs were estimated for each island. They were also broken down into the main features that coincide with options that the City may wish to consider further. These features are described below.

- **Dike Raising** – this is the core element required to provide flood protection. It includes a 10 m crest width that can be raised while still achieving a 4 m crest width. This includes site preparation, fill, and erosion protection.
- **Road Structure and Utilities** – this includes stripping, subgrade preparation, pavement structure, drainage and utilities.
- **Road Raising** – this includes the additional fill required to raise the road to the dike crest elevation (4.1 m CGVD28 road raising initially).
- **Other** – features such as landscaping, habitat improvements, multi-use paths, driveway ramps and other amenities typically have a combined impact of less than 10%, so are lumped together for conciseness. This category was used to capture utilities if the option did not include road construction.
- **Contingency** – A 40% contingency is provided because the costs are based on concept plans only.

Table 3-10 presents a summary of all reaches with cost breakdowns for the items described above. Costs for each reach are also provided in the Reach Summary Sheets in Section 5.



**Table 3-10: Summary of Construction Costs (\$ in Millions)**

Item	Mitchell Island <sup>b</sup>	Sea Island <sup>c</sup>	Sea Island Interim Works <sup>d</sup>	Richmond Island 4	Total
Dike Raising	-	\$3.6 M	\$ .8 M	No Flood Protection Works	\$4.4 M
Road Structure and Utilities	\$15. M	\$0.1 M	-		\$15.1 M
Road Raising	\$36.5 M	\$0.2 M	-		\$36.7 M
Other <sup>a</sup>	\$8.3 M	\$0.8 M	\$ .1 M		\$9.1 M
Contingency (40%)	\$23.9 M	\$1.9 M	\$ .3 M		\$26.1 M
<b>TOTAL</b>	<b>\$83.6 M</b>	<b>\$6.5 M</b>	<b>\$1.2 M</b>		<b>\$91.4 M</b>

a. Driveway ramps and pathways  
b. Includes approximately 5.3 kilometres of road raising, reconstruction, and industrial driveway ramps.  
c. Includes approximately 0.9 km of dike raising and road raising at McDonald and Shannon Roads.  
d. Interim works refer to 150 m long sheetpile and retaining wall dike along the Pacific Gateway Hotel with access to the marina and hotel land.

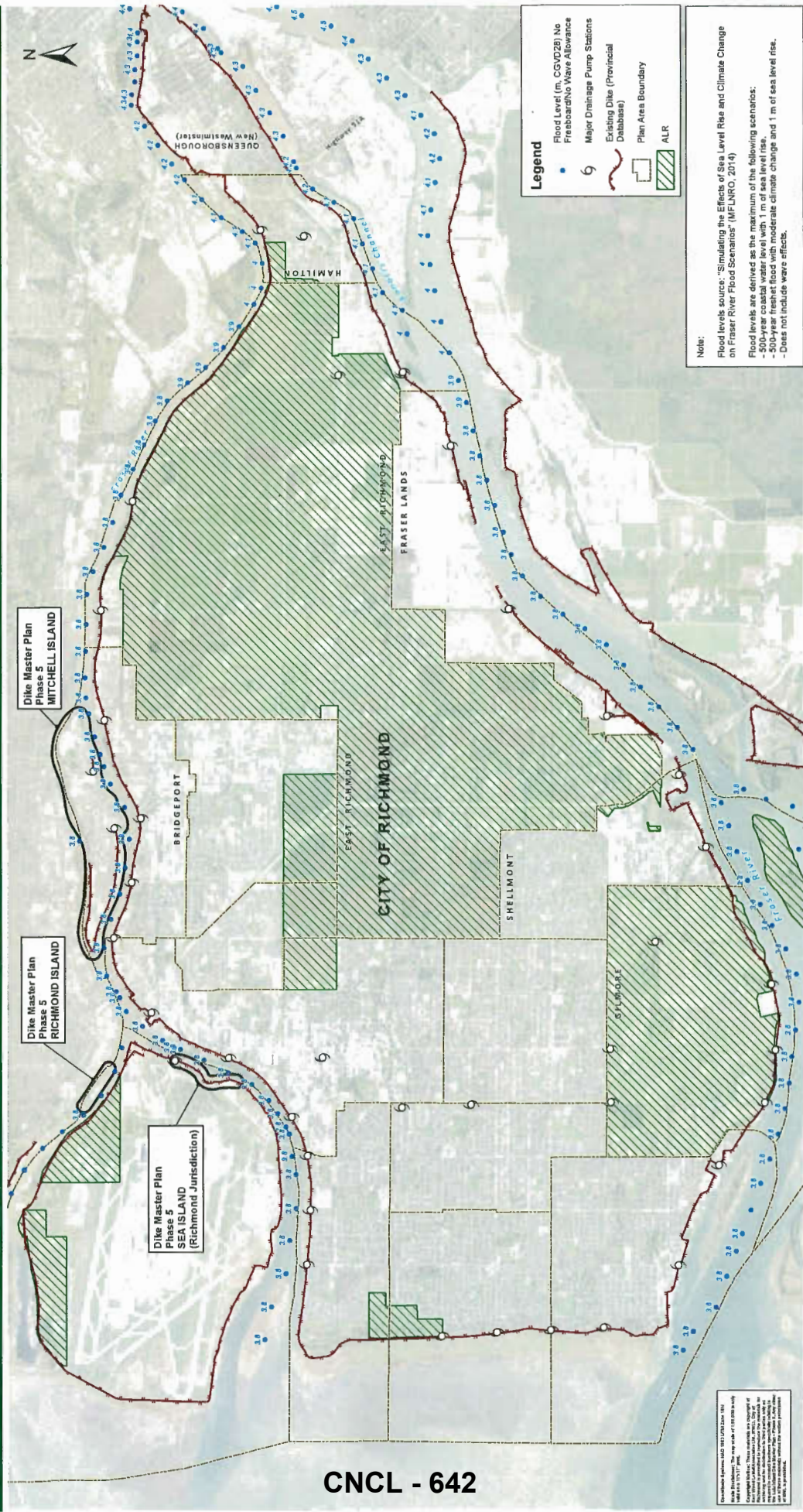
Costs that are not included are noted below:

- Land acquisition is not included. Rights-of-way either exist or will be acquired during redevelopment. Similarly, there may be opportunities to have dike improvements tied to adjacent development.
- Densification is not included. The recommendation is to fill 200 m back from the dike face as a preferred strategy to deal with liquefaction. If the road and land behind the dike is not raised, then densification is recommended. Current techniques such as stone columns would cost approximately \$9,000 to \$18,000 per metre of dike.
- Off-site habitat projects (that may be needed beyond the habitat enhancement provided along the dike corridor) are not included. Such cost could be roughly 5% of the construction cost. It is understood that a separate Dike Master Plan may be prepared to address habitat compensation by identifying and developing medium to large habitat compensation concepts.
- Professional fees (engineering, surveying, environmental, archeological, etc.) are not included. Such costs could be in the range of 10% to 15% of the construction cost.
- Shoreline protection works and land raising on industrials sites on Mitchell Island are not included. Similarly, raising the land behind the dike is not included on Sea Island. These costs are proposed to be a condition of development behind the dike, with the cost and benefit attributed to property owners.
- Contaminated site remediation on Mitchell Island is not included. To ensure land raising keeps pace with increasing flood risk and sea level rise, the City may consider acquiring, raising, and reselling select properties. Based on historical land use on Mitchell Island, land acquisition is expected to involve site investigation for contamination. Contaminated sites investigations include the following, with approximate average cost estimates provided by City staff<sup>4</sup>:
  - Phase 1 Site Investigation (desktop) - \$1,500 per property;
  - Phase 2 Site Investigation (sampling) - \$25,000 per property; and
  - additional investigation and remediation for a Certificate of Compliance - \$250,000 per property.

City staff estimate that all properties on Mitchell Island will require Phase 1 investigations, approximately 75% of properties may require Phase 2 investigations, and approximately 40% of properties may require additional investigation and remediation.

<sup>4</sup> City Hall Transmittal #5905343 Mitchell Island Pollution Prevention and Known Contamination





**Fraser River Flood Elevations**

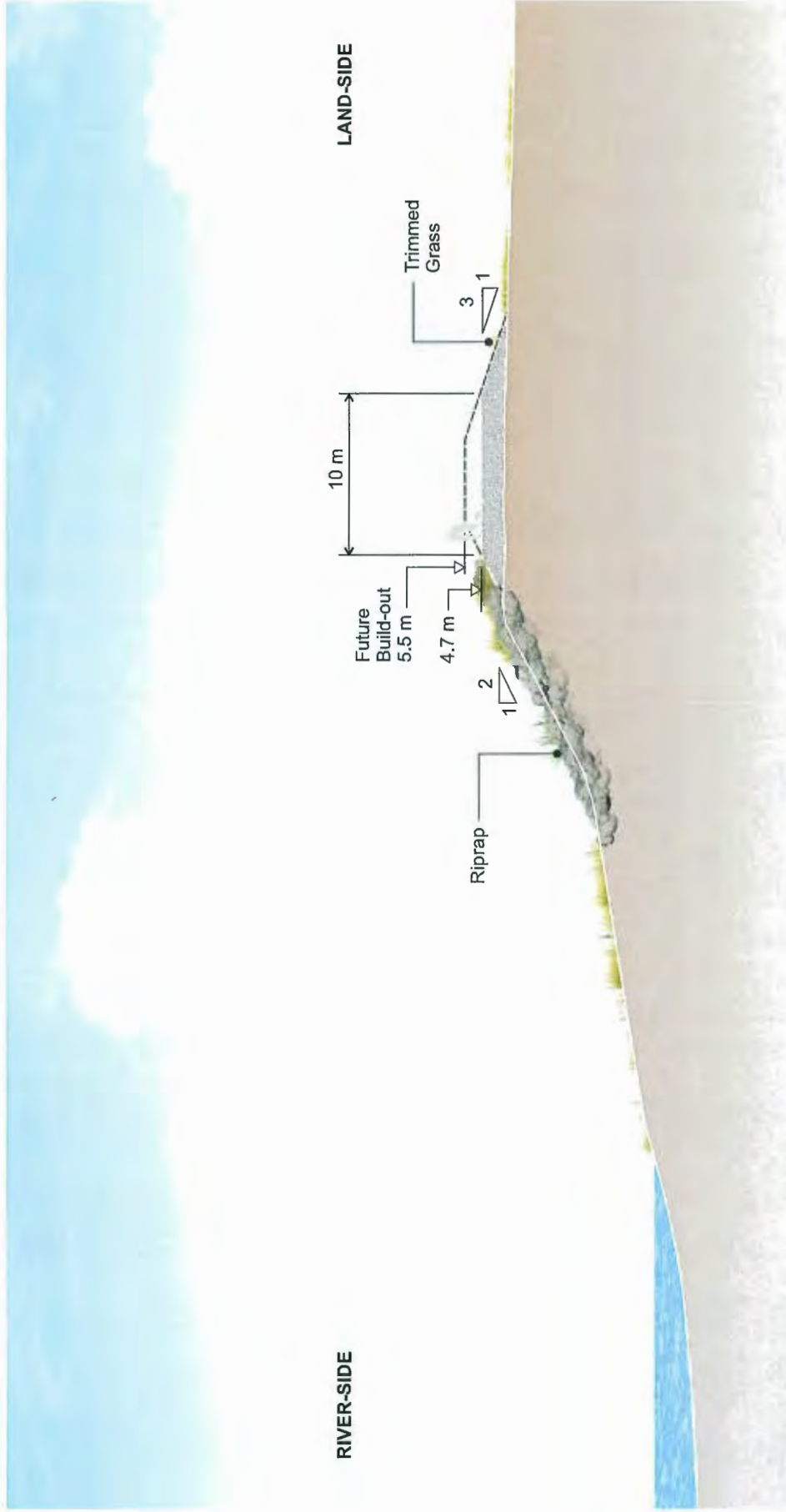
**Figure 3-1**

City of Richmond

Lulu Island Dike Master Plan - Phase 5



KERR WOOD LEIDAL  
consulting engineers



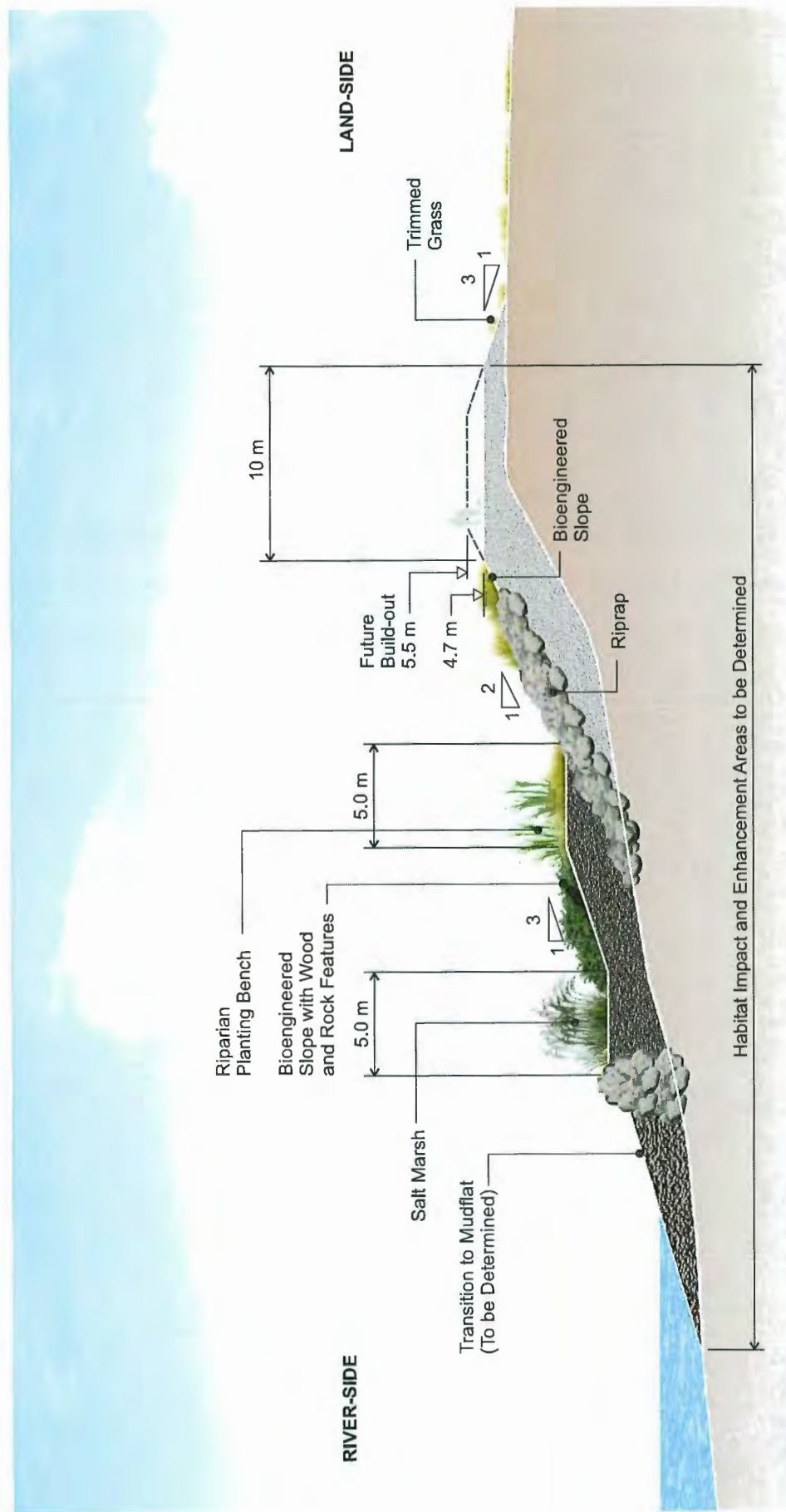
CNCL - 643

Project No.	651.129
Date	October 2018
Scale	Not to Scale

Option 1A: Build/Raise Standard River Dike and  
Extend Land-Side

Figure 3-2



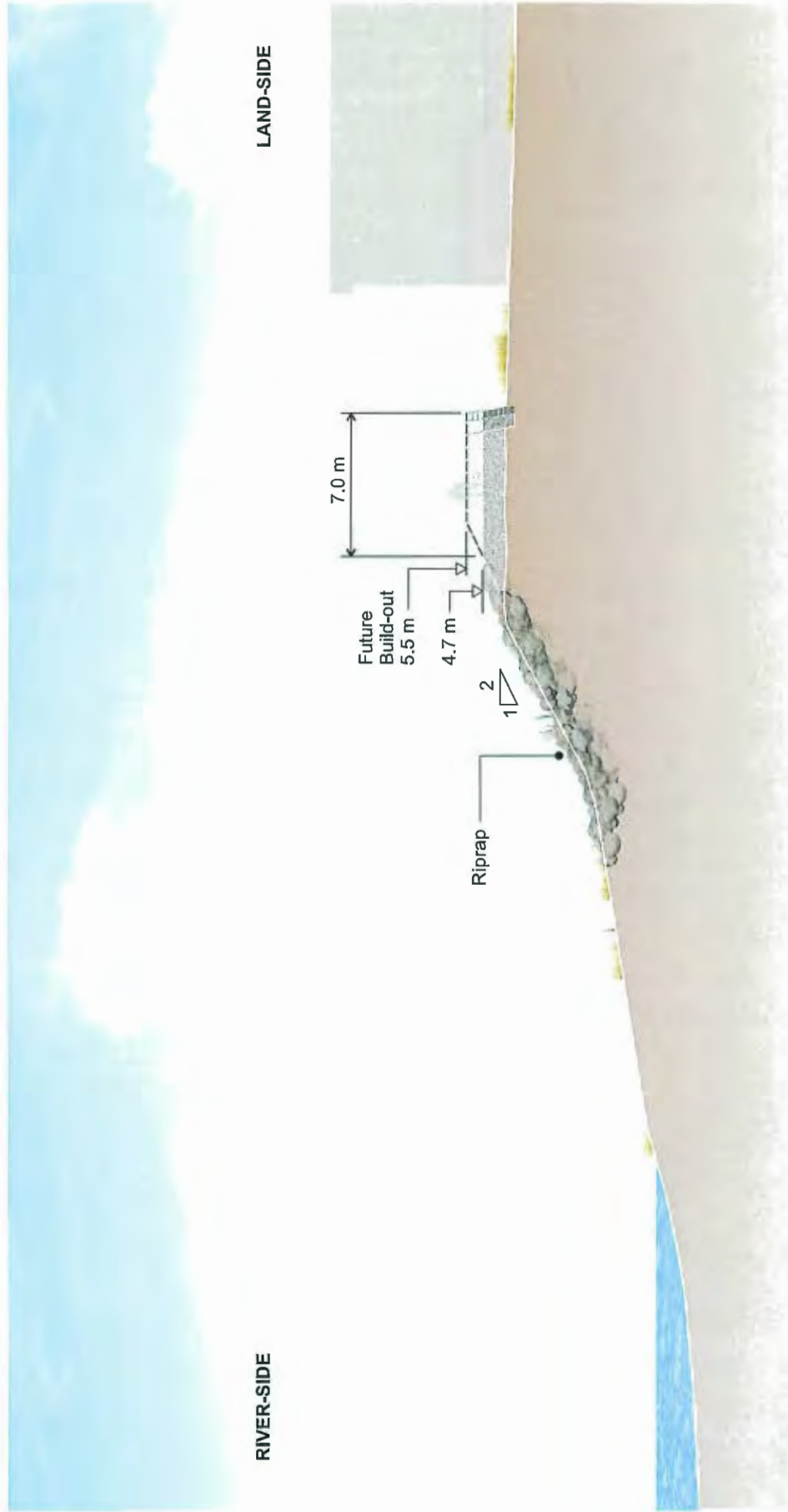


## Option 1B: Build/Raise Standard River Dike and Extend River-Side

### Figure 3-3

Project No.	651.129
Date	October 2018
Scale	Not to Scale



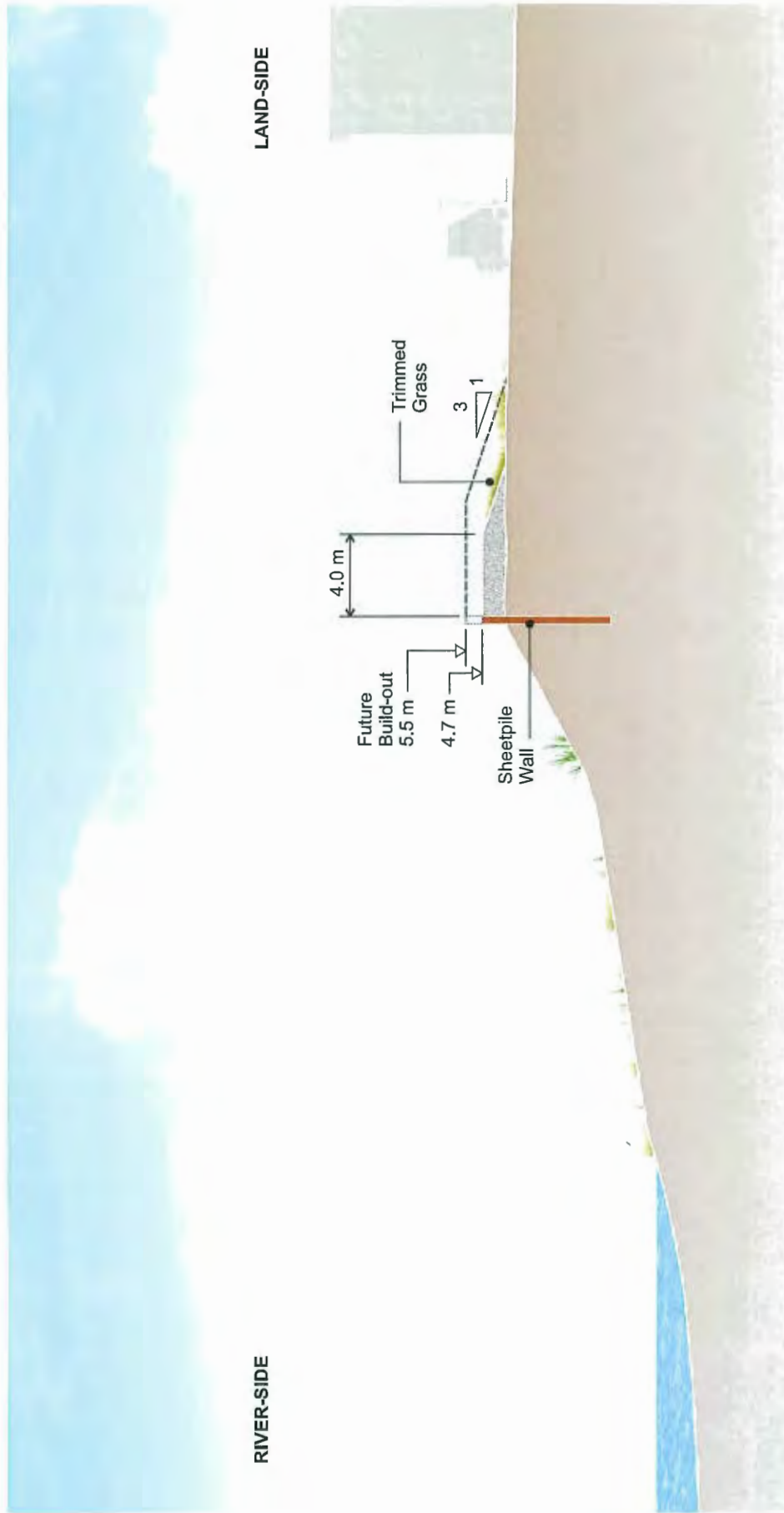


CNCL - 645

Project No. 651.129  
Date November 2018  
Scale Not to Scale

Option 1C: Build/Raise Dike with Land-Side  
Retaining Wall

Figure 3-4

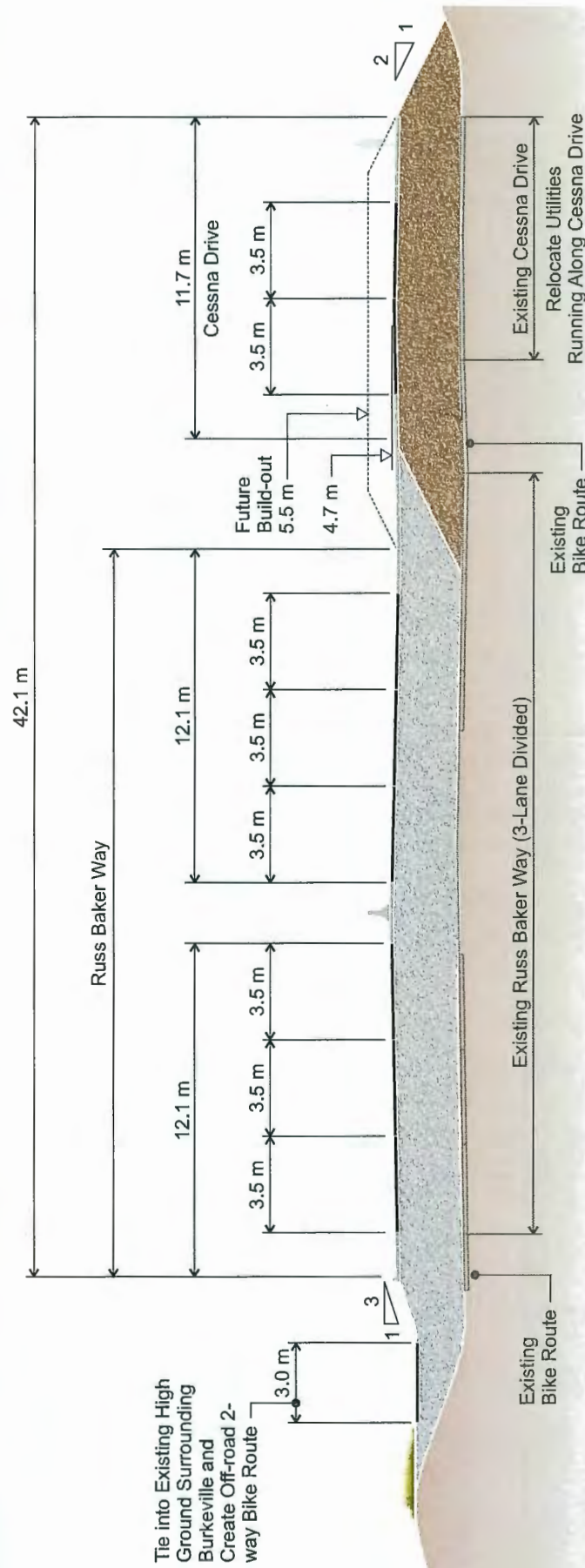


CNCL - 646

Project No.	651.129
Date	November 2018
Scale	Not to Scale

Option 1D: Build/Raise Dike with Sheetpile Wall on  
River-Side

Figure 3-5



**Option 1E: Build Setback Dike along Cessna Dr.  
North of BCIT**

### Figure 3-6

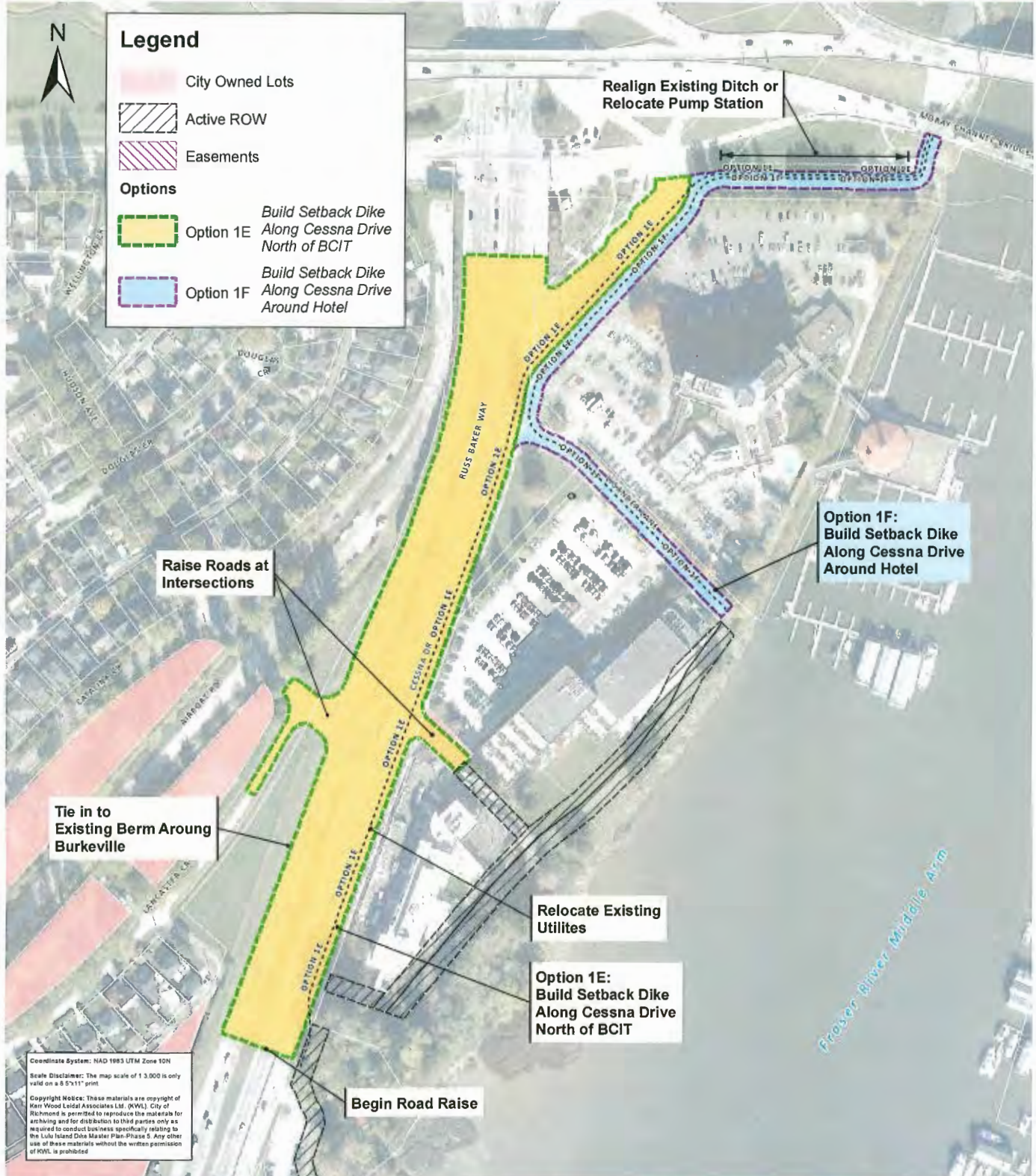


# City of Richmond

## Lulu Island Dike Master Plan - Phase 5



**KERR WOOD LEIDAL**  
consulting engineers



Project No. 651.129

Date October 2018

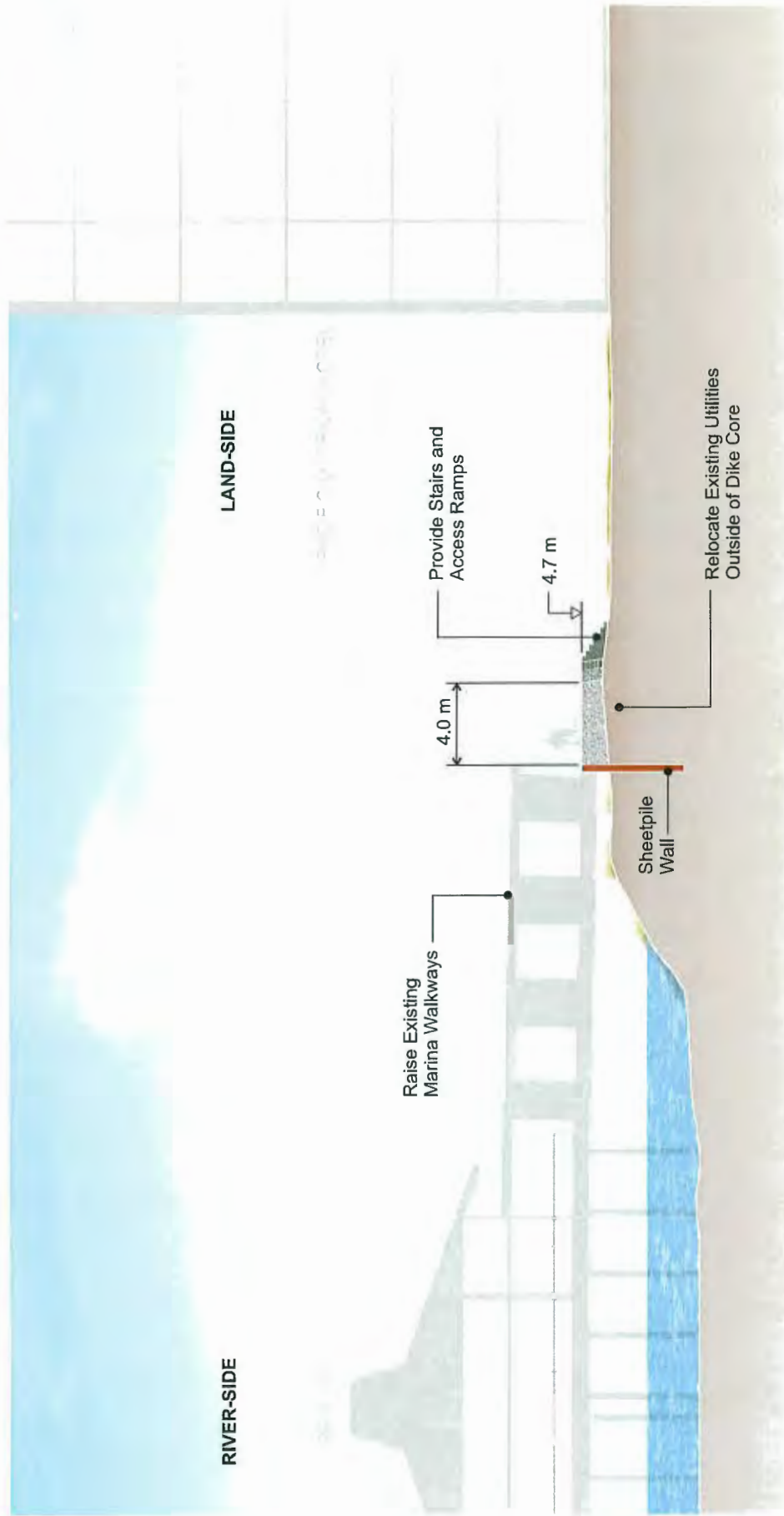
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**Option 1E and 1F:  
Build Setback Dike Along Cessna Drive**

**DRAFT**

**Figure 3-7**

**CNCL - 648**



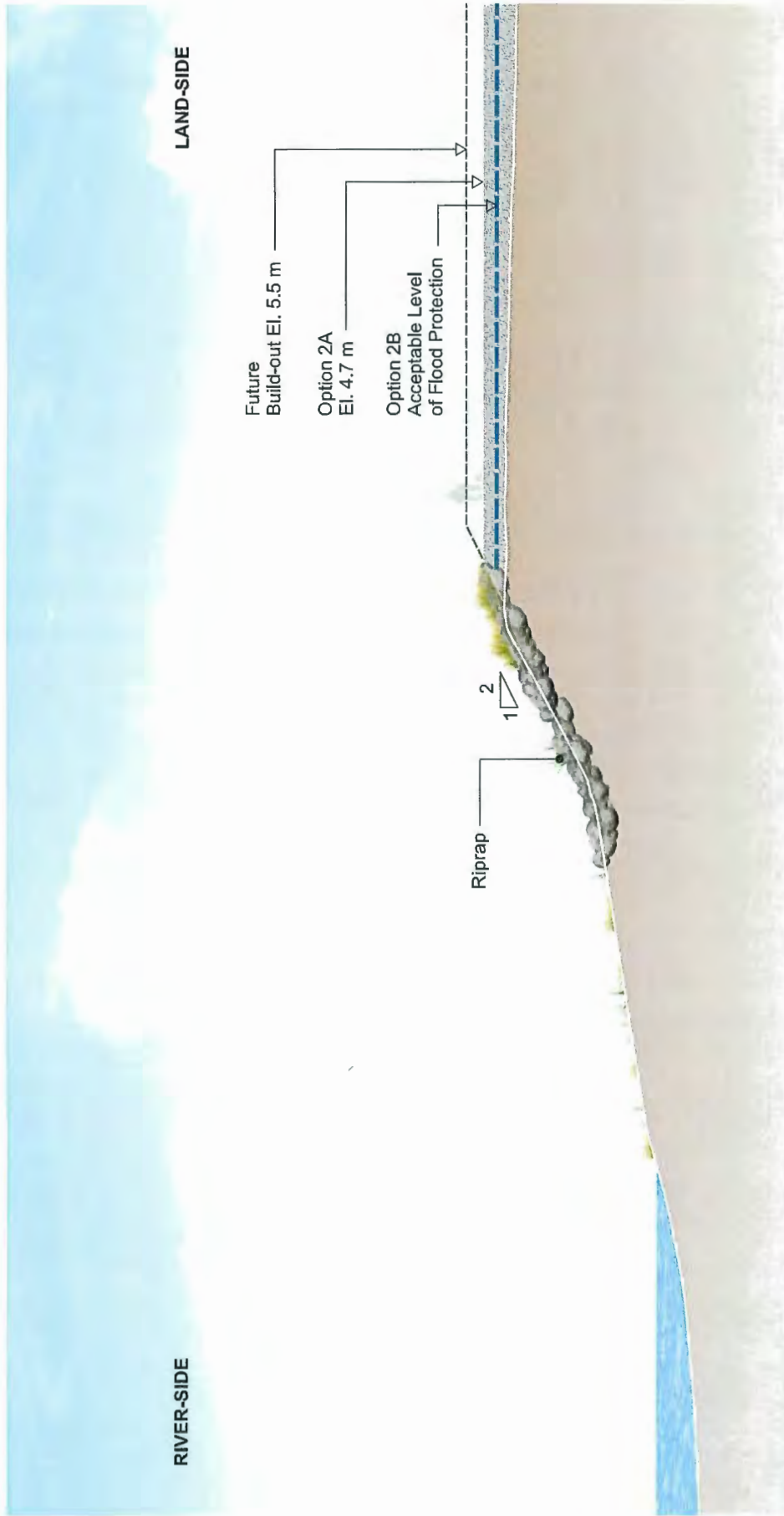


City of Richmond

Lulu Island Dike Master Plan - Phase 5



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CNCL - 650

Project No. 651.129

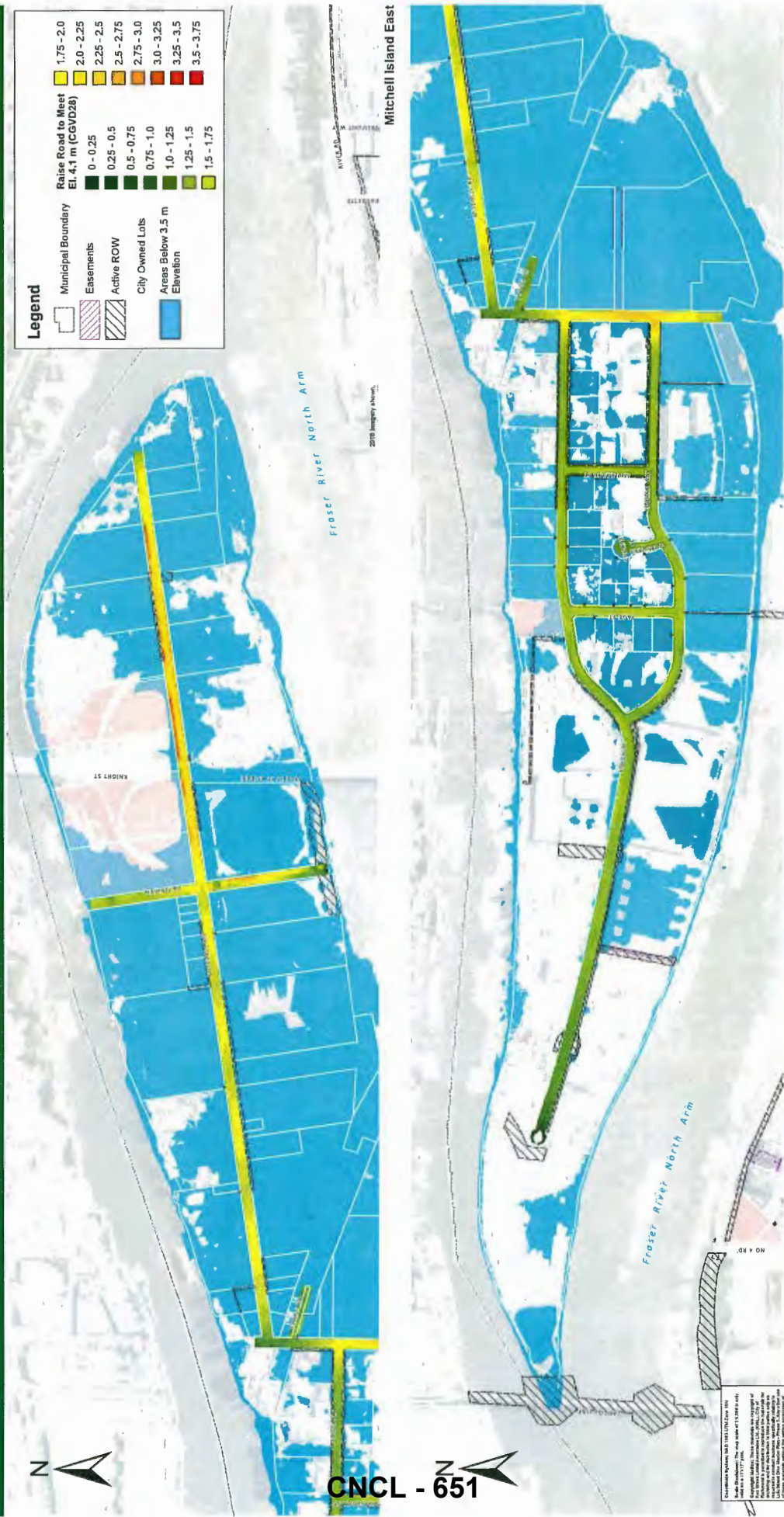
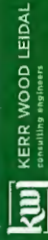
Date October 2018

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Option 2A and 2B: Raise Land

Figure 3-9

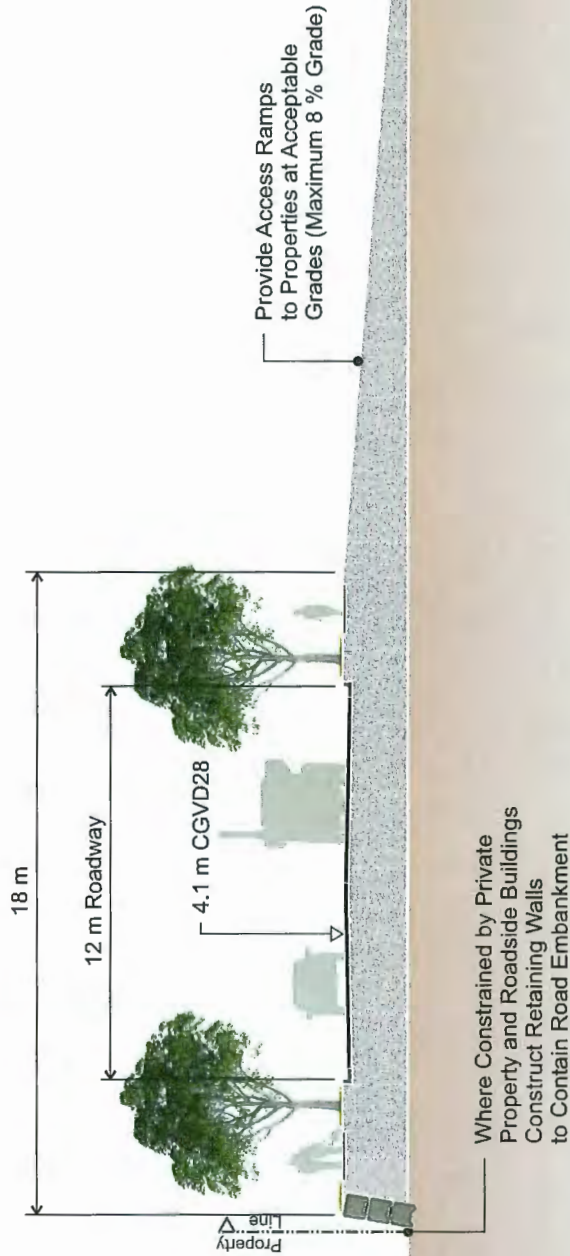
City of Richmond  
Lulu Island Dike Master Plan - Phase 5

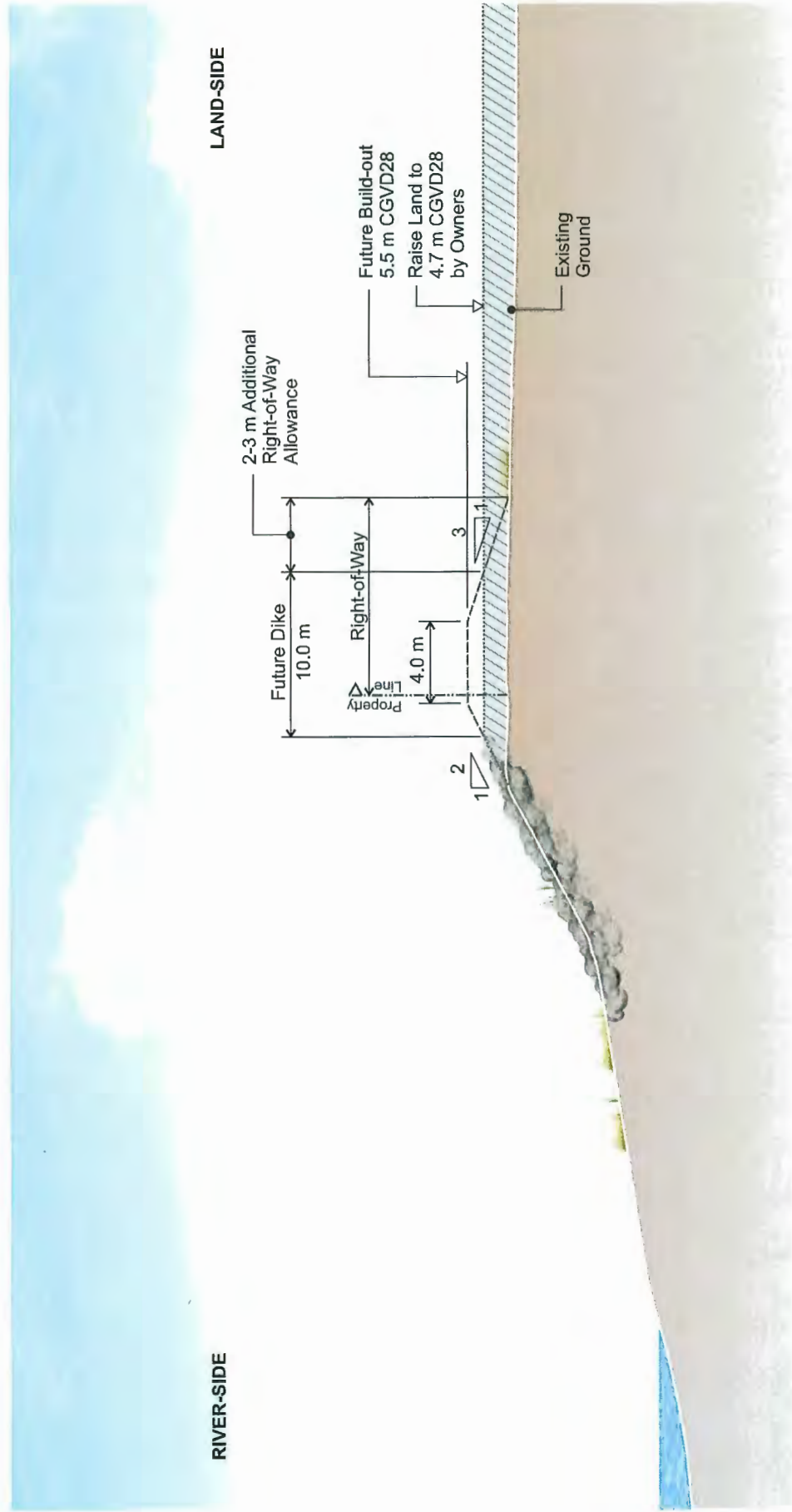


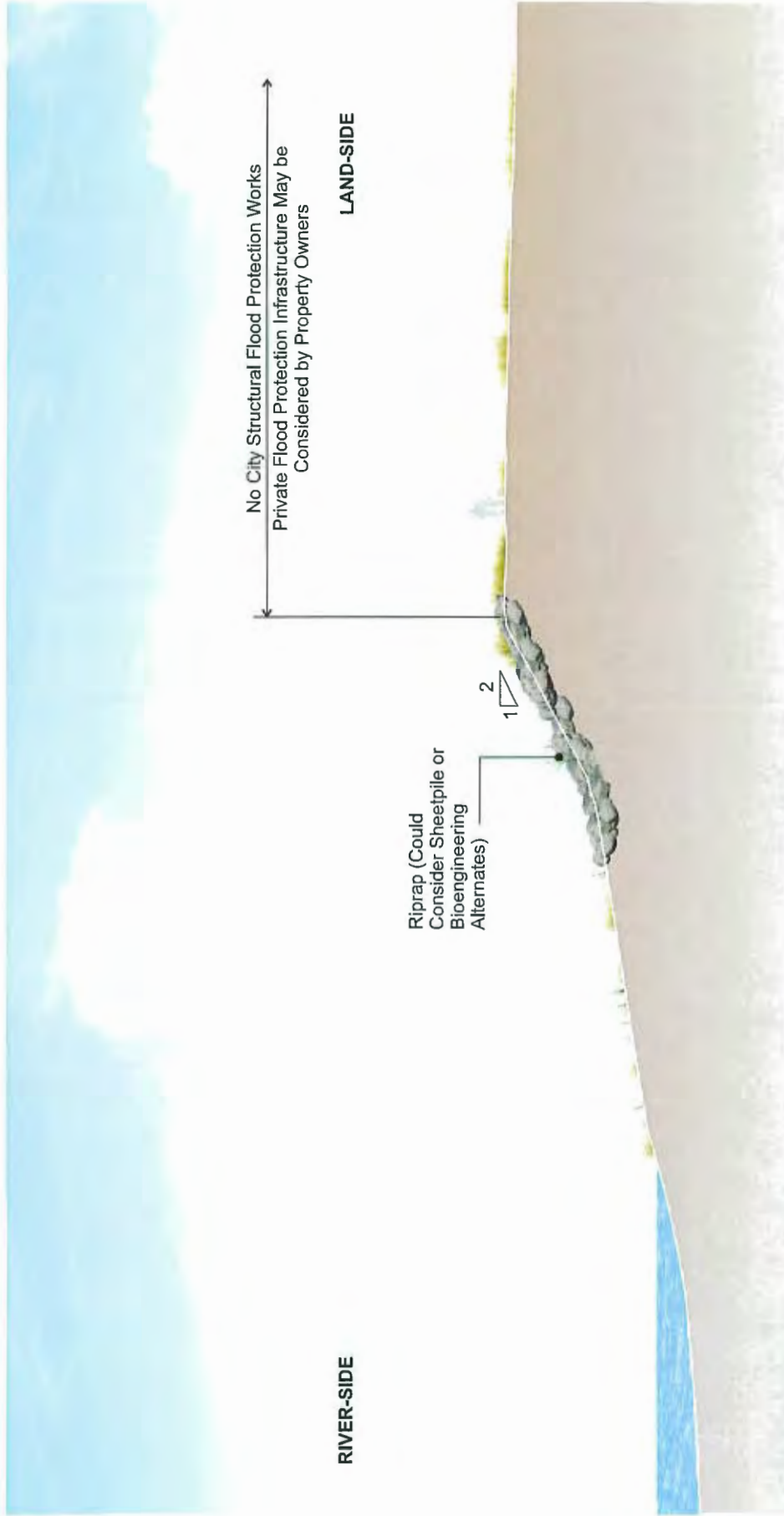
Option 2C: Raise Roadways with Required Land Raising on Private Property (Plan)

**DRAFT**  
Figure 3-10









CNCL - 654

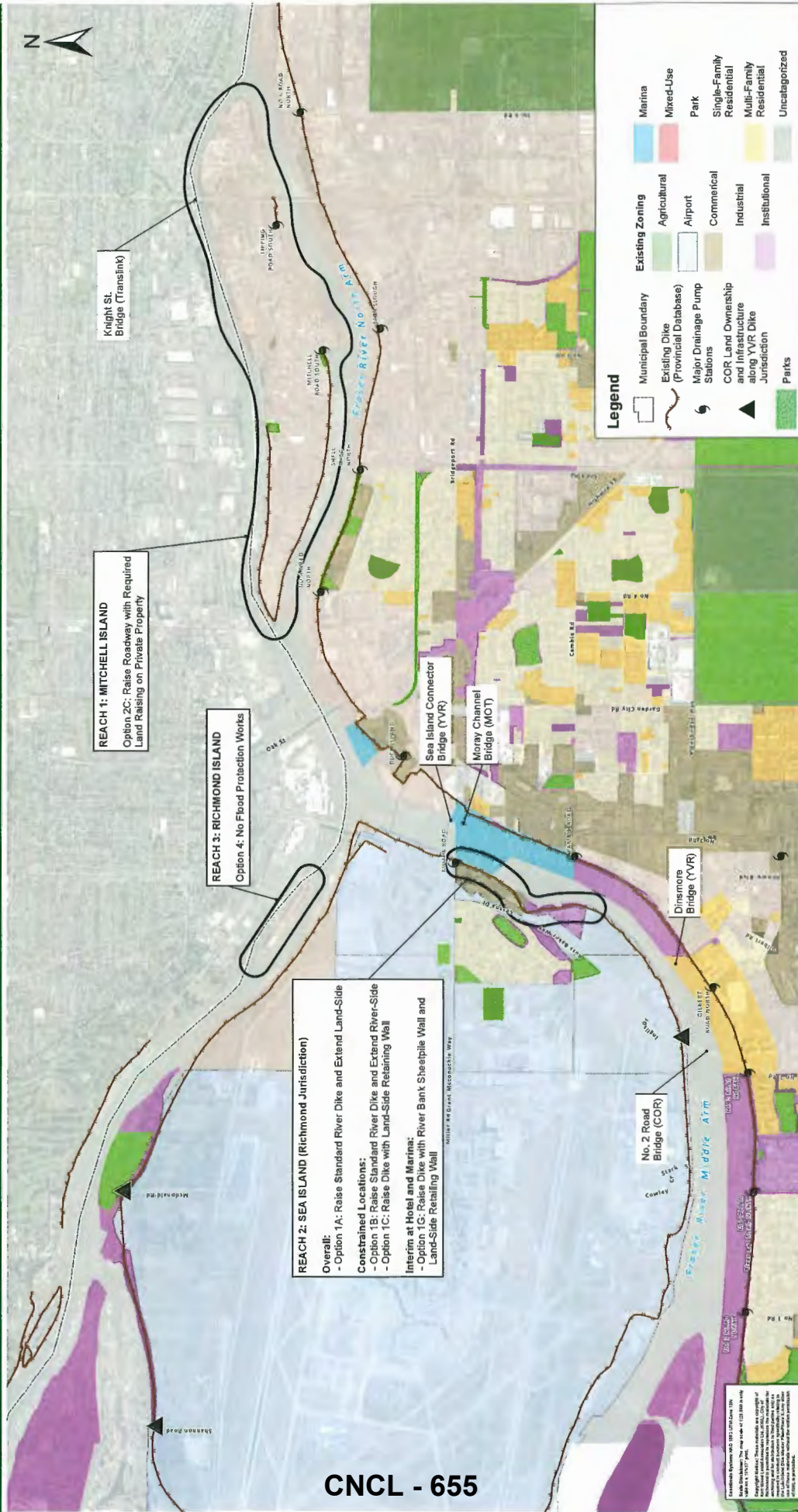
Project No.	651.129
Date	October 2018
Scale	Not to Scale

Option 3: Install/Maintain Bank Protection Works Only

Figure 3-13



City of Richmond  
Lulu Island Dike Master Plan - Phase 5



CNCL - 655

Project No. 651-129  
Date November 2018  
Scale 1:25,000

Phase 5 Dike Master Plan Recommended Upgrade Options



## 4. Implementation Strategy

The implementation strategy is intended to guide the City in progressing the Dike Master Plan from an engineering planning document to constructed works. It suggests priority within Phase 5, key considerations moving forwards, coordination with other parties, and it addresses potential challenges. The implementation strategy for Phase 5 is described below by Island, given the unique recommendations for each area.

### 4.1 General

1. Use the Dike Master Plan as a planning tool with City land use planning to acquire land during redevelopment, and to rezone land with conditions for land raising inland of the dike.
2. Prioritize implementation in areas below the current design dike elevations of 3.5 m CGVD28.
  - a. This includes low-lying properties on Mitchell Island, and the dike on Sea Island from Lysander Land northwards.
3. In conjunction with other Dike Master Plan phases, develop habitat compensation opportunities in Richmond. By considering all Dike Master Plan phase impacts together, habitat compensation work could be completed at a larger scale and provide more significant habitat, as opposed to small site-by-site compensation.
  - a. Consult and coordinate this work with MFLNRORD to develop compensation opportunities amenable to the Province, to streamline and reduce uncertainty during the approvals process.
4. Develop an overall phasing strategy and timeline for dike upgrades for all of Richmond, considering other phases of the Dike Master Plan.
5. Consider the need for an appropriate building setback from the land-side toe of any future flood protection works in view of the current BC setback guideline of 7.5 m. This should consider the planned dike upgrade to 4.7 m CGVD28, as well as future buildout to 5.5 m CGVD28. This may require consultation with the Inspector of Dikes.

### 4.2 Mitchell Island

1. Work with low elevation (below current dike crest elevation of 3.5 m CGVD28) property owners in the short term to mitigate flood and related environmental contamination risks. This could include consultation, development of emergency policies, and short-term private flood protection measures. Consultation with low properties may also inform the sequencing of road raising.
2. Establish development policies on Mitchell Island that require the following at redevelopment:
  - a. right-of-way acquisition along the riverbank to provide a 12 m wide band of access for the City along the entire perimeter of Mitchell Island, and
  - b. land raising to 4.7 m on all properties (including considerations for excavation of contaminated soil and fill quality to reduce environmental contamination).
3. Consult with IOD regarding removal of listed flood protection infrastructure on Mitchell Island from the provincial inventory.





4. Progressively raise all roadways to dike elevation. Newer developments on Mitchell Island are relatively high, given the current Mitchell Island FCL of 4.35 m CGVD28, and as a result, raising the roads in these areas may improve access. Conversely, low lying areas (as low as 2 to 2.5 m CGVD28) would require access ramps to allow for continued operations and retaining walls or narrower roads to avoid impacts to private property. To address access challenges in low areas, the City could consider progressive raising or raising in conjunction with redevelopment. A road elevation of 4.1 m CGVD28 (dike elevation less freeboard) would be appropriate as an initial target, with refinement for specific areas.
5. As rights-of-way are acquired around the perimeter of the island, assess the need for additional bank protection works. Consider whether bank protection works should be the responsibility of the City or private land owners.
6. In the long term, if low-lying sites are not redeveloping or raising land and may be putting other property at risk as sea levels rise, consider purchasing and raising the land to be resold.
7. To achieve the future scenario dike elevation of 5.5 m CGVD28, consider further land raising or establish a perimeter dike.

### 4.3 Sea Island

1. Work with a legal land surveyor and YVR to resolve long-standing dike jurisdiction and land ownership uncertainties as they relate to the dike on Sea Island.
2. Work with YVR to raise the dike at Richmond road crossings. This includes the jurisdiction boundaries of the City's dike and agreements for locations where City land is located along a portion of the dike that is operated by YVR (such as at McDonald Beach Park).
3. Raise the existing dike along the current alignment, prioritizing dike upgrades from Lysander Lane northwards first, to target low areas below the current dike design elevation of 3.5 m CGVD28.
4. Consult with YVR regarding opportunities to raise the dike at Cessna Drive to 4.7 m CGVD28 in conjunction with planned bike path improvements.
5. Consult with the Pacific Gateway Hotel and marina to develop an interim design to raise the dike to 4.7 m CGVD28 along the current alignment, while allowing for access for each business. When the site eventually redevelops, establish a standard dike in accordance with the remainder of the reach.
6. At Lysander Lane, consider either raising the road or constructing a retaining wall to avoid moving the dike towards the river.
7. When the Miller Road drainage pump station is upgraded (planned for 10 to 15 years in the future), provide structural capacity for loading due to the dike raise and ensure there is sufficient space for the dike raise. To reduce overall construction costs, consider designing and constructing pump station and floodbox upgrades in conjunction with dike raising.
8. When the Moray Channel Bridge is at the end of its design life, replace it with a higher structure that is above 5.5 m CGVD28 and raise the land between the two bridges.
9. The current dike along BCIT limits the recommended dike upgrade option and would require moving the dike towards the river or retaining walls. Consider raising dike with a landside retaining wall, moving towards the river, or raising with a narrower crest initially until the site redevelops in the long term.
10. Consider establishing development policies on Sea Island that require land raising to dike elevation during site redevelopment.



#### 4.4 Richmond Island

1. No flood protection works are recommended as the island is predominantly above 5.5 m CGVD28.
2. Consider informing the owner of Richmond Island of the scour risk that has been identified in the North Arm of the Fraser River adjacent to the Richmond Island.

## 5. Reach Summary Sheets

The following section contains 2-page, reach-by-reach summary sheets that summarize the existing conditions, design considerations and potential constraints for each reach of Phase 5. The second sheet summarizes the features of the master plan through each reach including typical cross-sections, plan features, costs and priority for upgrade. The second sheet will be completed after stakeholder consultation and option selection.



## Mitchell Island



### Existing Conditions

The island is heavily developed with industrial and commercial operations, including sawmills, cement manufacturing, recycling, mechanics, warehouses, and more. Water oriented lots often have sheetpile walls along the river bank that allow for easier access and riprap bank protection works along the bank in adjacent areas.

An unmaintained private dike is located on the western perimeter of the island. There is no existing dike on Mitchell Island that meets current standards. Private bank protection works installed on the majority of the river bank, with sheetpile walls in several locations.

### Unique Features

- Complex patchwork of properties with full occupancy of the lot right up to the river bank.
- Drainage pump stations at Tipping Road South and Mitchell Road South.
- No access to the riverbank for dikes except at a few isolated locations.
- Industrial operations that use the river to conduct their work, with sheetpile walls and barge facilities.
- Twigg Island sanitary forcemain crosses from Vancouver.
- Watermain below Page Street.
- Limited riparian habitat around the island.
- Two small existing Richmond parks.
- Log boom storage along the river bank.
- Two sawmills located directly on the water.

### Considerations



#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial

Water access for industrial sites along the Fraser River  
Land acquisition or rights-of-way required to build and maintain flood protection works  
Road design and driveway grade to accommodate large trucks



#### Social

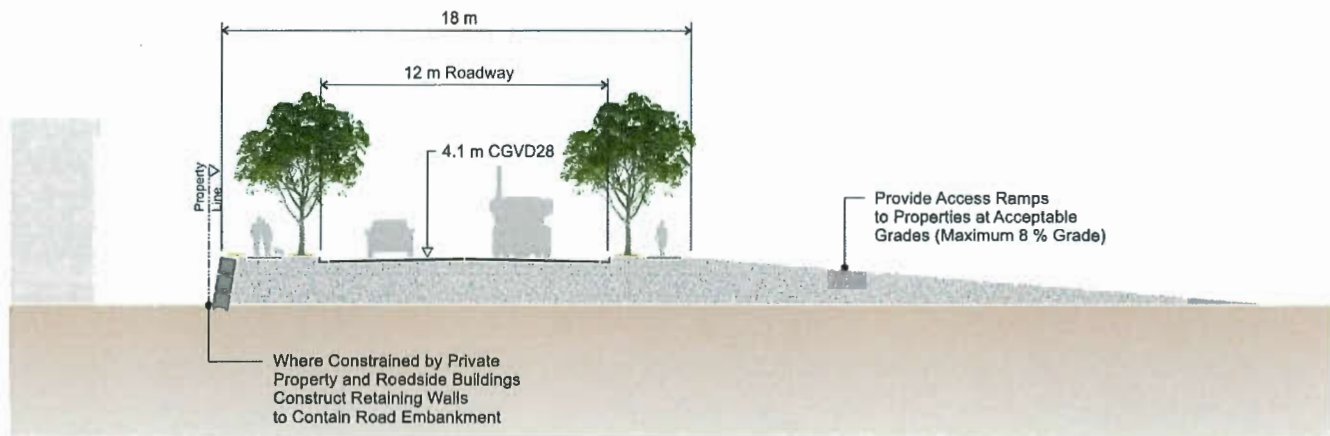
Mitchell Island Pier  
Park at south end of Mitchell Road  
Align with 2009 Waterfront Strategy  
Connect to existing and planned trails and public amenities  
Wayfinding and public information signs



#### Environmental

High quality intertidal habitat in many locations  
Limited riparian habitat  
Log boom storage along the foreshore in many locations  
Several large habitat compensation projects completed around Mitchell Island

## Mitchell Island - Recommended Improvements



### Master Plan Features

#### Flood Protection

Raise roads to dike elevation to provide emergency egress  
Require landowners to raise land to dike elevation at redevelopment  
Acquire rights-of-way around the island perimeter for future bank protection works or perimeter dike

#### Industrial

Work with low industrial properties to mitigate short term flood and environmental contamination risks  
Provide access driveways to properties during road raising

#### Social

No plans for additional parks or trails around Mitchell Island  
Raise land at current parks and trails and reconstruct as needed

#### Environmental

No anticipated impacts to riparian or aquatic habitat caused by road raising  
Landowner management of environmental impacts during raising  
Excavation and fill standards to consider historical contamination risks

#### Priority

Priority is secondary to Sea Island as the majority of Mitchell Island is higher than Sea Island. Implementation priority on Mitchell Island is described below.

1. Work with low properties to mitigate flood and related environmental contamination risks.
2. Establish redevelopment policies on Mitchell Island that require right-of-way acquisition along the riverbank and land raising to 4.7 m on all properties.
3. Progressively raise roads to dike elevation, considering interim raises in low areas to reduce impacts to access and operations.
4. As rights-of-way are acquired around the perimeter of the island, assess the condition and presence of existing bank protection and consider the need for City-owned and maintained bank protection works.
5. In the long term, if low-lying sites are not redeveloping or raising land, consider purchasing and raising the land to be resold.

#### Construction Cost

Dike works are proposed to be fully funded as part of site raising with redevelopment over long term. 5.3 km of road costs for are expected to be borne by the City that would include driveway access ramps for private properties.

Item	Cost per metre	Cost
Road Structure	\$2,900	\$15,000,000
Raise Road to Dike Height	\$6,900	\$36,500,000
Other (Driveways)	\$1,600	\$8,300,000
Contingency (40%)	\$4,500	\$23,900,000
<b>Total</b>	<b>\$15,900</b>	<b>\$83,600,000</b>

Cost opinions are in 2018 Canadian Dollars.



## Sea Island



## Existing Conditions

The City of Richmond reach of the Sea Island dike stretches from BCIT north to the YVR Connector Bridge. The remainder of the dike is YVR responsibility.

This reach has a gravel/paved walking path along the crest and is bordered by four large commercial lots including BCIT, the Pacific Autism Family Centre, and the Pacific Gateway Hotel.

The Moray Channel Bridge located at the north end of the reach is lower than the proposed future dike elevation.

The dike is tightly hemmed in by the hotel and adjacent marina with private utilities installed along it. There is little to no bank protection works along the dike.

## Unique Features

- Dike tie in at the Moray Channel and YVR Connector Bridges
- Miller Road drainage pump station
- Sanitary forcemain crossing
- Lack of right of way north of BCIT with low spot in the dike near Cessna Drive
- One section of the dike has already been raised to 4.7 m CGVD28 (design elevation)
- Evidence of old timber crib wall

## Considerations



### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



### Industrial

Commercial and institutional space  
Russ Baker Way borders the existing dike  
Access and use of the marina



### Social

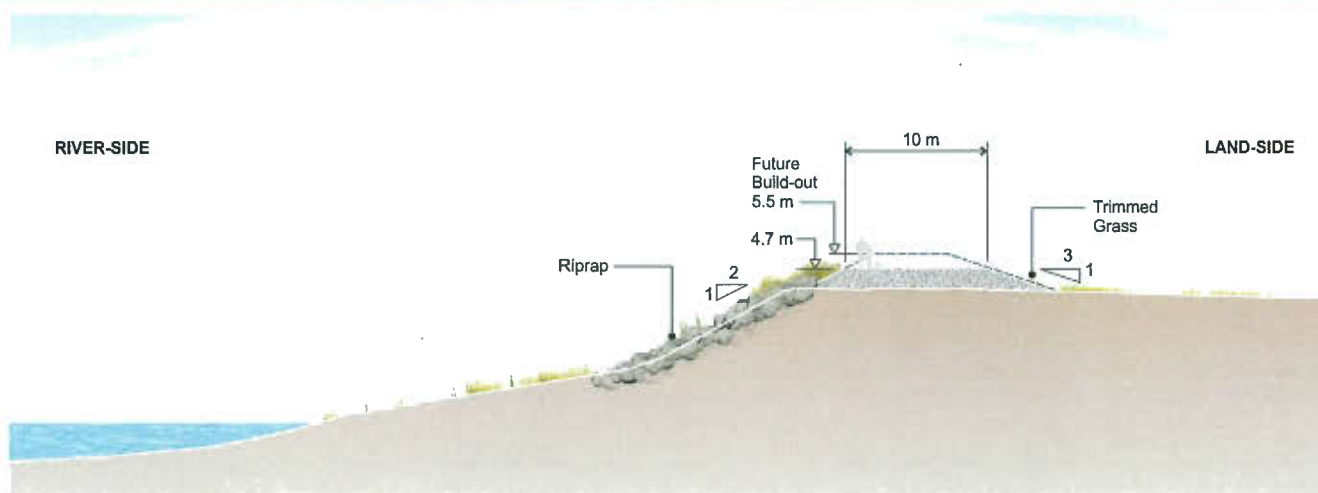
Align with 2009 Waterfront Strategy  
Connect to existing and planned trails and public amenities (consideration for YVR trails)  
Wayfinding and public information signs



### Environmental

High quality intertidal habitat for majority of the reach  
High quality riparian habitat for majority of the reach  
FREMP habitat mapping did not include the area in front of the hotel and marina. Further investigation would be required to characterize this area.  
One existing habitat compensation site near the Miller Road Drainage Pump Station

## Sea Island - Recommended Improvements



### Master Plan Features



#### Flood Protection

Raise dike along existing alignment wide enough to accommodate future raise

Consider moving dike towards river-side or building retaining walls in constrained locations

Along the hotel and marina, raise the dike with sheetpile and retaining wall in the interim

At end of life, replace the Moray Channel Bridge with a higher structure

Acquire and widen rights-of-way



#### Industrial

Raise access ramps at Marina during dike raise

Reduce impacts to infrastructure along hotel with interim non-standard dike raise



#### Social

Provide landside pedestrian access to the dike along the hotel

Maintain existing multi-use path on the dike crest



#### Environmental

Dike raise towards the landside where feasible to reduce habitat impacts

The proposed footprint would impact an estimated 1,100 m<sup>2</sup> of high quality Fraser River intertidal habitat and 1,900 m<sup>2</sup> high quality Fraser River riparian habitat

An aquatic habitat survey and aquatic effects assessment would need to be completed to confirm impacts during design



#### Priority

Sea Island is the first priority reach in Phase 5. Implementation priority on Sea Island is described below.

1. Work with a legal land surveyor and YVR to resolve dike jurisdiction and land ownership uncertainties.
2. Raise the existing dike along the current alignment, prioritizing dike upgrades from Lysander Lane northwards first (below 3.5 m CGVD28).
3. Consult with the Pacific Gateway Hotel and marina to develop an interim design to raise the dike to 4.7 m CGVD28 along the current alignment.
4. At the Miller Road drainage pump station, consider designing and constructing pump station and floodbox upgrades in conjunction with dike raising.
5. Work with MOT to have the Moray Channel Bridge replaced with a higher structure that is above 5.5 m CGVD28 and raise the land between the two bridges.
6. Establish development policies that require land raising to dike elevation for river bank properties.



#### Cost

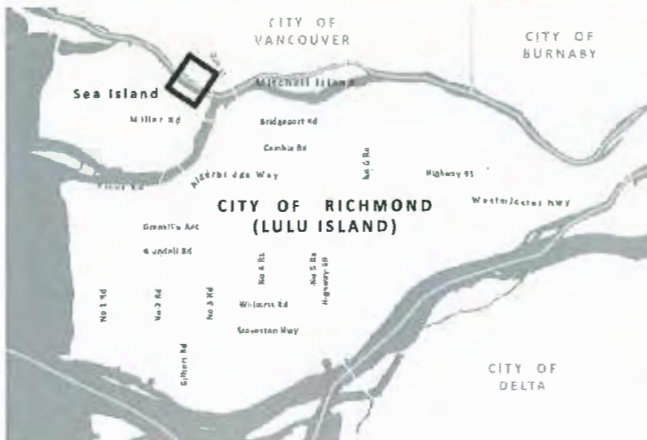
1.1 km of dike works may be funded as part of site raising with redevelopment or by the City, with 200 m that has already been raised to 4.7 m CGVD28. 40 m of dikes in City road rights-of-way may be covered as part of YVR dike improvements (Shannon and McDonald Roads). 150 m of interim works along the hotel.

Item	Cost per metre	Cost
Interim Dike Raising at Pacific Gateway Hotel	\$6,000	\$900,000
Dike Raising	\$4,500	\$3,600,000
Road End Improvements (McDonald Beach, Shannon Road)	\$7,200	\$300,000
Other (Pathway and access)	\$1,000	\$800,000
Contingency (40%)	\$2,100	\$2,200,000
<b>Total</b>	<b>\$7,100</b>	<b>\$7,800,000</b>

Cost opinions are in 2018 Canadian Dollars.



## Richmond Island



### Existing Conditions

Richmond Island is connected to the City of Vancouver via a small causeway. There is no existing dike on Richmond Island. The majority of the island is above both the dike upgrade elevation of 4.7 m CGVD28 and the future allowance to 5.5 m CGVD28, with the exception of the causeway. The entire Island is one private lot.

In 2012, a covenant was established that acknowledges that the City has not plans to protect the island from flooding and releases the City from any damage or losses covered by flooding or erosion.

The Fraser River North Arm is deep, and bathymetry indicates scour along this section. Riprap bank protection is in place around the island.

Utilities are provided by the City of Vancouver.

### Unique Features

- Richmond Island is one private lot with a restaurant and marina that is serviced by the City of Vancouver.
- Covenant in place that acknowledges Richmond has no plans to protect the island from flooding or erosion.
- Fraser River north arm along this reach is deep due to scour.
- The majority of the island is above the dike elevation of 4.7 m CGVD28.

### Considerations



#### Flood Protection

Dike alignment  
Dike crest elevation  
Erosion protection  
Seismic performance  
Static stability and seepage  
River toe stability and setbacks  
Boat waves



#### Industrial

Private marina on north side of the island.  
Road design and driveway grade



#### Social

Align with 2009 Waterfront Strategy  
Connect to existing and planned trails and public amenities  
Wayfinding and public information signs



#### Environmental

High quality intertidal habitat around the island  
FREMP mapping did not include riparian area, though based on orthimagery interpretation, riparian habitat is present  
Large habitat compensation project is located at the western tip of the island



## Richmond Island - Recommended Improvements

No Works Proposed

### Master Plan Features



#### Flood Protection

No flood or erosion protection works by the City  
Inform property owner of scour risk in the North Arm



#### Industrial

No impacts to business or industry



#### Social

No impacts to public infrastructure



#### Environmental

No impacts to existing habitat



#### Priority

1. Consider informing the property owner on Richmond Island of the scour risk that has been identified in the North Arm of the Fraser River adjacent to the Richmond Island.



#### Cost

No works are proposed. Flood protection to remain the responsibility of this single lot.



## 6. Recommendations

It is recommended that the City adopt the Phase 5 Dike Master Plan as documented in this report, including the main features described below.

### **Mitchell Island**

- During redevelopment, require private properties to be raised to dike elevation and acquire rights-of-way along the river bank. Rights-of-way allow for a future dike and bank protection works.
  - As rights-of-way are acquired around the perimeter of Mitchell island, assess the condition of existing bank protection works and consider whether the works should be the responsibility of the City or private land owners.
- Raise roadways to dike elevation to provide emergency egress (consider partial raises in low areas to reduce impacts to operations).
- Work with low elevation properties to mitigate flood and associated contamination risks.

### **Sea Island**

- Raise the dike crest to 4.7 m CGVD28 to allow for 1 m of sea level rise. Widen the dike on the land side rather than into the Fraser River Middle Arm. Retaining walls or extending the dike towards the riparian area may be considered in site-specific constrained areas. Recent raises have been completed on some sections of the dike, including up to 4.7 m CGVD28 in one location.
- Establish development policies on Sea Island that require land raising to dike elevation during site redevelopment.
- Coordinate dike upgrades with upgrades to the Miller Road Drainage Pump Station and the Moray Channel Bridge.
- As an interim measure along the Pacific Gateway Hotel, raise the dike to 4.7 m CGVD 28 with a sheetpile wall embedded along the river-side and a land-side retaining wall.
- Coordinate dike improvements with YVR and establish agreed upon dike jurisdictions.

### **Richmond Island**

- No changes by the City are proposed as the island is predominantly above 5.5 m CGVD28. Flood protection responsibility is recommended to remain with the property owner.
- Inform the property owner on Richmond Island of the scour risk that has been identified in the North Arm of the Fraser River adjacent to the Richmond Island.

For all phases of the Dike Master Plan, continue to research alternative densification strategies for seismic stability, consider the proposed alternative seismic performance criteria in Section 3.2, and plan to fill land for approximately 200 m inland of the dike to crest elevation. The required fill distance requires additional evaluation and may be addressed in the pending update to the Flood Protection Management Strategy.

It is also recommended that the City prepare a comprehensive implementation plan for dike upgrading that incorporates the elements of Phase 5 and the other Dike Master Plans. To address habitat compensation issues associated with the Dike Master Plans, it is further recommended that the City consider development of a habitat banking program that could provide effective large-scale compensation for the environmental impacts of dike upgrading.



## Report Submission

Prepared by:

KERR WOOD LEIDAL ASSOCIATES LTD.

DRAFT

DRAFT

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Water Resources Engineer

Reviewed by:

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## Statement of Limitations

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## Revision History

Revision #	Date	Status	Revision	Author
C	November 21, 2018	DRAFT	3 <sup>rd</sup> draft to City (revised based on City's comments)	ARM
B	October 25, 2018	DRAFT		ARM



KERR WOOD LEIDAL ASSOCIATES LTD.  
consulting engineers



# City of Richmond

## Report to Committee

**To:** Parks, Recreation and Cultural Services Committee  
**From:** Jane Fernyhough  
Director, Arts, Culture and Heritage Services  
**Date:** November 15, 2018  
**File:** 11-7000-09-20-089/  
Vol 01  
**Re:** 2019 Engaging Artists in Community Public Art Projects

### Staff Recommendation

That the concept proposals and implementation for the community public art projects working in partnership with the Richmond Nature Park Society, Richmond Public Library (Brighthouse Branch) and City Centre Community Association be considered in the City's Consolidated 5 Year Financial Plan as presented in the staff report titled "2019 Engaging Artists in Community Public Art Projects," dated November 15, 2018, from the Director, Arts, Culture and Heritage Services.

Jane Fernyhough  
Director, Arts, Culture and Heritage Services  
(604-276-4288)

Att. 4

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

## Staff Report

### Origin

The City's Community Public Art Program creates opportunities for collaborative art projects working with community associations, schools, community groups and professional artists of all disciplines. Working with a professional artist, community project stakeholders are involved in all stages of planning and commissioning of a public art project.

This report brings forward for consideration three project proposals by the artists recommended for the three opportunities working in partnership with Richmond Nature Park Society, Richmond Public Library (Brighthouse Branch) and City Centre Community Association.

This report supports Council's 2014-2018 Term Goal #2 A Vibrant, Active and Connected City:

*Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond's demographics, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.*

2.1. *Strong neighbourhoods.*

2.3. *Outstanding places, programs and services that support active living, wellness and a sense of belonging.*

2.4. *Vibrant arts, culture and heritage opportunities.*

### Analysis

#### Background

The Engaging Artists in Community Public Art program invites emerging and professional artists to imagine innovative ways to engage seniors, adults, youth and children in the making of artwork to foster individual creative expression, multigenerational and cross-cultural exchange and community building.

To date, the following Engaging Artists in Community public art projects have been completed since 2016:

- Harvest Full Moon Project - [www.harvestfullmoonproject.wordpress.com](http://www.harvestfullmoonproject.wordpress.com)
- spART - [www.leichner.ca/SpART.html](http://www.leichner.ca/SpART.html)
- Minoru Seniors Legacy Stories - [www.minorulegacystories.wordpress.com](http://www.minorulegacystories.wordpress.com)
- Great Blue Heron - [www.hamiltonparksculpture.com](http://www.hamiltonparksculpture.com)
- Tide Water Tales - [www.artistsrenderingtales.com/blog](http://www.artistsrenderingtales.com/blog)
- FANFARE - [www.fanfareminoru.wordpress.com](http://www.fanfareminoru.wordpress.com)



On January 15, 2018, Council endorsed three projects for the 2018 Engaging Artists in Community Public Art Program. These projects were successfully completed in partnership with Hamilton Community Association, Richmond Arenas Community Association and Britannia Shipyards National Historic Site.

As the projects came to a close, staff solicited interest from other civic partner organizations to participate in the 2019 Engaging Artists in Community Public Art Projects. The following organizations came forward with an interest to work with an artist:

- Richmond Public Library (Brighthouse Branch) with Musqueam Artist Workshops;
- Richmond Nature Park with an Artist-In-Residence; and
- City Centre Community Association with an Artist-In-Residence.

### Artist Selection Process

A selection process was implemented for each artist opportunity in accordance with the terms of the Public Art Program Policy Administrative Procedures. All artist proposals were evaluated on the basis of artistic merit, appropriateness to the goals of the Community Public Art Program, community organization objectives, artist qualifications and project feasibility. Three separate artist calls were posted (Attachment 1).

The proposed artist and artist proposals were presented to the Richmond Public Art Advisory Committee (RPAAC) on November 20, 2018. RPAAC endorsed and supported all proposed projects.

### Richmond Public Library (Brighthouse Branch)

This artist opportunity was developed working in partnership with the Richmond Public Library (Brighthouse Branch) and Jim Kew, acting Protocol Officer for the Musqueam Indian Band. Staff received three artist applications for four artist opportunities. In consultation with Jim Kew and staff representatives from the Richmond Public Library, it was agreed to move forward with the project, working with artists Martin Sparrow, Richard Campbell and Gary Point. These projects will foster cross-cultural exchange and provide opportunities for the public to learn more about Musqueam culture and traditions (Attachment 2).

Martin Sparrow is a carver who will lead a series of three workshops using small scale, pre-carved traditional paddles. The artist will share traditional oral stories and educate participants on the rituals and symbolism of the paddles in Musqueam culture.

Richard Campbell is a carver who will lead three workshops and carve a series of salmon carvings at different stages of completion. He will also share traditional knowledge about the significance and importance of salmon in Musqueam culture including how it is used and prepared for sustenance and ceremonial purposes.

Gary Point is a weaver who has been practicing for more than 32 years. He will lead three hands-on workshops where participants will collaboratively produce a small weaving under his instruction. Workshop participants will learn traditional Musqueam weaving techniques, how they are used and the meanings behind traditional design motifs.

Staff will continue to accept proposals from other Musqueam artists throughout 2019, with the intent of engaging up to two additional artists to lead additional workshop series. The program will culminate in a final exhibition and celebration of the completed works for National Indigenous Day celebrations on June 21, 2019.

#### Richmond Nature Park

The Richmond Nature Park Artist-in-Residence selection meeting took place on November 6, 2018. The selection panel included the following three members:

- Lori Snyder - Indigenous herbalist and educator
- Tristan Surtees - Artist
- Elmir Ismayilov - Richmond Nature Park Society Board Member

Panel advisors included City staff from the Richmond Nature Park and the Public Art Program.

Artist Wen Wen Lu, was recommended for the Richmond Nature Park Artist-in-Residence. She is a New Westminster-based multidisciplinary artist who incorporates drawing, painting, sculpture, film and art installations with a socially-oriented practice. Her proposed *Interpreter Project* will collect what is seen, heard, and felt through a series of walking and creation workshops for participants and visitors of all ages (Attachment 3).

The recommended artist and artist proposal was presented to the Richmond Nature Park Society on November 21, 2018 and was supported.

#### City Centre Community Association

The City Centre Community Association Artist-in-Residence selection meeting took place on November 5, 2018. The selection panel included the following three members:

- Lois Klassen - Artist
- Margaret Dragu - Artist and former long-time Richmond resident
- Noordin Jessa - City Centre Community Association Board Member

Panel advisors included City staff from Museums and Heritage Services, City Centre Community Centre and the Public Art Program.

Artist Julie Hammond was recommended for the City Centre Community Association Artist-in-Residence opportunity. Ms. Hammond is a Vancouver-based theatre artist and writer with a socially-oriented practice. Her proposed project, *Minoru Manifest: I take thee* will engage community participants in a series of public workshops to examine what it means for us to hold tight to the things we carry from our homeland while also learning to love and celebrate a new place (Attachment 4).

#### Next Steps

Following Council endorsement of the concept proposals, an interdepartmental staff team will work with the artists to develop project implementation plans and evaluate the feasibility of

potential legacy artworks, including suitable locations and any ongoing maintenance requirements for such artworks. If approved, the projects will move into the development phase with implementation to be completed by December, 2019.

### **Financial Impact**

There is funding available in the Public Art Program Reserve and each community art project will be allocated \$10,000 each for a total of \$30,000. The Public Art projects are included in the City's Consolidated 5 Year Financial Plan (2019–2023).

Any maintenance and repairs required for the artwork will be the responsibility of the Public Art Program as part of the annual operating budget.

### **Conclusion**

Richmond's Community Public Art Program creates opportunities to support artists with socially oriented practices to engage a diverse range of community members and user groups in a variety of visual and performing art activities. The Program ensures affordable and accessible art experiences that encourage cultural exchange, while activating public spaces towards the goal of a vibrant, active and connected city.

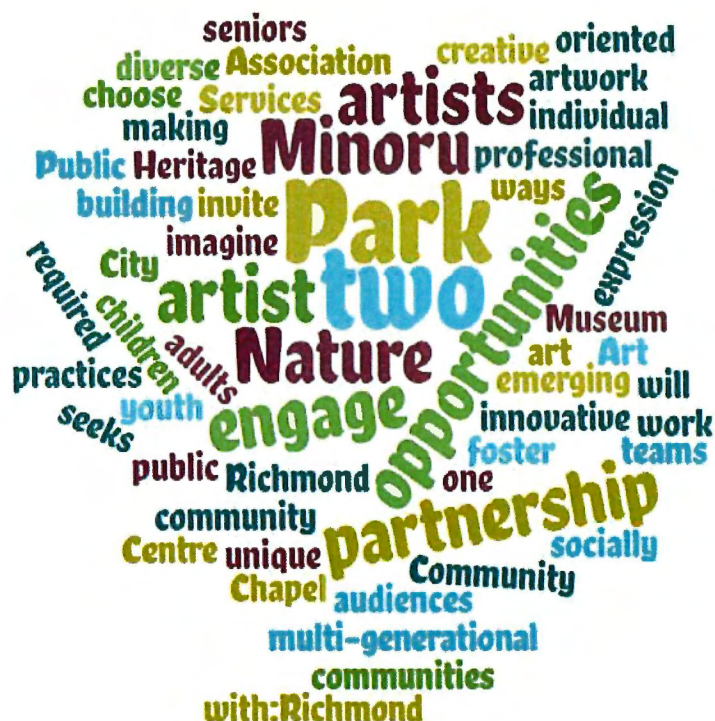


Biliana Velkova  
Public Art Planner  
(604-247-4612)

- Att. 1: Call to Artists: Artists Engaging Community Program  
2: Musqueam Artist Workshops at Richmond Public Library  
3: Richmond Nature Park Artist-in-Residence Proposal  
4: City Centre Community Centre Artist-in-Residence Proposal

# call to artists

PUBLIC ART  
RICHMOND



## Artists Engaging Community Program

### Request for Proposals (RFP)

September 2018

The City of Richmond Public Art Program seeks two (2) artists or artist teams with socially oriented practices to engage diverse and multigenerational audiences in two unique public art opportunities. Artists are invited to choose one of two opportunities, working in collaboration with: Richmond Nature Park Society and Minoru Chapel in partnership with City Centre Community Centre. These project-based artist-in-residence opportunities invite emerging and professional artists to imagine innovative ways to engage seniors, adults, youth and children in the making of artwork and foster individual creative expression, multigenerational and cross-cultural exchange, and community building.

<b>Budget:</b>	\$10,000, Richmond Nature Park
	\$10,000, Minoru Chapel / City Centre Community Centre
<b>Eligibility:</b>	Artists residing in British Columbia
<b>Deadline:</b>	Wednesday, October 3, 2018, 5:00 p.m.
<b>Duration:</b>	January – December 2019

# call to artists

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## BACKGROUND

The Richmond Community Public Art Program supports artists with socially-oriented practices and encourages the development of a wide variety of collaborative engagements for artists working within communities. Community-based artworks can express a shared goal or theme and provoke dialogue on ideas related to cultural identity, social history or the environment. Artist projects can leave a physical or social legacy for the community and may include a public event such as a performance, participatory art installation, exhibition, concert, dance, reading or documentary artwork.

Projects will engage participants by providing them with a greater sense of self, identity, community and place through learning and participating in an art making experience. The work must be accessible and appeal to diverse audiences and the local community. Artists will demonstrate the capacity to undertake and complete their proposed work within an approved time frame.

## OPPORTUNITY

There are two (2) opportunities for community-based artworks, in collaboration with the following community partners:

- Opportunity 1: Richmond Nature Park Society, Richmond Nature Park
- Opportunity 2: Minoru Chapel, Minoru Park / City Centre Community Association, City Centre Community Centre

Artists are encouraged to choose the opportunity that best fits their interests, skills and experience by reviewing the opportunity profiles. Artists can apply only to one of the two opportunities.

## PAST PROGRAM ARTIST PROJECTS

- ARTCi, *Tide Water Tales*, 2018  
[artistsrenderingtales.com/blog](http://artistsrenderingtales.com/blog)
- Donald Gunn/Bryn Finer, *Great Blue Heron*, 2018  
[hamiltonparksculpture.com](http://hamiltonparksculpture.com)
- Faith Moosang, *Fanfare*, 2018  
[fanfareminoru.wordpress.com/](http://fanfareminoru.wordpress.com/)
- Catriona Megumi Longmuir, *Minoru Seniors Legacy Stories*, 2017  
[minorulegacystories.wordpress.com/](http://minorulegacystories.wordpress.com/)
- Pierre Leichner, *spART Project*, 2017  
[leichner.ca/SpART](http://leichner.ca/SpART)
- Marina Szijarto, *Harvest Full Moon Project*, 2015–2016  
[harvestfullmoonproject.wordpress.com](http://harvestfullmoonproject.wordpress.com)



# call to artists

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## ARTIST ELIGIBILITY

Open to emerging and professional artists and artist teams residing in British Columbia. City of Richmond employees and Richmond Public Art Advisory Members are not eligible to apply.

## SELECTION PROCESS

Selection panels consisting of a combination of artists, art professionals and community representatives will convene for each of the opportunities. The selection panels will engage in a two-stage selection process to review all artist submissions. During the second stage, shortlisted artists or artist teams will be invited for an interview with the selection panels and will receive a \$100 honorarium. At the conclusion of the process, the panels will recommend one artist or artist team for each opportunity. Subject to approval by Council, two (2) artists or artist teams will be selected to enter into a contract with the City of Richmond.

## ARTIST SELECTION CRITERIA

- Artistic merit and clarity of artist statement of interest in response to the Partner Profile interests and goals. The proposal should demonstrate high artistic quality, innovation and creativity.
- Demonstration of high artistic quality, innovation and creativity in applicant's previous work and experience.
- Community impact of work that will engage diverse and multi-generational audiences and artists in creative dialogue, participation and awareness.
- Artist's capacity to work with community members, other design professionals and project stakeholders.
- Appropriateness of the proposal to the Public Art Program goals: [www.richmond.ca/culture/publicart/plans/policy](http://www.richmond.ca/culture/publicart/plans/policy)

## SUBMISSION REQUIREMENTS

E-mail all documentation as one (1) PDF document, not to exceed a file size of 5 MB to: [publicart@richmond.ca](mailto:publicart@richmond.ca)

- INFORMATION FORM – Please complete the information form attached to this document.
- STATEMENT OF INTENT – One page maximum, explaining proposed conceptual approach to the work, why the artist is interested in this opportunity and how the project responds to the specific aims of the project opportunity.
- ARTIST CV – (One page maximum). Teams should include one page for each member.

# call to artists

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- WORK SAMPLES – Up to ten (10) examples of previous work. Please include artist name(s), title, year, location and medium information as captions on the bottom of each image page.
- REFERENCES – Three references who can speak to your abilities and accomplishments. Provide contact name, title, phone number and e-mail.

## SUBMISSION GUIDELINES

1. All supporting documents must be complete and strictly adhere to these guidelines and submission requirements (above) or risk not being considered.
2. All submissions must be formatted to 8.5 x 11 inch pages. Support images and concept sketches are best formatted to landscape format.
3. Artist submission PDF file must be 5 MB or smaller.
4. If submitting as a team, the team should designate one representative to complete the entry form. Each team member must submit an individual resume/curriculum vitae.
5. All documents must be sent by e-mail to: [publicart@richmond.ca](mailto:publicart@richmond.ca). Please include name and project when naming your file, e.g. Jane\_Smith\_EngagingArtistsCommunity\_RFP

## ADDITIONAL INFORMATION

1. The selected artist may be required to show proof of WCB coverage and up to \$5,000,000 general liability insurance.
2. Please be advised that the City and the selection panel are not obligated to accept any of the submissions and may reject all submissions. The City reserves the right to reissue the Artist Call as required.
3. All submissions to this Artist Call become the property of the City. All information provided under the submission is subject to the Freedom of Information and Protection of Privacy Act (BC) and shall only be withheld from release if an exemption from release is permitted by the Act. The artist shall retain copyright in the concept proposal. While every precaution will be taken to prevent the loss or damage of submissions, the City and its agents shall not be liable for any loss or damage, however caused.
4. Extensions to this deadline will not be granted under any circumstances. Submissions received after the deadline and those that are found to be incomplete will not be reviewed.

## QUESTIONS

Please contact the Richmond Public Art Program:

Tel: 604-204-8671

E-mail: [publicart@richmond.ca](mailto:publicart@richmond.ca)



# call to artists

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## Opportunity No.1

### Richmond Nature Park

### Project-based Artist Residency



## COMMUNITY DESCRIPTION

The Richmond Nature Park is operated in partnership with the Richmond Nature Park Society and consists of 200 acres of raised peat bog habitat that once covered large portions of Lulu Island. Four walking trails totalling 5km provide visitors the chance to encounter plants and animals in bog, forest and pond habitats. The shortest trail, an elevated boardwalk around the park pond, is wheelchair accessible. All other trails are soft-surfaced with wood chips and are well marked. A free trail guide is available in the Nature House.

The park is accessible all year round. In spring, visitors can see and hear the territorial fights of hummingbirds as bog flowers bloom below. Summer days are long and the trails are ideal for an evening stroll. Autumn brings owls, northern migratory birds and spectacularly coloured foliage. In winter, visitors can hear varied thrushes and see winter birds at the feeders or follow animal tracks in the snow. The park is a very fragile environment. Dogs and other pets are not permitted and visitors are requested to remain on the marked trails. No plants or animals may be removed from the park.

## ARTIST OPPORTUNITY

The artist residency project will be visibly accessible to the public and allow visitors and community members to connect with Richmond's natural heritage. Project proposals may include how the artist will use natural materials such as invasive plant species, including European birch, Highbush blueberry, American cranberry, and Scotch heather to create community-engaged temporary artwork installations or as material for artist-led hands-on art activities with the public.

# call to artists

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The aims and scope of the Richmond Nature Park Artist Residency:

- Support artistic projects that foster a sense of environmental awareness, heritage and advocacy through creativity and self-expression.
- Encourage interaction and social connections between culturally diverse and multi-generational groups through hands-on participatory art installations, workshops or other artist-led art projects.
- Engage an artist for a minimum of 250 hours over one year. The work completed by the selected artist or artist team will include public engagement activities, administration, preparation and production from January – December, 2019, with an emphasis during the warmer months (May – October).
- The commissioned artist will present a project as part of the annual “Wild Things” major event at the Richmond Nature Park.
- The artist will create and maintain an artist blog to communicate and document the process and work created during the artist residency.

## SCOPE OF WORK

The selected artist will develop and lead a public engagement implementation plan over a minimum of six (6) months to a maximum of one year.

## LOCATION

Artists will be required to work with City staff at the Richmond Nature Park to coordinate and schedule work spaces and outdoor locations for artwork in the park. Artists are encouraged to visit the park to understand scale, site and context of the Park in relationship to the larger city.

## BUDGET

The project budget for this opportunity is \$10,000 CAD and is inclusive of up to a minimum of 250 hours of community engagement, staff consultation, artist expenses, artist fees, materials, production, fabrication, photography, artist insurance and applicable taxes, excluding GST.

## PROJECT TIMELINE

<b>Deadline to Apply:</b>	October 3, 2018
<b>Finalist Notifications:</b>	November 2018
<b>2<sup>nd</sup> Stage Interviews*:</b>	November 6, 2018, 5:30-8:30pm, Richmond City Hall, 6911 No.3 Road
<b>Project Duration</b>	January – December 2019

\*Artists applying for this opportunity are asked to reserve this date in their calendar.



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Figure 1. Visitors Centre



Figure 2. Outdoor covered area for workshops



Figure 3. Picnic Shelter



Figure 4. Natural children's playground features

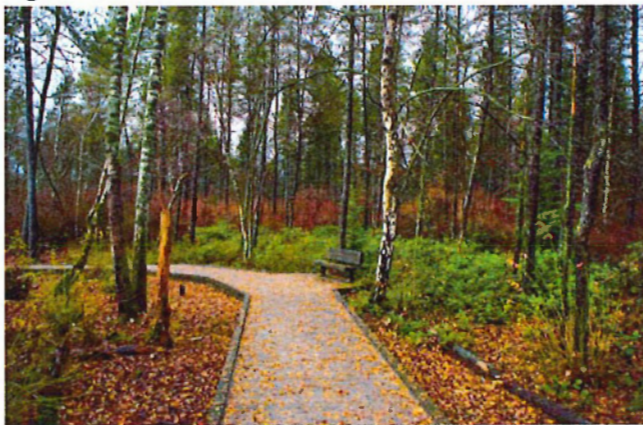


Figure 5. Wooden boardwalk path



Figure 6. Bog and forest



# call to artists

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## Opportunity No.2

### Minoru Chapel & City Centre Community Centre

### Performance-based Artist Residency

## COMMUNITY DESCRIPTION

The Minoru Chapel is a well-loved heritage building in Richmond. In 1888 a group of 17 pioneers formed a Methodist Congregation and built the Chapel in 1891 with volunteer labour at Cambie and River Roads. Rev. J.A. Wood was the first minister. When the Methodist and Presbyterians united in 1925, the Chapel became known as Richmond United Church.

In 1961, the Municipality of Richmond purchased the property on which the church stood in order to relocate the railway through Brighthouse Industrial Estates. The church was decommissioned until Reeve Henry Anderson initiated efforts to have the church relocated to its present location in Minoru Park. In 1968, it was re-dedicated and re-consecrated as Richmond Minoru Chapel for the use of all denominations. Today the Chapel hosts numerous community events including weddings, wedding vow renewals, funerals, memorials, baptisms, services of spiritual nature, quiet prayer time, commercial filming, Doors Open Richmond and the Minoru Chapel Opera Series. The Chapel is located on the west side of Minoru Park at 6540 Gilbert Road and is wheelchair accessible with an accessible washroom. Seating capacity is 120 persons.

In close proximity to the Minoru Chapel, the City Centre Community Centre is the hub of community life in central Richmond. The centre offers a variety of multipurpose spaces including community living room, art studio, music rooms, performance space and a fitness centre. The two-storey Community Centre is located in the Carol Tong Centre at 5900 Minoru Boulevard. It occupies approximately 30,000 square feet and encourages social inclusion

# call to artists

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through the provision of community spaces and affordable programs services for a range of ages, abilities and interests. It is a key place for social interaction and meeting new people, which is especially important for new residents, many of whom live in the City Centre.

## ARTIST OPPORTUNITY

Artists or artist teams with interdisciplinary and/or performance-based artist practices are invited to submit a proposal for this project-based artist residency. The project will take place across two sites: Minoru Chapel and City Centre Community Centre. Artists with interdisciplinary practices in performance, vocal arts, music, sound, puppetry, theatre, new media art, poetry and storytelling are encouraged to apply.

Artists will solicit interest from community members to participate in the artist residency project. The expectation is for the artists to engage and work with a core group of up to 15 community participants. A multipurpose room located at the City Centre Community Centre will be available to the selected artist and participants to use as rehearsal and performance space. Access to the Minoru Chapel will be available for one evening a month for public presentations of the work or as working dress rehearsals leading up to the final performances. The anticipated duration of the project will be April to October 2019.

The aims and scope of work for the Artist Residency:

- Celebrate the meaningful historical events and key life-moments community members have witnessed and experienced in the Minoru Chapel.
- Support artistic projects which foster an individual's sense of creative self-expression through performance-based arts.
- Encourage interaction and social connections between diverse cultural groups in the artist conception and/or making of the artwork.
- Create artwork that will encourage understanding, foster cultural awareness and celebrate inter-cultural relationships within Richmond.
- The artist or artist team will be required to maintain heritage preservation standards when working at the Minoru Chapel. An artist orientation and review with Museum and Heritage staff will be required prior to working in the Minoru Chapel.
- The artist or artist team will be available from April – September 2019 to implement the project-based artist residency.

# call to artists

PUBLIC ART  
RICHMOND

- Artist or artist team will be engaged for a minimum of 250 hours. The work completed by the selected artist or artist team will include public engagement, presentation, administration, preparation and production from February to October, 2019. The artist and artist participants will present two final performances as part of Culture Days, September 28 –29, 2019. Opportunities exist to also participate in the City Centre Community Centre's Harvest Full Moon Festival in fall 2019.
- The artist will create and maintain an artist blog to communicate and document the process and work created during the artist residency.

## LOCATION

Artists will have scheduled access, three times a month, in a multi-purpose space at the City Centre Community Centre, 5900 Minoru Blvd. An additional last Friday evening per month during the residency will be available at the Minoru Chapel to present public performances, lead dress rehearsals, workshops or public engagement activities with the community members and user groups. Artists and participants will also have access to the outdoor perimeter grounds at the Minoru Chapel. Storage of some artist materials can be negotiated at the City Centre Community Centre.

## BUDGET

The project budget for this opportunity is \$10,000 CAD and is inclusive of community engagement work materials for engagement activities, administration, artist fees, photography documentation, artist insurance and applicable taxes, excluding GST.

## PROJECT TIMELINE

The selected artist must complete all work by October 2019.

<b>Deadline to Apply:</b>	Wednesday, October 3, 2018
<b>Finalist Notifications:</b>	November 2018
<b>2<sup>nd</sup> Stage Interviews*:</b>	October 29, 2018, 5:30-8:30pm, Richmond City Hall, 6911 No.3 Road
<b>Project Start:</b>	April 2019
<b>Completion:</b>	October 2019

\*Artists applying for this opportunity are asked to reserve this date in their calendar.



# call to artists

PUBLIC ART  
RICHMOND



Figure 1. Minoru Chapel exterior grounds



Figure 2. Minoru Chapel interior



Figure 3. City Centre Community Centre



Figure 4. Community Centre reception / lounge



Figure 5. Community Centre, Multi-Purpose Room 2

# call to artists

PUBLIC ART  
RICHMOND

Attach one (1) copy of this form as the first page of the submission.

Please indicate which opportunity you are applying for:

☐ Richmond Nature Park ☐ Minoru Chapel / City Centre Community Centre

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Primary Phone: \_\_\_\_\_ Secondary Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_ Website: \_\_\_\_\_  
(One website or blog only)

**Incomplete submissions will not be accepted. E-mailed submissions over 5 MB will not be accepted. Information beyond what is listed in the checklist will not be reviewed.**

If applicable, please indicate additional members of your artist team:

\_\_\_\_\_

Please let us know how you found out about this opportunity:

\_\_\_\_\_

Would you like to receive direct e-mails from the Richmond Public Art Program? ☐ Yes ☐ No

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Submit applications by e-mail to: [publicart@richmond.ca](mailto:publicart@richmond.ca)

## Additional Information

Please be advised that the City and the selection panel are not obliged to accept any of the submissions and may reject all submissions. The City reserves the right to reissue the EOI as required. All submissions to this EOI become the property of the City. All information provided under the submission is subject to the Freedom of Information and Protection of Privacy Act (BC) and shall only be withheld from release if an exemption from release is permitted by the Act. The artist shall retain copyright of the submitted documents. While every precaution will be taken to prevent the loss or damage of submissions, the City and its agents shall not be liable for any loss or damage, however caused.



### MUSQUEAM ARTIST WORKSHOPS AT RICHMOND PUBLIC LIBRARY

Martin Sparrow is a Musqueam carver who will lead a series of three workshops utilizing small-scale and pre-carved traditional paddles. The artist will share traditional Musqueam oral stories and educate participants on the rituals and symbolism of the paddles in Musqueam culture. Participants will be invited to develop and apply a design in response to the traditional oral stories.



Figure 1. Martin Sparrow, 6ft. long spring salmon sculpture.



Figure 2. Martin Sparrow with examples of past work.



Richard Campbell is a Musqueam carver. Over a series of three workshops, Mr. Campbell will carve a series of salmon sculptures at different stages of completion and share traditional knowledge about the significance and importance of salmon in Musqueam culture, including how it is used and prepared for sustenance and ceremonial purposes.



Figure 3. Richard Campbell, multiple examples of traditional carvings in progress.



Figure 4. Richard Campbell, salmon carving.



Gary Point is a Musqueam weaver who has been practicing for more than 32 years and has lived on Musqueam Reserve for most of his life. Mr. Point will lead a series of three hands-on workshops where participants will collaboratively produce a small weaving under his instruction and supervision. Workshop participants will learn traditional Musqueam weaving techniques and the meanings behind traditional design motifs.



Figure 5. Gary Point, example of artist's weaving.



Figure 6. Gary Point, example of artist's weaving.



## RICHMOND NATURE PARK ARTIST-IN-RESIDENCE PROPOSAL

Wen Wen Lu is a New Westminster-based multidisciplinary artist who incorporates drawing, painting, sculpture, film and art installations with a socially-oriented practice. Her proposed *Interpreter Project* will collect what is seen, heard and felt through a series of walking and creation workshops. In these sessions, multi-generational participants will create artworks that capture human emotions when encountering and observing the animals and plants in the Nature Park. The workshops will be inspired by artistic research and designed for a wide range of ages and group dynamics. They can be further broken down into subjects, materials, and preparatory skills such as ink making with invasive plant species.



Figure 1. Wen Wen Lu, examples of previous community-based artist projects.



## CITY CENTRE COMMUNITY CENTRE ARTIST-IN-RESIDENCE PROPOSAL

Julie Hammond is a Vancouver-based theatre-maker, writer and artist with a socially-oriented art practice. Her proposed project, *Minoru Manifest: I take thee* will be presented over a series of public workshops. The project will examine what it means for us to hold tight to the things we carry from our homeland while also learning to love and celebrate a new place. Participating community members will share what it is they hold sacred or special in the local places they love. The artist will offer drop-in public events as well as a series of facilitated workshops with a core group of volunteer community members. Project deliverables may include artist walks, public performances, art activity-based workshops and the making of participant's text-based artist publications.

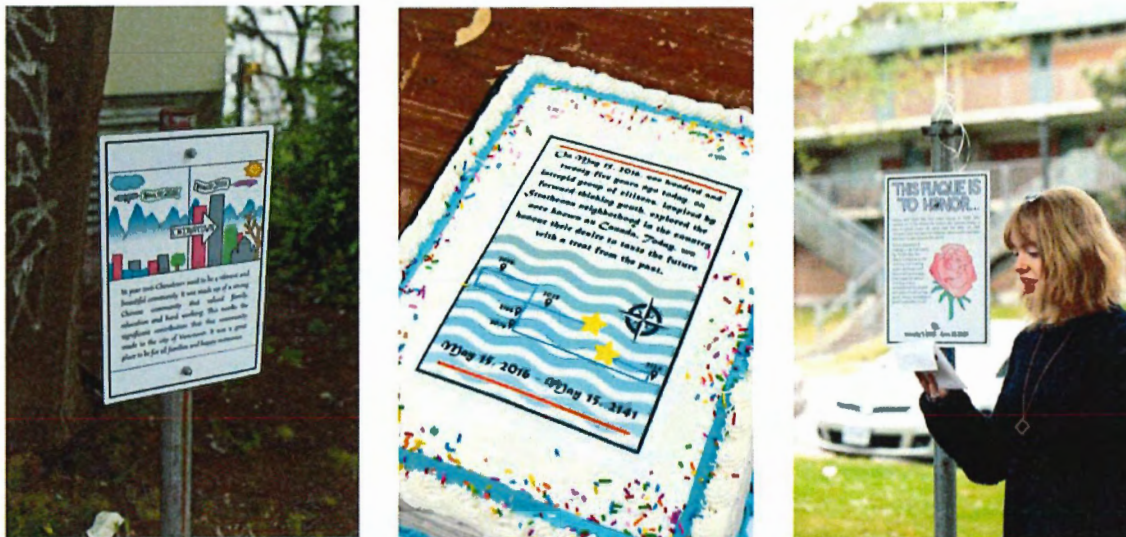


Figure 1. Julie Hammond, *Future Markers*, 2016. Community-based artist project that examined local places of significance.



Figure 2. Julie Hammond, *Embodied Emplacement: a multimodal walkshop*, 2017. A project that challenged participants to experience public space with the human senses.





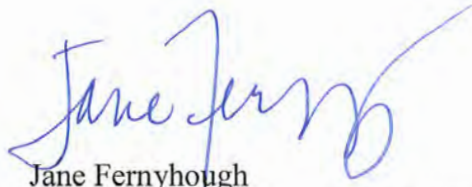
# City of Richmond

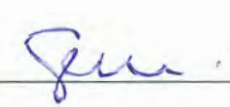

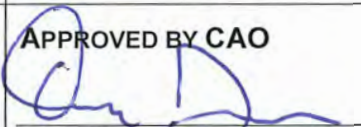
## Report to Committee

**To:** Parks, Recreation, and Cultural Services Committee  
**From:** Jane Fernyhough  
Director, Arts, Culture and Heritage Services  
**Date:** December 1, 2018  
**File:** 11-7400-01/2018-Vol 01  
**Re:** **Proposed Plan for the Future Coordination of Salmon Festival and Richmond Canada Day in Steveston**

### Staff Recommendation

1. That the City and the Steveston Salmon Festival Committee co-produce Richmond's Canada Day celebrations under the banner of Steveston Salmon Festival as outlined in the report titled "Proposed Plan for the Future Coordination of Salmon Festival and Richmond Canada Day in Steveston."

  
Jane Fernyhough  
Director, Arts, Culture and Heritage Services  
(604-276-4288)

REPORT CONCURRENCE		
<b>ROUTED To:</b> Recreation Services Corporate Partnerships Corporate Communications	<b>CONCURRENCE</b> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<b>CONCURRENCE OF GENERAL MANAGER</b> 
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## **Staff Report**

### **Origin**

At the Parks, Recreation and Cultural Services Committee meeting of September 25, 2018, a delegation from the Steveston Salmon Festival Committee made a presentation to the Council committee and requested additional support from the City. As a result, the following referral was made to staff:

*That staff examine combining the Steveston Salmon Festival and the City's Canada Day events, including consideration of the value of the City's commitment to the Steveston Salmon Festival, and report back.*

This report supports Council's 2014-2018 Term Goal #2 A Vibrant, Active and Connected City:

*Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond's demographics, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.*

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.*

This report supports Council's 2014-2018 Term Goal #8 Supportive Economic Development Environment:

*Review, develop and implement plans, policies, programs and practices to increase business and visitor appeal and promote local economic growth and resiliency.*

This report supports Council approved strategies, including the Major Events Strategy and its goals of programming and creating a dynamic destination waterfront, the Waterfront Amenity Strategy, the Parks and Open Space Strategy 2022, the Community Tourism Strategy, the Arts Strategy vision for Richmond to be an arts destination, and the Resilient Economy Strategy through enhanced destination and tourism products. The program detailed in this report will maximize the social and economic benefits to the community.

## **Analysis**

### **Background**

The most prominent Canada Day celebration in Richmond is the Steveston Salmon Festival which has taken place for the past 73 years. This event is organized by the Steveston Salmon Festival Committee (SSFC) under the Richmond Agricultural and Industrial Society. Key attractions of the Salmon Festival include the parade, salmon BBQ, Japanese Cultural Show, children's zone and live music.

In recent years, the City has produced additional events as part of the July 1 celebration including Ships to Shore (2012–2016) and Richmond Canada Day in Steveston (2017–2018). These events expanded the celebration to Steveston Village and Imperial Landing and added additional programming, artisan street market, street hockey, food trucks and fireworks.

### **City Support to the Salmon Festival**

The City has been a long-standing partner of the Salmon Festival celebration and has provided traffic management for the parade since it began. The City's support has evolved along with the growth of the overall festival.

Currently, the City provides direct monetary or in-kind support to the Salmon Festival which includes traffic management for the parade, road closures for the festival, marketing and promotions support, usage of City assets (e.g., mobile stage with audio, fencing, picnic tables, etc.), operational labour for delivery of City assets, payment of portable toilets, shuttle bus service and City staff overtime. The Salmon Festival also receives a Parks, Recreation and Community Events Grant. The total City support is over \$100,000, plus an additional \$20,000 in RCMP services.

In 2014, the City added fireworks to the celebration and in 2017 the City added programming that bridged the time gap between the end of Salmon Festival activities (8 p.m.) and the start of the fireworks (10:15 p.m.). With over 80,000 people attending the July 1 celebration, the additional programming provided by the City's Richmond Canada Day in Steveston provides Salmon Festival with the additional programming and services necessary to meet the demands of the large crowd size.

### **Current Challenges**

With population growth and the popularity of celebrations, there has been an increase to the festival's scope and level of logistical complexity which has challenged the capacity of the volunteer-based community organizers to plan the event.

While the City has taken over the traffic management function of the event and provides a level of production support, the SSFC has expressed the need for further support in overall festival management and programming collaboration if the festival is to be sustainable long-term.

The organizers have also received positive feedback from the community on the changes made over the past two iterations. The predominant comment is that people appreciate that the festival has more things to do and see and that they like how it's spread throughout Steveston Village. However, there is a level of confusion over the difference between the two brands (Steveston Salmon Festival and Richmond Canada Day in Steveston). Also, having two brands and festivals creates an unnecessary level of competition between the festivals.

### Salmon Festival Requests

City staff met with the co-chairs of the SSFC to discuss the current challenges and to work through potential solutions. Following multiple meetings and discussions, the following requests were made:

1. **One name, one brand, one festival:** City staff and the SSFC co-chairs discussed the need to refer to the Canada Day celebration by one name. Feedback from the public was that the two names and brands presented a level of unnecessary confusion.

Because of its 73 year history and strong brand awareness in the marketplace, it is proposed that all Canada Day celebrations in Steveston would fall under the Steveston Salmon Festival brand. However, a new tag line would be developed and added to the event name which will replace the slogan "Canada's Biggest Little Birthday Party". The new tagline would include reference to Canada Day and Richmond (*A Canada Day celebration in Richmond, A Richmond Canada Day Celebration, Richmond's Canada Day*).

The festival name, *Richmond Canada Day in Steveston* and all associated branding, will no longer be used and all features and activities that were produced for Richmond Canada Day in Steveston (e.g., stages at Gulf of Georgia Cannery, street hockey, exhibitors on No. 1 Road and Bayview Street, Fireworks, etc.) will all become potential features of Salmon Festival.

2. **A new organization model:** Various organizational models for producing the Canada Day celebration were discussed. However, the model in which the event is *co-produced* by the SSFC and the City of Richmond is recommended.

In this model, the City takes on the project management role and the festival benefits from the City's in-house expertise in producing major festivals. A core production committee consisting of members from the City and the SSFC would be formed and it would be co-chaired by the chairs of the SSFC and the City's Manager of Major Events. The SSFC's co-chairs would lead the festival's programming vision to ensure the history and heritage of the Salmon Festival is maintained.

Sub-committees would be formed or re-established for all key festival functions (e.g., parade, traffic management, programming, food and beverage, etc.). Each sub-committee would report up to either the co-chairs of the SSFC or the City's Manager of Major

Events. The planning process would be extremely collaborative resulting in numerous efficiencies and reducing overlapping functions (e.g., streamlined administration, one marketing program, one volunteer program, etc.), cost savings, and provide organizational stability. The partnership between the SSFC and the City will be re-evaluated following the first year and adjusted as required.

3. **Sponsorship collaboration:** Should the two festival components merge, all sponsorship opportunities will need to be re-evaluated. The City's Manager, Corporate Partnerships, and the Salmon Festival's sponsorship coordinator will work collaboratively to retain existing sponsors and pursue new ones. The Major Events Advisory Group discussed this at their meeting on November 26 and endorsed this joint Salmon Festival model.

### **Major Events Advisory Group**

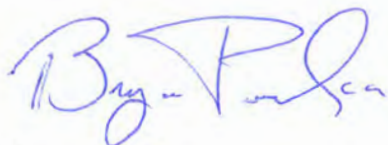
On November 26, 2018, the co-chairs of the Steveston Salmon Festival attended the Major Events Advisory Group meeting. MEAG passed a motion to confirm their support for the changes to the festival's brand and organizational structure.

### **Financial Impact**

Endorsing this report will have no financial impact at this time. Funding of \$250,000 for the 2019 Canada Day celebration was approved as part of the 2018 budget process.

### **Conclusion**

The Steveston Salmon Festival is an iconic event in the City. The festival is one of the region's most popular events and attracts over 80,000 people. The resources and event expertise required to produce an event of this magnitude has grown significantly over the years. The SSFC values the heritage and history of the 73 year old event and preserving this legacy is paramount moving forward. A deeper partnership with the City will ensure the long term stability and sustainability of the Salmon Festival.



Bryan Tasaka  
Manager, Major Events  
604-276-4320





# City of Richmond

## Report to Committee

**To:** Parks, Recreation and Cultural Services  
Committee

**From:** Elizabeth Ayers  
Director, Recreation Services

**Re:** **Recreation and Sport Strategy 2019-2024**

**Date:** November 30, 2018



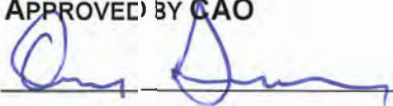
**File:** 01-0370-20-002/2018-  
Vol 01

### Staff Recommendation

1. That the Recreation and Sport Strategy 2019-2024, and companion documents, as outlined in the report titled "Recreation and Sport Strategy 2019-2024," dated November 30, 2018, from the Director, Recreation Services, be adopted;
2. That staff report back at the mid-point and end of the implementation period of the Recreation and Sport Strategy 2019-2024, as outlined in the report titled "Recreation and Sport Strategy 2019-2024," dated November 30, 2018, from the Director, Recreation Services; and
3. That the Recreation and Sport Strategy 2019-2024, as outlined in the report titled "Recreation and Sport Strategy 2019-2024, dated November 30, 2018, from the Director, Recreation Services, be presented to the Council School Board Liaison Committee.

*EAyers*  
Elizabeth Ayers  
Director, Recreation Services  
(604-247-4669)

Att. 1

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Communications	<input checked="" type="checkbox"/>	
Arts, Culture & Heritage	<input checked="" type="checkbox"/>	
Community Social Development	<input checked="" type="checkbox"/>	
Parks Services	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

The draft Recreation and Sport Strategy 2018-2023 was adopted by Council on October 9, 2018, for the purpose of seeking stakeholder validation of the strategy. This report responds to the resulting referral:

*That the Final Recreation and Sport Strategy 2018-2023, including the results of the stakeholder validation, be reported back to the Parks, Recreation and Cultural Services Committee.*

The purpose of this report is to present the stakeholder validation process the results of the validation process, and the Recreation and Sport Strategy 2019-2024 (the “Strategy”) for adoption (Attachment 1). The Recreation and Sport Strategy 2019-2024 takes a relationship-based approach, with an emphasis on working with community partners in the delivery of programs and services. The overall goal is to enrich recreation and sport opportunities for residents, as participation allows for physical, creative, social and intellectual opportunities which contribute to building healthy, liveable and vibrant communities.

This report supports Council’s 2014-2018 Term Goal #2 A Vibrant, Active and Connected City:

*Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond’s demographics, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.*

*2.1. Strong neighbourhoods.*

*2.3. Outstanding places, programs and services that support active living, wellness and a sense of belonging.*

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

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

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

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

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

This report supports Council's 2014-2018 Term Goal #9 A Well-Informed Citizenry:

*Continue to develop and provide programs and services that ensure the Richmond community is well-informed and engaged on City business and decision making.*

9.1. *Understandable, timely, easily accessible public communication.*

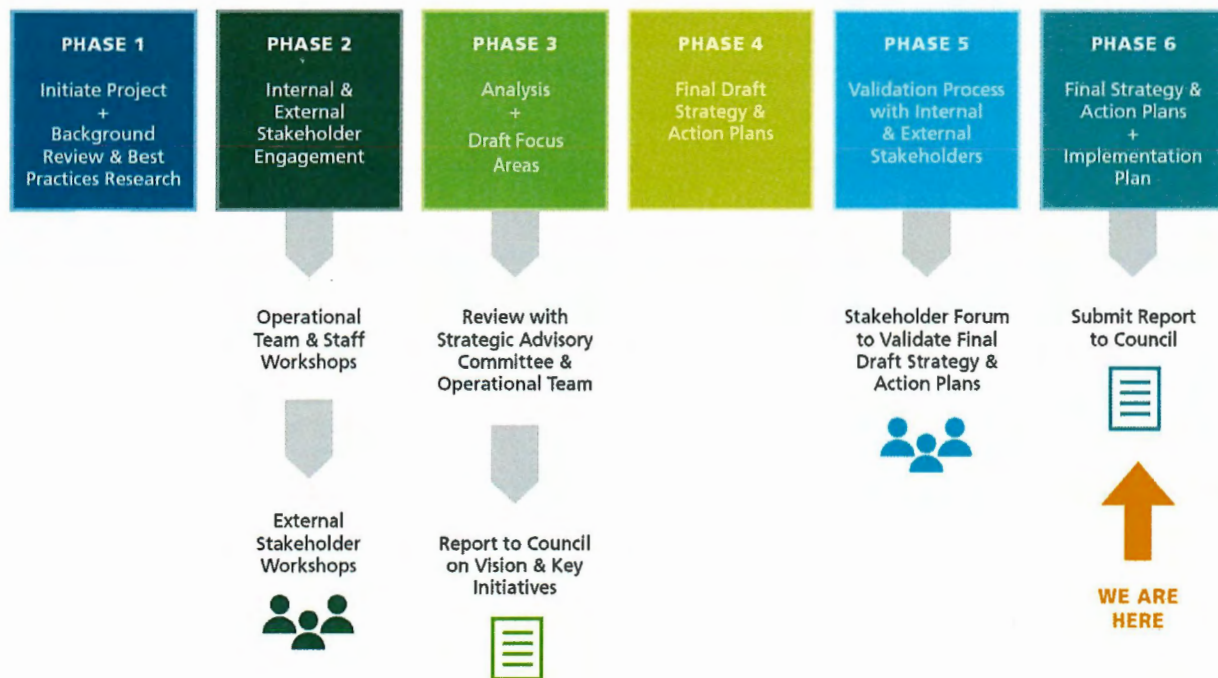
9.2. *Effective engagement strategies and tools.*

## Analysis

### Background

The diagram below provides a summary of the development process. Staff are currently in Phase 6, which includes preparation of the final Strategy, and presentation of the Recreation and Sport Strategy 2019-2024 to Council for adoption. It is important to note that while the Strategy was intended to be completed in mid-2018, the consultation process took longer than expected which resulted in a shift to the time frame. Consequently, the Strategy has been updated to 2019-2024.

Diagram 1: Recreation and Sport Strategy Development Process



### Stakeholder Validation Process

The purpose of the stakeholder validation process was to gain feedback on the action plan identified within the Strategy to ensure that the actions resonate with key stakeholder groups and that they represent what needs to be done in order to improve recreation and sport opportunities and increase participation by Richmond residents.

The validation process included:

- Two dialogue forums, held on October 30, 2018, and November 3, 2018, where the Strategy and action items were presented, staff were available to answer questions, and participants were invited to complete a survey or provide comments on poster boards; and
- An online survey, which was available from November 5, 2018, to November 12, 2018.

These opportunities were promoted extensively through email invitations to stakeholder groups, including all indoor and outdoor sport groups, and the Associations and Societies that offer recreation and sport programs and services across the City.

Richmond School District No. 38 was also asked to review the Strategy and provide feedback, which they did.

### Stakeholder Validation Results

An estimated 35 people participated in the dialogue forums and 38 individuals completed a survey either in person or online. In addition, there were over 50 specific comments made in regards to the Strategy and its actions.

The feedback demonstrated strong overall support for the Recreation and Sport Strategy 2019-2024 and specifically for the action items outlined in the Strategy. Stakeholders recognize the importance of recreation and sport with feedback as follows:

*Richmond's population is growing - with diverse culture and families with different age groups. The city is on the right track to keep our Community involved and be active - by providing facilities and opportunities. Our city is one of the best livable cities with a balance of nature and modern facilities; and*

*I especially like the points where the city and SD38 build a new and supportive relationship; and*

*There are many actions targeting youth and children, who will be the best place to create change for the long term. There is simple intentionality of the City wanting to have everyone (10 yrs-100 years) physically active.*

Survey respondents were asked a series of specific questions to gauge whether or not the action items resonated with participants and to confirm that the actions will help to improve opportunities for recreation and sport. The questions and responses are provided in Table 1 below.

Table 1: Online Survey Questions Regarding Action Items

Survey Question	% of Respondents that Strongly Agree or Agree
I feel that putting in place a campaign to increase awareness of the benefits and opportunities of recreation and sport for community members, partners and City staff will have a positive impact.	90%
I feel that it is important to find ways to reach out to and support individuals and groups who experience barriers to participating in recreation and sport services and programs.	97%
I feel that creating environments where residents of all ages can try new recreation and sport opportunities and children/youth are exposed to an increased number of activities that incorporate play will help contribute to an active, engaged and healthy community.	99%
I feel that it is important to integrate the Long Term Athlete Development model into city-wide recreation and sport opportunities in order for residents of all ages to have physical literacy skills, the opportunity to excel as athletes and to remain active for life.	95%
I feel it is important to work with the School District in order to continue to increase physical literacy skills among children and youth in Richmond.	92%
I feel that enhancing opportunities and education around safe and enjoyable walking and cycling will help to encourage more walking and cycling by Richmond residents.	95%
I feel it is important to improve places and spaces at a neighbourhood level to make them inclusive, inviting, healthy and safe.	97%
I feel that increasing opportunities for outdoor unstructured play city-wide and at a neighbourhood level will contribute to more children and youth taking part in unstructured play.	81%
I believe it is important to include infrastructure (i.e. power, water, coverings) that promotes and supports grass roots activities in parks and open spaces.	90%
I believe it is important to ensure there are opportunities city-wide to connect with nature and for residents to have the opportunity to engage in outdoor recreation.	92%
I believe that it would be beneficial for the city to continue to use technology to increase resident's physical activity levels. An example would be to adapt existing apps designed to increase participation in recreation and sport.	66%



### Resulting Modifications to the Recreation and Sport Strategy 2019-2024

The validation process demonstrated strong support for the Recreation and Sport Strategy 2019-2024 overall, with the following additions made:

- Action item - Offer increased opportunities for families to be active together;
- Action item - Expand the review of the field allocation policy to include an assessment of the facility allocation policies, to ensure there are opportunities for new sports and activities to access space; and
- Recognition that staff from the City and School District No. 38 need to meet regularly to ensure that the relevant action items are successfully implemented.

The validation process also highlighted to staff three areas that were of particular interest to respondents, indicating their importance:

- Education and Communication regarding the importance of physical activity and outdoor play;

*Educating parents is key, as they are often guilty of overscheduling their children and also "fearful" of letting their children outside and unsupervised.*

*One of the initial challenges is AWARENESS. The city is doing a great job of campaign and also for organizing community events that are free and interactive. We need to break through the language barrier and try to reach out to immigrant families - and using specific apps that would appeal to them - ie. WeChat for Chinese community, etc.*

- Working across sectors and collaboratively is key to the success of the Strategy; and

*There needs to be a more unified approach between the schools, city and existing youth sports organizations to provide a more structured, unified and ultimately meaningful approach to the physical education of the children living in Richmond.*

*I especially like the points where the City and SD38 build a new and supportive relationship. Pro D physical literacy clinics get an A+ in my view.*

- Continue to focus on investing in the maintenance and upkeep of existing facilities as well as adding facilities to support population growth.

*I believe our facilities are in need of upgrades so the above will help but improvements are needed at Rinks, pools, playgrounds and parks, etc.*

### **Financial Impact**

Most of the actions identified within the Strategy will be accomplished through the use of existing resources. In some instances, this will involve the re-allocation of current resources. Staff will also continue to work with community partners to apply for grants and other funding opportunities as they become available. If a distinct circumstance arises during the Strategy

implementation process where additional resources are required to accomplish an action, an additional level request will be submitted through the annual budget process.

### **Conclusion**

A relationship-based approach to improve recreation and sport opportunities for Richmond residents has resulted in the Recreation and Sport Strategy 2019-2024. The Strategy provides an opportunity to address the new and diverse interests of stakeholders and to encourage all citizens of every age to enjoy the benefits of being active and connected to their community. This has been accomplished through a vision, action plan and evaluation framework that are outlined in detail in the Draft Strategy. Upon adoption of the Strategy by Council, staff will embark on the implementation of the Recreation and Sport Strategy 2019-2024 and will report back at the mid-point of the implementation time-frame.



Elizabeth Ayers  
Director, Recreation Services  
(604-247-4669)

Att. 1: City of Richmond Recreation and Sport Strategy 2019-2024





# City of Richmond Recreation and Sport Strategy 2019-2024

CNCL - 702





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# Executive Summary

The City of Richmond, in collaboration with its partners and key stakeholders, has developed a future-oriented Recreation and Sport Strategy (2019-2024) to guide the planning and delivery of recreation and sport opportunities in the City over the next five years. The aim of the Strategy is to build on the strong and successful foundation already present in the City to address the new and diverse interests of stakeholders and to encourage all citizens of every age to enjoy the benefits of an active and involved lifestyle. Emphasis is placed on taking a holistic approach to recreation, this includes planning for a variety of opportunities from connecting with Richmond's beautiful natural environment to regular participation in formal and informal sports and recreation.

The Community Services Division offers residents of all ages and abilities access to recreation and sport programs and services and special events through community facilities, arenas, aquatic facilities, fitness and sport facilities and in outdoor spaces, parks and schools. The Division works to eliminate barriers and provide opportunities for people with disabilities, individuals and families in financial need, and Richmond's diverse cultural groups. Both indoor and outdoor opportunities are available to increase physical activity and overall wellness. In addition, creating welcoming environments for those who are new to the community and offering an entry point to participate in recreation that includes arts, heritage, culture and sports are priorities.

The Sport for Life philosophy and actions and the Long-Term Athlete Development model permeate recreation and sports services and programs in Richmond facilitating the development of necessary competencies for sport excellence, physical literacy and positive life-long sport participation for all citizens.





## Strategy Development Process

The Strategy was developed in consultation with City of Richmond staff, stakeholders, community associations and sport organizations and guided by a Recreation and Sport Advisory Committee and Staff Operational Team. To support this work and provide context, a Richmond Community Profile including recreation and sport utilization data was prepared along with a scan of recreation and sport trends and best practices nationally and provincially. An Evaluation Framework was developed to facilitate implementation, progress assessment and monitoring, measuring outcomes and ensuring overall accountability of results.

### Phases of Strategy Development Process

CONTEXT	ENGAGEMENT	STRATEGY FRAMEWORK	ACTION PLAN & EVALUATION	FINAL STRATEGY
<ul style="list-style-type: none"> <li>Richmond Community Profile</li> <li>Jurisdictional scan</li> <li>Review of background documents</li> </ul>	<ul style="list-style-type: none"> <li>Strategic Advisory Committee</li> <li>Staff Operational Team</li> <li>Recreation and Sports Organizations</li> <li>Community Stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Development of Vision, Principles and Focus Areas</li> <li>Validation by Partners and Richmond City Council</li> </ul>	<ul style="list-style-type: none"> <li>Develop Action Plan and Evaluation Framework</li> </ul>	<ul style="list-style-type: none"> <li>Draft Richmond Recreation and Sport Strategy</li> <li>Validation by stakeholders</li> <li>Endorsement by City Council</li> </ul>

### Stakeholder Engagement Process

Approximately 150 stakeholders were consulted through numerous workshops, focus groups, interviews, and online surveys including;

- ✓ Recreation and Sport Strategy Strategic Advisory Committee
- ✓ Recreation and Sport Strategy Staff Operational Team
- ✓ City of Richmond staff
- ✓ Richmond Community Associations and Societies
- ✓ Richmond Indoor and Outdoor Sport Organizations
- ✓ Richmond Community Organizations
- ✓ Regional and National Organization Sport Organizations
- ✓ School District No. 38 and Vancouver Coastal Health Richmond

Public consultation (Spring 2017) was undertaken as part of the Richmond Community Wellness Strategy 2019-2024, reaching 781 residents. Residents who participated in the consultation identified the importance of recreation and sport to community wellness and appreciated the many choices of programs, services and facilities Richmond offers. They identified the need for increased access to recreation and sport opportunities and to green space and nature, and recognized the benefits of these supports to encouraging physical activity, creating feelings of belonging and connectedness and to improving overall individual and community wellness.



## Definition of Recreation and Sport - adopted by Richmond

Richmond stakeholders modified the national framework for recreation definition to reflect the specific interests and cultural needs of Richmond's residents as follows:

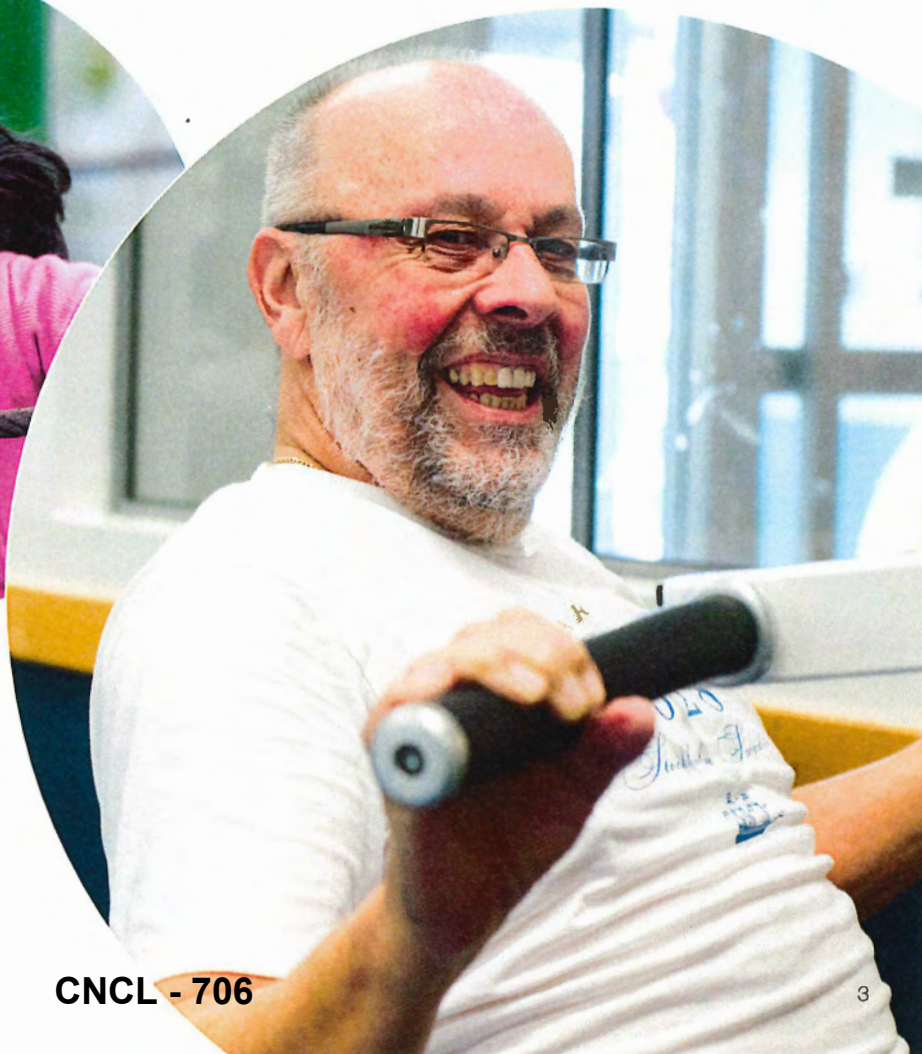
*Recreation is the experience resulting from participation in physical, social, intellectual, creative, cultural and spiritual pursuits that enhance individual and community wellbeing.*

*Recreation includes, but is not limited to, physical activity, sport, arts, culture and heritage.*

## Vision for Recreation and Sport in Richmond

The vision for recreation and sport in Richmond was developed through a collaborative and holistic approach; the result is a future-oriented and aspirational vision:

*Richmond is a leader in the planning and delivery of recreation and sport opportunities, inspiring individuals and communities to be active, connected and healthy for a lifetime.*





## Richmond Recreation and Sport Strategy Focus Areas and Actions

The Community Services Division and its partners are dedicated to both organized and grassroots recreation. The Division believes that recreation and sport is “about every child finding their activity ‘for life’, and every adult connecting to a recreational activity or sport as well as to each other”. Building community capacity through enhancing participation in recreation and sport and strengthening collaborative efforts and partnerships with schools, community facilities, community groups, multicultural groups and sport organizations is an overall priority. Well-maintained facilities that meet the needs of a growing and diverse population, as well as supportive built and natural environments are seen as critical to successful recreation and sport opportunities. There is a strong commitment to innovation and the use of technology to enhance recreation and sport participation.

These priorities, supported by data, best practice research, and the results of the broad consultation led to the identification of seven focus areas and the creation of an action plan. Collectively, the actions aim to inspire, motivate and support active participation in recreation and sport by all Richmond residents.

The focus areas and a snapshot of the actions are identified below. The complete set of 56 comprehensive actions is found in Section 4 of this Strategy document.

### 1. Awareness and Understanding:

Richmond residents understand the opportunities and benefits of participation in recreation and sport.

Key Action/Program/Initiative		Start Implementation
1	Develop and implement a communication plan to increase awareness of the benefits and opportunities of recreation and sport for community members, partners and City staff. The plan should link to and leverage national recreation, sport and active living campaigns and activate these campaigns at a local level.	Year 2: Develop / Initiate Year 3: Implement
2	Conduct annual scanning of trends, best practices and private recreation opportunities to understand residents' needs and inform program decisions.	Annual



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## 2. Engaged Community:

Recreation and sport opportunities are accessible, inclusive and support the needs of a growing and diverse population in Richmond.

Key Action/Program/Initiative		Start Implementation
1	Increase opportunities for Richmond residents of all ages to sample recreation and sport activities. Look at multiple outlets for providing sampling opportunities (e.g., bring sampling to already existing groups – schools, religious groups, malls, etc.).	Year 2: Identify opportunities Year 3-4: Implement
2	Conduct a study on barriers to sport and recreation participation in identified neighbourhoods or communities and take action to reduce barriers accordingly (build on learnings from the City Centre Active Communities Project).	Year 2: Conduct study Years 3-5: Reduce barriers
3	Work with sport organizations to ensure that individuals with financial hardships are directed to either the City of Richmond's fee subsidy program, Richmond KidSport or Jump Start for assistance.	Ongoing
4	Celebrate excellence in sport by creating opportunities to meet sports idols; this could include meeting professional and elite teams and athletes in the community.	Year 2: Identify opportunities Year 3: Implement
5	Develop a recognition program for athletic achievement for children and youth.	Year 2

## 3. Physical Literacy and Sport for Life:

Richmond residents have the fundamental movement skills, competence, confidence and motivation to move for a lifetime.

Key Action/Program/Initiative		Start Implementation
1	Continue to integrate fundamental movement skills into all community recreation programs, addressing all ages from early childhood to older adults.	Ongoing
2	Encourage and support sport groups to implement the Long Term Athlete Development (LTAD) model and the quality sports criteria.	Ongoing
3	Develop and implement initiatives targeting older adults/seniors participation in sport for life.	Year 2: Develop Year 3: Implement
4	Work with School District No. 38 to embed physical literacy mentors in elementary schools to support teachers and assist schools to develop a physical literacy curriculum appropriate for a range of ages and levels.	Year 3: Confirm methodology Year 4: Implement
5	Build partnerships with senior levels of government to strengthen the Excellence Pathway for athletes and Active for Life participation.	Year 3: Confirm methodology Year 4: Implement

#### 4. Active People and Vibrant Places:

Natural and built environments within neighbourhoods in Richmond encourage connectedness and participation in recreation and sport.

Key Action/Program/Initiative		Start Implementation
1	Implement the Active Communities Grant Project focusing on physical activity initiatives in the City Centre neighbourhood, an initiative of the Richmond Community Wellness Strategy 2019-2024.	Year 1
2	Review and update Facility and Field Allocation Policies to ensure effective and efficient use of City resources.	Year 2
3	Include infrastructure (i.e., power, water and covering) that promotes and supports grass roots activity in parks and open spaces.	Ongoing
4	Develop and implement a "roving leader" program to animate and engage the community in physical activity in parks and public spaces.	Year 2: Develop plan Year 3: Implement
5	Expand the 'Live 5-2-1-0 Playbox' program to additional parks across the City.	Ongoing
6	Work with grassroots organizations and schools to increase the number of walk-to-school programs.	Year 2: Develop plan Year 3: Implement
7	Investigate opportunities to host multi-sport games that increase community pride, economic development and provide legacy benefits for the community and contribute to the vibrancy of the City (e.g., Youth Olympic Games).	Year 3

#### 5. Connectedness to Nature:

Richmond residents enjoy opportunities to connect with nature.

Key Action/Program/Initiative		Start Implementation
1	Develop a public awareness initiative to increase understanding of the importance of nature to recreation and wellness.  Include a focus on the role of recreation in aiding people to connect to nature, and the importance of environmental sustainability in parks and recreation ( <i>Connected to Focus Area 1 Action 1</i> ).	Year 2: Develop Year 3: Implement
2	Increase the number of nature play elements in parks and playgrounds City-wide, in order to grow opportunities for children to play outdoors and interact with nature.	Ongoing
3	Provide an increased number of guided outdoor recreation programs within or outside of Richmond (e.g., hiking, biking and paddling trips).	Year 3: Develop Year 4: Implement
4	Provide an increased number of guided nature and conservation science educational options.	Year 3: Develop Year 4: Implement



## 6. Community Capacity-Building:

Collaborations, partnerships and volunteerism are strengthened to expand the reach and impact of recreation and sport in Richmond.

Key Action/Program/Initiative		Start Implementation
1	Establish a strategic alliance leadership team that is united by a common vision and acts as an advisory body for recreation and sport.	Year 1
2	Conduct an assessment of the supports required to ensure local sport organizations are healthy, vibrant and able to provide excellent opportunities for residents, and address identified priorities.	Year 2: Develop plan Year 3: Implement
3	Increase opportunities for young athletes with Richmond's local sports clubs to lead and teach sports programs at community centres.	Year 3: Establish methodology Year 4: Implement
4	Develop and implement a strategy to build capacity of early years providers to promote and integrate physical literacy into programming.	Year 3: Develop strategy Year 4: Implement

## 7. Technology and Innovation:

Technology and innovative ideas connect and inspire Richmond residents to participate in recreation and sport.

Key Action/Program/Initiative		Start Implementation
1	Identify opportunities to adapt existing apps designed to increase participation in recreation and sport. Initiate adaptation and co-branding options for the City, as feasible.	Year 2: Research Year 3: Implement
2	Expand or enhance the Richmond App to allow for previewing of classes and programs and enable customization of schedules.	Year 3: Develop Year 4: Implement
3	Introduce the use of traffic counters for trails, sidewalks and bike routes in order to measure the use of various active transportation routes.	Year 2: Research Year 3-5: Implement

## Evaluation Framework

An Evaluation Framework and logic model have been developed to guide the Community Services Division, and especially the Recreation Services Department, in evaluating the process for implementing the key initiatives of the Strategy and to measure the achievement of the desired outcomes both in the medium and long term.

## Conclusion

The Recreation and Sport Strategy 2019-2024 is a commitment by the City of Richmond to work with its partners, stakeholders and citizens to enhance the quality, reach and scope of recreation and sport services, programs, facilities and amenities for the benefit of all Richmond residents – individuals, families, and the Richmond community. The Strategy provides an opportunity to help inspire, motivate and engage Richmond residents to participate in recreation and sport. It will take the involvement and commitment of the entire community for all of Richmond to benefit.

# 1.0 Introduction

The City of Richmond is rich with a remarkable diversity of recreation and sport opportunities, as well as amenities and facilities brought to life by skilled and innovative staff and citizen volunteers. The commitment and ongoing involvement of many community partners and stakeholders and a vibrant natural setting that offers parks, trails and dykes to explore all contribute to a city with a significant amount to offer in terms of recreation and sport.

The Community Services Division offers residents of all ages and abilities access to recreation and sport programs and services and special events through community facilities, arenas, aquatic facilities, fitness and sport facilities and in outdoor spaces, parks and schools. The Division works to eliminate barriers and provide opportunities for people with disabilities, individuals and families in financial need and for Richmond's diverse cultural groups. Both indoor and outdoor opportunities are available to increase physical activity and overall wellness. Creating welcoming environments for those who are new to the community and offering an entry point to participate in recreation that includes arts, heritage, culture and sports are priorities.



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## 1.1 Purpose of the Strategy

The purpose of developing a Recreation and Sport Strategy is to guide the work of the Community Services Division, and especially the Recreation Services Department, over the next five years. The aim of the Strategy is to build on successes, enhance synergies with partners, and increase reach and impact of recreation and sport benefits to all residents in Richmond. The Strategy is intended to ensure leadership and support for recreation and sport through a vision, focus areas and a comprehensive list of actions.

Recreation and sport not only benefit individuals and families who are active and involved, but also enhance the well-being and vitality of their community. Recreation and sport activities have the potential to attract, mobilize and inspire individuals, groups and communities. Recreation and sport can also encourage citizenship and a sense of security and belonging.

The Strategy has an overarching goal of ensuring that exceptional recreation and sport opportunities are available, which inspire residents to be physically active and connected to their communities for a lifetime. In addition, the full spectrum of recreation and sport participation is seen as integral, from an active start, which is achieved through physical literacy, through to sport excellence for competitive athletes, all the way through to life-long physical activity and participation in sport.

Key benefits to participation in recreation and sport include<sup>1</sup>:

- Enhancing mental and physical well-being;
- Enhancing social well-being;
- Helping to build strong families and communities;
- Helping people connect with nature;
- Promoting active transportation and walkability;
- Providing economic benefits by investing in recreation;
- Achieving sport excellence for individuals and communities; and
- Creating safe and supportive environments through social development, community cohesion, reduced crime and economic development.

## 1.2 Creating the Strategy

The Richmond Recreation and Sport Strategy 2019-2024 was developed through an iterative and multi-phased engagement process involving a wide range of community stakeholders including recreation and sport organizations, the general public and City of Richmond staff. The process was led and guided by a strategic advisory committee and staff operational team.

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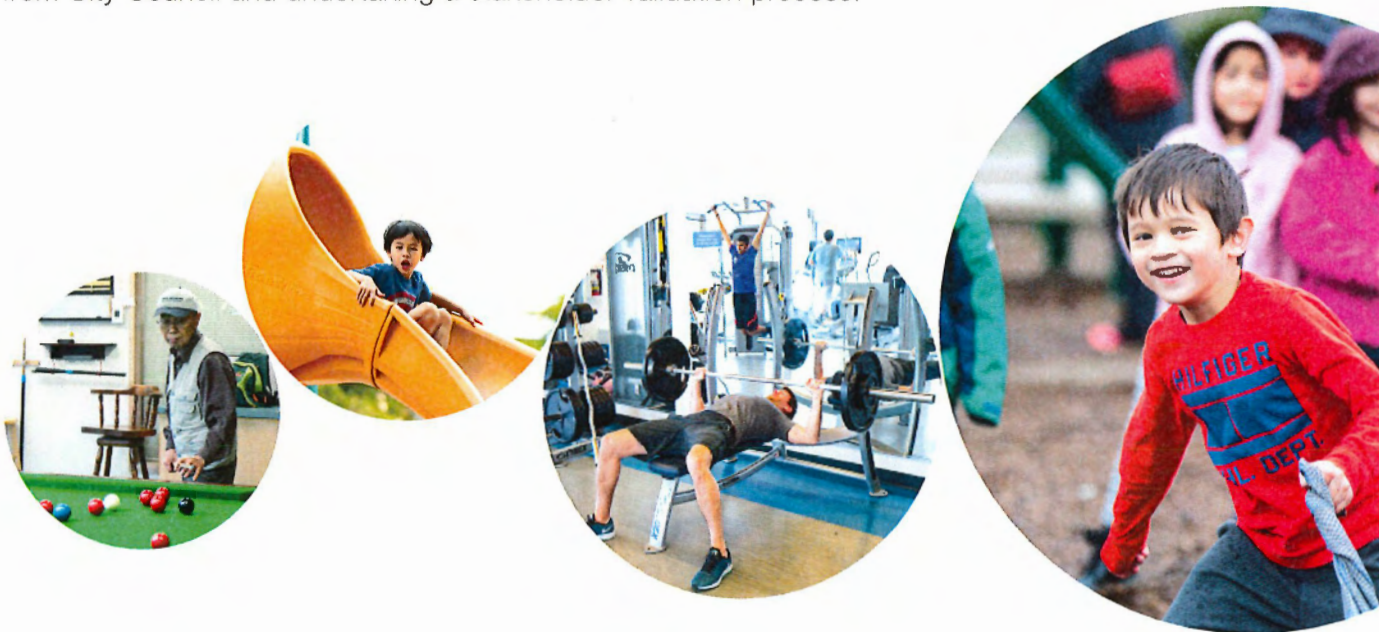
<sup>1</sup> Canadian Parks and Recreation Association/Interprovincial Sport and Recreation Council (February 2015). *A Framework for Recreation in Canada - 2015 - Pathways to Wellbeing*. Ottawa: Canadian Recreation and Parks Association; Richmond Sport for Life Strategy 2010-2015

The following chart outlines the process undertaken to create the Strategy.

### Phases of Strategy Development Process

CONTEXT	ENGAGEMENT	STRATEGY FRAMEWORK	ACTION PLAN & EVALUATION	FINAL STRATEGY
<ul style="list-style-type: none"> <li>Richmond Community Profile</li> <li>Jurisdictional scan</li> <li>Review of background documents</li> </ul>	<ul style="list-style-type: none"> <li>Strategic Advisory Committee</li> <li>Staff Operational Team</li> <li>Recreation and Sports Organizations</li> <li>Community Stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Development of Vision, Principles and Focus Areas</li> <li>Validation by Partners and Richmond City Council</li> </ul>	<ul style="list-style-type: none"> <li>Develop Action Plan and Evaluation Framework</li> </ul>	<ul style="list-style-type: none"> <li>Draft Richmond Recreation and Sport Strategy</li> <li>Validation by stakeholders</li> <li>Endorsement by City Council</li> </ul>

To support the development of the Strategy and provide context, a Richmond Community Profile<sup>2</sup> including recreation and sport utilization data was prepared along with a scan of recreation and sport trends and best practices nationally and provincially<sup>3</sup>. This supporting information combined with the results of the multi-phased consultation led to the identification of priority focus areas and the creation of an Action Plan. The Action Plan, created with broad input, outlines strategic actions that will make a measurable and meaningful difference to increasing participation in recreation and sport. An Evaluation Framework was prepared to guide the implementation of the actions and monitoring of progress for the Strategy. The final phase involved preparation of a draft Richmond Recreation and Sport Strategy Report, seeking endorsement from City Council and undertaking a stakeholder validation process.



<sup>2</sup> Richmond Recreation and Sport Strategy 2019-2024 Community Profile is available under separate cover

<sup>3</sup> Richmond Recreation and Sport Strategy 2019-2024 Jurisdictional Scan is available under separate cover



The Recreation and Sport Strategy was undertaken in conjunction with the creation of the Richmond Community Wellness Strategy 2019-2024, which was developed in partnership by the City of Richmond with Vancouver Coastal Health – Richmond, and Richmond School District No. 38. This was a strategic decision that recognized the significant contribution of a dynamic recreation and sport system to individual, family and community wellness. There is a major role for Recreation Services in helping to achieve the outcomes identified for the five focus areas of the Richmond Community Wellness Strategy 2019-2024:

1. Foster healthy, active and involved lifestyles for Richmond residents with an emphasis on physical activity, healthy eating and mental wellness;
2. Enhance physical and social connectedness within and among neighbourhoods and communities;
3. Enhance equitable access to amenities, services and programs within and among neighbourhoods;
4. Facilitate supportive, safe and healthy natural and built environments; and
5. Promote wellness literacy for residents across all ages and stages of their lives.

The Richmond Recreation and Sport Strategy builds on the Live, Connect and Grow - Parks Recreation and Cultural Services Master Plan 2005-2015<sup>4</sup> and the Richmond Sport for Life Strategy 2010-2015<sup>5</sup> which introduced the implementation of the Sport for Life-long Term Athlete Development (LTAD) model<sup>6</sup> and the foundational cornerstones:

- *Physical Literacy* – giving children the tools they need to take part in physical activity and sport, both for life-long enjoyment and for sporting success;
- *Active for Life* – facilitating life-long (adolescent to senior) participation in sport and physical activity for health, social and enjoyment benefits; and
- *Sport Excellence* – providing the training pathway for athlete success and transition back to being Active for Life.

The Richmond Recreation and Sport Strategy 2019-2024 reflects Richmond's renewed commitment to improving health, wellness and sporting experiences of all its residents by advancing physical literacy, increasing life-long participation in physical activity and fostering sport excellence.

### Richmond Strategies and Plans

The City of Richmond has developed and is implementing a number of major strategies and plans that influence, support and enhance the opportunities outlined in the Recreation and Sport Strategy. Examples of plans and strategies that provide relevant context and support the Richmond Recreation and Sport Strategy are identified in Appendix 5. In addition, a number of national and provincial frameworks and strategies that helped guide the development of the Richmond Recreation and Sport Strategy are identified in Appendix 6.

<sup>4</sup> Live, Connect, Grow - Parks, Recreation and Cultural Services: A Master Plan for 2005-2015 City of Richmond

<sup>5</sup> City of Richmond Parks and Recreation Department, Sport for Life Strategy 2010-2015 Endorsed by Richmond City Council November 2010.

<sup>6</sup> <http://sportforlife.ca/qualitysport/long-term-athlete-development/>



### 1.3 Canadian Sport for Life-long Term Athlete Development Model

The Canadian Sport for Life - Long Term Athlete Development (LTAD) model provides a framework for a national system that focuses on the well-being of citizens and the achievement of sport excellence. Developed by Sport Canada and Canadian Sports Centres, the model embraces the participation of a whole population or community in a continuum of sport and physical activity from infants to seniors. The model is divided into three areas of focus:

#### Physical Literacy

Provides children (ages of 0-12) with the tools they need to take part in physical activity and sport, both for life-long enjoyment and for sporting success. The model emphasizes the need for all children to be physically literate by having the fundamental movement skills, competence, confidence and motivation to move for a lifetime. An example of how the City is dedicated to developing physical literacy is through the 'physical literacy street team', which provides opportunities to sample various sports and acquire physical activity skills at events across the City.

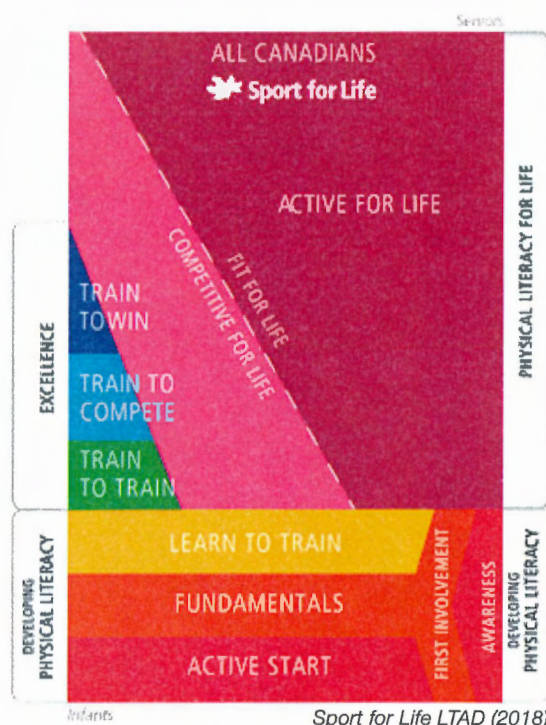
#### Active for Life

Facilitates life-long participation (from adolescents to seniors) in sport and physical activity for health, social and enjoyment purposes. This aspect of the model supports citizens in being physically active and participating in recreation opportunities and competitive sport.

#### Excellence

Provides a training pathway for athlete success both nationally and internationally. The pathway involves the 'playground to podium' concept and also addresses the transition of the athlete back to being Active for Life after pursuing podium performances. The steps involved in becoming competitive for life include training to train, training to compete and training to win.

The overall goal of the model is for all children to become physically literate, which lays the groundwork for future sport excellence or being active for life. Athletes that pursue excellence ultimately transition into active for life. Taking this model into consideration, it is evident that 'excellence' programming has a strong connection to the 'active for life' and 'physical literacy' components. This connection needs to be a focus when developing 'excellence' programming. The City has adopted the Canadian Sport for Life - Long Term Athlete Development (LTAD) model and continues to be committed to a strategic planning approach to ensure sport excellence.



## 1.4 Sport Excellence



Richmond is recognized for its dedication to sport excellence and for supporting high performance athletic development. The legacy of Richmond's role during the 2010 Winter Olympics has laid the foundation of the City being a leader in providing high performance training facilities and supporting athletes on the performance pathway. Richmond is home to several highly specialized recreation and sport facilities, amenities, programs and resources that help citizens reach their fullest potential as athletes. As a starting point, a range of community centres, pools, arenas and parks provide young residents with the building blocks to gain physical literacy skills.



Many residents continue to excel as athletes and begin to enter elite competition; this brings a plethora of benefits such as improved self-esteem, mental health and social skills, as well as the possibility of being a role model and leader. For athletes in Richmond that are on the performance pathway, a range of leading edge training facilities and resources (coaching and technology) are available to aid them in performing at their best. One such facility is the Minoru Centre for Active Living which is a 'Centre of Excellence' for active living and wellness. This innovative facility features an aquatic centre, dedicated seniors area and fitness centre. The aquatic centre includes two 25 meter pools, as well as a large leisure pool. The 'Centre of Excellence' also includes 8,500 square feet of fitness space offering state of the art equipment, there are also eight team rooms for sport field users and multipurpose spaces to support tournaments and events. The Minoru Centre for Active Living provides athletes on the performance pathway with an optimal space to train and excel.



As athletes continue to mature and develop they also have access to the Richmond Olympic Oval, which operates Centres of Excellence for volleyball, short track speed skating, hockey and table tennis. Also, the Canadian Sport Institute Pacific is located at the Oval, which aims to provide a world class, multi-sport daily training environment for athletes and coaches through leadership, services and programs. The Oval provides services for winter and summer sports from the community to Olympic level. In addition, Richmond has a Sports 'Wall of Fame' which recognizes the outstanding achievements of athletes, teams, coaches, officials, builders, pioneers and special achievements of sport in Richmond. It is prominently located at the Richmond Olympic Oval and is intended to inspire and educate residents and visitors.

The City is dedicated to supporting sport excellence and providing athletes the tools to reach their fullest potential. It is a priority for future generations to have opportunities to experience the full spectrum of athlete development. The benefits of this commitment are numerous as evidence suggests that experiencing the excellence stage of athlete development results in being active for life. Another concrete way in which the City is demonstrating its dedication to sport excellence is through being a pilot city for the Active Well-being Initiative, which is a global movement that helps cities and organizations to improve the lives of their citizens through the promotion of physical activity, sport and well-being for all. The City is a partner in this initiative and is in the process of being certified as a Global Active City.

Overall, planning and delivering opportunities for sport excellence are important as they are an integral component of ensuring that citizens remain active for life. It is vital that Richmond citizens have access to and benefit from the best quality leadership, coaching, officiating, administration and sport science in order to reach their fullest potential achievement as athletes.



# 2.0 Context



## 2.1 The Community Services Division Service Delivery Model

The Community Services Division is made up of four departments: Recreation Services; Parks; Arts, Cultural and Heritage Services; and Community Social Development. The Division's programs and services are delivered according to the Well-being Framework adopted in the Parks, Recreation and Cultural Services Master Plan 2005-2015, which also includes a focus on taking a relationship-based approach. The framework describes the essential needs of well-being, these include healthy lifestyles and a healthy environment, embracing diversity, ensuring a connected community and opportunities for individual growth. The Master Plan established a comprehensive service delivery model based on the following three approaches:

1. A Relationship-Based Approach describes how the City will work with others by valuing and encouraging community involvement and valuing effective partnerships;
2. Being Accountable in the context of recreation services means providing the best services and programs possible within the resources available;
3. A Service-Based approach focused on program and service priorities that:
  - Address community needs;
  - Deliver a range of opportunities that will reach all segments of the community; and
  - Ensure City and community resources are effectively allocated.

## 2.2 Community Relationships

The Recreation Services Department works with a range of community organizations, non-profit organizations, recreation and sport organizations, and individuals to provide programs and services. These relationships add value to people's experiences and provide a multitude of opportunities for people to become engaged in community recreation opportunities. Through embracing a relationship-based approach, the Recreation Services Department is able to successfully achieve its vision of being a leader in the planning and delivery of recreation and sport opportunities and inspiring residents to be active, connected and healthy for a lifetime.

### Community Associations

The City's eight Community Associations assist with understanding the needs of individual neighbourhoods and provide direct connections to community members for various outreach and consultation processes. They participate directly in delivering programs and services to the public.

### Sports Organizations

The Recreation Services Department works closely with both indoor and outdoor athletic organizations through the Richmond Sports Council on a wide range of initiatives and projects.





### 2.3 Trends Affecting Recreation – Challenges and Opportunities<sup>7</sup>

Recreation has evolved over time, and has been influenced by trends that often reflect societal and environmental changes. Current trends pose both challenges in terms of how to address them and opportunities to do things differently. These include:

**Shifting demographics** – population growth in many urban areas, including Richmond; increased immigration and an aging population highlighted by a large number of baby boomer retirees;

**Increasing diversity** – increase in newcomers brings multiple languages, diverse cultural identities and perspectives on how to engage in recreational activities;

**Physical inactivity** – physical activity levels have decreased due to sedentary lifestyles combined with societal and environmental changes;

**Social connectedness** – changes to the way we interact (social media vs. face to face), busy lives and changing neighbourhoods have affected social cohesion and connectedness and community involvement;

**Time segmentation** – busy lifestyles have led to more condensed time available for recreation;

**Shift to informal and individual activities** – activities that can be done at personally convenient times and locations;

**Growing leisure activities** – activities such as walking, cycling, gardening and outdoor activities have grown in popularity;

**Technology** – societal dependence on and acceptance of technology has grown exponentially over the last decade; and

**Back to nature movement** – encompasses environmental stewardship, reconnecting with nature, and experiential outdoor opportunities.

In order to stay relevant and meet the needs of the community, these trends, challenges and opportunities will need to be considered as Richmond designs and develops recreation and sport programs and services. For example:

- There will be greater demand for drop-in opportunities and scheduling of programs throughout the day;
- Recreational opportunities will need to meet the needs of a diverse population;
- Technology will be utilized to a much greater extent;
- There will be greater demand for open space systems including trails and pathways;
- Active transport and walkable communities create opportunity to be physically active as part of everyday life even when leisure time is limited; and
- An increasing percentage of Richmond residents will be living in multi-family housing and will rely on parks and open spaces.

<sup>7</sup> Adapted from BC Parks, Recreation and Culture Trends: BCRPA Appendix B – BC Trends in Quality of Life; Canadian Parks and Recreation Association/Interprovincial Sport and Recreation Council (February 2015). A Framework for Recreation in Canada - 2015 - Pathways to Wellbeing. Ottawa: Canadian Recreation and Parks Association. 40 pages. [www.cpra.ca/about-the-framework/](http://www.cpra.ca/about-the-framework/)



## 2.4 Overview of Current Situation - A Snapshot of Richmond Today

### The Data

The following summary of Richmond's community profile identifies factors associated with the health and well-being of Richmond citizens and participation in Richmond's community recreation and sport programs that are relevant to the development of the Recreation and Sports Strategy and to providing opportunities for lifelong involvement in recreation and sport. A detailed Richmond Community Profile for the Recreation and Sport Strategy is provided under separate cover<sup>8</sup>. The profile is based on currently available demographic, economic, social, health and lifestyle data for Richmond's population (see Appendix 4: Richmond Community Profile Data Sources).

### The City<sup>9</sup>

The City of Richmond is endowed with a vibrant natural setting that includes 1950 acres of park land, an extensive system of 147 parks, 73 km of trails and 60 km of road cycling paths. It is a unique 17-island city situated at the mouth of the Fraser River, providing an estuary for fish and migrating birds along the shores lined with walking dykes. The City provides a diversity of exceptional recreation facilities, services and amenities that include the Richmond Nature Park, eight Community Centres, Minoru Centre for Active Living, Watermania, two outdoor pools, two arenas, the Garratt Wellness Centre and the Richmond Pitch and Putt Golf Course.

Richmond has rich and varied arts, cultural and heritage amenities. The Richmond Cultural Centre is home to the Richmond Museum, the City of Richmond Archives, Richmond Arts Centre, Richmond Art Gallery, the Richmond Media Lab and the Brighthouse branch of the Richmond Public Library. Richmond has its own professional theatre, the Gateway Theatre. Arts in the Community initiatives bring critically acclaimed events on site or throughout different neighbourhoods in the City. Heritage facilities include the Britannia Shipyards National Historic Site, London Heritage Farm, Minoru Chapel, Steveston Interurban Tram Building and Steveston Museum.

The stewardship of these amenities and the vast parks and open space system which include trails makes a significant contribution to the liveability and healthy lifestyle opportunities in the City.

### Population Demographics

The City of Richmond is the fourth largest city in the Metro Vancouver area representing 8.3% of the population in this region. Richmond's population is growing and continues to grow with a high influx of new residents born outside of Canada (60%)<sup>10</sup>. The current estimated population (2016) for Richmond is 218,307. This represents a 4.1% increase from 2011. The growth rate from 1991 to 2011 was 50%. The population is projected to continue growing with an estimated population in 2041 of 280,000<sup>11</sup>.

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<sup>8</sup> Richmond Recreation and Sport Strategy 2019-2024 – Community Profile

<sup>9</sup> Richmond City Planning Hot Facts (the series, 2014-2017)

<sup>10</sup> Statistics Canada (2015) 2011 Population Census/Household Survey

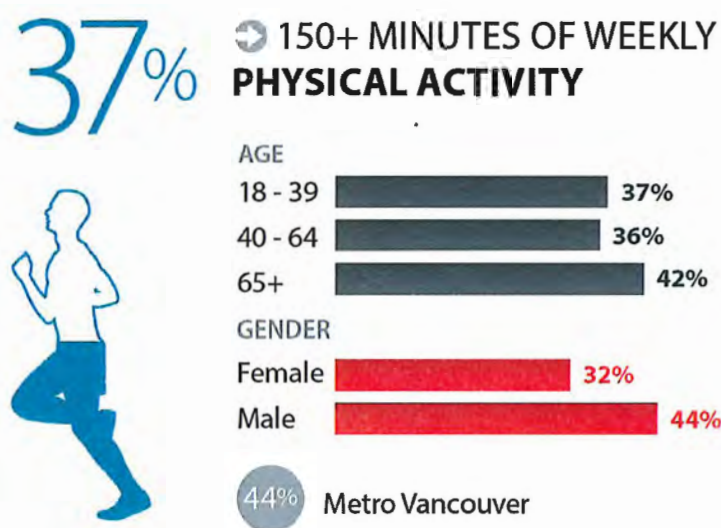
<sup>11</sup> BC Stats. (2015) Sub-Provincial Populations – P.E.O.P.L.E.

Richmond is known for its rich ethnic diversity. A majority of Richmond residents (70%) self-identify as a visible minority<sup>12</sup>. This is the highest proportion of any municipality in BC and the second highest in Canada. Many languages are spoken in Richmond (45.7% speak English at home; 90% are able to converse in English). Chinese is identified as the first language in 41% of homes. In nine of the 16 planning area neighbourhoods, a majority of residents (> 50%) are immigrants. In the 2014/15 school year, 27.8% of Richmond School District students were English Language Learners<sup>13</sup>. Understanding the unique needs of people from different cultures who speak different languages is important for improving access to recreation and sport opportunities.

Currently, the over 65 age group is growing faster than the under 15 age group in all Richmond neighbourhoods. Adults between the age of 45 and 60 years represent the largest population group<sup>14</sup>.

### Physical Activity and Active Transportation Measures<sup>15</sup>

Although Richmond adults are healthy by many indicators, according to the My Health My Community Survey<sup>16</sup>, Richmond residents rank lowest in BC for meeting physical activity targets (150 minutes/week, moderate to vigorous activity). Less than half of children and youth meet the physical activity targets and fewer females than males meet recommended physical activity guidelines.



*My Health My Community (2013/2014)*

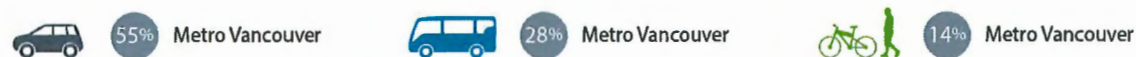
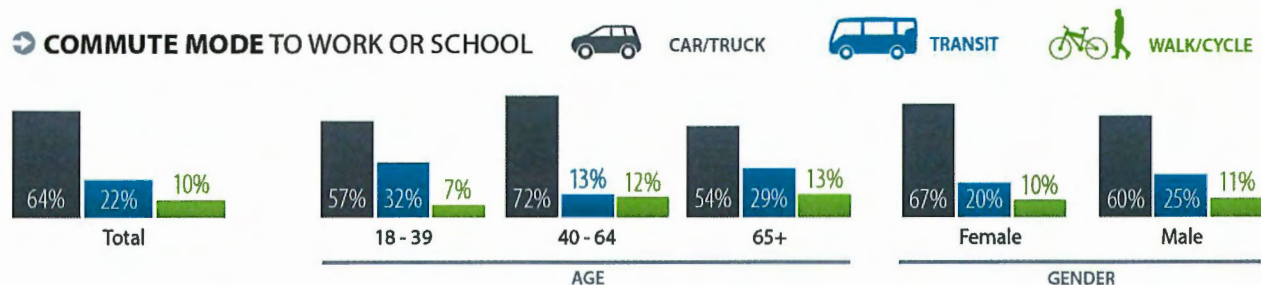
<sup>12</sup> Statistics Canada (2015) 2011 Population Census/Household Survey

<sup>13</sup> BC Ministry of Education

<sup>14</sup> BC Stats (2015) Socioeconomic Profiles

<sup>15</sup> My Health My Community (2013/14) Richmond

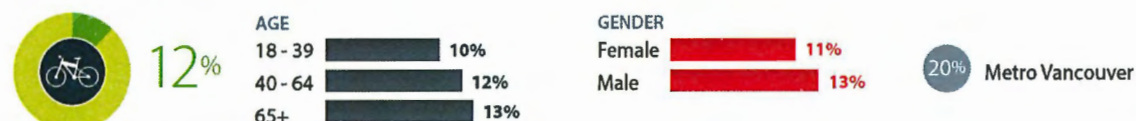
<sup>16</sup> My Health My Community is based on a statistically valid survey (2013-2014) of residents from Metro Vancouver municipalities, including Richmond, who provided information about their health, lifestyles choices, community involvement and neighbourhood characteristics. See also Appendix 4 for further information.



### MEDIAN\* COMMUTE TIME (ONE-WAY) \*Middle value



### WALK OR CYCLE FOR ERRANDS



My Health My Community (2013/2014)

The majority (64%) of residents commute to work by car compared to the regional average of 55%. Walking or cycling for commuting is reported by only 10% of the population and for errands by 12%.

## Current Facilities Use/Participation in Recreation and Sport

Richmond recreation and sport facilities are well-used. The following provides information about who uses the facilities, types of visits and the extent of use of key Richmond facilities as well as summarizes available data on sport participation.

Interestingly, the types of Richmond facilities used most frequently by Richmond residents, no matter where they live in the City, are: the library, a city park, field or outdoor court, and the dyke or park trail.

## Community Recreation Facilities

Based on 2017 participation data, there were 1,166,949 recorded visits to community recreation facilities<sup>17</sup>, which is an increase when compared to previous years. The community recreation facility that has had the most significant increase in visits in the past few years is City Centre Community Centre, which opened in 2016.

<sup>17</sup> Cambie Community Centre, Hamilton Community Centre, Sea Island Community Centre, South Arm Community Centre, Thompson Community Centre, West Richmond Community Centre, Steveston Community Centre, City Centre Community Centre/Lang Centre



### *Visits by Type and Gender/Age*

- Four types of visits are currently recorded by community recreation facilities: drop-in visits, event visits, membership visits and registered program visits;
- The majority of visits in 2017 were to attend a registered program (45.5%), or use a membership pass (45.8%). Drop in visits represents 8.7% of all visits and non-registered community events generated 2% of all visits. Note: event visits are estimates of attendance unless the event included ticket sales;
- There were over 500,000 registered program visits to community centres in 2017; and
- Program registrants are on average 53.8% females, 43.7% males and 2.5% undisclosed gender. 34.1% of program registrants are children aged six to 12 years, 32.3% are preschoolers zero to five years, 11.2% are adults aged 18-54 years, 5.6% are seniors aged 55-64, 10.0% are seniors aged 65 plus and 6.7% youth aged 13-17 years.

### *Visits by Category*

- Six categories of programs and services are offered through community recreation facilities: health and fitness, sports and open gyms, arts, general interest, child care, and events. Arts include dance, music, performing arts and visual arts programming. General interest includes computers, technology, social media, environmental sustainability, gardening, nature and science, cooking, outdoor trips and tours, languages, heritage and various other programs of interest to the community; and
- 46.4% of program registration in 2017 were to childcare programs, 16.1% for general interest programs, 10.2% for sports, 9.9% for daycamps 8.6% for arts, 5.8% for health and fitness programs and 2.9% in registered events.

### **Minoru Place Activity Centre (MPAC)**

Richmond offers a variety of recreational, wellness, cultural, educational programming and social opportunities for older adults and seniors at most community centres. The Minoru Place Activity Centre (MPAC) was specifically designed to offer older adults and seniors a welcoming environment to enjoy healthy and active lifestyles. The new Minoru Centre for Active Living will open for service in 2018. The facility will include aquatic and fitness services, seniors services and other recreation and sport amenities. It will replace the Minoru Aquatic Centre, the Minoru Place Activity Centre and the former Minoru Pavilion.

- Total visits to Minoru Place Activity Centre in 2017 were 78,733, which is an increase from previous years.

### *Visits by Type and Gender*

- The most popular method of attendance is by membership pass at 70.1% of visits. Registered programs draw 24.0% of visits, drop-in visits 4.9%, and events 0.1% of visits; and
- 68.9% of all registered program participants are female.

### *Visits by Category*

- Registered programs were the most popular (34.0%) followed by general interest programs (33.1%), health and fitness (23.7%), and arts (9.2%).



### Aquatics Facilities<sup>18</sup>

Aquatics facilities in Richmond had a total number of 1,052,424 visits in 2017.

#### *Aquatics Visits by Type and Age*

- The majority of aquatics visits in 2017 were membership pass visits (48.8%), followed by registered program visits (30%) and drop-in visits (21.2%);
- There were over 6,200 visits from school groups in 2017, which make up approximately 0.6% of visits with 63.9% of these visits taking place at Watermania;
- Program registrants (2017) are primarily children aged 6 to 12 years (50.2%) or preschoolers (0-5 years, 26.5%). 12.8% are youth aged 13-17 years, 8.8% are adults aged 18-54 years, and seniors aged 55 plus account for 1.7% of those registered for programs in 2017; and
- School board lessons make up approximately 2.0% of the total swim lessons with 731 children participating in 2017.



### Arena Facilities<sup>19</sup>

Arena facilities in Richmond had a total number of 574,654 visits in 2017.

#### *Arena Visits by Type and Age*

- The primary driver of 2017 arena visits were facility rentals by community groups (88.4% of visitors). Other visits entailed attendance at registered programs and memberships as well as open skate drop-ins, which account for (11.6%);
- School group visits make up approximately 2.2% of visits; and
- Program registrants (2017) are primarily children aged 6 to 12 years (62.5%) or preschoolers (0-5 years, 31.0%). 3.0% are youth aged 13-18 years, 3.3% are adults aged 18-54 years, and seniors aged 55 plus account for less than 1% of those registered for programs in 2017.



<sup>18</sup> Watermania, Minoru Aquatic Centre, Steveston and South Arm Outdoor Pools

<sup>19</sup> Minoru Arena and Richmond Ice Centre



### Richmond Arts Centre

The total recorded visits in 2017 were 79,764, which is an increase when compared to previous years.

#### *Visits by Type and Gender/Age*

- 73.9% of visits were for registered programs, 20.8% for events and 5.3% for rentals; and
- Registered program participants were primarily children (51.6%) and preschoolers (30.0%) with more girls (62.3%) than boys (34.7%) attending for both these age groups. Youth represented 5.8%, adults represent 8.6%, seniors 55-64 represents 1.9% of program registrants, and seniors 65+ represents 1.7% of program registrants: 72.8% of participants were female.



#### *Visits by Category*

- In 2017, program registration in arts programs included 39.6% in visual arts, 20.2% in dance, 9.9% in music programs, 7.3% in general interest programs, 6.3% in performing arts, 3.0% in day camps, and the remainder in a variety of programs such as languages, computers and fitness classes.

### Participation in Sport<sup>20</sup>

A number of sports opportunities are offered for children, youth and adults across the seasons. In 2017, 7,521 children/youth played organized community sports including soccer, football, lacrosse, ice hockey, ringette, skating, swimming, softball and baseball.

Trends over time as they relate to field sport participation data would suggest that youth participation in the primary field sports is changing as other sport opportunities emerge. Adult participation in soccer is growing due partially to the City of Richmond's investment in artificial turf fields and sport lighting that allows more groups to play on existing fields than previously.



Volunteers are the backbone of the sport organizations with over 193,000 volunteer hours to support the teams for field sports alone documented in 2017. This support includes coaching, team management and administration. Volunteers and volunteer hours make a significant contribution to ensuring the availability of diverse sport opportunities in Richmond.

## 2.5 Facilities and Facilities Strategic Plan Overview

Richmond is known locally, nationally, and internationally for its parks and open spaces and recreation, sport, cultural and heritage facilities. The provision of modern, well-maintained facilities that meet the current and future needs of residents is foundational to the success of this strategy.

The 2015 Facilities Strategic Plan (The Plan) provides direction to ensure that Community Services Facilities continue to be responsive to the current and future needs of Richmond. The Plan provides strategic direction, tactical guidance, and specific recommendations that outline a comprehensive strategy and implementation plan for informing facility investments and decommissions that support an appropriate level of service provision.

<sup>20</sup> Sport Participation Rates and Volunteer Hours (2017) – City of Richmond Recreation Services Data

The Plan provides a framework for the identification, evaluation, and scoring of projects within the Community Services Division. Projects are rated on nine criteria. Once rated, they are ranked and prioritized for consideration in the City's annual Capital Submission Request process. Minor capital improvements for facility maintenance and upkeep are also reviewed and evaluated annually, with significant funds being invested each year.

The City has a wide range of facilities which support the provision of creative, physical, social and educational activities, and add value to quality of life for residents throughout Richmond. Current facilities include:

- 9 Community Centres;
- 2 Ice Arenas with 8 sheets of ice in total;
- 2 Indoor Swimming Pools;
- 2 Outdoor Swimming Pools;
- The Richmond Olympic Oval (2 ice sheets, 8 gymnasiums, a 200m indoor running track, weight room, and other features including fitness studios, multipurpose spaces, and indoor rowing tank);
- Art Gallery, Cultural Centre, and Museum;
- 18 City-owned heritage sites; and
- Minoru Centre for Active Living (opening 2018).

The City also maintains and allocates the use of a wide range of outdoor sport facilities, including:

- 46 full size, natural turf soccer/rugby/football fields;
- 1 cricket pitch;
- 8 full size lit artificial turf fields;
- 2 artificial carpet lawn bowling greens;
- 1 competition track and field facility;
- 92 softball diamonds;
- 25 asphalt ball hockey courts;
- 23 baseball diamonds;
- 1 par 3 golf course;
- 3 lacrosse boxes;
- 2 skateboard parks;
- 61 tennis courts;
- 78 basketball courts;
- outdoor fishing piers; and
- 1 bike terrain park.

Additionally, ball hockey courts and some of the basketball courts are on Richmond School District No. 38 land and are maintained by Richmond School District No. 38. The City is committed to the continued provision of facilities, parks, and open spaces that are maintained, well-managed and sustainable, and that keep pace with community growth and needs.

# 3.0 Stakeholder Engagement

## 3.1 Stakeholder Engagement Process

The recreation and sport service delivery system in Richmond includes the City, provincial and national organizations, 50 private sector sports and fitness clubs, 70 community sport organizations, 10 Community Associations, the Aquatic Services Board, and numerous partners.

The Recreation and Sport Strategy was developed in collaboration with a Strategic Advisory Committee, a Staff Operational Team, and in consultation with core partners, stakeholders and the community. Approximately 150 stakeholders were consulted through numerous workshops, focus groups, interviews, and online surveys. See Appendix 1 for a detailed list of the Strategic Advisory Committee and Staff Operational Team, Appendix 2 for a detailed list of Stakeholders engaged and Appendix 3 for more details on the Richmond Recreation and Sport Strategy Engagement Process and Results.





Public Consultation (Spring 2017) was undertaken as part of the Richmond Community Wellness Strategy 2019-2024 and information gathered also informed the development of this strategy. This engagement, reached 781 respondents in the following ways:

- Online survey of parents through Richmond School District 38 PAC;
- Students from 10 classes in two elementary and two high schools;
- Public Consultation – Family Day;
- Public Open Houses in four branches of the Public Library (with Cantonese and Mandarin-speaking volunteers); and
- Let's Talk Richmond – Online survey.

Residents who participated in the consultation identified the importance of recreation and sport to community wellness and appreciated the many choices of programs, services and facilities Richmond offers. They identified the need for increased access to recreation and sport opportunities and to green space and nature, and recognized the benefits of these supports to encouraging physical activity, creating feelings of belonging and connectedness and to improving overall individual and community wellness.

### What is Working Well in Richmond

Recreation and Sport in Richmond is highly regarded as an important contributor to healthy and active lifestyles. Stakeholders consistently praise the number of choices and quality of recreation and sport programs, services, and events in Richmond. More specifically they value the variety of recreation and sport activities for all ages and in many locations across the City as well as many sport organizations representing a wide range of sports and providing a variety of opportunities for adults and youth.

Stakeholders highlighted that Richmond has a strong volunteer base and recognized the good work of the volunteer boards of the Community Associations. Community groups expressed a willingness to continue to work together with the City to further enhance recreation and sport for all residents.

*"Richmond has many recreation and sport facilities, parks and fields, walking and cycling paths."*

*"There is still a 'small town feel' in Richmond that can be built upon while addressing the urban density in certain parts of the City."*

*"The City is responsive and provides many opportunities for community input."*

*"There is a synergy and good working relationship between community-based organizations and the City."*



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## 3.2 Key Themes Identified by Stakeholders

The themes outlined in this section were consistently identified by stakeholders in the workshops, focus groups, interviews, and online surveys when asked *“what are the key priority areas for the Richmond Recreation and Sport Strategy?”*

### Awareness and Understanding

- Focus on opportunities and benefits of recreation and sport; and
- Use multiple ways of communicating.

### Outreach

- Take programs and services to where people are, e.g., into their neighbourhoods, apartment complexes, mobile services, churches, etc.; and
- Implement strategies that motivate and engage individuals and groups who otherwise do not participate in recreation and sport.

*“We would like to see more buddy programs and people that can reach out and help others participate”*

*“People need to have opportunities to experience different programs and services to encourage them to participate”*

*“We like the library and would go to events and educational workshops at the Library”*

### Neighbourhoods

- Provide more recreation and sport amenities and opportunities at a neighbourhood level.
- “We need more recreation programs closer to home, more in our neighbourhoods”*

*“Important to feel safe for us to go out into the neighbourhood and on the streets”*

*“Recreation and sport activities will help bring people out in our neighbourhoods – will help make us feel more connected to others”*

### Physical Literacy/ Sport for Life

- Support engagement in physical activity throughout one's life.
- “Support, encouragement and confidence to be active for life is needed”*







## Access

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- Recreation and sport opportunities need to be inclusive, welcoming and ensure everyone can participate regardless of age, ability, gender, income, language, and ethnicity; and
- Reduce barriers relating to affordability, availability, proximity, culture, language, child minding, mental and physical challenges.

*"We love the free events and events for the entire family – we would like to have them more regularly"*

*"Programs need to be affordable"*

*"Programs need to be offered at more flexible times"*

*"There should be more opportunities to bring different cultural groups together to talk and get to know each other"*

*"Adults need to have greater choices to encourage them to participate"*

*"We would like to see more therapeutic recreation and exercise, healthy aging and falls prevention"*

## Participation of all Children and Youth

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- Focus on:
  - Early years;
  - Youth during transition years;
  - Before, during and particularly after school programs; and
  - Enhancing participation of girls (and women) in sport.

*"There is a need for after school programs for our children"*

## Built and Natural Environment

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- Indoor and outdoor spaces that are safe, inclusive and inviting gathering places;
- Efficiencies in use of facility space and playing fields and extending usage with covers, improved surfaces, lighting; working with others to secure space (schools, developers, condo managers/strata);
- Unstructured indoor and outdoor play opportunities; and
- Connection with nature and more green spaces.

*"We need more green spaces"*

*"More places and spaces for gathering that are inviting would be very helpful"*

### Collaborations and Partnerships

- Engage in more intentional, formal partnerships to expand reach and impact of the recreation and sport programs.  
*"Need for partnering with other City Departments as well as external community groups"*



### Volunteers

- Support recruitment and retention of volunteers who are critical to the delivery of recreation and sport.  
*"More training of opportunities for sport organization volunteers would be beneficial, e.g., coaches, volunteer executives and managers"*



### Joint Training and Planning

- Engage in joint planning, training and education opportunities for recreation and sport staff City-wide and with other City Departments as appropriate, and key partners and volunteers.

### Technology

- Maximize use of technology to enhance awareness, motivation and participation in recreation and sport.



### Evaluation

- Measure and report on progress and outcomes.



# 4.0 Platform for Change

## 4.1 Definition and Vision for Recreation and Sport in Richmond

### DEFINITION

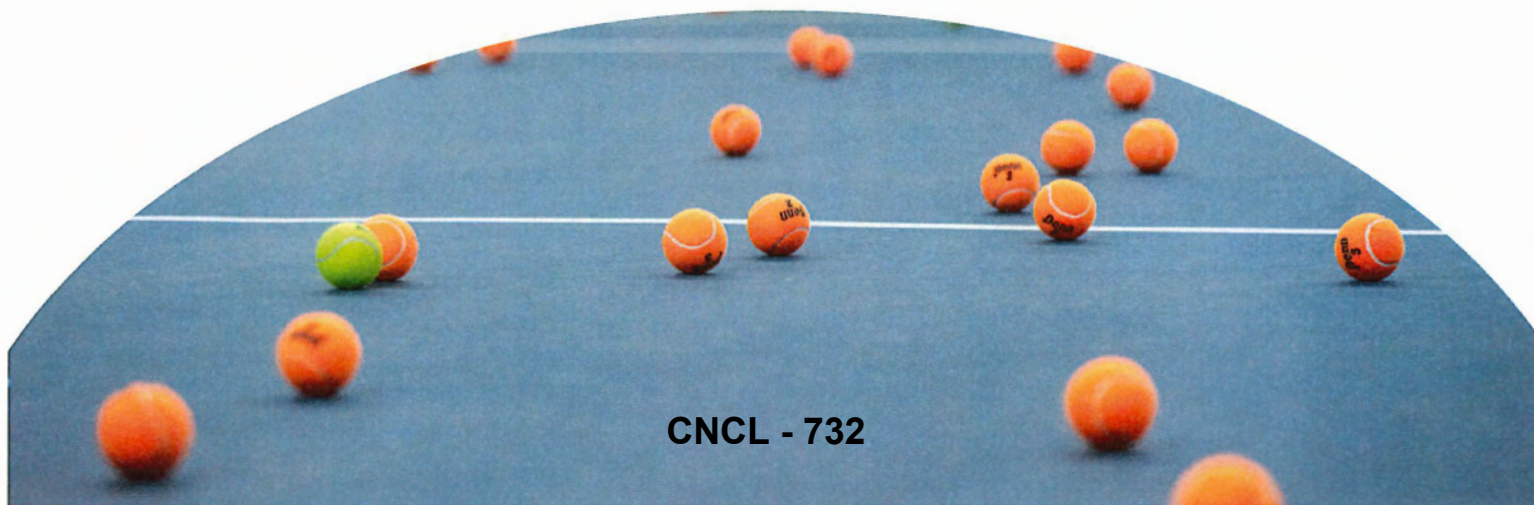
*The Framework for Recreation in Canada 2015: Pathways to Well-being* identifies common ways of thinking about the role of recreation in Canadian life and has been endorsed nation-wide by all levels of government and parks and recreation organizations. The following definition of recreation was developed for the national framework:

*Recreation is the experience that results from freely chosen participation in physical, social, intellectual, creative and spiritual pursuits that enhance individual and community well-being.*

This definition was used as reference for the Richmond consultation. Richmond stakeholders modified the national framework for recreation definition to reflect the specific interests and cultural needs of Richmond's residents as follows:

*Recreation is the experience resulting from participation in physical, social, intellectual, creative, cultural and spiritual pursuits that enhance individual and community well-being.*

Recreation includes, but is not limited to, physical activity, sport, arts, culture and heritage.



## THE VISION

The vision for recreation and sport in Richmond was developed through a collaborative and holistic approach; the result is a future-oriented and aspirational vision:

### *Vision for Recreation and Sport in Richmond*

*Richmond is a leader in the planning and delivery of recreation and sport opportunities, inspiring individuals and communities to be active, connected and healthy for a lifetime.*

## 4.2 Recreation and Sport Action Plan

The Community Services Division and its partners are dedicated to both organized and grassroots recreation. The Division believes that recreation and sport is “*about every child finding their activity ‘for life’, and ‘every adult connecting to a recreational activity or sport as well as to each other’*”. Building community capacity through enhancing participation in recreation and sport and strengthening collaborative efforts and partnerships with schools, community facilities, community groups, multicultural groups and sport organizations is an overall priority. Well maintained facilities that meet the needs of a growing and diverse population, as well as supportive built and natural environments are seen as critical to successful recreation and sport opportunities. There is a strong commitment to use technology and innovation in the effort to enhance recreation and sport participation.

These priorities, supported by data, best practice research and the results of the broad consultation led to the identification of seven focus areas and the creation of an action plan. Outlined below are the strategic actions that will make a measurable and meaningful difference to realizing the intent of each focus area. Collectively, these actions aim to inspire, motivate and support active participation in recreation and sport by all Richmond residents.

### 1. Awareness and Understanding:

Richmond residents understand the opportunities and benefits of participation in recreation and sport.

Key Action/Program/Initiative		Start Implementation
1	Develop and implement a communication plan to increase awareness of the benefits and opportunities of recreation and sport for community members, partners and City staff. The plan should link to and leverage national recreation, sport and active living campaigns and activate these campaigns at a local level.	Year 2: Develop, Initiate Year 3: Implement
2	Continue to develop and provide a variety of educational resources for parents to inform them of the value of recreation, physical literacy, physical activity and sport.	Annual
3	Conduct annual scanning of trends, best practices and private recreation opportunities to understand residents' needs and inform program decisions.	Annual



## 2. Engaged Community

Recreation and sport opportunities are accessible, inclusive and support the needs of a growing and diverse population in Richmond.

Key Action/Program/Initiative		Start Implementation
1	Increase opportunities for Richmond residents of all ages to sample recreation and sport activities.  Look at multiple outlets for providing sampling opportunities (e.g., bring sampling to already existing groups – schools, religious establishments, malls, etc.).	Year 2: Identify opportunities Year 3: Implement
2	Conduct a study on barriers to sport and recreation participation in identified neighbourhoods or communities and take action to reduce barriers accordingly (build on learnings from the City Centre Active Communities Project).	Year 2: Conduct study Years 3-5: Reduce barriers
3	Work with sport organizations to ensure that individuals with financial hardships are directed to the City of Richmond's fee subsidy program, Richmond KidSport or Jump Start for assistance.	Ongoing
4	Develop and implement a strategy for increasing women and girls' participation in recreation and sport. An outcome from this strategy would be an increase in the number of female coaches in Richmond Sport Organizations.	Year 3: Develop strategy Year 4-5: Implement
5	Work with local intercultural and immigration organizations to introduce residents to local recreation and sport organizations and opportunities.	Year 2: Confirm methodology Year 2: Implement
6	Collaborate with community partners to ensure children and youth have the opportunity to participate in school sport teams, community sport organizations and recreational leagues.	Year 2: Confirm methodology Year 3: Implement
7	Provide additional supports for children with special needs so that they are integrated into and supported in participating in programs and services.	Year 1: Identify supports Year 2-3: Implement
8	Celebrate excellence in sport by creating opportunities to meet sports idols. This could include meeting professional and elite teams and athletes in the community.	Year 2: Identify opportunities Year 3: Implement
9	Apply Richmond Age-Friendly Assessment and Action Plan 2015 guidelines in planning all recreation and sport programs, services and amenities.	Ongoing
10	Develop, implement and promote a "play" lens to appropriate recreation programs across the Community Services Division.  Ensure this takes into account the child's right to play and partake freely and entirely in "age-appropriate recreational experiences, cultural life, and artistic and leisure activities", as outlined in the United Nations Convention on the Rights of the Child.	Year 1: Develop Ongoing
11	Expand the City-wide intergenerational "mentoring program" where seniors and youth exchange skills and experiences, and support each other in participating in recreation and sport opportunities.	Year 3
12	Work with Arts, Culture and Heritage to incorporate activity/movement opportunities, where feasible, within programs.	Year 2
13	Provide opportunities for Provincial Sport Organizations and National Sport Organizations to be involved in local events.	Ongoing
14	Develop a recognition program for athletic achievement for children and youth.	Year 2



### 3. Physical Literacy and Sport for Life:

Richmond residents have the fundamental movement skills, competence, confidence and motivation to move for a lifetime.

Key Action/Program/Initiative		Start Implementation
1	Continue to integrate fundamental movement skills into all community recreation programs, addressing all ages from early childhood to older adults.	Ongoing
2	Establish a task force or working committee to align the Long Term Athlete Development (LTAD) pathways by coordinating recreation, school, community and Oval programming.	Year 2
3	Enhance pathways from recreation to sport and sport to recreation.	Year 3: Confirm methodology Year 4: Implement
4	Increase opportunities for Richmond children, youth and adults to participate in all stages of the long-term athlete development model.	Year 2: Identify opportunities Year 3: Implement
5	Encourage and support sport groups to implement the Long Term Athlete Development (LTAD) model and the quality sport criteria.	Year 2: Determine support Year 3: Implement
6	Develop and implement initiatives targeting older adults/seniors participation in sport for life.	Year 2: Develop Year 3: Implement
7	Work with School District No. 38 to embed physical literacy mentors in elementary schools to support teachers and assist schools to develop a physical literacy curriculum appropriate for a range of ages and levels.	Year 3: Confirm methodology Year 4: Implement
8	Work with School District No. 38 to offer workshops on Physical Literacy at elementary school professional days.	Year 3: Plan Year 4: Implement
9	Assess, benchmark, identify and implement improvements to enhance Richmond's Fundamental Movement Skills program using the Physical Literacy Environment Assessment.	Year 3: Assess & Benchmark Year 4: Implement
10	Build partnerships with senior levels of government to strengthen the Excellence Pathway for athletes and Active for Life participation.	Year 3: Confirm methodology Year 4: Implement
11	Investigate the expansion of the 'Richmond Virtual School' Secondary Program for Grade 10-12 athletics in partnership with the Oval and Richmond School District No. 38.	Year 2
12	Continue to support the Gym Works™ program for registered athletes with the Canadian Sport Institute and expand it as new facilities come online.	Year 1





#### 4. Active People and Vibrant Places:

Natural and built environments within neighbourhoods in Richmond encourage connectedness and participation in recreation and sport.

Key Action/Program/Initiative		Start Implementation
1	Implement the Active Communities Grant Project focusing on physical activity initiatives in the City Centre neighbourhood, an initiative of the Richmond Community Wellness Strategy 2019-2024.	Year 1
2	Review and update Facility and Field Allocation Policies to ensure effective and efficient use of City resources.	Year 2
3	Provide inclusive, safe and welcoming facilities and spaces for recreation and sport programs and services.	Ongoing
4	Include infrastructure (i.e., power, water and covering) that promotes and supports grass roots activity in parks and open spaces.	Ongoing
5	Incorporate unstructured recreation and sport opportunities in public parks and open spaces, i.e., urban design features that can be used for free play, training and parkour.	Ongoing
6	Develop and implement a “roving leader” program to animate and engage the community in physical activity in parks and public spaces.	Year 2 Develop plan Year 3 Implement
7	Expand the “Live 5-2-1-0 Playbox” program to additional parks across the City.	Ongoing
8	Work with grassroots organizations and schools to increase the number of walk-to-school programs.	Year 2 Develop plan Year 3 Implement
9	Develop and implement bike education initiatives or programs for children and youth in each neighbourhood.	Year 3 Develop plan Year 4 Implement
10	Investigate opportunities to host multi-sport games that increase community pride, economic development and provide legacy benefits for the community and contribute to the vibrancy of the City (e.g., Youth Olympic Games).	Year 3
11	Offer increased opportunities for families to be active together.	Ongoing

#### 5. Connectedness to Nature:

Richmond residents enjoy opportunities to connect with nature.

Key Action/Program/Initiative		Start Implementation
1	Develop a public awareness initiative to increase understanding of the importance of nature to recreation and wellness.  Include a focus on the role of recreation in aiding people to connect to nature, and the importance of environmental sustainability in parks and recreation (Connected to Focus Area 1 Action 1).	Year 2: Develop Year 3: Implement
2	Increase the number of nature play elements in parks and playgrounds City-wide, in order to grow opportunities for children to play outdoors and interact with nature.	Ongoing
3	Provide an increased number of guided outdoor recreation programs within or outside of Richmond (e.g., hiking, biking and paddling trips).	Year 3: Develop Year 4: Implement
4	Provide an increased number of guided nature and conservation science educational options.	Year 3: Develop Year 4: Implement



## 6. Community Capacity-Building:

Collaborations, partnerships and volunteerism are strengthened to expand the reach and impact of recreation and sport in Richmond.

Key Action/Program/Initiative		Start Implementation
1	Establish a strategic alliance leadership team that is united by a common vision and acts as an advisory body for recreation and sport.	Year 1
2	Work with Richmond Sports Council to develop and implement club quality standards for clubs, groups, programs and services.	Year 2 Develop Year 3 Implement
3	Conduct an assessment of the supports required to ensure local sport organizations are healthy, vibrant and able to provide excellent opportunities for residents, and address identified priorities.	Year 2: Develop plan Year 3: Implement
4	Increase opportunities for young athletes with Richmond's local sports clubs to lead and teach sports programs at community centres.	Year 3: Establish methodology Year 4: Implement
5	Develop and implement a strategy to build capacity of early years providers to promote and integrate physical literacy into programming.	Year 3: Develop strategy Year 4: Implement
6	Develop and implement career awareness, preparation and development strategies to attract and educate new leaders.	Ongoing
7	Find and involve champions for recreation and sport. A champion could be an individual, community group or City staff member.	Ongoing

## 7. Technology and Innovation:

Technology and innovative ideas connect and inspire Richmond residents to participate in recreation and sport.

Key Action/Program/Initiative		Start Implementation
1.	Promote new technologies and innovations associated with Recreation at the City of Richmond.	Ongoing
2.	Identify opportunities to adapt existing apps designed to increase participation in recreation and sport. Initiate adaptation and co-branding options for the City, as feasible.	Year 2: Research Year 3: Implement
3.	Develop and implement an 'App' for Richmond's walking, running and cycling routes with built-in incentives to measure progress and reward participation.	Year 2: Develop Year 3: Implement
4.	Expand or enhance the Richmond App to allow for previewing of classes and programs and enable customization of schedules.	Year 3: Develop Year 4: Implement
5.	Develop and implement a library of multi-lingual videos to introduce people to recreation programs and services.	Year 4: Develop Year 5: Implement
6.	Introduce the use of traffic counters for trails, sidewalks and bike routes in order to measure the use of various active transportation routes.	Year 2: Research Year 3-5: Implement



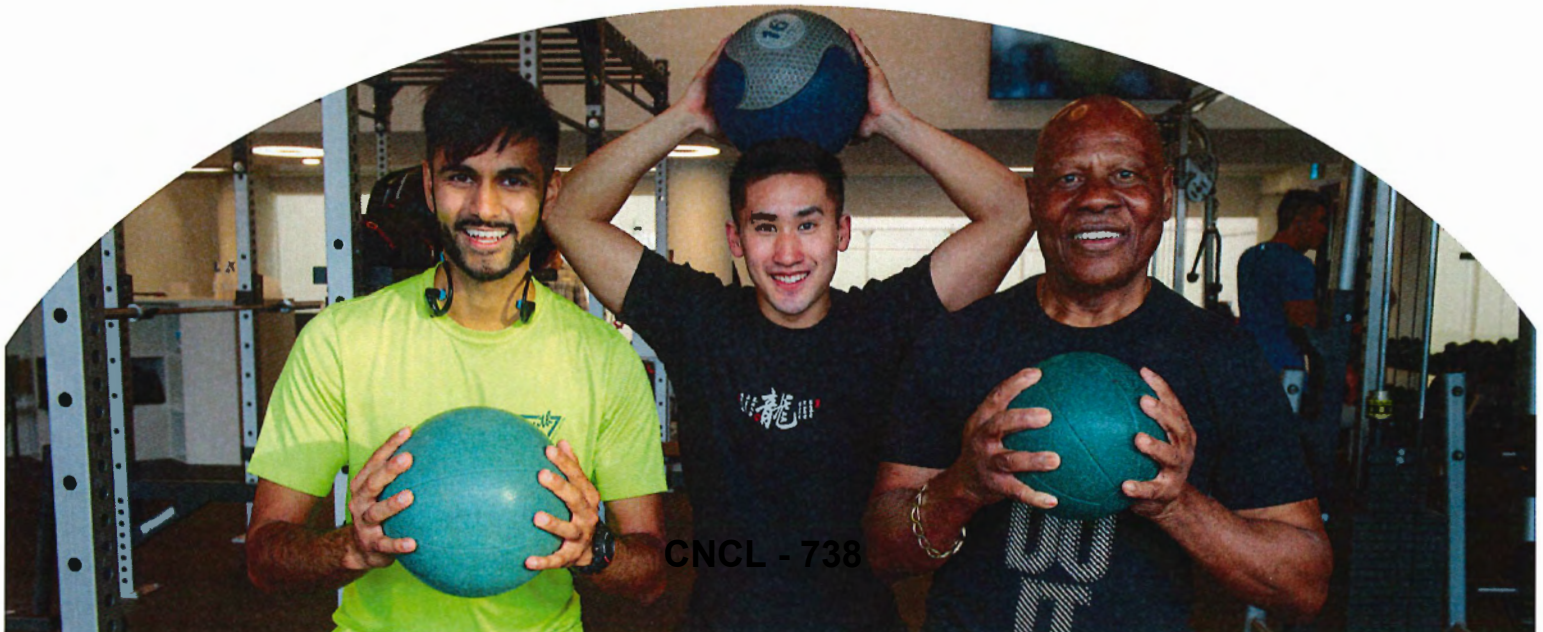
# 5.0 Measuring our Progress

## 5.1 Evaluation Framework and Logic Model

The Richmond Recreation and Sport Strategy 2019–2024 Evaluation Framework has been developed and is available under separate cover. An Evaluation Logic Model and an Implementation and Outcomes Evaluation plan are key components of the Evaluation Framework that will help guide the Community Services Division and especially the Recreation Services Department, in evaluating the process of implementing the key initiatives of the Strategy and to measure the achievement of desired outcomes both in the medium and long term. The overall aim of the evaluation is to ensure progress toward the essential outcome - increased participation of all Richmond residents in recreation and sport to enhance individual, family and community wellness.

### Evaluation Logic Model

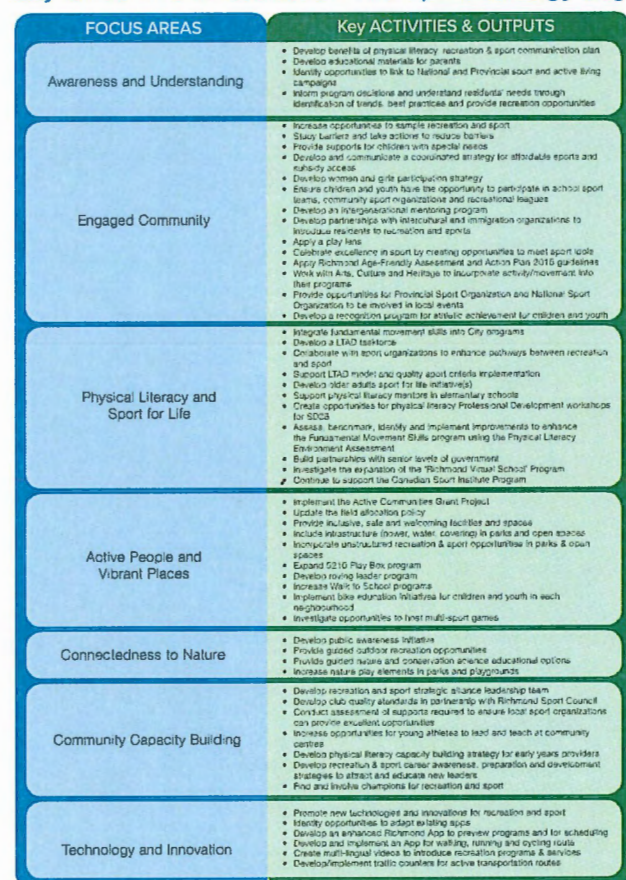
The Recreation and Sport logic model provides a high level visual representation of the relationship between the activities identified for each of the focus areas and the medium and long terms outcomes.







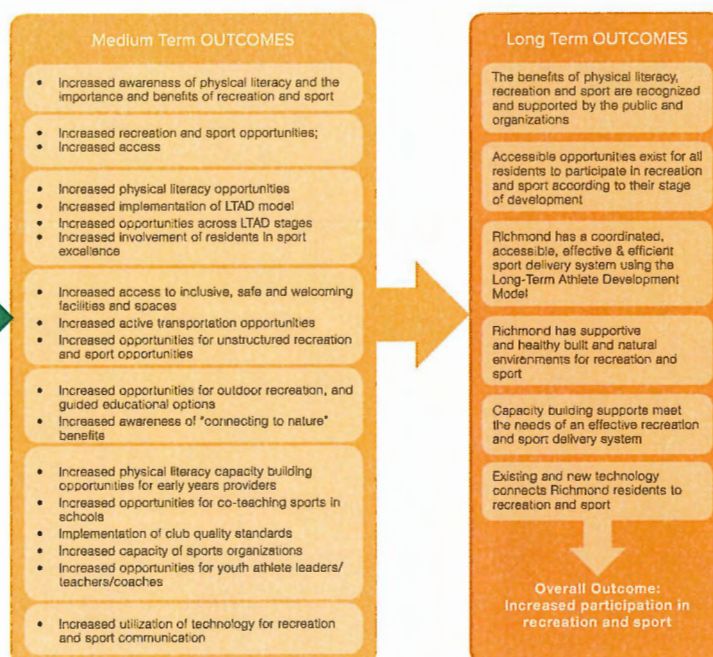
## City of Richmond Recreation and Sport Strategy Logic Model



**Situation:** Improve participation in recreation and sport; improve access to recreation and sport programs and services; improve physical literacy; enhance supportive built and natural environments; improve connection to nature; enhance community capacity; and utilize technology.

### Inputs:

**Organizational level:** Partnership, funding, coordination and oversight, and monitoring and communication.  
**Program and Project level:** Resources, staff, volunteers, and facilities.





## 5.2 Measuring Results - Implementation and Outcomes Evaluation Plan

Implementation or process evaluation and an outcomes evaluation (both in the medium term and in long term) will be undertaken.

**Implementation (process) Evaluation:** provides a guide for assessing whether the initiatives and actions under each focus area are implemented as intended and what further work needs to be done. The intent is to identify what is working well and what is not, to determine what adjustments need to be made, implement the necessary adjustments, and, in a specified time, assess again (PDSA Cycle for Continuous Quality Improvement: Plan, Do, Study, Act <sup>22</sup>).

**Medium-term Outcome Evaluation:** provides a guide to measure what progress has been made toward achieving the desired results once the actions have been implemented. This usually occurs half way through the Strategy timeline. It also provides an opportunity to review and then assess what changes may be needed.

**Long-term Outcome Evaluation:** is intended to measure progress made in the longer time frame to achieve the desired results identified for each focus areas and the overall aim of the strategy to increased participation in recreation and sport.

### Examples of key evaluation questions to guide the evaluation include:

- Is there a greater awareness and understanding of the benefits of recreation and sport and physical literacy?
- Have barriers to access (e.g., geographic, financial, language) been addressed?
- Are programs, services and amenities inclusive (e.g., welcoming for all ages, genders, cultures and abilities)?
- Has the Long Term Athlete Development (LTAD) model been adopted and implemented by the sport organizations?
- Are the Sport for Life principles, including physical literacy, integrated into the recreation and sport programs?
- Have changes to the built and natural environment helped to support increased recreation and sport participation. Are Richmond neighbourhoods more walkable?
- Has the addition of nature play elements to parks and playgrounds increased recreation and sport participation? Do residents feel more connected to their neighbourhoods?
- Has the capacity of key organizations and stakeholders been strengthened to meet the needs of the recreation and sport system?

<sup>22</sup> <http://www.ihl.org/resources/Pages/Tools/PlanDoStudyActWorksheet.aspx>



## Data Collection Methods and Sources

Where possible, data collection methods and sources for the evaluation will use and build upon available reliable data and established data collection/analysis systems. These include, for example, data on:

### Adults

- Richmond recreation and sport services participation rates, and recreation and sport facility and program utilization from the *City of Richmond Community Facilities Profiles* (annual report, 5 year trend over time, adult users/registrants);
- Recreation and sport facility and public spaces use, program participation measures and value perceptions from the *Community Needs Assessment* (2015 baseline, planned follow-up surveys every 5 years, a multi-language telephone survey of a representative sample of Richmond residents, adult users/non-users); and
- Physical activity levels, other lifestyle and health indicators and social connectedness measures from *My Health My Community* (baseline 2013/2014, planned follow-up survey every 5 years, multi-language survey of a representative sample of Richmond residents, adults). Metro-Vancouver comparisons and enhanced analysis of priority topics are available.

### Children and Youth

Reliable repeated measures reports providing trend over time data for Richmond children and youth relating to physical activity levels, other lifestyle factors and health, social and emotional development/connectedness and sense of belonging are available from: the BC Ministry of Education (*BC School Satisfaction Survey* for grades 4, 7, 10 and 12); the McCreary Centre Society (*BC Adolescent Health Survey*); the *Human Early Learning Partnership* (EDI - Early Years Development Instrument); and MDI (Middle Years Development Instrument).

However, new or enhanced data collection methods and tools will be needed to evaluate many of the actions identified in the strategy, e.g., records, surveys, stakeholder interviews and focus groups, photographic records, special reports, program-specific evaluations and use of technology. This will require collaboration with community associations and other partners, sport organizations and community groups to determine appropriate data collection processes and to establish templates for data to be collected as well as timelines for collection.

The following table identifies examples of indicators/measures and targets to be used in the evaluation of the Recreation and Sport Strategy. As indicated above, a variety of data sources and qualitative and quantitative data collection methods will be used to measure outcomes. The full complement of outcomes, indicators, data sources and timelines are outlined in the Richmond Recreation and Sport Strategy Evaluation Framework – Technical Document is available under separate cover.

Focus Area	Indicator/Measure	Target Trend
Awareness and Understanding	<ul style="list-style-type: none"> <li>Communications initiatives and resources for community members, partners and City staff.</li> <li>Understanding and awareness of physical literacy.</li> <li>Understanding and awareness of recreation and sport opportunities and benefits.</li> </ul>	↑
Engaged Community	Barriers to access and participation.	↓
	<ul style="list-style-type: none"> <li>Opportunities to sample programs.</li> <li>Recreation and sport program opportunities.</li> <li>Resident participation and engagement.</li> </ul>	↑
Physical Literacy and Sport for Life	<ul style="list-style-type: none"> <li>Fundamental movement skills integrated into community services programs.</li> <li>Long Term Athlete Development (LTAD) Model adopted by sport groups.</li> <li>Physical Literacy initiatives implemented in schools.</li> <li>Children, youth and adults involved in all stages of the LTAD pathway.</li> <li>Involvement of residents in sport excellence.</li> </ul>	↑
Active People and Vibrant Places	<ul style="list-style-type: none"> <li>Welcoming, safe facilities and spaces.</li> <li>Infrastructure improvements.</li> <li>Active transportation.</li> <li>Unstructured recreation and sport opportunities in public parks and open spaces.</li> </ul>	↑
Connectedness to Nature	<ul style="list-style-type: none"> <li>Awareness of benefits of being in nature.</li> <li>Nature play opportunities.</li> <li>Nature education options.</li> <li>Residents connected to nature.</li> </ul>	↑
Community Capacity-building	<ul style="list-style-type: none"> <li>Sport organization capacity to provide excellent opportunities.</li> <li>Young athletes lead and teach recreation and sport programs.</li> <li>Early years providers promote physical literacy.</li> <li>Champions for recreation and sport established and recognized by the community.</li> </ul>	↑
Technology and Innovation	<ul style="list-style-type: none"> <li>Technology and innovation supports recreation and sport.</li> <li>Apps enhance recreation and sport participation.</li> <li>Multi-lingual videos introduce residents to opportunities.</li> </ul>	↑
OVERALL OUTCOMES	<ul style="list-style-type: none"> <li>Participation of all residents in recreation and sport.</li> <li>Richmond residents achieve physical activity targets.</li> </ul>	↑

### Evaluation Implementation Considerations

An Evaluation Committee will also be established to facilitate data collection and analysis for reporting on progress and results.

**Reporting:** The Recreation Services Department will provide a report on the process evaluation measures and outcome evaluation measures of the Recreation and Sport Strategy at 2.5 years and 5 years.





# 6.0 Strategy Implementation

There are many individuals who must be involved in the implementation of the Strategy if the actions outlined are to be implemented and the outcomes realized. Implementation of the Strategy will be the responsibility of the Community Services Division, and especially the Recreation Services Department, in partnership with Richmond's Community Associations, Richmond Sports Council, the Richmond Olympic Oval as well as a range of other community organizations and partners.

It is only through engaging with and harnessing the expertise and leadership of all partners that serve the community's recreation and sport needs that the vision of the Strategy will be realized. A leadership team with representation from the Recreation Department, the Richmond Olympic Oval, Richmond Sports Council, Richmond Council of Communities and the Richmond School District will meet at least quarterly to provide advice and guidance to action teams who are responsible for moving specific actions forward. City and Richmond School District No. 38 staff will also meet regularly to ensure the successful implementation of identified actions.

Staff across the Recreation Services Department will develop annual work plans which include key priorities for moving the Strategy forward.

## 6.1 Communication

Continuous communication and information sharing is also key to the successful implementation of the Strategy. A variety of tools and techniques are anticipated to be used, including:

- Regular sharing of information through both staff and board meetings;
- Annual reporting on work plans;
- Recognition and celebration of successes as actions are implemented and achievements realized; and
- Review and reporting of annual participation statistics.

Ongoing communications both internally and externally will help to ensure the Strategy is top of mind for staff and that the actions and outcomes are realized.





# 7.0 Conclusion

The Recreation and Sport Strategy 2019-2024 is a commitment by the City of Richmond to work with its partners, stakeholders and citizens to enhance the quality and benefits of recreation and sport services and programs for all Richmond residents – individuals, families and the entire community. The overall purpose of the Strategy is to identify what needs to be accomplished over the next five years to make a difference in recreation and sport services in Richmond, to build on current strengths and to increase the reach, scope and impact of recreation and sport in the community. This Strategy also acts as a tool to ensure that the Recreation Services Department is able to successfully achieve its vision of being a leader in the planning and delivery of recreation and sport opportunities and inspiring residents to be active connected and healthy for a lifetime.

The vision, focus areas and actions which have been developed through an extensive engagement process will guide the work of the Community Services Division, and particularly the Recreation Services Department, along with continued evaluation and monitoring of impact and results. Understanding community needs and keeping abreast of current trends and best practices in other jurisdictions will help ensure a continued forward looking process to enhancing recreation and sport opportunities in Richmond.

Richmond has taken a leadership role in the Global Active Cities movement, recognizing that cities need to invest in multiple ways that promote individual and collective well-being of their residents. Cities around the world have come to the understanding that improving the quality of life of its citizens requires everyone to be involved. The City engages its citizens, establishes advisory groups and works together with public sector, corporate and not-for-profit partners to achieve its stated goals. Through a relationship-based approach, the City is able to continue to be a leader in the provision of community recreation and sport services, facilities and amenities, especially by partnering with service agencies, School District No. 38, Vancouver Coastal Health, sports organizations and many volunteer sports clubs throughout the City.



Many stakeholders participated in the development of the 2019-2024 Recreation and Sport Strategy, which has a strong vision for the future of recreation and sport in Richmond. The Recreation and Sport Strategy and the updated Community Wellness Strategy provide an opportunity to ensure the actions within both Strategies improve the quality of life of Richmond residents.





## Appendix 1:

City Of Richmond  
Recreation and Sport  
Strategic Advisory  
Committee

and Operational Team



## CITY OF RICHMOND RECREATION AND SPORT STRATEGY STRATEGIC ADVISORY COMMITTEE

Name	Area of Responsibility
<b>CITY OF RICHMOND</b>	
Gregg Wheeler	Manager, Sport and Community Events
Grant Nishi	Coordinator, Aquatic Services
Kirsten Close	Coordinator, Major Projects Community Services Division
<b>COMMUNITY PARTNERS</b>	
Sherry Sutherland	Board member, East Richmond Community Association
Jose Gonzalez	Past President, South Arm Community Association
Ian MacLeod	Chair, Aquatic Services Board
Ilario Galano	Co-Chair, Richmond Fitness and Wellness Association (RFWA)
Frank Claassen	Chair, Richmond Arenas Community Association (RACA)
Jim Lamond	Chair, Richmond Sports Council
Susie Burbidge	President, South Arm Community Association
<b>PROJECT LEADERSHIP TEAM</b>	
Elizabeth Ayers	Director, Recreation and Sport Services
Serena Lusk	General Manager, Community Services
Suzanna Kaptur	Research Planner 2, Community Services
Lisa Fedoruk	Accessibility Coordinator, Community Services
<b>PROJECT CONSULTANT</b>	
Zena Simces	Consultant Team
Sue Ross	Consultant Team
Karen Strange	Consultant Team

## CITY OF RICHMOND RECREATION AND SPORT STRATEGY OPERATIONAL TEAM

Name	Area of Responsibility
<b>CITY OF RICHMOND</b>	
Andrew Chornohus	Youth Coordinator, Steveston Community Centre
Andrew Clark	Manager, Fitness and High Performance (Oval)
Dave Black	Marketing Assistant
Debi Jones	Aquatic Supervisor
Emily Ooi	Educational Programs Coordinator
Emily Toda	Coordinator, Parks Programs
Jordan Mottl	Program Manager, Community Sport (Oval)
Kirsten Frankish	Arts Programmer
Melanie Burner	Community Facilities Coordinator
Paul (Sammy) Morizawa	Coordinator, Parks Programs – Sports
Renata Turick	Community Facilities Coordinator
Will Kump	Community Facilities Coordinator
Wing Ho	Volunteer Development Coordinator
Winnie Wong	Arts Programmer, Richmond Arts Centre
Angela Straker	Program Manager, Community Sport (Oval)
Katie Varney	Manager, Community Cultural Development
Beayue Louie	Park Planner



## Appendix 2:

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Richmond Recreation  
and Sport Strategy  
Stakeholders Engaged

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## CITY OF RICHMOND STAFF STAKEHOLDER ENGAGEMENT

Richmond Community Services	Area of Responsibility
Planning and Projects	Manager, Community Services Planning and Projects Coordinator, Special Projects Research Planner
Recreation and Sport Services - Aquatics and Arenas	Manager, Aquatic and Arena Services Aquatics Supervisor Community Facilities Coordinator - Arenas Coordinator, Arena Services Arena Maintenance, Supervisor Instructor Recreation Facility Clerk
Sport	Manager, Sport and Community Events Community Facilities Coordinator
Fitness	Coordinator, Fitness and Wellness Services
Volunteers	Volunteer Development Coordinator
Recreation and Sport Services - Community Recreation	Manager, Community Recreation Services Area Coordinator Recreation Leader Community Facilities Coordinators Fitness Coordinator - South Arm Youth Coordinator - Steveston Seniors Coordinator - City Centre Community Development Coordinator - West Richmond School aged Child Care Coordinator Preschool Program Coordinator Attendant
Arts, Culture and Heritage Services	Manager, Community Cultural Development Arts Coordinator Arts Programmer Manager, Major Events and Film Supervisor, Museum and Heritage Services Media Arts Specialist Public Art Planner Manager, Art Services Director, Richmond Art Gallery
Community Social Development	Coordinator - Accessibility
Administration	Manager, Administration Functional Analyst Department Associate 5
Richmond Olympic Oval	Program Manager, High Performance Sport

Richmond Recreation AND Sport Strategy Stakeholder Engagement	
COMMUNITY ORGANIZATIONS WORKSHOP	
City Centre Community Association	East Richmond Community Association
Steveston Community Society	Thompson Community Association
West Richmond Community Association	Sea Island Community Association
Hamilton Community Association	South Arm Community Association
<i>Associations also participated by survey</i>	
INDOOR AND OUTDOOR SPORTS ORGANIZATIONS WORKSHOPS	
Richmond Ravens	Richmond Lawn Bowling Club
Richmond Fitness AND Wellness Association	Air Attack Volleyball Club
Richmond Minor Hockey	Richmond Arenas Community Association
Richmond Badminton – WEEqual Foundation	Richmond City Baseball
Pacific Wave Synchronized Swim	Richmond Sports Council
Richmond Cricket Club	Dugout Club (Baseball)
Richmond Kigoos Summer Swim Club	Richmond Rapids Winter Swim Club
Ultra Rhythmics	Sea Island Community Association
<i>Organizations also participated by survey</i>	
COMMUNITY SERVICE ORGANIZATIONS - Interviews	
Richmond Children First	Richmond Centre for Disability
SUCCESS – Immigrant Settlement and Integration	Immigrant Services Society
Richmond Multicultural Community Services	
REGIONAL AND NATIONAL ORGANIZATIONS - Interviews	
CAAWS - Canadian Association for Women and Girls and Sport and Physical Activity	BCRPA - BC Recreation and Parks Association
ProMOTION Plus	Sport for Life
Pacific Sport	
COMMUNITY WELLNESS PARTNERS - Interviews	
Vancouver Coastal Health – Richmond	School District No. 38

## Appendix 3:

### Summary of Richmond Recreation and Sport Strategy Engagement Process and Results





## I. Stakeholders Consulted

Consultations took place with the following stakeholders:

- ✓ Recreation and Sport Strategy Strategic Advisory Committee – included representatives from the Recreation Services Department and community organizations;
- ✓ Recreation and Sport Strategy Staff Operational Team – included staff from the Recreation Services Department and the Community Services Division;
- ✓ City of Richmond staff – workshop held with representatives from Planning and Projects, Recreation Services, Arts, Culture and Heritage Services, Community Social Development and Richmond Olympic Oval;
- ✓ Richmond Local Area Community Associations – workshop held with board and staff representatives. Online survey also provided;
- ✓ Richmond Indoor and Outdoor Sport Organizations – several workshops held with board members and other volunteers. Online survey also provided;
- ✓ Richmond Community Organizations - Individual meetings held with staff and/or board members from SUCCESS - Richmond, Richmond LINC and Settlement - Immigrant Services Society of BC, Richmond Centre for Disability, Richmond Multicultural Community Services (RMCS) and Richmond Children First;
- ✓ Interviews held with Regional and National Organizations, e.g., Pacific Sport, Richmond Children First, Canadian Association for Advancement of Women and Sport and Physical Activity (CAAWS), BC Recreation and Parks Association (BCRPA), and Rick Hansen Foundation; and
- ✓ Interview with School District No. 38 and VCH Richmond.

The sequencing of the consultations process was as follows:

*Advisory Committee  
April 2017*

*Staff Operational Team  
June 2017*

*City Staff Workshop  
July 2017*

### Vision and Future Strategic Directions

**Vision:** Five years from now how will Richmond be different as a result of the Recreation and Sport Strategy?

**Strategic Directions:** What broad City-wide strategic directions would most likely enable this vision to be realized?

**Values:** What values are unique to Richmond that will be key in the formation of this strategy and its initiatives?

**Challenges/Opportunities:** What do you see as the biggest challenges or opportunities to achieving the Richmond you described 5 years hence?

*Community Organizations  
Workshop  
September 2017*

*Sports Organizations  
Workshop  
September 2017*

**Strengths:** What do you see at the best features/key strengths of recreation and sport programs and services in Richmond?

**Gaps/Issues:** What are the major gaps/issues that need to be addressed in Recreation and Sport in Richmond?

**Strategic Directions:** What strategic directions are important to implement over the next 5 years to address gaps and build on strengths?

**Partnerships:** What partnerships or ways of working together would you like to see with the City's Recreation and Sport Services Department?

**Top Priorities:** If you could do two things to improve recreation and sport in Richmond that would have the greatest impact – what would you do?

*Interviews with  
National and Regional  
Organizations  
August/September 2017*

1. How does your organization support recreation and/or sport programs and services in Richmond?
2. What is your relationship with the City's Recreation and Sport program and services?
3. What do you see as the best features/key strengths of recreation and sport programs and services in Richmond?
4. What do you see as the major gaps or opportunities in recreation and sport services in Richmond (e.g., in terms of social, cultural, arts, heritage, sports, other physical activities)?
5. If you could do two things to improve recreation services in Richmond - what would you do? What impact would you expect this to have, for whom?
6. If you could do two things to improve sport services in Richmond - what would you do? What impact would you expect this to have, for whom?
7. What relationship/partnership would you like to have with the City of Richmond's Recreation and Sport program and services?

*October/November 2017*

- Stakeholder feedback consolidated under emerging themes; and
- Identification of 7 focus areas.

*Staff Operational Team,  
Recreation and Sport Leadership  
and Advisory Committee  
October 2017 – March 2018*

Priority setting and refinement of vision, focus areas and major actions

**CNCL - 761**



The Vision for the Recreation and Sport Strategy was developed through an iterative process, with the Advisory Committee, Staff Operational Team and City Staff being asked to take a future-oriented and aspirational approach and envision... **“five years from now how will Richmond be different as a result of the Recreation and Sport Strategy?”**. Recreation and Sport staff and leadership were given further opportunities to review the results and refine the vision statement for final review by the Recreation and Sport Advisory Committee.

## II. Stakeholder Feedback

The following summarizes the feedback received from all stakeholders. The feedback is grouped under common themes that emerged. This led to the development of the recreation and sport focus areas identified in the strategy and to many of the actions outlined in the Action Plan.

### AWARENESS AND UNDERSTANDING

Stakeholders exposed a need to increase awareness of what recreation and sport opportunities are available in Richmond. They indicated that there is a lack of understanding of the benefits of recreation and sport, in particular, the importance of being active every day and understanding the value of recreation and sport for personal development and its role in contributing to a sense of belonging to the community. They indicated that they would like to see:

- Multiple strategies that will enhance the awareness of existing opportunities and how to participate. Specifically, they identified the value of being able to obtain hands-on experience of different recreation and sport options in the schools, community centres and neighbourhoods;
- An enhanced understanding of a broader definition of what recreation is for all ages; and
- Enhanced availability of non-traditional recreation and sport opportunities (e.g., those of interest to diverse cultural groups, unstructured play, nature play and inter-generational program opportunities).





## ACTIVE PEOPLE

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Stakeholders emphasized the need to:

- Increase access to recreation and sport opportunities;
- Aim for participation of by all children, including enhancing participation of girls and women;
- Enhance outreach to hard-to-reach groups; and
- Strengthen physical literacy and long term athlete development.

### Increase access to recreation and sport opportunities

Stakeholders highlighted the importance of addressing the following barriers to access:

- *Proximity* – enabling closer to home, easy transportation and better transit;
- *Language* – providing opportunities in different languages and/or translator and translated information;
- *Culture* – facilitating sensitivity to cultural practices and traditions to enhance participation of new immigrants and members of different cultural groups;
- *Affordability* – ensuring a comprehensive approach that includes increasing awareness and availability of subsidies and providing more affordable options;
- *Child minding* – complementing adult/parent programs with child care programs;
- *Hands on orientation* – providing the chance for citizens of any age to “try-out” and gain experience with different recreation and sport activities of interest to them;
- *Physical accessibility* – ensuring access and social inclusion standards enable participation by people with disabilities; and
- *Availability of opportunities* – providing services in different areas of the city; a range of different times; drop-in possibilities, being responsive to high demand and wait lists.



### **Aim for participation in recreation and sport by all children**

Stakeholders identified the need for more partnerships between the City and School District that enable joint program planning to meet the identified needs of children and youth during schools hours, after school programs, and opportunities to experience ("try-out") different recreation and sport activities.

### **Recruit and retain girls and women in the recreation and sport system**

Stakeholders identified the importance of providing a gender lens when developing programs and services and enhancing community recreation and sport programs for girls.

### **Outreach to hard-to-reach groups**

Stakeholders emphasized the importance of:

- Offering recreation and sport programs and services where people are (e.g., in their neighbourhoods, schools, apartment/condo complexes, shopping centres, etc.).
- Reaching out to identified hard-to-reach groups in partnership with community organizations working with the target populations to find ways to enhance participation. For example:
  - Immigrant serving and multicultural organizations;
  - Seniors organizations and facilities supporting older adults;
  - Organizations assisting youth with special support needs;
  - Organizations serving people with disabilities; and
  - Mental health and addictions support agencies.

Community organizations, consulted as part of this strategy process, indicated a willingness to assist in reaching out to their clients, sharing information, exchanging skills, and engaging in joint programming.

### **Strengthen physical literacy and Long Term Athlete Development**

Stakeholders indicated the importance of strengthening fundamental movement skills for all ages, in early years settings, in schools and through recreational programming. Stakeholders also expressed interest in sports organizations adopting the Long Term Athlete Development (LTAD) model and structuring their development based on the levels within the LTAD.



## ACTIVE PLACES

### Identify and address built and natural environment supports

The main focus of the feedback from stakeholders included enhancing the availability and use of indoor and outdoor space and enhancing connectedness to nature.

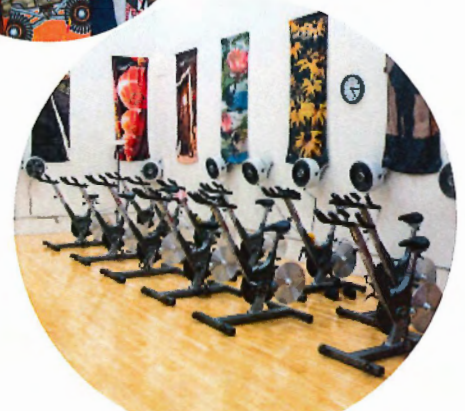
For example, stakeholders indicated a need to:

- Find more open space to enable gatherings – indoor and outdoor: *“We need more space outdoors to be able to sit, chat and exchange stories.” “We need more Community Living Rooms within our centre.” “We need space to have a picnic.” “ We need covered space to do Tai Chi.”;*
- Address lighting, safety issues and perceived safety concerns of parks, playground and fields;
- Make greater and more effective use of indoor and outdoor space for unstructured play and sports;
- Make greater and more effective use of playing fields for organized sport;
- Enhance nature play opportunities; and
- Facilitate an environment supportive of active transportation - walking and biking.

### Focus on a Neighbourhood Strategy

The neighbourhood is seen as an important focal point for stakeholders. They expressed the desire to see more recreation and sport activities at a neighbourhood level and advocated for building neighbourhood capacity to engage residents in recreation and sport activities.

Stakeholders identified the new emerging role of recreation centres as community service hubs that include health and social services opportunities.



## COMMUNITY CAPACITY-BUILDING

A major theme that emerged from the consultation is the need to strengthen collaborations and partnerships to help broaden expertise and expand the reach and impact of recreation and sport in Richmond. Suggested partners included:

- Community Associations for neighbourhood strategies;
- School District No. 38 for joint programming;
- Educational Institutions for workshops and training;
- VCH Richmond for joint programming;
- Library – the library is seen as a key resource and partner to provide space for gathering, information and education workshops; and reaching out into the community;
- Community groups for outreach and engagement of hard-to-reach groups – immigrant serving organizations, cultural groups, seniors' organizations, churches, organizations serving people with disabilities and other special needs groups;
- Business Sector – e.g., malls, hotels, local farmers and growers, retail stores;
- Federal/provincial governments – provincial strategies and PARTICIPATION; and
- Wider range of groups such as biking programs, gymnastics programs and privately operated sport facilities – to enhance coordination/cooperation.

Volunteers were identified as an integral part of recreation and sport. Many recreational activities and sports depend almost solely on volunteers. Several ideas were put forward including:

- Volunteer ambassador program;
- Supporting sports organizations with volunteer recruitment and training for coaches, board members and managers. This training would address non-sport specific training such as board training (how to run a non-profit), financial management, ethical decisions, conflict resolution, team building, safety, etc.; and
- Enhancing opportunities for young athletes of the local sport organizations to share their skills with others.



### III. Implementation Considerations Identified by Stakeholders

Stakeholders identified some aspects to consider when implementing a Richmond Recreation and Sport Strategy, for example:

**Maximize use of Technology and Innovation**, e.g., making use of social media - particularly for youth and young parents- to provide information, educate and motivate (e.g., "We Chat", Apps, contests, incentives, etc.);

**Communications**, e.g., establishing and maintaining communication to internal and external groups on the status and progress of the work of the Recreation and Sport Department's Strategy and other City plans;

**Training and Education**, e.g., identifying and supporting joint training opportunities for recreation and sport staff City-wide, partners and volunteers;

**Leadership and Champions**, e.g., developing strategies to attract and train new leaders and finding and supporting recreation and sport champions;

**Joint Planning**, e.g., engaging in joint planning with other City Departments, community partners and other stakeholder organizations to enhance recreation and sport in Richmond; and

**Implement Evaluation and Measurement**, e.g., agreeing to measuring and reporting on progress.



## Appendix 4:

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### Richmond Community Profile Data Sources

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1. Richmond City Planning Hot Facts (the series, 2014-2017)
2. City of Richmond Community Services Facility Profiles 2010-2014
3. Statistics Canada (2015) 2011 Population Census/Household Survey
4. Statistics Canada (2015) 2006 Population Census/Household Survey
5. BC Vital Statistics (2011) Annual Report
6. BC Stats. (2015) Sub-Provincial Populations – P.E.O.P.L.E.
7. BC Stats (2015) Socioeconomic Profiles
8. Statistics Canada (2015) CCHS Canadian Community Health Survey
9. BC Community Health Profiles (2013, 2017) PHSA – Richmond
10. My Health My Community, Vancouver Coastal Health – Richmond (2013/14)\*
11. BC Ministry of Education and BC Stats (2015) School Satisfaction Survey – SD 68 Richmond.
12. Participation Rates and Volunteer Hours (2017) – personal conversation, Gregg Wheeler.
13. Vancouver Foundation's Vital Signs 2016 – Richmond.

\*Data from My Health My Community is based on a statistically valid survey (2013/14) of residents from Metro Vancouver municipalities, including Richmond, who provided information about their health, lifestyle choices, community involvement and neighbourhood characteristics. The plan is to conduct the survey every five years to assist in the planning and development of programs, services and policies. This ongoing survey provides an important tool to measure change against strategic goals for the community at a neighbourhood level. My Health My Community is the result of a non-profit partnership between Vancouver Coastal Health, Fraser Health and the University of British Columbia.



## Appendix 5:

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### Richmond Plans and Strategies

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## Global Active Cities

The City of Richmond was invited to participate in the development of a pilot “Global Active Cities” program, in recognition of Richmond’s implementation of a legacy of community benefit related to its role in the 2010 Olympic Winter Games and its strong policies, plans and programs related to sport and recreation. This initiative has now officially launched and Richmond became a partner city of the renamed Active Well-being Initiative (<http://activewellbeing.org/>) in late 2017. Richmond and nine other cities around the world are leading a movement to improve the lives of their citizens through the promotion of physical activity, sport, healthy lifestyles, social connections, supportive built and natural environments and well-being for all.

## PRCS Facilities Strategic Plan

The 2015 Facilities Strategic Plan (The Plan) includes an array of tools, frameworks, findings, and guidance intended to ensure Community Services Division facilities continue to be responsive to the current and future needs of Richmond. The Plan provides strategic direction, tactical guidance, and specific recommendations that outline a comprehensive strategy and implementation plan for informing facility investments and decommissions that support an appropriate level of service provision. The Plan has two overarching goals:

1. Ensure the Community Services Division facilities continue to be responsive to the current and future needs of the community; and
2. Provide a comprehensive strategy and implementation plan for informing facility investments, and decommissioning, that support an appropriate level of service provision across the Division.

The Plan outlines the Community Services Facility Evaluation Framework, presented below in Figure 1. The framework provides a structured and replicable approach to systematically score and prioritize Community Services projects.

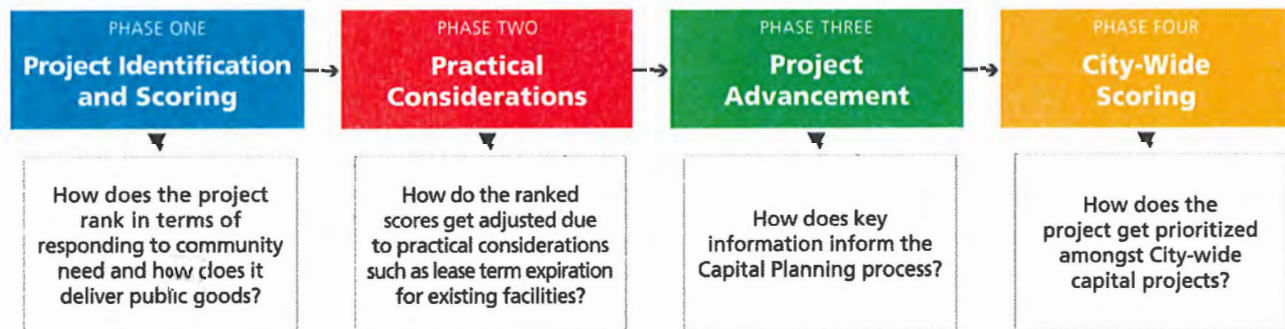


Figure 1: Revised Community Services Facility Evaluation Framework

In Phase 1, each project to be considered for inclusion should address community need or deliver public goods. Projects are rated on nine criteria, and, once rated, the projects are then ranked.

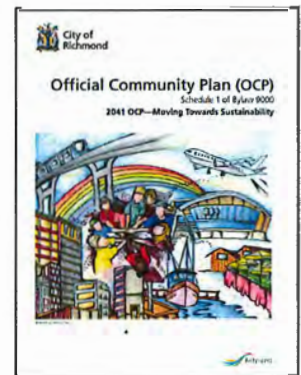
Phase 2 considers factors that impact the implementation of projects. Using the ranked list generated from Phase 1, adjustments and refinements are made to reflect current realities, such as timing of lease agreements and current partnership or development opportunities.

Phase 3 considers the information required to support the capital asset prioritization. For every project to be considered, feasibility studies should be completed to support informed decision making.

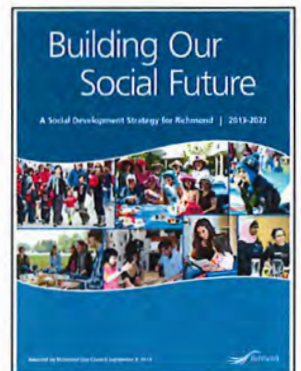
Phase 4 aligns with the City's annual municipal capital asset prioritizations process. Community Service projects will be compared against other projects from other Divisions and prioritized for council consideration.

This framework provides a structured and replicable approach to systematically score and prioritize Community Services projects.

**City of Richmond's Official Community Plan 2012-2041 (OCP)** guides the long-term planning within the City and enables City Council to plan, coordinate and manage the City's sustainability, social, economic and land use interests over the long term. OCP has adopted a vision of a sustainable Richmond: *"A sustainable and healthy island city that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is a place where people live, work, and prosper in a welcoming, connected, accessible and vibrant community. In Richmond, the health of the people and the health of the eco-system are sustained through community participation and long-term economic, social and environmental well-being."* This plan provides an overall context for the provision of recreation and sport programs and services and the built environment that supports the health and well-being of Richmond residents.



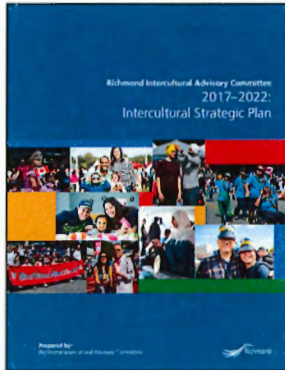
**City of Richmond Social Development Strategy (2013-2022)** guides the City's decisions and resource allocations on social development matters. The Strategy *"envision[s] the City of Richmond of 2022 as an inclusive, engaged and caring community – one that considers the needs of the present and future generations, values and builds on its diversity, nurtures social capital, and treats its citizens with fairness and respect. The Strategy recognizes that, for this vision to become a reality, the City must not only be ready to address existing community social issues but also develop the capacity to be responsive to the emerging needs of its diverse populations"*.



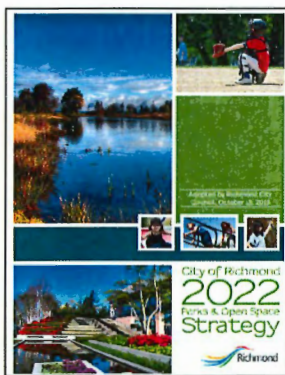
The Social Development Strategy identifies nine strategic directions:

1) *Expand Housing Choices*; 2) *Enhance Community Accessibility*; 3) *Address the Needs of an Aging Population*; 4) *Help Richmond's Children, Youth and Families to Thrive*; 5) *Build Richmond's Cultural Diversity*; 6) *Support Community Engagement and Volunteerism*; 7) *Strengthen Richmond's Social Infrastructure*; 8) *Provide High Quality Recreation, Arts, Cultural and Wellness Opportunities*; 9) *Facilitate Strong and Safe Neighbourhoods*. The Recreation Services Department has significant responsibilities in supporting the achievement of these directions, with strategic direction #8 specifically speaking to the role of recreation and wellness.





**Richmond's Intercultural Strategic Plan (2017-2022)** prepared by the Richmond Intercultural Advisory Committee highlights the importance of enhancing intercultural harmony and strengthening inter-cultural cooperation in Richmond. Richmond's intercultural vision is: *"for Richmond to be the most welcoming, inclusive and harmonious community in Canada."* Four strategic directions have been identified: 1) *Address language, information and cultural barriers that interfere with building a welcoming community;* 2) *Address the perception and reality of racism and discrimination in the community;* 3) *Work to explore potential areas of alignment between the intercultural vision... and other government and stakeholder systems, policies and planning processes;* 4) *support the development and integration of Richmond's immigrants.* These strategic directions inform and strengthen the actions identified for the Recreation and Sport Strategy.



**City of Richmond 2022 Parks and Open Space Strategy** helps to frame and guide the objectives and actions of the Recreation and Sport Strategy relating to the built and natural environment. It consists of seven focus areas that are aimed at providing high quality parks and open space into the future: 1) *Health and Wellness, e.g., Residents of every neighbourhood have equal access to safe, appealing outdoor places to engage in healthy active lifestyle;* 2) *Great Spaces and Experiences, e.g., The rich variety of great places, features and activities in parks and open space system contribute to the city's vibrancy and identity;* 3) *Connectivity, e.g., They system is inviting, accessible and safe, enabling residents and visitors to feel comfortable and connected to the community;* 4) *Green Network e.g., The parks and open space system include a range of green spaces that support recreation, social interaction, and psychological and spiritual renewal;* 5) *Blue Network, e.g., Richmond's waterfront provides a variety of activities and multiple destinations;* 6) *Diversity and Multi-functionality, e.g., The system provide a variety of diverse open spaces that are flexible and able to respond to changes and community needs;* 7) *Resource Management, e.g., The system inspires shared stewardship between multiple stakeholders to foster pride, purpose and a sense of community.*

Other Richmond Plans that relate to the Recreation and Sport Strategy include:

- Seniors Service Plan: Active and Healthy Living 2015-2020;
- Age-Friendly Assessment and Action Plan (Approved by Richmond City Council, March 2015);
- Community Services Youth Service Plan: Where Youth Thrive 2015-2020;
- Richmond Arts Strategy (2012-2017);
- Museum and Heritage Strategy (2007); and
- Richmond Affordable Housing Strategy, 2007 (2016 Housing Report Card).



**City of Richmond Arts Strategy:** the City of Richmond is currently updating its 2012-2017 Arts Strategy to reflect current needs, challenges and opportunities for the arts in Richmond. The Richmond Arts Strategy 2012-2017 was created on the heels of the 2010 Olympic Games and following a period of new investment in the arts. It set the following five strategic goals:

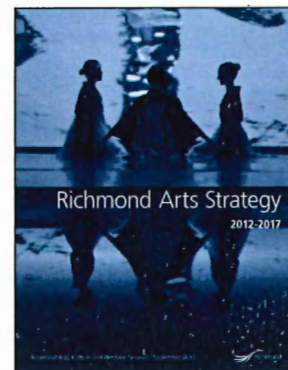
1. Strengthen and support the arts community;
2. Increase the number of art spaces and more effectively use existing ones;
3. Broaden the diversity of arts experiences and opportunities;
4. Expand public awareness and understanding of the arts; and
5. Broaden the economic potential and contribution of the arts.

Due to the population of Richmond increasing in recent years and the City placing more importance and emphasis on the role of the arts, it has become a priority that the Richmond Arts Strategy be updated to reflect current needs, identify trends and opportunities, and set a course for future arts programming, infrastructure and policy-making.

**Richmond Sport Hosting Strategy 2016-2020** guides the City in hosting world class sporting events. Sport hosting is conducted via the Richmond Sport Hosting office and is a direct response to the City of Richmond's role as a venue City for the 2010 Winter Olympic Games. The Strategy aids Richmond Sport Hosting to continue to provide exceptional service to sport organizations from around the globe. This is aided by the fact that the City of Richmond provides a world class event atmosphere and is well established as a premier destination for all levels of sport events. The following is a selection of the guiding principles that are listed within the Strategy for the City of Richmond Sport Hosting program:

- Assist Richmond in reaching the Council term goals, increase the City's image, community pride, economic development and continue to build a legacy of sport for the City;
- Collaborate with City departments, event organizers and facility operations to ensure events are engaging in sustainable event practices; and
- Recognize the role of sport and sport volunteers as valuable partners in the process of sport event hosting and continually build community capacity to host high quality sporting events.

**Volunteer Management Strategy 2018-2021:** In 2007, the City of Richmond adopted its first Volunteer Management Strategy. The Strategy was developed to guide the actions for creating a centralized volunteer management system in preparation for the 2010 Winter Olympic Games and as a legacy intended to serve the City and its partners well into the future. The *Volunteer Management Strategy 2018-2021: Engaging and Supporting Volunteers for a Vibrant, Connected City* is an update to the original 2007 Strategy and focuses on supporting volunteers in their development and achievement of their personal goals as well as further supporting City, partner, and affiliate staff who work closely with volunteers.





**Richmond Olympic Oval High Performance Profile** provides an overview of the Richmond Olympic Oval High Performance Program. The Richmond Oval is a dynamic, state-of-the-art, multisport facility and is known for its role in the 2010 Olympic Games; its current goal is to develop exceptional athletes for generations to come. The Richmond Oval has supported the training of over 50 athletes that have competed in subsequent Olympic and Paralympic Games. The Richmond Oval's High Performance Program is Canada's elite provider of integrated athlete training, coaching and performance services, delivered in an Olympic environment by educated and experienced coaches. The High Performance Program takes a collaborative approach and delivers services structured to support the vision and goals of its clients. The Oval High Performance program follows the following key pillars:

- World Class Facilities;
- Integrated Services;
- High Performance Team; and
- High Performance Sport Partnerships.



## Appendix 6:

## Provincial and National Plans and Strategies





**A Framework for Recreation in Canada 2015: Pathways to Wellbeing<sup>23</sup>**

presents a renewed definition for recreation and outlines a framework for recreation in Canada that addresses current challenges and opportunities. The framework describes 5 goals:

1. Active Living – foster active living through physical recreation;
2. Inclusion and Access – increase inclusion and access to recreation for populations that face constraints to participation;
3. Connecting People and Nature – help people connect to nature through recreation;
4. Supportive Environments – ensure the provision of supportive physical and social environments that encourage participation in recreation and build strong, caring communities; and
5. Recreation Capacity – ensure the continued growth and sustainability of the recreation field.

**Active Canada 20/20: A Physical Activity Strategy and Change Agenda for Canada (2012)<sup>24</sup>** describes steps that will increase physical activity and reduce sedentary behaviour, resulting in reduced health risks and achieving the many benefits of a society that is active and healthy. Recreation is identified as an important partner in pursuing this agenda.

**The Canadian Sport Policy (CSP, 2012)<sup>25</sup>** sets a direction over a 10 year period (2012-2022) for all governments, institutions and organizations to ensure sports has a positive impact on individuals, communities and society. The policy aims to increase the number and diversity of Canadians participating in sports through 5 broad objectives:

- Introduction to sport: Canadians have the fundamental skills, knowledge and attitudes to participate in organized and unorganized sport;
- Recreational sport: Canadians have the opportunity to participate in sport for fun, health, social interaction and relaxation;
- Competitive sport: Canadians have the opportunity to systematically improve and measure their performance against others in competition in a safe and ethical manner;
- High performance sport: Canadians are systematically achieving world-class results at the highest levels of international competition through fair and ethical means; and
- Sport for development: Sport is used as a tool for social and economic development, and the promotion of positive values at home and abroad.

<sup>23</sup> Canadian Parks and Recreation Association/Interprovincial Sport and Recreation Council (February 2015). A Framework for Recreation in Canada - 2015 - Pathways to Wellbeing. Ottawa: Canadian Recreation and Parks Association. 40 pages. [www.in.ca](http://www.in.ca)

<sup>24</sup> Active Canada 20/20. [www.activecanada2020.ca/active-canada-20-20](http://www.activecanada2020.ca/active-canada-20-20)

<sup>25</sup> <http://sir.ca/csp2012>

**Canadian Sport for Life Long Term Athlete Development Framework<sup>26</sup>**

focuses on both development of sport excellence through a training pathway accounting for various ages and stages and a commitment to lifelong activity. The LTAD model incorporates:

- Awareness and First Involvement stages that introduce individuals to positive sport and physical activity opportunities;
- Active, Start, Fundamental and Learn to Train stages focus on developing physical literacy in children providing the basic skills to be active for life and providing the foundation for those that pursue elite training in sports;
- Train to Train, Train to Compete and Train to Win stages provide elite training for those specializing in one sport and competing at elite levels; and
- Active for Life stage addresses lifelong participation in competitive or recreational sport or physical activity.

**Active People, Active Places BC Physical Activity Strategy 2015<sup>27</sup>** lays the foundation for coordinated policies, practices and programs in physical activity to improve the health and wellbeing of British Columbians and the communities in which they live, learn, work and play. The 10 year framework identifies four key elements: Active across the Life Course, Equity, Supportive Environments and Partnerships. Recreation and Sport are identified as key partners in making progress towards increasing the physical activity levels of British Columbia.

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<sup>26</sup> <http://sportforlife.ca/qualitysport/long-term-athlete-development/>

<sup>27</sup> <https://www.health.gov.bc.ca/library/publications/year/2015/active-people-active-places-web-2015.pdf>

## Acknowledgments

Creating a vital future-oriented Recreation and Sport Strategy for the City of Richmond has depended upon the thoughtful contributions of many stakeholders: staff, representatives of organizations and agencies, volunteers and members of the community who participated in workshops, interviews, surveys and ongoing discussions. We would like to acknowledge the special contribution of the Recreation and Sport Strategy Advisory Committee in enhancing and advancing the opportunities for excellence in Recreation and Sport in Richmond – building on the strong and successful foundation already present in the City to address the new and diverse interests of stakeholders.

### City of Richmond

*Gregg Wheeler* ..... Manager, Sport and Community Events  
*Grant Nishi* ..... Coordinator, Aquatic Services  
*Kirsten Close* ..... Coordinator, Major Projects Community Services Division

### Community Partners

*Sherry Sutherland* .... Board member – East Richmond Community Association  
*Jose Gonzalez* ..... Past President – South Arm Community Association  
*Ian MacLeod* ..... Chair – Aquatic Services Board  
*Ilario Galano* ..... Co-Chair – Richmond Fitness and Wellness Association (RFWA)  
*Frank Claassen* ..... Chair – Richmond Arenas Community Association (RACA)  
*Jim Lamond* ..... Chair – Richmond Sports Council  
*Susie Burbidge* ..... President – South Arm Community Association

### Project Leadership Team

*Elizabeth Ayers* ..... Director, Recreation Services, Community Services  
*Serena Lusk* ..... General Manager, Community Services  
*Suzanna Kaptur* ..... Research Planner 2, Community Services  
*Lisa Fedoruk* ..... Accessibility Coordinator, Community Services

### Project Consultant

Zena Simces & Associates Consultant Team

*Zena Simces*  
*Sue Ross*  
*Karen Strange*





# City of Richmond

## Report to Council

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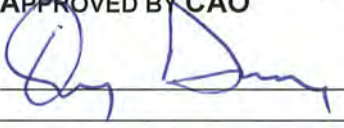
**To:** Richmond City Council  
**From:** Barry Konkin  
Manager, Policy Planning  
**Date:** January 8, 2019  
**File:** 08-4057-10/2018-Vol 01  
**Re:** **Response to Referral: Additional Dwellings in the Agricultural Land Reserve**

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### Staff Recommendation

1. That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 9984, be introduced and given first reading;
2. That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 9984, 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 program and plans, in accordance with Section 477(3)(a) of the *Local Government Act*;
3. That Richmond Official Community Plan Bylaw No. 9000, Amendment Bylaw No. 9984, having been considered in conjunction with Section 477(3)(b) of the Local Government Act, be referred to the Agricultural Land Commission for comment;
4. That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw No. 9984, having been considered in accordance with Section 475 of the Local Government Act and the City's Official Community Plan Bylaw Preparation Consultation Policy 5043, is found not to require further consultation; and
5. That Richmond Zoning Bylaw 8500, Amendment Bylaw 9985, be introduced and given first reading.

Barry Konkin  
Manager, Policy Planning  
(604-276-4139)

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

## Staff Report

### Origin

At the Special Council Meeting held on Wednesday, December 19, 2018, the following referral was adopted:

- 1) *That staff be directed to bring back bylaws to the January 14, 2019 Regular Council meeting to amend the City's Official Community Plan Bylaw 9000 and the Richmond Zoning Bylaw 8500 to remove the provisions for an additional dwelling for farm workers on AG1 lots located within the Agricultural Land Reserve (ALR); and*
- 2) *That staff be directed to withhold building permits for additional farm dwellings on AG1 lots located in the ALR under Section 463 of the Local Government Act and bring forward building permits that conflict with bylaws in preparation for Council consideration.*

This report is in response to the above noted referral. This report supports Council's 2014-2018 Term Goal #8 Supportive Economic Development Environment:

- 8.3. The City's agricultural and fisheries sectors are supported, remain viable and continue to be an important part of the City's character, livability, and economic development vision.

### Analysis

On June 18, 2018, Council adopted Official Community Plan Bylaw 9000, Amendment Bylaw 9869, and Richmond Zoning Bylaw 8500, Amendment Bylaw 9870 to allow a maximum of one additional dwelling unit on Agriculture (AG1) zoned properties, located within the Agricultural Land Reserve (ALR), for full-time farm workers, employed on the subject lot, provided the following requirements are satisfied:

- the lot is zoned AG1 and is at least 8 ha (20 ac.) in area;
- the lot is classified as 'farm' for taxation purposes;
- a signed statutory declaration is submitted indicating that the additional dwelling unit is for full-time farm workers only;
- submission of a signed and sealed report by a certified Agrologist (P.Ag.) that clearly demonstrates the need for an additional dwelling for full-time farm workers to support the farm;
- the house is no larger than 300 m<sup>2</sup> (3,229 ft<sup>2</sup>); and
- the farm home plate area is no larger than 600 m<sup>2</sup> (6,458 ft<sup>2</sup>).

On November 27, 2018, Bill 52 (*Agricultural Land Commission Amendment Act, 2018*) was given Third Reading and Royal Assent. This Provincial legislation, amongst other things, removes the allowance of additional dwellings for farm workers as a discretionary use for local governments, and now requires approval from the Agricultural Land Commission (ALC) for an additional residence. It is anticipated that the amendments to the *Agricultural Land Commission Act* will come into force in early 2019 when the *Agricultural Land Reserve Use, Subdivision and Procedure Regulation* is amended through an Order-in-Council.

In order to be consistent with the upcoming Provincial legislation as directed by Council, staff have prepared Bylaw 9984 and Bylaw 9985 which would amend both the OCP and Zoning Bylaw to remove the provisions that allow an additional dwelling on AG1 zoned land for full-time farm workers.

If the attached bylaws are approved, a property owner who wished to construct an additional residence on AG1 zoned land for full-time farm workers on the subject property would be required to apply for an ALC non-farm use application. The non-farm use application would have to be reviewed and endorsed by Council and if endorsed, approved by the ALC. If approved by the ALC, Council approval of a site-specific rezoning application would also be required.

### **Withholding Resolution**

On December 19, 2018, Council adopted a withholding resolution of building permits that are contrary to the bylaws under consideration. The withholding resolution came into force on December 27, 2018, and any applications that are received by the City that are contrary to bylaws proposed to regulate residential development on land within the ALR are to be withheld and forwarded to Council as per Section 463 of the *Local Government Act*.

A building permit application was submitted on November 9, 2018 for an additional dwelling at 14791 Westminster Highway for full-time farm workers. This application was made immediately following issuance of a building permit for the principal dwelling at the same property. After the initial review, the building permit application was considered to be incomplete and the application was cancelled. The building permit application was re-submitted with all requirements met on December 21, 2018, prior to the enactment of the withholding resolution for an additional dwelling on December 27, 2018. The application will be reviewed under the existing regulations for an additional dwelling.

Bill 52 establishes how in-stream building permits can be considered for compliance with the new Provincial regulations. For an additional dwelling for farm workers in the ALR, a lawfully issued City building permit is required, and the concrete foundations must be poured prior to the amendments to the *Agricultural Land Commission Act* coming into force, which is expected to be in the first quarter of 2019. If these conditions are not met, the building permit application at 14791 Westminster Highway will be cancelled.

### **Consultation**

Staff have reviewed the proposed OCP amendment bylaw with respect to the *Local Government Act* and the City's OCP Bylaw Preparation Consultation Policy No. 5043 requirements and recommend that it be referred to the ALC for comment. As the proposed bylaws are consistent with the new Provincial legislation, staff do not anticipate any concerns from the ALC.

Table 1 clarifies this recommendation. ALC referral comments will be requested prior to the public hearing date. Public notification for the public hearing will be provided as per the *Local Government Act*.



**Table 1 – OCP Public Consultation Summary**

Stakeholder	Referral Comment
<b>REFER</b>	
Provincial Agricultural Land Commission	Refer to the ALC, consistent with <i>Local Government Act</i> requirements.
<b>NO REFERRAL NECESSARY</b>	
Richmond School Board	No referral necessary, as they are not affected.
The Board of Metro Vancouver	No referral necessary, as they are not affected.
The Councils of Adjacent Municipalities	No referral necessary, as they are not affected.
First Nations (e.g., Sto:lo, Tsawwassen, Musqueam)	No referral necessary, as they are not affected.
TransLink	No referral necessary, as they are not affected.
Port Authorities (Port Metro Vancouver and Steveston Harbour Authority)	No referral necessary, as they are not affected.
Vancouver Airport Authority (VAA) (Federal Government Agency)	No referral necessary, as they are not affected.
Richmond Coastal Health Authority	No referral necessary, as they are not affected.
Community Groups and Neighbours	Community Groups and Neighbours will have the opportunity to comment regarding the proposed OCP amendment (and proposed Zoning Bylaws) at Planning Committee, Council and at a Public Hearing.
All Relevant Federal and Provincial Government Agencies	No referral necessary, as they are not affected.


**Financial Impact**

None.

**Conclusion**

To respond to Council's referral and to be consistent with the upcoming enactment of Bill 52 (*Agricultural Land Commission Amendment Act, 2018*) which would require approval from the ALC for any additional residences in the ALR, staff recommend that the following bylaws be introduced and given first reading:

1. Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 9984; and
2. Richmond Zoning Bylaw 8500, Amendment Bylaw 9985.

  
 John Hopkins  
 Planner 3  
 (604-276-4279)

JH:cas

**CNCL - 787**



**Richmond Official Community Plan Bylaw 9000  
Amendment Bylaw 9984  
(Additional Dwellings on Agriculturally Zoned Land)**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Richmond Official Community Plan Bylaw 9000, as amended, is further amended at Section 7.1 Protect Farmland and Enhance Its Viability, Objective 1, by deleting policy g) in its entirety and replacing it with the following:  
  
“g) limit the number of dwelling units to one (1) on lots within the Agricultural Land Reserve (ALR). Any proposal for additional dwelling units would require approval from both Council and the Agricultural Land Commission (ALC).”
2. This Bylaw may be cited as “**Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 9984**”.

FIRST READING


PUBLIC HEARING

SECOND READING

THIRD READING

ADOPTED

_____
_____
_____
_____
_____

CITY OF RICHMOND
APPROVED by 
APPROVED by Manager or Solicitor 

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER



**Richmond Zoning Bylaw 8500  
Amendment Bylaw 9985  
(Additional Single Detached House)**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Richmond Zoning Bylaw 8500, as amended, is further amended by:
  - a) deleting subsection 14.1.4.2 from Section 14.1.4 (Permitted Density) in its entirety and replacing it with the following:

“2. The maximum residential **density** is one **principal dwelling unit** per lot.”; and
  - b) deleting subsection 14.1.4.A.2 from Section 14.1.4.A (Farm Home Plate) in its entirety.
2. This Bylaw may be cited as “**Richmond Zoning Bylaw 8500, Amendment Bylaw 9985**”.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

ADOPTED

_____
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_____

CITY OF RICHMOND
APPROVED by 
APPROVED by Director or Solicitor 

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER

## Ken Waldman

---

**From:** Ken Waldman <kwaldman@shaw.ca>  
**Sent:** Thursday, January 3, 2019 11:02 AM  
**To:** 'Berg,Hanieh'  
**Subject:** RE: Butti

Funny I was preparing a letter when this arrived. Your 'City's Council Procedure Bylaw' is just a piece of paper that should be adjusted to serve the needs of the people not council's. So how many items are on the Jan 14<sup>th</sup> agenda and approximately what time should I be there. It is ridiculous for me to sit there for 4 hours for a 5 minute presentation.

What if I go over the time allotment?

The person in Sports Department who sent the ridiculous response to me [drilled down from the Mayor to the lowest level of person they could find] Brar I think his name is should be there to answer questions as his facts appear to be totally made up [a little like the False Facts in the USA].

Ken Waldman

**From:** Berg,Hanieh [mailto:HBERG@richmond.ca]  
**Sent:** Thursday, January 3, 2019 10:41 AM  
**To:** 'Ken Waldman'  
**Subject:** RE: Butti

Good morning Mr. Waldman,

With regard to your questions, please see my responses below in red:

1. How long are the meetings? **There is no set time for meetings; however, they generally range between 30 minutes to 4 hours.**
2. Putting citizens to the very end is not very appropriate! **Non-agenda delegations are considered near the end of the agenda in accordance with the City's Council Procedure Bylaw.**
3. You have not indicated what types of evidence I should bring. **You may bring whatever handouts and materials you see fit.**
4. I will bring print outs of the very few responses I have received. The Mayor, nor not even one of the councillors have responded. Some very low person on the totem pole responded and his facts are not accurate.
5. Can I bring someone from the media to record the event? Or are the prohibited from being there? **The Council meeting is a public meeting and anyone, including media, may attend. Any recording of the meeting must not disturb or interfere with proceedings and must be conducted from the audience area.**

Please advise so I know how long it will take me to prepare.

Finally **FIVE [5] MINUTES IS A RIDICULOUS SMALL PERIOD OF TIME FOR SUCH A SERIOUS ISSUE THAT AFFECTS, THE ENVIRONMENT, RICHMOND'S CARBON FOOTPRINT, THE HEALTH OF EVERY PERSON WHO LIVES OR COMES TO RICHMOND, POLLUTION ON THE STREETS, ETC.**

**The 5-minute time allotment is standard and in accordance with City's Council Procedure Bylaw.**

Please advise if you have any further queries.

King regards,

**CNCL - 790**



Hanieh

**Hanieh Berg | Legislative Services Coordinator**  
City Clerk's Office | City of Richmond  
6911 No. 3 Road, Richmond, BC V6Y 2C1  
Direct (604) 276-4163 · Fax (604) 278-5139

**From:** Ken Waldman [mailto:kwaldman@shaw.ca]  
**Sent:** Monday, 24 December 2018 09:55  
**To:** Berg,Hanieh  
**Cc:** carol@carolday.net; Joe Peschisolido  
**Subject:** RE: Butti

1. How long are the meetings?
2. Putting citizens to the very end is not very appropriate!
3. You have not indicated what types of evidence I should bring.
4. I will bring print outs of the very few responses I have received. The Mayor, nor not even one of the councillors have responded. Some very low person on the totem pole responded and his facts are not accurate.
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**Ken Waldman**

**From:** Berg,Hanieh [mailto:HBERG@richmond.ca]  
**Sent:** Thursday, December 20, 2018 8:52 AM  
**To:** 'kwaldman@shaw.ca'  
**Subject:** FW: Butti

Good morning Mr. Waldman,

Thank you for your email.

You are welcome to make a presentation to Council in the new year; the next Council meetings are scheduled for January 14<sup>th</sup> and January 28<sup>th</sup>.

Please advise of your preference for date and we can proceed with scheduling. If those dates don't suit your schedule, Council does meet twice monthly and we could look at dates in February 2019.

Regardless of which date you opt for, below please find some general guidelines for presentations:

- Council meetings take place at 7 pm in the Council Chambers at City Hall (6911 No. 3 Road);
- As this is a non-agenda delegation, the matter would be considered near the end of the agenda after all official City business has been addressed;
- Delegations are allotted 5 minutes; please ensure that your presentation adheres to this time allotment; and
- You may provide materials in advance of the meeting for distribution to Council; I would need these materials in hardcopy or electronic form by no later than 5 pm on the Wednesday preceding the meeting; and
- All materials submitted will form part of the agenda and therefore will be public and published on the City.

**CNCL - 791**

If you have any other questions, please feel free to contact me directly.

Also, please note that City Hall will be closed during the holidays – effective December 24<sup>th</sup> to January 1<sup>st</sup> – re-opening on January 2<sup>nd</sup>.

Regards,  
Hanieh

**Hanieh Berg | Legislative Services Coordinator**  
City Clerk's Office | City of Richmond  
6911 No. 3 Road, Richmond, BC V6Y 2C1  
Direct (604) 276-4163 · Fax (604) 278-5139

**From:** Ken Waldman <[kwaldman@shaw.ca](mailto:kwaldman@shaw.ca)>  
**Date:** December 14, 2018 at 11:02:02 AM PST  
**To:** <[dweber@RICHMOND.CA](mailto:dweber@RICHMOND.CA)>  
**Subject:** FW: Butti

Can you please outline the process for making a presentation to City Council, as Carol Day has suggested, on restricting smoking in Richmond.

Thanx.

Ken Waldman

**From:** Carol Day [<mailto:carol@carolday.net>]  
**Sent:** Sunday, December 9, 2018 4:17 PM  
**To:** Ken Waldman  
**Subject:** Re: Butti

Hi Ken

May I suggest you make a [presentation to City council to ask for the changes ? You can contact our City Clerk David Weber to set it up.

dweber@ [RICHMOND.CA](mailto:dweber@RICHMOND.CA)

THANKS FOR CARING WE NEED MORE PEOPLE LIKE YOU.

Carol Day

On Fri, 7 Dec 2018 at 19:46, kwaldman <[kwaldman@shaw.ca](mailto:kwaldman@shaw.ca)> wrote:

Paint Brar is the lowest level person your Mayor asked to respond with some lousy excuses about smoking and enforcement. NOTHIN WILL HAPPEN UNDER THE CARPET AGAIN. MUST BE A LOT OF GARBAGE UNDER THE CARPET VAS NOTHING EVER GETS DONE IN RICHMOND. if you want to see his responses to me ask him you have my permission. Ken

## Ken Waldman

---

**From:** Ken Waldman <kwaldman@shaw.ca>  
**Sent:** Thursday, January 3, 2019 10:55 AM  
**To:** 'dweber@RICHMOND.CA'  
**Cc:** carol@carolday.net  
**Subject:** RE: Butti

I have not received a follow up to my email on the process for going to a council meeting:

1. If I am at the rear end of the meeting how long do the meeting go?
2. What time might I be expected to make my presentation?
3. What time would the meeting be completed?
4. Will all councillors and the mayor be there for my presentation?
5. Etc
6. Etc
7. Etc

Please advise and include what documents I have to bring. It seems that if past actions by council on my concerns are any indication this is nothing more than smoke and mirrors to make me go away! That is Richmond Council will never entertain let alone pass a bylaw to protect the health & welfare of its citizens and visitors to the City.

Ken Waldman

**From:** Ken Waldman [<mailto:kwaldman@shaw.ca>]  
**Sent:** Friday, December 14, 2018 11:02 AM  
**To:** 'dweber@RICHMOND.CA'  
**Subject:** FW: Butti

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THANKS FOR CARING WE NEED MORE PEOPLE LIKE YOU.

**CNCL - 793**

Carol Day

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Sent from my Galaxy Tab A

----- Original message -----

From: Carol Day <[carol@carolday.net](mailto:carol@carolday.net)>

Date: 2018-12-07 11:02 AM (GMT-08:00)

To: Ken Waldman <[kwaldman@shaw.ca](mailto:kwaldman@shaw.ca)>

Subject: Butti

Hi Ken

Tha ks so much for the information about Halifax and your suggestions.I see that Paul Brar has ritten you back to let you know that the City of Richmond is about to review th smoking bylaws so your timing is perfect.

Please see this attachment for the " Butti " a simply but ingenious device to ensure that cigarette but are properly disposed of I met with this Gentleman last week and he some amazing data and of course the " Butti " so to be in production.

<http://thebutti.com>

W are moving in the right direction....

*Best regards,*

**Carol Day**

Richmond City Councillor | RITE Richmond

*"WORKING for the People of Richmond "*

*Like and share on [Facebook](#)*

T 604.240.1986

F 604.271.5535

[carol@carolday.net](mailto:carol@carolday.net)

[www.RITERichmond.com](http://www.RITERichmond.com)

**CNCL - 794**



Best regards,

**Carol Day**  
Richmond City Councillor | RITE Richmond

*"WORKING for the People of Richmond "*

Like and share on [Facebook](#)

T 604.240.1986  
F 604.271.5535  
[carol@carolday.net](mailto:carol@carolday.net)

[www.RITERichmond.com](http://www.RITERichmond.com)





## Ken Waldman

---

**From:** Ken Waldman <kwaldman@shaw.ca>  
**Sent:** Friday, September 14, 2018 11:02 AM  
**To:** 'MayorandCouncillors'  
**Subject:** RE: Smoking in Public - A health hazard; a fire hazard; an environmental hazard; carbon hazard TIME FOR RICHMOND COUNCIL TO DO THE RIGHT THING FOR ALL THE PEOPLE  
**Attachments:** Organizations going smoke free Sun Articles.pdf

I received a phone call from Paul Brar the Manager of Parks for Richmond. Why he is responsible for the smoking bylaws passed by council is beyond me. He previously sent me an email that had so many false assumptions. His phone call was to tell me that Richmond's approach to smoking is through education. He does not understand nor did he even read the initial email I sent to Richmond elected officials regarding:

1. Health effects of smokers smoke on NON-SMOKERS;
2. The Green House gases emitted to the environment DAILY by smokers that I estimated to be 3,000,000 butts a day of which it seems most are being dumped on the streets or from car windows [why does no one address the Green House gases from smoke and ash from cigarettes?];
3. The filters that are plastic that are a HUGE ENVIRONMENTAL issue where they get into the waste system, plugs up the sewage treatment plants and gets discharged into the water ways [in our case from the plant on Sea Island]
4. The fire issues it raises such as the bog fire in the Nature Park in Richmond this year.

Attached 2 more articles from the Vancouver Sun that shows that although I was told the feds prohibit municipalities and organizations from passing smoking laws clearly that is a falsehood that our Council are 'hanging their hats on' **IT IS TIME FOR RICHMOND CITY TO PASS A BYLAW; PUT ON LARGE FINES AND PENALTIES FOR VIOLATION OF THE LAWS; AND ENFORCE IT BY HIRING AS MANY OFFICERS AS IS NEEDED.**

I note that in the recent ads from Mayor Malcolm Brodie for his re-election bid in October there is not one word about any of the above issues!

Get it passed now before the election or at least make it an election for all candidates then get it done in October immediately after the election.

Ken Waldman

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**From:** MayorandCouncillors [mailto:MayorandCouncillors@richmond.ca]  
**Sent:** Monday, August 13, 2018 8:46 AM  
**To:** Ken Waldman (kwaldman@shaw.ca)  
**Subject:** RE: Smoking in Public - A health hazard; a fire hazard; an environmental hazard; carbon hazard TIME FOR RICHMOND COUNCIL TO DO THE RIGHT THING FOR ALL THE PEOPLE

Hello Mr. Waldman,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor.

Thank you again for taking the time to share your views with Richmond City Council.

**CNCL - 796**

Hanieh Berg | Acting Manager, Legislative Services  
City Clerk's Office | City of Richmond  
6911 No. 3 Road, Richmond, BC V6Y 2C1

**From:** kwaldman [<mailto:kwaldman@shaw.ca>]

**Sent:** Sunday, 12 August 2018 1:35 PM

**To:** Brar,Paul

**Subject:** RE: Smoking in Public - A health hazard; a fire hazard; an environmental hazard; carbon hazard TIME FOR RICHMOND COUNCIL TO DO THE RIGHT THING FOR ALL THE PEOPLE

I am on vacation in Toronto. When i return i will call you. First your numbers for Richmond ate skewed. With very larfe number of people coming to Richmond over the past years i  
It seems IMHO that probably at least 50% smoke. I live in Alexandra Court and younger Asians, both mail and female stand either on the sidewalk; that is significantly within the 9 meter limit. Then they either simply flick the hot but on the dtry grass into the bushes and the number of butts on the sidewalk and road curbs is ridiculous. To date I have not seen one bylaw officer responsible for 'tagging' smokers and their filthy habit. In fact the bylaw officer i spoke with who advised i send an email was from thevtransportatin division. Second, i was volunteering at the Maritime Festival a few weeks ago when i was speaking to Harold Steves a very long time serving councillor in Richmond whom indicated they have raised enforcement issues but there are so few officers it is a waste of time. Finally for now the hors to contact the bykaw enforcement is only doringbthevday. Look at hours outside tese times and the public will never get anything done. Your responses are not very appropriate Richmond council is shirking its responsibilities. An unenforced bylaw isvuseless as most Richmond bylaws are unenforced. I would like the mayor and each councillor to respond.

Ken Waldman

A 44 year resident of arichmond and very concerned.

Please copy this response to the Mayor and each Councillor

Sent from my Galaxy Tab A

----- Original message -----

From: "Brar,Paul" <[PBrar@richmond.ca](mailto:PBrar@richmond.ca)>

Date: 2018-08-10 3:45 PM (GMT-08:00)

To: "'kwaldman@shaw.ca'" <[kwaldman@shaw.ca](mailto:kwaldman@shaw.ca)>

Cc: MayorandCouncillors <[MayorandCouncillors@richmond.ca](mailto:MayorandCouncillors@richmond.ca)>, "Edwards,Carli"

<[CEdwards@richmond.ca](mailto:CEdwards@richmond.ca)>, "Louie,Beayue" <[BLouie@richmond.ca](mailto:BLouie@richmond.ca)>

Subject: RE: Smoking in Public - A health hazard; a fire hazard; an environmental hazard; carbon hazard TIME FOR RICHMOND COUNCIL TO DO THE RIGHT THING FOR ALL THE PEOPLE

Good afternoon Mr. Waldman,

Thank you for sharing your concerns related to smoking in Richmond. Your concerns are shared by the City. Health hazards to smokers, the detrimental effects of second-hand smoke, fire hazards, and the environmental consequences of littered cigarette butts and other smokers' materials served as the impetus for the recent

CNCL - 797

implementation of new smoking regulations, which bans smoking (including cannabis and vapour products) in public parks and school grounds, and expands the no-smoking buffer from 6 metres to 9 metres.

The City is working with public health authorities to reduce smoking and nicotine addiction in Richmond. The public education approach is merely the first, but important, step in the process to promote long-term community adoption of non-smoking behaviours and habits. Punitive actions such as fines will be used where necessary. This approach is similar to that taken by many municipalities across British Columbia in the movement towards smoke-free public places.

We understand your frustrations. Although it may not seem so in the short-term, these processes do contribute to meaningful reductions in smoking rates over the long-term by changing public norms. Richmond currently has one of the lowest smoking rates in Canada at 7.8% (2014, Vancouver Coastal Health), which is significantly lower than the provincial average of 14.3% (2014, Stats Canada) and the national average of 18.1% (2014, Stats Canada). We could not have done this without the continued, and passionate support of concerned citizens such as yourself.

Thank you for your assistance in helping the City support smoke-free outdoor public places. I have included some contact information below should you wish to report future violations.

To report violations by businesses or organizations, please contact:

- Richmond Environmental Health (Vancouver Coastal Health):
- 604-233-3147 (Mon to Fri, 8:00 am to 4:30 pm)

To report violations by individuals, please contact:

- Community Bylaws:
- 604-276-4345 (Mon to Fri, 8:15 am to 5:00 pm)
- [bylawrequest@richmond.ca](mailto:bylawrequest@richmond.ca) (Mon to Sun, 7:00 am to 9:00 pm to request a bylaw officer).

RCMP (to report behaviour or activities that pose a potential danger to the public):

- Non-emergency: 604-278-1212
- Emergency only: 911

**CNCL - 798**

As we are in the early stages of implementation of the new bylaw, there is no planned date to bring the matter back to Council for review. In the meantime, should you have any further questions or would like to discuss the matter further, please contact me directly at 604-244-1275.

Regards,

**Paul Brar**

**Manager, Parks Programs**

City of Richmond

Tel: 604-244-1275

[pbrar@richmond.ca](mailto:pbrar@richmond.ca)

---

**From:** MayorandCouncillors

**Sent:** Tuesday, 31 July 2018 10:28

**To:** 'Ken Waldman'

**Subject:** RE: Smoking in Public - A health hazard; a fire hazard; an environmental hazard; carbon hazard TIME FOR RICHMOND COUNCIL TO DO THE RIGHT THING FOR ALL THE PEOPLE

Hello,

Thank you again for your email. It has been distributed to the Mayor and each Councillor.

Regards,

Hanieh

---

**From:** Ken Waldman [<mailto:kwaldman@shaw.ca>]

**Sent:** Monday, 30 July 2018 10:41

**To:** MayorandCouncillors

**CNCL - 799**



**Subject:** RE: Smoking in Public - A health hazard; a fire hazard; an environmental hazard; carbon hazard TIME FOR RICHMOND COUNCIL TO DO THE RIGHT THING FOR ALL THE PEOPLE

Thank you for your reply; now I hope the Mayor and the Councillor will make this very difficult but very important decision to protect lives, the environment, reduce greenhouse gas and for fire safety that as we are now experiencing with the Richmond Nature Park smouldering away.

I volunteered at the Maritime Festival in Steveston this past weekend and saw a Councillor who indicated our bylaw enforcement process is very flawed. The new 30 feet space for smokers to be from windows, doors and air intakes is not being looked at as they only work on a complaint process and if one complains the smoker is gone before any bylaw officer shows up. This would include putting ashes from cigarettes into the air and onto the ground and through butts on the ground to eventually start plugging up our waste treatment plants.

In our condo residential area about a 15 square block area all the city sidewalks are well within the 30 feet radius but smokers wander freely, drop their 'lit' butts onto the dry grass and bushes, or in the flower pots starting small fires that could have been disastrous if a building housing upwards of 300 people began to burn. Put some bylaw officers on 'foot patrol' or get the RCMP to walk the areas during the morning and day but more for the early evenings to give out tickets for smokers within the zone; for polluters dropping their cigarettes onto the streets and sidewalks, for violating the fire safety rules by flicking lit cigarettes onto the ground or from their vehicles. Last week I was travelling North on No. 4 Road between Alderbridge and Westminster when the driver of the Ford F-150 flicked his lit cigarette from his window. That was on Thursday less than 24 hours before the bog fire began. Complaining does nothing.

I hope that this issue gets in front of Council very soon. Please advise me of when so I and the media can attend the hearings.

Ken Waldman

**From:** MayorandCouncillors [<mailto:MayorandCouncillors@richmond.ca>]

**Sent:** Monday, July 30, 2018 9:34 AM

**To:** 'Ken Waldman'

**Subject:** RE: Smoking in Public - A health hazard; a fire hazard; an environmental hazard; carbon hazard TIME FOR RICHMOND COUNCIL TO DO THE RIGHT THING FOR ALL THE PEOPLE

Good morning Mr. Waldman,

**CNCL - 800**



This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, your email has been forwarded to appropriate staff.

Thank you again for taking the time to share your views with Richmond City Council.

**Hanich Berg | Acting Manager, Legislative Services**

City Clerk's Office | City of Richmond

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

---

**From:** Ken Waidman [<mailto:kwaldman@shaw.ca>]

**Sent:** Friday, 27 July 2018 10:21

**To:** Mayor and Councillors

**Subject:** Smoking in Public - A health hazard; a fire hazard; an environmental hazard; carbon hazard TIME FOR RICHMOND COUNCIL TO DO THE RIGHT THING FOR ALL THE PEOPLE

My name is Ken Waldman and I have been a Richmond resident for 43+ years now. I am also a very young Sr. Citizen who does not smoke. I live in a condo near the Walmart store. This morning there was another fire near Westminster and Shell Road that has blanketed the area in smoke. People with asthma and other breathing disorders are suffering. The cause of the fire will in all likelihood be linked back to smokers who discard their hot cigarette butts out of their car window or simply 'flick' them on the dry grass and bushes and start fires. They have no respect for anyone else or anyone's property.

Smoking in the open causes the following hazards:

1. a significant health hazard to breathe second hand smoke;
2. the carbon footprint from smokers [it seems that Richmond has a significant number of smokers – particularly young people who smoke and spit constantly];
3. fire hazards [just speak to a fireman in Richmond, as I have to confirm the fire issue];
4. a pollution issue with the butts being thrown on the ground only to end up in the waste water treatment plants;

**CNCL - 801**

Further, at least along Alexandra Road and the entire area of newer condominiums, the sidewalks are within 30 feet of the building windows, doors, air intakes to the garage that is contrary to the new smoking regulations that Richmond Council finally but reluctantly passed WITH ABSOLUTELY NO BYLAW ENFORCEMENT BY THE BYLAW OFFICERS OR THE POLICE OR THE FIRE DEPARTMENT OR THE ENVIRONMENTAL OFFICERS.

**IT IS TIME FOR COUNCIL TO GET SERIOUS ABOUT THESE ISSUES AND WITH ONE LAW CAN HELP TO CONTROL ALL THESE ISSUES AND IT SEEMS HELP BUILD UP THE INCOME FROM BYLAW INFRACTIONS.**

**I PROPOSE THAT SMOKING BE BANNED IN PUBLIC PLACES IN RICHMOND. IF ONE WANTS TO SMOKE THEN IT CAN ONLY BE DONE IN THEIR PERSONAL VEHICLES [WITH THE WINDOWS CLOSED] OR IN THEIR PERSONAL SINGLE FAMILY HOMES AND IF THEIR CONDOMINIUMS ALLOW IT INSIDE THEIR SUITES WITH THE WINDOWS CLOSED AND SUCH THAT IT DOES NOT AFFECT ANY OTHER TENANT LIVING IN THE BUILDING.**

Direct [hire more bylaw enforcement officers] that the officers enforce these rules and issue fines such as first offence \$250; second offence \$500 and each subsequent offence \$1000 PLUS 3 months in jail. Just patrol the 5 blocks North of Alderbridge between Garden City and No. 4 Road and you will collect thousands of fines weekly. In addition this will reduce SIGNIFICANTLY Richmond's carbon footprint. I estimate that there are probably 100,000 smokers in Richmond [and that is very conservative] and if each smokes 30 cigarettes a day [and that is a conservative estimate] then the smoke from 3,000,000 cigarettes will be removed from Richmond. Vaping and the use of recreational cannabis MUST be included in the ban.

It is time that Richmond Council made a significant decision to protect the health and well being of all Richmond residents and pass this bylaw now; before the municipal election.

I hope this will be on an agenda for a future council meeting [hopefully soon] and you include the study of medical reports that would fully support the decision you are about to make. Please advise me of when this will take place as would most assuredly want to be at the meeting if I am in town.

Ken Waldman

9399 Alexandra Road

Richmond BC

**CNCL - 802**

[kwaldman@shaw.ca](mailto:kwaldman@shaw.ca)

Please withhold my name from all communications.



Virus-free. [www.avast.com](http://www.avast.com)



# New smoking regulations effective May 1, 2018

## Public Health Protection Bylaw No. 6989

Richmond City Council has approved new regulations that will further limit smoking and vaping in public spaces and around City properties.

**Effective May 1, 2018, new regulations in Public Health Protection Bylaw No. 6989 will include:**



No smoking at public parks and school grounds (e.g. beaches, trails, playgrounds; playing fields, golf courses, docks, piers, heritage sites, public recreation centres, arenas, swimming pools, City Hall plaza, and other City properties that are open to the public)



No smoking within 9 metres of transit shelters, transit signs, customer service areas (patios), doors, windows and air intakes (previously 3 metres for transit shelters and 6 metres for all other areas)



Definition of "smoking" or "smoke" to include cannabis and all vapour products such as e-cigarettes.

The new regulations support the recommendations of local health authorities to improve the current level of public health protection in the community. The regulations will also increase protection of public spaces and infrastructure from the threat of smoking-related fires.

For more information, visit [www.richmond.ca/cityhall/bylaws](http://www.richmond.ca/cityhall/bylaws).



Support for British Columbia residents who want to quit smoking is provided 24 hours a day, free-of-charge through QuitNow.

**ENCL-804**

Call 1-877-455-2233 or visit [www.quitnow.ca](http://www.quitnow.ca) to learn more.







# 全新規管吸菸附例2018年5月1日生效

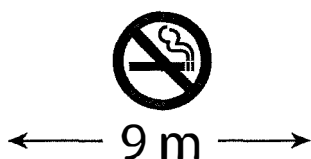
「公共衛生保護附例6989號」(Public Health Protection Bylaw No. 6989)

列治文市議會已審批通過此全新規例，將在公共場所及市府物業周圍，加強吸菸和吸菸蒸氣(vaping)的限制。

「公共衛生保護附例6989號」內的新規例，在2018年5月1日生效，將包括下列的限制：



在下列場所，禁止吸菸：公園及校園（如沙灘、路徑，遊樂園、運動場、高球場、船隻停泊處、碼頭、歷史遺址、公立康樂中心、比賽場館、游泳池、市政大樓廣場以及其他公開的市府物業）



在下列地方9公尺範圍內，禁止吸菸：公車候車亭、公車標柱、客服場地（餐館院子）、門口、窗戶及進氣口（以前，公車候車亭是3公尺範圍，其他各地方則是6公尺）



「吸菸」(smoking) 或「菸蒸氣」(smoke) 的定義，包括大麻及各種「電子菸」(e-cigarettes) 等「吸菸蒸氣產品」(vapour products)

此等新規例支持地方衛生管理機構的建議，改善保護社區公共衛生，亦會提昇公共場所及基建設施的保護，免受吸菸引發火災的威脅。

查閱詳情，請瀏覽網頁：[www.richmond.ca/cityhall/bylaws](http://www.richmond.ca/cityhall/bylaws)。



卑詩省省民想戒菸，請向QuitNow求助，其支援24小時不斷，並且費用全免；查詢 **CNCL** 請電

1-877-455-2233或瀏覽網站：[www.quitnow.ca](http://www.quitnow.ca)。



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Smoker Statistics British Columbia

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FIGURE 2.3: CURRENT SMOKING PREVALENCE\* BY SEX, BRITISH COLUMBIA, 1999-2015

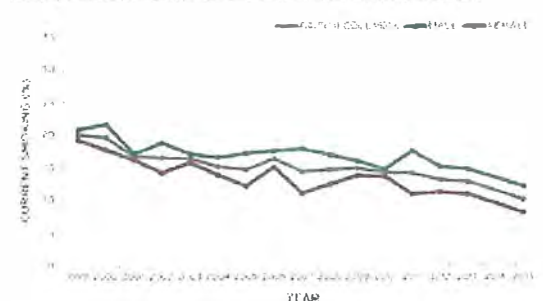
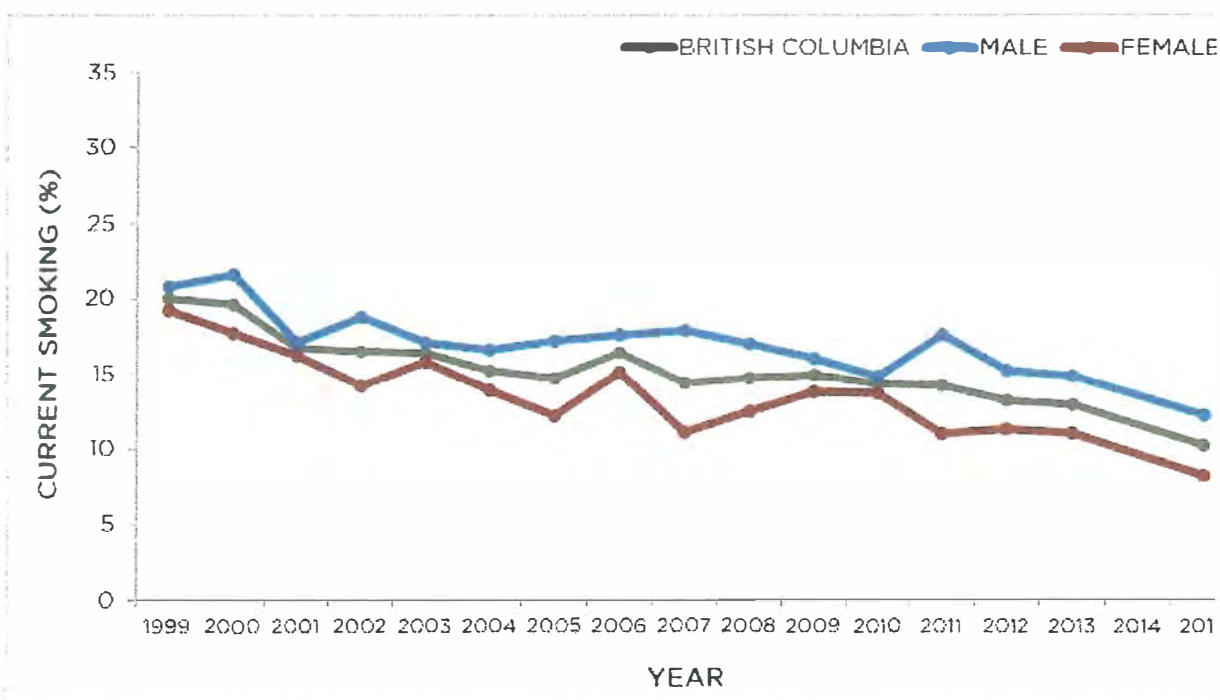


FIGURE 2.3: CURRENT SMOKING PREVALENCE\* BY SEX, BRITISH COLUMBIA, 1999-2015

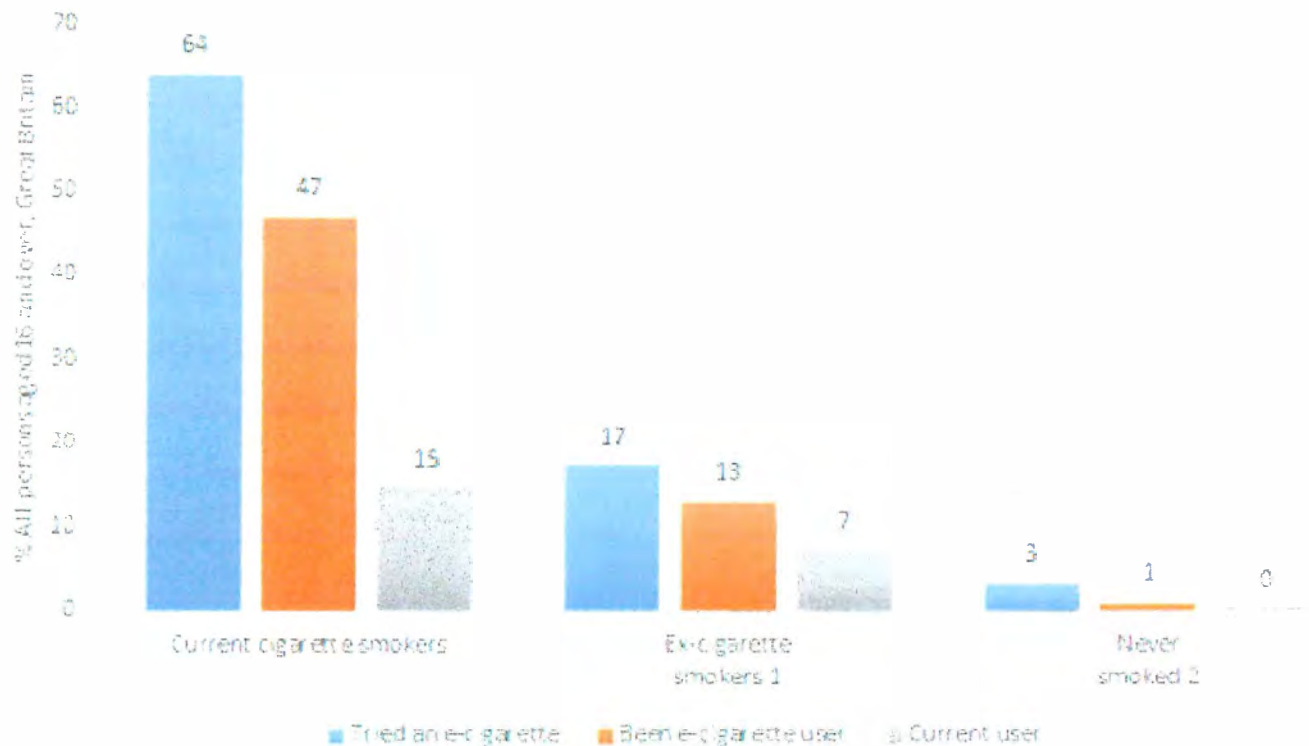


\*INCLUDES DAILY AND NON-DAILY SMOKERS

DATA SOURCES: CANADIAN TOBACCO USE MONITORING SURVEY, 1999-2012; CANADIAN TOBACCO, ALCOHOL AND DRUGS SURVEY, 2013, 2015

[Show More Images](#)

## British E-cigarette use by cigarette smoking status, 2015



VANCOUVER SUN, THURSDAY, SEPTEMBER 13, 2018

## HALIFAX BYLAW TO BAN ALL SMOKING ON MUNICIPAL PROPERTY

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Halifax is moving ahead with a sweeping ban on smoking on municipal property as of Oct. 1, two weeks before the federal legalization of recreational cannabis comes into effect. Council decided Tuesday not to adopt an amendment that would exclude tobacco from the Nuisance Bylaw. Municipal staff had recommended that the bylaw amendment approved nearly two months ago remain the same — keeping its prohibition of smoking any substance on public property, including tobacco and cannabis. *The Canadian Press*

VANCOUVER SUN, FRIDAY, SEPTEMBER 14, 2018

## CANCER SOCIETY REPORT NUMBER OF CAMPUSES GOING SMOKE-FREE DOUBLES IN A YEAR

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A growing number of university and college campuses across the country are now fully smoke-free — both indoors and out, says a report by the Canadian Cancer Society released Thursday. The report says there are now 65 post-secondary institutions that prohibit smoking anywhere on campus, more than double the number in 2017, when 30 colleges and university campuses had implemented smoke-free policies. That's also a dramatic rise from a decade earlier, when only four such institutions had full smoking bans. *The Canadian Press*





University of British Columbia researchers say the findings of a shoreline trash study could help guide future waste management strategies, especially when it comes to reducing plastic pollution. *THE CANADIAN PRESS*

## Half the debris on shore consists of waste from cigarettes: study

**UBC researcher says many smokers believe butts biodegrade where dropped**

**DIRK MEISSNER**

VICTORIA Cigarettes and their filters made from plastic account for almost 50 per cent of the waste collected along the Vancouver and Victoria shorelines, says a study analyzing data from volunteer coastline cleanups in British Columbia.

University of British Columbia researchers said Thursday the findings could help guide future waste management strategies, especially when it comes to reducing plastic pollution.

Study co-author Cassandra Konecny, a zoology master's student, said cigarette filters are made of plastic and when butts are dropped on the street they move from drainage systems to the ocean and shorelines.

She said many people believe cigarette butts are biodegradable, but they are a source of plastic pollution.

"There's been studies looking at how a lot of smokers don't consider throwing cigarette butts on the ground littering," Konecny said.

"For a lot of people, it's pretty shocking to hear that they are made of plastic and I don't think it's very common knowledge."

Representatives from Canada's tobacco industry could not be reached for comment.

The researchers examined data from 1,226 voluntary cleanup initiatives organized as Great Canadian Shoreline Cleanup events along B.C.'s coastline from 2013 to 2016.

Konecny said 80 to 90 per cent of the waste collected was some form of plastic.

The types of plastic collected varied at different geographical locations, but half the litter gathered in the Vancouver and Victoria area was from cigarette debris.

"Lots of cigarettes, cigarette filters down here in the southern Strait of Georgia, but up in the North Coast we get a lot more items that we categorized as shoreline recreation, and those include plastic bottles and plastic bags," she said.

Konecny said campaigns to ban single-use plastic straws have gained attention but the shoreline waste study signals that cigarette litter is also an area in need of focus.

"For example, we've heard a lot recently about banning single-use plastic straws in the city of Vancouver. But if the data shows that smoking is a big issue and mostly we're just picking up cigarettes, that's perhaps a good place to start."

*The Canadian Press*





**Housing Agreement (4300, 4320, 4340 Thompson Road and 4291, 4331, 4431 and 4451 Boundary Road) Bylaw No. 9916**

The Council of the City of Richmond enacts as follows:

1. The Mayor and City Clerk for the City of Richmond are authorized to execute and deliver a housing agreement, substantially in the form set out as Schedule A to this Bylaw, with the owner of the lands legally described as:

PID 003-801-101	Lot 73 Section 36 Block 5 North Range 4 West, New Westminster District Plan 31404
PID 000-938-441	Lot 74 Section 36 Block 5 North Range 4 West, New Westminster District Plan 31404
PID 004-870-794	Lot 75 Section 36 Block 5 North Range 4 West, New Westminster District Plan 31404
PID 005-143-659	Lot 76 Section 36 Block 5 North Range 4 West, New Westminster District Plan 31404
PID 003-680-908	Lot 6 Sections 25 and 36 Block 5 North Range 4 West, New Westminster District Plan 65780
PID 003-538-621	Lot 146 Section 36 Block 5 North Range 4 West, New Westminster District Plan 49821
PID 004-264-304	North Half Lot 7 Except: Firstly: Part Subdivided by Plan 32843 Secondly: Part Subdivided by Plan 65780 Sections 25 and 36 Block 5 North Range 4 West, New Westminster District Plan 571

This Bylaw is cited as “**Housing Agreement (4300, 4320, 4340 Thompson Road and 4291, 4331, 4431 and 4451 Boundary Road) Bylaw No. 9916**”.

FIRST READING

DEC 10 2018

SECOND READING

DEC 10 2018

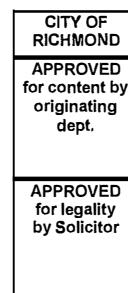
THIRD READING

DEC 10 2018

ADOPTED

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER



Schedule A

To Housing Agreement (**4300, 4320, 4340 Thompson Road and 4291, 4331, 4431 and 4451  
Boundary Road**) Bylaw No. 9916

HOUSING AGREEMENT BETWEEN PARC THOMPSON PROJECT INC. (INC. NO.  
BC1058824) AND THE CITY OF RICHMOND

**HOUSING AGREEMENT**  
(Section 483 *Local Government Act*)

**THIS AGREEMENT** is dated for reference November 16, 2018

**BETWEEN:**

**PARC THOMPSON PROJECTS INC. (BC1058824)** a company  
duly incorporated under the laws of the Province of British Columbia  
and having its registered office at 228 – 2680 Shell Road, Richmond,  
BC V6X 4C9

(the “**Owner**” as more fully defined in section 1.1 of this  
Agreement)

**AND:**

**CITY OF RICHMOND**, a municipal corporation pursuant to the  
*Local Government Act* and having its offices at 6911 No. 3 Road,  
Richmond, British Columbia, V6Y 2C1

(the “**City**” as more fully defined in section 1.1 of this Agreement)

**WHEREAS:**

- A. Section 483 of the *Local Government Act* permits the City to enter into and, by legal notation on title, note on title to lands, housing agreements which may include, without limitation, conditions in respect to the form of tenure of housing units, availability of housing units to classes of persons, administration of housing units and rent which may be charged for housing units;
- B. The Owner is the owner of the Lands (as hereinafter defined); and
- C. The Owner and the City wish to enter into this Agreement (as herein defined) to provide for affordable housing on the terms and conditions set out in this Agreement.

In consideration of \$10.00 and other good and valuable consideration (the receipt and sufficiency of which is acknowledged by both parties), and in consideration of the promises exchanged below, the Owner and the City covenant and agree as follows:

**ARTICLE 1**  
**DEFINITIONS AND INTERPRETATION**

1.1 In this Agreement the following words have the following meanings:

- (a) “**Affordable Housing Strategy**” means the Richmond Affordable Housing Strategy approved by the City on March 12, 2018, and containing a number of recommendations, policies, directions, priorities, definitions and annual targets for

{00497112; 5 }

*Housing Agreement (Section 483 Local Government Act)*  
*Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road*  
*Application No. RZ 15-713048 Bylaw 9681*  
*Rezoning Consideration No. 13*

affordable housing, as may be amended or replaced from time to time;

- (b) **"Affordable Housing Unit"** means a Dwelling Unit or Dwelling Units designated as such in accordance with a building permit and/or development permit issued by the City and/or, if applicable, in accordance with any rezoning consideration applicable to the development on the Lands and includes, without limiting the generality of the foregoing, the Dwelling Unit charged by this Agreement;
- (c) **"Agreement"** means this agreement together with all schedules, attachments and priority agreements attached hereto;
- (d) **"Building"** means any building constructed, or to be constructed, on the Lands, or a portion thereof, including each air space parcel into which the Lands may be Subdivided from time to time. For greater certainty, each air space parcel will be a Building for the purpose of this Agreement;
- (e) **"Building Permit"** means the building permit authorizing construction on the Lands, or any portion(s) thereof;
- (f) **"City"** means the City of Richmond;
- (g) **"City Solicitor"** means the individual appointed from time to time to be the City Solicitor of the Law Division of the City, or his or her designate;
- (h) **"Convertible Housing"** means housing that is designed and built to look like traditional housing, but has features that are constructed or installed for easy modification and adjustment to suit the needs of an occupant with mobility challenges, such as (without being exhaustive) wide staircases and hallways, accessible parking spaces, wide doorways, accessible washroom facilities, kitchens with sufficient turning diameters, and other features, all to the satisfaction of the City to be determined through Development Permit process;
- (i) **"CPI"** means the All-Items Consumer Price Index for Vancouver, B.C. published from time to time by Statistics Canada, or its successor in function;
- (j) **"Daily Amount"** means \$100.00 per day as of January 1, 2019 adjusted annually thereafter by adding thereto an amount calculated by multiplying \$100.00 by the percentage change in the CPI since January 1, 2019, to January 1 of the year that a written notice is delivered to the Owner by the City pursuant to section 6.1 of this Agreement. In the absence of obvious error or mistake, any calculation by the City of the Daily Amount in any particular year shall be final and conclusive;
- (k) **"Development"** means the residential townhouse development to be constructed on the Lands;
- (l) **"Development Permit"** means the development permit authorizing development on the Lands, or any portion(s) thereof;

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*Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
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- (m) **“Director of Development”** means the individual appointed to be the chief administrator from time to time of the Development Applications Division of the City and his or her designate;
- (n) **“Dwelling Unit”** means a residential dwelling unit or units located or to be located on the Lands whether those dwelling units are lots, strata lots or parcels, or parts or portions thereof, and includes single family detached dwellings, duplexes, townhouses, auxiliary residential dwelling units, rental apartments and strata lots in a building strata plan and includes, where the context permits, an Affordable Housing Unit;
- (o) **“Eligible Tenant”** means a Family having a cumulative gross annual income of:
  - (i) in respect to a three or more bedroom unit, \$58,050.00 or less,

provided that, commencing January 1, 2019, the annual incomes set-out above shall be adjusted annually on January 1<sup>st</sup> of each year this Agreement is in force and effect, by a percentage equal to the percentage of the increase in the CPI for the period January 1 to December 31 of the immediately preceding calendar year. If there is a decrease in the CPI for the period January 1 to December 31 of the immediately preceding calendar year, the annual incomes set-out above for the subsequent year shall remain unchanged from the previous year. In the absence of obvious error or mistake, any calculation by the City of an Eligible Tenant’s permitted income in any particular year shall be final and conclusive;
- (p) **“Family”** means:
  - (i) a person;
  - (ii) two or more persons related by blood, marriage or adoption; or
  - (iii) a group of not more than 6 persons who are not related by blood, marriage or adoption
- (q) **“GST”** means the Goods and Services Tax levied pursuant to the *Excise Tax Act*, R.S.C., 1985, c. E-15, as may be replaced or amended from time to time;
- (r) **“Housing Covenant”** means the agreements, covenants and charges granted by the Owner to the City (which includes covenants pursuant to section 219 of the *Land Title Act*) charging the Lands from time to time, in respect to the use and transfer of the Affordable Housing Units;
- (s) **“Interpretation Act”** means the *Interpretation Act*, R.S.B.C. 1996, Chapter 238, together with all amendments thereto and replacements thereof;
- (t) **“Land Title Act”** means the *Land Title Act*, R.S.B.C. 1996, Chapter 250, together with all amendments thereto and replacements thereof;

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*Housing Agreement (Section 483 Local Government Act)*  
*Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road*  
*Application No. RZ 15-713048 Bylaw 9681*  
*Rezoning Consideration No. 13*



- (u) “**Lands**” means certain lands and premises legally described as:
  - (i) PID: 003-801-101, Lot 73 Section 36 Block 5 North Range 4 West New Westminster District Plan 31404;
  - (ii) PID: 000-938-441, Lot 74 Section 36 Block 5 North Range 4 West New Westminster District Plan 31404;
  - (iii) PID: 004-870-794, Lot 75 Section 36 Block 5 North Range 4 West New Westminster District Plan 31404;
  - (iv) PID: 005-143-659, Lot 76, Section 36 Block 5 North Range 4 West New Westminster District Plan 31404;
  - (v) PID: 003-680-908, Lot 6 Section 25 and 36 Block 5 North Range 4 West, New Westminster District Plan 65780;
  - (vi) PID: 003-538-621, Lot 146 Section 36 Block 5 North Range 4 West, New Westminster District Plan 49821; and
  - (vii) PID: 004-264-304, North Half Lot 7 Except: Firstly: Part Subdivided by Plan 32843 Secondly: Part Subdivided by Plan 65780 Sections 25 and 36 Block 5 North Range 4 West, New Westminster District Plan 571

as may be Subdivided from time to time, and including a Building or a portion of a Building;

- (v) “**Local Government Act**” means the *Local Government Act*, R.S.B.C. 2015, Chapter 1, together with all amendments thereto and replacements thereof;
- (w) “**LTO**” means the New Westminster Land Title Office or its successor;
- (x) “**Manager, Community Social Development**” means the individual appointed to be the Manager, Community Social Development from time to time of the Community Services Department of the City and his or her designate;
- (y) “**Owner**” means the party described on page 1 of this Agreement as the Owner and any subsequent owner of the Lands or of any part into which the Lands are Subdivided, and includes any person who is a registered owner in fee simple of an Affordable Housing Unit from time to time;
- (z) “**Permitted Rent**” means no greater than \$1,480.00 (exclusive of GST) a month for a three (or more) bedroom unit, provided that, commencing January 1, 2019, the rents set-out above shall be adjusted annually on January 1<sup>st</sup> of each year this Agreement is in force and effect, by a percentage equal to the percentage of the increase in the CPI for the period January 1 to December 31 of the immediately preceding calendar year. In the event that, in applying the values set-out above,

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*Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
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Rezoning Consideration No. 13*

the rental increase is at any time greater than the rental increase permitted by the *Residential Tenancy Act*, then the increase will be reduced to the maximum amount permitted by the *Residential Tenancy Act*. If there is a decrease in the CPI for the period January 1 to December 31 of the immediately preceding calendar year, the permitted rents set-out above for the subsequent year shall remain unchanged from the previous year. In the absence of obvious error or mistake, any calculation by the City of the Permitted Rent in any particular year shall be final and conclusive;

- (aa) “*Real Estate Development Marketing Act*” means the *Real Estate Development Marketing Act*, S.B.C. 2004, Chapter 41, together with all amendments thereto and replacements thereof;
- (bb) “*Residential Tenancy Act*” means the *Residential Tenancy Act*, S.B.C. 2002, Chapter 78, together with all amendments thereto and replacements thereof;
- (cc) “*Strata Property Act*” means the *Strata Property Act* S.B.C. 1998, Chapter 43, together with all amendments thereto and replacements thereof;
- (dd) “**Subdivide**” means to divide, apportion, consolidate or subdivide the Lands, or the ownership or right to possession or occupation of the Lands into two or more lots, strata lots, parcels, parts, portions or shares, whether by plan, descriptive words or otherwise, under the *Land Title Act*, the *Strata Property Act*, or otherwise, and includes the creation, conversion, organization or development of “cooperative interests” or “shared interest in land” as defined in the *Real Estate Development Marketing Act*;
- (ee) “**Tenancy Agreement**” means a tenancy agreement, lease, license or other agreement granting rights to occupy an Affordable Housing Unit; and
- (ff) “**Tenant**” means an occupant of an Affordable Housing Unit by way of a Tenancy Agreement.

## 1.2 In this Agreement:

- (a) reference to the singular includes a reference to the plural, and *vice versa*, unless the context requires otherwise;
- (b) article and section headings have been inserted for ease of reference only and are not to be used in interpreting this Agreement;
- (c) if a word or expression is defined in this Agreement, other parts of speech and grammatical forms of the same word or expression have corresponding meanings;
- (d) reference to any enactment includes any regulations, orders or directives made under the authority of that enactment;

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*Housing Agreement (Section 483 Local Government Act)*  
*Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road*  
*Application No. RZ 15-713048 Bylaw 9681*  
*Rezoning Consideration No. 13*

- (e) any reference to any enactment is to the enactment in force on the date the Owner signs this Agreement, and to subsequent amendments to or replacements of the enactment;
- (f) the provisions of section 25 of the *Interpretation Act* with respect to the calculation of time apply;
- (g) time is of the essence;
- (h) all provisions are to be interpreted as always speaking;
- (i) reference to a "party" is a reference to a party to this Agreement and to that party's respective successors, assigns, trustees, administrators and receivers. Wherever the context so requires, reference to a "party" also includes an Eligible Tenant, agent, officer and invitee of the party;
- (j) reference to a "day", "month", "quarter" or "year" is a reference to a calendar day, calendar month, calendar quarter or calendar year, as the case may be, unless otherwise expressly provided;
- (k) where the word "including" is followed by a list, the contents of the list are not intended to circumscribe the generality of the expression preceding the word "including"; and
- (l) the terms "shall" and "will" are used interchangeably and both will be interpreted to express an obligation. The term "may" will be interpreted to express a permissible action.

## ARTICLE 2 USE AND OCCUPANCY OF AFFORDABLE HOUSING UNITS

- 2.1 The Owner agrees that each Affordable Housing Unit may only be used as a permanent residence occupied by one Eligible Tenant. An Affordable Housing Unit must not be occupied by the Owner, the Owner's family members (unless the Owner's family members qualify as Eligible Tenants), or any tenant or guest of the Owner, other than an Eligible Tenant. For the purposes of this Article, "permanent residence" means that the Affordable Housing Unit is used as the usual, main, regular, habitual, principal residence, abode or home of the Eligible Tenant.
- 2.2 Within 30 days after receiving notice from the City, the Owner must, in respect of each Affordable Housing Unit, provide to the City a statutory declaration, substantially in the form (with, in the City Solicitor's discretion, such further amendments or additions as deemed necessary) attached as Schedule A, sworn by the Owner, containing all of the information required to complete the statutory declaration. The City may request such statutory declaration in respect to each Affordable Housing Unit no more than once in any calendar year; provided, however, notwithstanding that the Owner may have already

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*Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
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Rezoning Consideration No. 13*

provided such statutory declaration in the particular calendar year, the City may request and the Owner shall provide to the City such further statutory declarations as requested by the City in respect to an Affordable Housing Unit if, in the City's absolute determination, the City believes that the Owner is in breach of any of its obligations under this Agreement.

- 2.3 The Owner hereby irrevocably authorizes the City to make such inquiries as it considers necessary in order to confirm that the Owner is complying with this Agreement.
- 2.4 The Owner agrees that notwithstanding that the Owner may otherwise be entitled, the Owner will not:
- (a) be issued with a Development Permit unless the Development Permit includes the Affordable Housing Units and all Affordable Housing Units are designed as Convertible Housing;
  - (b) be issued with a Building Permit unless the Building Permit includes the Affordable Housing Units and all Affordable Housing Units are designed as Convertible Housing; and
  - (c) occupy, nor permit any person to occupy any Dwelling Unit or any portion of any Building, in part or in whole, constructed on the Lands and the City will not be obligated to permit occupancy of any Dwelling Unit or Building constructed on the Lands until all of the following conditions are satisfied:
    - (i) the Affordable Housing Units and related uses and areas have been constructed, to the satisfaction of the City;
    - (ii) all Affordable Housing Units on the Lands are constructed as Convertible Housing, to the satisfaction of the City;
    - (iii) the Affordable Housing Units have received final building permit inspection granting occupancy; and
    - (iv) the Owner is not otherwise in breach of any of its obligations under this Agreement or any other agreement between the City and the Owner in connection with the development of the Lands.

### ARTICLE 3 DISPOSITION AND ACQUISITION OF AFFORDABLE HOUSING UNITS

- 3.1 The Owner will not permit an Affordable Housing Unit Tenancy Agreement to be subleased or assigned.
- 3.2 If this Housing Agreement encumbers more than one Affordable Housing Unit, then the Owner will not, without the prior written consent of the City Solicitor, sell or transfer less than all Affordable Housing Units located on the Lands in a single or related series of

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*Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
Application No. RZ 15-713048 Bylaw 9681  
Rezoning Consideration No. 13*

transactions with the result that when the purchaser or transferee of the Affordable Housing Units becomes the owner, the purchaser or transferee will be the legal and beneficial owner of not less than all the Affordable Housing Units located on the Lands. Without limiting the foregoing, the Owner will not Subdivide the Lands in a manner that creates one or more Affordable Housing Units into a separate air space parcel without the prior written consent of the City;

3.3 Subject to the requirements of the *Residential Tenancy Act*, the Owner will ensure that each Tenancy Agreement:

(a) includes the following provision:

“By entering into this Tenancy Agreement, the Tenant hereby consents and agrees to the collection of the below-listed personal information by the Landlord and/or any operator or manager engaged by the Landlord and the disclosure by the Landlord and/or any operator or manager engaged by the Landlord to the City and/or the Landlord, as the case may be, of the following personal information which information will be used by the City to verify and ensure compliance by the Owner with the City’s strategy, policies and requirements with respect to the provision and administration of affordable housing within the municipality and for no other purpose, each month during the Tenant’s occupation of the Affordable Housing Unit:

- (i) a statement of the Tenant’s annual income once per calendar year;
- (ii) number of occupants of the Affordable Housing Unit;
- (iii) number of occupants of the Affordable Housing Unit under 18 years of age;
- (iv) number of occupants of the Affordable Housing Unit over 65 years of age;
- (v) a statement of before tax employment income for all occupants over 18 years of age; and
- (vi) total income for all occupants of the Affordable Housing Unit;”

(b) defines the term “Landlord” as the Owner of the Affordable Housing Unit; and

(c) includes a provision requiring the Tenant and each permitted occupant of the Affordable Housing Unit to comply with this Agreement.

3.4 If the Owner sells or transfers any Affordable Housing Units, the Owner will notify the City Solicitor of the sale or transfer within 3 days of the effective date of sale or transfer.

3.5 The Owner must not rent, lease, license or otherwise permit occupancy of any Affordable Housing Unit except to an Eligible Tenant and except in accordance with the following additional conditions:

{00497112; 5 }

*Housing Agreement (Section 483 Local Government Act)*  
*Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road*  
*Application No. RZ 15-713048 Bylaw 9687*  
*Rezoning Consideration No. 13*



- (a) the Affordable Housing Unit will be used or occupied only pursuant to a Tenancy Agreement;
- (b) the monthly rent payable for the Affordable Housing Unit will not exceed the Permitted Rent applicable to that class of Affordable Housing Unit;
- (c) the Owner will allow the Tenant and any permitted occupant and visitor to have full access to and use and enjoy all on-site common indoor and outdoor amenity spaces;
- (d) the Owner will not require the Tenant or any permitted occupant to pay any of the following:
  - (i) move-in/move-out fees,
  - (ii) strata fees,
  - (iii) strata property contingency reserve fees;
  - (iv) extra charges or fees for use of any common property, limited common property, or other common areas, facilities or amenities, including without limitation parking, bicycle storage, electric vehicle charging stations or related facilities;
  - (v) extra charges or fees for the use of sanitary sewer, storm sewer, water; or
  - (vi) property or similar tax;provided, however, that if the Affordable Housing Unit is a strata unit and the following costs are not part of strata or similar fees, the Owner may charge the Tenant the Owner's cost, if any, of:
  - (vii) providing cable television, telephone, other telecommunications, or electricity fees (including electricity fees and charges associated with the Tenant's use of electrical vehicle charging infrastructure); and
  - (viii) installing electric vehicle charging infrastructure (in excess of that pre-installed by the Owner at the time of construction of the Building), by or on behalf of the Tenant;
- (e) the Owner will attach a copy of this Agreement to every Tenancy Agreement;
- (f) the Owner will include in the Tenancy Agreement a clause requiring the Tenant and each permitted occupant of the Affordable Housing Unit to comply with this Agreement;

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*Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
Application No. RZ 15-713048 Bylaw 9681  
Rezoning Consideration No. 13*

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- (g) the Owner will include in the Tenancy Agreement a clause entitling the Owner to terminate the Tenancy Agreement if:
  - (i) an Affordable Housing Unit is occupied by a person or persons other than an Eligible Tenant;
  - (ii) the annual income of an Eligible Tenant rises above the applicable maximum amount specified in section 1.1(o) of this Agreement;
  - (iii) the Affordable Housing Unit is occupied by more than the number of people the City's building inspector determines can reside in the Affordable Housing Unit given the number and size of bedrooms in the Affordable Housing Unit and in light of any relevant standards set by the City in any bylaws of the City;
  - (iv) the Affordable Housing Unit remains vacant for three consecutive months or longer, notwithstanding the timely payment of rent; and/or
  - (v) the Tenant subleases the Affordable Housing Unit or assigns the Tenancy Agreement in whole or in part,

and in the case of each breach, the Owner hereby agrees with the City to forthwith provide to the Tenant a notice of termination. Except for section 3.5(g)(ii) of this Agreement [*Termination of Tenancy Agreement if Annual Income of Tenant rises above amount prescribed in section 1.1(o) of this Agreement*], the notice of termination shall provide that the termination of the tenancy shall be effective 30 days following the date of the notice of termination. In respect to section 3.5(g)(ii) of this Agreement, termination shall be effective on the day that is six (6) months following the date that the Owner provided the notice of termination to the Tenant;

- (h) the Tenancy Agreement will identify all occupants of the Affordable Housing Unit and will stipulate that anyone not identified in the Tenancy Agreement will be prohibited from residing at the Affordable Housing Unit for more than 30 consecutive days or more than 45 days total in any calendar year; and
- (i) the Owner will forthwith deliver a certified true copy of the Tenancy Agreement to the City upon demand.

3.6 If the Owner has terminated the Tenancy Agreement, then the Owner shall use best efforts to cause the Tenant and all other persons that may be in occupation of the Affordable Housing Unit to vacate the Affordable Housing Unit on or before the effective date of termination.

3.7 The Owner shall not impose any age-based restrictions on Tenants of Affordable Housing Units.

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*Housing Agreement (Section 483 Local Government Act)  
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- 3.8 The Owner shall design and construct all Affordable Housing Units on the Lands as Convertible Housing.

#### ARTICLE 4 DEMOLITION OF AFFORDABLE HOUSING UNIT

- 4.1 The Owner will not demolish an Affordable Housing Unit unless:
- (a) the Owner has obtained the written opinion of a professional engineer or architect who is at arm's length to the Owner that it is no longer reasonable or practical to repair or replace any structural component of the Affordable Housing Unit, and the Owner has delivered to the City a copy of the engineer's or architect's report; or
  - (b) the Affordable Housing Unit is damaged or destroyed, to the extent of 40% or more of its value above its foundations, as determined by the City in its sole discretion,

and, in each case, a demolition permit for the Affordable Housing Unit has been issued by the City and the Affordable Housing Unit has been demolished under that permit.

Following demolition, the Owner will use and occupy any replacement Dwelling Unit in compliance with this Agreement and the Housing Covenant both of which will apply to any replacement Dwelling Unit to the same extent and in the same manner as those agreements apply to the original Dwelling Unit, and the Dwelling Unit must be approved by the City as an Affordable Housing Unit in accordance with this Agreement.

#### ARTICLE 5 STRATA CORPORATION BYLAWS

- 5.1 This Agreement will be binding upon all strata corporations created upon the strata title Subdivision of the Lands or any Subdivided parcel of the Lands.
- 5.2 Any strata corporation bylaw which prevents, restricts or abridges the right to use the Affordable Housing Units as rental accommodation, or imposes age-based restrictions on Tenants of Affordable Housing Units will have no force and effect.
- 5.3 No strata corporation shall pass any bylaws preventing, restricting or abridging the use of the Affordable Housing Units as rental accommodation.
- 5.4 No strata corporation shall pass any bylaw or approve any levies which would result in only the Owner or the Tenant or any other permitted occupant of an Affordable Housing Unit (and not include all the owners, tenants, or any other permitted occupants of all the strata lots in the applicable strata plan which are not Affordable Housing Units) paying any extra charges or fees for the use of any common property, limited common property or other

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*Housing Agreement (Section 483 Local Government Act)*  
*Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road*  
*Application No. RZ 15-713048 Bylaw 9681*  
*Rezoning Consideration No. 13*

common areas, facilities, or indoor or outdoor amenities of the strata corporation contrary to section 3.5(d).

- 5.5 No strata corporation shall pass any bylaws or approve any levies, charges or fees which would result in the Owner or the Tenant or any other permitted occupant of an Affordable Housing Unit paying for the use of parking, bicycle storage, electric vehicle charging stations or related facilities contrary to section 3.5(d). Notwithstanding the foregoing, the strata corporation may levy parking, bicycle storage, electric vehicle charging stations or other related facilities charges or fees on all the other owners, tenants, any other permitted occupants or visitors of all the strata lots in the applicable strata plan which are not Affordable Housing Units;
- 5.6 The strata corporation shall not pass any bylaw or make any rule which would restrict the Owner or the Tenant or any other permitted occupant of an Affordable Housing Unit from using and enjoying any common property, limited common property or other common areas, facilities or amenities of the strata corporation, including parking, bicycle storage, electric vehicle charging stations or related facilities, except on the same basis that governs the use and enjoyment of these facilities by all the owners, tenants, or any other permitted occupants of all the strata lots in the applicable strata plan.

## ARTICLE 6 DEFAULT AND REMEDIES

- 6.1 The Owner agrees that, in addition to any other remedies available to the City under this Agreement or the Housing Covenant or at law or in equity, if:
- (a) an Affordable Housing Unit is used or occupied in breach of this Agreement;
  - (b) an Affordable Housing Unit is rented at a rate in excess of the Permitted Rent; or
  - (c) the Owner is otherwise in breach of any of its obligations under this Agreement or the Housing Covenant,

then the Owner will pay the Daily Amount to the City for every day that the breach continues after ten days written notice from the City to the Owner stating the particulars of the breach. For greater certainty, the City is not entitled to give written notice with respect to any breach of the Agreement until any applicable cure period, if any, has expired. The Daily Amount is due and payable five business days following receipt by the Owner of an invoice from the City for the same.

- 6.2 The Owner acknowledges and agrees that a default by the Owner of any of its promises, covenants, representations or warranties set-out in the Housing Covenant shall also constitute a default under this Agreement.

{00497112; 5 }

*Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
Application No. RZ 15-713048 Bylaw 9681  
Rezoning Consideration No. 13*

**ARTICLE 7  
MISCELLANEOUS**

**7.1 Housing Agreement**

The Owner acknowledges and agrees that:

- (a) this Agreement includes a housing agreement entered into under section 483 of the *Local Government Act*;
- (b) where an Affordable Housing Unit is a separate legal parcel the City may file notice of this Agreement in the LTO against the title to the Affordable Housing Unit and, in the case of a strata corporation, may note this Agreement on the common property sheet; and
- (c) where the Lands have not yet been Subdivided to create the separate parcels to be charged by this Agreement, the City may file a notice of this Agreement in the LTO against the title to the Lands. If this Agreement is filed in the LTO as a notice under section 483 of the *Local Government Act* prior to the Lands having been Subdivided, and it is the intention that this Agreement is, once separate legal parcels are created and/or the Lands are subdivided, to charge and secure only the legal parcels or Subdivided Lands which contain the Affordable Housing Units, then the City Solicitor shall be entitled, without further City Council approval, authorization or bylaw, to partially discharge this Agreement accordingly. The Owner acknowledges and agrees that notwithstanding a partial discharge of this Agreement, this Agreement shall be and remain in full force and effect and, but for the partial discharge, otherwise un-amended. Further, the Owner acknowledges and agrees that in the event that the Affordable Housing Unit is in a strata corporation, this Agreement shall remain noted on the strata corporation's common property sheet.

**7.2 No Compensation**

The Owner acknowledges and agrees that no compensation is payable, and the Owner is not entitled to and will not claim any compensation from the City, for any decrease in the market value of the Lands or for any obligations on the part of the Owner and its successors in title which at any time may result directly or indirectly from the operation of this Agreement.

**7.3 Modification**

Subject to section 7.1 of this Agreement, this Agreement may be modified or amended from time to time, by consent of the Owner and a bylaw duly passed by the Council of the City and thereafter if it is signed by the City and the Owner.

{00497112; 5 }

*Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
Application No. RZ 15-713048 Bylaw 9681  
Rezoning Consideration No. 13*



#### 7.4 Management

The Owner covenants and agrees that it will furnish good and efficient management of the Affordable Housing Units in accordance with this Agreement and will permit representatives of the City to inspect the Affordable Housing Units at any reasonable time, subject to the notice provisions in the *Residential Tenancy Act*. The Owner further covenants and agrees that it will maintain the Affordable Housing Units in a good state of repair and fit for habitation and will comply with all laws, including health and safety standards applicable to the Lands. Notwithstanding the foregoing, and without limiting anything in this Agreement, the Owner acknowledges and agrees that the City, in its absolute discretion, may require the Owner, at the Owner's expense, to hire a person or company with the skill and expertise, and licensed in British Columbia, to manage the Affordable Housing Units.

#### 7.5 Indemnity

The Owner will indemnify and save harmless the City and each of its elected officials, officers, directors, and agents, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities, which all or any of them will or may be liable for or suffer or incur or be put to by reason of or arising out of:

- (a) any negligent act or omission of the Owner, or its officers, directors, agents, contractors or other persons for whom at law the Owner is responsible relating to this Agreement;
- (b) the City refusing to issue a development permit, building permit or refusing to permit occupancy of any Building, or any portion thereof, constructed on the Lands;
- (c) the construction, maintenance, repair, ownership, lease, license, operation, management or financing of the Lands or any Affordable Housing Unit or the enforcement of any Tenancy Agreement; and/or
- (d) without limitation, any legal or equitable wrong on the part of the Owner or any breach of this Agreement by the Owner.

#### 7.6 Release

The Owner hereby releases and forever discharges the City and each of its elected officials, officers, directors, and agents, and its and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, damages, actions, or causes of action by reason of or arising out of or which would or could not occur but for the:

{00497112; 5 }

*Housing Agreement (Section 483 Local Government Act)*  
*Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road*  
*Application No. RZ 15-713048 Bylaw 9681*  
*Rezoning Consideration No. 13*

- (a) construction, maintenance, repair, ownership, lease, license, operation or management of the Lands or any Affordable Housing Unit under this Agreement;
- (b) the City refusing to issue a development permit, building permit or refusing to permit occupancy of any Building, or any portion thereof, constructed on the Lands; and/or
- (c) the exercise by the City of any of its rights under this Agreement or an enactment.

**7.7 Survival**

The obligations of the Owner set out in this Agreement will survive termination or discharge of this Agreement.

**7.8 Priority**

The Owner will do everything necessary, at the Owner's expense, to ensure that this Agreement, if required by the City Solicitor, will be noted against title to the Lands in priority to all financial charges and encumbrances which may have been registered or are pending registration against title to the Lands save and except those specifically approved in advance in writing by the City Solicitor or in favour of the City, and that a notice under section 483(5) of the *Local Government Act* will be filed on the title to the Lands.

**7.9 City's Powers Unaffected**

This Agreement does not:

- (a) affect or limit the discretion, rights, duties or powers of the City under any enactment or at common law, including in relation to the use or subdivision of the Lands;
- (b) impose on the City any legal duty or obligation, including any duty of care or contractual or other legal duty or obligation, to enforce this Agreement;
- (c) affect or limit any enactment relating to the use or subdivision of the Lands; or
- (d) relieve the Owner from complying with any enactment, including in relation to the use or subdivision of the Lands.

**7.10 Agreement for Benefit of City Only**

The Owner and the City agree that:

- (a) this Agreement is entered into only for the benefit of the City;

{00497112; 5 }

*Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
Application No. RZ 15-713048 Bylaw 9681  
Rezoning Consideration No. 13*

- (b) this Agreement is not intended to protect the interests of the Owner, any Tenant, or any future owner, lessee, occupier or user of the Lands or the Building or any portion thereof, including any Affordable Housing Unit; and
- (c) the City may at any time execute a release and discharge of this Agreement, without liability to anyone for doing so, and without obtaining the consent of the Owner.

#### **7.11 No Public Law Duty**

Where the City is required or permitted by this Agreement to form an opinion, exercise a discretion, express satisfaction, make a determination or give its consent, the Owner agrees that the City is under no public law duty of fairness or natural justice in that regard and agrees that the City may do any of those things in the same manner as if it were a private party and not a public body.

#### **7.12 Notice**

Any notice required to be served or given to a party herein pursuant to this Agreement will be sufficiently served or given if delivered, to the postal address of the Owner set out in the records at the LTO, and in the case of the City addressed:

To: Clerk, City of Richmond  
6911 No. 3 Road  
Richmond, BC V6Y 2C1

And to: City Solicitor  
City of Richmond  
6911 No. 3 Road  
Richmond, BC V6Y 2C1

or to the most recent postal address provided in a written notice given by each of the parties to the other. Any notice which is delivered is to be considered to have been given on the first day after it is dispatched for delivery.

#### **7.13 Enuring Effect**

This Agreement will extend to and be binding upon and enure to the benefit of the parties hereto and their respective successors and permitted assigns.

#### **7.14 Severability**

If any provision of this Agreement is found to be invalid or unenforceable, such provision or any part thereof will be severed from this Agreement and the resultant remainder of this Agreement will remain in full force and effect.

{00497112; 5 }

*Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
Application No. RZ 15-713048 Bylaw 9681  
Reasoning Consideration No. 13*

**7.15 Waiver**

All remedies of the City will be cumulative and may be exercised by the City in any order or concurrently in case of any breach and each remedy may be exercised any number of times with respect to each breach. Waiver of or delay in the City exercising any or all remedies will not prevent the later exercise of any remedy for the same breach or any similar or different breach.

**7.16 Sole Agreement**

This Agreement, and any documents signed by the Owners contemplated by this Agreement (including, without limitation, the Housing Covenant), represent the whole agreement between the City and the Owner respecting the use and occupation of the Affordable Housing Units, and there are no warranties, representations, conditions or collateral agreements made by the City except as set forth in this Agreement. In the event of any conflict between this Agreement and the Housing Covenant, this Agreement shall, to the extent necessary to resolve such conflict, prevail.

**7.17 Further Assurance**

Upon request by the City the Owner will forthwith do such acts and execute such documents as may be reasonably necessary in the opinion of the City to give effect to this Agreement.

**7.18 Covenant Runs with the Lands**

This Agreement burdens and runs with the Lands and every parcel into which it is Subdivided in perpetuity. All of the covenants and agreements contained in this Agreement are made by the Owner for itself, its personal administrators, successors and assigns, and all persons who after the date of this Agreement, acquire an interest in the Lands.

**7.19 Equitable Remedies**

The Owner acknowledges and agrees that damages would be an inadequate remedy for the City for any breach of this Agreement and that the public interest strongly favours specific performance, injunctive relief (mandatory or otherwise), or other equitable relief, as the only adequate remedy for a default under this Agreement.

**7.20 No Joint Venture**

Nothing in this Agreement will constitute the Owner as the agent, joint venturer, or partner of the City or give the Owner any authority to bind the City in any way.

**7.21 Applicable Law**

Unless the context otherwise requires, the laws of British Columbia (including, without limitation, the *Residential Tenancy Act*) will apply to this Agreement and all statutes referred to herein are enactments of the Province of British Columbia.

**7.22 Deed and Contract**

By executing and delivering this Agreement the Owner intends to create both a contract and a deed executed and delivered under seal.

**7.23 Joint and Several**

If the Owner is comprised of more than one person, firm or body corporate, then the covenants, agreements and obligations of the Owner shall be joint and several.

**7.23 Limitation on Owner's Obligations**

The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered owner of the Lands provided however that notwithstanding that the Owner is no longer the registered owner of the Lands, the Owner will remain liable for breaches of this Agreement that occurred while the Owner was the registered owner of the Lands.

*[Execution blocks follow]*



IN WITNESS WHEREOF the parties hereto have executed this Agreement as of the day and year first above written.

**PARC THOMPSON PROJECT INC.**  
by its authorized signatory(ies):

Per:   
Name: MELVIN YIP

Per: \_\_\_\_\_  
Name: \_\_\_\_\_

**CITY OF RICHMOND**  
by its authorized signatory(ies):

Per: \_\_\_\_\_  
Malcolm D. Brodie, Mayor

Per: \_\_\_\_\_  
David Weber, Corporate Officer

CITY OF RICHMOND
APPROVED for content by originating dept.
APPROVED for legality by Solicitor
DATE OF COUNCIL APPROVAL

{00497112; 5 }

*Housing Agreement (Section 483 Local Government Act)*  
*Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road*  
*Application No. RZ 15-713048 Bylaw 9681*  
*Rezoning Consideration No. 13*

6024004

**CNCL - 830**

**SCHEDULE A  
TO HOUSING AGREEMENT**

**STATUTORY DECLARATION  
(Affordable Housing Units)**

CANADA	)	IN THE MATTER OF Unit Nos. _____ " _____
	)	(collectively, the " <b>Affordable Housing Units</b> ") located
	)	at
	)	_____
PROVINCE OF BRITISH COLUMBIA	)	(street address), British Columbia, and Housing
	)	Agreement dated _____, 20____ (the
TO WIT:	)	"Housing Agreement") between
	)	_____ and
	)	the City of Richmond (the " <b>City</b> ")

I, \_\_\_\_\_ (full name),  
of \_\_\_\_\_ (address) in the Province  
of British Columbia, DO SOLEMNLY DECLARE that:

1. ☐ I am the registered owner (the "**Owner**") of the Affordable Housing Units;  

or,

☐ I am a director, officer, or an authorized signatory of the Owner and I have personal knowledge of the matters set out herein;
  
2. This declaration is made pursuant to the terms of the Housing Agreement in respect of the Affordable Housing Units for each of the 12 months for the period from January 1, 20\_\_\_\_ to December 31, 20\_\_\_\_ (the "**Period**");
  
3. Continuously throughout the Period:
  - a) the Affordable Housing Units, if occupied, were occupied only by Eligible Tenants (as defined in the Housing Agreement); and
  - b) the Owner of the Affordable Housing Units complied with the Owner's obligations under the Housing Agreement and any housing covenant(s) registered against title to the Affordable Housing Units;

{00497112; 5 }

*Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
Application No. RZ 15-713048 Bylaw 9681  
Rezoning Consideration No. 13*

4. The information set out in the table attached as Appendix A hereto (the "**Information Table**") in respect of each of the Affordable Housing Units is current and accurate as of the date of this declaration; and
5. I obtained the prior written consent from each of the occupants of the Affordable Housing Units named in the Information Table to: (i) collect the information set out in the Information Table, as such information relates to the Affordable Housing Unit occupied by such occupant/resident; and (ii) disclose such information to the City, for purposes of complying with the terms of the Housing Agreement.

And I make this solemn declaration, conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the *Canada Evidence Act*.

DECLARED BEFORE ME at

\_\_\_\_\_ in the

Province of British Columbia, Canada, this

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
A Notary Public and a Commissioner for  
taking Affidavits in and for the Province of  
British Columbia

Name:

\_\_\_\_\_  
(Signature of Declarant)

*Declarations should be signed, stamped, and dated and witnessed by a lawyer, notary public, or commissioner for taking affidavits.*

# APPENDIX A Information Table

: Example

Unit No.	Unit Type	Unit Count	Unit Size (sq. ft.)	Bedrooms	Bathrooms	Total Area (sq. ft.)	Monthly Rent	Security Deposit	Other Fees	Income Requirements	Eligibility	Monthly Rent	Security Deposit	Other Fees	Income Requirements	Eligibility	Monthly Rent	Security Deposit	Other Fees	Income Requirements	Eligibility
1	305	2br	3	N	N	1	0	\$25,000	NA	Y		\$40,000	Y	\$1,218	\$1,248	\$50/month	No	No	No		
2				N	N			\$15,000	NA	Y											
3				N	N			NA	NA	NA											
4																					
5																					
6																					

{00497112; 5 }

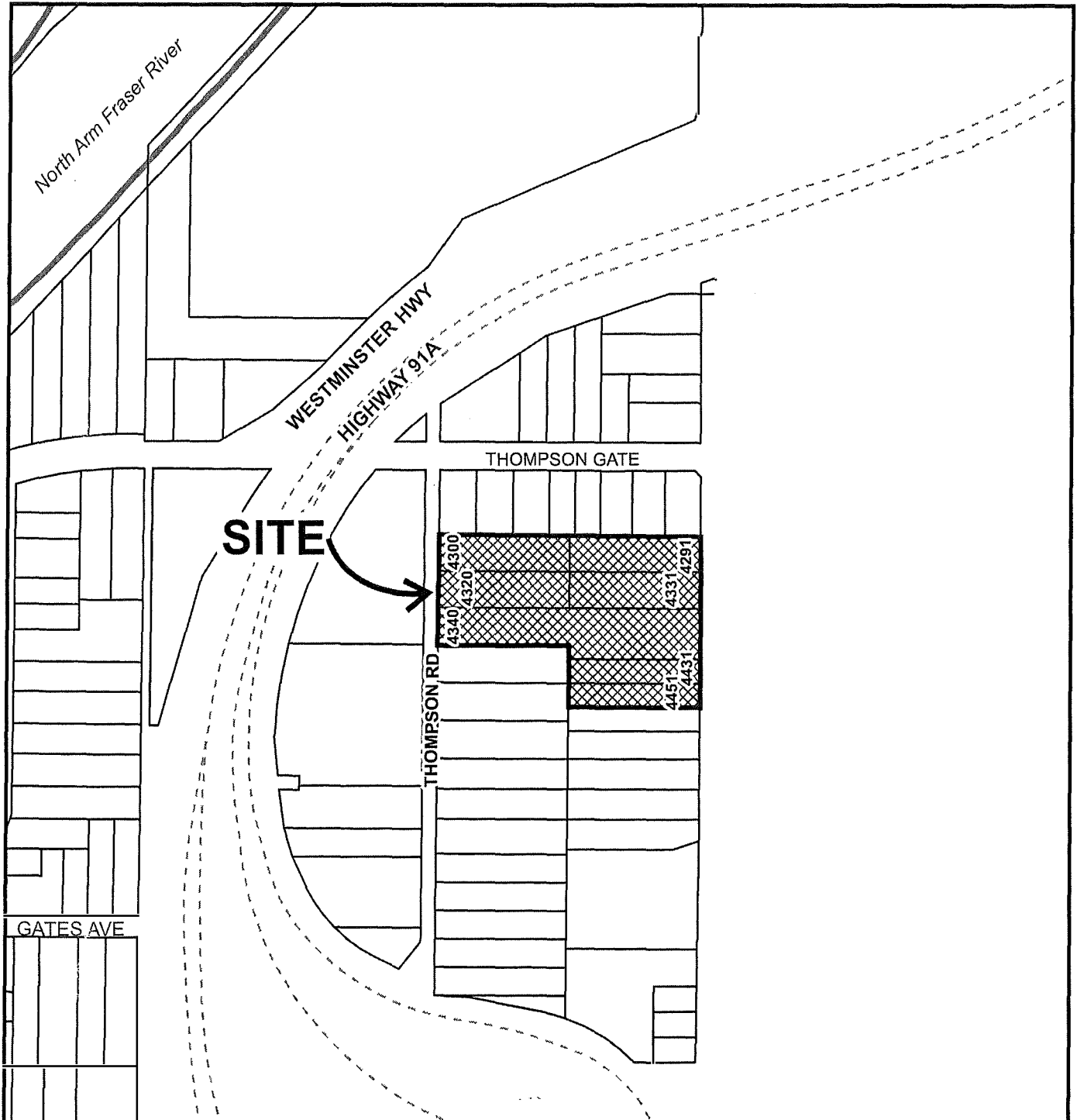
Housing Agreement (Section 483 Local Government Act)  
Address: 4300, 4320, 4340 Thompson Road, and 4291, 4331, 4431, 4451 Boundary Road  
Application No. RZ 15-713048 Bylaw 9681  
Rezoning Consideration No. 13

6024004

CNCL - 833



# City of Richmond



4300, 4320, 4340 Thompson Rd  
and 4291, 4331, 4431 and  
4451 Boundary Rd

Original Date: 08/08/18

Revision Date:

Note: Dimensions are in METRES





# City of Richmond

## Bylaw 9957

### Traffic Bylaw No. 5870 Amendment Bylaw No. 9957

The Council of the City of Richmond enacts as follows:

1. **Traffic Bylaw No. 5870**, as amended, is further amended by deleting Schedule K thereto and replacing it with Schedule A attached to this bylaw.
2. This Bylaw is cited as "**Traffic Bylaw No. 5870, Amendment Bylaw No. 9957**".

FIRST READING

DEC 10 2018

SECOND READING

DEC 10 2018

THIRD READING

DEC 10 2018

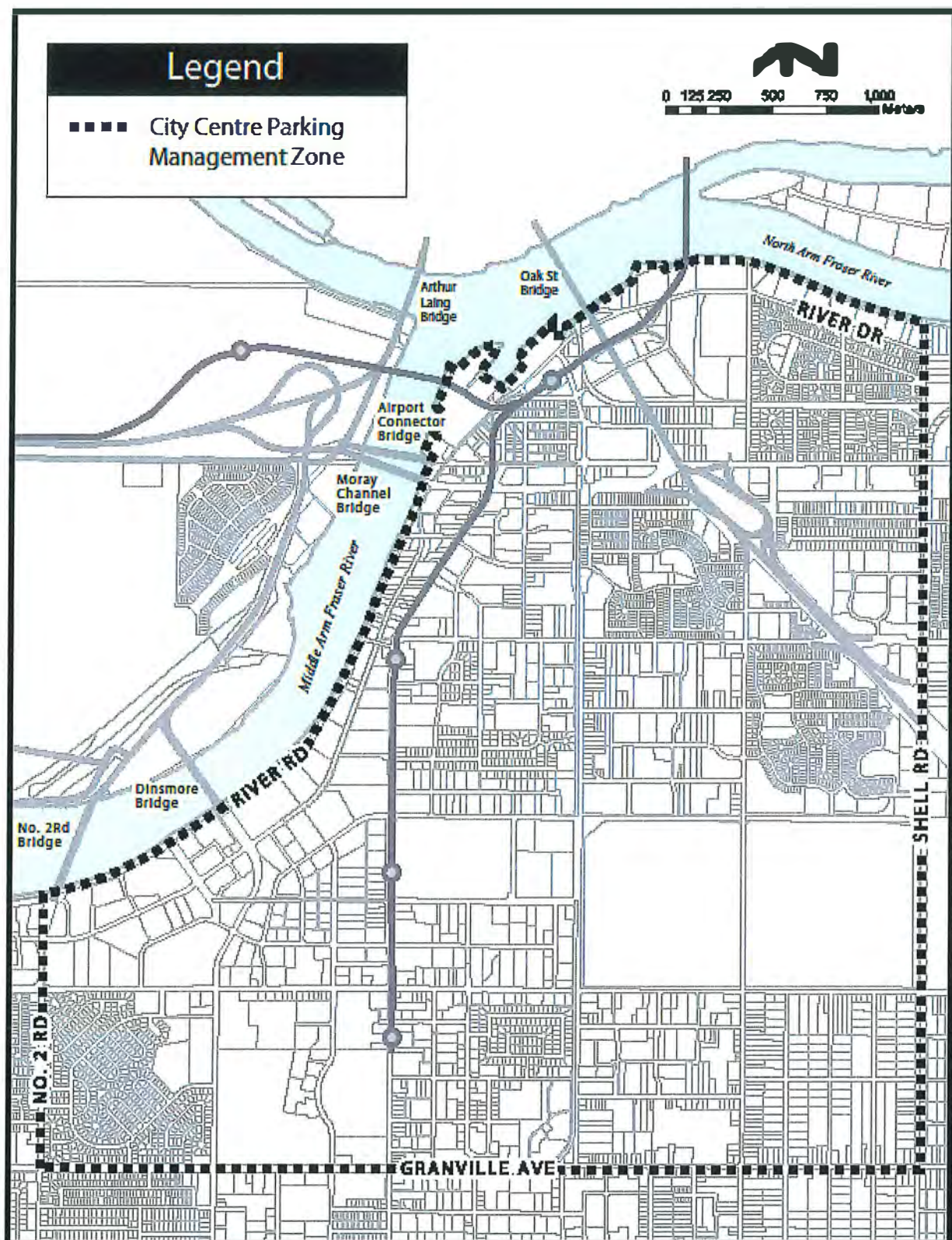
ADOPTED

CITY OF RICHMOND
APPROVED for content by originating dept. 
APPROVED for legality by Solicitor 

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER

SCHEDULE K to BYLAW No. 5870  
CITY CENTRE PARKING MANAGEMENT ZONE



CNCL - 836



# City of Richmond

## Bylaw 9958

### Parking (Off-Street) Regulation Bylaw No. 7403 Amendment Bylaw No. 9958

The Council of the City of Richmond enacts as follows:

1. **Parking (Off-Street) Regulation Bylaw No. 7403**, as amended, is further amended by deleting Schedule C thereto and replacing it with Schedule A attached to this bylaw.
2. This Bylaw is cited as "**Parking (Off-Street) Regulation Bylaw No. 7403, Amendment Bylaw No. 9958**".

FIRST READING

DEC 10 2018

SECOND READING

DEC 10 2018

THIRD READING

DEC 10 2018

ADOPTED

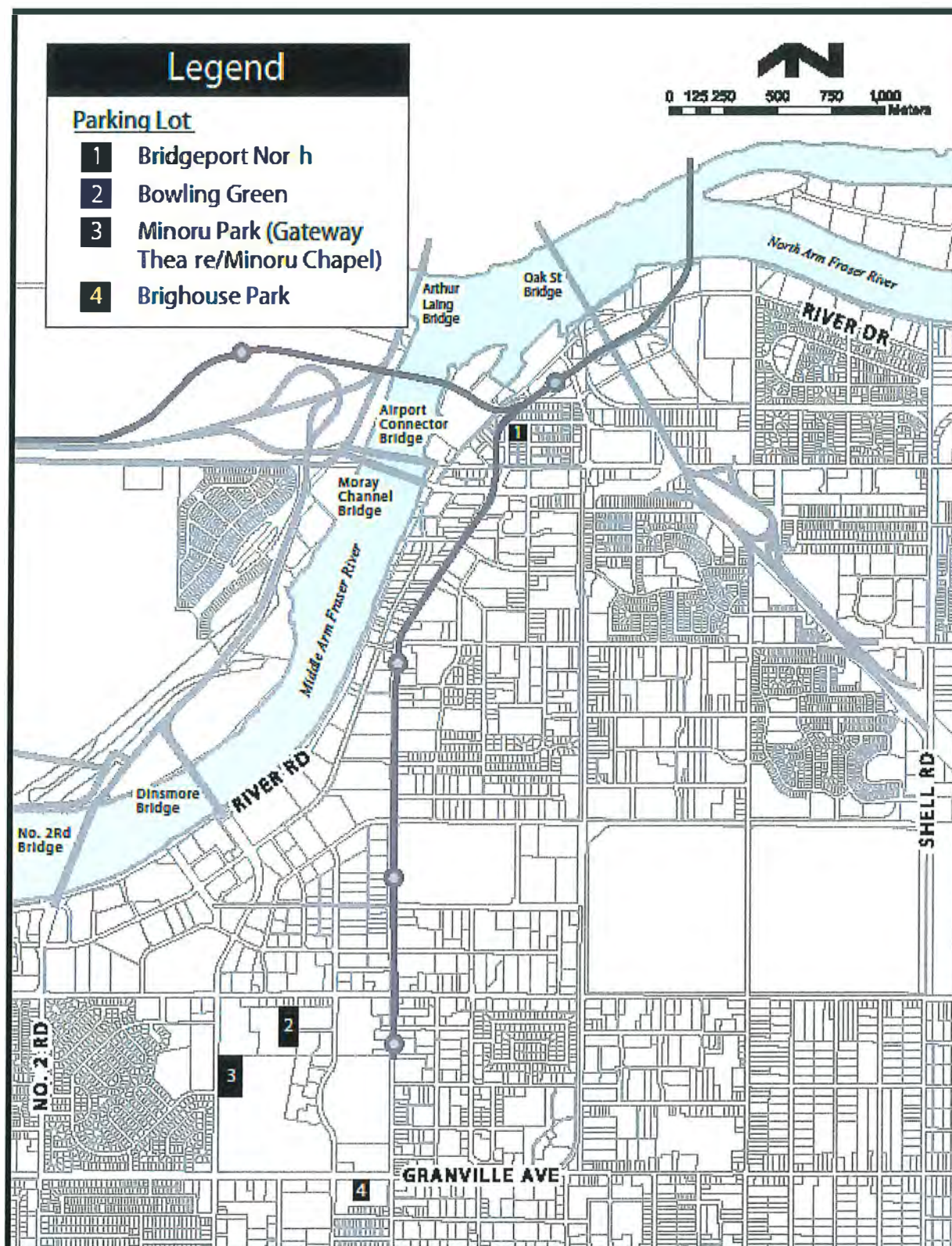
CITY OF RICHMOND
APPROVED for content by originating dept. 
APPROVED for legality by Solicitor 

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER



**SCHEDULE C to BYLAW NO. 7403**  
**PAY PARKING LOTS**



**CNCL - 838**



**Business Regulation Bylaw No. 7538, Amendment Bylaw No. 9961**

The Council of the City of Richmond enacts as follows:

1. That Business Regulation Bylaw No. 7538, as amended, is further amended by adding the following address in Schedule A item 8:

Civic Address	Civic Number	Original Bylaw Reference
8. No. 3 Road	4211	9961

and renumbering the rest of the remaining items in Schedule A in numerical order.

2. This Bylaw is cited as “**Business Regulation Bylaw No. 7538, Amendment Bylaw No. 9961**”.

FIRST READING

NOV 26 2018

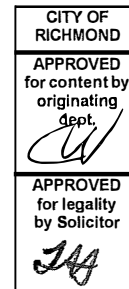
SECOND READING

NOV 26 2018

THIRD READING

NOV 26 2018

ADOPTED



\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER





**Richmond Zoning Bylaw 8500  
Amendment Bylaw 9727 (RZ 16-738465)  
3751 Shuswap Avenue**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. The Zoning Map of the City of Richmond, which accompanies and forms part of Richmond Zoning Bylaw 8500, is amended by repealing the existing zoning designation of the following area and by designating it **"COACH HOUSES (RCH1)"**.

P.I.D. 006-594-701

Lot 608 Except: Parcel "D" (Bylaw Plan 42919), Section 34 Block 4 North Range 7 West  
New Westminster District Plan 42890

2. This Bylaw may be cited as **"Richmond Zoning Bylaw 8500, Amendment Bylaw 9727"**.

FIRST READING

SEP 11 2017

A PUBLIC HEARING WAS HELD ON

OCT 16 2017

SECOND READING

OCT 16 2017

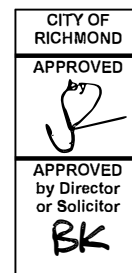
THIRD READING

OCT 16 2017

OTHER CONDITIONS SATISFIED

JAN 07 2019

ADOPTED

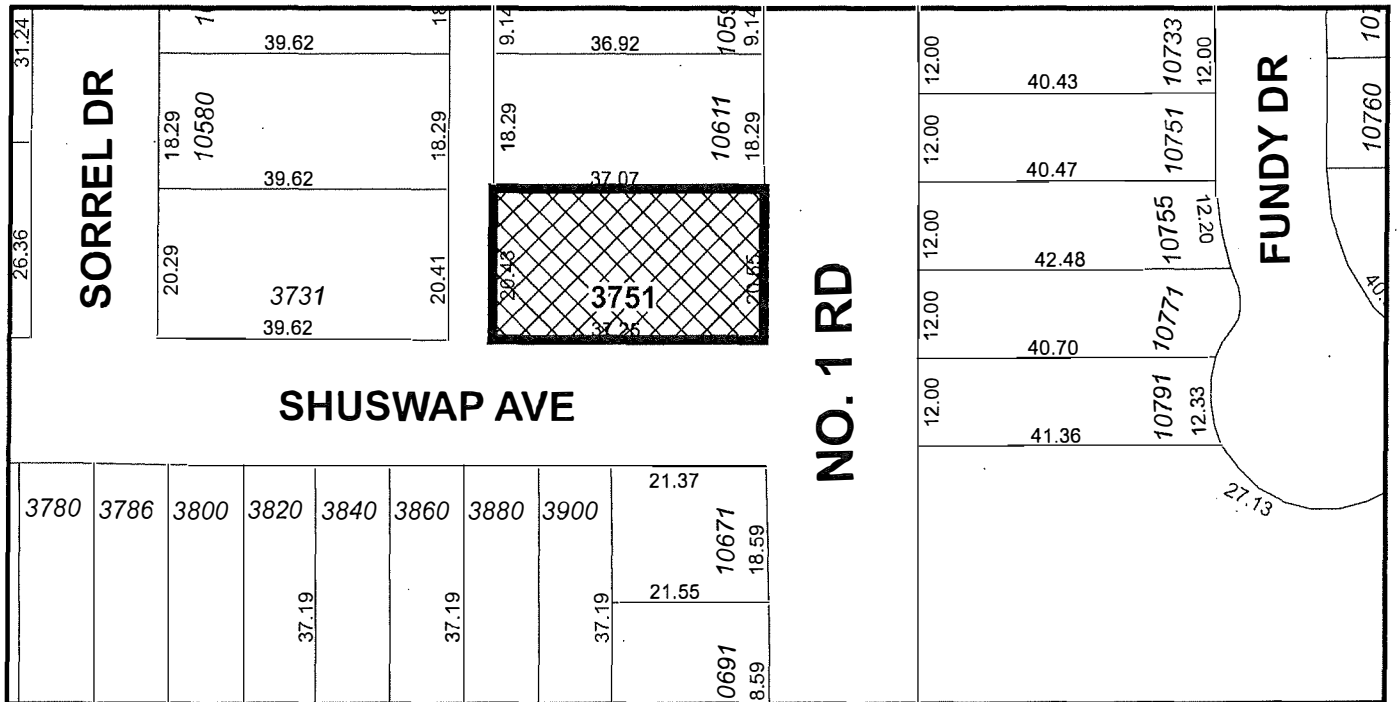
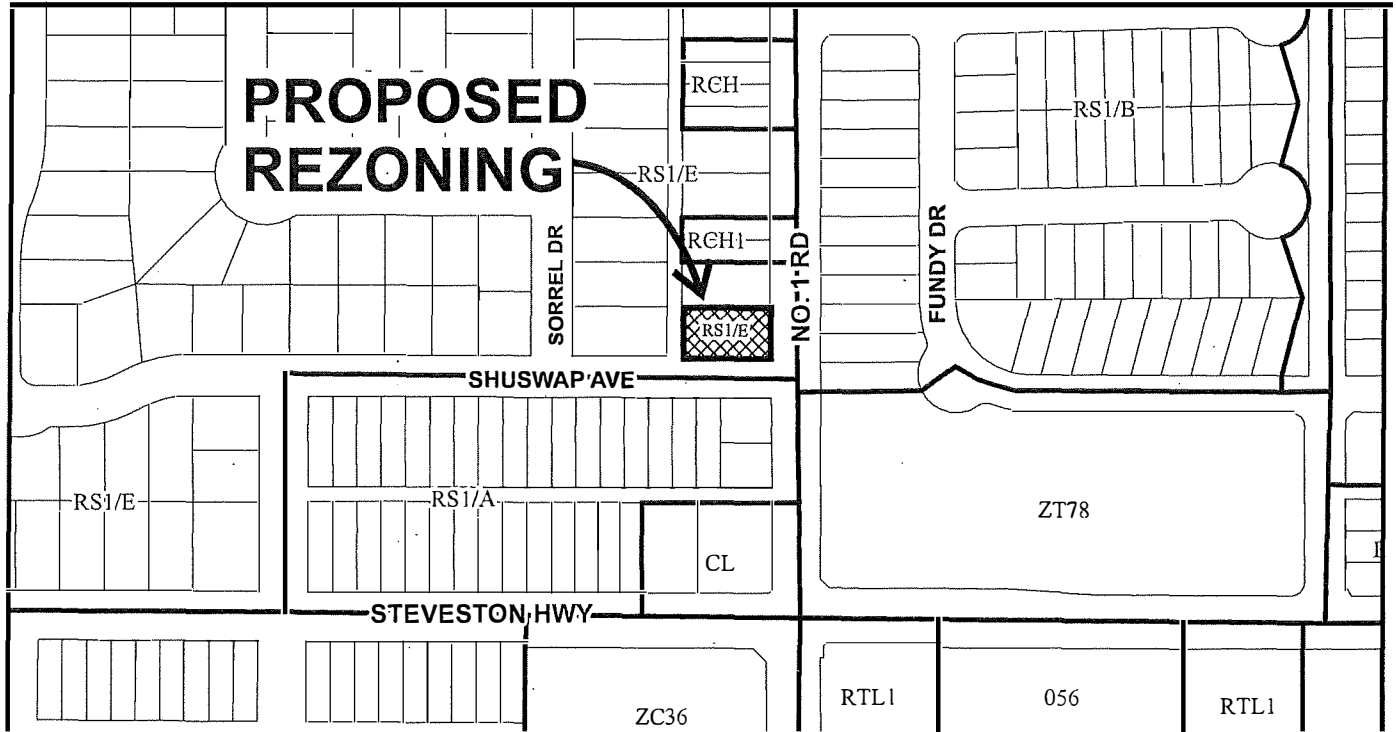


\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER



# City of Richmond



## RZ 16-738465

CNCL - 841

Original Date: 08/09/16

Revision Date: 06/01/17

Note: Dimensions are in METRES



# City of Richmond

## Report to Council


---

<b>To:</b>	Richmond City Council	<b>Date:</b>	January 9, 2019
<b>From:</b>	John Irving Chair, Development Permit Panel	<b>File:</b>	01-0100-20-DPER1- 01/2019-Vol 01
<b>Re:</b>	<b>Development Permit Panel Meeting Held on October 24, 2018</b>		

---

### Staff Recommendation

That the recommendation of the Panel to authorize the issuance of a Development Permit (DP 17-794280) for the property at 4008 Stolberg Street be endorsed, and the Permit so issued.

  
John Irving  
Chair, Development Permit Panel  
(604-276-4140)

SB:blg

### **Panel Report**

The Development Permit Panel considered the following item at its meeting held on October 24, 2018.

DP 17-794280 – CICCOTZI ARCHITECTURE INC. – 4008 STOLBERG STREET  
(October 24, 2018)

The Panel considered a Development Permit application to permit the construction of a 196-unit apartment complex on a site zoned “Low Rise Apartment (ZLR22) – Alexandra Neighbourhood (West Cambie)”. No variances are included in the proposal.

Architect, Robert Ciccozzi, of Ciccozzi Architecture Inc., and Landscape Architect, Daryl Tyacke, of ETA Landscape Architecture, provided a brief presentation, including noting that:

- Two four-storey wood frame buildings over a parkade are proposed, including 196 units of which 20 units will have Basic Universal Housing (BUH) features.
- The East Coast contemporary design of the buildings fits into the neighbourhood, uses brick as the base material, and the building massing is broken down through the use of materials, colours and recesses on the building façade.
- The applicant addressed the comments of the Advisory Design Panel including, among others: (i) increasing the size of the entry plaza; and (ii) improving the parkade ramp and loading area to provide visual interest and create a plaza-like feeling.
- The public realm is animated through the brick and concrete retaining walls along the street frontages punctuated by stairways leading from the street to the residential units, with a maximum 1.2 m height difference between sidewalk and patios.
- The outdoor amenity space central courtyard provides active and passive spaces and the amenity room in each building spills out into the courtyard.
- Dense planting is proposed along the west and east sides of the development to provide screening to the street and adjacent developments.

Staff noted that: (i) the project will connect to the Alexandra District Energy Utility (DEU); (ii) the development will meet the requirements for the City’s Aircraft Noise Policy; (iii) the majority of road frontages were improved through the Servicing Agreements associated with the rezoning of the subject site; and (iv) there will be work orders for minor frontage adjustments to accommodate the project.

In reply to Panel queries, Mr. Ciccozzi acknowledged that: (i) the retaining walls along the three frontages will be clad in brick; (ii) a fence and berm landscaping provide an appropriate interface with the development to the east; (iii) garbage and recycling rooms are located in the parkade and the bins will be brought up to the loading area for pick-up; and (iv) the proposed surface paving treatment of the loading area will help create a plaza-like feel for the space.

January 9, 2019

- 3 -

No correspondence was submitted to the Panel regarding the Development Permit application.

The Panel recommends the Permit be issued.